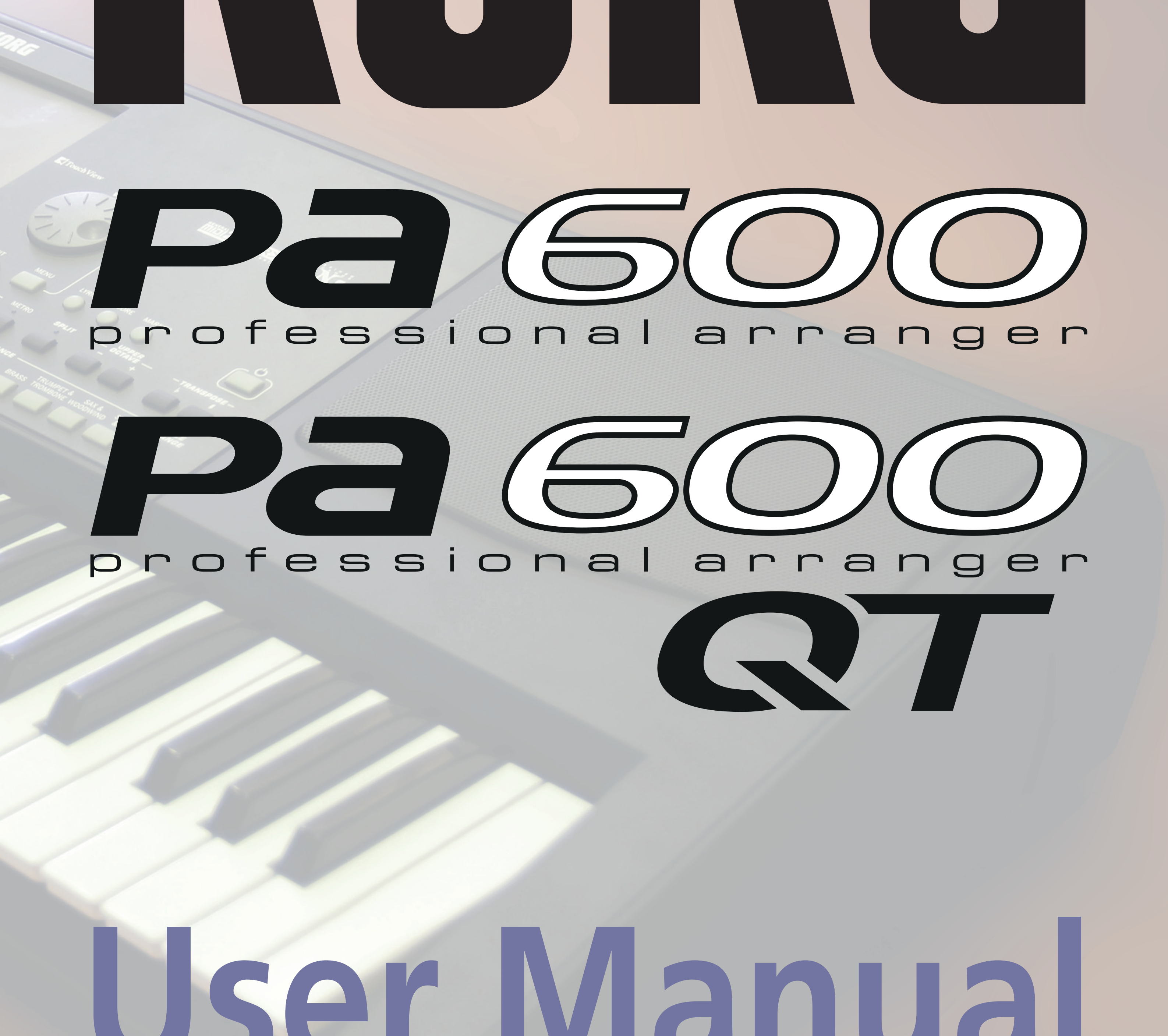
KORG



Pa600

professional arranger

Pa600

professional arranger

QT

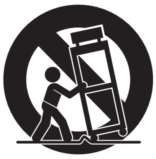
User Manual

ENGLISH | OS Ver. 2.1

E 6

Important safety instructions

- Read these instructions.
- Keep these instructions.
- Heed all warnings.
- Follow all instructions.
- Do not use this apparatus near water.
- Clean only with a dry cloth.
- Do not block any ventilation openings, install in accordance with the manufacturer's instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- Only use attachments/accessories specified by the manufacturer.
- Unplug this apparatus during lightning storms or when unused for long periods of time.
- Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- Turning off the power switch does not completely isolate this product from the power line so remove the plug from the socket if not using it for extended periods of time, or before cleaning. Please ensure that the mains plug or appliance couple remains readily accessible.
- Mains powered apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.
- Install this product near the wall socket and keep the power plug easily accessible.
- Do not install this equipment on the far position from wall outlet and/or convenience receptacle.
- Do not install this equipment in a confined space such as a box for the conveyance or similar unit.
- When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.



WARNING – Do not ingest battery, chemical burn hazard. This product contains a coin/button cell battery.

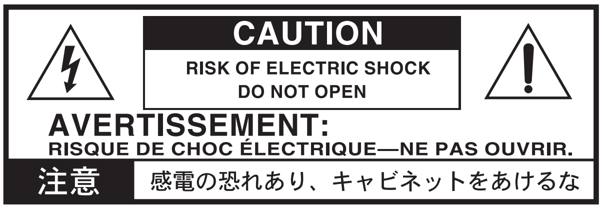
If the coin/button cell battery is swallowed it can cause severe internal burns in just 2 hours and can lead to death.

Keep new and used batteries away from children. If the battery compartment does not close securely, stop using the product and keep it away from children.

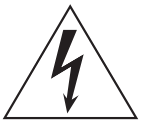
If you think the battery may have been swallowed or placed inside any part of the body seek immediate medical attention.

- WARNING – Date/time Lithium button cell battery inside. Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type. The internal date/time Lithium button cell battery is user replaceable.
- Do not expose batteries to excessive heat, such as direct sunshine, fire or the like.
- Dispose of used batteries according to the battery manufacturer's instructions.

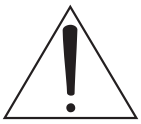
WARNING:
TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.



CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
AVERTISSEMENT:
RISQUE DE CHOC ÉLECTRIQUE—NE PAS OUVRIR.
注意　感電の恐れあり、キャビネットをあけるな

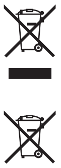


The lightning flash with arrowhead symbol within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

NOTICE REGARDING DISPOSAL (EU ONLY)



If this symbol is shown on the product, manual, battery, or package, you must dispose of it in the correct manner to avoid harm to human health or damage to the environment. Contact your local administrative body for details on the correct disposal method. If the battery contains heavy metals in excess of the regulated amount, a chemical symbol is displayed below the symbol on the battery or battery package.

IMPORTANT NOTICE TO CONSUMERS

This product has been manufactured according to strict specifications and voltage requirements that are applicable in the country in which it is intended that this product should be used. If you have purchased this product via the internet, through mail order, and/or via a telephone sale, you must verify that this product is intended to be used in the country in which you reside.

WARNING: Use of this product in any country other than that for which it is intended could be dangerous and could invalidate the manufacturer's or distributor's warranty.

Please also retain your receipt as proof of purchase otherwise your product may be disqualified from the manufacturer's or distributor's warranty.

THE FCC REGULATION WARNING (FOR U.S.A.)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Unauthorized changes or modification to this system can void the user's authority to operate this equipment.

PERCHLORATE (CALIFORNIA, USA ONLY)

Perchlorate Material – special handling may apply.
See www.dtsc.ca.gov/hazardouswaste/perchlorate.

Further notices

Automatic Power-Off

To avoid wasting power, Pa600 will by default automatically enter standby mode after two hours of non-active use (playing, pressing buttons or using the touch-screen). Please save your data (Performances, Styles, Songs, and so on) before taking a prolonged pause.

Data Handling

Data in memory may sometimes be lost due to incorrect user action. Be sure to save important data to the internal memory or to an external USB device. KORG will not be responsible for damages caused by data loss.

Cleaning

If the exterior becomes dirty, wipe it with a clean, dry cloth. Do not use liquid cleaners such as benzene or thinner, or cleaning compounds or flammable polishes.

Use a soft cotton cloth to clean the display. Some materials, such as paper towels, could cause scratches and damage it. Computer wipes are also suggested, provided they are specifically designed for LCD screens.

Do not spray any liquid on the LCD screen directly. Always apply the solution to your cloth first, then clean the screen.

Example screens

Some pages of the manuals show LCD screens along with an explanation of functions and operations. All sound, style, song or parameter names, as well as shown values, are merely examples and may not always match the actual display you are working on.

Trademarks

Acrobat and PDF are registered trademarks of Adobe Systems Incorporated. Mac is a registered trademark of Apple, Inc. MS-DOS and Windows are registered trademarks of Microsoft Corporation. All other trademarks or registered trademarks are the property of their respective holders.

Open Source notice

Portions of this product’s software are copyright ©2007 “The FreeType Project” (www.freetype.org). All rights reserved.

Disclaimer

The information contained in this manual have been carefully revised and checked through. Due to our constant efforts to improve our products, the specifications might differ to those in the manual. KORG is not responsible for any difference found between the specifications and the contents of the instruction manual – all specifications being subject to change without prior notice.

Liability

KORG products are manufactured under strict specifications and voltages required by each country. These products are warranted by the KORG distributor only in each country. Any KORG product not sold with a warranty card or carrying a serial number disqualifies the product sold from the manufacturer's/distributor's warranty and liability. This requirement is for your own protection and safety.

Service and User’s Assistance

For service, please contact your nearest Authorized KORG Service Center. For more information on KORG products, and to find software and accessories for your keyboard, please contact your local Authorized KORG distributor. For up-to-date information, please point your web browser to our web site.

Keep your keyboard up-to-date

Your instrument can be constantly updated as new versions of the operating system are released by KORG. You can download the operating system from our web site. Please, read the instructions supplied with the operating system.

Copyright © 2017 KORG Italy Spa.

Table of Contents

Introduction

Welcome! 6
What's in the box 7
About this manual 7
Contacts 7
Making a safety copy of your data 7
Restoring the original factory data 7
Loading the Operating System 7

Overview 8
Front Panel 8
Rear Panel 17

Start up 19
Connecting the AC power cord 19
Turning the instrument on (or setting it to standby) 19
Controlling the Volume 19
Headphones 19
Loudspeakers 19
Audio Outputs 19
MIDI connections 19
Damper pedal 20
Assignable pedal 20
The music stand 20

Glossary of Terms 21
Sound 21
Style 21
Pad 21
Keyboard tracks 21
Performance 22
Sequencer 22
Player 22
The LOGO decoder 22

Interface basics 23
Color TouchView graphical user interface 23
Operative modes 25
Selected, highlighted items 25
Non-available, grayed-out parameters 25
Shortcuts 25

Easy Mode 26
The Style Play page in detail 27
The Song Play page in detail 28

Quick Guide

Turning the instrument on 30
Turning the instrument on and viewing the main screen 30

Connecting and calibrating the Damper pedal 31
Programming the Damper pedal 31

Playing the Demo 33
Starting and stopping the Demo 33

Playing Sounds 35
Selecting a Sound and playing it on the keyboard 35
Playing two or three Sounds at the same time 37
Playing different Sounds with your left and right hand 39
Changing the split point 41
Raising or lowering the Upper octave 42

Selecting and saving Performances 43
Selecting a Performance 43
Saving your settings to a Performance 44

Selecting and saving the "My Setting" Performance 46
Selecting the startup parameters (the "My Setting" Performance) 46
Saving the startup parameters into the "My Setting" Performance 46

Selecting and playing Styles 47
Selecting and playing a Style 47
Tempo 49
Intro, Variation, Fill, Break, Ending 50
Single Touch Settings (STS) 51
The Pads 52
Adjusting the balance between the Style and the keyboard 53
Adjusting the volume of the separate tracks 53
Turning the Style tracks on/off 54
Adding harmony notes to your right-hand melody with the ENSEMBLE function 56
The Chord Sequencer 58

Song Play 60
Selecting a Song to play 60
Playing back a Song 62
Changing the tracks' volume 63
Turning the Song tracks on/off 65
Soloing a track 66
Removing the Melody track from a Standard MIDI File or the Lead Vocal from an MP3 file 66

The SongBook 68
Selecting the desired Entry from the Main List 68
Displaying Artist or Genre 69
Sorting Entries 70
Searching for Entries 70
Adding Entries 72
Editing the Entries 72
Creating a Custom List 74
Selecting and using a Custom List 76
Using the SongBook with external software 76

Recording a new Song (Standard MIDI File) 77
Preparing the Style and Sounds 77
Accessing the Backing Sequence (Quick Record) mode 77
Setting the Record parameters 79
Recording 79
Second-take recording (Overdubbing) 81
Saving a Song 81

Searching files and musical resources 83
How to use the Search function 83
Notes about searching 85

Reference

Selecting elements 88
Style Select window 88
Sound Select window 89
Performance Select window 90
Pad Select window 90
STS Select 91

Song Select window 91

Style Play mode 94

Start-up settings 94
How Styles, Variations, Performances and STSs are linked together 94
Styles and Pads 94
Master Volume and Balance 94
Factory, Favorite and User Styles 94
Main page 95
STS Name panel 97
Volume panel 97
Pad panel 99
Split panel 100
Sub-Scale panel 100
Edit menu 101
Edit page structure 101
Mixer/Tuning: Volume/Pan 101
Mixer/Tuning: FX Send 102
Mixer/Tuning: EQ Gain 103
Mixer/Tuning: EQ Control 103
Mixer/Tuning: Tuning 104
Mixer/Tuning: Sub Scale 104
Effects: A/B FX Configuration 106
Effects: Master 1, 2 107
Track Controls: Mode 107
Track Controls: Drum Edit 108
Track Controls: Easy Edit 109
Keyboard/Ensemble: Key/Velocity Range 110
Keyboard/Ensemble: Ensemble 111
Keyboard/Ensemble: Keyboard Control 112
Pad/Switch: Pad 112
Pad/Switch: Switch 113
Style Controls: Drum/Fill 113
Style Controls: Keyboard Range On/Off / Wrap Around . . . 114
Page menu 114
Write Performance dialog box 115
Write Single Touch Setting dialog box 116
Write Current Style Settings dialog box 116
The Favorite banks 117

Style/Pad Record mode 118

Recording Styles and Pads 118
Style/Pad Import/Export 120
Entering the Style/Pad Record mode 120
Exit by saving or deleting changes 120
Listening to the Style while in Edit mode 120
List of recorded events 121
Main page - Record 1 121
Main page - Record 2/Cue 125
Main page - Guitar Mode 126
Style/Pad Record procedure 130
Edit menu 132
Edit page structure 132
Event Edit: Event Edit 133
Event Edit: Filter 135
Style/Pad Edit: Quantize 136
Style/Pad Edit: Transpose 136
Style/Pad Edit: Velocity 137
Style/Pad Edit: Cut 138
Style/Pad Edit: Delete 138
Style/Pad Edit: Delete All 139
Style/Pad Edit: Copy from Style 139
Style/Pad Edit: Copy from Pad 140
Style Element Track Controls: Sound/Expression 141
Style Element Track Controls: Keyboard Range 142
Style Element Track Controls: Noise/Guitar 142
Pad Track Controls: Sound/Expression 143
Style Element/Pad Chord Table: Chord Table 144
Style Track Controls: Type/Trigger/Tension 144
Import: Import Groove 145
Import: Import SMF 145
Export SMF 148
Page menu 149
Write Style/Pad dialog box 150
Copy Key/Chord dialog box 150
Copy Sounds dialog box 150
Copy Expression dialog box 151
Copy Key Range dialog box 151
Copy Chord Table dialog box 151
Overdub Step Recording window 152

Song Play mode 153

MIDI Clock 153
Tempo Lock 153
Master Volume, Balance 153
Track parameters 153
Standard MIDI Files and Sounds 153
Keyboard, Pad and Player tracks 154
Main page (Normal view) 154
STS Name panel 157
Volume panel 157
Pad panel 157
Split panel 157
Sub-Scale panel 158
Jukebox panel 158
Edit menu 159
Edit page structure 159
Mixer/Tuning: Volume/Pan 159
Mixer/Tuning: FX Send 159
Mixer/Tuning: EQ Gain 160
Mixer/Tuning: EQ Control 160
Mixer/Tuning: Tuning 160
Effects: A/B FX Configuration 161
Effects: Master 1, 2 161
Track Controls: Mode 161
Track Controls: Drum Edit 161
Track Controls: Easy Edit 162
Keyboard/Ensemble: Key/Velocity Range 162
Keyboard/Ensemble: Ensemble 162
Keyboard/Ensemble: Keyboard Control 162
Pad/Switch: Pad 162
Pad/Switch: Assignable Switch 162
Jukebox Editor 162
Page menu 163

Sequencer mode 165

Standard MIDI Files and MP3 165
Sequencer Play - Main page 165
Entering Record mode 167
Record mode: Multitrack Sequencer page 168
Record mode: Step Record page 170
Record mode: Backing Sequence (Quick Record) page 172
Record mode: Step Backing Sequence page 175
Edit menu 177
Edit page structure 177
Mixer/Tuning: Volume/Pan 178
Mixer/Tuning: FX Send 178
Mixer/Tuning: EQ Gain 178
Mixer/Tuning: EQ Control 178

Mixer/Tuning: Tuning 179
Mixer/Tuning: Sub Scale 179
Effects: A/B FX Configuration 179
Effects: Master 1, 2 180
Track Controls: Mode 180
Track Controls: Drum Edit 180
Track Controls: Easy Edit 180
Event Edit: Event Edit 180
Event Edit: Filter 182
Song Edit: Quantize 182
Song Edit: Transpose 183
Song Edit: Velocity 183
Song Edit: Cut/Insert Measures 184
Song Edit: Delete 184
Song Edit: Copy 185
Song Edit: Move 185
Song Edit: RX Convert 185
Page menu 186
Song Select window 187
Save Song window 187

Sound mode 189
The MIDI channel 189
How to select oscillators 189
Sounds, Drum Kits 189
Main page 189
Edit menu 191
Edit page structure 191
Basic: Sound Basic 191
Basic: OSC Basic 193
Basic: Vel/Key Zone 195
Basic: Damper Mode 195
Basic: Damper Trigger 196
Basic: EQ 197
DrumKit: Sample Setup (Drum Kits) 197
DrumKit: EQ (Drum Kits) 199
DrumKit: Voice Mixer (Drum Kits) 199
Pitch: Pitch Mod 200
Pitch: Pitch EG 202
Filter: Filter Type 204
Filter: Filter Mod 205
Filter: Filter LFO 206
Filter: Filter EG 207
Amp: Amp Level/Pan 209
Amp: Amp Mod 209
Amp: Amp EG 210
LFO: LFO1 212
LFO: LFO2 213
Effects: “B” FX Config 213
Effects: Master 1 / Reverb 214
Effects: Master 2 / Chorus 214
Page menu 214
Write Sound dialog box 215
Copy Oscillator dialog box 215
Copy Drum Kit dialog box 215
AMS (Alternate Modulation Source) list 216

Sampling mode 218
Entering and exiting the Sampling mode 218
Creating new Sounds from the Samples 218
Creating new Drum Kits from the Samples 219
Creating new Sounds from an Audio Groove 219
Edit menu 220
Sampling: Edit 220
Sampling: Loop Edit 221
Sampling: Sampling Info 222
Time Slice 223
The Time Slice procedure 226
The Extend procedure 227
Multisample: Edit MS 227
Multisample: Key Assign 228
Page menu 228
Write Sample dialog box 230
Write MultiSample dialog box 230
Write Slice dialog box 231
Delete Sample dialog box 231
Delete Multisample dialog box 231
Export Sample page 232
Export Multisample page 232
Merging Samples from various sources 232

Global mode 233
Overview on the Global mode 233
Main page 233
Edit menu 233
Edit page structure 233
General Controls: Basic 234
General Controls: Interface 235
General Controls: Lock 236
General Controls: Clock & Power 238
Mode Preferences: Style 239
Mode Preferences: Song & Sequencer 240
Mode Preferences: Media 241
Controllers: Hand Controllers 242
Controllers: Foot Controllers 242
Tuning: Basic 243
Tuning: Transpose Control 243
Tuning: Scale 244
MIDI: General Controls 245
MIDI: MIDI In Controls 246
MIDI: MIDI In Channels 247
MIDI: MIDI Out Channels 247
MIDI: Filters 248
Audio & EQ: MP3 / Speakers 248
Audio & EQ: Limiter 249
Audio & EQ: Master EQ 249
Touch Panel Calibration 250
Page menu 251
Write Quarter Tone SC Preset dialog box 251
Write Midi Preset dialog box 251
Write Limiter Preset dialog box 252
Write Master EQ Preset dialog box 252

Media mode 253
Storage devices and internal memory 253
Supported device 253
Selecting and deselecting files 253
Searching files 253
Preferences 253
File types 254
Media structure 255
Main page 256
Page structure 256
Navigation tools 256
Load 257
Save 260
Copy 264
Delete 265
Format 266
Utility 266

USB 268
Page menu 269
Care of mass storage devices 270
Merging Samples from various sources 270

SongBook 271
Book 271
Custom List 274
List Edit 274
Book Edit 1 275
Book Edit 2 277
Book Edit 3 277
Info 278
Page menu 279

Lyrics, Score, Markers 280
Lyrics page 280
Score page 282
Markers page 283

MIDI 284
What is MIDI? 284
What is MIDI Over USB? 284
Standard MIDI Files 285
The General MIDI standard 285
The Global channel 285
The Chord 1 and Chord 2 channels 285
The Control channel 285
MIDI Presets 285
Connecting Pa600 to a Master keyboard 286
Connecting Pa600 to a MIDI accordion 286
Connecting Pa600 to an external sequencer 287
Playing another instrument with Pa600 288

Appendix

Factory data 290
Styles 290
Style Elements 294
Style and Player controls 294
Single Touch Settings (STS) 294
Sounds 295
DNC Sounds 307
Drum Kits 308
Multisamples 309
Drum Samples 314
Pads 321
Effects 324
MIDI Preset 326

Assignable parameters 327
List of Pedal/Footswitch functions 327
List of Assignable Switches functions 328
Scales 329

Effects 330
Dynamic Modulation sources 330
Dynamics (Dynamic) 331
EQ and Filters (EQ/Filter) 334
Overdrive, Amp models, and Mic models (OD Amp Mic) . . 341
Chorus, Flanger, and Phaser (Cho/Fln Phaser) 346
Modulation and Pitch Shift (Mod./P.Shift) 352
Delay 363
Reverb and Early Reflections (Reverb ER) 373
Mono-Mono Serial (Mono-Mono) 375
Double Size 392

Installing the KORG USB MIDI Driver 401
Connecting Pa600 to a personal computer 401
KORG USB-MIDI Driver system requirements 401
Please note before use 401
Windows: Installing the KORG USB-MIDI Driver 401
Mac OS X: Installing the KORG USB-MIDI Driver 402

MIDI Data 403
MIDI Controllers 403

Recognized chords 404

Replacing the clock backup battery 406
Precautions 406
Installation 406

Shortcuts 408

Troubleshooting 409

Technical specifications 410

MIDI Implementation Chart 412

Index 413

Introduction

Welcome!

Welcome to the world of KORG Pa600 Professional Arranger! Pa600 is one the most powerful arranger available today, both for professional and home entertainment use.

Here are some of the features of your new instrument:

Physical Features and User Experience

- 61 synth-type keys with velocity.
- Slim and compact, lightweight, elegant cabinet design.
- Wide TFT graphic touch screen display. Professional TouchView™ graphic interface for direct access to the on-screen controls and to the musical resources.
- High-quality integrated amplification, and high-quality output (DAC) audio converters.
- RX (Real eXperience) Technology, the cutting edge engine that drives every aspect of the Pa600 – from the synthesis to the display and how it all works together.
- Two assignable switches, a joystick and an assignable pedal ensure total control for all the various levels of articulation of the sound.
- Quick access to Arabic Scale programming via the Quarter Tone controls right on the front panel *(Quarter Tone model only)*.

Sounds and Effects

- Powerful sound generation system, for crystal-clear, realistic sounds.
- DNC (Defined Nuance Control) Sounds, more realistic and vivid than ever.
- 96 MB of Sample memory for User PCM Samples. Sampling function to edit imported Samples.
- 128 voices of polyphony.
- General MIDI Level 2 Sound-compatible. Enhanced Sound compatibility for GM Songs.
- More than 950 Sounds, plus 64 Drum Kits.
- 320 Performance locations, plus 4 Single Touch Settings (STS) for each Style and SongBook entry, for fast setting of keyboard sounds and effects.
- Four Stereo Master FX, with 125 effect types. Mastering Limiter and Final 4-band Parametric EQ.

Styles and Songs

- Over 360 Factory Styles with 4 Variations and 4 Fill In + Break, plus 10 Favorite and 3 User Style banks for unlimited storage of your custom Styles and settings.
- Style and Pad Record, including the enhanced “Guitar Mode 2” for even more realistic guitar parts.
- “Chord Sequencer” function to record on-the-fly any chord progression.
- Standard MIDI File player and recorder, and MP3 player with Vocal Remover.
- Lyrics, Score and Marker display. Enhanced compatibility with Lyrics in graphical format (+G) for Standard MIDI Files and MP3 files.
- Full-featured 16-track sequencer. Quick Record function to record playing with the Styles.
- Fully editable SongBook music database, for fast song retrieving.

Other Features

- Search function, to instant retrieving of Songs and files.
- Operating System updates, to load new features and enhancements. Don’t let your instrument get old!
- Generous internal memory, to store the greatest amount of data.
- USB 2.0 High Speed Host port, for connecting external devices like hard disks, CD-ROM drives, USB memory sticks, etc.
- USB 2.0 High Speed Device port, to connect a personal computer to your Pa600. This port can be used for file transfer, and for MIDI connection (without the need of a dedicated MIDI interface for the personal computer).

What's in the box

After you buy your Pa600, please check that all the following items are included in the package. If any of the following items is missing, please contact your KORG dealer immediately.

- Pa600
- Music stand
- Power cable
- Quick Guide
- Accessory Disc (containing the Video Manual, the User Manual, the USB driver)

About this manual

This manual contains all the informations divided in four sections:

- An **Introduction,** containing an overview of the instrument and of basic operations.
- A **Quick Guide**, containing a series of practical guides.
- A **Reference Guide**, with each page and parameter described in detail.
- An **Appendix**, with a list of data and useful information for the advanced user.

In addition, in the Accessory Disc and in our web site you will find a multilingual **Video Manual**, showing how to use your Pa600 in easy steps.

Contacts

Your preferred KORG dealer not only delivers this keyboard, but also a whole bunch of hardware and software accessories, as well as service information. You should ask them for any help should you eventually need.

Our international web site is www.korg.com. KORG distributors around the world may have their own web page on the internet. A list of all KORG Distributors can be found in our dedicated web site (www.korg.com/us/corporate/distributors/).

Making a safety copy of your data

Making a safety copy

In case you like to customize your Musical Resources (Sounds, Performances and Styles), we suggest you use the Media > Utility > Backup Resources command to make frequent backup copies into compact archives.

Also, you can use the Media > Save All command to save files that you can separately reload one by one.

Restoring a safety copy

To restore a backup, use the Media > Utility > Restore Resources.

If you saved your data with the Media > Save All command, use the Media > Load operations to reload them.

Restoring the original factory data

In case you want to restore the original factory data, use the Media > Utility > Factory Restore command.

Warning: *This operation will overwrite all the Factory, Local, Favorite and User data!*

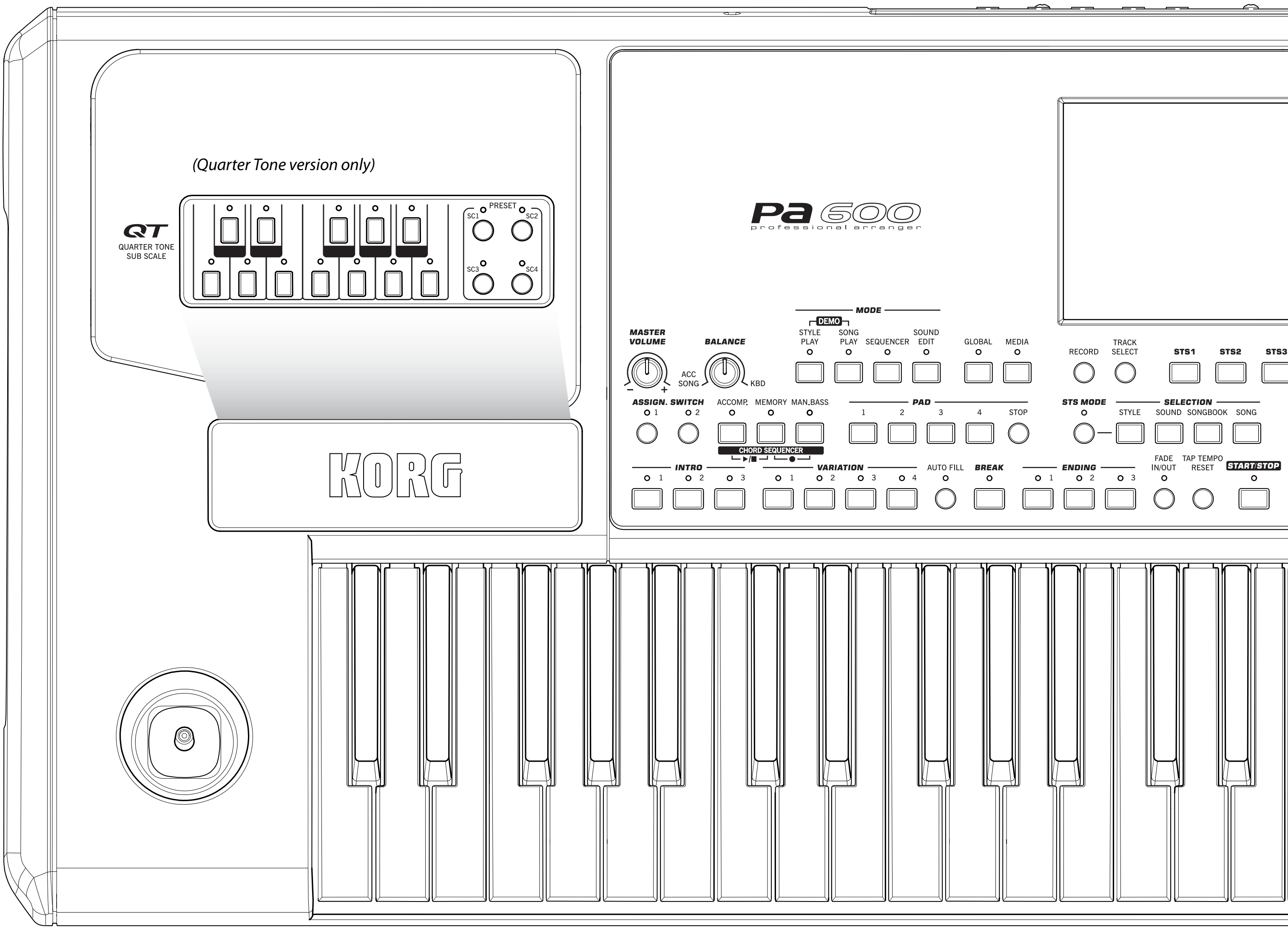
Loading the Operating System

Your Pa600 can be constantly updated as new versions of the operating system are released by KORG. You can download the operating system from our web site. Please, read the instructions supplied with the operating system on the site.

You can see which version of the operating systems is installed in your Pa600 by going to the Media > Utility page.

Warning: *Do not install an OS other than the official OS supplied by KORG for the Pa600. Trying to install an OS created for different models or downloaded from unofficial web sites may cause data loss and permanent damage to the instrument. KORG is not responsible for any damage caused by improper installation of the OS.*

Overview


(Quarter Tone version only)
QT
QUARTER TONE
SUB SCALE
PRESET
SC1
SC2
SC3
SC4
KORG
Pa 600
professional arranger
MODE
DEMO
STYLE PLAY
SONG PLAY
SEQUENCER
SOUND EDIT
GLOBAL
MEDIA
MASTER VOLUME
BALANCE
ACC SONG
KBD
RECORD
TRACK SELECT
STS1
STS2
STS3
ASSIGN. SWITCH
1
2
ACCOMP.
MEMORY
MAN.BASS
PAD
1
2
3
4
STOP
STS MODE
SELECTION
STYLE
SOUND
SONGBOOK
SONG
CHORD SEQUENCER
INTRO
1
2
3
VARIATION
1
2
3
4
AUTO FILL
BREAK
ENDING
1
2
3
FADE IN/OUT
TAP TEMPO RESET
START/STOP

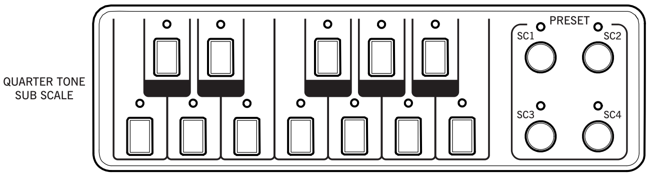
Front Panel

Speakers

The integrated speakers give a faithful reproduction of the sound of Pa600. They are automatically deactivated when inserting a jack into the PHONES connector. They can be manually deactivated with the “Speakers On/Off” parameter you can find in the Global > Audio & EQ > MP3/Speakers page.

Quarter Tone

The Quarter Tone / Sub Scale section is only available in the Pa600 Quarter Tone version.

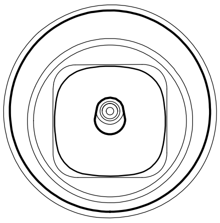

QUARTER TONE
SUB SCALE
PRESET
SC1
SC2
SC3
SC4

QUARTER TONE / SUB SCALE

Use the mini-keyboard to modify the Quarter Tone Scale, and the four SC Preset buttons to select one of the preset scales. Keep one of the buttons pressed to memorize the current scale into the corresponding SC Preset.

Joystick lever

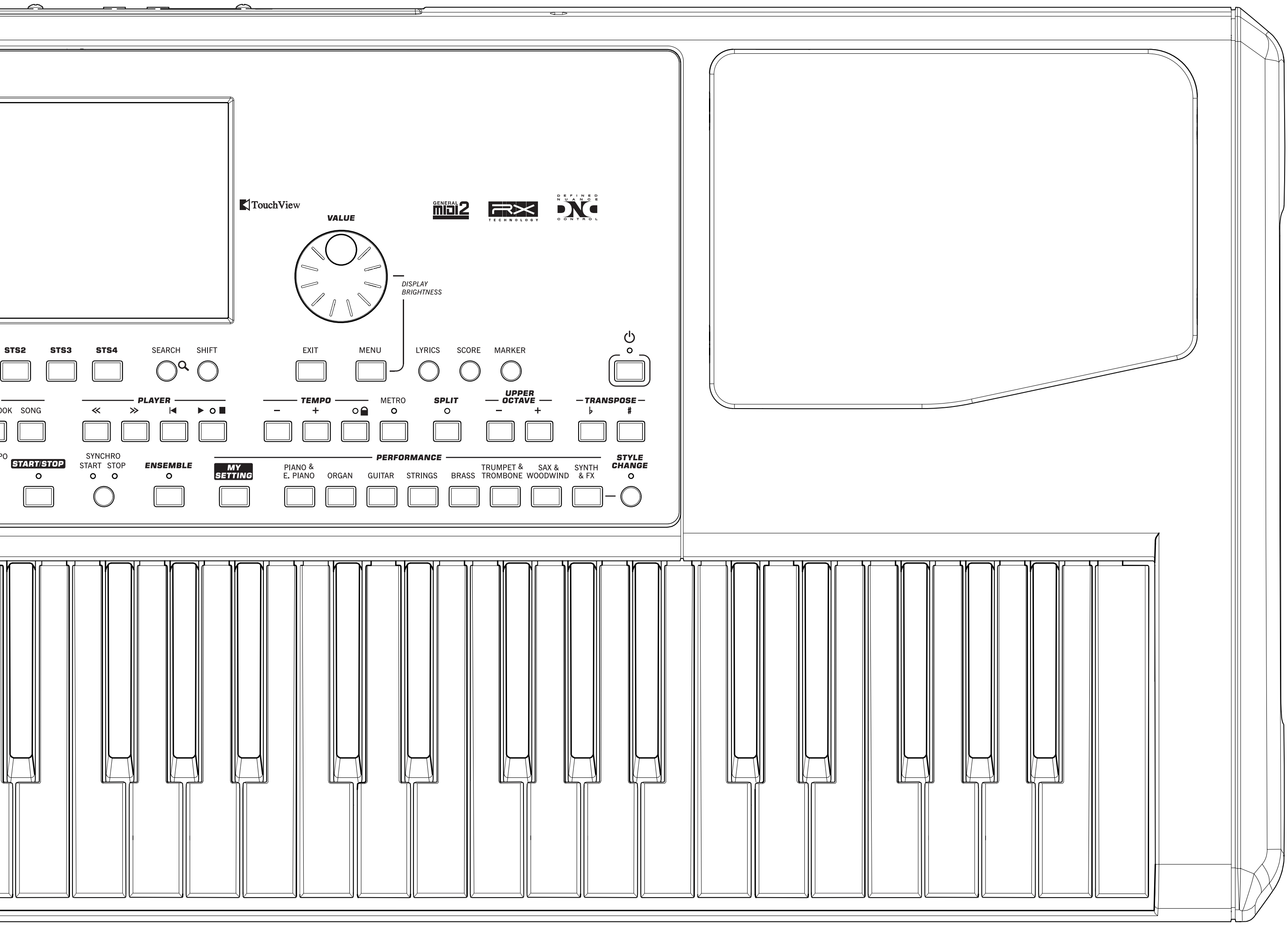
The joystick is on the left side of the front panel.



JOYSTICK

This joystick triggers different functions, depending on the direction it is moved towards.

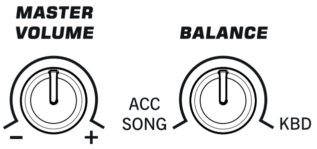
X (+/–)	Move the joystick towards the left (–) to lower the pitch, or towards the right (+) to raise it. This effect is called the Pitch Bend.
Y+	Move the joystick forward to trigger Modulation


TouchView
VALUE
DISPLAY BRIGHTNESS
GENERAL midi2
RX TECHNOLOGY
DEFINED NUANCE CONTROL
STS2
STS3
STS4
SEARCH
SHIFT
EXIT
MENU
LYRICS
SCORE
MARKER
SONG
PLAYER
TEMPO
METRO
SPLIT
UPPER OCTAVE
TRANSPOSE
START/STOP
SYNCHRO
START STOP
ENSEMBLE
MY SETTING
PERFORMANCE
PIANO & E. PIANO
ORGAN
GUITAR
STRINGS
BRASS
TRUMPET & TROMBONE
SAX & WOODWIND
SYNTH & FX
STYLE CHANGE

Y–	Move the joystick backward, to trigger the function assigned in Sound mode.

Volume controls

Use these knobs to control the master volume, and to balance between the Keyboard and the Style or the Song.


MASTER VOLUME
–
+
BALANCE
ACC SONG
KBD

MASTER VOLUME

This knob controls the overall volume of the instrument, both of the integrated speakers, the AUDIO OUT and the PHONES outputs. It also controls the volume of the AUDIO IN inputs in the final mix.

BALANCE

While in Style Play and Song Play mode, this knob usually balances the volume of the Keyboard tracks against the Style (ACC, Accompaniment), Song (SNG) and Pad tracks. This is a relative control, whose effective maximum value is determined by the MASTER VOLUME knob position.

When moved, a magnified version of a virtual slider appears in the display, for more accurate adjustment.

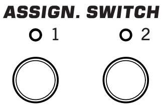
It can be programmed to work as the volume control for the Accompaniment/Song tracks only, leaving the Keyboard tracks unchanged (in the Controllers > Hand Controllers page of the Global mode).

Note: *This does not work in the Sequencer and Sound modes.*

Assignable Switches

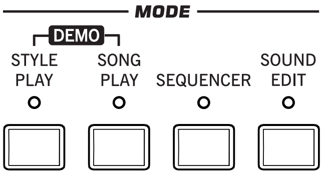
ASSIGNABLE SWITCH

Freely assignable switches, that can be programmed in the Pad/Assignable Switch > Switch page of the Style Play or Song Play mode.


ASSIGN. SWITCH
1
2

Mode selection

Each of these buttons recalls one of the instrument's operating modes. When selected, each mode excludes all the others.



STYLE PLAY

Style Play mode, where you can play Styles (eight tracks of automatic accompaniments) and play up to four Keyboard tracks and four Pad tracks. In the main page, Keyboard tracks are shown in the right half of the display.

You can recall the main page by pressing EXIT from any of the Style Play edit pages. If you are in a different operating mode, press STYLE PLAY to recall the Style Play mode. If Keyboard tracks are not shown in the display, press the TRACK SELECT button until you can see them.

This operating mode is automatically selected when turning the instrument on. The "My Setting" Performance will be automatically selected.

SONG PLAY

Song Play mode, where you can play back Songs in Standard MIDI File (SMF or KAR) or MP3 format. In addition to the Song tracks, you can play up to four Keyboard tracks and four Pads along with the Song(s). In the main page, Keyboard tracks are shown in the right half of the display.

You can recall the main page of this mode by pressing EXIT from any of the Song Play edit pages. If you are in a different operating mode, press SONG PLAY to recall the Song Play mode. Use the TRACK SELECT button to cycle between the Keyboard and Song tracks.

SEQUENCER

Sequencer mode, where you can play, record or edit Songs (in Standard MIDI File format). The Backing Sequence mode lets you record a new Song based on the Keyboard and Style tracks, and save it as a new Standard MIDI File.

Note: *In this mode, you cannot play MP3 files.*

SOUND EDIT

Sound Edit mode, to play single Sounds on the keyboard, or edit them.

User Sounds may be based on User PCM Samples to be loaded into the dedicated Sample RAM memory.

Note: *Pa600 cannot load compressed User PCM Samples from other Pa-Series models.*

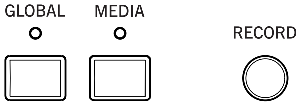
SHIFT While in any other operating mode, keep the SHIFT button pressed and press this button, to send the selected Sound to the Sound Edit mode.

DEMO

Press the STYLE PLAY and SONG PLAY buttons together to select the Demo mode. This mode lets you listen to some Demo Songs, to let you experience the sonic power of the Pa600. To exit from this mode, press any of the MODE buttons.

Special Mode Buttons

These buttons are used to recall settings, file management and record modes.



GLOBAL

This button recalls the Global mode, where you can adjust various global settings. Most Global settings are automatically memorized as soon as you edit them. This mode overlaps any operating mode, that will still remain active in the background. Press EXIT to go back to the underlying operating mode.

MEDIA

This button recalls the Media mode, where you can perform various operations on files and storage devices (Load, Save, Format, etc…). This mode overlaps any operating mode, that still remains active in the background. Press EXIT to go back to the underlying operating mode.

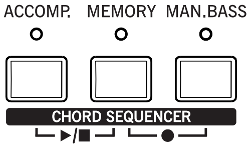
The internal memory contains both the internal data ("SYS [KORG SYSTEM]" area) and a space where to save data ("DISK [KORG DISK]" area).

RECORD

This button sets the instrument to the Record mode (which one depends on the current operating mode).

Accompaniment, Memory, Manual Bass, Chord Sequencer

These buttons let you turn all Accompaniment tracks on/off, decide what should remain in memory, and how to play the bass. In addition, they have the Chord Sequencer as a second function.



ACCOMP. (Accompaniment)

In Style Play and Sequencer-Backing Sequence mode, use this button to turn the Accompaniment tracks (ACC1 ~ ACC5) on or off.

On	After pressing START/STOP, the full accompaniment plays and follows the detected chords.
Off	No chords detected. After pressing START/STOP, only the Drum and Percussion accompaniment tracks can play.

SHIFT You can jump to the Global > Mode Preferences > Style Play page by keeping SHIFT pressed and pressing the ACCOMP button.

MEMORY

This button allows you to choose whether the Lower notes and/or chord triggering the accompaniment must remain in memory after raising your hand from the keyboard.

On	Depending on the setting of the “Memory Mode” parameter (in the Global > Mode Preferences > Style Play), the sound on the left of the split point (Lower), and/or the chords for the automatic accompaniment can kept in memory even when you raise your hand from the keyboard.
Off	Both the sound and chord are released as soon as you raise your hand from the keyboard.

Note: *This function can be automatically activated by playing the keyboard harder, by setting the “Velocity Control” parameter (in the Global > Mode Preferences > Style Play page).*

SHIFT You can jump to the Global > Mode Preferences > Style Play page by keeping SHIFT pressed and pressing the MEMORY button.

MAN. BASS (Manual Bass)

This button turns the Manual Bass function on or off.

On	The automatic accompaniment stops playing (except for the Drum and Percussion tracks), and you can manually play the Bass track on the Lower part of the keyboard. You can start the automatic accompaniment again after pressing this button to turn off the Manual Bass function.
Off	The bass track is automatically played by the Style.

Note: *When you press the MANUAL BASS button, the Bass track volume is automatically set to its maximum value. The volume is automatically set back to the original value when the MANUAL BASS button is deactivated.*

CHORD SEQUENCER (PLAY/STOP AND RECORD)

While a Style is in play, you can use this section as a Chord Sequencer and record a looping sequence of chords. The chords will drive the arranger, leaving your hands free for solo playing.

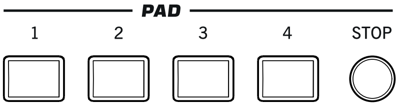
RECORD (MEMORY + MAN. BASS): Press these buttons together to start recording the Chord Sequence. Recording will start from the next measure. Press these buttons again to stop recording.

PLAY/STOP (ACCOMP. + MEMORY): Press these buttons together to let the Chord Sequence play in loop, and automatically drive the arranger. The Chord Sequence will start on the next measure. Press these buttons again to stop the sequence.

The Chord Sequence will remain in memory up until you record a new Chord Sequence, or you turn the Pa600 off.

Pads

Here you can play (and stop) the Pads, i.e. single sounds or looping sequences.



PAD 1-4
STOP

Each Pad button corresponds to a dedicated Pad track. Use these buttons to trigger up to four sounds or sequences at the same time.

- Press a single PAD button to trigger a single sound or sequence.
- Press more PAD buttons to trigger several sounds or sequences.

The sequences will play up to the end. Then, they will stop or continue repeating, depending on their “One Shot/Loop” status (see the “Pad Type” parameter in the Pad Record mode).

You can stop all sequences, or just some of them, by pressing the STOP button of the PAD section:

- Press STOP to stop all sequences at once.
- Keep STOP pressed and press one (or more) of the PAD buttons to stop the corresponding sequence(s).
- Press one of the ENDING buttons to stop both the accompaniment and the Pads at the same time.

About Pad synchronization. In Style Play mode, Pads are synchronized to the Style’s Tempo. In Song Play mode, they are synchronized to the Player.

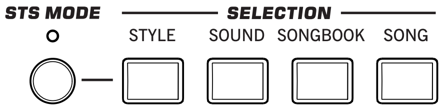
Note: *There is no synchronization with MP3 files. Pads can only be synchronized to the Tempo of the latest selected Standard MIDI Files. Therefore, when an MP3 file is assigned to the last select Player, Pads will synchronize to the Tempo of the last Standard MIDI File that has been played back.*

About Pads and the Player’s Play command. When you press the PLAY button to start the Player, all Pads will stop playing.

SHIFT You can jump to the Style Play > Pad/Assignable Switch page by keeping SHIFT pressed and pressing one of the PAD buttons.

Selection

Here you can select a Style, Sound, SongBook entry, or Song, and activate the automatic selection of the STSs.



STS MODE

This button lets you cycle between the following functions.

On	When a Style is selected, STS 1 is also automatically selected. The Keyboard sounds and effects will change, along with the Style sounds and effects.
Flashing	Variation/STS Link function activated. This function makes each Variation recall the corresponding STS when selected. For example, select Variation 2, and STS 2 will be automatically recalled; select Variation 3, and STS 3 will be automatically recalled.

Off	When you select a Style, the Style sounds and effects will change. The Keyboard sounds and effects will not change.

STYLE

Use this button to open the Style Select window and select a Style. This is the same as touching the name of the Style in the display. Repeatedly press it to cycle between the Style bank pages.

For each type of Styles there are several banks, that can be selected by touching the side tabs. Each Style bank contains various pages, each with up to eight Styles, that can be selected by touching the lower tabs.

Styles of the ***Factory*** type are usually write-protected (unless you uncheck the "Factory Style and Pad Protect" option in the Global > Mode Preferences > Media page). Styles of the ***Favorite*** type can be used to load new Styles from an external device, or to save newly created or edited Styles into banks with a freely editable name. Styles of the ***User*** type are like the Favorites, but you cannot edit the bank name, and are better suited for temporary materials.

By keeping this button pressed for about one second, the "Write Current Style Settings" dialog box will appear.

SOUND

Use this button to open the Sound Select window and select a Sound to be assigned to the selected track. This is the same as touching a Sound name in the display. Repeatedly press it to cycle between the Sound bank pages.

For each type of Sounds there are several Sound banks, that can be selected by touching the side tabs. Each Sound bank contains various pages, each with up to eight Sounds, that can be selected by touching the lower tabs.

Sounds of the ***Factory*** type are usually write-protected (unless you uncheck the "Factory Sound Protect" option in the Global > Mode Preferences > Media page). Sounds of the ***Legacy*** type are standard Factory Sounds allowing greater compatibility with older Pa-Series instruments. Factory Sounds of the ***GM*** type allow for compatibility with General MIDI sounds. Sounds of the ***User*** type are locations where you can load new Sounds from an external device, or save new or edited Sounds. The ***User DK*** type is where you can load new Drum Kits, or save new or edited Drum Kits.

SONGBOOK

Press this button to open the SongBook (when you are in Style Play or Song Play mode). While the SongBook is shown on the display, you can browse through the music database.

By keeping this button pressed for about one second, a new SongBook Entry with the current settings is added to the database. You will be able to give it a name and save.

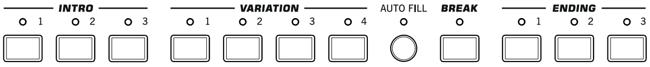
SHIFT You can jump to the SongBook > Custom List page by keeping SHIFT pressed and pressing the SONGBOOK button.

SONG

Press this button to open the Song Select window and choose a Songs. This is the same as touching the Song name in the display.

Style Elements

This section contains the separate elements of a Style (Intro, Variation, etc.).



INTRO 1-3 buttons

These buttons turn the corresponding Intro on. After pressing one of these buttons, start the Style, and it will begin with the selected intro. The INTRO LED will automatically go off at the end of the intro.

At the end of the Intro, the Variation whose LED was blinking will be selected.

Press one of the INTRO buttons twice (LED blinking) to let the corresponding Intro play in loop, and select any other Style element (Intro, Variation, Ending) to exit the loop (or press the same button again).

Note: *Intro 1 plays a short sequence with different chords, while Intro 2 plays on the latest recognized chord. Intro 3 is usually a one-bar Count In.*

VARIATION 1-4 buttons

Each of these buttons selects one of the four Variations of the current Style. The higher the Variation number, the denser the arrangement.

When the STS MODE LED is flashing, the Variation/STS Link function is activated: when selected, each Variation recalls the corresponding STS.

SHIFT You can jump to the Style Play > Drum/Fill page by keeping SHIFT pressed and pressing one of the VARIATION buttons.

AUTO FILL

This button allows to turn the Auto Fill function on or off.

On	When selecting a different Variation, the Fill having the same number of the previous Variation is automatically selected. For example, if going from Variation 2 to Variation 3, Fill 2 is automatically selected.
Off	When choosing a Variation, no fill is selected.

BREAK

This button triggers a break. Press it twice (LED blinking) to let it play in loop. Press it again or select any other Style Element (Intro, Variation, Ending) to exit from the loop.

ENDING 1-3 buttons

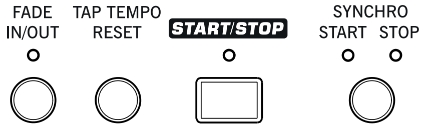
While the Style is running, these three buttons trigger an Ending, and stop the Style. Press one of them, and the Style will stop running with an Ending.

Press them twice (LED blinking) to let them play in loop, and select any other Style element (Intro, Variation…) to exit the loop (or press the same button again).

Note: *Ending 1 plays a short sequence with different chords, while Ending 2 plays on the latest recognized chord. Ending 3 starts immediately, and is just two measures long.*

Style Controls

Use these buttons to start/stop the accompaniment.



FADE IN/OUT

When a Style or Song is not playing, press this button to start it with the volume “fading in” (the volume goes from zero to the maximum).

When a Style or Song is playing back, press this button to stop it with the volume “fading out” (the volume gradually decreases).

You don’t need to press START/STOP or PLAY/STOP to start or stop the Style or Song.

Note: *This does not work in Sequencer mode.*

SHIFT You can jump to the Global > Basic page by keeping SHIFT pressed and pressing the FADE IN/OUT button.

TAP TEMPO/RESET

This is a double-function button, acting in a different way depending on whether the Style is running or not.

Note: *This button only works while in Style Play mode.*

Tap Tempo: When the Style is not playing, you can “beat” the tempo on this button. Tap as many times as the Time Signature’s numerator (for example, four times with a 4/4 Time Signature, or three times with a 3/4 one). At the end, the accompaniment starts playing, using the “tapped in” tempo.

Reset: If you press this button while the Style is playing back, the Style pattern goes back to the beginning of measure 1.

START/STOP

Starts or stops the Style.

Note: *This function can be automatically activated by playing the keyboard harder, by setting the “Velocity Control” parameter (in the Global > Mode Preferences > Style Play page).*

SHIFT You can reset all ‘frozen’ notes and controllers on the Pa600 and any instrument connected to its MIDI OUT or the USB Device port, by using the **“Panic” (SHIFT + START/STOP)** key combination. Just press SHIFT + START/STOP to stop all notes and reset all controllers.

SYNCHRO START / STOP button

These buttons turn the Synchro Start and Synchro Stop functions on or off. With this feature, you can choose to press the START/STOP button to start and/or stop a Style, or just play the keyboard in the Chord Scan area.

Start On, Stop Off

In this situation, just play a chord in the chord recognition area to automatically start the Style. If you like, turn one of the INTROs on before starting the Style.

Start On, Stop On

When both LEDs are lit, raising your hands from the keyboard will momentarily stop the Style. If you play a chord again, the Style will start again.

Start Off, Stop On

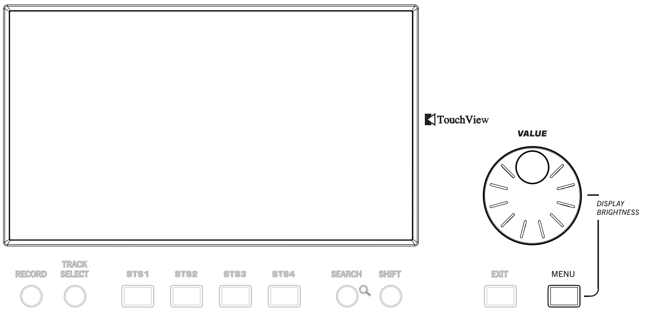
In this case, raising your hands from the keyboard will stop the Style.

Start Off, Stop Off

All Synchro functions are turned off.

SHIFT You can jump to the Global > MIDI > Setup/General Control by keeping the SHIFT button pressed and pressing the SYNCHRO START/STOP button.

Display and Brightness Controls

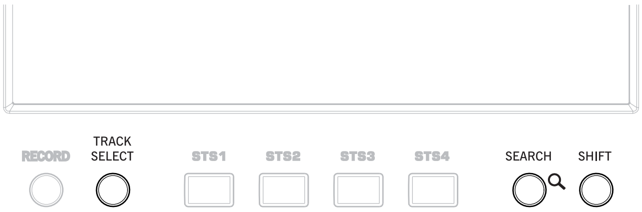


COLOR TOUCHVIEW™ GRAPHICAL DISPLAY

Use this display to interact with the instrument. To adjust the display brightness, keep the MENU button pressed, and turn the DIAL counter-clockwise to make the display darker, or clockwise to make it brighter.

Special Function Controls

Use the TRACK SELECT, SEARCH and SHIFT buttons to choose special functions.



TRACK SELECT

Depending on the operating mode, this button switches between the various track views.

STYLE PLAY MODE

Toggles between Keyboard and Style tracks.

SONG PLAY MODE

Toggles between Keyboard tracks, Song tracks 1-8, and Song tracks 9-16.

SEQUENCER MODE

Toggles between Song tracks 1-8 and Song tracks 9-16.

SEARCH

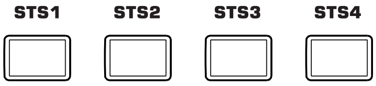
Press this button to open the Search window, and look for a specified file or musical resource. The Search window appears slightly different depending on the current context.

SHIFT

With this button held down, pressing certain other buttons gives access to a second function.

STS Section

Use the STS (Single Touch Settings) buttons to assign Sounds to the keyboard.



STS 1-4 buttons

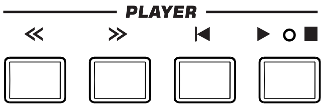
These buttons allow to select up to four Single Touch Settings (abbreviated as STS). Each one of the Styles and SongBook entries includes four Single Touch Settings (STS), to automatically configure Keyboard tracks and effects at the touch of a finger. When the STS MODE LED is lit, an STS is automatically selected when choosing a Style.

Note: *STS contained inside Factory Styles are usually write-protected (unless you uncheck the "Factory Style and Pad Protect" option in the Global > Mode Preferences > Media page)*

☞ By keeping one of these buttons pressed for about one second, the "Write Single Touch Setting" dialog box will appear.

Player Controls

Pa600 is equipped with a Standard MIDI File and MP3 Player. Its controls can be used in Song Play and Sequencer mode.



<< and >>

Rewind and Fast Forward commands, to scroll the Song back or forward.

When pressed once, these buttons move the Song to the previous or following measure (with a Standard MIDI File) or to the previous or next second (with an MP3 file). When kept pressed, they make the Song scrolling continuously until released.

In Sequencer mode, if you set a Locate Measure other than 1, when pressing the << button the Song will rewind up to that measure instead of the first one.

SHIFT In Jukebox mode, keep the SHIFT button pressed, and press these buttons to scroll to the previous or next Song in the Jukebox list.

|◀ (HOME)

Sends the Song Position back to measure 1 (i.e., the beginning of the Song).

In Sequencer mode, if you set a Locate Measure other than 1, the Song Position will go back to that measure.

▶/■ (PLAY/STOP)

Starts the Song from the current Song Position, or stops it at the current Song Position.

Lyrics, Score, Marker

Use these buttons to access the Lyrics, Score or Marker pages.

LYRICS
SCORE
MARKER

LYRICS

This button recalls the Lyrics page for the Song, the Style or the SongBook entry.

SCORE

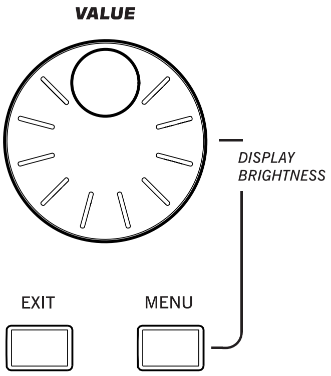
Press this button to open the Score page (in Song Play or SongBook mode).

MARKER

Press this button to open the Marker page (in Song Play or SongBook mode).

Data Entry and Navigation

The VALUE DIAL can be used to assign a different value to the parameter selected in the display, or to scroll a list of files in the Song Select, SongBook, Search and Media pages.



VALUE DIAL

Turn the dial clockwise to increase the value of the selected parameter. Turn it counter-clockwise to decrease its value.

MENU When used while pressing the MENU button, this control always acts as a Display Brightness control.

EXIT

Use this button to perform various actions, leaving from the current status:

- exit the edit menu page, without selecting any item
- make the page menu disappear, without selecting any item
- return to the main page of the current operating mode
- exit the Global or Media edit environment, and return to the current page of the current operating mode
- exit from the SongBook mode
- exit from the Lyrics, Score and Marker pages
- exit from a Style, Pad, Performance or Sound Select window

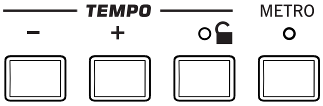
MENU

This button opens the edit menu page for the current operating mode. After opening an edit menu, you can jump to one of the edit sections by touching the corresponding button in the display.

Otherwise, press EXIT to return to the main page of the current operating mode, or the current page of the underlying operating mode.

Tempo Section

The TEMPO and METRO buttons can be used to control the Tempo.



TEMPO +/– buttons

TEMPO– decreases the Tempo value of the Style or Standard MIDI File; TEMPO+ increases it. With MP3 files, the speed of the file is respectively decreased or increased.

Press both buttons together to reset the Tempo to the value memorized in the Style or Standard MIDI File. With MP3 files, the original speed of the file is recalled (value reset to “0”).

TEMPO LOCK

This button turns the Tempo Lock function on or off.

On	When you select a different Style or Performance, or select a different Song, the Tempo will not change. You can still manually change it, by using the TEMPO +/– buttons, or select the Tempo value and change it by using the VALUE dial.
Off	When you select a different Style or Performance, or select a different Song, the memorized Tempo will be automatically selected.

***Note:** This button does not work with MP3 files.*

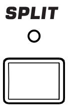
SHIFT You can jump to the Global > Lock page by keeping SHIFT pressed and pressing this button.

METRO

Use this button to turn the metronome click on or off.

SHIFT You can jump to the Global > General Controls > Basic page by keeping SHIFT pressed, and pressing this button.

Split



Splitting the keyboard allows you to separate the chords area from the melody.

SPLIT

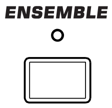
In Style Play, Song Play and Sequencer-Backing Sequence mode, use this button to choose how the four Keyboard tracks are positioned on the keyboard, and how chords are recognized by the arranger.

***Note:** The ACCOMP LED must be turned on for the accompaniment to play.*

On	The Lower track plays below the split point, while the Upper 1, Upper 2 and Upper 3 tracks play above it. This is called the ***Split*** keyboard mode. By default, turning on the Split mode automatically selects the Lower chord scanning mode. In this mode, chords are detected below the split point.
Off	The Upper 1, Upper 2 and/or Upper 3 tracks play over the whole keyboard range. The Lower track does not play. This is also called the ***Full*** keyboard mode. Turning off the Split mode automatically selects the Full chord scanning mode. In this mode, chords are detected over the full keyboard range. You must always play three or more notes to let the arranger recognize a chord.

By keeping this button pressed for about one second, the Split Point window appears. When there, play the new split point on the keyboard.

Ensemble



The Ensemble function automatically harmonizes the melody played with the right hand.

ENSEMBLE

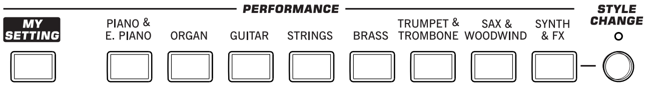
This button turns the Ensemble function on or off.
When on, the right-hand melody is harmonized with the left-hand chords.

***Note:** The Ensemble function only works when the keyboard is in SPLIT mode.*

SHIFT You can jump to the Style Play > Keyboard/Ensemble page by keeping SHIFT pressed and pressing the ENSEMBLE button.

Performance Select Section

Use these buttons to select a Performance. Performances memorize all Sounds assigned to the keyboard, most control panel settings, and an associated Style.



MY SETTING

This is a special direct-access Performance, that is automatically selected when the instrument is turned on. When pressing this button, the Performance is immediately selected.

Keep this button pressed for about one second to save the current settings into the My Setting Performance.

PERFORMANCE buttons

Use these buttons to open the Performance Select window, and select a Performance.

Each Performance bank contains five pages, each with up to eight Performances. Repeatedly press a PERFORMANCE button to cycle between the available pages.

All Performances can be freely customized, by accessing the edit pages of the Style Play and Song Play modes by pressing the MENU button.

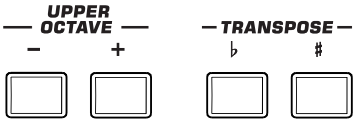
By keeping one of these buttons pressed for about one second, the “Write Performance” dialog box will appear.

STYLE CHANGE

This button turns the Style Change function on or off.

On	When you select a Performance, the Style might change according to which Style is memorized onto the Performance.
Off	When you select a Performance, the Style will remain the same. Only Keyboard tracks (Sounds, Effects…) will be changed.

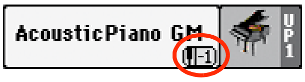
Transpose Section



Use these buttons to transpose the Sounds.

UPPER OCTAVE

Use these buttons to transpose the Upper tracks in steps of one whole octave (12 semitones; max ±3 octaves). The octave transposition value is always shown (in octaves) next to the Sound’s name.



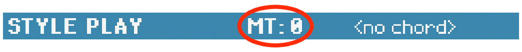
Press both buttons together, to reset the Octave Transpose to the saved value.

–	Lowers the selected track by one octave.
+	Raises the selected track by one octave.

SHIFT You can jump to the Style Play > Tuning page by keeping SHIFT pressed and pressing one of the UPPER OCTAVE buttons. ***Hint:*** *Go to the Tuning page to separately transpose each track.*

TRANSPOSE

These buttons transpose the whole instrument in steps of one semitone (Master Transpose). The transpose value is usually shown in the page header.



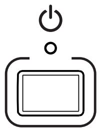
Press both buttons together, to reset the Master Transpose to zero.

Note: *You can also transpose MP3 files. Keep in mind, however, that transposition always remains inside the range -5…+6 semitones. This range is enough to cover all keys, but allows to avoid excessive audio degradation. Any further transposing will be reversed to fit the range. So, you might see a +7 transpose value (Just Fifth Up) shown in the display, but the MP3 will actually play 5 semitones lower (Just Fourth Down).*

♭	Lowers the Master Transpose in steps of one semitone.
♯	Raises the Master Transpose in steps of one semitone.

SHIFT You can jump to the Global > Transpose Control page by keeping SHIFT pressed, and pressing one of the TRANSPOSE buttons.

Power On/Off



POWER

Use this button to let the instrument exit (LED off) or enter (LED on) standby.

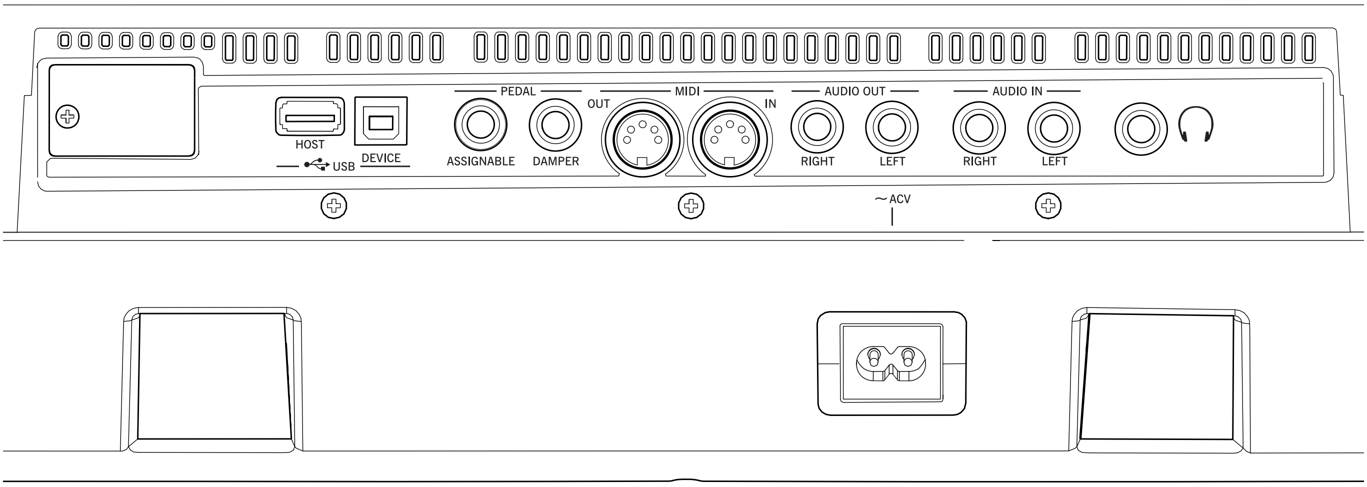
Press it briefly to let the instrument exit standby. In case there are User Sounds based on User PCM Samples, loading may take some time.

Keep it pressed for about one second to let it enter standby.

Warning: *When the instrument is in standby mode, it is still connected to the power line. Accessing the inside of the instrument can be dangerous. To completely disconnect the instrument from the power, unplug the power plug from the power socket on the wall.*

Note: *To avoid wasting power, Pa600 will by default automatically enter standby mode after two hours of non-active use (playing, pressing buttons or using the touch-screen). Please save your data (Performances, Styles, Songs, and so on) before taking a prolonged pause. You can change the auto power-off timer in Global > General Controls > Clock & Power.*

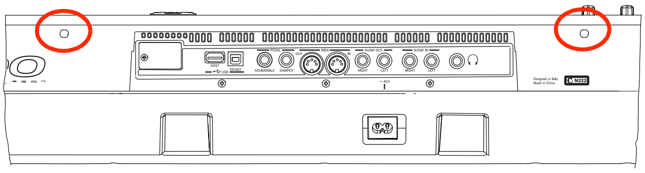
Rear Panel



Music stand

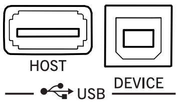
Music stand holes

A music stand comes standard with your Pa600. Insert its legs into these two dedicated holes.



USB Connectors

Use these connectors to connect USB devices, or a personal computer.



HOST(R)

This is a USB Type A (Master/Host) connector, USB 2.0 compliant (High Speed only – *to connect older, slower USB devices, please use an USB hub*). Use it to connect to the Pa600 an USB Flash Memory stick, an external CD-ROM drive, an USB hard disk. You can access the connected device in the Media mode.

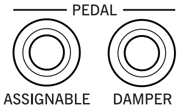
DEVICE

This is a USB Type B (Slave/Device) connector, USB 2.0 (High Speed). Use it to connect the Pa600 to a personal computer, and transfer data to/from its internal memory (Disk). You can enable USB connection in the "USB" page of the Media mode.

MIDI over USB is supported, so you can use this connector instead of the MIDI ports. The drivers for PC and Mac, needed to make full use of this type of connection, are supplied in the Accessory Disk that comes with the instrument, or can be downloaded from our web site.

Pedals

Use these connectors to connect various types of pedals.



ASSIGNABLE

Use this port to connect a continuous- or footswitch-type pedal, like the (optional) KORG EXP-2, XVP10, PS-1 or PS-3, or a VOX V860. To program and calibrate it, go to the Controllers > Foot Controllers page of the Global mode.

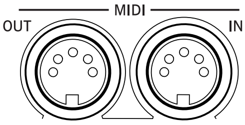
DAMPER

Use this to connect a Damper pedal, like the (optional) KORG PS-1, PS-3 or DS1H. To change its polarity and calibrate it, go to the Controllers > Foot Controllers page of the Global mode.

Note: *Half-pedalling on Piano Sounds is available when connecting a DS1H damper pedal.*

MIDI Interface

The MIDI interface allows your Pa600 to be connected to external controllers (master keyboard, MIDI guitar, wind controller, MIDI accordion…), to a series of expanders, or to a computer running a sequencer.



OUT

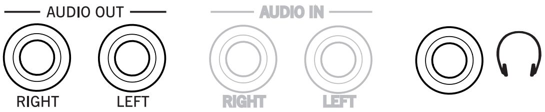
This connector sends MIDI data generated by Pa600's keyboard, controllers, and/or the internal player. Connect it to an expander's or computer's MIDI IN.

IN

This connector receives MIDI data from a computer or a controller. Connect it to an external controller's or computer's MIDI OUT.

AUDIO OUT Section

Use these connectors to send the audio signal (sound) to a mixer, a PA system, a set of powered monitors, or your hi-fi system.



LEFT, RIGHT

Use these line-level outputs to send the final stereo mix to an external device. Connect either of them to output the signal in mono. Adjust the output level with the MASTER VOLUME knob.

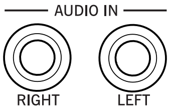
Connect two mono cables to these outputs. Connect the other end of the cables to a stereo channel of your mixer, two mono channels, two powered monitors, or the CD, LINE IN or TAPE/AUX input of your audio system. Don't use the PHONO inputs of your audio system!

PHONES

Connect a pair of headphones to this output. You can use headphones with an impedance of 16-200 Ohms (50 Ohms suggested). Use a headphone splitter to connect more than one pair of headphones.

AUDIO IN Section

Use these connectors to input sound from another line-level device. The signal goes directly to the final mix.



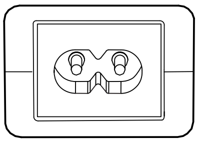
LEFT, RIGHT

Use these connectors to connect a line-level input source, such as a keyboard/ synthesizer, a CD or MP3 player, or a mixer's (non-powered) output. Adjust the input level with the source's output volume.

Power

This is where you connect the Pa600 to the power line.

ACV cable connector

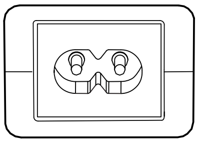


Plug the supplied AC cable into this connector. When the cable is connected, the instrument is in standby mode. To let it enter or exit standby, use the POWER switch located on the front panel.

Warning: *When the instrument is in standby mode, it is still connected to the power line. Accessing the inside of the instrument can be dangerous. To completely disconnect the instrument from the power, unplug the power plug from the power socket on the wall.*

Start up

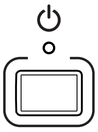
Connecting the AC power cord



Connect the supplied power cord to the dedicated socket on the rear of the instrument. Then, plug it into a wall socket. You don't need to worry about the local voltage, since the Pa600 uses a universal power adapter.

When the cable is connected to the power, the instrument automatically enters standby mode.

Turning the instrument on (or setting it to standby)



Press the POWER button on the front panel to let the instrument exit standby. The display will light up, showing the boot procedure.

Note: *When the instrument exits standby, User PCM Samples used by some User Sounds may be automatically loaded. Loading them may take some time.*

Keep the POWER button pressed for about one second to let the instrument enter standby.

Warning: *When putting the instrument in standby, all data contained in RAM (Song recorded or edited in Sequencer mode, the Chord Sequence) will be lost.*

On the contrary, data contained in the internal memory (Factory data, User Sounds, Performances, Styles) will be preserved.

Controlling the Volume

Master Volume

MASTER
VOLUME
–
+

Use the MASTER VOLUME knob to control the overall volume of the instrument. This knob controls the volume of the sound going to the integrated speakers, the AUDIO OUT and PHONES connectors.

Note: *Begin at a moderate level, then raise the MASTER VOLUME up. Don't keep the volume at an uncomfortable level for too long.*

Keyboard, Style Accompaniment and Song Volume

BALANCE
ACC
SONG
KBD

By default, the BALANCE knob balances the volume of the Keyboard (KBD) tracks, against the Style's Accompaniment (ACC), Song and Pad tracks.

- When in Style Play mode, this knob balances between the Keyboard tracks, and the Style and Pad tracks.
- When in Song Play mode, this knob balances between the Keyboard tracks, and the Player and Pad tracks.

This is a relative control, whose effective maximum level is determined by the MASTER VOLUME knob position.

When moved, a magnified version of the virtual slider appears in the display, for more accurate positioning.

As an alternative, the knob can be used to control the Style/Song Volume without affecting the Keyboard tracks (choose the desired behavior by editing the "Balance Control" parameter in the Global > Controllers > Hand Control page).

Note: *This knob only works in Style Play and Song Play mode; it does not work in Sequencer mode.*

Headphones

Connect a pair of headphones to the PHONES output, on the back of the instrument. You can use headphones with an impedance of 16-200 Ohms (50 Ohms suggested). Use a headphone splitter to connect more than one pair of headphones.

Note: *When connecting the headphones, the speakers are automatically deactivated.*

Loudspeakers

Pa600 is fitted with a pair of powerful, high-quality integrated speakers and a bass-reflex box, powered by a 15+15 Watt amplification system.

The overall volume can be controlled via the MASTER VOLUME knob.

Speakers can be deactivated with the "Speakers On/Off" parameter, that you can find in the Global > Audio & EQ: MP3/Speakers page.

Audio Outputs

Audio outputs allow for connecting Pa600 to an external amplification system. The overall volume can be controlled via the MASTER VOLUME knob.

MIDI connections

You can play the internal sounds of your Pa600 with an external controller, i.e. a master keyboard, a MIDI guitar, a wind controller, a MIDI accordion, or a digital piano.

You can also control other MIDI devices with Pa600, or connect it to a computer for use with an external sequencer.

As an alternative to the MIDI connectors, you can use the USB Device port for direct connection to a personal computer.

See the “MIDI” chapter on page 284 for more information on MIDI connections.

Damper pedal

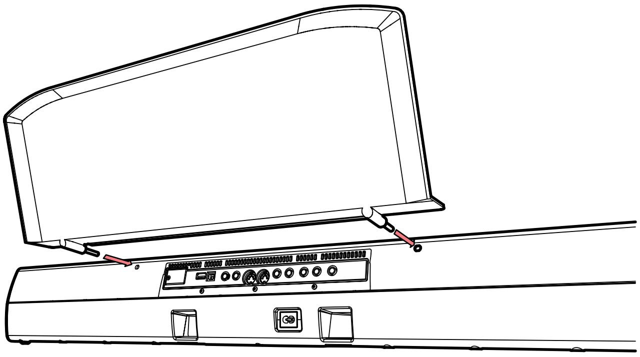
Connect a Damper (Sustain) pedal to the DAMPER connector on the back panel. Use an (optional) KORG PS1, PS3 or DS1H footswitch pedal, or a compatible one. With the KORG DS1H, half-pedalling can be used on some Grand Piano sounds. To calibrate and switch the Damper polarity, go to the Controllers > Foot Controller page of the Global mode.

Assignable pedal

Connect either a footswitch or an expression pedal to the ASSIGNABLE connector on the back panel. Use an (optional) KORG PS1 or PS3 footswitch pedal, a KORG EXP-2 expression pedal, a KORG XVP-10 or VOX V860 volume pedal, or a compatible one. To calibrate the pedal, go to the Controllers > Foot Controller page of the Global mode.

The music stand

A music stand comes standard with your Pa600. Insert its legs into the two dedicated holes on the rear panel, as shown in the illustration:



Glossary of Terms

Before you begin, take a few moments to familiarize yourself with the names and terms we will be using to talk about the various elements of the Pa600.

In this section, you will find a brief description of various key elements of the Pa600. A professional arranger (Pa) keyboard uses different terminology than a traditional synthesizer or workstation. By familiarizing yourself with the names and functions in this section, you will get a better understanding of how all the different parts of the Pa600 work together to create a realistic musical performance. This will also help you to get the most out of the rest of the manual.

Sound

A Sound is the most basic unit of an Arranger Keyboard performance. A Sound is basically a playable instrument timbre (piano, bass, sax, guitar…) that can be edited, saved, recalled and assigned to any track. An individual Sound can be played on the keyboard in the Sound mode. In the Style Play, Song Play or Sequencer mode, Sounds may be freely assigned to Sequencer tracks, Style tracks, or Keyboard tracks.

Style

The Style is the heart of a professional arranger keyboard. At its basic level, a Style will consist of up to eight parts, or “Tracks”.

Drums

The Drum track will provide a repeating rhythmic phrase, played by the standard instruments of a Drum Kit.

Percussion

An additional rhythmic phrase played by various percussion instruments (conga, shaker, cowbell, etc.) is provided by the Percussion track.

Bass & Accompaniment

The Bass track and the (up to) five additional Accompaniment tracks will each play musical phrases that are musically related to and in sync with the Drum and Percussion tracks. However, the notes being played by these tracks *will* change to follow the chord progression that you play on the keyboard.

Again, any Sound you choose may be assigned to any track in a Style.

Variation

For each Style, there are four Variations, to be used for the Verse, Bridge and Chorus of a song. In general, each Variation is a slightly different version of the others. As you progress from Variation one to Variation four, the arrangements will become more complex, and more parts (Tracks) may be added. This allows your performance to have a more dynamic arrangement, without losing the original “feel” of the Style.

Fill-in & Break

During a performance, a drummer may often perform a “fill” - such as when transitioning from a verse to a chorus – adding extra dynamics and keeping the beat from getting too repetitive. The Pa600 offers four Fill-ins specifically programmed for each Style, that may be automatically recalled when choosing the corresponding Variation (Auto Fill). A Fill-in may be drums alone or drums with instrumentation. Then, there is even a silent “break”.

Intro & Ending

Each Style also allows you to complete your performance with a set of musical introductions and endings. A long and short version of the Intro and Ending are usually provided, with the former more harmonically elaborated, and the latter with a fixed chord. A “count-in” Style Intro is also provided, as well as the quick Ending 3.

Pad

Pads are single sounds or single-track patterns, that can be triggered by using the dedicated PAD buttons. They can be used to play in realtime single sounds, as well as short, cycling sequences that play in time with the Style or Standard MIDI File, and are transposed according to the recognized chords.

Keyboard tracks

In addition to the Style and Pad tracks, up to four additional parts can be played on the keyboard in real-time. Each of these Keyboard tracks can be limited to a particular range of keys or velocities, but in general up to three can be assigned to play above the split point (Upper), and one below (Lower). This allows the Upper Sounds to be layered together. The split point can be set to any note on the keyboard. In addition to performing along with a Style, these same Keyboard tracks will allow you to play along with the Player.

STS (Single Touch Settings)

Single Touch Settings allow you to instantly change the sounds assigned to each of the Keyboard tracks with a single button press, allowing for wide variation in sounds during a performance. Four STS (Single Touch Settings) can be saved with each Style or SongBook Entry.

Ensemble

By turning the Ensemble feature on, a single note played on one of the Keyboard tracks will be embellished by additional notes to create a complete chord voicing. The Ensemble knows which notes to add by looking at the chord that you are playing. In addition, the Ensemble parameters allow you to select the type of voicing that will be added – from a simple one-note harmony to a full “Brass” section – even a marimba-style trill!

Performance

The Performance is the most encompassing setting on the Pa600 – a single setting that can remember a Style (with all the appropriate sounds), the Keyboard tracks (with all the appropriate sounds) and all their Tempo, transposition, effects, etc… A Performance can be stored in one of the Performance bank locations, or it can be saved in a “database” format using the SongBook function.

Sequencer

The Sequencer acts as a recorder, so you can capture and playback your performances. The Pa600 sequencer can function in different modes. In the Backing Sequence mode, each Style element and each Keyboard and Pads element can be recorded on a separate track in a single pass. This can be a big help in getting a song recorded quickly. The sequencer can also behave as a traditional 16-track linear sequencer, where each track is recorded individually one at a time.

Player

The Player lets you playback your performances or any Standard MIDI File or MP3 file.

The LOGO decoder

On the front panel of your Pa600 you have probably noticed a series of logos, and may have even wondered what they stand for. Well, here is a quick explanation of each one.

General MIDI (GM) is a standard that ensures the compatibility of sounds and messages between GM compatible instruments available from different manufacturers. For example, sequenced songs created on any GM equipped product and saved in the GM format will playback correctly on the Pa600.

General MIDI 2 extends the basic features of the General MIDI, allowing for 256 Sounds and 9 Drum Kits (instead of 128 and 1).

RX Technology is the cutting edge engine that drives every aspect of the Pa600 – from the synthesis to the display and how it all works together.

DNC (Defined Nuance Control) is the way of fine-controlling KORG’s powerful sound engine. Every nuance and every detail of the sound can be assigned to a different control, be it the keyboard velocity or a physical controller.

TouchView is the sophisticated technology allowing for touching the objects in the display, instead of pointing to them through an external device (a mouse, a series of buttons). Go straight to the musical elements, instead of catching keys somewhere on the control panel.

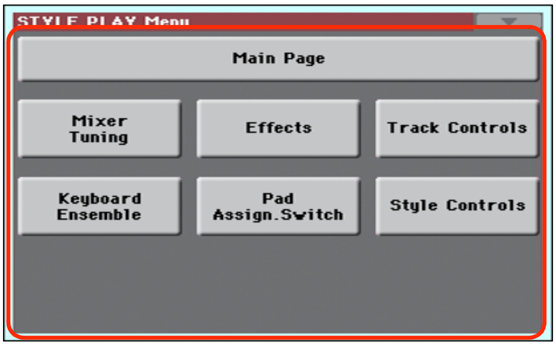
Interface basics

Color TouchView graphical user interface

Pa600 features our exclusive easy-to-use TouchView graphic interface, based on a touch-panel LCD screen. By touching items on the LCD screen, you can select pages, tabs, and parameters, and set parameter values via on-screen menus and buttons. Here are the basic elements of the user interface.

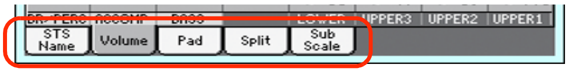
Menus and sections

Pages are grouped in sections, to be selected by touching the corresponding buttons in the Edit menu that opens up when you press the MENU button.


STYLE PLAY Menu
Main Page
Mixer Tuning
Effects
Track Controls
Keyboard Ensemble
Pad Assign.Switch
Style Controls

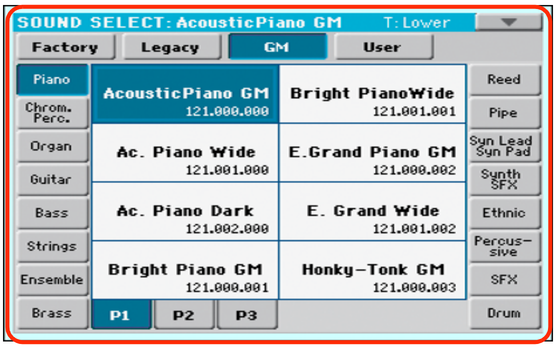
Pages

Parameters are grouped into separate pages, to be selected by touching the corresponding tabs on the lower area of the display.


UPPER3
UPPER2
UPPER1
STS Name
Volume
Pad
Split
Sub Scale

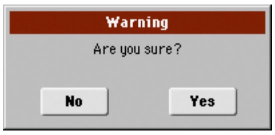
Overlapping windows

Several windows, like the Style Select or Pad Select, the Global, the Media, or the Lyrics, overlap the current window. After you select an item in the window, or press the EXIT button, the window closes, and the underlying page is shown again. (The following example is the Sound Select window).


SOUND SELECT: AcousticPiano GM
T: Lower
Factory
Legacy
GM
User
Piano
Chrom. Perc.
Organ
Guitar
Bass
Strings
Ensemble
Brass
AcousticPiano GM 121.000.000
Bright PianoWide 121.001.001
Ac. Piano Wide 121.001.000
E.Grand Piano GM 121.000.002
Ac. Piano Dark 121.002.000
E. Grand Wide 121.001.002
Bright Piano GM 121.000.001
Honky-Tonk GM 121.000.003
Reed
Pipe
Syn Lead Syn Pad
Synth SFX
Ethnic
Percussive
SFX
Drum
P1
P2
P3

Dialog boxes

Similar to selecting windows, dialog boxes overlap the underlying page. Touch one of the button on the display to give Pa600 an answer, and the dialog box will close.

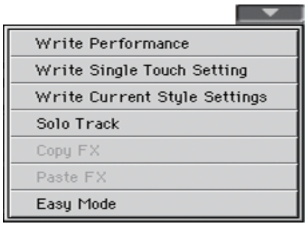

Warning

Are you sure?

No
Yes

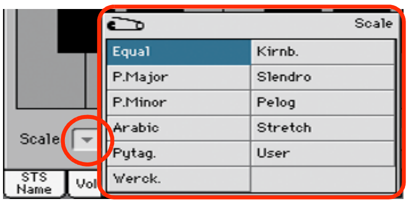
Page menus

Touch the icon on the upper right corner of each page, and a menu with suitable commands for the current page will appear. Touch one of the available commands to select it. (Or, touch anywhere else on the screen to make it disappear, with no command selected).


Write Performance
Write Single Touch Setting
Write Current Style Settings
Solo Track
Copy FX
Paste FX
Easy Mode

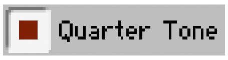
Pop-up menus

When an arrow appears next to a parameter name, touch it to open a pop-up menu. Select any of the available options (or anywhere else on the screen to make the menu disappear).

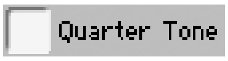

Scale
Equal
Kirnb.
P.Major
Slendro
P.Minor
Pelog
Arabic
Stretch
Pytag.
User
Werck.
Scale
STS Name
Vol

Checkboxes

This kind of parameters are on/off switches. Touch them to change their status.


Quarter Tone

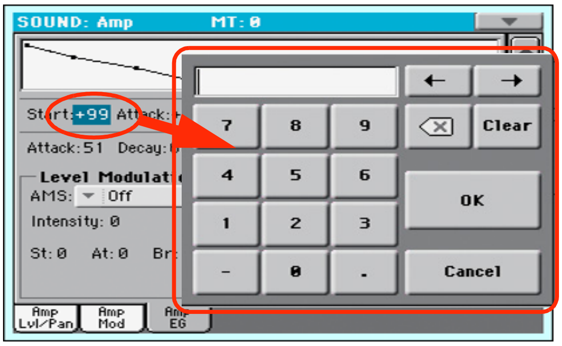
= On


Quarter Tone

= Off

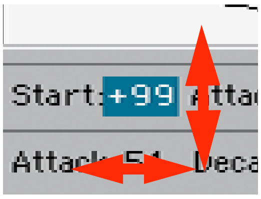
Numeric fields

When a numeric value can be edited, touch it a second time to open the Numeric Keypad.


SOUND: Amp
MT: 0
Start: +99
Attack:
Attack: 51
Decay:
Level Modulat
AMS: Off
Intensity: 0
St: 0
At: 0
Br
7
8
9
Clear
4
5
6
OK
1
2
3
-
0
.
Cancel
Amp Lvl/Pan
Amp Mod
Amp EG

The virtual numeric keypad works exactly as the numeric keypad of a personal computer.

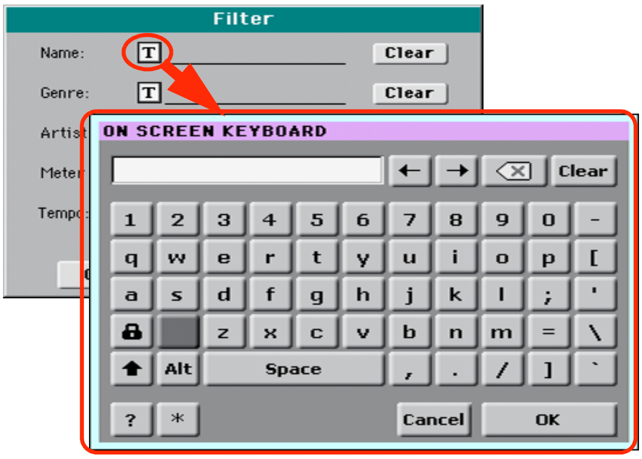
As an alternative, touch a numeric field and keep it held. Then move your fingers up (or right) to increase the value, or move it down (or left) to decrease it.


Start: +99
Attack: 51
Deca

This also includes the Tempo numeric field in the main page of the Style Play, Song Play, and Sequencer modes.

Editable names

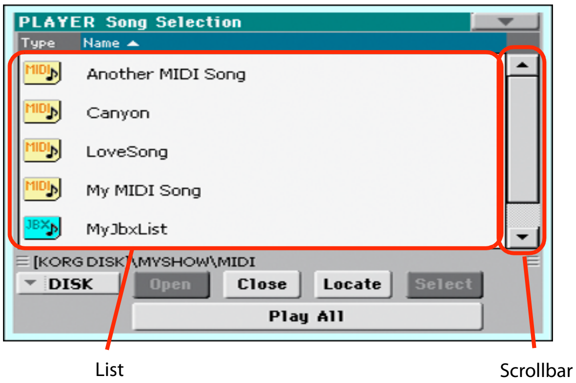
When the T (Text Edit) button appears next to a name, touch it to open the Text Edit window and edit the name.


Filter
Name:
Clear
Genre:
Clear
Artist
Meter
Tempo
ON SCREEN KEYBOARD
Clear
1 2 3 4 5 6 7 8 9 0 -
q w e r t y u i o p [
a s d f g h j k l ; '
z x c v b n m = \
Alt
Space
, . /] `
? *
Cancel
OK

The virtual keyboard works exactly as a personal computer's keyboard. Some of the symbols are context-sensitive, and only appear when they can actually be used.

Lists and scrollbars

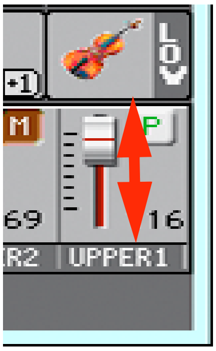
Files on storage media, as well as other kinds of data, are shown as lists. Use the scrollbar to scroll the list content. Also, you can use the VALUE DIAL to scroll.


PLAYER Song Selection
Type
Name
Another MIDI Song
Canyon
LoveSong
My MIDI Song
MyJbxList
[KORG DISK\MYSHOW\MIDI
DISK
Open
Close
Locate
Select
Play All
List
Scrollbar

When the Name label is selected, keep the SHIFT button pressed while touching one of the arrows on the scrollbar, to scroll to the next or previous alphabetic section.

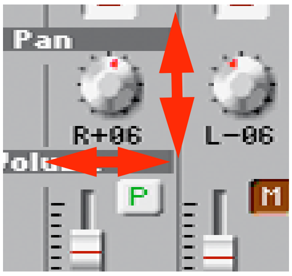
Virtual sliders

To change a virtual slider's position, select it, then use the VALUE dial to change its position. As an alternative, touch a slider with your fingers and keep it held; then move it up or down to change its position.


+1
M
P
69
16
R2
UPPER1

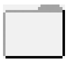
Virtual knobs

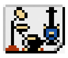
To change a virtual knob's position, select it, then use the VALUE dial to change its position. As an alternative, touch a knob with your finger and keep it held; then move your fingers up (or right) to rotate it clockwise, or move it down (or left) to rotate the knob counter-clockwise.

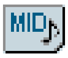


Icons

Various icons help identifying the type of a file, a Song, a folder. For example:


Folder


File of Style bank


Standard MIDI File

Operative modes

The pages of Pa600 are grouped in various operating modes. Each mode is accessed by pressing the corresponding button in the MODE section on the control panel.

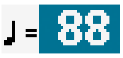
Each operating mode is marked with a different ***color code***, that helps you understand at first sight where you are.

Two special modes (Global and Media) overlap the current operating mode, that remains active in the background.

The Record mode can be accessed from the Style Play and Sequencer modes, and allows for creating new Styles or Songs. It can also be accessed from the Sound mode, where allows you to edit Samples.

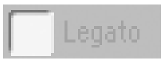
Selected, highlighted items

Any operation on parameters, data or list entries, is executed on highlighted items. First select the parameter or item, then execute the operation.


♩= 88

Non-available, grayed-out parameters

When a parameter or command is not currently available, it is shown in grey on the display. This means it cannot be selected, but may become available when a different option is selected, or you switch to a different page.


☐ Legato

Shortcuts

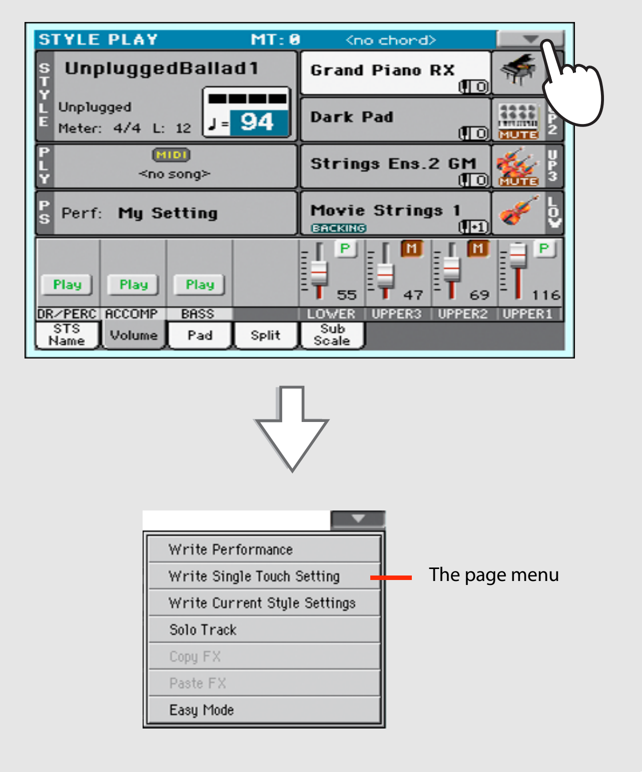
Some commands or pages can be recalled by keeping the SHIFT button pressed, and pressing other buttons or elements in the display. Some others can be accessed by keeping a button pressed for more than one second. See the “Shortcuts” chapter on page “Shortcuts” on page 408 for a list of available shortcuts.

Easy Mode

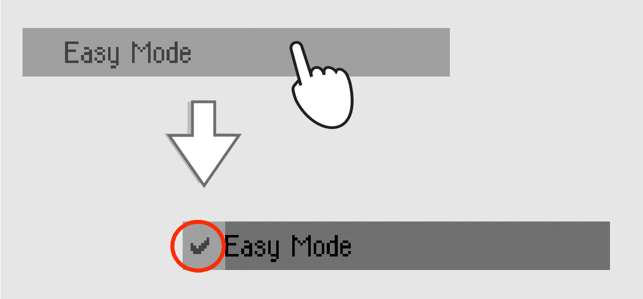
If you have never used an arranger before, we suggest you to switch to the Easy Mode. Easy Mode allows you to play Styles and Songs with a simple user interface, free from the many advanced parameters that you will want to learn later.

Turning the Easy Mode on

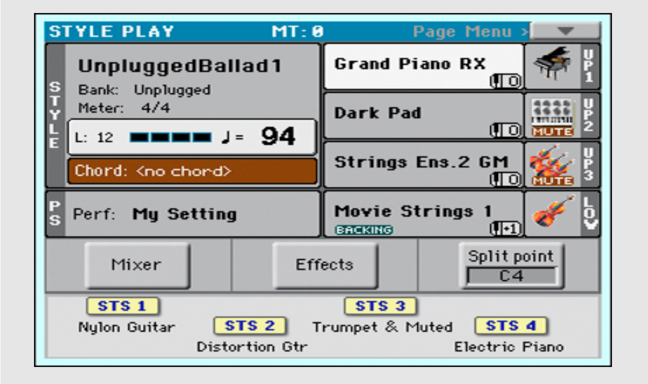
Touch the little rectangle on the top right corner of the display, to open the ***page menu:***


STYLE PLAY
MT: 0
<no chord>
UnpluggedBallad1
Unplugged
Meter: 4/4 L: 12
94
Grand Piano RX
Dark Pad
Strings Ens.2 GM
Movie Strings 1
<no song>
Perf: My Setting
Play
55
47
69
116
DR/PERC
ACCOMP
BASS
LOWER
UPPER3
UPPER2
UPPER1
STS Name
Volume
Pad
Split
Sub Scale
Write Performance
Write Single Touch Setting
Write Current Style Settings
Solo Track
Copy FX
Paste FX
Easy Mode
The page menu

Touch the “Easy Mode” menu item, to make the checkmark appear:


Easy Mode
Easy Mode

At this point, the Easy Mode has been activated, and the elements in the display appear less crowded:

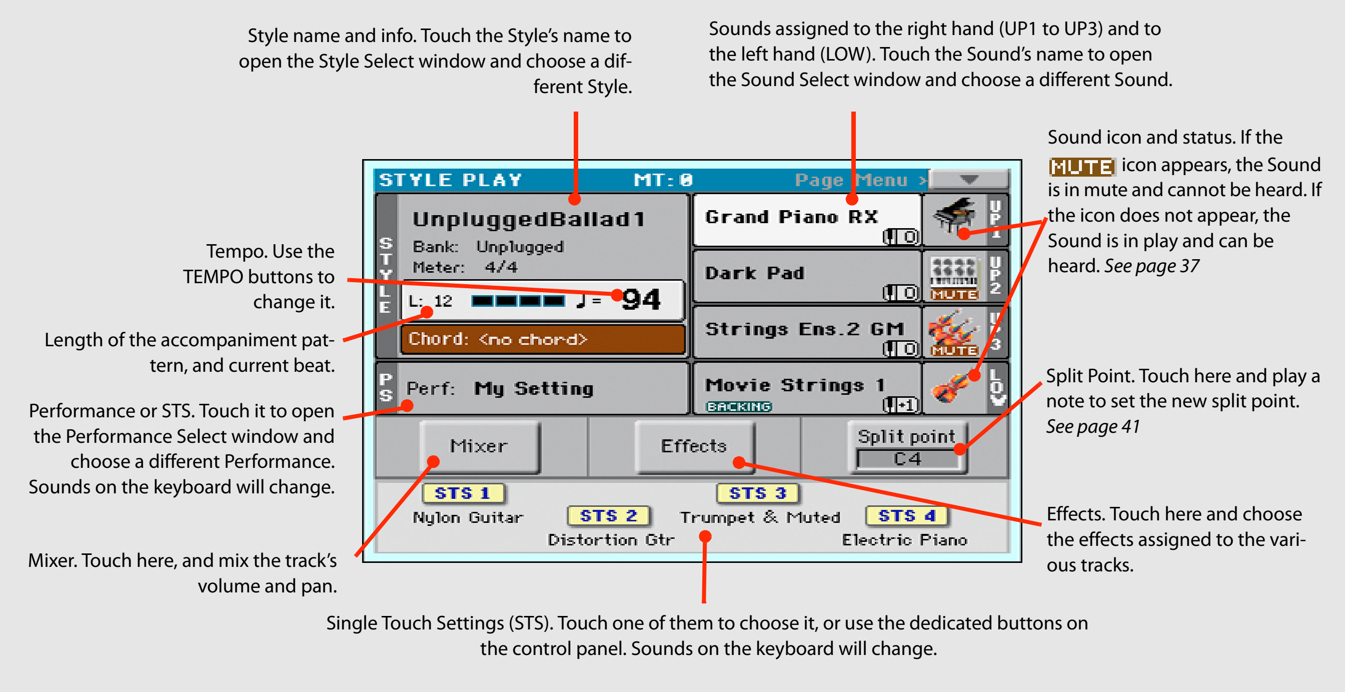

STYLE PLAY
MT: 0
Page Menu
UnpluggedBallad1
Bank: Unplugged
Meter: 4/4
L: 12
94
Chord: <no chord>
Grand Piano RX
Dark Pad
Strings Ens.2 GM
Movie Strings 1
Perf: My Setting
Mixer
Effects
Split point
C4
STS 1
Nylon Guitar
STS 2
Distortion Gtr
STS 3
Trumpet & Muted
STS 4
Electric Piano

Turning the Easy Mode off

Reverse the above operation when you want to deactivate the Easy Mode.

The Style Play page in detail

To see this page, press the STYLE PLAY button.


STYLE PLAY
MT:0
Page Menu
UnpluggedBallad1
Bank: Unplugged
Meter: 4/4
L: 12
♩= 94
Chord: <no chord>
Perf: My Setting
STYLE
PS
Grand Piano RX
Dark Pad
Strings Ens.2 GM
Movie Strings 1
BACKING
MUTE
MUTE
UP1
UP2
UP3
LOW
Mixer
Effects
Split point
C4
STS 1
Nylon Guitar
STS 2
Distortion Gtr
STS 3
Trumpet & Muted
STS 4
Electric Piano

Style name and info. Touch the Style's name to open the Style Select window and choose a different Style.

Sounds assigned to the right hand (UP1 to UP3) and to the left hand (LOW). Touch the Sound's name to open the Sound Select window and choose a different Sound.

Sound icon and status. If the MUTE icon appears, the Sound is in mute and cannot be heard. If the icon does not appear, the Sound is in play and can be heard. *See page 37*

Tempo. Use the TEMPO buttons to change it.

Length of the accompaniment pattern, and current beat.

Performance or STS. Touch it to open the Performance Select window and choose a different Performance. Sounds on the keyboard will change.

Split Point. Touch here and play a note to set the new split point. *See page 41*

Mixer. Touch here, and mix the track's volume and pan.

Effects. Touch here and choose the effects assigned to the various tracks.

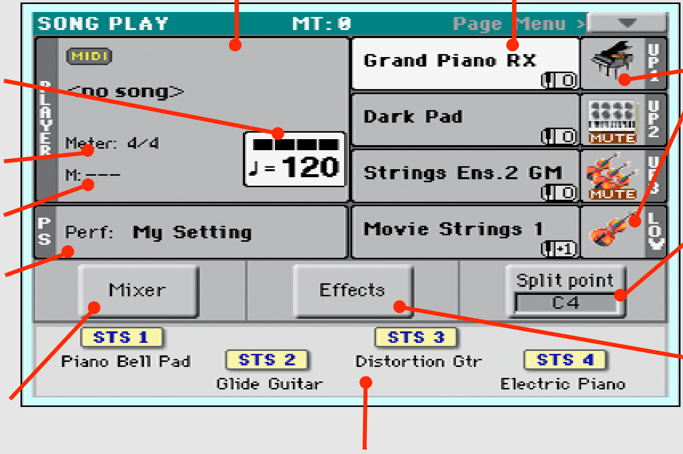
Single Touch Settings (STS). Touch one of them to choose it, or use the dedicated buttons on the control panel. Sounds on the keyboard will change.

Notes:

- There are three Sounds for the right hand (Upper 1, Upper 2, Upper 3), and a single Sound for the left hand (Lower). Their names are abbreviated as UP1, UP2, UP3, LOW, and are shown on the right side of the display.
- Right hand (Upper) and left hand (Lower) Sounds are separated by the Split Point.
- Performances and STSs are collections of Sounds. Just choose one of them to change all the keyboard's Sounds.
- Choose a Style to change the musical style of the accompaniment patterns.

The Song Play page in detail

To see this page, press the SONG PLAY button.


SONG PLAY
MT: 0
Page Menu
PLAYER
MIDI
<no song>
Meter: 4/4
M: ---
♩= 120
PS
Perf: My Setting
Grand Piano RX
Dark Pad
MUTE
Strings Ens.2 GM
MUTE
Movie Strings 1
UP1
UP2
UP3
LOW
Mixer
Effects
Split point
C4
STS 1
Piano Bell Pad
STS 2
Glide Guitar
STS 3
Distortion Gtr
STS 4
Electric Piano

Song assigned to the Player. Touch it to open the Song Select window and choose a different Song.

Sounds assigned to the right hand (UP1 to UP3) and to the left hand (LOW). Touch the Sound's name to open the Sound Select window and choose a different Sound.

Tempo. Use the TEMPO buttons to change it.

Meter (or Time Signature) and current beat.

Song assigned to Player 2. Touch it to open the Song Select window and choose a different Song.

Performance or STS. Touch it to open the Performance Select window and choose a different Performance. Sounds on the keyboard will change.

Mixer. Touch here, and mix the track's volume and pan.

Sound icon and status. If the MUTE icon appears, the Sound is in mute and cannot be heard. If the icon does not appear, the Sound is in play and can be heard. *See page 37*

Split Point. Touch here and play a note to set the new split point. *See page 41*

Effects. Touch here and choose the effects assigned to the vari- ous tracks.

Single Touch Settings (STS). Touch one of them to choose it, or use the dedicated buttons on the control panel. Sounds on the keyboard will change.

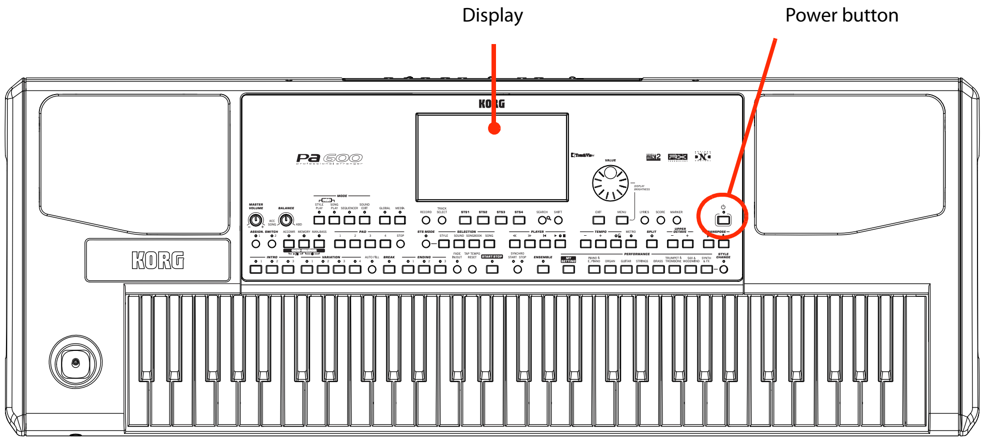
Notes:

- As in Style Play mode, there are three Sounds for the right hand (Upper 1, Upper 2, Upper 3), and one Sound for the left hand (Lower). Their names are abbreviated as UP1, UP2, UP3, LOW, and are shown in the right side of the display.
- Right hand (Upper) and left hand (Lower) Sounds are separated by the Split Point.
- Performances and STSs are collections of Sounds. Just choose one of them to change all the keyboard's Sounds.
- Available STSs depend on the Style or SongBook Entry you last selected.
- Touching a Song name in the display is the same as pressing the SONG button in the SELECTION section of the control panel.

Quick Guide

Turning the instrument on

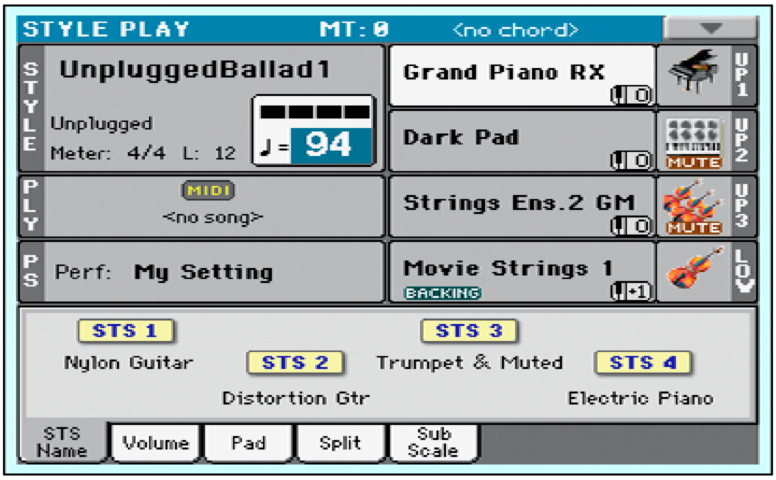
First of all, turn the instrument on and familiarize with the main screen. You can also listen to the demos.


Display
Power button
KORG
Pa600

Turning the instrument on and viewing the main screen

1 **Turn Pa600 on (exit from standby) by pressing the POWER button located in the control panel.**

After you turn the instrument on, a welcome screen is shown for some seconds, then the main display appears.


STYLE PLAY MT: 0 <no chord>

UnpluggedBallad1
Unplugged
Meter: 4/4 L: 12
♩= 94

MIDI
<no song>

Perf: My Setting

Grand Piano RX
Dark Pad
Strings Ens.2 GM
Movie Strings 1

STS 1 Nylon Guitar
STS 2 Distortion Gtr
STS 3 Trumpet & Muted
STS 4 Electric Piano
STYLE
PLY
PS
UP1
UP2
UP3
LOW
0
0
0
+1
MUTE
MUTE
BACKING
STS Name
Volume
Pad
Split
Sub Scale

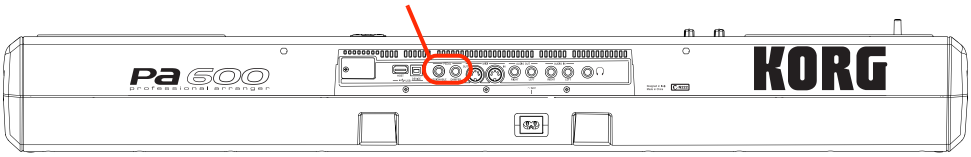
2 **When you want to put Pa600 to standby, keep the POWER button pressed for about one second, and release it when the screen appears dimmed.**

After having pressed the POWER button, the display brightness will be dimmed. At this point, the shutdown procedure will begin and last for a few seconds. Please do not disconnect the power cable during this procedure.

Connecting and calibrating the Damper pedal

If you want to play Piano, you will want to connect a Damper pedal to sustain notes while playing. You can connect a KORG PS1, PS3 or DS1H to the DAMPER connector on the back of the instrument.

The difference between the PS1/PS3 footswitch, and a dedicated Damper pedal like the DS1H, is that this latter also supports all the nuances of half-pedalling; you can experiment how it works by gradually pressing it down, and gradually depressing it up while playing the Grand Piano RX Sound.


Pa 600
professional arranger
KORG

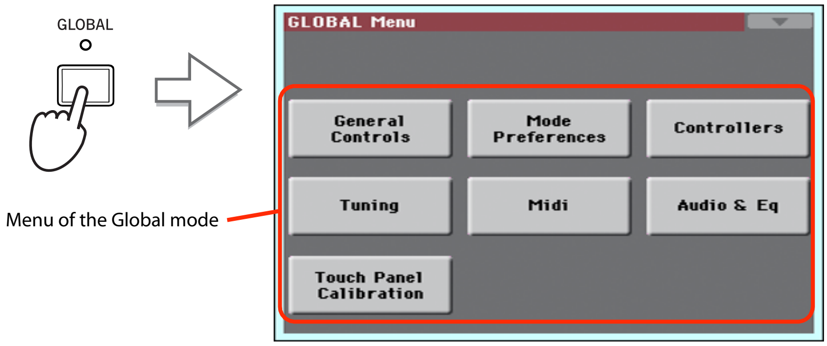
Damper and Assignable pedal connectors

Programming the Damper pedal

Calibrating the Damper pedal will let you use the full run of the pedal, without "dead spots". Also, this might be the only way to connect a third-party Damper pedal that seems to work in reverse, sustaining the notes when they are not pressed!

1 **Connect the Damper pedal to the DAMPER connector on the back of the instrument.**

2 **Press the GLOBAL button to access the Global mode.**

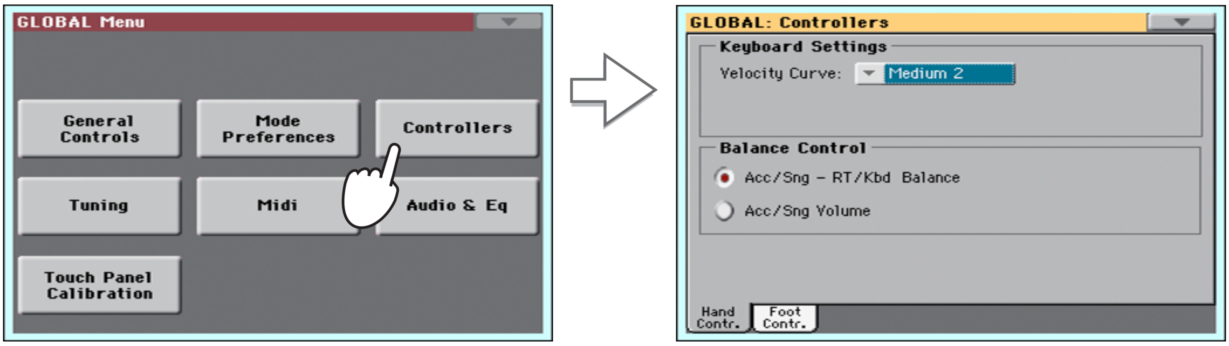

GLOBAL
GLOBAL Menu
General Controls
Mode Preferences
Controllers
Tuning
Midi
Audio & Eq
Touch Panel Calibration

Menu of the Global mode

Global mode is where you can set some global parameters, like this one, the Master Tuning or the Date & Time. These settings are not tied to any specific operative mode, so they are programmed in these separate pages.

3 **Touch the Controllers button to access the Controllers section of the Global mode.**

If you have not yet chosen a different page, the "Hand Controller" page will appear (being the first one in the Controllers section).


GLOBAL Menu
General Controls
Mode Preferences
Controllers
Tuning
Midi
Audio & Eq
Touch Panel Calibration
GLOBAL: Controllers
Keyboard Settings
Balance Control
Hand Contr.
Foot Contr.

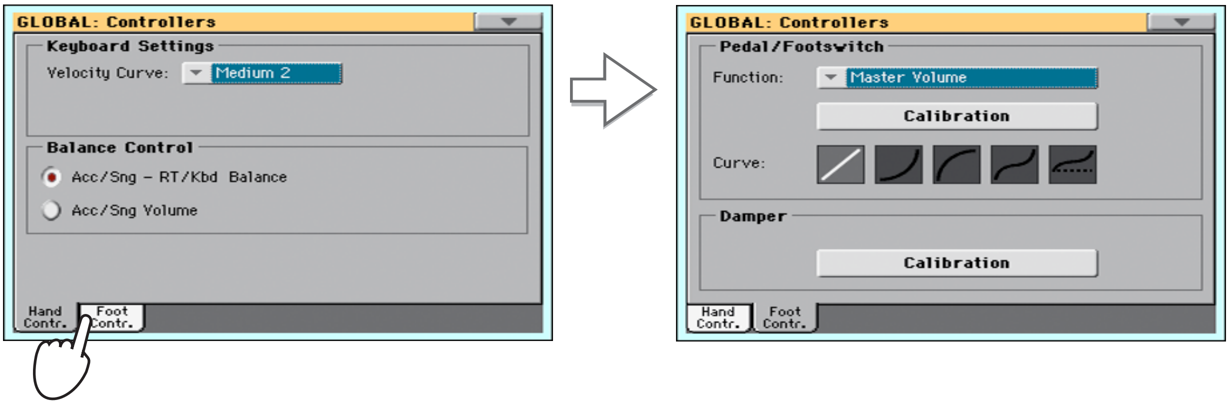
Velocity Curve: Medium 2

● Acc/Sng - RT/Kbd Balance

○ Acc/Sng Volume

4 **Touch the Foot Contr. tab to select the “Foot Controllers” page.**

This is the page where you can program the Assignable Pedal/Footswitch and the Damper pedals.


GLOBAL: Controllers
Keyboard Settings
Balance Control
Hand Contr.
Foot Contr.
GLOBAL: Controllers
Pedal/Footswitch
Calibration
Curve:
Damper
Calibration
Hand Contr.
Foot Contr.

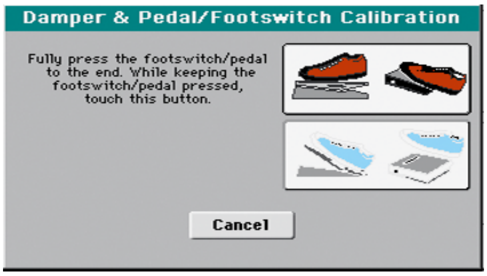
Velocity Curve: Medium 2

● Acc/Sng – RT/Kbd Balance

○ Acc/Sng Volume

Function: Master Volume

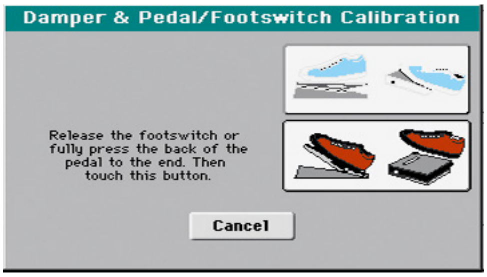
5 **Touch the “Calibration” button in the Damper section, to make the “Damper & Pedal/Footswitch Calibration” dialog box appear.**


Damper & Pedal/Footswitch Calibration
Cancel

Fully press the footswitch/pedal to the end. While keeping the footswitch/pedal pressed, touch this button.

6 **Fully press the Damper pedal down, and while continuing to press touch the “Push” button to confirm the maximum value.**

7 **When the following dialog box appears, release the pedal.**


Damper & Pedal/Footswitch Calibration
Cancel

Release the footswitch or fully press the back of the pedal to the end. Then touch this button.

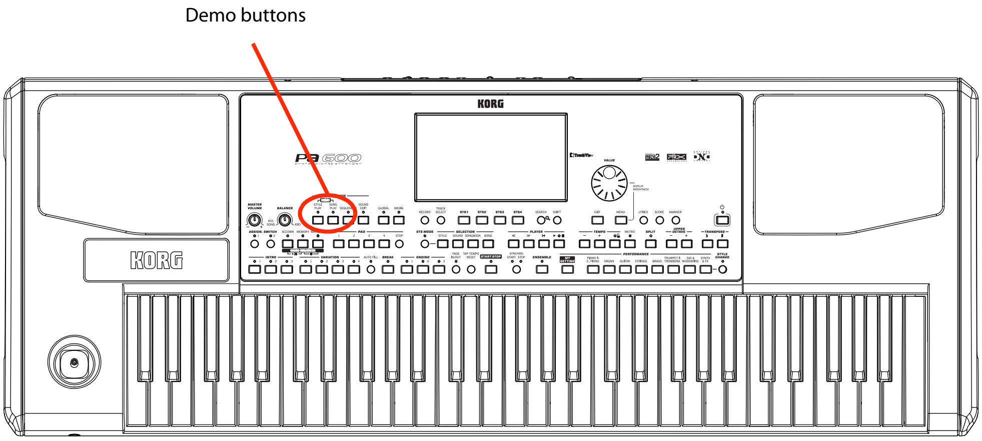
8 **Touch the “Push” button in the display to confirm the minimum value.**

Check if the pedal is working properly. In case it isn’t, repeat the procedure.

9 **Press the EXIT button to return to the previous operative mode.**

Playing the Demo

Listen to the built-in Demo Songs to appreciate the power of Pa600. There are several Demo Songs to choose from.

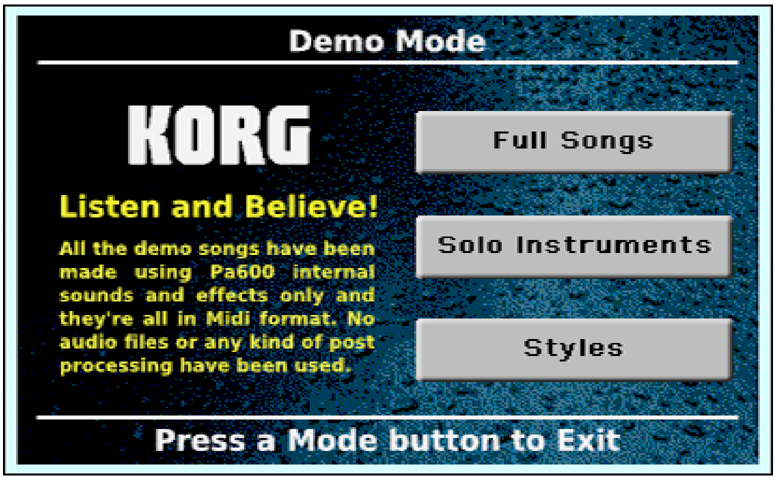


Starting and stopping the Demo

Here is how to start, choose and stop the Demo Songs.

1 Press the STYLE PLAY and SONG PLAY buttons together.

The LED of the two buttons will start blinking. Pa600 will be set in Demo mode.



Demo Mode

KORG

Listen and Believe!

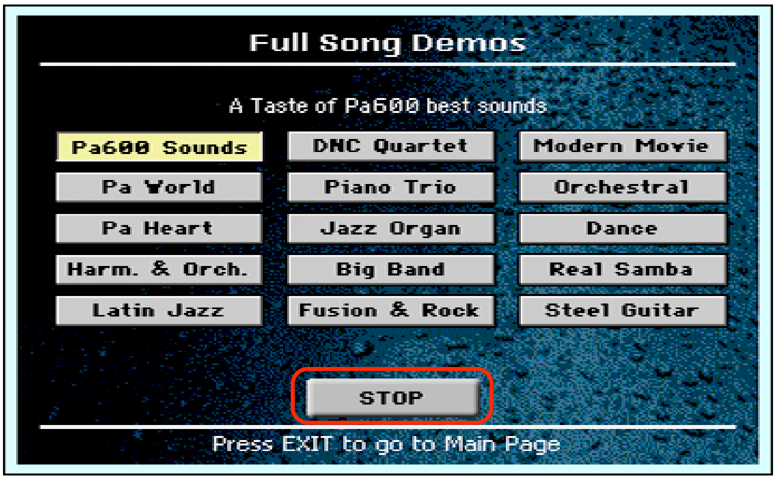
All the demo songs have been made using Pa600 internal sounds and effects only and they're all in Midi format. No audio files or any kind of post processing have been used.

Press a Mode button to Exit

At this point, if no other button is pressed, all the Demo Songs will be played back.

2 In case you want to listen to a specified Demo Song, select one of the available options on the display (Full Songs, Solo Instruments, Styles).

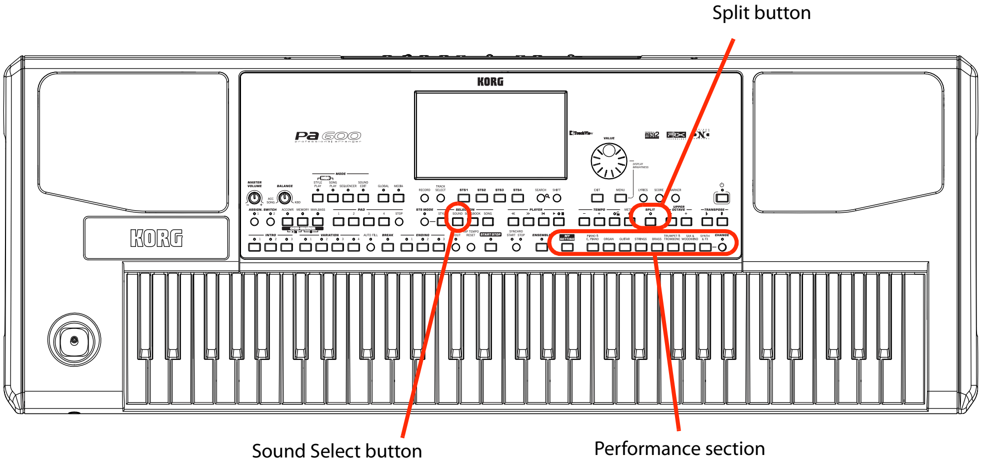
3 **Choose one of the Demo. To stop it, touch the STOP button on the display.**


Full Song Demos
A Taste of Pa600 best sounds
Pa600 Sounds
DNC Quartet
Modern Movie
Pa World
Piano Trio
Orchestral
Pa Heart
Jazz Organ
Dance
Harm. & Orch.
Big Band
Real Samba
Latin Jazz
Fusion & Rock
Steel Guitar
STOP
Press EXIT to go to Main Page

4 **Exit from the Demo mode by pressing any one of the MODE buttons.**

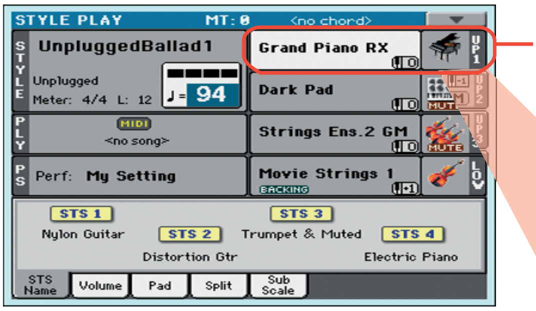
Playing Sounds

You can play up to three sounds at the same time on the keyboard. You can also split the keyboard in two parts, to play up to three sounds with your right hand (Upper) and one with your left hand (Lower).

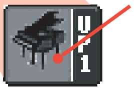


Selecting a Sound and playing it on the keyboard

1 **Be sure the Upper 1 track is selected and set to play.**


STYLE PLAY MT: 0 <no chord>
UnpluggedBallad1
Unplugged
Meter: 4/4 L: 12
♩= 94
MIDI
<no song>
Perf: My Setting
Grand Piano RX
Dark Pad
Strings Ens.2 GM
Movie Strings 1
BACKING
MUTE
MUTE
UP1
UP2
UP3
LOW
STS 1 Nylon Guitar
STS 2 Distortion Gtr
STS 3 Trumpet & Muted
STS 4 Electric Piano
STS Name | Volume | Pad | Split | Sub Scale

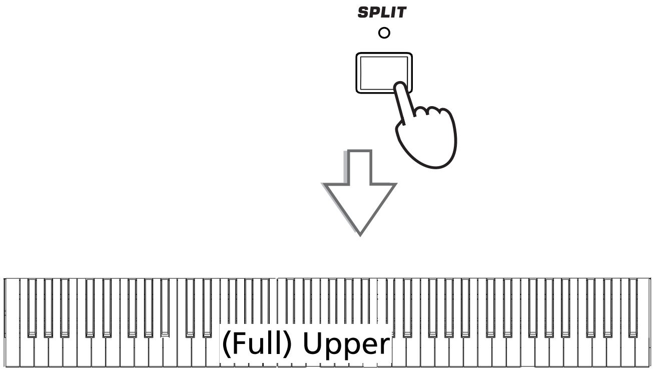
A selected track is shown with a white background. In this example, the Upper 1 track is selected. **If it is not selected, touch it once to select it.**



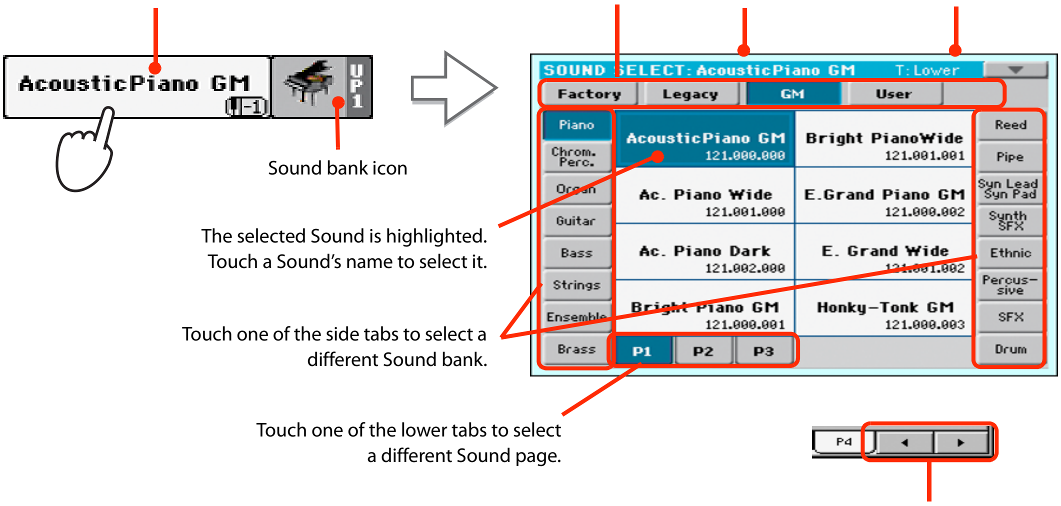
The fact that there isn't a MUTE icon over the bank icon means that the Upper 1 track is set to play. **If it is muted, touch the bank icon to set it to play.**

ⓘ ***Note:*** *Be sure tracks Upper 2 and Upper 3 are muted and are not playing. If you hear more than one sound, see also page 37 for how to mute tracks.*

2 **If you want to play the Sound on the whole keyboard, be sure the keyboard is in Full Upper mode (i.e., the SPLIT LED is turned off). If it is split in two parts, press the SPLIT button to turn its LED off.**



3 Touch the Upper 1 track’s area in the display to open the Sound Select window.


AcousticPiano GM
UP1
SOUND SELECT: AcousticPiano GM
T: Lower
Factory
Legacy
GM
User
Piano
Chrom. Perc.
Organ
Guitar
Bass
Strings
Ensemble
Brass
AcousticPiano GM 121.000.000
Bright PianoWide 121.001.001
Ac. Piano Wide 121.001.000
E.Grand Piano GM 121.000.002
Ac. Piano Dark 121.002.000
E. Grand Wide 121.001.002
Bright Piano GM 121.000.001
Honky-Tonk GM 121.000.003
Reed
Pipe
Syn Lead Syn Pad
Synth SFX
Ethnic
Percus-sive
SFX
Drum
P1
P2
P3
Pd

Sound’s name

Sound bank icon

Type of Sounds.

The currently selected Sound appears in the page header.

Target track for the selected Sound

The selected Sound is highlighted. Touch a Sound’s name to select it.

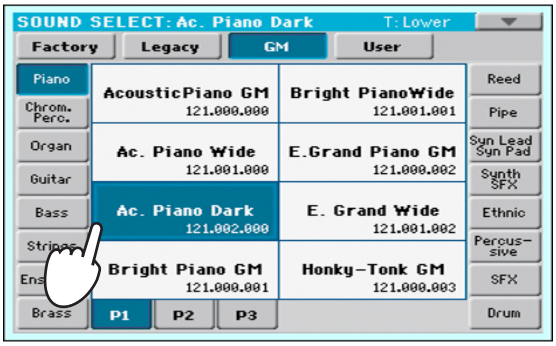
Touch one of the side tabs to select a different Sound bank.

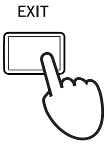
Touch one of the lower tabs to select a different Sound page.

A Previous and Next Page pair of button may appear in this area, when more than six pages are available. As an alternative, repeatedly press the SOUND button to cycle between the pages.

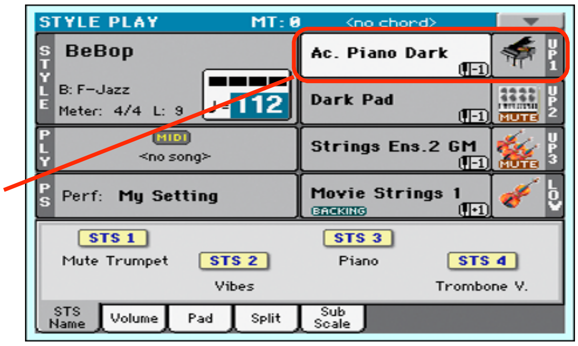
__Note:__ You can also open the Sound Select window by first touching the track to which to assign the new Sound, then pressing the SOUND button in the SELECTION section.

4 Select a Sound from the Sound Select window, then press the EXIT button to close the window.

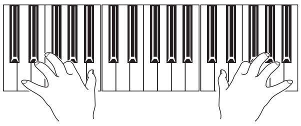

SOUND SELECT: Ac. Piano Dark
T: Lower
Factory
Legacy
GM
User
Piano
Chrom. Perc.
Organ
Guitar
Bass
Strings
Ens
Brass
AcousticPiano GM 121.000.000
Bright PianoWide 121.001.001
Ac. Piano Wide 121.001.000
E.Grand Piano GM 121.000.002
Ac. Piano Dark 121.002.000
E. Grand Wide 121.001.002
Bright Piano GM 121.000.001
Honky-Tonk GM 121.000.003
Reed
Pipe
Syn Lead Syn Pad
Synth SFX
Ethnic
Percus-sive
SFX
Drum
P1
P2
P3



The Sound Select window closes, and the main screen appears again, with the selected Sound assigned to the Upper 1 track.


STYLE PLAY
MT: 0
<no chord>
STYLE
BeBop
B: F-Jazz
Meter: 4/4 L: 9
♩=112
PLAY
MIDI
<no song>
PS
Perf: My Setting
Ac. Piano Dark
UP1
Dark Pad
UP2
MUTE
Strings Ens.2 GM
UP3
MUTE
Movie Strings 1
BACKING
LOW
STS 1
Mute Trumpet
STS 2
Vibes
STS 3
Piano
STS 4
Trombone V.
STS Name
Volume
Pad
Split
Sub Scale

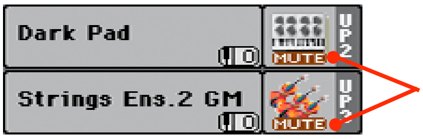
5 Play the Sound on the keyboard.



__Note:__ Selection windows may automatically close after a selection. To do this, uncheck the “Display Hold” box in the Global > General Controls > Interface page. In this case, press the EXIT button only if you don’t make any selection but want to close the window.

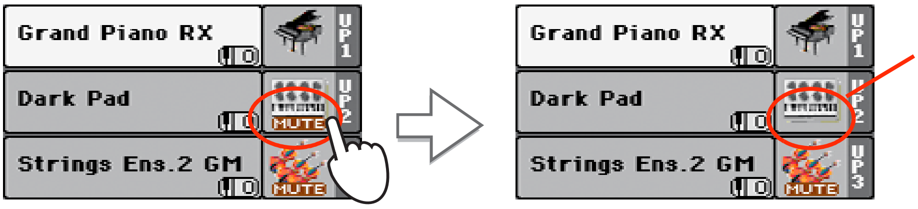
Playing two or three Sounds at the same time

You can layer all three Upper tracks and play them on the keyboard.


Dark Pad
MUTE
UP2
Strings Ens.2 GM
MUTE

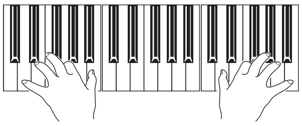
Please note how the MUTE icon appears in the Upper 2 and Upper 3 status boxes. These tracks will not be heard.

1 **Touch the MUTE icon in the Upper 2 status box, to set the Upper 2 track to play.**


Grand Piano RX
UP1
Dark Pad
MUTE
UP2
Strings Ens.2 GM
MUTE
Grand Piano RX
UP1
Dark Pad
UP2
Strings Ens.2 GM
MUTE
UP3

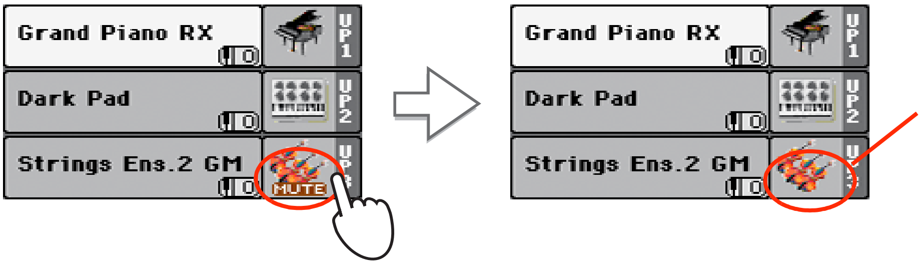
After touching in this area, the MUTE icon disappears. The Upper 2 track will be set to play and will be heard.

2 **Play the keyboard.**



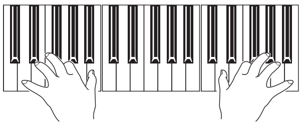
Note how the 'Dark Pad' Sound (assigned to the Upper 2 track) has been layered with the 'Grand Piano RX' (assigned to the Upper 1 track).

3 **Touch the MUTE icon in the Upper 3 status box, to set the Upper 3 track to play.**


Grand Piano RX
UP1
Dark Pad
UP2
Strings Ens.2 GM
MUTE
Grand Piano RX
UP1
Dark Pad
UP2
Strings Ens.2 GM

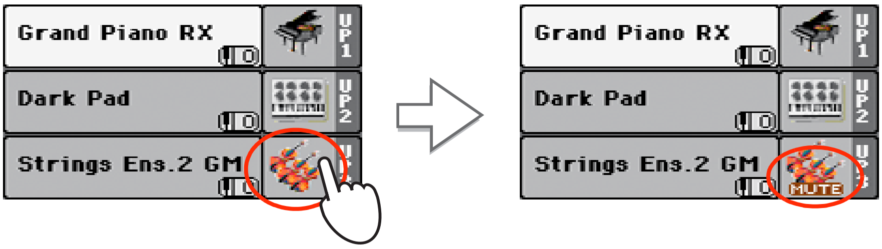
As above, after touching in this area, the MUTE icon disappears. The Upper 3 track will be set to play and will be heard.

4 **Play the keyboard.**

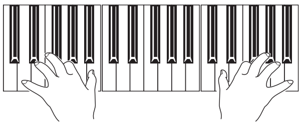


Note how the 'Strings Ens.2 GM' Sound (assigned to the Upper 3 track) has been added to the 'Dark Pad' (assigned to the Upper 2 track) and the 'Grand Piano RX' (assigned to the Upper 1 track).

5 **Touch the bank icon in the Upper 3 status box, to mute the Upper 3 track again.**

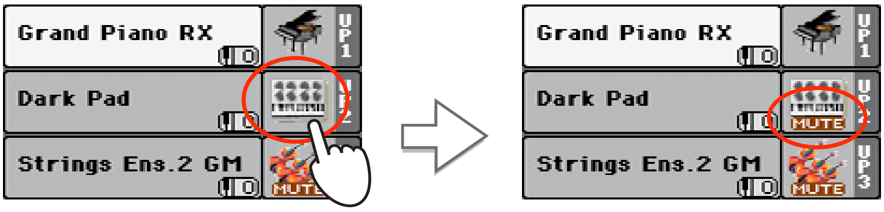

Grand Piano RX
UP1
Dark Pad
UP2
Strings Ens.2 GM
Grand Piano RX
UP1
Dark Pad
UP2
Strings Ens.2 GM
MUTE

6 **Play the keyboard.**



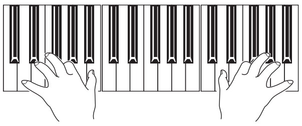
Note how the 'Strings Ens.2 GM' Sound (assigned to the Upper 3 track) has been muted again. Only tracks Upper 1 and Upper 2 can be heard at this time.

7 **Touch the bank icon in the Upper 2 status box, to mute the Upper 2 track again.**



Grand Piano RX
UP1
Dark Pad
UP2
Strings Ens.2 GM
MUTE
UP3
Grand Piano RX
UP1
Dark Pad
MUTE
UP2
Strings Ens.2 GM
MUTE
UP3

8 **Play the keyboard.**

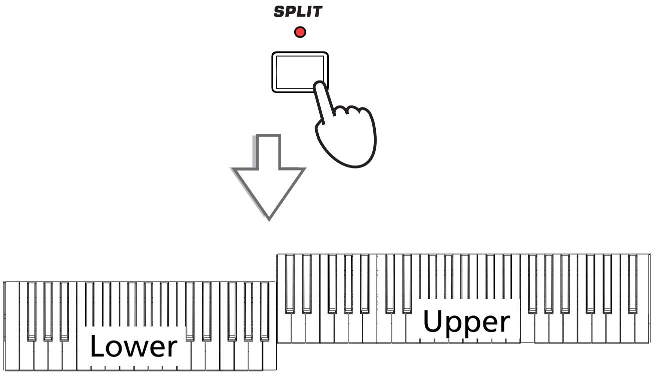


Note how the 'Dark Pad' Sound (assigned to the Upper 2 track) has been muted again. Only track Upper 1 can be heard at this time.

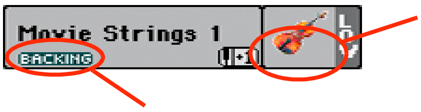
Playing different Sounds with your left and right hand

You can play a single Sound with your left hand, in addition to playing up to three Sounds with your right hand.

1 **Press the SPLIT button to turn its LED on, and split the keyboard in the Lower (left hand) and Upper (right hand) parts.**


SPLIT
Lower
Upper

2 **Be sure the Lower track is set to play.**

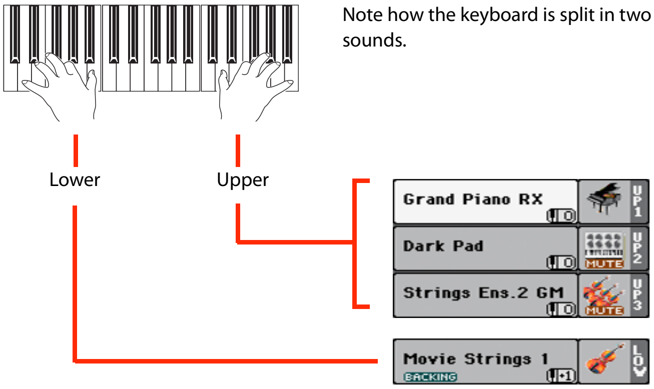

Movie Strings 1
BACKING
LOW

If the Lower track is muted, touch its MUTE icon to make it disappear from this area.

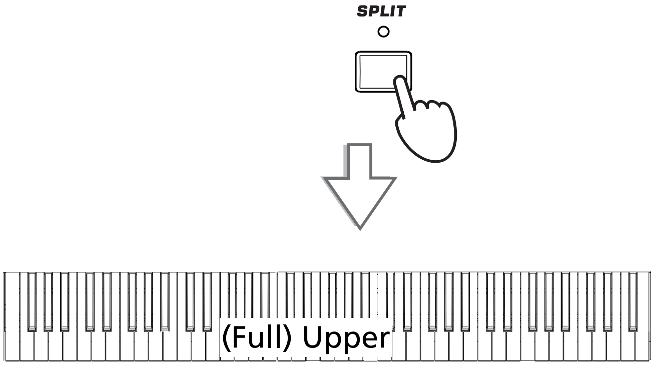
If the Bass & Lower Backing function is turned on, and the Style is not running, the Lower track will always play.

3 **Play the keyboard.**

Note how the keyboard is split in two parts, each playing different sounds.

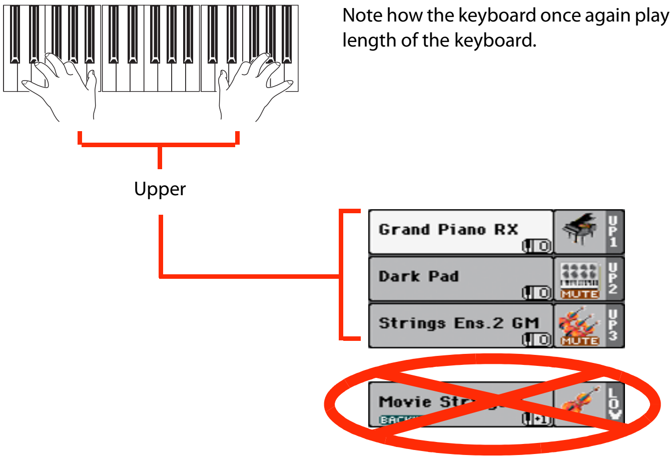

Lower
Upper
Grand Piano RX
UP1
Dark Pad
MUTE
UP2
Strings Ens.2 GM
MUTE
UP3
Movie Strings 1
BACKING
LOW

4 **Return to the full keyboard playing mode by pressing the SPLIT button to turn its LED off.**


SPLIT
(Full) Upper

5 **Play the keyboard.**

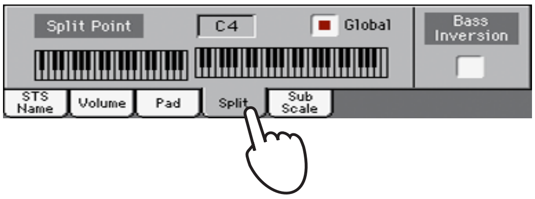
Note how the keyboard once again plays the Upper tracks over the entire length of the keyboard.


Upper
Grand Piano RX
UP1
Dark Pad
MUTE
UP2
Strings Ens.2 GM
MUTE
UP3
Movie Str
LOW

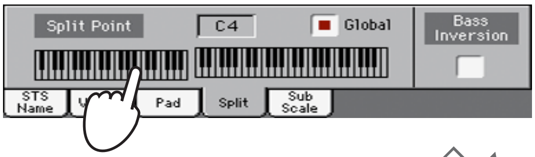
Changing the split point

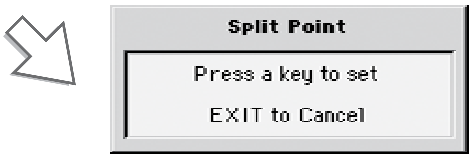
If you are not comfortable with the selected split point, you may set the split point to a different key.

1 Touch the Split tab to see the Split Point panel.


Split Point
C4
Global
Bass Inversion
STS Name
Volume
Pad
Split
Sub Scale

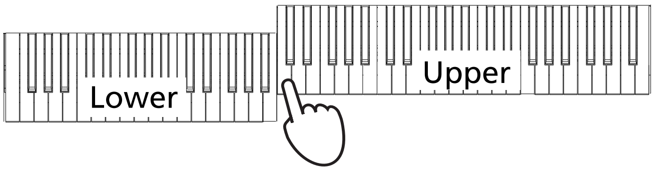
2 Touch the keyboard in the display, then play the lowest note of the Upper section on the keyboard.


Split Point
C4
Global
Bass Inversion
STS Name
Pad
Split
Sub Scale


Split Point

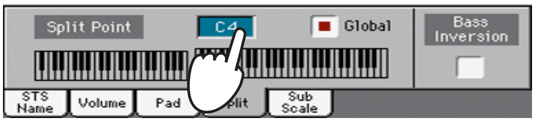
Press a key to set

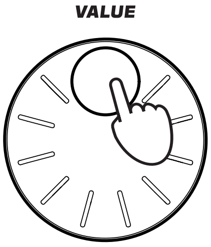
EXIT to Cancel


Lower
Upper

Hint: *As an alternative, keep the SPLIT button pressed to open the Split Point dialog.*

3 As an alternative, touch the Split Point parameter to select it, and use the VALUE dial to select the new split point.


Split Point
C4
Global
Bass Inversion
STS Name
Volume
Pad
plit
Sub Scale



When you change the split point, the "Global" parameter is automatically unchecked. This is because you are setting a "local" or "temporary" split point, and not the "global" one, used across the whole instrument.

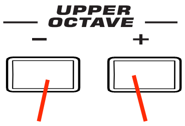
To change the "global" split point, go to the Global > Mode Preferences > Style page, and set the "Split Point" parameter.

You can save the "local" split point into a Performance, as described in the following pages (see "Saving your settings to a Performance" on page 44).

Raising or lowering the Upper octave

If all Upper tracks sound too high or too low, you can quickly change which octave they are playing in.

1 **Use the UPPER OCTAVE buttons on the control panel, to transpose all Upper tracks at the same time.**

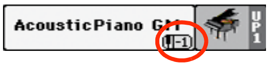


Each time you press this button, the pitch will be lowered by one octave.

Each time you press this button, the pitch will be raised by one octave.

2 **Press both UPPER OCTAVE buttons together to reset the octave to the value saved in the current Performance.**

Note: *The Octave Transpose value for each of the keyboard track is shown under the Sound's name.*



Selecting and saving Performances

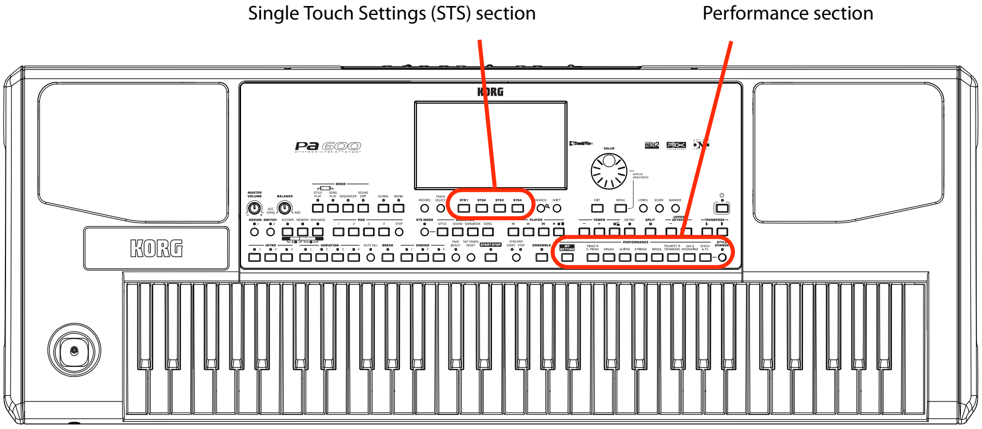
Performances are the musical heart of Pa600. Unlike selecting single Sounds, selecting a Performance will recall several Sounds at the same time, the needed effects and transpositions, plus many more parameters useful for playing in a musical situation (like the Assignable Switches). Performance can be considered a snapshot of the current situation.

You can save these settings to a Performance memory location. While many Performances are already supplied with the instrument, you can customize each of them to your own taste, and then save them in their customized version.

Similar to Performances, but dedicated to the Styles and SongBook Entries, you can also save your settings to a **Single Touch Setting (STS),** which will store all the settings for the Keyboard tracks. Four STSs are supplied with each Style and SongBook Entry, and can be selected with the four dedicated buttons under the display.

__Note:__ Style tracks are saved to a third object called the __Style Settings__.

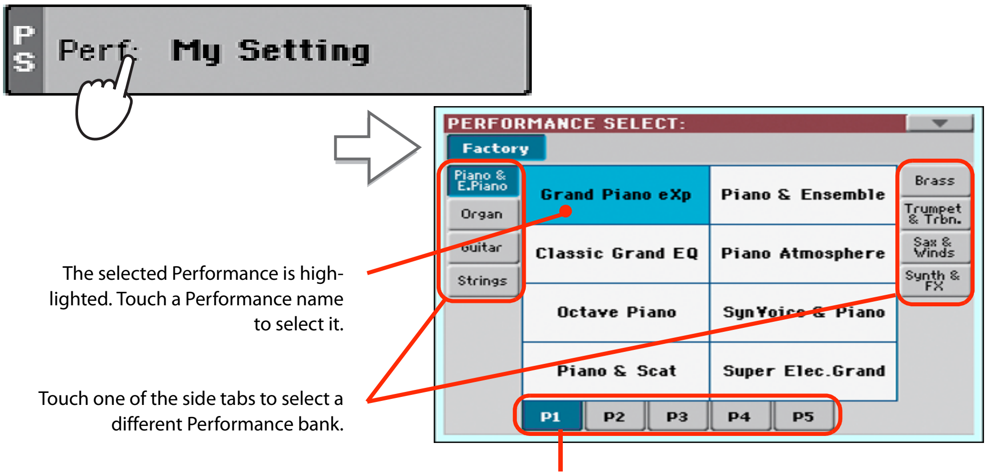
Please note that **settings saved in the "My Setting" Performance are automatically selected when the instrument is turned on (exit from standby).** This means you can save your preferred startup settings to this Performance (see below for more information).


Single Touch Settings (STS) section
Performance section
KORG
Pa600
KORG

Selecting a Performance

1 Touch the Performance area in the display, to open the Performance Select window.

__Hint:__ You can also open the Performance Select window by pressing one of the buttons in the PERFORMANCE section. This will let you jump directly to the desired Performance bank.

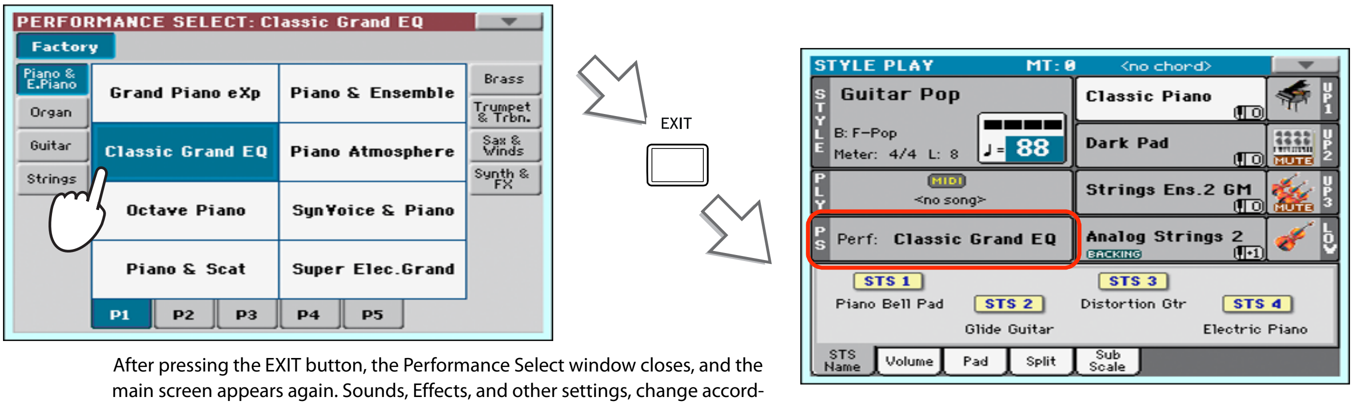

P
S
Perf: My Setting
PERFORMANCE SELECT:
Factory
Piano & E.Piano
Organ
Guitar
Strings
Grand Piano eXp
Piano & Ensemble
Classic Grand EQ
Piano Atmosphere
Octave Piano
SynVoice & Piano
Piano & Scat
Super Elec.Grand
Brass
Trumpet & Trbn.
Sax & Winds
Synth & FX
P1
P2
P3
P4
P5

The selected Performance is highlighted. Touch a Performance name to select it.

Touch one of the side tabs to select a different Performance bank.

Touch one of the lower tabs to select a different Performance page.

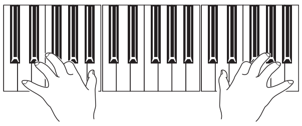
2 **Select one of the Performances in the Performance Select window, then press the EXIT button to close the window.**


PERFORMANCE SELECT: Classic Grand EQ
Factory
Piano & E.Piano
Organ
Guitar
Strings
Grand Piano eXp
Piano & Ensemble
Classic Grand EQ
Piano Atmosphere
Octave Piano
SynVoice & Piano
Piano & Scat
Super Elec.Grand
Brass
Trumpet & Trbn.
Sax & Winds
Synth & FX
P1
P2
P3
P4
P5
EXIT
STYLE PLAY
MT: 0
<no chord>
Guitar Pop
B: F-Pop
Meter: 4/4 L: 8
♩= 88
MIDI
<no song>
Perf: Classic Grand EQ
Classic Piano
Dark Pad
MUTE
Strings Ens.2 GM
MUTE
Analog Strings 2
BACKING
UP 1
UP 2
UP 3
LOW
STS 1
Piano Bell Pad
STS 2
Glide Guitar
STS 3
Distortion Gtr
STS 4
Electric Piano
STS Name
Volume
Pad
Split
Sub Scale

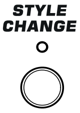
After pressing the EXIT button, the Performance Select window closes, and the main screen appears again. Sounds, Effects, and other settings, change according to the setting memorized in the selected Performance.

Note that Selection windows may automatically close after a selection. To do this, uncheck the “Display Hold” box in the Global > General Controls > Interface page. In this case, press the EXIT button only if you don’t make any selection but want to close the window.

3 **Play the keyboard.**



Settings memorized in the selected Performance have been selected. Sounds, effects and other settings have been recalled.


STYLE CHANGE

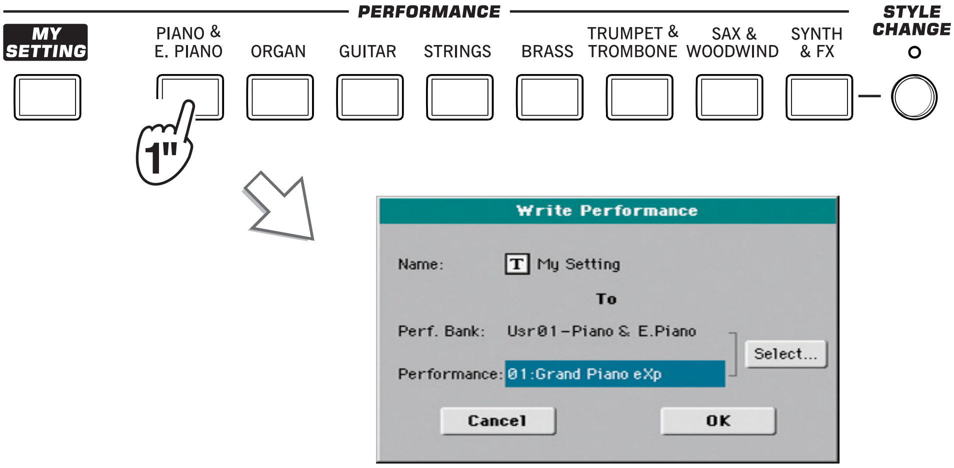
Note: If the LED of the STYLE CHANGE button is turned on, selecting a Performance may automatically select a different Style and its settings (Sounds, Effects for the Style tracks…)

Saving your settings to a Performance

The Sounds and Effects assigned to the Keyboard tracks, together with the parameters you can access by pressing the MENU button while in Style Play and Song Play mode, can be saved into a single Performance, to be quickly recalled at a later time.

Hint: To open the Write Performance dialog box, you can also choose the ‘Write Performance’ command from the page menu.

1 **Keep one of the PERFORMANCE buttons pressed for about one second to open the Write Performance dialog box.**


PERFORMANCE
MY SETTING
PIANO & E. PIANO
ORGAN
GUITAR
STRINGS
BRASS
TRUMPET & TROMBONE
SAX & WOODWIND
SYNTH & FX
STYLE CHANGE
1"
Write Performance
Select...
Cancel
OK

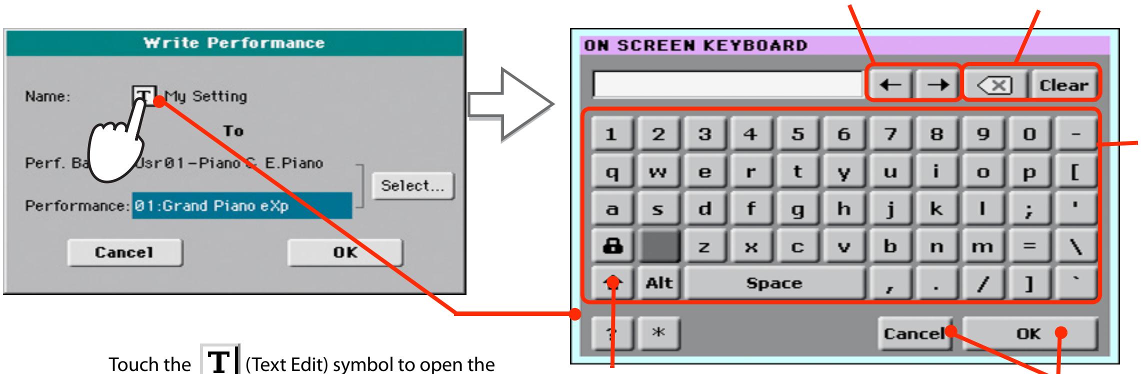
Name: My Setting

To

Perf. Bank: Usr01-Piano & E.Piano

Performance: 01:Grand Piano eXp

2 If you like, you may assign a new name to the Performance.


Write Performance
Select...
Cancel
OK
ON SCREEN KEYBOARD
←
→
⌫
Clear
1 2 3 4 5 6 7 8 9 0 -
q w e r t y u i o p [
a s d f g h j k l ; '
z x c v b n m = \
Alt
Space
, . /] `
?
*
Cancel
OK

Name: My Setting

To

Perf. Bank: Usr01-Piano & E.Piano

Performance: 01:Grand Piano eXp

Use the '<–' and '–>' buttons or the DIAL to move the cursor.

Touch the 'Backspace' symbol to delete just a single character, 'Clear' to delete the whole string.

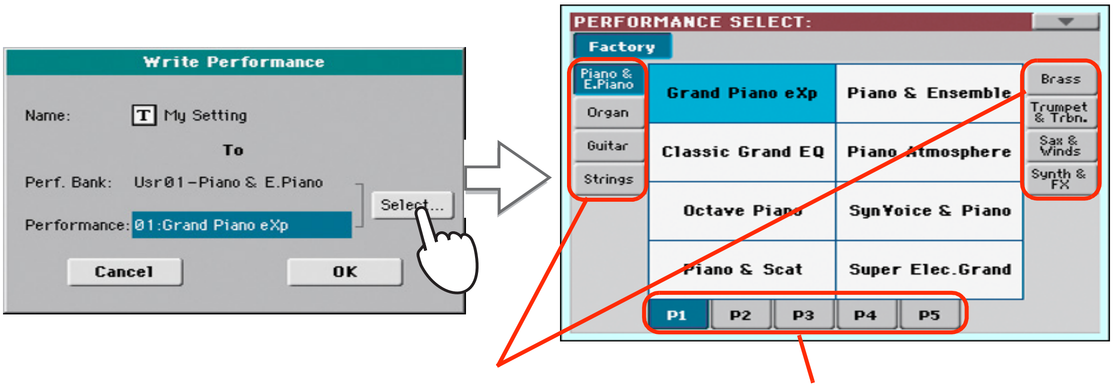
Use the alphabetic characters to enter text.

Touch the **T** (Text Edit) symbol to open the Text Edit dialog box.

Touch the Shift key to switch between capitals and small characters.

When done, touch OK to confirm the new name, or Cancel to abandon all changes.

3 Select a bank and Performance location in memory, where you would like to save the Performance.


Write Performance
Select...
Cancel
OK
PERFORMANCE SELECT:
Factory
Piano & E.Piano
Organ
Guitar
Strings
Grand Piano eXp
Piano & Ensemble
Classic Grand EQ
Piano Atmosphere
Octave Piano
SynVoice & Piano
Piano & Scat
Super Elec.Grand
Brass
Trumpet & Trbn.
Sax & Winds
Synth & FX
P1
P2
P3
P4
P5

Name: My Setting

To

Perf. Bank: Usr01-Piano & E.Piano

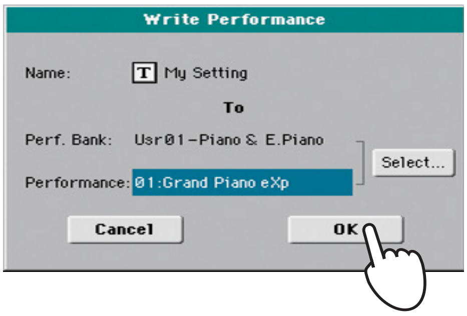
Performance: 01:Grand Piano eXp

The selected Performance location is highlighted. Touch a Performance's name to select it.

Touch one of the side tabs to select a different Performance bank.

Touch one of the lower tabs to select a different Performance page.

4 When you have edited the name to the Performance, and selected the target location, touch OK to save the Performance to memory (or Cancel to stop the operation).


Write Performance
Select...
Cancel
OK

Name: My Setting

To

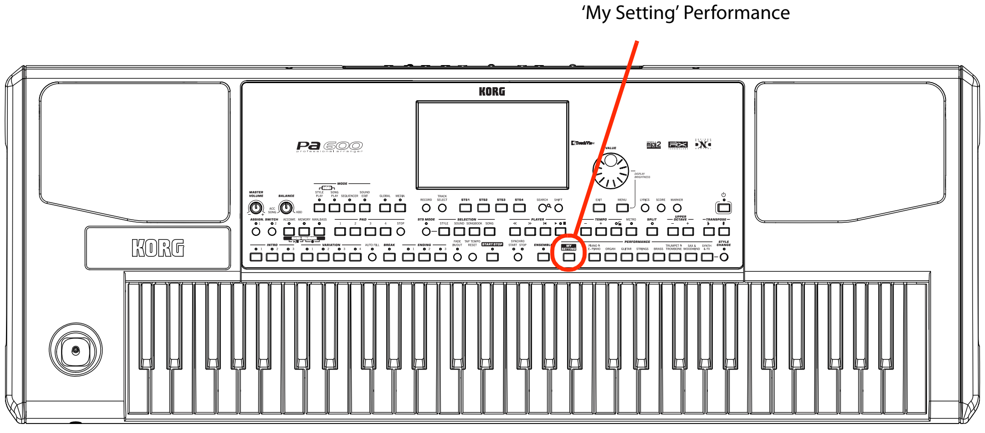
Perf. Bank: Usr01-Piano & E.Piano

Performance: 01:Grand Piano eXp

⚠ ***Warning:*** *Saving a Performance to an already used location overwrites any existing data at that location. The old data are lost. Make a backup of all your important data.*

Selecting and saving the “My Setting” Performance

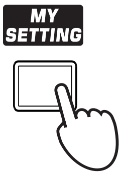
There is a special Performance, where you can save your preferred startup settings for things like Keyboard Sounds, Effects, Transposition, Assignable Switches. This Performance is **automatically selected when the instrument is turned on (exit from standby).** It is called the “My Setting” Performance.



Selecting the startup parameters (the "My Setting" Performance)

After having done some changes to the Sounds, transposition, or other parameters, you can return to the startup situation by pressing the MY SETTING button in the control panel.

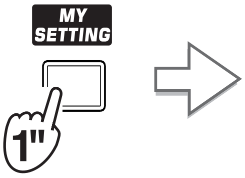
- **Press the MY SETTING button to recall the “startup” settings.**

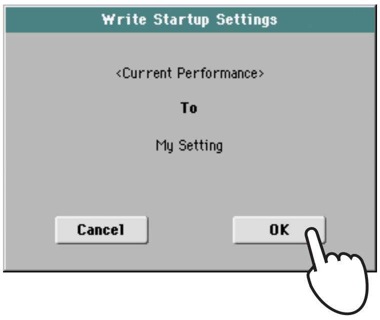


Saving the startup parameters into the "My Setting" Performance

You can save the startup settings (Sounds and other settings, including most of the settings on the control panel) into this special Performance.

- **Keep the MY SETTING button pressed for about one second, until the “Write Startup Settings” dialog box appears, then touch the OK button to confirm saving to memory.**




Write Startup Settings

<Current Performance>

To

My Setting

Selecting and playing Styles

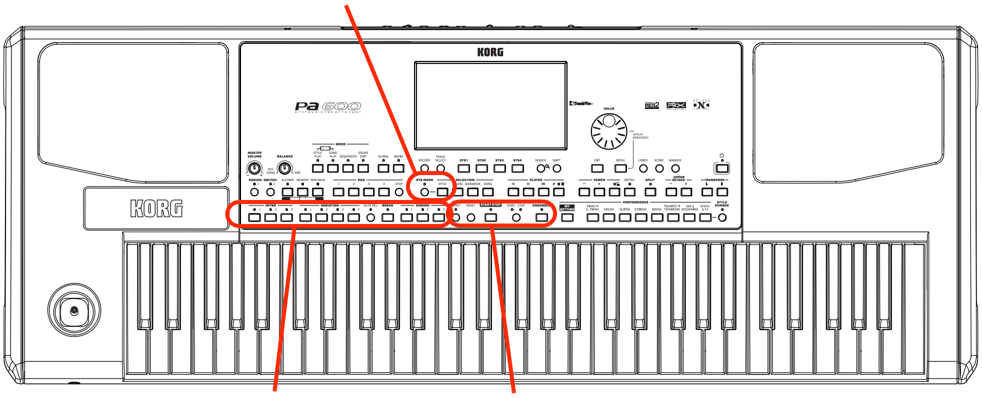
Pa600 is an *arranger*, i.e. a musical instrument providing automatic accompaniments, or *arrangements*. Each arrangement style is called, as a consequence, a *Style*.

A Style is made of several Style Elements (Intro, Variation, Fill, Break, Ending), corresponding to the various sections of a song. By selecting Style Elements, you can make your playing more varied and musical.

When selecting a Style, Sounds, Effects and various configuration parameters for the Style tracks are also selected. These are called the Style Settings. Selecting a Style also selects the four Pads it contains. Pads are single sounds or single-track patterns, that can be triggered with the dedicated PAD buttons.

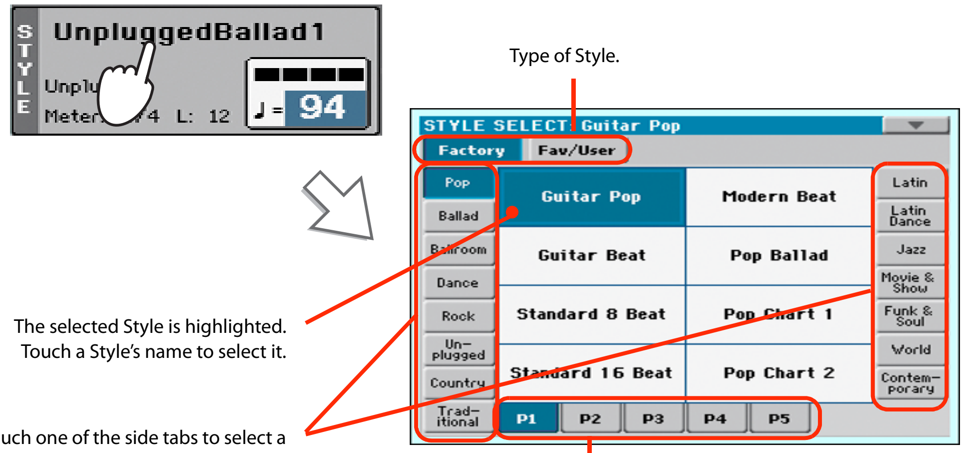
If the STS MODE LED is turned on, the first of the four Single Touch Settings (STS) associated to the Style is also selected, and Keyboard tracks, Effects and some other useful parameters are automatically configured.

Use the Style controls to start or stop the Style.


Style Select and STS Mode buttons
KORG
Pa600
Style Elements
Style Controls

Selecting and playing a Style

1 Touch the Style area in the display. The Style Select window appears.


STYLE
UnpluggedBallad1
Unplu
Meter 4/4 L: 12
♩= 94
STYLE SELECT: Guitar Pop
Factory
Fav/User
Pop
Ballad
Ballroom
Dance
Rock
Un-plugged
Country
Trad-itional
Guitar Pop
Modern Beat
Guitar Beat
Pop Ballad
Standard 8 Beat
Pop Chart 1
Standard 16 Beat
Pop Chart 2
Latin
Latin Dance
Jazz
Movie & Show
Funk & Soul
World
Contem-porary
P1
P2
P3
P4
P5

Type of Style.

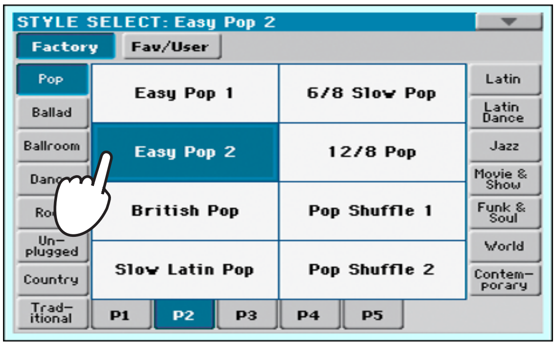
The selected Style is highlighted. Touch a Style's name to select it.

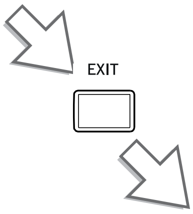
Touch one of the side tabs to select a different Style bank.

Touch one of the lower tabs to select a different Style page.

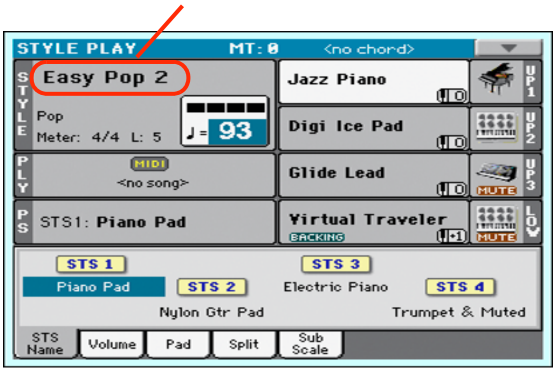
***Hint:** You can also open the Style Select window by pressing the STYLE button in the SELECTION section of the control panel.*

2 Select a Style from the Style Select window.

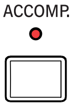

STYLE SELECT: Easy Pop 2
Factory
Fav/User
Pop
Ballad
Ballroom
Dance
Rock
Un-plugged
Country
Trad-itional
Easy Pop 1
6/8 Slow Pop
Easy Pop 2
12/8 Pop
British Pop
Pop Shuffle 1
Slow Latin Pop
Pop Shuffle 2
Latin
Latin Dance
Jazz
Movie & Show
Funk & Soul
World
Contem-porary
P1
P2
P3
P4
P5



After pressing the EXIT button, the Style Select window closes, and the main screen appears again, with the selected Style ready to go.


STYLE PLAY
MT: 0
<no chord>
STYLE
Easy Pop 2
Pop
Meter: 4/4 L: 5
♩= 93
Jazz Piano
UP1
Digi Ice Pad
UP2
Glide Lead
UP3
MUTE
Virtual Traveler
BACKING
MUTE
LOW
PLAY
MIDI
<no song>
PS
STS1: Piano Pad
STS 1
Piano Pad
STS 2
Nylon Gtr Pad
STS 3
Electric Piano
STS 4
Trumpet & Muted
STS Name
Volume
Pad
Split
Sub Scale

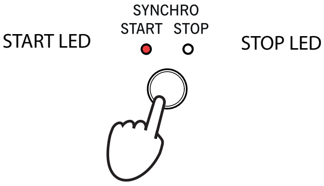
3 Be sure the ACCOMP. LED is turned on.



For the accompaniment tracks to play, the LED of this button (meaning "Accompaniment") must be turned on.

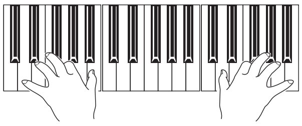
4 Press the SYNCHRO-START/STOP button to turn the START LED on.

This will turn the Synchro-Start function on, and let the accompaniment start as soon as you play a chord on the keyboard.


START LED
SYNCHRO
START
STOP
STOP LED

i ***Note:*** *You could simply press START/STOP to start the Style, but the Synchro-Start function allows you to make the Style start in sync with your playing on the keyboard. Therefore, it may be considered a "more musical" way of starting a Style.*

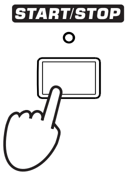
5 Play the keyboard.



When the Syncho-Start function is turned on, the Style starts playing as soon as you play a note or chord in the chord scan area. Play chords with your left hand, and the melody with your right hand. The arranger will follow your playing.

i ***Note:*** *The chord scan area depends on the status of the SPLIT LED and the Chord Recognition parameter (see Global > Mode Preferences > Style).*

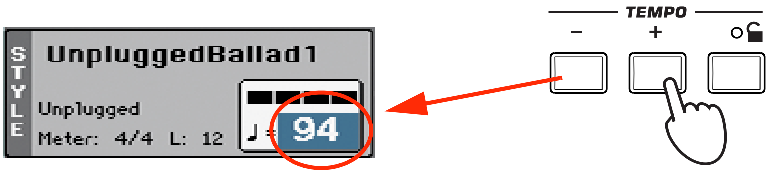
6 Press START/STOP to stop the Style.



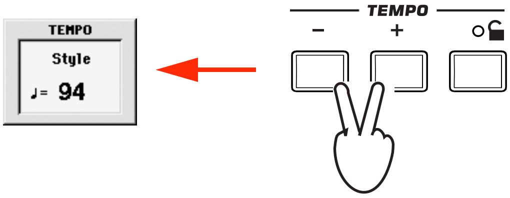
Tempo

While a Tempo setting is saved with each Style or Performance, you can change it to be whatever you like. You can use either of the following two methods.

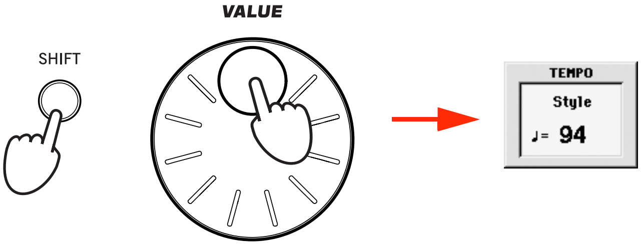
- **Use the TEMPO + or – buttons to change the Tempo value.**


STYLE
UnpluggedBallad1
Unplugged
Meter: 4/4 L: 12
♩= 94
TEMPO
–
+

- **Press the TEMPO – and + buttons together to recall the saved Tempo value.**

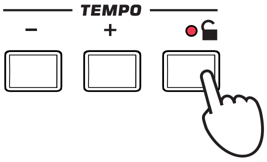

TEMPO
Style
♩= 94
TEMPO
–
+

- **As an alternative, keep the SHIFT button pressed, and use the VALUE dial to change the Tempo. The selected tempo will be shown in a small window.**


VALUE
SHIFT
TEMPO
Style
♩= 94

- **If you like to keep the currently selected Tempo value unchanged, turn on the LED of the TEMPO 🔒 (LOCK) button.**

  When the Tempo Lock function is turned on, the Tempo will not change when selecting a different Style (or a different Song in Song Play mode).

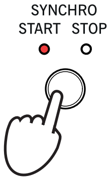


Hint: *As an alternative to using the TEMPO buttons, hold the Tempo value in the display, then move your finger up/down or left/right (or change the value with the VALUE dial).*

Intro, Variation, Fill, Break, Ending

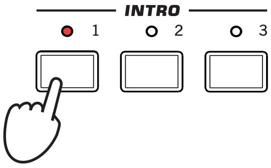
When playing Styles, you can select various “Style Elements” to cover the various sections of a song. A Style is made of three Intros (or two Intros and a Count-In), up to four basic patterns (Variations), four Fills, a Break, and three Endings.

1 **Make sure the SYNCHRO-START LED is turned on (otherwise, press the button to turn it on).**

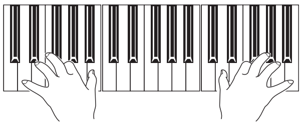


Activating the Synchro Start function is not mandatory, but it might be handy.

2 **Press one of the INTRO buttons to set the corresponding Intro to play.**



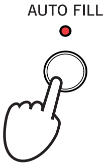
3 **Play the keyboard.**



The Style starts with the selected Intro. When the Intro is completed, the basic pattern (selected Variation) starts to play.

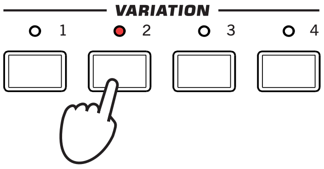
4 **Be sure the LED of the AUTO FILL button is turned on.**

When the Auto Fill function is turned on, a Fill is automatically performed before switching to a different variation.



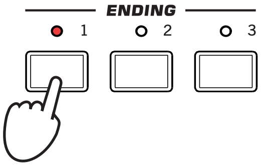
5 **While playing, press one of the VARIATION buttons, to select a different variation of the basic pattern.**

If you turned the Auto Fill function on in the previous step, a Fill will be performed before the Variation begins.



When the Fill ends, the selected Variation will start playing.

6 **When you like to stop playing, press one of the ENDING buttons to stop the Style with an Ending.**



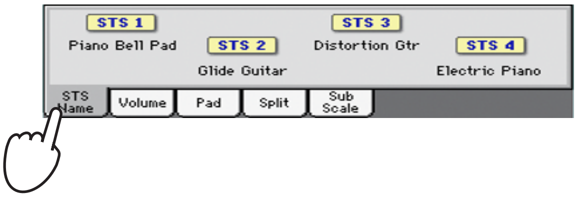
When the Ending is finished, the Style automatically stops.

Single Touch Settings (STS)

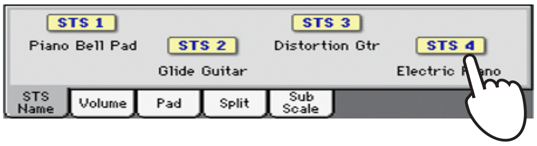
Each Style or SongBook Entry may come with up to four Keyboard track settings, called the **STS** (short for “Single Touch Settings”). STSs are very similar to Performances, but they are fine-tuned to the Style or SongBook Entry they are associated to.

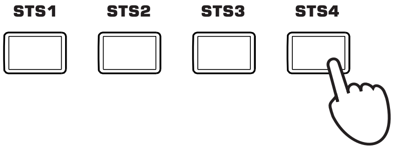
If the STS MODE LED is turned on, STS #1 is automatically selected when choosing a Style. STS #1 is also recalled each time a SongBook Entry is selected.

1 **In case it is not shown, touch the STS Name tab to see the STS Name panel.**

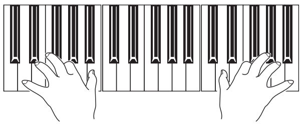

STS 1
Piano Bell Pad
STS 2
Glide Guitar
STS 3
Distortion Gtr
STS 4
Electric Piano
STS Name
Volume
Pad
Split
Sub Scale

2 **Press one of the four STS buttons under the display, or touch the name of an STS in the STS panel in the display.**


STS 1
Piano Bell Pad
STS 2
Glide Guitar
STS 3
Distortion Gtr
STS 4
Electric Piano
STS Name
Volume
Pad
Split
Sub Scale


STS1
STS2
STS3
STS4

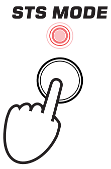
3 **Play the keyboard.**



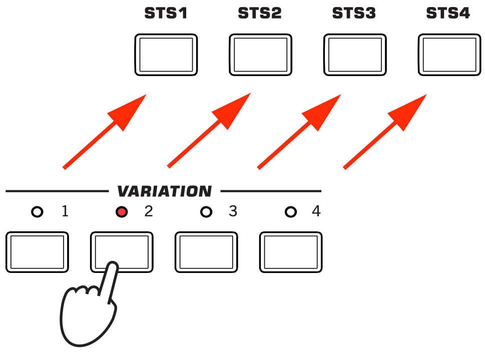
Settings memorized in the selected STS have been selected. Sounds, effects and other settings have been recalled.

4 **Try all the other STSs, and see how settings change with each of them.**

5 **You can also link the STSs to the Variations. First of all press the STS MODE button, to make its LED flash.**



6 **Then press the various VARIATION buttons, and see how an STS is automatically selected when the corresponding Variation is selected.**

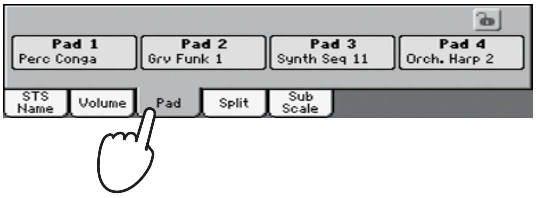


7 **Press the STS MODE again to turn its LED on (or off).**

The Pads

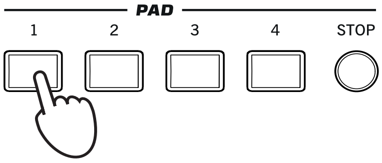
Each Style or SongBook Entry can assign different sounds or patterns to the four PADS. These sounds or patterns can be played along with the Keyboard and Style tracks.

1 **If you want to see which sounds or patterns are associated to the four Pads for the current Style, touch the Pad tab to see the Pad panel.**



Pad 1 Perc Conga
Pad 2 Grv Funk 1
Pad 3 Synth Seq 11
Pad 4 Orch. Harp 2

2 **Press one of the four PADS to play the corresponding Pad.**



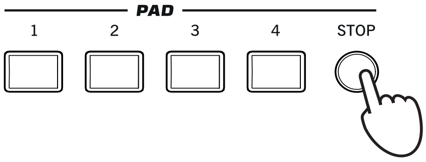
Hint: You can open the Pad Select window to assign a different sound or pattern to the Pads, by pressing SHIFT + one of the PADs.

3 **If the selected PAD triggers an endless pattern (i.e. a guitar arpeggio), press the same PAD button again to stop it.**

4 **Select a different Style, and see how the sounds or patterns assigned to the PADS change.**

5 **Press more PAD buttons at once, to play two or more sounds or patterns at the same time.**

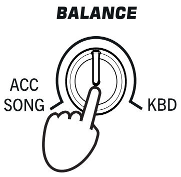
6 **Press STOP to stop all the Pads at the same time.**



Adjusting the balance between the Style and the keyboard

Balancing between the Keyboard and Style tracks may be useful, to gently fade them and adjust their respective volume.

- **While the Style is playing, use the BALANCE knob to balance between the Keyboard (KBD) and Style's Accompaniment (ACC) volume.**

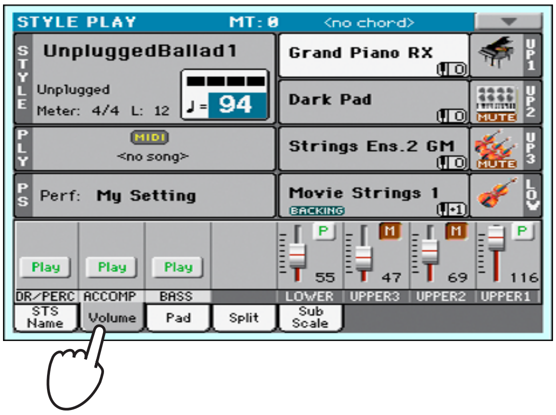

BALANCE
ACC
SONG
KBD

This knob also balances between the Keyboard and the Pad tracks. Also, it balances between the Keyboard and the Song tracks (in Song Play mode).

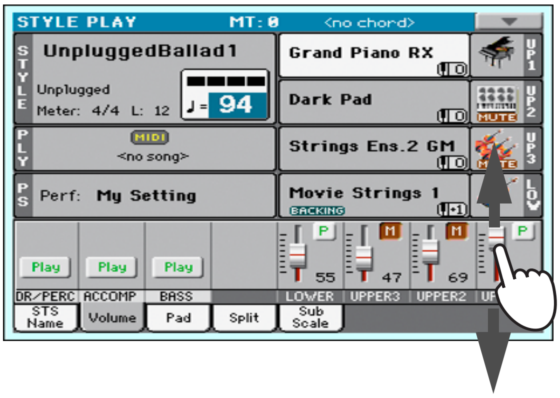
Adjusting the volume of the separate tracks

You can adjust the volume of each of the Style and Keyboard tracks, for example to soften the bass a little, or to make the keyboard solo louder.

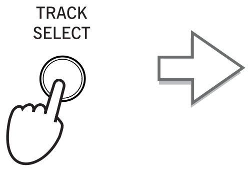
1 **Touch the Volume tab to see the Volume panel.**

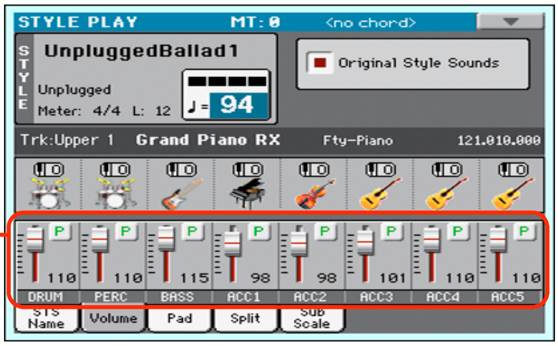

STYLE PLAY
MT: 0
<no chord>
STYLE
UnpluggedBallad1
Unplugged
Meter: 4/4 L: 12
♩= 94
PLY
MIDI
<no song>
PS
Perf: My Setting
Grand Piano RX
UP1
Dark Pad
MUTE
UP2
Strings Ens.2 GM
MUTE
UP3
Movie Strings 1
BACKING
LOW
Play
Play
Play
P
M
M
P
55
47
69
116
DR/PERC
ACCOMP
BASS
LOWER
UPPER3
UPPER2
UPPER1
STS Name
Volume
Pad
Split
Sub Scale

2 **Hold & drag the Virtual Sliders in the display to adjust each Keyboard track's volume.**


STYLE PLAY
MT: 0
<no chord>
STYLE
UnpluggedBallad1
Unplugged
Meter: 4/4 L: 12
♩= 94
PLY
MIDI
<no song>
PS
Perf: My Setting
Grand Piano RX
UP1
Dark Pad
MUTE
UP2
Strings Ens.2 GM
UP3
Movie Strings 1
BACKING
LOW
Play
Play
Play
P
M
M
P
55
47
69
DR/PERC
ACCOMP
BASS
LOWER
UPPER3
UPPER2
STS Name
Volume
Pad
Split
Sub Scale

3 To separately adjust each Style track, press the TRACK SELECT button to change the track's view.


TRACK
SELECT


STYLE PLAY
MT: 0
<no chord>
UnpluggedBallad1
Unplugged
Meter: 4/4 L: 12
94
Original Style Sounds
Trk:Upper 1 Grand Piano RX Fty-Piano 121.010.000
110
110
115
98
98
101
110
110
DRUM
PERC
BASS
ACC1
ACC2
ACC3
ACC4
ACC5
STS Name
Volume
Pad
Split
Sub Scale

In Style view, all separate Style tracks are shown, and their volume can be adjusted by dragging the corresponding sliders.

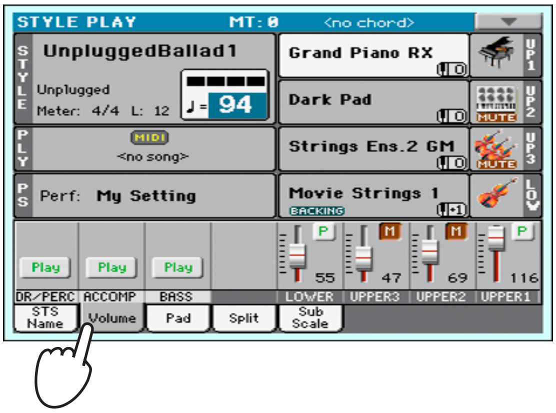
Hint: *As an alternative, you can change each track's volume, by touching a track's area to select it, then using the VALUE dial to change the volume.*

4 To return to the Keyboard Tracks view, press the TRACK SELECT button again.

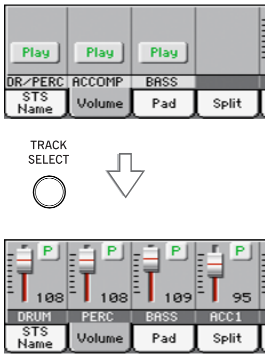
Turning the Style tracks on/off

You may easily turn on or off any Style track while you are playing. For example, try muting all accompaniment tracks, while drums and bass continue to play.

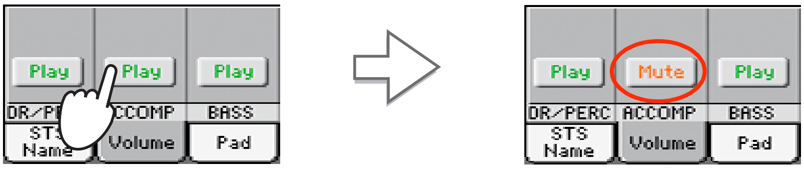
1 Be sure the Volume panel is shown, or touch the Volume tab to show it.


STYLE PLAY
MT: 0
<no chord>
UnpluggedBallad1
Unplugged
Meter: 4/4 L: 12
94
Grand Piano RX
Dark Pad
MUTE
Strings Ens.2 GM
Movie Strings 1
BACKING
MIDI
<no song>
Perf: My Setting
Play
Play
Play
55
47
69
116
DR/PERC
ACCOMP
BASS
LOWER
UPPER3
UPPER2
UPPER1
STS Name
Volume
Pad
Split
Sub Scale

Note: *While in the Normal view of the Style Play mode, you can see Style tracks grouped in just three "grouped" tracks. To see each Style track as separate, individual tracks, just press the TRACK SELECT button.*

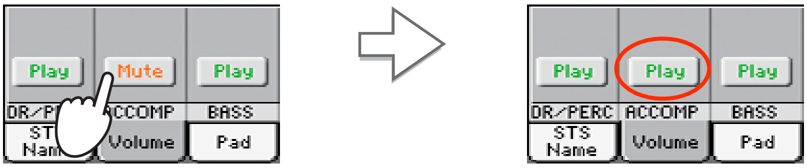

Play
Play
Play
DR/PERC
ACCOMP
BASS
STS Name
Volume
Pad
Split
TRACK
SELECT
108
108
109
95
DRUM
PERC
BASS
ACC1

2 While the Style is playing, touch the Play button to set the track to Mute.


Play
Play
Play
Mute
DR/PERC
ACCOMP
BASS
STS Name
Volume
Pad

Mute the ACCOMP track. All accompaniment tracks will go silent (apart from Drum, Percussion and Bass).

3 To set the tracks back to the Play status, touch the Mute icon on the muted track.


Play
Mute
Play
Play
DR/PERC
ACCOMP
BASS
STS Name
Volume
Pad

Set the ACCOMP track to Play. All accompaniment tracks will return to their original volumes.

Hint: *To turn all Accompaniment tracks (including the Bass track) off while you are not in the Main page, press the ACCOMP button on the control panel to turn its LED off.*

4 **To mute/unmute each single Style track, first press TRACK SELECT to switch to the Style Tracks view, then repeat the above procedure.**

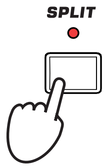
5 **Press the TRACK SELECT button again to go back to the Normal view.**

Adding harmony notes to your right-hand melody with the ENSEMBLE function

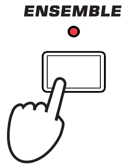
Chords played with your left hand may be applied to the right-hand melody.

1 **Press the SPLIT button to turn its LED on and split the keyboard.**

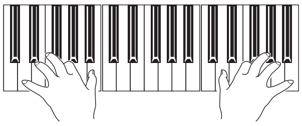
The Ensemble function only works in Split mode.



2 **Press the ENSEMBLE button to turn its LED on.**



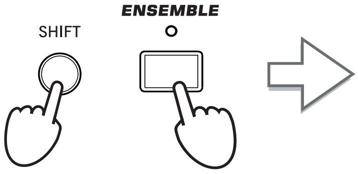
3 **Play chords with the left hand and single notes in the right hand.**

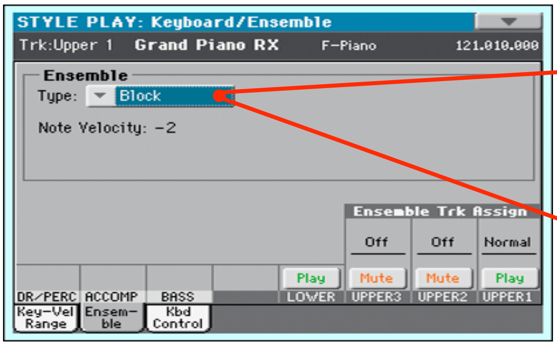


Notice how the right hand is automatically harmonized, according to the chords composed with your left hand.

4 **To select a different harmonization style, keep the SHIFT button pressed, and press the ENSEMBLE button to open the Ensemble page.**

This is a fast ‘shortcut’ to recall this page. The longer procedure would have consisted in accessing the Edit mode by pressing the MENU button, touching the Keyboard/Ensemble section, and then going to the Ensemble page.





STYLE PLAY: Keyboard/Ensemble

Trk:Upper 1 Grand Piano RX F-Piano 121.010.000

Ensemble

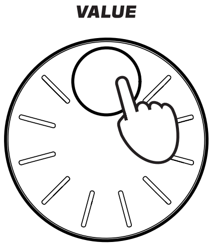
Type: Block

Note Velocity: -2

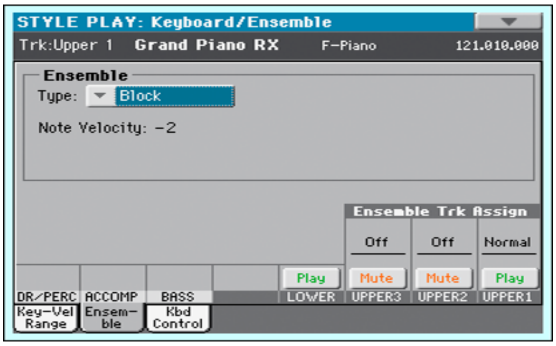
Ensemble Trk Assign

LOWER	UPPER3	UPPER2	UPPER1
	Off	Off	Normal
Play	Mute	Mute	Play

While the Ensemble parameter is selected, use the VALUE dial to select one of the available harmonization types.



5 **When the right harmonization type has been selected, press the EXIT button to go back to the main page.**


STYLE PLAY: Keyboard/Ensemble

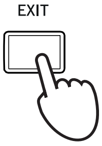
Trk:Upper 1 Grand Piano RX F-Piano 121.010.000

Ensemble

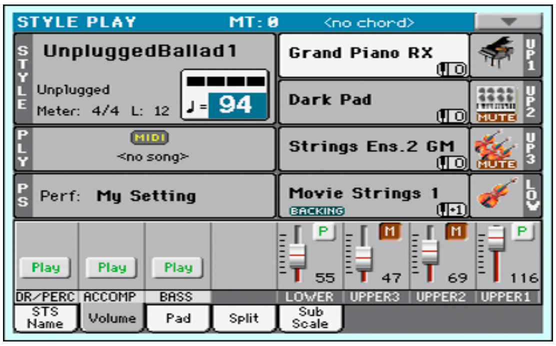
Type: Block

Note Velocity: -2

Ensemble Trk Assign
Off
Off
Normal
Play
Mute
Mute
Play
DR/PERC
ACCOMP
BASS
LOWER
UPPER3
UPPER2
UPPER1
Key-Vel Range
Ensem-ble
Kbd Control



While in an Edit page, press EXIT to go back to the Main page of the current operating mode.


STYLE PLAY MT: 0 <no chord>

UnpluggedBallad1

Unplugged

Meter: 4/4 L: 12 ♩= 94

<no song>

Perf: My Setting

Grand Piano RX

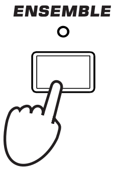
Dark Pad

Strings Ens.2 GM

Movie Strings 1

STYLE
PLAY
PS
MIDI
UP1
UP2
UP3
LOW
MUTE
MUTE
BACKING
Play
Play
Play
P
M
M
P
55
47
69
116
DR/PERC
ACCOMP
BASS
LOWER
UPPER3
UPPER2
UPPER1
STS Name
Volume
Pad
Split
Sub Scale

6 **Press the ENSEMBLE button again to turn its LED off. The automatic harmonization will be turned off.**

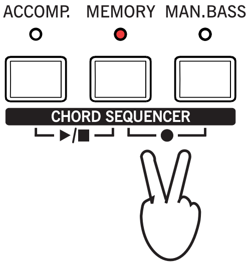


The Chord Sequencer

In case you need both hands free for playing a solo while a Style is playing, you can record a Chord Sequence and let Pa600 play the chords for you.

1 **Press the START/STOP button to set the Style to play.**

2 **Press the MEMORY and MAN. BASS (RECORD) buttons together to start recording.**



3 **Start recording your Chord Sequence at the beginning of the next measure.**

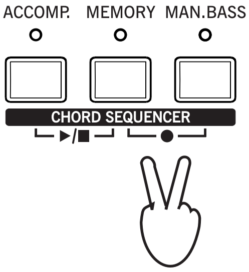
While recording, you will see a red flashing icon in the display.

4 **Play the chords in the chord scan area.**

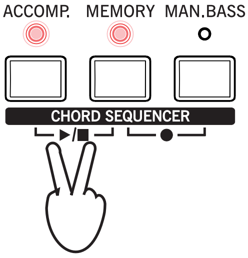
The chord scan area is under the Split Point if the SPLIT LED is turned on. Usually, it is over the whole keyboard if the SPLIT LED is turned off. The chord scan area also depends on the status of the Chord Recognition parameter (Global > Mode Preferences > Style).

5 **When the Chord Sequence is done, press the MEMORY and MAN. BASS (RECORD) buttons together again to stop recording.**

Hint: You can avoid stopping the Chord Sequencer after recording, and immediately set the Sequence to play, as explained in the following step.



6 **Press the ACCOMP. and MEMORY (PLAY/STOP) buttons to start playback.**

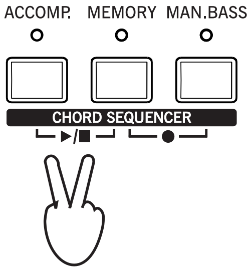


The LED of the two buttons will start flashing. The Chord Sequence will be played back in loop starting from the next measure. Recorded chords will be sent to the arranger, and the Style will play with the recorded chords.

7 **Play your solo part, while the Chord Sequencer plays the chords for you.**

During Chord Sequence looping, you can freely select any Fill or Variation, as if you where playing chords with your hands.

8 **Press the ACCOMP. and MEMORY (PLAY/STOP) buttons together again to stop playback of the recorded Chord Sequence.**

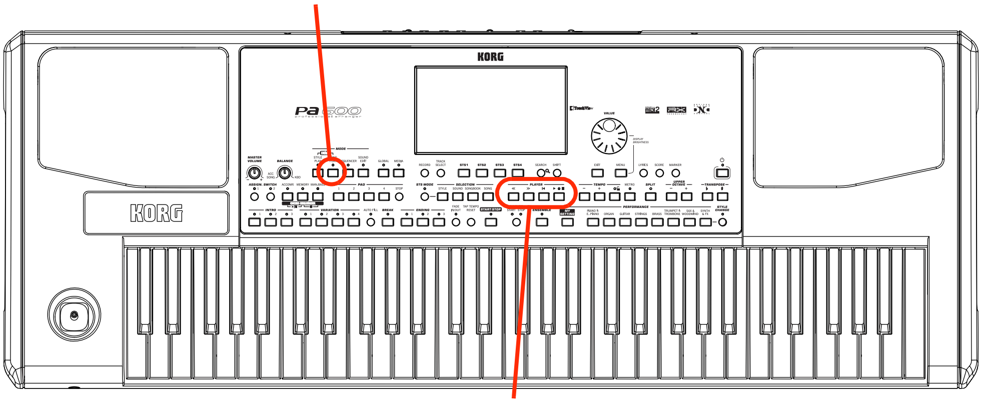

ACCOMP.
MEMORY
MAN.BASS
CHORD SEQUENCER
▶/■
●

The last chord played by the Chord Sequence remains in memory. The Chord Sequence will remain in memory up until you record a new Chord Sequence, or you set Pa600 to standby.

Song Play

Pa600 is equipped with an onboard Player that can read Songs in Standard MIDI File (MID), Karaoke™ (KAR) and MP3 format. It may be of great interest to singers and guitar players to know that if a Standard MIDI File or an MP3 file contains lyrics and chords, they can be seen in the display. Lyrics in the graphical "+G" format are also supported.

In addition to lyrics and chords, with Standard MIDI Files and Karaoke files you can also see the score in traditional notation, as well as the markers, to quickly jump to any section of a Song.

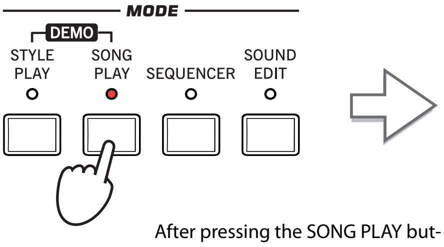

KORG
Pa600
KORG

The SONG PLAY button

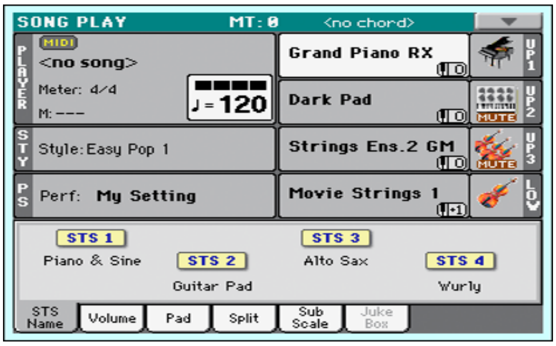
Player controls

Selecting a Song to play

1 **Press the SONG PLAY button to switch to the Song Play mode.**


MODE
DEMO
STYLE PLAY
SONG PLAY
SEQUENCER
SOUND EDIT

After pressing the SONG PLAY button, the main page of the Song Play mode appears.


SONG PLAY MT: 0 <no chord>

MIDI
<no song>
Meter: 4/4
M: ---
♩= 120

Style: Easy Pop 1

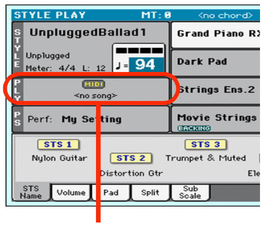
Perf: My Setting

Grand Piano RX
Dark Pad
Strings Ens.2 GM
Movie Strings 1

STS 1 Piano & Sine
STS 2 Guitar Pad
STS 3 Alto Sax
STS 4 Wurly

PLAYER
STY
PS
UP1
UP2
UP3
LOW
MUTE
MUTE
STS Name
Volume
Pad
Split
Sub Scale
Juke Box

Hint: *In Style Play mode, you can pre-select the Song to be assigned to the Player. This way, you will be ready to start it, as soon as you switch to Song Play mode.*


STYLE PLAY MT: 0 <no chord>

UnpluggedBallad1
Unplugged
Meter: 4/4 L: 12
♩= 94

MIDI
<no song>

Perf: My Setting

Grand Piano R
Dark Pad
Strings Ens.2
Movie Strings
BACKING

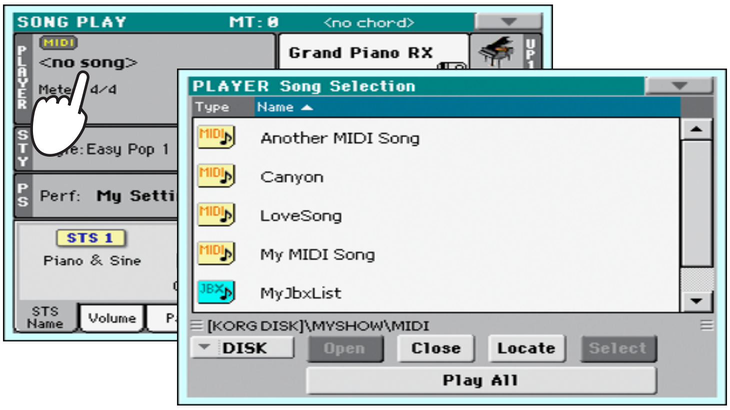
STS 1 Nylon Guitar
STS 2 Distortion Gtr
STS 3 Trumpet & Muted
Ele

STYLE
PLAY
PS
STS Name
Volume
Pad
Split
Sub Scale

The Song area of the Style Play main page.

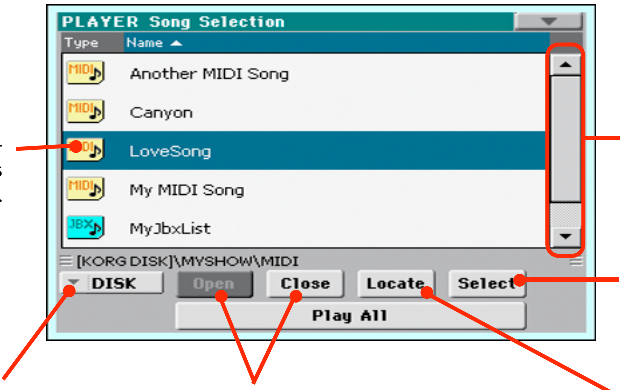
2 Touch the Player area to open the Song Select window.

This window is very similar to the one you can see when pressing the MEDIA button on the control panel, and touching the Load tab to see the Load page. This page is, however, “filtered” to only show Song files.


SONG PLAY
MT: 0
<no chord>
MIDI
<no song>
Meter 4/4
Style: Easy Pop 1
Perf: My Setti
Grand Piano RX
STS 1
Piano & Sine
STS Name
Volume
PLAYER Song Selection
Type
Name
Another MIDI Song
Canyon
LoveSong
My MIDI Song
MyJbxList
[KORG DISK]\MYSHOW\MIDI
DISK
Open
Close
Locate
Select
Play All

Hint: As an alternative, you can open the Song Select window by pressing the SONG button in the SELECTION section of the control panel.

3 Scroll through the list and select the Song to play.


PLAYER Song Selection
Type
Name
Another MIDI Song
Canyon
LoveSong
My MIDI Song
MyJbxList
[KORG DISK]\MYSHOW\MIDI
DISK
Open
Close
Locate
Select
Play All

The selected Song is highlighted. Touch a Song’s name to select it.

Use the scroll bar or the VALUE DIAL to see all the Songs in the list. Keep SHIFT pressed and touch the Up/Down arrow to jump to the next/previous alphabetic section.

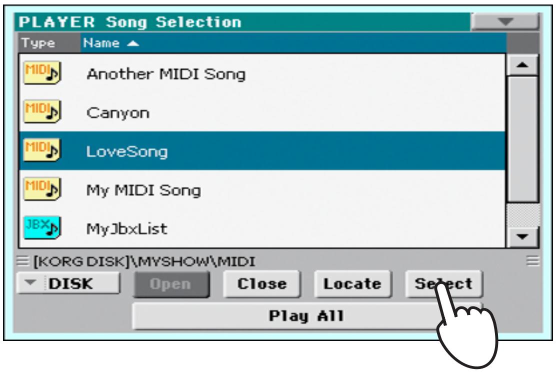
Touch the Select button to select the highlighted Song, and assign it to the Player.

Use the Device pop-up menu to select one of the available mass-storage devices.

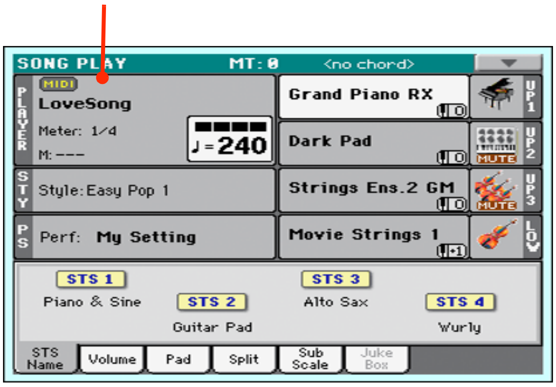
Use the Open and Close buttons to browse through the folders.

Use the Locate button to ‘locate’ and go to the folder of the selected Song.

4 When the Song is selected, touch the Select button to confirm your selection; this will automatically close the Song Select window.


PLAYER Song Selection
Type
Name
Another MIDI Song
Canyon
LoveSong
My MIDI Song
MyJbxList
[KORG DISK]\MYSHOW\MIDI
DISK
Open
Close
Locate
Select
Play All

Selected Song

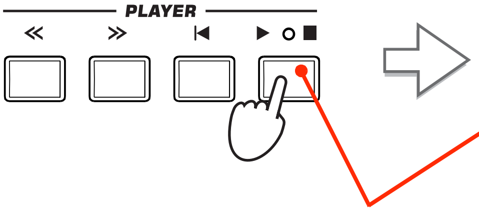

SONG PLAY
MT: 0
<no chord>
MIDI
LoveSong
Meter: 1/4
M: ---
♩=240
Style: Easy Pop 1
Perf: My Setting
Grand Piano RX
Dark Pad
Strings Ens.2 GM
Movie Strings 1
MUTE
STS 1
Piano & Sine
STS 2
Guitar Pad
STS 3
Alto Sax
STS 4
Wurly
STS Name
Volume
Pad
Split
Sub Scale
Juke Box

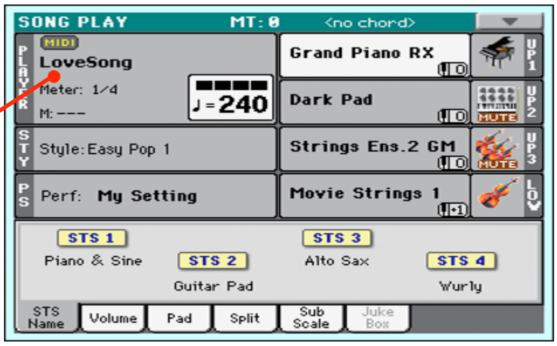
After touching the Select button in the display, the main page of the Song Play mode will appear again.

Playing back a Song

Once a Song has been selected, it may be played back by the Player.

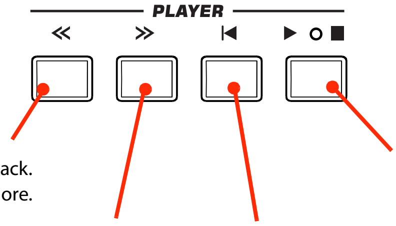
1 **Press the ▶/■ (PLAY/STOP) button in the PLAYER section to start playback.**




SONG PLAY
MT: 0
<no chord>
MIDI
LoveSong
Meter: 1/4
M: ---
♩=240
Style: Easy Pop 1
Perf: My Setting
Grand Piano RX
Dark Pad
Strings Ens.2 GM
Movie Strings 1
STS 1 Piano & Sine
STS 2 Guitar Pad
STS 3 Alto Sax
STS 4 Wurly

After pressing the ▶/■ (PLAY/STOP) button, the button's LED turns on, and the measure counter begins to show the current measure number.

2 **Use the PLAYER control section to control the Song's playback.**



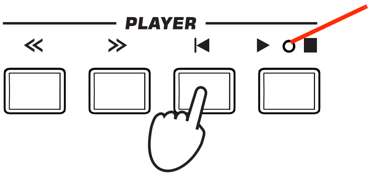
Press the REWIND button once to goback. Keep it pressed to go back more.

Press the FAST FORWARD button once to goforward. Keep it pressed to go forward more.

Press the HOME button to move to the beginning of the Song.

Press the PLAY/STOP button to stop the Song at the current position. Press it again to resume playback.

3 **When you want to stop the song and go back to the beginning, press the |◀ (HOME) button.**



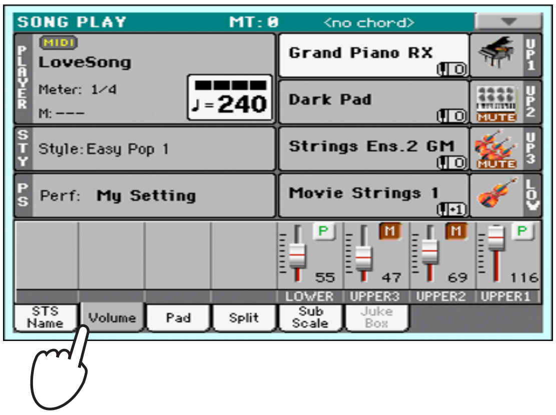
When the Song is stopped, the LED on the PLAY/STOP button turns off.

*ℹ **Note:** In any case, the Player will automatically stop when the end of the Song is reached.*

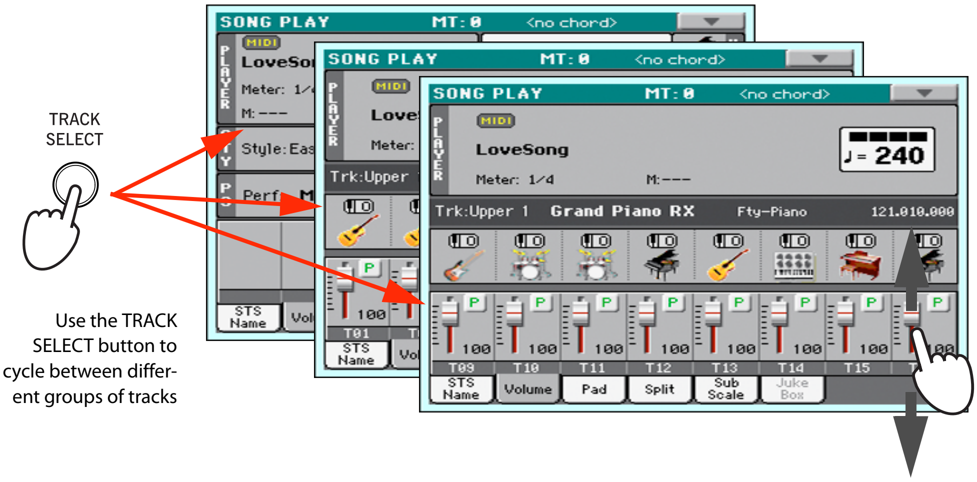
Changing the tracks' volume

While playing back a Standard MIDI File, you may wish to change each track's volume, to create a mix "on the fly".

1 Be sure the Volume panel is shown, or touch the Volume tab to show it.

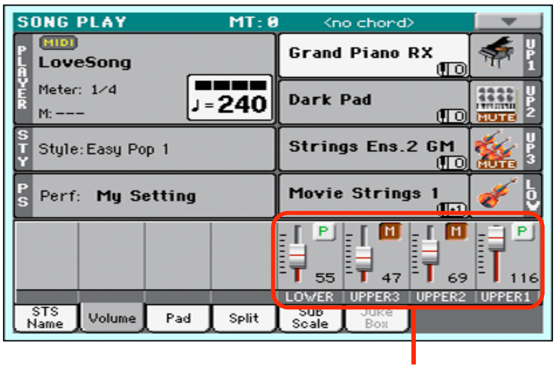

SONG PLAY
MT: 0
<no chord>
PLAYER
MIDI
LoveSong
Meter: 1/4
M: ---
♩= 240
STY
Style: Easy Pop 1
PS
Perf: My Setting
Grand Piano RX
Dark Pad
Strings Ens.2 GM
Movie Strings 1
MUTE
UP1
UP2
UP3
LOW
P
M
55
47
69
116
LOWER
UPPER3
UPPER2
UPPER1
STS Name
Volume
Pad
Split
Sub Scale
Juke Box

2 As seen for the Styles, you can hold & drag the Virtual Sliders on the display to adjust each track's volume. Use the TRACK SELECT button to cycle between track groups.


TRACK SELECT
SONG PLAY
MT: 0
<no chord>
PLAYER
MIDI
LoveSong
Meter: 1/4
M: ---
♩= 240
Style: Eas
Perf
Trk:Upper
Trk:Upper 1 Grand Piano RX
Fty-Piano
121.010.000
P
100
T01
T09
T10
T11
T12
T13
T14
T15
STS Name
Volume
Pad
Split
Sub Scale
Juke Box

Use the TRACK SELECT button to cycle between different groups of tracks

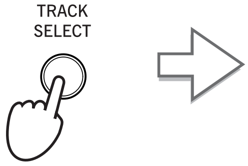
3 In Normal view, you can adjust each Keyboard track's volume.


SONG PLAY
MT: 0
<no chord>
PLAYER
MIDI
LoveSong
Meter: 1/4
M: ---
♩= 240
STY
Style: Easy Pop 1
PS
Perf: My Setting
Grand Piano RX
Dark Pad
Strings Ens.2 GM
Movie Strings 1
MUTE
UP1
UP2
UP3
LOW
P
M
55
47
69
116
LOWER
UPPER3
UPPER2
UPPER1
STS Name
Volume
Pad
Split
Sub Scale
Juke Box

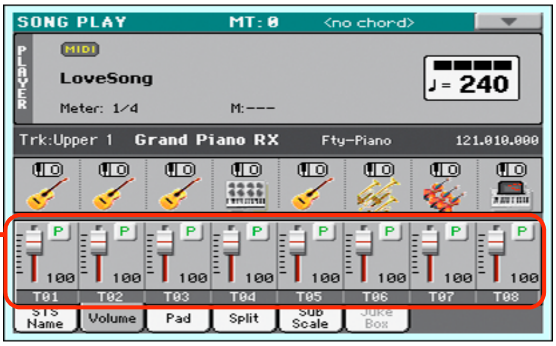
Keyboard tracks

*ℹ **Hint:** As an alternative, you can change each track's volume, by touching a track's area to select it, then using the VALUE dial to change the volume.*

4 Press the TRACK SELECT button once to see tracks 1-8 (Track 1-8 view).

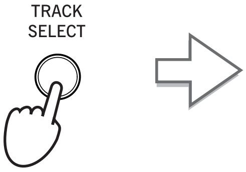

TRACK
SELECT

In Track 1-8 view, the first 8 tracks of the selected Song are shown.

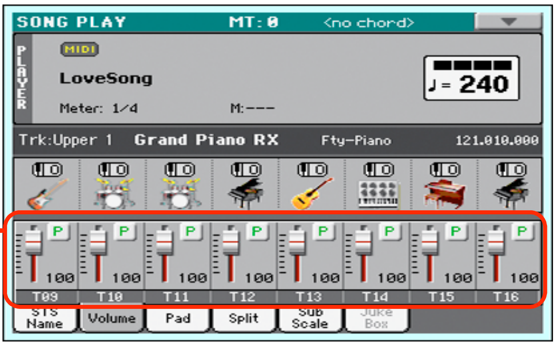

SONG PLAY
MT: 0
<no chord>
PLAYER
MIDI
LoveSong
Meter: 1/4
M:---
♩= 240
Trk:Upper 1
Grand Piano RX
Fty-Piano
121.010.000
P
100
T01
T02
T03
T04
T05
T06
T07
T08
STS Name
Volume
Pad
Split
Sub Scale
Juke Box

Note: *Changes to Song tracks will not be saved, and are reset each time you press the ⏮ (Home) button, or you select a different Marker. To save changes, you must edit the Song in Sequencer mode.*

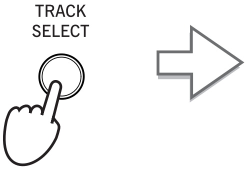
5 Press TRACK SELECT once again to see tracks 9-16 (Track 9-16 view).

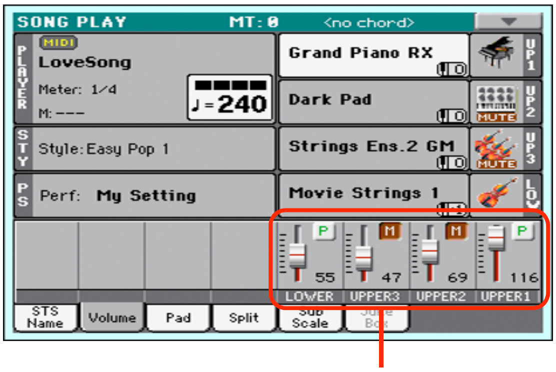

TRACK
SELECT

In Track 9-16 view, the second group of 8 tracks of the selected Song are shown.


SONG PLAY
MT: 0
<no chord>
PLAYER
MIDI
LoveSong
Meter: 1/4
M:---
♩= 240
Trk:Upper 1
Grand Piano RX
Fty-Piano
121.010.000
P
100
T09
T10
T11
T12
T13
T14
T15
T16
STS Name
Volume
Pad
Split
Sub Scale
Juke Box

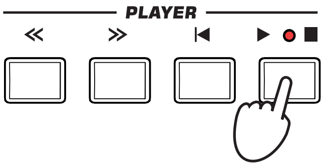
6 Press TRACK SELECT again, to return to the Normal view (Keyboard tracks).


TRACK
SELECT


SONG PLAY
MT: 0
<no chord>
PLAYER
MIDI
LoveSong
Meter: 1/4
M: ---
♩= 240
STY
Style: Easy Pop 1
PS
Perf: My Setting
Grand Piano RX
UP1
Dark Pad
UP2
MUTE
Strings Ens.2 GM
UP3
MUTE
Movie Strings 1
LOW
P
M
M
P
55
47
69
116
LOWER
UPPER3
UPPER2
UPPER1
STS Name
Volume
Pad
Split
Sub Scale
Juke Box

Keyboard tracks

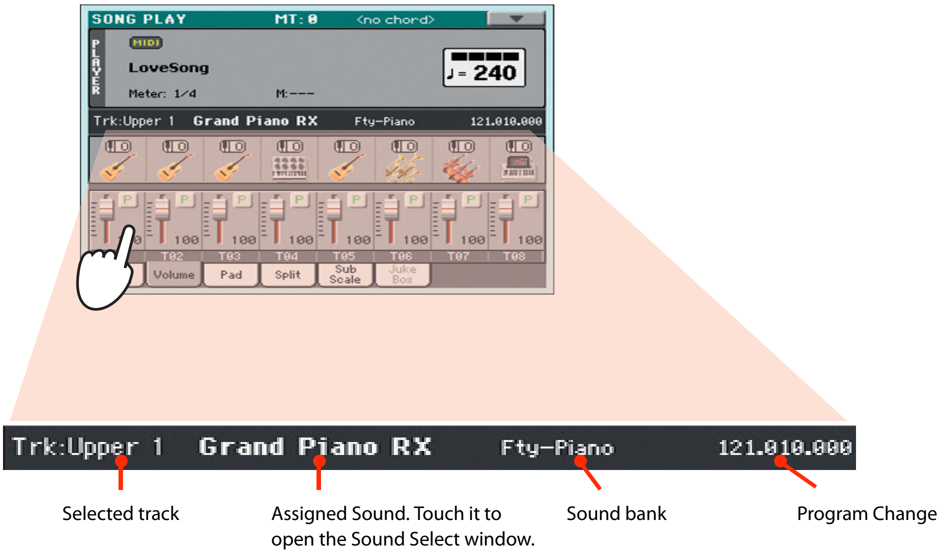
7 Press the ▶/■ (PLAY/STOP) button to start the Song.



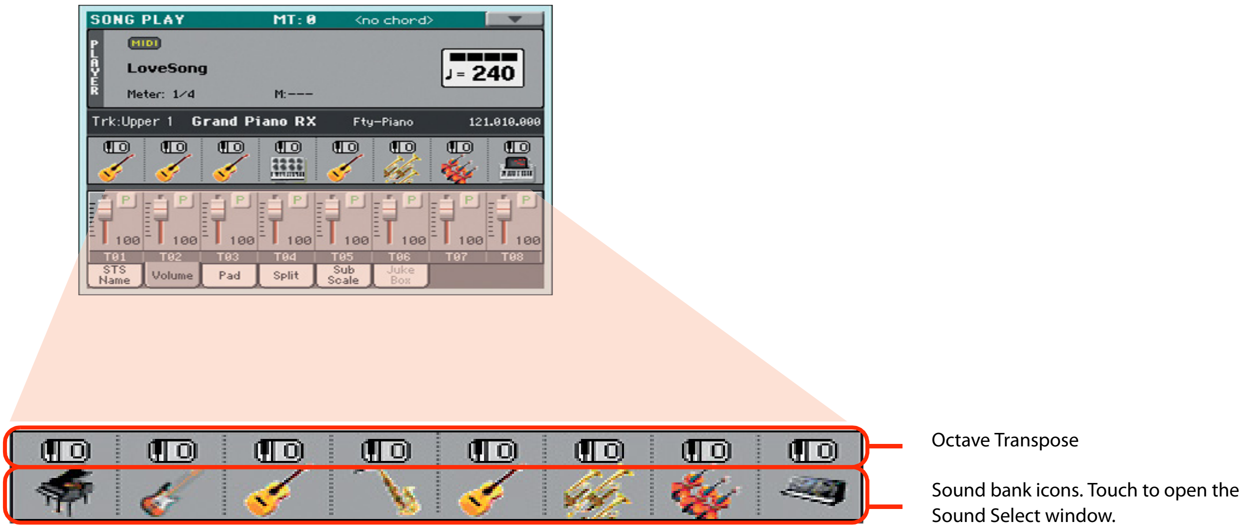
8 While listening to the Song, switch from Normal view to Track 1-8 and Track 9-16 view, to see which tracks are playing.

To see if a track is playing, look at the label with its name, and see if it is changing color.

- **Touch each track's channel strip, to see each track's detail in the Track Info line.**


SONG PLAY
MT: 0
<no chord>
MIDI
LoveSong
Meter: 1/4
M:---
♩= 240
Trk:Upper 1
Grand Piano RX
Fty-Piano
121.010.000
T02
T03
T04
T05
T06
T07
T08
Volume
Pad
Split
Sub Scale
Juke Box
Selected track
Assigned Sound. Touch it to open the Sound Select window.
Sound bank
Program Change

- **Also, you can see which type of Sound is assigned to each track in the Sound area of the Track 1-8 and Track 9-16 views.**


SONG PLAY
MT: 0
<no chord>
MIDI
LoveSong
Meter: 1/4
M:---
♩= 240
Trk:Upper 1
Grand Piano RX
Fty-Piano
121.010.000
T01
T02
T03
T04
T05
T06
T07
T08
STS Name
Volume
Pad
Split
Sub Scale
Juke Box
Octave Transpose
Sound bank icons. Touch to open the Sound Select window.

Turning the Song tracks on/off

While playing back a Standard MIDI File, you may wish to mute one or more tracks, for example to sing along with the Song, or play an instrumental part live on the keyboard.

To mute/unmute Song tracks you simply touch the Play/Mute icon in the Volume panel.

Soloing a track

Opposite to the above, you may want to make a single track of a Standard MIDI File play alone. This is called the Solo function.

1 **While the Song is playing, keep the SHIFT button pressed and touch the track you want to listen to in Solo mode.**

2 **To set all tracks back to the Play status, keep the SHIFT button pressed again, and touch the track that is currently in Solo mode.**

Please remember that you can also use the Solo function in Style Play and Sequencer mode. The Solo command can also be selected from the page menu.

Removing the Melody track from a Standard MIDI File or the Lead Vocal from an MP3 file

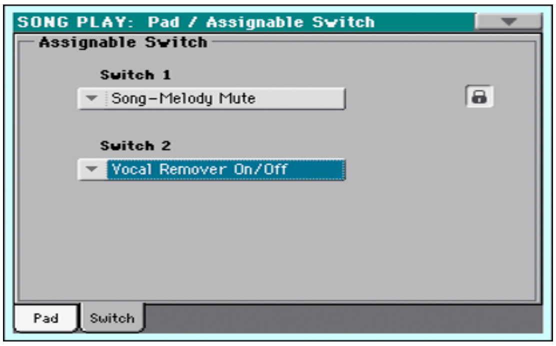
If you want to sing along with a Song (in Standard MIDI File or MP3 format), you can remove the Melody track or the Lead Vocal from the Song. Please note that removing the Lead Vocal from an MP3 file may be more or less effective, depending on the Song.

Programming the Assignable Switches

1 **Program the Assignable Switches as the Song-Melody and Vocal Remover switches.**

Press the MENU button, and choose the "Pad/Assignable Switch" section. Then touch the Switch tab to open the "Switch" page. While in this page, assign the Song-Melody function to the ASSIGNABLE SWITCH 1, and the Vocal Remover function to the ASSIGNABLE SWITCH 2:

*ⓘ **Hint:** You can open this page by keeping the SHIFT button pressed and pressing one of the ASSIGNABLE SWITCHES.*



SONG PLAY: Pad / Assignable Switch

Assignable Switch

Switch 1: Song-Melody Mute

Switch 2: Vocal Remover On/Off

2 **Press the EXIT button to return to the main page of the Song Play mode.**

*ⓘ **Note:** The Assignable Switches' assignment can be saved into each Performance or STS.*

Using the Assignable Switches with a Song

1 **Assign a Song (either in Standard MIDI File or MP3 format) to the Player.**

2 **Start the Player.**

3 **Press the ASSIGNABLE SWITCH 1 to mute the Melody track, or the ASSIGNABLE SWITCH 2 to activate the Vocal Remover, and remove the Melody track or the original lead singer's voice.**

Listen how the Melody track disappears. If it is the wrong track, continue to the instructions below to select a different track.

Or, listen to how the original lead singer's voice is reduced or totally removed.

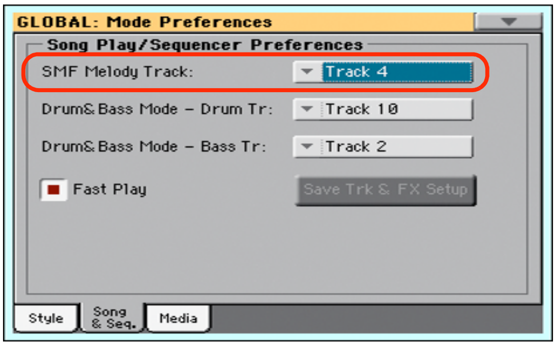
4 **When done, you can press the ASSIGNABLE SWITCH 1 to unmute the Song's Melody track and let the original MIDI instrument play the Melody line again, or press the ASSIGNABLE SWITCH 2 to deactivate the Vocal Remover and let the original lead singer's voice appear again.**

5 **Stop the Player.**

Choosing a different Melody track

You can choose a different Melody track, in case the Standard MIDI Files does not use a standard configuration of tracks.

1 **Keep the SHIFT button pressed and press the SONG PLAY button to open the Global > Mode Preferences > Song Play & Sequencer page.**



GLOBAL: Mode Preferences

Song Play/Sequencer Preferences

SMF Melody Track: Track 4

Drum& Bass Mode – Drum Tr: Track 10

Drum& Bass Mode – Bass Tr: Track 2

■ Fast Play

2 **Choose a different Melody track.**

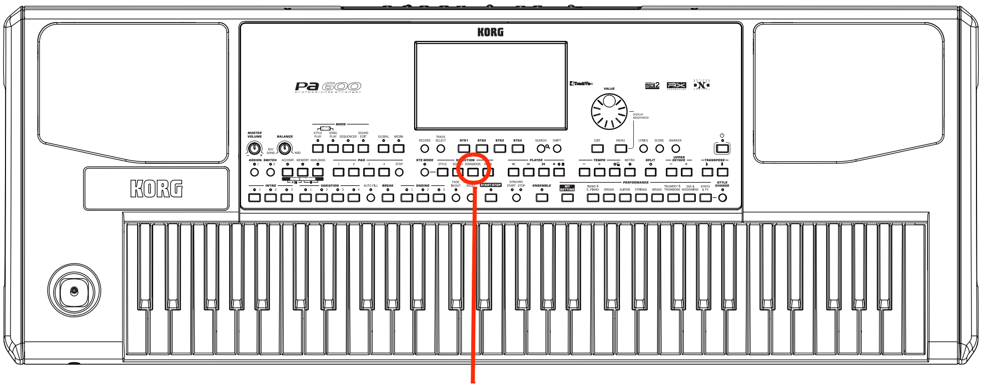
3 **When done, press EXIT to return to the main page.**

The SongBook

One of the most powerful features of Pa600 is the onboard music database, that allows you to organize your Styles and Songs for easy retrieving. Each Entry of this database may include the artist, title, genre, number, key, tempo, and meter (time signature) of a specified song. When selecting one of the Entries, the associated Style, Standard MIDI File or MP3 file – as well as the Style Play or Song Play mode – is automatically recalled.

In addition to helping you organize your shows, the SongBook allows you to assign up to four Pads, and up to four STSs to each Entry. Also, you can link a text file to any Entry, to be used as the Lyrics of a song, even if there are no Lyrics events in the associated Standard MIDI File or MP3 file, or if you prefer to play the song live with the backing of the Styles.

You can add your own Entries to the SongBook, as well as edit the existing ones. KORG has already supplied some hundred Entries as standard. Furthermore, the SongBook allows you to create various custom lists, that may suit your different types of show.



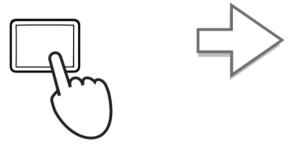
The SONGBOOK button

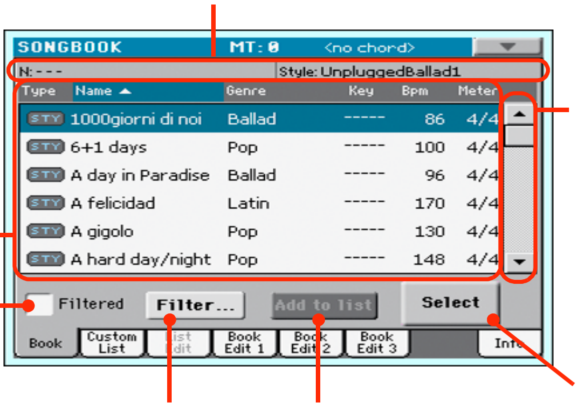
Selecting the desired Entry from the Main List

A large database is already included with the instrument, and you can later customize it. You may browse through this database in a variety of ways.

1 **While you are in Style Play or Song Play mode, press the SONGBOOK button to open the SongBook window.**

Style, Standard MIDI File(s) or MP3 file(s) currently assigned to the arranger or player(s)





SONGBOOK MT: 0 <no chord>

N: - - -   Style: UnpluggedBallad1

Type	Name ▲	Genre	Key	Bpm	Meter
STY	1000giorni di noi	Ballad	-----	86	4/4
STY	6+1 days	Pop	-----	100	4/4
STY	A day in Paradise	Ballad	-----	96	4/4
STY	A felicidad	Latin	-----	170	4/4
STY	A gigolo	Pop	-----	130	4/4
STY	A hard day/night	Pop	-----	148	4/4

Use the scroll bar or the VALUE DIAL to see all the Songs in the list. Keep SHIFT pressed and touch the Up/ Down arrow to jump to the next/previous alphabetic section.

SongBook Main List

Touch this checkbox to turn the view filter on.

Touch this button to edit the view filter.

Adds the selected Entry to the Custom List (if activated – see page 74).

Touch this button to select the current Entry to play.

2 Browse through the Entries.

Icons in the Type column will help you identify the type of the Entry. The Genre column is shown by default, but you can switch to the Artist column (see “Displaying Artist or Genre” below).

3 When the Entry you are looking for becomes visible in the display, select it and touch the Select button in the display.

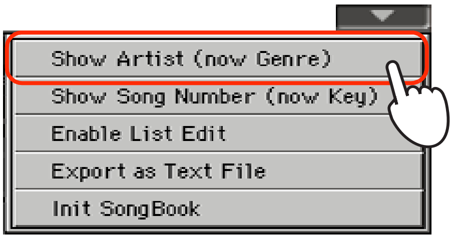
After selecting an Entry, the corresponding Style, MID, KAR or MP3 file will be recalled, together with the relevant operating mode (Style Play or Song Play). Up to four STSs and four Pads will also be recalled. Any TXT file associated with the Entry can be seen in the Lyrics page.

The selected Style, MID, KAR or MP3 file will be shown in the top area of the screen.

Displaying Artist or Genre

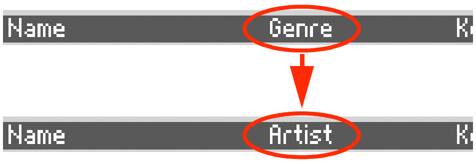
For space matters, either the Genre or Artist column can be seen in the display. You cannot see both at the same time.

1 Touch the page menu icon to open the page menu.

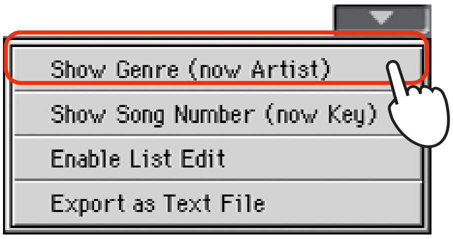

Show Artist (now Genre)
Show Song Number (now Key)
Enable List Edit
Export as Text File
Init SongBook

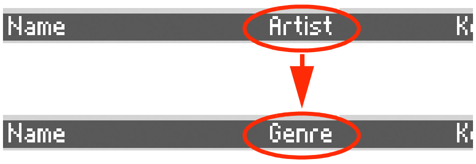
ⓘ ***Note:*** *The Artist and Key fields of all supplied Entries have been intentionally left empty.*

2 Choose Show Artist (now Genre) to switch from Genre to Artist in the List view. The Artist column will be shown.


Name
Genre
K
Name
Artist
K

3 Open the page menu again, and choose the Show Genre (now Artist) item. The Genre column will be shown again.


Show Genre (now Artist)
Show Song Number (now Key)
Enable List Edit
Export as Text File

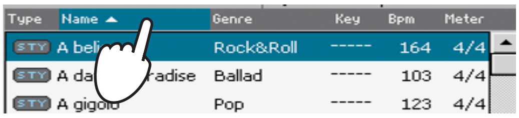

Name
Artist
K
Name
Genre
K

Sorting Entries

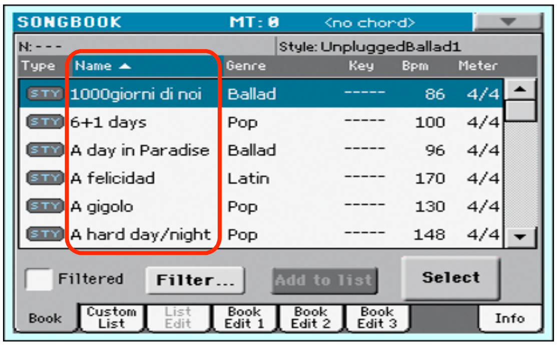
You can change the order of the Entries shown in the display.

1 **You can change the sorting order by touching one of the labels in a list of names.**

Touch the Name label…



Type	Name ▲	Genre	Key	Bpm	Meter
STY	A beli	Rock&Roll	-----	164	4/4
STY	A da radise	Ballad	-----	103	4/4
STY	A gigolo	Pop	-----	123	4/4



SONGBOOK MT: 0 <no chord>

N: - - - Style: UnpluggedBallad1

Type	Name ▲	Genre	Key	Bpm	Meter
STY	1000giorni di noi	Ballad	-----	86	4/4
STY	6+1 days	Pop	-----	100	4/4
STY	A day in Paradise	Ballad	-----	96	4/4
STY	A felicidad	Latin	-----	170	4/4
STY	A gigolo	Pop	-----	130	4/4
STY	A hard day/night	Pop	-----	148	4/4

☐ Filtered
Filter…
Add to list
Select
Book
Custom List
List Edit
Book Edit 1
Book Edit 2
Book Edit 3
Info

…to alphabetically reorder the names in the list.

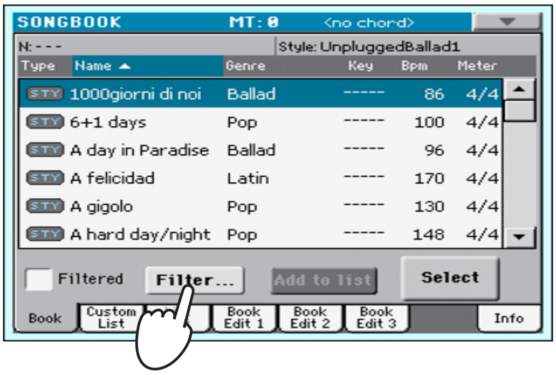
You can do the same by touching the Type, Name, Genre, Artist, Key, Number, Tempo or Meter label.

2 **Each time you touch the same label again, the order changes between ascending and descending.**

Searching for Entries

The SongBook database may be really huge. You can, however, look for (say) specific artists or song titles, using the filtering functions.

1 **Touch the Filter button in the display, to open the Filter dialog box.**

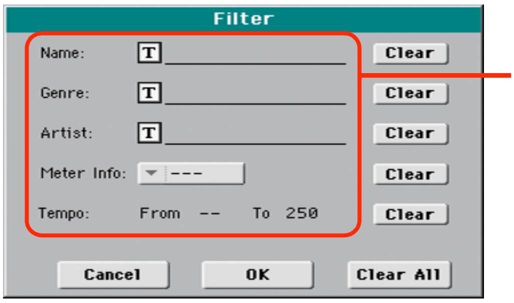


SONGBOOK MT: 0 <no chord>

N: - - - Style: UnpluggedBallad1

Type	Name ▲	Genre	Key	Bpm	Meter
STY	1000giorni di noi	Ballad	-----	86	4/4
STY	6+1 days	Pop	-----	100	4/4
STY	A day in Paradise	Ballad	-----	96	4/4
STY	A felicidad	Latin	-----	170	4/4
STY	A gigolo	Pop	-----	130	4/4
STY	A hard day/night	Pop	-----	148	4/4

☐ Filtered
Filter…
Add to list
Select
Book
Custom List
Book Edit 1
Book Edit 2
Book Edit 3
Info



Filter

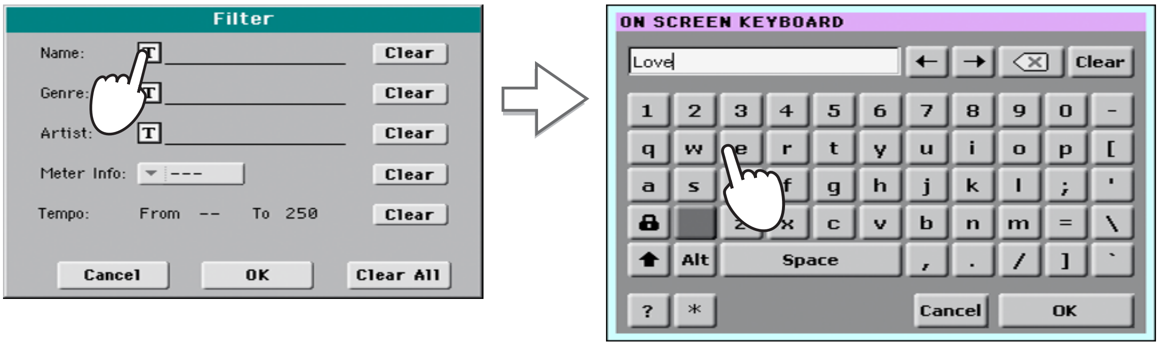
Name: T Clear
Genre: T Clear
Artist: T Clear
Meter Info: ▾ --- Clear
Tempo: From -- To 250 Clear

Cancel
OK
Clear All

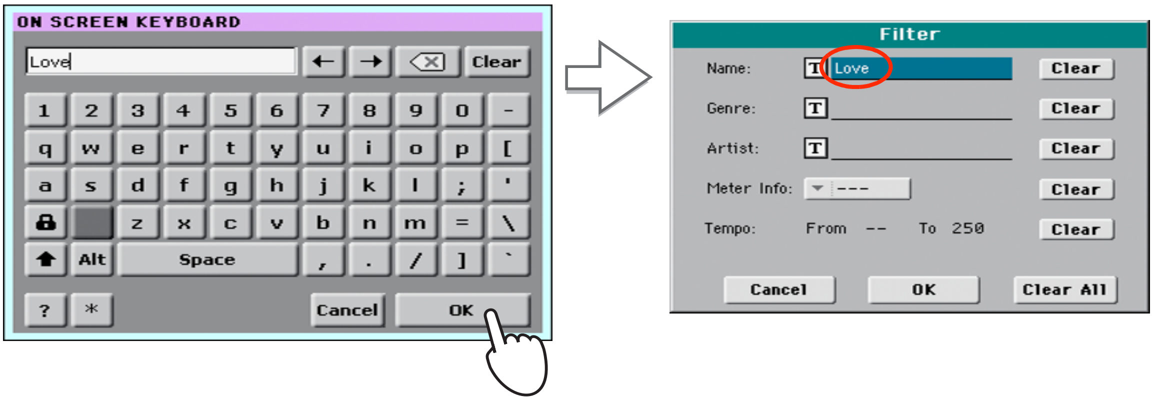
Available search criteria. "Genre" and "Artist" are both considered, even though only one of them may be shown in the List

2 **Touch the T (Text Edit) button next to the search criteria (even more than one) you want to enter.**

For example, you may want to find all songs containing the word “love” in the title (in any position in the string). If so, select the ‘Name’ criterion, and enter the word ‘love’. Capitals are not relevant for the search.

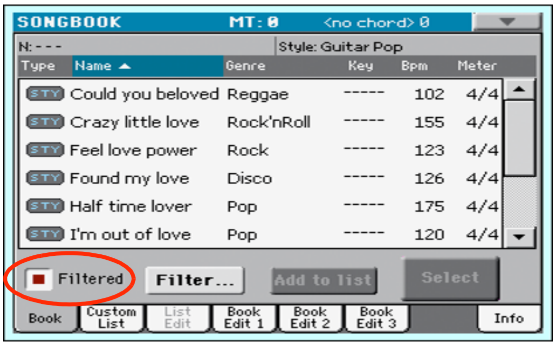

Filter
Name:
Genre:
Artist:
Meter Info: ---
Tempo: From -- To 250
Clear
Cancel
OK
Clear All
ON SCREEN KEYBOARD
Love
Clear
Space
Alt
Cancel
OK

3 **Touch OK in the display, and close the Text Edit dialog box. The entered text is now the search criteria.**


ON SCREEN KEYBOARD
Love
Clear
Space
Alt
Cancel
OK
Filter
Name: Love
Genre:
Artist:
Meter Info: ---
Tempo: From -- To 250
Clear
Cancel
OK
Clear All

4 **Touch OK to close the Filter dialog box and return to the SongBook page.**

Once the Filter dialog box has been closed by touching OK, the Filtered check box is automatically checked, and the filter is activated. Only Entries matching the entered criterion are seen in the Main List.


SONGBOOK MT: 0 <no chord> 0
N: ---
Style: Guitar Pop
Filtered
Filter...
Add to list
Select
Book
Custom List
List Edit
Book Edit 1
Book Edit 2
Book Edit 3
Info

Type	Name	Genre	Key	Bpm	Meter
STY	Could you beloved	Reggae	-----	102	4/4
STY	Crazy little love	Rock'nRoll	-----	155	4/4
STY	Feel love power	Rock	-----	123	4/4
STY	Found my love	Disco	-----	126	4/4
STY	Half time lover	Pop	-----	175	4/4
STY	I'm out of love	Pop	-----	120	4/4

5 **To see the whole SongBook database again, touch the Filtered check box again, to make the check mark disappear.**

Adding Entries

You can add your own Entries to the SongBook database.

1 **Go to the Style Play or Song Play mode, depending on the type of Entry you want to add to the SongBook database.**

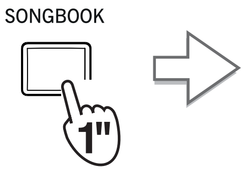
2 **Select the Style, Standard MIDI File or MP3 file to be added to the SongBook.**

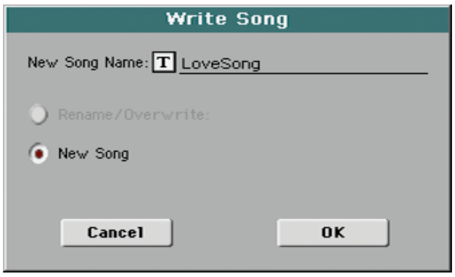
3 **Edit the Keyboard and Style tracks the way you prefer, by selecting different Sounds and Effects, or editing any other relevant parameter.**

Please note that changes to Standard MIDI File tracks will not be saved as SongBook data. Only the data included in the Standard MIDI File will be used.

4 **Choose a Voice Processor Preset.**

5 **When ready, keep the SONGBOOK button pressed for about one second to create a new SongBook Entry with the current settings.**




Write Song

New Song Name: T LoveSong

○ Rename/Overwrite:

● New Song

6 **Touch the T (Text Edit) button to assign a name to the Entry, then touch OK to save the Entry to the SongBook database.**

Editing the Entries

You can edit any SongBook Entry and customize it according to your taste. When done, you can overwrite the current Entry or save it as a new Entry.

1 **Press the SONGBOOK button to access the SongBook pages.**

2 **Touch the Book Edit 1 tab to see the Book Edit 1 page and see the linked Musical Resources.**

While in the Book Edit 1 page, you will be able to see the name of the selected Style or Song, and choose whether to replace them or not.

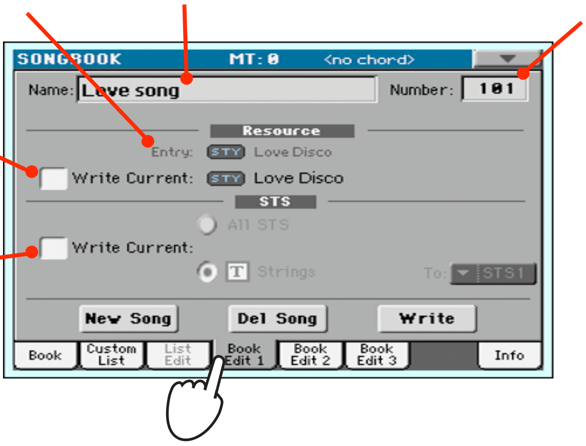
Name of the Style or Song file linked to the Entry.

Name of the Entry

Song Selection number (ID number for numeric selection)

If checked, the current Style track settings, or the path of the Song file (shown on the right), are saved with the Entry. If unchecked, current settings are left unchanged. This parameter is automatically checked when touching the New Song button to create a new Entry.

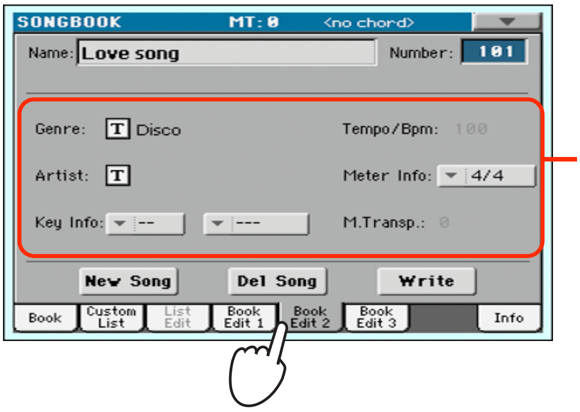
If checked, you can either save all the current STSs into the Entry, or choose a single STS where to save the current Keyboard track settings.



SONGBOOK MT: 0 <no chord>
Name: Love song Number: 101
Resource
Entry: STY Love Disco
☐ Write Current: STY Love Disco
STS
○ All STS
☐ Write Current: ● T Strings To: STS1

New Song
Del Song
Write
Book
Custom List
List Edit
Book Edit 1
Book Edit 2
Book Edit 3
Info

3 **When done with this page, touch the Book Edit 2 tab to see the Book Edit 2 page and edit the SongBook database details.**



SONGBOOK MT: 0 <no chord>
Name: Love song Number: 101
Genre: T Disco Tempo/Bpm: 100
Artist: T Meter Info: 4/4
Key Info: -- --- M.Transp.: 0

New Song
Del Song
Write
Book
Custom List
List Edit
Book Edit 1
Book Edit 2
Book Edit 3
Info

Database Entry's parameters

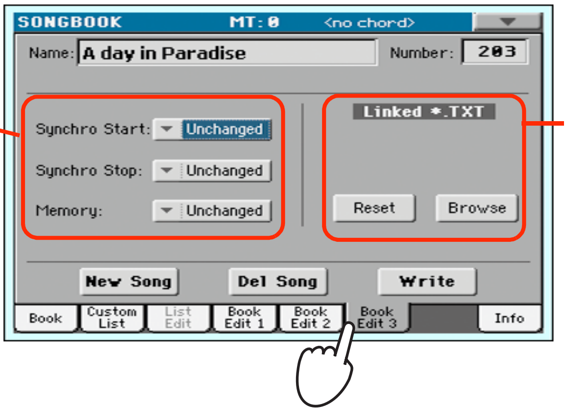
4 **Touch the T (Text Edit) button next to the field(s) you want to edit. Set all the other parameters.**

You can write the Genre and Artist name. Select a Tempo matching the Song's Tempo, and select the Meter (Time Signature) and Key of the Song. You can also specify a Master Transpose value, to be automatically selected when selecting the Entry.

Note: *The Master Transpose might not change, if a Lock is preventing it. See Global > General Controls > Locks.*

5 **When done with this page, touch the Book Edit 3 tab to go to the Book Edit 3 page, where you can and set the Synchro and Memory parameters, and link a text file to the Entry.**

Synchro (for Style) and Memory (for Style and Songs) On/Off status

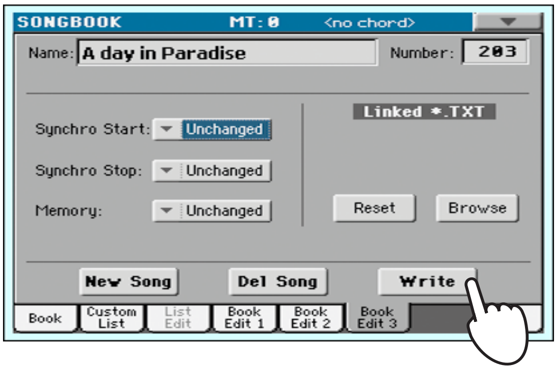


SONGBOOK MT: 0 <no chord>
Name: A day in Paradise Number: 203
Synchro Start: Unchanged
Synchro Stop: Unchanged
Memory: Unchanged
Linked *.TXT

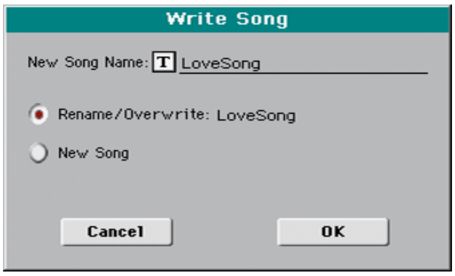
Reset
Browse
New Song
Del Song
Write
Book
Custom List
List Edit
Book Edit 1
Book Edit 2
Book Edit 3
Info

Text file linked to the Entry. This text will be seen in the same way of ordinary Lyrics in the display (or in the external monitor).

6 **After having filled up all the desired fields (be as comprehensive as you can), touch the Write button in the display to open the Write dialog box.**


SONGBOOK
MT: 0
<no chord>
Linked *.TXT
Reset
Browse
New Song
Del Song
Write
Book
Custom List
List Edit
Book Edit 1
Book Edit 2
Book Edit 3

Name: A day in Paradise
Number: 203
Synchro Start: Unchanged
Synchro Stop: Unchanged
Memory: Unchanged


Write Song
Cancel
OK

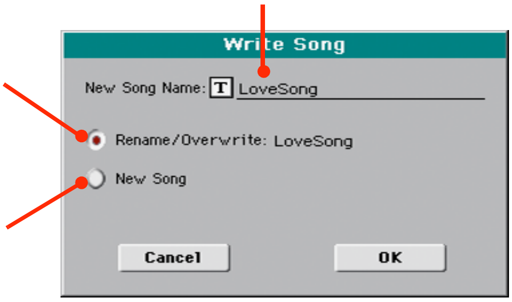
New Song Name: LoveSong
● Rename/Overwrite: LoveSong
○ New Song

7 **Touch the T (Text Edit) button to assign a name to the Entry, then touch OK to save the Entry to the SongBook database.**

Entry's name. By default it is the same name of the associated Style, Standard MIDI File of MP3 file. The name can be up to 16 characters long.

Select Rename/Overwrite to replace an existing Entry. This option is automatically selected when editing an existing Entry; it cannot be selected when saving a new Entry. **Warning: the older Entry will be deleted!**

Select New Song to add a new Entry to the SongBook database. This option is automatically selected when a new Entry has been created (by touching the New Song button).

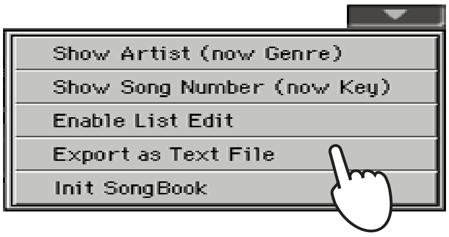

Write Song
Cancel
OK

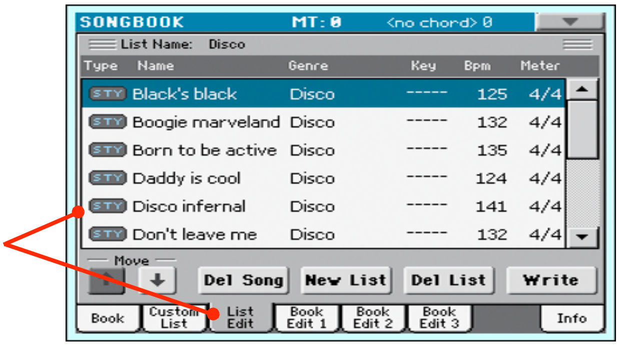
New Song Name: LoveSong
● Rename/Overwrite: LoveSong
○ New Song

Creating a Custom List

You can create several Custom Lists in the SongBook, to make a set of Entries suitable for your various shows. Before starting a new Custom List, be sure you have added all needed Entries to the SongBook main database (see "Adding Entries" above).

1 **While in SongBook mode, open the page menu and check the 'Enable List Edit' item.**


Show Artist (now Genre)
Show Song Number (now Key)
Enable List Edit
Export as Text File
Init SongBook


SONGBOOK
MT: 0
<no chord> 0
Move
Del Song
New List
Del List
Write
Book
Custom List
List Edit
Book Edit 1
Book Edit 2
Book Edit 3
Info

List Name: Disco

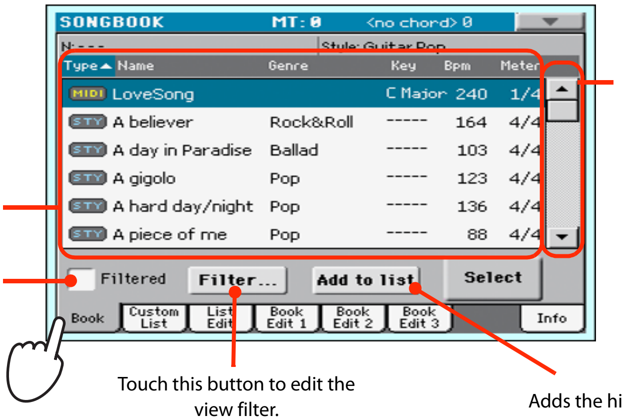
Type	Name	Genre	Key	Bpm	Meter
STY	Black's black	Disco	-----	125	4/4
STY	Boogie marveland	Disco	-----	132	4/4
STY	Born to be active	Disco	-----	135	4/4
STY	Daddy is cool	Disco	-----	124	4/4
STY	Disco infernal	Disco	-----	141	4/4
STY	Don't leave me	Disco	-----	132	4/4

After you check the 'Enable List Edit' item, the List Edit page becomes available.

2 **Select a Custom List to be edited.**

To edit an existing list, touch the Custom List tab to open the Custom List page, and select one of the available Custom Lists. To create a new list, touch the List Edit tab to open the List Edit page, and touch the New List button to create a new, blank list.

3 Touch the Book tab to open the Book page and see the full database. Use the various sorting, searching and filtering options (seen above) to find the Entries you are looking for. Touch the Add to List button when the desired Entry has been selected.


SONGBOOK
MT: 0
<no chord> 0
Style: Guitar Pop
Filtered
Filter...
Add to list
Select
Book
Custom List
List Edit
Book Edit 1
Book Edit 2
Book Edit 3
Info

Type	Name	Genre	Key	Bpm	Meter
MIDI	LoveSong		C Major	240	1/4
STY	A believer	Rock&Roll	-----	164	4/4
STY	A day in Paradise	Ballad	-----	103	4/4
STY	A gigolo	Pop	-----	123	4/4
STY	A hard day/night	Pop	-----	136	4/4
STY	A piece of me	Pop	-----	88	4/4

SongBook list

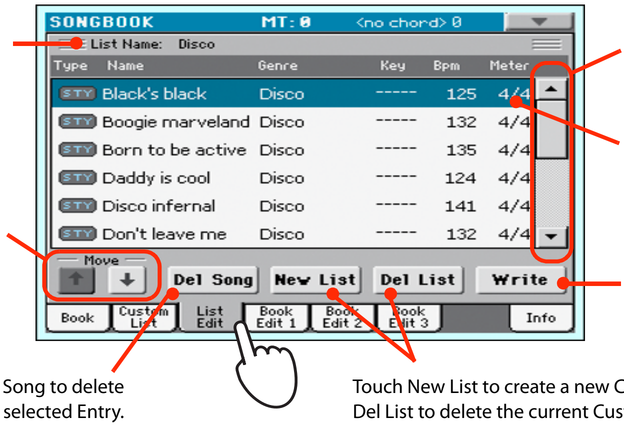
Touch this checkbox to turn the view filter on (if any).

Use the scroll bar or the VALUE DIAL to see all the Songs in the list. Keep SHIFT pressed and touch the Up/Down arrow to jump to the next/previous alphabetic section.

Touch this button to edit the view filter.

Adds the highlighted Entry to the Custom List.

4 When finished adding Entries to the Custom List, touch the List Edit tab to go to the List Edit page, and use the various commands to edit the list.


SONGBOOK
MT: 0
<no chord> 0
Move
Del Song
New List
Del List
Write
Book
Custom List
List Edit
Book Edit 1
Book Edit 2
Book Edit 3
Info

List Name: Disco

Type	Name	Genre	Key	Bpm	Meter
STY	Black's black	Disco	-----	125	4/4
STY	Boogie marveland	Disco	-----	132	4/4
STY	Born to be active	Disco	-----	135	4/4
STY	Daddy is cool	Disco	-----	124	4/4
STY	Disco infernal	Disco	-----	141	4/4
STY	Don't leave me	Disco	-----	132	4/4

List name

Scrollbar

Select an Entry to be edited from the list

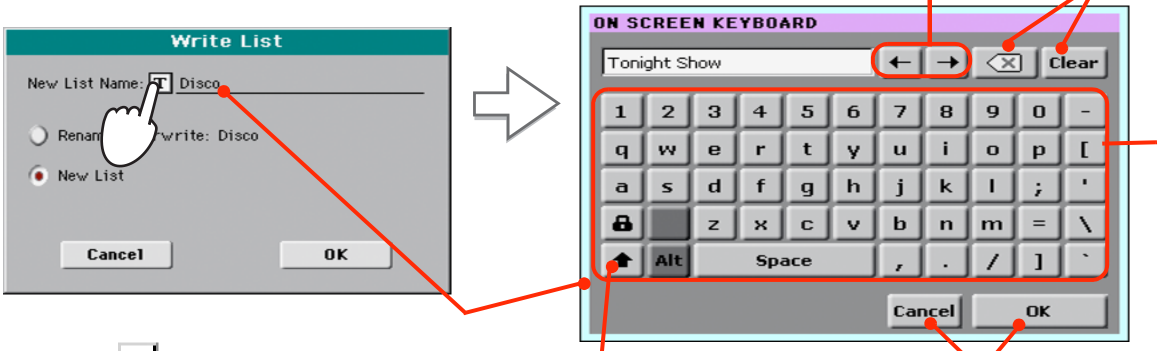
Use the vertical arrows to move the selected Entry up or down in the list.

Touch Write to save the current Custom List.

Touch Del Song to delete the selected Entry.

Touch New List to create a new Custom List. Touch Del List to delete the current Custom List. **Warning:** Del List will delete the current Custom List.

5 When the Custom List is ready, touch the Write button in the display to save it to memory. Assign a new name to the Custom List.


Write List
Cancel
OK
ON SCREEN KEYBOARD
←
→
⌫
Clear
1 2 3 4 5 6 7 8 9 0 -
q w e r t y u i o p [
a s d f g h j k l ; '
z x c v b n m = \
Alt
Space
, . /] `
Cancel
OK

New List Name: T Disco

○ Renam… write: Disco

● New List

Tonight Show

Use thearrows or the VALUE DIAL to move the cursor.

Touch Delete to delete just a single character, Clear to delete the whole string.

Use alphabetic characters to enter text.

Touch the T (Text Edit) symbol to open the Text Edit dialog box.

Touch the Shift key to switch between capitals and small characters.

When done, touch OK to confirm the new name, or Cancel to abandon all changes.

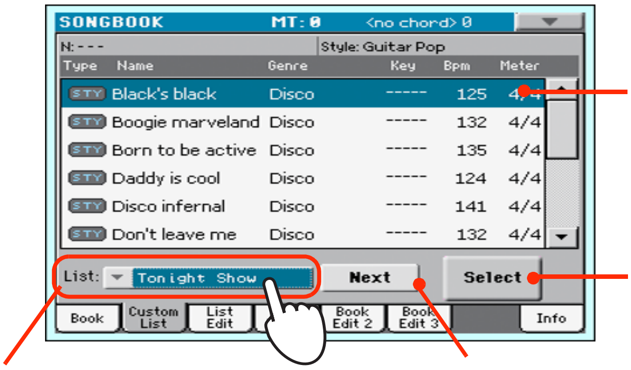
6 When finished editing the Custom List, open the page menu and uncheck the 'Enable List Edit' item.

Selecting and using a Custom List

After having created one or more Custom Lists, you can select one and use it for your show.

1 **Touch the Custom List tab to select the Custom List page.**

2 **Use the List pop-up menu to select one of the available Custom Lists.**



Type	Name	Genre	Key	Bpm	Meter
STY	Black's black	Disco	-----	125	4/4
STY	Boogie marveland	Disco	-----	132	4/4
STY	Born to be active	Disco	-----	135	4/4
STY	Daddy is cool	Disco	-----	124	4/4
STY	Disco infernal	Disco	-----	141	4/4
STY	Don't leave me	Disco	-----	132	4/4

Entry in play. To select a different one, highlight it and touch the Select button in the display.

Touch Select to set the highlighted Entry to play (if different than the one automatically selected).

Use the List pop-up menu to select one of the available Custom Lists.

Touch Next to select the next Entry in the list. (This command can also be assigned to an Assignable Switch).

3 **Select one of the Entries in the list (it turns blue), then touch the Select button in the display to confirm selection (the selected Entry turns green). Press the PLAY button to start playing back the selected Song.**

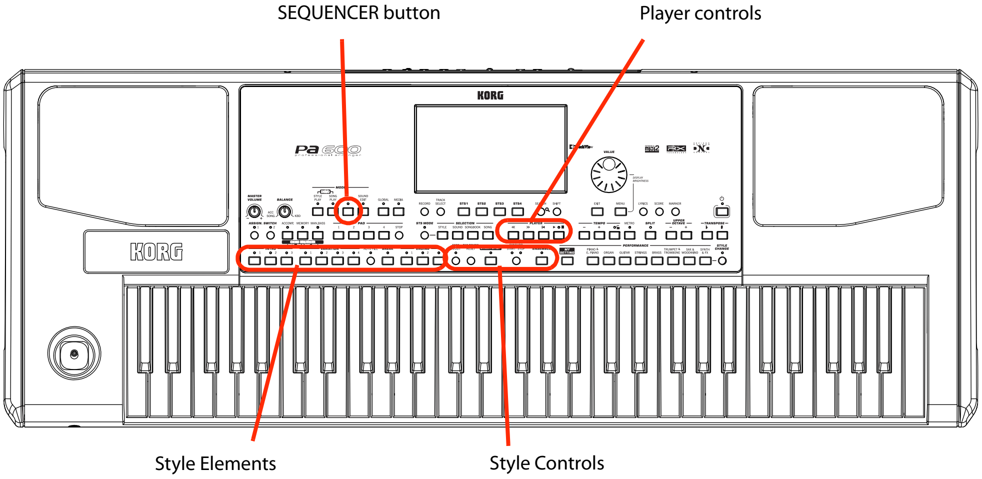
Using the SongBook with external software

Additional software has been created to work with the SongBook. You can use KORG's own SongBook Editor to edit single entries, the SongBook database and the Custom Lists on a Windows PC. You can also use BauM Software's SongBook+ for iPad, or Zubersoft's MobileSheets for Android, to synchronize the SongBook entries with a tablet, and read lyrics and sheet music on the wider tablet display.

Other software is under development. Please check our web site regularly, for news about their release.

Recording a new Song (Standard MIDI File)

There are several ways to create a Song on the Pa600. The easiest and fastest is to use the Styles to record what you are playing in realtime on the keyboard, while the arranger gives you the accompaniment tracks.


SEQUENCER button
Player controls
KORG
Pa600
KORG
Style Elements
Style Controls

Preparing the Style and Sounds

Before accessing the Record mode, we suggest you prepare the Style and Sounds with which to record your Song.

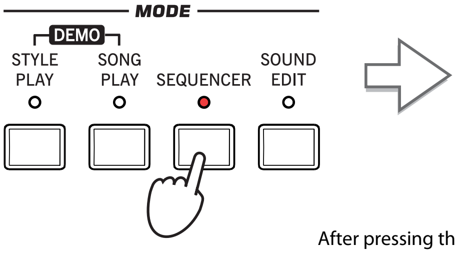
1 **Select a Style with which you want to record.**

2 **Select the Sounds by choosing a Performance or STS.**

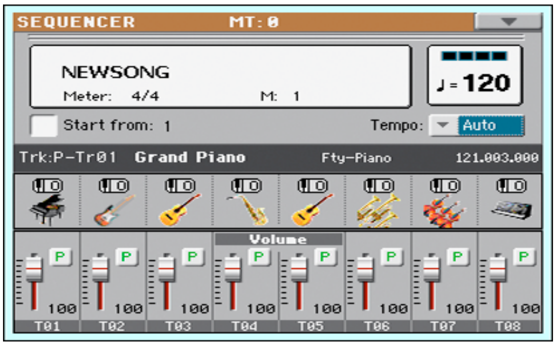
That's all! You are ready to access Record mode.

Accessing the Backing Sequence (Quick Record) mode

1 **Press the SEQUENCER button to switch to the Sequencer mode.**


MODE
DEMO
STYLE PLAY
SONG PLAY
SEQUENCER
SOUND EDIT

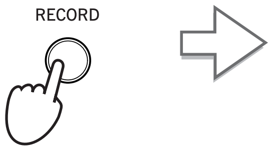
After pressing the SEQUENCER button, the main page of the Sequencer mode appears.

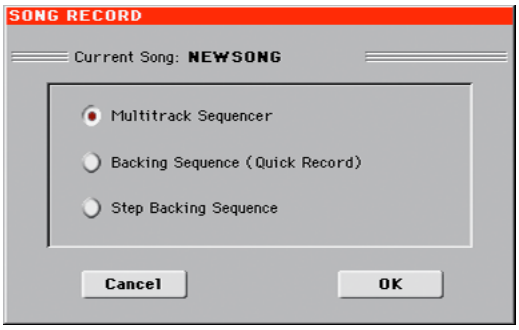

SEQUENCER MT: 0

NEWSONG
Meter: 4/4 M: 1
♩=120
☐ Start from: 1 Tempo: Auto
Trk:P-Tr01 Grand Piano Fty-Piano 121.003.000

Volume
P
100
T01
T02
T03
T04
T05
T06
T07
T08

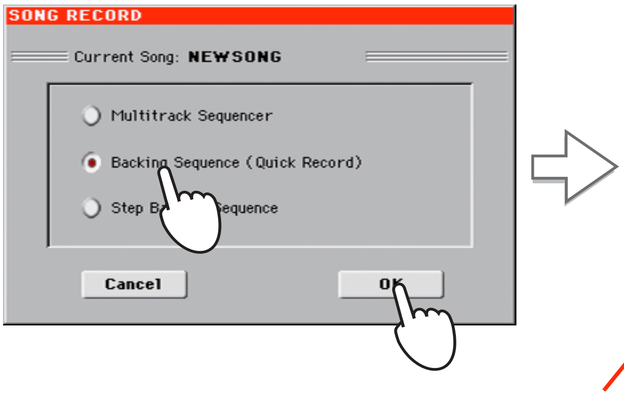
2 **Press the RECORD button to open the Song Record Mode Select dialog box.**

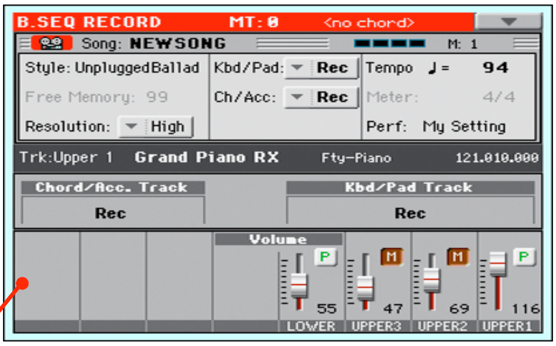



SONG RECORD
Current Song: NEWSONG
● Multitrack Sequencer
○ Backing Sequence (Quick Record)
○ Step Backing Sequence

Press the RECORD button, to open the Song Record Mode Select dialog box

3 **Select the Backing Sequence (Quick Record) option and touch OK to enter the Backing Sequence Record mode.**


SONG RECORD
Current Song: NEWSONG
○ Multitrack Sequencer
● Backing Sequence (Quick Record)
○ Step Backing Sequence


B.SEQ RECORD MT: 0 <no chord>
Song: NEWSONG M: 1
Style: UnpluggedBallad
Free Memory: 99
Resolution: High
Kbd/Pad: Rec
Ch/Acc: Rec
Tempo ♩= 94
Meter: 4/4
Perf: My Setting
Trk:Upper 1 Grand Piano RX Fty-Piano 121.010.000
Chord/Acc. Track: Rec
Kbd/Pad Track: Rec

After having chosen the Backing Sequence (Quick Record) option, the Backing Sequence Record page appears.

Setting the Record parameters

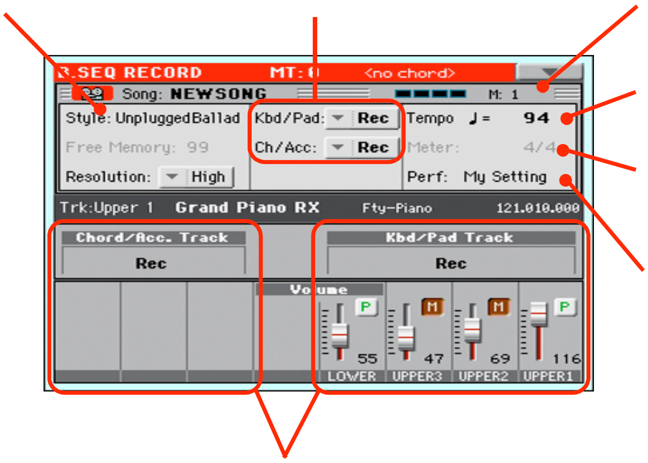
When you enter Backing Sequence Record, the latest selected Style and Sounds are already selected, and all tracks are ready to record. You could simply start recording as if you were playing in realtime with the Styles. However, there are some further settings that you may want to do.

- **If you like, adjust any editable parameter in the display.**

Touch the Style parameter (or the STYLE button) to open the Style Select window, and select a different Style.

Track(s) status. 'Rec' means they are ready to record. 'Play' means they are recorded and you can hear them. 'Mute' means they cannot be heard.

Measure counter. The negative number (-1) is the precount, after which you can start recording.



Song: NEWSONG
M: 1
Style: UnpluggedBallad
Free Memory: 99
Resolution: High
Kbd/Pad: Rec
Ch/Acc: Rec
Tempo ♩= 94
Meter: 4/4
Perf: My Setting
Trk:Upper 1 Grand Piano RX Fty-Piano 121.010.000
Chord/Acc. Track: Rec
Kbd/Pad Track: Rec

Style's Tempo. Change it, if you like.

Style's Meter (or Time Signature). It's just an indicator, you cannot change it.

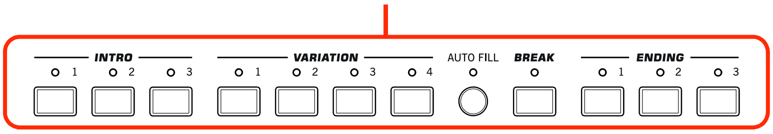
Touch the Perf/STS parameter to open the Performance Select window, and select a different Performance (as seen on page 43). As an alternative, you use the PERFORMANCE or STS buttons.

Grouped tracks. During Quick Record, you cannot access each separate Song track. For ease of use, just two 'master' tracks are provided: **Kbd/Pad** (Keyboard/Pads) and **Ch/Acc** (Chord/Accompaniment).

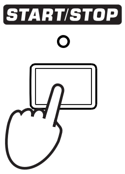
Recording

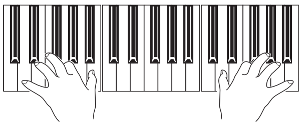
1 Select the Style Element you wish to use before starting to play.

Select any of the Variations before starting to record.
Select one of the Intros to start with an introduction.



2 Start recording, by pressing the START/STOP button.





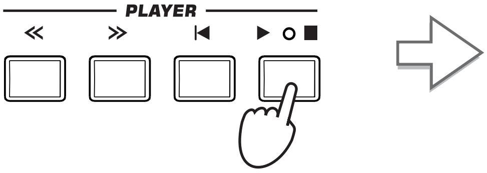
3 Play as if you were performing live with the Styles.

During recording, select any Style Element (Intro, Variation, Break, Ending…) you like. You can also press START/STOP to stop the Style, and press it again to start the Style again!

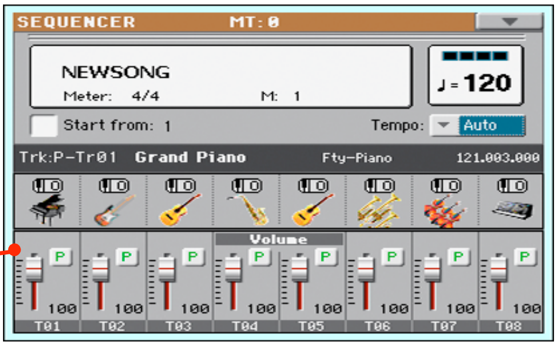
Please remember that, while recording in Backing Sequence Record mode, you cannot use the SYNCHRO, TAP TEMPO/RESET, BALANCE controls.

*ℹ **Note:** If you do not wish to start the Song with the Style already playing, you can simply start recording by pressing the ▶/■ PLAY/STOP button in the PLAYER section, then start the Style only at a later time. The Style will start at the beginning of the following measure.*

4 When finished recording your Song, press the ▶/■ (PLAY/STOP) button in the PLAYER section to exit recording, and return to the main page of the Sequencer mode.



After pressing the PLAY/STOP button, the main page of the Sequencer mode will appear again.



NEWSONG
Meter: 4/4
M: 1
♩= 120
Start from: 1
Tempo: Auto
Trk:P-Tr01 Grand Piano Fty-Piano 121.003.000
100 100 100 100 100 100 100 100

5 While in the main page of the Sequencer mode, press the ▶/■ (PLAY/STOP) button in the PLAYER section to listen to the recorded Song.

The Backing Sequence Song has been converted to an ordinary Song (in Standard MIDI File, or “MID”, format). If you like it, you can save it. You can then read it in Song Play mode, or transfer it to any external sequencer.

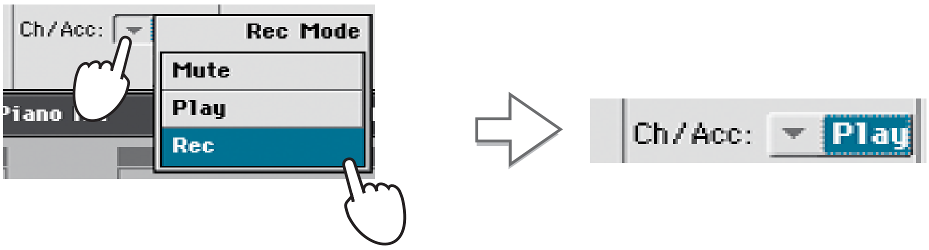
6 If you want to edit the Song, press MENU to access Edit mode.

Second-take recording (Overdubbing)

You may want to record an additional “grouped” track, or replace a bad-recorded track with a new one. A good idea may be to record all chords and Style Element changes during the first take, then record Keyboard tracks and Pads during the second take.

1 **Press the RECORD button to enter Record mode again. When the Song Record Mode Select dialog box appears, select Backing Sequence (Quick Record) again.**

2 **If you are recording just one of the “grouped” tracks, set to Play the track to be preserved.**


Ch/Acc:
Rec Mode
Mute
Play
Rec
Piano
Ch/Acc:
Play

3 **Repeat the recording procedure, and press the ▶/■ (PLAY/STOP) button in the PLAYER section to stop recording and return to the main page of the Sequencer mode.**

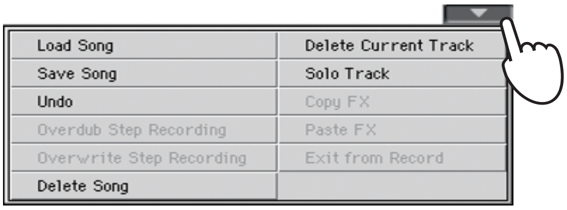
4 **While in the main page of the Sequencer mode, press the ▶/■ (PLAY/STOP) button in the PLAYER section to listen to the recorded Song.**

Again, the Backing Sequence Song has been converted to an ordinary Song.

Saving a Song

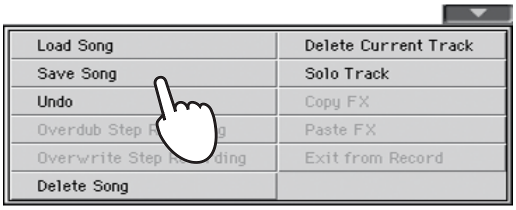
After having recorded a Song that you like, it is a good idea to save it, to avoid losing it when the instrument is turned off (or put in standby).

1 **While in the main page of the Sequencer mode, touch the page menu icon to open the page menu.**

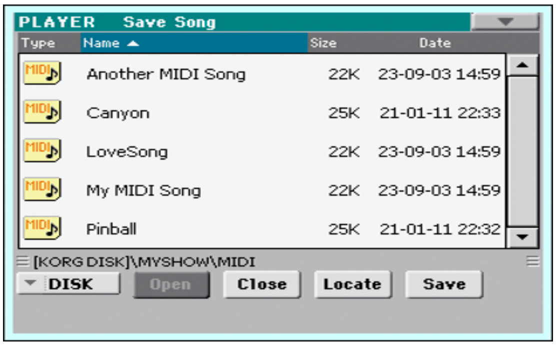

Load Song
Delete Current Track
Save Song
Solo Track
Undo
Copy FX
Overdub Step Recording
Paste FX
Overwrite Step Recording
Exit from Record
Delete Song

2 Select the Save Song command to open the Save Song window.

This window is very similar to the one you can see when pressing the MEDIA button on the control panel, and touch the Save tab to see the Save page. This page is, however, “filtered” to only see Song files.


Load Song
Delete Current Track
Save Song
Solo Track
Undo
Copy FX
Overdub Step Recording
Paste FX
Overwrite Step Recording
Exit from Record
Delete Song

After you select the Save song command, the Save Song page appears.

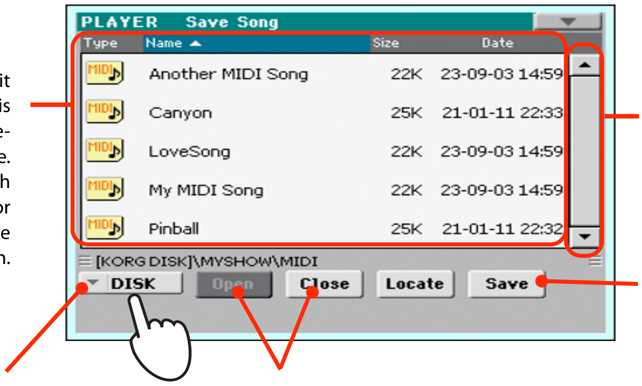

PLAYER Save Song
DISK
Open
Close
Locate
Save

Type	Name	Size	Date
MIDI	Another MIDI Song	22K	23-09-03 14:59
MIDI	Canyon	25K	21-01-11 22:33
MIDI	LoveSong	22K	23-09-03 14:59
MIDI	My MIDI Song	22K	23-09-03 14:59
MIDI	Pinball	25K	21-01-11 22:32

[KORG DISK]\MYSHOW\MIDI

3 Select a device and folder where you want to save your Song.

If a Song is selected (highlighted) it will be overwritten. If no Song is selected, a new Song file will be created on the target device.
To deselect a selected Song, touch anywhere else in the Song list, or select the same storage device again.


PLAYER Save Song
DISK
Open
Close
Locate
Save

Type	Name	Size	Date
MIDI	Another MIDI Song	22K	23-09-03 14:59
MIDI	Canyon	25K	21-01-11 22:33
MIDI	LoveSong	22K	23-09-03 14:59
MIDI	My MIDI Song	22K	23-09-03 14:59
MIDI	Pinball	25K	21-01-11 22:32

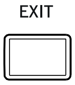
[KORG DISK]\MYSHOW\MIDI

Use the scroll bar to see all Songs in the list. Keep SHIFT pressed and touch the Up/Down arrow to scroll to the next/previous alphabetic section. As an alternative, you can use the VALUE DIAL.

Touch the Save button to save the Song to the current folder.

Use the Device pop-up menu to select one of the available storage devices

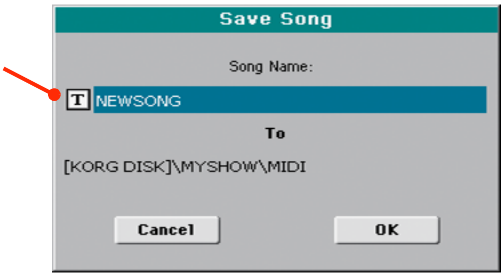
Use the Open and Close buttons to browse through the folders.



In case you prefer to exit this page without saving the Song, press the EXIT button.

4 Touch the Save button in the display to open the Save Song dialog box.

Touch the Text Edit icon to edit the Song’s name.


Save Song
T
Cancel
OK

Song Name: NEWSONG

To

[KORG DISK]\MYSHOW\MIDI

5 Touch OK in the display to save the Song, or Cancel to stop the Save operation.

Searching files and musical resources

With Pa600, you can press the SEARCH button to search for files or musical resources.

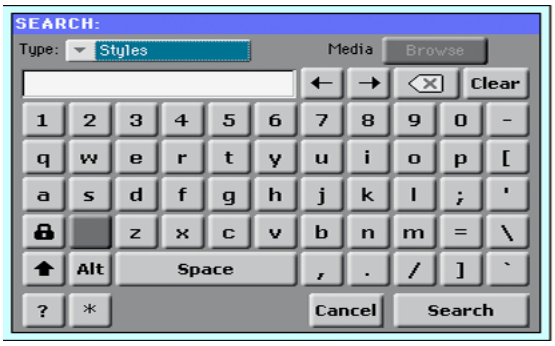
How to use the Search function

Depending on the page you are in, you can search for different types of data. For example, while in Media mode you can only search for files, while in Style Play or Song Play mode you can search for several different types of data (Styles, Songs, Lyrics…).

There are some pages where the Search function is not available, since there are no relevant data to search for that page (for example, the pages of the Global mode).

Here is the general procedure.

1 **Press the SEARCH button to open the Search window.**

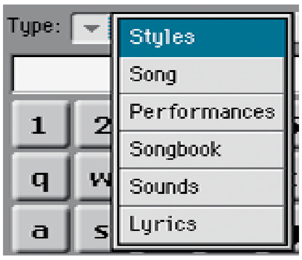


SEARCH:

Type: Styles

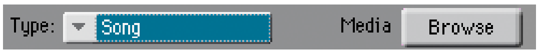
Media
Browse
Clear
1 2 3 4 5 6 7 8 9 0 -
q w e r t y u i o p [
a s d f g h j k l ; '
z x c v b n m = \
Alt
Space
, . /] `
? *
Cancel
Search

2 **If needed, touch the “Type” pop-up menu, and choose the type of item you are looking for.**



Type:
Styles
Song
Performances
Songbook
Sounds
Lyrics

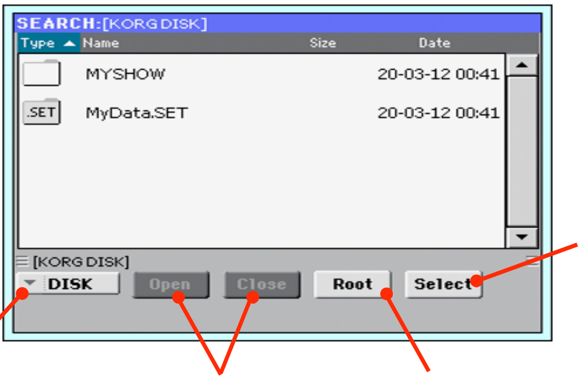
When choosing Files, Songs or Lyrics, the “Browse” button will be activated, to allow for searching files in the disks.



Type: Song

Media
Browse

3 In case you are searching for a file in a disk, touch the “Browse” button to open the Media window.


SEARCH:[KORG DISK]

Type	Name	Size	Date
	MYSHOW		20-03-12 00:41
.SET	MyData.SET		20-03-12 00:41

[KORG DISK]

When you see the folder containing the file you are looking for, touch it, then touch the Select button to close the Media window. The name of the selected folder will be shown in the title bar of the Search window.

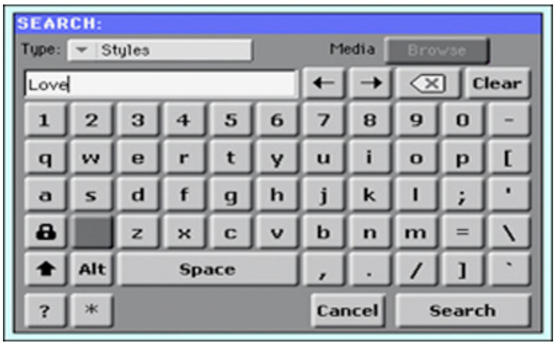
Use the Device pop-up menu to select one of the available storage devices

Use the Open and Close buttons to browse through the folders

In case you are lost among the directories, touch the “Root” button to go to the root of the selected device

4 Type the name of the file to be searched.

There is no difference between upper and lower cases (“LOVE” is the same as “Love” or “love”).

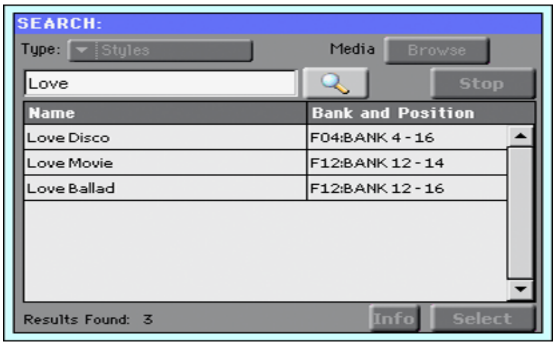

SEARCH:

Type: Styles

Love

5 When finished entering the name, touch the “Search” button.

After a while, the list of files found begins to appear in the display.


SEARCH:

Type: Styles

Love

Name	Bank and Position
Love Disco	F04:BANK 4 - 16
Love Movie	F12:BANK 12 - 14
Love Ballad	F12:BANK 12 - 16

Results Found: 3

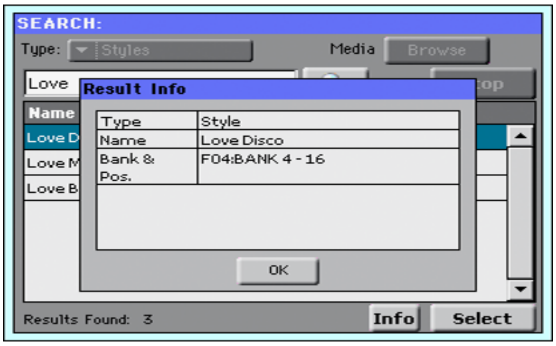
After you have touched the “Search” button, its name changes to “Stop”. If needed, touch this button to stop the ongoing search. The name of the button reverts to “Search”. Any file found will remain in the display, until you do a new search.

The time needed to complete a search depends on the size of the device(s) and the number of files.

*ℹ **Note:** Only one search a-time can be carried on. Please wait for the current search to be completed, or touch the Stop button in the display to stop the current search and do a new one.*

*ℹ **Hint:** You can touch the Cancel button in the display, or press the EXIT button in the control panel, to exit from this window and carry on other operations. The search will continue in the background.*

6 **You can touch one of the found items to select it, and then touch the “Info” button to see information on it.**



Love

Type	Style
Name	Love Disco
Bank & Pos.	F04:BANK 4 - 16

Results Found: 3

Touch OK to close the Info dialog box.

7 **If you want to return to the main Search page and type a search string again, touch the 🔍 icon.** ***Otherwise,***

8 **If you have found what you were looking for, touch its name and then touch the “Select” command.**

9 **You can exit from the Search window at any time, by pressing the EXIT or SEARCH button.**

Notes about searching

Wildcards

During search, the string entered will be search as a whole word or as part of a word. For example, if you entered “love”, Pa600 will find “Love” and “LoveSong”, or any other word containing the string “love”.

You can use the wildcards “?” (any single character) and “*” (any sequence of characters) to search exactly that string. For example, “*love” will find “MyLove”, but not “LoveSong”. “??love” will find “MyLove” but not “TrueLove”.

Also, if you are looking for words that can be spelled in a slightly different way, you can use the “?” wildcard to find all occurrences; “gr?y” will find out both “gray” and “grey”.

Reference

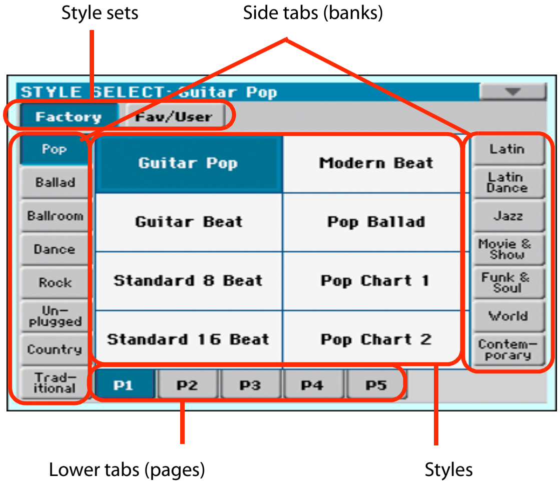
Selecting elements

The following windows are shown in the various operating modes, whenever you try to select a Sound, Performance, Style or Song.

Style Select window

To open the Style Select window, touch the Style area whereas it appears in the display, or the STYLE button in the SELECTION section on the control panel.

Press EXIT to exit from this page and go back to the previous page without selecting any Style.


Style sets
Side tabs (banks)
STYLE SELECT-Guitar Pop
Factory
Fav/User
Pop
Ballad
Ballroom
Dance
Rock
Un-plugged
Country
Trad-itional
Guitar Pop
Modern Beat
Guitar Beat
Pop Ballad
Standard 8 Beat
Pop Chart 1
Standard 16 Beat
Pop Chart 2
Latin
Latin Dance
Jazz
Movie & Show
Funk & Soul
World
Contem-porary
P1
P2
P3
P4
P5
Lower tabs (pages)
Styles

Note: Depending on the status of the "Auto Select" parameter (see page 235), a Style may be immediately selected when touching one of the side tabs. The latest selected Style for that bank will be selected.

Style sets

Selected set of Styles. ***Factory*** Styles are Styles supplied as standard. ***Fav/User*** are ***Favorite*** Styles (locations for custom-made Styles with editable names) and ***User*** Styles (locations for custom-made Styles with fixed names).

Side tabs (banks)

Use these tabs to select a bank of Styles. Favorite tabs can be renamed (see "Renaming the Favorite banks" on page 117).

Lower tabs (pages)

Use these tabs to select one of the available pages in the selected bank.

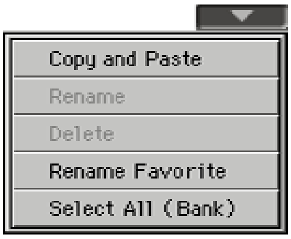
Styles

Touch one of these buttons in the display to select a Style. Unless the "Display Hold" parameter (see page 235) is turned on, the window automatically closes shortly after you select a Style.

After selecting a Style from this window, and another Style is playing, the name of the new Style name begins to flash, meaning it is ready to start playing at the beginning of the next measure.

Style Select page menu

Touch the page menu icon to open the menu. Touch a command to select it. Touch anywhere in the display to close the menu without selecting a command.


Copy and Paste
Rename
Delete
Rename Favorite
Select All (Bank)

Copy and Paste

Use this command to copy the selected Style to a different selection,

1. Select the Style to be copied. To select more items, keep the SHIFT button pressed and touch all the item to be selected for copying. ***Hint:*** *You can deselect one of the selected items by touching it while still keeping the SHIFT button pressed. You can deselect all by touching a single item.*
2. Choose the Copy and Paste command.
3. Select the target location. In case you are copying more than a single item, all subsequent items will sequentially follow the first one. If there aren't enough locations available, the procedure will be cancelled. ***Warning:*** *If you confirm, any Style already existing at the target location will be overwritten!*

Rename

Use this command to edit the name of the selected item. Please keep in mind that you can only rename non-protected items.

1. Select the Style to be renamed,
2. Choose the Rename command, and use the virtual keyboard to edit the name.
3. When done, touch OK to confirm.

Delete

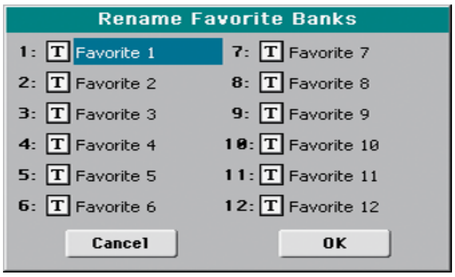
Choose this command to delete the selected item. Please keep in mind that you can only delete non-protected items.

1. Select the Style to be deleted. To select more items, keep the SHIFT button pressed and touch all the item to be selected for deleting. ***Hint:*** *You can deselect one of the selected items by touching it while still keeping the SHIFT button pressed. You can deselect all by touching a single item.*
2. Choose the Delete command, and confirm deletion. ***Warning:*** *Unless you have a copy of it, the deleted item will be gone forever!*

   Note: *This command does not delete any User PCM Sample used by User Sounds. In case you need more free PCM Sample memory, and you know there are unused Samples and Multisamples in memory, use the "Not assigned to any Multisample/Drumkit" option of the "Delete" command in the Sampling mode to clean memory (see page 231).*

Rename Favorite

Choose this command to edit the name of the Favorite Style banks.


Rename Favorite Banks
1: T Favorite 1
2: T Favorite 2
3: T Favorite 3
4: T Favorite 4
5: T Favorite 5
6: T Favorite 6
7: T Favorite 7
8: T Favorite 8
9: T Favorite 9
10: T Favorite 10
11: T Favorite 11
12: T Favorite 12
Cancel
OK

The assigned name can be spanned over two lines, by separating them with the paragraph character (¶). For example, to write “World Music” on two lines, enter “World¶Music”.

Be careful not to write words exceeding the width of the side tabs of the Style Select window.

1. Choose the Rename Favorite command.
2. Touch the **T** (Text Edit) symbol next to the bank to be renamed.
3. Use the virtual keyboard to edit the name.
4. When done, touch OKto confirm.

Select All (Bank)

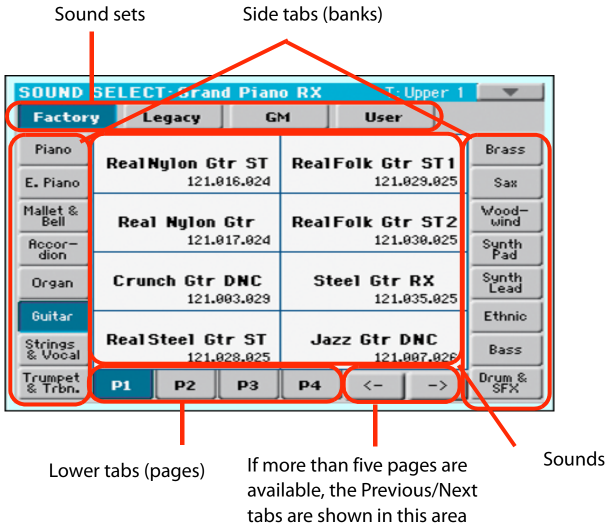
Choose this command to select all items in the current bank.

You can deselect one of the selected items by touching it while keeping the SHIFT button pressed. You can delect all by touching any single item.

Sound Select window

To open the Sound Select window, touch the Sound area whereas it appears in the display, or the SOUND button in the SELECTION section of the control panel.

Press EXIT to exit from this page and go back to the previous page without choosing any Sound.


Sound sets
Side tabs (banks)
SOUND SELECT: Grand Piano RX
T: Upper 1
Factory
Legacy
GM
User
Piano
E. Piano
Mallet & Bell
Accor-dion
Organ
Guitar
Strings & Vocal
Trumpet & Trbn.
RealNylon Gtr ST
121.016.024
RealFolk Gtr ST1
121.029.025
Real Nylon Gtr
121.017.024
RealFolk Gtr ST2
121.030.025
Crunch Gtr DNC
121.003.029
Steel Gtr RX
121.035.025
RealSteel Gtr ST
121.028.025
Jazz Gtr DNC
121.007.026
P1
P2
P3
P4
<-
->
Brass
Sax
Wood-wind
Synth Pad
Synth Lead
Ethnic
Bass
Drum & SFX
Lower tabs (pages)
If more than five pages are available, the Previous/Next tabs are shown in this area
Sounds

Sound sets

Selected set of Sounds. ***Factory*** Sounds are the Sounds supplied as standard. ***Legacy*** Sounds are Sounds compatible with older Pa-Series models. ***GM*** are Drum Kits mapped according to the General MIDI 2 or XG standards. ***User*** Sounds are custom-created or edited Sounds.

Side tabs (banks)

Use these tabs to select a bank of Sounds.

Lower tabs (pages)

Use these tabs to select one of the available pages in the selected bank.

Previous/Next tabs

Scroll the lower tabs to the left or the right, when additional tabs are available but cannot be seen in the display.

Sounds

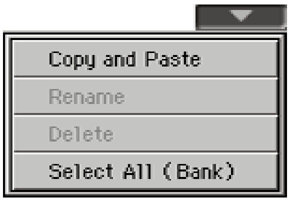
Touch one of these buttons in the display to select a Sound. Unless the “Display Hold” parameter (see page 235) is turned on, the window automatically closes shortly after you select a Sound.

Program Change

Program Change number. Shown only when the “Show” parameter is turned on in Global mode. (See page 235).

Sound Select page menu

Touch the page menu icon to open the menu. Touch a command to select it. Touch anywhere in the display to close the menu without selecting a command.


Copy and Paste
Rename
Delete
Select All (Bank)

The commands are the same seen for the Style Select window’s page menu, apart for a difference with the Delete command.

Delete

Choose this command to delete the selected Sound.

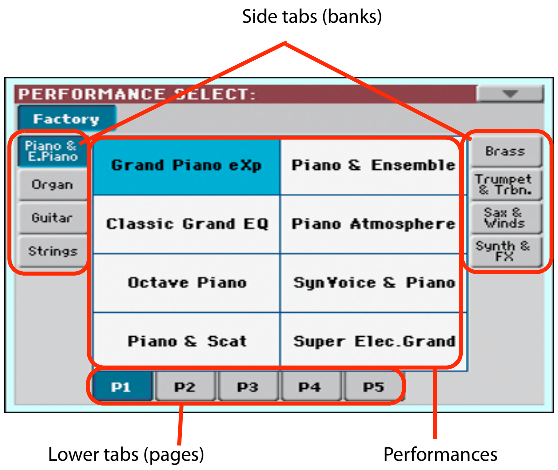
1. Select the Sound to be deleted. To select more items, keep the SHIFT button pressed and touch all the item to be selected for deleting. ***Hint:*** *You can deselect one of the selected items by touching it while still keeping the SHIFT button pressed. You can deselect all by touching a single item.*
2. Choose the Delete command, and confirm deletion. ***Warning:*** *Unless you have a copy of it, the deleted item will be gone forever!*

Note: *This command does not delete any User PCM Sample used by User Sounds. In case you need more free PCM Sample memory, and you know there are unused Samples and Multisamples in memory, use the “Not assigned to any Multisample/Drumkit” option of the “Delete” command in the Sampling mode to clean memory (see page 231).*

Performance Select window

To open the Performance Select window, touch the Performance area whereas it appears in the display, or one of the PERFORMANCE buttons on the control panel. Use the PERFORMANCE buttons to go directly to the selected bank.

Press EXIT to exit from this page and go back to the previous page without selecting any Performance.


Side tabs (banks)
PERFORMANCE SELECT:
Factory
Piano & E.Piano
Organ
Guitar
Strings
Grand Piano eXp
Piano & Ensemble
Classic Grand EQ
Piano Atmosphere
Octave Piano
SynVoice & Piano
Piano & Scat
Super Elec.Grand
Brass
Trumpet & Trbn.
Sax & Winds
Synth & FX
P1
P2
P3
P4
P5
Lower tabs (pages)
Performances

***Note:** Depending on the status of the "Auto Select" parameter (see page 235), a Performance may be immediately selected when pressing one of the PERFORMANCE buttons. The latest selected Performance for that bank will be selected.*

Side tabs (banks)

Use these tabs to select a bank of Performance. Each tab corresponds to one of the PERFORMANCE buttons on the control panel.

Lower tabs (pages)

Use these tabs to select one of the available pages in the selected bank.

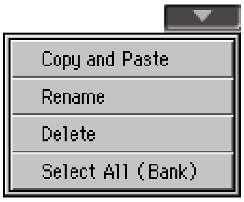
If you press again the same PERFORMANCE button on the control panel, the next page in the same bank is selected. This way, you do not need to touch one of the corresponding tabs in the display in order to select a different page.

Performances

Touch one of these buttons in the display to select a Performance. Unless the "Display Hold" parameter (see page 235) is turned on, the window automatically closes shortly after you select a Performance.

Performance Select page menu

Touch the page menu icon to open the menu. Touch a command to select it. Touch anywhere in the display to close the menu without selecting a command.

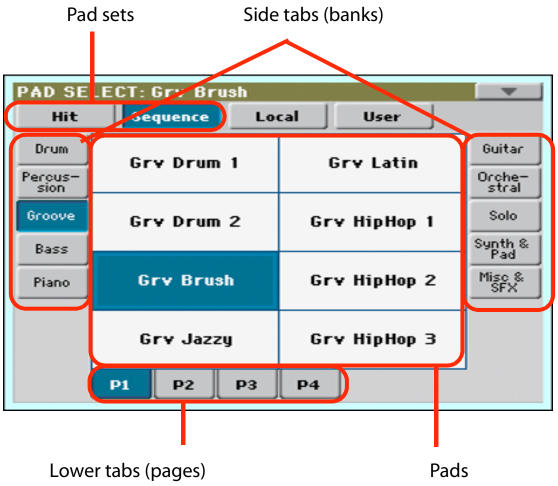

Copy and Paste
Rename
Delete
Select All (Bank)

The commands are the same seen for the Style Select window's page menu.

Pad Select window

Touch the Pad area whereas it appears in the display, to open the Pad Select window.

Press EXIT to exit from this page and go back to the previous page without selecting any Pad.


Pad sets
Side tabs (banks)
PAD SELECT: Grv Brush
Hit
Sequence
Local
User
Drum
Percus-sion
Groove
Bass
Piano
Grv Drum 1
Grv Latin
Grv Drum 2
Grv HipHop 1
Grv Brush
Grv HipHop 2
Grv Jazzy
Grv HipHop 3
Guitar
Orche-stral
Solo
Synth & Pad
Misc & SFX
P1
P2
P3
P4
Lower tabs (pages)
Pads

Pad sets

Selected set of Pads. ***Hit*** are single-note, pre-programmed factory Pads. ***Sequence*** are sequence-based, pre-programmed factory Pads. ***Local*** are like Factory Pads, but contain Pads customized for the music of your Country. ***User*** can be either single-note or sequence-based Pads, and can be user-created or modified.

Side tabs (banks)

Use these tabs to select a bank of Pads.

Lower tabs (pages)

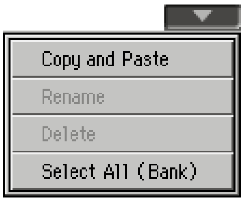
Use these tabs to select one of the available pages in the selected bank.

Pad

Touch one of these buttons in the display to select a Pad. Unless the "Display Hold" parameter (see page page 235) is turned on, the window automatically closes short after you select a Pad.

Pad Select page menu

Touch the page menu icon to open the menu. Touch a command to select it. Touch anywhere in the display to close the menu without selecting a command.

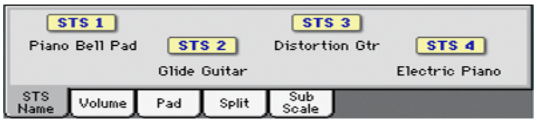

Copy and Paste
Rename
Delete
Select All (Bank)

The commands are the same seen for the Style Select window's page menu.

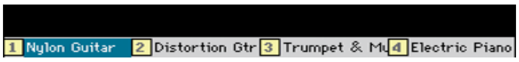
STS Select

To select one of the four STS associated with the current Style or the selected SongBook Entry, use the four STS buttons on the control panel.

As an alternative, touch the STS name tab in the main page of the Style Play or Song Play mode, where you can see the name of the available STSs.


STS 1
Piano Bell Pad
STS 2
Glide Guitar
STS 3
Distortion Gtr
STS 4
Electric Piano
STS Name
Volume
Pad
Split
Sub Scale

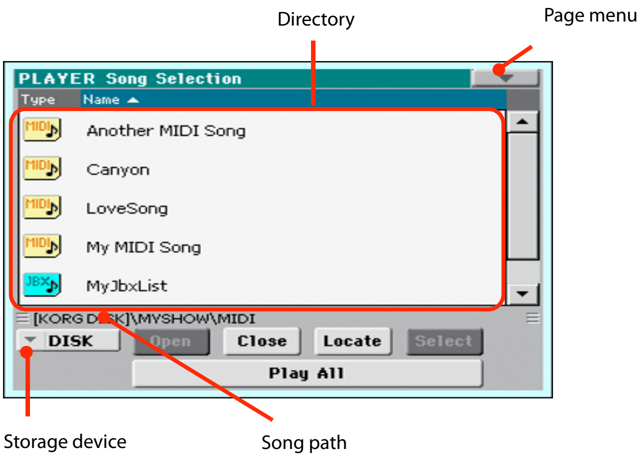
The STS's name can also be seen in the Lyrics and Markers page:


1 Nylon Guitar
2 Distortion Gtr
3 Trumpet & Mu
4 Electric Piano

Song Select window

This page appears when you touch the Song name in the display, or press the SONG button in the SELECTION sections on the control panel.

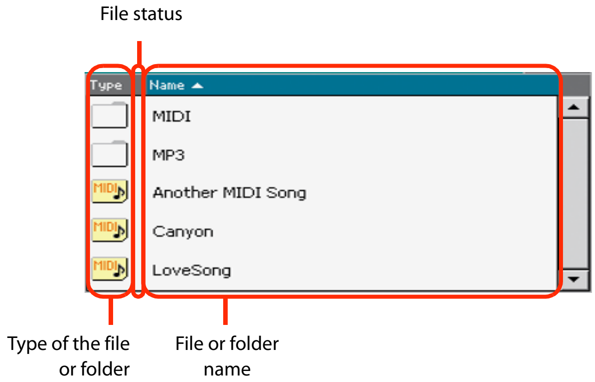
Press EXIT to exit from this page and go back to the main page of the Song Play operating mode without selecting a Song.


Directory
Page menu
PLAYER Song Selection
Type
Name
Another MIDI Song
Canyon
LoveSong
My MIDI Song
MyJbxList
[KORG DISK]\MYSHOW\MIDI
DISK
Open
Close
Locate
Select
Play All
Storage device
Song path

While in this page, you can select a Standard MIDI File, Karaoke, MP3 or Jukebox file.

Directory

This is the list of the selected device's content.


File status
Type
Name
MIDI
MP3
Another MIDI Song
Canyon
LoveSong
Type of the file or folder
File or folder name

Use the scrollbar to scroll the list items. As an alternative, you can scroll the list using the VALUE dial.

When the Name label is selected on top of the list, keep the SHIFT button pressed and touch one of the arrows to jump to the previous or next alphabetical section.

You can touch one of the labels on top of the list, to reorder the list items accordingly. By touching the label again, the order of the files will switch between ascending and descending.

A list can contain several different types of files or folders.

Type icon	File/folder type
MID	Standard MIDI File (MID)
KAR	Karaoke file (KAR)
MP3	MPEG Layer 3 (MP3)
JBX	Jukebox file (JBX)
📁	Folder

A file or folder may be in one of the following status. (See "Protect" and "Unprotect" on page 269 for information on how to change the file status).

Status icon	File/folder status
🔒	Protected
–	Unprotected

Page menu icon

Touch the page menu icon to open the menu. See "Song Select page menu" on page 92 for more information.

Storage device

Use this menu to select one of the available storage devices.

Device	Type
DISK	Internal memory
USB	Optional device connected to the rear USB Host port

The actual name (label) of the device appears within square brackets ([]).

Song path

This line shows the current device path.

Open

Opens the selected folder (item whose icon looks like this one:).

Close

Closes the current folder, returning to the parent ("upper") folder.

Locate

Touch this button to go back to the folder containing the selected Song. This is useful to quickly locate it, after you have browsed through long directories and "dug" into different folders.

Select

Selects the highlighted item in the display. If a Song is already playing, it stops, and the new Song is ready to play. You will return to the main page.

Play All

When you touch this button, all Standard MIDI Files and MP3 files contained in the current directory are added to a new Jukebox list, that is automatically assigned to the Player. The order in which they are played depends on the current sorting method, i.e., how the files are shown in the display.

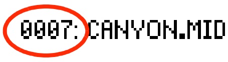
You can use this Jukebox list as any other list of this type (i.e., start the playback with PLAY/STOP, jump to the next Song in the list with SHIFT + >>, edit it in the Jukebox page…).

Note: *A Jukebox list can include up to 127 Songs. If your folder contains more items, only the first 127 will be considered.*

Hint: *If you don't want the list to be deleted when setting the instrument to standby, go to the Jukebox page and save it as a ".JBX" file.*

Selecting a Song by its ID number

Each Song in a folder on a device (up to 9,999) has a progressive ID number assigned. When the "Show Song Number" option is selected in the Song Select page menu (see below), you can see this number before the Song's name in the Song Select window. You can use this number to select the Song by composing the corresponding number, speeding up the Song retrieval when you are using an hard disk filled with midifiles.



0007: CANYON.MID

While in the Song Select window, press the SONG button in the SELECTION section to open the keypad, and enter the number corresponding to the Song to be selected.

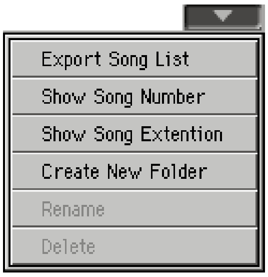
While in any page of the Song Play mode, press the SONG button in the SELECTION section twice to open the keypad.

Note: *If no Song corresponds to the dialed number, the "Song not available" message will appear.*

Note: *While the directory may contain more than 9999 files, you can't select Songs outside the 0001-9999 range when using the numeric keypad.*

Song Select page menu

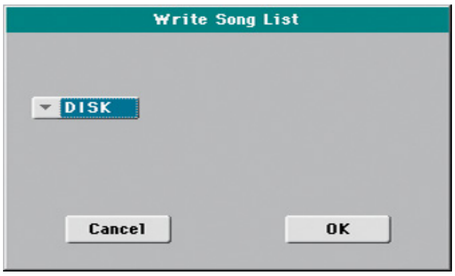
Touch the page menu icon to open the menu. Touch a command to select it. Touch anywhere in the display to close the menu without selecting a command.



Export Song List

Select this command to save the current list as a text file. This way, you will be able to print a list of Songs, to see which number matches each Song.

1. While in the Song Select window, select the folder whose Song list you wish to save as a text file.
2. Select the Export Song List command from the page menu.
3. A dialog box will appear, asking you to select one of the available storage devices.



4. Select one of the options, and touch OK to confirm.

Note: *The text file will contain a list of "*.mid", "*.kar", ".mp3" and "*.jbx" files only. Folders and other types of files will not be included.*

When saved, the text file will be named after the selected folder. For example, a folder named "Dummy" will generate a "Dummy.txt" file. If a file with the same name already exists in the target, it will be overwritten without waiting for any confirmation. A file containing the list of all valid files contained into the root of the disk will generate a "Root.txt" file.

The list will include the progressive number assigned to each Song, the file names, the total number of files in the list.

To correctly display and print the list on a personal computer, use a fixed size (i.e., non-proportional) character in your text editor.

Show Song Number

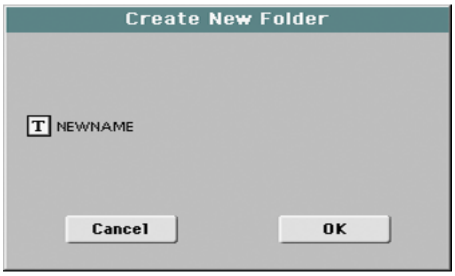
Check this option to make the Song's progressive ID number appear in the list, next to each Song.

Show Song Extension

Check this option to make the file extension ("*.mid", "*.kar", "*.jbx", "*.mp3") appear in the list, at the end of each Song's name.

Create New Folder

This command will let you create a new generic folder in the root of any device, or inside any other generic folder. You can't create a ".SET" folder with this command, since this type of folder is reserved to the Save operations (and can be created with the New SET button in any Save page).

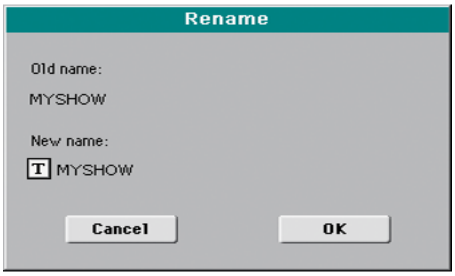


T NEWNAME

By touching the T (Text Edit) button you can open the Text Edit window. Enter the name, then touch OK to confirm and close the Text Edit window.

Rename

(Only available when an item is selected in a list) Use this function to change the name of an existing file or folder. You cannot change the 3-character extension of files and ".SET" folders, since they are used to identify the type of file or folder.



Old name:
MYSHOW
New name:
T MYSHOW

Touch the T (Text Edit) button to open the Text Edit window. Enter the new name, then touch OK to confirm and close the Text Edit window.

Delete

(Only available when an item is selected in a list) Use this command to delete the selected file or folder.

Style Play mode

The Style Play mode is the boot-up operating mode. When in this mode, you can play along with the Styles (i.e. automatic accompaniments), using up to four tracks (Upper 1-3 and Lower) to play on the keyboard. You can choose different Sounds and Effects by selecting Performances and STSs. Four Pads will provide single-shot sounds or repeating patterns in sync with the Style. You can also use the SongBook to automatically select Styles suited for a particular song.

Start-up settings

Since the “My Setting” Performance is automatically selected when turning the instrument on, you can save your preferred start-up settings to it.

Select the Sounds, Effects, and other settings you would like to see automatically selected when turning the instrument on. Then keep the MY SETTING button pressed for about one second. When the Write Startup Settings window appears, confirm by touching OK.

Note: *If you like some settings to be preserved even when choosing different Performances, STSs and Styles, turn on the desired “locks” to avoid changes to the selected parameters (see “General Controls: Lock” on page 236).*

How Styles, Variations, Performances and STSs are linked together

Styles, Variations, Performances and STSs are linked in many ways.

• When the STS MODE LED is steadily on or blinking, selecting a Style also changes the Keyboard tracks (STS 1 is automatically selected). Performance settings are overridden.

• When the STS MODE LED is blinking, selecting a Variation also select the corresponding STS.

• When the STYLE CHANGE LED is on, selecting a Performance also selects a Style (the one memorized with the Performance).

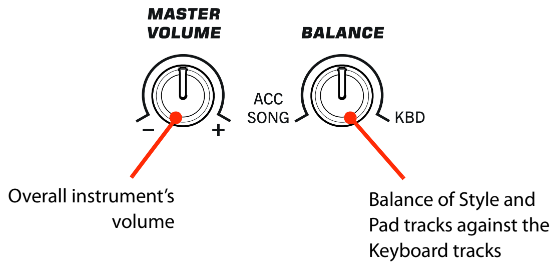
• Current track settings can be saved either to a Performance, an STS, or the Style Settings, depending on the Write command you select.

Styles and Pads

Each Style includes four Pads. Each time you select a Style, the four Pads it contains are assigned to the four PAD buttons. The Style and the Pads will play using the same Tempo value.

Master Volume and Balance

While the MASTER VOLUME knob controls the general volume of the instrument, you can use the BALANCE knob to balance the Style’s Accompaniment and Pad tracks against the Keyboard tracks.


MASTER VOLUME
BALANCE
ACC SONG
KBD
–
+
Overall instrument’s volume
Balance of Style and Pad tracks against the Keyboard tracks

Note: *As an alternative, the BALANCE knob can also work as a volume control. See “Balance knob” on page 242.*

Factory, Favorite and User Styles

There are three different types of Style locations:

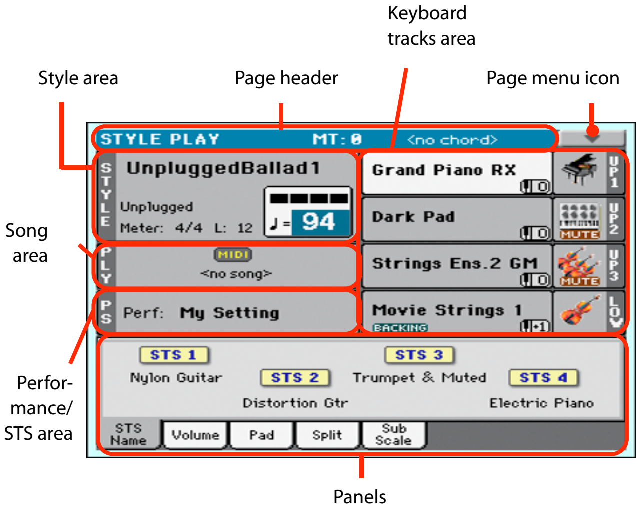
- Factory Style banks are the preloaded Styles, that you can’t usually edit (unless you want to do so by turning off the protection, see “Factory Style and Pad Protect” on page 241).
- Favorite Style banks are Styles that can be loaded from an external device, or can be created or edited in Style Record mode. You can rename the tabs in the Style Select window to create places for custom banks, or for additional music genres that are not already included among the supplied banks. See “The Favorite banks” on page 117 for information on how to manage these Styles.
- User Style banks are, like the Favorite banks, Styles loaded from an external device, created or edited by yourself (the User). These are banks conceived as a ‘workbench’ – a place where to manage Styles and banks before saving them to a final location. See the “Style/Pad Record mode” chapter for information on how to edit or create Styles.

Main page

This is the page you see when you turn the instrument on.

To access this page from another operating mode, press the STYLE PLAY button.

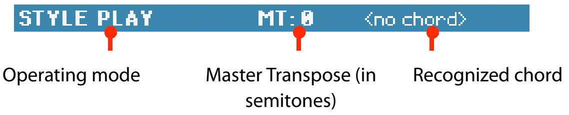
To return to this page from one of the Style Play edit pages, press the EXIT button.


Keyboard tracks area
Style area
Page header
Page menu icon
Song area
Perfor-mance/ STS area
Panels
STYLE PLAY
MT: 0
<no chord>
UnpluggedBallad1
Unplugged
Meter: 4/4 L: 12
♩= 94
MIDI
<no song>
Perf: My Setting
Grand Piano RX
Dark Pad
MUTE
Strings Ens.2 GM
MUTE
Movie Strings 1
BACKING
UP1
UP2
UP3
LOW
STS 1
Nylon Guitar
STS 2
Distortion Gtr
STS 3
Trumpet & Muted
STS 4
Electric Piano
STS Name
Volume
Pad
Split
Sub Scale

Details on individual tracks can be seen by pressing the Volume tab. Use the TRACK SELECT button to switch between Normal view (Keyboard tracks, grouped Style tracks) and Style view (individual Style tracks). (See “Volume panel” starting from page 97).

Page header

This line shows the current operating mode, transposition and recognized chord.


STYLE PLAY
MT: 0
<no chord>
Operating mode
Master Transpose (in semitones)
Recognized chord

Operating mode name

Name of the current operating mode.

Master transpose

Master transpose value in semitones. This value can be changed by using the TRANSPOSE buttons on the control panel.

Note: *Transpose may automatically change when selecting a different Performance or Style. It may also change when loading a Standard MIDI File generated with an instrument of the KORG Pa-Series.*

To avoid transposition, the Master Transpose is “locked” by default. If you want to unlock it, change the Master Transpose Lock parameter’s status (see “General Controls: Lock” on page 236).

Recognized chord

Displays the recognized chord, when you play a chord on the keyboard. If no chord abbreviation is shown, check if the ACCOMP LED is turned on.

You can choose how chords are recognized by using the “Chord Recognition” parameter in the Global > Style page (see page 239).

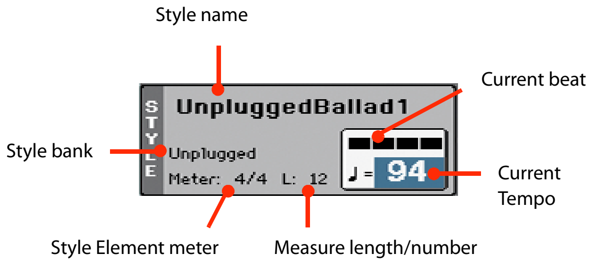
Page menu icon

Touch the page menu icon to open the menu. See “Page menu” on page 114 for more information.

▼

Style area

This is where the Style name is shown, together with its Tempo and Meter (Time Signature) parameters.


Style name
Current beat
Style bank
Current Tempo
Style Element meter
Measure length/number
STYLE
UnpluggedBallad1
Unplugged
Meter: 4/4 L: 12
♩= 94

Style name

Currently selected Style. Touch the Style name (or press the STYLE button in the SELECTION section) to open the Style Select window.

Style bank

Bank the current Style belongs to.

Style Element meter

Meter (time signature) of the current Style Element.

Measure length/number

While the Style is playing, an ‘M’ appears, to show the current measure number of the current Style Element playing. While it is in stop, an ‘L’ appears, to show the length (total number of measures) of the current Style Element.

Current beat

Beat number currently playing.

Current Tempo

Metronome Tempo (from 30 to 250). Use the TEMPO buttons to change the Tempo value.

As an alternative, keep the SHIFT button pressed and use the VALUE DIAL to change the Tempo. Also, you can touch the Tempo field and drag it with your finger, or change it with the VALUE DIAL.

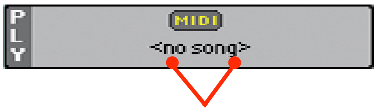
To recall the Tempo stored in the current Style, press the TEMPO buttons together.

You can prevent Tempo from changing by turning the TEMPO LOCK LED on.

Note: *Since Style Elements may contain Tempo Change data, Tempo may change while a Style Element is playing.*

Songs area

This is where the Song assigned to the onboard Player is shown.



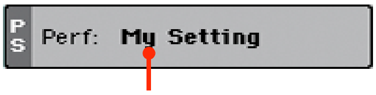
Song name

Song name

Name of the Song assigned to the Player. You can select Songs while playing Styles, to have them ready when switching to Song Play mode.

Performance/STS area

This is where the latest selected Performance or STS name is shown.



Selected Performance or STS

Selected Performance or STS

This is the latest selected Performance (Perf) or Single Touch Setting (STS#).

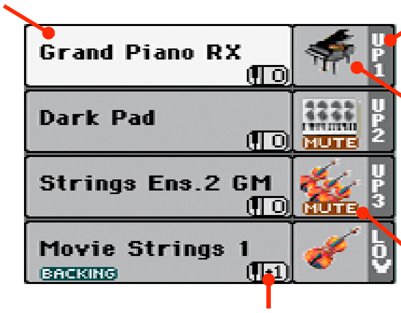
Touch the name to open the Performance Select window (see “Performance Select window” on page 90). As an alternative, use the PERFORMANCE section to select a different Performance.

To select a different STS, use the four STS buttons under the display, or the STS panel in the display.

Keyboard tracks area

This is where Keyboard tracks are shown.

Sound name



Track name

Sound bank’s icon

Track status

Track’s octave transpose

Sound name

Name of the Sound assigned to the corresponding Keyboard track.

- If the track is already selected (white background), touch the Sound name to open the Sound Select window.

- If the track is not selected (dark background), first select it, then touch the Sound name to open the Sound Select window.

You can also open the Sound Select window by pressing the SOUND button in the SELECTION section on the control panel.

For more information about the Sound Select window, see “Sound Select window” on page 89.

Keyboard track octave transpose

Non editable. Octave transpose of the corresponding track. To individually edit the octave transpose for each track, go to the “Mixer/Tuning: Tuning” edit page (see page 104).

You can also transpose all Upper tracks by using the UPPER OCTAVE buttons on the control panel.

Bass & Lower Backing icon

When the Bass & Lower Backing function is active, the Backing icon appears in the Lower track Sound area (see “Bass & Lower Backing” on page 240).

BACKING

Keyboard track name

Non editable. Name of the corresponding track:

Abbreviation	Track	Hand
UP1	Upper 1	Right hand (or both when in Full Keyboard mode)
UP2	Upper 2	
UP3	Upper 3	
LOW	Lower	Left hand

Sound bank’s icon

This picture illustrates the bank the current Sound belongs to.

Keyboard track status

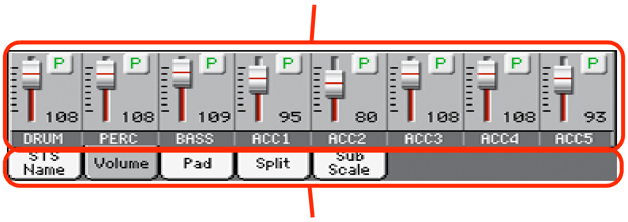
Play/mute status of the current track. Select the track, then touch this area to change the track status.

No icon	Play status. The track can be heard.
MUTE	Mute status. The track cannot be heard.

Panels

The lower half of the main page contains the various panels, you can select by touching the corresponding tabs. See more information in the relevant sections, starting from page 97.

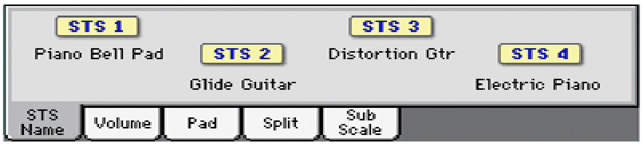
Volume panel



Tabs

STS Name panel

Touch the STS Name tab to select this panel. Single Touch Settings (STS) are memory locations intended for quickly choosing Keyboard Sounds, contained in each Style or SongBook Entry. While in this panel, you can see the name of the four STSs belonging to the latest selected Style or SongBook Entry. Touch one of the names to select the corresponding STS.


STS 1
Piano Bell Pad
STS 2
Glide Guitar
STS 3
Distortion Gtr
STS 4
Electric Piano
STS Name
Volume
Pad
Split
Sub Scale

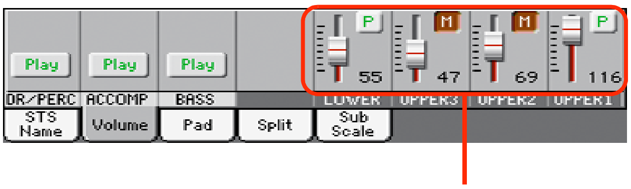
***Note:** You cannot edit the STS names in this panel. To edit a name, select the STS to be renamed, then select the Write Single Touch Setting command from the page menu (see "Write Single Touch Setting dialog box" on page 116).*

Volume panel

Touch the Volume tab to select this panel. This is where you can set the volume of each track, and mute/unmute them.

Changing the tracks' volume

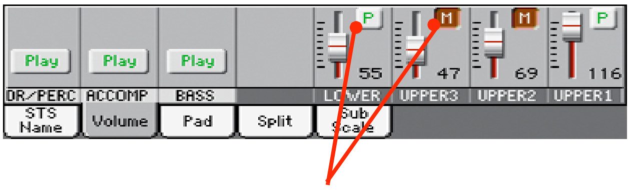
You can change the volume of each track by dragging the sliders in the display. You can also change the volume by touching a track's slider, then using the VALUE DIAL.


Play
Play
Play
P
55
M
47
M
69
P
116
DR/PERC
ACCOMP
BASS
LOWER
UPPER3
UPPER2
UPPER1
STS Name
Volume
Pad
Split
Sub Scale

Sliders

Changing the Play/Mute status

Play/mute status of the current track. Select the track, then touch this area to change its status.


Play
Play
Play
P
55
M
47
M
69
P
116
DR/PERC
ACCOMP
BASS
LOWER
UPPER3
UPPER2
UPPER1
STS Name
Volume
Pad
Split
Sub Scale

Track status icons

P	Play status. The track can be heard.
M	Mute status. The track cannot be heard.

Saving the track's volume and play/mute status

Each set of tracks can be saved into a different memory. This allows for a great flexibility when mixing Keyboard and Accompaniment tracks through the use of Performances, STSs and Styles.

- The volume and play/mute status of the ***Keyboard tracks*** can be saved to a Performance or STS (see "Write Performance" on page 114 and "Write Single Touch Setting" on page 114).
- The volume and play/mute status of the ***separate Style tracks*** can be saved to the current Style Settings (see "Write Current Style Settings" on page 114).
- The offset volume of the ***grouped Style tracks*** is automatically saved to the Global.

Track names

Under the sliders, a label for each track is shown. Use the TRACK SELECT button to switch between the *Normal* (grouped Style tracks, Keyboard tracks) and the *Style Tracks* view (separate Style tracks).

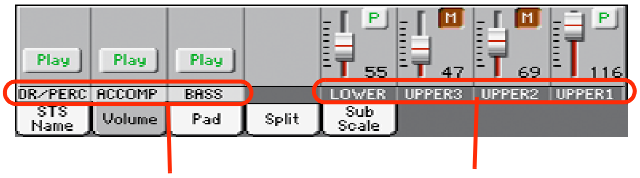
TRACK SELECT

Track	Description
Normal View	
DR/PERC (*)	Grouped Drum and Percussion tracks.
ACCOMP (*)	Grouped Accompaniment tracks (Acc1-5).
BASS (*)	Grouped Bass Style track.
LOWER	Lower track.
UPPER1…3	Upper tracks.
Style Tracks View	
DRUM	Drum Style track.
PERC	Percussion Style track.
BASS	Bass Style track.
ACC1…5	Accompaniment Style tracks.

(*).Volume for these grouped tracks is a global offset, that can be adjusted in the Global > Mode Preferences > Style page.

Normal view

In ***Normal view*** you can see the grouped Style tracks (Play/Mute only), and the separate controls for the Keyboard tracks:

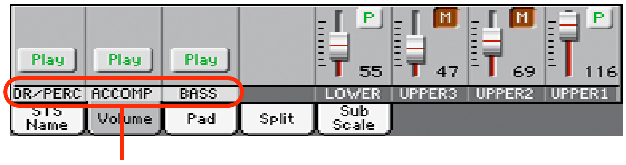

Play
Play
Play
P
M
M
P
55
47
69
116
DR/PERC
ACCOMP
BASS
LOWER
UPPER3
UPPER2
UPPER1
STS Name
Volume
Pad
Split
Sub Scale

Grouped Style tracks

Keyboard tracks

Grouped Style tracks

In the Normal view, Style tracks are grouped together (Dr/Perc, Accomp, Bass groups), to allow for instant play/mute of several tracks at the same time.


Play
Play
Play
P
M
M
P
55
47
69
116
DR/PERC
ACCOMP
BASS
LOWER
UPPER3
UPPER2
UPPER1
STS Name
Volume
Pad
Split
Sub Scale

Grouped Style Tracks

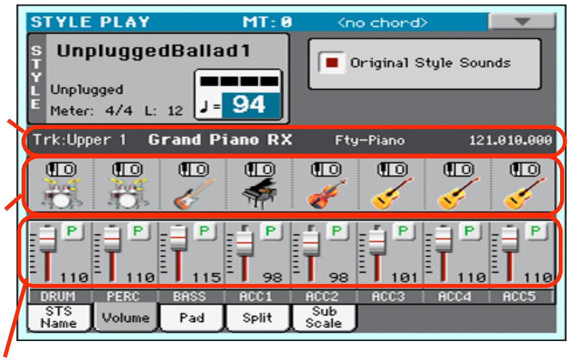
Changing the volume of the grouped Style tracks can be done (as a general control) in the Global mode > Mode Preferences > Style page (see “Style Tracks Global Volume” on page 240).

Keyboard tracks

Here you can separately control the volume and play/mute status of each Keyboard track.

Style Tracks view

Press the TRACK SELECT button to switch from the Normal view to the ***Style Tracks view***. In this view, individual Style tracks are shown in the lower half of the display, while the upper half of the main page changes to show parameters for the selected Style track.


STYLE PLAY
MT: 0
<no chord>
STYLE
UnpluggedBallad1
Unplugged
Meter: 4/4 L: 12
♩= 94
Original Style Sounds
Trk:Upper 1
Grand Piano RX
Fty-Piano
121.010.000
P
110
110
115
98
98
101
110
110
DRUM
PERC
BASS
ACC1
ACC2
ACC3
ACC4
ACC5
STS Name
Volume
Pad
Split
Sub Scale

Selected track info area

Sounds area

Style tracks Volume

Press TRACK SELECT again to return to the Normal view (Keyboard tracks, grouped Style tracks, Mic/In controls).

Style tracks Volume

Here you can change the volume and play/mute status of each one of the individual Style tracks.

Original Style Sounds

This parameter lets you decide if the Style has to play the Sounds saved in the Performance or Style Settings, or the ones saved in each Style Element.

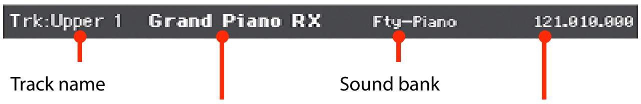
Note: *When assigning a Sound to a Style track, the “Original Style Sounds” parameter is automatically turned off to allow its use.*

Note: *This parameter can be saved with the Performance or Style Settings.*

On	Style tracks always use the original Sounds recorded inside each Style Element. If you assign a different Sound to a Style track, this parameter is automatically set to Off.
Off	You can assign different Sounds to each Style track, and save them in a Performance or Style Settings. The selected Sounds remain the same for all Style Elements. These Sounds can be saved into a Performance or Style Settings with the “Write Performance” or “Write Current Style Settings” commands (see page 114). Assigned Sounds are shown in the Sounds area of this page.

Selected Track Info area

This line lets you see the Sound assigned to the selected track. It appears both in the main page, and in several edit pages.


Trk:Upper 1
Grand Piano RX
Fty-Piano
121.010.000

Track name

Sound bank

Sound name

Program Change sequence

Track name

Name of the selected track.

Sound name

Sound assigned to the selected track. Touch anywhere in this area to open the Sound Select window, and select a different Sound.

Sound bank

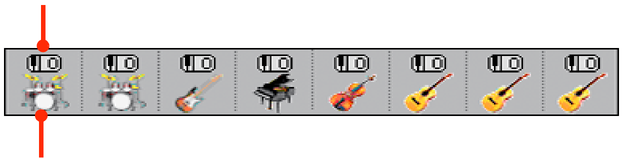
Bank of the selected Sound.

Program Change

Program Change number sequence (Bank Select MSB, Bank Select LSB, Program Change).

Sounds area

This area lets you see the Sound bank's icon and octave transposition for the eight Style tracks.



Style track's octave transpose icon

Sound bank's icon

Style track's octave transpose icon

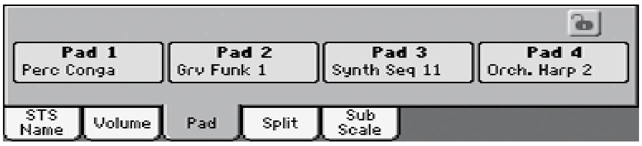
Non editable. Octave transpose of the corresponding track. To change the octave transpose, use the UPPER OCTAVE buttons, or go to the "Mixer/Tuning: Tuning" edit page (see page 104).

Sound bank's icon

This picture illustrates the bank the current Sound belongs to. Touch an icon a first time to select the corresponding track (detailed information are shown on the Selected Track Info area, see above). Touch it a second time to open the Sound Select window.

Pad panel

Touch the Pad tab to select this panel. This is where you can assign a different Hit or Sequence Pad to each of the four pads, and see at a glance how pads are programmed. For more options, go to the "Pad/Switch: Pad" page (see page 112).



Pad 1: Perc Conga
Pad 2: Grv Funk 1
Pad 3: Synth Seq 11
Pad 4: Orch. Harp 2

Pad assignment

Name of the Hit or Sequence assigned to each Pad. Touch the box to make the Pad Select window appear (see "Pad Select window" on page 90).

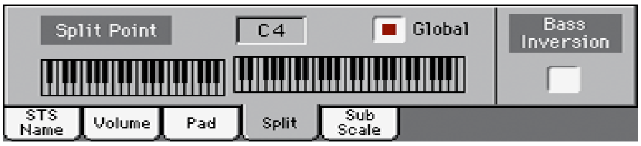
When the lock is open, Pads could automatically change when choosing a Style or SongBook Entry.

Pads lock icon (🔒)

Close this lock to prevent Pads from changing when choosing a different Style or SongBook Entry.

Split panel

Touch the Split tab to select this panel. This is where you can set the split point and activate the Bass Inversion.



Split Point

Use this parameter to select a different split point. A full-range piano keyboard is shown in the display, divided at the selected split point. Upper tracks play on the right of this point, while the Lower track plays on the left.

Keyboard diagram

Touch anywhere on the keyboard diagram. A message will appear, asking you to press the new split point on the keyboard of your Pa600 (or to press the EXIT button to close the message with no changes).

Global

There is a global split point, and a "local" one, that can be memorized into the Performances and STSs.

On	You are editing the global split point. The global split point is considered when selecting a Performance or STS that does not contain a "local" split point.
Off	You are editing the "local" split point memorized in the current Performance or STS.

Bass Inversion

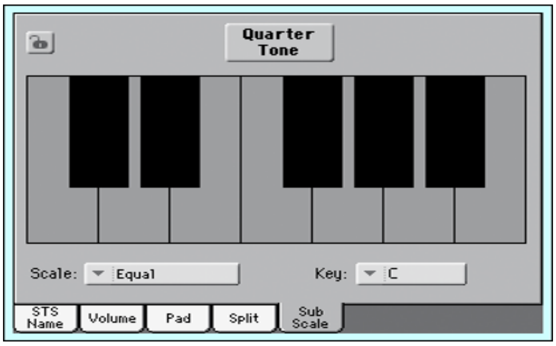
Use this parameter to turn the Bass Inversion function on or off.

On	The lowest note of a chord played in inverted form will always be detected as the root note of the chord. Thus, you can specify to the arranger composite chords such as "Am7/G" or "F/C".
Off	The lowest note is scanned together with the other chord notes, and is not always considered as the root note.

Note: *This function can be automatically activated by playing the keyboard harder. See "Velocity Control" on page 239.*

Sub-Scale panel

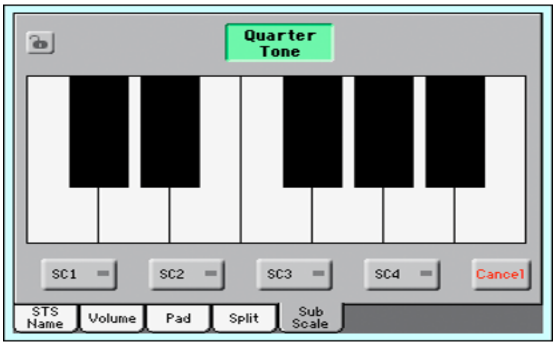
Touch the Sub-Scale tab to select this panel. This panel replicates the "Mixer/Tuning: Sub Scale" edit page (see page 104). When the Quarter Tone button is pressed, it corresponds to the QUARTER TONE section on the control panel *(Pa600 Quarter tone only)*..



Scale: Equal

Key: C

With the "Quarter Tone" button not pressed



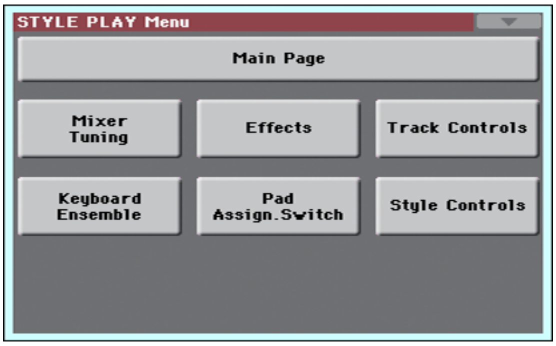
With the "Quarter Tone" button pressed

Edit menu

From any page, press the MENU button to open the Style Play edit menu. This menu gives access to the various Style Play edit sections.

When in the menu, select an edit section, or press EXIT or STYLE PLAY to exit the menu and return to the main page. To return to the main page, you can also select the Main Page menu item.

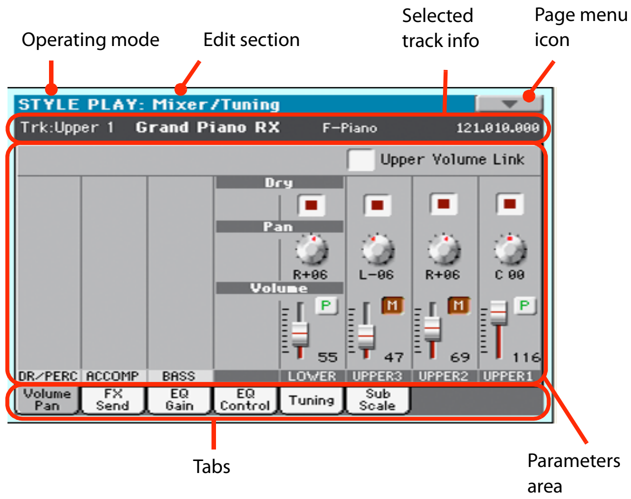
When in an edit page, press EXIT or the STYLE PLAY button to return to the main page of the Style Play operating mode.


STYLE PLAY Menu
Main Page
Mixer Tuning
Effects
Track Controls
Keyboard Ensemble
Pad Assign.Switch
Style Controls

Each item in this menu corresponds to an edit section. Each edit section groups various edit pages, that may be selected by touching the corresponding tab on the lower part of the display.

Edit page structure

All edit pages share some basic elements.


Operating mode
Edit section
Selected track info
Page menu icon
STYLE PLAY: Mixer/Tuning
Trk:Upper 1 Grand Piano RX F-Piano 121.010.000
Upper Volume Link
Dry
Pan
Volume
R+06
L-06
R+06
C 00
55
47
69
116
DR/PERC
ACCOMP
BASS
LOWER
UPPER3
UPPER2
UPPER1
Volume Pan
FX Send
EQ Gain
EQ Control
Tuning
Sub Scale
Tabs
Parameters area

Operating mode

This indicates that the instrument is in Style Play mode.

Edit section

This identifies the current edit section, corresponding to one of the items of the edit menu (see “Edit menu” on page 101).

Page menu icon

Touch this icon to open the page menu (see “Page menu” on page 114).

Parameters area

Each page contains various parameters. Use the tabs to select one of the available pages. For detailed information on the various types of parameters, see sections starting below.

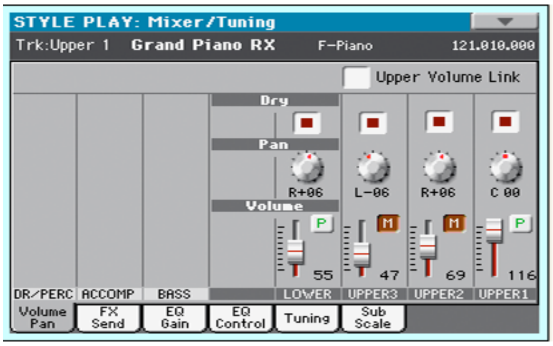
Tabs

Use tabs to select one of the edit pages of the current edit section.

Mixer/Tuning: Volume/Pan

This page lets you set the volume and pan for each of the Keyboard or Style tracks. Volume settings are the same as in the Volume panel of the main page.

Use the TRACK SELECT button to switch from the Keyboard to the Style tracks, and vice versa.


STYLE PLAY: Mixer/Tuning
Trk:Upper 1 Grand Piano RX F-Piano 121.010.000
Upper Volume Link
Dry
Pan
Volume
R+06
L-06
R+06
C 00
55
47
69
116
DR/PERC
ACCOMP
BASS
LOWER
UPPER3
UPPER2
UPPER1
Volume Pan
FX Send
EQ Gain
EQ Control
Tuning
Sub Scale

Upper Volume Link

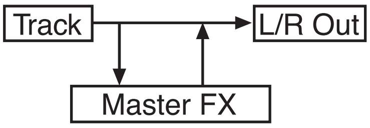
With this parameter, you define if changing the volume of one of the Upper tracks proportionally changes the volume of the other Upper tracks.

On	When changing the volume of one of the Upper tracks, volume for the other Upper tracks changes proportionally.
Off	When changing the volume of one of the Upper tracks, only that track’s volume is changed. The other Upper tracks are left unchanged.

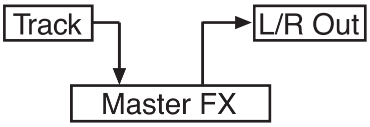
Dry

Use this checkbox to turn the dry (direct) track signal on or off from the outputs.

On	When checked, the direct signal coming from the track is sent to the output, mixed with the Master FXs.


Track
L/R Out
Master FX

Off	When unchecked, the direct signal coming from the track is removed from the audio output, and only sent to the Master FXs. The effected signal will still be panned (in stereo FXs only) according to the Pan value.


Track
L/R Out
Master FX

Pan

Track position in the stereo field.

L-64…L-1	Left stereo channel.
C 00	Center.
R+1…R+63	Right stereo channel.

Volume

Track's volume. This is the volume of each track, as saved in the Style (Style Settings), Performance or STS. It may change when choosing a different Style, Performance or STS.

0…127	MIDI value of the track's volume.

Play/Mute icon

Track's play/mute status.

P	Play status. The track can be heard.
M	Mute status. The track cannot be heard.

Mixer/Tuning: FX Send

Pa600 includes two groups of effects (FX A and FX B). While in Style Play mode, the A group is reserved to the Style and Pad tracks, the B group to the Keyboard tracks.

Choosing and editing the effects is done in the dedicated Effect section (see "Effects: A/B FX Configuration" on page 106).

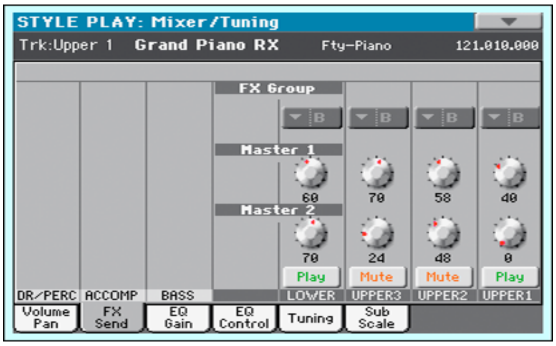
This page lets you set the level of the track's signal going to the Master FX processors. The Master FX processors are connected in parallel with the dry/direct signal, so you can decide the amount of direct signal that will be sent to the Master FX processors.

In case you do not want to hear the direct signal, just set the Dry parameter to Off (see "Dry" above).

You can assign to the Master FXs any kind of available effects, but we found it convenient to arrange them in the following way, for most of the Styles, STS and Performances included with the Pa600:

A-Master 1	Reverb processor for the Style and Pad tracks.
A-Master 2	Modulating FX processor for the Style and Pad tracks.
B-Master 1	Reverb processor for the Keyboard tracks.
B-Master 2	Modulating FX processor for the Keyboard tracks.

Use the TRACK SELECT button to switch from Keyboard to Style tracks, and vice-versa.


STYLE PLAY: Mixer/Tuning
Trk:Upper 1
Grand Piano RX
Fty-Piano
121.010.000
FX Group
B
B
B
B
Master 1
60
70
58
40
Master 2
70
24
48
0
Play
Mute
Mute
Play
DR/PERC
ACCOMP
BASS
LOWER
UPPER3
UPPER2
UPPER1
Volume Pan
FX Send
EQ Gain
EQ Control
Tuning
Sub Scale

FX Group

This indicates the FX group (A or B) assigned to the group of tracks shown.

Send level (Master 1, Master 2)

0…127	Level of the track (direct) signal sent to the corresponding Master FX effect processor.

Play/Mute icon

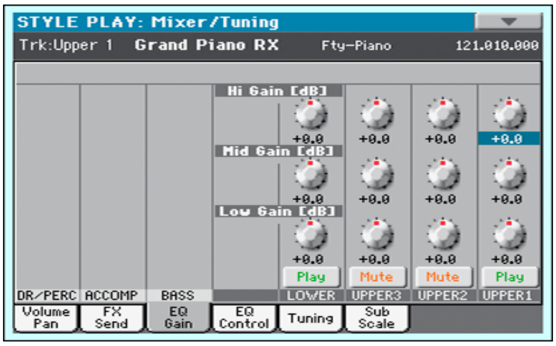
Track's play/mute status.

Play	Play status. The track can be heard.
Mute	Mute status. The track cannot be heard.

Mixer/Tuning: EQ Gain

In this page you can set the three-band equalization (EQ) for each individual track.

Use the TRACK SELECT button to switch from the Keyboard to the Style tracks, and vice-versa.


STYLE PLAY: Mixer/Tuning
Trk:Upper 1 Grand Piano RX Fty-Piano 121.010.000
Hi Gain [dB]
Mid Gain [dB]
Low Gain [dB]
+0.0
Play
Mute
DR/PERC
ACCOMP
BASS
LOWER
UPPER3
UPPER2
UPPER1
Volume Pan
FX Send
EQ Gain
EQ Control
Tuning
Sub Scale

Hi (High) Gain

This parameter lets you adjust the high frequencies equalization on each individual track. This is a shelving curve filter. Values are shown in decibels (dB).

-18…+18dB	High gain value in decibels.

Mid (Middle) Gain

This parameter lets you adjust the middle frequencies equalization on each individual track. This is a bell curve filter. Values are shown in decibels (dB).

-18…+18dB	Middle gain value in decibels.

Low Gain

This parameter lets you adjust the low frequencies equalization on each individual track. This is a shelving curve filter. Values are shown in decibels (dB).

-18…+18dB	Low gain value in decibels.

Play/Mute icon

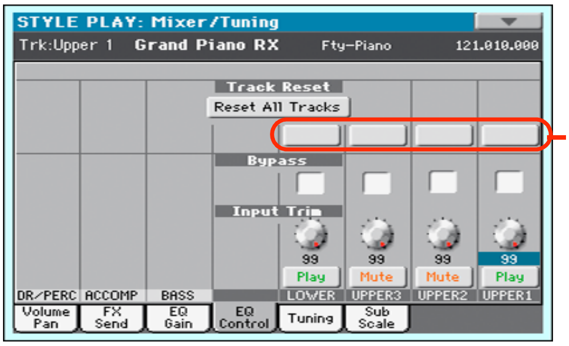
Track's play/mute status.

Play	Play status. The track can be heard.
Mute	Mute status. The track cannot be heard.

Mixer/Tuning: EQ Control

This page lets you reset or bypass the track's equalization, programmed in the previous page.

Use the TRACK SELECT button to switch from the Keyboard to the Style tracks, and vice-versa.


STYLE PLAY: Mixer/Tuning
Trk:Upper 1 Grand Piano RX Fty-Piano 121.010.000
Track Reset
Reset All Tracks
Bypass
Input Trim
99
Play
Mute
DR/PERC
ACCOMP
BASS
LOWER
UPPER3
UPPER2
UPPER1
Volume Pan
FX Send
EQ Gain
EQ Control
Tuning
Sub Scale

Track Reset buttons

Reset All Tracks button

Touch this button to reset (i.e., "flatten") equalization for all tracks (both Realtime and Style tracks).

Track Reset buttons

Use these buttons to reset (i.e., "flatten") equalization for the corresponding track.

Bypass

Check any of these checkboxes to bypass the equalization for the corresponding track. When bypassed, equalization has no effect on the track, but all parameters are preserved. When the box is unchecked, equalization is activated again.

On	The bypass function is engaged, so no equalization is active on the corresponding track.
Off	The bypass function is not engaged, so the equalization is active on the corresponding track.

Input Trim

This knob allows you to limit the level of the signal passing through the equalizer. Extreme equalization values can overload the audio circuits and lead to distortion. This control lets you set equalization as desired, and at the same time avoid overloading.

0…99	Limiting value. The higher, the most effective it is.

Play/Mute icon

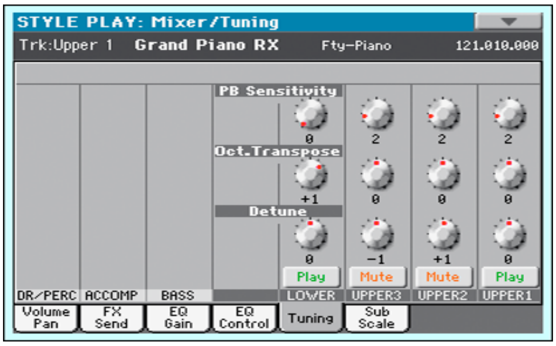
Track's play/mute status.

Play	Play status. The track can be heard.
Mute	Mute status. The track cannot be heard.

Mixer/Tuning: Tuning

This page is where you can set the octave transpose and fine tuning for each track. Plus, you can program the Pitch Bend range for each track.

Use the TRACK SELECT button to switch from the Keyboard to the Style tracks, and vice-versa.


STYLE PLAY: Mixer/Tuning
Trk:Upper 1
Grand Piano RX
Fty-Piano
121.010.000
PB Sensitivity
0
2
2
2
Oct.Transpose
+1
0
0
0
Detune
0
-1
+1
0
Play
Mute
Mute
Play
DR/PERC
ACCOMP
BASS
LOWER
UPPER3
UPPER2
UPPER1
Volume Pan
FX Send
EQ Gain
EQ Control
Tuning
Sub Scale

PB Sensitivity

These parameters show the Pitch Bend range for each track, in semitones.

1…12	Maximum up/down pitch bend range (in semitones). 12 = ±1 octave.
0	No pitch bend allowed.

Oct(ave) Transpose

This is the octave transpose value.

-3	Lowest octave.
0	Standard tuning.
+3	Highest octave.

Detune

This is the fine tuning value.

-64	Lowest pitch.
00	Standard tuning.
+63	Highest pitch.

Play/Mute icon

Track's play/mute status.

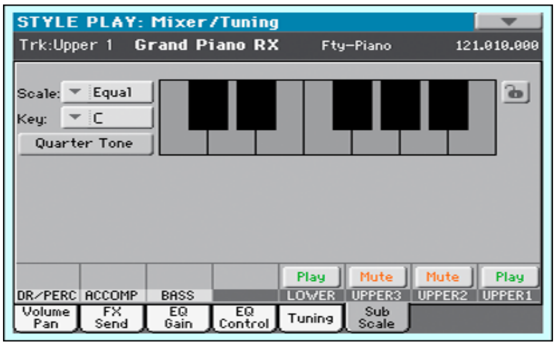
Play	Play status. The track can be heard.
Mute	Mute status. The track cannot be heard.

Mixer/Tuning: Sub Scale

You can assign a different scale (a sub-scale) to the Keyboard tracks, the Upper tracks or all tracks. This will allow, for example, to play a solo with a particular Quarter Tone tuning, while the backing tracks play in the Equal tuning.

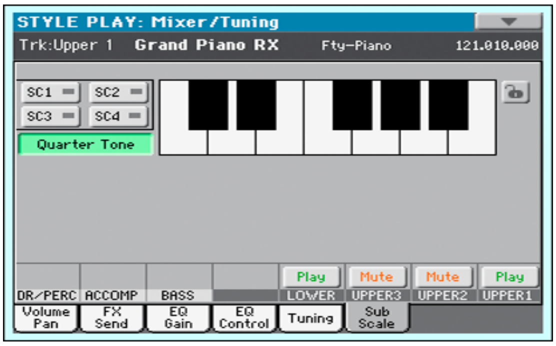
This page is where you can program the sub-scale for the selected tracks; a different sub-scale can be associated to each Performance or STS. Track selection is general, and can be done with the "Scale Mode" parameter of the Global > Mode Preferences > Style page (see page 239).

The remaining tracks will use the basic scale set in the Global > Tuning > Scale page (see "Main Scale" on page 244). This is the "standard" scale of the instrument.


STYLE PLAY: Mixer/Tuning
Trk:Upper 1
Grand Piano RX
Fty-Piano
121.010.000
Quarter Tone
Play
Mute
Mute
Play
DR/PERC
ACCOMP
BASS
LOWER
UPPER3
UPPER2
UPPER1
Volume Pan
FX Send
EQ Gain
EQ Control
Tuning
Sub Scale

Scale: Equal
Key: C

With the "Quarter Tone" button not pressed


STYLE PLAY: Mixer/Tuning
Trk:Upper 1
Grand Piano RX
Fty-Piano
121.010.000
SC1
SC2
SC3
SC4
Quarter Tone
Play
Mute
Mute
Play
DR/PERC
ACCOMP
BASS
LOWER
UPPER3
UPPER2
UPPER1
Volume Pan
FX Send
EQ Gain
EQ Control
Tuning
Sub Scale

With the "Quarter Tone" button pressed

***Note:** Quarter Tone selection can be received via MIDI (i.e., from an external sequencer or controller). Conversely, selection of Quarter Tone settings can be sent by the Pa600 to an external MIDI recorder as System Exclusive data.*

Scale

Selected scale. See "Scales" on page 329 for a list of the available scales. When selecting the User scale, the keyboard diagram becomes active, letting you program a custom scale (see "How to create a custom scale by fine-tuning each note of the User scale" below).

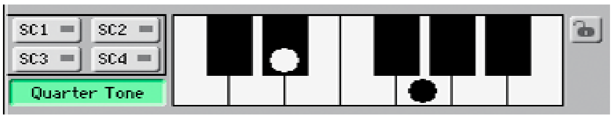
Key

This parameter is needed by some scales to set the preferred key (see "Scales" on page 329).

Quarter Tone

Pa600 Quarter Tone only: When this option is turned on, this page corresponds to the QUARTER TONE section of the control panel. You can program the Quarter Tone scale on the display, or by using the keys on the control panel. The controls on the control panel remain functional, even when going to a different page.

Press the Quarter Tone button in the display to make the keyboard diagram active *(Pa600 Quarter Tone only: this also activates the QUARTER TONE section of the control panel)*. In the display, touch any note you want to lower a quarter tone, making a big dot appear on the note diagram. Touch the note again to make the dot disappear.



Touch one of the four SC Preset buttons to recall the corresponding preset, and touch any note you want to lower a quarter tone down, making a big dot appear on the detuned note in the diagram. Touch the note again to make the dot disappear.

Scale alteration made in this page is momentary and is not memorised. It is only meant to allow for fast scale alteration while playing.

To make realtime changes faster, you can also assign the Quarter Tone function to the footswitch or an Assignable Switch (see below “How to use the Quarter Tone function with a footswitch or Assignable Switch” for more information).

The use of SC Presets allows for immediate recall of previously programmed Quarter Tone scales (see below “How to use the Quarter Tone function with the SC Presets” for more information).

SC Preset buttons

These buttons only appear when the “Quarter Tone” parameter is checked. Use these buttons to recall the corresponding custom scale presets. See “How to use the Quarter Tone function with the SC Presets” below for information on how to use them.

Keyboard diagram

When “Quarter Tone” is checked, this diagram allows for lowering each note of a quarter tone. When a User scale is selected, it allows you to fine-tune each note’s pitch.

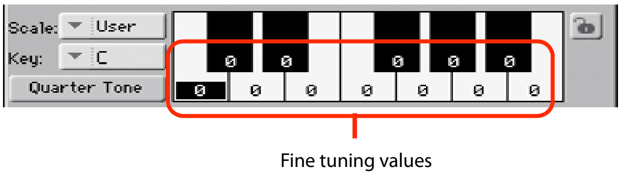
Scale lock icon

When locked, Scale parameters remain unchanged when selecting a different Performance or STS.

For more information on parameter locks, see “General Controls: Lock” on page 236.

How to create a custom scale by fine-tuning each note of the User scale

When the User scale is selected, the keyboard diagram becomes active. You can then change each note tuning in cents of a semitone (within a range of ±99 cents, referred to Equal tuning). This way, you can create a custom scale, that you can save to a Performance or STS.



After having selected the User scale, touch a note in the keyboard diagram, and use VALUE DIAL to adjust the selected note tuning in cents.

Note: *These settings can be saved to a Performance or STS, as described below.*

How to use the Quarter Tone function with the SC Presets

When the “Quarter Tone” button is pressed, four “SC Preset” buttons appear, and you can select one of four SC Presets to recall a preset custom scale. *(Pa600 Quarter Tone: these buttons correspond to the SC buttons in the QUARTER TONE section of the control panel.)*

1. Program and save a custom scale into an SC Preset.

   To do so, go to the Global mode, and reach the “Tuning: Scale” page. When programming is done, choose the “Write SC Preset” command from the page menu, then select one of the preset locations where to save the current settings (see “Write Quarter Tone SC Preset dialog box” on page 251).

2. Return to this page, and touch the “Quarter Tone” button to make the “SC Preset” buttons appear.

3. Touch one of the “SC Preset” buttons to recall a preset custom scale.

   Each preset contains custom detuning of each note of the scale, and memorizes the selected degree(s) of the scale.

   When no preset is selected, the default scale is automatically recalled. This scale assigns a -50 cent value to all notes, and turns all scale degrees off.

   You can also select an SC Preset by assigning the relevant function to an Assignable Switch (see “Pad/Switch: Switch” on page 113) or Assignable Footswitch (see “Controllers: Foot Controllers” on page 242).

4. Use the keyboard diagram to turn the note detuning on or off.

   Make a big dot appear to detune the corresponding note, or make it disappear to reset tuning.

5. Reset the original scale.

   Touch the “Quarter Tone button again, to deselect it and recall the main scale.

How to use the Quarter Tone function with a footswitch or Assignable Switch

You can assign the “Quarter Tone” function to a footswitch or an Assignable Switch, to program a custom scale in realtime, for example to allow for those sudden scale changes typical of the Arabic music. These changes are not saved anywhere, so the scale is easily “wiped-out” when selecting a different Performance or STS, or when pressing the Quarter Tone pedal again.

***Note:** While in Style Play mode, you can create a custom scale, to be assigned to a Performance or STS, simply by selecting and editing a User scale, and saving any change to a Performance or STS. See “How to create a custom scale by fine-tuning each note of the User scale” above.*

While in Global mode, you can create a custom scale and save it to one of the four SC Presets, and recall it by touching one of the SC Preset buttons in the display. Then, you can start your realtime scale editing from the selected preset. See “How to use the Quarter Tone function with the SC Presets” above.

1. Program the footswitch or an Assignable Switch to be the Quarter Tone switch.

   Simply go to the Global mode, and reach the “Controllers: Foot Controllers” page. There, you will find the “Pedal/Footswitch” parameter, to which you can assign the Quarter Tone function.

2. Lower some note pitches.

   Keep the Quarter Tone pedal pressed. The keyboard will not play at this time. Press the notes you want to lower a quarter tone. Release the pedal.

3. Play with your new scale.

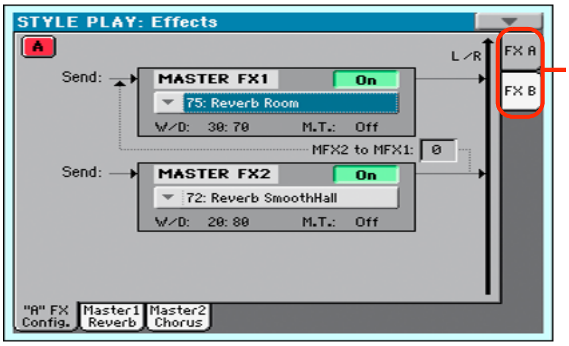
   Notes you pressed on step 2 are now lowered of a quarter tone.

4. Reset the original scale.

   Press and release the Quarter Tone pedal again, without playing any note. All pitches will be reset, and the scale selected by the Performance or STS will be recalled.

Effects: A/B FX Configuration

This page allows you to select the A (Style and Pads) and B (Keyboard) groups of effects. Please use the “FX A” and “FX B” side tabs to switch from one group to the other one.



STYLE PLAY: Effects

Send: MASTER FX1 On
75: Reverb Room
W/D: 30: 70 M.T.: Off

MFX2 to MFX1: 0

Send: MASTER FX2 On
72: Reverb SmoothHall
W/D: 20: 80 M.T.: Off

FX group

FX Groups (FX A, FX B)

Pa600 includes two groups of effects (FX A and FX B). There are two master FXs for group. In Style Play mode, the A group is reserved to the Style and Pad tracks, the B group to the Realtime (Keyboard) tracks.

Master FX 1, 2

Effects assigned to the corresponding effect processors. Usually, FX1 are reverbs, while FX2 are modulating effects (chorus, flanger, delay…). For a list of the available effects, see in the Appendix.

Effects assigned to both FX groups can be saved to a Performance. Effect assigned to the FX A group (Style and Pad tracks) can be saved to the Style Settings. Effects assigned to the FX B group (Keyboard tracks) can be saved to an STS.

W/D

Use this parameter to set the amount of the effect (Wet) against the non-effected (Dry) signal coming from the track.

MFX2 to MFX1

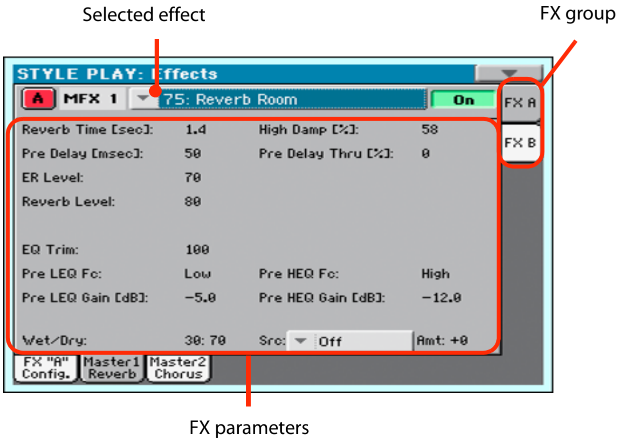
Amount of the MFX2 effect going back to the input of the MFX1 effect.

M.T. (Modulating Track)

Source track for modulating MIDI messages. You can modulate an effect parameter with a MIDI message generated by an internal physical controller.

Effects: Master 1, 2

These pages contain the editing parameters for the four effect processors. Here is an example of the FX A page, with the Reverb Wet Plate effect assigned.


Selected effect
FX group
STYLE PLAY: Effects
A
MFX 1
On
FX A
FX B
FX "A" Config.
Master1 Reverb
Master2 Chorus
FX parameters

75: Reverb Room

Reverb Time [sec]: 1.4
High Damp [%]: 58
Pre Delay [msec]: 50
Pre Delay Thru [%]: 0
ER Level: 70
Reverb Level: 80
EQ Trim: 100
Pre LEQ Fc: Low
Pre HEQ Fc: High
Pre LEQ Gain [dB]: -5.0
Pre HEQ Gain [dB]: -12.0
Wet/Dry: 30: 70
Src: Off
Amt: +0

Selected effect

Select one of the available effects from this pop-up menu.

FX parameters

Parameters may be different, depending on the selected effect. See the relevant chapter in the Appendix for a list of the available parameters for each effect type.

Wet/Dry

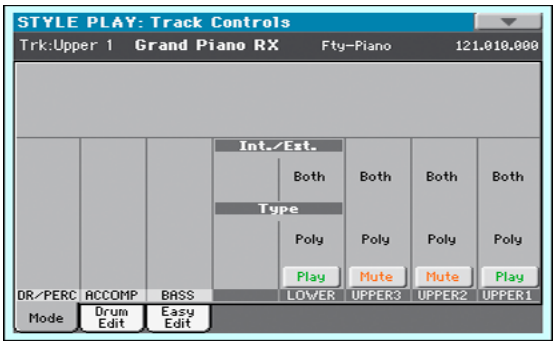
Use this parameter to set the amount of the effect (Wet) against the non-effected (Dry) signal coming from the track.

Src (Source)

Modulation source. To select the track generating this message, see the "M.T. (Modulating Track)" parameters found in the "Effects: A/B FX Configuration" page (see above). See the relevant chapter in the Appendix for a list of the modulation sources.

Track Controls: Mode

This page lets you connect each track to the internal sound generator and to external MIDI devices. This is very useful to let a Style track drive an external expander, or play a digital piano with one of Pa600's Keyboard tracks. In addition, here you can set the polyphony mode for each track.


STYLE PLAY: Track Controls
Int./Ext.
Type
DR/PERC
ACCOMP
BASS
Mode
Drum Edit
Easy Edit

Trk:Upper 1 Grand Piano RX Fty-Piano 121.010.000

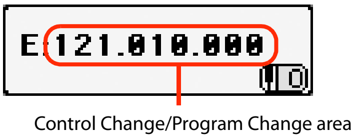
	LOWER	UPPER3	UPPER2	UPPER1
Int./Ext.	Both	Both	Both	Both
Type	Poly	Poly	Poly	Poly
	Play	Mute	Mute	Play

Int./Ext. (Internal/External)

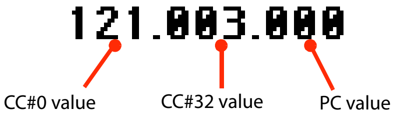
Internal	The track plays the sounds generated by the internal sound engine. It does not play an external instrument connected to the MIDI OUT.
External	The track plays an external instrument connected to the MIDI OUT. The connected device must receive on the MIDI channel associated with this track on the Pa600 (see "MIDI: MIDI Out Channels" on page 247).

A track set to this status cannot play the internal sounds.

Instead of the assigned Sound name, the **<E: aaa.bbb.ccc>** indicator is shown on a track's area in the Main page:


E:121.010.000
Control Change/Program Change area

This indicator begins with a remark saying the track is in External ("E") mode, and continues with a strings of transmitted Control Change and Program Change data. This will let you know what the track is transmitting to the MIDI OUT. In the following example, **CC#0** is the Control Change 0 (Bank Select MSB), **CC#32** is the Control Change 32 (Bank Select LSB), **PC** is the Program Change:


121.003.000
CC#0 value
CC#32 value
PC value

When touching the Sound area, the numeric keypad appears, instead of the Sound Select window. You can enter the Control Change/Program Change bundle shown above, separating the three parts with a dot (.).

Both	The track plays both the internal sounds and an external instrument connected to the MIDI OUT.

Type

Drum	Drum/Percussion track. Set a track to Drum mode if you wish to separately adjust the volume and set a different output for each percussive family of the assigned Drum Kit Sound. (See “Track Controls: Drum Edit” on page 108). ***Note:*** *Tracks set to Drum or Percussion mode while in Style Record (see “Track Type” on page 144) cannot be edited here. This option appears in grey. Other Style tracks cannot be set to Drum mode here.* ***Note:*** *Drum Kits are not affected by transpose whichever the type of track they are assigned to.* ***Hint:*** *Set a track to Drum mode, if you don’t want the assigned Sound to be transposed (it will behave as a Drum Kit).*
Poly	Tracks of this kind are polyphonic, i.e. they can play more than one note at the same time.
Mono	Tracks of this kind are monophonic, i.e. each new note stops the previous note.
Mono Right	A Mono track, but with priority assigned to the rightmost (highest) note.
Mono Left	A Mono track, but with priority assigned to the leftmost (lowest) note.

Play/Mute icon

Track’s play/mute status.

Play	Play status. The track can be heard.
Mute	Mute status. The track cannot be heard.

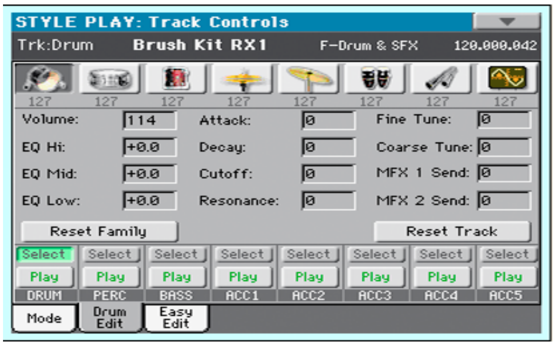
Track Controls: Drum Edit

In this page you can adjust the volume and edit the main parameters for each *family* of Drum and Percussion instrument for the selected track. A list of families is shown below.

These parameters can be accessed only on tracks set to the Drum mode (see above). Use them on tracks with a Drum Kit assigned, or you will not be able to hear any change.

Hint: *Use the TRACK SELECT button to cycle between the track groups. After selecting a track, choose the “Solo Track” command from the page menu to avoid listening to the other tracks during editing.*

Note: *All values are offsets referred to the value of the original Sounds.*



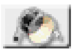
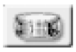
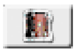
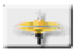
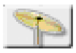
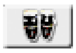
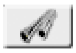
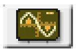
Trk:Drum Brush Kit RX1 F-Drum & SFX 120.000.042

127 127 127 127 127 127 127 127

Volume: 114
EQ Hi: +0.0
EQ Mid: +0.0
EQ Low: +0.0
Attack: 0
Decay: 0
Cutoff: 0
Resonance: 0
Fine Tune: 0
Coarse Tune: 0
MFX 1 Send: 0
MFX 2 Send: 0

Family Select

Use these icons/buttons to select the drum family you want to edit. These buttons are only accessible when you select a Drum track.

Drum family icon	Drum family
	Kick drums
	Snare drums
	Toms
	Hi-Hat cymbals
	Ride, Crash and other cymbals
	Low-pitched percussions
	High-pitched percussions
	Special effects

Overview of the current parameter

Under the icons of the Drum families you can see the value of the selected parameter for all the families. This will let you compare the value of the selected family with all the others. The values are shown in grey (non editable).

Drum Edit parameters

Use these parameters to adjust the offset value.

Sound parameters	Meaning
Volume	Instrument's Volume.
EQ Hi	Equalization, High band.
EQ Mid	Equalization, Middle band.
EQ Low	Equalization, Low band.
Attack	Attack time. This is the time during which the sound goes from zero (at the moment when you strike a key) to it's maximum level.
Decay	Decay time. Time to go from the final Attack level to the minimum level.
Cutoff	Filter cutoff. This sets the sound brightness.
Resonance	Use the Filter Resonance to boost the cutoff frequency.
Fine Tune	Fine instrument tuning.
Coarse Tune	Coarse instrument tuning.
MFX 1 Send	Scales the Send level to the Master FX1.
MFX 2 Send	Scales the Send level to the Master FX2.

0…127	Volume (see above).
-64…0…+63	Offset value for all sound generation parameters. '0' means no change to the original value memorized in the Drum or Percussive instrument, while any other value means a decrease or increase to the original value.

Select

Use these buttons to select the track to edit. The button corresponding to the selected track turns green.

Reset Family

Touch this button to reset all changes to the selected family.

Reset Track

Touch this button to reset all changes to percussive instrument volumes in the selected track.

Play/Mute icon

Track's play/mute status.

Play	Play status. The track can be heard.
Mute	Mute status. The track cannot be heard.

How to edit a single Drum Family

Here is a quick example of the use of the Drum Volume function.

1. While in this page, press TRACK SELECT to see individual Style tracks.
2. Touch the "Select" button, in the display, corresponding to the Drum track to edit.
3. Press START/STOP to let the Style go.
4. If you like, choose the "Solo Track" command from the page menu to solo the Drum track.
5. While listening to the Style, select the Snare family, then select the Volume parameter, and use the VALUE DIAL to turn the volume completely off.

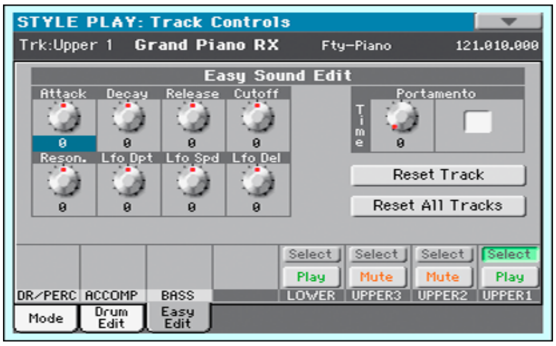
   You'll notice how all snares stops sounding.
6. Touch the Reset Track button in the display to recall the original Snare's volume.

Track Controls: Easy Edit

In this page you can edit the main parameters of the Sounds assigned to each track.

Hint: *Use the TRACK SELECT button to cycle between the track groups. After selecting a track, choose the "Solo Track" command from the page menu to avoid listening to the other tracks during editing.*

Note: *All values are offsets referred to the value of the original Sound.*


STYLE PLAY: Track Controls

Trk:Upper 1 Grand Piano RX Fty–Piano 121.010.000

Easy Sound Edit parameters

Use these knobs to adjust the offset value.

Sound parameters	Meaning
Attack	Attack time. This is the time during which the sound goes from zero (at the moment when you strike a key) to it's maximum level.
Decay	Decay time. Time to go from the final Attack level to the beginning of the Sustain.
Release	Release time. This is the time during which the sound goes from the sustaining phase, to zero. The Release is triggered by releasing a key.
Cutoff	Filter cutoff. This sets the sound brightness.
Resonance	Use the Filter Resonance to boost the cutoff frequency.
LFO Depth	Intensity of the Vibrato (LFO).
LFO Speed	Speed of the Vibrato (LFO).
LFO Delay	Delay time before the Vibrato (LFO) begins, after the sound starts.

-64…0…+63	Offset value. '0' means no change to the original value memorized in the Sound, while any other value means a decrease or increase to the original value.

Portamento knob and switch

Use the Time knob to adjust the speed of the portamento (a slide between notes). Check the box to turn portamento on, or uncheck it to turn portamento off.

Select

Use these buttons to select the track to edit. The button corresponding to the selected track turns green.

Reset Track

Touch this button to reset all changes to Sound parameters in the selected track.

Reset All Tracks

Touch this button to reset all changes to Sound parameters in all tracks.

Play/Mute icon

Track's play/mute status.

Play	Play status. The track can be heard.
Mute	Mute status. The track cannot be heard.

How to adjust sound parameters for a single Sound

Here is a quick example of the use of the Easy Sound Edit function.

1. If needed, while in this page press TRACK SELECT to see Keyboard tracks.
2. Touch the "Select" button, in the display, corresponding to the Upper 1 track.
3. While playing on the keyboard to hear the Sound, select the Cutoff knob, and use the VALUE DIAL to turn its value completely off.

   You'll notice how the filter progressively cuts out high frequencies, making the sound darker and mellower.
4. Touch the Reset Track button in the display to recall the original Cutoff value.

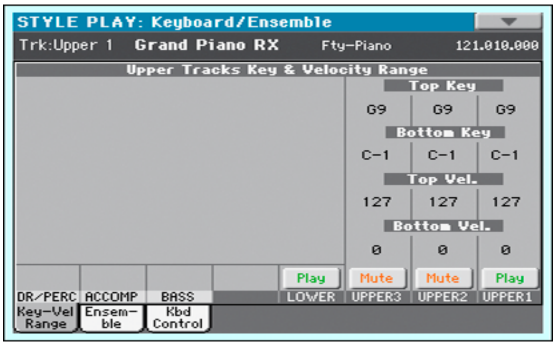
Keyboard/Ensemble: Key/Velocity Range

This page lets you program a key and dynamic (velocity) range for each of the Keyboard tracks.

Key range is useful to create a set of Keyboard tracks playing in different zones of the keyboard. For example, you may have French Horns and Woodwinds playing in the center range of the keyboard, while only Woodwinds play on the higher range.

Velocity range is useful to create a sound made of up to three dynamic layers, assigning each of the Upper tracks to a different dynamic range.

As an example, you may assign the El.Piano 1 Sound to the Upper 1, and the El.Piano 2 Sound to the Upper 2 track. Then, set Upper 1 to [Bottom=0, Top=80], and Upper 2 to [Bottom=81, Top=127]. The El.Piano 1 will play when playing softer, the El.Piano 2 when playing louder.



STYLE PLAY: Keyboard/Ensemble

Trk:Upper 1 Grand Piano RX Fty-Piano 121.010.000

Upper Tracks Key & Velocity Range

	LOWER	UPPER3	UPPER2	UPPER1
Top Key		G9	G9	G9
Bottom Key		C-1	C-1	C-1
Top Vel.		127	127	127
Bottom Vel.		0	0	0
	Play	Mute	Mute	Play

Top/Bottom Key (Key Range)

This parameter pair sets the Top and Bottom key range for the track.

C-1…G9	Selected key.

Top/Bottom Vel. (Velocity Range)

This parameter pair sets the Top and Bottom dynamic range for the track.

0	Lowest velocity value.
127	Highest velocity value.

Play/Mute icon

Track's play/mute status.

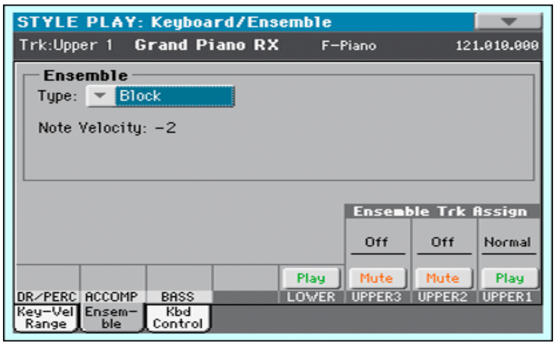
Play	Play status. The track can be heard.
Mute	Mute status. The track cannot be heard.

Keyboard/Ensemble: Ensemble

This page lets you program the Ensemble function. This function harmonizes the right-hand melody (played in realtime) using the recognized chords played by the left hand.

The Ensemble works both in the Style Play and the Song Play modes. Chords are always recognized in the Lower Chord Scan area.

***Note:** The Ensemble function only works when the keyboard is in Split mode.*


STYLE PLAY: Keyboard/Ensemble
Trk:Upper 1 Grand Piano RX F-Piano 121.010.000
Ensemble
Type: Block
Note Velocity: -2
Ensemble Trk Assign

UPPER3	UPPER2	UPPER1
Off	Off	Normal
Mute	Mute	Play

Ensemble

Harmonization type.

Duet	Adds a single note to the melody.
Close	Adds a closed-position chord to the melody.
Open 1	Adds an open-position chord to the melody.
Open 2	As the above, but with a different algorithm.
Block	Block harmonization – very typical of jazz music.
Power Ensemble	Adds a fifth and an octave to the melody, as heard in hard rock.
Third Up	This option adds a third over the melody note (depending on the recognized chord).
Fourths LO	Typical of jazz, this option adds two perfect fourths under the melody.
Fourths UP	As the above, but with notes added over the melody.
Fifths	This adds two fifths below the original note.
Octave	Adds an octave to the melody.
Dual	This option adds to the melody line a second note, at a fixed interval set with the “Note” parameter. When selecting this option, a transposition value appears (-24…+24 semitones to the original note).
Brass	Typical Brass section harmonization.
Reed	Typical Reed section harmonization.
Trill	When two notes are played on the keyboard, this option trills them. If three or more notes are played, only the last two are trilled. You can set the trill speed by using the Tempo parameter (see below).
Repeat	The played note is repeated in sync with the Tempo parameter (see below). When playing a chord, only the last note is repeated.
Echo	As the Repeat option, but with the repeated notes fading away after the time set with the Feedback parameter (see below).
AutoSplit1	If more than a single Upper track is in play, the Upper 1 track plays the melody in mono, while the other Upper tracks play the chord notes. If only the Upper 1 track is in play, it plays polyphonically all the chord notes.
AutoSplit2	Similar to AutoSplit1, but the Upper 1 track always plays the uppermost note.

Note Velocity

This parameter sets the velocity difference between the right-hand melody and the added harmonization notes.

-10…0	Subtracted velocity value.

Tempo

***Note:** This parameter only appears when the Trill, Repeat or Echo options are selected.*

Note value for the Trill, Repeat or Echo Ensemble options. This is in sync with the Metronome Tempo.

Feedback

***Note:** This parameter only appears when the Echo option is selected.*

This parameter sets how many times the original note/chord is repeated by the Echo option.

Ensemble Track Assign

Use these parameters to separately set Upper tracks for the Ensemble function.

Off	There is no harmonization on this track.
Normal	This track is included in the harmonization.
Mute	This track only plays the Ensemble notes, but not the original note.

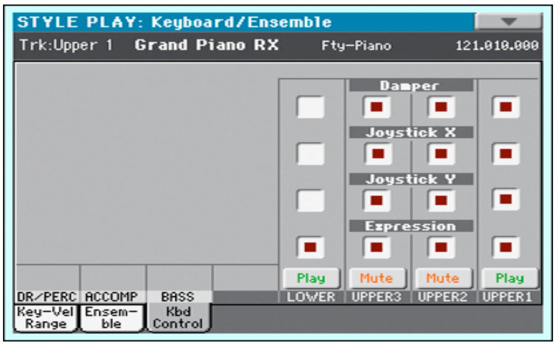
Play/Mute icon

Track’s play/mute status.

Play	Play status. The track can be heard.
Mute	Mute status. The track cannot be heard.

Keyboard/Ensemble: Keyboard Control

This page lets you enable/disable the Damper and Expression pedals, plus the Joystick, for each of the Upper Keyboard tracks.



Damper

On	When you press the Damper pedal and release the keys, the track's sound is kept sustained.
Off	The Damper pedal is not active on any track set to this status.

Joystick X

This enables/disables the left/right movement of the Joystick (Pitch Bend, and sometimes a Sound parameter's control; for Pitch Bend settings, see "Mixer/Tuning: Tuning" on page 104).

Joystick Y

This enables/disables the front/rear movement of the Joystick (Y+: Modulation, and sometimes a different Sound parameter's control; Y-: Various controls, or non-active).

Expression

This parameter allows you to switch the Expression control on/off on each individual Keyboard track. The Expression control is a relative level control, always subtracted from the Volume value of the track.

As an example, imagine you have a Piano sound assigned to Upper 1, and a Strings sound assigned to Upper 2. If you turn the Expression switch on on Upper 2, and off on Upper 1, you can use a continuous pedal to control only the Strings' volume, while the Piano remains unchanged.

To program a pedal to act as an Expression control, see "Controllers: Foot Controllers" on page 242. You can only assign this function to a volume-type pedal, not to a switch-type one. Assign the "KB Expression" option to the pedal.

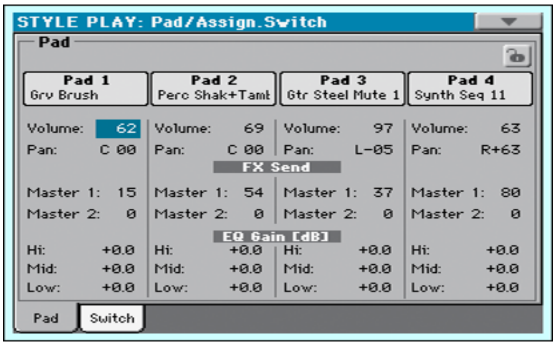
Play/Mute icon

Track's play/mute status.

Play	Play status. The track can be heard.
Mute	Mute status. The track cannot be heard.

Pad/Switch: Pad

This page lets you select a different hit sound or sequence for each of the four PAD buttons.



	Pad 1	Pad 2	Pad 3	Pad 4
	Grv Brush	Perc Shak+Tamb	Gtr Steel Mute 1	Synth Seq 11
Volume:	62	69	97	63
Pan:	C 00	C 00	L-05	R+63
Master 1:	15	54	37	80
Master 2:	0	0	0	0
Hi:	+0.0	+0.0	+0.0	+0.0
Mid:	+0.0	+0.0	+0.0	+0.0
Low:	+0.0	+0.0	+0.0	+0.0

Assignments can be saved into the current Style Settings or SongBook Entry.

***Note:** Each Style or SongBook Entry can change the Pad assignment.*

Pad assignment

Name of the Hit or Sequence assigned to each Pad. Touch the box to make the Pad Select window appear (see "Pad Select window" on page 90).

***Note:** You can also choose Hits or Sequences from the Pad panel of the main page.*

Volume

Volume for each of the four Pad tracks.

0…127	Volume level.

Pan

Pan for each of the four Pad tracks.

-64…-1	Left stereo channel.
0	Center.
+1…+63	Right stereo channel.

FX Send (Master 1, 2)

Send level to the Master FX processors for each of the four Pad tracks. The Pads share the FX A group with the Style tracks.

0…127	Level of the Pad track (direct) signal sent to the effect processor.

EQ Gain [dB] (Hi, Mid, Low)

Equalization for each of the four Pad tracks.

-18.0…+0.0…18.0	Gain value of the High, Middle, or Low band.

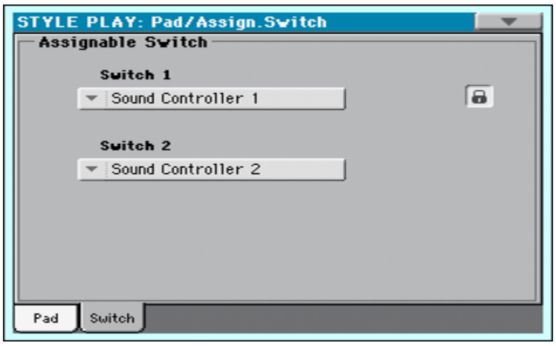
Pad lock icon

This lock avoids selecting a different Style or SongBook Entry changes also the Hit or Sequence Pads assigned to the Pads.

For more information on parameter locks, see "General Controls: Lock" on page 236.

Pad/Switch: Switch

This page lets you select a different function for each of the ASSIGNABLE SWITCH buttons.


STYLE PLAY: Pad/Assign.Switch
Assignable Switch
Pad
Switch

Switch 1: Sound Controller 1

Switch 2: Sound Controller 2

Assignable Switches can be saved into a Performance, STS or SongBook Entry.

Switch 1, 2

Each of the ASSIGNABLE SWITCH buttons. Use these pop-up menus to assign a function to each switch. See “List of Assignable Switches functions” on page 328.

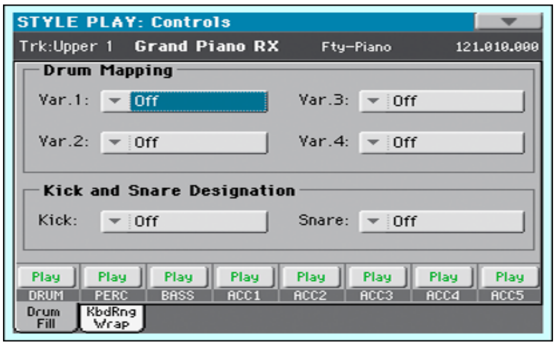
Assignable Switch lock icon

This lock avoids selecting a different Performance or STS changes also the functions assigned to the switches.

For more information on parameter locks, see “General Controls: Lock” on page 236.

Style Controls: Drum/Fill

In this page you can select various general parameters for the Style.


STYLE PLAY: Controls
Drum Mapping
Kick and Snare Designation
Play
Play
Play
Play
Play
Play
Play
Play
DRUM
PERC
BASS
ACC1
ACC2
ACC3
ACC4
ACC5
Drum Fill
KbdRng Wrap

Trk:Upper 1 Grand Piano RX Fty-Piano 121.010.000

Var.1: Off
Var.2: Off
Var.3: Off
Var.4: Off

Kick: Off
Snare: Off

Drum Mapping (Var.1…Var.4)

The Drum Mapping lets you select an alternative arrangement of percussive instruments for the selected Drum Kit, without any additional programming. Just select a Drum Map, and some percussive instruments will be replaced with different instruments.

Off	Standard mapping.
Drum Mapping 1…7	Drum Map number. Mapping 1 is “soft-sounding”, while mapping 7 is “loud-sounding”.

Kick and Snare Designation

The Kick Designation replaces the original Kick (Bass Drum) sound with a different Kick of the same Drum Kit, while the Snare Designation replaces the original Snare Drum sound with a different Snare of the same Drum Kit.

Hint: *Select different Designations while listening to the Style, and see how they affect the Style. When you like the result, save your setting to a Performance or Style Settings.*

Off	Original Kick or Snare.
Type 1…3	Kick or Snare replacing the original one.

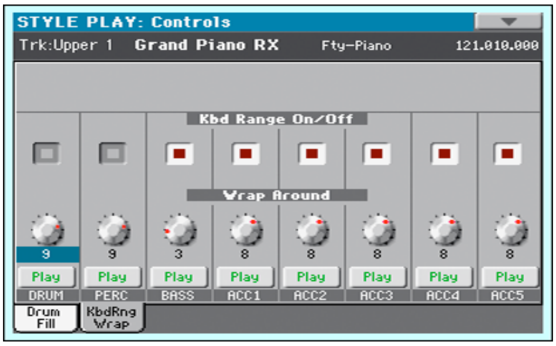
Track status

Track play/mute status. Touch these icons to change it.

Play	Play status. The track can be heard.
Mute	Mute status. The track cannot be heard.

Style Controls: Keyboard Range On/Off / Wrap Around

In this page you can program the Wrap Around point, and turn on/off the Keyboard Range included in each Style tracks.



Keyboard Range On/Off

This parameter is an on/off switch for the Key Range parameter memorized inside each Style Element track.

On	The Keyboard Range is considered – provided it has been programmed (see “Style Element Track Controls: Keyboard Range” on page 142 in Style Record mode). When a track goes over the lower or higher Keyboard Range point, it is automatically transposed, to stay in the programmed range.
Off	No Keyboard Range used.

Wrap Around

The wrap-around point is the highest key range limit for the backing track. The accompaniment patterns will be transposed according to the detected chord. If the chord is too high, the Style tracks might play in a range that is too high, and therefore unnatural. If, however, it reaches the wrap-around point, it will be automatically transposed an octave lower.

The wrap-around point can be individually set for each track in semitone steps up to a maximum of 12 semitones, relative to the chord root set in Style Record mode (see “Key/Chord” on page 123).

It is advisable to set different Wrap Around points for each track, to avoid all tracks “jump” to a different octave at the same time. We suggest to consider the actual range of the real instrument.

1…12	Maximum transposition (in semitones) of the track, referred to the original key of the Style pattern.

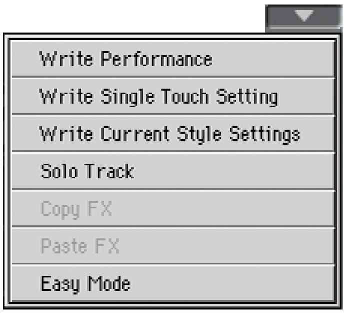
Play/Mute icon

Track’s play/mute status.

Play	Play status. The track can be heard.
Mute	Mute status. The track cannot be heard.

Page menu

Touch the page menu icon to open the menu. Touch a command to select it. Touch anywhere in the display to close the menu without selecting a command.



Write Performance

Select this command to open the Write Performance dialog box, and save most of the current control panel settings to a Performance.

See “Write Performance dialog box” on page 115 for more information.

Write Single Touch Setting

Select this command to open the Write Single Touch Setting (STS) dialog box, and save Keyboard track settings to one of the Single Touch Settings (STS) of the current Style.

See “Write Single Touch Setting dialog box” on page 116 for more information.

Write Current Style Settings

Select this command to open the Write Current Style Settings dialog box, and save Style track settings to the current Style.

See “Write Single Touch Setting dialog box” on page 116 for more information.

Solo Track

Select the track to be soloed, and check this item. You will hear only the selected track, and the ‘Solo’ warning will flash on the page header.

Uncheck this item to exit the Solo function.

The Solo function works in a slightly different way, depending on the selected track:

- ***Keyboard track:*** The selected Keyboard track is the only track you can hear when playing on the keyboard. All other Keyboard tracks are muted. The status of the Style tracks is unaffected.
- ***Style track:*** The selected track is the only Style track you can hear. All other Style tracks are muted. The status of the Keyboard tracks is unaffected.
- ***Grouped Style tracks:*** *The Solo function does not work on these special tracks.*

SHIFT Keep the SHIFT button pressed and touch one of the tracks to solo it. Do the same on a soloed track to deactivate the Solo function.

Copy/Paste FX

You can copy a single effect (Master 1, Master 2), or both effects of an FX group (A or B). You can copy them between different elements (for example, between Styles and Performances, or STSs and Songs or Sounds).

***Note:** This operation only copies the parameters of the “Effects” section. Parameters contained in other sections, like “Dry” or “FX Send”, are not copied. Please note that these parameters are relevant in the overall sound of the effect, so please fine-tune them.*

To copy a single effect:

1. Select the source Performance, STS, Style, Song or Sound.
2. Choose the source FX group (A or B) by touching the corresponding side tab.
3. Go to the page of the single effect you want to copy (Master 1, Master 2).
4. Choose the “Copy FX” command from the page menu.
5. Select the target Performance, STS, Style, Song or Sound,
6. Choose the same FX group (A or B) as the target by touching the corresponding side tab.
7. Go to the page of the single effect you want to paste (Master 1, Master 2).
8. Choose the “Paste FX” command from the page menu.

To copy all the effects in an FX group:

1. Select the source Performance, STS, Style, Song or Sound, then go to the Effects > A/B FX Config page, to copy all the effects.
2. Choose the source FX group (A or B) by touching the corresponding side tab.
3. Choose the “Copy FX” command from the page menu.
4. Select the target Performance, STS, Style, Song or Sound, then go to the page of the Effects > A/B FX Config page.
5. Choose the FX group (A or B) as the target by touching the corresponding side tab.
6. Choose the “Paste FX” command from the page menu.

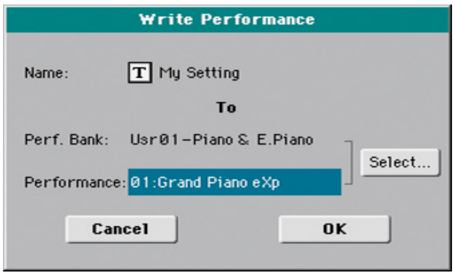
Easy Mode

Easy Mode allows you to use the Style Play and Song Play modes with an easier-to-use user interface. It is recommended to beginners, and to professionals alike that do not want to deal with the extra parameters of the Advanced mode.

At any time, you can manually turn the Easy Mode on/off with the Easy Mode command in the page menu of the Style Play and Song Play modes.

Write Performance dialog box

Open this window by keeping one of the PERFORMANCE buttons pressed for about one second, or by choosing the Write Performance item from the page menu. Here, you can save all track settings, the selected Style, and various Style settings to a Performance.



Write Performance

Name: T My Setting

To

Perf. Bank: Usr01-Piano & E.Piano

Performance: 01:Grand Piano eXp

Name

Name of the Performance to be saved. Touch the T (Text Edit) button next to the name to open the Text Edit window.

Perf Bank

Target bank of Performances. Each bank corresponds to one of the PERFORMANCE buttons. Use the VALUE DIAL to select a different bank.

Performance

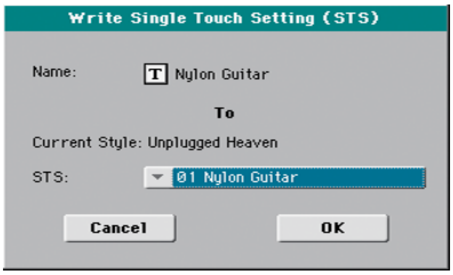
Target Performance location in the selected bank. Use the VALUE DIAL to select a different location.

Select… button

Touch this button to open the Performance Select window, and select a target location.

Write Single Touch Setting dialog box

Open this window by keeping one of the STS buttons pressed for about one second, or by choosing the Write Single Touch Setting item from the page menu. Here, you can save the Keyboard track settings to one of the four single Touch Settings (STS) belonging to the current Style.



Name: T Nylon Guitar

Current Style: Unplugged Heaven

STS: 01 Nylon Guitar

Note: *When the “Factory Style and Pad Protect” option is checked in the Global > Mode Preferences > Media page, you cannot write an STS over a Factory Style. The “Write Single Touch Setting” command in the page menu is greyed out and cannot be selected. All original settings of the Factory Styles will be left untouched.*

Name

Name of the STS to be saved. Touch the T (Text Edit) button next to the name to open the Text Edit window.

Current Style

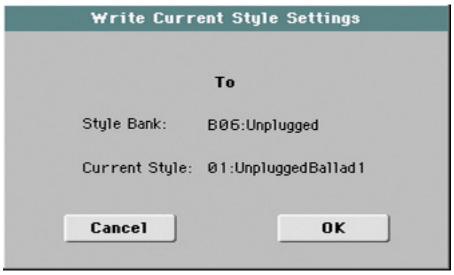
Non editable. Settings are saved in one of the four STSs belonging to the current Style. This parameter displays the name of the “parent” Style.

STS

Target STS location. The name of the STS currently saved at the target location is shown. Use the VALUE DIAL to select a different location.

Write Current Style Settings dialog box

Open this window by keeping the STYLE button in the SELECTION section pressed for about one second, or by selecting the Write Style Settings item from the page menu. Here, you can save Style track settings to the Style Settings of the current Style.



Style Bank: B06:Unplugged

Current Style: 01:UnpluggedBallad1

Note: *When the “Factory Style and Pad Protect” option is checked in the Global > Mode Preferences > Media page, you cannot write any Style Settings onto Factory Styles. The “Write Current Style Settings” command in the page menu is greyed out and cannot be selected. All original settings of the Factory Styles will be left untouched.*

Style bank

Non editable. Bank of Styles the current Style belongs to.

Current Style

Non editable. Name of the current Style.

The Favorite banks

You can create a custom set of Styles, made of up to ten Favorite banks. You can assign a different name to the tabs that appear in the Style Select window, in order to add musical genres not included among the Factory Styles.

The Favorite Styles are contained in ten files, automatically created by the Pa600 inside the Style folder in the SYS area of the internal storage memory. Even if different bank names can appear in the display, these files have fixed names:

File Name	FAVORITE Banks
FAVORITE01…10.STY	Bank 1…10

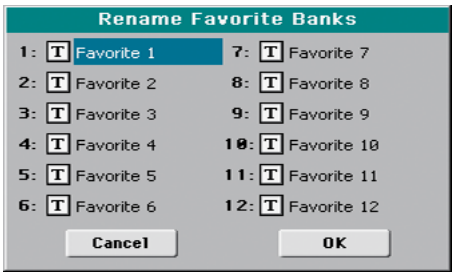
Creating the Favorite banks

There are various ways to create the Favorite banks:

- While in Style Play mode, you can copy & paste any Style into the Favorite banks, as an alternative to the User Style banks. See the “Selecting” chapter for more information on the Copy & Paste operations.
- While in Style Record mode, you can write the new or edited Style to the Favorite banks, as an alternative to the User Style banks. See the “Style Record” chapter for more information on saving a Style.
- While in Media mode, you can load any Style into the Favorite banks, as an alternative to the User Style banks. See the “Media” chapter for more information on the Load operations.

Renaming the Favorite banks

While the Style Select window is in the display, you can choose the “Rename Favorite” command from the page menu, and assign the Favorite Style tabs any name you like.


Rename Favorite Banks
1: T Favorite 1
2: T Favorite 2
3: T Favorite 3
4: T Favorite 4
5: T Favorite 5
6: T Favorite 6
7: T Favorite 7
8: T Favorite 8
9: T Favorite 9
10: T Favorite 10
11: T Favorite 11
12: T Favorite 12
Cancel
OK

The assigned name can be spanned over two lines, by separating them with the paragraph character (¶). For example, to write “World Music” on two lines, enter “World¶Music”.

Be careful not to write words exceeding the width of the side tabs of the Style Select window.

Style/Pad Record mode

By entering the Style/Pad Record mode, you can create your own Styles or Pads, or edit an existing Style or Pad.

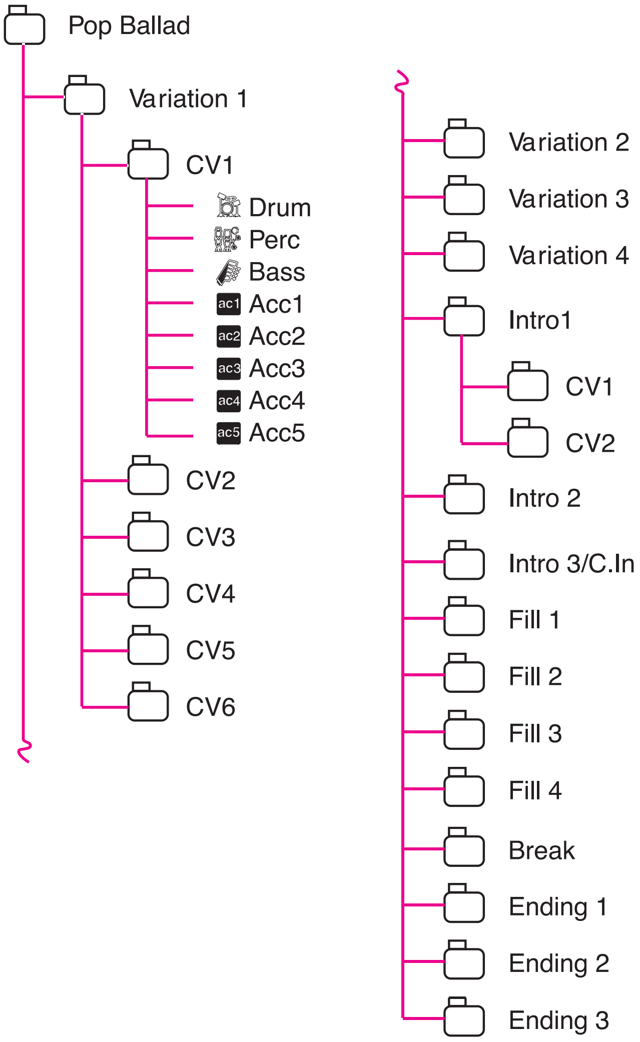
Recording Styles and Pads

Styles and Pads share most of the same structure and recording/editing operations. Here is how they are made.

The Style's structure

The term "Style" relates with music sequences automatically played by the arranger of the Pa600. A Style consists of a pre-defined number of **Style Elements (E)** (Pa600 features fifteen different Style Elements: Variation 1-4, Intro 1-3, Fill 1-4, Break, Ending 1-3). When playing, most of these Style Elements can be directly selected by using the corresponding buttons on the control panel.

To explain the Style structure, we can use a tree structure, as shown in the following diagram:



Each Style Element is made up of smaller units, called **Chord Variations (CV),** but not all of them have the same number of CVs. Variations 1-4 have up to 6 CVs each, while the other Style Elements have only up to 2 CVs.

When you play in the chord recognition area (Lower or Full, depending on the On or Off status of the SPLIT button), the arranger scans the keyboard and determines which chord you are playing. Then, depending on the selected Style Element, it determines which Chord Variation (CV) should be played for the scanned chord. Which Chord Variation corresponds to each scanned chord is a setting of the Style: the **Chord Variation Table**. Each Style Element contains a Chord Variation Table, whose prototype is the following:

Chord	**Chord Variations (CVs)**	
	Variation 1-4	**Intro 1-2, Count-In, Fill 1-4, Break, Ending 1-3**
Major	CV1 – CV6	CV1 – CV2
6		
M7		
M7$^{(b5)}$		
sus		
sus2		
M7sus		
m		
m6		
m7		
m7$^{(b5)}$		
m$^{(M7)}$		
7		
7$^{(b5)}$		
7sus4		
dim		
dim$^{(M7)}$		
#5		
7$^{(\#5)}$		
M7$^{(\#5)}$		
1+5		
1+8		
b5		
dim7		

After deciding what CV to play, the arranger triggers the right sequence for each track. Since each sequence is written in a particular key (for example, CMajor, GMajor or Emin), the arranger transposes it according to the scanned chord. Notes in the sequence are carefully transposed, to make them work fine with all recognized chords.

Going deeper into the Style structure, we can see that each Chord Variation is made up of **Track Sequences,** and the Pa600 supports 8 different tracks. DRUM and PERC are used for drum and percussion sequences, BASS for bass and ACC1-5 are for accompaniment sequences (string, guitar, piano or other accompaniment instruments).

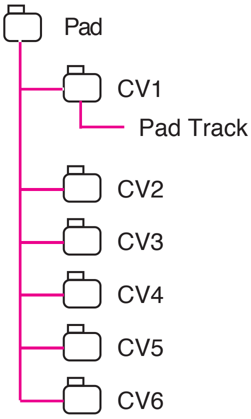
Just to summarize, when you play a chord on the chord recognition area, the arranger determines which Style Element is used, then determines which Chord Variation should be used for the played chord, then Style sequences for every track of that Chord Variation are transposed from the original chord to the recognized chord, and so on every time you play a chord.

The Pad's structure

A Pad is basically a single-track Style. Most of what applies to Style recording also applies to Pad recording.

There are two different categories of Pads:

- "Hit" Pads. While they are mostly used as non-transposing events, they can also be transposing notes or chords. Basically, they are single-note or single-chord Sequences (see below).
- "Sequence" Pads, i.e., complex single-track patterns, that can be transposed by playing different chords on the keyboard – exactly as a Style track. They are roughly equivalent to single-element, single-track, multi-chord variation Styles (see illustration).



Each Pad is made up of up to six smaller units, called **Chord Variations (CV)**. Each Chord Variation is made of a single track (the Pad track).

Exactly as with the Styles, when playing a chord in the chord recognition area, the corresponding Chord Variation is recalled. Recognized chords are associated to a Chord Variation by means of the **Chord Variation Table**. Each Pad contains a Chord Variation Table.

As with the Styles, the **Note Transposition Tables (NTT)** applies to the Pads.

The same differences between the different types of tracks applies (see "Track Type" on page 143).

Ordinary, Guitar and Drum tracks

There are different types of tracks (see "Track Type" on page 144), and each of them is treated in a different way by the arranger;

- Acc (Accompaniment) and Bass tracks: When a chord is recognized, the programmed chord notes are transposed to a suitable scale, according to the **Note Transposition Tables (NTT)** The NTT allows you to record just some Chord Variations, and have all the notes play in the right place, avoiding dissonances and transposing the pattern notes to the notes of the recognized chord.
- Drum & and Perc (Percussion) tracks: No transposition is applied.The original pattern plays always.
- Gtr (Guitar) tracks: When a chord is recognized, the arranger triggers single notes, strumming and arpeggios on a "virtual guitar", keeping care of the way notes are played on the guitar keyboard. Note that inside a Guitar track you can also have some parts typical of an Acc track - a useful addition for short "free-form" passages.

What to record in a Style

Recording a Style means recording tracks, inside a series of Chord Variations, inside a series of Style Elements, inside the Style itself.

You don't have to record all Chord Variations for all Style Elements. It is often only needed to record a single Chord Variation for each Style Element. Exceptions are the Intro 1 and Ending 1, where we suggest to record both a Major and minor Chord Variations.

What to record in a Pad

Recording a Pad is a matter of recording a single track, inside a series of Chord Variations, inside the Pad itself.

You don't need to record all Chord Variations. It is often only needed to record just a Chord Variation.

Pattern data vs. track data

While the Style/Pad Record mode is where you can create or edit the music patterns, track parameters (like Volume, Pan, Octave Transpose, FX settings…) are to be edited in Style Play mode.

- After having created or edited music patterns in Style/Pad Record mode, save them by selecting the "Write Style" or "Write Pad" command from the page menu of the Style Record mode (see "Write Style/Pad dialog box" on page 150).
- After having edited track parameters in Style Play mode, save them to the Style Settings by selecting the "Write Current Style Settings" command from the page menu of the Style Play mode (see "Write Current Style Settings dialog box" on page 116).

Sounds

There are two ways of assigning Sounds to the Style tracks.

- While in Style Record mode you can assign different Sounds to each Style Element in the "Style Element Track Controls: Sound/Expression" page (see "Sounds area" on page 125). You can assign a Sound to the Pad in the same page of the Pad Record mode.
- While in Style Play mode, you can assign a single Sound to the Style Settings (together with the other track parameters), that remains the same for all Style Elements.

Which Sounds are used by the Style tracks depends on the status of the "Original Style Sounds" parameter (see page 98).

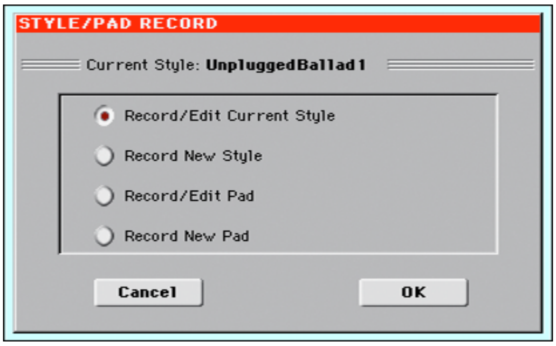
Note: *When assigning a Sound in Style Play mode, the "Original Style Sounds" parameter is automatically turned off.*

Style/Pad Import/Export

As an alternative to creating Styles on the Pa600, you can import a Standard MIDI Files (SMF) from your computer to a Pa600's Style. See "Import: Import SMF" on page 145 and "Export SMF" on page 148.

Entering the Style/Pad Record mode

While in the Style Play operating mode, press the RECORD button. The following page will appear in the display:



STYLE/PAD RECORD

Current Style: **UnpluggedBallad1**

● Record/Edit Current Style
○ Record New Style
○ Record/Edit Pad
○ Record New Pad

You can edit Factory Styles or Pads, assuming the status of the "Factory Style and Pad Protect" parameter in the Global > Mode Preferences > Media page is set to Off (see page 241)

- Select **Record/Edit Current Style** to edit the current Style.
- Select **Record New Style** to start from a new, empty Style. Default Style Settings will be recalled. When finished recording, you will save the new Style onto a Favorite or User Style location. (Styles may also be saved onto Factory Style locations only when the "Factory Style and Pad Protect" parameter is set to Off).
- Select **Record/Edit Pad** to select an existing Pad to edit.
- Select **Record New Pad** to start from a new, empty Pad. When finished recording, you will save the new Pad into a User Pad location. (Pads can be saved into Factory Pad locations only when the "Factory Style and Pad Protect" parameter is set to Off).

After having edited the Style or Pad, please save it (see "Exit by saving or deleting changes" below) and exit the Style/Pad Record mode.

Then, edit the Style or Pad track settings.

• *With a Style:* Go to the Style Play mode, edit the Style Settings to adjust track settings (Tempo, Volume, Pan, FX Send… see page 101 and following in the "Style Play mode" chapter) and save it by selecting the "Write Current Style Settings" from the page menu (see "Write Current Style Settings dialog box" on page 116).

• *With a Pad:* Go to the Pad page of the Style Play or Song Play mode, assign the new Hit or Sequence to a Pad button, and adjust the various Pad settings (Volume, Pan, and FX Send… see "Pad/Switch: Pad" on page 112). Finally, save the Pad settings by selecting the "Write Current Style Settings" command from the page menu.

Note: *After a record or edit operation, the memory is automatically reorganized. Therefore, when you press START/STOP there is a delay before you can actually listen to the Style. This delay is higher with a Style containing more MIDI events.*

Note: *While in Record mode, the footswitch is disabled. On the contrary, volume/expression-type pedals can be used.*

Exit by saving or deleting changes

When finished editing, you can save your Style or Pad in memory, or abort any change.

• To save changes, select the "Write Style/Pad" command from the page menu (see "Write Style/Pad dialog box" on page 150).

• To abort all changes, select the "Exit from Record" command from the page menu, or press the RECORD button, to exit from record and return to the main page of the Style Play mode.

Hint: *Save often while recording, to avoid accidentally losing your changes to the Style/Pad.*

Listening to the Style while in Edit mode

While you are in Style/Pad Record mode, you can listen to the selected Chord Variation or to the whole Style or Pad, depending on the page you are in.

To select a Chord Variation, go to the Main page of the Record/Edit mode. For more details, see "Element (Style Element)" and "Chord Var (Chord Variation)" on page 122.

- When you are in the Main, Event Edit, Quantize, Transpose, Velocity, or Delete pages, you can listen to the selected Chord Variation. Press START/STOP to check how it works. Press START/STOP again to stop the playback.
- When you are in the Sounds/Expression, Keyboard Range, Chord Table, Trigger/Tension, Delete All, Copy, Style/Pad Element Controls or Style/Pad Control pages, you can listen to the whole Style or Pad. Press START/STOP and play some chords to do your tests. Select any Style/Pad Element using the control panel buttons (VARIATION 1-4, INTRO 1-3, AUTO FILL, BREAK, ENDING 1-3). Press START/STOP again to stop the playback.
- When you are in the Guitar Mode page, you can listen to the pattern you are programming, played in the selected Key.

Note: *When entering Style Record mode, the Chord Recognition mode changes according to the mode that was selected while in Style Play mode. For a chord to be recognized, a minimum of three notes must be played.*

Chord Recognition Mode		
Style Play mode	***Style Record mode***	***Notes (min.)***
One Finger	Fingered	3
Fingered	Fingered	3
Expert	Expert	3

Note: *In this mode, the pattern is always played back in loop, even if the "Pad Type" parameter is set to "One Shot" (see page 143).*

List of recorded events

The Style/Pad Record mode filters out some events that may cause wrong operation of the Style or Pad. Here are the recorded events.

Control function	CC#
Allowed	
Note On	
RX Noise On	
Pitch Bend	
Channel After Touch	
Modulation	1
Breath	2
Pan	10
Expression	11
CC#12	12
CC#13	13
Ribbon Controller	16
Damper (Hold 1)	64
Filter Resonance (Harmonic Content)	71
Low Pass Filter Cutoff (Brightness)	74
CC#80 (General Purpose #5)	80
CC#81 (General Purpose #6)	81
CC#82 (General Purpose #7)	82

Note: *Some Control Change messages cannot be recorded directly by using the integrated controls of Pa600.*

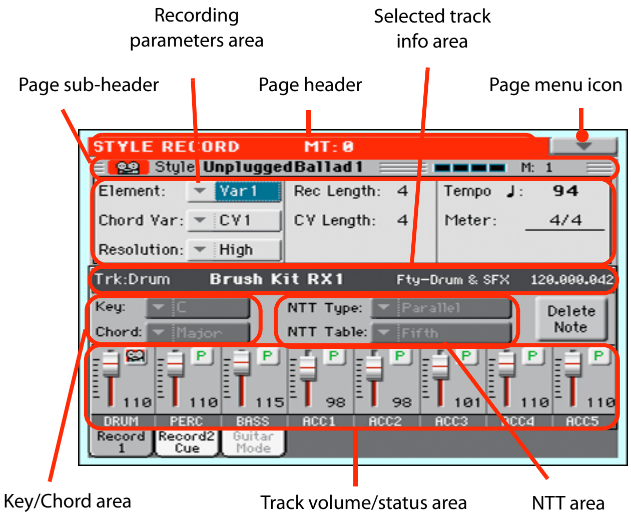
All allowed controllers can be assigned to an Assignable Pedal/ Slider/Switch.

MIDI Control Change messaged inserted by using a software on an external computer are imported when using the Import function ("Import: Import SMF" on page 145).

Some controllers are reset at the end of the pattern.

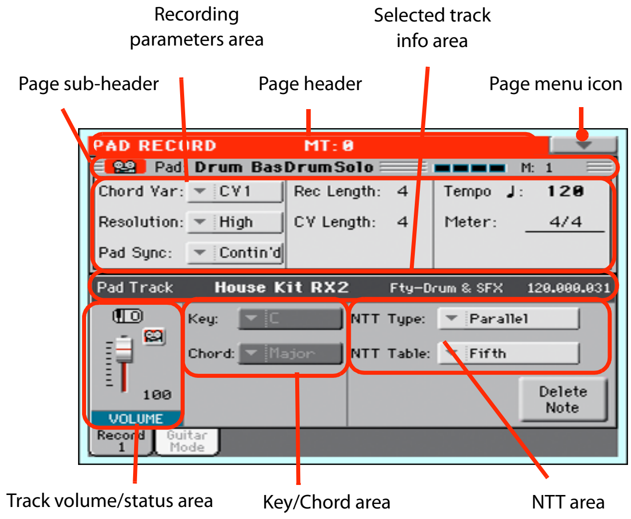
Main page - Record 1

After having pressed the RECORD button, and having chosen whether you want to edit an existing Style or create a new one, the main page of the Style Record mode appears, with the tab "Record 1" selected.


Recording parameters area
Selected track info area
Page sub-header
Page header
Page menu icon
Key/Chord area
Track volume/status area
NTT area
DRUM
PERC
BASS
ACC1
ACC2
ACC3
ACC4
ACC5
Record 1
Record2 Cue
Guitar Mode
Delete Note

STYLE RECORD MT: 0
Style UnpluggedBallad1 M: 1
Element: Var1 Rec Length: 4 Tempo ♩: 94
Chord Var: CV1 CV Length: 4 Meter: 4/4
Resolution: High
Trk:Drum Brush Kit RX1 Fty-Drum & SFX 120.000.042
Key: C NTT Type: Parallel
Chord: Major NTT Table: Fifth
110 110 115 98 98 101 110 110

Style Record

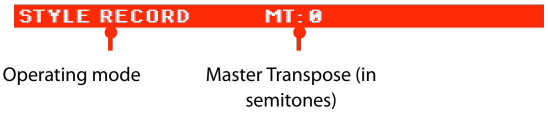

Recording parameters area
Selected track info area
Page sub-header
Page header
Page menu icon
Track volume/status area
Key/Chord area
NTT area
VOLUME
Record 1
Guitar Mode
Delete Note

PAD RECORD MT: 0
Pad Drum BasDrumSolo M: 1
Chord Var: CV1 Rec Length: 4 Tempo ♩: 120
Resolution: High CV Length: 4 Meter: 4/4
Pad Sync: Contin'd
Pad Track House Kit RX2 Fty-Drum & SFX 120.000.031
Key: C NTT Type: Parallel
Chord: Major NTT Table: Fifth
100

Pad Record

Page header

This line shows the current operating mode and transposition.


STYLE RECORD
MT: 0
Operating mode
Master Transpose (in semitones)

Operating mode name

Name of the current operating mode.

Master Transpose

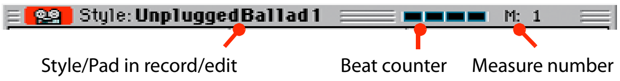
Master Transpose value in semitones. This value can be changed using the TRANSPOSE buttons on the control panel.

Page menu icon

Touch this icon to open the page menu. See “Page menu” on page 149.

Page sub-header

This area shows some performing info on the Style/Pad.



Style in record/edit

Name of the Style currently in edit or record.

Beat counter

This indicator shows the current beat.

Measure number

Current measure you are recording.

Recording parameters area

Element (Style Element)

(Style only) This parameter lets you select a Style Element for editing. Each Style Element corresponds to a button on the control panel carrying the same name. After selecting a Style Element, select a Chord Variation for actual editing (see below).

Var1…End3	This is the selected Style Element

Chord Var (Chord Variation)

This parameter lets you select a Chord Variation for editing (inside the selected Style Element or Pad).

Note: *When this parameter and the assigned value is in small letters (cv1…cv6), the Chord Variation is empty; when it is in capitals (CV1…CV6), it is already recorded.*

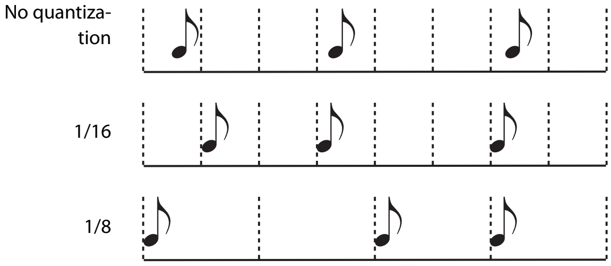
- If the Style Element is Var1, Var2, Var 3 or Var4, you can select one of 6 Chord Variations to edit.
- If the Style Element is Intro1, Intro2, Intro3, Fill1, Fill2, Fill3, Fill4, Ending1, Ending2 or Ending3, you can select one of 2 Chord Variations to edit.
- With a Pad you can choose one of the six available Chord Variations (CV1 … CV6).

Resolution

Use this parameter to set the quantization during recording. Quantization is a way of correcting timing errors; notes played too soon or too later are moved to the nearest axis of a rhythmic “grid”, set with this parameter, thus playing perfectly in time.

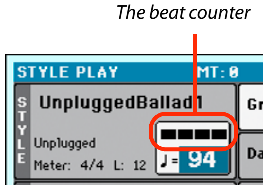
Note: *To quantize after recording, use the Quantize function in the Edit section (see “Style/Pad Edit: Quantize” on page 136).*

High	No quantization applied.
𝅘𝅥𝅰 (1/32)… 𝅘𝅥𝅮 (1/8)	Grid resolution, in musical values. For example, when you select 1/16, all notes are moved to the nearest 1/16 division. When you select 1/8, all notes are moved to the nearest 1/8 division. A ‘3’ after the quantization value means triplet.



Pad Sync

(Pad only) This parameter allows you to set a synchronization mode for the Pad’s pattern.

Off	No synchronization. The sequence will start as soon as you press the PAD button.
Continued	The pattern will start immediately, in sync with the arranger’s or active player’s tempo. Depending on the current position of the beat counter, it might not start from its very beginning; instead, it will continue from the current position. For example, if the arranger’s or player’s beat counter shows the third beat, and is playing tick 91, the Pad will start from its third beat, at tick 91.  The beat counter STYLE PLAY MT: 0 UnpluggedBallad1 Unplugged Meter: 4/4 L: 12 ♩= 94 Gr Da This works exactly as if it was a Fill.
Beat	The sequence will start at the next beat, in sync with the arranger’s or player’s tempo. It will start from its very beginning (i.e., tick 1 or measure 1).

Rec Length (Recording Length)

This parameter sets the recording length (in measures) of the selected track. Its value is always equal to, or a divider of, the Chord Variation Length (see next parameter).

This is not the total length of the Chord Variation, but just of the current track. For example, you may have a Chord Variation eight measures long, with a drum pattern repeating each two measures. If so, set the CV Length parameter to “8”, and the Rec Length parameter to “2” before starting recording the Drum track. When playing back the Style, saving it or executing any edit operation on the Style, the 2-measures pattern will be extended to the full 8-measures length of the Chord Variation.

Warning: *If you assign a value lower than Rec Length to CV Length, the value of Rec Length is not immediately updated in the display. Therefore, you are still free of changing the value of CV Length, before the measures exceeding its value are deleted. For more details, see the warning in “CV Length (Chord Variation Length)” below.*

However, if you press START/STOP to begin recording, the real Rec Length value is changed to the new one, even if the display still shows the old value.

For example, you may have CV Length = 4 and Rec Length = 4. If you set CV Length to 2, and press START/STOP to begin recording, Rec Length is still shown as 4, but it is in reality set to 2, and recording will cycle for just 2 measures. After you press START/STOP to stop recording, Rec Length is updated to 2, and all measures after the second measure are deleted.

CV Length (Chord Variation Length)

This parameter sets the total length (up to 32 measures) for the selected Chord Variation. When playing a Style, this will be the length of the accompaniment pattern, when the chord corresponding to the Chord Variation is recognized on the keyboard.

Warning: *If you reduce the Chord Variation Length after recording, any measure after the selected length will be deleted. Be very careful when setting the CV Length to a lower value after recording! If it happens, we suggest to exit from record without saving (see "Exit from Record" on page 149).*

Tempo

Select this parameter to use the TEMPO controls to set the Tempo value.

Hint: *You can always change the Tempo, when other parameters are selected, by keeping the SHIFT button pressed, and rotating the DIAL.*

Note: *When recording Tempo, old data is always replaced by the new data.*

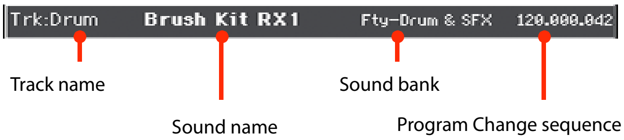
Note: *The actual Tempo of the Style will be the one shown when saving the Style Settings in Style Play mode (see "Current Tempo" on page 95).*

Meter

This is the meter (time signature) of the Style Element or the Pad Sequence. You can edit this parameter only when the Style Element or Pad is empty, i.e. before you begin recording anything.

Selected track info area

This line lets you see the Sound assigned to the selected track.



Trk:Drum Brush Kit RX1 Fty-Drum & SFX 120.000.042

Track name

Name of the selected track.

Drum…Acc5 Style track.

Sound name

Sound assigned to the selected track. You can touch the name to open the Sound Select window, and select a different Sound.

Sound bank

Bank the selected Sound belongs to.

Program Change

Program Change number sequence (Bank Select MSB, Bank Select LSB, Program Change).

Key/Chord area

Key/Chord

This parameter pair allows you to define the track's original key and chord type, for the current Chord Variation. When playing the pattern back, this chord will be played back exactly as it was recorded, without any NTT processing (see above).

Note: *To conform to KORG specifications, it is advisable to record both the "Major" and "minor" Chord Variations for the Intro 1 and Ending 1 Style Elements.*

When you select a track, the original key/chord assigned to the selected track will be shown. All recorded tracks will play back on that key/chord. For example, if the original key/chord for the Acc1 track is A7th, when selecting the Acc1 track all the remaining tracks will play on the A7th key/chord.

In the example above, you will record the Acc1 track in the AMajor key, with notes pertaining to the A7th scale. This exact pattern will be recalled, when an A7th chord will be recognized.

Note: *This does not apply to Guitar Mode, relying on a different rule. See "Main page - Guitar Mode" on page 126 for more information.*

NTT Area

NTT Type/Table

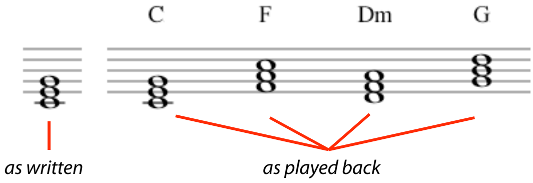
NTTs (Note Transposition Tables) are the sophisticated algorithms that allow KORG arrangers to convert recognized chords into musical patterns. The Note Transposition Table (NTT) determines how the arranger will transpose pattern notes, when a chord is recognized that does not exactly match the original chord of a Chord Variation. For example, if you only recorded a Chord Variation for the CMaj chord, when a CMaj7 is recognized on the keyboard the arranger must transpose some notes to create the missing 7th.

Note: *These parameters cannot be selected with Drum or Percussion tracks, and are therefore greyed out.*

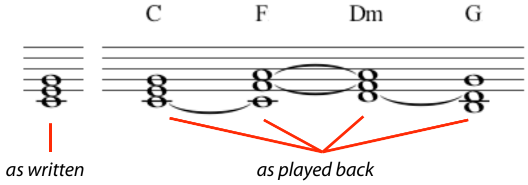
Note: *NTT parameters are separately programmed for each track of the Style Element.*

There are two general types of NTTs:

- When ***Parallel*** types are selected, notes are transposed inside the area set by the Wrap Around parameter. These tables are ideally suited to melody parts.


C
F
Dm
G
as written
as played back

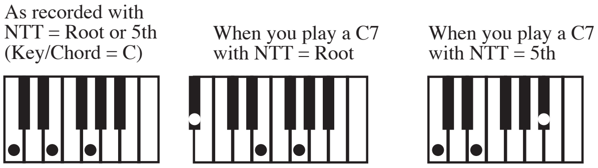
- When ***Fixed*** types are selected, the arranger moves as few notes as possible, making legato lines and chord changes more natural. They are ideally suited to chord tracks (strings, piano etc…).


C
F
Dm
G
as written
as played back

Note: *To conform to KORG specifications, it is advisable to set the NTT to "No Transpose" on the Intro 1 and Ending 1.*

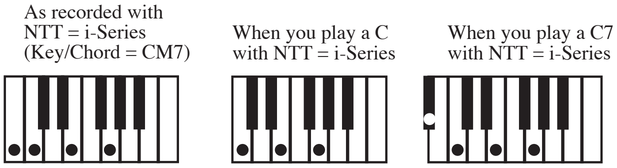
Parallel/Root The root note (in CMaj = C) is transposed to the missing notes.

Parallel/Fifth The 5th note (in CMaj = G) is transposed to the missing notes.


As recorded with NTT = Root or 5th (Key/Chord = C)
When you play a C7 with NTT = Root
When you play a C7 with NTT = 5th

Parallel/i-Series

All original patterns must be programmed on the "Maj7" or "min7" chords. When loading old KORG i-Series Styles, this option is automatically selected.


As recorded with NTT = i-Series (Key/Chord = CM7)
When you play a C with NTT = i-Series
When you play a C7 with NTT = i-Series

Parallel/No Transpose

The chord is not modified, and is moved to the new key unchanged. The pattern plays exactly the recorded notes, and is moved to the new key as is. This is the standard setting of Intro 1 and Ending 1 in KORG's original Styles (where a chord progression is usually recorded, and should remain unchanged in any key).

Fixed/Chord This table moves as few notes as possible, making legato lines and chord changes more natural. It is ideally suited to chord tracks (strings, piano etc…). Contrary to the Parallel mode, the programmed chord is not transposed according to the Wrap Around parameter, but always stays around its original position, looking for common notes between the chords.

Fixed/No Transpose

The programmed notes can only be transposed by the Master Transpose. They are never transposed when chords are changed.

Delete Note button

Use this command to delete a single note or a single percussive instrument from a track. For example, to delete a snare, keep the D2 note (corresponding to the snare) pressed.

1. Select a track.
2. Touch the “Delete Note” button, and keep it pressed.
3. Press START/STOP to start the Style.
4. When you reach the passage containing the note to be deleted, play the note on the keyboard. Keep it pressed, up to the last note to be deleted.
5. When finished, release the Delete button and the note to be deleted, and press START/STOP again to stop the Style.

   ***Note:** If the note is at the beginning of the pattern, press the note before starting the Style.*

Tracks volume/status area

Virtual slider(s)

Drag a virtual sliders on the display to change the volume of the corresponding track.

As an alternative, touch a track to select it, and use VALUE DIAL to change the value.

Track status icons

Status of tracks. Touch this icon to change the status.

P	Play status. The track can be heard.
M	Mute status. The track cannot be heard.
⏺	Record status. After starting recording, the track will receive notes from the keyboard and the MIDI IN connector.

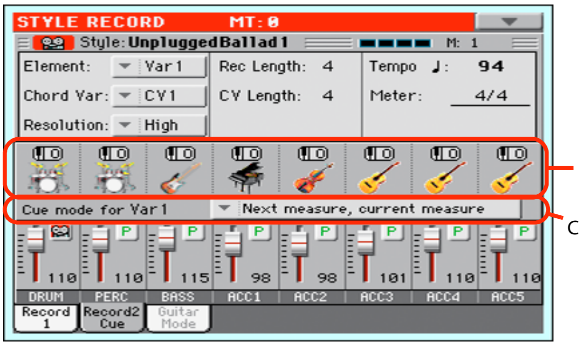
Track names

(Style only) Under the sliders, a label for each track is shown.

Drum…Acc5	Shown Style tracks.

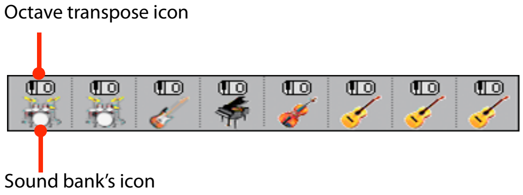
Main page - Record 2/Cue

(Style only) While in the main page, touch the “Record 2/Cue” tab to see this page. Most parameters in this page are the same as in “Main page - Record 1”. In addition, here you can see and select Sounds for each Style track, and the Cue mode for the Style Element.


STYLE RECORD MT:0
Style: UnpluggedBallad1 M: 1
Element: Var1
Rec Length: 4
Tempo ♩: 94
Chord Var: CV1
CV Length: 4
Meter: 4/4
Resolution: High
Cue mode for Var1: Next measure, current measure

Sounds area

This area lets you see Sounds and octave transposition for the eight Style tracks.



Octave transpose icon

Non editable. This indicator shows the track’s octave transposition. Tracks will be recorded with the selected octave transposition. To change this value, use the UPPER OCTAVE buttons, or go to the “Mixer/Tuning: Tuning” edit page in the Style Play mode (see page 104). Save this value to the Style Settings.

Sound bank’s icon

This picture illustrates the bank the current Sound belongs to. Touch an icon a first time to select the corresponding track (detailed information are shown on the Selected Track Info area, see the “Main page - Record 1” page above). Touch it a second time to open the Sound Select window.

***Note:** These Sounds can be replaced by Sounds selected by a Performance, provided the “Original Style Sounds” parameter is left unchecked in Style Play mode (see page 98).*

Cue area

Cue mode for [Style element]

This parameter lets you decide how the current Style Element will enter after it has been selected. This setting is only available for the 'Variation' and 'Fill' Style Elements.

Immediate, first measure

The Style Element enters immediately, and begins from the first measure. *Only available on Fills.*

Immediate, current measure

The Style Element enters immediately, and begins from the current measure. *Only available on Fills.*

Next measure, first measure

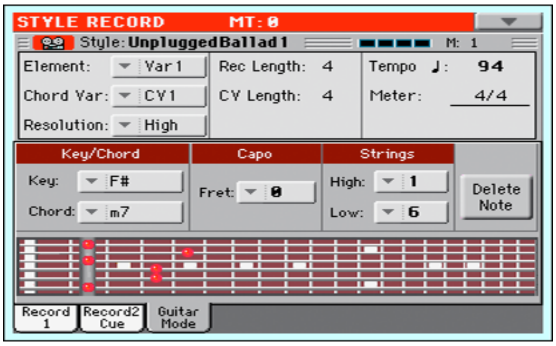
The Style Element enters at the beginning of the next measure, and begins from the first measure of the new pattern. *Available on both Fills and Variations.*

Next measure, current measure

The Style Element enters at the beginning of the next measure, and begins from the current measure. *Only available on Variations.*

Main page - Guitar Mode

While in the main page, and a Guitar track has been selected, touch the "Guitar Mode" tab to see this page. This is where you can access Guitar Mode programming:



Style: UnpluggedBallad1
M: 1
Element: Var1
Chord Var: CV1
Resolution: High
Rec Length: 4
CV Length: 4
Tempo ♩: 94
Meter: 4/4
Key: F#
Chord: m7
Fret: 0
High: 1
Low: 6

Note: *To access this page, a Guitar track must first be selected (see "Track Type" on page 144). The Pad track must be of Guitar type (Pad Track Controls > Sound/Expression page, see "Track Type" on page 143). Otherwise, the Guitar Mode tab will remain grey (not selectable).*

Note: *When programming a Guitar track from an external sequencer, you must be sure the Guitar tracks is associated to the right channel. Go to the Global > MIDI > MIDI IN Channels page, and assign the corresponding Style track (usually Acc1 ~ Acc5) to the same channel of the Guitar track on the external sequencer. Then, go to the Style Record > Style Track Controls > Type/Tension/Trigger page, and set the track as a track of type "Gtr" (see "Track Type" on page 144).*

Guitar Mode allows for easy creation of realistic rhythm guitar parts, without the artificial, unmusical playing typical of MIDI programming of guitar parts. Just record a few measures, and you will end up with realistic rhythm guitar tracks, where each chord is played according to its real position on the guitar, and not generated by simply transposing a written pattern.

Recording overview

Recording a Guitar track is unlike recording the other tracks, where you play exactly all the notes of a melody line or all the chords of an accompaniment part. With Guitar tracks you can:

a) play the keys corresponding to the strumming modes,

b) play an arpeggio using the six keys corresponding to the six guitar strings (and the special keys corresponding to the root and fifth notes),

c) play RX Noises to add realism to the pattern,

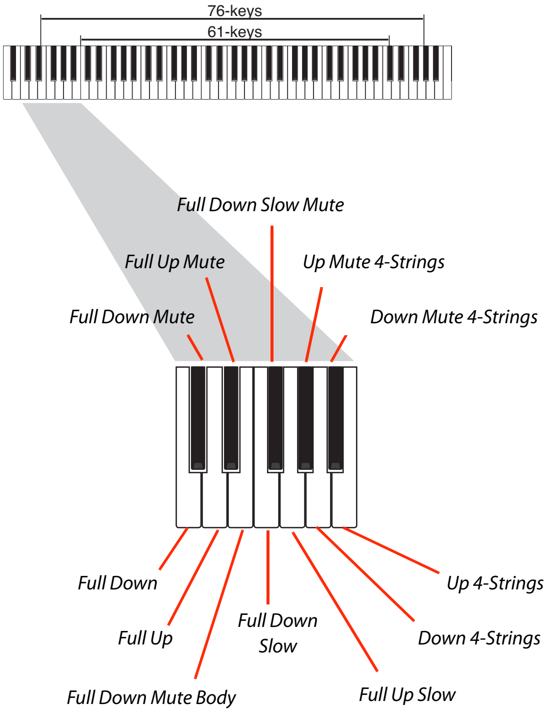
d) add regular patterns, for short melodic passages without wasting an Acc track,

e) use the finest MIDI programing to select Chord Shapes, and recreate any nuance of a guitar performance.

The following sections describe the various control keys available for this guitar simulation.

Recording strumming types

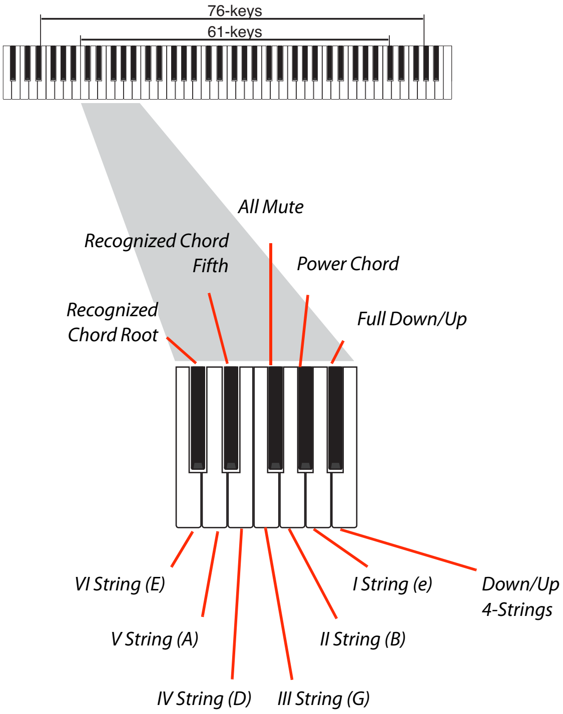
The octave from C1 to B1 is devoted to selecting a ***strumming type.*** By pressing these keys, you play fast strumming samples:


76-keys
61-keys
Full Down Slow Mute
Full Up Mute
Up Mute 4-Strings
Full Down Mute
Down Mute 4-Strings
Full Down
Up 4-Strings
Full Up
Full Down Slow
Down 4-Strings
Full Down Mute Body
Full Up Slow

Recording single strings

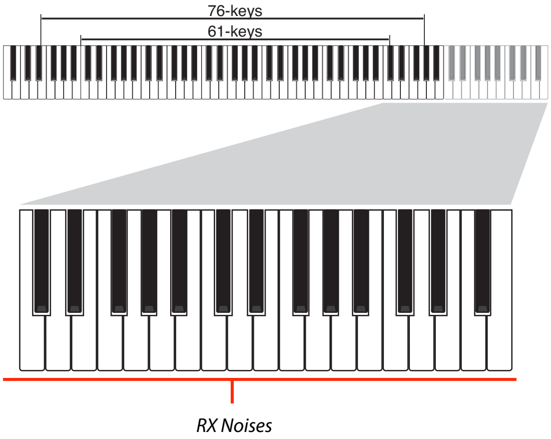
The octave from C2 to B2 is devoted to selecting a *single string* (or more than one) for playing arpeggios or power chords. You can either play a free arpeggio with the six guitar chords assigned to the C~A keys, or play one of the faster sampled arpeggios on the higher keys. The root note is always available on the C# key, while the fifth note is always assigned to the D# key; with them, you can always play the lowest notes of an arpeggio.

This octave also includes an 'all mute' key (F#):


76-keys
61-keys
All Mute
Recognized Chord Fifth
Power Chord
Recognized Chord Root
Full Down/Up
VI String (E)
I String (e)
Down/Up 4-Strings
V String (A)
II String (B)
IV String (D)
III String (G)

Recording RX Noises

Further on, the upper octaves are used to trigger ***RX Noises:***


76-keys
61-keys
RX Noises

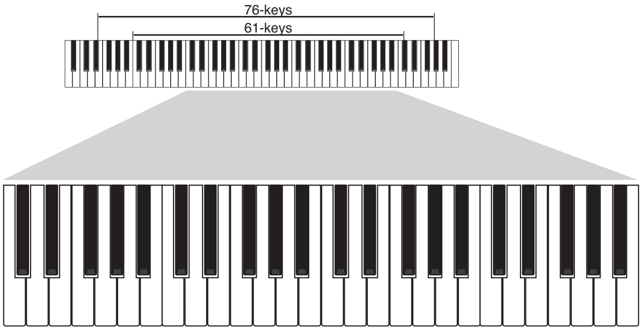
Selecting a Capo

Together with strumming types, single strings and RX Noises, you can choose a Capo ("capotasto"). Note that this might prevent some single strings to sound, depending on the composed chord. You can always see which strings are playing and which are not, as described in "Diagram" on page 129.

Recording a regular pattern

Together with strums and arpeggios, you can record regular patterns, exactly as if the track was of Acc type (see "Track Type" on page 144). This will save an Accompaniment track, when all you need is just to record some short melodic passages (for example, the closing of a strumming pattern).

You can record the pattern by playing it in the range shown by the diagram.



Recording a Chord Shape

You can finely choose Chord Shapes by using MIDI messages. When you play a C0 note with the velocity value shown in the following table, a chord is played in a particular position and on a certain number of strings.

Vel.	Range	from Str.	to Str.	Position
0	6 Strings	I	VI	0
1	6 Strings	I	VI	0
2	6 Strings	I	VI	1
3	6 Strings	I	VI	2
4	6 Strings	I	VI	3
5	6 Strings	I	VI	4
6	6 Strings	I	VI	5
7	5 Strings Bass	II	VI	0
8	5 Strings Bass	II	VI	1
9	5 Strings Bass	II	VI	2
10	5 Strings Bass	II	VI	3
11	5 Strings Bass	II	VI	4
12	5 Strings Bass	II	VI	5
13	5 Strings Treble	I	V	0
14	5 Strings Treble	I	V	1
15	5 Strings Treble	I	V	2
16	5 Strings Treble	I	V	3
17	5 Strings Treble	I	V	4
18	5 Strings Treble	I	V	5
19	4 Strings Bass	III	VI	0
20	4 Strings Bass	III	VI	1
21	4 Strings Bass	III	VI	2
22	4 Strings Bass	III	VI	3
23	4 Strings Bass	III	VI	4
24	4 Strings Bass	III	VI	5
25	4 Strings Middle	II	V	0
26	4 Strings Middle	II	V	1
27	4 Strings Middle	II	V	2
28	4 Strings Middle	II	V	3
29	4 Strings Middle	II	V	4
30	4 Strings Middle	II	V	5
31	4 Strings Treble	I	IV	0
32	4 Strings Treble	I	IV	1
33	4 Strings Treble	I	IV	2
34	4 Strings Treble	I	IV	3
35	4 Strings Treble	I	IV	4
36	4 Strings Treble	I	IV	5
37	3 Strings Bass	IV	VI	0
38	3 Strings Bass	IV	VI	1
39	3 Strings Bass	IV	VI	2
40	3 Strings Bass	IV	VI	3
41	3 Strings Bass	IV	VI	4
42	3 Strings Bass	IV	VI	5
43	3 Strings MiddleBas	III	V	0
44	3 Strings MiddleBas	III	V	1
45	3 Strings MiddleBas	III	V	2
46	3 Strings MiddleBas	III	V	3
47	3 Strings MiddleBas	III	V	4
48	3 Strings MiddleBas	III	V	5
49	3 Strings MiddleTreble	II	IV	0
50	3 Strings MiddleTreble	II	IV	1
51	3 Strings MiddleTreble	II	IV	2
52	3 Strings MiddleTreble	II	IV	3
53	3 Strings MiddleTreble	II	IV	4
54	3 Strings MiddleTreble	II	IV	5
55	3 Strings Treble	I	III	0
56	3 Strings Treble	I	III	1
57	3 Strings Treble	I	III	2
58	3 Strings Treble	I	III	3
59	3 Strings Treble	I	III	4
60	3 Strings Treble	I	III	5
61	2 Strings Bass	V	VI	0
62	2 Strings Bass	V	VI	1
63	2 Strings Bass	V	VI	2
64	2 Strings Bass	V	VI	3
65	2 Strings Bass	V	VI	4
66	2 Strings Bass	V	VI	5
67	2 Strings MiddleBas	IV	V	0
68	2 Strings MiddleBas	IV	V	1
69	2 Strings MiddleBas	IV	V	2
70	2 Strings MiddleBas	IV	V	3
71	2 Strings MiddleBas	IV	V	4
72	2 Strings MiddleBas	IV	V	5
73	2 Strings Middle	III	IV	0
74	2 Strings Middle	III	IV	1
75	2 Strings Middle	III	IV	2
76	2 Strings Middle	III	IV	3
77	2 Strings Middle	III	IV	4
78	2 Strings Middle	III	IV	5
79	2 Strings MiddleTreble	II	III	0
80	2 Strings MiddleTreble	II	III	1
81	2 Strings MiddleTreble	II	III	2
82	2 Strings MiddleTreble	II	III	3
83	2 Strings MiddleTreble	II	III	4
84	2 Strings MiddleTreble	II	III	5
85	2 Strings Treble	I	II	0
86	2 Strings Treble	I	II	1

Vel.	Range	from Str.	to Str.	Position
87	2 Strings Treble	I	II	2
88	2 Strings Treble	I	II	3
89	2 Strings Treble	I	II	4
90	2 Strings Treble	I	II	5

Choosing a Key/Chord for Intro 1 and Ending 1

The pattern is recorded in the key indicated by the Key/Chord pair of parameters. However, this parameter is only used for playback by the Intro 1 and Ending 1 Style Elements. All other Style Elements will be played back according to the recognized chord.

With Intro 1 and Ending 1 (both Chord Variation 1 and 2) you can also prefer to enter a chord progression, to be played on the lowest MIDI octave (C-1 ~ B-1). Chord types are inserted by using velocity values, as shown in the following table:

Vel.	Chord Type	Vel.	Chord Type
1	Major	2	Major 6th
3	Major 7th	4	Major 7th flatted 5th
5	Suspended 4th	6	Suspended 2nd
7	Major 7th suspended 4th	8	Minor
9	Minor 6th	10	Minor 7th
11	Minor 7th flatted 5th	12	Minor major 7th
13	Dominant 7th	14	7th flatted 5th
15	7th suspended 4th	16	Dimished
17	Diminished major 7th	18	Augmented
19	Augmented 7th	20	Augmented major 7th
21	Major w/o 3rd	22	Major w/o 3rd and 5th
23	Flatted 5th	24	Diminished 7th

Playing back the pattern

When in Stye Play mode, the recorded Guitar pattern is transposed according to the chord recognized on the keyboard. The way it is transposed depends on the programmed pattern, with the chosen positions, strumming mods, etc…

Guitar mode parameters

Here is a detailed description of the parameters of the Guitar Mode page.

Key/Chord

This parameter pair allows you to define the track's original key and chord type. This parameter works in a different way than the other tracks. While with other tracks this is always the reference key used for NTT transposition, with Guitar tracks there is a difference, whether you are recording a Chord Variation contained in an Intro 1 or Ending 1 Style Element, or any other Chord Variation:

- With Intro 1 and Ending 1, this chord will be used as the reference key for the chord progression.
- With all the other Chord Variations, this chord will be used only for listening during recording. During playback in Style Play mode, the chord will follow chord recognition.

Capo - Fret

A capo (from the Italian "capotasto", "head of fingerboard") is a movable bar attached to the fingerboard of the guitar, to uniformly raise the pitch of all the strings. Its use makes the strings shorter, therefore changing the timbre and position of the chords (but not its shape).

0	Open string – no capo.
I…X	Position of the capo over the fingerboard (i.e., "I" corresponds to the first fret, "II" to the second one, and so on).

Strings - High/Low

Use this pair of parameters to choose the strings the pattern will be played on.

1…6	Position of the capo over the fingerboard (i.e., "I" corresponds to the first fret, "II" to the second one).

Diagram

The diagram shows how a chord would be composed on the fingerboard. Here is the meaning of the various symbols:

Red dot	Fingered string (i.e., played note).
White dot	Fifth, playing on the D#2 key.
X	Non played or muted note.
Light grey bar	Barré (a finger crossing all the strings, like a mobile capo).
Dark grey bar	Capo.

Style/Pad Record procedure

There are two different methods for recording a Style/Pad: Realtime and Step.

- Realtime Recording allows you to record Style/Pad patterns in realtime.
- Step Recording allows you to create a new Style/Pad by entering single notes or chords in each track. This is very useful when transcribing an existing score, or needing a higher grade of detail, and is particularly suitable to create drum and percussion tracks.

In addition, you can program a Style/Pad on a personal computer, and then import it via the Import function (see “Import: Import SMF” on page 145).

Preparing to record

1. If you like to edit an existing Style/Pad, select it.
2. Press the RECORD button to enter the Style/Pad Record mode. You are prompted to either select the Current Style or an existing Pad, or create a New Style or Pad.

   Select “Record/Edit Current Style” or “Record/Edit Current Pad” if you want to edit the current Style/Pad, or make a new Style/Pad starting from an existing one. Select “Record New Style/Pad” if you want to start from scratch with an empty Style/Pad.
3. After you select your preferred option, the main page of the Style/Pad Record mode will appear.
4. Use the Element (Style Element) *(Style only)* and Chord Var (Chord Variation) parameters, to select the Chord Variation to be recorded/edited.

   Note: *For more information on the Style Elements and Chord Variations, and the Style/Pad structure in general, see “The Style’s structure” on page 118 or “The Pad’s structure” on page 119.*
5. Use the Rec Length (Recording Length) parameter to set the length (in measures) of the pattern to record.
6. Use the Meter parameter to set the Style Element’s or Pad’s meter (time signature).

   Note: *You can edit this parameter only if you selected the “Record New Style/Pad” option when entering the Record mode, or when editing an empty Style Element.*
7. Select the Tempo parameter and set the Tempo.
8. *(Style only)* Touch the Record 2 tab to see the Sounds area. Here you can assign the right Sound to each Style track.

   (Pad only) Press the SOUND button to select a Sound to be assigned to the Pad track.
9. If needed, set the Octave Transpose for each track. ***Note:*** *The Octave Transpose will affect only the notes coming from the keyboard, and not from the arranger.*
10. At this point, if you want to do a Realtime Recording go on reading “Realtime Record procedure” below. Otherwise, if you prefer to do a Step Record, jump to “Step Record procedure” on page 131.

Realtime Record procedure

1. Select the track to record. Its status icon will turn to ‘Record’. (For more details, see “Tracks volume/status area” on page 125).

   Note: When entering the Record mode, a track is already in Record status. When you press START/STOP after entering the Record mode, you can immediately start recording.

   If you like, you can try your part before recording:

   • Mute the track, by repeatedly touching its icon status, until the M (Mute) status icon appears.

   • Press START/STOP to let any recorded track play back, and practice on the keyboard.

   • When you have finished practicing, press START/STOP to stop the arranger, and unmute the track by repeatedly touching its icon status, until the 📼 (Record) status icon appears again.
2. While the shown status icon is Record, press START/STOP to begin recording. A 1-bar precount will play before the recording actually begins. When it begins, play freely. The pattern will last for some measures, according to the Rec Length value, then restart.

   Since the recording will happen in overdub, you can add notes on any following passage. This is very useful to record different percussive instruments at any cycle on a Drum or Percussion track.

   Note: *While recording, the track’s* ***Keyboard Range*** *(see page 142) is ignored, and notes can be recorded and played back over the whole keyboard range. The* ***Local*** *parameter (see “Local Control On” on page 246) is also automatically set to On, to allow playing on the keyboard.*
3. When finished recording, press START/STOP to stop the arranger. Select a different track, and go on recording the full Chord Variation.

   Note: *You can select a different track only when the arranger is not running.*
4. When finished recording the Chord Variation, select a different Chord Variation or Style Element *(Style only)* to go on recording the full Style/Pad.
5. When finished recording the new Style/Pad, select the “Write Style/Pad” command from the page menu, to open the Write Style/Pad dialog box (see “Write Style/Pad dialog box” on page 150) and save it to memory.

   To exit the Style/Pad Record mode without saving any change, select the “Exit from Record” command from the page menu, or press the RECORD button.

Step Record procedure

1. While in the main page of the Style/Pad Record mode, select the “Overdub Step Recording” command from the page menu, to enter the Overdub Step Record mode.
2. The “Pos” parameter shows the current position.

   • If you do not want to insert a note or chord at the current position, insert a rest instead, as shown in step 4.

   • To jump to the next measure, filling the remaining beats with rests, touch the Next M. button in the display.
3. To change the step value, use the “Step Time values” area in the display.
4. Insert a note, rest or chord at the current position.

   • To insert a single note, just play it on the keyboard. The inserted note length will match the step length. You may change the velocity and relative duration of the note, by editing the “Duration” and “Velocity” parameters (see page 152).

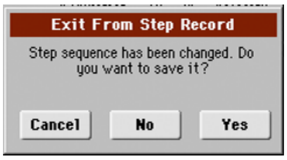
   • To insert a rest, just touch the Rest button in the display. Its length will match the step value.

   • To tie the note to be inserted to the previous one, touch the Tie button in the display. A note will be inserted, tied to the previous one, with exactly the same name. You don’t need to play it on the keyboard again.

   • To insert a chord or a second voice, see “Chords and second voices in Step Record mode” on page 171.
5. After inserting a new event, you may go back by touching the Back button in the display. This will delete the previously inserted event, and set the step in edit again.
6. When the end of the pattern is reached, the “End of Loop” event is shown, and the recording restarts from the “001.01.000” position. Any note exceeding the pattern length, inserted at its end, will be reduced to fit the total length of the pattern.

   At this point, you may go on, inserting new events in overdub mode (the previously inserted events will not be deleted). This is very useful when recording a drum or percussion track, where you may want to record the bass drum on a first cycle, the snare drum on the second cycle, and the hi-hat and cymbals during the following cycles.
7. When finished recording, touch the Done button in the display to exit the Step Record mode.

   A dialog box appears, asking you to either cancel, discard or save the changes.

   Exit From Step Record

   Step sequence has been changed. Do you want to save it?

   If you touch Cancel, exit is canceled, and you can continue editing. If you choose No, changes are not saved, and the Step Record window is closed. If you choose Yes, changes are saved, and the Step Record window is closed.
8. When back to the main page of the Style Record mode, you may turn all tracks to the play status, then press START/STOP to listen to the Style. Press START/STOP again to stop the playback.
9. From the main page of the Style Record mode, select the “Write Style/Pad” command to save, or the “Exit from Record” command to exit from the Style/Pad Record mode (see “Write Style/Pad dialog box” on page 150), or by canceling any change.

Chords and second voices

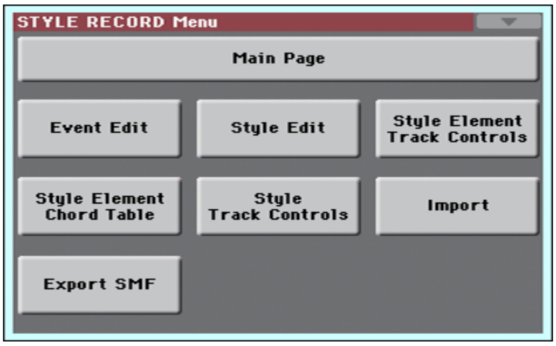
With Pa600, you are not limited to inserting single notes in a track. There are several ways to also insert chords and double voices. For more information, see “Chords and second voices in Step Record mode” on page 171.

Edit menu

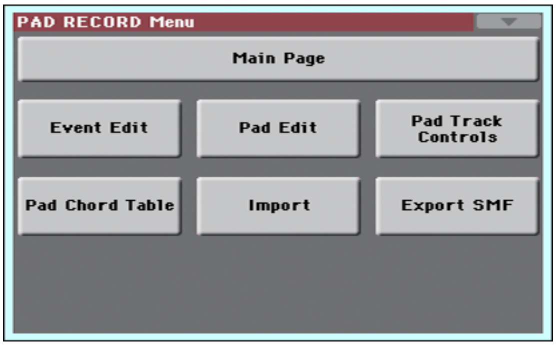
From any page (apart for Step Record), press the MENU button to open the Style Record or Pad edit menu. This menu gives access to the various Style/Pad Record edit sections.

When in the menu, select an edit section, or press EXIT to exit the menu and return to the main page. To return to the main page, you can also select the Main Page menu item.

When in an edit page, press the EXIT button to return to the main page of the Style Record mode.


STYLE RECORD Menu
Main Page
Event Edit
Style Edit
Style Element Track Controls
Style Element Chord Table
Style Track Controls
Import
Export SMF

Style Record menu


PAD RECORD Menu
Main Page
Event Edit
Pad Edit
Pad Track Controls
Pad Chord Table
Import
Export SMF

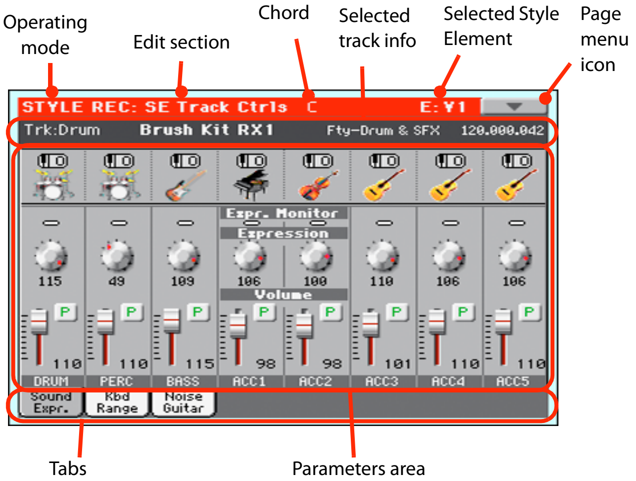
Pad Record menu

***Note:** While the Style/Pad is in play, you cannot access the Edit section pages from the main page (see page 121). Stop the playback before pressing MENU.*

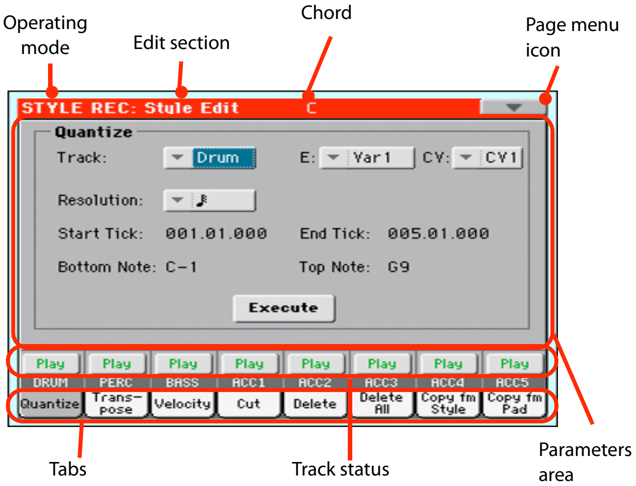
***Note:** When switching from the Edit section pages (Quantize, Transpose, Velocity, Delete) to the other pages, or vice-versa, the Style (if in play) is automatically stopped.*

Edit page structure

Most edit pages share some basic elements.


Operating mode
Edit section
Chord
Selected track info
Selected Style Element
Page menu icon
STYLE REC: SE Track Ctrls
C
E:V1
Trk:Drum
Brush Kit RX1
Fty-Drum & SFX
120.000.042
Expr. Monitor
Expression
Volume
115
49
109
106
100
110
106
106
P
110
110
115
98
98
101
110
110
DRUM
PERC
BASS
ACC1
ACC2
ACC3
ACC4
ACC5
Sound Expr.
Kbd Range
Noise Guitar
Tabs
Parameters area

Other pages have a slightly different structure.


Operating mode
Edit section
Chord
Page menu icon
STYLE REC: Style Edit
C
Quantize
Execute
Play
DRUM
PERC
BASS
ACC1
ACC2
ACC3
ACC4
ACC5
Quantize
Trans-pose
Velocity
Cut
Delete
Delete All
Copy fm Style
Copy fm Pad
Tabs
Track status
Parameters area

Track: Drum E: Var1 CV: CV1

Resolution: ♪

Start Tick: 001.01.000 End Tick: 005.01.000

Bottom Note: C-1 Top Note: G9

Operating mode

This indicates that the instrument is in Style/Pad Record mode.

Edit section

This identifies the current edit section, corresponding to one of the items of the edit menu (see “Edit menu” on page 132).

Chord

(Style only) Chord in edit.

Selected Style Element

(Style only) In Style Record mode, edits always happen on the selected Style Element.

Page menu icon

Touch this icon to open the page menu (see “Page menu” on page 149).

Parameters area

Each page contains various parameters. Use the tabs to select one of the available pages. For detailed information on the various types of parameters, see sections starting from page 133.

Track status

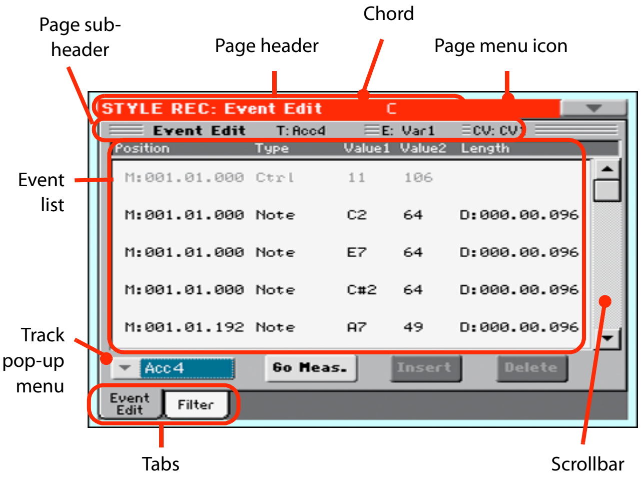
Use these buttons to mute/unmute tracks while editing.

Tabs

Use tabs to select one of the edit pages of the current edit section.

Event Edit: Event Edit

The Event Edit is the page where you can edit each single MIDI event of the selected Chord Variation. You can, for example, replace a note with a different one, or change its playing strength (i.e., velocity value). See “Event Edit procedure” on page 134 for more information on the event editing procedure.


Page sub-header
Page header
Chord
Page menu icon
Event list
Track pop-up menu
Tabs
Scrollbar
STYLE REC: Event Edit
C
Event Edit
T:Acc4
E: Var1
CV: CV1
Acc4
Go Meas.
Insert
Delete
Event Edit
Filter

```
Position       Type      Value1  Value2  Length
M:001.01.000   Ctrl      11      106
M:001.01.000   Note      C2      64      D:000.00.096
M:001.01.000   Note      E7      64      D:000.00.096
M:001.01.000   Note      C#2     64      D:000.00.096
M:001.01.192   Note      A7      49      D:000.00.096
```

Page header

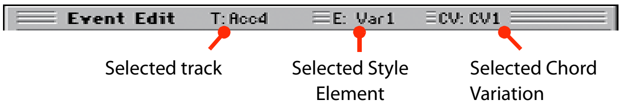
See “Page header” on page 121.

Page menu icon

Touch this icon to open the page menu. See “Page menu” on page 149.

Page sub-header

This area shows some performing info on the Song.


Event Edit
T:Acc4
E: Var1
CV: CV1
Selected track
Selected Style Element
Selected Chord Variation

Selected track

(Style only) Name of the track in edit. Use the Track pop-up menu to select one of the Style tracks.

SE/CV (Style Element/Chord Variation)

Selected Style Element *(Style only)* and Chord Variation. This parameter cannot be edited. To select a different Style Element and Chord Variation, press EXIT to go back to the main page of the Style/Pad Record mode (see “Main page - Record 1” on page 121).

Event list

Use the Event list to see all events contained in the selected track in the selected Style Element.

Use the scrollbar to browse through the events. You can also scroll by using the SHIFT + VALUE DIAL combination.

Touch the event to be selected. Selected events are highlighted and can be heard.

Position

Position of the event, expressed in the form 'aaa.bb.ccc':

- 'aaa' is the measure
- 'bb' is the beat
- 'ccc' is the tick (each quarter beat = 384 ticks)

You can edit this parameter to move the event to a different position. You can edit a position in either of the following ways:

(a) select the parameter, and use the VALUE DIAL to change the value, or

(b) select the parameter, then touch it again; the numeric keypad will appear. Enter the new position by dialing in the three parts of the number, separated by a dot. Zeroes at the beginning can be omitted, as well as the least important parts of the number. For example, to enter position 002.02.193, dial "2.2.193"; to enter position 002.04.000 dial "2.4"; to enter position 002.01.000, simply dial "2".

Type, Value 1, Value 2

Type and values of the event shown in the display. Depending on the selected event, the value may change. This parameter also shows the (greyed-out, so non editable) "CC#11" (Expression) event at the beginning of the pattern, and the "End Of Track" marking, when the end of a track is reached.

To change the event type, select the Type parameter, then use the VALUE DIAL to select a different event type. A set of default values will be automatically assigned to the event.

To select and edit the event's value, select the corresponding parameter, and use VALUE DIAL.

Length

Length of the selected Note event. The value format is the same as the Position value. This is only available for Note events.

***Note:** If you change a length of "000.00.000" to a different value, you can't go back to the original value. This rather uncommon zero-length value may be found in some drum or percussion tracks.*

Scrollbar

Use the scrollbar to browse the event through the list. (As an alternative, use SHIFT + VALUE DIAL).

Other elements

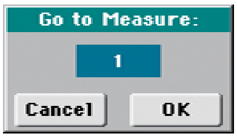
Track pop-up menu

Use this pop-up menu to select the track to edit, inside the current Chord Variation.

Drum…Acc5 Style track.

Go Meas.

While the Style is not running, touch this button to open the Go to Measure dialog box:



When in this dialog box, select a target measure, and touch OK. The first event available in the target measure will be selected.

Insert

Touch the Insert button in the display to insert a new event at the current shown Position. The default values are Type = Note, Pitch = C4, Velocity = 100, Length = 192.

Delete

Touch the Delete button in the display to delete the event selected in the display.

Event Edit procedure

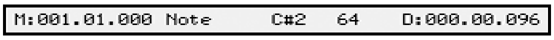
Here is the general procedure to follow for the event editing.

1. Select the Style/Pad to edit, and press the RECORD button. Select the "Current Style/Pad" option to enter recording. The main page of the Style/Pad Record mode will appear.
2. Select the "Element (Style Element)" *(Style only)* and "Chord Var (Chord Variation)" parameters.

   ***Note:** For more information on the Style Elements and Chord Variations, and the Style structure in general, see "The Style's structure" on page 118.*
3. Press MENU, and select the Event Edit section. The Event Edit page appears (see "Event Edit: Event Edit" on page 133 for more information).
4. Press START/STOP to listen to the selected Chord Variation. Press START/STOP to stop it. Chord Scanning does not work, so you will listen the pattern at the original Key/Chord.
5. Touch the Filter tab to select the Filter page, and uncheck the filters for the event types you wish to see in the display (see "Event Edit: Filter" on page 135 for more information).
6. Touch the Event Edit tab to go back to the Event Edit page.
7. *(Style only)* Use the Track pop-up menu to select the track to edit (see "Track pop-up menu" on page 134).
8. The list of events contained in the selected track (inside the Chord Variation selected on step 2) will appear in the display. Some events on the beginning of the Chord Variations, as well as the "EndOfTrk" event (marking its ending point) cannot be edited, therefore appearing in grey.

9. Scroll though the various events by using the scrollbar.

10. Select an event to be edited by touching it in the display. This is usually a note, that you can edit.



M:001.01.000 Note C#2 64 D:000.00.096

For more information on the event types and their values, see “Event Edit: Event Edit” on page 133.

11. Edit the event.

   - Select the “M” parameter. Use VALUE DIAL to change the event’s position.

   - Select the Type parameter. You may use VALUE DIAL to change the event type, as well as its Value 1 and Value 2.

   - If a Note event is selected, select the Length parameter, and use VALUE DIAL to change the event’s length.

12. You may use the Go Meas. command to go to a different measure (see “Go Meas.” on page 134)

13. As described in step 4, you may press START/STOP to listen how the pattern sounds after your changes. Press START/STOP again to stop the pattern running.

14. Touch the Insert button in the display to insert an event at the Position shown in the display (a Note event with default values will be inserted). Touch the Delete button in the display to delete the selected event.

15. When editing is complete, you may select a different track to edit (go to step 7).

16. When finished editing the selected Chord Variation, press EXIT to go back to the main page of the Style Record mode, then go to step 2 to select and edit a different Chord Variation.

17. When finished editing the whole Style, select the “Write Style/Pad” command from the page menu to open the Write Style/Pad dialog box (see “Write Style/Pad dialog box” on page 150), or select the “Exit from Record” command to cancel all changes.

   - Touch the T (Text Edit) button to enter the Text Edit dialog box. Enter a name and confirm by selecting OK.

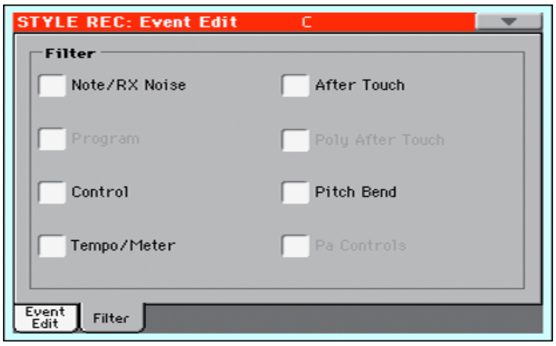
   - Select a target memory location where to save the Style/Pad. The name of the Style/Pad already existing at the selected location is shown after the Bank-Location number.

   Warning: *If you select an existing Style/Pad and confirm writing, the older Style/Pad is deleted and replaced by the new one. Save the Styles/Pads you don’t want to lose to a storage device, before overwriting them.*

18. Touch OK to save the Style/Pad to the internal memory, or Cancel to delete any changes made in Style/Pad Record mode. When the “Are you sure?” message appears, touch OK to confirm, or Cancel to go back to the “Write Style” or “Write Pad” dialog box.

Event Edit: Filter

This page is where you can select the event types to be shown in the Event Edit page.



STYLE REC: Event Edit C

Filter

☐ Note/RX Noise ☐ After Touch

☐ Program ☐ Poly After Touch

☐ Control ☐ Pitch Bend

☐ Tempo/Meter ☐ Pa Controls

Turn On the filter for all event types you do not wish to see in the Event Edit page.

Note: *Some of the events are “ghosted”, and non editable, since the corresponding events are not editable in a Style/Pad.*

Note/RX Noise	Notes and RX Noises.
Control	Control Change events. Only the following Control Change numbers are allowed with Styles/Pads.

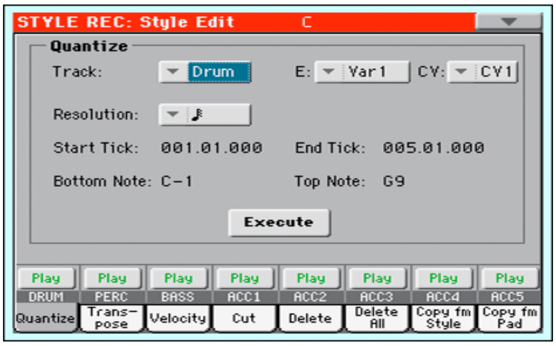
Control function	**CC# (Control Change Number)**
Modulation 1	1
Modulation 2	2
Pan	10
Expression(a)	11
CC#12	12
CC#13	13
Ribbon	16
Damper	64
Filter Resonance	71
Low Pass Filter Cutoff	74
CC#80	80
CC#81	81
CC#82	82

(a). Expression events cannot be inserted at the starting Position (001.01.000). An Expression value is already among the default “header” parameters of the Style Element or Pad Track.

Tempo/Meter	Tempo and Meter (time signature) changes (Master Track only).
Pitch Bend	Pitch Bend events.

Style/Pad Edit: Quantize

The quantize function may be used to correct any timing mistake after recording, or to give the pattern a "groovy" feeling.


STYLE REC: Style Edit C

Quantize

Track: Drum E: Var1 CV: CV1

Resolution:

Start Tick: 001.01.000 End Tick: 005.01.000

Bottom Note: C-1 Top Note: G9

Execute
Play
Play
Play
Play
Play
Play
Play
Play
DRUM
PERC
BASS
ACC1
ACC2
ACC3
ACC4
ACC5
Quantize
Trans-pose
Velocity
Cut
Delete
Delete All
Copy fm Style
Copy fm Pad

After setting the various parameters, touch Execute.

Track

(Style only) Use this parameter to select a track.

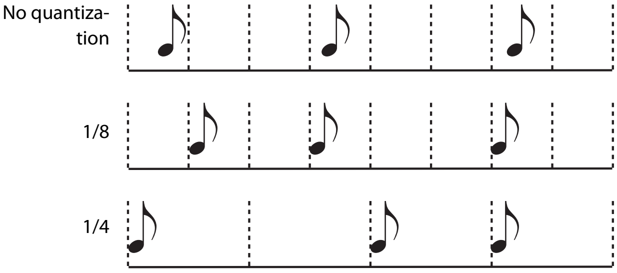
All	All tracks selected.
Drum…Acc5	Selected track.

E / CV (Style Element/Chord Variation)

Use these parameters to select the Style Element *(Style only)* and Chord Variation for editing.

Resolution

This parameter sets the quantization after recording. For example, when you select 1/8, all notes are moved to the nearest 1/8 division. When you select 1/4, all notes are moved to the nearest 1/4 division.


No quantization
1/8
1/4

𝅘𝅥𝅰 (1/32)… ♩ (1/4)	Grid resolution, in musical values. A "b…f" character added after the value means swing-quantization. A "3" means triplet.

Start / End Tick

Use these parameters to set the starting and ending points of the range to quantize.

If a Chord Variation is four measures long, and you want to select it all, the Start will be positioned at 1.01.000, and the End at 5.01.000.

Bottom / Top Note

Use these parameters to set the bottom and top of the keyboard range to quantize. If you select the same note as the Bottom and Top parameters, you can select a single percussive instrument in a Drum or Percussion track.

***Note:** These parameters are available only when a Drum or Percussion track is selected.*

Execute

Touch this button to execute the operation set in this page.

Track status icon

Status of tracks. Touch this icon to change the status.

Play	Play status. The track can be heard.
Mute	Mute status. The track cannot be heard.

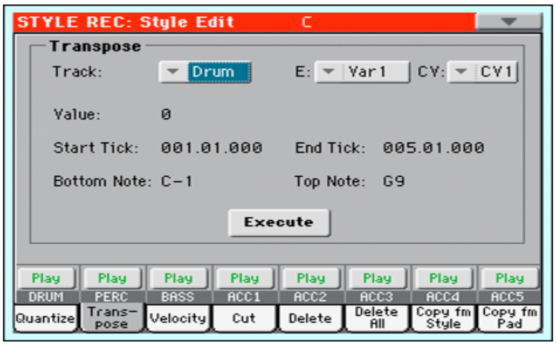
Track names

Under the buttons, a label for each track is shown.

Style/Pad Edit: Transpose

In this page you can transpose the selected track(s).

***Note:** After transposing, please don't forget to readjust the "Key/Chord" parameter in the main page of the Style Record mode (see page 123).*


STYLE REC: Style Edit C

Transpose

Track: Drum E: Var1 CV: CV1

Value: 0

Start Tick: 001.01.000 End Tick: 005.01.000

Bottom Note: C-1 Top Note: G9

Execute
Play
Play
Play
Play
Play
Play
Play
Play
DRUM
PERC
BASS
ACC1
ACC2
ACC3
ACC4
ACC5
Quantize
Trans-pose
Velocity
Cut
Delete
Delete All
Copy fm Style
Copy fm Pad

After setting the various parameters, touch Execute.

Track

(Style only) Use this parameter to select a track.

All	All tracks selected, apart for tracks set in Drum mode (like the Drum and Percussion tracks). The whole selected Chord Variation will be transposed.
Drum…Acc5	Single selected track.

E / CV (Style Element/Chord Variation)

Use these parameters to select the Style Element *(Style only)* and Chord Variation for editing.

Value

Transpose value (±127 semitones).

Start / End Tick

Use these parameters to set the starting and ending points of the range to be transposed.

If a Chord Variation is four measures long, and you want to select it all, the Start will be positioned at 1.01.000, and the End at 5.01.000.

Bottom / Top Note

Use these parameters to set the bottom and top of the keyboard range to be transposed. If you select the same note as the Bottom and Top parameters, you can select a single percussive instrument in a Drum or Percussion track. Since in a Drum Kit each instrument is assigned to a different note of the scale, transposing a percussive instrument means assigning the part to a different instrument.

Execute

Touch this button to execute the operation set in this page.

Track status icon

Status of tracks. Touch this icon to change the status.

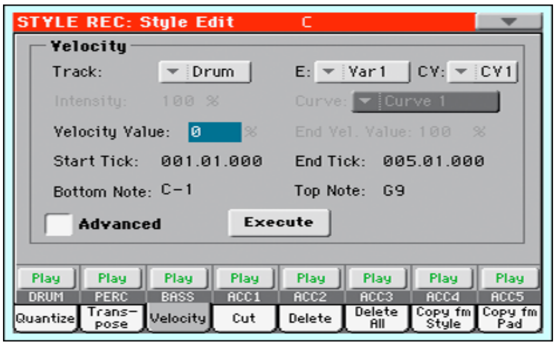
Play	Play status. The track can be heard.
Mute	Mute status. The track cannot be heard.

Track names

Under the buttons, a label for each track is shown.

Style/Pad Edit: Velocity

In this page you can change the velocity (dynamics) value of notes in the selected track. An Advanced mode is available, allowing you to select a velocity curve for the selected range. This is useful to create fade-ins or fade-outs.


STYLE REC: Style Edit C

Velocity

Track: Drum

E: Var1 CV: CV1

Intensity: 100 %

Curve: Curve 1

Velocity Value: 0 %

End Vel. Value: 100 %

Start Tick: 001.01.000

End Tick: 005.01.000

Bottom Note: C-1

Top Note: G9

☐ Advanced

After setting the various parameters, touch Execute.

Note: *When an RX Sound is assigned to the track being edited, the resulting sound may change, since this kind of Sounds is made of several different layers triggered by different velocity values.*

Also, a fade-out may result in the level "jumping" up next to the zero, since a higher-level layer may be selected by low velocity values.

Track

(Style only) Use this parameter to select a track.

All	All tracks selected. The velocity for all notes of the whole selected Chord Variation will be changed.
Drum…Acc5	Selected track.

E / CV (Style Element/Chord Variation)

Use these parameters to select the Style Element *(Style only)* and Chord Variation for editing.

Value

Velocity change value (±127).

Start / End Tick

Use these parameters to set the starting and ending points of the range to be modified.

If a Chord Variation is four measures long, and you want to select it all, the Start will be positioned at 1.01.000, and the End at 5.01.000.

Bottom / Top Note

Use these parameters to set the bottom and top of the keyboard range to be modified. If you select the same note as the Bottom and Top parameters, you can select a single percussive instrument in a Drum or Percussion track.

Advanced

When this checkbox is checked, the "Intensity", "Curve", "Start Velocity Value" and "End Velocity Value" parameters can be edited.

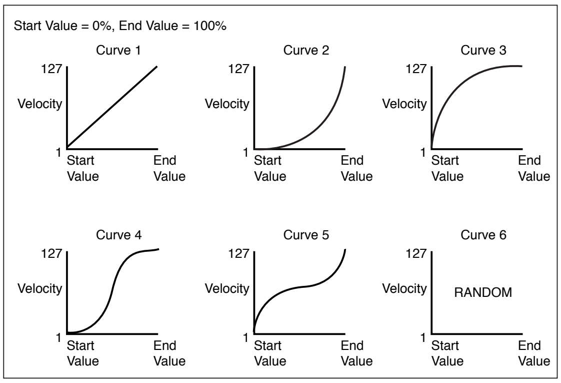
Intensity

(Only available in Advanced mode). Use this parameter to specify the degree to which the velocity data will be adjusted toward the curve you specify in "Curve".

0…100%	Intensity value. With a setting of 0 [%], the velocity will not change. With a setting of 100 [%], the velocity will be changed the most.

Curve

(Only available in Advanced mode). Use this parameter to select one of the six curves, and to specify how the velocity will change over time.



Start / End Vel. Value

(Only available in Advanced mode). Velocity change at the starting and ending ticks of the selected range.

0…100	Velocity change in percentage.

Execute

Touch this button to execute the operation set in this page.

Track status icon

Status of tracks. Touch this icon to change the status.

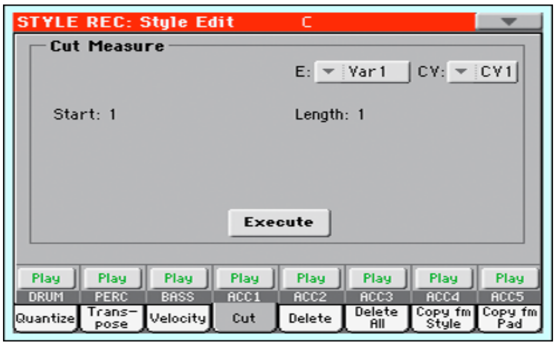
Play	Play status. The track can be heard.
Mute	Mute status. The track cannot be heard.

Track names

Under the buttons, a label for each track is shown.

Style/Pad Edit: Cut

This function lets you quickly delete a selected measure (or a series of measures) from the selected Chord Variation. All following events are moved back, to replace the cut measure(s).



STYLE REC: Style Edit C

Cut Measure

E: Var1 CV: CV1

Start: 1 Length: 1

Execute
Play
Play
Play
Play
Play
Play
Play
Play
DRUM
PERC
BASS
ACC1
ACC2
ACC3
ACC4
ACC5
Quantize
Trans-pose
Velocity
Cut
Delete
Delete All
Copy fm Style
Copy fm Pad

After setting the various parameters, touch Execute.

E / CV (Style Element/Chord Variation)

Use these parameters to select the Style Element *(Style only)* and Chord Variation for editing.

Start

First measure to be cut.

Length

Number of measures to be cut.

Execute

Touch this button to execute the operation set in this page.

Track status icon

Status of tracks. Touch this icon to change the status.

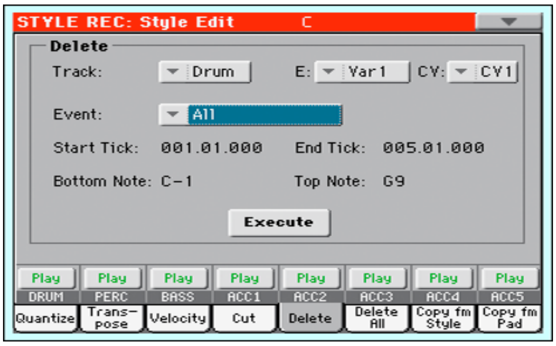
Play	Play status. The track can be heard.
Mute	Mute status. The track cannot be heard.

Track names

Under the buttons, a label for each track is shown.

Style/Pad Edit: Delete

This page is where you can delete MIDI events out of the Style/Pad. This function does not remove measures from the pattern. To remove whole measure, use the Cut function (see “Style/Pad Edit: Cut” on page 138)



STYLE REC: Style Edit C

Delete

Track: Drum E: Var1 CV: CV1

Event: All

Start Tick: 001.01.000 End Tick: 005.01.000

Bottom Note: C-1 Top Note: G9

Execute
Play
Play
Play
Play
Play
Play
Play
Play
DRUM
PERC
BASS
ACC1
ACC2
ACC3
ACC4
ACC5
Quantize
Trans-pose
Velocity
Cut
Delete
Delete All
Copy fm Style
Copy fm Pad

After setting the various parameters, touch Execute.

Track

(Style only) Use this parameter to select a track.

All	All tracks selected. After deletion, the selected Chord Variation will remain empty.
Drum…Acc5	Selected track.

E / CV (Style Element/Chord Variation)

Use these parameters to select the Style Element *(Style only)* and Chord Variation for editing.

Event

Type of MIDI event to delete.

All	All events. The measures are not removed from the Chord Variation.
Note	All notes in the selected range.
Dup.Note	All duplicate notes. When two notes with the same pitch are encountered on the same tick, the one with the lowest velocity is deleted.
After Touch	After Touch events.
Pitch Bend	Pitch Bend events.
Prog.Change	Program Change events, excluding the bundled Control Change #00 (Bank Select MSB) and #32 (Bank Select LSB). ***Note:*** *This kind of data is automatically removed during recording.*
Ctl.Change	All Control Change events, for example Bank Select, Modulation, Damper, Soft Pedal…
CC00/32…CC127	Single Control Change events. Double Control Change numbers (like 00/32) are MSB/LSB bundles. ***Note:*** *Some CC data are automatically removed during recording. See the table on page 121 for more information on the allowed data.*

Start / End Tick

Use these parameters to set the starting and ending points of the range to delete.

If a Chord Variation is four measures long, and you want to select it all, the Start will be positioned at 1.01.000, and the End at 5.01.000.

Bottom / Top Note

Use these parameters to set the bottom and top of the keyboard range to delete. If you select the same note as the Bottom and Top parameters, you can select a single percussive instrument in a Drum or Percussion track.

Note: *These parameters are available only when the All or Note option is selected.*

Execute

Touch this button to execute the operation set in this page.

Track status icon

Status of tracks. Touch this icon to change the status.

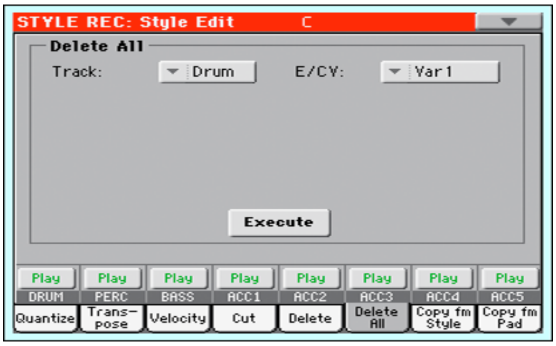
Play	Play status. The track can be heard.
Mute	Mute status. The track cannot be heard.

Track names

Under the buttons, a label for each track is shown.

Style/Pad Edit: Delete All

This function lets you quickly delete a selected Style Element or Chord Variation, or the whole Style.



Track: Drum
E/CV: Var1

After setting the various parameters, touch Execute.

Track

(Style only) Use this parameter to select a track.

All	All tracks of the selected Style, Style Element or Chord Variation.
Drum-Acc5	Single track of the selected Style, Style Element or Chord Variation.

E / CV (Style Element/Chord Variation)

Use these parameters to select the Style Element *(Style only)* and Chord Variation for editing.

All	All Style Elements, i.e. the whole Style. When E/Track=All and CV=All, the whole Style is deleted, and all parameters are set to the default status.
Var1…CountIn	Single Style Element.
V1-CV1…CI-CV2	Single Chord Variation.

Execute

Touch this button to execute the operation set in this page.

Track status icon

Status of tracks. Touch this icon to change the status.

Play	Play status. The track can be heard.
Mute	Mute status. The track cannot be heard.

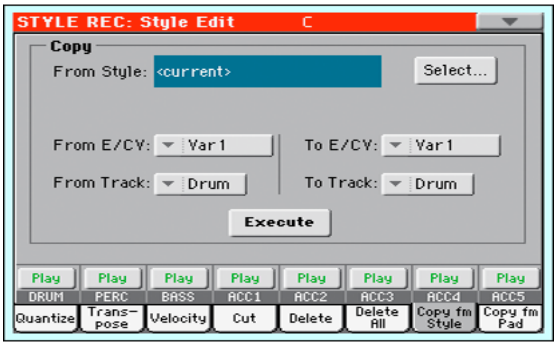
Track names

Under the buttons, a label for each track is shown.

Style/Pad Edit: Copy from Style

Here you can copy a track, Chord Variation or Style Element inside the same Style, or from a different one. Furthermore, you can copy a whole Style.

Warning: *The Copy operation deletes all data at the target location (overwrite).*



From Style: <current>
From E/CV: Var1
To E/CV: Var1
From Track: Drum
To Track: Drum

After setting the various parameters, touch Execute.

Note: *If you copy too many events on the same tick, the "Too many events!" message appears, and the copy operation is aborted.*

Note: *When you copy over an existing Chord Variation, Program Change data is not copied, to leave the original Sounds unchanged for that Chord Variation.*

From Style

Choose this option to select the source Style to copy the track, Chord Variation or Style Element from. Touch the **Select** button to open the Style Select window and select the source Style.

From… To E/CV (Style Element/Chord Variation)

Use these parameters to select the source and target Style Elements or Chord Variations.

Note: *You can't copy from a Variation to a different Style Element (or vice-versa), because of their different structure.*

All	All Style Elements, i.e. the whole Style. You can't change the target, that is automatically set to All.
Var1…End2	Single Style Element.
V1-CV1…E2-CV2	Single Chord Variation.

From… To Track

Use this parameter to select the source and target track to copy. You can double a track, to strengthen a pattern.

All	All tracks of the selected Style, Style Element or Chord Variation.
Drum-Acc5	Single track of the selected Style, Style Element or Chord Variation.

Execute

Touch this button to execute the operation set in this page.

Track status icon

Status of tracks. Touch this icon to change the status.

Play	Play status. The track can be heard.
Mute	Mute status. The track cannot be heard.

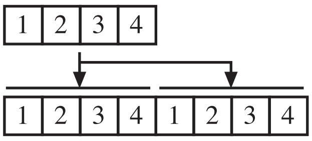
Track names

Under the buttons, a label for each track is shown.

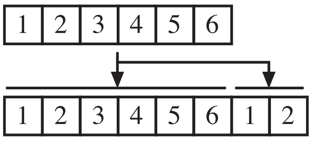
Copying to a Chord Variation of a different length

You can copy a Chord Variation to a different one of a different length. Just keep in mind the following:

- If the source length is a divider of the target length, the source Chord Variation will be multiplied to fit the target Chord Variation. For example, if the source is 4-measures long, and the target 8-measures, the source will be copied two times.



- If the source length is not a divider of the target length, the source Chord Variation will be copied for as many measures as can fit the target Chord Variation. For example, if the source is 6-measures long, and the target 8-measures, the source will be copied once, then the first 2 measures will be copied to fit the remaining 2 measures.

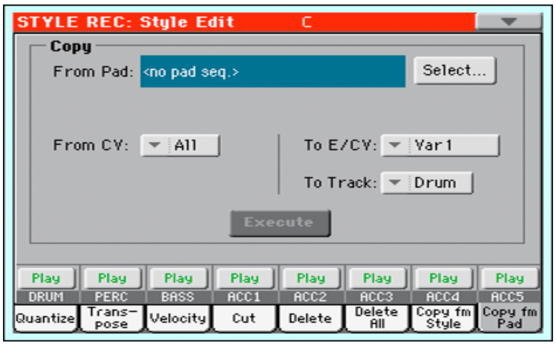


Note: *Avoid copying to a Chord Variation with a different meter (time signature), for example a 4/4 Chord Variation onto a 3/4 one.*

Style/Pad Edit: Copy from Pad

Here you can copy a Chord Variation from a Pad. Furthermore, you can copy a whole Pad.

Warning: *The Copy operation deletes all data at the target location (overwrite).*


STYLE REC: Style Edit

Copy

From Pad: <no pad seq.>

From CV: All

To E/CV: Var1

To Track: Drum

After setting the various parameters, touch Execute.

Note: *If you copy too many events on the same "tick", the "Too many events!" message appears, and the copy operation is aborted.*

Note: *When you copy over an existing Chord Variation, Program Change data is not copied, to leave the original Sounds unchanged for that Chord Variation.*

From Pad

Choose this option to select the source Pad to copy the Chord Variation from. Touch the **Select** button to open the Pad Select window and select the source Pad.

From CV (Chord Variation)

Use this parameter to select the source Chord Variation.

All	All Chord Variations, i.e. the whole Pad. You can't change the target, that is automatically set to All.
CV1…CV6	Single Chord Variation.

To CV (Chord Variation)

Use this parameter to select a target Chord Variation inside the current Style/Pad.

CV1…CV6	Target Chord Variation. Automatically set to All if the "From CV" parameter is also set to All.

To Track

(Style only) Use this parameter to select the target track to copy.

All	All tracks of the selected Style, Style Element or Chord Variation.
Drum-Acc5	Single track of the selected Style, Style Element or Chord Variation.

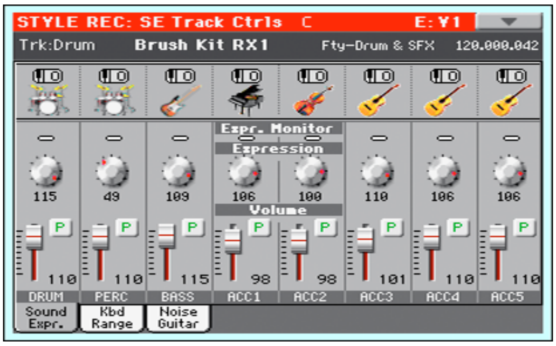
Execute

Touch this button to execute the operation set in this page.

Style Element Track Controls: Sound/Expression

In this page you can assign a different Sound to each track of the selected Style Element. Each Style Element can have different Sound; after saving the new Style, please don't forget to check the "Original Style Sounds" parameter in the Style Play mode (see page 98), to let the Style select the Sound bypassing the Style Settings.

In this page you can also check and modify the Expression (CC#11) value for each of the Style Element tracks. This lets you reduce the relative level of a track in a single Style Element, without reducing the overall Volume of the Style. This is a very useful control, when you have different Sounds assigned to the same track in different Style Elements, and the internal level of these Sounds must be different.


STYLE REC: SE Track Ctrls C E: V1
Trk:Drum Brush Kit RX1 Fty-Drum & SFX 120.000.042
Expr. Monitor
Expression
115 49 109 106 100 110 106 106
Volume
110 110 115 98 98 101 110 110
DRUM PERC BASS ACC1 ACC2 ACC3 ACC4 ACC5
Sound Expr.
Kbd Range
Noise Guitar

When in this page, press the corresponding button on the control panel to select a Style Element (VARIATION1 … ENDING3).

To copy the settings of this page to another Style Element, use the "Copy Sound" and "Copy Expression" commands from the page menu (see "Copy Sounds dialog box" and "Copy Expression dialog box" starting from page 150).

Selected Track Info area

See "Selected track info area" on page 123 for detailed information.

Sounds area

See "Sounds area" on page 125 for detailed information.

Expression area

Expression Monitor

You can use these indicators to check if CC#11 (Expression) messages are contained in a track. Expression messages contained in a track can vary the volume of the track. It is very difficult to catch them out – unless you carefully read all the events in the Event Edit page.

This monitor should help you keeping track of them, and let you access Event Edit only on the tracks containing the messages. Press the START/STOP button to start playback, and look at the indicators. When one of them lights up, you can enter Event Edit on the corresponding track, and edit or remove the Expression messages.

Expression

Use these knobs to set the Expression (CC#11) value for the corresponding track. This value can be seen at the beginning of the Event Edit list (see "Event Edit: Event Edit" on page 133).

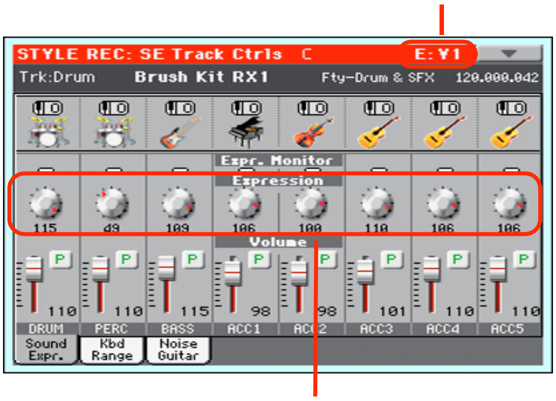
Different Expression values can be defined for each Style Element. This way, you can set a different volume in each Style Element, relative to the general Volume value set in the Style Header.

Expression leveling

You can quickly and easily adjust the Expression level of all tracks in a Style Element (Variation, Intro…). This allows for a more precise control over the volume level of all Style Element.

1. While in this page, select one of the Style Elements by pressing its button in the control panel.

Selected Style Element


STYLE REC: SE Track Ctrls C E: V1
Trk:Drum Brush Kit RX1 Fty-Drum & SFX 120.000.042
Expr. Monitor
Expression
115 49 109 106 100 110 106 106
Volume
110 110 115 98 98 101 110 110
DRUM PERC BASS ACC1 ACC2 ACC3 ACC4 ACC5
Sound Expr.
Kbd Range
Noise Guitar

Expression level

2. Keep the SHIFT button pressed, and press the TEMPO+ button to increase the Expression value of all the Style Variation's tracks, TEMPO- to decrease it.
3. Release the SHIFT button.
4. Repeat the above operation with all the desired Style Elements.

Note: *A track's volume may be changed by an Expression event contained in a track. To check if any of these events exist in a track, let the Style Element play and look at the Expression Monitor in this same page. If one or more Expression events are found, go to the Event Edit page and delete it (or them)*

Volume area

Use these controls to set the volume and status of each track. See page 125 for more information.

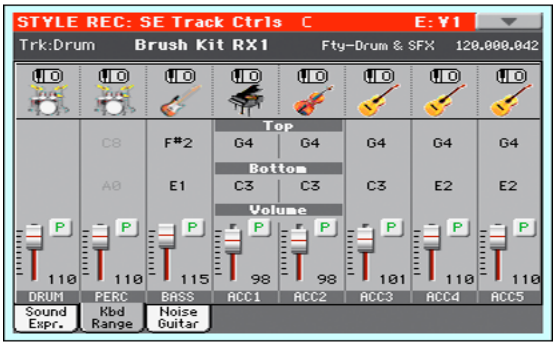
The Volume value is the same for the whole Style. Use the Expression controls to adjust the relative balance between tracks in each Style Element.

Style Element Track Controls: Keyboard Range

The Keyboard Range automatically transposes any pattern note that would otherwise play too high or too low in pitch, compared to the original acoustic instrument, when transposed by the arranger. This will result in a more natural sound for each accompaniment instrument.

For example, the lower limit for a guitar is E2. If you play a chord under the E2, the transposed pattern could exceed this limit, and sound unnatural. A Bottom limit set to E2 for the guitar track will solve the problem.

Different Keyboard Range values can be set for each Style Element.


STYLE REC: SE Track Ctrls C
E: V1
Trk:Drum
Brush Kit RX1
Fty-Drum & SFX
120.000.042
Top
C8
F#2
G4
G4
G4
G4
G4
Bottom
A0
E1
C3
C3
C3
E2
E2
Volume
110
110
115
98
98
101
110
110
DRUM
PERC
BASS
ACC1
ACC2
ACC3
ACC4
ACC5
Sound Expr.
Kbd Range
Noise Guitar

***Note:** The Keyboard Range is ignored while recording. The selected track can be recorded and played back on the full range of the keyboard.*

When in this page, press the corresponding button on the control panel to select a Style Element (VARIATION1 … ENDING3).

To copy the settings of this page to another Style Element, use the “Copy Keyboard Range” command from the page menu (see “Copy Key Range dialog box” on page 151).

Top/Bottom

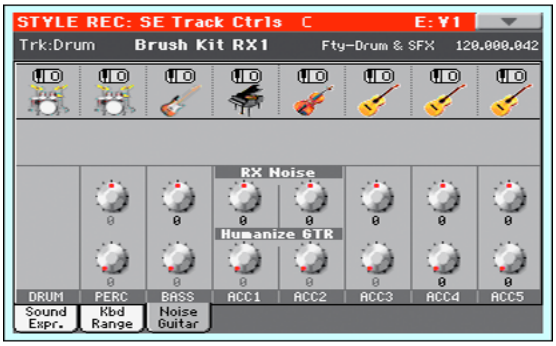
Use these parameters to set the bottom and top of the keyboard range for the corresponding track of the current Style Element.

Volume area

Use these controls to set the volume and status of each track. See page 125 for more information.

Style Element Track Controls: Noise/Guitar

The Noise/Guitar page is where you can set the RX Noise level and the ‘human feel’ of Guitar tracks.


STYLE REC: SE Track Ctrls C
E: V1
Trk:Drum
Brush Kit RX1
Fty-Drum & SFX
120.000.042
RX Noise
Humanize GTR
0
DRUM
PERC
BASS
ACC1
ACC2
ACC3
ACC4
ACC5
Sound Expr.
Kbd Range
Noise Guitar

RX Noise

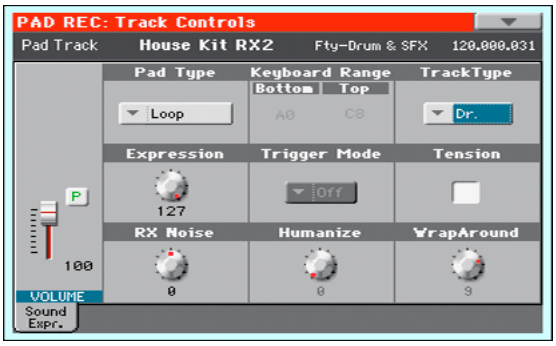
Use these controls to adjust the volume of RX Noises in the corresponding tracks. This control applies to all types of tracks (provided the Sound includes RX Noises).

Humanize GTR

Use these controls to apply a random value to the position, velocity and length of notes of Guitar tracks (see “Track Type” on page 144). This control has no effect on other types of track.

Pad Track Controls: Sound/Expression

In this page you can assign a Sound to the Pad track, adjust its Volume (CC#07) and Expression (CC#11) values, and set various other parameters, like the Keyboard Range, Track Type, Trigger Mode, Tension and Wrap Around.



Sound/Bank

Sound assigned to the Pad track.

Volume

Use this slider to set the Volume (CC#07) value for the Pad track. This value is not saved with the Pad, and is only used to test the Pad's volume during editing or recording.

Pad Type

Use this parameter to decide if the Pad will play once or if it will loop.

Note: *While in Pad Record mode, the pattern is always played back in loop, even if this parameter is set to "One Shot".*

One Shot	When you press one of the PAD buttons, the corresponding Pad is only played once. This is useful for playing Hits or Sequences that must only play once.
Loop	When you press one of the PAD buttons, the corresponding Pad plays up to the end, then continues playing from the start. Press STOP in the PAD section to stop it playing. This is useful for playing cyclic sequences.

Keyboard Range

The Keyboard Range automatically transposes any pattern note that would otherwise play too high or too low in pitch, compared to the original acoustic instrument, when transposed by the arranger. This will result in a more natural sound for the Pad instrument.

Note: *The Keyboard Range is ignored while recording. The Pad track can play on the full range of the keyboard.*

Trigger Mode

(Not available if Track Type = Drum). This setting lets you define how Bass and Acc-type tracks are retriggered when the chord is changed.

Off	Each time you play a new chord, current notes will be stopped. The track will remain silent until a new note will be encountered in the pattern.
Rt	(Retrigger) The sound will be stopped, and new notes matching the recognized chord will be played back.
Rp	(Repitch) New notes matching the recognized chord will be played back, by repitching notes already playing. There will be no break in the sound. This is very useful on Guitar and Bass tracks.

Track Type

Use this parameter to set the type of the Pad track.

Drum	Drum track. This type of track is not transposed by the arranger, and is used for Drum Kits, or for tracks that you don't want to be transposed when playing a different chord.
Bass	Bass track. This type of track always plays the root when changing chord.
Acc	Accompaniment track. This type of track can be used freely, for melodic or harmonic accompaniment patterns.

Expression

Use this knob to set the Expression (CC#11) value for the Pad track. This value can be seen at the beginning of the Event Edit list.

The Expression is useful to balance the Pad with the other Pads. For example, if you want the Pad you are recording to be mellower than the average, just lower the Expression value.

Tension

Tension adds notes (a 9th, 11th and/or 13th) that have actually been played, even if they haven't been written in the Pad pattern. This parameter specifies whether or not the Tension included in the recognized chord will be added to an Acc-type track.

On	The Tension will be added.
Off	No Tension will be added.

RX Noise

Use these controls to adjust the volume of RX Noises in the corresponding tracks. This control applies to all types of tracks (provided the Sound includes RX Noises).

Humanize GTR

Use these controls to apply a random value to the position, velocity and length of notes of Guitar tracks (see "Track Type" on page 143). This control has no effect on other types of track.

Wrap Around

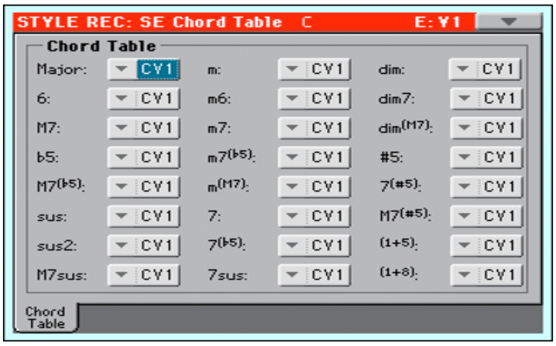
The wrap-around point is the highest register limit for the Pad track. The Pad pattern will be transposed according to the detected chord. If the chord is too high, the Pad track might play in a register that is too high, and therefore unnatural. If, however, it reaches the wrap-around point, it will be automatically transposed an octave lower.

The wrap-around point can be individually set in semitone steps up to a maximum of 12 semitones, relative to the chord root set in the main page of the Pad Record mode (see "Key/Chord" on page 123).

1…12	Maximum transposition (in semitones) of the track, referred to the original key of the Pad pattern.

Style Element/Pad Chord Table: Chord Table

This is the page where you can assign a Chord Variation to each of the most important recognized chord. When a chord is recognized, the assigned Chord Variation will be automatically selected by the arranger to play the accompaniment.



Major:	CV1	m:	CV1	dim:	CV1
6:	CV1	m6:	CV1	dim7:	CV1
M7:	CV1	m7:	CV1	$dim^{(M7)}$:	CV1
♭5:	CV1	$m7^{(\flat5)}$:	CV1	#5:	CV1
$M7^{(\flat5)}$:	CV1	$m^{(M7)}$:	CV1	$7^{(\#5)}$:	CV1
sus:	CV1	7:	CV1	$M7^{(\#5)}$:	CV1
sus2:	CV1	$7^{(\flat5)}$:	CV1	(1+5):	CV1
M7sus:	CV1	7sus:	CV1	(1+8):	CV1

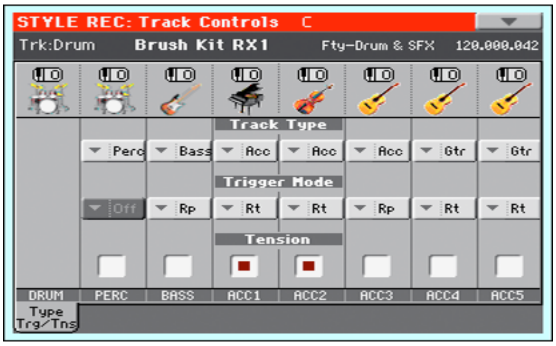
When in this page, press the corresponding button on the control panel to select a Style Element (VARIATION1 … ENDING3).

Chord / Chord Variation

Use these parameters to assign a Chord Variation to each of the most important chords.

Style Track Controls: Type/Trigger/Tension

In this page you can set the Mode, Trigger mode for the Style tracks, and activate/deactivate the Tension for the Accompaniment tracks.



	DRUM	PERC	BASS	ACC1	ACC2	ACC3	ACC4	ACC5
Track Type		Perc	Bass	Acc	Acc	Acc	Gtr	Gtr
Trigger Mode		Off	Rp	Rt	Rt	Rp	Rt	Rt
Tension		☐	☐	☒	☒	☐	☐	☐

When in this page, press the corresponding button on the control panel to select a Style Element (VARIATION1 … ENDING3).

Track Type

Use this parameter to set the type of the corresponding track.

Drum	Drum track. This type of track is not transposed by the arranger, and is used for Drum Kits made of Drum sounds. It can be affected by the Drum Mapping of the Style Play mode (see “Drum Mapping (Var.1…Var.4)” on page 113).
Perc	Percussion track. This type of track cannot be transposed, and is used for Drum Kit made of Percussion sounds. It is NOT affected by the Drum Mapping.
Bass	Bass track. This type of track always plays the root when changing chord.
Acc	Accompaniment track. This type of track can be used freely, for melodic or harmonic accompaniment patterns.
Gtr	Guitar track. This type of track uses Guitar Mode to create guitar strumming (see “Main page - Guitar Mode” on page 126). When this type is selected, the “Tension” parameter can no longer be edited.

Trigger Mode

This setting lets you define how Bass and Acc-type tracks are retriggered when the chord is changed.

Off	Each time you play a new chord, current notes will be stopped. The track will remain silent until a new note will be encountered in the pattern.
Rt	(Retrigger) The sound will be stopped, and new notes matching the recognized chord will be played back.
Rp	(Repitch) New notes matching the recognized chord will be played back, by repitching notes already playing. There will be no break in the sound. This is very useful on Guitar and Bass tracks.

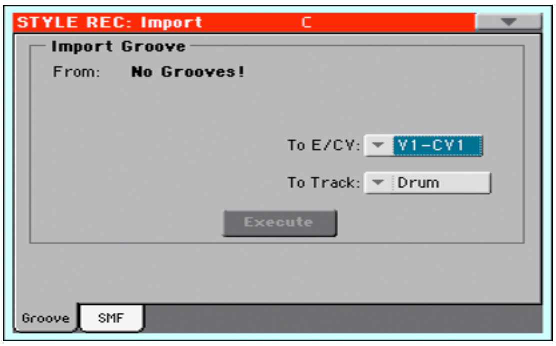
Tension

Tension adds notes (a 9th, 11th and/or 13th) that have actually been played to the accompaniment, even if they haven't been written in the Style pattern. This parameter specifies whether or not the Tension included in the recognized chord will be added to the Acc-type tracks.

On	The Tension will be added.
Off	No Tension will be added.

Import: Import Groove

The Import Groove function allows the loading of MIDI Grooves (“.GRV” files). By importing these data to a track, and assigning the Sound based on the sliced samples to the same track, you can play the original audio groove, and freely change its Tempo.


STYLE REC: Import C

Import Groove

From: No Grooves!

To E/CV: V1-CV1

To Track: Drum

Note: After importing a groove generated by a melody line (not by a percussive groove), the imported groove and samples will not be transposed together with the other Style tracks. Audio data cannot be transposed by the arranger.

Note: Please execute the Import Groove operation before setting the instrument to standby. All “.GRV” files generated by a Time Slice operation are deleted when the instrument enters standby.

From

Use this parameter to select one of the MIDI Groove patterns (“.GRV” files) generated when saving data after a Time Slice operation.

To E/CV (Style Element/Chord Variation)

Use this parameter to select the target Style Element *(Style only)* and Chord Variation.

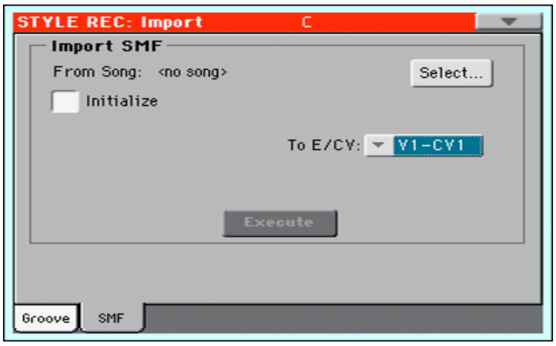
To Track

(Style only) Use this parameter to select the target track inside the selected Chord Variation. **The Percussion track is usually suggested,** since the Drum track is still suitable for standard Drum Kit sounds (count-in, break etc.). After importing the MIDI Groove pattern, assign the Sound, to which the sliced samples are assigned, to the track playing the MIDI Groove pattern.

Import: Import SMF

The Import SMF function allows you to import MIDI data from a Standard MIDI File (SMF) created on your preferred external sequencer, and transform them in a Chord Variation.

Note: You cannot use this function to import data from any generic Song. The Standard MIDI File to be imported must be programmed as if it was one of Pa600’s Chord Variations.


STYLE REC: Import C

Import SMF

From Song: <no song>

☐ Initialize

To E/CV: V1-CV1

When importing an SMF, parameters like CV Length, Meter, Tempo Changes, Program Changes and Expression are recognized. These parameters will be imported as the header of the Style Element containing the Chord Variation, provided the “Initialize” parameter is checked, or the Style Element is empty.

Hint: It is a good idea to check the “Initialize” parameter when importing the first Chord Variation of a Style Element, and uncheck it when importing the following Chord Variations.

• Sounds assigned to each track can be imported, provided the Program Change, Bank Select MSB and LSB events are on the first ‘tick’ of the SMF. These data are loaded in the Style Element’s header, and not as Sounds assigned to the Style Performance.

Note: Sounds in the Style Element header can be overridden by Sounds assigned to the Style Settings, by checking the “Original Style Sound” parameter in the main page of the Style Play mode (Style Track view).

• If the above data was not found on the first tick of the imported SMF, Sounds must be manually assigned to each track. You can do this in the “Record 1” or “Record 2”, or the “Sound/Expression” page of the Style Record mode,.

• Key/Chord, Chord Table, Expression, and any other Style Variation parameter, must be manually programmed in the relevant Style Record pages.

• The starting Tempo, and each track’s Volume, must be programmed as Style Settings data, and then saved in the Style Settings.

• Meter (time signature) Change is not allowed, therefore not recognized.

• The Chord Variation length is the same as the imported SMF. You can change length by changing the value of the CV Length parameter, on the main page of the Style/Pad Record mode.

***Hint:** If a note extends beyond the last measure of the Chord Variation, an additional measure is appended (for example, if a note extends after the end of the fourth measure in a 4-measure pattern, a 5-measure Chord Variation will be generated). If so, change the CV Length value to reset the Chord Variation length. The exceeding note will be cut, to fit the new pattern length.*

When programming a Chord Variation on an external sequencer, please assign each Style track to the correct MIDI channel, according to the following table.

Style Track	MIDI Channel
Bass	09
Drum/Pad	10
Percussion	11
Accompaniment 1	12
Accompaniment 2	13
Accompaniment 3	14
Accompaniment 4	15
Accompaniment 5	16

When programming a Chord Variation on the external sequencer, please assign the Pad track to the MIDI channel #10.

***Note:** Only SMF in format 0 can be loaded.*

From Song

This is the name of the Standard MIDI File to be loaded. Touch the Select button to open the file selector, and select an ".SMF" file.

Select

Touch this button to open the file selector and load the SMF.

Initialize

Check this parameter if you want all settings of the target Style Element (i.e., Key/Chord, Chord Table, Sounds…) are reset when loading the SMF.

***Hint:** It is a good idea to check the "Initialize" parameter when importing the first Chord Variation of a Style Element, and uncheck it when importing the following Chord Variations.*

To E/CV

Use this parameter to select a target Chord Variation.

Execute

After setting all parameters in this page, touch this button to import the Standard MIDI File into the target Chord Variation.

Importing an SMF separated by Markers into a Style

As an alternative to importing single Chord Variations, you can import a whole Style as an *SMF separated by Markers*, i.e., a single SMF containing all the Chord Variations (Variation 1, Variation 2, etc.) each one separated by a Marker (the same events used in Song Play mode).

1. While in this page, touch the Select button, and choose the Standard Midi File to be imported.
2. Keep the SHIFT button pressed.
3. Without releasing the SHIFT button, touch the Execute button in the display.
4. Release the SHIFT button.

When creating a new Style, we suggest to check the "Initialize" checkbox. Do not check it if the SMF you are loading was previously exported from a Style to be edited; in this case, it is very important to keep all the previous settings.

Style Tracks and MIDI Channels must be lined as in the previous table, as per KORG's standard Style format definition.

***Note:** Tracks/MIDI Channels other than the above mentioned are ignored during the import procedure.*

For a list of MIDI events supported during the import operations, please see "List of recorded events" on page 121. If any, the following events are stripped off and automatically transferred to the Style Element header during the import procedure:

- Time signature (this event is mandatory)
- Control Change bundle #00-32 (Bank Select MSB/LSB)
- Program Change
- Control Change #11 (Expression)

Control Change 00, Control Change 32 and Program Change messages must be placed at the very beginning of each Chord Variation (tick 0).

Whenever they are not saved in the SMF, Program Change, Control Change 00, 11 and 32, can be still programmed in Style Record mode, by using the edit features available.

Warning: *Pa600 can only handle SMF format 0 (Zero). If you are in trouble importing your file, maybe your sequencer (or DAW) is exporting using SMF format 1. Please refer to the software's user's manual.*

The naming structure for the Markers inside the SMF is "EnCVn", whose single components are shown in the following table:

Component	Meaning
E	Style Element ('v' = variation, 'i' = intro, 'f' = fill, 'e' = ending)
n	Style Element number ('1'~'4' for variations, '1'~'2' for all other style elements)
CV	Chord Variation ('cv' = chord variation – no other choices allowed)
n	Chord Variation number [1~6 for Variations, 1~2 for all others]

Warning: *It is mandatory not to use capital letters in Marker names. Some examples of **valid** names:*

'i1cv2' = Intro1 – Chord Variation 2

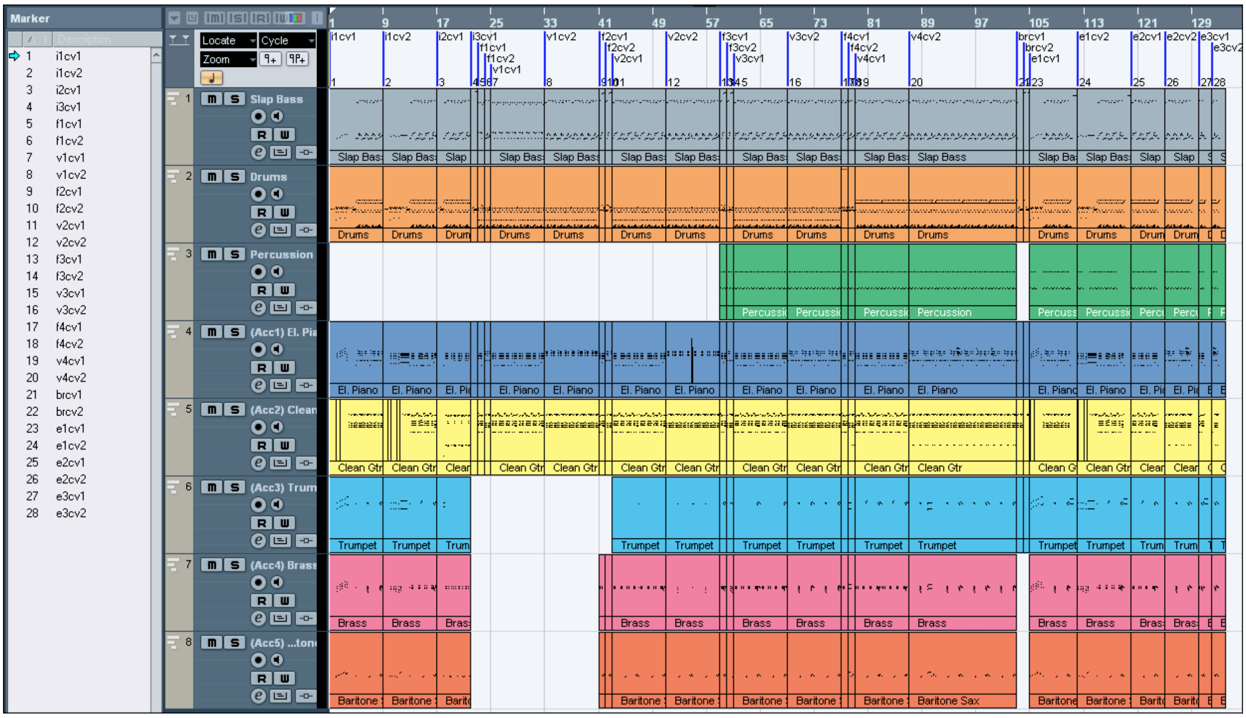
'v4cv3' = Variation 4 – Chord Variation 3

*Examples of **non accepted** names:*

'V1cv2', 'v1CV2', 'intro i1cv2', 'v1cv1 chorus'

The order of the Chord Variations inside the SMF is not relevant. They can be freely placed inside the SMF.

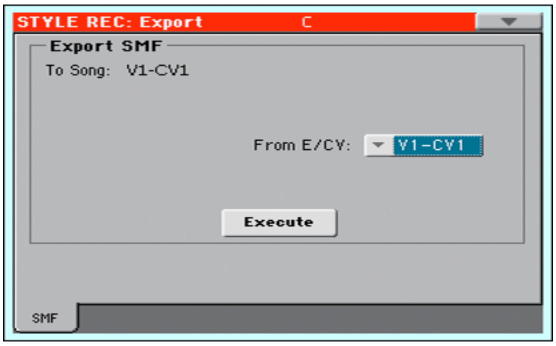
At the end of this page you can find a screenshot of a test file created in Steinberg Cubase, just as an example of how a *SMF separated by Markers* can look like. Considering analogies between actual workstations, it will not look much different in other applications like Logic, Digital Performer, Pro Tools or Sonar.



1	i1cv1
2	i1cv2
3	i2cv1
4	i3cv1
5	f1cv1
6	f1cv2
7	v1cv1
8	v1cv2
9	f2cv1
10	f2cv2
11	v2cv1
12	v2cv2
13	f3cv1
14	f3cv2
15	v3cv1
16	v3cv2
17	f4cv1
18	f4cv2
19	v4cv1
20	v4cv2
21	brcv1
22	brcv2
23	e1cv1
24	e1cv2
25	e2cv1
26	e2cv2
27	e3cv1
28	e3cv2

Export SMF

The Export SMF function allows you to export a Chord Variation as a Standard MIDI File (SMF), and edit it on your preferred external sequencer.



To Song: V1-CV1

From E/CV: V1-CV1

To Song

This (non editable) parameter shows the name of the Standard MIDI File to be generated. The (automatically assigned) name will be the same of the exported Chord Variation.

From E/CV

Use this pop-up menu to select one of the available Chord Variations from the current Style.

Execute

After selecting a Chord Variation, touch this button to export it as a Standard MIDI File. A standard file selector will appear. Select the target device and directory, then touch Save. After you touch Save, a dialog box appears, letting you assign a name to the file.

Exporting a Style as an SMF separated by Markers

As an alternative to exporting single Chord Variations to individual Standard MIDI Files, you can export a whole Style as an *SMF separated by Markers*, i.e., a single SMF containing all the Chord Variations (Variation 1, Variation 2, etc.) each one separated by a Marker (the same events used in Song Play mode).

1. While in this page, keep the SHIFT button pressed.
2. Without releasing the SHIFT button, touch the Execute button in the display.
3. Release the SHIFT button.
4. Assign a name to the Standard Midi File where to save the Style in edit.

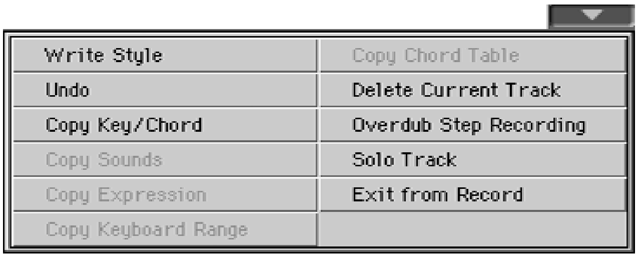
This operation creates, in the selected device, an SMF format 0 (Zero), containing all the MIDI data included in the selected Style, with each Chord Variation starting from a different Marker (named as per the naming convention explained in the Import section above).

Each Chord Variation will include, at the very beginning (tick 0), the following informations:

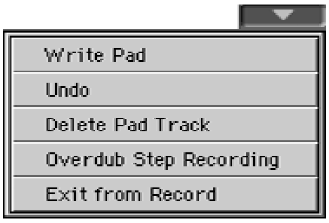
- Time signature
- Control Change bundle #00-32 (Bank Select MSB/LSB)
- Program Change
- Control Change #11 (Expression)

Page menu

Touch the page menu icon to open the page menu. Touch a command to select it. Touch anywhere in the display to close the menu without selecting a command.



Style Record



Pad Record

Write Style/Pad

Select this command to open the Write Style or Write Pad dialog box, and save the Style/Pad to the internal memory.

See “Write Style/Pad dialog box” on page 150 for more information.

Undo

Only available in Record mode. While in Record mode, cancels the latest recorded data and restores the previous situation. Selected a second time, it restores recorded data again (“Redo” function).

Delete Pad Track

Only available in the Main page of the Pad Record mode. Select this command to delete the Pad track.

Copy Key/Ch (Copy Key/Chord) button

Select this command to open the Copy Key/Chord dialog box, and copy Key/Chord settings of the currently selected track to all other tracks of the same Chord Variation, or to the whole Style.

See “Copy Key/Chord dialog box” on page 150 for more information.

Copy Sound

(Only available in some edit pages). While the Style Element Track Control edit section is selected, use this command to open the Copy Sound dialog box and copy all Sounds assigned to the current Style Element tracks to a different Style Element.

See “Copy Sounds dialog box” on page 150 for more information.

Copy Expression

(Only available in some edit pages). While the Style Element Track Control edit section is selected, use this command to open the Copy Expression dialog box and copy all Expression values assigned to the current Style Element tracks to a different Style Element.

See “Copy Expression dialog box” on page 151 for more information.

Copy Keyboard Range

(Only available in some edit pages). While the Style Element Track Control edit section is selected, use this command to open the Copy Keyboard Range dialog box and copy all Keyboard Range values for the current Style Element tracks to a different Style Element.

See “Copy Key Range dialog box” on page 151 for more information.

Copy Chord Table

Only available while in the Style Element Chord Table page. Select this command to open the Copy Chord Table dialog box (see “Copy Chord Table dialog box” on page 151).

Delete Current Track

(Only available in the Main Record pages). Select this command to delete the selected track.

Overdub Step Recording

(Only available in the Main Record pages). Select this command to open the Overdub Step recording window (see “Overdub Step Recording window” on page 152).

Solo Track

Select the track to be soloed, then check this item. You will hear only the selected track, and the ‘Solo’ warning will flash on the page header.

Uncheck this item to exit the Solo function.

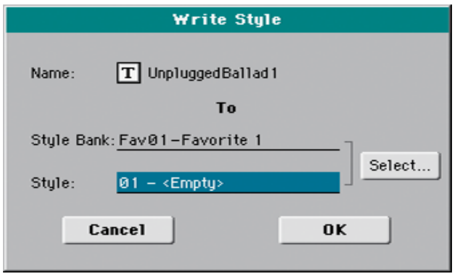
SHIFT Keep the SHIFT button pressed and touch one of the tracks to solo it. Do the same on a soloed track to deactivate the Solo function.

Exit from Record

Select this command to exit from Record without saving changes to the Style.

Write Style/Pad dialog box

Open this window by choosing the Write Style or Write Pad item from the page menu. Here you can save the recorded or edited Style/Pad to memory.


Write Style
T
To
Select...
Cancel
OK

Name: UnpluggedBallad1

Style Bank: Fav01-Favorite 1

Style: 01 - <Empty>

Name

Name of the Style/Pad to be saved. Touch the T (Text Edit) button next to the name to open the Text Edit window.

Style/Pad Bank

Target bank of Styles/Pad. Use the Select button on the display, or the VALUE DIAL to select a different bank.

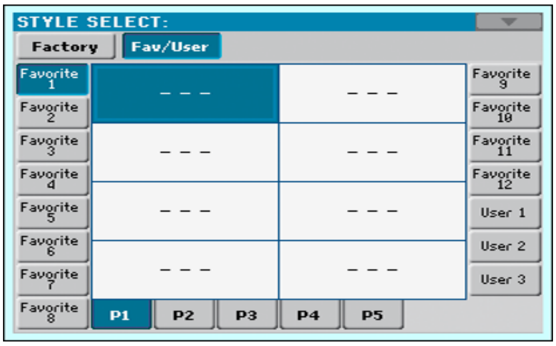
Style

Target Style/Pad location in the selected bank. Use the Select button on the display, or the VALUE DIAL to select a different location.

***Note:** A User or Favorite Style, or a User Pad, is usually prompted when writing a Style/Pad. However, you can overwrite a Factory Style/Pad when the "Factory Style and Pad Protect" parameter is left unchecked (see page 241).*

Select… button

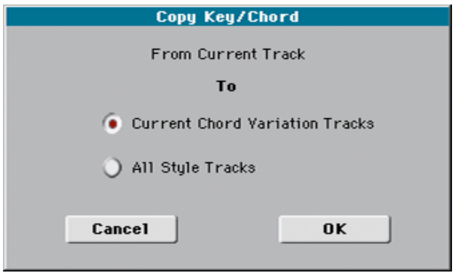
Touch this button to open the Style/Pad Select window, and select a target location.


STYLE SELECT:
Factory
Fav/User
Favorite 1
Favorite 2
Favorite 3
Favorite 4
Favorite 5
Favorite 6
Favorite 7
Favorite 8
- - -
Favorite 9
Favorite 10
Favorite 11
Favorite 12
User 1
User 2
User 3
P1
P2
P3
P4
P5

While in the Style/Pad Select window, use the buttons on top of the window to select either the User or the Favorite banks.

Copy Key/Chord dialog box

(Style only) Open this window by choosing the Copy Key/Chord item from the page menu. Here you can copy Key/Chord settings of the currently selected track to all other tracks of the same Chord Variation, or to the whole Style. This function is useful to speed-up pattern programming, and to avoid having different tracks in different keys within the same Chord Variation.


Copy Key/Chord
From Current Track
To
Cancel
OK

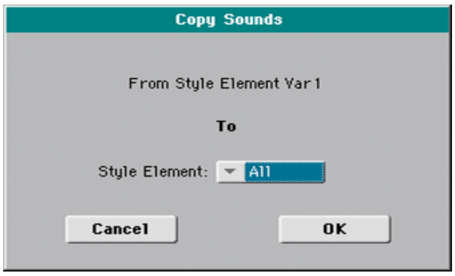
● Current Chord Variation Tracks

○ All Style Tracks

Current Chord Variation Tracks	
	The Key/Chord of the current track will be copied to all tracks of the current Chord Variation.
All Style Tracks	
	The Key/Chord of the current track will be copied to all tracks of the Style (i.e., all Chord Variations).

Copy Sounds dialog box

(Style only) Open this window by choosing the Copy Sounds item from the page menu. Here you can copy all Sounds assigned to the current Style Element tracks to a different Style Element.


Copy Sounds
To
Cancel
OK

From Style Element Var1

Style Element: All

From Style Element

Non editable. Currently selected Style Element.

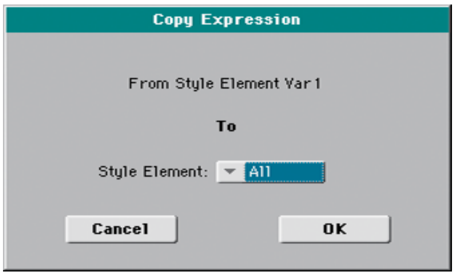
To Style Element

Target Style Element.

All	Settings will be copied to all Style Element of the Style in edit.
Var1…CountIn	
	Single Style Element where to copy settings to.

Copy Expression dialog box

(Style only) Open this window by choosing the Copy Expression item from the page menu. Here you can copy all Expression values assigned to the current Style Element tracks to a different Style Element.



From Style Element Var1

Style Element: All

From Style Element

Non editable. Currently selected Style Element.

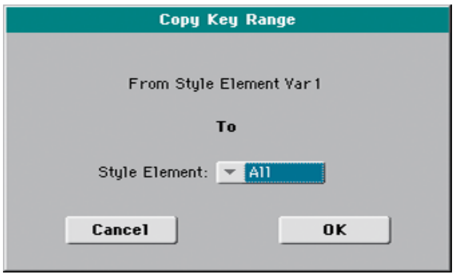
To Style Element

Target Style Element.

All	Settings will be copied to all Style Element of the Style in edit.
Var1…CountIn	Single Style Element where to copy settings to.

Copy Key Range dialog box

(Style only) Open this window by choosing the Copy Keyboard Range item from the page menu. Here you can copy all Keyboard Range values for the current Style Element tracks to a different Style Element.



From Style Element Var1

Style Element: All

From Style Element

Non editable. Currently selected Style Element.

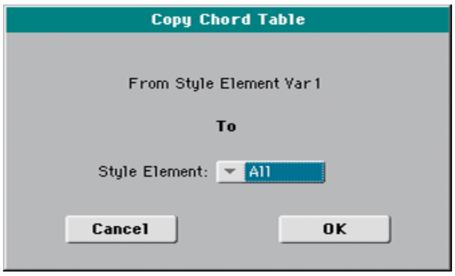
To Style Element

Target Style Element.

All	Settings will be copied to all Style Element of the Style in edit.
Var1…CountIn	Single Style Element where to copy settings to.

Copy Chord Table dialog box

(Style only) Open this window by choosing the Copy Chord Table item from the page menu. Here you can copy the Chord Table of the current Style Element to a different Style Element.



From Style Element Var1

Style Element: All

To Style Element

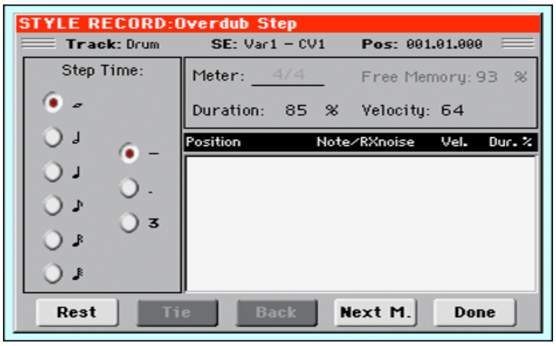
Target Style Element.

All	Settings will be copied to all Style Element of the Style in edit.
Var1…CountIn	Single Style Element where to copy settings to.

Overdub Step Recording window

The Step Record allows you to create a new Style/Pad by entering single notes or chords to each track, by playing them on the keyboard one at a time, with no need to play on time. This is very useful when transcribing an existing score, or needing a higher grade of detail, and is particularly suitable to create drum and percussion tracks.

To access this page, select the “Overdub Step Recording” command from the page menu.



STYLE RECORD:Overdub Step

Track: Drum SE: Var1 – CV1 Pos: 001.01.000

Step Time:

Meter: 4/4 Free Memory: 93 %

Duration: 85 % Velocity: 64

Track (Selected track)

Name of the selected track in record.

DRUM…ACC5	Style track.

SE (Selected Style Element)

See “Element (Style Element)” on page 122.

CV (Selected Chord Variation)

See “Chord Var (Chord Variation)” on page 122.

Pos (Position)

This is the position of the event (note, rest or chord) to be inserted.

Event list

Previously inserted events. You may delete this event, and set it in edit again, by touching the Back button.

Step Time values

Length of the event to be inserted.

𝅝 … 𝅘𝅥𝅲	Note value.
Standard (–)	Standard value of the selected note.
Dot (.)	Augments the selected note by one half of its value.
Triplet (3)	Triplet value of the selected note.

Meter

Meter (time signature) of the current measure. This parameter cannot be edited. You can set the Meter in the main page of the Style Record mode, before actually starting recording (see step 6 on page 130 for more information).

Free Memory

Remaining memory for recording.

Duration

Relative duration of the inserted note. The percentage is always referred to the step value.

25%	Staccatissimo.
50%	Staccato.
85%	Ordinary articulation.
100%	Legato.

Velocity

Set this parameter before entering a note or chord. This will be the playing strength (i.e., velocity value) of the event to be inserted.

Kbd	Keyboard. You can select this parameter, by turning all counter-clockwise the dial. When this option is selected, the playing strength of the played note is recognized and recorded.
1…127	Velocity value. The event will be inserted with this velocity value, and the actual playing strength of the note played on the keyboard will be ignored.

Rest

Touch this button to insert a rest.

Tie

Touch this button to tie the note to be inserted to the previous note.

Back

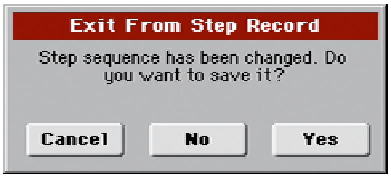
Goes to the previous step, erasing the inserted event.

Next M. (Next Measure)

Goes to the next measure, and fills the remaining space with rests.

Done

Exits the Step Record mode. If you have inserted some notes, a dialog box appears, asking you to either cancel, discard or save the changes.



Exit From Step Record

Step sequence has been changed. Do you want to save it?

If you touch Cancel, exit is canceled, and you can continue editing. If you choose No, changes are not saved, and the Step Record window is closed. If you choose Yes, changes are saved, and the Step Record window is closed.

Song Play mode

The Song Play operating mode is where you can listen to Songs, while reading Lyrics and Chords (where available). An automatically-generated Score can also be seen for Standard MIDI Files, and Markers can let you quickly jump to a Song section.

Songs can be in Standard MIDI File, Karaoke™ or MP3 format. The MID+G and MP3+G formats are also supported.

You can play along with the Song with up to four Keyboard tracks (Upper 1-3, Lower) and four Pads. You can select different Sounds and Effects for Keyboard tracks by selecting Performances and STSs.

While in Song Play mode, you can use the SongBook to automatically select Songs for a desired music genre. With each Song entry in the SongBook, up to four STSs are also selected.

Song Play mode can also be used in Easy Mode.

MIDI Clock

In Song Play mode the MIDI Clock is always generated by the internal Player, even if the Clock parameter is set to MIDI or USB mode in the Global > MIDI > General Controls page (see “Clock Source” on page 246). While in this mode, Pa600 cannot receive MIDI Clock messages from the MIDI IN.

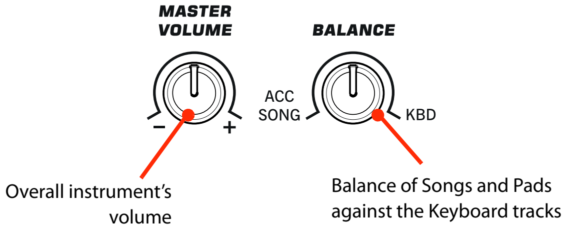
Pa600 only transmits to the MIDI OUT and USB port the MIDI Clock messages generated by the Player. For MIDI Clock messages to be sent, the “Clock Send” parameter must be activated in the Global > MIDI > General Controls page (see “Clock Send” on page 245).

Tempo Lock

If you don’t want the Tempo value to change when selecting a new Song, turn on the Tempo Lock function by using the TEMPO LOCK button on the control panel. When this button’s LED is turned on, you can still manually change the Tempo with the TEMPO +/– buttons, or by touching the Tempo field and using the VALUE DIAL.

Master Volume, Balance

While the MASTER VOLUME knob controls the general volume of the instrument, you can use the BALANCE knob to balance the Song and Pad tracks against the Keyboard tracks.


MASTER VOLUME
BALANCE
–
+
ACC SONG
KBD
Overall instrument’s volume
Balance of Songs and Pads against the Keyboard tracks

Track parameters

Changes to Keyboard tracks can be saved to a Performance. You can then recall different settings by just selecting a single Performance.

Settings for Song tracks, like Pan, Volume and FX Sends, depend on each individual Standard MIDI File. Changes to Song tracks made in Song Play mode cannot be saved to a Standard MIDI File, and are only intended for realtime control.

To make permanent changes Song tracks, edit and save the Standard MIDI File in Sequencer mode.

Standard MIDI Files and Sounds

The native Song file format of Pa600 is the Standard MIDI File (SMF), an universal standard set by all manufacturers. Filename extension is .MID, but Pa600 can also read files with the .KAR extension. You can read these files with any musical instrument or computer.

Even if the Standard MIDI File format is standard, differences may appear in sounds when playing the various files. If you recorded a Song on the Pa600 in Sequencer mode using only General MIDI sounds (i.e., those of the “GM” type), you can be confident you can play the same Song on virtually any other musical instrument or computer. If you used KORG native sounds, you may not find the same sounds on instruments from other manufacturers.

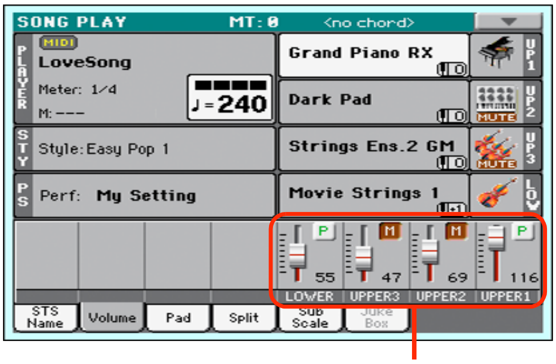
When you read Standard MIDI Files in Song Play mode, there is no problem reading files made using only General MIDI sounds. Sounds could be different when playing a Song made on a different instrument: despite the wide compatibility of Pa600 with other standards (like GS or XG), differences may arise.

Should this happen, load the Standard MIDI File in Sequencer mode, then manually reassign the non-matching Sounds, replacing them with similar Sounds on the Pa600. Finally, save the Standard MIDI File again, and you will be able to play it in Song Play mode with the correct Sounds.

Keyboard, Pad and Player tracks

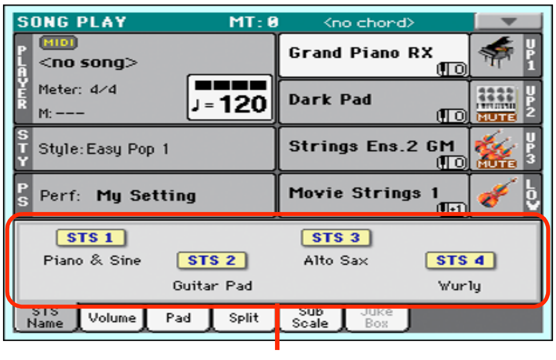
Pa600 is equipped with a Player that can play up to a maximum of 16 Song tracks. In addition, you can play the keyboard with four additional Keyboard tracks (Upper 1-3 and Lower).

When the Volume panel is shown in the main page of the Song Play mode (see illustration below), you can adjust the Volume and Play/Mute status of these tracks, but please keep in mind that these changes will not be saved in the Standard MIDI File.


SONG PLAY
MT: 0
<no chord>
PLAYER
MIDI
LoveSong
Meter: 1/4
M: ---
♩= 240
STY
Style: Easy Pop 1
PS
Perf: My Setting
Grand Piano RX
Dark Pad
Strings Ens.2 GM
Movie Strings 1
UP1
UP2
UP3
LOW
MUTE
P
M
55
47
69
116
LOWER
UPPER3
UPPER2
UPPER1
STS Name
Volume
Pad
Split
Sub Scale
Juke Box

Keyboard tracks

While in Song Play mode, you can select Performances or STSs. STSs are from the latest selected Style; choose a different Style to select a different set of STSs. You can see the name of the available STSs when the STS Name panel is shown in the main page of the Song Play mode (see illustration):


SONG PLAY
MT: 0
<no chord>
PLAYER
MIDI
<no song>
Meter: 4/4
M: ---
♩= 120
STY
Style: Easy Pop 1
PS
Perf: My Setting
Grand Piano RX
Dark Pad
Strings Ens.2 GM
Movie Strings 1
UP1
UP2
UP3
LOW
MUTE
STS 1
Piano & Sine
STS 2
Guitar Pad
STS 3
Alto Sax
STS 4
Wurly
STS Name
Volume
Pad
Split
Sub Scale
Juke Box

STS names

Selecting a different Style or SongBook Entry may also change the Pads.

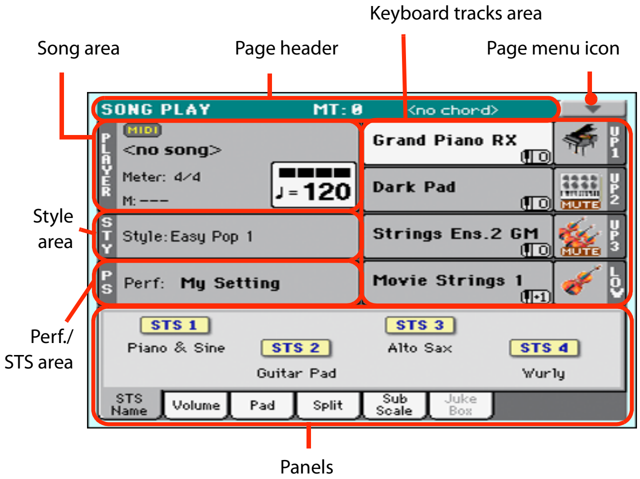
When entering Song Play mode from the Style Play mode, Keyboard and Pad tracks remain the same they were in Style Play mode.

Main page (Normal view)

Press the SONG PLAY button to access this page from another operating mode.

Note: *When switching from Style Play to Song Play mode, various track parameters and settings may change.*

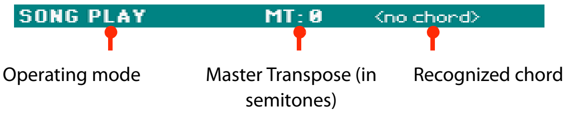
To return to this page from one of the Song Play edit pages, press the EXIT or SONG PLAY button.


Keyboard tracks area
Song area
Page header
Page menu icon
Style area
Perf./ STS area
Panels
SONG PLAY
MT: 0
<no chord>
PLAYER
MIDI
<no song>
Meter: 4/4
M: ---
♩= 120
STY
Style: Easy Pop 1
PS
Perf: My Setting
Grand Piano RX
Dark Pad
Strings Ens.2 GM
Movie Strings 1
UP1
UP2
UP3
LOW
MUTE
STS 1
Piano & Sine
STS 2
Guitar Pad
STS 3
Alto Sax
STS 4
Wurly
STS Name
Volume
Pad
Split
Sub Scale
Juke Box

Details on individual tracks can be seen by touching the Volume tab. To switch between Keyboard tracks (Normal view) and Song tracks (Song Tracks views), use the TRACK SELECT button. Pressed a first time, you will see tracks 1-8; a second press will show tracks 9-16; pressed again will go back to Keyboard tracks.

Page header

This line shows the current operating mode, transposition and recognized chord.


SONG PLAY
MT: 0
<no chord>
Operating mode
Master Transpose (in semitones)
Recognized chord

Operating mode name

Name of the current operating mode.

Master Transpose

Master Transpose value in semitones. This value can be changed using the TRANSPOSE buttons on the control panel.

Note: *You can also transpose MP3 files. Keep in mind, however, that transposition always remains inside the -5…+6 semitones range. This is enough to cover all keys, while avoiding excessive audio degradation. Any further transposing will be reversed to fit the range. So, you might see a +7 transpose value (Just Fifth Up) shown in the display, but the MP3 will actually play 5 semitones lower (Just Fourth Down).*

Note: *Transpose may automatically change when selecting a different Performance. It may also change when loading a Standard MIDI File generated with an instrument of the KORG Pa-Series.*

To avoid transposing, "lock" the Master Transpose parameter in the Global (see "General Controls: Lock" on page 236).

Recognized chord

This displays the recognized chord when you play a chord on the keyboard.

Page menu icon

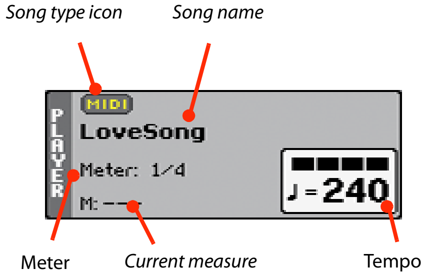
Touch the page menu icon to open the menu. See “Page menu” on page 163 for more information.

▼

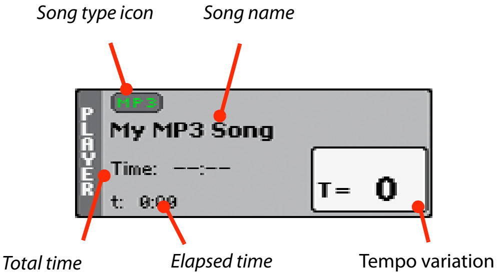
Song area

This is where the Song name is shown, together with parameters depending on the selected type of Song.

This is how a Song’s area appears when a ***Standard MIDI File*** or ***Karaoke*** file has been selected:



And this is how it appears when an ***MP3 File*** has been selected:



Song type icon

Songs of different types can be assigned to the Player. This icon shows the file type.

MIDI	Standard MIDI File, often abbreviated as SMF (file extension: *.MID or *.KAR). The SMF (*.MID) is the industry standard song format, used by Pa600 as its basic Song format when recording a new Song. A MIDI Karaoke File (*.KAR) is an extension of the SMF format.
MP3	MPEG Layer-3 format, or MP3 (file extension: *.MP3). This is a compressed audio file, that may be generated on any personal computer, or by the Pa600 itself.
JBX	A Jukebox file (file extension: *.JBX) can be assigned to the Player, but its name will not be shown in this area. The JBX icon will appear instead, together with the name of the currently selected Song, in the Jukebox list.

Note: *To create or edit a Jukebox file, go to the Jukebox Edit page (see page 162).*

Song name

Displays the name of the Song assigned to the Player.

- If the Player is already selected (white background), touch the Song name to open the Song Select window.
- If the player is not selected (dark background), first select it, then touch the Song name to open the Song Select window.

When the Song Select window appears, you can select a single Song or a Jukebox file (see “Song Select window” on page 91).

If you select another Song while a Song is playing, the previous Song will stop, and the new Song will be selected and be ready to play.

To select a Song, you can also press the SONG button in the SELECTION section of the control panel. Press it a second time to select a Song by dialing in its ID number (see “Selecting a Song by its ID number” on page 92).

Meter

This parameter only appears when a Standard MIDI File or Karaoke file has been selected.

Current Song’s meter (time signature).

Measure number

This parameter only appears when a Standard MIDI File or Karaoke file has been selected.

Current measure number.

Tempo

This parameter only appears when a Standard MIDI File or Karaoke file has been selected.

Metronome Tempo. Select this parameter and use the TEMPO+ and TEMPO– buttons to change the Tempo. As an alternative, touch this parameter and drag with your finger.

Total time

This parameter only appears when an MP3 file has been selected.

Total length (in minutes:seconds) of the selected MP3 file.

Elapsed time

This parameter only appears when an MP3 file has been selected.

Elapsed time (in minutes:seconds) of the MP3 file currently in play.

Tempo variation

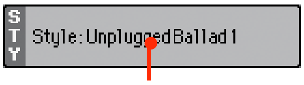
This parameter only appears when an MP3 file has been selected.

Variation of the original MP3 file’s tempo, inside a range of ±30% of the original tempo. When Tempo is changed, MP3 files are smoothly accelerated or slowed down (inside a range of ±30% of the original tempo). This may seem trivial, but it is really rocket-science instead, and it is made possible by KORG sophisticated time-stretching algorithms.

Style area

Currently selected Style. You can select a Style while playing Songs, to have it ready when switching to Style Play mode. Also, this lets you change the Pads and STSs (both are recalled by selecting a Style).

Touch the Style name to open the Style Select window. As an alternative, use the STYLE button in the SELECTION section of the control panel.

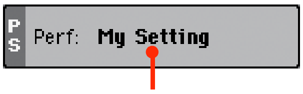


Style: UnpluggedBallad1

Selected Style

Performance/STS area

This is where the Performance or STS name is shown.



Perf: My Setting

Selected Performance or STS

Selected Performance or STS

This is the latest selected Performance or Single Touch Setting.

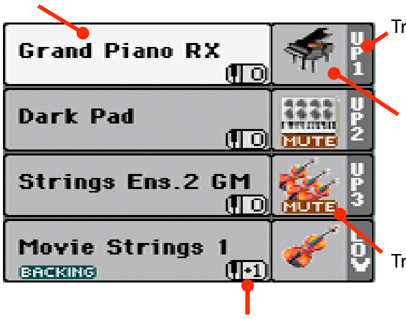
Touch the name to open the Performance Select window. As an alternative, use the PERFORMANCE section to select a different Performance.

To select a different STS from the latest selected Style, use the four STS buttons under the display.

Keyboard tracks area

This is where Keyboard tracks are shown.

Sound name



Track name

Sound bank's icon

Track status

Track's octave transpose

Sound name

Name of the Sound assigned to the corresponding Keyboard track.

- If the track is already selected (white background), touch the Sound name to open the Sound Select window.
- If the track is not selected (dark background), first select it, then touch the Sound name to open the Sound Select window.

You can also open the Sound Select window by using the SOUND button in the SELECTION section of the control panel.

For more information about the Sound Select window, see "Sound Select window" on page 89.

Keyboard track octave transpose

Non editable. Octave transpose of the corresponding track. To individually edit the octave transpose for each track, go to the "Mixer/Tuning: Tuning" edit page of the Song Play mode (see "Mixer/Tuning: Tuning" on page 104 for more details).

You can also transpose all Upper tracks by using the UPPER OCTAVE buttons on the control panel.

Keyboard track name

Non editable. Name of the corresponding track:

Abbreviation	Track	Hand
UP1	Upper 1	Right hand
UP2	Upper 2	
UP3	Upper 3	
LOW	Lower	Left hand

Sound bank's icon

This icon shows the bank the current Sound belongs to.

Keyboard track status

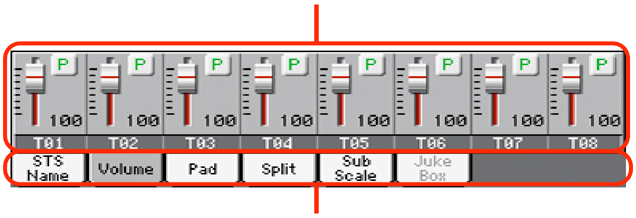
Play/mute status of the current track. Touch this icon to change the status.

No icon	Play status. The track can be heard.
MUTE	Mute status. The track cannot be heard.

Panels

The lower half of the main page contains the various panels, you can select by touching the corresponding tabs. See more information in the relevant sections, starting from page 157.

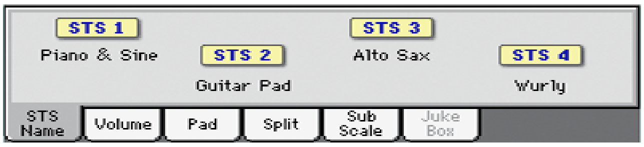
Volume panel



Tabs

STS Name panel

Select this panel to see the name of the four available STSs. See “STS Name panel” on page 97 for details.

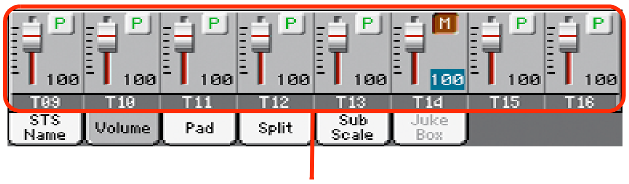

STS 1
Piano & Sine
STS 2
Guitar Pad
STS 3
Alto Sax
STS 4
Wurly
STS Name
Volume
Pad
Split
Sub Scale
Juke Box

Volume panel

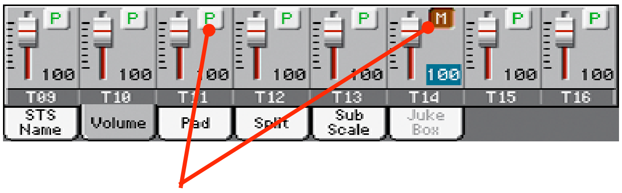
Touch the Volume tab to select this panel. This is where you can set the volume of each track, and mute/unmute tracks.

Changing the tracks’ volume and play/mute status

You can change the volume and play/mute status of each track in the same way seen for the Style (see “Volume panel” on page 97 for details).


P
M
100
T09
T10
T11
T12
T13
T14
T15
T16
STS Name
Volume
Pad
Split
Sub Scale
Juke Box

Virtual sliders


P
M
100
T09
T10
T11
T12
T13
T14
T15
T16
STS Name
Volume
Pad
Split
Sub Scale
Juke Box

Track status icons

Saving the tracks’ volume and play/mute status

Each set of tracks can be saved into a different structure. This allows for a great flexibility when mixing Keyboard and Song tracks through the use of Performances, STSs and Standard MIDI Files.

- The status of ***Keyboard tracks*** can be saved to a Performance or STS (see “Write Performance” on page 114 and “Write Single Touch Setting” on page 114).
- The status of the ***Song tracks*** can saved as a general setting in the Global > Mode Preferences > Song & Sequencer page (see “Save Trk & FX” on page 240).

This allows for leaving the track status unchanged even when playing a different Standard MIDI File. You can leave, for example, the bass track in mute, and let your bassist play it live for the whole show.

However, an exception to the above is when reading a Standard MIDI File created with a Pa-Series instrument. These files do include special commands to force the Play/Mute status of each track.

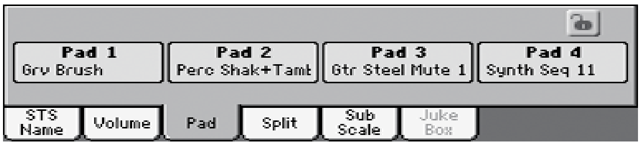
Track names

Under the sliders, a label for each track is shown. Use the TRACK SELECT button to switch between the ***Keyboard Traks*** and the ***Song Tracks 1-8*** and ***Song Tracks 9-16*** views.

Abbreviation	**Track**
UPPER1…3	Upper tracks. *Volume and play/mute status memorized into a Performance or STS.*
LOWER	Lower track. *Volume and play/mute status memorized into a Performance or STS.*
T01…T16	Song tracks. *Volume memorized into a Standard MIDI File. Play/mute status memorized as a general setting.*

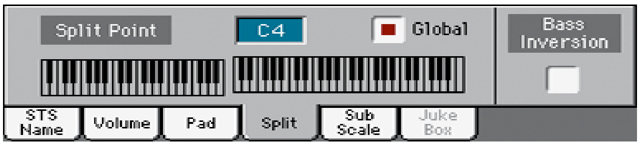
Pad panel

Select this panel to see which Hit or Sequence Pads are assigned to the four Pads. See “Pad panel” on page 99 for details.


Pad 1
Grv Brush
Pad 2
Perc Shak+Tamb
Pad 3
Gtr Steel Mute 1
Pad 4
Synth Seq 11
STS Name
Volume
Pad
Split
Sub Scale
Juke Box

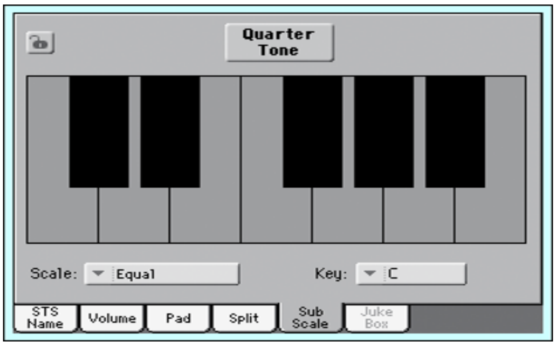
Split panel

Select this panel to adjust the split point for the Keyboard tracks. See “Split panel” on page 100 for details.


Split Point
C4
Global
Bass Inversion
STS Name
Volume
Pad
Split
Sub Scale
Juke Box

Sub-Scale panel

Select this panel to select a secondary scale for the Keyboard tracks. See “Mixer/Tuning: Sub Scale” on page 104 for details.



Scale: Equal

Key: C

Jukebox panel

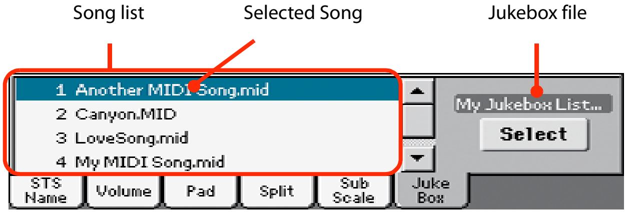
When a Jukebox (JBX) file is assigned to the Player, you can use the list shown in this panel to browse the Jukebox list, and touch the Select button in the display to select a Song to play. This way, you can select any Song in the list as your starting Song, and manually change the order of the Songs to play.

Note: *This panel is only available after loading a Jukebox file.*

Hint: *To create or edit a Jukebox file, go to the Jukebox Edit page (see page 162). A quick way to create a Jukebox list is to touch the “Play All” button in the Song Select window (see page 92).*

Warning: *If you delete a Song included in the Jukebox list currently in play, the Player will stop, and the “No Song” message will appear. At this point, you can select the JukeBox tab to open the Jukebox panel, and select a different Song.*

As an alternative, you can select the next Song by pressing SHIFT + >> (FAST FORWARD) in the PLAYER section of the control panel, then press ▶/■ (PLAY/STOP) in the PLAYER section again.



1 Another MIDI Song.mid
2 Canyon.MID
3 LoveSong.mid
4 My MIDI Song.mid

My Jukebox List...

Song list

Use this list to browse through the Songs in the Jukebox list. Use the scrollbar to scroll the list.

Selected Song

Name of the Song currently in play. You can select a different Song from the list, and touch the Select button in the display to select it for playback.

Select button

Touch this button to select the Song highlighted in the list, and assign it to the player. If a Song is already playing, it will be stopped, and the selected Song will start playing back.

Jukebox file

Name of the selected Jukebox file. To edit this file, see “Jukebox Editor” on page 162.

Transport controls for the Jukebox

When you select a Jukebox file, the Player’s transport controls behave in a slightly different way than with single Songs.

<< and >> Pressed alone, these buttons are the Rewind and Fast Forward commands.

SHIFT Keep the SHIFT button pressed, and press these buttons to scroll to the previous or next Song in the Jukebox list.

|◀ (HOME) Returns to measure 1 of the current Song.

▶/■ (PLAY/STOP)

Starts or stops the current Song. When you stop the Song, it is stopped at the current position. Press HOME to go back to measure 1 of the current Song.

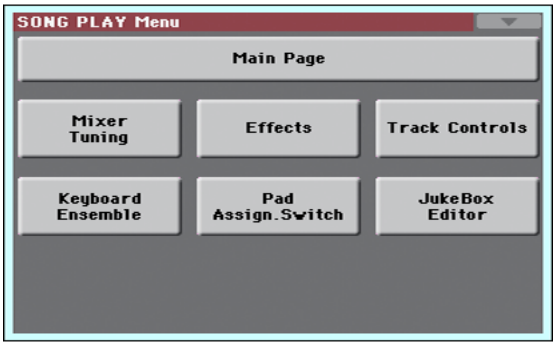
If the Jukebox panel is open, you can select the Song from which to start. See “Jukebox panel” above.

Edit menu

From any page, press the MENU button to open the Song Play edit menu. This menu gives access to the various Song Play edit sections.

When in the menu, select an edit section, or press EXIT or SONG PLAY to exit the menu.

When in an edit page, press the EXIT or SONG PLAY button to go back to the main page of the Song Play operating mode.


SONG PLAY Menu
Main Page
Mixer Tuning
Effects
Track Controls
Keyboard Ensemble
Pad Assign.Switch
JukeBox Editor

Each item in this menu corresponds to an edit section. Each edit section groups various edit pages, that may be selected by touching the corresponding tab on the lower part of the display.

Note: *Some of the edit parameters are only meant for realtime use. As a general rule, Keyboard track parameters can be saved to a Performance or SongBook STS, while Song track's Play/Mute status and FX settings can be saved as a general setting in the Global > Mode Preferences > Song & Sequencer page (see "Save Trk & FX" on page 240).*

Edit page structure

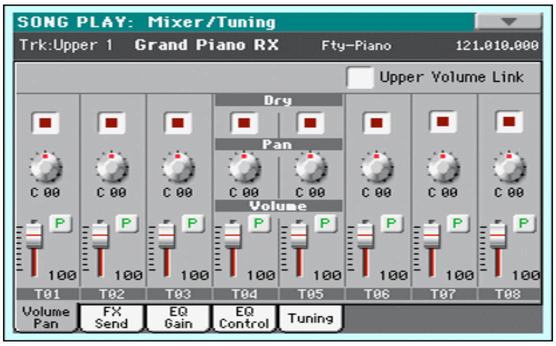
All edit pages share some basic elements, already described for the Style Play mode (see "Edit page structure" on page 101 for details).

Mixer/Tuning: Volume/Pan

This page lets you set the volume and pan for each of the Keyboard or Song tracks.

Note: *The play/mute status of a Song track may be reset when selecting a Song created on a Pa-Series instrument.*

Use the TRACK SELECT button to switch from the Keyboard to the Song tracks, and vice versa.


SONG PLAY: Mixer/Tuning
Trk:Upper 1
Grand Piano RX
Fty-Piano
121.010.000
Upper Volume Link
Dry
Pan
Volume
C 00
P
100
T01
T02
T03
T04
T05
T06
T07
T08
Volume Pan
FX Send
EQ Gain
EQ Control
Tuning

Parameters

The parameters shown in this page are the same already seen for the Style Play mode. See "Mixer/Tuning: Volume/Pan" on page 101 for details.

Mixer/Tuning: FX Send

Pa600 is equipped with two groups of effect processors (A and B). In Song Play mode, these groups can be used to process Keyboard, Pad and MIDI tracks.

- Keyboard tracks always use the effects of the FX B group.
- Pad tracks always use the effects of the FX A group.
- Standard MIDI Files and Karaoke files can only use the effects of the FX A group.
- Standard MIDI Files created on a Pa-Series instrument (in Sequencer mode) can use effects of the FX A and B groups.

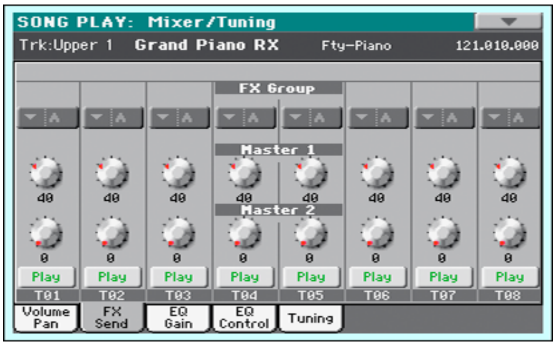
Choosing and editing the effects is done in the dedicated Effect section (see "Effects: A/B FX Configuration" on page 161).

In case you do not want to hear the direct signal, just set the Dry parameter to Off (see the "Dry" parameter above).

You can assign to the Master FXs any kind of available effects, but we suggest you assign the effects based on this scheme:

A-Master 1	Reverb processor for the Song tracks.
A-Master 2	Modulating FX processor for the Song tracks.
B-Master 1	Reverb processor for the Keyboard tracks.
B-Master 2	Modulating FX processor for the Realtime (Keyboard) tracks.

Use the TRACK SELECT button to switch from Keyboard to Song tracks, and vice-versa.


SONG PLAY: Mixer/Tuning
Trk:Upper 1 Grand Piano RX Fty-Piano 121.010.000
FX Group
Master 1
Master 2
40
0
Play
T01 T02 T03 T04 T05 T06 T07 T08
Volume Pan
FX Send
EQ Gain
EQ Control
Tuning

Note: *When you stop, then start the Song again, or select a different Song, the default Song track settings are selected again. You can, however, pause the Song, change the effects, then exit from pause and start the Song again. Edit the Song in Sequencer mode to permanently change the effects.*

Note: *Track FX setting can be saved as a general setting in the Global > Mode Preferences > Song & Sequencer page (see "Save Trk & FX" on page 240). This will help adapting the Pa600's sound to personal taste for any Standard MIDI File (excluding those saved by a Pa-Series instrument, that may override the general preferences).*

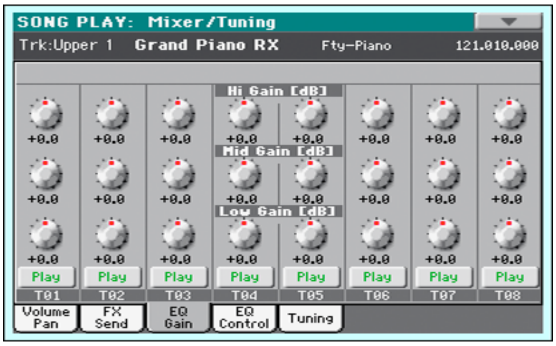
Parameters

The parameters shown in this page are the same already seen for the Style Play mode. See "Mixer/Tuning: FX Send" on page 102 for details.

Mixer/Tuning: EQ Gain

In this page you can set the three-band equalization (EQ) for each individual track.

Use the TRACK SELECT button to switch from the Keyboard to the Song tracks, and vice-versa.


SONG PLAY: Mixer/Tuning
Trk:Upper 1 Grand Piano RX Fty-Piano 121.010.000
Hi Gain [dB]
Mid Gain [dB]
Low Gain [dB]
+0.0
Play
T01 T02 T03 T04 T05 T06 T07 T08
Volume Pan
FX Send
EQ Gain
EQ Control
Tuning

Hint: *Track EQ can be saved as a general setting in the Global > Mode Preferences > Song & Sequencer page (see "Save Trk & FX" on page 240). This will help adapting the Pa600's sound to personal taste for any Standard MIDI File you will ever play (excluding those saved by a Pa-Series instrument, that may override the general preferences). Need a lighter Bass track? Save the right equalization, and the Bass will stay light with all the subsequent Songs.*

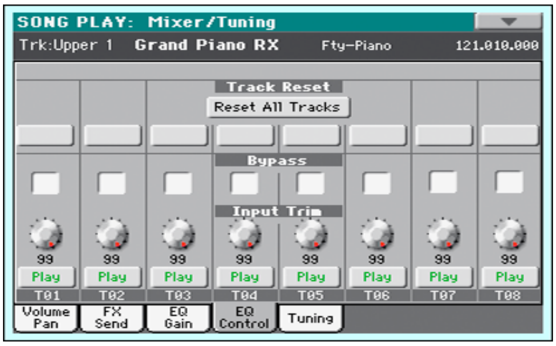
Parameters

The parameters shown in this page are the same already seen for the Style Play mode. See "Mixer/Tuning: EQ Gain" on page 103 for details.

Mixer/Tuning: EQ Control

This page lets you reset or bypass track equalization, programmed in the previous page.

Use the TRACK SELECT button to switch from the Keyboard to the Song tracks, and vice-versa.

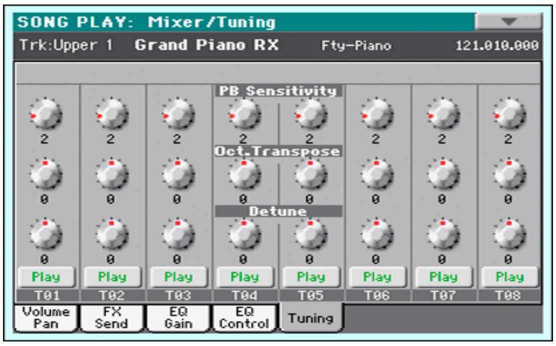

SONG PLAY: Mixer/Tuning
Trk:Upper 1 Grand Piano RX Fty-Piano 121.010.000
Track Reset
Reset All Tracks
Bypass
Input Trim
99
Play
T01 T02 T03 T04 T05 T06 T07 T08
Volume Pan
FX Send
EQ Gain
EQ Control
Tuning

Parameters

The parameters shown in this page are the same already seen for the Style Play mode. See "Mixer/Tuning: EQ Control" on page 103 for details.

Mixer/Tuning: Tuning

Parameters in this page let you set various tuning settings. All parameters in this page are the same found in Global mode. See "Mixer/Tuning: Tuning" on page 104 for details.


SONG PLAY: Mixer/Tuning
Trk:Upper 1 Grand Piano RX Fty-Piano 121.010.000
PB Sensitivity
Oct.Transpose
Detune
2
0
Play
T01 T02 T03 T04 T05 T06 T07 T08
Volume Pan
FX Send
EQ Gain
EQ Control
Tuning

Parameters

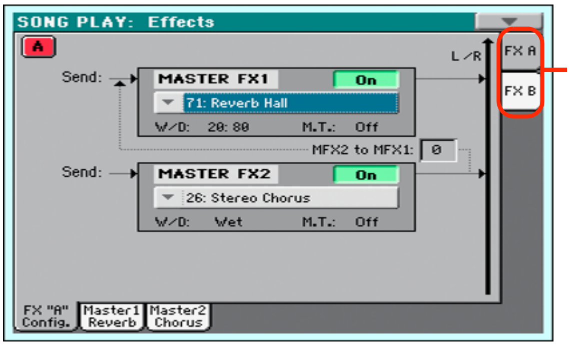
The parameters shown in this page are the same already seen for the Style Play mode. See "Mixer/Tuning: Tuning" on page 104 for details.

Note: *Song track values edited in this page are not saved, and are only intended for realtime use.*

Effects: A/B FX Configuration

This page allows you to select the effects for the A (Song) and B (Keyboard) FX groups. You can use the “FX A” and “FX B” side tabs to switch from one group to the other one. (Songs created in Sequencer mode on a Pa-Series instrument can also use the B FX group).

The effect types and the FX matrix are the same seen for the Style Play mode (see “Effects: A/B FX Configuration” on page 106),



Send: MASTER FX1 On
71: Reverb Hall
W/D: 20: 80 M.T.: Off
MFX2 to MFX1: 0
Send: MASTER FX2 On
26: Stereo Chorus
W/D: Wet M.T.: Off

FX group

Note: *The default effect settings can be saved as a general setting in the Global > Mode Preferences > Song & Sequencer page (see “Save Trk & FX” on page 240).*

Note: *When you stop the Song, or select a different Song, the default effects are selected again. You can, however, stop the Song, change the effects, then start the Song again with the new effects. Edit the Song in Sequencer mode to permanently change the effects.*

Parameters

The parameters shown in this page are the same already seen for the Style Play mode. See “Effects: A/B FX Configuration” on page 106 for details.

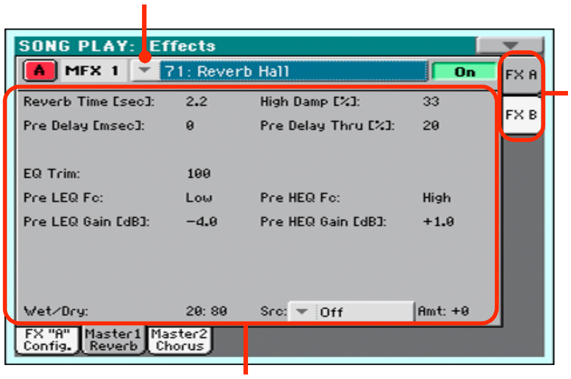
M.T. (Modulating Track)

Source track for modulating MIDI messages. You can modulate an effect parameter with a MIDI message generated by an internal physical controller, or a MIDI message coming from a Song track.

Effects: Master 1, 2

These pages contain the editing parameters for the effect processors. Here is an example of the FX A page, with the Reverb Hall effect assigned.

Selected effect



MFX 1 71: Reverb Hall On
Reverb Time [sec]: 2.2 High Damp [%]: 33
Pre Delay [msec]: 0 Pre Delay Thru [%]: 20
EQ Trim: 100
Pre LEQ Fc: Low Pre HEQ Fc: High
Pre LEQ Gain [dB]: −4.0 Pre HEQ Gain [dB]: +1.0
Wet/Dry: 20: 80 Src: Off Amt: +0

FX group

FX parameters

Parameters

The parameters shown in this page are the same already seen for the Style Play mode. See “Effects: Master 1, 2” on page 107 for details.

Track Controls: Mode

These parameters let you set the Internal/External, and the Poly/Mono status of Song tracks.

Parameters

The parameters shown in this page are the same already seen for the Style Play mode. See “Track Controls: Mode” on page 107 for details.

Note: *These parameters can be saved as a general setting in the Global > Mode Preferences > Song & Sequencer page (see “Save Trk & FX” on page 240).*

Track Controls: Drum Edit

These parameters let you adjust the volume and edit the main parameters for each percussive instrument family.

Drum Edit parameters

The parameters shown in this page are the same already seen for the Style Play mode. See “Track Controls: Drum Edit” on page 108 for details.

Note: *Song track values edited in this page are not saved, and are only intended for realtime use.*

Track Controls: Easy Edit

These parameters let you “fine-tune” edit parameters for Sounds assigned to the tracks.

Easy Sound Edit parameters

The parameters shown in this page are the same already seen for the Style Play mode. See “Track Controls: Easy Edit” on page 109 for details.

Note: *Song track values edited in this page are not saved, and are only intended for realtime use.*

Keyboard/Ensemble: Key/Velocity Range

These parameters let you select a note and velocity range for the Keyboard tracks.

Parameters

The parameters shown in this page are the same already seen for the Style Play mode. See “Keyboard/Ensemble: Key/Velocity Range” on page 110 for details.

Keyboard/Ensemble: Ensemble

This page lets you program the Ensemble function.

Parameters

The parameters shown in this page are the same already seen for the Style Play mode. See “Keyboard/Ensemble: Ensemble” on page 111 for details.

Keyboard/Ensemble: Keyboard Control

These parameters let you set parameters for the Keyboard tracks.

Parameters

The parameters shown in this page are the same already seen for the Style Play mode. See “Keyboard/Ensemble: Keyboard Control” on page 112 for details.

Pad/Switch: Pad

This page lets you select a different hit sound or sequence for each of the four PAD buttons.

Parameters

The parameters shown in this page are the same already seen for the Style Play mode. See “Pad/Switch: Pad” on page 112 for details.

Pad/Switch: Assignable Switch

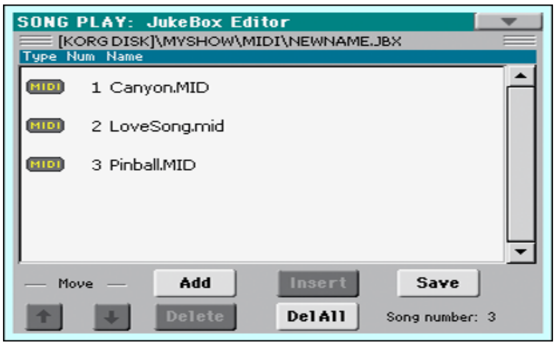
This page lets you select a different function for each of the ASSIGNABLE SWITCH buttons.

Parameters

The parameters shown in this page are the same already seen for the Style Play mode. See “Pad/Switch: Switch” on page 113 for details.

Jukebox Editor

The Jukebox function lets you play a list of Songs (127 max), at the touch of a button. You can play a Jukebox file by assigning it to the Player, after having selected it in the Song Select page, just as if it was an ordinary Song (see “Jukebox panel” on page 158).


SONG PLAY: JukeBox Editor
[KORG DISK]\MYSHOW\MIDI\NEWNAME.JBX

Type	Num	Name
MIDI	1	Canyon.MID
MIDI	2	LoveSong.mid
MIDI	3	Pinball.MID

Song number: 3

In this page you can create, edit and save a Jukebox file. A Jukebox list can contain Standard MIDI Files, Karaoke™ files, and MP3 files.

If a Jukebox file is already selected, you will enter this page with that file ready to be edited. Otherwise, you will enter this page with an empty list.

To create a new Jukebox file, touch Del All to remove all Songs from the current list. Add new Songs, then touch Save and enter a different name before confirming. A new Jukebox file will be saved to the storage device.

Move Up/Down

Use these button to move the selected item up or down in the list.

Add

Adds a Song at the end of the current list. You can add up to 127 Songs to a list. When this button is pressed, a standard file selector opens up in the display.

Note: *A Jukebox list can include only Songs contained in the same folder.*

Hint: *Instead of a single Song, you can select a Jukebox file, and add its whole content to the current Jukebox list.*

Insert

Inserts a Song at the current position (i.e., between the selected item and the preceding one). All subsequent Songs are moved to the next higher-numbered slot. You can add up to 127 Songs to a list.

Note: *A Jukebox list can include only Songs contained in the same folder.*

Hint: *Instead of a single Song, you can select a Jukebox file, and insert its whole content to the current Jukebox list.*

Delete

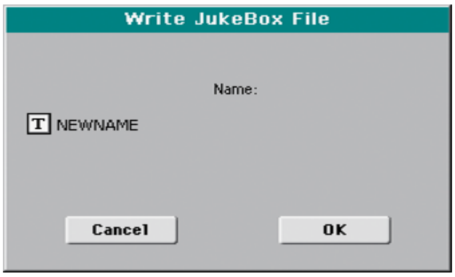
This command lets you delete the selected Song from the list.

Del All

Select this command to delete the whole Jukebox list.

Save

Touch this button to save the Jukebox file. The Save Jukebox File dialog box appears, allowing you to edit the name and save your file.



Touch the T (Text Edit) button to open the Text Edit window, and edit the name.

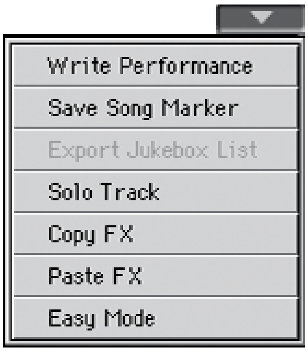
If you are editing an existing list, and do not change its name, the old file is overwritten. If you change it, a new file will be created in the storage device.

If you are saving a new list, the "NEWNAME.JBX" name is automatically assigned, and you can edit it.

Note: *You can save your ".JBX" file only in the same folder as the Song files included in the list.*

Page menu

Touch the page menu icon to open the menu. Touch a command to select it. Touch anywhere in the display to close the menu without selecting a command.



Write Performance

Select this command to open the Write Performance dialog box, and save most of the current control panel settings to a Performance.

See "Write Performance dialog box" on page 115 for more information.

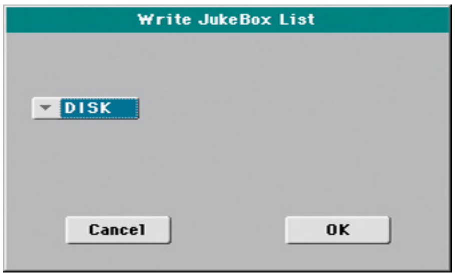
Save Song Marker

Select this command to save the markers created in the Player (see "Markers page" on page 283).

Export Jukebox List

Only available when a Jukebox list is selected. Select this command to save the current Jukebox list as a text file to a storage device. Here is how it works.

1. While a Jukebox file is assigned to the player, select the Export Jukebox List command from the page menu.
2. A dialog box will appear, asking you to select either the internal disk or a storage device connected to one of the USB Host ports.



3. Select an option, and touch OK to confirm.

Note: *When saved, the text file will be named after the selected Jukebox file. For example, a Jukebox file named "Dummy.jbx" will generate a "Dummy.txt" file. A new, unnamed Jukebox file will generate a "New_name.txt" file. If a file with the same name already exists on the target device, it will be overwritten without waiting for any confirmation.*

The list will include the progressive number assigned to each Song, the file names, the total number of files in the list.

For the correct display and printing of the list on a personal computer, use a fixed size (i.e., non-proportional) character in your text editor.

Solo Track

Select the track to be soloed, and check this item. You will hear only the selected track, and the 'Solo' warning will flash on the page header.

Uncheck this item to exit the Solo function.

The Solo functions works in a slightly different way, depending on the selected track:

- ***Keyboard track:*** The selected Keyboard track is the only track you can hear when playing on the keyboard. All other Keyboard tracks are muted. Song tracks are left in play status.
- ***Song track:*** The selected track is the only Song track you can hear. All other Song tracks are muted. Keyboard tracks are left in play status.

SHIFT Keep the SHIFT button pressed and touch one of the tracks to solo it. Do the same on a soloed track to deactivate the Solo function.

Copy/Paste FX

Use this command to copy a single effect, or both effects of an FX group (A or B). See "Copy/Paste FX" on page 115 for detailed instructions.

Easy Mode

Easy Mode allows you to use the Style Play and Song Play modes with an easier-to-use user interface. It is recommended to beginners, and to professionals alike that do not want to deal with the extra parameters of the Advanced mode.

At any time, you can manually turn the Easy Mode on/off with the Easy Mode command in the page menu of the Style Play and Song Play modes.

Sequencer mode

The Sequencer operating mode is the full-featured onboard sequencer, where you can create a Song from scratch, or edit it. You can also use this mode to edit the initial parameters of a Standard MIDI File, either made with an external sequencer or with Pa600's own sequencer.

You can save the new or edited Song as a Standard MIDI File (SMF, i.e., a file with the ".MID" extension), and play it back either in Song Play or Sequencer mode – or on any external sequencer.

Standard MIDI Files and MP3

The Songs and the Standard MIDI File format

The native Song format for Pa600 is the Standard MIDI File (".MID" file).

When saving a Song as a SMF, a setup measure is automatically inserted at the beginning of the Song. This measure contains various Song initialization parameters.

When an SMF is loaded, the setup measure is automatically removed.

Sequencer mode and the MP3

While in Sequencer mode, you cannot load nor record MP3 files. This mode only allows for editing of the Standard MIDI Files.

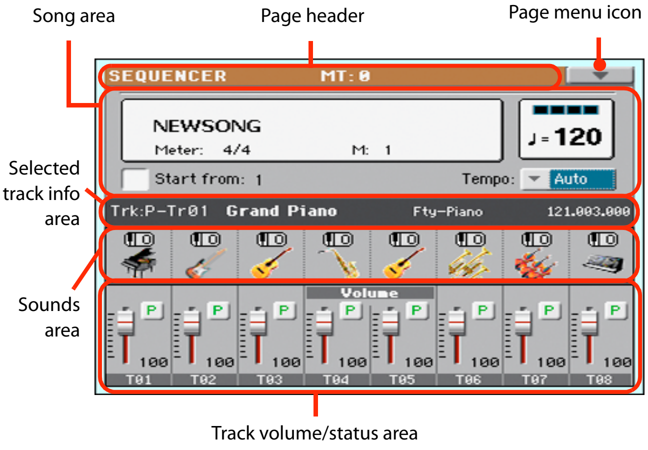
Sequencer Play - Main page

Press the SEQUENCER button to access this page from another operating mode. In this page you can load a Song, and play it back using the PLAYER transport controls.

***Note:** When switching from Style Play to Sequencer mode, the Sequencer Setup is automatically selected, and various track parameters may change.*

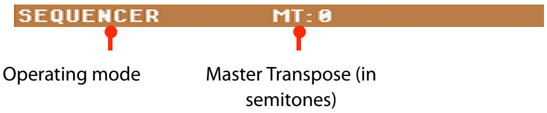
To return to this page from any of the Sequencer edit pages, press the EXIT or SEQUENCER button.

To switch between Song tracks 1-8 and 9-16, use the TRACK SELECT button.


Song area
Page header
Page menu icon
Selected track info area
Sounds area
Track volume/status area
SEQUENCER
MT: 0
NEWSONG
Meter: 4/4
M: 1
♩= 120
Start from: 1
Tempo:
Auto
Trk:P-Tr01
Grand Piano
Fty-Piano
121.003.000
Volume
P
100
T01
T02
T03
T04
T05
T06
T07
T08

Page header

This line shows the current operating mode and transposition.


SEQUENCER
MT: 0
Operating mode
Master Transpose (in semitones)

Operating mode name

Name of the current operating mode.

Master Transpose

Master transpose value in semitones. This value can be changed using the TRANSPOSE buttons on the control panel.

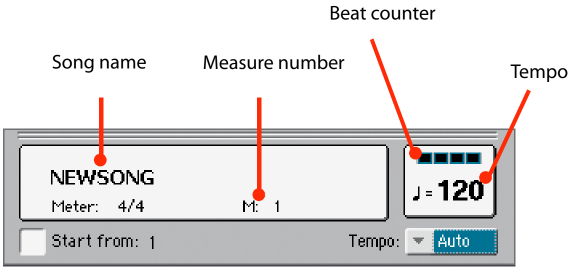
***Note:** Transpose may be automatically changed when loading a Standard MIDI File generated with an instrument of the KORG Pa-Series.*

Page menu icon

Touch the page menu icon to open the menu. See "Page menu" on page 186 for more information.

Song area

This is where the Song name is shown, together with its tempo and meter (time signature) parameters, and the current measure.



NEWSONG
Meter: 4/4
M: 1
♩=120
Start from: 1
Tempo: Auto

Song name

Displays the name of the selected Song. “NEWSONG” means that a new (blank) Song is selected, and you can record it.

Touch the Song name to make the Song Select window appear, allowing for selection of a different Song (see “Song Select window” on page 91).

To select a Song, you can also press the SONG button in the SELECTION section of the control panel. Press it a second time to select a Song by dialing in its ID number (see “Selecting a Song by its ID number” on page 92).

Note: *Only Standard MIDI Files can be loaded. MP3 files cannot be loaded in Sequencer mode.*

Meter

Current meter (time signature).

Measure number

Current measure number.

Tempo

Metronome Tempo. Select this parameter and use the TEMPO buttons to change Tempo. As an alternative, when a different parameter is selected, or you are in a different page, keep the SHIFT button pressed and use the DIAL to change Tempo for the sequencer.

Start from

When checked, the measure shown by this parameter is a temporary start point of the song, instead of measure 1. When you press the |◀ (HOME) button, or use the << (REWIND) button to go back to the beginning, the Song returns to this point.

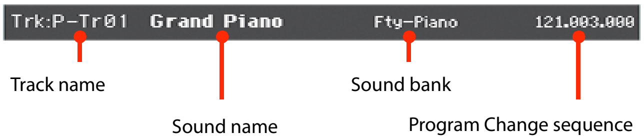
Tempo (Tempo mode)

Use this menu to select the Tempo change mode.

Manual	In this mode, you can change Tempo by using the TEMPO buttons. The Song will be played back using the manually selected tempo.
Auto	Tempo recorded in the Song will be used.

Selected track info area

This line lets you see the Sound assigned to the selected track. Not only it is shown on the main page, but also in several edit pages.



Trk:P-Tr01 Grand Piano Fty-Piano 121.003.000

Track name

Name of the selected track.

Sound name

Sound assigned to the selected track. Touch anywhere in this area to open the Sound Select window, and select a different Sound.

Sound bank

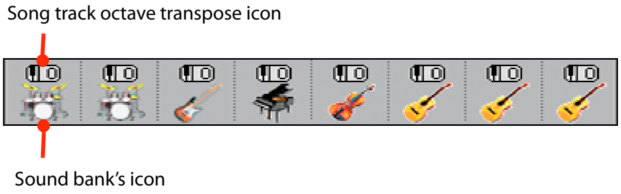
Bank the selected Sound belongs to.

Program Change

Program Change number sequence (Bank Select MSB, Bank Select LSB, Program Change).

Sounds area

This area lets you see Sounds and octave transposition for the eight tracks currently displayed.



Song track octave transpose

Non editable. Octave transpose of the corresponding track. To edit the octave transpose, go to the “Mixer/Tuning: Tuning” edit page (see page 104 for programming information).

Sound bank’s icon

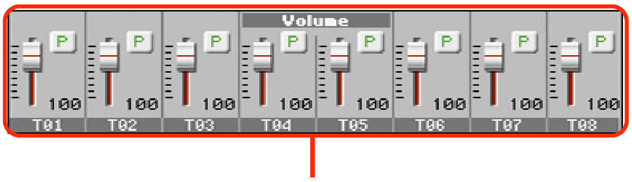
This picture illustrates the bank the current Sound belongs to. Touch an icon a first time to select the corresponding track (detailed information are shown on the Selected Track Info area, see above). Touch it a second time to open the Sound Select window.

Track volume/status area

This area is where you can set the volume of each Song track, and mute/unmute tracks.

Volume and virtual sliders

Drag the sliders to adjust the volume of the corresponding tracks. You can also change the volume by touching a slider and using the VALUE DIAL.



Virtual sliders

Use the TRACK SELECT button to switch between ***Song Tracks 1-8*** and ***Song Tracks 9-16***,

Track status icon

Play/mute status of the current track. Select the track, then touch this area to change the track status. The status of Song tracks is saved when saving the Song.

P	Play status. The track can be heard.
M	Mute status. The track cannot be heard.

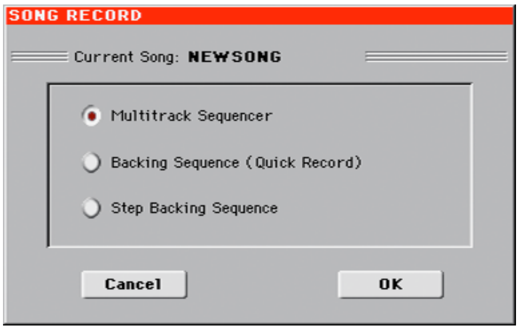
Track names

Under the sliders, a label for each track is shown. Use the TRACK SELECT button to switch between tracks 1-8 and 9-16.

Abbreviation	Track
T01…T16	Song tracks. *Volume memorized into a Standard MIDI File. Play/mute status memorized into the Standard MIDI File as well, and can be read in Song Play mode.*

Entering Record mode

To enter Record mode, press the RECORD button while you are in Sequencer mode. The following dialog box will appear:



SONG RECORD

Current Song: NEWSONG

● Multitrack Sequencer

○ Backing Sequence (Quick Record)

○ Step Backing Sequence

Select one of the three available recording options and touch OK (or Cancel if you don't want to enter Record mode).

Multitrack Sequencer

Full-featured sequencer. Select this option for classic multitrack recording. (See "Record mode: Multitrack Sequencer page" on page 168).

Backing Sequence (Quick Record)

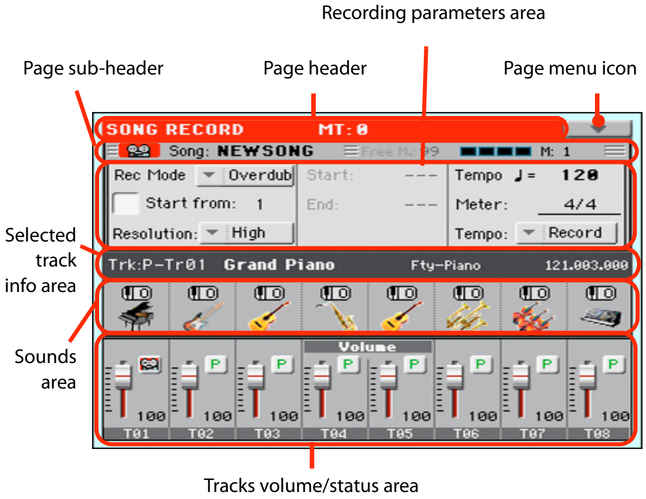
Easy way of recording. Just play with Styles, and record your realtime performance.

Step Backing Sequence

Step-record. Edit chords and controls for the Style. Very useful if you are not a keyboard player.

Record mode: Multitrack Sequencer page

While in Sequencer mode, press the RECORD button and select the “Multitrack Sequencer” option. The Multitrack Sequencer page appears.



SONG RECORD MT: 0
Song: NEWSONG Free M.: 99 M: 1
Rec Mode: Overdub
Start from: 1
Resolution: High
Start: ---
End: ---
Tempo ♩= 120
Meter: 4/4
Tempo: Record
Trk:P-Tr01 Grand Piano Fty-Piano 121.003.000

See “Multitrack recording procedure” on page 169 for information on the record procedure.

Page header

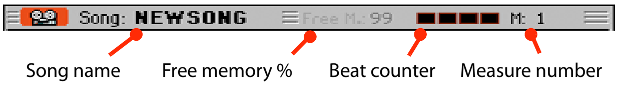
See “Page header” on page 165.

Page menu icon

See “Page menu icon” on page 165.

Page sub-header

This area shows some performing info on the Song.



Song: NEWSONG Free M.: 99 M: 1

Song name

Name of the Song in record.

Free memory %

Percentage of remaining memory available for recording.

Beat counter

This indicator shows the current beat inside the current measure.

Measure number

Current measure you are recording.

Recording parameters area

Rec mode (Recording mode)

Set this parameter before starting record, to select a recording mode.

Overdub	The newly recorded events will be mixed to any existing events.
Overwrite	The newly recorded events will replace any existing events.
Auto Punch	Recording will automatically begin at the “Start” position, and stop at the “End” position. ***Note:*** *The Auto Punch function will not work on an empty Song. At least one track must already be recorded.*
PedalPunch	Recording will begin when pressing a pedal set to the “Punch In/Out” function, and will finish when pressing the same pedal again. ***Note:*** *The Pedal Punch function will not work on an empty Song. At least one track must already be recorded.*

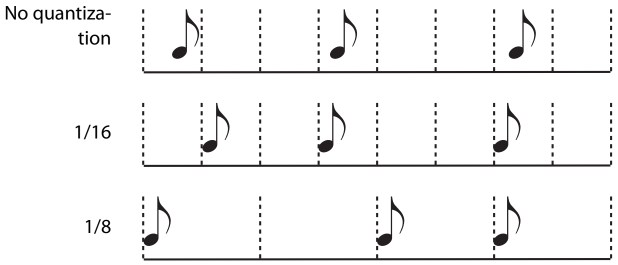
Start from

When checked, the measure shown by this parameter is a temporary start point of the song, instead of measure 1. When you press the ▶/■ (PLAY/STOP) button to stop recording, or use the << (REWIND) button to go back to the beginning, the Song returns to this point.

Resolution

Use this parameter to set the quantization during recording. Quantization is a way of correcting timing errors; notes played too soon or too late are moved to the nearest axis of a rhythmic “grid”, set with this parameter, thus playing perfectly in time.

High	No quantization applied.
𝅘𝅥𝅲 (1/32)… 𝅘𝅥𝅮 (1/8)	Grid resolution, in musical values. For example, when you select 1/16, all notes are moved to the nearest 1/16 division. When you select 1/8, all notes are moved to the nearest 1/8 division.



Start/End

Start and End locators. These parameters area available only when the “Auto Punch” recording mode is selected. They set the starting and ending points of the Punch recording.

Tempo

Select this parameter, and use the TEMPO controls to set the Tempo value.

Meter

This is the basic meter (or time signature) of the Song. You can edit this parameter only when the Song is empty, i.e., before you begin recording anything. To insert a meter change in the middle of the Song, use the “Insert Measure” function (see page 184).

Tempo (Tempo mode)

This parameter sets the way tempo events are read or recorded.

Manual	Manual reading. The latest manual Tempo setting (made using the TEMPO buttons) is considered the current Tempo value. No Tempo change events will be recorded. This is very useful when you want to record the Song at a much slower speed than the actual Tempo.
Auto	Auto reading. The Sequencer plays back all recorded Tempo events. No Tempo change events are recorded.
Record	All Tempo changes made during recording will be recorded to the Master Track. ***Note:*** *Tempo is always recorded in overwrite mode (old data is replaced by the new data).*

Selected track info area

This line lets you see the Sound assigned to the selected track. See “Selected track info area” on page 166 for more information.

Sounds area

This area lets you see Sounds and octave transposition for the eight tracks currently displayed. See “Sounds area” on page 166 for more information.

Track volume/status area

This area is where you can set the volume of each Song track, and change track status. See “Track volume/status area” on page 167.

Track status icons

Play/mute/record status of the current track. Select the track, then touch this area to change its status.

P	Play status. The track can be heard.
M	Mute status. The track cannot be heard.
⏺	Record status. After pressing ▶/■ (PLAY/STOP) to start recording, the track will receive notes from the keyboard and the MIDI IN or USB Device connector.

Multitrack recording procedure

Here is the general procedure to follow for the Multitrack Recording.

1. Press the SEQUENCER button to enter Sequence mode.
2. Press the RECORD button, and select the “Multitrack Sequencer” option to enter the Multitrack Record mode. Now you can prepare your recording parameters. (For more details, see “Record mode: Multitrack Sequencer page” on page 168).
3. Be sure the Overdub or Overwrite recording options is selected (see “Rec mode (Recording mode)” on page 168).
4. Set the Tempo. There are two ways of changing Tempo:

   - Use the TEMPO buttons to change the tempo

   - Touch the “Tempo” parameter, and use the VALUE DIAL to change Tempo.
5. Use the TRACK SELECT button to switch between Song Tracks 1-8 and Song Tracks 9-16, and assign the desired Sound to each track (see “Sound bank’s icon” on page 166).
6. Select the track to be recorded. Its status icon will automatically change to Record (see “Track status icons” on page 169).
7. If this is a second-pass recording, use the “Start from” parameter to enter a measure where you want to start recording.
8. Press the METRO button to turn the metronome on, and start practicing.
9. Press ▶/■ (PLAY/STOP) to start recording. After a 1-bar precount, the recording actually begins. After the precount, play freely.

   - If you selected the Auto Punch recording mode, the recording will begin only when reaching the Start point.

   - If you selected the Pedal Punch recording mode, press the pedal when you want to begin recording. Press it again to finish recording.

   Note: *The Punch functions will not work on an empty Song. At least one track must already be recorded.*
10. When finished recording, press ▶/■ (PLAY/STOP) to stop the sequencer. Select a different track, and go on recording the whole Song.
11. When finished recording the new Song, either press the RECORD button, or select the “Exit from Record” command from the page menu (see page 187).

    Warning: *Save the Song to a storage device, to avoid losing it when the instrument enters standby.*

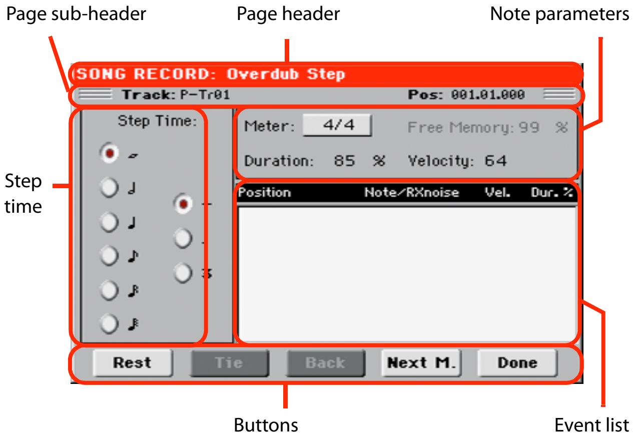
    Note: *When exiting the Record mode, the Octave Transpose is automatically reset to “0”.*
12. If you wish, edit the new Song, by pressing the MENU button, and selecting the various edit pages.

Record mode: Step Record page

The Step Record allows you to create a new Song by entering single notes or chords to each track. This is very useful when transcribing an existing score, or needing a higher grade of detail, and is particularly suitable to create drum and percussion tracks.

To access this page, select the “Overdub Step Recording” or “Overwrite Step Recording” command from the page menu.

In Overdub Step Recording mode you will add to existing events, while in Overwrite Step Recording mode you will overwrite all existing events.



SONG RECORD: Overdub Step
Track: P-Tr01 Pos: 001.01.000
Step Time:
Meter: 4/4 Free Memory: 99 %
Duration: 85 % Velocity: 64

Position Note/RXnoise Vel. Dur.%

See “Step Record procedure” below, for information on the record procedure.

Page header

This line shows the current operating mode.

Page sub-header

Track

Name of the selected track in record.

Tr01…Tr16	Song track.

Pos (Position)

This is the position of the event (note, rest or chord) to be inserted.

Step Time area

Step Time

Length of the event to be inserted.

𝅗𝅥 … 𝅘𝅥𝅲	Note value.
Standard (–)	Standard value of the selected note.
Dot (.)	Augments the selected note length by one half of its value.
Triplet (3)	Triplet value of the selected note.

Note parameter area

Meter

Meter (Time Signature) of the current measure. This parameter cannot be edited. You can set a Meter change by using the Insert function of the Edit menu, and inserting a new series of measures with a different Meter (see “Song Edit: Cut/Insert Measures” on page 184).

Free Memory

Available memory for recording.

Duration

Relative duration of the inserted note. The percentage is always referred to the step value.

50%	Staccato.
85%	Ordinary articulation.
100%	Legato.

Velocity

Set this parameter before entering a note or chord. This will be the playing strength (i.e., velocity value) of the event to be inserted.

Kbd	Keyboard. You can select this parameter, by turning the VALUE DIAL all counter-clockwise. When this option is selected, the playing strength of the played note is recognized and recorded.
1…127	Velocity value. The event will be inserted with this velocity value, and the actual playing strength of the note played on the keyboard will be ignored.

Event list area

List of inserted events

Previously inserted events. You may delete the last of these events, and make it ready for a new event, by touching the Back button in the display.

Position	Position where the event has been inserted. The value is shown in the “measure.beat.tick” format.
Note/RX Noise	Name of the inserted Note or RX Noise. When entering a chord, a series of dots is shown after the name of the root note.
Vel.	Velocity of the inserted event.
Dur.%	Percentage duration of the inserted event.

Buttons

Rest

Touch this button to insert a rest.

Tie

Touch this button to tie the note to be inserted to the previous one. A note with the same pitch, and the specified length, will be created, and tied to the previous one.

Back

Goes to the previous step, erasing the inserted event.

Next M. (Next Measure)

Goes to the next measure, and fills the remaining space with rests.

Done

Exits the Step Record mode.

Step Record procedure

Here is the general procedure to follow for the Step Recording.

1. Press the SEQUENCER button to enter Sequencer mode.
2. Press the RECORD button, and select the "Multitrack Sequencer" option to enter the Multitrack Record mode. From the page menu, select the "Overdub Step Recording" or "Overwrite Step Recording" mode. At this point, the Step Record window will appear in the display.
3. The next event will be entered at the position shown by the Pos indicator in the upper right corner of the display.

   • If you don't want to insert a note at this position, insert a rest instead, as shown in step 5.

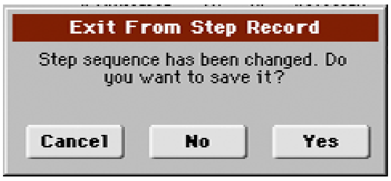
   • To jump to the next measure, filling the remaining beats with rests, touch the Next M. button in the display.
4. To change the step value, use the Step Time parameters.
5. Insert a note, rest or chord at the current position.

   • To insert a single note, just play it on the keyboard. The inserted note length will match the step length. You may change the velocity and relative duration of the note, by editing the Velocity and Duration parameters. See "Velocity" and "Duration" on page 170.

   • To insert a rest, just touch the Rest button in the display. Its length will match the step value.

   • To tie the note to be inserted to the previous one, touch the Tie button in the display. A note will be inserted, tied to the previous one, with exactly the same pitch. You don't need to play it on the keyboard again.

   • To insert a chord or a second voice, see "Chords and second voices in Step Record mode" on page 171.
6. After inserting a new event, you may go back by touching the Back button in the display. This will delete the previously inserted event, and set the step in edit again.
7. When finished recording, touch the Done button in the display. A dialog box appears, asking you to either cancel, discard or save the changes.

   Exit From Step Record

   Step sequence has been changed. Do you want to save it?

   If you touch Cancel, exit is canceled, and you can continue editing. If you choose No, changes are not saved, and the Step Record window is closed. If you choose Yes, changes are saved, and the Step Record window is closed.
8. From the main page of the Multitrack Recording mode, either select the "Exit from Record" command from the page menu, or press the RECORD button to exit the Record mode.
9. While in the main page of the Sequencer mode, you may press the ▶/■ (PLAY/STOP) button in the PLAYER section to listen to the Song, or select the Save Song command from the page menu to save the Song to a storage device (see "Save Song window" on page 187).

Chords and second voices in Step Record mode

You are not obliged to insert single notes in a track. There are several ways to insert chords and double voices. Lets look at some.

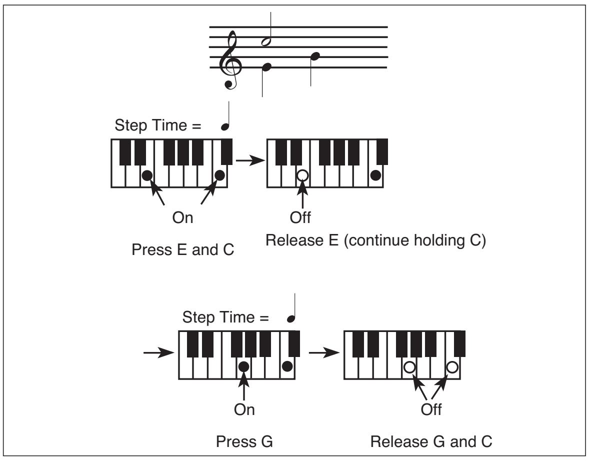
Entering a chord. Simply play a chord instead of a single note. The event name will be the first note of the chord you pressed, followed by the "…" abbreviation.

Entering a chord made of notes with different velocity values. You can make the upper or lower note of a chord, for example, louder than the remaining ones, to let the most important stand out from the chord. Here is how to insert a three-note chord:

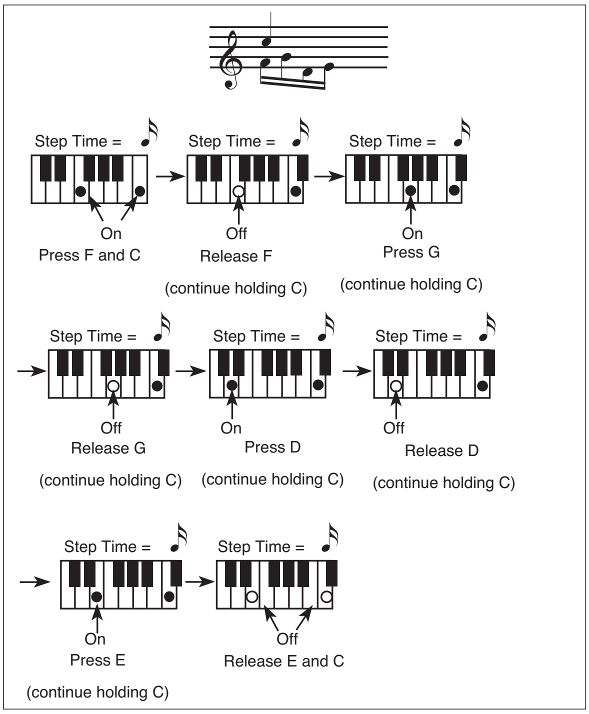
1. Edit the first note's Velocity value.
2. Press the first note and keep it pressed.
3. Edit the second note's Velocity value.
4. Press the second note and keep it pressed.
5. Edit the third note's Velocity value.
6. Press the third note, then release all notes.

Entering a second voice. You can insert passages where one note is kept pressed, while another voice moves freely.

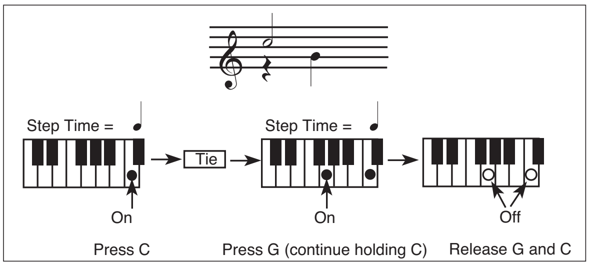
Ex. 1:



Ex.2:


Step Time =
On
Press F and C
Step Time =
Off
Release F
(continue holding C)
Step Time =
On
Press G
(continue holding C)
Step Time =
Off
Release G
(continue holding C)
Step Time =
On
Press D
(continue holding C)
Step Time =
Off
Release D
(continue holding C)
Step Time =
On
Press E
(continue holding C)
Step Time =
Off
Release E and C

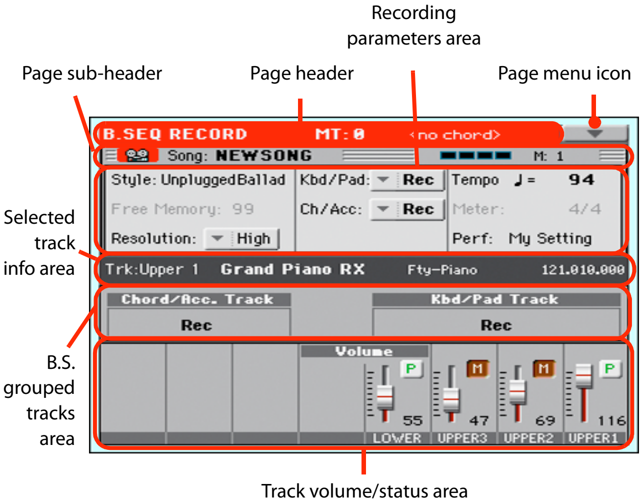
Ex.3:


Step Time =
Tie
Step Time =
On
Press C
On
Press G (continue holding C)
Off
Release G and C

Record mode: Backing Sequence (Quick Record) page

Backing Sequence (Quick Record) mode allows you to quickly record your live performance with the backing of the Styles. To make things easier, just two grouped tracks are provided: ***Kbd/Pad*** (Keyboard and Pads) to record keyboard and pads, and ***Ch/Acc*** (Chords/Accompaniment) to record chords and the accompaniment provided by the Style.

While in Sequencer mode, press the RECORD button and select the “Backing Sequence (Quick Record)” option. The Backing Sequence (Quick Record) page appears.


Recording parameters area
Page sub-header
Page header
Page menu icon
Selected track info area
B.S. grouped tracks area
Track volume/status area

B.SEQ RECORD MT:0 ‹no chord›

Song: NEWSONG M: 1

Style: UnpluggedBallad
Free Memory: 99
Resolution: High
Kbd/Pad: Rec
Ch/Acc: Rec
Tempo ♩= 94
Meter: 4/4
Perf: My Setting

Trk:Upper 1 Grand Piano RX Fty-Piano 121.010.000

Chord/Acc. Track: Rec
Kbd/Pad Track: Rec

Volume
LOWER 55 P
UPPER3 47 M
UPPER2 69 M
UPPER1 116 P

See “Backing Sequence (Quick Record) recording procedure” on page 174 for information on the record procedure.

Page header

See “Page header” on page 165. Here, this line also shows the recognized chord.

Page menu icon

See “Page menu icon” on page 165.

Page sub-header

See “Page sub-header” on page 168.

Recording parameters area

Style

This parameter shows the selected Style. Either touch it, or press the STYLE button in the SELECTION section to open the Style Select window and select a different Style (see “Style Select window” on page 88).

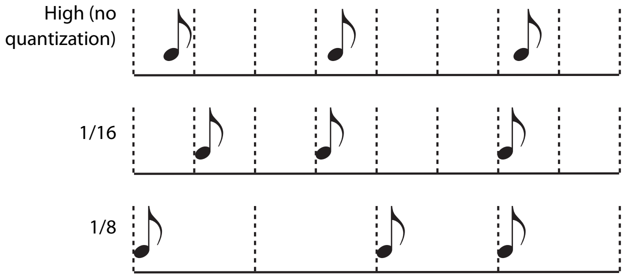
Free memory

Percentage of remaining memory for recording.

Resolution

Use this parameter to set the quantization during recording. Quantization is a way of correcting timing errors; notes played too soon or too late are moved to the nearest axis of a rhythmic “grid”, set with this parameter, thus playing perfectly in time.

High	No quantization applied.
𝅘𝅥𝅰 (1/32)… 𝅘𝅥𝅮 (1/8)	Grid resolution, in musical values. For example, when you select 1/8, all notes are moved to the nearest 1/8 division. When you select 1/4, all notes are moved to the nearest 1/4 division.



Chord/Acc Track, Kbd/Pad Track

These parameters let you define grouped track status during recording. This status is reflected by the big status indicator above the track sliders.

Play	The Backing Sequence track is set to play. If there are recorded data, they will be heard while recording the other Backing Sequence track.
Mute	The Backing Sequence track is muted. If this tracks has already been recorded, it will not be heard during recording of the other Backing Sequence track.
Rec	The Backing Sequence track is in record. All previously recorded data will be deleted. After pressing ▶/■ *(PLAY/STOP)* to start recording, the track will receive notes from the keyboard, the MIDI IN or the USB Device connector.

Chord/Acc: This Backing Sequence track groups all Style tracks, together with recognized chords and Style controls and Style Elements selection. After finishing recording, they will be saved as Song tracks 9-16, as in the following table:.

Chord/Acc track	Song track/Channel
Bass	9
Drum	10
Percussion	11
Accompaniment 1	12
Accompaniment 2	13
Accompaniment 3	14
Accompaniment 4	15
Accompaniment 5	16

Kbd/Pad: This Backing Sequence track includes the four Keyboard tracks and the four Pads. After finishing recording, they will be saved as Song tracks 1-8, as in the following table:

Kbd/Pad track	Song track/Channel
Upper 1	1
Upper 2	2
Upper 3	3
Lower	4
Pad 1	5
Pad 2	6
Pad 3	7
Pad 4	8

Tempo

Metronome Tempo. Select this parameter and use the VALUE DIAL to change Tempo. You can always change Tempo using the TEMPO buttons.

Meter

(Non Editable). This parameter shows the meter (or time signature) of the selected Style for reference.

PERF or STS (Performance or STS)

This parameter shows the selected Performance or STS (depending on the latest item selected).

To select a Performance, either touch it, or press one of the PERFORMANCE buttons to open the Performance Select window and select a different Performance (see “Performance Select window” on page 90).

To select an STS (Single Touch Setting), use the four STS buttons under the display.

Backing Sequence tracks area

Backing Sequence tracks status indicators

These giant indicators show the status of the Backing Sequence tracks. They reflect the status of the Kbd/Pad and Ch/Acc parameters (see “Chord/Acc Track, Kbd/Pad Track” above).

Selected track info area

This line lets you see the Sound assigned to the selected track. See “Selected track info area” on page 166 for more information.

Track volume/status area

This area is where you can set the volume of each single Keyboard track, and mute/unmute tracks.

Sliders (track volume)

Graphical display of each track’s volume.

Individual track status icons

While you can use the Kbd/Pad Backing Sequence track to change the status of all Keyboard tracks at once, you can also change the status of each separate track. Touch this icon to change the status of the corresponding individual track.

P	Play status. The track can be heard.
M	Mute status. The track cannot be heard.

Track names

Under the sliders, a label for each track is shown.

Abbreviation	Track
MIC/IN	Microphone audio input
UPPER1…3	Upper tracks.
LOWER	Lower track.

Backing Sequence (Quick Record) recording procedure

Here is the general procedure to follow for the Backing Sequence (Quick) Recording.

1. Press the SEQUENCER button to enter the Song mode.
2. Press the RECORD button, and select the “Backing Sequence (Quick Record)” option to enter the Backing Sequence (Quick Record) mode. Now you can prepare your recording parameters. (For more details, see “Record mode: Backing Sequence (Quick Record) page” on page 172).
3. The latest selected Style is currently selected. If it is not the right one, select a different Style to start recording with. (See “Style Select window” on page 88).
4. The latest selected Performance or STS is currently selected. If you prefer, select a different Performance or STS. (See “Performance Select window” on page 90, and “STS Select” on page 91).
5. Select the status of the Backing Sequence tracks, by using the Kbd/Pad and Ch/Acc parameters. (Kbd/Pad stays for Keyboard and Pads; Ch/Acc stays for Chord and Accompaniment, i.e. the Style tracks). To record all you play on the keyboard, plus the automatic accompaniment, leave their status to Rec (see “Track status icons” on page 169).

   Warning: *Tracks set to REC are automatically overwritten when starting recording. Set a track to the PLAY or MUTE status, when you don’t want to delete it. For example, if you are recording a keyboard part on an existing Style track, set the Ch/Acc parameter to PLAY, and the Kbd/Pad track to REC.*
6. Start recording by pressing the left ▶/■ (PLAY/STOP) button (or the START/STOP button, if you want the Style to start immediately).

   • By pressing the left ▶/■ (PLAY/STOP) button (or the START/STOP button), you can record a keyboard intro with no Style playing. After a count-in, start recording.

   Play a solo intro, then start the auto-accompaniment by pressing the START/STOP button.

   • By pressing the START/STOP button you can start the Style right at the beginning of the Song.

   Since you can use any Style control, you could start with the usual combinations (INTRO, ENDING…).

   Note: *While in Backing Sequence mode, you can’t record the SYNCHRO, TAP TEMPO/RESET, MANUAL BASS, BALANCE controls.*
7. Play your music. While recording you can even change the Style, or stop it by pressing START/STOP or one of the ENDINGs. While recording you can even start the style again, by pressing START/STOP.
8. When finished recording your performance, press the ▶/■ (PLAY/STOP) button in the PLAYER section. You will go back to the Sequencer Play Main page (see “Sequencer Play - Main page” on page 165).

   At this point, you may press the ▶/■ (PLAY/STOP) button in the PLAYER section to listen to the new Song.

   You may also edit the Song by pressing the MENU button (see “Edit menu” on page 177).
9. Save the song to a storage device (see “Save Song window” on page 187).

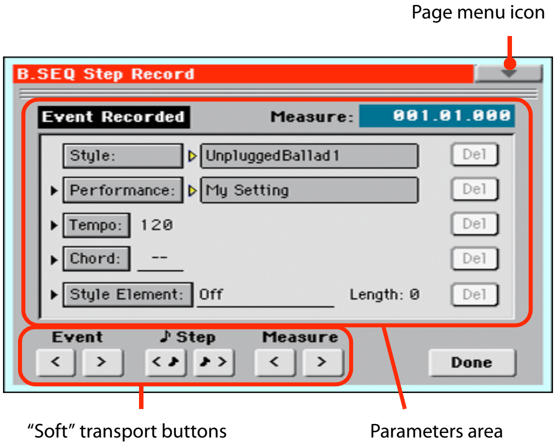
   Warning: *The recorded Song will be deleted when the instrument enters standby, switching to the Style Play or Song Play mode, or entering Record again. If you wish to preserve it, save the Song to a storage device.*

Record mode: Step Backing Sequence page

The Step Backing Sequence mode allows you to enter single chords, to create or edit the Style (Chord/Acc) part of a Song. This mode lets you enter chords even if you are not a keyboard player, or fix any error made playing chords or selecting Style controls, during a Backing Sequence (Quick Record) recording.

In this mode, you can only edit Songs created using the Backing Sequence (Quick Record) recording mode. When saving a Song created using the Backing Sequence (Quick Record) recording mode, all Chord/Acc data is preserved, and can be loaded later, to be edited again by using the Step Backing Sequence mode.

While in Sequencer mode, press the RECORD button and select the “Step Backing Sequence” option. The Step Backing Sequence window appears.



Event Recorded
Measure: 001.01.000
Style: UnpluggedBallad1
Performance: My Setting
Tempo: 120
Chord: --
Style Element: Off
Length: 0

See “Step Backing Sequence procedure” on page 177 for information on the record procedure.

Page menu icon

Touch the page menu icon to open the menu. See “Step Backing Sequence page menu” on page 176 for more information.

Parameters area

Side arrow (▶)

The small arrow next to a parameter means that its value is effective at the current position. For example, if you are at the “003.01.000” position, and an arrow lights up next to the Chord parameter, this means that a chord change happens at the “003.01.000” position.

Measure

This parameter shows the current position of the Step Editor. To go to a different position within the Song, use one of the following systems:

- Select this parameter, then use the VALUE DIAL to go to a different measure.
- Use the Measure buttons in the display to move to a different measure. Use the Step buttons in the display to move in steps of 1/8 (192 ticks). Use the Event buttons in the display to jump to the next event.

The locator value is shown in the “measure.beat.tick” format.

Measure	Measure or bar number.
Beat	Divider in the Time Signature ratio (e.g., a quarter in a 3/4 time).
Tick	Smallest position value. The internal Player feature a resolution of 384 ticks per quarter.

Style

This is the latest selected Style. To insert a Style change at the current position, touch the Style name to open the Style Select window, or follow the standard selecting procedure using the STYLE button in the SELECTION section.

Note: *Any Style Change inserted after the beginning of the measure (i.e., to a position other than Mxxx.01.000) will be effective at the following measure. For example, if a Style Change event has been inserted at M004.03.000, the selected Style will be effectively selected at M005.01.000. (This works exactly as in Style Play mode).*

Note: *When inserting a Style Change, you may also insert a Tempo Change at the same position. A Style Change will not automatically insert the Style’s Tempo.*

Performance

This is the latest selected Performance. Select a Performance to recall the Style it links to. To insert a Performance change at the current position, touch the Performance name to open the Performance Select window, or follow the standard selecting procedure using the PERFORMANCE section.

Note: *The STYLE CHANGE LED is automatically turned on when entering the Chord/Acc Step Mode. This means that selecting a Performance automatically selects the Style memorized in the Performance.*

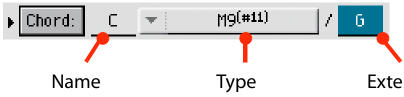
The STS MODE and STS buttons are automatically disabled, meaning that you can’t change Keyboard tracks while in Chord/Acc Step Mode.

Tempo

This is the Tempo Change parameter. To insert a Tempo Change event at the current position, select this parameter and use the VALUE DIAL to change its value.

Chord

The chord parameter is divided in four separate parts:



Chord: C M9(#11) / G

Select one of the parts, then use the VALUE DIAL to modify it. As an alternative, you can play a chord, and it will be automatically recognized. While recognizing a chord, the status of the Bass Inversion parameter will be considered.

The lack of a chord (--) means that the accompaniment will not play at the current position (apart for the Drum and Percussion tracks). To select the “--” option, select the Name part of the Chord parameter, then use VALUE DIAL to select the very last value (C…B, Off).

***Note:** If you replace a chord with a different one, please remember that the Lower track (if recorded) will not be automatically changed, and may cause a dissonance against the accompaniment.*

Style Element

This is the Style Element (i.e., a Variation, Fill, Intro, or Ending). The length of the selected Style Element is always shown by the “Length” parameter (see below).

“Off” means that the accompaniment will not play at the selected position – only Keyboard and Pad tracks will play.

***Hint:** Insert a Style Element Off event exactly where the automatic accompaniment must stop (at the end of the Song).*

Length

This parameter will let you know where to place the following Style Element Change. For example, if you inserted an Intro event lasting for 4 measures, you can insert 4 empty measure after this event, and a Variation event at the end of the Intro, beginning at the 4th empty measure.

Del (Delete) button

When a side arrow (▶) is shown next to a parameter, there is an event at the current position. You can touch the Del button next to it, to delete the event at the current position.

***Hint:** To delete all events starting from the current position, select the “Delete All from Selected” command from the page menu (see below).*

“Soft” transport buttons

Previous or Next Event

Use these buttons to move to the previous or next recorded event.

Previous or Next Step

Use these buttons to go to the previous or next step (1/8, or 192 ticks). If an event is located before the previous or next step, the locator stops on that event. For example, if you are positioned on M001.01.000, and no event exists before M001.01.192, the > button moves to the M001.01.192 location. If an event exists on M001.01.010, the > button stops to the M001.01.010 location.

These commands are effective even if the Measure parameter is not selected.

Previous or Next Measure

Use these buttons to move to the previous or following measure. These commands are effective even if the Measure parameter is not selected.

Done button

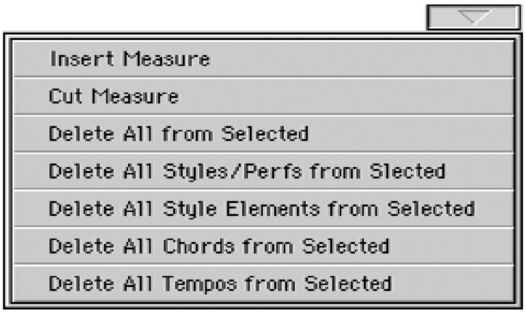
Done

Touch this button to exit the Step Backing Sequence mode. All changes will be saved to memory.

***Hint:** Save the Song to a storage device, by selecting the “Save Song” command from the page menu, to avoid losing it when the instrument enters standby.*

Step Backing Sequence page menu

Touch the page menu icon to open the menu. Touch a command to select it. Touch anywhere in the display to close the menu without selecting a command.


Insert Measure
Cut Measure
Delete All from Selected
Delete All Styles/Perfs from Slected
Delete All Style Elements from Selected
Delete All Chords from Selected
Delete All Tempos from Selected

Insert Measure

Use this command to insert an empty measure starting from the current measure. All Chord/Acc events contained in the current measure will be moved to the following measure. The event at the Mxxx.01.000 position (i.e., exactly at the beginning of the measure, like a Time Signature or Style change) will not be moved.

Cut Measure

Use this command to delete the current measure. All Chord/Acc event contained in the following measures will be moved one measure back.

Delete All from Selected

Use this command to delete events of all types, starting from the current position.

***Note:** All events on the very first tick (M001.01.000), like Perf, Style, Tempo, Chord, Style Element selection, cannot be deleted.*

Delete All Styles/Perfs from Selected
Delete All Styles Elements from Selected
Delete All Chords from Selected
Delete All Tempos from Selected

Select one of these commands to delete all events of the corresponding type, starting from the current position to the end of the Song. **To delete all events of the same type from the whole Song**, go back to the M001.01.000 position, and select one of these commands.

***Note:** All events on the very first tick (M001.01.000), like Perf, Style, Tempo, Chord, Style Element selection, cannot be deleted.*

Step Backing Sequence procedure

Here is the general Step Backing Sequence recording procedure.

***Hint:** Before entering Step Backing Sequence mode to edit an existing Song, select the "Save Song" command from the page menu, and save the Song to a storage device. This way, you will have a copy of the Song, in case you don't like the results of your editing.*

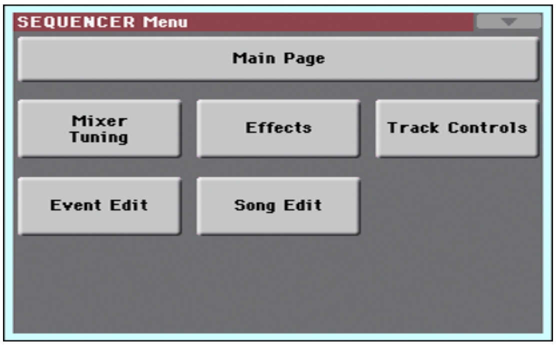
1. While in Sequencer mode, press the RECORD button, and choose the "Step Backing Sequence" recording option.
2. Select the Measure parameter, and go to the desired position in the Song, by using the VALUE DIAL. Alternatively, you can move the locator using the "soft" transport buttons in the display. See ""Soft" transport buttons" on page 176.
3. Select the parameter type (Style, Performance, Tempo…) to insert, edit or delete at the current position. If an arrow (▶) appears next to a parameter, the shown event has been inserted at the current position.
4. Use the VALUE DIAL to modify the selected event. Delete it by touching the Del button next to the event. When editing a parameter without the arrow (▶) next to it, a new event is inserted at the current position.
5. Exit the Step Backing Sequence recording mode, by touching the Done button in the display.
6. Press ▶/■ (PLAY/STOP) in the PLAYER section to listen to the result of your editing. If it is fine, save the Song to a storage device.

Edit menu

From any page, press the MENU button to open the Sequencer edit menu. This menu gives access to the various Sequencer edit sections.

When in the menu, select an edit section, or press EXIT to exit the menu.

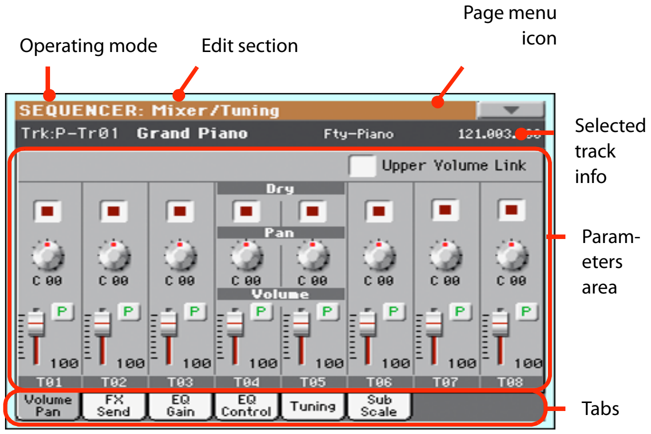
When in an edit page, press EXIT or the SEQUENCER button to go back to the main page of the Sequencer operating mode.


SEQUENCER Menu
Main Page
Mixer Tuning
Effects
Track Controls
Event Edit
Song Edit

Each item in this menu corresponds to an edit section. Each edit section groups various edit pages, that may be selected by touching the corresponding tab on the lower part of the display.

Edit page structure

All edit pages share some basic elements.


Page menu icon
Operating mode
Edit section
Selected track info
Parameters area
Tabs
SEQUENCER: Mixer/Tuning
Trk:P-Tr01 Grand Piano
Fty-Piano
121.003.
Upper Volume Link
Dry
Pan
Volume
C 00
P
100
T01
T02
T03
T04
T05
T06
T07
T08
Volume Pan
FX Send
EQ Gain
EQ Control
Tuning
Sub Scale

Operating mode

This indicates that the instrument is in Sequencer mode.

Edit section

This identifies the current edit section, corresponding to one of the items of the edit menu (see "Edit menu" on page 177).

Page menu icon

Touch this icon to open the page menu (see "Page menu" on page 186).

Parameters area

Each page contains various parameters. Use the tabs to select one of the pages. For detailed information on the various types of parameters, see sections starting below.

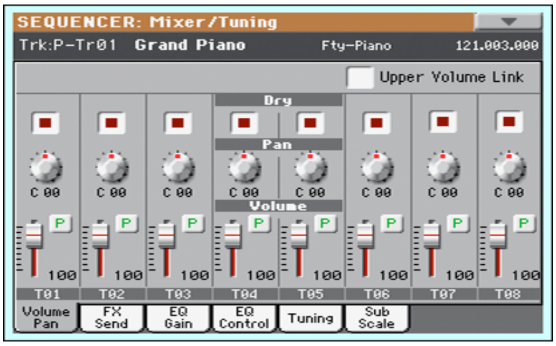
Tabs

Use tabs to select one of the edit pages of the current edit section.

Mixer/Tuning: Volume/Pan

This page lets you set the volume and pan for each Song track.

Use the TRACK SELECT button to switch between Song tracks 1-8 and 9-16.


SEQUENCER: Mixer/Tuning
Trk:P-Tr01 Grand Piano
Fty-Piano
121.003.000
Upper Volume Link
Dry
Pan
Volume
C 00
P
100
T01
T02
T03
T04
T05
T06
T07
T08
Volume Pan
FX Send
EQ Gain
EQ Control
Tuning
Sub Scale

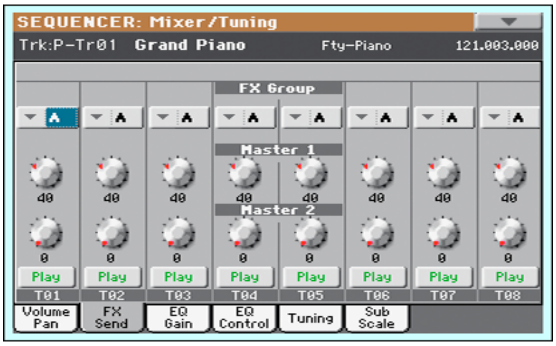
Parameters

All parameters in this page are the same found in the same page of the Song Play mode (see “Mixer/Tuning: Volume/Pan” on page 159).

Mixer/Tuning: FX Send

This page lets you set the level of the track’s direct (uneffected) signal going to the Internal FX processors.

Use the TRACK SELECT button to switch between Song tracks 1-8 and 9-16, and vice-versa.


SEQUENCER: Mixer/Tuning
Trk:P-Tr01 Grand Piano
Fty-Piano
121.003.000
FX Group
A
Master 1
40
Master 2
0
Play
T01
T02
T03
T04
T05
T06
T07
T08
Volume Pan
FX Send
EQ Gain
EQ Control
Tuning
Sub Scale

FX Groups

Use this pop-up menu to select one of the two FX groups (A or B).

Pa600 includes two groups of effects (FX A and FX B). While in Song Play mode, the A group is reserved to the Song and Pad tracks, the B group to the Keyboard tracks.

However, Songs created in Sequencer mode could also assign the B group to the Song tracks.

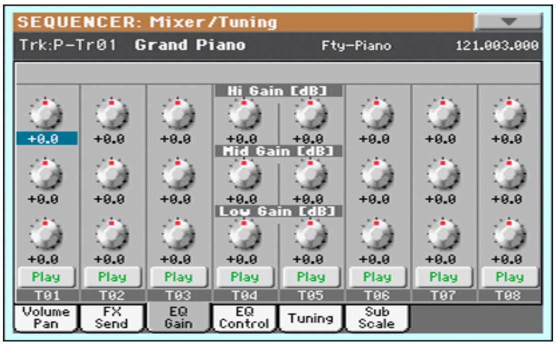
Parameters

All parameters in this page are the same found in the same page of the Style Play mode (see “Mixer/Tuning: FX Send” on page 159).

Mixer/Tuning: EQ Gain

In this page you can set the three-band equalization (EQ) for each individual track.

Use the TRACK SELECT button to switch between Song tracks 1-8 and 9-16, and vice-versa.


SEQUENCER: Mixer/Tuning
Trk:P-Tr01 Grand Piano
Fty-Piano
121.003.000
Hi Gain [dB]
Mid Gain [dB]
Low Gain [dB]
+0.0
Play
T01
T02
T03
T04
T05
T06
T07
T08
Volume Pan
FX Send
EQ Gain
EQ Control
Tuning
Sub Scale

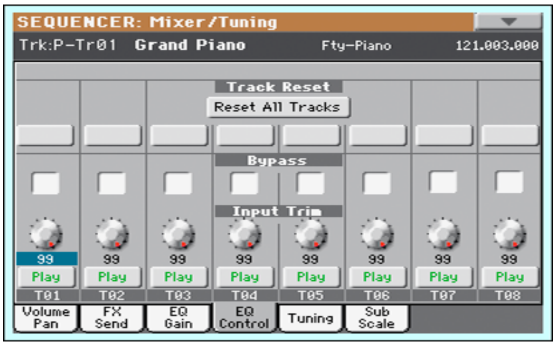
Parameters

All parameters in this page are the same found in the same page of the Song Play mode (see “Mixer/Tuning: EQ Gain” on page 160).

Mixer/Tuning: EQ Control

This page lets you reset or bypass track equalization, programmed in the previous page.

Use the TRACK SELECT button to switch between Song tracks 1-8 and 9-16, and vice-versa.


SEQUENCER: Mixer/Tuning
Trk:P-Tr01 Grand Piano
Fty-Piano
121.003.000
Track Reset
Reset All Tracks
Bypass
Input Trim
99
Play
T01
T02
T03
T04
T05
T06
T07
T08
Volume Pan
FX Send
EQ Gain
EQ Control
Tuning
Sub Scale

Parameters

All parameters in this page are the same found in the same page of the Song Play mode (see “Mixer/Tuning: EQ Control” on page 160).

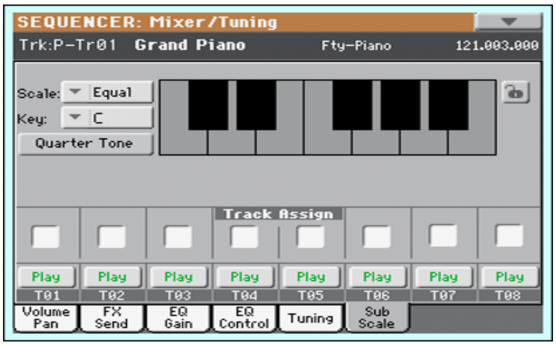
Mixer/Tuning: Tuning

Parameters

All parameters in this page are the same found in Global mode. See “Mixer/Tuning: Tuning” on page 104).

Mixer/Tuning: Sub Scale

This page lets you program an alternative scale for the selected tracks (via the “Track Assign” parameter). The remaining tracks (if any) use the basic scale set in Global mode (see “Main Scale” on page 244).


SEQUENCER: Mixer/Tuning
Trk:P-Tr01 Grand Piano Fty-Piano 121.003.000
Quarter Tone
Track Assign
Play Play Play Play Play Play Play Play
T01 T02 T03 T04 T05 T06 T07 T08
Volume Pan
FX Send
EQ Gain
EQ Control
Tuning
Sub Scale

Scale: Equal
Key: C

Note: Quarter Tone selection and activation of the Sub-Scale on each track of a Song, can be received by MIDI (i.e., by an external sequencer or controller). Conversely, selection of Quarter Tone settings, or activation of the Sub-Scale on each track of the Song, can be sent by the Pa600 to an external MIDI recorder as System Exclusive data.

Parameters

All parameters in this page are the same found in Global mode. See “Mixer/Tuning: Sub Scale” on page 104.

Track Assign

Check the parameter corresponding to each track where the Sub-Scale must be used.

Play/Mute icon

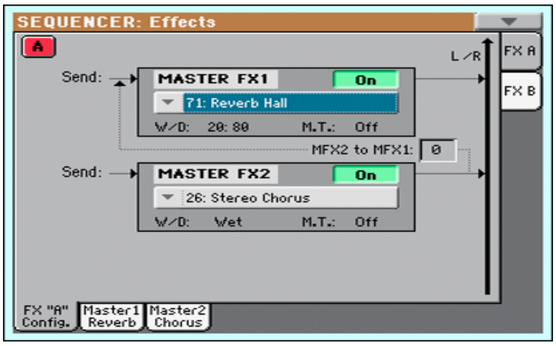
Track’s play/mute status.

Play	Play status. The track can be heard.
Mute	Mute status. The track cannot be heard.

Effects: A/B FX Configuration

This page allows you to select the effects for the A (Song) and B (Keyboard) FX groups. You can use the “FX A” and “FX B” side tabs to switch from one group to the other one. Songs created in Sequencer mode on a Pa-Series instrument can also use the B FX group.

The effect types and the FX matrix are the same seen for the Style Play mode (see “Effects: A/B FX Configuration” on page 106).


SEQUENCER: Effects
A
L/R
FX A
FX B
Send:
MASTER FX1
On
Send:
MASTER FX2
On
FX "A" Config.
Master1 Reverb
Master2 Chorus

71: Reverb Hall
W/D: 20:80 M.T.: Off
MFX2 to MFX1: 0
26: Stereo Chorus
W/D: Wet M.T.: Off

Note: *When you stop the Song, or select a different Song, the default effects are selected again. You can, however, stop the Song, change the effects, then start the Song again. Save the Song to permanently change the effects.*

FX Group

Use these side tabs to choose the FX group (A or B) for the corresponding track.

Pa600 includes two groups of effects (FX A and FX B). While in Song Play mode, the A group is reserved to the Song and Pad tracks, the B group to the Realtime (Keyboard) tracks.

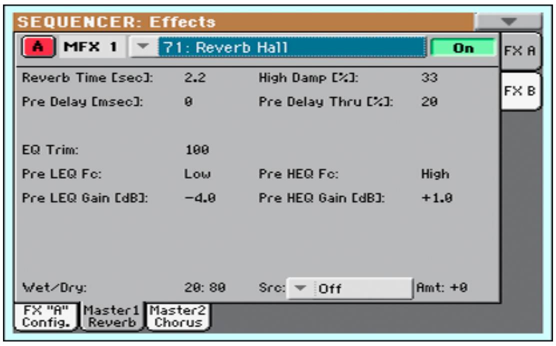
However, Songs created in Sequencer mode could also assign the B group to the Song tracks.

Parameters

All parameters in this page are the same found in the same page of the Song Play mode (see “Effects: A/B FX Configuration” on page 161).

Effects: Master 1, 2

These pages contain the editing parameters for the effect processors. Here is an example of the FX A page, with the Reverb Hall effect assigned.



71: Reverb Hall

Reverb Time [sec]: 2.2
High Damp [%]: 33
Pre Delay [msec]: 0
Pre Delay Thru [%]: 20
EQ Trim: 100
Pre LEQ Fc: Low
Pre HEQ Fc: High
Pre LEQ Gain [dB]: -4.0
Pre HEQ Gain [dB]: +1.0
Wet/Dry: 20: 80
Src: Off
Amt: +0

Selected effect

Select one of the available effects from this pop-up menu. This is equivalent to the “FX Group” parameters found in the “Effects: A/B FX Configuration” page (see above).

Parameters

The parameters shown in this page are the same already seen for the Style Play mode. See “Effects: Master 1, 2” on page 107 for details.

Track Controls: Mode

Parameter

See “Track Controls: Mode” on page 107.

Track Controls: Drum Edit

Parameter

See “Track Controls: Drum Edit” on page 108.

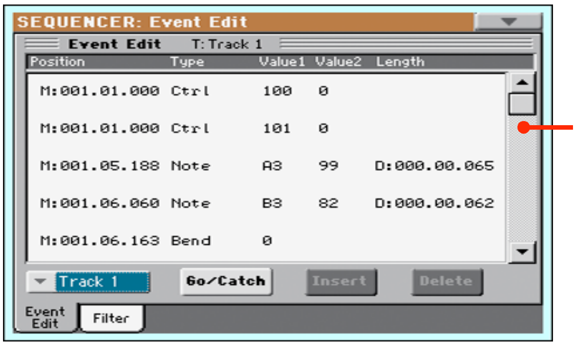
Track Controls: Easy Edit

Parameter

See “Track Controls: Easy Edit” on page 109.

Event Edit: Event Edit

The Event Edit is the page where you can edit each single MIDI event of the selected track. You can, for example, replace a note with a different one, or change its playing strength. See also “Event Edit procedure” on page 181 for more information on the event editing procedure.



Position	Type	Value1	Value2	Length
M:001.01.000	Ctrl	100	0	
M:001.01.000	Ctrl	101	0	
M:001.05.188	Note	A3	99	D:000.00.065
M:001.06.060	Note	B3	82	D:000.00.062
M:001.06.163	Bend	0		

Scroll bar

Position

Position of the event, expressed in the form ‘aaa.bb.ccc’:

- ‘aaa’ is the measure
- ‘bb’ is the beat
- ‘ccc’ is the tick (each quarter beat = 384 ticks)

You can edit this parameter to move the event to a different position. You can edit a position in either of the following ways:

(a) select the parameter, and use the VALUE DIAL to change the value, or

(b) select the parameter, then touch it again; the numeric keypad will appear. Enter the new position by dialing in the three parts of the number, separated by a dot. Zeroes at the beginning can be omitted, as well as the least important parts of the number. For example, to enter position 002.02.193, dial “2.2.193”; to enter position 002.04.000 dial “2.4”; to enter position 002.01.000, simply dial “2”.

Type

Type of the event shown in the display. To edit it, select the parameter and use the VALUE DIAL to change its value.

This parameter also shows the (non editable) “End Of Track” marking, when the end of the track is reached.

Value 1 and 2

Values of the event shown in the display. Depending on the selected event, the meaning may change.

Here are the events contained in ordinary tracks (1-16).

Type	First value	Second value
Note	Note name	Velocity
RX Noise	Note name	Velocity
Prog	Program Change number	–
Ctrl	Control Change number	Control Change value
Bend	Bending value	–
Aftt	Mono (Channel) Aftertouch value	–
PAft	Note to which the Aftertouch is applied	Poly Aftertouch value

And here are the events contained in the Master track.

Type	First value	Second value
Tempo	Tempo change	–
Volume	Master Volume value	–
Meter	Meter (time signature) change(*)	–
KeySign	Key Signature(†)	–
Scale	One of the available preset Scales	Root note for the selected Scale
UScale (User Scale)	Altered note	Note alteration(‡)
QT (Quarter Tone)	Altered note	Note alteration (0, 50)(b)
QT Clear (Quarter Tone Clearing)	Reset of all Quarter Tone (QT) changes	–

(*). Meter changes can't be edited or inserted separately from a measure. To insert a Meter change, use the Insert function in the Edit section and insert a series of measures with the new meter. Existing data can then be copied or entered to these measures
(†). This is the key signature shown in the Score. If this event is missing, the Score will be shown as if it was in the key of C Major.
(‡). To edit User Scale and Quarter Tone settings, select the first value, then select the scale's degree to edit. Edit the second value to change the tuning of the selected note of the scale.

To edit the event Type and Values, select the parameter and use the VALUE DIAL to change their value. In case of numeric values, you can also press them twice to open the numeric keypad.

Length

Length of the selected Note event. The value format is the same as the Position value. Edit it in the same way.

***Note:** If you change a length of "000.00.000" to a different value, you can't go back to the original value. This rather uncommon zero-length value may be found in the drum and percussion tracks of Songs made in Backing Sequence mode.*

Track

Use this pop-up menu to select the track to edit.

Track 1…16	One of the ordinary tracks of the Song. These tracks contains musical data, like notes and controllers.
Master	This is a special track, containing Tempo changes, Meter changes, Scale and Transpose data, and the effect parameters.

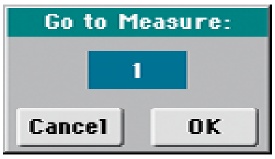
Scrollbar

Use the scrollbar to browse the event through the list. You can also scroll by using the SHIFT + DIAL combination.

Go/Catch

This is a dual-function command.

- While the sequencer is not running, it works as a Go to Measure command. Touch it to open the Go to Measure dialog box:



When in this dialog box, select a target measure, and touch OK. The first event available in the target measure will be selected.

- While the sequencer is running, it works as a Catch Locator command. Touch it to show the event that is currently playing.

Insert

Touch the Insert button in the display to insert a new event at the current shown Position. The default values are Type = Note, Pitch = C4, Velocity = 100, Length = 192.

***Note:** You can't insert new events in an empty, non-recorded Song. To insert an event, you must first insert some empty measures by using the Insert Measure function (see "Song Edit: Cut/Insert Measures" on page 184).*

Delete

Touch the Delete button in the display to delete the event selected in the display.

***Note:** The "End of Track" event cannot be deleted.*

Event Edit procedure

Here is the general event editing procedure.

1. While in the Event Edit page, press ▶/■ (PLAY/STOP) in the PLAYER section to listen to the Song. Press it again to stop the Song.
2. Select the Filter page, and turn "Off" the filter for the event types you wish to see in the display (see "Event Edit: Filter" on page 182 for more information).
3. Return to the Event Edit page.
4. Use the "Track" pop-up menu to select the track to edit. The list of events contained in the selected track will appear in the display.

   For more information on the event types and their values, see above.
5. Select the "Position" parameter. Use the VALUE DIAL (or touch the parameter again to open the numeric keypad) to change the event's position.
6. Select the "Type" parameter and use the VALUE DIAL to change the event type. Select the "Value 1 and 2" parameters and use the VALUE DIAL (or touch the parameter again to open the numeric keypad) to modify the selected value.

7. In the case of a Note event, select the Length parameter, and use the VALUE DIAL (or touch the parameter again to open the numeric keypad) to change the event's length.

   • While the sequencer is not running, you may touch the Go/Catch button in the display to go to a different measure (see "Go/Catch" above)

   • While the sequencer is running, you may use the Go/Catch button in the display to see the currently playing event in the display (see "Go/Catch" above).

   • Use the PLAYER transport controls to listen to the Song.

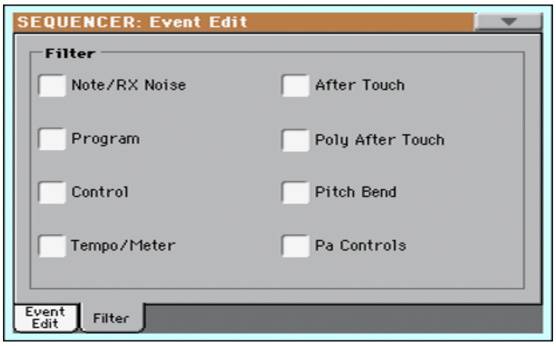
8. Touch the Insert button in the display to insert an event at the Position shown in the display (a Note event with default values will be inserted). Touch the Delete button in the display to delete the selected event.

9. When the editing is complete, you may select a different track (go to step 4).

10. When finished editing the whole Song, select the Save Song command from the page menu to save the Song to a storage device. See "Save Song window" on page 187 for more information on saving a Song.

Event Edit: Filter

This page is where you can select the event types to be shown in the Event Edit page.



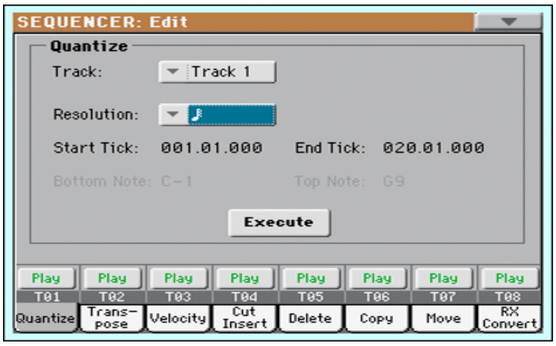
☐ Note/RX Noise
☐ After Touch
☐ Program
☐ Poly After Touch
☐ Control
☐ Pitch Bend
☐ Tempo/Meter
☐ Pa Controls

Turn On the filter for all event types you do not wish to see in the Event Edit page.

Note/RX Noise	Notes and RX Noises.
Program	Program Change events.
Control	Control Change events.
Tempo/Meter	Tempo and Meter (time signature) changes (Master Track only).
After Touch	Mono (Channel) Aftertouch events.
Poly After Touch	Poly Aftertouch events.
Pitch Bend	Pitch Bend events.
Pa Controls	Controls exclusive to Pa600, like the Scale settings. These controls are recorded to the Master Track, and saved as System Exclusive data.

Song Edit: Quantize

The quantize function corrects any rhythm error after recording.



Track: Track 1
Resolution: 𝅘𝅥𝅯
Start Tick: 001.01.000
End Tick: 020.01.000
Bottom Note: C-1
Top Note: G9

After setting the various parameters, touch Execute to start the operation.

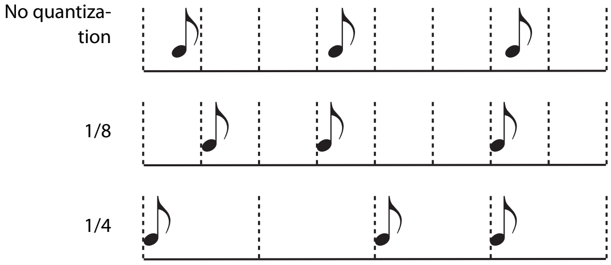
Track

Use this parameter to select a track.

All	Quantize will apply to all tracks.
Track 1…16	Quantize will apply only to the selected track.

Resolution

This parameter sets the quantization value. For example, when you select a 1/8-note, all notes are moved to the nearest 1/8 division. When you select 1/4, all notes are moved to the nearest 1/4 division.



𝅘𝅥𝅰 (1/32)… ♩ (1/4)	Grid resolution, in musical values. A "b…f" character added after the value means swing-quantization. A "3" means triplet.

Start / End Tick

Use these parameters to set the starting and ending points of the range to be quantized.

If you wish to select a four-measure sequence starting at the beginning of the Song, the Start will be positioned at 1.01.000, and the End at 5.01.000.

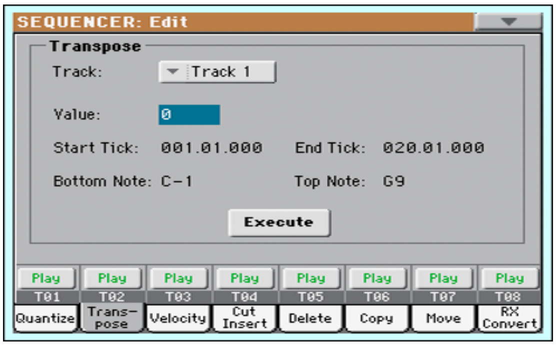
Bottom / Top Note

Use these parameters to set the bottom and top note of the keyboard range to quantize. If you select the same note as the Bottom and Top parameters, you can select a single percussive instrument in a Drum track.

Note: *These parameters are available only when a Drum track is selected.*

Song Edit: Transpose

Here you can transpose the Song, a track or a part of a track.



SEQUENCER: Edit

Transpose

Track: Track 1

Value: 0

Start Tick: 001.01.000 End Tick: 020.01.000

Bottom Note: C-1 Top Note: G9

After setting the various parameters, touch Execute to start the operation.

Track

Use this parameter to select a track.

All	All tracks selected (apart for Drum tracks).
Track 1…16	Selected track.

Value

Transpose value (±127 semitones).

Start / End Tick

Use these parameters to set the starting and ending points of the range to transpose.

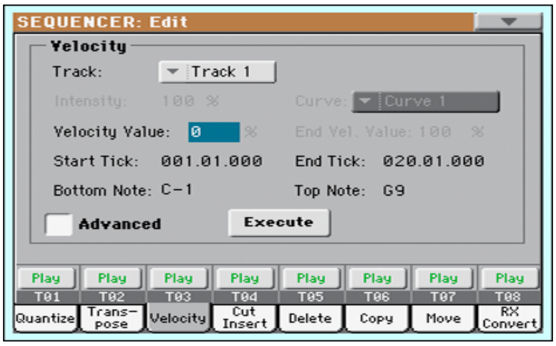
If you wish to select a four-measure sequence starting at the beginning of the Song, the Start will be positioned at 1.01.000, and the End at 5.01.000.

Bottom / Top Note

Use these parameters to set the bottom and top of the keyboard range to transpose. If you select the same note as the Bottom and Top parameters, you can select a single note, or a single percussive instrument in a Drum track.

Song Edit: Velocity

Here you can change the Velocity value for the notes. An Advanced mode is available, allowing you to select a velocity curve for the selected range. This is useful to create fade-ins or fade-outs.



SEQUENCER: Edit

Velocity

Track: Track 1

Intensity: 100 % Curve: Curve 1

Velocity Value: 0 % End Vel. Value: 100 %

Start Tick: 001.01.000 End Tick: 020.01.000

Bottom Note: C-1 Top Note: G9

☐ Advanced

After setting the various parameters, touch Execute to start the operation.

Track

Use this parameter to select a track.

All	All tracks selected.
Track 1…16	Selected track.

Value

Velocity change value.

Start / End Tick

Use these parameters to set the starting and ending points of the range to edit.

If you wish to select a four-measure sequence starting at the beginning of the Song, the Start will be positioned at 1.01.000, and the End at 5.01.000.

Bottom / Top Note

Use these parameters to set the bottom and top of the keyboard range to edit. If you select the same note as the Bottom and Top parameters, you can select a single percussive instrument in a Drum track.

Advanced

When this checkbox is checked, the “Intensity”, “Curve”, “Start Velocity Value” and “End Velocity Value” parameters can be edited.

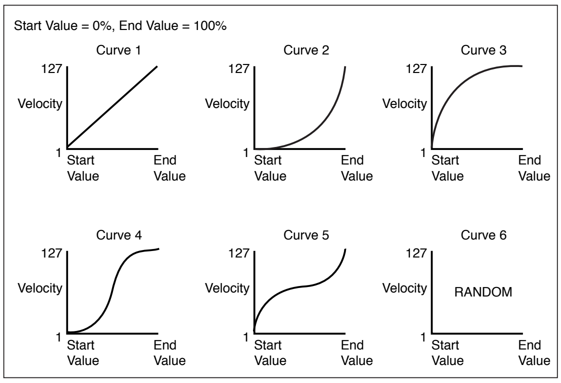
Intensity

(Only available in Advanced mode). Use this parameter to specify the degree to which the velocity data will be adjusted toward the curve you specify in “Curve”.

0…100%	Intensity value. With a setting of 0 [%], the velocity will not change. With a setting of 100 [%], the velocity will be changed the most.

Curve

(Only available in Advanced mode). Use this parameter to select one of the six curves, and to specify how the velocity will change over time.



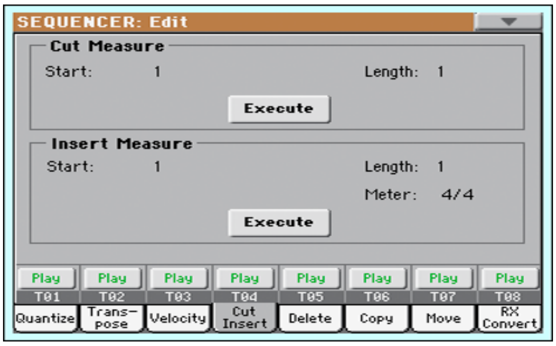
Start / End Vel. Value

(Only available in Advanced mode). Velocity change at the starting and ending ticks of the selected range.

0…100	Velocity change in percentage.

Song Edit: Cut/Insert Measures

In this page you can cut or insert measures from the Song.



Cut Measure

Start: 1

Length: 1

Insert Measure

Start: 1

Length: 1

Meter: 4/4

After selecting the Start and Length parameters, touch Execute to start the operation.

After the Cut, the following measures are moved back, to fill the cut measures.

After the Insert, the following measures are pushed forward to accommodate the inserted measures.

Start

First measure where to begin cutting/inserting.

Length

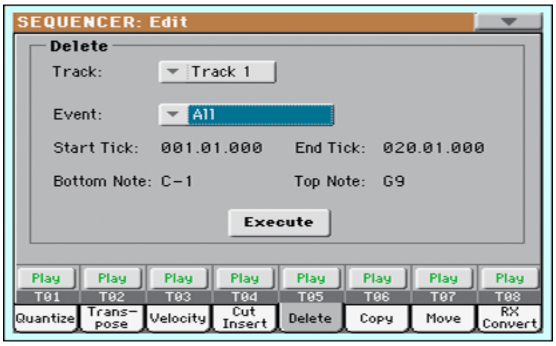
Number of measures to be cut/inserted.

Meter

Meter (time signature) of the measures to be inserted.

Song Edit: Delete

This page is where you can delete MIDI events from the Song.



Delete

Track: Track 1

Event: All

Start Tick: 001.01.000

End Tick: 020.01.000

Bottom Note: C-1

Top Note: G9

After setting the various parameters, touch Execute to start the operation.

Track

Use this parameter to select a track.

All	All tracks selected.
Track 1…16	Selected track.
Master	Master track. This is where the Tempo, Scale and Effect events are recorded.

Event

Type of MIDI event to delete.

All	All events. Measures will not be removed from the Song, and will remain empty.
Note	All notes in the selected range.
Dup.Note	All duplicate notes. When two notes with the same pitch are encountered on the same tick, the one with the lowest velocity is deleted.
After Touch	After Touch events.
Pitch Bend	Pitch Bend events.
Prog.Change	Program Change events, excluding the bundled Control Change #00 (Bank Select MSB) and #32 (Bank Select LSB).
Ctl.Change	All Control Change events, for example Bank Select, Modulation, Damper, Soft Pedal…
CC00/32…CC127	Single Control Change events. Double Control Change numbers (like 00/32) are MSB/LSB bundles.

Start / End Tick

Use these parameters to set the starting and ending points of the range to edit.

If you wish to select a four-measure sequence starting at the beginning of the Song, the Start will be positioned at 1.01.000, and the End at 5.01.000.

Bottom / Top Note

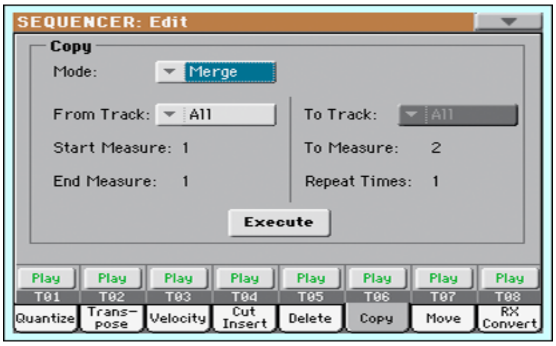
Use these parameters to set the bottom and top of the keyboard range to delete. If you select the same note as the Bottom and

Top parameters, you can select a single note, or a single percussive instrument in a Drum track.

Note: *These parameters are available only when the All or Note options are selected.*

Song Edit: Copy

Here you can copy tracks or phrases.


SEQUENCER: Edit
Copy
Execute
Play T01
Play T02
Play T03
Play T04
Play T05
Play T06
Play T07
Play T08
Quantize
Trans-pose
Velocity
Cut Insert
Delete
Copy
Move
RX Convert

Mode: Merge
From Track: All
To Track: All
Start Measure: 1
To Measure: 2
End Measure: 1
Repeat Times: 1

After setting the various parameters, touch Execute to start the operation.

Note: *If you copy too many events on the same "tick", the "Too many events!" message appears, and the copy operation is aborted.*

Mode

Use this parameter to select the Copy mode.

Merge	Copied data are merged with the data at the target position.
Overwrite	Copied data replace all data at the target position. ***Warning:*** *Deleted data cannot be recovered!*

From Track… To Track

Use these parameters to select the source and target track to copy.

All	All tracks. The target track cannot be selected.
Track 1…16	Selected source and target tracks.

Start Measure… End Measure

These parameters are the starting and ending measure to copy. For example, if From Measure=1 and To Measure=4, the first four measures are copied.

To Measure

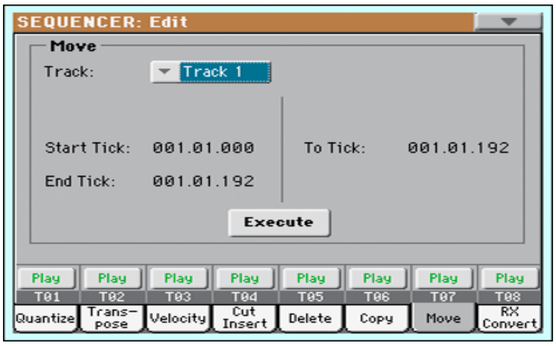
This parameter is the first of the target measures.

Repeat Times

Number of times the copy must be executed. Copies will be consecutive.

Song Edit: Move

Here you can shift a track forward or backward by just a few ticks or whole measures.


SEQUENCER: Edit
Move
Execute
Play T01
Play T02
Play T03
Play T04
Play T05
Play T06
Play T07
Play T08
Quantize
Trans-pose
Velocity
Cut Insert
Delete
Copy
Move
RX Convert

Track: Track 1
Start Tick: 001.01.000
To Tick: 001.01.192
End Tick: 001.01.192

After setting the various parameters, touch Execute to complete the operation.

Track

Use these parameters to select the track you want to move.

Track 1…16	Selected track.

Start / End Tick

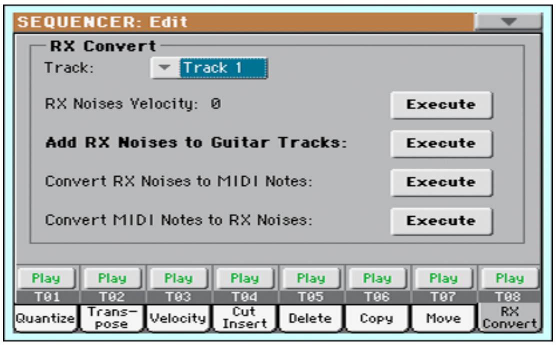
These parameters set the starting and ending point of the range to move.

To Tick

This parameter allows you to set the target starting point of the moved track.

Song Edit: RX Convert

You can use the RX Convert page to convert notes of the midifile into RX Noises, and vice-versa. This will help programming Songs on an external sequencer.


SEQUENCER: Edit
RX Convert
Add RX Noises to Guitar Tracks:
Convert RX Noises to MIDI Notes:
Convert MIDI Notes to RX Noises:
Execute
Execute
Execute
Execute
Play T01
Play T02
Play T03
Play T04
Play T05
Play T06
Play T07
Play T08
Quantize
Trans-pose
Velocity
Cut Insert
Delete
Copy
Move
RX Convert

Track: Track 1
RX Noises Velocity: 0

After having chosen a track to convert, touch Execute to complete the operation.

Track

Use these parameters to select the track containing the notes or RX Noises you want to convert.

RX Note Velocity

Use this parameter to adjust the volume level of the RX Noises in the selected track(s).

Add RX Noises to Guitar track

Use this parameter to automatically analyze the Standard MIDI File, and add RX Noises to Guitar tracks. This command scans a single track or the whole Standard MIDI File, looking for guitar strumming played by nylon, steel or electric guitars.

After scanning, a suitable Guitar sound will be automatically assigned to the relevant tracks, and RX Noises automatically added where needed.

Convert RX Noises to MIDI Notes

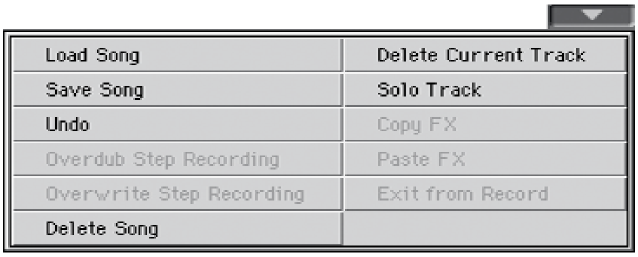
Use this parameter to convert the RX Noises contained in the selected track to ordinary MIDI Notes.

Convert MIDI Notes to RX Noises

Use this parameter to convert all the relevant MIDI Notes in the selected track to RX Noises.

Page menu

Touch the page menu icon to open the menu. Touch a command to select it. Touch anywhere in the display to close the menu without selecting a command.



Load Song

Select this command to open the Song Select window, and load a Song to the sequencer. (See “Song Select window” on page 187).

Save Song

Select this command to save the new or edited Song to a storage device as a Standard MIDI File. The file is automatically added the “.MID” extension. After selecting this command, the Save Song page appears (see “Save Song window” on page 187).

Warning: *Turning the instrument off will delete the Song from memory. Save your Song to a storage device to avoid losing it.*

Warning: *The Song is also lost when switching from Sequencer to Style Play or Song Play mode, without previously saving the Song to a storage device.*

Undo

When selecting this command, the latest operation is canceled, and data are reverted to the previous situation.

Overdub Step Recording

Only available in Record mode. Select this command to enter Overdub Step Record mode. This recording mode lets you enter events one at a time, adding events to the existing events. (See “Record mode: Step Record page” on page 170).

Overwrite Step Recording

Only available in Record mode. Select this command to enter Overwrite Step Record mode. This recording mode lets you enter events one at a time, overwriting all existing events. (See “Record mode: Step Record page” on page 170).

Delete Song

Select this command to delete the Song and create a new, blank Song.

Delete Current Track

Select this command to delete the track currently selected in the Track area (see “Track volume/status area” on page 169).

Solo Track

Select the track to be soloed, and check this item. You will hear only the selected track, and the ‘Solo’ warning will flash on the page header.

Uncheck this item to exit the Solo function.

SHIFT Keep the SHIFT button pressed and touch one of the tracks to solo it. Do the same on a soloed track to deactivate the Solo function.

Copy/Paste FX

Use this command to copy a single effect, or both effects of an FX group (A or B). See “Copy/Paste FX” on page 115 for detailed instructions.

Exit from Record

Only available in Record mode. Select this command to exit the Record mode, and go back to the Main page of the Sequencer Play mode (see “Sequencer Play - Main page” on page 165).

Song Select window

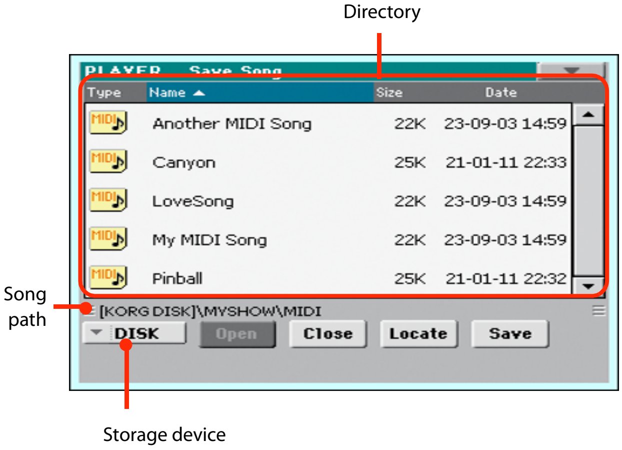
This window appears when you select the “Load Song” command from the page menu, or press the SONG button in the SELECTION section of the control panel. See “Song Select window” on page 91 for details.

Save Song window

The recorded Song is lost when the instrument enters standby. **The Song is also lost when you overwrite it in Record mode, or if you confirm the warning message when switching to the Style Play or Song Play mode.** You must save to a storage device any Song you wish to preserve.

This window appears when you select the “Save Song” command from the page menu.

Press EXIT to cancel saving and go back to the main page of the Sequencer operating mode.



Type	Name	Size	Date
MIDI	Another MIDI Song	22K	23-09-03 14:59
MIDI	Canyon	25K	21-01-11 22:33
MIDI	LoveSong	22K	23-09-03 14:59
MIDI	My MIDI Song	22K	23-09-03 14:59
MIDI	Pinball	25K	21-01-11 22:32

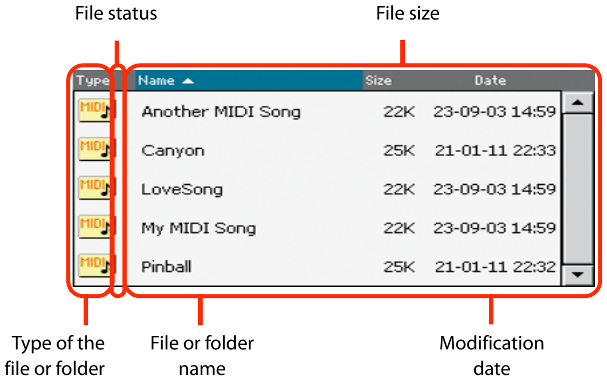
[KORG DISK]\MYSHOW\MIDI

Song path

This line shows the path of the location where you are saving the Song.

Directory

This is the list of the selected device’s content.



Type	Name	Size	Date
MIDI	Another MIDI Song	22K	23-09-03 14:59
MIDI	Canyon	25K	21-01-11 22:33
MIDI	LoveSong	22K	23-09-03 14:59
MIDI	My MIDI Song	22K	23-09-03 14:59
MIDI	Pinball	25K	21-01-11 22:32

Detailed information about this type of page can be read in “Song Select window” on page 91.

Storage device

Use this menu to select one of the available storage devices.

Device	Type
DISK	Internal memory
USB	Optional device connected to the USB Host port

The actual name (label) of the device appears within square brackets ([]).

Open

Opens the selected folder (item whose icon looks like this: ☐).

Close

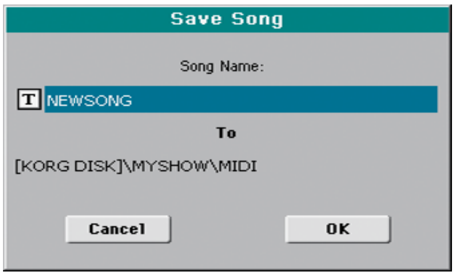
Closes the current folder, returning to the parent (“upper”) folder.

Locate

Touch this button to see the Song assigned to the Sequencer. This is useful to quickly locate it, after you have browsed through long directories and "dug" into different folders.

Save

Touch this button to open the Save Song dialog box, and save the Song to the current directory.



Song Name:

T NEWSONG

To

[KORG DISK]\MYSHOW\MIDI

- If no file has been selected in the display, prior to touching Save, the "NewSong" default name will be automatically assigned to the Song.

Note: *If a file is selected, just touch the storage device name to deselect it.*

- If a file has been selected in the display, prior to touching Save, the name of the selected file will be automatically assigned to the Song.

In any of the above situations, touch the **T** (Text Edit) button to edit the Song name.

Warning: *If a file with the same name is already in the current directory, a message will warn you. If you confirm, the existing file will be overwritten. Select a file before saving only if you want to overwrite it (i.e., in case you are saving changes to an existing file).*

Empty measure at the beginning of the Standard MIDI File

When saving a Song as a Standard MIDI File, an empty measure is automatically inserted to the beginning of the Song. This measure contains various Song initialization parameters.

Play/Mute status saved with the Song

When saving a Song, the Play/Mute status is saved with the Song. This status is preserved also when playing back the same Song in Song Play mode.

Master Transpose saved with the Song

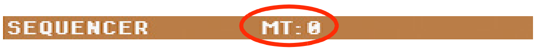
When saving a Song, the Master Transpose value is saved with the Song. Since this value is saved as System Exclusive data, it is preserved also when playing back the Song in Song Play mode.

Hint: *Since the Master Transpose is a global parameter, loading a Song with a non-standard transposition may result in unwanted transposing when loading other Songs that do not contain their own transposition data. To transpose a Song it is advisable to use the Transpose function in the Edit section of the Sequencer mode (see "Song Edit: Transpose" on page 183).*

You may also lock the Master Transpose, to avoid unwanted transposition. See "General Controls: Lock" on page 236 of the Global chapter.

As a general rule, you should use the Master Transpose (TRANSPOSE buttons on the control panel) when you need to transpose Keyboard tracks together with the Song. You should use the Edit mode Transpose function (see "Song Edit: Transpose" on page 183) when only the Song has to be transposed.

Note: *The Master Transpose value is always shown on the page header:*


SEQUENCER MT:0

Save Song procedure

1. If you are in Record mode, stop the sequencer and exit from the Record mode. Then go back to the main page of the Sequencer Play mode (see "Sequencer Play - Main page" on page 165).
2. Select the Save Song command from the page menu. The Save Song page appears.
3. Select the folder where you want to save the Song into. Use the Open and Close commands to browse open or close folders. Use the scrollbar to browse through the files.
4. When you are in the directory where you want to save your Song to, touch the Save button in the display.

   - To **overwrite** an existing file, select it before touching Save.

   - To **create** a new file, do not select any file before touching Save. The "NewSong" ("NEWSONG.MID" on a storage device) name will be automatically assigned to the Song.
5. After touching the Save button, the Save Song dialog box will appear.
6. If you like, touch the **T** (Text Edit) button to edit the name.
7. Touch OK to confirm saving, or Cancel to stop the Save operation.

Sound mode

The Sound operating mode is where you can listen to individual Sounds, and edit them. In this mode, the selected Sound can always be played across the full keyboard range.

Details on how to select a Sound are included in the “Selecting elements” chapter (see “Sound Select window” on page 89).

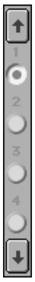
While in a different operating mode, you can easily select the Sound to be edited when switching to the Sound mode. Just select the track the Sound to be edited is assigned to, then keep the SHIFT button pressed while pressing the SOUND button.

Hint: *This is also useful to see the Bank Select/Program Change numbers when programming a Song on an external sequencer.*

The MIDI channel

In Sound mode, Pa600 receives and transmits on the same channel of the Upper 1 track. If the Global channel is assigned, notes can also be received on this channel. See “MIDI: MIDI In Channels” on page 247 and “MIDI: MIDI Out Channels” on page 247 for more information.

How to select oscillators



While in an edit page requiring an oscillator to be selected for editing, use the vertical row of buttons on the right (1…24 max) to select one of the available oscillators. The number of available oscillators depends on the “Oscillators Count” parameter (see page 192).

If you cannot see the desired oscillator, touch the scroll arrow, until the hidden oscillator is shown in the display.

When oscillators cannot be select, since the parameter contained in the current page are global and valid for the whole Sound, these buttons are greyed out, and cannot be selected.

Sounds, Drum Kits

Pa600 features two different types of Sounds:

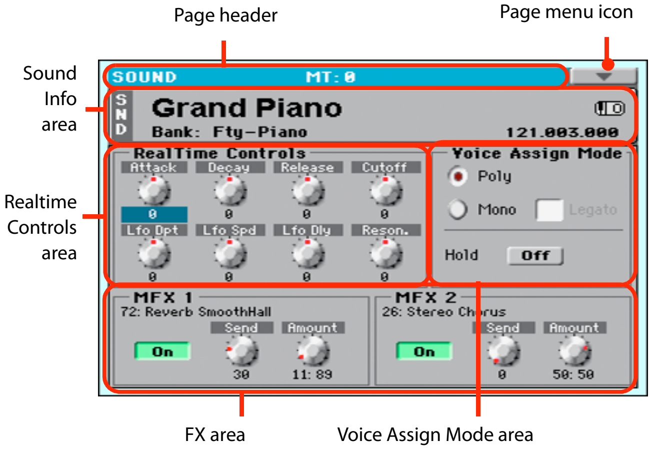
- Ordinary Sounds. These are normal instrument Sounds, like pianos, strings, basses.
- Drum Kits. These are drum and percussion kits, where each note of the keyboard is a different percussive instrument. You can find Drum Kits in the Drum & SFX and User Dk banks.

Before pressing MENU to access the edit pages, you should select a Sound of the type you wish to edit or create.

Note: *Notes pointing to special Drum Kit features are marked by the* DRUM *icon.*

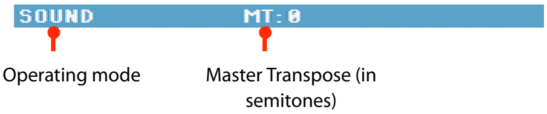
Main page

Here is the main page of the Sound operating mode.


Page header
Page menu icon
Sound Info area
Realtime Controls area
SOUND
MT: 0
SND
Grand Piano
Bank: Fty-Piano
121.003.000
RealTime Controls
Attack
Decay
Release
Cutoff
0
0
0
0
Lfo Dpt
Lfo Spd
Lfo Dly
Reson.
0
0
0
0
Voice Assign Mode
Poly
Mono
Legato
Hold
Off
MFX 1
72: Reverb SmoothHall
Send
Amount
On
30
11: 89
MFX 2
26: Stereo Chorus
Send
Amount
On
0
50: 50
FX area
Voice Assign Mode area

Page header

This line shows the current operating mode and transposition.


SOUND
MT: 0
Operating mode
Master Transpose (in semitones)

Operating mode name

Name of the current operating mode.

Master transpose

Master transpose value in semitones. This value can be changed using the TRANSPOSE buttons on the control panel.

Page menu icon

Touch the page menu icon to open the menu. See “Page menu” on page 214 for more information.

Sound Info area

This is where basic details for the Sound are shown. Touch anywhere in this area to open the Sound Select window.

Sound name

Name of the Sound assigned to the corresponding Keyboard track.

Bank

Bank the current Sound belongs to.

Bank Select / Program Change sequence

Bank Select MSB / Bank Select LSB / Program Change numbers, in the form “CC00.CC32.PC”.

CC00	This section shows the value of the Control Change (CC) 00 message (or Bank Select MSB) for the selected Sound.
CC32	This section shows the value of the Control Change (CC) 32 message (a.k.a. Bank Select LSB) for the selected Sound.
PC	This section shows the value of the Program Change (PC) message for the selected Sound. Values are in the standard 0-127 MIDI numbering format. ***Note:*** *Some manufacturers could use the 1-128 numbering system; when connecting your Pa600 to an instrument of this kind, increment the PC value by 1 unit.*

Octave Transpose icon

Octave transpose value. Use the UPPER OCTAVE buttons to change this value.

Realtime Controls area

Controls in this area allow you to edit the main parameters of the Sounds assigned to each track. Touch one of them, and modify its value by using the VALUE DIAL controls (or moving your finger).

Note: *All values refer to the original values of the Sound.*

Note: *When selecting the Write Sound command from the page menu, current parameter values, after editing the Realtime Controls, are saved with the Sound. After saving, Realtime Controls are set back to the default position.*

Note: *After selecting a different Sound, Realtime Control values are automatically set to zero.*

Attack	Attack time. This is the time during which the sound goes from zero (at the moment when you strike a key) to it's maximum level.
Decay	Decay time. Time to go from the final Attack level to the beginning of the Sustain.
Release	Release time. This is the time during which the sound goes from the sustaining phase, to zero. The Release is triggered by releasing a key.
Cutoff	Filter cutoff. This sets the sound brightness.
LFO Depth	Intensity of the Vibrato (LFO).
LFO Speed	Speed of the Vibrato (LFO).
LFO Delay	Delay time before the Vibrato (LFO) begins, after the sound starts.
Resonance	Use the Filter Resonance to boost the cutoff frequency.

Voice Assign Mode

Poly

The Sound will play polyphonically, allowing you play chords.

Mono

The Sound will play monophonically, producing only one note at a time.

Legato

This parameter is available when the Mono option is selected.

Note: *If "Legato" is On, certain multisamples or keyboard locations may produce an incorrect pitch.*

On	Legato is on. When multiple note-on's occur, the first note-on will retrigger the sound, and the second and subsequent note-on's will not retrigger. When legato is on, multiple note-on's will not retrigger the voice. If one note is already on and another note is turned on, the first voice will continue sounding. The oscillator sound, envelope, and LFO will not be reset, and only the pitch of the oscillator will be updated. This setting is effective for wind instrument sounds and analog synth-type sounds.
Off	Legato is off. Notes will always be retriggered when note-on occurs. When legato is off, multiple note-on's will retrigger the voice at each note-on. The oscillator sound, envelope, and LFO will be reset (and retriggered) according to the settings of the Sound.

Hold

Use this parameter to keep the notes sustained even after releasing the keys.

Note: *Please remember the Hold must be On before playing the note to be held.*

FX Area

In Sound mode, two Master effect processors (MFX1 and MFX2) are available.

On/Off

Use this button to turn on or off the corresponding effect.

Selected Effect

Non editable. This shows the effect assigned to the corresponding FX processor. To select a different effect, see "Effects: "B" FX Config" on page 213.

Send

Use this knob to adjust the level of the dry sound sent to the corresponding effect.

Amount

Volume of the effect that is added to the dry (non-effected) signal.

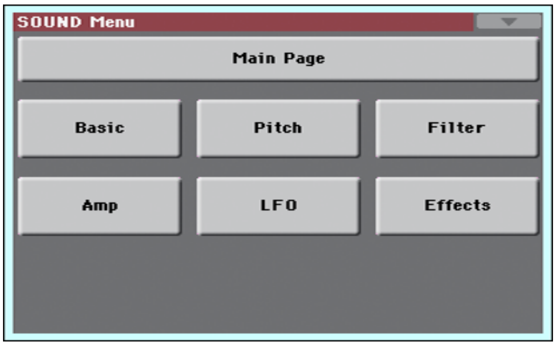
Edit menu

From any page, press the MENU button to open the Sound edit menu. This menu gives access to the various Sound edit sections.

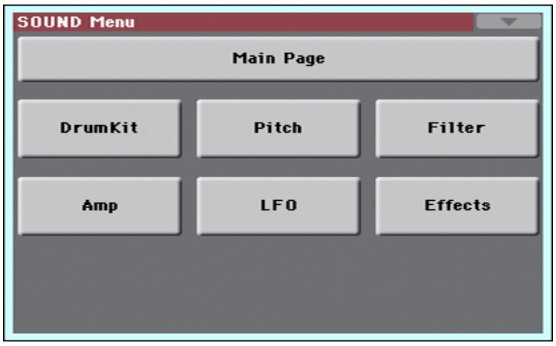
When in the menu, select an edit section, or press EXIT or SOUND to exit the menu and return to the main page. To return to the main page, you can also select the Main Page menu item.

When in an edit page, press EXIT or the SOUND button to return to the main page of the Sound operating mode.

- When an ordinary Sound is selected:


SOUND Menu
Main Page
Basic
Pitch
Filter
Amp
LFO
Effects

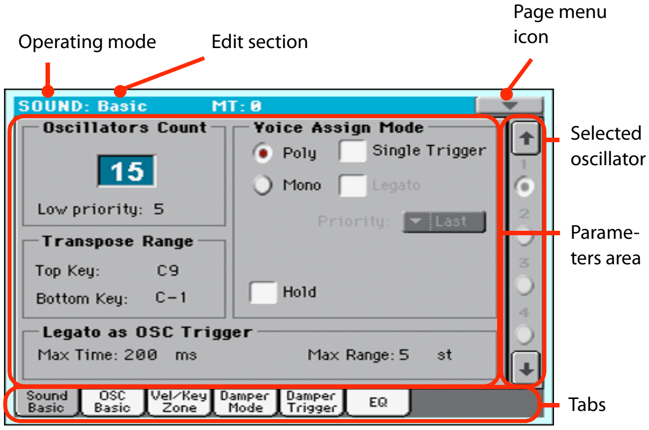
- When a Drum Kit is selected, the “Basic” section is replaced by the “DrumKit” section:


SOUND Menu
Main Page
DrumKit
Pitch
Filter
Amp
LFO
Effects

Each item in this menu corresponds to an edit section. Each edit section groups various edit pages, that may be selected by touching the corresponding tab on the lower part of the display.

Edit page structure

All edit pages share some basic elements.


Operating mode
Edit section
Page menu icon
Selected oscillator
Parameters area
Tabs
SOUND: Basic
MT: 0
Oscillators Count
15
Low priority: 5
Transpose Range
Top Key: C9
Bottom Key: C-1
Voice Assign Mode
Poly
Single Trigger
Mono
Legato
Priority: Last
Hold
Legato as OSC Trigger
Max Time: 200 ms
Max Range: 5 st
Sound Basic
OSC Basic
Vel/Key Zone
Damper Mode
Damper Trigger
EQ

Operating mode

This indicates that the instrument is in Sound mode.

Edit section

This identifies the current edit section, corresponding to one of the items of the edit menu (see “Edit menu” on page 191).

Page menu icon

Touch this icon to open the page menu (see “Page menu” on page 214).

Selected oscillator

Use these buttons to select the oscillator to edit.

Parameters area

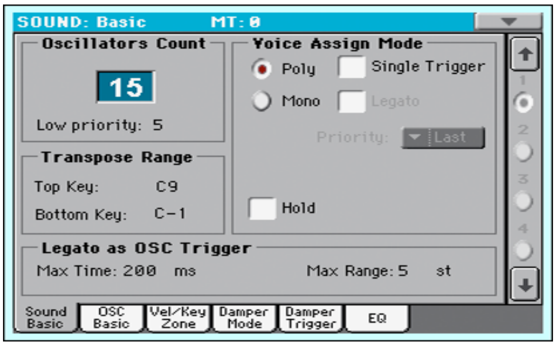
Each page contains various parameters. Use the tabs to select one of the available pages. For detailed information on the various types of parameters, see sections starting from page 191.

Tabs

Use tabs to select one of the edit pages of the current edit section.

Basic: Sound Basic

Here you can make basic settings for the Sound, such as basic oscillator settings, the oscillator count, and the polyphonic mode.


SOUND: Basic
MT: 0
Oscillators Count
15
Low priority: 5
Transpose Range
Top Key: C9
Bottom Key: C-1
Voice Assign Mode
Poly
Single Trigger
Mono
Legato
Priority: Last
Hold
Legato as OSC Trigger
Max Time: 200 ms
Max Range: 5 st
Sound Basic
OSC Basic
Vel/Key Zone
Damper Mode
Damper Trigger
EQ

Oscillator Count

Oscillators Count

Use this box to specify the number of oscillators (up to 24) the Sound is based on.

The total amount of polyphony varies depending on the number of oscillators used by the Sound (a maximum of 128 with only 1 oscillator per voice).

Note: *When editing the Grand Piano sound, keep in mind Oscillators 10~15 can only be heard when the Damper pedal is depressed.*

Low priority

Use this parameter to decide if the highest-numbered oscillators must be turned off when more polyphony voices are needed. Keep in mind that, with a dense polyphony, missing oscillators might not even be heard.

0	No oscillator will be turned off in any case.
1	The highest-numbered oscillator will be turned off, if needed.
2	The two highest-numbered oscillators can be turned off, one after the other, if needed.
[n]…24	The n-numbered oscillators (up to 24) can be turned off, one after the other, if needed.

Transpose Range

Top/Bottom Key

Use these parameters to set a range for transposition. Inside this range notes are transposed. Outside this range, they are not transposed. This is useful to avoid RX Sounds being transposed when transposing a Sound.

Note: *Set these (general) values so that all RX Noises assigned to any Oscillator fall out of the Transpose Range. For example, if you assigned an RX Noise to a G7 on OSC1, and an RX Noise to an A7 on OSC2, set the "Top Key" value no higher than F#7 (just below the lowest RX Noise).*

Voice Assign Mode

Poly/Mono

This is the polyphonic mode of the Sound.

Poly	The Sound will play polyphonically, allowing you to play chords.
Mono	The Sound will play monophonically, producing only one note at a time.

Single Trigger

This parameter is available when the selected mode is Poly.

On	When the same note is played repeatedly, the previous note will be silenced before the next note is sounded, so that the notes do not overlap.
Off	When the same note is played repeatedly, the previous note will not be silenced before the next note is sounded.

Legato

This parameter is only available when the selected mode is Mono. It is the same found on the main page of the Sound mode.

See "Legato" on page 190 for information on this parameter.

Priority

This parameter is available when the selected mode is Mono. It specifies which note will be given priority to play when two or more notes are played simultaneously.

Low	Lowest note will take priority.
High	Highest note will take priority.
Last	Last note will take priority.

Hold

Use this parameter to keep the notes sustained even after releasing the keys.

Legato as OSC Trigger

The parameters included in this section are to be considered when a note is played 'legato', i.e., with no gap with the previous note. These parameters are valid for the whole Sound (all oscillators).

Max Time

This delay allows notes to be considered Legato, even if there is a small gap before them. This is useful to avoid some notes in a chord are played Legato, and some others Staccato.

1…999 ms	Notes played with a small gap are still considered Legato notes. A value of approx. 15 ms is usually considered effective when playing chords.

Max Range

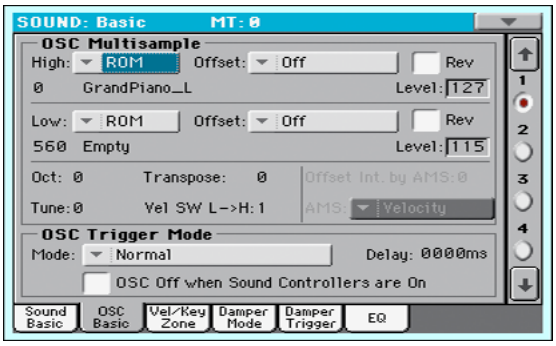
This is the range (in semitones) within the Legato is considered. If you play a wider interval, the note is considered Staccato. This is typical of some acoustic instruments, where legato is only possible within a small interval, but not on wider ones.

As an example, please try the Sound "Nylon Guitar DNC", where the Max Range is 5 semitones. Play legato with intervals smaller than 5 semitones, and you will hear how smoother legato notes will become. Play legato with wider intervals, and legato smoothing will be lost.

1…127 st	Max range in semitones.

Basic: OSC Basic

The multisample(s) on which the Sound will be based can be selected here for each of the sixteen oscillators. Each oscillator can use 1 or 2 multisamples, each one assigned to the High or Low layer.


SOUND: Basic MT: 0

OSC Multisample
High: ROM Offset: Off ☐ Rev
0 GrandPiano_L Level: 127
Low: ROM Offset: Off ☐ Rev
560 Empty Level: 115
Oct: 0 Transpose: 0 Offset Int. by AMS: 0
Tune: 0 Vel SW L->H: 1 AMS: Velocity

OSC Trigger Mode
Mode: Normal Delay: 0000ms
☐ OSC Off when Sound Controllers are On

OSC Multisample

High/Low Bank/Num

Use these parameters to select a different multisample for each of the High and Low layers. You can use velocity to switch between the two multisamples. Offset and Level can be adjusted independently for the High and Low multisamples.

The High and Low pop-up menus is where you select the bank (ROM or RAM), while the numeric field under it is for selecting the multisample inside the selected bank. The Sound name appears on its right.

The multisample you select for the High layer will be triggered by velocities higher than the value of the “Velocity Multisample Switch Low-High” parameter (see page 193). If you do not wish to use velocity switching, set the switch to a value of 001, and select only the High multisample.

ROM	The Factory bank. The Factory area of the internal memory contains 560 different multisamples (preset multisamples), supplied by KORG as standard.
RAM	RAM multisample, read from the RAM. These are user-loaded multisamples. **Note:** *If you create a new Sound based on a RAM multisample, the RAM samples must be loaded from the internal memory or from a connected USB pen drive.* *In case samples are not loaded, no sound will be heard, even if the Sound can be selected and its name appears in the display.*

Note: *Each multisample has an upper note range limit, and cannot produce sound when played above that limit.*

Offset

These parameters specify the point where the multisample(s) will begin to play. For some multisamples this parameter will not be available.

Off	The sound will start from the beginning of the multisample waveform.
1st…6th	The sound will begin from the offset location predetermined for each sample.
No Attack	The initial portion of the multisample is ignored.
AMS	Activates the Alternate Modulation Source (see below).
PseudoRandom	*(Only works when more than one Offset point is available in the multisample).* Randomly selects one of the available Offset points (including Attack and Off).

Level

These parameters specify the level of each multisample.

0…127	Multisample level.

Note: *Depending on the multisample, high settings of this parameter may cause the sound to distort when a chord is played. If this occurs, lower the level.*

Octave

Use this parameter to adjust the pitch of the selected oscillator in octave units. The normal octave of the multisample is “0”.

-2…+1	Octave transposition.

Transpose

Use this parameter to adjust the pitch of the selected oscillator in semitone steps over a range of ±1 octave.

-12…+12	Transposition in semitones.

Tune

Use this parameter to adjust the pitch of the sample in one-cent steps (a semitone is 100 cents) over a range of ±1 octave.

-1200…+1200	Fine-tune value in cents.

Velocity Multisample Switch Low-High

This is the velocity value dividing the High and Low layers for the selected oscillator. Notes struck harder than this value will be played by the High multisample.

AMS / Offset Intensity by AMS

(Only available when the AMS option is selected in the “Offset” parameter.) Alternate Modulation Source for the Offset. See “AMS (Alternate Modulation Source) list” on page 216.

When the “Offset Intensity by AMS” parameter has a positive value, the selected Offset point will depend on the AMS value. For example, if the selected AMS is the Velocity, when playing softly you will select the Off or 1st Offset, when playing loudly you will select the 6th or No Attack Offset.

When the “Offset Intensity by AMS” parameter has a negative value, the selection will happen in reverse (higher-numbered Offsets will be selected before the lowest-numbered ones).

OSC Trigger Mode

OSC Trigger parameters are used to set the condition to trigger the selected Oscillator. For example, a Normal Oscillator will always play, while a Legato Oscillator will only play when a note is played Legato.

Mode

This is the trigger that allows the selected Oscillator to play.

Normal	The Oscillator always plays when a key is pressed (unless the “OSC Off when Sound Controllers are On” parameter is checked).
Legato	The Oscillator only plays when the note is played ‘legato’. The delay and pitch interval from the previous note are also to be considered, as set in the Sound > Basic page (see “Legato as OSC Trigger” above).
Staccato	The Oscillator only plays when the note is NOT played legato (it is the opposite of the above choice).
Sound Controller 1	The Oscillator only plays after a switch or footswitch programmed as the Sound Controller 1 has been pressed. Press and release it, and the next note will also trigger the selected Oscillator. If you keep it pressed, the Oscillator will continue to be triggered until you release the controller. ***Note:*** *In Sequencer and Sound mode, the Assignable Switch 1 is automatically assigned to Sound Controller 1.* ***Hint:*** *This (like the following Sound Controllers) is especially useful to enable a different nuance to the following note(s).*
Sound Controller 2	As the above, but with a switch or footswitch programmed as the Sound Controller 2. ***Note:*** *In Sequencer and Sound mode, the Assignable Switch 2 is automatically assigned to Sound Controller 2.*
Sound Controller Y+	As the above, but with the Joystick, assigned as the Sound Controller, pushed at least half-way forward (value 64). The controller is turned off when the Joystick is released. This control is equivalent to a CC#01 (Modulation) Control Change message.
Sound Controller Y-	As the above, but with the Joystick, assigned as the Sound Controller, pulled at least half-way back (value 64). The controller is turned off when the Joystick is released. This control is equivalent to a CC#02 (Breath Controller) Control Change message.
Cycle 1	All Oscillators with this same trigger mode assigned will play in cycle. For example, if Oscillators 1, 2 and 4 are assigned the Cycle 1 trigger mode, the following note will trigger Oscillator 1, then 2, then 4, then 1 again. ***Hint:*** *This is especially useful to trigger different sound nuances or create vector-like sound sequences.*
Cycle 2	As the above, for use with a different (and parallel) group of Oscillators. Having two Cycle Trigger Modes allows for cycling stereo multisamples.
Random	As the above, but with a random selection of Oscillators within the assigned group.
After Touch Trigger On	The Oscillator starts playing when an After Touch message with a value of at least 90 is received. The Velocity value is the same as the latest Note On message. The Oscillator will stop playing when the After Touch value falls back to zero. ***Note:*** *After Touch messages can be received via MIDI, or contained in a Standard MIDI Files.* ***Hint:*** *This (like the following Triggers) is especially useful to trigger harmonics or growls when a note is already playing.*
Y+ Trigger On	As the above, but with the Joystick, assigned as the Sound Controller, pushed at least half-way forward (value 64). The controller is turned off when the Joystick is released. This control is equivalent to a CC#01 (Modulation) Control Change message.
Y- Trigger On	As the above, but with the Joystick, assigned as the Sound Controller, pulled at least half-way back (value 64). The controller is turned off when the Joystick is released. This control is equivalent to a CC#02 (Breath Controller) Control Change message.
Legato Up	Like Legato, but is only activated when the second note is out of the “Max Range” value (see page 192) and it is higher than the first one.
Legato Down	Like Legato, but is only activated when the second note is out of the “Max Range” value (see page 192) and it is lower than the first one.

Delay

This parameter sets a delay time from the note-on to the real beginning of the sound. With a setting of KeyOff, the sound will begin when note-off occurs. This is useful to create sounds such as the “click” that is heard when a harpsichord note is released. In this case, set the “Sustain” parameter to 0 (see page 207).

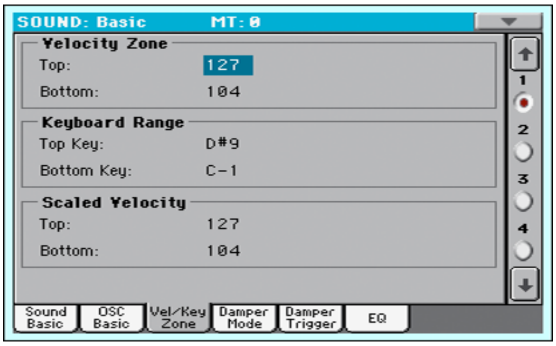
0…5000ms	Delay time in milliseconds.
Key Off	The sound will begin when the note is released. The note velocity is read from the Key On Velocity.
Key Rel	Key Release. The sound will begin when the note is released. The note velocity is read from the Key Off Velocity.
Nat Rel	Natural Release. The sound will begin when the note is released. The note starts from the current volume of the sound. If the sound’s volume is already at zero, this oscillator is not retriggered.

OSC Off when Sound Controllers are On

This 'mirrors' the way Sound Controllers work. With this parameter checked, the current Oscillator will not play when one of the Sound Controllers (Sound Controller 1, Sound Controller 2, Sound Controller Y+, Sound Controller Y-) is activated. It should be applied to Oscillators with Normal, Legato, Staccato, Cycle 1, Cycle 2, Random, After Touch Trigger On, Y+ Trigger On, Y- Trigger On, Legato Up and Legato Down trigger modes, that can be turned off by using a switch, footswitch, or the Joystick, programmed as a Sound Controller.

Basic: Vel/Key Zone

Here you can set a note and velocity range "window" for the selected oscillator.


SOUND: Basic MT: 0

Velocity Zone
Top: 127
Bottom: 104

Keyboard Range
Top Key: D#9
Bottom Key: C-1

Scaled Velocity
Top: 127
Bottom: 104

Velocity Zone

Here you can specify the velocity range for the selected oscillator.

***Note:** You cannot set the Bottom Velocity higher than the Top Velocity, nor the Top Velocity lower than the Bottom Velocity.*

0…127 Assigned velocity.

Keyboard Range

Here you can specify the note range for the selected oscillator.

***Note:** You cannot set the Bottom Key higher than the Top key, nor the Top Key lower than the Bottom key.*

C-1…G9 Assigned note.

Scaled Velocity

Use these parameters to scale velocity values received by the oscillator. By using the "Velocity Zone" function (see above), an oscillator may be limited to a restricted range (say, 10 to 20), that may result in weak dynamics when the associated sample is triggered.

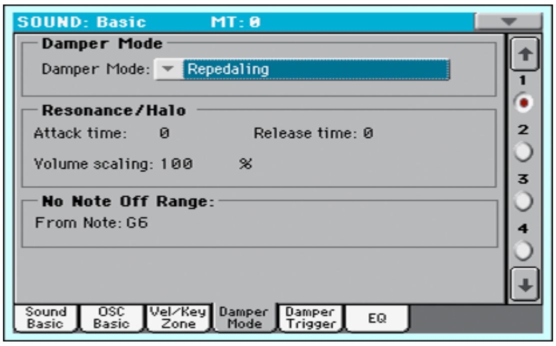
By assigning a different value to these parameters, the restricted range will be converted to a wider range (for example, the lowest range value of 10 may be converted to a Scaled Velocity value of 0, and the highest range value of 20 may be converted to a Scaled Velocity value of 127). All values included between the minimum and maximum value are scaled accordingly.

As a consequence, you can create an RX Sound of guitar, by assigning the guitar fret noise to the 10~20 velocity range. When a dynamics value between 10~20 is received, the real velocity value is scaled to the Scaled Velocity values, and plays louder.

0…127 Assigned velocity value.

Basic: Damper Mode

Here you can program how the Damper pedal works, the Resonance/Halo effect, and the range within the Note Off message is not sent to the selected Oscillator:


SOUND: Basic MT: 0

Damper Mode
Damper Mode: Repedaling

Resonance/Halo
Attack time: 0 Release time: 0
Volume scaling: 100 %

No Note Off Range:
From Note: G6

Damper Mode

Here you can program the Damper Mode for each Oscillator.

Damper Mode

This parameter determines how the Damper pedal works.

Normal

The Damper pedal works as usual: by keeping it pressed, the note decay is lengthened, to simulate the longer note decay of an acoustic piano.

Damper Off

The Damper pedal is deactivated for the selected Oscillator.

***Hint:** Set the Damper to Damper Off, if you plan to use the selected Oscillator in the Damper Trigger page to trigger sounds. Check the Sound "Harmonica DNC", and see how the Damper Trigger is used.*

Resonance/Halo

The Damper pedal enables a multisample, normally used for the Piano Resonance/Halo effect. If the pedal is pressed when the note is already playing, the speed at which the multisample appears and disappears, and the volume it can reach, depend on the "Resonance/Halo" parameters programmed below.

***Hint:** This Damper mode is much more realistic than the Normal mode, but also 'steals' more notes from the overall polyphony, and is especially suggested for solo piano playing.*

***Note:** Half-pedaling, as well as Damper messages received via MIDI (as Control Change #64), control the level of the Resonance/Halo effect.*

Repedaling	This mode acts as the Normal mode, but also enables the Damper pedal effect when the pedal is pressed after the note has been released (Note Off). In this case, the Damper effect starts from the current Release level, and decays slowly. ***Warning:*** *Do not use Sounds with the "Repedaling" assigned to any Oscillator in a Style, or the sustained sound could cause unwanted dissonances. The "Grand Piano RX" Sound is an example of this kind of Sounds to be avoided in a Style track.*

Resonance/Halo

Here you can program the Resonance/Halo effect that is enabled by the "Resonance/Halo" Damper Mode (see above). These parameters only affect the Resonance/Halo that is enabled when pressing the Damper pedal down when a note is already playing.

Attack Time

Time needed to the Resonance/Halo to reach the maximum level after the Damper pedal has been pressed.

0…99	Attack time as a value relative to the current Amp Env Attack value.

Release Time

Time needed to the Resonance/Halo to extinguish after the Damper pedal has been released.

0…99	Release time as a value relative to the current Amp Env Release value.

Volume Scaling

Volume of the Resonance/Halo effect, relative to the current level of the sound (as determined by the sum of the Multisample Volume, Velocity value and current Amp Env value).

0%	No volume at all.
1…100%	Volume expressed as a percentage of the current sound level.

No Note Off Range

From Note

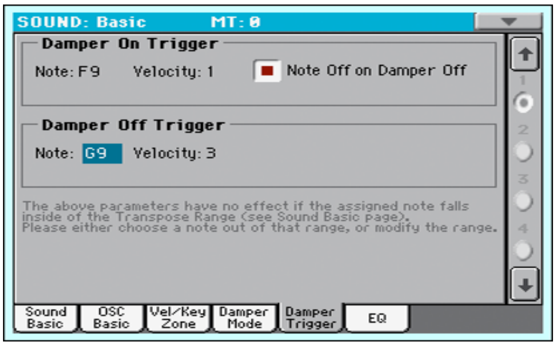
Like in an acoustic piano, the dampers can only dampen strings up to a certain pitch. Starting from that pitch, it is as if the Damper was always pressed down.

Note: *This parameter only affects the Normal Damper mode. It has no effect on the Resonance/Halo mode.*

C#-1…G9	Note starting from which the Damper is always pressed down. In an acoustic piano, this is usually set to G6.

Basic: Damper Trigger

Here you can set the notes triggered by pressing and releasing the Damper Pedal. The parameters in this page have effect on the Sound as a whole, and not on a single Oscillator.



SOUND: Basic MT: 0

Damper On Trigger

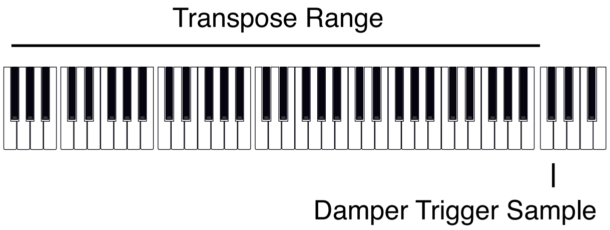
Note: F9 Velocity: 1 ☑ Note Off on Damper Off

Damper Off Trigger

Note: G9 Velocity: 3

The above parameters have no effect if the assigned note falls inside of the Transpose Range (see Sound Basic page).
Please either choose a note out of that range, or modify the range.

As warned by the message on the lower area of the display, these parameters have no effect if the assigned note falls inside of the Transpose Range programmed in the "Basic: Sound Basic" page (see "Transpose Range" on page 192). Please either choose a note out of that range, or modify the Transpose Range, so that the note is either higher or lower than that range.



Damper On Trigger

Pressing down the Damper pedal (Damper On) can play a special sample assigned to a particular note (for example, pedal down squeaking in the Sound "Grand Piano RX", breathing in in the Sound "Harmonica DNC" …).

Note

Note where the special Damper On sample is located.

Velocity

Fixed velocity of the special Damper On sample.

Note Off on Damper Off

If checked, the special Damper On sample stops playing when the Damper pedal is released.

Damper Off Trigger

Releasing the Damper pedal (Damper Off) can play a special sample assigned to a particular note (for example, Damper pedal release noise in the Sound "Grand Piano RX").

Note

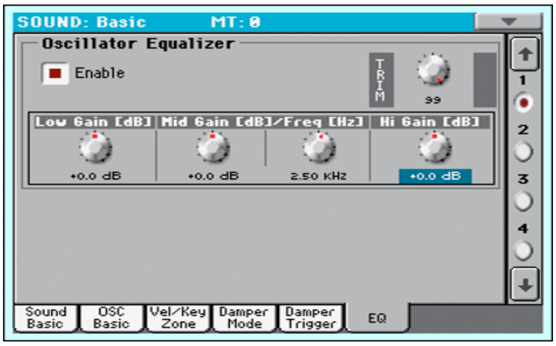
Note where the special Damper Off sample is located.

Velocity

Fixed velocity of the special Damper Off sample.

Basic: EQ

In this page, you can set the semi-parametric three-band equalizer for the selected oscillator.


SOUND: Basic
MT: 0
Oscillator Equalizer
Enable
TRIM
99
Low Gain [dB]
Mid Gain [dB]/Freq [Hz]
Hi Gain [dB]
+0.0 dB
+0.0 dB
2.50 kHz
+0.0 dB
1
2
3
4
Sound Basic
OSC Basic
Vel/Key Zone
Damper Mode
Damper Trigger
EQ

Enable

Check this box to activate the equalizer on the selected oscillator.

TRIM

This knob allows you to limit the level of the signal passing through the equalizer. Extreme equalization values can overload the audio circuits and lead to distortion. This control lets you set equalization as desired, and at the same time avoid overloading.

0…99	Limiting value. The higher, the most effective it is.

Low Gain

Low frequencies equalization. This is a shelving curve filter. Values are shown in decibels (dB).

-18…+18dB	Low gain value in decibels.

Mid (Middle) Gain

Middle frequencies equalization. This is a bell curve filter. Values are shown in decibels (dB).

-18…+18dB	Middle gain value in decibels.

Mid (Middle) Freq

Centre frequency of the middle frequencies equalization.

-0.100…+10 kHz	Centre frequency in kHz.

Hi (High) Gain

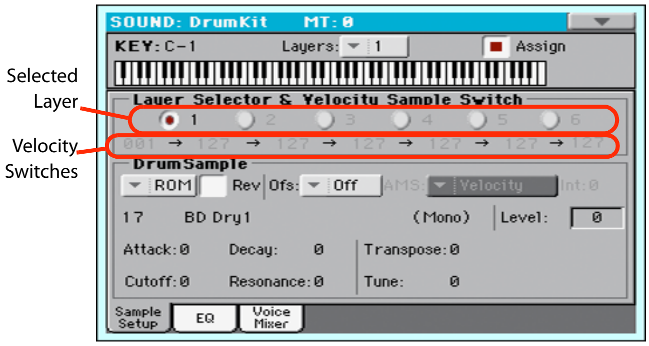
High frequencies equalization. This is a shelving curve filter. Values are shown in decibels (dB).

-18…+18dB	High gain value in decibels.

DrumKit: Sample Setup (Drum Kits)

This page appears when you edit a Drum Kit. Here you can select a different percussive sample for each key and layer.

DRUM *Drum Kits use only one oscillator.*


Selected Layer
Velocity Switches
SOUND: DrumKit
MT: 0
KEY: C-1
Layers: 1
Assign
Layer Selector & Velocity Sample Switch
1 2 3 4 5 6
001 → 127 → 127 → 127 → 127 → 127 → 127
DrumSample
ROM
Rev
Ofs: Off
AMS: Velocity
Int: 0
17 BD Dry1 (Mono)
Level: 0
Attack: 0
Decay: 0
Transpose: 0
Cutoff: 0
Resonance: 0
Tune: 0
Sample Setup
EQ
Voice Mixer

Key

Key

Key in edit. To select a key, you can press a key on the keyboard while this parameter is selected.

Layers

Number of layers assigned to the selected key. Depending on the number of selected layers, you can have a different number of velocity switches.

Assign

Use this parameter to turn the sample on/off.

On	The sample is assigned to the selected key.
Off	The sample is not assigned. The sample assigned to the next highest assigned key is used instead.

Layer Selector & Velocity Sample Switch

Selected Layer

Use these radio buttons to select the layer to edit. The available layers depends on the “Layers” parameter.

Velocity Switches

Each of these values separates the two adjacent layers for the selected sample/key. Notes stricken harder than a velocity switch will be played by the layer on the right, while notes stricken softer are played by the layer on the left.

The first and last values are not editable, and are always 001 and 127 (respectively).

Drum Sample

Bank/Num/Name

Use these parameters to select a different Drum Sample for each layer. You can use velocity to switch between the available samples. Offset and Level can be adjusted independently for the various drum samples.

The pop-up menu is where you select the bank (ROM or RAM), while the numeric field under it is for selecting the sample inside the selected bank. The sample name appears on its right.

The sample you select for the current layer will be triggered by velocities higher than the value of the "Velocity Switches" parameter (see page 197). If you do not wish to use velocity switching, assign just one layer to the selected key, and assign a sample only to Layer 1.

ROM	The Factory bank. The internal Factory area of the Flash-ROM memory contains 1012 different samples (preset samples), supplied by KORG as standard.
RAM	RAM sample, read from the RAM. These are user-loaded samples. ***Note:*** *If you create a new Drum Kit based on RAM samples, the RAM samples must be loaded from the internal memory or from a device connected to the USB Host port.* *In case samples are not loaded, no sound will be heard, even if the Drum Kit can be selected and its name appears in the display.*

Note: *Each sample has an upper note range limit, and may not produce sound when played above that limit.*

Rev (Reverse)

The sample will be played in reverse. In the case of Factory (Flash-ROM) or User (RAM) samples that were originally specified to loop, the sample will be played back in "one-shot" reverse mode. If the sample was originally set to reverse, it will playback without change.

On	The sample will playback in reverse.
Off	The sample will play back normally.

Ofs (Offset)

These parameters specify the point where the sample will begin to play. For some samples this parameter will not be available.

Off	The sound will start from the beginning of the sample.
1st…6th	The sound will begin from the offset location pre-determined for each sample.
NoAtk	The initial portion of the multisample is ignored.
AMS	Activates the Alternate Modulation Source (see below).
PseudoRandom	*(Only works when more than one Offset point is available in the multisample).* Randomly selects one of the available Offset points (including Attack and Off).

AMS / Int(ensity)

(Only available when the AMS option is selected in the "Offset" parameter.) Alternate Modulation Source for the Offset. See "AMS (Alternate Modulation Source) list" on page 216.

When the "Intensity" parameter has a positive value, the selected Offset point will depend on the AMS value. For example, if the selected AMS is the Velocity, when playing softly you will select the Off or 1st Offset, when playing loudly you will select the 6th or No Attack Offset.

When the "Intensity" parameter has a negative value, the selection will happen in reverse (higher-numbered Offsets will be selected before the lowest-numbered ones).

Level

This parameter specifies the level of the sample. For more information, see "Level" on page 193.

Attack

This parameter is an offset to the selected sample's EG Attack.

Decay

This parameter is an offset to the selected sample's EG Decay.

Cutoff

This parameter sets the cutoff frequency for the filter applied to the selected sample.

Resonance

This parameter sets the resonance for the filter applied to the selected sample.

Transpose

This parameter transposes the selected sample. Use it to change the pitch of the selected key.

0	No transposition applied.
-64…+63	Transpose value in semitones.

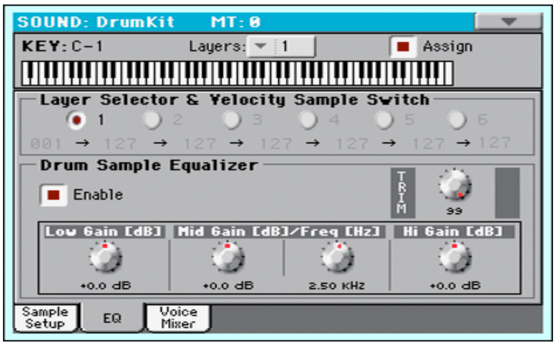
Tune

Use this parameter to fine-tune the assigned sample.

0	Original tuning.
-99…+99	Fine-tuning value in cents (1/100 of a semitone).

DrumKit: EQ (Drum Kits)

This page appears when you edit a Drum Kit. In this page, you can set the semi-parametric three-band equalizer for the selected key, layer and Drum sample.


SOUND: DrumKit MT:0
KEY:C-1
Layers: 1
Assign
Layer Selector & Velocity Sample Switch
1 2 3 4 5 6
001 → 127 → 127 → 127 → 127 → 127 → 127
Drum Sample Equalizer
Enable
TRIM
99
Low Gain [dB]
Mid Gain [dB]/Freq [Hz]
Hi Gain [dB]
+0.0 dB
+0.0 dB
2.50 kHz
+0.0 dB
Sample Setup
EQ
Voice Mixer

Key

See “Key” on page 197.

Layer Selector & Velocity Sample Switch

See “Layer Selector & Velocity Sample Switch” on page 197.

Drum Sample Equalizer

Enable

Check this box to activate the equalizer on the selected oscillator.

TRIM

This knob allows you to limit the level of the signal passing through the equalizer. Extreme equalization values can overload the audio circuits and lead to distortion. This control lets you set equalization as desired, and at the same time avoid overloading.

0…99	Limiting value. The higher, the most effective it is.

Low Gain

Low frequencies equalization. This is a shelving curve filter. Values are shown in decibels (dB).

-18…+18dB	Low gain value in decibels.

Mid (Middle) Gain

Middle frequencies equalization. This is a bell curve filter. Values are shown in decibels (dB).

-18…+18dB	Middle gain value in decibels.

Mid (Middle) Freq

Centre frequency of the middle frequencies equalization.

-0.100…+10 kHz	Centre frequency in kHz.

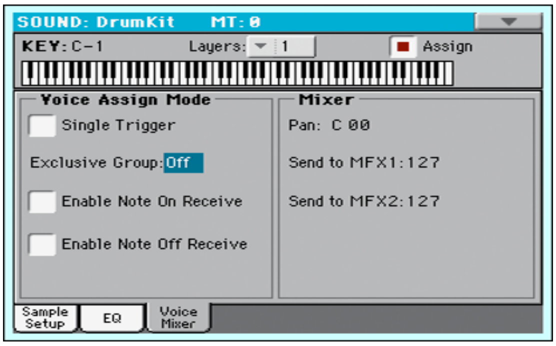
Hi (High) Gain

High frequencies equalization. This is a shelving curve filter. Values are shown in decibels (dB).

-18…+18dB	High gain value in decibels.

DrumKit: Voice Mixer (Drum Kits)

This page appears when you edit a Drum Kit. Here you can set various parameters for the different percussive sample assigned to the selected key and layer.


SOUND: DrumKit MT:0
KEY:C-1
Layers: 1
Assign
Voice Assign Mode
Single Trigger
Exclusive Group: Off
Enable Note On Receive
Enable Note Off Receive
Mixer
Pan: C 00
Send to MFX1:127
Send to MFX2:127
Sample Setup
EQ
Voice Mixer

Key

See “Key” on page 197.

Voice Assign Mode

Single Trigger

Use this parameter to set the sample as a single-triggered one.

On	When the same key (note) is played repeatedly, the previous note will be stopped before the new note is triggered, so that they will not overlap.
Off	When the same key (note) is played repeatedly, the previous note will not be stopped before the new note is triggered.

Exclusive Group

Exclusive Groups are sets of mutually exclusive keys, stopping each other. For example, if the Open Hi-Hat and Closed Hi-Hat are assigned the same Exclusive Group, playing an Open Hi-Hat will stop the Closed Hi-Hat playing.

None	No Exclusive Group assigned. The selected key will not be stopped by any other key.
1…127	Exclusive Groups assigned to the selected key. When you play this key, all other keys assigned to the same Exclusive Group will be stopped, and this key will be stopped by other keys assigned to the same Exclusive Group.

Enable Note On Receive

Use this parameter to enable/disable the reception of the Note On (Key On) message.

On	The Note On message is normally received.
Off	The Note On message is not received. Therefore, the corresponding key is muted.

Enable Note Off Receive

Use this parameter to enable/disable the reception of the Note Off (Key Off) message.

On	The sound will stop as soon as you release the key.

Off	The sound will continue playing up to the end of the sample. The Note Off message is ignored.

Mixer

Pan

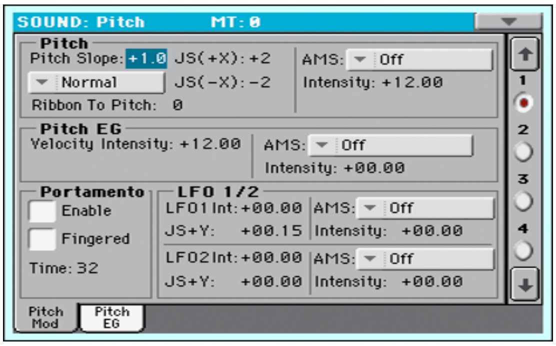
This parameter sets the position in the stereo panorama of the selected key.

Send to MFX1, MFX2

These parameters set the MFX1 or MFX2 send level for the selected key.

Pitch: Pitch Mod

Here you can make pitch settings for each oscillator. These settings specify how keyboard location will affect the pitch of each oscillator, and select the controllers that will affect the oscillator pitch and specify the depth of control. You can also specify the amount of pitch change produced by the Pitch EG and by LFO1 and LFO2, switch portamento on/off and specify how it will apply.



SOUND: Pitch MT: 0

Pitch
Pitch Slope: +1.0 JS(+X): +2
Normal JS(-X): -2
Ribbon To Pitch: 0
AMS: Off
Intensity: +12.00

Pitch EG
Velocity Intensity: +12.00
AMS: Off
Intensity: +00.00

Portamento
☐ Enable
☐ Fingered
Time: 32

LFO 1/2
LFO1 Int: +00.00 AMS: Off
JS+Y: +00.15 Intensity: +00.00
LFO2 Int: +00.00 AMS: Off
JS+Y: +00.00 Intensity: +00.00

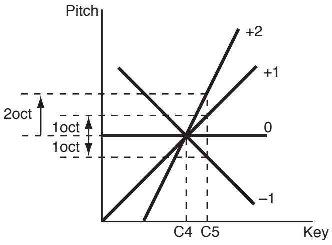
Pitch

Pitch Slope

Normally you will leave this parameter at +1.0. Positive (+) values will cause the pitch to rise as you play higher notes, and negative (–) values will cause the pitch to fall as you play higher notes.

With a value of 0, there will be no change in pitch, and the C4 pitch will sound regardless of the keyboard location you play.

The diagram shows how the Pitch Slope and pitch are related:



-1.0…+2.0	Pitch slope value.

Pitch Bend Mode

The Pitch Bend can work in different ways, depending on the selected option.

Normal	Linear bending.
Fixed Scale	When this parameter is turned on on an oscillator, Pitch Bend and Sub Scale have no effect on its tuning. The relevant parameters are greyed out and non-selectable. This is useful when assigning to the oscillator a noise (like the breath noise of a reed) with a fixed frequency, that must not change on different notes and different pitches.
Highest Pitch Bend only	On this oscillator, Pitch Bend is only activated on the highest note currently playing on the keyboard.

Lowest Pitch Bend only	On this oscillator, Pitch Bend is only activated on the lowest note currently playing on the keyboard.

Ribbon to Pitch

Pitch Bend range assigned to the Ribbon Controller message (CC#16). The Ribbon Controller message can be received from MIDI or contained in a Standard MIDI File.

-12…0…+12	Maximum bending, when touching the extreme left or right of the Ribbon Controller.

JS (+X)

This parameter specifies how the pitch will change when the joystick is moved all the way to the right. A setting of 12 produces 1 octave of change.

For example if you set this to +12 and move the joystick all the way to the right, the pitch will rise one octave above the original pitch.

-60…+12	Maximum pitch change in semitones.

JS (–X)

This parameter specifies how the pitch will change when the joystick is moved all the way to the left. A setting of 12 produces 1 octave of change.

For example, if you set this to -60 and move the joystick all the way to the left, the pitch will fall five octaves below the original pitch. This can be used to simulate the downward swoops that a guitarist produces using the tremolo arm.

-60…+12	Maximum pitch change in semitones.

AMS (Alternate Modulation Source)

This parameter selects the source that will modulate the pitch of the selected oscillator. See "AMS (Alternate Modulation Source) list" on page 216.

Intensity

This parameter specifies the depth and direction of the effect produced by "AMS". With a setting of 0, no modulation will be applied. With a setting of 12.00, the pitch will change up to one octave.

For example, if you set "AMS" to JS (-Y) and move the joystick downwards, the pitch will rise if this parameter is set to a positive (+) value, or fall if this parameter is set to a negative (–) value. The range is a maximum of one octave.

-12.00…+12.00	Parameter value.

Pitch EG

The Pitch EG (Envelope Generator) is unique to all oscillators.

Velocity Intensity

This parameter specifies the depth and direction of the modulation that the pitch EG specified on "Pitch: Pitch EG" will apply to the pitch. With a setting of 12.00, the pitch will change a maximum of ±1 octave.

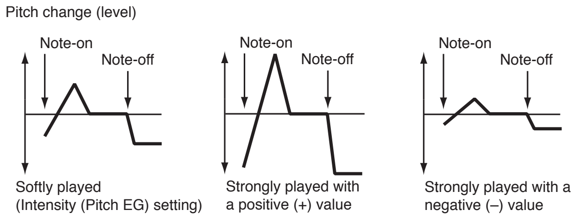
-12.00…+12.00	Parameter value.

Pitch EG AMS (Alternate Modulation Source)

This parameter selects the source that will modulate the pitch EG of the selected oscillator. See "AMS (Alternate Modulation Source) list" on page 216).

Pitch EG Intensity

This parameter specifies the depth and direction of the effect that "AMS" will have. For example, if you set "AMS" to Velocity and set this value to +12.00, the velocity will control the range of pitch change produced by the pitch EG in a range of ±1 octave. As you play more softly, the pitch change will draw closer to the pitch EG levels.



Note: *"Intensity" (Pitch EG) and AMS will be added to determine the depth and direction of the pitch modulation applied by the pitch EG.*

Portamento

Enabled

This parameter turns the portamento effect (smooth change in pitch from one note to the next) on/off, and specifies how it will be applied.

Note: *Portamento will also be switched when CC#65 (Portamento SW) is received.*

On	Portamento will be applied.
Off	Portamento will not be applied.

Fingered

This parameter specifies whether the portamento effect restarts or not with each note played.

On	Portamento will restart with each note.
Off	Portamento will not restart with each note.

Time

This parameter sets the portamento time. Increasing the value will produce a slower change in pitch.

000…127	Portamento time in MIDI value.

LFO 1/2

LFO1/2 Int

Intensity of the corresponding LFO.

-12…0…+12	Parameter value. Negative values invert the LFO shape.

JS+Y

Intensity of the corresponding LFO when the joystick is pushed forward.

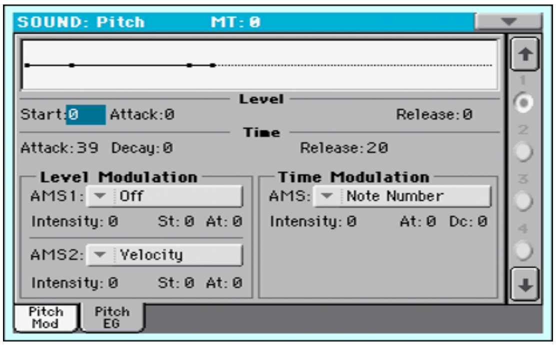
-12…0…+12	Parameter value. Negative values invert the LFO shape.

AMS / Intensity

Alternate Modulation Source for the LFO. See "AMS (Alternate Modulation Source) list" on page 216. Use the "Intensity" parameter to set the intensity of the modulation.

Pitch: Pitch EG

Here you can make settings for the pitch EG, which creates time-variant changes in the pitch of the oscillators. The depth of pitch change produced by these EG settings on the oscillators is adjusted by the "Intensity (AMS1/2 Intensity)" parameter (see page 203).


SOUND: Pitch
MT: 0
Level
Time
Level Modulation
Time Modulation
Pitch Mod
Pitch EG

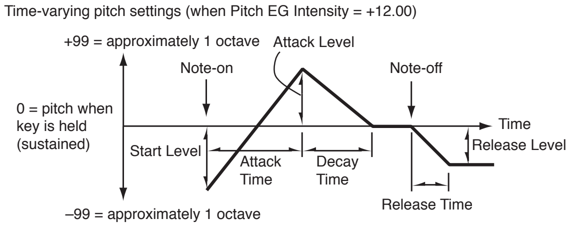
Start: 0 Attack: 0 Release: 0
Attack: 39 Decay: 0 Release: 20
AMS1: Off
Intensity: 0 St: 0 At: 0
AMS2: Velocity
Intensity: 0 St: 0 At: 0
AMS: Note Number
Intensity: 0 At: 0 Dc: 0

Diagram

The diagram on top of the page shows the Pitch envelope line.

Level

These parameters specify the amount of pitch change. The actual amount of pitch change will depend on the "Intensity (AMS1/2 Intensity)" parameter (see below). For example, with an "Intensity" setting of +12.00, a "Level" setting of +99 would raise the pitch one octave, and a "Level" setting of –99 would lower the pitch one octave.


Time-varying pitch settings (when Pitch EG Intensity = +12.00)
+99 = approximately 1 octave
Attack Level
Note-on
Note-off
0 = pitch when key is held (sustained)
Time
Release Level
Start Level
Attack Time
Decay Time
Release Time
–99 = approximately 1 octave

Start Level

Specifies the amount of pitch change at note-on.

-99…+99	Parameter value.

Attack Level

Specifies the amount of pitch change when the attack time has elapsed.

-99…+99	Parameter value.

Release Level

Specifies the amount of pitch change when the release time has elapsed.

-99…+99	Parameter value.

Time

These parameters specify the time over which the pitch change will occur.

See diagram above.

Attack Time

Specifies the time over which the pitch will change from note-on until it reaches the pitch specified as the attack level.

0…99	Parameter value.

Decay Time

Specifies the time over which the pitch will change after reaching the attack level until it reaches the normal pitch.

0…99	Parameter value.

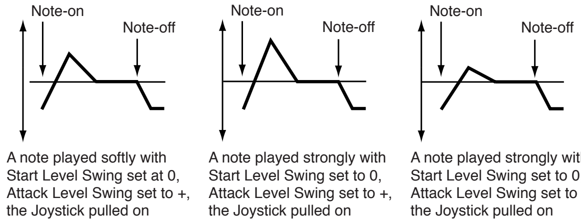
Release Time

Specifies the time over which the pitch will change from note-off until it reaches the pitch specified as the release level.

0…99	Parameter value.

Level Modulation

Pitch EG change (level) (AMS=JS-Y/Velocity, Intensity= positive (+) value


Note-on
Note-off
A note played softly with Start Level Swing set at 0, Attack Level Swing set to +, the Joystick pulled on
Note-on
Note-off
A note played strongly with Start Level Swing set to 0, Attack Level Swing set to +, the Joystick pulled on
Note-on
Note-off
A note played strongly with Start Level Swing set to 0, Attack Level Swing set to –, the Joystick pulled on

AMS1/2 (Alternate Modulation Source 1/2)

These parameters select the source that will control the pitch EG "Level" parameters ("AMS (Alternate Modulation Source) list" on page 216).

Intensity (AMS1/2 Intensity)

These parameters specify the depth and direction of the effect applied by "AMS1". With a setting of 0, the levels specified by "Level" will be used.

For example, if "AMS1" is Joystick Y+, moving the Joystick in the upper direction to turn it on will change the "Level" parameters of the Pitch EG. As the absolute value of "Intensity" is increased, the pitch EG levels will change more when the Joystick is released. The direction of the change is specified by "St (Start Level Swing)" and "At (Attack Level Swing)". When the Joystick is released, the pitch EG levels will return to their own settings.

If "AMS1" is set to Velocity, increasing the absolute value of "Intensity" will produce increasingly wider change in pitch EG levels for strongly-played notes. The direction of the change is specified by "St (Start Level Swing)" and "At (Attack Level Swing)". As you play more softly, the pitch change will draw closer to the pitch EG levels.

-99…+99	Parameter value.

St (Start Level Swing)

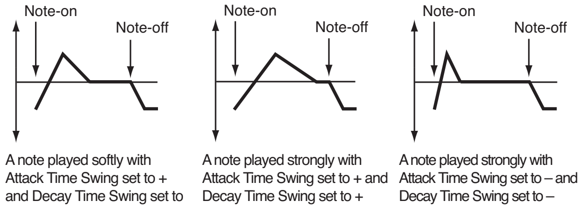
This parameter specifies the direction of change in "Start Level" caused by "AMS1/2". If "Intensity" is a positive (+) value, a setting of + will raise the EG level, and a setting of – will decrease it. With a setting of 0 there will be no change.

At (Attack Level Swing)

This parameter specifies the direction of change in "Attack Level" caused by "AMS1/2". If "Intensity" is a positive (+) value, a setting of + will raise the EG level, and a setting of – will decrease it. With a setting of 0 there will be no change.

Time Modulation

Pitch EG changes (Time) (AMS = Velocity, Intensity = positive (+) value)


Note-on
Note-off
A note played softly with Attack Time Swing set to + and Decay Time Swing set to
Note-on
Note-off
A note played strongly with Attack Time Swing set to + and Decay Time Swing set to +
Note-on
Note-off
A note played strongly with Attack Time Swing set to – and Decay Time Swing set to –

AMS (Alternate Modulation Source)

This parameter selects the source that will control the "Time" parameters of the pitch EG (see "AMS (Alternate Modulation Source) list" on page 216).

Intensity (AMS Intensity)

This parameter specifies the depth and direction of the effect that "AMS" will have on the "Time" parameters. With a setting of 0, the pitch EG times will be just as specified by the "Time" settings.

The alternate modulation value at the moment that the EG reaches each point will determine the actual value of the EG time that comes next.

For example, the decay time will be determined by the alternate modulation value at the moment that the attack level is reached.

When this parameter is set to values of 16, 33, 49, 66, 82, or 99, the specified EG times will speed up as much as 2, 4, 8, 16, 32, or 64 times respectively (or slowed down to 1/2, 1/4, 1/8, 1/16, 1/32, or 1/64 of the original time).

For example if "AMS" is set to Velocity, increasing the absolute value of "Intensity" will allow strongly-played notes to increase the changes in pitch EG "Time" values. The direction of the change is specified by "At (Attack Time Swing)" and "Dc (Decay Time Swing)". As you play more softly, the pitch EG times will more closely approach the actual settings of the pitch EG.

-99…+99	Parameter value.

At (Attack Time Swing)

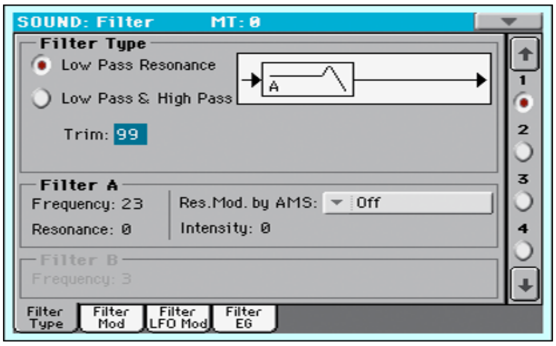
This parameter specifies the direction in which "AMS" will affect the "Attack Time" parameter. With positive (+) values of "Intensity", a setting of + will cause the time to be lengthened, and a setting of – will cause the time to be shortened. With a setting of 0 there will be no change.

Dc (Decay Time Swing)

Specify the direction in which "AMS" will affect the "Decay Time". With positive (+) values of "Intensity", a setting of + will cause the time to be lengthened, and a setting of – will cause the time to be shortened. With a setting of 0 there will be no change.

Filter: Filter Type

Here you can make settings for the filters that will be used by the oscillators. You can select either a 24 dB/octave low pass filter with resonance, or a series connection of a 12 dB/octave low pass filter and a 12 dB/octave high pass filter.


SOUND: Filter MT: 0

Filter Type
● Low Pass Resonance
○ Low Pass & High Pass

Trim: 99

Filter A
Frequency: 23
Resonance: 0
Res.Mod. by AMS: Off
Intensity: 0

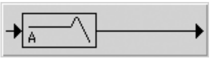
Filter B
Frequency: 3

Filter Type

This parameter selects the type of filter (Low Pass Resonant, Low Pass & High Pass) for the selected oscillator.

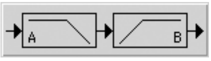
Low Pass Resonance

When the Low Pass filter type is selected, only filter A will be activated.



Low Pass & High Pass

When the Low Pass & High Pass filter type is selected, the filter B will be activated.



Trim

Use this parameter to adjust the level at which the audio signal output from the selected oscillator is input to filter A.

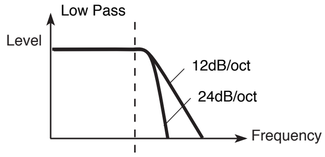
Note: *If this value is raised, the sound may distort if Resonance is set to a high value or when you play a chord.*

00…99	Trim level.

Filter A

Frequency (Cutoff Frequency A)

This parameter specifies the cutoff frequency of filter A.



This is a filter that cuts the high-frequency region above the cutoff frequency.
This is the most common type of filter, and is used to cut part of the overtone components, making an originally bright timbre sound more mellow (darker).
When the “Filter Type” is Low Pass Resonance, the cutoff will have a steeper slope.

00…99	Cutoff frequency value.

Resonance (Resonance A)

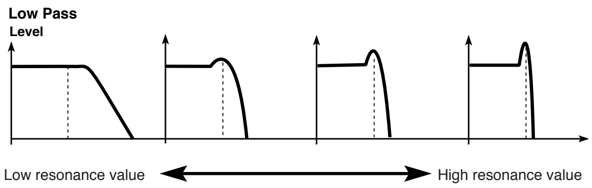
The resonance emphasizes the overtone components that lie in the region of the cutoff frequency specified by “Frequency”, producing a more distinctive sound. Increasing this value will produce a stronger effect.

00…99	Resonance value.

Res. Mod. by AMS (Resonance modulated by AMS)

Selects the source that will control the “Resonance” level. See “AMS (Alternate Modulation Source) list” on page 216.

The effect of resonance



Intensity (AMS Intensity)

This parameter specifies the depth and direction of the effect that “Res. Mod. by AMS (Resonance modulated by AMS)” will have on the resonance level specified by “Resonance (Resonance A)”.

For example if Velocity has been selected, changes in keyboard velocity will affect the resonance.

With positive (+) values, the resonance will increase as you play more strongly, and as you play more softly the resonance will approach the level specified by the “Resonance” setting.

With negative (–) values, the resonance will decrease as you play more strongly, and as you play more softly the resonance will approach the level specified by the “Resonance” setting.

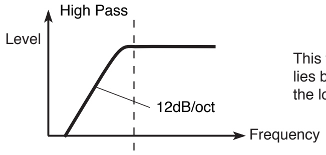
The resonance level is determined by adding the “Resonance” and “Intensity (AMS Intensity)” values.

-99…+99	Parameter value.

Filter B

Frequency (Cutoff Frequency B)

This parameter specifies the cutoff frequency of filter B. This parameter will be displayed when “Filter Type” is set to Low Pass & High Pass.

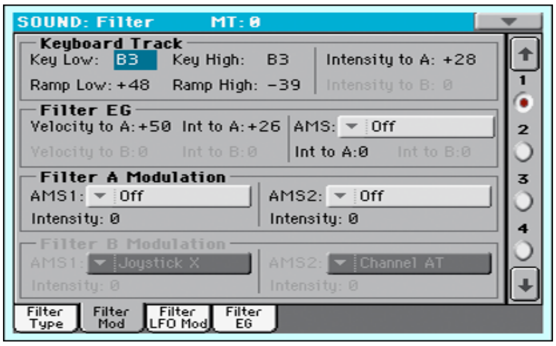


This filter cuts the low-frequency range that lies below the cutoff frequency. By cutting the lower overtones, it lightens the tone.

00…99	Cutoff frequency value.

Filter: Filter Mod

These settings let you apply modulation to the cutoff frequency ("Frequency") of the filter for the selected oscillator to modify the tone.



SOUND: Filter MT: 0

Keyboard Track
Key Low: B3 Key High: B3 Intensity to A: +28
Ramp Low: +48 Ramp High: –39 Intensity to B: 0

Filter EG
Velocity to A: +50 Int to A: +26 AMS: Off
Velocity to B: 0 Int to B: 0 Int to A: 0 Int to B: 0

Filter A Modulation
AMS1: Off AMS2: Off
Intensity: 0 Intensity: 0

Filter B Modulation
AMS1: Joystick X AMS2: Channel AT
Intensity: 0 Intensity: 0

When "Filter Type" is Low Pass Resonance, parameters for filter B will not be editable (greyed out).

Keyboard Tracking

Key Low/High

These settings specify keyboard tracking for the cutoff frequency of the filter for the selected oscillator. The way in which the cutoff frequency is affected by the keyboard location you play can be specified by the "Key Low", "Key High", "Ramp Low" and "Ramp High" parameters.

Keyboard tracking will apply to the range below the specified Low note number, and above the specified High note number.

C–1…G9	Lowest/Highest note in the range.

Ramp Low/High

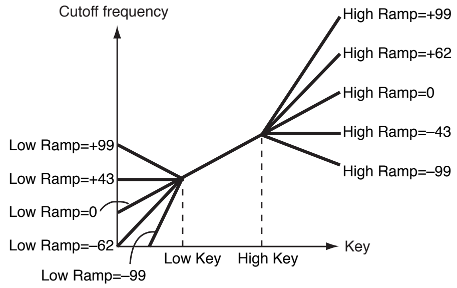
These parameter specifies the angle of keyboard tracking.

If "Intensity to A" and "Intensity to B" are set to +50, "Ramp Low" is set to –62 and "Ramp High" is set to +62, the angle of the change in cutoff frequency will correspond to the keyboard location (pitch). This means that the oscillation that occurs when you increase the "Resonance (Resonance A)" will correspond to the keyboard location.

If you set "Ramp Low" to +43 and "Ramp High" to –43, the cutoff frequency will not be affected by keyboard location. Use this setting when you do not want the cutoff frequency to change for each note.

-99…+99	Angle value.

Here is how cutoff frequency is affected by keyboard location and the Ramp setting ("Intensity to A" and "Intensity to B" = +50):



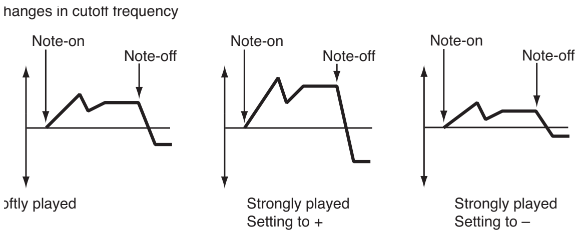
Tracking to A/B

These parameters specify the note numbers at which keyboard tracking will begin to apply, and set the "Intensity to A" and "Intensity to B" parameters to specify the depth and direction of the change applied to filters A and B.

For the range of notes between "Key Low" and "Key High", the cutoff frequency will change according to the keyboard location (pitch).

-99…+99	Parameter value.

Filter EG



Velocity to A

This parameter specifies the depth and direction of the effect that velocity will have on the time-varying changes created by the filter EG (as set on "Filter: Filter EG") to control the filter A cutoff frequency.

With positive (+) values, playing more strongly will cause the filter EG to produce greater changes in cutoff frequency. With negative (–) values, playing more strongly will also cause the filter EG to produce greater changes in cutoff frequency, but with the polarity of the EG inverted.

99…+99	Value of the Velocity to A parameter.

Velocity to B

This parameter specifies the depth and direction of the effect that velocity will have on the time-varying changes created by the filter EG to control the filter B cutoff frequency (see "Velocity to A").

99…+99	Value of the Velocity to B parameter.

Int to A (Intensity to A)

Specifies the depth and direction of the effect that the time-varying changes created by the filter 1 EG will have on the filter A cutoff frequency.

With positive (+) settings, the sound will become brighter when the EG levels set by Filter EG "Level" and "Time" parameters are in the "+" area, and darker when they are in the "–" area.

With negative (–) settings, the sound will become darker when the EG levels set by Filter EG "Level" and "Time" parameters are in the "+" area, and brighter when they are in the "–" area.

-99…+99	Parameter value.

Int to B (Intensity to B)

Specifies the depth and direction of the effect that the time-varying changes created by the filter EG will have on the filter B cutoff frequency (see "Int to A (Intensity to A)").

-99…+99	Parameter value.

AMS (EG Alternate Modulation Source)

Selects the source that will control the depth and direction of the effect that the time-varying changes produced by the filter EG will have on the cutoff frequency of filters A and B. See "AMS (Alternate Modulation Source) list" on page 216.

Int to A (Intensity to A)

Specifies the depth and direction of the effect that "AMS" will have on filter A. For details on how this will apply, refer to "Int to A (Intensity to A)".

Int to B (Intensity to B)

Specifies the depth and direction of the effect that "AMS" will have on filter B. For details on how this will apply, refer to "Int to A (Intensity to A)".

Note: *The sum of the settings for "Velocity to A/B", "Intensity to A/B", and "(AMS) Intensity to A/B" will determine the depth and direction of the effect produced by the filter EG.*

Filter A/B Modulation

AMS1 (Alternate Modulation Source 1 for filter A/B)

Selects the source that will control modulation of the filter A cutoff frequency. See "AMS (Alternate Modulation Source) list" on page 216.

Note: *The filter B parameters will be displayed when "Filter Type" on page 204 is Low Pass & High Pass.*

Intensity (Intensity to AMS1)

Specifies the depth and direction of the effect that "AMS1" will have.

When "AMS1" is JS X, a positive (+) value for this parameter will cause the cutoff frequency to rise when the joystick is moved toward the right, and fall when the joystick is moved toward the left. With a negative (–) value for this parameter, the opposite will occur.

This value is added to the setting of the Filter A "Frequency".

AMS2 (Alternate Modulation Source 2 for filter A/B)

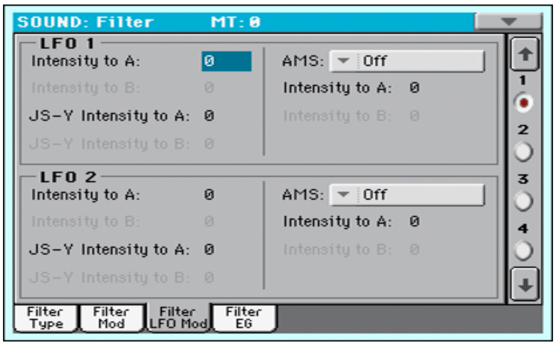
Selects the source that will control modulation of the filter A cutoff frequency (see "AMS (Alternate Modulation Source) list" on page 216).

Intensity (Intensity to AMS2)

Specifies the depth and direction of the effect that the selected source will have (see "Intensity (Intensity to AMS1)" on page 206).

Filter: Filter LFO

Here you can use the filter LFO to apply cyclic modulation to the cutoff frequency of the filter (for the selected oscillator) to create cyclical changes in tone.



SOUND: Filter MT: 0

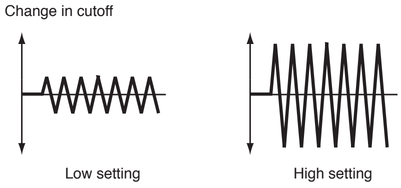
LFO 1
Intensity to A: 0
Intensity to B: 0
JS–Y Intensity to A: 0
JS–Y Intensity to B: 0
AMS: Off
Intensity to A: 0
Intensity to B: 0

LFO 2
Intensity to A: 0
Intensity to B: 0
JS–Y Intensity to A: 0
JS–Y Intensity to B: 0
AMS: Off
Intensity to A: 0
Intensity to B: 0

LFO 1

Intensity to A

Specifies the depth and direction of the modulation that LFO1 (set on "LFO: LFO1") will have on the cutoff frequency of filter A. Negative (–) settings will invert the phase.



-99…+99 Parameter value.

Intensity to B

Specify the depth and direction of the modulation that LFO1 will have on the cutoff frequency of filter B (see "Intensity to A").

-99…+99 Parameter value.

JS (Joystick) –Y Intensity to A

By moving the joystick in the Y direction (toward yourself), you can control the depth at which LFO1 modulates the cutoff frequency of filter A. This parameter specifies the depth and direction of the control.

Higher settings of this parameter will produce greater increases in the effect of LFO1 on the filter when the joystick is moved toward yourself.

-99…+99 Parameter value.

JS (Joystick) –Y Intensity to B

By moving the joystick in the Y direction (toward yourself), you can control the depth at which LFO1 modulates the cutoff frequency of filter B. This parameter specifies the depth and direction of the control (see "JS (Joystick) –Y Intensity to A").

AMS (Filter LFO1 Alternate Modulation Source)

Select a source that will control the depth and direction of cutoff frequency change for both filters A and B. See "AMS (Alternate Modulation Source) list".

Intensity to A

Specifies the depth and direction of the effect that “AMS” will have on filter A.

For example if “AMS” is Joystick Y+, higher settings of this parameter will allow greater change to be applied to LFO1 when you move the Joystick up in the Y axis.

-99…+99	Parameter value.

Intensity to B

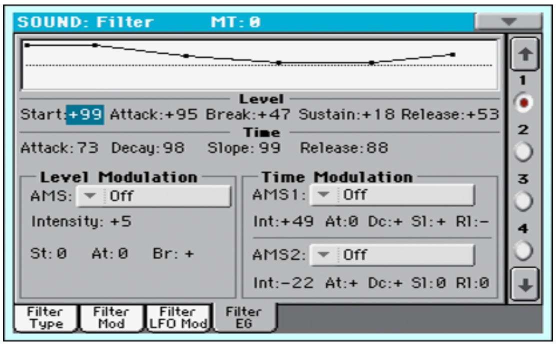
Specifies the depth and direction of the effect that “AMS” will have on filter B (see “Intensity to A”).

LFO 2

Adjusts the depth of the cyclic modulation applied by LFO2 (set on “LFO: LFO2”) to the cutoff frequency of filters A and B. For more information on the parameters see “LFO 1” above.

Filter: Filter EG

Here you can make settings for the EG that will produce time-varying changes in the cutoff frequency of filters A and B for the selected oscillator. The depth of the effect that these settings will have on the filter cutoff frequency is determined by the “Velocity” and “Intensity” parameters.



SOUND: Filter MT: 0

Level
Start: +99 Attack: +95 Break: +47 Sustain: +18 Release: +53

Time
Attack: 73 Decay: 98 Slope: 99 Release: 88

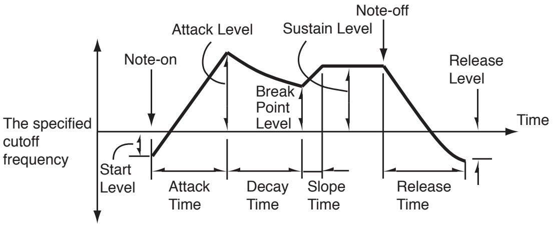
Level Modulation
AMS: Off
Intensity: +5
St: 0 At: 0 Br: +

Time Modulation
AMS1: Off
Int: +49 At: 0 Dc: + Sl: + Rl: –
AMS2: Off
Int: –22 At: + Dc: + Sl: 0 Rl: 0

Diagram

The diagram on top of the page shows the Filter envelope line.

Filter envelope



Level

These are the envelope segment levels. The result will depend on the filter that was selected in “Filter Type”. For example, with the Low Pass Resonance filter, positive (+) values of EG Intensity will cause the tone to be brightened by positive (+) levels, and darkened by negative (–) levels.

Start

This parameter specifies the change in cutoff frequency at the time of note-on.

-99…+99	Level value.

Attack

This parameter specifies the change in cutoff frequency after the attack time has elapsed.

-99…+99	Level value.

Break (Break Point)

This parameter specifies the change in cutoff frequency after the decay time has elapsed.

-99…+99	Level value.

Sustain

This parameter specifies the change in cutoff frequency that will be maintained from after the slope time has elapsed until note-off occurs.

-99…+99	Level value.

Release

This parameter specifies the change in cutoff frequency that will occur when the release time has elapsed.

-99…+99	Level value.

Time

These parameters specify the time over which the filter change will occur.

Attack

This parameter specifies the time over which the level will change from note-on until the attack level is reached.

0…99	Time value.

Decay

This parameter specifies the time over which the level will change from the attack level to the break point level.

0…99	Time value.

Slope

This parameter specifies the time over which the level will change after the decay time has elapsed until the sustain level is reached.

0…99	Time value.

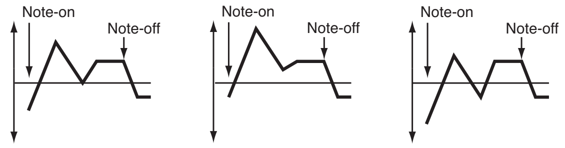
Release

This parameter specifies the time over which the level will change after note-on occurs until the release level is reached.

0…99	Time value.

Level Modulation

Filter 1 EG changes (level) (AMS = Velocity, Intensity = a positive (+) value)



Softly played note with Start Level Swing, Attack Level Swing, and Break Level Swing set to +

Strongly played note with Start Level Swing, Attack Level Swing, and Break Level Swing set to +

Strongly played note with Start Level Swing, Attack Level Swing, and Break Level Swing set to –

AMS (Alternate Modulation Source)

This parameter selects the source that will control the “Level” parameters of the filter EG (“AMS (Alternate Modulation Source) list” on page 216).

Intensity (AMS Intensity)

This parameter specifies the depth and direction of the effect applied by “AMS”. With a setting of 0, the levels specified by “Frequency (Cutoff Frequency A)” will be used.

For example, if “AMS” is Velocity, and you set “St (Start Level Swing)”, “At (Attack Level Swing)” and “Br (Break Level Swing)” to + and set “Intensity” to a positive (+) value, the EG levels will rise as you play more strongly. If “Intensity” is set to a negative (–) values, the EG levels will fall as you play more strongly.

-99…+99	Intensity value.

St (Start Level Swing)

This parameter specifies the direction in which “AMS” will affect “Start”. When “Intensity” has a positive (+) value, a setting of + for this parameter will allow “AMS” to raise the EG level, and a setting of – will allow “AMS” to lower the EG level. With a setting of 0 there will be no change.

At (Attack Level Swing)

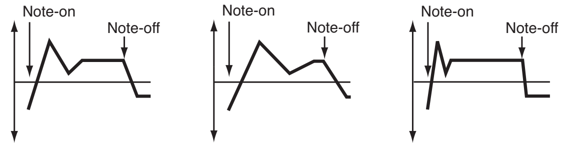
This parameter specifies the direction in which “AMS” will affect “Attack”. When “Intensity” has a positive (+) value, a setting of + for this parameter will allow “AMS” to raise the EG level, and a setting of – will allow “AMS” to lower the EG level. With a setting of 0 there will be no change.

Br (Break Level Swing)

This parameter specifies the direction in which “AMS” will affect “Break (Break Point)”. When “Intensity” has a positive (+) value, a setting of + for this parameter will allow “AMS” to raise the EG level, and a setting of – will allow “AMS” to lower the EG level. With a setting of 0 there will be no change.

Time Modulation

Filter 1 EG changes (Time) (AMS = Velocity, Intensity = a positive (+) value)



Softly played note with Attack, Decay, Slope and Release Level Swings set to +

Strongly played note with Attack, Decay, Slope and Release Level Swings set to +

Strongly played note with Attack, Decay, Slope and Release Level Swings set to –

AMS1/2

Use this parameter to select the source that will control the “Time” parameters of the filter EG. See “AMS (Alternate Modulation Source) list” on page 216.

Int (AMS Intensity)

This parameter specifies the depth and direction of the effect that “AMS1/2” will have.

For example, if “AMS1/2” is set to FltKTr +/+, the EG “Time” parameters will be controlled by the Keyboard Tracking settings. With positive (+) values of this parameter, positive (+) values of “Ramp Low/High” will lengthen the EG times, and negative (–) values of “Ramp Low/High” will shorten the EG times. The direction of change is specified by “At (Attack Time Swing)”, “Dc (Decay Time Swing)”, “Sl (Slope Time Swing)”, and “Rl (Release Time Swing)”.

With a setting of 0, the times specified by “Frequency (Cutoff Frequency A)” will be used.

If “AMS1/2” is set to Velocity, positive (+) values of this parameter will cause EG times to lengthen as you play more strongly, and negative (–) values will cause EG times to shorten as you play more strongly.

-99…+99	Intensity value.

At (Attack Time Swing)

This parameter specifies the direction in which “AMS1/2” will affect the attack time. With positive (+) values of “Intensity”, setting this parameter to + will allow AMS to lengthen the time, and setting this parameter to – will allow AMS to shorten the time. With a setting of 0 there will be no change.

Dc (Decay Time Swing)

This parameter specifies the direction in which “AMS1/2” will affect the decay time. With positive (+) values of “Intensity”, setting this parameter to + will allow AMS to lengthen the time, and setting this parameter to – will allow AMS to shorten the time. With a setting of 0 there will be no change.

Sl (Slope Time Swing)

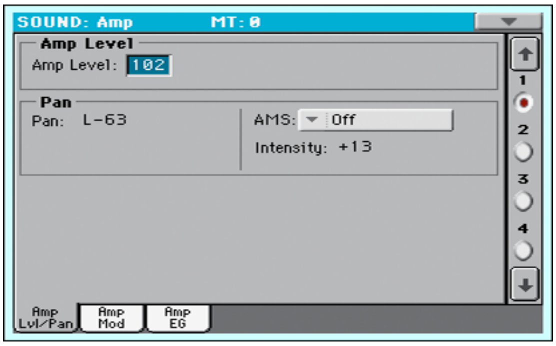
This parameter specifies the direction in which “AMS1/2” will affect the slope time. With positive (+) values of “Intensity”, setting this parameter to + will allow AMS to lengthen the time, and setting this parameter to – will allow AMS to shorten the time. With a setting of 0 there will be no change.

Rl (Release Time Swing)

This parameter specifies the direction in which “AMS1/2” will affect the release time. With positive (+) values of “Intensity”, setting this parameter to + will allow AMS to lengthen the time, and setting this parameter to – will allow AMS to shorten the time. With a setting of 0 there will be no change.

Amp: Amp Level/Pan

These parameters control the volume and pan of the selected oscillator.


SOUND: Amp MT: 0

Amp Level

Amp Level: 102

Pan

Pan: L-63

AMS: Off

Intensity: +13

Amp Level

Volume of the selected oscillator.

Note: *The volume of a Sound can be controlled by CC#7 (volume) and #11 (expression). The resulting level is determined by multiplying the values of CC#7 and #11. The Global MIDI channel is used for control.*

0…127	Volume level.

Pan

Pan (stereo position) of the selected oscillator.

DRUM *This parameter is not available when editing a Drum Kit. Use the individual Pan control for each key (see “Pan” on page 200).*

Random	The sound will be heard from a different location at each note-on.
L001	Places the sound at far left.
C064	Places the sound in the center.
R127	Places the sound to far right.

Note: *This can be controlled by CC#10 (panpot). A CC#10 value of 0 or 1 will place the sound at the far left, a value of 64 will place the sound at the location specified by the “Pan” setting for each oscillator, and a value of 127 will place the sound at the far right. This is controlled on the global MIDI channel.*

Pan modulation

AMS (Alternate Modulation Source)

Selects the source that will modify pan (see “AMS (Alternate Modulation Source) list” on page 216). This change will be relative to the “Pan” setting.

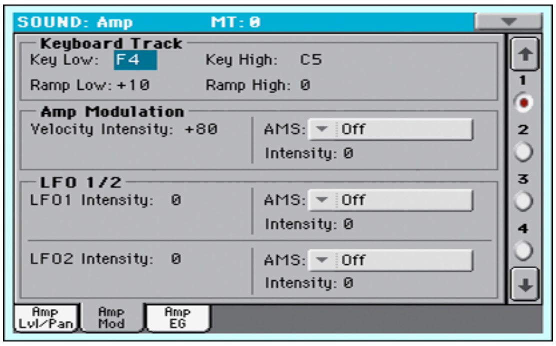
Intensity

Specifies the depth of the effect produced by “AMS”. For example, if “Pan” is set to C064 and “AMS” is Note Number, positive (+) values of this parameter will cause the sound to move toward the right as the note numbers increase beyond the C4 note (i.e., as you play higher), and toward the left as the note numbers decrease (i.e., as you play lower). Negative (–) values of this parameter will have the opposite effect.

-99…+99	Parameter value.

Amp: Amp Mod

These settings allow you to apply modulation to amp (for each oscillator) to modulate the volume.


SOUND: Amp MT: 0

Keyboard Track

Key Low: F4 Key High: C5

Ramp Low: +10 Ramp High: 0

Amp Modulation

Velocity Intensity: +80

AMS: Off

Intensity: 0

LFO 1/2

LFO1 Intensity: 0

AMS: Off

Intensity: 0

LFO2 Intensity: 0

AMS: Off

Intensity: 0

Keyboard Tracking

These parameters let you use keyboard tracking to adjust the volume of the selected oscillator. Use the “Key” and “Ramp” parameters to specify how the volume will be affected by the keyboard location that you play.

Key Low/High

These settings specify the note number at which keyboard tracking will begin to apply. The volume will not change between “Key Low” and “Key High”.

Keyboard tracking will apply to the range below the specified Low note number, and above the specified High note number.

C–1…G9	Lowest/Highest note in the range.

Ramp Low/High

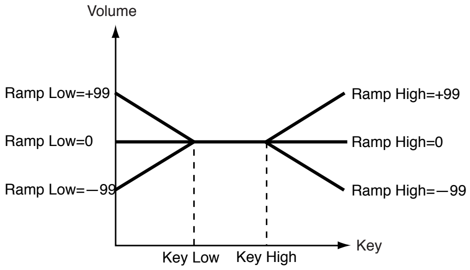
These parameters specify the angle of keyboard tracking.

With positive (+) values of the “Ramp Low” parameter, the volume will increase as you play notes below the “Key Low” note number. With negative (–) values, the volume will decrease.

With positive (+) values of the “Ramp High” parameter, the volume will increase as you play notes above the “Key High” note number. With negative (–) values, the volume will decrease.

-99…+99	Angle value.

Here is an example of volume changes produced by keyboard location and “Ramp” settings:

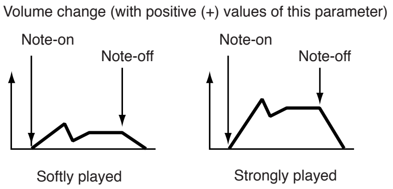


Amp Modulation

These parameters specify how the volume of the selected oscillator will be affected by velocity.

Velocity Intensity

With positive (+) values, the volume will increase as you play more strongly. With negative (–) values, the volume will decrease as you play more strongly.



-99…+99	Intensity value.

AMS (Alternate Modulation Source)

Selects the source that will control the volume of the amp for the selected oscillator (See “AMS (Alternate Modulation Source) list” on page 216). “Velocity” cannot be selected.

Intensity

This parameter specifies the depth and direction of the effect that “AMS” will have. The actual volume will be determined by multiplying the value of the changes produced by the amp EG with the values of Alternate Modulation etc., and if the levels of the amp EG are low, the modulation applied by Alternate Modulation will also be less.

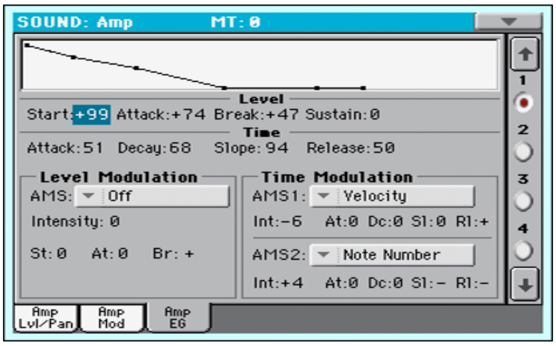
For example, if “AMS” is set to Joystick Y+, positive (+) values of this parameter will cause the volume to increase when you move the Joystick up in the Y axis. However if the EG settings etc. have already raised the volume to its maximum level, the volume cannot be increased further.

With negative (–) values of this parameter, the volume will decrease when pressure is applied to the keyboard.

-99…+99	Intensity value.

Amp: Amp EG

These parameters let you create time-varying changes in the volume of the selected oscillator.


SOUND: Amp MT: 0

Level
Start: +99 Attack: +74 Break: +47 Sustain: 0

Time
Attack: 51 Decay: 68 Slope: 94 Release: 50

Level Modulation
AMS: Off
Intensity: 0
St: 0 At: 0 Br: +

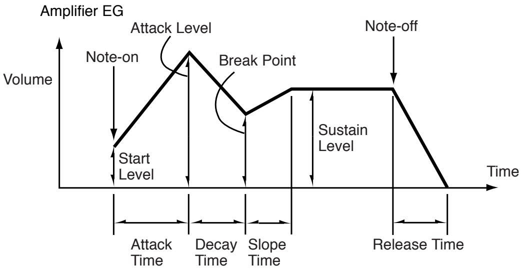
Time Modulation
AMS1: Velocity
Int: –6 At: 0 Dc: 0 Sl: 0 Rl: +
AMS2: Note Number
Int: +4 At: 0 Dc: 0 Sl: – Rl: –

Diagram

The diagram on top of the page shows the Amplitude envelope line.

Level

These parameters are the level of the envelope segment.



Start

This parameter specifies the volume level at note-on. If you want the note to begin at a loud level, set this to a high value.

0…99	Level value.

Attack

This parameter specifies the volume level that will be reached after the attack time has elapsed.

0…99	Level value.

Break

This parameter specifies the volume level that will be reached after the decay time has elapsed.

0…99	Level value.

Sustain

This parameter specifies the volume level that will be maintained from after the slope time has elapsed until note-off occurs.

0…99	Level value.

Time

These parameters specify the time over which the volume change will occur.

Attack

This parameter specifies the time over which the volume will change after note-on until it reaches the attack level. If the start level is 0, this will be the rise time of the sound.

0…99	Time value.

Decay

This parameter specifies the time over which the volume will change from when it reaches the attack level until it reaches the break point level.

0…99	Time value.

Slope

This parameter specifies the time over which the volume will change from when it reaches the break point level until it reaches the sustain level.

0…99	Time value.

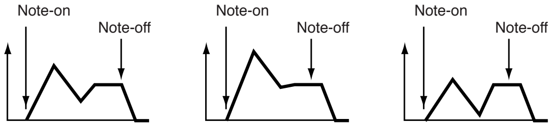
Release

This parameter specifies the time over which the volume will change after note-off until it reaches 0.

0…99	Time value.

Level Modulation

Amp 1 EG changes (Level) (AMS=Velocity, Intensity = a positive (+) value)



Softly played note when Start Level Swing=0 and Attack Level Swing and Break Level Swing are set to +

Strongly played note when Start Level Swing=0 and Attack Level Swing and Break Level Swing are set to +

Strongly played note when Start Level Swing=0 and Attack Level Swing and Break Level Swing are set to +

AMS (Alternate Modulation Source)

This parameter specifies the source that will control the "Level" parameters of the amp EG. See "AMS (Alternate Modulation Source) list" on page 216.

Intensity

This parameter specifies the depth and direction of the effect that "AMS" will have. For example, if "AMS" is Velocity, setting "St (Start Level Swing)", "At (Attack Level Swing)" and "Br (Break Point Level Swing)" to + and setting "Intensity" to a positive (+) value will cause the amp EG volume levels to increase as you play more strongly. Setting "Intensity" to a negative (–) values will cause the amp EG volume levels to decrease as you play more strongly. With a setting of 0, the levels will be as specified on "Amp: Amp EG".

-99…+99	Intensity value.

St (Start Level Swing)

This parameter specifies the direction in which "AMS" will change "Start". If "Intensity" is set to a positive (+) value, setting this parameter to + will allow AMS to increase the EG level, and setting this parameter to – will allow AMS to decrease the EG level. With a setting of 0, no change will occur.

At (Attack Level Swing)

This parameter specifies the direction in which "AMS" will change "Attack". If "Intensity" is set to a positive (+) value, setting this parameter to + will allow AMS to increase the EG level, and setting this parameter to – will allow AMS to decrease the EG level. With a setting of 0, no change will occur.

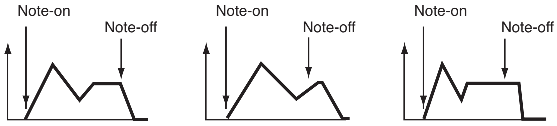
Br (Break Point Level Swing)

This parameter specifies the direction in which "AMS" will change "Break". If "Intensity" is set to a positive (+) value, setting this parameter to + will allow AMS to increase the EG level, and setting this parameter to – will allow AMS to decrease the EG level. With a setting of 0, no change will occur.

Time Modulation

These parameters let you use an alternate modulation source to modify the amp EG times that were specified in "Time" on page 210.

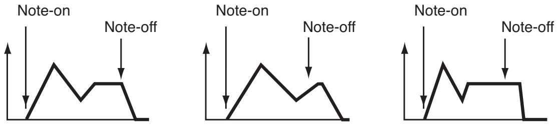
Amp 1 EG changes (Time)
(AMS=Amp KTrk +/+, Intensity = a positive (+) value)
(When Amp Keyboard Track "Low Ramp"= a positive (+) value, and "High Ramp" = a positive (+) value)



Low-pitched note played with Attack, Decay, Slope, and Release Time Swing at +

High -pitched note played with Attack, Decay, Slope, and Release Time Swing at –

Amp 1 EG changes (Time) (AMS=Velocity, Intensity= a positive (+) value)



Softly played note with Attack, Decay, Slope and Release Time Swing at +

Strongly played note with Attack, Decay, Slope and Release Time Swing at +

Strongly played note with Attack, Decay, Slope and Release Time Swing at –

AMS1 (Alternate Modulation Source 1 - Time)

This parameter specifies the source that will control the "Time" parameters of the amp EG (see "AMS (Alternate Modulation Source) list" on page 216). With a setting of Off, there will be no modulation.

Intensity

This parameter specifies the depth and direction of the effect that "AMS1" will have. For example, if "AMS1(T)" is Amp KTrk +/+, the (Amp) Keyboard Track settings (see "Keyboard Tracking" on page 209) will control the EG "Time" parameters. With positive (+) values of this parameter, positive (+) values of "Ramp (Ramp Setting) will cause EG times to be lengthened, and negative (–) values of "Ramp (Ramp Setting)" will cause EG times to be shortened. The direction of the change is specified by "At (Attack Time Swing)", "Dc (Decay Time Swing)", "Sl (Slope Time Swing)", and "Rl (Release Time)".

When "AMS1(T)" is Velocity, positive (+) values will cause EG times to lengthen as you play more strongly, and negative (–) values will cause EG times to shorten as you play more strongly. With a setting of 0, the EG times will be as specified by the "Level" parameters (see page 210).

At (Attack Time Swing)

This parameter specifies the direction of the effect that "AMS1" will have on "Attack". With positive (+) values of "Intensity", setting this parameter to + will allow AMS1 to lengthen the time, and setting it to – will allow AMS1 to shorten the time. With a setting of 0 there will be no effect.

Dc (Decay Time Swing)

This parameter specifies the direction of the effect that "AMS1" will have on "Decay". With positive (+) values of "Intensity", setting this parameter to + will allow AMS1 to lengthen the time, and setting it to – will allow AMS1 to shorten the time. With a setting of 0 there will be no effect.

Sl (Slope Time Swing)

This parameter specifies the direction of the effect that “AMS1” will have on “Slope”. With positive (+) values of “Intensity”, setting this parameter to + will allow AMS1 to lengthen the time, and setting it to – will allow AMS1 to shorten the time. With a setting of 0 there will be no effect.

Rl (Release Time)

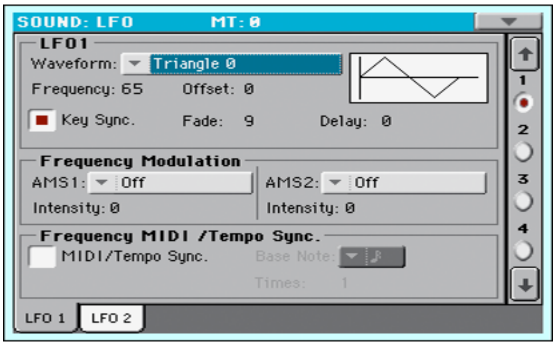
This parameter specifies the direction of the effect that “AMS1” will have on “Release”. With positive (+) values of “Intensity”, setting this parameter to + will allow AMS1 to lengthen the time, and setting it to – will allow AMS1 to shorten the time. With a setting of 0 there will be no effect.

AMS2 (Alternate Modulation Source 2)

This is another alternate modulation source for the Amp EG. See above “AMS1” parameters.

LFO: LFO1

In this and the next page you can make settings for the LFO that can be used to cyclically modulate the Pitch, Filter, and Amp of each oscillator. There are two LFO units for each oscillator. By setting the LFO1 or LFO2 Intensity to a negative (–) value for Pitch, Filter, or Amp, you can invert the LFO waveform.



SOUND: LFO MT: 0

LFO1

Waveform: Triangle 0

Frequency: 65 Offset: 0

■ Key Sync. Fade: 9 Delay: 0

Frequency Modulation

AMS1: Off Intensity: 0

AMS2: Off Intensity: 0

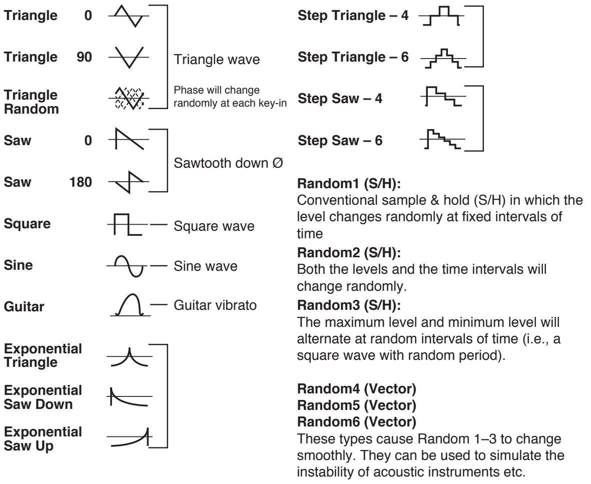
Frequency MIDI /Tempo Sync.

☐ MIDI/Tempo Sync. Base Note: Times: 1

1
2
3
4
LFO 1
LFO 2

Waveform

This parameter selects the LFO waveform. The numbers that appear at the right of some of the LFO waveforms indicate the phase at which the waveform will begin.



Triangle 0
Triangle 90
Triangle Random
Triangle wave
Phase will change randomly at each key-in
Saw 0
Saw 180
Sawtooth down Ø
Square
Square wave
Sine
Sine wave
Guitar
Guitar vibrato
Exponential Triangle
Exponential Saw Down
Exponential Saw Up
Step Triangle – 4
Step Triangle – 6
Step Saw – 4
Step Saw – 6

Random1 (S/H):
Conventional sample & hold (S/H) in which the level changes randomly at fixed intervals of time

Random2 (S/H):
Both the levels and the time intervals will change randomly.

Random3 (S/H):
The maximum level and minimum level will alternate at random intervals of time (i.e., a square wave with random period).

Random4 (Vector)
Random5 (Vector)
Random6 (Vector)
These types cause Random 1–3 to change smoothly. They can be used to simulate the instability of acoustic instruments etc.

Frequency

Set the LFO frequency. A setting of 99 is the fastest.

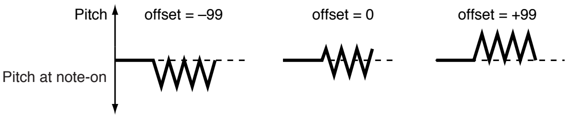
00…99	Frequency rate.

Offset

This parameter specifies the central value of the LFO waveform. For example, with a setting of 0 as shown in the following diagram, the vibrato that is applied will be centered on the note-on pitch. With a setting of +99, the vibrato will only raise the pitch above the note-on pitch, in the way in which vibrato is applied on a guitar.

When “Waveform” is set to Guitar, the modulation will occur only in the positive (+) direction even if you set “Offset” to 0.

Here are offset settings and pitch change produced by vibrato:



Pitch
Pitch at note-on
offset = –99
offset = 0
offset = +99

-99…+99	Offset value.

Key Sync

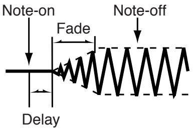
This parameter specifies if the LFO is synchronized to key strokes.

On	The LFO will start each time you play a note, and an independent LFO will operate for each note.
Off	The LFO effect that was started by the first-played note will continue to be applied to each newly-played note. (In this case, Delay and Fade will be applied only to the LFO when it is first started).

Fade

This parameter specifies the time from when the LFO begins to apply until it reaches the maximum amplitude. When “Key Sync.” is Off, the fade will apply only when the LFO is first started.

Here is how “Fade” affects the LFO (when “Key Sync” is On):



Note-on
Note-off
Fade
Delay

00…99	Fade rate.

Delay

This parameter specifies the time from note-on until the LFO effect begins to apply. When “Key Sync” is Off, the delay will apply only when the LFO is first started.

0…99	Delay time.

Frequency Modulation

You can use two alternate modulation sources to adjust the speed of the LFO1 for the selected oscillator.

AMS1 (Alternate Modulation Source1)

Selects the source that will adjust the frequency of the selected oscillator LFO1 (see “AMS (Alternate Modulation Source) list” on page 216). LFO1 can be modulated by LFO2.

Intensity (AMS1 Intensity)

This parameter specifies the depth and direction of the effect that “AMS1(F)” will have. When this parameter is set to a value of 16, 33, 49, 66, 82, or 99, the LFO frequency being can be increased by a maximum of 2, 4, 8, 16, 32, or 64 times respectively (or decreased by 1/2, 1/4, 1/8, 1/16, 1/32, or 1/64 respectively).

For example, if “AMS1(F)” is Note Number, positive (+) values of this parameter will cause the oscillator LFO to speed up as you play higher notes. Negative (–) values will cause the oscillator LFO to slow down as you play higher notes. This change will be centered on the C4 note.

If “AMS1(F)” is set to JS +Y, raising the value of this parameter will cause the oscillator LFO1 speed to increase as the joystick is moved away from yourself. With a setting of +99, moving the joystick all the way away from yourself will increase the LFO speed by approximately 64 times.

-99…+99	Intensity value.

AMS2 (Alternate Modulation Source2)
Intensity (AMS2 Intensity)

Make settings for a second alternate modulation source that will adjust the frequency of the oscillator LFO1 (see above “AMS1 (Alternate Modulation Source1)” and “Intensity (AMS1 Intensity)”).

Frequency MIDI/Tempo Sync

MIDI/Tempo Sync

This parameter enables/disables the LFO synchronization with Sequencer 1 Tempo.

On	The LFO frequency will synchronize to the tempo (MIDI Clock) of Sequencer 1. In this case, the values you specified for “Frequency” (see page 212) and “Frequency Modulation” (see page 212) will be ignored.

Base Note

When “MIDI/Tempo Sync” is On, these parameters set a note length relative to “q (Tempo)” and the multiple (“Times”) that will be applied to it. These parameters will determine the frequency of the LFO1. For example if “Base Note” is q (quarter note) and “Times” is 04, the LFO will perform one cycle every four beats.

Even if you change the “q (Tempo)” setting of Sequencer 1, the LFO will always perform one cycle every four beats.

DRUM *This parameter is not available when editing a Drum Kit.*

Note	Note value.

Times

DRUM *This parameter is not available when editing a Drum Kit.*

1...16	Beats before restarting the cycle.

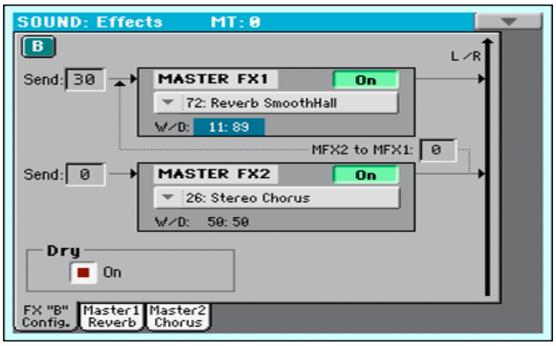
LFO: LFO2

Here you can make settings for the LFO2, which is the second LFO that can be applied to the selected oscillator. See “LFO: LFO1” for more information on the parameters value.

However in “Frequency Modulation”, the LFO cannot be selected as a modulation source in “AMS1” or “AMS2.”

Effects: “B” FX Config

This page allows you to select the effects for the Sound (B Group). The effect types and the FX matrix are the same seen for the Style Play mode (see “Effects: A/B FX Configuration” on page 106 of the User’s Manual).



Send: 30
72: Reverb SmoothHall
W/D: 11: 89
MFX2 to MFX1: 0
Send: 0
26: Stereo Chorus
W/D: 50: 50
☑ On

FX Name

Use this pop-up menu to choose one of the available effects. For a list of the available effects, see “Effects” on page 324.

FX parameters

All other parameters in this page are the same seen for the Style Play mode (see “Effects: A/B FX Configuration” on page 106 in the User’s Manual).

Send to Master

Use these parameters to set the level of the Sound signal going from the Insert FX to the Master FXs.

0…127	Level of the sent signal.

Dry

Use this checkbox to mix the dry, direct Sound signal to the effects.

Effects: Master 1 / Reverb

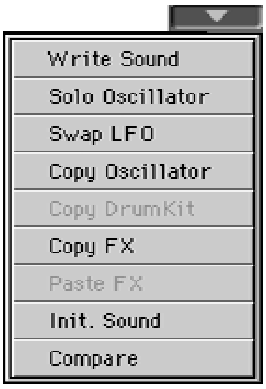
In this page you can edit the effect assigned to the Master FX 1 effect processor (usually Reverb). See “Effects” on page 330 for more information.

Effects: Master 2 / Chorus

In this page you can edit the effect assigned to the Master FX 2 effect processor (usually Chorus). See “Effects” on page 330 for more information.

Page menu

Touch the page menu icon to open the menu. Touch a command to select it. Touch anywhere in the display to close the menu without selecting a command.



Write Sound

Select this command to open the Write Sound dialog box, and save all editing parameters to a Sound.

See “Write Sound dialog box” on page 215 for more information.

Solo Oscillator

Select this command to solo the selected oscillator, and mute the other oscillators. Select it again to unmute the other oscillators.

When this function is activated, the “Solo OSC [n]” indicator (n = oscillator number) blinks on the page header. While in this situation, you can select a different oscillator to be soloed.

Swap LFO

Select this command to replace LFO1 with LFO2, and vice-versa.

Copy Oscillator

Select this command to copy all settings between oscillators. See “Copy Oscillator dialog box” on page 215 for more information.

Copy/Paste FX

Use this command to copy a single effect, or both effects of an FX group (A or B). See “Copy/Paste FX” on page 115 for detailed instructions.

Copy Drum Kit

Select this command to copy the Drum Kit from a different Drum Kit. See “Copy Drum Kit dialog box” on page 215 for more information.

Init Sound

Select this command to delete all parameters, and set them to a default value.

Compare

When this command is checked, original Sound parameter values are temporarily recalled, to compare them with edited parameters. You cannot edit the Sound while you are in Compare mode.

While this function is on, the Compare indicator blinks on the page header.

Write Sound dialog box

Open this window by selecting the Write Sound item from the page menu. Here, you can save all Sound parameters to a Sound location in memory.

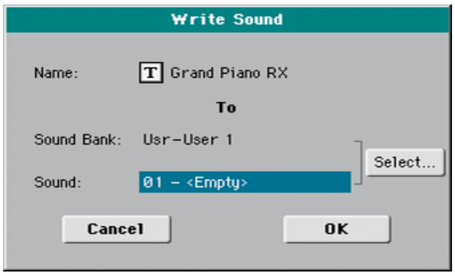
Warning: *If you write over an existing Sound, the Sound will be deleted and replaced by the one you are saving ("overwrite"). Please save on a storage device any User Sound you don't want to lose.*

Note: *Drum Kits cannot be written over standard Sounds, nor vice versa.*

Note: *To save over a Factory Sound location, unckeck the "Factory Sound Protect" command in the Global > Mode Preferences > Media page (see page 241).*

Warning: When replacing a Factory Sound, please be warned that all Performance, STSs, Styles and Songs making use of it will be modified as well. Use this feature with great care!

To restore the original data, please use the "Factory Restore" command in the Utility page of the Media mode (see page 267 for more information).



Name: T Grand Piano RX

To

Sound Bank: Usr-User 1

Sound: 01 – <Empty>

Name

Name of the Sound to be saved. Touch the T (Text Edit) button next to the name to open the Text Edit window.

Sound Bank

Target bank of Sounds. Use the VALUE controls to select a different bank.

Sound

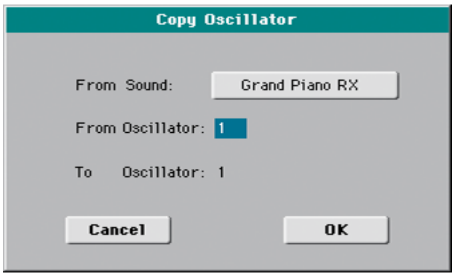
Target Sound location in the selected bank. Use the VALUE controls to select a different location.

Select…

Touch this button to open the Sound Select window, and select a target location.

Copy Oscillator dialog box

Open this window by selecting the Copy Oscillator item from the page menu. Here, you can copy all settings between oscillators.



From Sound: Grand Piano RX

From Oscillator: 1

To Oscillator: 1

From Sound

Touch this button to open the Sound Select window, and select the source Sound.

From Oscillator

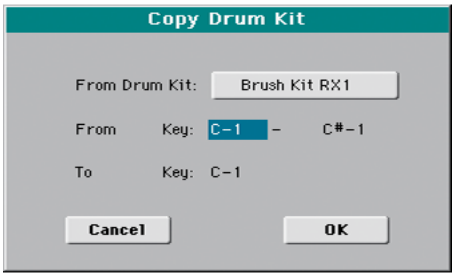
Select the source oscillator to copy from.

To Oscillator

Target oscillator where to copy the source settings to.

Copy Drum Kit dialog box

Open this window by selecting the Copy Drum Kit item from the page menu. Here, you can copy settings from a range of keys of a Drum Kit.



From Drum Kit: Brush Kit RX1

From Key: C-1 – C#-1

To Key: C-1

From Drum Kit

Touch this button to open the Sound Select window, and select the source Drum Kit.

From Key

Select the source range of keys to copy from.

To Key

Target key. Settings are copied starting from this key, and upwards.

AMS (Alternate Modulation Source) list

Off	Do not use Alternate Modulation
Pitch EG	Pitch EG
Filter EG	Filter EG within the same oscillator
Amp EG	Amp EG within the same oscillator
LFO1	LFO1 within the same oscillator
LFO2	LFO2 within the same oscillator
Flt KTrk +/+ (Filter Keyboard Track +/+)	Filter keyboard tracking within the same oscillator
Flt KTrk +/– (Filter Keyboard Track +/)	Filter keyboard tracking within the same oscillator
Flt KTrk 0/+ (Filter Keyboard Track 0/+)	Filter keyboard tracking within the same oscillator
Flt KTrk +/0 (Filter Keyboard Track +/0)	Filter keyboard tracking within the same oscillator
Amp KTrk +/+ (Amp Keyboard Track +/+)	Amp keyboard tracking within the same oscillator
Amp KTrk +/ (Amp Keyboard Track +/)	Amp keyboard tracking within the same oscillator
Amp KTrk 0/+ (Amp Keyboard Track 0/+)	Amp keyboard tracking within the same oscillator
Amp KTrk +/0 (Amp Keyboard Track +/0)	Amp keyboard tracking within the same oscillator
Note Number	Note number
Velocity	Velocity
Poly AT (Poly After Touch)	Polyphonic After Touch (received/transmitted via MIDI or contained in Standard MIDI Files)
Channel AT (Channel After Touch)	After Touch (Channel After Touch) (received/transmitted via MIDI or contained in Standard MIDI Files)
Joystick X	Joystick X (horizontal) axis
Joystick +Y	Joystick +Y (vertical upward) direction (CC#01)
Joystick Y	Joystick Y (vertical downward) direction (CC#02)
JS+Y & AT/2 (Joy Stick +Y & After Touch/2)	Joystick +Y (vertical upward) direction and After Touch (received/transmitted via MIDI or contained in Standard MIDI Files)
JS–Y & AT/2 (Joy Stick Y & After Touch/2)	Joystick Y (vertical downward) direction and After Touch (received/transmitted via MIDI or contained in Standard MIDI Files)
Assign. Pedal	Assignable foot pedal (CC#04)
Ribbon Ctl.	Ribbon controller (CC#16) (received/transmitted via MIDI or contained in Standard MIDI Files)
CC#18	CC#18
CC#17	CC#17
CC#19	CC#19
CC#20	CC#20
CC#21	CC#21
Damper	Damper pedal (CC#64)
CC#65	Portamento switch (CC#65)
Sostenuto	Sostenuto pedal (CC#66)
CC#80	CC#80
CC#81	CC#81
CC#82	CC#82
CC#83	CC#83
Tempo	Tempo (tempo data from Sequencer 1 clock or external MIDI clock)
Velocity Plus	Key On and Key Off Velocity are used
Velocity Exp	Velocity with Exponential curve (higher velocity notes are even louder)
Velocity Log	Velocity with Logarithmic curve (higher velocity notes are weaker than with the linear Velocity)

Flt KTrk +/+ (Filter Keyboard Track +/+)

Flt KTrk +/– (Filter Keyboard Track +/)

Flt KTrk 0/+ (Filter Keyboard Track 0/+)

Flt KTrk +/0 (Filter Keyboard Track +/0)

Amp KTrk +/+ (Amp Keyboard Track +/+)

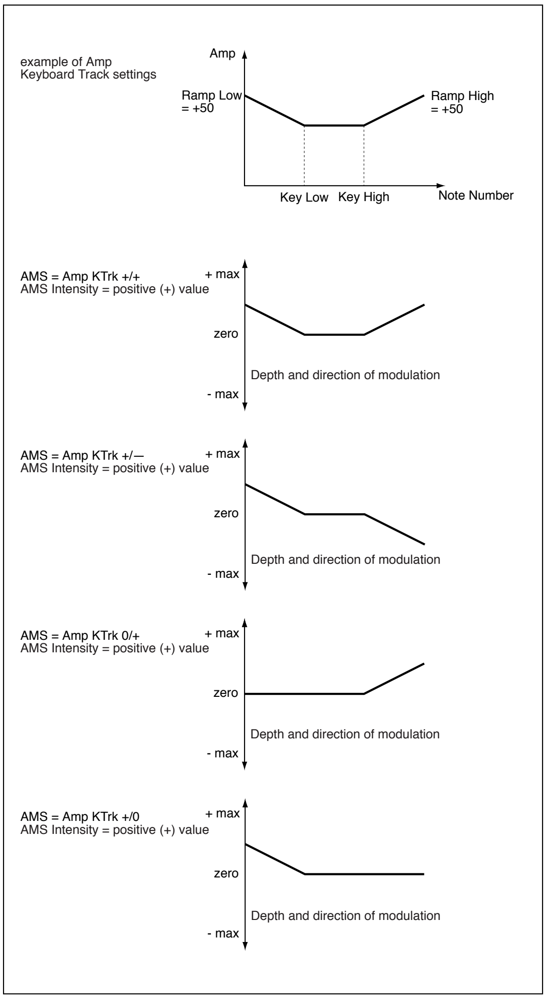
Amp KTrk +/– (Amp Keyboard Track +/–)

Amp KTrk 0/+ (Amp Keyboard Track 0/+)

Amp KTrk +/0 (Amp Keyboard Track +/0)

+/+	The direction of the effect will be determined by the sign (positive or negative) of the “Ramp Low” or “Ramp High” setting.
+/–	The direction of the effect will be determined by the sign of the “Ramp Low” setting, and by the opposite sign of the “Ramp High” setting (50 for a setting of +50, and +50 for a setting of 50).

0/+	“Ramp Low” will have no AMS effect. The sign of the “Ramp High” setting will determine the direction of its effect.
+/0	The sign of the “Ramp Low” setting will determine the direction of its effect. “Ramp High” will have no AMS effect.


example of Amp
Keyboard Track settings
Amp
Ramp Low
= +50
Ramp High
= +50
Key Low
Key High
Note Number
AMS = Amp KTrk +/+
AMS Intensity = positive (+) value
+ max
zero
Depth and direction of modulation
- max
AMS = Amp KTrk +/—
AMS Intensity = positive (+) value
+ max
zero
Depth and direction of modulation
- max
AMS = Amp KTrk 0/+
AMS Intensity = positive (+) value
+ max
zero
Depth and direction of modulation
- max
AMS = Amp KTrk +/0
AMS Intensity = positive (+) value
+ max
zero
Depth and direction of modulation
- max

JS +Y & AT/2 (Joy Stick +Y & After Touch/2)

The effect will be controlled by the joystick +Y (vertically upward) and by after touch. In this case, the effect of after touch will be only half of the specified intensity (received/transmitted via MIDI or contained in Standard MIDI Files).

JS Y & AT/2 (Joy Stick –Y & After Touch/2)

The effect will be controlled by the joystick Y (vertically downward) and by after touch. In this case, the effect of after touch will be only half of the specified intensity (received/transmitted via MIDI or contained in Standard MIDI Files).

Sampling mode

The Sampling mode allows you to create new Samples, new Multisamples and new synced Audio Grooves. You can load Samples, Multisamples, Sounds and banks of Sounds from various formats.

Pa600 can read common file formats, like WAV, AIFF and SF2 files, and load data from KORG Trinity and Triton files.

To be used, Samples must be assigned to a Multisample or a Drum Kit. A Multisample allows you to arrange samples into separate zones of the keyboard. Drum Kits allows you to assign a different sample to each note of the keyboard, with up to six dynamic layers per note.

Multisamples can then be assigned to Sounds. Sounds created with this function can be used as any ordinary Sound, and assigned to any track.

Another powerful feature of the Sampling mode is the Time Slice, that lets you add realism to MIDI tracks by creating Audio Grooves.

Warning: *When loading a ".SET" folder containing User PCM Samples, all existing User PCM Samples are deleted from memory. Save them before loading the folder, by selecting the "PCM" option during a Save All operation (see "Saving the full memory content" on page 261 of the User's Manual).*

To see if a ".SET" folder contains User PCM Samples, open it and look for a "PCM" folder.

Hint: *If you want to load new User PCM Samples without deleting the ones already contained in memory, load single Sounds instead of a ".SET" folder.*

Entering and exiting the Sampling mode

- While in Sound mode, press the RECORD button to enter in Sampling mode.
- While in Sampling mode, press the RECORD button to exit the Sampling mode, and return to the Sound mode.

Creating new Sounds from the Samples

Here is how to create a new Sounds from new Samples and Multisamples.

1. Create new Samples with the procedures described in the following pages.
2. Select the Write command from the page menu to save the Sample in edit. The Write Sample dialog box will appear (see "Write Sample dialog box" on page 230). Assign a name to the new Sample, and confirm saving.
3. After saving, you can load other files to create additional Samples.
4. When you have created and saved all the needed Samples, press the MENU button and go to the "Multisample" section, to assign the Sample(s) to a Multisample. Assign each Sample to a different keyboard zone of the Multisample.
5. When finished editing the Multisample, select the Write command from the page menu. The Write Multisample dialog box will appear (see "Write MultiSample dialog box" on page 230). Assign a name to the new Multisample, and save it to the internal memory.
6. Press RECORD to exit the Sampling mode and return to the Sound mode.
7. Select an ordinary Sound similar to the one you want to create.
8. Press MENU and go to the "Basic: OSC Basic" page (see page 193). Select one of the available layers, then select the RAM bank of Multisamples. Finally, select the new Multisample.
9. Select the Write Sound command from the page menu, and save the Sound to an empty User location.
10. If you want so, assign the new Sound to a track, then select the "Write Performance", "Write Current Style Settings" or "Write STS" command from the page menu, to save the Sound to a Performance, Style Settings or STS.

Creating new Drum Kits from the Samples

Here is how to create a new Drum Kits from new Samples.

1. Create new Samples with the procedures described in the following pages.
2. Select the Write command from the page menu to save the Sample in edit. The Write Sample dialog box will appear (see "Write Sample dialog box" on page 230). Assign a name to the new Sample, and confirm saving.
3. After saving, you can load other files to create additional Samples.
4. When you have created and saved all the needed Samples, press RECORD to exit the Sampling mode and return to the Sound mode.
5. Select a Drum Kit similar to the one you want to create.
6. Press MENU and go to the "DrumKit: Sample Setup (Drum Kits)" page (see page 197). Select a key and a layer, then select the RAM bank of Samples. Finally, select the new Samples.
7. Select the Write Sound command from the page menu, and save the Drum Kit to an empty User DK location.
8. If you want so, assign the new Drum Kit to a track, then select the "Write Performance", "Write Current Style Settings" or "Write STS" command from the page menu, to save the Drum Kit to a Performance, Style Settings or STS.

   Hint: *Drum Kits are better suited for the Drum or Percussion track. Assign them to the Style Settings.*

Creating new Sounds from an Audio Groove

Creating an Audio Groove

After loading an Audio Groove, you must "slice" it to create a series of separate percussive Samples, a Multisample and a MIDI Groove.

1. Go to the Time Slice page. After creating a series of slices, use the Extend function to refine your groove.
2. Select the Write command from the page menu, to save the sliced Samples, a Multisample, a Sound and the MIDI Groove. Choose one of the User Sound locations. The Sound, Multisample, MIDI Groove and sliced Samples are saved to the internal memory.
3. Press RECORD to exit the Sampling mode and return to the Sound mode.

Assigning an Audio Grooves to a Sound

You can use the new Multisample and sliced Samples generated from the Audio Groove in a new User Sound.

1. To access the new Multisample for use in a Sound, go to the Sound mode.
2. Select an ordinary Sound. Press MENU and go to the "Basic: OSC Basic" page (see page 193). Select one of the available layers, then select the RAM bank of Multisamples. Finally, select the new Multisample.
3. Select the Write Sound command from the page menu, and save the Sound to an empty User location.

Assigning the Audio Groove to Styles or Pads

Sounds based on the Audio Groove can be used in Styles or Pads.

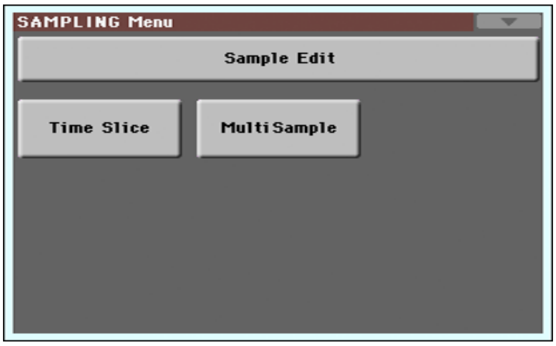
1. Assign the new Sound to a Style track (preferably, the Drum or Percussion track) or to a Pad track, then select the "Save Current Style Perf." or "Write Pad" command from the page menu, to save the Style Settings or the Pad.
2. Use the "Import: Import Groove" function in the Style/Pad Record mode (see page 145) to import the generated MIDI Groove to the Style track you assigned the new Sound to. By playing this MIDI Groove with the new Sound, you'll be able to play the original audio groove on the keyboard.

   Warning: *Generated MIDI Grooves will be deleted when turning the instrument off. Import them to a Style track before turning the instrument off.*

Edit menu

From any page of the Sampling mode, press the MENU button to open the Sampling edit menu. This menu gives access to the various Sampling edit sections.

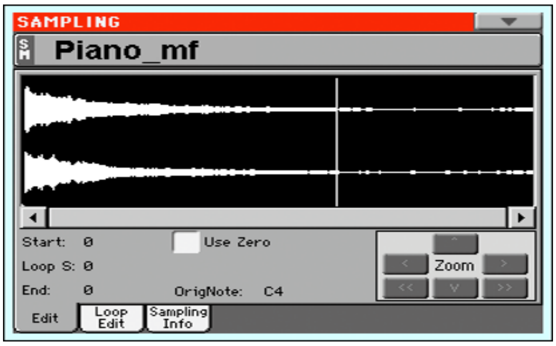
When in the menu, select an edit section, or press EXIT to exit the menu and return to the Sample Edit page. To return to this page, you can also select the Sample Edit menu item.



Each item in this menu corresponds to an edit section. Each edit section groups various edit pages, that may be selected by touching the corresponding tab on the lower part of the display.

Sampling: Edit

This page allows you to cut, trim or normalize a sample, as well as edit the loop points. The sample can played on the full keyboard.



Piano_mf

Start: 0
Loop S: 0
End: 0
☐ Use Zero
OrigNote: C4

SM (Sample)

Selected sample.

Waveform display

This is the graphical display of the selected sample waveform, i.e., the one you can hear when playing the keyboard. The area included between the Start and End points is highlighted (dark background).

Parameters

Start (Sample Start)

This is the sample start point (in samples). You may edit this point, as well as the End point, to shorten the sample. Changing the Sample Start cuts out the attack portion of the sound.

Note: *When moving the "Start" point forward, and reach the "Loop Start" point, this latter is also moved forward.*

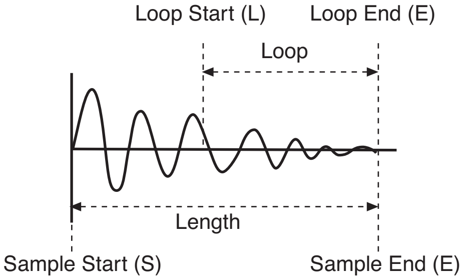
Warning: *When saving the edited sample (Write Sample operation), the segments exceeding the Start and End points are permanently removed.*

Loop Start

Note: *This parameter has no effect, unless you don't turn the loop on. Use the "Loop On" parameter on the "Sampling: Loop Edit" page to turn the loop on (see page 222).*

Use this parameter to adjust the Loop Start point. When you adjust this parameter, an audible click may appear, due to a pitch and/or level mismatch between the starting and ending points of the loop. Move the Loop Start and Loop/Sample End point, so that the click can no longer be heard.

When editing audio grooves, the Loop Start should match the Sample Start point. This parameter usually differs from the Sample Start in ordinary sounds (i.e., a guitar, a piano, a voice…).



End (Sample/Loop End)

This is the sample and loop end point (in samples). You may edit this point, to shorten the sample.

Warning: *When saving the edited sample (Write Sample operation), the segments exceeding the Start and End points are permanently removed.*

Use Zero

If this parameter is turned on, when you move the Start, Loop Start and End points, the selection fall on the nearest zero-crossing point (i.e., points where the waveform crosses the x-axis, and goes from negative to positive, or from positive to negative values). This will make loops more accurate, and will reduce the risk of "clicks".

OrigNote (Original Note)

Original pitch of the sampled note. While this parameter has no effect on sound, it will be useful to identify the original pitch of the sample and when assigning a sample to the multisample.

For example, if you sample a C4, set this parameter to "C4". When the sample will be assigned to a keyboard zone of the multisample, it will be transposed (if needed) according to this parameter, to avoid a change of the original pitch.

Zoom

Use these buttons to change the size of the waveform shown in the diagram. When a button is greyed-out, it means the maximum or minimum value has been reached.

^	Increase the vertical size.
v	Decrease the vertical size.
>	Increase the horizontal size.
<	Decrease the horizontal size.
>>	Full zoom in.
<<	Full zoom out.

Changing the sample length and finding good-sounding loop points

To adjust the sample length and loop points, check the "Loop On" parameter, then use the "Start", "Loop Start" and "End" parameters to create a fine sounding cycling loop.

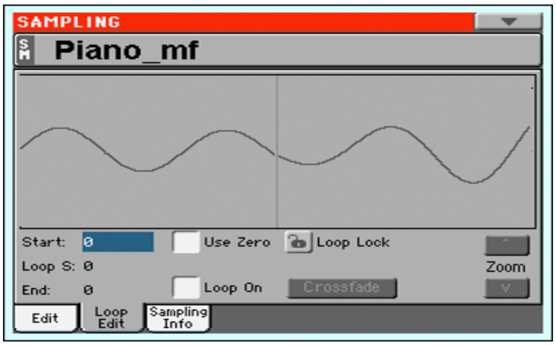
For example, you may have sampled an audio groove of an exceeding length. Use the "End" parameter to cut the exceeding portion at the end of the sample, and adjust the starting point of the loop using the "Start" or "Loop Start" parameters.

Usually, checking the "Use Zero" parameter is a big help, to avoid the loop clicks due to level mismatches.

Sampling: Loop Edit

The loop is a cycling portion of a sampled sound. It is a technique used to reduce the sampling time, cycling a portion of the sound to create the sustain phase of the sound. After the attack stage, most sounds repeat the same waveform during their sustain stage. You may adjust the Loop Start point with the "Loop Start" parameter, and the Loop End point (always matching the Sample End point) using the "End" parameter.

This page lets you fine tune the loop points, by watching at the Loop End and Loop Start points matching at the center of the diagram. A good-sounding loop is shown as a continuous, non-breaking line.


SM Piano_mf

Start: 0
Loop S: 0
End: 0

SM (Sample)

Selected sample.

Loop diagram

This diagram shows the "End" (Loop End) point on the left half, and the "Loop Start" point on the right half of the screen. Use the "End" and "Loop Start" parameters to adjust the loop.

Parameters

Start

See "Start (Sample Start)" on page 220.

Loop Start

See "Loop Start" on page 220.

End

See "End (Sample/Loop End)" on page 221.

Use Zero

See “Use Zero” on page 221.

Loop Lock

This fixes the length of the loop being edited.

Off	The “Loop S.” and “End” parameters can be edited separately.
On	When the “Loop S.” or “End” parameter is edited, the other one will be automatically adjusted so that the distance between them (i.e., the loop length) does not change. This is convenient when you are creating a rhythm loop to match a specific tempo.

Loop On

Use this parameter to turn the loop on or off.

On	The loop is turned on, and the portion of sound included between the Loop Start and Loop End points will cycle until a key is kept pressed. If the “Loop Start” point matches the “Start” point, the whole sample is cycled. When the loop is turned on, a vertical yellow line, showing the loop point, appears in the waveform display.
Off	The loop is turned off. The sound will play from the Sample Start to the Sample End point only once, even if you keep a key pressed on the keyboard.

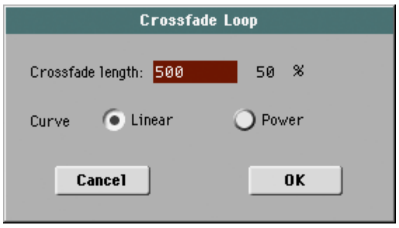
Crossfade

When looping the pitched sample of a complex sound such as strings or woodwinds to make the sound sustain, it is necessary to create a long loop to preserve the rich character of the sound. Crossfade Loop can be used to minimize the difference in pitch and level between the beginning and ending of the loop region, to create a natural-sounding loop. In order to solve such problems, Crossfade Loop causes the sound to change gradually from the end to the beginning of the loop.

In practice, here is how it works. A specific length (the “Crossfade Length” value) of the waveform immediately before the beginning of the loop is taken and mixed with the end portion. At this time, the waveform level of the portion immediately before the end (the length specified by “Crossfade Length”) will gradually decrease, and the waveform level immediately before the beginning of the loop will gradually increase as the two are mixed.

When the “Loop On” parameter is checked, and the “Start” and “Loop S.” parameters have different values, the “Crossfde” button becomes available.

When you touch the Crossfade button, the Crossfade Loop dialog box appears:



Crossfade length: 500 50 %

Curve ● Linear ○ Power

Crossfade Length

In “Crossfade Length,” specify the length of the sample that you wish to crossfade. You can enter it either as the number of samples, or a percentage (%). If you set this as a percentage, the number of samples will be calculated automatically.

If you set this to 50%, crossfade will be performed on the second half of the region between loop start and loop end.

The “Crossfade Length” cannot be greater than the smaller length between the Sample Start – Loop Start points, or the Loop Start – Sample End points.

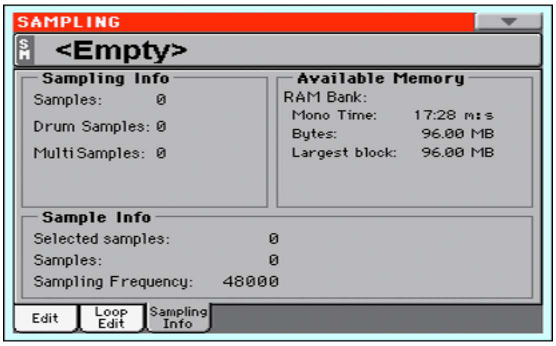
Curve

Set “Curve” to specify how the volume will change in the crossfaded region.

Linear	The volume will change linearly.
Power	The volume will change non-linearly. Sometimes a setting of Linear will produce the impression that the volume has dropped in the middle of the crossfade curve. In such cases, use Power.

Sampling: Sampling Info

Use this page to see detailed info on the sample in edit. General information for the RAM memory is also available.



<Empty>

Samples: 0
Drum Samples: 0
Multi Samples: 0

RAM Bank:
Mono Time: 17:28 m:s
Bytes: 96.00 MB
Largest block: 96.00 MB

Selected samples: 0
Samples: 0
Sampling Frequency: 48000

SM (Sample)

Selected sample.

Sampling Info

Samples

Number of samples in memory.

Drum Samples

Number of drum samples in memory.

Multisamples

Number of multisamples in memory.

Available Memory

RAM Bank

Pa600 comes with 96 MB of Sample RAM. This is the maximum amount of Sample data that can be loaded or recorded.

Mono Time

Remaining sample memory (in seconds). This value is given for mono samples. With stereo samples, this time has to be halved.

Bytes

Remaining memory for sampling (in MegaBytes). This value is given for mono samples. With stereo samples, this time has to be halved.

Sample Info

Selected Samples

Size of the selected sample (in samples).

Samples

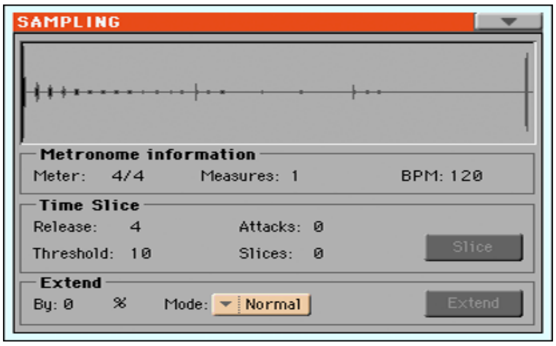
Total size of the samples in memory (in samples).

Sampling Frequency

Sampling frequency of the selected sample (in Hertz).

Time Slice

The Time Slice function lets you transform a rhythm audio groove in a series of single percussive samples, to be assigned to the Drum or Percussion track of a Style or a Song.



Meter: 4/4
Measures: 1
BPM: 120
Release: 4
Attacks: 0
Threshold: 10
Slices: 0
By: 0 %
Mode: Normal

How timeslice works

Analyzing and processing. This function detects the attacks (e.g., kick and snare) inside a rhythm audio groove (a sample that loops a drum pattern), and automatically divides the audio groove into individual percussive samples.

The divided percussive samples will be automatically assigned to different keys in a multisample, and the multisample to a Sound. Within the generated multisample, a separate sample is assigned to a different note on the keyboard, starting from C#3. By playing an ascending chromatic scale with this multisample, you could recreate the original audio groove.

A MIDI Groove will also be created, containing a sequence of notes triggering the sliced percussive samples in the same order as in the original audio groove (i.e., it plays an ascending chromatic scale starting from C#3).

When you will import this MIDI Groove to the percussive track of a Style (see “Import: Import Groove” on page 145 of the User’s Manual), this sequence will let you adjust the groove’s tempo without affecting the pitch of the percussive samples.

In addition to changing the groove’s tempo without affecting its pitch, this lets you do the following:

- change the order in which notes are played
- change the timing
- edit the pattern notes to freely recreate a new rhythm loop.

Saving. After the slicing, you can select the Write command from the page menu, to save the Sound based on sliced samples, and the MIDI Groove containing the corresponding MIDI sequence.

• The Sound will be saved to the selected location in the User area of the internal memory. You will be able to select it as an ordinary Sound, and assign it to the Drum or Percussion track of a Style.

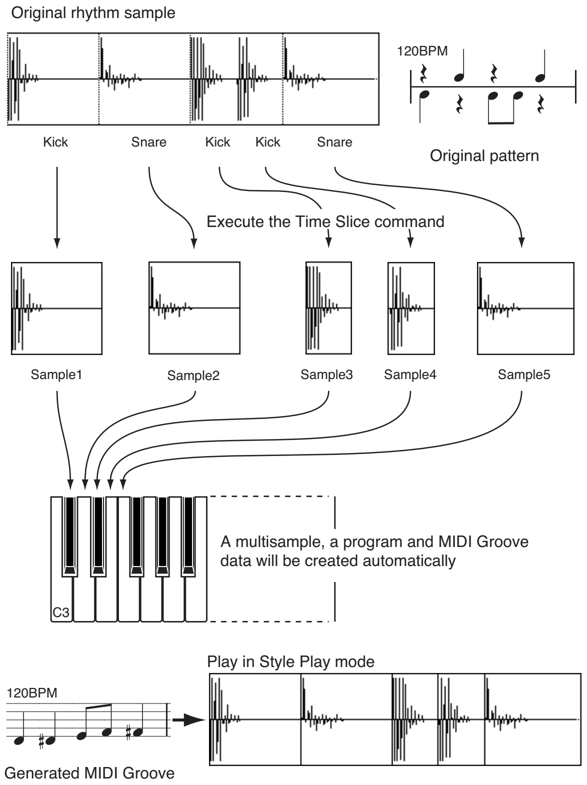
• The Multisample will be automatically saved to the next free available location.

• Samples will be permanently saved to the internal memory.

• The MIDI Groove will be temporarily saved to the internal memory, and will be available only when using the Import function of the Style Record mode (see “Import: Import Groove” on page 145 of the User’s Manual).

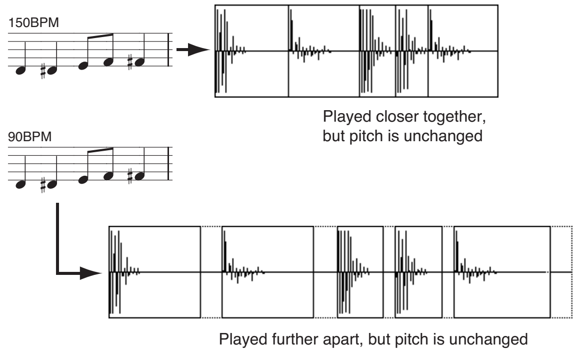
Warning: *All MIDI Grooves will be delete each time the Pa600 is turned off.*

Ex.1 - Generating samples and MIDI Groove data:


Original rhythm sample
120BPM
Kick
Snare
Kick
Kick
Snare
Original pattern
Execute the Time Slice command
Sample1
Sample2
Sample3
Sample4
Sample5
C3
A multisample, a program and MIDI Groove data will be created automatically
Play in Style Play mode
120BPM
Generated MIDI Groove

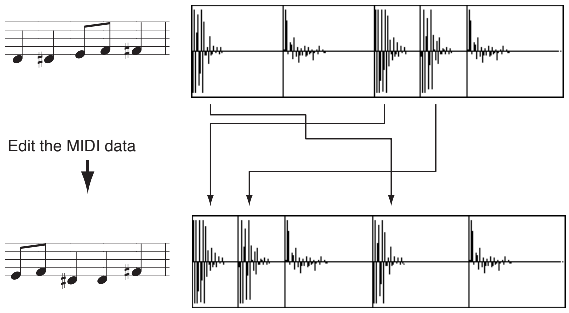
Note: Sliced samples and MIDI data are saved with a Write operation.

Ex.2 - Varying the groove's tempo


150BPM
Played closer together, but pitch is unchanged
90BPM
Played further apart, but pitch is unchanged

Note: To vary the groove's tempo, you must first import the generated MIDI data into the Percussion track (Import function of the Style and Pad Record mode), and assign the new generated Sound to the Percussion track.
Gaps between sliced samples, when slowing down the tempo, can be automatically filled by the Extend function, smoothing each sample's tail.

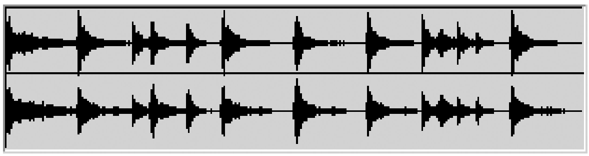
Ex.3 - Recombining MIDI notes and samples


Edit the MIDI data

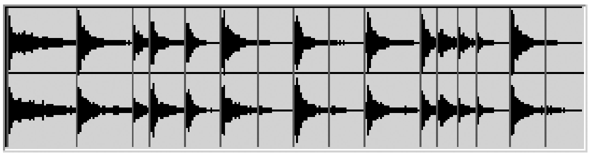
Note: To recombine notes inside the generated MIDI sequence, you must first import the MIDI data in Style or Pad Record mode, by using the "Import" function. Then, use the Event Edit to change the note order.

Sample diagram

This diagram shows the sample waveform and the slices. Here is how the sample diagram appears before the Slice:



… and the same diagram after the Slice:



Metronome Information

Meter

Use this parameter to specify the Meter of the original sample.

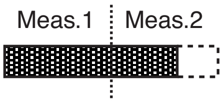
Measures

Use this parameter to specify the number of measures of the original sample. Usually, you will load a groove 1- or 2-measures long.

BPM

This parameter specifies the tempo (in Beats Per Minute) of the original sample. Pa600 automatically calculates this value based on the Start, End (see page 220), Meter and Measures parameters.

The BPM can be only adjusted to values lower than the one automatically calculated. This can be useful, for example, when the actual sample is shorter than the entered Meter and Measures values.



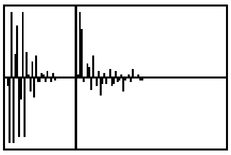
In the above example, the actual groove lasts only up to the first half of Measure 2. The recognized tempo is 130, while the real tempo is 100. Set the BPM value to 100, and a rest will be added to the end of the groove, to allow it to loop seamlessly.

Time Slice

See "The Time Slice procedure" on page 226 for more information.

Release

Adjust the value of this parameter to change the number of recognized attacks, by varying the speed needed to the Slice engine to start working again. For example, in the following example, if the Release value is too high (i.e., too long), the second attack may be lost:



***Note:** After changing the Release value, you must select the Slice command again.*

Threshold

This parameter varies the threshold over which the attacks are recognized (i.e., the Time Slice sensitivity). If it is too low, weaker attacks may be ignored.

***Note:** After changing the Threshold value, you are not obliged to select the Slice command again. The Slices value is immediately changed.*

Attacks

This (non-editable) parameter shows the number of attacks recognized. More than one attack may be recognized in a single slice. Adjust the Release and Threshold parameters to change the number of recognized attacks.

Slices

This (non-editable) parameter shows the number of generated slices, i.e. generated samples and notes in the midifile. To change this value, edit the Release and Threshold parameters.

***Note:** You can have a maximum of 100 slices.*

Slice

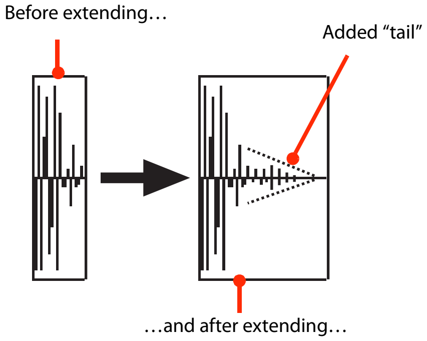
Select this command to execute the Slice after entering the Time Slice page, or changing the Release value. This command is "ghosted" (i.e., non-selectable) if no sample has been recorded of loaded yet.

The Time Slice operation is executed on the sample, from the "Start" to the "End" point set in the Sample Edit / Sample Record section.

Extend

See "The Extend procedure" on page 227 for more information.

When using a sliced groove with a tempo slower than the original, an annoying gap may be heard between a sample and the following one. The Extend function allows you to fix this problem by adding a "tail" to all samples, making their decay smoother and more musical.



***Note:** You can use the Extend function only after a Time Slice operation.*

***Note:** The Extend function increases the original sample size.*

By

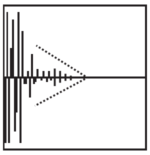
Use this parameter to set the length of the "tail" added to the samples (in percentage). The higher this value, the greater the size of the samples. A setting of 20-30% is usually suitable to most grooves.

***Caveat:** With higher "By" values, the Extend function may add audible artifacts.*

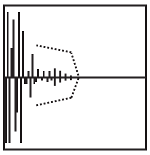
Mode

This parameter specifies if the added "tail" must decay in a linear way, or sustain for a longer time and then fall suddenly.

Normal	This option is most suitable for percussive sound with a short (but not immediate) decay. The "tail" envelope is linear, and the level decays fast.



Long	This option is most suitable for cymbals, whose sound should be sustained up until the next note. The "tail" envelope is sustained and falls slowly, then falls suddenly next to the end.



Extend

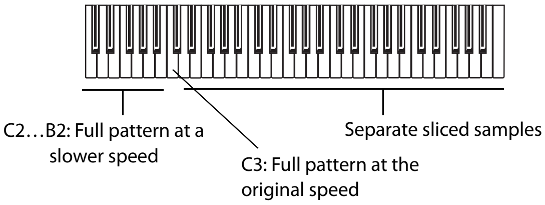
Touch this button to execute the Extend command. After you select it, it will return "ghosted", meaning that you can't select it again. If you change any of the parameters in this page, it will be available again.

The Time Slice procedure

Before executing a Slice operation, you must record or load a sample. Then, you may edit the sample on "Sampling: Edit", then execute the Slice operation on this sample.

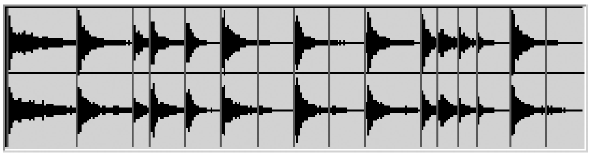
1. After recording or loading a sample, go to the Time Slice page.
2. Pa600 automatically calculates the BPM parameter, based on the given Meter and Measures values. If you know these data, set the Meter, Measures and BPM (Beats Per Minute) parameters. This would make the slicing more accurate.
3. Select the "Slice" command.

   The original sample will be sliced, and each generated sample assigned to a different key:


C2…B2: Full pattern at a slower speed
C3: Full pattern at the original speed
Separate sliced samples

Key	Assigned sample/pattern	Speed %
C2	Full pattern cycling at half the speed	50%
C#2	Full pattern cycling at various speeds	53%
D2		56%
D#2		60%
E2		63%
F2		67%
F#2		71%
G2		75%
G#2		80%
A2		84%
A#2		89%
B2		94%
C3	Full pattern cycling at the original speed	100%
C#3 and above	Separate sliced samples	–

   A MIDI Groove with the original pattern will also be generated. The screen will change, to show slices separated by vertical lines:



4. Test the generated sliced drum kit on the keyboard.

   • To test the full pattern at different speed, play a note from C2 (half speed) to C3 (original speed). See table above.

   • To test the single sliced samples, play notes from C#3 and above. If you play a full chromatic scale, the original pattern will be sounded.

   Hint: *If too many samples have been generated, and the keyboard can't fit them all, use the OCTAVE buttons to transpose the keyboard, and listen to samples exceeding the upper limit.*

5. If the Slice didn't produce satisfactory results, adjust the Release parameter. If this does not produces good results, try adjusting the Threshold parameter, too. After adjusting the Release parameter, you must execute the Time Slice again.
6. Since a tempo value rounding happens when making a Time Slice operation, and the loop may not be accurate, you may need to adjust both the "Start" and "End" parameters of the "Sampling: Edit" page, to make the groove loop flawlessly. After editing these parameters, you must execute the Time Slice again.

   Go on experimenting different settings! Editing an audio groove is a pure matter of experimentation.

7. When the Slice is completed, you can save the sliced samples and the MIDI Groove, or use the Extend function to improve the quality of the slices.

   Select the Write command from the page menu. The Write Slice dialog box will appear (see "Write Slice dialog box" on page 231). Assign a name to the new Sound, and save it to an User Sound location.

   A MIDI Groove with the same name will also be saved to the internal memory. Be warned, that this area will be deleted when turning the instrument off. Convert it to an internal Style pattern, by using the Import function of the Style or Pad Record mode, before turning the instrument off.

   • To improve the quality of the slices, use the Extend function (see "Extend" below).

8. After saving, you may press RECORD to exit the Sampling mode.
9. After exiting the Sampling mode, you may load the generated MIDI Groove by using the Import function of the Style Record mode (see "Import: Import Groove" on page 145 of the User's Manual for more information).

The Extend procedure

1. Set the **By** parameter, according to the tempo of the groove you will use. If you will slow down the groove very much, assign higher values to this parameter, otherwise you may assign lower values.
2. Select the Extend **Mode**. “Long” is more suitable for cymbals.
3. Select the Extend command.
4. After the Extend operation is complete, test the full pattern at different speed, by playing notes from C2 (half speed) to C3 (original speed). See table on page 226.
5. If the Extend didn’t produce satisfactory results, change the settings. Any previously made change will be deleted.
6. When the Extend is completed, you can save the sliced and extended samples and the resulting MIDI Groove to the internal memory.

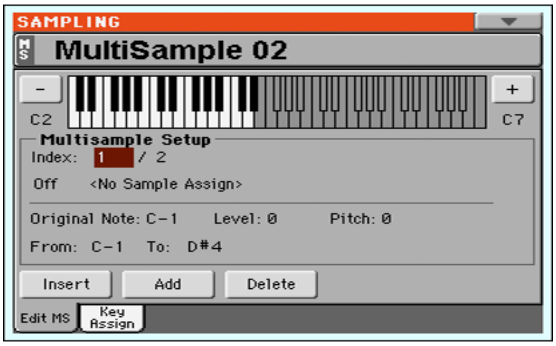
   Select the Write command from the page menu. The Write Slice dialog box will appear (see “Write Slice dialog box” on page 231). Assign a name to the new Sound, and save it to an User Sound location.

   A MIDI Groove with the same name will also be saved to a reserved area of the internal memory. Be warned, that this area will be deleted when turning the instrument off. Convert it to an internal Style pattern, by using the Import function of the Style Record mode, before turning the instrument off.
7. After saving, you may press RECORD to exit the Sampling mode.
8. After exiting the Sampling mode, you may load the generated MIDI Groove by using the Import function of the Style or Pad Record mode (see “Import: Import Groove” on page 145 of the User’s Manual for more information).

Multisample: Edit MS

The Multisample is a way of organizing several samples on the keyboard. Each sample is assigned to a Keyboard Zone (or Index), with a higher and a lower limit.

A Multisample is then assigned to a Sound (see “Basic: OSC Basic” on page 193), where it is enriched with several performance parameters, like Amplitude Envelope, LFO, Filters, etc…



MultiSample 02

Index: 1 / 2

Off <No Sample Assign>

Original Note: C-1 Level: 0 Pitch: 0

From: C-1 To: D#4

MS (MultiSample)

Touch this area to open the Choose Multisample window, and select one of the available multisamples in memory.

Keyboard diagram

This diagram shows the selected Index/Zone (highlighted), and its Original Note (in red). Use the big “–” and “+” button on its side to scroll the diagram one octave lower or upper.

Multisample Setup

Index

Index number of the selected Zone of the multisample / total number of Zones in the multisample. A Zone always corresponds to a single sample.

When you play a note on the keyboard, the corresponding index number is automatically selected.

Sample Number / Name

Number / name of the sample assigned to the selected zone of the multisample.

Original Note

Use this parameter to automatically transpose the assigned sample on the keyboard. When you play this note, the sample sounds exactly as it was recorded.

At first, it matches the “OrigNote (Original Note)” value assigned when editing the sample (see page 221). This will speed up the programming.

The note set with this parameter is also shown in red in the virtual keyboard diagram.

Level

Relative level of the selected zone. This value can only be negative.

Pitch

Fine tuning of the selected sample in cents (1 cent = 1/100 of a semitone).

From … To

Range of the selected Zone (or Index). The minimum size is one key. When reducing the range of a zone, the adjacent one is automatically increased to fill the gap.

Hint: *To create a silent zone, create it and assign no sample to it.*

Buttons

Insert

Touch this button to split the current zone in half, and create a new zone (Index) on the left of the selected one.

Add

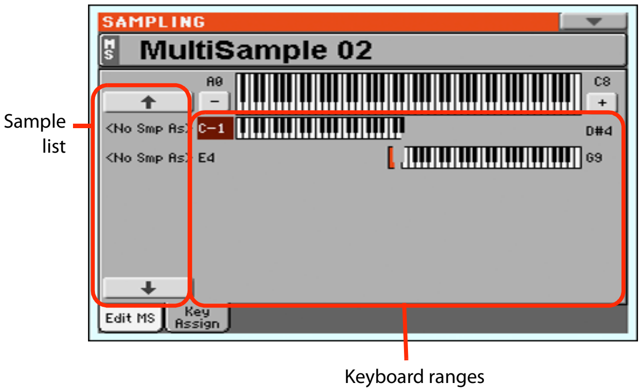
Touch this button to add a new zone (Index) after the last one.

Delete

Touch this button to delete the selected Zone/Index. The zone on the right of the deleted one is automatically extended to fill the gap.

Multisample: Key Assign

Use this page to see and edit the samples assigned to each Keyboard Range/Index in the multisample. This page gives a better display of the assigned samples and their range on the keyboard.



MS (MultiSample)

See “MS (MultiSample)” on page 227.

Sample list

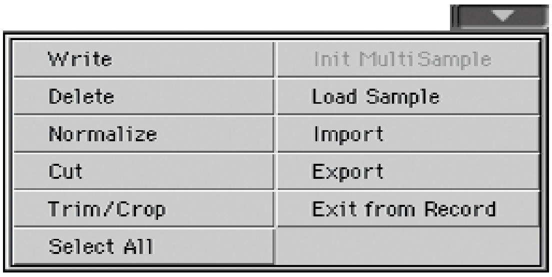
List of samples assigned to the selected multisample. Use the big button with an arrow on top and to the bottom of the list to scroll the list up or down.

Keyboard ranges

Next to each sample name the low and high Zone limits appear. Edit these values to change the Zone range. The Original Note is shown in red.

Page menu

Touch the page menu icon to open the menu. Touch a command to select it. Touch anywhere in the display to close the menu without selecting a command.



Write

Select this command to open the Write Sample, Write Multisample or Write Slice dialog box (depending on the page you are in), and do the following:

- ***Write Sample:*** Saves the sample to the internal memory. See “Write Sample dialog box” on page 230, for more information.
- ***Write Multisample:*** Saves the multisample to the internal memory. See “Write MultiSample dialog box” on page 230 for more information.
- ***Write Slice:*** After a Time Slice opration, saves the Sound, Multisample and the sliced Samples to the internal memory. See “Write Slice dialog box” on page 231 for more information.

Delete

Select this command to open the Delete Sample or Delete MultiSample dialog box (depending on the page you are in):

- ***Delete Sample:*** Deletes one or all Samples and Multisamples from the internal memory. See “Delete Sample dialog box” on page 231 for more information.
- ***Delete MultiSample:*** Deletes a Multisample, or all Samples and Multisamples from memory. See “Delete Multisample dialog box” on page 231 for more information.

Normalize

Select this command to automatically rescale the level of the selected sample. Peaks will be raised to -0dB (i.e., maximum volume before clipping), while the remaining parts of the sample will be proportionally raised.

Normalization optimizes the sample’s level relative to other samples, making all samples sound more uniformly. It also helps optimizing signal/noise ratio, by preventing further stages of amplification from increasing any residual noise.

Cut

Select this command to cut the selected part of the sample (inside the “Start” and “End” points).

Trim/Crop

Select this command to cut all parts of the sample out of the selected range (i.e., out of the “Start” and “End” points).

Select All

Use this command to select the whole sample.

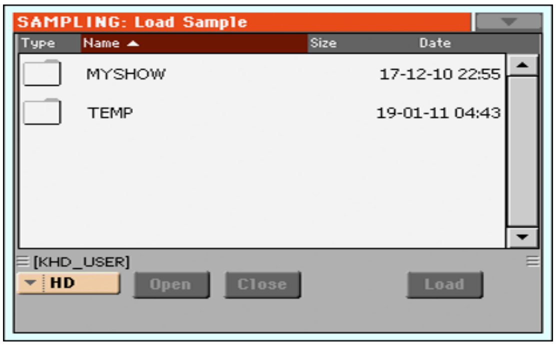
Init Multisample

Only available in the Multisample page. Select this command to create a new, blank multisample. Only one Zone will be available, with no sample assigned.

Load Sample

Use this command to load single samples (mono or stereo), in KSF, AIFF or WAVE format.

Warning: *By loading new samples, the sample currently in edit will be lost if not saved. Before loading, use the Write command to save the sample in edit, if not yet saved, to the internal memory.*



[KHD_USER]

Name	Date
MYSHOW	17-12-10 22:55
TEMP	19-01-11 04:43

The samples are loaded to the editor. Before leaving the Sampling mode, use the Write command to save any unsaved sample to the internal memory as a New Sample.

- "KSF" is KORG's native sample format, used by the Trinity and Triton series of workstations, as well as the Pa-series arrangers. The file name must have the ".KSF" extension.
- "AIFF" is the Apple Mac's preferred format for audio. The file name must have the ".AIF" extension.
- "WAVE" is the Microsoft Windows preferred format for audio. The file name must have the ".WAV" extension.

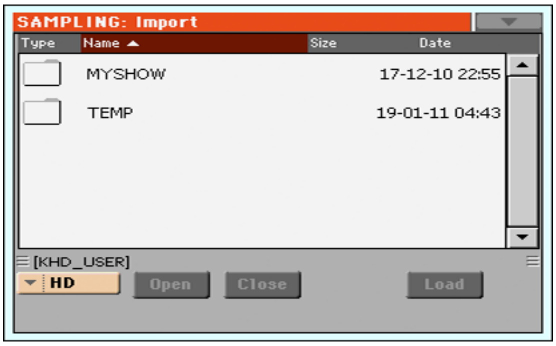
Note: *You can only load samples in a 8 or 16-bit resolution, and a sampling frequency rate from 11,025 to 48,000Hz. Loaded samples always preserve their original resolution.*

Note: *If the sample exceeds the maximum size allowed by the Pa600 (1,048,576 samples, corresponding to 1 Megasample, either mono or stereo), it will be truncated. A warning will appear in the display.*

Hint: *While in this window, you can use the Search function, allowing for searching a Sample file in the various media.*

Import

Use the Import command to import Sounds and Multisamples (including the contained Samples) in formats other than the native Pa-Series format.



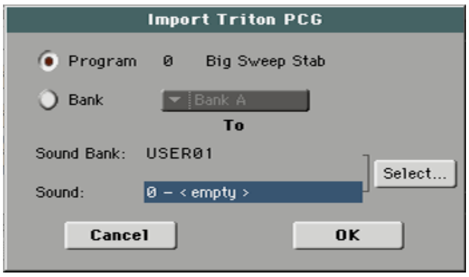
[KHD_USER]

Name	Date
MYSHOW	17-12-10 22:55
TEMP	19-01-11 04:43

With this command, you can import the following formats:

- "PCG" is KORG's native Program format, used by the Triton series of workstations. The file name has the ".PCG" extension. *Note that Drum Kits cannot be imported.*

  When importing a PCG file, you can choose between a single Program or a whole bank:



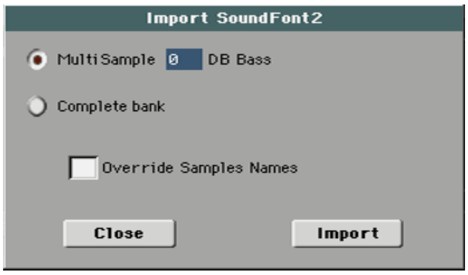
● Program 0 Big Sweep Stab
○ Bank
Sound Bank: USER01
Sound: 0 – < empty >

  Choose **Program** to choose a single Program (corresponding to a Pa-Series Sound); touch the Program number and dial in the corresponding number. Choose a target Sound location where to load the imported Program.

  Choose **Bank** to import all the Programs from the selected bank. Touch the Sound Bank name to choose a target bank where to load the imported Programs.

- "KMP" is KORG's native multisample format, used by the Trinity and Triton series of workstations. The file name has the ".KMP" extension.
- "SF2" is a sound bank format by Creative Labs. The file name has the ".SF2" extension. Multisample data are imported. *Due to the deep differences with KORG's own fomat, some Instruments from the SF2 file could not be imported (for example, Instruments with overlapping zones).*

  When importing an SF2 file, you can choose between a single Multisample or the whole bank:



● MultiSample 0 DB Bass
○ Complete bank
☐ Override Samples Names

Choose **MultiSample** to choose a single Multisample (i.e., SF2 Instruments); touch the Multisample number and dial in the corresponding number.

Choose **Complete bank** to import all the Multisamples from the selected bank.

Check **Override Sample Names** if you want to assign the Sample names a progressive number. In this case, when importing a Multisample whose name is, for example, “Piano”, you will have all Samples renamed as “Piano_001”, “Piano_002”, and so on.

Hint: *If you get a messages warning there isn’t enough memory to load all Samples or resources, return to the main Sampling page and choose the Delete command to clean the Sample memory, then retry. Please note that importing single Multisamples is the safest way to avoid filling the memory with unnecessary data.*

Imported Sounds and Multisamples are automatically stored in the internal memory, and will not be lost when turning the instrument off.

Note: *While Pa600 and Triton share most of their internal Multisamples, some of them may differ. While reading a PCG file, Pa600 tries to use exactly the same Multisamples as in Triton. If this is not possible, it looks for a similar Multisample. If this too is not possible, an <empty> Multisample will be selected. Enter the Sound mode, and select a Multisample suitable for the imported Program.*

Note: *Not all Triton’s PCG data are imported. Insert FX, EQ, Arpeggio, Combi, Global and Drum Kit data are not loaded.*

Note: *You cannot import Drum Kits.*

Note: *Multisample may contain various Samples. They are assigned to the same keys as in the original file.*

Hint: *When importing a KMP file, take note of the selected Multisample name; you will need it in Sound mode, when assigning the Multisample to a new Sound.*

Hint: *While in this window, you can use the Search function, allowing for searching a Sample file in the various media.*

Export

Depending on wheter you are in the “Sample Edit / Sample Record” or “Multisample” section, this command allows you to export a sample in one of two popular computer audio file formats (WAVE and AIFF), or a multisample in a KORG “.KMP” file.

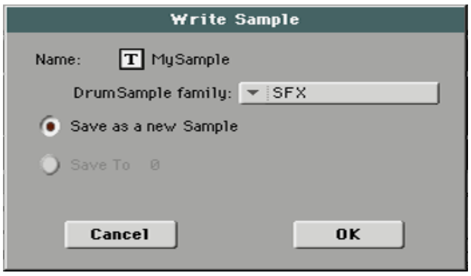
See “Export Sample page” on page 232, or “Export Multisample page” on page 232 for more information.

Exit from Record

Choose this command to exit from the Sampling mode.

Write Sample dialog box

Open this dialog box by selecting the Write command from the page menu, while in the Sample Edit / Sample Record section. In this dialog box you can save the sample to the internal memory, so that it will be preserved when Pa600 is turned off.



Name: MySample

DrumSample family: SFX

● Save as a new Sample

To assign a different name to the sample, touch the T (Text Edit) button to open the Text Edit window.

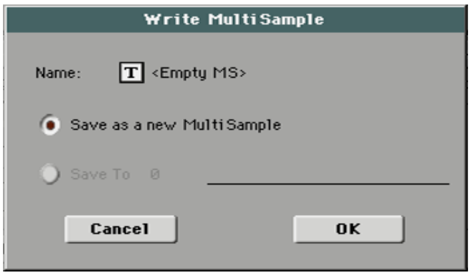
In case you are saving a percussive sample, choose a Drum Sample family to be assigned to.

Select an option to choose a memory location where to save the sample:

- Select “Save as a new Sample” to save to a new location.
- Select “Save to” to overwrite an existing location. ***Warning:*** *The older sample at the same location will be deleted!*

Write MultiSample dialog box

Open this dialog box by selecting the Write command from the page menu, while in the Multisample section. In this dialog box you can save the multisample to the internal memory. Multisamples are a way to organize samples on the keyboard, and are used by Sounds as their basis.



Name: <Empty MS>

● Save as a new MultiSample

To assign a different name to the multisample, touch the T (Text Edit) button to open the Text Edit window.

Select an option to select a memory location where to save the sample:

- Select “Save as a new MultiSample” to save to a new location.
- Select “Save to” to overwrite an existing location. ***Warning:*** *The older multisample at the same location will be deleted!*

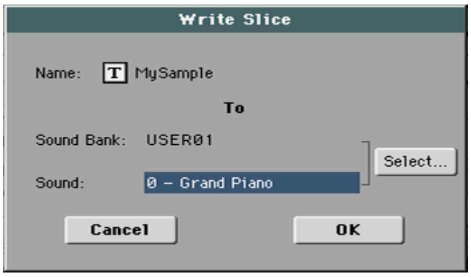
Write Slice dialog box

Open this dialog box by selecting the Write command from the page menu, while in the Time Slice page. In this dialog box you can save the Sound, sliced Samples and Multisample generated by the Time Slice function, together with the generated MIDI Groove.

The Sound will be saved to the selected User bank location in the internal memory. The Multisample will be saved to a free location in the same memory. Samples will be saved to the internal memory.

Note: *The MIDI Groove is automatically saved in a reserved, temporary location, and is automatically deleted when turning the instrument off. So, import it (by using the “Import: Import Groove” function in Style or Pad Record mode, see page 145), before turning the instrument off.*

Warning: *The older Sound at the target location will be deleted!*



Name: MySample

Sound Bank: USER01

Sound: 0 – Grand Piano

Name

To assign a different name to the Sound, touch the **T** (Text Edit) button to open the Text Edit window.

Sound Bank

Target bank of Sounds. Each bank corresponds to one of the SOUND buttons. You can use the VALUE dial to select a different bank.

Sound

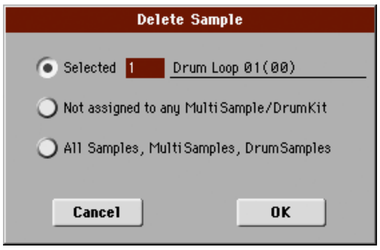
Target Sound location in the selected bank. You can use the VALUE dial to select a different location.

Select…

Touch this button to open the Sound Select window, and select a target location.

Delete Sample dialog box

Open this dialog box by selecting the Delete command from the page menu, while you are in any page of the Sample Edit/Sample Record section.



● Selected 1 Drum Loop 01(00)

○ Not assigned to any MultiSample/DrumKit

○ All Samples, MultiSamples, DrumSamples

Selected

Select this command, and select a sample number, to delete just one of the samples from the internal memory.

Not assigned to any Multisample/Drumkit

Select this command to delete only samples not yet assigned to a Multisample or Drum Kit.

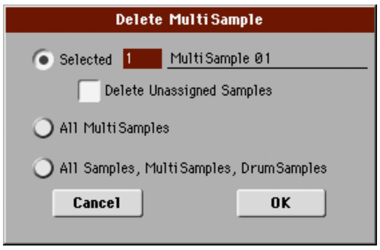
Note: *Use this option with care, since you may delete samples you would like to preserve, that have not yet been assigned to a multisample or drumkit. Use it only when you are sure all desired samples have been assigned to a multisample or drumkit.*

All Samples, Multisamples, Drum Samples

Select this command to delete all samples, multisamples and drum samples from the internal memory. This operation completely resets the RAM, and may be used to “clean-up” any trouble.

Delete Multisample dialog box

Open this dialog box by selecting the Delete command from the page menu, while you are in any page of the Multisample section.



● Selected 1 MultiSample 01

☐ Delete Unassigned Samples

○ All MultiSamples

○ All Samples, MultiSamples, DrumSamples

- Select “Selected”, then a multisample number, to delete just one of the multisamples from memory.

  Check the “Delete Unassigned Samples” option, to also delete all samples not assigned to a different multisample. By checking this option, all samples assigned to the multisample you are deleting, and all samples not assigned to a different multisample, will be deleted.

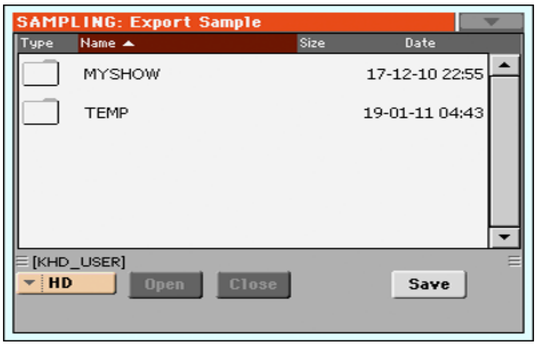
  Note: *Use this option with care, since you may delete samples you would like to preserve, that have not yet been assigned to a multisample or drumkit. Use it only when you are sure all* *desired samples have been assigned to a multisample or drumkit.*

- Select “MultiSamples” to delete all multisamples. No samples will be deleted, including those associated with the deleted multisamples.
- Select “All Samples, Multisamples, Drum Samples” to delete all samples, multisamples and drum samples from the internal memory. This operation completely resets the RAM, and may be used to “clean-up” any trouble.

Export Sample page

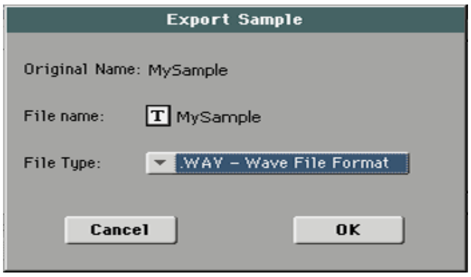
Open this page by selecting the Export command from the page menu, while you are in any page of the Sample Edit/Sample Record section.

First of all, select the target location where to export the sample:



Type	Name	Size	Date
	MYSHOW		17-12-10 22:55
	TEMP		19-01-11 04:43

Then touch the Save button to see the Export Sample dialog box:



Original Name: MySample
File name: MySample
File Type: .WAV – Wave File Format

Original Name

Name of the sample being exported.

File Name

Name of the generated file on the storage device.

File Type

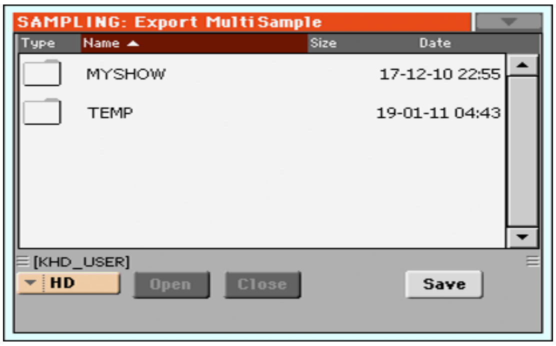
Either of the file types you can choose as the file format.

WAV	Microsoft Wave format, very common on Windows PCs.
AIFF	Apple’s Audio Interchange File Format, standard on the Mac.

Export Multisample page

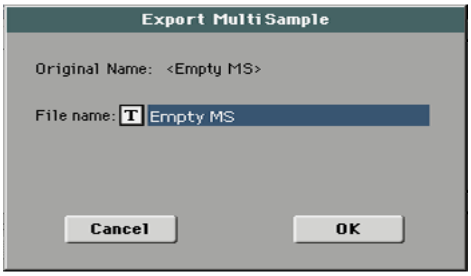
Open this page by selecting the Export command from the page menu, while you are in any page of the Multisample section.

First of all, select the target location where to export the multisample:



Type	Name	Size	Date
	MYSHOW		17-12-10 22:55
	TEMP		19-01-11 04:43

Then touch the Save button to see the Export MultiSample dialog box:



Original Name: <Empty MS>
File name: Empty MS

By using this function, you can export from the internal memory the Multisample in edit in the Multisample section, and all linked samples. The Export operation generates a “.KMP” file (KORG’s proprietary file format for multisamples), and a folder containing a series of “.KSF” files (KORG’s proprietary file format for samples) inside the same directory.

***Note:** When exporting a stereo multisample, be careful to assign a different name to the Left and Right channel files, to avoid overwriting. A “-L” and “-R” suffix is usually added after the name of this kind of files.*

Merging Samples from various sources

When you load a .SET folder, all User Samples in memory are deleted. To merge samples from several sources, do the following.

1. Load a .SET folder containing samples you want to merge with other samples.
2. Load single Sounds from other .SET folders.
3. Load or import Samples from other sources (Trinity, Triton, Wav, Aiff files).
4. Save the .SET folder, over the same or a new .SET folder.

Global mode

The Global mode is where you can set global functions. This mode overlaps the current operating mode (Style Play, Song Play, Sequencer, Sound).

Overview on the Global mode

The Global mostly contains a series of global parameters applied to the whole instrument (or to each separate operating mode) as a whole, that are automatically written to memory after editing. Examples of global parameters are the Master Tuning or the Power Management.

Global mode also contains parameters that are applied to the instrument as a whole, but can be saved as a "preset", that can later be loaded to change all parameters at once. Examples of this kind of parameters are the MIDI channel assignment, saved into the MIDI Presets, or the Master EQ settings, saved into the Master EQ Presets.

Parameters in the Global mode, either automatically memorized or saved to a preset, are opposed to "local" parameters that you can access in the other operating modes. Examples of local parameters are the Sounds assigned to a track or the function assigned to an Assignable Switch, both saved into a Performance or STS (two types of preset containing musical data relevant to the selected operating mode).

Note: *Saving or loading a ".SET" folder may also save or load the Global file. Parameter changing may be avoided by turning the Lock on for any single parameter (or groups of parameters in the Lock page of the Global mode, see "General Controls: Lock" on page 236).*

Main page

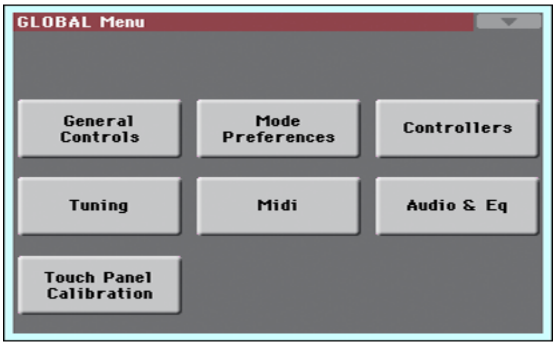
There is no main page in the Global edit mode. When pressing EXIT, you exit the Global mode, and the underlying operating mode in the background is recalled.

Edit menu

From any page of the Global mode, press the MENU button to open the Global edit menu. This menu gives access to the various Global edit sections.

When in the menu, select an edit section, or press EXIT to exit the Global mode.

When in a page, press EXIT to go back to current operating mode in the background (Style Play, Song Play, Sequencer, Sound).

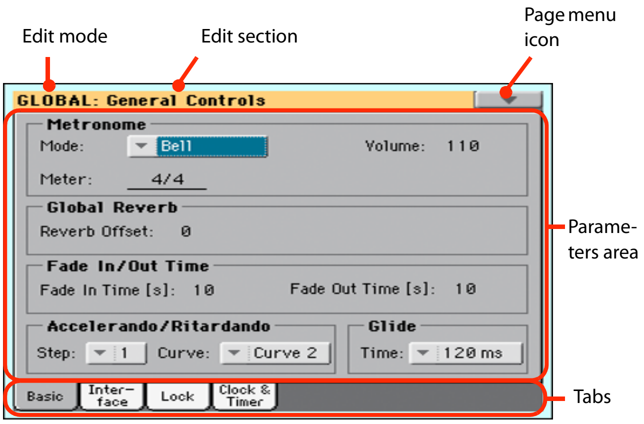


Each item in this menu corresponds to an edit section. Each edit section groups various edit pages, that may be selected by touching the corresponding tab on the lower part of the display.

Note: *The Global mode is not available while in Record mode (Style Record, Pad Record, Song Record, Sampling).*

Edit page structure

All editing pages share some basic elements.



Mode: Bell
Volume: 110
Meter: 4/4
Reverb Offset: 0
Fade In Time [s]: 10
Fade Out Time [s]: 10
Step: 1
Curve: Curve 2
Time: 120 ms

Edit mode

This indicates that the instrument is in Global mode.

Edit section

This identifies the current edit section, corresponding to one of the items of the edit menu (see below).

Page menu icon

Touch this icon to open the page menu (see below).

Parameters area

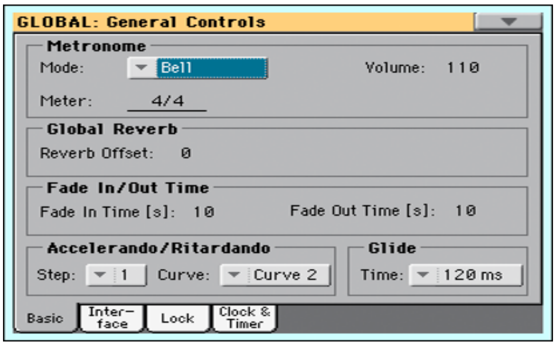
Each page contains various parameters. Use the tabs to select one of the available pages. For detailed information on the various types of parameters, see sections starting below.

Tabs

Use tabs to select one of the edit pages of the current edit section.

General Controls: Basic

This page contains various general parameters, setting the status of the keyboard, the fade in/out, and the accelerando/ritardando.


GLOBAL: General Controls

Metronome
Mode: Bell
Volume: 110
Meter: 4/4

Global Reverb
Reverb Offset: 0

Fade In/Out Time
Fade In Time [s]: 10
Fade Out Time [s]: 10

Accelerando/Ritardando
Step: 1
Curve: Curve 2

Glide
Time: 120 ms

Metronome

Mode

Use this parameter to activate the metronome's type of accent.

Normal	No accent can be heard.
Accent	The first beat of each measure is accented.
Bell	A bell sound is heard at the first beat of each measure.

Volume

Use this parameter to set the volume of the metronome.

0…127	Volume level.

Meter

Use this parameter to choose the meter (time signature) of the Metronome.

1/1…16/16	Selected Meter.

Global Reverb

Reverb Offset

This is the master offset for all reverbs. Use it to adjust reverb tails to the room where you are playing. Use negative values when you are in a very reverberant room, positive values if the room is too dry.

By using this global control, you are not obliged to change the reverb time in each single Performance, STS, Style Settings, or Song.

-50	Less reverb.
0	Standard reverb.
+50	More reverb.

Fade In/Out Time

These parameters allows you to set the speed for the Fade In/Out function.

Fade In Time

Time for a full fade in (from zero to maximum volume), after you press the FADE IN/OUT button.

5…20	Fade time (in seconds).

Fade Out Time

Time for a full fade out (from maximum volume to zero), after you press the FADE IN/OUT button.

5…20	Fade time (in seconds).

Accelerando/Ritardando

These parameters lets you adjust the speed of the Accelerando and Ritardando functions.

Step

Speed of the Tempo change (from 1 to 6). With higher values, the step change is greater, and the speed will change faster. With lower values, the step change is smaller, and the speed will change more slowly.

Curve

Accelerando/ritardando curves (from 1 to 3). Experiment the various options, to see the one that best fit your taste.

Glide

Glide is a function you can assign to a footswitch. When the pedal is pressed, affected notes on Upper tracks are bent down, according to settings for the Pitch Bend on the same tracks. When the pedal is released, notes return to the normal pitch, at the speed defined by the "Time" parameter.

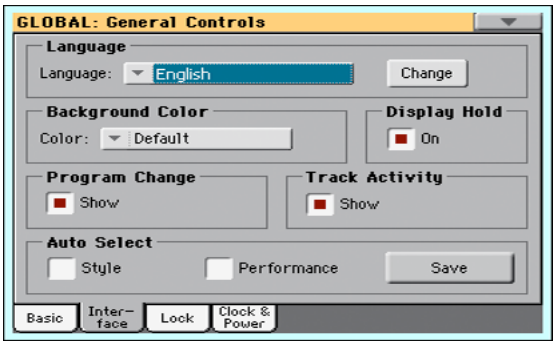
To change Pitch Bend values for each Upper track, see the "PB Sensitivity" parameter in the Style Play mode (see page 104)

Time

Time needed to notes affected by the Glide to return to the normal pitch.

General Controls: Interface

This page contains parameters related to user interface.


GLOBAL: General Controls
Language
Language: English
Change
Background Color
Color: Default
Display Hold
On
Program Change
Show
Track Activity
Show
Auto Select
Style
Performance
Save
Basic
Inter-face
Lock
Clock & Power

Language

Language

Use this pop-up menu to select one of the available languages for the on-screen keyboard.

Note: *Some of the characters can only be used when editing SongBook Entry names.*

Change button

To apply the selected language to the onscreen keyboard, touch this button and restart the instrument as described below.

How to select a language

1. Since Pa600 must be restarted at the end of this procedure, be sure to first save all unsaved data.
2. While in this page, select a language from the pop-up menu.
3. The “Change” word will start flashing in red. Touch it.
4. A message will ask you to reboot the Pa600. Touch OK to close the message window.
5. Set Pa600 to standby, then turn it on again.

Background Color

Color

Use this parameter to choose a different color scheme for the display.

Display Hold

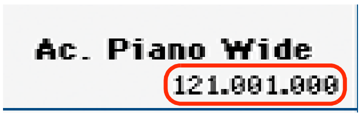
On/Off

When this parameter is checked, if you open a temporary windows (like the Sound Select window), it remains in the display until you press EXIT or an operating mode button. When it is not checked, any temporary window closes after a certain time.

Program Change

Show

Check this parameter to show Program Change numbers next to Sound names in the Sound Select window. By default, this parameter is turned on.

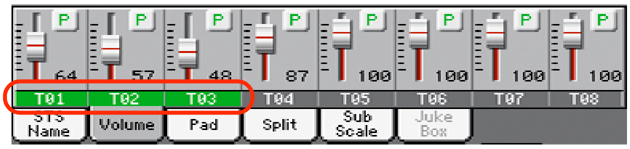

Ac. Piano Wide
121.001.000

Note: *Program Change numbers are always shown in the various Track Info areas.*

Track Activity

Show

Use this parameter to turn on/off the Track Activity display. When it is turned on, you can monitor events coming from the tracks or the MIDI inputs. Incoming events are shown by the color changing on each track’s label.


P
64
57
48
87
100
100
100
100
T01
T02
T03
T04
T05
T06
T07
T08
STS Name
Volume
Pad
Split
Sub Scale
Juke Box

Auto Select

Style

When this parameter is checked, the latest selected Style is immediately selected when touching the name of a bank in the Style Select window.

Hint: *By turning the “Factory Style and Pad Protect” parameter off, you can save your preferred Style into the first location of each bank. This way, by turning on this parameter, you will select your preferred Style at the touch of a single button.*

Performance

When this parameter is checked, the latest selected Performance selected in a bank is immediately selected when pressing the PERFORMANCE button corresponding to the bank.

This way, you can assign your preferred Performance to each control panel’s button, and select it just with a single press.

However, the Performance Select window still appears when you press one of the PERFORMANCE buttons corresponding to the bank, so you can select a different item if desired.

Save

Touch this button to save the current Style and Performance assignment. You will find the saved assignment when turning the instrument on again.

General Controls: Lock

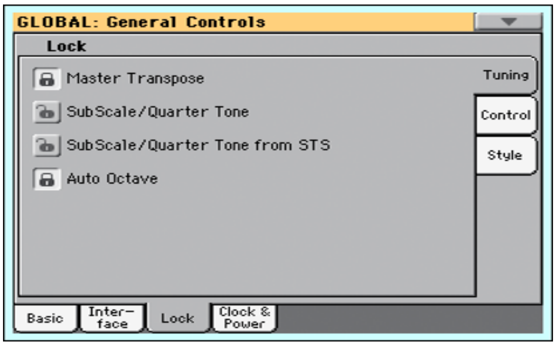
This page, split in more panes that can be selected by means of the corresponding side tabs, contains all the available locks. Locks prevent parameter values to be changed when choosing a different Performance, Style or STS.

Locks

All the available locks, listed below. Lock them to prevent changes due to selecting different elements. These locks are also found in various other pages, next to the locked parameter.

Hint: *To save the status of parameters that have to remain unchanged, set them and save the MY SETTING Performance (automatically selected when turning the instrument on). After having saved the startup Performance, go to these pages and lock the parameters that must remain unchanged.*

Tuning pane



Master Transpose

When this lock is closed, Master Transpose is not automatically changed when selecting a different Performance or Style, or a different SongBook Entry. Also, this lock prevents a Standard MIDI File generated with an instrument of the KORG Pa-Series to change the Master Transpose.

(See “Master transpose” on page 95).

Sub Scale/Quarter Tone

When locked, selecting a Performance or STS, or a SongBook Entry, will not change the Sub-Scale or Quarter Tone value.

(See “Sub-Scale panel” on page 100).

SubScale/Quarter Tone from STS

When locked, selecting an STS will not change the Sub-Scale or Quarter Tone settings. The STS will change sounds and effects but not the scale.

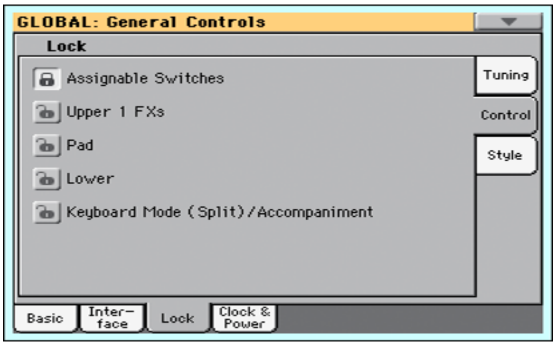
(See “Sub-Scale panel” on page 100).

Auto Octave

Depending on the status of this lock, the Upper tracks can be automatically transposed when turning the SPLIT on and off.

- If locked, turning the SPLIT on or off will not change the Upper tracks transposition.
- If unlocked, when turning the SPLIT button off (Full keyboard mode) the Upper tracks Octave Transpose will be automatically set to “0”. When turning the SPLIT button on (Split keyboard mode) the Upper tracks Octave Transpose will be automatically set to “-1”.

Control pane



Assignable Switches

When locked, selecting a Performance or STS will not change the functions assigned to the Assignable Switches.

(See “Pad/Switch: Switch” on page 113).

Upper 1 FXs

In Sound mode, you can assign a Sound to the FX B Group. When you assign a new Sound to the Upper 1 track, the FX B settings and Master FX send levels saved with that Sound can be automatically selected, overriding Performance/STS settings for this track. Whether Sound or Performance/STS effect parameters will be considered, it depends on the status of this lock.

- If the Upper 1 FX Lock is turned on, when assigning a new Sound to the Upper 1 track, Performance/STS parameters are left untouched; selected effects, and FX Send values, are not changed.
- If the Upper 1 FX Lock is turned off, when assigning a new Sound to the Upper 1 track, Sound parameters are considered; selected effects, and FX Send values, are changed according to the Sound’s stored data.

Note: *If the effects associated to the selected Sound are not compatible with the effects already assigned to the FX B block, the Master FX Send values on the other Keyboard tracks will be automatically set to zero.*

For example, assume a chorus effect is assigned to the Master 2 FX processor. If the new Sound assigns a distortion effect to the Master 2 FX processor, the Master 2 FX Send value on the Upper 2, Upper 3, and Lower tracks will be set to zero, to avoid these tracks sound in the wrong way. This way, the Upper 1 track (usually the most important one for solo playing) will sound with the needed effect, while the other Keyboard tracks will just sound dry.

Pad

When locked, selecting a Style or SongBook Entry will not change the Pad assignment.

(See “Pad/Switch: Pad” on page 112).

Lower

When this lock is closed, the Lower track remains unchanged when a different Style, Performance or STS is selected.

This is useful if, for example, you prefer to always play with the left hand muted and reserved only to the chords.

***Hint:** If you want the same Lower settings to be used during all your shows, save your preferred Lower settings to the MY SETTING Performance (automatically selected on startup).*

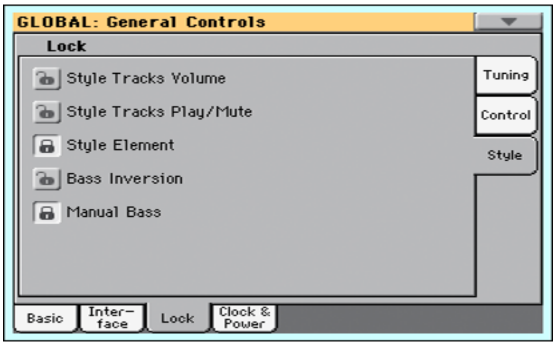
Keyboard Mode (Split)/Accompaniment

When this lock is closed, the status of the SPLIT button (therefore of the keyboard mode) and the ACCOMP. button remains unchanged when a different Performance or STS is selected.

This is useful if, for example, you prefer to always play in Full Keyboard, with chords recognized on the whole keyboard range.

***Hint:** If you want the same Keyboard Mode and Lower Scanning settings to be used during all your shows, save your preferred settings to the MY SETTING Performance (automatically selected on startup), then close this lock.*

Style pane



Style Tracks Volume

When this lock is closed, the Style tracks' volume do not change when a different Style is selected.

This is useful when you create your own User Styles, and prefer to dynamically adjust the volume by using the sliders as in a mixer. It is not recommended with Factory Styles, each one already mixed at its best right at the factory.

Style Tracks Play/Mute Lock

When this lock is closed, selecting a Style does not cause the Play/Mute status of the Style tracks to be changed. This way, you can, for example, turn the bass track off during a whole show, to allow your bassist to play the part live. Also, you could mute all Acc tracks, to only play with the Drum and Bass tracks.

Style Element

When this lock is closed, the selected Style Element (Variation, Intro…) will not change when choosing a different Style.

This lock has no effect on the Styles automatically selected when choosing a SongBook Entry. The Style Element memorized in the SongBook Entry is always selected.

Bass Inversion

When locked, selecting a Performance or STS will not change the Bass Inversion status. Bass Inversion can also be assigned to one of the Assignable Switches or the Assignable Pedal.

(See "Bass Inversion" on page 100).

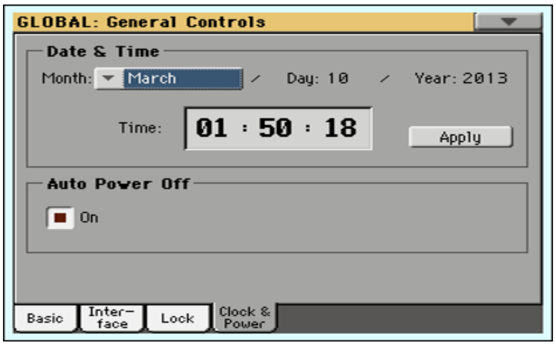
Manual Bass

When locked, selecting a Performance or STS will not change the Manual Bass status.

General Controls: Clock & Power

Date & Time

Pa600 includes a battery-backed system calendar and clock. This allows for automatically adding a time-stamp to the files when they are created or edited.



GLOBAL: General Controls

Date & Time

Month: March / Day: 10 / Year: 2013

Time: 01 : 50 : 18

Auto Power Off

☑ On

***Note:** When you edit a resource file (Sounds, Styles…), all items in the same bank have their modification date changed. For example, if you edit a single Style in the “Pop” bank, all Styles in that bank will take the new modification date.*

Month

Use this pop-up menu to choose a month.

Day

Use this numeric field to input the day of the month.

Year

Use this numeric field to input the year.

Time

Use these numeric fields to input the time, in the “hour:minute:second” format.

Apply

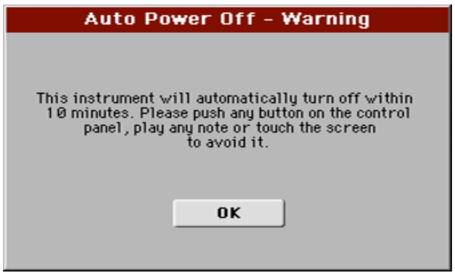
After having edited all calendar and time fields, touch this button to apply the changes.

Auto Power Off

Pa600 can automatically enter standby after two hours of being unused, to save power and help preserving the environment.

On

When this parameter is checked, a few minutes before automatic standby a message will warn you that the instrument is going to be put in standby. All unsaved data currently in editing or recording will be lost.



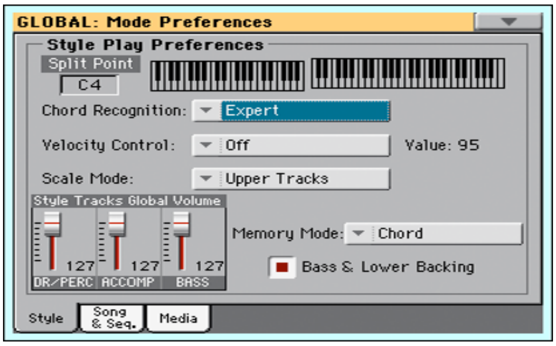
Auto Power Off - Warning

This instrument will automatically turn off within 10 minutes. Please push any button on the control panel, play any note or touch the screen to avoid it.

At this message, you can let the instrument enter standby, or you can touch the display, press any button on the display, or play the keyboard to leave it turned on and continue using it.

Mode Preferences: Style

In this page you can set various general parameters for the Style Play mode.



GLOBAL: Mode Preferences

Style Play Preferences

Split Point: C4

Chord Recognition: Expert

Velocity Control: Off

Value: 95

Scale Mode: Upper Tracks

Memory Mode: Chord

■ Bass & Lower Backing

Split Point

Use this parameter to select the global split point. This point is independent of any Performance or STS.

See “Split panel” on page 100 for more information.

Chord Recognition

This parameter allows you to choose how chords are recognized by the auto-accompaniment engine.

When switching to Full Keyboard mode (SPLIT LED turned off) the Chord Recognition mode is automatically set as in the following table:

Chord Recognition Mode	
SPLIT LED On	***SPLIT LED Off***
One Finger	Fingered (3 Notes)
Fingered (1 Note)	Fingered (3 Notes)
Fingered (3 Notes)	Fingered (3 Notes)
Expert	Expert

One Finger

You can compose a chord using a simplified chord playing technique:

- Play a single note for a Major chord to be recognized.
- Play the root note, plus a white key on the left, for a 7th. For example, play C3 + B2 for a C7.
- Play the root note, plus a black key on the left, for a Minor chord. For example, play C3 + Bb2 for a C minor.
- Play the root note, plus a white and a black key on the left, for a Minor 7th. For example, play C3 + B2 + Bb2 for a C min 7.

Fingered (1 Note)

When in Split mode, play one or more notes to compose a chord. A full Major chord will be recognized when a single note is played.

When in Full Keyboard mode, play at least three notes to compose a chord.

Fingered (3 Notes)

Always play three or more notes for a chord to be recognized.

Expert

When in Split mode, play two or more notes for a chord to be recognized. When in Full Keyboard mode, play at least three notes.

If you play just one note, a unison will be played. If you play a fifth, a “root+5th” chord will be played.

With this mode, you can play rootless and slashed chords, often used in jazz, fusion, modern pop and light music. This type of chord recognition is very useful to play piano chords typical of jazz piano players. You don’t always need to play the root note, doubling the note already played by the bass track.

Velocity Control

Set this parameter to trigger one of the following functions simply by playing louder with your left hand. When playing with a velocity value higher than the value set by the “Velocity Control Value” parameter (see page 239), the selected function will be activated.

This function only works when the SPLIT LED is turned on.

Off	The function is turned off.
Break	When playing with a velocity higher than the trigger value on the Lower track, the Break is automatically triggered.
Start/Stop	You can start or stop the Style by playing harder on the keyboard.
Bass Inversion	When playing with a velocity higher than the trigger value, the Bass Inversion function will be activated or deactivated.
Memory	When playing with a velocity higher than the trigger value, the Memory function will be activated or deactivated.

Velocity Control Value

Use this parameter to set a velocity threshold over which to automatically trigger the Style Start/Stop or select one of the other functions (see “Velocity Control” above).

Scale Mode

This parameter defines which tracks are affected by the selected alternative scale (see “Scales” on page 329).

Keyboard Tracks

The scale will affect all Keyboard tracks.

Upper Tracks	The scale will only affect Upper 1-3 Keyboard tracks.
All Tracks	The scale will affect all tracks (Keyboard, Style, Pads).

Memory Mode

This parameter sets the way the MEMORY button works.

Chord	When the MEMORY LED is on, recognized chords are kept in memory even when raising your hand from the keyboard. When the LED is off, chords are reset when raising your hand.
Chord + Lower	When the MEMORY LED is on, recognized chords are kept in memory, and the Lower sound is held until the next note or chord is played. When the LED is off, both the chord (and therefore the accompaniment) and Lower sound are cut when raising the hand from the keyboard.
Fixed Arr. + Lower	When the MEMORY LED is on, recognized chords are kept in memory, and the Lower sound is held until the next note or chord is played. When the MEMORY LED is off, the Lower sound is cut when raising the hand from the keyboard; on the contrary, the chord is kept in memory (so that the accompaniment can continue to play).

Bass & Lower Backing

With this function, you can play a simple accompaniment with your left hand. For this to work, the SPLIT LED must be turned on, and the Style must not be running. By default, this function is turned on.

On	When the Style is not running, and you play a chord with your left hand, the chord is played by the Lower Sound (even if it is muted), while the chord root is played by the Bass Sound. When you start the Style, the normal behavior is restored. When the Bass & Lower Backing function is active, the Backing icon appears in the Lower track Sound's area. BACKING
Off	No Bass Sound is added when the Style is not running. The Lower track can be heard only if it is not muted.

Style Tracks Global Volume

In Style Play mode, the volume of the grouped Style tracks is a global offset of the values memorized in the Style. When you choose a different Style, this offset will not change, and the average volume of the Style tracks remains the same.

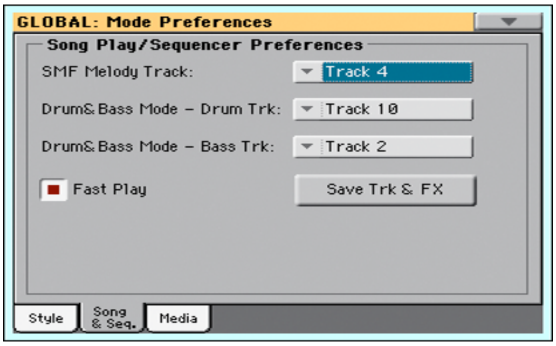
These controls allows you to globally set the balance between the Drum/Percussion, Bass and Accompaniment tracks. For example, if you prefer Drums and Bass to be prominent to make them have more 'punch', you can lower the grouped Accompaniment tracks.

Changes are not memorized to a Performance or to the current Style Settings. Instead, they are memorized as a global parameter.

0…127	Volume level.

Mode Preferences: Song & Sequencer

In this page, you can set various general parameters for the Song Play and Sequencer modes.



GLOBAL: Mode Preferences

Song Play/Sequencer Preferences

SMF Melody Track: Track 4

Drum& Bass Mode – Drum Trk: Track 10

Drum& Bass Mode – Bass Trk: Track 2

☒ Fast Play

SMF Melody Track

This parameter lets you select the Song's Melody track for Standard MIDI Files. This track can then be muted by using the "Song Melody - Mute" function, assignable to an Assignable Switch or Footswitch.

Drum & Bass Mode - Drum

This parameter lets you select the Song's Drum track. This track is left set to play (together with the Bass track) when selecting the "Drum&Bass" function, assignable to an Assignable Switch or Footswitch.

Drum & Bass Mode - Bass

This parameter selects the Song's Bass track. This track is left set to play (together with the Drum track) when selecting the "Drum&Bass" function, assignable to an Assignable Switch or Footswitch.

Fast Play

When checked, this function allows to skip any empty setup beats at the beginning of a Standard MIDI File, and immediately start from the first note. While the beats are skipped, setup data they may contain are read and considered.

Please note that, being audio data, any empty space at the beginning of an MP3 file cannot be skipped.

Note: *When Pa600 is driving an external musical instrument, the fast transfer of MIDI data to the MIDI OUT or USB port may cause a delay to the Song's start. Therefore, we suggest to turn this function off when Pa600 is hooked to other instruments.*

Save Trk & FX

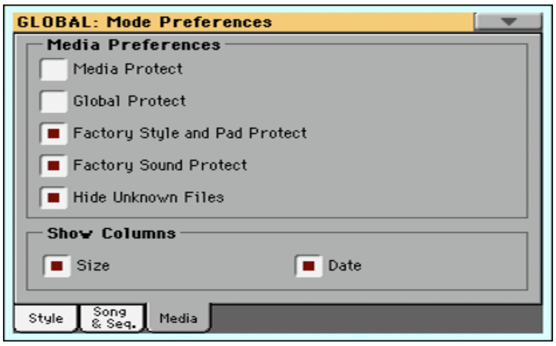
Touch this button to save the global parameters for the Song Play mode.

When touching this button, you are saving the following parameters:

- Play/Mute status of the Song tracks
- Default effect settings
- EQ settings for the Song tracks
- Internal/External status of the Song tracks

Mode Preferences: Media

This page includes various settings for the Media mode.



GLOBAL: Mode Preferences

Media Preferences

☐ Media Protect

☐ Global Protect

☑ Factory Style and Pad Protect

☑ Factory Sound Protect

☑ Hide Unknown Files

Show Columns

☑ Size ☑ Date

Media Preferences

Media Protect

When on, this parameter protects the internal “KORG [KORG DISK]” disk unit from writing.

Global Protect

When on, this parameter protects the global parameters from changes when loading data from disk.

Note: *Global data from other Pa-Series models are not loaded even without protection.*

Factory Style and Pad Protect

When On, this parameter protects the Factory Styles and Factory Pads (named “Hit”, “Sequence” and “Local” in the Pad Select window) from being overwritten when loading data from a device. Furthermore, you can’t access these banks when saving data.

Also, when this option is checked, you cannot write any STS (Single Touch Setting) or Style Settings onto the Factory Styles. The “Write Single Touch Setting” and “Write Current Style Settings” command in the page menu are greyed out and cannot be selected. All original settings of the Factory Styles will be left untouched.

When Off, you can load or save User Styles or Pads into the Factory Style banks and Factory Pad banks. This way, you can customize your Factory Style and Pad banks. A Save All procedure also saves the Favorite and User Style, and the User Pad banks.

Note: *This parameter is automatically set to On when the instrument enters standby.*

Note: *Should you accidentally delete some Factory Data, reload the Backup data or use the Factory Restore procedure (Media > Utility).*

Factory Sound Protect

When On, this parameter prevents writing edited Sounds from the Sound mode into the Factory locations (Factory, Legacy, GM banks). When Off, you can freely save edited Sounds either in the Factory or User Sound area.

Warning: *Use this feature with great care! Reorganizing the Factory Sounds may make both Styles and Standard MIDI Files play with the wrong Sounds!*

Note: *This parameter is automatically set to On when the instrument enters standby.*

Note: *Should you accidentally delete some Factory Data, reload the Backup data or use the Factory Restore procedure (Media > Utility).*

Hide Unknown Files

When this option is checked, non-proprietary files are hidden when using Media operations, therefore making browsing directories easier.

Show Columns

Size

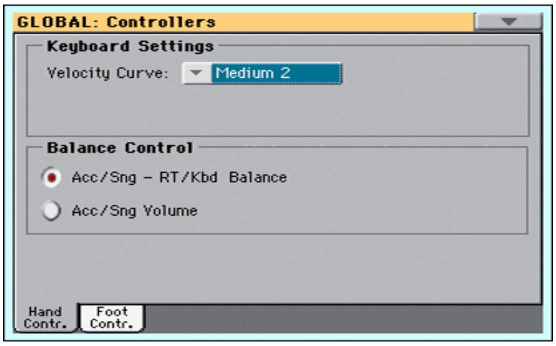
When checked, the Size column is shown in the File Selector when using Media operations.

Date

When checked, the Date column is shown in the File Selector when using Media operations.

Controllers: Hand Controllers

In this page you can program those controls you can operate with your hands.



GLOBAL: Controllers

Keyboard Settings

Velocity Curve: Medium 2

Balance Control

● Acc/Sng – RT/Kbd Balance

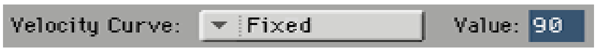
○ Acc/Sng Volume

Keyboard Settings

Velocity Curve

This parameter sets the sensitivity of the keyboard to your touch.

Fixed	No dynamic control available. Dynamic values are fixed, as in classic organs. When this option is chosen, you can set the fixed velocity value:



Velocity Curve: Fixed Value: 90

Soft1 … Hard3	Curves, from the lightest one to the hardest one.

Balance Control

Balance knob

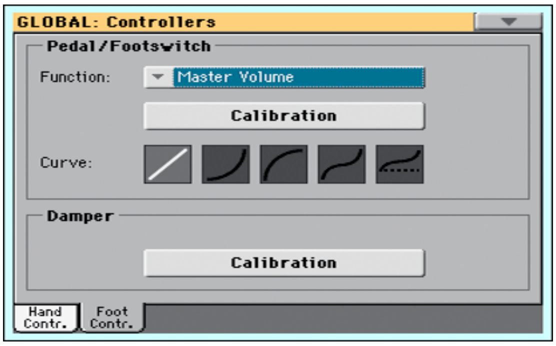
The BALANCE knob can either be used to mix between the Keyboard and Accompaniment/Song tracks, or to control the Accompaniment/Song Volume without changing the Keyboard tracks. This is always a relative control, whose effective maximum value is determined by the MASTER VOLUME control's position.

Note: *The BALANCE knob only works in the Style Play and Song Play modes.*

Acc/Song - Kbd Balance	While in Style Play and Song Play mode, the BALANCE knob balances the volume of the Keyboard (Kbd) tracks against the Style (Accompaniment), Song and Pad tracks.
Acc/Song Volume	While in Style Play and Song Play mode, the BALANCE knob controls the volume of the Style (Accompaniment), Song and Pad tracks.

Controllers: Foot Controllers

This page lets you select a function to the Assignable Pedal/Footswitch, and select the polarity for the Damper and Assignable Pedal/Footswitch.



GLOBAL: Controllers

Pedal/Footswitch

Function: Master Volume

Curve:

Damper

The following (optional) KORG pedals are compatible with Pa600:

Type	Model
Continuous (Volume/Expression)	EXP2, XVP10
Switch	PS1, PS3
Damper	DS1H (supporting half-pedalling)

Pedal/Footswitch

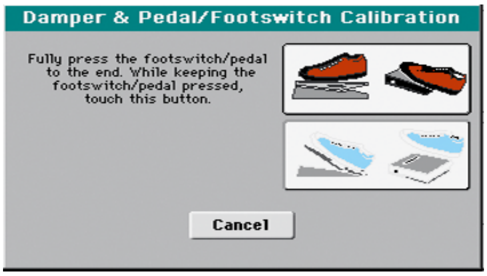
Function

Function assigned to a continuous (i.e., volume/expression) pedal, or to a footswitch, connected to the ASSIGNABLE PEDAL connector. See page 327 for a list of the assignable functions. The first functions are switch-type functions, while the remaining (starting from Master Volume) are continuous-like functions.

Calibration

Use this button to calibrate and choose the polarity of the pedal/footswitch.

1. Connect the pedal or footswitch to the ASSIGNABLE PEDAL connector on the back of the instrument.
2. Go to this page, and touch the “Calibration” button in the display. The following dialog box appears:

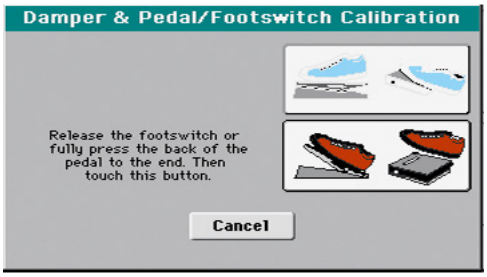


Damper & Pedal/Footswitch Calibration

Fully press the footswitch/pedal to the end. While keeping the footswitch/pedal pressed, touch this button.

3. You are asked to set the pedal to the maximum value. Press the footswitch, or press the pedal to the maximum position (usually front pressed).

4. Touch the "Push" button in the display to confirm the maximum value. The following dialog box appears:



Release the footswitch or fully press the back of the pedal to the end. Then touch this button.

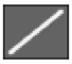
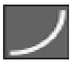
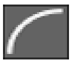
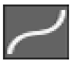
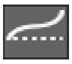
5. You are now asked to set the pedal to the minimum value. Release the footswitch, or press the pedal to the minimum position (usually back pressed).
6. Touch the "Push" button in the display to confirm the minimum value.
7. Check if the pedal or footswitch is working properly, and assign it a function.

Note: *After loading a new Operating System, an older Global file, a "SET" folder containing a Global file, or a Backup file, you might need to re-calibrate the pedal/footswitch.*

Curve

With some functions assigned to a volume/expression pedal, you can choose a curve, shaping how the pedal will affect the function. When a curve can't be applied, the curve diagrams will appear dimmed.

1. Be sure to have connected an expression pedal, calibrated it, and selected a function. Curve presets can only be selected with some functions.
2. Touch one of the "Curve" buttons to select a curve preset.

Curve	Meaning
	Linear response.
	Exponential response. The function value will change faster toward the top of the pedal range.
	Logarithmic response. The function value will change slower toward the top of the pedal range.
	S-shaped response. The function value will change faster toward the bottom and the top of the pedal range, and will be smoother in the middle.
	S-shaped with offset response. As the previous one, but starting from a value higher than zero.

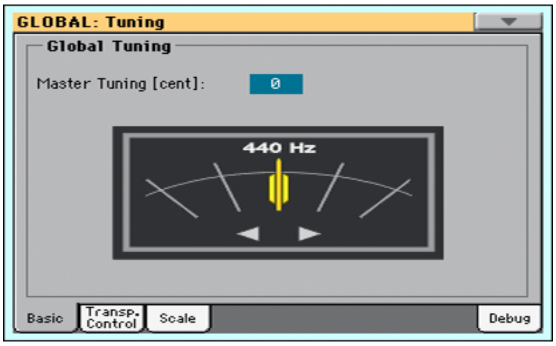
Damper

Calibration

Use this button to calibrate the action of the Damper pedal, and set its polarity. See above for details about the procedure.

Tuning: Basic

This is the general tuning of the instrument.



Master Tuning [cent]: 0

Global Tuning

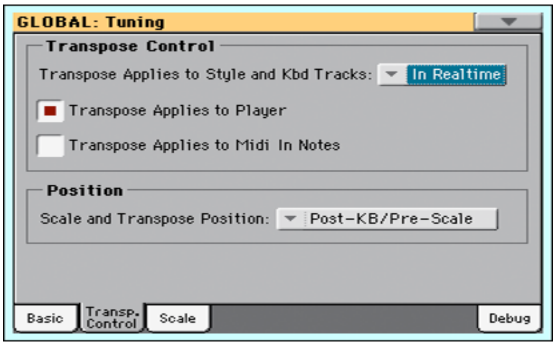
Master Tuning

This is the master tuning of the instrument (in cents of a semitone). Use it to adapt your keyboard tuning to an acoustic instrument, for example an acoustic piano.

-100	Lowest pitch (half-semitone down).
0	Standard pitch (A4=440Hz).
+100	Highest pitch (half-semitone up).

Tuning: Transpose Control

This page is where you can select to which tracks the Master Transpose is applied to, and adjust some related parameter.



Transpose Applies to Style and Kbd Tracks: In Realtime

☑ Transpose Applies to Player

☐ Transpose Applies to Midi In Notes

Scale and Transpose Position: Post-KB/Pre-Scale

Transpose Control

Transpose applies to Style and Kbd tracks

Use this parameter to turn the Master Transpose on or off, and define the way it is applied, to Style and Keyboard tracks.

Off	No Master Transpose is applied to Style and Keyboard tracks. Chords shown in the Lyrics page are, however, transposed.
In Sync	When you press either the TRANSPOSE [♭] or [♯] buttons, the new transpose setting will not take effect until the first beat of the next measure is reached.

In Realtime — When you press either the TRANSPOSE [♭] or [♯] buttons, the new transpose setting will occur when the next note is played for both the Style and Keyboard tracks individually.

The next key or chord you press will sound with the new transpose setting applied. (Note that if you play a Keyboard track prior to a new chord, the Keyboard track will play in the new key as the Style will continue to play in the old key until a new chord is entered).

Transpose applies to Player

This checkbox lets you turn the Master Transpose on or off for the onboard Player.

Transpose applies to Midi In notes

This checkbox lets you turn the Master Transpose on or off for Note messages received from MIDI IN.

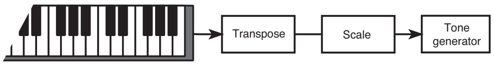
Position

Scale and Transpose position

The Scale and Transpose Position allows you to define the relation between the Scale and the Master Transpose.

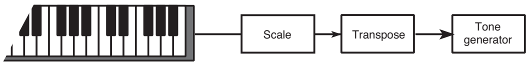
Post-KB/Pre-Scale

When this option is selected, notes will be transposed immediately after they leave the keyboard. The Scale will be applied to the transposed notes. For example, if you altered an E, and then set the Master Transpose to +1, the E key will play F, and the altered key will be E♭ (that will play an altered E).



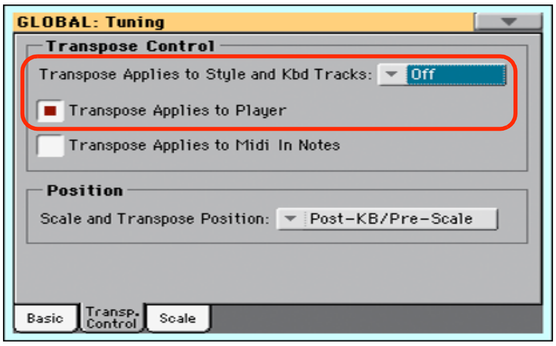
Post-KB & Scale

When this option is selected, all notes are transposed immediately before they enter the internal tone generator, or are sent to the MIDI OUT, but after the Scale. For example, if you altered an E, and set the Master Transpose to +1, the altered key will still be E (that will play an altered F).



Standard MIDI File and chord transpose

When changing the Master Transpose, chord abbreviations contained in a Standard MIDI File are transposed and correctly shown in the display. Master Transpose must be activated on the Player, but not on the Keyboard.


GLOBAL: Tuning

Transpose Control

Transpose Applies to Style and Kbd Tracks: Off

☑ Transpose Applies to Player

☐ Transpose Applies to Midi In Notes

Position

Scale and Transpose Position: Post-KB/Pre-Scale

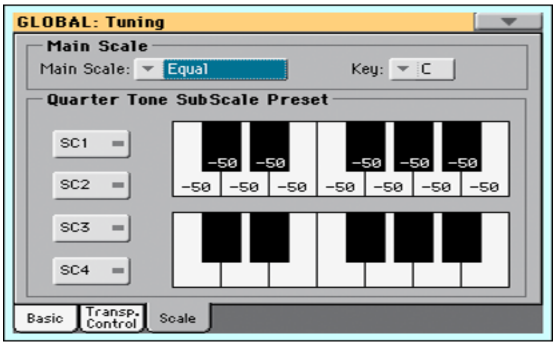
Note: *Chords contained in a linked TXT file or shown when loading a CDG file are not transposed.*

Drum Kits and transpose

Drum Kits are never transposed. If you want that any Sound is not transposed as well, assign them to a track set to the Drum mode in Style Play/Song Play > Track Control > Mode (see “Type” on page 108).

Tuning: Scale

This page lets you select the main scale of the instrument.


GLOBAL: Tuning

Main Scale

Main Scale: Equal

Key: C

Quarter Tone SubScale Preset

Main Scale

Main Scale

This parameter lets you set the main scale for the whole instrument, apart for those tracks where a different sub-scale has been selected by a Performance or STS (see “Scale” on page 104, Style Play mode).

See “Scales” on page 329 for a list of the available scales.

Note: *You cannot select a User scale in Global mode.*

Key

This parameter is needed by some scales to set the preferred key.

User Quarter Tone SubScale

This section is where you can program the Quarter Tone scale, and save up to four Quarter Tone Scale (SC) Presets.

Pa600 Quarter Tone only: This section corresponds to the QUARTER TONE section on the control panel.

SC Preset buttons

Touch these buttons to recall the corresponding presets. Each preset contains a custom detuning of each note of the scale (shown in the upper scale diagram). It also memorizes the selected degree(s) of the scale (shown in the lower scale diagram).

When no preset is selected, the default scale is automatically recalled. This scale assigns a -50 cent value to all notes, and turns all scale degrees off.

You can also select an SC Preset by assigning the relevant function to an Assignable Switch or Assignable Footswitch.

To save the current scale programming to a preset, while in this page choose the “Write Quarter Tone SC Preset” command from the page menu, then select one of the preset locations where to save the current settings (see “Write Quarter Tone SC Preset” on page 251). *Pa600 Quarter Tone: As an alternative, keep the corresponding SC button pressed for a couple seconds.*

Upper scale diagram

Use this diagram to set the detuning of each note of the scale.

-99…0…+99	Note detuning in cents. Zero is no detuning, ±50 is a full quarter tone up or down, ±99 is nearly one whole semitone up or down.

Lower scale diagram

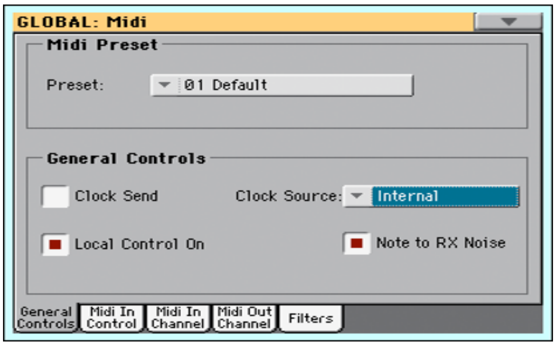
Pa600 Quarter Tone only: This diagram corresponds to the music keyboard in the QUARTER TONE section of the control panel.

Use this scale to turn detuning on or off. Applied detuning will depend on the programming set with the Upper scale diagram, or recalled by selecting one of the SC Presets.

When a note is detuned, a black dot appears in the corresponding note of the diagram.

MIDI: General Controls

This page allows you to select a MIDI Preset and set global parameters for the MIDI communication.



Preset: 01 Default

☐ Clock Send

Clock Source: Internal

☒ Local Control On

☒ Note to RX Noise

MIDI Preset

Preset

MIDI channels can be automatically configured by selecting a MIDI Preset. Each of them lets you automatically assign a value to various MIDI parameters, to allow an easier connection with a particular MIDI controller.

For detailed information about the preloaded MIDI Presets, see “MIDI Preset” on page 326.

After selecting a MIDI Preset, you can apply any changes to each channel’s settings. To store the changes in memory, select the “Write Midi Preset” command in the page menu to save it to memory (see “Write Midi Preset dialog box” on page 251).

Hint: *You can restore the original MIDI Presets by using the “Factory Restore” command and choosing the “Global” option (page “Utility” of the Media mode, see page 267). Please consider this will reset all the Global data.*

General Controls

Use these parameters to set MIDI Clock and Local Off.

Clock Send

Use this parameter to turn the clock information on the MIDI OUT or USB Device port on or off.

Note: *This parameter is automatically set to On when the instrument enters standby.*

Off	The Pa600 does not send the MIDI Clock signal. You cannot slave another instrument to the Pa600, even when connected to the MIDI OUT or USB Device port.
On	The Pa600 sends the MIDI Clock signal. You can slave another instrument to the Pa600 Tempo, Start/Stop and Play/Stop commands. Connect the other instrument to the Pa600 MIDI OUT or USB Device port.

Clock Source

This parameter selects the MIDI Clock source for the Style Play and Sequencer modes.

***Note:** In Song Play mode, the Internal clock is always used.*

***Note:** This parameter is always set to “Internal” when the instrument enters standby.*

Internal	Internal, i.e. the clock generated by the Pa600 Arranger and Player internal metronome.
External MIDI	External from the MIDI IN port. In Style Play or Sequencer mode, the Pa600 is slaved to an external device connected to its MIDI IN port. The Start/Stop and Play/Stop commands, as well as the metronome tempo, cannot be selected from the control panel of the Pa600. Use the external device to set the tempo and start or stop the sequencer or arranger.
External USB	As the above, but referred to the USB Device port. See “Installing the KORG USB MIDI Driver” on page 401 for information on how to configure your computer for MIDI Over USB communication.

Local Control On

The Local parameter turns the keyboard on or off.

***Note:** This parameter is automatically set to On when the instrument enters standby.*

On	When you play the keyboard, MIDI data is sent to the internal sound generator. If tracks are assigned to a MIDI OUT channel, data is also sent to the MIDI OUT or USB Device port.
Off	The keyboard is connected to the MIDI OUT or USB Device port, but cannot play the internal sound generator. This is very useful when working with an external sequencer, to send notes and various MIDI messages from the integrated keyboard and controllers to the external sequencer, and then let the sequencer send them back to the sound generator, without overlapping. See the “MIDI” chapter.

Note to RX Noise

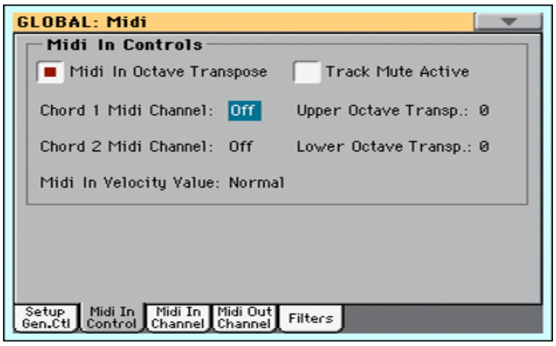
RX Noises are special sounds that allow Sounds to be more realistic. They are usually located above C7, depending on the Sound.

When this parameter is turned on, notes received from MIDI, or performed by the internal Player, in the RX Noises range, are recognized and converted to RX Noises. When off, notes are not recognized.

***Note:** This parameter is automatically turned on when the instrument is set to standby.*

MIDI: MIDI In Controls

This page lets you program parameters for the MIDI IN and USB Device port, like the Chord Recognition channel. All these parameters can be saved into a MIDI Preset.



GLOBAL: Midi

Midi In Controls

☒ Midi In Octave Transpose ☐ Track Mute Active

Chord 1 Midi Channel: Off Upper Octave Transp.: 0

Chord 2 Midi Channel: Off Lower Octave Transp.: 0

Midi In Velocity Value: Normal

Midi In Controls

Midi In Octave Transpose

Use this parameter to determine if notes received on the MIDI IN or USB Device ports have to be transposed.

On	Notes received on the MIDI IN or USB Device port are transposed according to the Octave Transpose setting for each track.
Off	Data received on the MIDI IN or USB Device port are not transposed.

Track Mute Active

Use this parameter to determine if data received on the MIDI IN or USB Device port can be played by muted tracks.

On	No data received on the MIDI IN or USB Device port can play on a muted track.
Off	Data received on the MIDI IN or USB Device port can play on a muted track.

Chord 1 Midi Channel
Chord 2 Midi Channel

Notes entering these channels on the MIDI IN or USB Device port, are sent to the Arranger.

There are two separate Chord channels. This is very useful when you have to send chords to Pa600 over two different channels (something very common on MIDI accordions).

Off	Data received on the MIDI IN or USB Device port are not sent to the Arranger.
1…16	Data received on these channels via the MIDI IN or USB Device port are sent to the Arranger.

Upper Octave Transp (Transpose)

Octave transposition of data received on the MIDI IN or USB Device port for the Upper tracks. For example, if you select the +1 value, a C4 received via MIDI will play a C5 on the Pa600.

This parameter may be useful to many MIDI accordion players, whose MIDI interface may transmit on an unexpected octave.

-2…+2	Octave transpose value.

Lower Octave Transp (Transpose)

Octave transposition of data received on the MIDI IN or USB Device port for the Lower track. For example, if you select the +1 value, a C4 received via MIDI will play a C5 on the Pa600.

This parameter may be useful to many MIDI accordion players, whose MIDI interface may transmit on an unexpected octave.

-2…+2	Octave transpose value.

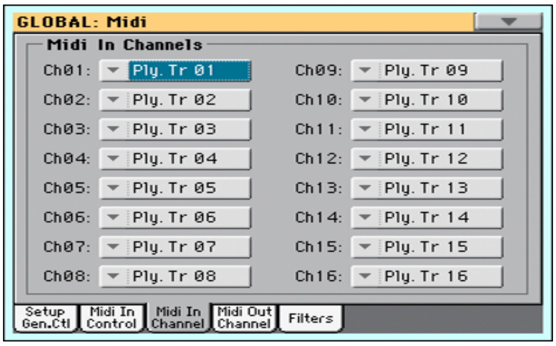
Midi In Velocity Value

Use this parameter to set a fixed velocity (dynamics) value for all received MIDI notes. This is useful when playing the Pa600 with an organ or a MIDI Accordion.

Normal	Received velocity values are left unchanged.
40…127	All received velocity values are converted to the selected value.

MIDI: MIDI In Channels

In this page, you can assign Pa600 tracks to any of the MIDI channels received on the MIDI IN and USB Device ports. All these parameters can be saved into a MIDI Preset.



Ch01: Ply.Tr 01
Ch02: Ply.Tr 02
Ch03: Ply.Tr 03
Ch04: Ply.Tr 04
Ch05: Ply.Tr 05
Ch06: Ply.Tr 06
Ch07: Ply.Tr 07
Ch08: Ply.Tr 08
Ch09: Ply.Tr 09
Ch10: Ply.Tr 10
Ch11: Ply.Tr 11
Ch12: Ply.Tr 12
Ch13: Ply.Tr 13
Ch14: Ply.Tr 14
Ch15: Ply.Tr 15
Ch16: Ply.Tr 16

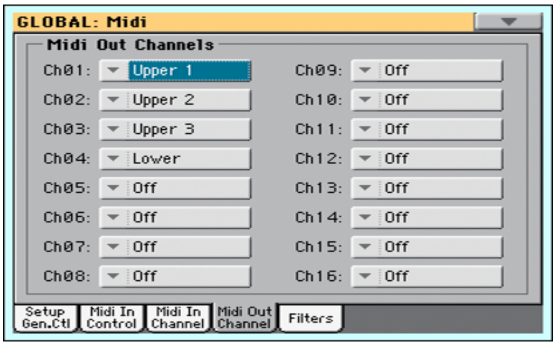
Channels

You can assign to each channel one of the following tracks:

Off	No track assigned.
Lower	Keyboard's Lower track.
Upper 1…3	One of the Keyboard's Upper tracks.
Pad 1…4	One of the Pad tracks.
Drum	Style's Drum track.
Percussion	Style's Percussion track.
Bass	Style's Bass track.
Acc 1…5	One of the Style's Auto-accompaniment tracks.
Ply 1/2 Tr 01…16	One of the Player tracks.
Global	Special channel to simulate the Pa600's integrated controls (keyboard, pedals, joystick) with an external keyboard or controller. MIDI messages coming on this channel are seen as if they were generated by Pa600's integrated controllers.
Control	On this special channel, the Pa600 receives MIDI messages to remotely select Styles, Performances, STS, Style Elements and SongBook Entries. See tables on page 403 and following for more information on the received data

MIDI: MIDI Out Channels

In this page, you can assign Pa600 tracks to any of the MIDI channels sent to the MIDI OUT and USB Device ports. All these parameters can be saved into a MIDI Preset.



Ch01: Upper 1
Ch02: Upper 2
Ch03: Upper 3
Ch04: Lower
Ch05: Off
Ch06: Off
Ch07: Off
Ch08: Off
Ch09: Off
Ch10: Off
Ch11: Off
Ch12: Off
Ch13: Off
Ch14: Off
Ch15: Off
Ch16: Off

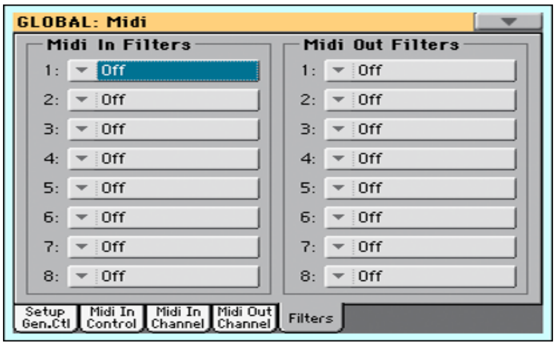
Channels

You can assign to each channel one of the following tracks:

Off	No track assigned.
Lower	Keyboard's Lower track.
Upper 1…3	One of the Keyboard's Upper tracks.
Pad 1…4	One of the Pad tracks.
Drum	Style's Drum track.
Percussion	Style's Percussion track.
Bass	Style's Bass track.
Acc 1…5	One of the Style's Auto-accompaniment tracks.
Ply Tr 01…16	One of the Player tracks.
Chord	Use this channel to send notes recognized by the Chord Recognition engine to the MIDI OUT and USB Device port. This is useful, for example, to control an external Harmonizer from the Pa600, using the Lower track to play chords, even if the track is muted.
Control	On this special channel, the Pa600 sends messages corresponding to the selected SongBook Entry.

MIDI: Filters

Use this page to set up to 8 filters for the MIDI data received or sent by the Pa600 on the MIDI and USB Device ports. All these parameters can be saved into a MIDI Preset.



GLOBAL: Midi

	Midi In Filters	Midi Out Filters
1:	Off	Off
2:	Off	Off
3:	Off	Off
4:	Off	Off
5:	Off	Off
6:	Off	Off
7:	Off	Off
8:	Off	Off

Midi In Filters

Selected MIDI IN filters. Filters are applied to all MIDI channels at the same time.

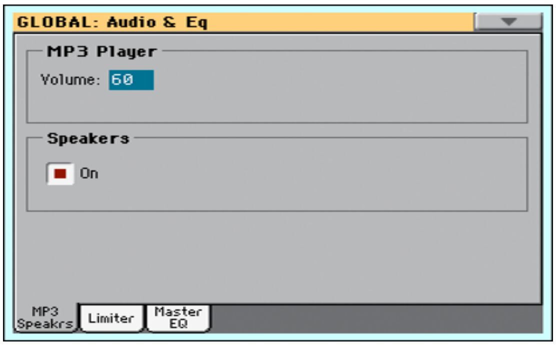
Off	No filter.
Pitch Bend	Pitch Bend.
MonoTouch	Mono (or Channel) After Touch.
PolyTouch	Poly After Touch.
PrgChange	Program Change.
SysExcl	System Exclusive.
All CC	All Control Change messages.
0…127	Control Change message #0…127. See "MIDI Data" on page 403 for a list of available Control Change messages.
Notes	Note events.

Midi Out Filters

Selected MIDI OUT filters. See above for information on each filter type.

Audio & EQ: MP3 / Speakers

This page lets you define various parameters for the MP3 player and the speakers.



GLOBAL: Audio & Eq

MP3 Player
Volume: 60

Speakers
☒ On

MP3 Player

Volume

Use this parameter to set the maximum volume for the MP3 Player. This control lets you balance MP3 files against SMF Songs and Styles.

0…100	Max volume in percentage.

Speakers

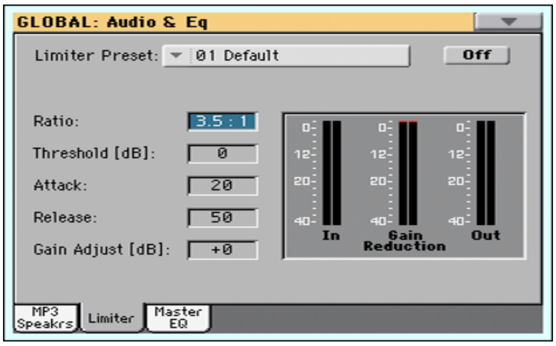
Speakers On/Off

Use this checkbox to turn the integrated speakers on or off.

Audio & EQ: Limiter

The Limiter allows for an increased loudness of the MIDI tracks (Styles and Songs), by compressing the signal exceeding a defined threshold. MP3 files are not affected by the Limiter (since they are usually already "produced", and do not need to pass through the Limiter again).

All these parameters can be saved into a Limiter Preset,



Limiter Preset: 01 Default
Off
Ratio: 3.5 : 1
Threshold [dB]: 0
Attack: 20
Release: 50
Gain Adjust [dB]: +0

Limiter Preset

Use this pop-up menu to choose one of the available Limiter Presets, and automatically reconfigure the EQ parameters.

On/Off

This is the on/off switch for the Limiter section.

Ratio

Sets the signal compression ratio. Compression is applied only when the signal level exceeds the Threshold value. 1.0:1 means no compression.

Threshold

Sets the level above which compression is applied. 0dB means no signal processed.

Attack

Sets the attack time. A higher attack time will cause the compression to be applied more slowly, and not react fast enough for notes with faster transients.

Release

Sets the release time. A higher release time will cause the compression to be released more slowly; this may help sustaining longer notes.

Gain Adjust

Sets the output gain. Use it to compensate for the gain loss caused by compression.

Diagram

Use these indicators to check the level of the audio entering and coming out of the Limiter.

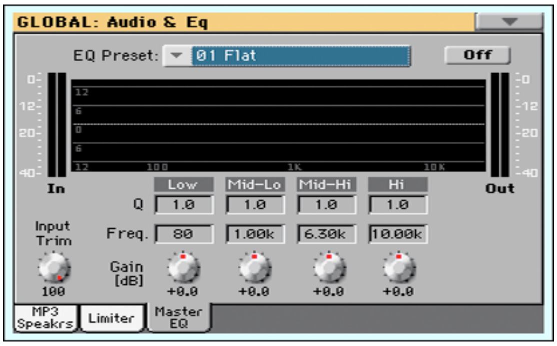
- If the input level is too high, decrease the level of the Sounds, Styles and/or Songs that are playing.
- If the output level is too high, decrease the level of the "Gain Adjust" control.
- Look at the gain reduction indicator, to understand the amount of limiting going on. Excessive limiting may dramatically change the quality of the musical program.

Audio & EQ: Master EQ

In this page you can access the fully parametric Master EQ. This EQ is placed at the end of the audio path, just before the audio outputs. Both MIDI tracks (Styles and Songs) and MP3 files are equalized.

This is a full spectrum frequency equalization, positioned at the end of the signal chain, just before the Left & Right audio outputs. It gives you the power to design EQ curves and shape your sound. Master EQ features four fully programmable bands with fully adjustable gain, frequency, and Q parameters.

All these parameters can be saved into a Master EQ Preset.



EQ Preset: 01 Flat
Off
Q: 1.0 1.0 1.0 1.0
Freq.: 80 1.00k 6.30k 10.00k
Input Trim: 100
Gain [dB]: +0.0 +0.0 +0.0 +0.0

EQ Preset

Use this pop-up menu to choose one of the available EQ Presets, and automatically reconfigure the EQ parameters.

On/Off

This is the on/off switch for the EQ section.

Diagram

Use these indicators to check the EQ curve, and the level of the audio entering and coming out of the Master EQ.

- If the input level is too high, decrease the level of the "Input Trim" parameter.
- If the output level is too high, decrease the level of the "Gain" controls.
- Keep in mind that boosting the Gain is not always the best way of making your sound appear louder; cutting the Gain of some band may make the other bands appear louder.

Input Trim

Use this knob to adjust the level of the signal entering the EQ. Excessive amount of signal may cause distortion when boosting the EQ bands.

Q

'Quality' of the EQ filter; higher values correspond to narrower, more accurate filters. Use higher values for near-surgical correction on isolated frequencies, lower values for more musical, softer equalization.

Band	Value
All Bands	0.5…10

Freq

Center frequency of the corresponding band. Center it on the problematic frequency, or the harmonics you want to emphasize or attenuate.

Band	Value
Low	20Hz…1kHz
Mid-Low	50Hz…10kHz
Mid-High	300Hz…10kHz
High	500Hz…20kHz

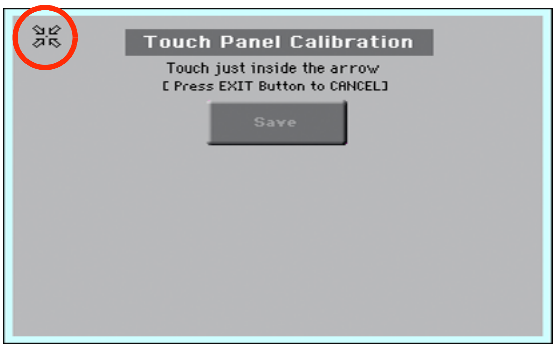
Gain

Gain of the corresponding band. Use it to make the frequencies stronger or weaker.

Band	Value
All Bands	-18…0…+18dB

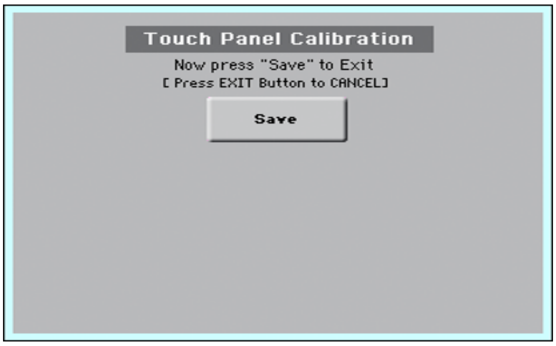
Touch Panel Calibration

From time to time (for example, after loading a new operating system), calibrating your Color TouchView™ display may be necessary to make pointing more precise. If so, use this page.



Touch Panel Calibration
Touch just inside the arrow
[Press EXIT Button to CANCEL]

1. When in this page, first touch exactly inside the set of arrows in the upper left corner of the display.
2. The arrows will subsequently move to the other corners of the display. Touch exactly inside them.
3. Finally, touch Save to confirm the new calibration.



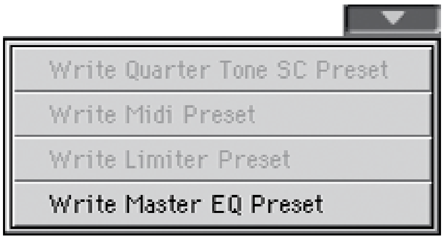
Touch Panel Calibration
Now press "Save" to Exit
[Press EXIT Button to CANCEL]

- In case you want to exit and cancel the calibration, press EXIT before completing the procedure.

Hint: *To quickly reach this page from any other page, keep the GLOBAL button pressed until this page appears.*

Page menu

Touch the page menu icon to open the menu. Touch a command to select it. Touch anywhere in the display to close the menu without selecting a command.



Note: *In each Global page, the only available Write Global options from the page menu are the ones relevant to the content of the current page. All other Write Global options are greyed out.*

Write Quarter Tone SC Preset

Choose this command to open the Write SC Preset dialog box, and save the current scale settings in one of the four available SC Presets.

See "Write Quarter Tone SC Preset dialog box" on page 251 for more information.

Write Midi Preset

Select this command to open the Write Midi Preset dialog box, and save the current MIDI settings into one of the available MIDI Presets.

See "Write Midi Preset dialog box" on page 251 for more information.

Write Limiter Preset

Choose this command to save the Limiter settings to one of the available Limiter Presets.

See "Write Limiter Preset dialog box" on page 252 for more information.

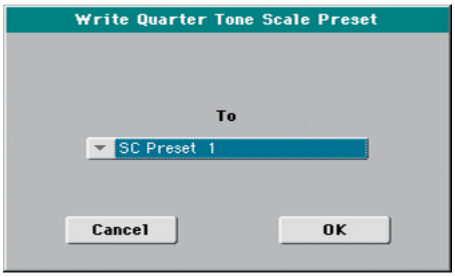
Write Master EQ Preset

Choose this command to save the Master EQ settings to one of the available Master EQ Presets.

See "Write Limiter Preset dialog box" on page 252 for more information.

Write Quarter Tone SC Preset dialog box

Open this dialog box by selecting the Write Quarter Tone SC Preset item from the page menu. Here, you can save the current scale settings in one of the four available SC Presets.


Write Quarter Tone Scale Preset

To

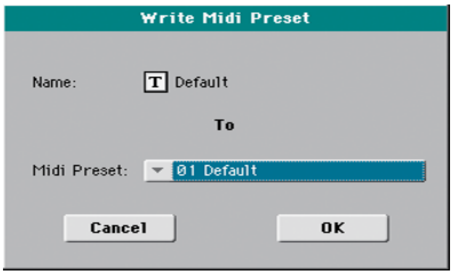
SC Preset 1

To

One of the four available SC Preset locations, where to save current scale settings.

Write Midi Preset dialog box

Open this dialog box by selecting the Write Midi Preset item from the page menu. Here, you can save all MIDI settings to a MIDI Preset.


Write Midi Preset

Name: Default

To

Midi Preset: 01 Default

Name

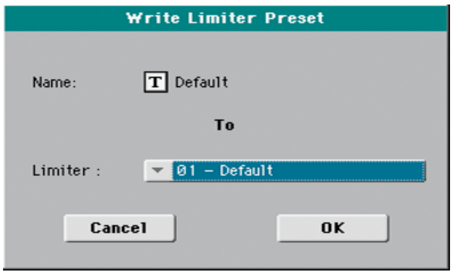
Name of the MIDI Preset to be saved. Touch the T (Text Edit) button next to the name to open the Text Edit window and modify the name.

Midi Preset

One of the available MIDI Preset locations, where to save current MIDI settings.

Write Limiter Preset dialog box

Open this dialog box by selecting the Write Limiter Preset item from the page menu. Here, you can save current settings for the Limiter edit section (see starting from page 249).



Name: Default

Limiter : 01 – Default

Name

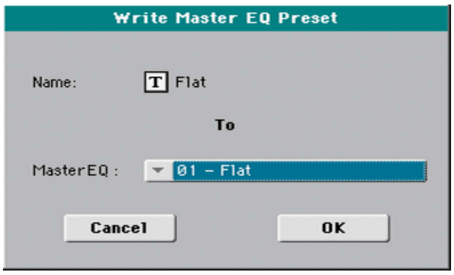
Name of the Limiter Preset to be saved. Touch the T (Text Edit) button next to the name to open the Text Edit window and modify the name.

Limiter Preset

One of the available locations, where to save current Limiter settings.

Write Master EQ Preset dialog box

Open this dialog box by selecting the Write Master EQ Preset item from the page menu. Here, you can save current settings for the Master EQ edit section (see starting from page 249).



Name: Flat

MasterEQ : 01 – Flat

Name

Name of the Master EQ Preset to be saved. Touch the T (Text Edit) button next to the name to open the Text Edit window and modify the name.

Master EQ Preset

One of the available locations, where to save current Master EQ settings.

Media mode

The Media mode is where you can manage files. This mode overlaps the current operating mode (Style Play, Song Play, Sequencer, Sound).

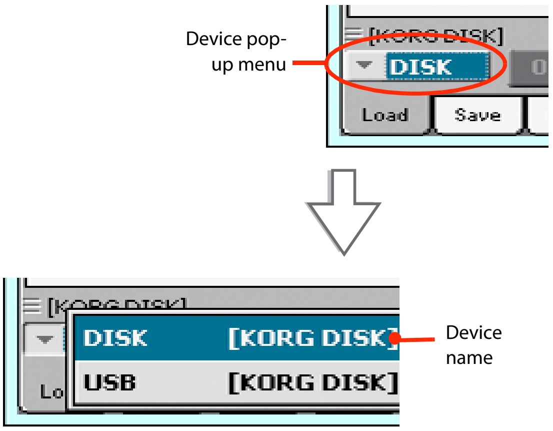
Storage devices and internal memory

User-accessible storage devices

During a Media operation, files are usually exchanged between a storage device and the internal memory. You can access the following mass storage device types:

Name	Media type
DISK [KORG DISK]	User-accessible area of the internal memory. This is where you can store Songs and other files.
USB	USB memory device (for example, a memory stick) connected to the rear USB Host port.

A device can be selected by using the Device pop-up menu, shown in the lower left corner of most Media pages:



Supported device

Pa600 supports external devices, like hard disks or USB memory sticks, formatted in FAT16 or FAT32 with long file names. NTSF (Windows NT/2000/XP/Vista/7), HFS (Mac OS 9) and HFS+ (Mac OS X) formats are not supported.

Selecting and deselecting files

While a file list is shown in the display, you can select any item by touching it. The selected item is highlighted.

You can deselect all items in any of the following ways:

- Touch an empty area in the file list (if available).
- Touch the Device pop-up icon, and select the current device again.

Searching files

By using the Search function, you can search files and musical resources in all internal and external devices. For more information, see the relevant chapter.

Preferences

You can change some global preferences of the Media mode in the Global > Mode Preferences > Media page (see page 241).

File types

The following tables describe all the file and folder types the Pa600 can manage. Here are the files you can read or write with the Pa600.

Extension	File/folder type
SET	All the User data. (This is a folder containing other folders)
BKP	Backup file, created with the “Full Resource Backup” function of the Media > Utility page
GBL	Global Setup
VOC	Voice Processor Presets
QTP	Quarter Tone Scale Presets
MPR	MIDI Presets
AUD	Limiter and Master EQ Presets
PRF	Performance
STY	Style
PAD	Pad
SBD	SongBook
SBL	SongBook’s Custom List
JBX	Jukebox
MID	Standard MIDI File, SMF
MP3	MP3 file
TXT	Plain text file

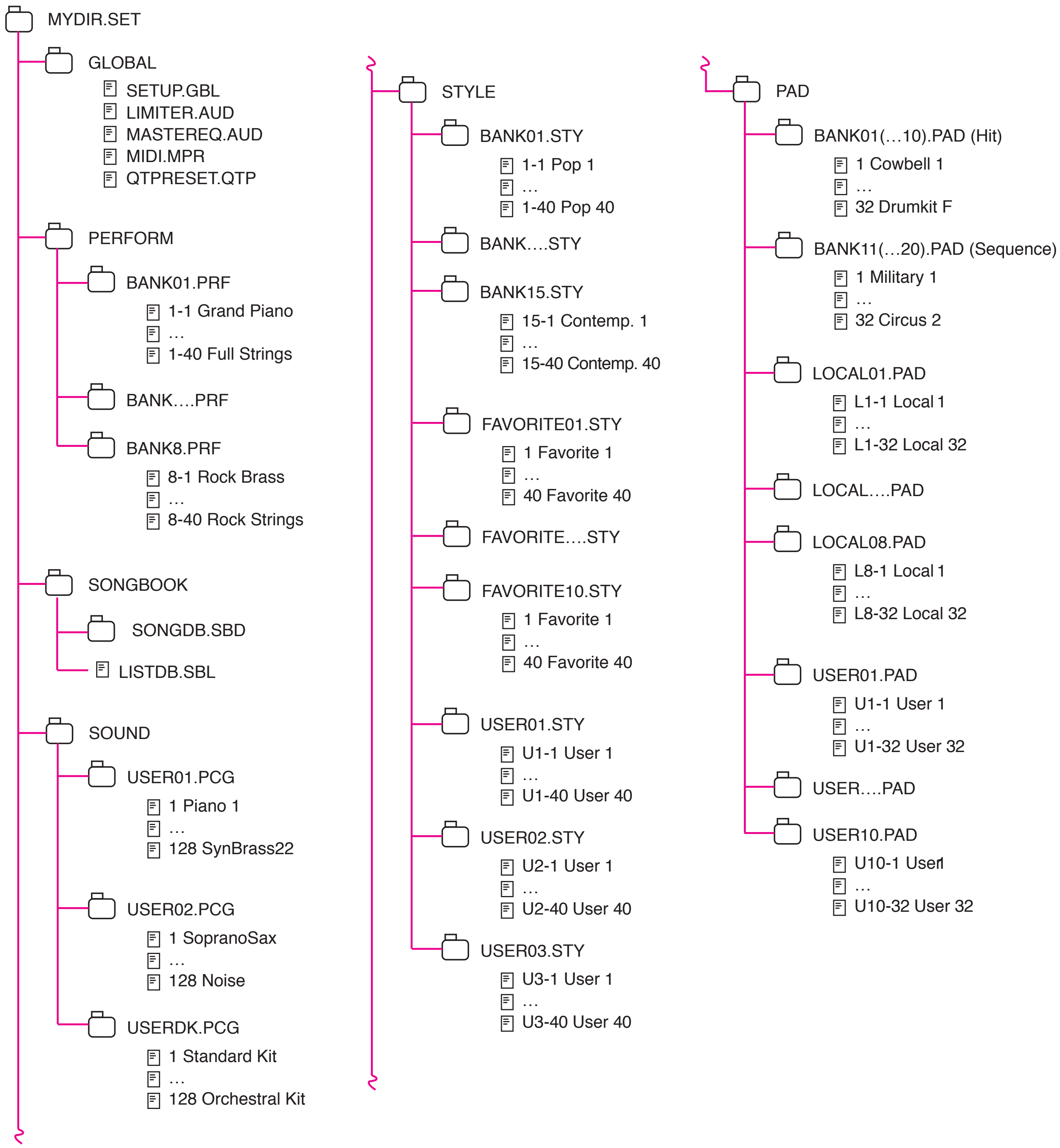
Pa600 can also read (but not write) the following types of data.

Extension	File type
PKG	Operating System and Musical Resource files
KAR	Karaoke file
CDG	CD+Graphics file
PCG	Sound (KORG Pa-Series)
KMP	Multisample
PCM	Sample

Media structure

Each device (and the internal memory) can contain files and folders. Data in the Pa600 is slightly more rigidly structured than in a computer, due to the pre-configured type of data inside the instrument's memory. The diagram below shows the global structure of a Pa600 device.

Note: *Factory Styles and Pads can be seen in Media mode only when the "Factory Style and Pad Protect" parameter is set to Off (see page 241), and only when loading or saving a single Style bank, or when erasing something.*

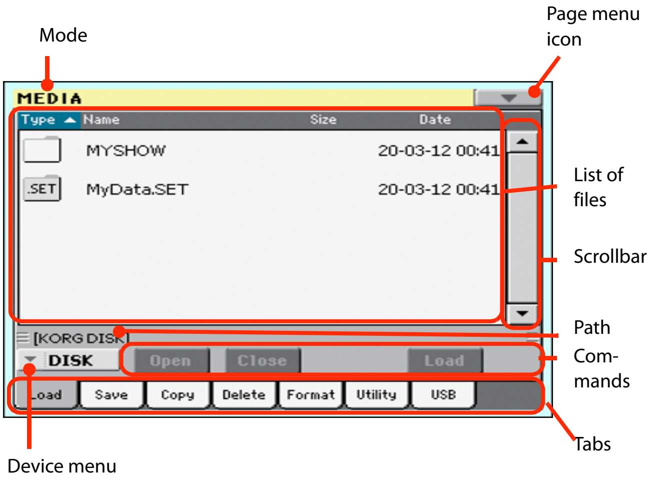

MYDIR.SET
GLOBAL
SETUP.GBL
LIMITER.AUD
MASTEREQ.AUD
MIDI.MPR
QTPRESET.QTP
PERFORM
BANK01.PRF
1-1 Grand Piano
…
1-40 Full Strings
BANK….PRF
BANK8.PRF
8-1 Rock Brass
…
8-40 Rock Strings
SONGBOOK
SONGDB.SBD
LISTDB.SBL
SOUND
USER01.PCG
1 Piano 1
…
128 SynBrass22
USER02.PCG
1 SopranoSax
…
128 Noise
USERDK.PCG
1 Standard Kit
…
128 Orchestral Kit
STYLE
BANK01.STY
1-1 Pop 1
…
1-40 Pop 40
BANK….STY
BANK15.STY
15-1 Contemp. 1
…
15-40 Contemp. 40
FAVORITE01.STY
1 Favorite 1
…
40 Favorite 40
FAVORITE….STY
FAVORITE10.STY
1 Favorite 1
…
40 Favorite 40
USER01.STY
U1-1 User 1
…
U1-40 User 40
USER02.STY
U2-1 User 1
…
U2-40 User 40
USER03.STY
U3-1 User 1
…
U3-40 User 40
PAD
BANK01(…10).PAD (Hit)
1 Cowbell 1
…
32 Drumkit F
BANK11(…20).PAD (Sequence)
1 Military 1
…
32 Circus 2
LOCAL01.PAD
L1-1 Local 1
…
L1-32 Local 32
LOCAL….PAD
LOCAL08.PAD
L8-1 Local 1
…
L8-32 Local 32
USER01.PAD
U1-1 User 1
…
U1-32 User 32
USER….PAD
USER10.PAD
U10-1 User1
…
U10-32 User 32

Main page

There is no main page in the Media mode. When pressing EXIT, you exit the Media mode, and the underlying operating mode in the background is recalled.

Page structure

All pages share some basic elements.



Mode

This indicates that the instrument is in Media mode.

Page menu icon

Touch this icon to open the page menu (see “Page menu” on page 269).

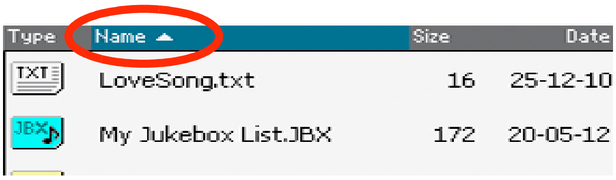
Path

Full path of the directory currently shown in the display.

List of files

This area shows the files and folder contained in the selected device.

You can touch one of the heading labels above the list to change the order in which files are shown. For example, by touching the “Name” label, the list is alphabetically re-ordered according to the file names. The selected label appears highlighted, showing the currently selected ordering.



Type	Name ▲	Size	Date
TXT	LoveSong.txt	16	25-12-10
JBX	My Jukebox List.JBX	172	20-05-12

If you touch the highlighted label again, the alphabetic order changes from ascending to descending, or vice-versa. The small arrow next to the label name shows the selected order.

Scrollbar

Use the scrollbar to scroll the list. Touching the arrows will scroll one step at a time, while touching the bar will scroll one page at a time.

Touching the arrows while SHIFT is kept pressed jumps to the previous or next alphabetical section, or file/folder type (depending on the selected display order).

Device pop-up menu

Use this menu to select one of the available storage devices.

Commands

Commands may be different depending on the shown page. They are detailed in each relevant section.

Tabs

Use tabs to select one of the pages of the current section.

Navigation tools

When in a Media page, you can use any of the following commands to browse through the files and folders.

Scrollbar

See “Scrollbar” above.

VALUE DIAL

Use the VALUE DIAL to scroll the list up or down.

Device pop-up menu

See “Device pop-up menu” above.

Load/Save/Copy/Delete button

Executes the media operation.

Open button

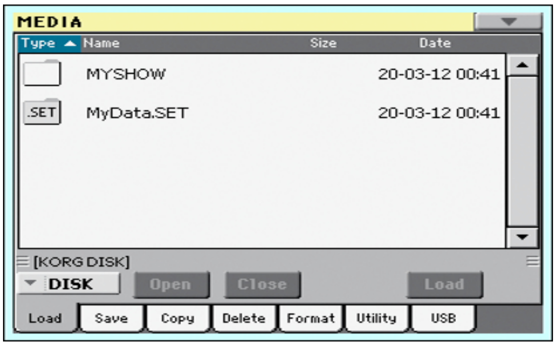
Opens the selected folder or directory (whose name begins with the “☐” icon).

Close button

Closes the current folder or directory, returning to the parent (“upper”) level.

Load

In this page you can load User data files (Performances, User Sounds, User Styles, the SongBook, the Global) from an internal or external storage device to the internal memory.



Type	Name	Size	Date
	MYSHOW		20-03-12 00:41
.SET	MyData.SET		20-03-12 00:41

[KORG DISK]

Note: *While in this page, only data allowed for loading are shown. All other files are hidden.*

Merging data

When loading all User data, or all data of a specified type, most data loaded from a storage device are merged with data already existing in memory. For example, if there is data in all three USER Style banks in memory (USER01, USER02, USER03), and there is only the USER01 Style bank in the storage device, the USER01 bank will be overwritten, while USER02 and USER03 banks will be left unchanged.

As a result, there will be a STYLE folder in memory containing the USER01 bank you just loaded, and the old USER02 and USER03 banks.

Loading all the User data

You can load all the User data with a single operation.

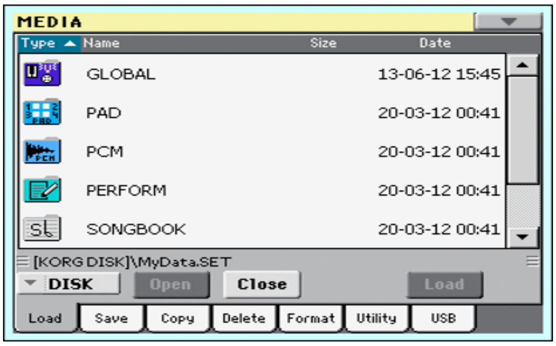
1. If loading from an external device, connect the device to the USB Host port.
2. Use the Device pop-up menu to select the source device. When the device is selected, its content will appear in the display.
3. If the folder you are looking for is inside another folder, select this latter and touch the Open button to open it. Touch the Close button to go back to the parent folder.
4. Select the ".SET" folder containing the data you wish to load, and touch Load to confirm the selection.

   To create a new .SET folder with PCM samples from different sources, see "Merging Samples from various sources" on page 270.

Loading all data of a specified type

You can load all data of a specified type with a single operation.

1. If loading from an external device, connect the device to the USB Host port.
2. Use the Device pop-up menu to select the source device. When the device is selected, its content will appear in the display.
3. If the folder you are looking for is inside another folder, select the latter and touch the Open button to open it. Touch the Close button to go back to the parent folder.
4. Select the ".SET" folder containing the data you wish to load, and touch Open to open the ".SET" folder. A list of User data appears (Global, Performance, SongBook, Sounds, Style…).



Type	Name	Size	Date
	GLOBAL		13-06-12 15:45
	PAD		20-03-12 00:41
	PCM		20-03-12 00:41
	PERFORM		20-03-12 00:41
	SONGBOOK		20-03-12 00:41

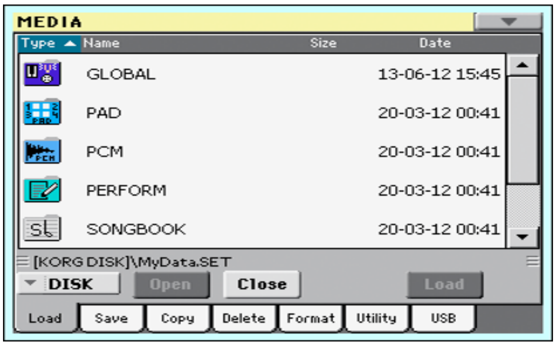
[KORG DISK]\MyData.SET

5. Select the folder containing the type of data you are looking for, and touch Load to confirm your selection.

Loading a single bank

You can load a single bank of data (Sounds, Styles, Performances) with a single operation. Each bank corresponds to each of the side tabs in the various Select windows (Style Select, Performance Select…).

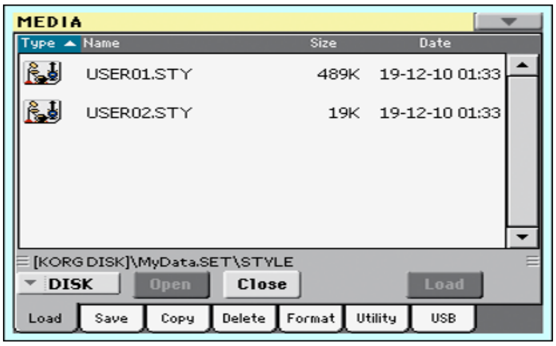
1. If loading from an external device, connect the device to the USB Host port.
2. Use the Device pop-up menu to select the source device. When the device is selected, its content will appear in the display.
3. If the folder you are looking for is inside another folder, select this latter and touch the Open button to open it. Touch the Close button to go back to the parent folder.
4. Select the ".SET" folder containing the data you wish to load, and touch Open to open the ".SET" folder. A list of User data appears (Global, Performance, SongBook, Sounds, Style…).



Type	Name	Size	Date
	GLOBAL		13-06-12 15:45
	PAD		20-03-12 00:41
	PCM		20-03-12 00:41
	PERFORM		20-03-12 00:41
	SONGBOOK		20-03-12 00:41

[KORG DISK]\MyData.SET

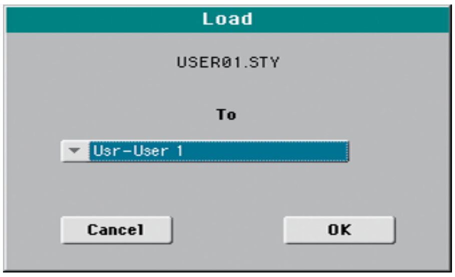
5. Select the folder containing the type of data you are looking for, and touch Open to open the selected folder. A list of Favorite/User banks appears.



Type	Name	Size	Date
	USER01.STY	489K	19-12-10 01:33
	USER02.STY	19K	19-12-10 01:33

[KORG DISK]\MyData.SET\STYLE

6. Select the bank file you are looking for, and touch Load to confirm the selection. A dialog box appears, asking you to select one of the available User (or Favorite/User Style) banks in memory.



USER01.STY

To

Usr-User 1

In the example above, the previously selected Style bank will be loaded into the bank USER 1 in memory. The Styles already existing in memory will be deleted and overwritten.

7. Select the target bank, and touch OK to load the source bank.

   ***Warning:** After confirming, all User data contained in memory are deleted.*

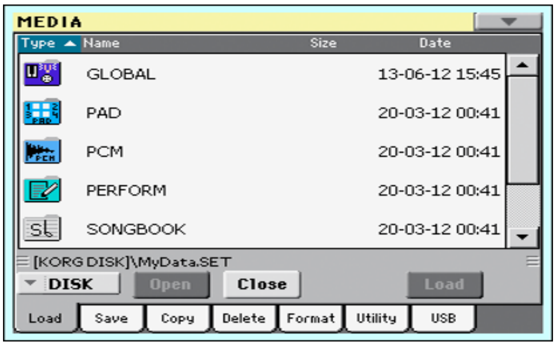
   ***Note:** You can save space for loading new data by deleting all unused PCM Samples from memory. When Sounds or Drum Kits based on external PCM Samples are deleted, you no longer need the now unassigned PCM Samples. Use the "Not assigned to any Multisample/Drumkit" Delete option in the Sampling mode to delete all the unassigned Samples (see page 231).*

   ***Note:** If you are loading a bank of Sounds, and one or more Sounds or Drum Kits use external PCM Samples, the Samples are automatically loaded (unless they are already in memory).*

Loading a single item

You can load a single item with a single operation.

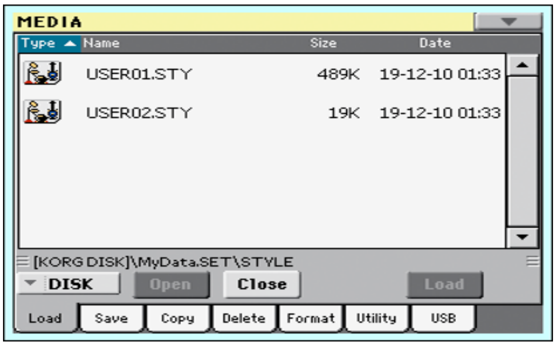
1. If loading from an external device, connect the device to the USB Host port.
2. Use the Device pop-up menu to select the source device. When the device is selected, its content will appear in the display.
3. If the folder you are looking for is inside another folder, select this latter and touch the Open button to open it. Touch the Close button to go back to the parent folder.
4. Select the ".SET" folder containing the data you wish to load, and touch Open to open the ".SET" folder. A list of User data appears (Global, Performance, SongBook, Sounds, Style…).



Type	Name	Size	Date
	GLOBAL		13-06-12 15:45
	PAD		20-03-12 00:41
	PCM		20-03-12 00:41
	PERFORM		20-03-12 00:41
	SONGBOOK		20-03-12 00:41

[KORG DISK]\MyData.SET

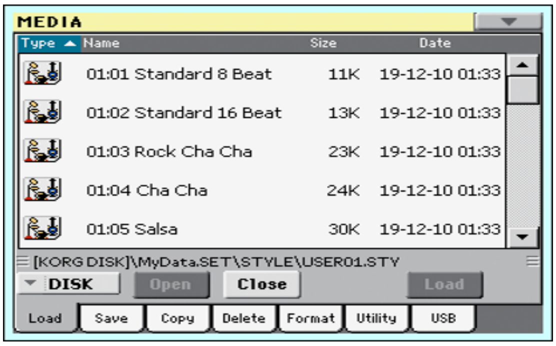
5. Select the folder containing the type of data you are looking for, and touch Open to open the selected folder. A list of banks appears.



Type	Name	Size	Date
	USER01.STY	489K	19-12-10 01:33
	USER02.STY	19K	19-12-10 01:33

[KORG DISK]\MyData.SET\STYLE

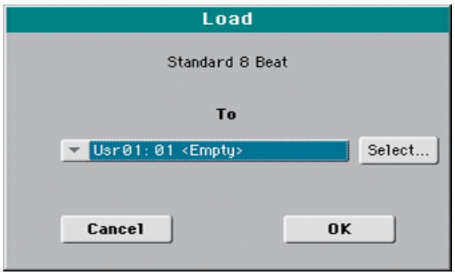
6. Select the bank file you are looking for, and touch Open to open it. A list of items appears.



Type	Name	Size	Date
	01:01 Standard 8 Beat	11K	19-12-10 01:33
	01:02 Standard 16 Beat	13K	19-12-10 01:33
	01:03 Rock Cha Cha	23K	19-12-10 01:33
	01:04 Cha Cha	24K	19-12-10 01:33
	01:05 Salsa	30K	19-12-10 01:33

[KORG DISK]\MyData.SET\STYLE\USER01.STY

7. Select the item you are looking for, and touch Load to confirm the load. A dialog box appears, asking you to select one of the available locations in memory.



Standard 8 Beat

To

Usr01: 01 <Empty>

In the dialog box above, the Style you select from disk will be loaded into location 01 of the bank Usr01 in memory. Any existing Style at the same location will be deleted and overwritten.

Empty locations are named "- - - ".

8. Select the target location, and touch OK to load the source file.

Warning: *After confirming, the item you are overwriting in memory will be deleted.*

Note: *You can save space for loading new data by deleting all unused PCM Samples from memory. When Sounds or Drum Kits based on external PCM Samples are deleted, you no longer need the now unassigned PCM Samples. Use the "Not assigned to any Multisample/Drumkit" Delete option in the Sampling mode to delete all the unassigned Samples (see page 231).*

Note: *If you are loading a Sound or Drum Kit making use of external PCM Samples, the Samples are automatically loaded (unless they are already in memory).*

Loading Global data from other Pa-Series instruments

Global data (Global, Limiter, EQ, etc.) cannot be loaded from other Pa-Series instruments.

Loading Pa3X data

You can load Pa3X data exactly as if they were Pa600 data, apart for the Global data. Sounds and Effects can be a bit different. Due to the different order in memory, Styles must be reassigned to SongBook Entries by using the SongBook Editor software (freely available on www.korg.com).

Loading Pa600 data

You can load Pa600 data exactly as if they were Pa600 data, apart for the Global data. Due to the different order in memory, Styles must be reassigned to SongBook Entries by using the SongBook Editor software (freely available on www.korg.com).

Loading Pa2X, Pa800, Pa1X, Pa800, Pa588 data

You can load Pa2X/Pa800 data exactly as if they were Pa600 data, apart for the Global data. Due to the different order in memory, Styles must be reassigned to SongBook Entries by using the SongBook Editor software (freely available on www.korg.com).

It is not possible to load Pa600 data into a Pa2X, Pa800, Pa1X, Pa500 or Pa588.

Loading Pa80/60/50/50SD data

You can load Pa80/60/50/50SD data exactly as if they were Pa600 data, apart for the Global data. The only difference is that the "SOUND" folder of Pa600 is called "PROGRAM" in the Pa80/60/50/50SD. Therefore, to load Sounds from Pa80/60/50/50SD disks, you must accomplish one of the following operations, either:

- Rename the "PROGRAM" folder "SOUND" (by using a personal computer) before loading a ".SET" folder; *or*
- First load the ".SET" folder, then separately load the ".PCG" file from the "PROGRAM" folder.

Loading i-Series data

Pa600 is compatible with the Styles of the older i-Series instruments. You can load them as if they were ordinary Pa600 data.

1. Copy the old i-Series data into an USB device, or transfer them to the internal storage memory of the Pa600.
2. Press MEDIA to go to the Media mode. Select the Load page if needed.
3. While in the Load page, select the device containing the i-Series data from the Device pop-up menu.
4. If you are reading an i30 file, select the ".SET" folder and touch the Open button in the display.
5. Select the ".STY" folder.
6. At this point, you can load the whole ".STY" folder, or open it and select a single Style.

   • To load the whole folder, touch the Load button in the display. If it contains more than 40 Styles, they will be loaded into the USER banks sequentially, otherwise you will be prompted to select one of the USER Style banks or the FAVORITE Style banks in memory. Once the target bank is selected, touch Load to load the bank. The "Are you sure?" message will appear. Touch OK to confirm, or Cancel to abort.

   • To load a single Style, touch Open in the display to open the ".STY" folder. Since a conversion will be started at this point, please wait some seconds for the operation to be completed.

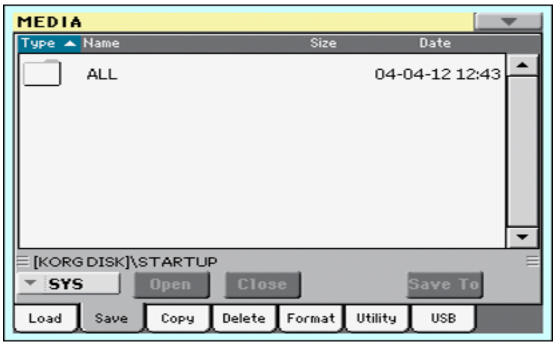
Select the Style to load, then touch Load. You will be prompted to select a target location in memory. Once the target location is selected, touch Load to load the Style. The “Are you sure?” message will appear. Touch OK to confirm, or Cancel to abort.

Note: *Loading a whole “.SET” folder from an i30 file may take some time due to format conversion.*

7. Go to the Style Play mode, and select (one of) the loaded Style. Adjust the Tempo value, then select the “Write Current Style Settings” to write changes. Touch OK twice to confirm.
8. Due to the difference in Sounds, you will probably want to make some adjustments to the old Styles, once they are loaded in Pa600 (changing the Sound, Volume, Pan, Tempo, Drum Mapping, Wrap Around…).
9. To make the Sound assignment to the Style tracks effective, be sure the “Original Style Sounds” parameter is not checked (see page 98).
10. Save the Style Settings again. Select the “Write Current Style Settings” to write changes. Touch OK to confirm.

Save

In this page, you can save User data from the internal memory to a mass storage device (like an hard disk or an USB memory stick). You can save single files, banks, or all the User and Favorite Style files of the internal memory.



Note: *While in this page, only data allowed for saving are shown. All other files are hidden.*

Here are the various types of files contained in the internal memory:

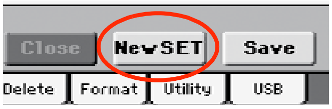
The file/folder type…	…contains…	…and will create on the target device…
All	All the User data in memory	A .SET folder
Style	The FAVORITE 01-12 Styles and the USER 01-03 Styles	A STYLE folder inside a .SET folder
Sound	The USER Sounds and Drum Kits	A SOUND folder inside a .SET folder
Pad	The USER Pads	A PAD folder inside the .SET folder
Perform (Performances)	The Performances	A PERFORM folder inside a .SET folder
SongBook	The SongBook database	A SONGBOOK folder inside a .SET folder
PCM	All the Multisamples contained in the internal storage memory, and the PCM Samples contained in RAM	A PCM folder inside a .SET folder
Global	All global parameters. MIDI Presets, SC Presets, Limiter Presets, Master EQ Presets and VP Presets are also saved.	A GLOBAL folder inside a .SET folder. Inside the GLOBAL folder other folders will be created, to contain the MIDI, SC, Limiter, Master EQ Presets and VP Presets.

Creating a new ".SET" folder

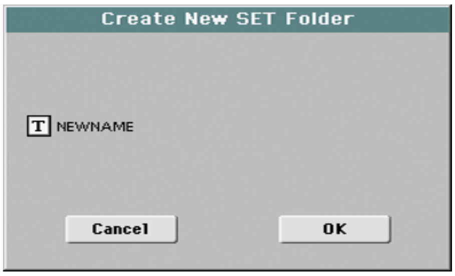
Pa600 proprietary data must be saved in special folders with the ".SET" extension. These special folders can be saved inside ordinary folders.

When saving, you can save onto existing ".SET" folders, or you can create a new folder of this type. Here is how to do it.

1. When the directory of the target device is shown in the display, the "New SET" button appears among the buttons below the file list.


Close
NewSET
Save
Delete
Format
Utility
USB

2. Touch the New SET button. A dialog box appears, asking you to enter a name for the new ".SET" folder.


Create New SET Folder
T NEWNAME
Cancel
OK

3. Touch the T (Text Edit) button to open the Text Edit window. Enter the name, then touch OK to confirm and close the Text Edit window. ***Note:*** *The ".SET" file name extension is added automatically.*

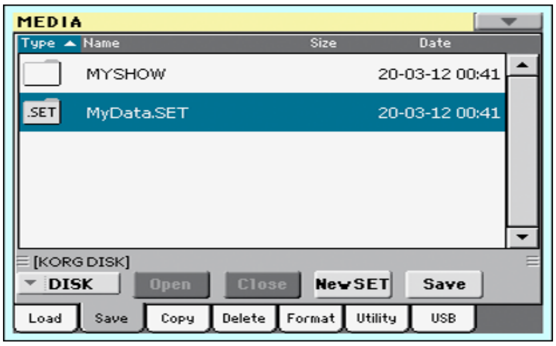
4. Touch OK to create the new folder and exit the dialog box.

Saving the full memory content

You can save the full memory content with a single operation. Depending on the status of the "Factory Style and Pad Protect" parameter, you may or may not see the Factory Style and Pad banks (see "Factory Style and Pad Protect" on page 241).

1. If saving to an external device, connect the device to the USB Host port.

2. The full content ("All") of the internal memory is already shown. Select it, and touch Save to confirm the selection. The list of files in the target device is shown.


MEDIA
[KORG DISK]
DISK
Open
Close
NewSET
Save
Load
Save
Copy
Delete
Format
Utility
USB

Type	Name	Size	Date
	MYSHOW		20-03-12 00:41
.SET	MyData.SET		20-03-12 00:41

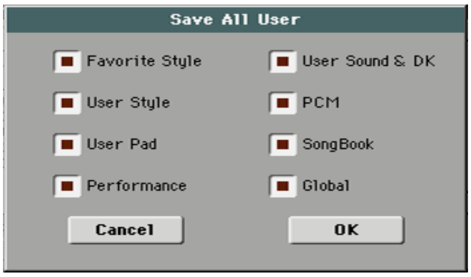
3. If needed, use the Device pop-up menu to select a different target device. When the target device is selected, its content will appear in the display.

4. At this point, you can:

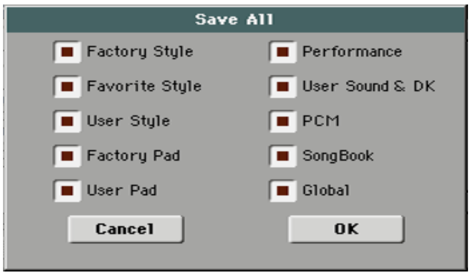
   • Touch the New SET button and create a new ".SET" folder (see "Creating a new ".SET" folder" on page 261), *or*

   • Select an existing ".SET" folder.

5. Touch Save to confirm. A dialog box appears, asking you to select the type of data to save:


Save All User
Favorite Style
User Style
User Pad
Performance
User Sound & DK
PCM
SongBook
Global
Cancel
OK

Save All dialog with the Factory Style and Pad Protect option turned on


Save All
Factory Style
Favorite Style
User Style
Factory Pad
User Pad
Performance
User Sound & DK
PCM
SongBook
Global
Cancel
OK

Save All dialog with the Factory Style and Pad Protect option turned off

In the dialog box above, check all data type you wish to save to a storage device.

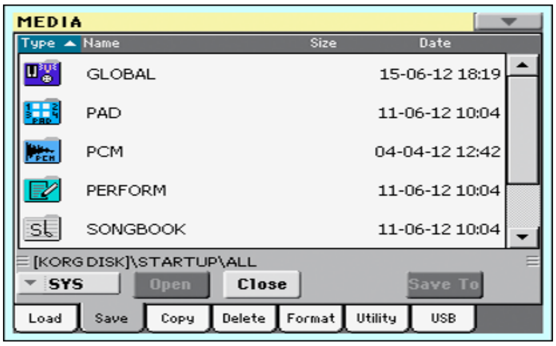
6. Touch OK to confirm, or Cancel to abort.

Warning: *After confirming, all data of the selected type in the target folder is deleted.*

Saving all data of a specified type

In addition to the above, you can save all data of a specified type by selecting the corresponding folder.

1. If saving to an external device, connect the device to the USB Host port.
2. The full content (“All”) of the internal memory is already shown. Select it, and touch Open to open it. A list of User data types appear (each type is a separate folder).

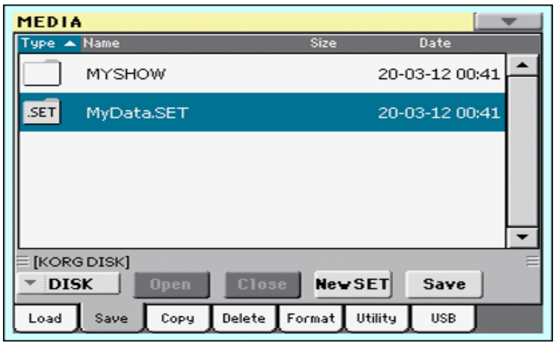

MEDIA
Open
Close
Save To
Load
Save
Copy
Delete
Format
Utility
USB

Type	Name	Size	Date
	GLOBAL		15-06-12 18:19
	PAD		11-06-12 10:04
	PCM		04-04-12 12:42
	PERFORM		11-06-12 10:04
	SONGBOOK		11-06-12 10:04

[KORG DISK]\STARTUP\ALL

SYS

3. Select the folder containing the type of data you wish to save, and touch Save To to confirm the selection. The list of files of the target device is shown.


MEDIA
Open
Close
NewSET
Save
Load
Save
Copy
Delete
Format
Utility
USB

Type	Name	Size	Date
	MYSHOW		20-03-12 00:41
.SET	MyData.SET		20-03-12 00:41

[KORG DISK]

DISK

4. If needed, use the Device pop-up menu to select a different target device. When the target device is selected, its content will appear in the display.
5. At this point, you can:

   • Touch the New SET button and create a new “.SET” folder (see “Creating a new “.SET” folder” on page 261), or

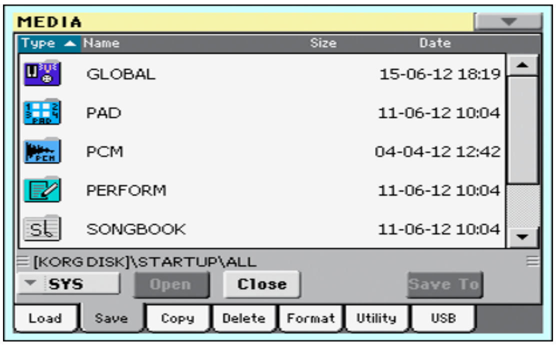
   • Select an existing “.SET” folder, and touch Save to confirm.

   Warning: *After confirming, all data of the selected type in the target folder is deleted.*

Saving a single bank

You can save a single User bank with a single operation. Each bank corresponds to each of the side tabs in the various Select windows (Style Select, Performance Select…).

1. If saving to an external device, connect the device to the USB Host port.
2. The full content (“All”) of the internal memory is already shown. Select it, and touch Open to open it. A list of User data types appear (each type is a separate folder).

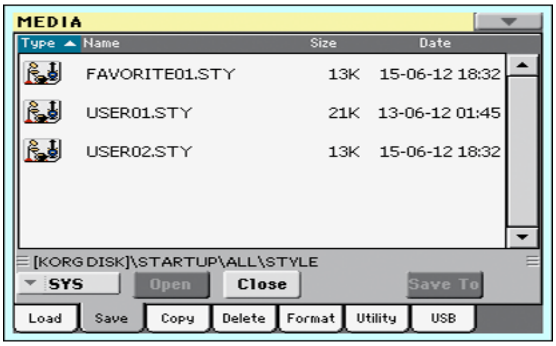

MEDIA
Open
Close
Save To
Load
Save
Copy
Delete
Format
Utility
USB

Type	Name	Size	Date
	GLOBAL		15-06-12 18:19
	PAD		11-06-12 10:04
	PCM		04-04-12 12:42
	PERFORM		11-06-12 10:04
	SONGBOOK		11-06-12 10:04

[KORG DISK]\STARTUP\ALL

SYS

3. Select the folder containing the type of data you wish to save, and touch Open to open it. The list of contained bank files is shown.

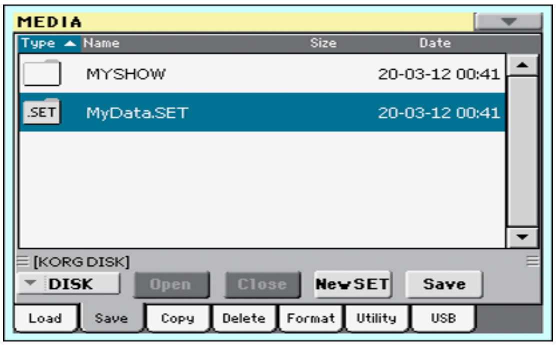

MEDIA
Open
Close
Save To
Load
Save
Copy
Delete
Format
Utility
USB

Type	Name	Size	Date
	FAVORITE01.STY	13K	15-06-12 18:32
	USER01.STY	21K	13-06-12 01:45
	USER02.STY	13K	15-06-12 18:32

[KORG DISK]\STARTUP\ALL\STYLE

SYS

4. Select the bank file to be saved, and touch Save To to confirm the selection. The list of files of the target device is shown.


MEDIA
Open
Close
NewSET
Save
Load
Save
Copy
Delete
Format
Utility
USB

Type	Name	Size	Date
	MYSHOW		20-03-12 00:41
.SET	MyData.SET		20-03-12 00:41

[KORG DISK]

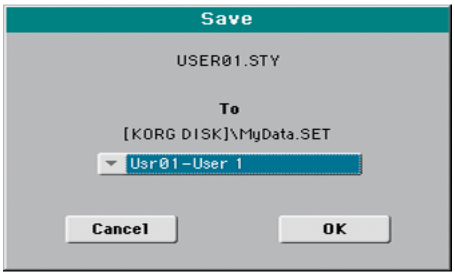
DISK

5. If needed, use the Device pop-up menu to select a different target device. When the target device is selected, its content will appear in the display.
6. At this point, you can:

   • Touch the New SET button and create a new “.SET” folder (see “Creating a new “.SET” folder” on page 261), or

   • Select an existing “.SET” folder, and touch Save to confirm.

7. A dialog box appears, asking you to select one of the available User (or Favorite/User Style) locations inside the folder:



Save

USER01.STY

To

[KORG DISK]\MyData.SET

Usr01-User 1

In the above dialog box, the previously selected bank of Styles will be saved to bank User 01 inside the selected folder. Three User banks are available.

8. Touch OK to confirm, or Cancel to abort.

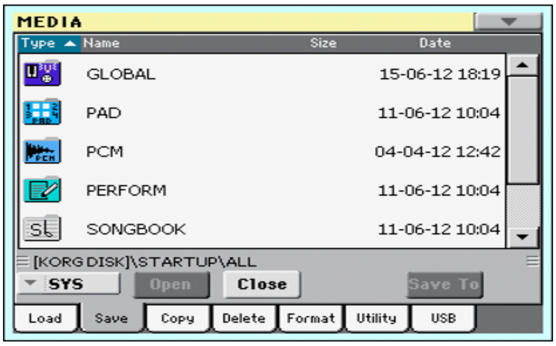
Warning: *After confirming, the same bank in the target folder is deleted.*

Saving a single item

You can save a single User item with a single operation.

1. If saving to an external device, connect the device to the USB Host port.

2. The full content ("All") of the internal memory is already shown. Select it, and touch Open to open it. A list of User data types appear (each type is a separate folder).



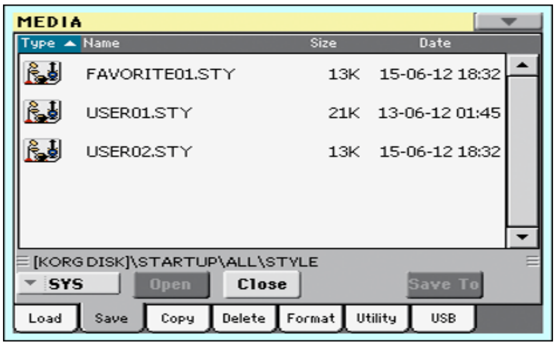
MEDIA

Name	Size	Date
GLOBAL		15-06-12 18:19
PAD		11-06-12 10:04
PCM		04-04-12 12:42
PERFORM		11-06-12 10:04
SONGBOOK		11-06-12 10:04

[KORG DISK]\STARTUP\ALL

Type
SYS
Open
Close
Save To
Load
Save
Copy
Delete
Format
Utility
USB

3. Select the folder containing the type of data you wish to save, and touch Open to open it. The list of contained bank files is shown.



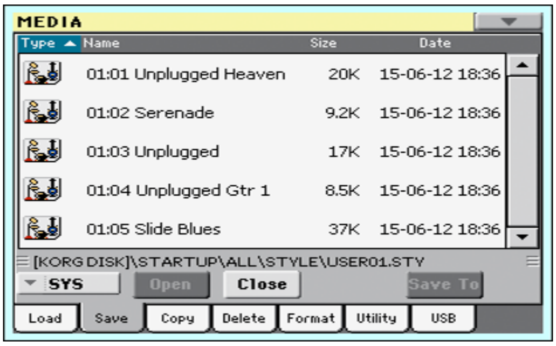
MEDIA

Name	Size	Date
FAVORITE01.STY	13K	15-06-12 18:32
USER01.STY	21K	13-06-12 01:45
USER02.STY	13K	15-06-12 18:32

[KORG DISK]\STARTUP\ALL\STYLE

Type
SYS
Open
Close
Save To
Load
Save
Copy
Delete
Format
Utility
USB

4. Select the desired bank file, and touch Open to gain access to the single items.



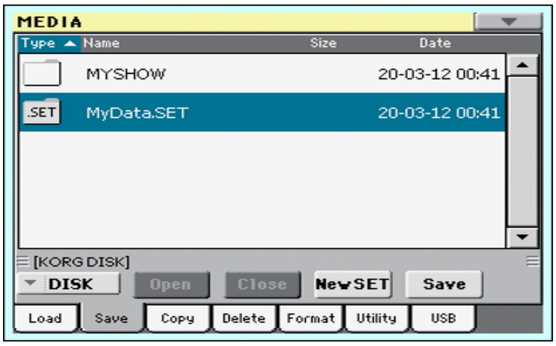
MEDIA

Name	Size	Date
01:01 Unplugged Heaven	20K	15-06-12 18:36
01:02 Serenade	9.2K	15-06-12 18:36
01:03 Unplugged	17K	15-06-12 18:36
01:04 Unplugged Gtr 1	8.5K	15-06-12 18:36
01:05 Slide Blues	37K	15-06-12 18:36

[KORG DISK]\STARTUP\ALL\STYLE\USER01.STY

Type
SYS
Open
Close
Save To
Load
Save
Copy
Delete
Format
Utility
USB

5. Once you have selected the file that you want to save, touch Save To to confirm the selection. The list of files of the target device is shown.



MEDIA

Name	Size	Date
MYSHOW		20-03-12 00:41
MyData.SET		20-03-12 00:41

[KORG DISK]

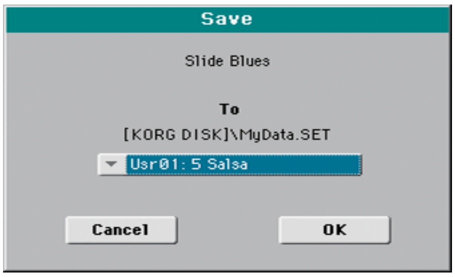
Type
.SET
DISK
Open
Close
NewSET
Save
Load
Save
Copy
Delete
Format
Utility
USB

6. If needed, use the Device pop-up menu to select a different target device. When the target device is selected, its content will appear in the display.

7. At this point, you can:

- Touch the New SET button and create a new ".SET" folder (see "Creating a new ".SET" folder" on page 261), or
- Select an existing ".SET" folder, and touch Save to confirm.

8. A dialog box appears, asking you to select one of the available User (or Favorite Style) locations inside the selected folder.



Save

Slide Blues

To

[KORG DISK]\MyData.SET

Usr01: 5 Salsa

In the above dialog box, the previously selected Style will be saved to location 01 inside the bank Usr01 inside the selected folder.

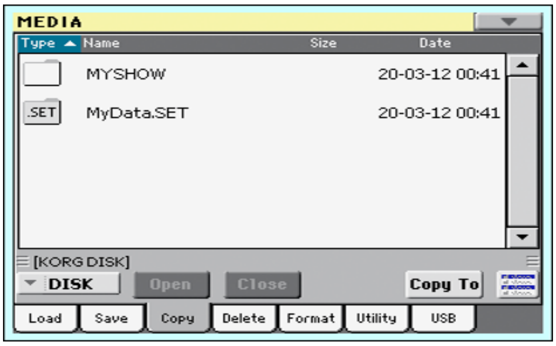
9. Touch OK to confirm, or Cancel to abort.

Warning: *After confirming, the same item in the target folder is deleted.*

Copy

In this page you can copy files and folders. Folders can be generic or “.SET” folders. In addition, you can copy the content of the generic folder you are in. You can copy inside the same device, or from a device to a different one (both devices must be connected to the Pa600 during the copy operation).

To preserve data structure integrity, during Copy operations you can’t open “.SET” folders and copy only one of the files it contains. You can only open and go inside generic folders.



Type	Name	Size	Date
	MYSHOW		20-03-12 00:41
.SET	MyData.SET		20-03-12 00:41

[KORG DISK]
DISK

Contrary to the Load and Save pages, in this page you may see all types of files, and not only Pa-Series supported files (assuming the “Hide Unknown Files” option is turned off, see page 241).

Copying a folder’s content

If nothing is selected while a folder is open in the display, you can copy the folder’s content, without copying the folder itself.

Note: *During the Copy procedure, you can’t open a “.SET” folder. You can, however, open any generic folder.*

1. If copying from or to an external device, connect the device to the USB Host port.
2. Select the source device, by using the Device pop-up menu.
3. If the folder you are looking for is inside another folder, select this latter and touch the Open button to open it. Touch the Close button to go back to the parent folder.
4. To copy the current folder’s content, without copying the folder itself, do not select anything in the display.
5. Touch Copy To to confirm. The target device appears.

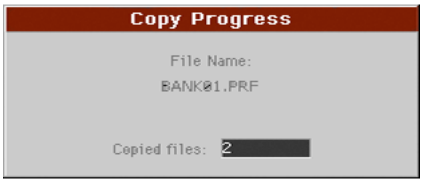
   Note: *If the selected device is not available, the “Device not found, or unknown format” message will appear. A different device will be automatically selected.*
6. If needed, select the target device, by using the Device pop-up menu.
7. If you want to select a different folder, use the Open and Close buttons to move through the directories.

   • To copy into an existing generic folder (not a “.SET” folder), select that folder.

   • To copy into the current folder, do not select anything.
8. Once the target is selected, touch Copy.

   If a file or folder with the same name of the source data already exists at the target location, the “Overwrite” dialog box will appear (see “Overwriting existing files or folders” on page 265).

During Copy, a dialog box shows the progress of the operation.



File Name:
BANK01.PRF
Copied files: 2

Copying a single file or folder

You can copy a single file or folder, from the root or a generic folder to a different one. You can’t copy single files or folders from inside a “.SET” folder.

1. If copying from or to an external device, connect the device to the USB Host port.
2. Select the source device, by using the Device pop-up menu.
3. Select the folder containing the file or folder you wish to copy. If it is contained in another folder, touch the Open button to open it. Touch Close to go back to the previous hierarchic level.
4. Touch Open to open the folder containing the file or folder to be copied.
5. Select the file or folder to be copied, then touch Copy To to confirm its selection. The target device appears.

   Note: *If the selected device is not available, the “Device not found, or unknown format” message will appear. A different device will be automatically selected.*
6. If needed, select the target device, by using the Device pop-up menu.
7. When the target device content appears in the display, select the target folder. Touch Open to open a folder, or Close to close it.
8. Once the target is selected, touch Copy.

   If a file or folder with the same name of the source data already exists at the target location, the “Overwrite” dialog box will appear (see “Overwriting existing files or folders” below).

Multiple file selection

While in the Copy and Delete pages of the Media mode, you can select several files or folders at the same time before executing the operation. Files or folders can be selected consecutively (i.e., in a row), or discontinuously (i.e., with other files or folders in the middle).

To choose either to select files in a consecutive or discontinue way, use the Mode button on the right of the page command buttons, to choose an option for the SHIFT button:

Choose this option to select files or folders consecutively (i.e., in a row).

Choose this option to select files or folders discontinuously (i.e., with other files or folders in the middle).

To select more files or folders consecutively:

1. Touch the Mode button to choose the ▤ option for the SHIFT button.
2. Select the first file or folder to be selected.
3. Press and keep the SHIFT button pressed.
4. Select the last file or folder to be selected.
5. Release the SHIFT button.

To select more files or folders discontinuously:

1. Touch the Mode button to choose the ▤ option for the SHIFT button.
2. Select the first file or folder to be selected.
3. Press and keep the SHIFT button pressed.
4. Select a second file or folder to be selected.
5. While keeping the SHIFT button pressed, continue selecting the other files or folders to be selected.
6. Release the SHIFT button.

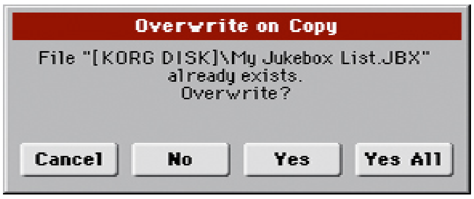
To deselect the files or folders:

- To deselect one or more file or folder, without deselecting everything, keep SHIFT pressed and touch the file or folder to be deselected.
- To deselect everything, select any other file or folder. All selected files and folders will be deselected.

Overwriting existing files or folders

When copying files, a file or folder with the same name of a source element might be found in the target device. In this case, Pa600 asks you if you want to overwrite it.

When a duplicate file or folder is met, the following dialog box appears:



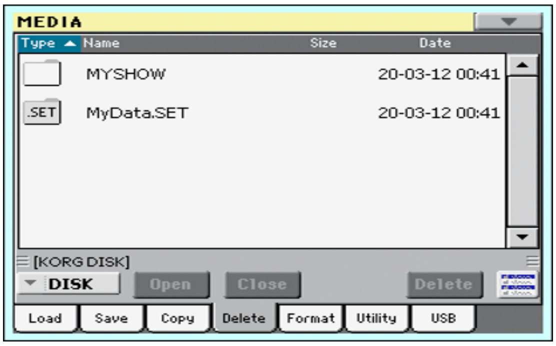
Overwrite on Copy

File "[KORG DISK]\My Jukebox List.JBX" already exists. Overwrite?

Cancel	The procedure is interrupted.
No	The file or folder is not overwritten. The source file or folder is not copied. The procedure will continue with the other files and folders.
Yes	The file or folder is overwritten. The procedure will continue with the other files and folders.
Yes (to) All	The file or folder is overwritten. Any following duplicate file or folders will be overwritten as well, without this dialog box appearing again. The procedure will continue with the other files and folders.

Delete

The Delete function lets you delete files and folders from the devices.



MEDIA

Type	Name	Size	Date
	MYSHOW		20-03-12 00:41
.SET	MyData.SET		20-03-12 00:41

[KORG DISK]

Contrary to the Load and Save pages, in this page you may see all types of files, and not only Pa-Series supported files (assuming the “Hide Unknown Files” option is turned off, see page 241).

Delete procedure

1. If erasing from an external device, connect the device to one of the USB Host ports.
2. If needed, select a different device, by using the Device pop-up menu.
3. If the file or folder you are looking for is inside another folder, select this latter and touch the Open button to open it. Touch the Close button to go back to the parent folder.
4. Select the file or folder to erase.
5. Touch Delete to delete the selected item.

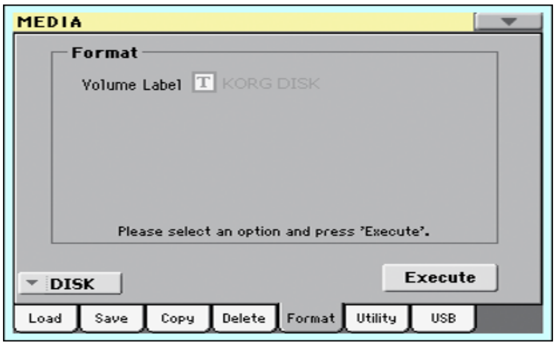
   During erase, a dialog box shows the progress of the operation.

Multiple file selection

See “Multiple file selection” on page 264 for information on how to select more files or folders to be erased at the same time.

Format

The Format function lets you initialize a device. Pa600 uses a PC-compliant device format (DOS FAT16 and FAT32):



Please select an option and press 'Execute'.

Warning: *When formatting a device, all data it contains is lost forever!*

Volume Label

Use this parameter to assign a name to an external device to be formatted.

Note: *You cannot rename the label (name) of the internal volume. When formatting the internal disk, the label cannot be edited.*

Touch the **T** (Text Edit) button to open the Text Edit window. Enter the name, then touch OK to confirm and close the Text Edit window.

Note: *When changing the name to a device containing Standard MIDI Files or MP3 files used in the SongBook, the links are broken. We suggest to give the device the same name it had before formatting. In case you changed the name, please use SongBook Editor (freely available on www.korg.com) to edit the links.*

Warning: *It is not possibile to change the label (name) of the internal disk when Pa600 is connected to a PC through the USB port. If you try to do it, the original name is restored by Pa600.*

Execute button

Touch this button, after having assigned a name to the volume, to execute the Format command.

Format procedure

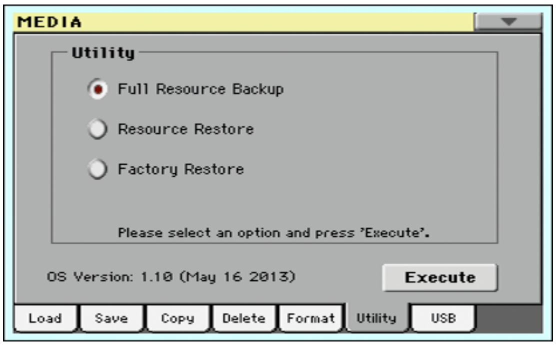
Here is how to format a device.

1. If formatting an external device, connect the device to the USB Host port.
2. Choose the device to be formatted by using the Device pop-up menu in the lower-left corner of the display.
3. Touch the Execute button in the display to confirm formatting.
4. The "If you confirm, all data in the media will be lost. Are you sure?" message appears in the display. Touch Yes to confirm, or No to cancel.

   Note: *When formatting the hard disk or an external USB device, an additional warning appears, to avoid accidental data loss.*

Utility

This page includes a set of backup and restore utilities. The Backup command should be used for archiving purpose only, since you will not be able to load individual data from a backup file. To save data that must remain accessible with the normal Media > Load operations, for example to load User data after updating the Musical Resources, use the Media > Save operations instead.



● Full Resource Backup
○ Resource Restore
○ Factory Restore

Please select an option and press 'Execute'.

OS Version: 1.10 (May 16 2013)

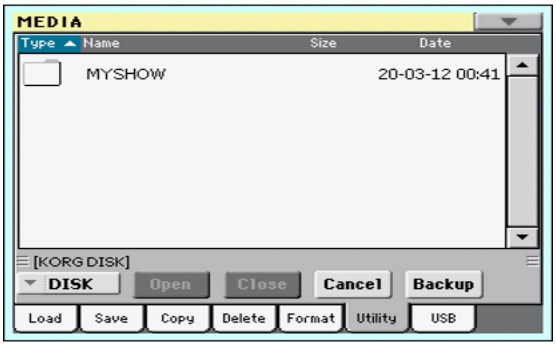
Full Resource Backup

This command allows you to make a full backup of all the internal data on a target device. A ".BKP" file will be created.

Hint: *This command cannot be used to save single items (like a single Style, a bank of Performances…). To do that, use the Save operations instead.*

1. In case you are making the backup on an external USB device, connect the device to one of the USB Host ports.

   Be sure there is enough free space in your target device, or the Backup procedure will not be completed.
2. Select the "Full Resource Backup" command, then touch the Execute button in the display. The target device appears.

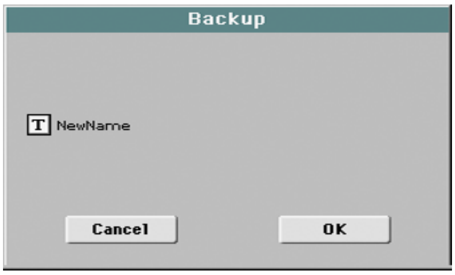


Type	Name	Size	Date
	MYSHOW		20-03-12 00:41

[KORG DISK]

3. If needed, select a different device, by using the Device pop-up menu.
4. If you wish to save data inside another folder, select this latter and touch the Open button to open it. Touch the Close button to go back to the parent folder.
5. Select the folder where to save data, and touch Backup to save it. If nothing is selected, data will be saved to the current directory.

After touching Backup, a dialog box will appear, asking you to assign a name to the backup file.



T NewName

Touch the **T** (Text Edit) button to open the Text Edit window. Enter the name, and confirm by touching OK.

6. Touch OK to start the backup.
7. When finished, save the (removable) storage device in a safe place.

Resource Restore

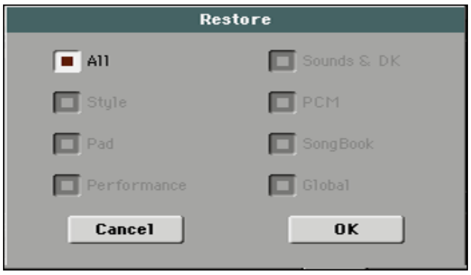
This command restores data from a backup of the internal Factory and User data, created with the “Full Resource Backup” command.

Hint: *This command cannot be used to load single items (like a single Style, a bank of Performances…). You can only load all data, or full data types. Backups are compact archives, that can only be restored as a full package.*

Note: *Loading a backup file created with other Pa-Series and i-Series instruments is not allowed.*

Warning: *Don’t play the keyboard while restoring data, and stay in the Media mode. Wait until the “Wait” message disappears.*

1. In case you are restoring from an external USB device, connect the device to the USB Host port.
2. Select the Restore Resources command, then touch Execute. The source device appears.
3. If needed, select a different device, by using the Device pop-up menu.
4. Browse through the files to find the backup file.
5. When the backup file (“.BKP” file) is in the display, select it and touch the Restore command.
6. A dialog box will appear, with a list of types of data to be restored. Only check the types of data you want to restore.



☒ All
☐ Style
☐ Pad
☐ Performance
☐ Sounds & DK
☐ PCM
☐ SongBook
☐ Global

Warning: *This command will delete from the internal memory all types of data selected in this dialog box (including your custom data).*

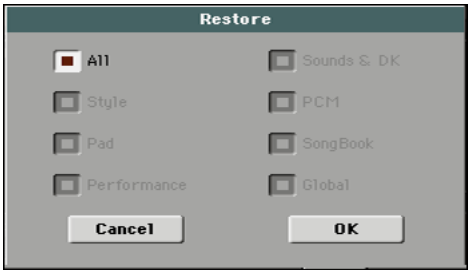
7. When done, a message appears asking you to restart the instrument (“Data Restored. Please switch off”). Set the instrument to standby mode, then turn it on again.

Factory Restore

In case you want to erase all changes to your Factory and User data, and restore your Pa600 to the same condition it was when it was new, you can use the Factory Restore procedure.

Warning: *This command deletes all data from memory (including your custom data).*

1. Select the Factory Restore command, then touch Execute.
2. A dialog box will appear, with a list of types of data to be restored. Only check the types of data you want to restore.



☒ All
☐ Style
☐ Pad
☐ Performance
☐ Sounds & DK
☐ PCM
☐ SongBook
☐ Global

Warning: *This command will delete from the internal memory all types of data selected in this dialog box (including your custom data).*

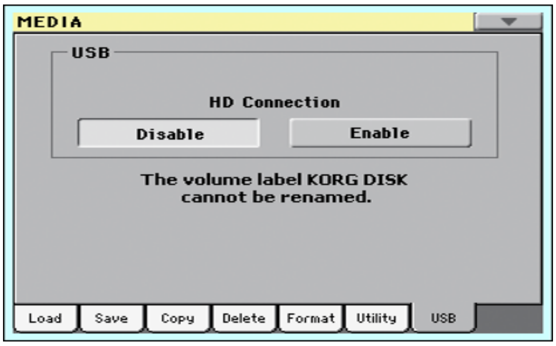
3. When done, a message appears asking you to restart the instrument (“Data Restored. Please switch off”). Set the instrument to standby mode, then turn it on again.

OS Version Number

This line shows the installed Operating System version. From time to time, check our web site (www.korg.com), to see if a newer, free version has been released.

USB

Use this page to enable or disable the USB Device port for file transfer.



The volume label KORG DISK cannot be renamed.

The USB Device port allows you to access the internal storage memory from a personal computer, by just connecting the Pa600 to the computer's USB interface. This way, you can exchange files between the user-accessible area of the internal storage memory of the Pa600 (DISK device) and a personal computer.

Note: *The drivers supplied in the Accessory Disc are only for MIDI Over USB connection.*

Note: *While USB file transfer is enabled, you cannot access other functions on the Pa600. MIDI Over USB is also disabled.*

Warning: *It is not possibile to change the label (name) of the internal disk when Pa600 is connected to a PC through the USB port. If you try to do it, the original name is restored by Pa600.*

HD Connection

Usually, the USB Device port is not enabled for file transfer on the Pa600 (it is always on, however, for MIDI connection). Touch the Enable button to turn it on, or the Disable button (with all the caveats) to turn it off.

1. Connect Pa600 to a personal computer by using a standard USB cable

2. Touch the "Enable" button to enable file transfer. Pa600 becomes the B USB device (called *Device* or *Slave*), while the personal computer becomes the A USB device (called the *Host* or *Master*).

   When finished, the icon of the internal memory of Pa600 will appear among the other storage devices connected to the computer.

   Caveat: *Do not modify the structure of the ".SET" folders, or you will no longer be able to use them on the Pa600. Only use the USB connection for data exchange purpose, or to modify ordinary folders.*

   Note: *After starting the USB connection, accessing Pa600 data from the computer may take some time, depending on the size of the hard drive and the data contained in the hard drive.*

3. When all data has been transferred, disconnect USB communication from the computer. On a PC, you usually select the dedicated command by clicking on the USB device icon with the right mouse button. On the Mac, select the USB device icon, then select the Eject command or drag it to the eject icon in the Dock.

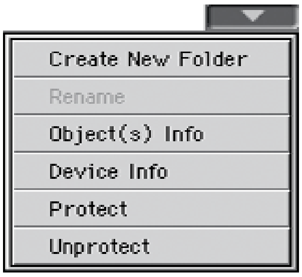
4. When the Pa600 icon disappears from the computer's desktop, touch the "Disable" button on the display of Pa600.

   Caveat: *Do not disconnect the USB communication before the personal computer has really finished transferring files. Sometimes, the on-screen indicator tells the procedure has been completed BEFORE it has really finished.*

   Disconnecting USB communication (or disconnecting the USB cable) before data transfer has been completed may cause data loss.

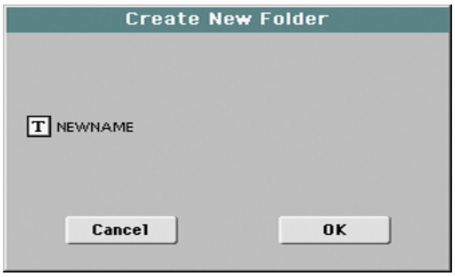
Page menu

Touch the page menu icon to open the menu. Touch a command to select it. Touch anywhere in the display to close the menu without selecting a command.



Create New Folder

This command lets you create a new generic folder. You can't create a ".SET" folder with this command, since this type of folder is reserved to the Save operations (and can be created with the New SET button in any Save page).



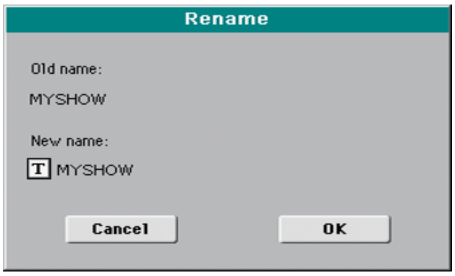
NEWNAME

By touching the T (Text Edit) button you can open the Text Edit window. Enter the name, then touch OK to confirm and close the Text Edit window.

Rename

Available only when an item is selected in a file list.

Use this function to change the name of an existing generic file or folder. To preserve consistency through the data structure, you cannot rename folders and files inside a ".SET" folder. Also, you cannot change the 3-character extension of files and ".SET" folders, since they are used to identify the type of file or folder.

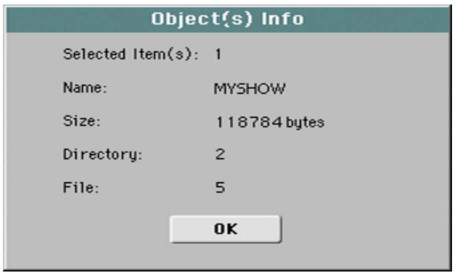


Old name:
MYSHOW
New name:
MYSHOW

Touch the T (Text Edit) button to open the Text Edit window. Enter the new name, then touch OK to confirm and close the Text Edit window.

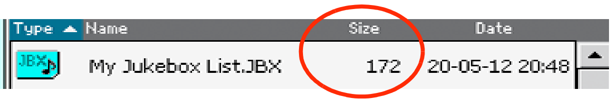
Object(s) info

Select this command to see the size of any selected file or folder. Also, the number of files and directories (folders) it contains are shown.



Selected Item(s): 1
Name: MYSHOW
Size: 118784 bytes
Directory: 2
File: 5

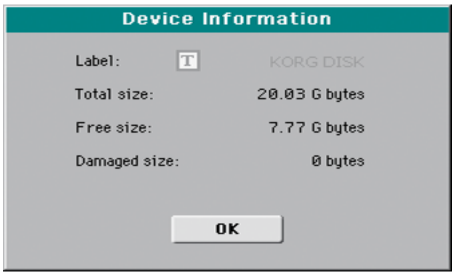
Note: *The* ***single file*** *size is always shown to the right of the file name in any file list (assuming the "Size" parameter is turned on, see page 241):*



Type	Name	Size	Date
JBX	My Jukebox List.JBX	172	20-05-12 20:48

Device Info

Select this command to see various info on the selected device. To select a different device, use the Device pop-up menu on the lower left corner of most Media pages.



Label: KORG DISK
Total size: 20.03 G bytes
Free size: 7.77 G bytes
Damaged size: 0 bytes

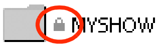
By touching the T (Text Edit) button you can open the Text Edit window. Enter the name (label) of the selected device, then touch OK to confirm and close the Text Edit window.

Warning: *If you change the name of a device connected to the USB Host port, and it contains files used by some SongBook Entries, these entries will no longer be able to find the linked resources contained in the device. In this case, either restore the original device name, or use the SongBook Editor software (freely available on www.korg.com) to edit the links.*

Note: *You cannot change the name of the internal storage memory or the internal microSD card.*

Protect

Select this command to protect the selected file or folder from writing/erasing. The lock icon will appear next to the file or folder name.



Unprotect

Select this command to unprotect the selected file or folder – if protected.

Care of mass storage devices

The Pa600 can save most of the data contained in memory to the internal memory, or to external devices (like hard drives or USB memory sticks) connected to the USB Host port. Here are some precautions when handling these devices.

Internal memory write protection

You can protect your internal memory from writing, by using the software protection found in Global mode (see “Media Protect” on page 241).

Precautions

- Do not remove a device or move the instrument while the device is operating.
- In order to avoid losing data in case of damage, make a backup copy of the data contained in a device. You can backup your data to a personal computer, and from there to a backup unit. You can transfer data from the internal memory of Pa600 (DISK unit) to a personal computer by using the USB Device connection.
- Do not leave an USB device connected to the USB ports while carrying the instrument, or it may be damaged.
- Keep the memory devices or the instrument away from sources of magnetic fields, for example televisions, refrigerators, computers, monitors, speakers, cellular phones and transformers. Magnetic fields can alter the contents of the devices.
- Do not keep memory devices in very hot or wet places, do not expose them to direct sunlight and do not store them without use in dusty or dirty places.
- Do not place heavy objects on top of the devices.
- Regular care is recommended with your devices. Defragmenting and repairing internal devices can be made with any computer utility while the Pa600 is connected via USB.

Possible problems

- Magnetic fields, dirt, humidity and usage can damage data in a device. You can try to recover the data with disk repair utilities for personal computers. It is, however, advisable to always make a backup copy of your data.

Merging Samples from various sources

When you load a .SET folder, all User PCM Samples in memory are deleted. So, there is no way to merge different samples by loading complete .SET folders.

To merge samples from several sources, you must load single Sounds or Drum Kits based on User PCM Samples.

Delete all samples and multisamples

1. If you want to delete all Samples and Multisamples already in memory, press the SOUND button to access the Sound mode, then press the RECORD button to access the Sampling mode.
2. While in Sampling mode, choose the “Delete” command from the page menu. Choose the “All Samples, MultiSample, DrumSamples” option, and touch OK to delete all Samples and Multisamples.

   Warning: *Before deleting, be sure to have a copy of any important data you don’t want to lose.*
3. To exit from the Sampling mode, choose the “Exit from Record” command from the page menu.

Create a new .SET of samples

1. Press the MEDIA button to access the Media mode. Go to the Load page.
2. Open a first .SET folder containing some of the PCM Samples to merge. Open the SOUND folder, then one of the USER banks, and choose the first of the Sounds or Drum Kits based on samples you would like to load. Touch Load, and choose a target User location in memory.

   The Sound or Drum Kit is loaded, together with the PCM Samples it is based on.
3. Do the same with any subsequent Sound or Drum Kit whose Samples you would like to load.
4. When finished loading, save a new .SET folder, being sure the PCM option is checked in the Save All dialog (see “Saving the full memory content” on page 261, or “Saving all data of a specified type” on page 262).

SongBook

The SongBook is a musical database that allows you to organize songs and automatically recall the associated "musical resources" (Style, Standard MIDI Files, KAR files, and MP3 files).

The SongBook overlaps the Style Play and Song Play operating modes. When you select an entry from the full database or a custom list, the Style Play or Song Play mode is automatically selected, depending on the type of file associated with the entry.

In addition to helping you organize your shows, the SongBook allows you to associate four Pads, and up to four STSs to each Style, Standard MIDI File or MP3 file, to recall a complete set of Keyboard tracks for realtime playing over a Song. You can also link a separate text file containing lyrics to an entry.

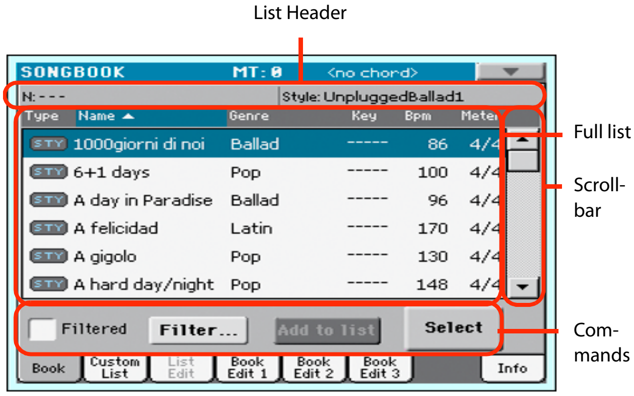
Note: *SongBook Entries do not include actual data; they are just pointers to a Style, a Standard MIDI File an MP3 or a TXT file. When you copy a SongBook file, referenced files are not copied with it.*

Hint: *Use the SongBook Editor software (freely available from our web site, www.korg.com) to edit your SongBook on a PC.*

Warning: *If you load a SongBook file from a storage device, the existing one in memory (including the custom lists) is deleted. Save your old SongBook file before loading a new one.*

Book

The Book page contains the full database of song entries. While in this page, you can select an entry, and touch the Select button in the display to load it. Then, press the PLAY or START button to start the Song or Style.



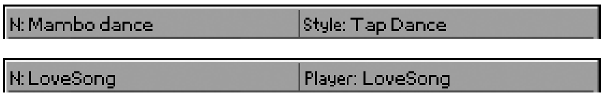
N: - - -
Style: UnpluggedBallad1

Type	Name ▲	Genre	Key	Bpm	Mete
STY	1000giorni di noi	Ballad	-----	86	4/4
STY	6+1 days	Pop	-----	100	4/4
STY	A day in Paradise	Ballad	-----	96	4/4
STY	A felicidad	Latin	-----	170	4/4
STY	A gigolo	Pop	-----	130	4/4
STY	A hard day/night	Pop	-----	148	4/4

Each entry of this database may include the song's author, name, genre, original key, tempo and meter (time signature). When selecting one of the entries, the associated Style, Standard MIDI File or MP3 file is automatically recalled, together with any TXT lined to the entry. Also, the STSs and Pads may be recalled.

List Header

The List Header shows the selected entry's name on the left ("N:"), and the associated Style, Standard MIDI File or MP3 file on the right ("Style:" or "Player:"):

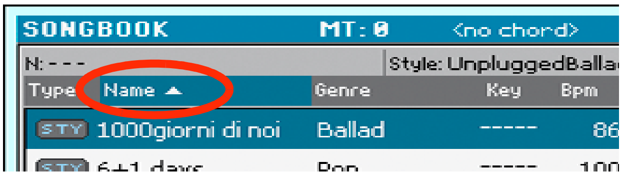

N: Mambo dance | Style: Tap Dance
N: LoveSong | Player: LoveSong

Note: *If you select a different Style or Standard MIDI File or MP3 file, the entry's name field ("N:") returns blank (---), meaning the entry has been modified.*

Full list

This is the full list of the SongBook database. Use the scrollbar (or the VALUE DIAL) to browse through the list.

You can touch one of the heading labels above the list to change the order in which entries are shown. For example, by touching the "Name" label, the list is alphabetically re-ordered according to the entry names. The selected label become highlighted, showing the currently selected ordering.



N: - - -
Style: UnpluggedBalla

Type	Name ▲	Genre	Key	Bpm
STY	1000giorni di noi	Ballad	-----	86

By touching the label again, the order of the files switches between ascending and descending. The small arrow next to the label name shows the selected order.

Scrollbar

Use the scrollbar (or the VALUE DIAL) to scroll the entries. You can keep the SHIFT button pressed while touching the scrollbar, to quickly jump to the next/previous section.

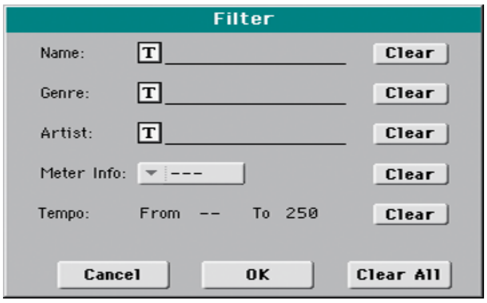
Commands

Filtered

When this box is checked, only entries matching the selected filter criteria are shown in the full list. The box is automatically checked when you exit from the Filter dialog box by touching OK (see below).

Filter…

Touch this button to open the Filter dialog box, and select one or more filter criteria, to show a restricted set of entries in the main list.



Touch the T (Text Edit) button next to the search criteria you want to edit (Name, Genre, or Artist). You can also select a Meter, or a range of Tempo values.

Touch the Clear button next to the search criterion you want to delete or set to a default value.

Touch Clear All to reset all search criteria.

Note: *You can also find items in the SongBook database by pressing the SEARCH button, and using the Search function. However, the Filter function allow for a more refined search.*

Add to list

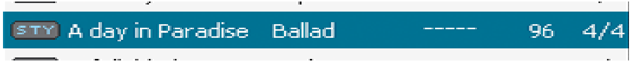
If the "Enable List Edit" command is selected in the page menu, the "Add to list" button becomes available, to let you add entries to the selected Custom List.

Select an entry, then touch this button to add the selected entry to the current Custom List (see "Custom List" on page 274).

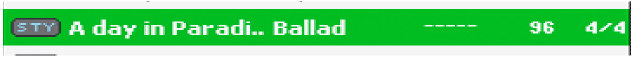
Select

Touch this button to confirm selection of the highlighted entry in the full list. After touching this button, the name of the selected entry appears in the left upper side of the display ("N:").

When you highlight a song in any of the SongBook lists, its name appears in reversed text, over a green-blue background. While in this situation, the song is highlighted, but not yet loaded.


STY A day in Paradise Ballad ----- 96 4/4

When you touch the Select button in the display, the song will be loaded. The background turns to light green, and the text is turned to boldface, to show the Song has been loaded and ready to play.

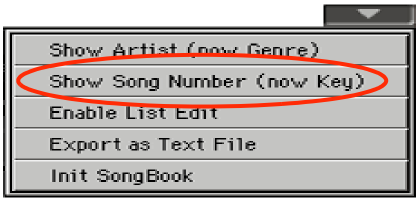

STY A day in Paradi.. Ballad ----- 96 4/4

To start playback of the Song or Style, press (respectively) either the PLAY or START button.

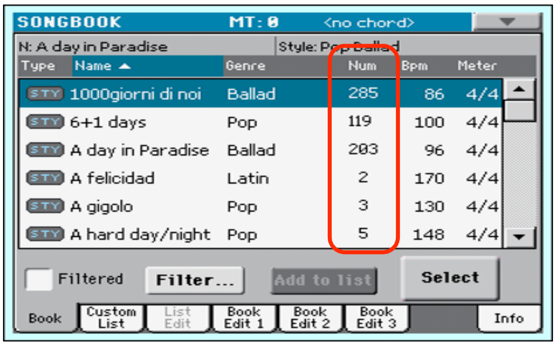
Numeric selection of entries

When in SongBook mode, you can select a SongBook Entry by means of an unique number. Numbers associated with each entry can be programmed in the Book Edit 2 page (see "Book Edit 3" on page 277).

To see the numbers while in the Book page, select the "Show Song Numbers (now Key)" command from the page menu:



After you select this command, the "Num" column appears:



Type	Name	Genre	Num	Bpm	Meter
STY	1000giorni di noi	Ballad	285	86	4/4
STY	6+1 days	Pop	119	100	4/4
STY	A day in Paradise	Ballad	203	96	4/4
STY	A felicidad	Latin	2	170	4/4
STY	A gigolo	Pop	3	130	4/4
STY	A hard day/night	Pop	5	148	4/4

To see the "Key" column again, select the "Show Key (now Song Numbers)" command from the page menu.

To select a SongBook Entry by entering its number, press the SONGBOOK button again while you are in any page of the SongBook mode. The numeric keypad will appear, allowing you to enter the number corresponding to the desired entry.

Hint: *You can export a list of SongBook Entries as a TXT file, including the assigned selection number. You can print this list on paper as a memo. (See "Export as text file" on page 279).*

Selecting SongBook Entries via MIDI

SongBook Entries can be selected via MIDI (through the special Control channel), by using the dedicated NRPN Control Change messages #99 (MSB, with value 2) and #98 (LSB, with value 64). See "Selecting SongBook Entries via MIDI" on next page.

Setting the special Control MIDI channel

A special MIDI channel used as the "Control" channel is needed to send MIDI messages to select the SongBook Entries.

First of all, choose a MIDI Preset to quickly configure the Control channel. Go to the Global > MIDI > General Controls page and choose a MIDI Preset where to save your settings.

Then, choose a MIDI channel as the "Control" channel. Go to the Global > MIDI > Midi In Channel page, and assign the Control option to one of the sixteen available MIDI channels (usually one of the higher-numbered ones, for example 16).

When done, save this setting to the current MIDI Preset by choosing the "Write Midi Preset" command from the page menu.

Selecting SongBook Entries via MIDI

When you are ready to remotely select SongBook Entries, switch to the Style Play or Song Play mode.

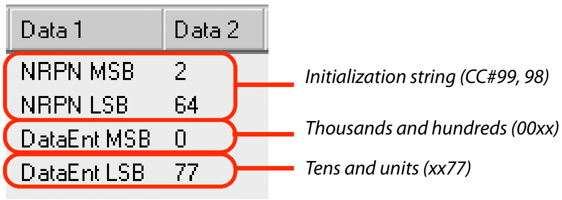
At this point, Pa600 must receive on the special Control channel the NRPN Control Change messages #99 (MSB, with value 2) and #98 (LSB, with value 64) in fast succession, as an initialization string. This string must be sent only once, unless another

NRPN control is sent on the same MIDI channel before selecting a different SongBook Entry.

After the initialization string has been sent, you must send the selection string, made of two Control Change messages: CC#06 (Data Entry MSB) for the thousands and hundreds, and CC#38 (Data Entry LSB) for the tens and units. The range of the Data Entry controls, in this case, is 0~99 (instead of the typical 0~127).

The following examples show some typical situations.

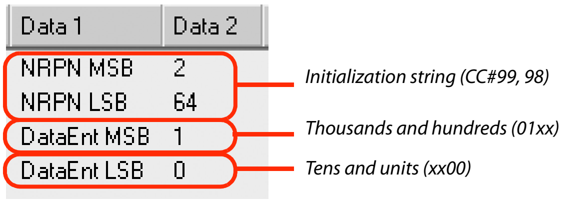
- Send the following string to select SongBook Entry #77:



Data 1	Data 2
NRPN MSB	2
NRPN LSB	64
DataEnt MSB	0
DataEnt LSB	77

Initialization string (CC#99, 98)
Thousands and hundreds (00xx)
Tens and units (xx77)

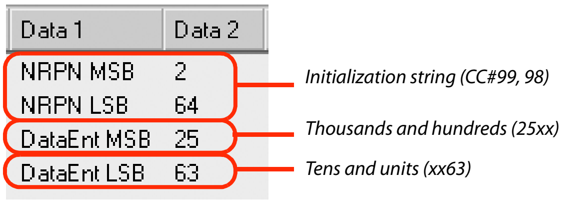
- Send the following string to select SongBook Entry #100:



Data 1	Data 2
NRPN MSB	2
NRPN LSB	64
DataEnt MSB	1
DataEnt LSB	0

Initialization string (CC#99, 98)
Thousands and hundreds (01xx)
Tens and units (xx00)

- Send the following string to select SongBook Entry #2563:



Data 1	Data 2
NRPN MSB	2
NRPN LSB	64
DataEnt MSB	25
DataEnt LSB	63

Initialization string (CC#99, 98)
Thousands and hundreds (25xx)
Tens and units (xx63)

MIDI messages sent when selecting SongBook Entries

When a SongBook Entry is selected, a set of corresponding MIDI messages can be sent through the special "Control" channel.

Setting the special Control MIDI OUT channel

A special MIDI channel used as the "Control" channel is needed to send MIDI messages when selecting the SongBook Entries.

First of all, choose a MIDI Preset to quickly configure the Control channel. Go to the Global > MIDI > General Controls page and choose a MIDI Preset where to save your settings.

Then, choose a MIDI channel as the "Control" channel. Go to the Global > MIDI > Midi Out Channel page, and assign the Control option to one of the sixteen available MIDI channels (usually one of the higher-numbered ones, for example 16).

When done, save this setting to the current MIDI Preset by choosing the "Write Midi Preset" command from the page menu.

Sending MIDI messages when selecting SongBook Entries

When this special "Control" channel is assigned to one of the MIDI OUT channels, MIDI messages are sent on this channel when choosing a SongBook Entry.

The messages sent when selecting a SongBook Entry are the following:

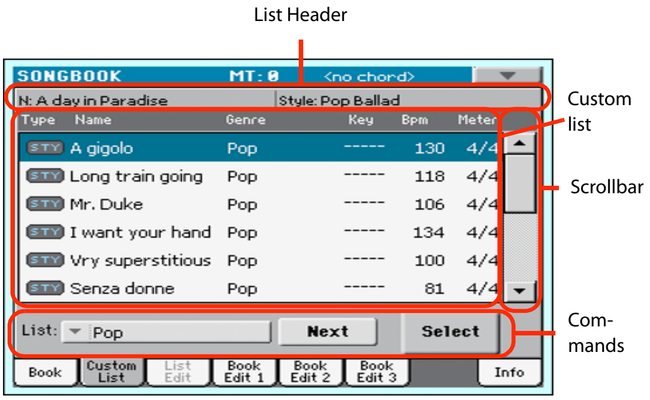
• An initialization strings, made of the NRPN Control Change messages #99 (MSB, with value 2) and #98 (LSB, with value 64) in fast succession.

• A selection string, made of the two Control Change messages CC#06 (Data Entry MSB) for the thousands and hundreds, and CC#38 (Data Entry LSB) for the tens and units. The range of the Data Entry controls, in this case, is 0~99 (instead of the typical 0~127).

This type of data can be used by external editors to receive informations from the SongBook.

Custom List

Use this page to select and use one of the available Custom Lists. Custom Lists are lists made of entries extracted from the full SongBook list (as seen in the Book page). They allow the use of smaller, customized SongBook lists, suitable for a single gig or your own music tastes.


List Header
SONGBOOK
MT: 0
<no chord>
Custom list
Scrollbar
Com-mands
Next
Select
Book
Custom List
List Edit
Book Edit 1
Book Edit 2
Book Edit 3
Info

N: A day in Paradise
Style: Pop Ballad

Type	Name	Genre	Key	Bpm	Meter
STY	A gigolo	Pop	-----	130	4/4
STY	Long train going	Pop	-----	118	4/4
STY	Mr. Duke	Pop	-----	106	4/4
STY	I want your hand	Pop	-----	134	4/4
STY	Vry superstitious	Pop	-----	100	4/4
STY	Senza donne	Pop	-----	81	4/4

List: Pop

Hint: You can jump to this page by keeping SHIFT pressed, and pressing the SONGBOOK button.

List header

See “List Header” on page 271.

Custom list

List of files contained in the selected Custom List. Use the scrollbar to browse through the list. As an alternative, use the VALUE DIAL.

Scrollbar

Use the scrollbar (or the VALUE DIAL) to scroll the entries.

Commands

List pop-up menu

Use this pop-up menu to select one of the available lists.

Next

Touch this button to select the next entry in the list.

***Hint:** You can assign this command to an Assignable Switch or Assignable Footswitch.*

Select

Touch this button to confirm selection of the highlighted entry in the list. After touching this button, the name of the selected entry appears on the left upper side of the display (“N:”).

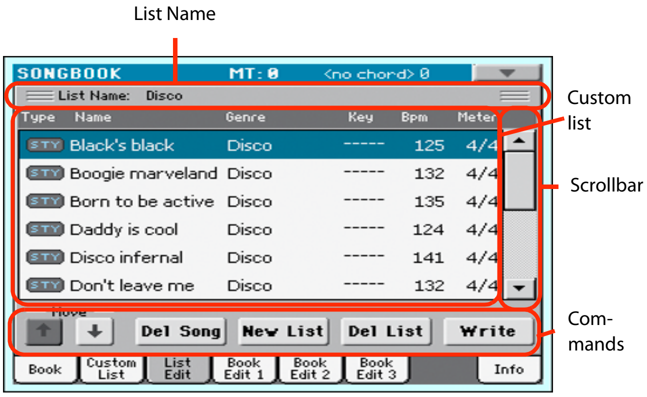
***Hint:** This command is useful to browse through the list, and select an entry different than the one following in the list.*

List Edit

This page is only available after checking the “Enable List Edit” command in the page menu (see page 279).

Use this page to edit the available Custom Lists. A Custom List is a set of SongBook Entries, created by selecting items from the full list in the Book page.

To add entries to a Custom List, first create or select the list to be edited in this page. Then, go to the Book page, select the entry to be added, and touch the “Add to list” button. When finished adding entries, return to this page and edit the selected list.


List Name
SONGBOOK
MT: 0
<no chord> 0
Custom list
Scrollbar
Com-mands
Move
Del Song
New List
Del List
Write
Book
Custom List
List Edit
Book Edit 1
Book Edit 2
Book Edit 3
Info

List Name: Disco

Type	Name	Genre	Key	Bpm	Meter
STY	Black's black	Disco	-----	125	4/4
STY	Boogie marveland	Disco	-----	132	4/4
STY	Born to be active	Disco	-----	135	4/4
STY	Daddy is cool	Disco	-----	124	4/4
STY	Disco infernal	Disco	-----	141	4/4
STY	Don't leave me	Disco	-----	132	4/4

List Name

Name of the selected list. To select a Custom List, go to the “Custom List” page and use the List pop-up menu.

Custom list

List of songs contained in the selected Custom List. Use the scrollbar or the VALUE DIAL to browse through the list.

Scrollbar

Use the scrollbar (or the VALUE DIAL) to scroll the entries.

Commands

Move

Use these buttons to move the selected song entry up or down in the list.

Del Song

Touch this button to delete the selected song entry from the list.

New List

Touch this button to create a new, empty Custom List.

Note: *The maximum number of Custom Lists in a SongBook file is 256 lists.*

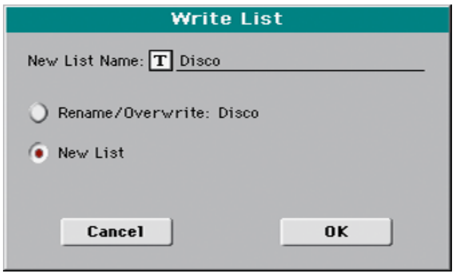
Warning: *Any unsaved Custom List is lost when creating a new list using this command.*

Del List

Touch this button to delete the current list.

Write

Touch this button to save changes to the selected Custom List.



New List Name: T Disco

○ Rename/Overwrite: Disco

● New List

To assign a different name to the selected list, touch the T (Text Edit) button to open the Text Edit window.

Select an option to save the edited Custom List:

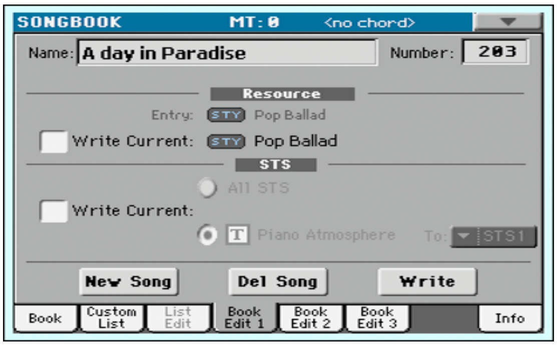
- Select Rename/Overwrite to overwrite an existing list, optionally changing its name. ***Warning:*** *The older list will be deleted!*
- Select New List to save a new Custom List in memory. This list will be available in the “Custom List” page.

Book Edit 1

The Book Edit 1 page is where you link a “musical resource” (Style or Song) to the SongBook Entry, and choose to save STSs to the Entry.

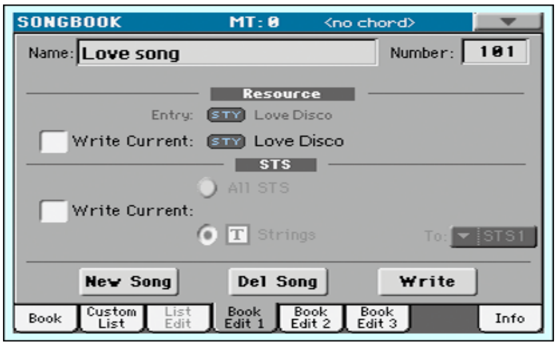
Hint: *Use the Filter in the Book page, to quickly find an entry to be edited.*

The Book Edit 1 page with a Style-based entry:



Name: A day in Paradise
Number: 203
Entry: STY Pop Ballad
☐ Write Current: STY Pop Ballad
○ All STS
☐ Write Current:
● T Piano Atmosphere To: STS1

The Book Edit 1 page with a Song-based entry:



Name: Love song
Number: 101
Entry: STY Love Disco
☐ Write Current: STY Love Disco
○ All STS
☐ Write Current:
● T Strings To: STS1

Header

Name

Name of the selected entry. The name is assigned after you touch the Write button to save the entry to the SongBook list.

Number (Song Selection Number)

Here you can select a unique number (up to 9,999) to be associated to the current SongBook Entry. By typing this number (by using the Numeric Keypad) after pressing the SONGBOOK button again, you will be able to quickly recall an entry from the Book page (see “Numeric selection of entries” on page 272).

Assigning a number is not mandatory, but may help you to organize your entries. For example, you can use the different 100s to create a different way of categorizing your entries by genre or age.

Resource

Entry

Style, Standard MIDI File or MP3 file associated with the saved entry.

Warning: *If you replace this resource with a different one, using the same Style location number or Song file path, the SongBook*

Entry will no longer point to the right data. Be careful not to delete or move a Style or a file associated with a SongBook Entry from the original location.

Write Current

When checked, the currently selected musical resource (whose type and name is shown on the right) is saved to the entry.

You can select a different resource by returning to the Style Play or Song Play mode, and selecting a different Style or Song from there. Then, press the SONGBOOK button to return to the Book Edit 1 page.

What is saved when touching Write depends on the type of associated resource:

- When you are saving a Style-based entry, a reference to the latest selected Style, whose name is shown on the right of this parameter, is saved.

  A reference to the selected Pads (whose name you can see by touching the Pad tab in the main page of the Style Play mode) is also saved. Unless changed, Pads are contained into the selected Style.

  The Style Settings and the Pad Settings for the referenced Style and Pads are saved. If you edited these Settings (by changing Sounds, Effects, Transpose…), the modified data will be saved instead of the original.

- When you are saving a Song-based entry, a reference to the MID, KAR or MP3 file assigned to the Player, whose name is shown on the right of this parameter, is saved.

  A reference to the selected Pads (whose name you can see by touching the Pad tab in the main page of the Song Play mode) is also saved.

  The Pad Settings for the referenced Pads are saved. If you edited these Settings, the modified data will be saved instead of the original.

When this parameter is left unchecked, no new resource will be saved with the entry. The original resources associated with the entry will be preserved when touching Write.

When touching New Song, or keeping the SONGBOOK button pressed for about one second to create a new entry, this parameter is automatically checked and cannot be modified. A reference to the associated resource will be saved with the new entry.

STS

Write Current

When saving a SongBook Entry, and this parameter is checked, you can save the STSs of the associated Style into the entry, or the current Keyboard track settings into a new STS.

All STS	All four STSs are saved to the current SongBook Entry. The source STSs are those contained in the Style currently selected in Style Play mode. If you selected a Performance, its Keyboard track settings will be saved as STS #1. When you touch Write and choose the Rename/Overwrite option, all STSs are overwritten at once.
Single STS	The current Keyboard track settings are saved to the chosen SongBook STS. When you touch Write and choose the Rename/Overwrite option, only the new STS is overwritten, while the others are left untouched. • ***STS Name:*** Name of the current STS. Touch the T (Text Edit) button to open the Text Edit window, and modify the name. • ***To STS Location:*** One of the four STS available for each entry, where you can save the current Keyboard track settings.

Buttons

New Song

Touch this button to create a new entry with the current settings. Settings are copied from the selected Style, Standard MIDI File or MP3 file. Also, the selected Pads, STSs and Split Point will be saved. The current Keyboard track settings will be saved as STS #1. Any TXT file loaded in the Lyrics pages will be saved as a linked file.

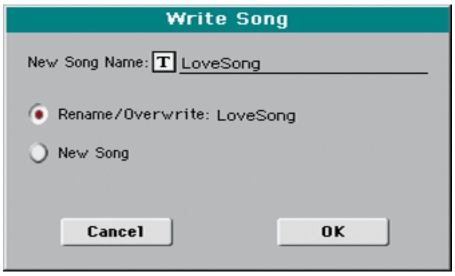
Del Song

Touch this button to delete the current entry.

Write

Touch this button to open the Write Song dialog box, and save the current entry to the main list of the SongBook.

Note: *The maximum number of entries in a SongBook file is 3,000 entries.*



Write Song

New Song Name: T LoveSong

● Rename/Overwrite: LoveSong

○ New Song

To assign a different name to the entry, touch the T (Text Edit) button to open the Text Edit window.

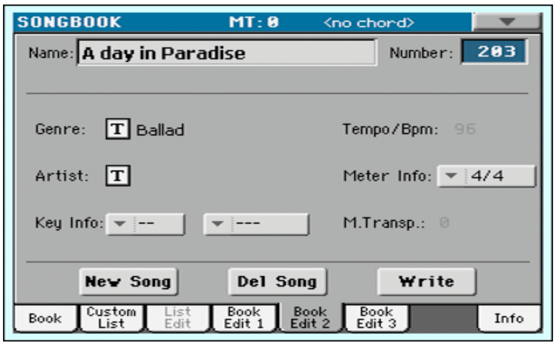
Select an option to add the new entry to the SongBook:

- Select ***Rename/Overwrite*** to overwrite an existing entry, optionally changing its name. ***Warning:*** *The older entry will be deleted!*
- Select ***New Song*** to save a new entry to the SongBook database.

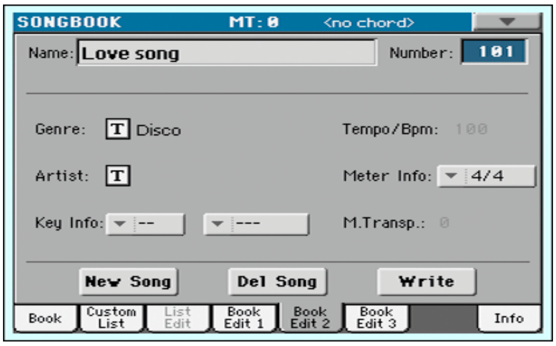
Book Edit 2

The Book Edit 2 page is where you enter information on the Genre, Artist, Key, etc. to the SongBook Entry.

The Book Edit 2 page with a Style-based entry:


SONGBOOK MT: 0 <no chord>
Name: A day in Paradise
Number: 203
Genre: Ballad
Artist:
Tempo/Bpm: 96
Meter Info: 4/4
Key Info: -- ---
M.Transp.: 0
New Song
Del Song
Write
Book
Custom List
List Edit
Book Edit 1
Book Edit 2
Book Edit 3
Info

The Book Edit 2 page with a Song-based entry:


SONGBOOK MT: 0 <no chord>
Name: Love song
Number: 101
Genre: Disco
Artist:
Tempo/Bpm: 100
Meter Info: 4/4
Key Info: -- ---
M.Transp.: 0
New Song
Del Song
Write
Book
Custom List
List Edit
Book Edit 1
Book Edit 2
Book Edit 3
Info

Header

This are includes the same Name, Number and Entry Resource fields found in the “Book Edit 1” page (see above).

Database

Genre

Music genre associated with the entry.

Artist

Name of the artist of the song associated with the entry.

Key Info

Original key of the entry. The first field is the key name, the second one is the mode (major or minor).

Tempo/BPM

Basic tempo of the Style, or starting tempo of the Standard MIDI File associated with the entry. This may change, if a Tempo Change event is included with the associated resource.

You can change this value by using the TEMPO buttons on the control panel. Any change will be shown after saving the Entry.

Note: *The starting value of a Standard MIDI Files is always considered, and overrides this value.*

Note: *You can edit this value even if an MP3 is associated to the SongBook Entry. However, this is just an indicative value.*

Meter Info

Basic meter (time signature) of the Style, or starting meter of the Standard MIDI File associated with the entry. This may change, if a Meter Change event is included with the associated resource.

M.Transp. (Master Transpose)

Master Transpose. When the entry is selected, the Master Transpose of the whole instrument is automatically changed. The Master Transpose value saved in the SongBook Entry overrides any Master Transpose setting contained in the referenced Song.

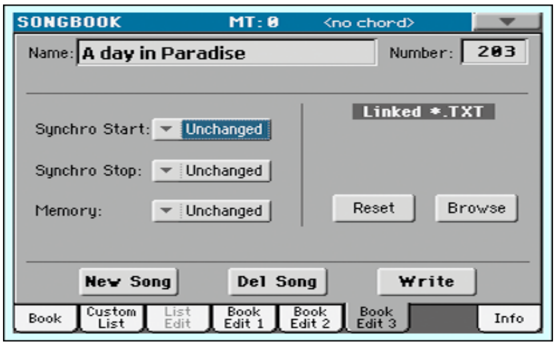
You can change this value by using the TRANSPOSE buttons on the control panel. Any change will be shown after saving the Entry.

Note: *If the Master Transpose is locked (Global > General Controls > Lock), the Master Transpose will not change.*

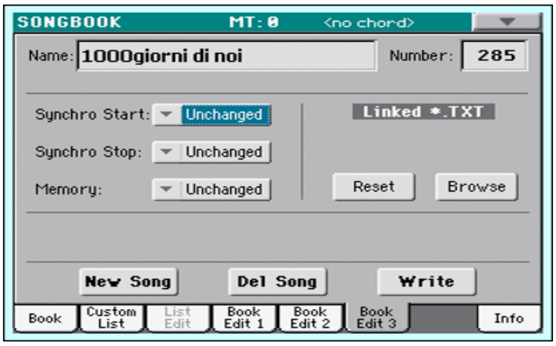
Book Edit 3

This page is where you select the Synchro and Memory options to be memorized, link a “.TXT” file.

The Book Edit 3 page with a Style-based entry:


SONGBOOK MT: 0 <no chord>
Name: A day in Paradise
Number: 203
Synchro Start: Unchanged
Synchro Stop: Unchanged
Memory: Unchanged
Linked *.TXT
Reset
Browse
New Song
Del Song
Write
Book
Custom List
List Edit
Book Edit 1
Book Edit 2
Book Edit 3
Info

The Book Edit 3 page with a Song-based entry:


SONGBOOK MT: 0 <no chord>
Name: 1000giorni di noi
Number: 285
Synchro Start: Unchanged
Synchro Stop: Unchanged
Memory: Unchanged
Linked *.TXT
Reset
Browse
New Song
Del Song
Write
Book
Custom List
List Edit
Book Edit 1
Book Edit 2
Book Edit 3
Info

Synchro Start / Synchro Stop / Memory

The status of these functions can be memorized in a SongBook Entry.

***Note:** If the SongBook Entry is based on a Song, Synchro Start and Synchro Stop are greyed out and cannot be modified, since they have no effect on a Song.*

Unchanged	When selecting this SongBook Entry, the status of the corresponding function is left unchanged.
Off	When selecting this SongBook Entry, the status of the corresponding function is turned off.
On	When selecting this SongBook Entry, the status of the corresponding function is turned on.

Linked .TXT

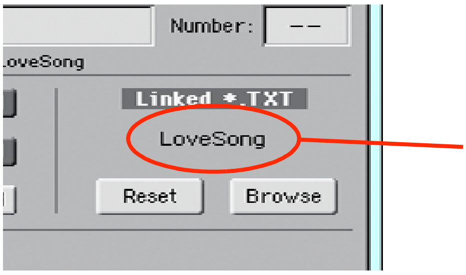
You can select a text (.TXT) file, and link it to the Style or Song associated with the current SongBook Entry. When you select this entry, the text file will be automatically loaded.

Text files can be seen on the display. Since there is no automatic synchronization between this kind of lyrics and the associated songs, you must scroll them manually. This can be accomplished in either of two ways:

- When a ".TXT" file is selected, a special vertical scrollbar appears in the "Lyrics" page. Touch it to scroll through the text during the performance. See the "Lyrics, Score, Markers" chapter on page 280.
- Scrolling is also possible by means of the Text Page Down/Up command, that can be assigned to a Footswitch or Assignable Switch.

This section of the Book Edit 3 page contains two buttons:

Reset	Touch this buttons to unlink the text file from the entry.
Browse	Touch this button to open a standard File Selector, and select a ".TXT" file to be linked to the current SongBook Entry. After selection, the name of the linked text file appears above the two buttons.



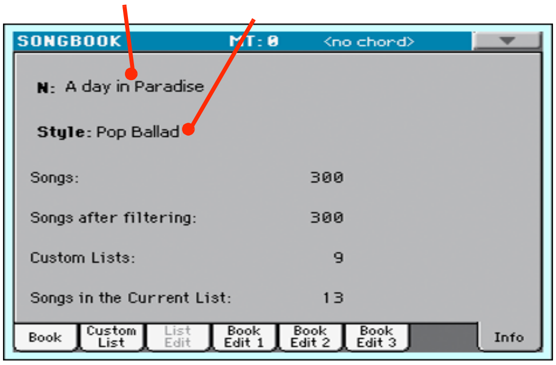
LoveSong

Linked text file

Info

Use the Info page to see the name of the selected entry, the associated resource(s), the total number of Songs in the SongBook, the number of filtered entries, the number of available Custom Lists, and the number of Songs in the current list.

- In case of an entry based on a Style:



Selected entry

Associated resource

N: A day in Paradise

Style: Pop Ballad

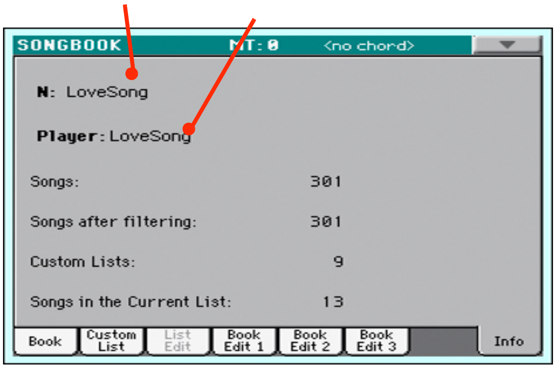
Songs: 300

Songs after filtering: 300

Custom Lists: 9

Songs in the Current List: 13

- In case of an entry based on a Song in Standard MIDI File or MP3 format:



Selected entry

Associated resource

N: LoveSong

Player: LoveSong

Songs: 301

Songs after filtering: 301

Custom Lists: 9

Songs in the Current List: 13

Selected entry

This parameter shows the currently selected entry. If it is blank (---), the latest selected entry has been modified, or no entry has been selected.

Associated resource

Style, Standard MIDI File or MP3 file associated to the selected entry.

Songs

Total number of entries in the SongBook list.

Songs after filtering

This parameter shows the number of entries shown in the "Book" page, after applying the selected filter. If no filter is selected, this matches the total number of entries in the SongBook list (see previous parameter).

Custom Lists

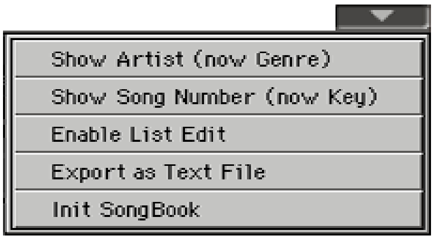
This parameter shows the number of available Custom Lists.

Songs in the Current List

Number of entries in the selected Custom List.

Page menu

Touch the page menu icon to open the menu. Touch a command to select it. Touch anywhere in the display to close the menu without selecting a command.



Show Artist/Genre

Select this command to toggle between the Artist and Genre column on the SongBook list, appearing in the “Book” and “Custom List” pages.

Show Number/Key

Select this command to toggle between the Number and Key column on the SongBook list, appearing in the “Book” and “Custom List” pages.

Enable List Edit

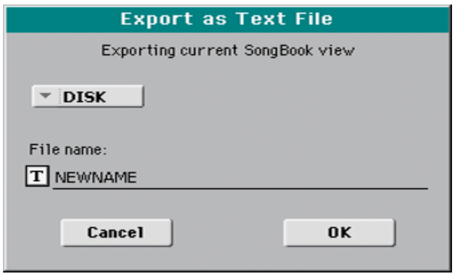
Select this command, and make the checkmark appear, to make the List Edit page available.

Export as text file

Only available when the Book or Custom List pages are selected. Select this command to open the Export dialog box, and save the SongBook or Custom List as a text file. The selected filtering will be applied to the exported list, assuming the Filter button is checked.

The dialog box is a little different, depending on the page where you selected this command.

- Selected from the “Book” page:

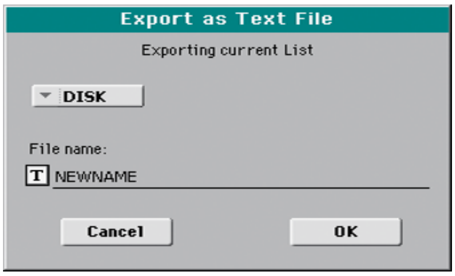


Exporting current SongBook view

DISK

File name:
T NEWNAME

- Selected from the “Custom List” page:



Exporting current List

DISK

File name:
T NEWNAME

Touch the T (Text Edit) button to open the Text Edit window and assign a name to the text file to be saved to a storage device.

Then, select either the internal storage memory to save the file.

- Touch OK to confirm.

Init SongBook

Select this command to erase the SongBook list and start with a new, blank list.

Warning: *Before initializing the SongBook list, save the older one with one of the Media > Save operations.*

Lyrics, Score, Markers

By pressing the LYRICS button, you can see lyrics in Style Play mode, lyrics and chord abbreviations in Style Play and Song Play modes. The SCORE button will let you see a traditional score in the Song Play mode. Pressing the MARKER button will give you access to the markers in the Song Play mode.

Lyrics page

Open the Lyrics page by pressing the LYRICS button. This page shows the lyrics in Style Play mode, lyrics and chord abbreviations in the Song Play mode.

Viewing lyrics and chords with Songs

You can see the following types of lyrics and chords:

- Lyrics contained in a Standard MIDI File or Karaoke™ file as Lyrics events, or in an MP3 file with Lyrics (in ID3 format – see www.id3.org).
- Lyrics contained in a ".CDG" file, loaded with an MP3 file with the same name. When a ".CDG" file exists in the same directory as an MP3 file, and shares exactly the same name, it will be loaded with the "MP3" file.
- Lyrics contained in a ".TXT" file, loaded with a Standard MIDI File, Karaoke or MP3 file with the same name. When a ".TXT" file exists in the same directory as a Standard MIDI File or MP3 file, and shares exactly the same name, it is loaded with the ".MID" or "MP3" file (see "Text files loaded with Standard MIDI Files and MP3 files" on page 281).
- Lyrics contained in a ".TXT" file linked to the latest-selected SongBook Entry (see "Linked .TXT" on page 278).
- When no lyrics data is contained in the Song, or linked to a SongBook Entry, you can see lyrics contained in a ".TXT" file loaded at any time after selecting a Song (see "On-the-fly TXT loading" below).

This is the priority of lyrics data shown in the display:

i) CDG file contained in the same folder as the MP3 file, *overriding…*

ii) TXT file linked to a SongBook Entry, *overriding…*

iii) TXT file contained in the same folder as the Standard MIDI File or MP3 file, recalled by a SongBook Entry, *overriding…*

iv) Lyrics events contained in the Standard MIDI File or MP3 file.

Hint: *If you do not want to see the TXT file or the CDG file, and prefer to see the Lyrics data, rename or delete the TXT or CDG file, or move it to a different folder.*

Viewing lyrics with the Styles

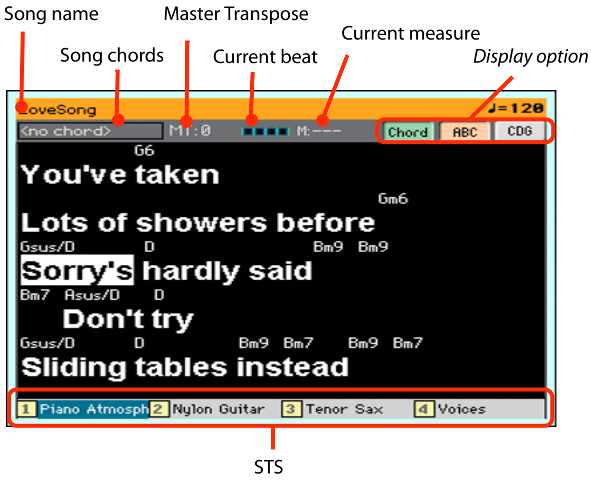
Lyrics can be associated to a Style as a ".TXT" file. When in this page, you can see:

• Lyrics contained in a ".TXT" file linked to the latest-selected Style-based SongBook Entry (see "Linked .TXT" on page 278).

• Lyrics contained in a ".TXT" file loaded after selecting a Style (see "On-the-fly TXT loading" below).

The Lyrics page in detail

Lyrics will be shown only if they are compatible with a standard format that Pa600 can understand.



G6
You've taken
Gm6
Lots of showers before
Gsus/D D Bm9 Bm9
Sorry's hardly said
Bm7 Asus/D D
Don't try
Gsus/D D Bm9 Bm7 Bm9 Bm7
Sliding tables instead

While the Song is playing, Lyrics contained in a Standard MIDI File or MP3 file scroll in the display. Chord abbreviations (if any) will appear above the lyrics, in time with the music (depending on the status of the "Chord" button). Lyrics at the current position are highlighted.

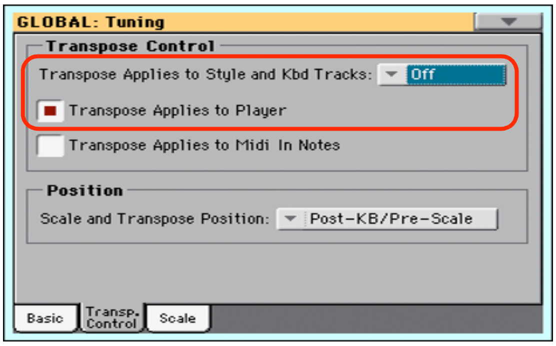
If the text has been loaded as a ".TXT' file, it will not scroll automatically while the Song is playing back. You must scroll it with the VALUE DIAL or the vertical scrollbar. As an alternative, you can use an assignable switch or footswitch, with the Text Page Up or Text Page Down functions assigned, to scroll (respectively) to the previous or next text page.

To exit from this page, press either the LYRICS or the EXIT button.

Song chords

Chords contained in the Standard MIDI File (if any). This indicator may be easier to read than chords shown within the lyrics.

When changing the Master Transpose, chord abbreviations contained in a Standard MIDI File are transposed, and correctly shown in the display. Master Transpose must be activated on the Player, but not on the Keyboard.



Transpose Applies to Style and Kbd Tracks: Off
☑ Transpose Applies to Player
☐ Transpose Applies to Midi In Notes
Scale and Transpose Position: Post-KB/Pre-Scale

Master Transpose

Master transpose value in semitones. This value can be changed using the TRANSPOSE buttons on the control panel.

Current beat

Standard MIDI Files only. Currently playing beat.

Current measure

Standard MIDI Files only. Current measure number.

STS

Name of the four selected Single Touch Settings (STS). Touch one of them to select it.

Chord

If this button is depressed, chords are shown above lyrics in the display – provided the Standard MIDI File contains them.

ABC

Size of the fonts. You can choose between a smaller and a bigger font.

CGD

Touch this button to show the lyrics contained in the associated CDG file.

Text in MP3+CGD files

When a ".CDG" file with the same name exists in the same directory as an MP3 file, it will be loaded with the "MP3" file, and can be seen in the Lyrics page.

As an example, if the file "MYSONG.CDG" exists in the same directory as the "MYSONG.MP3" file, it is loaded together with the matching ".MP3" file.

Text will scroll automatically while the Song is playing back.

***Note:** When a ".CDG" file is loaded with the Song, it overrides any included Lyrics data.*

Text files loaded with Standard MIDI Files and MP3 files

When a ".TXT" file with the same name exists in the same directory as a Standard MIDI File or MP3 file, it will be loaded with the ".MID" or "MP3" file, and can be seen in the Lyrics page.

As an example, if the file "MYSONG.TXT" exists in the same directory as the "MYSONG.MID" or "MYSONG.MP3" file, it is loaded together with the matching ".MID" or ".MP3" file.

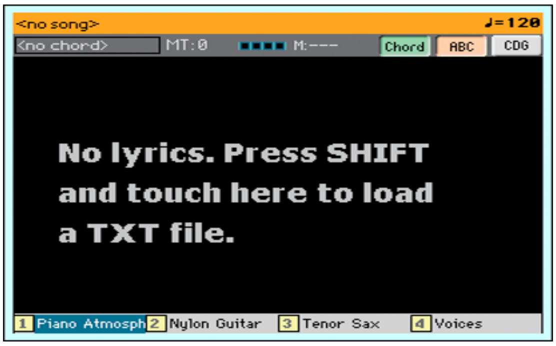
However, unlike ordinary Lyrics, the text will not scroll automatically while the Song is playing back. You must scroll it with the scrollbar or the VALUE DIAL. As an alternative, you can use an assignable switch or footswitch, with the Text Page Up or Text Page Down functions assigned, to scroll (respectively) to the previous or next text page.

Text files must be formatted with non-proportional fonts (like Courier, Courier New, Monaco, or any other "monospaced" font). Up to 24 characters can fit a single line of text when using the bigger font size, 41 when using the smaller font size (see "ABC" above).

***Note:** When a ".TXT" file is loaded with the Song, it overrides any included Lyrics data.*

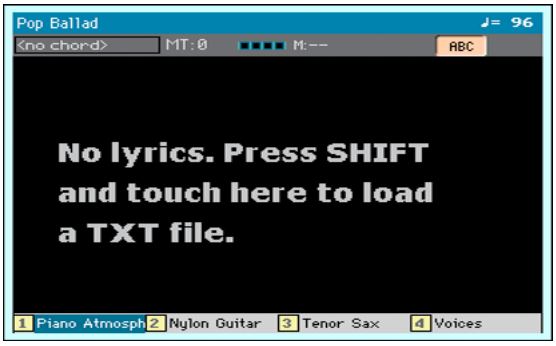
On-the-fly TXT loading

When a Song does not contain any Lyrics metadata or isn't linked to any ".TXT" file, the "No lyrics. Press SHIFT and touch here to load a TXT file" message appears in the display when you press the LYRICS button.



No lyrics. Press SHIFT and touch here to load a TXT file.

The same happens while in Style Play mode.



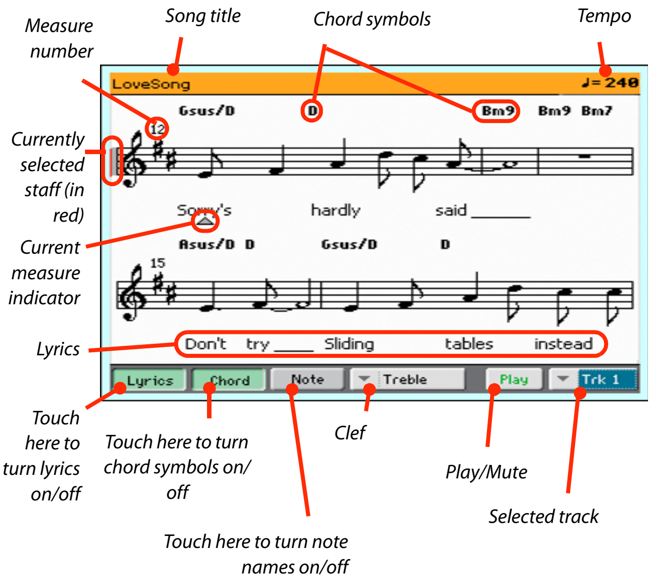
No lyrics. Press SHIFT and touch here to load a TXT file.

When this message appears, and you want to load a ".TXT" file, keep the SHIFT button pressed and touch the center of the display. A standard file selector will appear, and will let you look for a ".TXT" file to be loaded.

***Hint:** You can use the Search function to search a ".TXT" file in the various storage devices. See the relevant chapter.*

Score page

When you are in Song Play mode, and you are playing a Standard MIDI File, you can open the Score page by pressing the SCORE button.


Measure number
Song title
Chord symbols
Tempo
LoveSong
♩=240
Gsus/D
D
Bm9
Bm9
Bm7
12
Currently selected staff (in red)
Sorry's
hardly
said
Current measure indicator
Asus/D
D
Gsus/D
D
15
Lyrics
Don't
try
Sliding
tables
instead
Lyrics
Chord
Note
Treble
Play
Trk 1
Touch here to turn lyrics on/off
Touch here to turn chord symbols on/off
Clef
Play/Mute
Selected track
Touch here to turn note names on/off

To exit from this page, press either the SCORE or the EXIT button.

Note: *Master or Track Transpose do not affect the Score display.*

Song title

Name of the Song.

Tempo

Current Tempo of the Song (in BPM, Beats Per Minute).

Staff

The selected track is shown as traditional music notation. Depending on the content of the track, either notes or chords are shown. Pa600 takes care for you of 'cleaning-up' the score, so that it is always easy to read.

Several automatic operations are carried on to clean-up the score: Pa600 automatically quantizes to 1/16 notes, detects triplets, avoids note overlaps, correctly notates syncopation, and draws beams according to the time signature. In addition, spacing and measure length are dynamic, and single, double and end measure bars are automatically added.

If a KeySign (Key Signature) event is found at position '001.01.000' of the Song's Master track, the correct key signature is also shown.

Currently selected staff marker

This red vertical line shows the approximate position of the playback, by indicating the current staff in play.

Current measure indicator

This red triangle shows the current measure in play.

Lyrics button

Touch this button to make the lyrics (if available) appear or disappear.

Chord button

Touch this button to make the chord symbols (if available) appear or disappear. Chords are shown either according to the English or Italian system, depending on the selected language (see "General Controls: Interface" on page 235).

Note button

Touch this button to make the note name appear or disappear next to each note. Note names are shown either according to the English or Italian system, depending on the selected language (see "General Controls: Interface" on page 235).

Clef

Touch here to open a pop-up menu, where to choose a clef from. Available clefs are:

Treble	Standard Treble clef (𝄞).
Treble+8	Treble clef with transposition one octave upper.
Treble-8	Treble clef with transposition one octave lower.
Bass	Standard Bass clef (𝄢).
Bass-8	Bass clef with transposition one octave lower.

Play/Mute

Use this button to let the selected track play, or to mute it. If the track is muted, the score is still shown, so that you can play or sing it.

Hint: *The "Melody Mute" function, that can be assigned to an assignable switch or footswitch, allows for muting the melody track of a Song (default: Track 4, see "SMF Melody Track" on page 240). If your song has the melody part assigned to the same track, you can mute or unmute it by using this button, or the assigned switch/pedal.*

Selected track

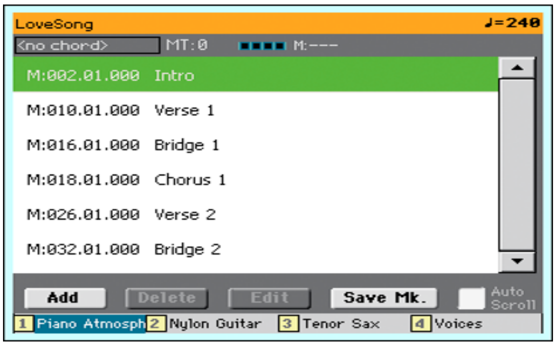
Touch here to open a pop-up menu where to chose the track to be shown from.

Hint: *The backing vocals are often assigned to Track 5.*

Markers page

Open the Marker page by pressing the MARKER button. This page shows the Song Markers in the Song Play mode and in the SongBook.

Standard Song Markers contained in a Standard MIDI File can be read with the Pa600, to quickly jump to a given position in the Song. Additionally, you can set your own marker points on-the-fly.



LoveSong ♩=240
<no chord> MT:0 M:---

M:002.01.000 Intro
M:010.01.000 Verse 1
M:016.01.000 Bridge 1
M:018.01.000 Chorus 1
M:026.01.000 Verse 2
M:032.01.000 Bridge 2

1 Piano Atmosph 2 Nylon Guitar 3 Tenor Sax 4 Voices

To exit from this page, press the EXIT button.

How to add a marker:

1. Press the MARKER button to open the Markers page.
2. Start the Song by pressing the PLAY/STOP button (however, markers can be added even while the player is not running).
3. When you reach the position you want to save as a marker, touch the Add button in the display.

   • If you touch Add within the first beats of the measure, the beginning of the current measure is saved as a marker.

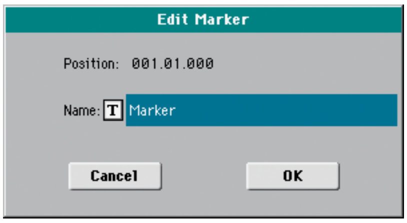
   • If you touch Add within the last beat of the measure, the beginning of the following measure is saved as a marker.
4. Do the same for any following marker.
5. Stop the Song by pressing the PLAY/STOP button.

How to jump to a saved marker:

1. If you like, start the Song again.
2. When you want to jump to a saved marker (while the Song is stopped or playing), touch it in the display. The Song will jump to the saved position at the beginning of the next measure.

How to edit a marker:

1. Touch the marker to be edited in the display.
2. Touch the Edit button in the display to set the marker to edit. The Edit Marker window will appear.



Edit Marker

Position: 001.01.000

Name: T Marker

3. While in Edit Marker window, you can edit the name and position of the marker being edited.
4. Save the markers (as described below).

How to delete a marker:

1. Touch the marker to be deleted in the display.
2. Touch the Delete button in the display to delete the selected marker.
3. Save the markers (as described below).

How to save the markers:

Touch the “Save Mk” button in the display to save all markers.

If you are not in the Lyrics/Score page, choose the “Save Song Marker” command from the page menu. The markers will be saved into the Standard MIDI File.

Auto Scroll

Check this parameter if you want the current marker to be always visible in the display during playback, by making the list of markers scroll automatically.

Don’t check this parameter, if you prefer to prevent the list from scrolling. This is useful if you want a marker to remain in the display, ready to be selected as soon as you want to jump to its position, with no need to scroll the list to catch it out.

STS

Name of the four selected Single Touch Settings (STS). Touch one of them to select it.

MIDI

What is MIDI?

Here is a brief overview of MIDI, as related to the Pa600. If interested, you may find more information on the general use of MIDI in the various specialized magazines and dedicated books.

In general

MIDI stands for Musical Instruments Digital Interface. This interface lets you connect two musical instruments, or a computer and various musical instruments.

From a software point of view, MIDI is a protocol that describes messages for playing notes and controlling them. It is sort of a grammar to let different instruments and computers speak the same language, and let the one tell the other what to do.

From a physical point of view, MIDI messages can travel across two different types of connectors on the Pa600:

- The MIDI interface, that is composed of two different connectors. The MIDI IN receives data from another device; the MIDI OUT sends data to another device.
- The USB Device port, that replaces both the MIDI IN and OUT connectors with a single port and cable. To use it for MIDI connection, it is advisable to install the KORG USB-MIDI Driver supplied in the Accessory Disc, or downloadable from our web site (www.korg.com).

Both these devices are active at the same time. So, you can connect the Pa600 to a computer via the USB port, and connect another instrument's MIDI IN port to the MIDI THRU port of the Pa600.

Channels and messages

Basically, a MIDI or USB cable transmits 16 channels of data. Think to each MIDI channel as a TV channel: the receiver must be set on the same channel of the transmitter. The same happens with MIDI messages: when you send a Note On message on channel 1, it will be received on channel 1 only. This allows for multitimbricity: you can have more than one sound playing on the same MIDI instrument.

There are various messages, but here are the most commonly used:

Note On – This message instructs an instrument to play a note on a specific channel. Notes have both a name (C4 standing for the center C) and a number (60 being the equivalent for C4). A Note Off message is often used to say the note has been released. In some case, a Note On with value "0" is used instead.

Together with the Note On message, a Velocity value is always sent. This value tells the instrument how loud the note must play.

Pitch Bend (PB) – You can generate this message acting on the joystick (X direction). The pitch is translated up or down.

Program Change (PC) – When you select a Sound, a Program Change message is generated on the channel. Use this message, together with Control Change 00 and 32, to remotely select Pa600 data from a sequencer or a master keyboard.

Control Change (CC) – This is a wide array of messages, controlling most of the instrument parameters. Some examples:

- CC00, or Bank Select MSB, and CC32, or Bank Select LSB. This message pair is used to select a Sound Bank. Together with the Program Change message, they are used to select a Sound.
- CC01, or Modulation. This is the equivalent of pressing up the joystick. A vibrato effect is usually triggered on.
- CC07, or Master Volume. Use this controller to set the channel's volume.
- CC10, or Pan. This one sets the channel's position on the stereo front.
- CC11, or Expression. Use this controller to set the relative volume of tracks, with the maximum value matching the current setting of the CC07 control.
- CC64, or Damper Pedal. Use this controller to simulate the Damper pedal.

Tempo

Tempo is a global MIDI message, that is not tied to a particular channel. Each Song includes Tempo data.

Lyrics

Lyrics are non-standard MIDI events, intended to display text together with the music. Pa600 can read many of the available Lyrics format on the market.

What is MIDI Over USB?

You can let the Pa600 communicate MIDI data with a computer using the USB Device port instead of the MIDI ports. This way, you can connect your Pa600 to a personal computer without the need of a dedicated MIDI interface.

Most Pa600 MIDI features can be used on a Windows or Mac computer with no need of special software. However, for full and easy use of all MIDI features, we suggest you to install the "KORG USB MIDI Driver", a special software that you can find in the Accessory Disc that comes with your Pa600. Relevant instructions come with the software itself. See "Installing the KORG USB MIDI Driver" on page 401.

Standard MIDI Files

Standard MIDI Files (a.k.a. SMF) are a practical way of exchanging songs between different instruments and computers. Pa600 uses the SMF format as its default song format, so reading a song from a computer, or saving a song that a computer software can read, is not a problem at all.

The internal Player is compatible with SMFs format 0 (all data in one track; it is the most common format) and 1 (multitrack). Pa600 can read SMFs in Song Play mode and modify/save them in Sequencer mode. It can save a Song in SMF format 0 from Sequencer mode.

When in Song Play mode, Pa600 can also display SMF lyrics in Solton, M-Live (Midisoft), Tune1000, Edirol, GMX, HitBit, and XF formats, and the chord abbreviations of SMF in Solton, M-Live (Midisoft), GMX, and XF format.

Note: *The above trademarks are the property of their respective holders. No endorsement is intended by their inclusion in this list.*

Standard MIDI Files usually have the ".MID" or ".KAR" filename extension.

The General MIDI standard

Some years ago, the musical instruments world felt a need for some further standardization. Then, the General MIDI Standard (GM) was born. This extension of the basic MIDI sets new rules for compatibility between instruments:

- A minimum of 16 MIDI channels was required.
- A basic set of 128 Sounds, correctly ordered, was mandatory.
- The Drum Kit had a standard order.
- Channel 10 had to be devoted to the Drum Kit.

A most recent extension is the GM2, that further expands the Sounds database. Pa600 is sound-compatible with the GM2 standard.

The Global channel

Any channels with the Global option assigned (see "MIDI: MIDI In Channels" on page 247) can simulate the Pa600 integrated keyboard. When the Pa600 is connected to a master keyboard, transmission should take place over the Global channel of the Pa600.

The MIDI messages received over a Global channel and not over a standard channel are affected by the status of the SPLIT button, as well from the split point. Therefore, if the SPLIT button LED is lit up, notes arriving to Pa600 over this channel will be divided by the split point into the Upper (above the split point) and Lower (below the split point) parts.

Notes arriving to a Global channel are used for the chord recognition of the automatic accompaniment. If the SPLIT LED is turned on, only the notes below the split point will be used. These notes will be combined with the ones of the special Chord 1 and Chord 2 channels.

The Chord 1 and Chord 2 channels

You can set two special Chord channels (see page 247) to send Pa600 notes for chord recognition. These notes will be combined with the notes that go through the channel set as Global (Global notes are recognized only under the split point, if the SPLIT LED is lit up).

The Chord channels are not affected by the split point. All the notes – both above and below the split point – will be sent to the chord recognition.

However, the status of the SPLIT button has a particular effect on the way chords are recognized on the Chord channels:

- When the SPLIT LED is turned on (Lower mode), the chord recognition mode will be set by the "Chord Recognition" parameter in the Global > Mode Preferences > Style page (see page 239). You can play a single note to play a Major chord.
- When the SPLIT LED is turned off (Full Upper mode), the chord recognition mode will always be Fingered or Expert, depending on the previous situation. You have to play at least three notes in order for the chord to be detected.

These two channels are especially useful for accordion players, that wish to assign a different Chord channel to the chords and the bass played with the left hand. This way, chords and bass will both contribute to the formation of chords for the chord recognition of the automatic accompaniment.

The Control channel

You can set a MIDI IN channel as the Control channel (see page 247), to select Styles and Performance from an external device. See the Appendix for a list of messages corresponding to Pa600 internal data.

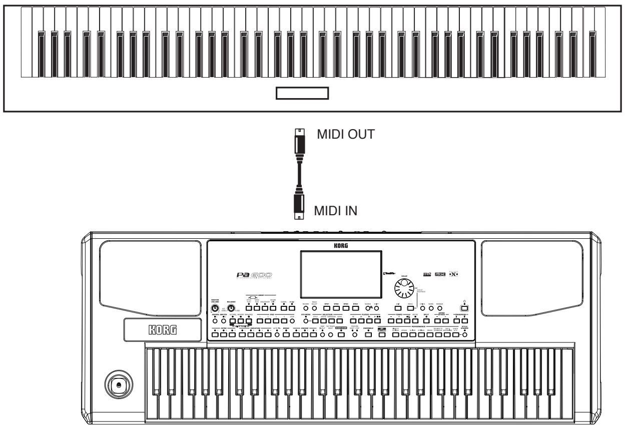
MIDI Presets

You can play Pa600 with an external controller, and use it simply as a powerful sound generator. To help you configure the MIDI channels, we have provided a set of MIDI Presets that can be accessed in the Global > MIDI > General Controls page (see "Preset" on page 245).

We recommend you to consider each MIDI Preset as a starting point you can freely tweak. Once you have selected the most appropriate MIDI Preset for the connection to be made, you can modify the parameters as needed and save them into a MIDI Preset (see "Write Midi Preset dialog box" on page 251).

Connecting Pa600 to a Master keyboard

You can control Pa600 with a master keyboard or any other MIDI keyboard. You only need to connect the MIDI OUT connector of the master keyboard to the MIDI IN connector of Pa600. The master keyboard will become the integrated keyboard of the Pa600 if it transmits over the same channel programmed as Global in Pa600.



If the master keyboard transmits over the Global channel of Pa600, the split point and the status of the SPLIT button in the control panel will affect the notes received from the master keyboard.

Connections and settings

To connect the master keyboard to Pa600 follow this procedure:

1. Connect the MIDI OUT connector of the master keyboard to the MIDI IN connector of the Pa600.
2. Program the master keyboard to transmit over the Global channel of Pa600 (see “MIDI: MIDI In Channels” on page 247).

   For information on programming the master keyboard, please see the master keyboard’s own user manual.
3. Select the “Master Keyboard” MIDI Preset. You can do this by going to the “MIDI: General Controls” page of the Global mode. Note that this MIDI Preset will be remain unchanged even when the instrument enters standby.

   Note: *Settings may change when new Global data is loaded from disk. To protect settings from loading, use the Global Protect function (see “Global Protect” on page 241).*
4. If needed, press one of the buttons in the MODE section to go to the desired operative mode.

Connecting Pa600 to a MIDI accordion

There are various types of MIDI accordions, each one requiring different MIDI settings. Pa600 is provided with a series of “Accordion” MIDI Setups, each one suitable for a different MIDI accordion (see page 245).

Connection and settings

To connect the accordion to the Pa600 follow this procedure:

1. Connect the MIDI OUT connector of the accordion to the MIDI IN connector of Pa600.
2. Select one of the available “Accordion” MIDI Preset parameter. You can do this by going to the “MIDI: General Controls” page of the Global mode. Note that this MIDI Preset will be remain unchanged even when the instrument enters standby.

   Note: *Settings may change when new Global data is loaded from disk. To protect settings from loading, use the Global Protect function (see “Global Protect” on page 241).*
3. If needed, press one of the buttons in the MODE section to go to the desired operative mode.

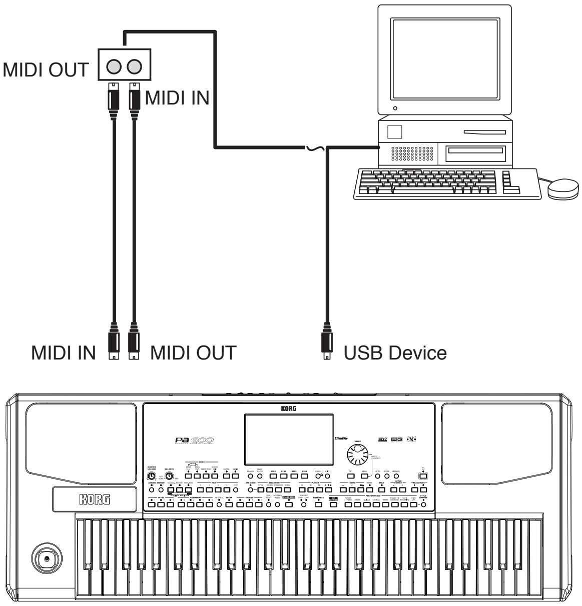
Connecting Pa600 to an external sequencer

You can program a new song on an external sequencer, using Pa600 as a multi-timbral expander.

Connections and settings

In order to connect Pa600 to a computer, you need a computer with either a MIDI interface or a USB port.

1. In case of an USB connection, install the KORG USB MIDI Driver, as explained in "Installing the KORG USB MIDI Driver" on page 401.
2. Connect Pa600 and the computer either via the USB Device port, or via the MIDI ports and a MIDI interface, as shown in the following diagram.



3. Activate the "MIDI Thru" function on the external sequencer. Please refer to the sequencer's user manual.
4. On Pa600, select the "Extern.Seq." MIDI Preset. You can do this by going to the "MIDI: General Controls" page of the Global mode. Note that this MIDI Preset will be remain unchanged even when the instrument enters standby.
5. Go to the "MIDI: General Controls" page, and uncheck the "Local Control On" parameter (see page 246). This is called the "Local Off status".

   Note: *Settings may change when new Global data is loaded from disk. To protect settings from loading, use the Global Protect function (see "Global Protect" on page 241).*
6. Press SEQUENCER to go to the Sequencer mode.
7. Play the keyboard. Notes played on the keyboard will go from the MIDI OUT of Pa600 to the MIDI IN of the computer/MIDI interface (or from the USB port of Pa600 to the USB port of the computer).

   Notes generated by the computer (i.e. a song played by its sequencer) are sent through the MIDI OUT of the MIDI interface to the MIDI IN connector of Pa600 (or from the USB port of the computer to the USB port of Pa600).

The Local Off

When Pa600 is connected to an external sequencer, we recommend you to set the Pa600 in Local Off mode (see "Local Control On" on page 246) to avoid that the notes are simultaneously played by the keyboard and by the MIDI events sent by the external sequencer.

When Pa600 is in Local Off, the keyboard of Pa600 transmits data to the external sequencer, but not to the internal sound generation. The sequencer will receive notes played on the keyboard of Pa600 and will send them to the selected track of the song. The track will then transmit data to the internal sound generation of Pa600.

Note: *In order to send data to the sound generation of Pa600, the "MIDI Thru" function must be activated in the external sequencer (normally active; the name may be different according to the type of sequencer). For more information refer to the instructions manual of the sequencer.*

The Sounds

The song that is played back by the sequencer can select Pa600 Sounds through the MIDI messages Bank Select MSB, Bank Select LSB (bank selection, two messages), and Program Change (Sound selection). For a list of Sounds and MIDI values, see "Sounds" on page 295.

A suggestion for those who program songs on computer: even though it is not mandatory, for a wider compatibility you should set the bass on channel 2, melody on channel 4, drum kit on channel 10, controls for an harmonizer on channel 5.

Playing another instrument with Pa600

You can use Pa600 as the master controller for your MIDI setup.

1. Connect the MIDI OUT connector of Pa600 to the other instrument's MIDI IN.
2. Set the other instrument to the same channels you want to play from Pa600. For example, if you wish to play the Upper 1 and Upper 2 tracks with sounds of the other instrument, enable the other instrument to receive on the same channels Pa600 is transmitting from the Upper 1 and Upper 2 tracks (by default, channels 1 and 2).
3. Set the master volume of the other instrument with its own volume controls.
4. Mute/unmute any track right from the Pa600. Adjust each track's volume by using the Pa600 (sliders on the display).
5. Play the keyboard of Pa600.

The Keyboard

The keyboard of Pa600 can drive up to four tracks via the MIDI OUT (Upper 1-3 and Lower). MIDI output channels are set in Global mode (see "MIDI: MIDI Out Channels" on page 247).

As per the default situation ("1-Default" MIDI Preset), each of Pa600 Keyboard tracks transmit on the following channels:

Track	Out Channel
Upper1	1
Upper2	2
Upper3	3
Lower	4

When a track is muted, it cannot transmit any MIDI data to an external expander or sequencer connected to the MIDI OUT of Pa600.

To only hear the expander's sounds, you can lower the MASTER VOLUME control on the Pa600, or set the Keyboard tracks to the External status (see "Track Controls: Mode" on page 180).

The Player

Any Player's track can drive a channel on an external instrument. To set each track's MIDI output channel, see "MIDI: MIDI Out Channels" on page 247.

To only hear the expander's sounds, you can lower the MASTER VOLUME control on the Pa600, or set the Song tracks to the External status (see "Track Controls: Mode" on page 180).

Select the "Player" MIDI Preset to set the channels as follows:

Track	Out Channel
Song 1…16	1…16

The Arranger

One of the most interesting aspect of MIDI, is that you can use your Pa600 to play an external instrument with its onboard arranger. Yes, it's hard to beat the audio quality of Pa600, but you could wish to use that old faithful synth you are still accustomed to…

To assign some of the Style tracks of Pa600 to an external instrument, set them to the External status (see "Track Controls: Mode" on page 180).

Select the "Default" MIDI Preset to set the channels as follows (this is the default status of Pa600):

Track	Out Channel
Bass	9
Drums	10
Percussion	11
Acc1…5	12…16

Appendix

Factory data

Styles

Note: You can remotely select Styles on the Pa600, by sending it Bank Select MSB (CC#0), Bank Select LSB (CC#32) and Program Change messages on the Control channel (see “MIDI: MIDI In Channels” on page 247).

#	Name	CC00	CC32	PC
Bank: Pop				
1	Guitar Pop	0	0	0
2	Guitar Beat	0	0	1
3	Standard 8 Beat	0	0	2
4	Standard 16 Beat	0	0	3
5	Modern Beat	0	0	4
6	Pop Ballad	0	0	5
7	Pop Chart 1	0	0	6
8	Pop Chart 2	0	0	7
9	Easy Pop 1	0	0	8
10	Easy Pop 2	0	0	9
11	British Pop	0	0	10
12	Slow Latin Pop	0	0	11
13	6/8 Slow Pop	0	0	12
14	12/8 Pop	0	0	13
15	Pop Shuffle 1	0	0	14
16	Pop Shuffle 2	0	0	15
17	Easy Beat 1	0	0	16
18	Easy Beat 2	0	0	17
19	Real 8 Beat	0	0	18
20	Real 16 Beat	0	0	19
21	Soft 8 Beat	0	0	20
22	Soft 16 Beat	0	0	21
23	Analog Beat 1	0	0	22
24	Analog Beat 2	0	0	23
25	8 Beat Analog 1	0	0	24
26	8 Beat Analog 2	0	0	25
27	Pop Funk 1	0	0	26
28	Pop Funk 2	0	0	27
Bank: Ballad				
1	Modern Ballad 1	0	1	0
2	Modern Ballad 2	0	1	1
3	Moonlight Ballad	0	1	2
4	Soft Ballad	0	1	3
5	Funky Ballad	0	1	4
6	Guitar Ballad	0	1	5
7	Easy Ballad	0	1	6
8	Organ Ballad	0	1	7
9	Folk Ballad	0	1	8
10	Orchestral Bld	0	1	9
11	Groove Ballad	0	1	10
12	Blues Ballad	0	1	11
13	Analog Ballad 1	0	1	12
14	Analog Ballad 2	0	1	13
15	Rock Ballad 1	0	1	14
16	Rock Ballad 2	0	1	15
17	Waltz Ballad	0	1	16
18	6/8 Slow	0	1	17
19	6/8 Ballad 1	0	1	18
20	6/8 Ballad 2	0	1	19
21	Pop Hit Ballad	0	1	20
22	Oriental Ballad	0	1	21
23	Blue Ballad	0	1	22
Bank: Ballroom				
1	Quick Step	0	2	0
2	Paso Dance	0	2	1
3	Jive 1	0	2	2
4	Jive 2	0	2	3
5	Argentina Tango	0	2	4
6	Modern Tango	0	2	5
7	Slow Fox	0	2	6
8	Organ Foxtrot	0	2	7
9	Slow Waltz 1	0	2	8
10	Slow Waltz 2	0	2	9
11	Slow Waltz 3	0	2	10
12	Organ Waltz	0	2	11
13	Foxtrot 1	0	2	12
14	Foxtrot 2	0	2	13
15	Slow Band	0	2	14
16	Big Band Jump	0	2	15
17	Big Band Fox	0	2	16
18	Big Band 40's	0	2	17
19	Fox Shuffle 1	0	2	18
20	Fox Shuffle 2	0	2	19
21	Italian Tango 1	0	2	20
22	Italian Tango 2	0	2	21
23	Twist	0	2	22
24	Hully Gully	0	2	23
25	50's Fox	0	2	24
26	Italian Fox	0	2	25
27	Irish Fox	0	2	26
Bank: Dance				
1	70's Disco Remix	0	3	0
2	70's Disco 1	0	3	1
3	70's Disco 2	0	3	2
4	80's Dance	0	3	3
5	90's Dance	0	3	4
6	Electro Dance	0	3	5

#	Name	CC00	CC32	PC
7	Dance Chart 1	0	3	6
8	Dance Chart 2	0	3	7
9	Funky Disco	0	3	8
10	Techno	0	3	9
11	Garage	0	3	10
12	House	0	3	11
13	Club House	0	3	12
14	Euro Trance	0	3	13
15	Fashion Funk	0	3	14
16	Dance Fever	0	3	15
17	Barry Dance	0	3	16
18	Sister & Girl	0	3	17
19	Philly Disco	0	3	18
20	Miami Disco	0	3	19
21	Love Disco	0	3	20
22	Dance Motown	0	3	21
23	Dance Mix	0	3	22
24	Soca Dancing	0	3	23
Bank: Rock				
1	Pop Rock	0	4	0
2	English Rock	0	4	1
3	Fire Rock	0	4	2
4	Hard Rock	0	4	3
5	Open Rock 1	0	4	4
6	Open Rock 2	0	4	5
7	Heavy Rock	0	4	6
8	Funky Rock	0	4	7
9	Rock Oldie	0	4	8
10	Rock & Roll	0	4	9
11	South Shuffle	0	4	10
12	Slow Latin Rock	0	4	11
13	Latin Rock 1	0	4	12
14	Latin Rock 2	0	4	13
15	Surf Rock	0	4	14
16	60's Rock	0	4	15
17	Slow Rock 1	0	4	16
18	Slow Rock 2	0	4	17
19	60's Slow Rock	0	4	18
20	6/8 Rock	0	4	19
21	Steely Rock	0	4	20
22	Abbey Rock	0	4	21
23	SouthStrait Rock	0	4	22
24	Rock Cha Cha	0	4	23
25	Blues Shuffle	0	4	24
Bank: Unplugged				
1	Unplugged Heaven	0	5	0
2	Sally Groove	0	5	1
3	Unplugged Ballad 1	0	5	2
4	Unplugged Ballad 2	0	5	3
5	Unplugged Ballad 3	0	5	4
6	Unplugged Slow	0	5	5
7	Desert Shuffle	0	5	6

#	Name	CC00	CC32	PC
8	Serenade	0	5	7
9	Unplugged	0	5	8
10	Meditando	0	5	9
11	Unplugged 8 Bt	0	5	10
12	Unplugged 16 Bt	0	5	11
13	Unplugged Gtr 1	0	5	12
14	Unplugged Gtr 2	0	5	13
15	Unplugged Gtr 3	0	5	14
16	Unplugged Gtr 4	0	5	15
17	Slide Blues	0	5	16
18	Unplugged Rock	0	5	17
19	Unplugged Latin	0	5	18
20	Unplugged Swing	0	5	19
21	¾ Unplugged	0	5	20
22	¾ Acoustic Bld	0	5	21
Bank: Country				
1	Easy Country	0	6	0
2	Country Blues	0	6	1
3	Country Strum	0	6	2
4	Country QuikStep	0	6	3
5	Country Beat 1	0	6	4
6	Country Beat 2	0	6	5
7	Country Ballad 1	0	6	6
8	Country Ballad 2	0	6	7
9	Finger Picking	0	6	8
10	¾ Country	0	6	9
11	Modern Country	0	6	10
12	Country Pop	0	6	11
13	Bar Country	0	6	12
14	Bluegrass	0	6	13
15	Country Boogie	0	6	14
16	Country Shuffle	0	6	15
17	Country 8 Beat	0	6	16
18	Country 16 Beat	0	6	17
Bank: Traditional				
1	German Waltz 1	0	7	0
2	German Waltz 2	0	7	1
3	German Waltz 3	0	7	2
4	Vienna Waltz	0	7	3
5	Italian Waltz	0	7	4
6	Musette Waltz	0	7	5
7	French Waltz	0	7	6
8	Irish Waltz	0	7	7
9	Laendler Waltz	0	7	8
10	German Polka	0	7	9
11	Italian Polka 1	0	7	10
12	Italian Polka 2	0	7	11
13	Italian Polka 3	0	7	12
14	Italian Mazurka 1	0	7	13
15	Italian Mazurka 2	0	7	14
16	Italian Mazurka 3	0	7	15
17	9/8	0	7	16

#	Name	CC00	CC32	PC
18	Vahde	0	7	17
19	2/4 Oyun	0	7	18
20	Ciftetelli	0	7	19
21	Halay	0	7	20
22	5/8	0	7	21
23	Oryantal	0	7	22
24	Turkish Pop	0	7	23
Bank: Latin				
1	Samba Brazil	0	8	0
2	Bossa Nova	0	8	1
3	Classic Salsa	0	8	2
4	Classic Cha Cha	0	8	3
5	Classic Mambo	0	8	4
6	Classic Merengue	0	8	5
7	Classic Bachata	0	8	6
8	Guajira	0	8	7
9	6/8 Afro	0	8	8
10	Cumbia	0	8	9
11	Rhumba 1	0	8	10
12	Rhumba 2	0	8	11
13	Salsa 1	0	8	12
14	Salsa 2	0	8	13
15	Cool Latin Jazz	0	8	14
16	Latin Big Band	0	8	15
17	Meditation Bossa	0	8	16
18	Organ Bossa	0	8	17
19	Orch. Bossa 1	0	8	18
20	Orch. Bossa 2	0	8	19
21	Fast Bossa	0	8	20
22	Cool Bossa	0	8	21
23	Natural Bossa	0	8	22
24	Pop Cha Cha	0	8	23
25	Habanera	0	8	24
26	Latin Vocal	0	8	25
27	Latin Bolero	0	8	26
28	Latin Pop	0	8	27
Bank: Latin Dance				
1	Reggaeton	0	9	0
2	Lambada	0	9	1
3	Meneaito	0	9	2
4	Macarena	0	9	3
5	Bomba Dance	0	9	4
6	Tortura Dance	0	9	5
7	Gipsy Dance	0	9	6
8	Sambalegre	0	9	7
9	Samba Dance	0	9	8
10	Disco Samba	0	9	9
11	Mambo Party	0	9	10
12	Modern Bachata	0	9	11
13	Classic Beguine	0	9	12
14	Bayon	0	9	13
15	Modern Bossa	0	9	14

#	Name	CC00	CC32	PC
16	Disco Cha Cha	0	9	15
17	Calypso	0	9	16
18	Reggae 1	0	9	17
19	Reggae 2	0	9	18
20	Club Latino	0	9	19
21	Andean	0	9	20
Bank: Jazz				
1	Bigger Band	0	10	0
2	Serenade Band	0	10	1
3	Jazz Club	0	10	2
4	BeBop	0	10	3
5	Medium BigBand1	0	10	4
6	Medium BigBand2	0	10	5
7	Fast Big Band 1	0	10	6
8	Fast Big Band 2	0	10	7
9	Slow Swing Brush	0	10	8
10	Swing Ballad 1	0	10	9
11	Swing Ballad 2	0	10	10
12	Swing Ballad 3	0	10	11
13	Orchestral Swing	0	10	12
14	Jazz Brush	0	10	13
15	Medium JazzWaltz	0	10	14
16	Slow Jazz Waltz	0	10	15
17	Jazzy Blues	0	10	16
18	Organ Swing	0	10	17
19	Organ Blues	0	10	18
20	Swing Quintet	0	10	19
21	Medium Swing	0	10	20
22	Vocal Swing	0	10	21
23	Moon Swing	0	10	22
24	Soft Jazz	0	10	23
25	Django	0	10	24
26	5/4 Swing	0	10	25
Bank: Movie & Show				
1	Orchestral Movie	0	11	0
2	Broadway	0	11	1
3	Show Time	0	11	2
4	Ritz Swing	0	11	3
5	Hollywood 1	0	11	4
6	Hollywood 2	0	11	5
7	Tap Dance	0	11	6
8	Movie Ballad	0	11	7
9	Movie Swing	0	11	8
10	Safari Swing	0	11	9
11	Western Movie	0	11	10
12	Mystery Man	0	11	11
13	Cartoon Time	0	11	12
14	Horror Movie	0	11	13
15	Love Movie	0	11	14
16	Artie's Theme	0	11	15
17	Christmas Waltz	0	11	16
18	Chrismas Swing	0	11	17

#	Name	CC00	CC32	PC
19	Theatre Swing	0	11	18
20	Theatre March	0	11	19
21	Love Ballad	0	11	20
22	Army Band	0	11	21
Bank: Funk & Soul				
1	Funk R&B	0	12	0
2	Kool Funk	0	12	1
3	Al Funk	0	12	2
4	Elektrik Funk	0	12	3
5	Classic Funk	0	12	4
6	Urban Funk	0	12	5
7	Talkin' Jazz	0	12	6
8	Funky Sisters	0	12	7
9	Rhythm & Blues	0	12	8
10	Blues	0	12	9
11	Soul	0	12	10
12	Gospel	0	12	11
13	Gospel Swing	0	12	12
14	Gospel Shuffle	0	12	13
15	Modern Gospel 1	0	12	14
16	Modern Gospel 2	0	12	15
17	Al Swing	0	12	16
18	Groove	0	12	17
19	Groove Funk	0	12	18
20	Jazz Funk	0	12	19
21	Motown Shuffle 1	0	12	20
22	Motown Shuffle 2	0	12	21
23	Cool Vocal	0	12	22
24	70's Beat Groove	0	12	23
Bank: World				
1	Spanish Dance	0	13	0
2	4/4 Flamenco	0	13	1
3	¾ Flamenco	0	13	2
4	Casatchock	0	13	3
5	Greek Rumba	0	13	4
6	Xasapiko	0	13	5
7	Sirtaki	0	13	6
8	Zouk	0	13	7
9	Hawaiian	0	13	8
10	Mexican Waltz	0	13	9
11	Norteno	0	13	10
12	Kebradita	0	13	11
13	Bolero Ranchero	0	13	12
14	Mariachi Polka	0	13	13
15	Mariachi Valz	0	13	14
16	Mariachi Cumbia	0	13	15
17	Alpen Schlager	0	13	16
18	Classic Schlager	0	13	17
19	Modern Schlager	0	13	18
20	Vienna Waltz	0	13	19
21	Tarantella	0	13	20
22	Rumba Napoletana	0	13	21
23	Raspa	0	13	22
24	Mad Ska	0	13	23
25	Celtic Dream	0	13	24
26	Celtic Waltz	0	13	25
27	Celtic Ballad	0	13	26
28	Scottish Reel	0	13	27
29	Banda	0	13	28
30	OrchestralBolero	0	13	29
31	Minuetto	0	13	30
32	Baroque	0	13	31
Bank: Contemporary				
1	Funky R&B	0	14	0
2	AM : PM	0	14	1
3	Contemporary Bld	0	14	2
4	Island View	0	14	3
5	Fast Smooth Jazz	0	14	4
6	Slow Smooth Jazz	0	14	5
7	Slow & Jazzy	0	14	6
8	Take Beat	0	14	7
9	Swing HipHop	0	14	8
10	Slow Mood	0	14	9
11	Hip Hindi Hop	0	14	10
12	Soft HipHop	0	14	11
13	New Age	0	14	12
14	Kyoto Lounge	0	14	13
15	Jazzy Funk	0	14	14
16	Slow Funk	0	14	15
17	Elektro Pop	0	14	16
18	Modern Latin	0	14	17
19	Folk Beat	0	14	18
20	Wave Jazz	0	14	19
21	Little Shuffle	0	14	20
22	Rap	0	14	21
Bank: Favorite 1…12				
	(Favorite 1 Styles)	0	15	1-40
	(Favorite 2 Styles)	0	16	1-40
	(Favorite 3 Styles)	0	17	1-40
	(Favorite 4 Styles)	0	18	1-40
	(Favorite 5 Styles)	0	19	1-40
	(Favorite 6 Styles)	0	20	1-40
	(Favorite 7 Styles)	0	21	1-40
	(Favorite 8 Styles)	0	22	1-40
	(Favorite 9 Styles)	0	23	1-40
	(Favorite 10 Styles)	0	24	1-40
	(Favorite 11 Styles)	0	25	1-40
	(Favorite 12 Styles)	0	26	1-40
Bank: User 1…3				
	(User 1 Styles)	0	27	1-40
	(User 2 Styles)	0	28	1-40
	(User 3 Styles)	0	29	1-40

Style Elements

***Note:** You can remotely select the various Style Elements on the Pa600, by sending it Program Change messages on the Control channel (see "MIDI: MIDI In Channels" on page 247).*

PC	Style Element	PC	Style Element	PC	Style Element	PC	Style Element	PC	Style Element
80	Intro 1	81	Intro 2	82	Intro 3/Count In	83	Variation 1	84	Variation 2
85	Variation 3	86	Variation 4	87	Fill 1	88	Fill 2	89	Fill 3
90	Fill 4	91	Break	92	Ending 1	93	Ending 2	94	Ending 3

***Note:** The above Program Change numbers are given according to the 0-127 numbering system.*

Style and Player controls

***Note:** You can remotely send various commands to the Style and Player of the Pa600, by sending it Program Change messages on the Control channel (see "MIDI: MIDI In Channels" on page 247).*

PC	Style Element	PC	Style Element	PC	Style Element	PC	Style Element	PC	Style Element
95	Fade In/Out	96	STS Mode	97	Auto Fill	98	Memory	99	Bass Inversion
100	Manual Bass	101	Tempo Lock	102	Style Change	103	Start/Stop (Style)	104	Play/Stop (Player)

***Note:** The above Program Change numbers are given according to the 0-127 numbering system.*

Single Touch Settings (STS)

***Note:** You can remotely select Single Touch Settings (STS) on the Pa600, by sending it Bank Select MSB (CC#0), Bank Select LSB (CC#32) and Program Change messages on the Control channel (see "MIDI: MIDI In Channels" on page 247). If a Style is already selected, just send the Program Change message.*

CC#0	CC#32	PC	STS	PC	STS	PC	STS	PC	STS
The same as the Style to which the STS belongs		64	STS 1	65	STS 2	66	STS 3	67	STS 4

***Note:** The above Control Change and Program Change numbers are given according to the 0-127 numbering system.*

Sounds

The following table lists all Pa600 Factory Sounds as they appear in the Sound Select window.

Legend: *The table also includes MIDI data used to remotely select the Sounds.* ***CC00:*** *Control Change 0, or Bank Select MSB.* ***CC32:*** *Control Change 32, or Bank Select LSB.* ***PC:*** *Program Change.* ***Bank:*** *Sound Select button.*

Name	CC00	CC32	PC
Factory: Piano			
Grand Piano RX	121	10	0
Bright Piano RX	121	5	1
Classic Piano	121	4	0
Jazz Piano	121	5	0
Rock Piano	121	8	0
Piano Layers	121	6	2
G.Piano Stack 1	121	8	2
G.Piano Stack 2	121	9	2
Grand&MovingPad	121	9	0
Piano & Strings	121	7	0
Piano & Pad	121	4	1
Grand & FM Stack	121	7	2
E. Grand Phaser	121	10	2
Clav RX	121	5	7
Synth Clav RX	121	6	7
Clav Wah RX	121	2	7
Piano & Vibes	121	6	0
Grand RX DEMO	121	11	0
Factory: E. Piano			
EP+Damper 1 DNC	121	25	4
EP+Damper 2 DNC	121	26	4
Digi E. Piano	121	14	5
Classic Tines	121	9	5
Tine E.Piano RX	121	18	4
Club E. Piano	121	11	4
Suit E.Piano 1	121	20	4
Suit E.Piano 2	121	21	4
Classic Wurly 1	121	17	4
Classic Wurly 2	121	12	4
Tremolo Wurly	121	16	4
R&B E. Piano	121	8	4
DW8000 EP	121	11	5
FM Pad EP	121	15	5
White Pad EP	121	13	5
Thin E. Piano	121	9	4
Dyno Tine EP 1	121	10	4
Dyno Tine EP 2	121	22	4
Tine E. Piano	121	19	4
Studio EP	121	7	4
Pro Dyno EP	121	5	4
Pro Stage EP	121	6	4
Bell E. Piano 1	121	23	4
Bell E. Piano 2	121	24	4
Factory: Mallet & Bell			
Vibraphone 1	121	2	11
Marimba	121	7	12
Marimba Key Off	121	2	12
Xylophone	121	1	13
Glockenspiel	121	2	9
Celesta	121	1	8
Music Box	121	2	10
Balaphon	121	6	12
Kalimba 1	121	2	108
Kalimba 2	121	1	108
Sistro	121	1	9
Orgel	121	1	10
Warm Steel	121	1	114
Vs Bell Boy	121	2	98
Tubular Bell	121	4	14
Bells	121	3	14
Santur	121	1	15
Mallet Clock	121	5	12
Factory: Accordion			
Harmonica DNC	121	5	22
Cassotto 16'	121	12	21
Cassotto	121	9	21
Master Accordion	121	23	21
Sweet Musette	121	11	21
French Musette	121	18	21
2 Voices Musette	121	16	21
3 Voices Musette	121	17	21
Accordion16,8,4'	121	3	23
Cassotto Or.Tune	121	13	21
Acc.Clarinet OT	121	19	21
Acc. Piccolo OT	121	21	21
Harmonica 1	121	3	22
Harmonica 2	121	4	22
Harmonica 3	121	2	22
Fisa Master	121	8	21
Accordion 16,8'	121	2	23
Acc.16,8,4' Plus	121	8	23
Fisa 16,8'	121	6	21
Accordion 16,4'	121	7	23
Musette 1	121	3	21
Musette 2	121	4	21
Fisa 16,4'	121	7	21
Fisa Tango!	121	1	23
Tango Accordion	121	10	23
Accordion	121	24	21
Acc.16,8' & Bass	121	4	23
Acc. & Acc. Bass	121	9	23
Steirisch.Akk.1	121	25	21
Steirisch.Akk.2	121	26	21
Steirisch.Akk.3	121	27	21

Name	CC00	CC32	PC
Steirisch.Akk.4	121	28	21
Accordion Bass	121	5	23
Acc.Voice Change	121	6	23
Factory: Organ			
Jimmy Organ	121	13	18
Perc. Organ 1	121	10	17
Perc. Organ 2V.	121	9	17
Perc. Organ 3V.	121	11	17
BX3 Rock 1 V.	121	10	16
BX3 Rock 2 V.	121	1	18
BX3 Rock 3 V.	121	5	18
BX3 Rock 4 V.	121	12	18
BX3 Full V.	121	6	16
BX3 Jazz V.	121	20	16
BX3 Jazz Pc. V.	121	9	18
BX3 Gospel V.	121	21	16
Gospel Organ V.	121	13	16
Drawbars Slow V.	121	19	16
Drawbars Fast V.	121	18	16
Drawbars Organ	121	14	16
Jimmy Organ V.	121	10	18
Jazz Organ	121	8	16
Organ Hi V.	121	17	16
Organ LowPc V.	121	4	17
Organ Low 1 V.	121	4	16
Organ Low 2 V.	121	15	16
Organ Mid V.	121	16	16
Big Theatre Org.	121	30	16
Theatre Organ 1	121	22	16
Theatre Organ 2	121	23	16
Church Pipes	121	4	19
Full Pipes	121	5	19
Pipe Tutti 1	121	6	19
Pipe Tutti 2	121	8	19
Pipe Tutti 3	121	9	19
Pipe Tutti 4	121	10	19
Pipe Flute 1	121	4	20
Pipe Flute 2	121	5	20
Pipe Mixture	121	3	19
Flauto Pipes	121	3	20
Small Pipe	121	2	20
Positive Organ	121	7	19
Factory: Guitar			
RealNylon Gtr ST	121	16	24
Real Nylon Gtr	121	17	24
Crunch Gtr DNC	121	3	29
RealSteel Gtr ST	121	28	25
RealFolk Gtr ST1	121	29	25
RealFolk Gtr ST2	121	30	25
Steel Gtr RX	121	35	25
Jazz Gtr DNC	121	7	26
Soft Jazz Guitar	121	5	26

Name	CC00	CC32	PC
Single Coil Pro	121	14	27
Nylon Guitar DNC	121	18	24
Natural Nylon	121	19	24
RealFolk Gtr DNC	121	34	25
Real 12 Strings	121	33	25
Nylon Gtr Pro1	121	8	24
Nylon Gtr Pro2	121	11	24
Nylon Slide Pro	121	14	24
Steel Guitar Pro	121	19	25
12 Strings Pro	121	17	25
Steel 12 Strings	121	5	25
Real Steel Gtr	121	31	25
Real Folk Gtr	121	32	25
Real El. Gtr ST1	121	28	27
Real El. Gtr ST2	121	29	27
Real El. Guitar1	121	30	27
Real El. Guitar2	121	31	27
JazzGtr SlidePro	121	6	26
Club Jazz Gtr 1	121	2	26
Clean Jazz 1	121	22	27
Clean Jazz 2	121	23	27
Pop Steel Gtr 1	121	21	25
Pop Steel Gtr 2	121	22	25
5th Mute Gtr	121	21	28
Stereo Dist.Gtr	121	8	30
Solid Guitar	121	21	27
Clean Guitar 1	121	20	27
Steel Slide Pro1	121	13	25
Steel Slide Pro2	121	14	25
Clean Funk RX1	121	10	28
Clean Funk RX2	121	11	28
Dist. Guitar RX1	121	9	30
Dist. Guitar RX2	121	10	30
Vintage S. 1	121	19	27
Vintage S. 2	121	4	27
Steel Guitar 1	121	4	25
Steel Guitar 2	121	20	25
Ac.Guitar KeyOff	121	5	24
Clean Mute Gtr	121	6	28
Clean Gtr Pro 1	121	13	27
Clean Gtr Pro 2	121	15	27
Dist. Clean Gtr	121	11	30
Chorus Gtr Pro	121	18	27
Pedal Steel	121	4	26
'54 E. Guitar	121	24	27
Stra. Vel. Pro	121	16	27
New Stra.Guitar	121	7	27
Single Coil	121	6	27
Soft Overdrive	121	2	29
Chorus Guitar	121	3	27
Processed E.Gtr	121	5	27
L&R E.Guitar 1	121	9	27
R&R Guitar	121	4	28

Name	CC00	CC32	PC
Power Chords	121	4	30
Mute Monster	121	5	30
Disto Mute	121	9	28
Vox Wah Chick RX	121	3	120
Funky Wah RX	121	12	27
12 Strings RX	121	18	25
Nylon Gtr RX1	121	12	24
Nylon Gtr RX2	121	13	24
Steel Guitar RX1	121	15	25
Steel Guitar RX2	121	16	25
Pop SteelGtr RX1	121	24	25
Pop SteelGtr RX2	121	25	25
Clean Guitar RX1	121	14	28
Clean Guitar RX2	121	15	28
Clean Guitar RX3	121	16	28
Clean Guitar RX4	121	17	28
Clean Guitar RX5	121	18	28
Clean Guitar RX6	121	20	28
Funk Stein RX1	121	12	28
Funk Stein RX2	121	13	28
Factory: Strings & Vocal			
Movie Str.1 DNC	121	7	49
Movie Str.2 DNC	121	8	49
Scat Voices DNC	121	20	52
Classic Harp	121	2	46
Movie Strings 1	121	5	49
Movie Strings 2	121	6	49
Violin Expr. 1	121	2	40
Violin Expr. 2	121	4	40
Concert Str.RX	121	23	48
Strings Ens. RX	121	22	48
Full Strings	121	2	49
Ensemble & Solo	121	11	48
Tremolo Strings	121	1	44
Class.Contrabass	121	1	43
Cello	121	1	42
Viola Expr.	121	1	41
Violin & Viola	121	2	41
Slow Violin	121	3	40
Strings Quartet	121	9	48
Chamber Strings	121	12	48
Orchestra Tutti1	121	14	48
Orchestra Tutti2	121	19	48
Orch. & Oboe 1	121	16	48
Orch. & Oboe 2	121	17	48
Orchestra&Flute	121	20	48
Strings & Horns	121	15	48
Strings & Glock.	121	18	48
Octave Strings	121	8	48
Pizz. Ensemble	121	1	45
Pizz. Section	121	2	45
Spiccato Strings	121	4	49
Symphonic Bows	121	10	48

Name	CC00	CC32	PC
Analog Strings 1	121	5	50
Synth Strings 1	121	6	50
Scat V.& Bass1	121	17	52
Scat V.& Bass2	121	18	52
Wuuh Choir	121	8	52
Oh-Ah Voices	121	9	52
Femal&Male Scat	121	14	52
Take Voices 1	121	4	52
Ooh Slow Voice	121	3	52
Scat Voices RX	121	19	52
Male Scat	121	16	52
Femal Scat	121	15	52
Grand Choir	121	11	52
Ooh Choir	121	6	52
Ooh Voices	121	2	52
Choir Light	121	12	52
Synth Voices	121	6	54
Full Vox Pad	121	9	91
Vocalesque	121	2	54
Fresh Breath	121	7	91
Vocalscape	121	3	54
Heaven	121	3	91
Airways	121	3	53
Factory: Trumpet & Trbn.			
Jazz Trumpet DNC	121	24	56
Jazz Cornet DNC	121	25	56
Cornet Expr.	121	21	56
Trombone DNC	121	13	57
Trumpet Expr.1	121	15	56
Trumpet Expr.2	121	4	56
Wah Trumpet	121	2	59
Mute Trumpet	121	5	59
Sweet FlugelHorn	121	12	56
Trumpet Pro 1	121	10	56
Trumpet Pro 2	121	11	56
Trumpet Pro 3	121	16	56
Trombone Expr. 1	121	6	57
Trombone Expr. 2	121	7	57
Cornet Pro 1	121	22	56
Cornet Pro 2	121	23	56
Trumpet Overb.	121	2	56
Trombone Vel. 1	121	8	57
Trombone Vel. 2	121	9	57
Trombone Vel. 3	121	10	57
Flugel Horn Pro	121	13	56
Concert Trumpet	121	19	56
Concert Trp. Pro	121	20	56
Dual Trumpets	121	6	56
Hard Trombone	121	3	57
Trombone Pro Vel	121	11	57
Alp Trumpet	121	17	56
Trumpet	121	14	56
Trumpet Shake Y+	121	18	56

Name	CC00	CC32	PC
Trumpet Pitch	121	5	56
Tuba Gold	121	2	58
Oberkr. Tuba	121	1	58
Factory: Brass			
Big Band Brass 1	121	32	61
Big Band Brass 2	121	4	61
Trpts &Trombs	121	34	61
Tight Brass Pro	121	28	61
Tight Brass 1	121	27	61
Tight Brass 2	121	29	61
Tight Brass 3	121	2	61
Tight Brass 4	121	12	61
Trumpet Ens2 Y+	121	36	61
Trumpet Ens.	121	9	61
Trombone Ens.	121	10	61
Trombones	121	11	61
Dyna Brass 1	121	14	61
Trpts & Brass	121	7	61
Fat Brass	121	13	61
Brass of Power	121	30	61
Glenn & Friends	121	3	61
Glenn & Boys	121	6	61
Sax & Brass	121	5	61
Brass & Sax	121	16	61
Mute Ensemble 1	121	3	59
Mute Ensemble 2	121	4	59
Sforzato Brass	121	23	61
Movie Brass	121	20	61
Flute Muted	121	6	73
French Section	121	2	60
Horns & Ensemble	121	4	60
Classic Horns	121	3	60
Synth Brass 1	121	5	62
Electrik Brass	121	4	62
Brass Section	121	31	61
Brass Fall	121	26	61
Brass Impact	121	4	55
Brass Hit	121	25	61
Factory: Sax			
Alto Sax DNC	121	12	65
Tenor Sax DNC	121	12	66
Alto Sax RX	121	10	65
Jazz Tenor RX	121	9	66
Sweet Soprano 1	121	3	64
Sweet Soprano 2	121	4	64
Sweet Soprano 3	121	1	64
Soprano Pro	121	2	64
Sweet Alto Sax1	121	5	65
Sweet Alto Sax 2	121	6	65
Soft Alto Sax	121	7	65
Alto Sax Pro	121	8	65
Tenor SaxNoise1	121	1	66

Name	CC00	CC32	PC
Tenor Sax Noise2	121	6	66
Baritone Sax Pro	121	3	67
Baritone Sax	121	4	67
Tenor Sax Expr.1	121	7	66
Tenor Sax Expr.2	121	8	66
Jazz Tenor	121	10	66
Alto Sax Expr.	121	9	65
Baritone Growl	121	1	67
Cool Sax Ens.	121	11	65
Sax Ensemble	121	2	65
Reed of Power	121	11	66
Factory: Woodwind			
Clarinet DNC	121	13	71
Flute DNC	121	11	73
Whistle DNC	121	5	78
Blown Bottle	121	1	76
Bassoon	121	1	70
Piccolo	121	3	72
Ocarina	121	1	79
Flute Switch	121	2	73
Jazz Flute RX	121	10	73
Jazz Flute Expr.	121	1	73
Flute Dyn. 5th	121	3	73
Flute Frullato	121	4	73
Clarinet Pro 1	121	8	71
Clarinet Pro 2	121	9	71
Jazz Clarinet	121	1	71
Whistle	121	1	78
Whistle RX1	121	3	78
Whistle RX2	121	4	78
Whistle Breathe	121	2	78
Double Reed	121	1	68
Orchestra Flute	121	5	73
Woodwinds	121	6	71
Small Orchestra	121	1	72
Clarinet Ens.	121	5	71
Section Winds 1	121	3	71
Section Winds 2	121	4	71
Reeds & Saxes	121	10	71
Factory: Synth Pad			
Warm Pad	121	15	89
Deep Noise	121	4	127
The Pad	121	4	89
Dark Pad	121	6	89
Analog Pad 1	121	8	89
Analog Pad 2	121	9	89
Analog Pad 3	121	10	89
OB Pad	121	12	89
Dark Anna	121	13	89
Symphonic Ens.	121	14	89
Future Pad	121	5	91
Air Clouds	121	1	97

Name	CC00	CC32	PC
Tinklin Pad	121	3	97
Pods In Pad	121	4	97
Vintage Sweep	121	7	95
Money Pad	121	5	89
Tsunami Wave	121	6	91
Ravelian Pad	121	8	91
Meditate	121	2	95
Cinema Pad	121	5	95
Super Sweep	121	4	90
Wave Sweep	121	5	90
Cross Sweep	121	6	90
Digi Ice Pad	121	2	101
Virtual Traveler	121	1	88
Motion Ocean	121	1	96
Moon Cycles	121	5	102
Bell Pad	121	6	98
Big Panner	121	4	63
Rave	121	6	97
Moving Bell	121	5	98
Big Sweep Stab	121	12	90
Fresh Air 1	121	2	91
Fresh Air 2	121	11	91
Pop Synth Pad 1	121	4	91
Pop Synth Pad 2	121	12	91
80's Pop Synth	121	2	93
Wave Cycle	121	3	96
Factory: Synth Lead			
Bass Phat Saw	121	12	87
Old Portamento	121	3	80
Power Saw	121	5	81
Octo Lead	121	6	81
Electro Lead	121	2	87
Rich Lead	121	3	87
Thin Analog Lead	121	4	87
Dance Lead	121	4	80
Wave Lead	121	5	80
Sine Wave	121	6	80
Express. Lead	121	5	87
HipHop Lead	121	6	87
Analog Lead	121	7	80
Phat Saw Lead	121	8	81
Glide Lead	121	9	81
Gliding Square	121	9	80
Power Synth	121	3	89
Sine Switch	121	10	80
Cosmic	121	1	93
Fire Wave	121	10	81
Digital PolySix	121	7	90
A Leadload	121	11	87
Noisy Stabb	121	8	90
Mega Synth	121	9	90
Dark Element	121	3	95
Metallic Rez	121	4	84

Name	CC00	CC32	PC
Synth Pianoid	121	12	81
Arp Angeles	121	2	88
Big & Raw	121	8	87
Caribbean	121	2	96
OB Lead	121	10	87
Port Whine	121	12	80
2VCO Planet Lead	121	13	80
VCF Modulation	121	3	101
Factory: Ethnic			
Sitar	121	8	104
Fiddle	121	1	110
Mandolin Ens. 1	121	26	25
Mandolin Ens. 2	121	27	25
Mandolin Trem.	121	11	25
Banjo Key Off	121	1	105
Banjo RX	121	4	105
Sitar Tambou	121	2	104
Kanoun 1	121	5	107
Kanoun 2	121	2	107
Kanoun Trem. 1	121	6	107
Kanoun Trem. 2	121	3	107
Kanoun Mix	121	4	107
Bouzouki	121	5	104
Oud 1	121	5	105
Oud 2	121	2	105
Nay	121	2	72
Clarinet G	121	2	71
Klarnet 1	121	11	71
Klarnet 2	121	12	71
Kawala	121	1	75
Hichiriki	121	2	111
HighlandBagPipes	121	3	109
Uillean BagPipes	121	2	109
Old Shakuhachi	121	1	77
Indian Frets	121	4	104
Zurna 1	121	3	111
Zurna 2	121	1	111
Ac. Baglama 1	121	7	107
Ac. Baglama 2	121	8	107
Ac. Baglama Grp.	121	9	107
Gamelan	121	1	112
Garbage Mall	121	3	112
Jaw Harp	121	3	105
Factory: Bass			
Finger Bass DNC	121	16	33
Jazz Bass	121	9	32
Acous. Bass Pro1	121	3	32
Acous. Bass Pro2	121	4	32
Finger Bass 1	121	6	33
Finger Bass 2	121	7	33
Finger Bass 3	121	10	33
Finger Bass 4	121	15	33

Name	CC00	CC32	PC
Acoustic Bass	121	8	32
Finger Slap	121	12	33
The Other Slap	121	5	37
Thumb Bass	121	1	37
Pick Bass 1	121	7	34
Pick Bass 2	121	8	34
Super Bass 1	121	1	36
Super Bass 2	121	2	36
Sweet Fretless	121	3	35
Finger E.Bass 1	121	2	33
Finger E.Bass 2	121	3	33
Finger E.Bass 3	121	4	33
Fretless Bass 1	121	1	35
Fretless Bass 2	121	2	35
Bass & Ride 1	121	6	32
Bass & Ride 2	121	2	32
Bright Finger B.	121	9	33
Picked E.Bass 1	121	1	34
Picked E.Bass 2	121	2	34
Picked E.Bass 3	121	11	34
Chorus Fing.Bass	121	8	33
Bass Mute	121	5	34
Synth Bass 1	121	18	38
Synth Bass 2	121	15	39
Bass&Gtr Double	121	6	34
FingerB.& Guitar	121	14	33
Bass & Guitar	121	4	34
30303 Bass	121	5	38
Digi Bass 1	121	9	38
Digi Bass 2	121	10	38
Digi Bass 3	121	11	38
Jungle Rez	121	5	39
Syn Bass Res	121	8	38
Jungle Bass	121	13	38
Hybrid Bass	121	15	38
Stein Bass	121	3	34
Organ Pedal 1	121	10	32
Organ Pedal 2	121	11	32
Acous. Bass RX	121	7	32
Finger Bass RX	121	13	33
SlapFing Bass RX	121	4	36
Picked Bass RX	121	10	34
SlapPick Bass RX	121	5	36
FunkSlap Bass RX	121	3	36
Factory: Drum & SFX			
Standard Kit RX1	120	0	5
Standard Kit RX2	120	0	1
Standard Kit RX3	120	0	2
Standard Kit RX4	120	0	6
Ambient Kit RX	120	0	3
Pop Std. Kit RX	120	0	4
Electro Kit RX1	120	0	75
Electro Kit RX2	120	0	76
Brush Kit RX1	120	0	42
Brush Kit RX2	120	0	43
Brush Kit RX3	120	0	44
HipHop Kit RX	120	0	72
Jazz Kit RX1	120	0	33
Jazz Kit RX2	120	0	34
Jazz Kit RX3	120	0	35
Techno Kit RX	120	0	73
House Kit RX1	120	0	30
House Kit RX2	120	0	31
Power Kit RX1	120	0	18
Power Kit RX2	120	0	19
Dance Kit RX	120	0	74
Analog Kit	120	0	123
Jungle Kit	120	0	10
Electro Kit	120	0	122
Room Kit 1	120	0	120
HipHop Kit 1	120	0	9
Techno Kit 1	120	0	11
Pop Std. Kit 1	120	0	89
Pop Std. Kit 2	120	0	90
Elektro Kit 1	120	0	96
Elektro Kit 2	120	0	97
Standard PercKit	120	0	69
Arabian Kit 1	120	0	51
Arabian Kit 2	120	0	117
Turkish Kit	120	0	118
Oriental PercKit	120	0	119
Percussion Kit	120	0	64
Latin Perc.Kit 1	120	0	65
Latin Perc.Kit 2	120	0	68
Trinity Perc.Kit	120	0	66
i30 Perc. Kit	120	0	67
Synth Kit	120	0	58
SFX Kit 1	120	0	60
SFX Kit 2	120	0	57
Legacy: Piano			
Grand Piano	121	3	0
M1 Piano	121	2	2
Piano Pad 1	121	2	1
Piano Pad 2	121	3	1
90's Piano	121	3	2
2000's Piano	121	4	2
Chorus Piano	121	5	2
Honky-Tonk	121	4	3
Harpsi 16' RX	121	5	6
Harpsi KORG	121	4	6
Clav Snap	121	3	7
Legacy: E. Piano			
Vintage EP	121	4	4
Stereo Dig. EP	121	6	5
FM Stack EP	121	16	5

Name	CC00	CC32	PC
Hybrid EP	121	8	5
Phantom Tine	121	10	5
Soft Wurly	121	13	4
Hard Wurly	121	14	4
Velo Wurly	121	15	4
Sweeping EP	121	12	5
Classic Dig. EP	121	7	5
Syn Piano X	121	5	5
Legacy: Mallet & Bell			
Vibraphone 2	121	3	11
Monkey Skuls	121	3	12
Digi Bell	121	4	98
Krystal Bell	121	3	98
Legacy: Accordion			
Sweet Harmonica	121	1	22
Akordeon	121	2	21
Cassotto NorTune	121	14	21
Acc. Clarinet NT	121	20	21
Acc. Piccolo NT	121	22	21
Detune Accordion	121	15	21
Musette Clar.	121	5	21
Arabic Accordion	121	10	21
Legacy: Organ			
Classic Click	121	4	18
Perc.Short Decay	121	8	18
Rock Organ 2	121	11	18
Dirty B	121	3	18
Killer B	121	2	18
BX3 Short Decay	121	7	17
Super BX Perc.	121	6	18
Gospel Organ	121	9	16
Old Wheels	121	3	17
Dark Organ 1	121	7	16
Dark Organ 2	121	5	16
Rotary Organ	121	8	17
VOX Legend	121	11	16
M1 Organ	121	5	17
Dirty JazzOrgan	121	7	18
Arabian Organ	121	12	16
Theatre Organ 3	121	24	16
Theatre Organ 4	121	25	16
Tibia	121	26	16
Tibia 16+8+4'	121	27	16
Tibia & Vox	121	28	16
Post Horn Trem.	121	29	16
Tibia & Kinura	121	31	16
Tibia Vox Glock	121	32	16
Techno Org.Bass	121	6	17
Legacy: Guitar			
Nylon Bossa	121	4	24
Nylon Vel. Harm.	121	10	24
Spanish Guitar	121	6	24
Nylon Guitar	121	15	24
Brazilian Guitar	121	9	24
Steel Folk Gtr	121	9	25
Guitar Strings	121	7	24
Finger Key Off	121	7	25
Club Jazz Gtr 2	121	3	26
Pop Steel Slide	121	23	25
Finger Tips	121	8	25
Country Nu	121	11	27
Reso Guitar	121	12	25
Tel. Midddle	121	26	27
Clean Funk	121	8	28
Wet Dist. Guitar	121	6	30
Hackbrett	121	6	25
Tel. Bridge	121	27	27
Guitarish	121	8	27
Stra. Gtr Slide	121	17	27
Stra. Chime	121	5	28
Clean Guitar 2	121	25	27
L&R E.Guitar 2	121	10	27
Rhythm E.Guitar	121	7	28
Muted Guitar	121	19	28
E.Gtr Harmonics	121	2	31
Solo Dist.Guitar	121	7	30
Dist. Steel Gtr	121	12	30
Joystick Gtr Y-	121	3	30
Legacy: Strings & Vocal			
Strings Ens. 1	121	21	48
Strings Ens. 2	121	3	49
i3 Strings	121	5	48
Stereo Strings	121	3	48
Master Pad	121	2	89
N Strings	121	6	48
Arco Strings	121	7	48
Legato Strings	121	4	48
Double Strings	121	3	45
Arabic Strings	121	13	48
Sweeper Strings	121	1	49
Analog Strings 2	121	2	50
Synth Strings 2	121	1	51
Take Voices 2	121	5	52
Aah Choir	121	7	52
Slow Choir	121	10	52
Cyber Choir	121	2	85
Odissey	121	4	50
Strings Choir	121	13	52
Analog Velve	121	3	50
Ether Voices	121	1	85
Dream Voice	121	5	54
Classic Vox	121	4	54
Doolally	121	2	53

Name	CC00	CC32	PC
Legacy: Trumpet & Trbn.			
Mono Trumpet	121	3	56
Warm Flugel	121	8	56
Pitch Trombone	121	5	57
Soft Trombone	121	4	57
Trombone	121	12	57
BeBop Cornet	121	9	56
Flugel Horn	121	7	56
Dynabone	121	3	58
Ob.Tuba&E.Bass 1	121	4	58
Ob.Tuba&E.Bass 2	121	5	58
Legacy: Brass			
Attack Brass	121	8	61
Big BandShake Y+	121	33	61
Trumpet Ens1 Y+	121	35	61
Dyna Brass 2	121	22	61
Double Brass	121	24	61
Power Brass	121	21	61
Brass Expr.	121	15	61
Film Brass	121	17	61
Brass Slow	121	18	61
Fanfare	121	19	61
Synth Brass 2	121	5	63
Brass Pad	121	3	63
Netherland Hit	121	8	55
Legacy: Sax			
Folk Sax	121	5	66
Breathy Baritone	121	2	67
Alto Breath	121	1	65
Tenor Breath	121	3	66
Breathy Alto Sax	121	3	65
Alto Sax Growl	121	4	65
Soft Tenor	121	2	66
Tenor Growl	121	4	66
Legacy: Woodwind			
Folk Clarinet	121	7	71
Flute	121	9	73
Wooden Flute	121	7	73
Bambu Flute	121	8	73
English Horn	121	1	69
Recorder 1	121	1	74
Recorder 2	121	2	74
Legacy: Synth Pad			
Sky Watcher	121	2	90
Vintage Pad	121	11	89
You Decide	121	8	95
KORGmatose	121	13	90
Reoccuring Astra	121	6	95
Astral Dream	121	1	95
Reso Down	121	2	97
Crimson 5ths	121	1	86
Freedom Pad	121	7	89
Noble Pad	121	5	97
Mellow Pad	121	4	95
Lonely Spin	121	1	100
Synth Ghostly	121	2	100
Farluce	121	11	90
Bell Choir	121	7	98
Dance ReMix	121	10	91
Elastick Pad	121	7	97
Legacy: Synth Lead			
Motion Raver	121	1	101
Synchro City	121	2	84
Wild Arp	121	6	55
Seq Lead	121	7	81
Old & Analog	121	8	80
Flip Blip	121	7	55
Reso Sweep	121	1	90
Synth Sweeper	121	3	90
Sync Kron	121	3	84
Tecno Phonic	121	10	90
Band Passed	121	3	102
Cat Lead	121	9	87
Pan Reso	121	4	102
Square Rez	121	11	80
Rezbo	121	11	81
Auto Pilot 1	121	14	38
Square Bass	121	7	87
Brian Sync	121	5	84
Arp Twins	121	6	84
LoFi Ethnic	121	7	84
Legacy: Ethnic			
Shakuhachi	121	2	77
Mandolin Key Off	121	10	25
War Pipes	121	1	109
Sitar Sitar	121	7	104
Hit in India	121	5	55
Tambra	121	6	104
Indian Stars	121	3	104
Bali Gamelan	121	2	112
Ukulele Gtr	121	26	24
Legacy: Bass			
Ac. Bass Buzz	121	1	32
Slap Bass 1	121	6	36
Slap Bass 2	121	6	37
Slap Bass 3	121	7	37
Dyna Slap Bass	121	3	37
Chorus Slap Bass	121	4	37
DarkWoody A.Bass	121	5	32
More Mid! Bass	121	11	33
Woofer Pusher	121	6	35
Dark R&B Bass1	121	4	35
Dyna Bass	121	2	37

Name	CC00	CC32	PC
Ticktacing Bass	121	9	34
Fretless Bass 3	121	7	35
Stick Bass	121	5	33
Dark R&B Bass2	121	5	35
Auto Pilot 2	121	13	39
Bass4 Da Phunk	121	14	39
Dr. Octave	121	16	38
Monofilter Bass	121	11	39
Synth Bass 80ish	121	9	39
Reso Bass	121	12	39
Autofilter Bass	121	10	39
Drive Bass	121	17	38
Nasty Bass	121	6	39
Euro Bass	121	4	39
30303 Square	121	6	38
Bass Square	121	7	38
Phat Bass	121	7	39
Blind As A Bat	121	12	38
Poinker Bass	121	8	39
Legacy: Drum & SFX			
Standard Kit	120	0	7
Bdrum&Sdrum Kit	120	0	50
Room Kit 2	120	0	12
Power Kit 1	120	0	121
Power Kit 2	120	0	17
HipHop Kit 2	120	0	13
Techno Kit 2	120	0	14
Techno Kit 3	120	0	15
House Kit 1	120	0	26
House Kit 2	120	0	27
House Kit 3	120	0	28
Brush Kit 1	120	0	125
Brush Kit 2	120	0	41
Orchestra Kit	120	0	49
Log Drum	121	4	12
Reverse Tom	121	2	117
Reverse Snare	121	3	118
Reverse Cymbal	121	2	119
Dragon Gong	121	1	119
Stadium	121	6	126
Castanets Plus	121	2	115
Timpani	121	1	47
Woodblock	121	3	115
Footstep Walk	121	7	126
GM: Piano			
AcousticPiano GM	121	0	0
Ac. Piano Wide	121	1	0
Ac. Piano Dark	121	2	0
Bright Piano GM	121	0	1
Bright PianoWide	121	1	1
E.Grand Piano GM	121	0	2
E. Grand Wide	121	1	2
Honky-Tonk GM	121	0	3
Honky Wide	121	1	3
E. Piano 1 GM	121	0	4
Detuned EP 1	121	1	4
EP 1 Veloc. Mix	121	2	4
60's E. Piano	121	3	4
E. Piano 2 GM	121	0	5
Detuned EP 2	121	1	5
EP 2 Veloc. Mix	121	2	5
EP Legend	121	3	5
EP Phase	121	4	5
Harpsichord GM	121	0	6
Harpsi OctaveMix	121	1	6
Harpsi Wide	121	2	6
Harpsi Key Off	121	3	6
Clav GM	121	0	7
Pulse Clav	121	1	7
GM: Chrom. Perc.			
Celesta GM	121	0	8
Glockenspiel GM	121	0	9
Music Box GM	121	0	10
Vibraphone GM	121	0	11
Vibraphone Wide	121	1	11
Marimba GM	121	0	12
Marimba Wide	121	1	12
Xylophone GM	121	0	13
Tubular Bell GM	121	0	14
Church Bell	121	1	14
Carillon	121	2	14
Dulcimer GM	121	0	15
GM: Organ			
Drawbar Org GM	121	0	16
Det. Drawbar Org	121	1	16
It. 60's Organ	121	2	16
Drawbar Org. 2	121	3	16
Perc.Organ GM	121	0	17
Det. Perc. Organ	121	1	17
Perc. Organ 2	121	2	17
Rock Organ GM	121	0	18
Church Organ GM	121	0	19
Church Oct. Mix	121	1	19
Detuned Church	121	2	19
Reed Organ GM	121	0	20
Puff Organ	121	1	20
Accordion GM	121	0	21
Accordion 2	121	1	21
Harmonica GM	121	0	22
Tango Accord.GM	121	0	23
GM: Guitar			
Nylon Guitar GM	121	0	24
Ukulele	121	1	24
Nylon Key Off	121	2	24

Name	CC00	CC32	PC
Nylon Guitar 2	121	3	24
Steel Guitar GM	121	0	25
12 Strings Gtr	121	1	25
Mandoln	121	2	25
Steel Gtr & Body	121	3	25
Jazz Guitar GM	121	0	26
Pedal Steel Gtr	121	1	26
Clean Guitar GM	121	0	27
Det.Clean El.Gtr	121	1	27
Mid Tone Gtr	121	2	27
Muted Guitar GM	121	0	28
Funky Cut El.Gtr	121	1	28
Mute Vel. El.Gtr	121	2	28
Jazz Man	121	3	28
Overdrive Gtr GM	121	0	29
Guitar Pinch	121	1	29
Distortion GtrGM	121	0	30
Feedback DistGtr	121	1	30
Dist. Rhythm Gtr	121	2	30
Gtr Harmonic GM	121	0	31
Guitar Feedback	121	1	31
GM: Bass			
Acoustic Bass GM	121	0	32
Finger Bass GM	121	0	33
Finger Slap Bass	121	1	33
Picked E.Bass GM	121	0	34
Fretless Bass GM	121	0	35
Slap Bass 1 GM	121	0	36
Slap Bass 2 GM	121	0	37
Synth Bass 1 GM	121	0	38
Synth Bass Warm	121	1	38
Synth Bass Reso	121	2	38
Clavi Bass	121	3	38
Hammer	121	4	38
Synth Bass 2 GM	121	0	39
SynthBass Attack	121	1	39
SynthBass Rubber	121	2	39
Attack Pulse	121	3	39
GM: Strings			
Violin GM	121	0	40
Slow Att. Violin	121	1	40
Viola GM	121	0	41
Cello GM	121	0	42
Contrabass GM	121	0	43
Tremolo Str. GM	121	0	44
Pizzicato Str.GM	121	0	45
Harp GM	121	0	46
Yang Chin	121	1	46
Timpani GM	121	0	47
GM: Ensemble			
Strings Ens.1 GM	121	0	48
Strings & Brass	121	1	48
60's Strings	121	2	48
Strings Ens.2 GM	121	0	49
Synth Strings1GM	121	0	50
Synth Strings 3	121	1	50
Synth Strings2GM	121	0	51
Choir Aahs GM	121	0	52
Choir Aahs 2	121	1	52
Voice Oohs GM	121	0	53
Humming	121	1	53
Synth Voice GM	121	0	54
Analog Voice	121	1	54
Orchestra Hit GM	121	0	55
Bass Hit Plus	121	1	55
6th Hit	121	2	55
Euro Hit	121	3	55
GM: Brass			
Trumpet GM	121	0	56
Dark Trumpet	121	1	56
Trombone GM	121	0	57
Trombone 2	121	1	57
Bright Trombone	121	2	57
Tuba GM	121	0	58
Muted Trumpet GM	121	0	59
Muted Trumpet 2	121	1	59
French Horn GM	121	0	60
FrenchHorn Warm	121	1	60
Brass Section GM	121	0	61
Brass Section 2	121	1	61
Synth Brass 1 GM	121	0	62
Synth Brass 3	121	1	62
Analog Brass 1	121	2	62
Jump Brass	121	3	62
Synth Brass 2 GM	121	0	63
Synth Brass 4	121	1	63
Analog Brass 2	121	2	63
GM: Reed			
Soprano Sax GM	121	0	64
Alto Sax GM	121	0	65
Tenor Sax GM	121	0	66
Baritone Sax GM	121	0	67
Oboe GM	121	0	68
English Horn GM	121	0	69
Bassoon GM	121	0	70
Clarinet GM	121	0	71
GM: Pipe			
Piccolo GM	121	0	72
Flute GM	121	0	73
Recorder GM	121	0	74
Pan Flute GM	121	0	75
Blown Bottle GM	121	0	76
Shakuhachi GM	121	0	77
Whistle GM	121	0	78

Name	CC00	CC32	PC
Ocarina GM	121	0	79
GM: Syn Lead / Syn Pad			
Lead Square GM	121	0	80
Lead Square 2	121	1	80
Lead Sine	121	2	80
Lead Saw GM	121	0	81
Lead Saw 2	121	1	81
Lead Saw & Pulse	121	2	81
Lead Double Saw	121	3	81
Lead Seq. Analog	121	4	81
Calliope GM	121	0	82
Chiff GM	121	0	83
Charang GM	121	0	84
Wire Lead	121	1	84
Voice Lead GM	121	0	85
Fifths Lead GM	121	0	86
Bass & Lead GM	121	0	87
Lead Soft Wrl	121	1	87
New Age Pad GM	121	0	88
Warm Pad GM	121	0	89
Sine Pad	121	1	89
Polysynth GM	121	0	90
Choir Pad GM	121	0	91
Itopia Pad	121	1	91
Bowed Glass GM	121	0	92
Metallic Pad GM	121	0	93
Halo Pad GM	121	0	94
Sweep Pad GM	121	0	95
GM: Synth SFX			
Ice Rain GM	121	0	96
Soundtrack GM	121	0	97
Crystal GM	121	0	98
Synth Mallet	121	1	98
Atmosphere GM	121	0	99
Brightness GM	121	0	100
Goblins GM	121	0	101
Echo Drops GM	121	0	102
Echo Bell	121	1	102
Echo Pan	121	2	102
Star Theme GM	121	0	103
GM: Ethnic			
Sitar GM	121	0	104
Sitar 2	121	1	104
Banjo GM	121	0	105
Shamisen GM	121	0	106
Koto GM	121	0	107
Taisho Koto	121	1	107
Kalimba GM	121	0	108
Bag Pipes GM	121	0	109
Fiddle GM	121	0	110
Shanai GM	121	0	111

Name	CC00	CC32	PC
GM: Percussive			
Tinkle Bell GM	121	0	112
Agogo GM	121	0	113
Steel Drums GM	121	0	114
Woodblock GM	121	0	115
Castanets	121	1	115
Taiko Drum GM	121	0	116
Concert BassDrum	121	1	116
Melodic Tom GM	121	0	117
Melodic Tom 2	121	1	117
Synth Drum GM	121	0	118
Rhythm Box Tom	121	1	118
Electric Drum	121	2	118
ReverseCymbalGM	121	0	119
GM: SFX			
Gtr FretNoise GM	121	0	120
Guitar Cut Noise	121	1	120
Ac. Bass String	121	2	120
Breath Noise GM	121	0	121
Flute Key Click	121	1	121
Seashore GM	121	0	122
Rain	121	1	122
Thunder	121	2	122
Wind	121	3	122
Stream	121	4	122
Bubble	121	5	122
Bird Tweet GM	121	0	123
Dog	121	1	123
Horse Gallop	121	2	123
Bird Tweet 2	121	3	123
Telephone GM	121	0	124
Telephone 2	121	1	124
Door Creaking	121	2	124
Door	121	3	124
Scratch	121	4	124
Wind Chime	121	5	124
Helicopter GM	121	0	125
Car Engine	121	1	125
Car Stop	121	2	125
Car Pass	121	3	125
Car Crash	121	4	125
Siren	121	5	125
Train	121	6	125
Jetplane	121	7	125
Starship	121	8	125
Burst Noise	121	9	125
Applause GM	121	0	126
Laughing	121	1	126
Screaming	121	2	126
Punch	121	3	126
Heart Beat	121	4	126
Footsteps	121	5	126

Name	CC00	CC32	PC
Gun Shot GM	121	0	127
Machine Gun	121	1	127
Laser Gun	121	2	127
Explosion	121	3	127
GM: Drum			
Standard Kit GM	120	0	0
Room Kit GM	120	0	8
Power Kit GM	120	0	16
Electro Kit GM	120	0	24
Analog Kit GM	120	0	25
Jazz Kit GM	120	0	32
Brush Kit GM	120	0	40
Orchestra Kit GM	120	0	48
SFX Kit GM	120	0	56
Standard Kit1 XG	127	0	0
Standard Kit2 XG	127	0	9
Room Kit XG	127	0	8
Rock Kit XG	127	0	16
Electro Kit XG	127	0	24
Analog Kit XG	127	0	25
Jazz Kit 1 XG	127	0	32
Jazz Kit 2 XG	127	0	48
Brush Kit XG	127	0	40
Classic Kit XG	127	0	17
User: 1			
User Sounds 0…127	121	64	0...127
User: 1			
User Sounds 0…127	121	65	0...127
User: DK			
User Drum Kits 0…127	120	64	0...127

DNC Sounds

The following table lists all Pa600 Factory DNC Sounds as they appear in the Sound Select window.

***Note:** When a Performance contains Sounds making use of Sound Controllers 1 & 2 (SC1, SC2), these controllers must be assigned to the Assignable Switches or the Assignable Footswitch.*

Sound Name *(Bank – Page)*	**Page**	**CC00**	**CC32**	**PC**	**Legato (IR)**	**Legato (OoR)**	**SC1**	**SC2**	**SCY+**	**SCY–**	**Damper**
Factory: Accordion											
Harmonica DNC	1	121	5	22			Bend	Wah	Smth	Bright	Breath
Factory: Guitar											
Crunch Gtr DNC	2	121	3	29	< ±5st: Smth		Slide U	Mute	Harm	Feedback	
Jazz Gtr DNC	3	121	7	26	< ±4st: Smth		Slide U	Harm	Bend		
Nylon Guitar DNC	4	121	18	24	< ±5st: Smth		Slide U	Harm		Body NZ	
RealFolk Gtr DNC	4	121	34	25	< ±4st: Smth		Slide U	Harm		Body NZ	
Factory: Bass											
Finger Bass DNC	2	121	16	33	< ±5st: Smth		Slap	Harm	Slide	Stop Noise	
Factory: Strings & Vocal											
Movie Str.1 DNC	2	121	7	49			Solo	Pizzicato	Tremolo	Solo	
Movie Str.2 DNC	2	121	8	49			Smth	Pizzicato	Tremolo	Solo	
Scat Voices DNC	2	121	20	52	< ±5st: Smth		FD	Smth		Bright	
Factory: Trumpet & Trbn											
JazzTrumpet DNC	1	121	24	56	< ±6st: Smth		Doit	FD	Shake	FD on KR	Breath
JazzCornet DNC	2	121	25	56	< ±12st: Smth		Doit	FD	Gliss D	RD on KR	Breath
Trombone DNC	2	121	13	57	< ±12st: Smth		Doit	FD	Bend	Bright	Breath
Factory: Sax											
Tenor Sax DNC	1	121	12	66	< ±12st: Smth		Soft	Straight	Gliss D	Bright	Breath
Alto Sax DNC	2	121	12	65	< ±12st: Smth		Soft	Growl	Gliss D		Breath
Factory: Woodwind											
Clarinet DNC	1	121	13	71	< ±5st: Smth		Bend	Bend	Soft	Ensemble	Breath
Flute DNC	2	121	11	73	< ±5st: Smth		Voice	Frull	Harm	Voice	Breath
Whistle DNC	2	121	5	78			Soft	GD	FD	Breath	Breath

Drum Kits

The following table lists all Pa600 Factory Drum Kits in order of Bank Select-Program Change number.

Legend: *The table also includes MIDI data used to remotely select the Drum Kits.* ***CC00:*** *Control Change 0, or Bank Select MSB.* ***CC32:*** *Control Change 32, or Bank Select LSB.* ***PC:*** *Program Change.*

CC00	CC32	PC	Name	Sound Bank
120	0	0	Standard Kit GM	GM: Drum
120	0	1	Standard Kit RX2	Factory: Drum & SFX
120	0	2	Standard Kit RX3	Factory: Drum & SFX
120	0	3	Ambient Kit RX	Factory: Drum & SFX
120	0	4	Pop Std. Kit RX	Factory: Drum & SFX
120	0	5	Standard Kit RX1	Factory: Drum & SFX
120	0	6	Standard Kit RX4	Factory: Drum & SFX
120	0	7	Standard Kit	Legacy: Drum & SFX
120	0	8	Room Kit GM	GM: Drum
120	0	9	HipHop Kit 1	Factory: Drum & SFX
120	0	10	Jungle Kit	Factory: Drum & SFX
120	0	11	Techno Kit 1	Factory: Drum & SFX
120	0	12	Room Kit 2	Legacy: Drum & SFX
120	0	13	HipHop Kit 2	Legacy: Drum & SFX
120	0	14	Techno Kit 2	Legacy: Drum & SFX
120	0	15	Techno Kit 3	Legacy: Drum & SFX
120	0	16	Power Kit GM	GM: Drum
120	0	17	Power Kit 2	Legacy: Drum & SFX
120	0	18	Power Kit RX1	Factory: Drum & SFX
120	0	19	Power Kit RX2	Factory: Drum & SFX
120	0	24	Electro Kit GM	GM: Drum
120	0	25	Analog Kit GM	GM: Drum
120	0	26	House Kit 1	Legacy: Drum & SFX
120	0	27	House Kit 2	Legacy: Drum & SFX
120	0	28	House Kit 3	Legacy: Drum & SFX
120	0	30	House Kit RX1	Factory: Drum & SFX
120	0	31	House Kit RX2	Factory: Drum & SFX
120	0	32	Jazz Kit GM	GM: Drum
120	0	33	Jazz Kit RX1	Factory: Drum & SFX
120	0	34	Jazz Kit RX2	Factory: Drum & SFX
120	0	35	Jazz Kit RX3	Factory: Drum & SFX
120	0	40	Brush Kit GM	GM: Drum
120	0	41	Brush Kit 2	Legacy: Drum & SFX
120	0	42	Brush Kit RX1	Factory: Drum & SFX
120	0	43	Brush Kit RX2	Factory: Drum & SFX
120	0	44	Brush Kit RX3	Factory: Drum & SFX
120	0	48	Orchestra Kit GM	GM: Drum
120	0	49	Orchestra Kit	Legacy: Drum & SFX
120	0	50	Bdrum&Sdrum Kit	Legacy: Drum & SFX
120	0	51	Arabian Kit 1	Factory: Drum & SFX
120	0	56	SFX Kit GM	GM: Drum
120	0	57	SFX Kit 2	Factory: Drum & SFX
120	0	58	Synth Kit	Factory: Drum & SFX
120	0	60	SFX Kit 1	Factory: Drum & SFX
120	0	64	Percussion Kit	Factory: Drum & SFX
120	0	65	Latin Perc.Kit 1	Factory: Drum & SFX
120	0	66	Trinity Perc.Kit	Factory: Drum & SFX
120	0	67	i30 Perc. Kit	Factory: Drum & SFX
120	0	68	Latin Perc.Kit 2	Factory: Drum & SFX
120	0	69	Standard PercKit	Factory: Drum & SFX
120	0	72	HipHop Kit RX	Factory: Drum & SFX
120	0	73	Techno Kit RX	Factory: Drum & SFX
120	0	74	Dance Kit RX	Factory: Drum & SFX
120	0	75	Electro Kit RX1	Factory: Drum & SFX
120	0	76	Electro Kit RX2	Factory: Drum & SFX
120	0	89	Pop Std. Kit 1	Factory: Drum & SFX
120	0	90	Pop Std. Kit 2	Factory: Drum & SFX
120	0	96	Elektro Kit 1	Factory: Drum & SFX
120	0	97	Elektro Kit 2	Factory: Drum & SFX
120	0	117	Arabian Kit 2	Factory: Drum & SFX
120	0	118	Turkish Kit	Factory: Drum & SFX
120	0	119	Oriental PercKit	Factory: Drum & SFX
120	0	120	Room Kit 1	Factory: Drum & SFX
120	0	121	Power Kit 1	Legacy: Drum & SFX
120	0	122	Electro Kit	Factory: Drum & SFX
120	0	123	Analog Kit	Factory: Drum & SFX
120	0	125	Brush Kit 1	Legacy: Drum & SFX
127	0	0	Standard Kit1 XG	GM: Drum
127	0	9	Standard Kit2 XG	GM: Drum
127	0	8	Room Kit XG	GM: Drum
127	0	16	Rock Kit XG	GM: Drum
127	0	24	Electro Kit XG	GM: Drum
127	0	25	Analog Kit XG	GM: Drum
127	0	32	Jazz Kit 1 XG	GM: Drum
127	0	48	Jazz Kit 2 XG	GM: Drum
127	0	40	Brush Kit XG	GM: Drum
127	0	17	Classic Kit XG	GM: Drum
120	64	0-127	…	User DK

Multisamples

The following is a list of all Pa600 Factory Multisamples.

* ***OrigTune:*** *Original Tune, i.e., samples use the natural tuning of the original instrument, instead of the equal tuning. Beating may occur at the extreme pitch, when the sound is used in conjunction with other sounds.*

0	GrandPiano_L
1	GrandPiano_R
2	GrandPiano_L OrigTune
3	GrandPiano_R OrigTune
4	Resonance_L
5	Resonance_R
6	Resonance_L OrigTune
7	Resonance_R OrigTune
8	Piano FX Pedal On L
9	Piano FX Pedal On R
10	Piano FX Pedal Off L
11	Piano FX Pedal Off R
12	Piano FX Key Off L
13	AcousticPiano L
14	AcousticPiano R
15	Piano M1
16	E.GrandPiano
17	E.Piano FM 1
18	E.Piano FM 1LP
19	E.Piano FM 2
20	E.Piano Suit Bright mp
21	E.Piano Suit Bright mf
22	E.Piano Suit Bright f
23	E.Piano Dyno mf
24	E.Piano Dyno f
25	E.Piano Dyno ff
26	E.Piano Dyno Soft
27	E.Piano Dyno SoftLP
28	E.Piano Stage Hard
29	E.Piano Stage HardLP
30	E.Piano Wurly Soft
31	E.Piano Wurly Hard
32	E.Piano Pad 1
33	E.Piano Pad 1LP
34	E.Piano Pad 2
35	Clavi 1
36	Clavi 2
37	Clavi 3
38	Clavi 4
39	Clavinet GM
40	Harpsichord
41	Harpsichord Key off
42	Gospel Organ Slow L
43	Gospel Organ Slow R
44	Gospel Organ Fast L
45	Gospel Organ Fast R
46	16' 8' LF L
47	16' 8' LF R
48	16' 8' LS L
49	16' 8' LS R
50	16' 8' 51/3 LF L
51	16' 8' 51/3 LF R
52	16' 8' 51/3 LS L
53	16' 8' 51/3 LS R
54	4' 22/3' 2' LF L
55	4' 22/3' 2' LF R
56	4' 22/3' 2' LS L
57	4' 22/3' 2' LS R
58	11/3' 13/5' 1' LF L
59	11/3' 13/5' 1' LF R
60	11/3' 13/5' 1' LS L
61	11/3' 13/5' 1' LS R
62	16' 8' 51/3' Perc LF L
63	16' 8' 51/3' Perc LF R
64	16' 8' 51/3' Perc LS L
65	16' 8' 51/3' Perc LS R
66	Theater Organ 1
67	Theater Organ 2
68	50s E.Organ Bright
69	50s E.Organ Dark
70	E.Organ CX 3
71	E.Organ Perc. 1
72	E.Organ Perc. 2
73	E.Organ Perc. 3
74	E.Organ Perc. 4
75	Organ 1 M1
76	Organ 2 M1
77	Organ 1
78	Organ 2
79	Organ 2LP
80	Organ 3 Jazz
81	BX3 & Perc. 3rd
82	E.Organ Vox
83	E.Organ Full
84	E.Organ Dist
85	Rotary Organ 1
86	Rotary Organ 2
87	Super BX3
88	Rotor Noise LF L
89	Rotor Noise LF R
90	Rotor Noise LS L
91	Rotor Noise LS R
92	H Organ Click Kon
93	H Organ Click Koff
94	Pipe Flute L
95	Pipe Flute R
96	Pipe Positive
97	Pipe Mixture
98	Pipe Full 1 L
99	Pipe Full 1 R
100	Pipe Full 2
101	Music Box
102	Kalimba
103	Kalimba GM
104	Marimba
105	Xylophone
106	Balaphone
107	Vibraphone1
108	Vibraphone2
109	Celesta
110	Celesta GM
111	Glockenspiel
112	GlockenspielLP
113	Tubular Bell

114	Log Drum
115	Steel Drum Hard
116	Steel Drum GM
117	Gamelan
118	FM Bell
119	Flute
120	Flute Frull
121	Flute Voice
122	Flute Jazz
123	Flute Vibrato
124	Flute Attack p
125	Flute Attack f
126	Piccolo
127	Pan Flute
128	Pan Flute Attack
129	Tin Whistle Voice
130	Whistle Gliss
131	Whistle No Vibr
132	Whistle Sfz Vibr
133	Whistle Sfz No Vibr
134	Whistle Slow Atk Vibr
135	Whistle Breath
136	Shakuhachi
137	Shakuhachi Atk
138	Bottle
139	Shanai GM
140	Recorder
141	Ocarina
142	Clarinet 1
143	Clarinet 2
144	DoubleReed M1
145	Oboe
146	English Horn
147	Bassoon
148	Baritone Sax mf
149	Baritone Sax f
150	Baritone Sax GM
151	Tenor Sax Vibrato
152	Tenor Sax Expressive
153	Tenor Sax mp
154	Tenor Sax Straight
155	Tenor Sax M1
156	Tenor Sax GM
157	Alto Sax Vibrato1
158	Alto Sax Vibrato2
159	Alto Sax Vibrato2 Drive
160	Alto Sax p
161	Alto Sax mf
162	Alto Sax GM
163	Alto Sax Growl
164	Soprano Sax Vibrato
165	Soprano Sax Straight
166	Soprano Sax GM
167	Sax Family Vibrato
168	Sax key on
169	Sax key off
170	Musette 1
171	Musette 2
172	Musette 2LP
173	Accordion 16'
174	Accordion 16' OrigTune
175	Accordion 8'
176	Accordion 8' OrigTune
177	Accordion 4'
178	Accordion 4' OrigTune
179	Accordion preset 1
180	Accordion preset 2
181	Accordion Bassoon
182	Accordion Clarinet
183	Accordion Bandoneon
184	Accordion Volkst.
185	Accordion Bass
186	Accordion Noise KeyOn
187	Accordion Noise KeyOff
188	Accordion Change Voice
189	Harmonica Fall
190	Harmonica
191	Harmonica Wah
192	Highland Bag Pipes
193	Highland Drones
194	Uilleann Pipes
195	Bag Pipes
196	Bag Pipes GM
197	French Horn T1
198	French Horn Ensemble
199	French Horns GM
200	Tenor Horn
201	Flugel Horn Vibrato
202	Flugel Horn M1
203	Tuba f
204	Tuba ff
205	Tuba GM
206	Tuba Bariton Attack
207	Trombone 1 Vibrato
208	Trombone 2 mf
209	Trombone 2 f
210	Trombone 3 Soft
211	Trombone 3 Bright
212	Trombone Slur Up
213	Trombone Fall
214	Trombone GM
215	2 Trombones mf L
216	2 Trombones mf R
217	2 Trombones f L
218	2 Trombones f R
219	Classic Trumpet p
220	Classic Trumpet mf
221	Pop Trumpet mf
222	Pop Trumpet f
223	Trumpet Expr.
224	Trumpet Slow mp
225	Trumpet Slow f
226	Trumpet GM
227	Trumpet Tonguing mp
228	Trumpet Tonguing f
229	Trumpet Medium
230	Trumpet Overblown
231	Trumpet Muted
232	Trumpet Muted GM
233	Trumpet Wah wah
234	Trumpet Doit
235	Trumpet Fall
236	2 Trumpets mp L
237	2 Trumpets mp R
238	2 Trumpets f L
239	2 Trumpets f R
240	Brass Ensemble Stereo L
241	Brass Ensemble Stereo R
242	Brass Ensemble 1
243	Brass Ensemble 2
244	Brass Ensemble GM
245	Voice Female Wuh
246	Voice Female Woh
247	Voice Female Wah
248	Voice Female Dah

249 Voice Male Wuh
250 Voice Male Woh
251 Voice Male Wah
252 Voice Male Dah
253 Voice Choir
254 Voice Hoo
255 Voice Pop Ooh
256 Voice Pop Ah
257 Voice Doo
258 Voice DooLP
259 Violin Solo Vibrato
260 Violin Straight
261 Violin GM
262 Fiddle GM
263 Viola Expressive mf
264 Viola Expressive f
265 Viola GM
266 Cello & Contrabass
267 Cello GM
268 Violin & Cello
269 Strings Quartet Vibrato1
270 Strings Quartet Vibrato2
271 Pizzicato
272 Strings Ensemble St L
273 Strings Ensemble St R
274 Strings Ensemble GM L
275 Strings Ensemble GM R
276 Strings Ensemble Mono
277 Strings Ensemble Tremolo
278 Pizzicato Ensemble
279 Harp
280 Harp Atk
281 Steel Gtr 1 Pick p
282 Steel Gtr 1 Pick mf
283 Steel Gtr 1 Pick f
284 Steel Gtr 1 Mute
285 Steel Gtr 1 Slide
286 Steel Gtr 2 p
287 Steel Gtr 2 mf
288 Steel Gtr 2 f
289 Steel Gtr 2 Slap
290 Steel Gtr 2 Slide
291 Steel Gtr 12 Strings
292 Steel Gtr Harmonics 1
293 Steel Gtr Harmonics 2
294 Steel Gtr Noise
295 Guitar Fret Noise Off
296 Guitar Body
297 Nylon Guitar p
298 Nylon Guitar mf
299 Nylon Guitar f
300 Nylon Guitar Atk
301 Nylon Guitar GM
302 El. Guitar Stra 54 p
303 El. Guitar Stra 54 mf
304 El. Guitar Stra 54 f
305 El. Guitar Stra 54 Slide
306 El. Guitar Tel Mid p
307 El. Guitar Tel Mid mf
308 El. Guitar Tel Mid f
309 El. Guitar Tel Bridge p
310 El. Guitar Tel Bridge mf
311 El. Guitar Tel Bridge f
312 El. Guitar Tel Mt 5th p
313 El. Guitar Tel Mt 5th mf
314 El. Guitar Tel Mt 5th f
315 El. Guitar Tel Mt 5th ff
316 El. Guitar Clean Str p
317 El. Guitar Clean Str f
318 El. Guitar Clean Mute
319 El. Guitar Clean Dead
320 El. Guitar Clean Slap
321 El. Guitar Clean Slide
322 El. Guitar Clean GM
323 El. Guitar Fret Noise GM
324 El. Guitar Cut Noise GM
325 El. Guitar Le Neck
326 El. Guitar Le Bridge
327 El. Guitar Le Mute p
328 El. Guitar Le Mute mf
329 El. Guitar Le Ghost1
330 El. Guitar Le Ghost2
331 El. Guitar Harmonics
332 El. Guitar Gliss Down
333 El. Guitar Gliss Up
334 El. Guitar Noise
335 El. Guitar Fret Noise
336 Jazz Guitar1
337 Jazz Guitar2
338 Jazz Gib mellow p
339 Jazz Gib mellow mf
340 Jazz Gib mellow f
341 Pedal Steel Guitar
342 Resonator Guitar
343 Vox Wah Guitar
344 Overdrive GM
345 Dist. Guitar
346 Dist. Guitar GM
347 Dist. Guitar1 Harmo.
348 Gtr Harmonic GM
349 Dist. Guitar2 Harmo P1
350 Dist. Guitar2 Harmo P2
351 Dist. Guitar2 Mute1
352 Dist. Guitar2 Mute2
353 El. Guitar DistMuted p
354 El. Guitar DistMuted mp
355 El. Guitar PowerChord1
356 El. Guitar PowerChord2
357 Acoustic Bass1
358 Acoustic Bass2 mf
359 Acoustic Bass2 f
360 Acoustic Bass3 mf VAR
361 Acoustic Bass3 f VAR
362 Acoustic Bass GM
363 Acoustic Bass RX Noises
364 E.Bass1 Finger
365 E.Bass2 P.B.1
366 E.Bass2 P.B.2
367 E.Bass2 LH Stop
368 E.Bass2 RH Stop
369 E.Bass2 Harmo.
370 E.Bass3 p
371 E.Bass3 mf
372 E.Bass3 f Slap
373 E.Bass4 Pick
374 E.Bass4 Harmo.
375 E.Bass4 Slap
376 E.Bass4 SlapHar
377 E.Bass4 LH Mute
378 E.Bass4 RH Mute
379 E.Bass5 Finger
380 E.Bass6 Finger
381 E.Bass7 Finger
382 E.Bass8 Pick
383 E.Bass9 Pick

384	E.Bass9 PickLP
385	E.Bass10 Thumb
386	E.Bass11 SlapThumb
387	E.Bass Gliss
388	E.Bass Noise1
389	E.Bass Noise2
390	E.Bass Harmonics
391	E.Bass Fretless
392	Finger Bass GM
393	Picked Bass GM
394	Slap Bass1 GM
395	Slap Bass2 GM
396	Fretless Bass GM
397	Sitar
398	Sitar GM
399	Sitar & Tambura
400	Santur
401	Tambura
402	Bouzouki
403	BouzoukiLP
404	Mandolin
405	Mandolin Tremolo
406	Mandolin Ensemble
407	Banjo
408	Banjo GM
409	Ukulele
410	Shamisen
411	Shamisen GM
412	Koto
413	Koto GM
414	M.E. Oud
415	M.E. Oud Tek
416	M.E. Kanoun1
417	M.E. Kanoun2
418	M.E. Kanoun Tremolo
419	M.E. Baglama1
420	M.E. Baglama2
421	M.E. Zurna
422	M.E. Klarnet Tek
423	M.E. Klarnet
424	M.E. Nay
425	Mouth Harp1
426	Mouth Harp2
427	Mouth Harp3
428	Syn Bass Reso
429	Syn Bass FM1
430	Syn Bass FM2
431	Syn Bass FM2LP
432	Syn Bass TB
433	R&B Saw Bass
434	R&B Square Bass
435	Chrom Res
436	Detuned Super
437	Detuned PWM
438	Pop Synth
439	An.Strings1
440	An.Strings2
441	Analog Vintage
442	White Pad
443	N1 Air Vox
444	SynthBell
445	Ether Bell
446	Ether BellLP
447	Lore
448	Space Lore
449	Wave Sweep1
450	Wave Sweep2
451	Syn Ghostly
452	Ghost
453	Syn Air Pad
454	Dream Str
455	Syn AirVortex
456	Syn Palawan
457	Syn Clicker
458	Noise1
459	Noise2
460	Noise Pad
461	Swish Terra
462	Saw1
463	Saw2
464	Saw3
465	Pulse 02%
466	Pulse 05%
467	Pulse 08%
468	Pulse 16%
469	Pulse 33%
470	Pulse 40%
471	Square
472	Square MG
473	Square JP
474	Triangle MG
475	Ramp
476	Ramp MG
477	Sine
478	DWGS Syn Sine1
479	DWGS Syn Sine2
480	DWGS Bell1
481	DWGS Bell2
482	DWGS Bell3
483	DWGS Bell4
484	DWGS Clav.
485	DWGS Digi1
486	DWGS Digi2
487	DWGS Wire1
488	DWGS Wire2
489	DWGS Sync1
490	DWGS Sync2
491	Orchestra Hit GM L
492	Orchestra Hit GM R
493	Band Hit
494	Impact Hit
495	Brass Fall
496	Stadium
497	Applause
498	Birds1
499	Birds2
500	Crickets
501	Church Bell
502	Thunder
503	Stream
504	Bubble
505	Dog
506	Gallop
507	Laughing
508	Telephone Ring
509	Scream
510	Punch
511	Heart Beat
512	Footstep
513	Door Creak
514	Door Slam
515	Car Engine
516	Car EngineLP
517	Car Stop
518	Car Pass

519 Car Crash
520 Train
521 Helicopter
522 Gun Shot
523 Machine Gun
524 Laser Gun
525 Explosion
526 Wind
527 Chinese Gong
528 Crash Reverse
529 Crash Reverse GM
530 Orchestra Crash
531 Ride Jazz
532 Ride Edge1
533 Ride Edge2
534 88 HiHat Open
535 88 Cowbell
536 88 Tom
537 88 Crash
538 Tom
539 Tom Brush
540 Tom Process
541 Electric Tom
542 Melodic Tom GM
543 Agogo Bell
544 Marc Tree
545 Castanet
546 Temple Blocks
547 Orchestra BD
548 Timpani
549 Taiko
550 Djembe Mute
551 FX SD Large Hall1 L
552 FX SD Large Hall1 R
553 FX SD Large Hall2 L
554 FX SD Large Hall2 R
555 FX Rim Large Hall1 L
556 FX Rim Large Hall1 R
557 FX Rim Large Hall2 L
558 FX Rim Large Hall2 R
559 Click
560 Empty

Drum Samples

The following table contains all Pa600 Factory Drum Samples.

#	Name	Family
0	BD 24x14	BassDr
1	BD 24x14 GM	BassDr
2	BD 26 inch Open	BassDr
3	BD 26 inch Open GM	BassDr
4	BD Pop1	BassDr
5	BD Pop2	BassDr
6	BD Acoustic1 p	BassDr
7	BD Acoustic1 mf	BassDr
8	BD Acoustic1 f	BassDr
9	BD Acoustic2 mf	BassDr
10	BD Acoustic2 mf GM	BassDr
11	BD Acoustic2 f	BassDr
12	BD Acoustic2 f GM	BassDr
13	BD open p	BassDr
14	BD open mf	BassDr
15	BD open f	BassDr
16	BD Peak	BassDr
17	BD Dry1	BassDr
18	BD Dry2	BassDr
19	BD Dry3	BassDr
20	BD Normal	BassDr
21	BD SoftRoom	BassDr
22	BD Jazz	BassDr
23	BD Jazz GM	BassDr
24	BD Pillow	BassDr
25	BD Woofer	BassDr
26	BD MondoKill	BassDr
27	BD Terminator	BassDr
28	BD Tubby	BassDr
29	BD Gated	BassDr
30	BD Tight	BassDr
31	BD Squash	BassDr
32	BD Soul1	BassDr
33	BD Soul2	BassDr
34	BD Soul3 dist	BassDr
35	BD Soul4 noise	BassDr
36	BD Soul5 Long	BassDr
37	BD Soul6	BassDr
38	BD Dance1	BassDr
39	BD Dance2	BassDr
40	BD Dance3	BassDr
41	BD House1	BassDr
42	BD House2	BassDr
43	BD House3	BassDr
44	BD House4	BassDr
45	BD House5	BassDr
46	BD Liquid	BassDr
47	BD Techno1	BassDr
48	BD Techno2	BassDr
49	BD Hip1	BassDr
50	BD Hip2	BassDr
51	BD Hip3	BassDr
52	BD Hip4	BassDr
53	BD Kick1	BassDr
54	BD Kick2	BassDr
55	Electro Kick	BassDr
56	BD Ambient	BassDr
57	BD Ambient Crackle	BassDr
58	BD Ambient Rocker	BassDr
59	BD Pop	BassDr
60	BD Deep	BassDr
61	BD Deep GM	BassDr
62	BD Klanger	BassDr
63	BD Electribe01	BassDr
64	BD Electribe02	BassDr
65	BD Electribe03	BassDr
66	BD Electribe04	BassDr
67	BD Electribe05	BassDr
68	BD Electribe06	BassDr
69	BD Electribe07	BassDr
70	BD Electribe08	BassDr
71	BD Electribe09	BassDr
72	BD Electribe10	BassDr
73	BD Electribe11	BassDr
74	BD Electribe12	BassDr
75	BD Electribe13	BassDr
76	BD Electribe14	BassDr
77	BD Electribe15	BassDr
78	BD Electribe16	BassDr
79	BD Electribe17	BassDr
80	Syn. BD1	BassDr
81	Syn. BD2	BassDr
82	Syn. BD3	BassDr
83	Syn. BD4	BassDr
84	Syn. BD Buzz	BassDr
85	BD Orchestra	BassDr
86	BD Orchestra GM	BassDr
87	Timpani	BassDr
88	SD LdwVintage S+Rim p	Snare Dr
89	SD LdwVintage S+Rim mf	Snare Dr
90	SD LdwVintage S+Rim f	Snare Dr
91	SD Pop1 p GM	Snare Dr
92	SD Pop1 mf GM	Snare Dr
93	SD Pop1 f GM	Snare Dr
94	SD Pop1 +Rim mf GM	Snare Dr
95	SD Pop1 +Rim f GM	Snare Dr
96	SD Black	Snare Dr
97	SD S Gate1 GM	Snare Dr
98	SD S Gate2	Snare Dr
99	SD Wood1 p	Snare Dr
100	SD Wood1 mf	Snare Dr
101	SD Wood1 f	Snare Dr
102	SD Wood2 pp	Snare Dr
103	SD Wood2 p	Snare Dr
104	SD Wood2 mf	Snare Dr
105	SD Wood2 f	Snare Dr
106	SD Piccolo1 pp	Snare Dr
107	SD Piccolo1 p	Snare Dr
108	SD Piccolo1 mf	Snare Dr
109	SD Piccolo1 f	Snare Dr
110	SD Piccolo2 pp	Snare Dr
111	SD Piccolo2 p	Snare Dr
112	SD Piccolo2 mf	Snare Dr
113	SD Piccolo2 f	Snare Dr
114	SD Solid1 p	Snare Dr
115	SD Solid1 mf	Snare Dr
116	SD Solid1 f	Snare Dr
117	SD Solid2 p	Snare Dr
118	SD Solid2 mf	Snare Dr
119	SD Solid2 f	Snare Dr
120	SD Maple1 pp	Snare Dr
121	SD Maple1 p	Snare Dr
122	SD Maple1 mp	Snare Dr
123	SD Maple1 mf	Snare Dr
124	SD Maple1 f	Snare Dr
125	SD Maple1 ff	Snare Dr
126	SD Maple2 pp	Snare Dr
127	SD Maple2 p	Snare Dr
128	SD Maple2 mp	Snare Dr
129	SD Maple2 mf	Snare Dr
130	SD Maple2 f	Snare Dr
131	SD Maple2 ff	Snare Dr
132	SD Brass1 p	Snare Dr
133	SD Brass1 mf	Snare Dr
134	SD Brass1 f	Snare Dr
135	SD Brass2 p	Snare Dr
136	SD Brass2 mf	Snare Dr
137	SD Brass2 f	Snare Dr
138	SD Roll	Snare Dr
139	SD Ghost Roll	Snare Dr
140	SD Ghost p	Snare Dr
141	SD Ghost f	Snare Dr
142	SD Snr Ghost1 a	Snare Dr
143	SD Snr Ghost1 b	Snare Dr
144	SD Snr Ghost2 a	Snare Dr
145	SD Snr Ghost2 b	Snare Dr
146	SD Snr Ghost2 c	Snare Dr

#	Name	Family
147	SD Snr Signature p	Snare Dr
148	SD Snr Signature mf	Snare Dr
149	SD Snr Signature f	Snare Dr
150	SD Snr Signature Rim mf	Snare Dr
151	SD Snr Signature Rim f	Snare Dr
152	SD Snr Signature Rim1	Snare Dr
153	SD Snr Signature Rim2	Snare Dr
154	SD J Std+Rim p	Snare Dr
155	SD J Std+Rim mf	Snare Dr
156	SD J Std+Rim f	Snare Dr
157	SD Dry1	Snare Dr
158	SD Dry2	Snare Dr
159	SD Dry3	Snare Dr
160	SD Full Room	Snare Dr
161	SD Off Center	Snare Dr
162	SD Jazz Ring	Snare Dr
163	SD Amb.Piccolo	Snare Dr
164	SD Paper	Snare Dr
165	SD Big Rock	Snare Dr
166	SD Yowie	Snare Dr
167	SD Trinity1	Snare Dr
168	SD Trinity2	Snare Dr
169	SD Stereo Gate	Snare Dr
170	SD Stereo Gate GM	Snare Dr
171	SD Processed	Snare Dr
172	SD Processed GM	Snare Dr
173	SD Cracker Room	Snare Dr
174	SD El. Funk1	Snare Dr
175	SD El. Funk2	Snare Dr
176	SD El. Funk3	Snare Dr
177	SD Dance01	Snare Dr
178	SD Dance02	Snare Dr
179	SD Dance03	Snare Dr
180	SD Dance04	Snare Dr
181	SD Dance05	Snare Dr
182	SD Dance06	Snare Dr
183	SD Dance07	Snare Dr
184	SD Dance08	Snare Dr
185	SD Dance09	Snare Dr
186	SD Dance10	Snare Dr
187	SD Dance11	Snare Dr
188	SD Dance12	Snare Dr
189	SD Dance13	Snare Dr
190	SD Dance14	Snare Dr
191	SD Dance15	Snare Dr
192	SD Dance16	Snare Dr
193	SD Dance17	Snare Dr
194	SD Dance18	Snare Dr
195	SD Dance19	Snare Dr
196	SD Dance20	Snare Dr
197	SD Dance21	Snare Dr
198	SD Dance22	Snare Dr
199	SD Dance23	Snare Dr
200	SD Dance23 GM	Snare Dr
201	SD Dance24	Snare Dr
202	SD House1	Snare Dr
203	SD House2	Snare Dr
204	SD House3	Snare Dr
205	SD House4	Snare Dr
206	SD BeatBox	Snare Dr
207	SD Small	Snare Dr
208	SD Rap	Snare Dr
209	SD Noise	Snare Dr
210	SD Reverse	Snare Dr
211	SD Hip1	Snare Dr
212	SD Hip2	Snare Dr
213	SD Hip3	Snare Dr
214	SD Hip4	Snare Dr
215	SD Hip5	Snare Dr
216	SD Hip6	Snare Dr
217	SD Ringy	Snare Dr
218	SD Tiny	Snare Dr
219	SD Vintage1	Snare Dr
220	SD Vintage2	Snare Dr
221	SD Vintage3	Snare Dr
222	SD Vintage4	Snare Dr
223	SD Vintage5	Snare Dr
224	SD Vintage6	Snare Dr
225	SD AmbiHop	Snare Dr
226	SD Brasser	Snare Dr
227	SD Chili	Snare Dr
228	SD Whopper	Snare Dr
229	SD Syn.1	Snare Dr
230	SD Syn.2	Snare Dr
231	SD Syn.3	Snare Dr
232	SD Syn.4	Snare Dr
233	SD Electro	Snare Dr
234	SD Orchestra	Snare Dr
235	SD Orch. Roll	Snare Dr
236	SD JazzBrush1	Snare Dr
237	SD JazzBrush2	Snare Dr
238	SD Brush1 (swirl1)	Snare Dr
239	SD Brush1 (swirl2)	Snare Dr
240	SD Brush1 (swirl3)	Snare Dr
241	SD Brush1 (swirl4)	Snare Dr
242	SD Brush1	Snare Dr
243	SD Brush2 (ghost1)	Snare Dr
244	SD Brush2 (ghost2)	Snare Dr
245	SD Brush2 (ghost3)	Snare Dr
246	SD Brush2	Snare Dr
247	SD Brush2 (fill) 4 shots	Snare Dr
248	SD Brush2 (fill) 3 shots	Snare Dr
249	SD Brush2 (fill) 2 shots	Snare Dr
250	SD Brush3 Hit	Snare Dr
251	SD Brush3 Tap1	Snare Dr
252	SD Brush3 Tap2	Snare Dr
253	SD Brush3 Swirl	Snare Dr
254	SD FX Large Hall1	Snare Dr
255	SD FX Large Hall2	Snare Dr
256	Rim Signature Hi	Snare Dr
257	Rim Signature Mid	Snare Dr
258	Rim Signature Low	Snare Dr
259	Rim Shot p	Snare Dr
260	Rim Shot f	Snare Dr
261	Rim House1	Snare Dr
262	Rim House2	Snare Dr
263	Rim Synth	Snare Dr
264	Rim Synth Click	Snare Dr
265	Rim Synth Tamb	Snare Dr
266	Rim FX Large Hall1	Snare Dr
267	Rim FX Large Hall2	Snare Dr
268	SideStick mf	Snare Dr
269	SideStick f	Snare Dr
270	SideStick Dance	Snare Dr
271	SideStick Dry	Snare Dr
272	SideStick Amb	Snare Dr
273	DrumStick Hit	Snare Dr
274	DrumStick Hit GM	Snare Dr
275	Tom R Vintage Hi	Tom
276	Tom R Vintage Mid	Tom
277	Tom R Vintage Floor	Tom
278	Tom Vintage Room Hi	Tom
279	Tom Vintage Room Mid	Tom
280	Tom Vintage Room Low	Tom
281	Tom Jazz Hi center	Tom
282	Tom Jazz Hi center GM	Tom
283	Tom Jazz Low center GM	Tom
284	Tom1 Open Hi p	Tom
285	Tom1 Open Hi p flam	Tom
286	Tom1 Open Hi f	Tom
287	Tom1 Open Hi f flam	Tom
288	Tom1 Open Mid p	Tom
289	Tom1 Open Mid p flam	Tom
290	Tom1 Open Mid f	Tom
291	Tom1 Open Mid f flam	Tom
292	Tom1 Open Low p	Tom
293	Tom1 Open Low p flam	Tom
294	Tom1 Open Low f	Tom
295	Tom1 Open Low f flam	Tom
296	Tom1 Open Floor p	Tom
297	Tom1 Open Floor p flam	Tom
298	Tom1 Open Floor f	Tom
299	Tom1 Open Floor f flam	Tom
300	Tom2 Hi p	Tom
301	Tom2 Hi f	Tom
302	Tom2 Mid p	Tom
303	Tom2 Mid f	Tom
304	Tom2 Low p	Tom
305	Tom2 Low f	Tom

#	Name	Family
306	Tom2 Floor p	Tom
307	Tom2 Floor f	Tom
308	Tom3 Hi	Tom
309	Tom3 Floor	Tom
310	Tom4 Hi	Tom
311	Tom4 Low	Tom
312	Tom4 Floor	Tom
313	Tom5 Hi	Tom
314	Tom5 Low	Tom
315	Tom6 Vintage Hi p	Tom
316	Tom6 Vintage Hi mf	Tom
317	Tom6 Vintage Hi f	Tom
318	Tom6 Vintage Mid p	Tom
319	Tom6 Vintage Mid mf	Tom
320	Tom6 Vintage Mid f	Tom
321	Tom6 Vintage Low p	Tom
322	Tom6 Vintage Low mf	Tom
323	Tom6 Vintage Low f	Tom
324	Tom Processed	Tom
325	Tom Jazz Hi	Tom
326	Tom Jazz Floor	Tom
327	Tom Brush1 (sd open)	Tom
328	Tom Brush1 (sd close)	Tom
329	Tom Brush2 (sd open)	Tom
330	Tom Brush2 (sd close)	Tom
331	Tom Brush3 Hi mf	Tom
332	Tom Brush3 Hi f	Tom
333	Tom Brush3 Hi f GM	Tom
334	Tom Brush3 Mid mf	Tom
335	Tom Brush3 Mid f	Tom
336	Tom Brush3 Mid f GM	Tom
337	Tom Brush3 Low mf	Tom
338	Tom Brush3 Low f	Tom
339	Tom Brush3 Low f GM	Tom
340	Tom Brush4	Tom
341	E.Tom FM	Tom
342	E.Tom Real	Tom
343	HH1 Closed pp	HiHat
344	HH1 Closed p	HiHat
345	HH1 Closed mf	HiHat
346	HH1 Closed f	HiHat
347	HH1 Foot mp	HiHat
348	HH1 Foot mf	HiHat
349	HH1 Open mp	HiHat
350	HH1 Open mf	HiHat
351	HH2 Closed pp	HiHat
352	HH2 Closed p	HiHat
353	HH2 Closed mp	HiHat
354	HH2 Closed mf	HiHat
355	HH2 Closed f	HiHat
356	HH2 Closed ff	HiHat
357	HH2 Foot p	HiHat
358	HH2 Foot f	HiHat

#	Name	Family
359	HH2 Open p	HiHat
360	HH2 Open f	HiHat
361	HH3 Closed1	HiHat
362	HH3 Closed2	HiHat
363	HH3 Foot	HiHat
364	HH3 Open1	HiHat
365	HH3 Open2	HiHat
366	HH3 Sizzle	HiHat
367	HH4 Closed1	HiHat
368	HH4 Closed2	HiHat
369	HH4 Foot	HiHat
370	HH4 Foot Open	HiHat
371	HH4 Open	HiHat
372	HH Old Close1	HiHat
373	HH Old Open1	HiHat
374	HH Old TiteClose	HiHat
375	HH Old Close2	HiHat
376	HH Old Open2	HiHat
377	HH House Open1	HiHat
378	HH House Open2	HiHat
379	HH Hip	HiHat
380	HH Alpo Close	HiHat
381	HH Dance1	HiHat
382	HH Dance2	HiHat
383	HH Syn. Closed	HiHat
384	HH Syn. Open	HiHat
385	Ride 20' mp1	Cymbal
386	Ride 20' mp2	Cymbal
387	Ride 20' mf1	Cymbal
388	Ride 20' mf2	Cymbal
389	Ride Edge1	Cymbal
390	Ride Edge2	Cymbal
391	Ride Cup	Cymbal
392	Ride Jazz	Cymbal
393	Ride Brush1	Cymbal
394	Ride Brush2	Cymbal
395	Ride Brush3	Cymbal
396	Ride Rivet	Cymbal
397	Crash 15'edge1	Cymbal
398	Crash 15'edge2	Cymbal
399	Crash 17'edge1	Cymbal
400	Crash 17'edge2	Cymbal
401	Crash 19'open1	Cymbal
402	Crash 19'open2	Cymbal
403	Crash 1	Cymbal
404	Crash 2	Cymbal
405	Crash Reverse	Cymbal
406	Crash Dance 99	Cymbal
407	Crash DDD-1	Cymbal
408	Splash 8'edge1	Cymbal
409	Splash 8'edge2	Cymbal
410	Splash	Cymbal
411	China	Cymbal

#	Name	Family
412	Orchestra Cymbal	Cymbal
413	Finger Snaps	Low Perc
414	Claps1	Low Perc
415	Claps2	Low Perc
416	Claps3	Low Perc
417	Claps4	Low Perc
418	Dance Claps1	Low Perc
419	Dance Claps2	Low Perc
420	Dance Claps3	Low Perc
421	Dance Claps4	Low Perc
422	Dance Claps5	Low Perc
423	Dance Claps6	Low Perc
424	Dance Conga Lo-Open	Low Perc
425	Dance Conga Hi-Open	Low Perc
426	Dance Tambourine	Hi Perc
427	Syn. Bongo1	Low Perc
428	Syn. Bongo2	Low Perc
429	Syn. Castanet	Low Perc
430	Syn. Shaker	Hi Perc
431	Syn. Noise	SFX
432	Syn. FX1	SFX
433	Syn. FX2	SFX
434	Syn. FX3	SFX
435	Syn. FX4	SFX
436	Syn. FX5	SFX
437	Syn. Perc. Ahh	SFX
438	Boom	SFX
439	Zap1	SFX
440	Zap2	SFX
441	Vinyl Hit	SFX
442	DJ Vinyl Sliced 01	SFX
443	DJ Vinyl Sliced 02	SFX
444	DJ Vinyl Sliced 03	SFX
445	DJ Vinyl Sliced 04	SFX
446	DJ Vinyl Sliced 05	SFX
447	DJ Vinyl Sliced 06	SFX
448	DJ Vinyl Sliced 07	SFX
449	DJ Vinyl Sliced 08	SFX
450	DJ Vinyl Sliced 09	SFX
451	DJ Vinyl Sliced 10	SFX
452	DJ Vinyl Sliced 11	SFX
453	DJ Vinyl Sliced 12	SFX
454	DJ Vinyl Sliced 13	SFX
455	DJ Vinyl Sliced 14	SFX
456	DJ Vinyl Sliced 15	SFX
457	DJ Vinyl Sliced 16	SFX
458	DJ Vinyl Sliced 17	SFX
459	DJ Vinyl Sliced 18	SFX
460	DJ Vinyl Sliced 19	SFX
461	DJ Vinyl Sliced 20	SFX
462	DJ Vinyl Sliced 21	SFX
463	DJ Vinyl Sliced 22	SFX
464	DJ Vinyl Sliced 23	SFX

#	Name	Family
465	DJ Vinyl Sliced 24	SFX
466	DJ Scratch 01	SFX
467	DJ Scratch 02	SFX
468	DJ Scratch 03	SFX
469	DJ Scratch 04	SFX
470	DJ Scratch 05	SFX
471	DJ Scratch 06	SFX
472	DJ Hit Rub	SFX
473	DJ Vocal Rub1	SFX
474	DJ Vocal Rub2	SFX
475	DJ BD Rub	SFX
476	DJ SD Rub	SFX
477	Guiro Long	Low Perc
478	Guiro Short	Low Perc
479	Vibraslap	Hi Perc
480	Samba Whistle	Hi Perc
481	Samba Whistle Lp	Hi Perc
482	Cuica Hi	Low Perc
483	Cuica Lo	Low Perc
484	Surdo Open GM	Low Perc
485	Surdo Mute GM	Low Perc
486	Tumba Open1 mf	Low Perc
487	Tumba Open1 f	Low Perc
488	Tumba Open2 mf	Low Perc
489	Tumba Open2 f	Low Perc
490	Tumba Open Flam	Low Perc
491	Tumba Glissando	Low Perc
492	Tumba Basstone	Low Perc
493	Tumba O.Slap Flam mf	Low Perc
494	Tumba O.Slap Flam f	Low Perc
495	Tumba Muffled	Low Perc
496	Conga1 Lo Basstone	Low Perc
497	Conga1 Lo Open mf	Low Perc
498	Conga1 Lo Open Slap	Low Perc
499	Conga1 Lo Glissando	Low Perc
500	Conga1 Lo Muffled	Low Perc
501	Conga1 Lo Closed	Low Perc
502	Conga1 Lo Closed Slap	Low Perc
503	Conga1 Lo Heel	Low Perc
504	Conga1 Lo Toe	Low Perc
505	Conga1 Hi Basstone mf	Low Perc
506	Conga1 Hi Basstone f	Low Perc
507	Conga1 Hi Open mf	Low Perc
508	Conga1 Hi Open Slap	Low Perc
509	Conga1 Hi Muffled	Low Perc
510	Conga1 Hi Closed	Low Perc
511	Conga1 Hi Closed Slap	Low Perc
512	Conga1 Hi Heel	Low Perc
513	Conga1 Hi Toe	Low Perc
514	Conga2 Lo Open	Low Perc
515	Conga2 Lo Mt Slap	Low Perc
516	Conga2 Lo Slap	Low Perc
517	Conga2 Hi Open	Low Perc

#	Name	Family
518	Conga2 Hi Mute	Low Perc
519	Conga2 Hi Mt Slap	Low Perc
520	Conga2 Hi Slap1	Low Perc
521	Conga2 Hi Slap2	Low Perc
522	Conga2 Heel	Low Perc
523	Conga2 Toe	Low Perc
524	Quinto1 Open	Low Perc
525	Quinto1 Closed	Low Perc
526	Quinto1 Closed Slap	Low Perc
527	Quinto1 Toe	Low Perc
528	Quinto2 Basstone	Low Perc
529	Quinto2 Open mp	Low Perc
530	Quinto2 Open Flam	Low Perc
531	Quinto2 Open Slap	Low Perc
532	Quinto2 Muffled	Low Perc
533	Quinto2 C.Slap Flam p	Low Perc
534	Quinto2 C.Slap Flam f	Low Perc
535	Quinto2 Heel	Low Perc
536	Bongo1 Lo Muffled mp	Low Perc
537	Bongo1 Lo Muffled f	Low Perc
538	Bongo1 Lo Closed	Low Perc
539	Bongo1 Lo Flam	Low Perc
540	Bongo1 Lo MuffledFlam	Low Perc
541	Bongo1 Lo Stick	Low Perc
542	Bongo1 Lo StickEdge mf	Low Perc
543	Bongo1 Lo StickEdge f	Low Perc
544	Bongo1 Lo StickBounce	Low Perc
545	Bongo1 Lo Fingernail	Low Perc
546	Bongo1 Lo Cuptone	Low Perc
547	Bongo1 Lo Slap	Low Perc
548	Bongo1 Hi Open mf	Low Perc
549	Bongo1 Hi Open f	Low Perc
550	Bongo1 Hi Pops	Low Perc
551	Bongo1 Hi Hightone	Low Perc
552	Bongo1 Hi OpenFlam	Low Perc
553	Bongo1 Hi Fingernail	Low Perc
554	Bongo1 Hi Stick	Low Perc
555	Bongo1 Hi StickEdge mf	Low Perc
556	Bongo1 Hi StickEdge f	Low Perc
557	Bongo1 Hi StickBounce	Low Perc
558	Bongo1 Hi Cuptone	Low Perc
559	Bongo1 Hi Slap	Low Perc
560	Bongo2 Lo Open a	Low Perc
561	Bongo2 Lo Open b	Low Perc
562	Bongo2 Lo Mute	Low Perc
563	Bongo2 Hi Open a	Low Perc
564	Bongo2 Hi Open b	Low Perc
565	Bongo2 Hi Muffled	Low Perc
566	Bongo2 Hi Slap	Low Perc
567	Bongo2 Lo Heel	Low Perc
568	Bongo2 Lo Muffled	Low Perc
569	Bongo3 Lo Open	Low Perc
570	Bongo3 Lo Slap	Low Perc

#	Name	Family
571	Bongo3 Lo Stick	Low Perc
572	Bongo3 Hi Open	Low Perc
573	Bongo3 Hi Slap	Low Perc
574	Bongo3 Hi Stick1	Low Perc
575	Bongo3 Hi Stick2	Low Perc
576	Okonkolo Boca Op mp	Low Perc
577	Okonkolo Chacha Open mp	Low Perc
578	Okonkolo Chacha Open mf	Low Perc
579	Okonkolo Chacha Open f	Low Perc
580	Okonkolo Chacha Open ff	Low Perc
581	Okonkolo Chacha Slap mp	Low Perc
582	Okonkolo Chacha Slap mf	Low Perc
583	Okonkolo Chacha Slap f	Low Perc
584	Baya Open	Low Perc
585	Baya Ghe	Low Perc
586	Baya GheUp a	Low Perc
587	Baya GheUp b	Low Perc
588	Baya KaPalm	Low Perc
589	Baya KaToe a	Low Perc
590	Baya KaToe b	Low Perc
591	Baya Nail a	Low Perc
592	Baya Nail b	Low Perc
593	Baya Nail c	Low Perc
594	Baya Ge	Low Perc
595	Baya Up	Low Perc
596	Baya UpDown a	Low Perc
597	Baya UpDown b	Low Perc
598	Baya Mute1	Low Perc
599	Baya Mute2	Low Perc
600	Baya Mute3	Low Perc
601	Tabla1 Na	Low Perc
602	Tabla1 Open	Low Perc
603	Tabla1 Tin	Low Perc
604	Tabla1 Mute1	Low Perc
605	Tabla1 Mute2	Low Perc
606	Tabla1 Mute3	Low Perc
607	Tabla2 Tin a	Low Perc
608	Tabla2 Tin b	Low Perc
609	Tabla2 Na a	Low Perc
610	Tabla2 Na b	Low Perc
611	Tabla2 Na c	Low Perc
612	Tabla2 Tun a	Low Perc
613	Tabla2 Tun b	Low Perc
614	Tabla2 Tele a	Low Perc
615	Tabla2 Tele b	Low Perc
616	Tabla2 Tele c	Low Perc
617	Tabla2 Ti a	Low Perc
618	Tabla2 Ti b	Low Perc
619	Tabla2 Ti c	Low Perc
620	Tabla2 Tera	Low Perc
621	Tsuzumi	Low Perc

#	Name	Family
622	Taiko Open	Low Perc
623	Taiko Rim	Low Perc
624	Timbales1 Lo Open mp	Low Perc
625	Timbales1 Lo Open mf	Low Perc
626	Timbales1 Lo Open mf GM	Low Perc
627	Timbales1 Lo Edge mf	Low Perc
628	Timbales1 Lo Edge f	Low Perc
629	Timbales1 Lo RimShot	Low Perc
630	Timbales1 Lo Abanico	Low Perc
631	Timbales1 Lo Roll	Low Perc
632	Timbales1 Lo Mute mf	Low Perc
633	Timbales1 Lo Mute f	Low Perc
634	Timbales1 Lo Paila mf	Hi Perc
635	Timbales1 Lo Paila f	Hi Perc
636	Timbales1 Hi Open	Low Perc
637	Timbales1 Hi Edge	Low Perc
638	Timbales1 Hi Edge GM	Low Perc
639	Timbales1 Hi RimShot mf	Low Perc
640	Timbales1 Hi RimShot f	Low Perc
641	Timbales1 Hi RimShot ff	Low Perc
642	Timbales1 Hi Abanico1	Low Perc
643	Timbales1 Hi Abanico2	Low Perc
644	Timbales1 Hi Mute	Low Perc
645	Timbales1 Hi Paila mf	Hi Perc
646	Timbales1 Hi Paila f	Hi Perc
647	Timbales2 Lo Open	Low Perc
648	Timbales2 Lo Mute	Low Perc
649	Timbales2 Lo Rim	Low Perc
650	Timbales2 Hi Edge	Low Perc
651	Timbales2 Hi Rim1	Low Perc
652	Timbales2 Hi Rim2	Low Perc
653	Timbales2 Paila	Hi Perc
654	Cowbell1	Hi Perc
655	Cowbell2	Hi Perc
656	Cowbell3	Hi Perc
657	Cowbell4 Open	Hi Perc
658	Cowbell4 Mute	Hi Perc
659	Cowbell5 Open a	Hi Perc
660	Cowbell5 Open b	Hi Perc
661	Cowbell5 Mute	Hi Perc
662	Cowbell6	Hi Perc
663	Agogo Bell	Hi Perc
664	Chacha Bell	Hi Perc
665	Mambo Bell	Hi Perc
666	Recoreco short1	Hi Perc
667	Recoreco short2	Hi Perc
668	Recoreco long	Hi Perc
669	Triangle1 Open	Hi Perc
670	Triangle1 Mute	Hi Perc
671	Triangle2 Open Lp	Hi Perc
672	Triangle2 Closed	Hi Perc
673	Sleigh Bell	Hi Perc
674	Rap Sleigh Bell	Hi Perc

#	Name	Family
675	Jingle Bell	Hi Perc
676	Bells Open	Hi Perc
677	Finger Cymbal	Hi Perc
678	Marc Tree	Hi Perc
679	Marc Tree GM	Hi Perc
680	Marc Tree Lp	Hi Perc
681	Rainstick	SFX
682	Flexatone	Hi Perc
683	Chinese Gong	Cymbal
684	Claves1 Lo a	Low Perc
685	Claves1 Lo b	Low Perc
686	Claves1 Hi a	Low Perc
687	Claves1 Hi b	Low Perc
688	Claves2	Low Perc
689	Wood Block 1 a	Low Perc
690	Wood Block 1 b	Low Perc
691	Wood Block 2 a	Low Perc
692	Wood Block 2 b	Low Perc
693	Wood Block 3 a	Low Perc
694	Wood Block 3 b	Low Perc
695	Wood Block 4 a	Low Perc
696	Wood Block 4 b	Low Perc
697	Wood Block 5 a	Low Perc
698	Wood Block 5 b	Low Perc
699	Wood Block 6 a	Low Perc
700	Wood Block 6 b	Low Perc
701	Wood Block 7	Low Perc
702	Wood Block 8	Low Perc
703	Castanet 1 a	Low Perc
704	Castanet 1 b	Low Perc
705	Castanet 1 c	Low Perc
706	Castanet 2	Low Perc
707	Castanet Single	Low Perc
708	Castanet Single GM	Low Perc
709	Castanet Double	Low Perc
710	Cabasa 1 L a Down	Hi Perc
711	Cabasa 1 L a Up	Hi Perc
712	Cabasa 1 L b Down	Hi Perc
713	Cabasa 1 L b Up	Hi Perc
714	Cabasa 1 S a Down	Hi Perc
715	Cabasa 1 S a Up	Hi Perc
716	Cabasa 1 S b Down	Hi Perc
717	Cabasa 1 S b Up	Hi Perc
718	Cabasa 2 L Stack b	Hi Perc
719	Cabasa 2 L Stack a	Hi Perc
720	Cabasa 2 L Roll	Hi Perc
721	Cabasa 2 S Stack a	Hi Perc
722	Cabasa 2 S Stack b	Hi Perc
723	Cabasa 2 S Roll	Hi Perc
724	Cabasa 3 WS	Hi Perc
725	Cabasa 3 Up	Hi Perc
726	Cabasa 3 Down	Hi Perc
727	Cabasa 3 Tap	Hi Perc

#	Name	Family
728	Caxixi1 a	Hi Perc
729	Caxixi1 b	Hi Perc
730	Caxixi1 c	Hi Perc
731	Caxixi2 a	Hi Perc
732	Caxixi2 b	Hi Perc
733	Caxixi2 c	Hi Perc
734	Caxixi3 Hard	Hi Perc
735	Caxixi3 Soft	Hi Perc
736	Shaker1 Push a	Hi Perc
737	Shaker1 Push b	Hi Perc
738	Shaker1 Pull a	Hi Perc
739	Shaker1 Pull b	Hi Perc
740	Shaker1 Accent a	Hi Perc
741	Shaker1 Accent b	Hi Perc
742	Shaker1 Slow a	Hi Perc
743	Shaker1 Slow b	Hi Perc
744	Shaker1 Slow c	Hi Perc
745	Shaker1 Roll a	Hi Perc
746	Shaker1 Roll b	Hi Perc
747	Shaker1 Roll c	Hi Perc
748	Shaker2	Hi Perc
749	Shaker3	Hi Perc
750	Maracas Push	Hi Perc
751	Maracas Pull	Hi Perc
752	Dumbek a	Low Perc
753	Dumbek b	Low Perc
754	Dumbek c	Low Perc
755	Dumbek d	Low Perc
756	Dumbek e	Low Perc
757	Dumbek f	Low Perc
758	Dumbek g	Low Perc
759	Dumbek h	Low Perc
760	Dumbek i	Low Perc
761	Dumbek j	Low Perc
762	Dumbek k	Low Perc
763	Djembe L Basstone a	Low Perc
764	Djembe L Basstone b	Low Perc
765	Djembe L Basstone c	Low Perc
766	Djembe L Open	Low Perc
767	Djembe L Open Slap	Low Perc
768	Djembe L Closed Slap	Low Perc
769	Djembe S Basstone a	Low Perc
770	Djembe S Basstone b	Low Perc
771	Djembe S Basstone c	Low Perc
772	Djembe Open	Low Perc
773	Djembe Mute	Low Perc
774	Djembe Slap	Low Perc
775	Djembe S Open	Low Perc
776	Djembe S Open Slap a	Low Perc
777	Djembe S Open Slap b	Low Perc
778	Djembe S Closed Slap a	Low Perc
779	Djembe S Closed Slap b	Low Perc
780	Djembe S Closed Slap c	Low Perc

#	Name	Family
781	Djembe Bass	Low Perc
782	Udu Open a	Low Perc
783	Udu Open b	Low Perc
784	Udu Open c	Low Perc
785	Udu Open d	Low Perc
786	Udu Slide a	Hi Perc
787	Udu Slide b	Hi Perc
788	Udu Half Open a	Low Perc
789	Udu Half Open b	Low Perc
790	Udu Half Open c	Low Perc
791	Udu Bell a	Low Perc
792	Udu Bell b	Low Perc
793	WD Brazillia1	Snare Dr
794	WD Brazillia2	Snare Dr
795	WD Ethno SD1	Snare Dr
796	WD Ethno SD2	Snare Dr
797	WD Ethno SD3	Snare Dr
798	WD Ethno SD4	Snare Dr
799	WD Ethno SD5	Snare Dr
800	WD Ethno SD6	Snare Dr
801	WD Kangaroo1	Snare Dr
802	WD Kangaroo2	SFX
803	WD Kangaroo3	SFX
804	WD Kangaroo4	SFX
805	WD Kangaroo5	SFX
806	WD Kangaroo6	SFX
807	WD Kangaroo7	SFX
808	WD Kangaroo8	SFX
809	Tambourine Push	Hi Perc
810	Tambourine Pull	Hi Perc
811	Tambourine Acc1 a	Hi Perc
812	Tambourine Acc1 b	Hi Perc
813	Tambourine Acc2	Hi Perc
814	Tambourine Mute1	Low Perc
815	Tambourine Mute2	Low Perc
816	Tambourine Open	Low Perc
817	M.E.1 Douf Rim Ak	Low Perc
818	M.E.1 Douf Tek Ak1	Low Perc
819	M.E.1 Douf Tek Ak2	Low Perc
820	M.E.1 Pand Open	Low Perc
821	M.E.1 Pand Pattern1	Low Perc
822	M.E.1 Pand Pattern2	Low Perc
823	M.E.1 Pand Pattern3	Low Perc
824	M.E.1 Pand Pattern4	Low Perc
825	M.E.1 Rek Dom Ak	Hi Perc
826	M.E.1 Rek Jingle	Hi Perc
827	M.E.1 Rik1	Low Perc
828	M.E.1 Rik2	Low Perc
829	M.E.1 Rik3	Low Perc
830	M.E.1 Sagat Half Open	Hi Perc
831	M.E.1 Sagat Close	Hi Perc
832	M.E.1 Surdo L Open	Low Perc
833	M.E.1 Surdo L Mute	Low Perc

#	Name	Family
834	M.E.1 Tabla Medium	Low Perc
835	M.E.1 Tabla Dom	Low Perc
836	M.E.1 Tabla Flam	Low Perc
837	M.E.1 Tabla Rim	Low Perc
838	M.E.1 Tabla Tak	Low Perc
839	M.E.1 Timbales	Hi Perc
840	M.E.1 Udu f Open	Low Perc
841	M.E.1 Alkis	Low Perc
842	M.E.1 Bandir Open	Low Perc
843	M.E.1 Bandir Closed	Low Perc
844	M.E.1 Bongo Roll	Low Perc
845	M.E.1 Darbuka1 Tek1	Low Perc
846	M.E.1 Darbuka1 Tek2	Low Perc
847	M.E.1 Darbuka1 Open	Low Perc
848	M.E.1 Darbuka1 Closed	Low Perc
849	M.E.1 Darbuka2	Low Perc
850	M.E.1 Darbuka3	Low Perc
851	M.E.1 Darbuka4	Low Perc
852	M.E.1 Darbuka5 D1	Low Perc
853	M.E.1 Darbuka5 D2	Low Perc
854	M.E.1 Darbuka5 D3	Low Perc
855	M.E.1 Darbuka6 Mute	Low Perc
856	M.E.1 Darbuka6 Open	Low Perc
857	M.E.1 Darbuka6 Rim	Low Perc
858	M.E.1 Darbuka6 Dom Ak	Low Perc
859	M.E.1 Davul	Hi Perc
860	M.E.1 Hollo1	Low Perc
861	M.E.1 Hollo2	Low Perc
862	M.E.1 Kup1	Low Perc
863	M.E.1 Kup2	Low Perc
864	M.E.1 Ramazan Davul1	Low Perc
865	M.E.1 Ramazan Davul2	Low Perc
866	M.E.1 Ramazan Davul3	Low Perc
867	M.E.1 Tef1	Hi Perc
868	M.E.1 Tef2	Hi Perc
869	M.E.1 Tef3	Hi Perc
870	M.E.2 BD Kick	BassDr
871	M.E.2 SD	Snare Dr
872	M.E.2 Asagum	Low Perc
873	M.E.2 Asmatek	Low Perc
874	M.E.2 Bendirgum	Low Perc
875	M.E.2 Bendirtek1	Low Perc
876	M.E.2 Bendirtek2	Low Perc
877	M.E.2 Dm1	Low Perc
878	M.E.2 Findik	Low Perc
879	M.E.2 Gum	Low Perc
880	M.E.2 Hollotokat	Low Perc
881	M.E.2 Islik1	SFX
882	M.E.2 Islik2	SFX
883	M.E.2 Kapalit	Low Perc
884	M.E.2 Kasik1	Low Perc
885	M.E.2 Kasik2	Low Perc
886	M.E.2 Kasik3	Low Perc

#	Name	Family
887	M.E.2 Kasik4	Low Perc
888	M.E.2 Kemik	Low Perc
889	M.E.2 Kenar	Low Perc
890	M.E.2 Kenartek	Low Perc
891	M.E.2 Ramazangum	Low Perc
892	M.E.2 Ramazantek	Low Perc
893	M.E.2 Renk	Low Perc
894	M.E.2 Renkbir	Low Perc
895	M.E.2 Renkiki	Low Perc
896	M.E.2 Tefacik	Low Perc
897	M.E.2 Tefgum	Low Perc
898	M.E.2 Teftek	Low Perc
899	M.E.2 Teftokat	Low Perc
900	M.E.2 Teftrill	Low Perc
901	M.E.2 Tefzil	Low Perc
902	M.E.2 Tek1	Low Perc
903	M.E.2 Tek2	Low Perc
904	M.E.2 Tekbir	Low Perc
905	M.E.2 Tokat	Low Perc
906	M.E.2 Toprgum	Low Perc
907	M.E.2 Toprtek1	Low Perc
908	M.E.2 Toprtek2	Low Perc
909	M.E.2 Toprtokat	Low Perc
910	M.E.2 Trill	Low Perc
911	M.E.2 Zil1	Hi Perc
912	M.E.2 Zil2	Hi Perc
913	M.E.2 Zil3	Hi Perc
914	M.E.2 Zilgit	SFX
915	Orchestra Hit	SFX
916	Band Hit	SFX
917	Impact Hit	SFX
918	Metal Hit	SFX
919	Yeah!	SFX
920	Yeah! Solo	SFX
921	Uhh	SFX
922	Hit It	SFX
923	Uhhhh Solo	SFX
924	Comp Voice Noise	SFX
925	Stadium	SFX
926	Applause	SFX
927	Scream	SFX
928	Laughing	SFX
929	Footsteps1	SFX
930	Footsteps2	SFX
931	Bird1	SFX
932	Bird2	SFX
933	Dog	SFX
934	Gallop	SFX
935	Crickets	SFX
936	Cat	SFX
937	Growl	SFX
938	Heart Beat	SFX
939	Heart Beat GM	SFX

#	Name	Family
940	Punch	SFX
941	Tribe	SFX
942	Door Creak	SFX
943	Door Slam	SFX
944	Car Engine	SFX
945	Car Stop	SFX
946	Car Pass	SFX
947	Car Crash	SFX
948	Train	SFX
949	Helicopter	SFX
950	Gun Shot1	SFX
951	Gun Shot2	SFX
952	Machine Gun	SFX
953	Laser Gun	SFX
954	Explosion	SFX
955	Thunder	SFX
956	Wind	SFX
957	Stream	SFX
958	Bubble	SFX
959	Bubble GM	SFX
960	Church Bell	SFX
961	Telephone Ring	SFX
962	Xylophone Spectr	SFX
963	Cricket Spectrum	SFX
964	Air Vortex	SFX
965	Noise White	SFX
966	Noise FM Mod	SFX
967	Tubular	Hi Perc
968	Gamelan	Hi Perc
969	Tambura	Hi Perc
970	Gtr Cut Noise1	SFX
971	Gtr Cut Noise2	SFX
972	Power Chord	SFX
973	Fret Noise	SFX
974	Dist. Slide1	SFX
975	Dist. Slide2	SFX
976	E.Gtr Pick1	SFX
977	E.Gtr Pick2	SFX
978	Gtr Scratch1	SFX
979	Gtr Scratch2	SFX
980	Ac.Bs-String Slap	SFX
981	Amp Noise	SFX
982	Space Lore	SFX
983	Swish Terra	SFX
984	Hand Drill	SFX
985	Mouth Harp	SFX
986	66 BD	BassDr
987	88 BD	BassDr
988	88 SD1 GM	Snare Dr
989	88 SD2	Snare Dr
990	88 SD2 GM	Snare Dr
991	88 Rim Shot GM	Snare Dr
992	88 HH Close1 GM	HiHat

#	Name	Family
993	88 HH Close2	HiHat
994	88 HH Close2 GM	HiHat
995	88 HH Open1	HiHat
996	88 HH Open1 GM	HiHat
997	88 Tom1	Tom
998	88 Tom2	Tom
999	88 Crash	Cymbal
1000	88 Crash GM	Cymbal
1001	88 Congas	Low Perc
1002	88 Claps	Low Perc
1003	88 Claves	Low Perc
1004	88 Cowbell	Hi Perc
1005	88 Maracas	Hi Perc
1006	99 SD	Snare Dr
1007	99 HH Close	HiHat
1008	99 HH Open	HiHat
1009	Click	SFX
1010	Click GM	SFX
1011	Seq Click	SFX
1012	Empty	BassDr

Pads

You can assign the following Hits or Sequences to the four Pads. Older sounds might be still assigned to the Pads when loading musical resources generated with an older operating system (see the following section).

#	HIT - Drum	#	HIT - Percussion	#	HIT - World 1	#	Hit - World 2	#	HIT - Orchestral
1	88 Cowbell	1	Agogo 1	1	Baja 1	1	Kup 1	1	Brass Fall
2	88 Crash	2	Agogo 2	2	Baja 2	2	Kup 2	2	Orch.Cymbal 1
3	China	3	Castanet 1	3	China Gong	3	Kup 3	3	Orch.Cymbal 2
4	Crash 1	4	Castanet 2	4	Darbuka 1	4	Kup 4	4	Orch. Hit
5	Crash 2	5	Conga Hi	5	Darbuka 2	5	Ramazan 1	5	Orch. Snare
6	Rev. Cymbal	6	Conga Low	6	Darbuka 3	6	Ramazan 2	6	Orch. Sn. Roll
7	Ride 1	7	Conga Mute	7	Darbuka 4	7	Ramazan 3	7	Timpani 1
8	Ride 2	8	Conga Slap	8	Darbuka 5	8	Rek Dom Ak	8	Timpani 2
9	Ride Bell	9	Cowbell	9	Darbuka 6	9	Rik 1	9	Timpani 3
10	Splash	10	Cuica 1	10	Darbuka 7	10	Rik 2	10	Timpani 4
11	Sticks	11	Cuica 2	11	Darbuka 8	11	Rik 3	11	Orchestra Tutti
12	Rim-Shot	12	Jingle Bell	12	Davul	12	Sagat 1	12	
13	Hi Tom Flam	13	Long Guiro	13	Douf Rim Ak	13	Sagat 2	13	
14	Mid Tom Flam	14	Short Guiro	14	Dragon Gong	14	Tef 1	14	
15	Low Tom Flam	15	Open Bells	15	Hollo 1	15	Tef 2	15	
16	Tom Flam End	16	Rain Stick	16	Hollo 2	16	Tef 3	16	
17	Drum Single A	17	Tamb. Acc. 1	17		17	Tef 4	17	
18	Drum Single B	18	Tamb. Acc. 2	18		18	Tef 5	18	
19	Drum Single C	19	Tamb. Open	19		19	Tef 6	19	
20	Drum Single D	20	Tamb. Push	20		20		20	
21	Drum Sing.HouseA	21	Timbale Hi	21		21		21	
22	Drum Sing.HouseB	22	Timbale Low	22		22		22	
23	Drum Sing.HouseC	23	Timbale Rim 1	23		23		23	
24	Drum Sing.HouseD	24	Timbale Rim 2	24		24		24	
25	Drum Kit A	25	Triangle 1	25		25		25	
26	Drum Kit B	26	Triangle 2	26		26		26	
27	Drum Kit C	27	Vibra Slap	27		27		27	
28	Drum Kit D	28	Whistle 1	28		28		28	
29	Drum Kit E	29	Whistle 2	29		29		29	
30	Drum Kit F	30	Windchimes 1	30		30		30	
31		31	Windchimes 2	31		31		31	
32		32	Windchimes 3	32		32		32	

#	HIT - Synth&Pad		HIT - Voice	#	HIT - Blocks	#	HIT - Misc&SFX 1	#	HIT - Misc&SFX 2
1	Cosmic	1	Aah !	1	Blk Funk 1 A	1	Applause	1	Bubble
2	VCF Modulation	2	Hit it !	2	Blk Funk 1 B	2	Bird 1	2	Car Crash
3	Planet Lead	3	Laughing	3	Blk Funk 1 C	3	Bird 2	3	Car Engine
4	Brightness	4	Scream	4	Blk Funk 1 D	4	Cat	4	Car Pass
5	Crystal	5	Uuh !	5	Blk Funk 2 A	5	Church Bell	5	Car Stop
6	New Age Pad	6	Yeah ! 1	6	Blk Funk 2 B	6	Crickets	6	Explosion
7	Fifths Lead	7	Yeah ! 2	7	Blk Funk 2 C	7	Dist. Slide 1	7	Gun Shot
8	Calliope	8		8	Blk Funk 2 D	8	Dist. Slide 2	8	Helicopter
9	Caribbean	9		9	Blk Organ A	9	Dog	9	Jet Plane
10	Rezbo	10		10	Blk Organ B	10	Door Creak	10	Laser Gun
11	Digital Polisix	11		11	Blk Organ C	11	Door Slam	11	Machine Gun
12	Motion Raver	12		12	Blk Organ D	12	Foosteps 1	12	Phone Ring
13	Moving Bell	13		13	Blk Choir A	13	Foosteps 2	13	Punch
14	Elastick Pad	14		14	Blk Choir B	14	Heart Beat	14	River
15	Rave	15		15	Blk Choir C	15	Horse Gallop	15	Seashore
16	Dance Remix	16		16	Blk Choir D	16	Lion	16	Siren
17	Vintage Sweep	17		17		17	Scratch 1	17	Starship
18	You Decide	18		18		18	Scratch 2	18	Thunder
19		19		19		19	Scratch 3	19	Train
20		20		20		20	Scratch 4	20	Wind
21		21		21		21	Scratch 5	21	
22		22		22		22	Scratch 6	22	
23		23		23		23	Stadium	23	
24		24		24		24		24	
25		25		25		25		25	
26		26		26		26		26	
27		27		27		27		27	
28		28		28		28		28	
29		29		29		29		29	
30		30		30		30		30	
31		31		31		31		31	
32		32		32		32		32	

#	SEQ - Drum	#	SEQ - Percussion	#	SEQ - Groove	#	SEQ - Bass	#	SEQ - Piano
1	Drum DrumBasSolo	1	Perc FingerSnap	1	Grv Drum 1	1	Bass Pick Easy	1	Piano Accomp 1
2	Drum Snare Solo	2	Perc Triang.+HH	2	Grv Drum 2	2	Bass Pick Med.	2	Piano Accomp 2
3	Drum 8 Bt Easy	3	Perc Latin 1	3	Grv Brush	3	Bass Pick Busy	3	Piano Accomp 3
4	Drum 8 Bt Medium	4	Perc Latin 2	4	Grv Jazzy	4	Bass Finger Easy	4	Piano Accomp 4
5	Drum Rock 1	5	Perc Latin 3	5	Grv Latin	5	Bass Finger Med.	5	Piano Accomp 5
6	Drum Rock 2	6	Perc Mix	6	Grv HipHop 1	6	Bass Finger Walk	6	Piano Accomp 6
7	Drum Brush 1 3/4	7	Perc Soft	7	Grv HipHop 2	7	Bass Latin	7	Piano Accomp 7
8	Drum Brush 2 3/4	8	Perc Conga	8	Grv HipHop 3	8	Bass Slap	8	Piano Accomp 8
9	Drum Disco 1	9	Perc Conga+Ride	9	Grv HipHop 4	9	Bass Digital	9	Piano Accomp 9
10	Drum Disco 2	10	Perc Conga+Mix	10	Grv HipHop 5	10	Bass Synth	10	Piano Arpeg. 1
11	Drum Disco 3	11	Perc Conga+Bongo	11	Grv HipHop 6	11	Bass DigiFilter1	11	Piano Arpeg. 2
12	Drum Disco 4	12	Perc Conga+Tamb.	12	Grv Funk 1	12	Bass DigiFilter2	12	Piano Arp 1 3/4
13	Drum Funk 1	13	Perc Shaker	13	Grv Funk 2	13	Bass DigiFilter3	13	Piano Arp 2 3/4
14	Drum Funk 2	14	Perc Shak+Tamb 1	14	Grv Funk 3	14		14	Piano Arp Down
15	Drum Brush Shuff	15	Perc Shak+Tamb 2	15	Grv House 1	15		15	Piano Arp Up
16	Drum Latin	16	Perc Shak+Cong 1	16	Grv House 2	16		16	Piano Rhythm 1/8
17	Drum Progressiv1	17	Perc Shak+Cong 2	17	Grv Analog	17		17	Piano Rhythm1/8T
18	Drum Progressiv2	18	Perc Tambourine1	18	Grv Garage 1	18		18	Piano Latin Rock
19	Drum Fill 1	19	Perc Tambourine2	19	Grv Garage 2	19		19	Piano Salsa 1
20	Drum Fill 2	20	Perc Tamb+Conga1	20	Grv Dance 1	20		20	Piano Salsa 2
21	Drum Break	21	Perc Tamb+Conga2	21	Grv Dance 2	21		21	Pno GlissDwnWhit
22	Drum End	22	Perc Guiro+Bongo	22	Grv Techno 1	22		22	Pno GlissUpWhite
23		23	Perc Cowbel+Tamb	23	Grv Techno 2	23		23	Pno GlissDwnBlak
24		24	Perc 3/4	24		24		24	Pno GlissUpBlack
25		25	Perc 6/8	25		25		25	Honky End
26		26		26		26		26	

27		27		27		27		27	
28		28		28		28		28	
29		29		29		29		29	
30		30		30		30		30	
31		31		31		31		31	
32		32		32		32		32	

#	**SEQ - Guitar**	**#**	**SEQ - Orchestral**	**#**	**SEQ - Solo**	**#**	**SEQ - Synth&Pad**	**#**	**SEQ - Misc&SFX**
1	Gtr Steel Strum1	1	Timpani Roll 1	1	Solo Marimba	1	Synth Seq 1	1	Military 1
2	Gtr Steel Strum2	2	Timpani Roll 2	2	Solo Kalimba 1	2	Synth Seq 2	2	Military 2
3	Gtr Steel Strum3	3	Orch. Tutti 1	3	Solo Kalimba 2	3	Synth Seq 3	3	Military 3
4	Gtr Steel Strum4	4	Orch. Tutti 2	4	Solo Steel Drums	4	Synth Seq 4	4	Military 4
5	Gtr Steel Strum5	5	Orch. Tutti 3	5	Solo Vibes	5	Synth Seq 5	5	Horror 1
6	Gtr Steel Strum6	6	Orch. Tutti 4	6	Solo Gtr Dist.	6	Synth Seq 6	6	Horror 2
7	GtSteelStrum 3/4	7	Orch. Harp 1	7	Solo Slide Steel	7	Synth Seq 7	7	Horror 3
8	Gtr Steel Arp 1	8	Orch. Harp 2	8	Solo Banjo	8	Synth Seq 8	8	Horror 4
9	Gtr Steel Arp 2	9	Orch. Harp 3	9	Solo Violin	9	Synth Seq 9	9	Lullaby 1
10	Gtr Steel Arp 3	10	Orch. Harp 4	10	Solo Harpsi 3/4	10	Synth Seq 10	10	Lullaby 2
11	GtrSteel Arp 6/8	11	Orch. Harp 5	11	Solo Harpsi 4/4	11	Synth Seq 11	11	Nature - River
12	Gtr Steel Mute 1	12	French Horns 1	12	Solo Gtr Funk	12	Synth Portam. 1	12	Nature - Storm
13	Gtr Steel Mute 2	13	French Horns 2	13	Solo Piano 1	13	Synth Portam. 2	13	Metronome 3/4
14	Guitar Country	14	Strings 1	14	Solo Piano 2	14	Synth Portam. 3	14	PreCount 3/4
15	Gtr Nylon Strum1	15	Strings 2	15	Solo Piano 3	15	Synth Portam. 4	15	Metronome 4/4
16	Gtr Nylon Strum2	16	Strings 3	16	Solo Piano 4	16	Synth Filter 1	16	PreCount 4/4
17	Gtr Nylon Strum3	17	Strings 4	17	Solo Synth 1	17	Synth Filter 2	17	PreCount 4/4 Dbl
18	Gtr Nylon Strum4	18	Strings 5	18	Solo Synth 2	18	Synth Pad Panned	18	Toccata
19	Gtr Nylon Strum5	19	Strings 6	19	Solo Synth 3	19	Synth Master Pad	19	5th Intro
20	Gtr Nylon Strum6	20	Strings 7	20	Solo Synth 4	20	Synth Dark Pad	20	Primavera
21	Gtr Nylon Arp 1	21		21	Solo Synth 5	21		21	Circus 1
22	Gtr Nylon Arp 2	22		22	Solo Synth 6	22		22	Circus 2
23	Gtr Nylon Arp 3	23		23	Solo Guitar 1	23		23	
24	GtrNylon Arp 3/4	24		24	Solo Guitar 2	24		24	
25		25		25	Solo Guitar 3	25		25	
26		26		26		26		26	
27		27		27		27		27	
28		28		28		28		28	
29		29		29		29		29	
30		30		30		30		30	
31		31		31		31		31	
32		32		32		32		32	

Effects

The following list shows all the Factory Effects. Detailed information on each effect's parameter are contained in the "Effects" chapter (see page 330).

For FX Master 1/2

0	No Effect
1	Stereo Compressor
2	Stereo Limiter
3	Multiband Limiter
4	St.MasteringLimtr
5	Stereo Gate
6	St.Parametric4EQ
7	St. Graphic 7EQ
8	St.Exciter/Enhncr
9	Stereo Isolator
10	St. Wah/Auto Wah
11	St. Vintage Wah
12	St. Random Filter
13	St. MultiModeFilter
14	St. Sub Oscillator
15	Talking Modulator
16	Stereo Decimator
17	St. Analog Record
18	OD/Hi.Gain Wah
19	St. Guitar Cabinet
20	St. Bass Cabinet
21	Bass Amp Model
22	Bass Amp+Cabinet
23	Tube PreAmp Model
24	St. Tube PreAmp
25	MicModel+PreAmp
26	Stereo Chorus
27	Black Chorus/Flanger
28	St.HarmonicChorus
29	St. Biphase Mod.
30	Multitap Cho/Delay
31	Ensemble
32	Polysix Ensemble
33	Stereo Flanger
34	St. Random Flanger
35	St. Env. Flanger
36	Stereo Phaser
37	St. Random Phaser
38	St. Env. Phaser
39	Stereo Vibrato
40	St. Auto Fade Mod.
41	2Voice Resonator
42	Doppler
43	Scratch
44	Grain Shifter
45	Stereo Tremolo
46	St. Env. Tremolo
47	Stereo Auto Pan
48	St. Phaser + Trml
49	St. Ring Modulator
50	Detune
51	Pitch Shifter
52	Pitch Shifter BPM
53	Pitch Shift Mod.
54	Organ Vib/Chorus
55	Rotary Speaker
56	L/C/R Delay
57	Stereo/CrossDelay
58	St. Multitap Delay
59	St. Mod Delay
60	St. Dynamic Delay
61	St. AutoPanningDly
62	Tape Echo
63	Auto Reverse
64	Sequence BPM Dly
65	L/C/R BPM Delay
66	Stereo BPM Delay
67	St.BPM Mtap Delay
68	St.BPM Mod. Delay
69	St.BPMAutoPanDly
70	Tape Echo BPM
71	Reverb Hall
72	Reverb SmoothHall
73	Reverb Wet Plate
74	Reverb Dry Plate
75	Reverb Room
76	ReverbBrightRoom
77	Early Reflections
78	P4EQ - Exciter
79	P4EQ - Wah
80	P4EQ - Cho/Flng
81	P4EQ - Phaser
82	P4EQ - Mt. Delay
83	Comp - Wah
84	Comp - Amp Sim
85	Comp - OD/HiGain
86	Comp - P4EQ
87	Comp - Cho/Flng
88	Comp - Phaser
89	Comp - Mt. Delay
90	Limiter - P4EQ
91	Limiter-Cho/Flng
92	Limiter - Phaser
93	Limiter - Mt.Delay
94	Exciter - Comp
95	Exciter - Limiter
96	Exciter-Cho/Flng
97	Exciter - Phaser
98	Exciter - Mt.Delay
99	OD/HG - Amp Sim
100	OD/HG - Cho/Flng
101	OD/HG - Phaser
102	OD/HG - Mt.Delay
103	Wah - Amp Sim
104	Decimator - Amp
105	Decimator - Comp
106	AmpSim - Tremolo
107	Cho/Flng - Mt.Dly
108	Phaser - Cho/Flng
109	Reverb - Gate

For FX Master 2 only

110	St.Mltband Limiter
111	PianoBody/Damper
112	OD/HyperGain Wah
113	GuitarAmp + P4EQ
114	BassTubeAmp+Cab.
115	St. Mic + PreAmp
116	Multitap Cho/Delay
117	St. Pitch Shifter
118	St. PitchShift BPM
119	Rotary SpeakerOD
120	L/C/R Long Delay
121	St/Cross Long Dly
122	Hold Delay
123	LCR BPM Long Dly
124	St. BPM Long Dly
125	Early Reflections

MIDI Preset

		Default	Master Kbd	Player	Accordion 1	Accordion 2	Accordion 3	Extern. Seq	Tablet
MIDI IN Channel	1	Ply Tr 1	Global	Ply Tr 1	Global	Upper 1	Upper 1	Ply Tr 1	-
	2	Ply Tr 2	Control	Ply Tr 2	Lower	Lower	Lower	Ply Tr 2	-
	3	Ply Tr 3	-	Ply Tr 3	Bass	-	Bass	Ply Tr 3	-
	4	Ply Tr 4	-	Ply Tr 4	-	Upper 2	Upper 2	Ply Tr 4	-
	5	Ply Tr 5	-	Ply Tr 5	-	Upper 3	Upper 3	Ply Tr 5	-
	6	Ply Tr 6	-	Ply Tr 6	-	-	-	Ply Tr 6	-
	7	Ply Tr 7	-	Ply Tr 7	-	-	-	Ply Tr 7	-
	8	Ply Tr 8	-	Ply Tr 8	-	-	-	Ply Tr 8	-
	9	Ply Tr 9	-	Ply Tr 9	-	Bass	-	Ply Tr 9	-
	10	Ply Tr 10	-	Ply Tr 10	Drum	Drum	Drum	Ply Tr 10	-
	11	Ply Tr 11	-	Ply Tr 11	Percussion	Percussion	Percussion	Ply Tr 11	-
	12	Ply Tr 12	-	Ply Tr 12	Acc 1	Acc 1	Acc 1	Ply Tr 12	-
	13	Ply Tr 13	-	Ply Tr 13	Acc 2	Acc 2	Acc 2	Ply Tr 13	-
	14	Ply Tr 14	-	Ply Tr 14	Acc 3	Acc 3	Acc 3	Ply Tr 14	-
	15	Ply Tr 15	-	Ply Tr 15	Acc 4	Acc 4	Acc 4	Ply Tr 15	-
	16	Ply Tr 16	-	Ply Tr 16	Acc 5	Acc 5	Acc 5	Ply Tr 16	Control
MIDI OUT Channel	1	Upper 1	Upper 1	Ply Tr 1	Upper 1	Ply Tr 1	Ply Tr 1	Upper 1	-
	2	Upper 2	Upper 2	Ply Tr 2	Upper 2	Ply Tr 2	Ply Tr 2	-	-
	3	Upper 3	Upper 3	Ply Tr 3	Upper 3	Ply Tr 3	Ply Tr 3	-	-
	4	Lower	Lower	Ply Tr 4	Lower	Ply Tr 4	Ply Tr 4	-	-
	5	-	-	Ply Tr 5	-	Ply Tr 5	Ply Tr 5	-	-
	6	-	-	Ply Tr 6	-	Ply Tr 6	Ply Tr 6	-	-
	7	-	-	Ply Tr 7	-	Ply Tr 7	Ply Tr 7	-	-
	8	-	-	Ply Tr 8	-	Ply Tr 8	Ply Tr 8	-	-
	9	-	-	Ply Tr 9	-	Ply Tr 9	Ply Tr 9	-	-
	10	-	-	Ply Tr 10	-	Ply Tr 10	Ply Tr 10	-	-
	11	-	-	Ply Tr 11	-	Ply Tr 11	Ply Tr 11	-	-
	12	-	-	Ply Tr 12	-	Ply Tr 12	Ply Tr 12	-	-
	13	-	-	Ply Tr 13	-	Ply Tr 13	Ply Tr 13	-	-
	14	-	-	Ply Tr 14	-	Ply Tr 14	Ply Tr 14	-	-
	15	-	-	Ply Tr 15	-	Ply Tr 15	Ply Tr 15	-	-
	16	-	-	Ply Tr 16	-	Ply Tr 16	Ply Tr 16	-	Control
Chord 1 Chann.		Off	1	Off	2	2	2	Off	Off
Chord 2 Chann.		Off	Off	Off	3	3	Off	Off	Off
MIDI IN Velocity		Normal	Normal	Normal	110	110	Normal	Normal	Normal
MIDI IN Oct. Trp.		On	On	On	On	On	On	On	Off
MIDI IN Track Mute		-	On	–	–	–	–	On	Off
Upper er Oct. Trp.		0	0	0	0	0	0	0	0
Lower Oct. Trp.		0	0	0	0	0	0	0	0

Assignable parameters

List of Pedal/Footswitch functions

The following functions can be assigned to an Assignable Footswitch or Pedal.

Function	Meaning
Functions assignable to a Footswitch	
Off	No function assigned
Style Start/Stop	Same functions of the control panel buttons with the same name
Play/Stop Player	
Go to Beginning - Player	
Chord Seq. Record	
Chord Seq. Play	
Synchro Start	
Synchro Stop	
Tap Tempo/Reset	
Tempo Lock	
Ritardando	Progressively increases the Tempo value
Accelerando	Progressively decreases the Tempo value
Tempo Up	Increases the Tempo value
Tempo Down	Decreases the Tempo value
Intro 1	Same functions of the control panel buttons with the same name
Intro 2	
Intro 3/Count In	
Ending 1	
Ending 2	
Ending 3	
Fill 1	
Fill 2	
Fill 3	
Fill 4	
Break	
Variation 1	
Variation 2	
Variation 3	
Variation 4	
Variation Up	Selects the next Variation
Variation Down	Selects the previous Variation
Fade In/Out	Same functions of the control panel buttons with the same name
Memory	
Bass Inversion	
Manual Bass	
Style Up	Selects the next Style
Style Down	Selects the previous Style
Single Touch	Same functions of the control panel buttons with the same name
STS1	
STS2	
STS3	
STS4	
STS Up	Selects the next STS
STS Down	Selects the previous STS
Perform. Up	Selects the next Performance
Perform. Down	Selects the previous Performance
Style Change	Style number
Transpose Down	Same functions of the control panel buttons with the same name
Transpose Up	
Upper Octave Up	
Upper Octave Down	
Punch In/Out	Turns Punch Recording on/off
Style-Upper1 Mute	
Style-Upper2 Mute	
Style-Upper3 Mute	
Style-Lower Mute	
Style-Drum Mute	
Style-Percussion Mute	
Style-Bass Mute	
Style-Acc1 Mute	
Style-Acc2 Mute	
Style-Acc3 Mute	
Style-Acc4 Mute	
Style-Acc5 Mute	
Style-Acc 1-5 Mute	
Song-Melody Mute	Mute of Song track 4 (usually, the Melody track) in Standard MIDI Files
Vocal Remover On/Off	Voice removal from MP3 Songs
Song-Drum&Bass Mode	Mute of all tracks, apart for track 2 (usually Bass) and 10 (usually Drum)
Solo Selected Track	
Damper Pedal	
Soft Pedal	
Sostenuto Pedal	
Bass&Lower Backing	Mutes all tracks, except for Bass and Lower
Ensemble On/Off	
QuarterTone	Turns Quarter Tone on/off
Global-Scale	Scale selection
SubScale Preset1-SC1	
SubScale Preset2-SC2	
SubScale Preset3-SC3	
SubScale Preset4-SC4	
Chord Latch	Holds the recognized chord until the pedal is released
Chord Latch + Damper	Holds the recognized chord until the pedal is released, and sustains the tracks where the Damper has been turned on
Glide	When the pedal is pressed, affected notes on Upper tracks are bent down, according to settings for the Pitch Bend on the same tracks. When the pedal is released, notes return to the normal pitch, at the speed defined by the "Time" parameter (see "Glide" on page 234).

Function	Meaning
FX CC12 Switch	Standard FX controllers
FX CC13 Switch	
Rotary Spkr On/Off	
Rotary Spkr Fast/Slow	
Text Page Down	These options let you move to the previous or next page, when reading a text file loaded with a Song (see “Text files loaded with Standard MIDI Files and MP3 files” on page 281) or Song Book entry (see “On-the-fly TXT loading” on page 281).
Text Page Up	
SongBook Next	Moves to the next SongBook entry in the selected Custom List.
Pad 1	Same functions of the control panel buttons with the same name
Pad 2	
Pad 3	
Pad 4	
Pad Stop	
Sound Controller 1	Controls assigned to selected Sounds parameters
Sound Controller 2	
Functions assignable to a Pedal	
Master Volume	
Accompaniment Volume	
Keyboard Expression	
Pad Volume	With this function assigned, you can control the proportional volume of all four Pads at the same time. Please note that the status of the Pad’s volume, after having been modified with a pedal or slider, is made current, and will be saved in a Performance or STS by using the relevant Write procedure.
Joystick +X	Joystick right
Joystick -X	Joystick left
Joystick +Y	Joystick forward
Joystick -Y	Joystick backward
Upper VDF Cutoff	Filter cutoff (for Sounds assigned to the Upper tracks)
Upper VDF Resonance	Filter resonance (for Sounds assigned to the Upper tracks)
FX CC12 Ctl	Standard FX controllers
FX CC13 Ctl	

List of Assignable Switches functions

The following functions can be assigned to the Assignable Switches.

Function	Meaning
Off	No function assigned
Ritardando	Progressively increases the Tempo value
Accelerando	Progressively decreases the Tempo value
Style Up	Selects the next Style
Style Down	Selects the previous Style
Perform. Up	Selects the next Performance
Perform. Down	Selects the previous Performance
Style-Upper1 Mute	
Style-Upper2 Mute	
Style-Upper3 Mute	
Style-Lower Mute	
Style-Drum Mute	
Style-Percussion Mute	
Style-Bass Mute	
Style-Acc1 Mute	
Style-Acc2 Mute	
Style-Acc3 Mute	
Style-Acc4 Mute	
Style-Acc5 Mute	
Style-Acc 1-5 Mute	
Song-Melody Mute	Mute of Song track 4 (usually, the Melody track) in Standard MIDI Files
Vocal Remover On/Off	Voice removal from MP3 Songs
Song-Drum&Bass Mode	Mute of all tracks, apart for track 2 (usually Bass) and 10 (usually Drum)
Solo Selected Track	
Bass&Lower Backing	Mutes all tracks, except for Bass and Lower
QuarterTone	Turns Quarter Tone on/off
Global-Scale	Scale selection
SubScale Preset1-SC1	
SubScale Preset2-SC2	
SubScale Preset3-SC3	
SubScale Preset4-SC4	
FX CC12 Switch	Standard FX controllers
FX CC13 Switch	
Rotary Spkr On/Off	
Rotary Spkr Fast/Slow	
Text Page Down	These options let you move to the previous or next page, when reading a text file loaded with a Song (see “Text files loaded with Standard MIDI Files and MP3 files” on page 281) or Song Book entry (see “On-the-fly TXT loading” on page 281).
Text Page Up	
SongBook Next	Moves to the next SongBook entry in the selected Custom List.
Sound Controller 1	Controls assigned to selected Sounds parameters
Sound Controller 2	

Scales

The following is a list of scales (or tunings) you can select in various operating modes.

Equal	Equal tuning, the standard scale for modern Western music. It is made of 12 identical semitones.
Pure Major	Major chords in the selected key are perfectly tuned.
Pure Minor	Minor chords in the selected key are perfected tuned.
Arabic	An arabic scale, using quarters of tone. Set the Key parameter as follow: C - for the “rast C/bayati D” scale D - for the “rast D/bayati E” scale F - for the “rast F/bayati G” scale G - for the “rast G/bayati A” scale A# - for the “rast Bb/bayati C” scale
Pythagorean	Pythagorean scale, based on the music theories of the great Greek philosopher and matematician. It is most suitable for melodies.
Werckmeister	Late Baroque/Classic Age scale. Very suitable for XVIII Century music.
Kirnberger	Harpsichord scale, very common during the XVIII Century.
Slendro	Scale of the Indonesian Gamelan. The octave is divided in 5 notes (C, D, F, G, A). The remaining notes are tuned as in the Equal tuning.
Pelog	Scale of the Indonesian Gamelan. The octave is divided in 7 notes (all white keys, when Key is = C). The black keys are tuned as in the Equal tuning.
Stretch	Simulates the “stretched” tuning of an acoustic piano. Basically an equal tuning, the lowest notes are slightly lower, while the highest notes are slightly higher than the standard.
User	User scale, i.e. scale programmed by the user for the Style Play, Backing Sequence and Song Play modes. The user scale can be saved to a Performance, Style Settings, STS or Song. You can’t select a User scale in Global mode.

Effects

Pa600 is equipped with four powerful Effect Processors for the internal MIDI tracks (Upper, Lower, Style, Song, Pads).

Dynamic Modulation sources

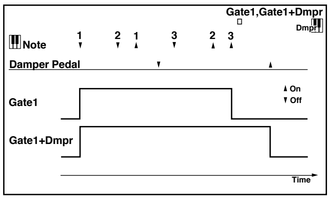
When the D-mod symbol is encoutered, a Dynamic Modulation can be applied to the corresponding parameter. Dynamic Modulation allows for realtime control of the effect. The following table shows the available modulation sources.

Modulation source	Note
Off	No modulation
Gate1	
Gate1+Dmpr	
Gate2	
Gate2+Dmpr	
Note Nr	Note Number
Velocity	Note Velocity
Expo Velocity	Exponential Note Velocity
AfterTouch	After Touch
JS X	Joystick Left/Right
JS+Y: CC#01	Joystick Forward
JS-Y: CC#02	Joystick Backward
MIDI(CC#04)	
MIDI(CC#12)	
MIDI(CC#13)	
Ribb.(CC#16)	Ribbon Controller
MIDI(CC#18)	
MIDI(CC#17)	
MIDI(CC#19)	
MIDI(CC#20)	
MIDI(CC#21)	
MIDI(CC#17+)	
MIDI(CC#19+)	
MIDI(CC#20+)	
MIDI(CC#21+)	
Damper: #64	
Prta.SW: #65	Portamento Switch
Sostenu: #66	Sostenuto Pedal
MIDI(CC#67)	
MIDI(CC#80)	
MIDI(CC#81)	
MIDI(CC#82)	
MIDI(CC#83)	
MIDI(CC#85)	
MIDI(CC#86)	
MIDI(CC#87)	
MIDI(CC#88)	
Tempo	

Some notes on the Gate parameters follow.

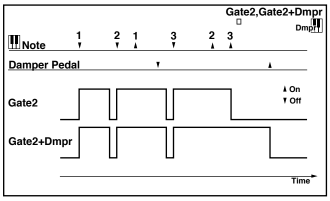
Gate1, Gate1+Dmpr (Gate1+Damper)

The effect is at maximum during note-on, and will stop when all keys are released. With **Gate1 + Dmpr**, the effect will remain at maximum even after the keys are released, as long as the damper (sustain) pedal is pressed.



Gate2, Gate2+Dmpr (Gate2+Damper)

This is essentially the same as for Gate 1 or Gate 1 + Dmpr. However when **Gate 2** or **Gate 2 + Dmpr** are used as a dynamic modulation source for the EG, a trigger will occur at each note-on. (In the case of Gate 1 and Gate 1 + Dmpr, the trigger occurs only for the first note-on.)



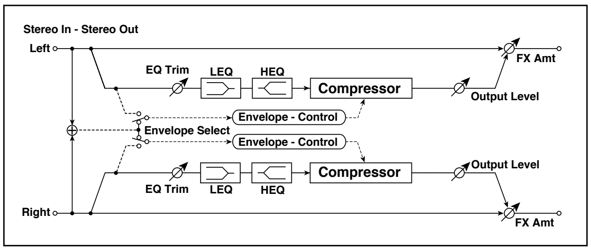
Dynamics (Dynamic)

0: No Effect

Select this option when you do not use any effects.

1: Stereo Compressor

This effect compresses the input signal to regulate the level and give a “punchy” effect. It is useful for guitar, piano, and drum sounds. This is a stereo compressor. You can link left and right channels, or use each channel separately.



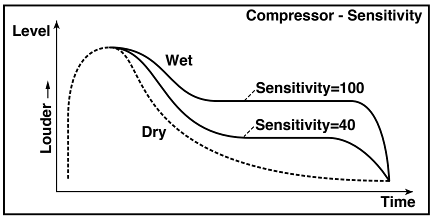
a	Envelope Select	L/R Mix, L/R Individually	Determines whether the left and right channels are linked or used separately	
b	Sensitivity	1...100	Sets the sensitivity	
c	Attack	1...100	Sets the attack level	
d	EQ Trim	0...100	Sets the EQ input level	
e	Pre LEQ Fc	Low, Mid-Low	Selects the cutoff frequency (low or mid-low) of the low-range equalizer	
	Pre HEQ Fc	High, Mid-High	Selects the cutoff frequency (high or mid-high) of the high-range equalizer	
f	Pre LEQ Gain [dB]	–15.0...+15.0	Sets the gain of the Low EQ	
	Pre HEQ Gain [dB]	–15.0...+15.0	Sets the gain of the High EQ	
g	Output Level	0...100	Sets the output level of the compressor	
	Src	Off...Tempo	Selects the modulation source for the compressor output level	
	Amt	–100...+100	Sets the modulation amount for the compressor output level	
h	Wet/Dry	Dry, 1:99...99:1, Wet	Sets the Balance between the wet and dry signal	
	Src	Off...Tempo	Selects a modulation source for Wet/Dry	
	Amt	–100...+100	Sets the modulation amount for Wet/Dry	

a: Envelope Select

This parameter selects whether the left and right channels are linked to control both signals simultaneously, or whether each channel is controlled independently.

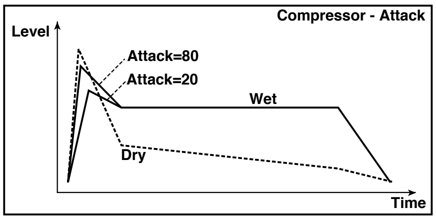
b: Sensitivity
g: Output Level

The “Sensitivity” parameter sets the sensitivity of the compressor. If this parameter is set to a higher value, lower level sounds will be boosted. With a higher Sensitivity, the overall volume level is higher. To adjust the final volume level, use the “Output Level” parameter.



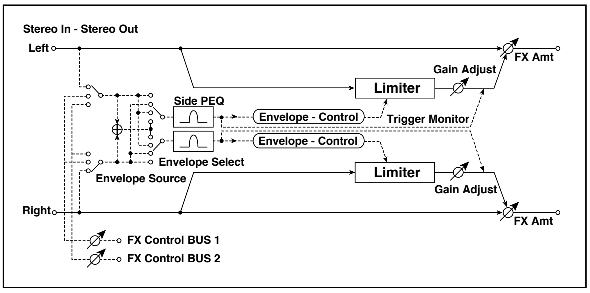
c: Attack

This parameter controls the attack level.



2: Stereo Limiter

The Limiter regulates the input signal level. It is similar to the Compressor, except that the Limiter compresses only signals that exceed the specified level to lower unnecessary peak signals. The Limiter applies a peaking-type EQ to the trigger signal (which controls the degree of the Limiter effect), allowing you to set any band width to be covered. This effect is a stereo limiter. You can link left and right channels, or use each channel individually.



a	Envelope Select	L/R Mix, L Only, R Only, L/R Individually	Selects from linking both channels, controlling only from left channel, only from the right channel, or controlling each channel individually	
b	Ratio	1.0 : 1… 50.0 : 1, Inf : 1	Sets the signal compression ratio	
c	Threshold [dB]	–40...0	Sets the level above which the compressor is applied	
v	Attack	1...100	Sets the attack time	
	Release	1...100	Sets the release time	
e	Gain Adjust [dB]	–Inf, –38...+24	Sets the output gain	
	Src	Off...Tempo	Selects the modulation source for the output gain	
	Amt	–63...+63	Sets the modulation amount of the output gain	
f	Side PEQ Insert	Off, On	Toggles between on/off of the trigger signal’s EQ	
	Trigger Monitor	Off, On	Switches between effect output monitor and trigger signal monitor	
g	Side PEQ Cutoff [Hz]	20...12.00k	Sets the EQ center frequency for the trigger signal	
	Q	0.5...10.0	Sets the EQ bandwidth for the trigger signal	
	Gain [dB]	–18.0...+18.0	Sets the EQ gain for the trigger signal	
h	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , “Dynamic Modulation sources,” on page 330	
	Amt	–100...+100	Amount of modulation source	

a: Envelope Select

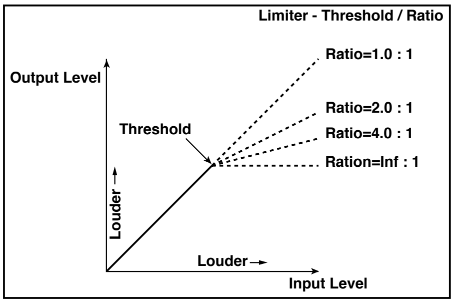
When L/R Mix is selected for this parameter, the left and right channels are linked to control the Limiter using the mixed signal. If L Only (or R Only) is selected, the left and right channels are linked, and the Limiter is controlled via only the left (or right) channel.

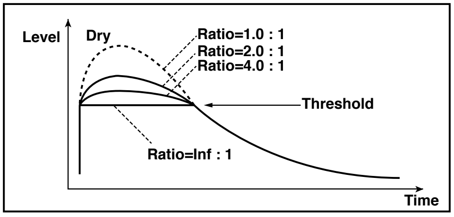
With L/R individually, the left and right channels control the Limiter individually.

b: Ratio
c: Threshold [dB]
e: Gain Adjust [dB]

This parameter sets the signal compression "Ratio". Compression is applied only when the signal level exceeds the "Threshold" value.

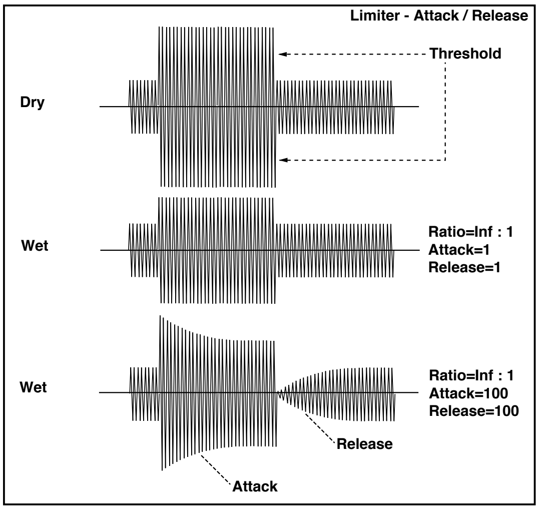
Adjust the output level using the "Gain Adjust" parameter, since compression causes the entire level to be reduced.





d: Attack
d: Release

These parameters set the attack time and release time. A higher attack time will cause the compression to be applied more slowly.



f: Trigger Monitor

Setting this parameter On will cause the trigger signal to be output, instead of the effect sound. Use this parameter to check the trigger signal with EQ applied.

Usually, set this to Off.

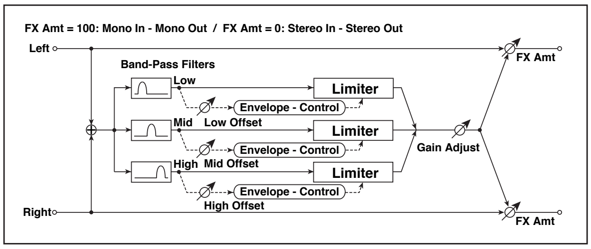
f: Side PEQ Insert
g: Side PEQ Cutoff [Hz]
g: Q
g: Gain [dB]

These parameters are used to set the EQ applied to the trigger signal.

The Limiter determines whether the compression is applied or not, based on the post-EQ trigger signal. Setting the equalizer allows you to set the Limiter to respond to any frequency band.

3: Multiband Limiter

This effect applies the Limiter to the low range, mid range, and high range of the input signal. You can control dynamics for each range to adjust the sound pressure of the low range, mid range, and high range in a different way from the EQ.



a	Ratio	1.0 : 1...50.0 : 1, Inf : 1	Sets the signal compression ratio	
b	Threshold [dB]	–40...0	Sets the level above which the compressor is applied	
c	Attack	1...100	Sets the attack time	
d	Release	1...100	Sets the release time	
e	Low Offset [dB]	–40...0	Gain of the low-range trigger signal	
f	Mid Offset [dB]	–40...0	Gain of the mid-range trigger signal	
g	High Offset [dB]	–40...0	Gain of the high-range trigger signal	
h	Gain Adjust [dB]	–Inf, –38...+24	Sets the output gain	
	Src	Off...Tempo	Selects the modulation source for the output gain	
	Amt	–63...+63	Sets the modulation amount of the output gain	
i	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	–100...+100	Amount of modulation source	

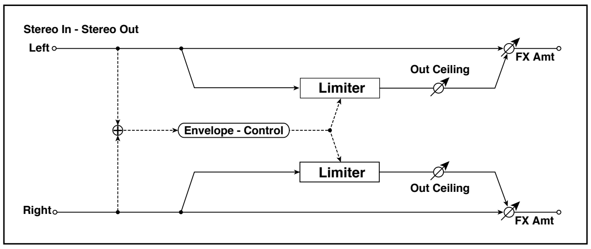
e: Low Offset [dB]
f: Mid Offset [dB]
g: High Offset [dB]

These parameters set the gain of the trigger signal.

For example, if you do not want to apply compression to the high range, reduce the "High Offset" value down below the "Threshold" level. In this way, the high range limiter will not respond, and compression will not be applied.

4: St.MasteringLimtr (Stereo Mastering Limiter)

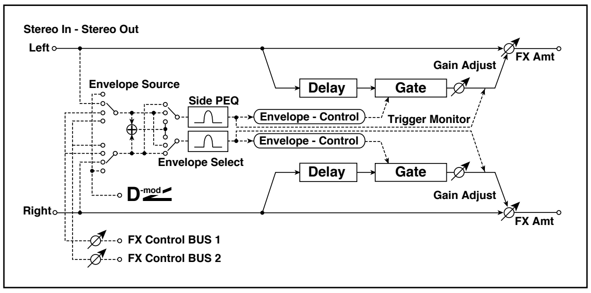
This is a stereo limiter that is optimized for mastering songs.


Stereo In - Stereo Out
Left
Right
Limiter
Limiter
Out Ceiling
Out Ceiling
Envelope - Control
FX Amt
FX Amt

a	Threshold [dB]	–30.0...0.0	Sets the level above which the compressor is applied	
b	Out Ceiling [dB]	–30.0...0.0	Sets the output gain	
c	Release [msec]	0.50...1000.0	Sets the release time	
d	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	–100...+100	Amount of modulation source	

5: Stereo Gate

This effect mutes the input signal when it falls below a specified level. You can also invert the on/off status of the gate, or use note-on/off messages to turn the gate on/off directly.

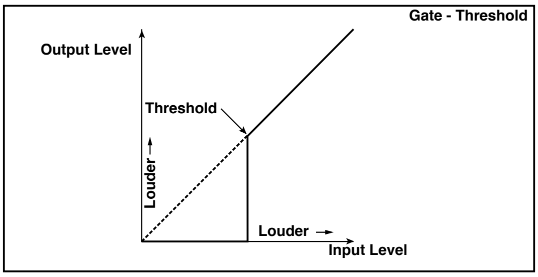

Stereo In - Stereo Out
Left
Right
Envelope Source
Side PEQ
Envelope Select
Envelope - Control
Envelope - Control
Trigger Monitor
Delay
Gate
Delay
Gate
Gain Adjust
Gain Adjust
FX Amt
FX Amt
D-mod
FX Control BUS 1
FX Control BUS 2

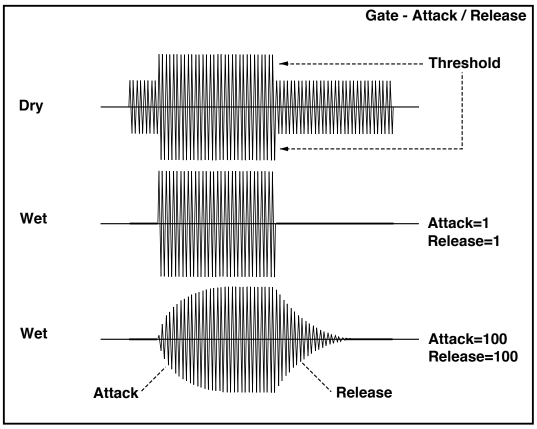
a	Envelope Source	D-mod, Input	Selects the source to control the gate: D-mod control, or use the input signal as a trigger	
b	Envelope Select	L/R Mix, L Only, R Only	Selects the control signal: left and right linked, left only, or right only	
	Src	Off...Tempo	Selects the source that will control the gate when Envelope Src = D-mod	
c	Threshold	0...100	Sets the level at which gating is applied	
	Polarity	+, –	Switches the polarity of gating	
d	Attack	1...100	Sets the attack time	
	Release	1...100	Sets the release time	
e	Delay Time [msec]	0...100	Sets the delay time for the gate input	
f	Side PEQ Insert	Off, On	Switches the trigger signal equalizer on/off	
	Trigger Monitor	Off, On	Switches between monitoring the effect output and the trigger signal	
g	Side PEQ Cutoff [Hz]	20...12.00k	Sets the center frequency of the equalizer for the trigger signal	
	Q	0.5...10.0	Sets the bandwidth of the equalizer for the trigger signal	
	Gain [dB]	–18.0...+18.0	Sets the gain of the equalizer for the trigger signal	
h	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	–100...+100	Amount of modulation source	

c: Threshold
d: Attack
d: Release

"Threshold" specifies the level at which gating occurs when "Envelope Select" is set to L/R Mix, L Only, or R Only.

"Attack" and "Release" specify the attack time and release time of the gate.





c: Polarity

This inverts the polarity of the gate on/off operation. With the "–" setting, the gate will close when the input signal exceeds the specified level. The direction in which the modulation source opens or closes the gate will also be reversed.

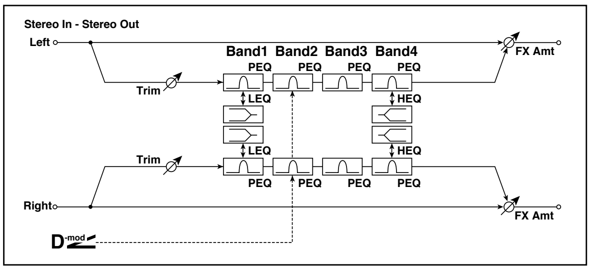
e: Delay Time [msec]

This sets the delay time for the input to the gate. When using shorter Attack Time settings, you can lengthen the Delay Time so that the sound is input after the gate opens.

EQ and Filters (EQ/Filter)

6: St.Parametric4EQ
(Stereo Parametric 4-Band EQ)

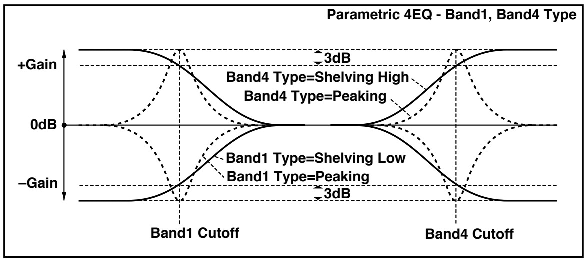
This is a stereo 4-band parametric equalizer. You can select peaking type or shelving type for Band 1 and 4. The gain of Band 2 can be controlled by dynamic modulation.

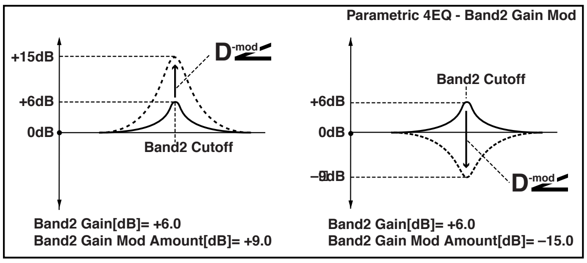

Stereo In - Stereo Out
Left
Right
Trim
Trim
Band1 Band2 Band3 Band4
PEQ PEQ PEQ PEQ
LEQ
HEQ
LEQ
HEQ
PEQ PEQ PEQ PEQ
FX Amt
FX Amt
D-mod

a	Trim	0...100	Sets the input level	
b	Band1 Type	Peaking, Shelving-Low	Selects the type of Band 1	
c	Band4 Type	Peaking, Shelving-High	Selects the type of Band 4	
d	Band2 Dynamic Gain Src	Off...Tempo	Selects the modulation source of the Band 2 gain	
	Amt [dB]	–18.0...+18.0	Sets the modulation amount of Band 2 gain	
e	Band1 Cutoff [Hz]	20...1.00k	Sets the center frequency of Band 1	
	Q	0.5...10.0	Sets the bandwidth of Band 1	
	Gain [dB]	–18.0...+18.0	Sets the gain of Band 1	
f	Band2 Cutoff [Hz]	50...10.00k	Sets the center frequency of Band 2	
	Q	0.5...10.0	Sets the bandwidth of Band 2	
	Gain [dB]	–18.0...+18.0	Sets the gain of Band 2	
g	Band3 Cutoff [Hz]	300...10.00k	Sets the center frequency of Band 3	
	Q	0.5...10.0	Sets the bandwidth of Band 3	
	Gain [dB]	–18.0...+18.0	Sets the gain of Band 3	
h	Band4 Cutoff [Hz]	500...20.00k	Sets the center frequency of Band 4	
	Q	0.5...10.0	Sets the bandwidth of Band 4	
	Gain [dB]	–18.0...+18.0	Sets the gain of Band 4	
i	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , “Dynamic Modulation sources,” on page 330	
	Amt	–100...+100	Amount of modulation source	

b: Band1 Type
c: Band4 Type

Selects a filter type for Band 1 and 4.





e, f, g, h: Q

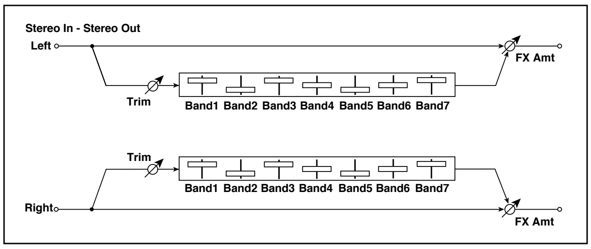
These parameters set the bandwidth of each equalizer. The higher the value, the narrower the band becomes.

d: Band2 Dynamic Gain Src
d: Amt [dB]

You can control the gain of Band 2 using the modulation source.

7: St. Graphic 7EQ
(Stereo Graphic 7-Band EQ)

This is a stereo 7-band graphic equalizer. The bar graph of the gain setting for each band gives you a clear, visual idea of frequency responses. You can select a center frequency setting for each band from twelve types, according to the sound.


Stereo In - Stereo Out
Left
Right
Trim
Trim
Band1 Band2 Band3 Band4 Band5 Band6 Band7
Band1 Band2 Band3 Band4 Band5 Band6 Band7
FX Amt
FX Amt

a	Type	1:Wide 1, 2:Wide 2, 3:Wide 3, 4:Half Wide 1, 5:Half Wide 2, 6:Half Wide 3, 7:Low, 8:Wide Low, 9:Mid, 10:Wide Mid, 11:High, 12:Wide High	Selects a combination of center frequencies for each band	
b	Trim	0...100	Sets the input level	
c	Band1 [dB]	–18.0...+18.0	Sets the gain of Band 1	
d	Band2 [dB]	–18.0...+18.0	Sets the gain of Band 2	
e	Band3 [dB]	–18.0...+18.0	Sets the gain of Band 3	
f	Band4 [dB]	–18.0...+18.0	Sets the gain of Band 4	
g	Band5 [dB]	–18.0...+18.0	Sets the gain of Band 5	
h	Band6 [dB]	–18.0...+18.0	Sets the gain of Band 6	
i	Band7 [dB]	–18.0...+18.0	Sets the gain of Band 7	

j	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	–100...+100	Amount of modulation source	

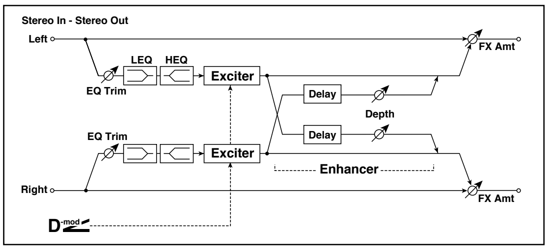
a: Type

This parameter selects a combination of center frequencies for each band. The center frequency of each band is shown in the right of the screen.

You can configure a 21-Band Graphic EQ ranging from 80 Hz to 18 kHz if you route three Graphic 7-Band EQ effects in series, with a setting of 7:Low, 9:Mid, and 11:High for each EQ.

8: St.Exciter/Enhncr
(Stereo Exciter/Enhancer)

This effect is a combination of the Exciter, which adds a punch to the sound and the Enhancer, which adds spread and presence.



a	Exciter Blend	–100...+100	Sets the intensity (depth) of the Exciter effect	
	Src	Off...Tempo	Selects the modulation source of the Exciter intensity	
	Amt	–100...+100	Sets the modulation amount of the Exciter intensity	
b	Emphasis Freq	0...70	Sets the frequency to be emphasized	
	Src	Off...Tempo	Selects the modulation source of the frequency to be emphasized	
	Amt	–70...+70	Sets the amount of modulation of the frequency to be emphasized	
c	Enhancer Delay L [msec]	0.0...50.0	Sets the delay time for the Enhancer left channel	
d	Enhancer Delay R [msec]	0.0...50.0	Sets the delay time for the Enhancer right channel	
e	Enhancer Depth	0...100	Sets the determines to what degree the Enhancer effect is applied	
	Src	Off...Tempo	Selects the modulation source of the Enhancer width	
	Amt	–100...+100	Sets the modulation amount of the Enhancer width	
f	EQ Trim	0...100	Sets the 2-band EQ input level	
g	Pre LEQ Fc	Low, Mid-Low	Selects the cutoff frequency (low or mid-low) of the low-range equalizer	
	Pre HEQ Fc	High, Mid-High	Selects the cutoff frequency (high or mid-high) of the high-range equalizer	
h	Pre LEQ Gain [dB]	-15.0...+15.0	Gain of the Lo EQ	
	Pre HEQ Gain [dB]	-15.0...+15.0	Gain of the High EQ	
i	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	–100...+100	Amount of modulation source	

a: Exciter Blend

This parameter sets the depth (intensity) of the Exciter effect. Positive values give a frequency pattern (to be emphasized) different from negative values.

b: Emphasis Freq

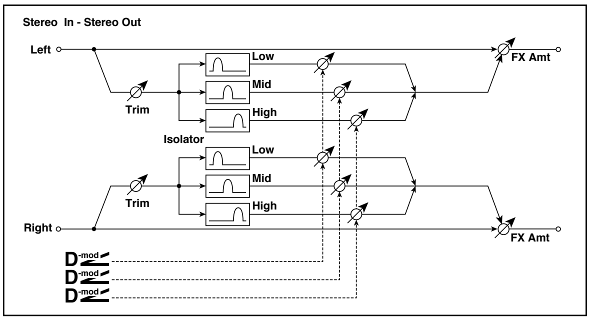
This parameter sets the frequency to be emphasized. Higher values will emphasize lower frequencies.

c: Enhancer Delay L [msec]
d: Enhancer Delay R [msec]

These parameters set the delay time for the Enhancer left and right channel. Specifying a slightly different delay time for the left and right channel will add a stereo image, depth, and width to the sound.

9: Stereo Isolator

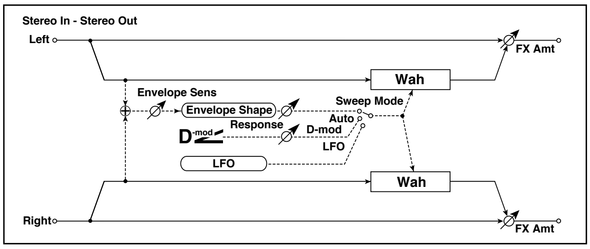
This is a stereo effect that separates the input signal into low, mid, and high-frequency bands, and controls the volume of each band independently. For example you can separately boost or cut the kick, snare, and hi-hat sounds from a drum signal in real-time.



a	Trim	0...100	Sets the input level	
b	Low/Mid [Hz]	100...500	Sets the frequency at which the low and mid bands are divided	
c	Mid/High [Hz]	2000...6000	Sets the frequency at which the mid and high bands are divided	
d	Low Gain [dB]	–Inf, –59...+12	Sets the low-frequency gain	
	Src	Off...Tempo	Selects the source that will modulate low-frequency gain	
	Amt	–72...+72	Sets the amount by which the low-frequency gain will be modulated	
e	Mid Gain [dB]	–Inf, –59...+12	Sets the mid-frequency gain	
	Src	Off...Tempo	Selects the modulation source for mid-frequency gain	
	Amt	–72...+72	Sets the amount by which the mid-frequency gain will be modulated	
f	High Gain [dB]	–Inf, –59...+12	Sets the high-frequency gain	
	Src	Off...Tempo	Selects the modulation source for high-frequency gain	
	Amt	–72...+72	Sets the amount by which the high-frequency gain will be modulated	
g	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	–100...+100	Amount of modulation source	

10: St. Wah/Auto Wah
(Stereo Wah/Auto Wah)

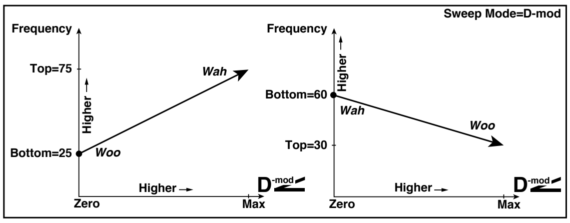
This stereo wah effect allows you to create sounds from vintage wah pedal simulation to auto-wah simulation, and much broader range settings.

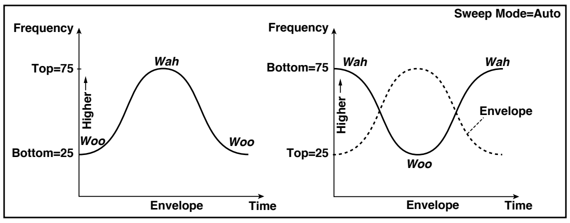

Stereo In - Stereo Out
Left
FX Amt
Wah
Envelope Sens
Envelope Shape
Sweep Mode
Auto
Response
D-mod
D-mod
LFO
LFO
Wah
Right
FX Amt

a	Frequency Bottom	0...100	Sets the lower limit of the wah center frequency	
	Frequency Top	0...100	Sets the upper limit of the wah center frequency	
b	Sweep Mode	Auto, D-mod, LFO	Selects the control from auto-wah, modulation source, and LFO	
	Src	Off...Tempo	Selects the modulation source for the wah when Sweep Mode=D-mod	
	Respon	0...100	Sets the response speed when Sweep Mode = Auto or D-mod	
c	Envelope Sens	0...100	Sets the sensitivity of auto-wah	
	Envelope Shape	–100...+100	Sets the sweep curve of auto-wah	
d	LFO Frequency [Hz]	0.02...20.00	Sets the speed of the LFO	
	Src	Off...Tempo	Selects a modulation source for LFO speed	
	Amt	–20.00...+20.00	Sets the modulation amount of LFO speed	
e	MIDI Sync	Off, On	When this is on, the LFO speed is set by BPM, Base Note, and Times, instead of Frequency	Sync
	BPM	MIDI, 40.00...300.00	MIDI syncs to the system tempo; 40–300 sets the tempo manually for this individual effect	
	Base Note	r...w	Selects the type of notes that specify the LFO speed	
	Times	x1...x32	Sets the number of notes that specify the LFO speed	
f	Resonance	0...100	Sets the resonance amount	
	Low Pass Filter	Off, On	Switches the wah low pass filter on and off	
g	Output Level	0...100	Sets the output level of the effect sound	
	Src	Off...Tempo	Selects the modulation source that will control the effect output level	
	Amt	–100...+100	Sets the modulation amount of the effect output level	
h	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , “Dynamic Modulation sources,” on page 330	
	Amt	–100...+100	Amount of modulation source	

a: Frequency Bottom
a: Frequency Top

The sweep width and direction of the wah filter are determined by the “Frequency Top” and “Frequency Bottom” settings.


Sweep Mode=D-mod
Frequency
Top=75
Bottom=25
Higher
Wah
Woo
Higher
Zero
Max
D-mod
Frequency
Bottom=60
Top=30
Higher
Wah
Woo
Higher
Zero
Max
D-mod


Sweep Mode=Auto
Frequency
Top=75
Bottom=25
Higher
Wah
Woo
Woo
Envelope
Time
Frequency
Bottom=75
Top=25
Higher
Wah
Wah
Envelope
Woo
Envelope
Time

b: Sweep Mode

This parameter changes the wah control mode. Setting “Sweep Mode” to Auto will select an auto-wah that sweeps according to envelope changes in the input signal level. Auto-wah is frequently used for funk guitar parts and clav sounds.

When “Sweep Mode” is set to D-mod, you can control the filter directly via the modulation source in the same way as a wah pedal.

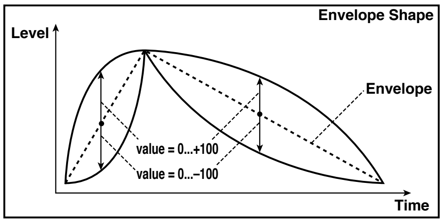
When “Sweep Mode” is set to LFO, the effect uses LFO to sweep in cycle.

c: Envelope Sens

This parameter sets the sensitivity of auto-wah. Increase the value if the input signal is too low to sweep. Reduce the value if the input signal is so high that the filter is stopped temporarily.

c: Envelope Shape

This parameter determines the sweep curve for auto-wah.


Envelope Shape
Level
Envelope
value = 0...+100
value = 0...–100
Time

d: LFO Frequency [Hz]
e: MIDI Sync

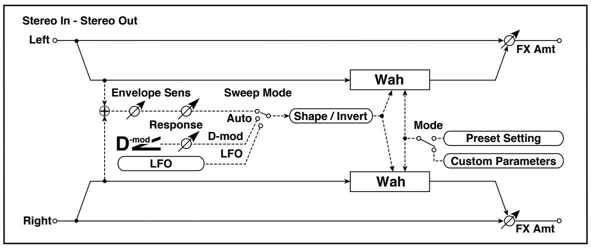
When “MIDI/Tempo Sync”=Off, the LFO speed uses the LFO Frequency parameter setting. When “MIDI/Tempo Sync”=On, the LFO speed follows the “BPM”, “Base Note”, and “Times” settings.

e: BPM
e: Base Note
e: Times

One cycle of LFO sweep is obtained by multiplying the length of a note (r…w) (selected for “Base Note”, in relation to the tempo specified in “BPM”, or the MIDI Clock tempo if “BPM” is set to MIDI) by the number specified in the Times parameter.

11: St. Vintage Wah
(Stereo Vintage/Custom Wah)

This effect simulates the tonal character of a vintage wah pedal. You can customize the tone and range settings.



a	Mode	Preset, Custom	Selects either preset or custom settings	
	Shape	–100...+100	Sets the curve of the sweep	
	Invert	Off, On	Inverts the polarity of the sweep	
b	Frequency Bottom	0...100	Sets the lower limit of the wah center frequency when Mode = Custom	
	Frequency Top	0...100	Sets the upper limit of the wah center frequency when Mode = Custom	
c	Resonance Bottom	0...100	Sets the lower limit of resonance amount when Mode=Custom	
	Resonance Top	0...100	Sets the upper limit of resonance amount when Mode=Custom	
d	Sweep Mode	Auto, D-mod, LFO	Selects the control from auto-wah, modulation source, and LFO	
	Src	Off...Tempo	Selects the modulation source for the wah when Sweep Mode=D-mod	
	Manual	0...100	Sets the center frequency when Sweep Mode=D-mod and Source=Off	
e	Envelope Sens	0...100	Sets the auto-wah sensitivity	
	Response	0...100	Sets the speed of response when Sweep Mode=Auto or D-mod	
f	LFO Frequency [Hz]	0.02...20.00	Sets the speed of the LFO	
	Src	Off...Tempo	Selects a modulation source for LFO speed	
	Amt	–20.00... +20.00	Sets the modulation amount of LFO speed	
g	MIDI Sync	Off, On	When this is on, the LFO speed is set by BPM, Base Note, and Times, instead of Frequency	Sync
	BPM	MIDI, 40.00... 300.00	MIDI syncs to the system tempo; 40–300 sets the tempo manually for this individual effect	
	Base Note	r...w	Selects the type of notes that specify the LFO speed	
	Times	x1...x32	Sets the number of notes that specify the LFO speed	
h	Output Level	0...100	Sets the output level of the effect sound	
	Src	Off...Tempo	Selects the modulation source that will control the effect output level	
	Amt	–100...+100	Sets the modulation amount of the effect output level	
i	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	–100...+100	Amount of modulation source	

a: Shape

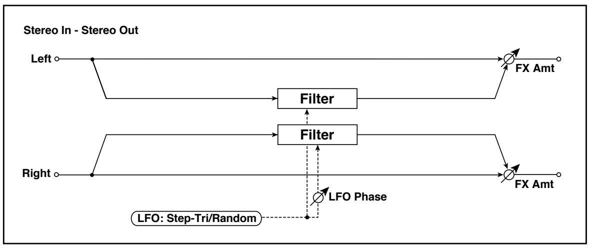
This parameter specifies the sweep curve of the wah. It applies to all control via auto-wah, modulation source, and LFO, and lets you adjust subtle nuances of the wah effect.

a: Mode
b: Frequency Bottom
b: Frequency Top
c: Resonance Bottom
c: Resonance Top

If Mode=Preset, this simulates a vintage wah pedal. In this case, internally fixed values are used for Frequency Bottom/Top and Resonance Bottom/Top, and these settings will be ignored. The settings for Frequency Bottom/Top and Resonance Bottom/Top are valid if Mode=Custom.

12: St. Random Filter
(Stereo Random Filter)

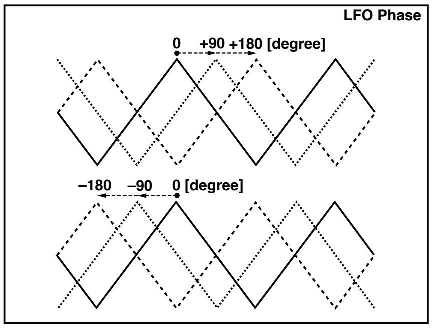
This stereo band pass filter uses a step-shape waveform and random LFO for modulation. You can create a special effect from filter oscillation.



a	LFO Waveform	Step-Tri, Random	Selects the LFO Waveform	
	LFO Phase [degree]	–180...+180	Sets the LFO phase difference between the left and right	
b	LFO Frequency [Hz]	0.02...20.00	Sets the speed of the LFO	
	Src	Off...Tempo	Selects the modulation source used for both LFO speed and step speed	
	Amt	–20.00... +20.00	Sets the modulation amount of LFO speed	
c	LFO Step Freq [Hz]	0.05...50.00	Sets the LFO step speed (speed that changes in steps	
	Amt	–50.00... +50.00	Sets the modulation amount of LFO step speed	
d	MIDI Sync	Off, On	When this is on, the LFO speed is set by BPM, Base Note, and Times, instead of Frequency	Sync
	BPM	MIDI, 40.00... 300.00	MIDI syncs to the system tempo; 40–300 sets the tempo manually for this individual effect	
	Base Note	r...w	Selects the type of notes that specify the LFO speed	
	Times	x1...x32	Sets the number of notes that specify the LFO speed	
e	Step Base Note	r...w	Selects the type of notes to specify the LFO step speed	Sync
	Times	x1...x32	Sets the number of notes to specify the LFO step speed	
f	Manual	0...100	Sets the filter center frequency	
	Src	Off...Tempo	Selects the modulation source for the filter center frequency	
	Amt	–100...+100	Sets the modulation amount for the filter center frequency	
g	Depth	0...100	Sets the modulation depth of filter center frequency	
	Src	Off...Tempo	Selects the modulation source of filter modulation	
	Amt	–100...+100	Sets the modulation amount of filter modulation	
h	Resonance	0...100	Sets the resonance amount	
i	Wet/Dry	-Wet, -1:99...Dry...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	–100...+100	Amount of modulation source	

a: LFO Phase [degree]

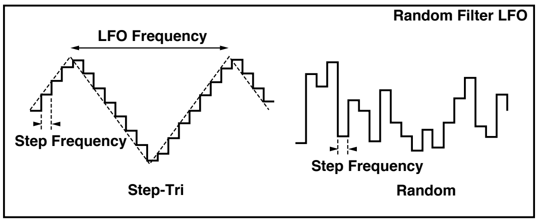
Offsetting the left and right phases alters how modulation is applied to the left and right channels, creating a swelling affect.


LFO Phase
0
+90
+180 [degree]
–180
–90
0 [degree]

a: LFO Waveform
b: LFO Frequency [Hz]
c: LFO Step Freq [Hz]

When "LFO Waveform" is set to Step-Tri, LFO is a step-shape, triangle waveform. The "LFO Frequency" parameter sets the original triangle waveform speed. Changing the "LFO Step Freq" parameter enables you to adjust the width of the steps.

When "LFO Waveform" is set to Random, the "LFO Step Freq" parameter uses a random LFO cycle.


Random Filter LFO
LFO Frequency
Step Frequency
Step-Tri
Step Frequency
Random

d: BPM
e: Step Base Note
e: Times

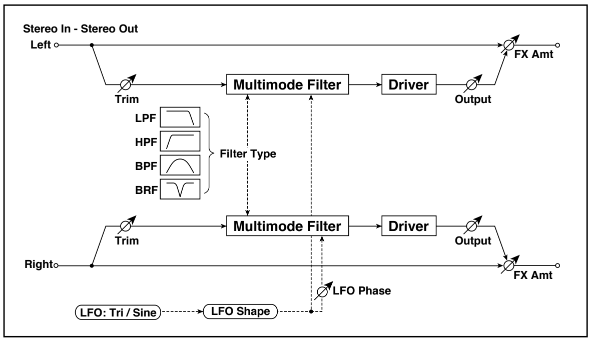
The width of an LFO step, or a cycle of random LFO, is obtained by multiplying the length of a note (r…w) (selected for "Step Base Note", in relation to the tempo specified in "BPM," or the MIDI Clock tempo if "BPM" is set to MIDI) by the number specified in the "Times" parameter.

i: Wet/Dry

The effect sound's phase will be reversed when you set this parameter in the negative range of values.

13: St. MultiModeFilter (Stereo Multi Mode Filter)

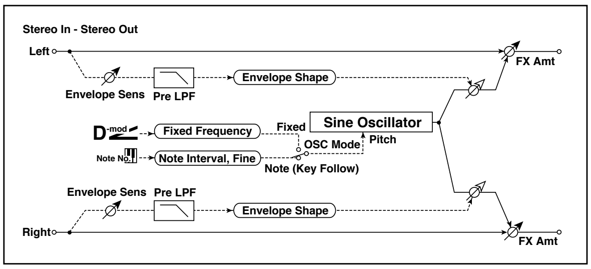
This is a multi-mode filter with four types; low pass, high pass, band pass, and band reject. You can use LFO or dynamic modulation to vary the cutoff frequency or resonance.


Stereo In - Stereo Out
Left
FX Amt
Trim
Multimode Filter
Driver
Output
LPF
HPF
BPF
BRF
Filter Type
Trim
Multimode Filter
Driver
Output
Right
FX Amt
LFO Phase
LFO: Tri / Sine
LFO Shape

a	Type	LPF, HPF, BPF, BRF	Selects the type of filter	
	Trim	0...100	Sets the input level	
b	Cutoff	0...100	Sets the cutoff frequency (center frequency)	
	Src	Off...Tempo	Selects the modulation source of the cutoff	
	Amt	–100...+100	Sets the modulation amount of the cutoff	
c	Resonance	0...100	Sets the resonance amount	
	Src	Off...Tempo	Selects the source that will modulate the amount of resonance	
	Amt	–100...+100	Sets the amount by which the resonance will be modulated	
d	LFO Waveform	Triangle, Sine	Selects the LFO Waveform	
	Phase [degree]	–180...+180	Sets the LFO phase difference between the left and right	
	Depth	0...100	Sets the depth to which the LFO will modulate the cutoff frequency	
e	LFO Frequency [Hz]	0.02...20.00	Sets the speed of the LFO	
	Src	Off...Tempo	Selects a modulation source for LFO speed	
	Amt	–20.00...+20.00	Sets the modulation amount of LFO speed	
f	MIDI Sync	Off, On	When this is on, the LFO speed is set by BPM, Base Note, and Times, instead of Frequency	Sync
	BPM	MIDI, 40.00...300.00	MIDI syncs to the system tempo; 40–300 sets the tempo manually for this individual effect	
	Base Note	r...w	Selects the type of notes that specify the LFO speed	
	Times	x1...x32	Sets the number of notes that specify the LFO speed	
g	Drive SW	Off, On	Switches distortion on/off within the filter	
	Output Level	0...100	Sets the output level	
h	Drive Gain	0...100	Sets the distortion amount	
	Low Boost	0...100	Sets the amount of low-range boost	
i	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	–100...+100	Amount of modulation source	

14: St. Sub Oscillator (Stereo Sub Oscillator)

This effect adds very low frequencies to the input signal. It is very useful when simulating a roaring drum sound or emphasizing powerful low range. This effect is different from the equalizer in that you can add very low range harmonics. You can also adjust the oscillator frequency to match a particular note number, for use as an octaver.


Stereo In - Stereo Out
Left
Envelope Sens
Pre LPF
Envelope Shape
FX Amt
D-mod
Fixed Frequency
Fixed
Sine Oscillator
OSC Mode
Pitch
Note No.
Note Interval, Fine
Note (Key Follow)
Envelope Sens
Pre LPF
Envelope Shape
Right
FX Amt

a	OSC Mode	Note (Key Follow), Fixed	Determines whether the oscillator frequency follows the note number or whether it is fixed	
b	Note Interval	–48...0	Sets the pitch difference from the note number when OSC Mode=Note (Key Follow)	
	Note Fine	–100...+100	Fine adjustment of the oscillator frequency	
c	Fixed Frequency [Hz]	10.0...80.0	Sets the oscillator frequency when OSC Mode=Fixed	
	Src	Off...Tempo	Selects the modulation source for the oscillator frequency when OSC Mode=Fixed	
	Amt	–80...+80	Sets the oscillator frequency modulation amount when OSC Mode=Fixed	
d	Envelope Pre LPF	1...100	Sets the upper limit of the frequency range for which very low harmonics are added	
e	Envelope Sens	0...100	Sets the sensitivity with which very low harmonics are added	
	Envelope Shape	–100...+100	Sets the oscillator's volume envelope curve	
f	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	–100...+100	Amount of modulation source	

a: OSC Mode
b: Note Interval
b: Note Fine

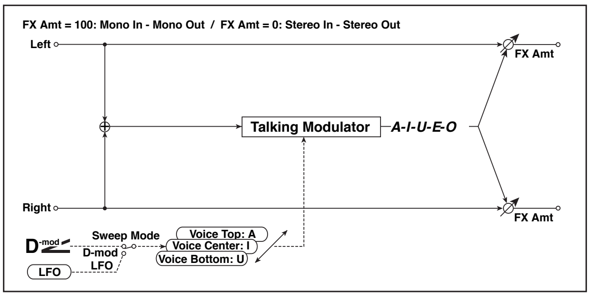
The "OSC Mode" parameter selects the oscillator operation mode. When Note (Key Follow) is selected, the oscillator's frequency is determined based on the note number, allowing you to use it as an octaver. The "Note Interval" parameter sets the pitch offset from the original note number by semitone steps. The "Note Fine" parameter allows you to fine-tune in steps of cents.

d: Envelope Pre LPF

This parameter sets the upper limit of the frequency range to which very low harmonics are added. Adjust this parameter if you do not want to add lower harmonics to the higher range.

15: Talking Modulator

This effect adds an unusual character, like a human voice, to the input signal. Modulating the tone via dynamic modulation, you can create an interesting effect that sounds as if the guitar or synthesizer is talking.


FX Amt = 100: Mono In - Mono Out / FX Amt = 0: Stereo In - Stereo Out
Left
FX Amt
Talking Modulator
A-I-U-E-O
Right
FX Amt
D-mod
Sweep Mode
D-mod
LFO
LFO
Voice Top: A
Voice Center: I
Voice Bottom: U

a	Sweep Mode	D-mod, LFO	Switches between modulation source control and LFO control	
b	Manual Voice Control	Bottom, 1...49, Center, 51...99, Top	Voice pattern control	
	Src	Off...Tempo	Selects the modulation source that controls the voice pattern	
c	Voice Top	A, I, U, E, O	Selects a vowel sound at the top end of control	
d	Voice Center	A, I, U, E, O	Selects a vowel sound in the center of control	
e	Voice Bottom	A, I, U, E, O	Selects a vowel sound at the bottom end of control	
f	Formant Shift	–100...+100	Sets the frequency to which the effect is applied	
	Resonance	0...100	Sets the Level of resonance of the voice pattern	
g	LFO Frequency [Hz]	0.02...20.00	Sets the speed of the LFO	
	Src	Off...Tempo	Selects a modulation source for LFO speed	
	Amt	–20.00...+20.00	Sets the modulation amount of LFO speed	
h	MIDI Sync	Off, On	When this is on, the LFO speed is set by BPM, Base Note, and Times, instead of Frequency	Sync
	BPM	MIDI, 40.00...300.00	MIDI syncs to the system tempo; 40–300 sets the tempo manually for this individual effect	
	Base Note	r...w	Selects the type of notes that specify the LFO speed	
	Times	x1...x32	Sets the number of notes that specify the LFO speed	
i	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	–100...+100	Amount of modulation source	

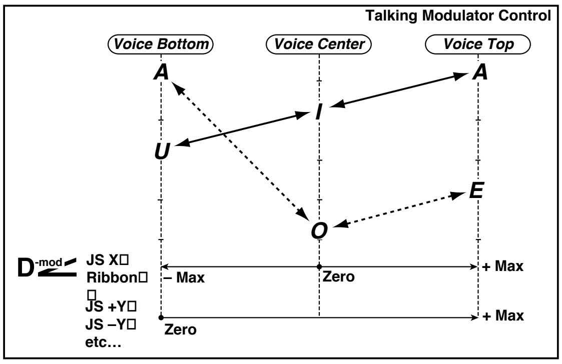
c: Voice Top
d: Voice Center
e: Voice Bottom

These parameters assign vowels to the top, center, and bottom position of the controller.

E.g.: When “Voice Top”=A, “Voice Center”=I, and “Voice Bottom”=U:

If “Sweep Mode”is set to D-mod and Ribbon is selected as the modulation source, moving your finger from the right to left of the ribbon controller will change the sound from “a” to “i,” then “u.”

If Sweep Mode is set to LFO, the sound will change cyclically from “a” to “i,” “u,” “i,” then “a.”



f: Formant Shift

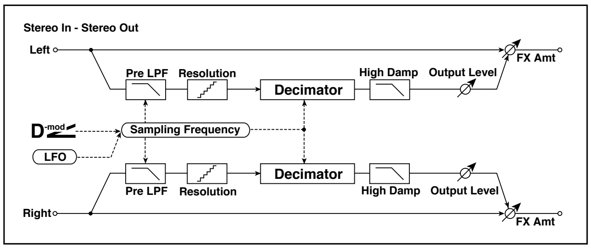
This parameter adjusts the frequency level to which the effect is applied. If you wish to apply the effect to a higher-range sound, set this parameter to a higher value; to apply the effect to a lower-range sound, set this to a lower value.

f: Resonance

This parameter sets the intensity of resonance for the voice pattern. A larger value will add more character to the sound.

16: Stereo Decimator

This effect creates a rough sound like a cheap sampler by lowering the sampling frequency and data bit length. You can also simulate noise unique to a sampler (aliasing).



a	Pre LPF	Off, On	Selects whether the harmonic noise caused by a decrease in sampling frequency is generated or not	
	High Damp [%]	0...100	Sets the ratio of cut of the high range	
b	Sampling Freq [Hz]	1.00k...48.00k	Sets the sampling frequency	
	Src	Off...Tempo	Selects the modulation source of the sampling frequency	
	Amt	–48.00k...+48.00k	Sets the modulation amount of the sampling frequency	
c	LFO Frequency [Hz]	0.02...20.00	Sets the speed of the LFO	
	Src	Off...Tempo	Selects a modulation source for LFO speed	
	Amt	–20.00...+20.00	Sets the modulation amount of LFO speed	
d	MIDI Sync	Off, On	When this is on, the LFO speed is set by BPM, Base Note, and Times, instead of Frequency	Sync
	BPM	MIDI, 40.00...300.00	MIDI syncs to the system tempo; 40–300 sets the tempo manually for this individual effect	
	Base Note	r...w	Selects the type of notes that specify the LFO speed	
	Times	x1...x32	Sets the number of notes that specify the LFO speed	
e	Depth	0...100	Sets the depth of the sampling frequency LFO modulation	
	Src	Off...Tempo	Selects the LFO modulation source of the sampling frequency	
	Amt	–100...+100	Sets the LFO modulation amount of the sampling frequency	
f	Resolution	4...24	Sets the data bit length	
g	Output Level	0...100	Sets the output level	
	Src	Off...Tempo	Selects the modulation source for the output level	
	Amt	–100...+100	Sets the modulation amount of the output level	
h	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , “Dynamic Modulation sources,” on page 330	
	Amt	–100...+100	Amount of modulation source	

a: Pre LPF

If a sampler with a very low sampling frequency receives very high-pitched sound that could not be heard during playback, it could generate pitch noise that is unrelated to the original sound. Set “Pre LPF” to On to prevent this noise from being generated.

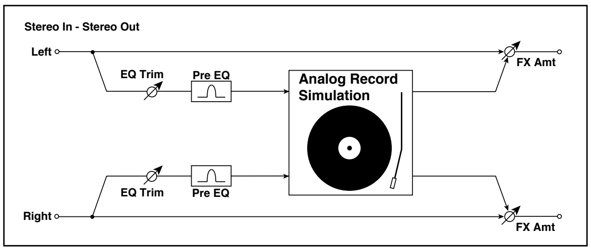
If you set the “Sampling Freq” to about 3 kHz and set “Pre LPF” to Off, you can create a sound like a ring modulator.

f: Resolution
g: Output Level

If you set a smaller value for the “Resolution” parameter, the sound may be distorted. The volume level may also be changed. Use “Output Level” to adjust the level.

17: St. Analog Record
(Stereo Analog Record)

This effect simulates the noise caused by scratches and dust on analog records. It also reproduces some of the modulation caused by a warped turntable.



a	Speed [RPM]	33 1/3, 45, 78	Sets the r.p.m. of a record	
b	Flutter	0...100	Sets the modulation depth	
c	Noise Density	0...100	Sets the noise density	
	Noise Tone	0...100	Sets the noise tone	
d	Noise Level	0...100	Sets the noise level	
	Src	Off...Tempo	Selects the modulation source for the noise level	
	Amt	–100...+100	Sets the modulation amount of the noise level	
e	Click Level	0...100	Sets the click noise level	
	Src	Off...Tempo	Selects the modulation source for the click noise level	
	Amt	–100...+100	Sets the modulation amount of the click noise level	
f	EQ Trim	0...100	Sets the EQ input level	
g	Pre EQ Cutoff [Hz]	300...10.00k	Sets the EQ center frequency	
	Q	0.5...10.0	Sets the EQ band width	
	Gain [dB]	–18.0...+18.0	Sets the EQ gain	
h	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	–100...+100	Amount of modulation source	

b: Flutter

This parameter enables you to set the depth of the modulation caused by a warped turntable.

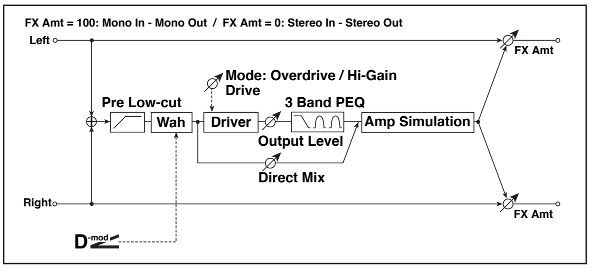
e: Click Level

This parameter enables you to set the level of the click noise that occurs once every rotation of the turntable. This simulation reproduces record noise, and the noise generated after the music on a vinyl record finishes.

Overdrive, Amp models, and Mic models (OD Amp Mic)

18: OD/Hi.Gain Wah
(Overdrive/Hi.Gain Wah)

This distortion effect utilizes an Overdrive mode and a Hi-Gain mode. Controlling the wah effect, the 3-band EQ, and the amp simulation will allow you to create versatile distortion sounds. This effect is suitable for guitar and organ sounds.



a	Wah	Off, On	Switches Wah on/off	
	Src	Off...Tempo	Selects the modulation source that switches the Wah on and off	
	Sw	Toggle, Moment	Selects the switching mode for the modulation source that switches the Wah on and off	
b	Wah Sweep Range	–10...+10	Sets the range of Wah	
	Wah Sweep Src	Off...Tempo	Selects the modulation source that controls the Wah	
c	Drive Mode	Overdrive, Hi-Gain	Switches between overdrive and hi-gain distortion	
d	Drive	1...100	Sets the degree of distortion	
	Pre Low-cut	0...10	Sets the low range cut amount of the distortion input	
e	Output Level	0...50	Sets the output level	
	Src	Off...Tempo	Selects the modulation source for the output level	
	Amt	–50...+50	Sets the modulation amount of the output level	
f	Low Cutoff [Hz]	20...1.00k	Sets the center frequency for Low EQ (shelving type)	
	Gain [dB]	–18...+18	Sets the gain of Low EQ	
g	Mid1Cutoff [Hz]	300...10.00k	Sets the center frequency for Mid/High EQ 1 (peaking type)	
	Q	0.5...10.0	Sets the band width of Mid/High EQ 1	
	Gain [dB]	–18...+18	Sets the gain of Mid/High EQ 1	
h	Mid2 Cutoff [Hz]	500...20.00k	Sets the center frequency for Mid/High EQ 2 (peaking type)	
	Q	0.5...10.0	Sets the band width of Mid/High EQ 2	
	Gain [dB]	–18...+18	Sets the gain of Mid/High EQ 2	
i	Direct Mix	0...50	Sets the amount of the dry sound mixed to the distortion	
	Speaker Simulation	Off, On	Switches the speaker simulation on/off	
j	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	–100...+100	Amount of modulation source	

a: Wah

The Wah parameter switches the wah effect on/off.

a: Sw

This parameter sets how the wah effect is switched on and off via the modulation source.

When “Sw” = Moment, the wah effect is usually turned off. It is turned on only when you press the pedal or operate the joystick.

MIDI When a value for the modulation source is less than 64, “off” speed is selected, and when the value is 64 or higher, “on” is selected.

When “Sw” = Toggle, the wah effect is switched between on and off each time you press the pedal or operate the joystick.

MIDI The switch will be turned on/off each time the value of the modulation source exceeds 64.

b: Wah Sweep Range
b: Wah Sweep Src

This parameter sets the sweep range of the wah center frequency. A negative value will reverse the direction of sweep. The wah center frequency can be controlled by the modulation source specified in the “Wah Sweep Src” parameter.

d: Pre Low-cut

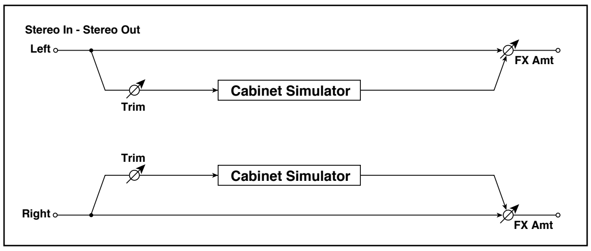
Cutting the signal in the low range before it is input to the Distortion will create a sharp distortion.

d: Drive
e: Output Level

The degree of distortion is determined by the level of input signal and the setting of “Drive”. Raising the “Drive” setting will cause the entire volume level to increase. Use the “Output Level” parameter to adjust the volume level. The “Output Level” parameter uses the signal level input to the 3-Band EQ. If clipping occurs at the 3-Band EQ, adjust the “Output Level” parameter.

19: St. Guitar Cabinet
(Stereo Guitar Cabinet)

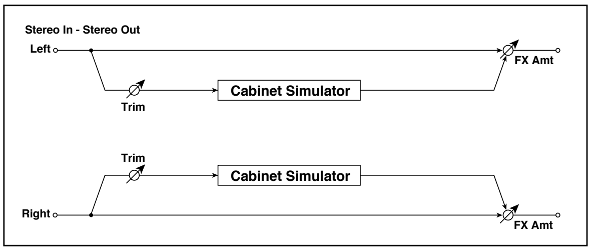
This simulates the acoustical character of a guitar amp’s speaker cabinet.



a	Trim	0...100	Sets the input level	
b	Type		Selects the type of the cabinet	
		TWEED - 1x12	Open-back cabinet with one 12" speaker, typically used for blues	
		TWEED - 4x10	Open-back cabinet with four 10" speakers	
		BLACK - 2x10	Open-back cabinet with two 10" speakers	
		BLACK - 2x12	American open-back cabinet with two12" speakers	
		VOX AC15 - 1x12	Vox AC15 open-back cabinet with one 12" “Blue” speaker	
		VOX AC30 - 2x12	Vox AC30 open-back cabinet with two 12" “Blue” speakers	
		VOX AD412 - 4x12	VOX AD412 closed-back cabinet with four 12" speakers	
		UK H30 - 4x12	Closed-back classic cabinet with four 30W 12" speakers	
		UK T75 - 4x12	Closed-back cabinet with four 75W 12" speakers	
		US V30 - 4x12	Closed-back cabinet with four 30W 12" speakers	
c	Air	0...100	Sets the mic position	
d	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , “Dynamic Modulation sources,” on page 330	
	Amt	–100...+100	Amount of modulation source	

20: St. Bass Cabinet (Stereo Bass Cabinet)

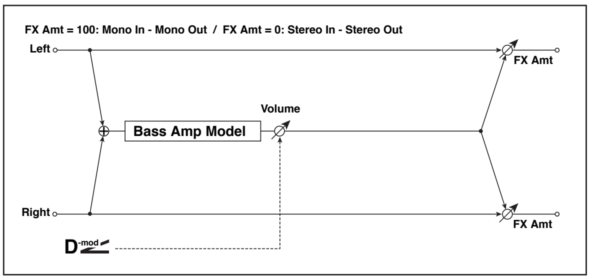
This simulates the acoustical character of a bass amp's speaker cabinet.



a	Trim	0...100	Sets the input level	
b	Cabinet Type		Selects the cabinet type	
		LA - 4x10	Four 10" speakers / LA sound cabinet	
		MODERN - 4x10	Four 10" aluminum-cone speakers / modern cabinet	
		METAL - 4x10	Four 10" aluminum-cone speakers / modern cabinet	
		CLASSIC - 8x10	Eight 10" speakers / classic cabinet	
		UK - 4x12	Four 12" speakers / UK-manufactured cabinet	
		STUDIO - 1x15	One 15" speaker / studio combo cabinet	
		JAZZ - 1x15	One 15" speaker / jazz combo cabinet	
		VOX AC100 - 2x15	Two 15" speakers / cabinet for Vox AC100	
		US - 2x15	Two 15" speakers / US-manufactured cabinet	
		UK - 4x15	Four 15" speakers / UK-manufactured cabinet	
		LA - 1x18	One 18" speaker / LA sound cabinet	
		COMBI - 1x12 & 1x18	One 12" and one 18" speaker combination cabinet	
c	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	−100...+100	Amount of modulation source	

21: Bass Amp Model

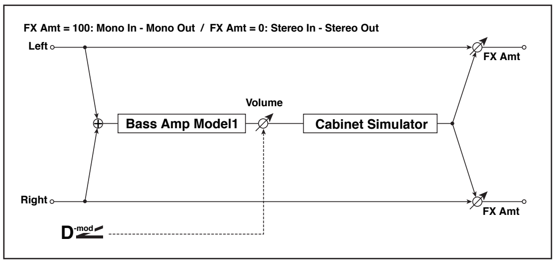
This simulates a bass amp.


FX Amt = 100: Mono In - Mono Out / FX Amt = 0: Stereo In - Stereo Out
Left
Volume
Bass Amp Model
FX Amt
Right
FX Amt
D-mod

a	Amp Type		Selects the amplifier type	
		LA STUDIO	An amp that is typical of the LA sound.	
		JAZZ	A combo amp favored by jazz bassists.	
		GOLD PANEL	An amp distinctive for its eye-catching gold panel and clean sound.	
		SCOOPED	An amp typical of 80's sounds.	
		VALVE2	A tube amp suitable for rock.	
		VALVE	A tube amp with the ULTRA LO switch turned ON.	
		CLASSIC	A tube amp whose basic character changes according to the setting of the value dial.	
b	Volume	0...100	Sets the output level	
	Src	Off...Tempo	Selects the modulation source for the output level	
	Amt	−100...+100	Sets the modulation amount of the output level	
c	Bass	0...100	Sets the bass (low range) level	
d	Middle	0...100	Sets the middle (mid range) level	
	Mid Range	0...4	Sets the mid-frequency range	
e	Treble	0...100	Sets the treble (high range) level	
f	Presence	0...100	Sets the presence (high-frequency tone)	
g	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	−100...+100	Amount of modulation source	

22: Bass Amp+Cabinet (Bass Amp Model+Cabinet)

This simulates a bass amp and speaker cabinet.


FX Amt = 100: Mono In - Mono Out / FX Amt = 0: Stereo In - Stereo Out
Left
FX Amt
Volume
Bass Amp Model1
Cabinet Simulator
Right
FX Amt
D-mod

a	Amp Type	LA STUDIO, JAZZ , GOLD PANEL, SCOOPED, VALVE2, VALVE, CLASSIC	Selects the type of the amplifier	
b	Volume	0...100	Sets the output level	
	Src	Off...Tempo	Selects the modulation source for the output level	
	Amt	−100...+100	Sets the modulation amount of the output level	
c	Bass	0...100	Sets the bass (low range) level	
d	Middle	0...100	Sets the middle (mid range) level	
	Mid Range	0...4	Sets the mid-frequency range	
e	Treble	0...100	Sets the treble (high range) level	
f	Presence	0...100	Sets the presence (high-frequency tone)	
g	Cabinet Simulater	Off, On	Switches the cabinet simulator on/off	
h	Cabinet Type	LA - 4x10, MODERN - 4x10, METAL - 4x10, CLASSIC - 8x10, UK - 4x12, STUDIO - 1x15, JAZZ - 1x15, VOX AC100 - 2x15, US - 2x15, UK - 4x15, LA - 1x18, COMBI - 1x12 & 1x18	Selects the cabinet type	
i	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	−100...+100	Amount of modulation source	

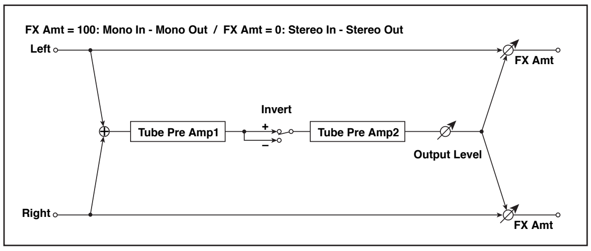
a: Amp Type
h: Cabinet Type

Recommended Combinations of Bass Amp Models and Cabinets:

Amp Type	Cabinet Type
LA STUDIO	LA - 4x10, LA - 1x18
JAZZ	JAZZ - 1x15
GOLD PANEL	MODERN - 4x10
SCOOPED	METAL - 4x10
VALVE2	CLASSIC - 8x10
VALVE	CLASSIC - 8x10
CLASSIC	COMBI - 1x12 & 1x18

23: Tube PreAmp Model (Tube PreAmp Modeling)

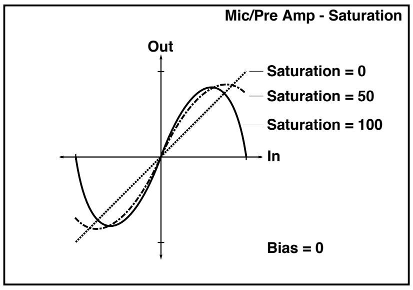
This effect simulates a two-stage vacuum tube preamp. You can make individual settings for two vacuum tubes connected in series. This lets you create the warm sound typical of vacuum tubes.


FX Amt = 100: Mono In - Mono Out / FX Amt = 0: Stereo In - Stereo Out
Left
FX Amt
Invert
+
−
Tube Pre Amp1
Tube Pre Amp2
Output Level
Right
FX Amt

a	Tube1 Low Cut [Hz]	Thru, 21...8.00k	Sets the cutoff frequency for the low cut filter of stage 1	
	High Cut [Hz]	53...20.00k, Thru	Sets the cutoff frequency for the high cut filter of stage 1	
b	Tube1 Gain [dB]	−24.0...+24.0	Sets the input gain for stage 1	
	Saturation [%]	0...100	Sets the input/output response for stage 1	
c	Tube1 Bias	0...100	Sets the bias voltage for stage 1	
d	Tube1 Phase	Normal, Wet Invert	Turns phase reversal on/off	
e	Tube2 Low Cut [Hz]	Thru, 21...8.00k	Sets the cutoff frequency for the low cut filter of stage 2	
	High Cut [Hz]	53...20.00k, Thru	Sets the cutoff frequency for the high cut filter of stage 2	
f	Tube2 Gain [dB]	−24.0...+24.0	Sets the input gain for stage 2	
	Saturation [%]	0...100	Sets the input/output response for stage 2	
g	Tube2 Bias	0...100	Sets the bias voltage for stage 2	
h	Tube2 Output Level [dB]	−48.0...+0.0	Sets the output level	
i	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	−100...+100	Amount of modulation source	

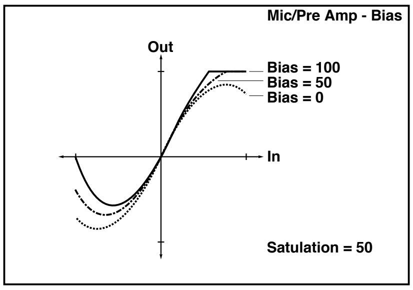
b, f: Saturation [%]

With higher settings of this value, the waveform will change at high gain levels, tending to cause distortion. Lower settings of this value will produce linear response.



c: Tube1 Bias

This expresses the effect that changes in vacuum tube bias have on the distortion of the waveform. Higher settings of this value will produce distortion even at low gain levels. Since this will also change the overtone structure, you can use it to control the tonal character.

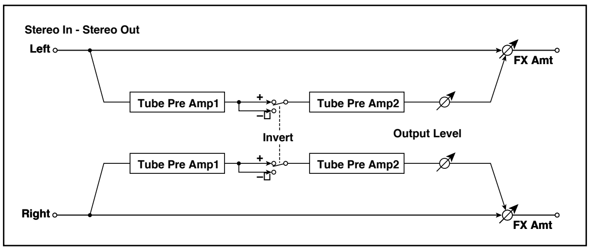


d: Tube1 Phase

With the Wet Invert setting, the phase of the signal will be inverted between stage 1 and stage 2. Since "Bias" is applied to the inverted signal in stage 2, this will change the tonal character.

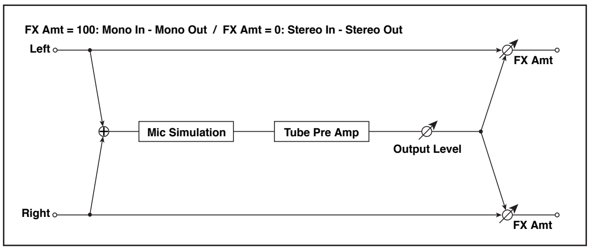
24: St. Tube PreAmp
(Stereo Tube PreAmp Modeling)

This is a stereo vacuum tube preamp simulator (See "Tube PreAmp Model (Tube PreAmp Modeling)" on page 344.).


Stereo In - Stereo Out
Left
FX Amt
Tube Pre Amp1
Tube Pre Amp2
Invert
Output Level
Tube Pre Amp1
Tube Pre Amp2
Right
FX Amt

25: Mic Model+PreAmp
(Mic Modeling + PreAmp)

This effect simulates a mic and vacuum tube preamp. You can choose from various types of mic and positions to create differing sonic characters.


FX Amt = 100: Mono In - Mono Out / FX Amt = 0: Stereo In - Stereo Out
Left
FX Amt
Mic Simulation
Tube Pre Amp
Output Level
Right
FX Amt

a	Mic Type	Vintage Dynamic, Multi Condenser, Percussion Condenser, Drums Dynamic, Vocal Dynamic, Multi Dynamic, Vocal Condenser, Vocal Tube, Kick Dynamic	Selects the type of mic	
b	Mic Position	Close, On, Off, Far	Sets the mic placement distance	
c	Tube Low Cut [Hz]	Thru, 21...8.00k	Sets the frequency of the low cut filter	
	High Cut [Hz]	53...20.00k, Thru	Sets the frequency of the high cut filter	
d	Tube Gain [dB]	–24.0...+24.0	Sets the input gain to the vacuum tube preamp	
	Saturation [%]	0...100	Sets the input/output response of the preamp	
e	Tube Bias	0...100	Sets the bias level of the preamp	
f	Tube Output Level [dB]	–48.0...+0.0	Sets the output level of the preamp	
g	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	–100...+100	Amount of modulation source	

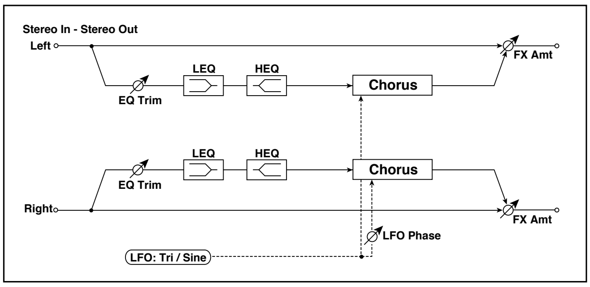
b: Mic Position

This expresses the effect that the mic position has on the sound. The Close setting is the closest mic position, and the Far setting is the farthest.

Chorus, Flanger, and Phaser (Cho/Fln Phaser)

26: Stereo Chorus

This effect adds thickness and warmth to the sound by modulating the delay time of the input signal. You can add spread to the sound by offsetting the phase of the left and right LFOs from each other.



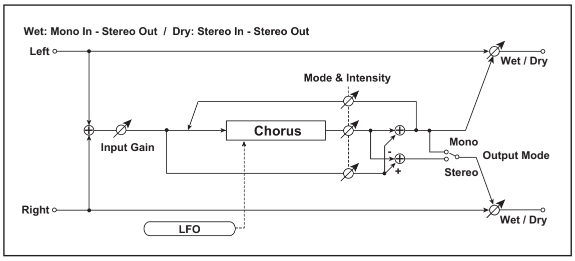
a	LFO Waveform	Triangle, Sine	Selects the LFO Waveform	
	LFO Phase [degree]	−180...+180	Sets the LFO phase difference between the left and right	
b	LFO Frequency [Hz]	0.02...20.00	Sets the speed of the LFO	
	Src	Off...Tempo	Selects a modulation source for LFO speed	
	Amt	−20.00...+20.00	Sets the modulation amount of LFO speed	
c	MIDI Sync	Off, On	When this is on, the LFO speed is set by BPM, Base Note, and Times, instead of Frequency	Sync
	BPM	MIDI, 40.00...300.00	MIDI syncs to the system tempo; 40–300 sets the tempo manually for this individual effect	
	Base Note	r...w	Selects the type of notes that specify the LFO speed	
	Times	x1...x32	Sets the number of notes that specify the LFO speed	
d	L Pre Delay [msec]	0.0...50.0	Sets the delay time for the left channel	
	R Pre Delay [msec]	0.0...50.0	Sets the delay time for the right channel	
e	Depth	0...100	Sets the depth of LFO modulation	
	Src	Off...Tempo	Selects the modulation source for the LFO modulation depth	
	Amt	−100...+100	Sets the modulation amount of the LFO modulation depth	
f	EQ Trim	0...100	Sets the EQ input level	
g	Pre LEQ Fc	Low, Mid-Low	Selects the cutoff frequency (low or mid-low) of the low-range equalizer	
	Pre HEQ Fc	High, Mid-High	Selects the cutoff frequency (high or mid-high) of the high-range equalizer	
h	Pre LEQ Gain [dB]	−15.0...+15.0	Gain of the Low EQ	
	Pre HEQ Gain [dB]	−15.0...+15.0	Gain of the High EQ	
i	Wet/Dry	-Wet, -1:99...Dry...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , “Dynamic Modulation sources,” on page 330	
	Amt	−100...+100	Amount of modulation source	

d: L Pre Delay [msec]
d: R Pre Delay [msec]

Setting the left and right delay time individually allows you to control the stereo image.

27: Black Chorus/Flanger

This models a Danish-made stereo chorus + pitch modulator & flanger. Although this effect was originally intended for guitar, it was also used by numerous keyboard players. Used with electric piano, it produces a distinctive tone.



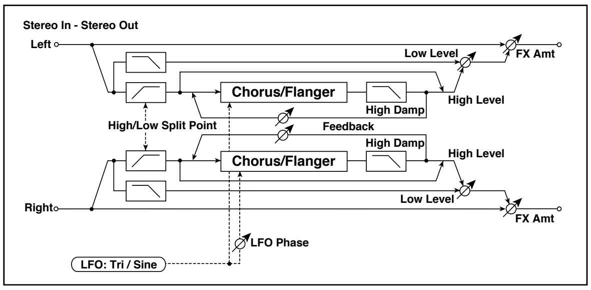
Speed [Hz]	0.10...10.0	Sets the LFO speed	
Intensity	1...100	Sets the intensity of LFO modulation	
Mode	0, 1, 2	Select a mode 0: Chorus 1: Pitch Modulation 2: Flanger	
Width	0...2	Sets the LFO modulation depth	
Input Gain	1...100	Sets the input gain	
Output Mode	0, 1	Select a output mode 0: Mono 1: Stereo	
Wet/Dry	Dry, 1:99 ... 99:1, Wet	Balance between the wet and dry signal	D-mod
Source	Off...Tempo	Table , “Selects a modulation source for Wet/Dry,” on page 331	
Amount	−100 ... +100	Table , “Sets the modulation amount for Wet/Dry,” on page 331	

Mode
Intensity

Increasing the “Intensity” value will strengthen the modulation effect. This controls the effect, direct, and feedback values. The values that are controlled will depend on the “Mode” setting.

28: St.HarmonicChorus
(Stereo Harmonic Chorus)

This effect applies chorus only to higher frequencies. This can be used to apply a chorus effect to a bass sound without making the sound thinner. You can also use this chorus block with feedback as a flanger.


Stereo In - Stereo Out
Left
Low Level
FX Amt
Chorus/Flanger
High Damp
High Level
High/Low Split Point
Feedback
High Damp
Chorus/Flanger
High Level
Right
Low Level
FX Amt
LFO Phase
LFO: Tri / Sine

a	LFO Waveform	Triangle, Sine	Selects the LFO Waveform	
	LFO Phase [degree]	–180...+180	Sets the LFO phase difference between the left and right	
b	LFO Frequency [Hz]	0.02...20.00	Sets the speed of the LFO	
	Src	Off...Tempo	Selects a modulation source for LFO speed	
	Amt	–20.00...+20.00	Sets the modulation amount of LFO speed	
c	MIDI Sync	Off, On	When this is on, the LFO speed is set by BPM, Base Note, and Times, instead of Frequency	Sync
	BPM	MIDI, 40.00...300.00	MIDI syncs to the system tempo; 40–300 sets the tempo manually for this individual effect	
	Base Note	r...w	Selects the type of notes that specify the LFO speed	
	Times	x1...x32	Sets the number of notes that specify the LFO speed	
d	Pre Delay [msec]	0.0...50.0	Sets the delay time from the original sound	
e	Depth	0...100	Sets the depth of LFO modulation	
	Src	Off...Tempo	Selects the modulation source of the LFO modulation depth	
	Amt	–100...+100	Sets the modulation amount of the LFO modulation depth	
f	High/Low Split Point	1...100	Sets the frequency split point between the low and high range	
g	Feedback	–100...+100	Sets the feed back amount of the chorus block	
	High Damp [%]	0...100	Sets the high range damping amount of the chorus block	
h	Low Level	0...100	Sets the low range output level	
	High Level	0...100	Sets the high range (chorus) output level	
i	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	–100...+100	Amount of modulation source	

f: High/Low Split Point

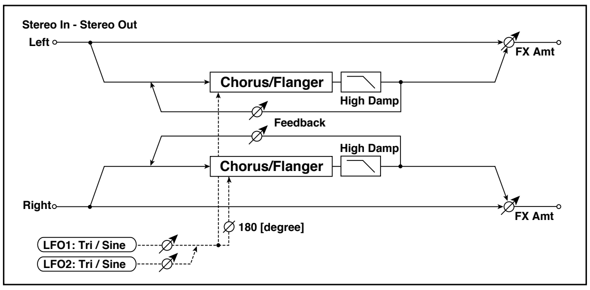
This parameter sets the frequency that splits the high and low range. Only the high range will be sent to the chorus block.

g: Feedback

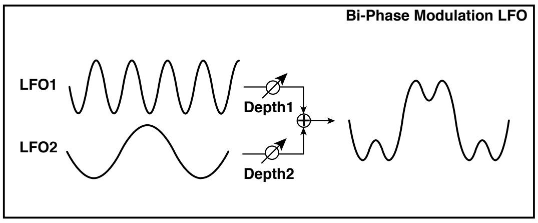
Sets the feedback amount of the chorus block. Increasing the feedback will allow you to use the effect as a flanger.

29: St. Biphase Mod.
(Stereo Biphase Modulation)

This stereo chorus effect adds two different LFOs together. You can set the Frequency and Depth parameters for each LFO individually. Depending on the setting of these LFOs, very complex waveforms will create an analog-type, unstable modulated sound.

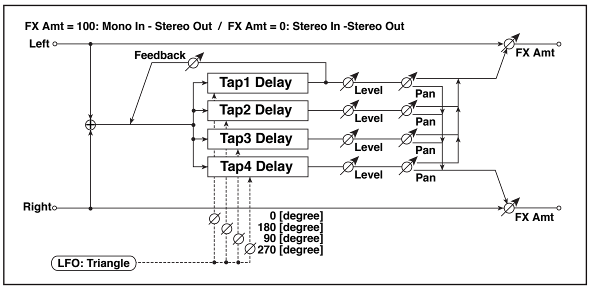

Stereo In - Stereo Out
Left
FX Amt
Chorus/Flanger
High Damp
Feedback
High Damp
Chorus/Flanger
Right
FX Amt
180 [degree]
LFO1: Tri / Sine
LFO2: Tri / Sine

a	LFO1 Waveform	Triangle, Sine	Selects LFO1 waveform	
	LFO2	Triangle, Sine	Selects LFO2 waveform	
	Phase Sw	0 deg, 180 deg	Switches the LFO phase difference between left and right	
b	LFO1 Frequency [Hz]	0.02...30.00	Sets the LFO1 speed	
	Src	Off...Tempo	Selects the modulation source of LFO1&2 speed	
	LFO1 Amt	–30.00...+30.00	Sets the modulation amount of LFO1 speed	
c	LFO2 Frequency [Hz]	0.02...30.00	Sets the LFO2 speed	
	Amt	–30.00...+30.00	Sets the modulation amount of LFO2 speed	
d	Depth1	0...100	Sets the depth of LFO1 modulation	
	Src	Off...Tempo	Selects the modulation source of LFO1&2 modulation depth	
	Amt	–100...+100	Sets the modulation amount of LFO1 modulation depth	
e	Depth2	0...100	Sets the depth of LFO2 modulation	
	Amt	–100...+100	Sets the modulation amount of LFO2 modulation depth	
f	L Pre Delay [msec]	0.0...50.0	Sets the delay time for the left channel	
	R Pre Delay [msec]	0.0...50.0	Sets the delay time for the right channel	
g	Feedback	–100...+100	Sets the feedback amount	
	High Damp [%]	0...100	Sets the damping amount in the high range	
h	Wet/Dry	-Wet, -1:99...Dry...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	–100...+100	Amount of modulation source	


Bi-Phase Modulation LFO
LFO1
LFO2
Depth1
Depth2

30: Multitap Cho/Delay
(Multitap Chorus/Delay)

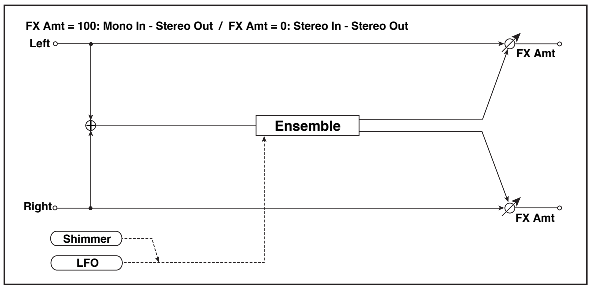
This effect has four chorus blocks with a different LFO phase. You can create a complex stereo image by setting each block's delay time, depth, output level, and pan individually. You can also fix some of the chorus blocks to combine the chorus and delay effects.


FX Amt = 100: Mono In - Stereo Out / FX Amt = 0: Stereo In -Stereo Out
Left
Right
Feedback
Tap1 Delay
Tap2 Delay
Tap3 Delay
Tap4 Delay
Level
Pan
FX Amt
0 [degree]
180 [degree]
90 [degree]
270 [degree]
LFO: Triangle

a	LFO Frequency [Hz]	0.02...13.00	Sets the speed of the LFO	
b	Tap1 (000) [msec]	0...1000	Sets the Tap1 (LFO phase=0 degrees) delay time	
	Depth	0...30	Sets the Tap1 chorus depth	
	Level	0...30	Sets the Tap1 output level	
	Pan	L6...L1, C, R1...R6	Sets the Tap1 stereo image	
c	Tap2 (180) [msec]	0...1000	Sets the Tap2 (LFO phase=180 degrees) delay time	
	Depth	0...30	Sets the Tap2 chorus depth	
	Level	0...30	Sets the Tap2 output level	
	Pan	L6...L1, C, R1...R6	Sets the Tap2 stereo image	
d	Tap3 (090) [msec]	0...1000	Sets the Tap3 (LFO phase=90 degrees) delay time	
	Depth	0...30	Sets the Tap3 chorus depth	
	Level	0...30	Sets the Tap3 output level	
	Pan	L6...L1, C, R1...R6	Sets the Tap3 stereo image	
e	Tap4 (270) [msec]	0...1000	Sets the Tap4 (LFO phase=270 degrees) delay time	
	Depth	0...30	Sets the Tap4 chorus depth	
	Level	0...30	Sets the Tap4 output level	
	Pan	L6...L1, C, R1...R6	Sets the Tap4 stereo image	
f	Tap1 Feedback	−100...+100	Sets the Tap1 feedback amount	
	Src	Off...Tempo	Selects the modulation source of Tap1 feedback amount and effect balance	
	Amt	−100...+100	Sets the Tap1 feedback amount and modulation amount	
g	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	−100...+100	Amount of modulation source	

31: Ensemble

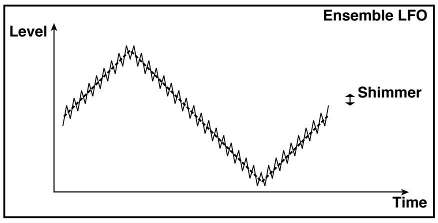
This Ensemble effect has three chorus blocks that use LFO to create subtle shimmering, and gives three dimensional depth and spread to the sound, because the signal is output from the left, right, and center.


FX Amt = 100: Mono In - Stereo Out / FX Amt = 0: Stereo In - Stereo Out
Left
Right
Ensemble
FX Amt
FX Amt
Shimmer
LFO

a	Speed	1...100	Sets the speed of the LFO	
	Src	Off...Tempo	Selects a modulation source for LFO speed	
	Amt	−100...+100	Sets the modulation amount of LFO speed	
b	Depth	0...100	Sets the depth of LFO modulation	
	Src	Off...Tempo	Selects the modulation source of the LFO modulation depth	
	Amt	−100...+100	Sets the modulation amount of the LFO modulation depth	
c	Shimmer	0...100	Sets the amount of shimmering of the LFO waveform	
d	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	−100...+100	Amount of modulation source	

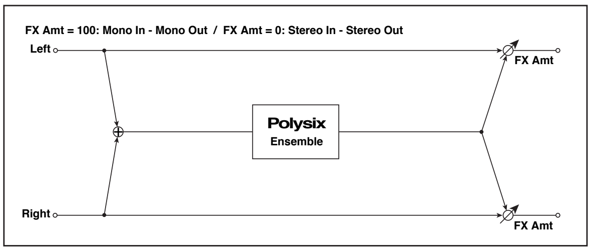
c: Shimmer

This parameter sets the amount of shimmering of the LFO waveform. Increasing this value adds more shimmering, making the chorus effect more complex and richer.



32: Polysix Ensemble

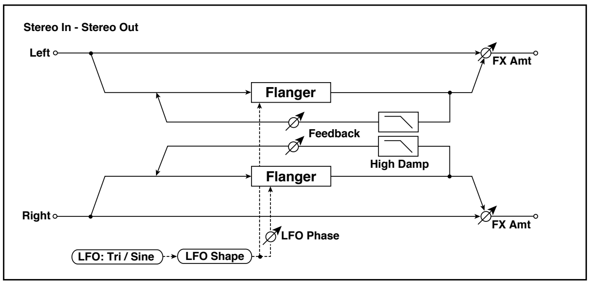
This models the ensemble effect built into the classic KORG PolySix programmable polyphonic synthesizer.


FX Amt = 100: Mono In - Mono Out / FX Amt = 0: Stereo In - Stereo Out
Left
FX Amt
Polysix
Ensemble
Right
FX Amt

a	Depth	0...100	Sets the depth of the effect	
	Src	Off...Tempo	Selects the modulation source that will control the effect depth	
	Amt	–100...+100	Sets the amount by which the effect depth will be modulated	
b	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , “Dynamic Modulation sources,” on page 330	
	Amt	–100...+100	Amount of modulation source	

33: Stereo Flanger

This effect gives a significant swell and movement of pitch to the sound. It is more effective when applied to a sound with a lot of harmonics. This is a stereo flanger. You can add spread to the sound by offsetting the phase of the left and right LFOs from each other.



a	Delay Time [msec]	0.0...50.0	Sets the delay time from the original sound	
b	LFO Waveform	Triangle, Sine	Selects the LFO Waveform	
	LFO Shape	–100...+100	Changes the curvature of the LFO Waveform	
c	LFO Phase [degree]	–180...+180	Sets the LFO phase difference between the left and right	
d	LFO Frequency [Hz]	0.02...20.00	Sets the speed of the LFO	
	Src	Off...Tempo	Selects a modulation source for LFO speed	
	Amt	–20.00...+20.00	Sets the modulation amount of LFO speed	
e	MIDI Sync	Off, On	When this is on, the LFO speed is set by BPM, Base Note, and Times, instead of Frequency	Sync
	BPM	MIDI, 40.00...300.00	MIDI syncs to the system tempo; 40–300 sets the tempo manually for this individual effect	
	Base Note	r...w	Selects the type of notes that specify the LFO speed	
	Times	x1...x32	Sets the number of notes that specify the LFO speed	
f	Depth	0...100	Sets the depth of LFO modulation	
g	Feedback	–100...+100	Sets the feedback amount	
	High Damp [%]	0...100	Sets the feedback damping amount in the high range	
h	Wet/Dry	-Wet, -1:99...Dry...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , “Dynamic Modulation sources,” on page 330	
	Amt	–100...+100	Amount of modulation source	

g: Feedback
h: Wet/Dry

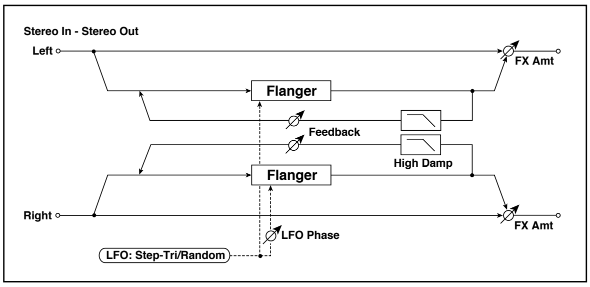
The peak shape of the positive and negative “Feedback” value is different. The harmonics will be emphasized when the effect sound is mixed with the dry sound if you set a positive value for both “Feedback” and “Wet/Dry”, and if you set a negative value for both “Feedback” and “Wet/Dry”.

g: High Damp [%]

This parameter sets the amount of damping of the feedback in the high range. Increasing the value will cut high-range harmonics.

34: St. Random Flanger (Stereo Random Flanger)

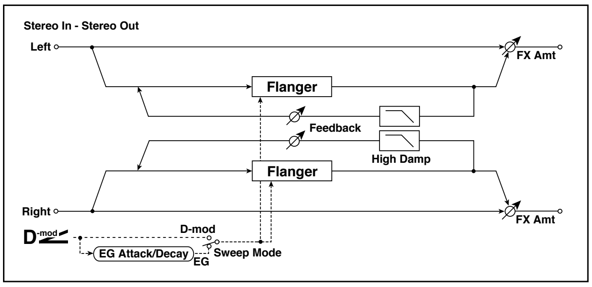
The stereo effect uses a step-shape waveform and random LFO for modulation, creating a unique flanging effect.



a	Delay Time [msec]	0.0…50.0	Sets the delay time from the original sound	
b	LFO Waveform	Step-Tri, Random	Selects the LFO Waveform	
	LFO Phase [degree]	–180…+180	Sets the LFO phase difference between the left and right	
c	LFO Frequency [Hz]	0.02…20.00	Sets the speed of the LFO	
	Src	Off…Tempo	Selects the modulation source used for both LFO speed and step speed	
	Amt	–20.00…+20.00	Sets the modulation amount of LFO speed	
d	LFO Step Freq [Hz]	0.05…50.00	Sets the LFO step speed (speed that changes in steps)	
	Step Amt	–50.00…+50.00	Sets the modulation amount of LFO step speed	
e	MIDI Sync	Off, On	When this is on, the LFO speed is set by BPM, Base Note, and Times, instead of Frequency	Sync
	BPM	MIDI, 40.00…300.00	MIDI syncs to the system tempo; 40–300 sets the tempo manually for this individual effect	
	Base Note	r…w	Selects the type of notes that specify the LFO speed	
	Times	x1…x32	Sets the number of notes that specify the LFO speed	
f	Step Base Note	r…w	Selects the type of notes to specify the LFO step speed	Sync
	Times	x1…x32	Sets the number of notes to specify the LFO step speed	
g	Depth	0…100	Sets the depth of LFO modulation	
h	Feedback	–100…+100	Sets the feedback amount	
	High Damp [%]	0…100	Sets the feedback damping amount in the high range	
i	Wet/Dry	-Wet, -1:99…Dry…99:1, Wet	Balance between the wet and dry signal	
	Src	Off…Tempo	Table , “Dynamic Modulation sources,” on page 330	
	Amt	–100…+100	Amount of modulation source	

35: St. Env. Flanger (Stereo Envelope Flanger)

This Flanger uses an envelope generator for modulation. You will obtain the same pattern of flanging each time you play. You can also control the Flanger directly using the modulation source.



a	L Dly Bottom [msec]	0.0…50.0	Sets the lower limit of the left-channel delay time	
	L Dly Top [msec]	0.0…50.0	Sets the upper limit of the left-channel delay time	
b	R Dly Bottom [msec]	0.0…50.0	Sets the lower limit of the right-channel delay time	
	R Dly Top [msec]	0.0…50.0	Sets the upper limit of the right-channel delay time	
c	Sweep Mode	EG, D-mod	Determines whether the flanger is controlled by the envelope generator or by the modulation source	
	Src	Off…Tempo	Selects the modulation source that triggers the EG (when Sweep Mode = EG), or the modulation source that causes the flanger to sweep (when Sweep Mode = D-mod)	
d	EG Attack	1…100	Sets the EG attack speed	
	EG Decay	1…100	Sets the EG decay speed	
e	Feedback	–100…+100	Sets the feedback amount	
f	High Damp [%]	0…100	Sets the feedback damping amount in the high range	
g	Wet/Dry	-Wet, -1:99…Dry…99:1, Wet	Balance between the wet and dry signal	
	Src	Off…Tempo	Table , “Dynamic Modulation sources,” on page 330	
	Amt	–100…+100	Amount of modulation source	

c: Sweep Mode
c: Src

This parameter switches the flanger control mode. With “Sweep Mode” = EG, the flanger will sweep using the envelope generator. This envelope generator is included in the envelope flanger, and not related to the Pitch EG, Filter EG, or Amp EG.

The “Src” parameter selects the source that starts the envelope generator. If you select, for example, Gate, the envelope generator will start when the note-on message is received.

When “Sweep Mode” = D-mod, the modulation source can control the flanger directly. Select the modulation source using the “Src” parameter.

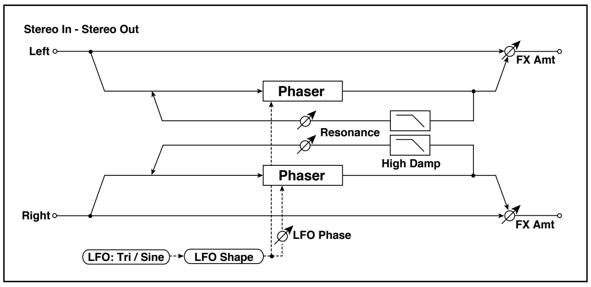
MIDI The effect is off when a value for the modulation source specified for the “Src” parameter is smaller than 64, and the effect is on when the value is 64 or higher. The Envelope Generator is triggered when the value changes from 63 or smaller to 64 or higher.

d: EG Attack
d: EG Decay

Attack and Decay speed are the only adjustable parameters on this EG.

36: Stereo Phaser

This effect creates a swell by shifting the phase. It is very effective on electric piano sounds. You can add spread to the sound by offsetting the phase of the left and right LFOs from each other.



a	LFO Waveform	Triangle, Sine	Selects the LFO Waveform	
	LFO Shape	–100...+100	Changes the curvature of the LFO Waveform	
b	LFO Phase [degree]	–180...+180	Sets the LFO phase difference between the left and right	
c	LFO Frequency [Hz]	0.02...20.00	Sets the speed of the LFO	
	Src	Off...Tempo	Selects a modulation source for LFO speed	
	Amt	–20.00...+20.00	Sets the modulation amount of LFO speed	
d	MIDI Sync	Off, On	When this is on, the LFO speed is set by BPM, Base Note, and Times, instead of Frequency	Sync
	BPM	MIDI, 40.00...300.00	MIDI syncs to the system tempo; 40–300 sets the tempo manually for this individual effect	
	Base Note	r...w	Selects the type of notes that specify the LFO speed	
	Times	x1...x32	Sets the number of notes that specify the LFO speed	
e	Manual	0...100	Sets the frequency to which the effect is applied	
	Src	Off...Tempo	Selects the modulation source for the LFO modulation	
	Amt	–100...+100	Sets the modulation amount of the LFO modulation	
f	Depth	0...100	Sets the depth of LFO modulation	
	Src	Off...Tempo	Selects the modulation source for the LFO modulation depth	
	Amt	–100...+100	Sets the modulation amount of the LFO modulation depth	
h	Resonance	–100...+100	Sets the resonance amount	
	High Damp [%]	0...100	Sets the resonance damping amount in the high range	
j	Wet/Dry	-Wet, -1:99...Dry...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	–100...+100	Amount of modulation source	

h: Resonance
i: Wet/Dry

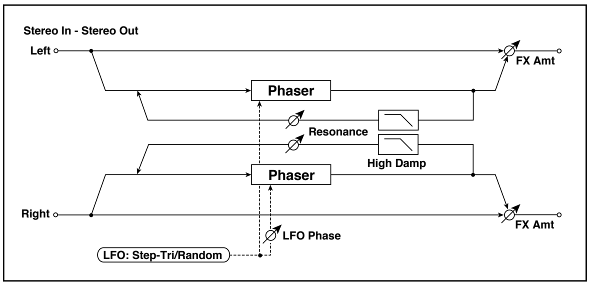
The peak shape of the positive and negative Feedback value is different. The harmonics will be emphasized when the effect sound is mixed with the dry sound, if you set a positive value for both "Resonance" and "Wet/Dry", and if you set a negative value for both "Resonance" and "Wet/Dry".

h: High Damp [%]

This parameter sets the amount of damping of the resonance in the high range. Increasing the value will cut high-range harmonics.

37: St. Random Phaser
(Stereo Random Phaser)

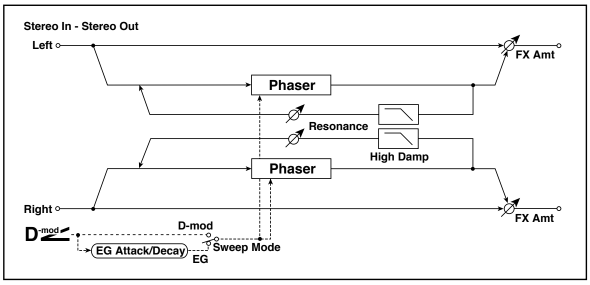
This is a stereo phaser. The effect uses a step-shape waveform and random LFO for modulation, creating a unique phasing effect.



a	LFO Waveform	Step-Tri, Step-Sin, Random	Selects the LFO Waveform	
	LFO Phase [degree]	–180...+180	Sets the LFO phase difference between the left and right	
b	LFO Frequency [Hz]	0.02...20.00	Sets the speed of the LFO	
	Src	Off...Tempo	Selects the modulation source commonly used for LFO speed and step speed	
	Amt	–20.00...+20.00	Sets the modulation amount of LFO speed	
c	LFO Step Freq [Hz]	0.05...50.00	Sets the LFO step speed	
	Amt	–50.00...+50.00	Sets the modulation amount of LFO step speed	
d	MIDI Sync	Off, On	When this is on, the LFO speed is set by BPM, Base Note, and Times, instead of Frequency	Sync
	BPM	MIDI, 40.00...300.00	MIDI syncs to the system tempo; 40–300 sets the tempo manually for this individual effect	
	Base Note	r...w	Selects the type of notes that specify the LFO speed	
	Times	x1...x32	Sets the number of notes that specify the LFO speed	
e	Step Base Note	r...w	Selects the type of notes to specify the LFO step speed	Sync
	Times	x1...x32	Sets the number of notes to specify the LFO step speed	
f	Manual	0...100	Sets the frequency to which the effect is applied	
	Src	Off...Tempo	Selects the modulation source for the LFO modulation	
	Amt	–100...+100	Sets the modulation amount of the LFO modulation	
g	Depth	0...100	Sets the depth of LFO modulation	
h	Resonance	–100...+100	Sets the resonance amount	
	High Damp [%]	0...100	Sets the resonance damping amount in the high range	
i	Wet/Dry	-Wet, -1:99...Dry...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	–100...+100	Amount of modulation source	

38: St. Env. Phaser
(Stereo Envelope Phaser)

This stereo phaser uses an envelope generator for modulation. You will obtain the same pattern of phasing each time you play. You can also control the Phaser directly using the modulation source.

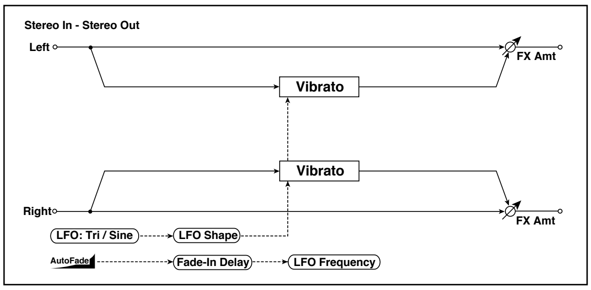


a	L Manu Bottom	0...100	Sets the lower limit of the frequency range for the effect on the left channel	
	L Manu Top	0...100	Sets the upper limit of the frequency range for the effect on the left channel	
b	R Manu Bottom	0...100	Sets the lower limit of the frequency range for the effect on the right channel	
	R Manu Top	0...100	Sets the upper limit of the frequency range for the effect on the right channel	
c	Sweep Mode	EG, D-mod	Determines whether the flanger is controlled by the envelope generator or by the modulation source	
	Src	Off...Tempo	Selects the modulation source that triggers the EG (when EG is selected for Sweep Mode), or modulation source that causes the flanger to sweep (when D-mod is selected for Sweep Mode)	
d	EG Attack	1...100	Sets the EG attack speed	
	EG Decay	1...100	Sets the EG decay speed	
e	Resonance	–100...+100	Sets the resonance amount	
f	High Damp [%]	0...100	Sets the resonance damping amount in the high range	
g	Wet/Dry	-Wet, -1:99...Dry...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	–100...+100	Amount of modulation source	

Modulation and Pitch Shift (Mod./P.Shift)

39: Stereo Vibrato

This effect causes the pitch of the input signal to shimmer. Using the AutoFade allows you to increase or decrease the shimmering speed.



a	AUTOFADE Src	Off...Tempo	Selects the modulation source that starts AutoFade	
b	Fade-In Delay [msec]	00...2000	Sets the fade-in delay time	
	Fade-In Rate	1...100	Sets the rate of fade-in	
c	LFO Waveform	Triangle, Sine	Selects the LFO Waveform	
	LFO Shape	–100...+100	Changes the curvature of the LFO Waveform	
d	LFO Frequency Mod	D-mod, AUTOFADE	Switches between D-mod and AUTOFADE for the LFO frequency modulation	
e	LFO Frequency [Hz]	0.02...20.00	Sets the speed of the LFO	
	Src	Off...Tempo	Selects a modulation source for LFO speed	
	Amt	–20.00...+20.00	Sets the modulation amount of LFO speed	
f	MIDI Sync	Off, On	When this is on, the LFO speed is set by BPM, Base Note, and Times, instead of Frequency	Sync
	BPM	MIDI, 40.00...300.00	MIDI syncs to the system tempo; 40–300 sets the tempo manually for this individual effect	
	Base Note	r...w	Selects the type of notes that specify the LFO speed	
	Times	x1...x32	Sets the number of notes that specify the LFO speed	
g	Depth	0...100	Sets the depth of LFO modulation	
	Src	Off...Tempo	Selects the modulation source of the LFO modulation depth	
	Amt	–100...+100	Sets the modulation amount of the LFO modulation depth	
h	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	–100...+100	Amount of modulation source	

a: AUTOFADE Src
b: Fade-In Delay [msec]
b: Fade-In Rate
d: LFO Frequency Mod

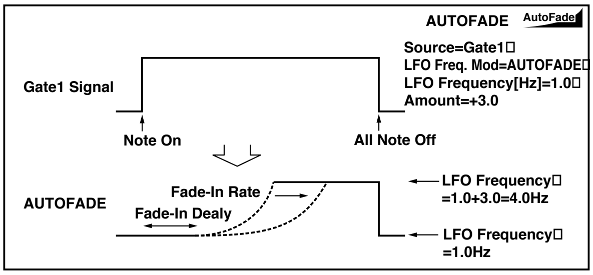
When “LFO Frequency Mod” is set to AUTOFADE, you can use the modulation source selected in “AUTOFADE Src” as a trigger to automatically fade in the modulation amount. When “MIDI Sync” is set to On, you cannot use this.

The “Fade-In Rate” parameter specifies the rate of fade-in. The “Fade-In Delay” parameter determines the time from AutoFade modulation source On until the fade-in starts.

The following is an example of fade-in where the LFO speed is increased from “1.0Hz” to “4.0Hz” when a note-on message is received.

AUTOFADE Src=Gate1, LFO Frequency Mod=AUTOFADE, LFO Frequency [Hz]=1.0, Amt=3.0

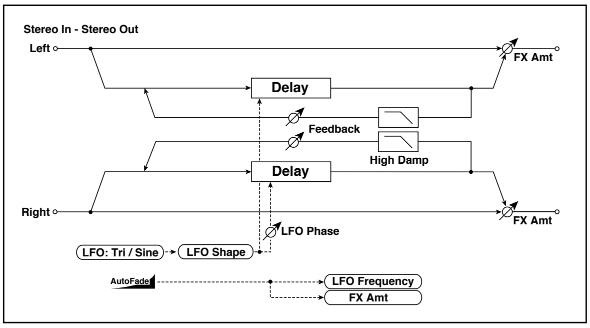
MIDI The effect is off when a value for the dynamic modulation source specified for the “AUTOFADE Src” parameter is smaller than 64, and the effect is on when the value is 64 or higher. The AutoFade function is triggered when the value changes from 63 or smaller to 64 or higher.


AUTOFADE
AutoFade
Source=Gate1
LFO Freq. Mod=AUTOFADE
LFO Frequency[Hz]=1.0
Amount=+3.0
Gate1 Signal
Note On
All Note Off
AUTOFADE
Fade-In Rate
Fade-In Dealy
LFO Frequency =1.0+3.0=4.0Hz
LFO Frequency =1.0Hz

40: St. Auto Fade Mod.

(Stereo Auto Fade Modulatiom)

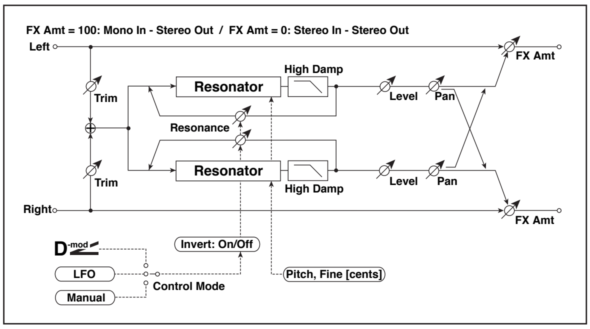
This stereo chorus/flanger effect enables you to control the LFO speed and effect balance using auto fade, and you can spread the sound by offsetting the phase of the left and right LFOs from each other.


Stereo In - Stereo Out
Left
Right
FX Amt
Delay
Feedback
High Damp
Delay
FX Amt
LFO Phase
LFO: Tri / Sine
LFO Shape
AutoFade
LFO Frequency
FX Amt

a	AUTOFADE Src	Off...Tempo	Selects the modulation source that starts AutoFade	
	Fade-In Delay [msec]	00...2000	Sets the fade-in delay time	
	Rate	1...100	Sets the rate of fade-in	
b	LFO Frequency Mod	D-mod, AUTOFADE	Switches between D-mod and AUTOFADE for the LFO frequency modulation	
	Wet/Dry Mod	D-mod, AUTOFADE	Switches between D-mod and AUTOFADE for the effect balance modulation	
c	LFO Waveform	Triangle, Sine	Selects the LFO Waveform	
	LFO Shape	–100...+100	Changes the curvature of the LFO Waveform	
d	LFO Phase [degree]	–180...+180	Sets the LFO phase difference between the left and right	
e	LFO Frequency [Hz]	0.02...20.00	Sets the speed of the LFO	
	Src	Off...Tempo	Selects a modulation source for LFO speed	
	Amt	–20.00...+20.00	Sets the modulation amount of LFO speed	
f	L Delay Time [msec]	0.0...500.0	Sets the left channel delay time	
	R Delay Time [msec]	0.0...500.0	Sets the right channel delay time	
g	Depth	0...200	Sets the depth of LFO modulation	
h	Feedback	–100...+100	Sets the feedback amount	
	High Damp [%]	0...100	Sets the feedback damping amount in the high range	
i	Wet/Dry	-Wet, -1:99...Dry...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , “Dynamic Modulation sources,” on page 330	
	Amt	–100...+100	Amount of modulation source	

41: 2Voice Resonator

This effect resonates the input signal at a specified pitch. You can set the pitch, output level, and pan settings for two resonators individually. You can control the resonance intensity via an LFO.



a	Control Mode	Manual, LFO, D-mod	Switches the controls of resonance intensity	
	LFO/D-mod Invert	Off, On	Reverses the Voice 1 and 2 control when LFO/D-mod is selected	
b	LFO Frequency [Hz]	0.02...20.00	Sets the speed of the LFO	
	D-mod Src	Off...Tempo	Selects the modulation source that controls resonance intensity	
c	MIDI Sync	Off, On	When this is on, the LFO speed is set by BPM, Base Note, and Times, instead of Frequency	Sync
	BPM	MIDI, 40.00...300.00	MIDI syncs to the system tempo; 40–300 sets the tempo manually for this individual effect	
	Base Note	r...w	Selects the type of notes that specify the LFO speed	
	Times	x1...x32	Sets the number of notes that specify the LFO speed	
d	Mod. Depth	−100...+100	Sets the amount of resonance intensity control via LFO/D-mod	
	Trim	0...100	Sets the input level at the resonator	
e	Voice1: Pitch	C0...B8	Sets the voice1 Pitch for resonance	
	Fine [cents]	−50...+50	Fine-adjusts the voice 1 pitch for resonance	
	Level	0...100	Sets the Voice1 output level	
f	Voice1: Resonance	−100...+100	Sets the intensity of resonance when Control Mode = Manual	
	High Damp [%]	0...100	Sets the damping amount of resonant sound in the high range	
	Pan	L6...L1, C, R1...R6	Sets the Voice1 stereo image	
g	Voice2: Pitch	C0...B8	Sets the voice 2 Pitch for resonance	
	Fine [cents]	−50...+50	Fine-adjusts the voice 2 pitch for resonance	
	Level	0...100	Sets the Voice2 output level	
h	Voice2: Resonance	−100...+100	Sets the intensity of resonance when Control Mode = Manual	
	High Damp [%]	0...100	Sets the damping amount of resonant sound in the high range	
	Pan	L6...L1, C, R1...R6	Sets the Voice2 stereo image	
i	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	−100...+100	Amount of modulation source	

a: Control Mode
f: Voice 1: Resonance
h: Voice 2: Resonance

This parameter determines the resonance intensity.

When "Control Mode" = Manual, the "Resonance" parameter sets the intensity of resonance. If the "Resonance" parameter has a negative value, harmonics will be changed, and resonance will occur at a pitch one octave lower.

When "Control Mode" = LFO, the intensity of resonance varies according to the LFO. The LFO sways between positive and negative values, causing resonance to occur between specified pitches an octave apart in turn.

When "Control Mode" = D-mod, the resonance is controlled by the dynamic modulation source. If JS X or Ribbon is assigned as the modulation source, the pitch an octave higher and lower can be controlled, similar to when LFO is selected for Control Mode.

a: LFO/D-mod Invert

When "Control Mode" = LFO or D-mod, the controlled phase of either Voice 1 or 2 will be reversed. When the resonance pitch is set for Voice 1 (Resonance has a positive value), Voice 2 will resonate at a pitch an octave below (Resonance has a negative value).

f: Voice 1: Pitch
f: Fine [cents]
h: Voice 2: Pitch
h: Fine [cents]

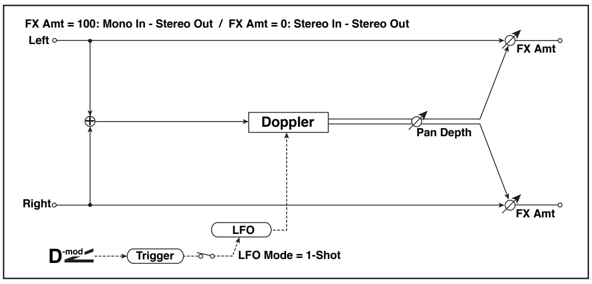
The Pitch parameter specifies the pitch of resonance by note name. The "Fine" parameter allows for fine adjustment in steps of cents.

g: High Damp [%]
i: High Damp [%]

This sets the amount of damping amount for the high frequencies of the resonant sound. Lower values create a metallic sound with a higher range of harmonics.

42: Doppler

This effect simulates the "Doppler effect" of a moving sound with a changing pitch, similar to the siren of an passing ambulance. Mixing the effect sound with the dry sound will create a unique chorus effect.


FX Amt = 100: Mono In - Stereo Out / FX Amt = 0: Stereo In - Stereo Out
Left
Right
Doppler
Pan Depth
FX Amt
FX Amt
LFO
D-mod
Trigger
LFO Mode = 1-Shot

a	LFO Mode	Loop, 1-Shot	Switches LFO operation mode	
	Src	Off...Tempo	Selects the modulation source of LFO reset	
b	LFO Sync	Off, On	Switches between LFO reset on and off when LFO Mode is set to Loop	
c	LFO Frequency [Hz]	0.02...20.00	Sets the speed of the LFO	
	Src	Off...Tempo	Selects a modulation source for LFO speed	
	Amt	–20.00...+20.00	Sets the modulation amount of LFO speed	
d	MIDI Sync	Off, On	When this is on, the LFO speed is set by BPM, Base Note, and Times, instead of Frequency	Sync
	BPM	MIDI, 40.00...300.00	MIDI syncs to the system tempo; 40–300 sets the tempo manually for this individual effect	
	Base Note	r...w	Selects the type of notes that specify the LFO speed	
	Times	x1...x32	Sets the number of notes that specify the LFO speed	
e	Pitch Depth	0...100	Sets the pitch variation of the moving sound	
	Src	Off...Tempo	Selects the modulation source of pitch variation	
	Amt	–100...+100	Sets the modulation amount of pitch variation	
f	Pan Depth	–100...+100	Sets the panning of the moving sound	
	Src	Off...Tempo	Selects the modulation source of panning	
	Amt	–100...+100	Sets the modulation amount of panning	
g	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	–100...+100	Amount of modulation source	

a: LFO Mode
a: Src
b: LFO Sync

The "LFO Mode" parameter switches LFO operation mode. When Loop is selected, the Doppler effect will be created repeatedly. If "LFO Sync" is set to On, the LFO will be reset when the modulation source specified with the "Src" parameter is turned on.

When "LFO Mode" is set to 1-Shot, the Doppler effect is created only once when the modulation source specified in the "Src" field is turned on. At this time if you do not set the "Src" parameter, the Doppler effect will not be created, and no effect sound will be output.

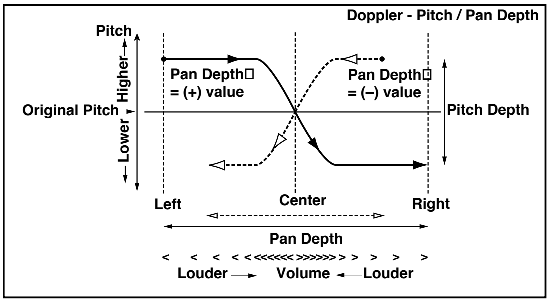
MIDI The effect is off when a value for the modulation source specified for the "Src" parameter is smaller than 64, and the effect is on when the value is 64 or higher. The Doppler effect is triggered when the value changes from 63 or smaller to 64 or higher.

e: Pitch Depth

With the Doppler effect, the pitch is raised when the sound approaches, and the pitch is lowered when the sound goes away. This parameter sets this pitch variation.

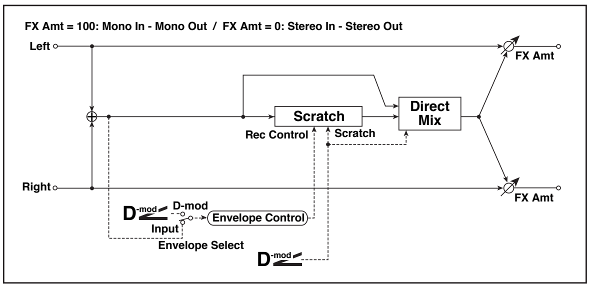
f: Pan Depth

This parameter sets the width of the stereo image of the effect sound. With larger values, the sound seems to come and go from much further away. With positive values, the sound moves from left to right; with negative values, the sound moves from right to left.


Doppler - Pitch / Pan Depth
Pitch
Higher
Original Pitch
Lower
Pan Depth□ = (+) value
Pan Depth□ = (–) value
Pitch Depth
Left
Center
Right
Pan Depth
Louder
Volume
Louder

43: Scratch

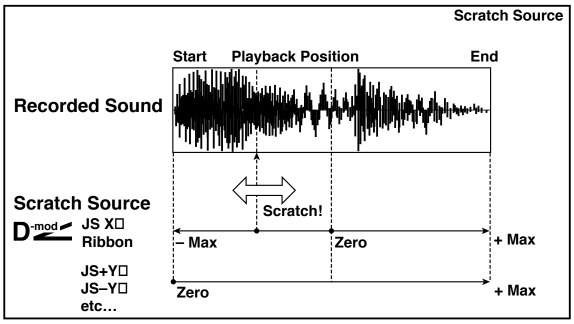
This effect is applied by recording the input signal and moving the modulation source. It simulates the sound of scratches you can make using a turntable.


FX Amt = 100: Mono In - Mono Out / FX Amt = 0: Stereo In - Stereo Out
Left
Right
Scratch
Direct Mix
Rec Control
Scratch
FX Amt
FX Amt
D-mod
D-mod
Input
Envelope Control
Envelope Select
D-mod

a	Scratch Source	Off...Tempo	Selects the modulation source for simulation control	
b	Response	0...100	Sets the speed of the response to the Scratch Src	
c	Envelope Select	D-mod, Input	Selects whether the start and end of recording is controlled via the modulation source or the input signal level	
	Src	Off...Tempo	Selects the modulation source that controls recording when Envelope Select is set to D-mod	
d	Threshold	0...100	Sets the recording start level when Envelope Select is set to Input	
e	Response	0...100	Sets the speed of the response to the end of recording	
f	Direct Mix	Always On, Always Off, Cross Fade	Selects how a dry sound is mixed	
g	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	–100...+100	Amount of modulation source	

a: Scratch Source
b: Response

The Scratch Source parameter enables you to select the modulation source that controls simulation. The value of the modulation source corresponds to the playback position. The Response parameter enables you to set the speed of the response to the modulation source.


Scratch Source
Start
Playback Position
End
Recorded Sound
Scratch Source
D-mod
JS X□
Ribbon
JS+Y□
JS–Y□
etc…
Scratch!
– Max
Zero
+ Max
Zero
+ Max

c: Envelope Select
c: Src
d: Threshold

When “Envelope Select” is set to D-mod, the input signal will be recorded only when the modulation source value is 64 or higher.

When “Envelope Select” is set to Input, the input signal will be recorded only when its level is over the Threshold value.

The maximum recording time is 2,730msec. If this is exceeded, the recorded data will start being erased from the top.

e: Response

This parameter enables you to set the speed of the response to the end of recording. Set a smaller value when you are recording a phrase or rhythm pattern, and set a higher value if you are recording only one note.

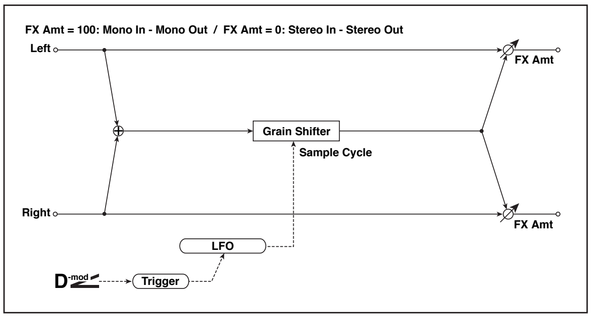
f: Direct Mix

With Always On, a dry sound is usually output. With Always Off, dry sounds are not output. With Cross Fade, a dry sound is usually output, and it is muted only when scratching.

Set Wet/Dry to 100 to use this parameter effectively.

44: Grain Shifter

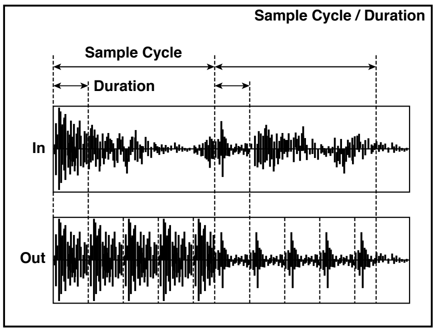
This effect cuts extremely short samples (“grains”) from the input signal waveform and plays them repeatedly, giving a mechanical character to the sound.


FX Amt = 100: Mono In - Mono Out / FX Amt = 0: Stereo In - Stereo Out
Left
Right
FX Amt
FX Amt
Grain Shifter
Sample Cycle
LFO
D-mod
Trigger

a	Duration	0...100	Sets the duration of the grain	
	Src	Off...Tempo	Selects the source that will modulate the duration of the grain	
	Amt	−100...+100	Sets the amount by which the grain duration will be modulated	
b	LFO Sync Src	Off...Tempo	Selects the modulation source that will reset the LFO	
c	LFO Sample Cycle [Hz]	0.02...20.00	Sets the frequency at which the grain will be switched	
	Src	Off...Tempo	Selects a modulation source for LFO speed	
	Amt	−20.00...+20.00	Sets the modulation amount of LFO speed	
d	MIDI Sync	Off, On	When this is on, the LFO speed is set by BPM, Base Note, and Times, instead of Frequency	Sync
	BPM	MIDI, 40.00...300.00	MIDI syncs to the system tempo; 40–300 sets the tempo manually for this individual effect	
	Base Note	r...w	Selects the type of notes that specify the LFO speed	
	Times	x1...x32	Sets the number of notes that specify the LFO speed	
e	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , “Dynamic Modulation sources,” on page 330	
	Amt	−100...+100	Amount of modulation source	

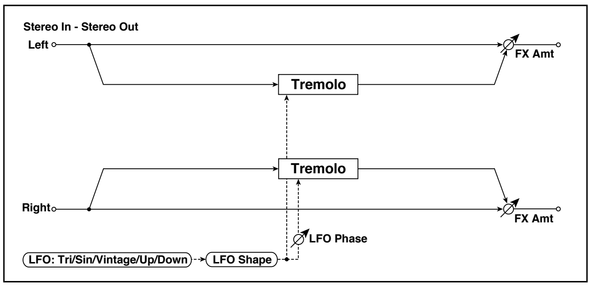
a: Duration
c: LFO Sample Cycle [Hz]

Duration sets the length of the sampled grain, and the LFO **Sample Cycle** controls how often a new grain is sampled. In between Sample Cycles, the current grain is repeated continuously.


Sample Cycle / Duration
Sample Cycle
Duration
In
Out

45: Stereo Tremolo

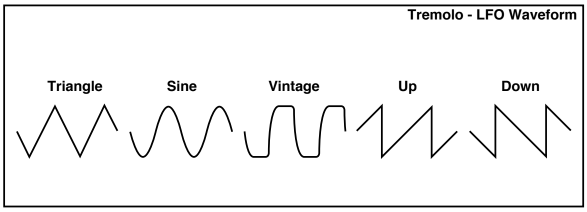
This effect modulates the volume level of the input signal. The effect is stereo, and offsetting the LFO of the left and right phases from each other produces a tremolo effect between left and right.



a	LFO Waveform	Triangle, Sine, Vintage, Up, Down	Selects the LFO Waveform	
	LFO Shape	–100...+100	Changes the curvature of the LFO Waveform	
b	LFO Phase [degree]	–180...+180	Sets the LFO phase difference between the left and right	
c	LFO Frequency [Hz]	0.02...20.00	Sets the speed of the LFO	
	Src	Off...Tempo	Selects a modulation source for LFO speed	
	Amt	–20.00...+20.00	Sets the modulation amount of LFO speed	
d	MIDI Sync	Off, On	When this is on, the LFO speed is set by BPM, Base Note, and Times, instead of Frequency	
	BPM	MIDI, 40.00...300.00	MIDI syncs to the system tempo; 40–300 sets the tempo manually for this individual effect	
	Base Note	r...w	Selects the type of notes that specify the LFO speed	
	Times	x1...x32	Sets the number of notes that specify the LFO speed	
e	Depth	0...100	Sets the depth of LFO modulation	
	Src	Off...Tempo	Selects the modulation source of the depth of modulation	
	Amt	–100...+100	Sets the modulation amount of the depth of modulation	
f	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	–100...+100	Amount of modulation source	

a: LFO Waveform

This parameter sets the basic shape of the LFO. The **Vintage** waveform models classic guitar-amp tremolo.

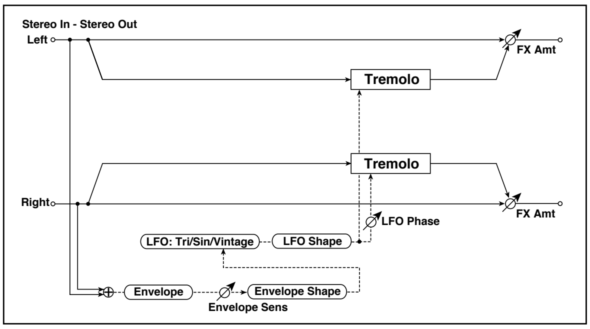


b: LFO Phase [degree]

This parameter determines the difference between the left and right LFO phases. A higher value will simulate the auto-pan effect in which the sound is panned between left and right.

46: St. Env. Tremolo (Stereo Envelope Tremolo)

This effect uses the input signal level to modulate a stereo tremolo (LFO volume modulation). For instance, you can create a tremolo effect that becomes deeper and faster as the input gets more quiet.

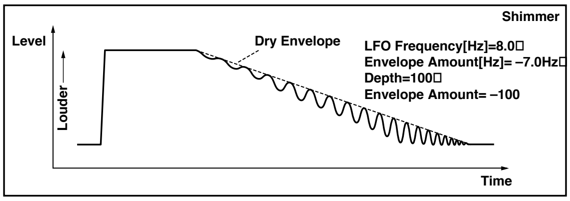


a	Envelope Sens	0...100	Sets the envelope's sensitivity to the input signal	
	Envelope Shape	–100...+100	Sets the envelope's curvature	
b	LFO Waveform	Triangle, Sine, Vintage	Selects the LFO Waveform	
	LFO Shape	–100...+100	Changes the curvature of the LFO Waveform	
c	LFO Phase [degree]	–180...+180	Sets the LFO phase difference between the left and right	
d	LFO Frequency [Hz]	0.02...20.00	Sets the speed of the LFO	
	Envelope Amount [Hz]	–20.00...+20.00	Sets the amount added to or subtracted from the Frequency when the envelope is at maximum	
e	Depth	0...100	Sets the initial amount of tremolo	
	Envelope Amount	–100...+100	Sets the amount added to or subtracted from the Depth when the envelope is at maximum	
f	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	–100...+100	Amount of modulation source	

d: LFO Frequency [Hz]
d: Envelope Amount [Hz]
e: Depth
e: Envelope Amount

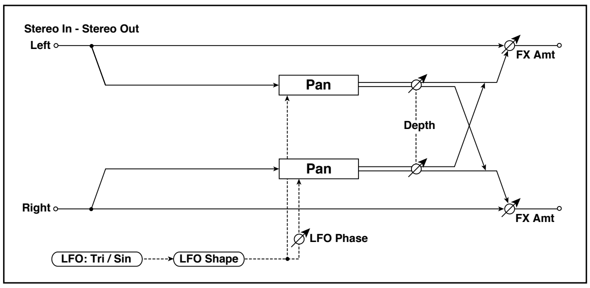
The graphic below shows an example of tremolo modulation with negative modulation of both **Depth** and **Frequency**. At the start of the note, the input is at maximum volume. This slows down the LFO **Frequency** to **1.0Hz**, but also modulates the **Depth** to **0**–so the tremolo doesn't have any effect.

As the input volume dies down, the **Frequency** speeds up; the **Depth** also increases, making the tremolo effect increasingly audible. When the input volume approaches silence, the **Depth** is at its maximum (**100**) and **Frequency** is at **8Hz**.



47: Stereo Auto Pan

This is a stereo-in, stereo-out auto-panner. The Phase and Shape parameters lets you create various panning effects, such as making the left and right inputs seem to chase each other around the stereo field.



a	LFO Waveform	Triangle, Sine	Selects the LFO Waveform	
	LFO Shape	–100...+100	Changes the curvature of the LFO Waveform	
b	LFO Phase [degree]	–180...+180	Sets the LFO phase difference between the left and right	
c	LFO Frequency [Hz]	0.02...20.00	Sets the speed of the LFO	
	Src	Off...Tempo	Selects a modulation source for LFO speed	
	Amt	–20.00... +20.00	Sets the modulation amount of LFO speed	
d	MIDI Sync	Off, On	When this is on, the LFO speed is set by BPM, Base Note, and Times, instead of Frequency	Sync
	BPM	MIDI, 40.00... 300.00	MIDI syncs to the system tempo; 40–300 sets the tempo manually for this individual effect	
	Base Note	r...w	Selects the type of notes that specify the LFO speed	
	Times	x1...x32	Sets the number of notes that specify the LFO speed	
e	Depth	0...100	Sets the depth of LFO modulation	
	Src	Off...Tempo	Selects the modulation source of the depth of modulation	
	Amt	–100...+100	Sets the modulation amount of the depth of modulation	
f	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	–100...+100	Amount of modulation source	

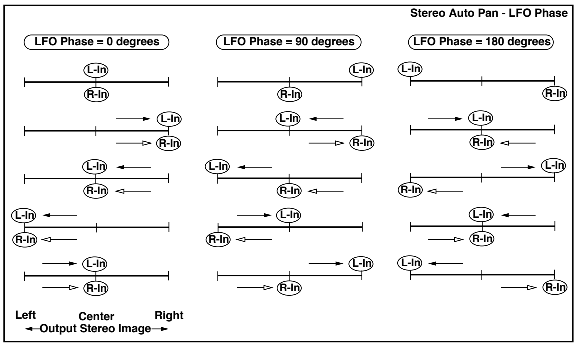
a: LFO Shape

You can change the panning curve by modifying the LFO's **Shape**.

b: LFO Phase [degree]

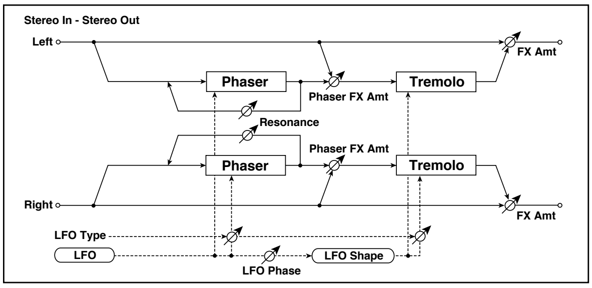
This determines the phase difference between the left and right LFOs. When you gradually change the value away from 0, the sounds from the left and right channels will seem to chase each other around. If you set the parameter to +180 or –180, the sounds from each channel will cross over each other.

You'll only hear the effect of this parameter if the input is true stereo, with different signals in the left and right channels.



48: St. Phaser + Trml
(Stereo Phaser + Tremolo)

This effect combines a stereo phaser and tremolo, with linked LFOs. Swelling phaser modulation and tremolo effects synchronize with each other, creating a soothing modulation effect particularly suitable for electric piano.



a	Type	Phs - Trml, ... Phs LR - Trml LR	Selects the type of the tremolo and phaser LFOs Phaser - Tremolo, Phaser - Tremolo Spin, Phaser - Tremolo LR, Phaser LR - Tremolo, Phaser LR - Tremolo Spin, Phaser LR - Tremolo LR	
	LFO Phase [degree]	–180...+180	Sets the phase difference between the tremolo and phaser LFOs	
b	LFO Frequency [Hz]	0.02...20.00	Sets the speed of the LFO	
	Src	Off...Tempo	Selects a modulation source for LFO speed	
	Amt	–20.00... +20.00	Sets the LFO speed modulation amount	
c	MIDI Sync	Off, On	When this is on, the LFO speed is set by BPM, Base Note, and Times, instead of Frequency	Sync
	BPM	MIDI, 40.00... 300.00	MIDI syncs to the system tempo; 40–300 sets the tempo manually for this individual effect	
	Base Note	r...w	Selects the type of notes that specify the LFO speed	
	Times	x1...x32	Sets the number of notes that specify the LFO speed	
d	Phaser Manual	0...100	Sets the phaser frequency range	
	Resonance	–100...+100	Sets the phaser resonance amount	
e	Phaser Depth	0...100	Sets the phaser modulation depth	
	Src	Off...Tempo	Selects the modulation source for the phaser modulation depth	
	Amt	–100...+100	Sets the modulation amount for the phaser modulation depth	
f	Phaser Wet/ Dry	–Wet, –2 : 98...Dry... 2 : 98, Wet	Sets the balance between the phaser effect and dry sounds	
g	Tremolo Shape	–100...+100	Sets the degree of the tremolo LFO shaping	
h	Tremolo Depth	0...100	Sets the tremolo modulation depth	
	Src	Off...Tempo	Selects the modulation source for the tremolo modulation depth	
	Amt	–100...+100	Sets the modulation amount of the tremolo modulation depth	

i	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	–100...+100	Amount of modulation source	

a: Type
a: LFO Phase [degree]

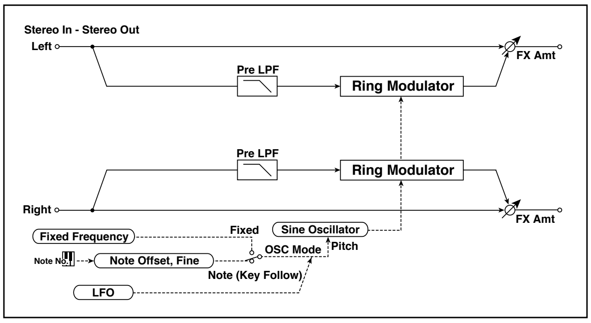
Select the type of phaser LFO and tremolo LFO for the "Type" parameter. How the effect sound moves or rotates depends on the type of LFO. Selecting "LFO Phase" enables you to offset the timing of the phaser peak and control a subtle movement and rotation of the sound.

f: Phaser Wet/Dry
i: Wet/Dry

PHASER Wet/Dry sets the balance between the phaser output and the dry sound. **OUTPUT Wet/Dry** sets the balance between the final phaser and tremolo output level and the dry sound.

49: St. Ring Modulator (Stereo Ring Modulator)

This effect creates a metallic sound by applying the oscillators to the input signal. Use the LFO or Dynamic Modulation to modulate the oscillator to create a radical modulation. Matching the oscillator frequency with a note number will produce a ring modulation effect in specific key ranges.



a	OSC Mode	Fixed, Note (Key Follow)	Switching between specifying the oscillator frequency and using a note number	
	Pre LPF	0...100	Sets the damping amount of the high range input to the ring modulator	
b	Fixed Frequency [Hz]	0...12.00k	Sets the oscillator frequency when OSC Mode is set to Fixed	
	Src	Off...Tempo	Selects the modulation source for the oscillator frequency when OSC Mode is set to Fixed	
	Amt	–12.00k... +12.00k	Sets the modulation amount of the oscillator frequency when OSC Mode is set to Fixed	
c	Note Offset	–48...+48	Sets the pitch difference from the original note when OSC Mode is set to Note (Key Follow)	
	Note Fine	–100...+100	Fine-adjusts the oscillator frequency	
d	LFO Frequency [Hz]	0.02...20.00	Sets the speed of the LFO	
	Src	Off...Tempo	Selects a modulation source for LFO speed	
	Amt	–20.00... +20.00	Sets the modulation amount of LFO speed	
e	MIDI Sync	Off, On	When this is on, the LFO speed is set by BPM, Base Note, and Times, instead of Frequency	Sync
	BPM	MIDI, 40.00... 300.00	MIDI syncs to the system tempo; 40–300 sets the tempo manually for this individual effect	
	Base Note	r...w	Selects the type of notes that specify the LFO speed	
	Times	x1...x32	Sets the number of notes that specify the LFO speed	
f	LFO Depth	0...100	Sets the depth of LFO modulation for the oscillator frequency	
	Src	Off...Tempo	Selects the modulation source of the depth of modulation	
	Amt	–100...+100	Sets the modulation amount of the depth of modulation	
g	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	–100...+100	Amount of modulation source	

a: OSC Mode

This parameter determines whether or not the oscillator frequency follows the note number.

a: Pre LPF

This parameter enables you to set the damping amount of the high range sound input to the ring modulator. If the input sound contains lots of harmonics, the effect may sound dirty. In this case, cut a certain amount of high range.

b: Fixed Frequency [Hz]

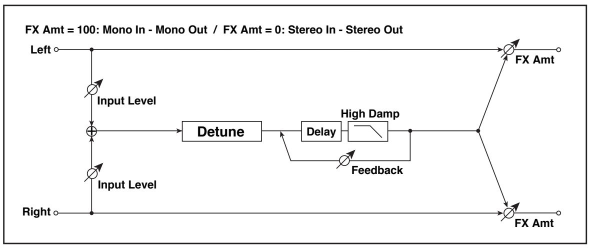
This parameter sets the oscillator frequency when "OSC Mode" is set to Fixed.

c: Note Offset
c: Note Fine

These parameters for the oscillator are used when "OSC Mode" is set to Note (Key Follow). The "Note Offset" sets the pitch difference from the original note in semitone steps. The "Note Fine" parameter fine-adjusts the pitch in cent steps. Matching the oscillator frequency with the note number produces a ring modulation effect in the correct key.

50: Detune

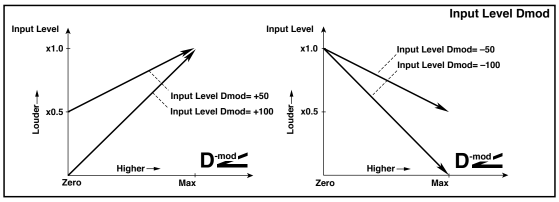
Using this effect, you can obtain a detune effect that offsets the pitch of the effect sound slightly from the pitch of the input signal. Compared to the chorus effect, a more natural sound thickness will be created.



a	Pitch Shift [cents]	−100...+100	Sets the pitch difference from the input signal	
	Src	Off...Tempo	Selects a modulation source for pitch shift	
	Amt	−100...+100	Sets the modulation amount for pitch shift	
b	Delay Time [msec]	0...1000	Sets the delay time	
c	Feedback	−100...+100	Sets the feedback amount	
	High Damp [%]	0...100	Sets the damping amount in the high range	
d	Input Level Dmod [%]	−100...+100	Sets the modulation amount of the input level	
	Src	Off...Tempo	Selects the modulation source for the input level	
e	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	−100...+100	Amount of modulation source	

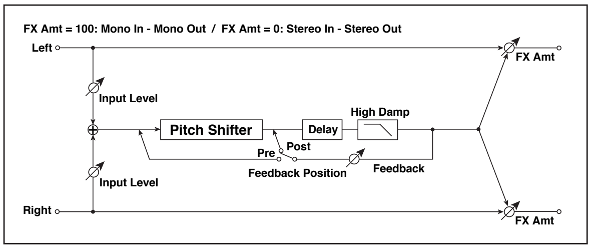
d: Input Level Dmod [%]
d: Src

This parameter sets the dynamic modulation of the input level.



51: Pitch Shifter

This effect changes the pitch of the input signal. You can select from three types: Fast (quick response), Medium, and Slow (preserves tonal quality). You can also create an effect in which the pitch is gradually raised (or dropped) using the delay with feedback.



a	Mode	Slow, Medium, Fast	Switches Pitch Shifter mode	
b	Pitch Shift [1/2tone]	−24...+24	Sets the pitch shift amount by steps of a semitone	
	Src	Off...Tempo	Selects the modulation source of pitch shift amount	
	Amt	−24...+24	Sets the modulation amount of pitch shift amount	
c	Fine [cents]	−100...+100	Sets the pitch shift amount by steps of a cent	
	Amt	−100...+100	Sets the modulation amount of pitch shift amount	
d	Delay Time [msec]	0...2000	Sets the delay time	
e	Feedback Position	Pre, Post	Switches the feedback connection	
f	Feedback	−100...+100	Sets the feedback amount	
	High Damp [%]	0...100	Sets the damping amount in the high range	
g	Input Level Dmod [%]	−100...+100	Sets the modulation amount of the input level	
	Src	Off...Tempo	Selects the modulation source for the input level	
h	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	−100...+100	Amount of modulation source	

a: Mode

This parameter switches the pitch shifter operating mode. With Slow, tonal quality will not be changed too much. With Fast, the effect becomes a Pitch Shifter that has a quick response, but may change the tone. Medium is in-between these two. If you do not need to set too much pitch shift amount, set this parameter to Slow. If you wish to change the pitch significantly, use Fast.

b: Pitch Shift [1/2tone]
b: Src
b: Amt
c: Fine [cents]
c: Amt

The amount of pitch shift will use the value of the **Pitch Shift** plus the **Fine** value. The amount of modulation will use the b: Amt value plus the c: Amt.

The same Modulation Source is used for both **Pitch Shift** and **Fine**.

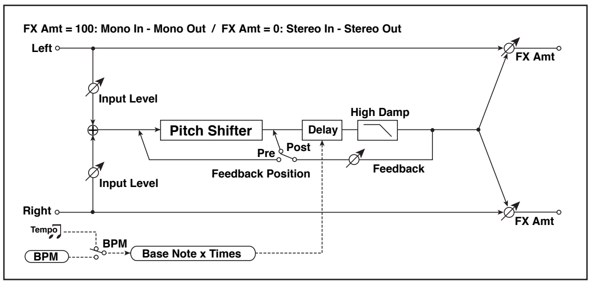
e: Feedback Position
f: Feedback

When **Feedback Position** is set to **Pre**, the pitch shifter output is again input to the pitch shifter. Therefore, if you specify a higher value for the Feedback parameter, the pitch will be raised (or lowered) more and more each time feedback is repeated.

If **Feedback Position** is set to **Post**, the feedback signal will not pass through the pitch shifter again. Even if you specify a higher value for the **Feedback** parameter, the pitch-shifted sound will be repeated at the same pitch.

52: Pitch Shifter BPM

This pitch shifter enables you to set the delay time to match the song tempo.



a	Mode	Slow, Medium, Fast	Switches Pitch Shifter mode	
b	Pitch Shift [1/2tone]	–24...+24	Sets the pitch shift amount in steps of a semitone	
	Src	Off...Tempo	Selects the modulation source of pitch shift amount	
	Amt	–24...+24	Sets the modulation amount of pitch shift amount	
c	Fine [cents]	–100...+100	Sets the pitch shift amount in steps of one cent	
	Amt	–100...+100	Sets the modulation amount of pitch shift amount	
d	BPM	MIDI, 40.00...300.00	MIDI syncs to the system tempo; 40–300 sets the tempo manually for this individual effect	Sync
	Time Over?	---, OVER!	Displays an error message when the delay time exceeds the upper limit	
e	Delay Base Note	r...w	Selects the type of notes to specify the delay time	
	Times	x1...x32	Sets the number of notes to specify the delay time	
f	Feedback Position	Pre, Post	Switches the feedback connection	
g	Feedback	–100...+100	Sets the feedback amount	
	High Damp [%]	0...100	Sets the damping amount in the high range	
h	Input Level Dmod [%]	–100...+100	Sets the modulation amount of the input level	
	Src	Off...Tempo	Selects the modulation source for the input level	
i	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	–100...+100	Amount of modulation source	

d: BPM
e: Delay Base Note
e: Times

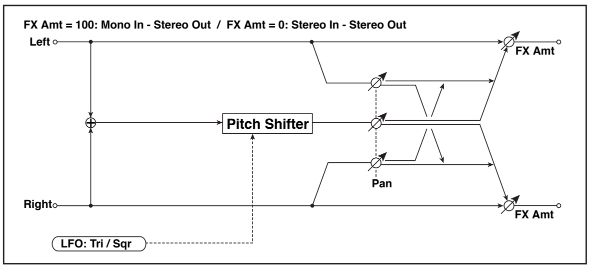
The delay time is the duration of "Times" number of "Delay Base Note" note values at the "BPM" tempo (or if "BPM" is set to MIDI, the tempo determined by MIDI Clock).

d: Time Over?

You can set the delay time up to 5,290msec. If the delay time exceeds this limit, the error message "OVER!" appears on the display. Set the delay time parameters so that this message will not appear. "Time Over?" is only a display parameter.

53: Pitch Shift Mod.
(Pitch Shift Modulation)

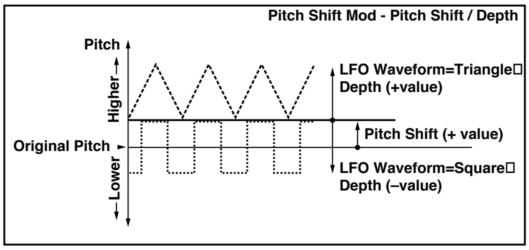
This effect modulates the detuned pitch shift amount using an LFO, adding a clear spread and width to the sound by panning the effect sound and dry sound to the left and right. This is especially effective when the effect sound and dry sound output from stereo speakers are mixed.


FX Amt = 100: Mono In - Stereo Out / FX Amt = 0: Stereo In - Stereo Out
Left
Pitch Shifter
Pan
Right
FX Amt
FX Amt
LFO: Tri / Sqr

a	Pitch Shift [cents]	–100...+100	Sets the pitch difference from the input signal	
b	LFO Waveform	Triangle, Square	Selects the LFO Waveform	
c	LFO Frequency [Hz]	0.02...20.00	Sets the speed of the LFO	
	Src	Off...Tempo	Selects a modulation source for LFO speed	
	Amt	–20.00...+20.00	Sets the modulation amount of LFO speed	
d	MIDI Sync	Off, On	When this is on, the LFO speed is set by BPM, Base Note, and Times, instead of Frequency	Sync
	BPM	MIDI, 40.00...300.00	MIDI syncs to the system tempo; 40–300 sets the tempo manually for this individual effect	
	Base Note	r...w	Selects the type of notes that specify the LFO speed	
	Times	x1...x32	Sets the number of notes that specify the LFO speed	
e	Depth	–100...+100	Sets the LFO modulation depth for pitch shift amount	
	Src	Off...Tempo	Selects the modulation source of the depth of modulation	
	Amt	–100...+100	Sets the modulation amount of the depth of modulation	
f	Pan	L, 1 : 99...99 : 1, R	Sets the panning effect sound and dry sound separately	
g	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	–100...+100	Amount of modulation source	

a: Pitch Shift [cents]
e: Depth

These parameters set the amount of pitch shift and amount of modulation by means of the LFO.

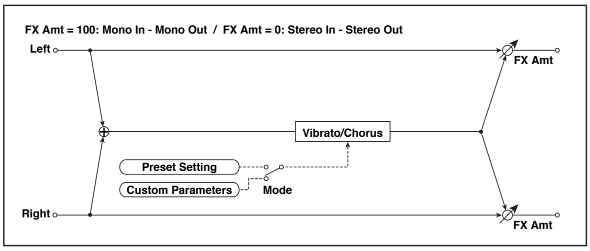


g: Pan
h: Wet/Dry

The Pan parameter pans the effect sound and dry sound to the left and right. With L, the effect sound is panned left, and the dry sound is panned right. With a Wet/Dry = Wet setting, the effect and dry sound will be output in a proportion of 1:1.

54: Organ Vib/Chorus (Organ Vibrato/Chorus)

This effect simulates the chorus and vibrato circuitry of a vintage organ. The modulation speed and depth can be customized.



a	Input Trim	0...100	Sets the input level	
b	Control Mode	Preset, Custom	Selects either preset or custom settings	
c	Preset Type	V1, C1, V2, C2, V3, C3	Selects the effect type when Mode=Preset V1/V2/V3 are variations of vibrato, and C1/C2/C3 are variations of chorus	
	Src	Off...Tempo	Selects the modulation source that will change the effect type	
	Amt	–5...+5	Sets the modulation amount for changing the effect type	
d	Custom Mix	Vibrato, 1:99...99:1, Chorus	Sets the mix level of the direct sound when Mode=Preset	
	Src	Off...Tempo	Selects the modulation source that will control the mix level of the direct sound	
	Amt	−100...+100	Sets the modulation amount for controlling the mix level of the direct sound	
e	Custom Depth	0...100	Sets the vibrato depth	
	Src	Off...Tempo	Selects the modulation source that will control vibrato depth	
	Amt	−100...+100	Sets the modulation amount for controlling the vibrato depth	
f	Custom Speed [Hz]	0.02...20.00	Sets the vibrato speed	
	Src	Off...Tempo	Selects the modulation source for controlling the vibrato speed	
	Amt	–20.00...+20.00	Sets the modulation amount for controlling the vibrato speed	
g	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	−100...+100	Amount of modulation source	

b: Control Mode
c: Preset Type
d: Custom Mix
e: Custom Depth
f: Custom Speed [Hz]

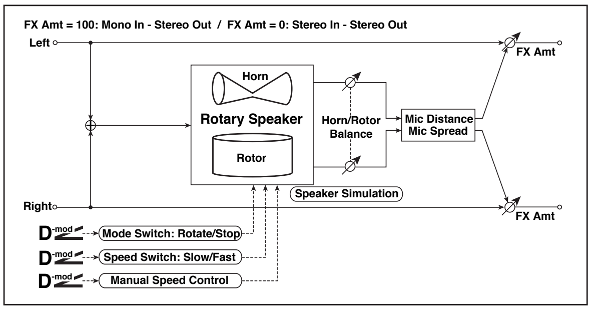
If Control Mode=Preset, you can use c: Preset Type to select the effect. In this case, the Custom Mix/Depth/Speed settings are ignored. If Control Mode=Custom, the Custom Mix/Depth/Speed settings are valid, and the c: Preset Type setting is ignored.

c: Amt

If Preset Type=V1 and Src=JS+Y, you can set this to +5 and move JS +Y to control the effect in the order of V1?C1?V2?C2?V3?C3.

55: Rotary Speaker

This effect simulates a rotary speaker, and obtains a more realistic sound by simulating the rotor in the low range and the horn in the high range separately. The effect also simulates the stereo microphone settings.



a	Mode Switch	Rotate, Stop	Switches between speaker rotation and stop	
	Src	Off...Tempo	Selects a modulation source for Rotate/Stop	
	Mode	Toggle, Moment	Sets the switch mode for Rotate/Stop modulation	
b	Speed Switch	Slow, Fast	Switches the speaker rotation speed between slow and fast	
	Src	Off...Tempo	Selects a modulation source for Slow/Fast	
	Mode	Toggle, Moment	Sets the switch mode for Slow/Fast modulation	
c	Manual Speed Ctrl	Off...Tempo	Sets a modulation source for direct control of rotation speed	
d	Hore Acceleration	0...100	How quickly the horn rotation speed in the high range is switched	
	Hore Ratio	Stop, 0.50...2.00	Adjusts the (high-range side) horn rotation speed. Standard value is 1.00. Selecting "Stop" will stop the rotation	
e	Rotor Acceleration	0...100	Determines how quickly the rotor rotation speed in the low range is switched	
	Rotor Ratio	Stop, 0.50...2.00	Adjusts the (low-frequency) rotor speed. Standard value is 1.00. Selecting "Stop" will stop the rotation	
f	Horn/Rotor Balance	Rotor, 1...99, Horn	Sets the level balance between the high-frequency horn and low-frequency rotor	
g	Mic Distance	0...100	Sets the distance between the microphone and rotary speaker	
	Mic Spread	0...100	Sets the angle of left and right microphones	
h	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	−100...+100	Amount of modulation source	

a: Mode

This parameter sets how the modulation source switches between rotation and stop.

When **Mode** = **Toggle**, the speaker rotates or stops alternately each time you press the pedal or move the joystick. Via MIDI, rotation will switch between start and stop each time the modulation amount exceeds 64.

When **Mode** = **Moment**, the speaker rotates by default, and stops only when you press the pedal or move the joystick. Via MIDI, modulation values above 64 make the speaker rotate, and values below 64 make it stop.

b: Speed Switch

This parameter controls how the rotation speed (slow and fast) is switched via the modulation source.

When **Mode** = **Toggle**, the speed will switch between slow and fast each time you press the pedal or move the joystick. Via MIDI, the speed will switch each time the modulation amount exceeds 64.

When **Mode** = **Moment**, the speed is usually slow. It becomes fast only when you press the pedal or move the joystick. Via MIDI, modulation values above 64 set the speed to **Fast**, and values below 64 set it to **Slow**.

c: Manual Speed Ctrl

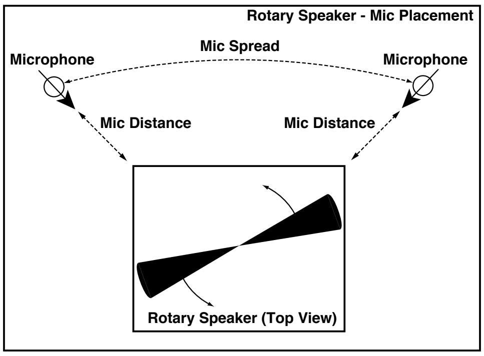
If you wish to control the rotation speed manually, instead of switching between Slow and Fast, select a modulation source in the **Manual Speed Ctrl** parameter. If you don't want to use manual control, set this to **Off**.

d: Horn Acceleration
e: Rotor Acceleration

On a real rotary speaker, the rotation speed accelerates or decelerates gradually after you switch the speed. The **Horn** and **Rotor Acceleration** parameters set the transition times between fast and slow speeds.

g: Mic Distance
g: Mic Spread

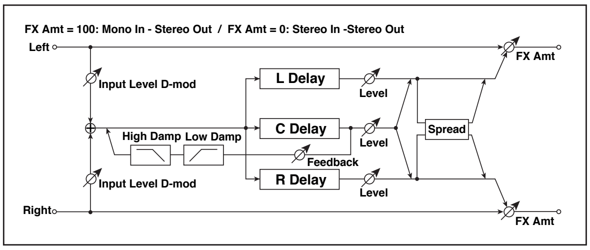
This is a simulation of stereo microphone settings.


Rotary Speaker - Mic Placement
Mic Spread
Microphone
Microphone
Mic Distance
Mic Distance
Rotary Speaker (Top View)

Delay

56: L/C/R Delay

This multitap delay outputs three Tap signals to the left, right, and center respectively. You can also adjust the left and right spread of the delay sound.


FX Amt = 100: Mono In - Stereo Out / FX Amt = 0: Stereo In -Stereo Out
Left
Right
Input Level D-mod
Input Level D-mod
High Damp
Low Damp
L Delay
C Delay
R Delay
Level
Level
Level
Feedback
Spread
FX Amt
FX Amt

a	L Delay Time [msec]	0...2730	Sets the delay time of TapL	
	Level	0...50	Sets the output level of TapL	
b	C Delay Time [msec]	0...2730	Sets the delay time of TapC	
	Level	0...50	Sets the output level of TapC	
c	R Delay Time [msec]	0...2730	Sets the delay time of TapR	
	Level	0...50	Sets the output level of TapR	
d	Feedback (C Delay)	−100...+100	Sets the feedback amount of TapC	
	Src	Off...Tempo	Selects the modulation source of the TapC feedback amount	
	Amt	−100...+100	Sets the modulation amount of the TapC feedback amount	
e	High Damp [%]	0...100	Sets the damping amount in the high range	
	Low Damp [%]	0...100	Sets the damping amount in the low range	
f	Input Level Dmod [%]	−100...+100	Sets the modulation amount of the input level	
	Src	Off...Tempo	Selects the modulation source for the input level	
g	Spread	0...50	Sets the width of the stereo image of the effect sound	
h	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	−100...+100	Amount of modulation source	

e: High Damp [%]
e: Low Damp [%]

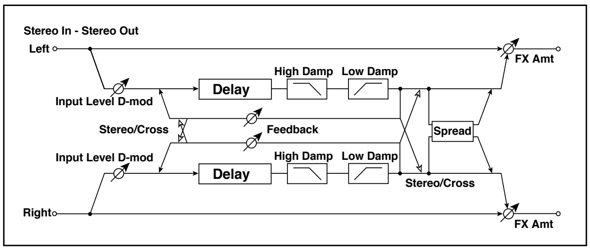
These parameters set the damping amount of high range and low range. The tone of the delayed sound becomes darker and lighter as it feeds back.

g: Spread

This parameter sets the pan width of the effect sound. The stereo image is widest with a value of 50, and the effect sound of both channels is output from the center with a value of 0.

57: Stereo/CrossDelay

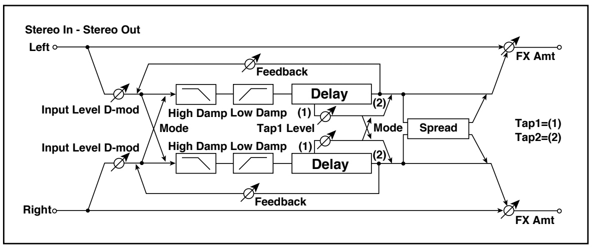
This is a stereo delay, and can by used as a cross-feedback delay effect in which the delay sounds cross over between the left and right by changing the feedback routing.


Stereo In - Stereo Out
Left
FX Amt
High Damp
Low Damp
Delay
Input Level D-mod
Stereo/Cross
Feedback
Spread
Input Level D-mod
High Damp
Low Damp
Delay
Stereo/Cross
Right
FX Amt

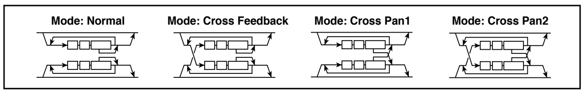
a	Stereo/Cross	Stereo, Cross	Switches between stereo delay and cross-feedback delay	
b	L Delay Time [msec]	0.0...1360.0	Sets the delay time for the left channel	
c	R Delay Time [msec]	0.0...1360.0	Sets the delay time for the right channel	
d	L Feedback	−100...+100	Sets the feedback amount for the left channel	
	Src	Off...Tempo	Selects the modulation source of feedback amount	
	Amt L	−100...+100	Sets the modulation amount of the left channel feedback	
e	R Feedback	−100...+100	Sets the feedback amount for the right channel	
	Amt R	−100...+100	Sets the modulation amount of the right channel feedback	
f	High Damp [%]	0...100	Sets the damping amount in the high range	
g	Low Damp [%]	0...100	Sets the damping amount in the low range	
h	Input Level Dmod [%]	−100...+100	Sets the modulation amount of the input level	
	Src	Off...Tempo	Selects the modulation source for the input level	
i	Spread	−50...+50	Sets the width of the stereo image of the effect sound	
j	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	−100...+100	Amount of modulation source	

58: St. Multitap Delay
(Stereo Multitap Delay)

The left and right Multitap Delays have two taps respectively. Changing the routing of feedback and tap output allows you to create various patterns of complex effect sounds.


Stereo In - Stereo Out
Left
FX Amt
Feedback
Delay
Input Level D-mod
High Damp Low Damp
(1)
(2)
Mode
Tap1 Level
Mode
Spread
Tap1=(1)
Tap2=(2)
Input Level D-mod
High Damp Low Damp
(1)
(2)
Delay
Feedback
Right
FX Amt

a	Mode	Normal, Cross Feedback, Cross Pan1, Cross Pan2	Switches the left and right delay routing	
b	Tap1 Time [msec]	0.0...1360.0	Sets the Tap1 delay time	
c	Tap2 Time [msec]	0.0...1360.0	Sets the Tap2 delay time	
d	Tap1 Level	0...100	Sets the Tap1 output level	
e	Feedback (Tap2)	−100...+100	Sets the Tap2 feedback amount	
	Src	Off...Tempo	Selects the modulation source of the Tap2 feedback amount	
	Amt	−100...+100	Sets the modulation amount of the Tap2 feedback amount	
f	High Damp [%]	0...100	Sets the damping amount in the high range	
g	Low Damp [%]	0...100	Sets the damping amount in the low range	
h	Input Level Dmod [%]	−100...+100	Sets the modulation amount of the input level	
	Src	Off...Tempo	Selects the modulation source for the input level	
i	Spread	−100...+100	Sets the width of the stereo image of the effect sound	
	Src	Off...Tempo	Selects the modulation source of the effect sound's stereo image width	
	Amt	−100...+100	Sets the modulation amount of the effect sound's stereo image width	
j	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	−100...+100	Amount of modulation source	


Mode: Normal
Mode: Cross Feedback
Mode: Cross Pan1
Mode: Cross Pan2

a: Mode

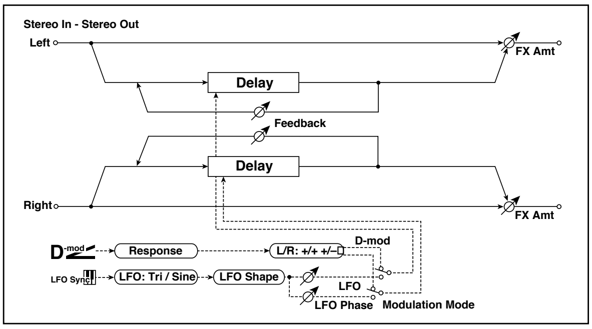
You can change how the left and right delay signals are panned by modifying the routing of the left and right delay as shown in the figure above. You need to input different sounds to each channel in order for this parameter to be effective.

d: Tap1 Level

This parameter sets the output level of Tap1. Setting a different level from Tap2 will add a unique touch to a monotonous delay and feedback.

59: St. Mod Delay
(Stereo Modulation Delay)

This stereo delay uses an LFO to sweep the delay time. The pitch also varies, creating a delay sound which swells and shimmers. You can also control the delay time using a modulation source.



a	Modulation Mode	LFO, D-mod	Switches between LFO modulation control and modulation source control	
b	D-mod Modulation	L/R:+/+, L/R:+/–	Reversed L/R control by modulation source	
	Src	Off...Tempo	Selects the modulation source that controls delay time	
	Response	0...30	Sets the rate of response to the modulation source	
c	LFO Waveform	Triangle, Sine	Selects the LFO Waveform	
	LFO Shape	–100...+100	Changes the curvature of the LFO Waveform	
d	LFO Sync	Off, On	Switches LFO reset off/on	
	Src	Off...Tempo	Selects the modulation source that resets the LFO	
e	LFO Frequency [Hz]	0.02...20.00	Sets the speed of the LFO	
f	MIDI Sync	Off, On	When this is on, the LFO speed is set by BPM, Base Note, and Times, instead of Frequency	Sync
	BPM	MIDI, 40.00... 300.00	MIDI syncs to the system tempo; 40–300 sets the tempo manually for this individual effect	
	Base Note	r...w	Selects the type of notes that specify the LFO speed	
	Times	x1...x32	Sets the number of notes that specify the LFO speed	
g	L LFO Phase [deg]	–180...+180	Sets the phase obtained when the left LFO is reset	
	L Depth	0...200	Sets the depth of the left LFO modulation	
h	R LFO Phase [deg]	–180...+180	Sets the phase obtained when the right LFO is reset	
	R Depth	0...200	Sets the depth of the right LFO modulation	
i	L Delay Time [msec]	0.0...1000.0	Sets the delay time for the left channel	
	L Feedback	–100...+100	Sets the feedback amount of left delay	
j	R Delay Time [msec]	0.0...1000.0	Sets the delay time for the right channel	
	R Feedback	–100...+100	Sets the feedback amount of right delay	
k	Wet/Dry	-Wet, -1:99...Dry...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	–100...+100	Amount of modulation source	

b: D-mod Modulation

When the modulation source is used for control, this parameter reverses the left and right modulation direction.

d: LFO Sync
d: Src
g: L LFO Phase [deg]
h: R LFO Phase [deg]

If "LFO Sync" is On, the LFO will be reset by the modulation source that is received.

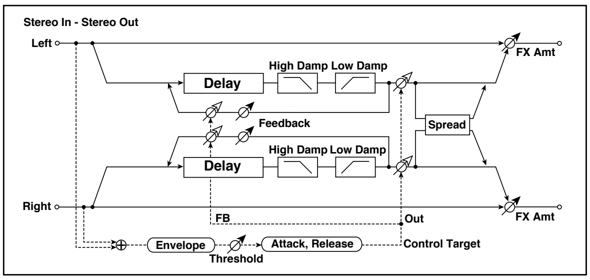
The "Src" parameter sets the modulation source that resets the LFO. For example, you can assign Gate as a modulation source so that the sweep always starts from the specified point.

"L LFO Phase" and "R LFO Phase" set the phase obtained when the left and right LFOs are reset. In this way, you can create changes in pitch sweep for the left and right channels individually.

MIDI The effect is off when a value of the modulation source specified in the "Src" parameter is 63 or smaller, and the effect is on when the value is 64 or higher. The LFO is triggered and reset to the "L LFO Phase" and "R LFO Phase" settings when the value changes from 63 or smaller to 64 or higher.

60: St. Dynamic Delay
(Stereo Dynamic Delay)

This stereo delay controls the level of delay according to the input signal level. You can use this as a ducking delay that applies delay to the sound only when you play keys at a high velocity or only when the volume level is low.



a	Control Target	None, Out, FB	Selects from no control, output, and feedback	
	Polarity	+, –	Reverses level control	
b	Threshold	0...100	Sets the level to which the effect is applied	
	Offset	0...100	Sets the offset of level control	
c	Attack	1...100	Sets the attack time of level control	
d	Release	1...100	Sets the release time of level control	
e	L Delay Time [msec]	0.0...1360.0	Sets the delay time for the left channel	
f	R Delay Time [msec]	0.0...1360.0	Sets the delay time for the right channel	
g	Feedback	–100...+100	Sets the feedback amount	
h	High Damp [%]	0...100	Sets the damping amount in the high range	
	Low Damp [%]	0...100	Sets the damping amount in the low range	
i	Spread	–100...+100	Sets the width of the stereo image of the effect sound	
j	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	–100...+100	Amount of modulation source	

a: Control Target

This parameter selects no level control, delay output control (effect balance), or feedback amount control.

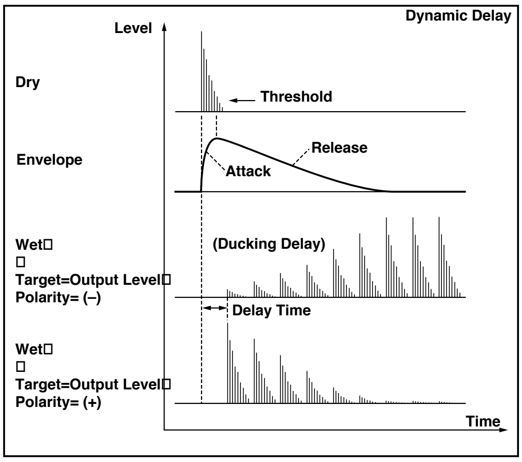
a: Polarity
b: Threshold
b: Offset
c: Attack
d: Release

The “Offset” parameter specifies the value for the “Control Target” parameter (that is set to None), expressed as the ratio relative to the parameter value (the “Wet/Dry” value with “Control Target”=Output level, or the “Feedback” value with “Control Target”=Feedback).

When “Polarity” is positive, the “Control Target” value is obtained by multiplying the parameter value by the “Offset” value (if the input level is below the threshold), or equals the parameter value if the input level exceeds the threshold.

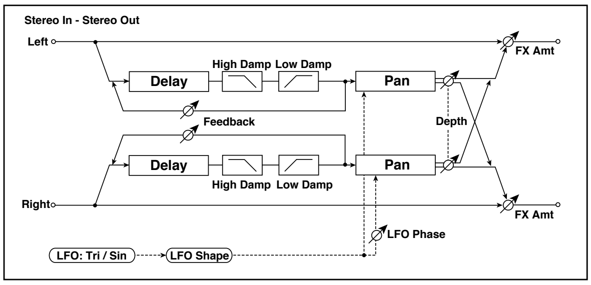
When “Polarity” is negative, Control Target value equals the parameter value if the input level is below the threshold, or is obtained by multiplying the parameter value by the “Offset” value if the level exceeds the threshold.

The “Attack” and “Release” parameters specify attack time and release time of delay level control.



61: St. AutoPanningDly (Stereo Auto Panning Delay)

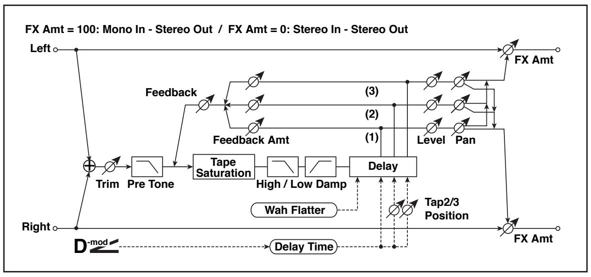
This stereo delay effect pans the delay sound left and right using the LFO.



a	L Delay Time [msec]	0.0...1360.0	Sets the delay time for the left channel	
	L Feedback	−100...+100	Sets the feedback amount for the left channel	
b	R Delay Time [msec]	0.0...1360.0	Sets the delay time for the right channel	
	R Feedback	−100...+100	Sets the feedback amount for the right channel	
c	High Damp [%]	0...100	Sets the damping amount in the high range	
	Low Damp [%]	0...100	Sets the damping amount in the low range	
d	LFO Waveform	Triangle, Sine	Selects the LFO Waveform	
	LFO Shape	−100...+100	Changes the curvature of the LFO Waveform	
e	Phase [degree]	−180...+180	Sets the LFO phase difference between the left and right	
f	Panning Freq [Hz]	0.02...20.00	Sets the panning speed	
g	MIDI Sync	Off, On	Switches between using the frequency of the panning speed and using the tempo and notes	Sync
	BPM	MIDI, 40.00... 300.00	MIDI syncs to the system tempo; 40–300 sets the tempo manually for this individual effect	
	Base Note	r...w	Selects the type of notes to specify the delay time for the panning speed	
	Times	x1...x32	Sets the number of notes to specify the delay time for the panning speed	
h	Panning Depth	0...100	Sets the panning width	
	Src	Off...Tempo	Selects the modulation source for the panning width	
	Amt	−100...+100	Set the modulation amount of the panning width	
i	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , “Dynamic Modulation sources,” on page 330	
	Amt	−100...+100	Amount of modulation source	

62: Tape Echo

This effect simulates a tape echo unit with three playback heads. The distortion and tonal change typical of magnetic tape are also reproduced.



a	Delay (Tap1) [msec]	0...2700	Sets the delay time (tap1)	
	Src	Off...Tempo	Selects the modulation source of the delay time	
	Amt	–2700...+2700	Sets the modulation amount of delay time	
b	Tap2 Position [%]	0...100	Sets the position of Tap 2 relative to the Tap 1 delay time the depth of pitch variation	
c	Tap3 Position [%]	0...100	Sets the position of Tap 3 relative to the Tap 1 delay time the depth of pitch variation	
d	Tap1 Level	0...100	Sets the Tap1 output level	
	Pan	L, 1...99, R	Sets the stereo image of tap1	
	FB Amt	–100...+100	Sets the Tap1 feedback amount	
e	Tap2 Level	0...100	Sets the Tap2 output level	
	Pan	L, 1...99, R	Sets the stereo image of tap2	
	FB Amt	–100...+100	Sets the Tap2 feedback amount	
f	Tap3 Level	0...100	Sets the Tap3 output level	
	Pan	L, 1...99, R	Sets the stereo image of tap3	
	FB Amt	–100...+100	Sets the Tap3 feedback amount	
g	Feedback	0...100	Sets the amount of feedback for Taps 1, 2, and 3	
	Src	Off...Tempo	Selects the modulation source of feedback amount	
	Amt	–100...+100	Sets the feedback amount	
h	High Damp [%]	0...100	Sets the damping amount in the high range	
	Low Damp [%]	0...100	Sets the damping amount in the low range	
i	Saturation	0...100	Sets the distortion amount	
j	Input Trim	0...100	Sets the input gain	
	Pre Tone	0...100	Sets the tone of the input	
k	Wow Flutter [Hz]	0.02...1.00	Sets the frequency at which pitch variation will occur	
	Wow Flutter depth	0...100	Sets the depth of pitch variation	
l	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	–100...+100	Amount of modulation source	

a: Delay (Tap1) [msec]
a: Src
a: Amt
b: Tap2 Position [%]
b: Tap3 Position [%]

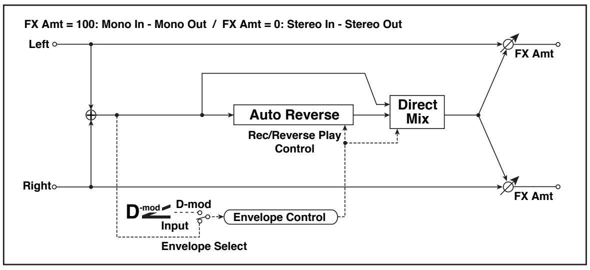
The delay time for Tap 2 and 3 is specified as a proportion (%) relative to "Delay (Tap1)." Even if you use dynamic modulation to control "Delay (Tap1)," Tap 2 and 3 will change at the same proportion.

d: FB Amt
e: FB Amt
f: FB Amt
g: Feedback

The feedback output from Tap 1, 2, and 3 is mixed according to the "FB Amt," and then the final amount of feedback is specified by "Feedback."

63: Auto Reverse

This effect records the input signal and automatically plays it in reverse (the effect is similar to a tape reverse sound).



a	Rec Mode	Single, Multi	Sets the recording mode	
b	Reverse Time [msec]	20...2640	Sets the maximum duration of the reverse playback	
c	Envelope Select	D-mod, Input	Selects whether the start and end of recording is controlled via the modulation source or the input signal level	
	Src	Off...Tempo	Selects the modulation source that controls recording when Envelope Select is set to D-mod	
d	Threshold	0...100	Sets the recording start level when Envelope Select is set to Input	
e	Response	0...100	Sets the speed of the response to the end of recording	
f	Direct Mix	Always On, Always Off, Cross Fade	Selects how a dry sound is mixed	
g	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	–100...+100	Amount of modulation source	

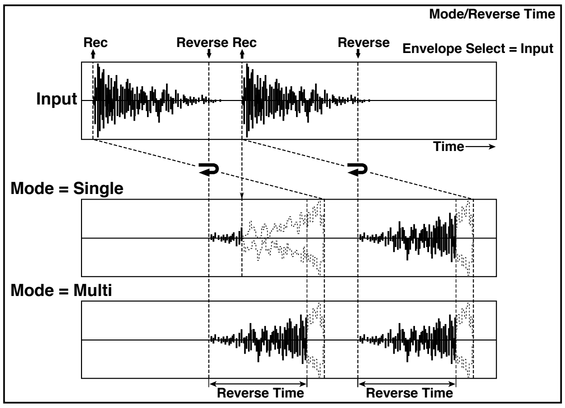
a: Rec Mode
b: Reverse Time [msec]

When "Rec Mode" is set to Single, you can set up to 2,640msec for "Reverse Time." If recording starts during the reverse playback, the playback will be interrupted.

When "Rec Mode" is set to Multi, you can make another recording during the reverse playback. However, the maximum Reverse Time is limited to 1,320msec.

If you wish to record a phrase or rhythm pattern, set "Rec Mode" to Single. If you record only one note, set "Rec Mode" to Multi.

The "Reverse Time" parameter specifies the maximum duration of the reverse playback. The part in excess of this limit will not be played in reverse. If you wish to add short pieces of the reverse playback of single notes, make the "Reverse Time" shorter.


Mode/Reverse Time
Envelope Select = Input
Rec
Reverse Rec
Reverse
Input
Time
Mode = Single
Mode = Multi
Reverse Time
Reverse Time

c: Envelope Select
c: Src
d: Threshold

These parameters select the source to control the start and end of recording.

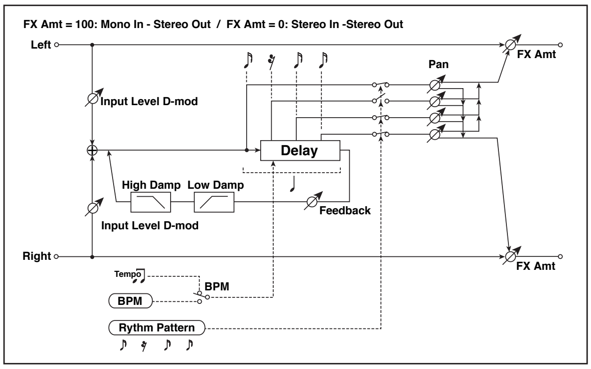
When “Envelope Select” is set to D-mod, the input signal will be recorded only when the value of the modulation source selected by the Src parameter is 64 or higher.

When “Envelope Select” is set to Input, the input signal will be recorded only when its level exceeds the Threshold level.

When recording is completed, reverse playback starts immediately.

64: Sequence BPM Dly (Sequence BPM Delay)

This four-tap delay enables you to select a tempo and rhythm pattern to set up each tap.


FX Amt = 100: Mono In - Stereo Out / FX Amt = 0: Stereo In -Stereo Out
Left
Right
FX Amt
FX Amt
Pan
Input Level D-mod
Input Level D-mod
Delay
High Damp
Low Damp
Feedback
Tempo
BPM
BPM
Rythm Pattern

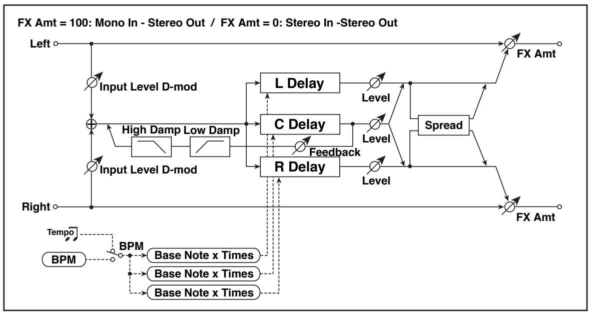
a	BPM	MIDI, 40.00... 300.00	MIDI syncs to the system tempo; 40–300 sets the tempo manually for this individual effect	Sync
b	Rhythm Pattern	x...eee^{3}	Selects a rhythm pattern	Sync
c	Tap1 Pan	L, 1...99, R	Sets the panning of Tap1	
	Tap2 Pan	L, 1...99, R	Sets the panning of Tap2	
	Tap3 Pan	L, 1...99, R	Sets the panning of Tap3	
	Tap4 Pan	L, 1...99, R	Sets the panning of Tap4	
d	Feedback	–100...+100	Sets the feedback amount	
	Src	Off...Tempo	Selects the modulation source of feedback amount	
	Amt	–100...+100	Sets the feedback amount	
e	High Damp [%]	0...100	Sets the damping amount in the high range	
	Low Damp [%]	0...100	Sets the damping amount in the low range	
f	Input Level Dmod [%]	–100...+100	Sets the modulation amount of the input level	
	Src	Off...Tempo	Selects the modulation source for the input level	
g	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , “Dynamic Modulation sources,” on page 330	
	Amt	–100...+100	Amount of modulation source	

a: BPM
b: Rhythm Pattern

With the tempo specified by the “BPM” parameter (or the MIDI Clock tempo if “BPM” is set to MIDI), the length of one beat equals the feedback delay time, and the interval between taps becomes equal. Selecting a rhythm pattern will automatically turn the tap outputs on and off. When “BPM” is set to MIDI, the lower limit of the “BPM” is 44.

65: L/C/R BPM Delay

The L/C/R delay enables you to match the delay time with the song tempo. You can also synchronize the delay time with the arpeggiator or sequencer. If you program the tempo before performance, you can achieve a delay effect that synchronizes with the song in real-time. Delay time is set by notes.


FX Amt = 100: Mono In - Stereo Out / FX Amt = 0: Stereo In -Stereo Out
Left
FX Amt
Input Level D-mod
L Delay
Level
High Damp
Low Damp
C Delay
Level
Spread
Feedback
Input Level D-mod
R Delay
Level
Right
FX Amt
Tempo
BPM
BPM
Base Note x Times
Base Note x Times
Base Note x Times

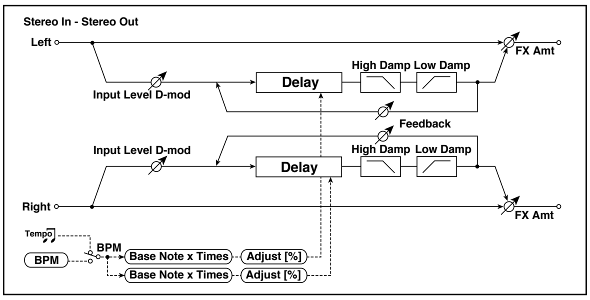
a	BPM	MIDI, 40.00...300.00	MIDI syncs to the system tempo; 40–300 sets the tempo manually for this individual effect	Sync
	Time Over?	---, OVER!	Displays an error message when the delay time exceeds the upper limit	
b	L Delay Base Note	r...w	Selects the type of notes to specify the delay time for TapL	Sync
	Times	x1...x32	Sets the number of notes to specify the delay time for TapL	
	Level	0...50	Sets the output level of TapL	
c	C Delay Base Note	r...w	elects the type of notes to specify the delay time for TapC	Sync
	Times	x1...x32	Sets the number of notes to specify the delay time for TapC	
	Level	0...50	Sets the output level of TapC	
d	R Delay Base Note	r...w	Selects the type of notes to specify the delay time for TapR	Sync
	Times	x1...x32	Sets the number of notes to specify the delay time for TapR	
	Level	0...50	Sets the output level of TapR	
e	Feedback (C Delay)	−100...+100	Sets the feedback amount of TapC	
	Src	Off...Tempo	Selects the modulation source for the TapC feedback	
	Amt	−100...+100	Sets the modulation amount of the TapC feedback	
f	High Damp [%]	0...100	Sets the damping amount in the high range	
	Low Damp [%]	0...100	Sets the damping amount in the low range	
g	Input Level Dmod [%]	−100...+100	Sets the modulation amount of the input level	
	Src	Off...Tempo	Selects the modulation source for the input level	
h	Spread	0...50	Sets the width of the stereo image of the effect sound	
i	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , “Dynamic Modulation sources,” on page 330	
	Amt	−100...+100	Amount of modulation source	

a: Time Over?

You can set the delay time up to 5,460msec. If the delay time exceeds this limit, the error message “OVER!” appears in the display. Set the delay time parameters so that this message will not appear. “Time Over?” is only a display parameter.

66: Stereo BPM Delay

This stereo delay enables you to set the delay time to match the song tempo.


Stereo In - Stereo Out
Left
FX Amt
High Damp
Low Damp
Input Level D-mod
Delay
Feedback
Input Level D-mod
High Damp
Low Damp
Delay
Right
FX Amt
Tempo
BPM
BPM
Base Note x Times
Adjust [%]
Base Note x Times
Adjust [%]

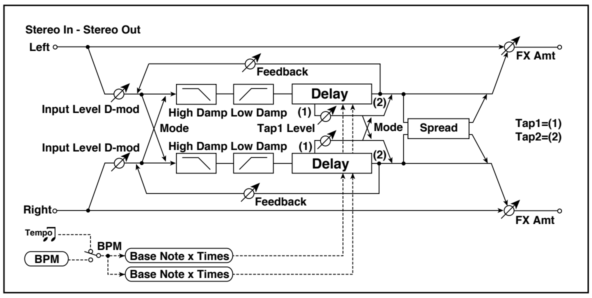
a	BPM	MIDI, 40.00...300.00	MIDI syncs to the system tempo; 40–300 sets the tempo manually for this individual effect	Sync
	Time Over? L	---, OVER!	Display the error message if the left channel delay time exceeds the upper limit	
	R	---, OVER!	Display the error message if the right channel delay time exceeds the upper limit	
b	L Delay Base Note	r...w	Selects the type of notes to specify the left channel delay time	Sync
	Times	x1...x32	Sets the number of notes to specify the left channel delay time	
	Adjust [%]	−2.50...+2.50	Fine-adjust the left channel delay time	
c	R Delay Base Note	r...w	Selects the type of notes to specify the right channel delay time	Sync
	Times	x1...x32	Sets the number of notes to specify the right channel delay time	
	Adjust [%]	−2.50...+2.50	Fine-adjust the right channel delay time	
d	L Feedback	−100...+100	Sets the feedback amount for the left channel	
	Src	Off...Tempo	Selects the modulation source of feedback amount	
	Amt L	−100...+100	Sets the modulation amount of the left channel feedback	
e	R Feedback	−100...+100	Sets the feedback amount for the right channel	
	Amt R	−100...+100	Sets the modulation amount of the right channel feedback	
f	High Damp [%]	0...100	Sets the damping amount in the high range	
g	Low Damp [%]	0...100	Sets the damping amount in the low range	
h	Input Level Dmod [%]	−100...+100	Sets the modulation amount of the input level	
	Src	Off...Tempo	Selects the modulation source for the input level	
i	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , “Dynamic Modulation sources,” on page 330	
	Amt	−100...+100	Amount of modulation source	

a: Time Over? L, R

You can set the delay time up to 2,730msec. If the delay time exceeds this limit, the error message “OVER!” appears in the display. Set the delay time parameters so that this message will not appear. “Time Over?” is only a display parameter.

67: St.BPM Mtap Delay
(Stereo BPM Multi tap Delay)

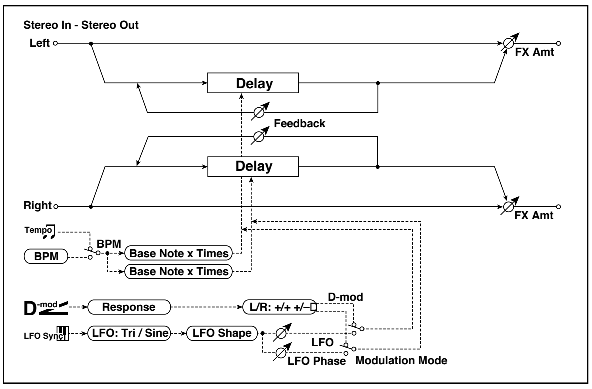
This four-tap delay enables you to select a tempo and rhythm pattern to set up each tap.



a	Mode	Normal, Cross Feedback, Cross Pan1, Cross Pan2	Switches the left and right delay routing	
b	BPM	MIDI, 40.00…300.00	MIDI syncs to the system tempo; 40–300 sets the tempo manually for this individual effect	Sync
	Time Over? 1	---, OVER!	Displays an error message when the delay time for Tap1 exceeds the upper limit	
	2	---, OVER!	Displays an error message when the delay time for Tap2 exceeds the upper limit	
c	Tap 1 Base Note	r…w	Selects the type of notes to specify the delay time for Tap1	Sync
	Times	x1…x32	Sets the number of notes to specify the delay time for Tap1	
d	Tap 2 Base Note	r…w	Selects the type of notes to specify the delay time for Tap2	Sync
	Times	x1…x32	Sets the number of notes to specify the delay time for Tap2	
e	Tap1 Level	0…100	Sets the Tap1 output level	
f	Feedback (Tap2)	−100…+100	Sets the Tap2 feedback amount	
	Src	Off…Tempo	Selects the modulation source of the Tap2 feedback amount	
	Amt	−100…+100	Sets the modulation amount of the Tap2 feedback amount	
g	High Damp [%]	0…100	Sets the damping amount in the high range	
	Low Damp [%]	0…100	Sets the damping amount in the low range	
h	Input Level Dmod [%]	−100…+100	Sets the modulation amount of the input level	
	Src	Off…Tempo	Selects the modulation source for the input level	
i	Spread	−100…+100	Sets the width of the stereo image of the effect sound	
	Src	Off…Tempo	Selects the modulation source of the effect sound's stereo image width	
	Amt	−100…+100	Sets the modulation amount of the effect sound's stereo image width	
j	Wet/Dry	Dry, 1:99…99:1, Wet	Balance between the wet and dry signal	
	Src	Off…Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	−100…+100	Amount of modulation source	

68: St.BPM Mod. Delay
(Stereo BPM Modulation Delay)

This is a stereo modulation delay that lets you synchronize the delay time to the tempo of the song.



a	Modulation Mode	LFO, D-mod	Switches between LFO modulation control and modulation source control	
b	D-mod Modulation	L/R:+/+, L/R:+/–	Reversed L/R control by modulation source	
	Src	Off…Tempo	Selects the modulation source that controls delay time	
	Response	0…30	Sets the rate of response to the modulation source	
c	LFO Waveform	Triangle, Sine	Selects the LFO Waveform	
	LFO Shape	−100…+100	Changes the curvature of the LFO Waveform	
d	LFO Sync	Off, On	Switches LFO reset off/on	
	Src	Off…Tempo	Selects the modulation source that resets the LFO	
e	LFO Frequency [Hz]	0.02…20.00	Sets the speed of the LFO	
f	MIDI Sync	Off, On	When this is on, the LFO speed is set by BPM, Base Note, and Times, instead of Frequency	Sync
	BPM	MIDI, 40.00…300.00	MIDI syncs to the system tempo; 40–300 sets the tempo manually for this individual effect	
	Base Note	r…w	Selects the type of notes that specify the LFO speed	
	Times	x1…x32	Sets the number of notes that specify the LFO speed	
g	L LFO Phase [deg]	−180…+180	Sets the phase obtained when the left LFO is reset	
	Depth	0…200	Sets the depth of the left LFO modulation	
h	R LFO Phase [deg]	−180…+180	Sets the phase obtained when the right LFO is reset	
	Depth	0…200	Sets the depth of the right LFO modulation	
i	BPM(Delay)	MIDI, 40.00…300.00	MIDI syncs to the system tempo; 40–300 sets the tempo manually for this individual effect	Sync
	Time Over? L	---, OVER!	Display the error message if the left channel delay time exceeds the upper limit	
	R	---, OVER!	Display the error message if the right channel delay time exceeds the upper limit	
j	L Delay Base Note	r…w	Selects the type of notes to specify the left channel delay time	Sync
	Times	x1…x32	Sets the number of notes to specify the left channel delay time	
	Feedback	−100…+100	Sets the feedback amount of left delay	
k	R Delay Base Note	r…w	Selects the type of notes to specify the right channel delay time	Sync
	Times	x1…x32	Sets the number of notes to specify the right channel delay time	
	Feedback	−100…+100	Sets the feedback amount of right delay	

l	Wet/Dry	-Wet, -1:99...Dry...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , “Dynamic Modulation sources,” on page 330	
	Amt	−100...+100	Amount of modulation source	

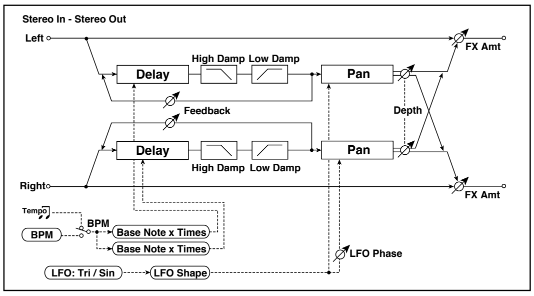
i: Time Over? L, R

You can set the delay time up to 2,550msec. If the delay time exceeds this limit, the error message “OVER!” appears in the display. Set the delay time parameters so that this message will not appear. “Time Over?” is only a display parameter.

69: St.BPMAutoPanDly

(Stereo BPM Auto Panning Delay)

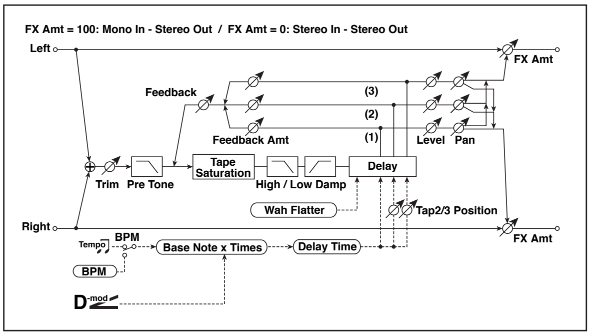
This stereo auto panning delay enables you to set the delay time to match the song tempo.



a	BPM	MIDI, 40.00...300.00	MIDI syncs to the system tempo; 40–300 sets the tempo manually for this individual effect	Sync
	Time Over? L	---, OVER!	Display the error message if the left channel delay time exceeds the upper limit	
	R	---, OVER!	Display the error message if the right channel delay time exceeds the upper limit	
b	L Delay Base Note	r...w	Selects the type of notes to specify the left channel delay time	Sync
	Times	x1...x32	Sets the number of notes to specify the left channel delay time	
	Feedback	−100...+100	Sets the feedback amount for the left channel	
c	R Delay Base Note	r...w	Selects the type of notes to specify the right channel delay time	Sync
	Times	x1...x32	Sets the number of notes to specify the right channel delay time	
	Feedback	−100...+100	Sets the feedback amount for the right channel	
d	High Damp [%]	0...100	Sets the damping amount in the high range	
	Low Damp [%]	0...100	Sets the damping amount in the low range	
e	LFO Waveform	Triangle, Sine	Selects the LFO Waveform	
	Shape	−100...+100	Changes the curvature of the LFO Waveform	
	LFO Phase	−180...+180	Sets the LFO phase difference between the left and right	
f	Panning Freq [Hz]	0.02...20.00	Sets the panning speed	
g	MIDI Sync	Off, On	When this is on, the pan LFO speed is set by BPM, Base Note, and Times, instead of Frequency	Sync
	BPM	MIDI, 40.00...300.00	MIDI syncs to the system tempo; 40–300 sets the tempo manually for this individual effect	
	Base Note	r...w	Selects the type of notes to specify the delay time for the panning speed	Sync
	Times	x1...x32	Sets the number of notes to specify the delay time for the panning speed	
h	Panning Depth	0...100	Sets the panning width	
	Src	Off...Tempo	Selects the modulation source for the panning width	
	Amt	−100...+100	Set the modulation amount of the panning width	
i	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , “Dynamic Modulation sources,” on page 330	
	Amt	−100...+100	Amount of modulation source	

70: Tape Echo BPM

This is a tape echo that lets you synchronize the delay time to the tempo of the song.



a	BPM (Delay)	MIDI, 40.00... 300.00	MIDI syncs to the system tempo; 40–300 sets the tempo manually for this individual effect	Sync
	Tap1 Dmod Src	Off...Tempo	Selects the modulation source of the delay time	
b	Tap1 Delay Note	r...w	Selects the type of notes to specify the delay time (tap1)	Sync
	Times	x1...x32	Sets the number of notes to specify the delay time (tap1)	
	Time Over?	---, OVER!	Displays an error message when the delay time exceeds the upper limit	
c	Tap1 Dmod Note	r...w	Selects the note value used to specify the delay time when the modulation is at maximum	Sync
	Times	x1...x32	Specifies the number of notes used to specify the delay time when the modulation is at maximum	
d	Tap2 Position [%]	0...100	Sets the position of Tap 2 relative to the Tap 1 delay time the depth of pitch variation	
e	Tap3 Position [%]	0...100	Sets the position of Tap 3 relative to the Tap 1 delay time the depth of pitch variation	
f	Tap1 Level	0...100	Sets the Tap1 output level	
	Pan	L, 1...99, R	Sets the stereo image of tap1	
	FB Amt	–100...+100	Sets the Tap1 feedback amount	
g	Tap2 Level	0...100	Sets the Tap2 output level	
	Pan	L, 1...99, R	Sets the stereo image of tap2	
	FB Amt	–100...+100	Sets the Tap2 feedback amount	
h	Tap3 Level	0...100	Sets the Tap3 output level	
	Pan	L, 1...99, R	Sets the stereo image of tap3	
	FB Amt	–100...+100	Sets the Tap3 feedback amount	
i	Feedback	0...100	Sets the amount of feedback for Taps 1, 2, and 3	
	Src	Off...Tempo	Selects the modulation source of feedback amount	
	Amt	–100...+100	Sets the depth by which feedback amount will be modulated	
j	High Damp [%]	0...100	Sets the damping amount in the high range	
	Low Damp [%]	0...100	Sets the damping amount in the low range	
k	Saturation	0...100	Sets the distortion amount	
l	Input Trim	0...100	Sets the input gain	
	Pre Tone	0...100	Sets the tone of the input	
m	Wow Flutter [Hz]	0.02...1.00	Sets the frequency at which pitch variation will occur	
	Wow Flutter depth	0...100	Sets the depth of pitch variation	
n	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	–100...+100	Amount of modulation source	

a: Tap1 Dmod Src
b: Tap1 Delay Note
b: Times
c: Tap1 Dmod Note
c: Times

If "Tap1 Dmod Src" is Off or the selected modulation is at 0, the delay time will be the length specified by "Tap1 Delay Note" and "Times."

If "Tap1 Dmod Src" is other than Off, the delay time will change so that it will be as specified by "Tap1 Dmod Note" and "Times" when the maximum modulation is reached.

b: Time Over?

You can set the delay time up to 5,400msec. If the delay time exceeds this limit, the error message "OVER!" appears in the display. Set the delay time parameters so that this message will not appear. "Time Over?" is only a display parameter.

Reverb and Early Reflections (Reverb ER)

71: Reverb Hall

This hall-type reverb simulates the reverberation of mid-size concert halls or ensemble halls.

72: Reverb SmoothHall

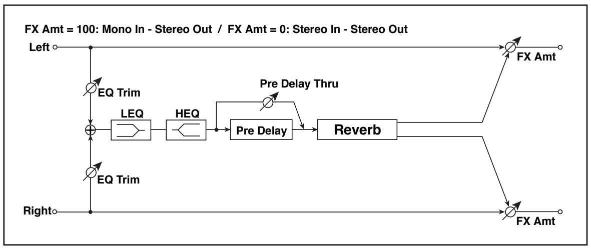
This hall-type reverb simulates the reverberation of larger halls and stadiums, and creates a smooth release.

73: Reverb Wet Plate

This plate reverb simulates warm (dense) reverberation.

74: Reverb Dry Plate

This plate reverb simulates dry (light) reverberation.

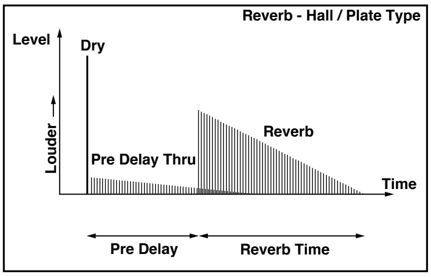

FX Amt = 100: Mono In - Stereo Out / FX Amt = 0: Stereo In - Stereo Out
Left
FX Amt
EQ Trim
Pre Delay Thru
LEQ
HEQ
Pre Delay
Reverb
EQ Trim
Right
FX Amt

a	Reverb Time [sec]	0.1...10.0	Sets the reverberation time	
	High Damp [%]	0...100	Sets the damping amount in the high range	
b	Pre Delay [msec]	0...200	Sets the delay time from the dry sound	
	Pre Delay Thru [%]	0...100	Sets the mix ratio of non-delay sound	
c	EQ Trim	0...100	Sets the EQ input level	
d	Pre LEQ Fc	Low, Mid-Low	Selects the cutoff frequency (low or mid-low) of the low-range equalizer	
	Pre HEQ Fc	High, Mid-High	Selects the cutoff frequency (high or mid-high) of the high-range equalizer	
e	Pre LEQ Gain [dB]	–15.0...+15.0	Sets the gain of Low EQ	
	Pre HEQ Gain [dB]	–15.0...+15.0	Sets the gain of High EQ	
f	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , “Dynamic Modulation sources,” on page 330	
	Amt	–100...+100	Amount of modulation source	

b: Pre Delay [msec]
b: Pre Delay Thru [%]

The “Pre Delay” sets the delay time to the reverb input, allowing you to control spaciousness.

Using the “Pre Delay Thru” parameter, you can mix the dry sound without delay, emphasizing the attack of the sound.

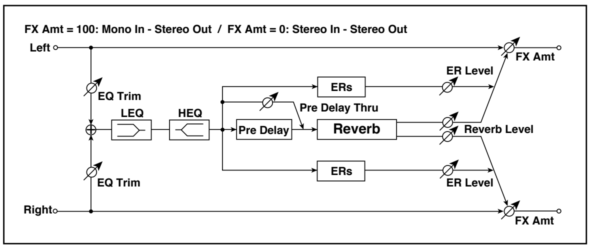

Reverb - Hall / Plate Type
Level
Dry
Louder
Reverb
Pre Delay Thru
Time
Pre Delay
Reverb Time

75: Reverb Room

This room-type reverb emphasizes the early reflections that make the sound tighter. Changing the balance between the early reflections and reverb sound allows you to simulate nuances, such as the type of walls of a room.

76: Reverb BrightRoom

This room-type reverb emphasizes the early reflections that make the sound brighter.

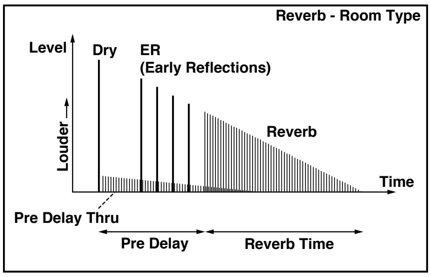

FX Amt = 100: Mono In - Stereo Out / FX Amt = 0: Stereo In - Stereo Out
Left
Right
EQ Trim
LEQ
HEQ
Pre Delay
Pre Delay Thru
ERs
Reverb
ER Level
Reverb Level
FX Amt

a	Reverb Time [sec]	0.1...3.0	Sets the reverberation time	
	High Damp [%]	0...100	Sets the damping amount in the high range	
b	Pre Delay [msec]	0...200	Sets the delay time from the dry sound	
	Pre Delay Thru [%]	0...100	Sets the mix ratio of non-delay sound	
c	ER Level	0...100	Sets the level of early reflections	
d	Reverb Level	0...100	Sets the reverberation level	
e	EQ Trim	0...100	Sets the EQ input level	
f	Pre LEQ Fc	Low, Mid-Low	Selects the cutoff frequency (low or mid-low) of the low-range equalizer	
	Pre HEQ Fc	High, Mid-High	Selects the cutoff frequency (high or mid-high) of the high-range equalizer	
g	Pre LEQ Gain [dB]	–15.0...+15.0	Sets the gain of Low EQ	
	Pre HEQ Gain [dB]	–15.0...+15.0	Sets the gain of High EQ	
h	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , “Dynamic Modulation sources,” on page 330	
	Amt	–100...+100	Amount of modulation source	

c: ER Level
d: Reverb Level

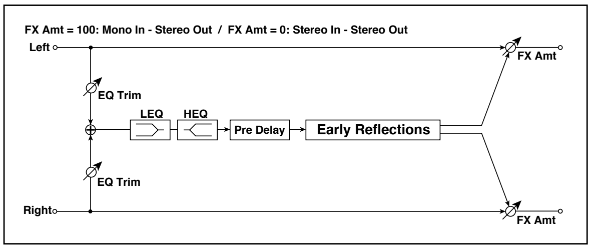
These parameters set the early reflection level and reverb level.

Changing these parameter values allows you to simulate the type of walls in the room. That is, a larger “ER Level” simulates a hard wall, and a larger “Reverb Level” simulates a soft wall.



77: Early Reflections

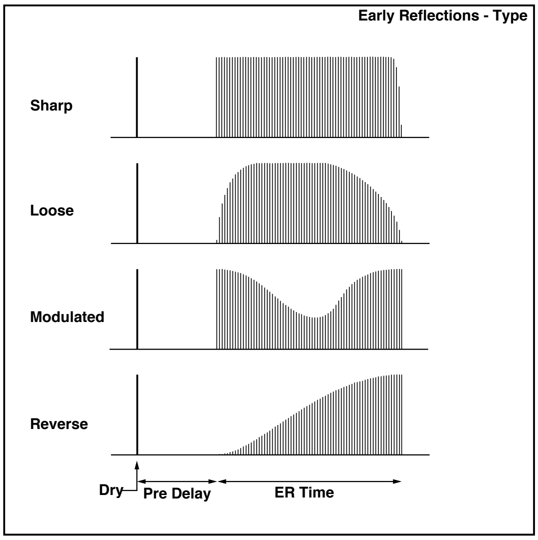
This effect is only the early reflection part of a reverberation sound, and adds presence to the sound. You can select one of the four decay curves.


FX Amt = 100: Mono In - Stereo Out / FX Amt = 0: Stereo In - Stereo Out
Left
Right
EQ Trim
LEQ
HEQ
Pre Delay
Early Reflections
FX Amt

a	Type	Sharp, Loose, Modulated, Reverse	Selects the decay curve for the early reflection	
b	ER Time [msec]	10...800	Sets the time length of early reflection	
c	Pre Delay [msec]	0...200	Sets the time taken from the original sound to the first early reflection	
d	EQ Trim	0...100	Sets the input level of EQ applied to the effect sound	
e	Pre LEQ Fc	Low, Mid-Low	Selects the cutoff frequency (low or mid-low) of the low-range equalizer	
	Pre HEQ Fc	High, Mid-High	Selects the cutoff frequency (high or mid-high) of the high-range equalizer	
f	Pre LEQ Gain [dB]	–15.0...+15.0	Gain of the Low EQ	
	Pre HEQ Gain [dB]	–15.0...+15.0	Gain of the High EQ	
g	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , “Dynamic Modulation sources,” on page 330	
	Amt	–100...+100	Amount of modulation source	

a: Type

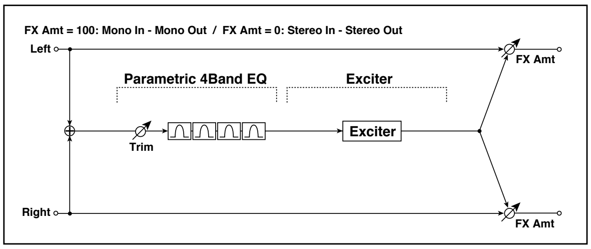
This parameter selects the decay curve for the early reflection.



Mono-Mono Serial (Mono-Mono)

78: P4EQ - Exciter
(Parametric 4-Band EQ - Exciter)

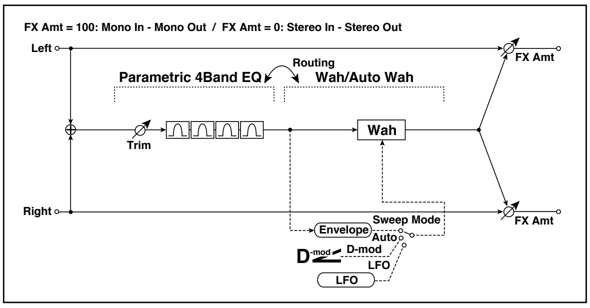
This effect combines a mono four-band parametric equalizer and an exciter.


FX Amt = 100: Mono In - Mono Out / FX Amt = 0: Stereo In - Stereo Out
Left
Parametric 4Band EQ
Exciter
Trim
Exciter
FX Amt
Right
FX Amt

P4EQ				
a	[E]Trim	0...100	Sets the parametric EQ input level	
b	[E]B1 Cutoff [Hz]	20...1.00k	Sets the center frequency of Band 1	
	Q	0.5...10.0	Sets the bandwidth of Band 1	
	Gain [dB]	−18...+18	Sets the gain of Band 1	
c	[E]B2 Cutoff [Hz]	50...5.00k	Sets the center frequency of Band 2	
	Q	0.5...10.0	Sets the bandwidth of Band 2	
	Gain [dB]	−18...+18	Sets the gain of Band 2	
d	[E]B3 Cutoff [Hz]	300...10.00k	Sets the center frequency of Band 3	
	Q	0.5...10.0	Sets the bandwidth of Band 3	
	Gain [dB]	−18...+18	Sets the gain of Band 3	
e	[E]B4 Cutoff [Hz]	500...20.00k	Sets the center frequency of Band 4	
	Q	0.5...10.0	Sets the bandwidth of Band 4	
	Gain [dB]	−18...+18	Sets the gain of Band 4	
EXCITER				
f	[X]Exciter Blend	−100...+100	Sets the intensity (depth) of the Exciter effect	
g	[X]Emphasis Freq	0...70	Sets the frequency range to be emphasized	
h	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	−100...+100	Amount of modulation source	

79: P4EQ - Wah
(Parametric 4-Band EQ - Wah/Auto Wah)

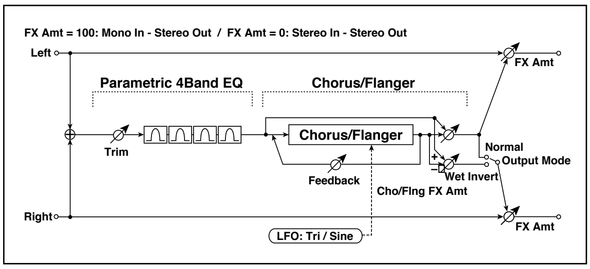
This effect combines a mono four-band parametric equalizer and a wah. You can change the order of the connection.



P4EQ				
a	[E]Trim	0...100	Sets the parametric EQ input level	
	Routing	P4EQ ?Wah, Wah ?P4EQ	Changes the order of the parametric equalizer and wah connection	
b	[E]B1 Cutoff [Hz]	20...1.00k	Sets the center frequency of Band 1	
	Q	0.5...10.0	Sets the bandwidth of Band 1	
	Gain [dB]	−18...+18	Sets the gain of Band 1	
c	[E]B2 Cutoff [Hz]	50...5.00k	Sets the center frequency of Band 2	
	Q	0.5...10.0	Sets the bandwidth of Band 2	
	Gain [dB]	−18...+18	Sets the gain of Band 2	
d	[E]B3 Cutoff [Hz]	300...10.00k	Sets the center frequency of Band 3	
	Q	0.5...10.0	Sets the bandwidth of Band 3	
	Gain [dB]	−18...+18	Sets the gain of Band 3	
e	[E]B4 Cutoff [Hz]	500...20.00k	Sets the center frequency of Band 4	
	Q	0.5...10.0	Sets the bandwidth of Band 4	
	Gain [dB]	−18...+18	Sets the gain of Band 4	
WAH				
f	[W]Frequency Bottom	0...100	Sets the lower limit of the wah center frequency	
	Frequency Top	0...100	Sets the upper limit of the wah center frequency	
g	[W]Sweep Mode	Auto, D-mod, LFO	Selects the control from auto-wah, modulation source, and LFO	
	Src	Off...Tempo	Selects the modulation source for the wah when Sweep Mode=D-mod	
h	[W]LFO Frequency [Hz]	0.02...20.00	Sets the speed of the LFO	
	Resonance	0...100	Sets the resonance amount	
	LPF	Off, On	Switches the wah low pass filter on and off	
i	[W] Wet/Dry	Dry,1 : 99... 99 : 1, Wet	Sets the wah effect balance	
	Src	Off...Tempo	Selects the Wet/Dry modulation source for the wah	
	Amt	−100...+100	Sets the Wet/Dry modulation amount for the wah	
j	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	−100...+100	Amount of modulation source	

80: P4EQ - Cho/Flng
(Parametric 4-Band EQ - Chorus/Flanger)

This effect combines a mono four-band parametric equalizer and a chorus/flanger.


FX Amt = 100: Mono In - Stereo Out / FX Amt = 0: Stereo In - Stereo Out
Left
Parametric 4Band EQ
Chorus/Flanger
FX Amt
Chorus/Flanger
Trim
Normal
Output Mode
Feedback
Wet Invert
Cho/Flng FX Amt
Right
FX Amt
LFO: Tri / Sine

P4EQ				
a	[E]Trim	0…100	Sets the parametric EQ input level	
b	[E]B1 Cutoff [Hz]	20…1.00k	Sets the center frequency of Band 1	
	Q	0.5…10.0	Sets the bandwidth of Band 1	
	Gain [dB]	–18…+18	Sets the gain of Band 1	
c	[E]B2 Cutoff [Hz]	50…5.00k	Sets the center frequency of Band 2	
	Q	0.5…10.0	Sets the bandwidth of Band 2	
	Gain [dB]	–18…+18	Sets the gain of Band 2	
d	[E]B3 Cutoff [Hz]	300…10.00k	Sets the center frequency of Band 3	
	Q	0.5…10.0	Sets the bandwidth of Band 3	
	Gain [dB]	–18…+18	Sets the gain of Band 3	
e	[E]B4 Cutoff [Hz]	500…20.00k	Sets the center frequency of Band 4	
	Q	0.5…10.0	Sets the bandwidth of Band 4	
	Gain [dB]	–18…+18	Sets the gain of Band 4	
CHORUS/FLANGER				
f	[F]LFO Frequency [Hz]	0.02…20.00	Sets the speed of the LFO	
	LFO Waveform	Triangle, Sine	Selects the LFO Waveform	
g	[F]Delay Time [msec]	0.0…1350.0	Sets the delay time	
	Depth	0…100	Sets the depth of LFO modulation	
	Feedback	–100…+100	Sets the feedback amount	
h	[F]Cho/Flng Wet/Dry	-Wet, -1:99…Dry…99:1, Wet	Sets the effect balance of the chorus/flanger	
	Src	Off…Tempo	Selects the Wet/Dry modulation source for the chorus/flanger	
	Amt	–100…+100	Sets the Wet/Dry modulation amount for the chorus/flanger	
i	[F]Output Mode	Normal, Wet Invert	Selects the output mode for the chorus/flanger	
j	Wet/Dry	Dry, 1:99…99:1, Wet	Balance between the wet and dry signal	
	Src	Off…Tempo	Table , “Dynamic Modulation sources,” on page 330	
	Amt	–100…+100	Amount of modulation source	

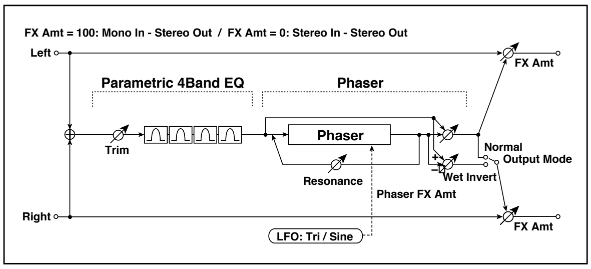
i: Output Mode

When Wet Invert is selected, the right channel phase of the chorus/flanger effect sound is inverted. This creates pseudo-stereo effects and adds spread.

However, if a mono-input type effect is connected after this effect, the left and right sounds may cancel each other, eliminating the chorus/flanger effects.

81: P4EQ - Phaser
(Parametric 4-Band EQ - Phaser)

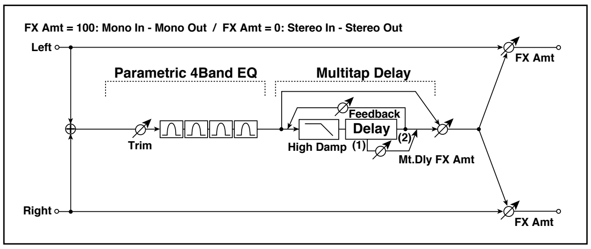
This effect combines a mono four-band parametric equalizer and a phaser.


FX Amt = 100: Mono In - Stereo Out / FX Amt = 0: Stereo In - Stereo Out
Left
Parametric 4Band EQ
Phaser
FX Amt
Phaser
Trim
Normal
Output Mode
Resonance
Wet Invert
Phaser FX Amt
Right
FX Amt
LFO: Tri / Sine

P4EQ				
a	[E]Trim	0…100	Sets the parametric EQ input level	
b	[E]B1 Cutoff [Hz]	20…1.00k	Sets the center frequency of Band 1	
	Q	0.5…10.0	Sets the bandwidth of Band 1	
	Gain [dB]	–18…+18	Sets the gain of Band 1	
c	[E]B2 Cutoff [Hz]	50…5.00k	Sets the center frequency of Band 2	
	Q	0.5…10.0	Sets the bandwidth of Band 2	
	Gain [dB]	–18…+18	Sets the gain of Band 2	
d	[E]B3 Cutoff [Hz]	300…10.00k	Sets the center frequency of Band 3	
	Q	0.5…10.0	Sets the bandwidth of Band 3	
	Gain [dB]	–18…+18	Sets the gain of Band 3	
e	[E]B4 Cutoff [Hz]	500…20.00k	Sets the center frequency of Band 4	
	Q	0.5…10.0	Sets the bandwidth of Band 4	
	Gain [dB]	–18…+18	Sets the gain of Band 4	
PHASER				
f	[P]LFO Frequency [Hz]	0.02…20.00	Sets the speed of the LFO	
	LFO Waveform	Triangle, Sine	Selects the LFO Waveform	
g	[P]Manual	0…100	Sets the frequency to which the effect is applied	
	Depth	0…100	Sets the depth of LFO modulation	
	Resonance	–100…+100	Sets the resonance amount	
h	[P]Phaser Wet/Dry	-Wet, -1:99…Dry…99:1, Wet	Sets the phaser effect balance	
	Src	Off…Tempo	Selects the Wet/Dry modulation source for the phaser	
	Amt	–100…+100	Sets the Wet/Dry modulation amount for the phaser	
i	[P]Output Mode	Normal, Wet Invert	Selects the phaser output mode	
j	Wet/Dry	Dry, 1:99…99:1, Wet	Balance between the wet and dry signal	
	Src	Off…Tempo	Table , “Dynamic Modulation sources,” on page 330	
	Amt	–100…+100	Amount of modulation source	

82: P4EQ - Mt. Delay (Parametric 4-Band EQ - Multitap Delay)

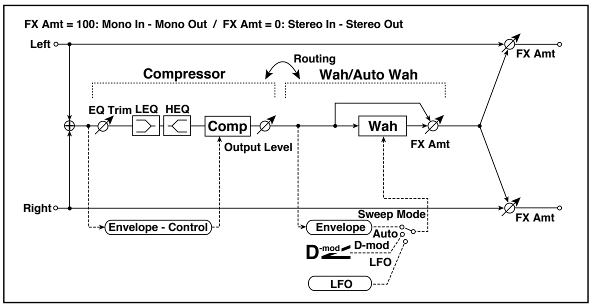
This effect combines a mono four-band parametric equalizer and a multitap delay.


FX Amt = 100: Mono In - Mono Out / FX Amt = 0: Stereo In - Stereo Out
Left
Right
Parametric 4Band EQ
Multitap Delay
Trim
Feedback
Delay
High Damp
(1)
(2)
Mt.Dly FX Amt
FX Amt
FX Amt

P4EQ				
a	[E]Trim	0...100	Sets the parametric EQ input level	
b	[E]B1 Cutoff [Hz]	20...1.00k	Sets the center frequency of Band 1	
	Q	0.5...10.0	Sets the bandwidth of Band 1	
	Gain [dB]	−18...+18	Sets the gain of Band 1	
c	[E]B2 Cutoff [Hz]	50...5.00k	Sets the center frequency of Band 2	
	Q	0.5...10.0	Sets the bandwidth of Band 2	
	Gain [dB]	−18...+18	Sets the gain of Band 2	
d	[E]B3 Cutoff [Hz]	300...10.00k	Sets the center frequency of Band 3	
	Q	0.5...10.0	Sets the bandwidth of Band 3	
	Gain [dB]	−18...+18	Sets the gain of Band 3	
e	[E]B4 Cutoff [Hz]	500...20.00k	Sets the center frequency of Band 4	
	Q	0.5...10.0	Sets the bandwidth of Band 4	
	Gain [dB]	−18...+18	Sets the gain of Band 4	
MULTITAP DELAY				
f	[D]Tap1 Time [msec]	0.0...1360.0	Sets the Tap1 delay time	
	Tap1 Level	0...100	Sets the Tap1 output level	
g	[D]Tap2 Time [msec]	0.0...1360.0	Sets the Tap2 delay time	
	Feedback (Tap2)	−100...+100	Sets the Tap2 feedback amount	
h	[D]High Damp [%]	0...100	Sets the damping amount in the high range	
i	[D]Mt.Delay Wet/Dry	Dry, 1:99...99:1, Wet	Sets the multitap delay effect balance	
	Src	Off...Tempo	Selects the Wet/Dry modulation source for the multitap delay	
	Amt	−100...+100	Sets the Wet/Dry modulation amount for the multitap delay	
j	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	−100...+100	Amount of modulation source	

83: Comp - Wah (Compressor - Wah/Auto Wah)

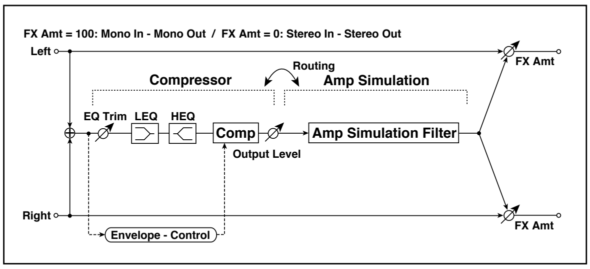
This effect combines a mono compressor and a wah. You can change the order of the connection.


FX Amt = 100: Mono In - Mono Out / FX Amt = 0: Stereo In - Stereo Out
Left
Right
Compressor
Routing
Wah/Auto Wah
EQ Trim
LEQ
HEQ
Comp
Output Level
Wah
FX Amt
FX Amt
FX Amt
Envelope - Control
Sweep Mode
Envelope
Auto
D-mod
D-mod
LFO
LFO

COMPRESSOR				
a	[C] Sensitivity	1...100	Sets the sensitivity	
b	[C]Attack	1...100	Sets the attack level	
	Output Level	0...100	Sets the compressor output level	
c	[C]EQ Trim	0...100	Sets the EQ input level	
d	[C]Pre LEQ Gain [dB]	−15...+15	Sets the gain of Low EQ	
	Pre HEQ Gain [dB]	−15...+15	Sets the gain of High EQ	
WAH				
e	[W]Frequency Bottom	0...100	Sets the lower limit of the wah center frequency	
	Frequency Top	0...100	Sets the upper limit of the wah center frequency	
f	[w]Sweep Mode	Auto, D-mod, LFO	Selects the control from auto-wah, modulation source, and LFO	
	Src	Off...Tempo	Selects the modulation source for the wah when Sweep Mode=D-mod	
g	[W]LFO Frequency [Hz]	0.02...20.00	Sets the speed of the LFO	
	Resonance	0...100	Sets the resonance amount	
	LPF	Off, On	Switches the wah low pass filter on and off	
h	[W]Wet/Dry	Dry, 1 : 99...99 : 1, Wet	Sets the wah effect balance	
	Src	Off...Tempo	Selects the Wet/Dry modulation source for the wah	
	Amt	−100...+100	Sets the Wet/Dry modulation amount for the wah	
i	Routing	Comp ?Wah, Wah ?Comp	Switches the order of the compressor and wah	
j	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	−100...+100	Amount of modulation source	

84: Comp - Amp Sim
(Compressor - Amp Simulation)

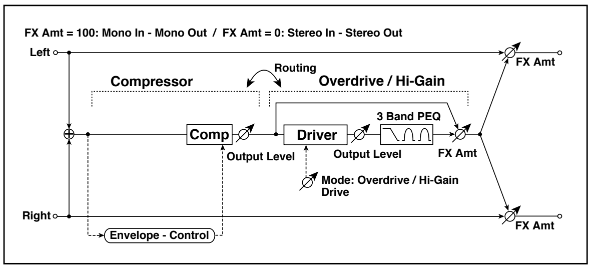
This effect combines a mono compressor and an amp simulation. You can change the order of the effects.


FX Amt = 100: Mono In - Mono Out / FX Amt = 0: Stereo In - Stereo Out
Left
Right
Routing
Compressor
Amp Simulation
EQ Trim
LEQ
HEQ
Comp
Output Level
Amp Simulation Filter
Envelope - Control
FX Amt
FX Amt

COMPRESSOR				
a	[C] Sensitivity	1...100	Sets the sensitivity	
b	[C]Attack	1...100	Sets the attack level	
	Output Level	0...100	Sets the compressor output level	
c	[C]EQ Trim	0...100	Sets the EQ input level	
d	[C]Pre LEQ Gain [dB]	−15...+15	Sets the gain of Low EQ	
	Pre HEQ Gain [dB]	−15...+15	Sets the gain of High EQ	
AMP SIM				
e	[A]Amplifier Type	SS, EL84, 6L6	Selects the type of guitar amplifier	
f	Routing	Comp ?Amp, Amp ?Comp	Switches the order of the compressor and amp simulation	
g	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , “Dynamic Modulation sources,” on page 330	
	Amt	−100...+100	Amount of modulation source	

85: Comp - OD/HiGain
(Compressor - Overdrive/Hi.Gain)

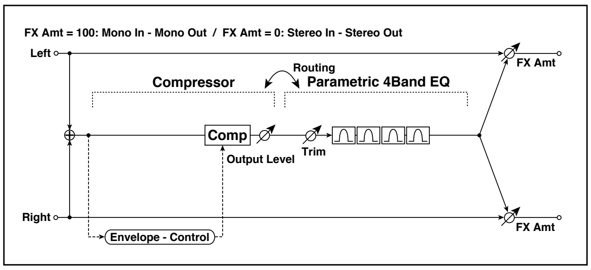
This effect combines a mono compressor and an overdrive/high-gain distortion. You can change the order of the effects.


FX Amt = 100: Mono In - Mono Out / FX Amt = 0: Stereo In - Stereo Out
Left
Right
Routing
Compressor
Overdrive / Hi-Gain
3 Band PEQ
Comp
Driver
Output Level
Output Level
FX Amt
Mode: Overdrive / Hi-Gain
Drive
Envelope - Control
FX Amt
FX Amt

COMPRESSOR				
a	[C] Sensitivity	1...100	Sets the sensitivity	
b	[C]Attack	1...100	Sets the attack level	
	Output Level	0...100	Sets the compressor output level	
OD/HI-GAIN				
c	[O] Drive Mode	Overdrive, Hi-Gain	Switches between overdrive and high-gain distortion	
	Drive	1...100	Sets the degree of distortion	
d	[O]Output Level	0...50	Sets the overdrive output level	
	Src	Off...Tempo	Selects the modulation source for the overdrive output level	
	Amt	−50...+50	Sets the modulation amount of the overdrive output level	
e	[O]Low Cutoff [Hz]	20...1.00k	Sets the cutoff frequency for Low EQ (shelving type)	
	Gain [dB]	−18...+18	Sets the gain of Low EQ	
f	[O]Mid1 Cutoff [Hz]	300...10.00k	Sets the center frequency for Mid/High EQ 1 (peaking type)	
	Q	0.5...10.0	Sets the band width of Mid/High EQ 1	
	Gain [dB]	−18...+18	Sets the gain of Mid/High EQ 1	
g	[O]Mid2 Cutoff [Hz]	500...20.00k	Sets the center frequency for Mid/High EQ 2 (peaking type)	
	Q	0.5...10.0	Sets the band width of Mid/High EQ 2	
	Gain [dB]	−18...+18	Sets the gain of Mid/High EQ 2	
h	[O]Wet/Dry	Dry, 1 : 99...99 : 1, Wet	Sets the overdrive effect balance	
	Src	Off...Tempo	Selects the Wet/Dry modulation source for the overdrive	
	Amt	−100...+100	Sets the Wet/Dry modulation amount for the overdrive	
i	Routing	Comp ?OD/HG, OD/HG ? Comp	Switches the order of the compressor and overdrive	
j	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , “Dynamic Modulation sources,” on page 330	
	Amt	−100...+100	Amount of modulation source	

86: Comp - P4EQ
(Compressor - Parametric 4-Band EQ)

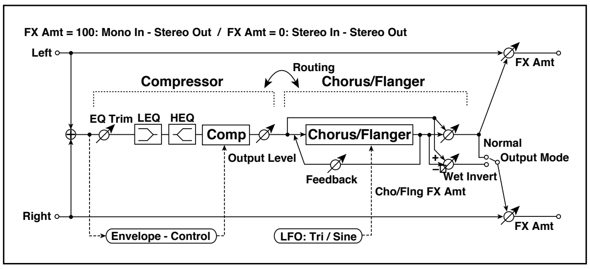
This effect combines a mono compressor and a four-band parametric equalizer. You can change the order of the effects.


FX Amt = 100: Mono In - Mono Out / FX Amt = 0: Stereo In - Stereo Out
Left
Right
Compressor
Routing
Parametric 4Band EQ
Comp
Output Level
Trim
FX Amt
FX Amt
Envelope - Control

COMPRESSOR				
a	[C] Sensitivity	1...100	Sets the sensitivity	
b	[C]Attack	1...100	Sets the attack level	
	Output Level	0...100	Sets the compressor output level	
P4EQ				
c	[E]Trim	0...100	Sets the parametric EQ input level	
d	[E]B1 Cutoff [Hz]	20...1.00k	Sets the center frequency of Band 1	
	Q	0.5...10.0	Sets the bandwidth of Band 1	
	Gain [dB]	−18...+18	Sets the gain of Band 1	
e	[E]B2 Cutoff [Hz]	50...5.00k	Sets the center frequency of Band 2	
	Q	0.5...10.0	Sets the bandwidth of Band 2	
	Gain [dB]	−18...+18	Sets the gain of Band 2	
f	[E]B3 Cutoff [Hz]	300...10.00k	Sets the center frequency of Band 3	
	Q	0.5...10.0	Sets the bandwidth of Band 3	
	Gain [dB]	−18...+18	Sets the gain of Band 3	
g	[E]B4 Cutoff [Hz]	500...20.00k	Sets the center frequency of Band 4	
	Q	0.5...10.0	Sets the bandwidth of Band 4	
	Gain [dB]	−18...+18	Sets the gain of Band 4	
h	Routing	Comp ?P4EQ, P4EQ ?Comp	Switches the order of the compressor and parametric EQ	
i	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , “Dynamic Modulation sources,” on page 330	
	Amt	−100...+100	Amount of modulation source	

87: Comp - Cho/Flng
(Compressor - Chorus/Flanger)

This effect combines a mono compressor and a chorus/flanger. You can change the order of the effects.


FX Amt = 100: Mono In - Stereo Out / FX Amt = 0: Stereo In - Stereo Out
Left
Right
Compressor
Routing
Chorus/Flanger
EQ Trim
LEQ
HEQ
Comp
Output Level
Chorus/Flanger
Feedback
Cho/Flng FX Amt
Normal
Output Mode
Wet Invert
FX Amt
FX Amt
Envelope - Control
LFO: Tri / Sine

COMPRESSOR				
a	[C] Sensitivity	1...100	Sets the sensitivity	
b	[C]Attack	1...100	Sets the attack level	
	Output Level	0...100	Sets the compressor output level	
c	[C]EQ Trim	0...100	Sets the EQ input level	
d	[C]Pre LEQ Gain [dB]	−15...+15	Sets the gain of Low EQ	
	Pre HEQ Gain [dB]	−15...+15	Sets the gain of High EQ	
CHORUS/FLANGER				
e	[F]LFO Frequency [Hz]	0.02...20.00	Sets the speed of the LFO	
	LFO Waveform	Triangle, Sine	Selects the LFO Waveform	
f	[F]Delay Time [msec]	0.0...1350.0	Sets the delay time	
	Depth	0...100	Sets the depth of LFO modulation	
	Feedback	−100...+100	Sets the feedback amount	
g	[F]Cho/Flng Wet/Dry	-Wet, -1:99...Dry...99:1, Wet	Sets the effect balance of the chorus/flanger ,	
	Src	Off...Tempo	Selects the Wet/Dry modulation source for the chorus/flanger	
	Amt	−100...+100	Sets the Wet/Dry modulation amount for the chorus/flanger	
h	[F]Output Mode	Normal, Wet Invert	Selects the output mode for the chorus/flanger	
i	Routing	Comp ? Flanger, Flanger ?Comp	Switches the order of the compressor and chorus/flanger	
j	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , “Dynamic Modulation sources,” on page 330	
	Amt	−100...+100	Amount of modulation source	

h: [F]Output Mode
i: Routing

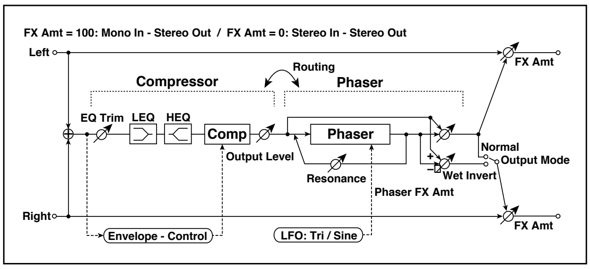
When Wet Invert is selected, the right channel phase of the chorus/flanger effect sound is inverted. This creates pseudo-stereo effects and adds spread.

However, if a mono-input type effect is connected after this effect, the left and right sounds may cancel each other, eliminating the chorus/flanger effects.

When “Routing” is set to Flanger Comp, “[F]Output Mode” will be set to Normal.

88: Comp - Phaser
(Compressor - Phaser)

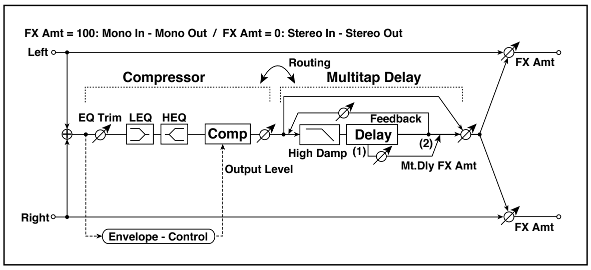
This effect combines a mono compressor and a phaser. You can change the order of the effects.


FX Amt = 100: Mono In - Stereo Out / FX Amt = 0: Stereo In - Stereo Out
Left
Routing
Compressor
Phaser
FX Amt
EQ Trim
LEQ
HEQ
Comp
Phaser
Normal
Output Mode
Output Level
Wet Invert
Resonance
Phaser FX Amt
Right
FX Amt
Envelope - Control
LFO: Tri / Sine

COMPRESSOR				
a	[C] Sensitivity	1...100	Sets the sensitivity	
b	[C]Attack	1...100	Sets the attack level	
	Output Level	0...100	Sets the compressor output level	
c	[C]EQ Trim	0...100	Sets the EQ input level	
d	[C]Pre LEQ Gain [dB]	−15...+15	Sets the gain of Low EQ	
	Pre HEQ Gain [dB]	−15...+15	Sets the gain of High EQ	
PHASER				
e	[P]LFO Frequency [Hz]	0.02...20.00	Sets the speed of the LFO	
	LFO Waveform	Triangle, Sine	Selects the LFO Waveform	
f	[P]Manual	0...100	Sets the frequency to which the effect is applied	
	Depth	0...100	Sets the depth of LFO modulation	
	Resonance	−100...+100	Sets the resonance amount	
g	[P]Phaser Wet/Dry	-Wet, -1:99...Dry...99:1, Wet	Sets the phaser effect balance	
	Src	Off...Tempo	Selects the Wet/Dry modulation source for the phaser	
	Amt	−100...+100	Sets the Wet/Dry modulation amount for the phaser	
h	[F]Output Mode	Normal, Wet Invert	Selects the phaser output mode	
i	Routing	Comp ?Phaser, Phaser ?Comp	Switches the order of the compressor and phaser	
j	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , “Dynamic Modulation sources,” on page 330	
	Amt	−100...+100	Amount of modulation source	

89: Comp - Mt. Delay
(Compressor - Multitap Delay)

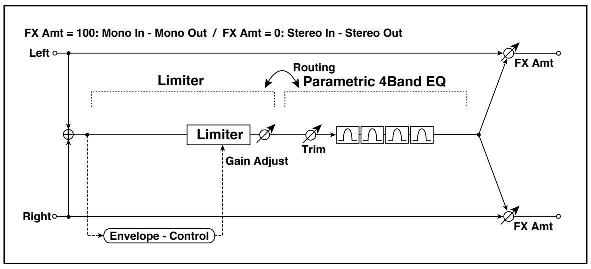
This effect combines a mono compressor and a multitap delay. You can change the order of the effects.


FX Amt = 100: Mono In - Mono Out / FX Amt = 0: Stereo In - Stereo Out
Left
Routing
Compressor
Multitap Delay
FX Amt
Feedback
EQ Trim
LEQ
HEQ
Comp
Delay
(2)
High Damp
(1)
Mt.Dly FX Amt
Output Level
Right
FX Amt
Envelope - Control

COMPRESSOR				
a	[C] Sensitivity	1...100	Sets the sensitivity	
b	[C]Attack	1...100	Sets the attack level	
	Output Level	0...100	Sets the compressor output level	
c	[C]EQ Trim	0...100	Sets the EQ input level	
d	[C]Pre LEQ Gain [dB]	−15...+15	Sets the gain of Low EQ	
	Pre HEQ Gain [dB]	−15...+15	Sets the gain of High EQ	
MULTITAP DELAY				
e	[D]Tap1 Time [msec]	0.0...1360.0	Sets the Tap1 delay time	
	Tap1 Level	0...100	Sets the Tap1 output level	
f	[D]Tap2 Time [msec]	0.0...1360.0	Sets the Tap2 delay time	
	Feedback (Tap2)	−100...+100	Sets the Tap2 feedback amount	
g	[D]High Damp [%]	0...100	Sets the damping amount in the high range	
h	[D]Mt.Delay Wet/Dry	Dry, 1 : 99...99 : 1, Wet	Sets the multitap delay effect balance	
	Src	Off...Tempo	Selects the Wet/Dry modulation source for the multitap delay	
	Amt	−100...+100	Sets the Wet/Dry modulation amount for the multitap delay	
i	Routing	Comp ? Mt.Delay, Mt.Delay ? Comp	Switches the order of the compressor and multitap delay	
j	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , “Dynamic Modulation sources,” on page 330	
	Amt	−100...+100	Amount of modulation source	

90: Limiter - P4EQ
(Limiter - Parametric 4-Band EQ)

This effect combines a mono limiter and a four-band parametric equalizer. You can change the order of the effects.

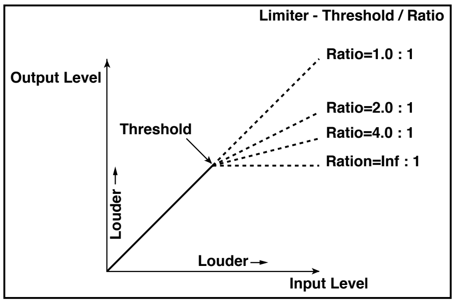


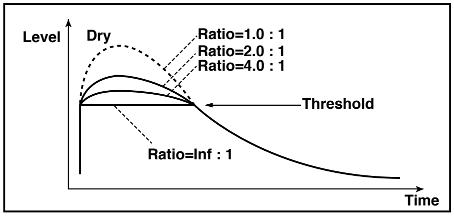
LIMITER				
a	[L]Ratio	1.0 : 1... 50.0 : 1, Inf : 1	Sets the signal compression ratio	
	Threshold [dB]	–40...0	Sets the level above which the compressor is applied	
b	[L]Attack	1...100	Sets the attack time	
	Release	1...100	Sets the release time	
c	[L]Gain Adjust [dB]	–Inf, –38...+24	Sets the limiter output gain	
P4EQ				
d	[E]Trim	0...100	Sets the parametric EQ input level	
e	[E]B1 Cutoff [Hz]	20...1.00k	Sets the center frequency of Band 1	
	Q	0.5...10.0	Sets the bandwidth of Band 1	
	Gain [dB]	–18...+18	Sets the gain of Band 1	
f	[E]B2 Cutoff [Hz]	50...5.00k	Sets the center frequency of Band 2	
	Q	0.5...10.0	Sets the bandwidth of Band 2	
	Gain [dB]	–18...+18	Sets the gain of Band 2	
g	[E]B3 Cutoff [Hz]	300...10.00k	Sets the center frequency of Band 3	
	Q	0.5...10.0	Sets the bandwidth of Band 3	
	Gain [dB]	–18...+18	Sets the gain of Band 3	
h	[E]B4 Cutoff [Hz]	500...20.00k	Sets the center frequency of Band 4	
	Q	0.5...10.0	Sets the bandwidth of Band 4	
	Gain [dB]	–18...+18	Sets the gain of Band 4	
i	Routing	Limiter ?P4EQ, P4EQ ?Limiter	Switches the order of the limiter and parametric EQ	
j	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , “Dynamic Modulation sources,” on page 330	
	Amt	–100...+100	Amount of modulation source	

a: [L]Ratio
a: Threshold [dB]
c: [L]Gain Adjust [dB]

This parameter sets the signal compression “[L]Ratio”. Compression is applied only when the signal level exceeds the “Threshold” value.

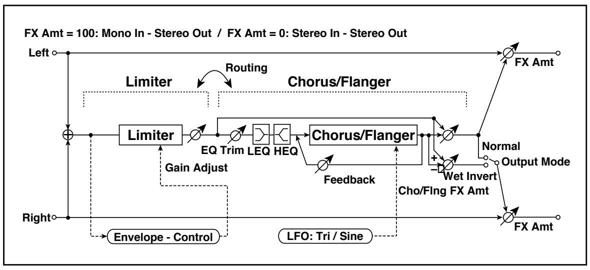
Adjust the output level using the “Gain Adjust” parameter, since compression causes the entire level to be reduced.





91: Limiter - Cho/Flng
(Limiter - Chorus/Flanger)

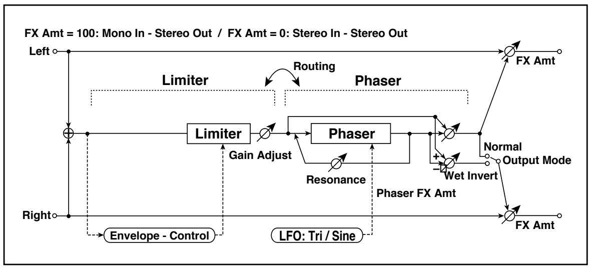
This effect combines a mono limiter and a chorus/flanger. You can change the order of the effects.


FX Amt = 100: Mono In - Stereo Out / FX Amt = 0: Stereo In - Stereo Out
Left
Limiter
Routing
Chorus/Flanger
FX Amt
Limiter
EQ Trim
LEQ
HEQ
Chorus/Flanger
Gain Adjust
Feedback
Normal
Output Mode
Wet Invert
Cho/Flng FX Amt
Right
FX Amt
Envelope - Control
LFO: Tri / Sine

LIMITER				
a	[L]Ratio	1.0 : 1... 50.0 : 1, Inf : 1	Sets the signal compression ratio	
	Threshold [dB]	–40...0	Sets the level above which the compressor is applied	
b	[L]Attack	1...100	Sets the attack time	
	Release	1...100	Sets the release time	
c	[L]Gain Adjust [dB]	–Inf, –38...+24	Sets the limiter output gain	
CHORUS/FLANGER				
d	[F]LFO Frequency [Hz]	0.02...20.00	Sets the speed of the LFO	
	LFO Waveform	Triangle, Sine	Selects the LFO Waveform	
e	[F]Delay Time [msec]	0.0...1350.0	Sets the delay time	
	Depth	0...100	Sets the depth of LFO modulation	
	Feedback	–100...+100	Sets the feedback amount	
f	[F]EQ Trim	0...100	Sets the EQ input level	
g	[F]Pre LEQ Gain [dB]	–15...+15	Sets the gain of Low EQ	
	Pre HEQ Gain [dB]	–15...+15	Sets the gain of High EQ	
h	[F]Cho/Flng Wet/Dry	-Wet, -1:99...Dry...99:1, Wet	Sets the effect balance of the chorus/flanger	
	Src	Off...Tempo	Selects the Wet/Dry modulation source for the chorus/flanger	
	Amt	–100...+100	Sets the Wet/Dry modulation amount for the chorus/flanger	
i	[F]Output Mode	Normal, Wet Invert	Selects the output mode for the chorus/flanger	
	Routing	Limiter ? Flanger, Flanger ? Limiter	Switches the order of the limiter and chorus/flanger	
j	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , “Dynamic Modulation sources,” on page 330	
	Amt	–100...+100	Amount of modulation source	

92: Limiter - Phaser

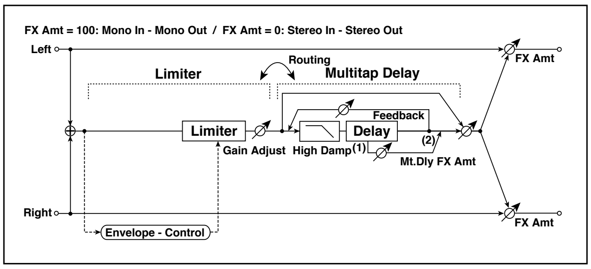
This effect combines a mono limiter and a phaser. You can change the order of the effects.


FX Amt = 100: Mono In - Stereo Out / FX Amt = 0: Stereo In - Stereo Out
Left
Routing
Limiter
Phaser
FX Amt
Limiter
Phaser
Gain Adjust
Resonance
Normal
Output Mode
Wet Invert
Phaser FX Amt
Right
FX Amt
Envelope - Control
LFO: Tri / Sine

LIMITER				
a	[L]Ratio	1.0 : 1... 50.0 : 1, Inf : 1	Sets the signal compression ratio	
	Threshold [dB]	–40...0	Sets the level above which the compressor is applied	
b	[L]Attack	1...100	Sets the attack time	
	Release	1...100	Sets the release time	
c	[L]Gain Adjust [dB]	–Inf, –38...+24	Sets the limiter output gain	
PHASER				
d	[P]LFO Frequency [Hz]	0.02...20.00	Sets the speed of the LFO	
	LFO Waveform	Triangle, Sine	Selects the LFO Waveform	
e	[P]Manual	0...100	Sets the frequency to which the effect is applied	
	Depth	0...100	Sets the depth of LFO modulation	
	Resonance	–100...+100	Sets the resonance amount	
f	[P]Phaser Wet/Dry	-Wet, -1:99...Dry...99:1, Wet	Sets the phaser effect balance	
	Src	Off...Tempo	Selects the phaser’s Wet/Dry modulation source	
	Amt	–100...+100	Sets the phaser’s Wet/Dry modulation amount	
g	[P]Output Mode	Normal, Wet Invert	Selects the phaser output mode	
h	Routing	Limiter ? Phaser, Phaser ?Limiter	Switches the order of the limiter and phaser	
i	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , “Dynamic Modulation sources,” on page 330	
	Amt	–100...+100	Amount of modulation source	

93: Limiter - Mt.Delay
(Limiter - Multitap Delay)

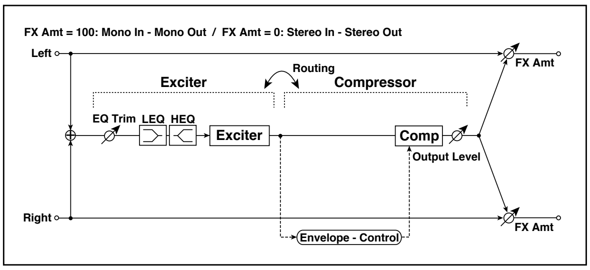
This effect combines a mono limiter and a multitap delay. You can change the order of the effects.


FX Amt = 100: Mono In - Mono Out / FX Amt = 0: Stereo In - Stereo Out
Left
Routing
Limiter
Multitap Delay
FX Amt
Feedback
Limiter
Delay
(2)
Gain Adjust
High Damp
(1)
Mt.Dly FX Amt
Right
Envelope - Control
FX Amt

LIMITER				
a	[L]Ratio	1.0 : 1... 50.0 : 1, Inf : 1	Sets the signal compression ratio	
	Threshold [dB]	–40...0	Sets the level above which the compressor is applied	
b	[L]Attack	1...100	Sets the attack time	
	Release	1...100	Sets the release time	
c	[L]Gain Adjust [dB]	–Inf, –38...+24	Sets the limiter output gain	
MULTITAP DELAY				
d	[D]Tap1 Time [msec]	0.0...1360.0	Sets the Tap1 delay time	
	Tap1 Level	0...100	Sets the Tap1 output level	
e	[D]Tap2 Time [msec]	0.0...1360.0	Sets the Tap2 delay time	
	Feedback	–100...+100	Sets the Tap2 feedback amount	
f	[D]High Damp [%]	0...100	Sets the damping amount in the high range	
g	[D]Mt.Delay Wet/Dry	Dry, 1:99...99:1, Wet	Sets the multitap delay effect balance	
	Src	Off...Tempo	Selects the multitap delay's Wet/Dry modulation source	
	Amt	–100...+100	Sets the multitap delay's Wet/Dry modulation amount	
h	Routing	Limiter ? Mt.Delay, Mt.Delay ? Limiter	Switches the order of the limiter and multitap delay	
i	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	–100...+100	Amount of modulation source	

94: Exciter - Comp
(Exciter -Compressor)

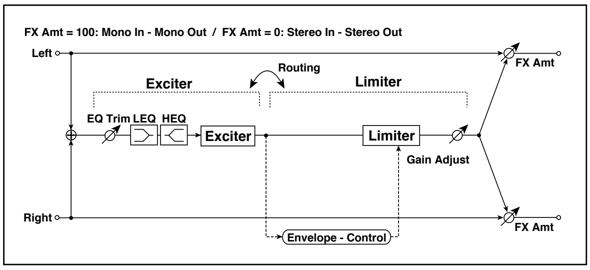
This effect combines a mono exciter and a compressor. You can change the order of the effects.


FX Amt = 100: Mono In - Mono Out / FX Amt = 0: Stereo In - Stereo Out
Left
Routing
Exciter
Compressor
FX Amt
EQ Trim
LEQ
HEQ
Exciter
Comp
Output Level
Right
Envelope - Control
FX Amt

EXCITER				
a	[X]Exciter Blend	–100...+100	Sets the intensity (depth) of the Exciter effect	
b	[X]Emphasis Frequency	0...70	Sets the frequency range to be emphasized	
c	[X]EQ Trim	0...100	Sets the EQ input level	
d	[X]Pre LEQ Gain [dB]	–15...+15	Sets the gain of Low EQ	
	Pre HEQ Gain [dB]	–15...+15	Sets the gain of High EQ	
COMPRESSOR				
e	[C] Sensitivity	1...100	Sets the sensitivity	
f	[C]Attack	1...100	Sets the attack level	
	Output Level	0...100	Sets the compressor output level	
g	Routing	Exciter ?Comp, Comp ?Exciter	Switches the order of the exciter and compressor	
h	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	–100...+100	Amount of modulation source	

95: Exciter - Limiter

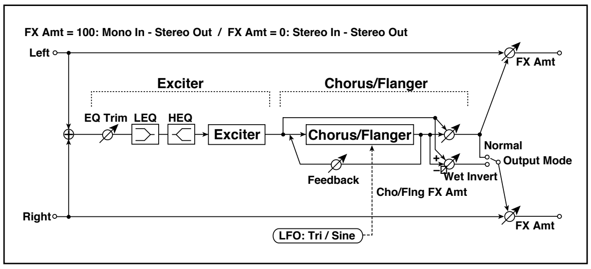
This effect combines a mono exciter and a limiter. You can change the order of the effects.


FX Amt = 100: Mono In - Mono Out / FX Amt = 0: Stereo In - Stereo Out
Left
Routing
Exciter
Limiter
EQ Trim
LEQ
HEQ
Exciter
Limiter
Gain Adjust
FX Amt
Right
Envelope - Control
FX Amt

EXCITER				
a	[X]Exciter Blend	–100...+100	Sets the intensity (depth) of the Exciter effect	
b	[X]Emphasis Frequency	0...70	Sets the frequency range to be emphasized	
c	[X]Trim	0...100	Sets the EQ input level	
d	[X]Pre LEQ Gain [dB]	–15...+15	Sets the gain of Low EQ	
	Pre HEQ Gain [dB]	–15...+15	Sets the gain of High EQ	
LIMITER				
e	[L]Ratio	1.0 : 1... 50.0 : 1, Inf : 1	Sets the signal compression ratio	
f	[L]Threshold [dB]	–40...0	Sets the level above which the compressor is applied	
g	[L]Attack	1...100	Sets the attack time	
	Release	1...100	Sets the release time	
h	[L]Gain Adjust [dB]	–Inf, –38...+24	Sets the limiter output gain	
i	Routing	Exciter ? Limiter, Limiter ?Exciter	Switches the order of the exciter and limiter	
j	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	–100...+100	Amount of modulation source	

96: Exciter - Cho/Flng (Exciter - Chorus/Flanger)

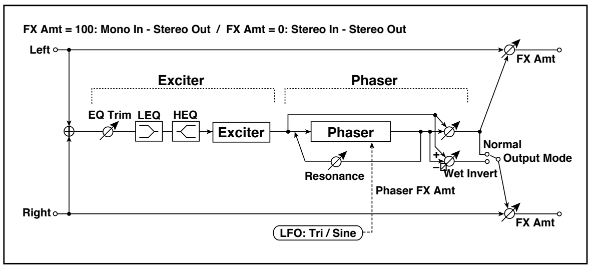
This effect combines a mono limiter and a chorus/flanger.


FX Amt = 100: Mono In - Stereo Out / FX Amt = 0: Stereo In - Stereo Out
Left
FX Amt
Exciter
Chorus/Flanger
EQ Trim
LEQ
HEQ
Exciter
Chorus/Flanger
Normal
Output Mode
Wet Invert
Feedback
Cho/Flng FX Amt
Right
LFO: Tri / Sine
FX Amt

EXCITER				
a	[X]Exciter Blend	–100...+100	Sets the intensity (depth) of the Exciter effect	
b	[X]Emphasis Frequency	0...70	Sets the frequency range to be emphasized	
c	[X]Trim	0...100	Sets the EQ input level	
d	[X]Pre LEQ Gain [dB]	–15...+15	Sets the gain of Low EQ	
	Pre HEQ Gain [dB]	–15...+15	Sets the gain of High EQ	
CHORUS/FLANGER				
e	[F]LFO Frequency [Hz]	0.02...20.00	Sets the speed of the LFO	
	LFO Waveform	Triangle, Sine	Selects the LFO Waveform	
f	[F]Delay Time [msec]	0.0...1350.0	Sets the delay time	
	Depth	0...100	Sets the depth of LFO modulation	
	Feedback	–100...+100	Sets the feedback amount	
g	[F]Cho/Flng Wet/Dry	-Wet, -1:99...Dry...99:1, Wet	Sets the effect balance of the chorus/flanger	
	Src	Off...Tempo	Selects the Wet/Dry modulation source for the chorus/flanger	
	Amt	–100...+100	Sets the Wet/Dry modulation amount for the chorus/flanger	
h	[F]Output Mode	Normal, Wet Invert	Selects the output mode for the chorus/flanger	
i	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	–100...+100	Amount of modulation source	

97: Exciter - Phaser

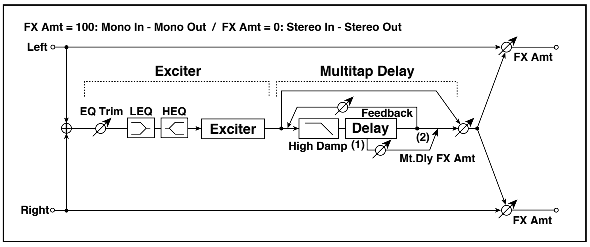
This effect combines a mono limiter and a phaser.


FX Amt = 100: Mono In - Stereo Out / FX Amt = 0: Stereo In - Stereo Out
Left
Right
Exciter
Phaser
EQ Trim
LEQ
HEQ
Exciter
Phaser
Resonance
Phaser FX Amt
Wet Invert
Normal
Output Mode
FX Amt
FX Amt
LFO: Tri / Sine

EXCITER				
a	[X]Exciter Blend	–100...+100	Sets the intensity (depth) of the Exciter effect	
b	[X]Emphasis Frequency	0...70	Sets the frequency range to be emphasized	
c	[X]Trim	0...100	Sets the EQ input level	
d	[X]Pre LEQ Gain [dB]	–15...+15	Sets the gain of Low EQ	
	Pre HEQ Gain [dB]	–15...+15	Sets the gain of High EQ	
PHASER				
e	[P]LFO Frequency [Hz]	0.02...20.00	Sets the speed of the LFO	
	LFO Waveform	Triangle, Sine	Selects the LFO Waveform	
f	[P]Manual	0...100	Sets the frequency to which the effect is applied	
	Depth	0...100	Sets the depth of LFO modulation	
	Resonance	–100...+100	Sets the resonance amount	
g	[P]Phaser Wet/Dry	-Wet, -1:99...Dry...99:1, Wet	Sets the phaser effect balance	
	Src	Off...Tempo	Selects the Wet/Dry modulation source for the phaser	
	Amt	–100...+100	Sets the Wet/Dry modulation amount for the phaser	
h	[P]Output Mode	Normal, Wet Invert	Selects the phaser output mode	
i	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , “Dynamic Modulation sources,” on page 330	
	Amt	–100...+100	Amount of modulation source	

98: Exciter - Mt.Delay (Exciter - Multitap Delay)

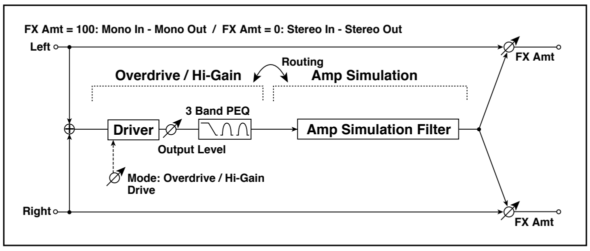
This effect combines a mono exciter and a multitap delay.


FX Amt = 100: Mono In - Mono Out / FX Amt = 0: Stereo In - Stereo Out
Left
Right
Exciter
Multitap Delay
EQ Trim
LEQ
HEQ
Exciter
Feedback
Delay
High Damp
(1)
(2)
Mt.Dly FX Amt
FX Amt
FX Amt

EXCITER				
a	[X]Exciter Blend	–100...+100	Sets the intensity (depth) of the Exciter effect	
b	[X]Emphasis Frequency	0...70	Sets the frequency range to be emphasized	
c	[X]Trim	0...100	Sets the EQ input level	
d	[X]Pre LEQ Gain [dB]	–15...+15	Sets the gain of Low EQ	
	Pre HEQ Gain [dB]	–15...+15	Sets the gain of High EQ	
MULTITAP DELAY				
e	[D]Tap1 Time [msec]	0.0...1360.0	Sets the Tap1 delay time	
	Tap1 Level	0...100	Sets the Tap1 output level	
f	[D]Tap2 Time [msec]	0.0...1360.0	Sets the Tap2 delay time	
	Feedback (Tap2)	–100...+100	Sets the Tap2 feedback amount	
g	[D]High Damp [%]	0...100	Sets the damping amount in the high range	
h	[D]Mt.Delay Wet/Dry	Dry, 1:99...99:1, Wet	Sets the multitap delay effect balance	
	Src	Off...Tempo	Selects the Wet/Dry modulation source for the multitap delay	
	Amt	–100...+100	Sets the Wet/Dry modulation amount for the multitap delay	
i	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , “Dynamic Modulation sources,” on page 330	
	Amt	–100...+100	Amount of modulation source	

99: OD/HG - Amp Sim (Overdrive/Hi.Gain - Amp Simulation)

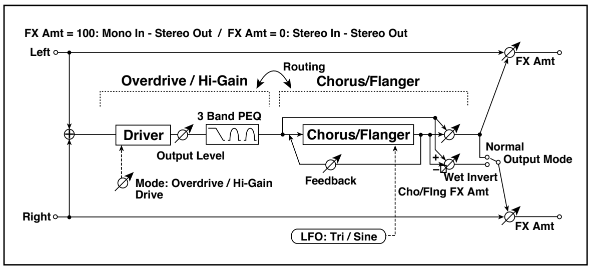
This effect combines a mono overdrive/high-gain distortion and an amp simulation. You can change the order of the effects.


FX Amt = 100: Mono In - Mono Out / FX Amt = 0: Stereo In - Stereo Out
Left
Overdrive / Hi-Gain
Routing
Amp Simulation
3 Band PEQ
Driver
Amp Simulation Filter
Output Level
Mode: Overdrive / Hi-Gain
Drive
Right
FX Amt
FX Amt

OD/HI-GAIN				
a	[O]Drive Mode	Overdrive, Hi-Gain	Switches between overdrive and high-gain distortion	
	Drive	1...100	Sets the degree of distortion	
b	[O]Output Level	0...50	Sets the overdrive output level	
	Src	Off...Tempo	Selects the modulation source for the overdrive output level	
	Amt	−50...+50	Sets the modulation amount of the overdrive output level	
e	[O]Low Cutoff [Hz]	20...1.00k	Sets the center frequency for Low EQ (shelving type)	
	Gain [dB]	−18...+18	Sets the gain of Low EQ	
f	[O]Mid1 Cutoff [Hz]	300...10.00k	Sets the center frequency for Mid/High EQ 1 (peaking type)	
	Q	0.5...10.0	Sets the band width of Mid/High EQ 1	
	Gain [dB]	−18...+18	Sets the gain of Mid/High EQ 1	
g	[O]Mid2 Cutoff [Hz]	500...20.00k	Sets the center frequency for Mid/High EQ 2 (peaking type)	
	Q	0.5...10.0	Sets the band width of Mid/High EQ 2	
	Gain [dB]	−18...+18	Sets the gain of Mid/High EQ 2	
AMP SIM				
h	[A]Amplifier Type	SS, EL84, 6L6	Selects the type of guitar amplifie	
i	Routing	OD/HG ?Amp, Amp ?OD/HG	Switches the order of the overdrive and amp	
j	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , “Dynamic Modulation sources,” on page 330	
	Amt	−100...+100	Amount of modulation source	

100: OD/HG - Cho/Flng (Overdrive/Hi.Gain - Chorus/Flanger)

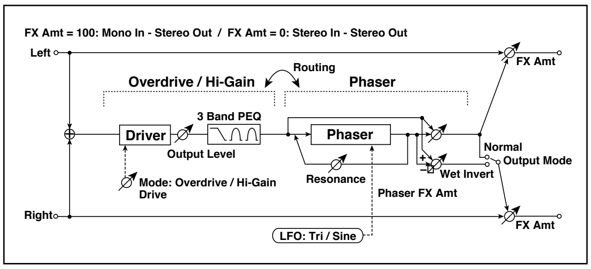
This effect combines a mono overdrive/high-gain distortion and a chorus/flanger. You can change the order of the effects.


FX Amt = 100: Mono In - Stereo Out / FX Amt = 0: Stereo In - Stereo Out
Left
Overdrive / Hi-Gain
Routing
Chorus/Flanger
3 Band PEQ
Driver
Chorus/Flanger
Output Level
Mode: Overdrive / Hi-Gain
Drive
Feedback
Cho/Flng FX Amt
Normal
Output Mode
Wet Invert
FX Amt
FX Amt
Right
LFO: Tri / Sine

OD/HI-GAIN				
a	[O]Drive Mode	Overdrive, Hi-Gain	Switches between overdrive and high-gain distortion	
	Drive	1...100	Sets the degree of distortion	
b	[O]Output Level	0...50	Sets the overdrive output level	
	Src	Off...Tempo	Selects the modulation source for the overdrive output level	
	Amt	−50...+50	Sets the modulation amount of the overdrive output level	
e	[O]Low Cutoff [Hz]	20...1.00k	Sets the center frequency for Low EQ (shelving type)	
	Gain [dB]	−18...+18	Sets the gain of Low EQ	
f	[O]Mid1 Cutoff [Hz]	300...10.00k	Sets the center frequency for Mid/High EQ 1 (peaking type)	
	Q	0.5...10.0	Sets the band width of Mid/High EQ 1	
	Gain [dB]	−18...+18	Sets the gain of Mid/High EQ 1	
g	[O]Mid2 Cutoff [Hz]	500...20.00k	Sets the center frequency for Mid/High EQ 2 (peaking type)	
	Q	0.5...10.0	Sets the band width of Mid/High EQ 2	
	Gain [dB]	−18...+18	Sets the gain of Mid/High EQ 2	
CHORUS/FLANGER				
h	[F]LFO Frequency [Hz]	0.02...20.00	Sets the speed of the LFO	
	LFO Waveform	Triangle, Sine	Selects the LFO Waveform	
i	[F]Delay Time [msec]	0.0...1350.0	Sets the delay time	
	Depth	0...100	Sets the depth of LFO modulation	
	Feedback	−100...+100	Sets the feedback amount	
j	[F]Cho/Flng Wet/Dry	-Wet, -1:99...Dry...99:1, Wet	Sets the effect balance of the chorus/flanger	
	Src	Off...Tempo	Selects the Wet/Dry modulation source for the chorus/flanger	
	Amt	−100...+100	Sets the Wet/Dry modulation amount for the chorus/flanger	
k	[F]Output Mode	Normal, Wet Invert	Selects the output mode for the chorus/flanger	
	Routing	OD/HG ? Flanger, Flanger ?OD/HG	Switches the order of the overdrive and chorus / flanger	
l	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , “Dynamic Modulation sources,” on page 330	
	Amt	−100...+100	Amount of modulation source	

101: OD/HG - Phaser
(Overdrive/Hi.Gain - Phaser)

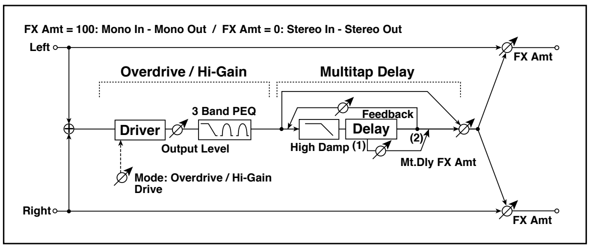
This effect combines a mono overdrive/high-gain distortion and a phaser. You can change the order of the effects.


FX Amt = 100: Mono In - Stereo Out / FX Amt = 0: Stereo In - Stereo Out
Left
Routing
Overdrive / Hi-Gain
Phaser
FX Amt
3 Band PEQ
Driver
Phaser
Output Level
Normal
Output Mode
Wet Invert
Mode: Overdrive / Hi-Gain
Drive
Resonance
Phaser FX Amt
Right
FX Amt
LFO: Tri / Sine

OD/HI-GAIN				
a	[O]Drive Mode	Overdrive, Hi-Gain	Switches between overdrive and high-gain distortion	
	Drive	1...100	Sets the degree of distortion	
b	[O]Output Level	0...50	Sets the overdrive output level	
	Src	Off...Tempo	Selects the modulation source for the overdrive output level	
	Amt	–50...+50	Sets the modulation amount of the overdrive output level	
e	[O]Low Cutoff [Hz]	20...1.00k	Sets the center frequency for Low EQ (shelving type)	
	Gain [dB]	–18...+18	Sets the gain of Low EQ	
f	[O]Mid1 Cutoff [Hz]	300...10.00k	Sets the center frequency for Mid/ High EQ 1 (peaking type)	
	Q	0.5...10.0	Sets the band width of Mid/High EQ 1	
	Gain [dB]	–18...+18	Sets the gain of Mid/High EQ 1	
g	[O]Mid2 Cutoff [Hz]	500...20.00k	Sets the center frequency for Mid/ High EQ 2 (peaking type)	
	Q	0.5...10.0	Sets the band width of Mid/High EQ 2	
	Gain [dB]	–18...+18	Sets the gain of Mid/High EQ 2	
PHASER				
h	[P]LFO Frequency [Hz]	0.02...20.00	Sets the speed of the LFO	
	LFO Waveform	Triangle, Sine	Selects the LFO Waveform	
i	[P]Manual	0...100	Sets the frequency to which the effect is applied	
	Depth	0...100	Sets the depth of LFO modulation	
	Resonance	–100...+100	Sets the resonance amount	
j	[P]Phaser Wet/ Dry	-Wet, -1:99...Dry...99:1, Wet	Sets the phaser effect balance	
	Src	Off...Tempo	Selects the Wet/Dry modulation source for the phaser	
	Amt	–100...+100	Sets the Wet/Dry modulation amount for the phaser	
k	[P]Output Mode	Normal, Wet Invert	Selects the phaser output mode	
	Routing	OD/HG ? Phaser, Phaser ?OD/HG	Switches the order of the overdrive and phaser	
l	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , “Dynamic Modulation sources,” on page 330	
	Amt	–100...+100	Amount of modulation source	

102: OD/HG - Mt.Delay
(Overdrive/Hi.Gain - Multitap Delay)

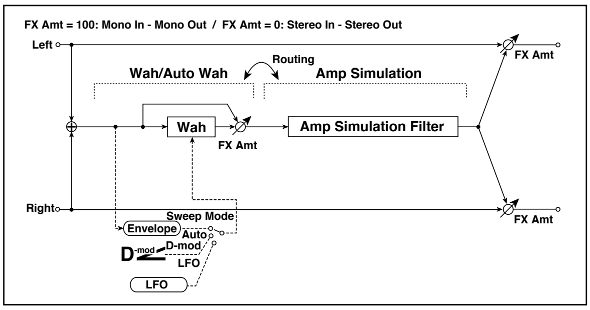
This effect combines a mono overdrive/high-gain distortion and a multitap delay.


FX Amt = 100: Mono In - Mono Out / FX Amt = 0: Stereo In - Stereo Out
Left
FX Amt
Overdrive / Hi-Gain
Multitap Delay
3 Band PEQ
Feedback
Driver
Delay
(2)
High Damp (1)
Output Level
Mt.Dly FX Amt
Mode: Overdrive / Hi-Gain
Drive
Right
FX Amt

OD/HI-GAIN				
a	[O]Drive Mode	Overdrive, Hi-Gain	Switches between overdrive and high-gain distortion	
	Drive	1...100	Sets the degree of distortion	
b	[O]Output Level	0...50	Sets the overdrive output level	
	Src	Off...Tempo	Selects the modulation source for the overdrive output level	
	Amt	–50...+50	Sets the modulation amount of the overdrive output level	
e	[O]Low Cutoff [Hz]	20...1.00k	Sets the center frequency for Low EQ (shelving type)	
	Gain [dB]	–18...+18	Sets the gain of Low EQ	
f	[O]Mid1 Cutoff [Hz]	300...10.00k	Sets the center frequency for Mid/ High EQ 1 (peaking type)	
	Q	0.5...10.0	Sets the band width of Mid/High EQ 1	
	Gain [dB]	–18...+18	Sets the gain of Mid/High EQ 1	
g	[O]Mid2 Cutoff [Hz]	500...20.00k	Sets the center frequency for Mid/ High EQ 2 (peaking type)	
	Q	0.5...10.0	Sets the band width of Mid/High EQ 2	
	Gain [dB]	–18...+18	Sets the gain of Mid/High EQ 2	
MULTITAP DELAY				
h	[D]Tap1 Time [msec]	0.0...1360.0	Sets the Tap1 delay time	
	Tap1 Level	0...100	Sets the Tap1 output level	
i	[D]Tap2 Time [msec]	0.0...1360.0	Sets the Tap2 delay time	
	Feedback	–100...+100	Sets the Tap2 feedback amount	
j	[D]High Damp [%]	0...100	Sets the damping amount in the high range	
k	[D]Mt.Delay Wet/Dry	Dry, 1:99...99:1, Wet	Sets the multitap delay effect balance	
	Src	Off...Tempo	Selects the Wet/Dry modulation source for the multitap delay	
	Amt	–100...+100	Sets the Wet/Dry modulation amount for the multitap delay	
l	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , “Dynamic Modulation sources,” on page 330	
	Amt	–100...+100	Amount of modulation source	

103: Wah - Amp Sim
(Wah - Amp Simulation)

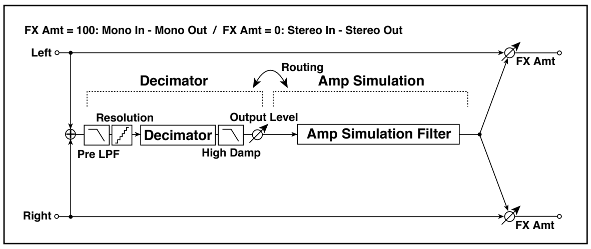
This effect combines a mono wah and an amp simulation. You can change the order of the effects.


FX Amt = 100: Mono In - Mono Out / FX Amt = 0: Stereo In - Stereo Out
Left
Right
Routing
Wah/Auto Wah
Amp Simulation
Wah
FX Amt
Amp Simulation Filter
FX Amt
FX Amt
Sweep Mode
Envelope
Auto
D-mod
D-mod
LFO
LFO

WAH				
a	[W] Frequency Bottom	0...100	Sets the lower limit of the wah center frequency	
	Frequency Top	0...100	Sets the upper limit of the wah center frequency	
b	[W]Sweep Mode	Auto, D-mod, LFO	Selects the control from auto-wah, modulation source, and LFO	
	Src	Off...Tempo	Selects the modulation source for the wah when Sweep Mode=D-mod	
c	[W]LFO Frequency [Hz]	0.02...20.00	Sets the speed of the LFO	
	Resonance	0...100	Sets the resonance amount	
	LPF	Off, On	Switches the wah low pass filter on and off	
d	[W]Wet/Dry	Dry, 1:99...99:1, Wet	Sets the wah effect balance	
	Src	Off...Tempo	Selects the Wet/Dry modulation source for the wah	
	Amt	–100...+100	Sets the Wet/Dry modulation amount for the wah	
AMP SIM				
e	[A]Amplifier Type	SS, EL84, 6L6	Selects the type of guitar amplifier	
f	Routing	Wah ?Amp, Amp ?Wah	Switches the order of the wah and amp simulation	
g	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	–100...+100	Amount of modulation source	

104: Decimator - Amp
(Decimator - Amp Simulation)

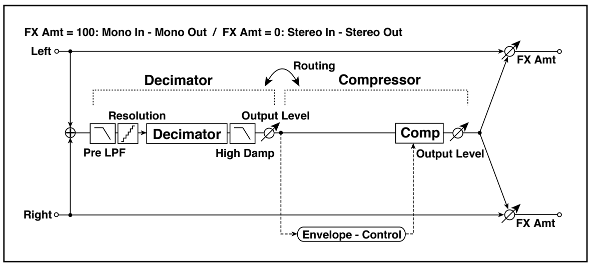
This effect combines a mono decimator and an amp simulation. You can change the order of the effects.


FX Amt = 100: Mono In - Mono Out / FX Amt = 0: Stereo In - Stereo Out
Left
Right
Routing
Decimator
Amp Simulation
Resolution
Output Level
Decimator
Pre LPF
High Damp
Amp Simulation Filter
FX Amt
FX Amt

DECIMATOR				
a	[D]Pre LPF	Off, On	Turn the harmonic noise caused by lowered sampling on and off	
	High Damp [%]	0...100	Sets the ratio of high-range damping	
b	[D]Sampling Freq [Hz]	1.00k...48.00k	Sets the sampling frequency	
	Resolution	4...24	Sets the data bit length	
c	[D]Output Level	0...100	Sets the decimator output level	
AMP SIM				
d	[A]Amplifier Type	SS, EL84, 6L6	Selects the type of guitar amplifier	
e	Routing	Decimator ? Amp, Amp ? Decimator	Switches the order of the decimator and amp simulation	
f	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	–100...+100	Amount of modulation source	

105: Decimator - Comp
(Decimator - Compressor)

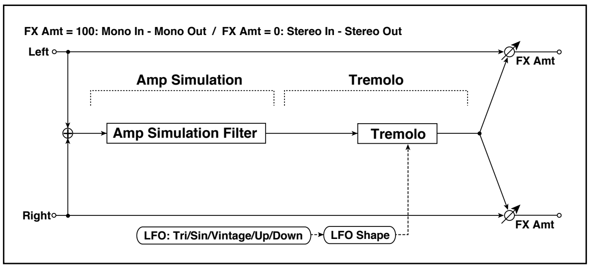
This effect combines a mono decimator and a compressor. You can change the order of the effects.


FX Amt = 100: Mono In - Mono Out / FX Amt = 0: Stereo In - Stereo Out
Left
FX Amt
Routing
Decimator
Compressor
Resolution
Output Level
Decimator
Comp
Pre LPF
High Damp
Output Level
Right
FX Amt
Envelope - Control

DECIMATOR				
a	[D]Pre LPF	Off, On	Turn the harmonic noise caused by lowered sampling on and off	
	High Damp [%]	0...100	Sets the ratio of high-range damping	
b	[D]Sampling Freq [Hz]	1.00k...48.00k	Sets the sampling frequency	
	Resolution	4...24	Sets the data bit length	
c	[D]Output Level	0...100	Sets the decimator output level	
COMPRESSOR				
d	[C] Sensitivity	1...100	Sets the sensitivity	
e	[C]Attack	1...100	Sets the attack level	
	Output Level	0...100	Sets the compressor output level	
f	Routing	Decimator ? Comp, Comp ? Decimator	Switches the order of the decimator and compressor	
g	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , “Dynamic Modulation sources,” on page 330	
	Amt	–100...+100	Amount of modulation source	

106: AmpSim - Tremolo
(Amp Simulation- Tremolo)

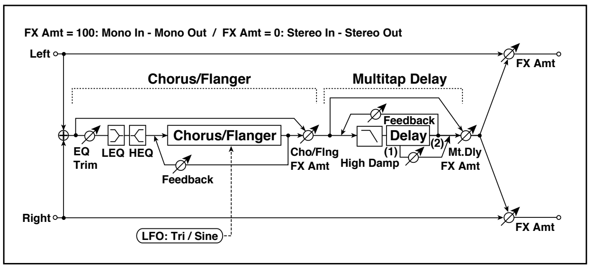
This effect combines a mono amp simulation and a tremolo.


FX Amt = 100: Mono In - Mono Out / FX Amt = 0: Stereo In - Stereo Out
Left
FX Amt
Amp Simulation
Tremolo
Amp Simulation Filter
Tremolo
Right
FX Amt
LFO: Tri/Sin/Vintage/Up/Down
LFO Shape

AMP SIM				
a	[A]Amplifier Type	SS, EL84, 6L6	Selects the type of guitar amplifier	
TREMOLO				
b	[T]LFO Waveform	Triangle, Sine, Vintage, Up, Down	Selects the LFO Waveform	
	LFO Shape	–100...+100	Changes the curvature of the LFO Waveform	
c	[T]LFO Frequency [Hz]	0.02...20.00	Sets the speed of the LFO	
d	[T]Depth	0...100	Sets the depth of LFO modulation	
e	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , “Dynamic Modulation sources,” on page 330	
	Amt	–100...+100	Amount of modulation source	

107: Cho/Flng - Mt.Dly
(Chorus/Flanger - Multitap Delay)

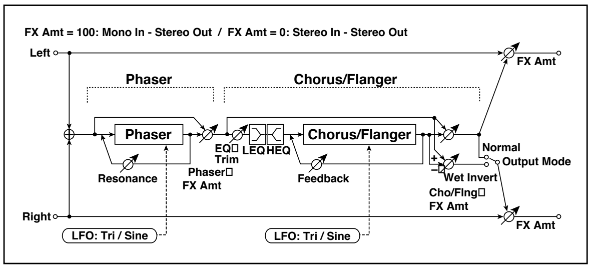
This effect combines a mono chorus/flanger and a multitap delay.


FX Amt = 100: Mono In - Mono Out / FX Amt = 0: Stereo In - Stereo Out
Left
Right
Chorus/Flanger
Multitap Delay
EQ Trim
LEQ
HEQ
Chorus/Flanger
Feedback
Cho/Flng FX Amt
Feedback
Delay
High Damp
(1)
(2)
Mt.Dly FX Amt
FX Amt
FX Amt
LFO: Tri / Sine

CHORUS/FLANGER				
a	[F]LFO Frequency [Hz]	0.02...20.00	Sets the speed of the LFO	
	LFO Waveform	Triangle, Sine	Selects the LFO Waveform	
b	[F]Delay Time [msec]	0.0...1350.0	Sets the delay time	
	Depth	0...100	Sets the depth of LFO modulation	
	Feedback	−100...+100	Sets the feedback amount	
c	[F]EQ Trim	0...100	Sets the EQ input level	
d	[F]PreLEQ Gain [dB]	−15...+15	Sets the gain of Low EQ	
	PreHEQ Gain [dB]	−15...+15	Sets the gain of High EQ	
e	[F]Cho/Flng Wet/Dry	–Wet...–1 : 99, Dry, 1 : 99...Wet	Sets the effect balance of the chorus/flanger	
MULTITAP DELAY				
a	[D]Tap1 Time [msec]	0.0...1360.0	Sets the Tap1 delay time	
	Tap1 Level	0...100	Sets the Tap1 output level	
b	[D]Tap2 Time [msec]	0.0...1360.0	Sets the Tap2 delay time	
	Feedback	−100...+100	Sets the Tap2 feedback amount	
c	[D]High Damp [%]	0...100	Sets the damping amount in the high range	
d	[D]Mt.DelayWet/Dry	Dry, 1:99...99:1, Wet	Sets the multitap delay effect balance	
	Src	Off...Tempo	Selects the Wet/Dry modulation source for the multitap delay	
	Amt	−100...+100	Sets the Wet/Dry modulation amount for the multitap delay	
e	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , “Dynamic Modulation sources,” on page 330	
	Amt	−100...+100	Amount of modulation source	

108: Phaser - Cho/Flng
(Phaser - Chorus/Flanger)

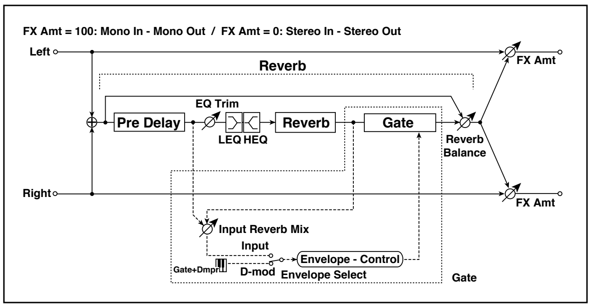
This effect combines a mono phaser and a chorus/flanger.


FX Amt = 100: Mono In - Stereo Out / FX Amt = 0: Stereo In - Stereo Out
Left
Right
Phaser
Chorus/Flanger
Phaser
Resonance
Phaser FX Amt
EQ Trim
LEQ
HEQ
Chorus/Flanger
Feedback
+
−
Wet Invert
Cho/Flng FX Amt
Normal
Output Mode
FX Amt
FX Amt
LFO: Tri / Sine
LFO: Tri / Sine

PHASER				
a	[P]LFO Frequency [Hz]	0.02...20.00	Sets the speed of the LFO	
	LFO Waveform	Triangle, Sine	Selects the LFO Waveform	
b	[P]Manual	0...100	Sets the frequency to which the effect is applied	
	Depth	0...100	Sets the depth of LFO modulation	
	Resonance	−100...+100	Sets the resonance amount	
c	[P]Phaser Wet/Dry	-Wet, -1:99...Dry...99:1, Wet	Sets the phaser effect balance	
CHORUS/FLANGER				
d	[F]LFO Frequency [Hz]	0.02...20.00	Sets the speed of the LFO	
	LFO Waveform	Triangle, Sine	Selects the LFO Waveform	
e	[F]Delay Time [msec]	0.0...1350.0	Sets the delay time	
	Depth	0...100	Sets the depth of LFO modulation	
	Feedback	−100...+100	Sets the feedback amount	
f	[F]EQ Trim	0...100	Sets the EQ input level	
g	[F]PreLEQ Gain [dB]	−15...+15	Sets the gain of Low EQ	
	PreHEQ Gain [dB]	−15...+15	Sets the gain of High EQ	
h	[F]Cho/Flng Wet/Dry	-Wet, -1:99...Dry...99:1, Wet	Sets the effect balance of the chorus/flanger	
	Src	Off...Tempo	Selects the Wet/Dry modulation source for the chorus/flanger	
	Amt	−100...+100	Sets the Wet/Dry modulation amount for the chorus/flanger	
i	[F]Output Mode	Normal, Wet Invert	Selects the output mode for the chorus/flanger	
j	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , “Dynamic Modulation sources,” on page 330	
	Amt	−100...+100	Amount of modulation source	

109: Reverb - Gate

This effect combines a mono reverb and a gate.



REVERB				
a	[R]Reverb Time [sec]	0.1...10.0	Sets the reverberation time	
	High Damp [%]	0...100	Sets the damping amount in the high range	
b	[R]Pre Delay [msec]	0...200	Sets the delay time of the reverb sound and gate control signal	
c	[R]EQ Trim	0...100	Sets the EQ input level	
	Reverb Balance	0...100	Sets the reverb effect balance	
d	[R]PreLEQ Fc	Low, Mid-Low	Selects the cutoff frequency (low or mid-low) of the low-range equalizer	
	Pre HEQ Fc	High, Mid-High	Selects the cutoff frequency (high or mid-high) of the high-range equalizer	
e	[R]PreLEQ Gain [dB]	–15.0...+15.0	Sets the gain of Low EQ	
	Pre HEQ Gain [dB]	–15.0...+15.0	Sets the gain of High EQ	
GATE				
f	[G]Envelope Select	D-mod, Input	Switches between modulation source control and input signal control	
	Src	Off...Tempo	Selects the modulation source that controls the gate when Envelope Select is set to D-mod	
g	[G]Input Reverb Mix	0...100	Sets the balance between the dry and reverb sounds of the gate control signal	
	Threshold	0...100	Sets the gate threshold level	
h	[G]Polarity	+, –	Switches between non-invert and invert of the gate on/off state	
i	[G]Attack	1...100	Sets the attack time	
	Release	1...100	Sets the release time	
j	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , “Dynamic Modulation sources,” on page 330	
	Amt	–100...+100	Amount of modulation source	

f: [G]Envelope Select
f: Src
g: [G]Input Reverb Mix
g: Threshold

The “[G]Envelope Select” parameter enables you to select whether turning the gate on and off is triggered by the input signal level or controlled directly by the modulation source. You can select from Off to Tempo for the Src parameter to specify the modulation source.

When “[G]Envelope Select” is set to Input, the gate is controlled by the level of signals that are the combination of the dry sound and the reverb sound. When the signal level exceeds the threshold, the gate opens and the reverb sound is output.

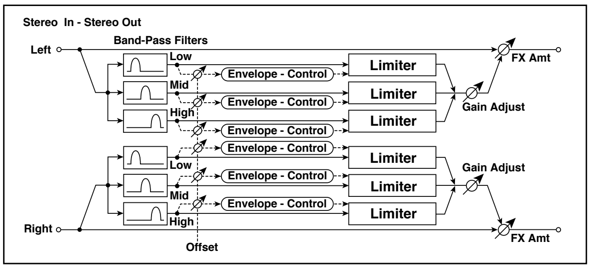
Normally, set “[G]Input Reverb Mix” to Dry (the gate is controlled only by the dry sound). If you wish to extend the gate time, set the “[G]Input Reverb Mix” value higher and adjust the “Threshold” value.

Double Size

Double-size effects can only be assigned to the FX2 processors (either in the A or B FX group).

110: St. Mltband Limiter
(Stereo Mltband Limiter)

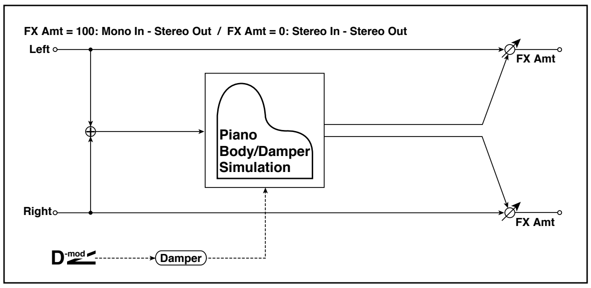
This is a stereo multiband limiter.


Stereo In - Stereo Out
Band-Pass Filters
Left
Low
Mid
High
Envelope - Control
Envelope - Control
Envelope - Control
Envelope - Control
Envelope - Control
Envelope - Control
Limiter
Limiter
Limiter
Limiter
Limiter
Limiter
Gain Adjust
Gain Adjust
FX Amt
FX Amt
Low
Mid
High
Right
Offset

a	Ratio	1.0 : 1... 50.0 : 1, Inf : 1	Sets the signal compression ratio	
b	Threshold [dB]	–40...0	Sets the level above which the compressor is applied	
c	Attack	1...100	Sets the attack time	
d	Release	1...100	Sets the release time	
e	Low Offset [dB]	–40...0	Sets the low range gain of trigger signal	
f	Mid Offset [dB]	–40...0	Sets the mid range gain of trigger signal	
g	High Offset [dB]	–40...0	Sets the high range gain of trigger signal	
h	Gain Adjust [dB]	–Inf, –38...+24	Sets the output gain	
	Src	Off...Tempo	Selects the modulation source for the output gain	
	Amt	–63...+63	Sets the modulation amount of the output gain	
i	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	–100...+100	Amount of modulation source	

111: PianoBody/Damper
(PianoBody/Damper Simulation)

This effect simulates the resonance of the piano sound board caused by the string vibration, and also simulates the resonance of other strings that are not being played when you press the damper pedal. It will create a very realistic sound when applied to acoustic piano sounds.


FX Amt = 100: Mono In - Stereo Out / FX Amt = 0: Stereo In - Stereo Out
Left
Piano
Body/Damper
Simulation
FX Amt
Right
FX Amt
D-mod
Damper

a	Sound Board Depth	0...100	Sets the intensity of resonance of the sound board	
b	Damper Depth	0...100	Sets the intensity of the string resonance created when the damper pedal is pressed	
	Src	Off...Tempo	Selects the modulation source of damper effect	
c	Tone	1...100	Sets tonal quality of effect sound	
d	Mid Shape	0...36	Sets the mid range of tonal quality	
e	Tune	–50...+50	Fine tuning	
f	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	–100...+100	Amount of modulation source	

a: Sound Board Depth

This parameter sets the intensity of resonance of the piano sound board.

b: Damper Depth
b: Src

This parameter sets the resonance intensity of the other strings created when the damper pedal is pressed. The "Src" parameter selects the modulation source from which the damper effect is applied. Usually, select Damper #64 Pdl (Damper pedal).

MIDI The effect is off when a value for the modulation source specified for the "Src" parameter is 63 or smaller, and the effect is on when the value is 64 or higher.

c: Tone
d: Mid Shape

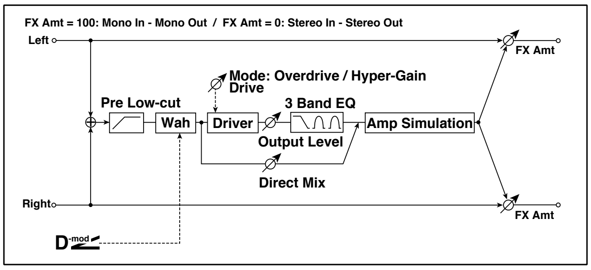
These parameters control the tonal quality of the effect sound.

e: Tune

Since this effect simulates the resonance of the strings, the sound varies depending on the pitch. If you have changed tuning using the "Master Tuning" (Global > General Controls > Basic), adjust this parameter value.

112: OD/HyperGain Wah (Overdrive/Hyper Gain Wah)

This distortion effect has two modes: overdrive and hyper-gain that produces a strong distortion. A higher high-gain setting is required for this effect relative to a normal-size effect.

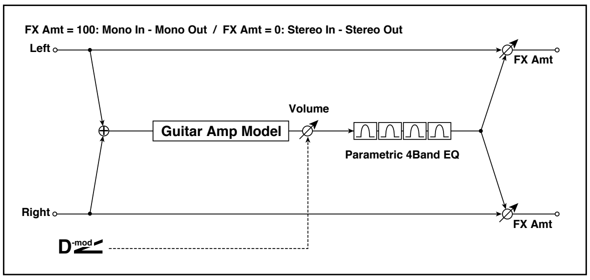

FX Amt = 100: Mono In - Mono Out / FX Amt = 0: Stereo In - Stereo Out
Left
FX Amt
Mode: Overdrive / Hyper-Gain
Drive
Pre Low-cut
3 Band EQ
Wah
Driver
Amp Simulation
Output Level
Direct Mix
Right
FX Amt
D-mod

a	Wah	Off, On	Switches Wah on/off	
	Src	Off...Tempo	Selects the modulation source that switches the Wah on and off	
	Sw	Toggle, Moment	Selects the switching mode for the modulation source that switches the Wah on and off	
b	Wah Sweep Range	–10...+10	Sets the range of Wah	
	Wah Sweep Src	Off...Tempo	Selects the modulation source that controls the Wah	
c	Drive Mode	Overdrive, Hyper-Gain	Switches between overdrive and hi-gain distortion	
d	Drive	1...120	Sets the degree of distortion	
	Pre Low-cut	0...10	Sets the low range cut amount of the distortion input	
e	Output Level	0...50	Sets the output level	
	Src	Off...Tempo	Selects the modulation source for the output level	
	Amt	–50...+50	Sets the modulation amount of the output level	
f	Low Cutoff [Hz]	20...1.00k	Sets the center frequency for Low EQ (shelving type)	
	Gain [dB]	–18...+18	Sets the gain of Low EQ	
g	Mid1 Cutoff [Hz]	300...10.00k	Sets the center frequency for Mid/High EQ 1 (peaking type)	
	Q	0.5...10.0	Sets the band width of Mid/High EQ 1	
	Gain [dB]	–18...+18	Sets the gain of Mid/High EQ 1	
h	Mid2 Cutoff [Hz]	500...20.00k	Sets the center frequency for Mid/High EQ 2 (peaking type)	
	Q	0.5...10.0	Sets the band width of Mid/High EQ 2	
	Gain [dB]	–18...+18	Sets the gain of Mid/High EQ 2	
i	Direct Mix	0...50	Sets the amount of the dry sound mixed to the distortion	
	Speaker Simulation	Off, On	Switches the speaker simulation on/off	
j	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , “Dynamic Modulation sources,” on page 330	
	Amt	–100...+100	Amount of modulation source	

113: GuitarAmp + P4EQ (Guitar Amp Model + Parametric 4-Band EQ)

This combines a guitar amp simulation (which even faithfully replicates the distortion and tone control circuitry) with a four-band equalizer.

By using this in conjunction with “St. Guitar Cabinet (Stereo Guitar Cabinet)” on page 342, you can obtain an even more realistic guitar sound that simulates a guitar amp + speaker cabinet.


FX Amt = 100: Mono In - Mono Out / FX Amt = 0: Stereo In - Stereo Out
Left
FX Amt
Volume
Guitar Amp Model
Parametric 4Band EQ
Right
FX Amt
D-mod

a	Amp Type	VOX AC15, VOX AC15TB, VOX AC30, VOX AC30TB, UK BLUES, UK 70'S, UK 80'S, UK 90'S, UK MODERN, US MODERN, US HIGAIN, BOUTIQUE OD, BOUTIQUE CL, BLACK 2x12, TWEED - 1x12, TWEED - 4x10	Selects the type of the amplifier	
	Drive Gain	0...100	Sets the input gain	
b	Volume	0...100	Sets the output level	
	Src	Off...Tempo	Selects the modulation source for the output level	
	Amt	–100...+100	Sets the modulation amount of the output level	
c	Bass	0...100	Sets the bass (low range) level	
	Middle	0...100	Sets the middle (mid range) level	
d	Treble	0...100	Sets the treble (high range) level	
	Presence	0...100	Sets the presence (high-frequency tone)	
e	Post P4EQ	Thru, On	Selects through or on for the equalizer	
e	Band1 Cutoff [Hz]	20...1.00k	Sets the center frequency of Band 1	
	Q	0.5...10.0	Sets Band 1’s bandwidth	
	Gain [dB]	–18...+18	Sets the gain of Band 1	
f	Band2 Cutoff [Hz]	50...5.00k	Sets the center frequency of Band 2	
	Q	0.5...10.0	Sets Band 2’s bandwidth	
	Gain [dB]	–18...+18	Sets the gain of Band 2	
g	Band3 Cutoff [Hz]	300...10.00k	Sets the center frequency of Band 3	
	Q	0.5...10.0	Sets Band 3’s bandwidth	
	Gain [dB]	–18...+18	Sets the gain of Band 3	
h	Band4 Cutoff [Hz]	500...20.00k	Sets the center frequency of Band 4	
	Q	0.5...10.0	Sets Band 4’s bandwidth	
	Gain [dB]	–18...+18	Sets the gain of Band 4	
i	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , “Dynamic Modulation sources,” on page 330	
	Amt	–100...+100	Amount of modulation source	

a: Amp Type
d: Presence

If the Amp Type is VOX AC15...VOX AC30TB, this sets the attenuation of the high-frequency range. For other types, this sets the boost of the high-frequency range.

This corresponds to the Cut knob control of amps made by the VOX Corporation.

e: Post P4EQ

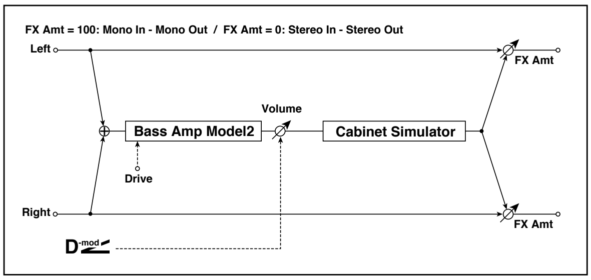
By chaining this with 19: St.Guitar Cabinet you can simulate the combination of a guitar amp and speaker cabinet. In this case, we recommend that you set Post P4EQ to “Thru,” but if necessary you can turn it “On” and adjust the tone.

Recommended Combinations of Guitar Amp Models and Cabinet Simulators:

Amp Type	Cabinet Type
VOX AC15	VOX AC15 - 1x12
VOX AC15TB	VOX AC15 - 1x12
VOX AC30	VOX AC30 - 2x12
VOX AC30TB	VOX AC30 - 2x12
UK BLUES	UK H30 - 4x12
UK 70'S	UK H30 - 4x12
UK 80'S	UK T75 - 4x12
UK 90'S	UK T75 - 4x12
UK MODERN	UK T75 - 4x12, US V30 - 4x12
US MODERN	US V30 - 4x12
US HIGAIN	US V30 - 4x12, UK T75 - 4x12
BOUTIQUE OD	UK H30 - 4x12
BOUTIQUE CL	UK H30 - 4x12
BLACK 2x12	BLACK - 2x12
TWEED - 1x12	TWEED - 1x12
TWEED - 4x10	TWEED - 4x10

114: BassTubeAmp+Cab.
(Bass Tube Amp Model + Cabinet)

This simulates a bass amp (with gain and drive) and speaker cabinet.


FX Amt = 100: Mono In - Mono Out / FX Amt = 0: Stereo In - Stereo Out
Left
FX Amt
Volume
Bass Amp Model2
Cabinet Simulator
Drive
Right
FX Amt
D-mod

a	Amp Type		Selects the type of the amplifier	
		STUDIO COMBO	A tube combo ideal for the Motown sound	
		VOX AC100	A 100W tube amp AC100 made by Vox	
		UK MAJOR	A 200W tube amp made in the UK	
b	Drive Gain	0...100	Sets the input gain	
c	Volume	0...100	Sets the output level	
	Src	Off...Tempo	Selects the modulation source for the output level	
	Amt	–100...+100	Sets the modulation amount of the output level	
d	Bass	0...100	Sets the bass (low range) level	
e	Middle	0...100	Sets the middle (mid range) level	
f	Treble	0...100	Sets the treble (high range) level	
g	Presence	0...100	Sets the presence (high-frequency tone)	
h	Cabinet Simulator	Off, On	Switches the cabinet simulator on/off	
i	Cabinet Type	LA - 4x10, MODERN - 4x10, METAL - 4x10, CLASSIC -8x10, UK - 4x12, STUDIO - 1x15, JAZZ - 1x15, VOX AC100 - 2x15, US - 2x15, UK - 4x15, LA - 1x18, COMBI - 1x12 & 1x18	Selects the cabinet type	
j	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , “Dynamic Modulation sources,” on page 330	
	Amt	–100...+100	Amount of modulation source	

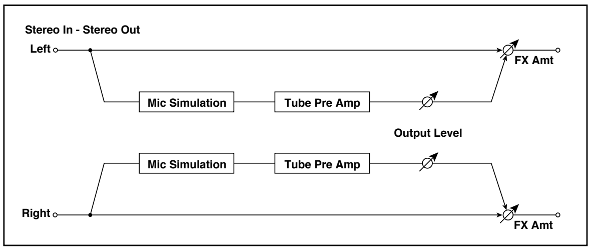
a: Amp Type
i: Cabinet Type

Recommended Combinations of Bass Amp Models and Cabinets:

Amp Type	Cabinet Type
STUDIO COMBO	STUDIO - 1x15
AC100	VOX AC100 - 2x15
UK MAJOR	UK - 4x15, UK - 4x12

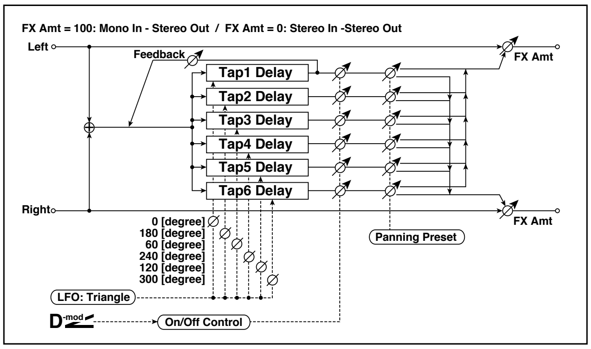
115: St. Mic + PreAmp
(Stereo Mic Modeling + PreAmp)

This is a stereo mic and preamp simulator (See “Mic Model+PreAmp (Mic Modeling + PreAmp)” on page 345.). For example you might use this to simulate micing of a stereo source such as a rotary speaker.


Stereo In - Stereo Out
Left
Right
Mic Simulation
Tube Pre Amp
Mic Simulation
Tube Pre Amp
Output Level
FX Amt
FX Amt

116: Multitap Cho/Delay
(Multitap Chorus/Delay)

This effect has six chorus blocks with different LFO phases. You can produce a complex stereo image by setting a different delay time and depth for each block. You can control the delay output level via a modulation source.


FX Amt = 100: Mono In - Stereo Out / FX Amt = 0: Stereo In -Stereo Out
Left
Right
Feedback
Tap1 Delay
Tap2 Delay
Tap3 Delay
Tap4 Delay
Tap5 Delay
Tap6 Delay
FX Amt
FX Amt
0 [degree]
180 [degree]
60 [degree]
240 [degree]
120 [degree]
300 [degree]
LFO: Triangle
Panning Preset
D-mod
On/Off Control

a	LFO Frequency [Hz]	0.02...13.00	Sets the speed of the LFO	
b	Tap1 (000) [msec]	0...2000	Sets the Tap1 (LFO phase=0 degrees) delay time	
	Depth	0...30	Sets the Tap1 chorus depth	
	Status	Always On, Always Off, On?Off (Dm), Off?On (Dm)	Selects on, off, or modulation source for the control of Tap1 output	
c	Tap2 (180) [msec]	0...2000	Sets the Tap2 (LFO phase=180 degrees) delay time	
	Depth	0...30	Sets the Tap2 chorus depth	
	Status	Always On, Always Off, On?Off (Dm), Off?On (Dm)	Selects on, off, or modulation source for the control of Tap2 output	
d	Tap3 (060) [msec]	0...2000	Sets the Tap3 (LFO phase=60 degrees) delay time	
	Depth	0...30	Sets the Tap3 chorus depth	
	Status	Always On, Always Off, On?Off (Dm), Off?On (Dm)	Selects on, off, or modulation source for the control of Tap3 output	
e	Tap4 (240) [msec]	0...2000	Sets the Tap4 (LFO phase=240 degrees) delay time	
	Depth	0...30	Sets the Tap4 chorus depth	
	Status	Always On, Always Off, On?Off (Dm), Off?On (Dm)	Selects on, off, or modulation source for the control of Tap4 output	
f	Tap5 (120) [msec]	0...2000	Sets the Tap5 (LFO phase=120 degrees) delay time	
	Depth	0...30	Sets the Tap5 chorus depth	
	Status	Always On, Always Off, On?Off (Dm), Off?On (Dm)	Selects on, off, or modulation source for the control of Tap5 output	
g	Tap6 (300) [msec]	0...2000	Sets the Tap1 (LFO phase=300 degrees) delay time	
	Depth	0...30	Sets the Tap6 chorus depth	
	Status	Always On, Always Off, On?Off (Dm), Off?On (Dm)	Selects on, off, or modulation source for the control of Tap6 output	
h	Panning Preset	1:L123456R, 2:L 135 246 R, 3:L135246R, 4:L145632R	Selects the stereo panning pattern for each tap	
i	Tap1 Feedback	−100...+100	Sets the Tap1 feedback amount	
	Src	Off...Tempo	Selects the modulation source for the Tap output level, feedback amount, and effect balance	
	Amt	−100...+100	Sets the modulation amount of Tap1 feedback amount	
j	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , “Dynamic Modulation sources,” on page 330	
	Amt	−100...+100	Amount of modulation source	

b, c, d, e, f, g: Status

These parameters set the output status of each Tap.

Always On: Output is always on. (No modulation)

Always Off: Output is always off. (No modulation)

On□ Off (dm): Output level is switched from on to off depending on the modulation source.

Off□ On (dm): Output level is switched from off to on depending on the modulation source.

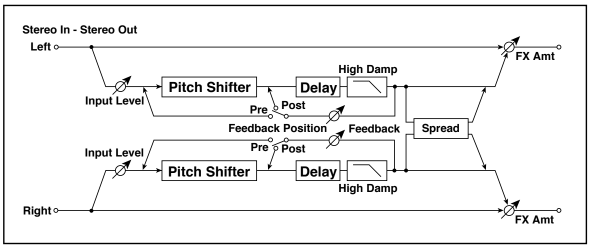
Combining these parameters, you can change from 4-phase chorus to two-tap delay by crossfading them gradually via the modulation source during a performance.

h: Panning Preset

This parameter selects combinations of stereo images of the tap outputs.

117: St. Pitch Shifter
(Stereo Pitch Shifter)

This is a stereo pitch shifter. The pitch shift amount for the left and right channels can be reversed from each other.


Stereo In - Stereo Out
Left
FX Amt
High Damp
Input Level
Pitch Shifter
Delay
Pre
Post
Feedback Position
Feedback
Spread
Input Level
Pre
Post
Pitch Shifter
Delay
High Damp
Right
FX Amt

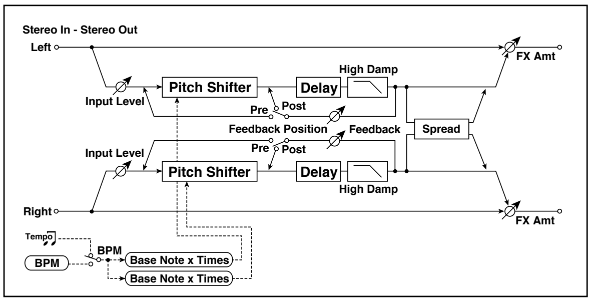
a	Mode	Slow, Medium, Fast	Switches Pitch Shifter mode	
	L/R Pitch	Normal, Up/Down	Determines whether or not the L/R pitch shift amount is inverted	
b	Pitch Shift [1/2tone]	−24...+24	Sets the pitch shift amount in steps of a semitone	
	Src	Off...Tempo	Selects the modulation source of pitch shift amount	
	Amt	−24...+24	Sets the modulation amount of pitch shift amount	
c	Fine [cents]	−100...+100	Sets the pitch shift amount in steps of one cent	
	Amt	−100...+100	Sets the modulation amount of pitch shift amount	
d	L Delay [msec]	0...2000	Sets the delay time for the left channel	
e	R Delay [msec]	0...2000	Sets the delay time for the right channel	
f	Feedback	−100...+100	Sets the feedback amount	
	High Damp [%]	0...100	Sets the damping amount in the high range	
g	Feedback Position	Pre, Post	Switches the feedback connection	
	Spread	−100...+100	Sets the width of the stereo image of the effect sound	
h	Input Level Dmod [%]	−100...+100	Sets the modulation amount of the input level	
	Src	Off...Tempo	Selects the modulation source for the input level	
i	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	−100...+100	Amount of modulation source	

a: L/R Pitch

When you select Up/Down for this parameter, the pitch shift amount for the right channel will be reversed. If the pitch shift amount is positive, the pitch of the left channel is raised, and the pitch of the right channel is lowered.

118: St. PitchShift BPM
(Stereo Pitch Shifter BPM)

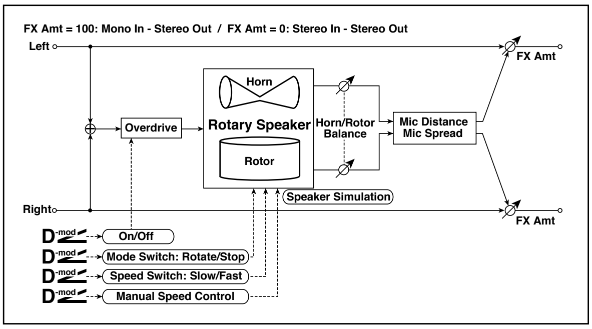
This stereo pitch shifter enables you to set the delay time to match the song tempo.


Stereo In - Stereo Out
Left
FX Amt
High Damp
Input Level
Pitch Shifter
Delay
Pre
Post
Feedback Position
Feedback
Spread
Input Level
Pre
Post
Pitch Shifter
Delay
High Damp
Right
FX Amt
Tempo
BPM
BPM
Base Note x Times
Base Note x Times

a	Mode	Slow, Medium, Fast	Switches Pitch Shifter mode	
	L/R Pitch	Normal, Up/Down	Determines whether or not the L/R pitch shift amount is inverted	
b	Pitch Shift [1/2tone]	−24...+24	Sets the pitch shift amount in steps of a semitone	
	Src	Off...Tempo	Selects the modulation source of pitch shift amount	
	Amt	−24...+24	Sets the modulation amount of pitch shift amount	
c	Fine [cents]	−100...+100	Sets the pitch shift amount in steps of one cent	
	Amt	−100...+100	Sets the modulation amount of pitch shift amount Sets the modulation amount of pitch shift amount	
d	BPM	MIDI, 40.00...300.00	MIDI syncs to the system tempo; 40–300 sets the tempo manually for this individual effect	Sync
	Time Over? L	---, OVER!	Display the error message if the left channel delay time exceeds the upper limit	
	R	---, OVER!	Display the error message if the right channel delay time exceeds the upper limit	
e	L Delay Base Note	r...w	Selects the type of notes to specify the left channel delay time	Sync
	Times	x1...x32	Sets the number of notes to specify the left channel delay time	
f	R Delay Base Note	r...w	Selects the type of notes to specify the right channel delay time	Sync
	Times	x1...x32	Sets the number of notes to specify the right channel delay time	
g	Feedback Position	Pre, Post	Switches the feedback connection	
	Spread	−100...+100	Sets the width of the stereo image of the effect sound	
h	Feedback	−100...+100	Sets the feedback amount	
	High Damp [%]	0...100	Sets the damping amount in the high range	
i	Input Level Dmod [%]	−100...+100	Sets the modulation amount of the input level	
	Src	Off...Tempo	Selects the modulation source for the input level	
j	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	−100...+100	Amount of modulation source	

119: Rotary SpeakerOD (Rotary Speaker Overdrive)

This is a stereo rotary speaker effect. It has an internal speaker simulator that simulates overdrive (recreating the amp distortion) and characteristics of the rotary speaker, producing a very realistic rotary speaker sound.


FX Amt = 100: Mono In - Stereo Out / FX Amt = 0: Stereo In - Stereo Out
Left
FX Amt
Horn
Rotary Speaker
Rotor
Overdrive
Horn/Rotor Balance
Mic Distance Mic Spread
Speaker Simulation
Right
FX Amt
D-mod
On/Off
D-mod
Mode Switch: Rotate/Stop
D-mod
Speed Switch: Slow/Fast
D-mod
Manual Speed Control

a	Overdrive	Off, On	Switches overdrive on/off	
	Src	Off...Tempo	Selects a modulation source to switch overdrive on/off	
	Sw	Toggle, Moment	Sets the switch mode for overdrive on/off modulation	
b	Overdrive Gain	0...100	Determines the degree of distortion	
	Overdrive Level	0...100	Sets the overdrive output level	
c	Overdrive Tone	0...15	Sets the tonal quality of the overdrive	
	Speaker Simulator	Off, On	Switches the speaker simulation on/off	
d	Mode Switch	Rotate, Stop	Switches between speaker rotation and stop	
	Src	Off...Tempo	Selects a modulation source for Rotate/Stop	
	Sw	Toggle, Moment	Sets the switch mode for Rotate/Stop modulation	
e	Speed Switch	Slow, Fast	Switches the speaker rotation speed between slow and fast	
	Src	Off...Tempo	Selects a modulation source for Slow/Fast	
	Sw	Toggle, Moment	Sets the switch mode for Slow/Fast modulation	
f	Horn/Rotor Balance	Rotor, 1...99, Horn	Sets the volume balance between the high-range horn and low-range rotor	
	Manual SpeedCtrl	Off...Tempo	Sets a modulation source for direct control of rotation speed	
g	Horn Acceleration	0...100	Sets how quickly the horn rotation speed changes	
	Horn Ratio	Stop, 0.50...2.00	Adjusts the (high-frequency) horn rotation speed. Standard value is 1.00. "Stop" stops the rotation	
h	Rotor Acceleration	0...100	Sets how quickly the rotor speed changes	
	Rotor Ratio	Stop, 0.50...2.00	Adjusts the (low-frequency) rotor rotation speed. Standard value is 1.0. "Stop" stops the rotation	
i	Mic Distance	0...100	Distance between the microphone and rotary speaker	
	Mic Spread	0...100	Angle of left and right microphones	
j	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	−100...+100	Amount of modulation source	

a: Sw

This parameter determines how to switch on/off the overdrive via a modulation source.

When "Sw" = Toggle, overdrive is turned on/off each time the pedal or joystick is operated.

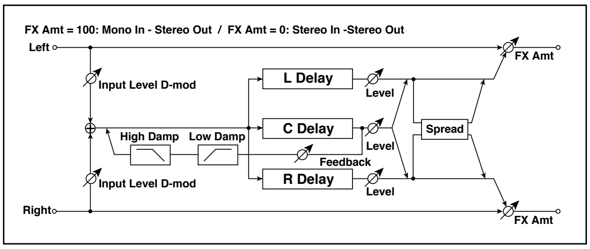
MIDI Overdrive will be switched on/off each time the value of the modulation source exceeds 64.

When "Sw" = Moment, overdrive is applied only when you press the pedal or operate the joystick.

MIDI Only when the value for the modulation source is 64 or higher, the overdrive effect is applied.

120: L/C/R Long Delay

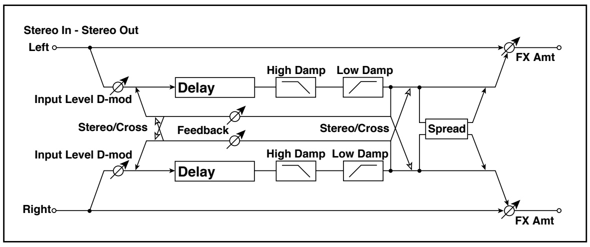
This multitap delay outputs three Tap signals to left, right and center respectively. You can set a maximum of 5,460msec for the delay time.


FX Amt = 100: Mono In - Stereo Out / FX Amt = 0: Stereo In -Stereo Out
Left
FX Amt
Input Level D-mod
L Delay
Level
High Damp
Low Damp
C Delay
Level
Feedback
Spread
Input Level D-mod
R Delay
Level
Right
FX Amt

a	L Delay Time [msec]	0...5460	Sets the delay time of TapL	
	Level	0...50	Sets the output level of TapL	
b	C Delay Time [msec]	0...5460	Sets the delay time of TapC	
	Level	0...50	Sets the output level of TapC	
c	R Delay Time [msec]	0...5460	Sets the delay time of TapR	
	Level	0...50	Sets the output level of TapR	
d	Feedback (C Delay)	−100...+100	Sets the feedback amount of TapC	
	Src	Off...Tempo	Selects the modulation source for the TapC feedback	
	Amt	−100...+100	Sets the modulation amount of the TapC feedback	
e	High Damp [%]	0...100	Sets the damping amount in the high range	
	Low Damp [%]	0...100	Sets the damping amount in the low range	
f	Input Level Dmod [%]	−100...+100	Sets the modulation amount of the input level	
	Src	Off...Tempo	Selects the modulation source for the input level	
g	Spread	0...50	Sets the width of the stereo image of the effect sound	
h	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	−100...+100	Amount of modulation source	

121: St/Cross Long Delay (Stereo/Cross Long Delay)

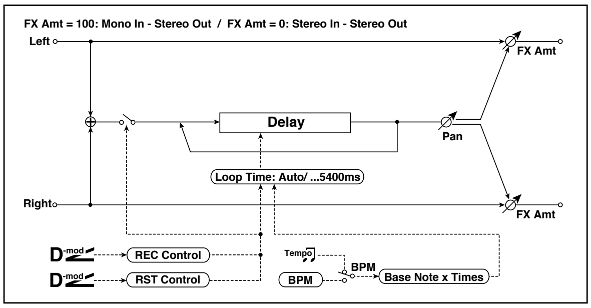
This is a stereo delay, and can by used as a cross-feedback delay effect in which the delay sounds cross over between left and right by changing the feedback routing. You can set a maximum of 2,730msec for the delay time.



a	Stereo/Cross	Stereo, Cross	Switches between stereo delay and cross-feedback delay	
b	L Delay Time [msec]	0.0...2730.0	Sets the delay time for the left channel	
c	R Delay Time [msec]	0.0...2730.0	Sets the delay time for the right channel	
d	L Feedback	–100...+100	Sets the feedback amount for the left channel	
	Src	Off...Tempo	Selects the modulation source of feedback amount	
	Amt	–100...+100	Sets the modulation amount of the left channel feedback	
e	R Feedback	–100...+100	Sets the feedback amount for the right channel	
	Amt	–100...+100	Sets the modulation amount of the right channel feedback	
f	High Damp [%]	0...100	Sets the damping amount in the high range	
g	Low Damp [%]	0...100	Sets the damping amount in the low range	
h	Input Level Dmod [%]	–100...+100	Sets the modulation amount of the input level	
	Src	Off...Tempo	Selects the modulation source for the input level	
i	Spread	–50...+50	Sets the width of the stereo image of the effect sound	
j	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , “Dynamic Modulation sources,” on page 330	
	Amt	–100...+100	Amount of modulation source	

122: Hold Delay

This effect records the input signal and plays it back repeatedly. You can control the start of recording and reset via a modulation source. Easy to use for real-time performances.


FX Amt = 100: Mono In - Stereo Out / FX Amt = 0: Stereo In - Stereo Out
Left
FX Amt
Delay
Pan
Loop Time: Auto/ ...5400ms
Right
FX Amt
D-mod
REC Control
D-mod
RST Control
Tempo
BPM
BPM
Base Note x Times

a	Loop Time [msec]	Auto, 1...10800	Sets Automatic loop time setup mode or specifies loop time	
b	Loop BPM Sync	Off, On	Specifies whether delay time is set in milliseconds, or as a note value relative to tempo	Sync
c	BPM	MIDI, 40.00... 300.00	MIDI syncs to the system tempo; 40–300 sets the tempo manually for this individual effect	
	Time Over?	---, OVER!	An error indication that appears if delay time exceeds the upper limit when MIDI/Tempo Sync=On	
d	Loop Base Note	r...w	Selects the type of notes to specify the delay time	
	Times	x1...x32	Sets the number of notes to specify the delay time	
e	REC Control Src	Off...Tempo	Selects control source for recording	
f	RST Control Src	Off...Tempo	Selects control source for reset	
g	Manual REC Control	REC Off, REC On	Sets the recording switch	
h	Manual RST Control	Off, RESET	Sets the reset switch	
i	Pan	L100...L1, C, R1...R100	Sets the stereo image of the effect	
	Src	Off...Tempo	Selects the modulation source of stereo image of the effect	
	Amt	–100...+100	Sets the modulation amount of stereo image of the effect	
j	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , “Dynamic Modulation sources,” on page 330	
	Amt	–100...+100	Amount of modulation source	

a: Loop Time [msec]

With Auto, the loop time is automatically set. Otherwise, you can specify the loop time.

When Auto is selected, the Loop Time is automatically set to the time it takes for a performance recorded while the Modulation Source or “Manual REC Control” is on. However, if the time length exceeds 10,800msec, the loop time will be automatically set to 10,800msec.

c: Time Over?

You can set the delay time up to 10,800msec. If the delay time exceeds this limit, the error message “OVER!” appears in the display. Set the delay time parameters so that this message will not appear. “Time Over?” is only a display parameter.

b: Loop BPM Sync
c: BPM
d: Loop Base Note
d: Times

If “Loop BPM Sync” is on, the “Times” setting is ignored; the loop time is determined by “BPM,” “Loop Base Note,” and

"Times." Even in this case, the delay time cannot exceed 10,800 msec.

"Hold" procedure (when Loop Time = Auto)

1. "Rec Src"JS +Y: #01
   "Reset Src"JS –Y: #02
   "Manual REC Control"REC Off
   "Manual RST Control"RESET
   "Loop Time [msec]"Auto
   "MIDI/Tempo Sync"Off
   It should be noted that all recordings will be deleted while Reset is On.

2. "Manual RST Control"Off
   Reset is cancelled and the unit enters Rec ready mode.

3. Push the joystick in the +Y direction (forward) and play a phrase you wish to hold. When you pull the joystick to its original position, the recording will be finished and the phrase you just played will be held.

   Loop Time is automatically set only for the first recording after resetting. If the time length exceeds 10,800msec, Loop Time will be automatically set to 10,800msec. (If you have set "Times" to 1–10,800msec, the specified loop time will be used regardless of the time taken from pushing the joystick forward until it is pulled back. However, the recording method remains the same. The phrase being played while the joystick is pushed forward will be held.)

4. If you made a mistake during recording, pull the joystick in the –Y direction (back) to reset. In this way, the recording will be erased. Repeat step 4. again.

5. The recorded phrase will be repeated again and again. You can use this to create an accompaniment.

6. By pushing the joystick in the +Y direction (forward), you can also overdub performances over the phrase that is being held.

e: REC Control Src
g: Manual REC Control

"REC Control Src" selects the modulation source that controls recording.

If this modulation is on, or if "Manual REC Control" is set to On, you can record the input signal. If a recording has already been carried out, additional signals will be overdubbed.

MIDI The effect is off when a value for the modulation source specified for the "REC Control Src" parameter is 63 or smaller, and the effect is on when the value is 64 or higher.

f: RST Control Src
h: Manual RST Control

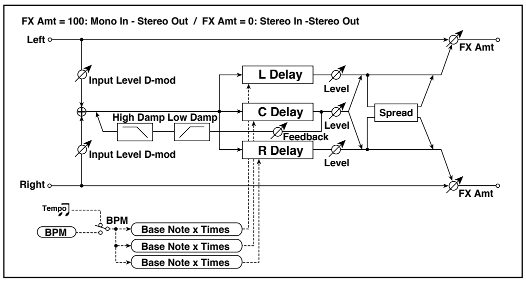
The "RST Control Src" parameter specifies the modulation source that controls the reset operation.

When you set this modulation source to On, or "Manual RST Control" to RESET, you can erase what you recorded. If the Loop Time parameter has been set to Auto, the loop time is also reset.

MIDI The effect is off when a value for the modulation source specified for the "RST Control Src" parameter is 63 or smaller, and the effect is on when the value is 64 or higher.

123: LCR BPM Long Dly

The L/C/R delay enables you to match the delay time with the song tempo.



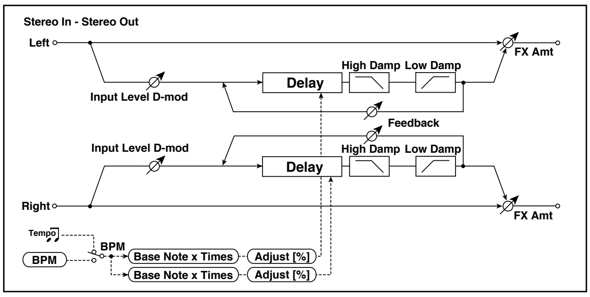
a	BPM	MIDI, 40.00...300.00	MIDI syncs to the system tempo; 40–300 sets the tempo manually for this individual effect	Sync
	Time Over?	---, OVER!	Displays an error message when the delay time exceeds the upper limit	
b	L Delay Base Note	r...w	Selects the type of notes to specify the delay time for TapL	Sync
	Times	x1...x32	Sets the number of notes to specify the delay time for TapL	
	Level	0...50	Sets the output level of TapL	
c	C Delay Base Note	r...w	elects the type of notes to specify the delay time for TapC	Sync
	Times	x1...x32	Sets the number of notes to specify the delay time for TapC	
	Level	0...50	Sets the output level of TapC	
d	R Delay Base Note	r...w	Selects the type of notes to specify the delay time for TapR	Sync
	Times	x1...x32	Sets the number of notes to specify the delay time for TapR	
	Level	0...50	Sets the output level of TapR	
e	Feedback (C Delay)	–100...+100	Sets the feedback amount of TapC	
	Src	Off...Tempo	Selects the modulation source for the TapC feedback	
	Amt	–100...+100	Sets the modulation amount of the TapC feedback	
f	High Damp [%]	0...100	Sets the damping amount in the high range	
	Low Damp [%]	0...100	Sets the damping amount in the low range	
g	Input Level Dmod [%]	–100...+100	Sets the modulation amount of the input level	
	Src	Off...Tempo	Selects the modulation source for the input level	
h	Spread	0...50	Sets the width of the stereo image of the effect sound	
i	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , "Dynamic Modulation sources," on page 330	
	Amt	–100...+100	Amount of modulation source	

a: Time Over?

You can set the delay time up to 10,920msec. If the delay time exceeds this limit, the error message "OVER!" appears in the display. Set the delay time parameters so that this message will not appear. "Time Over?" is only a display parameter.

124: St. BPM Long Dly
(Stereo BPM Long Delay)

The stereo delay enables you to match the delay time with the song tempo.


Stereo In - Stereo Out
Left
Right
FX Amt
FX Amt
Input Level D-mod
Input Level D-mod
High Damp
Low Damp
High Damp
Low Damp
Delay
Delay
Feedback
Tempo
BPM
BPM
Base Note x Times
Base Note x Times
Adjust [%]
Adjust [%]

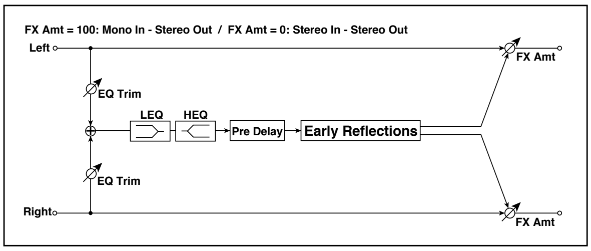
a	BPM	MIDI, 40.00... 300.00	MIDI syncs to the system tempo; 40–300 sets the tempo manually for this individual effect	Sync
	Time Over? L	---, OVER!	Display the error message if the left channel delay time exceeds the upper limit	
	R	---, OVER!	Display the error message if the right channel delay time exceeds the upper limit	
b	L Delay Base Note	r...w	Selects the type of notes to specify the left channel delay time	Sync
	Times	x1...x32	Sets the number of notes to specify the left channel delay time	
	Adjust [%]	–2.50...+2.50	Fine-adjust the left channel delay time	
c	R Delay Base Note	r...w	Selects the type of notes to specify the right channel delay time	Sync
	Times	x1...x32	Sets the number of notes to specify the right channel delay time	
	Adjust [%]	–2.50...+2.50	Fine-adjust the right channel delay time	
d	L Feedback	–100...+100	Sets the feedback amount for the left channel	
	Src	Off...Tempo	Selects the modulation source of feedback amount	
	L Amt	–100...+100	Sets the modulation amount of the left channel feedback	
e	R Feedback	–100...+100	Sets the feedback amount for the right channel	
	R Amt	–100...+100	Sets the modulation amount of the right channel feedback	
f	High Damp [%]	0...100	Sets the damping amount in the high range	
g	Low Damp [%]	0...100	Sets the damping amount in the low range	
h	Input Level Dmod [%]	–100...+100	Sets the modulation amount of the input level	
	Src	Off...Tempo	Selects the modulation source for the input level	
i	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , “Dynamic Modulation sources,” on page 330	
	Amt	–100...+100	Amount of modulation source	

a: Time Over? L, R

You can set the delay time up to 5,460msec. If the delay time exceeds this limit, the error message “OVER!” appears in the display. Set the delay time parameters so that this message will not appear. “Time Over?” is only a display parameter.

125: Early Reflections

This early reflection effect has more precise early reflections with twice the maximum length of a normal-size effect (See “Early Reflections” on page 374.). You can create a very smooth and dense sound.


FX Amt = 100: Mono In - Stereo Out / FX Amt = 0: Stereo In - Stereo Out
Left
Right
EQ Trim
EQ Trim
LEQ
HEQ
Pre Delay
Early Reflections
FX Amt
FX Amt

a	Type	Sharp, Loose, Modulated, Reverse	Selects the decay curve for the early reflection	
b	ER Time [msec]	10...1600	Sets the time length of early reflection	
c	Pre Delay [msec]	0...200	Sets the time taken from the original sound to the first early reflection	
d	EQ Trim	0...100	Sets the input level of EQ applied to the effect sound	
e	Pre LEQ Fc	Low, Mid-Low	Selects the cutoff frequency (low or mid-low) of the low-range equalizer	
	Pre HEQ Fc	High, Mid-High	Selects the cutoff frequency (high or mid-high) of the high-range equalizer	
f	Pre LEQ Gain [dB]	–15.0...+15.0	Sets the gain of Low EQ	
	Pre HEQ Gain [dB]	–15.0...+15.0	Sets the gain of High EQ	
g	Wet/Dry	Dry, 1:99...99:1, Wet	Balance between the wet and dry signal	
	Src	Off...Tempo	Table , “Dynamic Modulation sources,” on page 330	
	Amt	–100...+100	Amount of modulation source	

Installing the KORG USB MIDI Driver

The USB Device port can be used to transfer MIDI data between the Pa600 and a personal computer (this is called the ***MIDI Over USB*** function). This is useful when your computer is not fitted with a MIDI interface.

USB can be used in parallel with the MIDI ports. For example, you can connect your Pa600 to a sequencer running on your computer, and at the same time control another MIDI instrument connected to the MIDI ports of Pa600.

Connecting Pa600 this ways makes it, at the same time, a MIDI input device, a controller, and a sound generator.

Connecting Pa600 to a personal computer

Please install the KORG USB-MIDI Driver, before connecting Pa600 to a personal computer. Be sure your personal computer meets the requirement shown on “KORG USB-MIDI Driver system requirements” below.

KORG USB-MIDI Driver system requirements

Windows

Computer: A computer with an USB port, that satisfies the requirements of Microsoft Windows XP, Vista, 7 or 8.

Operating system: Microsoft Windows XP Home Edition / Professional / x64 Edition (a driver for the x64 Edition is in beta release), Vista, 7, 8.

Mac

Computer: An Apple Mac with an USB port that satisfies the requirements of Mac OS X.

Operating system: Mac OS X version 10.5.8 or later.

Please note before use

Copyright to all software included in this product is the property of KORG Inc.

The license agreement for this software is provided separately. You must read this license agreement before you install this software. Your installation of this software will be taken to indicate your acceptance of this agreement.

Windows: Installing the KORG USB-MIDI Driver

Please connect Pa600 to the computer via an USB cable only after having installed the KORG USB-MIDI Driver Tools.

1. Insert the included Accessory DVD into the optical drive of your Windows PC.
2. Open the folder DVD-ROM\USB-MIDI Driver\Win - KORG USB-MIDI Driver v.n.nn\ and double-click on “KORG USB-MIDI Driver Tools Setup v.n.nn.exe” to run the installer (“n.nn” meaning the version number).
3. Follow the instructions appearing on screen. At the end, the tools will be installed.
4. When installation is completed, connect the DEVICE USB port of your Pa600 to one of the USB ports of your Windows PC by using a standard USB cable. The Auto Installer will immediately start.
5. When finished, the USB-MIDI driver will be installed, and Pa600 will be able to communicate with your computer via USB.

   You can access the tools and manuals from the Start menu.
6. Restart the computer, and turn on Pa600. Connect Pa600 to the computer via an USB cable.
7. Select the following command from the task bar to open the installation instructions:

   Start > all programs > KORG > KORG USB-MIDI Driver Tools > Installation manual
8. Select the following command from the task bar to open the installation program:

   Start > all programs > KORG > KORG USB-MIDI Driver Tools > Install KORG USB-MIDI Device
9. Please follow the installation instructions appearing on-screen to install the KORG USB-MIDI Driver.

Driver’s ports

After installation, the following ports will be shown in you MIDI application (e.g., sequencer) among the other MIDI devices:

Pa600 KEYBOARD: This allows for reception of MIDI messages from the Pa600 (keyboard and controller’s data) to the MIDI application running on the computer.

Pa600 SOUND: This allows for transmission of MIDI messages from the MIDI application running on the computer, to the internal tone generator of Pa600.

Mac OS X: Installing the KORG USB-MIDI Driver

1. Insert the included Accessory DVD into the optical drive of your Mac.
2. If the DVD content does not appear on screen, double-click the DVD icon to open a window in the Finder.
3. Open the folder /USB-MIDI Driver/Mac - KORG USB-MIDI Driver v.n.nn/ and double-click on “KORG USB-MIDI Driver v.n.n.n.dmg” to open a virtual drive in the Finder (“n.n.n” meaning the version number).
4. Double-click on “KORG USB-MIDI Driver.pkg” to run the installer.
5. Follow the instructions appearing on screen.
6. When installation is completed, eject the virtual drive, and connect the DEVICE USB port of your Pa600 to one of the USB ports of your Mac by using a standard USB cable.

Driver’s ports

After installation, the following ports will be shown in you MIDI application (e.g., sequencer) among the other MIDI devices:

Pa600 KEYBOARD: This allows for reception of MIDI messages from Pa600 (keyboard and controller’s data) to the MIDI application running on the Mac.

Pa600 SOUND: This allows for transmission of MIDI messages from the MIDI application running on the Mac, to the internal tone generator of Pa600.

MIDI Data

MIDI Controllers

The following is a table including all Control Change messages, and their effect on various Pa600 functions. Note that not all controllers are available in all operative modes.

CC#	CC Name	Pa600 Function
0	Bank Select	Sound selection
1	Mod1 (Y+)	Joystick forward
2	Mod2 (Y-)	Joystick backward
3	Undef. ctl	
4	Foot ctl	
5	Port.time	
6	Data ent.	
7	Volume	Track volume
8	Balance	
9	Undef. ctl	
10	Pan Pot	Track panning
11	Expression	Expression
12	Fx Ctl 1	CC#12
13	Fx Ctl 2	CC#13
14-15	Undef. ctlþ	
16	Gen.pc.1	
17	Gen.pc.2	
18	Slider	
19	Gen.pc.4	
20-31	Undef. ctlþþ	
Control Change #32-63 are the LSB (Least Significant Bytet) of Control Change #0-31, i.e. the MSB (Most Significant Byte), and are changed according to their MSB counterparts.		
64	Damper	Damper pedal
65	Portamento	
66	Sostenuto	Sostenuto pedal
67	Soft	Soft pedal
68	Legato	
69	Hold 2	
70	Sustain level	
71	F.Res.Hp	Filter resonance
72	Release	Release time
73	Attack	Attack time
74	F.CutOff	Filter cutoff (Brilliance)
75	Decay T.	Decay time
76	Lfo1 Sp.	Vibrato speed
77	Lfo1 Dpt	Vibrato depth
78	Lfo1 Dly	Vibrato initial delay
79	FilterEgþ	
80	Gen.pc.5	Sound Controller 1
81	Gen.pc.6	Sound Controller 2
82	Gen.pc.7	
83	Gen.pc.8	
84	Port.ctl	
85-90	Undef. ctl	
91	Fx 1 depth	A/B Master FX 1 (reverb) send level
92	Fx 2 ctl	
93	Fx 3 depth	A/B Master FX 2 (modul.) send level
94	Fx 4 ctl	
95	Fx 5 ctl	
96	Data Inc	
97	Data Dec	
98	NRPN Lsb	See table below(*)
99	NRPN Msb*	See table below(*)
100	RPN Lsb	See MIDI Implementation Chart
101	RPN Msb	See MIDI Implementation Chart
102-119	Undefined ctl	
120	AllSOff	
121	Res Ctl	Reset All Controllers
122	LocalCt	
123	NoteOff	
124	OmniOff	
125	Omni On	
126	Mono On	
127	Poly On	

(*) The following NRPN messages are recognized by Pa600 in Song Play and Sequencer mode only:

NRPN	CC#99 (MSB)	CC#98 (LSB)	CC#06 (Data Entry)
Vibrato Rate	1	8	0…127(a)
Vibrato Depth	1	9	0…127(a)
Vibrato Decay	1	10	0…127(a)
Filter Cutoff	1	32	0…127(a)
Resonance	1	33	0…127(a)
EG Attack Time	1	99	0…127(a)
EG Decay Time	1	100	0…127(a)
EG Release Time	1	102	0…127(a)
Drum Filter Cutoff	20	dd(b)	0…127(a)
Drum Filter Resonance	21	dd(b)	0…127(a)
Drum EG Attack Time	22	dd(b)	0…127(a)
Drum EG Decay Time	23	dd(b)	0…127(a)
Drum Coarse Tune	24	dd(b)	0…127(a)
Drum Fine Tune	25	dd(b)	0…127(a)
Drum Volume	26	dd(b)	0…127
Drum Panpot	28	dd(b)	0…127(a)
Drum Rev Send (FX 1)	29	dd(b)	0…127(a)
Drum Mod Send (FX 2)	30	dd(b)	0…127(a)

(a). 64 = No change to the original parameter's value
(b). dd = Drum Instrument No. 0…127 (C0…C8)

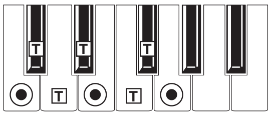
Note: *These controls are reset when stopping the Song, or choosing a new Song.*

Recognized chords

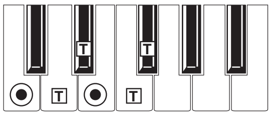
The following pages show the most important chords recognized by the Pa600, when the selected Chord Recognition mode is Fingered (see “Chord Recognition” on page 239 of the User’s Manual).

Major

3-note

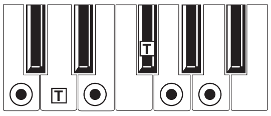


2-note

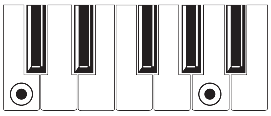


Major 6th

4-note

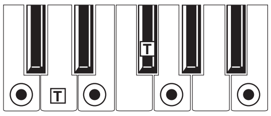


2-note

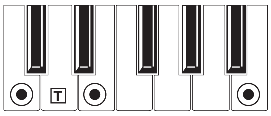


Major 7th

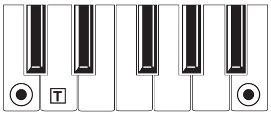
4-note



3-note

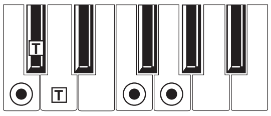


2-note

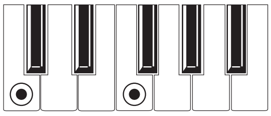


Sus 4

3-note

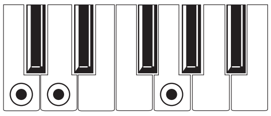


2-note



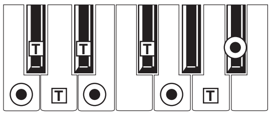
Sus 2

3-note

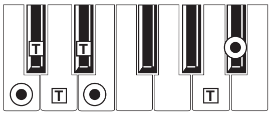


Dominant 7th

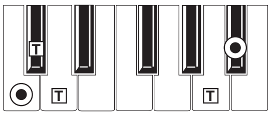
4-note



3-note

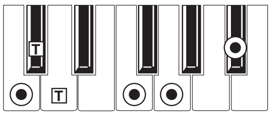


2-note

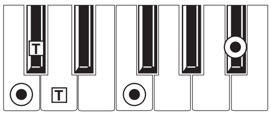


Dominant 7th Sus 4

4-note

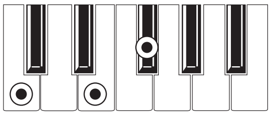


3-note



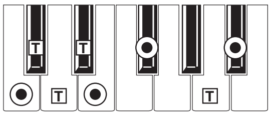
Flat 5th

3-note



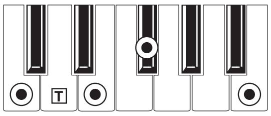
Dominant 7th ♭5

4-note



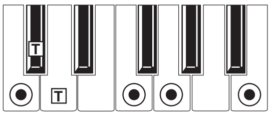
Major 7th ♭5

4-note



Major 7th Sus 4

4-note

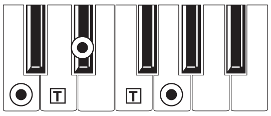


● = constituent notes of the chord

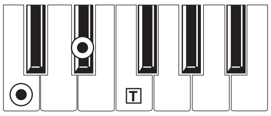
T = can be used as tension

Minor

3-note

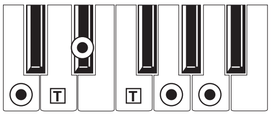


2-note



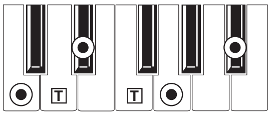
Minor 6th

4-note

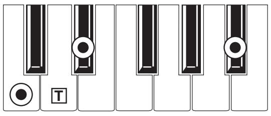


Minor 7th

4-note

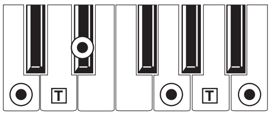


3-note

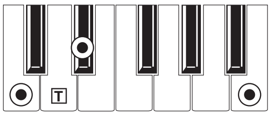


Minor-Major 7th

4-note

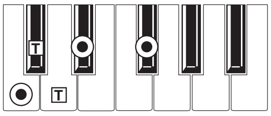


3-note



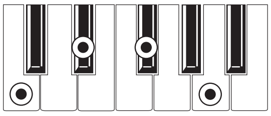
Diminished

3-note



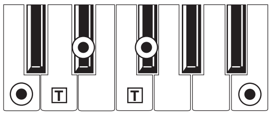
Diminished 7th

4-note



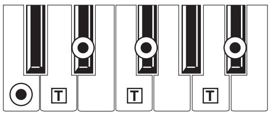
Diminished Major 7th

4-note



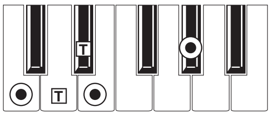
Minor 7th ♭5

4-note



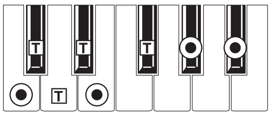
Augmented

3-note



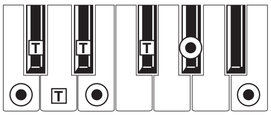
Augmented 7th

4-note



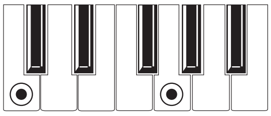
Augmented Major 7th

4-note



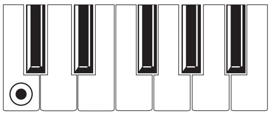
No 3rd

2-note



No 3rd, no 5th

1-note



◉ = constituent notes of the chord

T = can be used as tension

Replacing the clock backup battery

You can replace the clock backup battery with a standard lithium battery (model CR2032). **Do not use replacements different than the one supplied or suggested by KORG, or you risk to damage the instrument!** The battery can be replaced by the user. **KORG is not responsible for any data loss, damage or injury caused by incorrect installation of this part.**

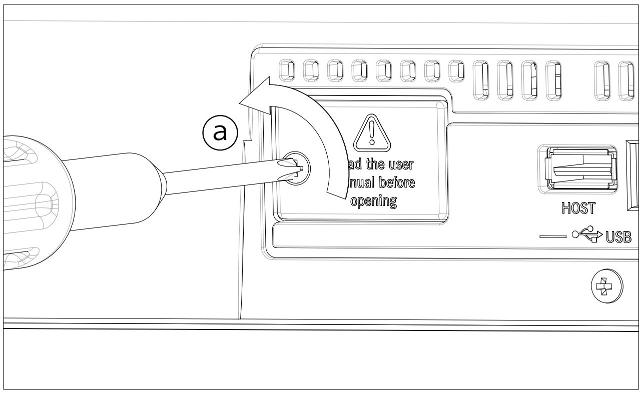
Precautions

- Installation of the battery is done at the user's own risk. KORG will assume no responsibility for any damage or injury resulting from its improper installation or use.
- Be sure to disconnect the instrument from the AC plug, before opening it.
- To prevent your body's static electricity from damaging the board's components, touch an unpainted metallic component before proceeding with the installation.

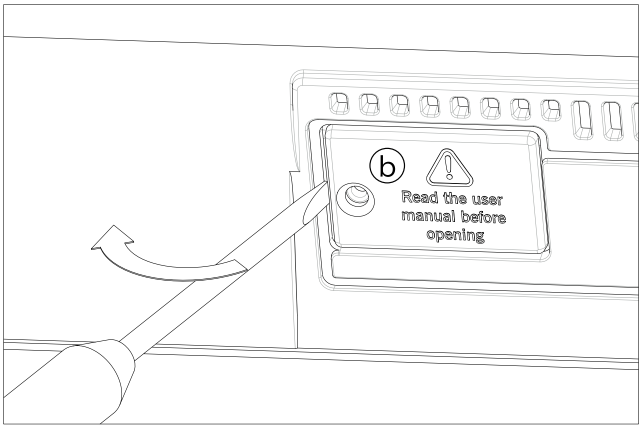
Installation

For installation, you will need a cross-point and a flatt-head screwdrivers (not supplied).

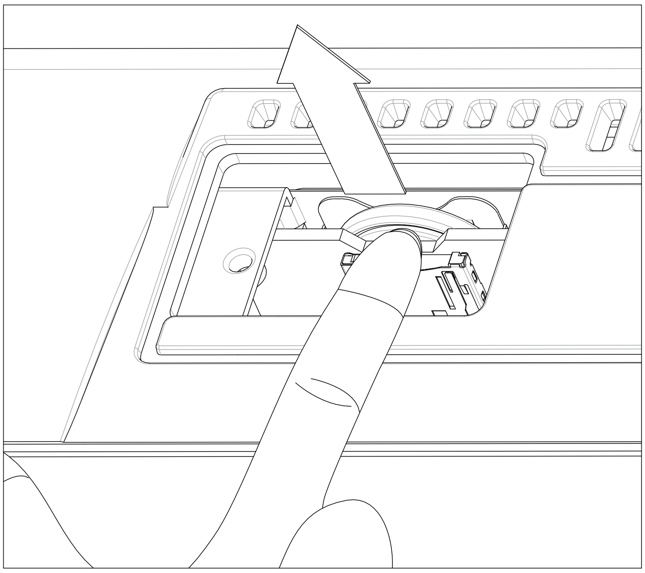
1. Disconnect the instrument from the AC power.
2. Extract the battery from its package.
3. From the back of the instrument, use the cross-point screwdriver to remove the fixing screw (a).



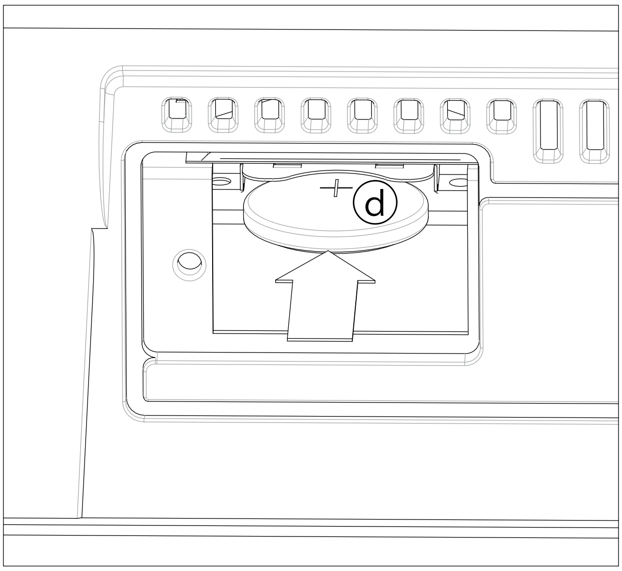
4. Use the flat-head screwdriver to open the cover (b) to gain access to the inside of the battery slot, and keep the cover apart.



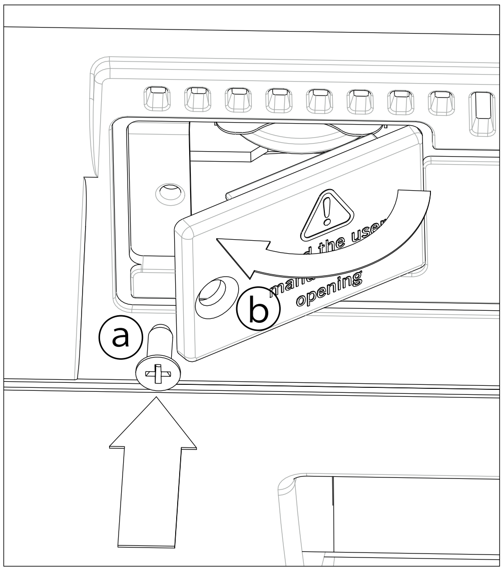
5. With the help of your fingernail, lift the exhausted battery (c) from its lower side, and remove it from the battery slot.



6. Insert the new battery (d) into the empty battery slot, being sure the positive (+) side is facing up.



7. Replace the cover (b) to the original position. Attach the cover to the back of the instrument by using the fixing screw (a).



Shortcuts

Shift functions

You can keep the SHIFT button pressed, and press another button on the control panel to directly jump to an edit page or dialog box.

Shift +	**Functions**
Various modes	
Dial	Tempo Change
Scroll Arrows	*When a list is shown:* Goes to Next/Previous alphabetical section of the currently selected column
Song Play	Selects the Global > Mode Preferences > Song & Seq page
Sequencer	Selects the Global > Mode Preferences > Song & Seq page
Sound Edit	Sends the Sound assigned to the selected track to the Sound mode
Global	Selects the Global > MIDI > General Controls page. This is a quick way to jump to MIDI editing pages.
Media	Selects the Global > Mode Preferences > Media page
Start/Stop	Panic
Style Play	Selects the Global > Mode Preferences > Style page
Accomp.	
Memory	
Fade In/Out	Selects the Fade In/Out parameter in the Global > General Controls > Basic page
Synchro	Selects the Clock Source parameter in the Global > MIDI > General Controls page
Tempo +/-	With a track selected, proportionally adjusts the volume level of all the tracks of the same type
Tempo Lock	Selects the Global > General Controls > Lock page
Metro	Selects the Metronome section of the Global > General Controls > Basic page
SongBook	Selects the SongBook > Custom List page
Transpose (either)	Selects the Global > Tuning > Transpose Controls page
Style Play mode	
Variation	Selects the corresponding Variation in the Style Play > Controls > Drum Map page
Ensemble	Selects the Ensemble Type parameter in the Style Play > Keyboard/Ensemble > Ensemble page
Pad (any)	Selects the Style Play > Pad/Assignable Switches > Pad page
Assignable Switch (any)	Selects the Style Play > Pad/Assignable Switches > Switch page
Upper Octave (either)	Selects the Style Play > Mixer/Tuning > Tuning page
Style Record mode	
Tempo+/-	*When the Sound/Expression page is shown:* Proportionally adjusts the Expression level of the Style tracks
Song Play mode	
Ensemble	Selects the Ensemble Type parameter in the Song Play > Keyboard/Ensemble > Ensemble page
Pad (any)	Selects the Song Play > Pad/Assignable Switches > Pad page
Assignable Switch (any)	Selects the Song Play > Pad/Assignable Switches > Switch page
Upper Octave (either)	Selects the Song Play > Mixer/Tuning > Tuning page
JukeBox	
>>	Play the next Song in the JukeBox list
<<	Play the previous Song in the JukeBox list
Lyrics	
Display	Load a TXT file
Sequencer mode	
Upper Octave (either)	Selects the Sequencer > Mixer/Tuning > Tuning page

Long keypress

You can keep a button pressed for about one second to directly jump to an edit page or dialog box.

Long keypress	**Functions**
Various modes	
Global	Touch Panel Calibration
Split	Opens the Split Point dialog box. Play a note to set the new Split Point.
My Setting	Opens the “Write My Setting” window
Style Play mode	
Style	Opens the “Write Current Style Settings” window
Performance	Opens the “Write Performance” window
SongBook	Create a new SongBook Entry and open the "Write Song" window (only if pressed outside the SongBook)
STS	Opens the “Write STS” window
Song Play mode	
Performance	Opens the “Write Performance” window
SongBook	Create a new SongBook Entry and open the "Write Song" window (only if pressed outside the SongBook)

Special functions

Other available shortcuts are the following ones.

Style Play mode	
Tempo +/– (together)	Original Tempo
Transpose #/b (together)	Set the Master Transpose to 0
Upper Octave +/- (together)	Set the Upper Octave to the saved setting

Troubleshooting

Problem	Solution	Page
General problems		
Power does not turn on	Make sure that (1) the power cable is plugged into the outlet, (2) the cable is plugged into the connector on the back of the instrument, (3) and is not damaged, (4) there are no problems with the mains.	
	Is the POWER LED turned on?	
	If the power still does not turn on, contact your dealer or the nearest KORG Service Center.	
Power does not turn off	Press the POWER button again and keep it pressed for a few seconds. At the end, the button's LED will turn off, and the instrument will be set to standby.	
No sound	Is the MASTER VOLUME knob of the Pa600 set to a position other than "0"?	
	Is the Spearkers parameter turned off? Turn it on.	248
	Check the connections to your amp or mixer.	
	Make sure that all the components of the amplifying system are turned on.	
	Is the Local parameter set to off? Turn it on.	246
	Is the Attack parameter value too high? Set it to a lower value, to let the sound start faster. Is the Volume parameter too low? Set it to a higher value.	101, 109
Lowest note are not played	When the SPLIT LED is turned on, the keyboard is divided into a Lower part (lower notes, below the split point) and an Upper part (higher notes, above the split point). Is the Lower track muted? Unmute it.	
Wrong sounds	Do the USER banks contain modified data? Load the appropriate data for the Song or the Style you wish to playback.	257
	Has one of the USER Drum Kits been modified? Load the appropriate Drum Kits.	257
	Have the Styles or Performances been modified? Load the appropriate data (Styles or Performances).	257
Sound does not stop	Make sure that the Damper pedal calibration is correctly set.	243
The selected Style or Song cannot start	Make sure that the Clock parameter is set to Internal. If you are using the MIDI Clock of another device, you must set the MIDI Clock parameter to MIDI or USB (depending on the port the Pa600 is hooked to the other device through) and make sure that the external device transmits MIDI Clock data.	246
Does not respond to MIDI messages	Make sure that all MIDI or USB cables are connected correctly.	284
	Make sure that the external device is transmitting through MIDI channels enabled to receive in the Pa600.	247
	Make sure that the MIDI IN Filters of the Pa600 do not prevent the reception of messages.	248
Percussive instruments are not played correctly	Make sure that the Drum track is set to Drum Mode and the external device has not transposition applied.	107, 180
Some "clicks" can be heard when playing a percussive instrument	This is part of the sound, and not a problem.	
A background noise can be heard after selecting a Performance, Style or STS	The selected Performance, Style or STS recalled the effect "17 St. Analog Record", simulating the noise of a old vinyl recording.	
Media related problems		
Cannot format a device	Is the USB cable correctly connected?	
	Is the USB device correctly powered?	
	Is the device inserted correctly?	
	Is the write protect tab of the disk or card in the protect position? Unprotect it.	
Cannot save data to a device	Is the device formatted?	266
	Is the device inserted correctly?	
	Is the write protect tab of the disk or card in the protect position? Unprotect it.	
Cannot load data from a device	Is the device inserted correctly?	
	Does the device contain data compatible with the Pa600?	254
The message "Over Current Condition Detected on USB port: please remove the USB media" appears in the display	The USB device is probably defective, due to a short circuit, and cannot be used. While this will not damage the Pa600, it is advisable to remove the device.	

Technical specifications

KORG Pa600 Features	Pa600 International	Pa600 Quarter Tone
PHYSICAL DATA		
Cabinet	Heavy-duty plastic	
Keyboard	61 keys with velocity	
SOUNDS		
Tone Generator	128 Oscillators, Three band EQ for each track, Filters with resonance, DNC (Defined Nuance Control)	
Factory Sounds	More than 950, including Stereo Piano and GM Level 1 & 2 compatible sounds; 64 Drum Kits	
User Sounds	256 Sounds, 128 Drum Kits	
Sound Edit	On-board full editing for Sounds and DrumKits	
Sampling	Load/Import of Korg, Wav, AIFF and Soundfont; Export of Wav and AIFF; Edit, Time Slice PCM User Memory: 96 MB	
Effects	4 Master Stereo Digital Multi-Effects, 125 Effect types; Mastering Limiter and Final 4-band Parametric EQ	
Keyboard Tracks	Four Keyboard tracks (Upper 1, 2, 3, Lower)	
Performances / STS	320 Performance locations, all programmable; Up to 4 STSs x Style, up to 4 x SongBook entry	
STYLES		
Factory Styles	More than 360 preloaded Styles, freely reconfigurable	
Favorite/User Styles	10 Favorite banks, plus 3 User banks, for a total of 1,120 Style locations (Factory + Favorite/User)	
Arranger Tracks	Eight Style tracks, 4 Single Touch Settings (STS), 4 Pads and one Style Settings per Style, Guitar Track Mode 2, Parallel and Fixed NTT	
Style Edit	Style Record with Step Record, Track and Event Edit functions, Import/Export SMF	
Patterns/Chord Variations	Up to 46 patterns for each Style, including 3 Intros, 4 Variations, 4 Fills, 1 Break, 3 Endings	
Style Controls	3 Intros, 4 Variations, 4 Fills, Break, 3 Endings, Auto Fill, Synchro Start/Stop, Manual Bass, Memory, Accompaniment On/Off, Single Touch	
Chord Sequencer	Realtime Style Chord Sequence Recorder	
PLAYER/SEQUENCER		
Player	Player with Song Select, Start/Stop, Home, Rewind, Fast Forward controls; Supported formats: MID, MID+G, KAR, MP3 + lyrics, MP3+G; Lyrics, Score, and Chord data can be displayed on screen; Markers; Jukebox function	
4 STS saved with the Song	In SongBook Mode	
Tracks	16	
Sequencer Edit	Record & Edit functions; SMF native format	
Backing Sequence (Quick Record)	Real Time Record - Step Record & Edit	
Lyrics/Chords	On-Screen (compatible with most popular formats); +G format supported	
Score View	On-screen	
Markers	On-screen	
SONGBOOK		
SongBook and SongBook List	Fully programmable music database, based on Styles, SMF, Karaoke, MP3 with automatic selection of Style Play and Song Play modes; User-definable custom lists; Filtering and Ordering options	
OTHER FEATURES		
MP3	MP3 Player in Song Play mode; Vocal Remover; Tempo change ±30%, Transpose -5~+6 semitones	
Quarter Tone / Arabic Scale	Programmable, with up to 4 SC Presets	Programmable, with up to 4 SC Presets; Dedicated Quarter Tone keypad
Pads	4 + Stop button	
Compatibility	i-Series: Styles (some adjustments may be needed); Pa-series: Style, Pad, Performance, Sound, PCM Sample, Song, SongBook	
Operating System	RX (Real eXperience), DNC (Defined Nuance Control), Multitasking system, Load while play feature, Upgradable, Internal clock	
DATA STORAGE		
Internal Memory	Standard	
USB Port for Memory Devices	Yes - 1 Host (2.0 Hi Speed)	
USER INTERFACE		
Display	7" 800 x 480 TFT Graphical Color Touch Screen Display	
Controls	Dial, Master Volume, Accompaniment/Player/Keyboard Volume Balance, Transpose, Octave Transpose, Ensemble, Tap Tempo/Reset, Tempo+/-, Tempo Lock, Fade In/Out	

KORG Pa600 Features	**Pa600 International**	**Pa600 Quarter Tone**
Programmable Controls	Joystick, 2 Switches, Assignable Pedal/Footswitch	
CONNECTIONS		
MIDI	IN, OUT	
USB	1 Host (2.0 Hi Speed) and 1 Device (2.0 Hi Speed); MIDI Over USB	
Outputs	2 Analog (Left/Right)	
Inputs	2 Analog (Left/Right)	
Headphone	1 jack connection	
Pedals	1 Damper, 1 Assignable Pedal/Footswitch	
Power Supply	AC - Universal Voltage	
AMPLIFICATION		
Amplification and Speakers	2 Channel Amplification System; 2x15 Watt; 2 x 100 mm Double-Cone Speakers in Bass Reflex Box	
ACCESSORIES		
Supplied Accessories	Manual, AC Power Cable, Music Stand, DVD	
OPTIONS		
USB Memory	Yes	
Volume/Expression Pedal	KORG EXP-2, KORG XVP-10, VOX V860	
Damper Pedal	KORG DS-1H	
Footswitch	KORG PS-1, PS-3	
PHYSICAL DATA		
Consumption	20 Watt	
Dimensions (W x D x H)	1030 x 378 x 127 mm / 40.55 x 14.88 x 5.00 inch without music stand	
Weight	9.74 kg / 21.47 lbs	9.8 kg / 21.61 lbs

Specifications and appearance are subject to change without notice for improvement.

MIDI Implementation Chart

KORG Pa600
OS Version 1.1 - April 01, 2013

Function		Transmitted	Recognized	Remarks	
Basic Channel	Default	1–16	1–16	Memorized	
	Changed	1–16	1–16		
Mode	Default		3		
	Messages	X	X		
	Altered	***************			
Note Number:		0–127	0–127		
	True Voice	***************	0–127		
Velocity	Note On	O 9n, V=1–127	O 9n, V=1–127		
	Note Off	O 8n, V=0–127	O 8n, V=0–127		
Aftertouch	Poly (Key)	O	O	Player data only	*1
	Mono (Channel)	O	O	Player data only	*1
Pitch Bend		O	O		
Control Change	0, 32	O	O	Bank Select (MSB, LSB)	*1
	1, 2	O	O	Modulations	*1
	6	O	O	Data Entry MSB	*1
	38	O	O	Data Entry LSB	*1
	7, 11	O	O	Volume, Expression	*1
	10, 91, 93	O	O	Panpot, A/B Master FX Send	*1
	64, 66, 67	O	O	Damper, Sostenuto, Soft	*1
	65, 5	O	O	Portamento On/Off, Portamento Time	*1
	71, 72, 73	O	O	Harmonic Content, EG time (Release, Attack)	*1
	74, 75	O	O	Brightness, Decay Time	*1
	76, 77, 78	O	O	Vibrato Rate, Depth, Delay	*1
	80, 81	O	O	Sound Controller (1, 2)	*1
	98, 99	O	O	NRPN (LSB, MSB)	*1, 2
	100, 101	O	O	RPN (LSB, MSB)	*1, 3
	120, 121	X	O	All sounds off, Reset all controllers	*1
Program Change		O 0–127	O 0–127		*1
	True #	***************	0–127		
System Exclusive		O	O		*4
System Common	Song Position	X	X		
	Song Select	X	X		
	Tune	X	X		
System Real Time	Clock	O	O		*5
	Commands	O	O		*5
Aux Messages	Local On/Off	X	X		
	All Notes Off	X	O (123-124)		
	Active Sense	O	O		
	Reset	X	X		
Notes	*1: Sent and received when MIDI Filters In and Out are set to Off in Global mode. *2: Sound parameters, Selection of SongBook entries, Drum Kit Family settings. *3: LSB, MSB = 00,00: Pitch Bend range, =01,00: Fine Tune, =02,00: Coarse Tune. *4: Includes Inquiry and Master Volume messages, FX settings, Quarter Tone settings. GM Mode On. *5: Transmitted only when the Clock Send parameter (Global mode) is set to on.				

Mode 1:OMNI ON, POLY   Mode 2:OMNI ON, MONO   O: Yes
Mode 3:OMNI OFF, POLY   Mode 4:OMNI OFF, MONO   X: No

Index

A

AIFF file format 229
Amp EG 211
AMS(Alternate Modulation Source)
    Amp EG 211
    Filter Cutoff 206
    Filter EG 206
    Filter LFO 206
    Pan 209
    Pitch 201
    Pitch EG 203
    Resonance 204
Arabic Scale 100, 104
Attack Level
    Amp EG 211
Attack Time
    Filter EG 208
Audio Outputs 19
Auto Style/Perf/Sound Select 235

B

Backup 7
Balance (Keyboard/Style or Ply) 9, 19
Bank Select 287
Bass & Lower Backing 240
BPM
    MIDI/Tempo Sync., LFO 213

C

Chord Scanning
    Lock 237
Contrast 13, 14
Cutoff Frequency 204

D

Damper 20, 112
Decay Time
    Filter EG 208
Delay
    LFO 212
Display contrast 13, 14
Double Player 12
Drum tracks 108, 113

E

Effects
    Copy 115, 164, 187, 214
    Sequencer mode 178, 179
    Song Play mode 159, 161
    Style Play mode 102, 106, 179
Ending 12
Ensemble 111

F

Fade (Sound parameter)
    LFO 212
Fade In/Out 234
Favorite Styles 117
Filter
    Cutoff Frequency 204
    Filter Type 204
Filter Cutoff 206
Filter EG 206
Filter LFO 206
Footswitch 242
Format 266

G

General MIDI 285
Global 233–252
Global channel 285

I

Intro 12

J

Jukebox 158, 162

K

Keyboard Mode (Split) 15
    Lock 237
KMP file format 229
KSF file format 229

L

Level (Sound parameter)
    Trim 204
LFO
    Waveform, LFO waveform 212
Local Off 246, 287
Lower Lock 237

M

Markers 283
Master Transpose 16, 243
Master Tune 243
Master Volume 19
Media 253–270
    Format 266
Menu 14
MIDI
    Clock 153, 246
    General MIDI 285

  - Global channel 285
  - IN channels 247
  - Interface 287
  - OUT channels 247
  - Preset 245, 285
  - Standard MIDI File 153, 165
- MIDI interface 287
- MIDI Preset 245, 285
  - Write 251
- Midifile 153, 165, 285
- Mode
  - Sampling 218–232
  - Sequencer 165–188
  - Song Play 153–155
  - SongBook 271–279
  - Sound 189–217
  - Style Play 94–117
  - Style Record 118–152
- MP3 155, 162, 271, 280

O

- Octave Transpose 16, 104
  - Auto Octave 236
  - Midi In 246
- Offset
  - Offset, LFO 212
- Operating Modes 10
- OS (Operating System)
  - Backup 7
  - Update 7
- Outputs 19

P

- Pads 11, 112, 113
- Pan
  - Pads 112
  - Sound 200, 209
  - Style tracks 102
- PANIC (SHIFT+START/STOP) 13
- PCG file format 229
- Pedals 242
- Performance 94
  - Selecting 90
  - Writing 115
- Pitch 201
- Pitch Bend 104, 179
- Pitch EG 203
- Player
  - Transport controls 12
- Portamento
  - AMS 216
- Program Change 287

Q

- Quarter Tone 100, 104

R

- Resonance 204
- RX 185

S

- Sampling 218–232
- Sampling mode 218–232
- Scale
  - Main scale 244
- Sequencer mode 165–188
- Shift 14
- Single Touch 11, 14
- Single Touch Setting (STS) 14
  - Selecting 14, 91
  - Writing 116
- Song
  - Markers 283
  - Play from disk 91, 187
  - Recording 167–177
  - Selecting 91, 187
  - Standard MIDI File 285
- Song Play mode 153–155
- SongBook 271–279
- Sound
  - Editing 109, 162, 180
  - Selecting 89
  - Writing 215
- Sound mode 189–217
- Split (Keyboard Mode) 15
  - Lock 237
- Split Point 100, 285
- Standard MIDI File 153, 165, 285
- STS, *See* Single Touch Setting
- Style
  - Ending 12
  - Intro 12
  - Recording 118–152
  - Selecting 12, 88
  - Style Settings 94
  - Variation 12
- Style Play mode 94–117
- Style Record mode 118–152
- Style Settings
  - Selecting, see Style
  - Writing 116
- Sync.
  - Key Sync., LFO 212
  - MIDI/Tempo, LFO 213
- Synchro Start/Stop 13

T

- Tap Tempo 13
- Tempo/Value section 15
- Touch Panel
  - Calibration 250

Track Select 13
Tracks
  Drum/Percussion 108, 113
  Keyboard tracks 94, 154
  Octave Transpose 16
  Volume 101, 159, 178
Transpose 16, 104
  Auto Octave 236
  Midi In 246
Trinity 218, 229
Triton 218, 229
Tune
  Tune (Sound parameter) 193

U

Upper Volume Link 101
USB 268

V

Variation 12
Velocity
  AMS 216
  Velocity Intensity, Amp Mod. 210
  Velocity, Filter EG 205
Velocity Curve 242
Volume
  Balance 94, 153
  Balance (Keyboard/Style or Ply) 9, 19
  Individual tracks
    Sequencer 178
    Song Play 159
    Style Play 101
  Master 19, 94, 153

W

WAVE file format 229

Address
KORG ITALY SpA
Via Cagiata, 85
60027 Osimo (AN)
Italy

Web
www.korg.com

© KORG Italy 2018. All rights reserved