

Using BOSS TONE STUDIO for KATANA BASS HEAD

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01

To begin, connect BOSS TONE STUDIO to the KATANA BASS HEAD unit.

For details on how to make connections, refer to the “Connecting the BOSS TONE STUDIO iOS App to the KATANA BASS HEAD Unit” (BOSS website) or “Connecting the BOSS TONE STUDIO Android App to the KATANA BASS HEAD Unit” (BOSS website).

To edit values



Slide up or down to edit a parameter.

Long-press to enter a numeric value or choose from a list.

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Editor top screen



INPUT EFX/AMP

Shows the currently selected patch. Tap this to switch patches.

Saves an edited effect to the KATANA BASS HEAD unit.



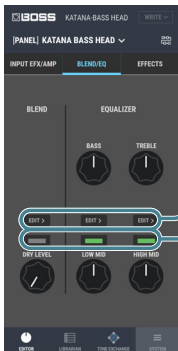
WRITE

CLEAR

Initializes the parameters.

Changes the effect placement (connection order type).

BLEND/EQ



Moves to the EFFECTS detail screen (p. 7).

Each time you tap, the color alternates between green, red, and orange, and the setting changes. For details, refer to “Using Effects” in the Owner’s Manual of the KATANA BASS HEAD unit.

EFFECTS



The setting switches with each tap (green → red → orange → off).

The color of each light changes to red when tapped, and the corresponding feature turns on.

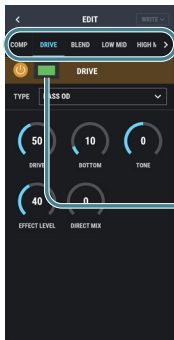
Specifies the effects that you want to assign to the expression pedal.

The setting switches with each tap (green → orange → off).

EFFECTS detail screen

Editing the effects

Here's how to edit the effects you specified in the EFFECTS tab.



Slide left/right, and tap to edit each effect.

Each time you tap, the color alternates between green, red, and orange, and the setting changes.

For details, refer to "Using Effects" in the Owner's Manual of the KATANA BASS HEAD unit.

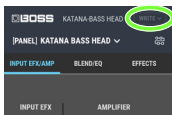
NS

You can edit the NS (NOISE SUPPRESSOR) parameter for each patch.

- * NS can be specified only in BOSS TONE STUDIO. It cannot be specified on the KATANA BASS HEAD unit itself.

Saving an edited effect in the KATANA BASS HEAD unit (WRITE)

1. Tap the [WRITE] button, and then tap "WRITE" in the list.



2. Select a writing-destination, enter a name, and tap the [WRITE] button.

- * When you save the edited data, it overwrites the patch in the KATANA BASS HEAD unit. The previous settings cannot be recovered. Select a patch that you don't mind overwriting.

Effects assigned to each knob when the unit is shipped

Following effects are assigned to each knob when the unit is shipped.

PANEL	Color of the button	MODE	TYPE
COMP/LIMITER	Green	COMP	LIGHT
	Red	COMP	BOSS COMP
	Orange	LIMITER	BOSS LIMITER
DRIVE	Green	–	BASS OD
	Red	–	BASS DS
	Orange	–	BASS FUZZ
FX	Green	FX	CHORUS
	Red	FX	T. WAH
	Orange	FX	HEAVY OCTAVE

CH1	Color of the button	MODE	TYPE
COMP/LIMITER	Green	COMP	D-COMP
	Red	COMP	BOSS COMP
	Orange	LIMITER	VTG RACK U
DRIVE	Green	–	BASS MT
	Red	–	BASS DS
	Orange	–	BASS FUZZ
FX	Green	FX	CHORUS
	Red	FX	T. WAH
	Orange	FX	HEAVY OCTAVE

CH2	Color of the button	MODE	TYPE
COMP/LIMITER	Green	COMP	LIGHT
	Red	COMP	BOSS COMP
	Orange	LIMITER	VTG RACK U
DRIVE	Green	–	GUV DS
	Red	–	BASS DS
	Orange	–	BASS FUZZ
FX	Green	FX	CHORUS
	Red	FX	T. WAH
	Orange	FX	HEAVY OCTAVE

CH3	Color of the button	MODE	TYPE
COMP/LIMITER	Green	COMP	LIGHT
	Red	COMP	BOSS COMP
	Orange	LIMITER	VTG RACK U
DRIVE	Green	–	BASS OD
	Red	–	BASS DS
	Orange	–	BASS FUZZ
FX	Green	FX	CHORUS
	Red	FX	T. WAH
	Orange	FX	HEAVY OCTAVE

LIBRARIAN screen



LIVESET LIST

Tap the [LIBRARIAN] button; the liveset list appears. There can be a maximum of 50 livesets.

Creates a new liveset.

Imports a liveset.

Exports a liveset.

Copies or deletes a liveset.

Tap to edit the name of the liveset.

Tap to see a list of the patches (p. 14) in the liveset that you tapped.

KATANA BASS HEAD USER PATCH DATA

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Indicates the number of patches in the liveset.

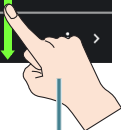
KATANA BASS HEAD USER PATCH DATA

3



Fretless Bass Tones

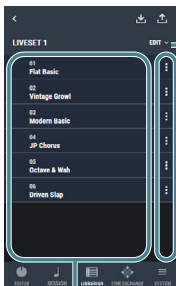
6



Drag to change the order.

PATCH LIST

Up to 15 patches can be placed in one liveset.

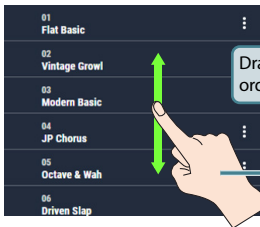


Copies or deletes a patch.

Tap to edit the name of a patch.

Tap to switch to the sound of the patch you tapped, letting you preview it.


* To preview, switch the [MEMORY] button on the KATANA BASS HEAD to ON.



Drag to change the order.

Importing patches from the KATANA BASS HEAD unit into LIBRARIAN (IMPORT FROM KATANA BASS HEAD)

1. Tap the [LIBRARIAN] button.

2. In the upper part of the screen, tap the  button.

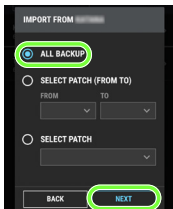


3. Tap "KATANA BASS HEAD" and then tap the [NEXT] button.



4. Tap "ALL BACKUP", and then tap the [NEXT] button.

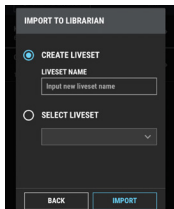
- * "ALL BACKUP" saves all patches as a liveset.
- * "SELECT PATCH (FROM TO)" saves the patches between "FROM" and "TO" as a liveset.



- * "SELECT PATCH" saves only the selected patch as a liveset.

Creating a new liveset

5. Select "CREATE LIVESET", enter a name in LIVESET NAME, and tap the [IMPORT] button.




Adding to an existing liveset

6. Tap "SELECT LIVESET", select the liveset to which you want to add, and tap the [IMPORT] button.

Exporting a liveset from LIBRARIAN into the KATANA BASS HEAD unit (EXPORT TO KATANA BASS HEAD)

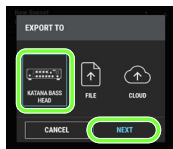
Here's how a saved liveset can be exported to patches in the KATANA BASS HEAD unit.

1. Tap the [LIBRARIAN] button.

2. In the upper part of the screen, tap the  button.



3. Tap "KATANA BASS HEAD", and then tap the [NEXT] button.

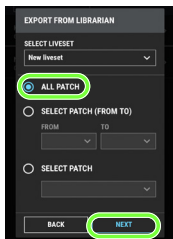


4. Select the liveset that you want to export.

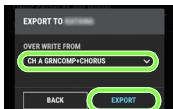


5. In the liveset area, tap "ALL PATCH", then tap the [NEXT] button.

- * "ALL PATCH" exports all patches of the liveset to the KATANA BASS HEAD unit.
- * "SELECT PATCH (FROM TO)" exports the patches between "FROM" and "TO" to the KATANA BASS HEAD unit.
- * "SELECT PATCH" exports the selected patch to the KATANA BASS HEAD unit.




6. Select the patch at which you want to start overwriting the data in the KATANA BASS HEAD unit, and tap the [EXPORT] button.



Exporting a liveset from LIBRARIAN to the mobile device (EXPORT TO FILE)

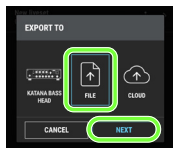
Here's how a liveset from LIBRARIAN can be converted into a liveset file and exported to the mobile device.

1. Tap the [LIBRARIAN] button.

2. In the upper part of the screen, tap the  button.



3. Tap "FILE", and then tap the [NEXT] button.




4. Select the liveset that you want to export, and tap the [EXPORT] button.
The data is exported to the mobile device.

Importing a file from the mobile device into LIBRARIAN (IMPORT FROM FILE)

Here's how a liveset file previously exported to the mobile device can be imported into LIBRARIAN.

1. Tap the [LIBRARIAN] button.

2. In the upper part of the screen, tap the  button.



3. Tap "FILE", and then tap the [NEXT] button.




4. Select a liveset file that was exported to the mobile device.

Exporting a liveset from LIBRARIAN to a cloud service (EXPORT TO CLOUD)

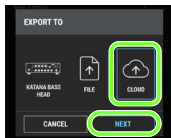
Here's how a liveset from LIBRARIAN can be converted to a liveset file and exported to a cloud service.

1. Tap the [LIBRARIAN] button.

2. In the upper part of the screen, tap the  button.



3. Tap "CLOUD" and then tap the [NEXT] button.



4. Select the liveset that you want to export to a cloud service, and tap the [EXPORT] button.

5. The Cloud screen appears, allowing you to export the file.


Choose iCloud Drive for an iOS device, or Google Drive for an Android device.

In some cases, your mobile device might support more than one cloud service. This app only supports operation using iCloud Drive on iOS devices and Google Drive on Android devices.

Importing a file from a cloud service into LIBRARIAN (IMPORT FROM CLOUD)

Here's how a liveset file previously exported to a cloud service can be imported into LIBRARIAN.

1. Tap the [LIBRARIAN] button.

2. In the upper part of the screen, tap the  button.



3. Tap "CLOUD", and then tap the [NEXT] button.



4. Select a liveset file that was saved in the cloud.

What you can do with BOSS TONE EXCHANGE



BOSS TONE EXCHANGE (hereafter “TONE EXCHANGE”) is a service that lets you share the livesets you’ve created using TONE STUDIO with users around the world.

Here’s what you can do with TONE EXCHANGE.

- * Upload and share your livesets on TONE EXCHANGE.
- * Download your favorite livesets from those created by BOSS users around the world.

MEMO

You must sign in with your Roland account to use TONE EXCHANGE.

To make use of all the TONE EXCHANGE functions, access the TONE EXCHANGE website as shown below.

<https://bosstoneexchange.com/>

When you access TONE EXCHANGE from the TONE STUDIO app, you can only download livesets currently offered by BOSS.

We plan to update the app to let you upload and download livesets created by users.

SYSTEM

DEVICE SETTING

Here you can select the device controlled by TONE STUDIO.

CALIBRATION TUNING

This feature calibrates the sound of the amp to improve the sound coming from external speakers. There are two types of settings, SET A (green) and SET B (orange).

GLOBAL EQ

You can place the global equalizer either before (INPUT) or after (OUTPUT) the effect chain.

LINE OUT SETTING

LINE OUT AIR FEEL

Specifies the sound of the LINE OUT, PHONES/REC OUT, and the USB EFFECT OUT.

Value	Explanation
REC	A distantly-miked sound for recording.
LIVE	A close-miked sound for live.
BLEND	A sound providing a good blend of closed-miked and distantly-miked sound that can be broadly used for live or recording.
CUSTOM SETTING	Lets you configure the mic type and position.

MUTE TYPE

This can be turned on/off by using the [MUTE] button on this unit.

- * When the [LINE OUT] switch on the rear panel of this unit is set to "DIRECT", muting is not activated even when "SPEAKER OUT" or "SPEAKER OUT, LINE OUT" are selected.

USB SETTING

Here you can edit the parameters used when connecting your computer to the KATANA BASS HEAD unit.

MIDI SETTING

Here you can specify how the KATANA BASS HEAD is connected to an external MIDI device.

ALL DATA BACKUP

Here you can save the state of all parameters, including the patches that are saved in the KATANA BASS HEAD, to your mobile device or to the cloud.

You can also load the saved data back into the KATANA BASS HEAD.

* Processing requires a substantial amount of time.

ALL DATA RESTORE

Here's how an all data file previously saved on the computer can be restored to the KATANA BASS HEAD.

* When you restore, all data is overwritten, and cannot be returned to its previous settings.

OWNER'S MANUAL

Here you can view the Owner's Manual for the unit or pages of this manual.

* Your mobile device must be connected to the Internet.

SHOW BLUETOOTH SETUP SCREEN

You can make the Bluetooth connection screen display again.

VERSION

Here you can view version information and license information for the BOSS TONE STUDIO for KATANA BASS HEAD software.

Effect parameter list

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INPUT EFX/AMP

COMP

This is an effect that produces a long sustain by evening out the volume level of the input signal. You can also use it as a limiter to suppress only the sound peaks and prevent distortion.

COMP TYPE

Type	Explanation
BOSS COMP	This models a BOSS CS-3.
HI-BAND	This is a compressor that adds an even stronger effect in the high end.
LIGHT	This is a compressor with a light effect.
D-COMP	This models a MXR DynaComp.
ORANGE	This is modeled on the sound of the Dan Armstrong ORANGE SQUEEZER.
FAT	When applied heavily, this compressor effect provides a fat tone with a boosted midrange.

Type	Explanation
MILD	When applied heavily, this compressor effect produces a sweet tone with the high end cut.

COMP parameters

Parameter	Value	Explanation
SUSTAIN	0–100	Adjusts the range (time) over which low-level signals are boosted. Larger values will result in longer sustain.
ATTACK	0–100	Adjusts the strength of the picking attack when the strings are played. Higher values result in a sharper attack, creating a more clearly defined sound.
TONE	-50–+50	Adjusts the tone.
LEVEL	0–100	Adjusts the volume.

LIMITER

The limiter attenuates loud input levels to prevent distortion.

LIMITER TYPE

Type	Explanation
BOSS LIMITER	This is an original BOSS limiter.
RACK 160D	This models a dbx 160X.
VTG RACK U	This models a UREI 1178.

LIMITER parameters

Parameter	Value	Explanation
ATTACK	0–100	Adjusts the strength of the picking attack when the strings are played. Higher values result in a sharper attack, creating a more clearly defined sound.
THRESHOLD	0–100	Adjust this as appropriate for the input signal from your bass guitar. When the input signal level exceeds this threshold level, limiting will be applied.
RATIO	1:1–INF:1	This selects the compression ratio used with signals in excess of the threshold level.
RELEASE	0–100	Adjusts the release time.
LEVEL	0–100	Adjusts the volume.

DRIVE

Various distortion effects can be selected.

DRIVE type

Type	Explanation
BLUES OD	This is a crunch sound of the BOSS BD-2. This produces distortion that faithfully reproduces the nuances of picking.
NATURAL	This is an overdrive sound that provides distortion with a natural feeling.
GUV DS	This models a Marshall GUV'NOR.
METAL ZONE	This models the sound of the BOSS MT-2. It produces a wide range of metal sounds, from old style to slash metal.
MUFF FUZZ	This models an Electro-Harmonix Big Muff π.
BOOSTER	This not only functions as a booster, but also produces a clean tone that has punch even when used alone.
BASS OD	Overdrive tuned especially for use with basses.
BASS DS	Distortion tuned especially for use with basses.
BASS MT	Wild, radical distortion sound.
BASS FUZZ	Fuzz tuned especially for use with basses.

Type	Explanation
HIBAND DRV	With this effect, distortion is applied only to the high frequency sounds, and not to the sounds in the low frequency range.
BASS DRV	This models a TECH21 SANSAMP BASS DRIVER DI.
BASS DI	This models a MXR Bass D.I.+.

DRIVE parameters

Parameter	Value	Explanation
DRIVE	0–120	Adjusts the depth of distortion.
BOTTOM	-50–+50	Adjusts the tone for the low frequency range. Turning this to the left (counterclockwise) produces a sound with the low end cut; turning it to the right boosts the low end in the sound.
TONE	-50–+50	Adjusts the tone.
EFFECT LEVEL	0–100	Adjusts the volume of the effect sound.
DIRECT MIX	0–100	Adjusts the volume of the direct sound.

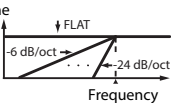
BLEND/EQ

BLEND

This sets how the dry and wet sounds are blended together.

BLEND parameters

Parameter	Value	Explanation
DRY DRIVE	OFF, ON	Switches the DRIVE effect on/off that's applied to the dry sound.
DRY EQ	OFF, ON	Switches the EQ on/off (the BASS, LOW MID, HIGH MID and TREBLE on the top panel of the KATANA BASS HEAD) that's applied to the dry sound.
DRY LPF TYPE	FLAT, -6 dB/oct- -24 dB/oct	<p>Sets the slope type for the LPF that's applied to the dry sound.</p> <p>Volume</p> <p>Frequency</p>

Parameter	Value	Explanation
DRY LPF FREQ	20.0 Hz– 10.0 kHz	Sets the cutoff frequency for the LPF that's applied to the dry sound.
WET HPF TYPE	FLAT, -6 dB/oct– -24 dB/oct	Sets the slope type for the HPF that's applied to the wet sound. 
WET HPF FREQ	20.0 Hz –10.0 kHz	Sets the cutoff frequency for the HPF that's applied to the wet sound.

EQUALIZER

This adjusts the tone.

You can save this setting for the green, red and orange-colored settings on the panel respectively.

LOW MID

Parameter	Value	Explanation
LOW-MID FREQ	20.0 Hz– 10.0 kHz	Adjusts the tone for the low-mid frequency range.

HIGH MID

Parameter	Value	Explanation
HIGH-MID FREQ	20.0 Hz– 10.0 kHz	Adjusts the tone for the high-mid frequency range.

FX

You can select one effect from FX/DELAY/REVERB.

FX type

This is a list of the effects that can be selected for FX.

Effect Name	Explanation
CHORUS	Frequency band division is employed to produce two different choruses, one for low frequencies and one for higher frequencies. This allows you to achieve a more natural chorus sound.
FLANGER	The flanging effect gives a twisting, jet-airplane-like character to the sound.
PHASER	By adding varied-phase portions to the direct sound, the phaser effect gives a whooshing, swirling character to the sound.
UNI-V	This models a Uni-Vibe. Although this resembles a phaser effect, it also provides a unique undulation that you can't get with a regular phaser.

Effect Name	Explanation
TREMOLO	Tremolo is an effect that creates a cyclic change in volume.
VIBRATO	This effect creates vibrato by slightly modulating the pitch.
ROTARY	This produces an effect like the sound of a rotary speaker.
RING MOD (Ring Modulator)	This creates a bell-like sound by ring-modulating the bass sound with the signal from the internal oscillator. The sound can be unmusical and lack distinctive pitches.
SLOW GEAR	This produces a volume-swell effect ("violin-like" sound).
T. WAH (Touch Wah)	You can produce a wah effect with the filter changing in response to the bass level.
GRAPHIC EQ (Graphic Equalizer)	Adjusts the tone. You can adjust the sound character in ten bands.
PARAMETRIC EQ (Parametric Equalizer)	Adjusts the tone. You can adjust the sound character in four bands.
OCTAVE	This adds a note one octave lower, creating a richer sound.
PITCH SHIFTER	This effect changes the pitch of the original sound (up or down) within a range of two octaves.
HARMONIST	Harmonist is an effect where the amount of shifting is adjusted according to an analysis of the bass input, allowing you to create harmony based on diatonic scales.

Effect Name	Explanation
HUMANIZER	This can create human vowel-like sounds.
ENHANCER	This is an effect that clarifies the contour of the input sound by emphasizing the attack of the sound following changes in the input level.
BASS SIMULATOR	Simulation of the characteristics of particular bass components such as pickups and different bass bodies allows you to switch among a number of different BASS types all while using a single bass.
DEFRETTER	This simulates a fretless bass.
BASS SYNTH	This is a synth sound that processes the bass input signal.
AUTO WAH	This changes the filtering over a periodic cycle, providing an automatic wah effect.
HEAVY OCTAVE	This adds sound lowered by an octave to the original sound. Since you can play chords even when using this effect, you can use it to fatten the sound of your chordal playing as well.
SLICER	This consecutively interrupts the sound to create the impression that a rhythm backing phrase is being played.

CHORUS

Frequency band division is employed to produce two different choruses, one for low frequencies and one for higher frequencies. This allows you to achieve a more natural chorus sound.

Parameter	Value	Explanation
LOW RATE	0–100	Adjust the speed of the chorus effect for the low frequency range.
LOW DEPTH	0–100	Adjust the depth of the chorus effect for the low frequency range. If you wish to use this as a doubling effect, use a setting of "0".
LOW PRE DELAY	0.0–40.0 ms	Adjusts the delay of the effect sound in the low-frequency range. Extending the pre-delay will produce the sensation of multiple sounds (doubling effect).
LOW LEVEL	0–100	Adjusts the volume of the effect sound in the low-frequency range.
DIRECT MIX	0–100	Adjusts the volume of the direct sound.
XOVER FREQ	100 Hz–4.00 kHz	This sets the frequency dividing the low-and high-frequency ranges.
HIGH RATE	0–100	Adjust the speed of the chorus effect for the high frequency range.

Parameter	Value	Explanation
HIGH DEPTH	0–100	Adjust the depth of the chorus effect for the high frequency range. If you wish to use this as a doubling effect, use a setting of "0".
HIGH PRE DELAY	0.0–40.0 ms	Adjusts the delay of the effect sound in the high-frequency range. Extending the pre-delay will produce the sensation of multiple sounds (doubling effect).
HIGH LEVEL	0–100	Adjusts the volume of the effect sound in the high-frequency range.

FLANGER

The flanging effect gives a twisting, jet-airplane-like character to the sound.

Parameter	Value	Explanation
RATE	0–100	This sets the rate of the flanging effect.
DEPTH	0–100	Determines the depth of the flanging effect.
RESONANCE	0–100	Determines the amount of resonance (feedback). Increasing the value will emphasize the effect, creating a more unusual sound.

Parameter	Value	Explanation
MANUAL	0–100	Adjusts the center frequency at which to apply the effect.
LOW CUT	FLAT, 55 Hz– 800 Hz	This sets the frequency at which the low cut filter begins to take effect. When “FLAT” is selected, the low cut filter will have no effect.
EFFECT LEVEL	0–100	Adjusts the volume of the flanger.
DIRECT MIX	0–100	Adjusts the volume of the direct sound.

PHASER

By adding varied-phase portions to the direct sound, the phaser effect gives a whooshing, swirling character to the sound.

Parameter	Value	Explanation
TYPE		Selects the number of stages that the phaser effect will use.
	4 STAGE	This is a four-phase effect. A light phaser effect is obtained.
	8 STAGE	This is a eight-phase effect. It is a popular phaser effect.
	12 STAGE	This is a twelve-phase effect. A deep phase effect is obtained.
	BiPHASE	This is the phaser with two phase shift circuits connected in series.

Parameter	Value	Explanation
RATE	0–100	This sets the rate of the phaser effect.
DEPTH	0–100	Determines the depth of the phaser effect.
RESONANCE	0–100	Determines the amount of resonance (feedback). Increasing the value will emphasize the effect, creating a more unusual sound.
MANUAL	0–100	Adjusts the center frequency of the phaser effect.
STEP RATE	OFF, 0–100	This sets the cycle of the step function that changes the rate and depth. When it is set to a higher value, the change will be finer. Set this to “OFF” when not using the Step function.
EFFECT LEVEL	0–100	Adjusts the volume of the phaser.
DIRECT MIX	0–100	Adjusts the volume of the direct sound.

UNI-V

This models a Uni-Vibe.

Although this resembles a phaser effect, it also provides a unique undulation that you can't get with a regular phaser.

Parameter	Value	Explanation
RATE	0–100	Adjusts the rate of the UNI-V effect.
DEPTH	0–100	Adjusts the depth of the UNI-V effect.
LEVEL	0–100	Adjusts the volume.

TREMOLO

Tremolo is an effect that creates a cyclic change in volume.

Parameter	Value	Explanation
WAVE SHAPE	0–100	Adjusts changes in volume level. A higher value will steepen wave's shape.
RATE	0–100	Adjusts the frequency (speed) of the change.
DEPTH	0–100	Adjusts the depth of the effect.
LEVEL	0–100	Adjusts the volume.

VIBRATO

This effect creates vibrato by slightly modulating the pitch.

Parameter	Value	Explanation
RATE	0–100	Adjusts the rate of the vibrato.
DEPTH	0–100	Adjusts the depth of the vibrato.
LEVEL	0–100	Adjusts the volume.

ROTARY

This produces an effect like the sound of a rotary speaker.

Parameter	Value	Explanation
RATE	0–100	Adjusts the speed of the rotation.
DEPTH	0–100	Adjusts the amount of depth in the rotary effect.
LEVEL	0–100	Adjusts the volume.

RING MOD

This creates a bell-like sound by ring-modulating the bass sound with the signal from the internal oscillator. The sound can be unmusical and lack distinctive pitches.

Parameter	Value	Explanation
MODE		This selects the mode for the ring modulator.
	NORMAL	This is a normal ring modulator.
	INTELLIGENT	By ring-modulating the input signal, a bell like sound is created. The intelligent ring modulator changes the oscillation frequency according to the pitch of the input sound and therefore produces a sound with the sense of pitch, which is quite different from NORMAL. This effect does not give a satisfactory result if the pitch of the bass sound is not correctly detected. So, you must use single notes, not chords.
FREQUENCY	0–100	Adjusts the frequency of the internal oscillator.
EFFECT LEVEL	0–100	Adjusts the volume of the effect sound.
DIRECT MIX	0–100	Adjusts the volume of the direct sound.

SLOW GEAR

This produces a volume-swell effect (“violin-like” sound).

Parameter	Value	Explanation
SENS	0–100	Adjusts the sensitivity of the slow gear. When it is set to a lower value, the effect of the slow gear can be obtained only with a stronger picking, while no effect is obtained with a weaker picking. When the value is set higher, the effect is obtained even with a weak picking.
RISE TIME	0–100	Adjusts the time needed for the volume to reach its maximum from the moment you begin picking.
LEVEL	0–100	Adjusts the volume of the effect sound.

T. WAH

You can produce a wah effect with the filter changing in response to the bass level.

Parameter	Value	Explanation
MODE		Selects the wah mode.
	LPF	Low pass filter. This provides a wah effect over a wide frequency range.
	BPF	Band pass filter. This provides a wah effect in a narrow frequency range.

Parameter	Value	Explanation
POLARITY		Selects the direction in which the filter will change in response to the input.
	DOWN	The frequency of the filter will fall.
	UP	The frequency of the filter will rise.
SENS	0–100	Specifies the sensitivity with which the filter changes in the direction specified by the POLARITY setting. Higher values will produce a stronger tone which emphasizes the wah effect more. With a setting of 0, the strength of picking will have no effect.
FREQ	0–100	Adjusts the center frequency of the Wah effect.
PEAK	0–100	Adjusts the way in which the wah effect applies to the area around the center frequency. Higher values will produce a stronger tone which emphasizes the wah effect more. With a value of "50" a standard wah sound will be produced.
EFFECT LEVEL	0–100	Adjusts the volume of the effect sound.
DIRECT MIX	0–100	Adjusts the volume of the direct sound.

GRAPHIC EQ

This adjusts the tone. You can adjust the sound character in ten bands.

Parameter	Value
31 Hz	-20–+20 dB
62 Hz	
125 Hz	
250 Hz	
500 Hz	
1 kHz	
2 kHz	
4 kHz	
8 kHz	
16 kHz	
LEVEL	-20–+20 dB

PARAMETRIC EQ

This adjusts the tone. You can adjust the sound character in four bands.

Parameter	Value	Explanation
LOW GAIN	-20– +20 dB	Adjusts the low frequency range tone.
LOW-MID GAIN	-20– +20 dB	Adjusts the low-middle frequency range tone.

Parameter	Value	Explanation
HIGH-MID GAIN	-20– +20 dB	Adjusts the high-middle frequency range tone.
HIGH GAIN	-20– +20 dB	Adjusts the high frequency range tone.
LEVEL	-20– +20 dB	Adjusts the overall volume level of the equalizer.
LOW CUT	FLAT, 20 Hz– 800 Hz	This sets the frequency at which the low cut filter begins to take effect. When “FLAT” is selected, the low cut filter will have no effect.
LOW-MID FREQUENCY	20.0 Hz– 10.0 kHz	Specifies the center of the frequency range that will be adjusted by the LOW-MID GAIN.
LOW-MID Q	0.5–16	Adjusts the width of the area affected by the EQ centered at the LOW-MID FREQ. Higher values will narrow the area.
HIGH-MID FREQUENCY	20.0 Hz– 10.0 kHz	Specifies the center of the frequency range that will be adjusted by the HIGH-MID GAIN.
HIGH-MID Q	0.5–16	Adjusts the width of the area affected by the EQ centered at the HIGH-MID FREQ. Higher values will narrow the area.
HIGH CUT	630 Hz– 12.5 kHz, FLAT	This sets the frequency at which the high cut filter begins to take effect. When “FLAT” is selected, the high cut filter will have no effect.

OCTAVE

This adds a note one octave lower, creating a richer sound.

Parameter	Value	Explanation
-1OCT LEVEL	0-100	Adjusts the volume of the sound one octave below.
-2OCT LEVEL	0-100	Adjusts the volume of the sound two octaves below.
DIRECT MIX	0-100	Adjusts the volume of the direct sound.

PITCH SHIFTER

This effect changes the pitch of the original sound (up or down) within a range of two octaves.

Parameter	Value	Explanation
VOICE		Selects the number of voices for the pitch shift sound.
	1VOICE	One-voice pitch-shifted sound output in mono.
	2VOICE	Two-voice pitch-shifted sound (PS1, PS2) output in mono.

Parameter	Value	Explanation
PS1:MODE PS2:MODE	Selection for the pitch shifter mode.	
	FAST, MEDIUM, SLOW	The response is slower in the order of FAST, MEDIUM and SLOW, but the modulation is lessened in the same order.
	MONO	MONO is used for inputting single notes. * You may be unable to produce the intended effect when playing chords (two or more notes played simultaneously).
PS1:PITCH PS2:PITCH	-24--+24	Adjusts the amount of pitch shift (the amount of interval) in semitone steps.
PS1:FINE PS2:FINE	-50--+50	Make fine adjustments to the interval. The amount of the change in the Fine 100 is equivalent to that of the Pitch 1.
PS1:PRE DELAY PS2:PRE DELAY	0-300 ms	Adjusts the time from when the direct sound is heard until the pitch shifted sounds are heard. Normally you can leave this set at "0 ms".
PS1:LEVEL PS2:LEVEL	0-100	Adjusts the volume of the pitch shifter.
PS1:FEEDBACK	0-100	Adjusts the feedback amount of the pitch shift sound.
DIRECT MIX	0-100	Adjusts the volume of the direct sound.

HARMONIST

Harmonist is an effect where the amount of shifting is adjusted according to an analysis of the bass input, allowing you to create harmony based on diatonic scales.

- * Because of the need to analyze the pitch, chords (two or more sounds played simultaneously) cannot be played. Be sure to mute all the other strings and play only one note at a time.
- * If the unit cannot detect the attack, it may not sound correctly. If the unit cannot detect the attack, it may not sound correctly.
- * The sensitivity may vary according to the bass guitar's TONE knob and pickup type.

Parameter	Value	Explanation
VOICE		Selects the number of voices for the pitch shift sound.
	1VOICE	One pitch-shifted voice is output in mono.
	2VOICE	Two pitch-shifted voices are output in mono.
HR1:HARMONY HR2:HARMONY	-2 oct- +2 oct, USER	This determines the pitch of the sound added to the input sound, when you are making a harmony. It allows you to set it by up to 2 octaves higher or lower than the input sound. When the scale is set to USER, this parameter sets the user scale number to be used.

Parameter	Value	Explanation
HR1:LEVEL HR2:LEVEL	0-100	Adjusts the volume of the harmony sound.
HR1:PRE DELAY HR2:PRE DELAY	0-300 ms	Adjusts the time from when the direct sound is heard until the harmonist sounds are heard. Normally you can leave this set at "0 ms".
HR1:FEEDBACK	0-100	Adjusts the feedback amount of the harmonist sound.
MASTER KEY	C (Am)- B (G#m)	The key of the song you're performing is shown as described in *1 according to the key signature (#, ♭) of the musical notation.
DIR.MIX (DIRECT MIX)	0-100	Adjusts the volume of the direct sound.

*1 Major C F B[♭] E[♭] A[♭] D[♭]



Minor Am Dm Gm Cm Fm B[♭]m

Major C G D A E B F[♯]



Minor Am Em Bm F[♯]m C[♯]m G[♯]m D[♯]m

Parameter	Value	Explanation	
USER SCALE *2 *3	C	-24▼C --+24▲C	You can specify a pitch in the range two octaves above or below the direct sound.
	Db	-24▼D ^b --+24▲D ^b	
	D	-24▼D --+24▲D	
	Eb	-24▼E ^b --+24▲E ^b	
	E	-24▼E --+24▲E	
	F	-24▼F --+24▲F	
	F#	-24▼F [#] --+24▲F [#]	
	G	-24▼G --+24▲G	
	Ab	-24▼A ^b --+24▲A ^b	
	A	-24▼A --+24▲A	
	Bb	-24▼B ^b --+24-▲ B ^b	
B	-24▼B --+24▲B		

*2 This can be specified if HR1:HARMONY or HR2:HARMONY is "USER".

*3 The correspondence between the note names and the parameters of PAGE 3–6 differs depending on the specified KEY. This is the

tonic (root note) of the KEY specified by the MASTER KEY parameter of PAGE 1. The table shows the example of when KEY is set to C (Am).

HUMANIZER

This can create human vowel-like sounds.

Parameter	Value	Explanation
MODE		This sets the mode that switches the vowels.
	PICKING	It changes from VOWEL 1 to VOWEL 2 along with the picking. The time spent for the change is adjusted with the rate.
	AUTO	By adjusting the rate and depth, two vowels (VOWEL 1 and VOWEL 2) can be switched automatically.
VOWEL 1	a, e, i, o, u	Selects the first vowel.
VOWEL 2	a, e, i, o, u	Selects the second vowel.
RATE	0–100	Adjusts the cycle for changing the two vowels.
DEPTH	0–100	Adjusts the depth of the effect.

Parameter	Value	Explanation
SENS *1	0–100	Adjusts the sensitivity of the humanizer. When it is set to a lower value, no effect of the humanizer is obtained with weaker picking, while stronger picking produces the effect. When it is set to a higher value, the effect of the humanizer can be obtained whether the picking is weak or strong.
MANUAL *2	0–100	Adjusts the cycle for changing the two vowels. When it is set to lower than 50, the time for VOWEL 1 is shorter. When it is set to higher than 50, the time for VOWEL 1 is longer.
LEVEL	0–100	Adjusts the volume.

*1 Setting available when MODE is set to PICKING.

*2 Setting available when MODE is set to AUTO.

ENHANCER

This is an effect that clarifies the contour of the input sound by emphasizing the attack of the sound following changes in the input level.

Parameter	Value	Explanation
SENS	0–100	This adjusts the Enhancer sensitivity. The more the value is increased, the more softly you can play and still have the effect applied.
LOW	0–100	Adjusts the enhancer volume for the low frequency range.
LOW FREQ	31.5 Hz–125 Hz	Sets the low frequency range for the enhanced sound.
HIGH	0–100	Adjusts the enhancer volume for the high frequency range.
HIGH FREQ	800 Hz–8.00 kHz	Sets the high frequency range for the enhanced sound.

BASS SIMULATOR

Simulation of the characteristics of particular bass components such as pickups and different bass bodies allows you to switch among a number of different bass types all while using a single bass.

Parameter	Value	Explanation
TYPE		Selects the type of the bass simulator.
	PAS→ACT	Changes from a passive type pickup tone to an active type pickup tone.
	ACT→PAS	Changes from an active type pickup tone to a passive type pickup tone.
	SGL→HUM	Changes from a single-coil pickup tone to a humbucking pickup tone.
	HUM→SGL	Changes from a humbucking pickup tone to a single-coil pickup tone.
	SLD→HLW	Changes a solid body bass tone to a hollow body bass tone with the body resonance added.
	SGL→AC	Changes a single-coil pickup tone to an acoustic bass tone.
	HUM→AC	Changes a humbucking pickup tone to an acoustic bass tone.
LOW	-50–+50	Adjusts the tone for the low frequency range.
HIGH	-50–+50	Adjusts the tone for the high frequency range.
BODY	0–100	Adjusts the way the body sounds when TYPE is set to SLD→HLW, SGL→AC, or HUM→AC. The body sound increases as the value is raised; reducing the value produces a tone similar to that from a piezo pickup.

Parameter	Value	Explanation
LEVEL	0–100	Adjusts the volume of the effect sound.

DEFRETTER

This simulates a fretless bass.

Parameter	Value	Explanation
SENS	0–100	This controls the input sensitivity of the defretter.
ATTACK	0–100	Adjusts the attack of the picking sound.
TONE	-50–+50	Adjusts the amount of blurring between the notes.
EFFECT LEVEL	0–100	Adjust the volume of the defretter sound.
DIRECT LEVEL	0–100	Adjust the volume of the direct sound.

BASS SYNTH

This is a synth sound that processes the bass input signal.

MEMO

- Because of the need to analyze the pitch, chords (two or more sounds played simultaneously) cannot be played. Be sure to mute all the other strings and play only one note at a time.
- When you are to play the next string while a certain sound is still playing, mute the previous sound and then play the next one with a clear attack. If the unit cannot detect the attack, it may not sound correctly.
- The sensitivity may vary according to the bass's TONE knob and pickup type.

Parameter	Value	Explanation
WAVE	SAW	Creates a synth sound with a saw waveform.
	SQUARE	Creates a synth sound with the square waveform.
CUTOFF	0-100	Adjusts the frequency where the harmonics contents of the sound are cut off.

Parameter	Value	Explanation
RESONANCE	0–100	This adjusts the amount of resonance (and the tone coloration) in the synth sound. The higher the value, the more the synth tone coloration is emphasized.
EFFECT LEVEL	0–100	Adjusts the volume of the synth sound.
FILTER SENS	0–100	This adjusts the amount of filtering applied in response to the input.
FILTER DECAY	0–100	This sets the time needed for the filter to finish its sweep.
FILTER DEPTH	0–100	Adjusts the depth of the filter. When the value is higher, the filter will change more drastically.
DIRECT LEVEL	0–100	Adjust the volume of the direct sound.

AUTO WAH

This changes the filtering over a periodic cycle, providing an automatic wah effect.

Parameter	Value	Explanation
MODE	Selects the wah mode.	
	LPF	Low pass filter. This provides a wah effect over a wide frequency range.
	BPF	Band pass filter. This provides a wah effect in a narrow frequency range.
RATE	0–100	Adjusts the frequency (speed) of the change.
DEPTH	0–100	Adjusts the depth of the effect.
FREQ	0–100	Adjusts the center frequency of the Wah effect.
PEAK	0–100	Adjusts the way in which the wah effect applies to the area around the center frequency. Higher values will produce a stronger tone which emphasizes the wah effect more. With a value of 50 a standard wah sound will be produced.
EFFECT LEVEL	0–100	Adjusts the volume of the effect sound.
DIRECT MIX	0–100	Adjusts the volume of the direct sound.

HEAVY OCTAVE

This adds sound lowered by an octave to the original sound. Since you can play chords even when using this effect, you can use it to fatten the sound of your chordal playing as well.

Parameter	Value	Explanation
1OCT LEVEL	0-100	Adjusts the volume of the sound one octave below.
2OCT LEVEL	0-100	Adjusts the volume of the sound two octaves below.
DIRECT MIX	0-100	Adjusts the volume of the direct sound.

SLICER

This consecutively interrupts the sound to create the impression that a rhythm backing phrase is being played.

Parameter	Value	Explanation
PATTERN	P1-P20	Select the slice pattern that will be used to cut the sound.
RATE	0-100	Adjust the rate at which the sound will be cut.

Parameter	Value	Explanation
TRIGGER SENS	0–100	Adjust the sensitivity of triggering. With low settings of this parameter, softly picked notes will not retrigger the phrase (i.e., the phrase will continue playing), but strongly picked notes will retrigger the phrase so that it will playback from the beginning. With high settings of this parameter, the phrase will be retriggered even by softly picked notes.
EFFECT LEVEL	0–100	Adjusts the volume of the effect sound.
DIRECT MIX	0–100	Adjusts the volume of the direct sound.

DELAY

DELAY type

This effect adds delayed sound to the direct sound, giving more body to the sound or creating special effects.

TYPE	Explanation
DIGITAL	This is a simple delay.
ANALOG	This gives a mild analog delay sound.

TYPE	Explanation
TAPE ECHO	This setting provides the characteristic wavering sound of the tape echo.
REVERSE	This produces an effect where the sound is played back in reverse.
MODULATE	This delay adds a pleasant wavering effect to the sound.
SDE-3000	This models the sound of the Roland SDE-3000.

DELAY parameters

Parameter	Value	Explanation
TYPE	Refer to DELAY type.	
DELAY TIME	1–2000 ms	Adjusts the delay time.
FEEDBACK	0–100	Adjusts the volume that is returned to the input. A higher value will increase the number of the delay repeats.
HIGH CUT	630 Hz– 12.5 kHz, FLAT	This sets the frequency at which the high cut filter begins to take effect. When “FLAT” is selected, the high cut filter will have no effect.
EFFECT LEVEL	0–120	Adjusts the volume of the delay sound.
DIRECT MIX	0–100	Adjusts the volume of the direct sound.
MOD RATE (TYPE = MODULATE, SDE-3000 only)	0–100	Adjusts the modulation rate of the delay sound.

Parameter	Value	Explanation
MOD DEPTH (TYPE = MODULATE, SDE-3000 only)	0–100	Adjusts the modulation depth of the delay sound.
TAP TIME	- - -	Sets the delay time. When you press this button two or more times, the delay time is set to the interval between presses.
FILTER (TYPE = SDE-3000 only)	OFF, ON	Turns the filter on/off. If this is on, a natural-sounding effect is obtained when you're using the delay as an echo.
RANGE (TYPE = SDE-3000 only)	8 kHz, 17 kHz	Models the way in which the SDE-3000's frequency response is affected by the delay range.
DELAY PHASE (TYPE = SDE-3000 only)	NORMAL, INV	Specifies the phase of the delay sound. Selecting INV inverts the phase.
FEEDBACK PHASE (TYPE = SDE-3000 only)	NORMAL, INV	Specifies the phase of the delay sound feedback. Selecting INV inverts the phase.
MOD SW (TYPE = SDE-3000 only)	OFF, ON	Turns the modulation on/off.

REVERB

REVERB type

This effect adds reverberation to the sound.

TYPE	Explanation
PLATE	Simulates plate reverberation (a reverb unit that uses the vibration of a metallic plate). Provides a metallic sound with a distinct upper range.
ROOM	Simulates the reverberation in a small room. Provides warm reverberations.
HALL	Simulates the reverberation in a concert hall. Provides clear and spacious reverberations.
SPRING	This simulates the sound of a guitar amp's built-in spring reverb.
MODULATE	This reverb adds the wavering sound found in hall reverb to provide an extremely pleasant reverb sound.

REVERB parameters

Parameter	Value	Explanation
REVERB TIME	0.1–10.0 s	Adjusts the length (time) of reverberation.
PRE DELAY	0–500 ms	Adjusts the time until the reverb sound appears.

Parameter	Value	Explanation
LOW CUT	FLAT, 20 Hz–800 Hz	This sets the frequency at which the low cut filter begins to take effect. When “Flat” is selected, the low cut filter will have no effect.
HIGH CUT	630 Hz– 12.5 kHz, FLAT	This sets the frequency at which the high cut filter begins to take effect. When “FLAT” is selected, the high cut filter will have no effect.
DENSITY	0–10	Adjusts the density of the reverb sound.
EFFECT LEVEL	0–100	Adjusts the volume of the reverb sound.
DIRECT MIX	0–100	Adjusts the volume of the direct sound.
COLOR (TYPE = SPRING only)	0–100	Adjust the unique tone of the spring reverb.

PEDAL FX

You can control the effect in real time by adjusting the expression pedal connected to the EXP PEDAL jack on the rear panel, or to the rear panel of the GA-FC foot controller (sold separately).

PEDAL FX type

TYPE	Explanation
PEDAL WAH	You can control the wah effect in real time by adjusting the expression pedal connected to GA-FC jack or EXP PEDAL jack.
PEDAL BEND	This lets you use the pedal to get a pitch bend effect. * Because of the need to analyze the pitch, chords (two or more sounds played simultaneously) cannot be played.

PEDAL WAH

You can control the wah effect in real time by adjusting the expression pedal connected to the GA-FC jack and EXP PEDAL jack.

Parameter	Value	Explanation
TYPE		Selects the type of wah.
	CRY WAH	This models the sound of the CRY BABY wah pedal popular in the '70s.
	VO WAH	This models the sound of the VOX V846.
	FAT WAH	This is a wah sound featuring a bold tone.
	LIGHT WAH	This wah has a refined sound with no unusual characteristics.
	BASS WAH	A wah sound with a wide variable range, suitable for the tonal range of bass guitars.
	RESO WAH	This completely original effect offers enhancements on the characteristic resonances produced by analog synth filters.
PEDAL POS (Pedal Position)	0–100	Adjusts the position of the wah pedal. * This parameter is used after it's been assigned to an EXP Pedal or similar controller.

Parameter	Value	Explanation
PEDAL MIN	0–100	Selects the tone produced when the heel of the EXP Pedal is depressed.
PEDAL MAX	0–100	Selects the tone produced when the toe of the EXP Pedal is depressed.
EFFECT LEVEL	0–100	Adjusts the volume of the effect sound.
DIRECT MIX	0–100	Adjusts the volume of the direct sound.

PEDAL BEND

This lets you use the pedal to get a pitch bend effect.

- * Because of the need to analyze the pitch, chords (two or more sounds played simultaneously) cannot be played.

Parameter	Value	Explanation
PEDAL POS	0–100	Adjusts the pedal position for pedal bend. This parameter is used after it's been assigned to an EXP Pedal or similar controller.
PITCH	-24–+24	This sets the pitch at the point where the EXP Pedal is all the way down.
EFFECT LEVEL	0–100	Adjusts the volume of the pitch bend sound.
DIRECT MIX	0–100	Adjusts the volume of the direct sound.

NS

This effect reduces the noise and hum picked up by bass pickups. Since it suppresses the noise in synchronization with the envelope of the bass sound (the way in which the bass sound decays over time), it has very little effect on the bass sound, and does not harm the natural character of the sound.

Parameter	Value	Explanation
ON/OFF	OFF, ON	Turns this effect on/off.
THRESHOLD	0–100	Adjust this parameter as appropriate for the volume of the noise. If the noise level is high, a higher setting is appropriate. If the noise level is low, a lower setting is appropriate. * High settings for the threshold parameter may result in there being no sound when you play with your bass volume turned down.
RELEASE	0–100	Adjusts the time from when the noise suppressor begins to function until the noise level reaches "0".