





Parameter Guide

🚯 Bluetooth

AX-Edge Editor

To edit the tone parameters of the AX-Edge, you'll use the **"AX-Edge Editor"** smartphone app. You can download the app from the App Store if you're using an iOS device, or from Google Play if you're using an Android device.

AX-Edge Editor lets you edit all the parameters except system parameters of the AX-Edge.

"[A]+[B]" indicates the operation of "holding down the [A] button and pressing the [B] button."

Shortcut	Explanation	
Value [-] + [+]	To change the value rapidly, hold down one of the buttons and press the other button.	
[SHIFT] + Value [-] [+]	In the top screen, jumps between program categories. In a parameter edit screen, changes the value in steps of 10.	
[SHIFT] + ARPEGGIO [ON]	Jumps to the Arpeggio Edit screen.	
[SHIFT] + Octave [-] [+]	Raises or lowers the notes of the keyboard in semitone units.	
[SHIFT] + Favorite [Bank]	Shows the Battery Info screen.	
[SHIFT] + [◀] [▶]	Jumps between parameter categories (such as COMMON or SWITCH).	

When entering a name

Shortcut	Explanation
[SHIFT] + Value [-] [+]	Cycles between lowercase characters, uppercase characters, and numerals.

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How the AX-Edge Is Organized

Overview of the AX-Edge



Controller Section

The controller section is what you use for performing.

When you press or release the keyboard or press the modulation lever, the controller section sends performance data to the sound generator section.

The controller section of the AX-Edge consists of the keyboard, the **MODULATION BAR**, the **RIBBON CONTROLLER**, and the panel buttons and knobs.

Sound Generator Section

The sound generator section creates the sound.

It receives performance data sent from the controller section, and produces sound.

Program

On the AX-Edge, **"programs"** are the units by which you switch sounds.

A program consists of four parts and a vocoder part, and also contains arpeggio and effect settings for that program.

Tone

You can select one tone (sound) for each part.

A tone consists of four elements of sound (partials), and you can specify a multi-effect (MFX) for each tone.

You can also edit tones by using an editor app (AX-Edge Editor) on your smartphone.

Effect

The AX-Edge is equipped with a multi-effect for each tone (MFX), a multi-effect that can be specified for each program (IFX), and reverb, chorus/delay, compressor, and EQ effects that are applied to the final output (system effects).

Reverb and chorus/delay can also be specified and selected for each program.

System

System memory contains system parameter settings that specify how the AX-Edge is to operate. → "System Parameters" (p. 35)

Sound Generator Block Diagram



Effect

This unit has the following built-in effects.

Tone effects (editable only in AX-Edge Editor)

Partial equalizer (EQ)

This is an equalizer that you can apply to each partial. You can independently adjust the high, mid, and lowfrequency regions.

Multi effect (MFX)

This is a general-purpose multi-effect that modifies the sound itself, potentially giving it a completely different character.

It provides 79 effect types, and you can choose the type that suits your purpose.

In addition to types that consist of a single effect such as distortion or flanger, it also provides a variety of other types. Each tone has one set of multi-effect settings.

MEMO

Multi-effect settings are specified for each tone.

If you want to make multi-effect settings for a program (individual parts), go to "**PROGRAM SOUND**" \rightarrow "**MFX**" and change the "**FIIwToneMfx**" setting to "**OFF**" (p. 9).

Program effects

Part equalizer (EQ)

This is an equalizer that you can apply to each part. You can adjust this independently for the high, mid, and lowfrequency regions.

Insert effect (IFX)

This is a general-purpose insert effect that modifies the sound itself, potentially giving it a completely different character.

It provides 79 effect types, and you can choose the type that suits your purpose.

Use this when you apply a further effect in addition to the multi-effect.

Vocoder effect

This is an effect that is provided for the vocoder part. It lets you adjust the output sound of the vocoder.

System effects

Chorus/Delay

Chorus is an effect that gives depth and spaciousness to the sound. This also includes a delay effect.

Reverb

Reverb is an effect adds the reverberation that is characteristic of sound heard in a hall.

МЕМО

Although chorus and reverb are system effects that are applied to the overall output sound, they can also be specified for individual programs. If you want to make these settings for individual programs, go to "**PROGRAM SOUND**" → "CHORUS" or "**PROGRAM SOUND**" → "**REVERB**," and change the "**Source**" setting to "**PRG**" (p. 11).

Master Comp

Compressor compresses sounds that are louder than a specified volume level, making the volume more consistent. You can adjust this independently for the high, mid, and low-frequency regions.

Master EQ

This is an equalizer that is applied to the overall output sound.

You can adjust this independently for the high, mid, and low-frequency regions.

Tone

Each tone has four sets (Partial 1–4) of OSC, Filter, AMP, LFO \times 2, and EQ settings, plus multi-effect (MFX) settings.

You can create sounds by combining the four partials.

Each partial can be turned on/off, letting you choose which partials will produce sound.



OSC (Oscillator)

This selects the waveform that is the basis of the sound, and specifies how the pitch of the sound changes.

Filter

This specifies how the frequency components of the sound change.

Amp

This specifies volume change and panning.

LFO (Low Frequency Oscillator)

LFO stands for Low Frequency Oscillator; it's a low-frequency oscillator that cycles very slowly. It can output waveforms such as sine wave, triangle wave, square wave, or sawtooth wave.

By using the LFO to modulate another audio signal, you can apply effects such as vibrato or tremolo.

1. Press the [MENU/WRITE] button.

2. Use the cursor [◄] [▶] buttons to select an item, and press the [ENTER] button.

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ARPEGGIO	page 15
VOCODER	page 15

3. Use the cursor [◄] [▶] buttons to select a parameter, and use the [-] [+] buttons to edit the value.

PROGRAM SOUND

Here you can make settings for a program's sound.

Parameters other than COMMON, IFX, CHORUS, and REVERB are edited for each individual part.

In the edit screen for each part, the upper right corner of the LCD shows **"P1"-"P4"** to indicate the part whose settings you're seeing (P1 is part 1).

At this time, you can use the panel buttons 1–4 to select (switch between) parts 1–4. The button of the selected part blinks.

Additionally, you can use buttons 5–8 to turn parts 1–4 on/off (button 5 corresponds to part 1). Buttons whose corresponding part is on will blink.



MEMO

You can use the [SHIFT] button + [◄] [▶] buttons to jump between types of parameter (such as COMMON and SWITCH).

COMMON

Parameter [◀] [▶] buttons	Value [-] [+] buttons	Explanation
Level	0–127	Specifies the volume of the entire program.
Tempo	20–250	Specifies the tempo of the program (including the arpeggio).

SWITCH (Part1-4)

Parameter [◀] [▶] buttons	Value [-] [+] buttons	Explanation
Kbd Sw (Keyboard Switch)	OFF, ON	Turns on/off the part(s) that are played by the keyboard.
Arp Sw (Arpeggio Switch)	OFF, ON	Specifies whether each part's arpeggio is on or off.

TONE (Part1-4)

Parameter [∢] [▶] buttons	Value [-] [+] buttons	Explanation
Bank	PRESET, USER	Selects the tone bank.

Parameter [◀] [▶] buttons	Value [-] [+] buttons	Explanation
(Number/Name)	(Tone number/ Tone name)	Selects the tone.
Level	0–127	Specifies the volume of each part.
Pan	L64-0-63R	Specifies the panning of each part's sound when using stereo output.
Velo Curve (Velocity Curve Type)	OFF, 1–4	For each part, selects one of the following four velocity curves as appropriate for the touch response of the MIDI keyboard. To use the velocity curve of the keyboard, use the "OFF" setting. 1 2 3 4
Mono/Poly	MONO, POLY, TONE	Choose "MONO" if you want the tone assigned to the part to play monophonically; choose "POLY" if you want to play it polyphonically. Choose "TONE" if you want to use the setting specified by the tone.
Legato Sw (Legato Switch)	OFF, ON, TONE	If you play monophonically, you can apply legato. "Legato" is a performance technique that smoothly connects one note to the next. This produces an effect similar to hammering-on or pulling-off when playing a guitar. Choose "ON" to apply legato, or "OFF" if you don't want to apply it. Choose "TONE" if you want to use the setting specified by the tone.
Porta Sw (Portamento Switch)	OFF, ON, TONE	Specifies whether portamento is applied. Choose "ON" to apply portamento, or "OFF" if you don't want to apply it. Choose "TONE" if you want to use the setting specified by the tone.
Porta Time (Portamento Time)	0–127, TONE	Specifies the time over which the pitch changes when using portamento. Higher settings will cause the pitch change to the next note to take more time. Choose "TONE" if you want to use the setting specified by the tone.
Unison Sw (Unison Switch)	OFF, ON, TONE	This layers a single sound. Choose "ON" if you want to use unison, or "OFF" if you don't. Choose "TONE" if you want to use the setting specified by the tone. * Parts whose Unison Switch is On will be MONO.
	Specifies how notes	are sounded when you press the same key
	SINGLE	Only one note of the same key is sounded at a time. If you repeatedly play notes of a long- sustaining sound, the previous note is silenced before the next note is sounded.
VoiceAsgn (Voice Assign Mode)	LIMIT	The sound of the same key is layered (with the currently-heard sound). If you repeatedly play notes of a long- sustaining sound, previous notes are silenced after a certain number have accumulated.
	FULL	The sound of the same key is layered (with the currently-heard sound). Even if you repeatedly play notes of a long-sustaining sound, each new sound is layered onto the currently-heard sounds without limitation.
	Selects the output d	lestination.
Output (Output Assign)	DRY	The sound is output without passing through the effects.
	IFX	The sound is sent to IFX.
Cho Send (Chorus Send Level)	0–127	Specifies the send level to chorus.
Rev Send (Reverb Send Level)	0–127	Specifies the send level to reverb.

PITCH (Part1-4)

Parameter [◀] [▶] buttons	Value [-] [+] buttons	Explanation
Oct Shift (Octave Shift)	-3-+3	Shifts the pitch of the keyboard in one- octave units.
Coarse Tune (Coarse Tune)	-48-+48	Specifies the pitch in semitone units.
Fine Tune (Fine Tune)	-50-+50	Finely adjusts the pitch in one-cent units.
Bend Range (Bend Range)	0-24, TONE	When pitch bend is assigned to a controller such as the ribbon controller, this specifies the amount of pitch change (in semitone units, maximum of two octaves) that occurs when you operate the controller.
Bend Mode (Bend Mode)	When pitch bend is a controller, this specif	assigned to a controller such as the ribbon fies how the controller operates.
	NORMAL	The conventional pitch bend effect occurs.
	C+L (CATCH + LAST)	The pitch bend effect applies only to the last-played note. If a note-on occurs while pitch bend is already applied, the new note sounds at the center pitch. The pitch starts changing only after the controller passes through its center position.
	TONE	The tone setting is used.

SCALE TUNE (Part1-4)

Parameter [∢] [▶] buttons	Value [-] [+] buttons	Explanation
	CUSTOM	Custom: This lets you create a custom scale.
	EQUAL	Equal Temperament: This tuning divides an octave into 12 equal parts. Every interval produces about the same amount of slight dissonance.
	JUST-MAJ	Just (Major): This scale eliminates dissonance in fifths and thirds. It is unsuited to playing melodies and cannot be transposed, but is capable of beautiful sonorities.
Type (Scale Tune Type)	JUST-MIN	Just (Minor): The scales of the major and minor just intonations are different. You can get the same effect with the minor scale as with the major scale.
	PYTHAGORE	Pythagorean: This scale, devised by the philosopher Pythagoras, eliminates dissonance in fourths and fifths. Dissonance is produced in thirds, but melodies are euphonious.
	KIRNBERGE	Kirnberger: This scale is a modification of the meantone and just intonations that permits greater freedom in transposition to other keys. Performances are possible in all keys (III).
	MEANTONE	Meantone: This scale makes some compromises in just intonation, enabling transposition to other keys.
	WERCKMEIS	Werckmeister: This is a combination of the meantone and Pythagorean scales. Performances are possible in all keys (first technique, III).
	ARABIC	Arabic Scale: This scale is suitable for Arabic music.
Key (Scale Tune Key)	C-B	Sets the keynote.
C-B	-64-+63	Finely adjusts the pitch.

MODIFY (Part1-4)

Parameter [∢] [▶] buttons	Value [-] [+] buttons	Explanation
Cutoff (Cutoff Offset)	-64-+63	Adjusts how far the filter is open. Increasing this value makes the sound brighter, and decreasing it makes the sound darker.
Resonance (Resonance Offset)	-64-+63	Emphasizes the frequency components near the cutoff frequency, giving a distinctive character to the sound. Raising this value excessively might cause oscillation, making the sound distort. Increasing this value strengthens the character, and decreasing it weakens the character
Attack (Attack Time Offset)	-64-+63	Adjusts the time over which the sound reaches its maximum volume after you press the key. Larger settings of this value make the attack gentler, and smaller settings make the attack sharper.
Decay (Decay Time Offset)	-64-+63	Adjusts the time over which the volume decreases from its maximum value. Larger settings of this value make the decay longer, and smaller settings make the decay shorter.
Release (Release Time Offset)	-64-+63	Adjusts the time over which the sound decays to silence after you release the key. Larger settings of this value make the sound linger, and smaller settings make the sound end more sharply.
Vib Rate (Vibrato Rate)	-64-+63	Adjust the vibrato speed (the rate at which the pitch is modulated). The pitch will be modulated more rapidly for higher settings, and more slowly with lower settings.
Vib Depth (Vibrato Depth)	-64-+63	This adjusts the depth of the vibrato effect (the depth at which the pitch is modulated). The pitch will be modulated more greatly for higher settings, and less with lower settings.
Vib Delay (Vibrato Delay)	-64-+63	Adjusts the time until vibrato (pitch modulation) starts to apply. Higher settings will produce a longer delay time before vibrato begins, while lower settings produce a shorter time.
Velo Sens (Velocity Sens Offset)	-63-+63	Adjusts the velocity sensitivity.

MFX (Part1–4)

Parameter [◀] [▶] buttons	Value [-] [+] buttons	Explanation
FllwToneMfx (Follow Tone MFX)	OFF, ON	Turn this "ON" if you want to use the MFX settings of the tone that is assigned to the part. If this is "OFF," you can edit the MFX type and its parameters.
MFX Type (MFX Type)	Selects the MFX type. Press the [Enter] button to enter the MFX Edit screen and edit the MFX parameters. To exit the MFX Edit screen, press the [EXIT] button. * If FllwToneMfx is ON, the MFX settings of the tone are used, so you won't be able to edit the values. ➡ "MFX/IFX Parameters" (p. 39)	

MFX EDIT (Part1-4)

Parameter [◀] [▶] buttons	Value [-] [+] buttons	Explanation
Switch	OFF, ON	Turns the effect on/off.
MFX parameters	(Shows the paramet	ers of the selected MFX.)
Cho Send (Chorus Send Level)	0–127	Specifies the chorus send level of the sound after MFX is applied.
Rev Send (Reverb Send Level)	0–127	Specifies the reverb send level of the sound after MFX is applied.
	Specifies the MIDI m MFX CONTROL para	essage that will control the corresponding meter.
	OFF	MFX will not be used.
	MOD:CC01-31	Controller number 1–31
MFX CTRL	CC33-PHASR:CC95	Controller number 33–95
MFX CtrlSrc 1–4)	BEND	Pitch Bend
	AFT	Aftertouch
	SYS-CTRL1–SYS- CTRL4	The controllers assigned by the system parameters SysCtrlSrc1–4 Source are used.
MFX CTRL Dst1-4 (MFX CtrIDst 1-4)	Specifies which of the multi-effect parameters are controlled using MFX CONTROL. The multi-effects parameters available for control will depend on the multi-effects type.	
MFX CTRL Sens1-4 (MFX CtriSens 1-4)	-63-+63	Specifies the depth of MFX CONTROL. Specify a positive "+" value if you want to change the value of the assigned destination in a positive direction (larger, toward the right, faster, etc.), or specify a negative value "-" if you want to change the value in a negative direction (smaller, toward the left, slower, etc.). Larger values will allow a greater amount of control.

Controlling a MFX via MIDI (MFX CONTROL)

You can use MIDI messages such as control change messages to control the principal MFX parameters. This capability is called "MFX CONTROL (multi-effects control)." The editable parameters are pre-determined according to the MFX type. You can specify up to four parameters for multi-effect control.

To use MFX CONTROL, you'll need to specify which MIDI message (Source) will affect which parameter (Destination), and how greatly (Sens).

EQ (Part 1-4)

Parameter [◀] [▶] buttons	Value [-] [+] buttons	Explanation
Switch	OFF, ON	Turns the equalizer (EQ) on/off.
In Gain (Input Gain)	-24-+24 [dB]	Specifies the amount of boost/cut for the input sound.
Low Gain (Low Gain)	-24-+24 [dB]	Specifies the amount of boost/cut for the low-frequency region.
Low Freq (Low Frequency)	20–16000 [Hz]	Frequency of the low range.
Mid Gain (Mid Gain)	-24-+24 [dB]	Specifies the amount of boost/cut for the mid-frequency region.
Mid Freq (Mid Frequency)	20–16000 [Hz]	Specifies the center frequency for the mid-frequency region.
Mid Q (Mid Q)	0.5–16.0	Specifies the width of mid-frequency region. Set a higher value for Q to narrow the range to be affected.
High Gain (High Gain)	-24-+24 [dB]	Specifies the amount of boost/cut for the high-frequency region.
HighFreq (High Frequency)	20–16000 [Hz]	Frequency of the high range.

KEYBOARD (Part 1-4)

Parameter [◀] [▶] buttons	Value [-] [+] buttons	Explanation
Key Rng Low (Key Range Lower)	C-1-G9	Specifies the key range for each part. Make these settings when you want to play different tones in different regions of the keyboard
Key Rng Upp (Key Range Upper)	C-1-G9	Specifies the lower limit (Key Rng Low) and upper limit (Key Rng Upp) of the key range you want to specify.
Key Fade Low (Key Fade Width Lower)	0–127	Specifies the degree to which the part will sound notes played below Key Rng Low. Specify "0" if you don't want any such notes to sound.
Key Fade Upp (Key Fade Width Upper)	0–127	Specifies the degree to which the part will sound notes played above Key Rng Upp. Specify "0" if you don't want any such notes to sound.
Velo Rng Low (Velocity Range Lower)	1–127	Specifies the lower velocity limit (Velo Rng Low) and upper velocity limit (Velo Rng Upp) for which the tone will sound.
Velo Rng Upp (Velocity Range Upper)	1–127	Make these settings when you want to play different tones depending on your keyboard dynamics.
Velo FadeLow (Velocity Fade Width Lower)	0–127	Specifies the degree to which the part will sound notes played more softly than Velo Rng Low. Specify "0" if you don't want such notes to be sounded.
Velo FadeUpp (Velocity Fade Width Upper)	0–127	Specifies the degree to which the part will sound notes played more strongly than Velo Rng Upp. Specify "0" if you don't want such notes to sound.

IFX

Parameter [∢] [▶] buttons	Value [-] [+] buttons	Explanation
IFX Type (IFX Type)	Selects the IFX type. Press the [Enter] button to enter the IFX Edit screen and edit the IFX parameters. To exit the IFX Edit screen, press the [EXIT] button.	
	 * The available types an * "MFX/IFX Parame 	d parameters are the same for MFX and IFX. ters " (p. 39)

IFX EDIT

Parameter [∢] [▶] buttons	Value [-] [+] buttons	Explanation
Switch	OFF, ON	Turns IFX on/off.
IFX parameters	(Shows the parameters of the selected IFX.)	
Cho Send (Chorus Send Level)	0–127	Specifies the chorus send level of the sound after IFX is applied.
Rev Send (Reverb Send Level)	0–127	Specifies the reverb send level of the sound after IFX is applied.

CHORUS

Parameter [∢] [▶] buttons	Value [-] [+] buttons	Explanation
Source	PRG, SYS	Specifies whether the chorus settings follow the program's settings (PRG) or the system settings (SYS).
Chorus Type (Chorus Type) If CHORU and edit In the ch enter the → "CHOI	If CHORUS: Source is "PRG," you can change the chorus type and edit the parameters.	
	In the chorus type per enter the chorus par "CHORUS Paramet	age, you can press the [Enter] button to rameter page. ers " (p. 32)

CHORUS EDIT

Parameter [∢] [▶] buttons	Value [-] [+] buttons	Explanation
Switch	OFF, ON	Switches chorus on/off.
Level	0–127	Specifies the output level of the sound with chorus applied.
Rev Send (Reverb Send)	0–127	Specifies the reverb send level.

REVERB

Parameter [◀] [▶] buttons	Value [-] [+] buttons	Explanation
Source	PRG, SYS	Specifies whether the reverb settings follow the program's settings (PRG) or the system settings (SYS).
Reverb Type (Reverb Type)	If REVERB: Source is "PRG," you can change the reverb type and edit the parameters. In the reverb type page, you can press the [Enter] button to enter the reverb parameter page. → "Reverb Parameters" (p. 34)	

PROGRAM CTRL

Here you can make settings for the controllers and for MIDI transmission and reception.

These settings can be saved and switched in units of programs.

MEMO

You can use the [SHIFT] button + [◄] [▶] button to jump between parameter categories.

CTRL RX (Part1–4)

Parameter [◀] [▶] buttons	Value [-] [+] buttons	Explanation
Ribbon Posi (Ribbon Position)	OFF, ON	Specifies whether ribbon controller operations (position data) are received (ON) or not received (OFF).
Ribbon Pres (Ribbon Pressure)	OFF, ON	Specifies whether ribbon controller operations (pressure data) are received (ON) or not received (OFF).
Mod Bar (Modulation Bar)	OFF, ON	Specifies whether modulation bar operations are received (ON) or not received (OFF).
Aftertouch (After Touch)	OFF, ON	Specifies whether aftertouch is received (ON) or not received (OFF).
Ctrl Knob (Control Knob)	OFF, ON	Specifies whether control knob operations are received (ON) or not received (OFF).
Ctrl Pedal (Control Pedal)	OFF, ON	Specifies whether pedal operations are received (ON) or not received (OFF).
S1-S7	OFF, ON	Specifies whether [S1]–[S7] button operations are received (ON) or not received (OFF).
Ext Volume (External Control Volume Knob)	OFF, ON	Specifies whether master volume operations are transmitted (ON) or not transmitted (OFF). You should also turn Ext Volume ON if you want to use master volume to adjust the volume of an external MIDI device

MIDI RX (Part1-4)

Parameter [◀] [▶] buttons	Value [-] [+] buttons	Explanation
Rx PC (Receive Program Change)	OFF, ON	Specifies whether program change is received (ON) or not received (OFF).
Rx Bank (Receive Bank Select)	OFF, ON	Specifies whether bank select is received (ON) or not received (OFF).
Rx Bend (Receive Pitch Bend)	OFF, ON	Specifies whether pitch bend is received (ON) or not received (OFF).
Rx Poly Pres (Receive Polyphonic Key Pressure)	OFF, ON	Specifies whether polyphonic aftertouch is received (ON) or not received (OFF).
Rx Ch Pres (Receive Channel Pressure)	OFF, ON	Specifies whether channel aftertouch is received (ON) or not received (OFF).
Rx Mod (Receive Modulation)	OFF, ON	Specifies whether modulation is received (ON) or not received (OFF).
Rx Volume (Receive Volume)	OFF, ON	Specifies whether volume is received (ON) or not received (OFF).
Rx Pan (Receive Pan)	OFF, ON	Specifies whether pan is received (ON) or not received (OFF).
Rx Exp (Receive Expression)	OFF, ON	Specifies whether expression is received (ON) or not received (OFF).
Rx Hold-1 (Receive Hold-1)	OFF, ON	Specifies whether hold 1 is received (ON) or not received (OFF).

REVERB EDIT

Parameter [∢] [▶] buttons	Value [-] [+] buttons	Explanation
Switch	OFF, ON	Switches reverb on/off.
Level	0–127	Specifies the output level of the sound with reverb applied.

MIDI OUT (Part1-4)

Parameter [◀] [▶] buttons	Value [-] [+] buttons	Explanation
Tx Mode (Tx Mode)	ON, OFF, MKB	Specifies whether MIDI messages are transmitted (ON) or not transmitted (OFF). Choose "MKB" if you're using the AX-Edge as a master keyboard.
Mkb Ch (Master Keyboard Tx CH) (*1)	1–16	Specifies the transmit channel for MIDI messages of the keyboard part.
Mkb MSB (Master Keyboard Bank MSB) (*1)	OFF, 0–127	
Mkb LSB (Master Keyboard Bank LSB) (*1)	OFF, 0–127	Enter the program number and the bank MSB/LSB as numerical values to switch
Mkb PC (Master Keyboard Program Change) (*1)	OFF, 1–128	sounds on an external MIDI device.
Mkb Volume (Master Keyboard Volume) (*1)	0–127	Adjusts the volume of the external MIDI device.

*1 MkbCH and subsequent parameters are effective when TxMode = MKB.

CTRL BUTTON (Control Button)

Parameter [◀] [▶] buttons	Value [-] [+] buttons	Explanation	
Source	PRG, SYS	Specifies whether the parameters controlled by the [S1]–[S7] buttons follow the program's settings (PRG) or the system settings (SYS).	
	Specify the function that is assigned to each button when CTRL BUTTON: Source is set to "PRG."		
	OFF	No function is assigned.	
	CC01–31, 32 (OFF), 33–95	Controller number 1–31, 32, 33–95	
	AFT	Aftertouch	
	MONO/POLY	Switch between mono/poly.	
	PRG DOWN (PROGRAM DOWN)	Switch the program to the previous number.	
	PRG UP (program up)	Switch the program to the next number.	
	OCT DOWN (OCTAVE DOWN)	Lower the keyboard range in octave units (maximum -3 octaves).	
	OCT UP (OCTAVE UP)	Raise the keyboard range in octave units (maximum +3 octaves).	
	TRANS DOWN (TRANSPOSE DOWN)	Lower the keyboard range in semitone units (maximum -5 semitones).	
	TRANS UP (TRANSPOSE UP)	Raise the keyboard range in semitone units (maximum +6 semitones).	
S1 (F)-S7 (F)	CHO SW (CHORUS SWITCH)	Switch the chorus on/off.	
(S1–S7 (Function))	REV SW (REVERB SWITCH)	Switch the reverb on/off.	
	EQ SW (MASTER EQ SWITCH)	Switch the master EQ on/off.	
	COMP SW (MASTER COMP SWITCH)	Switch the master compressor on/off.	
	IFX SW (IFX SWITCH)	Switch the IFX on/off.	
	ARP SW (ARPEGGIO SWITCH)	Switch the arpeggio on/off.	
	ARP HOLD (ARPEGGIO HOLD)	Switch arpeggio hold on/off.	
	VOCODER SW (VOCODER SWITCH)	Switch the vocoder on/off.	
	UNISON SW (UNISON SWITCH)	Switch unison on/off for the part 1 tone.	
	BEND MODE	Switch the BEND MODE (NORMAL or C+L).	
	START/STOP	Play/stop the Song Player.	
	TAP TEMPO	Set the tempo to the interval at which you press the button (tap tempo).	

Parameter [◀] [▶] buttons	Value [-] [+] buttons	Explanation
	Specifies how each controller operates.	
S1 (M)-S7 (M) (S1-S7 (Mode))	LATCH	Alternates on/off each time you press the button.
	MOMENTARY	The controller is on only while you hold down the button, and turns off when you release it.

CTRL KNOB (Control Knob)

Parameter [◀] [▶] buttons	Value [-] [+] buttons	Explanation
Source	PRG, SYS	Specifies whether the parameter controlled by the control knob follows the program's settings (PRG) or the system settings (SYS).
	Specify the function CTRL KNOB: Source	that is assigned to the control knob when is set to "PRG."
	OFF	No function is assigned.
		Controller number 1–31, 32, 33–95
	CC01–31, 32 (OFF), 33–95	CC74 (Cutoff) varies in the range of -64–0, and CC71 (Resonance), CC72 (Release), CC73 (Attack), and CC75 (Decay) vary in the range of 0–+63.
	AFT	Aftertouch
	BEND DOWN	Lowers the pitch.
	BEND UP	Raises the pitch.
	PART FADE1	Continuously control the level of parts 1–4.
Func (Function)		Part1 Part2 Part3 Part4 0 Value 127 Part4 0 Value 127 Part4 0 Value 127 Part4 0 Value 127 Part4 0 Value 127 Part5 Part4 0 expression 0 Part6 127 Part6 Part7 Part7 Part7 Part7 Part8
		Part4 0 CEValue 27
	PART FADE2	Continuously control the level of parts 1–4. Part1 Part2 0 0 Value Part2 0 0 Value 127 expression 127 expression 0 127 expression 127 expression 127 expression 127 expression 127 expression 127 expression 127 Part2 0 0 Value 127 Part2 0 0 0 127 Part2 0 0 0 127 Part2 0 0 0 127 Part2 0 0 0 127 Part2 0 0 127 Part2 0 0 127 Part2 0 0 127 Part2 0 0 127 Part2 0 0 127 Part2 0 0 127 Part2 0 0 127 Part2 0 127 Part2 0 0 127 Part2 0 127 Part2 0 127 Part2 0 127 Part2 0 127 Part2 0 0 127 Part2 0 0 0 127 Part2 0 0 0 0 0 0 0 0 0 0 0 0 0

CTRL PEDAL (Control Pedal)

Parameter [∢] [▶] buttons	Value [-] [+] buttons	Explanation
Source	PRG, SYS	Specifies whether the parameter controlled by a pedal connected to the PEDAL jack follows the program's settings (PRG) or the system settings (SYS).
	Specify the function that is assigned to the pedal when CTRL PEDAL: Source is set to "PRG."	
	OFF	No function is assigned.
	CC01–31, 32 (OFF), 33–95	Controller number 1–31, 32, 33–95 * CC74 (Cutoff) varies in the range of -64–0, and CC71 (Resonance), CC72 (Release), CC73 (Attack), and CC75 (Decay) vary in the range of 0–+63.
	AFT	Aftertouch
	BEND DOWN	Lowers the pitch.
	BEND UP	Raises the pitch.
PAF Func (Function)	PART FADE1	Continuously control the level of parts 1–4. Part3 Part4 0 Value 127 Part3 0 Value 127 Part3 0 Value 127 Part4 0 value 127 expression 127 expressi
	PART FADE2	Continuously control the level of parts 1-4. Parts Part
Pole (Pedal Polarity)	STANDARD, REVERSE	Specifies the polarity of the pedal connected to the PEDAL jack.

CTRL RIBBON (Control Ribbon Controller)

Parameter [∢] [▶] buttons	Value [-] [+] buttons	Explanation
Source	PRG, SYS	Specifies whether the parameter controlled by the ribbon controller follows the program's settings (PRG) or the system settings (SYS).
	Specifies the function (left/right axis) where	on that is assigned to the ribbon controller • CTRL RIBBON: Source is set to "PRG."
	OFF	No function is assigned.
	CC01–31, 32 (OFF), 33–95	Controller number 1–31, 32, 33–95 NOTE If a CC with a value range of 0–127 is assigned to Position Function, the value will be the center point (64) when you're not touching the ribbon.
	AFT	Aftertouch
	PITCH BEND	Raise or lower the pitch.
Posi (Position Function)	PART FADE1	Continuously control the level of parts 1-4. Part3 Part3 Part3 Part3 Part3 Part3 Part3 Part3 Part3 0
	Specifies the function	Parte 0 Walue 127 200 200 200 200 200 200 200 2
	pressed (pressure ax	is).
	UFF	No function is assigned.
	CC01–31, 32 (OFF), 33–95	Controller number 1–31, 32, 33–95 * CC74 (Cutoff) varies in the range of -64–0, and CC71 (Resonance), CC72 (Release), CC73 (Attack), and CC75 (Decay) vary in the range of 0–+63.
	AFT	Aftertouch
	BEND DOWN	Lowers the pitch.
	BEND UP	Raises the pitch.
Pres (Pressure Function)	PART FADE1	Continuously control the level of parts 1–4. Parta Part

Program Parameters

Parameter [∢] [▶] buttons	Value [-] [+] buttons	Explanation
Pres (Pressure Function)	PART FADE2	Continuously control the level of parts 1–4. Parta Parta Parta Parta Parta Parta 0 0 Value 127 Parta 0 0 Value 127 Parta 0 0 Value 127 expression

CTRL MOD BAR (Control Modulation Bar)

Parameter [◀] [▶] buttons	Value [-] [+] buttons	Explanation
Source	PRG, SYS	Specifies whether the parameter controlled by the modulation bar follows the program's settings (PRG) or the system settings (SYS).
	Specifies the functio when CTRL MOD B	n that is assigned to the modulation bar IR: Source is set to "PRG."
	OFF	No function is assigned.
		Controller number 1–31, 32, 33–95
	CC01–31, 32 (OFF), 33–95	* CC74 (Cutoff) varies in the range of -64–0, and CC71 (Resonance), CC72 (Release), CC73 (Attack), and CC75 (Decay) vary in the range of 0–+63.
	AFT	Aftertouch
	BEND DOWN	Lowers the pitch.
	BEND UP	Raises the pitch.
Func (Modulation Bar Function)	PART FADE1	Continuously control the level of parts 1–4. Part3 Part4 0 0 Value (control the level of parts) expression 127 Part3 0 0 Value (control the level of parts) expression 127 Part3 0 0 Value (control the level of parts) expression 127 Part4 0 0 Value (control the level of parts) expression 127 expression 0 (control the level of parts) expression 0 (control the level of parts) (control the leve
	PART FADE2	Continuously control the level of parts 1–4. Part1 Part2 Part3 Part4 0 V/alue 127 Part1 0 V/alue 127 Part2 0 V/alue 127 Part3 0 V/alue 127 expression 127 expression 127 Part2 0 V/alue 127 expression 127 expression 127 expression 127 expression 127 expression 127 expression 127 expression 127 127 Part2 0 V/alue 127 expression 127 expression 127 expression 127 expression 127 127 Part2 0 V/alue 127 expression 127 expression 127 expression 127 expression 127 expression 127 127 Part2 0 V/alue 127 Part2 0 V/alue 127 Part2 0 V/alue 127 Part2 0 V/alue 127 Part3 0 V/alue 127 Part3 0 V/alue 127 Part2 0 V/alue 127 Part3 0 V/alue 127 Part4 0 V/alue 127 0

CTRL SRC SEL (Control Source Select)

Parameter [◀] [▶] buttons	Value [-] [+] buttons	Explanation
Src1–4 (Control Source (1–4))	CC01–95, BEND, AFT	Specifies which MIDI messages modify the tone parameters when using matrix control.

VOICE RESERVE (Voice Reserve)

Parameter [◀] [▶] buttons	Value [-] [+] buttons	Explanation
Part1–4, Vocoder Voice Reserve Part1–4, Vocoder)	1–10	Specifies the number of voices that are reserved for each part if you attempt to play more notes than the maximum polyphony.

ARPEGGIO

Here you can make arpeggio-related settings.

Arpeggio settings can be saved and switched for individual programs.

Parameter [∢] [▶] buttons	Value [-] [+] buttons	Explanation
Switch	OFF, ON	Turns the ARPEGGIO on/off.
Hold	OFF, ON	If this is "ON," the arpeggio continues playing even after you release the keyboard.
	Specifies the time signature of the arpeggio. This specifies the note value of each grid unit.	
	1/4	Quarter note (1 grid unit = 1 beat)
	1/8	Eighth note (2 grid units = 1 beat)
Grid	1.5/8	Dotted eighth note
	1/16	Sixteenth note (4 grid units = 1 beat)
	1.5/16	Dotted sixteenth note
	1/32	Thirty-second note (8 grid units = 1 beat)
	Choose from the foll notes of the chord a	owing to specify the order in which the re sounded.
	UP	Keys you press are sounded in ascending order (UP).
	DOWN	Keys you press are sounded in descending order (DOWN).
Motif	UP&DOWN	Keys you press are sounded in ascending order, and then back down in descending order.
	RAMDOM	Keys you press are sounded in random order.
	NOTE ORDER	Keys are sounded in the order in which you press them. You can create a melody line by pressing keys in the appropriate order.
Duration	0–100 [%]	Specifies the duration for each arpeggio note to sound. This determines whether the sounds are played staccato (short and clipped), or tenuto (fully drawn out).
Oct Range (Octave Range)	-3-+3	Specifies the amount by which the arpeggio is shifted. This adds an effect that shifts arpeggios one cycle at a time in octave units (octave range). You can set the shift range upwards or downwards (up to three octaves up or down).
Shuffle Rate (Shuffle Rate)	0–100 [%]	Modifies the timing at which notes are sounded, producing a shuffle rhythm. With a setting of "50%" the notes are spaced at equal intervals. As you increase this setting, you'll get an increasingly "bouncy" feel as though the notes were dotted.
	Specifies the note value on which the shuffle is base	
ShuffleReso	16TH	Sixteenth note
	8TH	Eighth note
Velocity (Keyboard Velocity)	REAL, 1–127	Specifies the strength at which the keys you press are sounded. If you want your playing dynamics to control the strength at which the notes are sounded, choose "REAL." If you want the notes to be sounded at a fixed velocity value regardless of your playing dynamics, specify that value (1–127).

VOCODER

Here you can make vocoder-related settings.

Vocoder settings can be saved and switched for individual programs.

MEMO

You can use the [SHIFT] button + [\triangleleft] [\triangleright] button to jump between parameter categories.

SETTING

Parameter [◀] [▶] buttons	Value [-] [+] buttons	Explanation
Switch	OFF, ON	Turns the VOCODER on/off.
Level	0–127	Adjusts the output level of the sound that passes through the vocoder.
Pan	L64-0-63R	Adjusts the pan of the sound that passes through the vocoder.
	Selects the character	r of sound.
	SHARP	Emphasizes the human voice.
Envelope	SOFT	Emphasizes the instrumental sound.
	LONG	Produces a vintage sound with a long decay.
CarrierLevel (Carrier Level)	0–127	Adjusts the input level of the instrumental sound.
Mic Sens	0–127	Adjusts the input sensitivity of the mic.
Mic Mix (Mic Mix Level)	0–127	Specifies the volume at which the mic sound that has passed through Mic HPFis added to the vocoder's output.
Mic HPF (Mic High Pass Filter)	BYPASS, 1000– 16000Hz	Specifies the frequency at which the high pass filter (HPF) applied to the mic sound starts to take effect. This does nothing if "BYPASS" is selected.
Arp Sw (Arpeggio Switch)	OFF, ON	Specifies whether the arpeggio applies to the vocoder (ON) or does not apply (OFF).

CRR TONE (Carrier Tone)

Parameter [∢] [▶] buttons	Value [-] [+] buttons	Explanation
Bank	PRESET, USER	
(Number/Name)	Tone number/tone name	be the carrier.
Velo Curve (Velocity Curve Type)	OFF, 1–4	For each part, select one of the following four velocity curves as appropriate for the touch response of your MIDI keyboard. If you want to use the velocity curve of the keyboard, turn this "OFF."
Mono/Poly	MONO, POLY, TONE	Set this to "MONO" if you want to play the carrier monophonically, or to "POLY" if you want to play polyphonically. Choose "TONE" if you want to use the setting specified by the tone.
Legato Sw (Legato Switch)	OFF, ON, TONE	When playing monophonically, you can apply legato. "Legato" is a playing technique in which one note is smoothly connected to the next. This produces an effect similar to hammering-on or pulling-off when playing a guitar. Turn this "ON" if you want to apply legato, or "OFF" if you don't. Choose "TONE" if you want to use the setting specified by the tone.
Porta Sw (Portamento Switch)	OFF, ON, TONE	Specifies whether portamento is applied. Select "ON" to apply portamento, or "OFF" if you don't want to apply portamento. Choose "TONE" if you want to use the setting specified by the tone.

Program Parameters

Parameter [◀] [▶] buttons	Value [-] [+] buttons	Explanation
Porta Time (Portamento Time)	0–127, TONE	Specifies the time over which the pitch changes when using portamento. Higher settings will cause the pitch change to the next note to take more time. Choose "TONE" if you want to use the setting specified by the tone.
Unison Sw (Unison Switch)	OFF, ON, TONE	This layers a single sound. Turn this "ON" if you want to play using unison, or "OFF" if you don't. Choose "TONE" if you want to use the setting specified by the tone. * If Unison Switch is On, MONO performance is used.
	Specifies how notes are sounded when you press the same key multiple times.	
VoiceAsgn (Voice Assign Mode)	SINGLE	Only one note of the same key is sounded at a time. If you repeatedly play notes of a long- sustaining sound, the previous note is silenced before the next note is sounded.
	LIMIT	The sound of the same key is layered (with the currently-heard sound). If you repeatedly play notes of a long- sustaining sound, previous notes are silenced after a certain number have accumulated.
		The sound of the same key is layered (with the currently-heard sound).
	FULL	Even if you repeatedly play notes of a long-sustaining sound, each new sound is layered onto the currently-heard sounds without limitation.
		Selects the output destination.
Output (Output Assign)	DRY	The sound is output without passing through the effects.
	IFX	The sound is sent to IFX.
Cho Send (Chorus Send Leve)	0–127	Specifies the send level to chorus.
Rev Send (Reverb Send Level)	0–127	Specifies the send level to reverb.

CRR PITCH (Carrier Pitch)

Parameter [◀] [▶] buttons	Value [-] [+] buttons	Explanation
Oct Shift (Octave Shift)	-3-+3	Shifts the pitch of the keyboard in units of one octave.
Coarse Tune (Coarse Tune)	-48-+48	Shifts the pitch in units of a semitone.
Fine Tune (Fine Tune)	-50-+50	Finely adjusts the pitch in units of one cent.
Bend Range (Bend Range)	0–24, TONE	Specifies the amount of pitch change in semitone units (maximum two octaves) that occurs when you move a controller such as the ribbon controller when pitch bend is assigned to that controller.
	Specifies what occurs when you operate a controller such as the ribbon controller when pitch bend is assigned to it.	
	NORMAL	The conventional pitch bend effect occurs.
Bend Mode (Bend Mode)	C+L (CATCH + LAST)	Pitch bend applies only to the last-played note. If a note-on occurs during a pitch bend, the newly played note sounds at the center pitch. The pitch will change only after the controller has passed through its center position.
	TONE	The tone's settings are used.

CRR SCALE TUNE (Carrier Scale Tune)

Parameter [◀] [▶] buttons	Value [-] [+] buttons	Explanation
	CUSTOM	Custom: This lets you create a custom scale.
	EQUAL	Equal Temperament: This tuning divides an octave into 12 equal parts. Every interval produces about the same amount of slight dissonance.
	JUST-MAJ	Just (Major): This scale eliminates dissonance in fifths and thirds. It is unsuited to playing melodies and cannot be transposed, but is capable of beautiful sonorities.
	JUST-MIN	Just (Minor): The scales of the major and minor just intonations are different. You can get the same effect with the minor scale as with the major scale.
Type (Scale Tune Type)	PYTHAGORE	Pythagorean: This scale, devised by the philosopher Pythagoras, eliminates dissonance in fourths and fifths. Dissonance is produced in thirds, but melodies are euphonious.
	KIRNBERGE	Kirnberger: This scale is a modification of the meantone and just intonations that permits greater freedom in transposition to other keys. Performances are possible in all keys (III).
	MEANTONE	Meantone: This scale makes some compromises in just intonation, enabling transposition to other keys.
	WERCKMEIS	Werckmeister: This is a combination of the meantone and Pythagorean scales. Performances are possible in all keys (first technique, III).
	ARABIC	Arabic Scale: This scale is suitable for Arabic music.
Key (Scale Tune Key)	C-B	Sets the keynote.
C-B	-64-+63	Finely adjusts the pitch.

CRR MODIFY (Carrier Modify)

Parameter [◀] [▶] buttons	Value [-] [+] buttons	Explanation
Cutoff (Cutoff Offset)	-64-+63	Adjusts how far the filter is open. Increasing this value makes the sound brighter, and decreasing it makes the sound darker.
Resonance (Resonance Offset)	-64-+63	Emphasizes the frequency components near the cutoff frequency, giving a distinctive character to the sound. Raising this value excessively might cause oscillation, making the sound distort. Increasing this value strengthens the character, and decreasing it weakens the character.
Attack (Attack Time Offset)	-64-+63	Adjusts the time over which the sound reaches its maximum volume after you press the key. Larger settings of this value make the attack gentler, and smaller settings make the attack sharper.
Decay (Decay Time Offset)	-64-+63	Adjusts the time over which the volume decreases from its maximum value. Larger settings of this value make the decay longer, and smaller settings make the decay shorter.
Release (Release Time Offset)	-64-+63	Adjusts the time over which the sound decays to silence after you release the key. Larger settings of this value make the sound linger, and smaller settings make the sound end more sharply.
Vib Rate (Vibrato Rate)	-64-+63	Adjust the vibrato speed (the rate at which the pitch is modulated).The pitch will be modulated more rapidly for higher settings, and more slowly with lower settings.
Vib Depth (Vibrato Depth)	-64-+63	This adjusts the depth of the vibrato effect (the depth at which the pitch is modulated). The pitch will be modulated more greatly for higher settings, and less with lower settings.
Vib Delay (Vibrato Delay)	-64-+63	Adjusts the time until vibrato (pitch modulation) starts to apply. Higher settings will produce a longer delay time before vibrato begins, while lower settings produce a shorter time.
Velo Sens (Velocity Sens Offset)	-63-+63	Adjusts the velocity sensitivity. Larger settings raise the sensitivity.

CRR MFX (Carrier MFX)

Parameter [∢] [▶] buttons	Value [-] [+] buttons	Explanation
FllwToneMfx (Follow Tone MFX)	OFF, ON	Turn this "ON" if you want to use the MFX settings of the tone that is assigned to the part. If this is "OFF," you can edit the MFX type and its parameters.
МFX Туре (МFX Туре)	Selects the MFX type. Press the [Enter] button to see the MFX parameters. * If FllwToneMfx is ON, the MFX settings of the tone are used, so you won't be able to edit the values. \$\DIMPS/IFX Parameters" (p. 39)	

CRR MFX EDIT

Parameter [◀] [▶] buttons	Value [-] [+] buttons	Explanation
Switch	OFF, ON	Turns the effect on/off.
Cho Send (Chorus Send Level)	0–127	Specifies the send level to chorus.
Rev Send (Reverb Send Level)	0–127	Specifies the send level to reverb.

Parameter [∢] [▶] buttons	Value [-] [+] buttons	Explanation
MFX CTRL Src1-4 (MFX CtrlSrc 1-4)	OFF, CC01–31, CC33–95, BEND, AFT, SYS1–4	Specifies the MIDI message that will control the corresponding MFX CONTROL parameter.
MFX CTRL Sens1-4 (MFX CtrlSens 1-4)	-63-+63	Specifies the depth of MFX CONTROL. Specify a positive "+" value if you want to change the value of the assigned destination in a positive direction (larger, toward the right, faster, etc.), or specify a negative value "." if you want to change the value in a negative direction (smaller, toward the left, slower, etc.). Larger values will allow a greater amount of control.
MFX CTRL Dst1-4 (MFX CtrlAsgn 1-4)		Selects the MFX parameter controlled by Source 1–4. The type of parameters that you can select depend on the MFX type.

CRR EQ (Carrier EQ)

Parameter [∢] [▶] buttons	Value [-] [+] buttons	Explanation
Switch	OFF, ON	Turns the equalizer (EQ) on/off.
In Gain (Input Gain)	-24-+24 [dB]	Specifies the amount of boost/cut for the input sound.
Low Gain (Low Gain)	-24-+24 [dB]	Specifies the amount of boost/cut for the low-frequency region.
Low Freq (Low Frequency)	20–16000 [Hz]	Frequency of the low range.
Mid Gain (Mid Gain)	-24-+24 [dB]	Specifies the amount of boost/cut for the mid-frequency region.
Mid Freq (Mid Frequency)	20–16000 [Hz]	Specifies the center frequency for the mid-frequency region.
Mid Q (Mid Q)	0.5–16.0	Specifies the width of mid-frequency region. Set a higher value for Q to narrow the range to be affected.
High Gain (High Gain)	-24-+24 [dB]	Specifies the amount of boost/cut for the high-frequency region.
HighFreq (High Frequency)	20–16000 [Hz]	Frequency of the high range.

CRR KEYBOARD (Carier Keyboard)

Parameter [◀] [▶] buttons	Value [-] [+] buttons	Explanation
Key Rng Low (Key Range Lower)	C-1-G9	Specifies the key range for each part. Make these settings when you want to play different tones in different regions of the keyboard
Key Rng Upp (Key Range Upper)	C-1-G9	Specifies the lower limit (Key Rng Low) and upper limit (Key Rng Upp) of the key range you want to specify.
Key Fade Low (Key Fade Width Lower)	0–127	Specifies the degree to which the part will sound notes played below Key Rng Low. Specify "0" if you don't want any such notes to sound.
Key Fade Upp (Key Fade Width Upper)	0–127	Specifies the degree to which the part will sound notes played above Key Rng Upp. Specify "0" if you don't want any such notes to sound.
Velo Rng Low (Velocity Range Lower)	1–127	Specify the lower limit (Velo Rng Low) and upper limit (Velo Rng Upp) of the velocity range that will sound the tone.
Velo Rng Upp (Velocity Range Upper)	1–127	Make these settings when you want to play different tones depending on your keyboard dynamics.
Velo FadeLow (Velocity Fade Width Lower)	0–127	Specifies the degree to which the part will sound notes played more softly than Velo Rng Low. Specify "0" if you don't want such notes to be sounded.
Velo FadeUpp (Velocity Fade Width Upper)	0–127	Specifies the degree to which the part will sound notes played more strongly than Velo Rng Upp. Specify "0" if you don't want such notes to sound.

CRR CTRL RX (Carrier Control Receive Settings)

Parameter [◀] [▶] buttons	Value [-] [+] buttons	Explanation
Ribbon Posi (Ribbon Position)	OFF, ON	Specifies whether ribbon controller operations (position data) are received (ON) or not received (OFF).
Ribbon Pres (Ribbon Pressure)	OFF, ON	Specifies whether ribbon controller operations (pressure data) are received (ON) or not received (OFF).
Mod Bar (Modulation Bar)	OFF, ON	Specifies whether modulation bar operations (position data) are received (ON) or not received (OFF).
Aftertouch (After Touch)	OFF, ON	Specifies whether aftertouch is received (ON) or not received (OFF).
Ctrl Knob (Control Knob)	OFF, ON	Specifies whether control knob operations are received (ON) or not received (OFF).
Ctrl Pedal (Control Pedal)	OFF, ON	Specifies whether pedal operations are received (ON) or not received (OFF).
S1–S7	OFF, ON	Specifies whether [S1]–[S7] button operations are received (ON) or not received (OFF).
Ext Volume (External Control Volume Knob)	OFF, ON	Specifies whether master volume operations are transmitted (ON) or not transmitted (OFF). You should also turn Ext Volume ON if you want to use master volume to adjust the volume of an external MIDI device.

CRR MIDI RX (Carrier MIDI Receive Settings)

Parameter [∢] [▶] buttons	Value [-] [+] buttons	Explanation
Rx PC (Receive Program Change)	OFF, ON	Specifies whether program change is received (ON) or not received (OFF).
Rx Bank (Receive Bank Select)	OFF, ON	Specifies whether bank select is received (ON) or not received (OFF).
Rx Bend (Receive Pitch Bend)	OFF, ON	Specifies whether pitch bend is received (ON) or not received (OFF).
Rx Poly Pres (Receive Polyphonic Key Pressure)	OFF, ON	Specifies whether polyphonic aftertouch is received (ON) or not received (OFF).
Rx Ch Pres (Receive Channel Pressure)	OFF, ON	Specifies whether channel aftertouch is received (ON) or not received (OFF).
Rx Mod (Receive Modulation)	OFF, ON	Specifies whether modulation is received (ON) or not received (OFF).
Rx Volume (Receive Volume)	OFF, ON	Specifies whether volume is received (ON) or not received (OFF).
Rx Pan (Receive Pan)	OFF, ON	Specifies whether pan is received (ON) or not received (OFF).
Rx Exp (Receive Expression)	OFF, ON	Specifies whether expression is received (ON) or not received (OFF).
Rx Hold-1 (Receive Hold-1)	OFF, ON	Specifies whether hold 1 is received (ON) or not received (OFF).

Tone Parameters

To edit the tone parameters, you'll need to use the editor app. These parameters cannot be edited from the AX-Edge itself.

COMMON (Overall Settings)

Parameter [◀] [▶] buttons	Value [-] [+] buttons	Explanation
(Name)	Tone name	
Category	0–49	Selects the category of the tone.
Tone Level	0–127	Adjusts the overall volume of the tone
Tone Pan	L64-0-63R	Specifies the pan of the tone. "L64" is far left, "0" is center, and "63R" is far right.
	This determines how maximum polyphon	v notes will be managed when the y is exceeded.
Priority	LAST	The last-played voices will be given priority, and currently sounding notes will be turned off in order, beginning with the first-played note.
	LOUDEST	The voices with the loudest volume will be given priority, and currently sounding notes will be turned off, beginning with the lowest-volume voice.
Coarse Tune	-48-+48 [semitone]	Adjusts the pitch of the tone's sound up or down in semitone steps (+/-4 octaves).
Fine Tune	-50–+50 [cent]	Adjusts the pitch of the tone's sound up or down in 1-cent steps (+/-50 cents).
Octave Shift	-3-+3	Adjusts the pitch of the tone's sound up or down in units of an octave (+/-3 octaves).
Stretch Tune Depth	OFF, 1–4	This setting allows you to apply "stretched tuning" to the tone (Stretched tuning is a system by which acoustic pianos are normally tuned, causing the lower range to be lower and the higher range to be higher than the mathematical tuning ratios would otherwise dictate.). With a setting of "OFF," the tone's tuning will be equal temperament. A setting of "3" will produce the greatest difference in the pitch of the low and high ranges. The diagram shows the pitch change relative to equal temperament that will occur in the low and high ranges. This setting will have a subtle effect on the way in which chords resonate. Pitch difference from equal temperament applied on the state of the period of the set of the state of the set of th
Analog Feel	0–127	Applies time-varying change to the pitch and volume of the tone that is producing sound, adding a sense of variability. As you increase this value toward the maximum, the variability becomes greater, producing instability.
	Specifies whether the tone will play polyphonically (POLY) or monophonically (MONO). The "MONO" setting is effective when playing a solo instrument tone cuch as cay or flute.	
Mono/Poly	MONO	Only the last-played note will sound.
	POLY	Two or more notes can be played simultaneously.

Parameter [∢] [▶] buttons	Value [-] [+] buttons	Explanation
Unison Switch	OFF, ON	 This layers a single sound. If the Unison Switch is on, the number of notes layered on one key will change according to the number of keys you play. Due to considerations of polyphony, turning UnisonSwitch ON imposes the following limitations. Operation is forced to MONO mode. Even if Legato Retrigger Interval is specified, it operates as OFF. Even if Delay Time is specified, it is ignored for operation.
Unizon Size	2–8	Number of notes assigned to each key when the Unison Switch is on
Unison Detune	0–100	Detunes each of the notes that are allocated by the Unison Size number, producing a detuned effect. As you increase this value, each note is detuned more greatly, producing a thicker sound.
Legato Switch	OFF, ON	This is effective when Mono/Poly is set to MONO and Legato Switch is turned ON. When you press the next key while still holding down the previous key (legato performance), the pitch changes smoothly. The way in which the change occurs depends on the Legato Retrigger Interval.
Legato Retrigger Interval	0–12, OFF	When LegatoSwitch is enabled and you play legato, this specifies whether retriggering occurs (0–12) or does not occur (OFF). If this is off, only the pitch of the currently-sounding tones changes according to the pitch of the key. If this is set to 1–12, retriggering occurs smoothly when the pitch difference during legato performance exceeds the specified value. For example, if this is set to 4, and using C4 as the reference pitch, playing notes Db4–E4 legato will change only the pitch without retriggering, but playing the F4 note (which is five semitones away from C4) legato will retrigger F4. When F4 is retriggered at this time, F4 now becomes the reference pitch. If this is set to 0, each note is retriggered every time regardless of the pitch difference. For acoustic-type sounds in particular, an unnatural impression can occur if only the pitch is changed, so you'll need to adjust the Legato Retrigger Interval.
Portamento Switch	OFF, ON	Specifies whether the portamento effect will be applied (ON) or not (OFF). * Portamento is an effect which smoothly changes the pitch from the first-played key to the next-played key. By applying portamento when the Mono/Poly parameter is "MONO," you can simulate slide performance techniques on a violin or similar instrument.
	Specifies the performance conditions for which portamento will be applied.	
Portamento Mode	NORMAL	Portamento will always be applied. Applies portamento only when you play legato (i.e., when you press the next key before releasing the previous key).
	Specifies the type of	f portamento effect.
Portamento Type	RATE	The time it takes will depend on the distance between the two pitches.
	TIME	The time it takes will be constant
Portamento Start	When another key is pressed during a pitch change produced by portamento, a new pitch change will begin. This setting specifies the pitch at which the change will begin.	



SWITCH

Parameter [◀] [▶] buttons	Value [-] [+] buttons	Explanation
Partial Switch	OFF, ON	Use these buttons to turn the partials on/off.
ADSR Envelope Switch	OFF, ON	This imitates the operation of the ADSR envelope that is provided on an analog synthesizer. If ADSR Env Switch is ON, the "Time 2" parameters of Pitch/Filter/Amp Env Time respectively are ignored, and only the "Level 3" parameters of Pitch/Filter/Amp Env Level are valid.

Parameter [◀] [▶] buttons	Value [-] [+] buttons	Explanation
PMT Velocity Control	OFF, ON, RANDOM, CYCLE	Specifies how partials are played according to your keyboard playing dynamics (velocity). If this is "ON," different partials are sounded according to the playing velocity and the Velocity Range Lower/ Upper and Velocity Fade Lower/Upper settings. If this is "RANDOM" or "CYCLE," each partial is sounded randomly or cyclically. In the case of "RANDOM" or "CYCLE," velocity has no effect, but you'll need to make settings for each partial so that the Velocity Range does not conflict.

MFX

Parameter	Value	Fundamentian
[◀] [►] buttons	[-] [+] buttons	explanation
Туре		
Switch	OFF, ON	Specifies whether the multi-effect is used (ON) or not used (OFF).
Chorus Send Level	0–127	Adjusts the amount of chorus. If you don't want to add the chorus effect, set it to 0.
Reverb Send Level	0–127	Adjusts the amount of reverb. If you don't want to add the reverb effect, set it to 0.
		Specifies the MIDI message that will control the corresponding MFX CONTROL parameter.
	OFF	MFX will not be used.
Control Source	CC01-31	Controller number 1–31
1–4	CC33-95	Controller number 33–95
	BEND	Pitch Bend
	AFT	Aftertouch
	SYS-CTRL1-4	The controllers specified by the system parameters SysCtrlSrc1–4 Source are used.
Control Destination 1–4		Specifies the multi-effect parameters that are controlled by MFX Control. The multi- effects parameters available for control will depend on the multi-effects type.
Control Sens 1–4	-63-+63	Specifies the depth of MFX CONTROL. Specify a positive "+" value if you want to change the value of the assigned destination in a positive direction (larger, toward the right, faster, etc.), or specify a negative value "" if you want to change the value in a negative direction (smaller, toward the left, slower, etc.). Larger values will allow a greater amount of control.

OSC

Parameter [◀] [▶] buttons	Value [-] [+] buttons	Explanation
OSC Type	Specifies the oscillator type.	
	PCM	PCM is used. The wave of the number specified by the Wave Group and Wave Number L/R is used.
	VirtualAnalog	A numerically calculated analog-modeled wave is generated. The wave of the number specified by VA Waveform is used.
	PCM-Sync	The wave of the number specified by PCM-Sync Wave Number is used.
	SuperSAW	SuperSAW is used.
	WhiteNoise	White noise is used.

Tone Parameters

Parameter [◀] [▶] buttons	Value [-] [+] buttons	Explanation
	INT A	
Wave Group	INT B	Specifies the wave group that is used
	INT C	- when OSC Type is PCM.
Wave Number L		Specifies the wave number within the group specified by Wave Group. If using mono, specify only the left side (L). If using stereo, specify the right side
Wave Number R		 - (R) as well. If using mono, specify only Wave Number L and leave Wave Number R at 0: OFF. If you specify only Wave Number R, no sound is heard.
	Specifies the wave t	hat is used when OSC Type is Virtual Analog.
	SAW	Sawtooth wave
	SOR	Square wave
VA Waveform	TRI	Triangle wave
VA Waveloini	CIN	
		Sille Wave
	KAMP	kamp wave
	JUNO	Modulated sawtooth wave
PCM-Sync Wave Number	Specifies the wave to The PCM-Sync oscill (the sync-modulated SYNC.	hat is used when OSC Type is PCM-Sync. ator is effective when specified as the Slave d partial 1 or 3) when Structure is set to
		Specifies the gain (amplitude) of the waveform
Gain	-18-+12 [dB]	The value will change in 6 dB (decibel) steps.Each 6 dB increase doubles the gain.
Pulse Width	0–127	This effect is produced when the waveform is deformed by varying the duty cycle of the pulse width. It is effective when OSCType is VA, and is also effective with waveforms other than SQR (square wave). * If the value is 64, the pulse width has a 50%50% duty cycle.
PWM Depth	-63-+63	Specifies the amount (depth) of LFO applied to PW (Pulse Width).
Super-SAW Detune	0–127	Specifies the amount of pitch variance between the (seven) sawtooth waves that are layered within one oscillator. A st his value is increased, the pitch variance becomes greater. (At this time, OSC Detune applies an equal amount of pitch difference between the seven sawtooth waves.) This has no effect if Structure is SYNC. This is effective only when SuperSAW is selected as the OSC Type.
Click Type	SOFT, HARD	Changes the sense of attack by varying the position at which the sound starts. This is effective if OSC Type is VirtualAnalog. However, HARD is effective only when VA Waveform is TRI or SIN.
Fat	0–127	Boosts the low-frequency region. This is effective when OSC Type is VirtualAnalog.
FXM Switch	OFF, ON	This sets whether FXM will be used (ON) or not (OFF). * FXM (Frequency Cross Modulation) uses a specified waveform to apply frequency modulation to the currently selected waveform, creating complex overtones. This is useful for creating dramatic sounds or sound effects.
FXM Color	1–4	Specifies how FXM will perform frequency modulation.Higher settings result in a grainier sound, while lower settings result in a more metallic sound.
FXM Depth	0–16	Specifies the depth of the modulation produced by FXM.
	·	. /

Parameter [◀] [▶] buttons	Value [-] [+] buttons	Explanation
	This produces a time delay between the moment a key is pressed (or released), and the moment the partial actually begins to sound. You can also make settings that shift the timing at which each partial is sounded. This differs from the Delay in the internal effects, in that by changing the sound qualities of the delayed partials and changing the pitch for each partial, you can also perform arpeggio-like passages just by pressing one key. You can also synchronize the partial delay time to the tempo of the external MIDI sequencer. If Legato Retrigger Interval is other than OFF, legato operation occurs only when Delay Mode is NORMAL. Also in this case, Legato Retrigger Interval operates as 0 (retriggers at each DelayTime).	
Delay Mode	NORMAL	The partial begins to play after the time specified in the Partial Delay Time parameter has elapsed. No Partial Delay Delay time Note on Note off
	HOLD	Although the partial begins to play after the time specified in the Partial Delay Time parameter has elapsed, if the key is released before the time specified in the Partial Delay Time parameter has elapsed, the partial is not played.
	KEY-OFF-NORMAL	Rather than being played while the key is pressed, the partial begins to play once the period of time specified in the Partial Delay Time parameter has elapsed after release of the key. This is effective in situations such as when simulating noises from guitars and other instruments.
	KEY-OFF-DECAY	Rather than being played while the key is pressed, the partial begins to play once the period of time specified in the Partial Delay Time parameter has elapsed after release of the key. Here, however, changes in the TVA Envelope begin while the key is pressed, which in many cases means that only the sound from the release portion of the envelope is heard. Delay time Note on Note off
Delay Time Sync	OFF, ON	Set this ON if you want the partial delay time to synchronize with the tempo.
Delay Time (note)	1/64T-2	This is available when Delay Time Sync is ON. It specifies the delay time in terms of a note value.
Delay Time	0–1023	This is available when Delay Time Sync is OFF. It specifies the delay time without regard to the tempo.





Parameter [◀] [▶] buttons	Value [-] [+] buttons	Explanation
Velocity Range Lower	1–127	Specify the lower limit (Lower) and upper limit (Upper) of the velocities that will sound the partial.
Velocity Range Upper	1–127	Make these settings when you want different partials to sound depending on keyboard playing dynamics.
Velocity Fade Lower (PMT 1-4)	0–127	Specifies the degree to which the partial is sounded by notes played more softly than Velocity Range Lower. Specify "0" if you don't want such notes to be sounded.
Velocity Fade Upper	0–127	Specifies the degree to which the partial is sounded by notes played more strongly than Velocity Range Upper. Specify "0" if you don't want such notes to be sounded.

STRUCTURE

Structure lets you sound two partials as a set.

You can create a wide range of sounds by using partial 2 or 4 (the modulator) to modulate partial 1 or 3 (the carrier).

Since the Structure uses two partials as a pair, it provides parameters that are used in common by the carrier and modulator.

For the following parameters, only the partial settings of the carrier are valid (the settings of the modulator are ignored).

KEYBOARD

- Keyboard Range Lower
- Keyboard Range Upper
- Keyboard Fade Width Lower
- Keyboard Fade Width Upper
- Velocity Range Lower
- Velocity Range Upper
- Velocity Fade Width Lower
- Velocity Fade Width Upper

SWITCH

Partial Switch

OSC

- Delay Mode (note)
- Delay Mode
- Delay Time Sync
- Delay Time (note)
- Delay Time

CONTROL

- Envelope Mode
- Receive Hold-1
- Redamper Switch
- Damper Free Note

MATRIX CONTROL

- Destination: PMT
- Destination: CROSS-MOD

Parameter [◀] [▶] buttons	Value [-] [+] buttons	Explanation
	The sound of partial	1 is modulated by partial 2.
	OFF	OFF
Structure1-2	SYNC	Implements the oscillator sync function that is provided by an analog synthesizer. The partial 1 oscillator is reset at intervals of partial 2's pitch cycle. This is effective only if OSC Type is VirtualAnalog or PCM-Sync.
	RING	Implements the ring modulator function that is provided by an analog synthesizer. The output sound of partial 2 is multiplied with partial 1. ➡ "RING" (p. 23)
	CROSS-MOD	Implements the cross modulation function that is provided by an analog synthesizer. The output sound of partial 2 is applied as the pitch of partial 1. → "CROSS-MOD" (p. 23)

Tone Parameters

Parameter [∢] [▶] buttons	Value [-] [+] buttons	Explanation
	The output sound o	f partial 3 is modulated by partial 4.
	OFF	OFF
	SYNC	Implements the oscillator sync function that is provided by an analog synthesizer. The partial 3 oscillator is reset at intervals of partial 4's pitch cycle. This is effective only if OSC Type is VirtualAnalog or PCM-Sync.
Structure3-4	RING	Implements the ring modulator function that is provided by an analog synthesizer. The output sound of partial 4 is multiplied with partial 3. ⇒ "RING" (p. 23)
	CROSS-MOD	Implements the cross modulation function that is provided by an analog synthesizer. The output sound of partial 4 is applied
		as the pitch of partial 3. → "CROSS-MOD" (p. 23)
RING1-2 Level	0–127	RING level when Structure1-2 is RING. → "RING" (p. 23)
RING3-4 Level	0–127	RING level when Structure3-4 is RING. → "RING" (p. 23)
RING OSC1 Level	0–127	Effective when Structure1-2 is RING. Sets the partial 1 OSC level. → "RING" (p. 23)
RING OSC2 Level	0–127	Effective when Structure1-2 is RING. Sets the partial 2 OSC level. → "RING" (p. 23)
RING OSC3 Level	0–127	Effective when Structure3-4 is RING. Sets the partial 3 OSC level. ➡ "RING" (p. 23)
RING OSC4 Level	0–127	Effective when Structure3-4 is RING. Sets the partial 4 OSC level. ➡ "RING" (p. 23)
CrossMod1-2 Depth	0–9600 [cent]	Cross Modulation Depth when Structure 1-2 is CROSS-MOD. → "CROSS-MOD" (p. 23)
CrossMod3-4 Depth	0–9600 [cent]	Cross Modulation Depth when Structure3-4 is CROSS-MOD. → "CROSS-MOD" (p. 23)
CrossMod OSC1 Level	0–127	Effective when Structure1-2 is CROSS- MOD. Sets the partial 1 OSC level. → "CROSS-MOD" (p. 23)
CrossMod OSC2 Level	0–127	Effective when Structure1-2 is CROSS- MOD. Sets the partial 2 OSC level. → "CROSS-MOD" (p. 23)
CrossMod OSC3 Level	0–127	Effective when Structure3-4 is CROSS- MOD. Sets the partial 3 OSC level. → "CROSS-MOD" (p. 23)
CrossMod OSC4 Level	0–127	Effective when Structure3-4 is CROSS- MOD. Sets the partial 4 OSC level. → "CROSS-MOD" (p. 23)23

RING



CROSS-MOD



Pitch

Devenueter	Value	
[◀] [▶] buttons	[-] [+] buttons	Explanation
Coarse Tune	-48-+48 [semitone]	Adjusts the pitch of the partial's sound up or down in semitone steps (+/-4 octaves).
Fine Tune	-50–+50 [cent]	Adjusts the pitch of the partial's sound up or down in 1-cent steps (+/-50 cents).
Random Pitch Depth	0–1200 [cent]	This specifies the width of random pitch deviation that will occur each time a key is pressed. If you do not want the pitch to change randomly, set this to "0." * One cent is 1/100th of a semitone.
Pitch Keyfollow	-200-+200	This specifies the amount of pitch change that will occur when you play a key one octave higher (i.e., 12 keys upward on the keyboard). If you want the pitch to rise one octave as on a conventional keyboard, set this to "+100." If you want the pitch to rise two octaves, set this to "+200." Conversely, set this to a negative (-) value if you want the pitch to fall. With a setting of "0," all keys will produce the same pitch.
Vibrato Pitch Sens	-100-+100	Specifies the amount by which the Pitch Depth of LFO1 is changed by the program's Modify Vibrato Depth.
Stereo Detune	-50–+ 50 [cent]	Specifies the detune between L⇔R when outputting in stereo.

PITCH ENVELOPE

Parameter [◀] [▶] buttons	Value [-] [+] buttons	Explanation
Depth	-100-+100	Adjusts the effect of the Pitch Envelope. Higher settings will cause the pitch envelope to produce greater change. Negative "-" settings will invert the shape of the envelope. If OSC Type is other than Virtual Analog, this is limited to ± 63 .
Velocity Sens	-100-+100	Keyboard playing dynamics can be used to control the depth of the pitch envelope.If you want the pitch envelope to have more effect for strongly played notes, set this parameter to a positive "+" value. If you want the pitch envelope to have less effect for strongly played notes, set this to a negative "-" value.
Time 1 Velocity Sens	-100-+100	This allows keyboard dynamics to affect the Time 1 of the Pitch envelope. If you want Time 1 to be speeded up for strongly played notes, set this parameter to a positive "+" value. If you want it to be slowed down, set this to a negative "-" value.
Time 4 Velocity Sens	-100-+100	Use this parameter when you want key release speed to affect the Time 4 value of the pitch envelope. If you want Time 4 to be speeded up for quickly released notes, set this parameter to a positive "+" value. If you want it to be slowed down, set this to a negative "-" value.
Time Keyfollow	-100-+100	Use this setting if you want the pitch envelope times (Time 2–Time 4) to be affected by the keyboard location. Based on the pitch envelope times for the C4 key, positive (+) value will cause notes higher than C4 to have increasingly shorter times, and negative (-) value will cause them to have increasingly longer times. Larger settings will produce greater change.
Time 1–4	0–1023	Specify the pitch envelope times (Time 1-Time 4). Higher settings will result in a longer time until the next pitch is reached. (For example, Time 2 is the time over which the pitch changes from Level 1 to Level 2.) * If ADSR Envelope Switch is ON, the Pitch Env Time 2 has no effect. Pitch L1 Transformed Tra
Level 0–4	-511-+511	Specify the pitch envelope levels (Level 0-Level 4). It determines how much the pitch changes from the reference pitch (the value set with Coarse Tune or Fine Tune on the Pitch screen) at each point. Positive "+" settings will cause the pitch to be higher than the standard pitch, and negative "-" settings will cause it to be lower. * If ADSR Envelope Switch is ON, only Pitch Env Level 3 (Sustain) has an effect. Also in this case, settings with a negative value are ignored.

FILTER		
Parameter [◀] [▶] buttons	Value [-] [+] buttons	Explanation
Filter Type	TVF, VCF	Selects the type of filter. * TVF stands for Time Variant Filter, a filter that lets you specify in detail how the frequency components of the sound change over time. If you select VCF, the polyphony will be lower than if you select TVF.
	TVFSelects the type * If Filter Type is set to	of filter. VCF, this will be LPF.
	OFF	No filter is used.
	LPF	Low Pass Filter. This reduces the volume of all frequencies above the cutoff frequency (Cutoff Frequency) in order to round off, or un-brighten the sound. This is the most common filter used in synthesizers
	BPF	Band Pass Filter. This leaves only the frequencies in the region of the cutoff frequency (Cutoff Frequency), and cuts the rest. This can be useful when creating distinctive sounds.
	HPF	High Pass Filter. This cuts the frequencies in the region below the cutoff frequency (Cutoff Frequency). This is suitable for creating percussive sounds emphasizing their higher tones.
TVF Type	PKG	Peaking Filter. This emphasizes the frequencies in the region of the cutoff frequency (Cutoff Frequency). You can use this to create wah-wah effects by employing an LFO to change the cutoff frequency cyclically.
	LPF2	Low Pass Filter 2. Although frequency components above the Cutoff frequency (Cutoff Frequency) are cut, the sensitivity of this filter is half that of the LPF. This makes it a comparatively warmer low pass filter. This filter is good for use with simulated instrument sounds such as the acoustic piano. * If you set "LPF2," the setting for the Resonance parameter will be ignored (p. 25).
	LPF3	Low Pass Filter 3. Although frequency components above the Cutoff frequency (Cutoff Frequency) are cut, the sensitivity of this filter changes according to the Cutoff frequency. While this filter is also good for use with simulated acoustic instrument sounds, the nuance it exhibits differs from that of the LPE2, even with the same TVF Envelope settings. * If you set "LPE3," the setting for the Resonance parameter will be ignored (p. 25).
VCF Type	1–4	This parameter is effective when Filter Type is VCF. Each setting simulates the operation of an analog synthesizer's LPF. In particular, 2–4 are types that are suitable for reproducing synthesizer sounds of the past.
Filter Slope	-12, -18, -24 [dB/ Oct]	 This button selects the slope (steepness) of the filter. For VCF, you can choose -12, -18, or -24. For TVF, only -12 or -24 can be selected. If Filter Type is TVF, the following limitations apply. You can specify only -12 dB or -24 dB. If you specify -18 dB, the sound generator operates internally with the -12 dB setting. If you specify -24 dB, the polyphony will be lower than if you specify -12 dB.
HPF Cutoff	0–1023	Specifies the cutoff frequency of the -6 dB high-pass filter. * This is effective if Filter Type is VCF.

Tone Parameters

Parameter [◀] [▶] buttons	Value [-] [+] buttons	Explanation
Cutoff Frequency	0–1023	Selects the frequency at which the filter begins to have an effect on the waveform's frequency components. With "LPF/LPF2/LPF3" selected for the Filter Type parameter, lower cutoff frequency settings reduce a tone's upper harmonics for a more rounded, warmer sound. Higher settings make it sound brighter. If "BPF" is selected, harmonic components will change depending on the TVF Cutoff Frequency setting. This can be useful when creating distinctive sounds. With "HPF" selected, higher Cutoff Frequency settings will reduce lower harmonics to emphasize just the brighter components of the sound. With "PKG" selected, the harmonics to be emphasized will vary depending on Cutoff Frequency setting.
Cutoff Keyfollow	-200-+200	Use this parameter if you want the cutoff frequency to change according to the key that is pressed. Relative to the cutoff frequency at the C4 key (center C), positive (+) value will cause the cutoff frequency to rise for notes higher than C4, and negative (-) value will cause the cutoff frequency to fall for notes higher than C4. Higher values will produce greater change. Cutoff frequency (betwee) $\frac{1}{2} \frac{1}{2} $
Cutoff Velocity Curve	FIXED, 1–7	Selects one of the following seven curves that determine how keyboard playing dynamics (velocity) influence the cutoff frequency. Set this to "FIXED" if you don't want the Cutoff frequency to be affected by the keyboard velocity.
Cutoff Velocity Sens	-100-+100	Use this parameter when changing the cutoff frequency to be applied as a result of changes in playing velocity. If you want strongly played notes to raise the cutoff frequency, set this parameter to positive (+) value. If you want strongly played notes to lower the cutoff frequency, use negative (-) value.
Resonance	0–1023	Emphasizes the portion of the sound in the region of the cutoff frequency, adding character to the sound. Excessively high settings can produce oscillation, causing the sound to distort.
Resonance Velocity Sens	-100-+100	Specifies this if you want the amount of resonance to be affected by keyboard playing dynamics. Specify a positive "+" value if you want resonance to increase when you play strongly, or a negative "-" value if you want it o decrease.

FLITER ENVELOPE

Parameter	Value	
[◀] [▶] buttons	[-] [+] buttons	Explanation
Depth	-63-+63	Specifies the depth of the filter envelope. Higher settings increase the change produced by the filter envelope. Negative "-" settings will invert the shape of the envelope.
Velocity Curve	FIXED, 1–7	Selects one of the following seven types of curve by which keyboard playing dynamics affect the depth of the filter envelope. If you don't want keyboard playing dynamics to affect the filter envelope depth, specify "FIXED." 1 2 3 4 5 6 7
Velocity Sens	-100-+100	Specify this if you want keyboard playing dynamics to affect the filter envelope depth. Specify a positive "+" value if you want the filter envelope to apply more deeply as you play more strongly, or a negative "" value if you want it to apply less deeply.
Time 1 Velocity Sens	-100-+100	Specify this if you want keyboard playing dynamics to affect Time 1 of the filter envelope. If you want Time 1 to be speeded up for strongly played notes, set this parameter to a positive "+" value. If you want it to be slowed down, set this to a negative "-" value.
Time 4 Velocity Sens	-100-+100	Specify this if you want key release velocity to affect Time 4 of the filter envelope. If you want Time 4 to be speeded up for quickly released notes, set this parameter to a positive "+" value. If you want it to be slowed down, set this to a negative "-" value.
Time Keyfollow	-100-+100	Specify this if you want the filter envelope times (Time 2–Time 4) to vary depending on the keyboard position you play. Relative to the filter envelope times at the C4 key (middle C), positive "+" values shorten the times for notes played in the region above C4, and negative "-" values lengthen the times. Higher values will produce greater change. Time for the time of the tim
Time 1–4	0–1023	Specify the filter envelope times (Time 1– Time 4). Higher values lengthen the time before reaching the next cutoff frequency (for example, Time 2 is the time over which Level 1 changes to 2). * If ADSR Envelope Switch is ON, Filter Env Time 2 has no effect.
Level 0–4	0–1023	Specify the filter envelope levels (Level 0–Level 4). Specify the amount of cutoff frequency change at each point relative to the reference cutoff frequency (the cutoff frequency value specified in the Filter screen). * If ADSR Envelope Switch is ON, only Filter Env Level 3 (Sustain) is effective.

AMP

Parameter [◀] [▶] buttons	Value [-] [+] buttons	Explanation
Level	0–127	Sets the volume of the partial. This setting is useful primarily for adjusting the volume balance between partials.
Level Velocity Curve	FIXED, 1–7	Selects one of the following seven curves that determine how keyboard dynamics will affect the volume. Set this to "FIXED" if you don't want the volume of the partial to be affected by the keyboard velocity. 1 2 3 4 5 6 7
Level Velocity Sens	-100-+100	Set this when you want the volume of the partial to change depending on the force with which you press the keys. Set this to a positive (+) value to have the changes in partial volume increase the more forcefully the keys are played; to make the partial play more softly as you play harder, set this to a negative (-) value.
Bias Level	-100-+100	Adjusts the angle of the volume change that will occur in the selected Bias Direction. Larger settings will produce greater change. Negative (-) values will invert the change direction.
Bias Position	0–127	Specifies the key relative to which the volume will be modified. A setting of 64 is the C4 key (middle C).
	Selects the direction the Bias Position.	in which change will occur starting from
	LOWER	The volume will be modified for the keyboard area below the Bias Point.
Bias Direction	UPPER	The volume will be modified for the keyboard area above the Bias Point.
	LOWER&UPPER	The volume will be modified symmetrically toward the left and right of the Bias Point.
	ALL	The volume changes linearly with the bias point at the center.
Pan	L64–63R	Sets the pan of the partial. "L64" is far left, "0" is center, and "63R" is far right.
Pan Keyfollow	-100-+100	Use this parameter if you want key position to affect panning. Positive (+) value will cause notes higher than C4 key (center C) to be panned increasingly further toward the right, and negative (-) value will cause notes higher than C4 key (center C) to be panned toward the left. Larger settings will produce greater change. Pan R 0 0 0 0 0 0 0 0 0 0
Random Pan Depth	0–63	Use this parameter when you want the stereo location to change randomly each time you press a key. Higher settings will produce a greater amount of change.
Alternate Pan Depth Vibrato Level Sens	L63-63R -100-+100	This setting causes panning to be alternated between left and right each time a key is pressed. Higher settings will produce a greater amount of change. "L" or "R" settings will reverse the order in which the pan will alternate between left and right. For example if two partials are set to "L" and "R" respectively, the panning of the two tones will alternate each time they are played. Specifies how the program's Modify Vib Death affects the Amp Death of U.C.

Parameter [∢] [▶] buttons	Value [-] [+] buttons	Explanation
Stereo Width	0–100	Adjusts the amount of width when outputting in stereo. This has no effect when outputting in mono.

AMP ENVELOPE

Parameter [◀] [▶] buttons	Value [-] [+] buttons	Explanation
Time 1 Velocity Sens	-100-+100	Specify this if you want keyboard dynamics to affect the AMP envelope's Time 1. If you want Time 1 to be speeded up for strongly played notes, set this parameter to a positive "+" value. If you want it to be slowed down, set this to a negative "-" value.
Time 4 Velocity Sens	-100-+100	Specify this if you want key release velocity to affect the AMP envelope's Time 4. If you want Time 4 to be speeded up for quickly released notes, set this parameter to a positive "+" value. If you want it to be slowed down, set this to a negative "-" value.
Time Keyfollow	-100-+100	Specify this if you want keyboard position to affect the AMP envelope's times (Time 2–Time 4). Relative to the AMP envelope times at the C4 key (middle C), positive "+" values cause the times to shorten as you play higher on the keyboard, and negative "-" values cause the times to lengthen. Higher values will produce greater change. Time $\int_{C_1}^{T_{00}} \int_{C_2}^{T_{00}} \int_{C_3}^{T_{00}} \int_{C_4}^{T_{00}} \int_{C_5}^{T_{00}} \int_{C_6}^{T_{00}} \int_{C$
Time 1–4	0–1023	Specify the AMP envelope times (Time 1–Time 4). Larger values lengthen the time until reaching the next volume. (For example, Time 2 is the time of the change from Level 1 to Level 2.) * If ADSR Envelope Switch is ON, the Amp Env Time 2 is ignored.
Level 1–3	0-1023	Specify the AMP envelope levels (Level 1–Level 3). These specify the amount of change at each point relative to the reference volume (the partial level value specified in the Amp screen). * * * * * * * * * * * * * * * * * * *

LFO1 / LFO2

Parameter	Value	Value
[~] [P] Mar(0113	Selects the waveform of the LEO	
	SIN	Sine wave
	TRI	Triangle wave
	SAW-UP	Sawtooth wave
	SAW-DW	Sawtooth wave (negative polarity)
	SQR	Square wave
	RND	Random wave
Maucharma	TRP	Trapezoidal wave
(LFO1, LFO2)	S&H	Sample & Hold wave (one time per cycle, LFO value is changed)
	CHS	Chaos wave
	VSIN	Modified sine wave. The amplitude of a sine wave is randomly varied once each cycle.
	STEP	A waveform generated by the data specified by LFO Step 1–64. This produces stepped change with a fixed pattern similar to a step modulator.
Rate Sync	OFF	_ Set this ON if you want the LFO rate to
(LFO1, LFO2)	ON	synchronize with the tempo.
Rate Note (LF01, LF02)	1/64T-4	This is effective if Rate Sync is ON. Specifies the LFO rate in terms of a note
		This is effective if Rate Sync is OFF.
Rate (LF01, LF02)	0–1023	Specifies the LFO rate without regard to the tempo. Higher values produce a faster LFO rate (a shorter cycle).
Offset (LF01, LF02)	-100-+100	Raises or lowers the LFO waveform relative to the central value (pitch or cutoff frequency). Positive (+) value will move the waveform so that modulation will occur from the central value upward. Negative (-) value will move the waveform so that modulation will occur from the central value downward.
Rate Detune (LF01, LF02)	0–127	Subtly changes the LFO cycle speed (Rate parameter) each time you press a key. Higher values produce wider variation. This parameter is ignored if Rate is set to "note value."
Delay Time (LF01, LF02)	0–1023	Delay Time (LFO Delay Time) specifies the time elapsed before the LFO effect is applied (the effect continues) after the key is pressed (or released). * After referring to "How to Apply the LFO" (p. 28), change the setting until the desired effect is achieved.
Delay Time Keyfollow (LF01, LF02)	-100-+100	Adjusts the value for the Delay Time parameter depending on the key position, relative to the C4 key (center C). To decrease the time that elapses before the LFO effect is applied (the effect is continuous) with each higher key that is pressed in the upper registers, select a positive (+) value; to increase the elapsed time, select a negative (-) value. Larger settings will produce greater change. If you do not want the elapsed time before the LFO effect is applied (the effect is continuous) to change according to the key pressed, set this to "0."
	ON-IN	- Specifies how the LEO will be even ind
Fade Mode	ON-OUT	 >pecifies now the LFO will be applied. * After referring to "How to Apply the LFO"
(LFO1, LFO2)	OFF-IN	(p. 28), change the setting until the desired – effect is achieved.
	OFF-OUT	

Parameter [∢] [▶] buttons	Value [-] [+] Buttons	Value [-] [+] buttons
Fade Time (LF01, LF02)	0–1023	Specifies the time over which the LFO amplitude will reach the maximum (minimum). * After referring to "How to Apply the LFO" (b, 28, change the setting until the desired
		effect is achieved.
Key Trigger (LF01, LF02)	OFF, ON	Specifies whether the LFO cycle will be synchronized to begin when the key is pressed (ON) or not (OFF).
Pitch Depth (LF01, LF02)	-100-+100	Specifies how deeply the LFO will affect pitch. * If OSC Type is other than VirtualAnalog, the range is limited to -63-+63.
Filter Depth (LF01, LF02)	-100-+100	Specifies how deeply the LFO will affect the cutoff frequency.
Amp Depth (LF01, LF02)	-100-+100	Specifies how deeply the LFO will affect the volume.
		Specifies how deeply the LFO will affect the pan.
Pan Depth (LF01, LF02)	-63-+63	MEMO Positive (+) and negative (-) value for the Depth parameter result in differing kinds of change in pitch and volume. For example, if you set the Depth parameter to a positive (+) value for one partial, and set another partial to the same numerical value, but make it negative (-), the modulation phase for the two partials will be the reverse of each other. This allows you to shift back and forth between two different partials, or combine it with the Pan setting to cyclically change the location of the sound image.
	Specifies the LFO's s ON.	tarting phase value when Key Trigger is
Phase Position	0	1 cycle
(LFO1, LFO2)	1	1/4 cycle
	2	1/2 cycle
	3	3/4 cycle
61	1 16	This is effective if Waveform is STEP.
Step Size (LF01, LF02)	1-10	Specifies the step size that is looped.
Step 1-16 (LF01, LF02)		This is effective when Waveform is STEP. Specify the Depth value of each step. If you want to specify this in pitch scale degrees (100 cents), the settings are as follows.
	-72-+72	PitchDepth: 51, Step: multiples of 6 up to one octave of change
		PitchDepth: 74, Step: multiples of 3 up to two octaves of change
		 PitchDepth: 89, Step: multiples of 2 up to three octaves of change
		 If OSC Type is not VirtualAnalog, the Pitch Depth setting range is limited to -63-+63, so only "1" above is possible.
Step Curve 1-16 (LFO1, LFO2)	0–36	Specifies the type of curve at each step. Specifies the types (p. 27)

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Step curve types

Step Curve 0



Tone Parameters

Curve Type 7–10 (variations of ascending saw)

Curve Type 1–6 (variations of square wave)



Curve Type 11–15 (variations of descending saw)





Curve Type 16–19 (variations of ascending exponential)



Curve Type 20–23 (variations of descending exponential)



Curve Type 24–27 (variations of ascending charging curve)



Curve Type 28–31 (variations of descending charging curve)



Curve Type 32–36 (other variations)



How to Apply the LFO

Apply the LFO gradually after the key is pressed



Apply the LFO immediately when the key is pressed, and then gradually begin to decrease the effect

Fade Mode: ON-OUT



Apply the LFO gradually after the key is released Fade Mode: OFF-IN



Apply the LFO from when the key is pressed until it is released, and gradually begin to decrease the effect when the key is released

Fade Mode: OFF-OUT



PARTIAL EO

Parameter [◀] [▶] button	Value [-] [+] Buttons	Explanation
Switch	OFF, ON	Turns the equalizer on/off for each partial.
Low Gain	-24.0-+ 24.0 [dB]	Gain of the low frequency range.
Mid Gain	-24.0-+ 24.0 [dB]	Gain of the middle range
High Gain	-24.0-+ 24.0 [dB]	Gain of the high frequency range.
Low Frequency	20–16000 [Hz]	Frequency of the low range.
Mid Frequency	20–16000 [Hz]	Frequency of the middle range
High Frequency	20–16000 [Hz]	Frequency of the high range.
Mid Q	0.5–16.0 (0.1step)	Width of the middle range Set a higher value for Q to narrow the range to be affected.

OUTPUT

Parameter [◀] [▶] button	Value [-] [+] Buttons	Explanation
Output Assign	DRY, MFX	Specifies how the sound of each partial will be output.
Chorus Level Send	0–127	Specifies the level of the signal sent to the chorus for each partial.
Reverb Level Send	0–127	Specifies the level of the signal sent to the reverb for each partial.

CONTROL

Parameter [◀] [▶] button	Value [-] [+] Buttons	Explanation
Envelope Mode	NO-SUS, SUSTAIN	If this is set to SUSTAIN, the Envelope Level 3 is held from when the envelope Time 3 has elapsed until note-off. When note-off occurs, the envelope transitions from the current value to the Time 4 segment (release segment). If this is set to NO-SUS, the envelope transitions to the release segment after passing Time 3 regardless of the note-off timing, operating according to the times specified by the envelope.
Damper Free Note	OFF, 1–127	For notes above the specified note number, the Envelope Mode operates as NO-SUS. Use this to simulate the undamped region of a piano sound.
Receive Bender	OFF, ON	Specifies for each partial whether MIDI pitch bend messages are received (ON) or not received (OFF).
Receive Expression	OFF, ON	Specifies for each partial whether MIDI expression messages are received (ON) or not received (OFF).
Receive Hold-1	OFF, ON	Specifies for each partial whether MIDI hold 1 messages are received (ON) or not received (OFF).
Redamper Switch	OFF, ON	If Redamper Switch is ON, you can perform the Half Damper operations used for piano sounds. However, the following conditions must be satisfied in order to use this operation. • Envelope Mode is NO-SUS • Amp Envelope's Level 1 and 2 are 1 or greater • Amp Envelope's Times are Time 3 > Time4
Soft EQ Sens	0–100	Increases the proportion by which the EQ's HighGain is lowered by the amount of pedal. With a setting of 0, this has no effect.

MATRIX CONTROL

Ordinarily, if you wanted to change partial parameters using an external MIDI device, you would need to send System Exclusive messages-MIDI messages designed exclusively for the AX-Edge. However, System Exclusive messages tend to be complicated, and the amount of data that needs to be transmitted can get quite large.

For that reason, a number of the more typical of the AX-Edge's partial parameters have been designed so they accept the use of Control Change (or other) MIDI messages for the purpose of making changes in their values. This provides you with a variety of means of changing the way tones are played. For example, you can use the Modulation Bar to change the LFO cycle rate, or use the keyboard's touch to open and close a filter.

The function which allows you use MIDI messages to make these changes in realtime to the partial parameters is called the "Matrix **Control.**" Up to four Matrix Controls can be used in a single tone.

To use Matrix Control, you specify which MIDI message (Source) controls which parameter (Destination) and how deeply (Sens: sensitivity).

Parameter ∢] [▶] button	Value [-] [+] Buttons	Explanation	
	Sets the MIDI message used to change the partial parameter with the Matrix Control.		
	OFF	Matrix control will not be used.	
	CC01-31, CC33-95	Controller numbers 1–31, 33–95	
	BEND	Pitch Bend	
	AFT	Aftertouch	
	SYS-CTRL1-4	MIDI messages assigned by the SYSTEM parameters SYS-CTRL 1–4	
	VELOCITY	Velocity (pressure you press a key with)	
	KEYFOLLOW	Keyfollow (keyboard position with C4 as 0)	
	TEMPO	Tempo specified by the tempo assign source	
	LFO1, LFO2	LFO 1 LFO 2	
	PIT-ENV	Pitch envelope	
	TVF-ENV	TVF envelope	
	TVA-ENV	TVA envelope	
Source 1–4 Matrix Control 1–4)	 * Velocity and Keyfollo * Although there are not they can be used as M 	w correspond to Note messages. o MIDI messages for LFO 1 through TVA Envelope, Jatrix Control. In this case, you can change the partial	
	 settings in realtime by playing tones. If you want to use common controllers for the entire AX-Edge, select "SYS- CTRL1"-"SYS-CTRL4." MIDI messages used as System Control 1-4 are set with the SysCtrlSrc1-4 (p. 38). For more information about Control Change messages, please refer to "MIDI Implementation (English)" (PDF). 		
	NOTE		
	 There are parameters that determine whether or not Pitch Bend, Controller Number 11 (Expression) and Controller Number 64 (Hold 1) are received (p. 29). When these settings are "ON," and the MIDI messages are received, then when any change is made in the settings of the desired receiver the Dead Comparison and Used 1 participant. 		

also change simultaneously. If you want to change the targeted parameters only, then set these to "OFF."

There are parameters that let you specify whether specific MIDI messages will be received for each part in a studio set (p. 11). When a tone with Matrix Control settings is assigned to a part, confirm that any MIDI messages used for the Matrix Control will be received. If the AX-Edge is set up such that reception of MIDI messages is disabled, then the Matrix Control will not function.

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arameter ∢] [▶] button	Value [-] [+] Buttons	Explanation	
	Selects the partial parameter that is to be controlled when using the Matrix Control. The following parameters can be controlled		
	When not controlling parameters with the Matrix Control, set this to "OFF." Up to four parameters can be specified for each Matrix Control, and controlled simultaneously.		
	OFF	Matrix Control will not be used.	
	РСН	Changes the pitch.	
	CUT	Changes the cutoff frequency.	
	RES	Emphasizes the overtones in the region of the cutoff frequency, adding character to the sound.	
	LEV	Changes the volume level.	
	PAN	Changes the pan.	
	СНО	Changes the amount of chorus.	
	REV	Changes the amount of reverb.	
	PIT-LFO		
	PIT-LFO2	Changes the vibrato depth.	
	TVF-LFO1		
	TVF-LE02	Changes the wah depth.	
	TVA-LE01		
		Changes the tremolo depth.	
	PAN-LFO1	Changes the effect that the LEO will have	
	PAN-LFO2	on pan.	
	LFO1-RATE	Changes the speed of the LFO cycles. The	
	LFO2-RATE	speed will not change if LFO Rate is set	
	PIT-ATK	Changes the Time 1 of the pitch envelope	
		Changes the Time 2 and Env Time 3 of the	
Destination 1–4	r11-DCY	pitch envelope.	
,	PIT-REL	Changes the Time 4 of the pitch envelope.	
	I VF-ATK	Changes the Time 1 of the TVF envelope.	
	TVF-DCY	TVF envelope.	
	TVF-REL	Changes the Time 4 of the TVF envelope.	
	TVA-ATK	Changes the Time 1 of the TVA envelope.	
	TVA-DCY	Changes the Time 2 and Env Time 3 of the TVA envelope	
	TVA-REL	Changes the Time 4 of the TVA envelope.	
		If the Matrix Control is used to split partials, set the PMT Velocity Control (p. 20) to "OFF"	
	PMT	 If the Matrix Control is used to split partials, we recommend setting the Sens (p. 30) to "+63." Selecting a lower value may prevent switching of the partials. Furthermore, if you want to reverse the effect, set the value to "-63." 	
		 If you want to use matrix control to switch smoothly between partials, use the Velocity Fade Lower and Velocity Fade Upper (p. 22). The higher the values set, the smoother the switch is between the partials. 	
	FXM	Changing the Depth of Frequency Modulation Produced by FXM	
	MFX-CTRL1	Applies a change to MEX CONTROL 1-4	
	MFX-CTRL2	Source. If this is specified for more than	
	MFX-CTRL3	one partial, the result will be the summed values.	
	MFX-CTRL4	values.	
	PW	Applies change to PW.	
	PWM	Applies change to PWM.	
	1.41	Applies change to FAL	

Parameter [◀] [▶] button	Value [-] [+] Buttons	Explanation
	CROSS-MOD	This setting is valid only for the carrier partial (Partial 1 or 3), and applies change to the CrossMod1-2Depth or CrossMod3-4Depth.
Destination 1–4 (MATRIX CONTROL 1–4)	LFO1-STEP	This is valid if the LFO1/LFO2 Waveform is
,,	LFO2-STEP	STEP; it specifies the step position. In this case, the Sens value is ignored.
	SSAW-DETN	This is effective if OSC Type is SuperSAW; it applies change to Super-SAW Detune.
Sens 1–4 (MATRIX CONTROL 1–4)	-63-+63	Specify the effective depth of the matrix controls. To make an increase in the currently selected value (to get higher values, move to the right, increase rates, and so on), select a positive (+) value; to make a decrease in the currently selected value (to get lower values, move to the left, decrease rates, and so on), select a negative (-) value. For either positive or negative value, greater absolute values will allow greater amounts of change. Set this to "0" if you don't want to apply the effect.

SYSTEM EFFECT Parameters

SYSTEM EFFECT

1. Press the [MENU/WRITE] button.

- 2. Use the cursor [◄] [▶] buttons to select "SYSTEM EFFECT," and then press the [ENTER] button.
- 3. Use the cursor [◄] [►] buttons to select a parameter, and use the [-] [+] buttons to edit the value.

MEMO

To save the change, hold down the [SHIFT] button and press the [MENU/ WRITE] button.

Execute: Press the [ENTER] button.

Cancel: Press the [EXIT] button.

* To save system effect settings, perform the Write operation in the system effect edit screen. You can't save system effect settings in other screens.

SYS CHORUS

Parameter [◀] [▶] button	Value [-] [+] Buttons	Explanation
Chorus Type (Chorus Type)	Selects the types of chorus. When you press the [Enter] button, the parameters for the selected type appear.	
Switch	OFF, ON	Switches chorus on/off.
Level	0–127	Specifies the output level of the sound with chorus applied.
Chorus parameters	Edit the parameters of the selected chorus type. The available parameters differ depending on the type of chorus you selected in Chorus Type. → "CHORUS Parameters" (p. 32)	
Rev Send (Reverb Send)	0–127	Specifies the send level to reverb.

SYS REVERB

Parameter [◀] [▶] button	Value [-] [+] Buttons	Explanation
Reverb Type (Reverb Type)	Selects the types of r When you press the selected type appear	everb. [Enter] button, the parameters for the :
Switch	OFF, ON	Switches the reverb on/off.
Level	0–127	Specifies the output level of the sound with reverb applied.
Reverb parameters	Edit the parameters of the selected reverb type. The available parameters differ depending on the type of reverb you selected in Reverb Type. "Reverb Parameters" (p. 34)	

MASTER COMP

Parameter [∢] [▶] button	Value [-] [+] Buttons	Explanation
Switch	OFF, ON	Specifies whether the master COMP (a compressor applied to the entire sound generator of the AX-Edge) is used (ON) or not used (OFF).
Splt Low (Low Split Frequency)	16–16000 [Hz]	Specifies the frequency at which the low-frequency band (LOW) and mid- frequency band (MID) are divided.
SpltHigh (High Split Frequency)		Specifies the frequency at which the high-frequency band (HIGH) and mid-frequency band (MID) are divided.
Low Attack (Low Attack)	0.1–100 [ms]	Specifies the time from when the input exceeds Low Thres until compression is applied to the volume of the low- frequency band.

Parameter [◀] [▶] button	Value [-] [+] Buttons	Explanation
Low Rels (Low Release)	10–1000 [ms]	In a state when compression is already being applied, this specifies the time from when the input decreases below Low Thres until the low-frequency band stops being compressed.
Low Thres (Low Threshold)	-60–0 [dB]	Specifies the volume level at which compression starts for the low-frequency band.
Low Ratio (Low Ratio)	1: 1, 2: 1, 3: 1, 4: 1, 8: 1, 16: 1, 32: 1, INF: 1	Specifies the compression ratio for the low-frequency band.
Low Knee (Low Knee)	0–30 [dB]	This is a function that smooths the onset of compression from the uncompressed state; it gradually applies compression starting earlier than Low Thres. Higher values produce a smoother transition.
Low Gain (Low Gain)	-24.0-+24.0 [dB]	Specifies the output volume of the low- frequency band.
Mid Attack (Mid Attack)	0.1–100 [ms]	Specifies the time from when the input exceeds Mid Thres until compression is applied to the volume of the mid- frequency band.
Mid Rels (Mid Release)	10–1000 [ms]	In a state when compression is already being applied, this specifies the time from when the input decreases below Mid Thres until the mid-frequency band stops being compressed.
Mid Thres (Mid Threshold)	-60–0 [dB]	Specifies the volume level at which compression starts for the mid-frequency band.
Mid Ratio (Mid Ratio)	1: 1, 2: 1, 3: 1, 4: 1, 8: 1, 16: 1, 32: 1, INF: 1	Specifies the compression ratio for the mid-frequency band.
Mid Knee (Mid Knee)	0–30 [dB]	This is a function that smooths the onset of compression from the uncompressed state; it gradually applies compression starting earlier than Mid Thres. Higher values produce a smoother transition.
Mid Gain (Mid Gain)	-24.0-+24.0 [dB]	Specifies the output volume of the mid- frequency band.
HighAttack (High Attack)	0.1–100 [ms]	Specifies the time from when the input exceeds High Thres until compression is applied to the volume of the high- frequency band.
High Rels (High Release)	10–1000 [ms]	In a state when compression is already being applied, this specifies the time from when the input decreases below High Thres until the high-frequency band stops being compressed.
High Thres (High Threshold)	-60–0 [dB]	Specifies the volume level at which compression starts for the high-frequency band.
High Ratio (High Ratio)	1: 1, 2: 1, 3: 1, 4: 1, 8: 1, 16: 1, 32: 1, INF: 1	Specifies the compression ratio for the high-frequency band.
High Knee (High Knee)	0–30 [dB]	This is a function that smooths the onset of compression from the uncompressed state; it gradually applies compression starting earlier than High Thres. Higher values produce a smoother transition.
HighGain (High Gain)	-24.0-+24.0 [dB]	Specifies the output volume of the high- frequency band.

MASTER EQ

Parameter [◀] [▶] button	Value [-] [+] Buttons	Explanation
Switch	OFF, ON	Specifies whether the master EQ (an equalizer applied to the entire sound generator of the AX-Edge) is used (ON) or not used (OFF).
In Gain (Input Gain)	-24-+24 [dB]	Adjusts the amount of boost/cut for the input to the EQ.
Lo Gain (Low Gain)	-24-+24 [dB]	Gain of the low frequency range.
Lo Freq (Low Frequency)	20–16000 [Hz]	Frequency of the low range.
Mid1 Gain (Mid1 Gain)	-24-+24 [dB]	Gain of the middle frequency range 1.
Mid1Freq (Mid1 Frequency)	20–16000 [Hz]	Frequency of the middle range 1.
Mid1 Q (Mid1 Q)	0.5–16.0	Width of the middle frequency range 1.Set a higher value for Q to narrow the range to be affected.
Mid2 Gain (Mid2 Gain)	-24-+24 [dB]	Gain of the middle frequency range 2.
Mid2Freq (Mid2 Frequency)	20–16000 [Hz]	Frequency of the middle range 2.
Mid2 Q (Mid2 Q)	0.5–16.0	Width of the middle frequency range 2.Set a higher value for Q to narrow the range to be affected.
Mid3 Gain (Mid3 Gain)	-24-+24 [dB]	Gain of the middle frequency range 3.
Mid3 Freq (Mid3 Frequency)	20–16000 [Hz]	Frequency of the middle range 3.
Mid3 Q (Mid3 Q)	0.5-16.0	Width of the middle frequency range 3.Set a higher value for Q to narrow the range to be affected.
High Gain (High Gain)	-24-+24 [dB]	Gain of the high frequency range.
HighFreq	20–16000 [Hz]	Frequency of the high range.

CHORUS Parameters

NOTE

The SYSTEM EFFECT chorus cannot be edited if the currently selected program's CHORUS Src is set to **"PRG"** (the settings are specified by the program sound parameters). You can either edit the chorus settings for the program, or change Src to **"SYS"** and edit them.

CHORUS

This is a stereo chorus.

Parameter	Value	Explanation
Rate	0–127	Frequency of modulation
Depth	0–127	Depth of modulation
Feedback	0–127	Level at which chorus sound is returned to the input

CE-1

This models the classic BOSS CE-1 chorus effect unit. It provides a chorus sound with a distinctively analog warmth.

Parameter	Value	Explanation
Intensity	0–127	Chorus depth

SDD-320

This models Roland's DIMENSION D (SDD-320). It provides a clear chorus sound.

Parameter	Value	Explanation
Mode	1-4, 1+4, 2+4, 3+4	Switches the mode.

DELAY

This is a stereo delay.

Parameter	Value	Explanation
Dly Sync (sync sw)	OFF, ON	If this is ON, the delay synchronizes with the tempo.
	1–1300 [msec]	Adjusts the delay time from the direct
Dly Note (note)	Note ➡ "Note" (p. 72)	sound until the delay sound is heard.
Feedback	-98-+98 [%]	Adjusts the proportion of the delay sound that is fed back into the effect. Negative (-) settings will invert the phase.
HF Damp	200–8000 [Hz], BYPASS	Adjusts the frequency above which sound fed back to the effect is filtered out. If you don't want to filter out any high frequencies, set this parameter to BYPASS.

T-CTRL DELAY

A stereo delay in which the delay time can be varied smoothly.

Parameter	Value	Explanation
Dly Sync (sync sw)	OFF, ON	If this is ON, the delay synchronizes with the tempo.
Dly Msec (msec) Dly Note (note)	1–1300 [msec]	Adjusts the delay time from the direct
	Note ➡ "Note" (p. 72)	sound until the delay sound is heard.
Acceleration	0–15	When you change the delay time, this specifies the time over which the current delay time changes to the specified delay time. This affects the speed of pitch change as well as the delay time.
Feedback	-98-+98 [%]	Adjusts the proportion of the delay sound that is fed back into the effect. Negative (-) settings will invert the phase.

Parameter	value
HF Damp	200–8000 [Hz], BYPASS

Explanation Adjusts the frequency above which sound fed back to the effect is filtered out. If you don't want to filter out any high frequencies, set this parameter to BYPASS.

DELAY → TREMOLO

Tremolo is applied to the delay sound.

Parameter	Value	Explanation
Input	MONAURAL	The input is mono-mixed.
	STEREO	The sound is input in stereo.
Dly Sync (sync sw)	OFF, ON	If this is ON, the delay synchronizes with the tempo.
Dly Msec (msec)	1–1300 [msec]	Adjusts the delay time from the direct
Dly Note (note)	Note ➡ "Note" (p. 72)	sound until the delay sound is heard.
Feedback	-98-+98 [%]	Adjusts the proportion of the delay sound that is fed back into the effect. Negative (-) settings will invert the phase.
HF Damp	200–8000 [Hz], BYPASS	Adjusts the frequency above which sound fed back to the effect is filtered out. If you don't want to filter out any high frequencies, set this parameter to BYPASS.
Trm Switch	OFF, ON	Switches the tremolo effect on/off
	Modulation Wave (panning)	
	TRI	Triangle wave
	SQR	Square wave
Trm ModWave	SIN	Sine wave
	SAW1	Courte oth wave
	SAW2	Sawtooth wave
	TRP	Trapezoidal wave
Trm Sync (sync sw)	OFF, ON	If this is on, the tremolo synchronizes with the tempo.
Trm Hz (Hz) Trm Note (note)	0.05–10.00 [Hz]	Tromolo rato
	Note → "Note" (p. 72)	Tremoto rate
Trm Depth	0–127	Tremolo depth

3TAP PAN DELAY

Delay sound is heard in the three locations you specify.

	Parameter	Value	Explanation
	Dly Sync (sync sw)	OFF, ON	If this is ON, the delay synchronizes with the tempo.
	Dly Msec (msec)	1–2600 [msec]	Delay time of the third delay sound after
Dly Note (note)	Dly Note (note)	Note → "Note" (p. 72)	the original sound is heard.
	Feedback	-98-+98 [%]	Adjusts the proportion of the delay sound that is fed back into the effect. Negative (-) settings will invert the phase.
	HF Damp	200–8000 [Hz], BYPASS	Adjusts the frequency above which sound fed back to the effect is filtered out. If you don't want to filter out any high frequencies, set this parameter to BYPASS.
	Dly 1 Pan	L64–63R	Stereo location of Delay 1
	Dly 2 Pan	L64–63R	Stereo location of Delay 2
	Dly 3 Pan	L64–63R	Stereo location of Delay 3
	Dly 1 Level	0–127	Volume of delay 1
	Dly 2 Level	0–127	Volume of delay 2
	Dlv 3 Level	0–127	Volume of delay 3

2TAP PAN DELAY

Delay sound is heard in the two locations you specify.

Parameter	Value	Explanation
Dly Sync (sync sw)	OFF, ON	If this is ON, the delay synchronizes with the tempo.
	1–1300 [msec]	Adjusts the time until the second delay
Dly Note (note)	Note ➡ "Note" (p. 72)	sound is heard.
Feedback	-98-+98 [%]	Adjusts the proportion of the delay sound that is fed back into the effect. Negative (-) settings will invert the phase.
HF Damp	200–8000 [Hz], BYPASS	Adjusts the frequency above which sound fed back to the effect is filtered out. If you don't want to filter out any high frequencies, set this parameter to BYPASS.
Dly 1 Pan	L64–63R	Stereo location of Delay 1
Dly 2 Pan	L64–63R	Stereo location of Delay 2
Dly 1 Level	0–127	Volume of delay 1
Dly 2 Level	0–127	Volume of delay 2

Reverb Parameters

NOTE

The SYSTEM EFFECT reverb cannot be edited if the currently selected program's REVERB Src is set to **"PRG"** (the settings are specified by the program sound parameters). You can either edit the reverb settings for the program, or change Src to **"SYS"** and edit them.

INTEGRA

Parameter	Value	Explanation
Туре	01: ROOM1 02: ROOM2 03: HALL1 04: HALL2 05: PLATE	Selects the types of reverb. OFF: Reverb is not used Room 1/2: Room Hall 1/2: Hall Plate: Plate
Pre Delay	0–100 [msec]	Adjusts the delay time from the direct sound until the reverb sound is heard.
Time	0.1-10.0 [sec]	Time length of reverberation
Density	0–127	Density of reverb
Diffusion	0–127	Adjusts the change in the density of the reverb over time. The higher the value, the more the density increases with time. (The effect of this setting is most pronounced with long reverb times.)
LF Damp	0–100	Adjusts the low-frequency portion of the reverb.
HF Damp	0–100	Adjusts the high-frequency portion of the reverb.
Spread	0–127	Reverb spread
Tone	0-127	Tonal character of the reverb

WARM HALL

Parameter	Value	Explanation
Pre Delay	0–100 [msec]	Adjusts the delay time from the direct sound until the reverb sound is heard.
Time	0.3–30 [sec]	Time length of reverberation
PreLPF	16–15000 [Hz], Bypass	Frequency above which to cut the high- frequency portion of the sound entering the reverb
PreHPF	16–15000 [Hz], Bypass	Frequency below which to cut the low- frequency portion of the sound entering the reverb
PreLoop LPF	16–15000 [Hz], Bypass	Frequency above which to cut the high-frequency portion of the extended reverberation
Diffusion	0–127	Adjusts the change in the density of the reverb over time.
HF Damp Freq	1000–8000 [Hz]	Frequency above which to cut the high- frequency portion of the reverb
HF Damp Ratio	0.1–1.0	Amount by which to attenuate the high- frequency portion of the reverb

HALL

Parameter	Value	Explanation
Pre Delay	0.0–100 [msec]	Adjusts the delay time from the direct sound until the reverb sound is heard.
Time	0–127	Time length of reverberation
Size	1–8	Size of room/hall
High Cut	160–12500 [Hz], BYPASS	Frequency above which the high- frequency portion of the final output sound is cut (BYPASS: no cut)
Density	0–127	Density of reverb
Diffusion	0–127	Adjusts how reverb density increases over time. (This effect is especially noticeable with long reverb times.)
LF Damp F	50–4000 [Hz]	Frequency below which the low- frequency portion of the reverb sound is cut.

Parameter	Value	Explanation
LF Damp G	-36–0 [dB]	LF damp attenuation amount (0: no effect)
HF DampF	4000–12500 [Hz]	Frequency above which the high- frequency portion of the reverb sound is cut
HF Damp G	-36–0 [dB]	HF damp attenuation amount (0: no effect)

GS

05		
Parameter	Value	Explanation
Char	ROOM1–3, HALL1–2, PLATE, DELAY, PAN-DELAY	Type of reverb
Pre LPF	0–7	Amount of high-frequency attenuation for the sound being input to the reverb
Level	0–127	Time length of reverberation
Feedback	0–127	Level at which the reverb sound is returned to the input

SRV2000

Parameter	Value	Explanation
	Selects the type of r digital reverb.	everb offered by the Roland SRV-2000
	R37–R0.3	Room reverb. Higher values increase the size of the room.
Selection	H37-H15	Hall reverb. Higher values increase the size of the concert hall.
	P-B	Plate reverb. A more flamboyant reverb sound than P-A.
	P-A	Plate reverb
Pre Delay	0–160	Adjusts the delay time from the direct sound until the reverb sound is heard.
Time	1–990 [msec]	Time length of reverberation
HF Damp	0.05-1.00	Adjusts the high-frequency portion of the reverb.
Density	0–9	Adjusts the density of the late reverberation.
Attack Gain	0–9	Adjusts the gain of the early reflections.
Attack Time	0–9	Adjusts the time of the early reflections.
ER Density	0–9	Adjusts the density of the early reflections.
ER Level	0–99	Adjusts the volume of the early reflections.
Low Freq	0.04–1.00 [kHz]	Frequency of the low range.
Low Gain	-24-+12 [dB]	Gain of the low frequency range.
Mid Freq	0.25–9.99 [kHz]	Adjusts the amount of mid-frequency boost/cut.
Mid Gain	-24-+12 [dB]	Specifies the reference frequency of the mid-frequency range.
Mid Q	0.2–9.0	Specifies the width of the mid-frequency range. Set a higher value for Q to narrow the range to be affected.
High Freq	0.80–9.99 [kHz]	Frequency of the high range.
High Gain	-24-+12 [dB]	Gain of the high frequency range.
HIGH Q	0.2–9.0	Specifies the width of the high-frequency range. Set a higher value for Q to narrow the range to be affected.

GM2 REVERB

Parameter	Value	Explanation
Character	0–5	Type of reverb
Time	0–127	Time length of reverberation

Here you can make settings for the entire AX-Edge.

GENERAL

Parameter [◀] [▶] button	Value [-] [+] Buttons	Explanation
MasterTune	415.3-466.2	Sets the AX-Edge's overall tuning (the frequency of the A4 key).
MasKeyShift (Master Key Shift)	-24–24	Shifts the AX-Edge's overall pitch range in semitone steps.
Scale Tune Sw (Scale Tune Switch)	OFF, ON	Enables (ON) or disables (OFF) the program's SCALE TUNE setting
Tempo	20-250	Specifies the system tempo.
Tempo Src (Tempo Source)	PRG, SYS	When you switch programs, this specifies whether to follow the system tempo (SYS) or the tempo setting stored in the program (PRG).
Player Level	0–127	Adjusts the volume of the Song Player.
Out Gain (Output Gain)	-12-+12 [dB]	Adjusts the output gain of the AX-Edge.
Bluetooth	OFF, ON	Enables (ON) or disables (OFF) Bluetooth communication.
Auto Off	OFF, 30, 240 [min]	Specifies whether the unit will turn off automatically after a certain time has elapsed. If you don't want the unit to turn off automatically, choose "OFF" setting.
LCD Contrast	1–10	Adjusts the contrast of the display.

KEYBOARD

Parameter [◀] [▶] button	Value [-] [+] Buttons	Explanation
Velocity	Specifies the velocity keyboard.	value transmitted when you play the
	REAL	The transmitted velocity value will correspond to the force with which you strike the key.
	1–127	The transmitted velocity value will be fixed, regardless of the force with which you strike the key.
	Specifies the keyboard touch.	
Velo Crv (Velocity Curve)	LIGHT	This is a light-feeling keyboard touch. Since fortissimo (ff) can be produced with a softer touch than the MEDIUM setting, the keyboard will feel lighter. This setting allows easier playing for people with less hand strength.
	MEDIUM	This is the standard keyboard touch setting.
	HEAVY	This is a heavy-feeling keyboard touch. Since fortissimo (ff) will require a stronger touch than with the MEDIUM setting, the keyboard will feel heavier. This setting allows more expressive playing when playing dynamically.
Velo Offset (Velocity Curve Offset)	-10-+9	Adjusts the keyboard velocity curve. Lower values make the keyboard feel lighter. Higher values make the keyboard feel heavier.

MIC

Parameter [∢] [▶] button	Value [-] [+] Buttons	Explanation
NS Switch (Noise Suppressor Switch)	OFF, ON	Turns the noise suppressor on/off. The noise suppressor is a function that suppresses noise during periods of silence.
NS Threshold (Noise Suppressor Threshold)	0–127	Adjusts the volume at which noise starts being suppressed.
NS Release (Noise Suppressor Release)	0–127	Adjusts the time from when noise suppression starts until the volume reaches 0.

CTRL BUTTON

You can specify whether the CTRL BUTTON settings follow the settings of the currently selected program or follow the system settings.

If the currently selected program's CTRL BUTTON: Source parameter is set to **"SYS,"** the system settings are used.

Parameter [∢] [▶] button	Value [-] [+] Buttons	Explanation
	Specify the function assigned to each button when CTRL BUTTON: Source is set to "SYS."	
	OFF	No function is assigned.
	CC01–31, 32 (OFF), 33–95	Controller number 1–31, 32, 33–95
	AFT	Aftertouch
	MONO/POLY	Switch between mono/poly.
	PRG DOWN (PROGRAM DOWN)	Switch the program to the previous number.
	PRG UP (program up)	Switch the program to the next number.
	OCT DOWN (OCTAVE DOWN)	Lower the keyboard range in octave units (maximum -3 octaves).
	OCT UP (OCTAVE UP)	Raise the keyboard range in octave units (maximum +3 octaves).
	TRANS DOWN (TRANSPOSE DOWN)	Lower the keyboard range in semitone units (maximum -5 semitones).
	TRANS UP (TRANSPOSE UP)	Raise the keyboard range in semitone units (maximum +6 semitones).
S1 (F)-S7 (F)	CHO SW (CHORUS SWITCH)	Switch the chorus on/off.
(51–57 (Function))	REV SW (REVERB SWITCH)	Switch the reverb on/off.
	EQ SW (MASTER EQ SWITCH)	Switch the master EQ on/off.
	COMP SW (MASTER COMP SWITCH)	Switch the master compressor on/off.
	IFX SW (IFX SWITCH)	Switch the IFX on/off.
	ARP SW (ARPEGGIO SWITCH)	Switch the arpeggio on/off.
	ARP HOLD (ARPEGGIO HOLD)	Switch arpeggio hold on/off.
	VOCODER SW (VOCODER SWITCH)	Switch the vocoder on/off.
	UNISON SW (UNISON SWITCH)	Switch unison on/off for the part 1 tone.
	BEND MODE	Switch the BEND MODE (NORMAL or C+L).
	START/STOP	Play/stop the Song Player.
	ΤΑΡ ΤΕΜΡΟ	Set the tempo to the interval at which you press the button (tap tempo).
S1 (M)—S7 (M) (S1–S7 (Mode))	Specify the operation	n of each controller.
	LATCH	Alternates on/off each time you press the button.
	MOMENTARY	The function is on only while you hold down the button, and turns off when you release the button.

CTRL KNOB

You can specify whether the CTRL KNOB settings follow the settings of the currently selected program or follow the system settings.

If the currently selected program's CTRL KNOB: Source parameter is set to "**SYS**," the system settings are used.

Parameter [◀] [▶] button	Value [-] [+] Buttons	Explanation
	Specifies the function that is assigned to the control knob when CTRL KNOB: Source is set to "SYS."	
	OFF	No function is assigned.
		Controller number 1–31, 32, 33–95
	CC01–31, 32 (OFF), 33–95	* CC74 (Cutoff) varies in the range of -64–0, and CC71 (Resonance), CC72 (Release), CC73 (Attack), and CC75 (Decay) vary in the range of 0–+63.
	AFT	Aftertouch
	BEND DOWN	Lowers the pitch.
	BEND UP	Raises the pitch.
Func (Function)	PART FADE1	Continuously control the level of parts 1–4. Parta Parta 0 Value 127 Parta 0 Value 127 Parta
	PART FADE2	Continuously control the level of parts 1–4. Part1 Part2 Part3 Part4 0 Value 127 Part4 0 Value 127 Part5 0 Value 127 Part6 0 Value 127 0 V

CTRL PEDAL

You can specify whether the CTRL PEDAL settings follow the settings of the currently selected program or follow the system settings.

If the currently selected program's CTRL PEDAL: Source parameter is set to "**SYS**," the system settings are used.

Specifies the function that is assigned to the pedal when CTRL PEDAL: Source is set to "SYS." OFF OFF No function is assigned. Controller number 1-31, 32, 33–95 ScottorBig number 1-31, 32, 33–95 COIT-31, 32 (OFF), 33–95 ScottorBig number 1-31, 32, 33–95 COIT-31, 32 (OFF), 33–95 ScottorBig number 1-31, 32, 33–95 COIT-31, 32 (OFF), 33–95 ScottorBig number 1-31, 32, 33–95 CONTroller number 1-31, 32, 33–95 AFT After couch BEND DOWN Lowers the pitch. BEND UP Ratic protein 127 Part of of other protein 127 Part of other protein 127 OCONTINUOUSIY control the level of parts 1-4.	Parameter [∢][▶] button	Value [-] [+] Buttons	Explanation
OFF No function is assigned. CC01-31, 32 (OFF), 33-95 Controller number 1-31, 32, 33-95 * CC74 (Cutoff) varies in the range of -64-0, and CC71 (Resonance), CC72 (Release), CC73 (Attack), and CC75 (Release), CC73 (Release), CC73		Specifies the function that is assigned to the pedal when CTRL PEDAL: Source is set to "SYS."	
Func (Function) Controller number 1–31, 32, 33–95 * CC01–31, 32 (OFF), 33–95 * CC74 (Cutoff) varies in the range of -64–0, and CC71 (Resonance), CC72 (Release), CC73 (Attack), and CC71 (Resonance), CC72 (Release), CC73 (Attack), and CC75 (Decay) vary in the range of 0–43. AFT Aftertouch BEND DOWN Lowers the pitch. BEND UP Raises the pitch. PART FADE1 Parti Parts Part Operation 127		OFF	No function is assigned.
Func (Function) CC01-31, 32 (OFF), 33-95 * CC74 (Cutoff) varies in the range of -64-0, and CC71 (Release), CC72 (Release), CC72 (Attack), and CC75 (Decay) vary in the range of 0-+63. AFT Aftertouch BEND DOWN Lowers the pitch. BEND UP Raises the pitch. Parts orgenesion 127 Parts orgenesion 127 expression 127 Parts orgenesion 127 expression 127 Parts orgenesion 127 expression 127 expression 127 expression 127 expression 127 expression 127 expression 127 expression 127 orgenession 127 expression 127 expression 127 orgenession 127 orgenession 127 expression 127 orgenession 127 orgenession 127 expression 127 orgenession 127 orgenession 127 expression 127 orgenession 12			Controller number 1–31, 32, 33–95
AFT Aftertouch BEND DOWN Lowers the pitch. BEND UP Raises the pitch. Continuously control the level of parts 1-4. Part FADE1 Part FADE1 Part of the level of parts 1-4. Part of the level of parts 1-7 Part of the level of parts 1-7 Part of the level of parts PART FADE1 Part of the level of parts 1-4. Part of the level of parts 1-7 Part of the level of parts 1-7 Part of the level of parts 1-4. Part of the level of parts 1-7 Part of the level of parts 1-7 <td< td=""><td></td><td>CC01–31, 32 (OFF), 33–95</td><td>* CC74 (Cutoff) varies in the range of -64-0, and CC71 (Resonance), CC72 (Release), CC73 (Attack), and CC75 (Decay) vary in the range of 0-+63.</td></td<>		CC01–31, 32 (OFF), 33–95	* CC74 (Cutoff) varies in the range of -64-0, and CC71 (Resonance), CC72 (Release), CC73 (Attack), and CC75 (Decay) vary in the range of 0-+63.
BEND DOWN Lowers the pitch. BEND UP Raises the pitch. Continuously control the level of parts 1-4. Part FADE1 Part FADE1 Part Part Operation 127 Part Operation 127 Part Part Operation 127 Part Part Operation 127 Part Operation 0 Operation 127 Part Operation 0 Operation 0 Part Operation 0 Part Operation 0 Part Operation 0 Operation 0 Part Operation 0 Part Operation 127 Operation 127		AFT	Aftertouch
BEND UP Raises the pitch. Continuously control the level of parts 1-4. Parti Image: Continuously control the level of parts 1-4. Image: Continuously control the level of parts PART FADE1 Parti Image: Continuously control the level of parts Parti Image: Continuously control the level of parts Image: Continuously control the level of parts Image: Continuously control the level of parts Image: Continuously control the level of parts Image: Continuously control the level of parts Image: Continuously control the level of parts Image: Continuously control the level of parts Image: Continuously control the level of parts Image: Continuously control the level of parts Image: Continuously control the level of parts Image: Continuously control the level of parts Image: Continuously control the level of parts Image: Continuously control the level of parts Image: Continuously control the level of parts Image: Continuously control the level of parts Image: Continuously control the level of parts Image: Continuously control the level of parts Image: Continuously control the level of parts Image: Continuously control the level of parts Image: Continuously control the level of parts Image: Continuously control the level of part		BEND DOWN	Lowers the pitch.
Func (function) PART FADE1 PART FADE2 PART FADE2 Func (Function) PART FADE2 PART FADE3 P		BEND UP	Raises the pitch.
PART FADE2 PART FADE2 PART FADE2 PART FADE2 Part Part Part Part Part Part Part Part	Func (Function)	PART FADE1	Continuously control the level of parts 1-4. Parts Parts Parts Parts Parts Parts Parts Parts Parts 0
STANDARD. Specifies the polarity of the pedal		PART FADE2	Continuously control the level of parts 1-4. Part3 Part3 Part3 Part3 Part4 Part3 Part4 Part3 Part4 Part3 Part4 Q Q Q Q Q Q Q Q Q Q Q Q Q
Pole (Pedal Polarity) BEVERSE connected to the PEDAL jack	Pole (Pedal Polarity)	STANDARD, REVERSE	Specifies the polarity of the pedal
CTRL RIBBON

You can specify whether the CTRL RIBBON settings follow the settings of the currently selected program or follow the system settings.

If the currently selected program's CTRL RIBBON: Source parameter is set to "**SYS**," the system settings are used.

Parameter [∢] [▶] button	Value [-] [+] Buttons	Explanation
	Specifies the function that is assigned to the ribbon controller (left/right axis) when program's CTRL RIBBON: Source is set to "SYS."	
	OFF	No function is assigned.
	CC01–31, 32 (OFF), 33–95	Controller number 1–31, 32, 33–95
	AFT	Aftertouch
	PITCH BEND	Raise or lower the pitch.
		Continuously control the level of parts 1-4. Part2 Part
		Part1 expression 127
	FARTFADET	Part3 Part4
Posi (Position Function)		expression 0 0 Value 127 Part1 expression 127
		Part4
		expression 0 0 Value 127
		Continuously control the level of parts 1–4.
	PART FADE2	Part1 Part2 Part3 Part4 0 C Value 127 expression 127 expression 127
		Part1 Part3
		Part4 expression 0 0 Value 127
		Part1 expression 127
		Part4 expression 0
		0 Value 127
	Specifies the function (pressure axis).	n when the ribbon controller is pressed
	OFF	No function is assigned.
		Controller number 1–31, 32, 33–95
	CC01–31, 32 (OFF), 33–95	* CC74 (Cutoff) varies in the range of -64-0, and CC71 (Resonance), CC72 (Release), CC73 (Attack), and CC75 (Decay) vary in the range of 0-+63.
	AFT	Aftertouch
	BEND DOWN	Lowers the pitch.
	BEND UP	Raises the pitch.
Pres (Pressure Function)	PART FADE1	Part1 Part2 Part3 Part4 0 Value 127 Part4 0 Value 127 expression 127 expression 127 expression 127 expression 127 expression 127 expression 127 expression 127 expression 127 expression 127 Part1 0 0 0 0 0 0 0 127 127 127 127 127 127 127 127 127 127
		Part4 0 0 127



CTRL MOD BAR

You can specify whether the CTRL MOD BAR settings follow the settings of the currently selected program or follow the system settings.

If the currently selected program's CTRL MOD BAR: Source parameter is set to "SYS," the system settings are used.

Parameter [◀] [▶] button	Value [-] [+] Buttons	Explanation
	Specify the function when program's CT	that is assigned to the modulation bar RL MOD BAR: Source is set to "SYS."
	OFF	No function is assigned.
		Controller number 1–31, 32, 33–95
	CC01–31, 32 (OFF), 33–95	* CC74 (Cutoff) varies in the range of -64–0, and CC71 (Resonance), CC72 (Release), CC73 (Attack), and CC75 (Decay) vary in the range of 0–+63.
	AFT	Aftertouch
	BEND DOWN	Lowers the pitch.
	BEND UP	Raises the pitch.
Func (Modulation Bar Function)	PART FADE1	Continuously control the level of parts 1-4. Part3 Part4 Part3 Part4 Part3 Part4 Part4 Part3 Part4 0 0 0 0 0 0 0 0 0 0 0 0 0
	PART FADE2	Continuously control the level of parts 1–4. Parta Parta 0 Value 127 Parta 0 Value 127 Parta 127 Parta 0 Value 127 Parta 127 Parta 127 Parta 0 Value 127 Parta 127 Part

MIDI

Parameter [◀] [▶] button	Value [-] [+] Buttons	Explanation
Basic Ch (Basic Channel)	1–10	Specifies the MIDI channel assigned to each part. MIDI channels are assigned consecutively. For example, if Basic Ch = 1, part 1 uses MIDI channel 1, part 2 uses MIDI channel 2, part 3 uses MIDI channel 3, and part 4 uses MIDI channel 4. In an alternative example, if Basic Ch = 5, part 1 uses MIDI channel 5, part 2 uses MIDI channel 6, part 3 uses MIDI channel 7, and part 4 uses MIDI channel 8.
Ctrl Ch (Program Control Channel)	1–16, OFF	Specifies the MIDI receive channel used when an external MIDI device sends MIDI messages (program change and bank select) to switch programs on the AX-Edge. If you don't want programs to be switched by a connected MIDI device, turn this "OFF."
	SYS	SysCtrlSrc1-4 are used for tone control.
Ctrl Src Sel (Control Source Select)	PRG	The program's CtrlSrc1–4 are used for tone control.
SysCtrlSrc1–4 (System Control Source 1–4)	OFF, CC01–31, CC33–95, BEND, AFT	Specify the MIDI messages that will be used as system controls. System control settings specify MIDI messages that are used in common by the entire AX-Edge to control the volume and the sound. You can specify up to four MIDI messages that are used for control. If you want to make assignments for realtime control of the sound and effects for each tone independently, use "matrix control" or "multi-effect control."
USB-MIDIThru	OFF, ON	Specifies whether MIDI messages received at the USB COMPUTER port or MIDI IN connector are retransmitted without change from the MIDI OUT connector and USB COMPUTER port (ON) or not transmitted (OFF).
Remote Kbd (Remote Keyboard Switch)	OFF, ON	Turn this "ON" if you're using an external MIDI keyboard instead of the keyboard of the AX-Edge. In this case, the MIDI transmit channel of the external MIDI keyboard does not matter. Normally you'll leave this "OFF." * If you want to control the arpeggiator from an external MIDI device, turn this "ON."
Soft Thru	OFF, ON	If this is ON, MIDI messages that are input from the MIDI IN connector are re-transmitted without change from the MIDI OUT connector.
Device ID	17–32	When transmitting and receiving system exclusive messages, the device ID numbers of both devices must match.

MIDITX

Parameter [◀] [▶] button	Value [-] [+] Buttons	Explanation
Tx PC (Transmit Program Change)	OFF, ON	Specifies whether program change messages are transmitted (ON) or not transmitted (OFF).
Tx Bank (Transmit Bank Select)	OFF, ON	Specifies whether bank select messages are transmitted (ON) or not transmitted (OFF).
Tx Edit (Transmit Edit Data)	OFF, ON	Specifies whether edits made to program settings are transmitted as system exclusive messages (ON) or not transmitted (OFF).

MIDI RX

Parameter [◀] [▶] button	Value [-] [+] Buttons	Explanation
Rx PC (Receive Program Change)	OFF, ON	Specifies whether program change messages are received (ON) or not received (OFF).
Rx Bank (Receive Bank Select)	OFF, ON	Specifies whether bank select messages are received (ON) or not received (OFF).
Rx Exclusive (Receive Exclusive)	OFF, ON	Specifies whether system exclusive messages are received (ON) or not received (OFF).

MFX/IFX provides 79 different effect types.

Some of the effect types connect two or more types of effect in series.

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00 THRU

01 EQUALIZER

This is a four-band stereo equalizer (low, mid x 2, high).

L in ——	4-Band EQ	Lout	
R in ——	4-Band EQ	R out	
Parameter	Value	Explanation	
Low Freq (Low Frequency)	20, 25, 31, 40, 50, 63, 80, 100, 125, 160, 200, 250, 315, 400 [Hz]	Frequency of the low range	
Low Gain	-15-+15 [dB]	Amount of boost/cut for the low- frequency range	
Mid1 Freq (Mid1 Frequency)	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000 [Hz]	Frequency of the middle range 1	
Mid1 Gain	-15-+15 [dB]	Gain of the middle range 1	
Mid1 Q 0.5, 1.0, 2.0, 4.0, 8.0		Width of the middle range 1 Set a higher value for Q to narrow the range to be affected.	
Mid2 Freq (Mid2 Frequency) 200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000 [Hz]		Frequency of the middle range 2	
Mid2 Gain	-15–+15 [dB]	Gain of the middle range 2	
Mid2 Q	0.5, 1.0, 2.0, 4.0, 8.0	Width of the middle range 2 Set a higher value for Q to narrow the range to be affected.	
HighFreq (High Frequency)	2000, 2500, 3150, 4000, 5000, 6300, 8000, 10000, 12500, 16000 [Hz]	Frequency of the high range	
High Gain -15-+15 [dB]		Amount of boost/cut for the high- frequency range	
Level	0–127	Output Level	

02 SPECTRUM

This is a stereo spectrum. Spectrum is a type of filter which modifies the timbre by boosting or cutting the level at specific frequencies.



03 ISOLATOR

This is an equalizer which cuts the volume greatly, allowing you to add a special effect to the sound by cutting the volume in varying ranges.



04 LOW BOOST

Boosts the volume of the lower range, creating powerful lows.

Lin —	ow Boost 2-Bai	nd EQ → L out		
R in Low Boost 2-Band EQ R out				
Parameter	Value	Explanation		
Boost Freq (Boost Frequency)	50, 56, 63, 71, 80, 90, 100, 112, 125 [Hz]	Center frequency at which the lower range will be boosted		
Boost Gain 0-+12 [dB]		Center frequency at which the lower range will be boosted		
Boost Wid (Boost Width)	WIDE, MID, NARROW	Width of the lower range that will be boosted		
Low Gain	-15-+15 [dB]	Amount of boost/cut for the low- frequency range		
High Gain -15-+15 [dB]		Amount of boost/cut for the high- frequency range		
Level	0–127	Output Level		

05 SUPER FILTER

This is a filter with an extremely sharp slope. The cutoff frequency can be varied cyclically.

L in ——		Super Filter	L out	
	R in	Super Filter	R out	
	Parameter	Value	Explanation	
	Filt Type (Filter Type)	LPF, BPF, HPF, NOTCH	Filter type Frequency range that will pass through each filter LPF: Frequencies below the cutoff BPF: Frequencies in the region of the cutoff HPF: Frequencies above the cutoff NOTCH: Frequencies other than the region of the cutoff	
	Filt Slope (Filter Slope)	-12, -24, -36 [dB]	Amount of attenuation per octave -12 dB: Gentle, -24 dB: Steep, -36 dB: Extremely steep	
	Filt Cutoff (Filter Cutoff)	0–127	Cutoff frequency of the filter Increasing this value will raise the cutoff frequency.	
	Filt Reso (Filter Resonance)	0–100	Filter resonance level Increasing this value will emphasize the region near the cutoff frequency.	
	Filt Gain (Filter Gain)	0-+12 [dB]	Amount of boost for the filter output	
	Mod Switch (Modulation Switch)	OFF, ON	On/off switch for cyclic change	
(Modulation Switch)	TRI, SQR, SIN, SAW1, SAW2	How the cutoff frequency will be modulated TRI: Triangle wave SQR: Square wave SIN: Sine wave SAW1: Sawtooth wave (upward) SAW2: Sawtooth wave (downward)		
		SAW1	SAW2	
	Rate Sync (Rate (sync switch))	OFF, ON	If this is ON, the rate synchronizes with the tempo of the rhythm.	
	Rate Hz (Rate (Hz))	0.05–10.00 [Hz]		
	Rate Note (Rate (note))	Note ➡ "Note" (p. 72)	[–] Frequency of modulation	
	Depth	0–127	Depth of modulation	
	Attack	0–127	Speed at which the cutoff frequency will change This is effective if Modulation Wave is SQR, SAW1, or SAW2.	
	Level	0–127	Output Level	

06 STEP FILTER

This is a filter whose cutoff frequency can be modulated in steps. You can specify the pattern by which the cutoff frequency will change.

You can use MFX CONTROL to restart the step sequence from the beginning (p. 10).

	Eout	
Step Filter	R out	
lue	Explanation	
127	Cutoff frequency at each step	
F, ON	If this is ON, the rate synchronizes with the tempo of the rhythm. → "Tempo" (p. 8)	
05–10.00 [Hz]		
te "Note" (p. 72)	Frequency of modulation	
127	Speed at which the cutoff frequency changes between steps	
F, BPF, HPF, DTCH	Type of filter Frequency range that will pass through each filter LPF: Frequencies below the cutoff BPF: Frequencies in the region of the cutoff HPF: Frequencies above the cutoff NOTCH: Frequencies other than the region of the cutoff	
2, -24, -36 [dB]	Amount of attenuation per octave -12 dB: Gentle, -24 dB: Steep, -36 dB: Extremely steep	
127	Filter resonance level Increasing this value will emphasize the region near the cutoff frequency.	
+12 [dB]	Amount of boost for the filter output	
127	Output Level	
	Step Filter ue 127 F, ON 5–10.00 [Hz] e "Note" (p. 72) 127 5, BPF, HPF, TCH , -24, -36 [dB] 127 +12 [dB] 127	

08 AUTO WAH

Cyclically controls a filter to create cyclic change in timbre.

Lin —	uto Wah 2-Bai	nd EQ → Lout	
Rin —	uto Wah 2-Bai	nd EQ → R out	
Parameter	Value	Explanation	
Mode (Filter Type)	LPF, BPF	Type of filter LPF: The wah effect will be applied over a wide frequency range. BPF: The wah effect will be applied over a narrow frequency range.	
Manual	0–127	Center frequency at which the wah effect is applied	
Peak	0–127	Width of the frequency region at which the wah effect is applied Increasing this value will make the frequency region narrower.	
Sens	0–127	Sensitivity with which the filter is modified	
Polarity	UP, DOWN	Direction in which the filter will move UP: The filter will change toward a higher frequency. DOWN: The filter will change toward a lower frequency.	
Rate Sync (Rate (sync switch))	OFF, ON	If this is ON, the rate synchronizes with the tempo of the rhythm. → "Tempo" (p. 8)	
Rate Hz (Rate (Hz))	0.05–10.00 [Hz]		
Rate Note (Rate (note))	Note → "Note" (p. 72)	Frequency of modulation	
Depth	0–127	Depth at which the wah effect is modulated	
Phase	0–180 [deg]	Adjusts the degree of phase shift of the left and right sounds when the wah effect is applied.	
Low Gain	-15-+15 [dB]	Amount of boost/cut for the low- frequency range	
High Gain	-15-+15 [dB]	Amount of boost/cut for the high- frequency range	
امريما	0_127	Output Level	

07 ENHANCER

Controls the overtone structure of the high frequencies, adding sparkle and tightness to the sound.



09 HUMANIZER

Adds a vowel character to the sound, making it similar to a human voice.

L in	Lin —		
đ	- Overdrive - Fo	ormant 2-Band EQ	
R in		R out	
Parameter	Value	Explanation	
Drive Sw (Drive Switch)	OFF, ON	Overdrive on/off	
Drive	0–127	Degree of distortion Also changes the volume.	
Vowel1	a, e, i, o, u		
Vowel2	a, e, i, o, u	- Selects the vowel.	
Rate Sync (Rate (sync switch))	OFF, ON	If this is ON, the rate synchronizes with the tempo of the rhythm. → "Tempo" (p. 8)	
Rate Hz (Rate (Hz))	0.05–10.00 [Hz]	Frequency at which the two yourses	
Rate Note (Rate (note)) Note ⇒ "Note" (p. 72) Frequency at which the switch		switch	
Depth	0–127 Effect depth		
		LFO reset on/off	
In Sync Sw (Input Sync Switch)	OFF, ON	Determines whether the LFO for switching the vowels is reset by the input signal (ON) or not (OFF).	
In Sync Thre (Input Sync Threshold)	0–127	Volume level at which reset is applied	
Manual	Point at which Vowel 1/2 switch 0–49: Vowel 1 will have a longer duration. 0–100 50: Vowel 1 and 2 will be of equal duration. 51–100: Vowel 2 will have a longe duration.		
Low Gain	-15-+15 [dB]	Amount of boost/cut for the low- frequency range	
High Gain	-15-+15 [dB]	Amount of boost/cut for the high- frequency range	
Pan	L64–63R	Stereo location of the output sound	
Level	0–127	Output Level	

10 SPEAKER SIM

Simulates the speaker type and mic settings used to record the speaker sound.

Lin	 Speaker	 Lout
R in	 Speaker	 Rout

Parameter	Value	Explanation		
		Cabinet	Speaker	Microphone
	SMALL 1	small open-back enclosure	10	dynamic
	SMALL 2	small open-back enclosure	10	dynamic
	MIDDLE	open back enclosure	12 x 1	dynamic
	JC-120	open back enclosure	12 x 2	dynamic
	BUILT-IN 1	open back enclosure	12 x 2	dynamic
	BUILT-IN 2	open back enclosure	12 x 2	condenser
	BUILT-IN 3	open back enclosure	12 x 2	condenser
Type (Speaker Type)	BUILT-IN 4	open back enclosure	12 x 2	condenser
	BUILT-IN 5	open back enclosure	12 x 2	condenser
	BG STACK 1	sealed enclosure	12 x 2	condenser
	BG STACK 2	large sealed enclosure	12 x 2	condenser
	MS STACK 1	large sealed enclosure	12 x 4	condenser
	MS STACK 2	large sealed enclosure	12 x 4	condenser
	METAL STACK	large double stack	12 x 4	condenser
	2-STACK	large double stack	12 x 4	condenser
	3-STACK	large triple stack	12 x 4	condenser
Mic Setting	1, 2, 3	Adjusts the loc that is recordir speaker.	Adjusts the location of the microphone that is recording the sound of the speaker.	
	, _, _	This can be ad the microphor in the order of	This can be adjusted in three steps, with the microphone becoming more distant in the order of 1, 2, and 3.	
Mic Level	0–127	Volume of the	microphone	
Direct Level	0–127	Volume of the	direct sound	
Level	0-127	Output Level		

11 PHASER 1

A phase-shifted sound is added to the original sound and modulated.



Parameter	Value	Explanation	
Mode 4-STAGE, 8-STAGE, 12-STAGE		Number of stages in the phaser	
Manual 0–127		Adjusts the basic frequency from which the sound will be modulated.	
Rate Sync (Rate (sync switch))	OFF, ON	If this is ON, the rate synchronizes with the tempo of the rhythm. → "Tempo" (p. 8)	
Rate Hz (Rate (Hz))	0.05–10.00 [Hz]		
Rate Note (Rate (note))	Note ➡ "Note" (p. 72)	Frequency of modulation	
Depth	0–127	Depth of modulation	
Polarity	INVERSE, SYNCHRO	Selects whether the left and right phase of the modulation will be the same or the opposite. INVERSE: The left and right phase will be opposite. When using a mono source, this spreads the sound. SYNCHRO: The left and right phase will be the same. Select this when inputting a stereo source.	
Resonance	0–127	Amount of feedback	
Feedback (Cross Feedback)	-98-+98 [%]	Adjusts the proportion of the phaser sound that is fed back into the effect. Negative (-) settings will invert the phase.	
Mix	0–127	Level of the phase-shifted sound	
Low Gain	-15-+15 [dB]	Amount of boost/cut for the low- frequency range	
High Gain	-15-+15 [dB]	Amount of boost/cut for the high- frequency range	
Level	0–127	Output Level	

12 PHASER 2

This simulates an analog phaser of the past. It is particularly suitable for electric piano.



13 PHASER 3

This simulates a different analog phaser than Phaser 2. It is particularly suitable for electric piano.

Lin	-	Phaser	2-Band EQ → L out
R in	-	Phaser	2-Band EQ → R out
Parameter		Value	Explanation
Speed		0-100	Speed of modulation
Depth		0–127	Depth of modulation
Low Gain		-15–+15 [dB]	Amount of boost/cut for the low- frequency range
High Gain		-15–+15 [dB]	Amount of boost/cut for the high- frequency range
Level		0–127	Output Level

14 STEP PHASER

The phaser effect will be varied gradually.

L inStep Phaser	Mix	2-Band EQ	→ L out
R in Step Phaser	Mix	2-Band EQ	→ R out

Parameter	Value	Explanation
Mode	4-STAGE, 8-STAGE, 12-STAGE	Number of stages in the phaser
Manual	0–127	Adjusts the basic frequency from which the sound will be modulated.
Rate Sync (Rate (sync switch))	OFF, ON	If this is ON, the rate synchronizes with the tempo of the rhythm. → "Tempo" (p. 8)
Rate Hz (Rate (Hz))	0.05–10.00 [Hz]	_
Rate Note (Rate (note))	Note ➡ "Note" (p. 72)	Frequency of modulation
Depth	0–127	Depth of modulation
Polarity	INVERSE, SYNCHRO	Selects whether the left and right phase of the modulation will be the same or the opposite. INVERSE: The left and right phase will be opposite. When using a mono source, this spreads the sound. SYNCHRO: The left and right phase will be the same. Select this when inputting a stereo source.
Resonance	0–127	Amount of feedback
Feedback (Cross Feedback)	-98-+98 [%]	Adjusts the proportion of the phaser sound that is fed back into the effect. Negative (-) settings will invert the phase.
S Rate Sync (Step Rate (sync switch))	OFF, ON	If this is ON, the rate synchronizes with the tempo of the rhythm. "Tempo" (p. 8)
S RateHz (Step Rate (Hz))	0.10–20.00 [Hz]	Rate of the step-wise change in the
S RateNote (Step Rate (note))	Note → "Note" (p. 72)	phaser effect
Mix	0–127	Level of the phase-shifted sound
Low Gain	-15-+15 [dB]	Amount of boost/cut for the low- frequency range
High Gain	-15-+15 [dB]	Amount of boost/cut for the high- frequency range
Level	0–127	Output Level

Parameter	Value	Explanation
Rate Sync (Rate (sync switch))	OFF, ON	If this is ON, the rate synchronizes with the tempo of the rhythm. → "Tempo" (p. 8)
Rate Hz (Rate (Hz))	0.05–10.00 [Hz]	
Rate Note (Rate (note))	Note → "Note" (p. 72)	Frequency of modulation
Depth	0–127	Depth of modulation
Resonance	0–127	Amount of feedback
Mix	0–127	Level of the phase-shifted sound
Pan	L64–63R	Stereo location of the output sound
Low Gain	-15–+15 [dB]	Amount of boost/cut for the low- frequency range
High Gain	-15–+15 [dB]	Amount of boost/cut for the high- frequency range
Level	0–127	Output Level

16 INFINITE PHASER

A phaser that continues raising/lowering the frequency at which the sound is modulated.

L in R in	Infinite Phaser	2-Band EQ Pan R R out
Parameter	Value	Explanation
Mode	1, 2, 3, 4	Higher values will produce a deeper phaser effect.
Speed	-100-+100	Speed at which to raise or lower the frequency at which the sound is modulated (+: upward / -: downward)
Resonance	0–127	Amount of feedback
Mix	0–127	Level of the phase-shifted sound
Pan	L64–63R	Stereo location of the output sound
Low Gain	-15-+15 [dB]	Amount of boost/cut for the low- frequency range
High Gain	-15–+15 [dB]	Amount of boost/cut for the high- frequency range
Level	0–127	Output Level

15 MULTI STAGE PHSR

Extremely high settings of the phase difference produce a deep phaser effect.



17 RING MODULATOR

This is an effect that applies amplitude modulation (AM) to the input signal, producing bell-like sounds. You can also change the modulation frequency in response to changes in the volume of the sound sent into the effect.

Lin —	Ring Mod 2-Ba	nd EQ → Lout
R in —	Ring Mod 2-Ba	and EQ \rightarrow R out
Parameter	Value	Explanation
Frequency	0–127	Adjusts the frequency at which modulation is applied.
Sens	0–127	Adjusts the amount of frequency modulation applied.
Polarity	UP, DOWN	Determines whether the frequency modulation moves towards higher frequencies or lower frequencies. UP: The filter will change toward a higher frequency. DOWN: The filter will change toward a lower frequency.
Low Gain	-15–+15 [dB]	Amount of boost/cut for the low- frequency range
High Gain	-15–+15 [dB]	Amount of boost/cut for the high- frequency range
Balance	D100: 0W–D0: 100W	Volume balance between the direct sound (D) and the effect sound (W)
Level	0–127	Output Level

19 AUTO PAN

Cyclically modulates the stereo location of the sound.

Lin —	Auto Pan 2-Ba	nd EQ 🔶 L out
Rin —	Auto Pan 2-Ba	nd EQ → R out
Parameter	Value	Explanation
Mod Wave	TRI, SQR, SIN, SAW1, SAW2, TRP	Modulation Wave TRI: Triangle wave SQR: Square wave SIN: Sine wave SAW1/2: Sawtooth wave TRP: Trapezoidal wave
(Modulation Wave)	SAW1 R L	SAW2
Rate Sync (Rate (sync switch))	OFF, ON	If this is ON, the rate synchronizes with the tempo of the rhythm. → "Tempo" (p. 8)
Rate Hz (Rate (Hz))	0.05–10.00 [Hz]	
Rate Note (Rate (note))	Note → "Note" (p. 72)	Frequency of the change
Depth	0–127	Depth to which the effect is applied
Low Gain	-15–+15 [dB]	Amount of boost/cut for the low- frequency range
High Gain	-15–+15 [dB]	Amount of boost/cut for the high- frequency range
Level	0–127	Output Level

18 TREMOLO

Cyclically changes the volume.

Tremolo 2-Band EQ Lin Lout Rout Rin Tremolo 2-Band EQ Parameter Value Explanation Modulation Wave TRI: Triangle wave TRI, SQR, SIN, SQR: Square wave SAW1, SAW2, TRP SIN: Sine wave SAW1/2: Sawtooth wave Mod Wave (Modulation Wave) TRP: Trapezoidal wave SAW1 SAW2 If this is ON, the rate synchronizes with Rate Sync (Rate (sync switch)) OFF, ON the tempo of the rhythm. ➡ "Tempo" (p. 8) Rate Hz (Rate (Hz)) 0.05-10.00 [Hz] Frequency of the change Note ➡ "Note" (p. 72) Rate Note (Rate (note) Depth 0-127 Depth to which the effect is applied Amount of boost/cut for the low-Low Gain -15-+15 [dB] frequency range Amount of boost/cut for the high-High Gain -15-+15 [dB] frequency range Level 0-127 Output Level

20 SLICER

By applying successive cuts to the sound, this effect turns a conventional sound into a sound that appears to be played as a backing phrase. This is especially effective when applied to sustain-type sounds.

You can use MFX CONTROL to restart the step sequence from the beginning (p. 10).



21 ROTARY

This simulates a classic rotary speaker of the past.

Since the operation of the high-frequency and low-frequency rotors can be specified independently, the distinctive modulation can be reproduced realistically. This is most effective on organ patches.

L in		└─→ T out
R in	Rotary	R out
Parameter	Value	Explanation
Speed	SLOW, FAST	Simultaneously switch the rotational speed of the low frequency rotor and high frequency rotor. SLOW: Slows down the rotation to the Slow Rate. FAST: Speeds up the rotation to the Fast Rate.
Wf Slow (Woofer Slow Speed)	0.05–10.00 [Hz]	Slow speed (SLOW) of the low frequency rotor
Wf Fast (Woofer Fast Speed)	0.05–10.00 [Hz]	Fast speed (FAST) of the low frequency rotor
Wf Accel (Woofer Acceleration)	0–15	Adjusts the time it takes the low frequency rotor to reach the newly selected speed when switching from fast to slow (or slow to fast) speed. Lower values will require longer times.
Wf Level (Woofer Level)	0–127	Volume of the low frequency rotor
Tw Slow (Tweeter Slow Speed)	0.05–10.00 [Hz]	_
Tw Fast (Tweeter Fast Speed)	0.05–10.00 [Hz]	Settings of the high frequency rotor
Tw Accel (Tweeter Acceleration)	0–15	low frequency rotor
Tw Level (Tweeter Level)	0–127	
Separation	0–127	Spatial dispersion of the sound
Level	0–127	Output Level

22 VK ROTARY

This type provides modified response for the rotary speaker, with the low end boosted further.

This effect features the same specifications as the VK-7's built-in rotary speaker.



Speed	SLOW, FAST	Rotational speed of the rotating speaker SLOW: Slow FAST: Fast
Brake	OFF, ON	Switches the rotation of the rotary speaker. When this is turned on, the rotation will gradually stop. When it is turned off, the rotation will gradually resume.
Wf Slow (Woofer Slow Speed)	0.05–10.00 [Hz]	Low-speed rotation speed of the woofer
Wf Fast (Woofer Fast Speed)	0.05–10.00 [Hz]	High-speed rotation speed of the woofer
Wf Trans Up (Woofer Trans Up)	0–127	Adjusts the rate at which the woofer rotation speeds up when the rotation is switched from Slow to Fast.
Wf Trans Dw (Woofer Trans Down)	0–127	Adjusts the rate at which the woofer rotation speeds up when the rotation is switched from Fast to Slow.
Wf Level (Woofer Level)	0–127	Volume of the woofer
Tw Slow (Tweeter Slow Speed)	0.05–10.00 [Hz]	
Tw Fast (Tweeter Fast Speed)	0.05–10.00 [Hz]	Cattings of the tweater
Tw Trans Up (Tweeter Trans Up)	0–127	The parameters are the same as for the
Tw Trans Dw (Tweeter Trans Down)	0–127	wooter.
Tw Level (Tweeter Level)	0–127	
Spread	0–10	Sets the rotary speaker stereo image. The higher the value set, the wider the sound is spread out.
Low Gain	-15-+15 [dB]	Amount of boost/cut for the low- frequency range
High Gain	-15-+15 [dB]	Amount of boost/cut for the high- frequency range
Level	0–127	Output Level
OD Switch (Overdrive Switch)	OFF, ON	Overdrive on/off
OD Gain (Overdrive Gain)	0–127	Overdrive input level Higher values will increase the distortion.
OD Drive (Overdrive Drive)	0–127	Degree of distortion
OD Level (Overdrive Level)	0–127	Volume of the overdrive

23 CHORUS

This is a stereo chorus. A filter is provided so that you can adjust the timbre of the chorus sound.

Lin	Chorus	$\begin{array}{c} ce D \\ & & \\ & & \\ \hline \\ & & \\ $
R in	Chorus Chorus Balan	$\begin{array}{c} \text{Balance W} \\ \hline \\ \text{Ce D} \end{array} \textbf{Parameters} R \text{ out} \\ \end{array}$
Parameter	Value	Explanation
Filter Type	OFF, LPF, HPF	Type of filter OFF: No filter is used LPF: Cuts the frequency range above the Cutoff Freq HPF: Cuts the frequency range below the Cutoff Freq
Cof Freq (Cutoff Freq)	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000 [Hz]	Basic frequency of the filter
Pre Delay	0.0–100 [msec]	Adjusts the delay time from the direct sound until the chorus sound is heard.
Rate Sync (Rate (sync switch))	OFF, ON	If this is ON, the rate synchronizes with the tempo of the rhythm. → "Tempo" (p. 8)
Rate Hz (Rate (Hz))	0.05–10.00 [Hz]	
Rate Note (Rate (note))	Note → "Note" (p. 72)	Frequency of modulation
Depth	0–127	Depth of modulation
Phase	0–180 [deg]	Spatial spread of the sound
Low Gain	-15-+15 [dB]	Amount of boost/cut for the low- frequency range
High Gain	-15–+15 [dB]	Amount of boost/cut for the high- frequency range
Balance	D100: 0W–D0: 100W	Volume balance between the direct sound (D) and the chorus sound (W)
Level	0–127	Output Level

24 FLANGER

This is a stereo flanger (The LFO has the same phase for left and right.).

Produces a metallic resonance reminiscent of a jet airplane taking off and landing.

A filter is provided so that you can adjust the timbre of the flanged sound.



Parameter	Value	Explanation
Filter Type	OFF, LPF, HPF	Type of filter OFF: No filter is used LPF: Cuts the frequency range above the Cutoff Freq HPF: Cuts the frequency range below the Cutoff Freq
Cof Freq (Cutoff Freq)	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000 [Hz]	Basic frequency of the filter
Pre Delay	0.0–100 [msec]	Adjusts the delay time from when the direct sound begins until the flanger sound is heard.
Rate Sync (Rate (sync switch))	OFF, ON	If this is ON, the rate synchronizes with the tempo of the rhythm. "Tempo" (p. 8)
Rate Hz (Rate (Hz))	0.05–10.00 [Hz]	
Rate Note (Rate (note))	Note → "Note" (p. 72)	Frequency of modulation
Depth	0–127	Depth of modulation
Phase	0–180 [deg]	Spatial spread of the sound
Feedback	-98-+98 [%]	Adjusts the proportion of the flanger sound that is fed back into the effect. Negative (-) settings will invert the phase.
Low Gain	-15–+15 [dB]	Amount of boost/cut for the low- frequency range
High Gain	-15–+15 [dB]	Amount of boost/cut for the high- frequency range
Balance	D100: 0W–D0: 100W	Volume balance between the direct sound (D) and the flanger sound (W)
Level	0–127	Output Level

25 STEP FLANGER

This is a flanger in which the flanger pitch changes in steps. The speed at which the pitch changes can also be specified in terms of a note-value of a specified tempo.



Parameter	Value	Explanation
Filter Type	OFF, LPF, HPF	Type of filter OFF: No filter is used LPF: Cuts the frequency range above the Cutoff Freq HPF: Cuts the frequency range below the Cutoff Freq
Cof Freq (Cutoff Freq)	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000 [Hz]	Basic frequency of the filter
Pre Delay	0.0–100.0 [msec]	Adjusts the delay time from when the direct sound begins until the flanger sound is heard.
Rate Sync (Rate (sync switch))	OFF, ON	If this is ON, the rate synchronizes with the tempo of the rhythm. → "Tempo" (p. 8)
Rate Hz (Rate (Hz))	0.05–10.00 [Hz]	
Rate Note (Rate (note))	Note → "Note" (p. 72)	Frequency of modulation
Depth	0–127	Depth of modulation
Phase	0–180 [deg]	Spatial spread of the sound
Feedback	-98-+98 [%]	Adjusts the proportion of the flanger sound that is fed back into the effect. Negative (-) settings will invert the phase.
S Rate Sync (Step Rate (sync switch))	OFF, ON	If this is ON, the rate synchronizes with the tempo of the rhythm. → "Tempo" (p. 8)
S RateHz (Step Rate (Hz))	0.10–20.00 [Hz]	
S RateNote (Step Rate (note))	Note → "Note" (p. 72)	Kate (period) of pitch change
Low Gain	-15–+15 [dB]	Amount of boost/cut for the low- frequency range
High Gain	-15–+15 [dB]	Amount of boost/cut for the high- frequency range
Balance	D100: 0W–D0: 100W	Volume balance between the direct sound (D) and the flanger sound (W)
Level	0–127	Output Level

26 HEXA-CHORUS

Uses a six-phase chorus (six layers of chorused sound) to give richness and spatial spread to the sound.

Balance D L in Hexa Chorus Balance W Balance W Balance W Balance W Balance W			
Parameter	Value	Explanation	
Pre Delay	0.0–100 [msec]	Adjusts the delay time from the direct sound until the chorus sound is heard.	
Rate Sync (Rate (sync switch))	OFF, ON	If this is ON, the rate synchronizes with the tempo of the rhythm. → "Tempo" (p. 8)	
Rate Hz (Rate (Hz))	0.05–10.00 [Hz]		
Rate Note (Rate (note))	Note ➡ "Note" (p. 72)	Frequency of modulation	
Depth	0–127	Depth of modulation	
Pre Delay Dev (Pre Delay Deviation)	0–20	Adjusts the differences in Pre Delay between each chorus sound.	
Depth Dev (Depth Deviation)	-40	Adjusts the difference in modulation depth between each chorus sound.	
Pan Dev (Pan Deviation)	-20-+20	Adjusts the difference in stereo location between each chorus sound. 0: All chorus sounds will be in the center. 20: Each chorus sound will be spaced at 60 degree intervals relative to the center.	
Balance	D100: 0W–D0: 100W	Volume balance between the direct sound (D) and the chorus sound (W)	
Level	0–127	Output Level	

27 TREMOLO CHORUS

This is a chorus effect with added Tremolo (cyclic modulation of volume).



Parameter	Value	Explanation
Balance	D100: 0W–D0: 100W	Volume balance between the direct sound (D) and the tremolo chorus sound (W)
Level	0–127	Output Level

28 SPACE-D

This is a multiple chorus that applies two-phase modulation in stereo. It gives no impression of modulation, but produces a transparent chorus effect.



Parameter	Value	Explanation
Pre Delay	0.0–100 [msec]	Adjusts the delay time from the direct sound until the chorus sound is heard.
Rate Sync (Rate (sync switch))	OFF, ON	If this is ON, the rate synchronizes with the tempo of the rhythm. → "Tempo" (p. 8)
Rate Hz (Rate (Hz))	0.05–10.00 [Hz]	
Rate Note (Rate (note))	Note → "Note" (p. 72)	Frequency of modulation
Depth	0–127	Depth of modulation
Phase	0–180 [deg]	Spatial spread of the sound
Low Gain	-15-+15 [dB]	Amount of boost/cut for the low- frequency range
High Gain	-15-+15 [dB]	Amount of boost/cut for the high- frequency range
Balance	D100: 0W-D0: 100W	Volume balance between the direct sound (D) and the chorus sound (W)
Level	0–127	Output Level

29 OVERDRIVE

This is an overdrive that provides heavy distortion.

Lin	Overdrive	Amp imlator 2-Band EQ Pan R
Parameter	Value	Explanation
Drive	0–127	Degree of distortion Also changes the volume.
Tone	0–127	Sound quality of the Overdrive effect
Amp Switch	OFF, ON	Turns the Amp Simulator on/off.
AmpType (Amp Type)	SMALL, BUILT-IN, 2-STACK, 3-STACK	Type of guitar amp SMALL: Small amp BUILT-IN: Single-unit type amp 2-STACK: Large double stack amp 3-STACK: Large triple stack amp
Low Gain	-15-+15 [dB]	Amount of boost/cut for the low- frequency range
High Gain	-15-+15 [dB]	Amount of boost/cut for the high- frequency range
Pan	L64–63R	Stereo location of the output sound
Level	0–127	Output Level

30 DISTORTION

Produces a more intense distortion than Overdrive.



Parameter	Value	Explanation
Drive	0–127	Degree of distortion Also changes the volume.
Tone	0–127	Sound quality of the Overdrive effect
Amp Switch	OFF, ON	Turns the Amp Simulator on/off.
AmpType (AmpType)	SMALL, BUILT-IN, 2-STACK, 3-STACK	Type of guitar amp SMALL: Small amp BUILT-IN: Single-unit type amp 2-STACK: Large double stack amp 3-STACK: Large triple stack amp
Low Gain	-15-+15 [dB]	Amount of boost/cut for the low- frequency range
High Gain	-15-+15 [dB]	Amount of boost/cut for the high- frequency range
Pan	L64–63R	Stereo location of the output sound
Level	0–127	Output Level

31 T-SCREAM

This models a classic analog overdrive. It is distinctive in adding an appropriate amount of overtones without muddying the sound.



32 GUITAR AMP SIM

This is an effect that simulates the sound of a guitar amplifier.

Lin	Pan L
R in	Pan R R out

Parameter	Value	Explanation
Pre Amp Sw (Pre Amp Switch)	OFF, ON	Turns the amp switch on/off.
		Type of guitar amp
	JC-120	This models the sound of the Roland JC-120.
	CLEAN TWIN	This models a Fender Twin Reverb.
		This models the sound input to left input on a Matchless D/C-30.
		A simulation of the latest tube amp widely used in styles from blues and rock.
	BG LEAD	This models the lead sound of the MESA/ Boogie combo amp. The sound of a tube amp typical of the late '70s to '80s.
	MS1959I	This models the sound input to Input I on a Marshall 1959.
		This is a trebly sound suited to hard rock.
Type (Pre Amp Type)	MS1959II	This models the sound input to Input II on a Marshall 1959.
	MS1959I+II	The sound of connecting inputs I and II of the guitar amp in parallel, creating a sound with a stronger low end than I.
	SLDN LEAD	This models a Soldano SLO-100. This is the typical sound of the eighties.
	METAL 5150	This models the lead channel of a Peavey EVH 5150.
	METAL LEAD	This is distortion sound that is ideal for performances of heavy riffs.
	OD-1	This models the sound of the BOSS OD-1. This produces sweet, mild distortion.
	OD-2 TURBO	This is the high-gain overdrive sound of the BOSS OD-2.
	DISTORTION	This gives a basic, traditional distortion sound.
	FUZZ	A fuzz sound with rich harmonic content.
Volume (Pre Amp Volume)	0–127	Volume and amount of distortion of the amp
Master (Pre Amp Master)	0–127	Volume of the entire pre-amp
Gain (Pre Amp Gain)	LOW, MIDDLE, HIGH	Amount of pre-amp distortion
Bass (Pre Amp Bass)		Tone of the bass/mid/treble frequency
Middle (Pre Amp Middle)	0–127	range Middle cannot be set if "Match Drive" is
Treble (Pre Amp Treble)		selected as the Pre Amp Type.
Presence (Pre Amp Presence)	0–127	Tone for the ultra-high frequency range
Bright (Pre Amp Bright)	OFF, ON	Turning this "On" produces a sharper and brighter sound.
		TWIN," and "BG LEAD" Pre Amp Types.

Parameter	Value	Explanation		
Speaker Sw (Speaker Switch)	OFF, ON	Selects whethe through the spe not (OFF)	r the sound v eaker simula	will be sent tion (ON) or
		Cabinet	Speaker	Microphone
	SMALL 1	small open-back enclosure	10	dynamic
	SMALL 2	small open-back enclosure	10	dynamic
	MIDDLE	open back enclosure	12 x 1	dynamic
	JC-120	open back enclosure	12 x 2	dynamic
	BUILT-IN 1	open back enclosure	12 x 2	dynamic
	BUILT-IN 2	open back enclosure	12 x 2	condenser
	BUILT-IN 3	open back enclosure	12 x 2	condenser
SpType (Speaker Type)	BUILT-IN 4	open back enclosure	12 x 2	condenser
	BUILT-IN 5	open back enclosure	12 x 2	condenser
	BG STACK1	sealed enclosure	12 x 2	condenser
	BG STACK2	large sealed enclosure	12 x 2	condenser
	MS STACK1	large sealed enclosure	12 x 4	condenser
	MS STACK2	large sealed enclosure	12 x 4	condenser
	MTL STACK	large double stack	12 x 4	condenser
	2-STACK	large double stack	12 x 4	condenser
	3-STACK	large triple stack	12 x 4	condenser
Mic Setting	1, 2, 3	Adjusts the location of the microphone that is recording the sound of the speaker.		
5		the micrpphone becoming more distant in the order of 1, 2, and 3.		
Mic Level	0–127	Volume of the r	nicrophone	
Direct Level	0–127	Volume of the o	lirect sound	
Pan	L64–63R	Stereo location	of the outpu	it sound
Level	0–127	Output Level		

33 COMPRESSOR

Flattens out high levels and boosts low levels, smoothing out fluctuations in volume.

Lin —	ompressor 2-Ba	nd EQ → L out
R in — c	ompressor 2-Ba	nd EQ → R out
Parameter	Value	Explanation
Attack	0–124	Sets the speed at which compression starts
Release	0–124	Adjusts the time after the signal volume falls below the Threshold Level until compression is no longer applied.
Threshold	-60–0 [dB]	Adjusts the volume at which compression begins
Knee	0–30 [dB]	This is a function that smooths the onset of compression from the uncompressed state; it gradually applies compression starting earlier than Threshold. Higher values produce a smoother transition.
Ratio	1:1, 1.5:1, 2:1, 4:1, 16:1, INF:1	Compression ratio
Post Gain	0-+18 [dB]	Level of the output sound
Level	0–127	Output Level

34 LIMITER

Compresses signals that exceed a specified volume level, preventing distortion from occurring.

Lin —	Limiter 2-Ba	nd EQ → Lout
R in —	Limiter 2-Ba	nd EQ 🔶 R out
Parameter	Value	Explanation
Release	0–127	Adjusts the time after the signal volume falls below the Threshold Level until compression is no longer applied.
Threshold	0–127	Adjusts the volume at which compression begins
Ratio	1.5: 1, 2: 1, 4: 1, 100: 1	Compression ratio
Post Gain	0-+18 [dB]	Level of the output sound
Low Gain	-15–+15 [dB]	Amount of boost/cut for the low- frequency range
High Gain	-15–+15 [dB]	Amount of boost/cut for the high- frequency range
Level	0–127	Output Level

35 SUSTAINER

By compressing loud input and boosting low input, this effect keeps the volume consistent to produce a sustain effect without distortion.

Lin —	ustainer 2-Ba	nd EQ → L out
R in —	ustainer 2-Ba	nd EQ 🔶 R out
Parameter	Value	Explanation
Sustain	0–127	Adjusts the range in which a low input signal is boosted to a consistent volume. Higher values produce longer sustain.
Attack	0–127	Time until the volume is compressed
Release	0–127	Time until compression is removed
Post Gain	-15-+15 [dB]	Level of the output sound
Low Gain	-15–+15 [dB]	Amount of boost/cut for the low- frequency range
High Gain	-15-+15 [dB]	Amount of boost/cut for the high- frequency range
Level	0–127	Output Level

36 GATE

Cuts the reverb's delay according to the volume of the sound sent into the effect. Use this when you want to create an artificialsounding decrease in the reverb's decay.

L in ——	Gate	L out
R in	Gate	R out
Parameter	Value	Explanation
Threshold	0–127	Volume level at which the gate begins to close
Mode	GATE, DUCK	Type of gate GATE: The gate will close when the volume of the original sound decreases, cutting the original sound. DUCK (Duking): The gate will close when the volume of the original sound increases, cutting the original sound.
Attack	0–127	Adjusts the time it takes for the gate to fully open after being triggered.
Hold	0–127	Adjusts the time it takes for the gate to start closing after the source sound falls beneath the Threshold.
Release	0–127	Adjusts the time it takes the gate to fully close after the hold time.
Balance	D100: 0W–D0: 100W	Volume balance between the direct sound (D) and the effect sound (W)
Level	0–127	Output Level

37 DELAY

This is a stereo delay.

When Feedback Mode is NORMAL:



When Feedback Mode is CROSS:



Parameter	Value	Explanation
Dly L Sync (Delay Left (sync switch))	OFF, ON	If this is ON, the rate synchronizes with the tempo of the rhythm. → "Tempo" (p. 8)
Dly L Msec (Delay Left (msec))	1–1300 [msec]	Adjusts the time the left delay sound is
Dly L Note (Delay Left (note))	Note → "Note" (p. 72)	heard.
Dly R Sync (Delay Right (sync switch))	OFF, ON	If this is ON, the rate synchronizes with the tempo of the rhythm. → "Tempo" (p. 8)
Dly R Msec (Delay Right (msec))	1–1300 [msec]	Adjusts the time the right delay sound
Dly R Note (Delay Right (note))	Note → "Note" (p. 72)	is heard.
Phase L (Phase Left)		Phase of left and right delay sound
Phase R (Phase Right)	NORMAL, INVERSE	INVERT: Inverted
Fbk Mode (Feedback Mode)	NORMAL, CROSS	Selects the way in which delay sound is fed back into the effect. (See the figures above.)
Feedback	-98-+98 [%]	Adjusts the proportion of the delay sound that is fed back into the effect. Negative (-) settings will invert the phase.
HF Damp	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, BYPASS [Hz]	Adjusts the frequency above which sound fed back to the effect is filtered out. If you don't want to filter out any high frequencies, set this parameter to BYPASS.
Low Gain	-15–+15 [dB]	Amount of boost/cut for the low- frequency range
High Gain	-15-+15 [dB]	Amount of boost/cut for the high- frequency range
Balance	D100: 0W–D0: 100W	Volume balance between the direct sound (D) and the delay sound (W)
Level	0–127	Output Level

38 MODULATION DELAY

Adds modulation to the delayed sound.

When Feedback Mode is NORMAL:



When Feedback Mode is CROSS:



Parameter	Value	Explanation
Dly L Sync (Delay Left (sync switch))	OFF, ON	If this is ON, the rate synchronizes with the tempo of the rhythm. "Tempo" (p. 8)
Dly L Msec (Delay Left (msec))	1–1300 [msec]	Adjusts the time until the left delay sound
Dly L Note (Delay Left (note))	Note → "Note" (p. 72)	is heard.
Dly R Sync (Delay Right (sync switch))	OFF, ON	If this is ON, the rate synchronizes with the tempo of the rhythm. "Tempo" (p. 8)
Dly R Msec (Delay Right (msec))	1–1300 [msec]	Adjusts the time until the right delay
Dly R Note (Delay Right (note))	Note → "Note" (p. 72)	sound is heard.
Fbk Mode (Feedback Mode)	NORMAL, CROSS	Selects the way in which delay sound is fed back into the effect. (See the figures above.)
Feedback	-98-+98 [%]	Adjusts the proportion of the delay sound that is fed back into the effect. Negative (-) settings will invert the phase.
HF Damp	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, BYPASS [Hz]	Adjusts the frequency above which sound fed back to the effect is filtered out. If you don't want to filter out any high frequencies, set this parameter to BYPASS.
Rate Sync (Rate (sync switch))	OFF, ON	If this is ON, the rate synchronizes with the tempo of the rhythm. → "Tempo" (p. 8)
Rate Hz (Rate (Hz))	0.05–10.00 [Hz]	
Rate Note (Rate (note))	Note → "Note" (p. 72)	Frequency of modulation
Depth	0–127	Depth of modulation
Phase	0–180 [deg]	Spatial spread of the sound
Low Gain	-15-+15 [dB]	Amount of boost/cut for the low- frequency range
High Gain	-15-+15 [dB]	Amount of boost/cut for the high- frequency range
Balance	D100: 0W–D0: 100W	Volume balance between the direct sound (D) and the delay sound (W)
Level	0–127	Output Level

39 3TAP PAN DELAY

Produces three delay sounds; center, left and right.



Parameter	Value	Explanation
Dly L Sync (Delay Left (sync switch))	OFF, ON	If this is ON, the rate synchronizes with the tempo of the rhythm. → "Tempo" (p. 8)
Dly L Msec (Delay Left (msec))	1–2600 [msec]	_ Adjusts the time until the left delay sound
Dly L Note (Delay Left (note))	Note → "Note" (p. 72)	is heard.
Dly R Sync (Delay Right (sync switch))	OFF, ON	If this is ON, the rate synchronizes with the tempo of the rhythm. → "Tempo" (p. 8)
Dly R Msec (Delay Right (msec))	1–2600 [msec]	Adjusts the time until the right delay
Dly R Note (Delay Right (note))	Note → "Note" (p. 72)	sound is heard.
Dly C Sync (Delay Center (sync switch))	OFF, ON	If this is ON, the rate synchronizes with the tempo of the rhythm. → "Tempo" (p. 8)
Dly C Msec (Delay Center (msec))	1–2600 [msec]	_ Adjusts the time until the center delay
Dly C Note (Delay Center (note))	Note ➡ "Note" (p. 72)	sound is heard.
C Feedback (Center Feedback)	-98-+98 [%]	Adjusts the proportion of the delay sound that is fed back into the effect.
HF Damp	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, BYPASS [Hz]	Adjusts the frequency above which sound fed back to the effect is filtered out. If you don't want to filter out any high frequencies, set this parameter to BYPASS.
Left Level	0–127	
Right Level	0–127	_ Volume of each delay sound
Center Level	0–127	
Low Gain	-15-+15 [dB]	Amount of boost/cut for the low- frequency range
High Gain	-15–+15 [dB]	Amount of boost/cut for the high- frequency range
Balance	D100: 0W–D0: 100W	Volume balance between the direct sound (D) and the delay sound (W)
Level	0–127	Output Level

40 4TAP PAN DELAY

This effect has four delays.





Parameter	Value	Explanation
runameter	value	
Dly 1 Sync (Delay 1 Time (sync switch))	OFF, ON	the tempo of the rhythm. + "Tempo" (p. 8)
Dly 1 Msec (Delay 1 Time (msec))	1–2600 [msec]	Adjusts the time from the original sound
Dly 1 Note (Delay 1 Time (note))	Note → "Note" (p. 72)	until delay 1 sounds is heard.
Dly 2 Sync (Delay 2 Time (sync switch))	OFF, ON	If this is ON, the rate synchronizes with the tempo of the rhythm.
Dly 2 Msec (Delay 2 Time (msec))	1–2600 [msec]	Adjusts the time from the original sound
Dly 2 Note (Delay 2 Time (note))	Note → "Note" (p. 72)	until delay 2 sounds is heard.
Dly 3 Sync (Delay 3 Time (sync switch))	OFF, ON	If this is ON, the rate synchronizes with the tempo of the rhythm. → "Tempo" (p. 8)
Dly 3 Msec (Delay 3 Time (msec))	1–2600 [msec]	Adjusts the time from the original sound
Dly 3 Note (Delay 3 Time (note))	Note → "Note" (p. 72)	until delay 3 sounds is heard.
Dly 4 Sync (Delay 4 Time (sync switch))	OFF, ON	If this is ON, the rate synchronizes with the tempo of the rhythm. "Tempo" (p. 8)
Dly 4 Msec (Delay 4 Time (msec))	1–2600 [msec]	Adjusts the time from the original sound
Dly 4 Note (Delay 4 Time (note))	Note ➡ "Note" (p. 72)	until delay 4 sounds is heard.
Dly 1 Fbk (Delay 1 Feedback)	-98-+98 [%]	Adjusts the proportion of the delay sound that is fed back into the effect. Negative (-) settings will invert the phase.
HF Damp	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, BYPASS [Hz]	Adjusts the frequency above which sound fed back to the effect is filtered out. If you don't want to filter out any high frequencies, set this parameter to BYPASS.
Dly 1 Level (Delay 1 Level)		
Dly 2 Level (Delay 2 Level)	0 127	Values of cost datas
Dly 3 Level (Delay 3 Level)	U-127	volume of each delay
Dly 4 Level (Delay 4 Level)		
Low Gain	-15-+15 [dB]	Amount of boost/cut for the low- frequency range
High Gain	-15-+15 [dB]	Amount of boost/cut for the high- frequency range
Balance	D100: 0W-D0: 100W	Volume balance between the direct sound (D) and the delay sound (W)
Level	0–127	Output Level

41 MULTI TAP DELAY

This effect provides four delays. Each of the Delay Time parameters can be set to a note length based on the selected tempo. You can also set the panning and level of each delay sound.



Dly 2 Msec (Delay 2 Time (msec))	1–2600 [msec]	Adjusts the time from the original sound
Dly 2 Note (Delay 2 Time (note))	Note → "Note" (p. 72)	until delay 2 sounds is heard.
Dly 3 Sync (Delay 3 Time (sync switch))	OFF, ON	If this is ON, the rate synchronizes with the tempo of the rhythm. "Tempo" (p. 8)
Dly 3 Msec (Delay 3 Time (msec))	1–2600 [msec]	Adjusts the time from the original sound
Dly 3 Note (Delay 3 Time (note))	Note ➡ "Note" (p. 72)	until delay 3 sounds is heard.
Dly 4 Sync (Delay 4 Time (sync switch))	OFF, ON	If this is ON, the rate synchronizes with the tempo of the rhythm. "Tempo" (p. 8)
Dly 4 Msec (Delay 4 Time (msec))	1–2600 [msec]	Adjusts the time from the original sound
Dly 4 Note (Delay 4 Time (note))	Note → "Note" (p. 72)	until delay 4 sounds is heard.
Dly 1 Fbk (Delay 1 Feedback)	-98-+98 [%]	Adjusts the proportion of the delay sound that is fed back into the effect. Negative (-) settings will invert the phase.
HF Damp	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, BYPASS [Hz]	Adjusts the frequency above which sound fed back to the effect is filtered out. If you don't want to filter out any high frequencies, set this parameter to BYPASS.
Dly 1 Pan (Delay 1 Pan)		
Dly 2 Pan (Delay 2 Pan)		Character (Data 1.4
Dly 3 Pan (Delay 3 Pan)	L64-63K	Stereo location of Delays 1–4
Dly 4 Pan (Delay 4 Pan)		
Dly 1 Level (Delay 1 Level)		
Dly 2 Level (Delay 2 Level)	0 107	Volume of each delay
Dly 3 Level (Delay 3 Level)	0-127	
Dly 4 Level (Delay 4 Level)		
Low Gain	-15-+15 [dB]	Amount of boost/cut for the low- frequency range
High Gain	-15-+15 [dB]	Amount of boost/cut for the high- frequency range
Balance	D100: 0W–D0: 100W	Volume balance between the direct sound (D) and the effect sound (W)

Output Level

Level

0-127

REVERSE DELAY 42

This is a reverse delay that adds a reversed and delayed sound to the input sound. A tap delay is connected immediately after the reverse delay.

Lin 🛉 🗕		→O [#] 2-Band FO → L out
¢•	Rev. Delay Feedback	
R in		→O ^T 2-Band EQ → R out
Parameter	Value	Explanation
Threshold	0–127	Volume at which the reverse delay will begin to be applied
Dly R Sync (Reverse Delay Time (sync switch))	OFF, ON	If this is ON, the rate synchronizes with the tempo of the rhythm. "Tempo" (p. 8)
Dly R Msec (Reverse Delay Time (msec))	1–1300 [msec]	Delay time from when sound is input into
Dly R Note (Reverse Delay Time (note))	Note → "Note" (p. 72)	the reverse delay until the delay sound is heard
Dly R Fbk (Reverse Delay Feedback)	-98-+98 [%]	Proportion of the delay sound that is to be returned to the input of the reverse delay negative (-) values invert the phase
Dly R HF (Reverse Delay HF Damp)	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, BYPASS [Hz]	Frequency at which the high-frequency content of the reverse-delayed sound will be cut (BYPASS: no cut)
Dly R Pan (Reverse Delay Pan)	L64–63R	Panning of the reverse delay sound
Dly R Level (Reverse Delay Level)	0–127	Volume of the reverse delay sound
Dly 1 Sync (Delay 1 Time (sync switch))	OFF, ON	If this is ON, the rate synchronizes with the tempo of the rhythm. → "Tempo" (p. 8)
Dly 1 Msec (Delay 1 Time (msec))	1–1300 [msec]	Delay time from when sound is input
Dly 1 Note (Delay 1 Time (note))	Note → "Note" (p. 72)	into the tap delay until the delay sound is heard
Dly 2 Sync (Delay 2 Time (sync switch))	OFF, ON	If this is ON, the rate synchronizes with the tempo of the rhythm. → "Tempo" (p. 8)
Dly 2 Msec (Delay 2 Time (msec))	1–1300 [msec]	Delay time from when sound is input
Dly 2 Note (Delay 2 Time (note))	Note ➡ "Note" (p. 72)	into the tap delay until the delay sound is heard
Dly 3 Sync (Delay 3 Time (sync switch))	OFF, ON	If this is ON, the rate synchronizes with the tempo of the rhythm. → "Tempo" (p. 8)
Dly 3 Msec (Delay 3 Time (msec))	1–1300 [msec]	Delay time from when sound is input
Dly 3 Note (Delay 3 Time (note))	Note → "Note" (p. 72)	into the tap delay until the delay sound is heard
Dly 3 Fbk (Delay 3 Feedback)	-98-+98 [%]	Proportion of the delay sound that is to be returned to the input of the tap delay (negative (-) values invert the phase)
Dly HF (Delay HF Damp)	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, BYPASS [Hz]	Frequency at which the hi-frequency content of the tap delay sound will be cut (BYPASS: no cut)
Dly 1 Pan (Delay 1 Pan)	L64–63R	
Dly 2 Pan (Delay 2 Pan)	L64–63R	Panning of the tap delay sounds
Dly 1 Level (Delay 1 Level)	0–127	
Dly 2 Level	0–127	 Volume of the tap delay sounds
Low Gain	-15-+15 [dB]	Amount of boost/cut for the low-

frequency range

Parameter	Value	Explanation
High Gain	-15–+15 [dB]	Amount of boost/cut for the high- frequency range
Balance	D100: 0W–D0: 100W	Volume balance between the direct sound (D) and the delay sound (W)
Level	0–127	Output Level

43 TIME CTRL DELAY

A stereo delay in which the delay time can be varied smoothly.



Parameter	Value	Explanation
Dly Sync (Delay Time (sync switch))	OFF, ON	If this is ON, the rate synchronizes with the tempo of the rhythm. → "Tempo" (p. 8)
Dly Msec (Delay Time (msec))	1–1300 [msec]	Adjusts the delay time from the direct
Dly Note (Delay Time (note))	Note → "Note" (p. 72)	sound until the delay sound is heard.
Acceleration	0–15	Adjusts the speed which the Delay Time changes from the current setting to a specified new setting. The rate of change for the Delay Time directly affects the rate of pitch change.
Feedback	-98-+98 [%]	Adjusts the proportion of the delay sound that is fed back into the effect. Negative (-) settings will invert the phase.
HF Damp	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, BYPASS [Hz]	Adjusts the frequency above which sound fed back to the effect is filtered out. If you don't want to filter out any high frequencies, set this parameter to BYPASS.
Low Gain	-15-+15 [dB]	Amount of boost/cut for the low- frequency range
High Gain	-15-+15 [dB]	Amount of boost/cut for the high- frequency range
Balance	D100: 0W–D0: 100W	Volume balance between the direct sound (D) and the delay sound (W)
Level	0–127	Output Level

44 TAPE ECHO

A virtual tape echo that produces a realistic tape delay sound. This simulates the tape echo section of a Roland RE-201 Space Echo.



45 LOFI COMPRESS

This is an effect that intentionally degrades the sound quality for creative purposes.

Lin Com	pressor Lo-F	i2-Band EQ → L out
R in Com	pressor Lo-F	i 2 -Band EQ \rightarrow R out
Parameter	Value	Explanation
Pre Filter (Pre Filter Type)	1, 2, 3, 4, 5, 6	Selects the type of filter applied to the sound before it passes through the Lo-Fi effect. 1: Compressor off 2–6: Compressor on
LoFi Туре	1, 2, 3, 4, 5, 6, 7, 8, 9	Degrades the sound quality. The sound quality grows poorer as this value is increased.
Post Filter (Post Filter Type)	OFF, LPF, HPF	Type of filter OFF: No filter is used LPF: Cuts the frequency range above the Cutoff Freq HPF: Cuts the frequency range below the Cutoff Freq

Parameter	Value	Explanation
Cutoff (Post Filter Cutoff)	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000 [Hz]	Basic frequency of the Post Filter
Low Gain	-15–+15 [dB]	Amount of boost/cut for the low- frequency range
High Gain	-15–+15 [dB]	Amount of boost/cut for the high- frequency range
Balance	D100: 0W–D0: 100W	Volume balance between the direct sound (D) and the effect sound (W)
Level	0–127	Output Level

46 BIT CRUSHER

Produces an extreme lo-fi effect.

Lin —Bi	t Crusher 2-Ba	nd EQ → L out
R in B	t Crusher — 2-Ba	nd EQ → R out
Parameter	Value	Explanation
Sample Rate	0–127	Adjusts the sample rate.
Bit Down	0–20	Adjusts the bit depth.
Filter	0–127	Adjusts the filter depth.
Low Gain	-15–+15 [dB]	Amount of boost/cut for the low- frequency range
High Gain	-15–+15 [dB]	Amount of boost/cut for the high- frequency range
Level	0–127	Output Level

47 PITCH SHIFTER

A stereo pitch shifter.



Davamator	Value	Evaluation
rarameter	value	Explanation
Coarse	-24-+12 [semi]	Adjusts the pitch of the pitch shifted sound in semitone steps.
Fine	-100-+100 [cent]	Adjusts the pitch of the pitch shifted sound in 2-cent steps.
Dly Sync (Delay Time (sync switch))	OFF, ON	If this is ON, the rate synchronizes with the tempo of the rhythm. → "Tempo" (p. 8)
Dly Msec (Delay Time (msec))	1–1300 [msec]	Adjusts the delay time from the direct
Dly Note (Delay Time (note))	Note ➡ "Note" (p. 72)	heard.
Feedback	-98-+98 [%]	Adjusts the proportion of the pitch shifted sound that is fed back into the effect. Negative (-) settings will invert the phase.
Low Gain	-15–+15 [dB]	Amount of boost/cut for the low- frequency range
High Gain	-15–+15 [dB]	Amount of boost/cut for the high- frequency range
Balance	D100: 0W–D0: 100W	Volume balance between the direct sound (D) and the pitch shifted sound (W)
Level	0–127	Output Level

48 2V PITCH SHIFTER

Shifts the pitch of the original sound. This 2-voice pitch shifter has two pitch shifters, and can add two pitch shifted sounds to the original sound.



Parameter	Value	Explanation
P1Coarse (Pitch1 Coarse)	-24–+12 [semi]	Adjusts the pitch of Pitch Shift 1 in semitone steps.
P1 Fine (Pitch1 Fine)	-100–+100 [cent]	Adjusts the pitch of Pitch Shift Pitch 1 in 2-cent steps.
P1 Dly Sync (Pitch1 Delay (sync switch))	OFF, ON	If this is ON, the rate synchronizes with the tempo of the rhythm. "Tempo" (p. 8)
P1 Dly Msec (Pitch1 Delay (msec))	1–1300 [msec]	Adjusts the delay time from the direct
P1 DlyNote (Pitch1 Delay (note))	Note → "Note" (p. 72)	sound until the Pitch Shift 1 sound is heard.
P1 Feedback (Pitch1 Feedback)	-98-+98 [%]	Adjusts the proportion of the pitch shifted sound that is fed back into the effect. Negative (-) settings will invert the phase.
P1 Pan (Pitch1 Pan)	L64–63R	Stereo location of the Pitch Shift 1 sound
P1 Level (Pitch1 Level)	0–127	Volume of the Pitch Shift 1 sound
P2Coarse (Pitch2 Coarse)	-24–+12 [semi]	
P2 Fine (Pitch2 Fine)	-100-+100 [cent]	-
P2 Dly Sync (Pitch2 Delay (sync switch))	OFF, ON	-
P2 Dly Msec (Pitch2 Delay (msec))	1–1300 [msec]	Settings of the Pitch Shift 2 sound.
P2 DlyNote (Pitch2 Delay (note))	Note → "Note" (p. 72)	Pitch Shift 1 sound.
P2 Feedback (Pitch2 Feedback)	-98-+98 [%]	-
P2 Pan (Pitch2 Pan)	L64–63R	-
P2 Level (Pitch2 Level)	0–127	-
Low Gain	-15-+15 [dB]	Amount of boost/cut for the low- frequency range
High Gain	-15-+15 [dB]	Amount of boost/cut for the high- frequency range
Balance	D100: 0W–D0: 100W	Volume balance between the direct sound (D) and the pitch shifted sound (W)
Level	0–127	Output Level

49 OD → CHORUS

L in R in	- Overdrive	Balance D Chorus Balance W Balance W Balance W Balance W		
Parameter	Value	Explanation		
OD Drive (Overdrive Drive)	0–127	Degree of distortion Also changes the volume.		
OD Pan (Overdrive Pan)	L64–63R	Stereo location of the overdrive sound		
Cho PreDly (Chorus Pre Delay)	0.0–100 [msec]	Adjusts the delay time from the direct sound until the chorus sound is heard.		
Cho Sync (Chorus Rate (sync switch))	OFF, ON	If this is ON, the rate synchronizes with the tempo of the rhythm. → "Tempo" (p. 8)		
Cho Hz (Chorus Rate (Hz))	0.05–10.00 [Hz]			
Cho Note (Chorus Rate (note))	Note → "Note" (p. 72)	Frequency of modulation		
Cho Depth (Chorus Depth)	0–127	Depth of modulation		
Cho Bal (Chorus Balance)	D100: 0W–D0: 100W	Adjusts the volume balance between the sound that is sent through the chorus (W) and the sound that is not sent through the chorus (D).		
Level	0–127	Output Level		

50 OD → FLANGER



Parameter	Value	Explanation		
OD Drive (Overdrive Drive)	0–127	Degree of distortion Also changes the volume.		
OD Pan (Overdrive Pan)	L64–63R	Stereo location of the overdrive sound		
Flg PreDly (Flanger Pre Delay)	0.0–100 [msec]	Adjusts the delay time from when the direct sound begins until the flanger sound is heard.		
Flg Sync (Flanger Rate (sync switch))	OFF, ON	If this is ON, the rate synchronizes with the tempo of the rhythm. → "Tempo" (p. 8)		
Flg Hz (Flanger Rate (Hz))	0.05–10.00 [Hz]			
Flg Note (Flanger Rate (note))	Note → "Note" (p. 72)	Frequency of modulation		
Flg Depth (Flanger Depth)	0–127	Depth of modulation		
Flg Fbk (Flanger Feedback)	-98-+98 [%]	Adjusts the proportion of the flanger sound that is fed back into the effect. Negative (-) settings will invert the phase.		
Flg Bal (Flanger Balance)	D100: 0W–D0: 100W	Adjusts the volume balance between the sound that is sent through the flanger (W) and the sound that is not sent through the flanger (D).		
Level	0–127	Output Level		

L in R in	Overdrive	Balance D Control Balance W Feedback Balance D Balance D Balance D
Parameter	Value	Explanation
OD Drive (Overdrive Drive)	0–127	Degree of distortion Also changes the volume.
OD Pan (Overdrive Pan)	L64–63R	Stereo location of the overdrive sound
Dly Sync (Delay Time (sync switch))	OFF, ON	If this is ON, the rate synchronizes with the tempo of the rhythm. → "Tempo" (p. 8)
Dly Msec (Delay Time (msec))	1–2600 [msec]	_ Adjusts the delay time from the direct
Dly Note (Delay Time (note))	Note ➡ "Note" (p. 72)	sound until the delay sound is heard.
Dly Fbk (Delay Feedback)	-98-+98 [%]	Adjusts the proportion of the delay sound that is fed back into the effect. Negative (-) settings will invert the phase.
Dly HF (Delay HF Damp)	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, BYPASS [Hz]	Adjusts the frequency above which sound fed back to the effect will be cut. If you do not want to cut the high frequencies, set this parameter to BYPASS.
Dly Bal (Delay Balance)	D100: 0W–D0: 100W	Adjusts the volume balance between the sound that is sent through the delay (W) and the sound that is not sent through the delay (D).
Level	0–127	Output Level

51 OD → DELAY

52 DS → CHORUS



Parameter	Value	Explanation	
Dist Drive (Distortion Drive)	0–127	Degree of distortion Also changes the volume.	
Dist Pan (Distortion Pan)	L64–63R	Stereo location of the overdrive sound	
Cho PreDly (Chorus Pre Delay)	0.0–100 [msec]	Adjusts the delay time from the direct sound until the chorus sound is heard.	
Cho Sync (Chorus Rate (sync switch))	OFF, ON	If this is ON, the rate synchronizes with the tempo of the rhythm. → "Tempo" (p. 8)	
Cho Hz (Chorus Rate (Hz))	0.05–10.00 [Hz]		
Cho Note (Chorus Rate (note))	Note → "Note" (p. 72)	Frequency of modulation	
Cho Depth (Chorus Depth)	0–127	Depth of modulation	
Cho Bal (Chorus Balance)	D100: 0W–D0: 100W	Adjusts the volume balance between the sound that is sent through the chorus (W) and the sound that is not sent through the chorus (D).	
Level	0–127	Output Level	

53 DS → FLANGER



Parameter	Value	Explanation
Dist Drive (Distortion Drive)	0–127	Degree of distortion Also changes the volume.
Dist Pan (Distortion Pan)	L64–63R	Stereo location of the overdrive sound
Fig PreDiy (Flanger Pre Delay)	0.0–100 [msec]	Adjusts the delay time from when the direct sound begins until the flanger sound is heard.
Flg Sync (Flanger Rate (sync switch))	OFF, ON	If this is ON, the rate synchronizes with the tempo of the rhythm. → "Tempo" (p. 8)
Fig Hz (Flanger Rate (Hz))	0.05–10.00 [Hz]	
Flg Note (Flanger Rate (note))	Note → "Note" (p. 72)	Frequency of modulation
Flg Depth (Flanger Depth)	0–127	Depth of modulation
Flg Fbk (Flanger Feedback)	-98-+98 [%]	Adjusts the proportion of the flanger sound that is fed back into the effect. Negative (-) settings will invert the phase.
Flg Bal (Flanger Balance)	D100: 0W–D0: 100W	Adjusts the volume balance between the sound that is sent through the flanger (W) and the sound that is not sent through the flanger (D).
Level	0–127	Output Level

54 DS → DELAY



Output Level

Level

0-127

55 OD/DS → TWAH

		Loui
⊕ <mark>0</mark> D	verdrive/ Amp istortion Simulato	Touch 2-Band r Wah EQ
Rin		R out
Parameter	Value	Explanation
Drive Switch	OFF, ON	Turns overdrive/distortion on/off
Type (Drive Type)	OVERDRIVE, DISTORTION	Type of distortion
Drive	0–127	Degree of distortion. Also changes the volume.
Tone	0–127	Sound quality of the Overdrive effect
Amp Switch	OFF, ON	Turns the Amp Simulator on/off.
AmpType (Amp Type)	SMALL, BUILT-IN, 2-STACK, 3-STACK	Type of guitar amp SMALL: Small amp BUILT-IN: Single-unit type amp 2-STACK: Large double stack amp 3-STACK: Large triple stack amp
TWah Switch (TouchWah Switch)	OFF, ON	Wah on/off
TWah Mode (TouchWah Mode)	LPF, BPF	Type of filter LPF: The wah effect will be applied over a wide frequency range. BPF: The wah effect will be applied over a narrow frequency range.
TWah Polar (TouchWah Polarity)	DOWN, UP	Direction in which the filter will move UP: The filter will change toward a higher frequency. DOWN: The filter will change toward a lower frequency.
TWah Sens (TouchWah Sens)	0–127	Sensitivity with which the filter is modified
TWah Manual (TouchWah Manual)	0–127	Center frequency at which the wah effect is applied
TWah Peak (TouchWah Peak)	0-127	Width of the frequency region at which the wah effect is applied Increasing this value will make the frequency region narrower.
TWah Bal (TouchWah Balance)	D100: 0W–D0: 100W	Adjusts the volume balance between the sound that is sent through the wah (W) and the sound that is not sent through the wah (D).
Low Gain	-15–+15 [dB]	Amount of boost/cut for the low- frequency range
High Gain	-15-+15 [dB]	Amount of boost/cut for the high- frequency range
Level	0–127	Output Level

56 OD/DS → AWAH



Parameter	Value	Explanation	
Drive Switch	OFF, ON	Turns overdrive/distortion on/off	
Type (Drive Type)	OVERDRIVE, DISTORTION	Type of distortion	
Drive	0–127	Degree of distortion. Also changes the volume.	
Tone	0–127	Sound quality of the Overdrive effect	
Amp Switch	OFF, ON	Turns the Amp Simulator on/off.	
AmpType (Amp Type)	SMALL, BUILT-IN, 2-STACK, 3-STACK	Type of guitar amp SMALL: Small amp BUILT-IN: Single-unit type amp 2-STACK: Large double stack amp 3-STACK: Large triple stack amp	
AWah Switch	OFF, ON	Wah on/off	
AWah Mode (AutoWah Mode)	LPF, BPF	Type of filter LPF: The wah effect will be applied over a wide frequency range. BPF: The wah effect will be applied over a narrow frequency range.	
AWah Manual (AutoWah Manual)	0–127	Center frequency at which the wah effect is applied	
AWah Peak (AutoWah Peak)	0–127	Width of the frequency region at which the wah effect is applied Increasing this value will make the frequency region narrower.	
AWah Sync (AutoWah Rate (sync switch))	OFF, ON	If this is ON, the rate synchronizes with the tempo of the rhythm. → "Tempo" (p. 8)	
AWah Hz (AutoWah Rate (Hz))	0.05–10.00 [Hz]		
AWah Hz (AutoWah Rate (note))	Note ➡ "Note" (p. 72)	Frequency of modulation	
AWah Depth (AutoWah Depth)	0–127	Depth at which the wah effect is modulated	
AWah Bal (AutoWah Balance)	D100: 0W-D0: 100W	Adjusts the volume balance between the sound that is sent through the wah (W) and the sound that is not sent through the wah (D).	
Low Gain	-15–+15 [dB]	Amount of boost/cut for the low- frequency range	
High Gain	-15–+15 [dB]	Amount of boost/cut for the high- frequency range	
Level	0–127	Output Level	

57 GTA	MPSIM –	CHORUS	
L in R in	Pre Amp - Sp	Balance D Balance W Chorus Balance W Balance W Balance D	
Parameter	Value	Explanation	
Pre Amp Sw (Pre Amp Switch)	OFF, ON	Turns the amp switch on/off.	
(incluip since)		Type of guitar amp	
	JC-120	This models the sound of the Roland JC-120.	
	CLEAN TWIN	This models a Fender Twin Reverb.	
	MATCH DRIVE	This models the sound input to left input on a Matchless D/C-30. A simulation of the latest tube amp widely used in styles from blues and rock.	
Type (Pre Amp Type)	BG LEAD	This models the lead sound of the MESA/ Boogie combo amp. The sound of a tube amp typical of the late 70s to 780s.	
	MS1959I	This models the sound input to Input I on a Marshall 1959. This is a trebly sound suited to hard rock.	
	MS1959II	This models the sound input to Input II on a Marshall 1959.	
	MS1959I+II	The sound of connecting inputs I and II of the guitar amp in parallel, creating a sound with a stronger low end than I.	
	SLDN LEAD	This models a Soldano SLO-100. This is the typical sound of the eighties.	
	METAL 5150	This models the lead channel of a Peavey EVH 5150.	
	METAL LEAD	This is distortion sound that is ideal for performances of heavy riffs.	
	OD-1	This models the sound of the BOSS OD-1. This produces sweet, mild distortion.	
	OD-2 TURBO	This is the high-gain overdrive sound of the BOSS OD-2.	
	DISTORTION	This gives a basic, traditional distortion sound.	
	FUZZ	A fuzz sound with rich harmonic content.	
Volume (Pre Amp Volume)	0–127	Volume and amount of distortion of the amp	
Master (Pre Amp Master)	0–127	Volume of the entire pre-amp	
Gain (Pre Amp Gain)	LOW, MIDDLE, HIGH	Amount of pre-amp distortion	
Bass (Pre Amp Bass)	0–127	Tone of the bass/mid/treble frequency	
Middle (Pre Amp Middle)	0–127	range Middle cannot be set if "Match Drive" is	
Treble (Pre Amp Treble)	0–127	selected as the Pre Amp Type.	

Parameter	Value	Explanation			
Speaker Sw (Speaker Switch)	OFF, ON	Selects whether the sound will be sent through the speaker simulation (ON) or			
		Cabinet	Speaker	Microphone	
	SMALL 1	small open-back enclosure	10	dynamic	
	SMALL 2	small open-back enclosure	10	dynamic	
	MIDDLE	open back enclosure	12 x 1	dynamic	
	JC-120	open back enclosure	12 x 2	dynamic	
	BUILT-IN1	open back enclosure	12 x 2	dynamic	
	BUILT-IN2	open back enclosure	12 x 2	condenser	
	BUILT-IN3	open back enclosure	12 x 2	condenser	
	BUILT-IN4	open back enclosure	12 x 2	condenser	
SpType (Speaker Type)	BUILT-IN5	open back enclosure	12 x 2	condenser	
	BG STACK1	sealed enclosure	12 x 2	condenser	
	BG STACK2	large sealed enclosure	12 x 2	condenser	
	MS STACK1	large sealed enclosure	12 x 4	condenser	
	MS STACK2	large sealed enclosure	12 x 4	condenser	
	MTL STACK	large double stack	12 x 4 conc 12 x 4 conc	condenser	
	2-STACK	large double stack		condenser	
	3-STACK	large triple stack	12 x 4	condenser	
Cho Switch (Chorus Switch)	OFF, ON	Chorus on/off			
Cho PreDly (Chorus Pre Delay)	0.0–100 [msec]	Adjusts the dela sound until the	ay time from chorus soun	the direct d is heard.	
Cho Hz (Chorus Rate (Hz))	0.05–10.00 [Hz]	Frequency of modulation			
Cho Depth (Chorus Depth)	0–127	Depth of modu	lation		
Cho Bal (Chorus Balance)	D100: 0W–D0: 100W	Adjusts the volume balance between the sound that is sent through the chorus (W) and the sound that is not sent through the chorus (D).			
Level	0–127	Output Level			

58 GTAMPSIM → FLNGR				
L in R in	Pre Amp – Speake	Balance D Feedback Flanger Balance W Balance W Balance W Balance D		
Parameter	Value	Explanation		
Pre Amp Sw (Pre Amp Switch)	OFF, ON	Turns the amp switch on/off.		
		Type of guitar amp		
	JC-120	This models the sound of the Roland JC-120.		
	CLEAN TWIN	This models a Fender Twin Reverb.		
	MATCH DRIVE	This models the sound input to left input on a Matchless D/C-30. A simulation of the latest tube amp widely used in styles from blues and rock		
	BG LEAD	This models the lead sound of the MESA/ Boogie combo amp. The sound of a tube amp typical of the late '70s to '80s.		
	MS1959I	This models the sound input to Input I on a Marshall 1959. This is a trebly sound suited to hard rock.		
Type (Pre Amp Type)	MS1959II	This models the sound input to Input II on a Marshall 1959.		
	MS1959I+II	The sound of connecting inputs I and II of the guitar amp in parallel, creating a sound with a stronger low end than I.		
	SLDN LEAD	This models a Soldano SLO-100. This is the typical sound of the eighties.		
	METAL 5150	This models the lead channel of a Peavey EVH 5150.		
	METAL LEAD	This is distortion sound that is ideal for performances of heavy riffs.		
	OD-1	This models the sound of the BOSS OD-1. This produces sweet, mild distortion.		
	OD-2 TURBO	This is the high-gain overdrive sound of the BOSS OD-2.		
	DISTORTION	This gives a basic, traditional distortion sound.		
	FUZZ	A fuzz sound with rich harmonic content.		
Volume (Pre Amp Volume)	0–127	Volume and amount of distortion of the amp		
Master (Pre Amp Master)	0–127	Volume of the entire pre-amp		
Gain (Pre Amp Gain)	LOW, MIDDLE, HIGH	Amount of pre-amp distortion		
Bass (Pre Amp Bass)	0–127	_ Tone of the bass/mid/treble frequency		
Middle (Pre Amp Middle)	0–127	range _ Middle cannot be set if "Match Drive" is		
Treble (Pre Amp Treble)	0-127	selected as the Pre Amp Type.		

-					
Parameter	Value	Explanation			
Speaker Sw (Speaker Switch)	OFF, ON	Selects whether the sound will be sent through the speaker simulation (ON) or not (OFF)			
		Cabinet	Speaker	Microphone	
	SMALL 1	small open-back enclosure	10	dynamic	
	SMALL 2	small open-back enclosure	10	dynamic	
	MIDDLE	open back enclosure	12 x 1	dynamic	
	JC-120	open back enclosure	12 x 2	dynamic	
	BUILT-IN1	open back enclosure	12 x 2	dynamic	
	BUILT-IN2	open back enclosure	12 x 2	condenser	
	BUILT-IN3	open back enclosure	12 x 2	condenser	
SpType (Speaker Type)	BUILT-IN4	open back enclosure	12 x 2	condenser	
	BUILT-IN5	open back enclosure	12 x 2	condenser	
	BG STACK1	sealed enclosure	12 x 2	condenser	
	BG STACK2	large sealed enclosure	12 x 2	condenser	
	MS STACK1	large sealed enclosure	12 x 4	condenser	
	MS STACK2	large sealed enclosure	12 x 4	condenser	
	MTL STACK	large double stack	12 x 4	condenser	
	2-STACK	large double stack	12 x 4	condenser	
	3-STACK	large triple stack	12 x 4	condenser	
Flg Switch (Flanger Switch)	OFF, ON	Flanger on/off			
Flg PreDly (Flanger Pre Delay)	0.0–100 [msec]	Adjusts the delay time from when the direct sound begins until the flanger sound is heard.			
Flg Hz (Flanger Rate (Hz))	0.05–10.00 [Hz]	Frequency of m	nodulation		
Flg Depth (Flanger Depth)	0–127	Depth of modu	Ilation		
Flg Fbk (Flanger Feedback)	-98-+98 [%]	Adjusts the proportion of the flanger sound that is fed back into the effect. Negative (-) settings will invert the phase			
Flg Bal (Flanger Balance)	D100: 0W–D0: 100W	Adjusts the volume balance between the sound that is sent through the flanger (W) and the sound that is not sent through the flanger (D).			
Level	0–127	Output Level			

59 GTA	MPSIM -	► PHASER
L in R in	Pre Amp Speaker	Phaser Mix Resonance
Parameter	Value	Explanation
Pre Amp Sw (Pre Amp Switch)	OFF, ON	Turns the amp switch on/off.
		Type of guitar amp
	JC-120	This models the sound of the Roland JC-120.
	CLEAN TWIN	This models a Fender Twin Reverb.
	MATCH DRIVE	This models the sound input to left input on a Matchless D/C-30. A simulation of the latest tube amp widely used in styles from blues and rock.
	BG LEAD	This models the lead sound of the MESA/ Boogie combo amp. The sound of a tube amp typical of the late '70s to '80s.
	MS1959I	This models the sound input to Input I on a Marshall 1959.
	MS1959II	This models the sound input to Input II on a Marshall 1959.
1	MS1959I+II	The sound of connecting inputs I and II of the guitar amp in parallel, creating a sound with a stronger low end than I.
	SLDN LEAD	This models a Soldano SLO-100. This is the typical sound of the eighties.
	METAL 5150	This models the lead channel of a Peavey EVH 5150.
	METAL LEAD	This is distortion sound that is ideal for performances of heavy riffs.
	OD-1	This models the sound of the BOSS OD-1. This produces sweet, mild distortion.
	OD-2 TURBO	This is the high-gain overdrive sound of the BOSS OD-2.
	DISTORTION	This gives a basic, traditional distortion sound.
	FUZZ	A fuzz sound with rich harmonic content.
Volume (Pre Amp Volume)	0–127	Volume and amount of distortion of the amp
Master (Pre Amp Master)	0–127	Volume of the entire pre-amp
Gain (Pre Amp Gain)	LOW, MIDDLE, HIGH	Amount of pre-amp distortion
Bass (Pre Amp Bass)	0–127	_ Tone of the bass/mid/treble frequency
Middle (Pre Amp Middle)	0–127	range * Middle cannot be set if "MATCH DRIVE" is
Treble (Pre Amp Treble)	0–127	selected as the Pre Amp Type.

Parameter	Value	Explanation		
Speaker Sw (Speaker Switch)	OFF, ON	Selects whethe through the sp not (OFF)	Selects whether the sound will be sent through the speaker simulation (ON) or not (OFF)	
		Cabinet	Speaker	Microphone
	SMALL 1	small open-back enclosure	10	dynamic
	SMALL 2	small open-back enclosure	10	dynamic
	MIDDLE	open back enclosure	12 x 1	dynamic
	JC-120	open back enclosure	12 x 2	dynamic
	BUILT-IN1	open back enclosure	12 x 2	dynamic
	BUILT-IN2	open back enclosure	12 x 2	condenser
	BUILT-IN3	open back enclosure	12 x 2	condenser
SpType (Speaker Type)	BUILT-IN4	open back enclosure	12 x 2	condenser
	BUILT-IN5	open back enclosure	12 x 2	condenser
	BG STACK1	sealed enclosure	12 x 2	condenser
	BG STACK2	large sealed enclosure	12 x 2	condenser
	MS STACK1	large sealed enclosure	12 x 4	condenser
	MS STACK2	large sealed enclosure	12 x 4	condenser
	MTL STACK	large double stack	12 x 4	condenser
	2-STACK	large double stack	12 x 4	condenser
	3-STACK	large triple stack	12 x 4	condenser
Phs Switch (Phaser Switch)	OFF, ON	Phaser on/off		
Phs Hz (Phaser Rate (Hz))	0.05–10.00 [Hz]	Frequency of modulation		
Phs Manual (Phaser Manual)	0–127	Adjusts the basic frequency from which the sound will be modulated.		r from which d.
Phs Depth (Phaser Depth)	0–127	Depth of modu	ulation	
Phs Reso (Phaser Resonance)	0–127	Amount of fee	dback	
Phs Mix (Phaser Mix)	0–127	Level of the phase-shifted sound		
Level	0–127	Output Level		

60 GTA	MPSIM →	DELAY
L in R in	Pre Amp - Speake	Balance D Balance W Balance W Feedback Balance D Balance D
Parameter	Value	Explanation
Pre Amp Sw (Pre Amp Switch)	OFF, ON	Turns the amp switch on/off.
		Type of guitar amp
	JC-120	This models the sound of the Roland JC-120.
	CLEAN TWIN	This models a Fender Twin Reverb.
	MATCH DRIVE	This models the sound input to left input on a Matchless D/C-30. A simulation of the latest tube amp widely used in styles from blues and rock.
	BG LEAD	This models the lead sound of the MESA/ Boogie combo amp. The sound of a tube amp typical of the late '70s to '80s.
	MS1959I	This models the sound input to Input I on a Marshall 1959. This is a trebly sound suited to hard rock.
Type (Pre Amp Type)	MS1959II	This models the sound input to Input II on a Marshall 1959.
	MS1959I+II	The sound of connecting inputs I and II of the guitar amp in parallel, creating a sound with a stronger low end than I.
	SLDN LEAD	This models a Soldano SLO-100. This is the typical sound of the eighties.
	METAL 5150	This models the lead channel of a Peavey EVH 5150.
	METAL LEAD	This is distortion sound that is ideal for performances of heavy riffs.
	OD-1	This models the sound of the BOSS OD-1. This produces sweet, mild distortion.
	OD-2 TURBO	This is the high-gain overdrive sound of the BOSS OD-2.
	DISTORTION	This gives a basic, traditional distortion sound.
	FUZZ	A fuzz sound with rich harmonic content.
Volume (Pre Amp Volume)	0–127	Volume and amount of distortion of the amp
Master (Pre Amp Master)	0–127	Volume of the entire pre-amp
Gain (Pre Amp Gain)	LOW, MIDDLE, HIGH	Amount of pre-amp distortion
Bass (Pre Amp Bass)	0–127	Tone of the bass/mid/treble frequency
Middle (Pre Amp Middle)	0–127	range _ Middle cannot be set if "MATCH DRIVE" is
Treble (Pre Amp Treble)	0-127	selected as the Pre Amp Type.

Devenueter	Value	Fundamentian		
Parameter	value	Explanation		
Speaker Sw (Speaker Switch)	OFF, ON	Selects whether through the spe not (OFF)	the sound v eaker simulat	ion (ON) or
		Cabinet	Speaker	Microphone
	SMALL 1	small open-back enclosure	10	dynamic
	SMALL 2	small open-back enclosure	10	dynamic
	MIDDLE	open back enclosure	12 x 1	dynamic
	JC-120	open back enclosure	12 x 2	dynamic
	BUILT-IN1	open back enclosure	12 x 2	dynamic
	BUILT-IN2	open back enclosure	12 x 2	condenser
	BUILT-IN3	open back enclosure	12 x 2	condenser
	BUILT-IN4	open back enclosure	12 x 2	condenser
SpType (Speaker Type)	BUILT-IN5	open back enclosure	12 x 2	condenser
	BG STACK1	sealed enclosure	12 x 2	condenser
	BG STACK2	large sealed enclosure	12 x 2	condenser
	MS STACK1	large sealed enclosure	12 x 4	condenser
	MS STACK2	large sealed enclosure	12 x 4	condenser
	MTL STACK	large double stack	12 x 4	condenser
	2-STACK	large double stack	12 x 4	condenser
	3-STACK	large triple stack	12 x 4	condenser
Dly Switch (Delay Switch)	OFF, ON	Delay on/off		
Dly Time (Delay Time)	1–1300 [msec]	Adjusts the dela sound until the	iy time from delay sound	the direct is heard.
Dly Fbk (Delay Feedback)	-98-+98 [%]	Adjusts the prop that is fed back Negative (-) sett	portion of the into the effect ings will inve	e delay sound ct. ert the phase.
Dly HF (Delay HF Damp)	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, BYPASS [Hz]	Frequency at wl portion of the d (BYPASS: no cut	nich the high elay sound v)	n-frequency vill be cut
Diy Bal (Delay Balance)	D100: 0W–D0: 100W	Adjusts the volu sound that is se and the sound t the delay (D).	ime balance nt through tl hat is not sei	between the he delay (W) nt through
Level	0-127	Output Level		

64

61 EP -	→ TREMO	
Lin	- EP Amp	Speaker Tremolo
R in		R out
Parameter	Value	Explanation
		Type of amp
	OLDCASE	A standard electric piano sound of the early 70s
Туре	NEWCASE	A standard electric piano sound of the late 70s and early 80s
	WURLY	A standard electric piano sound of the 60s
Bass	-50-+50	Amount of low-frequency boost/cut
Treble	-50-+50	Amount of high-frequency boost/cut
Trm Switch (Tremolo Switch)	OFF, ON	Tremolo on/off
Trm Sync (Tremolo Speed (sync switch))	OFF, ON	If this is ON, the rate synchronizes with the tempo of the rhythm. ➡ "Tempo" (p. 8)
Trm Hz (Tremolo Speed (Hz))	0.05–10.00 [Hz]	
Trm Note (Tremolo Speed (note))	Note ➡ "Note" (p. 72)	Rate of the tremolo effect
Trm Depth (Tremolo Depth)	0–127	Depth of the tremolo effect
Trm Duty (Tremolo Duty)	-10-+10	Adjusts the duty cycle of the LFO waveform used to apply tremolo.
Sp Type (Speaker Type)	LINE, OLD, NEW, WURLY, TWIN	Type of speaker If LINE is selected, the sound will not be sent through the speaker simulation.
OD Switch (Overdrive Switch)	OFF, ON	Overdrive on/off
OD Gain (Overdrive Gain)	0–127	Overdrive input level
OD Drive (Overdrive Drive)	0–127	Degree of distortion
Level	0–127	Output Level

62 EP → CHORUS



Parameter	Value	Explanation
Cho Bal (Chorus Balance)	D100: 0W-D0: 100W	Adjusts the volume balance between the sound that is sent through the chorus (W) and the sound that is not sent through the chorus (D).
Sp Type (Speaker Type)	LINE, OLD, NEW, WURLY, TWIN	Type of speaker If LINE is selected, the sound will not be sent through the speaker simulation.
OD Switch (Overdrive Switch)	OFF, ON	Overdrive on/off
OD Gain (Overdrive Gain)	0–127	Overdrive input level
OD Drive (Overdrive Drive)	0–127	Degree of distortion
Level	0–127	Output Level

63 EP → FLANGER



Parameter	Value	Explanation
		Type of amp
Туре	OLDCASE	A standard electric piano sound of the early 70s
	NEWCASE	A standard electric piano sound of the late 70s and early 80s
Bass	-50-+50	Amount of low-frequency boost/cut
Treble	-50-+50	Amount of high-frequency boost/cut
Flg Switch (Flanger Switch)	OFF, ON	Flanger on/off
Flg PreDly (Flanger Pre Delay)	0.0–100 [msec]	Adjusts the delay time from when the direct sound begins until the flanger sound is heard.
Flg Sync (Flanger Rate (sync switch))	OFF, ON	If this is ON, the rate synchronizes with the tempo of the rhythm. → "Tempo" (p. 8)
Flg Hz (Flanger Rate (Hz))	0.05–10.00 [Hz]	
Flg Note (Flanger Rate (note))	Note → "Note" (p. 72)	Frequency of modulation
Flg Depth (Flanger Depth)	0–127	Depth of modulation
Flg Fbk (Flanger Feedback)	-98-+98 [%]	Adjusts the proportion of the flanger sound that is fed back into the effect. Negative (-) settings will invert the phase.
Flg Bal (Flanger Balance)	D100: 0W–D0: 100W	Adjusts the volume balance between the sound that is sent through the flanger (W) and the sound that is not sent through the flanger (D).
Sp Type (Speaker Type)	LINE, OLD, NEW, WURLY, TWIN	Type of speaker If LINE is selected, the sound will not be sent through the speaker simulation.
OD Switch (Overdrive Switch)	OFF, ON	Overdrive on/off
OD Gain (Overdrive Gain)	0–127	Overdrive input level
OD Drive (Overdrive Drive)	0–127	Degree of distortion
Level	0–127	Output Level

64 EP → PHASER			
L in EP Amp Speaker Phaser R in R out			
Parameter	Value	Explanation	
		Type of amp	
Туре	OLDCASE	A standard electric piano sound of the early 70s	
	NEWCASE	A standard electric piano sound of the late 70s and early 80s	
Bass	-50-+50	Amount of low-frequency boost/cut	
Treble	-50-+50	Amount of high-frequency boost/cut	
Phs Switch (Phaser Switch)	OFF, ON	Phaser on/off	
Phs Sync (Phaser Rate (sync switch))	OFF, ON	If this is ON, the rate synchronizes with the tempo of the rhythm. → "Tempo" (p. 8)	
Phs Hz (Phaser Rate (Hz))	0.05–10.00 [Hz]		
Phs Note (Phaser Rate (note))	Note ➡ "Note" (p. 72)	Frequency of modulation	
Phs Manual (Phaser Manual)	0–127	Adjusts the basic frequency from which the sound will be modulated.	
Phs Depth (Phaser Depth)	0–127	Depth of modulation	
Phs Reso (Phaser Resonance)	0–127	Amount of feedback	
Phs Mix (Phaser Mix)	0–127	Level of the phase-shifted sound	
Sp Type (Speaker Type)	LINE, OLD, NEW, WURLY, TWIN	Type of speaker If LINE is selected, the sound will not be sent through the speaker simulation.	
OD Switch (Overdrive Switch)	OFF, ON	Overdrive on/off	
OD Gain (Overdrive Gain)	0–127	Overdrive input level	
OD Drive (Overdrive Drive)	0–127	Degree of distortion	
Level	0-127	Output Level	

65 EP → DELAY



		Type of antip
Туре	OLDCASE	A standard electric piano sound of the early 70s
	NEWCASE	A standard electric piano sound of the late 70s and early 80s
Bass	-50-+50	Amount of low-frequency boost/cut
Treble	-50-+50	Amount of high-frequency boost/cut
Dly Switch (Delay Switch)	OFF, ON	Delay on/off
Dly Sync (Delay Time (sync switch))	OFF, ON	If this is ON, the rate synchronizes with the tempo of the rhythm. → "Tempo" (p. 8)
Dly Msec (Delay Time (msec))	1–1300 [msec]	Adjusts the delay time from the direct
Dly Note (Delay Time (note))	Note → "Note" (p. 72)	sound until the delay sound is heard.

	Parameter	Value	Explanation
	Dly Accel (Delay Accel)	0–15	Speed at which the current delay time changes to the specified delay time when you change the delay time. The speed of the pitch change will change simultaneously with the delay time.
	Dly Fbk (Delay Feedback)	-98-+98 [%]	Adjusts the proportion of the delay sound that is fed back into the effect. Negative (-) settings will invert the phase.
	Dly HF (Delay HF Damp)	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, BYPASS [Hz]	Frequency at which the high-frequency portion of the delay sound will be cut (BYPASS: no cut)
	Dly Bal (Delay Balance)	D100: 0W–D0: 100W	Adjusts the volume balance between the sound that is sent through the delay (W) and the sound that is not sent through the delay (D).
	Sp Type (Speaker Type)	LINE, OLD, NEW, WURLY, TWIN	Type of speaker If LINE is selected, the sound will not be sent through the speaker simulation.
	OD Switch (Overdrive Switch)	OFF, ON	Overdrive on/off
	OD Gain (Overdrive Gain)	0–127	Overdrive input level
	OD Drive (Overdrive Drive)	0–127	Degree of distortion
	Level	0–127	Output Level

66 ENHANCER → CHORUS



rameter	Value	Fundamentian
	value	Explanation
h Sens hancer Sens)	0–127	Sensitivity of the enhancer
h Mix hancer Mix)	0–127	Level of the overtones generated by the enhancer
orus Pre Delay)	0.0–100 [msec]	Adjusts the delay time from the direct sound until the chorus sound is heard.
orus Rate (sync switch))	OFF, ON	If this is ON, the rate synchronizes with the tempo of the rhythm. → "Tempo" (p. 8)
orus Rate (Hz))	0.05–10.00 [Hz]	
orus Rate (note))	Note ➡ "Note" (p. 72)	Frequency of modulation
orus Depth)	0–127	Depth of modulation
I O Bal orus Balance)	D100: 0W–D0: 100W	Adjusts the volume balance between the sound that is sent through the chorus (W) and the sound that is not sent through the chorus (D).
vel	0–127	Output Level
IO PreDIY orus Pre Delay) IO Sync orus Rate (sync switch)) IO HZ orus Rate (HZ)) IO Note orus Rate (note)) IO Depth orus Depth orus Balance) vel	0.0-100 [msec] OFF, ON 0.05-10.00 [Hz] Note → "Note" (p. 72) 0-127 D100: 0W-D0: 100W 0-127	Acjusts the delay time form the direct sound until the chorus sound is heard If this is ON, the rate synchronizes with the tempo of the rhythm. → "Tempo" (p. 8) Frequency of modulation Adjusts the volume balance between a sound that is sent through the chorus and the sound that is not sent through the chorus (D). Output Level

66

67 ENHANCER → FLNGR



68 ENHANCER → DELAY



Parameter	Value	Explanation
Enh Sens (Enhancer Sens)	0–127	Sensitivity of the enhancer
Enh Mix (Enhancer Mix)	0–127	Level of the overtones generated by the enhancer
Dly Sync (Delay Time (sync switch))	OFF, ON	If this is ON, the rate synchronizes with the tempo of the rhythm. → "Tempo" (p. 8)
Dly Msec (Delay Time (msec))	1–2600 [msec]	Adjusts the delay time from the direct
Dly Note (Delay Time (note))	Note → "Note" (p. 72)	sound until the delay sound is heard.
Dly Fbk (Delay Feedback)	-98-+98 [%]	Adjusts the proportion of the delay sound that is fed back into the effect.
		Negative (-) settings will invert the phase.
Dly HF (Delay HF Damp)	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, BYPASS [Hz]	Adjusts the frequency above which sound fed back to the effect will be cut. If you do not want to cut the high frequencies, set this parameter to BYPASS.
Dly Bal (Delay Balance)	D100: 0W–D0: 100W	Adjusts the volume balance between the sound that is sent through the delay (W) and the sound that is not sent through the delay (D).
Level	0–127	Output Level

69 CHORUS → DELAY

Lin -	Balance D	Balance D			
	Balance W	Balance W			
—	Chorus	Delay Balance W			
R in	Balance W	Feedback Rout			
	Balance D	Balance D			
Parameter	Value	Explanation			
Cho PreDly (Chorus Pre Delay)	0.0–100 [msec]	Adjusts the delay time from the direct sound until the chorus sound is heard.			
Cho Sync (Chorus Rate (sync switch))	OFF, ON	If this is ON, the rate synchronizes with the tempo of the rhythm. → "Tempo" (p. 8)			
Cho Hz (Chorus Rate (Hz))	0.05–10.00 [Hz]	- Fraguency of modulation			
Cho Note (Chorus Rate (note))	Note ➡ "Note" (p. 72)	Frequency of modulation			
Cho Depth (Chorus Depth)	0–127	Depth of modulation			
Cho Bal (Chorus Balance)	D100: 0W–D0: 100W	Volume balance between the direct sound (D) and the chorus sound (W)			
Dly Sync (Delay Time (sync switch))	OFF, ON	If this is ON, the rate synchronizes with the tempo of the rhythm. → "Tempo" (p. 8)			
Dly Msec (Delay Time (msec))	1–2600 [msec]	_ Adjusts the delay time from the direct			
Dly Note (Delay Time (note))	Note ➡ "Note" (p. 72)	sound until the delay sound is heard.			
Dly Fbk (Delay Feedback)	-98-+98 [%]	Adjusts the proportion of the delay sound that is fed back into the effect. Negative (-) settings will invert the phase.			
Dly HF (Delay HF Damp)	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, BYPASS [Hz]	Adjusts the frequency above which sound fed back to the effect will be cut. If you do not want to cut the high frequencies, set this parameter to BYPASS.			
Dly Bal (Delay Balance)	D100: 0W–D0: 100W	Adjusts the volume balance between the sound that is sent through the delay (W) and the sound that is not sent through the delay (D).			
Level	0–127	Output Level			

70 FLANGER → DELAY

	Balance D	Balance D			
L in 🔸	(^∕ →⊕	→ ⊕ Lout			
•••	Flanger Bal	ance W Delay ance W Feedback Balance W			
R in -	Balance D	Balance D → R out			
Parameter	Value	Explanation			
Flg PreDly (Flanger Pre Delay)	0.0–100 [msec]	Adjusts the delay time from when the direct sound begins until the flanger sound is heard.			
Flg Sync (Flanger Rate (sync switch))	OFF, ON	If this is ON, the rate synchronizes with the tempo of the rhythm. → "Tempo" (p. 8)			
Fig Hz (Flanger Rate (Hz))	0.05–10.00 [Hz]				
Flg Note (Flanger Rate (note))	Note ➡ "Note" (p. 72)	Frequency of modulation			
Flg Depth (Flanger Depth)	0–127	Depth of modulation			
Fig Fbk (Flanger Feedback)	-98-+98 [%]	Adjusts the proportion of the flanger sound that is fed back into the effect. Negative (-) settings will invert the phase.			
Flg Bal (Flanger Balance)	D100: 0W–D0: 100W	Volume balance between the direct sound (D) and the flanger sound (W)			
Dly Sync (Delay Time (sync switch))	OFF, ON	If this is ON, the rate synchronizes with the tempo of the rhythm. "Tempo" (p. 8)			
Dly Msec (Delay Time (msec))	1–2600 [msec]	Adjusts the delay time from the direct			
Dly Note (Delay Time (note))	Note → "Note" (p. 72)	sound until the delay sound is heard.			
Dly Fbk (Delay Feedback)	-98-+98 [%]	Adjusts the proportion of the delay sound that is fed back into the effect. Negative (-) settings will invert the phase.			
Dly HF (Delay HF Damp)	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, BYPASS [Hz]	Adjusts the frequency above which sound fed back to the effect will be cut. If you do not want to cut the high frequencies, set this parameter to BYPASS.			
Dly Bal (Delay Balance)	D100: 0W–D0: 100W	Adjusts the volume balance between the sound that is sent through the delay (W) and the sound that is not sent through the delay (D).			
Level	0–127	Output Level			

71 CHORUS → FLANGER

	Balance D	Balance D		
Lin	Balance W			
—	- Chorus	Flanger Balance W		
1	Balance W	Balance W		
Rin -		D → C out Balance D		
Parameter	Value	Explanation		
Cho BroDhy	Value	Adjusts the delay time from the direct		
(Chorus Pre Delay)	0.0–100 [msec]	sound until the chorus sound is heard.		
Cho Sync (Chorus Rate (sync switch))	OFF, ON	If this is ON, the rate synchronizes with the tempo of the rhythm. → "Tempo" (p. 8)		
Cho Hz (Chorus Rate (Hz))	0.05–10.00 [Hz]	Modulation frequency of the chorus		
Cho Note (Chorus Rate (note))	Note → "Note" (p. 72)	effect		
Cho Depth (Chorus Depth)	0–127	Modulation depth of the chorus effect		
Cho Bal (Chorus Balance)	D100: 0W–D0: 100W	Volume balance between the direct sound (D) and the chorus sound (W)		
Flg PreDly (Flanger Pre Delay)	0.0–100 [msec]	Adjusts the delay time from when the direct sound begins until the flanger sound is heard.		
Flg Sync (Flanger Rate (sync switch))	OFF, ON	If this is ON, the rate synchronizes with the tempo of the rhythm. → "Tempo" (p. 8)		
Flg Hz (Flanger Rate (Hz))	0.05–10.00 [Hz]	Modulation frequency of the flanger		
Flg Note (Flanger Rate (note))	Note → "Note" (p. 72)	effect		
Flg Depth (Flanger Depth)	0–127	Modulation depth of the flanger effect		
Flg Fbk (Flanger Feedback)	-98-+98 [%]	Adjusts the proportion of the flanger sound that is fed back into the effect. Negative (-) settings will invert the phase.		
Flg Bal (Flanger Balance)	D100: 0W–D0: 100W	Adjusts the volume balance between the sound that is sent through the flanger (W) and the sound that is not sent through the flanger (D).		
Level	0–127	Output Level		

72 CE-1 (Chorus)

This models the classic BOSS CE-1 chorus effect unit. It provides a chorus sound with a distinctively analog warmth.

L in —	CE-1	2-Band EQ → Lout
R in 🗕		2-Band EQ → R out
Parameter	Value	Explanation
Intensity	0-127	Chorus depth
Low Gain	-15–+15 [dB]	Amount of boost/cut for the low- frequency range
High Gain	-15–+15 [dB]	Amount of boost/cut for the high- frequency range
Level	0-127	Output Level

73 SBF-325 (Flanger)

This effect reproduces Roland's SBF-325 analog flanger. It provides three types of flanging effect (which adds a metallic resonance to the original sound) and a chorus-type effect.

Lin —		L out			
	SBF-325				
R in ——		R out			
Parameter	Value	Explanation			
		Types of flanging effect			
	FL1	A typical mono flanger			
Mode	FL2	A stereo flanger that preserves the stereo positioning of the original sound			
	FL3	A cross-mix flanger that produces a more intense effect			
	СНО	A chorus effect			
Rate Sync (Rate (sync switch))	OFF, ON If this is ON, the rate synchronizes v → "Tempo" (p. 8)				
Rate Hz (Rate (Hz))	0.02–5.00 [Hz]	Modulation frequency of the flanger			
Rate Note (Rate (note))	Note → "Note" (p. 72)	effect			
Depth	0–127	Modulation depth of the flanger effect			
Manual	0–127	Center frequency at which the flanger effect is applied			
Feedback	0–127	Amount by which the flanging effect is boosted If Mode is CHO, this setting is ignored.			
R Mod Phase (CH-R Modulation Phase)	NORM, INV	Phase of the right channel modulation: Typically, you will leave this at Normal (NORM). If you specify Inverted (INV), the modulation (upward/downward movement) of the right channel is inverted.			
L Phase (CH-L Phase)		Phase when mixing the flanging sound with the original sound			
R Phase (CH-R Phase)		NORM: normal phase INV: inverse phase			
Level	0–127 Output Level				

75 2TAP PAN DELAY



Parameter	Value	Explanation		
Dly Sync (Delay Time (sync switch))	OFF, ON	If this is ON, the delay synchronizes with the tempo.		
Dly Msec (Delay Time (msec))	1–2600 [msec]	Adjusts the time until the second delay		
Dly Note (Delay Time (note))	Note → "Note" (p. 72)	sound is heard.		
Dly Fbk (Delay Feedback)	-98-+98 [%]	Adjusts the proportion of the delay sound that is fed back into the effect. Negative (-) settings will invert the phase.		
Dly HF (Delay HF Damp)	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000, BYPASS [Hz]	Adjusts the frequency above which sound fed back to the effect is filtered out. If you don't want to filter out any high frequencies, set this parameter to BYPASS.		
Dly 1 Pan (Delay 1 Pan)	L64–63R	Stereo location of Delay 1		
Dly 2 Pan (Delay 2 Pan)	L64–63R	Stereo location of Delay 2		
Dly 1 Level (Delay 1 Level)	0–127	Volume of delay 1		
Dly 2 Level (Delay 2 Level)	0–127	Volume of delay 2		
Low Gain	-15–+15 [dB]	Amount of boost/cut for the low- frequency range		
High Gain	-15-+15 [dB]	Amount of boost/cut for the high- frequency range		
Balance	D100: 0W–D0: 100W	Adjusts the volume balance between the sound that is sent through the delay (W) and the sound that is not sent through the delay (D).		
Level	0–127	Output Level		

74 SDD-320 (DIMENSION D)

This models Roland's DIMENSION D (SDD-320). It provides a clear chorus sound.

Lin — Rin —	5DD-320 2-Ba	nd EQ → L out nd EQ → R out
Parameter	Value	Explanation
Mode	1, 2, 3, 4, 1+4, 2+4, 3+4	Switches the mode.
Low Gain	-15–+15 [dB]	Amount of boost/cut for the low- frequency range
High Gain	-15–+15 [dB]	Amount of boost/cut for the high- frequency range
Level	0–127	Output Level

76 TRANSIENT

This effect lets you control the way in which the sound attacks and decays.



77 MID-SIDE EQ

This effect allows the left/right signals that have similar phase to be tonally adjusted in a different way than the left/right signals that have different phase.

Lin —	LR Mid 5-E	and EQ MS L out			
Rin —	MS Side 5-E	$Band EQ \longrightarrow R out$			
Parameter	Value	Explanation			
M EQ Switch	OFF, ON	Switches whether to apply tonal adjustment to left/right input signals whose phase is similar (in phase).			
M In G (M Input Gain)	-12.00-+12.00 [dB]	Volume of left/right input signals whose phase is similar (in phase)			
M Low F (M Low Frequency)	20, 25, 31, 40, 50, 63, 80, 100, 125, 160, 200, 250, 315, 400 [Hz]	Frequency of the low range			
M Low G (M Low Gain)	-12.00-+12.00 [dB]	Amount of boost/cut for the low- frequency range			
M Mid1 F (M Mid1 Frequency)	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000 [Hz]	Frequency of the middle range 1			
M Mid1G (M Mid1 Gain)	-12.00-+12.00 [dB] Gain of the middle range 1				
M Mid1 Q	0.5, 1.0, 2.0, 4.0, 8.0	Width of the middle range 1 Set a higher value for Q to narrow the range to be affected.			
M Mid2 F (M Mid2 Frequency)	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000 [Hz]	Frequency of the middle range 2			
M Mid2G (M Mid2 Gain)	-12.00-+12.00 [dB]	Gain of the middle range 2			
M Mid2 Q	0.5, 1.0, 2.0, 4.0, 8.0	Width of the middle range 2 Set a higher value for Q to narrow the range to be affected			

Parameter	Value	Explanation			
M Mid3 F (M Mid3 Frequency)	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000 [Hz]	Frequency of the middle range 3			
M Mid3G (M Mid3 Gain)	-12.00-+12.00 [dB]	Gain of the middle range 3			
M Mid3 Q	0.5, 1.0, 2.0, 4.0, 8.0	Width of the middle range 3 Set a higher value for Q to narrow the range to be affected.			
M High F (M High Frequency)	2000, 2500, 3150, 4000, 5000, 6300, 8000, 10000, 12500, 16000 [Hz]	Frequency of the high range			
M HighG (M High Gain)	-12.00-+12.00 [dB]	Amount of boost/cut for the high- frequency range			
S EQ Switch	OFF, ON	Switches whether to apply tonal adjustment to left/right input signals whose phase is distant (opposite phase).			
S In G (S Input Gain)	-12.00-+12.00 [dB]	Volume of left/right signals whose phase is distant (opposite phase)			
S Low F (S Low Frequency)	20, 25, 31, 40, 50, 63, 80, 100, 125, 160, 200, 250, 315, 400 [Hz]	Frequency of the low range			
S Low G (S Low Gain)	-12.00-+12.00 [dB]	Amount of boost/cut for the low- frequency range			
S Mid1 F (S Mid1 Frequency)	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000 [Hz]	Frequency of the middle range 1			
S Mid1G (S Mid1 Gain)	-12.00-+12.00 [dB]	Gain of the middle range 1			
S Mid1 Q	0.5, 1.0, 2.0, 4.0, 8.0	Width of the middle range 1 Set a higher value for Q to narrow the range to be affected.			
S Mid2 F (S Mid2 Frequency)	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000 [Hz]	Frequency of the middle range 2			
S Mid2G (S Mid2 Gain)	-12.00-+12.00 [dB]	Gain of the middle range 2			
S Mid2 Q	0.5, 1.0, 2.0, 4.0, 8.0	Width of the middle range 2 Set a higher value for Q to narrow the range to be affected.			
S Mid3 F (S Mid3 Frequency)	200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000, 6300, 8000 [Hz]	Frequency of the middle range 3			
S Mid3G (S Mid3 Gain)	-12.00-+12.00 [dB]	Gain of the middle range 3			
S Mid3 Q	0.5, 1.0, 2.0, 4.0, 8.0	Width of the middle range 3 Set a higher value for Q to narrow the range to be affected.			
S High F (S High Frequency)	2000, 2500, 3150, 4000, 5000, 6300, 8000, 10000, 12500, 16000 [Hz]	Frequency of the high range			
S HighG (S High Gain)	-12.00-+12.00 [dB]	Amount of boost/cut for the high- frequency range			
Level	0–127	Output Level			

MID-SIDE COMP 78

This effect allows the left/right signals that have similar phase to be adjusted to a different sense of volume than the left/right signals that have different phase.

Lin -	LR Con	npressor MS → Lout				
Rin —	MS Side Con	$\frac{1}{LR} \rightarrow R \text{ out}$				
Parameter	Value	Explanation				
M Comp Sw (M Comp Switch)	OFF, ON	Switches whether to adjust the sense of volume for left/right input signals whose phase is similar (in phase).				
M Attack	0–124	Sets the speed at which compression starts				
M Release	0–124	Adjusts the time after the signal volume falls below the Threshold Level until compression is no longer applied.				
M Thres (M Threshold)	-60–0 [dB]	Adjusts the volume at which compression begins				
M Knee	0–30 [dB]	This is a function that smooths the onset of compression from the uncompressed state; it gradually applies compression starting earlier than THRES. Higher values produce a smoother transition.				
M Ratio	1: 1, 1.5: 1, 2: 1, 4: 1, 16: 1, INF: 1	Compression ratio				
M Gain (M Post Gain)	0-+18 [dB] -	Level of the output sound				
S Comp Sw (S Compressor Switch)	OFF, ON	Switches whether to adjust the sense of volume for left/right input signals whose phase is distant (opposite phase).				
S Attack	0–124	Sets the speed at which compression starts				
S Release	0–124	Adjusts the time after the signal volume falls below the Threshold Level until compression is no longer applied.				
S Thres (S Threshold)	-60–0 [dB]	Adjusts the volume at which compression begins				
S Knee	0–30 [dB]	This is a function that smooths the onset of compression from the uncompressed state; it gradually applies compression starting earlier than THRES. Higher values produce a smoother transition.				
S Ratio	1: 1, 1.5: 1, 2: 1, 4: 1, 16: 1, INF: 1	Compression ratio				
S Gain (S Post Gain)	0-+18 [dB]	Level of the output sound				
Level	0–127	Output Level				

79 TONE FATTENER

This effect applies distinctive distortion, adding overtones to give more depth to the sound.



Note

	Sixty-fourth-note triplet	4	Sixty-fourth note	♪3	Thirty-second- note triplet	A	Thirty-second note
λ_3	Sixteenth-note triplet	Jan.	Dotted thirty- second note	A	Sixteenth note	$ ightharpoonup_3$	Eighth-note triplet
A.	Dotted sixteenth note	5	Eighth note	-3	Quarter-note triplet	Þ.	Dotted eighth note
	Quarter note	3	Half-note triplet		Dotted quarter note	0	Half note
03	Whole-note triplet	0	Dotted half note	0	Whole note	1013	Double-note triplet
0	Dotted whole note	lioii	Double note				