GUITAR EFFECTS PROCESSOR
GFX-3
Operation Manual

Contents

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USAGE AND SAFETY 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:

⚠ **Warning** 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.

⚠ **Caution** 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 GFX-3.

⚠ **Warning** **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 GFX-3 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.

⚠ **Warning** **Environment**
To prevent the risk of fire, electric shock or malfunction, avoid using your GFX-3 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

⚠ **Warning** **Handling**
• Never place objects filled with liquids, such as vases, on the GFX-3 since this can cause electric shock.
• Do not place naked flame sources, such as lighted candles, on the GFX-3 since this can cause fire.

⚠ **Caution** • The GFX-3 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.

⚠ **Caution** **Connecting cables and input and output jacks**
You should always turn off the power to the GFX-3 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 GFX-3.

⚠ **Warning** **Alterations**
Never open the case of the GFX-3 or attempt to modify the product in any way since this can result in damage to the unit.

⚠ **Caution** **Volume**
Do not use the GFX-3 at a loud volume for a long time since this can cause hearing impairment.

Usage Precautions

• Electrical interference

For safety considerations, the GFX-3 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 GFX-3, as the possibility of interference cannot be ruled out entirely.

With any type of digital control device, the GFX-3 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 GFX-3. 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.

Introduction

Thank you for selecting the **_ZOOM GFX-3_**. This product is a sophisticated Guitar Effects Processor with the following features.

● Versatile array of effects

The Variable Architecture Modeling System (VAMS) developed by ZOOM adapts the internal configuration of the unit to achieve exactly the desired sound. The GFX-3 provides 50 choices, ranging from distortion and modulation effects to spatial sound processing.

● Full complement of distortion effects

20 distortion type effects not only recreate the characteristics of famous vintage amps but also duplicate the sound and operation of renowned compact effects and pedals. The built-in acoustic simulator makes an electric guitar sound like an acoustic instrument.

● 120 ready-to-use patches

Effect module setting combinations can be stored as patches. The GFX-3 offers 60 user patches which can be freely modified, plus 60 preset patches. Together, these 120 settings let you make great music straight away.

● Mode-free editing for creative flexibility

The selectors and keys arranged on the panel let you directly access any effect. Because there is no need for mode switching, editing can be performed quickly even during a performance. The built-in pedal makes things even simpler by letting you vary effect parameters in real time. The GFX-3 is a powerful tool for enhancing any live performance.

● Energizer produces powerful sound

The Energizer lets you match the output of the GFX-3 to the playback system. Enjoy powerful, dynamic sound even with a small guitar amp or an audio system with flat response.

● Designed for use on stage

The metal chassis of the GFX-3 can withstand the rigors of use on stage. Stability is excellent, and the dual power supply allows the unit to be powered either from an AC adapter or from batteries. With one set of alkaline batteries, the unit will operate continuously for up to 11 hours.

Controls and Functions

Top Panel

Control section (→ p.5)

Expression pedal

ZNR/D GATE	COMP/ISO	GAIN [TOP]	PRESENCE	COLOR/CONTROL/DELAY	TIME	[DLY TIME]
[PATCH LEVEL]	ATTACK/HIGH	TONE [BODY]	TREBLE	DEPTH/POSI/SHIFT/MODE	TONE/F.B.	[DLY F.B.]
[MASTER LEVEL]	SENS/MID	CABINET	MIDDLE	RATE/TIME/SENS/TONE	MIX	[DLY MIX]
[ENERGIZE]	LEVEL/LOW	LEVEL	BASS	MIX/RESO/CLIP/CURVE	DLY BPM	[REV MIX]
ZNR / [TOTAL]	COMP / ISO	DRIVE	EQ	MODULATION	REVERB/DELAY	

Foot switches [1] - [3]   BANK [▲]/[▼] keys

Rear Panel

[INPUT] jack

[OUTPUT/PHONES] jack

[POWER] switch

[DC IN] jack

Control section

[GROUP/EXIT] key
[MOD] selector
[STORE] key
[VALUE] dial
[REV/DLY] selector
Display
[DRIVE] selector
[PEDAL] key

PRESET Ab
USER Uu
GROUP
VALUE
(EXIT)
STORE

GROUP   BANK
#/BOTH ▲   EDITED ▲

VAMS

ZOOM
HI-GAIN — OVER DRIVE
CLEAN — DIST
BG — FUZZ
MS — METAL
FDR — [ACOUSTIC]

VIBE
TREM PAN — PITCH
WAH — SFX
PHASE — SLOW-A
FLANGE — RING
CHORUS — PDI-PIT

ECHO
PP-DLY — PP-ECHO
MN-DLY — REVERSE
SPRING — [DLY+HALL]
ROOM — [DLY+ROOM]
HALL — [DLY+SPRIN...]

PEDAL
DRIVE
MOD
REV/DLY
VOLUME

ZNR/D GATE	COMP/ISO	GAIN [TOP]	PRESENCE	COLOR /CONTROL/DELAY	TIME	[DLY TIME]
[PATCH LEVEL]	ATTACK/HIGH	TONE [BODY]	TREBLE	DEPTH/POSI/SHIFT/MODE	TONE/F.B.	[DLY F.B.]
[MASTER LEVEL]	SENS/MID	CABINET	MIDDLE	RATE/TIME/SENS/TONE	MIX	[DLY MIX]
[ENERGIZE]	LEVEL/LOW	LEVEL	BASS	MIX/RESO/CLIP/CURVE	DLY BPM	[REV MIX]
ZNR / [TOTAL]	COMP/ISO	DRIVE	EQ	MODULATION	REVERB/DELAY	

PARAMETER

CLASSIC   STANDARD

Module keys
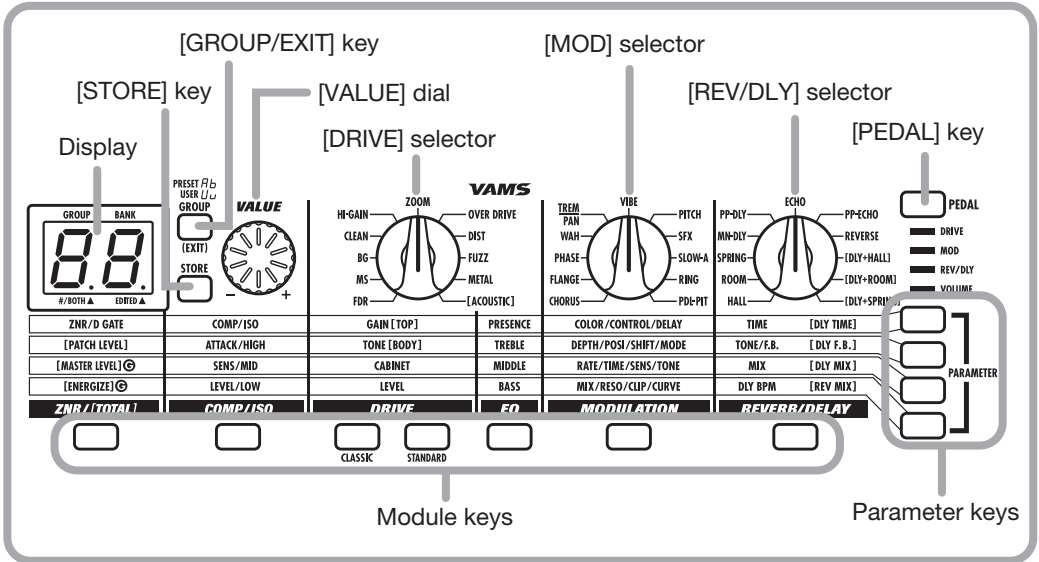Parameter keys

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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.**

Getting Ready to Play

Inserting the batteries

To use the GFX-3 on battery power, insert batteries as shown below.

1. Turn the unit over and open the battery compartment cover. (Push the tab to unlock and then raise the cover.)
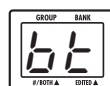
GFX-3 bottom

Battery compartment cover

Tab
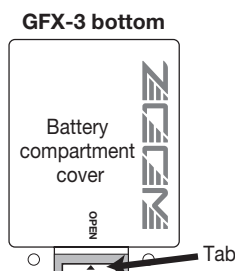
2. Insert the batteries with correct (+) (-) polarity into the battery compartment.

Battery compartment cover

Four IEC R6 (size AA) batteries

Battery polarity alternates for each slot.
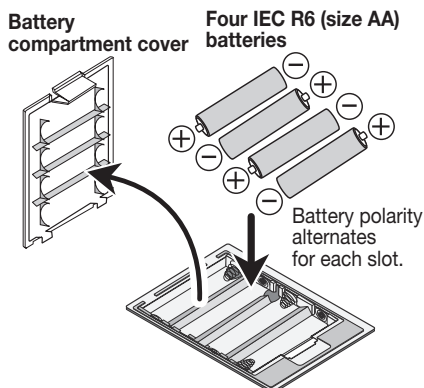
3. Close the battery compartment cover. (Make sure that the tab is properly engaged.)

Getting connected

1. Make sure that the amplifier and the GFX-3 are switched off.

Turn the volume at the amplifier to minimum.

2. To power the unit from the AC adapter, insert the small plug of the adapter cable into the [DC IN] jack on the GFX-3. Then plug the adapter into an AC outlet.

3. Connect the guitar to the [INPUT] jack of the GFX-3, using a mono cable.

4. Connect the [OUTPUT/PHONES] jack of the GFX-3 to the guitar amp, using the cable.

To monitor the sound with headphones, plug the phones into the [OUTPUT/PHONES] jack.

5. Turn power on in the following order: GFX-3 → amplifier.

NOTE

If you turn the GFX-3 on while the amplifier is already powered up, damage to the speaker may result. Always turn power to the amplifier on last. When turning off the system, proceed in the opposite order.

6. **Press the leftmost module key (ZNR/[TOTAL]) and then the lowest parameter key.**

The respective key flashes, and the Energizer function for matching the GFX-3 to the playback system can be used. The display shows the current setting.
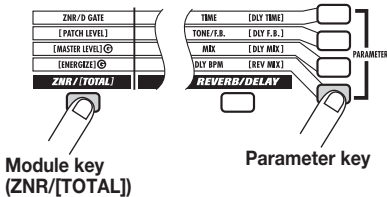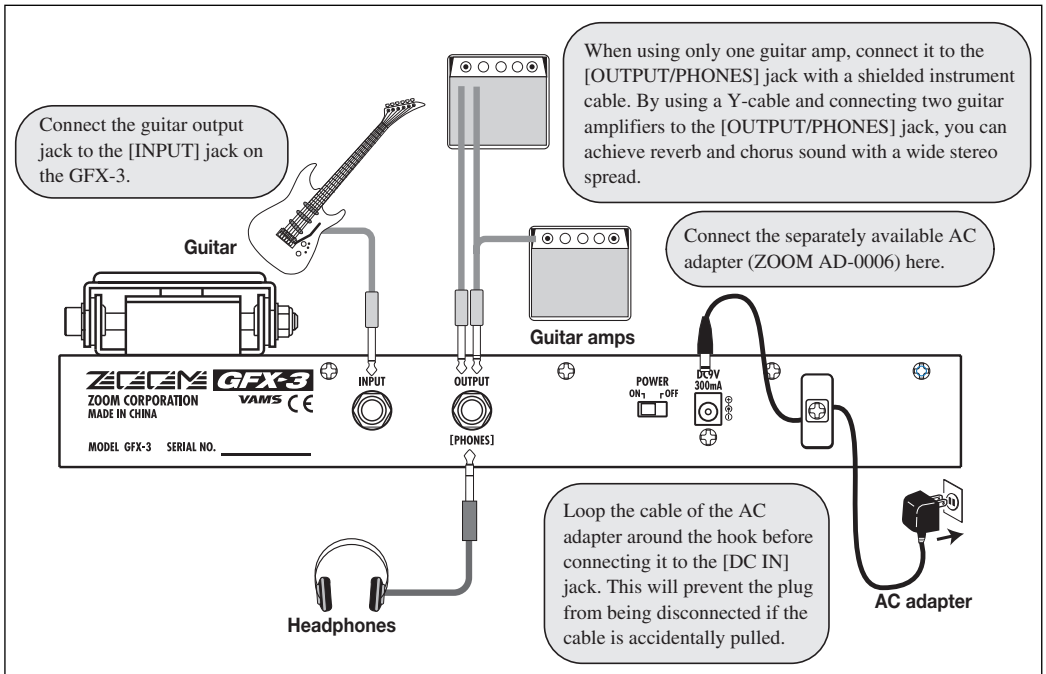

Module key
(ZNR/[TOTAL])

Parameter key

7. **While playing your instrument, turn the [VALUE] dial until the sound quality is as desired.**

As you turn the dial, the display indication changes between oF and 1 - 30. Higher setting values result in stronger emphasis of the low range, and lower setting values in stronger emphasis of the high range. The "oF" setting means that the Energizer function is turned off.

8. **To turn the system off, proceed in the opposite order than when turning it on.**

Connect the guitar output jack to the [INPUT] jack on the GFX-3.

When using only one guitar amp, connect it to the [OUTPUT/PHONES] jack with a shielded instrument cable. By using a Y-cable and connecting two guitar amplifiers to the [OUTPUT/PHONES] jack, you can achieve reverb and chorus sound with a wide stereo spread.

Connect the separately available AC adapter (ZOOM AD-0006) here.

Guitar

Guitar amps

Loop the cable of the AC adapter around the hook before connecting it to the [DC IN] jack. This will prevent the plug from being disconnected if the cable is accidentally pulled.

AC adapter

Headphones

Quick Guide

This section explains the basic operation steps, allowing you to use the unit right away.

Selecting a patch

❶ **To select a patch, press one of the foot switches [1] - [3] whose LED is not lit.**

The single effects (effect modules) in the GFX-3 can be combined, and parameter settings for each effect can be changed to achieve a desired sound. Such a combination of effects with certain parameter settings is called a patch. Patches are always called onto the panel in banks of three, and the foot switches [1] - [3] are used to select the patch.
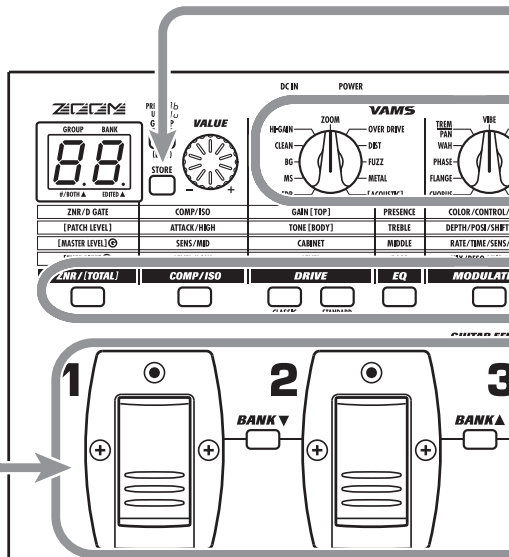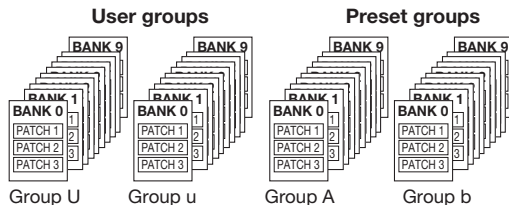
Group ⟶ U0 ⟵ Bank number

❷ **To switch to a patch in another group or bank, use the BANK [▲]/[▼] keys and then the foot switches [1] - [3].**

Patches are organized in user groups (U, u) which can be modified, and preset groups (A, b) which are read-only. Each group comprises ten banks numbered from 0 to 9, and each bank has three patches.

The BANK [▲]/[▼] keys select groups and banks in the order U0 - U9, u0 - u9, A0 - A9, b0 - b9.

* Pressing foot switches [1] and [2] together has the same effect as pressing the BANK [▼] key, and pressing foot switches [2] and [3] together has the same effect as pressing the BANK [▲] key.

For a detailed explanation of patch switching, see page 10.

User groups		Preset groups	
BANK 9 ... BANK 1 BANK 0 PATCH 1 PATCH 2 PATCH 3	BANK 9 ... BANK 1 BANK 0 PATCH 1 PATCH 2 PATCH 3	BANK 9 ... BANK 1 BANK 0 PATCH 1 PATCH 2 PATCH 3	BANK 9 ... BANK 1 BANK 0 PATCH 1 PATCH 2 PATCH 3
Group U	Group u	Group A	Group b

Altering an effect with the pedal

❶ **Move the expression pedal up or down while playing your instrument.**

The effect depth or volume or another parameter of the effect will change in real time as you move the expression pedal. (Which parameter changes depends on the patch.)

* For some patches, the pedal has no effect.

For an explanation of effect control with the pedal, see page 15.

Move back and forth

Modifying the sound of a patch

While playing your instrument, use the following selectors and keys.
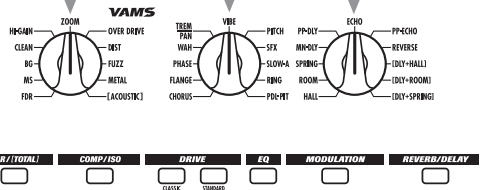
[DRIVE] selector
Selects the DRIVE module distortion type.

[MOD] selector
Selects the MOD module effect type.

[REV/DLY] selector
Selects the REV/DLY module effect type.

Module keys
Pressing these keys repeatedly switches the respective module on and off.

Storing effects

❶ **To store the modified patch, press the [STORE] key.**

The GFX-3 goes into store standby condition.

If necessary, use the BANK[▲]/[▼] keys and the foot switches [1] - [3] to select the bank and patch number in which to store the current effect settings.

* If a patch from a preset group was selected, the patch number 1 of user group bank "U0" will automatically be selected as store target.

❷ **To carry out the store process, press the [STORE] key once more.**

To cancel the operation, press the [GROUP/EXIT] key.

For a detailed explanation of the store procedure, see page 14.

For information on how to return the user group patches to the factory default condition, see page 14.
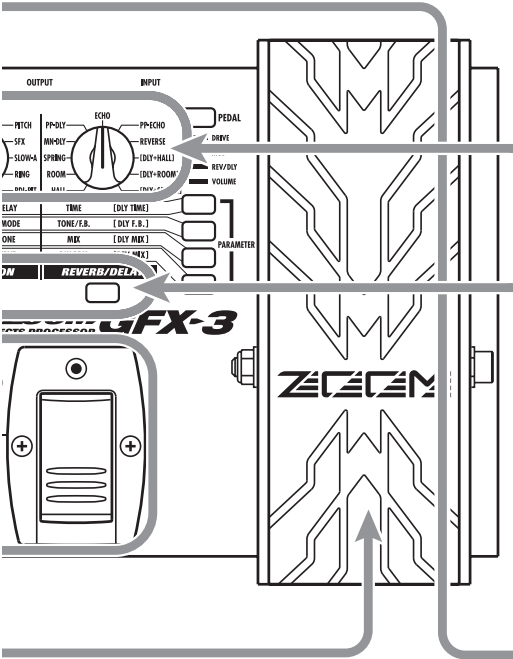
❷ **To switch the effect module on or off, push the expression pedal fully down.**

The expression pedal also incorporates a push-down switch that allows on/off control of a specific effect module.

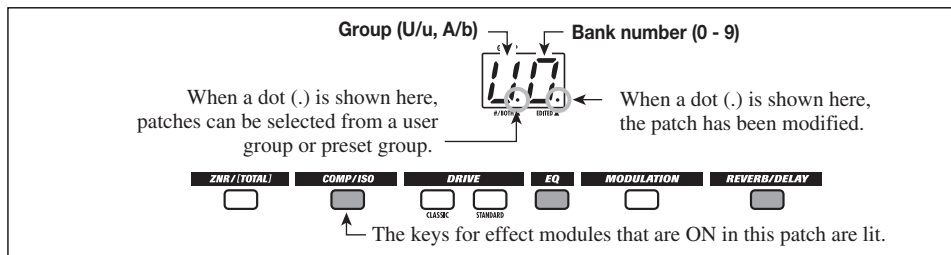For an explanation of how to select the module to be operated with the pedal, see page 15.
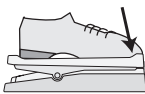
Push down all the way

ZOOM GFX-3

Selecting and Playing Patches

Immediately after you turn on the GFX-3, it is always in the condition for playing patches stored in memory.
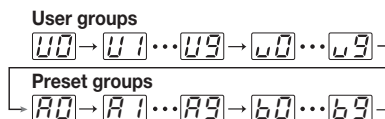
Panel display

Immediately after you turn on the GFX-3, the following information is shown on the panel.

Group (U/u, A/b)

Bank number (0 - 9)

When a dot (.) is shown here, patches can be selected from a user group or preset group.

When a dot (.) is shown here, the patch has been modified.

| ZNR / (TOTAL) | COMP / ISO | DRIVE | EQ | MODULATION | REVERB / DELAY |

CLASSIC   STANDARD

The keys for effect modules that are ON in this patch are lit.

NOTE

- While a patch is being modified, the setting value of the currently selected parameter is shown on the display. To return to the group/bank display, press the [GROUP/EXIT] key.
- While the setting value of a parameter is shown, take care not to accidentally switch the patch. Otherwise the setting contents will be lost.

Selecting a patch

1. **To select a patch, press one of the foot switches [1] - [3] whose LED is not lit.**

The LED of the foot switch for the patch that is currently selected is lit.

NOTE

If you press the foot switch whose LED is lit, the unit goes into bypass/mute condition (→ p. 11).

2. **To select a patch in another group or bank, use the BANK [▲]/[▼] keys and then the foot switches [1] - [3] to select the group and bank.**

For example, if you repeatedly press the BANK [▲] key, the group/bank is switched as follows.

User groups

$U0 → U1 \cdots U9 → u0 \cdots u9$

Preset groups

$A0 → A1 \cdots A9 → b0 \cdots b9 →$

Pressing foot switches [1] and [2] together has the same effect as pressing the BANK [▼] key, and pressing foot switches [2] and [3] together has the same effect as pressing the BANK [▲] key.

3. **To limit the patch selection to user groups or preset groups only, press the [GROUP/EXIT] key.**

Each time you press the key, the available groups change as follows.

Both groups

User groups only

Preset groups only

$U1 → U1 → A1$

Dot is lit
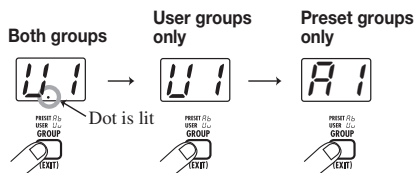
Using the internal tuner (bypass/mute)

The GFX-3 has a built-in auto-chromatic tuner for guitars. To use the tuner function, the built-in effects must be bypassed (temporarily turned off) or the unit must be muted (original sound and effect sound turned off).

1. **To set the GFX-3 to the bypass (mute) condition, press the foot switch of the currently selected patch (the switch whose LED is lit).**

Pressing and immediately releasing the foot switch sets the GFX-3 to the bypass condition. The expression pedal is automatically switched to function as a volume pedal.
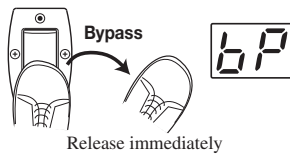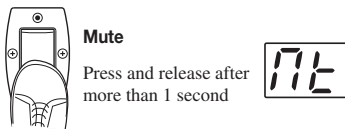
Bypass

Release immediately

Pressing and holding the foot switch for more than one second sets the GFX-3 to the mute condition.

Mute

Press and release after more than 1 second

2. **Play the open string you want to tune.**

The display shows the note which is closest to the current pitch. Adjust the pitch so that the indicator shows the desired note.

The note is shown on the left part of the display.

A =	C# =	F =
A# =	D =	F# =
B =	D# =	G =
C =	E =	G# =

Pitch is sharp   Correct pitch   Pitch is flat

The more the pitch is off, the faster the rotation of the display.

3. **To change the reference pitch of the tuner, use the [VALUE] dial.**

The current reference pitch is briefly shown on the display. The default setting after power-on is 40 (center A = 440 Hz).

VALUE

While the reference pitch is shown, you can change the pitch by turning the [VALUE] dial. The setting range is 35 (435 Hz) - 45 (445 Hz) in 1-Hz steps. When the GFX-3 is turned off and on again, it will be reset to 440 Hz.

4. **To return to the normal condition, press one of the foot switches [1] - [3].**

The patch of that foot switch becomes active again.

NOTE

If you switch the bank/group while using the tuner, the tuner function will be temporarily disabled. When you return to the original bank/group, the tuner function becomes active again.

Changing the Sound of a Patch

The patches of the GFX-3 can be modified by changing effect types and parameters. This section shows how to edit patches.

INPUT — | COMP/ISO | — | DRIVE | — | EQUALIZER | — | ZNR | — | CABINET | — | MOD | — | REV/DLY | ⟶ OUTPUT

Patch configuration

Each patch of the GFX-3 consists of several effects (effect modules), as shown in the illustration above. A patch is a stored combination of modules, each with their distinct parameter settings.

Within each module, there are several different but related effects which are called effect types. For example, the MOD (modulation) module comprises effect types such as CHORUS, PHASER, and WAH, of which one can be selected.

The elements that determine the sound of a patch are called effect parameters. Each module has certain effect parameters, whose value can be adjusted with the effect module keys, PARAMETER keys, [VALUE] dial, etc.

NOTE
Also within the same module, different effect types will have different parameters.

Basic editing

The most common steps for editing a patch are shown below. For a detailed description of effect types and parameters in each module, see the section "Effect Types and Parameters" on pages 17 - 22.

1. Select the patch to edit.

Patches for editing can be selected from either a preset group (A, b) or a user group (U/u). Patches from a preset group are read-only. If you have altered such a patch and want to keep it, you must store it in a user group (→p.14).

2. To change the patch level, operate the [VALUE] dial.

While the group/bank number indication is shown on the display, the [VALUE] dial can be used to adjust the patch level (final output level of the patch).

When you turn the dial, the current patch level setting (1 - 30) appears on the display. A dot (.) in the bottom right of the display indicates that the patch has been edited.

3. If required, use the three selectors to choose the DRIVE, MOD, and REV/DLY module effect type.
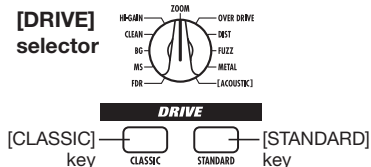
The distortion type of the DRIVE module is set with the [DRIVE] selector and the two module keys ([CLASSIC]/[STANDARD]).

| ZNR/[TOTAL] | COMP/ISO | DRIVE | EQ | MODULATION | REVERB/DELAY |

CLASSIC   STANDARD

REV/DLY(Reverb/Delay) module

DRIVE module

MOD(Modulation) module

EQ(Equalizer) module

COMP/ISO (Compressor/Isolator) module

ZNR/[TOTAL] module

The effect type of the MOD and REV/DLY modules is set with the [MOD] selector and [REV/DLY] selector respectively.

[MOD] Selector

TREM   VIBE   PITCH
PAN
WAH   SFX
PHASE   SLOW-A
FLANGE   RING
CHORUS   PDL•PIT

[REV/DLY] Selector

PP•DLY   ECHO   PP•ECHO
MM•DLY   REVERSE
SPRING   [DLY+HALL]
ROOM   [DLY+ROOM]
HALL   [DLY+SPRING]
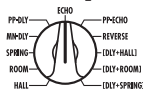
4. **Use the module keys to select the module to edit.**

The module keys serve for selecting an effect module to work with. The assignment of keys to effect modules is shown above.

The keys for modules that are ON in a given patch are lit. When you press a key to select the module, the light flashes. (If you select a module that is currently off, the key flashes more slowly.)

5. **To switch the module between ON and OFF, press the module key once more.**

6. **Select the parameter to edit with the parameter keys.**

The parameter keys serve for choosing a parameter within the currently selected module. Each push of the key brings up the next parameter, and the setting value of that parameter is shown on the display.
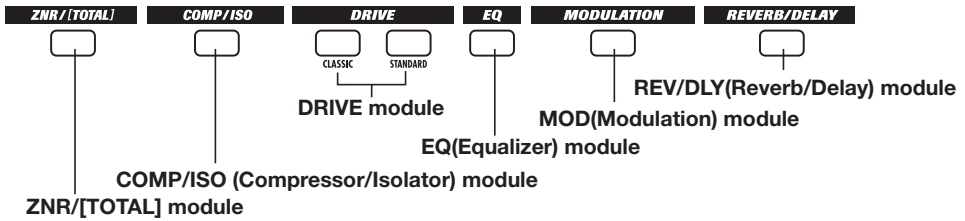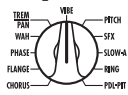
The parameters that are assigned to the parameter keys for each module are printed on the panel. When the EQ module is selected, the parameter keys correspond to the following parameters.

Parameters

PRESENCE		PRESENCE
TREBLE		TREBLE
MIDDLE	PARAMETER	MIDDLE
BASS		BASS
EQ

EQ modul
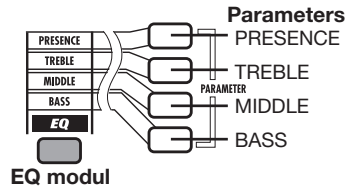
NOTE

When you use the selector to switch the effect type, the parameter type also changes. Select the effect type first, and then select the parameter.

7. **Use the [VALUE] dial to change the setting.**

The [VALUE] dial controls the setting value of the currently selected parameter. The current setting value is shown on the display.

8. **Repeat steps 3 - 7 to edit other modules and parameters.**

NOTE

To keep the patch, be sure to perform the steps for storing it (→ p. 14). Otherwise all changes will be lost when you switch to another patch.

Storing a Patch

This section shows how to store an edited patch in memory.

1. Press the [STORE] key.

The GFX-3 goes into store standby condition. The display shows the current group name and bank number, and the LED of the respective foot switch lights up.

HINT

A patch can be stored either while playing it or while it is being edited.

2. Use the BANK [▲]/[▼] keys and the foot switches [1] - [3] to select the bank and patch number in which to store the patch.
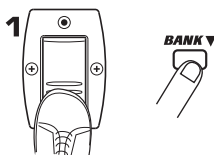
NOTE

Patches cannot be stored in a preset group. If a patch from a preset group was selected when you press the [STORE] key, the patch number 1 of user group bank "U0" will automatically be preselected as store target.

3. Press the [STORE] key once more.

The patch is stored, and the display shows the group and bank of the store target. Since the edited contents are now stored, the "EDITED" dot on the display disappears.

If you press the [GROUP/EXIT] key instead of the [STORE] key, storing is canceled.

Resetting the GFX-3 to the factory default condition

The patches in the user groups can be returned to their original condition at any time, even if you have changed them.

1. Turn power to the GFX-3 on while keeping the [STORE] key depressed.

The indication "AL" is shown on the display.

2. Press the [STORE] key once more.

All patches are reset to the factory default condition, and the unit automatically switches to play mode.

By pressing the [GROUP/EXIT] key before carrying out step 2, you can cancel the operation and go directly to the normal condition.

Other Functions

This section explains how to vary an effect parameter with the expression pedal, and how to perform special functions such as adjusting the expression pedal.

Using the expression pedal to vary an effect

1. **Use the BANK [▲]/[▼] keys and foot switches [1] - [3] to select the patch to be controlled by the expression pedal.**
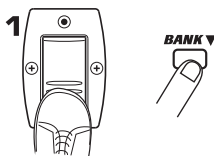
2. **Repeatedly press the [PEDAL] key to select the module to control.**
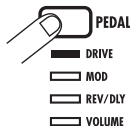
The [PEDAL] key selects the module that will be controlled by the expression pedal. The currently selected module is indicated by the row of LEDs just below the key. Each push of the key cycles through the DRIVE → MOD → REV/DLY → VOLUME settings. The controlled parameter with each setting is described below.

• **DRIVE**

Expression pedal adjusts GAIN parameter of DRIVE module (BODY parameter for some effect types). The distortion amount changes.

• **MOD**

Expression pedal adjusts effect type currently selected in MOD module. The parameter depends on the effect type.

• **REV/DLY**

Expression pedal adjusts effect type currently selected in REV/DLY module. The parameter depends on the effect type.

• **VOLUME**

Expression pedal adjusts the volume before input to the MOD module.

_____

HINT

- For information on controlled parameters when "MOD" or REV/DLY" is selected, see pages 17 - 22.
- If the module that was selected as control target is currently OFF, the pedal will have no effect until it is fully pushed down to switch the module ON.

3. **Play your instrument and move the expression pedal to try out the effect.**

If necessary, edit the effect type or effect parameter that is being controlled.

_____

HINT

- The selected control target is stored separately for each patch. If necessary, store the patch (→ p. 14).
- By pushing the expression pedal fully down, you can switch the controlled effect module ON and OFF.

Adjusting the expression pedal

The expression pedal is adjusted for optimum operation at the factory, but sometimes, readjustment may be necessary. If pushing the pedal fully down does not have a strong effect, or if the volume or sound changes excessively even when the pedal is only lightly pushed, calibrate the pedal as follows.

1. Hold down the [PEDAL] key while turning power to the GFX-3 on.

The indication "dn" appears on the display.

2. Fully raise the expression pedal and press the [STORE] key.

The indication "UP" appears on the display.

Pedal fully raised
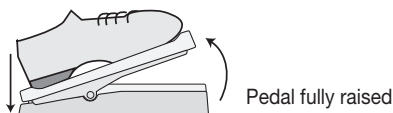
3. Push the expression pedal fully down and release it.

Push strongly, so that pedal touches here.

When foot is lifted, pedal returns slightly.
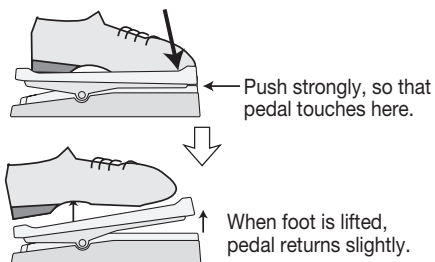
4. Press the [STORE] key.

The adjustment is complete, and group/bank display for the patch appears again.

HINT

- The position of the pedal in step 3 determines the module on/off switching point. If you want the pedal to perform on/off switching with a lighter touch, set the pedal in step 3 to a somewhat higher position.
- If the indication "Er" is shown, repeat the procedure from step 2.

Effect Types and Parameters

In this section, all effect types and parameters of the modules in the GFX-3 are explained. As shown in the illustration, the GFX-3 has eight effect modules which can be thought of as being connected in series. It is possible to use all effect modules together, or to switch individual modules on and off. Nearly all modules incorporate several effect types, of which one can be selected at a time.

Effect modules

COMP/ISO	DRIVE	EQUALIZER	ZNR	CABINET	MOD	REV/DLY
COMP ISOLATOR	FDR MS BG CLEAN HI-GAIN ZOOM OVER DRIVE DIST FUZZ METAL ACOUSTIC		ZNR D GATE	BOX Z BOX BR CMB CMB CMB+EV STK STK+EV	CHORUS FLANGE PHASE WAH TREM/PAN VIBE PITCH SFX SLOW-A RING PDL-PIT	HALL ROOM SPRING MN-DLY PP-DLY ECHO PP-ECHO REVERSE DLY+HALL DLY+ROOM DLY+SPRING
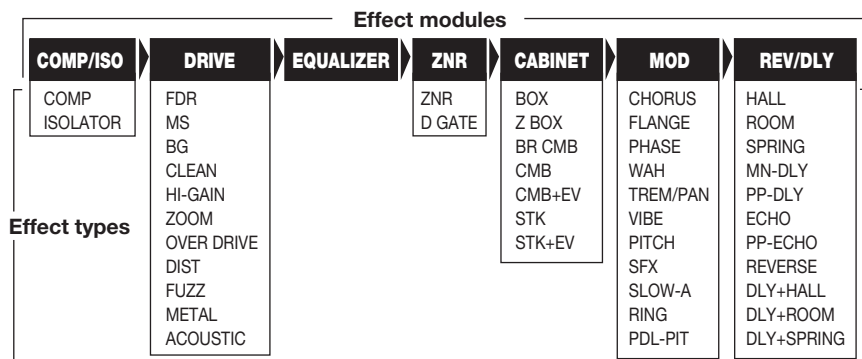
Effect types

The effect types and parameters that can be used in each module are listed below. The pedal symbol (⬐) indicates that the parameter can be assigned to the expression pedal in real time (→ p. 15).

◆ZNR/[TOTAL] module

This module serves for adjusting ZNR (ZOOM Noise Reduction), patch level, and other parameters that are common to all patches.

Parameter 1	ZNR/D GATE	Parameter 2	PATCH LEVEL
	oF, Z1 – Z8, G1 – G8		1 – 30
Adjusts ZNR/noise gate sensitivity. With the Z1 - Z8 settings, ZNR is enabled. With the G1 - G8 settings, noise gate is enabled. Set the value for maximum noise reduction (higher settings) without producing unnatural sound cutoff.		Adjusts the final patch output level.	
Parameter 3	**MASTER LEVEL**	**Parameter 4**	**ENERGIZE**
	0 – 30		oF, 1 – 30
Adjusts the master level for all patches.		Controls the Energizer setting that applies to all patches. Lower values result in stronger emphasis on treble, and higher values result in stronger emphasis on bass. The "oF" setting disables the Energizer.	

◆COMP/ISO (Compressor/Isolator) module

The compressor serves to reduce excessive signal levels. The isolator allows cutting or emphasizing a particular band.

Parameter 1	COMP/ISO	Parameter 2	ATTACK/HIGH
	CO, IS	ATTACK (CO)	HIGH (IS)
		FS, SL	oF, -12 – 12
Select the effect by choosing CO (Compressor) or IS (Isolator). The effect of parameters 2 - 4 differs, depending on which setting is chosen here.		The time lag between signal input and start of compressor action can be set to FS (FAST) or SL (SLOW).	Adjusts high-range mix.

Parameter 3	SENS/MID	Parameter 4	LEVEL/LOW
SENS (CO)	MID (IS)	LEVEL (CO)	LOW (IS)
0 – 10	oF, -12 – 12	1 – 8	oF, -12 – 12
Adjusts compressor sensitivity.	Adjusts mid-range mix.	Adjusts signal level after passing module.	Adjusts low-range mix.

◆DRIVE module

This module comprises 20 types of distortion and acoustic simulator effects. Effect types are chosen with the [DRIVE] selector and the two module keys ([CLASSIC]/[STANDARD]).

TYPE1:FDR (*Fd*)

CLASSIC	FD BLU	STANDARD	FD CLN
Classic bluesy sound of a built-in tube amp		Clean sound of a built-in tube amp	

TYPE 2:MS (*MS*)

CLASSIC	MS OLD	STANDARD	MS DRV
Old-style sound of a British tube stack amp		Drive sound of a British tube stack amp	

TYPE 3:BG (*bG*)

CLASSIC	BG OLD	STANDARD	BG DRV
Old-style sound of a tube combo amp with gutsy midrange		Drive sound of a tube stack amp with gutsy midrange	

TYPE 4:CLEAN (*CL*)

CLASSIC	VX CRU	STANDARD	JAZZ C
Old-style crunch sound		Clean and bright combo amp sound	

TYPE 5: HI-GAIN (*HG*)

CLASSIC	MP 1	STANDARD	PV DRY
High-gain tube preamp sound		Tube stack amp sound for heavy metal	

TYPE 6: ZOOM (*ZM*)

CLASSIC	9002	STANDARD	Z PWR
ZOOM's original 9002 type sound		ZOOM's original powerful amp type sound	

TYPE 7:OVER DRIVE (*od*)

CLASSIC	V-OD	STANDARD	PD 1
Dry overdrive sound		Overdrive sound with wide application range, from booster to hard distortion	

TYPE 8: DIST (*dt*)

CLASSIC	V-DIST	STANDARD	HP DST
Characteristic dry distortion sound		Extreme distortion sound	

TYPE 9: FUZZ (*FU*)

CLASSIC	WILDFZ	STANDARD	UF1
Older-style, high-gain aggressive fuzz sound		ZOOM original wild fuzz sound	

TYPE 10: METAL (*Mt*)

CLASSIC	MTZ	STANDARD	MT 7TH
Traditional metal style sound with prominent midrange		Metal sound for 7-string guitar	

Parameters for TYPE 1 – 10 are the same.

Parameter 1	GAIN	Parameter 2	TONE
◢ 1 – 30		0 – 10	
Adjusts distortion intensity.		Adjusts tone.	
Parameter 3	CABINET	Parameter 4	LEVEL
oF, bo, Zb, bC, CM, CE, St, SE		1 – 8	
Selects the cabinet type. (See Table 1)		Adjusts signal level after passing module.	

[Table 1]

Setting	Description	Setting	Description
oF	Turns the cabinet simulator off.	CM	Simulates a general type combo amp cabinet.
bo	Simulates a small amp cabinet.	CE	Simulates an EV speaker in a combo amp cabinet.
Zb	Simulates a cabinet with ZOOM's original sound character.	St	Simulates a stack amp cabinet.
bC	Simulates a bright combo amp cabinet.	SE	Simulates an EV speaker in a stack amp cabinet.

TYPE 11: ACOUSTIC (*AC*)			
CLASSIC	ACFAT	STANDARD	AC BRI
Changes the sound of an electric guitar to resemble an acoustic guitar. The CLASSIC and STANDARD settings give a different sound character.			
Parameter 1	TOP	Parameter 2	BODY
1 – 10		◢ 1 – 10	
Adjusts characteristic acoustic guitar string sound.		Adjusts body resonance.	
Parameter 3	CABINET	Parameter 4	LEVEL
oF, bo, Zb, bC, CM, CE, St, SE		1 – 8	
Selects the cabinet type.		Adjusts signal level after passing module.	

◆EQ (Equalizer) module

This is a 4-band equalizer.

Parameter 1	PRESENCE	Parameter 2	TREBLE
-12 – 12		-12 – 12	
Adjusts boost/cut in high range (center frequency 8 kHz).		Adjusts boost/cut in mid-high range (center frequency 3.125 kHz).	
Parameter 3	MIDDLE	Parameter 4	BASS
-12 – 12		-12 – 12	
Adjusts boost/cut in middle range (center frequency 8 kHz).		Adjusts boost/cut in low range (center frequency 125 Hz).	

◆MOD (Modulation) module

This module contains modulation type effects such as chorus and flanger, effects that drastically change the sound such as wah, filter, and ring modulator, and pitch altering effects such as pitch shift and vibrato.

TYPE 1: CHORUS (*CH*)			
Adds pulsation and spaciousness to the sound.			
Parameter 1	COLOR	Parameter 2	DEPTH
C1, C2		0 – 10	
Selects the chorus character. C1 gives a modern stereo chorus, and C2 a vintage chorus sound.		Adjusts modulation intensity.	
Parameter 3	RATE	Parameter 4	MIX
1 – 30		◢ 0 – 30	
Adjusts modulation speed.		Adjusts mixing balance of original sound and effect sound.	
TYPE 2: FLANGE (*FL*)			
Produces a unique, undulating sound.			
Parameter 1	COLOR	Parameter 2	DEPTH
1 – 30		0 – 10	
Sets the pre-delay.		Adjusts modulation intensity.	
Parameter 3	RATE	Parameter 4	RESO
◢ 1 – 30		-10 – 10	
Adjusts modulation speed.		Adjusts feedback ratio. Higher values in positive or negative direction result in stronger characteristics.	

TYPE 3: PAHSE (PH)

Produces a swooshing sound.

Parameter 1	COLOR	Parameter 2	POSI
1 – 4		AF, bF	
Selects sound character.		Selects connection point of MOD module. AF (after CABINET module) or bF (before DRIVE module) can be selected.	
Parameter 3	RATE	Parameter 4	RESO
◄ 1 – 30		1 – 10	
Adjusts modulation speed.		Adjusts the feedback amount. Higher values give a stronger character.	

TYPE 4: WAH (HH)

Wah effect with selectable auto wah and pedal wah.

Parameter 1	CONTROL	Parameter 2	POSI
Au, Ad, Pd		AF, bF	
Selects the wah operation method. "Au" gives upward auto wah, and "Ad" gives downward auto wah. "Pd" gives pedal wah.		Selects connection point of MOD module.	
Parameter 3	SENS/FREQ	Parameter 4	RESO/MIX
◄ 1 – 10		0 – 10	
Adjusts auto wah sensitivity when Au/Ad is selected for parameter 1. When Pd is selected, this parameter adjusts the pedal wah center frequency.		Adjusts auto wah character intensity when Au/Ad is selected for parameter 1. When Pd is selected, this parameter adjusts the original sound mix amount.	

TYPE 5: TREM/PAN ($t\Pi$) (Tremolo/Pan)

This effect can be used for tremolo or auto panning.

Parameter 1	COLOR	Parameter 2	DEPTH
Mn, St		0 – 10	
Selects the effect type. "Mn" gives tremolo, and "St" gives auto panning.		Adjusts modulation intensity.	
Parameter 3	RATE	Parameter 4	CLIP
◄ 1 – 30		0 – 10	
Adjusts modulation speed.		Higher values result in stronger modulation character through clipping of the modulation waveform.	

TYPE 6: VIBE (ub) (Vibrato)

This is an automatic vibrato effect.

Parameter 1	COLOR	Parameter 2	DEPTH
0 – 10		0 – 10	
Adjusts the sound quality of the effect sound.		Adjusts effect depth.	
Parameter 3	RATE	Parameter 4	MIX
◄ 1 – 30		0 – 30	
Adjusts effect speed.		Adjusts original sound mix.	

TYPE 7: PITCH (Pt) (Pitch Shifter)

This effect can shift the pitch up or down.

Parameter 1	DELAY	Parameter 2	SHIFT
0 – 30		-12 – -1, dt, 1 – 12, 24	
Adjusts the delay time of the effect sound.		Sets the pitch shift amount. The "dt" setting results in a detune effect.	
Parameter 3	TONE	Parameter 4	MIX
0 – 10		◄ 0 – 30	
Adjusts effect tone.		Adjusts original sound mix.	

TYPE 8: SFX ($5F$) (Special Effects)

Uses random waveform and envelope processing to create a special kind of sound.

Parameter 1	COLOR	Parameter 2	DEPTH
0 – 10		0 – 10	
Selects the way the sound is modulated. With the "0" setting, the sound is modified using a random, stair-shaped waveform. With the "10" setting, the level changes of the original sound are reflected in the effect sound. Intermediate values result in intermediate effect action.		Adjusts the effect depth (sensitivity). When parameter 1 has been set to a fairly high value, increasing this parameter results in varied delay time according to signal intensity.	

Parameter 3	RATE	Parameter 4	RESO
1 – 30		◢ 0 – 10	
Adjusts the random waveform modulation rate.		Higher values result in a stronger effect character.	

TYPE 9: SLOW-A (5A) (Slow Attack)

This module provides a slowly rising response curve and a filter effect where the filter open/close action is controlled by picking.

Parameter 1	COLOR	Parameter 2	POSI
0 – 10		AF, bF	
Adjusts the filter variable range. A setting of "10" results in slow attack only.		Selects connection point of MOD module.	

Parameter 3	TIME	Parameter 4	CURVE
◢ 1 – 30		1 – 10	
Adjusts the slow attack/filter rise rate.		Adjusts attack curve.	

TYPE 10: RING (rn) (Ring Modulator)

Produces a metallic sound.

Parameter 1	COLOR	Parameter 2	POSI
0 – 10		AF, bF	
Adjusts the effect sound quality.		Selects connection point of MOD module.	

Parameter 3	RATE	Parameter 4	MIX
◢ 1 – 30		0 – 30	
Adjusts the modulation frequency. The tone changes according to the frequency.		Adjusts the balance between original sound and effect sound.	

TYPE 11: PDL-PIT (PP) (Pedal Pitch)

This effect lets you vary the pitch in real time, using the expression pedal.

Parameter 1	COLOR	Parameter 2	MODE
1 – 8		UP, dn	
Selects the pedal pitch type. (See Table 2)		Sets the pitch change direction.	

		Parameter 3	TONE
		0 – 10	
		Adjusts effect tone.	

[Table 2]

COLOR	MODE	◢ Pedal minimum value	◢◢ Pedal maximum value	COLOR	MODE	◢ Pedal minimum value	◢◢ Pedal maximum value
1	UP	-100 cent	Original sound only	5	UP	-1 octave + DRY	+1 octave + DRY
	dn	Original sound only	-100 cent		dn	+1 octave + DRY	-1 octave + DRY
2	UP	DOUBLING	Detune + DRY	6	UP	-700 cent + DRY	500 cent + DRY
	dn	Detune + DRY	DOUBLING		dn	500 cent + DRY	-700 cent + DRY
3	UP	0 cent	+1 octave	7	UP	-∞ (0 Hz) + DRY	+1 octave
	dn	+1 octave	0 cent		dn	+1 octave	-∞ (0 Hz) + DRY
4	UP	0 cent	-2 octaves	8	UP	-∞ (0 Hz) + DRY	+1 octave + DRY
	dn	-2 octaves	0 cent		dn	+1 octave + DRY	-∞ (0 Hz) + DRY

◆REV/DLY (Reverb/Delay) module

This module comprises various spatial effects including reverb and delay.

TYPE 1: HALL (HL)
This is a reverb effect which simulates the acoustics of a concert hall.

TYPE 2: ROOM (rn)
This is a reverb effect which simulates the acoustics of a room.

TYPE 3: SPRING (5P)
This is a reverb effect which simulates a spring type reverb machine.

Parameters for TYPE 1 – 3 are the same.

Parameter 1	TIME	Parameter 2	TONE
1 – 30		0 – 10	
Adjusts reverb duration (reverb time).		Adjusts effect tone.	

Parameter 3	MIX
◢ 0 – 30	
Adjusts the reverb sound volume level.	

TYPE 4: MN-DLY (*Ⴖd*) (Mono delay)

This is a monaural delay with a duration of up to 1.5 seconds.

TYPE 5: PP-DLY (*Pd*) (Ping-Pong Delay)

When two amplifiers are used, this serves as a ping-pong delay effect with a duration of up to 1.5 seconds. When one amplifier is used, the effect is a mono delay.

TYPE 6: ECHO (*EC*)

This is a monaural echo simulating a tape echo.

TYPE 7: PP-ECHO (*PE*) (Ping Pong Echo)

When two amps are used, the delay sound moves back and forth between them. When one amp is used, the effect is the same as for monaural echo.

* Parameters for TYPE 4 - 7 are the same.

Parameter 1	TIME	Parameter 2	FB
1 – 99, 1.0 – 1.5, t1 – t9		0 – 10	
Adjusts the delay time in 10-ms steps in the range of 10 - 990 ms (1 - 99), and in 100-ms steps above 1 s (1.0 - 1.5). By selecting t1 - t9, you can specify a note referenced to BPM as set with parameter 4. (See Table 3)		Adjusts number of repeat cycles (feedback) for delay sound.	
Parameter 3	MIX	Parameter 4	DLYBPM
◢ 0 – 30		40 – 199	
Adjusts delay sound level.		Adjusts the delay time in BPM (beats per minute). This setting is valid only when parameter 1 is t1 - t9. Settings of 100 and above are shown with a dot (.) between the two figures.	

[Table 3]

Value	t1	t2	t3	t4	t5	t6	t7	t8	t9
Corresponding note	half note	dotted quarter note	quarter note	dotted eighth note	half triplet note	eighth note	dotted sixteenth note	quarter triplet note	sixteenth note

TYPE 8: REVERSE (*rE*)

Produces a sound like a tape played in reverse.

Parameter 1	TIME	Parameter 2	FB
5 – 99, 1.0 – 1.5, t1 – t9		0 – 10	
Adjusts the delay time.		Adjusts number of repeat cycles (feedback) for delay sound.	
Parameter 3	MIX	Parameter 4	DLYBPM
◢ 0 – 50		40 – 199	
Adjusts the delay sound level.		Adjusts the delay time in BPM (beats per minute). This setting is valid only when parameter 1 is t1 - t9. Settings of 100 and above are shown with a dot (.) between the two figures.	

TYPE 9: DLYHAL (*dH*) (Delay + Hall Reverb)

This is a combined delay and hall reverb effect.

TYPE 10: DLY+ROOM (*dr*) (Delay + Room Reverb)

This is a combined delay and room reverb effect.

TYPE 11: DLY + SPRING (*dS*) (Delay + Spring Reverb)

This is a combined delay and spring reverb effect.

* Parameters for TYPE 9 - 11 are the same.

Parameter 1	DLYTIM	Parameter 2	DLYFB
1 – 50		0 – 10	
Adjusts the delay time in 10-ms steps in the range of 10 - 500 ms.		Adjusts the delay feedback amount.	
Parameter 3	DLYMIX	Parameter 4	REVMIX
◢ 0 – 15		0 – 15	
Adjusts the delay sound level.		Adjusts the reverb volume level.	

GFX-3 Patch List

	BANK	No.	NAME	COMMENT	PEDAL
VARIATION	**[U 0 / A0]** **STANDARD**	1	STANDARD CLEAN	Sophisticated clean sound	VOLUME
		2	RHYTHM CRUNCH	The optimal crunch sound for a rhythm	GAIN
		3	GARAGE DIST	Garage drive sound	VOLUME
	[U 1 / A1] **POWER**	1	RICH CLEAN	Rich clean sound	VOLUME
		2	FREEDOM	The optimal sound for guitar riff	P.PITCH
		3	POWER DRIVE	Slave style drive sound	P.PITCH
	[U 2 / A2] **VINTAGE EFFECT**	1	D-COMP	Pedal compressor	VOLUME
		2	PD 1	ZOOM PD-01	GAIN
		3	CRY-B	Vintage wah like Cry B	P-WAH
	[U 3 / A3] **AMP MODELING**	1	FDR TWIN	U.S. clean combo amp sound	VOLUME
		2	MARK	Mark series combo amp sound	GAIN
		3	MS 900	Old stack drive sound	GAIN
	[U 4 / A4] **TRICK EFFECT**	1	REVERSE WORLD	Reverse delayed effect sound	RVS_DLY
		2	STEP	ZOOM original step sound	GAIN
		3	RING DRIVE	Ring modulation sound	GAIN
MODELING	**[U 5 / A5]** **VINTAGE EFFECT 2**	1	CRUNCH ECHO	Crunch echo sound	VOLUME
		2	SD+CE	Combination of vintage overdrive and chorus	CHORUS
		3	FZFACE	Vintage fuzz	GAIN
	[U 6 / A6] **AMP MODELING 2**	1	J-CLEAN	Bright combo amp sound	VOLUME
		2	PV PWR	U.S. hard rock sound	VOLUME
		3	MP1	Vintage high-gain pre-amp sound	VOLUME
	[U 7 / A7] **AMP MODELING 3**	1	US BLUES	U.S. blues sound	VOLUME
		2	MS OLD	Vintage MS sound	VOLUME
		3	MS MTL	High-gain sound for hard rock	VOLUME
MUSIC STYLE	**[U 8 / A8]** **ROCK'N ROLL**	1	R&R CLEAN	Vintage rock'n'roll sound	SPRING
		2	CATS	Rockabilly crunch sound	DELAY
		3	TRAIN ROLLIN	Perry style drive sound	GAIN
	[U 9 / A9] **SOUTHERN /BOOGIE**	1	SOUTHERN CLEAN	Bros style clean sound	VOLUME
		2	SKYNRD OD	SKYNRD style OD sound	ROOM
		3	AFTER BURNER	80's ZZ style OD sound	GAIN
	[u 0 / b0] **JAM ROCK**	1	CLEAN RHYTHM	PHISH style clean sound	SPRING
		2	SUSTAIN LEAD	PHISH style lead sound	GAIN
		3	UF1	ZOOM UF-01	GAIN
	[u 1 / b1] **CLASSIC REVIVAL**	1	SURF TREM	Vintage U.S. combo amp with tremolo sound	VOLUME
		2	BEATS	Reborn Mersey beat sound	HALL
		3	BOOTS	Pedal octaver	GAIN
	[u 2 / b2] **JAZZ /BLUES**	1	WARM TONE	Half crunch sound for jazz	VOLUME
		2	PAT M	Metheney sound	VOLUME
		3	BLUES DRIVE	Drive sound for blues	VOLUME
	[u 3 / b3] **SOUL /FUNK**	1	FUNK PHASE	Funky phase	PHASE
		2	BOOMY RHYTHM	Booming sound for backing in wide use	VOLUME
		3	SMOOTH A-WAH	Wah sound for lead and obbligato	A-WAH
	[u 4 / b4] **PUNK**	1	COMP DELAY	Pedal compressor with delay	DELAY
		2	GREEN OD	Modern pop punk sound	VOLUME
		3	PUNK DRIVE	Ska punk drive	GAIN
	[u 5 / b5] **U.K ROCK**	1	Radio•H Clean	Arpeggio sound with tremolo	GAIN
		2	U.K RYHTHM	U.K. rock backing sound	GAIN
		3	DIST WALL	Modern stacked distortion	HALL
	[u 6 / b6] **ALTERNATIVE**	1	FLANGE UP	Flanging sound for arpeggio or stroke	FLANGE
		2	KURT OD	Light overdrive sound	CHORUS
		3	RESONANCE	Resonance fuzz sound	GAIN
	[u 7 / b7] **HARD ROCK**	1	ROSE CLEAN	Vibrato clean sound	DELAY
		2	E.V.H	HIgh-gain tube lead sound	VOLUME
		3	US ARENA	Heavy distortion for backing	VOLUME
	[u 8 / b8] **DARK &HEAVY**	1	Aco Flange	Flanging acoustic simulated sound	HALL
		2	FALLEN POWER	Drive sound for down tuning	GAIN
		3	WHITE LPC	Randy style lead sound	GAIN
	[u 9 / b9] **NEW AGE**	1	NEO PHASE	Pedal phase sound	VOLUME
		2	DIGI DIST	Digital distortion sound	GAIN
		3	GLASS FUZZ	Excessive fuzz sound	P-WAH

Troubleshooting

■ **No sound, or very low volume**
- Is the power switch set to ON?
- Are [INPUT] jack and [PHONES/OUTPUT] jack connected correctly to instrument and amplifier?
- Is the shielded cable defective?
- Is the GFX-3 set to the mute condition?
- Is the master level parameter set to a low value?
- Is the expression pedal pushed down?
  For some patches, the expression pedal controls the volume. Set it to a suitable position.

■ **Sound is unnaturally distorted**
- Adjust level and GAIN parameters of effect modules.
- Set COMP/ ISO module to OFF.
  When a guitar with high output is used with these effects, unwanted distortion may occur depending on the DRIVE module setting.

■ **High noise levels**
- Adjust ZNR parameter. If problem persists, try reducing GAIN.
  If BOOSTER or COMP/ ISO module is used, try decreasing GAIN parameter of DRIVE module.

■ **Expression pedal on/off switching does not work properly.**
- Try the procedure described in "Calibrating the Expression Pedal" on page 16.

■ **Bypassed sound is unnatural**
- The Energize works also in the bypass condition.
  Set the Energize to "oF."

Specifications

Effect Programs	50types
Effect Modules	7 modules
Patch Memory	USER: 60 patches
	PRESET: 60 patches
	Total 120 patches
Sampling Frequency	31.25 kHz
A/D Conversion	20-bit, 64-times oversampling
D/A Conversion	20-bit, 8-times oversampling
Inputs	
Guitar input	Standard mono phone jack
	Rated input level -20 dBm
	Input impedance 470 kilohms
Outputs	
	Standard stereo phone jack
	(for line/headphones)

Maximum output level	+3 dBm
Output load impedance	
	10 kilohms or higher
Display	2-digit 7-segment LED display
Power Requirements	
AC adaptor	9 V DC, center minus, 300 mA (ZOOM AD-0006)
Batteries	4 x IEC R6 (size AA)
	Continuous operation: approx. 11 hours (with alkaline batteries)
External Dimensions	323(W) x 175.5 (D) x 70 (H) mm
Weight	2.2 kg (without batteries)

* 0 dBm = 0.775 Vrms
* Design and specifications are subject to change without notice.

ZOOM
CATCH US IF YOU CAN
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