Bass Effects & Amp Simulator

B3

OPERATION MANUAL

Thank you very much for purchasing the ZOOM B3.

Please read this manual carefully to learn about all the functions of the B3 so that you will be able to use it fully for a long time.

Keep this manual in a convenient place for reference when necessary.

Contents

ZOOM

Usage and Safety Precautions

SAFETY PRECAUTIONS

In this manual, symbols are used to highlight warnings and cautions that you must read to prevent accidents. The meanings of these symbols are as follows:

⚠ Warning	Something that could cause serious injury or death.
⚠ Caution	Something that could cause injury or damage to the equipment.

Other symbols

!	Required (mandatory) actions
⃠	Prohibited actions

⚠ Warning

Operation using an AC adapter

- ! Use only a ZOOM AD-16 AC adapter with this unit.
- ⃠ Do not use or do anything that could exceed the ratings of outlets and other electrical wiring equipment. Before using the equipment in a foreign country or other region where the electrical voltage differs from that indicated on the AC adapter, always consult with a shop that carries ZOOM products beforehand and use the appropriate AC adapter.

Operation using batteries

- ! Use 4 conventional 1.5-volt AA batteries (alkaline or nickel-metal hydride).
- ! Read battery warning labels carefully.
- ! Always close the battery compartment cover when using the unit.

Alterations

- ⃠ Never open the case or attempt to modify the product.

⚠ Precautions

Product handling

- ! Do not drop, bump or apply excessive force to the unit.
- ! Be careful not to allow foreign objects or liquids to enter the unit.

Operating environment

- ⃠ Do not use in extremely high or low temperatures.
- ⃠ Do not use near heaters, stoves and other heat sources.
- ⃠ Do not use in very high humidity or near splashing water.
- ⃠ Do not use in places with excessive vibrations.
- ⃠ Do not use in places with excessive dust or sand.

AC adapter handling

- ! When disconnecting the AC adapter from an outlet, always pull the body of the adapter itself.
- ! During lightning storms or when not using the unit for a long time, disconnect the power plug from the AC outlet.

Battery handling

- ! Install the batteries with the correct +/- orientation.
- ! Use a specified battery type. Do not mix new and old batteries or different brands or types at the same time. When not using the unit for an extended period of time, remove the batteries from the unit.
- ! If a battery leak should occur, wipe the battery compartment and the battery terminals carefully to remove all battery residue.

Connecting cables with input and output jacks

- ! Always turn the power OFF for all equipment before connecting any cables.
- ! Always disconnect all connection cables and the AC adapter before moving the unit.

Volume

- ⃠ Do not use the product at a loud volume for a long time.

Usage Precautions

Interference with other electrical equipment

In consideration of safety, the B3 has been designed to minimize the emission of electromagnetic radiation from the device and to minimize external electromagnetic interference. However, equipment that is very susceptible to interference or that emits powerful electromagnetic waves could result in interference if placed nearby. If this occurs, place the B3 and the other device farther apart. With any type of electronic device that uses digital control, including the B3, electromagnetic interference could cause malfunction, corrupt or destroy data and result in other unexpected trouble. Always use caution.

Cleaning

Use a soft cloth to clean the panels of the unit if they become dirty. If necessary, use a damp cloth that has been wrung out well. Never use abrasive cleansers, wax or solvents, including alcohol, benzene and paint thinner.

Malfunction

If the unit becomes broken or malfunctions, immediately disconnect the AC adapter, turn the power OFF and disconnect other cables. Contact the store where you bought the unit or ZOOM service with the following information: product model, serial number and specific symptoms of failure or malfunction, along with your name, address and telephone number.

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Introduction

Feels just like using effect pedals

The three effects each have their own displays, parameter knobs and footswitches, allowing you to control all of them intuitively.

Realistic amplifier modeling

With our new ZFX-4 DSP, we have magnificently recreated low-end thickness, pitch clarity and loudness, which are elements that contribute to a natural playing feel. Models range from famous historical amps to recent popular ones, covering a great variety of bass sounds.

Combine diverse effects as you like

You can freely combine the over 100 types of onboard effects, including preamps and stomp boxes tuned for bass guitars.

Looper that can be synchronized with rhythms

The looper can be synchronized with rhythms and record phrases of up to 40 seconds.

Automatic saving

The auto save function reliably stores the changes you make.

Works with ZOOM Edit & Share software

The B3 can be used with Edit & Share software, which is a patch editor and librarian, on a computer to back up patches and change the order of effects.
See the ZOOM website (http://www.zoom.co.jp/) for further information about Edit & Share.

Terms Used in this Manual

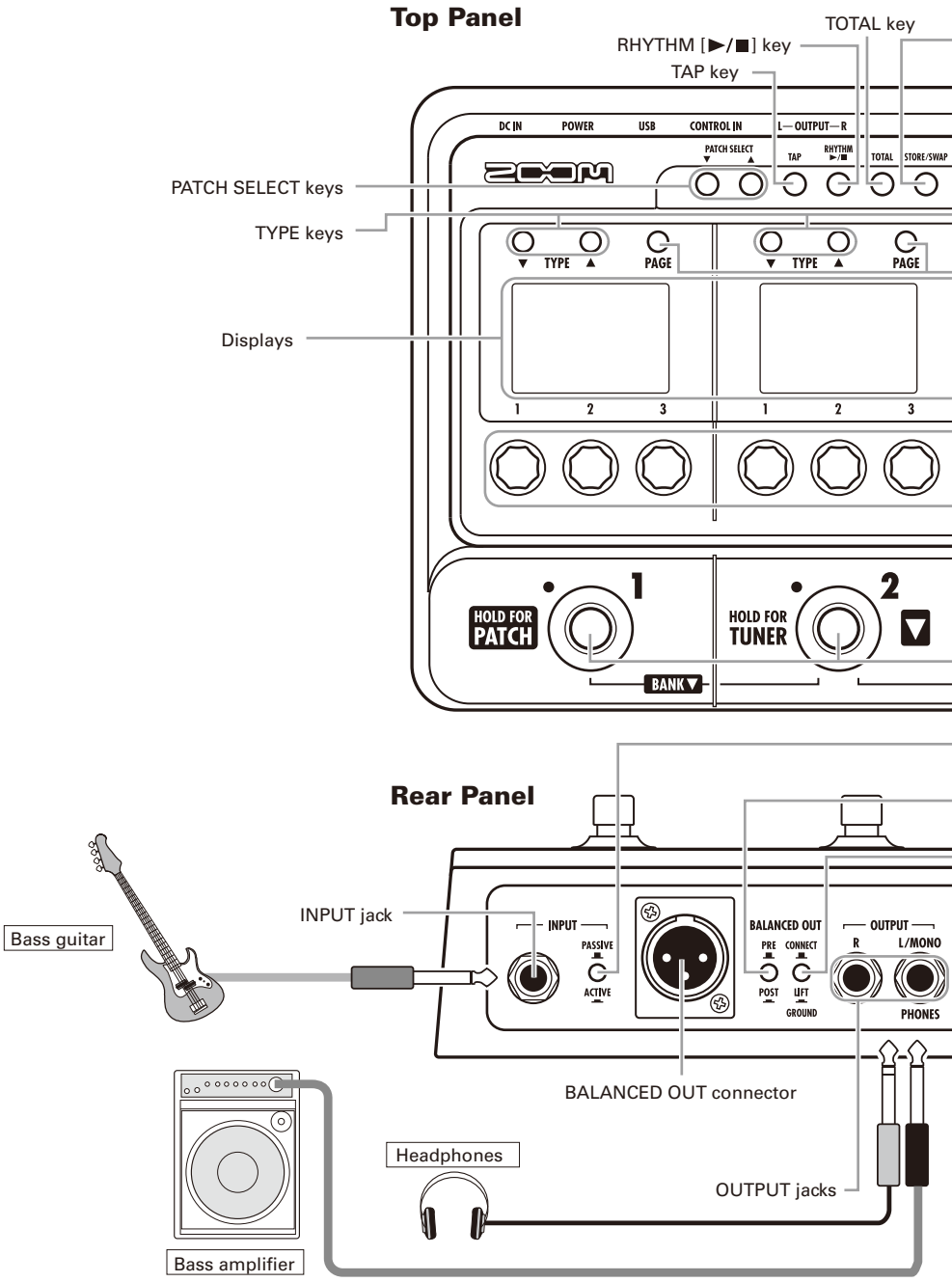
Patch

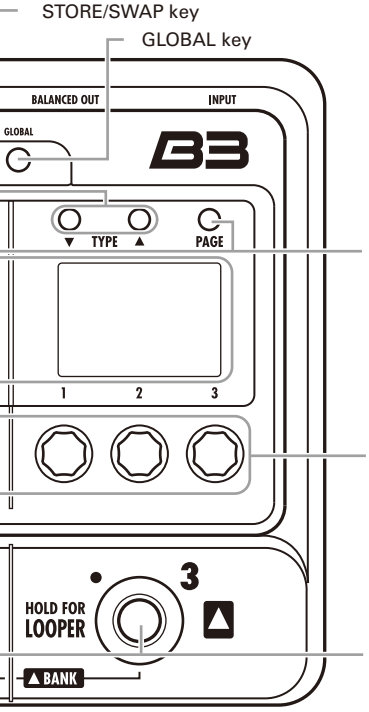
The ON/OFF status and the parameter settings of each effect are stored as "patches." Use patches to recall and save effects. The B3 can store 100 patches.

Bank

A set of 10 patches is called a "bank." The B3 has 10 banks labeled A–J.

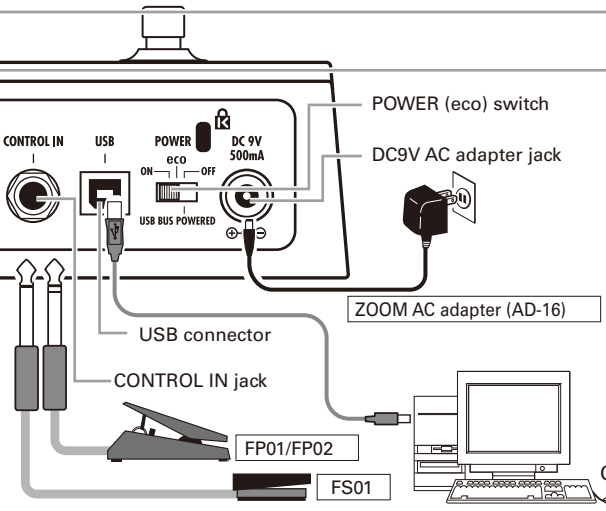
Part Names


Top Panel
TOTAL key
RHYTHM [▶/■] key
TAP key
PATCH SELECT keys
TYPE keys
Displays
DC IN
POWER
USB
CONTROL IN
OUTPUT
PATCH SELECT
TAP
RHYTHM ▶/■
TOTAL
STORE/SWAP
TYPE
PAGE
HOLD FOR PATCH
HOLD FOR TUNER
BANK
Rear Panel
INPUT jack
Bass guitar
INPUT
PASSIVE
ACTIVE
BALANCED OUT
PRE
CONNECT
POST
LIFT
GROUND
OUTPUT
R
L/MONO
PHONES
BALANCED OUT connector
Headphones
OUTPUT jacks
Bass amplifier



ACTIVE/PASSIVE switch

Use this switch to set the B3 INPUT impedance.
Set this to "ACTIVE" (pushed in) if you have an effect pedal connected between your instrument and the B3 or you are directly connecting a bass guitar with active pickups.
Set this to "PASSIVE" (not pushed in) if you are directly connecting a bass guitar with passive pickups.



PRE/POST switch

Use this switch to set the point when the signal is output from the BALANCED OUT connector.
Set it to "POST" (pushed in) to output the signal after the B3 effects. Set it to "PRE" (not pushed in) to output the signal before the B3 effects.

GROUND switch

Use this switch to connect or disconnect the BALANCED OUT connector with the ground.
Set it to "LIFT" (pushed in) to separate the signal path from the grounding pin. Set it to "CONNECT" (not pushed in) to connect it to the grounding pin.

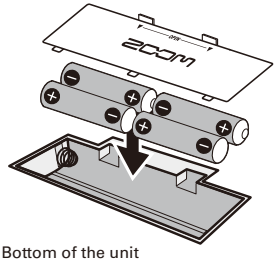
Turn the Power on and Play

To turn the power on

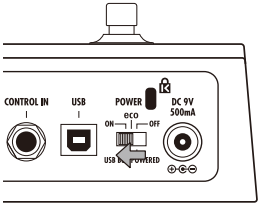
Always lower the amplifier's volume all the way before turning the power on.

■ When using batteries

Insert batteries into the battery compartment and set the POWER switch to ON.

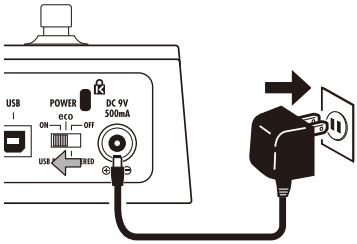


Bottom of the unit



■ When using an adapter

Connect the AC adapter and set the POWER switch to ON.



Turn the amplifier's power on and raise its volume.

HINT

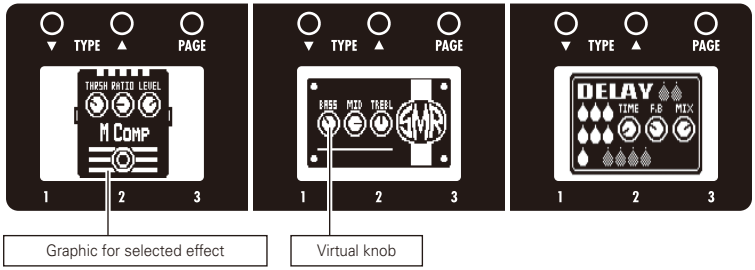
- POWER switch options

  eco: If the B3 is not used for about 25 minutes, it will be set to standby.
  The B3 will not be set to standby as long as there is a signal input from a bass guitar.

  OFF: When set to "OFF", the B3 can be powered from a USB bus by connecting it to a computer's USB port.

Display information

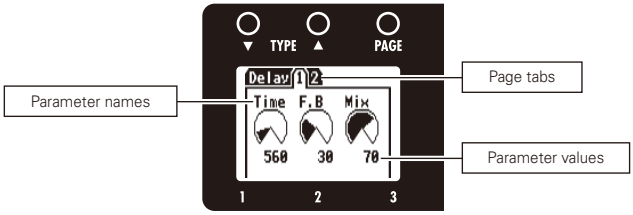
■ Home Screens show the current patch



HINT

- The positions of the virtual knobs change with the parameter values.

■ Edit Screens show parameters being edited

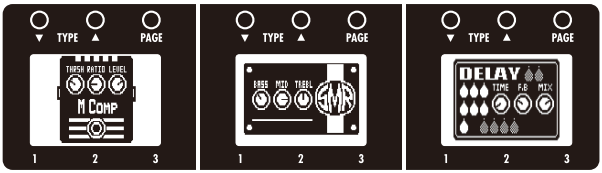


HINT

- If there are 4 or more parameters that can be adjusted, multiple page tabs will be shown.

Adjusting Effects

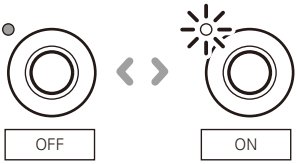
Confirm that the Home screens are shown.



1 To turn effects ON and OFF

- Press 1, 2 and 3.

- Turns the effect ON/OFF.



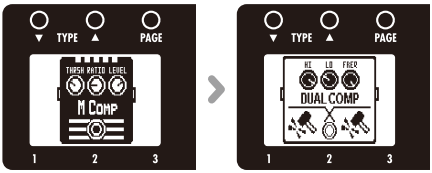
NOTE

- An effect is ON when its footswitch LED is lit.
- An effect is OFF when its footswitch LED is not lit.

2 To select an effect type

- Press ▼ TYPE ▲.

- The effect type changes.



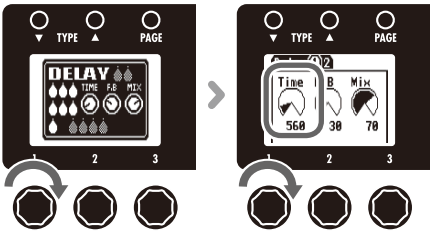
HINT

- See page 33 for information about effect types and parameters.
- Adjustments are automatically saved.

3 To adjust parameters

- Turn 1 , 2 and 3 .

- The editing screen opens where you can adjust parameters.



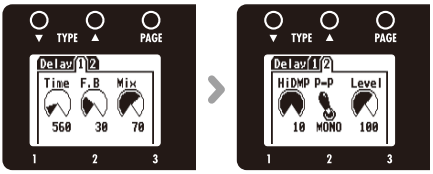
NOTE

- Time, rate and some other effect parameters can be set in note durations that are synchronized to the tempo.

4 To change the page

- Press PAGE .

- The next page opens.



Effect processing capacity

The B3 allows you to combine three effects as you like. However, if you combine effect types that require great amounts of processing power, it is possible to exceed the processing capacity of the B3. If the processing required for the effect exceeds the capacity of the B3, "THRU" is shown over the effect graphic and the effect is bypassed. This can be avoided by changing one or more of the effect types.

NOTE

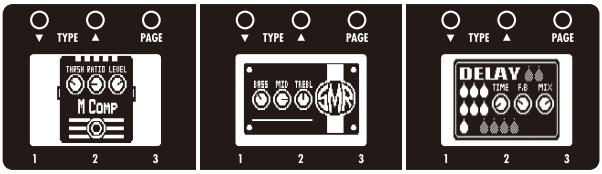
- An effect requires the same amount of processing power whether it is on or off.

HINT

- Amp models require great amounts of processing.

Selecting Patches

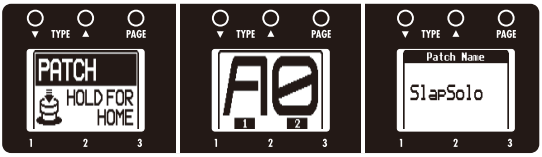
Confirm that the Home display is shown.



1 To activate patch selection

- Press and Hold HOLD FOR PATCH 1 for 1 second to activate patch selection.

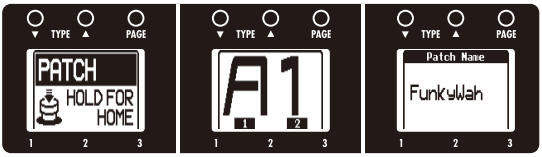
- The screens show the patch bank, number and name.



2 To change the patch

- Press 2 to select the next lower patch.
- Press 3 to select the next higher patch.
- Turn 2 of the middle effect.

- The patch number and name changes.



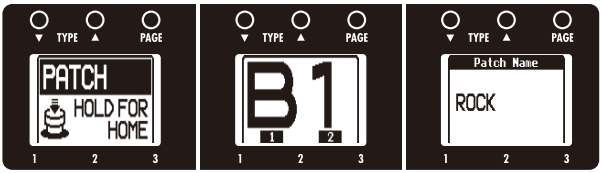
HINT

- You can also change patches using PATCH SELECT.

3 To change the bank

- Press 1 and 2 at the same time to select the next lower bank.
- Press 2 and 3 at the same time to select the next higher bank.
- Turn 1 of the middle effect.

- The patch bank and name changes.

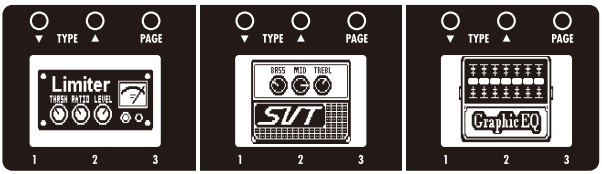


NOTE

- When pressing two footswitches at the same time, the sound could be affected by the footswitch that is pressed slightly earlier. To avoid this, do not make sound when switching banks.

4 To return to the Home Screens

- Press and hold HOLD FOR PATCH 1 for 1 second.



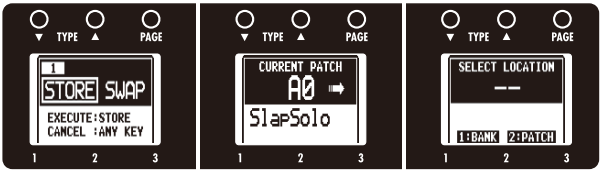
Storing Patches

The B3 automatically saves settings when parameters are adjusted.

1 To store a patch or swap with a different patch

- Press STORE/SWAP .

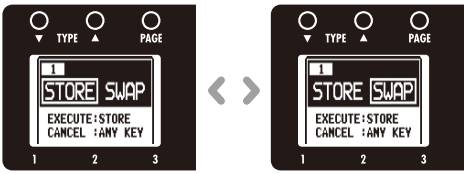
- STORE/SWAP blinks and the screens appear as below.



2 To select whether to store or swap the patch

- Turn 1 of the left effect.

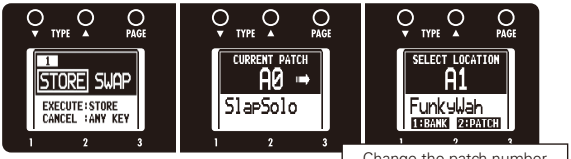
Store Swap



3 To set where to store or swap the new patch

■ To change the patch number where stored/swapped

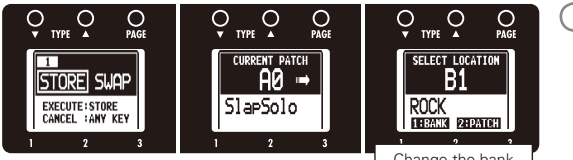
- Turn 2 of the right effect.



Change the patch number

■ To change the bank where stored/swapped

- Turn 1 of the right effect.



Change the bank

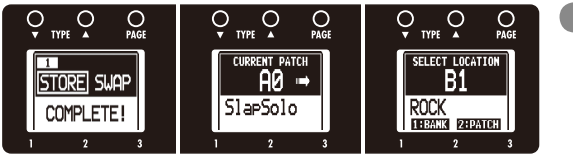
NOTE

- The currently active patch cannot be selected as the destination.
- The current setting values are automatically saved.

4 To complete patch storing/swapping

- Press STORE/SWAP .

- After "COMPLETE!" appears on the display, the stored/swapped patch opens.



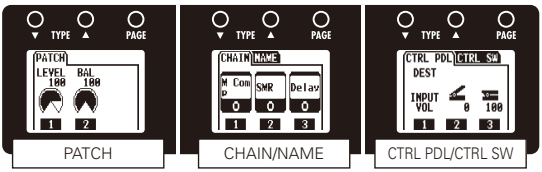
HINT

- To cancel this, press any key instead of STORE/SWAP .

Setting Specific Patch Parameters

1 To activate the TOTAL menu

- Press TOTAL .

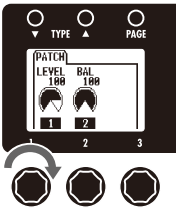


NOTE

- Settings made for total parameters are saved separately for each patch.

2 To adjust the patch level

- Turn 1 of the left effect.



NOTE

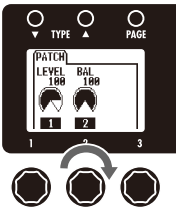
- The setting range is 0-120.

HINT

- To change the overall volume of all patches, adjust the master level (see page 18).

3 To adjust the balance between original and effected sounds

- Turn 2 of the left effect.

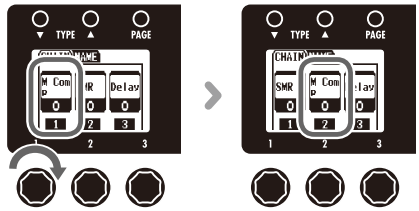


NOTE

- The setting range is 0-100. Set to 0 for only the original sound or 100 for only the effect sound.

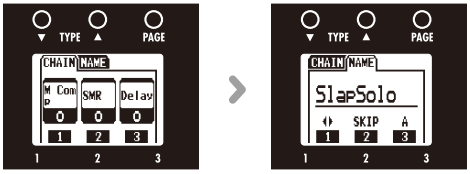
4 To change the order of the effects

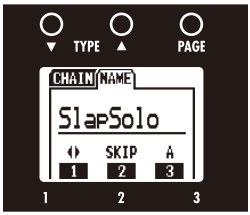
- Turn 1, 2 and 3 of the middle effect to exchange effect locations.



5 To change the patch name

- Press PAGE of the middle effect.





1 : Turn 1 to move the cursor.

SKIP 2 : Turn 2 to change the type of character/ symbol.

A 3 : Turn 3 to change the character.

NOTE

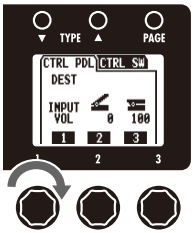
- The following characters and symbols can be used.
  ! # $ % & ' () +, -. ; = @ [] ^ _ ` { } ~A-Z, a-z, 0-9, (space)

NEXT ›››

6 To set an expression pedal function

Set the control destination.

- Turn 1 of the right effect.



NOTE

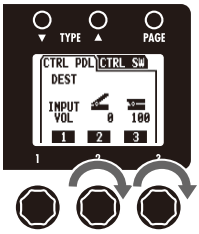
- INPUT VOL: Use this to control the input level.
- OUTPUT VOL: Use this to control the output level.
- NO ASSIGN: No function is assigned.
- BAL: The balance between the original sound and the effect sound can be adjusted.

HINT

- Turn 1 to show the different parameters that can be controlled by the expression pedal.
- See "Effect types and parameters" for details about the parameters that can be controlled for each effect.
- Rhythm and looper output levels are not affected when controlling the Output Volume with an expression pedal.

Set the adjustment range.

- Turn 2 of the right effect to set the minimum value.
- Turn 3 of the right effect to set the maximum value.

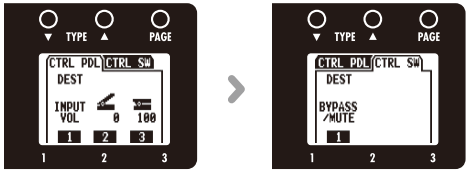


HINT

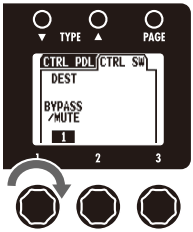
- The minimum value can be set higher than the maximum value. When set this way, pushing the pedal down decreases the effect, while letting it up increases the effect.

7 To set an optional footswitch function

- Press PAGE on the right effect.



- Turn 1 of the right effect.



BYPASS/MUTE
Sets the effect to bypass or mute.

TAP TEMPO
Press the footswitch repeatedly at the desired tempo to set the tempo used for rhythms, the looper and effects.

NO ASSIGN
No function is assigned to the footswitch.

NOTE

- When more than one function can be assigned, use 2 to select one.

HINT

- In order to use the function set, the corresponding effect must also be ON.
- See "Effect types and parameters" for details about the parameters that can be assigned for each effect.

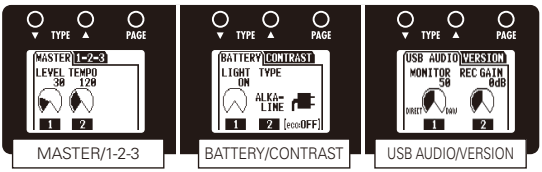
8 To exit the TOTAL menu

- Press TOTAL .

Changing Various Settings

1 To activate the GLOBAL menu

- Press GLOBAL .



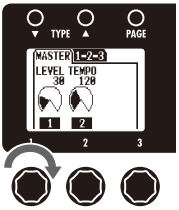
MASTER/1-2-3 | BATTERY/CONTRAST | USB AUDIO/VERSION

NOTE

- Global parameter settings affect all patches.

2 To adjust the master level

- Turn 1 of the left effect.

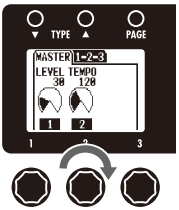


NOTE

- The setting range is 0-120.

3 To set the master tempo

- Turn 2 of the left effect.



HINT

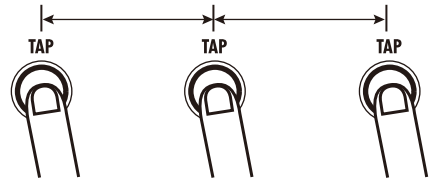
- You can also set the tempo using TAP .

NOTE

- The setting range is 40-250.
- This tempo setting is used by every effect, rhythms and the looper.

■ Setting the tempo by tapping

• Press TAP two or more times at the desired tempo.



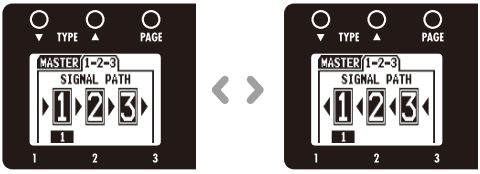
HINT

• You can also set the tempo using an FS01 footswitch (sold separately).
(See page 17.)

4 To change the direction of the signal flow

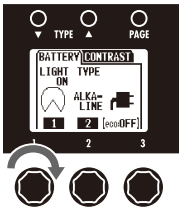
• Press PAGE on the left effect.

• Turn 1 to set the signal flow direction.



5 To set the amount of time until the backlight dims

• Turn 1 of the middle effect.



NOTE

• The setting options are ON and 1–30 seconds.

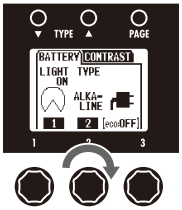
HINT

• The amount of power consumed can be reduced by dimming the backlight.

NEXT ›››

6 To select the battery type

- Turn 2 of the middle effect to set the battery type to ALKALINE or Ni-MH (nickel-metal hydride).



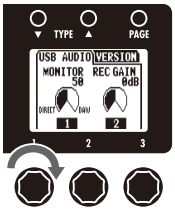
: Operating on batteries
: Operating on adapter power
: Operating on USB bus power

NOTE

- Set the battery type correctly in order to allow the remaining battery charge to be shown accurately.

7 To adjust the USB audio monitoring balance

- Turn 1 of the right effect.

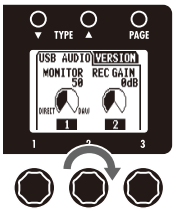


NOTE

- This adjusts the balance between the signals sent from a connected computer (DAW) and the signal input and processed through the unit (DIRECT).
- The setting range is 0-100.
- Set to 0 to monitor only the DIRECT signal or 100 to monitor only the DAW signal.

8 To adjust the recording level

- Turn 2 of the right effect.

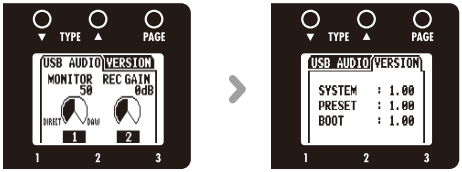


NOTE

- This adjusts the level of the signal sent to the computer.
- The setting range is ±6 dB.

9 To view the firmware versions

- Press PAGE of the right effect.

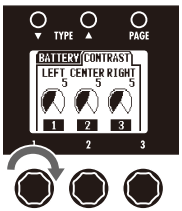


HINT

- Check the ZOOM website (http://www.zoom.co.jp) for the latest firmware versions.

10 To adjust the display contrast

- Press PAGE of the middle effect.
- Turn 1, 2 and 3 of the middle effect.



1 : Left display

2 : Center display

3 : Right display

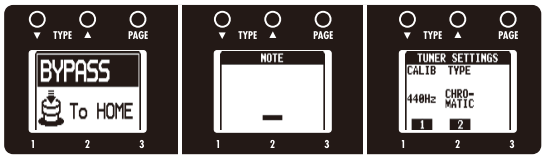
11 To exit the GLOBAL menu

- Press GLOBAL .

Using the Tuner

1 To activate the tuner

- Press 2 for 1 second.

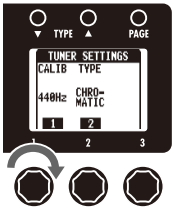


NOTE

- Pressing 2 for 1 second will bypass the effects.
- Pressing 2 for 2 seconds will mute the output.

2 To change the tuner's standard pitch

- Turn 1 of the right effect.

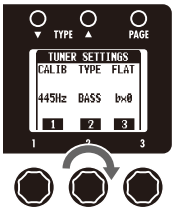


NOTE

- The standard pitch for middle A can be adjusted to 435-445 Hz.

3 To select the tuner type

- Turn 2 of the right effect.

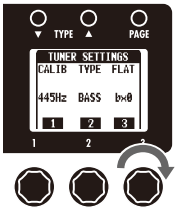


CHROMATIC
The chromatic tuner shows the nearest pitch name (semitone) and how far the input sound is from that pitch.

BASS
Depending on the selected type, the nearest string name and how far the sound input is from that pitch are shown.

4 To use a drop tuning

- Turn 3 of the right effect.



NOTE

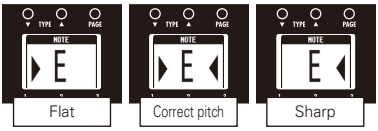
- Drop tuning is not possible when the TYPE is set to CHROMATIC.

5 Tune the bass guitar

- Play the open string that you want to tune and tune it.

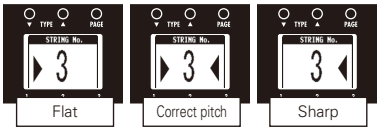
■ CHROMATIC TUNER

The name of the nearest note and the pitch accuracy are shown.



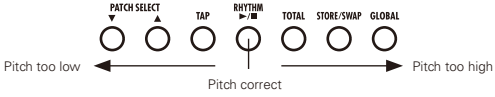
■ BASS TUNER

The number of the nearest string and the pitch accuracy are shown.



HINT

- The keys above the displays also light to show the pitch accuracy.



6 To end tuning

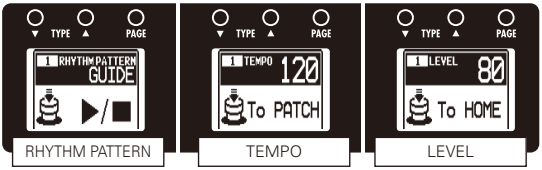
- Press 1, 2 or 3.

Using Rhythms

1 To activate a rhythm

- Press RHYTHM ▶/■ .

- The rhythm pattern starts to play automatically and the rhythm setting screens open.



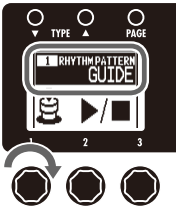
RHYTHM PATTERN | TEMPO | LEVEL

HINT

- You can use a rhythm pattern while using the looper.

2 To select the rhythm pattern

- Turn 1 of the left effect.

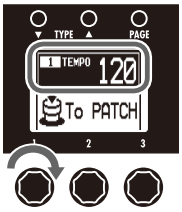


NOTE

- See page 50 for types of patterns

3 To adjust the tempo

- Turn 1 of the middle effect.



HINT

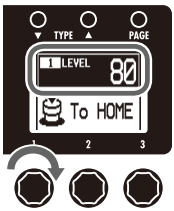
- You can also set the tempo using TAP .

NOTE

- The setting range is 40-250.
- This tempo setting is used by every effect, rhythms and the looper.

4 To adjust the rhythm level

- Turn 1 of the right effect.



NOTE

- The setting range is 0-100.

5 To stop the rhythm

- Press 1.

HINT

- Press 1 again to restart playback of the rhythm.

6 To complete setting the rhythm

■ The rhythm stops and the previous screen reappears

- Press RHYTHM ►/■.

■ To select a patch (and keep the rhythm playing)

- Press 2.

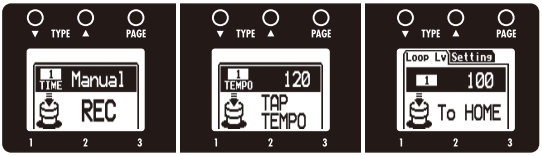
■ To return to the Home Screens (and keep the rhythm playing)

- Press 3.

Using the Looper

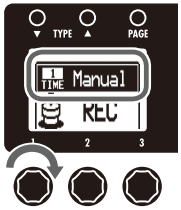
1 To activate the Looper

- Press 3 for 1 second.



2 To set the recording time

- Turn 1 on the left unit.



Manual
Use the footswitch to start and stop recording.

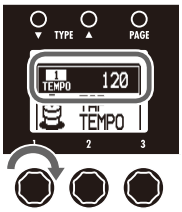
Note mark
Set the recording time by setting the tempo and the number of quarter notes.

NOTE

- The looper can record 1.5–40 seconds (20 seconds when UNDO is enabled).
- If the setting (number of quarter notes) would not fall in this range, it will automatically be adjusted.
- Changing the TIME setting will erase the currently recorded loop.

3 To adjust the tempo

- Turn 1 of the middle unit.



HINT

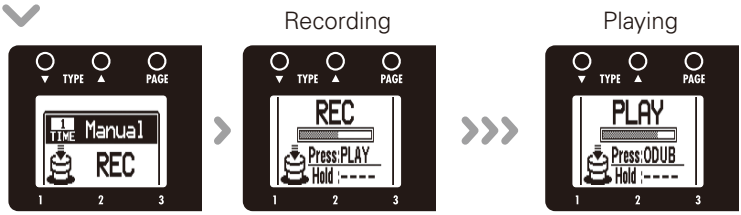
- You can also set the tempo using TAP.
- If no loop has been recorded yet, you can also set the tempo by tapping 2.

NOTE

- The setting range is 40-250.
- Changing the tempo will erase the currently recorded loop.
- This tempo setting is used by every effect, rhythms and the looper.

4 To record a phrase and play it back

- Press 1.



■ If set to "Manual"

- When 1 is pressed again or the maximum recording time (about 40 seconds) is reached, loop playback starts (and "PLAY" appears on the display).

■ If set to a note mark

- Recording continues for the set time and then loop playback starts (and "PLAY" appears on the display).

HINT

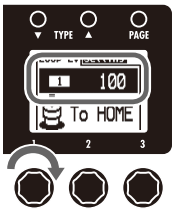
- During recording, press 2 to cancel recording.

NOTE

- When using a rhythm, recording will start after the precount.
- When using a rhythm, the loop timing will be quantized, so even if you stop the loop recording a little out of time, the loop end point will be adjusted to match the tempo correctly.

5 To adjust the loop volume

- Turn 1 of the right unit.



NOTE

- The setting range is 0-100.

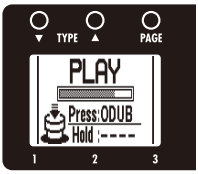
NEXT ›››

6 To overdub a recorded loop

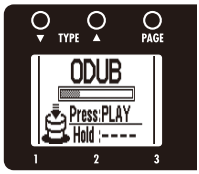
■ To start overdubbing

• During loop playback, press 1.

Playing



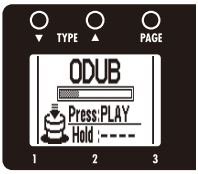
Overdubbing



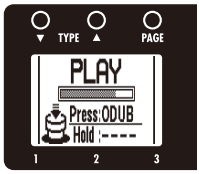
■ To end overdubbing

• Press 1 again.

Overdubbing

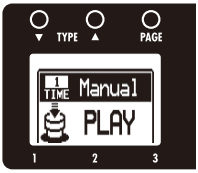


Playing



7 To stop loop playback

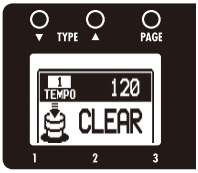
• Press 2.



8 To erase the loop

• Press 2 for 1 second.

• "CLEAR" appears on the display.



9 To return to the Home Screens

- Press 3.

HINT

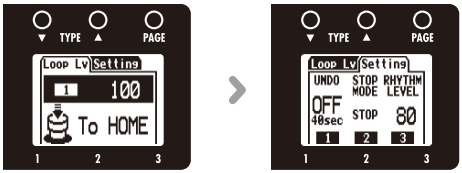
- You can return to the Home Screens while the loop is playing.

NOTE

- Returning to the Home Screens will not erase the loop.
- Turning the power OFF will erase the loop.

To change the Looper settings

- Press PAGE of the right unit.



• To activate the Undo function

Turn 1 of the right unit.

NOTE

- When Undo is ON, the maximum loop recording time is limited to 20 seconds.

HINT

- When Undo is ON, you can cancel the last overdubbing by pressing 1 for 1 second. After undoing, you can also redo by pressing 1 for 1 second again, restoring the last overdubbing.

• To select the STOP MODE

Turn 2 of the right unit.

STOP MODE	How loop playback stops
STOP	Playback stops immediately
FINISH	Playback stops after the loop plays to its end
FADE OUT	Playback stops after fading out

HINT

- Even when set to "FINISH" or "FADE OUT", you can stop loop playback immediately by pressing and holding down 2.

• To adjust the RHYTHM LEVEL

Turn 3 of the right unit.

Updating the Firmware

To download the latest firmware version updater application:

- Visit the ZOOM Website (http://www.zoom.co.jp).

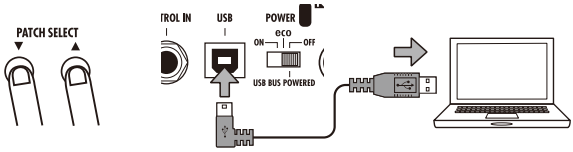
HINT

- Open the GLOBAL menu to check the current firmware versions. (See page 21.)

1 To prepare to update the firmware version

- Confirm that the POWER switch is set to OFF.
- While pressing both 

, connect the unit to a computer using the USB cable.



- The VERSION UPDATE screen appears.

2 To update the firmware

- Launch the version update application on your computer, and execute the update.

NOTE

- Do not disconnect the USB cable while the firmware is being upgraded.

HINT

- See the ZOOM website for instructions about how to use the application.

3 To complete updating

- When the B3 has finished updating, "COMPLETE!" appears on the display.

- Disconnect the USB cable.

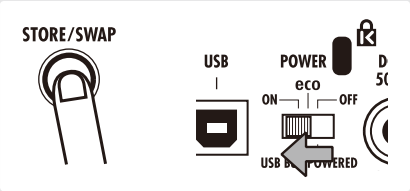
HINT

- Updating the firmware version will not erase saved patches.

Restoring the B3 to its factory default settings.

1. To use the All Initialize function

- While pressing STORE/SWAP, set the POWER switch to ON.



- The All Initialize screen appears.

2. To execute the All Initialize function.

- Press STORE/SWAP.

NOTE

- Press any key other than STORE/SWAP to cancel.

HINT

- Executing the All Initialize function will restore all the settings of the B3, including its patches, to factory defaults. Do not use this function unless you are certain that you want to do this.

Using Audio Interface Functions

This unit can be used with computers running the following operating systems

■ Compatible OS

Windows

Windows® XP SP3 (32bit) or newer

Windows Vista® SP1 (32bit, 64bit) or newer

Windows® 7 (32bit, 64bit)

32bit: Intel® Pentium® 4 1.8GHz or faster, 1GB RAM or more

64bit: Intel® Pentium® DualCore 2.7GHz or faster, 2GB RAM or more

Intel Mac

OSX 10.5.8/10.6.5 or later

Intel® CoreDuo 1.83GHz or faster

1GB RAM or more

■ Quantization (bit-rate)

16-bit

■ Sampling frequency

44.1kHz

For details about recording, playback and other functions, please see the included startup guide.

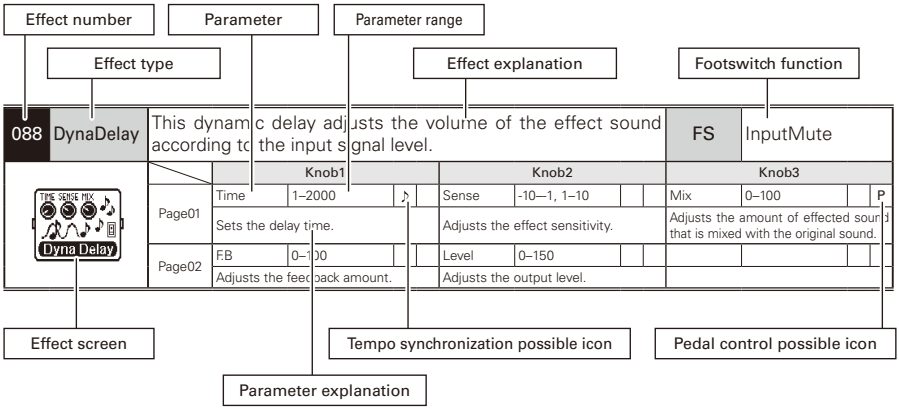
HINT

- You can adjust the balance between the signals from the **B3** and the computer. (See page 20.)
- You can adjust the recording level. (See page 20.)
- When its POWER switch is set to OFF, the **B3** can be connected to a computer by USB and powered by its USB bus.

NOTE

- To monitor the signal of your connected bass guitar after it has passed through your DAW software, set the USB AUDIO MONITOR balance to 100. (See page 20.)
  At other settings, the signals from the computer and the **B3** will be mixed, causing the output signal to sound like a flanger effect is being used.

Effect Types and Parameters



■ Effect Types and Parameters

001 OptComp

This compressor is in the style of an APHEX Punch Factory.

	Knob1	Knob2	Knob3
Page01	Drive 0–100 P Adjusts the depth of the compression.	Tone 0–100 Adjusts the tone.	Level 0–150 Adjusts the output level.

002 D Comp

This compressor in the style of the MXR Dyna Comp.

	Knob1	Knob2	Knob3
Page01	Sense 0–10 Adjusts the compressor sensitivity.	Tone 0–10 Adjusts the tone.	Level 0–150 P Adjusts the output level.
Page02	ATTCK Slow, Fast Sets compressor attack speed to Fast or Slow.		

003 M Comp

This compressor provides a more natural sound.

	Knob1	Knob2	Knob3
Page01	THRSH 0–50 P Sets the level that activates the compressor.	Ratio 1–10 Adjusts the compression ratio.	Level 0–150 Adjusts the output level.
Page02	ATTCK 1–10 Adjusts the compressor attack rate.		

004 DualComp

This is a compressor which allows separate settings for the low frequency and high frequency range.

	Knob1	Knob2	Knob3
Page01	Hi 0–50 Adjusts the compression depth in the high frequency range.	Lo 0–50 Adjusts the compression depth in the low frequency range.	Freq 300Hz– 1.5kHz P Adjusts the crossover point between the high frequency and low frequency range.
Page02	Level 0–150 Adjusts the output level.	Tone 0–10 Adjusts the tonal quality of the sound.	

005 160 Comp

This compressor is in the style of the dbx 160A.

	Knob1	Knob2	Knob3
Page01	THRSH -60–0 Adjusts the threshold that determines when the effect is activated.	Ratio 1.0–10.0 Adjusts the compression ratio.	Gain 0–20 Adjusts the gain after compression.
Page02	Knee Hard, Soft Sets the type of knee.	Level 0–150 P Adjusts the output level.	

NEXT ›››

006 Limiter

This is a limiter that suppresses signal peaks above a certain reference level.

	Knob1	Knob2	Knob3
Page01	THRSH 0–50 P	Ratio 1–10	Level 0–150
	Adjusts the reference signal level for the limiter action.	Adjusts the compression ratio of the limiter.	Adjusts the output level.
Page02	REL 1–10		
	Adjusts the delay between the point where the signal level falls below the threshold level and the limiter release.		

007 SlowATTCK

This effect slows the attack of each note, resulting in a violin-like performance.

	Knob1	Knob2	Knob3
Page01	Time 1–50 P	Curve 0–10	Level 0–150
	Adjusts the attack time.	Set the curve of volume change during attack.	Adjusts the output level.

008 ZNR

ZOOM's unique noise reduction cuts noise during pauses in playing without affecting the tone.

	Knob1	Knob2	Knob3
Page01	THRSH 1–25 P	DETCT GtrIn, EfxIn	Level 0–150
	Adjusts the effect sensitivity.	Sets control signal detected.	Adjusts the output level.

009 GraphicEQ

This unit has a seven band equalizer.

	Knob1	Knob2	Knob3
Page01	50Hz -12–12	120Hz -12–12	400Hz -12–12
	Adjusts the amount of boost/cut at 50 Hz.	Adjusts the amount of boost/cut at 120 Hz.	Adjusts the amount of boost/cut at 400 Hz.
Page02	500Hz -12–12	800Hz -12–12	4.5kHz -12–12
	Adjusts the amount of boost/cut at 500 Hz.	Adjusts the amount of boost/cut at 800 Hz.	Adjusts the amount of boost/cut at 4.5 kHz
Page03	10kHz -12–12	Level 0–150	
	Adjusts the amount of boost/cut at 10 kHz.	Adjusts the output level.	

010 ParaEQ

This is a 2-band parametric equalizer.

	Knob1	Knob2	Knob3
Page01	Freq1 20Hz–20kHz	Q1 0.5, 1, 2, 4, 8, 16	Gain1 -20–20
	Adjusts center frequency of EQ1.	Adjusts EQ1 Q.	Adjusts EQ1 gain.
Page02	Freq2 20Hz–20kHz	Q2 0.5, 1, 2, 4, 8, 16	Gain2 -20–20
	Adjusts center frequency of EQ2.	Adjusts EQ2 Q.	Adjusts EQ2 gain.
Page03	Level 0–150		
	Adjusts the output level.		

011 Splitter

This effect divides the signal into two bands (high/low) and lets you freely adjust the mix ratio of the two bands.

	Knob1	Knob2	Knob3
Page01	Hi 0–100	Lo 0–100	Freq 80Hz–2.5kHz
	Adjusts the mix ratio of the high frequency band.	Adjusts the mix ratio of the low frequency band.	Adjusts the crossover point between the high frequency and low frequency band.
Page02	Level 0–150 P		
	Adjusts the output level.		

012 Bottom B

Emphasizes the low and high frequencies.

	Knob1	Knob2	Knob3
Page01	Bass 0–10 P	Trebl 0–10	Level 0–150
	Adjusts the amount of low-frequency boost.	Adjusts the amount of high-frequency boost.	Adjusts the output level.

013 Exciter

This exciter is in the style of the BBE Sonic Maximizer.

	Knob1	Knob2	Knob3
Page01	Bass 0–10 P	Trebl 0–10	Level 0–150
	Adjusts the amount of low-frequency phase correction.	Adjusts the amount of high-frequency phase correction.	Adjusts the output level.

014 CombFLTR

This effect uses the comb filter that results from fixing the modulation of the flanger like an equalizer.

	Knob1	Knob2	Knob3
Page01	Freq 1–50 P This sets the emphasized frequency.	Reso -10–0–10 Adjusts the intensity of the resonance sound of the effect.	Mix 0–100 Adjusts the amount of effected sound that is mixed with the original sound.
Page02	HiDMP 0–10 Adjusts the treble attenuation of the effect sound.	Level 0–150 Adjusts the output level.	

015 AutoWah

This effect varies wah in accordance with picking intensity.

	Knob1	Knob2	Knob3
Page01	Sense -10—1, 1–10 P Adjusts the sensitivity of the effect.	Reso 0–10 Adjusts the intensity of the resonance sound.	Dry 0–100 Adjusts level of original sound.
Page02	Level 0–150 Adjusts the output level.		

016 Z Tron

This is like a Q-Tron Envelope Filter in LP mode.

	Knob1	Knob2	Knob3
Page01	Sense -10—1, 1–10 P Adjusts the sensitivity of the effect.	Reso 0–10 Adjusts the intensity of the resonance sound.	Dry 0–100 Adjusts level of original sound.
Page02	Level 0–150 Adjusts the output level.		

017 M-Filter

This envelope filter with MOOG MF-101 low pass filter favor can be set in a wide range.

	Knob1	Knob2	Knob3
Page01	Freq 0–100 P Sets minimum frequency of envelope filter.	Sense 0–10 Sets effect sensitivity.	Reso 0–10 Sets effect resonance.
Page02	Type HPF, BPF, LPF Sets filter type.	Chara 2Pole, 4Pole Adjusts amount of filter applied.	VLCTY Fast, Slow Sets speed of filter action.
Page03	Bal 0–100 Adjusts the balance between original and effect sounds.	Level 0–150 Adjusts the output level.	

018 A-Filter

This is a resonance filter with a sharp envelope.

	Knob1	Knob2	Knob3
Page01	Sense 1–10 P Adjusts the effect sensitivity.	Peak 0–10 Adjusts the Q value of the filter.	Mode Up/Down Selects whether the direction of filter change is up or down.
Page02	Dry 0–100 Adjusts level of original sound.	Level 0–150 Adjusts the output level.	

019 Cry

This effect varies the sound like a talking modulator.

	Knob1	Knob2	Knob3
Page01	Range 1–10 Adjusts the frequency range processed by the effect.	Reso 0–10 Adjusts the intensity of the modulation resonance sound.	Sense -10—1, 1–10 P Adjusts the sensitivity of the effect.
Page02	Bal 0–100 Adjusts the balance between original and effect sounds.	Level 0–150 Adjusts the output level.	

020 Step

This special effect gives the sound a stepped quality.

	Knob1	Knob2	Knob3
Page01	Depth 0–100 Sets the depth of the modulation.	Rate 0–50 ♪ P Sets the speed of the modulation.	Reso 0–10 Adjusts the intensity of the modulation resonance sound.
Page02	Shape 0–10 Adjusts the effect envelope.	Level 0–150 Adjusts the output level.	

NEXT ›››

021 SEQ FLTR

The sequence filter has the flavor of a Z.Vex Seek-Wah.

	Knob1	Knob2	Knob3
Page01	Step 2–8	PTTRN 1–8	Speed 1–50 ♪ P
	Adjusts number of sequence steps.	Sets effect pattern.	Sets modulation speed.
Page02	Shape 0–10	Reso 0–10	Level 0–150
	Sets effect sound envelope.	Sets effect resonance.	Adjusts the output level.

022 RNDM FLTR

This filter effect changes character randomly.

	Knob1	Knob2	Knob3
Page01	Speed 1–50 ♪ P	Range 0–100	Reso 0–10
	Sets modulation speed.	Adjusts frequency range affected.	Sets effect resonance.
Page02	Type HPF, BPF, LPF	Chara 2Pole, 4Pole	Bal 0–100
	Sets filter type.	Adjusts amount of filter applied.	Adjusts the balance between original and effect sounds.
Page03	Level 0–150		
	Adjusts the output level.		

023 Booster

This is a simulation of the Xotic EP Booster, which is warm and firm.

	Knob1	Knob2	Knob3
Page01	Gain 0–100 P	Bass -10–10	Trebl -10–10
	Adjusts the gain.	Adjusts the low frequency level.	Adjusts the high frequency level.
Page02	Level 0–150		
	Adjusts the output level.		

024 OverDrive

Simulates the ODB-3 overdrive bass machine from Boss.

	Knob1	Knob2	Knob3
Page01	Gain 0–100 P	Tone 0–100	Level 0–150
	Adjusts the gain.	Adjusts the tone.	Adjusts the output level.
Page02	Bal 0–100		
	Adjusts the balance between the original sound and the effected sound.		

025 Bass Muff

This is a simulation of the Electro-Harmonix Bass Big Muff.

	Knob1	Knob2	Knob3
Page01	Gain 0–100 P	Tone 0–100	Level 0–150
	Adjusts the gain.	Adjusts the tone.	Adjusts the output level.
Page02	Mode NORM, BsBST	Bal 0–100	
	Selects the distortion mode.	Adjusts the balance between the original sound and the effected sound.	

026 T Scream

Simulation of the Ibanez TS808, which is loved by many guitarists as a booster and has inspired numerous clones.

	Knob1	Knob2	Knob3
Page01	Gain 0–100 P	Tone 0–100	Level 0–150
	Adjusts the gain.	Adjusts the tone.	Adjusts the output level.
Page02	Bal 0–100		
	Adjusts the balance between the original sound and the effected sound.		

027 Dist 1

Simulation of the Boss DS-1 distortion pedal, which has been a long-seller.

	Knob1	Knob2	Knob3
Page01	Gain 0–100 P	Tone 0–100	Level 0–150
	Adjusts the gain.	Adjusts the tone.	Adjusts the output level.
Page02	Bal 0–100		
	Adjusts the balance between the original sound and the effected sound.		

028 Squeak

Simulation of the popular Pro Co Rat famous for its edgy distortion sound.

	Knob1	Knob2	Knob3
Page01	Gain 0–100 P	Tone 0–100	Level 0–150
	Adjusts the gain.	Adjusts the tone.	Adjusts the output level.
Page02	Bal 0–100		
	Adjusts the balance between the original sound and the effected sound.		

029 FuzzSmile

Simulation of the Fuzz Face, which has made rock history with its humorous panel design and smashing sound.

	Knob1		Knob2		Knob3	
Page01	Gain	0–100 P	Tone	0–100	Level	0–150
	Adjusts the gain.		Adjusts the tone.		Adjusts the output level.	
Page02	Bal	0–100				
	Adjusts the balance between the original sound and the effected sound.					

030 GreatMuff

Simulation of the Electro-Harmonix Big Muff, which is loved by famous artists around the world for its fat, sweet fuzz sound.

	Knob1		Knob2		Knob3	
Page01	Gain	0–100 P	Tone	0–100	Level	0–150
	Adjusts the gain.		Adjusts the tone.		Adjusts the output level.	
Page02	Bal	0–100				
	Adjusts the balance between the original sound and the effected sound.					

031 MetalWRLD

Simulation of the Boss Metal Zone, which is characterized by long sustain and a powerful lower midrange.

	Knob1		Knob2		Knob3	
Page01	Gain	0–100 P	Tone	0–100	Level	0–150
	Adjusts the gain.		Adjusts the tone.		Adjusts the output level.	
Page02	Bal	0–100				
	Adjusts the balance between the original sound and the effected sound.					

032 BassDrive

Simulation of the Sansamp Bass Driver DI, highly popular among bass players.

	Knob1		Knob2		Knob3	
Page01	Bass	-10–10	Trebl	-10–10	Prese	-10–10
	Adjusts the low frequency level.		Adjusts the high frequency level.		Adjusts the super-high frequency level.	
Page02	Gain	0–100 P	Blend	0–100	Level	0–150
	Adjusts the gain.		Adjusts the balance between the original sound and the effected sound.		Adjusts the output level.	
Page03	Mid	-10–10				
	Adjusts the middle frequency level.					

033 D.I Plus

This is a simulation of the MXR Bass D.I.+, which has both clean and distortion channels.

	Knob1		Knob2		Knob3	
Page01	Bass	-10–10	Trebl	-10–10	Prese	-10–10
	Adjusts the low frequency level.		Adjusts the middle frequency level.		Adjusts the high frequency level.	
Page02	Gain	0–100 P	Blend	0–100	Level	0–150
	Adjusts the gain.		Adjusts the balance between the original sound and the effected sound.		Adjusts the output level.	
Page03	Color	On/Off	CHAN	CLN / DIST		
	Turns preset EQ on or off.		Switches between clean and distortion channels.			

034 Bass BB

This is a simulation of the Xotic Bass BB Preamp, which has a tube-like, thick sound.

	Knob1		Knob2		Knob3	
Page01	Gain	0–100 P	Bass	-10–10	Trebl	-10–10
	Adjusts the gain.		Adjusts the low frequency level.		Adjusts the high frequency level.	
Page02	Dry	0–100	Level	0–150		
	Adjusts level of original sound.		Adjusts the output level.			

035 DI5

This simulates the AVALON DESIGN U5 preamp.

	Knob1		Knob2		Knob3	
Page01	Gain	0–100	Tone	Off, 1–6	Level	0–150 P
	Adjusts the gain.		Adjusts the tone.		Adjusts the output level.	
Page02	HiCut	On/Off				
	Cuts high frequencies when ON.					

036 Bass Pre

This is a preamp model with a semi-parametric equalizer for the mid-range.

	Knob1		Knob2		Knob3		
Page01	Bass	0–10	Trebl	0–10	Level	0–150	P
	Adjusts the low frequency level.		Adjusts the high frequency level.		Adjusts the output level.		
Page02	Mid	-10–10	Freq	100Hz–4.5kHz			
	Adjusts the middle frequency level.		Adjusts the center frequency of the mid-range.				

037 AC Bs Pre

This is a preamp model with a graphic equalizer.

	Knob1		Knob2		Knob3		
Page01	Gain	0–100	Depth	0–10	Level	0–150	P
	Adjusts the gain.		Adjusts the low frequency level.		Adjusts the output level.		
Page02	Bass	-10–10	L-Mid	-10–10	LM_F	32Hz–6.3kHz	
	Adjusts the low frequency level.		Adjusts the low mid frequency level.		Adjusts the L-Mid center frequency.		
Page03	Mid	-10–10	H-Mid	-10–10	Trebl	-10–10	
	Adjusts the middle frequency level.		Adjusts the high mid frequency level.		Adjusts the high frequency level.		

038 SVT

Simulation of the ultimate rock bass amp, the Ampeg SVT.

	Knob1		Knob2		Knob3		
Page01	Bass	-10–10	Mid	-10–10	Trebl	-10–10	
	Adjusts the low frequency level.		Adjusts the middle frequency level.		Adjusts the high frequency level.		
Page02	Mid_F	32Hz–6.3kHz	Gain	0–100	P	Level	0–150
	Adjusts the center frequency of the mid-range.		Adjusts the gain.			Adjusts the output level.	
Page03	Ultra	Off, Low, Hi, Both, Cut	CAB	See Table 1		Mix	0–100
	Emphasizes high and low frequencies.		Selects the cabinet.			Adjusts the mix balance of the signal after the pre-amp and the signal after the cabinet.	

039 B-Man

Simulation of the Fender Bassman 100.

	Knob1		Knob2		Knob3		
Page01	Bass	-10–10	Mid	-10–10	Trebl	-10–10	
	Adjusts the low frequency level.		Adjusts the middle frequency level.		Adjusts the high frequency level.		
Page02	Mid_F	32Hz–6.3kHz	Gain	0–100	P	Level	0–150
	Adjusts the center frequency of the mid-range.		Adjusts the gain.			Adjusts the output level.	
Page03	Deep	On/Off	CAB	See Table 1		Mix	0–100
	Adjusts the low-frequency character.		Selects the cabinet.			Adjusts the mix balance of the signal after the pre-amp and the signal after the cabinet.	

040 HRT3500

Simulation of the Hartke HA3500 famous for its aluminum cone.

	Knob1		Knob2		Knob3		
Page01	Bass	-10–10	Mid	-10–10	Trebl	-10–10	
	Adjusts the low frequency level.		Adjusts the middle frequency level.		Adjusts the high frequency level.		
Page02	Mid_F	32Hz–6.3kHz	TUBE	0–100	P	Level	0–150
	Adjusts the center frequency of the mid-range.		Adjusts the mix of tube and transistor type sounds.			Adjusts the output level.	
Page03	Comp	Off,1–10	CAB	See Table 1		Mix	0–100
	Adjusts the amount of compression.		Selects the cabinet.			Adjusts the mix balance of the signal after the pre-amp and the signal after the cabinet.	

041 SMR

Simulation of the SWR SM-900, famous for its hi-fi sound.

	Knob1		Knob2		Knob3		
Page01	Bass	-10–10	Mid	-10–10	Trebl	-10–10	
	Adjusts the low frequency level.		Adjusts the middle frequency level.		Adjusts the high frequency level.		
Page02	Mid_F	32Hz–6.3kHz	Gain	0–100	P	Level	0–150
	Adjusts the center frequency of the mid-range.		Adjusts the gain.			Adjusts the output level.	
Page03	ENHNC	0–10	CAB	See Table 1		Mix	0–100
	This tone control changes the frequency and level according to the knob position.		Selects the cabinet.			Adjusts the mix balance of the signal after the pre-amp and the signal after the cabinet.	

042 Flip Top

Simulation of the Ampeg B-15 made famous by the Motown sound of the 1960s.

	Knob1		Knob2		Knob3	
Page01	Bass	-10–10	Mid	-10–10	Trebl	-10–10
	Adjusts the low frequency level.		Adjusts the middle frequency level.		Adjusts the high frequency level.	
Page02	Mid_F	32Hz–6.3kHz	Gain	0–100 P	Level	0–150
	Adjusts the center frequency of the mid-range.		Adjusts the gain.		Adjusts the output level.	
Page03	Ultra	Off, Low, Hi, Both	CAB	See Table 1	Mix	0–100
	Emphasizes high and low frequencies.		Selects the cabinet.		Adjusts the mix balance of the signal after the pre-amp and the signal after the cabinet.	

043 Acoustic

Simulation of the Acoustic 360 well known for its gutsy midrange.

	Knob1		Knob2		Knob3	
Page01	Bass	-10–10	Mid	-10–10	Trebl	-10–10
	Adjusts the low frequency level.		Adjusts the middle frequency level.		Adjusts the high frequency level.	
Page02	Mid_F	32Hz–6.3kHz	Gain	0–100 P	Level	0–150
	Adjusts the center frequency of the mid-range.		Adjusts the gain.		Adjusts the output level.	
Page03	Bright	On/Off	CAB	See Table 1	Mix	0–100
	Emphasizes high frequencies when ON.		Selects the cabinet.		Adjusts the mix balance of the signal after the pre-amp and the signal after the cabinet.	

044 Ag Amp

Simulation of the Aguilar DB750 famous for its powerful sound.

	Knob1		Knob2		Knob3	
Page01	Bass	-10–10	Mid	-10–10	Trebl	-10–10
	Adjusts the low frequency level.		Adjusts the middle frequency level.		Adjusts the high frequency level.	
Page02	Mid_F	32Hz–6.3kHz	Gain	0–100 P	Level	0–150
	Adjusts the center frequency of the mid-range.		Adjusts the gain.		Adjusts the output level.	
Page03	Char	Off, Deep, Brght, Both	CAB	See Table 1	Mix	0–100
	Selects one of 4 types of preset tones.		Selects the cabinet.		Adjusts the mix balance of the signal after the pre-amp and the signal after the cabinet.	

045 Monotone

Simulation of the POLYTONE MINI-BRUTE III with its distinct midrange, often used by Jazz musicians.

	Knob1		Knob2		Knob3	
Page01	Bass	-10–10	Mid	-10–10	Trebl	-10–10
	Adjusts the low frequency level.		Adjusts the middle frequency level.		Adjusts the high frequency level.	
Page02	Mid_F	32Hz–6.3kHz	Gain	0–100 P	Level	0–150
	Adjusts the center frequency of the mid-range.		Adjusts the gain.		Adjusts the output level.	
Page03	Char	Dark, Brght, Flat	CAB	See Table 1	Mix	0–100
	Selects one of 3 types of preset tones.		Selects the cabinet.		Adjusts the mix balance of the signal after the pre-amp and the signal after the cabinet.	

046 SuperB

Simulation of the Marshall Super Bass that made rock history.

	Knob1		Knob2		Knob3	
Page01	Bass	-10–10	Mid	-10–10	Trebl	-10–10
	Adjusts the low frequency level.		Adjusts the middle frequency level.		Adjusts the high frequency level.	
Page02	Mid_F	32Hz–6.3kHz	Gain	0–100 P	Level	0–150
	Adjusts the center frequency of the mid-range.		Adjusts the gain.		Adjusts the output level.	
Page03	Prese	0–10	CAB	See Table 1	Mix	0–100
	Adjusts the super-high frequency level.		Selects the cabinet.		Adjusts the mix balance of the signal after the pre-amp and the signal after the cabinet.	

Effect Types and Parameters

047 G-Krueger

Simulation of the famous metal bass amp Gallien-Krueger 800RB from the eighties.

	Knob1		Knob2		Knob3	
Page01	Bass	-10–10	Mid	-10–10	Trebl	-10–10
	Adjusts the low frequency level.		Adjusts the middle frequency level.		Adjusts the high frequency level.	
Page02	Mid_F	32Hz–6.3kHz	Gain	0–100 P	Level	0–150
	Adjusts the center frequency of the mid-range.		Adjusts the gain.		Adjusts the output level.	
Page03	Color	Off, Low, Mid, Hi	CAB	See Table 1	Mix	0–100
	Adjusts the preset tone.		Selects the cabinet.		Adjusts the mix balance of the signal after the pre-amp and the signal after the cabinet.	

048 Heaven

This simulation of the Eden WT-800 can be used with a wide variety of playing styles.

	Knob1		Knob2		Knob3	
Page01	Bass	-10–10	Mid	-10–10	Trebl	-10–10
	Adjusts the low frequency level.		Adjusts the middle frequency level.		Adjusts the high frequency level.	
Page02	Mid_F	32Hz–6.3kHz	Gain	0–100 P	Level	0–150
	Adjusts the center frequency of the mid-range.		Adjusts the gain.		Adjusts the output level.	
Page03	ENHNC	0–10	CAB	See Table 1	Mix	0–100
	This tone control changes the frequency and level according to the knob position.		Selects the cabinet.		Adjusts the mix balance of the signal after the pre-amp and the signal after the cabinet.	

049 Mark B

This simulates the Italian Markbass Little Mark III.

	Knob1		Knob2		Knob3	
Page01	Bass	-10–10	Mid	-10–10	Trebl	-10–10
	Adjusts the low frequency level.		Adjusts the middle frequency level.		Adjusts the high frequency level.	
Page02	Mid_F	32Hz–6.3kHz	Gain	0–100 P	Level	0–150
	Adjusts the center frequency of the mid-range.		Adjusts the gain.		Adjusts the output level.	
Page03	Color	0–6	CAB	See Table 1	Mix	0–100
	Adjusts low and high frequencies.		Selects the cabinet.		Adjusts the mix balance of the signal after the pre-amp and the signal after the cabinet.	

050 Tremolo

This effect varies the volume at a regular rate.

	Knob1		Knob2		Knob3	
Page01	Depth	0–100	Rate	0–50 ♪ P	Level	0–150
	Adjust the depth of the modulation.		Adjusts the rate of the modulation.		Adjusts the output level.	
Page02	Wave	UP 0–UP 9, DWN 0–DWN 9, TRI 0–TRI 9				
	Sets the modulation waveform.					

051 Slicer

This effect creates a rhythmical sound by continuously slicing the input.

	Knob1		Knob2		Knob3	
Page01	PTTRN	1–20	Speed	1–50 ♪	Bal	0–100 P
	Sets effect pattern.		Sets modulation speed.		Adjusts the balance between original and effect sounds.	
Page02	THRSH	0–50	Level	0–150		
	Adjusts effect threshold.		Adjusts the output level.			

052 4-Phaser

This is a 4-stage phaser effect that produces a swooshing sound.

	Knob1		Knob2		Knob3	
Page01	Rate	0–50 ♪ P	Reso	-10–10	Level	0–150
	Adjusts the modulation rate.		Adjusts the intensity of the effect character.		Adjusts the output level.	
Page02	LoCut	Off–800Hz				
	Sets the cut frequency in the low range of the effect sound.					

053 8-Phaser

This is an 8-stage phaser effect that produces a swooshing sound. Compared to the 4-stage phaser, the effect sound is more detailed.

	Knob1	Knob2	Knob3
Page01	Rate 0–50 ♪ P	Reso -10–10	Level 0–150
	Adjusts the modulation rate.	Adjusts the intensity of the effect character.	Adjusts the output level.
Page02	LoCut Off–800Hz		
	Sets the cut frequency in the low range of the effect sound.		

054 The Vibe

This vibe sound features unique undulations.

	Knob1	Knob2	Knob3
Page01	Speed 0–50 P	Depth 0–100	Bias 0–100
	Sets modulation speed.	Sets the depth of the modulation.	Adjusts bias of waveform modulation.
Page02	Wave 0–100	Mode VIBRT, CHORS	Level 0–150
	Adjusts modulation waveform.	Sets effect to vibrato or chorus.	Adjusts the output level.

055 DuoPhase

This effect combines two phasers.

	Knob1	Knob2	Knob3
Page01	RateA 1–50 ♪ P	RateB 1–50, SyncA, RvrsA	Level 0–150
	Adjusts speed of LFO A modulation.	Adjusts speed of LFO B modulation.	Adjusts the output level.
Page02	ResoA 0–10	ResoB 0–10	Link Seri, Para, STR
	Adjusts resonance of LFO A modulation.	Adjusts resonance of LFO B modulation.	Sets how two phasers are connected.
Page03	DPT_A 1–100	DPT_B 1–100	
	Adjusts depth of LFO A modulation.	Adjusts depth of LFO B modulation.	

056 WarpPhase

This phaser has a one way effect.

	Knob1	Knob2	Knob3
Page01	Speed 1–50 ♪ P	Reso 0–10	Level 0–150
	Sets modulation speed.	Sets effect resonance.	Adjusts the output level.
Page02	DRCTN Go, Back		
	Sets direction of warping.		

057 Chorus

This effect mixes a shifted pitch with the original sound to add movement and thickness.

	Knob1	Knob2	Knob3
Page01	Depth 0–100	Rate 1–50	Mix 0–100 P
	Sets the depth of the modulation.	Sets the speed of the modulation.	Adjusts the amount of effected sound that is mixed with the original sound.
Page02	LoCut Off–800Hz	Level 0–150	PreD On/Off
	Specifies the low-range cutoff point for the effect sound.	Adjusts the output level.	Turns pre-delay on or off.

058 Detune

By mixing an effect sound that is slightly pitch-shifted with the original sound, this effect type has a chorus effect without much sense of modulation.

	Knob1	Knob2	Knob3
Page01	Cent -50–50	PreD 0–50	Mix 0–100 P
	Adjusts the detuning in cents, which are fine increments of 1/100-semitone.	Sets the pre-delay time of the effect sound.	Adjusts the amount of effected sound that is mixed with the original sound.
Page02	Tone 0–10	Level 0–150	LoCut Off–800Hz
	Adjusts the tone.	Adjusts the output level.	Sets the cut frequency in the low range of the effect sound.

059 VintageCE

This is a simulation of the BOSS CE-1.

	Knob1	Knob2	Knob3
Page01	Comp 0–9	Rate 1–50	Mix 0–100 P
	Sets the sensitivity of the compressor.	Sets the speed of the modulation.	Adjusts the amount of effected sound that is mixed with the original sound.
Page02	Level 0–150		
	Adjusts the output level.		

060 StereoCho

This is a stereo chorus with a clear tone.

	Knob1	Knob2	Knob3
Page01	Depth 0–100	Rate 1–50	Mix 0–100 P
	Sets the depth of the modulation.	Sets the speed of the modulation.	Adjusts the amount of effected sound that is mixed with the original sound.
Page02	LoCut Off–800Hz	Level 0–150	
	Specifies the low-range cutoff point for the effect sound.	Adjusts the output level.	

061 Ensemble

This is a chorus ensemble that features three-dimensional movement.

	Knob1	Knob2	Knob3
Page01	Depth 0–100	Rate 1–50	Mix 0–100 P
	Sets the depth of the modulation.	Sets the speed of the modulation.	Adjusts the amount of effected sound that is mixed with the original sound.
Page02	Tone 0–10	Level 0–150	
	Adjusts the tone.	Adjusts the output level.	

062 VinFLNGR

This analog flanger sound is similar to an MXR M-117R.

	Knob1	Knob2	Knob3
Page01	Depth 0–100	Rate 0–50 ♪ P	Reso -10—1, 0,1–10
	Sets the depth of the modulation.	Sets the speed of the modulation.	Adjusts the intensity of the modulation resonance.
Page02	PreD 0–50	Mix 0–100	Level 0–150
	Sets pre-delay time of effect sound.	Adjusts the amount of effected sound that is mixed with the original sound.	Adjusts the output level.
Page03	LoCut Off–800Hz		
	Sets the cut-off frequency in the low range of the effect sound.		

063 Flanger

This is a jet sound like an ADA flanger.

	Knob1	Knob2	Knob3
Page01	Depth 0–100	Rate 0–50 ♪ P	Reso -10—1, 0,1–10
	Sets the depth of the modulation.	Sets the speed of the modulation.	Adjusts the intensity of the modulation resonance.
Page02	PreD 0–50	Mix 0–100	Level 0–150
	Sets pre-delay time of effect sound.	Adjusts the amount of effected sound that is mixed with the original sound.	Adjusts the output level.
Page03	LoCut Off–800Hz		
	Sets the cut-off frequency in the low range of the effect sound.		

064 DynaFLNGR

The volume of the effect sound changes according to the input signal level with this dynamic flanger.

	Knob1	Knob2	Knob3
Page01	Depth 0–100	Rate 0–50 ♪ P	Sense -10—1, 1–10
	Sets the depth of the modulation.	Sets the speed of the modulation.	Adjusts the sensitivity of the effect.
Page02	Reso -10—1, 0, 1–10	Level 0–150	
	Adjusts the intensity of the modulation resonance.	Adjusts the output level.	

065 Vibrato

This effect automatically adds vibrato.

	Knob1	Knob2	Knob3
Page01	Depth 0–100	Rate 0–50 ♪ P	Bal 0–100
	Sets the depth of the modulation.	Sets the speed of the modulation.	Adjusts the balance between original and effect sounds.
Page02	Tone 0–10	Level 0–150	
	Adjusts the tone.	Adjusts the output level.	

066 Octave

This effect adds sound one octave below the original sound.

	Knob1	Knob2	Knob3
Page01	Oct 0–100 P	Dry 0–100	Tone 0–10
	Adjusts the level of the one-octave lower sound component.	Adjusts the level of the original sound.	Adjusts the tonal quality of the one-octave lower sound component.
Page02	Low 0–10	Mid 0–10	Level 0–150
	Adjusts the low frequency level.	Adjusts the middle frequency level.	Adjusts the output level.

067 PitchSHFT

This effect shifts the pitch up or down.

	Knob1		Knob2		Knob3		
Page01	Shift	-12—1, 0, 1–12, 24	Tone	0–10	Bal	0–100	P
	Adjusts the pitch shift amount in semitones. Selecting "0" gives a detuning effect.		Adjusts the tone.		Adjusts the balance between original and effect sounds.		
Page02	Fine	-25—1, 0, 1–25	Level	0–150			
	Allows fine adjustment of pitch shift amount in cent (1/100 semitone) steps.		Adjusts the output level.				

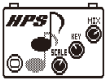
068 MonoPitch

This is a pitch shifter with little sound variance for monophonic (single note) playing.

	Knob1		Knob2		Knob3		
Page01	Shift	-12—1, 0, 1–12, 24	Tone	0–10	Bal	0–100	P
	Adjusts the pitch shift amount in semitones. Selecting "0" gives a detuning effect.		Adjusts the tone.		Adjusts the balance between original and effect sounds.		
Page02	Fine	-25—1, 0, 1–25	Level	0–150			
	Allows fine adjustment of pitch shift amount in cent (1/100 semitone) steps.		Adjusts the output level.				

069 H.P.S

This intelligent pitch shifter outputs the pitch-shifted sound according to scale and key settings.



	Knob1		Knob2		Knob3		
Page01	Scale	-6, -5, -4, -3, -m, m, 3, 4, 5, 6 (See Table 2)	Key	C, C#, D, D#, E, F, F#, G, G#, A, A#, B	Mix	0–100	P
	Sets the pitch of the pitch-shifted sound added to the original sound.		Sets the tonic (root) of the scale used for pitch shifting.		Adjusts the amount of effected sound that is mixed with the original sound.		
Page02	Tone	0–10	Level	0–150			
	Adjusts the tone.		Adjusts the output level.				

070 BendCho

This effect bends the pitch using the input signal as the trigger and processes each note separately.

	Knob1		Knob2		Knob3		
Page01	Depth	0–100	Time	0–50	P	Bal	0–100
	Adjusts the effect depth.		Sets time before effect starts.			Adjusts the balance between original and effect sounds.	
Page02	Mode	Up, Down	Tone	0–10		Level	0–150
	Sets direction of pitch bend.		Adjusts the tone.			Adjusts the output level.	

071 RingMod

This effect produces a metallic ringing sound. Adjusting the "Freq" parameter results in a drastic change of sound character.

	Knob1		Knob2		Knob3		
Page01	Freq	1–50	P	Tone	0–10	Bal	0–100
	Sets the frequency of the modulation.			Adjusts the tone.		Adjusts the balance between original and effect sounds.	
Page02	Level	0–150					
	Adjusts the output level.						

072 BitCrush

This effect creates a lo-fi sound.

	Knob1		Knob2		Knob3		
Page01	Bit	4–16	SMPL	0–50	P	Bal	0–100
	Sets bit depth.		Sets sampling rate.			Adjusts the balance between original and effect sounds.	
Page02	Tone	0–10	Level	0–150			
	Adjusts the tone.		Adjusts the output level.				

073 Bomber

This effect produces an explosive sound when picking.

FS: Trigger

	Knob1		Knob2		Knob3		
Page01	PTTRN	HndGn, Arm, Bomb, Thndr	Decay	1–100	P	Bal	0–100
	Sets type of effect sound.		Sets length of reverberations.			Adjusts the balance between original and effect sounds.	
Page02	THRSH	0–50	Power	0–30		Tone	0–10
	Adjusts effect threshold.		Adjusts strength of explosive sound.			Adjusts the tone.	
Page03	Level	0–150					
	Adjusts the output level.						

NEXT ›››

Effect Types and Parameters

074 MonoSyn

This effect produces the sound of a monophonic (single-note playing) bass synthesizer that detects the pitch of the input signal.

	Knob1		Knob2		Knob3	
Page01	Decay	0–100	Wave	Saw, Pulse, PWM	Reso	0–10
	Adjusts the rate of sound change.		Sets the waveform type to "Saw" (sawtooth), "Pulse" (square wave), or PWM (pulse width modulation resulting in fatter sound).		Adjusts the intensity of the effect character.	
Page02	Synth	0–100	Dry	0–100 P	Level	0–150
	Adjusts level of synthesizer sound.		Adjusts level of original sound.		Adjusts the output level.	

075 StdSyn

ZOOM original bass synthesizer sound.

	Knob1		Knob2		Knob3	
Page01	Sense	0–100	Sound	1–4	Tone	0–10
	Adjusts the sensitivity for trigger detection.		Selects a synthesizer variation.		Adjusts the tonal quality of the sound.	
Page02	Synth	0–100	Dry	0–100 P	Level	0–150
	Adjusts level of synthesizer sound.		Adjusts level of original sound.		Adjusts the output level.	

076 SynTlk

This effect produces a synthesizer sound similar to a talking modulator producing vowels.

	Knob1		Knob2		Knob3	
Page01	Decay	0–100	Type	iA, UE, UA, oA	Tone	0–10
	Adjusts the rate of sound change.		Selects a vowel variation.		Adjusts the tonal quality of the sound.	
Page02	Synth	0–100	Dry	0–100 P	Level	0–150
	Adjusts level of synthesizer sound.		Adjusts level of original sound.		Adjusts the output level.	

077 V-Syn

This effect produces a vintage bass synthesizer sound.

	Knob1		Knob2		Knob3	
Page01	Decay	0–100	Sense	0–30	Range	-10–10
	Adjusts the rate of sound change.		Adjusts the sensitivity for trigger detection.		Adjusts the filter shift range.	
Page02	Synth	0–100	Dry	0–100 P	Level	0–150
	Adjusts level of synthesizer sound.		Adjusts level of original sound.		Adjusts the output level.	

078 4VoiceSyn

This effect type adds synthesizer harmony components to single notes played on the bass. The harmony components are determined by the Mode and Scale parameters.

	Knob1		Knob2		Knob3	
Page01	ATTCK	0–10	Mode	1–9	Scale	1, 2
	Adjusts the attack rate of the synthesizer sound.		Selects a harmony type from 1 - 9. (See Table 4)		Selects a harmony variation. Two variations are available for each of the 1-9 modes. (See Table 4)	
Page02	Synth	0–100	Dry	0–100 P	Level	0–150
	Adjusts level of synthesizer sound.		Adjusts level of original sound.		Adjusts the output level.	

079 Z-Syn

This bass synthesizer sound adds analog synth fatness.

	Knob1		Knob2		Knob3	
Page01	Wave	Saw, Sqr	Decay	0–100 P	Tone	0–10
	Selects the waveform.		Adjusts the speed of tone modulation.		Adjusts the tone.	
Page02	Freq	0–10	Range	0–20	Reso	0–20
	Sets the cut-off frequency of the low-pass filter.		Adjusts the amount of cut-off frequency modulation.		Adjusts the intensity of the filter resonance.	
Page03	Synth	0–100	Dry	0–100	Level	0–150
	Adjusts level of synthesizer sound.		Adjusts level of original sound.		Adjusts the output level.	

080 Z-Organ

This effect simulates an organ sound.

	Knob1		Knob2		Knob3	
Page01	Upper	0–100 P	Lower	0–100	Dry	0–100
	Adjusts volume of high frequencies.		Adjusts volume of low frequencies.		Adjusts level of original sound.	
Page02	HPF	0–10	LPF	0–10	Level	0–150
	Adjusts high-pass filter cutoff frequency.		Adjusts low-pass filter cutoff frequency.		Adjusts the output level.	

081 Defret

Turns the sound from any bass guitar into a fretless bass sound.

	Knob1		Knob2		Knob3	
Page01	Sense	0–30	Color	1–10	Level	0–150
	Adjusts the effect sensitivity.		Adjusts the harmonics contents of the sound. Higher setting values result in stronger effect character.		Adjusts the output level.	
Page02	Tone	1–50 P				
	Adjusts the tonal quality of the sound.					

082 Delay

This long delay has a maximum length of 5000 mS.

FS: Hold, InputMute

	Knob1		Knob2		Knob3	
Page01	Time	1–5000 ♪	F.B	0–100	Mix	0–100 P
	Sets the delay time.		Adjusts the feedback amount.		Adjusts the amount of effected sound that is mixed with the original sound.	
Page02	HiDMP	0–10	P-P	MONO, P-P	Level	0–150
	Adjusts the treble attenuation of the delay sound.		Sets delay output to mono or ping-pong.		Adjusts the output level.	

083 TapeEcho

This effect simulates a tape echo. Changing the "Time" parameter changes the pitch of the echoes.

FS: InputMute

	Knob1		Knob2		Knob3	
Page01	Time	1–2000 ♪ P	F.B	0–100	Mix	0–100
	Sets the delay time.		Adjusts the feedback amount.		Adjusts the amount of effected sound that is mixed with the original sound.	
Page02	HiDMP	0–10	Level	0–150		
	Adjusts the treble attenuation of the delay sound.		Adjusts the output level.			

084 ModDelay

This delay effect allows the use of modulation.

FS: InputMute

	Knob1		Knob2		Knob3	
Page01	Time	1–2000 ♪	F.B	0–100	Mix	0–100
	Sets the delay time.		Adjusts the feedback amount.		Adjusts the amount of effected sound that is mixed with the original sound.	
Page02	Rate	1–50 P	Level	0–150	Depth	0–100
	Sets the speed of the modulation.		Adjusts the output level.		Sets the depth of the modulation.	

085 AnalogDly

This analog delay simulation has a long delay with a maximum length of 5000 mS.

FS: Hold, InputMute

	Knob1		Knob2		Knob3	
Page01	Time	1–5000 ♪	F.B	0–100	Mix	0–100 P
	Sets the delay time.		Adjusts the feedback amount.		Adjusts the amount of effected sound that is mixed with the original sound.	
Page02	HiDMP	0–10	P-P	MONO, P-P	Level	0–150
	Adjusts the treble attenuation of the delay sound.		Sets delay output to mono or ping-pong.		Adjusts the output level.	

086 ReverseDL

This reverse delay is a long delay with a maximum length of 2500 mS.

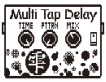
FS: Hold, InputMute

	Knob1		Knob2		Knob3	
Page01	Time	10–2500 ♪	F.B	0–100	Bal	0–100 P
	Sets the delay time.		Adjusts the feedback amount.		Adjusts the balance between original and effect sounds.	
Page02	HiDMP	0–10	Level	0–150		
	Adjusts the treble attenuation of the delay sound.		Adjusts the output level.			

087 MultiTapD

This effect produces several delay sounds with different delay times.

FS: InputMute



	Knob1		Knob2		Knob3	
Page01	Time	1–3000 ♪	PTTRN	1–8	Mix	0–100 P
	Sets the delay time.		Sets the tap pattern, which varies from rhythmical to random patterns.		Adjusts the amount of effected sound that is mixed with the original sound.	
Page02	Tone	0–10	Level	0–150		
	Adjusts the tone.		Adjusts the output level.			

NEXT ›››

Effect Types and Parameters

088 DynaDelay

This dynamic delay adjusts the volume of the effect sound according to the input signal level.

FS: InputMute

	Knob1	Knob2	Knob3
Page01	Time 1–2000 ♪	Sense -10—1, 1–10	Mix 0–100 P
	Sets the delay time.	Adjusts the effect sensitivity.	Adjusts the amount of effected sound that is mixed with the original sound.
Page02	F.B 0–100	Level 0–150	
	Adjusts the feedback amount.	Adjusts the output level.	

089 FilterDly

This effect filters a delayed sound.

FS: InputMute

	Knob1	Knob2	Knob3
Page01	Time 1–2000 ♪	F.B 0–100	Mix 0–100
	Sets the delay time.	Adjusts the feedback amount.	Adjusts the amount of effected sound that is mixed with the original sound.
Page02	Rate 1–50 P	Depth 0–100	Reso 0–10
	Sets the speed of the modulation.	Sets the depth of the modulation.	Adjusts the intensity of the modulation resonance.
Page03	Level 0–150		
	Adjusts the output level.		

090 PitchDly

This effect applies pitch shift to a delayed sound.

FS: InputMute

	Knob1	Knob2	Knob3
Page01	Time 1–2000	Pitch -12–12 P	Mix 0–100
	Sets the delay time.	Sets volume of pitch shift applied to delayed sound.	Adjusts the amount of effected sound that is mixed with the original sound.
Page02	F.B 0–100	Tone 0–10	Level 0–150
	Adjusts the feedback amount.	Adjusts the tone.	Adjusts the output level.

091 StereoDly

This stereo delay allows the left and right delay times to be set separately.

FS: InputMute

	Knob1	Knob2	Knob3
Page01	TimeL 1–2000 ♪	TimeR 1–2000 ♪	Mix 0–100 P
	Adjusts delay time of left channel delay.	Adjusts delay time of right channel delay.	Adjusts the amount of effected sound that is mixed with the original sound.
Page02	LchFB 0–100	RchFB 0–100	Level 0–150
	Adjusts delay feedback of left channel.	Adjusts delay feedback of right channel.	Adjusts the output level.
Page03	LchLv 0–100	RchLv 0–100	
	Adjusts delay output of left channel.	Adjusts delay output of right channel.	

092 PhaseDly

This effect applies a phaser to a delayed sound.

FS: InputMute

	Knob1	Knob2	Knob3
Page01	Time 1–2000 ♪	F.B 0–100	Mix 0–100
	Sets the delay time.	Adjusts the feedback amount.	Adjusts the amount of effected sound that is mixed with the original sound.
Page02	Rate 1–50 P	Color 4 STG, 8 STG, inv 4, inv 8	Level 0–150
	Sets the speed of the modulation.	Sets the tone of the effect type.	Adjusts the output level.

093 TrgHldDly

This delay samples and holds using picking as the trigger.

FS: InputMute

	Knob1	Knob2	Knob3
Page01	Time 10–1000	Duty 25–100	Mix 0–100 P
	Sets the delay time.	Sets the time that the sample-and-hold sound is produced.	Adjusts the amount of effected sound that is mixed with the original sound.
Page02	THRSH 0–30	Level 0–150	
	Adjusts effect threshold.	Adjusts the output level.	

094 HD Reverb

This is a high-definition reverb.

FS: InputMute

	Knob1	Knob2	Knob3
Page01	Decay 0–100	Tone 0–10	Mix 0–100 P
	Sets the duration of the reverberations.	Adjusts the tone.	Adjusts the amount of effected sound that is mixed with the original sound.
Page02	PreD 1–200	HPF 0–10	Level 0–150
	Adjusts the delay between input of the original sound and start of the reverb sound.	Adjusts high-pass filter cutoff frequency.	Adjusts the output level.

095 Hall

This reverb effect simulates the acoustics of a concert hall.

FS: InputMute

	Knob1		Knob2		Knob3		
Page01	Decay	1–30	Tone	0–10	Mix	0–100	P
	Sets the duration of the reverberations.		Adjusts the tone.		Adjusts the amount of effected sound that is mixed with the original sound.		
Page02	PreD	1–100	Level	0–150			
	Adjusts the delay between input of the original sound and start of the reverb sound.		Adjusts the output level.				

096 Room

This reverb effect simulates the acoustics of a room.

FS: InputMute

	Knob1		Knob2		Knob3		
Page01	Decay	1–30	Tone	0–10	Mix	0–100	P
	Sets the duration of the reverberations.		Adjusts the tone.		Adjusts the amount of effected sound that is mixed with the original sound.		
Page02	PreD	1–100	Level	0–150			
	Adjusts the delay between input of the original sound and start of the reverb sound.		Adjusts the output level.				

097 TiledRoom

This reverb effect simulates the acoustics of a tiled room.

FS: InputMute

	Knob1		Knob2		Knob3		
Page01	Decay	1–30	Tone	0–10	Mix	0–100	P
	Sets the duration of the reverberations.		Adjusts the tone.		Adjusts the amount of effected sound that is mixed with the original sound.		
Page02	PreD	1–100	Level	0–150			
	Adjusts the delay between input of the original sound and start of the reverb sound.		Adjusts the output level.				

098 Spring

This reverb effect simulates a spring reverb.

FS: InputMute

	Knob1		Knob2		Knob3		
Page01	Decay	1–30	Tone	0–10	Mix	0–100	P
	Sets the duration of the reverberations.		Adjusts the tone.		Adjusts the amount of effected sound that is mixed with the original sound.		
Page02	PreD	1–100	Level	0–150			
	Adjusts the delay between input of the original sound and start of the reverb sound.		Adjusts the output level.				

099 Arena

This reverb effect simulates the acoustics of a large enclosure such as a sports arena.

FS: InputMute

	Knob1		Knob2		Knob3		
Page01	Decay	1–30	Tone	0–10	Mix	0–100	P
	Sets the duration of the reverberations.		Adjusts the tone.		Adjusts the amount of effected sound that is mixed with the original sound.		
Page02	PreD	1–100	Level	0–150			
	Adjusts the delay between input of the original sound and start of the reverb sound.		Adjusts the output level.				

100 EarlyRef

This effect reproduces only the early reflections of reverb.

	Knob1		Knob2		Knob3		
Page01	Decay	1–30	Shape	-10–10	Mix	0–100	P
	Adjusts the duration of the reverb.		Adjusts the effect envelope.		Adjusts the amount of effected sound that is mixed with the original sound.		
Page02	Tone	0–10	Level	0–150			
	Adjusts the tone.		Adjusts the output level.				

101 Air

This effect reproduces the ambience of a room to create spatial depth.

	Knob1		Knob2		Knob3		
Page01	Size	1–100	Tone	0–10	Mix	0–100	P
	Sets the size of the space.		Adjusts the tone.		Adjusts the amount of effected sound that is mixed with the original sound.		
Page02	Ref	0–10	Level	0–150			
	Adjusts the amount of reflection from the wall.		Adjusts the output level.				

102 Comp+Dist

This effect combines a compressor and distortion.

	Knob1		Knob2		Knob3	
Page01	THRSH	0–50	Gain	0–100 P	Level	0–150
	Sets the level that activates the compressor.		Adjusts the gain.		Adjusts the output level.	
Page02	Dry	0–100	Tone	0–100	Ratio	1–10
	Adjusts level of original sound.		Adjusts the tone.		Adjusts the compression ratio.	
Page03	ATTCK	1–10				
	Adjusts the compressor attack rate.					

103 Oct+Dist

This effect combines an octaver and distortion.

	Knob1		Knob2		Knob3	
Page01	Oct	0–100 P	Gain	0–100	Level	0–150
	Adjusts the volume of the effect sound one octave down.		Adjusts the gain.		Adjusts the output level.	
Page02	Dry	0–100	Tone	0–100	Chain	Befr/Aftr
	Adjusts level of original sound.		Adjusts the tone.		Sets the distortion insertion point.	

104 Awah+Dist

This effect combines auto-wah with distortion.

	Knob1		Knob2		Knob3	
Page01	Sense	-10—1, 1–10	Gain	0–100 P	Level	0–150
	Adjusts the sensitivity of the effect.		Adjusts the gain.		Adjusts the output level.	
Page02	Dry	0–100	Tone	0–100	Reso	0–10
	Adjusts level of original sound.		Adjusts the tone.		Adjusts the intensity of the resonance sound.	
Page03	Chain	Befr/Aftr				
	Sets the distortion insertion point.					

105 Comp+AWah

This effect combines compressor and auto-wah.

	Knob1		Knob2		Knob3	
Page01	THRSH	0–50	Sense	-10—1, 1–10 P	Level	0–150
	Sets the level that activates the compressor.		Adjusts the sensitivity of the effect.		Adjusts the output level.	
Page02	Dry	0–100	Reso	0–10	Ratio	1–10
	Adjusts level of original sound.		Adjusts the intensity of the resonance sound.		Adjusts the compression ratio.	
Page03	ATTCK	1–10				
	Adjusts the compressor attack rate.					

106 PH+Dist

This effect combines a phaser and distortion in the style of the Roland JET PHASER.

	Knob1		Knob2		Knob3	
Page01	Gain	0–100	Mode	1–4	Reso	0–10
	Adjusts the gain.		Selects the jet sound mode.		Adjusts the intensity of the effect character.	
Page02	Rate	0–50 P	Tone	0–10	Level	0–150
	Adjusts the modulation rate.		Adjusts the tone.		Adjusts the output level.	

107 PedalVox

This simulates a vintage Vox wah pedal.

	Knob1		Knob2		Knob3	
Page01	Freq	1–50 P	DryMX	0–100	Level	0–150
	Adjusts the emphasized frequency.		Adjusts the mix with the unaffected sound.		Adjusts the output level.	

108 PedalWah

This is a pedal wah effect for bass guitar.

	Knob1		Knob2		Knob3	
Page01	Freq	1–50 P	DryMX	0–100	Level	0–150
	Adjusts the frequency that is emphasized.		Adjusts the mix with the unaffected sound.		Adjusts the output level.	

109 PDL Reso

Pedal wah with a strong character.

	Knob1		Knob2		Knob3	
Page01	Freq	1–50 P	Reso	0–10	Level	0–150
	Adjusts the emphasized frequency.		Adjusts the intensity of the effect character.		Adjusts the output level.	
Page02	DryMX	0–100				
	Adjusts the amount of original sound in the mix.					

110 PDL Pitch

Use an expression pedal to change the pitch in real time with this effect.

	Knob1		Knob2		Knob3		
Page01	Color	1–9 (See Table 3)	Tone	0–10	Bend	0–100	P
	Sets the type of pitch change control with the expression pedal.		Adjusts the tone.		Sets the amount of pitch shift.		
Page02	Mode	Up, Down	Level	0–150			
	Sets the direction of the pitch change to Up or Down.		Adjusts the output level.				

111 PDL MnPit

This is a pitch shifter specially for monophonic sound (single-note playing), which allows the pitch to be shifted in real time with the expression pedal.

	Knob1		Knob2		Knob3		
Page01	Color	1–9 (See Table 3)	Tone	0–10	Bend	0–100	P
	Sets the type of pitch change control with the expression pedal.		Adjusts the tone.		Sets the amount of pitch shift.		
Page02	Mode	Up, Down	Level	0-150			
	Sets the direction of the pitch change to Up or Down.		Adjusts the output level.				

■Table 1

Type	Modeled cabinet and speakers
ORGN	The recommended cabinet will be selected.
8x10 AG	AMPEG 810E simulation
4x12 SB	MARSHALL 1935A simulation
4x12 BM	FENDER BASSMAN simulation
4x10 HA	HARTKE 4.5XL simulation
4x10 SWR	SWR GOLIATH simulation
4X10 AL	AGUILAR GS410 simulation
4x10 GK	GALLIEN KRUEGER 410RBH simulation
4x10 E	EDEN D410XLT simulation
1x18 AC	ACOUSTIC 301 simulation
1x15 PT	POLYTONE MINI BRUTE III combo amp cabinet simulation
1x15 AG	AMPEG B-15 combo amp cabinet simulation
1x12 MB	Markbass 12-inch combo amp cabinet simulation

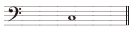
■Table 2

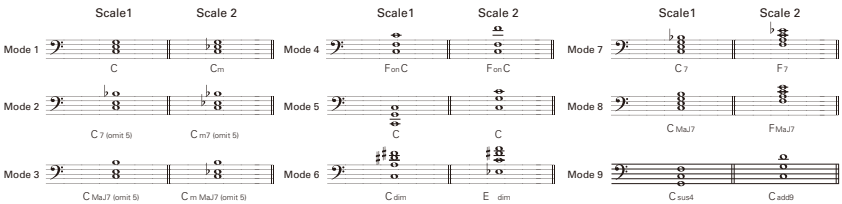
Setting	Scale used	Interval
–6	Major	6th down
–5		5th down
–4		4th down
–3		3rd down
–m	Minor	3rd down
m		3rd up
3	Major	3rd up
4		4th up
5		5th up
6		6th up

■Table 3

Color	Pedal min	Pedal max
1	0 cents	+1 octave
2	0 cents	+2 octaves
3	0 cents	-100 cents
4	0 cents	-2 octaves
5	0 cents	–∞
6	-1 octave + original	+1 octave + original
7	-700 cents + original	+500 cents + original
8	Doubling	Detuned + original
9	-∞ (0 Hz) + original	+1 octave + original

■Table 4

Note played on bass  (Example : C)



Troubleshooting

The unit will not turn ON

- Confirm that the POWER switch is set to "ON". When using bus power, confirm that the switch is "OFF" before connecting the USB cable.
- When using batteries, confirm that they are still charged.

No sound or very low volume

- Check the connections (→P4–6).
- Adjust the patch level (→P14).
- Adjust the master level (→P18).
- When adjusting the volume with an expression pedal, make sure that a suitable volume setting has been set with the pedal.
- Confirm that unit is not in mute mode (→P22).
- The unit might have switched to standby to save power (→P6). In standby, audio input and output are disabled.

There is a lot of noise

- Check the shielded cables that you are using for defects.
- Use only a genuine ZOOM AC adapter.

The sound distorts strangely/has an odd timbre

- Set the Active/Passive switch according to the type of bass guitar pickups or the device connected directly to the B3.

An effect is not working

If the effect processing capacity is exceeded, "THRU" appears on the effect graphic. In this case, the effect is bypassed.

The expression pedal is not working well

Check the expression pedal settings (→P16).

The recorded level in a DAW is low

Check the recording level setting (→P20).

Batteries lose their charge quickly

- Are you using manganese batteries? Alkaline batteries should provide 6 hours of operation.
- Check the battery setting (→P20). Set the type of battery being used for a more accurate display of the remaining charge.

Rhythm List

#	Pattern Name	Tim Sig.
1	GUIDE	4/4
2	8Beat1	4/4
3	8Beat2	4/4
4	8Beat3	4/4
5	8SHFFL	4/4
6	16Beat1	4/4
7	16Beat2	4/4
8	16SHFFL	4/4
9	Rock	4/4
10	Hard	4/4
11	Metal1	4/4
12	Metal2	4/4
13	Thrash	4/4
14	Punk	4/4

#	Pattern Name	Tim Sig.
15	DnB	4/4
16	Funk1	4/4
17	Funk2	4/4
18	Hiphop	4/4
19	R'nR	4/4
20	Pop1	4/4
21	Pop2	4/4
22	Pop3	4/4
23	Dance1	4/4
24	Dance2	4/4
25	Dance3	4/4
26	Dance4	4/4
27	3Per4	3/4
28	6Per8	3/4

#	Pattern Name	Tim Sig.
29	5Per4_1	5/4
30	5Per4_2	5/4
31	Latin	4/4
32	Ballad1	4/4
33	Ballad2	3/4
34	Blues1	4/4
35	Blues2	3/4
36	Jazz1	4/4
37	Jazz2	3/4
38	Metro3	3/4
39	Metro4	4/4
40	Metro5	5/4
41	Metro	

Specifications

Effect types	111 types	
Number of simultaneous effects	3	
Number of user banks/patches	10 patches x 10 banks	
Sampling frequency	44.1kHz	
A/D conversion	24-bit with 128x oversampling	
D/A conversion	24-bit with 128x oversampling	
Signal processing	32-bit floating point & 32-bit fixed point	
Frequency characteristics	20-20 kHz +1 dB, -3 dB (10 kΩ load)	
Display	LCD x 3	
Input	Standard mono phone jack Rated input level -20dBm Input impedance 1MΩ ACTIVE/PASSIVE (switch selectable)	
Output R	Standard mono phone jack Maximum output level: Line: +5 dBm (with output load impedance of 10 kΩ or more)	
L/Mono/Phone	Standard stereo phone jack (line/headphones) Maximum output level: Line: +5 dBm (with output load impedance of 10 kΩ or more) Headphones: 20 mW + 20 mW (into 32 Ω load)	
Balanced output	XLR connector Output impedance 100 Ω (HOT-GND, COLD-GND), 200 Ω (HOT-COLD) PRE/POST (switch selectable) GND LIFT (switch selectable)	
Control input	For FP01/FP02/FS01	
Noise floor (residual noise)	-100dBm	
Power	AC adapter	DC9V (center minus plug), 500 mA (ZOOM AD-16)
	Batteries	6 hours of continuous operation using 4 AA alkaline batteries
	USB	Bus power
Dimensions	170 (D) x 234 (W) x 54 (H) mm	
USB	USB Audio	
Weight	1.2kg	
Options	FP01/FP02 expression pedal and FS01 foot switch	

• 0dBm = 0.775Vrms

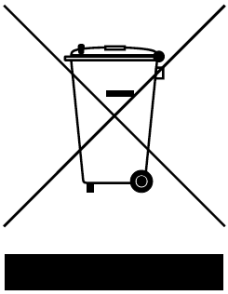
FCC regulation warning (for U.S.A.)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

For EU Countries

Declaration of Conformity:
This product complies with the requirements of
EMC Directive 2004/108/EC,
Low Voltage Directive 2006/95/EC and
ErP Directive 2009/125/EC



Disposal of Old Electrical & Electronic Equipment

(Applicable in European countries with separate collection systems)

This symbol on the product or on its packaging indicates that this product shall not be treated as household waste. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. The recycling of materials will help to conserve natural resources. For more detailed information about recycling of this product, please contact your local city office, your household waste disposal service or the shop where you purchased the product.

ZOOM CORPORATION
4-4-3 Surugadai, Kanda, Chiyoda-ku, Tokyo 101-0062 Japan
http://www.zoom.co.jp

B3-5000-1

B3

Bass Effects & Amp Simulator

			Patch Name	Comment
DEMO	A	0	MarkBoost	This uses modeling of the all-around Markbass sound. Switch the graphic EQ on for a tighter low end when using an amplifier.
		1	Polytone	This has the characteristic mid range of the Polytone MINI-BRUTE, which is popular among jazz players. Switch the EQ on for a tighter low end when using an amplifier.
		2	SLAP WAH	This patch with additional auto-wah is useful for slapping solos.
		3	bass tank	Less overdriven style into an SVT style amp modeler.
		4	Hartke	A Hartke HA3500 is combined with a 4.5XL cabinet with aluminum cone drivers. Switch the EQ on for tighter low end when using an amplifier.
		5	SansCmp	A basic combination of SansAmp and Punch Factory, which are two favorite effects among bass players. Add EQ to your taste.
		6	Jaco Jazz	Jaco Jazz Ah yes the famous Jaco and his sound this sound emulates a fretless bass very well.
		7	SVT	The all-tube Ampeg SVT is combined with an 810E cabinet. Switch the EQ on for a tighter low end when using an amplifier.
		8	tl octave	My basic beefed up octave sound, big lows and fat sine wave.
		9	RecU5	The AVALON U5 model contributes to this clear and crispy bass sound.
Victor Wooten	B	0	W10 Big D	Very powerful Octave and Distortion sound.
		1	W10 Thumb1	Moog filter sound for thumb play style.
		2	W10 Thumb2	Q-Tron filter sound for thumb play style.
		3	W10 StepUp	Long time delay sound with Hall reverb.
		4	W10 Up Top	Pitch shifter with delay for bass guitar solo.
		5	W10 Bottom	Nice bottom sound with booster and Bottom B.
		6	W10LesFret	Fretless sound with Hall reverb.
		7	W10 DreamX	Dreamy sound using Reverse Delay.
		8	W10 DreamY	Dreamy sound using Pitch Delay.
		9	W10 BowTie	Slow attack sound with Hall reverb.
Frank Bello	C	0	HintoCliff	This patch is a tribute dedicated to my friend Cliff Burton. I think of him when I hear it.
		1	GalePlus	This patch is a kind of straight-ahead vibe plus a little more "stuff " I added to it…
		2	Smoothfun	This patch says to me that this bass sound is so smooth, I should have some fun with it.
		3	WahTalkin	With this patch, I have this picture in my head of having a conversation with a wah pedal.
		4	Horrorfuzz	This patch is my horror movie bass sound. To me it sounds like it's from a horror movie soundtrack.
		5	Tremozep	When I'm playing with this patch, it sounds like it has a Led Zeppelin vibe to it. Tremolo all the way!
		6	FollowMe	When I hear this patch, it makes me feel like there is a sound following me every note I play.
		7	LeStandard	With this patch, I just wanted to have a cool, straight ahead bass sound to jam to.
		8	Believe it	This patch has a journey-bass sound vibe to it. Big Chorus going on.
		9	Cureme	I think-This patch has a Cure-ish (the band) vibe to it. Fun with the Flanger!
David Ellefson	D	0	Crunch Fuz	FuzzSmile gives hard edge fuzz.
		1	Amused	Synth & OptComp creates a modern alt metal talk box type sound.
		2	UR No Good	Derived from Van Halen II "You're No Good" bass intro. Classic Phaser and Compression. Great bass intro patch.
		3	Wid Sprd	D.I Plus with the Vibe gives useful effect for blues or rock songs.
		4	Nat Bg Wah	A natural bass wah created with Bottom B, Pedal Wah and Early Reflection.
		5	Big Room	Oct Stomp, Reverb and Flip Top create an ambient hall setting with a lower octave added.
		6	Space Driv	Exciter, Phaser, Fuzz. Good for solo bass and oddity pieces.
		7	Bass Synth	Mono Synth creates outstanding effect for solos and special effects.
		8	Lo Down	Octave creates lower octave while Random Filter adds mystic.
		9	Spc Fusion	Vibrato with 4 Voice Synth provides fusion jazz voicing.
Doug Wimbish	E	0	cto Stomp	A combination of Bottom B and Flip Top rounded out through the 160 COMP delivers a FAT SOLID SOUND.
		1	Pump House	SVT Amp with a twist of Mono Pitch and 160 Comp creates controllable Sub Low with the expression pedal. PUMP IT!
		2	Propeller	A Bass Drive merged with Trigger Hold then the 160 Comp evens it out. Expression Pedal makes it pulse.
		3	Swirl	With the Vibrato, Arena Reverb and Exciter, you create a Whirling Leslie Vibe.
ARTIST		4	Jaco Solo	Jaco Solo is a very dreamy sound thick with a nice reverb can be used for solo's or a main sound.
		5	Earth W&F	This is a cool synth patch emulating the famous tune "Let's Groove Tonight" by Earth Wind & Fire.
		6	Anthony J	This patch simulates Anthony Jackson's trademark sound with a flanger. The swelling effect of the flanger fits nicely with tight rhythmic figures played with a pick.
		7	Fat&Bright	Use this patch for a fat and bright slapping sound. Remember that funky guy who performed with Miles and the Stones?
		8	Slplss Tny	This simulates the sound of that impressive intro played by that skinhead guy with a "disciplined" British prog group. Try slapping with this.
		9	Percy J	A set of the favorite effects used by the legendary fretless player of Brand X.

			Patch Name	Comment
ARTIST	F	0	JP&360Amp	This reproduces the sound of that legendary master of the fretless bass. Explore the world of "Word of Mouth" with chorus and distortion!
		1	Larry	This reproduction of that Jet Phaser sound favored by Larry Graham is a great enhancement to wild bass solos!
		2	M Miller	This simulates the slapping sound of Marcus Miller using SWR amplifiers.
		3	STANLEY	This simulates the bass sound of Stanley Clarke on "School Days" and is optimized for chord stroking and slapping.
		4	Tim B	This reproduces the sounds of the wild guy of "Fudge" and "BBA." Try to control the depth of distortion with your picking touch.
		5	pino	Octaver into a Flip Top B-15 simulator, emulates the classic d'angelo pino p sound.
CLEAN	G	6	BasicSet	This basic compressor, overdrive and preamp setup can be used like a chain of compact effect pedals.
		7	RockSet	This "rock" setup of octave, booster and preamp effects can be used like a chain of compact pedals.
		8	POPSet	An all-round "pop" setup of compressor, booster and exciter effects that can be used like a chain of compact effect pedals.
		9	FusionSet	A setup of compressor, chorus and delay effects for fusion that can be used like a chain of compact effect pedals.
		0	JumpSet	This set is stuffed with three wild weapons. Use any of these when you need to be "in-your-face"!
		1	Z TRON	This auto-wah sound with a heavy bottom end is a combination of the Q-Tron-inspired Z Tron effect and a preamp.
		2	DblComp	This patch gives a hard compression sound using two compressors in a row and is good for cool slapping solos.
		3	PHASER	This phaser sound is very effective in certain sections of songs.
		4	WahAttack	This adds an auto-wah sound to the natural dry sound of the bass.
		5	SLAP	This slapping sound cuts though with natural compression and low and high registers enhanced by an exciter.
		6	SLAP SOLO	This adds a short delay to a classic 80s slapping solo sound.
		7	TAPPING	This patch is optimized for tapping. The signal is compressed fairly heavily and enhanced with EQ for a broader sound.
		8	CHORD	This patch is optimized for chord work. Room and reverb effects add depth to the sound.
		9	PULL MELO	Use this patch for beautiful melodies played with a pull-off technique.
	H	0	HARMONICS	This patch is effective for harmonics. Chorus and reverb effects contribute to the floating sound.
		1	Bassman	This is a simulation of the Fender Bassman 100 amp once used by Paul McCartney. Switch the graphic EQ on for tighter low end when using an amplifier.
		2	Super Bass	This is a simulation of a Marshall 1992 Superbass with a 1935A cabinet. Switch the graphic EQ on for tighter low end when using an amplifier.
		3	Aguilar	This models the powerful and clean sound of an Aguilar amp. Switch the graphic EQ on for tighter low end when using an amplifier.
		4	G-Kruger	This is a simulation of a Gallien-Krueger 800RB with a 410RBH cabinet. Switch the graphic EQ on for tighter low end when using an amplifier.
		5	nice warm	Just a nice tube amp warm patch, good for any use.
		6	BritHardRk	This is just like the name suggests—a typical sound of British hard rock. Perfect with a pick.
		7	huge clean	Nice eq'd lo mid boosted sound sent into an SWR style amp.
		8	REC CLEAN	This clean sound is suitable for recording and has added fatness from Hartke HA3500 modeling.
		9	REC SLAP	This simulation of an amp sound with punchy lows and highs is suitable for recording slapped basses.
DISTORTION	I	0	2COMP	This patch simulates settings for recording using both studio and pedal compressors.
		1	ReggaeNo.1	This popular reggae sound has a big bottom. Add the octaver if you like a more aggressive sound.
		2	NORMAL DIS	This standard distortion sound blends well with the mix. This sound is good for everything but ballads!
		3	SOLO DIS	This distortion sound accompanied by a delay effect is suitable for soloing with fast passages.
		4	LuddIteSyn	This synth bass is simulated only with analog-type effects. Of course, the whole thing is still digitally simulated!
		5	oct OD	Heavy fuzz and the bottom end give this patch a retro feel.
		6	BigJet	This jet sound has that characteristic wild swell.
		7	MuffCmp	This distortion sound uses the modeled Big Muff, which is a popular effect among many bass players. Switch on the exciter for a more contoured sound.
		8	meshugger	Distorted, sounds amazing with bass tuned to low c with roundwound strings.
		9	70fuzzoct	Retro fuzz and octave through a resonance filter.
SPECIAL FX	J	0	REC DIST	This natural distortion sound is suitable for recording.
		1	BottomSyn	This fat bass synth sound with a pleasant attack is suitable for recording.
		2	Big Brass	This is another big brassy cool analogue sound very useful in synth sounds.
		3	Fast Pick	This is a sound emulating you playing very fast 1/8 notes very accurate.
		4	longambien	Reverse delay into a rich delay with mega feedback. Excellent ambience for looping.
		5	Big Moog	This is a very cool impression of the Mini Moog synth very analogue.
		6	Duck Wah B	No, this is not the sound of the Stax legend. This is a sonic imitation of a "real" duck!
		7	Retro Game	This is a simulation of the sound of those 8-bit game machines that took the world by storm in the 80s.
		8	fairwarnin	Sub bass analog synth sound, most effective tracked slowly with long sustains.
		9	DistSeq	This spacey sound combines Dist1, Seq Filter and Stereo Delay effects.

USB/Sequel LE Startup Guide

This USB/Sequel LE Startup Guide explains how to install Sequel LE on a computer, make connections and settings for this unit, and perform recording.

To connect this unit to a computer running Windows 7 (or Windows Vista, XP) and to enable audio input/output, proceed as follows. The installation description uses Windows 7 as an example.

1 Download the latest ASIO driver from the web site of ZOOM Corporation (http://www.zoom.co.jp) and install the driver.

The ASIO driver software is required to enable use of Sequel LE for audio input and output with a computer. Refer to the read_me file included in the download package for instructions on how to install the driver correctly.

NOTE

If the system software is an older version, the product may not be recognized properly by the computer. It is therefore recommended to always keep the system software updated to the latest version. The system software can be downloaded from our web site.

2 Insert the supplied "Sequel LE" CD-ROM into the CD drive of the computer, and perform the installation steps.

Insert the CD-ROM. When the contents of the CD-ROM are shown, double-click "Sequel LE2 for Windows" and then select "Setup.exe". When the language selection screen appears, choose the language to use.
After making the selection, follow the instructions on the screen.

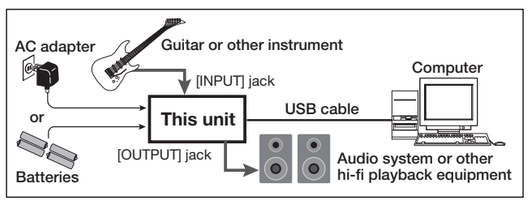
HINT

If nothing happens when you insert the CD-ROM, open the Start menu and select "Computer" ("My Computer" in Windows XP). Then double-click the "Sequel LE 2 for windows" CD-ROM icon to display the contents of the CD-ROM, and double-click the executable file "Setup" ("Setup.exe").

NOTE

During the installation of Sequel LE, a screen asking about installation of activation (software license authentication) management software appears. Install this software, because it is required for registering Sequel LE.

3 Connect this unit to the computer using a USB cable.



NOTE

- If you monitor the audio signal during recording via the audio output of the computer, there will be an audible delay. Be sure to use the [OUTPUT] jack of this unit to monitor the signal.
- When this unit is operated on USB bus power via the USB cable, insufficient power may result in unstable operation or error indications appearing on the computer screen or unit display. In such a case, power the device from an AC adapter.
- Use a high-quality USB cable and keep the connection as short as possible. If USB bus power is supplied to this unit via a USB cable that is more than 3 meters in length, the low voltage warning indication may appear.

HINT

- No special steps are necessary for canceling the USB connection. Simply disconnect the USB cable from the computer.
- When you connect this unit for the first time to a computer running Windows 7, a message saying "New Hardware Found" will appear. Before proceeding, wait a while until this message disappears.

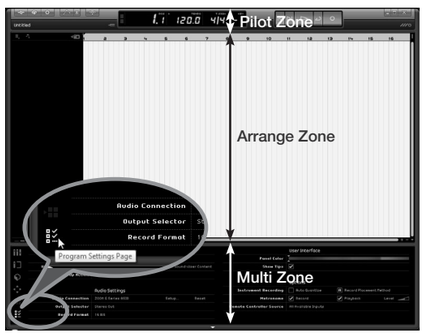
4 Bring up the "Sound" window from the Control Panel and make the input device setting for the computer.

To bring up the "Sound" window, select "Control Panel" from the Start menu and click "Hardware and Sound", then click "Sound".

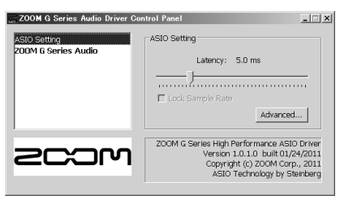
In the "Sound" window, verify that "ZOOM G Series Audio" is listed under the Play and Record devices and that the device is checked. (To switch between Play and Record, click the tabs at the top of the window.)
If the device is not checked, right-click on the icon for the device and click "Set as Default Device" so that a check mark appears.

5 Launch Sequel LE and select "ZOOM G Series ASIO" as the ASIO driver.

To start Sequel LE, double-click the Sequel LE shortcut icon that was created on the desktop.
After Sequel LE starts, click the button in the bottom left corner of the Multi Zone area of the Sequel window to open the settings page. Click the Audio Connection item and select "ZOOM G series ASIO" from the pop-up menu.
When you change the ASIO driver, a confirmation window will appear. Click the "Switch" button.



Next, click the "Setup..." button to open a window where you can set the latency of the ASIO driver. Set the latency as low as possible without causing the sound to drop out during recording and playback.



Continued overleaf

To connect this unit to a computer running MacOS X and enable audio input/output, proceed as follows. The installation description uses Mac OS X v10.6 as an example.

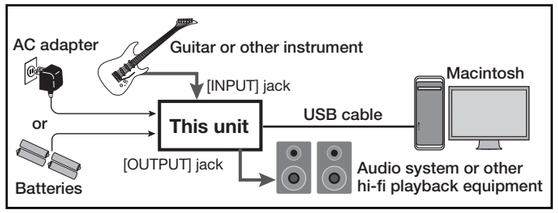
1 Insert the supplied "Sequel LE" CD-ROM into the CD drive of the Macintosh.

The contents of the CD-ROM appear automatically. If nothing happens when you insert the CD-ROM, double-click the "Sequel LE2 for Mac OS X" icon shown on the desktop.

2 Install Sequel LE on the Macintosh.

When the contents of the CD-ROM are shown, double-click "Sequel LE 2.mpkg" to install the software.

3 Connect this unit to the computer using a USB cable.



NOTE

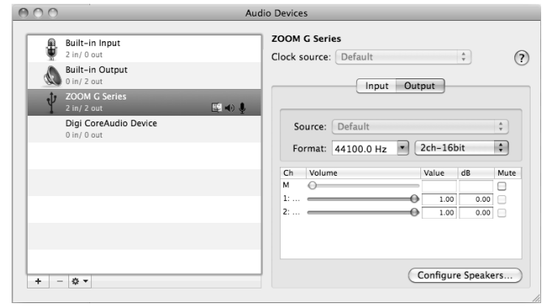
- If you monitor the audio signal during recording via the audio output of the computer, there will be an audible delay. Be sure to use the [OUTPUT] jack of this unit to monitor the signal.
- When this unit is operated on USB bus power via the USB cable, insufficient power may result in unstable operation or error indications appearing on the computer screen or unit display. In such a case, power the device from an AC adapter.
- Use a high-quality USB cable and keep the connection as short as possible. If USB bus power is supplied to this unit via a USB cable that is more than 3 meters in length, the low voltage warning indication may appear.

HINT

No special steps are necessary for canceling the USB connection. Simply disconnect the USB cable from the computer.

4 Open the "Applications" folder and then the "Utilities" folder, and double-click "Audio MIDI Setup".

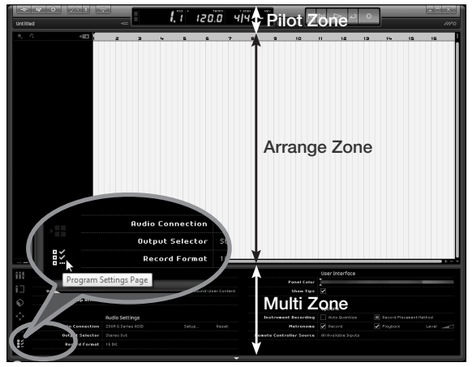
The Audio MIDI Setup screen appears. Click "Audio Devices" and check whether "USB Audio CODEC" is selected as default input/default output.



If another item is selected, select the "ZOOM G Series"
After confirming the setting, quit Audio MIDI Setup.

5 Launch Sequel LE and set "ZOOM G Series" as the Audio Connection.

To launch Sequel LE, click Sequel LE icon in the Applications folder.
After Sequel LE starts, click the button in the bottom left corner of the Multi Zone area of the Sequel window to open the settings page. Click the Audio Connection item and select "ZOOM G series" from the pop-up menu.
When you change the driver, a confirmation window will appear. Click the "Switch" button.

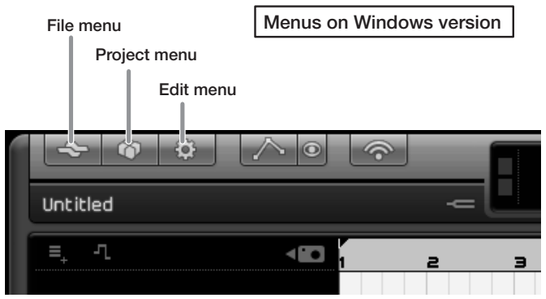


Next, click the "Setup..." button to open a window where you can set the latency (buffer size) of the driver. Set the latency as low as possible without causing the sound to drop out during recording and playback.

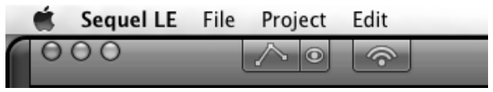
Continued overleaf

6 Select "New Project" from the "Project" menu.

This will close the currently open project and create a new empty project file. If the currently open file has been changed, a message appears asking if you want to save it or not.



In the Mac OS X version, the "File", "Project" and "Edit" menus appear at the upper left corner of the screen.

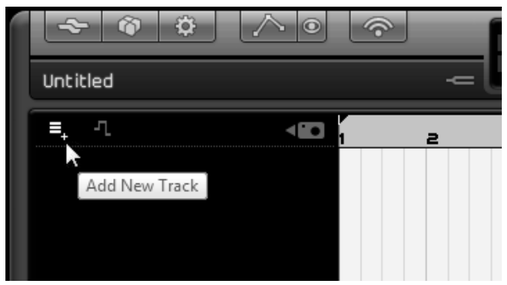


NOTE

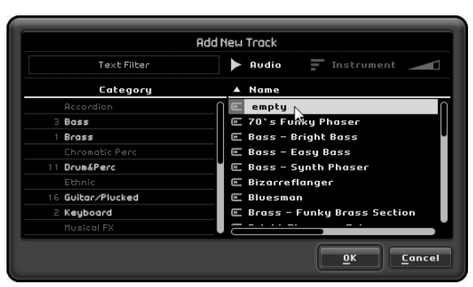
After installing Sequel LE, the first time you launch it, a demo project is automatically opened. Even after creating a new project, you can open this demo project again any time by using "Open Project..." from the "Project" menu.

7 Add an audio track.

1. Click the "Add New Track" button at the top of the track list.



2. Click the "Audio" button at the top of the dialog shown.
3. Select "empty" at the top of the Name list and click the "OK" button to add an audio track to the project.

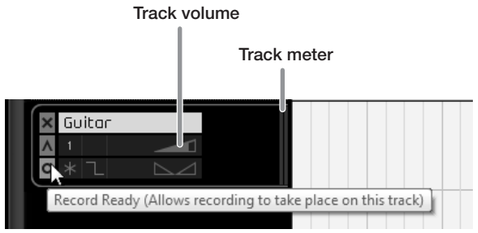


4. Double-click the track name if you want to edit it. Input "Guitar" here for this example.

8 Set the recording level.

Use the track "Volume" slider to adjust the input volume of the track so that distortion does not occur during recording.

Turn the "Record Ready" button on for the added track so that you can hear the sound of the instrument input on that track.
The level meter to the right of the track setting area moves in response to the input.



HINT

In order to record with better sound quality, adjust the volume so that it is as loud as possible without the signal distorting.

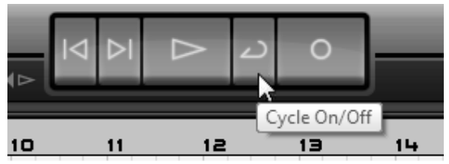
NOTE

- While a track is record ready, the signal input to this audio interface is output directly and the same signal is also output after it passes through the computer once, resulting in a flanger-like sound. To avoid this, set the USB level of the interface all the way to DAW.
- The meter above shows the signal level after processing with Sequel LE. For this reason, after playing the guitar or other instrument, a slight delay might occur before the level meter moves.

9 Record to a track.

1. Press  to return to the beginning of the track before starting recording.

2. At the right side of the Pilot Zone are several buttons used for recording, playback and other controls. Among these, the second one from the right is the "Cycle" button. Confirm that this button is OFF (same color as other buttons).



3. Click the "Record" button to start recording. Recording will start after a two-bar pre-count

4. After you are done performing, press the space key on the computer keyboard to stop recording.

10 Check the recording.

◆Start playback

You can start playback in Sequel using one of the following methods.

- Click the "Play" button.
- Press the space key on the computer keyboard. The space key can be used alternately to start and stop playback.
- Press the "Enter" key on the computer keyboard (numerical keypad).
- Double-click the bottom half of the ruler at the top of the Arrange Zone.

◆Stop playback

You can stop playback using one of the following methods.

- Click the "Play" button during playback.
- Press the space key on the computer keyboard.
- Press the "0" key on the computer keyboard (numerical keypad).

For optimum enjoyment

While using Sequel LE, other applications may slow down drastically or a message such as "Cannot synchronize with USB audio interface" may appear. If this happens frequently, consider taking the following steps to optimize the operation conditions for Sequel LE.

(1) Shut down other applications besides Sequel LE.
In particular, check for resident software and other utilities

(2) Reduce plug-ins (effects, instruments) used by Sequel LE.
When there is a high number of plug-ins, the computer's processing power may not be able to keep up. Reducing the number of tracks for simultaneous playback can also be helpful.

(3) Power the unit from an AC adapter.
When a device designed to use USB power is powered via the USB port, the current supply may sometimes fluctuate, leading to problems. See if using an AC adapter improves operation.

If applications still run very slowly or the computer itself does not function properly, disconnect this unit from the computer and shut down Sequel LE. Then reconnect the USB cable and start Sequel LE again.