

Bass Effects & Amp Simulator



OPERATION MANUAL

Thank you very much for purchasing the ZOOM **BB**.

Please read this manual carefully to learn about all the functions of the **BB** 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

Usage and Safety Precautions.....	2	Using Rhythms	24
Introduction	3	Using the Looper	26
Terms Used in this Manual	3	Updating the Firmware.....	30
Part Names	4	Restoring the BB to its factory default settings.....	31
Turn the Power on and Play	6	Using Audio Interface Functions.....	32
Adjusting Effects.....	8	Effect Types and Parameters	33
Selecting Patches	10	Troubleshooting	50
Storing Patches.....	12	Rhythm List	50
Setting Specific Patch Parameters.....	14	Specifications	51
Changing Various Settings	18		
Using the Tuner.....	22		





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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:



	Something that could cause serious injury or death.
	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 **BB** 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 **BB** and the other device farther apart. With any type of electronic device that uses digital control, including the **BB**, 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 **BB** 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

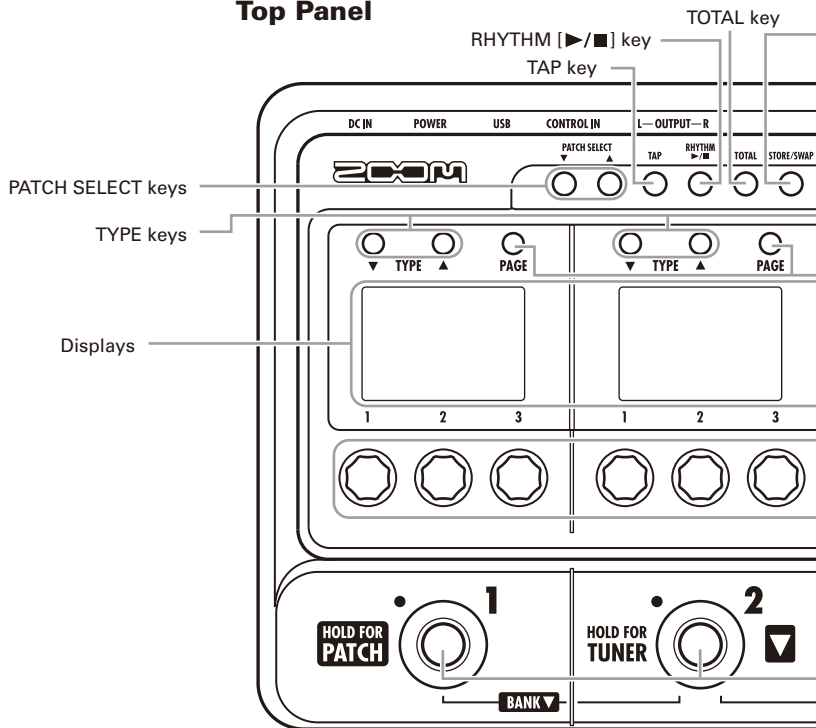
The ON/OFF status and the parameter settings of each effect are stored as "patches." Use patches to recall and save effects. The **BB** can store 100 patches.

Bank

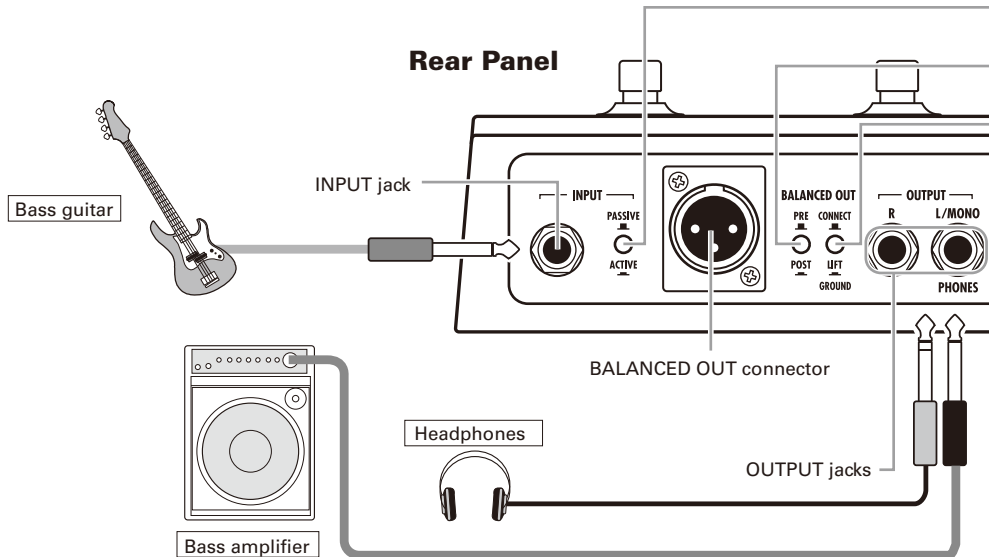
A set of 10 patches is called a "bank." The **BB** has 10 banks labeled A–J.

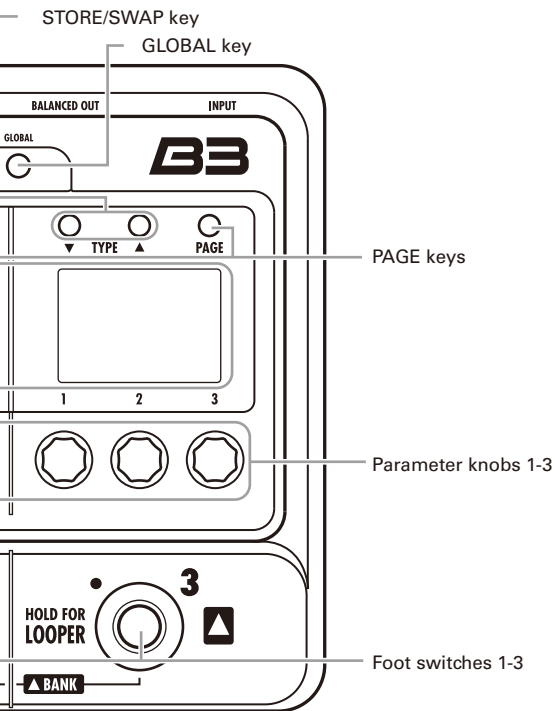
Part Names

Top Panel



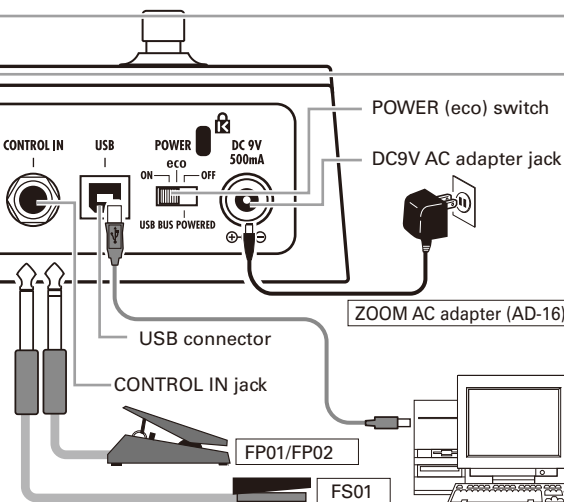
Rear Panel





ACTIVE/PASSIVE switch

Use this switch to set the **BB** INPUT impedance. Set this to "ACTIVE" (pushed in) if you have an effect pedal connected between your instrument and the **BB** 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 **BB** effects. Set it to "PRE" (not pushed in) to output the signal before the **BB** 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.

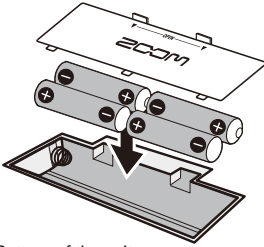
Turn the Power on and Play

To turn the power on

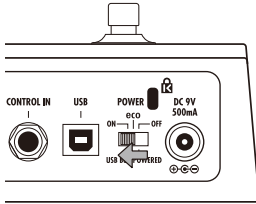
Always lower the amplifier's volume all the way before turning the power on.

■ When using batteries

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

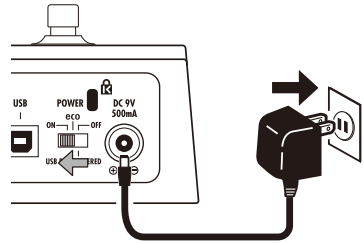


Bottom of the unit



■ 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

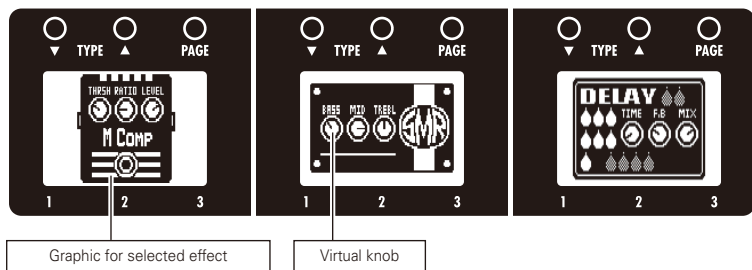
eco: If the **BB** is not used for about 25 minutes, it will be set to standby.

The **BB** will not be set to standby as long as there is a signal input from a bass guitar.

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

Display information

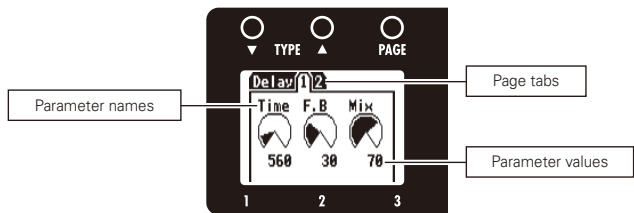
■ Home Screens show the current patch



HINT

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

■ Edit Screens show parameters being edited

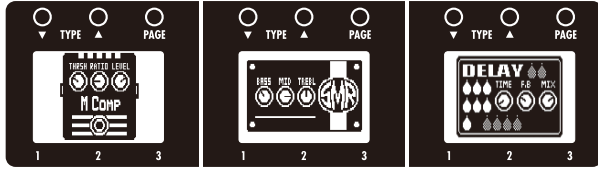


HINT

- 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.

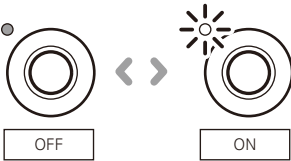


1 To turn effects ON and OFF

- Press  ¹,  ² and  ³.



- Turns the effect ON/OFF.



NOTE

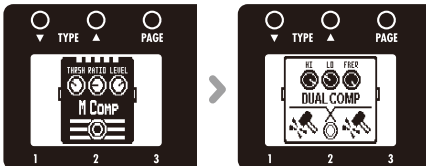
- An effect is ON when its footswitch LED is lit.
- An effect is OFF when its footswitch LED is not lit.

2 To select an effect type

- Press  TYPE .



- The effect type changes.



HINT

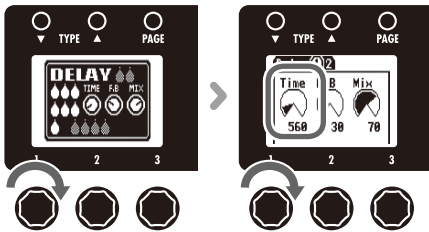
- See page 33 for information about effect types and parameters.
- Adjustments are automatically saved.

3 To adjust parameters

- Turn **1**, **2** and **3**.



- The editing screen opens where you can adjust parameters.



NOTE

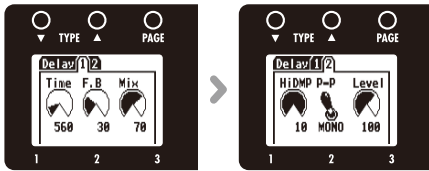
- Time, rate and some other effect parameters can be set in note durations that are synchronized to the tempo.

4 To change the page

- Press **PAGE**.



- The next page opens.



Effect processing capacity



The **BB** 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 **BB**. If the processing required for the effect exceeds the capacity of the **BB**, "THRU" is shown on the effect graphic and the effect is bypassed. This can be avoided by changing one or more of the effect types.

NOTE

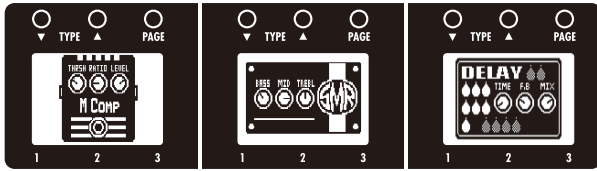
- An effect requires the same amount of processing power whether it is on or off.

HINT


- Amp models require great amounts of processing.

Selecting Patches

Confirm that the Home display is shown.

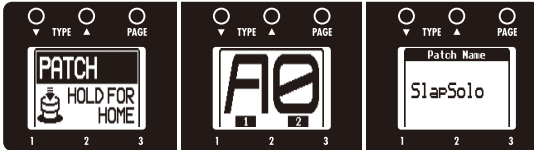


1 To activate patch selection




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



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

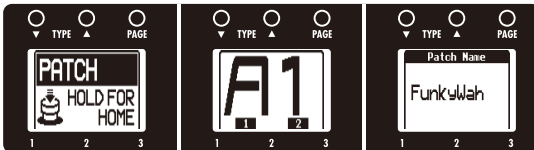


2 To change the patch

- 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

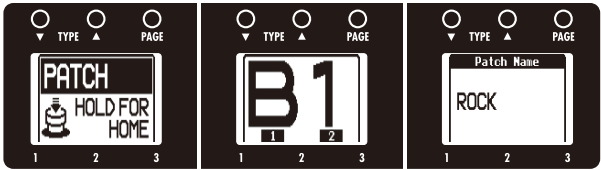
- You can also change patches using .

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  ¹ for 1 second.

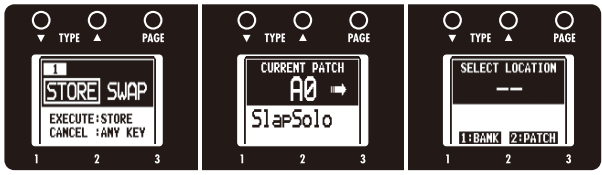


Storing Patches

The **B3** automatically saves settings when parameters are adjusted.

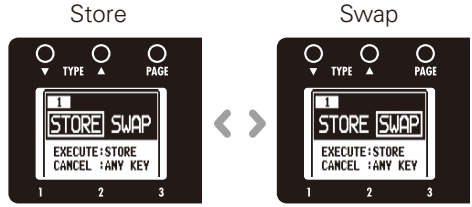
1 To store a patch or swap with a different patch

- Press  .
-  blinks and the screens appear as below.



2 To select whether to store or swap the patch

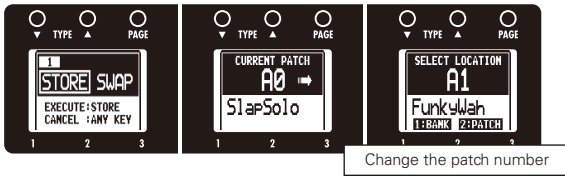
- Turn  of the left effect.



3 To set where to store or swap the new patch

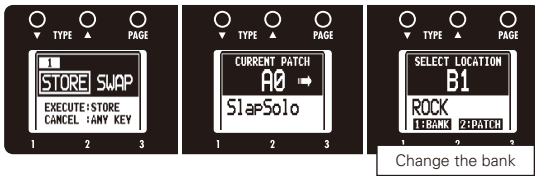
■ To change the patch number where stored/swapped

- Turn ² of the right effect.



■ To change the bank where stored/swapped

- Turn ¹ of the right effect.



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.



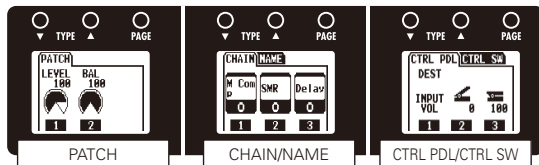
HINT

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

Setting Specific Patch Parameters

1 To activate the TOTAL menu

- Press **TOTAL**.

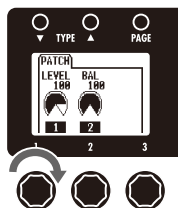


NOTE

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

2 To adjust the patch level

- Turn **1** of the left effect.



NOTE

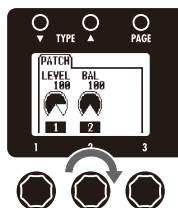
- The setting range is 0-120.

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.

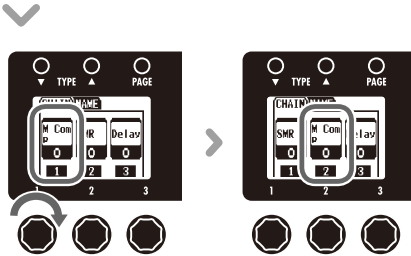


NOTE


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

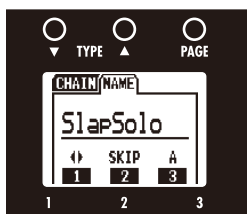
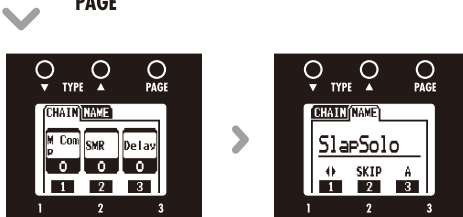
4 To change the order of the effects



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







5 To change the patch name

- Press  of the middle effect.



 : Turn  to move the cursor.

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


A  : Turn  to change the character.

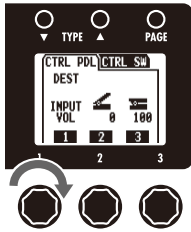
NOTE

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

6 To set an expression pedal function

Set the control destination.


- Turn  of the right effect.





NOTE

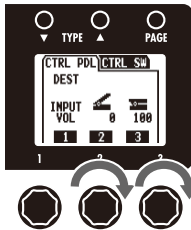
- INPUT VOL: Use this to control the input level.
- OUTPUT VOL: Use this to control the output level.
- NO ASSIGN: No function is assigned.
- BAL: The balance between the original sound and the effect sound can be adjusted.

HINT

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

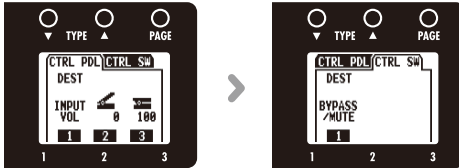



HINT

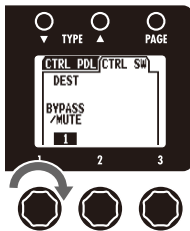
- The minimum value can be set higher than the maximum value. When set this way, pushing the pedal down decreases the effect, while letting it up increases the effect.

7 To set an optional footswitch function

- Press  on the right effect.



- Turn  of the right effect.



BYPASS/MUTE

Sets the effect to bypass or mute.


TAPTEMPO

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  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.

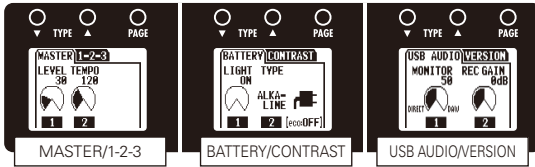
8 To exit the TOTAL menu

- Press .

Changing Various Settings

1 To activate the GLOBAL menu

- Press **GLOBAL** .

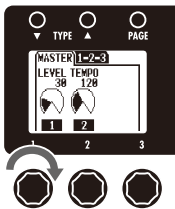


NOTE

- Global parameter settings affect all patches.

2 To adjust the master level

- Turn **1**  of the left effect.

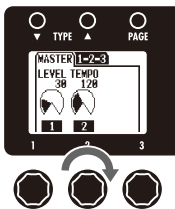


NOTE

- The setting range is 0-120.

3 To set the master tempo

- Turn **2**  of the left effect.



HINT

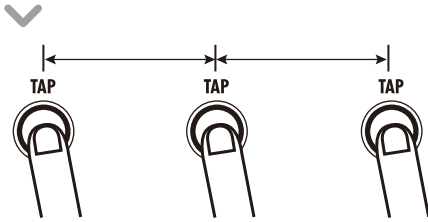
- You can also set the tempo using **TAP** .

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  two or more times at the desired tempo.




HINT

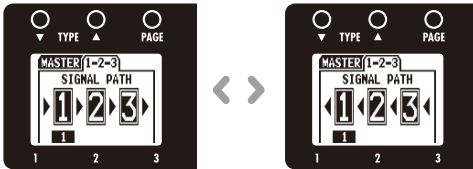
- You can also set the tempo using an FS01 footswitch (sold separately). (See page 17)

4 To change the direction of the signal flow


- Press  on the left effect.

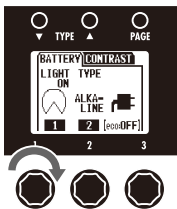


- Turn  to set the signal flow direction.



5 To set the amount of time until the backlight dims

- Turn  of the middle effect.



NOTE


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

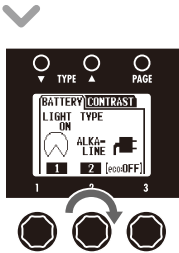
HINT




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

Changing Various Settings

6 To select the battery type

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



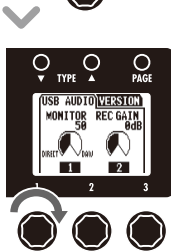
-  : Operating on batteries
-  : Operating on adapter power
-  : Operating on USB bus power

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  of the right effect.

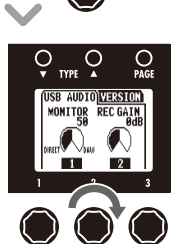


NOTE

- 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  of the right effect.

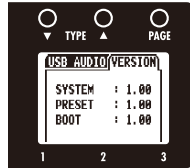
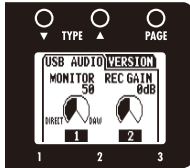


NOTE

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

9 To view the firmware versions


- Press  of the right effect.
PAGE



HINT

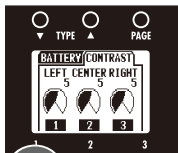
- Check the ZOOM website (<http://www.zoom.co.jp>) for the latest firmware versions.

10 To adjust the display contrast

- Press  of the middle effect.
PAGE



- Turn ,  and  of the middle effect.



 : Left display

 : Center display

 : Right display

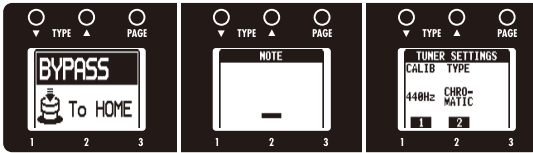
11 To exit the GLOBAL menu

- Press  .



Using the Tuner

1 To activate the tuner


- Press  ² for 1 second.

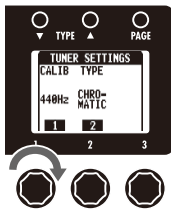


NOTE

- 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.

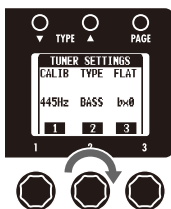


NOTE

- 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

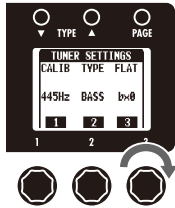
The chromatic tuner shows the nearest pitch name (semitone) and how far the input sound is from that pitch.

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  of the right effect.



NOTE

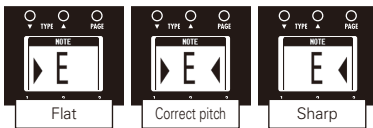
- Drop tuning is not possible when the TYPE is set to CHROMATIC.

5 Tune the bass guitar

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

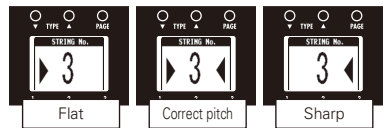
■ CHROMATIC TUNER

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



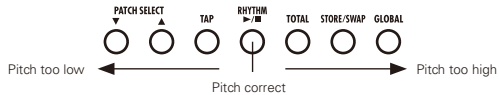
■ BASSTUNER

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 ,  or .

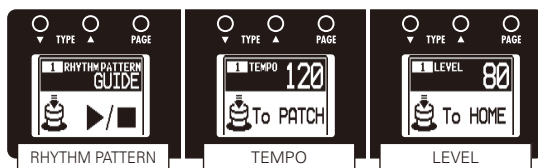
Using Rhythms

1 To activate a rhythm

- Press .



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

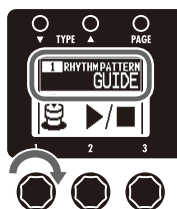


HINT

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

2 To select the rhythm pattern


- Turn  of the left effect.

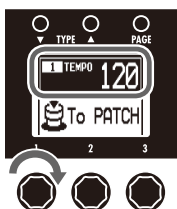


NOTE


- See page 50 for types of patterns

3 To adjust the tempo

- Turn  of the middle effect.




HINT

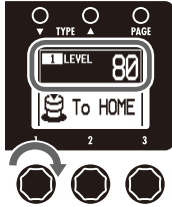
- You can also set the tempo using .

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  of the right effect.




NOTE

- The setting range is 0-100.

5 To stop the rhythm

- Press .

HINT

- Press  again to restart playback of the rhythm.

6 To complete setting the rhythm

■ **The rhythm stops and the previous screen reappears**

- Press .

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

- Press .

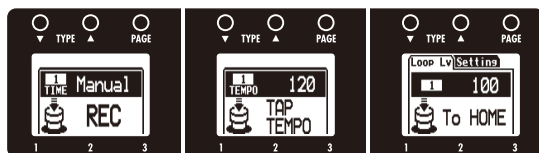
■ **To return to the Home Screens (and keep the rhythm playing)**

- Press .

Using the Looper

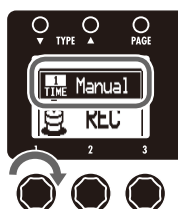
1 To activate the Looper

- 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

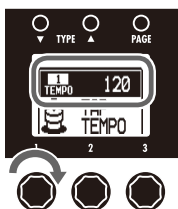
Set the recording time by setting the tempo and the number of quarter notes.

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 .
- 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

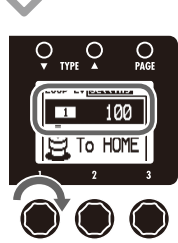
- During recording, press  2 to cancel recording.

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.



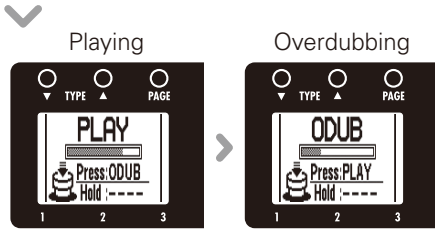
NOTE

- The setting range is 0-100.

6 To overdub a recorded loop

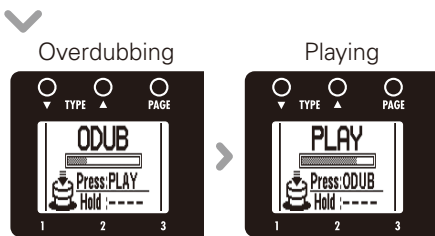
■ To start overdubbing

- During loop playback, press  1.



■ To end overdubbing

- Press  1 again.



7 To stop loop playback

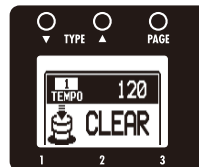
- Press  2.



8 To erase the loop

- Press  2 for 1 second.

- "CLEAR" appears on the display.



9 To return to the Home Screens

- Press .

HINT

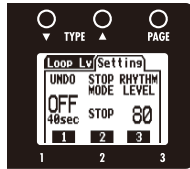
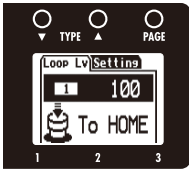
- You can return to the Home Screens while the loop is playing.


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  of the right unit.






- **To activate the Undo function**
Turn  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  for 1 second. After undoing, you can also redo by pressing  for 1 second again, restoring the last overdubbing.

- **To select the STOP MODE**
Turn  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 .

- **To adjust the RHYTHM LEVEL**
Turn .

Updating the Firmware

To download the latest firmware version updater application:

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

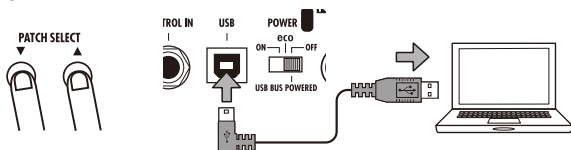
HINT

- 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 **BB** has finished updating, "COMPLETE!" appears on the display.




- Disconnect the USB cable.

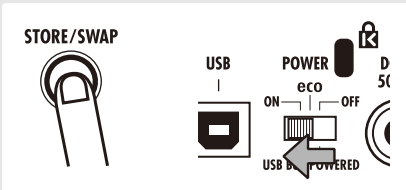
HINT

- Updating the firmware version will not erase saved patches.

Restoring the **BB** 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 **BB**, 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 **BB** and the computer. (See page 20.)
- You can adjust the recording level. (See page 20.)
- When its POWER switch is set to OFF, the **BB** 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 **BB** will be mixed, causing the output signal to sound like a flanger effect is being used.








Effect Types and Parameters

	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		
	Page02	REL	1-10										
		Adjusts the reference signal level for the limiter action.											
		Adjusts the compression ratio of the limiter.											
		Adjusts the output level.											
		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	DETECT	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.										
		Page01	Knob1			Knob2			Knob3			
			Freq	1-50		P	Reso	-10-0-10		Mix	0-100	
Page02	This sets the emphasized frequency.			Adjusts the intensity of the resonance sound of the effect.			Adjusts the amount of effected sound that is mixed with the original sound.					
	HiDMP	0-10			Level	0-150						
		Adjusts the treble attenuation of the effect sound.			Adjusts the output level.							
015	 AutoWah	This effect varies wah in accordance with picking intensity.										
		Page01	Knob1			Knob2			Knob3			
			Sense	-10-1, 1-10		P	Reso	0-10		Dry	0-100	
Page02	Adjusts the sensitivity of the effect.			Adjusts the intensity of the resonance sound.			Adjusts level of original sound.					
	Level	0-150										
		Adjusts the output level.										
016	 ZTron	This is like a Q-Tron Envelope Filter in LP mode.										
		Page01	Knob1			Knob2			Knob3			
			Sense	-10-1, 1-10		P	Reso	0-10		Dry	0-100	
Page02	Adjusts the sensitivity of the effect.			Adjusts the intensity of the resonance sound.			Adjusts level of original sound.					
	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.										
		Page01	Knob1			Knob2			Knob3			
			Freq	0-100		P	Sense	0-10		Reso	0-10	
Page02	Sets minimum frequency of envelope filter.			Sets effect sensitivity.			Sets effect resonance.					
	Type	HPF, BPF, LPF			Chara	2Pole, 4Pole		VLCTY	Fast, Slow			
Page03	Sets filter type.			Adjusts amount of filter applied.			Sets speed of filter action.					
	Bal	0-100			Level	0-150						
		Adjusts the balance between original and effect sounds.			Adjusts the output level.							
018	 A-Filter	This is a resonance filter with a sharp envelope.										
		Page01	Knob1			Knob2			Knob3			
			Sense	1-10		P	Peak	0-10		Mode	Up/Down	
Page02	Adjusts the effect sensitivity.			Adjusts the Q value of the filter.			Selects whether the direction of filter change is up or down.					
	Dry	0-100			Level	0-150						
		Adjusts level of original sound.			Adjusts the output level.							
019	 Cry	This effect varies the sound like a talking modulator.										
		Page01	Knob1			Knob2			Knob3			
			Range	1-10			Reso	0-10		Sense	-10-1, 1-10	
Page02	Adjusts the frequency range processed by the effect.			Adjusts the intensity of the modulation resonance sound.			Adjusts the sensitivity of the effect.					
	Bal	0-100			Level	0-150						
		Adjusts the balance between original and effect sounds.			Adjusts the output level.							
020	 Step	This special effect gives the sound a stepped quality.										
		Page01	Knob1			Knob2			Knob3			
			Depth	0-100			Rate	0-50		P	Reso	0-10
Page02	Sets the depth of the modulation.			Sets the speed of the modulation.			Adjusts the intensity of the modulation resonance sound.					
	Shape	0-10			Level	0-150						
		Adjusts the effect envelope.			Adjusts the output level.							






Effect Types and Parameters

021 SEQ FLTR 	The sequence filter has the flavor of a Z.Vex Seek-Wah.						
		Knob1		Knob2		Knob3	
	Page01	Step	2-8	PTRN	1-8	Speed	1-50
022 RNDM FLTR 	This filter effect changes character randomly.						
		Knob1		Knob2		Knob3	
	Page01	Speed	1-50	⌋ P	Range	0-100	Reso
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
024 OverDrive 	Simulates the ODB-3 overdrive bass machine from Boss.						
		Knob1		Knob2		Knob3	
	Page01	Gain	0-100	P	Tone	0-100	Level
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
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
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
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

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	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	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	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 superhigh frequency level.						
	Page02	Gain 0-100	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	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					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	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	Adjusts the gain.	Adjusts the tone.	Adjusts the output level.	P					
	Page02	HiCut On/Off					Cuts high frequencies when ON.						








Effect Types and Parameters

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
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
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
039 B-Man 	Simulation of the Fender Bassman 100.						
		Knob1		Knob2		Knob3	
	Page01	Bass	-10-10	Mid	-10-10	Trebl	-10-10
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
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








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
	Page02	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
	Page02	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
	Page03	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
	Page02	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
	Page02	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
	Page03	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
	Page02	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
	Page02	Adjusts the center frequency of the mid-range.		Adjusts the gain.		Adjusts the output level.	
	Page03	Char	Off, Deep, Bright, Both	CAB	See Table 1	Mix	0-100
	Page03	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
	Page02	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
	Page02	Adjusts the center frequency of the mid-range.		Adjusts the gain.		Adjusts the output level.	
	Page03	Char	Dark, Bright, Flat	CAB	See Table 1	Mix	0-100
	Page03	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
	Page02	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
	Page02	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
	Page03	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
	Page02	Adjusts the low frequency level.	Mid_F	32Hz-6.3kHz	Gain	0-100	Level
Page03	Adjusts the center frequency of the mid-range.	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
	Page02	Adjusts the low frequency level.	Mid_F	32Hz-6.3kHz	Gain	0-100	Level
Page03	Adjusts the center frequency of the mid-range.	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
	Page02	Adjusts the low frequency level.	Mid_F	32Hz-6.3kHz	Gain	0-100	Level
Page03	Adjusts the center frequency of the mid-range.	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	Level	0-150
Page02	Adjusts the depth of the modulation.	Wave	UP 0-UP 9, DWN 0-DWN 9, TRI 0-TRI 9	Adjusts the rate of the modulation.		Adjusts the output level.	
		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
Page02	Sets effect pattern.	THRSH	0-50	Level	0-150	Adjusts the balance between original and effect sounds.	
		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	Reso	-10-10	Level	0-150
Page02	Adjusts the modulation rate.	LoCut	Off-800Hz	Adjusts the intensity of the effect character.		Adjusts the output level.	
		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
Page02	LoCut	Off-800Hz									
054	The Vibe	This vibe sound features unique undulations.									
			Knob1		Knob2		Knob3				
			Page01	Speed	0-50		P	Depth	0-100		Bias
Page02	Wave	0-100			Mode	VIBRT, CHORS		Level	0-150		
055	DuoPhase	This effect combines two phasers.									
			Knob1		Knob2		Knob3				
			Page01	RateA	1-50		P	RateB	1-50, SyncA, RvrsA		Level
Page02	ResoA	0-10			ResoB	0-10		Link	Seri, Para, STR		
Page03	DPT_A	1-100			DPT_B	1-100					
056	WarpPhase	This phaser has a one way effect.									
			Knob1		Knob2		Knob3				
			Page01	Speed	1-50		P	Reso	0-10		Level
Page02	DRCTN	Go, Back									
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
Page02	LoCut	Off-800Hz			Level	0-150		PreD	On/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
Page02	Tone	0-10			Level	0-150		LoCut	Off-800Hz		
059	VintageCE	This is a simulation of the BOSS CE-1.									
			Knob1		Knob2		Knob3				
			Page01	Comp	0-9			Rate	1-50		Mix
Page02	Level	0-150									

Effect Types and Parameters

060 StereoCho 	This is a stereo chorus with a clear tone.						
		Knob1		Knob2		Knob3	
	Page01	Depth	0-100	Rate	1-50	Mix	0-100
Page02	LoCut	Off-800Hz	Level	0-150			
	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.		
	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
Page02	Tone	0-10	Level	0-150			
	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.		
	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	Reso	-10-1, 0, 1-10
Page02	PreD	0-50	Mix	0-100	Level	0-150	
Page03	LoCut	Off-800Hz					
	Sets the depth of the modulation.		Sets the speed of the modulation.		Adjusts the intensity of the modulation resonance.		
	Sets pre-delay time of effect sound.		Adjusts the amount of effected sound that is mixed with the original sound.		Adjusts the output level.		
	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	Reso	-10-1, 0, 1-10
Page02	PreD	0-50	Mix	0-100	Level	0-150	
Page03	LoCut	Off-800Hz					
	Sets the depth of the modulation.		Sets the speed of the modulation.		Adjusts the intensity of the modulation resonance.		
	Sets pre-delay time of effect sound.		Adjusts the amount of effected sound that is mixed with the original sound.		Adjusts the output level.		
	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	Sense	-10-1, 1-10
Page02	Reso	-10-1, 0, 1-10	Level	0-150			
	Sets the depth of the modulation.		Sets the speed of the modulation.		Adjusts the sensitivity of the effect.		
	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	Bal	0-100
Page02	Tone	0-10	Level	0-150			
	Sets the depth of the modulation.		Sets the speed of the modulation.		Adjusts the balance between original and effect sounds.		
	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	Dry	0-100	Tone	0-10
Page02	Low	0-10	Mid	0-10	Level	0-150	
	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.		
	Adjusts the low frequency level.		Adjusts the middle frequency level.		Adjusts the output level.		








067	PitchSHFT	This effect shifts the pitch up or down.										
	Page01	Knob1			Knob2			Knob3				
		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.										
	Page01	Knob1			Knob2			Knob3				
		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.										
	Page01	Knob1			Knob2			Knob3				
		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.										
	Page01	Knob1			Knob2			Knob3				
		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.										
	Page01	Knob1			Knob2			Knob3				
		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.										
	Page01	Knob1			Knob2			Knob3				
		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		
	Page01	Knob1			Knob2			Knob3				
		PTRN	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.												








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		
			Decay	0-100		Wave	Saw, Pulse, PWM		Reso	0-10	
Page01	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.									
076	SynTlk	This effect produces a synthesizer sound similar to a talking modulator producing vowels.									
			Knob1			Knob2			Knob3		
			Sense	0-100		Sound	1-4		Tone	0-10	
Page01	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.			
077	V-Syn	This effect produces a vintage bass synthesizer sound.									
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		
			ATTCK	0-10		Mode	1-9		Scale	1, 2	
Page01	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.									
080	Z-Organ	This effect simulates an organ sound.									
			Knob1			Knob2			Knob3		
			Upper	0-100		P	Lower	0-100		Dry	0-100
Page01	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
	Page02	Tone	1-50	P				
		Adjusts the effect sensitivity.		Adjusts the harmonics contents of the sound. Higher setting values result in stronger effect character.		Adjusts the output level.		
		Adjusts the tonal quality of the sound.						
082	Delay	This long delay has a maximum length of 5000 mS.						
			Knob1		Knob2		Knob3	
		Page01	Time	1-5000	FB	0-100	Mix	0-100
	Page02	HiDMP	0-10	P-P	MONO, P-P	Level	0-150	
		Sets the delay time.		Adjusts the feedback amount.		Adjusts the amount of effected sound that is mixed with the original sound.		
		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.						
			Knob1		Knob2		Knob3	
		Page01	Time	1-2000	FB	0-100	Mix	0-100
	Page02	HiDMP	0-10	Level	0-150			
		Sets the delay time.		Adjusts the feedback amount.		Adjusts the amount of effected sound that is mixed with the original sound.		
		Adjusts the treble attenuation of the delay sound.		Adjusts the output level.				
084	ModDelay	This delay effect allows the use of modulation.						
			Knob1		Knob2		Knob3	
		Page01	Time	1-2000	FB	0-100	Mix	0-100
	Page02	Rate	1-50	Level	0-150	Depth	0-100	
		Sets the delay time.		Adjusts the feedback amount.		Adjusts the amount of effected sound that is mixed with the original sound.		
		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.						
			Knob1		Knob2		Knob3	
		Page01	Time	1-5000	FB	0-100	Mix	0-100
	Page02	HiDMP	0-10	P-P	MONO, P-P	Level	0-150	
		Sets the delay time.		Adjusts the feedback amount.		Adjusts the amount of effected sound that is mixed with the original sound.		
		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.						
			Knob1		Knob2		Knob3	
		Page01	Time	10-2500	FB	0-100	Bal	0-100
	Page02	HiDMP	0-10	Level	0-150			
		Sets the delay time.		Adjusts the feedback amount.		Adjusts the balance between original and effect sounds.		
		Adjusts the treble attenuation of the delay sound.		Adjusts the output level.				
087	MultiTapD	This effect produces several delay sounds with different delay times.						
			Knob1		Knob2		Knob3	
		Page01	Time	1-3000	PTRN	1-8	Mix	0-100
	Page02	Tone	0-10	Level	0-150			
		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.		
		Adjusts the tone.		Adjusts the output level.				



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		
			Time	1-2000	⌋	Sense	-10-1, 1-10	Mix	0-100
Page01	Sets the delay time.			Adjusts the effect sensitivity.		Adjusts the amount of effected sound that is mixed with the original sound.			
Page02	FB	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		
			Time	1-2000	⌋	FB	0-100	Mix	0-100
Page01	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		
			Time	1-2000		Pitch	-12-12	P	Mix
Page01	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	FB	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		
			TimeL	1-2000	⌋	TimeR	1-2000	⌋	Mix
Page01	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		
			Time	1-2000	⌋	FB	0-100	Mix	0-100
Page01	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		
			Time	10-1000		Duty	25-100	Mix	0-100
Page01	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		
			Decay	0-100		Tone	0-10	Mix	0-100
Page01	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	
	Page01	Knob1		Knob2		Knob3	
		Decay	1-30	Tone	0-10	Mix	0-100
	Page02	PreD	1-100	Level	0-150		
		Sets the duration of the reverberations.		Adjusts the tone.		Adjusts the amount of effected sound that is mixed with the original sound.	
		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	
	Page01	Knob1		Knob2		Knob3	
		Decay	1-30	Tone	0-10	Mix	0-100
	Page02	PreD	1-100	Level	0-150		
		Sets the duration of the reverberations.		Adjusts the tone.		Adjusts the amount of effected sound that is mixed with the original sound.	
		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	
	Page01	Knob1		Knob2		Knob3	
		Decay	1-30	Tone	0-10	Mix	0-100
	Page02	PreD	1-100	Level	0-150		
		Sets the duration of the reverberations.		Adjusts the tone.		Adjusts the amount of effected sound that is mixed with the original sound.	
		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	
	Page01	Knob1		Knob2		Knob3	
		Decay	1-30	Tone	0-10	Mix	0-100
	Page02	PreD	1-100	Level	0-150		
		Sets the duration of the reverberations.		Adjusts the tone.		Adjusts the amount of effected sound that is mixed with the original sound.	
		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	
	Page01	Knob1		Knob2		Knob3	
		Decay	1-30	Tone	0-10	Mix	0-100
	Page02	PreD	1-100	Level	0-150		
		Sets the duration of the reverberations.		Adjusts the tone.		Adjusts the amount of effected sound that is mixed with the original sound.	
		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.					
	Page01	Knob1		Knob2		Knob3	
		Decay	1-30	Shape	-10-10	Mix	0-100
	Page02	Tone	0-10	Level	0-150		
		Adjusts the duration of the reverb.		Adjusts the effect envelope.		Adjusts the amount of effected sound that is mixed with the original sound.	
		Adjusts the tone.		Adjusts the output level.			
101	Air	This effect reproduces the ambience of a room to create spatial depth.					
	Page01	Knob1		Knob2		Knob3	
		Size	1-100	Tone	0-10	Mix	0-100
	Page02	Ref	0-10	Level	0-150		
		Sets the size of the space.		Adjusts the tone.		Adjusts the amount of effected sound that is mixed with the original sound.	
		Adjusts the amount of reflection from the wall.		Adjusts the output level.			

Effect Types and Parameters

102 Comp+Dist		This effect combines a compressor and distortion.						
		Knob1		Knob2		Knob3		
	Page01	THRSH	0-50	Gain	0-100	P	Level	0-150
	Page02	Dry	0-100	Tone	0-100		Ratio	1-10
	Page03	ATTCK	1-10					
		Sets the level that activates the compressor.		Adjusts the gain.		Adjusts the output level.		
		Adjusts the volume of original sound.		Adjusts the tone.		Adjusts the compression ratio.		
		Adjusts the compressor attack rate.						
103 Oct+Dist		This effect combines an octaver and distortion.						
		Knob1		Knob2		Knob3		
	Page01	Oct	0-100	Gain	0-100		Level	0-150
	Page02	Dry	0-100	Tone	0-100		Chain	Befr/Aftr
	Page03							
		Adjusts the volume of the effect sound one octave down.		Adjusts the gain.		Adjusts the output level.		
		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
	Page02	Dry	0-100	Tone	0-100		Reso	0-10
	Page03	Chain	Befr/Aftr					
		Adjusts the sensitivity of the effect.		Adjusts the gain.		Adjusts the output level.		
		Adjusts level of original sound.		Adjusts the tone.		Adjusts the intensity of the resonance sound.		
		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
	Page02	Dry	0-100	Reso	0-10		Ratio	1-10
	Page03	ATTCK	1-10					
		Sets the level that activates the compressor.		Adjusts the sensitivity of the effect.		Adjusts the output level.		
		Adjusts level of original sound.		Adjusts the intensity of the resonance sound.		Adjusts the compression ratio.		
		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
	Page02	Rate	0-50	Tone	0-10	P	Level	0-150
	Page03							
		Adjusts the gain.		Selects the jet sound mode.		Adjusts the intensity of the effect character.		
		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	DryMX	0-100		Level	0-150
	Page02							
		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	DryMX	0-100		Level	0-150
	Page02							
		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	Reso	0-10		Level	0-150
	Page02	DryMX	0-100					
		Adjusts the emphasized frequency.		Adjusts the intensity of the effect character.		Adjusts the output level.		
		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.						
	Page01	Knob1		Knob2		Knob3	
		Color	1-9 (See Table 3)	Tone	0-10	Bend	0-100
Page02	Mode		Level				
	Up, Down		0-150				
Sets the type of pitch change control with the expression pedal.		Adjusts the tone.		Sets the amount of pitch shift.			
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.						
	Page01	Knob1		Knob2		Knob3	
		Color	1-9 (See Table 3)	P	Tone	0-10	Bend
Page02	Mode		Level				
	Up, Down		0-150				
Sets the type of pitch change control with the expression pedal.		Adjusts the tone.		Sets the amount of pitch shift.			
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

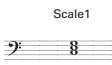

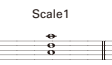
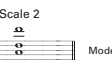














Setting	Scale used	Interval
-6	Major	6th down
-5		5th down
-4		4th down
-3		3rd down
-m	Minor	3rd down
m		3rd up
3	Major	3rd up
4		4th up
5		5th up
6		6th up

■ 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)

<p>Scale1</p>  <p>C</p>	<p>Scale 2</p>  <p>C_m</p>	<p>Scale1</p>  <p>F#m/C</p>	<p>Scale 2</p>  <p>F#m/C</p>	<p>Scale1</p>  <p>C7</p>	<p>Scale 2</p>  <p>F7</p>
<p>Mode 2</p>  <p>C7 (omit 5)</p>	<p>Mode 3</p>  <p>C_m7 (omit 5)</p>	<p>Mode 4</p>  <p>C</p>	<p>Mode 5</p>  <p>C</p>	<p>Mode 6</p>  <p>C_M7</p>	<p>Mode 7</p>  <p>F_M7</p>
<p>Mode 3</p>  <p>C_M7 (omit 5)</p>	<p>Mode 4</p>  <p>C_m7 (omit 5)</p>	<p>Mode 8</p>  <p>C_{dim}</p>	<p>Mode 9</p>  <p>E_{dim}</p>	<p>Mode 10</p>  <p>C_{sus4}</p>	<p>Mode 11</p>  <p>C_{add9}</p>

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 k Ω load)	
Display	LCD x 3	
Input	Standard mono phone jack Rated input level -20dBm Input impedance 1M Ω ACTIVE/PASSIVE (switch selectable)	
Output R	Standard mono phone jack Maximum output level: Line: +5 dBm (with output load impedance of 10 k Ω or more)	
L/Mono/Phone	Standard stereo phone jack (line/headphones) Maximum output level: Line: +5 dBm (with output load impedance of 10 k Ω 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

ZOOM

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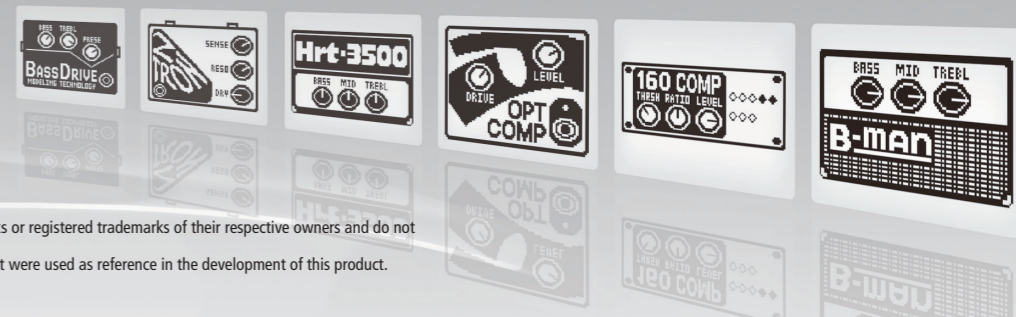
4-4-3 Surugadai, Kanda, Chiyoda-ku, Tokyo 101-0062 Japan

<http://www.zoom.co.jp>



B3

Bass Effects & Amp Simulator



Manufacturer names and product names mentioned in this patch list are trademarks or registered trademarks of their respective owners and do not indicate any affiliation with ZOOM CORPORATION. All product and artist names are intended only to illustrate sonic characteristics that were used as reference in the development of this product.

	Patch Name	Comment
DEMO	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.
A	9 RecU5	The AVALON U5 model contributes to this clear and crispy bass sound.
	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.
B	8 W10 DreamY	Dreamy sound using Pitch Delay.
	9 W10 BowTie	Slow attack sound with Hall reverb.
	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.
C	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!
	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.
D	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.
	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.
	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.
E	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 Slpss Try	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	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.	
	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.	
F	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 ZTRON	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.	
G	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.	
	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.	
CLEAN	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.	
	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.	
H	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 7ofuzzoct	Retro fuzz and octave through a resonance filter.	
	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.	
I	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.	
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SPECIAL FX	9		