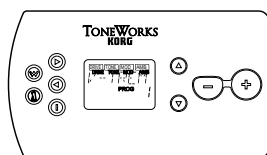




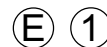
PANDORA

PX 1

OWNER'S MANUAL



TONEWORKS
GUITAR HYPERFORMANCE PRODUCTS
KORG



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).

NOTICE

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 from the manufacturer's/distributor's warranty and liability. This requirement is for your own protection and safety.

KORG KORG INC.
15-12, Shimotakaido 1-chome, Suginami-ku, Tokyo, Japan

To ensure long, trouble-free operation, please read this manual carefully.

Precautions

Location

Using the unit in the following locations can result in a malfunction.

- In direct sunlight
- Locations of extreme temperature or humidity
- Excessively dusty or dirty locations
- Locations of excessive vibration

Power supply

Please connect the supplied AC adaptor to an AC outlet of the correct voltage. Do not connect it to an AC outlet of voltage other than that for which your unit is intended.

Interference with other electrical devices

This product contains a microcomputer. Radios and televisions placed nearby may experience reception interference. Operate this unit at a suitable distance from radios and televisions.

Handling

To avoid breakage, do not apply excessive force to the switches or controls.

Care

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

Keep this manual

After reading this manual, please keep it for later reference.

Keeping foreign matter out of your equipment

- Never set any container with liquid in it near this equipment. If liquid gets into the equipment, it could cause a breakdown, fire, or electrical shock.
- Be careful not to let metal objects get into the equipment. If something does slip into the equipment, unplug the AC adaptor from the wall outlet. Then contact your nearest Korg dealer or the store where the equipment was purchased.

THE FCC REGULATION WARNING

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interferences to radio and television reception. It has been type tested and found to comply with the limits for a class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause 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 the receiving antenna.
- Relocate the equipment with respect to the receiver.
- Move the equipment away from the receiver.
- Plug the equipment into a different outlet so that equipment and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful: "How to Identify and Resolve Radio-TV Interference Problems". This booklet is available from the US Government Printing Office, Washington, D.C.20402, stock No. 004-000-00345-4.

CANADA

THIS DIGITAL 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 MINISTERE DES COMMUNICATIONS DU CANADA.

Introduction

Thank you for purchasing the Korg **TONEWORKS PANDORA** Personal Multi Effect Processor.

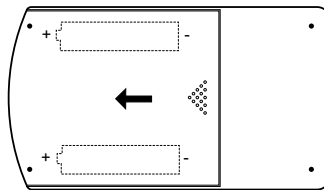
Main features

PANDORA is a multi-function yet compact-sized effect unit.

- IPE (Integrated Parameter Edit) system — easy to adjust effect settings
- Tuner function — quick tuning
- Metronome function — convenient for practicing
- 60 types of effect variation
- 20 user programs
- LCD backlit by new luminous material — easy viewing in dark locations without wearing down the batteries

Turning on the power

Remove the battery cover located on the bottom of the base by sliding it in the direction of the arrow. Insert two AA alkaline batteries (sold separately) as shown in the illustration. Be careful to insert the batteries in the correct orientation.



Specifications PX1 PANDORA Personal Multi Effect Processor

Number of programs: 20

Inputs: guitar input (phone jack)

AUX IN (mini stereo jack)

Output: line/headphone dual-purpose output (stereo phone jack)

Tuner section detection range: 27.5 Hz — 2093 Hz (A0—C7)

Metronome section tempo: ♩ = 40—208

Power supply: two AA alkaline batteries

battery life is 8.5 hours of continuous use (using headphones)

or

separately sold AC adapter (DC 9V)

be sure to use only the specified AC adapter.

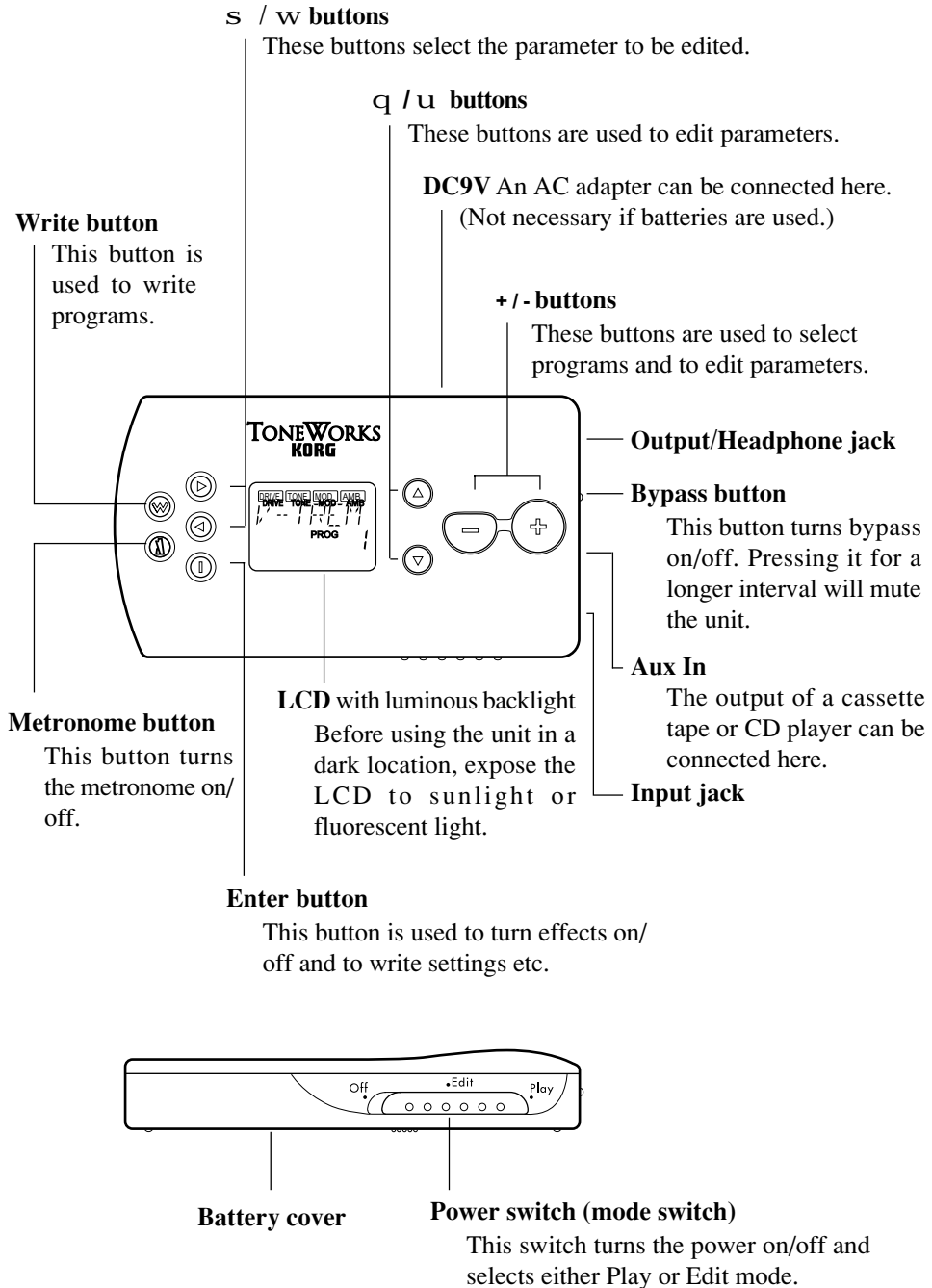
Dimensions: 127.5 mm x 22.5 mm x 75 mm (W x H x D)

Weight: 180 g (including batteries)

Options: carrying case, AC adapter (DC 9V)

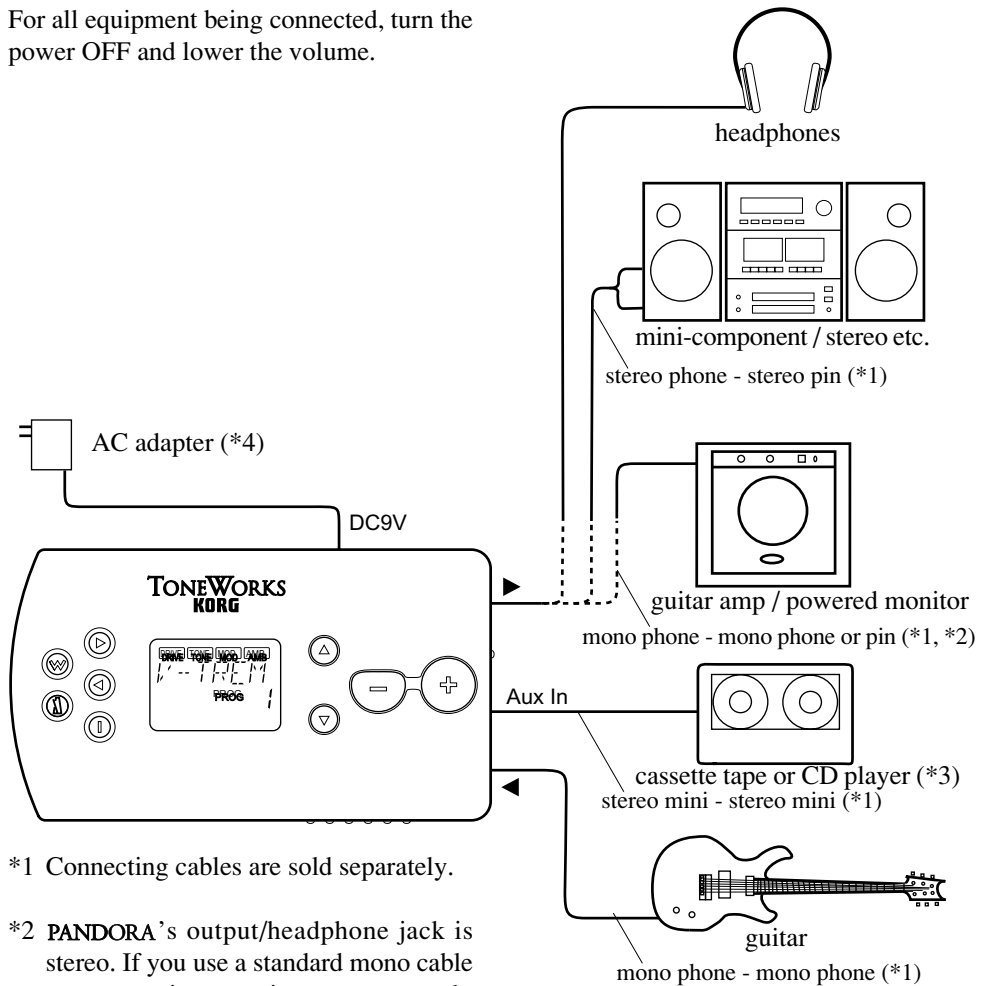
Appearance and specifications are subject to change without notice for product improvement.

Controls and connectors



Making connections

For all equipment being connected, turn the power OFF and lower the volume.



*1 Connecting cables are sold separately.

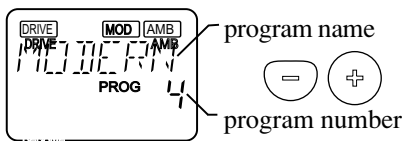
*2 PANDORA's output/headphone jack is stereo. If you use a standard mono cable to connect it to a guitar amp etc., only the L (left) output will be heard.

*3 If a cassette tape or CD player is connected to AUX IN you can play along on your guitar with a tape, etc. However the volume must be adjusted on the connected device.

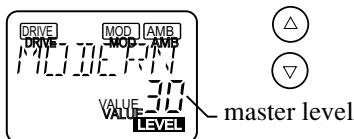
*4 If you are using PANDORA with batteries, the AC adapter will not be necessary. Be sure to use only the specified AC adapter.

Try it out

When you finish making connections, set the power switch in the “Play” position. Use the + / - buttons to select a program. Select a clean-type program that will be suitable for making volume settings. (As an example here, we will select Program 4 “MODERN”.)



Set the volume control of the guitar to its usual position. Press the Δ or ∇ buttons and the master level will be displayed. Continue pressing the Δ or ∇ buttons to adjust the volume.



PANDORA does not have an input volume control. If the sound still distorts even when the master level is lowered, lower the volume of the guitar.

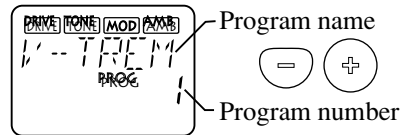
For further details refer to the explanations of Play Mode and Edit Mode.

Play mode

Set the power switch to the right position. Play mode is the mode in which you will normally use PANDORA.

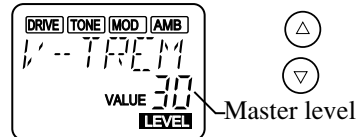
1. Program change

You can select from 20 user programs. Press the + / - buttons to select programs.



2. Master level


Press the Δ / ∇ buttons and the current master level value will be displayed in the LCD.



By continuing to press the Δ / ∇ buttons you can set the master level. The master level is remembered each time it is set, and will be remembered even when the power is turned off.

3. Bypass / Mute

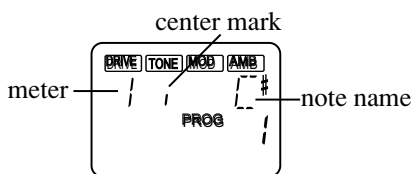
When the bypass button is pressed, the chain display (DRIVE | TONE | MOD | AMB) will change to slow blinking, and the direct sound (unprocessed by the effects) will be output. If you continue pressing the bypass button, the tune indicator will change to rapid blinking after approximately one second, and the output will be muted and there will be no sound. When PANDORA is bypassed or muted, the tuner will function. Press the bypass button once again to cancel bypass / mute.

 When you select a program, bypass / mute will be canceled.

4. Tuner


Select bypass or mute. The character and numeric displays will disappear, and the tuner will operate. Play a note on your guitar.

The note name is displayed in the right edge, and the tuning meter at the left. Tune your guitar so that the meter moves toward the center mark. Sharps are indicated at the upper right of the note name.



When the meter matches the center, the center mark will change to a “*”.

Pressing the Δ / ∇ buttons will display the calibration value (the value of standard pitch A). By continuing to press the Δ / ∇ buttons you can adjust the calibration over the range of A= 438 to 445 Hz. This setting will be lost when the power is turned off, and will be reset to A=440 Hz when the power is next turned on.

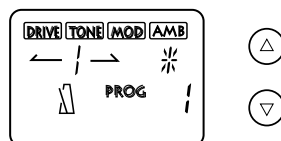
 Tuner calibration can be displayed and adjusted only in Play mode when the metronome is OFF.

When you select a program, bypass / mute and tuner will be defeated.

5. Metronome ()


Pressing the metronome button will start the metronome. At this time, the tempo will be displayed for approximately 1 second. In Play mode, the metronome display will appear when the tempo display is off.

The indicator will move to left and right in time with the tempo. Press the metronome button once again and the metronome will stop.



metronome display in Play mode

While the metronome is sounding, you can press the Δ / ∇ buttons to display the current tempo. By continuing to press the Δ / ∇ buttons you can set the tempo. The tempo will be remembered as it is set. (In Edit mode, the tempo can be set only when it is displayed.)

 If you turn on the metronome while PANDORA is bypassed, the tuner function will be defeated.


When you select a program the bypass / mute and tuner functions will be defeated, but the metronome will continue to operate, and the program name will be displayed for approximately 1 second.

6. Write (same for Edit mode)

Press the Write button. Use the Δ / ∇ buttons to select the program number into which you wish to write. Press the Enter button and the program will be written. When the data has been written, the display will indicate “COMPLT” for approximately 1 second. If you decide not to write, press the Write button once again and the operation will be canceled. (In Play mode, you can copy a program by writing it into a different program number.)

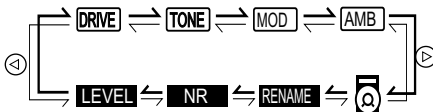
Edit mode

Set the power switch to the center “Edit” position. Here you can turn each effect on / off, and edit the type and value settings.

 In Edit mode, you can turn on bypass or muting, but editing cannot be performed while these are on. You must defeat bypass or muting before you edit.

1. Selecting a parameter to edit

Use the $\triangleright/\triangleleft$ buttons to select the parameter that you wish to edit. Pressing the $\triangleright/\triangleleft$ buttons will cycle through the parameters in the following order.

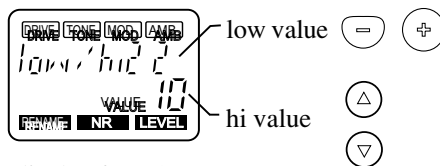


The currently selected parameter will blink. Parameters which are turned off cannot be edited. To edit an effect which is turned off, use the $\triangleright/\triangleleft$ buttons to select it and press the Enter key to turn the effect on.

2. Editing effect parameters

Use the following buttons to edit each effect; drive (DRIVE), tone (TONE), modulation (MOD), and ambience (AMB).

- Enter button: effect on / off (the display will indicate either “FX ON” or “FX OFF”)
- +/- buttons: Effect type (for TONE, the “low” value)
- \triangle/∇ buttons: value (for TONE, the “hi” value)



display for TONE

Drive (DRIVE): These effects are used mainly to process guitar gain; compressor, overdrive, distortion, etc.


Tone (TONE): This adjust the tone in the same way as an audio equalizer.

Modulation (MOD): This provides modulation-type effects such as chorus, flanger, and phaser.

Ambience (AMB): This provides reverberation-type effects such as delay, echo, and reverb, and pitch shifting.

TYPE is the parameter used to select variations of effects. You can select different effect variations in each of the following effect groups; DRIVE, MODULATION, AMBIENCE and CABINET RESONATOR. (For example, if you’d like to use a flanger for the modulation effect you can choose from four types ranging from shallow flanging to deep flanging.)

VALUE is the parameter that determines the character of the effect, such as effect level, effect balance, speed, drive, sensitivity, etc. The effect parameter chart lists the parameters (for each effect) that can be adjusted.

 It is not possible to simultaneously use the ROOM, HALL, or PITCH effect of the ambience group (AMB) together with the modulation (MOD) group effects.

For example if ambience (AMB) ROOM, HALL, or PITCH is on, turning on a modulation (MOD) effect will turn off the ambience (AMB) effect.

3. Cabinet resonator ()

The cabinet resonator is a function which simulates the acoustical characteristics of the speaker cabinet of a guitar amp, and can even simulate the resonance of the speaker enclosure.

When you use the Enter button to turn this on/off, the display will indicate either “CR ON” or “CR OFF”.

When the cabinet resonator is on, you can use the +/- buttons to select the cabinet type.

4. Rename

You can modify the name of the program. Use the +/- buttons to move the cursor, and use the Δ / ∇ buttons to select characters.

5. NR (noise reduction)

Use the +/- buttons to set the strength of the noise reduction.

As you raise the value, the noise-suppressing effect will increase. Normally you will adjust this to a setting where noise is not obtrusive when the guitar strings are lightly muted.

6. Level

Use the +/- buttons to adjust the level of each program.

The output sound may clip depending on the DRIVE and TONE settings, so use this level setting to adjust it to avoid clipping.



The volume of each program will change depending on the guitar that you use. Make level settings as appropriate for your guitar.

7. Write

This is the same as in Play mode. Refer to Play mode “6. Write”.

Other functions

Battery empty indicator ()

When the battery runs down, the battery empty indicator will appear, and the area inside the battery will blink. When this appears, change the battery as soon as possible. The unit will have approximately 20 minutes of operation remaining after this display appears. Programs etc. will not be lost even if the battery is taken out.

Reloading the preset programs (factory programs)

Turn on the power while simultaneously pressing the Metronome button and the Enter button. The display will ask “LOAD?”. Press the + button and the preset programs will be loaded (the display will indicate “LOAD”), and then the power-on display will appear. If you press the ∇ button loading will not take place, and PANDORA will start up as usual.



Be aware that if you load the preset programs, all previous program settings will be lost.

Troubleshooting

If you suspect that there may be some problem with operation, check the following points. If this does not resolve the problem, consult your dealer or a Korg service station.

1. Power does not turn on.

- * Are batteries inserted?
Alternatively, is the AC adapter connected to an AC outlet?

2. No sound.

- * Are the guitar, amp, and headphones connected respectively to the appropriate jack?
- * Is the amp power turned on and is it set correctly?
- * Are the connecting cables broken?
 - If there is sound in the headphones, there is a problem with the connections after **PANDORA**.
- * Is the master level set to “0” or a low value?
- * Is the level (of each program) set to “0” or a low value?
- * Is the unit muted (the chain display **DRIVE | ITONE | MOD | AMB** blinking rapidly)?

rapidly)?

- Be aware that if all effects are off, the chain display will disappear, and it will not be possible to distinguish Bypass or Mute from the LCD display.

- * Is the guitar volume turned down?

3. The volume of the device connected to Aux In is too loud (or too soft).

- Adjust the output level of the connected device.
- Make connections from the headphone jack of the device that you wish to mix.

4. No effects.

- * Is the unit bypassed (the chain display **DRIVE | ITONE | MOD | AMB** blinking slowly)?
- * Are the effects used by the program turned on?

5. Tuner does not work.

- * Are you in Play mode and Bypassed or Muted?
 - In Play mode, select Bypass or Mute.

Effect parameters

	TYPE (+ / - buttons)		VALUE (▲ / ▼ buttons)
DRIVE	COMP	compressor	sets the strength of the compressor effect
	CRUNCH	mild overdrive	drive effects suitable for line out or headphones drive amount
	SCREAM	overdrive with an edge	
	TUBE	vintage-type overdrive	
	HOTBOX	distortion with many mid-range overtones	
	HIGAIN	high-gain type distortion	
	VALVE	high-gain distortion of a vintage amp	
	CRUSH	smooth and sustaining distortion	
SCOOP	mid-scooped-type distortion		

	TYPE (+ / - buttons)		VALUE (▲ / ▽ buttons)
DRIVE	QVD1/A	vinage-type overdrive	drive effects suitable for guitar amp
	QVD2/A	overdrive with an edge	
	DST1/A	sustaining distortion suitable for solos	
	DST2/A	mid scooped-type distortion	
TONE	LOW (low range) equalizer gain setting		HI (high range) equalizer gain setting
MOD	CHO1	chorus with triangle-wave LFO	sets the speed of modulation
	CHO2	chorus with sine-wave LFO	
	CHO3	chorus with effect sound output at left and direct sound at right	
	CHO4	doubling chorus	
	FLAN1/2/3	flanger ※FLAN 1,2,3 differ in the amount of feedback	
	FLAN4	flanger with inverted-phase feedback	
	VIB1	vibrato with cyclic change in pitch	
	VIB2/3/4	delayed vibrato where the effect is applied after a delay for sustained notes ※VIB 2,3,4 differ in the time until the vibrato starts	
	PHAS1	vinage-type phaser	
	PHAS2	phaser with strong peak	
	PHAS3	PHAS1 with inverted feedback	
	PHAS4	PHAS2 with inverted feedback	
	TREM1	light tremolo (LFO= ~)	
	TREM2	deep tremolo (LFO= ~)	
	TREM3	fairy light tremolo (LFO= /)	
	TREM4	fairy deep tremolo (LFO= /)	
	PAN1	auto-pan (LFO= ~)	
	PAN2	auto-pan (LFO= /)	

	TYPE (+ / - buttons)		VALUE (▲ / ▼ buttons)
MOD	AWAH1	auto-veh with fast attack	sets the sensitivity of auto-veh
	AWAH2	auto-veh with slow attack	
	AWAH3	auto-veh with fast attack and filter moving in opposite direction	
	AWAH4	auto-veh with slow attack and filter moving in opposite direction	
	WAH	wah-veh with fixed pedal	sets the fixed frequency
	RNDM12/3/4	random step filter with randomly moving filter *For RNDM 1,2,3,4 the filter will move in different frequency bands	sets the speed of modulation
AMB	DELAY1	ambient delay broadening to left and right when used in stereo	sets the mix balance of the delay sound and direct sound
	DELAY2	doubling delay	
	DELAY3	short delay	
	DELAY4	medium delay	
	DELAY5	medium long delay	
	DELAY6	long delay	
	ECHO1	short delay with feedback	
	ECHO2	medium delay with feedback	
	ECHO3	medium long delay with feedback	
	ECHO4	long delay with feedback	
	ECHO5	ping-pong delay 1	
	ECHO6	ping-pong delay 2	
	ROOM	room-type reverb	
	HALL	hall-type reverb	
		PITCH 12/3	
	PITCH4	pitch shifter with effect sound and dry sound split left/right	
	PITCH5/6/7/8	PITCH 1-4 with stereo delay	
CABINET RESONATOR	CABNT1	cabinet sound with resonant point in the mid-range	(not used)
	CABNT2	mid scooped-type cabinet sound	
	CABNT3	cabinet sound with resonant point in high mid-range	
	CABNT4	cabinet sound with "impossible" amount of resonance added	