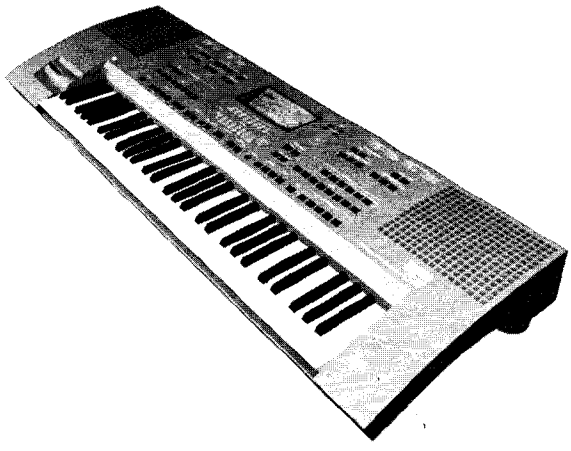
KORG

iS40
iS50

Interactive Music Workstation



User's Guide

AI2 Synthesis System

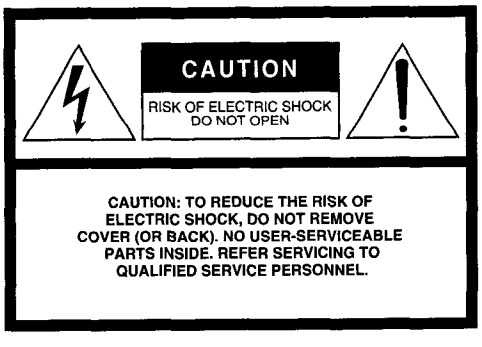
GENERAL MIDI

IMPORTANT SAFETY INSTRUCTIONS

WARNING — When using electrical products, basic precautions should be followed, including the following:

1. Read all the instructions before using the product.
2. Do not use this product near water — for example, near a bathtub, washbowl, kitchen sink, in a wet basement, or near a swimming pool, or the like.
3. This product should be used only with the cart or stand that is recommended by the manufacturer.
4. This product, either alone or in combination with an amplifier and headphones or speakers, may be capable of producing sound levels that could cause permanent hearing loss. Do not operate for a long period of time at a high volume level or at a level that is uncomfortable. If you experience any hearing loss or ringing in the ears, you should consult an audiologist.
5. The product should be located so that its location or position does not interfere with its proper ventilation.
6. The product should be located away from heat sources such as radiators, heat registers, or other products that produce heat.
7. The product should be connected to a power supply of the type described in the operating instructions or as marked on the product.
8. The power-supply cord of the product should be unplugged from the outlet when left unused for a long period of time.
9. Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
10. The product should be serviced by qualified personnel when:
    A. The power-supply cord or the plug has been damaged; or
    B. Objects have fallen, or liquid has been spilled into the product; or
    C. The product has been exposed to rain; or
    D. The product does not appear to operate normally or exhibits a marked change in performance; or
    E. The product has been dropped, or the enclosure damaged.
11. Do not attempt to service the product beyond that described in the user-maintenance instructions. All other servicing should be referred to qualified service personnel.

SAVE THESE INSTRUCTIONS



The lightning flash with the 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.

GROUNDING INSTRUCTIONS

This product must be grounded (earthed). If it should malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This product is equipped with a cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with the local codes and ordinances.

DANGER – Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or serviceman if you are in doubt as to whether the product is properly grounded. Do not modify the plug provided with the product – if it will not fit the outlet, have a proper outlet installed by a qualified electrician.

THE FCC REGULATION WARNING

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.

CANADA

THIS APPARATUS DOES NOT EXCEED THE "CLASS B" LIMITS FOR RADIO NOISE EMISSIONS FROM DIGITAL APPARATUS SET OUT IN THE RADIO INTERFERENCE REGULATION OF THE CANADIAN DEPARTMENT OF COMMUNICATIONS.

LE PRESENT APPAREIL NUMERIQUE N'EMET PAS DE BRUITS RADIOELECTRIQUES DEPASSANT LES LIMITES APPLICABLES AUX APPAREILS NUMERIQUES DE LA "CLASSE B" PRESCRITES DANS LE REGLEMENT SUR LE BROUILLAGE RADIOELECTRIQUE EDICTE PAR LE

CE mark for European Harmonized Standards

CE mark which is attached to our company's products of AC mains operated apparatus until December 31, 1996 means it conforms to EMC Directive (89/336/EEC) and CE mark Directive (93/68/EEC).

And, CE mark which is attached after January 1, 1997 means it conforms to EMC Directive (89/336/EEC), CE mark Directive (93/68/EEC) and Low Voltage Directive (73/23/EEC).

Also, CE mark which is attached to our company's products of Battery operated apparatus means it conforms to EMC Directive (89/336/EEC) and CE mark Directive (93/68/EEC).

IMPORTANT NOTICE FOR THE UNITED KINGDOM

Warning-THIS APPARATUS MUST BE EARTHED

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug,proceed as follows:

- the wire which is coloured green and yellow must be connected to the terminal in the plug which is marked with the letter E or by the earth symbol ⏚,or coloured green or green and yellow.
- the wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.
- the wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured

Data Handling

Data in memory may sometimes be lost due to incorrect user action. Be sure to save important data to floppy disk. Korg will not be responsible for damages caused by data loss.

LCD Display

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

Trademarks

Macintosh is a registered trademark of Apple Computer, Inc. MS-DOS and Windows are registered trademarks of Microsoft Corporation. All trademarks or registered trademarks are the property of their respective holders.

Disclaimer

The information contained in this manual has 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 eventual differences found between the specifications and the contents of the instruction manual - the 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.

Useful addresses

For service, please refer to your local retailer or your nearest Korg Authorized Service Center.

Korg.net offers useful assistance to the Korg users. You can reach to the following address:

Korg.net, via Camerano 19, 60022 Castelfidardo (An), Italy
phone (071) 7819133, fax (071) 7819134, e-mail "info@korg.net".

- Home page Korg.net: "http://www.korg.net"
- Home page Korg Italy: "http://www.korg.it"
- Home page Korg Inc.: "http://www.korg.com"

How to...

Demo

Arrangements and automatic accompaniments

Programs (single sounds)

Standard MIDI Files (SMF, Songs)

Disk

MIDI

Contents

GETTING STARTED

Introduction

Thank you for having chosen the Korg iS40/iS50, the interactive music keyboard created for even the most demanding musicians! Given the legendary Korg sound and the more sophisticated automatic accompaniment functions, the iS40/iS50 is the ideal instrument for those who play professionally and those who play just for pleasure.

The iS40/iS50 is not only a keyboard with great sounds, great design and easy to use, it is also a flexible instrument that allows you to read and save Standard MIDI Files, program new arrangements, create new sounds. On the whole, it is a complete instrument which enhances the musician's creativity!

We wish you years and years of great music with the iS40/iS50!

User's guide

The quickest and easiest way to obtain the best from your new instrument is to read the instruction guide. This guide is divided into two parts:

Getting Started - For those who want to start playing straight away without too much theory. For the lazier musicians we have dedicated the "Handbook".

Reference - This is a more detailed look at the instrument and is for those who want to exploit all its potentiality to the full and become a real music programmer.

Safety instructions

Before turning the instrument on, read carefully the "Safety Instructions" on the inside cover. Done that? Then let's make way for the music!

Before you begin...

Check the accessories included

The following accessories are supplied with the instrument. Check that you have all of them and if any are missing contact your retailer.

√ **User's guide**

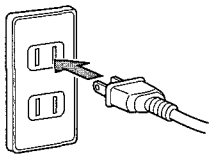
√ **Floppy disk "Accessory Disk"**

√ **Music stand**

√ **Power cable**

Getting ready to play

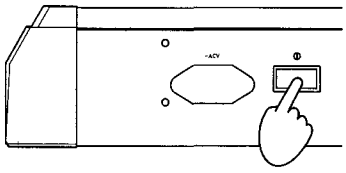
Connecting the power cable



- **Plug the power cable into the power socket.**

  Make sure that the voltage is suitable for the instrument (the voltage is indicated next to the AC power inlet).

Turning on the power



- **Press the POWER switch to turn the instrument on.**

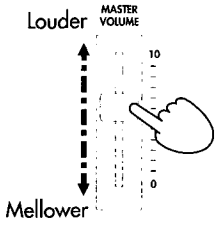
  On turning on, the instrument will be in the Arrangement Play mode. If you are connected to an external amplifying system, turn the diffusers on only after having switched on the iS40/iS50.

- **To turn the instrument off, press the POWER switch again.**

  In order to save on electricity, turn the instrument off when you are not using it. Do not turn the power off while the disk indicator is lit or while a message such as "Loading", "Saving" or "Formatting" is on the LCD display.

NB: When the instrument is turned off, all the data contained in the RAM memory will be lost (e.g. backing sequence and song). On the contrary, USER styles, USER arrangements and USER programs are retained.

Adjusting the volume



- **Raise the MASTER VOLUME slider to about middle position.**

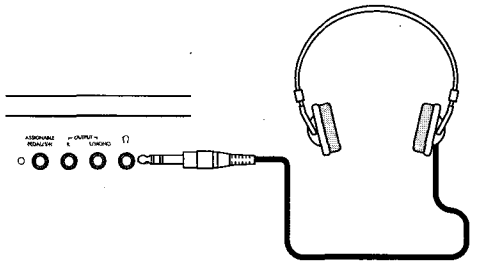
  Moving the slider upward towards "10" will increase the volume, and moving it downward towards the "0" will decrease the volume. In the "0" position the instrument will be mute.

  If you are connected to an external amplifying system, you should at this point, turn the volume of the diffusers up and then adjust both the volume of the iS40/iS50 and that of the diffusers.

  The MASTER VOLUME slider controls the volume of the speakers, the headphones and the OUTPUT jacks located on the rear panel.

Warning: At higher volumes, the sound can be distorted.

The headphones



- **Connect the stereo headphones (with a 1/4" jack plug) to the PHONES jack located on the rear panel.**

  Adjust the volume with the MASTER VOLUME slider.

The music stand

- **Insert the music stand (included with the instrument) in the holes in the rear panel.**

  Make sure it is stable.

1. Handbook

(Note: The image at the bottom of this page is of the iS40's Control Panel. The iS50 is slightly different.)

Basic functions

How to start the automatic accompaniment

Press the ARR PLAY button **[1]**.

How to choose an arrangement

If you are not already in the Arrangement Play mode, press ARR PLAY **[1]**. In the section ARRANGEMENT **[2]** press the button of the bank (A, B or USER), then press the number buttons to choose a number between 11 and 88.

Example: To choose the "Mazurka" arrangement (number 85 of bank A) press in succession A, 8, 5.

How to get an accompaniment going

Press START/STOP **[3]**. Or press SYNCHRO-START **[4]** (or SYNCHRO START/STOP in the iS50) and play a chord with your left hand.

How to stop the accompaniment

Press START/STOP **[3]**.

How to change the tempo

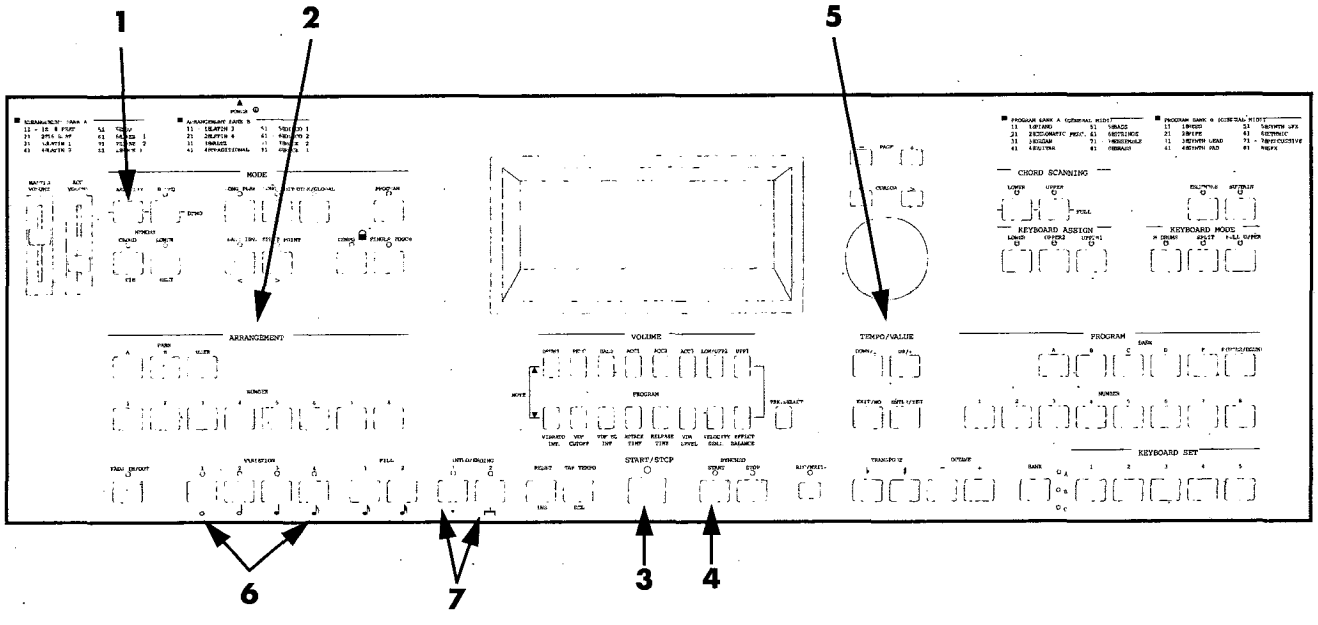
Move the cursor to the "Tempo" parameter (♩=120). When the display shows the TEMPO label, change the tempo with the buttons of the TEMPO/VALUE **[5]** section. To go faster press UP/+, to slow down DOWN/-. In the iS40, the DIAL has the same function as the TEMPO/VALUE keys.

How to choose the variation of the arrangement

The four buttons of the VARIATION **[6]** section, enable you to choose each of the variations of the "style" played by the arrangement. Press one of the buttons to choose one of the variations.

How to use intro and ending

If the accompaniment is playing, press one of the two buttons of the INTRO/ENDING **[7]** section to make an ending play. If the accompaniment is not playing, press one of the two buttons to "book" an intro, then make the automatic accompaniment play: press START/STOP, or press SYNCRO START (SYNCHRO START/STOP in the iS50) and play a chord with your left hand.



How to select a track

Use the VOLUME **[8]** buttons to select the tracks. Each pair of buttons corresponds to the track indicated above them. Briefly press one of the buttons to select the corresponding track.

Tracks Upper 2 and Lower can be selected alternatively. It is not possible to activate both Upper2 and Lower at the same time.

Tracks Upper 2 and Lower are selected by the same pair of buttons LOW/UPP2. In order to select Upper 2 track, press one of the LOW/UPP2 buttons and activate UPPER 2 in the KEYBOARD ASSIGN **[9]** section. To select Lower track activate the SPLIT in the KEYBOARD MODE **[10]** section, press one of the LOW/UPP2 buttons and activate LOWER in the KEYBOARD ASSIGN section.

How to choose a sound

The basic sounds of the iS40/iS50 are called "programs". The programs are split into six banks (A, B, C, D, E, F-USER/DRUM), each of which has 64 programs. Banks A and B contain the General MIDI sounds.

Select the track you want to assign a program to. In the PROGRAM **[11]** section, press the button of the bank (A, B, C, D, E, or F-USER/DRUM), then press two number buttons to choose a number between 11 and 88.

Example: To assign the **Harmonica** program to the Upper 1 track (program number 37 in bank A) press one of the UPP1 buttons in the VOLUME section, then press in succession A, 3, 7 in the PROGRAM section.

In Program mode, you can select a program with the TEMPO/VALUE buttons (or the DIAL).

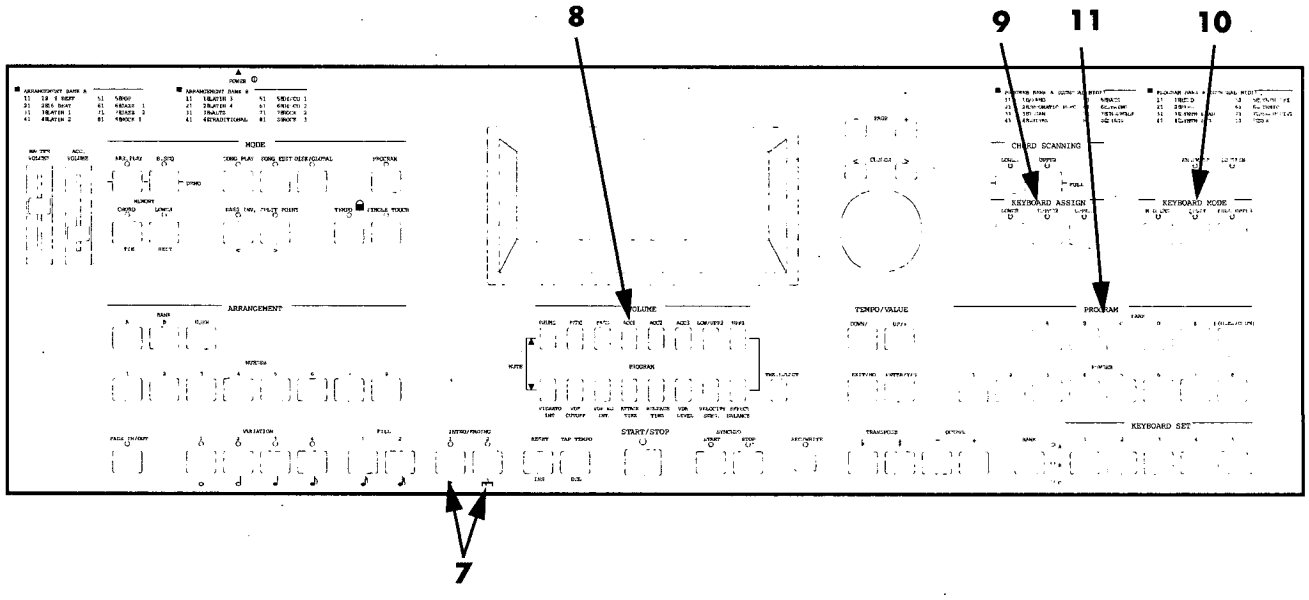
How to mute a track

In the VOLUME **[8]** section, press together the two buttons of the track to be muted. You can mute the Upper 1, Upper 2 and Lower tracks using the buttons in the KEYBOARD ASSIGN **[9]** section (unlit led=track in mute).

Example: To mute the drums, press together the two DRUMS buttons. To make the track play again, press one of the two buttons, or both buttons together once more.

How to mix tracks

To individually adjust the volume of each track, both accompaniment and keyboards, use the pair of buttons in the VOLUME **[8]** section. Press the top button to raise the volume, the lower button to decrease it.



Transposition

How to transpose the sounds of the keyboard by an octave

To transpose the keyboard (track Upper 1, or the selected track) by an octave higher or lower use the buttons in the OCTAVE **[12]** section. The [+] button transposes an octave higher, while the [-] transposes an octave lower. To cancel the transposition press the two buttons together.

How to transpose the sounds of the keyboard by semitones

To transpose the whole instrument by a semitone (or by some semitones) use the buttons in the TRANSPOSE **[13]** section. Each time the [♯] is pressed, it transposes a semitone higher, while the [♭] button transposes a semitone lower. To cancel the transposition press the two buttons together.

Note: When the accompaniment is playing, transposition will occur on the next measure.

Keyboard and sounds

How to play a tone on the whole keyboard

The buttons in the KEYBOARD ASSIGN **[9]** section turn on or off the tracks of the keyboard (Upper 1, Upper 2, Lower), whereas the buttons in the KEYBOARD MODE **[10]** section are used to choose the way the tracks are placed on the keyboard. To play a sound on the whole keyboard, press FULL UPPER in the KEYBOARD MODE **[10]** section, then UPPER 1 in the KEYBOARD ASSIGN **[9]** section.

(As an alternative, you can press the PROGRAM button, to enter the Program operative mode.)

How to play two tones together on the keyboard

First press FULL UPPER in the KEYBOARD MODE **[10]** section, then press UPPER 1 and UPPER 2 together in the KEYBOARD ASSIGN **[9]** section.

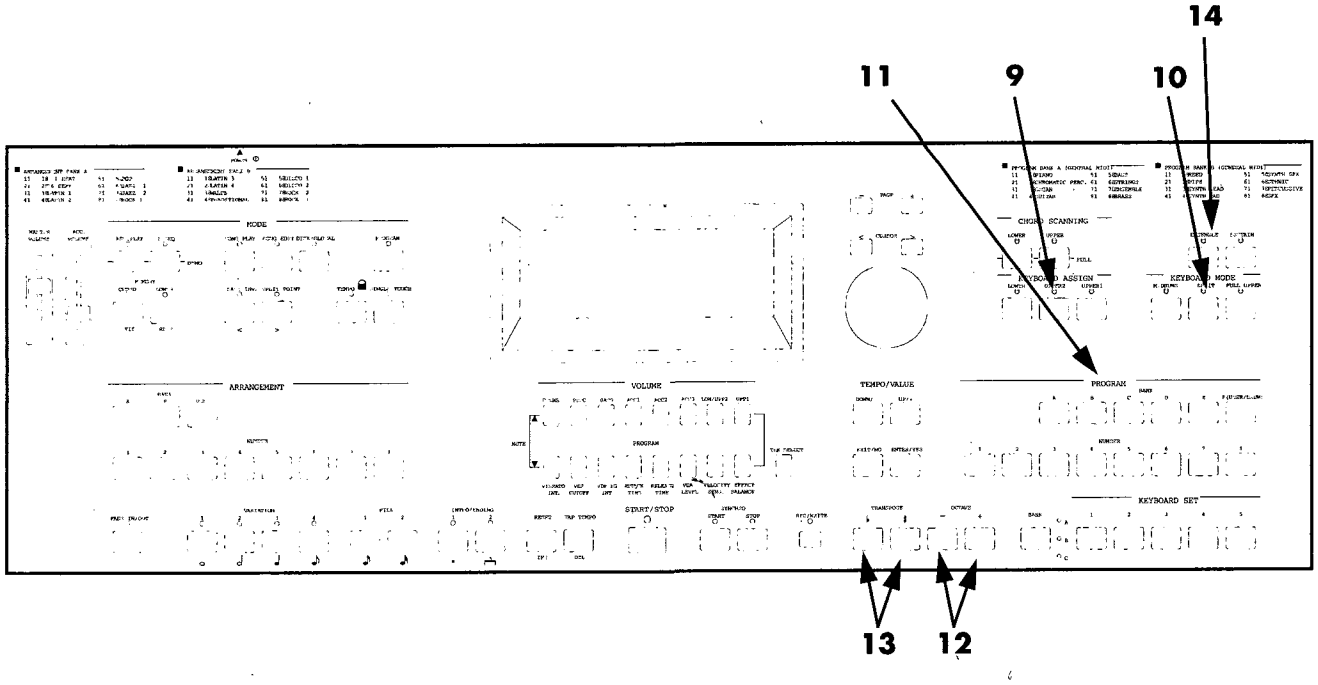
How to split the keyboard between two sounds

The button SPLIT in the KEYBOARD MODE **[10]** section is used to split the keyboard into a lower part (Lower) and a higher part (Upper). To split the keyboard press SPLIT, then press UPPER 1 and LOWER in the KEYBOARD ASSIGN **[9]** section to have a right hand sound and a left hand sound.

If the program at the left hand is too low, transpose it by an octave using the OCTAVE [+] button.

How to play the drums on the keyboard

Press M.DRUMS in the KEYBOARD MODE **[10]** section. To choose a drum program, press F(USER/DRUM) twice in the PROGRAM **[11]** section, to make the "Dr" abbreviation appear on the display, then select the number of the drum program by pressing two number buttons in the PROGRAM section. You can select drum programs between 11-18 and 21-28. Programs 27 and 28 are USER drum programs.



How to play a right handed ensemble

Press ENSEMBLE **[14]**, then play a left handed chord and a right handed melody. To turn off the ensemble, press ENSEMBLE again to switch the led light off.

Sequencer

How to playback a Standard MIDI File (SMF)

Insert the disk containing the Standard MIDI File to be played back, into the disk drive. Press SONG PLAY in the MODE **[15]** section. Use the buttons in the TEMPO/VALUE **[5]** section to choose the song to be used, then press START/STOP **[3]** to begin playback. Press START/STOP again to stop playback.

How to playback all the Standard MIDI Files contained in one disk

Insert the disk containing the Standard MIDI File to be played back, into the disk drive. Press SONG PLAY on the MODE **[15]** section. Press START/STOP **[3]** to begin playback of all the pieces contained in the disk. The pieces are played back in the same order as they appear on the disk. Press START/STOP again to stop playback.

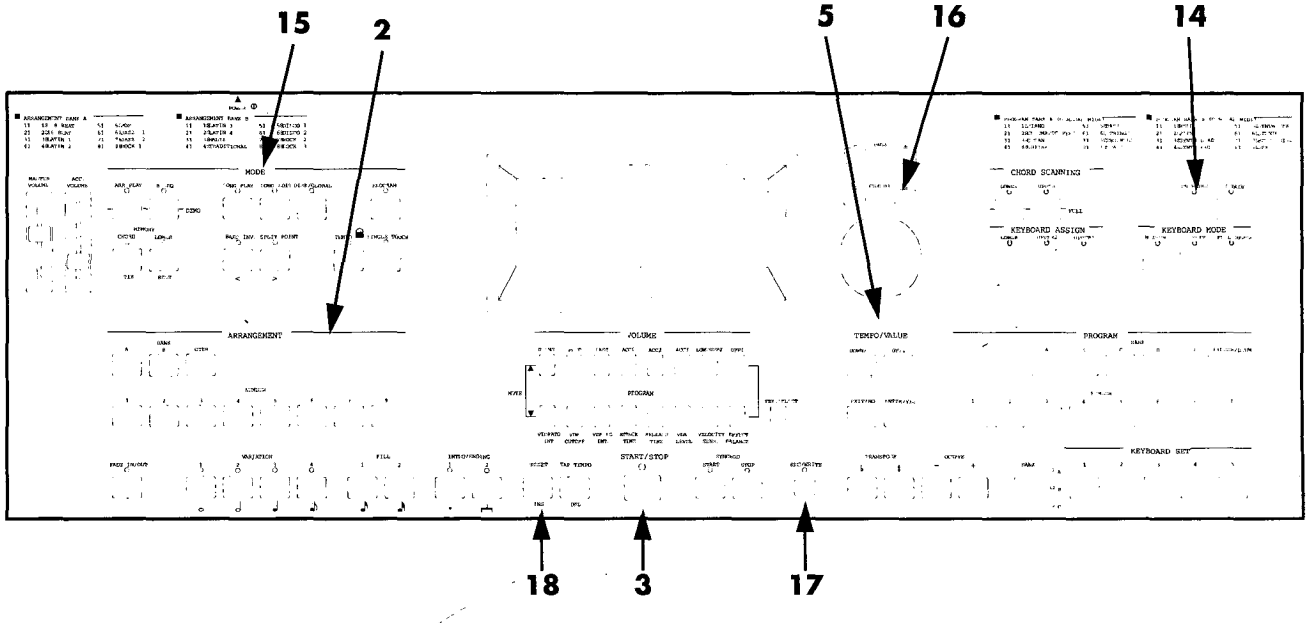
How to isolate a track

While you are in the Song Play or Song Edit modes, you can adjust the volume on all the tracks, except for the one selected, with the ACC VOLUME cursor.

How to record a new piece

Switch on the Backing Sequence mode by pressing B.SEQ in the MODE **[15]** section. Select an arrangement with the buttons in the ARRANGEMENT **[2]** section. Press REC/WRITE **[17]** to enter the recording mode. Press START/STOP **[3]** and wait for an initial two measure count (pre-count), then play as if you were playing normally with the arrangements. At the end of the piece press START/STOP to stop the sequencer.

To listen to the piece you have just performed, press START/STOP to begin the playback.



Disk

How to load a file from a disk

Note: The iS40/iS50 incorporates a new type of disk drive, that you can't hear "click" when the disk is inserted into place.

The disk supplied with the instrument contains files that can be loaded into the USER banks. Insert a disk into the drive. Press DISK/GLOBAL in the MODE **[15]** section to access the "Disk" page. While (LOAD) is selected, press ENTER/YES to access the "Load" subpage.

While (ALL) is selected, press ENTER/YES to access the "Load All" subpage. At this point the ALL files are selected, press ENTER/YES to view the ALL files contained in the disk.

Use the TEMPO/VALUE **[5]** buttons to run through the contents of the disk. When the name of the file you wish to load appears on the display, press ENTER/YES to load it. All files can contain styles, arrangements and programs for USER banks. They can also contain backing sequences, songs and keyboard sets.

How to format a disk

Before saving data on a disk, you need to format the disk in a format that is recognizable by the instrument. The format is compatible with MS-DOS, therefore it is the same as formatting a disk on a DOS, Windows, or Macintosh computer equipped with PC-Exchange or an equivalent.

To directly format the disk with the iS40/iS50, take a 3.5" HD "blank" disk (new and never used before) or a disk with data that you do not mind losing. The disk must be unprotected, that is it must have only one visible hole. If you can see two holes the disk is protected and you need to remove the plastic flap to open up the closed hole.

Do not use the disks that are supplied with the iS40/iS50, otherwise you will lose the data contained on them!

Insert the disk you wish to format in the drive, press DISK/GLOBAL in the MODE **[15]** section. Select the (UTIL) option using the CURSOR buttons and press ENTER/YES to access the "Utilities" subpage. Select (FORMAT) with the CURSOR buttons, and press ENTER/YES to begin formatting. The message "Format?" or "Continue?" will appear, confirm by pressing ENTER/YES again.

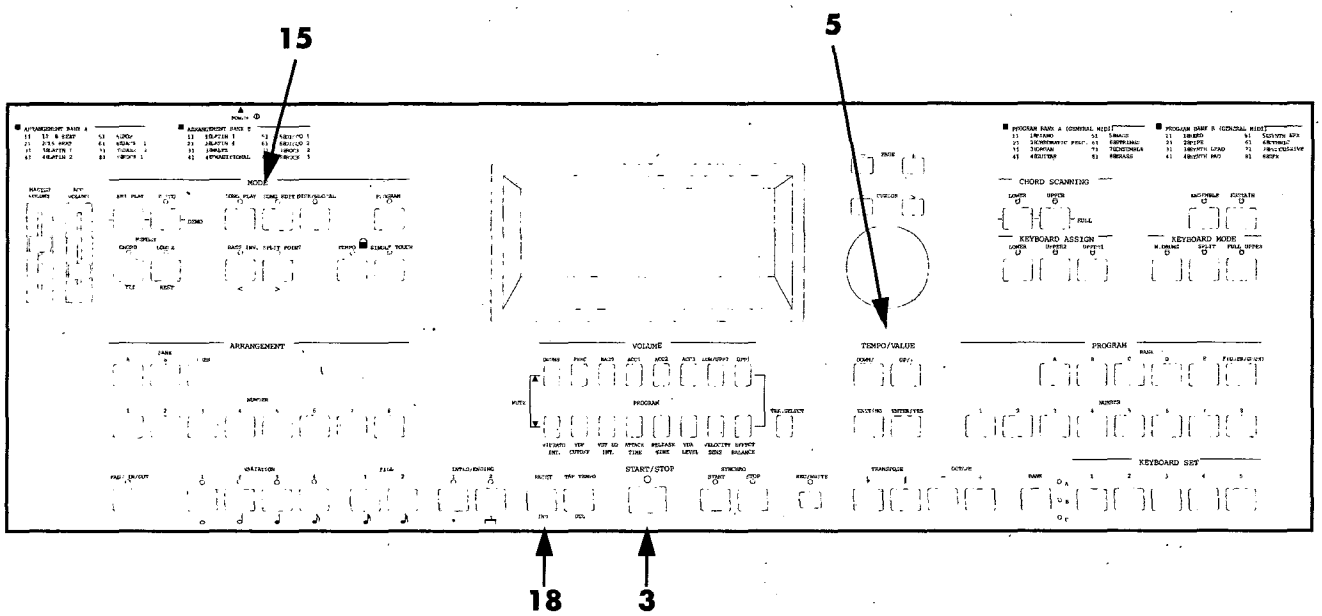
In a couple of minutes the disk will be formatted and on the display the message "Completed" will appear.

How to save the contents of memory on disk

Insert a formatted disk into the disk drive. Press DISK/GLOBAL to access the "Disk" page. Select (SAVE) using the CURSOR buttons, and press ENTER/YES to access the "Save" subpage. Select (ALL) using the CURSOR buttons, and press ENTER/YES to give the new file a name.

The name of the file you wish to save will appear (the name is "NEW_FILE" before it is modified). Select the character you wish to modify with the CURSOR buttons, and choose a character with the TEMPO/VALUE buttons (or the DIAL). Once you have assigned a name, press ENTER/YES twice in order to save the file.

Do not assign the same name of an existing file on disk to the new file, otherwise the former will be erased!



Arabic scale

How to program the EC5 or a pedal

The iS40/iS50 is normally tuned with equal temperament. You can assign the switching between equal temperament and a programmed sub scale, like the Arabic scale, to a pedal or the EC5 controller.

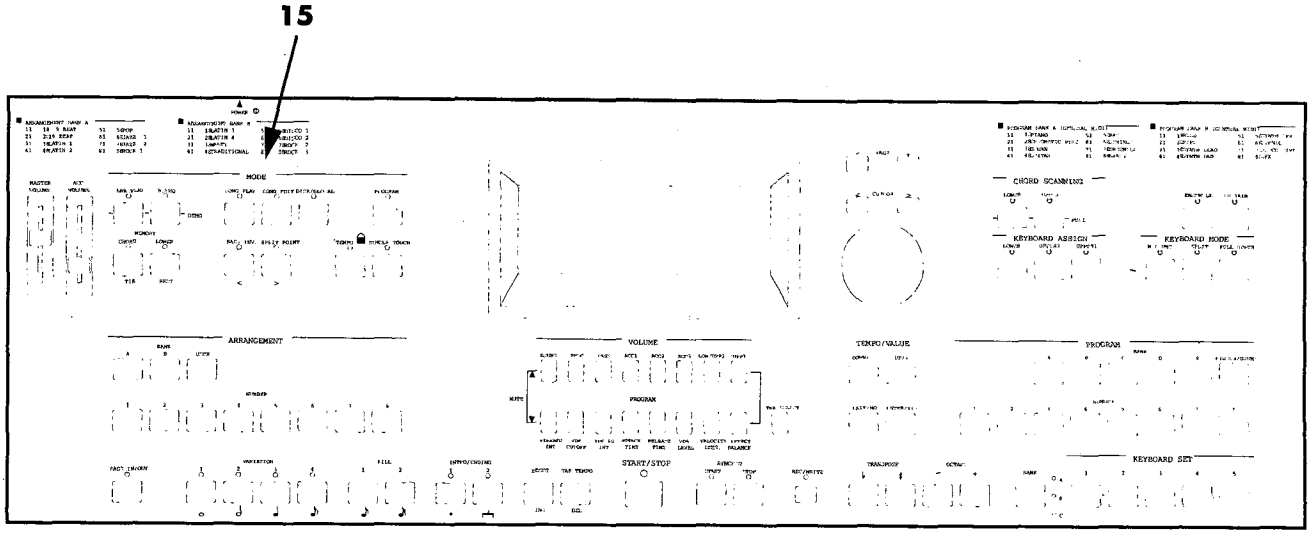
Connect a footswitch to the ASSIGNABLE PED/SW connector, or the KORG EC5 controller to the EC5 connector of the iS40.

Press DISK/GLOBAL in the MODE **[15]** section. Press repeatedly PAGE+ until you get to page 8 (for the pedal) or page 9 (for the EC5). With the TEMPO/VALUE buttons, choose the SCALE CHANGE option.

Press PAGE+ a few times to get to "Page 14. Sub Scale". With the TEMPO/VALUE buttons, choose the ARABIC option. The note "Key" will indicate the type of Arabic scale. Press ARR. PLAY in the MODE **[15]** section to get back to the Arrangement Play mode.

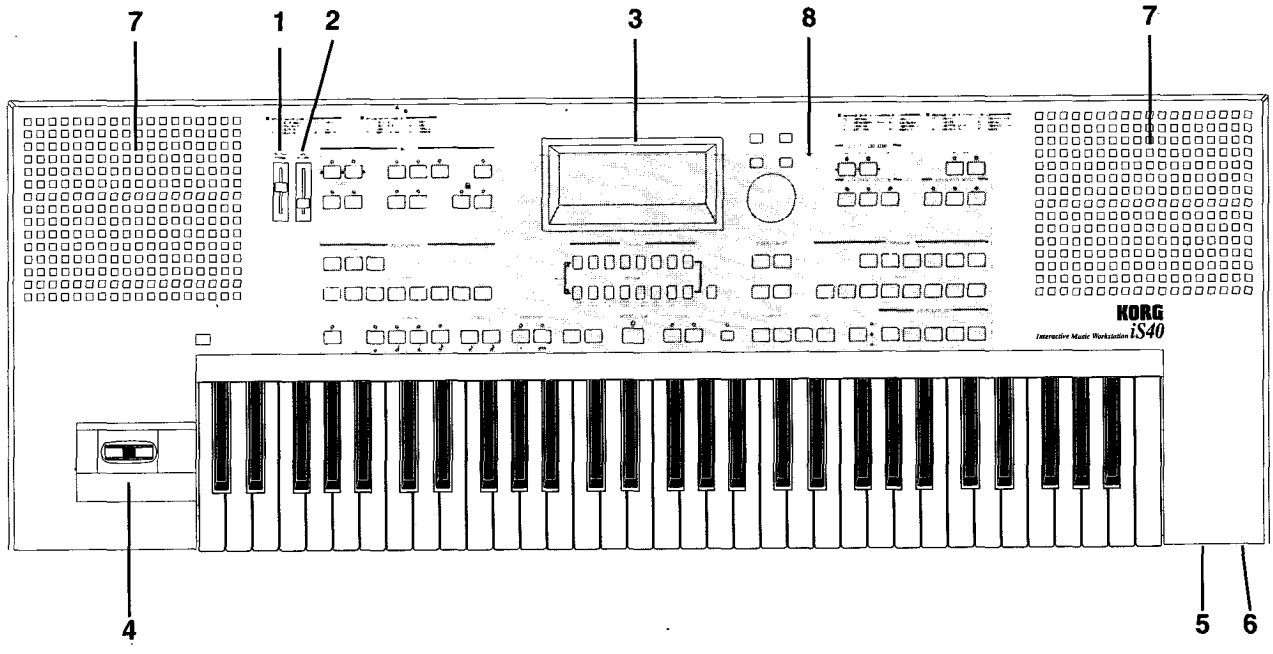
How to switch from equal temperament to Arabic scale

While playing, press the pedal that you have programmed to select the Arabic scale. The Arabic scale will be selected. Press the pedal again to go back to equal temperament.



2. Front and Rear Panels

Front panel



1 MASTER VOLUME slider
General volume (speakers, headphones and OUTPUT outlets).

2 ACC.VOLUME (Accompaniment Volume) slider
Automatic accompaniment volume. In Song Play and Song Edit modes, it controls the volume of all tracks, except the one selected.

3 Display
The editing pages, parameters and messages for the user will appear in this display.

4 Joystick
Pitch bend (↔), modulation (↑), sound parameters (↓).

5 Floppy disk drive slot
3.5 inch double-sided double density (2DD) or double-sided high density (2HD) floppy disks can be inserted in this drive. You can use Korg *i*-series formatted floppy disks and standard Ms-Dos formatted floppy disks.

The iS40/iS5o incorporates a new type of disk drive without auditory feedback (i.e. the "click" when the disk has been pressed all the way in).

6 Disk eject button
Press this button to remove a floppy disk from the drive. If pressing this button does not eject the disk, do not try to force it out. Contact your dealer or nearest Korg Service Station.

7 Speakers
Built-in speakers. Adjust the volume with the MASTER VOLUME slider.

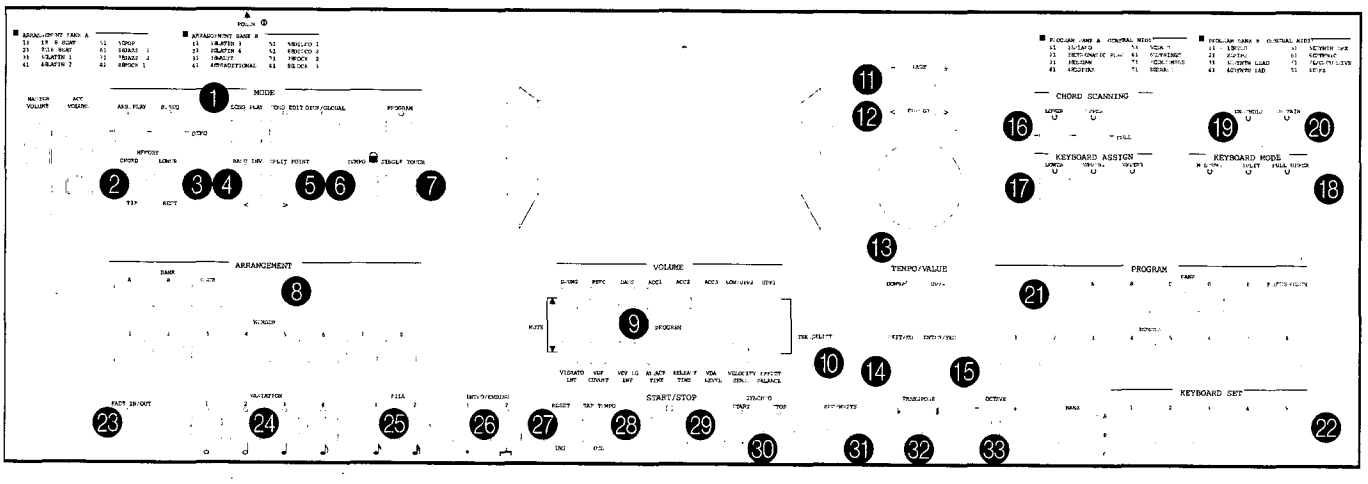
Warning: Volume that is to high can cause serious harm to your hearing. Keep the volume at a moderate level.

Warning: At higher volumes, the sound can be distorted.

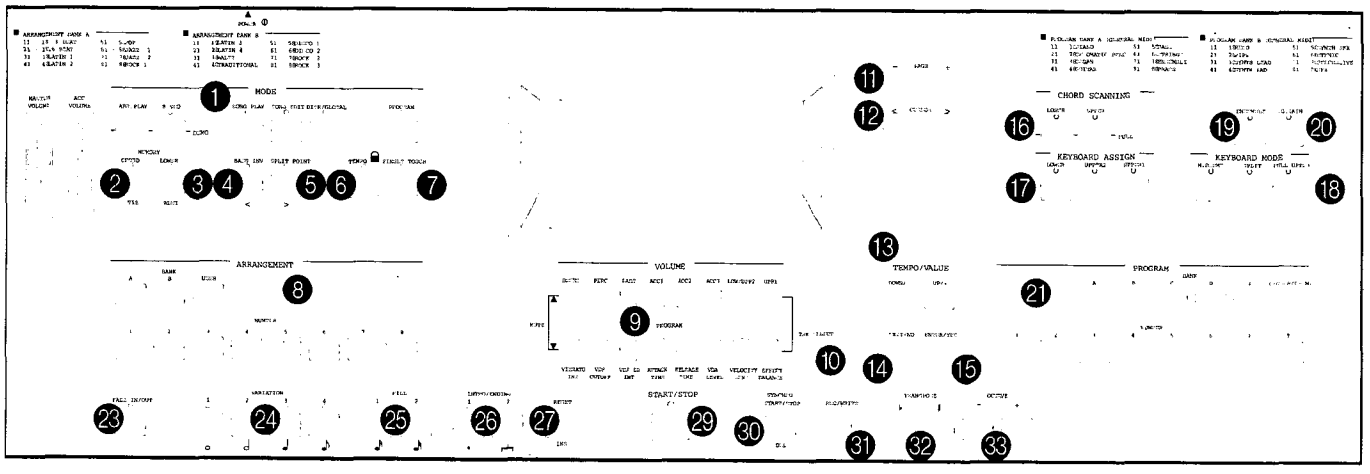
8 Control panel
The control panel contains the buttons which are used to perform the various editing and control functions. A more detailed description of this panel is given in the next section.

Control panel

iS40



iS50



1 MODE section
The buttons in this section activate the operating modes of the instrument.

- **ARR. PLAY (Arrangement Play) button**
  This button accesses the Arrangement Play mode. (The instrument is automatically in this mode when it is turned on). With this mode, you can use the automatic accompaniment and perform live.
- **B.SEQ (Backing Sequence) button**
  This button accesses the Backing Sequence mode. With this mode, you can record or playback musical performances played with automatic accompaniments.
- **SONG PLAY button**
  This button accesses the Song Play mode. With this mode, you can directly playback musical performances in Standard Midi File (SMF) format without loading them from disk.
- **SONG EDIT button**
  This button accesses the Song Edit mode. With this mode, you can record, playback and edit a Standard Midi File (SMF).
- **DISK/GLOBAL button**
  This button accesses the Disk/Global mode. With this mode, you can load and save data from a floppy disk, and program some of the instrument's general settings (e.g. the pedals and MIDI channels).
- **PROGRAM button**
  This button accesses the Program mode. With this mode you can play and edit the single programs (single sounds).
- **DEMO buttons**
  Press both ARR.PLAY and B.SEQ to access the Demo mode, where you can listen to 16 demo pieces. Press START/STOP to listen to all 16 pieces consecutively; press START/STOP again to stop the demo playback. To listen to a single demo, select it using the ARRANGEMENT NUMBER and PROGRAM NUM-

BER buttons, then press START/STOP. To exit the Demo mode, press EXIT/NO.

2 MEMORY-CHORD/TIE button

Arrangement Play and **Backing Sequence** modes: keeps the chord after having taken your hand off the keyboard. **Backing Sequence-Step Recording** mode: inserts a tie (ties the last note played to the next note that is going to be played).

3 MEMORY-LOWER/REST button

Arrangement Play and **Backing Sequence** modes: keeps the Lower track after having taken your hand off the keyboard. (Programming is on page 10 of the Disk/Global mode). **Backing Sequence-Step Recording** mode: creates a pause.

4 BASS INV./< (Bass Inversion/backwards) button

Arrangement Play and **Backing Sequence** modes: with this function, the lowest note of a chord played in inverted form will always be detected as the main note of the chord. Thus, you can specify to the arranger, chords such as, Am7/G or F/C. When the Chord Scanning is FULL, the bass note will not change until another bass note is played. **Backing Sequence-Step Recording** mode: this button is used to go to the previous step.

5 SPLIT POINT/> (Split Point/forward) button

Arrangement Play and **Backing Sequence** modes: selects the split point (division of the keyboard). Hold down the button and play the note you wish to become the split point. This note and all the notes to the right of it are part of the Upper range, the notes to its left are part of the Lower range. **Backing Sequence-Event Editing** mode: goes to the next step.

6 TEMPO 🔒 (Tempo Lock) button

Led lit up: when you change the arrangement the tempo will not change. The tempo can be changed by using the DIAL or the TEMPO/VALUE buttons.

7 SINGLE TOUCH button

Led lit up: when an arrangement is changed, keyboard programs and tempo will also change. The tempo only changes if the TEMPO 🔒 led is off.

8 ARRANGEMENT section

These buttons are used to select the arrangement. Press one of the ARRANGEMENT BANK buttons to choose the bank, use the ARRANGEMENT NUMBER buttons to select a number between 11 and 88 to choose the arrangement. In the Arrangement Play mode page 2, these buttons select the style. (You only need to select the bank if the arrangement or the style is in a different bank).

9 VOLUME buttons

These buttons are normally used to adjust the track volume and to mute it. To raise the volume press the upper button, to lower it press the lower button. To mute a track, press the upper and lower button together. To take off the mute, press one of the buttons briefly.

Arrangement Play mode: these buttons select the tracks and change the volume. When a track has been selected you can set a different program for that track. **Backing Sequence** mode: these buttons select the tracks and change the volume. To select Extra Tracks, first press the TRK.SELECT button and then the VOLUME buttons. **Song Play** mode: these buttons select the MIDI channels and change the volume or the chosen parameters. To go from channels 1-8 to channels 9-16 press the TRK.SELECT button. **Song Edit** mode: these buttons select the tracks and change the volume or the chosen parameters. To go from tracks 1-8 to tracks 9-16 press the TRK.SELECT button.

Program mode: modifies the value of the parameters indicated under each button.

10 TRK.SELECT button

Arrangement Play mode: mutes the ACC1, ACC2, ACC3 tracks. **Backing Sequence** mode: switches between the arrangement tracks and the Extra Tracks. **Song Play** mode: switches between the first 8 MIDI channels and the remaining 8. **Song edit** mode: switches between the first 8 tracks and the remaining 8.

11 PAGE buttons

These buttons select the previous (-) or the next (+) page in the current mode. The page number appears on the right of the display.

12 CURSOR buttons

These buttons move the cursor among the parameters that appear on the display (the cursor is the flashing line). Before modifying the value of a parameter, the cursor must be positioned on the value that needs to be modified.

13 TEMPO/VALUE buttons and DIAL

These modify the tempo or the parameter value selected in the display. The TEMPO and VALUE indicators show up on the display when they are functioning. *The DIAL is only included in the iS40.*

14 EXIT/NO button

This button is normally used to go back to page 1 of the current operative mode. It allows you to exit immediately from an edit page (e.g. Octave, Transpose, Demo). After having pressed a VOLUME button to select a track, the EXIT/NO button takes you straight back to the previous page.

Arrangement Play, Backing Sequence and **Song Play** modes: takes you back to the page 1 of the current mode. Page 1 of the **Backing Sequence** mode: makes the arrangement appear. **Song Play-Juke Box** mode: makes you exit from the Juke Box mode. **Song Edit** mode: calls up page 2 of the current mode. **Disk/Global** mode subpages: this button takes you back to the top page.

The second function (NO) is to be used to give a negative reply to questions that may appear on the display.

15 ENTER/YES button

By pressing this button you can give a positive reply to questions that may appear on the display. **Song Play** mode: by pressing on the name of a song, the song will be inserted in the Juke Box list and activates the Juke Box mode.

16 CHORD SCANNING section

Arrangement Play and **Backing Sequence** modes: this section specifies which area of the keyboard will be used to detect chords. You have to press the two buttons together in order to activate the FULL mode.

- **LOWER button**
  Chords will be detected in the Lower range (below the split point).
- **UPPER button**
  Chords will be detected in the Upper range (above and including the split point).
- **FULL buttons**
  Chords will be detected in the entire range of the keyboard.
- **OFF (unlit leds)**
  Chords are not detected.

17 KEYBOARD ASSIGN section

Arrangement Play and **Backing Sequence** modes: these select the tracks (Upper 1, Upper 2 and Lower) you wish to assign to the keyboard. Upper 2 and Lower exclude each other in turn.

18 KEYBOARD MODE section

These buttons select the way in which the tracks are placed on the keyboard.

- **M.DRUM button**
  A different percussion instrument is assigned to each note of the keyboard.
- **SPLIT button**
  The right hand (Upper 1 and Upper 2) and the left hand (Lower) play different sounds and are separated by the split point. The Upper 2 track and Lower track are alternative, one excludes the other on the keyboard.
- **FULL UPPER button**
  One or two tracks (Upper 1 and/or Upper 2) play on the entire keyboard.

19 ENSEMBLE button

Arrangement Play and **Backing Sequence** modes: the Ensemble button harmonises the right hand melody with chords played by the left hand. To do this, the Chord Scanning must be set on LOWER.

20 SUSTAIN button

Arrangement Play, Backing Sequence, Program, Song Play modes: this button increases the length of the note (i.e. lengthening the "sustain" in the program).

21 PROGRAM section

These buttons are used to select a program (single sound). The selected program is assigned to the selected track. Press one of the PROGRAM BANK buttons to choose the bank, then select a two-digit number between 11 and 88 using the PROGRAM NUMBER buttons to choose the program.

To select a Drum program press twice the F(USER/DRUM) button, until the abbreviation "Dr" shows on the display, then select a number between 11 and 28.

You only need to select the bank if the program is in a different bank.

22 KEYBOARD SET section *(only the iS40)*

By pressing only one button, the Keyboard Set selects the set-up of the keyboard tracks. To choose a Keyboard Set you have to press once, or repeatedly BANK to choose bank A, B or C, then you must press one of the number buttons to choose the Keyboard Set.

In order to save the current keyboard set-up in a Keyboard Set, you must keep REC/WRITE pressed down and press one of the buttons in the KEYBOARD SET section, then release the REC/WRITE button, press once or repeatedly BANK to choose bank (A, B or C), press the number button which corresponds to the Keyboard Set where you wish to save the set-up. Finally, press ENTER/YES twice to confirm.

23 FADE IN/OUT button

This button fades the accompaniment in or out (increasing from nothingness or fading out to nothingness). You do not need to press START/STOP.

24 VARIATION buttons

Arrangement Play and **Backing Sequence** modes: these buttons select a style variation. **Backing Sequence-Step Recording** mode: these buttons are used to specify the length of the note being input.

25 FILL 1/2 (Fill in) buttons

Arrangement Play and **Backing Sequence** modes: pressing one of these buttons during performance will add a fill-in. **Backing Sequence-Step Recording** mode: these buttons are used to specify the length of the note being input.

26 INTRO/ENDING buttons

Arrangement Play and **Backing Sequence** modes: by pressing one of these buttons before you begin playing will cause an introduction to be played after you press START/STOP. Pressing these buttons during a performance will cause an ending to be played, after which the performance will end automatically.

Backing Sequence-Step Recording mode: These buttons are used to specify the length of the note being input.

27 RESET/INS button

Backing Sequence, Song Play, Song Edit modes: this button returns the sequencer to the first measure. **Arrangement Play** and **Backing Sequence** modes. It restarts the chord scanner and returns to the beginning of the measure. It can be used as a "Midi Panic" button, in any situation where a note gets stuck, it can be unblocked by this button.

The second function of the (INS) button is to insert a Step Recording event, or an empty space where the cursor is positioned when you wish to write a name.

28 TAP TEMPO/DEL button *(only the iS40)*

You can set the tempo with this key. The second function of the (DEL) button is to cancel the event that has been selected in Step Recording, or to cancel a letter where the cursor is positioned when you wish to write a name.

29 START/STOP button

Arrangement Play, Song Play and **Demo** modes: This button starts or stops the automatic accompaniment or playback. **Backing Sequence** and **Song Edit** modes: It starts or stops recording or playback.

30 SYNCHRO-START and SYNCHRO STOP buttons *(iS40)*; SYNCHRO START/STOP/DEL button *(iS50)*

iS40: The SYNCHRO-START button makes the accompaniment start when you play a chord on the keyboard, without having to press START/STOP. SYNCHRO-STOP makes the accompaniment stop when the hand playing the chords is taken off the keyboard.

iS50: The SYNCHRO-START/STOP button makes the accompaniment start when you play a chord on the keyboard, or makes it stop when the hand playing the chords is taken off the keyboard. The second function of the button (DEL) is to delete the event that has been selected in Step Recording, or to erase the character located at the cursor when writing a name.

31 REC/WRITE

Backing Sequence-Realtime Recording, Step Recording and **Event Editing** modes, **Song Edit-Realtime Recording** and **Event Editing:** this button enters the record mode. **Arrangement Play** and **Program** modes: this will access the Write page, where you can save your modified Arrangement, Keyboard Set, or Program.

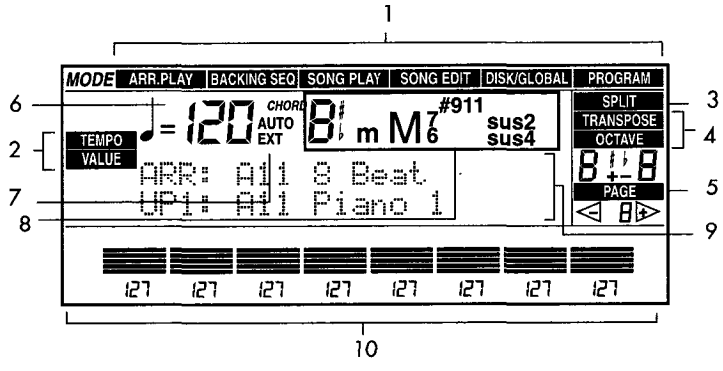
32 TRANSPOSE buttons

These buttons change the transposition (in semitones) of the instrument. In order to cancel the transposition you must press both buttons together.

33 OCTAVE buttons

These buttons change the transposition (in octaves) of the selected track. In order to cancel the transposition you must press both buttons together.

Display



1 Mode

The first line of the display indicates the operative modes: ARR.PLAY, BACKING SEQ., SONG PLAY, SONG EDIT, DISK/GLOBAL, PROGRAM.

2 Tempo/Value

The two indicators TEMPO and VALUE show in alternation. They show the functioning of the DIAL and the TEMPO/VALUE buttons (tempo controls / modifiers of the value of the selected parameter).

3 Split

Indicates that the SPLIT POINT button is currently pressed, and the note shown below in the display is the split point.

4 Transpose/Octave
The two indicators TRANSPOSE and OCTAVE show in alternation. According to which one shows, the transposition is by semitones or octaves.

5 Page
Indicator of the current page. If [+] shows, there are pages to follow. If [-] shows there are previous pages. Go through the pages with the PAGE [+] and [-] buttons.

6 Tempo
Current tempo. If the TEMPO indicator is showing, you can vary the tempo with the DIAL or with the TEMPO/VALUE buttons.

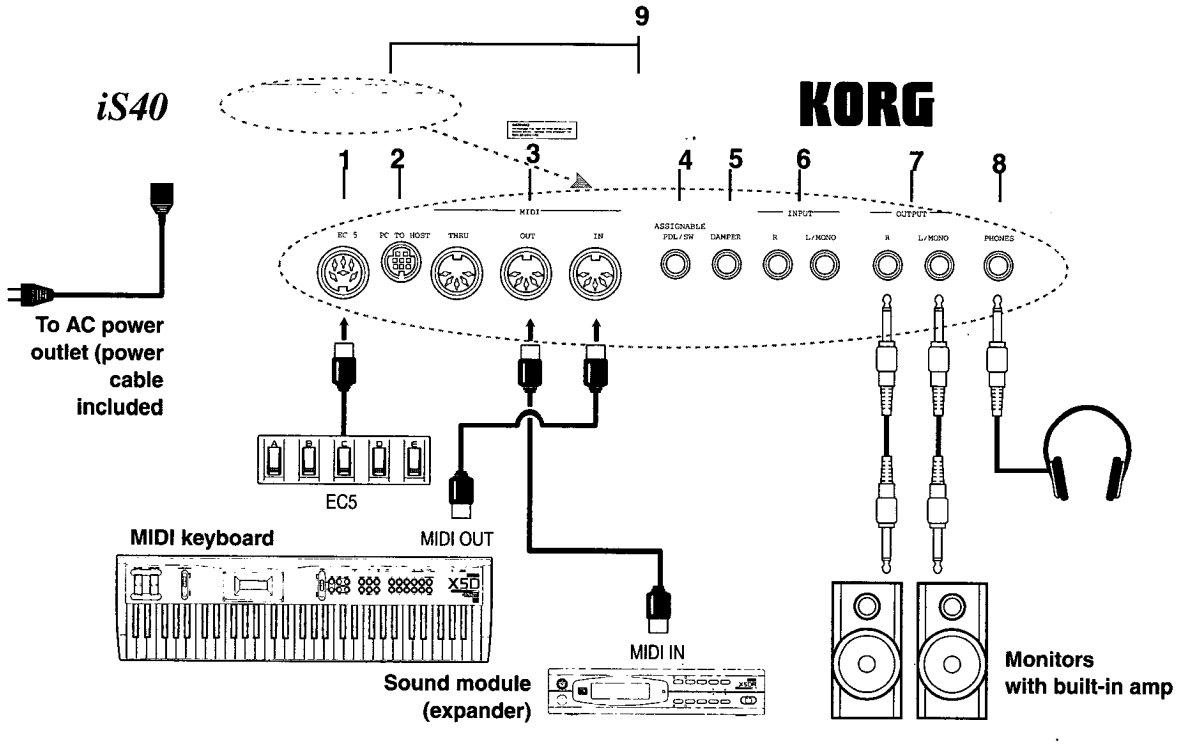
7 Tempo mode/Clock (synchronization)
Tempo mode and type of synchronization. AUTO means that the instrument is reading the tempo recorded in the song. EXT means it is using a metronome of an external device connected to the MIDI IN of the iS40/iS50. In the EXT condition, the accompaniment and songs must be started by the external sequencer. You can choose the kind of synchronism you require on "Page 3: Local control/Clock source/Host baud rate" of the Disk/Global mode.

8 Chord name

9 Modifiable parameters
Two lines of characters that show the parameters of the various edit pages. You can move through the parameters with the CURSOR buttons, and modify the values with the TEMPO/VALUE buttons or the DIAL.

10 Volume indicators
Track/channel volume. The tracks that are selected are shown at the top and on the left (**ch** =channels, **ET** = Extra Track, **1-8** = tracks/channels 1-8, **9-16** = tracks/channels 9-16). To select the hidden tracks press TRACK SELECT. If all the indicators are off, the keyboard and the accompaniment tracks indicated above the VOLUME buttons are shown.

Rear panel



1 EC5 connector *(only the iS40)*
To connect an optional Korg EC5 external controller. You can program the EC5 on page 9 of the Disk/Global mode, assigning a function to each of the five pedal switches.

2 PC TO HOST connector *(only the iS40)*
To connect a computer which has no MIDI interface. For connections you need an optional kit that is appropriate for your computer (for a Macintosh the kit is the AG-002, for a PC the kit is the AG-001).

3 MIDI connector
To connect other MIDI devices (keyboards or computers). For connections you need the special MIDI cables which you can purchase from your Korg dealer.

- **MIDI IN connector**
  Receives data from other MIDI devices.
- **MIDI OUT connector**
  Transmits MIDI data to other MIDI devices.
- **MIDI THRU connector *(only the iS40)***
  Re-transmits the MIDI data received through the MIDI IN connector.

4 ASSIGNABLE PDL/SW connector
You can connect an expression pedal here, such as the Korg XVP-10 or the EXP-2 or a PS-1 or PS-2 type footswitch. You can program the pedal on page 8 in the Disk/Global mode. *In the iS50, this connector is pre-set as the Damper (requiring a footswitch).*

5 DAMPER connector *(only the iS40)*
You can connect a damper pedal here, such as the Korg DS-1 or similar. The damper pedals can have a different polarity; choose the polarity on "Page 12: Auto chord scanning/Damper polarity" in the Disk/Global mode.

6 INPUT connectors *(only the iS40)*
Audio inlets. You can connect a synthesizer, a mixer, a hi-fi system, or other device with Line level outputs. To connect an electric guitar, set an effect processor, or preamplifier between the guitar and the iS40. Connect mono devices to the L/MONO inlet. These signals come out from both the built-in speakers and the OUTPUT outlets.

7 OUTPUT connectors
Audio outlets. You can connect an external amplifier here. Connect the one L/MONO outlet to an amplifier.

Warning: Volume that is too high can cause serious damage to your hearing. Keep the volume at a moderate level.

8 PHONES jack
You can connect a stereo headphone here.

9 Music stand holes
The included music stand can be inserted into these holes.

3. Operative modes

The instrument can function in different "modes", each of which groups together functions that are for its own particular use. In order to choose a mode you need to press a button in the MODE section.

Arrangement Play mode

Arrangement Play is the main operative mode. When the instrument is turned on it is always in this mode, where you can select the arrangements you wish to use. There are 192 arrangements in total, organized as 64 arrangements in each of the three banks A, B, and USER. The arrangements in the USER bank are freely modifiable and can be used to load new data from a disk.

Each arrangement uses a style and two programs (that is two sounds) organized on the keyboard according to a combination set by the buttons in the Keyboard Mode and Keyboard Assign sections.

The styles are made up of musical material with which a song or accompaniment can be constructed, and contain "patterns" (musical structures) of a particular genre of music, e.g. rock, pop, or ethnic music.

Each style contains 4 variations, 2 intros (introductions), 2 endings and 2 fill-ins. The styles can detect which chord is being played on the keyboard and they adapt the patterns to that chord.

The styles consist of six tracks: drums, percussion, bass, accompaniment tracks AC1, AC2 and AC3. These six tracks are referred to as the Backing Tracks, since they provide the rhythmical and harmonic backing.

Whilst playing you can modify several arrangement parameters (e.g. the volume of the instrumental parts), however if you stop the accompaniment, or decide to select a different arrangement, your edits will be lost.

If you wish to keep the changes that you have made, use the Write function of "Page 13: Write Arrangement". Changes are stored in the USER banks.

Backing Sequence mode

Backing sequence mode allows you to record or playback a song you have played using an arrangement as backing.

The main parts of a backing sequence are the three arrangement tracks (keyboard track, controls track and chord track). The controls track records button selections of the front panel; the chord track records the sequence of the chords; the keyboard track records whatever is played freely on the keyboard. Of course, you can leave the keyboard track empty and play it live.

In addition to the arrangement tracks, there are eight tracks referred to as Extra Tracks, and you can use these tracks to record other free parts.

Program mode

The sounds played on the iS40/iS50 are called "programs". The instrument has a total of 400 programs, organized into six banks (A, B, C, D, E, F-USER) with 64 programs each, plus a DRUM bank which contains 16 DRUM programs (14 ROM +2 USER). In the Program mode, you can edit previously recorded programs in order to create new ones, which can be used in the arrangements, songs and backing sequences.

Song Play mode

The Song Play mode allows you to play songs in Standard MIDI File format, without loading them from disk. The song of the Song Play mode is made up of 16 MIDI channels. You can change the program of the MIDI channel, and adjust the volume, pan, effects, effect send, tempo and transpose settings. However, the changes are not saved in memory, or on disk.

Song Edit mode

The Song Edit mode allows you to load into memory, modify and save a Standard MIDI File (SMF). In addition, this mode allows you to convert an SMF in format 1 into an SMF in format 0, faster to load in Song Play mode.

The Song Play mode is made up of 16 tracks. This mode allows you to record a new song, with the functions you would normally expect to find in a sophisticated sequencer. The new song can be saved on disk in Standard MIDI file form.

When you turn the instrument off, the song will be canceled from memory. Therefore, before turning off you need to save any modifications on disk.

Disk/Global mode

The Disk/Global mode allows you to load or save data, and modify the parameters which affect the functionality of the instrument. The operations you can carry out are:

- Save on disk data contained in memory, and load into memory data from disk
- Tune the keyboard
- Modify MIDI parameters
- Program pedals and the external controllers
- Program Lower Memory
- Program Velocity Curve
- Select a Scale (temperament)
- Control transmission/reception of MIDI messages
- Calibrate the joystick, aftertouch, pedal/footswitch

Apart from the Local Control and Clock Source parameters, all the settings are saved as Global data, even when the instrument is turned off. In addition, Global data, can be saved on disk, and will be saved with each Save All and Save Global operation.

The iS40/iS50 can read disks from other Korg i-Series instruments, of which it can re-use the styles. The compatibility level however depends on the individual style. Considering the difference between the instruments, the old data may be played slightly differently on the new instrument, for example with slightly different programs.

Display pages

The parameters and functions of the various operative modes are grouped into several pages, which appear on the display. The page number is always indicated on the right-hand side of the display. To move through the display pages, use the PAGE [+] and [–] buttons. If you wish to go directly to a page number you know, hold down the operative mode button the page which you wish to go to belongs to, and press one of the ARRANGEMENT NUMBER buttons, or one of the PROGRAM NUMBER buttons. To go directly to a page from 1 to 8, press an ARRANGEMENT NUMBER button from number [1] to number [8]. To go directly to a page from 9 to 16, press a PROGRAM NUMBER button from number [1] to number [8].

Registering a display page

When the instrument is new, pages 1 to 8 are assigned to the ARRANGEMENT NUMBER buttons from number [1] to number [8] and the pages from 9 to 16 are assigned to the PROGRAM NUMBER buttons from number [1] to number [8]. To record these pages under other numbers, use the following procedure.

❶ Access the display page that you wish to register.

❷ Hold down the current operative mode button, and press the REC/WRITE button.

❸ Release the REC/WRITE button (continue pressing the operative mode button).

❹ Press the button where you would like to register the current display page.

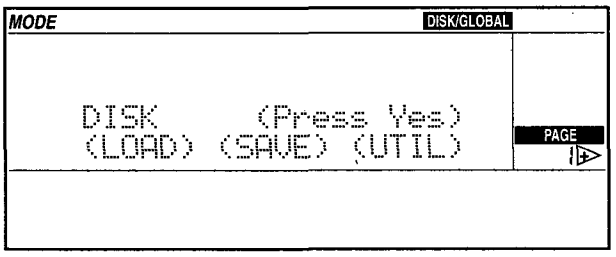
Press an ARRANGEMENT NUMBER button from [1] to [8] or a PROGRAM NUMBER button from [1] to [8].

❺ Release the operative mode button and the button that you have registered.

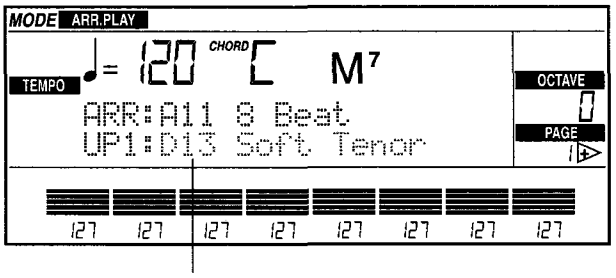
You may find it convenient to register the same type of page in the various modes, to the same button. For example, the effect select page could be found under PROGRAM NUMBER button [7] both in the Song Play mode and in the Arrangement Play mode.

Subpages

Some of the display pages allow you to select secondary pages, referred to as "subpages". The subpages are indicated by two rounded parenthesis ( ) which enclose the option. In the LCD shown below, (LOAD), (SAVE) and (UTIL) access the relative subpages.



Use the CURSOR buttons to bring the cursor to the name of the desired subpage, and press the ENTER/YES button to enter the selected subpage. To return from a subpage to the higher page, press the EXIT/NO button.



Programming a parameter value

In order to modify the value of a parameter that appears in the display, you need to, first of all, select the value with the cursor. The cursor is indicated by the flashing of the value or the line of text selected. Move the cursor, in the display, with the CURSOR buttons, and modify the value with the TEMPO/VALUE buttons or the DIAL.

4. Tutorial

This chapter is a practical guide to the use of the instrument. It is particularly aimed at those who have never in their lives before, seen a keyboard with accompaniments. Follow the instructions on the instrument – it will only take you a few hours. Afterwards you will be able to call yourselves real electronic keyboard experts.

Seeing as the instrument has a great deal of functions, as good beginners you will often find yourselves in edit pages that you did not want to get into: press EXIT/NO, and you should get back to a display with more familiar data. Other emergency buttons: START/STOP if you have unknowingly started the sequencer or the automatic accompaniment, the power switch will bring the instrument back to its starting condition.

The names of the programs, styles and arrangements that appear in the next pages may be slightly different from those of the actual instrument – Don't worry, they are only examples!

And so... enough chat: with one hand on the manual and one on the keyboard, let the music begin and have fun!

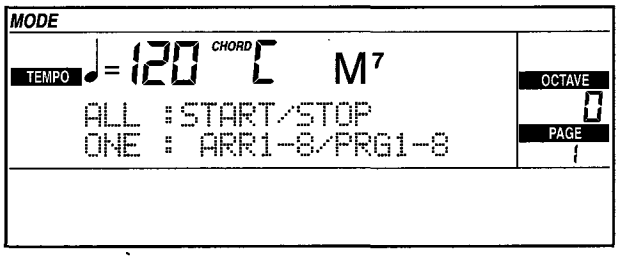
Demo

Listening to the Demo

The Demo is a selection of demonstrative songs contained in memory that cannot be erased (ROM). Let's listen to them to get an idea of the sound capabilities of the instrument.

Entering the Demo mode

● Press the ARR.PLAY and B.SEQ (DEMO) buttons together.
The "Demo" page will appear.



To listen to all the demo

❶ Press START/STOP.

The demo songs will playback one after the other.

❷ Press the START/STOP button again to stop the demo.

To listen to a single demo

❶ Select the demo with the ARRANGEMENT NUMBER and PROGRAM NUMBER buttons.

If you wish to select a demo from number 1 to number 8, press a button [1]–[8] of the ARRANGEMENT NUMBER section. If you wish to select a demo from number 9 to number 16 press a button [1]–[8] of the PROGRAM NUMBER section.

ARRANGEMENT NUMBER		PROGRAM NUMBER	
1	Modern Beat	1	Classic Piano
2	Jazz	2	Contemp. Piano
3	Latin	3	Bolero
4	Rock	4	Dance
5	Gospel	5	Jungle
6	Quick Step	6	Garage
7	German Polka	7	Progressive
8	Valzer	8	Synth World

❷ Press START/STOP again to stop the demo.

To exit from the Demo mode

● Press EXIT/NO or one of the buttons of the MODE section.
By pressing EXIT/NO you go back to the Arrangement Play mode. By pressing a button of the MODE section you go to the selected mode.

The Backing Sequence data contained in the disk

The Accessory Disk supplied with the instrument contains the demonstration backing sequence data. Reading them on disk will help us understand both the backing sequence data and the disk reading.

❶ Insert the Accessory Disk into the disk drive.

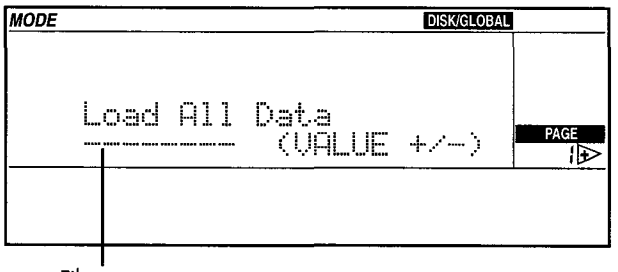
❷ Press DISK/GLOBAL to enter Disk/Global mode.

The DISK/GLOBAL led will light up. The DISK/GLOBAL indicator will appear on the display.

❸ While the cursor is on (LOAD), press ENTER/YES to enter the "Load" subpage.

❹ While the cursor is on (ALL), press ENTER/YES to enter the "Load All" subpage.

❺ While the cursor is on (ALL), press ENTER/YES to view the files contained on the disk.



Filename

❻ Use the TEMPO/VALUE buttons (or the DIAL) to select the file you wish to load. Press ENTER/YES to load the selected backing sequence.

❼ When "Completed" appears on the display, press B.SEQ to enter the Backing Sequence mode.

The B.SEQ button led will light up. The BACKING SEQ. indicator will appear on the display.

❽ Use the CURSOR buttons to move the cursor to the backing sequence name. Use the TEMPO/VALUE buttons (or the DIAL) to select the backing sequence.

❾ Press START/STOP to start playback.

❿ Press START/STOP again to stop the playback.

Note: When the instrument is turned off, the backing sequences in memory will be canceled.

Listening to the Songs

The songs are musical pieces available in the form of Standard MIDI Files (SMF). The iS40/iS50 is able to playback SMF format 0 without having to load them in memory, and SMF format 1 after a short loading. You can playback a single song, or create a list to playback with just one command (even through the jukebox function).

To listen to a song

❶ Insert a disk containing the song into the disk drive

❷ Press SONG PLAY to enter the Song Play mode.

The SONG PLAY button led will light up.

❸ Select the song with the TEMPO/VALUE buttons (or the DIAL).

You can choose a song by selecting its position number on the disk. If the file has a number between 1 and 8, press the ARRANGEMENT BANK [A] button, then an ARRANGEMENT NUMBER from [1] to [8]. If the file has a number between 9 and 16, press the ARRANGEMENT BANK [B] button and an ARRANGEMENT NUMBER button from [1] to [8]. If the song file has a number between 17 and 24, press the ARRANGEMENT BANK [USER] button and an ARRANGEMENT NUMBER button from [1] to [8].

❹ After having selected the song, press START/STOP.

If the SMF is format 1, the red START/STOP led will flash for a few seconds, while the data is being loaded from the disk. When loading ends, playback will begin. If there are any backing sequences or songs already loaded in the Song Edit mode, a message will appear asking you if it is OK to erase this data. If you don't mind losing the data in memory, press ENTER/YES to start playback.

❺ To stop the song, press START/STOP.

Listening to all the songs on a disk

❶ Insert the disk containing the SMF into the disk drive.

❷ Press SONG PLAY to enter the Song Play mode.

The SONG PLAY led button will light up.

❸ Select the "ALL SONGS" filename with the TEMPO/VALUE buttons (or the DIAL).

❹ Press START/STOP.

The SMF format 0 are played back at once. The SMF format 1 must be loaded in memory first, then after a few seconds wait they are played back. If there are any backing sequences or songs already loaded in the Song Edit mode, a message will appear asking you if it is OK to erase this data. If you don't mind losing the data in memory, press ENTER/YES to start playback.

❺ Press START/STOP to stop the playback.

JukeBox

The JukeBox allows you to create a list of songs to be played back with just one command, choosing among the songs contained on the disk.

❶ Insert the disk containing the SMF into the disk drive.

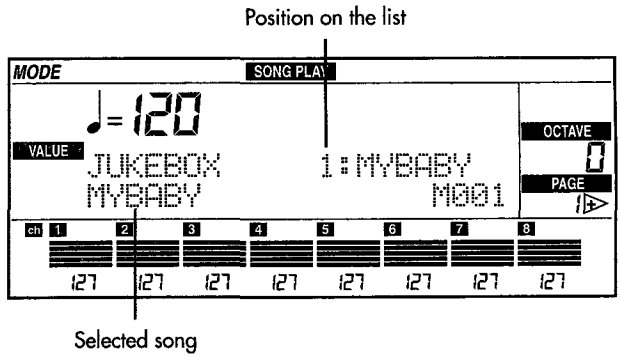
❷ Press SONG PLAY to enter the Song Play mode.

The SONG PLAY led button will light up.

❸ Choose the first song with the TEMPO/VALUE buttons (or the DIAL).

❹ Press ENTER/YES to insert the song in the list.

The name of the song, alongside its position number on the list, will appear on the display. Number 1 will appear after you have inserted the first song.



❺ Choose the second song to be added to the list with the TEMPO/VALUE buttons (or the DIAL).

❻ Press ENTER/YES to confirm the second song on the list.

❼ Add other songs to the list by following steps 5-6. You can go backwards in the list with the CURSOR buttons.

❽ Once the list is complete, press START/STOP to play back all the songs on it.

The songs are played one after the other. The SMF format 0 are played back straight away, whereas there is a few seconds wait before a SMF format 1 is played back while the disk is being read. If there are any backing sequences or songs already loaded in the Song Edit mode, a message will appear asking you if it is OK to erase this data. If you don't mind losing the data in memory, press ENTER/YES to start playback.

❾ Press START/STOP to stop playback.

❿ Press START/STOP again to re-start playback.

⓫ Press EXIT/NO to exit the JukeBox mode.

The arrangements

Playing with the arrangements

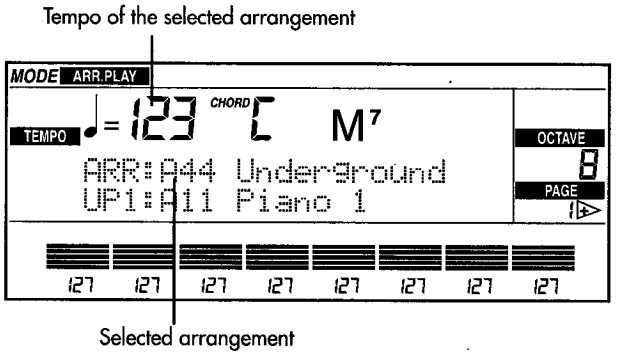
The most enjoyable thing about the iS40/iS50 is that you can play on the keyboard accompanied by arrangements, just as if you had a real band backing you. Each arrangement contains a style, that is to say a series of accompaniment patterns in a particular musical style. Here are some ideas on how you can use the arrangements.

❶ Press ARR. PLAY to enter the Arrangement Play mode.

The ARR.PLAY led button will light up.

❷ Press ARRANGEMENT BANK [A], then ARRANGEMENT NUMBER [4] twice to select arrangement A44.

The selected arrangement name ("A44 Underground") will appear on the display.



❸ Press RESET to reset the values.

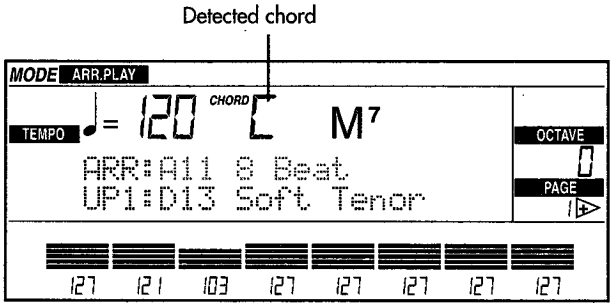
RESET erases the chords that are still in memory.

❹ Press START/STOP.

Rhythm play will start. The START/STOP red led will light up on the first beat, the green led on other beats, in time with the style time signature contained in the arrangement.

❺ Playing a progression of chords with the left hand.

Bass and other accompaniment tracks are added to the rhythm, which follow the chords played by the left hand. As the MEMORY-CHORD led button is lit up, the chords stay in memory even when you take your hand off the keyboard. The name of the chord appears on the display.



The keyboard area in which chords are detected will depend on the buttons of the CHORD SCANNING section and on the split point. In the case of the "A44 Underground" arrangement, the Chord Scanning is LOWER. If not yet modified, the general split point is C4 (middle C), therefore the chords or the notes for the accompaniment are to be played below middle C. (You can change the split point by holding down the SPLIT POINT button and pressing a key on the musical keyboard).

❻ Continue playing the progression of chords with your left hand; and play a melody with your right hand.

❼ Press START/STOP to stop the accompaniment.

Synchro start and stop

You can make the accompaniment start without having to press START/STOP. Turn on the Synchro Start function and play a chord on the keyboard.

❶ With the accompaniment stopped, press SYNCHRO-START *(iS40)* or SYNCHRO START/STOP *(iS50)* to light up its led.

❷ Play a chord in the chord scanning area to start the accompaniment.

iS50: The led of the SYNCHRO-START/STOP button goes off.

❸ Press SYNCHRO-STOP *(iS40)* or SYNCHRO-START/STOP *(iS50)* to light up its led.

The Synchro Stop will make the accompaniment stop when you take your hand off the keyboard.

❹ Take your hand off the keyboard to stop the accompaniment. The accompaniment will stop immediately.

❺ *iS40:* Play a chord again, in the chord scanning area, to restart the accompaniment.

❻ *iS40:* Press SYNCHRO-STOP again to switch off its led.

❼ Continue playing, then press START/STOP to stop the accompaniment.

Fill

Enough of the usual rhythm. Let's insert a "fill-in" (that is an interlude) in the automatic accompaniment.

❶ Start the automatic accompaniment.

❷ Whilst playing press one of the FILL [1] or [2] keys.

A fill-in will be played. Each style has two different fill-ins, which are selected by one of the two buttons in the FILL section. When the fill finishes, the variation may change (see "Page 5: Ensemble/Variation change" of the Arrangement Play mode).

❸ Press START/STOP to stop the accompaniment.

Intro/ending

❶ With the accompaniment stopped, press one of the INTRO/ENDING [1] or [2] buttons.

❷ Start the automatic accompaniment.

The introduction will be played, then the normal accompaniment pattern will begin. Each style has two different introductions, which are selected by one of the two buttons in the INTRO/ENDING section.

❸ Play normally, then press one of the INTRO/ENDING [1] or [2] buttons.

The ending will be played, and the accompaniment will stop. Each style has two different endings, which are selected by one of the two buttons in the INTRO/ENDING section.

Variations

What kind of music is it, if it never changes? Each style has four variations of the basic accompaniment.

❶ Start the accompaniment.

❷ Press one of the buttons in the VARIATION section.

The led of the variation that is going to start will start flashing. At the end of the measure the pattern will change. The led of the new variation will stay lit.

❸ Press one of the FILL buttons and straight away afterwards one of the buttons of the VARIATION section.

The fill-in will play. The led of the variation that is going to play at the end of the fill-in will flash. At the end of the fill-in the new variation will play.

❹ Press START/STOP or INTRO/ENDING to stop the accompaniment.

Note: On "Page 5: Ensemble/Variation change" in the Arrangement Play mode, you can connect each FILL button to a variation that will be selected automatically after the fill-in has finished.

All the tracks, at once!

❶ With the SYNCHRO-START (SYNCHRO-START/STOP in the iS50) led off, play a chord in the chord scanning section

❷ Press START/STOP (or INTRO/ENDING + START/STOP) to start the accompaniment.

The accompaniment tracks will begin playing at once.

❸ Press START/STOP or INTRO/ENDING to stop the accompaniment.

Fade in/out

❶ With the accompaniment stopped, play a chord in the chord scanning area, then press FADE IN/OUT to start the accompaniment.

The accompaniment will start. The accompaniment track volume and the keyboard volume will be set at zero, and will gradually increase to full.

Tip: If the Lower track is not in mute, you may press FADE IN/OUT and then, immediately, play the chord.

❷ While the accompaniment is playing, press FADE IN/OUT to stop the accompaniment.

The accompaniment track volume and the keyboard volume will gradually decrease to zero. At the end, the accompaniment will stop and the volume will come back to full.

Varying the tempo

❶ With the accompaniment stopped, use the TEMPO/VALUE buttons (or the DIAL) to vary the tempo.

As these controls work as tempo controls, on the left-hand side of the display there will be the TEMPO indicator. In the iS40, there is an easier way to vary the tempo which is as follows:

❷ *iS40:* Set (beat) the tempo on the TAP TEMPO button.

The tempo shown on the display will change.

❸ Start the accompaniment.

❹ Vary the tempo with the TEMPO/VALUE buttons (or the DIAL).

❺ Stop the accompaniment with START/STOP or INTRO/ENDING.

Selecting a different arrangement

❶ Press one of the ARRANGEMENT BANK [A], [B] or [USER] buttons.

❷ Using the buttons in the ARRANGEMENT NUMBER section, select a two digit number between 11 and 88.

If the new arrangement is in the same bank, you can simply select a two digit number.

After having selected the bank and indicated a two digit number, the arrangement will be selected. The style will change, and as the SINGLE TOUCH led will be lit, the keyboard and accompaniment programs will also change. If the TEMPO led is off, the tempo will change, too.

Note: The arrangement can save the settings of the control buttons, therefore when you change arrangement a fill-in or an intro could start, and a different variation could be set.

Selecting a different arrangement while playing

❶ Start the accompaniment.

❷ Press one of the ARRANGEMENT BANK [A], [B] or [USER] buttons.

If the new arrangement is in the same bank, you can simply select a two digit number (see next step).

❸ Using the buttons in the ARRANGEMENT NUMBER section, select a two digit number between 11 and 88.

❹ Press START/STOP or INTRO/ENDING to stop the accompaniment

The keyboard

Blocking the sounds of the keyboard

When you change an arrangement, you usually change the keyboard programs, too. If you wish to change the accompaniment but don't wish to change the keyboard sound, press SINGLE TOUCH to turn off its led. With the SINGLE TOUCH led lit up, the arrangement will change the programs and the volume of the keyboard tracks, too.

Changing the sounds on the keyboard

You can leave the arrangement unvaried, but change the sounds of the keyboard. Upper 1, Upper 2, Lower tracks can play on the keyboard. In this example, the sounds on the two parts of the keyboard will be changed, with the keyboard split.

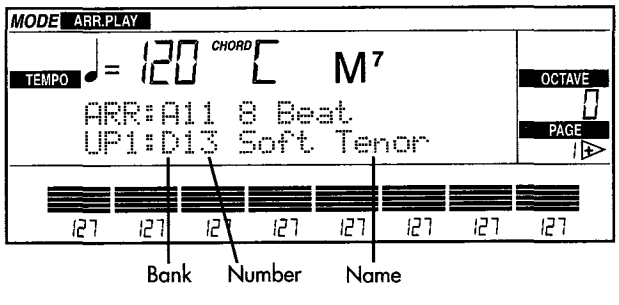
Note: The Upper 2 track and Lower track are alternative, one excludes the other on the keyboard.

❶ Split the keyboard (press SPLIT in the KEYBOARD MODE section).

❷ Assign Upper 1 track to the right-hand side, and Lower track to the left-side (press LOWER and UPPER1 in the KEYBOARD ASSIGN section).

❸ Select the Upper 1 track (press one of the UPP1 buttons in the VOLUME section).

The abbreviation "UP1" will appear on the display, followed by the bank number, name and number of the program assigned to the Upper 1 track.



❹ Press one of the PROGRAM BANK [A], [B], [C], [D], [E], [F(USER/DRUM)] buttons.

The A and B contain the 128 sounds of the General MIDI standard. The A bank contains the first 64 sounds, the B bank contains 64 more sounds. The C and D banks contain sounds that are more or less organized as General MIDI sounds, however there are some differences. The E bank contains layered sounds and fantasia sounds, while bank F(USER) contains sounds loaded from disk or those directly programmed by the user.

❺ Using the buttons in the PROGRAM NUMBER section, select a two digit number between 11 and 88.

After having selected a bank and indicated a two-digit number, the program will be selected and assigned to the Upper 1 track.

❻ Select the Lower track (press one of the LOW/UPP2 buttons in the VOLUME section).

The abbreviation "LOW" will appear on the display, followed by the bank, name and number of the program assigned to the Lower track.

❼ Select a bank using the PROGRAM BANK buttons, then select a two digit number between 11 and 88, using the buttons in the PROGRAM NUMBER section.

After having selected a bank and indicated a two-digit number, the program will be selected and assigned to the Lower track.

❽ Select the Upper 2 track (press UPPER2 in the KEYBOARD ASSIGN section).

The Lower track is switched off, while the Upper 2 track is selected. The abbreviation "UP2" will appear on the display, followed by the bank number, name and number of the program assigned to the Upper 2 track.

❾ Select a bank using the PROGRAM BANK buttons, then select a two digit number between 11 and 88, using the buttons in the PROGRAM NUMBER section.

After having selected a bank and indicated a two-digit number, the program will be selected and assigned to the Upper 2 track.

⑩ Select the Lower track again (press LOWER in the KEYBOARD ASSIGN section).
Now on the keyboard play the Upper 1 and Lower tracks.

⑪ Select the Upper 1 track again (press one of the UPP1 buttons in the VOLUME section).
The abbreviation "UP1" will appear on the display.

Transposition

If the pitch of the keyboard sounds is too high for the singer you are accompanying, don't worry: you can transpose the sound and save the singer's vocal chords!

Note: While the accompaniment is playing, the transposition will enter at the beginning of the next measure.

- To lower the keyboard sound pitch by one or more semitones, press the TRANSPOSE [♭] button once or more.
  The sound pitch will be lowered by a semitone each time the button is pressed.
- To raise the keyboard sound pitch by one or more semitones, press the TRANSPOSE [♯] button once or more.
  The sound pitch will be raised by a semitone each time the button is pressed.
- To cancel transposition press both TRANSPOSE buttons together.

Playing the *iS40/iS50* as if it was a piano

Despite all the sophisticated modern technology we have available, it is nice sometimes to go back to playing as we did in the good old days of the piano – only one sound at a time, two hands for the same music.

❶ Press ARR.PLAY to enter the Arrangement Play mode.

❷ Press FULL UPPER in the KEYBOARD MODE section.

The split point will be ignored. The tracks can be played on the entire keyboard.

❸ Press UPPER1 in the KEYBOARD ASSIGN section to turn on the led.

The Upper 1 track will be selected.

❹ If the UPPER2 led in the KEYBOARD ASSIGN section is lit up, press the button to turn it off.

The second keyboard track will be deactivated, and the Upper 1 track will play alone.

❺ If the SYNCHRO-START (or SYNCHRO-START/STOP in the iS50) led is lit up, press the button to turn it off.

With Synchro Start on, the accompaniment would start as soon as you put your hands on the keyboard.

❻ If the Lower track is too low, transpose it using the OCTAVE [+] button.

❼ Play freely.

Now you can play on the entire keyboard with just one hand.

Tip (easier if you don't need arrangements): To play with only one sound at a time, press PROGRAM to enter the Program mode.

Selecting a Keyboard Set *(only the iS40)*

You can do what was described above more easily by selecting one of the Keyboard Sets, which are none other than control panel memories. This means that by selecting a Keyboard Set, the keyboard programs, their layout on the keyboard, the transposition, the chord scanning mode and other characteristics that would otherwise have to be patiently programmed one at a time, will be selected.

There are three banks (A, B, C) with five Keyboard Sets each (1, 2, 3, 4, 5). Let's try selecting Keyboard Set 1 of the C bank.

❶ Press the BANK button in the KEYBOARD SET section a few times, to turn on the C bank led.

❷ Press button 1 of the KEYBOARD SET section.

Keyboard Set 1 of C bank will be selected. On the keyboard, the programs will change, the Chord Scanning, Keyboard Assign, Keyboard Mode settings, effects, etc. could change (depending on the data saved in the Keyboard Set).

Recording a Keyboard Set

It is possible to record the keyboard and the control panel settings in a Keyboard Set. Let's try to record the current settings in Keyboard Set 5 of B bank.

❶ Keep REC/WRITE pressed, and press one of the buttons in the KEYBOARD SET section.

The Write Keyboard Set page appears.

❷ Press a few times the BANK button in the KEYBOARD SET section, to light up the B bank led.

❸ Press button 5 in the KEYBOARD SET section.

❹ Press ENTER/YES twice to confirm.

The keyboard settings will be saved in Keyboard Set 5 of B bank. You can save the Keyboard Set with one of the Save functions in the Disk/Global mode (*see page 120*).

Recording new songs

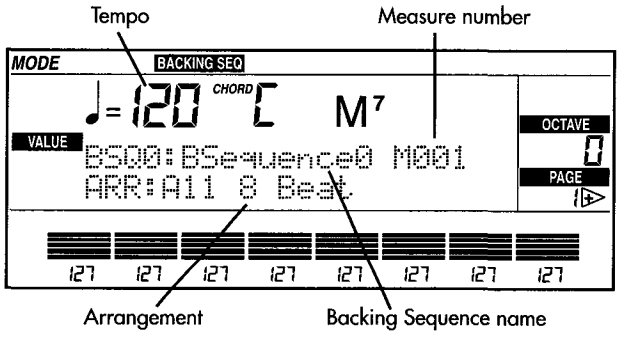
Recording the Backing Sequences

Why play only other people's music? Is that the reason why you bought a musical instrument? With the iS40/iS50 you can play new songs exploiting the wealth of material in the automatic accompaniments.

Note: While recording, you cannot select some of the control panel's buttons, e.g. the Keyboard Sets.

❶ Press B.SEQ to enter the Backing Sequence mode.

The B.SEQ led will light up. The following display will appear.



❷ Select the backing sequence you wish to record with the TEMPO/VALUE buttons (or the DIAL).

For this example, let's select BSQ3. (If BSQ3 is recorded, select another backing sequence).

❸ Select an arrangement with the ARRANGEMENT BANK and ARRANGEMENT NUMBER buttons.

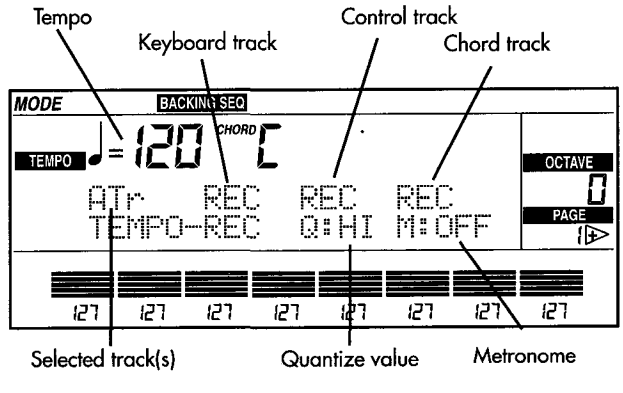
Press the [A], [B] or [USER] button to select the bank. Then press two ARRANGEMENT NUMBER buttons to choose a two-digit number between 11 and 88.

❹ What if you need to change the split point, the Keyboard Mode, the Keyboard Assign and the Chord Scanning settings?

Split point: hold down the SPLIT POINT button and play the note that you wish to be the new split point. **Keyboard Mode:** use the buttons in the KEYBOARD MODE section. **Keyboard Assign:** use the buttons in the KEYBOARD ASSIGN section. **Chord Scanning:** use the buttons in the CHORD SCANNING section.

❺ Press REC/WRITE to enter the recording mode.

The REC/WRITE led will light up. The Record page will appear. If the "ATr" tracks (arrangement tracks) are selected, you can record in realtime.



❻ Press START/STOP (or one of the INTRO/ENDING buttons + the START/STOP button) to start the accompaniment.

After a two-measure pre-count, recording will begin and the accompaniment will start playing.

❼ You can now play freely. If you wish, you can use the FILL buttons.

❽ Press START/STOP (or one of the INTRO/ENDING buttons + the START/STOP button) to stop the accompaniment and the recording.

The recording will stop and the REC/WRITE led will go off. The sequencer will go back to measure 001.

❾ Press START/STOP to listen to the song that you have just recorded.

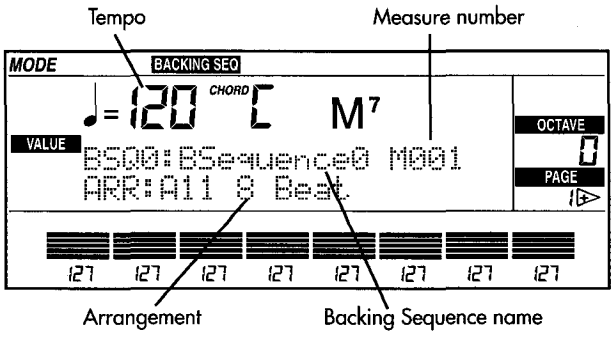
Recording the Backing Sequence track by track

We have seen how you can use a backing sequence to record a "realtime" performance with arrangements. It is also possible to use the backing sequence to recreate a musical score with a rhythmical part similar to a style of the iS40/iS50, recording the backing sequence tracks separately.

Preparing to record

❶ Press B.SEQ to enter the Backing Sequence.

The B.SEQ led will light up. The name of the backing sequence, measure number and tempo will appear on the display. If this information does not appear, press EXIT/NO to go back to page 1 of the Backing Sequence mode.



❷ Move the cursor to the name of the backing sequence using the CURSOR buttons, then select the backing sequence you wish to record using the TEMPO/VALUE buttons (or the DIAL).

For this example, select BSQ4. (If BSQ4 is already recorded, select a different backing sequence).

❸ Select an arrangement using the ARRANGEMENT BANK and ARRANGEMENT NUMBER buttons.

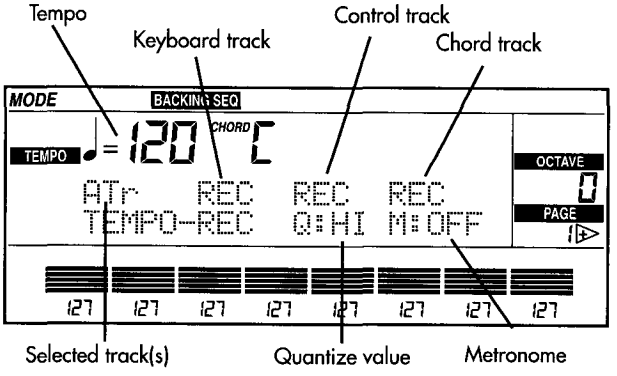
Press the [A], [B] or [USER] button to select the bank. Then press two ARRANGEMENT NUMBER buttons to select a two digit number between 11 and 88.

❹ If necessary, change the split point, the Keyboard Mode, the Keyboard Assign and the Chord Scanning sections.

Split point: hold down the SPLIT POINT and play the note that you wish to be the new split point. **Keyboard Mode:** use the buttons in the KEYBOARD MODE section. **Keyboard Assign:** use the buttons in the KEYBOARD ASSIGN section. **Chord Scanning:** use the buttons in the CHORD SCANNING section.

❺ Press REC/WRITE to enter the recording mode.

The REC/WRITE led will light up, and the Record page will appear. The arrangement tracks are selected (ATr). The display shows the tracks' status (REC = in record).



❻ If you wish to hear the metronome while you record, move the cursor to "M" (metronome) and use the TEMPO/VALUE buttons or the DIAL to change its status to REC.

❼ If you wish to record the tempo changes, bring the cursor to the small note and press the two TEMPO/VALUE buttons together to change its status to TEMPO-REC.

Recording the chord progression

❶ Move the cursor to the keyboard track using the CURSOR buttons. Change the status to "----"

(deactivated track) using the TEMPO/VALUE buttons (or the DIAL).

❷ Move the cursor to the control track, and change the status to "----" (deactivated track).

Now, the only track in record (REC status) will be the chord track.

❸ Press START/STOP to start recording and the accompaniment.

After a two measure precount, recording will begin.

❹ Play the chords in the chord scanning area.

The accompaniment tracks start playing.

❺ When finished, press START/STOP to stop recording.

Recording will stop and the REC/WRITE led will go off. The sequencer will go back to measure 001.

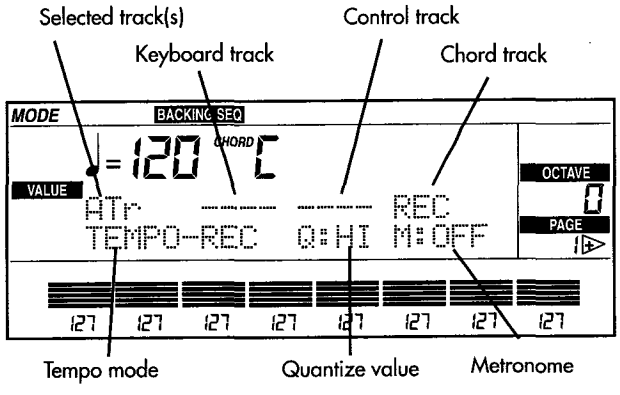
❻ Press START/STOP to listen to the chord progression you have just recorded.

The piece will be played from beginning to end. When it reaches the end, the sequencer will go back to measure number 001. You can stop playback halfway through, by pressing START/STOP, in this case, press RESET to get back to measure number 001.

Recording the control track

❶ Press START/STOP to return to the recording mode.

The REC/WRITE led will go on, and the Record page appears.



❷ Move the cursor to the chord track, and change the status to CHRD (recorded track).

❸ Move the cursor to the control track, and change the status to REC (track in record).

Now, the keyboard track is in "---" status (deactivated), the control track is in REC status (in record), the chord track is in (CHRD) status (recorded). The only track in record is the control track.

❹ Press START/STOP to start recording. Press immediately one of the INTRO/ENDING buttons, to play an intro.

After a two measure precount, the arrangement will start playing and recording will begin with an introduction.

❺ Before the intro is finished, press a VARIATION [1]-[4] button to select a variation.

❻ When you wish to insert a fill-in press a FILL[1] or FILL[2] button.

A fill-in will play, then the variation will start up again.

❼ When finished, press INTRO/ENDING to play an ending. Press START/STOP to stop recording.

Recording will stop and the REC/WRITE led will go off. The sequencer will go back to measure number 001.

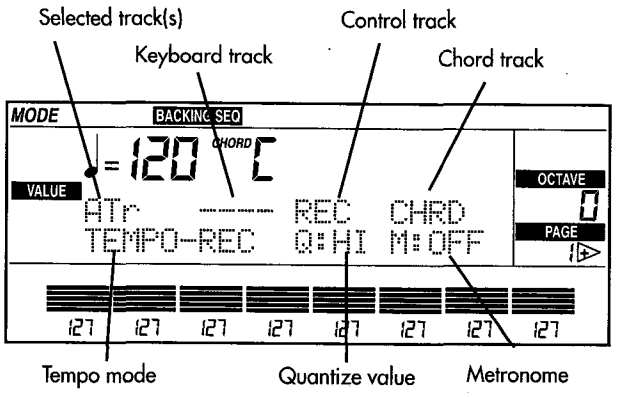
❽ Press START/STOP again to playback the piece you have just recorded.

The piece will be played from beginning to end. When it reaches the end, the sequencer will go back to measure number 001. You can stop playback halfway through, by pressing START/STOP; in this case, press RESET to get back to measure number 001.

Recording the solo part

❶ Press REC/WRITE to return to the recording mode.

The REC/WRITE led will go on, and the Record page appears.



❷ Move the cursor to the control track, and change the status to CTRL (already recorded).

❸ Move the cursor to the keyboard track, and change the status to REC (in record).

Now, the keyboard track is in REC status (in record), the control track is in CTRL status (already recorded), the chord track is in CHRD status (already recorded). The only track in record is the keyboard track.

❹ Press START/STOP to start recording.

After a two measure precount, the arrangement will begin playing and recording will start.

❺ Play the solo part.

If the keyboard mode is split, the solo part should be played by the right hand.

❻ When finished, press START/STOP to stop recording.

When recording has stopped the REC/WRITE led will go off. The sequencer will go back to measure number 001.

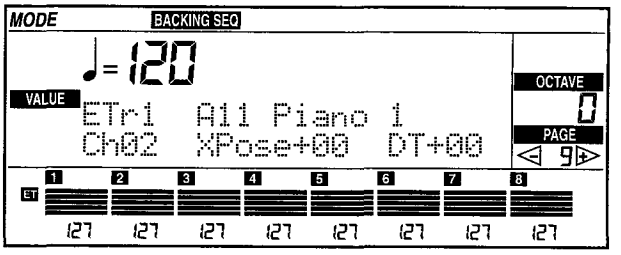
❼ Press START/STOP again to playback the piece you have just recorded.

The piece will be played from beginning to end. When it reaches the end, the sequencer will go back to measure number 001. You can stop playback by pressing START/STOP; in this case, press RESET to get back to measure number 001.

Recording an Extra Track

In addition to the arrangement tracks, the song has extra tracks where you can freely record strings backing, support parts, solos, etc. In the example, we shall record onto Extra Track 8.

❶ Press the PAGE [+] button repeatedly to get to the Extra Track page.

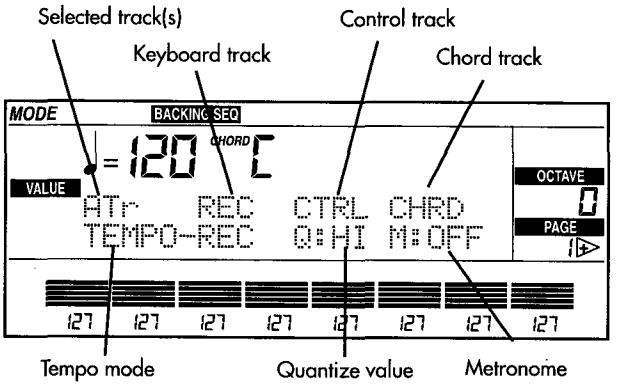


❷ In the VOLUME section, press one of the right most pair of buttons to select Extra Track 8 (ETr8).

❸ Move the cursor to the upper line using the CURSOR buttons.

❹ Using the PROGRAM BANK and PROGRAM NUMBER buttons, select the program that you wish to assign to Extra Track 8.

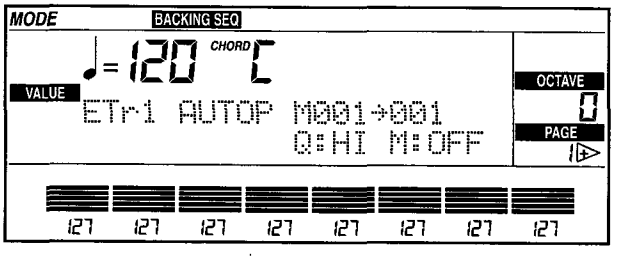
❺ Press EXIT/NO to go back to page 1. Then press REC/WRITE to enter the recording mode.



❻ Move the cursor to the selected track (ATr) using the CURSOR buttons.

❼ Use the TEMPO/VALUE buttons to select ETr8 instead of ATr.

This sets the Extra Track 8 in record mode.



❽ Press START/STOP to start recording.

After a two measure precount, the arrangement will begin playing and recording will start.

❾ Play freely.

❿ When finished, press START/STOP to stop recording.
Recording will stop and the REC/WRITE led will go off. The sequencer will go back to measure number 001.

⓫ Press START/STOP again to playback the song you have just recorded.
The song will be played from beginning to end. When it reaches the end, the sequencer will go back to measure number 001. You can stop playback halfway through, by pressing START/STOP; in this case, press RESET to get back to measure number 001.

⓬ Repeat the steps above to record the other Extra Tracks.

Saving Backing Sequences on disk

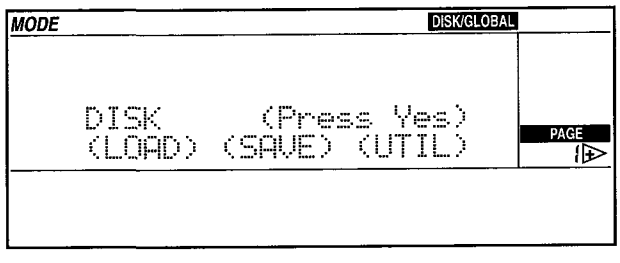
The backing sequences contained in memory will be lost when you turn the instrument off, therefore you need to save them on disk. The following procedure allows you to save all the backing sequences contained in memory (max 10) in a new file.

❶ Insert an empty disk into the disk drive.

The iS40/iS50 uses 3,5" HD (high density) disks. The disk must be formatted in MS-DOS format, compatible with Windows, Macintosh and other systems.

❷ Press DISK/GLOBAL to access the Disk/Global mode.

The following display will appear.



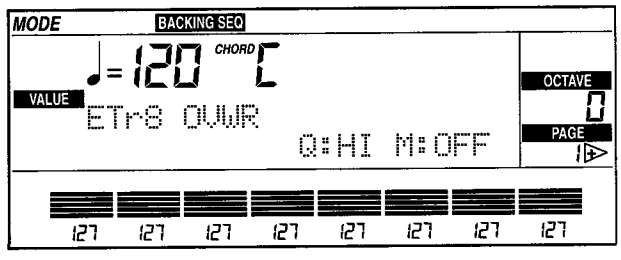
❸ If you have inserted a blank disk you need to format it.

1. Move the cursor to (UTIL) using the CURSOR buttons. Press ENTER/YES to enter the "Utilities" sub-page.
2. Move the cursor to (FORMAT) using the CURSOR buttons. Press ENTER/YES to enter the "Format disk" sub-page.
3. Press ENTER/YES to start formatting. After a couple of minutes the disk will be ready to use.
4. Press EXIT/NO to go back to the main page of the Disk/Global mode.

❹ Move the cursor to (SAVE) and press the ENTER/YES button to enter the "Save" sub-page.

❺ Move the cursor to (BSQ) and press the ENTER/YES button.

The following display will appear.



Note: If you have used an arrangement from the USER bank, choose (ALL) instead of (BSQ). This operation will save the entire contents on memory, including the USER arrangements and USER programs used by the backing sequence.

❻ Assign a new filename.

1. Move the cursor using the CURSOR buttons, to the character you wish to change.
2. Change the character using the TEMPO/VALUE buttons or the DIAL.
3. Insert a new character pressing INS, and delete a character pressing DEL.

❼ Press ENTER/YES to save the file on disk.

(At this stage, you can press EXIT/NO instead, if you wish to cancel the operation).

❽ When the message "Completed" appears on the display press the B.SEQ button to go back to the Backing Sequence operative mode.

Deleting Backing Sequences

If the backing sequence isn't that great, you can delete it. The backing sequences use up space in memory, taking it away from other data (e.g. songs in Song Edit, other backing sequences).

1. Press B.SEQ to enter the Backing Sequence mode.
2. Press PAGE [+] repeatedly to get to "Page 3: Erase Backing Sequence" of the Backing Sequence mode.
3. Press ENTER/YES twice to delete the backing sequence from memory.
4. Press EXIT/NO to go back to the first page of the Backing Sequence mode.

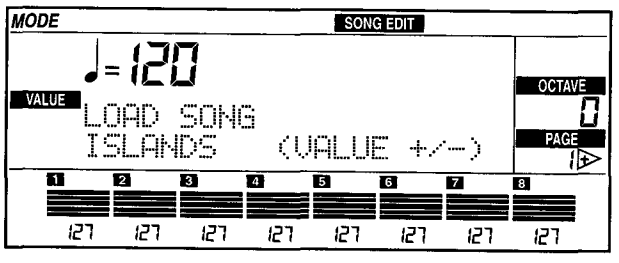
Standard MIDI Files (SMF)

Editing Standard MIDI Files (SMF)

A SMF can be modified, for example by adding a solo or changing the program played by track. Let's try to edit the song "i-Lands" which is supplied along with the instrument.

Loading and listening to a song

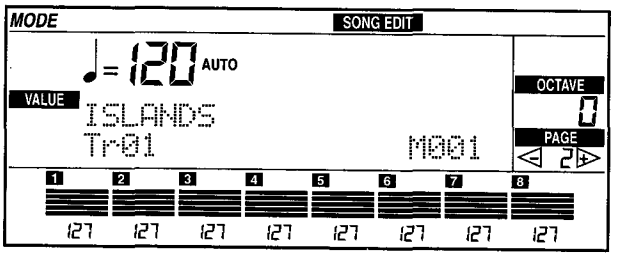
1. Insert the disk supplied with the instrument into the disk drive.
2. Press SONG EDIT to enter the Song Edit mode.
3. Select the file with the TEMPO/VALUE buttons.



4. Press ENTER/YES twice to load the song "ISLANDS".

   The message "Now loading" will appear. When finished, the message "Completed" will appear.

5. Press PAGE [+] repeatedly to get to "Page 2: Playback and recording".



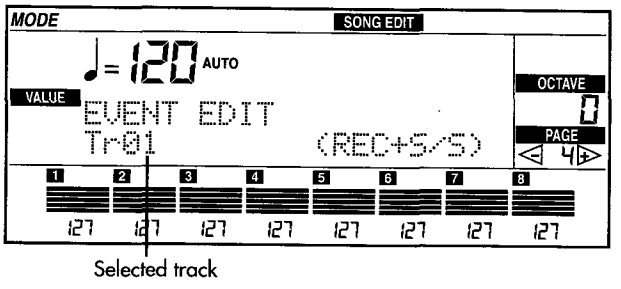
6. Press START/STOP to listen to the song.

   The song will be played from beginning to end. When it stops, the sequencer will go back to measure number 001. You can stop playback halfway through the song, by pressing START/STOP; in this case, press RESET to get back to measure number 001.

Changing the sound of a track

Let's change the program of the melody line. We will replace the pan flute with an alto sax.

1. Press PAGE [+] repeatedly to get to "Page 4: Event edit".

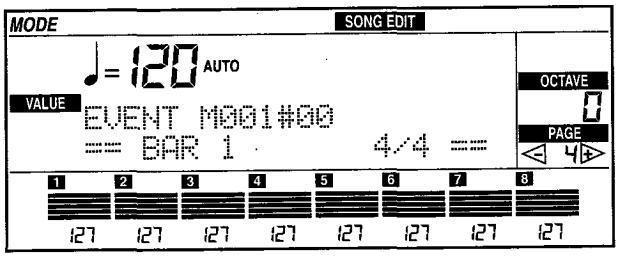


Selected track

❷ Select track 6 (Tr06) using the TEMPO/VALUE buttons (or the DIAL).

The panpipes are to be found in track 6 (Tr06).

❸ Press REC/WRITE, then START/STOP to access Event Edit.

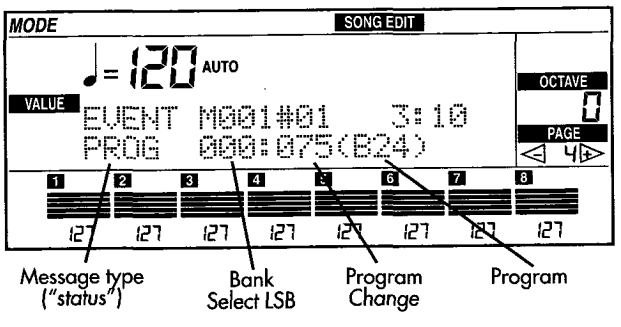


❹ Use the CURSOR buttons to move the cursor to M001#00.

M001#00 indicates the measure number and the "step" inside the measure (001 = measure 1, #00 = initial step of the measure).

❺ Press TEMPO/VALUE [UP/+] to select M001#01.

The #01 step is the first measure step that contains performable data (for example, notes). There will be a message showing the change of program on the second line of the display text.



❻ Using the CURSOR buttons, move the cursor to "075".

Number "075" is the value of the MIDI Program Change message. A program can be selected through the combination of two Bank Select (usually abbreviated in BS MSB and BS LSB, for the upper and lower parts) and Program Change (usually abbreviated in PC) messages. In the iS40/iS50 the BS MSB=000, BS LSB=00 and PC=075 combination corresponds to program B24 (bank B, program 24), which are the panpipes.

❼ Change number to "065" using the TEMPO/VALUE buttons (or the DIAL).

The PC number "65" corresponds to the B12 program (Alto Sax).

❽ Press START/STOP to exit Event Edit.

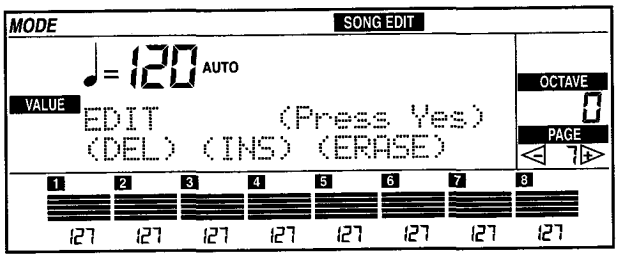
❾ Press PAGE [–] to get back to page 2 (Play).

❿ Press START/STOP to listen to the edited song.
The melody will now be played by an alto sax.

Deleting parts of a song

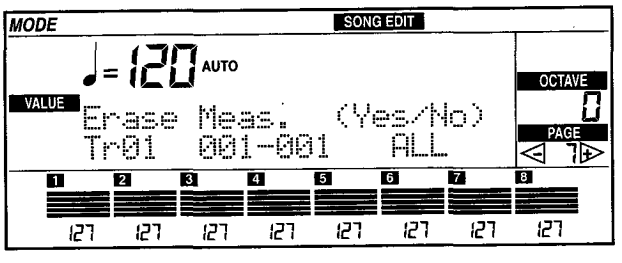
In this example we shall delete the marimba accompaniment from the first four measures.

❶ Press PAGE [+] repeatedly to get to "Page 7: Edit".



❷ Move the cursor to (ERASE) using the CURSOR buttons.

❸ Press ENTER/YES.



❹ Move the cursor to "Tr01".

❺ Press TEMPO/VALUE [UP/+] to select "Tr05".

The marimba part is on track 5 (Tr05).

❻ Move the cursor to "001" located at the right of the arrow (→).

As we want to delete the first four measures, measure 001 should be to the left of the arrow and measure 004 to the right of it.

❼ Press TEMPO/VALUE [UP/+] repeatedly to select measure number "004".

❽ Press ENTER/YES.

A message reading "Completed" will appear on the display. The first four measures of the marimba part will be deleted.

❾ Press PAGE [–] repeatedly to get to page 2 (Play).

❿ Press START/STOP to listen to the song.
The marimba part will not play at the beginning of the song anymore.

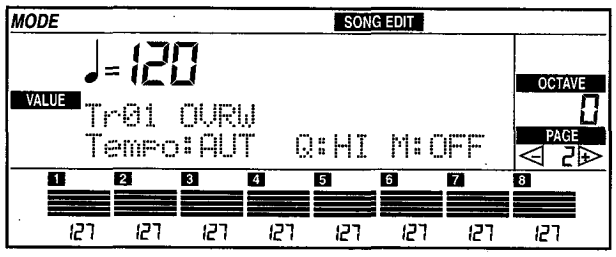
Adding parts to a song

In this example, we shall add a counterpoint melody to the song, recording it onto track (Tr07).

❶ If you are not already at page 2 (Play), press EXIT/NO, or hold down SONG EDIT and press ARRANGEMENT NUMBER [2].

(This is a shortcut to get directly to a page).

❷ Press REC/WRITE.

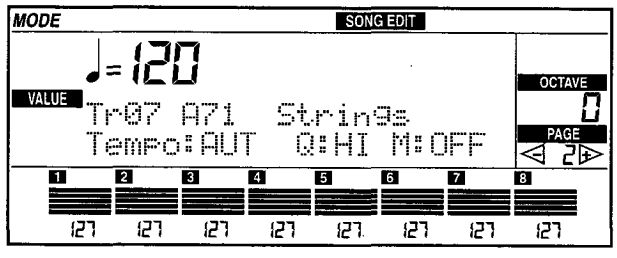


❸ Move the cursor to "Tr01" using the CURSOR buttons.

❹ Press TEMPO/VALUE [UP/+] repeatedly to select "Tr07".

❺ Press PROGRAM BANK [A], then PROGRAM NUMBER [7] and [1].

This will assign the "A71 Strings" program to track 7 (Tr07).



❻ Press START/STOP to start recording. Play the new part.

After a two-measure precount, recording will begin.

❼ When finished, press START/STOP to stop recording.

If you have made any mistakes, press RESET and begin recording again, following the instructions from step 2 to step 7.

❽ Press START/STOP to listen to the song.

Saving a Standard MIDI File (SMF)

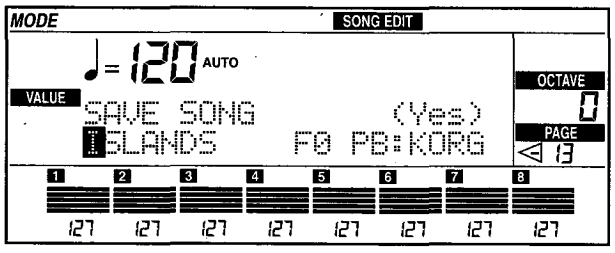
The songs and backing sequences contained on memory will be lost when you turn the instrument off, therefore you need to save them on disk. The following procedure will save the song you have just edited, giving it the name I_LANDS.

❶ Insert a new disk into the disk drive.

The disk must be formatted, not copy-protected, and must have space enough for your song.

❷ If you are not already in the Song Edit mode, press SONG EDIT.

❸ Press PAGE [+] repeatedly to get to "Page 13: Save" in the Song Edit mode.



❹ Move the cursor to the "S" of the name, using the CURSOR buttons.

Be careful: If you are saving on the same disk where the original song is stored, you absolutely need to change the name of the file that you are saving. A disk cannot contain two files with the same name (in the same directory).

❺ Press TEMPO/VALUE [UP/+] repeatedly to substitute the "X" with the underline character (_).

❻ Press ENTER/YES.

The display message "Are you sure?" will appear. Press ENTER/YES again to save the Standard MIDI File on disk. When it has finished, the display message "Completed" will appear.

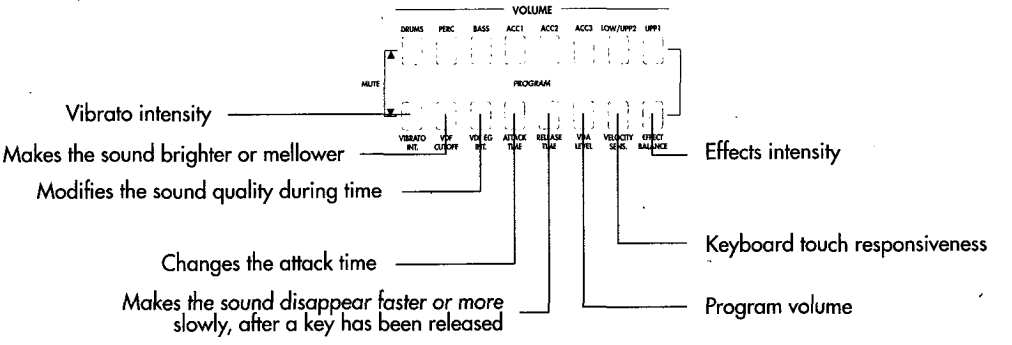
The programs

Editing a program

iS40/iS50 has a vast selection of Korg sounds, the same sounds that you hear on records and in concerts of many famous artists. However, it is also your creativity that needs suitable sounds, these you can create in Performance Edit by changing the fundamental parameters of the sound. You can start from a program that is close to what you wish to create, perform the changes and save the program in the F(USER) bank. In this example, we shall start with a digital piano.

❶ Press PROGRAM to enter the Program mode.

With this setting the VOLUME buttons work from the program section PROGRAM. The upper button increases the indicated parameter value under the buttons, the lower button decreases it. On the display, the volume indicators are transformed into parameter value indicators.



❷ Select the program you wish to edit.

In this case, we want to select the digital piano, so press PROGRAM BANK [A], then PROGRAM NUMBER [1] [6].

❸ Press the upper button PROGRAM [VIBRATO INT.] to increase the vibrato.

❹ Press the lower PROGRAM [VDF CUTOFF] button for a few moments to make the sound less brilliant.

If you have closed the sound too much, press the upper button to reopen the filter. VDF means Variable Digital Filter.

❺ Press the upper PROGRAM [ATTACK TIME] button, for few moments in order to make the sound attack slower.

❻ Press the upper PROGRAM [RELEASE TIME] button for a few moments to make the sound disappear more slowly.

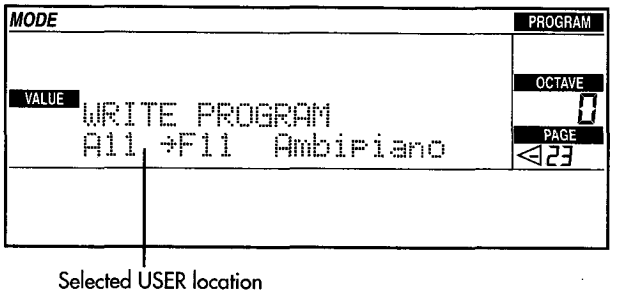
If the sound lasts too long, press the lower button to slightly shorten the release time.

❼ Regulate the program volume using the PROGRAM [VDA LEVEL] buttons.

VDA means Variable Digital Amplifier.

❽ Regulate the effect balance using the PROGRAM [EFFECT BALANCE] buttons.

❾ If you wish to save the program you have edited, press REC/WRITE to go to "Page 22: Write program" (see page 169).



Selected USER location

❿ Using the TEMPO/VALUE buttons (or the DIAL). select the position in the F(USER) bank, where you wish to save the program.

⓫ Press ENTER/YES to save the program.
(At this stage you can press EXIT/NO instead, if you wish to cancel the operation).

Warning: The program you are saving will substitute and therefore delete the existing program at the selected location. Don't press ENTER/YES if you are not sure that you want to lose the program.

5. MIDI

MIDI (*Musical Instruments Digital Interface*) is a standard interface that allows two or more electronic instruments to communicate with each other. In addition, MIDI also allows you to connect the instrument to a computer that has a MIDI interface.

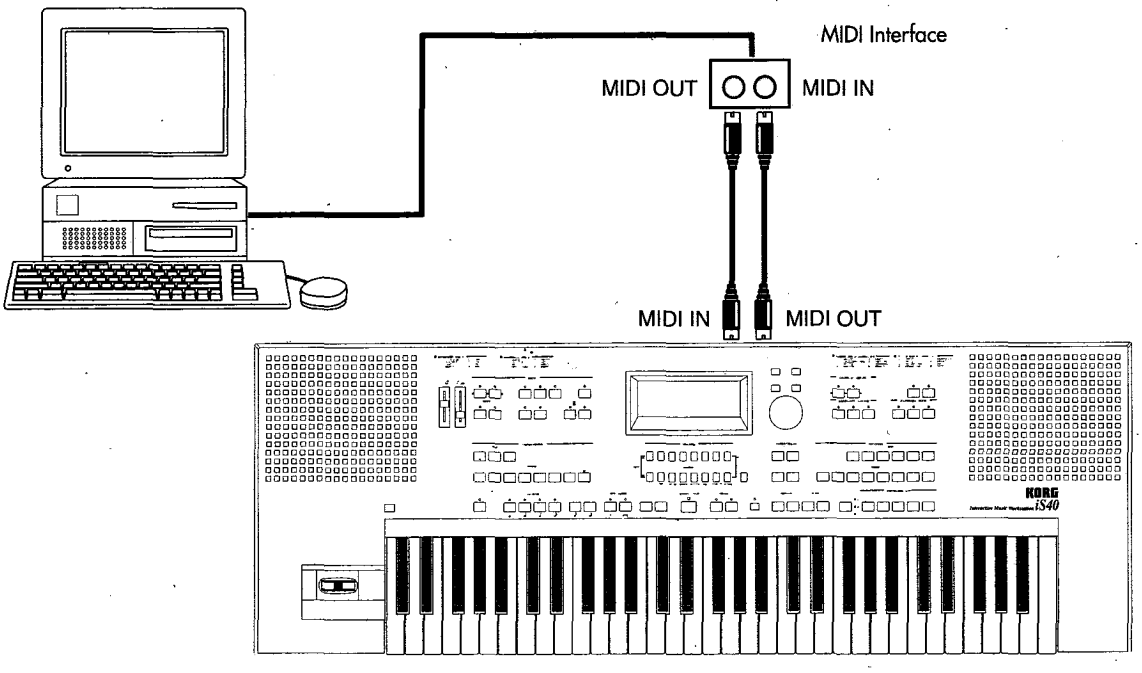
Using the iS40/iS50 with an external sequencer

Even though the iS40/iS50 has a built-in sequencer, there are computer sequencers that have more powerful editing functions. In general, it is easier to use the internal sequencer of the iS40/iS50 to compose songs that are based on the automatic accompaniments (i.e. a backing sequence), and to use a computer sequencer to make Standard MIDI Files (SMF).

Connecting MIDI

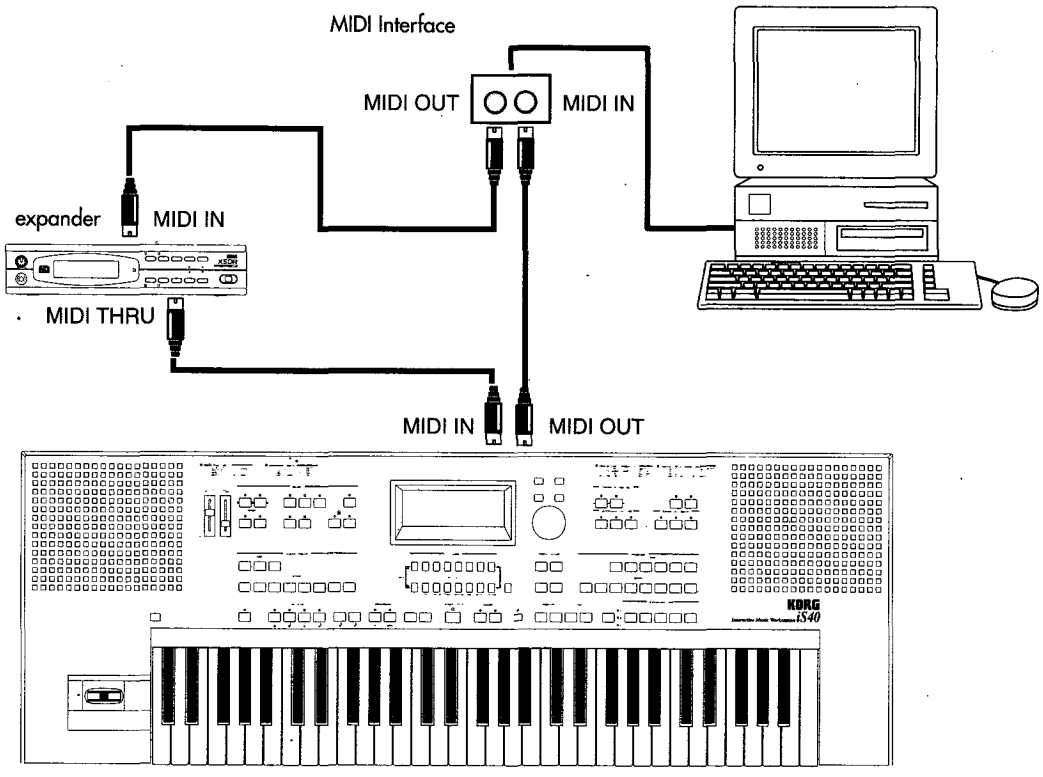
In order to connect the iS40/iS50 to a computer, you need to have a computer with the MIDI interface. (Alternatively, you can connect the PC TO HOST connector of the iS40 directly to the computer outlet, as is explained in the next chapter).

Connect the iS40/iS50 to the computer as in the following diagram.



The notes that are played on the iS40/iS50's keyboard come from the MIDI OUT connector and are sent to the MIDI IN connector of the MIDI interface, which then transmits them to the computer. The notes that are sent from the computer (for example playing back a song by the external sequencer) are sent to the MIDI interface, and transmitted from the MIDI OUT to the iS40/iS50's MIDI IN.

If you wish to connect an expander, connect the computer and the instruments as shown below.



The notes played on the iS40/iS50's keyboard come from the MIDI OUT connector and are sent to the MIDI IN connector of the MIDI interface, which transmits them to the computer. When the computer transmits notes, the data is sent to the MIDI interface, and from the MIDI OUT sent to the MIDI IN of the expander. The data will then be retransmitted from the MIDI THRU of the expander, to the iS40/iS50's MIDI IN without any changes.

(*iS40:* If the expander does not have a MIDI THRU connector, connect the MIDI OUT of the MIDI interface to the iS40's MIDI IN, and the iS40's MIDI THRU to the expander's MIDI IN).

Performing a song from computer

❶ Press SONG PLAY to enter the Song Play mode.

When in the Song Play mode, the iS40/iS50 puts at your disposal a 16 MIDI channel external sequencer. There is a corresponding iS40/iS50 MIDI channel for every MIDI channel of a SMF that is played back by the external sequencer.

Each MIDI channel can play a different program, has its own effect send and its own panpot (positioning between the stereo channels). You should imagine every MIDI channel as an instrument in a band or orchestra: for example, you can have the piano on channel 1, sax on channel 2, strings on channel 3... You are free to set them where you like, apart from channel 10 which is reserved for the drum kit.

The instrument can be controlled completely by the external sequencer. In reality, along with the notes, a song can contain control events called MIDI controller, which can regulate parameters such as volume, vibrato, pan, pedal, etc. The MIDI controller list can be found in the Appendix.

It is possible however, to directly program the general parameters of each channel (program, pan, effect send) from the iS40/iS50's control panel. (*See page 95*).

❷ Load the song (in SMF format) into the external sequencer, and put it onto playback.

The computer sequencer controls the Start/Stop functions. At this stage, the iS40/iS50 will become a simple expander.

Note: The iS40/iS50 is a General MIDI compatible instrument. If the SMF you are playing back is General MIDI compatible, the right sounds will be selected, if not the sounds might not correspond. See the following paragraph.

The programs

And now for a few technical terms.

The song that is played back by the external sequencer, can select the iS40/iS50's programs, through the two MIDI messages Bank Select and Program Change. The first column in the chart, indicates the Bank Select number, the second column indicates the Program Change number, the third column the iS40/iS50 selected program number.

Bank Select No.	Program Change No.	iS40/iS50's Program
0	0–63	A11–A88
	64–127	B11–B88
1	0–63	C11–C88
	64–127	D11–D88
2	0-63	E11-E88
3	0–63	F11–F88
4	0–127	Dr11–Dr28

A suggestion for those who program songs on computer: Even though it is not essential, you usually set the bass on channel 2, melody on channel 4, drum kit on channel 10, control of the Korg ***ih*** harmonizer on channel 16.

Sending data to the computer (Local Control Off)

When the iS40/iS50 is connected to the computer, it is always advisable that the Local Control parameter is turned OFF. Local Control Off means that the iS40/iS50 keyboard will not directly play the internal programs, but will limit itself to sending MIDI data to the computer. The computer will send the data to the iS40/iS50's internal tone generator. It is like having two separate instruments: a mute keyboard (master keyboard) and an expander.

Local Control On would cause the return of the notes, which would be played twice (once by the keyboard and once by the MIDI).

1. Press DISK/GLOBAL to access the Disk/Global mode.
2. Press PAGE [+] repeatedly to get to page 3 (Local Control).
3. Switch the setting to "Off", with the TEMPO/VALUE buttons (or the DIAL).
4. Press SONG PLAY to get back to the Song Play mode.

   At this stage, you have to make the external sequencer send data to the iS40/iS50's MIDI IN. Follow the next steps.

   On the external sequencer, switch the "MIDI Thru" setting on. The name of the setting depends on the software you are using; apart from MIDI Thru, there could be, for example, Echo Back, Patch Thru, Echo On, etc.

- To regain access to Local Control, repeat the operation that was described above, switching the setting onto "On".
  When you switch the instrument on, Local Control will automatically be "On".

Controlling the iS40/iS50 with a master keyboard

If you wish to use a master keyboard instead of the iS40/iS50 integrated keyboard, connect the MIDI IN connector of the iS40/iS50 to the MIDI OUT connector of the master keyboard. The master keyboard must transmit on the same channel of the iS40/iS50 Global channel. At this point, the master keyboard and its controls become the equivalent of the iS40/iS50 integrated keyboard, pedals and joystick. Refer to page 123 for the programming of the iS40/iS50's Global channel.

Controlling another instrument with the iS40/iS50

You can use the iS40/iS50 as a master keyboard or as an arrangement module for other instruments. Connect a MIDI lead to the iS40/iS50's MIDI OUT connector to the MIDI IN connector of an expander or another keyboard.

Using the iS40/iS50 as a master keyboard

In order to use the iS40/iS50 as a master keyboard, switch the Local Control setting to "Off", as explained earlier in the "Sending data to the computer" (Local Control Off) section.

You can change the sounds of the instrument controlled by the iS40/iS50's control panel. As both of the iS40/iS50's A and B banks are General MIDI compatible, if the instrument that is connected is compatible with these standards and you only select the sounds of the iS40/iS50's A and B banks, the sounds selected in the iS40/iS50 and the other instrument will perfectly coincide.

Using the iS40/iS50 as an arranger

The accompaniment section can control another instrument. If the controlled instrument ("slave") is General MIDI compatible, there won't be any problems using arrangements that make use of only General MIDI programs (A and B banks).

What is General MIDI?

General MIDI (abbreviated GM) is a series of added MIDI specifications, that allow you to play a song on different instruments without any modifications.

Until General MIDI appeared, there were no standards that governed the organization of sounds and how to select them. When a song was played by a different MIDI instrument to the original, the sound could differ entirely from the original ones. For example, a snare might play instead of a hi-hat, a crash cymbal instead of a bass drum, or a synth brass instead of a piano, and so on.

Therefore, in order to play a song on a different instrument, you needed to prepare a comparison table, which allowed you to identify the sounds on the new instrument that corresponded to those on the old one. In addition to the sounds, you also had to adjust other parameters, for example the volume and the effects.

General MIDI standardizes the organization of sounds, in such a way that the piano track is always played by a piano and the drum kit track by a drum kit; it also standardizes the setup of the drums in a drum kit, the principle sound parameters (attack, sustain, release...), volume levels and controls for the effects and effect send functions. The song can be played in the same way on any General MIDI compatible instrument.

What are Standard MIDI Files?

"Standard MIDI File" format (abbreviated as SMF) is a standard that allows you to exchange songs between different sequencers, meaning incorporated sequencers in musical instruments, or computer software. SMF are not necessarily GM compatible.

The iS40/iS50 sequencer is compatible with SMF 0 and 1 formats. It can read SMF in the Song Play mode (*see page 93*) and be edited in the Song Edit mode (*see page 98*). In the Backing Sequence mode, it can save a backing sequence in a normal SMF format 0 (*see page 91*).

6. Connecting directly to a computer *(iS40)*

Thanks to the PC TO HOST outlet, it is possible to connect the iS40 to a computer with just one serial cable, with no need of a MIDI interface. In order to connect, you will need a special connecting kit (optional), which you can purchase from any Authorized Korg Dealer:

- PC IBM compatible: kit **AG-001** (cable, driver software "KORG MIDI Driver").
- Apple Macintosh: kit **AG-002** (cable, driver software "KORG MIDI Driver").

Note: Some software might not permit direct connection via a serial cable. Consult the instruction manual for the software you wish to use.

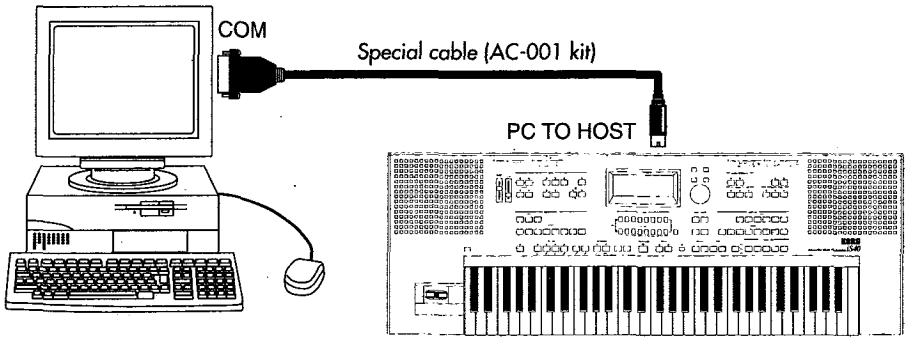
Warning: Do not connect both the MIDI OUT and PC TO HOST connectors to the same external device. Only connect one of the two connectors to an external device.

Connecting to an IBM PC and compatible

Connect the serial port (COM) of the PC to the PC TO HOST connector of the iS40, with the cable included in the Korg AG-001 kit. (*As in the image*).

If the serial port is a 25 pin type, use a 9 pin-25 pin adapter (optional, purchasable from Authorized Korg dealers or computer stores).

Set the Host BR parameter to a value of "38.4". (*See paragraph "HOST BR settings" further on in this manual*).

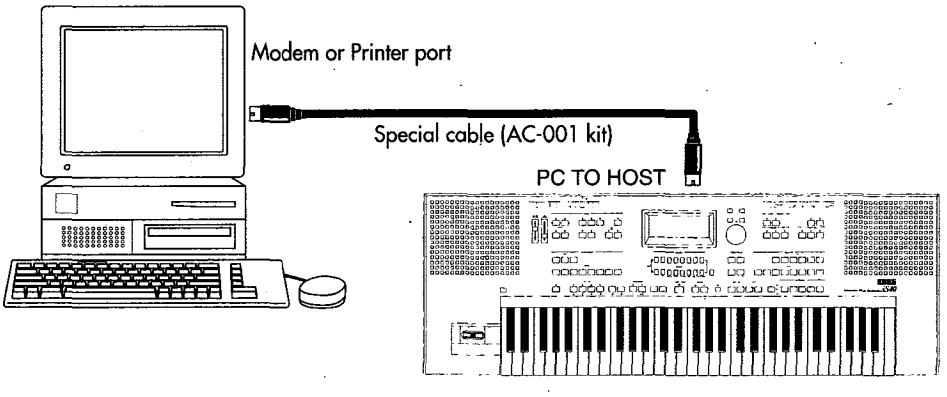


The software you need to control the iS40 must be Windows compatible or directly support the iS40. If you use Windows, install the KORG MIDI Driver by following the procedure explained on page 44.

Connecting to an Apple Macintosh

Connect the modem port or the printer port of the Mac to the PC TO HOST connector of the iS40, with the cable in the Korg AG-002 kit. (*As in the image*).

Set the Host BR to the value of "31.25". (*See paragraph "HOST BR settings" further on*).



HOST BR settings

"Host BR" means "Host Baud Rate", that is, "transmission speed of an external device". This setting allows you to adjust the speed of the PC TO HOST port to that of the computer.

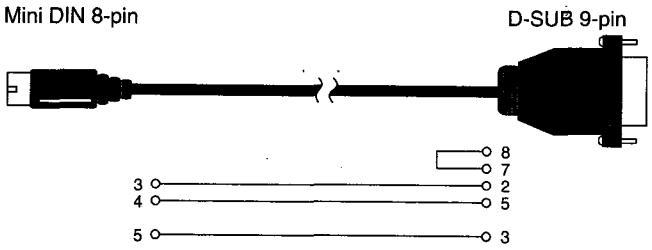
❶ Press DISK/GLOBAL to access the Disk/Global mode.

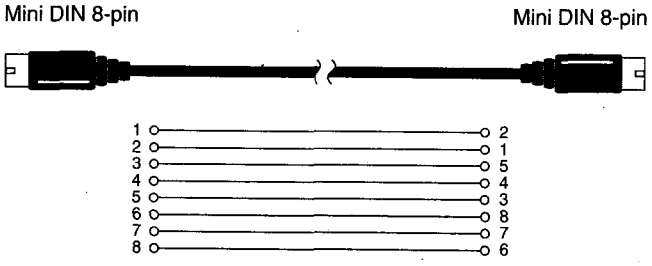
❷ Use the PAGE buttons to get to "Page 3: Local control/Clock source/Host baud rate".

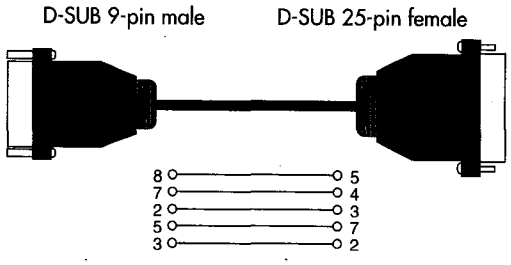
❸ Use the CURSOR buttons to select "Host BR".

❹ Use the TEMPO/VALUE buttons (or the DIAL) to select 31.25 k (Mac) o 38.4 k (IBM PC compatible).

Cable connection diagrams







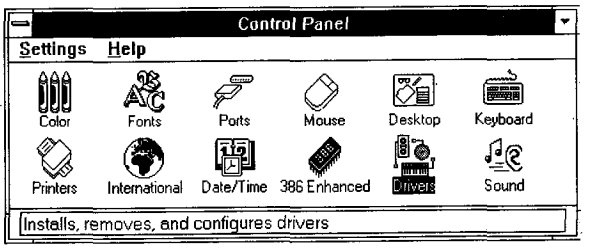
Installing and setting up the "Korg MIDI Driver" software

The "Korg MIDI Driver" software, included in the AG-001 and AG-002 connection kits, enables the computer software to read and totally manage the iS40. With IBM PC computers (or compatibles), the Korg MIDI Driver works with Windows compatible sequencers. With Apple Macintosh, the Korg MIDI Driver works with Apple MIDI Manager compatible sequencers.

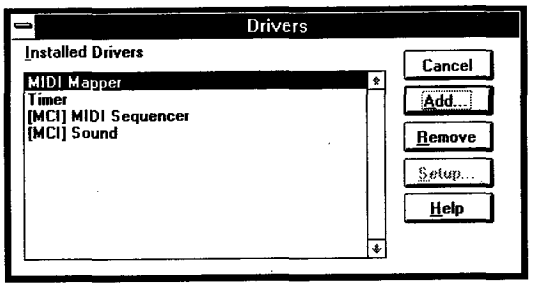
Installing the Korg MIDI Driver into Windows 3.1

Note: Data from MIDI IN may not be received correctly if your computer is too slow.

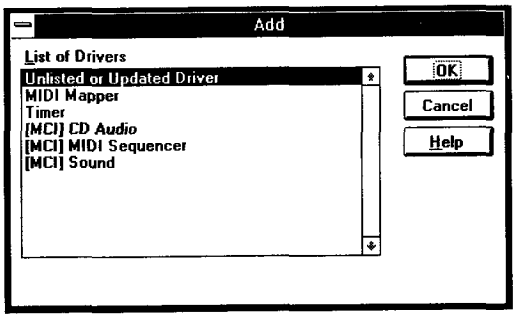
❶ In the Control Panel, double click the Drivers icon.



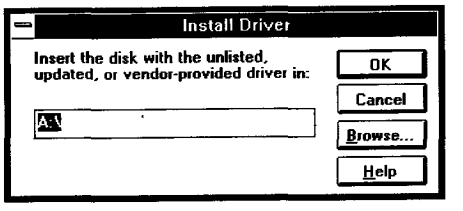
❷ Click on [Add...].



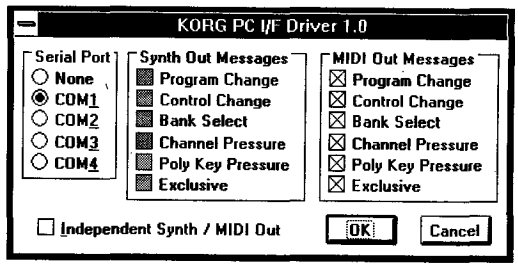
❸ From the list of drivers, select [New or updated driver] and click on [OK].



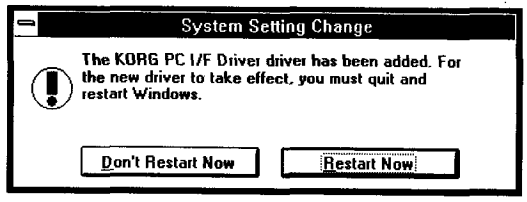
❹ Insert the disk included with the AG-001 kit into disk drive A of your computer and type "A:\" (or "B:\" if you are using disk drive B), and then click on [OK].



❺ Select Korg PC I/F Driver, and click on [OK]. The setup window will appear. Follow the instructions of "Setting up the Korg MIDI Driver (Windows)", in the next section, to perform setup.

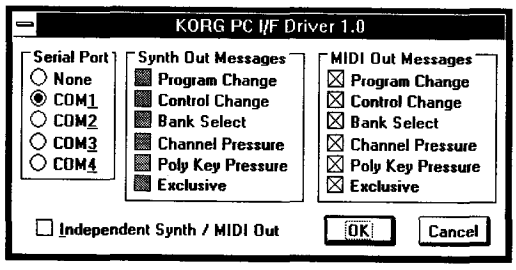


❻ After setup is complete, remove the floppy disk and select [Restart now] to make the driver operational.



Setting up the Korg MIDI Driver (Windows)

❶ Double click on the Drivers icon in the Control Panel, select [Korg PC I/F Driver], then click on Set to open the setup window.



❷ From the Serial Port list, select the serial port that the instrument is physically connected to (COM1 ~ COM4).

If, in the future, you wish to use the serial port for a different purpose, you can delete the Korg MIDI Driver or select [None] to disconnect it.

❸ The [Independent Synth/MIDI Out] option is not to be used while the instrument is connected through the serial port, therefore you must not select it.

By selecting this option, the transmission of MIDI data may not function correctly.

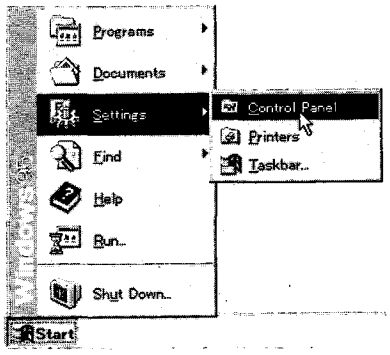
❹ In the [MIDI Out Messages] list, choose which messages that will be transmitted to the instrument.

❺ After setup is complete, click on [OK]. If you want to cancel the modifications you have made, click on [Cancel].

Installing the Korg MIDI Driver into Windows 95

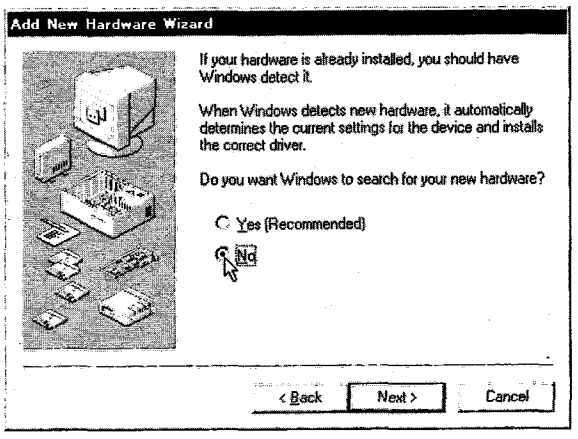
Note: Data from MIDI IN may not be received correctly if your computer is too slow.

❶ In the task bar, click on [Start]. In [Settings], click on [Control Panel].

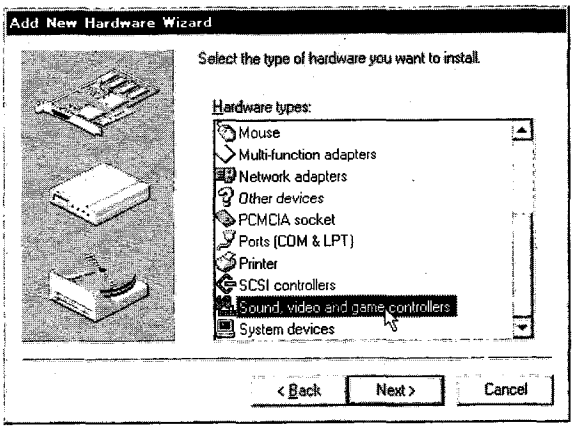


❷ In the Control Panel, double click on the [New Hardware] icon to start up the guided installation of your hardware. Click on [Next >].

❸ You should answer [No] to the question "Search for new hardware?", then click on [Next >].

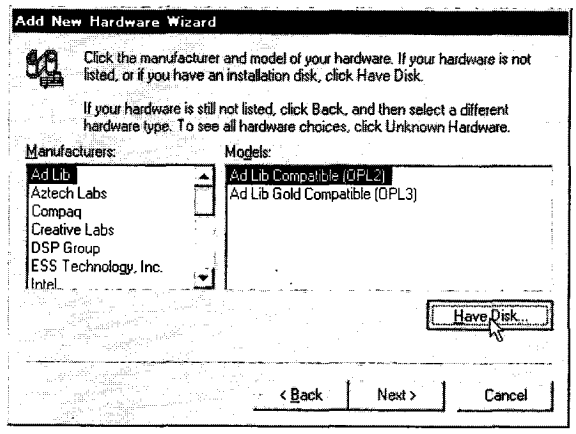


❹ Select [Sound, video and game controllers] and click on [Next>].



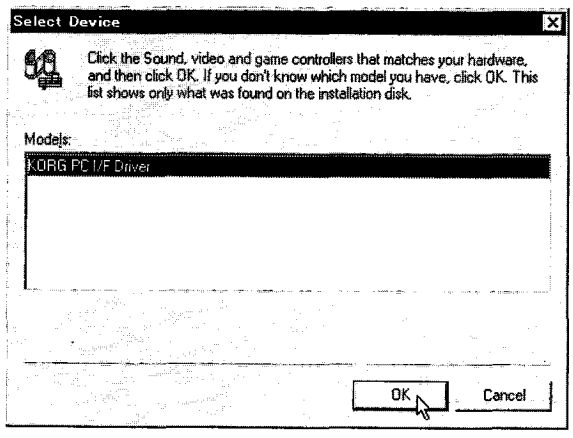
❺ Click on [Disk...].

A dialog window will appear where you can indicate the floppy disk drive and directory.

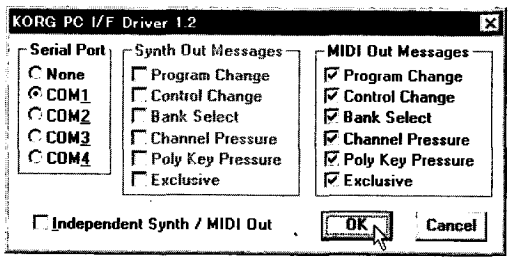


❻ Insert the disk included with the AG-001 connection kit, into the disk drive of your computer. If you have inserted the disk into drive A, type "A:\" (or "B:\" if you are using drive B), then click on [OK].

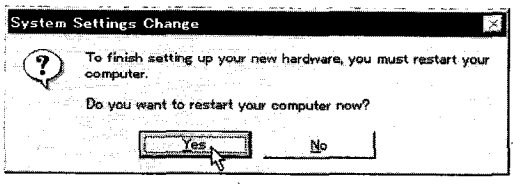
❼ Click on [OK], then click on [End].



❽ Perform the driver setup by following the procedure described on page 45 in the "Setting up the Korg MIDI Driver (Windows)" section, then click on [OK].



❾ Restart your computer to make the driver operational.



Setting up the Korg MIDI Driver for Windows 95

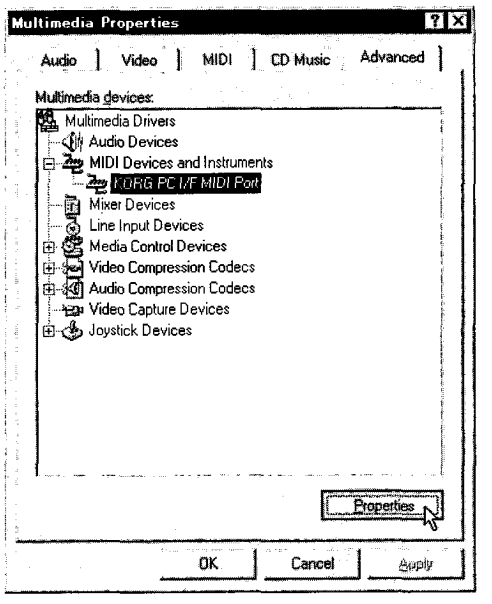
❶ In the Control Panel, double click on the [Multimedia] icon, so that the Multimedia Properties dialog window will appear.

❷ Click on the [Advanced] tab located to the upper right.

❸ Click on the [+] next to [MIDI Devices and Instruments] (the symbol will change to [–]), then click on [Korg PC I/F MIDI Port].

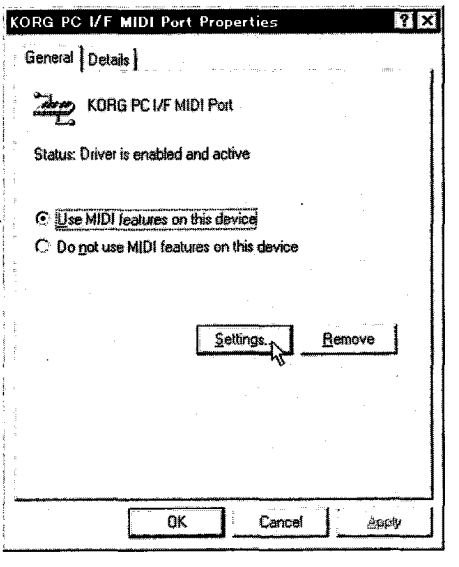
❹ Click on [Properties].

The "Korg PC I/F MIDI Port" properties will be displayed.



❺ Click on [Properties...].

Follow the instructions in the "Setting up the Korg MIDI Driver (Windows)" section on page 45, then click on [OK]. If you have modified something, you must restart Windows.



Installing the Korg MIDI Driver into a Macintosh

Note: In order to install the Korg MIDI Driver, the Apple MIDI manager and PatchBay must already be installed (they are not supplied with the A-002 kit). Use the Apple MIDI Manager and PatchBay supplied with the software that you wish to control the iS40 with.

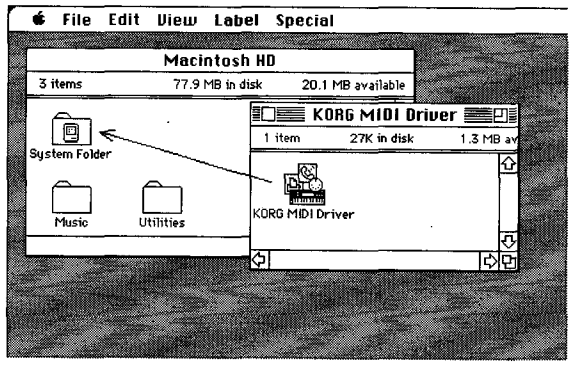
Once you have installed the Korg MIDI Driver, it is possible to turn on or off from the computer, the MIDI channels and MIDI messages that will be transmitted to the iS40. The programming of this is dealt with in the dialog window "Modem MIDI Out/Port settings" (see further on). If you are not interested in selecting MIDI channels and messages, you can use the normal Apple MIDI Driver without installing the Korg MIDI Driver.

❻ Copy the Korg MIDI Driver, contained in the disk included in the AG-002 kit, in the System Folder of your startup disk.

❼ If the System Folder already contains the Apple MIDI Driver, either delete it or move it to another folder. Be careful not to either delete or move the Apple MIDI Manager.

* The Korg MIDI Driver includes all the functions of the Apple MIDI Driver.

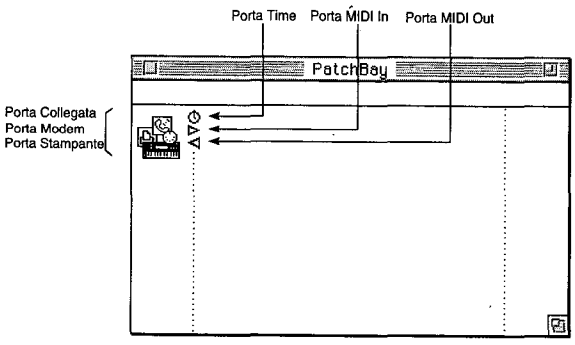
❽ Select "Restart" from the Special menu.



Setting up the Korg MIDI Driver (Macintosh)

❶ Open PatchBay.

If installation has been performed correctly, the Korg MIDI Driver icon will appear in the PatchBay window, as shown in the image alongside. (Depending on the system setup, the Modem/Printer port icon might be displayed differently).

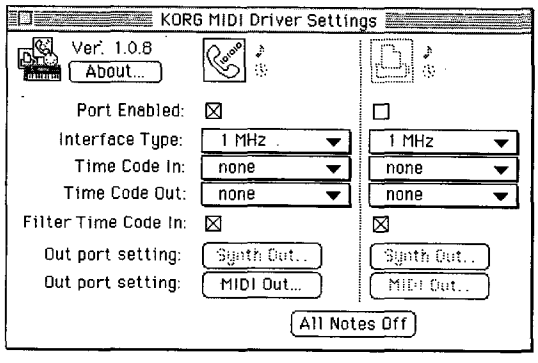


❷ In PatchBay, double click on the Korg MIDI Driver icon.

The "Korg MIDI Driver Settings" dialog window will appear.

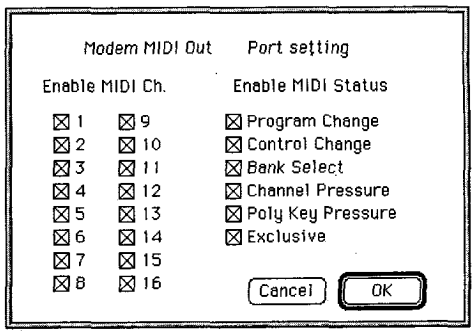
❸ Select the Port Enabled for the port where the instrument is connected, and then [1 MHz] as the Interface Type.

(Do not select [Korg PC I/F], non compatible with the Macintosh).



❹ Click on the [Out Port Setting: MIDI Out] button.

The dialog window shown alongside will appear. In this dialog window you can select the MIDI channels and messages you wish to output from each port. Once you have programmed this, click on [OK].



❺ Start up your MIDI application (sequencer); whose icon will appear in the PatchBay window. Drag the mouse from the Out Port ▷ symbol of the MIDI application, to the MIDI IN symbol of the MIDI Driver.

• You can find more information on using PatchBay in "About PatchBay..." in the " " menu.

Setting up the Apple MIDI Driver

If you wish to use the Apple MIDI driver instead of the Korg MIDI driver, remove the Korg MIDI Driver from the System Folder, open the PatchBay, double click Apple MIDI Driver icon, select Enabled for the port that the instrument is connected to, and then [1 MHz] as the Interface Type, finally, close the dialog window. In PatchBay, drag the mouse from the Out Port ▷ symbol of the MIDI application (sequencer) to the MIDI IN of the Korg MIDI Driver.

Applications which do not use the Apple MIDI Manager

If you wish to use a MIDI application (sequencer) that is incompatible with the Apple MIDI Manager, program the communication parameters through the MIDI Preferences of the application itself. As a communicating port, select the port that the instrument is actually connected to (Modem or Printer). Choose a [1 MHz] Clock.

Reading Standard MIDI Files with Macintosh

As SMF are usually supplied in MS-DOS formatted disks, a Macintosh must be equipped with software that enables it to read MS-DOS disks, e.g. PC-Exchange (standard in the more recent Mac range), DOS Mounter or AccessPC.

Converting SMF documents through PC Exchange

In the following example let's imagine you want to read the songs in SMF format, contained in a MS-DOS disk, with the MIDI player included in the Korg Audio Gallery pack.

❶ In the Control Panels, open PC Exchange.

The PC Exchange control panel will appear.

❷ Click on the [Add...] button.

The [Specify application associated with DOS extension] window will appear.

❸ Type "MID" into the DOS Extension box.

MS-DOS recognizes the type of document thanks to an extension consisting of a period and three letters after the file name. SMF documents usually have the ".MID" extension.

❹ From the list of documents that appears in the lower part of the window, select application "MIDI Player v1.0.1".

Underneath the Macintosh Application title, the selected application icon will appear. This application (sequencer) will be used to open SMF documents.

❺ From the [Document Type] pop up menu, choose the [MIDI] format and click on [OK].

The new item which refers to the SMF documents will be added to the format/application list shown in the PC Exchange window, and will automatically be registered there.

Now you can insert a MS-DOS disk containing songs in SMF format, and read the songs directly.

* For more information on reading MS-DOS disks, see the instructions in the "DOS and Windows documents" section of the Mac OS Guide (Help menu).

REFERENCE GUIDE

7. Arrangement Play mode

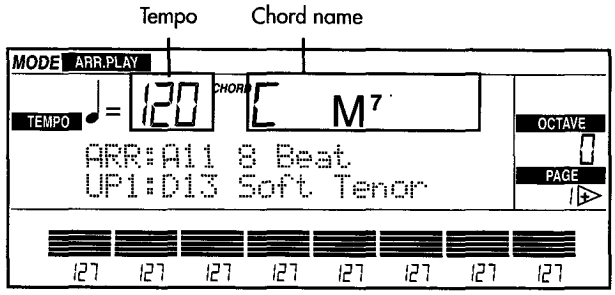
Functions of Arrangement Play mode

The following table lists the Arrangement Play mode pages, and the main functions contained in each page.

Display page	Function	Manual page
1. Performance monitor	Select arrangement and programs	☞P. 56
2. Style select	Select a style	☞P. 57
3. Track setting (1)	Select a program, set pan and effect send level	☞P. 58
4. Track setting (2)	Damper pedal settings, track status, wrap around point, octave	☞P. 59
5. Ensemble/Variation change	Program the ensemble, automatic selection of variation after a fill in	☞P. 60
6. Keyboard scale	Scale selected by the arrangement	☞P. 61
7. Effect select	Effect type, effect on/off	☞P. 62
8. Effect modulation	Effect modulation	☞P. 62
9. Effect setup	Effect setup, C/D pan programming, L/R levels for Effects 1/2	☞P. 62
10. Effect 1 settings	Program effect 1 parameters	☞P. 62
11. Effect 2 settings	Program effect 2 parameters	☞P. 62
12. Rename Arrangement	Modify the arrangement name	☞P. 63
13. Write Arrangement	Save procedure of arrangement into USER bank	☞P. 64
14. Write Keyboard Set	Save procedure of keyboard set into memory	☞P. 64

Tempo and chord scanning

The tempo and chords are always shown at the top of the page.



♩ = (Tempo) [40...240]

Adjust the tempo using the TEMPO/VALUE buttons or the DIAL. In iS40, you can define the tempo by tapping it on TAP TEMPO/DEL. Values: ♩ = 40 – 240.

AUTO — Normal metronome functioning.

EXT — External Synchronism. Automatically selected if the Clock Source parameter in the Disk/Global mode is on MIDI or HOST. Start/Stop and tempo are controlled by an external device connected to MIDI (sequencer, other keyboards).

Name of the chords

When a chord is played, its abbreviation appears on the display. The chords control the arrangement patterns. Because the chords are detected, one of the Chord Scanning modes must be selected (if the led of the CHORD SCANNING section are all off, the name of the chords will not appear on the display).

- Chord Scanning LOWER: detects chords below the split point.
- Chord Scanning UPPER: detects chords above the split point.
- Chord Scanning FULL: detects chords along the entire keyboard (even when playing with two hands).

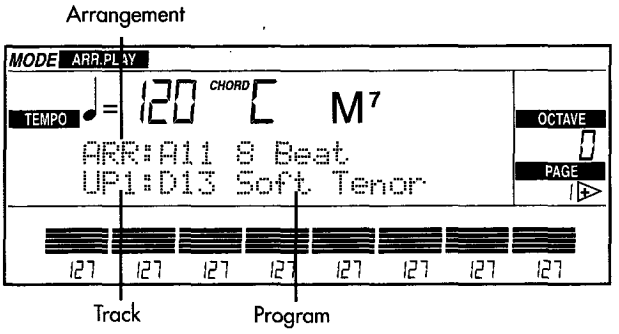
In order to program the split point, hold down the SPLIT POINT button and play the note you wish to set as the split point.

The number of notes you have to play for the chord to be detected, depends on the Chord Recognition parameter, contained on "Page 11: Chord recognition mode" of the Disk/Global mode. The "One Finger" mode detects single notes as major chords; the other Chord Recognition modes, require more than one note, in order to detect the chord.

The detected chord stays in memory, even if you change the arrangement while the accompaniment is playing. You can reset the chord scanning by pressing RESET, or by selecting an arrangement with the accompaniment stopped.

Page 1: Performance monitor

Press the ARR.PLAY button to enter the Arrangement Play mode. In this page you can select the arrangement and assign programs to the tracks.



ARR (Arrangement) [A11...A88, B11...B88, U11...U88]

Use the buttons in the ARRANGEMENT section to choose an arrangement. The display will show the selected bank, number and arrangement name.

If you choose a new arrangement while you are performing, the new arrangement will start playing at the beginning of the next measure, and the tempo will change accordingly. If you do not want the tempo to change when you switch from one arrangement to the other, press the TEMPO button.

If, when selecting an arrangement you wish to change the keyboard programs as well, press SINGLE TOUCH to enlighten its led.

You can also select the arrangements by using a footswitch or an external controller KORG EC5 (optionals). For more information see the Disk/Global mode "Page 8: Assignable pedal/switch" or "Page 9: EC5 external controller (only the iS40)".

Track [DRUM, PERC, BASS, ACC1...ACC3, UP1, LOW/UP2]

Use the VOLUME buttons to choose the track you wish to assign a different program to. You can use either the upper or lower button. The track name is indicated above each pair of buttons.

- To select the Upper 2 track, press one of the LOW/UPP2 buttons, then activate UPPER2 in the KEYBOARD ASSIGN section.
- To select the Lower track, press one of the LOW/UPP2 buttons, then activate SPLIT in the KEYBOARD MODE section and LOWER in the KEYBOARD ASSIGN section.

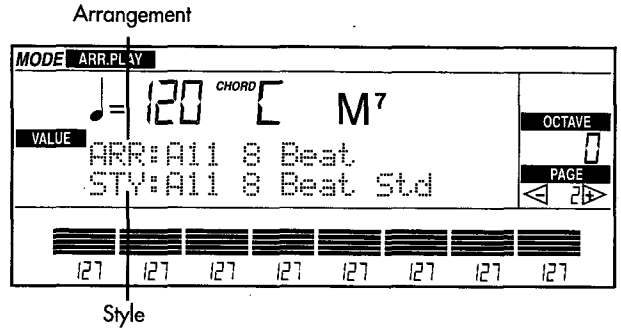
Program [A11...U88, Dr11...Dr28]

Before selecting a program, you must select the track you want to assign the program to (unless it is already selected). Select the program using the buttons in the PROGRAM section. Select a bank first (A, B, C, D, E, F-USER/DRUM), then a two-digit number, using the number buttons. If the program is in the same bank, you only need to select the two-digit number.

In order to select a Drum program (Dr11–28), press the F(USER/DRUM) button repeatedly in the PROGRAM section, until the abbreviation "Dr" appears, then select a two-digit number with the number buttons.

Page 2: Style select

In this page you can select the style played by the arrangement.



ARR (Arrangement) [A11...A88, B11...B88, U11...U88]

For more information about selecting arrangements, see "Page 1: Performance monitor".

STY (Style) [A11...A88, B11...B58, U11...U28]

The style is a set of patterns played by an arrangement. Select the style using the buttons in the ARRANGEMENT section. Select a bank (A, B) first, then a two-digit number using the number buttons. There are 128 styles in total, in the A and B banks, so you can select A11-A88 and B11-B88.

If you want to select a style loaded from disk, choose the USER bank, and a two-digit number using the number buttons. There are a maximum of 16 USER styles, so you can only select U11-U28.

If you change the style while the accompaniment is stopped, the style programs will be assigned to the accompaniment tracks, transpositions deleted and the "wrap around" parameter will be set on ORG. For more information about these parameters, see "Page 4: Track settings (2)"

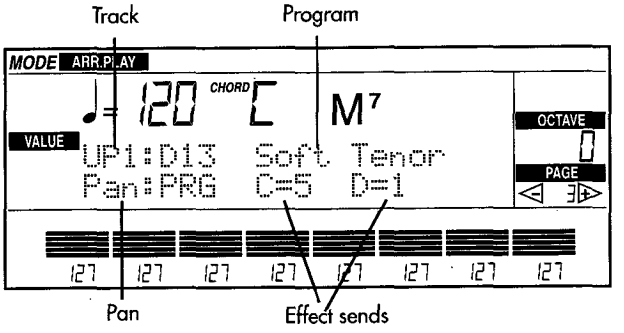
If you change the style while the accompaniment is playing, the accompaniment patterns will change, whereas the programs and the track parameters will not. If the TEMPO led is off, the tempo of the new style will be selected.

In order to create a new arrangement, select a style that is close to what you have in mind, then change the programs, volume, pan, tempo, effects. Finally, save the new arrangement in the USER bank. USER styles and arrangements will stay in memory even when the instrument is turned off.

You can also select styles by using an optional footswitch or KORG EC5 external controller. For more information refer to "Page 8: Assignable pedal/switch" or "Page 9: EC5 external controller (only the iS40)" in the Disk/Global mode.

Page 3: Track settings (1)

In this page you can choose the program (sound), pan (stereo position), and effect send (send levels) for each of the eight tracks in the arrangement.



Track [DRUM, PERC, BASS, ACC1...ACC3, UP1, LOW/UP2]

For more information about selecting tracks, see "Page 1: Performance monitor".

Program [A11...U88, Dr11...Dr44]

For more information about selecting programs, see "Page 1: Performance monitor".

Pan (Channels A and B) [OFF, L15...L01, CENT, R01...R15, PROG]

Track position in the stereo "panorama". The pan corresponds to the A and B channels of the internal sound generation. The A and B channels usually form the direct signal (A=Left, B=Right). If the effect setup is not Parallel 3, the A and B channels can function as effect send. See "Page 9: Effect placement".

CNT	In the center.
L values	On the left (channel Left, A).
R values	On the right (channel Right, B).
OFF	No output of track from channels A and B.
PROG	Pan of program used.

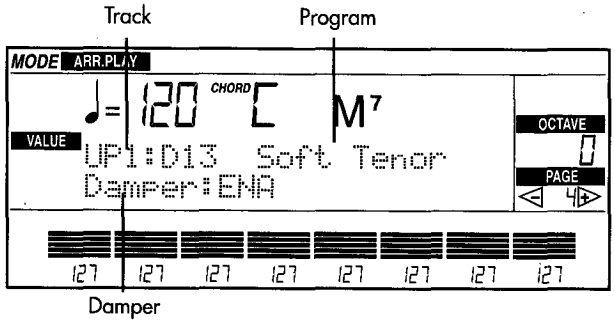
C=/D= (Effect send, channels C and D) [0...9, P]

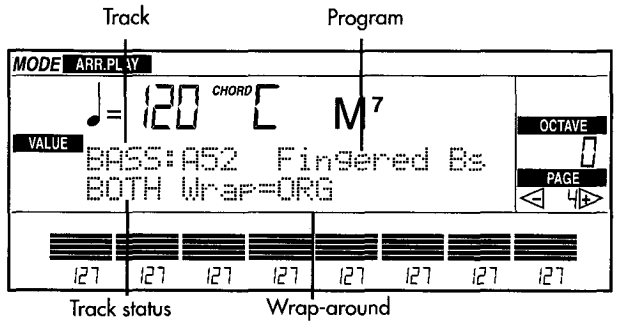
Effect send levels. **0**: there will be no output of the track from channels C and D. **P**: the levels of each program will be used.

Normally, channel C is the reverb effect setting, channel D is the modulating effect setting (chorus, flanger...). If the effect placement is not on Parallel 3, the C and D channels can function in different ways. See "Page 9: Effect placement".

Page 4: Track settings (2)

For each track in the arrangement, you can set the damper pedal and the parameters related to keyboard range (octave, wrap around) for each arrangement track.





Track [DRUM, PERC, BASS, ACC1...ACC3, UP1, LOW/UP2]

For more information about selecting tracks, see "Page 1: Performance monitor".

Program [A11...U88, Dr11...Dr44]

For more information about selecting programs, see "Page 1: Performance monitor".

Damper [DIS, ENA]

This enables or disables the damper effect on the keyboard tracks. This parameter will only appear if track UP1 or LOW/UP2 is selected.

ENA	Enabled.
DIS	Disabled.

Track status [OFF, INT, EXT, BOTH]

This determines whether the track should be played by the internal tone generator and/or an external instrument connected via MIDI. It will only appear if you select one of the DRUM, PERC, BASS, or ACC1–ACC3 tracks.

OFF	The track will not play.
INT	Normal setting. The track will only play the internal tone generator, and will not transmit data to the MIDI OUT and PC TO HOST connectors.
EXT	The track will not be played by the internal tone generator, but will transmit data to external devices through the MIDI OUT and PC TO HOST connectors.
BOTH	The track will be played by the internal tone generator, and transmit data to the MIDI OUT and PC TO HOST connectors.

Wrap (wrap-around point) [ORG, 1...12]

The wrap-around point is the highest register limit for the backing track. The accompaniment patterns will be transposed according to the chord being played on the keyboard. If the chord is too high, the backing track might play in a register that is too high, and therefore unnatural. If, however, it reaches the wrap-around

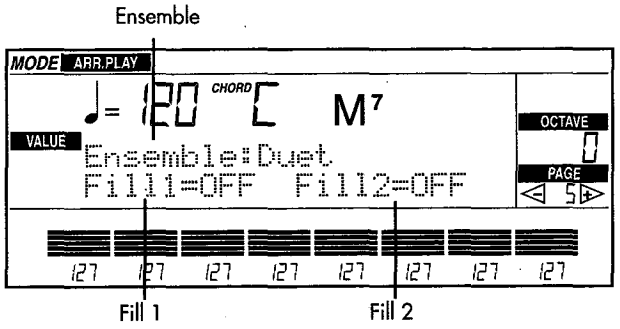
point, it will automatically be transposed an octave lower. This parameter will only appear when you select the BASS or ACC1–3 tracks.

The wrap-around point can be set for each track in semitone steps up to a maximum of 12 semitones, relative to the chord keynote. This value will be the interval between the key specified by the Chord Variation and the wrap-around point. It would be better not to program all the tracks at the same wrap-around point, to avoid them all jumping by an octave the same time. In order to find the best wrap around point for the track you are editing, mute all the other tracks and try experimenting on each track.

ORG	The track will use wrap-around point of the style.
1-12	Number of semitones relative to the Chord variation pitch.

Page 5: Ensemble/Variation change

In this page you can choose the kind of Ensemble you want, and latch the FILL buttons to a variation.



Ensemble [DUET, BRASS, REED, POWER, 4THS]

This enables you to set the Ensemble function thus activating the ENSEMBLE button.

DUET	Add a third to the melody.
CLOSE	"Closed" chord harmonization.
OPEN 1	"Open" chord harmonization.
OPEN 2	The same as the above, but with a different algorithm.
OCTAVE	Add one or more octaves to the melody.
POWER ENS	Add a fifth and an octave to the melody, typical hard rock harmonization.
4THS	Add a fourth and a minor seventh to the melody (two layered fourths), typical jazz harmonization.
BLOCK	"Block" harmonization, typical jazz piano harmonization.
BRASS ENS	Typical brass section harmonization.
REED ENS	Typical reed section harmonization.

Fill 1/Fill 2 [OFF, →1...→4, 1&2...3&4, UP, DOWN]

These parameters determines the variation to be selected at the end of the fill-in. Fill 1 will program the FILL [1] button and Fill 2 will program the FILL [2] button.

OFF	At the end of the fill-in the initial variation will resume playing.
Values →1 - →4	At the end of the fill-in, the indicated variation will play. For example, if the parameter or Fill 1

has been set on "→2", after Fill 1, variation 2 will be selected.

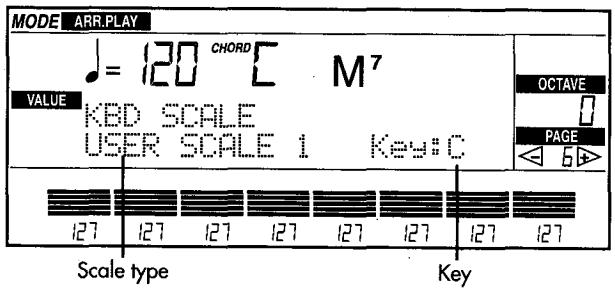
Values 1&2–3&4 — Each time a fill-in ends, one of the two indicated variations will be selected. For example, if the Fill 1 parameter is set on "2&3", after the first Fill 1 playback, variation 2 will be selected, after the second fill-in playback, variation 3 will be selected 3.

UP and DOWN — These settings increase or decrease the variation respectively. For example, if the Fill 1 parameter is set on UP, starting form variation 1, after the Fill 1, variation 2 will be selected. After variation 4, variation 1, before variation 1, variation 4 will be selected. Thus the cycle is:

2→3→4→1→2→...

Page 6: Keyboard scale

In this page you can choose the keyboard scale automatically selected by the arrangement.



Scale type — [EQUAL TEMP...USER SCALE]

The scales that you can select for the Main Scale and the Sub Scale are the same.

EQUAL TEMP. — Equal temperament. This scale is normally used nowadays, in traditional Western music. Consists of 12 absolutely identical semitones.

EQUAL TEMP. 2 — The same as the previous setting, but with some irregularities in pitch, consenting a more realistic imitation of acoustic instruments.

PURE MAJOR — The major chords of the selected key will be perfectly tuned.

PURE MINOR — The minor chords of the selected key will be perfectly tuned.

ARABIC — Arabic scale, with quarter tones. The Key parameter should be set to C for "rast C/bayati D", to D for "rast D/bayati E", to F for "rast F/bayati G", to G for "rast G/bayati A", to A# for "rast B b/bayati C".

PYTHAGOREAN — Pythagorean scale, based on ancient Greek theory. It is suitable for playing melodies.

WERCKMEISTER — Late baroque/classical scale.

KIRNBERGER — 18th century harpsichord scale.

SLENDRO — Indonesian gamelan scale. The octave is divided into 5 notes (C, D, F, G, A). The remaining notes will play equal temperament notes.

PELOG — Indonesian scale. The octave is divided into 7 notes (all the white keys, if the key parameter is assigned to C tonic). The black keys will play equal temperament.

USER SCALE 1...4 — One of the 4 scales that you create on "Page 15: User scale" of the Disk/Global mode.

Note: When a scale other than Equal Temperament or Equal Temperament 2 is selected, the TRANSPOSE buttons may cause undesired chords to be recognized, depending on the scale selected and on the Transpose Position setting (see "Page 2: Master tuning/Transpose position" in the Disk/Global mode).

Key (Tonic) [C...B]

This parameter selects the key for the scales where it is necessary to indicate the key as well.

Page 7: Effect select

The instrument has two incorporated digital effect processors. In this page, you can choose which effects you wish to assign to an arrangement and turn them on or off. For more details, see "Effects" chapter.

Page 8: Effect modulation

In this page you can connect the effects to controls, which allow you to dynamically modulate their intensity. For more details, see "Effects" chapter.

Page 9: Effect placement

In this page you can choose the effect setup of the arrangement, and program pan and levels for channels C and D. Pan and sending of arrangement tracks are programmed on "Page 3: Track settings (1)". For more details, see "Effects" chapter.

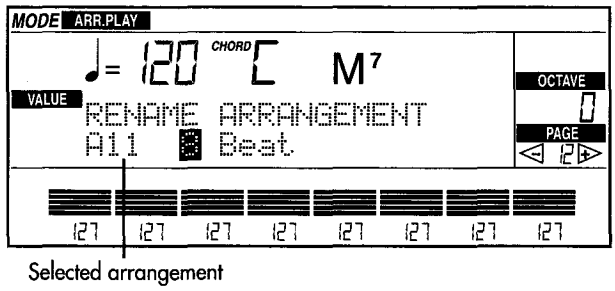
Page 10: Effect 1 settings

Page 11: Effect 2 settings

These pages contain the effect parameters selected on "Page 7: Effect select", that will be used for the selected arrangement. The parameters contained in these pages will depend on the effects you have selected. For more information on programming effects, see "Effects" chapter.

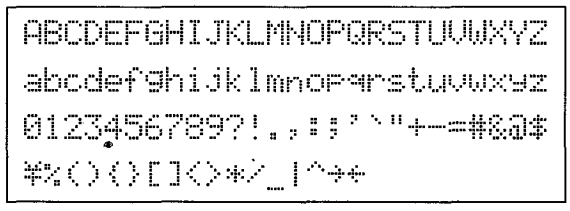
Page 12: Rename Arrangement

The "Rename Arrangement" page allows you to modify the arrangement name. The name can be made up of a maximum of 10 characters.



Selected arrangement

The following characters can be used.

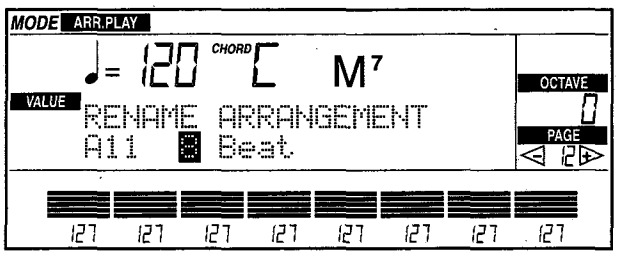


Use the CURSOR buttons to move the cursor to the character you wish to change and the TEMPO/VALUE buttons (or the DIAL) to choose a character.

Press INS to insert a new character at the cursor location. Press DEL to delete the character at the cursor location.

Page 13: Write Arrangement

The "Write Arrangement" page allows you to save the arrangement in a location of the USER bank. Press REC/WRITE to directly enter this page while you are in Arrangement Play mode. Along with the arrangement, the status of the Chord Scanning and Keyboard Assign settings will be saved.



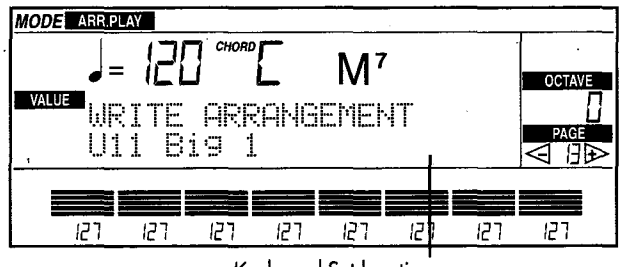
❶ Select the location where the arrangement will be saved using the TEMPO/VALUE buttons (or the DIAL).
It is not possible to use the buttons in the ARRANGEMENT section to choose a location. Along with the location number, the arrangement name currently existing in the location you selected previously will be shown. Make sure that you are not working with important data without having first made a copy.

Warning: *Once you have saved a new arrangement, it will not be possible to recover the erased arrangement.*

❷ Press ENTER/YES.
The USER arrangements will stay in memory even when the instrument is switched off. It is possible to save them on disk or with one of the Save operations in the Disk/Global setting: "Save All" or "Save Arr".

Page 14: Write Keyboard Set (only the iS40)

This page allows you to save the current situation of the keyboard tracks and the control panel in a Keyboard Set. To go directly to this page, hold down the REC/WRITE button and press one of the buttons in the KEYBOARD SET section. Select one of the 15 locations, press ENTER/YES to save the data.



Keyboard Set location

You can also save a Keyboard Set by with a different procedure.

1. Press REC/WRITE and one of the buttons in the KEYBOARD SET section.
2. Press the BANK button repeatedly, in the KEYBOARD SET section, to turn on the led of the bank you wish to use (A, B,C).
3. Press the button in the KEYBOARD SET that corresponds to the location you wish to use.
4. Press ENTER/YES twice.

8. Backing Sequence mode

Functions in Backing Sequence mode

The following table lists the Backing Sequence mode, and the main functions contained in each page.

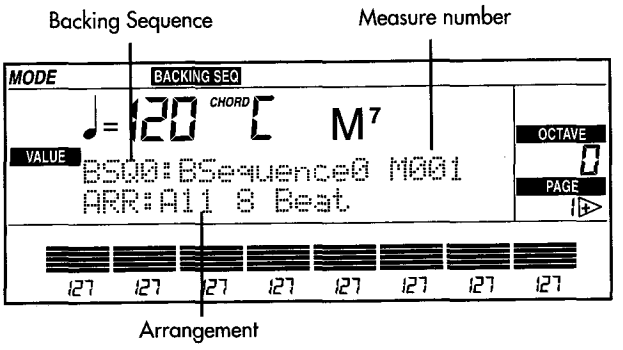
Display page		Function		Manual page
1. Playback		Select a backing sequence, volume/mute		☞P. 66
1. Recording		Initial settings	Track, track status, quantize, metronome, recording mode for Extra Tracks, start/end measure	☞P. 67
2. Step recording		Recording track selection		☞P. 70
		Recording	Input of notes	
3. Erase backing sequence		Erase a backing sequence		☞P. 75
4. Copy backing sequence		Copy a backing sequence		☞P. 75
5. Edit 1	5-1. Delete measures	Delete measures		☞P. 76
	5-2. Insert measures	Insert measures		☞P. 76
	5-3. Erase measures	Erase data from measures		☞P. 78
6. Edit 2	6-1. Copy measures	Copy measures		☞P. 79
	6-2. Bounce Track	"Fusion" of tracks		☞P. 80
	6-3. Quantize	Quantize (correction of timing errors)		☞P. 80
7. Shift note		Transposition of a range of notes		☞P. 81
8. Event edit		Select the edit track		☞P. 82
		Edit	Edit events	
9. Extra Track setting (1)		Select track Select program	MIDI channel, transposition, detune	☞P. 86
10. Extra Track settings (2)		Select program, pan setting and effect send level		☞P. 87
11. Effect select		Effect type, effect on/off		☞P. 88
12. Effect modulation		Effect modulation		☞P. 88
13. Effect placement		Effect placement, pan C/D channels, L/R levels for effects 1 and 2		☞P. 88
14. Effect 1 parameters		Set effect 1 parameters		☞P. 88
15. Effect 2 parameters		Set effect 2 parameters		☞P. 88
16. Next backing sequence		Select next backing sequence to be played after the one playing		☞P. 89
17. Rename Backing sequence		Change the name of a backing sequence		☞P. 90
18. SMF converter		Convert a B/S into a Standard MIDI File		☞P. 91

Saving the backing sequence before turning the instrument off

Warning: When the instrument is turned off, the backing sequences in memory will be erased. Before turning off the instrument, save the backing sequences by following the Save procedure contained in "Page 1. DISK parameters" of the Disk/Global mode. This function is also explained in chapter "5. Tutorial" on page 34.

Page 1: Playback

Press B.SEQ to enter this page. Press START/STOP to start or stop the playback. Press RESET to go back to measure 001.



BSQ (Backing sequence) [0...9]

Backing sequence selected. In theory, the memory could contain up to a maximum of 10 backing sequences; in practice, The number of backing sequences you can fit into memory depends on their size and complexity. If a song was saved in song edit, the free memory available for the backing sequences will be reduced further.

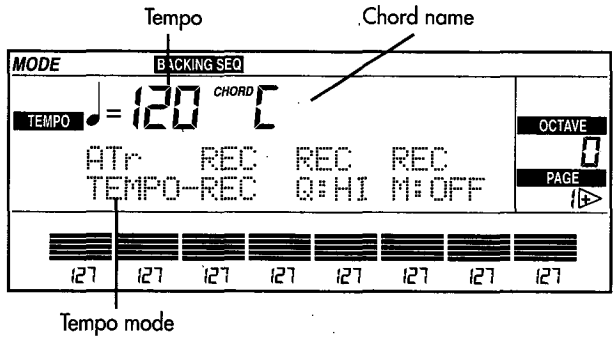
Warning: Backing sequences are not saved on memory when the instrument is turned off. Before turning off the instrument, save the backing sequences on disk (see "Page 1. DISK parameters" in the Disk/Global mode).

M (Measure) [001...999]

This is the measure at which playback will begin. Each track of a backing sequence can record up to 999 measures. By pressing RESET, the indicator will go back to 001. If the backing sequence reaches the end, the indicator will automatically go back to 001.

Page 1: Recording

While you are at Page 1 of the Backing Sequence mode, press REC/WRITE to enter the recording mode. In order to go back to the playback mode, press REC/WRITE or EXIT/NO.



Tempo

This indicates the tempo of the current backing sequence.

Tempo mode [TEMPO-REC, AUT, 40...240]

This indicates the backing sequence tempo mode. Move the cursor to the "Tempo" parameter (the note with the equal symbol and the numeric value), then change the tempo mode with the TEMPO/VALUE buttons (or the DIAL).

- Press together the TEMPO/VALUE buttons to select TEMPO-REC.
- Press together the TEMPO/VALUE buttons, and then press TEMPO/VALUE [+] to select AUTO.
- Press TEMPO/VALUE [UP/+] again to adjust the tempo manually.

If you want to simplify recording of a quick song, record with a slower tempo and only choose a normal tempo after recording.

REC	Tempo changes are recorded whilst you are recording. This option can only be chosen if you are recording (REC/WRITE led lit up).
AUTO	Recorded tempo playback. It automatically appears in playback. The tempo will be the one recorded in the backing sequence.
Values 40-240	The tempo can be adjusted manually during recording or playback, using the TEMPO/VALUE buttons (or the DIAL).

Chord name display

When a chord is played, its abbreviation will appear on the display. The chords control the arrangement patterns. As the chords are detected, one of the Chord Scanning modes must be selected (if the CHORD SCANNING section led are off, the chord name will not appear on the display).

- Chord Scanning LOWER: chord detected below the split point.
- Chord Scanning UPPER: chord detected above the split point.
- Chord Scanning FULL: chord detected along the entire keyboard (even when playing with two hands).

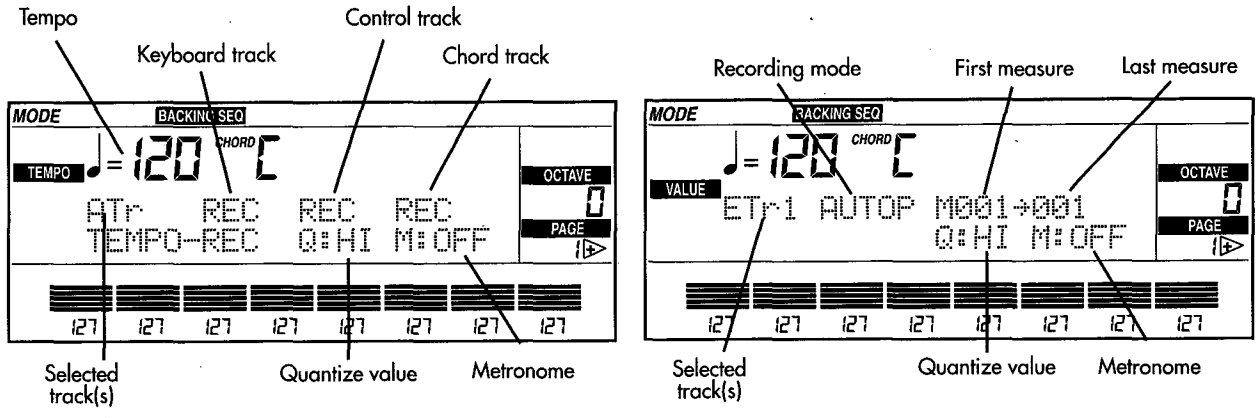
In order to program the split point, hold down the SPLIT POINT button and play the note you wish to set as the split point.

The number of notes you have to play, in order for the chord to be detected, will depend on the Chord Recognition parameter, contained in "Page 11: Chord recognition mode" of the Disk/Global mode. The "One Finger" mode detects single notes as major chords; the Chord Recognition modes need more than one note to detect the chord.

Realtime recording

Pressing REC/WRITE, while you are at Page 1 of the Backing Sequence mode, will take you to the recording page. The page of the Backing Sequence-Realtime recording mode, allows you to select the track you wish to record, choose the recording quantize, set the metronome.

Set the parameters and press START/STOP to begin recording. Press START/STOP again to stop recording.



Selected track

This selects the track you wish to record. If the **ATr** is selected, all the tracks of the arrangement (accompaniment, keyboard, control, chords) will be recorded in one go. **ETr1-ETr8** are the Extra Tracks 1-8, used to add freely recorded parts (non-automatic).

Track status [– – – –, REC, (KBTr/CTRL/CHRD), MUTE]

These settings will appear if you select track ATr. They determine the status of the keyboard, control and chord tracks.

Hyphens (– – – –)	An empty track. It will only be possible to select REC.
REC	The track is recording. The data already contained in the track, will be deleted.
MUTE	The track will be mute.
KBTr, CTRL, CHRD	Play status, of the keyboard, control and chord tracks, respectively.

Recording mode [OVWR, OVDB, AUTP, MANP]

These settings will appear when you select an (ETr1–8). It indicates how the extra track you have selected, will be recorded.

OVWR	(Overwrite). Data previously recorded onto the track will be erased.
OVDB	(Overdub). New data will be added to data previously recorded onto the track.
AUTP	(Auto Punch). This option allows you to demarcate the area, between a start measure and an end measure, where you wish to record. When this option is selected, the "First measure" and "Last measure" parameters appear.
MANP	(Manual Punch). This option allows you to manually specify the area where you wish to record.

How to carry out Manual Punch. Playback the song. Press REC/WRITE when you get to the beginning of the area where you wish to record. Press REC/WRITE again when you get to the area you wanted to record.

Instead of pressing the REC/WRITE button, you can use a pedal which has been especially set for the PUNCH IN/OUT function. See "Page 8: Assignable pedal/switch" or "Page 9: EC5 external controller (only the iS40)" in the Disk/Global mode.

Q (Recording quantize) [HI, ...]

Quantization is the correction of timing imprecisions. The notes are moved during recording, so that the timing of the song is more regular, without any notes off time.

Since the continuous controllers (like pitch bend) are quantized, If you use these controls heavily, it would be better to record with the HI option set, and use the quantize function later on (see "6-3. Quantize " on page 80).

HI	No quantize; the notes will be recorded exactly as they were performed (with a precision of 1/96th of a quarter note).
Other options	All the notes are brought to ideal intervals, determined by the value you have selected. For example, with a setting of q, the beginning of all the notes you play will be moved to the nearest quarter note.

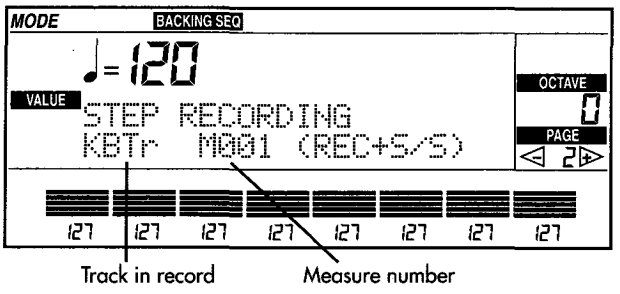
M (Metronome) [OFF, ON, REC]

Metronome options.

OFF	The metronome will only sound during the pre-count, before recording.
ON	The metronome will sound during recording and playback.
REC	The metronome will only sound during recording.

Page 2: Step recording

Step recording (recording step by step) allows you to insert an event at a time. It can be used for all the tracks (keyboards, chords, controls, extra tracks). Step recording erases the data of the measures you are recording on. In order to leave the Step recording mode, press START/STOP.



When in this page, first select the track to be recorded, then press REC/WRITE and START/STOP. To go out of the step recording sub-pages and go back to this page, press START/STOP. To playback the new backing sequence go back to Page 1 and press START/STOP.

Recording track [KBTr, CHRD, CTRL, ETr1...ETr8]

This indicates the track be recorded.

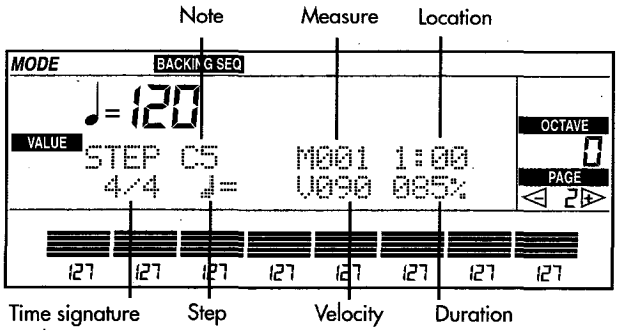
KBTr	Keyboard track.
CHRD	Chord track.
CTRL	Control track.
ETr1–ETr8	Extra tracks 1-8.

M (Measure number) [001...999]

This indicates the measure where recording will begin. Each track of a backing sequence can record up to 999 measures. Press RESET to bring the measure indicator back to 001.

Step recording on the keyboard track

In order to step record on the keyboard track, go to page 2 of the Backing Sequence mode, select track KBTr, press REC/WRITE and then START/STOP. The following page will appear.



1. Move the cursor to the parameter you wish to modify, using the CURSOR buttons, and change the value using the TEMPO/VALUE buttons (or the DIAL).
2. Select the step using the buttons with the notes silk-screened, and play the note to be entered.

3. When finished, press START/STOP to go back to Page 2 of the Backing Sequence mode. To playback the new backing sequence, go back to Page 1 and press START/STOP.

Note

This indicates the name of the most-recently entered note. This will appear if you have selected track KBTr or ETr1–8.

M (Measure number)

Current measure.

Location

This indicates the location where the next event will be entered. The number to the left of the colon (:) indicates the beat within the measure. The number to the right of the colon (:) indicates the position within the beat, in 1/96th quarter note units.

Time signature [1/4...16/16]

This indicates the time signature at the beginning of the backing sequence. This will appear if you have selected KBTr or ETr1–8 as the track. To insert time signature changes during backing sequence, go to "Page 8: Event edit".

Step [𝅝, 𝅗𝅥, ♩, ♪, 𝅘𝅥𝅯, 𝅘𝅥𝅰 /. / 3]

This specifies the length of the step by which you will move forward each time a note is entered (or other event). This will appear if you have selected KBTr or ETr1–8 as the track. The value will be indicated by a musical symbol. You can select any musical value from w (whole note) to r (32nd note), including a lengthened (dotted) note (.) and a triplet note ().

You can select the step by using either the TEMPO/VALUE buttons (or the DIAL), or the VARIATION, FILL, INTRO/ENDING buttons.

Velocity [002...126, KEY]

This indicates the dynamism or intensity of the note. If the value is KEY, the velocity with which the note was actually played will be input. This will only appear if you have selected KBTr or ETr1–8 as the track.

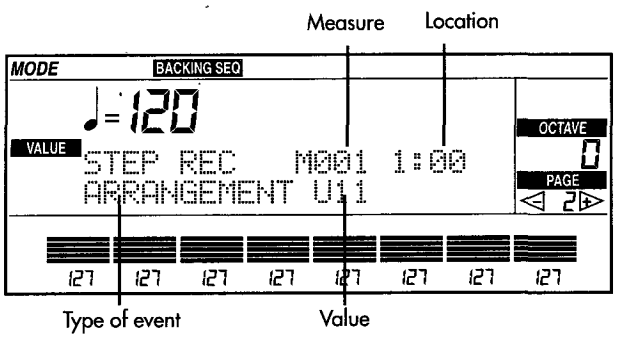
Duration (gate) [001...100%]

This specifies the duration of the note, relative to the length of the step.

100	Duration of the step.
Lower values	Staccato (sharply detached) notes.
Higher values	Legato (smooth flowing) notes.

Step recording on the control track

In order to step record on the control track go to page 2 of the Backing Sequence mode, select the CTRL track, press REC/WRITE, and then START/STOP. The following page will appear.



1. Select the type of event and the value using the CURSOR and TEMPO/VALUE buttons.
2. Press ENTER/YES to enter an event. The events will be input at eighth-note steps (♪ = 48 tics). If you need greater precision, input the events and then use "Page 8: Event edit" to adjust their position.
3. Move to a different event using the < and > buttons.
4. When finished, press START/STOP to go back to Page 2 of the Backing Sequence mode. To listen to the new backing sequence, go back to Page 1 and press START/STOP.

M (Measure number)

Current measure.

Location

This indicates the location where the next chord will be entered. The number to the left of the colon (:) indicates the beat within the measure. The number to the right of the colon (:) indicates the position within the beat, in 1/96th quarter note units.

Type of event

This indicates the type of event you wish to input on the control track. The following events can be input.

Type of event	Value
ARRANGEMENT *	U11–88, A11–88, B11–88
STYLE	A11–88, B11–58, U1–4
STY, ELEMENT (style element)	OFF, VAR1–VAR4, INT1, INT2, END1, END2, FIL1, FIL2
KB MODE/ASSIGN (keyboard mode/assign) **	FUL-UP1, FUL UP1-2, SP UP1&L, DRUM, FUL-MUTE, FUL-UP2, SP-MUTE, SP-UP1, SP-UP2, SP-UP1&2, SP-LOW
CHORD SCAN (chord scanning)	OFF, LOWER, UPPER, FULL
CHORD MEMORY	OFF, ON
BASS INV. (bass inversion)	OFF, ON
TRANSPOSE	–11... –1, 00, +1... +11

Type of event	Value
DRUM MUTE	PLAY, MUTE
PERC MUTE	
BASS MUTE	
ACC1 MUTE	
ACC2 MUTE	
ACC3 MUTE	
UP1 PROG (Upper 1 program) *	A11–A88, B11–B88, C11–C88, U11–U88, D11–D88, E11–E88, Dr11–Dr28
UP2 PROG (Upper 2 program) *	
LOW PROG (Lower program) *	
UP1 OCT. (Upper 1 octave)	–2, –1, 0, +1, +2
UP2 OCT. (Upper 2 octave)	
LOW OCT. (Lower octave)	

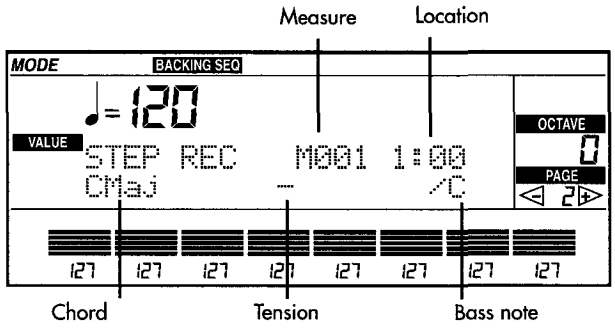
* These events can also be input using the ARRANGEMENT or PROGRAM buttons.

** The KB MODE/ASSIGN parameter controls the KEYBOARD ASSIGN and KEYBOARD MODE sections:

Option	Keyboard Assign	Keyboard Mode	Option	Keyboard Assign	Keyboard Mode
FUL-UP1	UPPER1	FULL	FUL UP1-2	UPPER1, UPPER2	FULL
SP UP1&L	UPPER1, LOWER	SPLIT	DRUM	---	DRUM
FUL-MUTE	---	FULL	FUL-UP2	UPPER2	FULL
SP-MUTE	---	SPLIT	SP-UP1	UPPER1	SPLIT
SP-UP2	UPPER2	SPLIT	SP-UP1&2	UPPER1, UPPER2	SPLIT
SP-LOW	LOWER	SPLIT			

Step recording on the chord track

In order to step record on the chord track go to page 2 of the Backing Sequence mode, select the CHRD track, press REC/WRITE and then START/STOP. This page will appear.



1. Select the chord using the CURSOR and TEMPO/VALUE buttons, or play it on the keyboard.
2. Press ENTER/YES to enter a chord. The chords will be input at eighth-note steps (♪ = 48 tics). If you need greater precision, input the events and then use "Page 8: Event edit" to adjust their position.
3. Move to a different chord using the < and > buttons.

4. When finished, press START/STOP to go back to Page 2 of the Backing Sequence mode. To listen to the new backing sequence, go back to Page 1 and press START/STOP.

M (Measure number)

Current measure.

Location

This indicates the location where the next note will be entered. The number to the left of the colon (:) indicates the beat within the measure. The number to the right of the colon (:) indicates the position within the beat, in 1/96th quarter note units.

Chord

This specifies the chord you wish to enter.

Tension

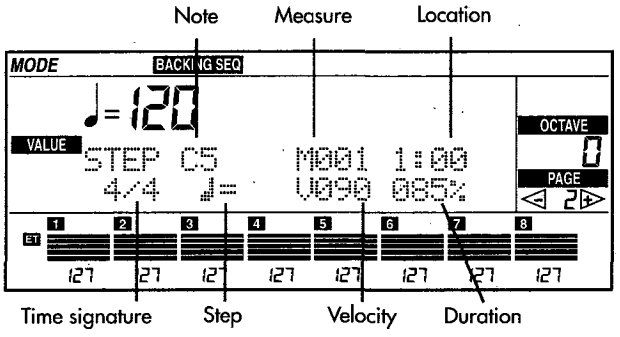
Tension adds notes that have actually been played to the accompaniment, even if they haven't been written in the style pattern.

Bass note

You can indicate a bass note that is different to the chord root.

Step recording on the extra tracks

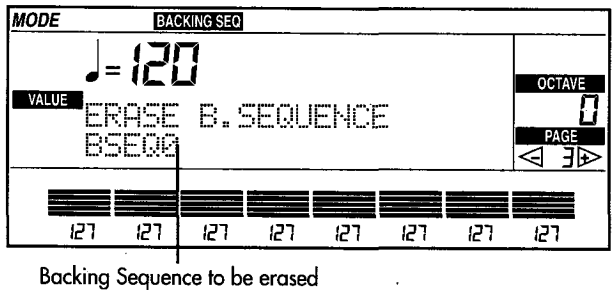
In order to step record an extra track, go to page 2 of the Backing Sequence mode, select the extra track (ETr1-ETr8), press REC/WRITE and then START/STOP. This page will appear.



The extra track recording pages are very similar to the keyboard track recording page.

Page 3: Erase Backing Sequence

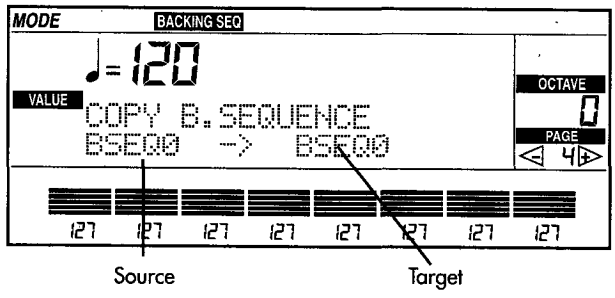
This function erases all the data from the selected backing sequence.



Select the backing sequence you wish to erase using the TEMPO/VALUE buttons (or the DIAL). Press ENTER/YES to erase it.

Page 4: Copy Backing Sequence

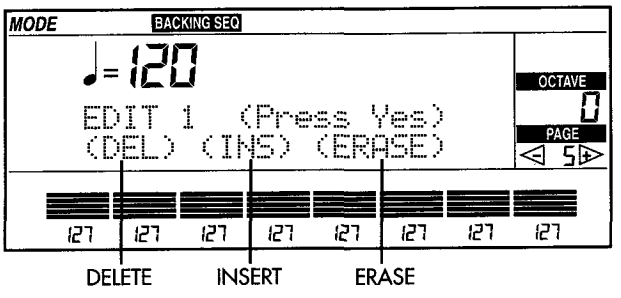
This function copies the entire contents of the selected backing sequence to another backing sequence.



Select the copy destination of the backing sequence using the TEMPO/VALUE buttons (or the DIAL), and press ENTER/YES.

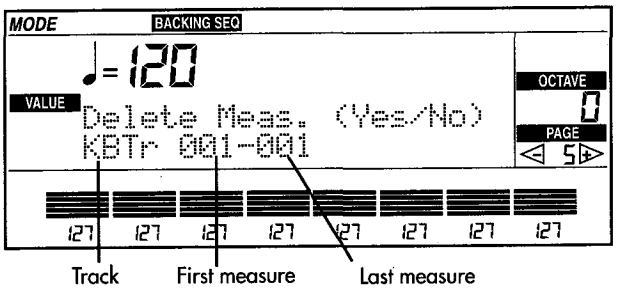
Page 5: Edit 1

In this page you can select one of the following three options: delete measure (DELETE), insert measure (INSERT), erase data from measure (ERASE). Move the cursor to the desired operation using the CURSOR buttons, then press ENTER/YES to enter the subpage.



5-1. Delete measures

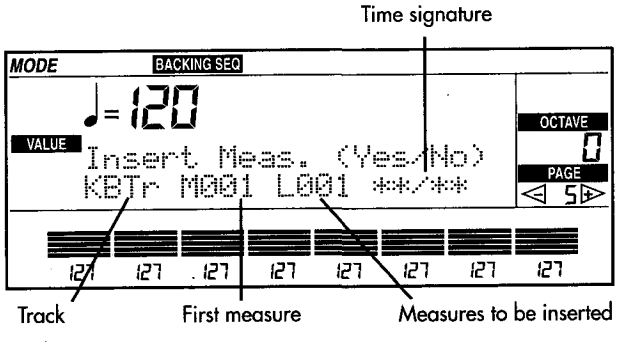
This operation deletes measures from the selected track. The following measures will then be moved back, filling the gap that was created by deleting the other data.



1. Move the cursor to the "Track" parameter using the CURSOR buttons, and choose the track with the TEMPO/VALUE buttons (or the DIAL). The **ALL** value, deletes measures from all the tracks (chord track, control track, tempo track, keyboard track, etc.)
2. Move the cursor to the "First measure" parameter, and choose a measure number. Move the cursor to the "Last measure", and choose a measure number. If you only wish to delete only one measure, assign the same measure to both fields.
3. Press twice ENTER/YES to confirm deletion.

5-2. Insert measures

This operation inserts measures into the selected track. The following measures will then be moved forward.

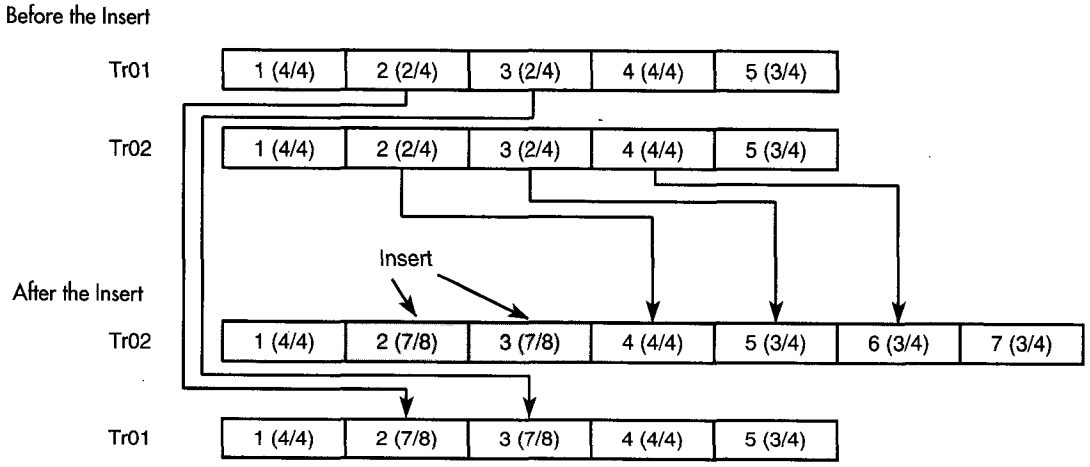


1. Move the cursor to the "Track" parameter using the CURSOR buttons, and choose the track with the TEMPO/VALUE buttons (or the DIAL). The **ALL** value, inserts measures from all the tracks (chord track, control track, tempo track, keyboard track, etc.
2. Move the cursor to the "First measure" parameter (the measure where you would like to insert the new measures) and choose a measure. Move the cursor to the "Measures to be inserted" parameter, and choose the number of measures you wish to insert. Move the cursor to the "Time signature" parameter, and choose the time signature for the measures you wish to insert.
3. Press twice ENTER/YES to confirm insertion.

< If you insert a different time signature >

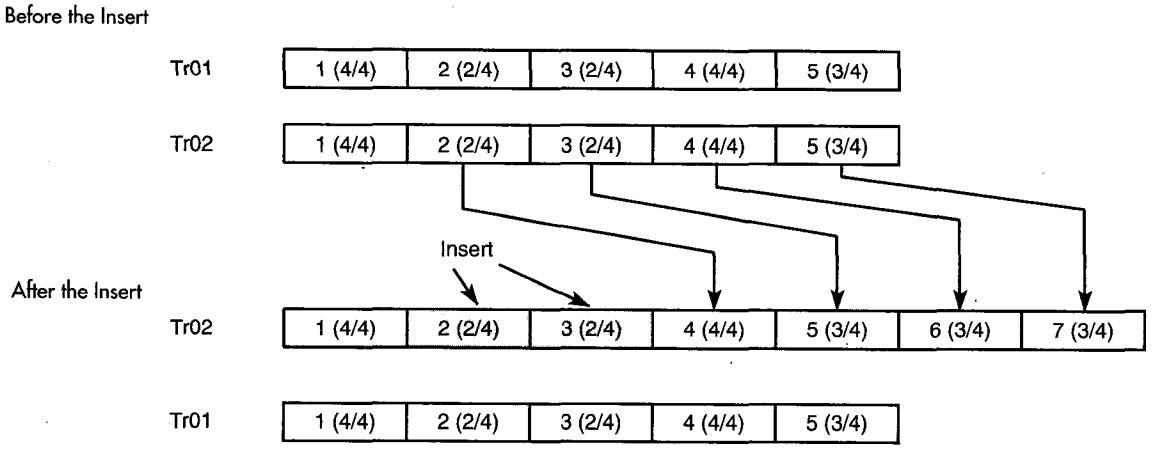
The change of time signature during playback will take place if the tempo is ♩ =AUT. If measures are inserted with a different time signature in a track, all the tracks will have the new time signature. The data will remain intact however, and the tracks will play exactly as they did before.

Inserting two measures of time signature = 7/8



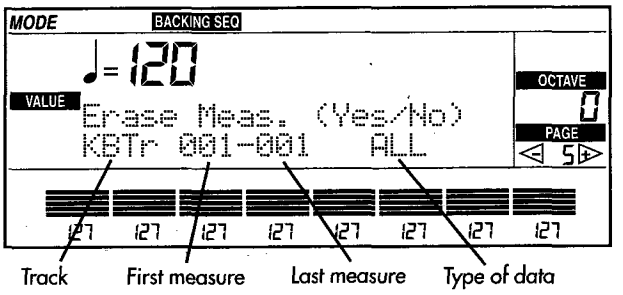
If you assign the value **/** to the time signature parameter, the new measures will have the same time signature as the measures that are in the same position on the other tracks. If the other tracks are still empty, the time signature of the nearest measure to the measures that will be inserted, will be used.

Time signature = **/**



5-3. Erase measures

This operation erases all or part of the data contained in the specified measure(s). The measures themselves will remain.



1. Move the cursor to the "Track" parameter, using the CURSOR buttons and choose the track with the TEMPO/VALUE buttons (or the DIAL). The ALL value, erases measures from all the tracks (chord track, control track, tempo track, keyboard track, etc.
2. Move the cursor to the "First measure" parameter and choose the first measure of the range where data will be erased. Move the cursor to the "Last measure" parameter and choose the last measure of the range from which you wish to erase the data. If you only want to erase data from one measure, assign the same measure to both the parameters.

Type of data	Erased data
ALL	All data
NOTE	All note messages
CTRL	All control change messages
AFTT	Channel/polyphonic aftertouch messages
BEND	All pitch bend messages
PROG	All program change messages

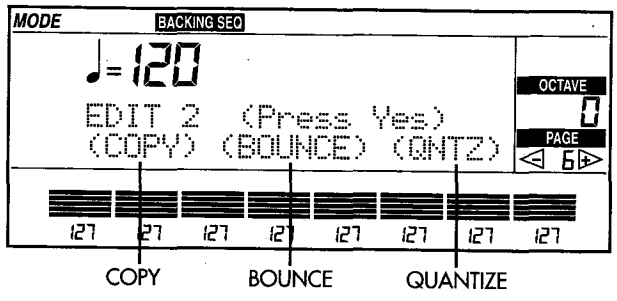
3. Press ENTER/YES twice to confirm erasure of data.

< If you erase control change data >

Control change messages (CTRL), can be made up of an activating part (to turn the effect on) and also a deactivating part (to turn the effect off). If you erase the deactivating message, the control can get "stuck". For example, if you erase the deactivating message of the damper, the pedal will stay open; if you erase the pitch bend reset message, the track could be out of tune. If this occurs, you should manually erase the activating messages or insert new deactivating events with the functions of "Page 8: Event edit".

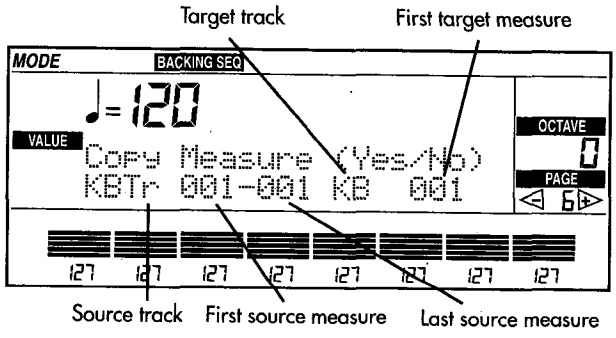
Page 6: Edit 2

In this page you can select one of the following three operations: copy measures (COPY), combine tracks (BOUNCE), adjust timing errors (QUANTIZE). Move the cursor to the operation you wish to carry out using the CURSOR buttons, then press ENTER/YES to access the subpage.



6-1. Copy measures

This operation copies measures within a track or from one track to another.



1. Move the cursor to the "Track" parameter, using the CURSOR buttons and choose the track with the TEMPO/VALUE buttons (or the DIAL). The **ALL** value, erases measures from all the tracks (chord track, control track, tempo track, keyboard track, etc.).
2. Move the cursor to the "First source measure" parameter, and choose the first measure you wish to copy. Move the cursor to the "Last source measure" parameter, and choose the last measure you wish to copy. If only want to copy one measure, assign the same measure to both the parameters.
3. Move the cursor to the "Target track" parameter, and choose the copy destination track. If you have chosen ALL as the copy source, this parameter will automatically be set on ALL.
4. Move the cursor to the "First target measure" and choose the first copy destination measure.
5. Press ENTER/YES twice to confirm copying of data. If the destination measure contains other data, this will be erased and substituted with the new data.

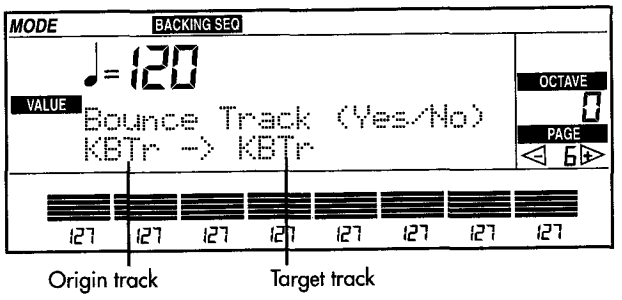
< If you copy in measures with different time signature >

If the destination measures have a different time signature to the original ones, the data will remain intact, but the time signature of the copied data will not now coincide with the original data.

6-2. Bounce tracks

This operation combines two tracks (keyboard tracks or extra tracks) into one track. The resulting track will use the program, the MIDI channel and all the settings of the Bounce destination track. The data on the source Bounce track will be erased.

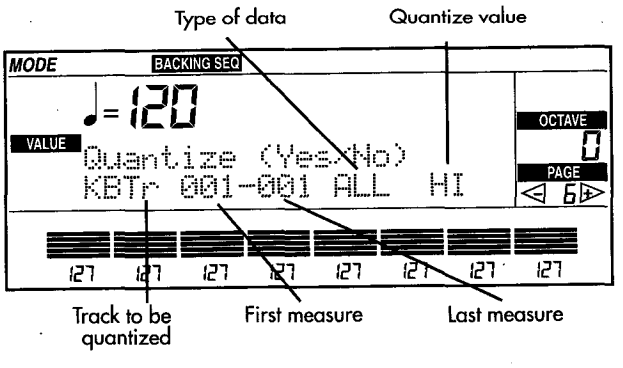
The combination of two tracks containing continuous controls or change control data (e.g. pitch bend, damper, etc.) requires particular care, since the combination of this data can produce undesired results. Before combining these two tracks, it would be better to remove the continuous control data from at least one of the tracks. In order to do this, you should use the functions of subpage "5-3. Erase measures".



1. Move the cursor to the "Source track" parameter using the CURSOR buttons, and choose the track with the TEMPO/VALUE buttons (or the DIAL).
2. Move the cursor to the "Target track" parameter and choose a track.
3. Press ENTER/YES twice to confirm completion of the Bounce operation.

6-3. Quantize

This operation corrects timing errors of previously-recorded data. Rather than the quantize function in the recording phase (see "Page 1: Recording" on page 67), this function allows you to specify the type of data to work upon and a range of measures.



1. Move the cursor to the "Track to be quantized" parameter using the CURSOR buttons and choose the track with the TEMPO/VALUE buttons (or the DIAL). CHRD, CTRL and TEMPO are the chord, control and tempo tracks respectively.
2. Move the cursor to the "First measure" parameter, and choose the first measure you wish to quantize. Move the cursor to the "Last measure" parameter, and choose the last measure you wish to quantize.
3. Move the cursor to the "Type of data" parameter and chose the type of data you wish to quantize. Apart from the tempo track, the following types of data can be selected for quantization.

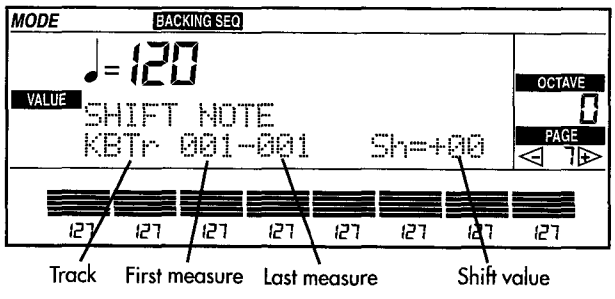
Type of data	Data to be quantized
ALL	All data
NOTE	All note data

Type of data	Data to be quantized
CTRL	All control change messages
AFTT	All channel/polyphonic messages
BEND	All pitch bend messages
PROG	All program change messages

4. Move the cursor to the "Quantize value" parameter and choose a musical symbol: HI, 𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯, 𝅘𝅥𝅯𝅘𝅥𝅯, 𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯, 𝅘𝅥𝅯, 𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯, 𝅘𝅥𝅯, 𝅘𝅥. The **HI** value does not modify data. With other values, the data will be adjusted to ideal intervals, whose spacing is determined by the musical symbol you have selected.
3. Press ENTER/YES twice to confirm the quantizing operation.

Page 7: Shift note (Transposition)

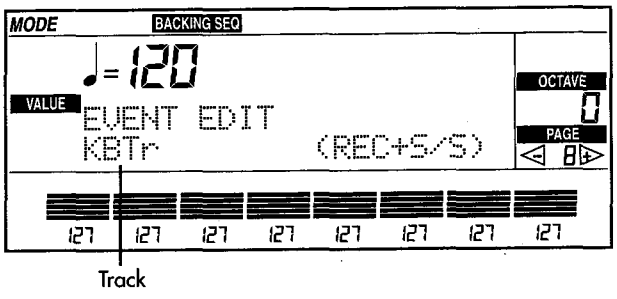
This operation shifts the pitch of notes making them more acute (higher) or more grave (lower), in semitone steps. You can shift all the notes or choose a range of notes.



1. Move the cursor to the "Track" parameter using the CURSOR buttons and choose the track with the TEMPO/VALUE buttons (or the DIAL). You can select either the keyboard track or the extra tracks.
2. Move the cursor to the "First measure" parameter and choose the first measure you wish to shift the pitch of. Move the cursor to the "Last measure" parameter and choose the last measure you wish to shift the pitch of.
3. Move the cursor to the "Shift value" parameter and indicate the value in semitones, up to a maximum of ±24 semitones (±2 octaves).
4. Press ENTER/YES twice to confirm the shift operation.

Page 8: Event edit

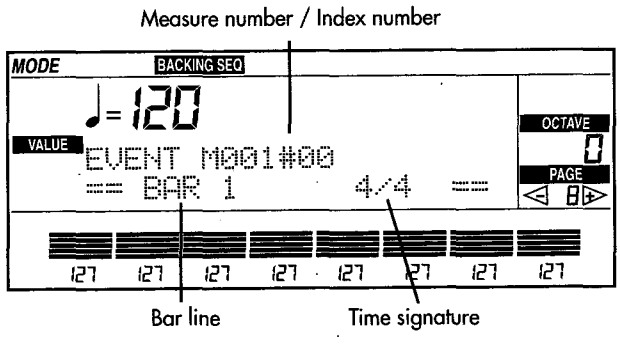
This operation allows you to edit single events, such as notes and control change messages.



1. Move the cursor to the "Track" parameter using the CURSOR buttons and choose the track with the TEMPO/VALUE buttons (or the DIAL).
2. Press REC/WRITE and then START/STOP.
3. Move the cursor to the event and edit it with the TEMPO VALUE buttons (or the DIAL). The parameters will differ according to the type of event and the track you have selected.
4. When you have finished editing, press START/STOP to exit event edit.

Event editing for KBTr (keyboard track) and ETr1–8 (extra tracks)

• Bar lines



Measure number/Index number

The index number is the event number starting from the beginning of the measure. By modifying this number you can step from one event to another within the measure. Index number "00" displays the bar line (i.e. the point that divides two measures) and the time signature of the measure.

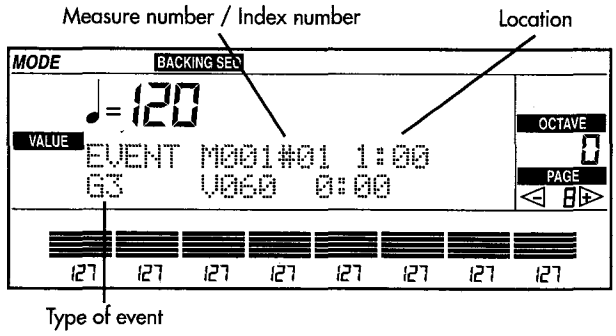
Time signature

This indicates the time scanning of the measure, i.e. (a) number of movements in which it is divided, and (b) scanning unit.

• End of track

This display indicates the end of the track.

• Event



Location [1:00...8:95]

This indicates the location of the event within the measure. The value is displayed in the form of "quarter:tic" (1 tic = 1/96th of a quarter note). If the abbreviation TIE appears, The note has been tied to the last note in the previous measure.

Event type

The following table shows the event type and possible values.

You can insert an event before the displayed event by pressing the INS button. However it isn't possible to carry out this operation if the bar line (BAR event) of the first measure is displayed.

You can delete the displayed event by pressing the DEL button. It isn't possible to delete BAR (bar line) or the End of Track indicator.

Event type	Value	
C-1...G9 (note number)	V:002...V:126 (velocity)	0:00...4:00 *1 length (beats: clock)
BEND (pitch bend)	–8192...+8191 (upper/lower) *2	
AFTT (aftertouch)	000...127 (intensity)	
PROG (bank select:program change)	000...127: 000...127 *3 (bank: number of program)	
CTRL (control change)	C000...C127 (control change number)	000...127 (control number)
PAFT (polyphonic aftertouch) *4	C-1...G9 (note number)	000...127 (value)

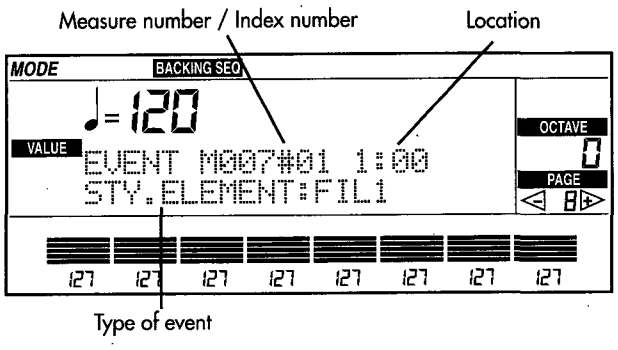
*1. If connected to a note in the next measure, this will be displayed as TIE.

*2. The pitch bend is divided in two parts. Use the CURSOR buttons to select the part you wish to edit.

*3. The LSB values of the Bank Select message can be 000...127, whereas the MSB value is always 0. "- - -" means that the bank is not transmitted, and the previously selected bank will be left unchanged.

*4. MIDI Polyphonic Key Pressure (Poly Touch) messages will be transmitted but will not be received.

Event editing of the CTRL track (controls)



Type of event	Value
ARRANGEMENT *	U11–88, A11–88, B11–88
STYLE	A11–88, B11–58, U1–4
STY, ELEMENT (style element)	OFF, VAR1–VAR4, INT1, INT2, END1, END2, FIL1, FIL2
KB MODE/ASSIGN (keyboard mode/assign) **	FUL-UP1, FUL UP1-2, SP UP1&L, DRUM, FUL-MUTE, FUL-UP2, SP-MUTE, SP-UP1, SP-UP2, SP-UP1&2, SP-LOW
CHORD SCAN (chord scanning)	OFF, LOWER, UPPER, FULL
CHORD MEMORY	OFF, ON
BASS INV. (inversione del basso)	OFF, ON
TRANSPOSE	–11... –1, 00, +1... +11
DRUM MUTE	PLAY, MUTE
PERC MUTE	
BASS MUTE	
ACC1 MUTE	
ACC2 MUTE	
ACC3 MUTE	
UP1 PROG (programma Upper 1) *	A11–A88, B11–B88, C11–C88, U11–U88, D11–D88, E11–E88, Dr11–Dr28
UP2 PROG (programma Upper 2) *	
LOW PROG (programma Lower) *	
UP1 OCT. (ottava Upper 1)	–2, –1, 0, +1, +2
UP2 OCT. (ottava Upper 2)	
LOW OCT. (ottava Lower)	

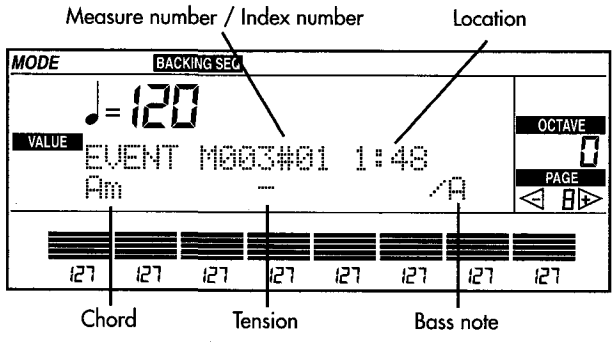
* These events can also be input using the ARRANGEMENT or PROGRAM buttons.

** The KB MODE / ASSIGN parameter controls the KEYBOARD ASSIGN and KEYBOARD MODE sections:

Option	Keyboard Assign	Keyboard Mode	Option	Keyboard Assign	Keyboard Mode
FUL-UP1	UPPER1	FULL	FUL UP1-2	UPPER1, UPPER2	FULL
SP UP1&L	UPPER1, LOWER	SPLIT	DRUM	---	DRUM
FUL-MUTE	---	FULL	FUL-UP2	UPPER2	FULL
SP-MUTE	---	SPLIT	SP-UP1	UPPER1	SPLIT
SP-UP2	UPPER2	SPLIT	SP-UP1&2	UPPER1, UPPER2	SPLIT

Option	Keyboard Assign	Keyboard Mode	Option	Keyboard Assign	Keyboard Mode
SP-LOW	LOWER	SPLIT			

Event editing of the CHRD track (chords)



Chord

This indicates the chord that will be input.

Tension

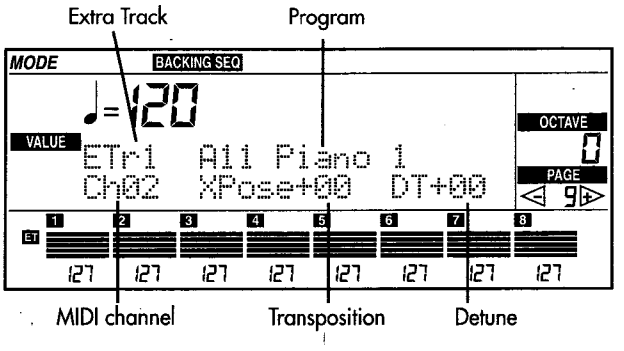
Tension adds notes that have actually been played to the accompaniment, even if they haven't been written in the style pattern.

Bass note

You can indicate a bass note that is different to the chord root.

Page 9: Extra Track settings (1)

In this page you can set the initial parameters of the eight extra tracks ETr1-ETr8. In the same way as the keyboard track, you can individually adjust the transpose and detune settings. You can also specify the MIDI channel of every extra track.



Extra Track [ETr1...ETr8]

Select the extra track using the buttons in the VOLUME section.

Program [A11...U88, Dr11...Dr44]

Select the program using the buttons in the PROGRAM section. Select a bank first (A, B, C, D, E, F-USER/DRUM), then a two-digit number, using the number buttons. If the program is in the same bank, you only need to select the two-digit number.

In order to select a Drum program (Dr11–44), press the F(USER/DRUM) button repeatedly in the PROGRAM section, until the abbreviation "Dr" appears, then select a two-digit number with the number buttons.

Ch (MIDI channel) [01G...16]

The track will receive data from the keyboard, from MIDI IN and from the TO HOST connector on this MIDI channel. It is possible to assign two or more tracks to the same MIDI channel, so that they play in unison when receiving data from MIDI or from the PC TO HOST connector. You can assign the same MIDI channel to two tracks, so you can record the notes on one and the controls on the other (e.g. volume, damper, pitch bend variations).

Xpose (Transposition) [-24...+24]

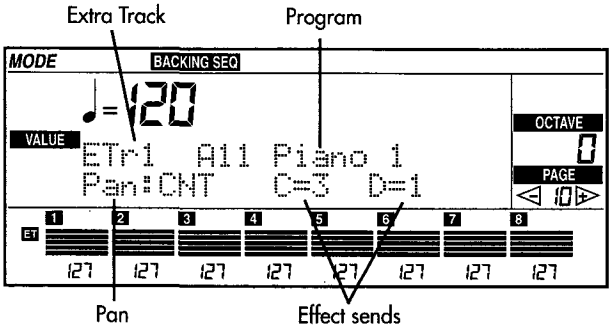
This transposes the track in semitones, up to a maximum of ±24 semitones (±2 octaves). At **0** there is no transpose. Since each program has an upper range limit, The higher notes might not play with a very high transpose setting.

DT (Detune) [-50...+50]

This finely tunes the track in 1-cent steps, up to a maximum of ±50 cents (1/2 of a semitone). Tip: You can create a richer sound by detuning two tracks relative to each other and playing them in unison; assign the same MIDI channel to the two tracks, detune them with the same value, one positive and one negative (if one of the tracks is detuned at +10, the other should be detuned at -10), then record the data onto only one of the two tracks.

Page 10: Extra Track settings (2)

In this page you can choose the program (sound), pan (stereo location) and the effect level sent to the two built-in effect systems, for each of the 8 extra tracks.



Extra Track [ETr1...ETr8]

Select the track using the buttons in the VOLUME section.

Program [A11...U88, Dr11...Dr44]

Select the program using the buttons in the PROGRAM section. Select a bank first (A, B, C, D, E, F-USER/DRUM), then a two-digit number, using the number buttons. If the program is in the same bank, you only need to select the two-digit number.

In order to select a Drum program (Dr11–44), press the F(USER/DRUM) button repeatedly in the PROGRAM section, until the abbreviation "Dr" appears, then select a two-digit number with the number buttons.

Pan [OFF, L15...L01, CNT, R01...R15, PROG]

This specifies the stereo location of the track. It will determine the levels of channels A and B.

CNT	Track placed in the center.
L values	Track placed to the left.
R values	Track placed to the right.
OFF	Track output on channels A and B off.
PROG	pan settings of program will be used.

C=/D= (effect send levels) [0...9, P]

These are the send levels for the selected track (sent by channels C and D to the built-in effect systems).

P	Program send levels will be used.
0-9	Send levels of channels C (usually reverb) or D (usually modulating effect, chorus or flanger type).

Page 11: Effect select

The instrument has two incorporated digital effect processors. In this page, you can choose which effects you wish to assign to the backing sequence and turn them on or off. For more details, see "Effects" chapter.

Page 12: Effect modulation

In this page you can connect the effects to controls, which allow you to dynamically modulate their intensity. For more details, see "Effects" chapter.

Page 13: Effect placement

In this page you can choose the effect setup of the backing sequence, and program pan and levels for channels C and D. Pan and sending of arrangement tracks are programmed in the Arrangement Play mode. Pan and sending of extra tracks are programmed on "Page 10: Extra Track settings (2)". For more details, see "Effects" chapter.

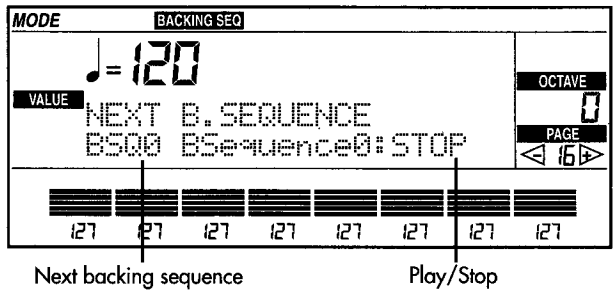
Page 14: Effect 1 settings

Page 15: Effect 2 settings

These pages contain the effect parameters selected on "Page 11: Effect select", that will be used for the selected backing sequence. The parameters contained in these pages will depend on the effects you have selected. For more information on programming effects, see "Effects" chapter.

Page 16: Next Backing Sequence

The "Next Backing Sequence" page allows you to choose a backing sequence which will be automatically selected when the current backing sequence ends.



Next backing sequence [OFF, BSEQ0...BSEQ9]

This indicates the backing sequence that will be selected when the current backing sequence ends. If it is **OFF**, at the end the current backing sequence will carry on playing.

Play/Stop [STOP, PLAY]

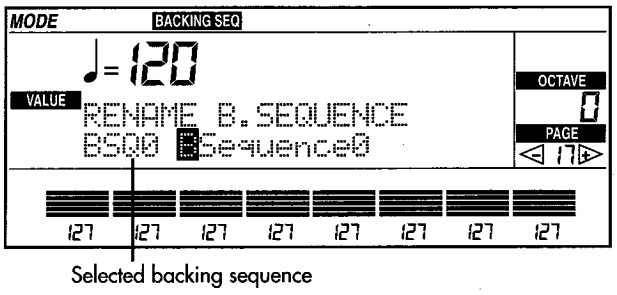
This will set the backing sequence you have selected as the next one, in Play or Stop. If all the backing sequences in memory are Play, they will link up with the next backing sequence, and backing sequence 9 will link up with backing sequence 0, thus you can create a "loop" of backing sequences that playback continuously until you press START/STOP.

STOP — The next backing sequence will be selected but will not be played back.

PLAY — The next backing sequence will be selected and played back.

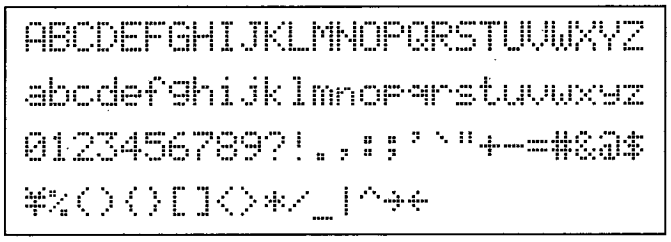
Page 17: Rename Backing Sequence

The "Rename Backing Sequence" page allows you to change the name of the backing sequence. The name can be made up of a maximum of 10 characters.



Selected backing sequence

The following characters can be used.

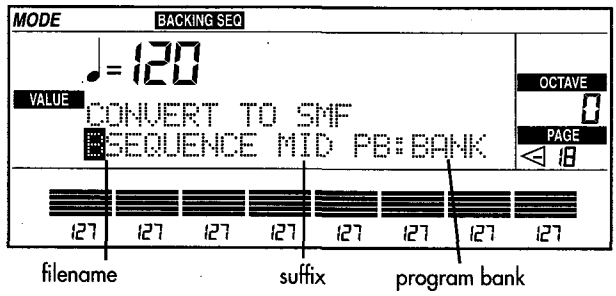


Use the CURSOR buttons to move the cursor to the location of the character you wish to change and the TEMPO/VALUE buttons (or the DIAL) to choose a character.

Press INS to copy the character at the cursor location. This allows you to insert a new character. Press DEL to delete a character at the cursor location.

Page 18: SMF converter

This function converts a selected backing sequence into a Standard MIDI File format 0 (SMF0). The SMF can be read and played back by any other sequencer or instrument.



Insert a disk into the disk drive and press ENTER/YES. A confirmation message will appear; press ENTER/YES again to confirm and the backing sequence will be converted into a SMF.

The displayed **file name** will consist of the first eight characters of the backing sequence name, all in capital letters. Characters other than numbers and letters will be changed into underscored characters (_). You can modify the name with the CURSOR and TEMPO/VALUE buttons (or DIAL). The SMF file extension name SMF (.MID) will appear after the file name.

The DRUM, PERC, BASS, ACC1, ACC2 and ACC3 tracks will be assigned to the MIDI channels that were specified in "Page 4: MIDI channel settings (1)" and in "Page 5: MIDI channel settings (2)" of the Disk/Global mode. The extra tracks will be assigned to the MIDI channels that were specified in "Page 9: Extra Track settings (1)" in the Backing Sequence mode.

The UP1 track will be assigned to the MIDI channel that was specified in "Page 4: MIDI channel settings (1)" of the Disk/Global mode. In the same page you can assign a channel to the LOW/UP2 track, that will however, be automatically assigned to a channel that is not being used by other tracks.

PB (Program Bank) [NUM, BANK]

This will determine whether the Bank Select message should be saved in the SMF or not.

NUM	The bank select messages will not be saved in the SMF; choose this option when the backing sequence has been created with the sounds that belong to the iS40/iS50 (C, D, E, F banks) and not with the GM programs (A and B banks).
BANK	The bank select messages will be saved in the SMF; choose this option when the SMF has to be played by another Korg *i* series instrument.

9. Song Play mode

Functions of Song Play mode

The following table lists the pages of Song Play mode, and the main functions contained in each page.

Display page	Function	Manual page
1. Performance monitor	Select song, tempo, initial measure	☞P. 93
2. Channel settings	Pan, effect send	☞P. 95
3. Transpose position	Position at which transpose will take place in the MIDI data, transpose effect	☞P. 96
4. Effect select	Effect type, on/off	☞P. 97
5. Effect modulation	Program effect modulation	☞P. 97
6. Effect setup	Setup pan C/D, L/R levels to effects 1 and 2	☞P. 97
7. Effect 1 parameters	Program effect 1 parameters	☞P. 97
8. Effect 2 parameters	Program effect 2 parameters	☞P. 97

If an error message appears while you are reading an SMF, refer to the list of errors in the "Appendix".

Sending MIDI Bank Select messages

The Program Filter settings contained on "Page 7: MIDI filter" of the Disk/Global mode allow you to specify how the select bank messages will be sent to the MIDI. In order to connect the iS40/iS50 to another Korg instrument, set the parameter to "o". To connect a device of another manufacturer, if the results are not correct, set the parameter to "s" or "n". If "n" is selected, the bank select will be ignored, and the bank number will not be sent.

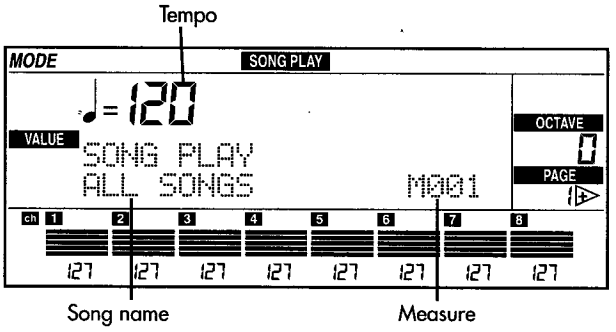
Programming a song on an external computer

To program a song on an external sequencer, set the iS40/iS50 in the Song Play mode. In this way the instrument will transmit on the selected channel with the Volume buttons, and receive from the external sequencer on all the MIDI channels (1-16). See chapter "MIDI" for more information.

Page 1: Performance monitor

The iS40/iS50 can read Standard MIDI files (SMF) in format 0 and 1. Format 0 SMF will be played back immediately, without having to load them onto disk, whereas format 1 SMF will be loaded first, then played back a few seconds later. While loading the START/STOP led will flash, and the message "Please wait a moment" will appear on the screen.

It is also possible to read files in format Yamaha ".DOC", although there are some limitations. The sounds will be converted, where possible, into GM sounds. As their are differences between standard DOC and standard GM, on some of the tracks the programs and levels might playback differently as regards the original ones.



Song name

Song in playback. You can choose one song, playback all the songs contained on disk, or create a list of songs to playback with just one command.

- **Playing back one song**

  Select the song with the TEMPO/VALUE buttons. You can select the song on disk with the number buttons of the ARRANGEMENT (songs 1-8) or PROGRAM (songs 9-16) sections.

  Press START/STOP to start playback. Press START/STOP again to stop playback.

  During playback, you can press RESET to go back to the beginning of the song. In this way the song's initial tempo will be reset.

- **Playing back all the songs**

  To successively playback all the songs contained on disk, select "- - - -" as the song name, and press START/STOP. The songs will playback in the order that they are filed on the disk. You can stop playback by pressing the START/STOP button again.

- **The JukeBox**

  You can create a list of songs in a different order with the JukeBox function. For more information, see also the chapter "Tutorial" on page 22.

1. Choose the first song with the TEMPO/VALUE buttons (or the trackball).
2. Press ENTER/YES to insert the song in the list.
3. Choose the second song with the TEMPO/VALUE buttons (or the dial).
4. Press ENTER/YES to insert the song in the list.
5. Proceed in the same way for all the other songs you wish to insert.
6. Press START/STOP to playback the songs on the list.
7. You can use START/STOP to stop or restart playback.
8. Press EXIT/NO to exit the JukeBox mode.

< There are already backing sequences and songs in memory >

If there is already a backing sequence or a song playing back in the Song Edit mode, before loading a SMF in format 1, a message will appear asking you if you want to erase the backing sequence or song in memory: "Or to erase B.Seq & Song Edit". Press ENTER/YES, to erase the data in memory and playback the new song.

If you do not wish to lose the contents on memory, press EXIT/NO. If you are playing back a song list, as soon as you press EXIT/NO the following SMF will be read. (If you want to save the data contained in memory, follow the Save procedure in the Disk/Global mode to save the backing sequences, the Save function on "Page 13: Save" of the Song Edit mode to save the song).

If the size of the file you wish to load is larger than the size of the edit memory (> 156 K), the message "Can't play all tracks" will appear. Some tracks might be missed out during playback. Press ENTER/YES to continue loading, or EXIT/NO to cancel.

< A file does not appear >

In Song Play mode, only files with an extension of ".MID" will be played back. You cannot view the SMF which have been saved with a different filename extension. Read the disk with a computer, and change the filename extension to ".MID". The name of the file must be 8 characters long, plus period and "MID" suffix (MS-DOS conventions).

♩ = (Tempo) [20...250]

Initial tempo of the song. The initial tempo of the song is normally the one that was saved in the SMF. The tempo values can be between 20 - 250. If you tap the tempo with the TAP TEMPO button, the values will be limited to 40–240. The initial tempo will be automatically selected.

M (Measure number) [001...999]

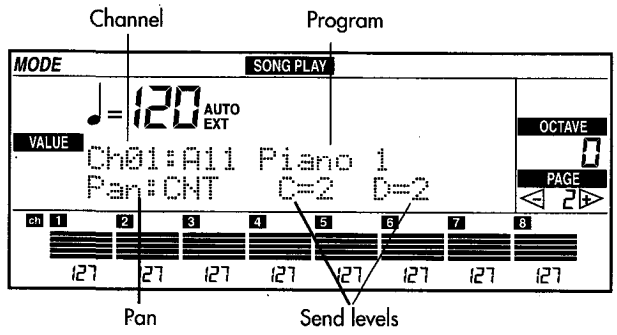
Current measure. You can choose a different measure both when the sequencer is in playback or when it has stopped. If you change a measure while the sequencer is in playback, the START/STOP led will briefly flash while the measure is being searched for, then the song will start up again from that point.

If you choose a measure number following the last measure number of the song, the sequencer will go to the last measure and playback will stop. The message "Measure not exists. Continue?" will appear. If you press ENTER/YES playback will continue with the next song. If you press EXIT/NO playback will stop on the last measure of the current song.

If you move to a measure — or after a measure — that contains tempo change, program change or volume change data, the data for all the channels will be updated, apart from the ones that are muted. If you wish to update these channels as well, change their channel status to Play.

Page 2: Channel settings

When a Standard MIDI File (SMF) is played back, the channels are momentarily reprogrammed according to the settings of the SMF. When playback finishes they will be reset as in this page.



Ch (Channel) [01...16]

Select the channel you wish to edit using the buttons in the VOLUME section. The corresponding channel will be indicated in the display, above the volume indicator. You can move on from channels 1-8 to channels 9-16 by pressing the TRK SELECT button. The program of the selected channel will play on the keyboard.

Note: In Song Play mode both channels and tracks coincide.

Program [A11...U88, Dr11...Dr44]

Program that is assigned to the selected channels. Select the program using the buttons in the PROGRAM section. To select a drum program (Dr11–Dr28), press F/USER/DRUM repeatedly until the abbreviation "Dr" appears on the display, then select a two-digit number with the number buttons.

Note: Channel 10 can only play a DRUM program.

Pan [OFF, L15...CENT...R15, PROG]

Stereo positioning of the channel. This works as the A and B send levels of the stereo channel. CNT will position the channel in the center. L values will place the channel to the left. R values will place the channel to the right. Higher values will move the sound further away from the center. OFF will turn off the channel output from channels A and B. The PROG value uses the pan setting of the program.

C=/D= (Effect send) [0...9, P]

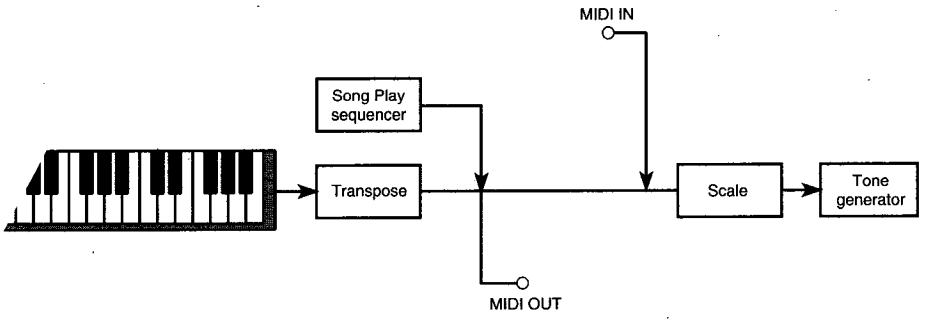
Effect send level of channels C and D. Signal level of channels C and D sent to the effect processors. P value uses the send level of the program.

Page 3: Transpose position

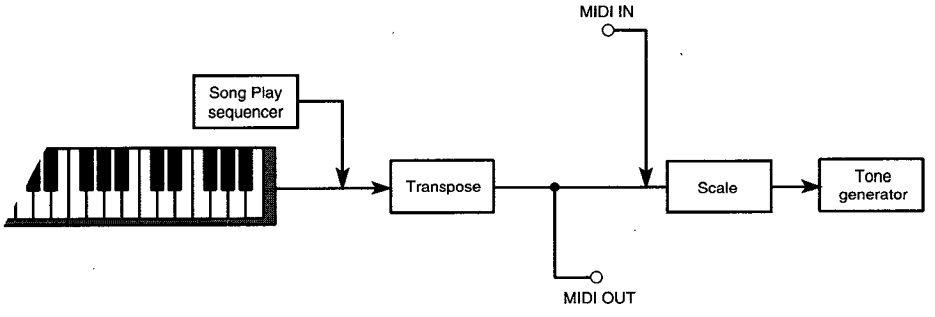
Transpose position [KBD/MIDI, ALL/MIDI, ALL/INT]

This parameter determines whether the TRANSPOSE buttons must apply to the sounds played from the keyboard, the sounds played back from the song and the messages sent to MIDI OUT. These settings only regard the Song Play mode, the same settings of "Page 2: Master tuning/Transpose position" of the Disk/Global mode, will be ignored.

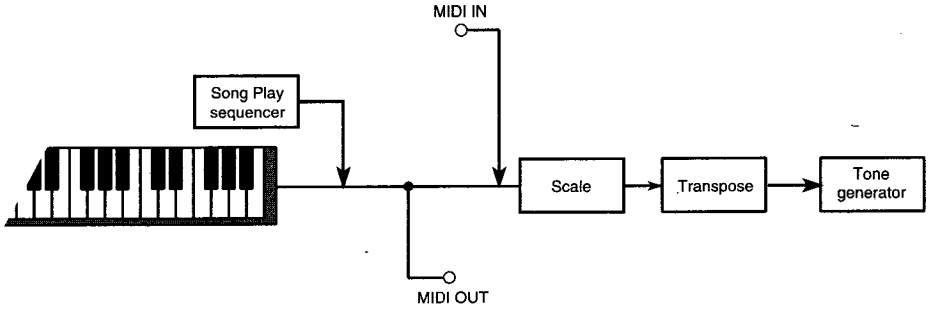
The OCTAVE buttons always apply only to the keyboard sounds, and are not affected by this setting. With the KBD/MIDI value, the notes will be transposed when they are played on the keyboard. Notes played from the sequencer or received from MIDI IN will not be transposed.



With the ALL/MIDI value, the notes played on the keyboard and played back from the sequencer will be transposed. The notes sent to the internal expander and MIDI OUT will be transposed. The notes received from MIDI IN will not be transposed.



With the ALL/INT value, all the notes entering the internal expander will be transposed. The notes received from MIDI IN will be transposed. The notes sent to MIDI OUT will not be transposed.



Page 4: Effect select

The instrument has two built-in digital effect processors. In this page, you can choose the effects assigned to the arrangement and switch them on/off. For more information, see the "Effects"

Page 5: Effect modulation

In this page, you can connect the effects to one or two controls, which allow you to dynamically "modulate" their intensity. For more information, see the effects chapter.

Page 6: Effect placement

In this page you can setup the effects of the arrangement. Among the programmable parameters, there is the pan setting and the send level for channels C and D. Pan and channel send are programmed on "Page 2: Channel settings". For more information, see the "Effects" chapter.

Page 7: Effect 1 settings

Page 8: Effect 2 settings

These pages contain the effect parameters selected on "Page 4: Effect select", that will be used for the selected arrangement. The settings for the other operative modes are set in their respective modes.

The parameters contained in these pages will depend on the effects you have selected. For more information on effects, see "Effects" chapter.

10. Song Edit mode

Functions of Song Edit mode

The following table lists the pages of Song Edit mode, and the main functions contained in each page.

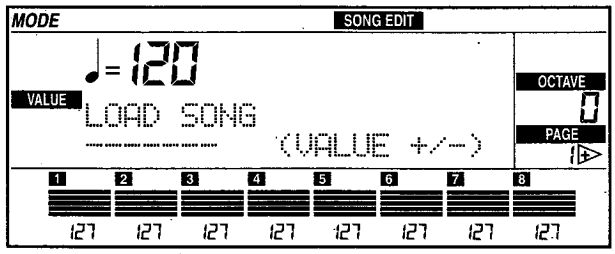
Display page		Functions	Manual page
1. Load		Load a Standard MIDI File	☞P. 99
2. Playback & recording		Playback and recording	☞P. 99
3. Track parameters		Parameter settings of the tracks	☞P. 101
4. Event edit		Modify single events of the tracks	☞P. 102
5. Shift note		Transposition	☞P. 105
6. Erase song		Erase a song	☞P. 106
7. Edit	7-1. Delete measure	Delete measures	☞P. 106
	7-2. Insert measures	Insert measures	☞P. 107
	7-3. Erase measures	Erase events from measures	☞P. 108
8. Effect select		Effect type, effect on/off	☞P. 109
9. Effect modulation		Effect modulation settings	☞P. 109
10.Effect placement		Effect setup	☞P. 109
11. Effect 1 settings		Effect 1 settings	☞P. 109
12. Effect 2 settings		Effect 2 settings	☞P. 109
13. Save		Save as Standard MIDI File (SMF)	☞P. 110

Saving a song before turning off

Warning: When the instrument is turned off, the song in Song Edit will be erased. Before turning off the instrument, save the song by following the Save procedure contained on "Page 1. DISK functions" of the Disk/Global mode. The function is also explained in the "Tutorial" chapter on page 41.

Page 1: Load

Load a Standard MIDI File (SMF).



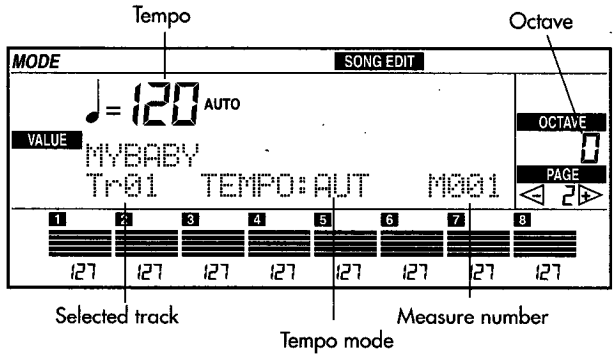
Insert the disk containing the SMF you wish to load. The disk must be MS-DOS, 3.5" format, 720K capacity (DS-DD) or 1.44MB (HD).The SMF must have the filename extension ".MID".

It is also possible to read files in Yamaha ".DOC" format, with however some limitations. The sounds are converted, where possible, into GM sounds. Given the differences between the DOC standard and the GM standard, some tracks may playback with programs and levels that differ to the originals.

Choose the SMF with the TEMPO/VALUE buttons (or the DIAL). The files will appear in the order in which they were saved on disk. Press ENTER/YES to load the selected file. Once the file has been loaded, press START/STOP to go to page 2 and start playback. You can press EXIT/NO instead, to go to page 2 without starting playback.

Page 2: Playback and recording

In this page you can playback the loaded SMF, whose name will appear in the display.



Initial tempo [40...240]

Initial tempo of the song (both in playback and recording). If you wish to adjust the tempo manually, set the "Tempo mode" parameter to MAN.

Tempo mode [AUT, MAN, REC]

If this parameter is set on AUT, the song tempo will play. If it is set on MAN the tempo used will be as defined by the TEMPO/VALUE buttons, and the tempo changes recorded in the song will be ignored. If set on REC, the tempo can be adjusted manually after pressing the REC/WRITE button. Set the parameter on REC, press

REC/WRITE and then START/STOP to start recording. At this point, you can carry out tempo changes, which will be recorded on the tempo track of the song.

M (measure number) [001...999]

Current measure. You can choose a different measure both when the sequencer is in playback or when it has stopped. If you change a measure while the sequencer is in playback, the START/STOP led will briefly flash while the measure is being searched for, then the song will start up again from that point.

If you move to a measure — or after a measure — that contains tempo change, program change or volume change data, the data for all the channels will be updated, apart from the ones that are muted. If you wish to update these channels as well, change their channel status to Play

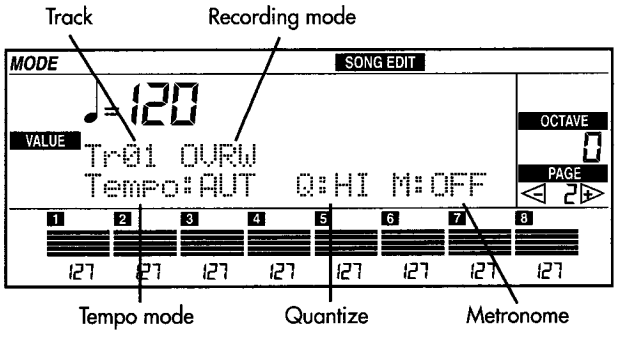
In the recording mode, it is not possible to choose a different measure while the sequencer is running. If the sequencer is off, it is possible to choose start measure of the recording.

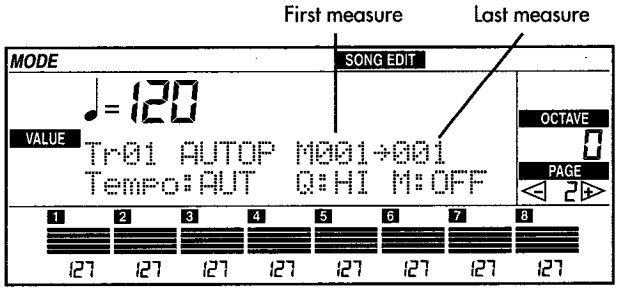
Octave [-2...+2]

Transposition of the keyboard in octaves. Use the OCTAVE buttons to change this value.

Page 2: Realtime recording

While you are at page 2, press REC/WRITE to set the tracks on record. Select the track you wish to record using the buttons in the VOLUME section and the TRK SELECT button. Program the various parameters and press START/STOP to begin recording. Press START/STOP again to end recording.





Tr (Track) [0...16]

Track to be recorded.

Note: In Song Edit mode, the terms track and channel do not coincide. The MIDI channel of each track can be freely defined on "Page 3. Track parameters".

Recording mode [OVWR, OVDB, AUTP, MANP]

OVWR (Overwrite): previously existing data on the track will be erased and substituted by new data. OVDB (Overdub): new data will be added to previously existing data. AUTP (Auto punch): you can specify a start

measure and an end measure before beginning, so that only the specified area will be recorded onto and other recording parts will not be "spoilt". MANP (Manual punch): you can define the recording area manually. Follow this procedure:

1. Select the track you wish to record.
2. Press START/STOP to start playback.
3. Press REC/WRITE at the beginning of the area you wish to record. Recording will begin.
4. Press REC/WRITE again at the end of the area you have recorded. Recording will stop, and playback will continue.

Instead of using the REC/WRITE button, you can switch on or off the Manual Punch function with a specially programmed pedal or with the EC5 controller. See "Page 7. Assignable pedal settings" or "Page 8. EC5 external controller settings" of the Disk/Global mode.

Q (Recording quantize) [HI, 𝅘𝅥𝅯 ... 𝅗𝅥]

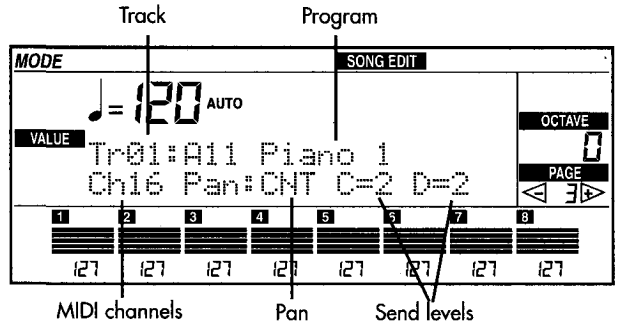
Correction of timing imprecisions during recording. Set on HI, the notes will be recorded as they were played. (On the iS40/iS50, precision is 96 "tic" per quarter). Values that **differ to HI** make the notes adjust to ideal intervals, whose spacing is determined by the quantize value you have chosen. For example, if the parameter is set on q, the attack time of the notes will be positioned to the nearest quarter. Since the pitch bend and the other continuous controls are also quantized, you need to be careful not to make your recording too unnatural.

M (Metronome) [OFF, ON, REC]

Turning the metronome on or off. When it is set on OFF, the metronome will only sound during the precount of recording. When set on ON, the metronome will sound both during recording and during playback. On REC, the metronome will only sound during recording.

Page 3: Track parameters

In this page you can view and modify the parameters of each individual track.



Tr (Track) [Ch01...Ch16]

Select the track you wish to edit using the buttons in the VOLUME section. The track number will be indicated in the display above the volume indicator. Move from tracks 1-8 to tracks 9-16 by pressing the TRK SELECT button. The selected track program will play on the keyboard.

Program [A11...U88, Dr11...Dr44]

Program that is assigned to the selected track. Select the program using the buttons in the PROGRAM section. To select a drum program (Dr11–Dr28), press repeatedly F/USER/DRUM until the abbreviation "Dr" appears in the display, then select a two-digit number with the number buttons.

Ch (MIDI channel) [01...16]

MIDI channel of the track. If a song is converted into a Standard MIDI File "Page 13. Save", the MIDI channels specified here will be used. You can assign the same channel to more than on track. However, once the song has been saved as a SMF 0 format, the program change messages and controls will be mixed in the same channel.

Pan [OFF, L15...CENT...R15, PROG]

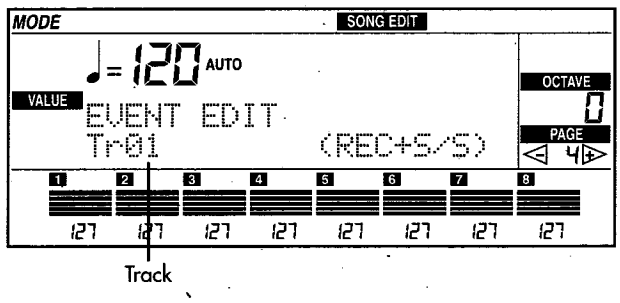
Stereo positioning of the channel. This will be the A and B send levels of the stereo channel. CNT will position the channel in the center. L values will place the channel to the left. R values will place the channel to right. Higher values will move the sound further away from the center. OFF will turn off the output to channels A and B. PROG value will use the pan of the program.

C=/D= (effect send) [0...9, P]

Effect send levels of channels C and D. Signal level of channels C and D sent to the effect processors. P value will use the send level of the program.

Page 4: Event edit

This operation allows you to modify single events, for example the notes and control change messages. When you have finished editing, press START/STOP again to exit from Event Edit.

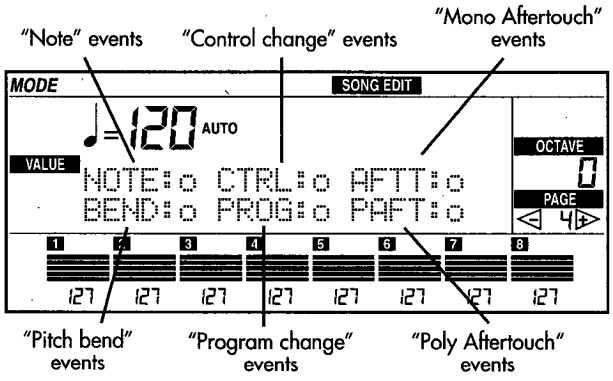


Track [01...16, Tempo]

The track that you wish to edit.

Event filter

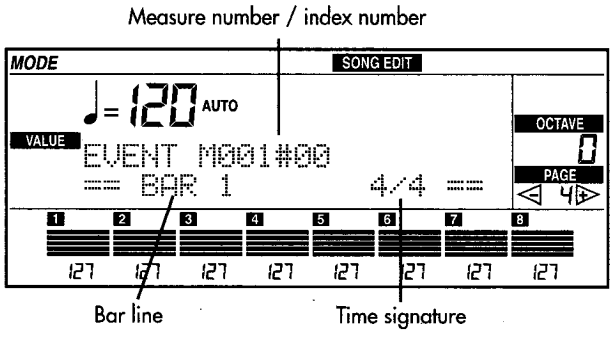
Press REC/WRITE to access the Event Filter page. Assign "o" to the type of event you wish to view, "x" to the type of event that you do not wish to view. For more information on the various types of event, refer to the paragraph about this further on.



Press START/STOP to get back to the Event Edit page.

Event types

• Bar lines



Measure number/Index number

The index number is the event number within the measure. By modifying this number you can step from one event to another within the measure. Index number 0 corresponds to the bar line (i.e. the point that separates two measures) and the time signature of the measure.

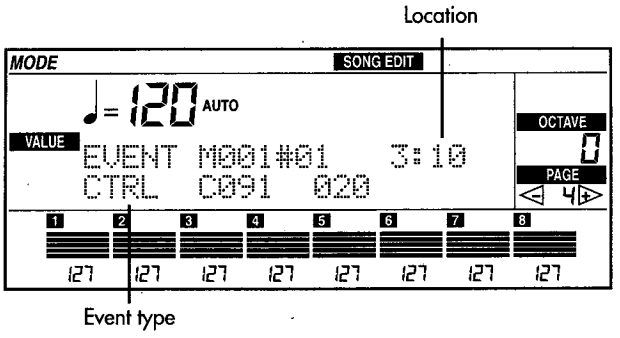
Time signature

This indicates the time scanning of the measure, i.e. the number of movements in which it is divided, and the scanning unit.

• End of track

This display indicates the end of the track.

• Event



Location [1:00...8:95]

This indicates the position within the measure. The value is displayed in the form of "quarter steps" (1/96th of a quarter note steps). If the abbreviation TIE appears as well, the note has been tied to the last note in the previous measure.

Event type

Event type	Values	
C-1...G9 (note data)	V:002...V:126 (velocity)	0:00...4:00 *1 length (beats: tics)
BEND (pitch bend)	–8192...+8191 *2 (upper/lower values)	
AFTT (aftertouch)	000...127 (value)	
PROG (program change)	000...127: 000...127 *3 (bank: program number)	
CTRL (control change)	C000...C127 (control change number)	000...127 (control number)
PAFT *4 (polyphonic: aftertouch)	C-1...G9 (note number)	000...127 (value)

*1. If a note is connected to a note in the next measure, this writing TIE will be displayed.

*2. Use the CURSOR buttons to set the pitch bend values.

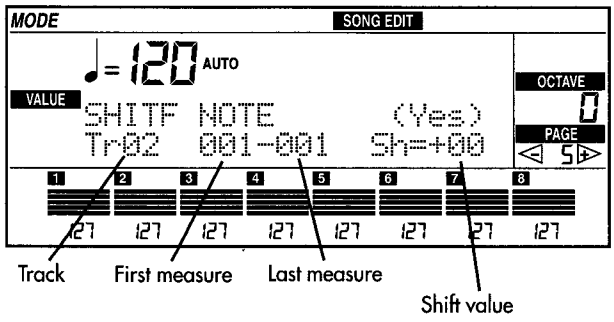
*3. 02 is the Drum bank (drum sounds) but the percussion programs are paired up with the values indicated in the following table. The LSB values of the MIDI Bank Change messages are 000...127, while the MSB value is 0. - - - means that the bank is not transmitted, and the previously selected bank will be left unchanged.

*4. MIDI Polyphonic Key Pressure messages will be transmitted but will not be received.

- You can delete the selected event by pressing the TAP TEMPO/DEL key. It is not possible however, to delete the BAR (bar line) or the End of Track indicator.
- You can insert an event before the selected event by pressing the RESET/INS button. It isn't possible however, to carry out this operation if the bar line has been selected (BAR event) of the first measure.

Page 5: Shift notes (Transposition)

This function shifts (i.e. transposes) the pitch of notes making them more acute (higher) or more grave (lower), in semitone steps. You can shift all the notes or choose certain measures.



1. Move the cursor to the "Track" space using the CURSOR buttons and choose the track with the TEMPO/VALUE buttons (or the dial).
2. Move the cursor to the "first measure" space and choose the first of the measures you wish to shift. Move the cursor to the "last measure" and choose the last of the measures you wish to shift.
3. Move the cursor to the "Shift value" parameter and indicate the value in semitones, up to a maximum of ±24 semitones (±2 octaves).
4. Press ENTER/YES to confirm the shift operation

Track [Ch01...Ch16, ALL]

Selected track(s). Choose value to select all the tracks.

Start measure [001...999]

The first measure where you wish to shift the pitch of the notes.

End measure [001...999]

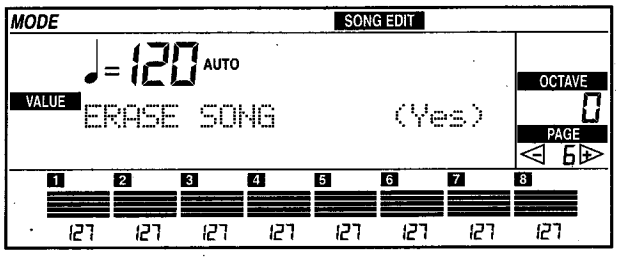
The last in the range of measures where you wish to shift the pitch of the notes.

Sh= (Shift amount - transposition value) [-24...+24]

Shift amount in semitones. The +24 value corresponds to +2 octaves. A value of -24 corresponds to -2 octaves. A value of +00 has no effect.

Page 6: Erase song

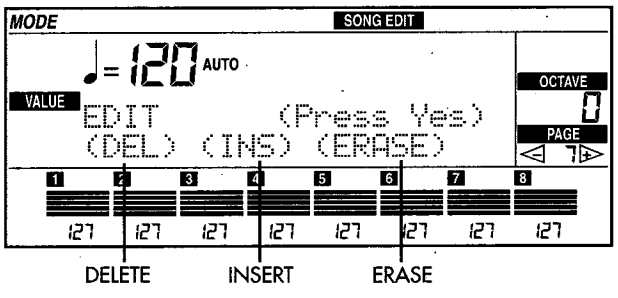
When a song has been loaded in memory, the remaining memory available for the backing sequences will decrease, and it may no longer be possible to load a new backing sequence. By erasing the song you can free some of the memory. Go to this page and press ENTER/YES twice.



If you do not want to lose the data, save it on disk before erasing it from memory. Use the Save function on "Page 13. Save ".

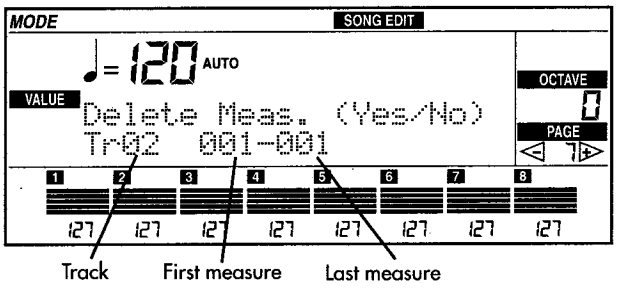
Page 7: Edit

In this page, you can select one of the three operations: delete measure (DELETE), insert measure (INSERT), erase data from measure (ERASE). Move the cursor to the desired operation using the CURSOR buttons, then press ENTER/YES to enter the subpage.



7-1. Delete measures

This operation deletes measures from the selected track. The following measures will then be moved back, filling the gap that was created by deleting the other data.

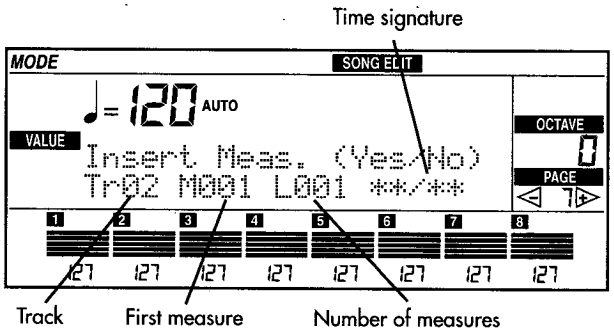


1. Move the cursor to the "Track" field using the CURSOR buttons, and choose the track with the TEMPO/VALUE buttons (or the trackball). The **ALL** value, deletes measures from all tracks (chord track, control track, tempo track, keyboard track, etc.).

2. Move the cursor to the "First measure" field, and choose the first of the measures you wish to delete. Move the cursor to the "Last measure", and choose the last of the measures you wish to delete If you only wish to delete one measure, assign the same measure to both the fields.
3. Press ENTER/YES twice to confirm deletion.

7-2. Insert measures

This operation inserts measures into the selected track. The following measures will be moved forward.

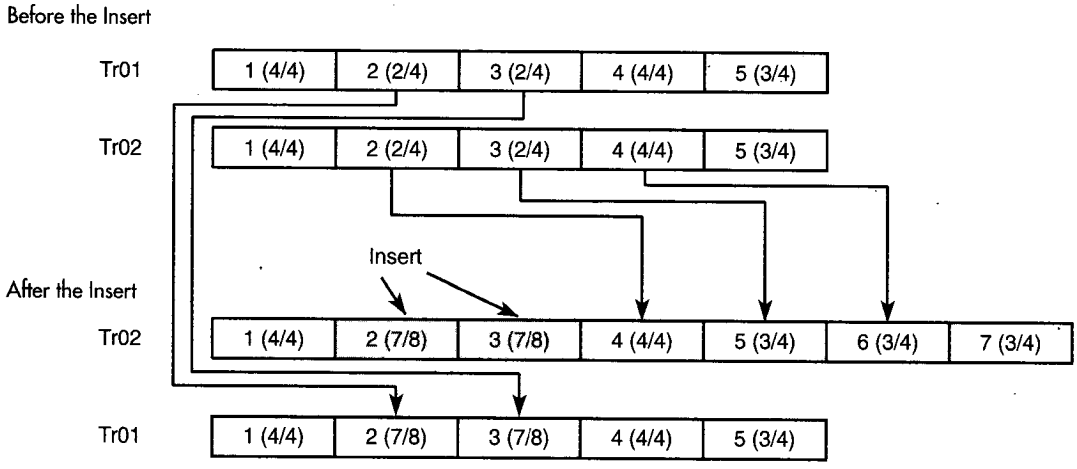


1. Move the cursor to the "Track" field using the CURSOR buttons, and choose the track with the TEMPO/VALUE buttons (or the dial). Choose **ALL** to insert measures on all the tracks (chord track, control track, tempo track, keyboard track, etc.).
2. Move the cursor to the "First measure" field, and indicate where the measure where you wish the insert to take place. Move the cursor to the "Number of measures" field and indicate the number of measures to be inserted. Move the cursor to the "Time signature" field, and choose the time signature for the measures you wish to insert.
3. Press ENTER/YES twice to confirm insertion.

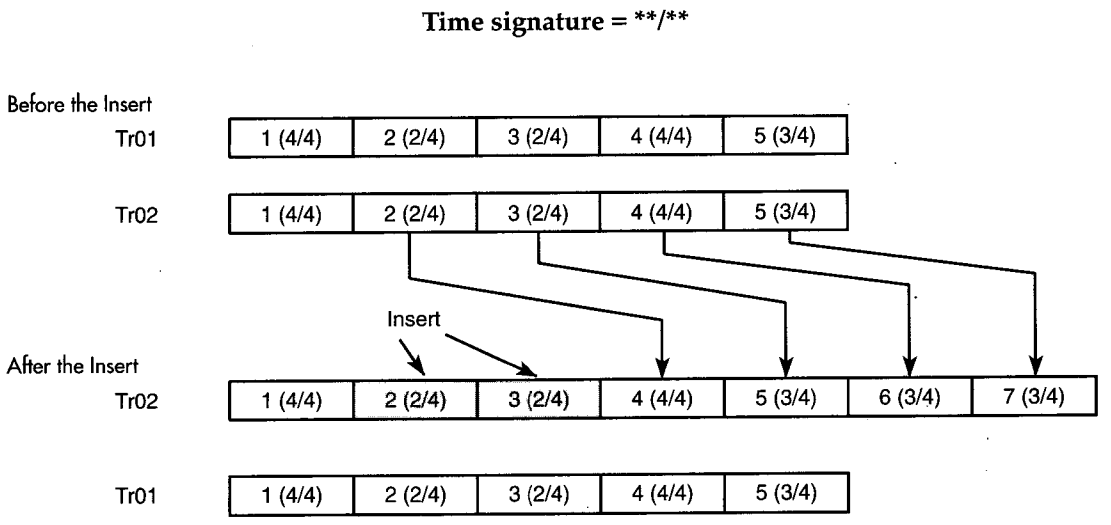
< Inserting measures with a different time signature >

The change of time signature during playback will take place if the tempo is q =AUT. If measures are inserted with a different time signature in a track, all the tracks will have the new time signature. The data will remain intact however, and the tracks will play exactly as they did before.

Inserting two measures of time signature = 7/8

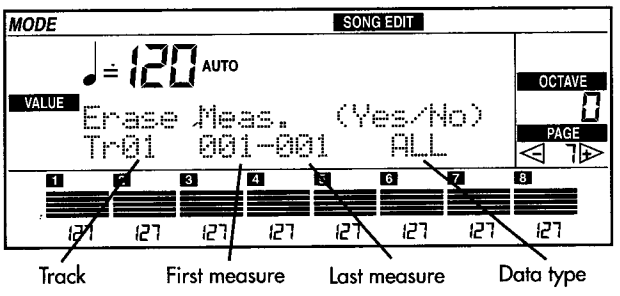


If you assign the value **/** to the "Time signature" parameter, the new measures will have the same time signature as the measures that are in the same position on the other tracks. If the other tracks are still empty, the time signature of the measure that precedes the measures to be inserted, will be selected.



7-3. Erase measures

This operation erases all or part of the data contained in the specified measure(s). The measures themselves will not be erased.



1. Move the cursor to the "Track" field using the CURSOR buttons, and choose the track with the TEMPO/VALUE buttons (or the dial). Choose **ALL** to erase data from all the tracks (chord track, control track, tempo track, keyboard track, etc.).
2. Move the cursor the "first measure" field, and choose the first of the measures you wish to erase. Move the cursor to the "Last measure", and choose the last of the measures you wish to erase. If you only want to erase data from one measure, assign the same measure to both the fields.

Type of data	Erased data
ALL	All data
NOTE	All note messages
CTRL	All control change messages
AFTT	Channel/polyphonic aftertouch messages
BEND	All bend messages
PROG	All program change messages

3. Press ENTER/YES to confirm erasure of data.

< Erasing control change messages >

Control change messages (CTRL) can be made up of an activating part (to turn the effect on) and a deactivating part (to turn the effect off). If you erase the deactivating part, the control can get "stuck". For example, if

you erase the deactivating message of the damper, the pedal will stay open; if you erase the pitch bend reset message, the track could be out of tune. Manually erase the activating messages or insert new deactivating events with the functions of "Page 4. Event edit".

Page 8: Effect select

The instrument has two built-in digital effect processors. In this page you can select the effects you wish to assign to the song and switch them on or off. For more information, see the "Effects" chapter.

Page 9: Effect modulation

In this page you can connect the effects to one or two controls, which allow you to dynamically "modulate" their intensity. For more information, see the "Effects chapter"

Page 10: Effect placement

In this page you can setup the effects of a song. Among the programmable parameters, there is the pan and the send levels for channels C and D. For more information see the "Effects" chapter.

Page 11: Effect 1 settings

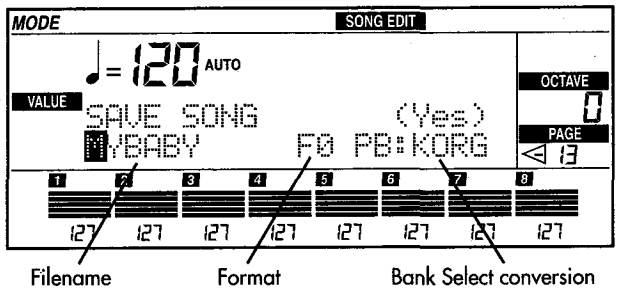
Page 12: Effect 2 settings

These pages contain the effect parameters selected on "Page 10. Effect setup", that will be used for the selected backing sequence. The settings for the other operative modes are set in their respective modes.

The parameters contained in these pages will depend on the effects you have selected. For more information on programming effects, see "Effects" chapter.

Page 13: Save

In this page you can save the song on disk, in Standard MIDI File (SMF) form. You can change the name of the song before saving it. To save the song, when this page is displayed press ENTER/YES twice.



The filename can be up to 8 characters long. Move the cursor with the CURSOR buttons and modify the selected character with the TEMPO/VALUE buttons (or the trackball). Press RESET/INS to copy the character at the cursor location, so that you can insert another character. Press TAP TEMPO/DEL to delete the character at the cursor location.

Format [0, 1]

Format of the Standard MIDI File (SMF). In order to playback the song in the Song Play mode of the iS40/iS50, choose format **0**, which will allow loading to take place more quickly and will occupy space in memory.

If two or more tracks are using the same MIDI channel (for example, if you recorded the two hands onto different tracks, or you have recorded the percussion instruments onto different tracks, and the tracks have the same MIDI channel), it would be better to save the data in format **1** to keep the tracks separate.

Remember that a SMF in format 1 occupies more memory, therefore playing it back in the Song Play mode means that some tracks might not be loaded and thus not played.

PB (Program bank - Bank Select conversion) [NUM, KORG, SERI]

This parameter allows you to decide whether to save the bank select messages in a SMF or not. The NUM setting means that the bank select messages will not be saved. If you have used programs from banks other than A and B (General MIDI banks), the SMF may playback with sounds that differ to the original ones. An exception to this is channel 10, which maintains the program change standard. The KORG setting means that the SMF will contain bank select messages that can be used with Korg instruments. Korg GM compatible products will playback perfectly SMF data, carried out with programs from banks A and B, and will select the correct drum kits. Some sounds may not play at all on some instruments of other manufacturers. The SERI setting means the following bank select messages will be inserted in the SMF: AB=00,00, CD=00,01, E=00,02, F=00,03, Dr=00,04.

11. Disk/Global mode

Functions in Disk/Global mode

The following table lists the display pages of the Disk / Global mode, showing the main functions contained in each page.

Display page		Functions	Manual page
1. DISK functions	1-1. Load	Load data from disk	☞P. 115
	1-2. Save	Save data on disk	☞P. 119
	1-3. Utility	Delete data, delete styles, format disks	☞P. 120
2. Master tune/Transpose position			☞P. 121
3. Local control/Clock source/Host BR		Local On/Off, MIDI synchronization, port speed PC TO HOST	☞P. 122
4. MIDI channel settings (1)		MIDI Global channels, MIDI keyboard track channels	☞P. 123
5. MIDI channel settings (2)		MIDI chord detection channels, of Keyboard Set change, of Arrangement change	☞P. 124
6. MIDI channel settings (3)		MIDI backing track channels	☞P. 125
7. MIDI filter		Filter of MIDI events	☞P. 126
8. Assignable pedal/switch		ASSIGNABLE PEDAL settings	☞P. 127
9. EC5 external controller *(only the iS40)*		KORG EC5 external controller settings	☞P. 129
10. Lower memory/Velocity curve		Lower Memory and velocity curve settings	☞P. 130
11. Chord recognition mode		Chord recognition mode	☞P. 131
12. Auto Chord Scanning, Damper switch polarity		Automatic selection of Chord Scanning mode settings, Damper switch polarity (only the iS40)	☞P. 132
13. Main scale		Main scale	☞P. 133
14. Sub scale		Sub scale	☞P. 133
15. User scale		USER scale settings	☞P. 134
16. MIDI data dump		Data transmission via MIDI	☞P. 135
17. Joystick X Switch		Joystick settings (Pitch bend)	☞P. 136
18. Write Global		Global memory	☞P. 136
19. Calibration		Joystick calibration (X, Y)	☞P. 137
		Aftertouch calibration	☞P. 138
		Assignable pedal calibration	☞P. 139

• "Parameter modified - Write?" message

After having modified some parameters, if you press the button of another operative mode, the question "Parameter modified - Write?" will appear in the display. If you wish to save the changes you have made, press ENTER/YES, otherwise press EXIT/NO. If the changes are not saved, switching the instrument off and then on again will reset any changes.

If you confirm the save, the changes will be saved in memory, and kept even when the instrument is turned off. They will be saved in the Global file when you perform one of the following operations:

- Save > Save All
- Save > Save Global

Changes will be loaded in memory when you perform one of the following operations:

- Load > Load Global
- Load > Load All > All

You can also save the Global in memory with the "Page 18: Write Global" function.

Introduction to disks

The iS40/iS50 can save most of the data contained in memory on a 3,5" DS-DD disk (720KB capacity) or HD (1,44MB capacity), formatted MS-DOS. A disk can contain up to 112 files, irrespective of the disk size. The iS40/iS50 can format disks, load, save and delete data.

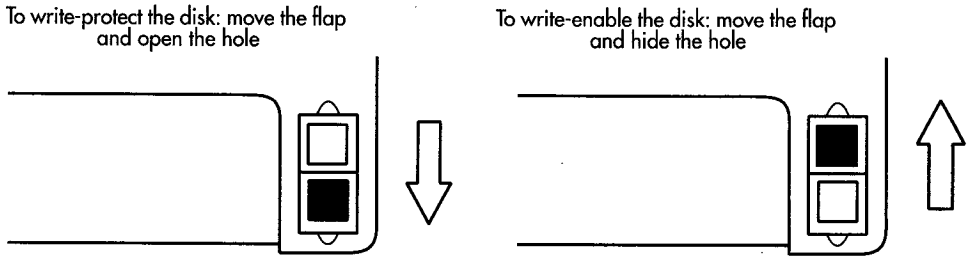
The data is saved in different types of files, each of which containing a particular kind of data. In order to distinguish one file from another, each type of file has an extension of a period followed by three characters. The following table shows the correspondence between filename extensions and types of file.

Type of data	Extension	Size
Arrangement	.ARR	9 KB
Style	.STY	256 KB (max.)
Backing sequence	.BSQ	132 KB (max.)
Standard MIDI File (SMF)	.MID	720 KB (max.)
Program	.PRG	14 KB
Global	.GBL	448 Byte
Arrangement Global	.ARG	79 Byte
Keyboard Set	.KBS	500 Byte

You can view the file extensions with the UTILITY> Delete function, on "Page 1. DISK functions".

Write protection

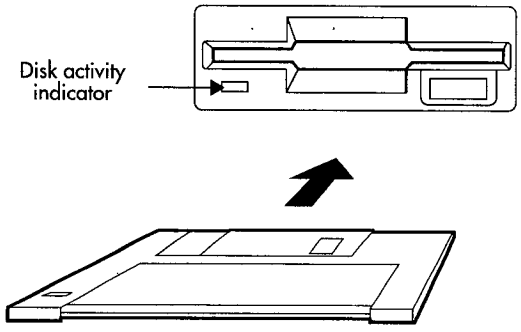
You can protect a disk from the accidental overwriting of data, by opening the write protect hole. To protect the disk from the overwriting of data, slide the protection flap so that the hole becomes visible.



Inserting a disk

Insert the disk delicately into the disk drive, with the label facing upwards and the metal part to the front. Press it in as far as it will go.

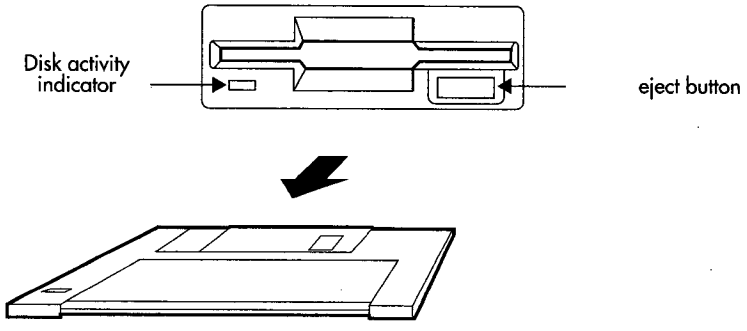
Note: The iS40/iS50 incorporates a new type of disk drive that you cannot hear "click" when the disk is inserted into place.



Removing a disk

Before removing a disk, make sure that the disk drive operating led indicator is off. If the led is off, remove the disk by pressing the eject button.

Warning: Do not remove the disk, if the disk drive operating led is lit up.



Cleaning the heads

The disk drive read/write heads get dirty with use and become less accurate. You can clean the heads with a special cleaning disk, purchasable from any computer or musical instrument store. Use a 3,5" DS wet type head cleaning disk; and carefully follow the instructions included with the cleaning disk.

Precautions

- Make a backup copy of the disks, in order not to lose data forever in case of damage. If you have a personal computer, you can keep a copy of the data on its hard disk.
- Do not open the metallic shutter on the disk, and do not touch the surface of the magnetic media inside it. If the magnetic media becomes scratched or soiled, it may cause irreparable damage.
- Do not leave a disk in the disk drive while transporting the instrument: the read/write heads may scratch the disk and ruin data.
- Keep the disks away from sources that generate magnetic fields, for example televisions, refrigerators, computers, monitors, speakers and transformers. Magnetic fields can alter the contents of the disks.
- Do not keep disks in very hot or humid 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 disks.
- After use, replace the disks in a case.
- Do not remove the disk or move the instrument while the disk drive is operating.

Possible problems

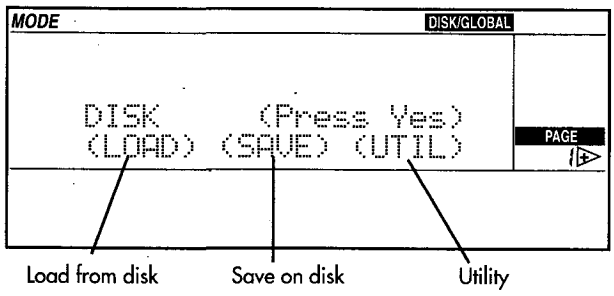
- In exceptional cases, the disk can get stuck in the disk drive. In order to avoid this happening, you should only use disks of the best quality. If the disk does get stuck, do not try to force it out. Contact your local dealer or your nearest Korg Service Center.
- Magnetic fields, dirt, humidity and usage can damage data on disk. You can try to recuperate the data with disk repair utilities for personal computers (e.g. Norton Utilities, PC Tools or Mac Tools). It is however, a good idea to make a backup copy of data.

The disk supplied along with the instrument

The iS40/iS50 is supplied with a "bonus" disk, containing data to be loaded in memory.

Page 1: DISK functions

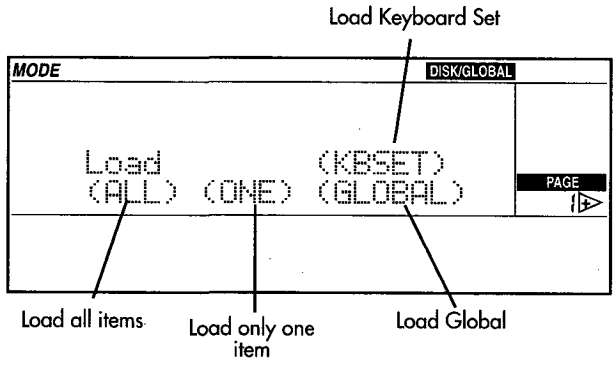
In this page you can select one of the three disk functions: LOAD, SAVE, UTIL. Move the cursor to the desired function, then press ENTER/YES to access its subpages.



1. Load

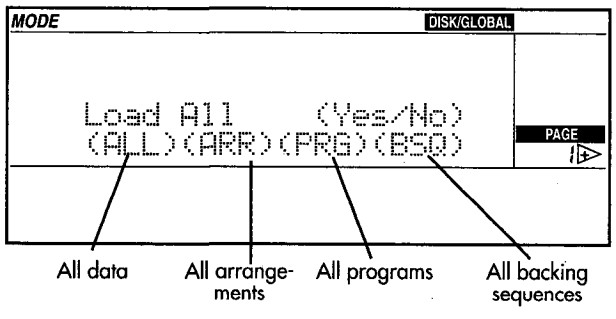
The Load function allows you to load data onto disk. You can load all the data that can fit in memory (Load All), only some data (Load One), only Global data (Load Global), or only iS40 Keyboard set data (Load Kbset). Choose one of the three options and press ENTER/YES to access the relative subpage.

Warning: Loading data can cause erasure of data previously existing in memory. Before loading new data, make sure that you have a copy on disk of any important data in memory.



1-1. Load all

The Load All function loads all data of a file, or all data of a particular type contained in a file. Choose one of the options and press ENTER/YES to view the disk directory.



ALL

An ALL file contains all the data that can fit in memory. In reality, it is a file that points to other files, which can even be loaded separately. The ALL files allow you to load all the data you may need for an entire concert, in one operation. This operation loads also the Global data, including the user scales and the two user drum kits.

1. Insert the disco.
2. Choose ALL and press ENTER/YES. The ALL filenames contained on disk will appear in the display. The filename extension will not appear.
3. Choose the desired file with the TEMPO/VALUE buttons (or the DIAL).
4. Press ENTER/YES to load the file (or, press EXIT/NO to cancel the procedure). If all the data requested by the ALL file is not found on the disk, an error message will appear after loading.

ARR (ARRANGEMENT)

The ARR files contain up to 64 arrangements to be located in the USER bank. If there are also files with styles of the same name as the ARR file (but with the filename extension STY), the USER styles (up to a maximum of 16) will also be loaded along with the arrangements.

The loading procedure is the same as for the above-described ALL files. Only the arrangement filenames will appear in the display.

PRG (PROGRAM)

The PRG files contain 64 programs of the F(USER) bank and the two Drum programs USER (Dr 27 e Dr 28) type. The loading procedure is the same as for the above described ALL files. Only the program filenames will appear in the display.

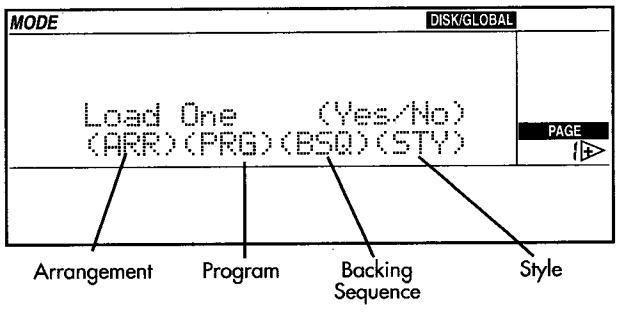
BSQ (BACKING SEQUENCE)

The BSQ files contain up to 10 backing sequences.

The loading procedure is the same as for the above described ALL files. Only the backing sequence filenames will appear in the display.

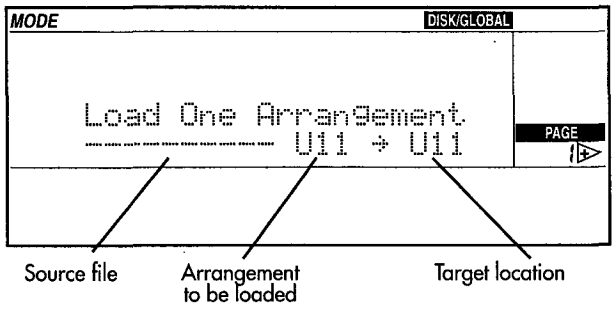
1-2. Load one

The Load One function allows you to load a single element from an arrangement (ARR), a program (PRG), a backing sequence (BSQ) or a style (STY) file. Choose one of the options and press ENTER/YES to view the disk directory.



ARR (ARRANGEMENT)

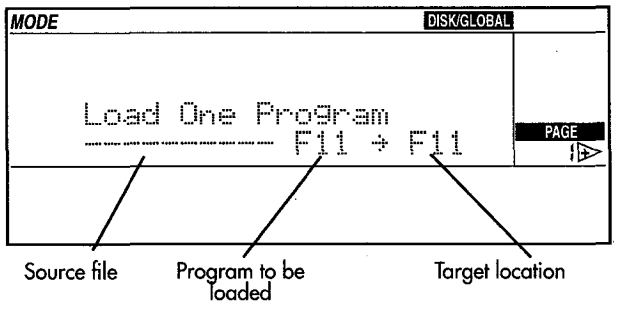
This option allows you to load an arrangement from an arrangement file.



1. Use the TEMPO/VALUE buttons (or the DIAL) to choose the arrangement file from which you wish to load the arrangement.
2. With the CURSOR buttons, move the cursor to the second field. Use the TEMPO/VALUE buttons (or the DIAL) to choose the arrangement to you wish to load.
3. With the CURSOR buttons, move the cursor to the third field. Use the TEMPO/VALUE buttons (or the DIAL) to choose the USER location where you wish to load the arrangement. Alternatively, you can choose the location with the buttons in the ARRANGEMENT section.
4. Press ENTER/YES to load the arrangement.

PRG (PROGRAM)

This option allows you to load a program from a program file. If you load a USER Drum program, the exploited USER drum kit will be loaded as well.

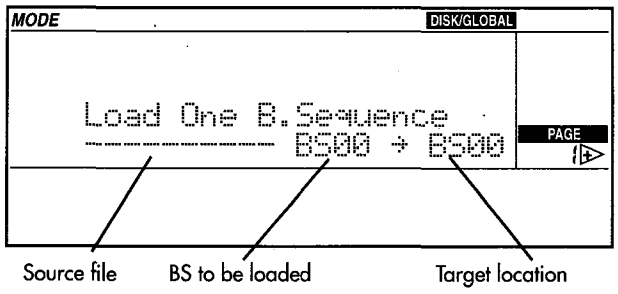


1. Use the TEMPO/VALUE buttons (or the DIAL) to choose the program file from which you wish to load the program.
2. With the CURSOR buttons, move the cursor to the second field. Use the TEMPO/VALUE buttons (or the DIAL) to choose the program you wish to load.
3. With the CURSOR buttons, move the cursor to the third field. Use the TEMPO/VALUE buttons (or the DIAL) to choose the F(USER) or the Dr 27-28 location, where you wish to load the program. Alternatively, you can choose the location with the buttons in the PROGRAM section.
4. Press ENTER/YES to load the program.

Warning: If the loaded program uses a USER drum kit, that drum kit will automatically be loaded. In this case, any previously existing drum kit in memory will be a overwritten by the new drum kit.

BSQ (BACKING SEQUENCE)

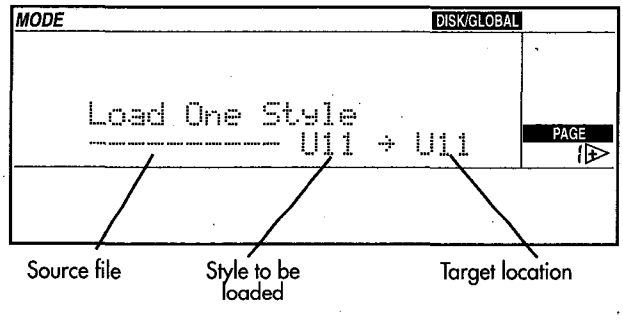
This option allows you to load a backing sequence from a backing sequence file.



1. With the TEMPO/VALUE buttons (or the DIAL) choose the backing sequence file from which you wish to load the backing sequence.
2. With the CURSOR buttons, move the cursor to the second field. Use the TEMPO/VALUE buttons (or the DIAL) to choose the backing sequence you wish to load.
3. With the CURSOR buttons, move the cursor to the third field. Use the TEMPO/VALUE buttons (or the DIAL) to choose the location where you wish to load the backing sequence.
4. Press ENTER/YES to load the backing sequence.

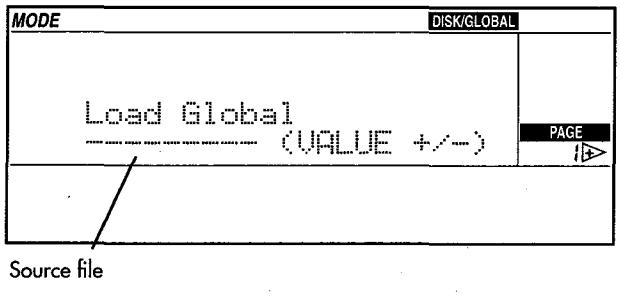
STY (STYLE USER)

This option allows you to load a style from a style file. There are 16 USER style locations available. The procedure is the same as for the above described backing sequence.



1-3. Load global

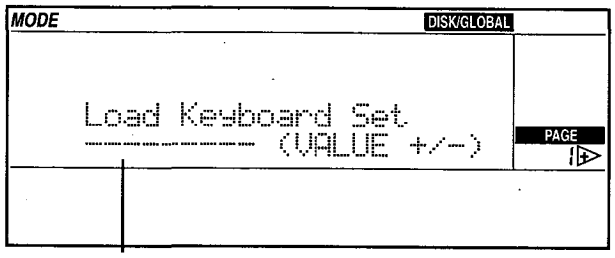
The Load Global function allows you to load a Global file, containing most of the settings of this operative mode. By loading the Global data, the scale, pedal settings, control settings and MIDI channel settings may be automatically modified. The Global contains also the four USER scales and the two USER drum kits.



1. Using the TEMPO/VALUE buttons (or the DIAL) choose the Global file you wish to load.
2. Press ENTER/YES to load the file.

1-4. Load keyboard set *(only iS40)*

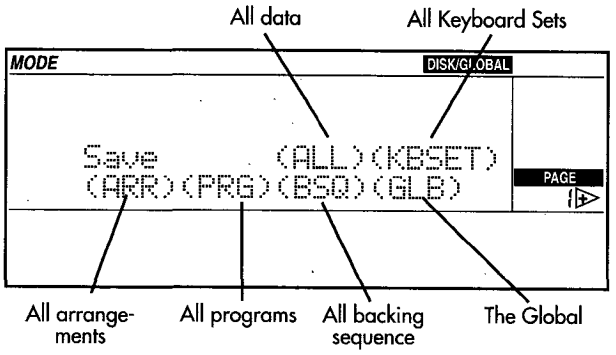
The Load All Keyboard Set function allows to load the Keyboard Sets from a file. Any Keyboard Sets already in memory will be deleted.



1. Select the file you wish to load the Keyboard set from, using the TEMPO/VALUE (or the DIAL).
2. Press ENTER/YES to load the file.

2. Save

The save function allows you to save data on disk. It is not possible to save single elements in a file; All the data of a certain type previously existing in memory, will always be saved in a file.



1. Choose a file type and press ENTER/YES to give it a name.
2. Use the CURSOR buttons to move the cursor to the character to be changed. Choose a character with the TEMPO/VALUE buttons (or the DIAL). Press INS to insert a character at the cursor location, DEL to delete the character at the cursor location. The name can be up to 8 characters long (capital letters and numbers).
3. Press ENTER/YES to save the file on disk. If a file with the same name already exists on disk, a message will appear asking you if you wish to proceed and delete the old file, replacing it with the one you are saving. Press ENTER/YES to confirm (or EXIT/NO to interrupt the operation).

Warning: If you save a file with the same name as a file that already exists on disk, the latter will be erased from the disk and lost forever.

ALL

The Save All function allows you to save all the data contained in memory, in only one operation. This function offers you the advantage of automatically saving all connected data, for example the USER programs and the USER styles used by a USER arrangement.

This function creates an ALL file, and a series of files that contain single elements (programs, arrangements, styles, backing sequences, Global data). The single elements used by an ALL file, can also be loaded individually. The filename extension (.KST, .PCG, .ARR, .STY, .BSQ, .GBL, .ARG) will be automatically added.

KBSET (KEYBOARD SET) *(only iS40)*

The KBSET function allows to save all the Keyboard Sets contained in memory. The filename extension (.KBS) will be automatically added.

GLB (GLOBAL)

The GLO option saves two files containing the Global data. The filename extension of the two files (.GBL and .ARG) will be automatically added.

ARR (ARRANGEMENT)

The ARR option saves a file containing 64 arrangements of the USER bank, and a file that contains the USER styles, on disk. The style file will automatically be given the arrangement filename. The filename extension (.ARR and .STY) will be automatically added.

PRG (PROGRAM)

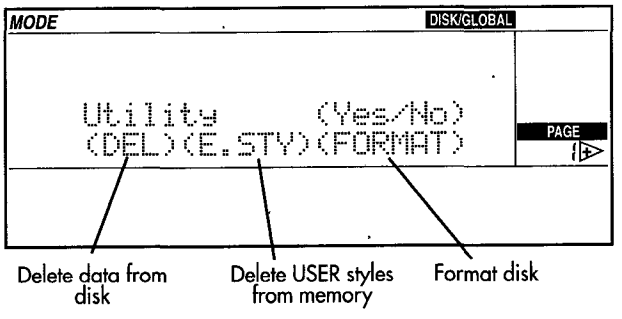
The PRG option saves a file containing the 64 programs of the F(USER) bank and the two Drum programs set by the user (Dr 27 and Dr 28). The filename extension (.PRG) will be automatically added.

BSQ (BACKING SEQUENCE)

The BSQ option saves a file containing 10 backing sequences. The filename extension (.BSQ) will be automatically added.

3. Utility

This page gives access to deleting files and to formatting disks. Move the cursor to the desired function, then press ENTER/YES to access its subpage.



DEL (Delete file)

This function deletes a file contained on disk.

1. Select the file you wish to delete using the TEMPO/VALUE buttons (or the DIAL).
2. Press ENTER/YES twice, to delete the file. The file will be deleted forever.

E.STY (Erase style)

This function erases a style from memory. Use it when you receive the message "Not enough memory" by loading an arrangement that makes use of USER styles loaded from disk.

1. Select the style you wish to erase using the TEMPO/VALUE buttons (or the DIAL).
2. Press ENTER/YES twice, to erase the style.

FORMAT (Format disk)

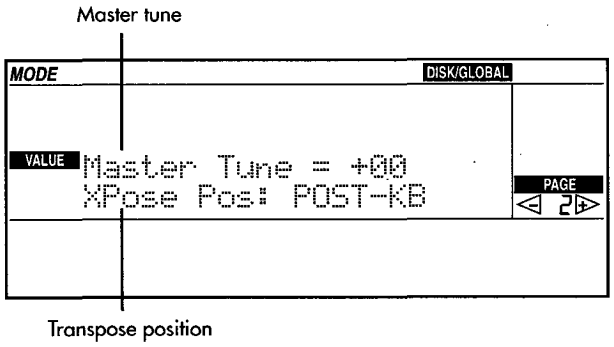
New disks must be formatted before they can be used with the iS40/iS50. (It is possible to purchase ready formatted MS-DOS disks that can be used immediately by the iS40/iS50). The formatting function can also be used to entirely delete a previously used disk.

1. Insert the disk into the disk drive. If the disk is empty, the "Format disk?" question will appear. If the disk already contains data, the question "Disk contains xx files. Continue?" will appear.
2. Press ENTER/YES. The disk will be formatted.

Warning: Formatting will delete all data from disk.

Page 2: Master tuning/Transpose position

This page allows you to program the overall pitch and the transpose position.



Master Tune [-50...+50]

Overall pitch of the instrument. You can raise or lower the tuning in one cent steps (100th of semitone), up to a maximum of 50 cents (1/2 semitone). This parameter has no effect on the pitch of a MIDI device connected to the iS40/iS50.

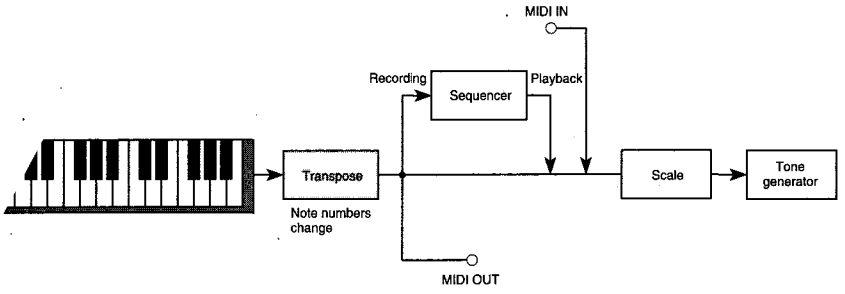
Xpose Pos (Transpose position) [POST-KB, PRE-OSC]

This parameter determines whereabouts the TRANSPOSE buttons take effect in the transmission of MIDI data. In any case, data sent to MIDI OUT will be transposed, therefore this parameter will also function on MIDI devices connected to the MIDI OUT of the iS40/iS50.

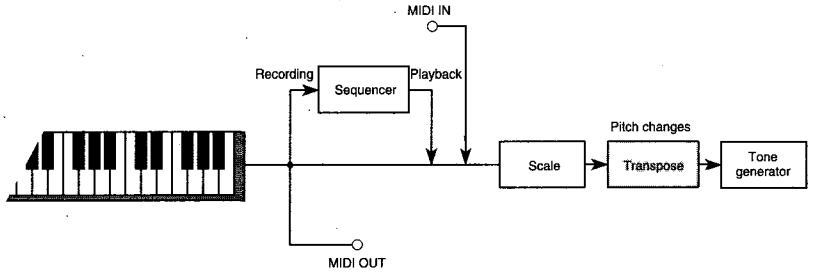
In the Program mode, the OCTAVE buttons will always function as POST-KBD. In the Arrangement Play and Backing Sequence modes, the OCTAVE keys always function as PRE-OSC.

Note: The transpose position for the Song Play mode is set by the parameter in "Page 3: Transpose position" in the Song Play mode (see pagina 96).

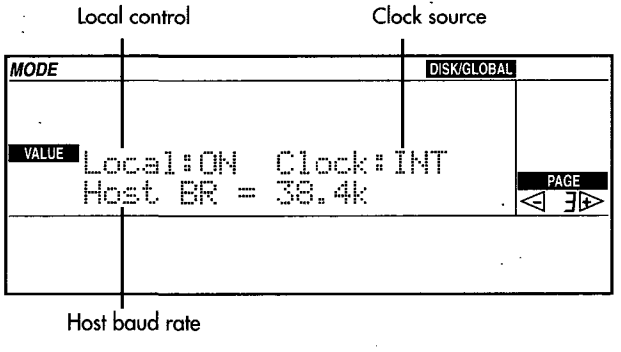
The **POST-KBD** option will transpose data immediately after it leaves the keyboard. Both notes sent to the internal tone generator, and notes sent to MIDI OUT will be transposed. Notes that are received by MIDI IN will not be transposed.



The **PRE-OSC** option transposes the notes immediately before they enter the internal tone generator. The notes played from the iS40/iS50 will be transposed. Notes sent to MIDI OUT will not be transposed. Notes received by MIDI IN will be transposed.



Page 3: Local control/Clock source/Host baud rate



Local (Local control) [OFF, ON]

The status of this parameter determines whether the iS40/iS50 will respond to its own local controllers (keyboard, joystick, pedals). Set the parameter to OFF when you wish to use the iS40/iS50 as a mute master keyboard. When the power is turned on, this setting will automatically set to ON.

ON — The iS40/iS50 will respond to local controls.

OFF — The internal tone generator of the iS40/iS50 will be disconnected from the local controls. The

data will be sent to MIDI OUT but not to the internal tone generator. The internal tone generator will only respond to messages coming from MIDI IN. In the Arrangement Play mode, chord scanning will not take place.

Clock (Clock source) [INT, MIDI, HOST]

The status of this parameter determines how the iS40/iS50 will synchronize with other MIDI devices. If the MIDI or HOST options are selected, the abbreviation **EXT** will appear in the display next to the tempo. When the power is turned on, this parameter is automatically set to **INT**.

INT	The iS40/iS50 uses the tempo generated by its own internal clock (metronome). MIDI OUT will transmit MIDI Clock messages, to which other devices can synchronize.
MIDI	The iS40/iS50 will synchronize to incoming MIDI Clock messages to MIDI IN. The Start/Stop message can only be given by an external device which is controlling the iS40/iS50. The iS40/iS50 responds to Start, Stop, Continue, Song Select, Song Position Pointer messages.
HOST	*(only the iS40)* As for the MIDI option, the messages however, will be received through the PC TO HOST connector and not by MIDI IN.

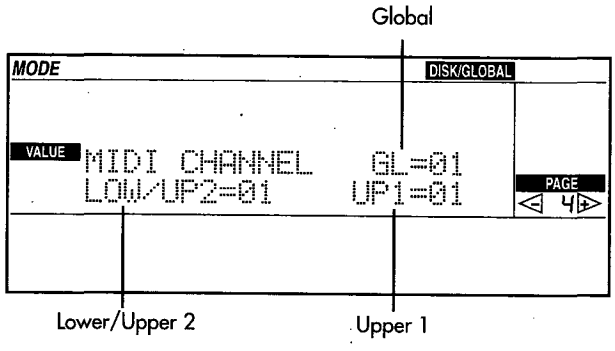
Note: In the Song Play mode, synchronism is always set on INT, regardless of the status of this parameter.

Host BR (Host baud rate - PC TO HOST connector) *(only the iS40)* [38.4 k, 31.25 k]

PC TO HOST transmission rate. The transmission rate must coincide with that of the computer connected to this connector. Choose "38.4 k" to connect an IBM PC or compatible, "31.25 k" to connect an Apple Macintosh or compatible. More information is included in the "Connecting directly to a computer" chapter.

Page 4: MIDI channel settings (1)

The fist of the pages dedicated to the programming of the arrangement MIDI channels.



GL (Global) [01...16]

Global MIDI channel. This can be assigned to one of the sixteen standard MIDI channels.

- System Exclusive messages will be received on the Global channel.
- In the Arrangement Play and Backing Sequence modes, the MIDI messages that have been received will simulate entirely the messages received by the local controls of the iS40/iS50 (keyboard, joystick, pedals). If you

wish to substitute the integrated keyboard with an external master keyboard, you should connect the master keyboard to the MIDI IN of the iS40/iS50 and program it to transmit on the Global channel of the iS40/iS50.

- In the Backing Sequence mode, the Upper 1 track transmits on the Global channel.
- In the Arrangement Play mode, the program change messages that reach the Global channel select the arrangements (unless the Global channel does not coincide with the channel of Upper 1 or Upper 2/Lower track). The program change messages generated from the iS40/iS50 when an arrangement is selected, will be transmitted on the Global channel.
- In the Program mode, the iS40/iS50 transmits and receives on the Global channel.

UP1 (Upper 1) [01...16]

In the Arrangement Play mode: MIDI channel of Upper 1 track (provided that it is different to the Global channel).

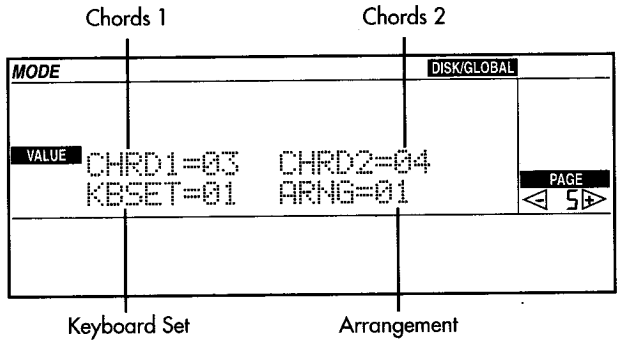
In the Backing Sequence mode this parameter will be ignored, as transmission and reception of Upper 1 track always take place on the Global channel.

LOW/UP2 (Lower/Upper 2) [01...16]

MIDI channel assigned to Upper 2/Lower track.

Page 5: MIDI channel settings (2)

The second page dedicated to the programming of the arrangement MIDI channels.



CHRD 1 (Chord 1) [--, 01-16]

Used for receiving chords from an external device (master keyboard, sequencer, MIDI accordion). The notes received on this channel are redirected to the chord recognition engine, and mixed with the notes received on the ARNG and CHRD2 channels.

When using a MIDI accordion it would be better to assign it to MIDI channel 3, this being the channel that is usually dedicated to the chords part. If you wish to substitute the local controls (keyboard, joystick, pedals) with an external master keyboard, choose the same channel that is assigned to Global.

To switch this parameter off press "--".

CHRD 2 (Chord 2) [--, 01-16]

Used for the receiving of chords from an external device (particularly a MIDI accordion or pedal controls). The notes received on this channel are redirected to the chord recognition engine, and mixed with the notes received on the ARNG and CHRD1 channels.

When using a MIDI accordion, it would be better to assign it to MIDI 2, this being the channel that is usually dedicated to the bass part. See the "Accordion" chapter for more information.

To switch off this parameter, choose the "--" option.

KBSET (Keyboard Set) *(only the iS40)* [--, 01-16]

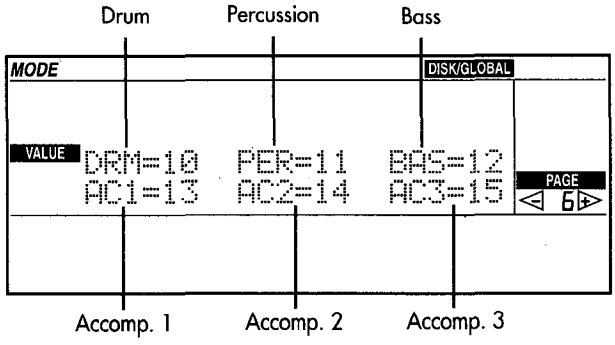
Used for receiving program change messages for the selection of Keyboard Sets. To switch this parameter off, choose the "--" option.

ARNG (Arrangement) [--, 01-16]

Used for receiving program change messages for the selection of arrangements. To switch this parameter off choose the "--" option.

Page 6: MIDI channel settings (3)

The third page dedicated to the programming of arrangement MIDI channels.



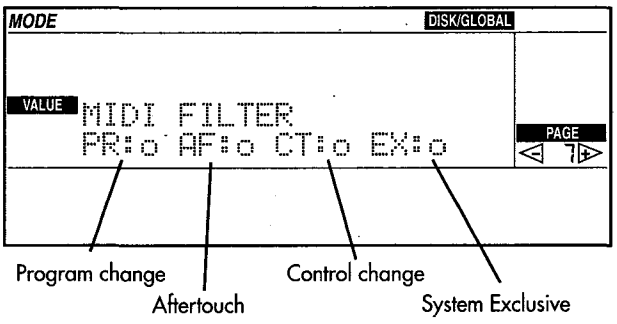
DRM/PER/BAS/AC1/AC2/AC3 [01...16]

MIDI channels of the accompaniment tracks. Channels 10-15 are usually assigned channels to these tracks.

Page 7: MIDI filter

This page contains a series of MIDI filters, to be used to restrict transmission and reception of some kinds of MIDI events. For example, events like aftertouch use up a great deal of memory and make the songs too large, therefore you can choose to "filter" them whilst recording.

Note: The data that has already been recorded in a backing sequence or an accompaniment track of the arrangement, will always be transmitted (whatever the status of this parameter is).



PR (Program change) [x, o, n, s]

Program change and bank select message filter.

- o — Messages will be transmitted and received normally.
- x — Messages will be neither transmitted, nor received.
- n — Program change messages will be transmitted, but the bank select messages will not.
- s — Program change messages will be transmitted and received. Program banks A and B will be transmitted as [MSB 0, LSB 0], and the DRUM bank will be transmitted as [MSB 0, LSB 0]. The other banks will be transmitted normally.

AF (Aftertouch) [x, o]

Aftertouch message filter. During recording with the internal sequencer, it would be better to set this parameter to "x", to avoid recording aftertouch messages from MIDI IN and limit the size of the song.

- o — Aftertouch messages will be transmitted and received normally.
- x — Messages will be neither transmitted, nor received.

CT (Control change) [x, o]

Control change message filter. During recording with the internal sequencer, it would be better to set his parameter to "x", to avoid recording control change messages from MIDI IN and limit the size of the song. Also, the, iS40/iS50 will not transmit control change messages to MIDI OUT.

- o — Control change messages will be transmitted and received normally.
- x — Messages will be neither transmitted, nor received.

EX (System Exclusive) [x, o]

System Exclusive message filter, used to transfer programming data via MIDI, for example programs, arrangements, styles, and editing commands for the Arrangement Play and Backing Sequence modes. These messages are particularly useful when you are working with a Korg ***ih*** Harmony unit, or if you are using a sound editor on computer.

o — System exclusive messages will be transmitted and received normally. A Korg ***ih*** connected to the MIDI OUT of the iS40/iS50 will be controlled by the chords played in the Arrangement Play and Backing Sequence modes. The internal chord scanning system of the ***ih*** will be automatically switched off. If the iS40/iS50 is in the Song Play mode, the chord scanning function of the ***ih*** will operate normally.

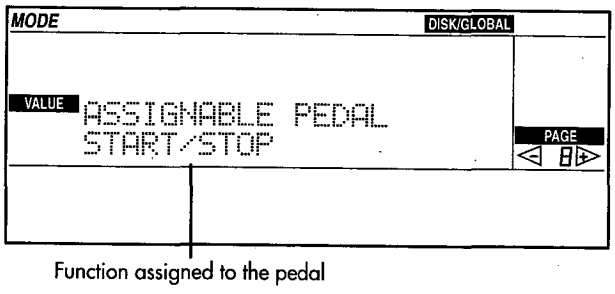
x — Messages will be neither transmitted, nor received.

Page 8: Assignable pedal/switch

You can connect a footswitch or an expression pedal to the ASSIGNABLE PEDAL jack. The function of this pedal can be programmed in this page. The function that is assigned to this pedal by default on the iS50 is the Damper.

While this parameter is selected, you can select the function by pressing the corresponding button on the control panel.

The iS40/iS50 is compatible with a number of pedal models. To be absolutely sure, we recommend using a Korg PS-1 or PS-2 pedal switch, and a Korg XVP-10 or EXP-2 expression pedal.



Function assigned to the pedal

ASSIGNABLE PEDAL/SW [OFF, START/STOP...DATA ENTRY]

Assignable footswitch functions

Option	Function	Option	Function
OFF	None	START/STOP	Same as the START/STOP button
SYNC START/STOP	Same as the SYNCHRO START/STOP button(s)	RESET	Same as the RESET button
TAP TEMPO *(only the iS40)*	Same as the TAP TEMPO button	SINGLE TOUCH	Same as the SINGLE TOUCH button
INTRO/ENDING 1	Same as the INTRO/ENDING [1 button]	INTRO/ENDING 2	Same as the INTRO/ENDING [2] button

Option	Function	Option	Function
FILL 1	Same as the FILL [1] button	FILL 2	Same as the FILL [2] button
VARIATION 1	Same as the VARIATION [1] button	VARIATION 2	Same as the VARIATION [2] button
VARIATION 3	Same as the VARIATION [2] button	VARIATION 4	Same as the VARIATION [4] button
CHORD HOLD	Same as the MEMORY-CHORD button	BASS INVERSION	Same as the BASS INV. button
SCALE CHANGE	Main Scale/Sub Scale switch	ARR/STYLE UP	Select the next arrangement or style*
ARR/STYLE DOWN	Select the previous arrangement or • style*	PROGRAM UP	Select the next program
PROGRAM DOWN	Select the previous program	VARIATION UP	Select the next variation
VARIATION DOWN	Select the previous variation	PUNCH IN/OUT	Punch-in recording switch
EFFECT 1 ON/OFF	Switch on/off Effect 1	EFFECT 2 ON/OFF	Switch on/off Effect 2
DRUM MUTE	Mute the Drum track	PERC MUTE	Mute the Percussion track
BASS MUTE	Mute the Bass track	ACC1 MUTE	Mute the Acc.1 track
ACC2 MUTE	Mute the Acc.2 track	ACC3 MUTE	Mute the Acc.3 track
MEMORY-SOUND	Same as the MEMORY-SOUND button	SUSTAIN ON/OFF	Same as the SUSTAIN button
FADE IN/OUT	Same as the FADE IN/OUT button	ENSEMBLE ON/ OFF	Same as the ENSEMBLE button
QUARTER TONE	Quarter tone setting**	DAMPER ON/OFF	Damper pedal function***
CHORD LATCH ON/ OFF	Chord Latch makes the chord scanning function hold the current chord, until the pedal is released.****		

Assignable expression pedal functions

Option	Function	Option	Function
KEYBOARD VOLUME	Program volume of selected track	MASTER VOLUME	General volume of the iS40/iS50
EXPRESSION	Relative volume of the program or selected track	VDF CUTOFF	VDF cutoff frequency (brightness)
EFFECT CONTROL	Effect realtime modulation	DATA ENTRY	Selected function value

* In the Arrangement Play or Backing Sequence mode pages where it is possible to select arrangements or styles.

** The iS40/iS50 can detune single notes by a quarter tone (50 cents), particularly for use in Middle Eastern music. In order to program this, you need to use a pedal with open-type polarity, such as the Korg PS-1 or the Korg PS-2 (connecting through its right jack). See the next paragraph, "Setting quarter tone".

*** On the iS50 the Damper is the default function.

Setting quarter tones

You can program an Arab scale in realtime, by assigning a footswitch or an EC5 pedal the "Quarter tone" function. The selected scale must be the Main Scale (this function has no effect on the Sub Scale).

The quarter tones that are set in this page only apply to the Main Scale. When you modify one note it reflects on all the notes with the same name in the other octaves (for example, if C4 is modified, C3, C5, etc. will also be modified).

In the Backing Sequence mode, quarter tones only work on the keyboard tracks (both on the recorded notes, and the notes received by MIDI IN).

To lower a note by a quarter tone: Keep the pedal pressed, then press the MEMORY-CHORD button. While the MEMORY-CHORD led is off, play the note you wish to lower by a quarter tone. Release the pedal.

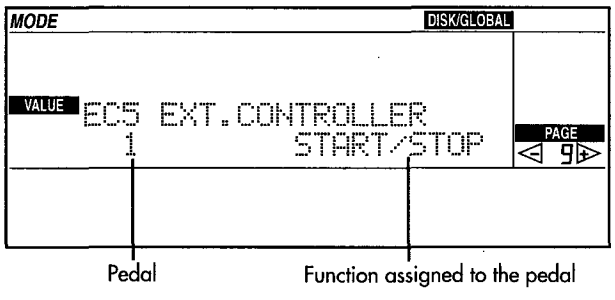
To raise a note by a quarter tone: Keep the pedal pressed, then press the MEMORY-CHORD button. While the MEMORY-CHORD led is lit up, play the note you wish to raise. Release the pedal.

To cancel the quarter tone setting: Simply press and release the pedal. At this point, press and then immediately release the pedal. Another way to do this would be to assign a different option to the "Assignable pedal" setting. The setting will be canceled when the instrument is turned off.

Page 9: EC5 external controller *(only the iS40)*

Note: This page will not appear in the iS50.

You can connect the Korg EC5 external controller to the EC5 jack. This versatile controller includes five completely programmable pedals, which make live controlling of the iS40 easier.



Pedal [A...E]

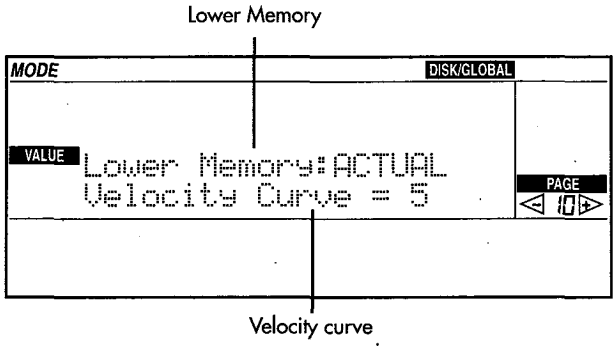
Select the one of the five EC5 pedals you wish to program. The EC5 pedals are marked by the letters A, B, C, D, E. While the parameter is selected, you can choose the pedal you wish to program by pressing it directly.

Function [OFF, START/STOP...CHORD LATCH]

Functions assignable to the selected pedal. The functions are the same as those assignable to the ASSIGNABLE PEDAL setting (see "Page 8: Assignable pedal/switch"). While the parameter is selected, you can choose the function by pressing the equivalent button on the control panel.

Page 10: Lower memory/Velocity curve

In this page you can program the functioning of the MEMORY-LOWER button and the response to the keyboard dynamics.



Lower Memory [ACTUAL, AUTO, BASS]

Functioning of the MEMORY-LOWER button.

ACTUAL	Chords are reproduced exactly as they are played.
AUTO	This option completes the chords that are played with some missing notes (i.e. without the fifth).
BASS	While the accompaniment is stopped, the chord root will be held and sounded by the Bass track.

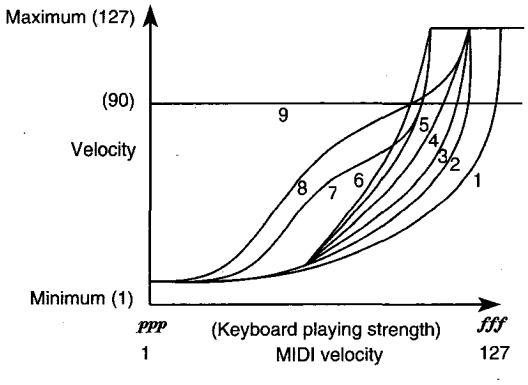
Note: Since Intro 1 and Ending 1 use a particular chord progression, which can vary from arrangement to arrangement, Lower Memory will be automatically switched off to prevent unnatural sounding results.

Note: In the Backing Sequence mode, Lower Memory will not function during playback. In recording, the notes held by the Lower Memory function will be recorded as normal Note events.

Velocity Curve [1...9]

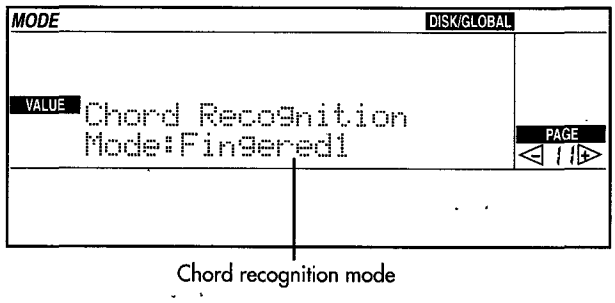
You can select one of nine response curves relating to the keyboard dynamics. The effect of each curve is shown in the diagram below.

1-8	Response curve to dynamics.
9	All the notes played on the keyboard will have Velocity=90. The notes that are received on MIDI IN (or through the PC TO HOST jack) will not be influenced by this parameter.



Page 11: Chord recognition mode

This is the mode where the chord played in the part enabled by the Chord Scanning function will be recognized. If Chord Scanning is set on LOWER, the chords will be recognized below the split point; if on UPPER the ones above the split point will be recognized; if on FULL they will be recognized along the entire keyboard.



Chord recognition mode [FINGERED1, FINGERED2, ONE FINGER]

FINGERED1

If Chord Scanning is set on LOWER, you only have to play one note below the split point to obtain a major chord. If Chord Scanning is set on UPPER you need to play three or more notes above the split point for the chord to be recognized. If Chord Scanning is FULL you need to play three or more notes along the entire keyboard for a chord to be recognized.

Chord Scanning	Chord recognition
LOWER	One or more notes below the split point
UPPER	Three or more notes above the split point
FULL	Three or more notes along the entire keyboard

FINGERED2

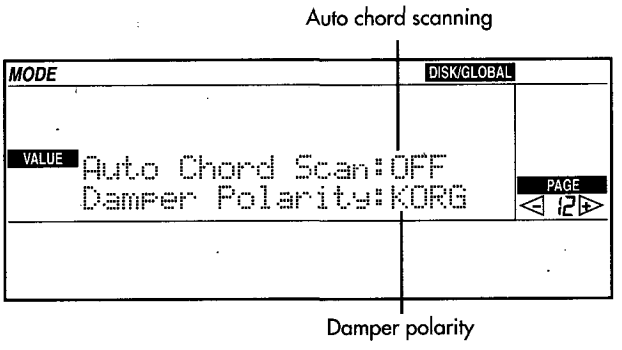
In order for a chord to be recognized, three or more notes must be played in the chord recognition area established by Chord Scanning setting.

Chord Scanning	Chord recognition
LOWER	Three or more notes below the split point
UPPER	Three or more notes above the split point
FULL	Three or more notes along the entire keyboard

ONE FINGER — If only one note is played (e.g. C3), this note will be recognized as the root of a major chord. If along with the root, you play the first white key below the root (e.g. C3 and B2), a seventh chord will be recognized. If, along with the root, the first black key is played below the root (e.g. C3 and Bb2), a minor chord will be recognized.

Page 12: Auto chord scanning/Damper polarity

In this page, you can program the Automatic-Chord Scanning and the Damper pedal polarity of the iS40.



Auto chord scanning — [ON, OFF]

If this parameter is set on ON, the Chord Scanning changes automatically when you select a Keyboard Mode.

Keyboard Mode	Automatically selected Chord Scanning
Full Upper	FULL
Split	LOWER
Manual Drum	--

Polarity *(only the iS40)* — [REVERSE (+), KORG (–)]

It is possible to connect a footswitch to the DAMPER connector of the iS40 to activate the Damper or Sustain function and produce a similar effect of a right-most pedal on an acoustic piano. The pedals that are readily available on the market, can have different polarities. If you own a Korg PS-2 pedal, you should program its right jack as KORG (–) and the left jack as REVERSE (+).

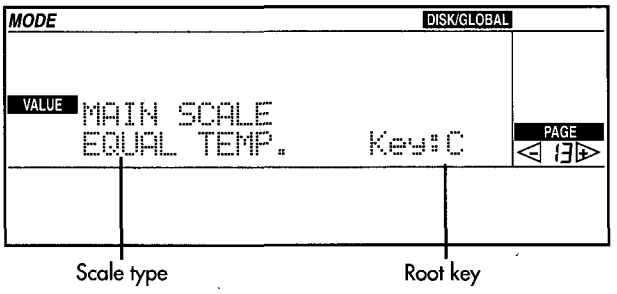
KORG(–) — For pedals with normally open polarity. Choose this option to connect the Korg DS-1 and PS-1 footswitches.

REVERSE(+) — For pedals with normally closed polarity. Choose this option to connect the Korg DS-2 footswitch.

Page 13: Main scale

Page 14: Sub scale

These pages allow you to select a Main Scale (or temperament), or Sub Scale for the instrument. It is possible to switch from the Main Scale to the Sub Scale with a footswitch, the EC5 external controller, or via MIDI.



Scale type [EQUAL TEMP...USER SCALE]

The scales that you can select for the Main Scale and the Sub Scale are the same.

EQUAL TEMP.	Equal temperament. This scale is normally used nowadays, in traditional Western music. Consists of 12 absolutely identical semitones.
EQUAL TEMP. 2	The same as the previous setting, but with some irregularities in pitch, consenting a more realistic imitation of acoustic instruments.
PURE MAJOR	The major chords of the selected key will be perfectly tuned.
PURE MINOR	The minor chords of the selected key will be perfectly tuned.
ARABIC	Arabic scale, with quarter tones. The Key parameter should be set to C for "rast C/bayati D", to D for "rast D/bayati E", to F for "rast F/bayati G", to G for "rast G/bayati A", to A# for "rast B b/bayati C".
PYTHAGOREAN	Pythagorean scale, based on ancient Greek theory. It is suitable for playing melodies.
WERCKMEISTER	Late baroque/classical scale.
KIRNBERGER	18th century harpsichord scale.
SLENDRO	Indonesian gamelan scale. The octave is divided into 5 notes (C, D, F, G, A). The remaining notes will play equal temperament notes.
PELOG	Indonesian scale. The octave is divided into 7 notes (all the white keys, if the key parameter is assigned to C tonic). The black keys will play equal temperament.
USER SCALE 1...4	One of the 4 scales that you create on "Page 15: User scale".

Note: When a scale other than Equal Temperament or Equal Temperament 2 is selected, the TRANSPOSE buttons may cause undesired chords to be recognized, depending on the scale selected and on the Transpose Position setting (see "Page 2: Master tuning/Transpose position").

Key (Tonic) [C...B]

This parameter selects the key for the scales where it is necessary to indicate the key as well.

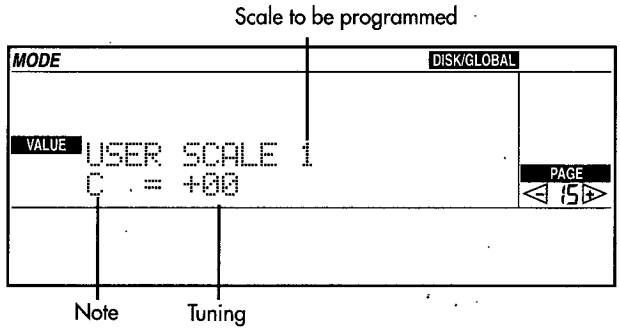
< Switching from the Main Scale to Sub Scale and vice versa >

You can switch between the Main Scale and the Sub Scale with a footswitch or an EC5 external controller. Assign the SCALE CHANGE value to the "Page 8: Assignable pedal/switch" settings (for the footswitch) or "Page 9: EC5 external controller (only the iS40)" (for the EC5).

You can select the scale MIDI, through the Control Change 04 message. Values 0–63 select the Main Scale, values 64–127 select the Sub Scale.

Page 15: User scale

You can create four personalized scales, that you can use by assigning the USER SCALE value to the "Page 13: Main scale" setting. You can use the User Scale as a sub scale, assigning one of the USER SCALE values to the "Page 14: Sub scale" setting.



Scale [1...4]

One of the four USER scales.

Note [C...B]

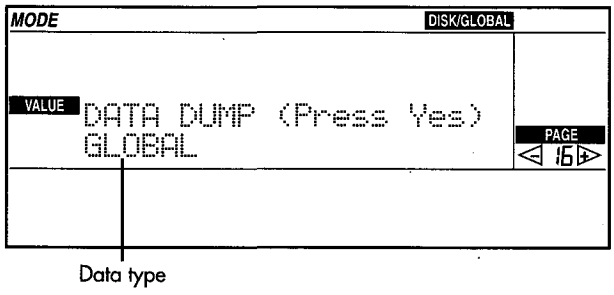
The note you wish to modify. The modifications apply to this note on all the octaves.

Tuning [–50...+50]

Tuning of the selected note, in 1 cent steps (1 cent=1/100 of a semitone).

Page 16: MIDI data dump

The MIDI Data Dump is the sending of internal data of the iS40/iS50 to another MIDI device. In this page, you can transmit and receive System Exclusive data.



To transmit System Exclusive data:

1. Select the type of data you wish to send and press ENTER/YES.
2. Write down the MIDI Global channel, which should be the same when you wish to newly receive the data from the external device. *("Page 4: MIDI channel settings (1)").*

To receive System Exclusive data:

1. Program the MIDI Global channel on the channel where data has been sent. *("Page 4: MIDI channel settings (1)").*
2. Set the System Exclusive message filter to "o". *("Page 7: MIDI filter").*
3. Move to this page, and start transmitting from the external device.

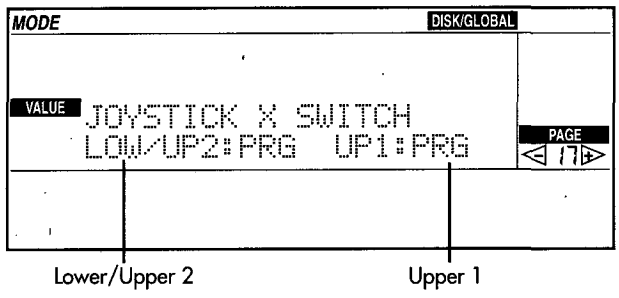
Data type [GLOBAL...KEYBOARD SET]

GLOBAL	All Global parameters, except for Local Control and Clock Source.
ARRANGEMENT	The 64 USER arrangements.
B.SEQUENCE	The 10 backing sequences.
PROGRAM	The 64 USER programs, the 2 USER Drum programs, the 2 USER drum kits.
STYLE	A group of 4 USER styles.

Data type	Size (in KB)	Transmission time (in seconds)
Program	15	5
Global	0.3	<1
Arrangement	12	4
Backing sequence	2,6-186	1-60
Style U11-U14	5-74	2-25
Style U15-U18	5-74	2-25
Style U21-U24	5-74	2-25
Style U25-U28	5-74	2-25

Page 17: Joystick settings

Setting the joystick for pitch bend control.



UP1 (Upper1 track) [PRG, DIS]

PRG — The joystick will activate the Upper1 track pitch bend, provided that the program setting does not turn it off.

DIS — The joystick will be deactivated on Upper1 track.

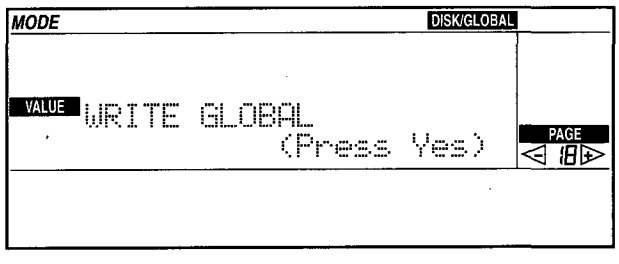
UP2 (Upper2/Lower track) [PRG, DIS]

PRG — The joystick will activate the Upper2/Lower track pitch bend, provide that the program setting does not turn it off.

DIS — The Joystick will be deactivated for Upper2/Lower track.

Page 18: Write Global

In this page, you can save the Global settings in memory.



In addition to the **split point**, this command will save the parameters of the following pages:

"Page 2: Master tuning/Transpose position"	"Page 3: Local control/Clock source/Host baud rate"
"Page 4: MIDI channel settings (1)"	"Page 5: MIDI channel settings (2)"
"Page 6: MIDI channel settings (3)"	"Page 7: MIDI filter"
"Page 8: Assignable pedal/switch"	"Page 9: EC5 external controller (only the iS40)"
"Page 10: Lower memory/Velocity curve"	"Page 11: Chord recognition mode"
"Page 12: Auto chord scanning/Damper polarity"	"Page 13: Main scale"
"Page 14: Sub scale"	"Page 15: User scale"
"Page 17: Joystick settings"	"Page 19: Calibration"

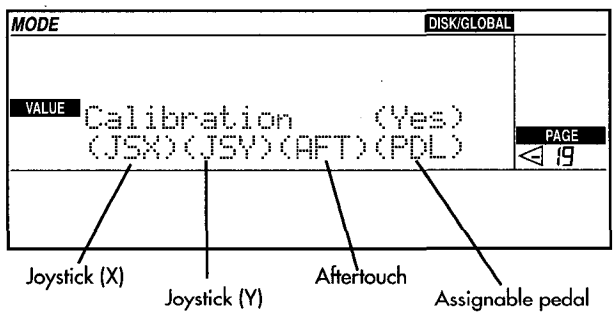
To save Global settings:

1. Go to this page.
2. Press ENTER/YES twice to save the Global setting in memory. Otherwise, press EXIT/NO to cancel the operation.

Note: The Global setting will also be saved if you respond ENTER/YES to the "Parameter modified - Write?" message, which appears when you exit from the Disk/Global mode after having modified one or more parameters.

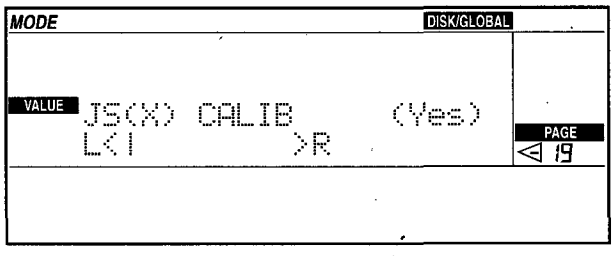
Page 19: Calibration

The joystick, aftertouch and pedal positions can drift slightly over the years with use, and produce different values to the original ones. The calibration function allows you to bring these devices back to their full capacity. Select the device you wish to calibrate using the CURSOR buttons, and press ENTER/YES to access the relative subpage.



Note: During re-calibration, move the joystick until it stops. If you receive repeated messages of "Invalid data", it is possible that there is some kind of malfunction. If this is the case, contact you nearest Korg Service Station, or your local dealer.

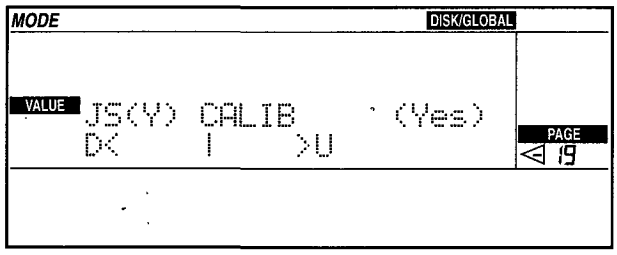
16-1. Joystick (X) calibration



1. Move the joystick entirely to the left, as far as it will go.
2. Move the joystick entirely to the right, as far as it will go.
3. Release the joystick.
4. As soon as the joystick returns to the central position, press ENTER/YES.
5. If adjustment has been performed correctly, an "Are you sure?" message will appear in the display. Press ENTER/YES again, in order to confirm. The message "Completed" will appear in the display.

If adjustment hasn't been performed correctly, an "Invalid Data" message will appear instead. Repeat the calibration procedure.

16-2. Joystick calibration (Y)

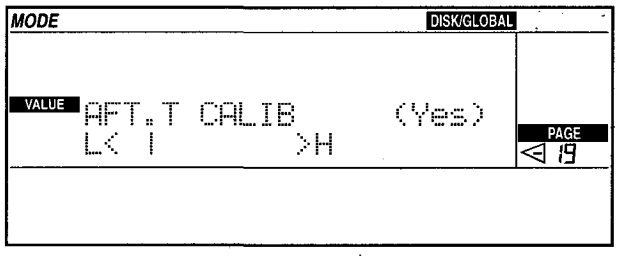


1. Move the joystick entirely forward, as far as it will go.
2. Move the joystick entirely back towards yourself, as far as it will go.
3. Release the joystick.
4. As soon as the joystick returns to the central position, press ENTER/YES.
5. If adjustment has been performed correctly, an "Are you sure?" message will appear in the display. Press ENTER/YES again, in order to confirm. The message "Completed" will appear in the display.

   If adjustment hasn't been performed correctly, the message "Invalid Data" will appear instead. Repeat the calibration procedure.

16-3. Aftertouch calibration

The aftertouch effect of a button can lose calibration with use and is unable to reach maximum effect. If you notice that a button is not reaching maximum intensity, calibrate the aftertouch of the button.

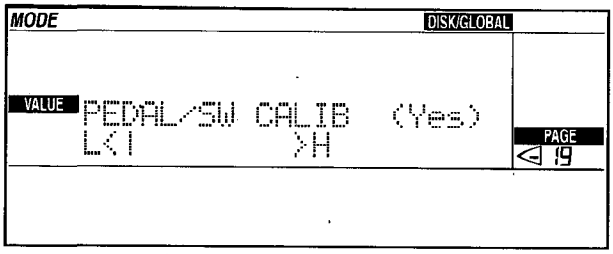


1. Press the button (**and only that one**) from which the aftertouch effect is reaching maximum intensity.
2. Release the button, and press ENTER/YES.
5. If adjustment has been performed correctly, an "Are you sure?" message will appear in the display. Press ENTER/YES again in order to confirm. In the display the message "Completed" will appear.

   If adjustment hasn't been performed correctly, the message "Invalid Data" instead will appear. Repeat the calibration procedure.

16-4. Assignable pedal/footswitch calibration

The depth of an effect, controlled by a pedal or a footswitch will depend on the model of the pedal or footswitch. If you change a pedal, the effect might not be able to reach maximum intensity, or shut off completely. If this is the case you need to calibrate the pedal.



1. Connect the pedal or footswitch to the ASSIGNABLE PEDAL/SW connector.
2. In order to calibrate the pedal, press the pedal down as far as it will go, then raise it completely.
3. Press ENTER/YES.
4. If adjustment has been performed correctly, an "Are you sure?" message will appear in the display. Press ENTER/YES again in order to confirm. The message "Completed" will appear in the display.

   If adjustment hasn't been performed correctly, the message "Invalid Data" will appear instead. Repeat the calibration procedure.

12. Program mode

Functions of Program mode

The following table lists the functions of Program mode, showing the title and main contents of each display page, and the manual page for reference.

Display page	Contents	Manual page
1. Program play	Select program, transpose, octave, performance edit	☞P. 141
2. Oscillator basic/Oscillator 2 relative	Oscillator type setting, oscillator 2 relative	☞P. 143
3. Oscillator tone	Oscillator settings, pan, send *	☞P. 144
4. Pitch EG	Pitch EG settings	☞P. 146
5. VDF	Filter settings *	☞P. 148
6. VDF EG	Filter EG settings *	☞P. 149
7. VDF keyboard tracking	Filter EG keyboard tracking settings *	☞P. 151
8. VDF velocity sensitivity	Filter velocity sensitivity settings *	☞P. 153
9. VDA EG	Amp EG settings *	☞P. 155
10. VDA keyboard tracking	Amp EG keyboard tracking settings *	☞P. 157
11. VDA velocity sensitivity	Amp EG velocity sensitivity settings *	☞P. 159
12. Vibrato	Vibrato settings *	☞P. 161
13. Vibrato controller	Joystick, aftertouch settings *	☞P. 163
14. VDF MG	Filter modulation settings	☞P. 164
15. VDF MG controller/VDA level	Joystick, aftertouch settings	☞P. 166
16. Controllers	Programming of the joystick and aftertouch	☞P. 167
17. Effect select	Effect type, effect on/off	☞P. 168
18. Effect modulation	Modulation of the selected effects	☞P. 168
19. Effect placement	Effect placement, C/D pan, effect 1 and 2 L/R levels	☞P. 168
20. Effect 1 parameters	Effect 1 parameter settings	☞P. 168
21. Effect 2 parameters	Effect 2 parameter settings	☞P. 168
22. Rename program	Modify the program name	☞P. 168
23. Write program	Write a program into memory	☞P. 169

* **If you set Oscillator Type to DOUBLE (double oscillator program) in "Page 2: Oscillator basic/Oscillator 2 relative", these pages will display either the oscillator 1 or oscillator 2 parameters. Switch between oscillators 1 and 2 by pressing the VARIATION buttons [1] and [2].**

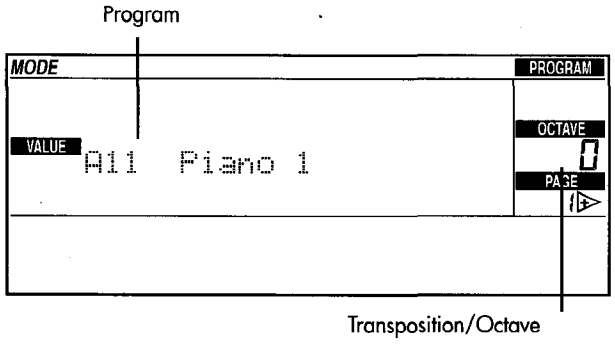
How to recover lost changes

If you accidentally select a different program without writing your edits, you can press the TEMPO ■ button (if you have not yet edited the selected program) to bring back the previous program. (Only the sound will be brought back, and the program number will not change.)

Page 1: Program play

In Page 1 of Program mode you can select the Program that will be played from the keyboard of the iS40/iS50. You can also use the Performance Edit settings that are shown in this page to perform simple editing.

Press the PROGRAM button to enter Program mode, and the following display will appear.



Program [A11...E88, F11...F88, Dr11...Dr28]

The internal memory of the iS40/iS50 contains seven banks of Programs, as follows.

Bank	Number of programs	Contents
A	64	GM programs 1–64 (ROM)
B	64	GM programs 65–128 (ROM)
C, D, E	64 × 3	iS40/iS50 preset programs (ROM)
F	64	User programs (RAM)
Dr	16	Drum programs (ROM: Dr11–26, RAM: Dr27–28)

Before selecting a program, you must select the track you want to assign the program to (unless it is already selected). Select the program using the buttons in the PROGRAM section. Select a bank first (A, B, C, D, E, F-USER/DRUM), then a two-digit number, using the number buttons. If the program is in the same bank, you only need to select the two-digit number.

In order to select a Drum program (Dr11–28), press the F(USER/DRUM) button repeatedly in the PROGRAM section, until the abbreviation "Dr" appears, then select a two-digit number with the number buttons.

You can also select programs using an optional footswitch or an EC5 external controller pedal. For details refer to Disk/Global mode "Page 8: Assignable pedal/switch" or "Page 9: EC5 external controller (only the iS40)".

When you select a program, a MIDI program change message will also be transmitted.

XPOSE (Transpose) [-11...+11]

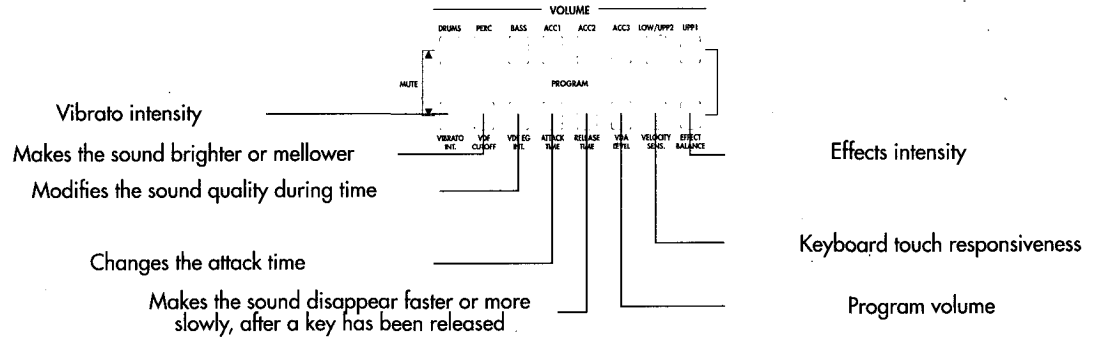
When you need to transpose (shift the pitch), use the TRANSPOSE buttons to set the Transpose setting of each program. The pitch can be transposed in semitone steps over a range of 11 steps up or down.

Octave [-2...+2]

Use the OCTAVE buttons to set the Octave of each program. With a setting of 0, the program will sound at its standard pitch. The pitch can be shifted in steps of an octave, over a range of 2 octaves up or down.

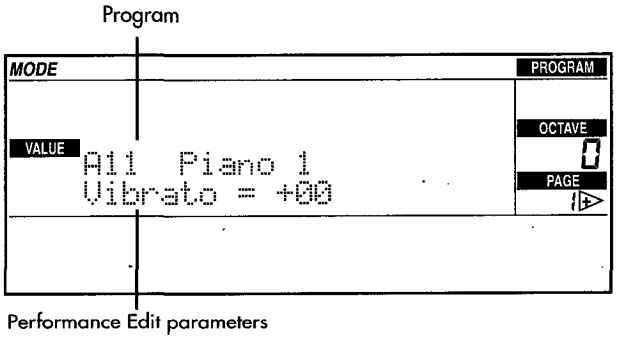
Performance Edit

By pressing one of the VOLUME buttons in Page 1, you can perform the Performance Edit operation corresponding to the button that was pressed. You can save the modified program in a F(USER) location, by pressing REC/WRITE to go to "Page 22: Write program".



Performance edit [-10...+10/-3...+3]

The Performance Edit function of the iS40/iS50 allows you to make adjustments to the most important program parameters, without having to bother with detailed editing. This is a convenient way of modifying program parameters during a rehearsal or live performance.



When you press the upper or lower VOLUME button, the corresponding Performance Edit parameter will be displayed (always with a value of +00), and you can press either button to modify the value.

Performance Edit settings are made with a value of **–10–+10**. This editing adjusts the effect of the corresponding program parameter. However, be aware that this setting does not change the value of the program parameter itself, but is only an adjustment that is relative to that setting. When you modify a Performance Edit parameter, one or more parameters for each oscillator will be affected (except for Dry:Effect Balance).

If the original parameter value is already at its maximum or minimum value, changing the Performance Edit value will have no effect.

Vibrato Intensity modifies the Vibrato Intensity parameter (☞P. 161), adjusting the vibrato .

OSC Octave adjusts the Octave parameter (☞P. 145) of both oscillators, modifying the octave of the program that will sound. This allows 1 octave of change in one-octave steps.

VDF Cutoff modifies the VDF Cutoff parameter (☞P. 149) of both oscillators, modifying the tone of the program. Each step will change the parameter value 5 steps.

VDF EG Intensity modifies the VDF EG Intensity parameter (☞P. 149) of both oscillators, adjusting the way in which the tone of the program changes over time. Each step will change the parameter value 3 steps.

Attack Time modifies the VDA Attack Time parameter (☞P. 156) of both oscillators, adjusting the attack length of the program. Each step will change the parameter value 5 steps.

Release Time modifies the VDF and VDA Release Time parameters (☞P. 147) of both oscillators, adjusting the release length of the program. Each step will change the parameter value 5 steps.

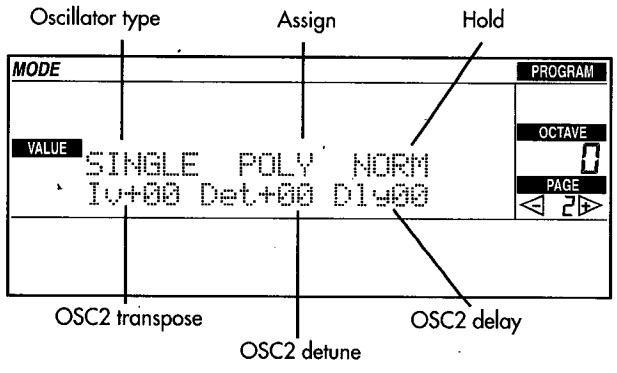
VDA Level modifies the VDA Level parameter (☞P. 145) of both oscillators, adjusting the overall volume of the entire program. Each step will change the parameter value 5 steps.

Velocity Sensitivity modifies the way in which changes in keyboard playing dynamics will affect the sound. The EG Intensity parameter (☞P. 154) for VDF Velocity Sensitivity and the VDA Velocity Sensitivity parameter (☞P. 160) for VDA Velocity Sensitivity will be modified for both oscillators. Each step will change the parameter value 5 steps.

DRY:FX Balance modifies the Balance parameter between effects 1 and 2, adjusting the balance between the "dry" sound of the program (unprocessed by the effect) and the "wet" sound processed by the effect. Each step will change the parameter value 5 steps.

Page 2: Oscillator basic/Oscillator 2 relative

Here you can select the basic oscillator type: i.e., whether the program will use one or two oscillators, or a drum kit. You can also specify whether the sound of the program will be maintained even after a Note-off message is received, and whether the program will sound monophonically or polyphonically.



Oscillator type [SINGLE, DOUBLE, DRUMS]

This parameter determines the basic structure of the program.

SINGLE (single oscillator program) will cause the program to use only one oscillator. Maximum polyphony will be 32 notes.

DOUBLE (double oscillator program) will cause the program to use two oscillators. This allows more complex sounds to be created, but the maximum polyphony will be limited to 16 notes.

DRUMS (drum program) will assign a drum kit (instead of a multisample) to the program. (For details refer to the explanation for the Multisample/Drum Kit parameter which follows later.)

Assign [MONO, POLY]

This specifies the number of simultaneous notes that the program will sound in response to Note messages received on one MIDI channel.

MONO will cause the program to sound only one note at a time.

POLY will allow the program to play chords.

Hold [HOLD, NORM]

This specifies whether or not a note sounded by the program will stop when you release the iS40/iS50's keyboard or when a Note-off message is received.

HOLD causes the sound to continue sounding even after the note is released. This is convenient when playing drum sounds. For other types of program you will usually set this parameter to **NORM**.

Even with a setting of **NORM**, the sound will continue playing forever if the VDA EG Sustain Level parameter (☞P. 157) is set to a value other than 0.

Iv (OSC2 Interval) [–12...+12]

This parameter raises or lowers the OSC2 pitch relative to the OSC1 pitch, allowing a program to sound a two-note parallel "chord" for each note. This can be adjusted in semitone steps over a maximum range of 1 octave.

Positive **(+) values** will raise the OSC2 pitch, and negative **(–) values** will lower the OSC2 pitch.

Det (OSC2 Detune) [–50...+50]

This parameter detunes OSC1 and OSC2 in relation to each other, producing a richer sound.

Positive **(+) values** will cause the OSC2 pitch to rise and the OSC1 pitch to fall, and negative **(–) values** will produce the opposite effect.

This setting indicates the pitch difference between OSC1 and OSC2 in one-cent steps, and as shown by the following table, raising the pitch of one oscillator will lower the pitch of the other.

Detune	OSC1 pitch	OSC2 pitch
+50	–25 cents	+25 cents
•	•	•
•	•	•
+0	0 cents	0 cents
•	•	•
•	•	•
–50	+25 cents	–25 cents

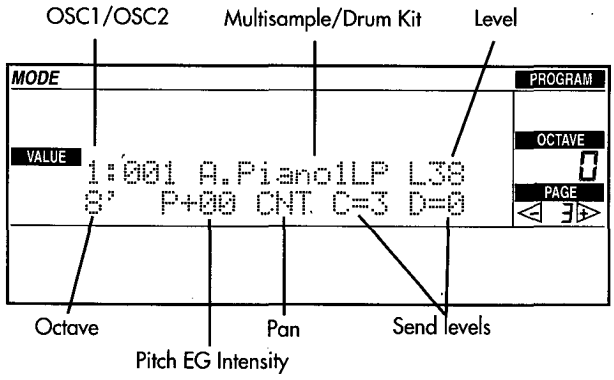
Dly (OSC2 Delay) [00...99]

This parameter delays the onset of the OSC2 sound, so that OSC2 will begin to sound after OSC1.

With a setting of **0**, OSC1 and OSC2 will sound simultaneously.

Page 3: Oscillator tone

In this page you can select the waveform used by the oscillator, and make other oscillator-related settings. Most of these parameters can be set at any time regardless of the type of the selected program, but if in "Page 2. Oscillator basic/Oscillator 2 relative" you have set the Oscillator Type to Drum Program, the panpot parameters will not be displayed at all.



OSC1/OSC2 (Oscillator 1/2)

If in "Page 2: Oscillator basic/Oscillator 2 relative" you have set the Oscillator Type to DOUBLE, this setting specifies which of the two oscillators you will be editing. If Oscillator Type has been set to Drum, this will be displayed as D.

You can also switch between Oscillators 1 and 2 by pressing the VARIATION buttons [1] or [2].

Multisample/Drum Kit

If Oscillator Type was set either to SINGLE or DOUBLE, this selects the basic waveform that the oscillator will use. The number and name of the multisample will be displayed. (Multisamples with an abbreviation of "NT" will produce the same pitch regardless of the key that is played.)

The appendices to the user's guide contains a list of the available multisamples for your reference.

If Oscillator Type is set to DRUM, this will show a Drum Kit name, and you can select a Drum Kit instead of a multisample. Drum programs will use the drum sound assignments and pan settings of the selected drum kit. The other settings are the same as for a single oscillator program.

L (Level) [00...99]

This sets the overall volume that is output by the VDA of the selected oscillator.

High settings of this parameter may cause the sound to distort when chords are played. In this case, lower the setting.

You can make the oscillator output level be affected by the force (velocity) of your keyboard playing. You can also use the VDA EG to make the volume of individual notes change over time. For details refer to "Page 9: VDA EG".

Octave [4', 8', 16', 32']

This sets the basic pitch of the selected oscillator in octave units. The standard pitch of all multisamples is **8'**.

Since each multisample has an upper limit to the pitch that it can produce, setting this parameter to **4'** and in addition using the OCTAVE and TRANSPOSE buttons to raise the keyboard pitch may, for some sounds, result in no sound when you play upper ranges of the keyboard.

When editing a drum program, be sure to set this parameter to **8'**. Other settings will cause the keyboard assignments of the drum kit to be skewed upward or downward.

P (Pitch EG intensity) [–99...+99]

This specifies the effect that the Pitch EG will have on the pitch of the selected oscillator.

Positive (+) settings will cause a greater pitch change as the value is increased.

Negative (–) settings will invert the direction of the pitch change.

With a setting of **0**, the Pitch EG will not affect the selected oscillator, and the pitch will not change at all.

Pitch EG settings are made in "Page 4: Pitch EG".

Pan [OFF, L15...L01, CNT, R01...R15]

This sets the stereo location of the selected oscillator. This will adjust the level of the oscillator signals that are sent from channels A and B to the effect section.

CNT will place the sound produced by the oscillator in the center.

L settings will place the sound toward the right, and **R** settings toward the left. As this value is increased the sound will move further away from the center.

OFF will turn off the oscillator output to channels A and B.

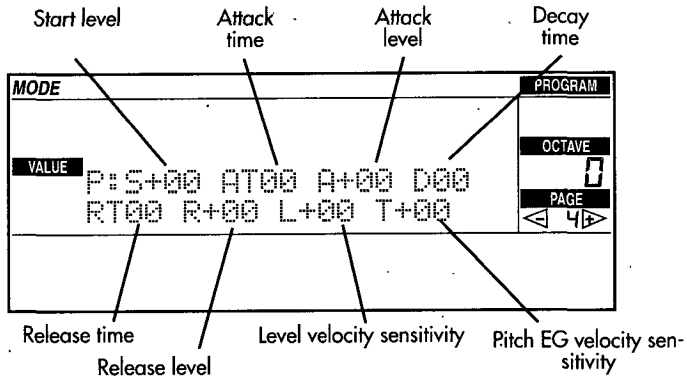
This parameter will not be displayed for a Drum program. The pan settings of each drum kit will be used.

C=/D= (Send levels) [0...9]

These parameters set the send levels that are sent from channels C and D to the effect section.

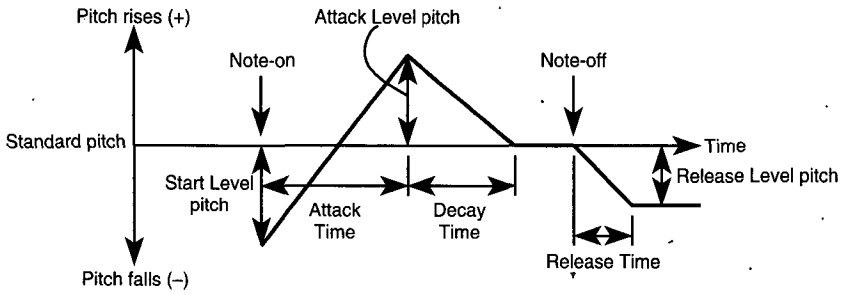
Page 4: Pitch EG

The parameters of this page determine the shape of the Pitch EG (envelope generator). The Pitch EG determines how the pitch of the program changes over time in relation to its standard pitch.



For a double oscillator program, both oscillators use the same Pitch EG. However you can separately adjust the sensitivity of each oscillator to the pitch EG.

Be aware that the total pitch change (produced by the pitch EG, pitch bend level, and the Vibrato) is limited to 3 octaves. In addition, some multisamples are limited to a narrower range of pitch change depending on the conditions.



S (Start level) [–99...+99]

Sets the pitch at which the program begins to sound.

Positive (+) settings will raise the pitch above standard pitch, and **negative (–)** settings will lower the pitch below standard pitch. When the Pitch EG Intensity parameter is either +99 or –99, a setting of +99 or –99 for this parameter will produce a rise/fall of approximately 1 octave.

With a setting of **0**, the program will start sounding at the standard pitch.

AT (Attack time) [00...99]

Sets the time over which the pitch will change from the Start Level (S) to the Attack Level (A).

With a setting of **0** the movement will take place instantly, and with a setting of **99** the movement will be the slowest.

A (Attack level) [–99...+99]

Sets the pitch at which the program will arrive after the Attack Time has elapsed.

Set it in the same way as the Start Level parameter.

D (Decay time) [00...99]

Sets the time over which the pitch will change from the Attack Level (A) to the standard pitch.

Set it in the same way as the Attack Time parameter.

RT (Release time) [00...99]

This sets the time over which the pitch will change from the standard pitch to the Release Level (R) after the key is released.

Set it in the same way as the Attack Time parameter.

R (Release level) [–99...+99]

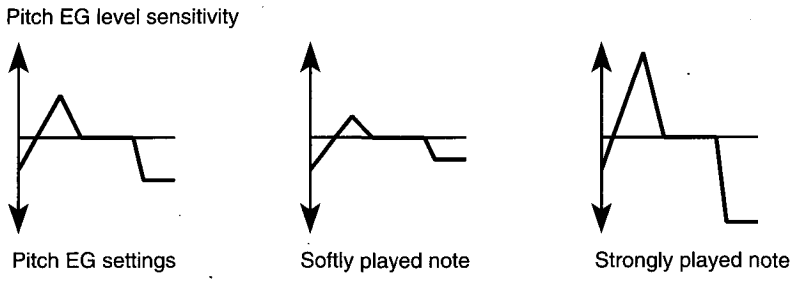
This sets the pitch at which the program will arrive after the Release Time has elapsed.

Set it in the same way as the Start Level parameter.

L (Level velocity sensitivity) [–99...+99]

This specifies the depth to which the Pitch EG levels will be affected by note velocity (keyboard dynamics).

With a setting of **0**, the Pitch EG levels will not be affected by velocity.

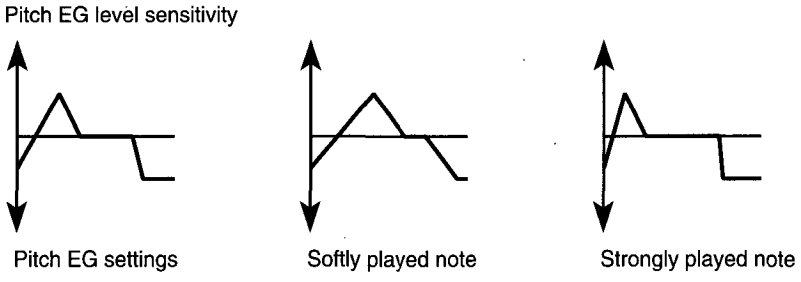


T (Time velocity sensitivity) [–99...+99]

This specifies how the Pitch EG times will be affected by note velocity.

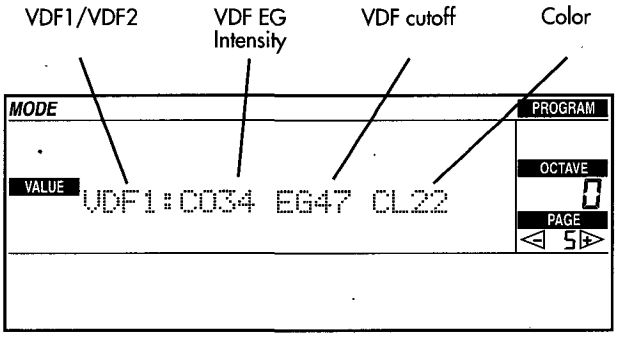
Higher settings of this parameter will cause the pitch change to become faster.

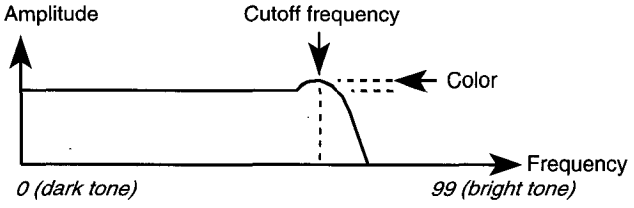
With a setting of **0**, the Pitch EG times will not be affected by velocity.



Page 5: VDF

Here you can change filter settings to adjust the tone.





VDF1/VDF2

When a double oscillator program is selected, this specifies the oscillator whose filter parameters will be edited.

You can also switch between oscillators 1 and 2 by pressing the VARIATION buttons [1] or [2].

CO (VDF cutoff frequency) [00...99]

This specifies the frequency at which the VDF filter will begin to apply.

Lower values will produce a darker and more muted tone.

EG (VDF EG intensity) [00...99]

This specifies the effect that the VDF EG will have on the tone of the oscillator.

Higher values will cause the tone to change more greatly.

With a setting of **0**, the VDF EG will not be used, and the tone will not change over time.

VDF EG settings are made in "Page 6: VDF EG".

CL (Color) [00...99]

This parameter adds character to the sound.

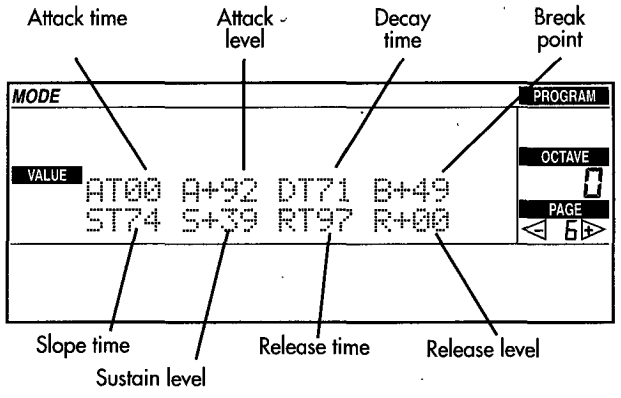
Higher values will boost the frequency components in the region of the cutoff frequency, causing filter movements produced by the VDF EG or VDF modulation to be more noticeable.

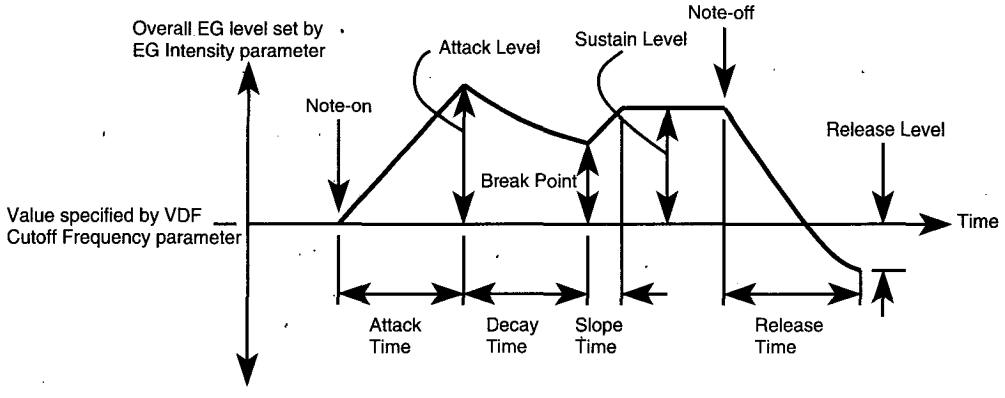
Page 6: VDF EG

Here you can specify the shape of the VDF EG (envelope generator) that will determine how the VDF cutoff frequency will change over time.

In "Page 5: VDF", the EG Intensity parameter allows you to adjust the depth of the effect produced by the oscillator EG. Also, the "Page 7: VDF keyboard tracking", parameter settings allow the EG to be automatically adjusted according to the keyboard position or key velocity.

Switch between oscillators 1 and 2 by pressing the VARIATION buttons [1] or [2].





AT (Attack time) [00...99]

This sets the time over which the cutoff frequency will change from the normal VDF setting to the Attack Level (A).

With a setting of **0** the movement will take place instantly, and with a setting of **99** the movement will be the slowest.

A (Attack level) [-99...+99]

Sets the level at which the cutoff frequency will arrive after the Attack Time has elapsed.

With **positive (+)** settings the Attack Level will be higher than the normal cutoff frequency, and with **negative (–)** settings it will be lower.

DT (Decay time) [00...99]

Sets the time over which the VDF cutoff frequency will change from the Attack Level (A) to the Break Point (B).

Set it in the same way as the Attack Time parameter.

B (Break point) [-99...+99]

Sets the level at which the VDF cutoff frequency will arrive after the Decay Time (DT) has elapsed.

Set it in the same way as the Attack Level parameter.

ST (Slope time) [00...99]

Sets the time over which the VDF cutoff frequency will change from the Break Point (B) to the Sustain Level (S).

Set it in the same way as the Attack Start Time parameter.

S (Sustain level) [–99...+99]

Sets the level at which the VDF cutoff frequency will arrive after the Slope Time (ST) has elapsed.

Set it in the same way as the Attack Level parameter.

RT (Release time) [00...99]

Sets the time over which the VDF cutoff frequency will change from the Sustain Level (S) to the normal cutoff frequency after you release the key.

Set it in the same way as the Attack Time parameter.

R (Release level) [–99...+99]

Sets the level at which the VDF cutoff frequency will arrive after the Release Time (RT) has elapsed.

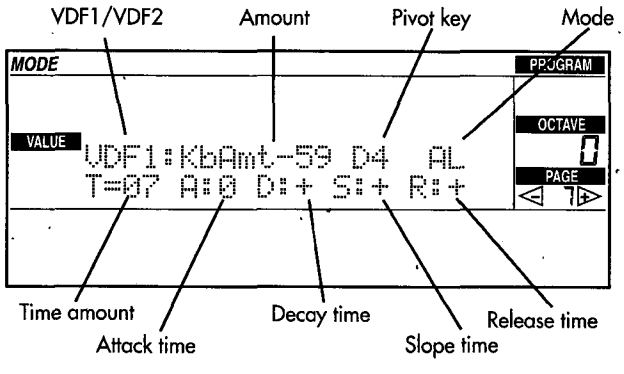
Set it in the same way as the Attack Level parameter.

Page 7: VDF keyboard tracking

VDF keyboard tracking is a function that adjusts the cutoff frequency according to the keyboard location of the note that is played. On many real-world instruments, higher notes have a brighter tone, and this can be simulated using VDF keyboard tracking.

The effect of the tracking function is determined by the Keyboard Track Amount, Pivot Key, and Mode parameters.

Keyboard tracking can be used to modify VDF EG times, so that the four EG time parameters will be shortened or lengthened depending on the location of the keyboard that you play.



VDF1/VDF2

When a double oscillator program is selected, this selects the oscillator whose filter parameters will be edited.

You can also use the VARIATION [1] or [2] buttons to switch between oscillators 1 and 2.

KbAmt (Keyboard track amount) [–99...+99]

Specifies how greatly keyboard tracking will affect the cutoff frequency. The way in which this will function is determined by the Mode parameter, explained below.

Positive (+) settings will cause the tone to become brighter as you play above the Pivot Key. Conversely, the tone will become darker as you play below the specified key.

Negative (–) will have exactly the opposite effect.

With a setting of **–50**, the cutoff frequency of the note specified by the Key parameter will be used as the standard cutoff frequency for all notes, meaning that the cutoff frequency will remain the same for all areas of the keyboard.

With a setting of **0**, the cutoff frequency will change in direct correspondence to the pitch. This will produce the same effect as when the following Mode parameter is turned OFF.

Pivot key [C-1...G9]

Sets the note which will be used as the center for the keyboard tracking function. The function of this key is determined by the setting of the Mode parameter, below.

Mode [OF, LO, HI, AL]

This determines the range which will be affected by the keyboard tracking function.

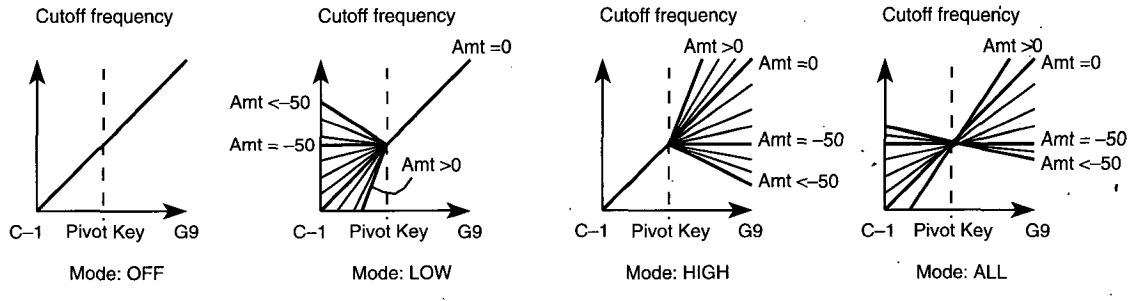
OF (OFF) will cause keyboard tracking to be exactly proportional to the keyboard pitch, just as when Keyboard Track Amount is set to 0.

LO (LOW) will cause keyboard tracking to apply to the range below the Pivot note.

HI (HIGH) will cause keyboard tracking to apply to the range above the Pivot note.

AL (ALL) will cause keyboard tracking to adjust the cutoff frequency of all notes, relative to the Pivot note.

Changes in cutoff frequency produced by Keyboard Track Amount (Amt) and Pivot Key settings for each Mode



T (Time Amount) [00...99]

Specifies how deeply keyboard tracking will affect the VDF EG speed.

Higher values will produce a greater change.

With a setting of **0**, EG speed will not be affected.

This parameter only specifies the amount of the effect that the keyboard tracking function has on EG speed. Whether keyboard tracking will length or shorten the various EG times is determined by the following four parameters.

A (Attack time) [–, 0, +]

Specifies the direction of the change that keyboard tracking will cause for Attack Time.

A setting of "+" will cause keyboard tracking to shorten the attack time.

A setting of "–" will cause keyboard tracking to lengthen the attack time.

With a setting of **0**, the attack time will not be affected.

D (Decay time) [–, 0, +]

Specifies the direction of the change that keyboard tracking will cause for Decay Time.

This setting functions in the same way as the Attack Time parameter.

S (Slope time) [–, 0, +]

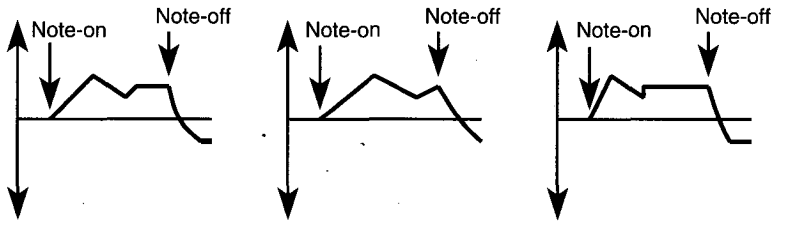
Specifies the direction of the change that keyboard tracking will cause for Slope Time.

This setting functions in the same way as the Attack Time parameter.

R (Release time) [–, 0, +]

Specifies the direction of the change that keyboard tracking will cause for Release Time.

This setting functions in the same way as the Attack Time parameter.



VDF EG Time parameter settings (positive (+) settings for all parameters)

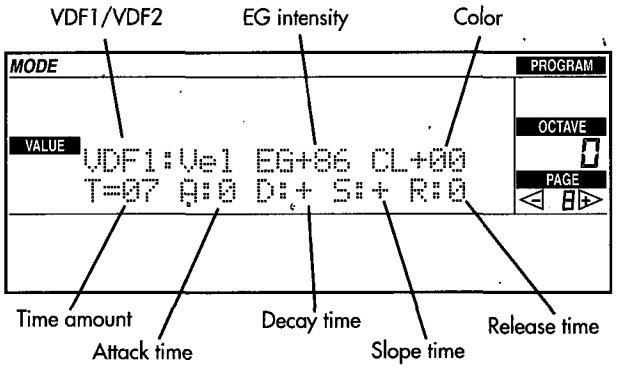
Notes played in a low keyboard range

Notes played in a high keyboard range

Page 8: VDF velocity sensitivity

On the iS40/iS50, the VDF EG can be affected by your keyboard playing dynamics or by the velocity values of MIDI Note messages received from an external MIDI device. Instruments such as a piano, on which strongly played notes are brighter, can be easily simulated using this capability. Even when the VDA does not change, using velocity to modify the filter can produce a variety of interesting effects.

You can also use keyboard dynamics to modify the speed of the VDF EG. Note velocity can shorten or length each of the four EG segments.



VDF1/VDF2

When a double oscillator program is selected, this specifies the oscillator whose filter parameters will be edited.

You can also switch between oscillators 1 and 2 by pressing the VARIATION buttons [1] or [2].

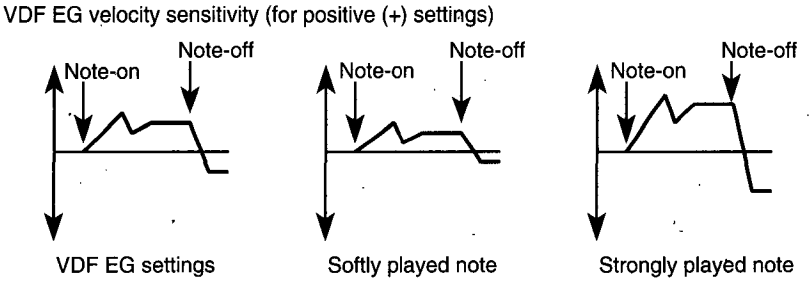
EG (EG intensity) [–99...+99]

Specifies the effect that keyboard dynamics will have on the VDF EG.

Positive (+) settings will cause EG depth to decrease for softly-played notes, causing cutoff frequency to change less.

Negative (–) settings will cause EG depth to decrease for strongly-played notes.

With a setting of **0**, the depth will be as specified by the "Page 5: VDF" EG Intensity parameter.



CL (Color) [–99...+99]

Specifies the effect that keyboard dynamics will have on the Resonance.

Positive (+) settings will cause Resonance to increase for strongly-played notes, and to decrease for softly-played notes.

Negative (–) settings will have the exact opposite result.

With a setting of **0**, the Resonance of all notes will be as specified by the "Page 5: VDF" Color parameter.

T (Time amount) [00...99]

Specifies the amount of the effect that velocity will have on VDF EG speed.

Higher values will produce a greater change.

With a setting of **0**, EG speed will not be affected.

This parameter only specifies the amount of the effect that velocity has on EG speed. Whether velocity will length or shorten the various EG times is determined by the following four parameters.

A (Attack time) [–, 0, +]

Specifies the direction of the change that velocity will cause for Attack Time.

A setting of "+" will cause the attack time to be shortened for strongly played notes.

A setting of "–" will cause the attack time to be lengthened for strongly played notes.

With a setting of **0**, the attack time will not be affected by velocity.

D (Decay time) [–, 0, +]

Specifies the direction of the change that velocity will cause for Decay Time.

This setting functions in the same way as the Attack Time parameter.

S (Slope time) [–, 0, +]

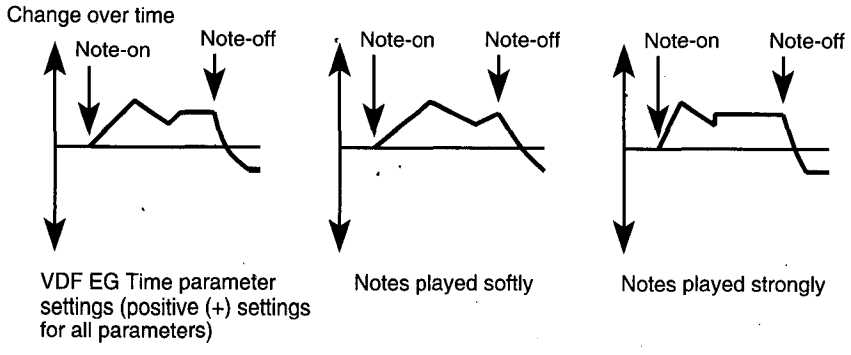
Specifies the direction of the change that velocity will cause for Slope Time.

This setting functions in the same way as the Attack Time parameter.

R (Release time) [–, 0, +]

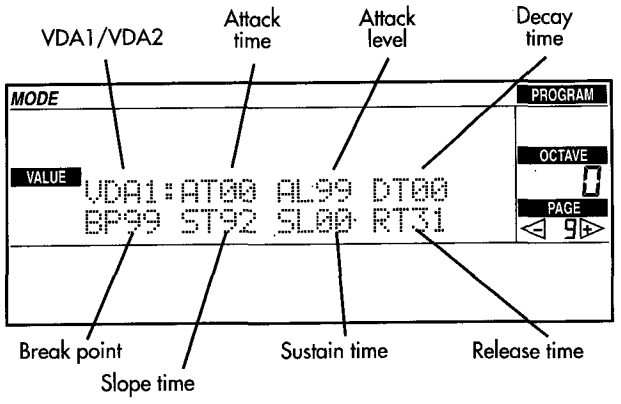
Specifies the direction of the change that velocity will cause for Release Time.

This setting functions in the same way as the Attack Time parameter.

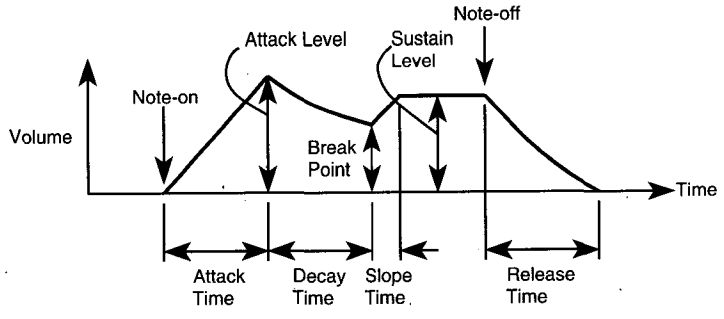


Page 9: VDA EG

The settings in this page set the shape of the VDA EG (envelope generator), specifying how the VDA level of the oscillators will change over time..



The parameters in "Page 10: VDA keyboard tracking" allow you to specify how keyboard position or playing dynamics will automatically modify the EG.



VDA1/VDA2

When a double oscillator program is selected, this specifies the oscillator whose VDA parameters are being edited.

You can also use the VARIATION buttons [1] or [2] to switch between oscillators 1 and 2.

AT (Attack time) [00...99]

This sets the time over which the VDA volume will change from 0 to the Attack Level (A).

With a setting of **0** the movement will take place instantly, and with a setting of **99** the movement will be the slowest.

A (Attack level) [+00...+99]

Sets the volume level at which the VDA will arrive after the Attack Time (AT) has elapsed.

As this setting is increased, the Attack Level will be louder, and with a setting of **+0** the volume will be 0, delaying the timing at which the sound will begin to be heard.

DT (Decay time) [00...99]

Sets the time over which the VDA volume will change from the Attack Level (A) to the Break Point (B).

Set it in the same way as the Attack Time parameter.

B (Break point) [+00...+99]

Sets the volume level at which the VDA will arrive after the Decay Time (DT) has elapsed.

Set it in the same way as the Attack Level parameter.

ST (Slope time) [00...99]

Sets the time over which the VDA volume will change from the Break Point Level (B) to the Sustain Level (S).

Set it in the same way as the Attack Time parameter.

S (Sustain level) [+00...+99]

Sets the volume level at which the VDA will arrive after the Slope Time (ST) has elapsed.

Set it in the same way as the Attack Level parameter.

RT (Release time) [00...99]

Sets the time over which the VDA volume will change from the Sustain Level (S) to a volume of 0 after you release the key.

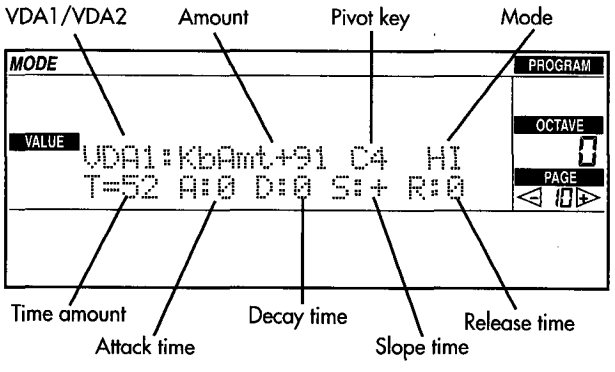
Set it in the same way as the Attack Time parameter.

Page 10: VDA keyboard tracking

VDA keyboard tracking is a function that adjusts the oscillator volume according to the keyboard location of the note that is played. On many real-world instruments such as wind instruments, higher notes have a louder volume, and this can be simulated using VDA keyboard tracking.

The effect of the tracking function is determined by the Keyboard Track Amount, Pivot Key, and Mode parameters.

Keyboard tracking can be used to modify VDA EG times, so that the four EG time parameters will be shortened or lengthened depending on the location of the keyboard that you play.



VDA1/VDA2

When a double oscillator program is selected, this selects the oscillator whose amplifier parameters will be edited.

You can also use the Variation [1] or [2] buttons to switch between oscillators 1 and 2.

KbAmt (Keyboard track amount) [–99...+99]

Specifies how greatly keyboard tracking will affect the volume. The way in which this will function is determined by the Mode parameter, explained below.

With a setting of **0**, all notes will have the same volume. (This is the same effect as when the following Mode parameter is turned OFF.)

Pivot key [C-1...G9]

Sets the note which will be used as the center for the keyboard tracking function. The function of this key is determined by the setting of the Mode parameter, below.

Mode [OF, LO, HI, AL]

This determines the range which will be affected by the keyboard tracking function.

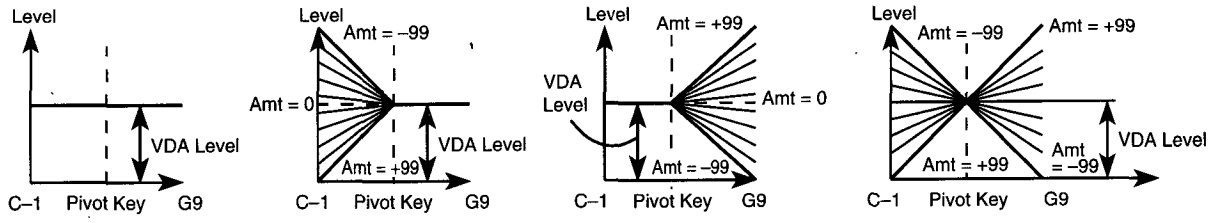
OF (OFF) will cause keyboard tracking to be turned off, so that notes in any range of the keyboard will have the same volume.

LO (LOW) will cause keyboard tracking to apply to the range below the Pivot note.

HI (HIGH) will cause keyboard tracking to apply to the range above the Pivot note.

AL (ALL) will cause keyboard tracking to adjust the volume level of all notes, relative to the Pivot note.

Changes in VDA level produced by Keyboard Track Amount (Amt) and Pivot Key settings for each Mode



T (Time Amount) [00...99]

Specifies how deeply keyboard tracking will affect the VDA EG speed.

Higher values will produce a greater change.

With a setting of **0**, EG speed will not be affected.

This parameter only specifies the amount of the effect that the keyboard tracking function has on EG speed. Whether keyboard tracking will lengthen or shorten the various EG times is determined by the following four parameters.

A (Attack time) [–, 0, +]

Specifies the direction of the change that keyboard tracking will cause for Attack Time.

A setting of "+" will cause keyboard tracking to shorten the attack time.

A setting of "–" will cause keyboard tracking to lengthen the attack time.

With a setting of **0**, the attack time will not be affected.

D (Decay time) [–, 0, +]

Specifies the direction of the change that keyboard tracking will cause for Decay Time.

This setting functions in the same way as the Attack Time parameter.

S (Slope time) [–, 0, +]

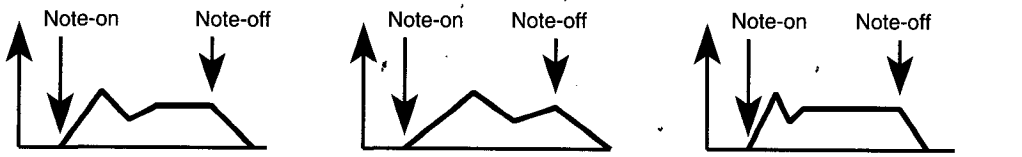
Specifies the direction of the change that keyboard tracking will cause for Slope Time.

This setting functions in the same way as the Attack Time parameter.

R (Release time) [–, 0, +]

Specifies the direction of the change that keyboard tracking will cause for Release Time.

This setting functions in the same way as the Attack Time parameter.

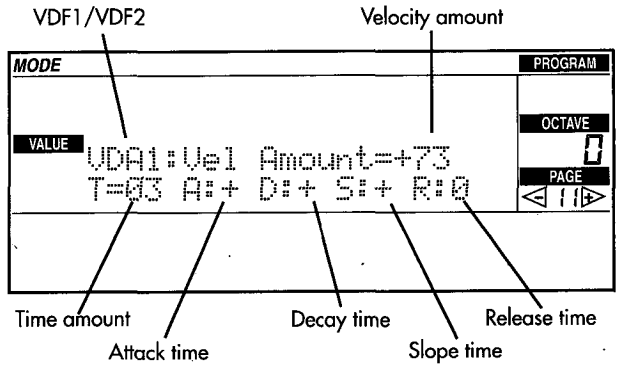


VDA EG Time parameter settings | Notes played below the pivot key | Notes played above the pivot key

Page 11: VDF velocity sensitivity

On the iS40/iS50, the VDA EG can be affected by your keyboard playing dynamics or by the velocity values of MIDI Note messages received from an external MIDI device. Settings can be made so that strongly played notes will have a more greatly emphasized attack or decay.

The five parameters in the lower line also allow playing dynamics to modify the speed of the VDA EG. Note velocity can shorten or length each of the four EG segments.



VDA1/VDA2

When a double oscillator program is selected, this specifies the oscillator whose amplifier parameters will be edited.

You can also switch between oscillators 1 and 2 by pressing the VARIATION [1] or [2] buttons.

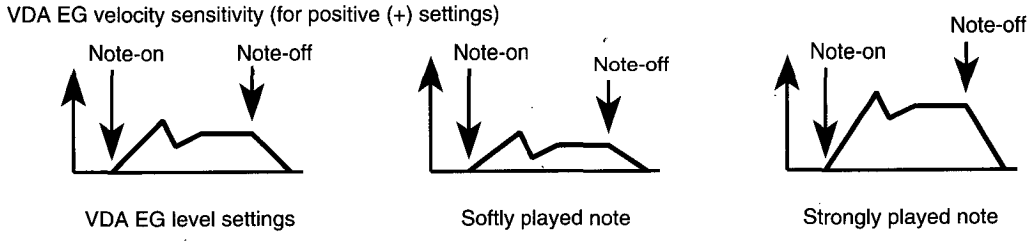
Amount [–99...+99]

Specifies the effect that keyboard dynamics will have on the VDA EG.

Positive (+) settings will cause EG depth to decrease for softly-played notes, causing the volume level to change less.

Negative (–) settings will cause EG depth to decrease for strongly-played notes.

With a setting of **0**, the depth will be as specified by the Attack Time, Decay Time, Slope Time, and Release time parameters.



T (Time amount) [00...99]

Specifies the amount of the effect that velocity will have on VDA EG speed.

Higher values will produce a greater change.

With a setting of **0**, EG speed will not be affected.

This parameter only specifies the amount of the effect that velocity has on EG speed. Whether velocity will length or shorten the various EG times is determined by the following four parameters.

A (Attack time) [–, 0, +]

Specifies the direction of the change that velocity will cause for Attack Time.

A setting of "+" will cause the attack time to be shortened for strongly played notes.

A setting of "–" will cause the attack time to be lengthened for strongly played notes.

With a setting of **0**, the attack time will not be affected by velocity.

D (Decay time) [–, 0, +]

Specifies the direction of the change that velocity will cause for Decay Time.

This setting functions in the same way as the Attack Time parameter.

S (Slope time) [–, 0, +]

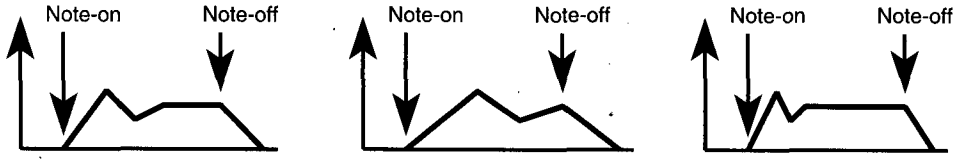
Specifies the direction of the change that velocity will cause for Slope Time.

This setting functions in the same way as the Attack Time parameter.

R (Release time) [–, 0, +]

Specifies the direction of the change that velocity will cause for Release Time.

This setting functions in the same way as the Attack Time parameter.

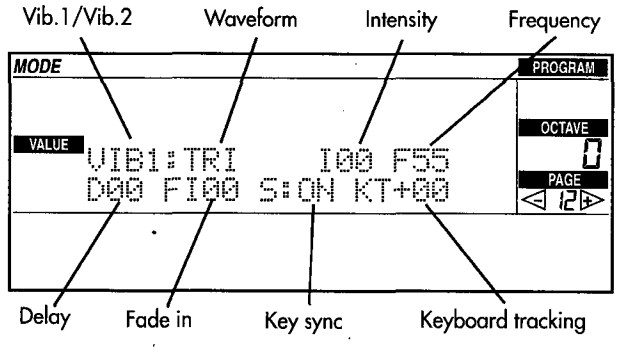


VDA EG Time parameter settings | Notes played softly | Notes played strongly

Page 12: Vibrato

This page contains settings which control pitch modulation. This function simulates the vibrato effects that can be produced on many acoustic instruments.

For double oscillator programs, the pitch of each oscillator can be modulated independently.



Vib.1/Vib.2 (Vibrato 1/Vibrato 2)

When a double oscillator program is selected, this specifies the oscillator whose Vibrato parameter will be edited.

You can also use the VARIATION buttons [1] and [2] to switch between oscillators 1 and 2.

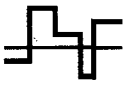
Waveform [TRI...RANDM]

Selects the waveform that will be used to modulate the pitch of the oscillator. The following waveforms are available.

TRI - triangle wave 

SQUAR - square wave 

SAWUP - sawtooth wave (upward) 

RANDM - random 

SAWDN - sawtooth wave (downward) 

I (Intensity) [00...99]

This sets the depth of automatic pitch modulation.

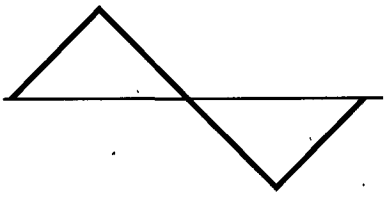
With a setting of **99**, the selected waveform will modulate the pitch over a range of 1–2 octaves.

With a setting of **0**, modulation will not be applied.

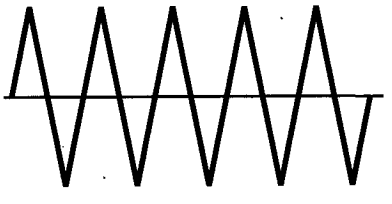
F (Frequency) [00...99]

This sets the speed of pitch modulation.

Higher values will produce faster modulation.



Lower values



Higher values

D (Delay) [00...99]

This parameter delays the onset of automatic pitch modulation.

Higher values will produce a greater delay.

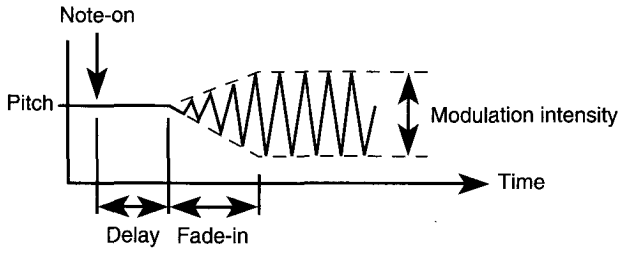
With a setting of **0**, modulation will begin to apply as soon as the note begins.

FI (Fade-in) [00...99]

This parameter allows the automatic pitch modulation to be faded-in, so that it will begin with a small amount of modulation and gradually increase to the full depth that is specified by the Intensity parameter.

Higher values will produce a longer fade-in.

With a setting of **0**, there will be no fade-in, and modulation will begin immediately at the depth specified by the Intensity parameter.



S (Key sync) [ON, OFF]

This parameter specifies whether or not the Vibrato will be reset each time you play a note.

With a setting of **ON**, the modulation waveform will be reset each time you play a note.

With a setting of **OFF**, the modulation waveform of the first-played note will continue at the standard frequency, and will not be affected by subsequently-played notes. We suggest that you set this OFF when playing chords, so that modulation will apply to each note in unison even if you arpeggiate the chord.

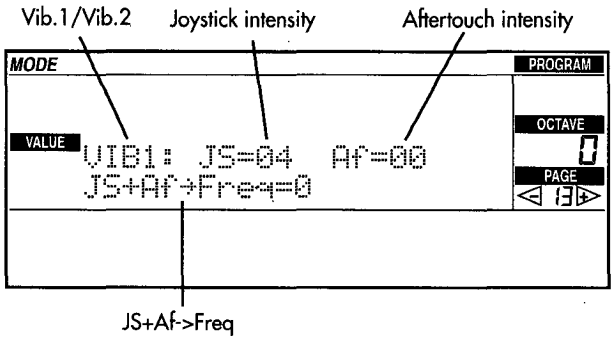
KT (Keyboard tracking) [–99...+99]

This parameter adjusts the speed of pitch modulation according to the keyboard location that you play.

Positive (+) settings will cause modulation to become faster as you play above middle C, and slower as you play below middle C.

Negative (–) settings will have the opposite effect.

Page 13: Vibrato controller



Vib1/Vib2 (Vibrato1/Vibrato2)

When a double oscillator program is selected, this specifies the oscillator whose Vibrato parameters will be edited.

You can also use the VARIATION buttons [1] or [2] to switch between oscillators 1 and 2.

JS (Joystick up) [00...99]

This specifies the maximum depth of the modulation that will occur when the joystick is moved away from you.

This is similar to the "Page 12: Vibrato" Intensity parameter, but in this case, the specified modulation will not be applied until you move the joystick.

Af (Aftertouch) *(only the iS40)* [00...99]

This specifies the maximum depth of the modulation that will occur when aftertouch is applied.

This is similar to the "Page 12: Vibrato" Intensity parameter, but in this case, the specified modulation will not be applied until you apply aftertouch.

JS+ Af → Freq (Frequency control by joystick + aftertouch) [0...9]

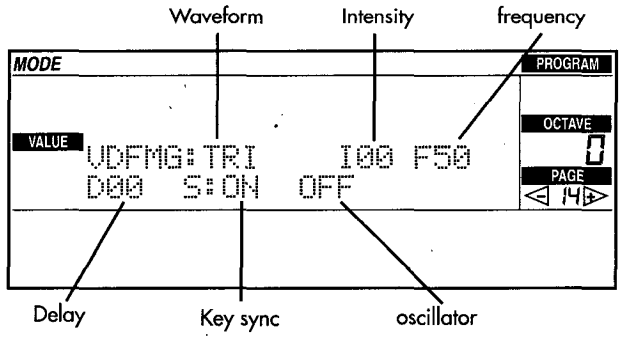
This parameter allows the modulation to be speeded up by moving the joystick away from you or by applying aftertouch.

Higher settings will allow modulation to be speeded up more.

With a setting of **0**, the joystick or aftertouch will not affect the modulation frequency.

Page 14: VDF MG

These parameters let you use the selected waveform to control the filter cutoff frequency. Unlike pitch, VDF is modulated by a single MG even for double oscillator programs.



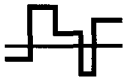
Waveform [TRI...RANDM]

Selects the waveform that will be used to modulate the pitch of the oscillator. The following waveforms are available.

TRI - triangle wave 

SQUAR - square wave 

SAWUP - sawtooth wave (upward) 

RANDM - random 

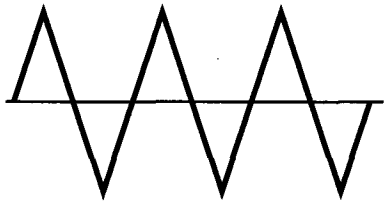
SAWDN - sawtooth wave (downward) 

I (Intensity) [00...99]

This sets the depth of automatic VDF modulation.

With a setting of **0**, modulation will not be applied.

Lower values

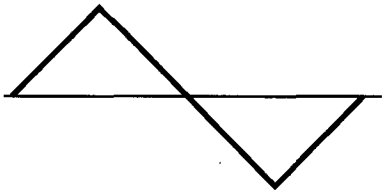


Higher values

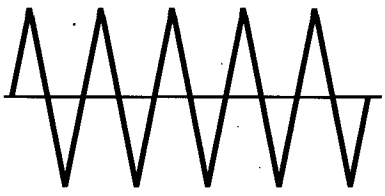
F (Frequency) [00...99]

This sets the speed at which the cutoff frequency will be modulated.

Higher values will produce faster modulation.



Lower values



Higher values

D (Delay) [00...99]

This parameter delays the onset of automatic VDF modulation.

Higher values will produce a greater delay.

With a setting of **0**, modulation will begin to apply as soon as the note begins.

S (Key sync) [ON, OFF]

This parameter specifies whether or not the VDF MG will be reset each time you play a note.

With a setting of **ON**, the modulation waveform will be reset each time you play a note.

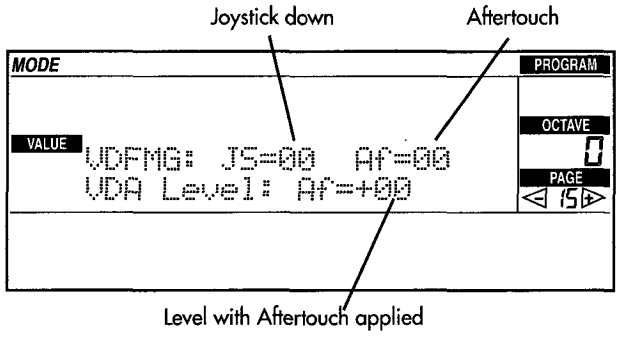
With a setting of **OFF**, the modulation waveform of the first-played note will continue at the standard frequency, and will not be affected by subsequently-played notes. We suggest that you set this OFF when playing chords, so that modulation will apply to each note in unison even if you arpeggiate the chord.

Oscillator [OFF, OSC1, OSC2, BOTH]

This specifies the oscillator(s) to which VDF modulation will apply. You may modulate the cutoff frequency of OSC1 or OSC2 or both.

If this is turned **OFF**, VDF MG will also be off.

Page 15: VDF MG controller/VDA level



VDFMG (VDF MG controller)

- **JS (Joystick down)** **[00...99]**

  Specifies the maximum depth of modulation that will be applied when you move the joystick away from you.

  This is similar to the "Page 14: VDF MG" Intensity parameter, but in this case, the specified modulation will not be applied until you move the joystick.

- **Af (Aftertouch)** ***(only iS40)*** **[00...99]**

  This specifies the maximum depth of the modulation that will occur when aftertouch is applied.

  This is similar to the "Page 14: VDF MG" Intensity parameter, but in this case, the specified modulation will not be applied until you apply aftertouch.

VDA Level

- **Af (Aftertouch)** ***(only iS40)*** **[–99...+99]**

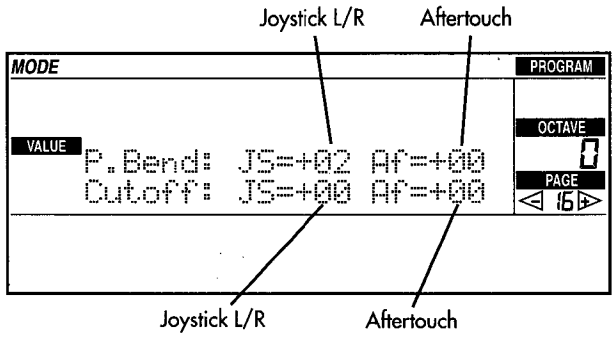
  This specifies the volume change that will be controlled by aftertouch.

  Positive (+) settings will cause the sound to become louder as you press down on the keyboard, and higher settings will allow a greater change in volume.

  Negative (–) settings will cause the sound to become softer as you press down on the keyboard.

Page 16: Controllers

The settings here determine how the joystick and aftertouch will affect the pitch, filter cutoff frequency, and volume of the program. These parameters will directly control the pitch, cutoff frequency, and volume. Unlike the joystick and aftertouch parameters explained in the Vibrato and VDF MG sections, they do not control the amount or speed of modulation.



P.Bend (Pitch bend)

- **JS (Joystick L/R)** **[–12...+12]**

  This specifies the amount of pitch change that will occur when you move the joystick to left or right, in chromatic steps.

  A setting of **12** will allow a pitch bend effect of 1 octave.

  Positive (+) settings will cause the pitch to rise when the joystick is moved toward the right, and fall when the joystick is moved toward the left.

  Negative (–) settings will produce the opposite effect.

  Depending on the sound or the keyboard location that you play, the pitch may not change in a full ±1 octave range.

- **Af (Aftertouch)** ***(only iS40)*** **[–12...+12]**

  This specifies the amount of pitch change that will occur when you apply aftertouch, in chromatic steps.

  A setting of **12** will allow a pitch bend effect of 1 octave.

  Positive (+) settings will cause the pitch to rise when aftertouch is applied.

  Negative (–) settings will cause the pitch to fall when aftertouch is applied.

Cutoff

- **JS (Joystick L/R)** **[–99...+99]**

  This specifies the maximum amount of cutoff frequency change that will occur when you move the joystick to left or right.

  Positive (+) settings will cause the tone to become brighter when the joystick is moved toward the right, and darker when the joystick is moved toward the left.

  Negative (–) settings will produce the opposite effect.

- **Af (Aftertouch)** ***(only iS40)*** **[–99...+99]**

  This specifies the maximum amount of cutoff frequency change that will occur when you apply aftertouch.

  Positive (+) settings will cause the tone to become brighter when aftertouch is applied.

  Negative (–) settings will cause the tone to become darker when aftertouch is applied.

Page 17: Effect select

The instrument has two incorporated digital effect processors. In this page, you can choose which effects you wish to assign to the program and turn them on or off. For more details, see "Effects" chapter.

Page 18: Effect modulation

In this page you can connect the effects to controls, which allow you to dynamically modulate their intensity. For more details, see "Effects" chapter.

Page 19: Effect placement

In this page you can choose the effect setup of the program, and program pan and levels for channels C and D. For more details, see "Effects" chapter.

Page 20: Effect 1 settings

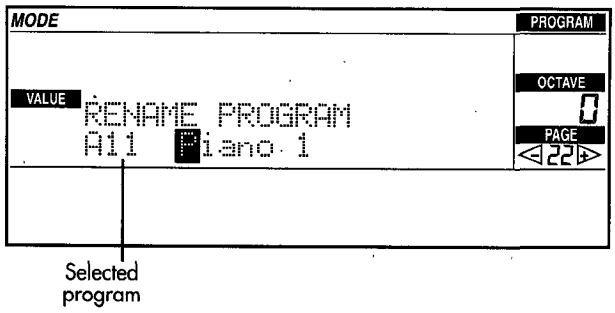
Page 31: Effect 2 settings

These pages contain the effect parameters selected on "Page 17: Effect select", that will be used for the selected program. The parameters contained in these pages will depend on the effects you have selected. For more information on programming effects, see "Effects" chapter.

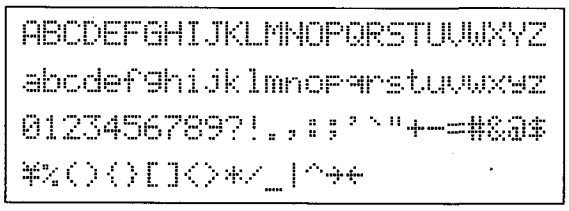
Page 24: Rename program

Here you can modify the title of the program that is being edited.

A title of up to 10 characters can be assigned to the program.



The following characters can be used.

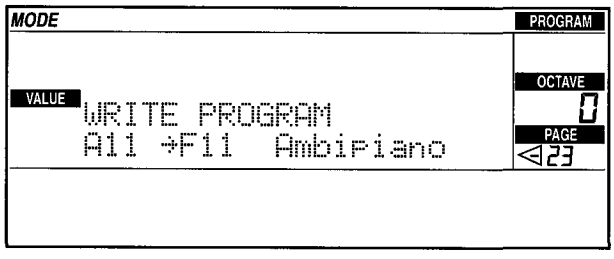


Use the CURSOR buttons to move the cursor to the location of the character you wish to modify, and use the TEMPO/VALUE buttons to modify the character.

Pressing the INS button will copy the character at the cursor, allowing a character to be inserted at that location. Pressing the DEL button will delete the character at the cursor location.

Page 22: Write program

This function saves (writes) the edited program into internal memory (F11–88, Dr27–28). You can also access this page by pressing the REC/WRITE button from a different page.



❶ Use the TEMPO/VALUE buttons to display the program number of the desired writing destination (the memory location into which the data will be written).

You can also use the PROGRAM BANK buttons and PROGRAM NUMBER buttons to input the program number.

When saving a normal program, select F11–88. When saving a drum program, select Dr27 or Dr28. (The selected program will be displayed.)

❷ If you wish to save the current program into the specified destination, press the ENTER/YES button.

Warning: When you execute the Write Program operation, the data in the writing destination will be lost, and cannot be recovered.

13. Effects

iS40/iS50 includes two DSP (Digital Signal Processors), or effect generators. This chapter explains the effect types that can be used in the various modes of the iS40/iS50. The iS40/iS50 provides 47 different types of effect, beginning with those essential for any type of music (reverb, chorus, etc.) and including effects such as exciter and enhancer. In addition, you can use a foot pedal to switch effects on/off while you play.

Effect type

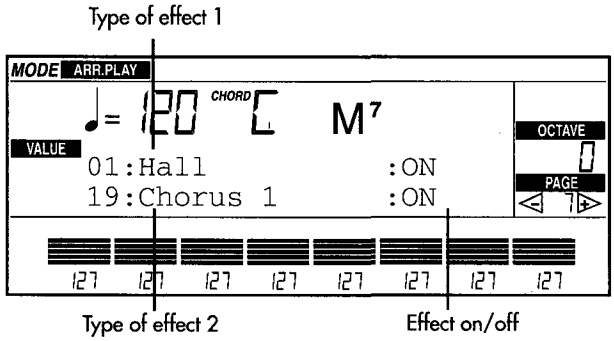
The iS40/iS50 has 47 different effects, and these can be classified into the following 25 Types.

Effect number	Effect type
0	No Effect
1–9	Reverb
10–12	Early Reflection
13–14	Stereo Delay
15	Dual Delay
16–18	Multitap Delay
19–20	Chorus
21–22	Quadrature Chorus
23	Harmonic Chorus
24	Symphonic Ensemble
25–27	Flanger
28	Exciter
29	Enhancer
30–31	Distortion
32–33	Phaser
34	Rotary Speaker
35–36	Tremolo
37	Parametric Equalizer
38–39	Chorused/Flanged Delay
40–41	Delay & Reverb
42	Delay & Chorus
43	Delay & Flanger
44–45	Delay & Distortion
46	Delay & Phaser
47	Delay & Rotary Speaker

"Effect select" pages

Mode	Page
Arrangement Play	"Page 7: Effect select"
Backing Sequence	"Page 11: Effect select"
Song Play	"Page 4: Effect select"
Song Edit	"Page 8: Effect select"
Program	"Page 17: Effect select"

In these pages, you can choose which effects you wish to assign to an arrangement, backing sequence, song or program, and turn them on or off.



Type of effect [00: No effect...47: Delay/Rotary]

You can assign a different effect to each processor. For more information on the types of effect, read forward in this chapter.

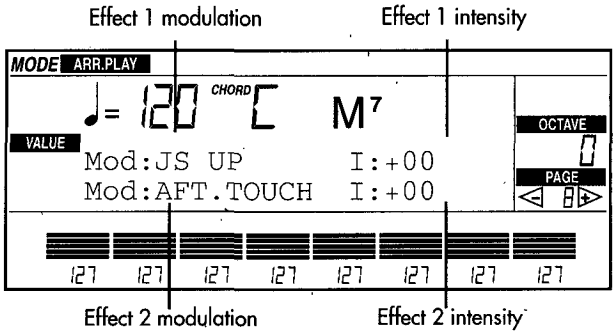
ON/OFF [OFF, ON]

This switches the effect on or off. The effects can also be switched on or off by a footswitch a pedal or an EC5. External controller. For more information see "Page 8: Assignable pedal/switch" and "Page 9: EC5 external controller (only the iS40)" in the Disk/Global mode.

"Effect modulation" pages

Mode	Page
Arrangement Play	"Page 8: Effect modulation"
Backing Sequence	"Page 12: Effect modulation"
Song Play	"Page 5: Effect modulation"
Song Edit	"Page 5: Effect modulation"
Program	"Page 18: Effect modulation"

In these page you can connect the effects to controls, which allow you to dynamically modulate their intensity.



Mod (Modulation) [NONE, JS UP, JS DOWN, AFTT, PEDAL, VDA EG]

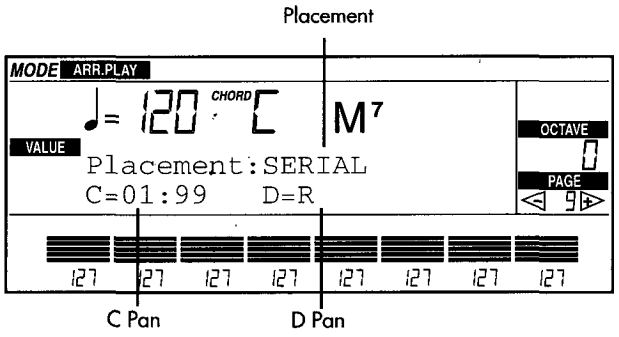
The control that is assigned to the effect.

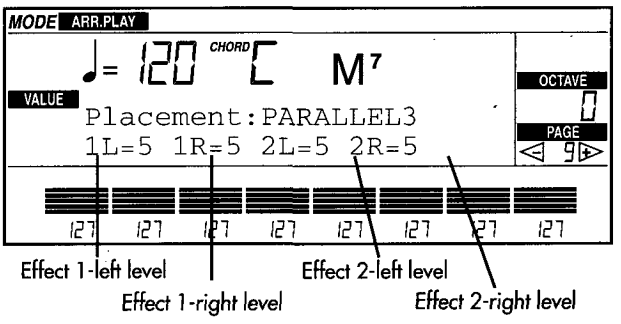
NONE	No control assigned.
JS UP	Joystick moves upwards.
JS DOWN	Joystick moves downwards.
AFTT	Aftertouch.
PEDAL	Damper pedal.
VDA EG	Amplitude envelope.

"Effect placement" pages

Mode	Page
Arrangement Play	"Page 9: Effect placement"
Backing Sequence	"Page 13: Effect placement"
Song Play	"Page 6: Effect placement"
Song Edit	"Page 6: Effect placement"
Program	"Page 19: Effect placement"

In this page you can choose the effect setup of the arrangement, backing sequence, song or program, and program pan and levels for channels C and D. Pan and sending of arrangement tracks are programmed on the "Track settings" page.



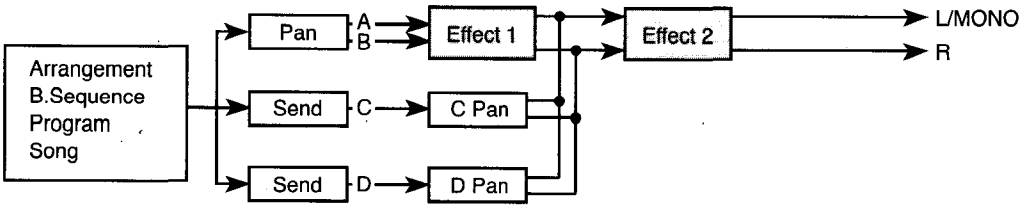


Placement (SERIAL, PARALLEL 1, PARALLEL 2, PARALLEL 3)

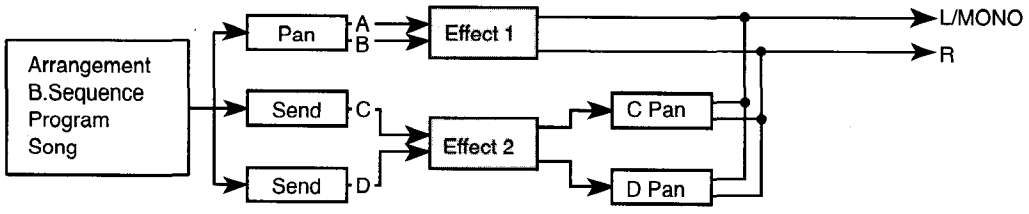
The Placement determines where the internal audio channels (A, B, C, and D) will be connected to the effects. The usual placement is Parallel 3.

Warning: A different placement to Parallel 3 can increase the signal output level, and generate distortion.

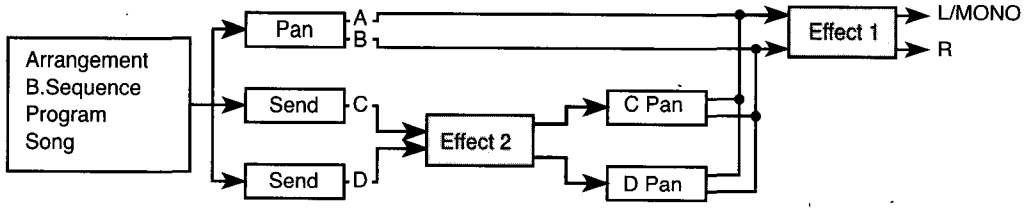
The **SERIAL** setting will assign effects 1 and 2 to channels A and B. Since the signal from channels C and D will only be mixed in after effect 1 (as specified by channel C pan and channel D pan), only effect 2 will be assigned to channels C and D.



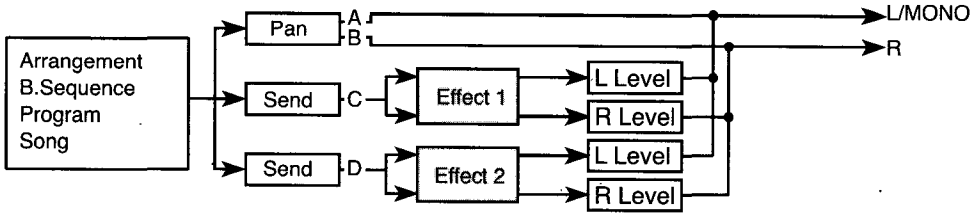
The **PARALLEL 1** setting will assign effect 1 to channels A and B, and effect 2 to channels C and D. After effect 2, the pan of channels C and D will be set. Finally, the signals from the two effects will be mixed.



The **PARALLEL 2** setting will assign effect 2 to channels C and D 2. After effect 2, the pan of channels C and D will be set. The signal will be mixed with channels A and B and sent through effect 1.



The **PARALLEL 3** setting will assign effect 1 (reverb) to channel C and effect 2 (modulating) to channel D. The L/R (left/right) level of each effect will be set separately, Then the signal of the two effects will be mixed with channels A and B. This setting allows you mix the effected signal of channels C and D (wet) with the direct signal of channels A and B (dry).



C (C Pan) [OFF, R, 99:01...01:99, L]

Panning (stereo positioning) of the signal from channel C. This will only appear if SERIAL, PARALLEL 1 or PARALLEL 2 settings are selected.

L Left signal.

R Right signal.

OFF Channel C signal off.

D (D Pan) [OFF, R, 99:01...01:99, L]

Panning (stereo positioning) of the signal from channel D. This will only appear if SERIAL, PARALLEL 1 or PARALLEL 2 settings are selected.

L Left signal.
R Right signal.
OFF Channel D signal off.

1L/1R (Effect 1 Left/Right level) [0...9]

This only appears if PARALLEL 3 setting is selected.

0 Effect 1 (reverb) off.
1-9 Effect 1 level (reverb). The signal will be mixed with channels A and B (not effected).

2L/2R (Effect 2 Left/Right level) [0...9]

This will only appear if PARALLEL 3 setting is selected.

0 Effect 2 level(modulating) off.
1-9 Effect 2 level 2 (modulating). The signal will be mixed with channels A and B (not effected).

"Effect 1 parameters" pages

"Effect 2 parameters" pages

Mode	Page
Arrangement Play	"Page 10: Effect 1 settings", "Page 11: Effect 2 settings"
Backing Sequence	"Page 14: Effect 1 settings", "Page 15: Effect 2 settings"
Song Play	"Page 7: Effect 1 settings", "Page 8: Effect 2 settings"
Song Edit	"Page 11: Effect 1 settings", "Page 12: Effect 2 settings"
Program	"Page 20: Effect 1 settings", "Page 31: Effect 2 settings"

These pages contain the effect parameters selected on the "Effect select" page. The parameters contained in these pages will depend on the effects you have selected. For more information on programming effects, see forward in this chapter.

Dynamic modulation

If an optional Korg XVP-10 or EXP-2 pedal controller is connected to the ASSIGN PDL/SW jack, and you set the Disk/Global mode "Page 8: Assignable pedal/switch" to EFFECT CONTROL, a foot pedal can be used to control the effects in various ways. The aspect of the effect that can be controlled will depend on the effect; for example it might be the balance between the original sound and processed sound, the speed of modulation, or the frequency that is being emphasized.

However for some effect settings, dynamic modulation may not have a noticeable result.

In the LCD, parameters which can be controlled using dynamic modulation while you play are indicated by a "→" symbol (except for 34: Rotary Speaker and 47: Delay & Rotary Speaker). In this manual, such parameters are marked by a D-mod symbol.

Shelving equalizer

Many of the iS40/iS50's built-in effects have a two-band shelving-type equalizer that can boost or cut the low and high frequency ranges, and the equalizer will continue functioning even if the switch parameter is used to turn the effect on/off. However the Stereo Delay (13, 14), Stereo Chorus (19, 20), Exciter (28), and Tremolo (35, 36 effects) are exceptions.

If you wish to listen to the un-equalized sound while editing a program, you will have to set the effect selection to 00:No Effect to turn off both effect processors.

Settings for each effect

Explanations for each of the 25 effect types are given below.

00: No Effect

When **00: No Effect** is selected, effects will not be applied to the sound. Select this if you want the sound to be dry, with no effects.

As an alternative to selecting No Effect, you can also turn off the effects by using an optional foot switch. However the foot switch is designed for realtime control while you play, while selecting No Effect is used when no effects are to be applied to the sound at all.

01...09: Reverb

Reverb adds reverberance to the sound, creating a more natural impression. This is the most frequently used effect.

The ***iS40/iS50*** provides nine types of reverb effect.

01: Hall simulates the acoustics of a small concert hall, such as might be used by a string quartet or acoustic jazz band.

02: Ensemble Hall is a slightly larger hall, suitable for orchestral or brass ensembles.

03: Concert Hall has greater emphasis on the early reflections, and is suitable for full orchestras.

04: Room reproduces the feeling of a standard room.

05: Large Room simulates a larger room with greater density, and is similar to gated reverb.

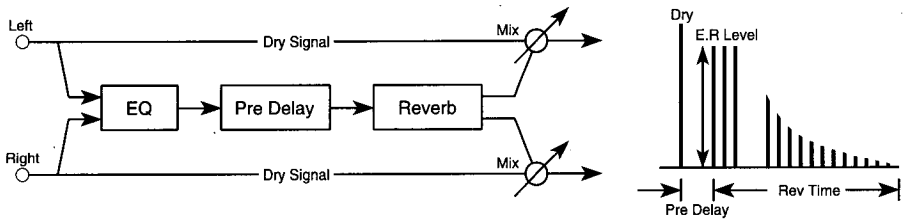
06: Live Stage has a sound similar to what you might hear in a gymnasium, and re-creates the atmosphere of a rock concert.

07: Wet Plate and **08: Dry Plate** simulate plate reverbs, devices which are often used to add emphasis to vocals or solo instruments. Wet Plate is heavy, and Dry Plate is light.

09: Spring Reverb simulates a spring reverb device of the type often used in guitar amplifiers.

For each of these, the sound passes through a two-band shelving equalizer located before the reverb effect.

Some of these reverb effects produce a rapid series of initial delays which are known as Early Reflections. The "wash" of reverberation will follow this, and gradually die away.



	Reverb time	Depends on the effect	Set the time over which the reverberation decays
P	Pre delay	0...200 ms	Set the delay from the direct sound until when the early reflections begin. Higher values will cause the reverberation to be more distinct, like an echo.
E	Early reflection level	Depends on the effect	Set the volume of the early reflection components of the reverberation. As this value is increased, the early reflections will be emphasized more greatly, allowing them to be heard clearly.
HD	High damp	0%...99%	Set the degree to which the high frequencies will be attenuated. Higher settings will cause the high frequencies to decay more rapidly.
L	Equalizer low	–12 dB...+12 dB	Set the amount of boost or cut that the shelving type equalizer will apply to the region below 1 kHz.
H	Equalizer high	–12 dB...+12 dB	Set the amount of boost or cut that the shelving type equalizer will apply to the region above 1 kHz.
→	Dry:Effect balance	DRY, B01...B99, FX	Set the balance between the direct sound (DRY) and the sound processed by the effect (FX). With a setting of DRY, the effect will be turned off. With a setting of FX, only the reverb sound will be heard. D-mod ☞P. 175.

10...12: Early Reflections

These effects simulate just the early reflection component of natural reverberation.

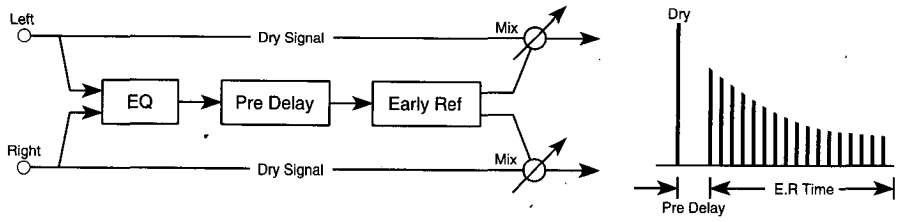
Early reflections play an important role in determining the characteristics of an acoustic environment. They can be used to add solidity to the sound, to create echo-like delays, or to add interesting touches to the sound.

10: Early Ref 1 allows you to boost the low frequency components or produce effects similar to gated reverb. This effect is ideal for drum sounds.

11: Early Ref 2 causes the early reflections to decay more gradually.

12: Early Ref 3 produces reflections which increase instead of decreasing. When applied to a sound with a strong attack, this produces a reverse-tape effect.

Each of these three early reflection effects includes a two-band shelving equalizer.



T	Early reflection time	100...800 ms	Set the time over which the early reflections will disappear. As this time is set to a longer value, the early reflections will become more pronounced.
P	Pre delay	0...200 ms	Set the delay from the direct sound until when the early reflections begin. Higher values will cause the reflections to be more obvious, producing a clearer echo sound.
L	Equalizer low	–12 dB...+12 dB	Set the amount of boost or cut that the shelving type equalizer will apply to the region below 1 kHz.
H	Equalizer high	–12 dB...+12 dB	Set the amount of boost or cut that the shelving type equalizer will apply to the region above 1 kHz.
→	Dry:Effect balance	DRY, B1...B99, FX	Set the balance between the direct sound (DRY) and the sound processed by the effect (FX). With a setting of DRY, the effect will be turned off. With a setting of FX, only the early reflection sound will be heard. Other settings set the proportion of the direct sound and effect sound. D-mod ☞P. 175.

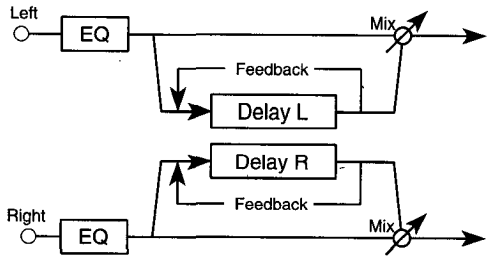
13, 14: Stereo Delay

This effect produces a stereo delay (echo pattern). Since it is a stereo effect, you can set different delay times for left and right to pan the echoes in interesting ways. The Hi Damp parameter attenuates the high frequencies, making the delay repeats sound more natural.

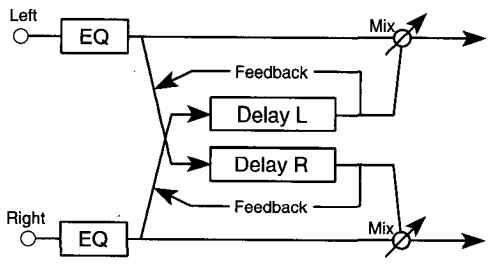
13: Stereo Delay applies feedback independently for the left and right channels.

14: Cross Delay sends the delay feedback from the left to the right, and from the right to the left channel, making the sound bounce between the left and right channels.

These two effects route the left and right channels through a two-band shelving equalizer before applying the delay.



Stereo Delay



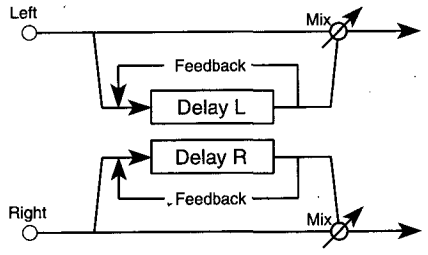
Cross Delay

L	Delay time L	0...500 ms	Set the length of the left channel delay.
R	Delay time R	0...500 ms	Set the length of the right channel delay.
F	Feedback	–99%...+99%	Set the amount of feedback; i.e., the amount of the delayed signal that will be returned to the input of the delay. Higher settings will produce a greater number of delay repeats, and it will take longer for the echoes to die away. Negative settings will invert the phase of the feedback, causing the echoes to have a harder tone quality, and less of a hollow feeling.
HD	High damp	0%...99%	Set the degree to which the high frequencies will be attenuated. Higher settings will cause the high frequencies to decay more rapidly.

L	Equalizer low	–12 dB...+12 dB	Set the amount of boost or cut that the shelving type equalizer will apply to the region below 1 kHz.
H	Equalizer high	–12 dB...+12 dB	Set the amount of boost or cut that the shelving type equalizer will apply to the region above 1 kHz.
→	Dry:Effect balance	DRY, B1...B99, FX	Set the balance between the direct sound (DRY) and the sound processed by the effect (FX). With a setting of DRY, the effect will be turned off. With a setting of FX, only the delayed sound will be heard. Other settings set the proportion of the direct sound and effect sound. D-mod ☞P. 175.

15: Dual Delay

15: Dual Delay applies an independent mono delay to the left and right input signals.



	Delay time L	0...500 ms	Set the delay length of the left channel.
L	Feedback L	–99%...+99%	Set the amount of feedback for the left channel; i.e., the amount of the delayed signal that will be returned to the input of the delay. Higher settings will produce a greater number of delay repeats, and it will take longer for the echoes to die away. Negative settings will invert the phase of the feedback, causing the echoes to have a harder tone quality, and less of a hollow feeling.
HD	High damp L	0%...99%	Set the degree to which the high frequencies of the left channel will be attenuated. Higher settings will cause the high frequencies to decay more rapidly.
→	Dry:Effect balance	DRY, B1...B99, FX	Set the balance between the direct sound (DRY) and the sound processed by the effect (FX) for the left channel. With a setting of DRY, the effect will be turned off. With a setting of FX, only the echo will be heard. Other settings set the proportion of the direct sound and effect sound. D-mod ☞P. 175.
	Delay time R	0...500 ms	Set the delay length of the right channel.
R	Feedback R	–99%...+99%	Set the amount of feedback for the right channel. The contents are the same as for the Feedback L parameter.
HD	High damp R	0%...99%	Set the degree to which the high frequencies of the right channel will be attenuated. Higher settings will cause the high frequencies to decay more rapidly.
→	Dry:Effect balance	DRY, B1...B99, FX	Set the balance between the direct sound (DRY) and the sound processed by the effect (FX) for the right channel. The contents are the same as for the DRY:FX parameter explained above. D-mod ☞P. 175.

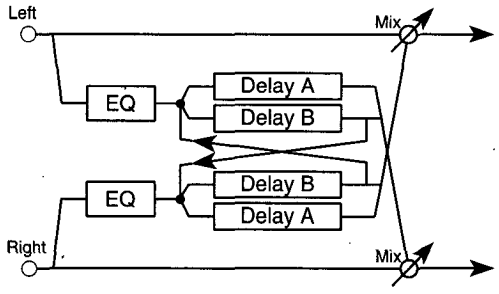
16...18: Multitap Delay

Multitap delay passes the input signals through two independent delays. The multi-echo effect that this produces will create a pair of echoes for each note that is played.

16: Multitap Dly1 is the standard multitap delay.

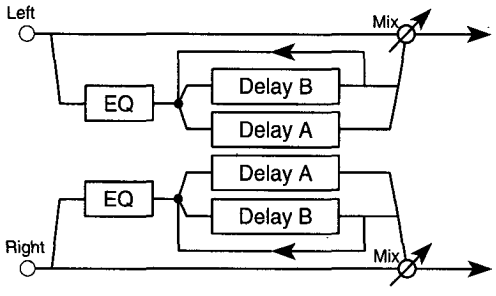
17: Multitap Dly2 cross-pans the signals, causing the echoed left and right channel signals to change places.

18: Multitap Dly3 exchanges the feedback between channels, causing each pair of echoes to switch between left and right.

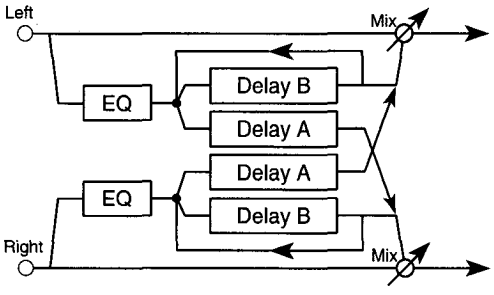


Multitap Delay 3

Each of these three effects provides a two-band shelving equalizer for the left and right channels.

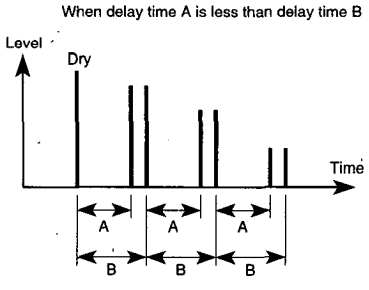


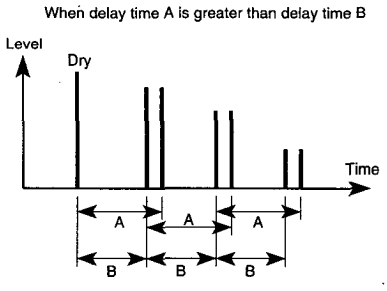
Multitap Delay 1



Multitap Delay 2

Of the two delays, feedback is applied only to one (delay B). This means that the timing of the second and subsequent echoes produced by both delays will be determined by the Delay B parameter, as shown in the following diagrams.





A	Delay time A	0...500 ms	Set the length of Delay A.
B	Delay time B	0:..500 ms	Set the length of Delay B.
F	Feedback	–99%...+99%	Set the amount of feedback; i.e., the amount of the Delay B signal that will be returned to the input of the delay. Higher settings will produce a greater number of delay repeats, and it will take longer for the echoes to die away. Negative settings will invert the phase of the feedback, causing the echoes to have a harder tone quality, and less of a hollow feeling.
L	Equalizer low	–12 dB...+12 dB	Set the amount of boost or cut that the shelving type equalizer will apply to the region below 1 kHz.
H	Equalizer high	–12 dB...+12 dB	Set the amount of boost or cut that the shelving type equalizer will apply to the region above 1 kHz.
→	Dry:Effect balance	DRY, B1...B99, FX	Set the balance between the direct sound (DRY) and the sound processed by the effect (FX). With a setting of DRY, the effect will be turned off. With a setting of FX, only the echoes will be heard. Other settings set the proportion of the direct sound and effect sound. D-mod ☞P. 175.

19, 20: Chorus

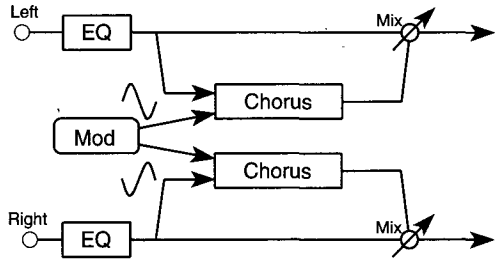
The chorus effects use an LFO (low frequency oscillator) to modulate the delay time, adding depth to the sound. This delay produces a slight variance in pitch, and when it is combined with the original signal, an effect as though multiple instruments were playing in unison is produced.

As with reverb, this effect is indispensable for music production using electronic musical instruments. It is especially widely used on synth pads such as strings and vocal chorus, and applying a chorus effect to such sounds will add a character of enveloping spaciousness. However much you may like this, it is still not a good idea to apply chorus to all of your sounds. Although chorus does add spaciousness to the sound, it can also turn sound into un-expressive mush. It is up to you, the musician, to use chorus appropriately for the type of music that you wish to create.

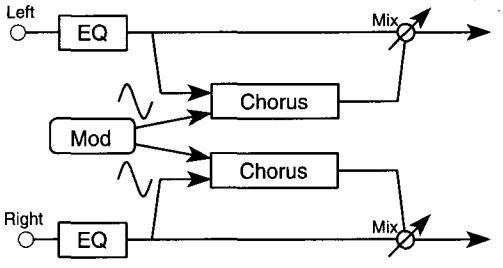
19: Chorus 1 modulates the left and right channel delays in opposite phase, causing the stereo image to sway from side to side.

20: Chorus 2 modulates both channels with the same phase.

For either effect, the left and right channel signals are sent through a two-band shelving equalizer before the chorus effect is applied.



Chorus 1



Chorus 2

T	Delay time	0...200 ms	Set the basic delay length. Both channels use the same delay time.
S	Modulation speed	0.03...30 Hz	Set the speed of the LFO that modulates the delay. For a standard chorus effect, use a low frequency (approximately 1 Hz).
M	Modulation depth	0...99	Set the depth at which the LFO will modulate the delay time. Higher settings will cause the modulation effect to be more pronounced. With a setting of 0 there will be no chorus effect.
	LFO waveform	SIN, TRI	Select the waveform with which the LFO will modulate the delay time. You can select either sine wave (SIN) or triangle wave (TRI).
L	Equalizer low	–12 dB...+12 dB	Set the amount of boost or cut that the shelving type equalizer will apply to the region below 1 kHz.
H	Equalizer high	–12 dB...+12 dB	Set the amount of boost or cut that the shelving type equalizer will apply to the region above 1 kHz.
→	Dry:Effect balance	DRY, B1...B99, FX	Set the balance between the direct sound (DRY) and the sound processed by the effect (FX). With a setting of DRY, the effect will be turned off. With a setting of FX, only the chorus sound will be heard. Other settings set the proportion of the direct sound and effect sound. D-mod ☞P. 175.

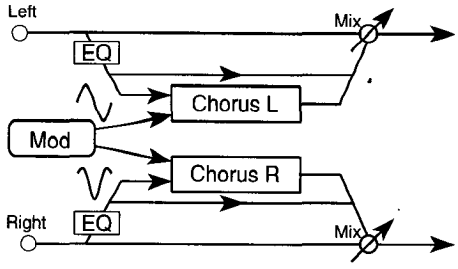
21, 22: Quadrature Chorus

The Quadrature Chorus effect is similar to the previously-described Stereo Chorus. The difference is that the modulation applied by the LFO to the left and right channels is 90 degrees out of phase.

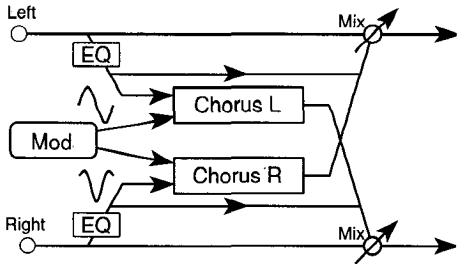
21: Quad Chorus is the standard type, and processes the left and right channels independently.

22: XOver Chorus mixes the chorused signal of each channel with the output of the other channel, producing a cross-over effect.

For either effect, the left and right channel signals are sent through a two-band shelving equalizer before the chorus effect is applied.



Quad Chorus

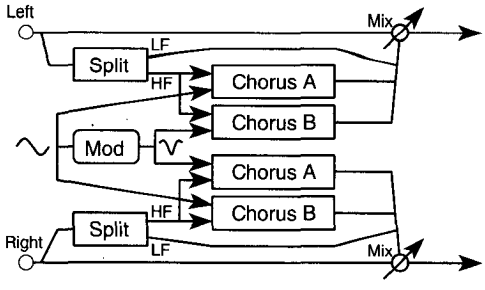


XOver Chorus

L	Delay time L	0...250 ms	Set the basic delay length for the left channel.
R	Delay time R	0...250 ms	Set the basic delay length for the right channel.
→S	Modulation speed	1...99	Set the speed of the LFO that modulates the delay. Higher values will produce faster modulation. D-mod ☞P. 175.
M	Modulation depth	0...99	Set the depth at which the LFO will modulate the delay time. Higher settings will cause the modulation effect to be more pronounced. With a setting of 0 there will be no chorus effect.
	LFO shape	T+10...T–10, S–10...S+10	Select the waveform with which the LFO will modulate the delay time. You can select either sine wave (S) or triangle wave (T). The numeric value selects the character of the waveform. Increasingly positive (+) values will cause the peak of the waveform to become broader, and increasingly negative (–) values will cause the peak of the waveform to become sharper.
L	Equalizer low	–12 dB...+12 dB	Set the amount of boost or cut that the shelving type equalizer will apply to the region below 1 kHz.
H	Equalizer high	–12 dB...+12 dB	Set the amount of boost or cut that the shelving type equalizer will apply to the region above 1 kHz.
	Dry:Effect balance	DRY, 99:1...1:99, FX	Set the balance between the direct sound (DRY) and the sound processed by the effect (FX). With a setting of DRY, the effect will be turned off. With a setting of FX, only the chorus sound will be heard. Other settings set the proportion of the direct sound and effect sound.

23: Harmonic Chorus

23: Harmonic Cho. is a type of quadrature chorus in which a filter is used to divide the input signal into low and high frequency ranges, and two chorus systems are applied only to the high frequency range. It is effective on low frequency range sounds such as bass.



A	Delay time A	0...500 ms	Set the basic delay length for chorus unit A.
B	Delay time B	0...500 ms	Set the basic delay length for chorus unit B.
→S	Modulation speed	1...99	Set the speed of the LFO that modulates the delay. Higher values will produce faster modulation. D-mod ☞P. 175.
M	Modulation depth	0...99	Set the depth at which the LFO will modulate the delay time. Higher settings will cause the modulation effect to be more pronounced. With a setting of 0 there will be no chorus effect.

SP	Filter split point	0...18	Specify the frequency at which the filter will divide the input signal into high and low frequency ranges. Higher settings will raise the split point frequency. The chorus effect will apply only to the portion above this frequency. The table below shows the correspondence between this parameter value and the actual frequency.
	Dry:Effect balance	DRY, B1...B99, FX	Set the balance between the direct sound (DRY) and the sound processed by the effect (FX). With a setting of DRY, the effect will be turned off. With a setting of FX, only the chorus sound will be heard. Other settings set the proportion of the direct sound and effect sound.

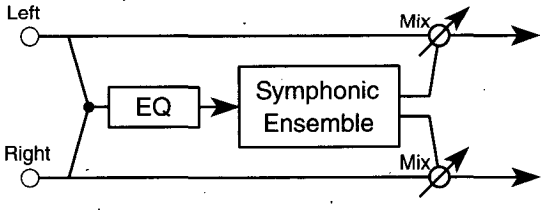
Value	Frequency	Value	Frequency
0	160 Hz	10	1.60 kHz
1	200 Hz	11	2.00 kHz
2	250 Hz	12	2.50 kHz
3	320 Hz	13	3.20 kHz
4	400 Hz	14	4.00 kHz
5	500 Hz	15	5.00 kHz
6	640 Hz	16	6.40 kHz
7	800 Hz	17	8.00 kHz
8	1.00 kHz	18	10.0 kHz
9	1.25 kHz		

24: Symphonic Ensemble

The Symphonic Ensemble effect is essentially identical to the chorus type effects discussed earlier, but is especially effective when used on large-scale ensembles such as orchestral strings.

24: Symphonic Ens. mixes the left and right channel signals before applying the ensemble effect. The signal processed by the effect will be output equally from both channels.

A two-band shelving equalizer is applied to the sound of the left and right channels before the ensemble effect is applied.



M	Modulation depth	0...99	Set the depth at which the LFO will modulate the delay time. Higher settings will cause the modulation effect to be more pronounced. With a setting of 0 there will be no ensemble effect.
L	Equalizer low	–12 dB...+12 dB	Set the amount of boost or cut that the shelving type equalizer will apply to the region below 1 kHz.
H	Equalizer high	–12 dB...+12 dB	Set the amount of boost or cut that the shelving type equalizer will apply to the region above 1 kHz.
→	Dry:Effect balance	DRY, B1...B99, FX	Set the balance between the direct sound (DRY) and the sound processed by the effect (FX). With a setting of DRY, the effect will be turned off. With a setting of FX, only the ensemble sound will be heard. Other settings set the proportion of the direct sound and effect sound. D-mod ☞Pagina 175 in questo manuale.

This Symphonic Ensemble effect cannot be used simultaneously with any one of the following modulation effects.

Effect types		Effect types	
19–20	Chorus	35–36	Tremolo
21–22	Quadrature Chorus	38–39	Chorused/Flanged Delay
23	Harmonic Chorus	42	Delay & Chorus
24	Symphonic Ensemble	43	Delay & Flanger
25–27	Flanger	46	Delay & Phaser
32–33	Phaser	47	Delay & Rotary Speaker
34	Rotary Speaker		

25...27: Flanger

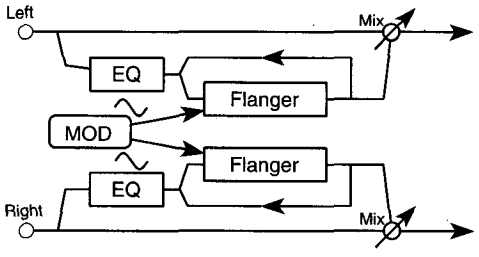
Flanging operates on basically the same principle as chorus-type effects, but adds a feedback loop to the delay output. It produces a chorus-like effect, but can also create a feeling of pitch even on non-pitched sounds. In particular when used on sounds with a rich overtone structure, such as cymbals, flanging can produce very intense effects.

25: Flanger 1 applies modulation to both channels using the same phase.

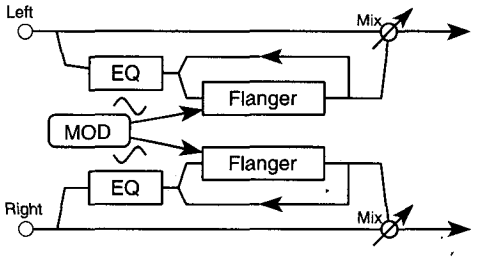
26: Flanger 2 modulates the two channels in opposite phase, causing the stereo image to move back and forth.

27: XOver Flanger modulates the two channels in opposite phase, and swaps the feedback signal.

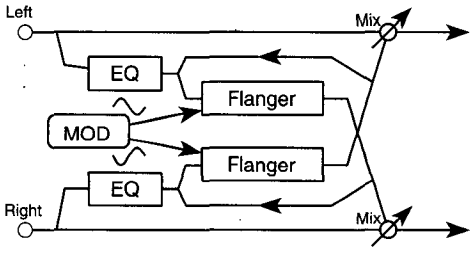
For each of these three flangers, a two-band shelving equalizer is applied to the signals of the right and left channels before the flanging effect is applied.



Flanger 1



Flanger 2



XOver Flanger

T	Delay time	0...200 ms	Set the basic delay length. Both channels use the same delay time.
M	Modulation depth	0...99	Set the depth at which the LFO will modulate the delay time. Higher settings will cause the modulation effect to be more pronounced. With a setting of 0 there will be no flanger effect.
→S	Modulation speed	1...99	Set the speed of the LFO that modulates the delay. For a standard flanger effect, set a low frequency (approximately 1 Hz). D-mod ☞P. 175.
F	Feedback	–99%...+99%	Set the amount of feedback; i.e., the amount of the signal that will be returned to the input of the flanger. As this value is increased, the resonance produced by the flanger effect will be increased. Negative values will invert the phase of the feedback, lowering the pitch of the effect sound by 1 octave.

L	Equalizer low	–12 dB...+12 dB	Set the amount of boost or cut that the shelving type equalizer will apply to the region below 1 kHz.
H	Equalizer high	–12 dB...+12 dB	Set the amount of boost or cut that the shelving type equalizer will apply to the region above 1 kHz.
	Dry:Effect balance	DRY, B1...B99, FX	Set the balance between the direct sound (DRY) and the sound processed by the effect (FX). With a setting of DRY, the effect will be turned off. With a setting of FX, only the flanger effect sound will be heard. Other settings set the proportion of the direct sound and effect sound.

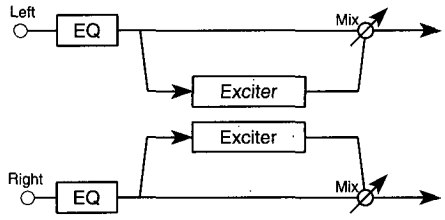
28: Exciter

An exciter adds harmonics (overtones) to emphasize a specific frequency region, adding sparkle and definition to the sound. It is most effective when applied to solo instruments such as electric guitar or lead synth, and will push the sound into the foreground.

For example if when playing in an ensemble (whether using the iS40/iS50 by itself, or in a band with other instruments) you have ever felt that the iS40/iS50 sound you were playing tended to be smothered by the other sounds or by instruments other people were playing (unlikely, since the iS40/iS50 is a powerful-sounding instrument with plenty of presence!), you might try using this Exciter effect.

28: Exciter processes the signals of the left and right channels independently.

A two-band shelving equalizer is provided for each channel.



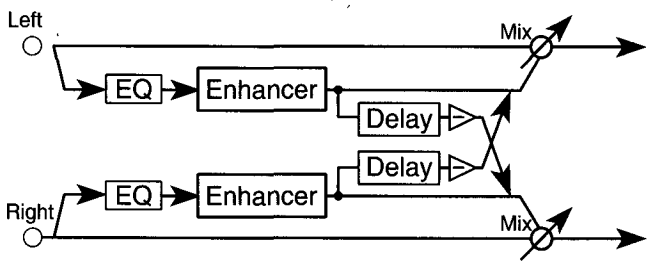
D	Harmonic density	–99...+99	Specify the density of the harmonics. As this value is increased, the exciter effect will be deeper. Negative settings will attenuate the harmonics, producing a thinner sound.
HS	Hot spot	1...10	Specify the center frequency that will be emphasized by the exciter effect. Harmonics will be added around this frequency. Higher settings will raise the frequency at which the emphasis occurs.
L	Equalizer low	–12 dB...+12 dB	Set the amount of boost or cut that the shelving type equalizer will apply to the region below 1 kHz.
H	Equalizer high	–12 dB...+12 dB	Set the amount of boost or cut that the shelving type equalizer will apply to the region above 1 kHz.
→	Dry:Effect balance	DRY, B1...B99, FX	Set the balance between the direct sound (DRY) and the sound processed by the effect (FX). With a setting of DRY, the effect will be turned off. With a setting of FX, only the exciter effect sound will be heard. Other settings set the proportion of the direct sound and effect sound. D-mod ☞P. 175.

29: Enhancer

The enhancer effect emphasizes the sound by adding harmonics that increase the clarity of the sound and give it greater definition. A short phase-inverted delay is applied to each channel, giving the sound greater spaciousness.

29: Enhancer processes the left and right channel signals separately.

The signals are sent through a two-band shelving equalizer before the exciter effect and delay effect are applied.



D	Harmonic density	1...99	Specify the density of the harmonics that will be added to the signal. As this value is increased, the exciter effect will be deeper.
HS	Hot spot	1...20	Specify the center frequency that will be emphasized by the exciter portion of the effect. Harmonics will be added around this frequency. Higher settings will raise the frequency at which the emphasis occurs.
SW	Stereo width	0...99	Set the proportion at which the delayed signal of each channel is added to the output of the other channel. Higher settings will widen the stereo image of the delay effect.
T	Delay time	1...99	Set the basic delay length. Both channels use the same delay time.
L	Equalizer low	–12 dB...+12 dB	Set the amount of boost or cut that the shelving type equalizer will apply to the region below 1 kHz.
H	Equalizer high	–12 dB...+12 dB	Set the amount of boost or cut that the shelving type equalizer will apply to the region above 1 kHz.
→	Dry:Effect balance	DRY, B1...B99, FX	Set the balance between the direct sound (DRY) and the sound processed by the effect (FX). With a setting of DRY, the effect will be turned off. With a setting of FX, only the exciter effect sound will be heard. Other settings set the proportion of the direct sound and effect sound. D-mod ☞P. 175.

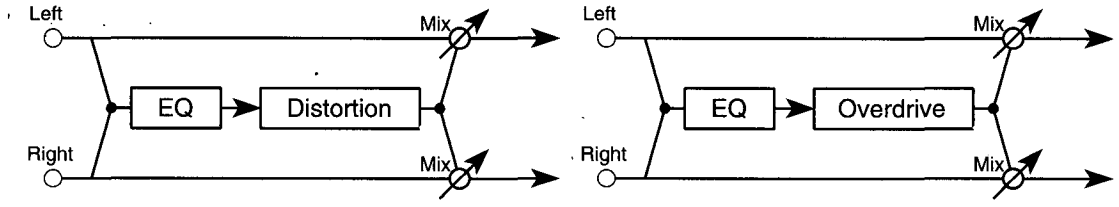
30, 31: Distortion

Distortion effects were originally designed for guitar, and simulate the distortion which occurs in the signal when the input signal gain exceeds the input capacity. Distortion adds depth to individual notes, and is effective on solos. If chords are played with this effect in use, the sound will be muddy, but if you're after a true "rock" atmosphere, it may be just what you want.

This effect passes the left and right channels through a two-band shelving equalizer before applying distortion to create a slight "wah" effect.

30: Distortion produces a hard and solid distortion of the type often used in hard rock or heavy metal. It is particularly effective on solo instruments.

31: Overdrive simulates the warm distortion that occurs on a tube amplifier. Applying it to a guitar or organ sound will produce a bluesy sound.



Distortion *Overdrive*

D	Drive	1...111	Set the depth of the distortion effect. Higher settings will raise the distortion level.
→ HS	Hot spot	0...99	Set the center frequency at which the wah filter will be applied. As this value is raised, the wah frequency will rise. D-mod ☞P. 175.

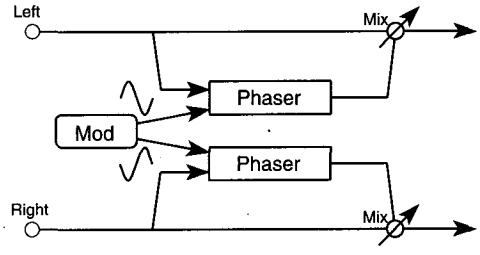
R	Resonance	0...99	Set the amount of resonance that is applied by the wah filter. Higher settings will produce a deeper wah effect.
L	Equalizer low	–12 dB...+12 dB	Set the amount of boost or cut that the shelving type equalizer will apply to the region below 1 kHz.
H	Equalizer high	–12 dB...+12 dB	Set the amount of boost or cut that the shelving type equalizer will apply to the region above 1 kHz.
DL	Distortion level	0...99	Set the output level of the distorted sound. Higher settings will produce more distortion. With a setting of 0 there will be no distortion effect.
	Dry:Effect balance	DRY, B1...B99, FX	Set the balance between the direct sound (DRY) and the sound processed by the effect (FX). With a setting of DRY, the effect will be turned off. With a setting of FX, only the distortion effect sound will be heard. Other settings set the proportion of the direct sound and effect sound.

32, 33: Phaser

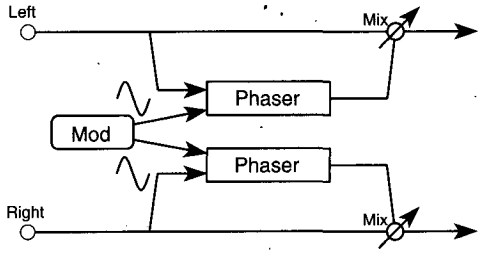
While chorus and flanger effects modulate the delay time, the phaser effect modulates the phase of the input signal itself, producing a more distinct modulation effect. Phasers (also known more accurately as phase shifters) are especially effective on electric piano and electric guitar sounds.

32: Phaser 1 applies opposite-phase modulation to the signals of the left and right channels, causing the stereo image to move from side to side.

33: Phaser 2 applies same-phase modulation to the left and right channels.



Phaser 1



Phaser 2

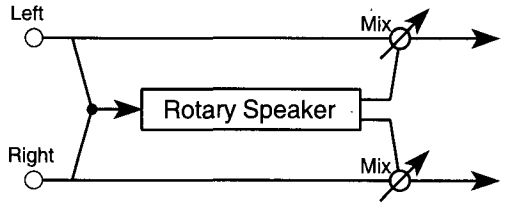
HS	Hot spot	0...99	Set the center frequency at which the phase shift effect will be applied. Higher settings will raise the frequency that is shifted.
→S	Modulation speed	0.03...30 Hz	Set the speed of the LFO that modulates the delay. Higher settings will produce faster modulation. D-mod ☞P. 175.
M	Modulation depth	0...99	Set the depth at which the LFO will modulate the phase shift. Higher settings will cause the modulation effect to be more pronounced. With a setting of 0 there will be no phaser effect.
F	Feedback	–99%...+99%	Set the amount of feedback; i.e., the amount of delayed signal that will be returned to the input of the phaser. As this value is increased, the resonance produced by the phaser effect will be increased. Negative values will invert the phase of the feedback and increase the resonance.
	LFO waveform	SIN, TRI	Select the waveform that the LFO will use to modulate the phase of the signal. You can select either sine wave (SIN) or triangle wave (TRI).
	Dry:Effect balance	DRY, 99:1...1:99, FX	Set the balance between the direct sound (DRY) and the sound processed by the effect (FX). With a setting of DRY, the effect will be turned off. With a setting of FX, only the phaser effect sound will be heard. Other settings set the proportion of the direct sound and effect sound.

34: Rotary Speaker

This effect simulates the sound of the rotary speakers that are popularly used with electric organs. Rotary speakers contain a motor which rotates the high frequency speaker horn at either a high or a low speed. The

rotary speaker effect can be used in a variety of ways, but is generally used by changing the rotary speaker's rotational speed from slow to fast at points in the music where the musician wishes to build up or add excitement. This creates an effect of movement as if the sound were being shaken.

34: Rotary Speaker mixes the input signals from the left and right channels, and then creates the rotary effect using a completely independent LFO (low frequency oscillator). The signal of neither channel will be equalized.



VIB	Vibrato depth	0...15	Set the depth of the vibrato effect. (This corresponds to the diameter of the rotating speaker horn.) Higher values will produce a more definite vibrato effect.
AC	Acceleration	1...15	When dynamic modulation is used to switch the rotational speed, this parameter sets the time required to accelerate from low speed to high speed (or to decelerate from high to low speed). Higher settings will result in faster acceleration or deceleration.
S	Slow speed	1...99	Set the rotational speed for when the LFO is switched to the slow speed. Higher settings will produce faster rotation.
F	Fast speed	1...99	Set the rotational speed for when the LFO is switched to the fast speed. Higher settings will produce faster rotation.
	Dry:Effect balance	DRY, 99:1...1:99, FX	Set the balance between the direct sound (DRY) and the sound processed by the effect (FX). With a setting of DRY, the effect will be turned off. With a setting of FX, only the rotary speaker effect sound will be heard. Other settings set the proportion of the direct sound and effect sound.

You can use dynamic modulation to switch between slow and fast while you play. Use a switch-type controller for this purpose. I.e., even if a continuous controller is moved rapidly, this will not cause the rotational speed to follow the motion, and will not affect the way in which the low and high speeds switch. The rotational speed is not affected by the speed at which the controller is moved, but will change to the new speed at the rate specified by the AC (acceleration) parameter. D-mod ☞P. 175.

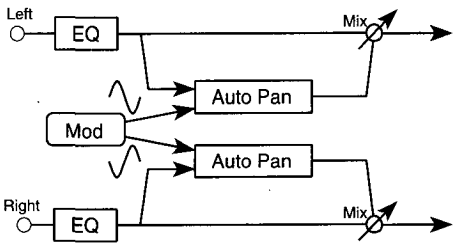
35, 36: Tremolo

Tremolo is an effect that uses an LFO (low frequency oscillator) to modulate the output volume. It is particularly effective on slow melody lines or when playing spacious chords, but is not very suitable when playing rapid phrases.

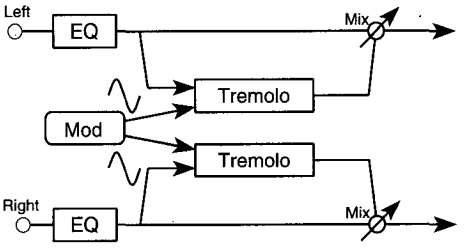
35: Auto Pan applies opposite-phase modulation to the volume of the left and right channels, causing an effect as though the sound were being panned between left and right.

36: Tremolo applies same-phase modulation, producing a standard tremolo effect.

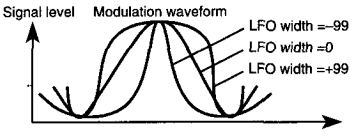
For both effects, the sound passes through a two-band shelving equalizer before the tremolo effect is applied.



Auto Pan



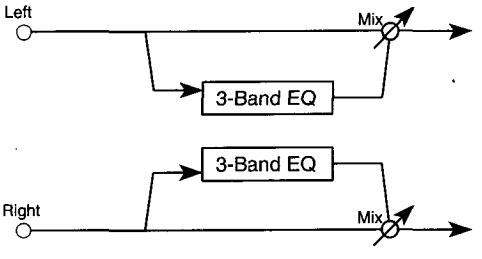
Tremolo

	LFO waveform	SIN, TRI	Select the waveform that the LFO will use to modulate the input level of the signal. You can select either sine wave (SIN) or triangle wave (TRI).
W	LFO width	–99...+99	Adjust the LFO waveform. Increasingly positive settings will cause the peak of the waveform to become broader, and negative settings will cause the peak of the waveform to become narrower and sharper. 
S	Modulation speed	0.03...30 Hz	Set the speed of the LFO that modulates the input level. Higher settings will produce faster modulation.
M	Modulation depth	0...99	Set the depth at which the LFO will modulate the amplitude. Higher settings will cause the modulation effect to be more pronounced. With a setting of 0 there will be no tremolo effect.
L	Equalizer low	–12 dB...+12 dB	Set the amount of boost or cut that the shelving type equalizer will apply to the region below 1 kHz.
H	Equalizer high	–12 dB...+12 dB	Set the amount of boost or cut that the shelving type equalizer will apply to the region above 1 kHz.
→	Dry:Effect balance	DRY, B1...B99, FX	Set the balance between the direct sound (DRY) and the sound processed by the effect (FX). With a setting of DRY, the effect will be turned off. With a setting of FX, only the tremolo effect sound will be heard. Other settings set the proportion of the direct sound and effect sound. D-mod P. 175.

37: Parametric Equalizer

37: Parametric Equalizer allows you to modify the tone by adjusting the boost or cut in three frequency bands. This is a useful way to add punch to drums or bass.

For the low, center, and high frequency bands, you can specify the cutoff (center) frequency and the gain.



LF	Low frequency	0...29	Set the cutoff frequency of the low frequency filter. Higher settings will raise the cutoff frequency.
G	Low gain	–12 dB...+12 dB	Set the amount of boost or cut that will be applied to the region below the cutoff frequency specified by the LF parameter.

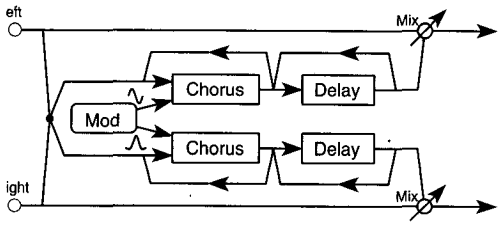
→M	Middle frequency	0...99	Set the center frequency of the mid-range filter. Higher settings will raise the middle frequency. D-mod ☞Pagina 175 in questo manuale.
G	Middle gain	–12 dB...+12 dB	Set the amount of boost or cut that will be applied to the region centered at the frequency specified by the M parameter.
W	Middle width	0...99	Set the width of the band affected by the mid-range filter. Higher settings will cause the range being cut or boosted by the filter to be narrower.
HF	High frequency	0...29	Set the cutoff frequency of the high frequency filter. Higher settings will raise the cutoff frequency.
G	High gain	–12 dB...+12 dB	Set the amount of boost or cut that will be applied to the region above the cutoff frequency specified by the HF parameter.
	Dry:Effect balance	DRY, B1...B99, FX	Set the balance between the direct sound (DRY) and the sound processed by the effect (FX). With a setting of DRY, the effect will be turned off. With a setting of FX, only the equalized sound will be heard. Other settings set the proportion of the direct sound and effect sound.

38, 39: Chorused or Flanged Delay

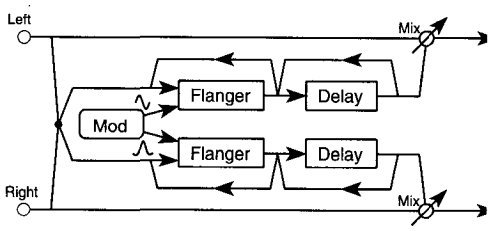
These are dual effects which connect two effects in series. I.e., the sound of the left and right channels is processed first by a mono-in stereo-out chorus or flanger, and then by a stereo delay. This is especially effective when used on solo instruments.

38: Chorus-Delay connects chorus and delay in series.

39: Flanger-Delay connects flanger and delay. Both the chorus and flanger use quadrature modulation; i.e., modulation is applied at a 90 degree phase difference to the left and right channels.



Chorus-Delay



Flanger-Delay

T	Delay time	0...50 ms	Set the basic delay length for the chorus and flanger effects. Both channels use the same delay time.
F	Feedback	–99%...+99%	Set the amount of feedback that will be returned to the input of the flanger. As this value is increased, the resonance produced by the flanger effect will be increased. Negative values will invert the phase of the feedback, lowering the pitch of the effect sound by 1 octave.
S	Modulation speed	1...99	Set the speed of the LFO that modulates the delay of the chorus or flanger. Higher settings will cause faster modulation.
M	Modulation depth	0...99	Set the depth at which the LFO will modulate the delay time. Higher settings will cause the modulation effect to be more pronounced. With a setting of 0 there will be no chorus effect or flanger effect.
T	Delay time	0...450 ms	Set the basic delay length for the delay effect.
F	Feedback	–99%...+99%	Set the amount of feedback that will be returned to the input of the delay. As this value is increased, the number of delay repeats will increase, and it will take longer for the echoes to disappear. Negative values will invert the phase of the feedback, causing the tone of the echo to be harder, and less hollow-sounding.
→	Dry:Effect balance	DRY, 99:1...1:99, FX	For both the chorus or flanger effect and the delay effect, set the balance between the direct sound (DRY) and the sound processed by the effect (FX). With a setting of DRY, the effect will be turned off. With a setting of FX, only the echoed sound processed by the chorus or flanger effect will be heard. Other settings set the proportion of the direct sound and effect sound. D-mod ☞P. 175.

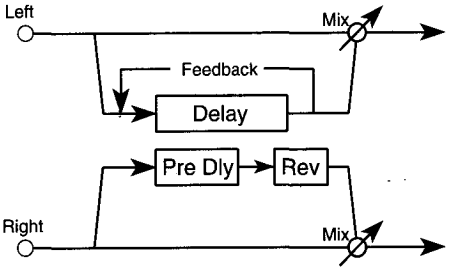
40, 41: Delay & Reverb

These are dual effects which connect a mono delay and a mono reverb.

40: Delay/Hall combines a delay and a hall reverb.

41: Delay/Room combines a delay and a room reverb.

You can use dynamic modulation to control the DRY:FX balance parameters of both the delay and reverb while you play.



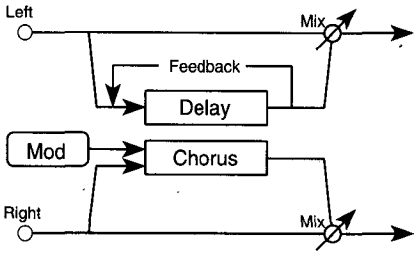
T	Delay time	0...500 ms	Set the basic delay length for the delay effect.
F	Feedback	–99%...+99%	Set the amount of feedback; i.e., the amount of the delayed sound that will be returned to the input of the delay. As this value is increased, the number of delay repeats will increase, and it will take longer for the echoes to disappear. Negative values will invert the phase of the feedback, causing the tone of the echo to be harder, and less hollow-sounding.
HD	High damp	0%...99%	Set the degree to which the high frequency range of the delayed sound will be attenuated. Higher settings will cause more rapid attenuation.
→	Dry:Effect balance	DRY, B1...B99, FX	Set the balance between the direct sound (DRY) and the sound processed by the effect (FX). With a setting of DRY, the effect will be turned off. With a setting of FX, only the echoed sound will be heard. Other settings set the proportion of the direct sound and effect sound. D-mod ☞P. 175.
	Reverb time	Depends on the effect	Set the time over which the reverberation will decay. Hall-type reverb allows a setting from 0.2–9.9 seconds, and room-type reverb allows a setting from 0.2–4.9 seconds.
P	Pre delay	0...150 ms	This parameter sets the delay from the direct sound until when the early reflections of the reverb are heard. Higher settings will cause the reverberation to be distinct, producing an echo-like sound.
HD	High damp	0%...99%	Set the degree to which the high frequency range of the reverberation will be attenuated. Higher settings will cause more rapid attenuation.
→	Dry:Effect balance	DRY, B1...B99, FX	Set the balance between the direct sound (DRY) and the sound processed by the effect (FX). With a setting of DRY, the effect will be turned off. With a setting of FX, only the reverberation will be heard. Other settings set the proportion of the direct sound and effect sound. D-mod ☞P. 175.

42: Delay & Chorus

This effect combines a mono delay and mono chorus in parallel.

42: Delay/Chorus is an effect which connects a mono delay and a mono chorus in parallel.

You can use dynamic modulation to control the DRY:FX parameters of both the delay and chorus effects while you play.



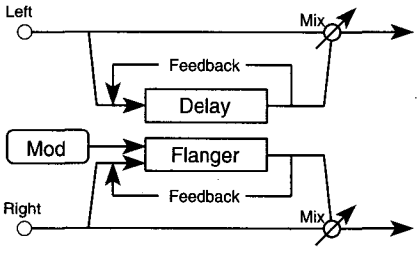
T	Delay time	0...500 ms	Set the basic delay length for the delay effect.
F	Feedback	–99%...+99%	Set the amount of feedback; i.e., the amount of the delayed sound that will be returned to the input of the delay. As this value is increased, the number of delay repeats will increase, and it will take longer for the echoes to disappear. Negative values will invert the phase of the feedback, causing the tone of the echo to be harder, and less hollow-sounding.
HD	High damp	0%...99%	Set the degree to which the high frequency range of the delayed sound will be attenuated. Higher settings will cause more rapid attenuation.
→	Dry:Effect balance	DRY, B1...B99, FX	Set the balance between the direct sound (DRY) and the sound processed by the effect (FX). With a setting of DRY, the effect will be turned off. With a setting of FX, only the echoed sound will be heard. Other settings set the proportion of the direct sound and effect sound. D-mod ☞P. 175.
	Modulation speed	0.03...30 Hz	Set the speed of the LFO that modulates the delay of the chorus effect. For a standard chorus effect, set a low frequency (approximately 1 Hz).
M	Modulation depth	0...99	Set the modulation depth of the chorus. Higher settings will cause the modulation effect to be more pronounced. With a setting of 0 there will be no chorus effect.
	LFO waveform	SIN, TRI	Select the waveform that the LFO will use to modulate the delay time. You can select either sine wave (SIN) or triangle wave (TRI).
→	Dry:Effect balance	DRY, B1...B99, FX	Set the balance between the direct sound (DRY) and the sound processed by the effect (FX). With a setting of DRY, the effect will be turned off. With a setting of FX, only the chorus sound will be heard. Other settings set the proportion of the direct sound and effect sound. D-mod ☞P. 175.

43: Delay & Flanger

This effect combines a mono delay and mono flanger in parallel.

43: Delay/Flanger is an effect that connects a mono delay and mono flanger in parallel.

You can use dynamic modulation to control the DRY:FX parameters of both the delay and flanger effects while you play.



T	Delay time	0...500 ms	Set the basic delay length for the delay effect.

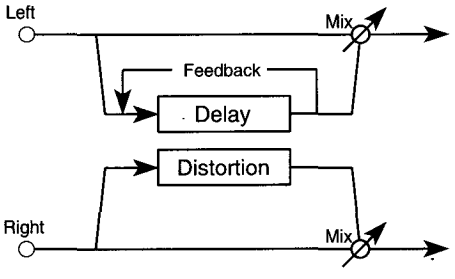
F	Feedback	–99%...+99%	Set the amount of feedback; i.e., the amount of the delayed sound that will be returned to the input of the delay. As this value is increased, the number of delay repeats will increase, and it will take longer for the echoes to disappear. Negative values will invert the phase of the feedback, causing the tone of the echo to be harder, and less hollow-sounding.
HD	High damp	0%...99%	Set the degree to which the high frequency range of the delayed sound will be attenuated. Higher settings will cause more rapid attenuation.
→	Dry:Effect balance	DRY, B1...B99, FX	Set the balance between the direct sound (DRY) and the sound processed by the effect (FX). With a setting of DRY, the effect will be turned off. With a setting of FX, only the echoed sound will be heard. Other settings set the proportion of the direct sound and effect sound. D-mod ☞P. 175.
	Modulation speed	0.03...30 Hz	Set the speed of the LFO that modulates the delay of the flanger effect. For a standard flanger effect, set a low frequency (approximately 0.18 Hz).
M	Modulation depth	0...99	Set the modulation depth of the flanger. Higher settings will cause the modulation effect to be more pronounced. With a setting of 0 there will be no modulation effect.
F	Feedback	–99%...+99%	Set the amount of feedback that will be returned to the input of the flanger. As this value is increased, the resonance produced by the flanger effect will be increased. Negative values will invert the phase of the feedback, lowering the pitch of the effect sound by 1 octave.
→	Dry:Effect balance	DRY, B1...B99, FX	Set the balance between the direct sound (DRY) and the sound processed by the effect (FX). With a setting of DRY, the effect will be turned off. With a setting of FX, only the chorus sound will be heard. Other settings set the proportion of the direct sound and effect sound. D-mod ☞P. 175.

44, 45: Delay & Distortion

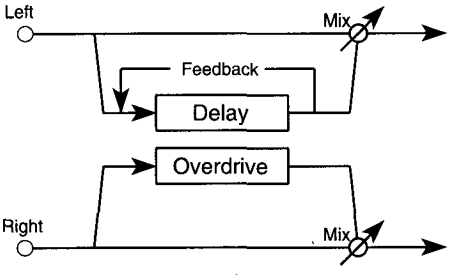
This effect combines a mono delay and mono distortion or overdrive in parallel. For example, this can be used to apply delay to a lead synth in one channel, and distortion to a guitar in the other channel.

44: Delay/Dist combines delay and distortion.

45: Delay/Overdrv combines delay and overdrive. Both distortion and overdrive include a wah effect.



Delay/Distortion



Delay/Overdrive

T	Delay time	0...500 ms	Set the basic delay length for the delay effect.
F	Feedback	–99%...+99%	Set the amount of feedback; i.e., the amount of the delayed sound that will be returned to the input of the delay. As this value is increased, the number of delay repeats will increase, and it will take longer for the echoes to disappear. Negative values will invert the phase of the feedback, causing the tone of the echo to be harder, and less hollow-sounding.
	Dry:Effect balance	DRY, B1...B99, FX	Set the balance between the direct sound (DRY) and the sound processed by the effect (FX). With a setting of DRY, the effect will be turned off. With a setting of FX, only the echoed sound will be heard. Other settings set the proportion of the direct sound and effect sound.
D	Drive	1...111	Set the depth of the distortion effect. Higher settings will raise the distortion level.

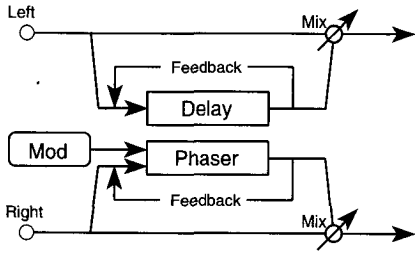
HS	Hot spot	1...99	Set the center frequency at which the wah filter will be applied. As this value is raised, the wah frequency will rise.
R	Resonance	0...99	Set the amount of resonance that is applied by the wah filter. Higher settings will produce a deeper wah effect.
DL	Distortion level	1...99	Set the output level of the distorted sound. Higher settings will produce more distortion. With a setting of 1 there will be no distortion effect.

46: Delay & Phaser

This effect combines a mono delay and mono phase shifter in parallel.

46: Delay/Phaser is an effect that connects a mono delay and mono phaser in parallel.

You can use dynamic modulation to control the DRY:FX parameters of both the delay and phaser effects while you play.

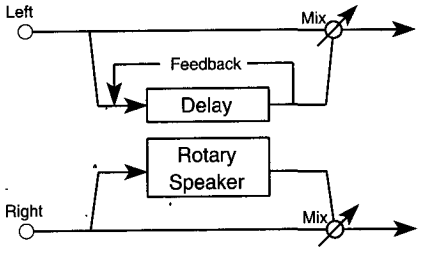


T	Delay time	0...500 ms	Set the basic delay length for the delay effect.
F	Feedback	–99%...+99%	Set the amount of feedback; i.e., the amount of the delayed sound that will be returned to the input of the delay. As this value is increased, the number of delay repeats will increase, and it will take longer for the echoes to disappear. Negative values will invert the phase of the feedback, causing the tone of the echo to be harder, and less hollow-sounding.
HD	High damp	0%...99%	Set the degree to which the high frequency range of the delayed sound will be attenuated. Higher settings will cause more rapid attenuation.
→	Dry:Effect balance	DRY, B1...B99, FX	Set the balance between the direct sound (DRY) and the sound processed by the effect (FX). With a setting of DRY, the effect will be turned off. With a setting of FX, only the echoed sound will be heard. Other settings set the proportion of the direct sound and effect sound. D-mod ☞P. 175.
	Modulation speed	0.3...30 Hz	Set the speed of the LFO that modulates the phase of the input signal. Higher settings will produce faster modulation.
M	Modulation depth	0...99	Set the depth at which the phase will be modulated. Higher settings will cause the modulation effect to be more pronounced. With a setting of 0 there will be no phaser effect.
F	Feedback	–99%...+99%	Set the amount of feedback; i.e., the amount of the delayed signal that will be returned to the input of the phaser. As this value is increased, the resonance produced by the phaser effect will be increased. Negative values will invert the phase of the feedback and increase the resonance of the effect.
→	Dry:Effect balance	DRY, B1...B99, FX	Set the balance between the direct sound (DRY) and the sound processed by the effect (FX). With a setting of DRY, the effect will be turned off. With a setting of FX, only the phaser sound will be heard. Other settings set the proportion of the direct sound and effect sound. D-mod ☞P. 175.

47: Delay & Rotary Speaker

This effect combines a mono delay with a mono rotary speaker in parallel.

47: Delay/Rotary provides a mono rotary speaker that produces a heavier tremolo than the stereo rotary speaker (34: Rotary Speaker) effect.



T	Delay time	0...500 ms	Set the basic delay length for the delay effect.
F	Feedback	–99%...+99%	Set the amount of feedback; i.e., the amount of the delayed sound that will be returned to the input of the delay. As this value is increased, the number of delay repeats will increase, and it will take longer for the echoes to disappear. Negative values will invert the phase of the feedback, causing the tone of the echo to be harder, and less hollow-sounding.
	Dry:Effect balance	DRY, B1...B99, FX	Set the balance between the direct sound (DRY) and the sound processed by the effect (FX). With a setting of DRY, the effect will be turned off. With a setting of FX, only the echoed sound will be heard. Other settings set the proportion of the direct sound and effect sound.
AC	Acceleration	1...15	When dynamic modulation is used to switch the rotational speed, this parameter sets the time required to accelerate from low speed to high speed (or to decelerate from high to low speed). Higher settings will result in faster acceleration or deceleration.
S	Slow speed	1...99	Set the rotational speed for when the LFO is switched to the slow speed. Higher settings will produce faster rotation.
F	Fast speed	1...99	Set the rotational speed for when the LFO is switched to the fast speed. Higher settings will produce faster rotation.
	Dry:Effect balance	DRY, B1...B99, FX	Set the balance between the direct sound (DRY) and the sound processed by the effect (FX). With a setting of DRY, the effect will be turned off. With a setting of FX, only the rotary speaker effect sound will be heard. Other settings set the proportion of the direct sound and effect sound.

You can use dynamic modulation to switch between slow and fast while you play. Use a switch-type controller for this purpose. I.e., even if a continuous controller is moved rapidly, this will not cause the rotational speed to follow the motion, and will not affect the way in which the low and high speeds switch. The rotational speed is not affected by the speed at which the controller is moved, but will change to the new speed at the rate specified by the AC (acceleration) parameter. D-mod ☞P. 175.

14. Appendices

Messages

In the various page displays of Arrangement Play mode and Backing Sequence mode display settings and parameters, and also when you modify settings such as volume, mute, and transpose, the iS40/iS50 will sometimes display "popup" screens that appear only for a few seconds.

In addition to these, you may occasionally see messages that provide warnings, ask for confirmation, or indicate that processing is taking place.

If a warning message is displayed, correct the settings for the measure or filename etc. as necessary, and execute the operation once again.

If a confirmation message is displayed, be aware that executing the operation may cause some or all data to be lost from the iS40/iS50's internal memory or from a floppy disk.

Then, either save the important data to disk or make a backup copy of the file before continuing the procedure.

If one of these warning or confirmation messages appears, you should also check to make sure that the type of operation itself that you are attempting to execute is actually the desired operation. (For example, make sure that while intending to execute Rename Arrangement you are not actually selecting the Write Arrangement page.)

????????.??? exists.

The filename ????????.??? that you specified as the name of a new file is already used by a different file on the same disk. Is it OK to replace (overwrite) the old file with the new file? If this is done, the contents of the old file will be lost from the disk.

Already formatted. Continue?

This message notifies you that the disk you are attempting to format is already formatted, and asks whether the operation should be continued. Make sure that you have inserted the correct disk.

Are you sure?

This message is asking whether the operation should be executed. To execute press the ENTER/YES button. To cancel without executing press the EXIT/NO button.

Can't find file

During an operation such as load, delete or rename, did you exchange disks after specifying a file?

The currently inserted floppy disk does not contain the required file. Thus, the operation that you are attempting cannot be executed.

Make sure that the correct disk is inserted.

Can't play all track. Continue?

The iS40/iS50 does not have enough memory to play all the tracks of the musical data that you specified. If you playback now, some of the tracks will not be heard.

Can't read disk.

The currently inserted floppy disk is a format which the iS40/iS50 cannot use, and the operation that you are currently attempting cannot be executed.

Make sure that the correct disk is inserted. This message may also appear if the current or voltage of your AC power is unstable.

Can't replace dir.

The filename that you specified is already being used by a directory on that disk. Thus, the operation that you are attempting cannot be executed.

Specify a different filename, and try the operation again.

Can't replace system.

The filename that you specified is already being used by a system file on that disk. Thus, the operation that you are attempting cannot be executed.

Specify a different filename, and try the operation again.

Completed.

Processing has been completed. You may continue operation as desired.

Corrupt SMF.

The specified Standard MIDI File contains damaged data. Thus, this data cannot be played back on the iS40/iS50.

Corrupt file.

The data in the specified file has been damaged. Thus, the operation that you are attempting cannot be executed.

Make sure that you have selected the correct file.

If you have a backup copy of that file, load the backup file.

Directory full.

No more directories can be created in the currently inserted floppy disk. Thus, the operation that you are attempting cannot be executed.

Either delete unneeded files from the disk, or insert a different disk in which additional files can be created, and try the operation again.

Disk full.

No more data can be written into the currently inserted floppy disk. Thus, the operation that you are attempting cannot be executed.

Either delete unneeded files from the disk, or insert a different disk that has remaining space, and try the operation again.

Disk has ??? file(s). Continue?

The disk that you are attempting to format already contains ??? files. This message asks you whether you still wish to format the disk. If you execute formatting, the files currently existing on disk will all be lost. Make sure that you have inserted the correct disk.

Disk protected.

The write protect tab of the disk is in the open (protect) position. Thus, the operation that you are attempting cannot be executed.

First make sure that the correct disk is inserted. Then, if you are sure that you don't mind for the data on the disk to be rewritten, slide the tab closed and perform the operation once again.

Empty SONG/B.SEQ

The specified backing sequence does not yet contain data. Thus, the operation that you are attempting cannot be executed.

Empty file.

The selected file does not contain data. Thus, the operation that you are attempting cannot be executed.

If disk operations are performed incorrectly, it is possible that such an empty file can be created on disk.

If you find such a file, use the Disk/Global page "Utility" (☞P. 120) function Delete File (DEL) to delete that file.

Empty measure.

This measure contains no data. Thus, the operation that you are attempting is invalid. Make sure that you have selected the correct measure.

Empty track.

This track does not contain data. Thus, the operation that you are attempting cannot be executed. Make sure that you have selected the correct track.

File protected.

The selected file has an attribute of read-only. Thus, the operation that you are attempting cannot be executed.

First make sure that you have selected the correct file. The attribute of a file on disk cannot be changed by the iS40/iS50, but you can use a personal computer to do so if you need to. If you are sure that it is OK to change the attribute of the file, insert the disk into the disk drive of a personal computer, modify the attribute of that file, insert the disk back into the iS40/iS50's disk drive, and perform the operation once again. For details on file attributes and how to change them, refer to the owner's manual for your personal computer or the manual for your computer's operating system.

Keyboard Track Empty.

Since the keyboard track contains no data, the operation that you are attempting cannot be executed. Either record data, or load data into the track before attempting the operation.

Measure not exists. Continue?

Have you specified the wrong measure? The measure number that you specified does not exist in the data.

Measure overlaps.

With the settings that you specified, the measures that you wish to copy overlap with the copy destination.

It is not possible to make settings so that the copy destination is located within the copy source.

Check the position and length of the copy source measures and the number of copies, and the location of the copy destination.

Measure won't fit.

If measures are copied or inserted as you specified, this track will exceed 999 measures.

The iS40/iS50 cannot create more than 999 measures in a track. Check the length of the measures that you wish to copy or insert, the number of copies, and the length of the insert destination track.

Missing Arrangement.

There is no arrangement file in the currently inserted disk.

Missing B.Sequence.

There is no backing sequence file in the currently inserted disk.

Missing some files.

Some of the files are missing from the currently inserted disk.

No disk in drive.

A floppy disk is not inserted in the disk drive. Correctly insert a disk into the drive, and try the operation again.

Not SMF.

The specified file is not a Standard MIDI File. Thus, this data cannot be played back on the iS40/iS50. Make sure that you have not specified the wrong file.

Not enough memory.

The iS40/iS50 does not have enough memory for work area. Thus, the operation that you are attempting cannot be executed. In order to allocate memory space, you will need to perform one of the operations described below. However if any of the data in memory is important and must not be lost, use the Disk/Global page "Save" or Song Edit "Page 13: Save" operation to save the data to floppy disk.

If this message appears when you are in Song Edit mode, Backing Sequence mode, or in Disk/Global mode when you are using LOAD ALL or LOAD ONE to load backing sequence data, you will need to delete backing sequence data or song edit data. If this message appears when you are using the Disk/Global mode operation LOAD ONE to load style data, you will need to delete style data from the user bank.

Okay to erase B.Seq & Song Edit

The iS40/iS50 does not have enough memory to playback the SMF format 1 data that you specified.

In order to allocate sufficient memory space, is it OK to erase the backing sequence data or the song editing data from internal memory? If internal memory contains data that you do not wish to lose, use the Disk/Global "Save" page backing sequence save operation or the Song Edit mode "Page 13: Save" operation to save that data to disk.

SMF format 2.

The specified file is a Standard MIDI File in Format 2. Thus, this data cannot be played back by the iS40/iS50. Make sure that the correct file has been selected.

Source is empty.

If this appears during a Copy Measure operation ...

Are you attempting to copy a measure that contains no data to another measure? It is not possible to copy a measure which contains no data to another measure. Re-specify the correct measure.

Alternatively, it is possible that the track itself contains no data at all. Make sure that you have selected the correct track.

If this appears during a Bounce Track operation ...

Are you attempting to bounce a track containing no data to another track? It is not possible to bounce a track containing no data to another track. Re-specify the correct track.

Check once again that you have selected the correct track.

Wait a moment ...
Now loading ...
Now saving ...
Now formatting ...

These message indicate that a disk-related operation is in progress. Please wait until the operation is completed.

Troubleshooting

General problems

Problem	Action
Power does not turn on	Is the power cable plugged into an appropriate outlet?
	Is the power switch turned on?
	If the power still does not turn on, contact your Korg dealer or a Korg service center.
No sound	If you are using a sound system, check the connections of your amp and mixer etc.
	If you are using a sound system, check that the power of your amp and mixer is turned on, and that connections are correct.
	Is the MASTER VOLUME slider of the iS40/iS50 raised?
	Is Local Control turned off? Turn it on.
Wrong sounds are heard when playing an arrangement, style, backing sequence, or song etc.	Have the User bank (bank F) programs or the drum programs Dr27 or Dr28 been partially modified? Load the appropriate data.
	Has one of the two user drum kits been partially modified? Load the appropriate data.
	Has the arrangement data been partially modified? Load the appropriate data.
Arrangement or backing sequence does not play the correct song	Does the arrangement or backing sequence use one of the user styles? If so, have you loaded a different style from disk? Load the appropriate data.
Sound does not stop	Make sure that the damper switch polarity parameter is set correctly.
Selected arrangement or backing sequence does not playback	Make sure that the MIDI Clock Source is set to INT. If you are using an external clock source, you must set the MIDI Clock Source parameter to EXT, and set the external device to transmit MIDI Clock messages.
Cannot record in Backing Sequence mode	Make sure that the MIDI Clock Source is set to INT. If you are using an external clock source, you must set the MIDI Clock Source parameter to EXT, and set the external device to transmit MIDI Clock messages.
Does not respond to transmitted MIDI data	Make sure that all MIDI cables are connected correctly.
	Make sure that the iS40/iS50 is receiving MIDI messages on the same channel as they are being transmitted.
	Make settings so that the iS40/iS50 does not filter out the incoming MIDI messages.
Some drum sounds are not played	Check the panpot and effect send level settings.
Specified drum sound does not play when you play the keyboard	Make sure that the Transpose function is set to +00.

Floppy disk related problems

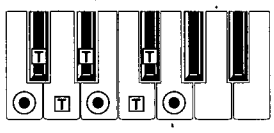
Problem	Action
Cannot format a floppy disk	Are you using a 3.5 inch 2DD or 2HD floppy disk? You must use one of these types.
	Is the disk inserted correctly?
	Is the write protect tab of the disk in the protect position?
Cannot save data to a floppy disk	Is the disk inserted correctly?
	Is the write protect tab of the disk in the protect position?
Cannot load data from a floppy disk	Is the disk inserted correctly?
	Does the disk contain data?

List of detected chords

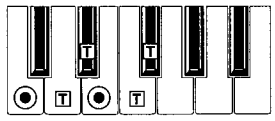
Each of the chords pictured below are shown in root position with a root note of C. In order for the ***iS40/iS50*** to correctly recognize major 6th and minor 6th chords, they must be played in root position as pictured. This is because these chords consist of the same notes as the minor 7th and minor 7th flatted 5th of the relative minor key. (For example, the notes C, E, G, and A could be either C6 or Am7.)

Major

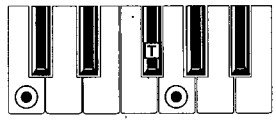
3-note



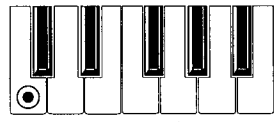
2-note



2-note

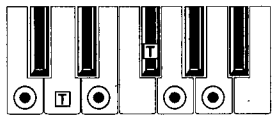


1-note



Major 6th

4-note



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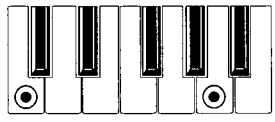
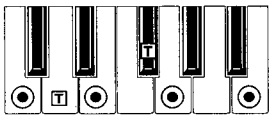
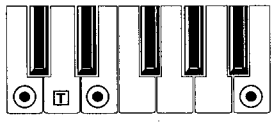


Major 7th

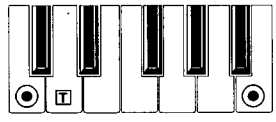
4-note



3-note

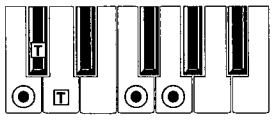


2-note

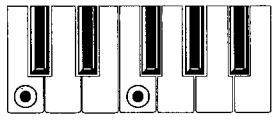


Sus 4

3-note

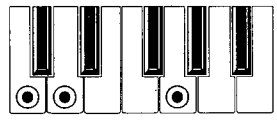


2-note



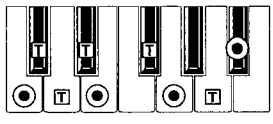
Sus 2

3-note

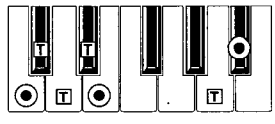


Dominant 7th

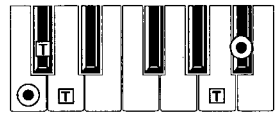
4-note



3-note

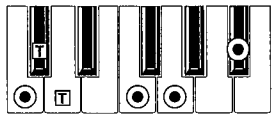


2-note

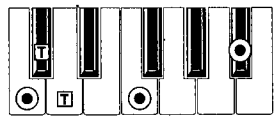


Dominant 7th Sus 4

4-note



3-note

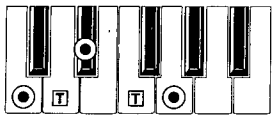


◉ = constituent notes of the chord

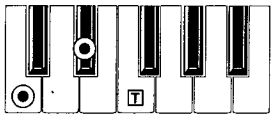
T = can be used as tension

Minor

3-note

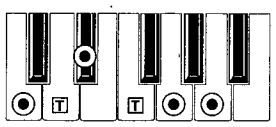


2-note



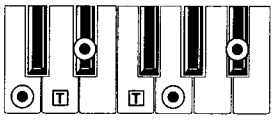
Minor 6th

4-note

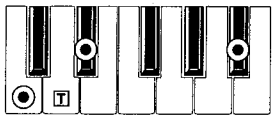


Minor 7th

4-note

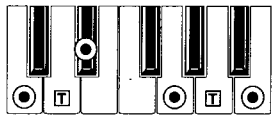


3-note

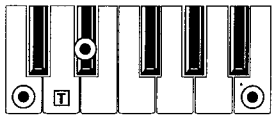


Minor-Major 7th

4-note

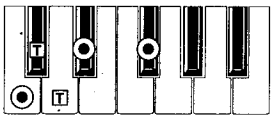


3-note



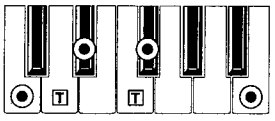
Diminished

3-note



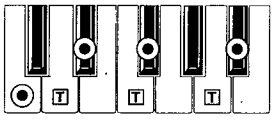
Diminished Major 7th

4-note



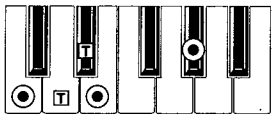
Minor 7th ♭5

4-note



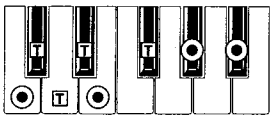
Augmented

3-note



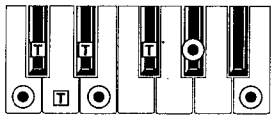
Augmented 7th

4-note



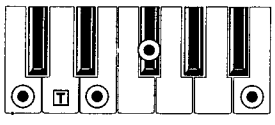
Augmented Major 7th

4-note



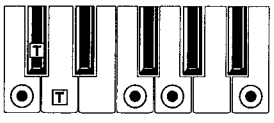
Major 7th ♭5

4-note



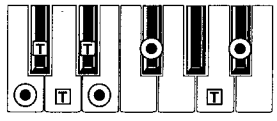
Major 7th Sus 4

4-note



Dominant 7th ♭5

4-note



◉ = constituent notes of the chord

T = can be used as tension

MIDI Implementation chart

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:		25–107	0–127	When sequencer data is sent: 0 – 127
	True Voice	**********	0–127	
Velocity	Note On	O 9n, V=1 – 127	O 9n, V=1 – 127	When sequencer data is sent: 2 – 126
	Note Off	X	X	
Aftertouch	Polyphonic (Key)	iS40: O; iS50: X	O	Sequencer data only *A
	Monophonic (Channel)	iS40: O; iS50: X	O	*A
Pitch Bend		O	O	*C
Control Change	0, 32	O	O	Bank Select (MSB, LSB) *P
	1, 2	O	O	Modulation (pitch, cutoff) *C
	4, 64	O	O	Pedal (scale, damper) *C
	6, 38	O	O	Data Entry (MSB, LSB) *E
	7, 11	O	O	Volume, Expression *C
	10, 91, 93	O	O	A:B panpot, send C, D *C
	12, 13	O	O	Effect controller 1, 2 *C
	72, 73, 74	O	O	EG time (Release, Attack), Brightness *C
	92 ,94	O	O	Effects 1, 2 on/off *C
	96, 97	O	O	Data Inc, Dec *E
	100, 101	X	O	RPN (LSB, MSB) *2
	120, 121	X	O	All sound off, Reset all Cntrls
	0 – 101	O	O	(Sequencer data)
Program Change	Variable Range	O 0 – 127	O 0 – 127	*P
		**********	0 – 127	
System Exclusive		O	O	*3 *E
System Common	Song Position	O	O	*1
	Song Select	O 0	O 0	*1
	Tune	X	X	
System Real Time	Clock	O	O	*1
	Command	O	O	*1
Aux Messages	Local On/Off	X	O	
	All Notes Off	X	O (123 – 127)	
	Active Sense	O	O	
	Reset	X	X	
Notes	*C, *P, *A, *E: Sent and received when MIDI Filter (Controller, Program Change, Aftertouch, System Exclusive) is set to ENA in Global mode. *1: When clock is set to internal, sent but not received. When set to external, received but not sent. *2: LSB, MSB = 00,00: pitch bend range, =01,00: fine tune, =02,00: course tune *3: Includes Inquiry, GM Mode On, Master Balance, and Master Volume messages.			

Mode 1:OMNI ON, POLY
Mode 2:OMNI ON, MONO
O: Yes
Mode 3:OMNI OFF, POLY
Mode 4:OMNI OFF, MONO
X: No

Styles

8 Beat	16 Beat	Ballroom	Dance 1
8 beat 1	16 beat 1	Slow Pop	Party Polka
8 Beat 2	16 Beat 2	Slow Rock 1	Disco Party
8 Beat 3	16 beat 3	Slow Rock 2	Motown
8 Beat 4	16 Beat 4	Flipper 6/8	Love Disco
8 Beat Analog	16Beat pop	Flipper 4/4	Disco '70
8 Beat Rock	16BeatAnalog	Twist	80's Dance
8 Bt. Shuffle	16 Beat Funk	Hully Gully	House
8 R&B	16 Beat Rock	Surf Rock	Techno
Dance 2	**Latin 1**	**Latin 2**	**Latin Dance**
Progress.	Bossa 1	Tango	Mambo
Underground	Bossa 2	Habanera	Salsa
Jungle	Bossa 3	Paso Doble	Merengue
Garage	Samba 1	Cumbia	Meneito
Rap	Samba 2	Bajon	Macarena
Hip Hop	Beguine	Calypso	Tikytikità
Dancing Tribe	Last Rhumba	Reggae	Lambada
Down Beat	Cha Cha Cha	Dance Reggae	Disco Samba
Traditional 1	**Traditional 2**	**Jazz**	**Jazz & Funk**
I. Waltz	Wien Waltz	40's Big Band	Swing Ballad
Mazurka	Slow Waltz 1	Big Band	Medium Swing
Polka	Slow Waltz 2	Fast Big Band	Be bop
German Waltz	Fox Trot 1	Latin Big Band	Acid Jazz
Laendler	Fox Trot 2	Broadway	Latin Jazz
GermanPolka	Big Band Fox	Hollywood	New Jazz
WaltzMusette	Quick step	Jazz Waltz	Party Funk
French March	Charleston	5/4 Swing	Groove
Rhythm and Blues	**Rock**	**World Music 1**	**World Music 2**
R & B	Light Rock	Country	9/8 Roman
6/8 Blues	Pop Rock	Country beat	Ciftetelli
Gospel	Open Rock	Country Bld.	Mariachi
Blues Shuffle	Heavy Rock	Dixieland	Raspa
Pub Shuffle	Rock Ballad	March	Baroque
Hip Blues	Half Time	Tarantella	Minuet
R&B Funk	Rock & Roll	Sevillana	Bolero
Rhythm&Funk	Rock Hip Hop	Gipsy	New Age

User 1	User 1	User 2	User 2

Arrangements

You can select the arrangements via MIDI, sending Bank Select MSB, Bank Select LSB (shown in table as BS) and Program Change (shown in table as PC) messages through the ARNG channel. The Bank Select MSB is always = 00.

BS	PC	#		BS	PC	#		BS	PC	#		BS	PC	#	
8 Beat				**16 Beat**				**Ballroom**				**Dance 1**			
000	000	A11	8 Beat	000	008	A21	16 Beat	000	016	A31	Back to 60's	000	024	A41	Party Polka
	001	A12	Guitar Ballad		009	A22	Windy Beat		017	A32	Pop 6/8		025	A42	NonstopParty
	002	A13	L.A. R&B		010	A23	Home Beat		018	A33	Rock 6/8		026	A43	Motown
	003	A14	Sweet Beat		011	A24	Color Beat		019	A34	Flipper 6/8		027	A44	Love disco
	004	A15	Analog Night		012	A25	Miami Beat		020	A35	Flipper 4/4		028	A45	Disco '70
	005	A16	8 Beat Rock		013	A26	Analogyst		021	A36	Twist		029	A46	80's Dance
	006	A17	Shuffle Shade		014	A27	Thin Funk		022	A37	Hully Gully		030	A47	House
	007	A18	Rhythm&Beat		015	A28	Easy Rock		023	A38	Beach Surfer		031	A48	Techno
Dance 2				**Latin 1**				**Latin 2**				**Latin Dance**			
000	032	A51	Progressive	000	040	A61	Basic Bossa	000	048	A71	Tango	000	056	A81	Mambo
	033	A52	Underground		041	A62	Bossa nueva		049	A72	Habanera		057	A82	Salsa
	034	A53	Jungle		042	A63	Miss Bossa		050	A73	Paso Doble		058	A83	Merengue
	035	A54	Garage		043	A64	Samba		051	A74	Cumbia		059	A84	Meneito
	036	A55	Euro Rap		044	A65	Sambalegre		052	A75	By on		060	A85	Macarena
	037	A56	Hip Hop		045	A66	Beguine		053	A76	Calypso		061	A86	Tikitikità
	038	A57	Dancing Tribe		046	A67	Last Rhumba		054	A77	Reggae		062	A87	Lambada
	039	A58	Down Beat		047	A68	Cha Cha Cha		055	A78	DanceReggae		063	A88	Discosamba

BS	PC	#		BS	PC	#		BS	PC	#		BS	PC	#	
Traditional 1				**Traditional 2**				**Jazz**				**Jazz & Funk**			
000	064	B11	Waltz	000	072	B21	Wiener Waltz	000	080	A31	Big Band 40's	000	088	B41	Ballad
	065	B12	Mazurka		073	B22	Slow Waltz 1		081	A32	Big Band		089	B42	MediumSwing
	066	B13	Polka		074	B23	Slow Waltz 2		082	A33	Fast Big Band		090	B43	Be Bop
	067	B14	German Waltz		075	B24	Operetta		083	A34	Latin BigBand		091	B44	Acid Jazz
	068	B15	Laendler		076	B25	Fox Trot		084	A35	Broadway		092	B45	Latin Jazz
	069	B16	German Polka		077	B26	Club Fox		085	A36	Hollywood		093	B46	Still Life
	070	B17	W. Musette		078	B27	Quick step		086	A37	Jazz Waltz		094	B47	Party Funk
	071	B18	French March		079	B28	Charleston		087	A38	5/4 Swing		095	B48	Groove
Rhythm & Blues				**Rock**				**World Music 1**				**World Music 2**			
000	096	B51	R & B	000	104	B61	Light Rock	000	112	B71	Country	000	120	B81	9/8 Roman
	097	B52	6/8 Blues		105	B62	Pop Rock		113	B72	Country Beat		121	B82	Ciftetelli
	098	B53	Gospel		106	B63	Open Rock		114	B73	Country Ballad		122	B83	Mariachi
	099	B54	Blues Shuffle		107	B64	Heavy Rock		115	B74	Dixieland		123	B84	Raspa
	100	B55	Pop Shuffle		108	B65	Rock Ballad		116	B75	OnTheBridge		124	B85	Venezia
	101	B56	Uncle Funk		109	B66	Half Time		117	B76	Tarantella		125	B86	Minuetto
	102	B57	Get Funked		110	B67	Rock & Roll		118	B77	Sevillana		126	B87	Bolero
	103	B58	Electric Funk		111	B68	Rock Hip Hop		119	B78	Gipsy		127	B88	New Age
User 1				**User 2**				**User 3**				**User 4**			
001	000	U11		001	008	U21		001	016	U31		001	024	U41	
	001	U12			009	U22			017	U32			025	U42	
	002	U13			010	U23			018	U33			026	U43	
	003	U14			011	U24			019	U34			027	U44	
	004	U15			012	U25			020	U35			028	U45	
	005	U16			013	U26			021	U36			029	U46	
	006	U17			014	U27			022	U37			030	U47	
	007	U18			015	U28			023	U38			031	U48	
User 5				**User 6**				**User 7**				**User 8**			
001	032	U51		001	040	U61		001	048	U71		001	056	U81	
	033	U52			041	U62			049	U72			057	U82	
	034	U53			042	U63			050	U73			058	U83	
	035	U54			043	U64			051	U74			059	U84	
	036	U55			044	U65			052	U75			060	U85	
	037	U56			045	U66			053	U76			061	U86	
	038	U57			046	U67			054	U77			062	U87	
	039	U58			047	U68			055	U78			063	U88	

Programs

You can select the programs via MIDI, sending Bank Select MSB, Bank Select LSB (shown in table as BS) and Program Change (shown in table as PC) messages, through the MIDI channel you wish to change the program to. The Bank Select MSB is always = 00.

BS	PC	#		BS	PC	#		BS	PC	#		BS	PC	#	
Piano				**Chromatic percussion**				**Organ**				**Guitar**			
000	000	A11	Piano 1	000	008	A21	Celesta	000	016	A31	Organ 1	000	024	A41	Nylon gtr
	001	A12	Piano 2		009	A22	Glockenspiel		017	A32	Organ 2		025	A42	Steel Gtr.
	002	A13	Piano 3		010	A23	Music Box		018	A33	Organ 3		026	A43	Jazz Gtr.
	003	A14	Honky-tonk		011	A24	Vibraphone		019	A34	ChurchOrgan		027	A44	Clean Gtr.
	004	A15	E. Piano 1		012	A25	Marimba		020	A35	Reed Organ		028	A45	Muted Gtr.
	005	A16	E. Piano 2		013	A26	Xylophone		021	A36	Musette		029	A46	Overdrive
	006	A17	Harpsichord		014	A27	Tubular Bell		022	A37	Harmonica		030	A47	Dist. Gtr.
	007	A18	Clavinet		015	A28	Santur		023	A38	Bandoneon		031	A48	GT.Harm.
Bass				**Strings**				**Esensemble**				**Brass**			
000	032	A51	Acoustic Bs.	000	040	A61	Violin	000	048	A71	Strings	000	056	A81	Trumpet
	033	A52	Fingered Bs.		041	A62	Viola		049	A72	Slow Strings		057	A82	Trombone
	034	A53	Picked Bs.1		042	A63	Cello		050	A73	SynStrings 1		058	A83	Tuba
	035	A54	Fretless Bs.		043	A64	Contrabass		051	A74	SynStrings 2		059	A84	MuteTrumpet
	036	A55	Slap Bass 1		044	A65	Tremolo Str.		052	A75	Choir Aahs		060	A85	French Horns
	037	A56	Slap Bass 2		045	A66	PizzicatoStr.		053	A76	Voice Oohs		061	A86	Brass
	038	A57	SynthBass 1		046	A67	Harp		054	A77	SynVox		062	A87	Syn.Brass1
	039	A58	SynthBass 2		047	A68	Timpani		055	A78	OrchestraHit		063	A88	Syn.Brass2
Reed				**Pipe**				**Synth lead**				**Synth pad**			
000	064	B11	Soprano Sax	000	072	B21	Piccolo	000	080	A31	SquareWave	000	088	B41	Fantasia
	065	B12	Alto Sax		073	B22	Flute		081	A32	Saw Wave		089	B42	Warm Pad
	066	B13	Tenor Sax		074	B23	Recorder		082	A33	Syn.Calliope		090	B43	PolySynth
	067	B14	Baritone Sax		075	B24	Pan Flute		083	A34	Chiffer Lead		091	B44	Space Voice
	068	B15	Oboe 1		076	B25	Bottle Blow		084	A35	Charang		092	B45	BowedGlass
	069	B16	English Horn		077	B26	Shaku 1		085	A36	Solo Vox		093	B46	Metal Pad
	070	B17	Basson		078	B27	Whistle 1		086	A37	5Th Wave		094	B47	Halo Pad
	071	B18	Clarinet		079	B28	Ocarina 1		087	A38	Bass & Lead		095	B48	Sweep Pad

BS	PC	#		BS	PC	#		BS	PC	#		BS	PC	#	
Synth SFX				**Ethnic**				**Percussion**				**Effects**			
000	096	B51	Ice Rain	000	104	B61	Sitar	000	112	B71	Tinkle Bell	000	120	B81	Gt.FretNoise
	097	B52	Soundtrack		105	B62	Banjo		113	B72	Agogo		121	B82	Breath Noise
	098	B53	Crystal		106	B63	Shamisen		114	B73	Steel Drums		122	B83	Seashore
	099	B54	Atmosphere		107	B64	Koto		115	B74	Woodblock		123	B84	Bird
	100	B55	Brightness		108	B65	Kalimba		116	B75	Taiko		124	B85	Telephone 1
	101	B56	Goblin		109	B66	Bagpipe		117	B76	Melo. Tom		125	B86	Helicopter
	102	B57	Echo Drops		110	B67	Fiddle		118	B77	Synth Drum		126	B87	Applause
	103	B58	Star Theme		111	B68	Shanai		119	B78	ReverseCym.		127	B88	Gun Shot
Piano				**Chromatic percussion**				**Organ**				**Guitar**			
001	000	C11	90's Piano	001	008	C21	SynCelesta	001	016	C31	Gospel Org.	001	024	C41	L&R Ac.Gtr.
	001	C12	Rock Piano		009	C22	Sistro		017	C32	ClickOrgan		025	C42	12 Strings
	002	C13	New Piano		010	C23	Orgel		018	C33	Rotary Org.		026	C43	PedalSteel
	003	C14	M1 Piano		011	C24	SynVibes		019	C34	EuroPipe		027	C44	L&R El. Gtr.
	004	C15	Whirly		012	C25	Balaphone		020	C35	SmallPipe		028	C45	Clean Funk
	005	C16	DW-8000 EP		013	C26	Gamelan		021	C36	Fr.Musette		029	C46	DistoMutes
	006	C17	HarpsiFunk		014	C27	ChurchBell		022	C37	Akordeon		030	C47	Solo Dist.
	007	C18	Clavmation		015	C28	Celtic Plug		023	C38	Cassotto		031	C48	PowerChord
Bass				**Strings**				**Esensemble**				**Brass**			
001	032	C51	Upright	001	040	C61	The Strings	001	048	C71	Marcato	001	056	C81	FlugelHorn
	033	C52	Bass/ Harm.		041	C62	ChambViola		049	C72	Exp. Str.		057	C82	Dynabone
	034	C53	Picked Bs.2		042	C63	Cello Ens.		050	C73	AnalogPad		058	C83	OB. Tuba
	035	C54	Fat Fretty		043	C64	ChamDBass		051	C74	AnaStrings		059	C84	Mute Ens.
	036	C55	SuperRound		044	C65	Octave Str.		052	C75	Doolally		060	C85	Horns Ens.
	037	C56	DynaSlap		045	C66	OctavePizz.		053	C76	AirVoxDbl		061	C86	Brass Band
	038	C57	Dance Bass		046	C67	My dream		054	C77	Glassglide		062	C87	Syn.Brass3
Reed				**Pipe**				**Synth lead**				**Synth pad**			
001	000	D11	AltoBreath	001	008	D21	Synth Fife	001	016	D31	Soft Solo	001	024	D41	Thick Pad
	001	D12	Folk Sax		009	D22	BreathFlute		017	D32	Big Lead		025	D42	Soft Pad
	002	D13	SoftTenor		010	D23	Traverso		018	D33	PurePanLd.		026	D43	Farluce
	003	D14	PerkySaxes		011	D24	Kawala		019	D34	Rubby		027	D44	Heaven
	004	D15	Oboe 2		012	D25	BottleBlow		020	D35	Dist.Lead		028	D45	Glass Pad
	005	D16	Woodwinds		013	D26	Shaku 2		021	D36	Vox Lead		029	D46	Panner Pad
	006	D17	Small^Orch		014	D27	Whistle 2		022	D37	Big Fives		030	D47	Polar Pad
	007	D18	Clarn. Ens.		015	D28	Ocarina 2		023	D38	Big & Raw		031	D48	Celestial

BS	PC	#		BS	PC	#		BS	PC	#		BS	PC	#	
Synth SFX				**Ethnic**				**Percussion**				**Effects**			
001	032	D51	Caribean	001	040	D61	Tambra	001	048	D71	WindChimes	001	056	D81	Heart Beat
	033	D52	Rave		041	D62	Bouzouki		049	D72	Cowbell		057	D82	Laughing
	034	D53	BellPad		042	D63	Oud		050	D73	Claves		058	D83	Wind
	035	D54	AmbientPad		043	D64	Kanoon		051	D74	Castanets		059	D84	Gallop
	036	D55	ElastikPad		044	D65	Ukulele		052	D75	Tsuzumi		060	D85	Telephone 2
	037	D56	Bell Choir		045	D66	Jaw Harp		053	D76	Oil Drum		061	D86	Train
	038	D57	Big Panner		046	D67	MandoTrem.		054	D77	Rev. Tom		062	D87	Stadium!!
	039	D58	Odyssey		047	D68	Hichiriki		055	D78	Rev Snare		063	D88	Explosion
1				**2**				**3**				**4**			
002	000	E11	Piano&Strgs	002	008	E21	Tone Wheel	002	016	E31	R&R Guitar	002	024	E41	FingerDark
	001	E12	PianoPad		009	E22	70' Organ		017	E32	Dobro		025	E42	Dyno Bass
	002	E13	Midi Piano		010	E23	Theatre Org.		018	E33	ElectricAc.		026	E43	Bass/Mute
	003	E14	Fresh Air		011	E24	Jimmy Org.		019	E34	Mr.Clean		027	E44	Stick Bass
	004	E15	Mark II bis		012	E25	DblBrass		020	E35	Hackbrett		028	E45	Deep House
	005	E16	Hard Tines		013	E26	SlowSunset		021	E36	Gtr.Strings		029	E46	Dr.Octave
	006	E17	FunkyRoads		014	E27	Ultra Rez		022	E37	StereoDist.		030	E47	Rap Bass
	007	E18	PianoVibes		015	E28	DanceReMix		023	E38	Gtr/Bass		031	E48	Zap bass
5				**6**				**7**				**8**			
002	032	E51	Velo Flute	002	040	E61	i3 Strings	002	048	E71	LiteVoices	002	056	E81	Jet Star
	033	E52	Flute/Muted		041	E62	N-Strings		049	E72	DigitalAir		057	E82	Space Wing
	034	E53	Trump Ens.		042	E63	Ravel Pad		050	E73	Air Vox		058	E83	Ambience
	035	E54	Lyle Stack		043	E64	Dark Pad		051	E74	Ambi.Voice		059	E84	Glide Fx
	036	E55	Folk Clar.		044	E65	Yoshi Pad		052	E75	Airways		060	E85	SteamCloud
	037	E56	SectWinds		045	E66	Swell Pad		053	E76	Stab Pad		061	E86	WhiteNoise
	038	E57	FallAngels		046	E67	Light Pizz		054	E77	Poppin'Pad		062	E87	Fragments
	039	E58	Lylesircs		047	E68	DblStrings		055	E78	MonoLead		063	E88	Brass Fall
User 1				**User 2**				**User 3**				**User 4**			
003	000	F11		003	008	F21		003	016	F31		003	024	F41	
	001	F12			009	F22			017	F32			025	F42	
	002	F13			010	F23			018	F33			026	F43	
	003	F14			011	F24			019	F34			027	F44	
	004	F15			012	F25			020	F35			028	F45	
	005	F16			013	F26			021	F36			029	F46	
	006	F17			014	F27			022	F37			030	F47	
	007	F18			015	F28			023	F38			031	F48	

BS	PC	#		BS	PC	#		BS	PC	#		BS	PC	#	
User 5				**User 6**				**User 7**				**User 8**			
003	032	F51		003	040	F61		003	048	F71		003	056	F81	
	033	F52			041	F62			049	F72			057	F82	
	034	F53			042	F63			050	F73			058	F83	
	035	F54			043	F64			051	F74			059	F84	
	036	F55			044	F65			052	F75			060	F85	
	037	F56			045	F66			053	F76			061	F86	
	038	F57			046	F67			054	F77			062	F87	
	039	F58			047	F68			055	F78			063	F88	

BS	PC	#		BS	PC	#	
Drum 1				**Drum 2**			
004	000, 002-007, 074-127	Dr11	GM Kit 1	004	040-047	Dr21	Brush Kit
	001	Dr12	GM Kit 2		048-055	Dr22	Orchestra Kit
	008-015	Dr13	Room Kit		064, 067-071	Dr23	Percussion Kit
	016-023	Dr14	Power Kit		065	Dr24	Latin Perc. Kit
	024	Dr15	Electronic Kit		066	Dr25	Arabian Kit
	025	Dr16	Analog Kit		057-063	Dr26	SFX Kit
	028-031	Dr17	Dance Kit		072	Dr27	(User 1)
	032-039	Dr18	Jazz Kit		073	Dr28	(User 2)

Multisamples

#	Multisample	#	Multisample	#	Multisample	#	Multisample	#	Multisample	#	Multisample
0	A.Piano 1	88	Mute Gtr 1	87	E.Guitar 3	261	Viola	348	VS 58	435	MuteTriang
1	A.Piano 1w	89	FunkyGtr1	175	House Bass	262	Cello	349	VS 71	436	OpenTriang
2	A.Piano1LP	90	Mute Guitar1	176	House Bass	263	Cello LP	350	VS 72	437	Agogo
3	A.Piano 2	91	FunkyGtr 1	177	Bass Slide	264	CBs.&Cello	351	VS 88	438	Cow Bell
4	A.Piano 2w	92	FunkyGtr1V	178	StringSlap	265	Pizzicato	352	VS 89	439	Timbale
5	A.Piano 3 *	93	FunkyGtr1V	179	Kalimba	266	Voice	353	13-35	440	WoodBlock1
6	A.Piano 3w *	94	E.Gtr Harm	180	Music Box	267	Choir	354	DWGSOrg1	441	WoodBlock2
7	M1 Piano	95	E.GtrHramV	181	MusicBoxLP	268	Soft Choir	355	DWGSOrg2	442	WoodBlock3
8	M1 Piano w	96	Dist.Gtr 1	182	Log Drum	269	Air Vox	356	DWGS E.P.1	443	Claves
9	Grand EP	97	DistGtr1LP	183	Marimba	270	Doo Voice	357	ClarinetLP	444	Syn Claves
10	E.Piano 1	98	Dist.Gtr1V	184	Marimba w	271	DooVoiceLP	358	DWGSOrg1	445	Castanet
11	E.Piano 1w	99	Dist.Gtr 2	185	Xylophone	272	DooVoiceLP	359	Saw	446	CastanetNT
12	E.Piano1LP	100	Over Drive	186	Vibe	273	Choir	360	Square	447	Castanet V
13	E.Piano 2	101	OverDrv LP	187	Vibe w	274	MouthHarp1	361	Ramp	448	FingerSnap
14	E.Piano 2w	102	OverDrv F4	188	Celesta	275	Syn Vox	362	Pulse 25%	449	FingSnapNT
15	E.Piano2LP	103	MtDistGtr1	189	Glocken 1	276	Syn Vox LP	363	Pulse 8%	450	Snap
16	DWGS E.P. 1	104	MtDstGtr1V	190	Glocken 2	277	White Pad	364	Pulse 4%	451	Snap NT
17	Soft EP LP	105	Dist.Gtr 2	191	BrightBell	278	Ether Bell	365	Syn Sine	452	Vibraslap
18	Hard EP	106	DstGtrHarm	192	B.Bell LP	279	E.Bell LP	366	Sine	453	Guiro
19	Hard EP w	107	PowerChrd1	193	Metal Bell	280	Ghostly	367	Orch Hit	454	Guiro LP
20	Hard EP LP	108	PowerChd1V	194	M.Bell LP	281	Mega Pad	368	ImpactHitL	455	Hand Clap
21	Stage EP 1	109	OverDvChrd	195	Gamelan	282	Synth Pad	369	ImpactHitR	456	HandClapNT
22	StageEP 1w	110	Power Gtr	196	Tubular	283	Synth PadA	370	Rave Hit L	457	Gun Shot 1
23	Hard EP	111	PowerGtr V	197	ChurchBell	284	Spectrum 1	371	Rave Hit R	458	GlassBreak
24	Stage EP 1	112	PowerChrd1	198	FingCymbal	285	WaveSweep	372	Philly Hit	459	Metal Hit
25	Hard EP	113	Gt Scratch	199	FingCymbNT	286	WavSweepA	373	PowerSnare	460	HandDrill
26	Hard EP	114	Gtr Slide	200	Gong	287	WavSweepB	374	Syn Snare	461	HandDrilNT
27	PianoPad 2	115	GtCutNois1	201	Gong LP	288	MouthHarp1	375	SnareRl/Ht	462	Zap 1
28	Clav	116	GtCutNois2	202	Split Drum	289	MouthHrp1A	376	Stick Hit	463	Zap 2
29	Clav w	117	Chic 1	203	Split Bell	290	MouthHarp2	377	Side Stick	464	Fret Zap 1
30	Clav LP	118	Chic 2	204	Flute	291	MouthHrp2A	378	SideStikNT	465	Fret Zap 2
31	Harpsicord	119	Sitar 1	205	Tin Flute	292	MouthHarps	379	TimbleSide	466	Scratch Hi
32	Harpsicd w	120	Sitar 2	206	TinFluteLP	293	ChromRes	380	TimblSidNT	467	ScratcHiNT
33	HarpsicdLP	121	Sitar 2 LP	207	Pan Flute	294	Applause	381	Indust	468	Scratch Lo
34	PercOrgan1	122	Tambura	208	PanFluteLP	295	Stadium	382	Taiko Hit	469	ScratcLoNT
35	PercOrg1LP	123	Tambura LP	209	White Pad	296	BrushNoise	383	Syn Rim	470	ScratchDbl

#	Multisample	#	Multisample	#	Multisample	#	Multisample	#	Multisample	#	Multisample
36	PercOrgan2	124	Santur	210	Shakuhachi	297	BruNoiseNT	384	Syn Rim NT	471	ScratDblNT
37	PercOrg2LP	125	Bouzouki	211	ShakhachiV	298	WhiteNoise	385	Click	472	Scratch a
38	Organ 1	126	BouzoukiLP	212	ShakhachLP	299	WhiteNoiNT	386	Crash Cym	473	Scratches
39	Organ 1 LP	127	Kanoun	213	Bottle	300	Jetstar	387	CrashCymLP	474	Rev.Kick
40	Organ 2	128	Mandolin	214	Recorder	301	Jetstar LP	388	CrashLP NT	475	Rev.ConBD
41	Organ 2 LP	129	Banjo	215	Ocarina	302	JetstrLPNT	389	China Cym	476	Rev Snare1
42	Organ 3	130	Shamisen	216	Oboe	303	BrushSwirl	390	ChinaCymLP	477	Rev.Snare2
43	Organ 4	131	Koto	217	EnglishHrn	304	MarcTree 1	391	Splash Cym	478	Rev.Snare3
44	Organ 6	132	Uood	218	Eng.HornLP	305	MrcTree1NT	392	Orch Crash	479	Rev.Cymbal
45	Organ 6 LP	133	Harp	219	BasoonOboe	306	MarcTree1V	393	Orch Perc	480	Rev.Tom 1
46	VoxOrgan 1	134	Ukulele	220	BsnOboeLP	307	MrcTre1VNT	394	Tite HH	481	Rev.Tom 2
47	VoxOrgan 2	135	MandlinTrm	221	Clarinet	308	MarcTree 2	395	Tite HH NT	482	Growl 1
48	VoxOrgan 3	136	A.Bass 1	222	ClarinetLP	309	MrcTree2NT	396	Open HH	483	Growl 1 NT
49	RotaryOrg1	137	A.Bass1 LP	223	Bari.Sax	310	MarcTree2V	397	CloseSynHH	484	Rain
50	Rotary1 LP	138	A.Bass 2	224	Bari.SaxLP	311	MrcTre2VNT	398	OpenSyn HH	485	Thunder
51	RotaryOrg2	139	A.Bass2 LP	225	Tenor Sax	312	Tri Roll	399	Bell Ride	486	Wind
52	Super BX-3	140	E.Bass 1	226	T.Sax LP	313	TriRoll NT	400	Ping Ride	487	Seashore
53	SuperBX3LP	141	E.Bass1 LP	227	Alto Sax	314	Tri Roll V	401	Orch B.Drm	488	Seashore V
54	Dist.Organ	142	E.Bass 2	228	A.Sax LP	315	TriRollVNT	402	Tom 1	489	Stream
55	Dist.OrgLP	143	E.Bass2 LP	229	SopranoSax	316	Cast Roll	403	Tom 2 Hi	490	Bubble
56	PipeOrgan2	144	E.Bass 1	230	S.Sax LP	317	CastRollNT	404	Tom 2 Lo	491	Bird 1
57	PipeOrg2LP	145	PickBass 1	231	Bag Pipe	318	Lore	405	ProccesTom	492	Bird 2
58	PipeOrgan3	146	PicBass1LP	232	Tuba	319	Lore NT	406	OilDrum	493	Kitty
59	PipeOrg3LP	147	PickBass 2	233	Tuba LP	320	Crickets 2	407	Syn Tom 1	494	Dog
60	Cheese Org	148	PickBass 3	234	Horn	321	Crickts2NT	408	Syn Tom 2	495	Growl 2
61	Musette	149	Fretless	235	FlugelHorn	322	MalletLoop	409	SolidHit	496	Gallop
62	Musette V	150	FretlessLP	236	Trombone 1	323	MalletLpNT	410	Steel Drum	497	Laughing V
63	Bandneon	151	SlapBass 1	237	Trombone 2	324	Sporing	411	SteelDrmLP	498	Scream
64	BandneonLP	152	SlapBass 2	238	Trombone 1	325	Rattle	412	Timapni	499	Punch
65	Accordion	153	SlpBass2LP	239	Trumpet	326	Kava	413	Timpani LP	500	Hart Beat
66	AcordionLP	154	SlapBass 3	240	Trumpet LP	327	Fever 1	414	Taiko	501	Footstep 1
67	Harmonica1	155	SlapBass 1	241	Mute TP 1	328	Fever 2	415	Tsuzumi	502	Footstep 2
68	Harmonica1	156	SlapBass 1	242	MuteTP1 LP	329	Scratchar	416	Low Bongo	503	Telephone1
69	G.Guitar 1	157	SlapBass 1	243	Mute TP 1	330	Zappers 1	417	Slap Bongo	504	Telephone2
70	G.Gtr 1 LP	158	SynthBass1	244	Brass 1	331	Zappers 2	418	Open Conga	505	Door Creak
71	G.Guitar 2	159	SynBass1LP	245	Brass 1 LP	332	Bugs	419	Slap Conga	506	Door Slam
72	F.Guitar 1	160	SynthBass2	246	Brass 2	333	Surfy	420	Palm Conga	507	Car Engine
73	F.Gtr 1 LP	161	SynBass2LP	247	Brass 2 LP	334	SleighBell	421	Mute Conga	508	CarEnginLP

#	Multisample	#	Multisample	#	Multisample	#	Multisample	#	Multisample	#	Multisample
74	F.Guitar1V	162	SynthBass3	248	Brass 2	335	Sagatty	422	Baya	509	Car Stop
75	F.Guitar 2	163	RezBass 1	249	Brass 2 LP	336	Sagatty NT	423	Tabla 1	510	Car Pass
76	F.Guitar 2	164	RezBass 2	250	Brass Fall	337	Idling	424	Tabla 2	511	Car Crash
77	ResoGuitar	165	RezBass 3	251	StringEns.	338	EthnicBeat	425	Djembe	512	Siren
78	A.Gtr Harm	166	RezBass3LP	252	StrEns. V1	339	Tap-A	426	Maracas	513	Train
79	E.Guitar 1	167	MiniBass	253	StrEns. V2	340	Tap-B	427	SynMaracas	514	Helicopter
80	E.Guiter1V	168	Mini 1a	254	StrEns. V3	341	Tap-C	428	SynMarcsNT	515	Gun Shot 2
81	E.Guitar 2	169	SynthBass3	255	AnaStrings	342	Mini 1 a	429	Cabasa	516	MachineGun
82	E.Guitar 3	170	Saw	256	AnaStr. V1	343	vs88	430	Cabasa NT	517	Laser Gun
83	E.Guitar 4	171	MiniBass	257	AnaStr. V2	344	Mini 1a	431	Sagat	518	Explosion
84	E.Guitar 4	172	House Bass	258	AnaStr. V3	345	VS 102	432	Sagat NT		
85	E.Guitar 2	173	FM Bass 1	259	PWM	346	VS 48	433	Tambourine		
86	E.Guitar 3	174	FMBass1 LP	260	Violin	347	VS 52	434	JingleBell		

* Only iS40. In iS50, it is replaced by the previous multisample in the list. Note that, when loading a program based on this multisample, the program can sound different from the original.

Drum kits

Key		Inst		Excl	Inst		Excl	Inst		Excl	Inst		Excl
#	Note	Dr11 - GM Kit 1			Dr 12 - GM Kit 2			Dr13 - Room Kit			Dr14 - Power Kit		
21	A0	18	Syn Kick 1	---	18	Syn Kick 1	---	19	Syn Kick 2	---	16	Dance Kick	---
22	A#0	58	SynSnare 2	---	58	SynSnare 2	---	47	AmbiSnare1	---	58	SynSnare 2	---
23	B0	20	Syn Kick 3	---	20	Syn Kick 3	---	20	Syn Kick 3	---	20	Syn Kick 3	---
24	C1	57	SynSnare 1	---	57	SynSnare 1	---	57	SynSnare 1	---	57	SynSnare 1	---
25	C#1	40	FullRoomSD	---	40	FullRoomSD	---	39	LightSnare	---	37	PicloSnare	---
26	D1	50	GatedSnare	---	53	--	---	46	TightSnare	---	33	Snare 1	---
27	D#1	8	Dry Kick 2	---	8	Dry Kick 2	---	0	Fat Kick	---	1	Rock Kick	---
28	E1	1	Rock Kick	---	2	Ambi.Kick	---	12	Gated Kick	---	13	--	---
29	F1	34	Snare 2	---	48	AmbiSnare2	---	40	FullRoomSD	---	40	FullRoomSD	---
30	F#1	94	Open HH 1	1	93	Close HH	1	94	Open HH 1	1	94	Open HH 1	1
31	G1	12	Gated Kick	---	5	PillowKick	---	10	Real Kick	---	0	Fat Kick	---
32	G#1	78	Side Stick	---	79	--	---	404	Metronome2	---	404	Metronome2	---
33	A1	56	RollSnare2	7	56	RollSnare2	7	48	AmbiSnare2	---	48	AmbiSnare2	---
34	A#1	55	RollSnare1	7	55	RollSnare1	7	51	PowerSnare	---	40	FullRoomSD	---
35	B1	0	Fat Kick	---	14	ProcesKick	---	1	Rock Kick	---	2	Ambi.Kick	---
36	C2	2	Ambi.Kick	---	0	Fat Kick	---	2	Ambi.Kick	---	12	Gated Kick	---
37	C#2	78	Side Stick	---	78	Side Stick	---	78	Side Stick	---	78	Side Stick	---
38	D2	43	DrySnare 1	---	43	DrySnare 1	---	50	GatedSnare	---	51	PowerSnare	---
39	D#2	269	Syn Claps	---	269	Syn Claps	---	269	Syn Claps	---	268	Hand Claps	---
40	E2	40	FullRoomSD	---	49	Rock Snare	---	39	LightSnare	---	50	GatedSnare	---
41	F2	123	Tom 2 Lo	---	123	Tom 2 Lo	---	120	Tom 1 Lo	---	128	ProcessTom	---
42	F#2	93	Close HH	1	93	Close HH	1	93	Close HH	1	93	Close HH	1
43	G2	123	Tom 2 Lo	---	123	Tom 2 Lo	---	120	Tom 1 Lo	---	128	ProcessTom	---
44	G#2	97	Pedal HH 1	1	97	Pedal HH 1	1	97	Pedal HH 1	1	97	Pedal HH 1	1
45	A2	123	Tom 2 Lo	---	123	Tom 2 Lo	---	120	Tom 1 Lo	---	128	ProcessTom	---
46	A#2	94	Open HH 1	1	94	Open HH 1	1	94	Open HH 1	1	94	Open HH 1	1
47	B2	123	Tom 2 Lo	---	121	Tom 2 Hi	---	120	Tom 1 Lo	---	128	ProcessTom	---
48	C3	121	Tom 2 Hi	---	121	Tom 2 Hi	---	120	Tom 1 Lo	---	128	ProcessTom	---
49	C#3	81	Crash Cym	---	81	Crash Cym	---	81	Crash Cym	---	81	Crash Cym	---
50	D3	121	Tom 2 Hi	---	121	Tom 2 Hi	---	120	Tom 1 Lo	---	128	ProcessTom	---
51	D#3	117	Ride Cym 2	---	117	Ride Cym 2	---	117	Ride Cym 2	---	117	Ride Cym 2	---
52	E3	83	China Cym	---	83	China Cym	---	83	China Cym	---	83	China Cym	---
53	F3	115	Ride Cup	---	115	Ride Cup	---	115	Ride Cup	---	115	Ride Cup	---
54	F#3	206	Tambourine	---	206	Tambourine	---	206	Tambourine	---	206	Tambourine	---
55	G3	85	Splash Cym	---	85	Splash Cym	---	85	Splash Cym	---	85	Splash Cym	---
56	G#3	235	Cowbell 1	---	235	Cowbell 1	---	235	Cowbell 1	---	235	Cowbell 1	---
57	A3	81	Crash Cym	---	81	Crash Cym	---	81	Crash Cym	---	81	Crash Cym	---
58	A#3	263	Viblaslap	---	263	Viblaslap	---	263	Viblaslap	---	263	Viblaslap	---
59	B3	117	Ride Cym 2	---	114	Ride Edge	---	117	Ride Cym 2	---	117	Ride Cym 2	---
60	C4	147	Hi Bongo	---	147	Hi Bongo	---	147	Hi Bongo	---	147	Hi Bongo	---
61	C#4	146	Lo Bongo	---	146	Lo Bongo	---	146	Lo Bongo	---	146	Lo Bongo	---
62	D4	161	Slap Conga	---	161	Slap Conga	---	161	Slap Conga	---	161	Slap Conga	---
63	D#4	160	Open Conga	---	160	Open Conga	---	160	Open Conga	---	160	Open Conga	---
64	E4	160	Open Conga	---	160	Open Conga	---	160	Open Conga	---	160	Open Conga	---
65	F4	239	Timbal1HiO	---	239	Timbal1HiO	---	239	Timbal1HiO	---	239	Timbal1HiO	---
66	F#4	240	Timbal1LoO	---	240	Timbal1LoO	---	240	Timbal1LoO	---	240	Timbal1LoO	---
67	G4	227	Agogo 1	---	227	Agogo 1	---	227	Agogo 1	---	227	Agogo 1	---
68	G#4	227	Agogo 1	---	227	Agogo 1	---	227	Agogo 1	---	227	Agogo 1	---
69	A4	190	Cabasa	---	190	Cabasa	---	190	Cabasa	---	190	Cabasa	---
70	A#4	196	SynMaracas	---	196	SynMaracas	---	196	SynMaracas	---	196	SynMaracas	---
71	B4	266	Whistle S	2	266	Whistle S	2	266	Whistle S	2	266	Whistle S	2
72	C5	267	Whistle L	2	267	Whistle L	2	267	Whistle L	2	267	Whistle L	2
73	C#5	264	Guiro S	4	264	Guiro S	4	264	Guiro S	4	264	Guiro S	4
74	D5	265	Guiro L	4	265	Guiro L	4	265	Guiro L	4	265	Guiro L	4
75	D#5	255	Claves	---	255	Claves	---	255	Claves	---	255	Claves	---

Key		Inst		Excl	Inst		Excl	Inst		Excl	Inst		Excl
76	E5	253	WoodBlockM	---	253	WoodBlockM	---	253	WoodBlockM	---	253	WoodBlockM	---
77	F5	253	WoodBlockM	---	253	WoodBlockM	---	253	WoodBlockM	---	253	WoodBlockM	---
78	F#5	185	Mute Cuica	3	185	Mute Cuica	3	185	Mute Cuica	3	185	Mute Cuica	3
79	G5	186	Open Cuica	3	186	Open Cuica	3	186	Open Cuica	3	186	Open Cuica	3
80	G#5	224	MuteTriang	5	224	MuteTriang	5	224	MuteTriang	5	224	MuteTriang	5
81	A5	225	OpenTriang	5	225	OpenTriang	5	225	OpenTriang	5	225	OpenTriang	5
82	A#5	190	Cabasa	---	190	Cabasa	---	190	Cabasa	---	190	Cabasa	---
83	B5	221	JingleBell	---	221	JingleBell	---	221	JingleBell	---	221	JingleBell	---
84	C6	222	MarcTree 1	---	222	MarcTree 1	---	222	MarcTree 1	---	222	MarcTree 1	---
85	C#6	258	Castanet1V	---	258	Castanet1V	---	258	Castanet1V	---	258	Castanet1V	---
86	D6	169	Baya 1	6	169	Baya 1	6	169	Baya 1	6	169	Baya 1	6
87	D#6	122	Tom 2 Hi V	6	122	Tom 2 Hi V	6	122	Tom 2 Hi V	6	122	Tom 2 Hi V	6

Key		Inst		Excl	Inst		Excl	Inst		Excl	Inst		Excl
#	Note	Dr15 - Electronic Kit			Dr16 - Analog Kit			Dr17 - Dance Kit			Dr18 - Jazz Kit		
21	A0	16	Dance Kick	---	401	Explosion	---	33	Snare 1	---	18	Syn Kick 1	---
22	A#0	58	SynSnare 2	---	47	AmbiSnare1	---	33	Snare 1	---	57	SynSnare 1	---
23	B0	20	Syn Kick 3	---	10	Real Kick	---	20	Syn Kick 3	---	20	Syn Kick 3	---
24	C1	57	SynSnare 1	---	50	GatedSnare	---	57	SynSnare 1	---	57	SynSnare 1	---
25	C#1	49	Rock Snare	---	37	PicloSnare	---	33	Snare 1	---	39	LightSnare	---
26	D1	130	OilDrum	---	49	Rock Snare	---	48	AmbiSnare2	---	48	AmbiSnare2	---
27	D#1	18	Syn Kick 1	---	0	Fat Kick	---	2	Ambi.Kick	---	2	Ambi.Kick	---
28	E1	12	Gated Kick	---	16	Dance Kick	---	49	Rock Snare	---	5	PillowKick	---
29	F1	51	PowerSnare	---	48	AmbiSnare2	---	358	WhiteNoise	---	40	FullRoomSD	---
30	F#1	104	ClosSynHH1	1	93	Close HH	1	299	Zap 2	1	94	Open HH 1	1
31	G1	0	Fat Kick	---	2	Ambi.Kick	---	7	Dry Kick 1	---	7	Dry Kick 1	---
32	G#1	298	Zap 1	---	298	Zap 1	---	298	Zap 1	---	404	Metronome2	---
33	A1	50	GatedSnare	---	40	FullRoomSD	---	397	Gun Shot 1	---	43	DrySnare 1	---
34	A#1	51	PowerSnare	---	33	Snare 1	---	134	SolidHit	---	40	FullRoomSD	---
35	B1	2	Ambi.Kick	---	18	Syn Kick 1	---	18	Syn Kick 1	---	2	Ambi.Kick	---
36	C2	21	Syn Kick 4	---	20	Syn Kick 3	---	16	Dance Kick	---	8	Dry Kick 2	---
37	C#2	80	Syn Rim	---	80	Syn Rim	---	404	Metronome2	---	78	Side Stick	---
38	D2	58	SynSnare 2	---	57	SynSnare 1	---	40	FullRoomSD	---	39	LightSnare	---
39	D#2	269	Syn Claps	---	269	Syn Claps	---	269	Syn Claps	---	268	Hand Claps	---
40	E2	47	AmbiSnare1	---	58	SynSnare 2	---	47	AmbiSnare1	---	34	Snare 2	---
41	F2	131	Syn Tom 1	---	132	SynTom2 Hi	---	128	ProcessTom	---	120	Tom 1 Lo	---
42	F#2	93	Close HH	1	104	ClosSynHH1	1	93	Close HH	1	93	Close HH	1
43	G2	131	Syn Tom 1	---	132	SynTom2 Hi	---	128	ProcessTom	---	120	Tom 1 Lo	---
44	G#2	97	Pedal HH 1	1	104	ClosSynHH1	1	104	ClosSynHH1	1	97	Pedal HH 1	1
45	A2	131	Syn Tom 1	---	132	SynTom2 Hi	---	128	ProcessTom	---	120	Tom 1 Lo	---
46	A#2	94	Open HH 1	1	106	OpenSynHH1	1	106	OpenSynHH1	1	94	Open HH 1	1
47	B2	131	Syn Tom 1	---	132	SynTom2 Hi	---	128	ProcessTom	---	120	Tom 1 Lo	---
48	C3	131	Syn Tom 1	---	132	SynTom2 Hi	---	128	ProcessTom	---	119	Tom 1 Hi	---
49	C#3	81	Crash Cym	---	106	OpenSynHH1	---	81	Crash Cym	---	81	Crash Cym	---
50	D3	131	Syn Tom 1	---	132	SynTom2 Hi	---	128	ProcessTom	---	119	Tom 1 Hi	---
51	D#3	117	Ride Cym 2	---	117	Ride Cym 2	---	117	Ride Cym 2	---	117	Ride Cym 2	---
52	E3	313	Rev.Cymbal	---	83	China Cym	---	313	Rev.Cymbal	---	83	China Cym	---
53	F3	115	Ride Cup	---	115	Ride Cup	---	115	Ride Cup	---	115	Ride Cup	---
54	F#3	206	Tambourine	---	206	Tambourine	---	206	Tambourine	---	206	Tambourine	---
55	G3	85	Splash Cym	---	85	Splash Cym	---	85	Splash Cym	---	85	Splash Cym	---
56	G#3	235	Cowbell 1	---	237	SynCowbell	---	237	SynCowbell	---	235	Cowbell 1	---
57	A3	81	Crash Cym	---	81	Crash Cym	---	81	Crash Cym	---	81	Crash Cym	---
58	A#3	263	Viblaslap	---	263	Viblaslap	---	263	Viblaslap	---	263	Viblaslap	---
59	B3	117	Ride Cym 2	---	117	Ride Cym 2	---	117	Ride Cym 2	---	117	Ride Cym 2	---
60	C4	147	Hi Bongo	---	147	Hi Bongo	---	147	Hi Bongo	---	147	Hi Bongo	---
61	C#4	146	Lo Bongo	---	146	Lo Bongo	---	146	Lo Bongo	---	146	Lo Bongo	---

Key		Inst		Excl	Inst		Excl	Inst		Excl	Inst		Excl
62	D4	161	Slap Conga	---	132	SynTom2 Hi	---	162	Palm Conga	---	161	Slap Conga	---
63	D#4	160	Open Conga	---	132	SynTom2 Hi	---	160	Open Conga	---	160	Open Conga	---
64	E4	160	Open Conga	---	133	SynTom2 Lo	---	160	Open Conga	---	160	Open Conga	---
65	F4	239	Timbal1HiO	---	239	Timbal1HiO	---	239	Timbal1HiO	---	239	Timbal1HiO	---
66	F#4	240	Timbal1LoO	---	240	Timbal1LoO	---	240	Timbal1LoO	---	240	Timbal1LoO	---
67	G4	227	Agogo 1	---	227	Agogo 1	---	227	Agogo 1	---	227	Agogo 1	---
68	G#4	227	Agogo 1	---	227	Agogo 1	---	227	Agogo 1	---	227	Agogo 1	---
69	A4	190	Cabasa	---	190	Cabasa	---	190	Cabasa	---	190	Cabasa	---
70	A#4	196	SynMaracas	---	196	SynMaracas	---	196	SynMaracas	---	196	SynMaracas	---
71	B4	266	Whistle S	2	266	Whistle S	2	266	Whistle S	2	266	Whistle S	2
72	C5	267	Whistle L	2	267	Whistle L	2	267	Whistle L	2	267	Whistle L	2
73	C#5	264	Guiro S	4	264	Guiro S	4	264	Guiro S	4	264	Guiro S	4
74	D5	265	Guiro L	4	265	Guiro L	4	265	Guiro L	4	265	Guiro L	4
75	D#5	255	Claves	---	256	Syn Claves	---	256	Syn Claves	---	255	Claves	---
76	E5	253	WoodBlockM	---	253	WoodBlockM	---	253	WoodBlockM	---	253	WoodBlockM	---
77	F5	253	WoodBlockM	---	253	WoodBlockM	---	253	WoodBlockM	---	253	WoodBlockM	---
78	F#5	185	Mute Cuica	3	185	Mute Cuica	3	185	Mute Cuica	3	185	Mute Cuica	3
79	G5	186	Open Cuica	3	186	Open Cuica	3	186	Open Cuica	3	186	Open Cuica	3
80	G#5	224	MuteTriang	5	224	MuteTriang	5	224	MuteTriang	5	224	MuteTriang	5
81	A5	225	OpenTriang	5	225	OpenTriang	5	225	OpenTriang	5	225	OpenTriang	5
82	A#5	190	Cabasa	---	190	Cabasa	---	190	Cabasa	---	190	Cabasa	---
83	B5	221	JingleBell	---	221	JingleBell	---	221	JingleBell	---	221	JingleBell	---
84	C6	222	MarcTree 1	---	222	MarcTree 1	---	222	MarcTree 1	---	222	MarcTree 1	---
85	C#6	258	Castanet1V	---	258	Castanet1V	---	258	Castanet1V	---	258	Castanet1V	---
86	D6	169	Baya 1	6	169	Baya 1	6	169	Baya 1	6	169	Baya 1	6
87	D#6	122	Tom 2 Hi V	6	122	Tom 2 Hi V	6	122	Tom 2 Hi V	6	122	Tom 2 Hi V	6

Key		Inst		Excl	Inst		Excl	Inst		Excl	Inst		Excl
#	Note	Dr21 - Brush Kit			Dr22 - Orchestra Kit			Dr23 - Percussion Kit			Dr24 - Lati Perc. Kit		
21	A0	120	Tom 1 Lo	---	OFF	OFF		OFF	OFF		OFF	OFF	
22	A#0	120	Tom 1 Lo	---	OFF	OFF		OFF	OFF		224	MuteTriang	7
23	B0	120	Tom 1 Lo	---	OFF	OFF		OFF	OFF		225	OpenTriang	7
24	C1	120	Tom 1 Lo	---	56	RollSnare2	7	226	Flexatone	---	226	Flexatone	---
25	C#1	119	Tom 1 Hi	---	55	RollSnare1	7	344	FingCymbal	---	344	FingCymbal	---
26	D1	43	DrySnare 1	---	260	FingrSnap1	---	154	Tsuzumi	---	237	SynCowbell	---
27	D#1	32	Orch B.Drm	---	93	Close HH	1	146	Lo Bongo	---	257	Castanet 1	6
28	E1	4	Punch Kick	---	98	--	1	147	Hi Bongo	---	258	Castanet1V	---
29	F1	260	FingrSnap1	---	94	Open HH 1	1	146	Lo Bongo	---	260	FingrSnap1	---
30	F#1	94	Open HH 1	1	114	Ride Edge	---	206	Tambourine	---	262	Snap	---
31	G1	7	Dry Kick 1	---	77	Stick Hit	---	227	Agogo 1	---	278	MetalHitHi	---
32	G#1	78	Side Stick	---	262	Snap	---	366	Wind	---	279	MetalHitLo	---
33	A1	74	Brush Tap	---	403	Metronome1	---	227	Agogo 1	---	154	Tsuzumi	---
34	A#1	74	Brush Tap	---	347	Tubular 3	---	148	Slap Bongo	---	154	Tsuzumi	---
35	B1	5	PillowKick	---	10	Real Kick	---	254	WoodBlockL	---	154	Tsuzumi	---
36	C2	8	Dry Kick 2	---	32	Orch B.Drm	---	255	Claves	---	32	Orch B.Drm	1
37	C#2	78	Side Stick	---	78	Side Stick	---	253	WoodBlockM	---	32	Orch B.Drm	1
38	D2	357	BrushNoise	---	43	DrySnare 1	---	233	BongBellOp	---	227	Agogo 1	---
39	D#2	73	Brush Slap	---	258	Castanet1V	---	252	WoodBlockH	---	227	Agogo 1	---
40	E2	75	BrushSwish	---	43	DrySnare 1	---	257	Castanet 1	---	160	Open Conga	---
41	F2	135	Brush Tom	---	137	Timpani	---	170	Baya 2	---	163	Mute Conga	---
42	F#2	93	Close HH	1	137	Timpani	---	187	Shaker 1	---	162	Palm Conga	---
43	G2	135	Brush Tom	---	137	Timpani	---	169	Baya 1	---	161	Slap Conga	---
44	G#2	97	Pedal HH 1	1	137	Timpani	---	191	Maracas 1	---	196	SynMaracas	---
45	A2	135	Brush Tom	---	137	Timpani	---	170	Baya 2	---	160	Open Conga	---
46	A#2	94	Open HH 1	1	137	Timpani	---	190	Cabasa	---	224	MuteTriang	2
47	B2	135	Brush Tom	---	137	Timpani	---	173	Tabla 3	1	225	OpenTriang	2

Key		Inst		Excl	Inst		Excl	Inst		Excl	Inst		Excl
48	C3	135	Brush Tom	---	137	Timpani	---	172	Tabla 2	1	163	Mute Conga	---
49	C#3	81	Crash Cym	---	137	Timpani	---	263	Viblaslap	---	162	Palm Conga	---
50	D3	135	Brush Tom	---	137	Timpani	---	171	Tabla 1	1	161	Slap Conga	---
51	D#3	117	Ride Cym 2	---	137	Timpani	---	224	MuteTriang	3	206	Tambourine	---
52	E3	83	China Cym	---	137	Timpani	---	32	Orch B.Drm	---	160	Open Conga	---
53	F3	114	Ride Edge	---	137	Timpani	---	225	OpenTriang	3	146	Lo Bongo	---
54	F#3	206	Tambourine	---	206	Tambourine	---	264	Guiro S	2	146	Lo Bongo	---
55	G3	85	Splash Cym	---	85	Splash Cym	---	221	JingleBell	---	147	Hi Bongo	---
56	G#3	235	Cowbell 1	---	235	Cowbell 1	---	265	Guiro L	2	240	Timbal1LoO	---
57	A3	81	Crash Cym	---	81	Crash Cym	---	222	MarcTree 1	---	148	Slap Bongo	---
58	A#3	263	Viblaslap	---	263	Viblaslap	---	223	MarcTree 2	---	240	Timbal1LoO	---
59	B3	116	Ride Cym 1	---	87	Orch Cym	---	191	Maracas 1	---	206	Tambourine	---
60	C4	147	Hi Bongo	---	147	Hi Bongo	---	268	Hand Claps	---	241	Timbal1Pil	---
61	C#4	146	Lo Bongo	---	146	Lo Bongo	---	269	Syn Claps	---	239	Timbal1HiO	---
62	D4	161	Slap Conga	---	161	Slap Conga	---	301	Scratch Lo	---	241	Timbal1Pil	---
63	D#4	160	Open Conga	---	160	Open Conga	---	300	Scratch Hi	---	239	Timbal1HiO	---
64	E4	160	Open Conga	---	160	Open Conga	---	302	ScratchDbl	---	238	Timbal1HiR	---
65	F4	239	Timbal1HiO	---	239	Timbal1HiO	---	266	Whistle S	4	238	Timbal1HiR	---
66	F#4	240	Timbal1LoO	---	240	Timbal1LoO	---	267	Whistle L	4	212	Rek Dom 2	---
67	G4	227	Agogo 1	---	227	Agogo 1	---	161	Slap Conga	---	212	Rek Dom 2	---
68	G#4	227	Agogo 1	---	227	Agogo 1	---	163	Mute Conga	---	212	Rek Dom 2	---
69	A4	190	Cabasa	---	190	Cabasa	---	160	Open Conga	---	214	Rek Slap	---
70	A#4	196	SynMaracas	---	196	SynMaracas	---	160	Open Conga	---	233	BongBellOp	---
71	B4	266	Whistle S	2	266	Whistle S	2	185	Mute Cuica	---	254	WoodBlockL	---
72	C5	267	Whistle L	2	267	Whistle L	2	186	Open Cuica	---	253	WoodBlockM	---
73	C#5	264	Guiro S	4	264	Guiro S	4	241	Timbal1Pil	---	234	BongBellMt	---
74	D5	265	Guiro L	4	265	Guiro L	4	238	Timbal1HiR	---	191	Maracas 1	---
75	D#5	255	Claves	---	255	Claves	---	239	Timbal1HiO	---	232	Manbo Bell	---
76	E5	253	WoodBlockM	---	253	WoodBlockM	---	240	Timbal1LoO	---	190	Cabasa	---
77	F5	253	WoodBlockM	---	253	WoodBlockM	---	256	Syn Claves	---	189	Shaker 3	---
78	F#5	185	Mute Cuica	3	185	Mute Cuica	3	237	SynCowbell	---	235	Cowbell 1	---
79	G5	186	Open Cuica	3	186	Open Cuica	3	260	FingrSnap1	---	187	Shaker 1	---
80	G#5	224	MuteTriang	5	224	MuteTriang	5	138	Taiko Hi	---	187	Shaker 1	---
81	A5	225	OpenTriang	5	225	OpenTriang	5	139	Taiko Lo	---	188	Shaker 2	---
82	A#5	190	Cabasa	---	190	Cabasa	---	299	Zap 2	---	251	Tambourim3	---
83	B5	221	JingleBell	---	221	JingleBell	---	55	RollSnare1	5	249	Tambourim1	---
84	C6	222	MarcTree 1	---	222	MarcTree 1	---	56	RollSnare2	5	250	Tambourim2	---
85	C#6	258	Castanet1V	---	258	Castanet1V	---	87	Orch Cym	6	250	Tambourim2	---
86	D6	169	Baya 1	6	169	Baya 1	6	87	Orch Cym	6	249	Tambourim1	---
87	D#6	122	Tom 2 Hi V	6	122	Tom 2 Hi V	6	179	Udu	---	179	Udu	---
88	E6	OFF	OFF		383	Applause 1	1	288	Orch Hit	---	180	DjembeOpen	---
89	F6	OFF	OFF		OFF	OFF		288	Orch Hit	---	191	Maracas 1	---
90	F#6	OFF	OFF		OFF	OFF		288	Orch Hit	---	191	Maracas 1	---
91	G6	OFF	OFF		OFF	OFF		288	Orch Hit	---	185	Mute Cuica	---
92	G#6	OFF	OFF		OFF	OFF		288	Orch Hit	---	265	Guiro L	3
93	A6	OFF	OFF		OFF	OFF		288	Orch Hit	---	264	Guiro S	3
94	A#6	OFF	OFF		OFF	OFF		288	Orch Hit	---	264	Guiro S	3
95	B6	OFF	OFF		OFF	OFF		288	Orch Hit	---	186	Open Cuica	---
96	C7	OFF	OFF		OFF	OFF		288	Orch Hit	---	255	Claves	---
97	C#7	OFF	OFF		OFF	OFF		288	Orch Hit	---	266	Whistle S	4
98	D7	OFF	OFF		OFF	OFF		288	Orch Hit	---	267	Whistle L	4
99	D#7	OFF	OFF		OFF	OFF		288	Orch Hit	---	203	Sagat Open	5
100	E7	OFF	OFF		OFF	OFF		288	Orch Hit	---	204	Sagat HfOp	5
101	F7	OFF	OFF		OFF	OFF		288	Orch Hit	---	205	SagatClose	5
102	F#7	OFF	OFF		OFF	OFF		288	Orch Hit	---	221	JingleBell	---
103	G7	OFF	OFF		OFF	OFF		288	Orch Hit	---	222	MarcTree 1	---
104	G#7	OFF	OFF		OFF	OFF		288	Orch Hit	---	223	MarcTree 2	---
105	A7	OFF	OFF		OFF	OFF		288	Orch Hit	---	360	Tri Roll	2

Key		Inst		Excl	Inst		Excl	Inst		Excl	Inst		Excl
106	A#7	OFF	OFF		OFF	OFF		288	Orch Hit	---	361	Cast Roll	6
107	G8	OFF	OFF		OFF	OFF		288	Orch Hit	---	403	Metronome1	---

Key		Inst		Excl	Inst		Excl	Inst		Excl	Inst		Excl
#	Note	Dr25 - Arabian Kit			Dr26 - SFX Kit			Dr27 - User 1			Dr28 - User 2		
21	A0	404	Metronome2	---	OFF	OFF							
22	A#0	347	Tubular 3	---	OFF	OFF							
23	B0	235	Cowbell 1	---	OFF	OFF							
24	C1	235	Cowbell 1	---	OFF	OFF							
25	C#1	55	RollSnare1	---	OFF	OFF							
26	D1	260	FingrSnap1	---	OFF	OFF							
27	D#1	299	Zap 2	---	OFF	OFF							
28	E1	91	Tite HH 1	---	OFF	OFF							
29	F1	280	Gt Scratch	---	OFF	OFF							
30	F#1	280	Gt Scratch	---	OFF	OFF							
31	G1	77	Stick Hit	---	304	Scratch b	1						
32	G#1	162	Palm Conga	---	305	Scratch c	1						
33	A1	404	Metronome2	---	282	GtCutNois1	---						
34	A#1	403	Metronome1	---	283	GtCutNois2	---						
35	B1	2	Ambi.Kick	---	285	Chic 2	---						
36	C2	10	Real Kick	---	284	Chic 1	---						
37	C#2	78	Side Stick	---	286	Bass Slide	---						
38	D2	33	Snare 1	---	280	Gt Scratch	---						
39	D#2	268	Hand Claps	---	298	Zap 1	---						
40	E2	33	Snare 1	---	358	WhiteNoise	---						
41	F2	120	Tom 1 Lo	---	300	Scratch Hi	2						
42	F#2	91	Tite HH 1	1	301	Scratch Lo	2						
43	G2	120	Tom 1 Lo	---	77	Stick Hit	---						
44	G#2	91	Tite HH 1	1	382	Footstep 2	---						
45	A2	120	Tom 1 Lo	---	404	Metronome2	---						
46	A#2	94	Open HH 1	1	403	Metronome1	---						
47	B2	119	Tom 1 Hi	---	281	Gtr Slide	---						
48	C3	119	Tom 1 Hi	---	282	GtCutNois1	---						
49	C#3	81	Crash Cym	2	282	GtCutNois1	---						
50	D3	119	Tom 1 Hi	---	287	StringSlap	---						
51	D#3	117	Ride Cym 2	3	287	StringSlap	---						
52	E3	182	Darabuka O	---	377	Laughing V	---						
53	F3	184	Darabuka M	---	378	Scream	---						
54	F#3	206	Tambourine	---	379	Punch	---						
55	G3	183	Darabuka R	---	380	Hart Beat	---						
56	G#3	235	Cowbell 1	---	381	Footstep 1	---						
57	A3	183	Darabuka R	---	381	Footstep 1	---						
58	A#3	190	Cabasa	---	383	Applause 1	---						
59	B3	142	Douf Dom	---	387	Door Creak	---						
60	C4	145	Douf Tak 2	---	388	Door Slam	---						
61	C#4	146	Lo Bongo	---	303	Scratch a	---						
62	D4	144	Douf Tak 1	---	223	MarcTree 2	---						
63	D#4	147	Hi Bongo	---	389	Car Engine	---						
64	E4	143	Douf Rim	---	390	Car Stop	---						
65	F4	174	Tabla Dom	---	391	Car Pass	---						
66	F#4	178	Tabla Roll	4	392	Car Crash	---						
67	G4	175	Tabla Tak	4	394	Siren	---						
68	G#4	176	Tabla Flam	---	395	Train	---						
69	A4	177	Tabla Rim	---	359	Jetstar	---						
70	A#4	148	Slap Bongo	---	396	Helicopter	---						
71	B4	172	Tabla 2	---	400	Laser Gun	---						

Key		Inst		Excl	Inst		Excl	Inst		Excl	Inst		Excl
72	C5	212	Rek Dom 2	---	398	Gun Shot 2	---						
73	C#5	213	Rek Tak	---	399	MachineGun	---						
74	D5	211	Rek Dom 1	---	400	Laser Gun	---						
75	D#5	215	Rek Rim	---	401	Explosion	---						
76	E5	215	Rek Rim	---	374	Dog	---						
77	F5	214	Rek Slap	---	376	Gallop	---						
78	F#5	206	Tambourine	---	371	Bird 1	3						
79	G5	212	Rek Dom 2	---	364	Rain	---						
80	G#5	206	Tambourine	2	365	Thunder	---						
81	A5	213	Rek Tak	2	366	Wind	---						
82	A#5	215	Rek Rim	---	367	Seashore	---						
83	B5	214	Rek Slap	---	369	Stream	---						
84	C6	203	Sagat Open	5	370	Bubble	---						
85	C#6	204	Sagat HfOp	5	373	Kitty	---						
86	D6	205	SagatClose	5	372	Bird 2	---						
87	D#6	221	JingleBell	---	375	Growl 2	---						
88	E6	180	DjembeOpen	6	356	Stadium	---						
89	F6	180	DjembeOpen	6	385	Telephone1	---						
90	F#6	182	Darabuka O	6	386	Telephone2	---						
91	G6	203	Sagat Open	7	OFF	OFF							
92	G#6	204	Sagat HfOp	7	OFF	OFF							
93	A6	205	SagatClose	7	OFF	OFF							
94	A#6	221	JingleBell	---	OFF	OFF							
95	B6	10	Real Kick	---	OFF	OFF							
96	C7	361	Cast Roll	---	OFF	OFF							
97	C#7	OFF	OFF		OFF	OFF							
98	D7	OFF	OFF		OFF	OFF							
99	D#7	OFF	OFF		OFF	OFF							
100	E7	OFF	OFF		OFF	OFF							
101	F7	OFF	OFF		OFF	OFF							
102	F#7	OFF	OFF		OFF	OFF							
103	G7	OFF	OFF		OFF	OFF							
104	G#7	OFF	OFF		OFF	OFF							
105	A7	OFF	OFF		OFF	OFF							
106	A#7	OFF	OFF		OFF	OFF							
107	G8	OFF	OFF		OFF	OFF							

Drum samples

#	Instr	#	Instr	#	Instr	#	Instr	#	Instr	#	Instr	#	Instr	#	Instr
1	Fat Kick	52	PoweSnare	103	--	154	--	205	Sagat HfOp	256	Claves	307	Growl 1	358	BrushNoise
2	Rock Kick	53	--	104	--	155	Tsuzumi	206	SagatClose	257	Syn Claves	308	Monkey 2	359	WhiteNoise
3	Ambi.Kick	54	--	105	ClsSynHH1	156	--	207	Tambourine	258	Castanet 1	309	Rev.Kick	360	Jetstar
4	Crisp Kick	55	--	106	--	157	--	208	--	259	Castanet1V	310	Rev.ConBD	361	Tri Roll
5	Punch Kick	56	RollSnare1	107	OpSynHH1	158	--	209	--	260	--	311	Rev.Snare1	362	Cast Roll
6	PillowKick	57	RollSnare2	108	--	159	--	210	--	261	FingrSnap1	312	Rev.Snare2	363	Lore
7	--	58	SynSnare 1	109	--	160	--	211	--	262	--	313	Rev.Snare3	364	MalletLoop
8	Dry Kick 1	59	SynSnare 2	110	--	161	OpnConga	212	Rek Dom 1	263	Snap	314	RevCymbal	365	Rain
9	Dry Kick 2	60	--	111	--	162	Slap Conga	213	Rek Dom 2	264	Viblaslap	315	Rev.Tom 1	366	Thunder
10	--	61	--	112	--	163	PalmConga	214	Rek Tak	265	Guiro S	316	Rev.Tom 2	367	Wind
11	Real Kick	62	--	113	--	164	MuteConga	215	Rek Slap	266	Guiro L	317	Kalimba 1	368	Seashore
12	--	63	--	114	--	165	--	216	Rek Rim	267	Whistle S	318	Kalimba 2	369	Seashore V
13	Gated Kick	64	--	115	Ride Edge	166	--	217	--	268	Whistle L	319	MusicBox 1	370	Stream
14	--	65	--	116	Ride Cup	167	--	218	--	269	Hand Claps	320	MusicBox 2	371	Bubble
15	ProcesKick	66	--	117	Ride Cym 1	168	--	219	--	270	Syn Claps	321	Log Drum 1	372	Bird 1
16	Metal Kick	67	--	118	Ride Cym 2	169	--	220	--	271	--	322	Log Drum 2	373	Bird 2
17	Dance Kick	68	--	119	--	170	Baya 1	221	--	272	--	323	Log Drum 3	374	Kitty
18	--	69	--	120	Tom 1 Hi	171	Baya 2	222	JingleBell	273	--	324	Log Drum 4	375	Dog
19	Syn Kick 1	70	--	121	Tom 1 Lo	172	Tabla 1	223	MarcTree 1	274	--	325	Log Drum 5	376	Growl 2
20	Syn Kick 2	71	--	122	Tom 2 Hi	173	Tabla 2	224	MarcTree 2	275	--	326	Marimba 1	377	Gallop
21	Syn Kick 3	72	--	123	Tom 2 Hi V	174	Tabla 3	225	MuteTriang	276	--	327	Marimba 2	378	Laughing V
22	Syn Kick 4	73	--	124	Tom 2 Lo	175	Tabla Dom	226	OpenTriang	277	--	328	Marimba 3	379	Scream
23	--	74	Brush Slap	125	Tom 2 Lo V	176	Tabla Tak	227	Flexatone	278	--	329	Marimba 4	380	Punch
24	--	75	Brush Tap	126	--	177	Tabla Flam	228	Agogo 1	279	MetalHitHi	330	Xylofon 1	381	Hart Beat
25	--	76	BrshSwish	127	--	178	Tabla Rim	229	--	280	MetalHitLo	331	Xylofon 2	382	Footstep 1
26	--	77	BrushSwirl	128	--	179	Tabla Roll	230	--	281	Gt Scratch	332	Xylofon 3	383	Footstep 2
27	--	78	Stick Hit	129	ProcesTom	180	Udu	231	--	282	Gtr Slide	333	Vibe 1	384	Applause 1
28	--	79	Side Stick	130	--	181	DjembeOp	232	--	283	GtCutNois1	334	Vibe 2	385	Applause 2
29	--	80	--	131	OilDrum	182	--	233	Manbo Bell	284	GtCutNois2	335	Vibe 3	386	Telephone1
30	--	81	Syn Rim	132	Syn Tom 1	183	DarabukaO	234	BongBellO	285	Chic 1	336	Vibe 4	387	Telephone2
31	--	82	Crash Cym	133	SynTom2Hi	184	Darabuka R	235	BongBellMt	286	Chic 2	337	Celeste	388	Door Creak
32	--	83	Crash LP	134	SynTom2L	185	DarabukaM	236	Cowbell 1	287	Bass Slide	338	Glocken 1	389	Door Slam
33	Orch B.Drm	84	China Cym	135	SolidHit	186	Mute Cuica	237	--	288	StringSlap	339	Glocken 2	390	Car Engine
34	Snare 1	85	China LP	136	Brush Tom	187	Open Cuica	238	SynCowbell	289	Orch Hit	340	Glocken 3	391	Car Stop
35	Snare 2	86	SplashCym	137	BrshTom V	188	Shaker 1	239	Timbal1HiR	290	ImpactHitL	341	BrightBell	392	Car Pass
36	Snare 3	87	Splash LP	138	Timpani	189	Shaker 2	240	Timbal1HiO	291	ImpactHitR	342	Metal Bell	393	Car Crash
37	Snare 4	88	Orch Cym	139	Taiko Hi	190	Shaker 3	241	Timbal1LO	292	Rave Hit L	343	Gamelan 1	394	GlassBreak
38	PicloSnare	89	OrchCmLP	140	Taiko Lo	191	Cabasa	242	Timbal1Pil	293	Rave Hit R	344	Gamelan 2	395	Siren
39	Soft Snare	90	--	141	--	192	Maracas 1	243	--	294	Philly Hit	345	FingCym	396	Train
40	LightSnare	91	--	142	--	193	--	244	--	295	BrassFall1	346	Tubular 1	397	Helicopter
41	FullRmSD	92	Tite HH 1	143	Douf Dom	194	--	245	--	296	BrassFall2	347	Tubular 2	398	Gun Shot 1
42	--	93	--	144	Douf Rim	195	--	246	--	297	BrassFall3	348	Tubular 3	399	Gun Shot 2
43	--	94	Close HH	145	Douf Tak 1	196	--	247	--	298	BrassFall4	349	ChurchBell	400	MachinGun
44	DrySnare 1	95	Open HH 1	146	Douf Tak 2	197	SynMaracs	248	--	299	Zap 1	350	Gong Hi	401	Laser Gun
45	--	96	--	147	Lo Bongo	198	--	249	--	300	Zap 2	351	Gong Lo	402	Explosion
46	--	97	--	148	Hi Bongo	199	--	250	Tambrim1	301	Scratch Hi	352	MouthHrp1	403	HandDrill
47	TightSnare	98	Pedal HH 1	149	Slap Bongo	200	--	251	Tambrim2	302	Scratch Lo	353	MthHrp1A	404	Metron1
48	AmbSnar1	99	--	150	--	201	--	252	Tambrim3	303	ScratchDbl	354	MouthHrp2	405	Metron2
49	AmbSnar2	100	--	151	--	202	--	253	WoodBlkH	304	Scratch a	355	MthHrp2A	406	testwave
50	Rock Snare	101	--	152	--	203	--	254	WoodBlkM	305	Scratch b	356	Spectrum 1		
51	GatdSnare	102	--	153	--	204	SagatOpen	255	WoodBlkL	306	Scratch c	357	Stadium		

Specifications

Features	iS40	iS50
Keyboard	61 notes with velocity and aftertouch	61 notes with velocity
Generation system	AI^2 Synthesis System	
Tone generator	32 voices, 32 oscillators	
Waveform memory	14MB PCM ROM	12MB PCM ROM
Effects	2 stereo digital multi-effect systems, 47 effects - Edit effects	
Programs	320 programs (including GM programs) + 14 drum kits + 64 user programs + 2 user drum kits	
Styles	128 styles + 16 user styles	
Arrangements	128 arrangements + 64 user arrangements	
Keyboard set	15	--
Song	Midi file player format 0 and 1 (16 tracks), GM compatible	
Backing sequence	10, stored in RAM (40,000 events)	
Control inputs	Damper Pedal, Assignable Pedal/Switch, EC5	Assignable Pedal /Switch
Audio outputs	Left/Mono, Right	
Audio inputs	Left/Mono, Right	--
MIDI	In, Out, Thru + PC interface (PC TO HOST) IBM PC and Macintosh compatible	In, Out
Floppy Disk	3.5 inch 2DD/2HD (IBM PC 1.44 MB)	
Display	Backlit custom LCD	
Main Amplifier	2 x 14watt	2 x 8 watt
Speakers	4 speakers (in Bass Reflex Box)	2 speakers (dual concentric speakers in Bass Reflex Box)
Controls	Joystick, Dial	Joystick
Aftertouch	Yes	--
Dimensions (W x D x H)	1110 x 386 x 142 mm (43.7 x 15.1 x 5.6inch) without music rest	
Weight	12,9 kg (28.4 lbs)	11,5 kg (25.3 lbs)

Index

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