BASS EFFECTS PEDAL



Operation Manual





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SAFETY PRECAUTIONS Usage Precautions

SAFETY PRECAUTIONS

In this manual, symbols are used to highlight warnings and cautions for you to read so that accidents can be prevented. The meanings of these symbols are as follows:



This symbol indicates explanations about extremely dangerous matters. If users ignore this symbol and handle the device the wrong way, serious injury or death could result.



This symbol indicates explanations about dangerous matters. If users ignore this symbol and handle the device the wrong way, bodily injury and damage to the equipment could result.

Please observe the following safety tips and precautions to ensure hazard-free use of the B2.



Power requirements

Since power consumption of this unit is fairly high, we recommend the use of an AC adapter whenever possible. When powering the unit from batteries, use only alkaline types.

[AC adapter operation]

- Be sure to use only an AC adapter which supplies 9 V DC, 300 mA and is equipped with a "center minus" plug (Zoom AD-0006). The use of an adapter other than the specified type may damage the unit and pose a safety hazard.
- Connect the AC adapter only to an AC outlet that supplies the rated voltage required by the adapter.
- When disconnecting the AC adapter from the AC outlet, always grasp the adapter itself and do not pull at the cable.
- During lightning or when not using the unit for an extended period, disconnect the AC adapter from the AC outlet.

[Battery operation]

- Use four conventional IEC R6 (size AA) batteries (alkaline).
- The B2 cannot be used for recharging.
- Pay close attention to the labelling of the battery to make sure you choose the correct type.
- When not using the unit for an extended period, remove the batteries from the unit.
- If battery leakage has occurred, wipe the battery compartment and the battery terminals carefully to remove all remnants of battery fluid.
- While using the unit, the battery compartment cover should be closed.



Environment

To prevent the risk of fire, electric shock or malfunction, avoid using your B2 in environments where it will be exposed to:

- · Extreme temperatures
- · Heat sources such as radiators or stoves

- · High humidity or moisture
- · Excessive dust or sand
- Excessive vibration or shock

Handling



- the B2 since this can cause electric shock.
- Do not place naked flame sources, such as lighted candles, on the B2 since this can cause fire.
- The B2 is a precision instrument. Do not exert undue pressure on the keys and other controls. Also take care not to drop the unit, and do not subject it to shock or excessive pressure.
- Take care that no foreign objects (coins or pins etc.) or liquids can enter the unit.



Connecting cables and input and output jacks

You should always turn off the power to the B2 and all other equipment before connecting or disconnecting any cables. Also make sure to disconnect all connection cables and the power cord before moving the B2.



Alterations

Never open the case of the B2 or attempt to modify the product in any way since this can result in damage to the unit.



Volume

Do not use the B2 at a loud volume for a long time since this can cause hearing impairment.

Usage Precautions

Electrical interference

For safety considerations, the B2 has been designed to provide maximum protection against the emission of electromagnetic radiation from inside the device, and protection from external interference. However, equipment that is very susceptible to interference or that emits powerful electromagnetic waves should not be placed near the B2, as the possibility of interference cannot be ruled out entirely.

With any type of digital control device, the B2 included, electromagnetic interference can cause malfunctioning and can corrupt or destroy data. Care should be taken to minimize the risk of damage.

Cleaning

Use a soft, dry cloth to clean the B2. If necessary, slightly moisten the cloth. Do not use abrasive cleanser, wax, or solvents (such as paint thinner or cleaning alcohol), since these may dull the finish or damage the surface.

Please keep this manual in a convenient place for future reference.

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The 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 into 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.

Features

Thank you for selecting the **ZOOM B2** (hereafter simply called the "**B2**"). The B2 is a multi effect processor with the following features and functions.

• Latest technology for outstanding performance

96 kHz / 24 bit sampling (with 32 bit internal processing) assures excellent sound quality. The B2 carves out a sonic outline in superb detail while preserving the original sound character of the bass guitar.

• Versatile palette of effects

Out of a total of 47 effects, up to nine (including ZNR) can be used simultaneously. The dazzling choices provided by the B2 include distortion effects modeled on famous amps and compact effects, compressor/limiter effects for dynamic punch, a parametric equalizer essential for working on sonic nuances, as well as various delay and modulation effects. Both in quality and versatility, the B2 far surpasses anything in its class. You can even transform the output into a cool synth bass or fretless bass sound.

• Really usable patches straight out of the box

Effect module combinations are stored and called up in units referred to as patches. The B2 comes with a full complement of 40 read-only plus 40 user-programmable patches, giving you 80 great reasons to start grooving.

• Great for live performances and direct recording

The distortion effects have a special parameter that selects whether to apply only the head amp characteristics or add also the cabinet sound. This lets you use the B2 effectively not only for a live performance but also when feeding the signal directly to a recorder.

• Integrated auto-chromatic tuner and rhythm functions

Realistic PCM sound sources are available to auto-play a number of rhythm patterns. This is convenient for use as a metronome during practice or to provide a simple rhythm part for a quick session. An autochromatic tuner for bass guitar is also built right into the unit, including a function for silent tuning which lets you easily tune your instrument on stage.

• Sophisticated user interface

The combination of a rotary type selector and three parameter knobs make the effect editing process intuitive and quick. The mute interval when switching patches has been reduced to less than 8 milliseconds. Seamless patch changing is now a reality.

• Dual power supply principle allows use anywhere

The B2 can be powered from four IEC R6 (size AA) batteries or an AC adapter. Continuous operating time on batteries is approximately 7.5 hours with alkaline batteries.

• Easy operation with foot switch and expression pedal

An optional foot switch (FS01) or expression pedal (FP01/FP02) can be connected to the CONTROL IN jack. The foot switch is convenient for quickly switching effect programs, setting the tempo for the rhythm function, or switching delay hold on and off. The expression pedal can be used to adjust the volume or the tonal quality of an effect in real time.

Please take the time to read this manual carefully so as to get the most out of the unit and to ensure optimum performance and reliability.

Terms Used in This Manual

This section explains some important terms that are used throughout the B2 documentation.

IN > COMP/LIMIT WAH/EFX DRIVE/SYNTH ZNR/MIX LO EQ HI EQ MOD/SFX DELAY REVERB OUT

Effect module

As shown in the illustration above, the B2 can be thought of as a combination of several single effects. Each of these effects is referred to as an effect module. In addition to modules comprising compressor and limiter effects (COMP/LIMIT), amp simulator/synth bass effects (DRIVE/SYNTH), and modulation/special effects (MOD/SFX), the B2 also provides a module for ZNR (ZOOM Noise Reduction). Various parameters such as effect intensity can be adjusted for each module individually, and modules can be switched on and off as desired.

Effect type

Within some effect modules, there are several different effects which are referred to as effect types. For example, the modulation/SFX effect module (MOD/SFX) comprises chorus, flanger, pitch shifter, delay, and other effect types. Only one of these can be selected at a time.

Effect parameter

All effect modules have various parameters that can be adjusted. These are called effect parameters.

In the B2, effect parameters are adjusted with the parameter knobs 1 - 3. Similar to the knobs on a compact effect, these change aspects such as tonal character and effect intensity. Which parameter is assigned to each knob depends on the currently selected effect module and effect type.

Patch

In the B2, effect module combinations are stored and called up in units referred to as patches. A patch comprises information about the on/off status of each effect module, about the effect type used in each module, and about effect parameter settings. The internal memory of the B2 holds up to 80 patches (including 40 patches which allow read/write).

Bank and area

A group of ten patches is called a bank. The memory of the B2 comprises a total of eight banks, labelled A to d and 0 to 3. Banks A - d form the user area which allows read/write. Banks 0 to 3 are the preset area containing read-only patches.

The patches within each bank are numbered 0 through 9. To specify a patch of the B2, you use the format "A1" (patch number 1 from bank A), "06" (patch number 6 from bank 0), etc.

Play mode/edit mode

The internal status of the B2 is referred to as the operation mode. The two major modes are "play mode" in which you can select patches and use them for playing your instrument, and "edit mode" in which you can modify the effects. The module selector serves for switching between the play mode and edit mode.



Controls and Functions / Connections

Module selector

Switches between play mode and edit mode. In edit mode, the knob selects the module for operation.

BANK [-]/[+] keys

In play mode, the keys serve for directly switching to the next lower or higher bank.

In edit mode, the keys switch the effect type for the currently selected module.

[STORE] key

Serves for storing edited patches in memory.

[▼]/[▲] foot switches

These switches are used for selecting patches, switching effect modules on and off, controlling the tuner, and other functions.

Bass guitar



Top Panel



[OUTPUT/PHONES] jack

This stereo phone jack serves for connection to the bass guitar amplifier or for monitoring with headphones. It is also possible to use a Y cable for sending the output to two amplifiers, to produce a spacious stereo effect sound.





Selecting a Patch

To try out the various effects of the B2, we recommend that you simply play your instrument while switching patches.



Select a patch

• To switch the patch, press one of the $[\mathbf{V}]/[\mathbf{A}]$ foot switches.

Pressing the $[\mathbf{\nabla}]$ foot switch calls up the next lower patch, and pressing the $[\mathbf{\Delta}]$ foot switch calls up the next higher patch.

Repeatedly pressing one foot switch cycles through patches in the order A0 – A9 ... d0 – d9 \rightarrow 00 – 09 ... 30 – 39 \rightarrow A0, or the reverse order.



O Adjust tone and volume

• To adjust the effect sound and volume levels in play mode, the Parameter knobs 1 – 3 can be used. Each knob controls a specific parameter.

Parameter knob 1 Adjusts the CABINET parameter of the DRIVE/SYNTH module (cabinet simulator effect intensity).

Parameter knob 3 Adjusts the PATCH LEVEL parameter (output level of the entire patch).



Parameter knob 2 Adjusts the TONE parameter of the DRIVE/SYNTH module (mainly distortion sound character).

When you turn a Parameter knob, the corresponding LED lights up and the display briefly shows the current value of the respective parameter.

- **NOTE** If the DRIVE/SYNTH module is set to OFF for the currently selected module (indication "oF" is shown on the display), Parameter knobs 1 and 2 have no effect.
 - The higher the setting value of Parameter knob 1 (CABINET parameter), the more will the cabinet character be emphasized.
 - Changes made here are temporary and will be lost when you select another patch. To retain the changes, store the patch in the user area.
 - The master level in common to all patches is set in edit mode (→ p. 30).

Directly selecting a bank

• To select the banks A – d, 0 – 3 directly, use the BANK [-]/[+] keys.

Pressing the BANK [-] key calls up the next lower bank, and pressing the BANK [+] key calls up the next higher bank.

Using the Tuner

The B2 incorporates an auto-chromatic tuner. To use the tuner function, the built-in effects must be bypassed (temporarily turned off) or muted (original sound and effect sound turned off).

Switch to bypass or mute

Setting the B2 to the bypass state

In play mode, press both $[\mathbf{\nabla}]/[\mathbf{\Delta}]$ foot switches together briefly and release.

• Setting the B2 to the mute state

In play mode, press both $[\mathbf{\nabla}]/[\mathbf{\Delta}]$ foot switches together and hold for at least 1 second.

Natch change at bypass/mute

When you press both $[\mathbf{\nabla}]/[\mathbf{\Delta}]$ foot switches together while playing your instrument, the bypass/mute condition is activated. However, the sound may change momentarily just before the condition is activated. This is because the B2 switches to the next higher or lower patch when one of the foot switches is pressed slightly earlier. (When you cancel the bypass/mute condition, the original patch number will be active again.)

This kind of behavior is not a defect. It is due to the very high speed at which the B2 responds to patch switching. To prevent the sound change caused by the above condition, do not produce sound with your instrument until the bypass/mute condition is fully established.



Play the open string to tune, and adjust the pitch. A = \overrightarrow{A} D = \overrightarrow{D} G = \overrightarrow{L} A[#]= \overrightarrow{A} D[#]= \overrightarrow{D} . G[#]= \overrightarrow{L} . B = \overrightarrow{D} E = \overrightarrow{E} C = \overrightarrow{L} F = \overrightarrow{F} C[#]= \overrightarrow{L} F[#]= \overrightarrow{F} .



shows a symbol that indicates by how much the tuning is off.



Tune other strings in the same way.



Using the Rhythm Function

The B2 has a built-in rhythm function that plays realistic drum sounds in various patterns. The rhythm function is available in play mode or in the bypass/mute condition.



Adjust the rhythm volume

• To adjust the rhythm volume, turn Parameter knob 3.

When you turn the Parameter knob, the current setting (0 - 30) is shown on the display.





Editing a Patch

The patches of the B2 can be freely edited by changing the effect parameter settings. Try editing the currently selected patch to create your own sound.



Terminate the edit mode

- To terminate the edit mode and **NOTE** return to the play mode, set the Module selector to the "PLAY" position.
- When you return to play mode and select another patch, the changes you have made in edit mode will be lost unless you store the patch first. To retain the changes, store the patch as described on page 16.

keys has no effect.



ZOOM B2

Storing/Copying Patches

An edited patch can be stored in a bank of the user area (A - d). It is also possible to store an existing patch in another location to create a copy.





Using an Optional Foot Switch or Pedal

The B2 is equipped with a [CONTROL IN] jack designed for connection of an optional foot switch or expression pedal. This section explains how to use these accessories.

Using the foot switch (FS01)

Connecting the optional foot switch FS01 to the [CONTROL IN] jack allows changing banks with the foot switch while the unit is in play mode. It is also possible to switch bypass/mute on and off, control the tap tempo function, or perform other functions with the foot switch.

- **1.** Plug the cable from the FS01 into the [CONTROL IN] jack, and then turn the B2 on.
- **2.** Set the Module selector to the "CONTROL" position.



The B2 goes into edit mode. You can now make settings for the expression pedal and foot switch.

3. Turn Parameter knob 2 to select one of the following functions for the foot switch.



bP (bypass/mute)

The foot switch controls bypass or mute on/off. This has the same effect as pressing both $[\nabla]/[\Delta]$ foot switches at the same time in play mode.

tP (tap tempo)

Pressing the foot switch repeatedly can be used to set the interval for the rhythm function or to make settings for effect parameters supporting the tap function. This has the same effect as pressing the [TAP] key.

bU (bank up)

Each push of the foot switch switches to the next higher bank. This has the same effect as pressing the BANK [+] key.

• rH (rhythm on/off)

The foot switch controls start/stop of the rhythm function. This has the same effect as pressing the RHYTHM $[\blacktriangleright/\blacksquare]$ key.

dH (delay hold)

The foot switch controls on/off of the delay hold function. When a patch using the hold function is selected, pressing the foot switch will activate hold, causing the current delay sound to be repeated (see illustration below). Pressing the foot switch once more cancels the hold condition, and the delay sound will decay normally.

dM (delay input mute)

Switches the delay module input muting between on and off.



HINT

- For information on effect parameters supporting the tap function, see pages 23 29.
- To use the hold function, an effect type that supports the hold function must be selected in the patch. For details, see pages 23 29.
- While the delay module is set to hold or mute, the dot in the center of the display flashes.

4. Select the patch in play mode and operate the foot switch.

The selected function will be activated. This function applies to all patches.

Using the expression pedal (FP01/FP02)

Connecting an expression pedal (FP01/FP02) to the [CONTROL IN] jack allows using it as a volume pedal or for adjusting an effect parameter in real time.

The function selection for the expression pedal is saved for each patch individually.

For information on parameters that can be adjusted with the expression pedal, please refer to pages 23 - 29.

- **1.** Plug the cable from the expression pedal into the [CONTROL IN] jack, and then turn the B2 on.
- **2.** Select the patch for which you want to use the expression pedal.
- **3.** Set the Module selector to the "CONTROL" position.

The B2 goes into edit mode.

- **4.** Turn Parameter knob 1 to select one of the following modulation targets for the expression pedal (see page 30).
- oF

Pedal is inactive.

• VL

Volume

• WU, Wd, WH, WL

WAH/EFX module

bU, bd, bH, bL

ZNR/MIX module

NOTE

When the modulation target is set to the ZNR/MIX module, the mixing balance between the original sound and effect sound of the DRIVE/SYNTH module can be adjusted with the pedal. (If the DRIVE/SYNTH module is set to OFF, the pedal has no effect.)

• MU, Md, MH, ML

MOD/SFX module

- dU, dd, dH, dL DELAY module
- rU, rd, rH, rL REVERB module

HINT

- Which parameter changes when the expression pedal is operated depends on the selected module. For details, see pages 23 29.
- The pattern in which the expression pedal alters the parameter can be selected in edit mode. There are four choices (→ p. 30).

5. If necessary, save the patch.

The expression pedal setting is saved as part of the patch.

6. Select the patch in play mode and operate the expression pedal.

The selected function will be activated.

In the bypass condition, the expression pedal always operates as a volume pedal, regardless of the setting made in step 4.

Restoring Factory Defaults

In the factory default condition, the patches of the user area (A0 - d9) contain the same settings as the patches of the preset area (00 - 39). Even after overwriting the user patches, their original content can be restored in a single operation ("All Initialize" function).

1. Turn the B2 on while holding down the [STORE] key.

The indication "AL" appears on the display.



2. To carry out the All Initialize function, press the [STORE] key once more.

All patch settings are returned to the factory default condition, and the unit switches to play mode. To cancel All Initialize, press the RHYTHM [▶/■] key instead of the [STORE] key.

NOTE

When you carry out All Initialize, any newly created patches that were stored in the user area will be deleted (overwritten). Perform this operation with care to prevent losing any patches that you want to keep.

Linking Effects

The patches of the B2 consist of nine serially linked effect modules, as shown in the illustration below. You can use all effect modules together or selectively use certain modules by setting them to on or off.



^r Manufacturer names and product names mentioned in this table are trademarks or registered trademarks of their respective owners. The names are used only to illustrate sonic characteristics and do not indicate any affiliation with ZOOM CORPORATION.

For some effect modules, you can select an effect type from several possible choices. For example, the COMP/LIMIT module gives a choice between COMPRESSOR, LIMITER, and other effect types. The REVERB module comprises HALL, ROOM, and other effect types from which you can choose one. Because the ZNR/MIX module has only one effect type, you cannot choose the type for this module.

HINT

 The DRIVE/SYNTH module has a "CABINET" parameter that controls how the speaker cabinet characteristics are reproduced. This allows you to match the cabinet character effect to various requirements of a live performance or of direct recording.

- The mixing balance of the DRIVE/SYNTH module original sound and the effect sound/synth sound, as well as the signal level after passing the module can be adjusted with the ZNR/MIX module.
- When "STDSYN", "SYNTLK", or "MONO SYN" is selected as effect type for the DRIVE/SYNTH module, the action of the COMP/LIMIT module and WAH/EFX module (connection position set to "bF") will apply only to the original sound after passing the DRIVE/SYNTH module and not to the synth sound.
- The ZNR/MIX module cannot be turned off with the foot switch. To disable ZNR, set the effect parameter value to "oF".

How to read the parameter table



These are the parameters that can be adjusted with Parameter knobs 1 - 3 when the effect type is selected. The setting range for each parameter is shown. Three-digit setting values are shown with a dot between the two numerals. Example: 1 - 98, 1.0 = 1 - 98, 100



Expression pedal

A pedal icon (*Lefter Constant and Constant*

Specify the respective module as modulation target for the expression pedal (\rightarrow p. 19), and then select the respective effect type of the module. The parameter can then be controlled in real time with a connected expression pedal.

Тар

A [TAP] key icon (TAP) in the listing indicates a parameter that can be set by hitting the [TAP] key.

In edit mode, when the respective module/effect type is selected, repeatedly hitting the [TAP] key will set the parameter according to the key press interval (modulation cycle, delay time, etc.). In play mode, if the DELAY module is ON for the currently selected patch, repeatedly hitting the [TAP] key will temporarily change the parameter.

Hold

A foot switch icon (**HOLD**) in the listing indicates an effect type for which hold can be turned on and off with the foot switch (FS01).

Set the foot switch function to "dH" (delay hold) (\rightarrow p. 18) for the respective patch. When this patch is then selected in play mode, the hold function can be switched on and off by pressing the foot switch.

~	COMP/LIN	ΛĽ	Т					
$\left(\right)$			(Compressor/L			· . ·		
COMP	This module includes a compressor that keeps the overall signal level within a certain range by attenuating high-level signal components or boosting low-level signal components, and a limiter that suppresses peak components.							
[/ CP CC	OMPRESSOR				pononici			
	ttenuates high-le	eve	el signal componen	ts and boosts lo	w-level signal comp	onents to keep		
the overall signal le	evel within a cer	tai	n range.		-			
	0 – 10			1 – 10		2 – 98, 1.0		
Adjusts the compressor sensitivity. Higher setting values result in higher sensitivity.Adjusts the time between the sound attack point and the start of compression. Higher setting values result in faster compression action.Adjusts the signal level after passin module.					el after passing the			
	MITER							
	t suppresses sig	gna	al peaks above a ce	ertain reference l	evel.			
THRESHOLD	0 – 10		P RATIO	1 – 10		2 – 98, 1.0		
Adjusts the reference signal level for the limiter action.			Adjusts the limiter intensity. Higher setting values result in stronger compression of the input signal.			el after passing the		
This effect varies v	Comprises wah and filter effects as well as VCA type effects. RH AW AUTO WAH This effect varies wah in accordance with playing intensity. AUTO WAH							
This effect varies t	he frequency ba	nd	of the resonance f	ilter according to	o the picking intensit	ïy.		
The two effect types a	bove have the same	e pa	arameters.					
POSI & DIR MIX	b0 – b9, A0 – A9		SENSE	-10 – -1, 1 – 10		0 – 10		
Selects the connection position of the WAH/EFX module. The b0 - b9 settings specify connection before the DRIVE/ SYNTH module, and the A0 - A9 settings specify connection after the HI EQ module. The numbers 0 - 9 specify the original sound mixing balance, with higher values resulting in stronger original sound.					of the sound.			
OCTAVE								
	1-octave lower of	col	mponent to the orig	jinal sound.				
OCT LVL	0 – 98, 1.0			0 – 98, 1.0		0 – 10		
Adjusts the mix effect sound (1- sound).	ting balance of the octave lower		Adjusts the mixing bal original sound.	ance of the	Adjusts the sound qua	hlity after mixing.		

Er tr TF	REMOLO							
This effect periodic	ally varies the v	olume			_			
	0 – 98, 1.0	0	RATE	0 – 50		WAVE	u0 – u9, d0 – d9, t0 – t9	
Adjusts the modulatio	n depth.	A	Adjusts the effect rate.			Allows selection of the modulation waveform. Available settings are "u" (rising sawtooth), "d" (falling sawtooth), and "t" (triangular). Higher setting values result in more clipping of wave peaks, which reinforces the effect.		
PH PH PH	HASER							
This effect produce	es sound with a	pulsat	ing character.					
O POSITION	bF, AF	0	RATE	0 – 50		COLOR	1 – 4	
Selects the connection WAH/EFX module. The specifies connection boost SYNTH module, and specifies connection at module.	he bF setting efore the DRIVE/ the AF setting		Adjusts the modulation rate.			Adjusts the type of sound.		
[rGRI	NG MODULATO	R						
This effect produce change of sound c		jing so	ound. Adjusting	the FREQUENC	CY	parameter results i	n a drastic	
	bF, AF	0	FREQUENCY	1 – 50		BALANCE	0 – 98, 1.0	
Selects the connection position of the WAH/EFX module. The bF setting specifies connection before the DRIVE/ SYNTH module, and the AF setting specifies connection after the HI EQ module.			Adjusts the frequency that is used for modulation.			Adjusts the balance between the original sound and the effect sound.		
dF dF DI	EFRET							
This effect change	s the sound of a	ny bas	ss into a sound	resembling a fro	etl	ess bass.		
	0 – 30	0	TONE	1 – 50		COLOR	1 – 10	
Adjusts the effect sens	sitivity.		Adjusts the sound quality.			Adjusts the amount of harmonics. Higher setting values result in stronger sonic character.		
PH PW PE	EDAL WAH							
Simulates a Vox wa	ah pedal							
O POSI & DIR MIX	b0 – b9, A0 – A9	0	FREQUENCY	1 – 50			2 – 98, 1.0	
Selects the connection WAH/EFX module. T specify connection bet SYNTH module, and settings specify conne EQ module. The numl the original sound mix higher values resulting original sound.		Adjusts the frequency that is emphasized. When no expression pedal is used, the effect is the same as with a half-raised pedal.			Adjusts the signal leve module.	l after passing the		

	DRIVE/SY	NTH					
	DRIVE/SYN1	TH module					
This module provides special effects such as 13 types of amp and stomp box simulations and a synth bass sound. The mixing balance of original sound and effect sound/synth sound, and the signal level after passing the module are adjusted with the ZNR/MIX module. * Manufacturer names and product names mentioned in this table are trademarks or registered trademarks of their respective owners. The names are used only to illustrate sonic characteristics and do not indicate any affiliation with ZOOM CORPORATION.							
R[AG AN	MPEG		ና⊢ Sb SUPER BASS				
Simulation of the A popular bass guita		is one of the most		ne MARSHALL SUPE e history of Rock.	R BASS, a		
5អ SW sv	VR		RE AC	ACOUSTIC			
Simulation of the S sound.	WR SM-900 far	nous for its hi-fi	Simulation of the special midrane	ne ACOUSTIC 360 kn ge sound.	own for its		
<u>ЬП</u> bM <i>ВА</i>	ASSMAN		HR HA HARTKE				
Simulation of the F	ENDER BASSM	IAN 100.	Simulation of the HARTKE HA3500 famous for its aluminum cone.				
	RACE ELLIOT						
Simulation of the T							
All above effect types have the same parameters.							
	oF, 1 – 3		0 – 10	GAIN	0 – 98, 1.0		
With the "oF" setting, only the head amp characteristics are applied. A numeric setting adds cabinet sound of differing intensity as well.			ty. Adjusts the distortion intensity.				
上¦ tU TU	Lith TUBE PRE SA SANSAMP						
ZOOM original tub	e preamplifier so	ound.		Simulation of the SANSAMP BASS DRIVER DI, very popular among bassists.			
는도 tS TS	S9		od od	ODB-3			
Simulation of the T guitarists as a boos		sed by many	Simulation of the Boss Overdrive ODB-3 for bass guitar.				
dS	XR BASS D.I. +		FF FF	FUZZ FACE			
Simulation of the d D.I.+.	istortion channe	el of the MXR Bass	Simulation of the Fuzz Face that made rock history with its zany look.				
All above effect types	have the same para	meters.					
	oF, 1 – 3		0 – 10	GAIN	0 – 98, 1.0		
With the "oF" setting, box characteristics are numeric setting adds c differing intensity as w	applied. A abinet sound of	Adjusts the sound qua	lity. Adjusts the distortion intensity.				
55 SS ST	DSYN (Standard	d Synth)					
ZOOM standard sy	inth bass sound						
	oF, 1 – 3		1 – 4	SENSE	0 – 98, 1.0		
Numeric settings selec types.	t different cabinet	Selects the synth soun	d variation.	Adjusts the trigger det	ection sensitivity.		
	NTLK (Synth Ta						
This effect produce	es a synth sound	d like a talking modul	ator using vowel	s for vocalization.			
	oF, 1 – 3		iA, UE, UA, oA	O DECAY	0 – 98, 1.0		
Numeric settings select different cabinet ypes. Selects the type of voc			alization.	Adjusts the rate of sou	nd change.		

П <u>5</u> МS М	ONO SYN (Mond	Synth)						
This is a monopho	nic (single-note)	bass synth	nesizer that de	etects the i	npu	t signal pitch.		
	oF, 1 – 3			– s5, p1 – , m1 – m5		O DECAY	0 – 98, 1.0	
Numeric settings selectypes.	variation. "p" produc	Selects the waveform type and sound variation. "s" produces a sawtooth wave, "p" produces a square wave, and "m" uses PWM (pulse width modulation). Adjusts the rate of sound change.						
	ZNR/MIX							
ZNR /MIX	ZNR/MIX m	odulo	<u>.</u>				-	
\square			lucina noise d	uring plavir	na r	auses. The module	also is used to	
	control the mixi	ing balance	of original sc	und and ef	fect	sound for the DRIV	E/SYNTH	
						R/MIX module canno ameter value to "oF		
nr nr Zl	VR (ZOOM Noise				μαι		•	
			,	oise in plavi	ina	pauses without affe	cting the tonal	
						f the DRIVE/SYNTH		
	oF, Z0 – Z9		BALANCE 0	- 98, 1.0			2 – 98, 1.0	
Adjusts the ZNR sens maximum noise reduc as high as possible wi sound to cut in or deca	tion, set the value thout causing the	Adjusts the mixing balance between the signal before input to the DRIVE/SYNTH module and the signal after passing the module. Higher setting values result in stronger WET sound. When the DRIVE/SYNTH module is set to Off, the indication "oF" is shown.				Adjusts the signal level after passing the DRIVE/SYNTH module. When the DRIVE/SYNTH module is set to Off, the indication "oF" is shown.		
LO EQ	LO EQ							
	LO EQ modu	ule	le					
			low frequenc	y range. Yo	u ca	an select either a 3-l	band equalizer	
	or parametric e DEQ (Low EQ)	qualizer.			_			
This is a 3-band ed	, ,	usts the free	quency range	below 450	Hz	·		
		-						
0 70Hz	±12	2 150				6 450Hz	±12	
70 Hz, shelving type e	equalizer.	150 Hz, pe	eaking type equ	alizer.		450 Hz, peaking type	equalizer.	
LP LP LC	D PARAMETRIC	EQ (Low Pa	arametric EQ)					
This is a parametri	c equalizer that	adjusts the	frequency ra	nge below	650	Hz.		
O TYPE	1, 2, SH			e Table 1		GAIN	±12	
Selects the type of filtr peaking type filter wit gives a peaking type fi and "SH" produces a s EQ.	Selects a f 100 - 650	requency within Hz.	the range of	Adjusts the gain.				
		Table 1						
		Display	Frequency 100Hz	Display		equency 500Hz		
		10 25	100Hz 250Hz	50 65		00Hz 050Hz		
		35	350Hz					

HIEQ	HI EQ							
\bigcirc	HI EQ modu	Ile)					
	This is an equalizer for the high frequency range. You can select either a 3-band equalizer							
or parametric equalizer.								
This is a 3-band equalizer that adjusts the frequency range above 1 kHz.								
-			-				10	
1kHz	±12		2 3kHz	±12		6kHz	±12	
1 kHz, peaking type ed	qualizer.		3 kHz, peaking type ec	qualizer.		6 kHz, shelving type e	qualizer.	
		_	(High Parametric I	-				
This is a parametri	c equalizer for t	he	frequency range at	pove 800 Hz.	_			
	1, 2, SH		PREQUENCY	See Table 2		GAIN	±12	
Selects the type of filter. "1" gives a peaking type filter with narrow Q, "2" gives a peaking type filter with wide Q, and "SH" produces a shelving type LO EQ.			Selects a frequency within the range of Adjusts the gain.					
Table 2								
			Display Frequenc 80 800Hz		_	uency		
		+	80 800Hz 1.2 1.2kHz			6kHz 8kHz		
			2.4 2.4kHz					
MOD/SFX	MOD/SFX	_			-			
			dulation/SFX) n	nodule				
	-		lation and delay effe		οrι	ıs, pitch shifter, dela	y, and echo.	
[Н СН СА	HORUS							
This effect mixes a v	ariable pitch-shift	ed	component to the ori	ginal signal, resul	tin	g in full-bodied reson	ating sound.	
	0 – 98, 1.0			1 – 50			0 – 98, 1.0	
Adjusts the modulation	n depth.		Adjusts the mod	lulation rate.		Adjusts the level of the mixed to the original so		
5[SC ST	TEREO CHORUS	3						
This is a stereo cho	orus with clear s	501	und.		_			
	0 – 98, 1.0			1 – 50			0 – 98, 1.0	
Adjusts the modulation	n depth.		Adjusts the modulation	n rate.		Adjusts the level sound mixed to t	of the effect he original sound.	
FL FL FL	ANGER							
This effect produce	es a resonating	an	d strongly undulatir	ng sound.				
	0 – 98, 1.0			0 – 50			-10 – -1, 0, 1 – 10	
Adjusts the modulation	n depth.		MoTAP Adjusts the	modulation rate.		Adjusts the modulation resonance intensity.		





CONTROL										
	CONTROL m	ONTROL module								
CONTROL		erves for making pedal settings and lets you control the foot switch function and master evel setting applying to all patches.								
TTM DESTINATION	See Table 6	🕗 FS	See Table 7	MASTER LEVEL	0 – 98, 1.0					
When an expression pedal (FP01/FP02) is connected to the [CONTROL IN] jack, this selects the modulation target module for the RTM function (See Table 6).		When a foot switch (F to the [CONTROL IN] the function that can b the foot switch (See Ta function selected here patches.	jack, this selects e operated with able 7). The	Adjusts the master lev	el for all patches.					

RTM (Real Time Modulation): The effect parameter can be changed with the expression pedal in real time.

Table 6

Setting	Modulation target
oF	OFF
VL	Volume
WU, Wd, WH, WL	WAH/EFX module (*)
bU, bd, bH, bL	ZNR/MIX module (*)
MU, Md, MH, ML	MOD/SFX module (*)
dU, dd, dH, dL	DELAY module (*)
rU, rd, rH, rL	REVERB module (*)

Table 7	
Setting	Function
bP	Bypass/Mute
tP	Tap tempo
bU	Bank up
rH	Rhythm function on/off
dH	Delay hold
dM	Delay mute

The operation of modules denoted by (*) changes as follows, according to the letter at right.

// UP

The parameter is at minimum when the pedal is fully raised and at maximum when the pedal is fully pushed down.

d DOWN

The parameter is at maximum when the pedal is fully raised and at minimum when the pedal is fully pushed down.

HIGH

When the pedal is fully raised, the parameter is at the value set in the patch. When the pedal is fully pushed down, the parameter is at maximum.

LLOW

When the pedal is fully raised, the parameter is at minimum. When the pedal is fully pushed down, the parameter is at the value set in the patch.

HINT

When the ZNR/MIX module is selected as modulation target, the pedal adjusts the mixing balance of the DRIVE/SYNTH module (\rightarrow p. 26).



Specifications

Max. 9 simultaneous modules User area: 10 patches x 4 banks Preset area: 10 patches x 4 banks

24 bit, 64 times oversampling

24 bit, 128 times oversampling

20 Hz - 40 kHz +1 dB -3 dB (with 10 kilohms load)

47

96 kHz

32 bit

Effect types
Effect modules
Patches

Sampling frequency A/D converter D/A converter Signal processing Frequency response Display

Input	Standard mono phone jack
Rated input level	-20 dBm
Input impedance	1 megohm
Output	Standard stereo phone jack (doubles as line and headphone jack)
Maximum output level	Line: +5 dBm (output load impedance 10 kilohms or more)
	Phones: 20 mW + 20 mW (into 32 ohms load)
Control input	For FP02 (FP01)/FS01
Power requirements	
AC adapter	9 V DC, 300 mA (center minus plug) (ZOOM AD-0006)
Batteries	Four IEC R6 (size AA) batteries,
	Approx. 7.5 hours continuous operation (alkaline batteries)
Dimensions	162 mm (D) x 156 mm (W) x 65 mm (H)

700 g (without batteries)

2-digit 7-segment LED Parameter LEDs

Weight Options

• 0 dBm = 0.775 Vrms

Design and specifications subject to change without notice.

Troubleshooting

Expression pedal FP02/ Foot switch FS01

• No power

Refer to "Turn power on" on page 8.

• Reverb effect does not operate

While a rhythm pattern is playing, the reverb effect is not available. Stop the rhythm pattern first $(\rightarrow p, 12)$.

High level of noise

Is ZOOM AC adapter being used? Be sure to use only adapter for 9 V DC, 300 mA with center minus plug (ZOOM AD-0006).

Battery life is short

Are manganese batteries being used? The use of alkaline batteries is recommended.

B2 Preset Pattern

#	PatternName	TimSig		#	PatternName	TimSig
1	8beat_1	4/4	1 [21	POP_3	4/4
2	8beat_2	4/4	1 [22	DANCE_1	4/4
3	8beat_3	4/4	1 [23	DANCE_2	4/4
4	8shufle	4/4	1 [24	DANCE_3	4/4
5	16beat_1	4/4	1 [25	DANCE_4	4/4
6	16beat_2	4/4	1 [26	3per4	3/4
7	16shufle	4/4] [27	6per8	3/4
8	ROCK	4/4	1 [28	5per4_1	5/4
9	HARD	4/4		29	5per4_2	5/4
10	METAL_1	4/4		30	LATIN	4/4
11	METAL_2	4/4] [31	BALLAD_1	4/4
12	THRASH	4/4] [32	BALLAD_2	3/4
13	PUNK	4/4	1 [33	BLUES_1	4/4
14	DnB	4/4		34	BLUES_2	3/4
15	FUNK_1	4/4		35	JAZZ_1	4/4
16	FUNK_2	4/4		36	JAZZ_2	3/4
17	НІРНОР	4/4		37	METRO_3	3/4
18	R'nR	4/4		38	METRO_4	4/4
19	POP_1	4/4		39	METRO_5	5/4
20	POP_2	4/4		40	METRO	



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B2 Patch List

Category	No.	Patch name	Description	Main effect
DEMO	A0	ROCK	Based on the ultimate rock bass amp, the AMPEG SVT, this sound is great both for bare finger playing and when using a pick.	AMPEG
	A1	Heavy Comp	Simulates the sound of a HARTKE HA3500 with 4.5XL that became the Will Lee trademark.	COMP & HARTKE
	A2	No Holds Barred	All-rounder distortion sound. Turn on pedal wah, flanger, and echo for even more excitement.	ODB-3
	A3	AUTO WAH	Traditional-style auto wah. Transform percussive play with ghost notes straight into a funky sound.	AUTO WAH
	A4	Yes!	Progressive rock sound, taking a hint from Yes bassist Chris Squire.	CHORUS & ECHO
	A5	Pop Style	Straightforward but addictive sound for pop and rock. A slight dash of room reverb is the secret ingredient.	BASSMAN
	A6	-12 Below	Classic sub-octaver sound created by Pino Palladino.	OCTAVE
	A7	No Worries	Fretless bass sound using the defret effect. Add a slide to a phrase and turn your instrument into a fretless bass.	DEFRET
	A 8	Stream	Flanging sound for those smooth and flowing phrases, supported by a solid backbone.	FLANGER
	A9	Synth Bass	PAD type synth bass sound. Great for lead bass and for programing sound during live play.	MONO SYN
MODELING	B 0	SVT	Combines the all-tube SVT from AMPEG with an 810E cabinet. Experience that gutsy tube amp sound.	AMPEG
	B1	HARTKE	Simulation of HARTKE HA3500 head amp combined with aluminum-cone cabinet 4.5XL. Note the characteristically straightforward punch of aluminum.	HARTKE
	B2	SUPER BASS	Simulation of MARSHALL 1992 Super Bass head amp combined with 1935A cabinet, tailored into Marshall style drive-oriented sound.	SUPER BASS
	В3	TRACE	Simulation of TRACE ELLIOT head amp AH-500 combined with two cabinets (1048H & 1518), producing the typical midrange character of British rock.	TRACE ELLIOT
	В4	BASSMAN	Simulates the Fender Bassman 100 also used by Paul McCartney. Enjoy that special Beatles sound with Rickenbacker and Hofner violin basses.	BASSMAN
	B5	ACOUSTIC	Simulation of ACOUSTIC 360 head amp combined with 301 cabinet, characterized by a tight midrange.	ACOUSTIC
	B6	SWR	SWR sound modeled on a SM-900 head amp combined with the Goliath cabinet. Rich low range and clear highs are bound to impress.	SWR
	B7	TUBE	Simulates a high-class tube preamplifier such as used in recording studios. The fat and supple sound fits every genre.	TUBE PRE
	B 8	SANSAMP	Simulates the lightly distorted sound of the SANSAMP BASSDRIVER DI, beloved by many bass players.	SANSAMP
	B9	TUBE SCREAMER	Simulation of the Tube Screamer used by many guitarists as a booster. Get that cool overdrive sound, whether picking or fingering.	TS9
	C0	MXR	Simulates the MXR BASS D.I. + distortion channel. A gutsy low end plus the right amount of original sound creates distortion with a solid core.	MXR BASS D.I.+
	C1	ODB	Simulates the ODB-3 overdrive bass machine from Boss. Proper mixing of original sound gives fat overdrive without losing bass response.	ODB-3
	C2	FUZZ FACE	Simulates the Fuzz Face famous for its unique look. Wildly distorted fuzz sound is great for those aggressive bass lines.	FUZZ FACE
ARTIST	СЗ	Slang	Chorus sound often used by Jaco Pastorius in the late seventies. Lets you play his "Slang" loop solos with hold delay.	CHORUS & ACOUSTIC
	C4	Slapstick	Rock style sound as personified by Flea of the Red Hot Chili Peppers. Use a Stingray or Modulus bass and whip up some slap bass action.	AMPEG
	C5	BootSea	Bootsy Collins sound using auto wah. Dress up in a fancy costume, wear star-shaped sunglasses, and let it rip!	AUTO WAH & PITCH
	C6	Mo'Soul	Motown sound made famous by James Jamerson. Sixties Motown comes alive again.	TUBE PRE
	C7	Miller's Crossing	Marcus Miller type slap sound. Typically deep SWR bass sound is complemented by glossy highs.	SWR
	C8	Leadist	Simulation of distortion sound suitable for Tony Levin style lead play. Connect an expression pedal and turn pedal wah on to create highly effective wah sound.	SUPER BASS
	C9	In Your Fingers	Emulate the midrange-oriented fingering work of artists such as Me'Shell Ndegeocello or Jeff Berlin. Styled as a tube preamplifier sound.	TUBE PRE
	D0	Groovin' With Vinny	Designed to sound like Sting when he was playing with The Police. Fairly traditional approach covers a wide variety of genres.	TUBE PRE
	D1	Little Muddy	Blues sound from the days of Muddy Waters. The range is low-fi, but the impact is powerful.	SANSAMP
VARIATION	D2	STEP SYNTH DELAY	Collaboration of synth and step may surprise at first, but will show its potential when played with long tones.	MONO SYN & STEP
	D3	PHASER SLAP	Phaser sound lets you embellish your slap playing with modulation effects.	PHASER
	D4	Sublime	Sub bass sound such as used for Techno, Electronica, and Drum'n Bass. Experience a sine wave so low it seems to hug the ground.	MONO SYN & PHASER
	D5	A Major Harmony	Harmonized pitch shifter sound in an A major key. Good for bass solos.	HARMONIZED PITCH SHIFTER
	D6	Dark Side/ Octave	Combination patch of fuzz and octaver. Heavy sound lets you lay down the rhythm with wild picking or play a strong lead.	FUZZ FACE & OCTAVE
	D7	Tremolo	Enchanting tremolo sound with reverb creates a dreamy backdrop or enhances a moody solo.	TREMOLO
	D8	ManTap	Stereo chorus and delay in the style of Michael Manring. Control hold delay with a foot switch to play loop solos.	PINGPONG-DELAY & HALL
	D9	Les Thumbs	Modeled on the typical slap style of Primus frontman Les Claypool, this sound combines TS9 and resonance filter. Use it to create your very own style.	AUTO RESONANCE FILTER

• The preset area of banks 0 - 3 contains the same patches as A - d.

 The ZNR value may need to be adjusted depending on the bass guitar and amplifier.

• In play mode, parameter knob 1 can be used to adjust the CABINET parameter of the DRIVE/SYNTH module. Higher values result in stronger cabinet character.

• When using a bass amplifier, selecting the flat EQ setting is recommended.

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