KATANA:GO Parameter Guide

GUITAR MODE

AMP

Parameter	Value	Explanation
AMP TYPE	BROWN	A lead sound with an edge inherited from the BOSS WAZA brown sound.
	LEAD	Different gain settings allow this sound to cover a wide range from crunch to high-gain.
	CRUNCH	A fat crunch sound that faithfully responds to the nuances of your picking.
	CLEAN	A clean and natural sound. In conjunction with BOOSTER, it can be used for solo or lead.
	ACOUSTIC	A dedicated acoustic guitar amp that supports connection of an acoustic guitar.
VARIATION	OFF, ON	This knob switches between AMP TYPE variations.

Parameter	Value	Explanation
GAIN	0–100	Adjusts the gain (amount of distortion).
VOLUME	0–100	Adjusts the volume.
BASS	0–100	Adjusts the volume of the low-frequency range.
MIDDLE	0–100	Adjusts the volume of the middle-frequency range.
TREBLE	0–100	Adjusts the volume of the high-frequency range.
PRESENCE	0–100	Adds lustrous outline to the mid- and high-frequency range. This is effective when you want to improve the definition of the sound.
CAB RESONANCE	Adds the resonance of a speaker cabinet.	
	VINTAGE	The warm and sweet sound of a vintage cabinet.
	MODERN	A modern cabinet sound notable for a tight low-end.
	DEEP	Sound with powerful low-end as well as a distinctive edge.

EFFECTS

BOOSTER

Various boosters and distortion effects can be selected.

Parameter	Value	Explanation
TYPE	CLEAN BOOST	This not only functions as a booster, but also produces a clean tone that has punch even when used alone.
	TREBLE BOOST	This is a booster that has bright characteristics.
	MID BOOST	This is a booster with unique characteristics in the midrange. This produces a sound that's suitable for solos when placed before the preamp.
	CRUNCH OD	A lustrous crunch sound with an added element of amp distortion.

Parameter	Value	Explanation
TYPE	BLUES DRIVE	This is a crunch sound of the BOSS BD-2. This produces distortion that faithfully reproduces the nuances of picking.
	OVERDRIVE	This models the sound of the BOSS OD-1. This produces sweet, mild distortion.
	NATURAL OD	This is an overdrive sound that provides distortion with a natural feeling.
	WARM OD	This is a warm overdrive.
	TURBO OD	This is the high-gain overdrive sound of the BOSS OD-2.
	T-SCREAM	This models an Ibanez TS-808.
	DISTORTION	This gives a basic, traditional distortion sound.
	FAT DS	A distortion sound with thick distortion.
	DST+	This models a MXR DISTORTION+.

Parameter	Value	Explanation
TYPE	GUV DS	This models a Marshall GUV'NOR.
	RAT	This models a Proco RAT.
	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.
	METAL DS	This is distortion sound that is ideal for performances of heavy riffs.
	60S FUZZ	This models a FUZZFACE. It produces a fat fuzz sound.
	MUFF FUZZ	This models an Electro-Harmonix Big Muff π.
	OCT FUZZ	A fuzz sound with rich harmonic content.
	HM-2	This models the sound of the BOSS HM-2. It produces distinctive cranked-up distortion sound with compression.
	METAL CORE	This models the sound of the BOSS ML-2. The effect lets you create the optimal sound for playing high-speed metal riffs.
	CENTA OD	This models a KLON CENTAUR.
DRIVE	0–120	Adjusts the depth of distortion.

Parameter	Value	Explanation
TONE	-50–0–+50	Adjusts the tonal character.
BOTTOM	-50–0–+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.
EFFECT LEVEL	0–100	Adjusts the volume of the effect sound.
SOLO SW	OFF, ON	Switches to a tone that is suitable for solos.
SOLO LEVEL	0–100	Adjusts the volume level when the Solo Sw is ON.
DIRECT MIX	0–100	Adjusts the volume of the direct sound.

MOD/FX

With MOD and FX, you can select the effect to be used from the following. You can select the same effect for MOD and FX.

MOD/FX type

This is a list of the effects that can be selected for MOD/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	The sound can be unmusical and lack distinctive pitches.
SLOW GEAR	This produces a volume-swell effect ("violin-like" sound).
SLICER	This consecutively interrupts the sound to create the impression that a rhythm backing phrase is being played.
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.
LIMITER	The limiter attenuates loud input levels to prevent distortion.
T.WAH	You can produce a wah effect with the filter changing in response to the guitar volume.
AUTO WAH	This changes the filtering over a periodic cycle, providing an automatic wah effect.
GRAPHIC EQ	This adjusts the tonal character. You can adjust the tonal character in ten bands.
PARAMETRIC EQ	This adjusts the tonal character. You can adjust the tonal character in four bands.

Effect name	Explanation
GUITAR SIM	Simulation of the characteristics of particular guitar components such as pickups and different guitar bodies allows you to switch among a number of different guitar types all while using a single guitar.
AC.GUITAR SIM	This transforms the sound of an electric guitar into the sound of an acoustic guitar.
AC. PROCESSOR	This processor allows you to change the sound produced by the pickup on an acoustic electric guitar, creating a richer sound similar to that obtained with a microphone placed close to the guitar.
WAVE SYNTH	This is a synth sound that processes the guitar input signal.
OCTAVE	This adds a note one octave lower, creating a richer sound.
HEAVY OCTAVE	Adds a pitch that's one octave lower than the original sound. This also applies when you play chords, adding thickness to the chords you play.
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 guitar input, allowing you to create harmony based on diatonic scales.
HUMANIZER	This can create human vowel-like sounds.
PHASER 90E	This models an MXR EVH-90 Phase Shifter.
FLANGER 117E	This models an MXR EVH-117 Flanger.

Effect name	Explanation
DC-30	This models the sound of the Roland DC-30.

CHORUS

The frequency bands are divided to produce two different choruses, one for low frequencies and one for higher frequencies. This makes the chorus sound more natural.

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. To use this as a doubling effect, set this to "0".
LOW PRE DELAY	0.0–40.0ms	Adjusts the delay of the effect sound in the low-frequency range. Extend the pre-delay to produce the sensation of multiple sounds (doubling effect).
LOW LEVEL	0–100	Adjusts the volume of the chorus sound in the low-frequency range.
XOVER FREQUENCY	100Hz–4.00kHz	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. To use this as a doubling effect, set this to "0".
HIGH PRE DELAY	0.0–40.0ms	Adjusts the delay of the effect sound in the high-frequency range. Extend the pre-delay to produce the sensation of multiple sounds (doubling effect).
HIGH LEVEL	0–100	Adjusts the volume of the chorus sound in the high-frequency range.
DIRECT MIX	0–100	Adjusts the volume of the direct sound.

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 emphasizes the effect, for a more unusual sound.
MANUAL	0–100	Adjusts the center frequency at which to apply the effect.
LOW CUT	FLAT, 55Hz–800Hz	This sets the frequency at which the low cut filter begins to take effect. When FLAT is selected, the low cut filter has 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	Select the number of stages for the phaser effect.	
	4STAGE	This is a four-phase effect. A light phaser effect is obtained.
	8STAGE	This is an eight-phase effect. Offers a popular phaser effect sound.
	12STAGE	This is a twelve-phase effect. A deep phase effect is obtained.
	BiPHASE	This is a phaser with two phase shift circuits connected in series.
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 emphasizes the effect, for a more unusual sound.
MANUAL	0–100	Adjusts the center frequency of the phaser effect.

Parameter	Value	Explanation
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

This effect creates a cyclic change in volume.

Parameter	Value	Explanation
WAVE SHAPE	0–100	Adjusts changes in volume level. Higher values create steeper wave shapes (more abrupt changes).
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 guitar 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	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 guitar sound is not correctly detected. We recommend using this effect when playing single notes.
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 humanizer. 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.

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.
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.

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.

Parameter	Value	Explanation
TYPE	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.
	MILD	When applied heavily, this compressor effect produces a sweet tone with the high end cut.
SUSTAIN	0–100	Adjusts the range (time) over which low-level signals are boosted. Larger values will result in longer sustain.

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.
TONE	-50–0–+50	Adjusts the tonal character.
LEVEL	0–100	Adjusts the volume.

LIMITER

The limiter attenuates loud input levels to prevent distortion.

Parameter	Value	Explanation
TYPE	BOSS LIMITER	This selects a stereo limiter.
	RACK 160D	This models a dbx 160X.
	VTG RACK U	This models a UREI 1178.
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	1:1–INF:1	This selects the compression ratio used with signals in excess of the threshold level.
RATIO	0–100	Adjusts the release time.
RELEASE	0–100	Adjust this as appropriate for the input signal from your guitar. When the input signal level exceeds this threshold level, limiting will be applied.
LEVEL	0–100	Adjusts the volume.

T. WAH

You can produce a wah effect with the filter changing in response to the guitar volume.

Parameter	Value	Explanation
MODE	Select 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.
POLAR	Selects the direction in which the filter will change in response to the input.	
	DOWN	The frequency of the filter falls.
	UP	The frequency of the filter rises.
SENS	0–100	Specifies the sensitivity with which the filter changes in the direction specified by the POLAR setting. Higher values produce a stronger tone which emphasizes the wah effect. The strength of picking has no effect when this is set to "0".
FREQ	0–100	Adjusts the center frequency of the Wah effect.

Parameter	Value	Explanation
PEAK	0–100	Adjusts the way in which the wah effect applies to the area around the center frequency. Higher values produce a stronger filter tone that emphasizes the wah effect. 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.

AUTO WAH

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

Parameter	Value	Explanation
MODE	Select 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.

Parameter	Value	Explanation
PEAK	0–100	Adjusts the way in which the wah effect applies to the area around the center frequency. Higher values produce a stronger filter tone that emphasizes the wah effect. 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 tonal character. You can adjust the tonal character in ten bands.

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

PARAMETRIC EQ

This adjusts the tonal character. You can adjust the tonal character in four bands.

Parameter	Value	Explanation
LOW CUT	FLAT, 20.0Hz–800Hz	This sets the frequency at which the low cut filter begins to take effect. When FLAT is selected, the low cut filter has no effect.
LOW GAIN	-20–+20dB	Adjusts the low frequency range tone.
LOW-MID GAIN	-20–+20dB	Adjusts the low-middle frequency range tone.
LOW-MID FREQ	20.0Hz–10.0kHz	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 GAIN	-20–+20dB	Adjusts the high-middle frequency range tone.
HIGH-MID FREQ	20.0Hz–10.0kHz	Specifies the center of the frequency range that will be adjusted by the HIGH-MID GAIN.

Parameter	Value	Explanation
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 GAIN	-20–+20dB	Adjusts the high frequency range tone.
HIGH CUT	630Hz–12.5kHz, FLAT	This sets the frequency at which the high cut filter begins to take effect. When FLAT is selected, the high cut filter has no effect.
LEVEL	-20–+20dB	Adjusts the overall volume level of the equalizer.

GUITAR SIM

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

Parameter	Value	Explanation
TYPE	Selects the type of the guitar simulator.	
	S→H	Changes from a single-coil pickup tone to a humbucking pickup tone.
	H→S	Changes from a humbucking pickup tone to a single-coil pickup tone.
	H→HF	Changes from a humbucking pickup tone to a single-coil pickup half tone.
	S→ HOLLOW	Changes a single-coil pickup tone to a hollow body tone with the body resonance added.
	H→ HOLLOW	Changes a humbucking pickup tone to a hollow body tone with the body resonance added.

Parameter	Value	Explanation
TYPE	S→AC	Changes a single-coil pickup tone to an acoustic guitar tone.
	H→AC	Changes a humbucking pickup tone to an acoustic guitar tone.
	P→AC	Changes a piezo pickup tone to an acoustic guitar tone.
BODY	0–100	Adjusts the way the body sounds when TYPE is set to S→HOLLOW, H→HOLLOW, S→AC, H→AC or P→AC. The body sound increases as the value is raised; reducing the value produces a tone similar to that from a piezo pickup.
LOW	-50–+50	Adjusts the low frequency range tone.
HIGH	-50–+50	Adjusts the high frequency range tone.
LEVEL	0–100	Adjusts the volume of the effect sound.

AC. GUITAR SIM

This effect simulates the tonal character of an acoustic guitar.

Parameter	Value	Explanation
BODY	0–100	Adjusts the body resonance.
LOW	-50–+50	Specifies the sense of volume for the low-frequency range.
HIGH	-50–+50	Specifies the sense of volume for the high-frequency range.
LEVEL	0–100	Specifies the volume of the effect.

AC. PROCESSOR

This processor allows you to change the sound produced by the pickup on an acoustic electric guitar, creating a richer sound similar to that obtained with a microphone placed close to the guitar.

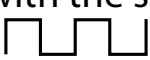
Parameter	Value	Explanation
TYPE	Selects the modeling type.	
	SMALL	This is the sound of a small-bodied acoustic guitar.
	MEDIUM	This is a standard, unadorned acoustic guitar sound.
	BRIGHT	This is a bright acoustic guitar sound.
	POWER	This is a powerful acoustic guitar sound.
BASS	-50–+50	Adjusts the low frequency range tone.
MIDDLE	-50–+50	Adjusts the midrange tone.
MIDDLE FREQ	20.0Hz–10.0kHz	Specifies the frequency range to be adjusted with MIDDLE.
TREBLE	-50–+50	Adjusts the high frequency range tone.
PRESENCE	-50–+50	Adjusts the tone in the extended upper range.
LEVEL	0–100	Adjusts the volume.

WAVE SYNTH

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

* When you use a wave synthesizer, observe the following points.

- 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 guitar'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	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.
SYNTH LEVEL	0–100	Adjusts the volume of the synth sound.
FILTER SENS	0–100	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 MIX	0–100	Adjusts the volume of the direct sound.

OCTAVE

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

Parameter	Value	Explanation
RANGE	This selects the register to which the effect is applied.	
	RANGE 1 (B1–E6)	B1 (corresponds to the sound of an open 7th string) to E6 (corresponds to the 1st string played at the 24th fret)
	RANGE 2 (B1–E5)	B1 (corresponds to the sound of an open 7th string) to E5 (corresponds to the 1st string played at the 12th fret)
	RANGE 3 (B1–E4)	B1 (corresponds to the sound of an open 7th string) to E4 (corresponds to the sound of an open 1st string)
	RANGE 4 (B1–E3)	B1 (corresponds to the sound of an open 7th string) to E3 (corresponds to the 4th string played at the 2nd fret)
EFFECT LEVEL	0–100	Adjusts the volume of the sound one octave below.
DIRECT MIX	0–100	Adjusts the volume of the direct sound.

HEAVY OCTAVE

Adds pitches one and two octaves lower than the input audio. This also applies when you play chords, adding thickness to the chords you play.

Parameter	Value	Explanation
1OCT LEVEL	0–100	Adjusts the volume of the sound that's one octave below.
2OCT LEVEL	0–100	Adjusts the volume of the sound that's 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	Makes fine adjustments to the pitch. The amount of the change in the Fine 100 is equivalent to that of the Pitch 1.
PS1: **PRE DELAY** **PS2:** **PRE DELAY**	0–300ms	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

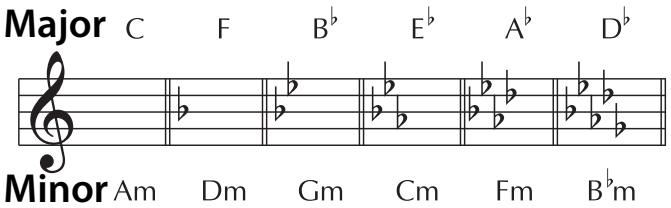
Harmonist is an effect where the amount of shifting is adjusted according to an analysis of the guitar input, allowing you to create harmony based on diatonic scales.

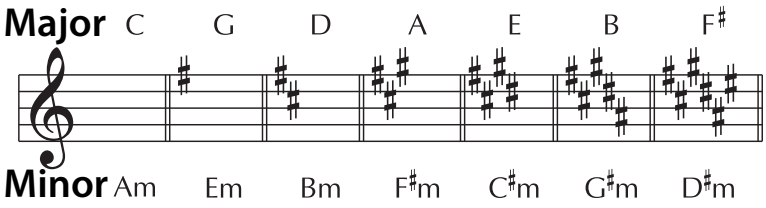
* Because of the need to analyze the pitch, chords (two or more sounds played simultaneously) cannot be played. Be sure to mute all the other strings and play only one note at a time.
* When you are to play the next string while a certain sound is still playing, mute the previous sound and then play 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 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.

Parameter	Value	Explanation
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.
HR1:LEVEL HR2:LEVEL	0–100	Adjusts the volume of the harmony sound.
HR1: PRE DELAY HR2: PRE DELAY	0–300ms	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.
DIRECT MIX	0–100	Adjusts the volume of the direct sound.

Parameter	Value	Explanation
MASTER KEY	C (Am)– B (G♯m)	The key setting corresponds to the key of the song (♯,♭) as follows.





Parameter		Value	Explanation
USER SCALE	C	-24C–+24C	You can specify a pitch in the range two octaves above or below the direct sound.
	D♭	-24D♭–+24D♭	
	D	-24D–+24D	
	E♭	-24E♭–+24E♭	
	E	-24E–+24E	
	F	-24F–+24F	
	F♯	-24F♯–+24F♯	
	G	-24G–+24G	
	A♭	-24A♭–+24A♭	
	A	-24A–+24A	
	B♭	-24B♭–+24–B♭	
	B	-24B–+24B	

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.
VOWEL1	a, e, i, o, u	Selects the first vowel.
VOWEL2	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.
SENS	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.

Parameter	Value	Explanation
MANUAL	0–100	Adjusts the point 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.

PHASER 90E

This models an MXR EVH-90 Phase Shifter.

Parameter	Value	Explanation
SCRIPT	OFF, ON	Switches the character of the phaser. OFF: Modern ON: Vintage
SPEED	0–100	Sets the rate and the depth of the phaser effect.

FLANGER117E

This models an MXR EVH-117 Flanger.

Parameter	Value	Explanation
MANUAL	0–100	Adjusts the center frequency at which to apply the effect.
WIDTH	0–100	Determines the depth of the flanging effect.
SPEED	0–100	This sets the rate of the flanging effect.
REGEN.	0–100	Determines the amount of feedback. Increasing the value emphasizes the effect, for a more unusual sound.

DC-30

This models the sound of the Roland DC-30.

Parameter	Value	Explanation
TYPE	CHORUS	Chorus
	ECHO	Echo
CHORUS INTENSITY	0–100	Adjusts how much chorus effect is applied. * Only when TYPE is CHORUS.
ECHO REPEAT RATE	40–600ms	Adjusts the delay time. * Only when TYPE is ECHO.
ECHO INTENSITY	0–100	Adjusts the volume that is returned to the input. Higher values increase the number of delay repeats. * Only when TYPE is ECHO.
ECHO VOLUME	0–100	Adjusts the volume of the delay sound. * Only when TYPE is ECHO.
INPUT VOLUME	0–100	Adjusts the input level to the effects.
TONE	0–100	Adjusts the tonal character.
OUTPUT	D+E	Outputs the direct sound and effect sound separately.
	D/E	Direct sound and effect sound are mixed and output.

DELAY/DELAY 2

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

Parameter	Value	Explanation
TYPE	DIGITAL	This is a simple mono delay.
	PAN	This allows you to obtain the tap delay effect that divides the delay time, then deliver them to L and R channels.
	STEREO	The direct sound is output from the left channel, and the effect sound is output from the right channel.
	ANALOG	Gives a mild analog delay sound.
	TAPE ECHO	This setting provides the characteristic wavering sound of the tape echo.

Parameter	Value	Explanation
TYPE	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 TIME	1–2000ms	Adjusts the delay time.
FEEDBACK	0–100	Adjusts the volume that is returned to the input. Higher values increase the number of delay repeats.
EFFECT LEVEL	0–120	Adjusts the volume of the delay sound.
DIREECT MIX	0–100	Adjusts the volume of the direct sound.
HIGH CUT	630Hz–12.5kHz, FLAT	This sets the frequency at which the high cut filter begins to take effect. When FLAT is selected, the high cut filter has no effect.
TAP TIME	0–100%	Adjusts the delay time of the right channel delay. This setting adjusts the R channel delay time relative to the L channel delay time (considered as 100%). * Only when TYPE is PAN.

Parameter	Value	Explanation
MOD RATE	0–100	Adjusts the modulation rate of the delay sound. * Only when TYPE is MODULATE or SDE-3000.
MOD DEPTH	0–100	Adjusts the modulation depth of the delay sound * Only when TYPE is MODULATE or SDE-3000.
MOD SW	OFF, ON	Turns the modulation on/off. * Only when TYPE is SDE-3000.
FILTER	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. * Only when TYPE is SDE-3000.
RANGE	8kHz, 17kHz	Models the way in which the SDE-3000's frequency response is affected by the delay range. * Only when TYPE is SDE-3000.

Parameter	Value	Explanation
DELAY PHASE	NORMAL, INVERSE	Specifies the phase of the delay sound. Selecting "INVERSE" inverts the phase. This effect is more pronounced when used together with modulation. * Only when TYPE is SDE-3000.
FEEDBACK PHASE	NORMAL, INVERSE	Specifies the phase of the delay sound feedback. Selecting "INVERSE" inverts the phase. * Only when TYPE is SDE-3000.

REVERB

This effect adds reverberation to the sound.

Parameter	Value	Explanation
TYPE	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.

Parameter	Value	Explanation
TYPE	MODULATE	This reverb adds the wavering sound found in hall reverb to provide an extremely pleasant reverb sound.
REVERB TIME	0.1s–10.0s	Adjusts the length (time) of reverberation.
PRE DELAY	0–500ms	Adjusts the time until the reverb sound appears.
LOW CUT	FLAT, 20.0Hz–800Hz	This sets the frequency at which the low cut filter begins to take effect. When FLAT is selected, the low cut filter has no effect.
HIGH CUT	630Hz–12.5kHz, FLAT	This sets the frequency at which the high cut filter begins to take effect. When FLAT is selected, the high cut filter has 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	0–100	Adjusts the unique spring reverb sound.

SOLO

Adjusts the volume and tonal character when using solo.

Parameter	Value	Explanation
SOLO ON/OFF	OFF, ON	Switches the solo function on/off.
SOLO LEVEL	0–100	Adjusts the volume level when the Solo Sw is ON.

SOLO EQ parameters

You can adjust the tonal character in three bands.

Parameter	Value	Explanation
ON/OFF	OFF, ON	Turns the equalizer on/off when the solo function is ON.
POSITION	AMP IN, AMP OUT	Selects whether to place the equalizer before the preamp (INPUT) or after the preamp (OUTPUT).
LOW CUT	FLAT, 20.0Hz–800Hz	This sets the frequency at which the low cut filter begins to take effect. When FLAT is selected, the low cut filter has no effect.

Parameter	Value	Explanation
LOW GAIN	-12.0–+12.0dB	Adjusts the low frequency range tone.
MID FREQ	20.0Hz–10.0kHz	Specifies the center of the frequency range that will be adjusted by the MID GAIN.
MID Q	0.5–16	Adjusts the width of the area affected by the EQ centered at the MID FREQUENCY. Higher values will narrow the area.
MID GAIN	-12.0–+12.0dB	Adjusts the midrange tone.
HIGH CUT	630Hz–12.5kHz, FLAT	This sets the frequency at which the high cut filter begins to take effect. When FLAT is selected, the high cut filter has no effect.
HIGH GAIN	-12.0–+12.0dB	Adjusts the high frequency range tone.
LEVEL	-12.0–+12.0dB	Adjusts the overall volume level of the equalizer.

CONTOUR

These parameters let you switch between different sound contour characteristics.

Parameter	Value	Explanation
CONTOUR	OFF	Turns CONTOUR off.
	TYPE1	Suitable for heavy power chords with low-end boost.
	TYPE2	Good balance between the high- and low-end sound, suitable for chords and riffs.
	TYPE3	Cuts the high and mid-range frequencies at an appropriate point. Good for playing solos.
	TYPE4	Suitable for clean, American-style sounds.
FREQ SHIFT	-50–0–+50	Lets you change the center frequency for each contour type.

PEDAL FX

Use an expression pedal connected to a FS-1-WL (sold separately) or an EV-1-WL (sold separately) to control the effects in real time.

Parameter	Value	Explanation
POSITION	INPUT, POST AMP	Selects the PEDAL FX position in the effect chain.
FX TYPE	PEDAL WAH	Produces a wah effect.
	WAH 95E	This models the sound of a Jim Dunlop EVH-95. Produces a wah effect.
	PEDAL BEND	Applies a pitch-bend effect. * Because of the need to analyze the pitch, chords (two or more sounds played simultaneously) cannot be played.

PEDAL WAH parameters

Parameter	Value	Explanation
TYPE	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.
	7STRING WAH	This expanded wah features a variable range compatible with seven-string and baritone guitars.
	RESO WAH	This completely original effect enhances the characteristic resonances produced by analog synth filters.
PEDAL POS	0–100	Adjusts the position of the wah pedal.
PEDAL MIN	0–100	Selects the tone produced when the heel of the pedal is depressed.
PEDAL MAX	0–100	Selects the tone produced when the toe of the pedal is depressed.
EFFECT LEVEL	0–100	Adjusts the volume of the effect sound.

Parameter	Value	Explanation
DIRECT MIX	0–100	Adjusts the volume of the direct sound.

WAH 95E parameters

Parameter	Value	Explanation
PEDAL POS	0–100	Adjusts the position of the wah pedal.
PEDAL MIN	0–100	Selects the tone produced when the heel of the pedal is depressed.
PEDAL MAX	0–100	Selects the tone produced when the toe of the 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 parameters

Parameter	Value	Explanation
PEDAL POS	0–100	Adjusts the pedal position for pedal bend.
PITCH	-24–+24	This sets the pitch at the point where the pedal is all the way down.
EFFECT LEVEL	0–100	Adjusts the volume of the effect sound.
DIRECT MIX	0–100	Adjusts the volume of the direct sound.

EQ/EQ2

This adjusts the tonal character.

PARAMETRIC EQ

You can adjust the tonal character in four bands.

Parameter	Value	Explanation
LOW CUT	FLAT, 20.0Hz–800Hz	This sets the frequency at which the low cut filter begins to take effect. When FLAT is selected, the low cut filter has no effect.
LOW GAIN	-20–+20dB	Adjusts the low frequency range tone.
LOW-MID GAIN	-20–+20dB	Adjusts the low-middle frequency range tone.
LOW-MID FREQ	20.0Hz–10.0kHz	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.

Parameter	Value	Explanation
HIGH-MID GAIN	-20–+20dB	Adjusts the high-middle frequency range tone.
HIGH-MID FREQ	20.0Hz–10.0kHz	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 GAIN	-20–+20dB	Adjusts the high frequency range tone.
HIGH CUT	630Hz–12.5kHz, FLAT	This sets the frequency at which the high cut filter begins to take effect. When FLAT is selected, the high cut filter has no effect.
LEVEL	-20–+20dB	Adjusts the overall volume level of the equalizer.
POSITION	AMP IN, AMP OUT	Selects the EQ position in the effects chain.

GE-10

This models the sound of the BOSS GE-10. You can adjust the tonal character in ten bands.

Parameter	Value	Explanation
31Hz	-12.0–+12.0dB	
62Hz		
125Hz		
250Hz		
500Hz		
1kHz		
2kHz		
4kHz		
8kHz		
16kHz		
LEVEL	-12.0–+12.0dB	
POSITION	AMP IN, AMP OUT	Selects the EQ position in the effects chain.

NS

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

Parameter	Value	Explanation
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 guitar volume turned down.
RELEASE	0–100	Adjusts the time from when the noise suppressor begins to function until the noise level reaches "0".

BASS MODE

AMP

Parameter	Value	Explanation
AMP TYPE	Use this to select from one of three types: vintage, flat or modern.	
SHAPE	Adds a different tonal character to the amp sound. Pressing the button toggles between the three types (green/red/orange). When the LED is dark, this feature is off.	
GAIN	0–100	Adjusts the input gain of the amp. This lets you configure a broad range of sounds, from clean to overdrive.
VOLUME	0–100	Adjusts the volume.
BASS	0–100	Adjusts the sound level of the low-frequency range.
LOW MID	0–100	Switches between frequencies for the low midrange sound. Pressing the button toggles between the three types (green/red/orange).
LOW MID FREQ	20.0Hz–10.0kHz	Adjusts the tone in the low to midrange frequencies.

Parameter	Value	Explanation
HIGH MID	0–100	Switches between frequencies for the mid- to high-frequency range. Pressing the button toggles between the three types (green/red/orange).
HIGH MID FREQ	20.0Hz–10.0kHz	Adjusts the tone in the low to midrange frequencies.
TREBLE	0–100	Adjusts the sound level of the high-frequency range.

EFFECTS

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.

Parameter	Value	Explanation
MODE	Selects whether to use the comp or the limiter.	

COMP parameters

Parameter	Value	Explanation
TYPE	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.

Parameter	Value	Explanation
TYPE	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.
	MILD	When applied heavily, this compressor effect produces a sweet tone with the high end cut.
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 tonal character.
LEVEL	0–100	Adjusts the volume.

LIMITER parameters

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

Parameter	Value	Explanation
TYPE	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.

Parameter	Value	Explanation
TYPE	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.
	HIBAND DRV	With this effect, distortion is applied only to the high frequency sounds, and not to the sounds in the low frequency range. This effect retains a strong low end sound while adding powerful distortion.
	BASS DRV	This models a TECH21 SANSAMP BASS DRIVER DI.
	BASS DI	This models a MXR Bass D.I.+.
DRIVE	0–120	Adjusts the depth of distortion.
TONE	-50–+50	Adjusts the tonal character.

Parameter	Value	Explanation
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.
EFFECT LEVEL	0–100	Adjusts the volume of the effect sound.
DIRECT MIX	0–100	Adjusts the volume of the direct sound.

MOD/FX

With MOD and FX, you can select the effect to be used from the following. You can select the same effect for MOD and FX.

MOD/FX type

This is a list of the effects that can be selected for MOD/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	Makes the sound more metallic and tonally indistinct, by combining the sound of the internal oscillator with the bass sound.
SLOW GEAR	This produces a volume-swell effect ("violin-like" sound).
SLICER	This consecutively interrupts the sound to create the impression that a rhythm backing phrase is being played.
T.WAH	You can produce a wah effect with the filter changing in response to the bass level.
AUTO WAH	This changes the filtering over a periodic cycle, providing an automatic wah effect.
GRAPHIC EQ	This adjusts the tonal character. You can adjust the tonal character in ten bands.
PARAMETRIC EQ	This adjusts the tonal character. You can adjust the tonal character in four bands.
BASS SYNTH	This processes the bass input sound to produce a synth sound.
OCTAVE	This adds a note an octave lower than the input sound, creating a heavier low-end.
HEAVY OCTAVE	Adds a pitch that's one octave lower than the original sound. This also applies when you play chords, adding thickness to the chords you play.

Effect name	Explanation
PITCH SHIFTER	This effect changes the pitch of the original sound (up or down) within a range of two octaves.
HARMONIST	This effect adjusts the amount of pitch shift by analyzing the bass input, letting you create harmony based on diatonic scales.
HUMANIZER	This effect alters the bass sound to make it sound like a human voice.
ENHANCER	This emphasizes the attack portion of the sound according to the changes in input level, adding more definition to the input audio.
BASS SIMULATOR	Simulates the characteristics of particular bass guitar components such as pickups and different bass guitar bodies, which lets you switch among a number of different bass guitar types while using a single bass.
DEFRETTER	This simulates a fretless bass.

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. To use this as a doubling effect, set this to "0".
LOW PRE DELAY	0.0–40.0ms	Adjusts the delay of the effect sound in the low-frequency range. Extend the pre-delay to produce the sensation of multiple sounds (doubling effect).
LOW LEVEL	0–100	Adjusts the volume of the effect sound in the low-frequency range.
XOVER FREQUENCY	100Hz–4.00kHz	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. To use this as a doubling effect, set this to "0".
HIGH PRE DELAY	0.0–40.0ms	Adjusts the delay of the effect sound in the high-frequency range. Extend the pre-delay to produce the sensation of multiple sounds (doubling effect).
HIGH LEVEL	0–100	Adjusts the volume of the effect sound in the high-frequency range.
DIRECT MIX	0–100	Adjusts the volume of the direct sound.

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 emphasizes the effect, for a more unusual sound.
MANUAL	0–100	Adjusts the center frequency at which to apply the effect.
LOW CUT	FLAT, 55Hz–800Hz	This sets the frequency at which the low cut filter begins to take effect. When FLAT is selected, the low cut filter has 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	Select the number of stages for the phaser effect.	
	4STAGE	This is a four-phase effect. A light phaser effect is obtained.
	8STAGE	This is an eight-phase effect. Offers a popular phaser effect sound.
	12STAGE	This is a twelve-phase effect. A deep phase effect is obtained.
	BiPHASE	This is a phaser with two phase shift circuits connected in series.
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 emphasizes the effect, for a more unusual sound.
MANUAL	0–100	Adjusts the center frequency of the phaser effect.

Parameter	Value	Explanation
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

This effect creates a cyclic change in volume.

Parameter	Value	Explanation
WAVE SHAPE	0–100	Adjusts changes in volume level. Higher values create steeper wave shapes (more abrupt changes).
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

Makes the sound more metallic and tonally indistinct, by combining the sound of the internal oscillator with the bass sound.

Parameter	Value	Explanation
MODE	This selects the mode for the ring modulator.	
	NORMAL	This is a normal ring modulator.
	INTELLIGENT	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 guitar is not correctly detected. We recommend using this effect when playing single notes.
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.

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.
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.

T. WAH

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

Parameter	Value	Explanation
MODE	Select 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.
POLAR	Selects the direction in which the filter will change in response to the input.	
	DOWN	The frequency of the filter falls.
	UP	The frequency of the filter rises.
SENS	0–100	Specifies the sensitivity with which the filter changes in the direction specified by the POLAR setting. Higher values produce a stronger tone which emphasizes the wah effect. The strength of picking has no effect when this is set to "0".
FREQ	0–100	Adjusts the center frequency of the Wah effect.

Parameter	Value	Explanation
PEAK	0–100	Adjusts the way in which the wah effect applies to the area around the center frequency. Higher values produce a stronger filter tone that emphasizes the wah effect. 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.

AUTO WAH

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

Parameter	Value	Explanation
MODE	Select 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.

Parameter	Value	Explanation
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 produce a stronger filter tone that emphasizes the wah effect. 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

Adjusts the tonal character. You can adjust the tonal character in ten bands.

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

PARAMETRIC EQ

Adjusts the tonal character. You can adjust the tonal character in four bands.

Parameter	Value	Explanation
LOW CUT	FLAT, 20.0Hz–800Hz	This sets the frequency at which the low cut filter begins to take effect. When FLAT is selected, the low cut filter has no effect.
LOW GAIN	-20–+20dB	Adjusts the low frequency range tone.
LOW-MID GAIN	-20–+20dB	Adjusts the low-middle frequency range tone.
LOW-MID FREQ	20.0Hz–10.0kHz	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 GAIN	-20–+20dB	Adjusts the high-middle frequency range tone.
HIGH-MID FREQ	20.0Hz–10.0kHz	Specifies the center of the frequency range that will be adjusted by the HIGH-MID GAIN.

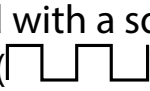
Parameter	Value	Explanation
HIGH-MID Q	0.5–16	Adjusts the width of the area affected by the EQ centered at the HIGH-MID FREQ. Higher values will narrow the area.
HIGH GAIN	-20–+20dB	Adjusts the high frequency range tone.
HIGH CUT	630Hz–12.5kHz, FLAT	This sets the frequency at which the high cut filter begins to take effect. When FLAT is selected, the high cut filter has no effect.
LEVEL	-20–+20dB	Adjusts the overall volume level of the equalizer.

BASS SYNTH

This processes the bass input sound to produce a synth sound.

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	Processes the bass input sound to create a synth sound with a sawtooth wave () signal.
	SQUARE	Processes the bass input sound to create a synth sound with a square wave () signal.
CUTOFF	0–100	Adjusts the frequency where the harmonics contents of the sound are cut off.

Parameter	Value	Explanation
RESONANCE	0–100	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.
SYNTH LEVEL	0–100	Adjusts the volume of the synth sound.
FILTER SENS	0–100	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 MIX	0–100	Adjusts the volume of the direct sound.

OCTAVE

This adds a note an octave lower than the input sound, creating a heavier low-end.

Parameter	Value	Explanation
1OCT LEVEL	0–100	Adjusts the volume of the sound that's one octave below.
2OCT LEVEL	0–100	Adjusts the volume of the sound two octave below.
DIRECT MIX	0–100	Adjusts the volume of the direct sound.

HEAVY OCTAVE

Adds pitches one and two octaves lower than the input audio. This also applies when you play chords, adding thickness to the chords you play.

Parameter	Value	Explanation
1OCT LEVEL	0–100	Adjusts the volume of the sound that's one octave below.
2OCT LEVEL	0–100	Adjusts the volume of the sound that's 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.
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	Makes fine adjustments to the pitch. The amount of the change in the Fine 100 is equivalent to that of the Pitch 1.

Parameter	Value	Explanation
PS1: PRE DELAY PS2: PRE DELAY	0–300ms	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

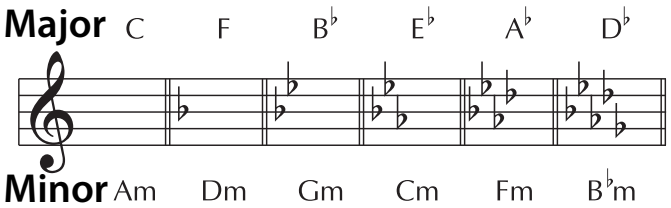
This effect adjusts the amount of pitch shift by analyzing the bass input, letting you create harmony based on diatonic scales.

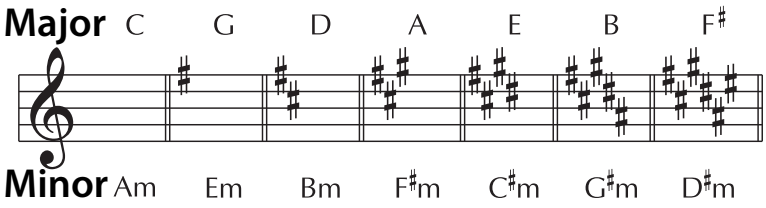
* Because of the need to analyze the pitch, chords (two or more sounds played simultaneously) cannot be played. Be sure to mute all the other strings and play only one note at a time.
* When you are to play the next string while a certain sound is still playing, mute the previous sound and then play 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
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.

Parameter	Value	Explanation
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.
HR1:LEVEL HR2:LEVEL	0–100	Adjusts the volume of the harmony sound.
HR1: PRE DELAY HR2: PRE DELAY	0–300ms	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.
DIRECT MIX	0–100	Adjusts the volume of the direct sound.

Parameter	Value	Explanation
MASTER KEY	C (Am)– B (G♯m)	The key setting corresponds to the key of the song (♯, ♭) as follows.





Parameter		Value	Explanation
USER SCALE	C	-24C–+24C	You can specify a pitch in the range two octaves above or below the direct sound.
	D♭	-24D♭–+24D♭	
	D	-24D–+24D	
	E♭	-24E♭–+24E♭	
	E	-24E–+24E	
	F	-24F–+24F	
	F♯	-24F♯–+24F♯	
	G	-24G–+24G	
	A♭	-24A♭–+24A♭	
	A	-24A–+24A	
	B♭	-24B♭–+24–B♭	
	B	-24B–+24B	

HUMANIZER

This effect alters the bass sound to make it sound like a human voice.

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.
VOWEL1	a, e, i, o, u	Selects the first vowel.
VOWEL2	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.
SENS	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.

Parameter	Value	Explanation
MANUAL	0–100	Adjusts the point 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.

ENHANCER

This emphasizes the attack portion of the sound according to the changes in input level, adding more definition to the input audio.

Parameter	Value	Explanation
SENS	0–100	Adjusts the enhancer's sensitivity. Larger values activate the effect even when you play the strings softly.
LOW	0–100	Adjusts the volume of the low-band enhancer audio.
LOW FREQ	31.5Hz–125Hz	Sets the frequency range of the low-band enhancer audio.
HIGH	0–100	Adjusts the volume of the high-band enhancer audio.
HIGH FREQ	800Hz–8.00kHz	Sets the frequency range of the high-band enhancer audio.

BASS SIMULATOR

Simulates the characteristics of particular bass guitar components such as pickups and different bass guitar bodies, which lets you switch among a number of different bass guitar types while using a single bass.

Parameter	Value	Explanation
TYPE	Selects the type of the bass guitar simulator.	
	PAS→ACT	Changes a passive pickup tone into an active pickup tone.
	ACT→PAS	Changes an active pickup tone into a passive 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 guitar tone to a hollow-body bass guitar tone with added body resonance.
	SGL→AC	Changes a single-coil pickup tone to an acoustic bass guitar tone.
	HUM→AC	Changes a humbucking pickup tone to an acoustic bass guitar tone.

Parameter	Value	Explanation
BODY	0–100	Adjusts the way the body sounds when TYPE is set to SLDÓHLW, SGLÓAC, or HUMÓAC. The body sound increases as the value is raised; reducing the value produces a tone similar to that from a piezo pickup.
LOW	-50–+50	Adjusts the low frequency range tone.
HIGH	-50–+50	Adjusts the high frequency range tone.
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	Adjusts the volume of the effect sound.
DIRECT LEVEL	0–100	Adjusts the volume of the direct sound.

DELAY/DELAY 2

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

Parameter	Value	Explanation
TYPE	DIGITAL	This is a simple delay.
	PAN	This allows you to obtain the tap delay effect that divides the delay time, then deliver them to L and R channels.
	STEREO	The direct sound is output from the left channel, and the effect sound is output from the right channel.
	ANALOG	Gives a mild analog delay sound.
	TAPE ECHO	This setting provides the characteristic wavering sound of the tape echo.

Parameter	Value	Explanation
TYPE	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 TIME	1–2000ms	Adjusts the delay time.
FEEDBACK	0–100	Adjusts the volume that is returned to the input. Higher values increase the number of delay repeats.
EFFECT LEVEL	0–120	Adjusts the volume of the delay sound.
DIREECT MIX	0–100	Adjusts the volume of the direct sound.
HIGH CUT	630Hz–12.5kHz, FLAT	This sets the frequency at which the high cut filter begins to take effect. When FLAT is selected, the high cut filter has no effect.
TAP TIME	0–100%	Adjusts the delay time of the right channel delay. This setting adjusts the R channel delay time relative to the L channel delay time (considered as 100%). * Only when TYPE is PAN.

Parameter	Value	Explanation
MOD RATE	0–100	Adjusts the modulation rate of the delay sound. * Only when TYPE is MODULATE or SDE-3000.
MOD DEPTH	0–100	Adjusts the modulation depth of the delay sound * Only when TYPE is MODULATE or SDE-3000.
MOD SW	OFF, ON	Turns the modulation on/off. * Only when TYPE is SDE-3000.
FILTER	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. * Only when TYPE is SDE-3000.
RANGE	8kHz, 17kHz	Models the way in which the SDE-3000's frequency response is affected by the delay range. * Only when TYPE is SDE-3000.

Parameter	Value	Explanation
DELAY PHASE	NORMAL, INVERSE	Specifies the phase of the delay sound. Selecting "INVERSE" inverts the phase. This effect is more pronounced when used together with modulation. * Only when TYPE is SDE-3000.
FEEDBACK PHASE	NORMAL, INVERSE	Specifies the phase of the delay sound feedback. Selecting "INVERSE" inverts the phase. * Only when TYPE is SDE-3000.

REVERB

This effect adds reverberation to the sound.

Parameter	Value	Explanation
TYPE	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.

Parameter	Value	Explanation
REVERB TIME	0.1s–10.0s	Adjusts the length (time) of reverberation.
PRE DELAY	0–500ms	Adjusts the time until the reverb sound appears.
LOW CUT	FLAT, 20.0Hz–800Hz	This sets the frequency at which the low cut filter begins to take effect. When FLAT is selected, the low cut filter has no effect.
HIGH CUT	630Hz–12.5kHz, FLAT	This sets the frequency at which the high cut filter begins to take effect. When FLAT is selected, the high cut filter has 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	0–100	Pitch-adjusts the unique spring reverb sound.

PEDAL FX

Use an expression pedal connected to a FS-1-WL (sold separately) or an EV-1-WL (sold separately) to control the effects in real time.

Parameter	Value	Explanation
POSITION	INPUT, POST AMP	Selects the PEDAL FX position in the effect chain.
FX TYPE	PEDAL WAH	Produces a wah effect.
	PEDAL BEND	Applies a pitch-bend effect. * Because of the need to analyze the pitch, chords (two or more sounds played simultaneously) cannot be played.

PEDAL WAH parameters

Parameter	Value	Explanation
TYPE	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 down to the tonal range of bass guitars.
	RESO WAH	This completely original effect enhances the characteristic resonances produced by analog synth filters.
PEDAL POS	0–100	Adjusts the position of the wah pedal.
PEDAL MIN	0–100	Selects the tone produced when the heel of the pedal is depressed.
PEDAL MAX	0–100	Selects the tone produced when the toe of the 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 parameters

Parameter	Value	Explanation
PEDAL POS	0–100	Adjusts the pedal position for pedal bend.
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.

EQ/EQ2

Adjusts the tonal character.

PARAMETRIC EQ

You can adjust the tonal character in four bands.

Parameter	Value	Explanation
LOW CUT	FLAT, 20.0Hz–800Hz	This sets the frequency at which the low cut filter begins to take effect. When FLAT is selected, the low cut filter has no effect.
LOW GAIN	-20–+20dB	Adjusts the low frequency range tone.
LOW-MID GAIN	-20–+20dB	Adjusts the low-middle frequency range tone.
LOW-MID FREQ	20.0Hz–10.0kHz	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.

Parameter	Value	Explanation
HIGH-MID GAIN	-20–+20dB	Adjusts the high-middle frequency range tone.
HIGH-MID FREQ	20.0Hz–10.0kHz	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 GAIN	-20–+20dB	Adjusts the high frequency range tone.
HIGH CUT	630Hz–12.5kHz, FLAT	This sets the frequency at which the high cut filter begins to take effect. When FLAT is selected, the high cut filter has no effect.
LEVEL	-20–+20dB	Adjusts the overall volume level of the equalizer.
POSITION	AMP IN, AMP OUT	Selects the EQ position in the effects chain.

GE-10

This models the sound of the BOSS GE-10. You can adjust the sound character in ten bands.

Parameter	Value	Explanation
31Hz	-12.0–+12.0dB	
62Hz		
125Hz		
250Hz		
500Hz		
1kHz		
2kHz		
4kHz		
8kHz		
16kHz		
LEVEL	-12.0–+12.0dB	
POSITION	AMP IN, AMP OUT	Selects the EQ position in the effects chain.

NS

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

Parameter	Value	Explanation
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. Adjust this so that the bass guitar sound decays naturally. * High settings for the threshold parameter may result in no sound when you play with your bass guitar volume turned down.
RELEASE	0–100	Adjusts the time from when the noise suppressor begins to function until the noise level reaches "0".