# GEM BOX III

## Guitar effects processor & amp modeler

## Owner's manual
VERSION 1.0.0

JOYO

# CONTENTS

# PRECAUTIONS

## *PLEASE READ CAREFULLY BEFORE PROCEEDING*

### Power Supply

Please connect the designated AC adapter to an AC outlet of the correct voltage. Please be sure to use only an AC adapter which supplies 9V DC(±10%), ≥1 A , ⊕─●─⊖ ,center negative. Unplug the AC power adapter when not in use or during a thunderstorm or lightning.

### Connections

Always turn off the power of this unit and other equipments before connection or disconnection, which will help prevent malfunction and / or damage to other devices. Also make sure to disconnect all connection cables and the power cord before moving this unit.
To avoid deformation, discolor or other severe damage to this unit, please avoid expose this unit to the following conditions:

- Direct sunlight
- Heat source
- Magnetic fields
- High temperature or humidity
- Dusty or dirty areas
- High humidity or moisture
- Strong collision or vibration

### Interference from other electrical devices
Radios and televisions placed nearby may experience reception interference. Operate this unit at a suitable distance from radios and televisions.

### Cleaning
Clean only with a soft, dry cloth. If necessary, slightly moisten the cloth. Do not use abrasive cleanser, cleaning alcohol, paint thinners, wax, solvents, cleaning fluids, or chemical-impregnated wiping cloths.

### Operation
Don't operate the switch and components with force.
Don't let paper, metal parts or other objects fall into this unit.
Don't drop it, throw or exert excessive force to this unit.

# MAIN FEATURES

- Features smart reversed modeling technique, with 61 preamp modulation, so the tone is quite similar to real amplifiers, compatible with JOYO STUDIO software to upload AMP models.
- With 9 built-in effects modules, 157 effects types in all.
- 26 preset IR sample rate Cab models and supports 3rd party sample rate IR load.
- 300 preset tones are available.
- Supports CTRL pedal switch function and TAP TEMPO function.
- You can adjust CHAIN effects loop's sequence as you like.
- Features expression pedal and various effect parameters can be adjusted, external expression pedals can be used simultaneously.
- Sound card recording can be achieved by USB AUDIO, PC editing for tone and firmware upgrade.
- 52 seconds of LOOPER.
- 3.5 inches color screen for better visual effect.
- Supports headphones output, and practice quietly.
- Supports AUX IN.
- Drum machine with 40 drum patterns and 10 metronome rhythms.

# LAYOUT
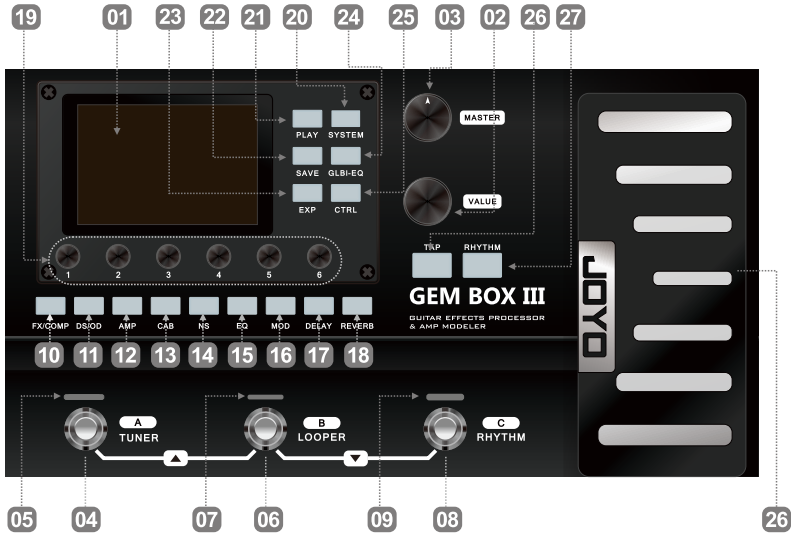


**01 LCD DISPLAY:** display the current status and info.

**02 VALUE:** navigate menu screens and adjust parameters.

**03 MASTER:** adjust the master volume output of GEM BOX Ⅲ.

**04 A footswitch**
●In PRESET MODE:
① Press A footswitch and choose A tone among the current patch, press the A footswitch twice and enter A tone's CTRL control function.
② Press both A footswitch＋ B footswitch simultaneously, up to switch patch.
●Press and hold A footswitch and you can enter TUNER mode, in TUNER mode, you can exit by pressing any footswitch.

**05 A footswitch working status indicator:** in PRESET mode, this indicator is in blue and on, in TUNER mode, this indicator goes out.

**06 B footswitch:**

●In PRESET mode:

①Press B footswitch and choose B tone among the current patch, press the B footswitch twice and enter B tone's CTRL control function.

②Press both A footswitch+ B footswitch simultaneously, up to switch patch;

③Press both B footswitch+ C footswitch simultaneously, down to switch patch;Press and hold B footswitch and you can enter.

●LOOPER mode, in LOOPER mode, you can exit by pressing A footswitch.

Press and hold B footswitch and you can enter LOOPER mode, in LOOPER mode, you can exit by pressing A footswitch.

**07 B footswitch working status indicator:**in PRESET mode, this indicator is in blue and on, in LOOPER mode, this indicator goes out.

**08 C footswitch:**

●In PRESET mode:

①Press C footswitch and choose C tone among the current patch, press the C footswitch twice and enter C tone's CTRL control function.

②Press both B footswitch+ C footswitch simultaneously, down to switch patch.

●Press and hold C footswitch and you can enter RHYTHM mode, in RHYTHM mode, you can turn on or turn off the drum machine's rhythm by pressing C footswitch, you can set the speed of the drum machine by pressing the B footswitch more than twice in a row, you can exit RHYTHM mode by pressing A footswitch once.

**09 C footswitch working status indicator:** in PRESET mode, this indicator is in blue and on, in LOOPER mode, this indicator goes out.

**10 FX/COMP:** pre-effects module button, including modulation, filtering effects and compression effects.

**11 DS/OD:** distortion, overdrive effects module button.

**12 AMP:** head simulation module button.(In order to gain the optimal effect, you'd better connect the AMP module to power amp or the head's RETURN Jack after the AMP module is turned on.)

**13** **CAB:** cab simulator module button.( In order to gain the optimal effect, you'd better use it with AMP module, connect the output to sound card, active speaker, mixer and other full frequency sound system directly after you turn on the CAB module).

**14** **NS**

**15** **EQ**

**16** **MOD**

**17** **DELAY**

**18** **REVERB**

**19** **Parameters adjustment knob**

**20** **SYSTEM:** it can adjust INPUT LEVEL, SCREEN(the brightness of the screen), USB AUDIO, CAB SIM THRU(Cab simulator bypass setup) and RESET(reset factory settings).

**21** **PLAY:** the return button for PRESET host interface and CHAIN switch-on button. In PRESET host interface, press PLAY and it switch to CHAIN interface, the menu shows the current CHAIN, you can customize the sequence of CHAIN by adjusting the VALUE knob; press PLAY twice and return to PRESET host interface.
**SAVE:** accesses preset save menu.

**22** **EXP:** enters settings and calibration menu for expression pedals.

**23** **GLB-EQ:** it defines GEM BOX Ⅲ 's global EQ adjustment.

**24** **CTRL:** it defines CTRL function as module's switch.

**25** **TAP:** it's TAP TEMPO function, you can set the speed of drum
**26** machine by tapping it twice in a row.
**RHYTHM:** drum machine's module button.

**27** **EXPRESSION PEDAL:** this pedal can set and control designated
**28** parameters. Toe down the pedal and it triggers the switch, then it turn on or off the EXPRESSION PEDAL, you can change the parameters by tapping the pedal.
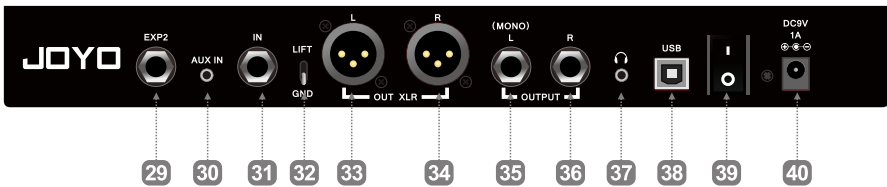
**29 EXP 2 JACK:** 1/4" stereo jack, connects to external EXPRESSION PEDAL.(Note: please use 1/4" stereo audio cable).

**30 AUX IN JACK:** 1/8" stereo audio input jack, you can practice guitar synchronously by connecting to external audio input.

**31 IN JACK:** 1/4" monophony input jack, connecting to guitar or other pedals' output.

**32 GND/LIFT toggle switch:** XLR output jack, used for connecting to the mixer.

**33 OUT XLR L jack:** XLR left channel balanced output jack, used for connecting to the mixer.

**34 OUT XLR R jack:** XLR right channel balanced output jack, used for connecting to the mixer.

**35 OUT L(MONO) jack:** 1/4" single channel (left) output jack, connecting to amp, sound card, mixer and other audio devices or other effects pedals' input jack. You can define whether the output jack has cab simulation or not independently.

**36 OUT R Jack:** 1/4" single channel (right) output jack, connecting to amp, sound card, mixer and other audio devices or other effects pedals' input jack. You can define whether the output jack has cab simulation or not independently.

**37 HEADPHONE jack:** 1/8" stereo audio output jack, connecting to the headphones.

**38 USB port:** B type USB port, can be used for recording, playback, PC operation and firmware upgrade.

**39 Power switch:** turn on or turn off GEM BOXⅢ.

**40 DC 9V power jack:** power input jack(DC 9V, 1A, center minus ⊕–◖–⊝)

# QUICK TOUR

## TURN ON THE UNIT AND CONNECTION

Connect the attached power adapter(DC9V, 1A, ⊕━◉━⊖) to DC IN jack, connect the guitar to GEM BOX Ⅲ's input jack, connect GEM BOX Ⅲ's output jack to the related audio device's jack according to the circumstances(e.g. amp's INPUT, RETURN, sound card, active power amplifier, or mixer's INPUT).
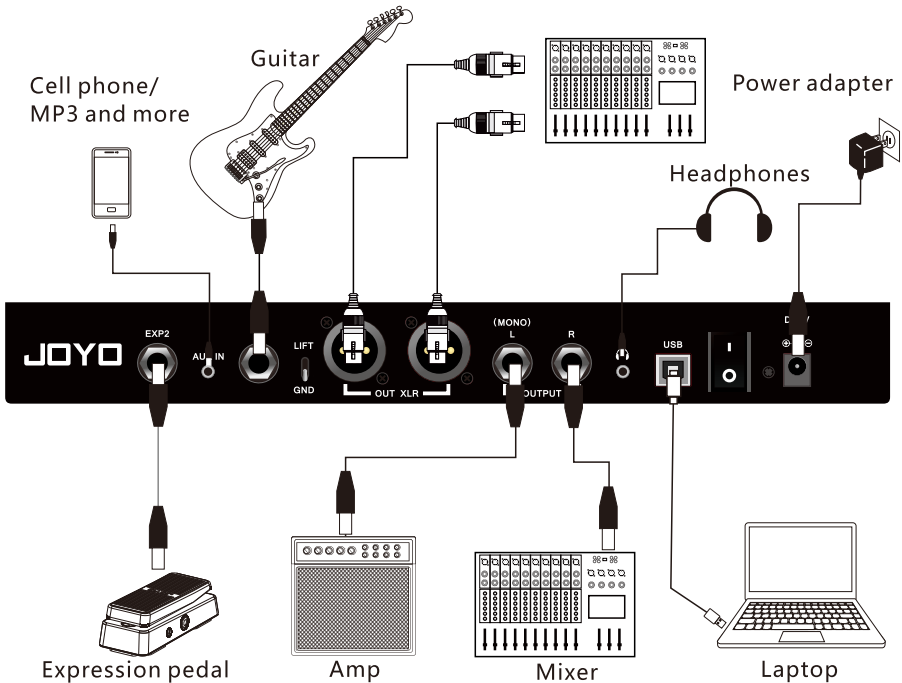


**Note:** if connecting to guitar amp's INPUT, please turn off AMP and CAB modules.
●if connecting to guitar amp's RETURN or POWER AMP, please turn on AMP, and turn off CAB.
●if connecting to full frequency amp devices, please turn on AMP and CAB modules.

# PRESET TONES

**01** **SELECT THE PRESET TONES**

GEM BOX Ⅲ features 300 preset tones, you can press PLAY button to switch between PLAY interface and CHAIN interface.

Heel down both A footswitch+ B footswitch simultaneously to switch patch, toe down both B footswitch+ C footswitch simultaneously to switch patch, the screen shows the current number of patch when you're switching patch, now tap A, B, C to nail down the tone's position, in PLAY footswitch interface, you can display the preset tones in a cycle by rotating VALUE knob.
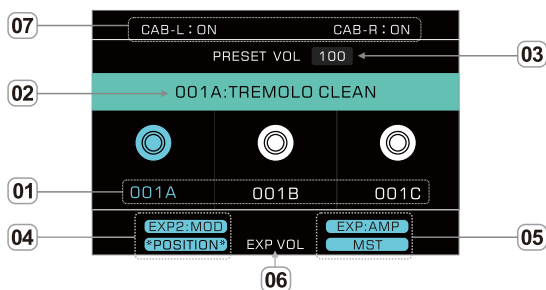


01 Preset number       02 Tone's name       03 Preset volume
04 External expression pedal's modules and parameters
05 Built-in expression pedal's modules and parameters
06 Volume pedal's status indicator
07 Left and right output simulation cabinets' status indicator

**Note:** After you choose a certain preset tone, both the LED indicator underneath and the related module turned on by the tone will illumine.



FX/COMP  DS/OD  AMP  CAB  NS  EQ  MOD  DELAY  REVERB
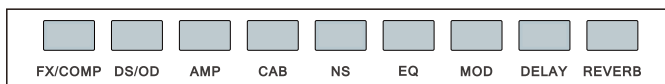
**02** GEM BOX Ⅲ's factory settings can be categorized into 3 types according to different venues:

Group 001-017: the AMP and CAB are turned on, you'd better connect to full frequency devices(headphones, sound card, mixer, full frequency amps and more).
Group 018-033: the AMP is turned on, you'd better connect to guitar's RETURN jack or Power amp.
Group 034-100: are EMPTY preset positions, convenient for you to edit on your own.
**Note:** Group 001 till 033's factory settings are the same as blank settings, can be revised and covered.

### 03 Adjust the volume

GEM BOX Ⅲ has 5 groups of adjustable input output volume parameters, please confirm whether the following settings are feasible or not when necessary.

**01** MASTER: adjusts the master volume output.

**02** INPUT LEVEL: in SYSTEM, it adjusts the INPUT gain level of guitar.

**03** You can adjust each PRESET's output in PLAY interface by pressing VALUE, and store it with PRESET.

**04** When EXP pedal's EXP VOL PEDAL is set up, and turn off the expression control( the EXP light goes off), the built-in expression pedal controls the master volume output, which ranges from the minimum of MASTER knob to the knob's current parameter.

**05** Effects modules with volume parameters, for example, LEVEL in FX/COMP, VOLUME in DS/OD, MST(MASTER) in AMP.
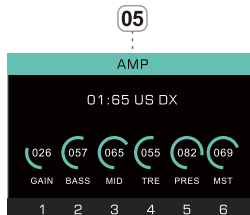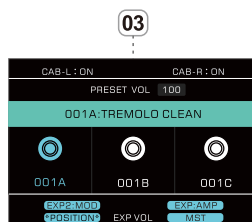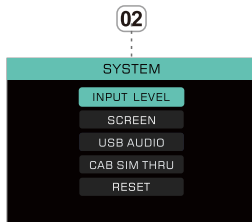
# EDIT TONES

GEM BOX Ⅲ has 9 effects modules altogether, including FX/COMP, DS/OD, AMP, CAB, NS, EQ, MOD, DELAY, REVERB, 157 effects types in all, 9 effects modules can be used at the same time, each effects module can choose one type.
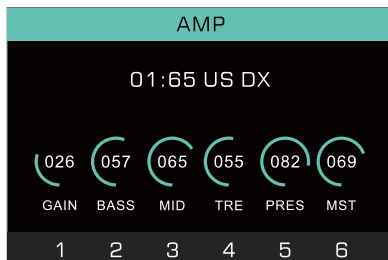
### 01 Effects module switch

- Turn on effects module: when the module is not turned on(the button's indicator goes off), press this module button once, then it's turned on (the button's indicator begins to illumine).
- Turn off effects module: when the module is turned on(the button illumines) and the interface shown is the target module, press this module button once, and turn off the effects(the button's indicator goes off).
- To switch between the effects modules that have already been turned on, just change the current module interface, the on/off status remain the same.

> Note:When the effects modules are turned on, the sequence will be the default one of the CHAIN. If you need to change the sequence of the module, just adjust it in CHAIN interface.

### 02 Edit effects modules

Press the module button needs to be adjusted and enter edit interface, rotate VALUE and switch between the effects type of this module; adjust 1-6 parameter in the screen according to 1-6 encoder under the screen.

| AMP | | | | | |
|---|---|---|---|---|---|
| | | 01:65 US DX | | | |
| 026 | 057 | 065 | 055 | 082 | 069 |
| GAIN | BASS | MID | TRE | PRES | MST |
| 1 | 2 | 3 | 4 | 5 | 6 |

GEM BOX Ⅲ supports customized CHAIN sequence, please refer to the procedures as below:
Press PLAY until CHAIN interface shows, for the effects modules already been turned on, there will be color icons, for the effects modules not been turned on, there will be grey icons.

01 Rotate VALUE and choose the module you need to move, the blue light above the module indicates the current chosen module;

02 Press VALUE and choose the module you need to move, rotate VALUE to adjust this module's position, press the VALUE again and finish the process.
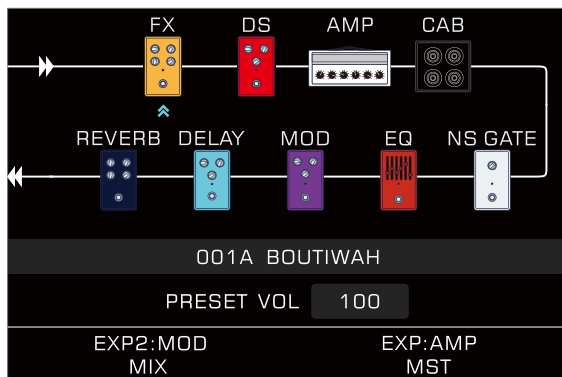


Note:1 .All the modules will display based on the default CHAIN sequence when they're turned on, as for the CHAIN sequence changed by the users, you need to press SAVE and then they can be saved in the preset tones.
2 .If you set up only one of left and right outputs can turn on CAB SIM in SYSTEM-CAB SIM THRU option, CAB module is placed at the end of CHAIN by default.

# SAVE PRESETS

**01** Press the SAVE button to save the edited and intended tone.

**02** Rotate VALUE to select preset space.

**03** Press VALUE to enter preset name.

**04** Rotate the SAVE button to choose where you want to write the character, press VALUE to choose the character for the current space, press it again to confirm and return.

**05** Press SAVE after you've finished with editing the name, and it's saved successfully. You can give up saving by pressing any button except for SAVE&VALUE before the last procedure.

```
            SAVE

  B  M  P  T  Y
  A  [B] C  D  E  F  G  H  I
  J  K  L  M  N  O  P  Q  R
  S  T  U  V  W  X  Y  Z
  1  2  3  4  5  6  7  8  9
  0  -  ←
            001A
```
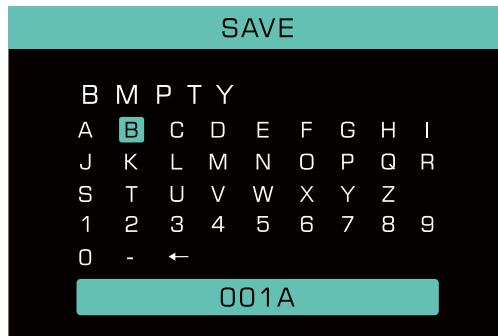
# EXPRESSION PEDAL SETUP

GEM BOX Ⅲ has a built-in expression pedal (EXP) and the facility to support a second external expression pedal (EXP2). To use an external expression pedal with GEM BOX Ⅲ, connect it to the EXP2 input using a TRS stereo jack cable. Both EXP and EXP2 can be assigned to control any effects parameter in any of the 9 effects blocks. (Both expression pedals need to be calibrated and set up in the EXP menu when being used for the first time, for details, please refer to item 5 as below)

**01** **Set up to be a VOLUME pedal**

1 .The first method(Pre-volume).
●Press EXP and enter expression pedal interface, and choose the items you want to set up(EXP or EXP2).
●Choose the related volume parameters in the modules already been turned on in FUNCTION submenu, for example, LEVEL in FX/COMP, VOLUME in OD/DS, MST(MASTER) in AMP.
●Toe down the front of the pedal with force after you chose, EXP light illumines and the pedal's function is active.

2 The second method ( Master volume):
●Press EXP and enter expression pedal interface, choose EXP among EXP VOL PEDAL.
●EXP VOL will be shown in the middle and lower part of the PLAY interface, indicating the pedal controls guitar output volume when EXP indicator goes off(Ranges from MASTER VOLUME'S MINIMUM value to the current value).

Note: The second method can not be set up when connecting to external pedal EXP 2.

**02** **Set up to be a WAH pedal function:**

A、Set up the built-in pedal as WAH pedal:
●Press EXP and choose EXP, choose FX/COMP-*POSITION* in FUNCTION submenu, exit by PLAY, and finish the menu selection.
●Choose the PRESET FX/COMP module as CRYING 95 or CRYING 535.

●Now press the front of the pedal with force, the pedal and WAH module will turn on or turn off synchronously. (To turn on or turn off synchronously, there are 2 requirements as below: 1 Choose EXP as FX/COMP-*POSITION* , 2 Choose FX/COMP module as CRYING 95 or CRYING 535. )

B 、Set up the external pedal as WAH pedal:

●Press EXP and choose EXP2, choose FX/COMP-*POSITION* in FUNCTION submenu, press PLAY and exit from the menu and finish the selection.

●Turn on the PRESET FX/COMP module and choose as CRYING 95 or CRYING 535, and the WAH pedal is active.

Note:The external pedal has no switch, so you cannot turn on or turn off the WAH module by the pedal, we suggest that you set up CTRL/TAP footswitch as WAH module switch, or set up another PRESET to turn off the WAH pedal.

**03** **Set up the pedal as expression pedal(control the designated single parameter)**

●Press EXP and enter expression pedal setup interface, choose the items need to be set up(EXP or EXP 2).

●Choose the module for your parameter in FUNCTION submenu, choose the parameter for the module when it's confirmed, the current display takes effect.

●Exit from the menu by pressing other buttons, press the front of the pedal with force and illumine the button indicator, now the pedal controls the parameters set up earlier.

**04** **Set up the pedal and make it control various parameters ( MERGE function)**

GEM BOX Ⅲ expression pedal supports adjust various effect parameters, which is called "MERGE".

●Press EXP and enter expression pedal setup interface, and choose the items need to be set up(EXP or EXP2).

●Exit from the prompt interface once you've chosen MERGE, press VALUE twice and skip the prompt interface, now the EXP indicator light illumines automatically.

●Heel down the pedal entirely, and adjust the parameters as you like.

●Then toe down the pedal entirely(gently) , and adjust the other set of parameters.

●After the parameters' ranges been set up, they will show in blue, indicating this item has been set up successfully.Press the pedal, and the parameters been set up earlier will change simultaneously. This function enables you to set up one end of the pedal as CLEAN, and the other one as OVERDRIVE or DISTORTION, if modulation effects' LEVEL or MIX have been set up, you can also turn on or turn off the modulation effects.

## 05 Calibrate the pedals(CALIBRATE)

It' s time to calibrate your pedals when they don' t work normally(including external pedal EXP2), quite user-friendly.

●Press EXP and enter expression pedal' s setup interface, then you can choose the items need to be set up(EXP or EXP 2), choose CALIBTRATE.

●Firstly heel down the expression pedal entirely, press VALUE and confirm the position of the  pedal' s minimum setting.

●Secondly, toe down the expression pedal entirely, press VALUE and confirm the position of the pedal' s maximum setting.

●At last, set the pedal in the toe down position and apply forward pressure, press VALUE and complete calibration(the force for turning on or turning off the expression pedal depends on the force you exert now, this procedure doesn' t apply if connecting to external pedals). If doesn' t calibrate successfully, repeat the above procedure.
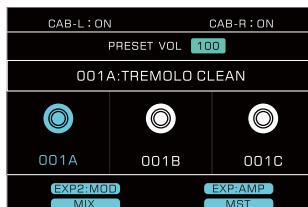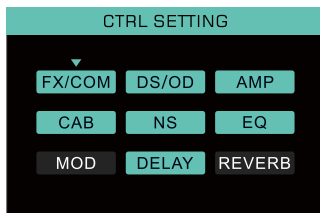
EXP CALIBRATE

MIN

MAX
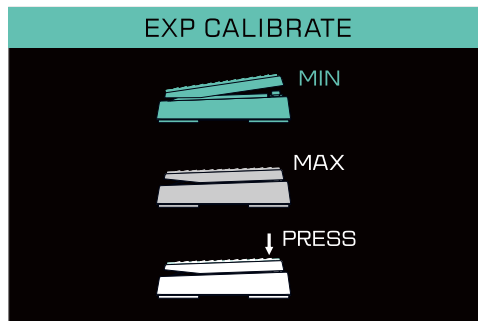
↓ PRESS

Note:1.Please calibrate when the pedals don't work properly.
2.When you need to set up one tone pedal, it's VOLUME function when not turned on, please choose EXP VOL PEDAL as EXP, which means the designated EXP built-in expression pedal serves as a VOLUME pedal function when the expression function is not turned on, and it becomes active with PRESET.
3.If you need to set up the EXP built-in expression pedal as WAH function, please choose FX/COMP-*POSITION* in EXP-FUNCTION, and choose FX/COMP as CRYING 95 or CRYING 535, expression pedal's switch will be related to WAH pedal's switch, convenient for turning on/turning off by one-click (this control function only works for EXP, not work for EXP 2).
4.You need to press SAVE once the expression pedal is defined.
5. If the expression pedal is defined as an effects module's
(not been turned on)parameters, there is no change in the EFFECT.
6. EXP and EXP 2 can set 2 sets of MERGE parameters respectively and independently.

# CTRL/TAP FUNCTION SETUP

GEM BOX Ⅲ's CTRL function can set up various effects modules' switch, the procedures are as below:

**01 CTRL module switch**

1 .Press CTRL and enter CTRL interface.
2.Rotate VALUE and move the cursor, press VALUE and choose or cancel choosing one module.
You can define one or various modules. Press PLAY and return to host interface after definition.
3 .In footswitch host interface, press the footswitch of the current tone's position, and enter to CTRL extension interface preset now, press C footswitch to execute the module switch previously set up.

| CTRL SETTING | | |
| --- | --- | --- |
| ▼ | | |
| FX/COM | DS/OD | AMP |
| CAB | NS | EQ |
| MOD | DELAY | REVERB |

CAB-L : ON          CAB-R : ON
PRESET VOL   100
001A:TREMOLO CLEAN
◎          ◎          ◎
001A       001B       001C
EXP2:MOD          EXP:AMP
MIX          MST
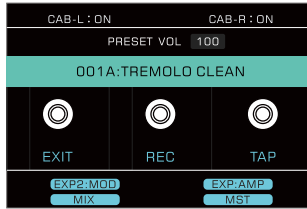
## 02 TAP TEMPO

1. In CTRL extension interface, press B footswitch over twice in a row, and execute TAP TEMPO.
2. If DELAY module's SUB-D is set up, then the delay parameter can be changed real-time by TAP TEMPO.

## 03 Exit from CTRL extension interface

Press A footswitch(EXIT) in CTRL interface, and you can exit and back to the host interface.
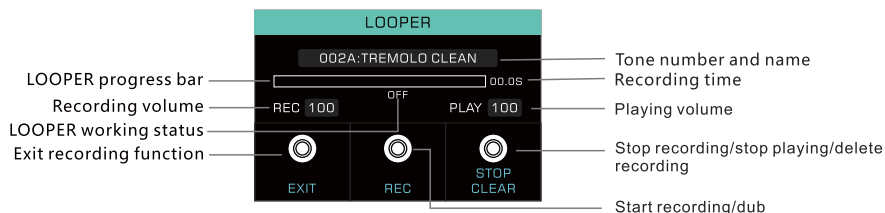
# LOOPER

GEM BOX Ⅲ has 52 seconds' of LOOPER, press B footswitch and hold, then you can enter LOOPER interface.

**01** **LOOPER menu adjustment**

VALUE can select and control the preset tones involve in recording, recording volume and playing volume. Press VALUE and enter edit, press VALUE twice and return to menu.

LOOPER progress bar — Tone number and name
Recording volume — Recording time
LOOPER working status — Playing volume
Exit recording function — Stop recording/stop playing/delete recording
Start recording/dub

LOOPER
002A:TREMOLO CLEAN
OFF    00.0S
REC 100        PLAY 100
EXIT    REC    STOP CLEAR

**02** LOOPER mode footswitch function:
A footswitch: Exit from recording function;
B footswitch: RECORD/DUB;
C footswitch: STOP and CLEAR footswitch.

A TUNER        B LOOPER        C RHYTHM
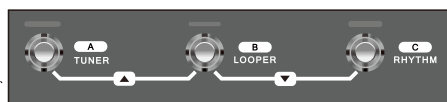
**03** **LOOPER operation:**

REC: Press B footswitch once and begin to record in OFF and CLEAR status, B footswitch's indicator is in blue and flickering;
PLAY: press B footswitch once and begin to play in REC, DUB, STOP status, the footswitch's indicator is in blue.
DUB: press B footswitch once in PLAY status and begin to DUB, the footswitch's indicator is blue and flickering;
STOP: press C footswitch once in any status of LOOPER and stop playing or recording, the footswitch's indicator is in red and flickering;
CLEAR: press C footswitch over 1 second in any status, CLEAR all tracks, and the footswitch's indicator goes off.

Note:1 . LOOPER will change into PLAY automatically;
2 .PRESET can only switch between the tones recorded prior to LOOPER recording, the recorded tones cannot be changed.
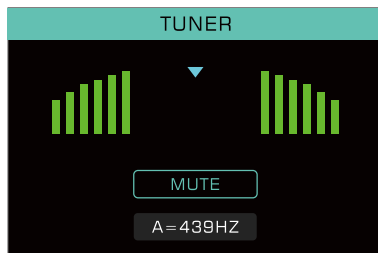
# TUNER

Press and hold A footswitch and enter TUNER mode.
In the menu, you can choose standard tone's basic frequency, the default value is 440HZ, adjustment range is 435HZ-445HZ. You can also set up whether MUTE chord or not.
Press any footswitch to exit from TUNER mode.

### TUNER

MUTE

A=439HZ

# RHYTHM

Press RHYTHM or long press C footswitch and enter RHYTHM setup interface, the button indicator illumines now, the RHYTHM is active. In the menu, you can choose the current RHYTHM(Drum machine) or METRONOME.  In the option below there are Drum patterns, TEMPO speed and Drum machine's volume. Press RHYTHM again and turn off Drum machine.

### RHYTHM

RHYTHM

ROCK SHUFFLE     NO.25

BPM  120      VOL  120

EXIT          TAP          PLAY
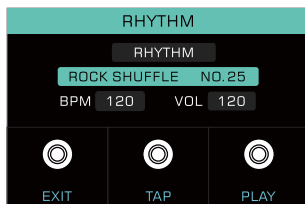
The footswitch function of Drum machine mode:
A footswitch: Exit from footswitch function;
B footswitch: Tap the tempo of the drum machine;
C footswitch: Play the rhythm/STOP playing the rhythm.

Note: RHYTHM can be set up after turn on the drum machine by B footswitch or tap the tempo of the drum machine.

# SYSTEM SETTINGS

Press the SYSTEM button and enter the system settings menu, in this menu, you can set up INPUT LEVEL, SCREEN,USB AUDIO, CAB SIM THRU and RESET.

```
                SYSTEM
             INPUT  LEVEL
               SCREEN
              USB AUDIO
             CAB SIM THRU
                RESET
```
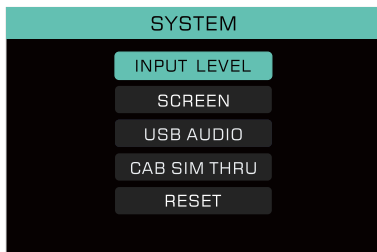
**01** INPUT LEVEL: Use VALUE button to choose INPUT LEVEL and enter the menu, adjust the INPUT gain level by rotating the VALUE button, which ranges from -∞~+6dB.

**02** SCREEN: Use VALUE button to choose LCD BRIGHT and enter the menu, adjust the brightness of the display screen by rotating the VALUE button.

**03** USB AUDIO: Use VALUE button to choose USB AUDIO and enter the menu, choose USB AUDIO outputs as DRY or EFFECT processed by GEM BOX Ⅲ respectively by the VALUE button. Under the menu, you can also adjust USB recording's volume(REC VOL) and USB's playing volume(PLAY VOL).

**04** CAB SIM THRU: If some presetting turns on the CAB simulation, so this interface can assign CAB simulation to outputs, applicable to all outputs(LEFT/RIGHT OUTPUT, USB AUDIO, HEADPHONE).Note: when the left and right tracks are set as different status, CAB module is placed at the last of the CHAIN as default.

**05** RESET: Use VALUE button to choose RESET and enter the menu, choose "YES" and restore the factory setting by the VALUE button, if you want to intermit, please choose "NO" or any other button. Meanwhile, the menu will show the current firmware's version info.

# Application scenario and connection

GEM BOX Ⅲ has OUTPUT L, R stereo outputs, and the built-in modules feature various functions, can meet different venues' needs.

**01** **Output to guitar amp's INPUT**

GEM BOX Ⅲ serves as pre-guitar multi-effects processor when its OUTPUT connects to amp's INPUT. In order to avoid overlap between the amp's functions and modules, now GEM BOX Ⅲ's AMP module and CAB module are turned off to gain the optimal tone effects.

GEM BOX Ⅲ OUT to AMP IN

GUITAR IN
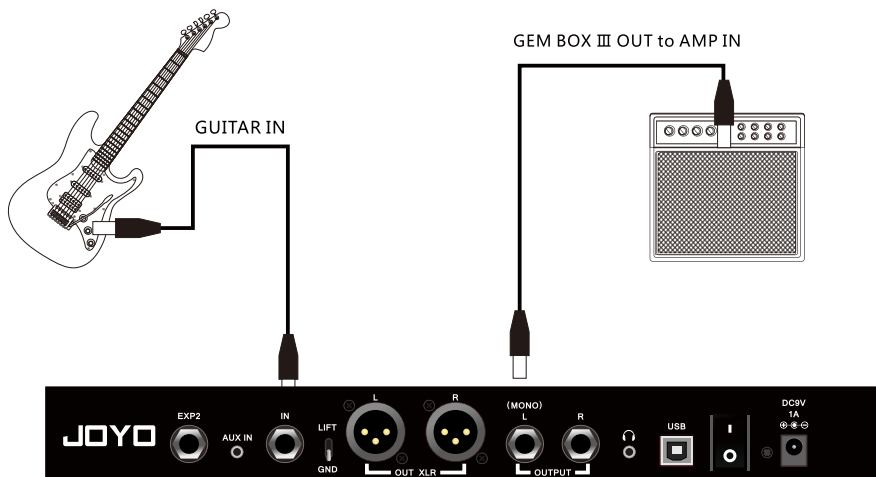
## 02 AMP RETURN or POWER AMP's INPUT

Please connect like this, GEM BOX Ⅲ serves as a preamp simulation integrated effects pedal. In order to avoid overlap between the amp's functions and modules, now GEM BOX Ⅲ's CAB module is turned off. Meanwhile, you need to turn on the AMP module and work with the guitar amp's POWER AMP, so as to gain the optimal tone effects.

GEM BOX Ⅲ OUT to AMP RETURN
or POWER AMP

GUITAR IN
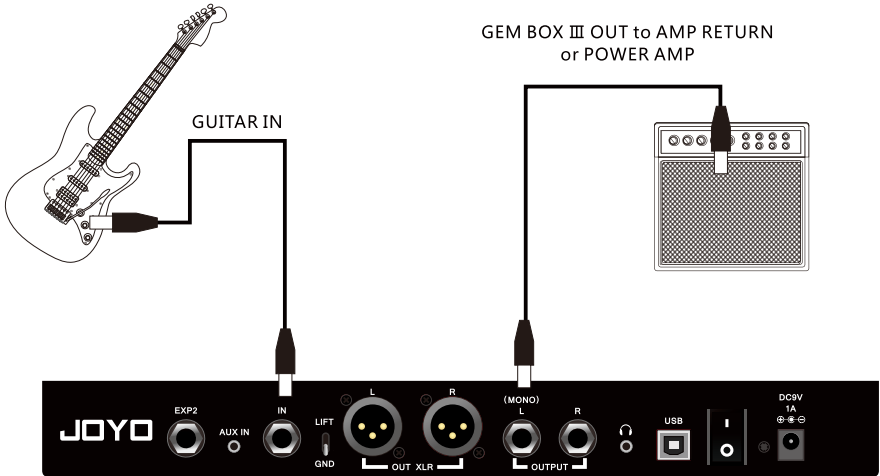
**03** **Connects to FX LOOP and use modulation effects**

GEM BOX Ⅲ offers various modulation effects for choice, when both preamp tones and GEM BOX Ⅲ are used, you'd better connect GEM BOX Ⅲ to amp's FX LOOP to gain optimal tone.



AMP SEND to
GEMBOX Ⅲ IN

GEM BOX Ⅲ OUT
to AMP RETURN

GUITAR OUT
to AMP IN
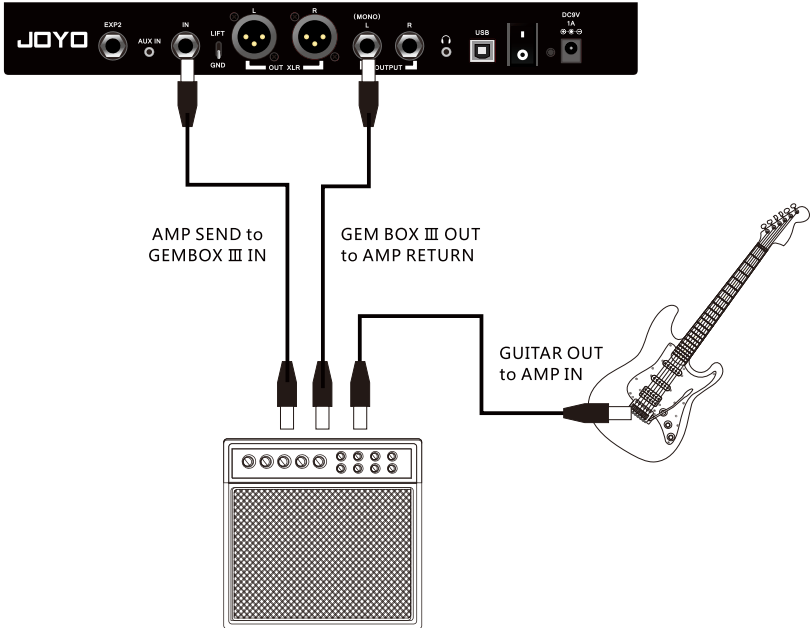
**Output to headphone, sound card, active power amplifier, mixer or other**

When GEM BOX Ⅲ's output to headphone, sound card, active power amplifier, mixer or other full frequency audio devices, GEM BOX Ⅲ serves as a guitar amp simulation integrated effects pedal. Now GEM BOX Ⅲ's AMP module and CAB module are turned on, turn on the simulation guitar amp's output effects to gain the optimal tone effects.
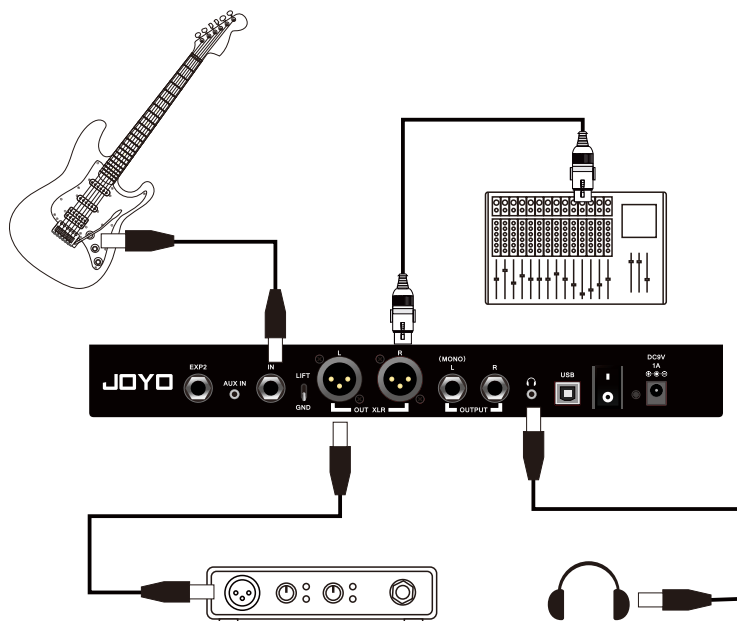
## 05 Mixed outputs in live performance

GEM BOX III's left and right outputs support cabinet simulation's turn on and turn off respectively, in live performance, in order to gain rich tone, the right output connects to guitar amp's RETURN, while the left output connects to mixer. (for details, please refer to system settings-4 CAB SIM THRU)
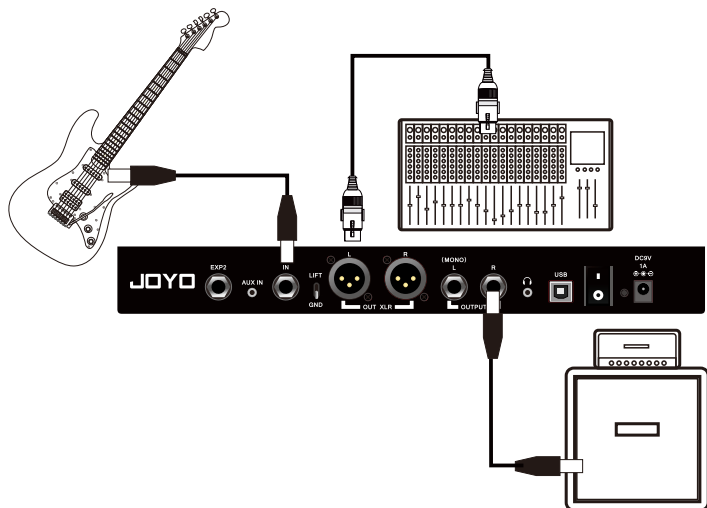


## 06 Connects to PC and can record when served as a sound card

GEM BOX Ⅲ supports USB AUDIO, you can use USB cable to connect to the PC, and then install the driver, turn on the recording software and start recording.
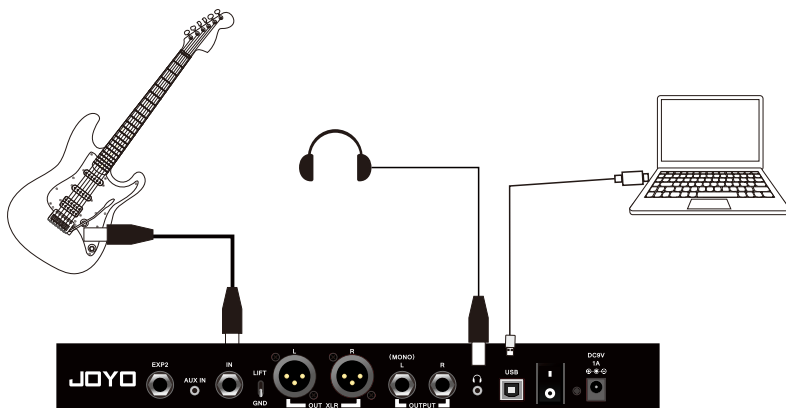
# JOYO STUDIO&PC CONNECTION

GEM BOX Ⅲ supports connection to PC, you can use JOYO STUDIO master computer software to edit tones, import and export preset files, firmware upgrade, import AMP module and third party IR cabinet simulation file. Besides, GEM BOX Ⅲ can also be used as sound card to record by the USB port.
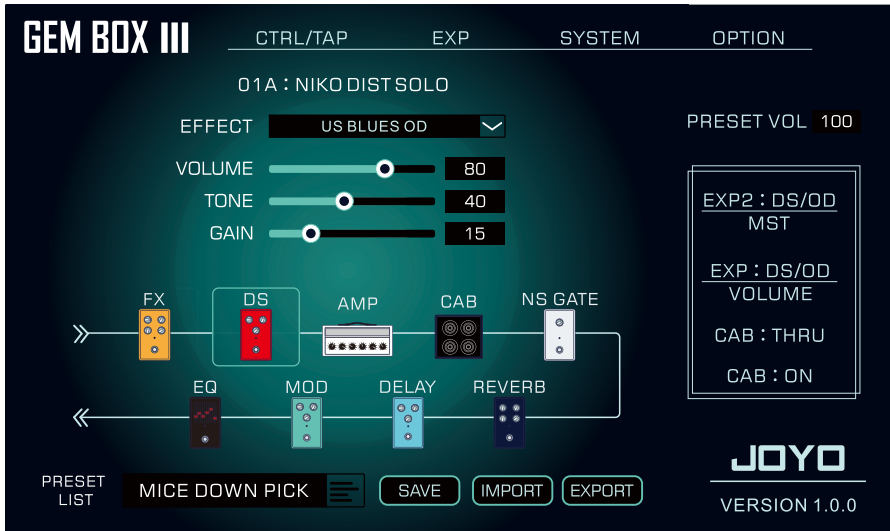


Software download:
Log on to JOYO's official website: www.joyoaudio.com and download JOYO STUDIO and sound card driver.

# MODEL

## FX/COMP

| | MODEL NAME | BASED ON |
|---|---|---|
| 1 | CRYING 95 | DUNLOP GCB95 |
| 2 | CRYING 535 | DUNLOP Crybaby 535Q |
| 3 | AUTO WAH | MOOER @WAH |
| 4 | TALK AH | MOOER RedKid Talk wah 'AH' |
| 5 | TALK OH | MOOER RedKid Talk wah 'OH' |
| 6 | ENVELOPER | MOOER ENVELOPE auto-wah |
| 7 | COMPRESSOR 1 | MOOER YELLOW COMP compressor |
| 8 | COMPRESSOR 2 | MOOER BLUE COMP compressor |

## DS/OD

| | MODEL NAME | BASED ON |
|---|---|---|
| 1 | TUBE DRIVE | B.K. Butler Tubedrive |
| 2 | SCREAMER #8 | IBANEZ Ts808 |
| 3 | CLEAN BST | MOOER PURE BOOST |
| 4 | FLEX BOOST | MOOER FLEX BOOST |
| 5 | BARBIE DD | BARBER Direct Drive |
| 6 | MOUSE | ProCo Rat |
| 7 | FUZZ CAKE | Dunlop Fuzz Face |
| 8 | BIG FOOL | EH Big Muff |
| 9 | METAL Z | BOSS METAL ZONE |
| 10 | METAL M | Digitech METAL MASTER |
| 11 | FULL Ds1 | Fulltone OCD |
| 12 | TOMMY OD | Paul Cochrane Timmy OD |
| 13 | FULL OD | Fulltone Fulldrive 2 |
| 14 | SHRED MASTER | Marshall Shred master |

| 15 | BB PRE | Xotic BB Preamp |
|----|--------|-----------------|
| 16 | BB+ | Xotic BB Plus |
| 17 | REBELLION | Suhr Riot |
| 18 | ROCK TWEAKER | Amptweaker TightRock |
| 19 | FULL Ds2 | Fulltone GT-500 |
| 20 | CLONE | Klon Centaur |

| AMP | | |
|-----|---|---|
| MODEL NAME | | BASED ON |
| 1 | US 65 DLX | Fender 65 Deluxe reverb |
| 2 | US 65 TW | Fender 65 Twin Reverb |
| 3 | US 59 BSM | Fender 59 Bassman |
| 4 | US SUPER S | Fender Super Sonic |
| 5 | US BLUES A | Fender Blues Deluxe  clean channel |
| 6 | US BLUES B | Fender Blues Deluxe |
| 7 | BRITISH 800 | Marshall JCM800 |
| 8 | BRITISH 900 | Marshall JCM900 |
| 9 | BRITISH P100 | Marshall Plexi 100 |
| 10 | EG E650 A | Engl E650 Clean |
| 11 | EG E650 B | Engl E650 Distortion |
| 12 | EG E645 A | Engl E645 Clean |
| 13 | EG E645 B | Engl E645 Distortion |
| 14 | EG E650 A | Engl E650 Blackmore Clean |
| 15 | EG E650 B | Engl E650 Blackmore Distortion |
| 16 | MB MK3 A | Mesa Boogie MARK III Clean |
| 17 | MB MK3 B | Mesa Boogie MARK III Distortion |
| 18 | MB MK5 A | Mesa Boogie MARK V Clean |
| 19 | MB MK5 B | Mesa Boogie MARK V Distortion |
| 20 | MB TR A | Mesa Boogie Triple Rectifier Clean |
| 21 | MB TR B | Mesa Boogie Triple Rectifier Distortion |
| 22 | UK FRUIT RV A | Orange Rockerverb Clean |

| 23 | UK FRUIT RV B | Orange Rockerverb Distortion |
|---|---|---|
| 24 | UK FRUIT Ad30 | Orange AD 30 |
| 25 | UK FRUIT Or50 | Orange OR 50 |
| 26 | SOLDAN 100 A | Soldano SLO-100 Crunch |
| 27 | SOLDAN 100 B | Soldano SLO-100 Distortion |
| 28 | DOCTOR 18JR | DR.Z Maz18 Jr |
| 29 | DOCTOR ZWK | DR.Z Z-Wreck |
| 30 | J-CITY J100 A | Jet City JCA100H Clean |
| 31 | J-CITY J100 B | Jet City JCA100H Distortion |
| 32 | RJC 120 | Roland JC-120 |
| 33 | BRITISH 30 A | Vox Ac30 Clean |
| 34 | BRITISH 30 B | Vox AC30  Overdrive |
| 35 | HWATT 103 | Hiwatt DR-103 |
| 36 | BROWN 5051 A | Peavey 5150 Clean |
| 37 | BROWN 5051 B | Peavey 5150 Distortion |
| 38 | DYNAST FLC A | Tone King Falcon Rhythm |
| 39 | DYNAST FLC B | Tone King Falcon Tweed |
| 40 | DYNAST FLC C | Tone King Falcon Lead |
| 41 | ROCKS COREL A | Two Rock Coral Clean |
| 42 | ROCKS COREL B | Two Rock Coral Overdrive |
| 43 | ROCKS CDF | Two Rock Cardiff |
| 44 | FBROWN 5053 A | EVH 5150 Clean |
| 45 | BROWN 5053 B | EVH 5150 Distortion |
| 46 | BLACKHOLE S100 A | Blackstar HT Stage 100 Clean |
| 47 | BLACKHOLE S100 B | Blackstar HT Stage 100 Distortion |
| 48 | DIESEL HG A | Diezel Hagen Clean |
| 49 | DIESEL HG B | Diezel Hagen Overdrive |
| 50 | DIESEL HG C | Diezel Hagen Distortion |
| 51 | KOK PT A | Koch Powertone Overdrive |
| 52 | KOK PT B | Koch Powertone Distortion |

| 53 | MB DUAL A | Mesa Boogie Dual rectifier Clean |
|----|-----------|----------------------------------|
| 54 | MB DUAL B | Mesa Boogie Dual rectifier Distortion |
| 55 | UNBEATABLE 30 A | Matchless® C30 Clean |
| 56 | UNBEATABLE 30 B | Matchless® C30 Overdrive |
| 57 | FREEMAN SB50 A | Friedman® Smallbox 50 Clean |
| 58 | FREEMAN SB50 B | Friedman® Smallbox 50 Distortion |
| 59 | ACOUSTIC 1 | Acoustic simulator 1 |
| 60 | ACOUSTIC 2 | Acoustic simulator 2 |
| 61 | ACOUSTIC 3 | Acoustic simulator 3 |

## CAB

| | MODEL NAME | BASED ON |
|----|-----------|----------|
| 1 | US DLX 112 | Fender Deluxe reverb 112 |
| 2 | US TW 212 | Fender Twin reverb 112 |
| 3 | US BSM 410 | Fender Bassman 410 |
| 4 | SUPER S 112 | Fender Super Sonic 112 |
| 5 | BLUES 112 | Fender Blues deluxe 112 |
| 6 | 1960 412 | Marshall 1960A 412 |
| 7 | EG P412 | Engl Pro XXL 412 |
| 8 | EG V412 | Engl Vintage XXL 412 |
| 9 | MB M112 | Mesa Boogie Mark 112 |
| 10 | MB R412 | Mesa Boogie Rectifier 412 |
| 11 | UK FRUIT 412 | Orange PC412 |
| 12 | UK FRUIT 212 | Orange PC212 |
| 13 | SOLDAN 412 | Soldano SLO 412 |
| 14 | DOCTOR M112 | DR.Z Maz 112 |
| 15 | DOCTOR ZWK112 | DR.Z Z-Wreck 212 |
| 16 | RJC 212 | Roland JC120 212 |
| 17 | BRITISH 30 212 | Vox AC30 212 |
| 18 | HWATT 412 | Hiwatt AP412 |
| 19 | BROWN 5051 412 | Peavey 5150 412 |

| 20 | DYNAST FLC 110 | Tone King Falcon 110 |
|---|---|---|
| 21 | ROCKS 212 | Two Rock 212 |
| 22 | ROCKS 112 | Two Rock 112 |
| 23 | BROWN 5053 412 | EVH 5150 412 |
| 24 | BLACKHOLE 412 | Blackstar HTV 412 |
| 25 | DIESEL HG 412 | Diezel Hagen 412 |
| 26 | ACOUSTIC 112 | 1 x 12″ cabinet for acoustic amplification |

## NS

| | MODEL NAME | BASED ON |
|---|---|---|
| 1 | NOISE GATE1 | JOYO NOISE KILLER |
| 2 | NOISE REDUCER | JOYO Intelligent Noise Reduction |
| 3 | NOISE GATE2 | JOYO Digital noise gate |

## EQ

| | MODEL NAME | BASED ON |
|---|---|---|
| 1 | GUITAR EQ | 5 band graphic EQ for guitar |
| 2 | METAL EQ | 5 band graphic EQ for BASS guitar |
| 3 | 6BANDS EQ | 6 band graphic EQ for Guitar |
| 4 | CUSTOM EQ | 3 band parametric EQ with adjustable frequencies and ±12Db boost/cut |

## MOD

| | MODEL NAME | BASED ON |
|---|---|---|
| 1 | PHASER | Based on the MOOER NINETY ORANGE |
| 2 | STEP PHASER | Square wave phase shifter |
| 3 | FAT PHASER | Low frequency phase shifter |
| 4 | FLANGER | Based on the MOOER E-LADY |
| 5 | JET-FLANGER | Based on the MOOER JET FLANGER |
| 6 | TREMOLO | Based on the MOOER TRELICOPTER |
| 7 | STUTTER | Choppy cut off filter |
| 8 | VIBRATO | Pitch modulation |
| 9 | PITCH SHIFT | Dry signal pitch shifter. Can simulate classic whammy. |
| 10 | DETUNE | Fine tune pitch adjustment |

| 11 | ROTARY | Simulates a vintage leslie rotating speaker |
|----|--------|---------------------------------------------|
| 12 | ANA-CHORUS | Stompbox style analog chorus |
| 13 | TRI-CHORUS | Rich multi stage chorus |
| 14 | RING MOD | Ring modulator |
| 15 | Q-FILTER | Static notch filter (like a half cocked wah pedal) |
| 16 | HIGH PASS | Static high frequency pass filter |
| 17 | LOW PASSS | Static low frequency pass filter |
| 18 | LOW GEAR | Auto volume swell |
| 19 | LOFI | Low rate sampling filter |

## DELAY

| MODEL NAME | | BASED ON |
|----|--------|---------------------------------------------|
| 1 | DIGITAL | Recreates the crystal-clear repeats of the 80's delay units |
| 2 | ANALOG | Modelled after classic stompbox delays with BB chips |
| 3 | DYNAMIC | Digital Delay which responds to instrument dynamics |
| 4 | REAL | Realistic and natural echo |
| 5 | TAPE | Recreates swirly 70's tape echo |
| 6 | MOD | Digital Delay with modulated repeats |
| 7 | REVERSE | Backwards delay |
| 8 | DUAL DELAY | 2 delays with independent controls |
| 9 | PINGPONG | Stereo delay |

## REVERB

| MODEL NAME | | BASED ON |
|----|--------|---------------------------------------------|
| 1 | ROOM | Small room reverb |
| 2 | HALL | Large room reverb |
| 3 | CHURCH | Huge room reverb |
| 4 | PLATE | Studio style plate reverb |
| 5 | SPRING | Classic spring reverb tank |
| 6 | MOD | Reverb with modulation |
| 7 | CAVE | Spacious and atmospheric reverb |

*NOTES: All product name called their company, here is only used in this product simulation effect of tone types.

# SPECIFICATIONS

No. of modules: 9

No. of Effect Types: 157

Preset : 300

Input: 1/4″ mono audio jack（1M Ohms)

Output: 1/4″ mono audio jack×2[left, right]（510 Ohms)

   XLR jack×2[left, right]（1K Ohms)


AUX IN: 1/8″ stereo audio jack（10K Ohms)

Headphone out: 1/8″ stereo audio jack（32 Ohms)

EXP2 : 1/4″ stereo jack cable(stereo cable is required)

Sampling rate: 44.1KHz

Bit rate: 24bit

Signal to noise ratio: 98dB

Impulse Response(IR):

   Format: WAV

   Sampling rate: 44.1KHz（Full sampling rate supported)

   Sampling accuracy: 24bit

   Samples: 512

Power requirements: 9V DC, 1A, ⊕━◖━⊖

*Disclaimer: any specification's update won't be amended in this manual

# TROUBLESHOOTING

## The unit cannot be turned on

Check up the power connection
------ensure that the power is connected correctly
Check up the adapter's specifications
------ensure that it's DC9V, > 1A ⊕—◖—⊖

## No sound or the volume is way too low

Check up the connecting cable
------ensure that all the connecting cable is connected
correctly and firmly.
Check up the guitar's volume, GEM BOX Ⅲ's 5 related
parameters regarding the volume control(please refer to
 preset tones-02 volume adjustment for details), ensure each
volume is appropriate. And GEM BOX Ⅲ is connecting to the
appropriate output devices.

## Too much noise

Check up the adapter
------ensure the transformer's specifications are
 DC9V/> 1A / ⊕—◖—⊖
(We suggest that you use the attached JOYO adapter)
Check up the connecting cable
------ensure that all the connecting cable is connected firmly,
with no quality problems.
Confirm the whereabouts of the power supply
------check up whether there are electric devices produce
 interference is being used around, and check up whether
the power port is earthed.