

Parameter Guide



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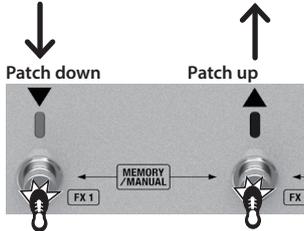
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Basic Operation

Basic Procedure for Effect Editing

1. Recall the patch that you want to edit.

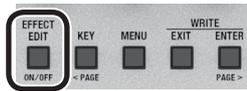
- Switch to memory mode.
- Use the [▼] [▲] switches to select a patch.



You can turn knob [1] to select patches consecutively.



2. Press the [EFFECT EDIT] button.



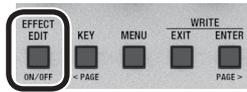
The effect select screen appears.



3. Use knob [1] to select the effect that you want to edit.



You can use the [EFFECT EDIT] ([ON/OFF]) button or knob [2] to turn on/off the effect where the cursor is located (highlighted).

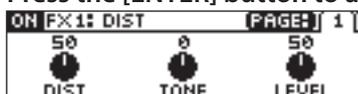


An effect that is on is shown by an icon. An effect that is off is shown as "OFF."

MEMO

For FX1-4, and HRM (VOC), you can use knob [3] to choose the effect type.

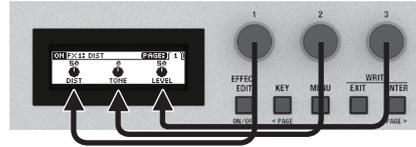
4. Press the [ENTER] button to access the edit screen.



MEMO

In the edit screen, press the [ON/OFF] button to turn the effect on/off. This lets you hear what the effect does. In screens where page tabs are displayed, use the [< PAGE] [PAGE >] buttons to move between editing screen pages.

5. Use knobs [1]–[3] to specify the value of each parameter shown in the screen.



6. Press the [EXIT] button a number of times to return to the play screen.

Changing the Effect Connections

1. In the effect select screen, choose "MST."



2. Use "FX STRUCTURE" to change the order in which FX1–4 are connected.

3. Use "REVERB STRUCTURE" to change the order in which REV1 and REV2 are connected.

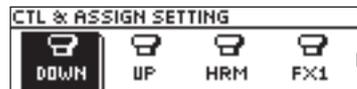
The effect connection changes.

Changing the CTL & ASSIGN Settings

You can operate a variety of parameters by making CTL and ASSIGN settings for each patch.

1. In the effect select screen, use knob [1] to select "CTL," and then press the [ENTER] button.

The CTL & ASSIGN screen appears.



2. Use knobs [1]–[3] to select the controller that you want to edit.

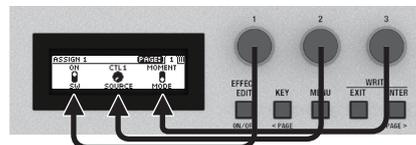
An icon indicates controllers that are turned on. Controllers that are off are indicated by "OFF."

3. Press the [ENTER] button to move to the edit screen.



In screens where page tabs are displayed, use the [< PAGE] [PAGE >] buttons to switch between edit screen pages.

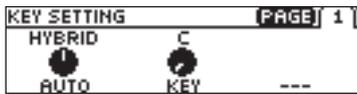
4. Use knobs [1]–[3] to edit the parameter values in the screen.



5. Press the [EXIT] button a number of times to return to the play screen.

Matching the Harmony to the Key of the Song

1. Press the [KEY] button.



2. Use knob [1] to specify the "AUTO" setting.

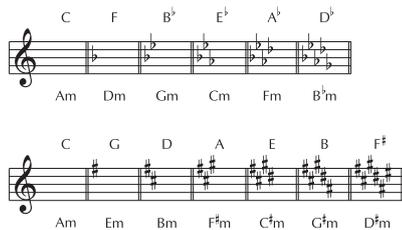
If Auto is set to "FULL" or "HYBRID," the key is specified automatically according to the chords and the chord progression that you play on the connected guitar.

AUTO	Explanation
FULL	Harmony is added according to the chords and the chord progression that you play on your guitar.
HYBRID	Harmony is added according to the "KEY" setting and the chords that you play on your guitar.
OFF	Harmony is added according to the "KEY" setting.

* Try the FULL setting, and if you don't get the harmony that you expect, use the HYBRID setting. If you're not using a guitar, turn this OFF and specify the key.

3. Use knob [2] to specify the "KEY."

* As shown in the illustration below, specify the key of the song that you're singing.



4. Press the [EXIT] button a number of times to return to the play screen.

Saving a Patch (Write)

If you want to save the patch that you created, execute the Write operation.

* You can use dedicated software to save, exchange, initialize, or back up patches.

NOTE

- If you do not save the patch, the edited settings will be lost when you turn off the power or switch to another patch.
- When you save, the patch that had been in the save-destination is overwritten.

1. Press the [EXIT] button and [ENTER] button simultaneously.

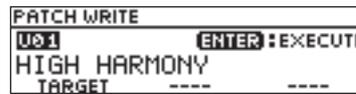


The WRITE UTILITY screen appears.



2. Select "WRITE" and then press the [ENTER] button.

3. Choose the patch write destination (U01–U99) with the [1] knob, and press the [ENTER] button.



Here you can edit the name.

Controller	Operation
[1] knob	Changes the character
[2] knob	Moves the cursor
[3] knob	Selects the type of characters
[EFFECT EDIT] button	Delete the character at the cursor location
[MENU] button	Insert a space at the cursor location

4. To save the patch, press the [ENTER] button.

* If you decide to cancel, press the [EXIT] button.

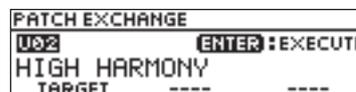
Once the patch has been saved, you are returned to the Play screen.

Exchanging Patches

Here's how to exchange the currently selected patch with a patch that you specify.

1. In the WRITE UTILITY screen, select "EXCHANGE" and press the [ENTER] button.

2. Choose the exchange-destination patch with the [1] knob.



3. To exchange the patches, press the [ENTER] button.

* If you decide to cancel, press the [EXIT] button.

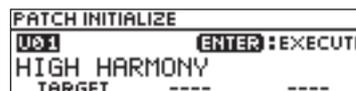
Once the patches has been exchanged, you are returned to the Play screen.

Initializing a Patch

Here's how to return the selected patch to the default values.

1. In the WRITE UTILITY screen, select "INITIALIZE" and press the [ENTER] button.

2. Choose the initialize-destination patch with the [1] knob.



3. To initialize the patch, press the [ENTER] button.

* If you decide to cancel, press the [EXIT] button.

Once the patch has been initialized, you are returned to the Play screen.

ENHANCE



ENHANCE is an effect that makes the sound more sharply defined. It also contains COMPRESSOR which makes the volume more consistent, DE-ESSER which suppresses sibilance, and EQ which adjusts the tonal character.

Parameter	Value	Explanation
ON/OFF	OFF, ON	Turns this effect on/off.
ENHANCE	0–100	Adjusts the depth of ENHANCE. The sound becomes more sharply defined as this value is increased.
COMPRESS	0–100	Adjusts the depth of COMPRESSOR. The volume becomes more consistent as this value is increased.
DE-ESSER	0–100	Adjusts the depth of DE-ESSER. Sibilance is suppressed more strongly as this value is increased.
LOW GAIN	-20+20dB	Adjusts the low frequency range tone.
HIGH GAIN	-20+20dB	Adjusts the high frequency range tone.
LEVEL	-20+20dB	Adjusts the overall volume level of the equalizer.
LMID GAIN (LOW-MID GAIN)	-20+20dB	Adjusts the low-middle frequency range tone.
LMID FREQ (LOW-MID FREQUENCY)	20–16.0kHz	Specifies the center of the frequency range that will be adjusted by the LMID GAIN.
LMID Q (LOW-MID Q)	0.5–16	Adjusts the width of the area affected by the EQ centered at the LMID FREQ. Higher values will narrow the area.
HMID GAIN (LOW-MID GAIN)	-20+20dB	Adjusts the high-middle frequency range tone.
HMID FREQ (HIGH-MID FREQUENCY)	20–16.0kHz	Specifies the center of the frequency range that will be adjusted by the HMID GAIN.
HMID Q (HIGH-MID Q)	0.5–16	Adjusts the width of the area affected by the EQ centered at the HMID FREQ. Higher values will narrow the area.
LOW CUT	FLAT, 20–800Hz	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	630Hz–16.0kHz, 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.

PITCH CORRECT



PITCH CORRECT suppresses instabilities in pitch. You can also convert pitch changes to a stair-step form, producing a mechanical effect.

Parameter	Value	Explanation
ON/OFF	OFF, ON	Turns this effect on/off.
TYPE	SOFT	The pitch will be corrected smoothly.
	HARD	The pitch will be corrected quickly.
	ELECTRIC	Corrects pitch variation to a stair-step change.
	ROBOT	Corrects the pitch to the specified note (Robot Voice).
SCALE	CHROMATIC	The pitch is corrected to the nearest chromatic semitone.
	KEY	The pitch is corrected according to the Key setting (p. 4).
NOTE	C–B	Specifies the pitch (fixed) when Type is set to "Robot."
FORMANT	-50+50	Negative (-) settings give the voice a more masculine character, while positive (+) settings make the voice more feminine.
		Specifies the amount by which the pitch is shifted.
SHIFT	-12+12	The pitch is shifted by the specified interval.
	USER-INT1–4	The pitch is shifted by the interval specified by USER-INTERVAL (HARMONY parameter).
SPEED	0–10	Adjusts the speed of pitch change. Higher values produce faster change.
STABILITY	-10+10	Adjusts the ease of pitch change. Higher values make change more difficult.
M>PCR (MIDI TO PITCH)	The received MIDI note message is used to correct the pitch. If no message is being received, the SHIFT setting is used.	
	Ch.1–16	Note messages of the specified MIDI channel are used for correction.
	RX	Note messages on the MIDI channel specified by the SYSTEM MIDI setting RX CH are used for correction.
	OFF	Off
ZONE LO (ZONE LOWER)	C1–G9	Specifies the range in which note messages are accepted.
ZONE UP (ZONE UPPER)	C1–G9	

HARMONY/VOCODER



HARMONY can add natural harmony to your voice. VOCODER applies the character of a human voice to a synth sound, producing a distinctive vocoder sound (robot voice).

You can apply either the HARMONY or the VOCODER effect. These effects are called LFX (LEAD FX).

Parameter	Explanation
TYPE	Refer to LFX TYPE (LEAD FX TYPE)

How to choose LFX TYPE

1. Press the [EFFECT EDIT] button.
2. Choose "HRM" with the [1] knob.
3. Choose "TYPE" with the [3] knob.

LFX TYPE (LEAD FX TYPE)

This is a list of the effects that can be selected for HARMONY/VOCODER.

TYPE	Explanation
HARMONY	Applies a harmony effect.
VOCODER	Applies a vocoder effect.

HARMONY

Parameter	Value	Explanation
COMN (COMMON)		
ON/OFF	OFF, ON	Turns this effect on/off.
E.LEVEL	0-100	Adjusts the overall volume level of the harmony.
D.LEVEL	0-100	Adjusts the volume of the sound of the mic.
NOTE SENS	LOW, MID, HIGH	Specifies the upper limit frequency at which the harmony effect is applied. * In an environment in which acoustic feedback is prone to occur, using the "LOW" setting can suppress unwanted sound.
HRM1-3 (HARMONY1-3)		
VOICE (AUTO)	OFF	Turns the harmony part off.
	UNISON	This produces the impression that another person is singing the same melody along with you.
	OCT-	Adds sound an octave lower.
	LOWER	Adds lower sound based on 6th or 5th. *1
	LOW	Adds lower sound based on 4th or 3rd. *1
	HIGH	Adds higher sound based on 4th or 3rd. *1
	HIGHER	Adds higher sound based on 6th or 5th. *1
	OCT+	Adds sound an octave higher.
	USR-INT1-4	Adds sound as specified by the USER INTERVAL 1-4 setting. You can directly specify the pitch of the harmony. *2

Parameter	Value	Explanation
VOICE (MANUAL)	OFF	Turns the harmony part off.
	UNISON	This produces the impression that another person is singing the same melody along with you.
	OCT-	Adds sound an octave lower.
	-6TH, -5TH, -4TH, -3RD, +3RD, +4TH, +5TH, +6TH	Adds harmony at the specified pitch interval of the diatonic scale.
	OCT+	Adds sound an octave higher.
USR-INT1-4	Adds sound as specified by the USER INTERVAL 1-4 setting. You can directly specify the pitch of the harmony. *2	
PAN	L100-CENTER -R100	Adjusts the panning of the harmony part.
LEVEL	0-100	Adjusts the volume of the harmony part.
DELAY	0-10	Adjusts the delay of the harmony part.
ACCURACY	0-10	Raising this value makes the pitch of the harmony more closely match the pitch of the original vocal. * With the higher value, the harmony is sounded at the precise pitch; this means that if the pitch of the original vocal is not precise, the result might not sound harmonious. In such cases, try decreasing this value.
VIBRATO	-10-+10	Specifies how closely the vibrato will follow. * If you want to decrease the expressiveness of the harmony relative to your own voice, use a setting in the negative range.
METHOD	SCALE1-2, CHORD1-2	Specifies the rule by which the pitch of the harmony is determined. This setting specifies whether the harmony is biased toward the scale (KEY) or the chord.
FORMANT	-50-+50	Adjusts the vocal character of the harmony part.
ZONE	-50-+50	Adjusts the tonal character of the harmony part.
DOUBLE (DOUBLE DEPTH)	Double-tracking is a popular recording studio technique in which a vocalist records a melody, then overdubs a second performance of the same melody along with the first recording. When the two performances are played back together, it gives the effect of a thick and rich single voice.	
DOUBLE (DOUBLE DEPTH)	OFF	Adjusts the intensity of the Double effect in three levels (Light/Normal/Deep).
	LIGHT	
	NORMAL	
	DEEP	
M>VOICE (MIDI TO VOICE)	Adds harmony at the pitch specified by an incoming MIDI note message. If a note message is not received, the VOICE setting is used.	
	Ch.1-16	Applies correction according to note messages of the specified MIDI channel.
	RX	Applies correction according to note messages of the MIDI channel specified by the SYSTEM MIDI setting RX CH.
	OFF	Off
ZONE LO (ZONE LOWER)	C1-G9	Specifies the range in which note messages are accepted.
ZONE UP (ZONE UPPER)	C1-G9	

Parameter	Value	Explanation
INTERVAL1-4 (USER INTERVAL1-4)		
C	-12 (C) -0 (C) +12 (C)	Adds harmony to the pitch detected at the MIC input at the interval directly specified by this setting.
D \flat	-12 (D \flat)-0 (D \flat)+12 (D \flat)	
D	-12 (D) -0 (D) +12 (D)	
E \flat	-12 (E \flat)-0 (E \flat)+12 (E \flat)	
E	-12 (E) -0 (E) +12 (E)	
F	-12 (F) -0 (F) +12 (F)	
F \sharp	-12 (F \sharp)-0 (F \sharp)+12 (F \sharp)	
G	-12 (G) -0 (G) +12 (G)	
A \flat	-12 (A \flat)-0 (A \flat)+12 (A \flat)	
A	-12 (A) -0 (A) +12 (A)	
B \flat	-12 (B \flat)-0 (B \flat)+12 (B \flat)	
B	-12 (B) -0 (B) +12 (B)	

*1 Depending on conditions, other intervals are also added.

*2 If you select USR-INT, chord detection from MIDI and INST are disabled.

VOCODER

Parameter	Value	Explanation
COMN (COMMON)		
ON/OFF	OFF, ON	Turns this effect on/off.
E.LEVEL	0-100	Adjusts the overall volume level of the vocoder.
D.LEVEL	0-100	Adjusts the volume of the sound of the mic.
VOC (VOCODER)		
		Selects how VOCODER is used.
SOURCE	INST	VOCODER is sounded using an instrument connected to the INST INPUT jack.
	MIDI	VOCODER is sounded according to note messages received at the MIDI IN connector.
	MIDI (USB)	VOCODER is sounded according to note messages received at the USB port.
	MIC	Vocoder sound is produced when you simply sing.
	AUTO	Specifies the input source in the priority order of INST>MIDI>MIC.
TYPE		Switches the vocoder type.
	STANDARD	Vocoder sound with high clarity, producing a natural vocal character.
	VINTAGE	Vocoder sound often used in techno of the '80s.
	TALK BOX	Sound reminiscent of a talk box.
LEVEL	0-100	Adjusts the volume of the vocoder.
CARRIER (INST)	SAW, VINTAGE SAW, DETUNE SAW, SQUARE, RECTANGLE, DISTORTION	Selects the carrier waveform (the basic sound). * This can be specified if SOURCE is "INST."
CARRIER (MIDI, MIC)	SAW, VINTAGE SAW, DETUNE SAW, SUPER SAW, SQUARE, RECTANGLE	Selects the carrier waveform (the basic sound). * This can be specified if SOURCE is other than "INST."
OCTAVE	-2OCT, -1OCT, 0, +1OCT	Specifies the pitch of the sound. * This can be specified if CARRIER is other than "DISTORTION."

Parameter	Value	Explanation
DRIVE	0-100	Adjusts the amount of distortion for the effect sound. * This can be specified if CARRIER is "DISTORTION."
FORMANT	-50+50	Adjusts the vocal character of the vocoder part.
TONE	-50+50	Adjusts the tonal character of the vocoder part.
ATTACK	0-100	Specifies the rise time (attack time) for sound initiated by a note message. * This can be specified if SOURCE is "MIDI" or "MIDI (USB)."
RELEASE	0-100	Specifies the decay time (release time) for sound initiated by a note message. * This can be specified if SOURCE is "MIDI" or "MIDI (USB)."
BEND	0-12	Specifies the degree of pitch change in semitones when the Pitch Bend lever is all the way right (left). For example if this is set to "12" and you move the pitch bend lever all the way to the right (left), the pitch will rise (fall) 1 octaves. * This can be specified if SOURCE is "MIDI" or "MIDI (USB)."
VEL SENS	0-100	Specifies the sensitivity to the keyboard dynamics (velocity) of the note message. * This can be specified if SOURCE is "MIDI" or "MIDI (USB)."
CHROMATIC	OFF, ON	The pitch varies in stairstep fashion by semitone steps. * This can be specified if SOURCE is "MIC."

FX1-4



With FX1-4, you can select the effect to be used from the following. You can select the same effect for FX1-4.

Parameter	Value	Explanation
ON/OFF	OFF, ON	Turns this effect on/off.
TYPE	Refer to FX1-4 TYPE	

How to choose TYPE

1. Press the [EFFECT EDIT] button.
2. Choose "FX1-4" with the [1] knob.
3. Choose "TYPE" with the [3] knob.

FX1-4 TYPE

This is a list of the effects that can be selected for FX1-4.

Effect name	Explanation
DISTORTION	Produces a distorted voice.
RADIO	Produces a radio voice.
LO-FI	This effect intentionally degrades the sound to create a distinctive character.
FILTER	A filter modifies the brightness or thickness of the sound by cutting a specific frequency range.
T.WAH	You can produce a wah effect with the filter changing in response to level.
RING MODULATOR	Gives a metallic character to the sound, creating the impression that the sound is going out of focus.
CHORUS	In this effect, a slightly detuned sound is added to the original sound to add depth and breadth.
FLANGER	The flanging effect gives a twisting, jet-airplane-like character to the sound.
TREMOLO	Tremolo is an effect that creates a cyclic change in volume.
PHASER	By adding varied-phase portions to the direct sound, the phaser effect gives a whooshing, swirling character to the sound.
ROTARY	This produces an effect like the sound of a rotary speaker.
SLICER	This consecutively interrupts the sound to create the impression that a rhythm backing phrase is being played.
ISOLATOR	Divides the audio input into three ranges (LO, MID, HI) and cuts the specified region. You can cut in synchronization with the tempo.
VIBRATO	This effect creates vibrato by slightly modulating the pitch.
PAN	Moves the stereo position (pan).
ROLL	This loops the input sound at a short interval, and divides that length.
FREEZE	This produces the Freeze function to hold sounds.
GRANULAR DELAY	Repeats a short portion of the input sound, giving it a buzzy character or producing the effect of playing a roll.
DELAY	This effect adds delayed sound to the direct sound, giving more body to the sound or creating special effects.
REVERB	This effect adds reverberation (reverb) to the direct sound, adding acoustical depth to the sound.

DISTORTION

Parameter	Value	Explanation
DIST	0-100	Adjusts the degree of distortion.
TOPE	-50-+50	Adjusts the tonal character.
E.LEVEL	0-100	Adjusts the volume of the effect sound.
D.LEVEL	0-100	Adjusts the volume of the direct sound.

RADIO

Parameter	Value	Explanation
LO-FI	1-10	Adjusts the amount of blurring.
LEVEL	0-100	Adjusts the volume of the effect sound.

LO-FI

Parameter	Value	Explanation
BIT	32-1BIT	Specifies the bit depth.
SAMPLE	1/1-1/32	Specifies the sampling rate.
BALANCE	0-100	Adjusts the volume balance between the direct sound and the effect sound.

FILTER

Parameter	Value	Explanation
TYPE	Selects the type of filter.	
	LPF	This reduces the volume of all frequencies above the cutoff frequency.
	BPF	This leaves only the frequencies in the region of the cutoff frequency, and cuts the rest.
TYPE	HPF	This cuts the frequencies in the region below the cutoff frequency.
	RATE	0-100, BPM
LEVEL	0-100	Adjusts the volume of the effect sound.
DEPTH	0-100	Adjusts the depth of modulation.
RESONANCE	0-100	Adjusts the intensity of the effect.
CUTOFF	0-100	Adjusts the cutoff frequency of the filter.
STEP RATE	Adjusts the frequency of the step function that varies the modulation in stairstep fashion. When it is set to a higher value, the change will be finer. Set this to "OFF" when not using the Step function.	
	OFF, 0-100, BPM 	* When set to BPM, the value of each parameter will be set according to the value of the "MASTER BPM" (p. 16) specified for each patch. This makes it easier to achieve effect sound settings that match the tempo of the song. * If, due to the tempo, the time is longer than the range of allowable settings, it is then synchronized to a period either 1/2 or 1/4 of that time.
MODE	Selects the mode of filter.	
	AUTO	The CUTOFF changes at the rate specified by RATE.
	MANUAL	The effect is applied with a fixed CUTOFF.

T.WAH

Parameter	Value	Explanation
TYPE	Selects the wah mode.	
	LPF	Low pass filter. This creates a wah effect over a wide frequency range.
	BPF	Band pass filter. This creates a wah effect in a narrow frequency range.
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	Adjusts the sensitivity at which the filter will change in the direction determined by the polarity setting. Higher values will result in a stronger response.
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.
E.LEVEL	0–100	Adjusts the volume of the effect sound.
D.LEVEL	0–100	Adjusts the volume of the direct sound.

RING MODULATOR

Parameter	Value	Explanation
FREQ	0–100	Adjusts the frequency of the internal oscillator.
E.LEVEL	0–100	Adjusts the volume of the effect sound.
D.LEVEL	0–100	Adjusts the volume of the direct sound.

CHORUS

Parameter	Value	Explanation
TYPE	Selects the chorus type.	
	MONO	This chorus effect outputs the same sound from both L channel and R channel.
	STEREO	This is a stereo chorus effect that adds different chorus sounds to L channel and R channel.
RATE	0–100, BPM 	Adjust the speed of the chorus effect for the high frequency range. * When set to BPM, the value of each parameter will be set according to the value of the "MASTER BPM" (p. 16) specified for each patch. This makes it easier to achieve effect sound settings that match the tempo of the song. * If, due to the tempo, the time is longer than the range of allowable settings, it is then synchronized to a period either 1/2 or 1/4 of that time.
DEPTH	0–100	Adjusts the depth of the chorus effect. * To use it for doubling effect, set the value to 0.
E.LEVEL	0–100	Adjusts the volume of the effect sound.
PRE-DELAY	0.0–60.0ms	Adjusts the time needed for the effect sound to be output after the direct sound has been output. By setting a longer pre delay time, you can obtain an effect that sounds like more than one sound is being played at the same time (doubling effect).

Parameter	Value	Explanation
LOW CUT	FLAT, 20–800Hz	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	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 will have no effect.
D.LEVEL	0–100	Adjusts the volume of the direct sound.

FLANGER

Parameter	Value	Explanation
RATE	0–100, BPM 	Adjusts the rate of the flanging effect. * When set to BPM, the value of each parameter will be set according to the value of the "MASTER BPM" (p. 16) specified for each patch. This makes it easier to achieve effect sound settings that match the tempo of the song. * If, due to the tempo, the time is longer than the range of allowable settings, it is then synchronized to a period either 1/2 or 1/4 of that time.
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.
MANUAL	0–100	Adjusts the center frequency at which to apply the effect.
SEPARATION	0–100	Adjusts the diffusion. The diffusion increases as the value increases.
LOW CUT	FLAT, 55–800Hz	Adjusts the frequency at which the low cut filter begins to take effect. When "FLAT" is selected, the low cut filter will have no effect.
E.LEVEL	0–100	Adjusts the volume of the flanger.
D.LEVEL	0–100	Adjusts the volume of the direct sound.
STEP RATE	OFF, 0–100, BPM 	Adjusts the frequency of the step function that varies the modulation in stairstep fashion. When it is set to a higher value, the change will be finer. Set this to "OFF" when not using the Step function. * When set to BPM, the value of each parameter will be set according to the value of the "MASTER BPM" (p. 16) specified for each patch. This makes it easier to achieve effect sound settings that match the tempo of the song. * If, due to the tempo, the time is longer than the range of allowable settings, it is then synchronized to a period either 1/2 or 1/4 of that time.

TREMOLO

Parameter	Value	Explanation
WAVE (WAVE SHAPE)	0-100	Adjusts changes in volume level. A higher value will steepen wave's shape.
RATE	0-100, BPM 	Adjusts the frequency (speed) of the change. * When set to BPM, the value of each parameter will be set according to the value of the "MASTER BPM" (p. 16) specified for each patch. This makes it easier to achieve effect sound settings that match the tempo of the song. * If, due to the tempo, the time is longer than the range of allowable settings, it is then synchronized to a period either 1/2 or 1/4 of that time.
DEPTH	0-100	Adjusts the depth of the effect.
LEVEL	0-100	Adjusts the volume.

PHASER

Parameter	Value	Explanation
TYPE		Selects the number of stages that the phaser effect will use.
	4STAGE	This is a four-phase effect. A light phaser effect is obtained.
	8STAGE	This is a eight-phase effect. It is a popular phaser effect.
	12STAGE	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.
RATE	0-100, BPM 	Adjust the rate of the phaser effect. * When set to BPM, the value of each parameter will be set according to the value of the "MASTER BPM" (p. 16) specified for each patch. This makes it easier to achieve effect sound settings that match the tempo of the song. * If, due to the tempo, the time is longer than the range of allowable settings, it is then synchronized to a period either 1/2 or 1/4 of that time.
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, BPM 	Adjusts 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. * When set to BPM, the value of each parameter will be set according to the value of the "MASTER BPM" (p. 16) specified for each patch. This makes it easier to achieve effect sound settings that match the tempo of the song. * If, due to the tempo, the time is longer than the range of allowable settings, it is then synchronized to a period either 1/2 or 1/4 of that time.
E.LEVEL	0-100	Adjusts the volume of the phaser.
D.LEVEL	0-100	Adjusts the volume of the direct sound.

ROTARY

Parameter	Value	Explanation
SPEED	SLOW, FAST	Changes the simulated speaker's rotating speed (SLOW or FAST).
RATE SLOW	0-100, BPM 	Adjusts the SPEED of rotation when set to "SLOW."
RATE FAST	0-100, BPM 	Adjusts the SPEED of rotation when set to "FAST." * When set to BPM, the value of each parameter will be set according to the value of the "MASTER BPM" (p. 16) specified for each patch. This makes it easier to achieve effect sound settings that match the tempo of the song. * If, due to the tempo, the time is longer than the range of allowable settings, it is then synchronized to a period either 1/2 or 1/4 of that time.
DEPTH	0-100	Adjusts the amount of depth in the rotary effect.
RISE TIME	0-100	Adjusts the time it takes for the rotation SPEED to change when switched from "SLOW" to "FAST."
FALL TIME	0-100	Adjusts the time it takes for the rotation SPEED to change when switched from "FAST" to "SLOW."
E.LEVEL	0-100	Adjusts the volume of the effect sound.

SLICER

Parameter	Value	Explanation
PATTERN	P01-P20	Selects the slice pattern that will be used to cut the sound.
RATE	0-100, BPM 	Adjust the rate at which the sound will be cut. * When set to BPM, the value of each parameter will be set according to the value of the "MASTER BPM" (p. 16) specified for each patch. This makes it easier to achieve effect sound settings that match the tempo of the song. * If, due to the tempo, the time is longer than the range of allowable settings, it is then synchronized to a period either 1/2 or 1/4 of that time.
DUTY	1-99	Adjusts the length of the sound for the slice pattern.
DEPTH	0-100	Adjusts the depth to which the slice pattern is applied.
ATTACK	0-100	Adjusts the attack volume of the slice pattern.
TRIGGER	OFF, ON	Resets the slicer pattern to its beginning. * It is assumed that this parameter will be assigned to the footswitch (p. 17).

ISOLATOR

Parameter	Value	Explanation
BAND	LOW, MID, HIGH	Select the range that will be cut.
RATE	0-100, BPM 	Adjusts the frequency that is cut. This lets you cut the low- or high-frequency range at intervals of the specified note value in synchronization with the tempo. * When set to BPM, the value of each parameter will be set according to the value of the "MASTER BPM" (p. 16) specified for each patch. This makes it easier to achieve effect sound settings that match the tempo of the song. * If, due to the tempo, the time is longer than the range of allowable settings, it is then synchronized to a period either 1/2 or 1/4 of that time.
DEPTH	0-100	Adjusts the depth of modulation.
BAND LEVEL	0-100	Adjusts the reference volume of the band that is cut. The portion between BAND LEVEL and DEPTH is cut at the rate specified by RATE.
STEP RATE	OFF, 0-100, BPM 	Adjusts the rate of the step function that produces stairstep change in the amount that is cut. When it is set to a higher value, the change will be finer. Set this to "OFF" when not using the Step function. * When set to BPM, the value of each parameter will be set according to the value of the "MASTER BPM" (p. 16) specified for each patch. This makes it easier to achieve effect sound settings that match the tempo of the song. * If, due to the tempo, the time is longer than the range of allowable settings, it is then synchronized to a period either 1/2 or 1/4 of that time.

VIBRATO

Parameter	Value	Explanation
RATE	0-100, BPM 	Adjusts the rate of the vibrato. * When set to BPM, the value of each parameter will be set according to the value of the "MASTER BPM" (p. 16) specified for each patch. This makes it easier to achieve effect sound settings that match the tempo of the song. * If, due to the tempo, the time is longer than the range of allowable settings, it is then synchronized to a period either 1/2 or 1/4 of that time.
DEPTH	0-100	Adjusts the depth of the vibrato.
TRIGGER	OFF, ON	Selects on/off of the vibrato. * It is assumed that this parameter will be assigned to the footswitch (p. 17).
RISE TIME	0-100	Adjusts the time passing from the moment the TRIGGER is turned on until the set vibrato is obtained. * When a patch with TRIGGER set to ON is called up, the effect obtained is identical to what happens when TRIGGER is switched from Off to On. If you want the vibrato effect to be produced immediately after the patches are switched, set RISE TIME to 0.
LEVEL	0-100	Adjusts the volume.

PAN

Parameter	Value	Explanation
TYPE	AUTO	This varies the volume level on the left and right according to the settings for WAVE, RATE, and DEPTH.
	MANUAL	Output uses the volume balance set with POS.
WAVE (WAVE SHAPE) *1	0-100	Adjusts changes in volume level. A higher value will steepen wave's shape.
RATE *1	0-100, BPM 	Adjusts the frequency (speed) of the change. * When set to BPM, the value of each parameter will be set according to the value of the "MASTER BPM" (p. 16) specified for each patch. This makes it easier to achieve effect sound settings that match the tempo of the song. * If, due to the tempo, the time is longer than the range of allowable settings, it is then synchronized to a period either 1/2 or 1/4 of that time.
DEPTH *1	0-100	Adjusts the depth of the effect.
INIT PHASE *1	0, 15, 30-345	Adjusts the PAN position. Specifies the rotational angle of the phase from the default (when the effect is turned on) of 0 (center).
POSITION *2	L100-CENTER -R100	This adjusts the volume balance between L channel and R channel.
LEVEL	0-100	Adjusts the volume.

*1 Setting available when TYPE is set to AUTO.

*2 Setting available when TYPE is set to MANUAL.

ROLL

Parameter	Value	Explanation
TIME	1–1000ms, BPM  	Specifies the loop rate. * When set to BPM, the value of each parameter will be set according to the value of the “MASTER BPM” (p. 16) specified for each patch. This makes it easier to achieve effect sound settings that match the tempo of the song. * If, due to the tempo, the time is longer than the range of allowable settings, it is then synchronized to a period either 1/2 or 1/4 of that time.
ROLL	OFF, 1/2, 1/4, 1/8, 1/16	The loop rate specified by Time is divided by this setting and varied.
REPEAT	1–100, ∞	Specifies the number of repetitions for ROLL when ROLL is OFF.
BALANCE	0–100	Specifies the volume balance between the ROLL sound and the direct sound.
TRIGGER	OFF, ON	When this turns “ON,” the loop starts. * It is assumed that this parameter will be assigned to the footswitch (p. 17).

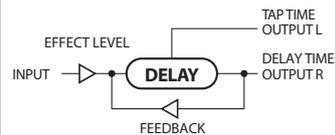
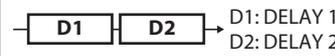
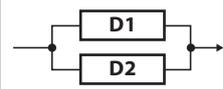
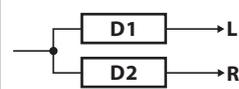
FREEZE

Parameter	Value	Explanation
LENGTH	SHORT, MID, LONG	Specifies the length to which FREEZE is applied.
ATTACK	0–100	Adjusts the fade time until the effect sound is output when FREEZE turns ON.
RELEASE	0–100	Adjusts the fade time over which the effect sound disappears when FREEZE turns OFF.
DECAY	0–100	Adjusts the decay of the effect sound.
SUSTAIN	0–100	Adjusts the sustain of the effect sound.
BALANCE	0–100	Adjusts the volume balance between the FREEZE sound and the direct sound.
TRIGGER	OFF, ON	When this turns “ON,” FREEZE is applied to the original sound. * It is assumed that this parameter will be assigned to the footswitch (p. 17).

GRANULAR DELAY

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

DELAY

Parameter	Value	Explanation
TYPE		Refer to DLY TYPE
DELAY TYPE	Explanation	
SINGLE	This is a simple mono delay.	
PAN	This delay is specifically for stereo output. This allows you to obtain the tap delay effect that divides the delay time, then deliver them to L channel and R channel.	
STEREO	This is a stereo-in/out delay.	
DUAL-S (DUAL-SERIES)	This is a delay comprising two different delays connected in series. Each delay time can be set in a range from 1 ms to 2000 ms.	 D1: DELAY 1 D2: DELAY 2
DUAL-P (DUAL-PARALLEL)	This is a delay comprising two delays connected in parallel. Each delay time can be set in a range from 1 ms to 2000 ms.	
DUAL-L/R	This is a delay with individual settings available for L channel and R channel. Delay 1 goes to L channel, Delay 2 to R channel.	
REVERSE	This produces an effect where the sound is played back in reverse.	
MOD	This delay adds a pleasant wavering effect to the sound.	
WARP	Produces a dream-like sound.	

Parameter	Value	Explanation
Common to SINGLE, PAN, STEREO, REVERSE, MOD		
TIME (DELAY TIME)	1–2000ms, BPM  	Adjusts the delay time. * When set to BPM, the value of each parameter will be set according to the value of the “MASTER BPM” (p. 16) specified for each patch. This makes it easier to achieve effect sound settings that match the tempo of the song. * If, due to the tempo, the time is longer than the range of allowable settings, it is then synchronized to a period either 1/2 or 1/4 of that time.
E.LEVEL	0–120	Adjusts the volume of the delay sound.
FEEDBACK	0–100	Adjusts the volume that is returned to the input. A higher value will increase the number of the delay repeats.
LOW CUT	FLAT, 20–800Hz	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	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 will have no effect.
D.LEVEL	0–100	Adjusts the volume of the direct sound.

Parameter	Value	Explanation
DK SENS (DUCK SENS)	0-100	Adjusts the sensitivity at which the volume is automatically adjusted according to the input. Higher values allow the adjustment to occur in response to lower volumes.
DK DEPTH (DUCK DEPTH)	0-100	When the input sound is loud, this automatically reduces the volume that is being output from the delay. As this value is increased, the ducking effect becomes deeper.
PAN only		
TAP TIME	0-100%	Adjusts the delay time of L channel delay. This setting adjusts L channel delay time relative to R channel delay time (considered as 100%).
MOD only		
MOD RATE	0-100	Adjusts the modulation rate of the delay sound.
MOD DEPTH	0-100	Adjusts the modulation depth of the delay sound.
Common to DUAL-S, DUAL-P, DUAL-L/R		
TIME1 (DELAY TIME)	1-2000ms, BPM  	Adjusts the delay time. * When set to BPM, the value of each parameter will be set according to the value of the "MASTER BPM" (p. 16) specified for each patch. This makes it easier to achieve effect sound settings that match the tempo of the song. * If, due to the tempo, the time is longer than the range of allowable settings, it is then synchronized to a period either 1/2 or 1/4 of that time.
E.LEVEL1	0-120	Adjusts the volume of the delay sound.
FEEDBACK1	0-100	Adjusts the volume that is returned to the input. A higher value will increase the number of the delay repeats.
LOW CUT1	FLAT, 20-800Hz	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 CUT1	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 will have no effect.
TIME2 (DELAY TIME)	1-2000ms, BPM  	Adjusts the delay time. * When set to BPM, the value of each parameter will be set according to the value of the "MASTER BPM" (p. 16) specified for each patch. This makes it easier to achieve effect sound settings that match the tempo of the song. * If, due to the tempo, the time is longer than the range of allowable settings, it is then synchronized to a period either 1/2 or 1/4 of that time.
E.LEVEL2	0-120	Adjusts the volume of the delay sound.
FEEDBACK2	0-100	Adjusts the volume that is returned to the input. A higher value will increase the number of the delay repeats.
LOW CUT2	FLAT, 20-800Hz	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 CUT2	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 will have no effect.
D.LEVEL	0-100	Adjusts the volume of the direct sound.
DK SENS (DUCK SENS)	0-100	Adjusts the sensitivity at which the volume is automatically adjusted according to the input. Higher values allow the adjustment to occur in response to lower volumes.

Parameter	Value	Explanation
DK DEPTH (DUCK DEPTH)	0-100	When the input sound is loud, this automatically reduces the volume that is being output from the delay. As this value is increased, the ducking effect becomes deeper.
WARP only		
TRIGGER	OFF, ON	When this turns "ON," the WARP effect is applied. * It is assumed that this parameter will be assigned to the footswitch (p. 17).
LEVEL	0-100	Adjusts the volume of the delay sound.

REVERB

Parameter	Value	Explanation
TYPE	AMBIENCE	Selects the reverb type.
	ROOM	
	HALL	
	PLATE	
	MOD	
TIME	0.1-10.0s	Adjusts the length (time) of reverberation.
E.LEVEL	0-100	Adjusts the volume of the reverb sound.
PRE-DELAY	0-100ms	Adjusts the time until the reverb sound appears.
LOW CUT	FLAT, 20-800Hz	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	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 will have no effect.
DENSITY	0-10	Adjusts the density of the reverb sound.
D.LEVEL	0-100	Adjusts the volume of the direct sound.

REV1/REV2



REV lets you choose a variety of types of reverb. Different settings can simulate a variety of acoustical spaces.

Parameter	Value	Explanation
ON/OFF	OFF, ON	Turns this effect on/off.
TYPE	Refer to REV TYPE	

How to choose TYPE

1. Press the [EFFECT EDIT] button.
2. Choose "REV1" – "REV2" with the [1] knob.
3. Press the [ENTER] button to move to the edit screen.
4. Press the [< PAGE] [PAGE >] buttons to move the first page.
5. Choose "TYPE" with the [1] knob.

REV TYPE

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

Effect name	Explanation
AMBIENCE	Simulates an ambience mic (off-mic, placed at a distance from the sound source) used in recording and other applications. Rather than emphasizing the reverberation, this reverb is used to produce a sense of openness and depth.
ROOM	Simulates the reverberation in a small room. Provides warm reverberations.
HALL	Simulates the reverberation in a concert hall. Provides clear and spacious reverberations.
PLATE	Simulates plate reverberation (a reverb unit that uses the vibration of a metallic plate). Provides a metallic sound with a distinct upper range.
MOD	This reverb adds the wavering sound found in hall reverb to provide an extremely pleasant reverb sound.
DELAY	This effect adds delayed sound to the direct sound, giving more body to the sound or creating special effects.

Common to AMBIENCE, ROOM, HALL, PLATE, MOD

Parameter	Value	Explanation
TIME	0.1–10.0s	Adjusts the length (time) of reverberation.
LEVEL	0–100	Adjusts the volume of the reverb sound.
PRE-DELAY1	0–200ms	Adjusts the time until the reverb sound appears.
LOW CUT	FLAT, 20–800Hz	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	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 will have no effect.
DENSITY	0–10	Adjusts the density of the reverb sound.
PRE-DELAY2	OFF, 0–500ms	Adjusts the time until the reverb sound appears. By combining this with PRE-DELAY1, you can produce an effect as though multiple reverbs are being applied.

DELAY

Parameter	Value	Explanation
TIME (DELAY TIME)	1–2000ms, BPM 	Adjusts the delay time. * When set to BPM, the value of each parameter will be set according to the value of the "MASTER BPM" (p. 16) specified for each patch. This makes it easier to achieve effect sound settings that match the tempo of the song. * If, due to the tempo, the time is longer than the range of allowable settings, it is then synchronized to a period either 1/2 or 1/4 of that time.
E.LEVEL	0–120	Adjusts the volume of the delay sound.
FEEDBACK	0–100	Adjusts the amount of delay sound returned to the input. A higher value will increase the number of the delay repeats.
LOW CUT	FLAT, 20–800Hz	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	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 will have no effect.

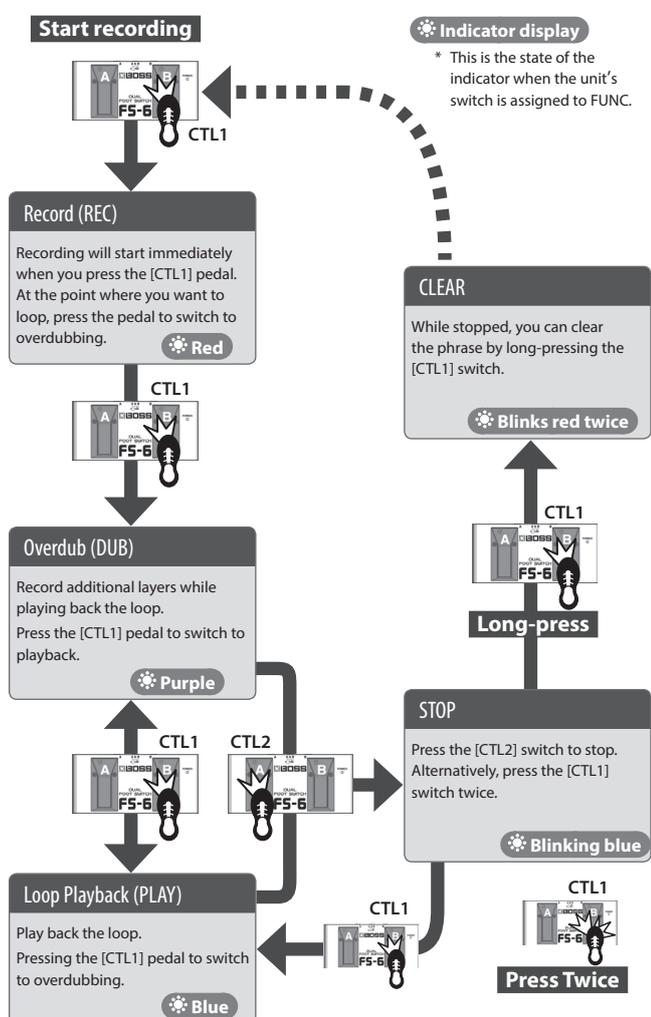
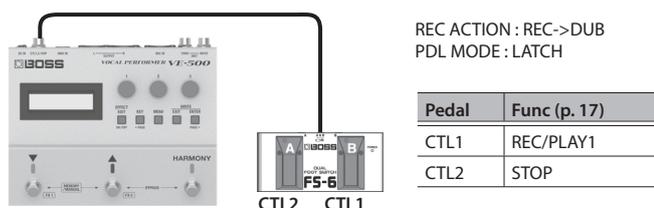
LOOP



LOOP (LOOPER) records your vocal and repeatedly plays back that content. You can also overdub-record (layer) an additional vocal onto the repeating playback. Alternatively, you can sing over the backing of the recorded content.

When using LOOPER, make CTL settings to assign the LOOPER function to a footswitch such as CTL1 or CTL2.

Setting example



* Operation depends on the selected FUNC and on the REC ACTION and PDL MODE setting.

Parameter	Value	Explanation
REC ACTION		Specifies how recording operation. Specifies whether, when you press the switch that is assigned to REC/PLAY, operations occur in the order of Recording → Overdub → Playback or in the order of Recording → Playback → Overdub. * This cannot be selected if 1SHOT is "ON" or if PDL MODE is "MOMENT."
	REC->DUB	Operation will switch in the order of Recording → Overdub → Playback.
	REC->PLAY	Operation will switch in the order of Recording → Playback → Overdub.
LEVEL (PLAY LEVEL)	0-200	Specifies the playback volume for LOOPER. If you set the playback level at 100 (default value), the volume of the performance and that of the loop playback will be identical. If you set the playback level to a value lower than 100, the volume of the playback will be lower than that of the performance. As a result, the sound of the performance won't get buried by the loop playback sound, even if you record a multiple number of times.
LOOP LENGTH	FREE, 1/16-15/16, 1MEAS, 5/4-7/4, 2-24MEAS	Specifies the length that is loop-recorded. If this is set to "FREE," the loop length is determined by the timing of your operations.
PLAYBACK LENGTH	FREE, 1-64	Specifies the number of times that loop playback occurs. * This cannot be selected if 1SHOT is "ON."
PLAYBACK DECAY	-50+50	Specifies the decay amount of the sound during loop playback.
FADE MODE		Selects the fade-in (out) type. * This cannot be selected if 1SHOT is "ON."
	LOOP	The playback volume changes for the entire length of the loop.
FADE IN	LINEAR	The playback volume changes during the specified length.
	MODE = LOOP OFF, 1-10 MODE = LINEAR OFF, 1/16-15/16, 1, 5/4-7/4, 2-24	This specifies the fade-in time.
FADE OUT	MODE = LOOP OFF, 1-10 MODE = LINEAR OFF, 1/16-15/16, 1, 5/4-7/4, 2-24	This specifies the fade-out time.
PDL MODE	LATCH	Specifies the operation that occurs when you operate a controller to which the CTL setting assigns REC/PLAY1 or REC/PLAY2 (p. 17).
	MOMENT	

MEMO

- * The recording time is 60 seconds (MONO) / 30 seconds (STEREO).
- * The recorded content is lost when you change patches, switch the LOOP MODE, turn off the power, or perform a similar operation.

Parameter	Value	Explanation
1SHOT	OFF, ON	Specifies whether to use conventional loop playback or one-shot playback.

KEY SETTING

Here you can make key-related settings.

HARMONY

Parameter	Value	Explanation
AUTO		Selects how harmony is added. * Try the FULL setting, and if you don't get the harmony that you expect, use the HYBRID setting. If you're not using a guitar, turn this OFF and specify the key.
	FULL	Harmony is added according to the chords and the chord progression that you play on your guitar.
	HYBRID	Harmony is added according to the "KEY" setting and the chords that you play on your guitar.
	OFF	Harmony is added according to the "KEY" setting.
KEY	C-Bm	Specify the key of the song that you're singing. <div style="display: flex; justify-content: space-around;"> <div> <p>Major C F B^b E^b A^b D^b</p> </div> <div> <p>Minor Am Dm Gm Cm Fm B^bm</p> </div> </div> <div style="display: flex; justify-content: space-around;"> <div> <p>Major C G D A E B F[#]</p> </div> <div> <p>Minor Am Em Bm F[#]m C[#]m G[#]m D[#]m</p> </div> </div>
RECG SRC	AUTO	The chord or chord progression is detected from sound received via all jacks.
	INST	The chord or chord progression is detected from sound received at the INST INPUT jack.
	MIDI	The chord or chord progression is detected from note messages received at the MIDI IN connector.
	MIDI (USB)	The chord or chord progression is detected from note messages received at the USB port.
M>CHRD (MIDI TO CHORD)		The chord is detected from received MIDI note messages. * This is valid if LFX TYPE is "HARMONY" and RECG SRC is set to something other than "INST."
	Ch.1-16	The chord is detected from note messages of the specified MIDI channel.
	RX	The chord is detected from note message of the MIDI channel specified by the SYSTEM MIDI setting RX CH.
	OFF	Off
ZONE LO (ZONE LOWER)	C1-G9	Specifies the range in which note messages are accepted.
ZONE UP (ZONE UPPER)	C1-G9	
BEND	0-12	Specifies the degree of pitch change in semitones when the Pitch Bend lever is all the way right (left). For example if this is set to "12" and you move the pitch bend lever all the way to the right (left), the pitch will rise (fall) 1 octaves.

VOCODER

Parameter	Value	Explanation
BEND	0-12	Specifies the degree of pitch change in semitones when the Pitch Bend lever is all the way right (left). For example if this is set to "12" and you move the pitch bend lever all the way to the right (left), the pitch will rise (fall) 1 octaves.

MASTER



These are settings for the entire patch.

Parameter	Value	Explanation
BPM (MASTER BPM)	10-500	Adjusts the BPM value for each patch. * BPM (beats per minute) indicates the number of quarter note beats that occur each minute.
NS	0-100	Adjusts the depth of the noise suppressor.
PAT LEV	0-200	Sets the patch volume.
FX STRUCTURE		Selects the connection order of FX1-4.
	SERIES	
	PARA+SER	
	2PARALLEL	
	4PARALLEL	
		* This can be selected if HARMONY/VOCODER TYPE is "HARMONY."
REVERB STRUCTURE		Selects the connection order of REV1 and REV2.
	SERIES	
	PARALLEL	
	SEPARATE	
REVERB LEVEL	0-200	Adjusts the overall volume level of the reverb section.
LOOP MODE		Selects the playback mode of looper.
	MONO	The looper plays back in mono.
	STEREO	The looper plays back in stereo.

Parameter	Value	Explanation
LOOP LOCATION		Selects the position within the unit at which the looper is located.
	MIC IN	Located after the mic input.
	PRE FX1	Located before FX1.
	PRE FX2	Located before FX2.
	PRE FX3	Located before FX3.
	PRE FX4	Located before FX4.
	PRE REV1	Located before REV1.
	PRE REV2	Located before REV2.
	OUTPUT	Located after the master output.

CTL&ASSIGN SETTING



You can set the following items for CTL.

Controller	Explanation
DOWN UP	Specifies the parameter that is controlled by the [▼] and [▲] switches when in Memory mode. * This works only in Memory mode.
FX1 FX2	Specifies the parameter that is controlled by the [▼] ((FX1)) and [▲] ((FX2)) switches when in Manual mode. * This works only in Manual mode.
HRM	Specifies the parameter that is controlled by the [HARMONY] switch.
EXP	Specifies the parameter that is controlled by an expression pedal (EXP) connected to the CTL 1, 2/EXP jack.
CTL1 CTL2	Specifies the parameter that is controlled by a footswitch (CTL 1-2) connected to the CTL 1, 2/EXP jack.
MEMORY MANUAL	Specifies the parameter that is controlled by pressing the [▼] and [▲] switches simultaneously.
BYPASS	Specifies the parameter that is controlled by pressing the [▲] and [HARMONY] switches simultaneously.
ASSIGN 1 ASSIGN 8	ASSIGN allows you to make more detailed settings. For example, you can use ASSIGN if you want to simultaneously control another parameter in addition to operating the parameter of the [▼] switch. You can specify eight different settings for each patch.

Common to DOWN, UP, FX1, FX2, HRM, CTL1, CTL2, MEM/MAN, BYPASS

Parameter	Value	Explanation
FUNC	OFF	No assignment. The icon changes from to OFF .
	PAT-	Switches to the previous patch number.
	PAT+	Switches to the next patch number.
	EH OnOf	Turns EH on/off.
	PCR OnOf	Turns PCR on/off.
	LFX OnOf	Turns HRM/VOC on/off.
	FX1 OnOf	Turns FX1 on/off.
	FX2 OnOf	Turns FX2 on/off.

Parameter	Value	Explanation	
FUNC	FX3 OnOf	Turns FX3 on/off.	
	FX4 OnOf	Turns FX4 on/off.	
	REV1 OnOf	Turns REV1 on/off.	
	REV2 OnOf	Turns REV2 on/off.	
	TRIG1 (FX1)	If the corresponding FX is on, turns the following parameters on/off. <ul style="list-style-type: none"> • TRIGGER within ROLL • TRIGGER within FREEZE • TRIGGER within SLICER • TRIGGER within DELAY/WARP • TRIGGER within VIBRATO 	
	TRIG2 (FX2)		
	TRIG3 (FX3)		
	TRIG4 (FX4)		
	REC/PLAY1		Specifies the operation of LOOPER. If PDL MODE is "LATCH"
			Step: REC->DUB-PLAY-DUB Step twice in succession: stop LOOPER Long-press: CLEAR operation
			If PDL MODE is "MOMENT"
			While you hold down: REC or PLAY Release: stop LOOPER Step twice in succession: CLEAR operation
	REC/PLAY2		Specifies the operation of LOOPER. If PDL MODE is "LATCH"
			Step: REC->DUB-PLAY-DUB * There is no STOP / CLEAR operation.
			If PDL MODE is "MOMENT"
			While you hold down: REC or PLAY Release: stop LOOPER * There is no CLEAR operation.
	STOP		Step: stop LOOPER Long-press: CLEAR operation
	CLEAR		Step: clear phrase recorded in LOOPER
	BYP		Bypass the effect.
	BYP/TUNR		Step: bypass the effect. Long-press: show the TUNER screen.
	TUNER		Turns TUNER on/off.
	MEM/MAN		Switches between memory mode and manual mode.
	BPM TAP		Used for tap input of the master BPM. The indicator of the assigned switch blinks in time with the BPM.
	FX1 DLY		Used for tap input of the delay time. The indicator of the assigned switch blinks in time with the BPM.
FX2 DLY			
FX3 DLY			
FX4 DLY			
REV1 DLY			
REV2 DLY			
LED		Turns the indicator on/off. Turns on/off the indicator of the assigned switch.	
MODE (SOURCE MODE)		Specifies how the value changes when you operate the switch.	
	MOMENT	The normal state is Off (minimum value), with the switch On (maximum value) only while the switch is depressed.	
	TOGGLE	The setting is toggled On (maximum value) or Off (minimum value) with each press of the switch.	
ACTION	OFF → ON, ON → OFF	OFF → ON: On while the switch is held down, and off when it is not held down. ON → OFF: Off while the switch is held down, and on when it is not held down. * This is valid if MODE is set to "MOMENT."	

EFFECT

Parameter	Value	Explanation
COLOR	RED, BLUE, VIOLET	Set the color of the indicator. * This can be set if "LED" is selected as FUNC for DOWN, UP, FX1, FX2, or HRM.

EXP

Parameter	Value	Explanation
FUNC (FUNCTION)	OFF	No assignment. The icon changes from  to OFF .
	PAT LEVEL	Adjusts the patch level.
	LFX E.LEV	Adjusts the LFX level.
	REV LEVEL	Adjusts the reverb level.
	F1TW FREQ	Adjusts the freq of T.WAH (FX1).
	F2TW FREQ	Adjusts the freq of T.WAH (FX2).
	F3TW FREQ	Adjusts the freq of T.WAH (FX3).
	F4TW FREQ	Adjusts the freq of T.WAH (FX4).
MIN	This sets the minimum value for the range in which the parameter can change. The value differs depending on the parameter assigned for FUNC parameter.	
MAX	This sets the maximum value for the range in which the parameter can change. The value differs depending on the parameter assigned for FUNC parameter.	

ASSIGN 1–8

Parameter	Value	Explanation	
ASSIGN	OFF, ON	Turns the ASSIGN 1–8 on/off. * If you set SOURCE to WAVE, leave ASSIGN turned OFF until you finish making the settings. If this is left ON, parameters might be switched unintentionally while you make settings.	
SOURCE	Specifies the controller (source).		
	DOWN	Assigns the [▼] switch when in memory mode.	
	UP	Assigns the [▲] switch when in memory mode.	
	HARMONY	Assigns the [HARMONY] switch.	
	FX1	Assigns the [▼] ([FX1]) switch when in manual mode.	
	FX2	Assigns the [▲] ([FX2]) switch when in manual mode.	
	EXP	Assigns the expression pedal connected to the CTL 1, 2/EXP jacks.	
	CTL1	Assigns the footswitch pedal connected to CTL1 of the CTL 1, 2/EXP jacks.	
	CTL2	Assigns the footswitch pedal connected to CTL2 of the CTL 1, 2/EXP jacks.	
	INT PDL (INTERNAL PEDAL)	Assigns the internal pedal.	Refer to "Virtual Expression Pedal System (Internal Pedal/Wave Pedal)" (p. 23)
	WAVE PDL (WAVE PEDAL)	Assigns the wave pedal.	
	MIC LEV	The parameter that is assigned as the target will vary according to the volume level that is input to the MIC IN jack.	
	INST LEV	The parameter that is assigned as the target will vary according to the volume level that is input to the INST INPUT jack.	
	CC#1–31, CC#64–95	Assigns the specified MIDI control change message.	
CATEGORY (TARGET CATEGORY)	Selects the parameter to be changed. Refer to "Target List" (p. 20).		
TARGET			

Parameter	Value	Explanation
MODE (SOURCE MODE)	Specifies how the value changes when you operate the controller.	
	MOMENT	The normal state is Off (minimum value), with the switch On (maximum value) only while the control is being operated.
	TOGGLE	The setting is toggled On (maximum value) or Off (minimum value) with each time control is operated.
MIN (TARGET MIN)	Sets the minimum value for the range in which the parameter can change. The value differs depending on the parameter assigned for TARGET parameter.	
MAX (TARGET MAX)	Sets the maximum value for the range in which the parameter can change. The value differs depending on the parameter assigned for TARGET parameter.	
ACT LOW (ACT RANGE LOW)	0–126	Sets the controllable range for target parameters within the source's operational range. Target parameters are controlled within the range set with ACT LOW and ACT HIGH. You should normally set ACT LOW to 0 and ACT HIGH to 127.
ACT HIGH (ACT RANGE HIGH)	1–127	
WAVE RATE *1	0–100, BPM 	Adjusts the time spend for one cycle of the assumed expression pedal. * When set to BPM, the value of each parameter will be set according to the value of the "MASTER BPM" (p. 16) specified for each patch. This makes it easier to achieve effect sound settings that match the tempo of the song. * If, due to the tempo, the time is longer than the range of allowable settings, it is then synchronized to a period either 1/2 or 1/4 of that time.
WAVE FORM *1	SAW	
	TRI	
	SIN	
	SQR	

Parameter	Value	Explanation
WAVE TRIG (WAVE PEDAL TRIGGER) *1		Specifies the controller that resets the wave pedal to the start point.
	OFF	The start point of the wave pedal will not be reset.
	DOWN	This is activated when the [▼] switch is operated while in memory mode.
	UP	This is activated when the [▲] switch is operated while in memory mode.
	HARMONY	This is activated when the [HARMONY] switch is operated.
	FX1	This is activated when the [▼] ([FX1]) switch is operated while in manual mode.
	FX2	This is activated when the [▲] ([FX2]) switch is operated while in manual mode.
	EXP LOW	This is activated when the expression pedal (EXP) connected to the CTL 1, 2/ EXP jacks is minimized.
	EXP MID	This is activated when the expression pedal (EXP) connected to the CTL 1, 2/ EXP jacks is operated to pass through the middle position.
	EXP HIGH	This is activated when the expression pedal (EXP) connected to the CTL 1, 2/ EXP jacks is maximized.
	CTL1	This is activated when the footswitch connected to CTL1 of the CTL 1, 2/EXP jacks is operated.
	CTL2	This is activated when the footswitch connected to CTL2 of the CTL 1, 2/EXP jacks is operated.
	MIC IN L	This is activated by the volume that is input to the MIC IN jack (input level low). * This is activated when it falls below a certain level.
	MIC IN M	This is activated by the volume that is input to the MIC IN jack (input level medium).
	MIC IN H	This is activated by the volume that is input to the MIC IN jack (input level high).
	INST IN L	This is activated by the volume that is input to the INST INPUT jack (input level low). * This is activated when it falls below a certain level.
	INST IN M	This is activated by the volume that is input to the INST INPUT jack (input level medium).
	INST IN H	This is activated by the volume that is input to the INST INPUT jack (input level high).
	CC#1-31, CC#64-95	This is activated when the specified MIDI control change message is received.
INT TRIG (INTERNAL PEDAL TRIGGER) *2		This specifies what triggers the internal pedal to start operating.
	PATCH CHG (PATCH CHANGE)	This is activated when a patch is selected.
	DOWN	This is activated when the [▼] switch is operated while in memory mode.
	UP	This is activated when the [▲] switch is operated while in memory mode.
	HARMONY	This is activated when the [HARMONY] switch is operated.

Parameter	Value	Explanation
INT TRIG (INTERNAL PEDAL TRIGGER) *2	FX1	This is activated when the [▼] ([FX1]) switch is operated while in manual mode.
	FX2	This is activated when the [▲] ([FX2]) switch is operated while in manual mode.
	EXP LOW	This is activated when the expression pedal (EXP) connected to the CTL 1, 2/ EXP jacks is minimized.
	EXP MID	This is activated when the expression pedal (EXP) connected to the CTL 1, 2/ EXP jacks is operated to pass through the middle position.
	EXP HIGH	This is activated when the expression pedal (EXP) connected to the CTL 1, 2/ EXP jacks is maximized.
	CTL1	This is activated when the footswitch connected to CTL1 of the CTL 1, 2/EXP jacks is operated.
	CTL2	This is activated when the footswitch connected to CTL2 of the CTL 1, 2/EXP jacks is operated.
	MIC IN L	This is activated by the volume that is input to the MIC IN jack (input level low). * This is activated when it falls below a certain level.
	MIC IN M	This is activated by the volume that is input to the MIC IN jack (input level medium).
	MIC IN H	This is activated by the volume that is input to the MIC IN jack (input level high).
	INST IN L	This is activated by the volume that is input to the INST INPUT jack (input level low). * This is activated when it falls below a certain level.
	INST IN M	This is activated by the volume that is input to the INST INPUT jack (input level medium).
	INST IN H	This is activated by the volume that is input to the INST INPUT jack (input level high).
	CC#1-31, CC#64-95	This is activated when the specified MIDI control change message is received.
INT TIME *2	0-100	This specifies the time over which the internal pedal will move from the toe-raised position to the toe-down position.
INT CURVE *2		Select one of the following curves to specify the change produced by the internal pedal.
	LINEAR	
	SLOW	
FAST		
CC#	1-31, 64-95	If TARGET is set to MIDI CC, the MIDI control change message of the specified number is output.

*1 Available if SOURCE is set to WAVE PDL.

*2 Available if SOURCE is set to INT PDL.

ASSIGN COMMON

Parameter	Value	Explanation
MIC SENS	0-100	Adjusts the sensitivity when SOURCE is set to MIC LEV, WAVE TRIG MIC IN (L/M/H), or INT TRIG MIC IN (L/M/H).
INST SENS	0-100	Adjusts the sensitivity when SOURCE is set to INST LEV, WAVE TRIG INST IN (L/M/H) or INT TRIG INST IN (L/M/H).

Target List

CATEGORY	Target	CATEGORY	Target	CATEGORY	Target	CATEGORY	Target
ENHANCE	ON/OFF	HARMONY	USRINT3 Ab	FX1 DIST	DIST	FX1 SLICER	PATTERN
	ENHANCE		USRINT3 A		TONE		RATE
	COMPRESS		USRINT3 Bb		E.LEVEL		DUTY
	DE-ESSER		USRINT3 B		D.LEVEL		DEPTH
	EQ LOW GAIN		USRINT4 C	LO-FI	ATTACK		
	EQ HI GAIN		USRINT4 Db	LEVEL	TRIGGER		
	EQ LEVEL		USRINT4 D	FX1 LO-FI	BIT	BAND	
	EQ LM GAIN		USRINT4 Eb		SAMPLE	RATE	
	EQ LM FREQ		USRINT4 E		BALANCE	DEPTH	
	EQ LM Q		USRINT4 F	FX1 FILTER	TYPE	BAND LEVEL	
	EQ HM GAIN		USRINT4 F#		RATE	STEP RATE	
	EQ HM FREQ		USRINT4 G		LEVEL	RATE	
	EQ HM Q		USRINT4 Ab		DEPTH	DEPTH	
	EQ LOW CUT		USRINT4 A		RESONANCE	TRIGGER	
	EQ HIGH CUT		USRINT4 Bb	CUTOFF	RISE TIME		
PCR	ON/OFF	HARMONY1	USRINT4 B	STEP RATE	LEVEL	FX1 VIB	LEVEL
	TYPE		VOICE AUTO	MODE	TYPE		TYPE
	SCALE		VOICE MANU	FX1 T.WAH	TYPE		POSITION
	FORMANT		PAN		POLARITY		LEVEL
	SHIFT		LEVEL		SENS		WAVE
	SPEED		DOUBLE	FREQ	RATE		
	STABILITY		DELAY	PEAK	DEPTH		
	NOTE		ACCURACY	E.LEVEL	INIT PHASE		
	VIBRATO	D.LEVEL					
LFX	ON/OFF	HARMONY2	METHOD	FREQ	FX1 ROLL	TIME	
	TYPE		FORMANT	E.LEVEL		ROLL	
	E.LEVEL		TONE	D.LEVEL		REPEAT	
	D.LEVEL					BALANCE	
HARMONY	ON/OFF	HARMONY3	VOICE AUTO	FX1 RNGMD	FREQ	FX1 FREEZE	TRIGGER
	NOTE SENS		VOICE MANU		E.LEVEL		LENGTH
	USRINT1 C		PAN		D.LEVEL		ATTACK
	USRINT1 Db		LEVEL	FX1 CHO	TYPE		RELEASE
	USRINT1 D		DOUBLE		RATE	DECAY	
	USRINT1 Eb		DELAY		DEPTH	SUSTAIN	
	USRINT1 E		ACCURACY	E.LEVEL	PRE-DELAY	BALANCE	
	USRINT1 F		VIBRATO	LOW CUT	LOW CUT	TRIGGER	
	USRINT1 F#		METHOD	HIGH CUT	D.LEVEL	TIME	
	USRINT1 G		FORMANT	D.LEVEL	RATE	FEEDBACK	
	USRINT1 Ab		TONE	DEPTH	DEPTH	LEVEL	
	USRINT1 A		VOICE AUTO	RESONANCE	MANUAL	TYPE	
	USRINT1 Bb	VOICE MANU	MANUAL	SEPARAT	TIME		
	USRINT1 B	PAN	LOW CUT	LOW CUT	E.LEVEL		
	USRINT2 C	LEVEL	E.LEVEL	FEEDBACK	FEEDBACK		
	USRINT2 Db	DOUBLE	D.LEVEL	LOW CUT	LOW CUT		
	USRINT2 D	DELAY	STEP RATE	HIGH CUT	HIGH CUT		
	USRINT2 Eb	ACCURACY	FX1 TREMOL	WAVE	TAP TIME		
	USRINT2 E	VIBRATO		RATE	MOD RATE		
	USRINT2 F	METHOD		DEPTH	MOD DEPTH		
	USRINT2 F#	FORMANT	LEVEL	D.LEVEL	D.LEVEL		
	USRINT2 G	TONE	FX1 PHASE	DK SENS	DK SENS		
	USRINT2 Ab	ON/OFF		TYPE	DK DEPTH		
	USRINT2 A	SOURCE		RATE	TAP		
	USRINT2 Bb	TYPE	DEPTH	TIME1	TIME1		
	USRINT2 B	LEVEL	RESONANCE	E.LEVEL1	E.LEVEL1		
	USRINT3 C	CARR. INST	MANUAL	FEEDBACK1	FEEDBACK1		
USRINT3 Db	CARR. MIC	STEP RATE	LOW CUT1	LOW CUT1			
USRINT3 D	OCTAVE	E.LEVEL	HIGH CUT1	HIGH CUT1			
USRINT3 Eb	DRIVE	D.LEVEL	TIME2	TIME2			
USRINT3 E	FORMANT	SPEED	E.LEVEL2	E.LEVEL2			
USRINT3 F	TONE	RATE SLOW	FEEDBACK2	FEEDBACK2			
USRINT3 F#	ATTACK	RATE FAST	LOW CUT2	LOW CUT2			
USRINT3 G	RELEASE	DEPTH	HIGH CUT2	HIGH CUT2			
VOCODER	CHROMATIC	VOCODER	VEL SENS	FX1 ROTARY	RISE TIME	FX1 D-DUAL	WARP TRIG
	ON/OFF		ON/OFF		FALL TIME		WARP TRIG
	TYPE		TYPE		E.LEVEL		WARP LEV
FX1							

CATEGORY	Target	CATEGORY	Target	CATEGORY	Target	CATEGORY	Target			
FX1 REVERB	TYPE	FX2 ROTARY	SPEED	FX2 D-WRP	WARP TRIG	FX3 ROTARY	SPEED			
	TIME		RATE SLOW		WARP LEV		RATE SLOW			
	E.LEVEL		RATE FAST	TYPE	RATE FAST					
	PRE-DELAY		DEPTH	TIME	DEPTH					
	LOW CUT		RISE TIME	E.LEVEL	RISE TIME					
	HIGH CUT		FALL TIME	PRE-DELAY	FALL TIME					
	DENSITY		E.LEVEL	LOW CUT	E.LEVEL					
	D.LEVEL		PATTERN	HIGH CUT	PATTERN					
FX2	ON/OFF	FX2 SLICER	RATE	FX2 REVERB	DENSITY	FX3 SLICER	RATE			
	TYPE		DUTY		D.LEVEL		DUTY			
FX2 DIST	DIST		DEPTH		ATTACK		FX3	ON/OFF	FX3 DIST	DEPTH
	tone		TRIGGER		TYPE			DIST		TRIGGER
	E.LEVEL		BAND		DIST			tone		BAND
	D.LEVEL		RATE		E.LEVEL			E.LEVEL		RATE
FX2 RADIO	LO-FI		FX2 ISOLAT		DEPTH		FX3 RADIO	D.LEVEL	FX3 ISOLAT	DEPTH
	LEVEL				BAND LEVEL			LO-FI		BAND LEVEL
FX2 LO-FI	BIT	STEP RATE		LEVEL	FX3 LO-FI	LEVEL		FX3 VIB		STEP RATE
	SAMPLE	RATE		BIT		RATE				
	BALANCE	DEPTH	SAMPLE	DEPTH						
FX2 FILTER	TYPE	FX2 VIB	TRIGGER	FX3 FILTER	BALANCE	FX3 PAN	TRIGGER			
	RATE		RISE TIME		TYPE		RISE TIME			
	LEVEL		LEVEL		RATE		LEVEL			
	DEPTH		POSITION		LEVEL		POSITION			
	RESONANCE	LEVEL	RESONANCE		LEVEL					
	CUTOFF	WAVE	CUTOFF		WAVE					
	STEP RATE	RATE	STEP RATE		RATE					
	MODE	DEPTH	MODE		DEPTH					
FX2 T.WAH	TYPE	FX2 PAN	INIT PHASE	FX3 T.WAH	INIT PHASE	FX3 ROLL	INIT PHASE			
	POLARITY		TIME		TYPE		TIME			
	SENS		ROLL		POLARITY		ROLL			
	FREQ		REPEAT		SENS		REPEAT			
	PEAK	BALANCE	FREQ		BALANCE					
	E.LEVEL	TRIGGER	PEAK		TRIGGER					
D.LEVEL	LENGTH	E.LEVEL	LENGTH							
FX2 RNGMD	FREQ	FX2 FREEZE	ATTACK	FX3 RNGMD	D.LEVEL	FX3 FREEZE	LENGTH			
	E.LEVEL		RELEASE		FREQ		ATTACK			
	D.LEVEL		DECAY		E.LEVEL		RELEASE			
	TYPE		SUSTAIN		D.LEVEL		DECAY			
FX2 CHO	RATE		FX2 GRANU	BALANCE	FX3 CHO	TYPE	FX3 FREEZE	SUSTAIN		
	DEPTH			TRIGGER		RATE		BALANCE		
	E.LEVEL			TIME		DEPTH		TRIGGER		
	E.LEVEL			FEEDBACK		E.LEVEL		TRIGGER		
	PRE-DELAY	LEVEL	D.LEVEL	FEEDBACK						
	LOW CUT	TYPE	PRE-DELAY	LEVEL						
	HIGH CUT	TIME	LOW CUT	HIGH CUT						
	D.LEVEL	E.LEVEL	HIGH CUT	D.LEVEL						
FX2 FLANGR	RATE	FX2 DELAY	FEEDBACK	FX3 CHO	RATE	FX3 DELAY	FEEDBACK			
	DEPTH		LOW CUT		PRE-DELAY		LOW CUT			
	RESONANCE		HIGH CUT		LOW CUT		HIGH CUT			
	MANUAL		TAP TIME		D.LEVEL		LOW CUT			
	SEPARAT		MOD RATE		DEPTH		MOD RATE			
LOW CUT	MOD DEPTH		RESONANCE		MOD DEPTH					
FX2 FLANGER	E.LEVEL		FX2 DELAY		D.LEVEL		FX3 FLANGR	MANUAL	FX3 DELAY	D.LEVEL
	D.LEVEL				DK SENS			SEPARAT		MANUAL
	STEP RATE	DK DEPTH		LOW CUT	SEPARAT					
WAVE	TAP	E.LEVEL		LOW CUT						
FX2 TREMOL	RATE	FX2 D-DUAL	FEEDBACK1	FX3 TREMOL	D.LEVEL	FX3 D-DUAL		FEEDBACK1		
	DEPTH		LOW CUT1		WAVE			LOW CUT1		
	LEVEL		HIGH CUT1		RATE			HIGH CUT1		
	TYPE		TIME2		DEPTH			TIME2		
FX2 PHASE	RATE		FX2 D-DUAL		E.LEVEL2		FX3 PHASE	RESONANCE	FX3 D-DUAL	E.LEVEL2
	DEPTH				FEEDBACK2			MANUAL		FEEDBACK2
	RESONANCE				LOW CUT2			STEP RATE		LOW CUT2
	MANUAL				HIGH CUT2			E.LEVEL		HIGH CUT2
	STEP RATE	TIME1		D.LEVEL	HIGH CUT2					
	E.LEVEL	E.LEVEL1		FEEDBACK1	FEEDBACK1					
	D.LEVEL	FEEDBACK1		LOW CUT1	LOW CUT1					
		HIGH CUT1		HIGH CUT1	HIGH CUT1					

EFFECT

CATEGORY	Target	CATEGORY	Target	CATEGORY	Target	CATEGORY	Target		
FX3 D-WRP	WARP TRIG	FX4 ROTARY	SPEED	FX4 D-WRP	WARP TRIG	OUTPUT	LEVEL		
	WARP LEV		RATE SLOW		WARP LEV		GAIN		
FX3 REVERB	TYPE		RATE FAST	FX4 REVERB	TYPE		MODE	REVERB LEV	
	TIME		DEPTH		E.LEVEL		DRY LEVEL		
	E.LEVEL		RISE TIME		PRE-DELAY		EQ SET		
	PRE-DELAY		FALL TIME		LOW CUT		EQ LOW GAIN		
	LOW CUT		E.LEVEL	HIGH CUT	EQ HI GAIN				
	HIGH CUT		PATTERN	DENSITY	EQ LEVEL				
FX4	ON/OFF	FX4 SLICER	RATE	FX4 ISOLAT	ON/OFF		EQ LM GAIN		
	TYPE		DEPTH		TYPE		EQ LM FREQ		
FX4 DIST	DIST		ATTACK	REVERB1	REV TIME	EQ LM Q	EQ HM GAIN		
	ZONE		TRIGGER		REV LEVEL	EQ HM FREQ			
	TONE	BAND	REV PreDL1		EQ HM Q				
E.LEVEL	RATE	REV LO CUT	EQ LOW CUT						
D.LEVEL	DEPTH	BAND LEVEL	REV HI CUT	EQ HIGH CUT					
FX4 RADIO	LO-FI	STEP RATE	REVERB1	REV DENSITY	BYPASS	ON/OFF			
	LEVEL	RATE		REV PreDL2		MIDI	CC		
FX4 LO-FI	BIT	DEPTH		DLY TIME	REVERB1		OUTPUT	LEVEL	
	SAMPLE	TRIGGER		DLY E.LEVEL		ON/OFF			
BALANCE	RISE TIME	DLY FDBACK	TYPE						
FX4 FILTER	TYPE	LEVEL	DLY LO CUT	REV TIME		REV LEVEL			REV PreDL1
	RATE	FX4 PAN	DLY HI CUT	REV HI CUT	REV LO CUT	REV HI CUT			
	LEVEL		POSITION	DLY TAP	REV DENSITY	REV PreDL2			DLY TIME
	DEPTH	LEVEL	REV HI CUT	REV DENSITY	DLY E.LEVEL	DLY FDBACK			
	RESONANCE	WAVE	REV HI CUT	REV PreDL2	DLY LO CUT	DLY LO CUT			DLY HI CUT
	CUTOFF	RATE	REV DENSITY	DLY TAP	DLY TAP	DLY TAP			DLY TAP
STEP RATE	DEPTH	REV PreDL1	1SHOT	LOOP	1SHOT	LEVEL			
MODE	INIT PHASE	REV PreDL2	LEVEL	MASTER	REC ACTION	REC ACTION			
FX4 T.WAH	TYPE	TIME	REC DECAY		PAT LEVEL	PAT LEVEL	BPM		
	POLARITY	ROLL	PAT LEVEL	BPM	NS	REV LEVEL			
	SENS	REPEAT	REV LEVEL	TAP	REV LEVEL	TAP			
FREQ	BALANCE	REV LO CUT	KEY	AUTO	KEY	RECG SRC			
FX4 T.WAH	PEAK	TRIGGER	EQ SET	KEY	EQ SET	EQ LOW GAIN			
	E.LEVEL	LENGTH	EQ LOW GAIN	RECG SRC	EQ LOW GAIN	EQ HI GAIN			
D.LEVEL	ATTACK	EQ HI GAIN	EQ LOW GAIN	EQ LOW GAIN	EQ HI GAIN	EQ LEVEL			
FX4 RNGMD	FREQ	RELEASE	EQ LEVEL	EQ LOW GAIN	EQ LM GAIN	EQ LM FREQ			
	E.LEVEL	DECAY	EQ LM GAIN	EQ LM GAIN	EQ LM FREQ	EQ LM Q			
	D.LEVEL	SUSTAIN	EQ LM FREQ	EQ LM FREQ	EQ LM Q	EQ HM GAIN			
FX4 CHO	TYPE	BALANCE	EQ HM GAIN	EQ HM GAIN	EQ HM FREQ	EQ HM Q			
	RATE	TRIGGER	EQ HM FREQ	EQ HM FREQ	EQ HM Q	EQ LOW CUT			
	DEPTH	TIME	EQ LOW CUT	EQ LOW CUT	EQ HIGH CUT	EQ HIGH CUT			
	E.LEVEL	FEEDBACK	EQ HIGH CUT	EQ HIGH CUT					
	PRE-DELAY	LEVEL							
	LOW CUT	TYPE							
FX4 FLANGR	HIGH CUT	TIME							
	D.LEVEL	E.LEVEL							
	RATE	FEEDBACK							
	DEPTH	LOW CUT							
	RESONANCE	HIGH CUT							
	MANUAL	TAP TIME							
FX4 TREMOL	SEPARAT	MOD RATE							
	LOW CUT	MOD DEPTH							
	E.LEVEL	D.LEVEL							
	D.LEVEL	DK SENS							
	STEP RATE	DK DEPTH							
	WAVE	TAP							
FX4 PHASE	RATE	TIME1							
	DEPTH	E.LEVEL1							
	LEVEL	FEEDBACK1							
	TYPE	LOW CUT1							
	RATE	HIGH CUT1							
	DEPTH	TIME2							
FX4 D-DUAL	RESONANCE	E.LEVEL2							
	MANUAL	FEEDBACK2							
	STEP RATE	LOW CUT2							
	E.LEVEL	HIGH CUT2							
	D.LEVEL								

Virtual Expression Pedal System (Internal Pedal/Wave Pedal)

By assigning a desired parameter to the virtual expression pedal, you can produce an effect as though you were operating a physical expression pedal to change the volume or tone quality in real time.

The virtual expression pedal system provides the following two types of functions, and you can use the SOURCE setting for ASSIGN 1–8 to choose the desired type.

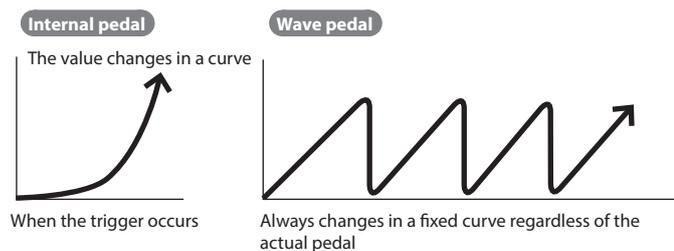
* If you want to use the internal pedal or wave pedal, set the ASSIGN parameter MODE to "MOMENT."

Internal pedal

If SOURCE is set to "INT PDL," the virtual expression pedal will begin operating when started by the specified trigger (INT PDL TRIGGER), modifying the parameter specified by TARGET.

Wave pedal

If SOURCE is set to "WAVE PDL," the specified trigger "WAVE TRIG (WAVE PEDAL TRIGGER)" (wave pedal trigger) initiates change for the parameter that is assigned as the "TARGET" of the virtual expression pedal.

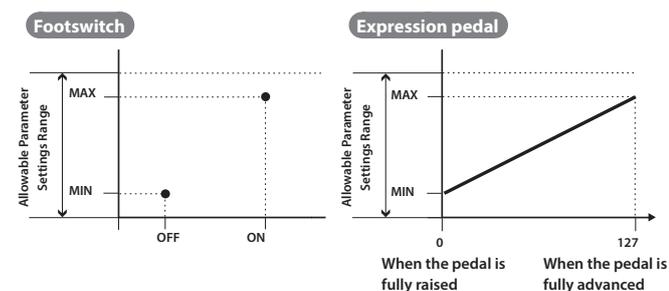


About the Range of a Target's Change

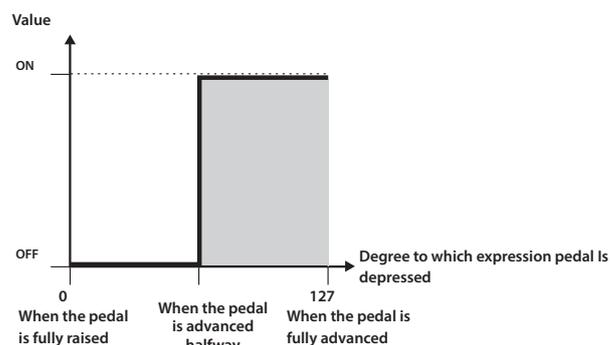
The value of the parameter selected as the target changes within the range defined by "Min" and "Max," as set on the VE-500.

When using an external footswitch, or other controller that acts as an on/off switch, "Min" is selected with Off (CLOSED), and "Max" is selected with On (OPEN).

When using an external expression pedal or other controller that generates a consecutive change in the value, the value of the setting changes accordingly, within the range set by the minimum and maximum values. Also, when the target is of an on/off type, the median value of the received data is used as the dividing line in determining whether to switch it on or off.



When controlling the On/Off target with the expression pedal



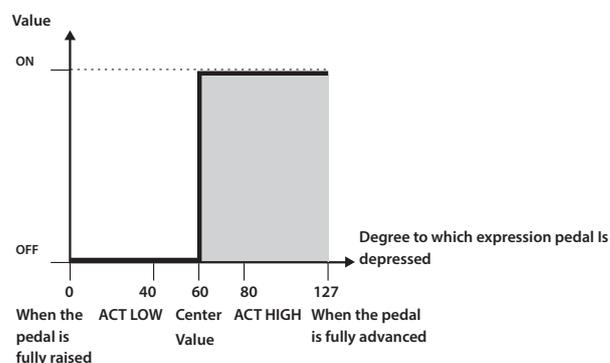
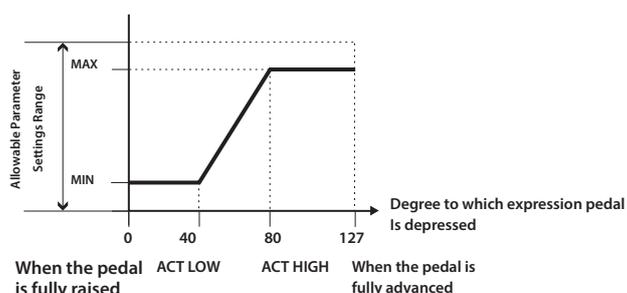
- * The range that can be selected changes according to the target setting.
- * When the "minimum" is set to a higher value than the "maximum," the change in the parameter is reversed.
- * The values of settings can change if the target is changed after the "minimum" and "maximum" settings have been made. If you've changed the target, be sure to recheck the "minimum" and "maximum" settings.

About the Range of a Controller's Change

This sets the operational range within which the value of the setting changes when an expression pedal or other controller that changes the value consecutively is used as the source.

If the controller is moved outside the operational range, the value does not change, it stops at "minimum" or "maximum."

(Example) With ACT.LOW: 40, ACT.HIGH: 80



- * When using a footswitch or other on/off switching controller as the source, leave these at "ACT LOW: 0" and "ACT HIGH: 127." With certain settings, the value may not change.

MENU

DISPLAY



Here you can adjust the brightness of the characters in the display.

Parameter	Value	Explanation
CONTRAST	1–16	Higher values increase the brightness.

INPUT



Parameter	Value	Explanation
MIC SENS	0–200	Adjusts the sensitivity of the mic.
PHANTOM	OFF, ON	Turns phantom power on/off.
EQ SET	OFF, 1–4	Up to four sets of EQ settings for INPUT can be memorized.
EQ1–4		
LOW GAIN	-20–+20dB	Adjusts the low frequency range tone.
HIGH GAIN	-20–+20dB	Adjusts the high frequency range tone.
LEVEL	-20–+20dB	Adjusts the overall volume level of the equalizer.
LMID GAIN (LOW-MID GAIN)	-20–+20dB	Adjusts the low-middle frequency range tone.
LMID FREQ (LOW-MID FREQUENCY)	20–16.0kHz	Specifies the center of the frequency range that will be adjusted by the LMID GAIN.
LMID Q (LOW-MID Q)	0.5–16	Adjusts the width of the area affected by the EQ centered at the LMID FREQ. Higher values will narrow the area.
HMID GAIN (LOW-MID GAIN)	-20–+20dB	Adjusts the high-middle frequency range tone.
HMID FREQ (HIGH-MID FREQUENCY)	20–16.0kHz	Specifies the center of the frequency range that will be adjusted by the HMID GAIN.
HMID Q (HIGH-MID Q)	0.5–16	Adjusts the width of the area affected by the EQ centered at the HMID FREQ. Higher values will narrow the area.
LOW CUT	FLAT, 20–800Hz	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	630Hz–16.0kHz, 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.
NOTCH		
NOTCH	OFF, ON	Turns on/off the notch filter (an effect that lowers the volume of a specified frequency region) used to suppress acoustic feedback.
FREQ	C1–F#9	Specifies the frequency of the notch filter as a note name. C1 (32.7 Hz)–F#9 (11.8 kHz)
DEPTH	Adjusts the amount of depth in the notch filter.	
	SHARP	"SHARP" is the sharpest, and produces the least change in the input sound. "MIDDLE" and "BLUNT" are progressively wider filters.
	MIDDLE	
	BLUNT	

OUTPUT



Parameter	Value	Explanation
LEVEL	0–200	Adjusts the output level.
GAIN	MIC	Select this if connecting to the MIC input.
	INST	Select this if connecting to the LINE/INST input.
MODE	Selects the mode for the sound that is output from the OUTPUT L, R jacks.	
	FX/BYPASS	OUTPUT L: Output the effect sound. OUTPUT R: Output the bypass sound.
	FX/DRY	OUTPUT L: Output the effect sound. OUTPUT R: Output the dry sound (the sound that passes through ENHANCE).
	STEREO	Output stereo from the OUTPUT L, R jacks.
	DUAL MONO	Output mono from the OUTPUT L, R jacks respectively.
REV LEVEL	0–200	Adjusts the volume of the reverb sound.
DRY LEVEL	0–100	Adjusts the volume of the dry sound when the effect is on. * The level does not affect the DRY output if using FX/DRY output.
EQ SET	OFF, 1–4	Up to four sets of EQ settings for OUTPUT can be memorized.
EQ1–4		
LOW GAIN	-20–+20dB	Adjusts the low frequency range tone.
HIGH GAIN	-20–+20dB	Adjusts the high frequency range tone.
LEVEL	-20–+20dB	Adjusts the overall volume level of the equalizer.
LMID GAIN (LOW-MID GAIN)	-20–+20dB	Adjusts the low-middle frequency range tone.
LMID FREQ (LOW-MID FREQUENCY)	20–16.0kHz	Specifies the center of the frequency range that will be adjusted by the LMID GAIN.
LMID Q (LOW-MID Q)	0.5–16	Adjusts the width of the area affected by the EQ centered at the LMID FREQ. Higher values will narrow the area.
HMID GAIN (LOW-MID GAIN)	-20–+20dB	Adjusts the high-middle frequency range tone.
HMID FREQ (HIGH-MID FREQUENCY)	20–16.0kHz	Specifies the center of the frequency range that will be adjusted by the HMID GAIN.
HMID Q (HIGH-MID Q)	0.5–16	Adjusts the width of the area affected by the EQ centered at the HMID FREQ. Higher values will narrow the area.
LOW CUT	FLAT, 20–800Hz	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	630Hz–16.0kHz, 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.

PLAY (PLAY OPTION)



Here you can specify what happens when you operate the pedals or knobs while performing and the range of patches that are used.

Parameter	Value	Explanation
EXP HLD (EXP PEDAL HOLD)	OFF	When you switch patches, the state of FUNCTION operations for EXP is not applied.
	ON	When you switch patches, the state of FUNCTION operations for EXP is applied if the state is the same as for the previous patch. For example, if the FUNCTION of EXP is PAT LEVEL for both the previous patch and the newly selected patch, the pedal position at the moment the patch was switched will continue to control the volume after the patch is switched.
PAT MIN (PATCH EXTENT MIN) PAT MAX (PATCH EXTENT MAX)	(MIN) U01-P50 (MAX) U01-P50	Specify the lower and upper limit of the patches that can be selected. Only the specified range of patches are available for selection.
KNOB LOCK	OFF, ON	If knob lock is on, the knobs [1]-[3] will be inoperable. * This prevents settings from being changed inadvertently on stage or in other such situations.

KNOB (KNOB SETTING)



Here you can assign the desired parameters to knobs [1]-[3] in the play screen.

* The settings you make here are only for the knobs in the play screen.

Parameter
KNOB1-3

Value	Explanation
OFF	No assignment.
PATCH	Change patches.
EH OnOf	ENHANCE ON/OFF
EH EH	ENHANCE ENHANCE
EH COMP	ENHANCE COMPRESS
EH DEESSR	ENHANCE DEESSER
PCR OnOf	PCR ON/OFF
PCR FRMNT	PCR FORMANT
PCR SHIFT	PCR SHIFT
LFX TYPE	LFX TYPE
LFX E.LEV	LFX LEVEL
LFX D.LEV	LFX DIRECT
HRM OnOf	HARMONY ON/OFF
H1 VOICE.A	HARMONY1 (AUTO: FULL, HYBRID)
H1 VOICE.M	HARMONY1 (AUTO: OFF)
H1 PAN	HARMONY1 PAN
H1 LEVEL	HARMONY1 LEVEL
H1 FRMNT	HARMONY1 FORMANT

Value	Explanation
H2 VOICE.A	HARMONY2 (AUTO: FULL, HYBRID)
H2 VOICE.M	HARMONY2 (AUTO: OFF)
H2 PAN	HARMONY2 PAN
H2 LEVEL	HARMONY2 LEVEL
H2 FRMNT	HARMONY2 FORMANT
H3 VOICE.A	HARMONY3 (AUTO: FULL, HYBRID)
H3 VOICE.M	HARMONY3 (AUTO: OFF)
H3 PAN	HARMONY3 PAN
H3 LEVEL	HARMONY3 LEVEL
H3 FRMNT	HARMONY3 FORMANT
VOC OnOf	VOCODER ON/OFF
VOC TYP	VOCODER TYPE
VOC LEV	VOCODER LEVEL
VOC CRR.I	VOCODER CARR.INST
VOC CRR.M	VOCODER CARR.MIC
VOC OCT	VOCODER OCTAVE
VOC DRV	VOCODER DRIVE
VOC FRMNT	VOCODER FORMANT
VOC TONE	VOCODER TONE
VOC CHRO	VOCODER CHROMATIC
FX1 OnOf	FX1 ON/OFF
FX1 TYPE	FX1 TYPE
F1DIST DST	FX1 DIST DIST
F1DIST TON	FX1 DIST TONE
F1DIST LEV	FX1 DIST LEVEL
F1RDIO LFI	FX1 RADIO LOFI
F1RDIO LEV	FX1 RADIO LEVEL
F1LOFI BIT	FX1 LO-FI BIT
F1LOFI SPL	FX1 LO-FI SAMPLE
F1LOFI BAL	FX1 LO-FI BALANCE
F1FLT TYPE	FX1 FILTER TYPE
F1FLT RATE	FX1 FILTER RATE
F1FLT DPTH	FX1 FILTER DEPTH
F1FLT RES	FX1 FILTER RESONANCE
F1FLT CUT	FX1 FILTER CUTOFF
F1TW TYPE	FX1 T.WAH TYPE
F1TW POL	FX1 T.WAH POLARITY
F1TW SENS	FX1 T.WAH SENS
F1TW FREQ	FX1 T.WAH FREQ
F1RNG FRQ	FX1 RNGMD FREQ
F1RNG ELV	FX1 RNGMD E.LEVEL
F1CH TYPE	FX1 CHO TYPE
F1CH RATE	FX1 CHO RATE
F1CH DPTH	FX1 CHO DEPTH
F1FL RATE	FX1 FLANGER RATE
F1FL DPTH	FX1 FLANGER DEPTH
F1FL RES	FX1 FLANGER RESO
F1TR WAVE	FX1 TREMOL WAV SHAPE
F1TR RATE	FX1 TREMOL RATE
F1TR DPTH	FX1 TREMOL DEPTH
F1PH TYPE	FX1 PHASER TYPE

Value	Explanation
F1PH RATE	FX1 PHASER RATE
F1PH DPTH	FX1 PHASER DEPTH
F1RT SPED	FX1 ROTARY SPEED
F1RT SLOW	FX1 ROTARY SLOW
F1RT FAST	FX1 ROTARY FAST
F1SL PATT	FX1 SLICER PATTERN
F1SL RATE	FX1 SLICER RATE
F1SL DPTH	FX1 SLICER DEPTH
F1IS BAND	FX1 ISOLAT BAND
F1IS RATE	FX1 ISOLAT RATE
F1IS DPTH	FX1 ISOLAT DEPTH
F1VB RATE	FX1 VIB RATE
F1VB DPTH	FX1 VIB DEPTH
F1VB TRIG	FX1 VIB TRIGGER
F1PAN TYPE	FX1 PAN TYPE
F1PAN POS	FX1 PAN POSITION
F1PAN LEV	FX1 PAN LEVEL
F1PAN WAV	FX1 PAN WAV SHAPE
F1PAN RT	FX1 PAN RATE
F1RL TIME	FX1 ROLL TIME
F1RL ROLL	FX1 ROLL
F1RL RPT	FX1 ROLL REPEAT
F1RL BAL	FX1 ROLL BALANCE
F1RL TRIG	FX1 ROLL TRIGGER
F1FRZ ATK	FX1 FREEZE ATTACK
F1FRZ REL	FX1 FREEZE RELEASE
F1FRZ DCY	FX1 FREEZE DECAY
F1FRZ SUS	FX1 FREEZE SUSTAIN
F1FRZ BAL	FX1 FREEZE BALANCE
F1FRZ TRIG	FX1 FREEZE TRIGGER
F1GRN TIME	FX1 GRANU TIME
F1GRN FBK	FX1 GRANU FEEDBACK
F1GRN LEV	FX1 GRANU LEVEL
F1DL TYPE	FX1 DELAY TYPE
F1DL TIM	FX1 DELAY TIME
F1DL ELV	FX1 DELAY E.LEVEL
F1DL FBK	FX1 DELAY FEEDBACK
F1DL TIM1	FX1 D-DUAL TIME1
F1DL ELV1	FX1 D-DUAL E.LEVEL1
F1DL FBK1	FX1 D-DUAL FEEDBACK1
F1DL TIM2	FX1 D-DUAL TIME2
F1DL ELV2	FX1 D-DUAL E.LEVEL2
F1DL FBK2	FX1 D-DUAL FEEDBACK2
F1DL TRIG	FX1 D-WRP WARP TRIG
F1DL WLW	FX1 DELAY WARP LEV
F1REV TYPE	FX1 REVERB TYPE
F1REV TIME	FX1 REVERB TIME
F1REV ELV	FX1 REVERB E.LEVEL
FX2 OnOf	FX2 ON/OFF
FX2 TYPE	FX2 TYPE
F2DIST DST	FX2 DIST DIST
F2DIST TON	FX2 DIST TONE

Value	Explanation
F2DIST LEV	FX2 DIST LEVEL
F2RDIO LFI	FX2 RADIO LOFI
F2RDIO LEV	FX2 RADIO LEVEL
F2LOFI BIT	FX2 LO-FI BIT
F2LOFI SPL	FX2 LO-FI SAMPLE
F2LOFI BAL	FX2 LO-FI BALANCE
F2FLT TYPE	FX2 FILTER TYPE
F2FLT RATE	FX2 FILTER RATE
F2FLT DPTH	FX2 FILTER DEPTH
F2FLT RES	FX2 FILTER RESONANCE
F2FLT CUT	FX2 FILTER CUTOFF
F2TW TYPE	FX2 T.WAH TYPE
F2TW POL	FX2 T.WAH POLARITY
F2TW SENS	FX2 T.WAH SENS
F2TW FREQ	FX2 T.WAH FREQ
F2RNG FRQ	FX2 RNGMD FREQ
F2RNG ELV	FX2 RNGMD E.LEVEL
F2CH TYPE	FX2 CHO TYPE
F2CH RATE	FX2 CHO RATE
F2CH DPTH	FX2 CHO DEPTH
F2FL RATE	FX2 FLANGER RATE
F2FL DPTH	FX2 FLANGER DEPTH
F2FL RES	FX2 FLANGER RESO
F2TR WAVE	FX2 TREMOL WAV SHAPE
F2TR RATE	FX2 TREMOL RATE
F2TR DPTH	FX2 TREMOL DEPTH
F2PH TYPE	FX2 PHASER TYPE
F2PH RATE	FX2 PHASER RATE
F2PH DPTH	FX2 PHASER DEPTH
F2RT SPED	FX2 ROTARY SPEED
F2RT SLOW	FX2 ROTARY SLOW
F2RT FAST	FX2 ROTARY FAST
F2SL PATT	FX2 SLICER PATTERN
F2SL RATE	FX2 SLICER RATE
F2SL DPTH	FX2 SLICER DEPTH
F2IS BAND	FX2 ISOLAT BAND
F2IS RATE	FX2 ISOLAT RATE
F2IS DPTH	FX2 ISOLAT DEPTH
F2VB RATE	FX2 VIB RATE
F2VB DPTH	FX2 VIB DEPTH
F2VB TRIG	FX2 VIB TRIGGER
F2PAN TYPE	FX2 PAN TYPE
F2PAN POS	FX2 PAN POSITION
F2PAN LEV	FX2 PAN LEVEL
F2PAN WAV	FX2 PAN WAV SHAPE
F2PAN RT	FX2 PAN RATE
F2RL TIME	FX2 ROLL TIME
F2RL ROLL	FX2 ROLL
F2RL RPT	FX2 ROLL REPEAT
F2RL BAL	FX2 ROLL BALANCE
F2RL TRIG	FX2 ROLL TRIGGER
F2FRZ ATK	FX2 FREEZE ATTACK

Value	Explanation
F2FRZ REL	FX2 FREEZE RELEASE
F2FRZ DCY	FX2 FREEZE DECAY
F2FRZ SUS	FX2 FREEZE SUSTAIN
F2FRZ BAL	FX2 FREEZE BALANCE
F2FRZ TRIG	FX2 FREEZE TRIGGER
F2GRN TIME	FX2 GRANU TIME
F2GRN FBK	FX2 GRANU FEEDBACK
F2GRN LEV	FX2 GRANU LEVEL
F2DL TYPE	FX2 DELAY TYPE
F2DL TIM	FX2 DELAY TIME
F2DL ELV	FX2 DELAY E.LEVEL
F2DL FBK	FX2 DELAY FEEDBACK
F2DL TIM1	FX2 D-DUAL TIME1
F2DL ELV1	FX2 D-DUAL E.LEVEL1
F2DL FBK1	FX2 D-DUAL FEEDBACK1
F2DL TIM2	FX2 D-DUAL TIME2
F2DL ELV2	FX2 D-DUAL E.LEVEL2
F2DL FBK2	FX2 D-DUAL FEEDBACK2
F2DL TRIG	FX2 D-WRP WARP TRIG
F2DL WLW	FX2 DELAY WARP LEV
F2REV TYPE	FX2 REVERB TYPE
F2REV TIME	FX2 REVERB TIME
F2REV ELV	FX2 REVERB E.LEVEL
FX3 OnOf	FX3 ON/OFF
FX3 TYPE	FX3 TYPE
F3DIST DST	FX3 DIST DIST
F3DIST TON	FX3 DIST TONE
F3DIST LEV	FX3 DIST LEVEL
F3RDIO LFI	FX3 RADIO LOFI
F3RDIO LEV	FX3 RADIO LEVEL
F3LOFI BIT	FX3 LO-FI BIT
F3LOFI SPL	FX3 LO-FI SAMPLE
F3LOFI BAL	FX3 LO-FI BALANCE
F3FLT TYPE	FX3 FILTER TYPE
F3FLT RATE	FX3 FILTER RATE
F3FLT DPTH	FX3 FILTER DEPTH
F3FLT RES	FX3 FILTER RESONANCE
F3FLT CUT	FX3 FILTER CUTOFF
F3TW TYPE	FX3 T.WAH TYPE
F3TW POL	FX3 T.WAH POLARITY
F3TW SENS	FX3 T.WAH SENS
F3TW FREQ	FX3 T.WAH FREQ
F3RNG FRQ	FX3 RNGMD FREQ
F3RNG ELV	FX3 RNGMD E.LEVEL
F3CH TYPE	FX3 CHO TYPE
F3CH RATE	FX3 CHO RATE
F3CH DPTH	FX3 CHO DEPTH
F3FL RATE	FX3 FLANGER RATE
F3FL DPTH	FX3 FLANGER DEPTH
F3FL RES	FX3 FLANGER RESO
F3TR WAVE	FX3 TREMOL WAV SHAPE
F3TR RATE	FX3 TREMOL RATE

Value	Explanation
F3TR DPTH	FX3 TREMOL DEPTH
F3PH TYPE	FX3 PHASER TYPE
F3PH RATE	FX3 PHASER RATE
F3PH DPTH	FX3 PHASER DEPTH
F3RT SPED	FX3 ROTARY SPEED
F3RT SLOW	FX3 ROTARY SLOW
F3RT FAST	FX3 ROTARY FAST
F3SL PATT	FX3 SLICER PATTERN
F3SL RATE	FX3 SLICER RATE
F3SL DPTH	FX3 SLICER DEPTH
F3IS BAND	FX3 ISOLAT BAND
F3IS RATE	FX3 ISOLAT RATE
F3IS DPTH	FX3 ISOLAT DEPTH
F3VB RATE	FX3 VIB RATE
F3VB DPTH	FX3 VIB DEPTH
F3VB TRIG	FX3 VIB TRIGGER
F3PAN TYPE	FX3 PAN TYPE
F3PAN POS	FX3 PAN POSITION
F3PAN LEV	FX3 PAN LEVEL
F3PAN WAV	FX3 PAN WAV SHAPE
F3PAN RT	FX3 PAN RATE
F3RL TIME	FX3 ROLL TIME
F3RL ROLL	FX3 ROLL
F3RL RPT	FX3 ROLL REPEAT
F3RL BAL	FX3 ROLL BALANCE
F3RL TRIG	FX3 ROLL TRIGGER
F3FRZ ATK	FX3 FREEZE ATTACK
F3FRZ REL	FX3 FREEZE RELEASE
F3FRZ DCY	FX3 FREEZE DECAY
F3FRZ SUS	FX3 FREEZE SUSTAIN
F3FRZ BAL	FX3 FREEZE BALANCE
F3FRZ TRIG	FX3 FREEZE TRIGGER
F3GRN TIME	FX3 GRANU TIME
F3GRN FBK	FX3 GRANU FEEDBACK
F3GRN LEV	FX3 GRANU LEVEL
F3DL TYPE	FX3 DELAY TYPE
F3DL TIM	FX3 DELAY TIME
F3DL ELV	FX3 DELAY E.LEVEL
F3DL FBK	FX3 DELAY FEEDBACK
F3DL TIM1	FX3 D-DUAL TIME1
F3DL ELV1	FX3 D-DUAL E.LEVEL1
F3DL FBK1	FX3 D-DUAL FEEDBACK1
F3DL TIM2	FX3 D-DUAL TIME2
F3DL ELV2	FX3 D-DUAL E.LEVEL2
F3DL FBK2	FX3 D-DUAL FEEDBACK2
F3DL TRIG	FX3 D-WRP WARP TRIG
F3DL WLW	FX3 DELAY WARP LEV
F3REV TYPE	FX3 REVERB TYPE
F3REV TIME	FX3 REVERB TIME
F3REV ELV	FX3 REVERB E.LEVEL
FX4 OnOf	FX4 ON/OFF
FX4 TYPE	FX4 TYPE

Value	Explanation
F4DIST DST	FX4 DIST DIST
F4DIST TON	FX4 DIST TONE
F4DIST LEV	FX4 DIST LEVEL
F4RDIO LFI	FX4 RADIO LOFI
F4RDIO LEV	FX4 RADIO LEVEL
F4LOFI BIT	FX4 LO-FI BIT
F4LOFI SPL	FX4 LO-FI SAMPLE
F4LOFI BAL	FX4 LO-FI BALANCE
F4FLT TYPE	FX4 FILTER TYPE
F4FLT RATE	FX4 FILTER RATE
F4FLT DPTH	FX4 FILTER DEPTH
F4FLT RES	FX4 FILTER RESONANCE
F4FLT CUT	FX4 FILTER CUTOFF
F4TW TYPE	FX4 T.WAH TYPE
F4TW POL	FX4 T.WAH POLARITY
F4TW SENS	FX4 T.WAH SENS
F4TW FREQ	FX4 T.WAH FREQ
F4RNG FRQ	FX4 RNGMD FREQ
F4RNG ELV	FX4 RNGMD E.LEVEL
F4CH TYPE	FX4 CHO TYPE
F4CH RATE	FX4 CHO RATE
F4CH DPTH	FX4 CHO DEPTH
F4FL RATE	FX4 FLANGER RATE
F4FL DPTH	FX4 FLANGER DEPTH
F4FL RES	FX4 FLANGER RESO
F4TR WAVE	FX4 TREMOL WAV SHAPE
F4TR RATE	FX4 TREMOL RATE
F4TR DPTH	FX4 TREMOL DEPTH
F4PH TYPE	FX4 PHASER TYPE
F4PH RATE	FX4 PHASER RATE
F4PH DPTH	FX4 PHASER DEPTH
F4RT SPED	FX4 ROTARY SPEED
F4RT SLOW	FX4 ROTARY SLOW
F4RT FAST	FX4 ROTARY FAST
F4SL PATT	FX4 SLICER PATTERN
F4SL RATE	FX4 SLICER RATE
F4SL DPTH	FX4 SLICER DEPTH
F4IS BAND	FX4 ISOLAT BAND
F4IS RATE	FX4 ISOLAT RATE
F4IS DPTH	FX4 ISOLAT DEPTH
F4VB RATE	FX4 VIB RATE
F4VB DPTH	FX4 VIB DEPTH
F4VB TRIG	FX4 VIB TRIGGER
F4PAN TYPE	FX4 PAN TYPE
F4PAN POS	FX4 PAN POSITION
F4PAN LEV	FX4 PAN LEVEL
F4PAN WAV	FX4 PAN WAV SHAPE
F4PAN RT	FX4 PAN RATE
F4RL TIME	FX4 ROLL TIME
F4RL ROLL	FX4 ROLL
F4RL RPT	FX4 ROLL REPEAT
F4RL BAL	FX4 ROLL BALANCE

Value	Explanation
F4RL TRIG	FX4 ROLL TRIGGER
F4FRZ ATK	FX4 FREEZE ATTACK
F4FRZ REL	FX4 FREEZE RELEASE
F4FRZ DCY	FX4 FREEZE DECAY
F4FRZ SUS	FX4 FREEZE SUSTAIN
F4FRZ BAL	FX4 FREEZE BALANCE
F4FRZ TRIG	FX4 FREEZE TRIGGER
F4GRN TIME	FX4 GRANU TIME
F4GRN FBK	FX4 GRANU FEEDBACK
F4GRN LEV	FX4 GRANU LEVEL
F4DL TYPE	FX4 DELAY TYPE
F4DL TIM	FX4 DELAY TIME
F4DL ELV	FX4 DELAY E.LEVEL
F4DL FBK	FX4 DELAY FEEDBACK
F4DL TIM1	FX4 D-DUAL TIME1
F4DL ELV1	FX4 D-DUAL E.LEVEL1
F4DL FBK1	FX4 D-DUAL FEEDBACK1
F4DL TIM2	FX4 D-DUAL TIME2
F4DL ELV2	FX4 D-DUAL E.LEVEL2
F4DL FBK2	FX4 D-DUAL FEEDBACK2
F4DL TRIG	FX4 D-WRP WARP TRIG
F4DL WLW	FX4 DELAY WARP LEV
F4REV TYPE	FX4 REVERB TYPE
F4REV TIME	FX4 REVERB TIME
F4REV ELV	FX4 REVERB E.LEVEL
REV1 OnOf	REV1 ON/OFF
RV1TYPE	REV1 TYPE
R1REV TIM	REV1 TIME
R1REV LV	REV1 LEVEL
R1DLY TIME	REV1 DLY TIME
R1DLY ELV	REV1 DLY E.LEVEL
R1DLY FBK	REV1 DLY FDBACK
REV2 OnOf	REV2 ON/OFF
RV2TYPE	REV2 TYPE
R2REV TIM	REV2 TIME
R2REV LV	REV2 LEVEL
R2DLY TIME	REV2 DLY TIME
R2DLY ELV	REV2 DLY E.LEVEL
R2DLY FBK	REV2 DLY FDBACK
LOOP1SHOT	LOOP 1SHOT
LOOP ACT	LOOP REC ACTION
LOOP LEV	LOOP LEVEL
KEY AUTO	KEY AUTO
KEY	KEY KEY
BPM	MASTER BPM
NS	MASTER NS
PAT LEVEL	MASTER PAT LEVEL
FX STRCT.H	MASTER FX STRCT.H
FX STRCT.V	MASTER FX STRCT.V
REV STR	MASTER REV.STRUCT
REV LEVEL	MASTER REVERB LEV
LOOP LCT	MASTER LP LOCATE

Value	Explanation
IN EQ SET	INPUT EQ SET
IN EQLOW	INPUT EQ LOW GAIN
IN EQHIGH	INPUT EQ HI GAIN
IN EQLEV	INPUT EQ LEVEL
IN EQLOMID	INPUT EQ LM GAIN
IN EQLOMF	INPUT EQ LM FREQ
IN EQLOMQ	INPUT EQ LM Q
IN EQHIMID	INPUT EQ HM GAIN
IN EQHIMF	INPUT EQ HM FREQ
IN EQHIMQ	INPUT EQ HM Q
IN EQLOCUT	INPUT EQ LOW CUT
IN EQHICUT	INPUT EQ HIGH CUT
NOTC OnOf	INPUT NOTCH ON/OFF
NOTC FRQ	INPUT NOTCH FREQ
NOTC DPT	INPUT NOTCH DEPTH
OUT LEVEL	OUTPUT LEVEL
OUT GAIN	OUTPUT GAIN
OUT MODE	OUTPUT MODE
REVERB LV	OUTPUT REV LEVEL
DRY LEVEL	OUTPUT DRY LEVEL
OUT EQ SET	OUTPUT EQ SET
O EQLOW	OUTPUT EQ LOW GAIN
O EQHIGH	OUTPUT EQ HI GAIN
O EQLEV	OUTPUT EQ LEVEL
O EQLOMID	OUTPUT EQ LM GAIN
O EQLOMF	OUTPUT EQ LM FREQ
O EQLOMQ	OUTPUT EQ LM Q
O EQHIMID	OUTPUT EQ HM GAIN
O EQHIMF	OUTPUT EQ HM FREQ
O EQHIMQ	OUTPUT EQ HM Q
O EQLOCUT	OUTPUT EQ LOW CUT
O EQHICUT	OUTPUT EQ HIGH CUT

PREF (PREFERENCE)



Here you can specify whether the settings for the switches, external footswitches, and external expression pedal, and the BPM and KEY settings, will use separate settings for each patch, or whether the same settings will be shared by all patches.

Parameter	Value	Explanation
DOWN	PATCH, SYSTEM	Operation of the [▼] switch in memory mode
UP		Operation of the [▲] switch in memory mode
HARMONY		Operation of the [HARMONY] switch
FX1		Operation of the [▼] ([FX1]) switch in manual mode
FX2		Operation of the [▲] ([FX2]) switch in manual mode
CTL 1		Operation when the footswitch connected to CTL1 of the CTL 1, 2/EXP jacks is operated
CTL 2		Operation when the footswitch connected to CTL2 of the CTL 1, 2/EXP jacks is operated
EXP		Operation when the expression pedal connected to the CTL 1, 2/EXP jacks is operated
ENHANCE		ENHANCE
REVERB		REVERB
BPM		MASTER BPM
KEY		KEY
M>CHRD		MIDI TO CHORD
M>PCR		MIDI TO PITCH
M>VOICE1		MIDI TO VOICE1
M>VOICE2	MIDI TO VOICE2	
M>VOICE3	MIDI TO VOICE3	

TUNER



In the tuner screen, you can operate knobs [1]–[3] to set the following parameters.



[1] knob

Parameter	Value	Explanation
PITCH	435–445Hz	Adjusts the tuner's reference pitch.

[2] knob

Parameter	Value	Explanation
SOURCE	select the input signal that is detected by the tuner.	
	MIC	Shows the pitch of the mic input.
	INST	Shows the pitch of the guitar input.
	INST&M	Shows the pitch of both the guitar and mic.

[3] knob

Parameter	Value	Explanation
VOCAL OUT	Specify how the vocal sound is output while you're using the tuner.	
	BYPASS	Output with the effects off
	DRY	Output with ENHANCE applied
	LEAD	Output with ENHANCE and PITCH CORRECT applied
	MUTE	Output is muted

MIDI

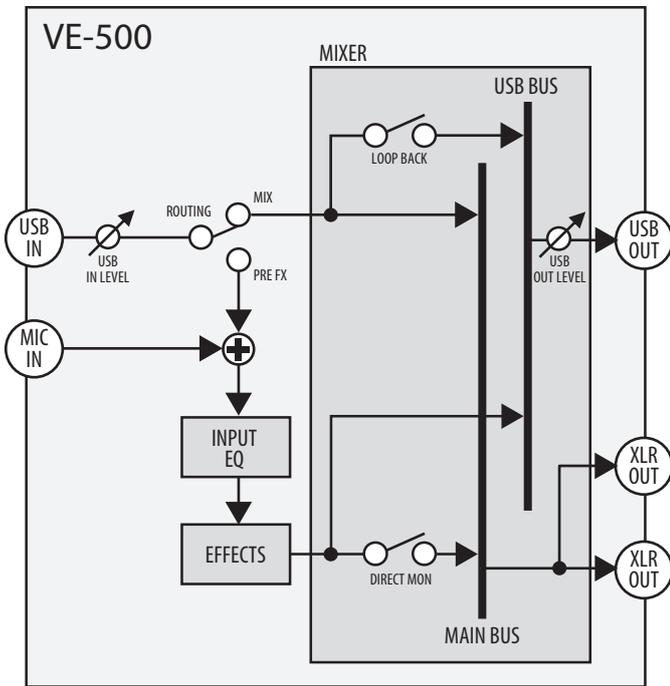


Here you can make MIDI-related settings.

Parameter	Value	Explanation
RX CH	Ch.1–Ch.16, OFF	Specifies the receive channel. If this is "OFF," MIDI messages are not received.
OMNI	OFF, ON	If this is "ON," MIDI messages are received regardless of the channel. * Messages are not received if RX CH is "OFF."
TX CH	Ch.1–Ch.16, RX, OFF	Specifies the transmit channel. If this is "OFF," MIDI messages are not transmitted.
SYNC	Selects the tempo clock input that is used for synchronization.	
	INT	Synchronizes to the internal tempo.
	USB	Synchronizes to the tempo from the USB port.
	MIDI	Synchronizes to the tempo from the MIDI IN connector.
REALTIME	AUTO	Normally synchronizes to the internal tempo, but if MIDI clock is being input from the MIDI IN connector or the USB port, the tempo is synchronized to MIDI clock (AUTO). If the VE-500 is a slave device, choose the "AUTO" setting.
	Selects the source of the realtime messages that are transmitted from the MIDI OUT connector or the USB port.	
PC IN	INT	Internal realtime messages are the source.
	MIDI	Realtime messages from the MIDI IN connector are the source.
PC IN	OFF, ON	Specifies whether program changes are received.
PC OUT	OFF, ON	Specifies whether program changes are transmitted.
BANK OUT	MSB, M+L	Specifies the bank select message that is transmitted simultaneously with the program change. If you select MSB, only MSB (CC#0) is transmitted. If you select M+L, both MSB and LSB (CC#32) are transmitted. * The VE-500 itself does not use the received LSB.
THRU	OFF, ON	Specifies whether MIDI messages received at the MIDI IN connector are output from the USB port.
DEVICE ID	1–32	When using the editor, specify the device ID that you're using.

USB

Here you can make USB-related settings for when the VE-500 is connected to your computer via USB.



Parameter	Value	Explanation
IN LEVEL	0–200	Adjusts the level of the audio input from the computer.
OUT LEVEL	0–200	Adjusts the level of the audio output to the computer.
LOOP BACK	OFF, ON	If this is "ON," the input sound from the computer is mixed with the sound of the VE-500 and returned to the computer. * If this is "ON," ROUTING cannot be used.
DIRECT MON	Switches whether the sound of the VE-500 is output to the OUTPUT jacks. * This setting cannot be saved. It will be "ON" when the unit is powered-on.	
	OFF	Turn this off if you're "thru-ing" the audio data within your computer. * If you don't set your computer to "thru" the audio, you won't hear sound.
ROUTING	ON	The sound of the VE-500 is output directly. Turn this on if you're using the VE-500 by itself without connecting a computer (if this is off, only the sound that's input to USB will be output).
	Specifies where the input sound from the computer is connected.	
ROUTING	MIX	Input to the VE-500's internal mixer.
	PRE FX	Connected to the Input EQ, and then input to the internal effect.

AUTO OFF

If you set the auto-off function to "On," the power will turn off automatically when 10 hours have passed since you last played or operated the unit. The display will show a message approximately 15 minutes before the power turns off.

- * With the factory settings, this is turned "on." If you don't need the power to turn off automatically, turn this "off."
- * If the power was turned off by the Auto Off function, disconnect and then reconnect the AC adaptor to turn the power on again.

Parameter	Value	Explanation
AUTO OFF	OFF	The power will not turn off automatically.
	ON	The power will automatically turn off when 10 hours have passed since you last played or operated the VE-500.

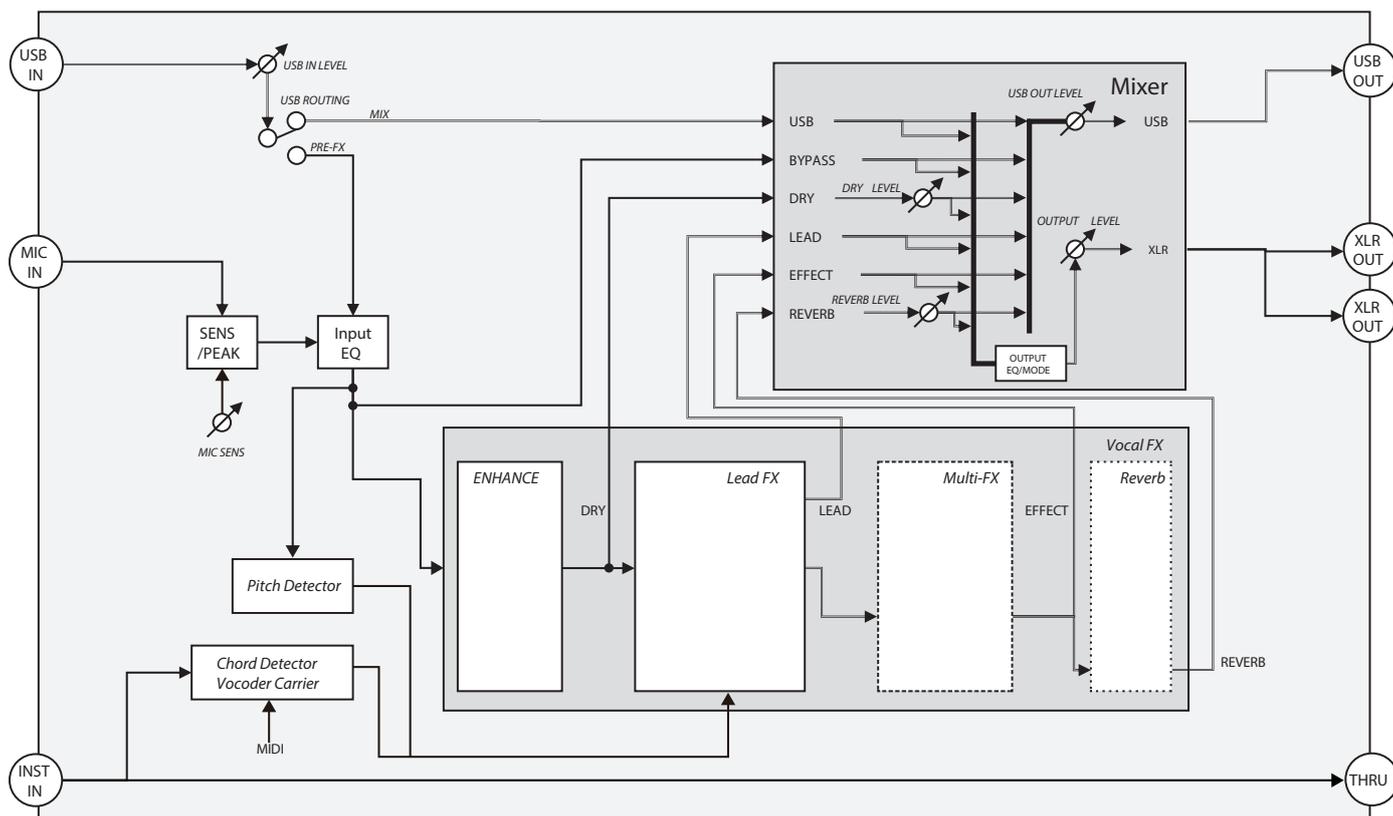
F.RESET (FACTORY RESET)

Restoring the VE-500's settings to their original factory default settings is referred to as "Factory Reset." Not only can you return all of the settings to the values in effect when the VE-500 was shipped from the factory, you can also specify the items to be reset.

- * When you execute "Factory Reset," the settings you made will be lost. Save the data you need to your computer using the dedicated software.

Parameter	Value	Explanation
[1] knob		
FROM	SYSTEM	System parameter settings
	U01–99	Settings for patch numbers U01–U99
[3] knob		
TO	SYSTEM	System parameter settings
	U01–99	Settings for patch numbers U01–U99

System Routing



FX Routing

