Owner’s Manual

Modeling Guitar Amplifier

VT20+
VT40+
VT80+
VT120+
IMPORTANT SAFETY INSTRUCTIONS

• Read these instructions.
• Keep these instructions.
• Heed all warnings.
• Follow all instructions.
• Do not use this apparatus near water.
• Mains powered apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.
• Clean only with dry cloth.
• Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
• Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
• Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet. (for USA and Canada)
• Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
• Only use attachments/accessories specified by the manufacturer.
• Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet. (for USA and Canada)
• Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
• Only use attachments/accessories specified by the manufacturer.
• Unplug this apparatus during lightning storms or when unused for long periods of time.
• Turning off the power switch does not completely isolate this product from the power line so remove the plug from the socket if not using it for extended periods of time.
• Install this product near the wall socket and keep the power plug easily accessible.
• WARNING—This apparatus shall be connected to a mains socket outlet with a protective earthing connection.
• Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
• Do not install this equipment on the far position from wall outlet and/or convenience receptacle.
• Do not install this equipment in a confined space such as a box for the conveyance or similar unit.
• Excessive sound pressure from earphones and headphones can cause hearing loss.
• Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

THE FCC REGULATION WARNING (for USA)

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.

Unauthorized changes or modification to this system can void the user's authority to operate this equipment.

Notice regarding disposal (EU only)

When this “crossed-out wheeled bin” symbol is displayed on the product, owner's manual, battery, or battery package, it signifies that when you wish to dispose of this product, manual, package or battery you must do so in an approved manner. Do not discard this product, manual, package or battery along with ordinary household waste. Disposing in the correct manner will prevent harm to human health and potential damage to the environment. Since the correct method of disposal will depend on the applicable laws and regulations in your locality, please contact your local administrative body for details. If the battery contains heavy metals in excess of the regulated amount, a chemical symbol is displayed below the “crossed-out wheeled bin” symbol on the battery or battery package.

* All product names and company names are the trademarks or registered trademarks of their respective owners.
Table of Contents

Introduction .................................................................................................................. 4
  Welcome! ...................................................................................................................... 4
  Main features ............................................................................................................. 4

Quick start .................................................................................................................... 5
  Setup ............................................................................................................................. 5
  Checking out the preset programs .............................................................................. 5
  Switching between the user programs ...................................................................... 6

Top and rear panels .................................................................................................... 7
  Top panel ..................................................................................................................... 7
  Rear panel .................................................................................................................. 11

About the three operating modes ............................................................................... 12
  Preset mode (recalling preset programs) .................................................................... 12
  Manual mode .............................................................................................................. 12
  Channel Select mode (recalling user programs) ......................................................... 13

Creating and saving sounds ....................................................................................... 14
  Creating a sound ....................................................................................................... 14
  Adjusting the noise reduction .................................................................................... 15
  Saving a program ....................................................................................................... 15
  Checking the original values saved in a program ...................................................... 16
  Restoring the factory settings ................................................................................... 16

Using the tuner .......................................................................................................... 18

Using a foot switch (VOX VFS5) ............................................................................... 19
  Foot switch operations in Channel Select mode ..................................................... 19
  Foot switch operations in Preset or Manual modes ................................................. 19

Signal path .................................................................................................................. 21

What is Valve Reactor technology? ........................................................................... 21

About the amp models and effect types ................................................................... 22
  Amp models .............................................................................................................. 22
  Pedal effects ............................................................................................................. 26
  Modulation and delay effects .................................................................................... 28
  Reverb effects .......................................................................................................... 31

Troubleshooting ........................................................................................................ 32

Specifications ............................................................................................................. 34

Song preset program ................................................................................................. 35

Program sheet ............................................................................................................ 36
Introduction

Welcome!

Thank you for purchasing the VOX Valvetronix VT20+/VT40+/VT80+/VT120+ modeling guitar amplifier.
To help you get the most out of your new amplifire, please read this manual carefully.
Get ready to enjoy the VT20+/VT40+/VT80+/VT120+ amazing guitar sounds!

Main features

- The VT20+/VT40+/VT80+/VT120+ uses Valve Reactor technology, and features a power amp circuit containing a 12AX7 (ECC83) dual triode valve (“vacuum tube”) that would normally be used in a preamp. This allows the amp to produce the true sound and feel of a bona fide all valve (tube) amp.
- Sophisticated modeling technology is used to provide thirty-three different amps.
- Twenty-five high-quality effects are built-in. You can use up to four effects including noise reduction simultaneously (or up to five effects if you use “multiple effects”).
- You can create a sound using the desired amp and effect, and save it in the memory as one of eight programs (two banks x four channels). Programs can be switched while you perform, either from the top panel or from a foot switch connected to the rear panel (Channel Select mode). For each amp model, three preset programs – Basic, Effect and Song – are provided, giving you a total of 99 programs (Preset mode). The song programs reproduce the tones of classic hits played by famous guitarists.
- Manual mode lets you use the VT20+/VT40+/VT80+/VT120+ as a conventional guitar amp. The physical positions of the actual knobs will be reflected by the sound.
- An optional VOX VFS5 foot switch (sold separately) can be connected, allowing you to switch programs or turn effects on/off with your feet.
- The power level control lets you adjust the output wattage of the power amp.
- The built-in auto tuner lets you tune a guitar connected to the INPUT jack.
- The AUX IN jack lets you connect a CD/MP3 player, enabling you to play the guitar along with recorded music.
Quick start

This Quick Start section is for those of you who would like to start using your new amp right away.
This manual contains information that will help you take full advantage of your Valvetronix amp, so be sure to read the rest of it after you’ve read the Quick Start section.

**HINT:** Illustrations of the top panel and rear panel are provided in “Top and rear panels” (p. 7), so refer to them as you try out your amp.

Setup

1. Turn the MASTER volume (p. 8) control on the amp all the way down.

2. Connect the included power cable to the AC power connector on the rear panel, and plug the other end into an AC outlet.

3. Plug the cable connected to your guitar into the top panel INPUT jack.

4. Turn on the POWER switch.

5. Slowly raise the MASTER volume to adjust the volume.

**HINT:** The POWER LEVEL control adjusts the output level of the power amp.

**NOTE:** There may be no sound for several seconds until the vacuum tube warms up. This is not a malfunction.

Checking out the preset programs

1. Press the top Panel PRESET switch.
   The PRESET LED will light up (Preset mode).

2. Turn the AMP selector to choose an amp model.
   A preset program for a sound that is typical of each amp model will be recalled, and the GAIN, VOLUME, TREBLE, MIDDLE, BASS, and effect settings will switch automatically.
**HINT:** The amp models are organized into three banks, each bank containing eleven models (a total of thirty-three). Press the AMP switch to change banks. Each time you press this, the AMP LED will switch to green, orange, or red, and you’ll switch to amp banks STD, SPL, and CST. Each of the thirty-three amp models has three preset programs (a total of ninety-nine programs). In Preset mode, pressing the PRESET switch will cycle the PRESET LED among green, orange, and red, switching among preset programs 1 (basic), 2 (effect), and 3 (song). Each song program reproduces the tone of a hit played by a famous guitarist. See the chart on page 35 for a list of the songs presets included with your amplifier.

**Switching between the user programs**

1. Press one of the top panel CHANNEL switches (CH1, CH2, CH3, or CH4). The LED for the CHANNEL switch you pressed will light up, and the user program specified for that channel will be recalled (Channel Select mode).

   **HINT:** The user programs are organized into two banks, each bank containing four channels (a total of eight programs). Press the CHANNEL BANK switch to switch banks. Each time you press it, the BANK LED will change between green and red, switching between channel banks 1 and 2.

   **HINT:** You can store your own favorite sounds in a program. For details, please refer to “Saving a program” (p. 15).
Top and rear panels

In this chapter we’re going to take a look at the top and rear panels of your Valvetronix amp.

Top panel

1. INPUT section

INPUT jack
This is where you plug in your guitar.

2. PRESETS/MANUAL section

PRESET switch and LED, MANUAL LED
Use this to switch to Preset mode or Manual mode, and to select preset programs (basic, effect, song). Pressing the PRESET switch repeatedly will cycle the program among basic, effect, and song. Press the PRESET switch for more than one second to engage Manual mode.

In Preset mode you can use the AMP switch/selector to select typical sounds (preset programs) for each amp model. The PRESET LED will be lit green (basic), orange (effect), or red (song) when you’re in Preset mode.

In Manual mode, the sound will reflect the physical position of all knobs except the VALUE and DEPTH knobs. This lets you use the VT20+ / VT40+ / VT80+ / VT120+ just as if it was a conventional guitar amp. The MANUAL LED will be lit when you’re in Manual mode.
3. **AMP section**

Here you can adjust the settings for the amp using the traditional VOX “chicken head” knobs.

**AMP switch and selector, LED**

Here you can select the amp mode. Each time you press the AMP switch, the bank and AMP LED color will change as follows:
- STD (Standard): green
- SPL (Special): orange
- CST (Custom): red

Use the AMP selector to choose a model within the selected amp bank.

The operation of the gain circuit, and the response of the tone controls and their location within the circuit are all switched according to the amp model you select here.

In Preset mode (i.e., when the PRESET LED is lit), you can recall preset programs that contain sounds and effect settings that are typical of each amp model.

**GAIN control**

This adjusts the pre-amp gain of the selected amp model.

**VOLUME control**

This adjusts the volume of the selected amp model.

**TREBLE, MIDDLE, BASS controls**

These adjust the tone for the high, mid, and low-frequency ranges. The change produced by each control will differ depending on the amp model that you’ve selected.

**MASTER volume**

This adjusts the volume that is output from the pre-amp to the Valve Reactor power amp. This setting will change the amount of the Valve Reactor’s distortion.

**NOTE:** The MASTER volume setting is not programmed.

**NOTE:** The amount of Valve Reactor distortion is also affected by the GAIN control and VOLUME control. For some settings, there will be almost no distortion.
4. CHANNEL/TUNER section

**BANK and CHANNEL switches, LEDs**

Use the BANK switch to select the channel bank.
In Channel Select mode, the BANK LED will be lit green or red.
Use the CHANNEL switches to select channels. The LED of the selected channel will be lit up. To save a new program, hold down the desired CHANNEL switch for two seconds or longer.
If you want to save a new program in a different bank, hold down the BANK switch for 0.5 seconds or longer (until the BANK LED starts blinking) and select the desired writing-destination bank (p. 15 “Saving a program”).
When the tuner function is turned on, the BANK and CH 1–4 LEDs will indicate the string number (a pitch note closest to the input sound) (p. 18 “Using the tuner”).

**TUNER (BYPASS) switch and LED**

Pressing the TUNER (BYPASS) switch will turn all effects off (bypass), and engage the tuner function. If you want to tune your instrument with the amp output muted, press the TUNER (BYPASS) switch for one second or longer.
When the tuner function is turned on, the TUNER (BYPASS) LEDs will display the tuning status (p. 18 “Using the tuner”).

5. PEDAL section

Here you can adjust the settings for pedal effects.
For details on each effect, refer to “Pedal effects” (p. 26).

**PEDAL selector**

This selects the effect type. When you switch the effect type, the parameter settings of the effect will be initialized.

**VALUE knob**

This adjusts the parameters of each effect.
To turn the pedal effect off, rotate this knob all the way to the left.

6. MODULATION/DELAY section

Here you can adjust the settings for modulation effects, delay effects, and other effects, such as pitch shift.
For details on each effect, refer to “Modulation and delay effects” (p. 28).
**MOD/DELAY selector**
This selects the modulation type, delay type, or other effect type. When you switch the effect type, the parameter settings of the effect will be initialized.

**DEPTH knob**
This adjusts the parameter of each effect, such as the depth of the effect. You can also adjust the modulation speed and other parameters by holding down the TAP switch and rotating the DEPTH knob. To turn the modulation/delay effect off, rotate this knob all the way to the left.

**TAP switch, LED**
This sets the speed of modulation-type effects, or the delay time of delay effects. The interval between two presses of the switch will be set as the speed or time. The LED will blink at intervals of the specified speed or time.

**HINT:** To set a precise speed or time that matches the tempo of a song, press the TAP switch several times in rhythm with the song.
If you selected PITCH SHIFT, pressing the TAP switch repeatedly will change the pitch setting.
If you selected FILTRON, pressing the TAP switch repeatedly will toggle between UP and DOWN for the envelope. When UP is selected, the TAP LED will light up.
You can also adjust the speed, pitch, or other parameters by holding down the TAP switch and rotating the DEPTH knob.
For details, please refer to “Modulation and delay effects” (p. 28).

7. **REVERB section**
Here you can adjust the settings for reverb effects. For details on each effect, refer to “Reverb effects” (p. 31).

**REVERB knob**
Depending on the position of the knob, this selects the reverb type (ROOM, SPRING, or HALL) or adjusts the mix amount of the reverb sound.
If you turn the control all the way to the left, the reverb effect will turn off.

8. **POWER LEVEL control**
This adjusts the output wattage of the power amp.

- **VT20+:** 0W–30W
- **VT40+:** 0W–60W
- **VT80+:** 0W–120W
- **VT120+:** 0W–150W

**NOTE:** The power level setting is not saved in the program.
9. **AUX IN/PHONES section**

**AUX IN jack**
Connect the analog output of an audio device to this jack. You can connect a CD or MP3 player here, and play along on the guitar while listening to your favorite songs.

**PHONES jack**
Use this jack if you want to output directly to a mixer or recording device, or when you want to use headphones. The signal that is output from this jack is taken from directly before the power amp, and the cabinet response of the guitar amp will be applied to it.

**NOTE:** If you connect this jack, no sound will be output from the internal speaker.

**NOTE:** Be sure to connect the headphones to this jack in stereo. If you connect them in monaural, the sound will not be output through the headphones.

---

**Rear panel**

1. **POWER switch**
This switch turns the power on or off.

2. **AC power connector**
This is where you connect the included power cord.

3. **FOOT SW (foot switch) jack**
You can connect an optional foot switch (VOX VFS5) here.
For more information on using the foot switch, refer to “Using the foot switch (VOX VFS5)” (p. 19).

**NOTE:** You must connect or disconnect the foot switch while the power is off. Malfunctions or damage may occur if you connect or disconnect the foot switch while the power is on.
About the three operating modes

Preset mode (recalling preset programs)

In Preset mode you can use the AMP switch/selector to recall programs for each amp model: “basic” programs containing typical sounds for that amp model, “effect” preset programs, and “song” preset programs that replicate tones from hit songs. Each program will automatically switch the settings for GAIN, VOLUME, TREBLE, MIDDLE, BASS, and effects. For details on the hit songs that are programmed for each amp model, refer to the table at end of this owner’s manual.

Switching to Preset mode

If the PRESET LED is dark, you’re not in Preset mode. Press the PRESET switch; the PRESET LED will light up, and you’ll be in Preset mode.

Recalling a preset program

Each of the thirty-three amp models contains three preset programs: “basic,” “effect,” and “song” (a total of ninety-nine programs).

With the PRESET LED lit, use the AMP switch/selector. The preset program specified for each amp model will be selected, regardless of the position of the top panel control knobs or EFFECTS selector. If you recall a preset program while the effect bypass is enabled, the bypass will be cancelled.

In preset mode, pressing the PRESET switch will make the PRESET LED cycle through green, orange, and red, switching among preset programs Basic, Effect, and Song.

Manual mode

When the VT20+/VT40+/VT80+/VT120+ is in Manual mode, it will behave like a conventional guitar amp. In other words, the sound will reflect the actual position of all the top panel selectors and control knobs (except for the VALUE and DEPTH knobs).

Switching to Manual mode

If the MANUAL LED is dark, the unit is not in Manual mode. Press and hold down the PRESET switch for one second or longer; the MANUAL LED will light up, and the unit will enter Manual mode.

NOTE: In Manual mode, if you adjust a parameter setting that is not affected by a knob position (such as the effect parameter and the noise reduction settings), the adjusted setting will be saved automatically, and that same setting will be recalled the next time the unit enters Manual mode. However, if at that time the PEDAL or MOD/DELAY selector is set to a different position than previously, the default parameter settings for that effect type will be loaded.
Channel Select mode (recalling user programs)

In Channel Select mode you can use the BANK switch and CHANNEL switches to recall the programs that are saved in each channel of the bank; all of the amp and effect parameters will switch automatically.

**Switching to Channel Select mode**

If the BANK and CHANNEL LEDs are dark, you’re not in Channel Select mode. Press the BANK switch or a CHANNEL switch; the BANK and CHANNEL LEDs will light up, and you’ll be in Channel Select mode.

**Switching channels**

Press a CHANNEL switch to change channels. The program specified for that channel will be selected, regardless of the position of the top panel selectors and control knobs. If you press the BANK switch, the bank will change, and the channel of the same number that had been selected in the previous bank will be selected.

**HINT:** If you connect the optional foot switch (VOX VFX5) to the rear panel, you’ll be able to switch banks/channels using your foot. For details, refer to “Using the foot switch (VOX VFS5)” (p. 19).
Creating and saving sounds

You can create a sound either by starting with an existing program that’s close to what you have in mind and then editing it, or by creating the sound “from scratch” (i.e., from an initialized state).

Creating a sound

Here’s how to create a sound from scratch.

1. Enter Manual mode.

2. Use the TUNER (BYPASS) switch to bypass the effect (the TUNER (BYPASS) LEDs will be lit up).
   If you want to use an effect, you’ll add it last.

3. Use the AMP switch/selector to select the amp that you want to use.
   **HINT:** For details on the amp models, refer to “Amp models” (p. 22).

4. Adjust the top panel knobs such as GAIN, VOLUME, TREBLE, MIDDLE, and BASS.

5. Turn the VALUE knob to set the noise reduction. This setting is also saved in the program. For details, refer to “Adjusting the noise reduction” (p. 15).
   **HINT:** Adjust the noise reduction so that there’s no unwanted noise when you’re not playing your guitar.

6. Press the TUNER (BYPASS) switch once again to defeat bypass (the TUNER (BYPASS) LEDs will be dark).

7. Set the effect.
   If you plan not to use effects, set the VALUE, DEPTH, and REVERB knobs to the “OFF” position. If the knobs have already been set to “OFF,” set them to any position other than “OFF,” then set them back to “OFF.”
   If you plan to use effects, select an effect, and adjust it as desired.
   For example if you want to add delay, turn the MOD/DELAY selector to “DELAY.” If the selector is already at “DELAY,” turn it to some other effect type and then back to “DELAY.”
   Use the TAP switch and DEPTH knob to set the delay time or delay level (the amount of delay sound that is added).
DELAY LEVEL: Turn the DEPTH knob (without holding down a switch).

DELAY TIME: Press the TAP switch twice (at the desired timing interval).

DELAY FEEDBACK: Turn the DEPTH knob while holding down the TAP switch.

HINT: For details on the effect types, refer to “About the amp models and effect types” (p. 22).

### Adjusting the noise reduction

Here’s how to adjust the way that noise is suppressed.

**NOTE:** Noise reduction is specified individually for each program. In Preset mode or Channel Select mode, the noise reduction setting will be lost if you switch to a different program or to Manual mode or turn off the power before saving.

1. Press the TUNER (BYPASS) switch to make the TUNER (BYPASS) LEDs light (Effect Bypass On).

2. Turn the VALUE knob to adjust the sensitivity of the noise reduction. Turning the knob toward the right will produce stronger noise reduction. If the knob is turned all the way to the left, noise reduction will be off and will have no effect.

   **NOTE:** Depending on the guitar you’re using, raising the noise reduction too high may cause notes to be cut off.

3. Press the TUNER (BYPASS) switch to make the TUNER (BYPASS) LEDs go dark.

### Saving a program

When you’ve created a sound you like, here’s how to save (write) it.

**HINT:** If you’re saving to a channel in the same bank, proceed from step 3.

1. Hold down the BANK switch for 0.5 seconds or longer. The BANK LED will blink.

2. Press the BANK switch to select the save-destination bank.

   **HINT:** If you decide to cancel the Write operation, press TUNER (BYPASS) at this point. The LED will stop blinking, and you’ll return to the previous mode.
3. For two seconds or longer, hold down the CHANNEL switch of the channel in which you want to save the sound. The program will be saved in that channel, and that bank and channel will be selected.

**NOTE:** The program that was previously in that location will be overwritten; i.e., the program that had been in the channel you selected in step 3 will be lost.

**NOTE:** The setting of the TUNER (BYPASS) switch is not saved in the program.

**NOTE:** If you’re creating your sound in Preset mode or Channel Select mode, the changes you made will be lost if you switch to another program or to Manual mode or turn off the power before saving.

### Checking the original values saved in a program

The original value indication lets you check the parameter settings that are saved in a program. When you turn a knob to change the value of a parameter, the PRESET LED (if you’re in Preset mode) or the LED of the selected channel (if you’re in Channel Select mode) will momentarily go dark when the edited value matches the value that’s stored in the program.

**HINT:** When you’ve found a program that you like, and are interested in knowing the actual settings, you can use this original value indication to find out.

**NOTE:** The MASTER volume and POWER LEVEL controls are not programmable, so the original value indication is not available for these controls. The original value indication will not appear when the tuner function is turned on in Channel Select mode, nor when the unit is in Manual mode.

### Restoring the factory settings

Here’s how to restore all settings of the VT20+/VT40+/VT80+/VT120+ to their factory-set state.

**NOTE:** This operation will erase all programs that had been saved to channels, and will initialize the factory-set programs.

**NOTE:** This will also initialize the effect and noise reduction settings that you made in Manual mode.

1. Turn off the power.
2. While holding down the CH1 and CH4 switches, turn on the power. When the BANK and CHANNEL LEDs start blinking, release the two switches you had been holding down.

   **HINT:** If you decide to cancel initialization at this point, press the TUNER (BYPASS) switch.

3. Press the TAP switch. The BANK and CHANNEL LEDs will change from blinking to lit, and initialization will begin. In one or two seconds, initialization will be completed, and the unit will enter Preset mode.

   **NOTE:** Never turn off the power while initialization is in progress.
Using the tuner

The tuner function lets you tune a guitar that’s connected to the INPUT jack.

1. Press the TUNER (BYPASS) switch. All effects will be bypassed and the tuner function will be turned on.

   ![Bypass indicator (No valid signal is input.)](image)

   **HINT:** If you want to tune your guitar with the amp output muted, hold down the TUNER (BYPASS) switch for one second or longer. When the amp is muted, the TUNER (BYPASS) LEDs will blink.

2. Play any open string.

   **NOTE:** Be careful not to play other strings accidentally.

3. Tune the string casually so that, from among five LEDs (BANK LED and CH 1–4 LEDs) only the LED that corresponds to the string lights up.

![LED diagram](image)

4. Tune the guitar precisely while observing the TUNER (BYPASS) LED indicators.

   ![LED indicators](image)

5. Press the TUNER (BYPASS) switch again to complete tuning.
Using a foot switch (VOX VFS5)

If you connect an optional foot switch (VOX VFS5: sold separately) to the rear panel FOOT SW jack, you'll be able to switch banks/channels and turn effect bypass on/off using your foot.

**NOTE:** You must connect or disconnect the foot switch while the power is off. Malfunctions or damage may occur if you connect or disconnect the foot switch while the power is on.

**NOTE:** Do not press two or more foot switches simultaneously. Doing so may cause malfunctions.

---

### Foot switch operations in Channel Select mode

**Switching banks/channels (BANK, CH1–4 switches)**

In Channel Select mode, you can press the VFS5’s switches to change the bank or channel.

**NOTE:** You can’t change to Channel Select mode by pressing the VFS5’s switches in Preset or Manual modes. Nor can you save a program by holding down the VFS5’s CH1–4 switches.

**NOTE:** Use of the top panel will not be reflected by the VFS5’s LEDs.

**Tap to set the speed/time (CH1–4 switches)**

You can set the speed of a modulation effect or the time of a delay effect by pressing the CHANNEL switch of the same number as the selected channel. The time will be set to the interval between two presses of this switch.

**NOTE:** If the modulation or delay effect is bypassed because you used the DEPTH knob, the CHANNEL switches will have no effect.

---

### Foot switch operations in Preset or Manual modes

**Tap to set the speed/time (CH3 switch)**

In Preset or Manual modes, you can set the speed of a modulation effect, or the time of a delay effect by pressing the VFS5’s CH3 switch. The time will be set to the interval between two presses of this switch.

**NOTE:** If the modulation or delay effect is bypassed because you used the DEPTH knob, the CHANNEL switches will have no effect.
**Effect on/off (CH1, 2, 4 switches)**

In Preset or Manual mode, you can press the VFS5’s CH1, 2 or CH4 switches to turn PEDAL, MOD/DELAY, and REVERB effects on/off respectively.

**NOTE:** If the effect is turned off because you used the VALUE, DEPTH, or REVERB knob, the CHANNEL switches will have no effect.

**NOTE:** The effect on/off status set by the VFS5’s operation is not saved in the program.
Signal path

Your guitar sound passes through the following sections. Refer to “Top and rear panels” (p. 7) in conjunction with this illustration.

What is Valve Reactor technology?

The Valve Reactor circuit used in the power amp of this VT20+/VT40+/VT80+/VT120+ amp is based on new technology. Most of the sound creation and tonal shaping is performed in the digital domain, but the Valve Reactor power amp is 100% analog. Passing the guitar signal through the analog power amp stage is an important factor in capturing the feel and tone of the original amp that was modeled.

Valve Reactor’s power stage is a miniature version of a true tube push/pull power amp. It uses a 12AX7 tube (dual triode; in other words, two vacuum tubes in one), and is similar to a real tube amp with an output transformer. The final output stage is connected to a specially designed VariAmp power circuit. This allows the output of the power stage to be continuously varied from minimum output to maximum output.

This VariAmp power circuit is completely transparent – i.e., it does not modify the signal – so the output tone will be the pure sound of a tube amp. The wide dynamic range seen in a conventional tube amp is also maintained. This dynamic range is a characteristic that is difficult to obtain from a solid-state amp; this is why a tube amp sounds more powerful than a solid-state amp of the same output specifications. The output of the Valve Reactor power amp “reads” the constantly changing impedance curve of the connected speaker system, and feeds this information back to the vacuum tube. In response to this information, the operation of the amp’s tube stage will vary according to the speaker load (impedance). This too is an important element in the sound of a true tube amp.

By adjusting these characteristics, every sound of that amp model can be faithfully reproduced. This power amp technology, for which a U.S. patent has been obtained, is unique to the VOX Valvetronix amps.
About the amp models and effect types

This section provides details about the amp models and effect types, such as pedal effect, modulation and delay effects and reverb effect.

Amp models

1. CLEAN

   STD (Standard)
   This models the clean channel of a high-quality amp that was produced only on special order, and was known as the overdrive special. With a beautifully rounded low range, a sharp midrange attack, and a sweet treble register, this is ideal for single coil pickups.

   SPL (Special)
   This models the clean channel of a Japanese-made amp with 2 x 12” speakers that went on sale in 1975. It is known for its clean full-range sound and its built-in stereo chorus, and is used on stages and in studios around the world.

   CST (Custom)
   This model is only a three-band tone control amplifier that produces a pure, clean tone. Setting TREBLE, MIDDLE, and BASS to the center will produce flat response of the pre amp.

   NOTE: If the input level is too high the sound may become distorted. To prevent this from happening reduce the gain in the preamp.

2. CALI CLEAN

   STD (Standard)
   The 6G5-A “Pro” amp was produced during the years 1960–1963, and was distinctive for its yellowish brown vinyl cover and round brown knobs. This 40W combo amp is known for its warm and clean tone.

   SPL (Special)
   This American-made tweed-covered 2x12” combo amp made in 1957 is known for its rich and clean tone that’s ideal for classic rock, blues, and country. By raising the volume you can also produce a powerful and punchy overdrive sound.

   CST (Custom)
   This models an American-made black-paneled amp that has been modified. With this modification, an already-superb amp gains even greater smoothness and additional warmth.

3. US BLUES

   STD (Standard)
   This models a 4x10” combo amp from 1959 that was originally designed for bass guitar. Its smooth and crisp overdrive sound will respond sensitively to your picking dynamics and to the volume of your guitar.
SPL (Special)
This models the 22W Bruno Cowtipper Pro II 22 which owes its existence to a special friend of VOX, the custom amp designer Tony Bruno. It responds with extreme sensitivity to your playing touch, and its silky-sweet clean tone becomes a crunch sound rich in overtones when you turn up the volume.

CST (Custom)
This models a wood-finished 30W boutique amp head that costs more than $25,000. It delivers sparkling glassy clean tones. It also produces overdrive sounds that are startlingly sweet in a musical way when the gain is raised.

4. US 2x12
STD (Standard)
This models a black-faced 2x12" combo amp that has become an indispensible item for country and blues players. Its tight and clean sound provides deep piano-like bass tones, and will deliver the classic Chicago blues tone particularly when used with single coil pickups.

SPL (Special)
This models a beautiful 30W boutique amp head renowned for its peerless quality and true point-to-point wiring. Based on a concept similar to that of the VOX AC30, this amp is known for its rich overtones, sparkling clean tone, and great-sounding overdrive.

CST (Custom)
Based on a crunch-distortion amp, this original amp model changes the tone control to an active circuit that is more powerful than the conventional one, allowing a wide range of tones to be created.
Raise the TREBLE for sparkling chords or lower it for a tasteful blues setting, or turn up the MIDDLE for a rock backing sound.

5. VOX AC15
STD (Standard)
This models the AC15TB, which combines the beautifully sweet tonal character of the AC15’s low output power amp with the sound-creating flexibility of the AC30’s top boost channel.

SPL (Special)
This models channel 2 of the VOX AC15 (1x12”, 15W), which was manufactured in 1962 and was a big hit for its compact cabinet, power, and great tone – along with then-popular British bands.

CST (Custom)
Designed to emulate the tones of the thick channel on the VOX Night Train Amplifier this tone is a modern take on the classic VOX pairing of 12AX7 preamp tubes and EL84 power tubes. Think Classic British Crunch.
6. VOX AC30

STD (Standard)
This models an AC30 amp with a “top boost” circuit that was included as standard beginning in 1964. It delivers a smooth and refined top end, a majestically deep overdrive, and a rich, brilliant clean sound.

SPL (Special)
Designed after our VOX Hand-wired Heritage AC30H2 this model provides the sparkle that is synonymous with the pairing of a classic VOX amplifier and the famed Celestion Alnico Blue.

CST (Custom)
This models the AC30BM Brian May signature model which faithfully reproduces every nuance of the legendary original AC30 from the 1950’s. This setting provides the screaming sound of the amp being overdriven with the treble booster turned on.

7. UK ROCK

STD (Standard)
This 45W amp head was originally manufactured from 1962 to 1966, and was based on a tweed-covered bass amp. Its high-gain design was the beginning of the British amp tone revolution that continues to this day.

SPL (Special)
This models a UK-manufactured 100W single-channel head with master volume made in 1983. Turn the GAIN control all the way up to get the thick, snarling hard rock and heavy metal sound that dominated the 80’s.

CST (Custom)
This models the high treble channel of a hand-wired amp head made in England during the early 60’s. Raising the volume of this 50W output amp all the way produces the crunch that will forever be the sound of rock’n’roll.

8. UK METAL

STD (Standard)
This models the high-gain channel of a modern 100W amp. While individual notes are clearly defined, it delivers a monster sound that’s quite aggressive and arrogant.

SPL (Special)
This models an English-made 100W amp head released in 2007 and boasting a four-channel design with powerful tone. We’ve used the “Overdrive 1” channel, which produces a tight low-end and transparent high-gain metal sound.

CST (Custom)
Based on a UK-made 100W head, this amp was created for a famous guitarist known for his amazing tone, slash rhythms, and fondness for silk hats. If you have a desire for the ultimate metal tones, this amp is the perfect choice.
9. US HIGH GAIN

**STD (Standard)**
This models a 100W boutique amp head manufactured in North Hollywood. This amp can be switched between power tube class AB or class A modes; the class AB mode used on the VT20+/VT40+/VT80+/VT120+ produces rich overtones and features a highly musical response.

**SPL (Special)**
This models the overdrive channel of a snakeskin-covered 100W amp head built in 1991. With an open low-end and a compressed mid/high range, its powerful, heavy sound delivers a forceful tone that will not break down even with the most extreme gain settings.

**CST (Custom)**
Designed to model the sound behind “POWER METAL” this amp will crank.

10. US METAL

**STD (Standard)**
This models the modern high-gain channel from a wild beast of an amp. Its deep and loose low-end, sparkling highs, and monstrous gain are ideal for guitars tuned as low as possible, or for metal acts wielding seven-string guitars.

**SPL (Special)**
This models a California-made amp head with a three-channel design and versatile gain switches that produce a wide variety of sounds. We’ve modeled the lead channel, which produces the ultimate high-gain tone.

**CST (Custom)**
This two-channel 120W head manufactured in Mississippi was designed for a legendary guitar hero known for his “brown sound.” This amp models features a high-gain sound that’s ideal for the tapping performance technique.

11. BOUTIQUE METAL

**STD (Standard)**
This models the overdrive channel of a 100W high-quality amp that was produced only on special order, and was known as the overdrive special. The wonderful sustain obtained by raising the GAIN control is smooth and soulful.

**SPL (Special)**
This models the crushing high-gain sound that emanated from a German-made 100W four-channel amp head. We chose the “Heavy” channel, which delivers a startling tightness when played with a dropped-D metal tuning.

**CST (Custom)**
This is an original amp model based on a recent high-gain amp, marked by a rich and hot mid-range tone and extremely powerful sustain. Since active-circuit tone controls are used on this model as well, a wide range of tonal variety can be obtained.
Pedal effects

The VT20+/VT40+/VT80+/VT120+ provides eleven of the most popular types of pedal effect. You can use the VALUE knob to adjust the major parameters.

**NOTE:** In order to edit the pedal effect parameter settings, effect bypass must be off (the BYPASS LED must be dark). If bypass is on (BYPASS LED lit), turning the VALUE knob will adjust the noise reduction sensitivity instead of an effect parameter.

**NOTE:** To turn the pedal effect off, rotate the VALUE knob all the way to the left.

1. **COMP**

This models a compressor pedal that is popular for its percussive clean sound. It’s perfect for the pop or funk music of the 80’s and 90’s. It can also produce a singing, mellow sustain.

<table>
<thead>
<tr>
<th>Knob</th>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VALUE</td>
<td>SENS</td>
<td>Adjusts the sensitivity. Turn the knob toward the right to increase the compression and sustain.</td>
</tr>
</tbody>
</table>

2. **ACOUSTIC**

This is ideal when you want to play acoustic sounds. It’s a simulator that transforms the sound of an electric guitar into the sound of an acoustic guitar. We recommend that you use this with a single-coil (i.e., low output) neck (front) pickup.

<table>
<thead>
<tr>
<th>Knob</th>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VALUE</td>
<td>TONE</td>
<td>Adjusts the tone.</td>
</tr>
</tbody>
</table>

3. **AUTO WAH**

This models an auto-wah; a device that creates an automatic “wah” effect that varies with your picking dynamics (i.e., how hard or soft you hit the strings) - a quirky, but useful effect.

<table>
<thead>
<tr>
<th>Knob</th>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VALUE</td>
<td>SENS/POL</td>
<td>Adjusts the sensitivity of response to the guitar volume.</td>
</tr>
</tbody>
</table>

4. **U-VIBE**

This models a famous phase/vibrato pedal. This effect simulates a rotary speaker, producing a seductive and emotional tone.

<table>
<thead>
<tr>
<th>Knob</th>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VALUE</td>
<td>SPEED</td>
<td>Adjusts the vibrato speed.</td>
</tr>
</tbody>
</table>
5. BRN OCTAVE
This models a pedal that adds gravity to a sound by generating a sound one octave below, and mixing this with the original (dry) sound.

<table>
<thead>
<tr>
<th>Knob</th>
<th>Parameter</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VALUE</td>
<td>LEVEL</td>
<td>LEVEL</td>
<td>Adjusts the mix amount of the octave-lower sound.</td>
</tr>
</tbody>
</table>

6. TREBLE BOOST
This models the treble booster built into the VOX VBM-1, which was designed for use with the VOX AC30.
It adds “crunch” to overdrive sound.

<table>
<thead>
<tr>
<th>Knob</th>
<th>Parameter</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VALUE</td>
<td>GAIN</td>
<td>GAIN</td>
<td>Adjusts the gain.</td>
</tr>
</tbody>
</table>

7. TUBE OD
This models a well-known overdrive pedal in a green box; the inexpressible warmth of its sound has made it a classic effect.

<table>
<thead>
<tr>
<th>Knob</th>
<th>Parameter</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VALUE</td>
<td>GAIN</td>
<td>GAIN</td>
<td>Adjusts the gain.</td>
</tr>
</tbody>
</table>

8. GOLD DRIVE
This models an overdrive unit named after a half-human half-horse creature from Greek mythology. When the gain is lowered, this acts as a booster that preserves the original sound of the guitar. Raising the gain makes this function as an overdrive with a rich mid-range.

<table>
<thead>
<tr>
<th>Knob</th>
<th>Parameter</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VALUE</td>
<td>GAIN</td>
<td>GAIN</td>
<td>Adjusts the gain.</td>
</tr>
</tbody>
</table>

9. ORG DIST
This is a classic Japanese-made distortion unit in an orange box.

<table>
<thead>
<tr>
<th>Knob</th>
<th>Parameter</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VALUE</td>
<td>GAIN</td>
<td>GAIN</td>
<td>Adjusts the gain.</td>
</tr>
</tbody>
</table>

10. METAL DIST
This is a distortion unit that’s ideal for metal.

<table>
<thead>
<tr>
<th>Knob</th>
<th>Parameter</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VALUE</td>
<td>GAIN</td>
<td>GAIN</td>
<td>Adjusts the gain.</td>
</tr>
</tbody>
</table>

11. FUZZ
Retro, brazen and rough-edged.

<table>
<thead>
<tr>
<th>Knob</th>
<th>Parameter</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VALUE</td>
<td>GAIN</td>
<td>GAIN</td>
<td>Adjusts the gain.</td>
</tr>
</tbody>
</table>
Modulation and delay effects

The VT20+/VT40+/VT80+/VT120+ provides eleven types of modulation effects, delays and other effects. The SPEED parameter of modulation effects and the TIME parameter of delay effects can be easily adjusted by pressing the TAP switch twice.

**HINT:** To set a precise speed or time that matches the tempo of a song, press the TAP switch several times in rhythm with the song. You can use the DEPTH knob to adjust most of the parameters. In addition, you can hold down the TAP switch and turn the DEPTH knob to make more detailed settings.

**NOTE:** To turn the modulation/delay effect off, rotate the DEPTH knob all the way to the left.

1. **CE CHORUS**

   This models a standard rich-sounding analog chorus unit.

<table>
<thead>
<tr>
<th>Knob/Switch</th>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEPTH</td>
<td>DEPTH</td>
<td>Adjusts the modulation depth.</td>
</tr>
<tr>
<td>TAP</td>
<td>SPEED</td>
<td>Adjusts the modulation speed in a range of 0.1...15 Hz.</td>
</tr>
<tr>
<td>TAP+DEPTH</td>
<td>SPEED</td>
<td>Adjusts the speed.</td>
</tr>
</tbody>
</table>

2. **MULTI CHORUS**

   This is a deep and spacious chorus with three chorus taps.

<table>
<thead>
<tr>
<th>Knob/Switch</th>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEPTH</td>
<td>DEPTH</td>
<td>Adjusts the modulation depth.</td>
</tr>
<tr>
<td>TAP</td>
<td>SPEED</td>
<td>Adjusts the modulation speed in a range of 0.1...15 Hz.</td>
</tr>
<tr>
<td>TAP+DEPTH</td>
<td>SPEED</td>
<td>Adjusts the speed.</td>
</tr>
</tbody>
</table>

3. **FLANGER**

   This models a truly classic analog flanger associated with a great guitarist of today who is honored by many as “the godfather of two-handed tapping.”

<table>
<thead>
<tr>
<th>Knob/Switch</th>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEPTH</td>
<td>RESONANCE</td>
<td>Adjusts the amount of resonance.</td>
</tr>
<tr>
<td>TAP</td>
<td>SPEED</td>
<td>Adjusts the modulation speed in a range of 0.1...15 Hz.</td>
</tr>
<tr>
<td>TAP+DEPTH</td>
<td>SPEED</td>
<td>Adjusts the speed.</td>
</tr>
</tbody>
</table>
4. ORG PHASE
This models a popular analog phaser in a banana-colored box.

<table>
<thead>
<tr>
<th>Knob/Switch</th>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEPTH</td>
<td>RESONANCE</td>
<td>Adjusts the amount of resonance.</td>
</tr>
<tr>
<td>TAP</td>
<td>SPEED</td>
<td>Adjusts the modulation speed in a range of 0.1...15 Hz.</td>
</tr>
<tr>
<td>TAP+DEPTH</td>
<td>SPEED</td>
<td>Adjusts the speed.</td>
</tr>
</tbody>
</table>

5. TWIN TREM
This models the acclaimed tremolo circuit built into a US-made combo amp.

<table>
<thead>
<tr>
<th>Knob/Switch</th>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEPTH</td>
<td>DEPTH</td>
<td>Adjusts the tremolo depth.</td>
</tr>
<tr>
<td>TAP</td>
<td>SPEED</td>
<td>Adjusts the modulation speed in a range of 1.0...15 Hz.</td>
</tr>
<tr>
<td>TAP+DEPTH</td>
<td>SPEED</td>
<td>Adjusts the speed.</td>
</tr>
</tbody>
</table>

6. G4 ROTARY
This models a rotary speaker.

<table>
<thead>
<tr>
<th>Knob/Switch</th>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEPTH</td>
<td>DEPTH</td>
<td>Adjusts the modulation depth.</td>
</tr>
<tr>
<td>TAP</td>
<td>SPEED</td>
<td>Adjusts the modulation speed in a range of 0.8...15 Hz.</td>
</tr>
<tr>
<td>TAP+DEPTH</td>
<td>SPEED</td>
<td>Adjusts the speed.</td>
</tr>
</tbody>
</table>

7. PITCH SHIFT
This is a pitch shifter that allows you to play chords, and has a variable range of one octave upward or downward.

<table>
<thead>
<tr>
<th>Knob/Switch</th>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEPTH</td>
<td>BALANCE</td>
<td>Adjusts the balance between direct sound and effect sound.</td>
</tr>
<tr>
<td>TAP</td>
<td>PITCH</td>
<td>Specifies the amount by which the pitch of the effect sound will be shifted; an octave, a 4th, or a 5th. Each time you press the switch, the setting will cycle between -12, -7, -5, DT (Detune), +5, +7, +12, -12.</td>
</tr>
<tr>
<td>TAP+DEPTH</td>
<td>PITCH</td>
<td>Specifies the amount by which the pitch of the effect sound will be shifted in semitone units (100 cents). The setting will change as follows: -12, -11, ..., -1, 0, DT (Detune), +1, ..., +12</td>
</tr>
</tbody>
</table>
8. FILTRON
This is an envelope-controlled filter (wah) that opens or closes a filter based on input from a guitar.

<table>
<thead>
<tr>
<th>Knob/Switch</th>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEPTH</td>
<td>SENS</td>
<td>Adjusts the sensitivity to the guitar's volume.</td>
</tr>
<tr>
<td>TAP</td>
<td>TYPE</td>
<td>Specifies the direction of movement (up or down). If Up is selected, the TAP switch LED will light.</td>
</tr>
<tr>
<td>TAP+DEPTH</td>
<td>RESONANCE</td>
<td>Adjusts the amount of resonance.</td>
</tr>
</tbody>
</table>

9. TAPE ECHO
This models an acclaimed analog tape echo. Originally, echo was created by a tape head, and the delay time was specified by changing the speed of the motor.

<table>
<thead>
<tr>
<th>Knob/Switch</th>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEPTH</td>
<td>LEVEL</td>
<td>Adjusts the mix amount of the delay sound.</td>
</tr>
<tr>
<td>TAP</td>
<td>TIME</td>
<td>Specifies the delay time in a range of 40...1048 ms.</td>
</tr>
<tr>
<td>TAP+DEPTH</td>
<td>FEEDBACK</td>
<td>Adjusts the amount of feedback.</td>
</tr>
</tbody>
</table>

10. DELAY
This models an analog delay that uses a Bucket Brigade Device (BBD). Its audio quality is lo-fi, but it is popular for its warm sound.

<table>
<thead>
<tr>
<th>Knob/Switch</th>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEPTH</td>
<td>LEVEL</td>
<td>Adjusts the mix amount of the delay sound.</td>
</tr>
<tr>
<td>TAP</td>
<td>TIME</td>
<td>Specifies the delay time in a range of 40...1048 ms.</td>
</tr>
<tr>
<td>TAP+DEPTH</td>
<td>FEEDBACK</td>
<td>Adjusts the amount of feedback.</td>
</tr>
</tbody>
</table>

11. CHORUS+DELAY
This effect combines a chorus and a delay. The chorus depth is fixed; only the delay parameters can be adjusted.

<table>
<thead>
<tr>
<th>Knob/Switch</th>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEPTH</td>
<td>LEVEL</td>
<td>Adjusts the mix amount of the delay sound.</td>
</tr>
<tr>
<td>TAP</td>
<td>TIME</td>
<td>Specifies the delay time in a range of 40...1048 ms.</td>
</tr>
<tr>
<td>TAP+DEPTH</td>
<td>FEEDBACK</td>
<td>Adjusts the amount of feedback.</td>
</tr>
</tbody>
</table>
Reverb effects

Three types of reverb are provided. Depending on the position of the REVERB knob, this selects the reverb type (ROOM, SPRING, or HALL) or adjusts the mix amount of the reverb sound.

**NOTE:** To turn the reverb effect off, rotate the REVERB knob all the way to the left.

1. **ROOM**
   This reverb type simulates a typical room that contains numerous early reflections.

2. **SPRING**
   This simulates the spring reverb that’s built into many guitar amps.

3. **HALL**
   This models the reverberation of a concert hall containing numerous echo components.
Troubleshooting

1. Power does not turn on when you turn the POWER switch on
   • Is the power cable connected to the rear panel AC power inlet?
   • Is the power cable connected to an AC outlet?
   • Could the AC outlet be malfunctioning?
   • Could the power cable be damaged?

2. No sound from the amp
   • Could your guitar’s volume be turned down?
   • Is your guitar cable connected correctly?
   • Could your guitar cable be broken?
   • Could the top panel MASTER volume be turned down?
   • Could headphones be connected to the top panel PHONES jack? If so, disconnect them.
   • Check the settings of the GAIN, VOLUME, TREBLE, MIDDLE, and BASS controls. For some amp models, there may be no sound from the amp if the TREBLE, MIDDLE, and BASS controls are turned down, just as for the circuitry of the original amp.
   • If the VT20+/VT40+/VT80+/VT120+ is in Manual mode (MANUAL LED lit), could the GAIN, VOLUME, TREBLE, MIDDLE, and BASS controls be set to 0 or the minimum value?

3. Insufficient volume from the amp
   • Could your guitar’s volume be turned down?
   • Could the MASTER volume be turned down?
   • Could the POWER LEVEL be turned down?
   • Check the settings of the GAIN, VOLUME, TREBLE, MIDDLE, and BASS controls. For some amp models, there may be no sound from the amp if the TREBLE, MIDDLE, and BASS controls are turned down, just as for the circuitry of the original amp.
   • If the VT20+/VT40+/VT80+/VT120+ is in Manual mode (MANUAL LED lit), could the GAIN, VOLUME, TREBLE, MIDDLE, and BASS controls be set to 0 or the minimum value?
4. No sound from the PHONES jack

- Could the top panel MASTER volume be turned down?
- Check whether sound is output from the amp.
  To do this you must disconnect the PHONES jack, since sound will not be
  output from the internal speaker if headphones or a cable are connected to the
  PHONES jack.
  If no sound is produced from the amp, check the items listed in “No sound
  from the amp,” above.
  If there is sound from the amp, check whether your headphones or cable
  might be broken or malfunctioning.

5. Effects are not applied

- Could the TUNER (BYPASS) LEDs be lit?
  If it is lit, the effect is bypassed. Press the TUNER (BYPASS) switch to defeat
  bypass. The TUNER (BYPASS) LEDs will go dark.
- Could the VALUE, DEPTH, or REVERB knob be set to OFF or the minimum
  value?
  Adjust the knobs.
- Could the effect be turned off via foot switch (VOX VFS5) operation?
  Press one of the VFS5’s CH switches, or rotate the top panel VALUE, DEPTH,
  or REVERB knob to turn the effect on.

6. No sound is heard from a device connected to
the AUX IN jack

- Is the device connected correctly?
- Could the volume of the device be set to minimum?
## Specifications

### Number of amp models:
33

### Number of effects
- Pedal effect types: 11
- Modulation/delay types: 11
- Reverb types: 3
- Noise reduction: 1

### Number of programs
- Preset: 99
- User: 8 (two banks x four channels)

### Input/output jacks
- Top panel: INPUT jack x1, PHONES jack x1, AUX IN jack
- Rear panel: FOOT SW jack x1

### Power amp output
- VT20+: maximum 30W RMS @ 4 ohms
- VT40+: maximum 60W RMS @ 8 ohms
- VT80+: maximum 120W RMS @ 4 ohms
- VT120+: maximum 150W RMS @ 4 ohms

### Speaker
- VT20+: VOX original (8 inches 4 ohms) x1
- VT40+: VOX original (10 inches 8 ohms) x1
- VT80+: VOX original (12 inches 4 ohms) x1
- VT120+: VOX original (12 inches 8 ohms) x2

### Signal processing
- A/D conversion: 24-bit
- D/A conversion: 24-bit

### Power supply requirements:
AC, local voltage

### Power consumption
- VT20+: 25W
- VT40+: 36W
- VT80+: 54W
- VT120+: 66W

### Dimensions (W x D x H)
- VT20+: 422 x 222 x 376mm / 16.61 x 8.74 x 14.80 inches
- VT40+: 422 x 222 x 406mm / 16.61 x 8.74 x 15.98 inches
- VT80+: 451 x 261 x 438mm / 17.76 x 10.28 x 17.24 inches
- VT120+: 678 x 261 x 511mm / 26.69 x 10.28 x 20.12 inches

### Weight
- VT20+: 8.8kg / 19.40lbs.
- VT40+: 10.9kg / 24.03lbs.
- VT80+: 14.1kg / 31.09lbs.
- VT120+: 21.5kg / 47.41lbs.

### Included items:
- Power cable

### Options (sold separately):
- Foot switch (VOX VFS5)

*Specifications and appearance are subject to change without notice for improvement.*
## Song preset program

<table>
<thead>
<tr>
<th>Amp Model Name (GREEN)</th>
<th>Song Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>01 CLEAN STD (Standard)</td>
<td>Gravity</td>
</tr>
<tr>
<td>02 CALI CLEAN STD (Standard)</td>
<td>Brown Sugar</td>
</tr>
<tr>
<td>03 US BLUES STD (Standard)</td>
<td>Cocaine</td>
</tr>
<tr>
<td>04 US 2x12 STD (Standard)</td>
<td>Creep</td>
</tr>
<tr>
<td>05 VOX AC15 STD (Standard)</td>
<td>I Feel Fine</td>
</tr>
<tr>
<td>06 VOX AC30 STD (Standard)</td>
<td>Pride</td>
</tr>
<tr>
<td>07 UK ROCK STD (Standard)</td>
<td>Foxy Lady</td>
</tr>
<tr>
<td>08 UK METAL STD (Standard)</td>
<td>Enter Sandman</td>
</tr>
<tr>
<td>09 US HIGH GAIN STD (Standard)</td>
<td>Song 2</td>
</tr>
<tr>
<td>10 US METAL STD (Standard)</td>
<td>Know Your Enemy</td>
</tr>
<tr>
<td>11 BOUTIQUE METAL STD (Standard)</td>
<td>Blue Wind</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Amp Model Name (ORANGE)</th>
<th>Song Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>01 CLEAN SPL (Special)</td>
<td>Message In A Bottle</td>
</tr>
<tr>
<td>02 CALI CLEAN SPL (Special)</td>
<td>Under The Bridge</td>
</tr>
<tr>
<td>03 US BLUES SPL (Special)</td>
<td>Sultans Of Swings</td>
</tr>
<tr>
<td>04 US 2x12 SPL (Special)</td>
<td>Rebel Rebel</td>
</tr>
<tr>
<td>05 VOX AC15 SPL (Special)</td>
<td>You Enjoy Myself</td>
</tr>
<tr>
<td>06 VOX AC30 SPL (Special)</td>
<td>Smoke On The Water</td>
</tr>
<tr>
<td>07 UK ROCK SPL (Special)</td>
<td>Beat It</td>
</tr>
<tr>
<td>08 UK METAL SPL (Special)</td>
<td>For the Love of God</td>
</tr>
<tr>
<td>09 US HIGH GAIN SPL (Special)</td>
<td>Best Of You</td>
</tr>
<tr>
<td>10 US METAL SPL (Special)</td>
<td>Satch Boogie</td>
</tr>
<tr>
<td>11 BOUTIQUE METAL SPL (Special)</td>
<td>Smells Like Teen Spirit</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Amp Model Name (RED)</th>
<th>Song Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>01 CLEAN CST (Custom)</td>
<td>Wonderwall</td>
</tr>
<tr>
<td>02 CALI CLEAN CST (Custom)</td>
<td>Pride and Joy</td>
</tr>
<tr>
<td>03 US BLUES CST (Custom)</td>
<td>Walk This Way</td>
</tr>
<tr>
<td>04 US 2x12 CST (Custom)</td>
<td>Back In Black</td>
</tr>
<tr>
<td>05 VOX AC15 CST (Custom)</td>
<td>Paranoid</td>
</tr>
<tr>
<td>06 VOX AC30 CST (Custom)</td>
<td>Tie Your Mother Down</td>
</tr>
<tr>
<td>07 UK ROCK CST (Custom)</td>
<td>Black Dog</td>
</tr>
<tr>
<td>08 UK METAL CST (Custom)</td>
<td>Sweet Child O’ Mine</td>
</tr>
<tr>
<td>09 US HIGH GAIN CST (Custom)</td>
<td>Five Minutes Alone</td>
</tr>
<tr>
<td>10 US METAL CST (Custom)</td>
<td>Hot For Teacher</td>
</tr>
<tr>
<td>11 BOUTIQUE METAL CST (Custom)</td>
<td>Raining Blood</td>
</tr>
</tbody>
</table>

* The equipment used in the song by the actual guitarist may differ.
Program sheet

When you come up with a sound you like, you can use this sheet to make a note of your settings. We suggest that you make photocopies of this program sheet, and make your notes on the photocopies. Remember to note the NR and SPEED settings.
IMPORTANT NOTICE TO CONSUMERS

This product has been manufactured according to strict specifications and voltage requirements that are applicable in the country in which it is intended that this product should be used. If you have purchased this product via the internet, through mail order, and/or via a telephone sale, you must verify that this product is intended to be used in the country in which you reside.

WARNING: Use of this product in any country other than that for which it is intended could be dangerous and could invalidate the manufacturer’s or distributor’s warranty.

Please also retain your receipt as proof of purchase otherwise your product may be disqualified from the manufacturer's or distributor's warranty.