Modeling Effect Processor

ToneLab ST

VOX
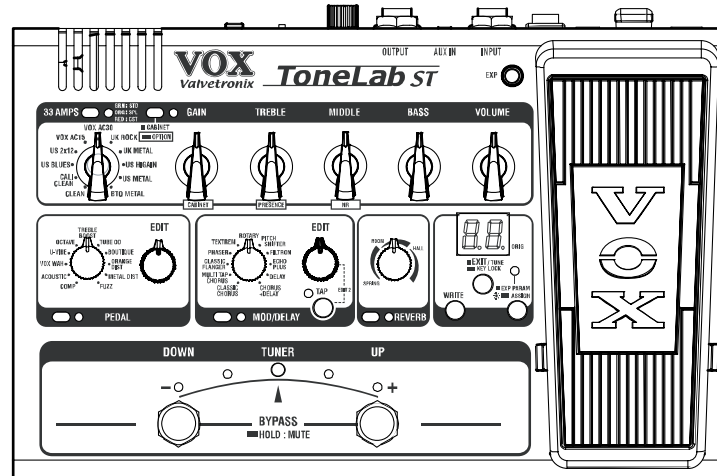AMPLIFICATION LTD.

Owner's Manual

Precautions

Location
Using the unit in the following locations can result in a malfunction.
- In direct sunlight
- Locations of extreme temperature or humidity
- Excessively dusty or dirty locations
- Locations of excessive vibration
- Close to magnetic fields

Power supply
Please connect the designated AC adapter to an AC outlet of the correct voltage. Do not connect it to an AC outlet of voltage other than that for which your unit is intended.

Handling
To avoid breakage, do not apply excessive force to the switches or controls.

Care
If the exterior becomes dirty, wipe it with a clean, dry cloth. Do not use liquid cleaners such as benzene or thinner, or cleaning compounds or flammable polishes.

Keep this manual
After reading this manual, please keep it for later reference.

Keeping foreign matter out of your equipment
Never set any container with liquid in it near this equipment. If liquid gets into the equipment, it could cause a breakdown, fire, or electrical shock.

Be careful not to let metal objects get into the equipment. If something does slip into the equipment, unplug the AC adapter from the wall outlet. Then contact your nearest VOX dealer or the store where the equipment was purchased.

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.

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.

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

Table of Contents

Introduction

Thank you for purchasing the VOX Modeling Effect Processor ToneLab ST.
In order to get the most out of your new gear, please read this owner's manual carefully and use the product as directed. Keep the owner's manual in a safe place for future reference.

Main features

- The ToneLab ST features a power amp circuit that uses a miniature triode 12AX7 (ECC83) vacuum tube normally used in preamps, generating the sound of a real tube amp, and capturing the feel and tone of the original amplifier (Valvetronix technology).

- Thirty-three amp models using sophisticated modeling technology are built-in. There are also eleven speaker cabinet models, giving you an easy way to recall sounds ranging from vintage amps of the past to expensive high-end tube amps.

- Twenty-five high quality effects are built-in, allowing you to simultaneously use up to eight effect types including noise reduction.

- There are fifty preset sounds that take advantage of the amps and effects, together with fifty user-editable programs, giving you a total of one hundred programs that you can switch between by pressing a foot switch while you perform.

- The expression pedal lets you control wah, volume, or many other parameters with your foot – a great asset during live performance.

- The Quick Assign function makes it easy to assign parameters or other functions to the expression pedal.

- The Amp/Line switch ensures that your sound is correctly optimized whether you're using a guitar amp or line-level system as your audio output device.

- An Auto Chromatic Tuner is built-in for easy tuning.

- If you use a commercially available USB cable to connect the ToneLab ST to your computer, you'll be able to use librarian software on your computer to manage user programs, or use the ToneLab ST as a USB audio interface.

Panel Tour for the guitarist (Top and rear panels)

Here we'll introduce you to the switches, controls, and connectors on the ToneLab ST's top panel.

Top panel
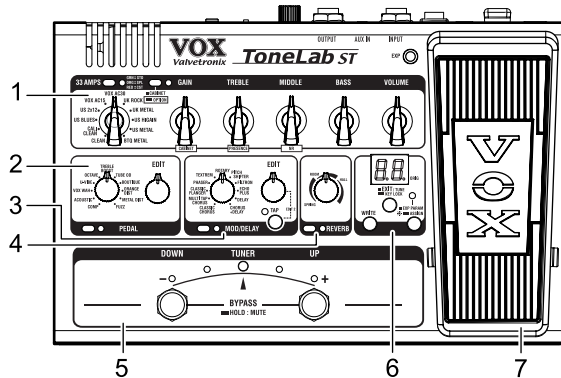
1. Amp section

Here you'll create settings for the amp model.
For details on each effect, refer to "Amp models" (p.13).
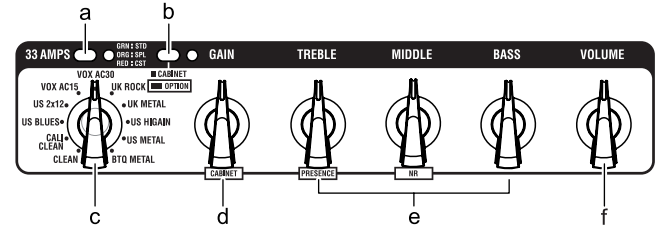
a. AMP bank select switch and LED
Use this to switch the bank, or to turn the amp model on/off.

Each time you press the switch, the bank will cycle between STD (Standard), SPL (Special), CST (Custom), STD ...

The color of the LED will indicate the bank that's selected.
- STD (Standard): green
- SPL (Special): orange
- CST (Custom): red

The LED will be lit if the amp model is on. By holding down this switch for about one second you can switch the amp model on/off.

b. CABINET ON/OFF switch and LED
This turns the cabinet model on/off. The LED will be lit if the cabinet model is on.

By entering OPTION parameter setting mode you can set parameters for the cabinet model.

OPTION parameter setting mode
To enter OPTION parameter setting mode, hold down the CABINET ON/OFF switch for about one second. You'll be in OPTION parameter setting mode, and the LED will blink.

OPTION parameter setting mode lets you make the following settings.
- GAIN control: cabinet model (CABINET)
- TREBLE control: presence (PRESENCE)
- MIDDLE control: noise reduction (NR)

When you return to the previous operation, press the CABINET ON/OFF switch or the EXIT/TUNE switch.

> **NOTE:** In OPTION parameter setting mode, the BASS and VOLUME controls are disabled in this mode.

c. AMP selector
This selects the amp model.
The amp model you select will determine the response of the gain circuit and tone controls, and the order in which they are located in the circuit.

If the amp model is turned off, turning this selector will turn the amp model on.

d. GAIN control
This adjusts the gain of the selected amp model. In OPTION parameter setting mode, this control selects the cabinet model.

If the cabinet model is turned off, turning this control in OPTION parameter setting mode will turn the cabinet model on.

e. TREBLE, MIDDLE, BASS controls
These adjust the tone of the high, mid, and low frequency ranges. In OPTION parameter setting mode, the TREBLE control adjusts the presence and the MIDDLE control adjusts the noise reduction.
The way in which these controls affect the tone will depend on the amp model you've selected.

> **NOTE:** Depending on the selected amp model, there may be almost no sound if you turn all three of these controls to the far left.

f. VOLUME control
This adjusts the volume of the program.

> **HINT:** You can adjust the volume of the program even when the amp model is turned off.

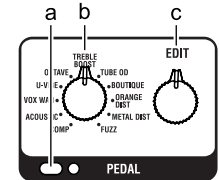## 2. Pedal section
Here you can make settings for the pedal effects.

For details on each effect, refer to "Pedal types" (p.18).

a. PEDAL ON/OFF switch and LED
This turns the pedal effect on/off. The LED will be lit if the pedal effect is on.

b. PEDAL controller

This selects the pedal type.

If the pedal effect is turned off, turning this selector will turn the pedal effect on.
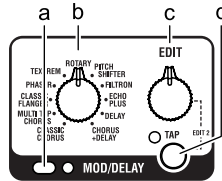
c. EDIT knob

This adjusts the parameters of each effect.

3. MOD/DELAY section

Here you can make settings for the modulation effect, delay effect, and other effects such as pitch shift.

For details on each effect, refer to "Mode/Delay types" (p.20).

a. MOD/DELAY ON/OFF switch and LED

This turns the modulation effect, delay effect, or other effect on/off. The LED will be lit if the effect is on.

b. MOD/DELAY selector

This selects the modulation type, delay type, or other effect type.

If the effect type is off, turning this selector will turn the effect type on.

c. EDIT knob

This adjusts the parameters of each effect.

You can use this knob to adjust two different parameters, EDIT 1 or EDIT 2. The specific parameters that are adjusted will depend on the selected effect. For details, refer to "Mode/Delay types" (p.20).

    • **EDIT 1:** turn the EDIT knob

    • **EDIT 2:** hold down the TAP switch and turn the EDIT knob

d. TAP switch and LED

This is used to set the speed of the modulation effect or the delay time of the delay effect. The interval at which you press the TAP switch twice is assigned as the time.

The LED will blink to indicate the specified speed or time.

If you've selected PITCH SHIFTER, the pitch setting will change each time you press the TAP switch.

If you've selected FILTRON, the envelope up/down setting will change each time you press the TAP switch. The LED will light if Up is selected.

You can edit parameters such as SPEED or PITCH by holding down the TAP switch and turning the EDIT knob (EDIT 2). For details, refer to "Mode/Delay types" (p.20).

4. Reverb section

Here you can make settings for the reverb effect. For details on each reverb effect, refer to "Reverb types" (p.22).

a. REVERB ON/OFF switch and LED

This turns the reverb effect on/off.
The LED will be lit if the reverb effect is on.
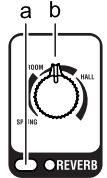
b. REVERB knob

Depending on the position of the knob, this selects the reverb type (SPRING, ROOM, or HALL) and adjusts the mix amount of the reverb sound.

If the reverb effect is off, turning this knob will switch the reverb effect on.

5. Program Select / Tuner section
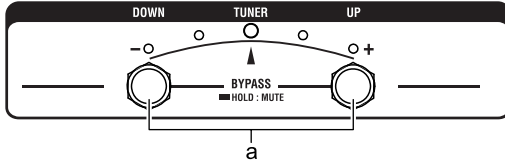
a. UP/DOWN pedals and LEDs

Selecting a program (p.9, "Trying out the programs")

Pressing the UP pedal will increment the program by one, and pressing the DOWN pedal will decrement the program by one.

You can hold down the UP pedal and press the EXIT/TUNE key to increment the program by ten.

You can hold down the DOWN pedal and press the EXIT/TUNE key to decrement the program by ten.

Using the tuner (p.23, "Tuner")

If you press the UP and DOWN pedals simultaneously, all effects will be bypassed and you'll be able to use the tuner.

If you hold down the UP and DOWN pedals simultaneously for about two seconds, you'll be able to use the tuner with the sound muted.

When you're using the tuner, the LEDs will indicate the tuning status.

6. Setting/Display section

a. Program (value) display

Normally this shows the program number.

When you're using the tuner, this shows the note name.

When you're editing a parameter, this shows the parameter value you're editing.

If the parameter value matches the original value, the decimal point segment in the lower right of the LED will momentarily go dark (p.11, "Parameter original value indication").

b. WRITE switch

Press this if you saves the sound you've edited (p.12, "Saving a program").

c. EXIT/TUNE switch

Press this if you decide to cancel an operation (such as saving a program).

When the CABINET switch LED, the QUICK ASSIGN LED, or the program display are not blinking, you can press this switch to use the tuner (p.23, "Tuning procedure").

By holding down this switch for about two seconds, you can activate the **Key Lock function**, which locks disables the operations of the switches, selectors, and knobs on the top panel. To deactivate this function, hold down the switch once again for about two seconds.
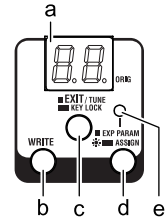
d. EXP PARAM (Expression Parameter) switch
This lets you specify the maximum value and minimum value of the parameter that's assigned to the pedal. For details, refer to "Expression pedal minimum and maximum values" (p.25).

If the QUICK ASSIGN LED is lit, holding down this switch for approximately two seconds will assign a effect parameter to the expression pedal (p.24, "Assigning a function to the expression pedal (Quick Assign)").

e. QUICK ASSIGN LED
This will light when the Quick Assign function is available, and will blink when you're specifying the variable range of the expression pedal.

7. Expression pedal section

a. EXP LED
This will light when the effect assigned to the expression pedal is on.

b. Expression pedal
This controls the function that's assigned to the expression pedal (e.g., volume or wah), or controls the parameter of some other effect.

If you firmly advance the expression pedal all the way forward, the effect assigned to the pedal will be switched on/off.

If volume is assigned to the expression pedal, advancing the pedal in this way will not turn off the volume pedal.

a   b
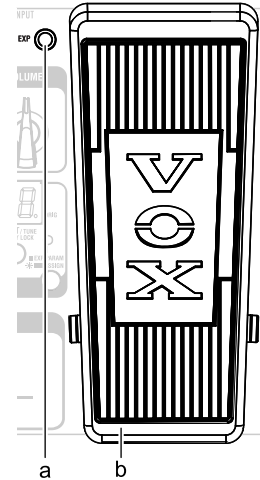
Rear panel
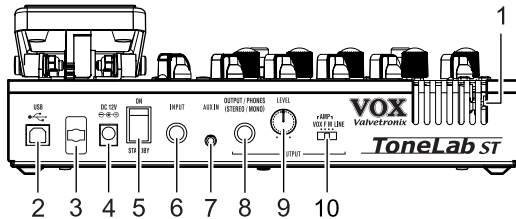
1. Valve

The internal 12AX7 (ECC83) vacuum tube is located here.

NOTE: The vacuum tube may break if it is subjected to physical impact. Be careful not to subject the ToneLab ST to strong physical impact.

2. USB connector (Type B)

If you use a commercially available USB cable to connect the ToneLab ST to your computer, you'll be able to use librarian software on your computer to manage user programs, or use the ToneLab ST as a USB audio interface.

3. Cable hook

Wrap the cable of the AC adapter around this hook to prevent the AC adapter from being accidentally disconnected.

For details, refer to "Making connections" (p.8).

4. DC12V connector

Connect the included AC adapter here.

NOTE: The included AC adapter is only for use with the ToneLab ST. Using it with any other device may cause malfunctions, so you must never do so.

5. STANDBY switch

This turns the power on or off.

6. INPUT connector

Connect your guitar cable here.

7. AUX IN jack

This is a stereo mini-jack to which you can connect the output (analog output) of an audio device.
You can connect a CD or MP3 player here, and play along on the guitar while listening to your favorite songs. To adjust the volume, use the controls of the connected device.

8. OUTPUT/PHONES jack

Connect your guitar amp, mixer, or headphones here. This jack will accommodate either stereo or monaural connections.

9. LEVEL knob

This adjusts the output level of the OUTPUT/PHONES jack.

10. AMP/LINE switch

The correct setting of this switch will depend on what is connected to the OUTPUT/PHONES jack.

For details, refer to "Making connections" (p.8).

Making connections

Here's how to make connections and start using your ToneLab ST.

Mixer, recorder, etc. | Audio system | Guitar amp | Headphones | CD player, etc. | Guitar | AC adapter | Computer | USB cable

OUTPUT/PHONES | AUX IN | INPUT | DC12V | USB
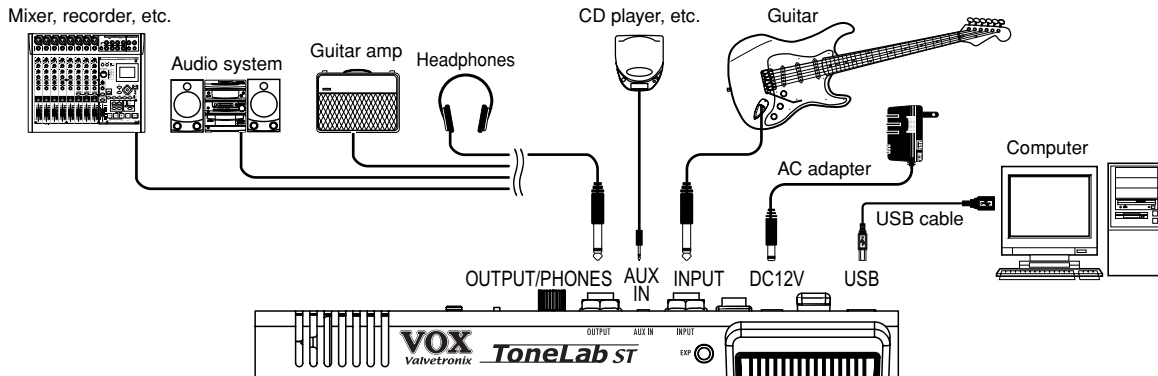
1. **Set the AMP/LINE switch appropriately for the type of device you'll be connecting to the OUTPUT/PHONES jack.** Set the AMP/LINE switch as follows.

   AMP (VOX, F, M)
   If you're connecting a guitar amp, choose the VOX, F, or M setting. This setting will compensate the output from the amp model as necessary. However, compensation will not be applied if the amp model is off.
   - **VOX:** Use this setting if the output is connected to an amp that has a distinctive mid-range such as the AC30 open-backed combo amp made by the VOX Corporation.
   - **F:** Use this setting if the output is connected to a typical clean-sounding US-made open-backed combo amp.

   - **M:** Use this setting if the output is connected to a stack-type amp such as a 4x12 closed-back cabinet.

   LINE
   Use this setting if the output is connected to your guitar amp's power amp, to an audio system, mixer, or recorder, or to headphones.

2. **Use a cable to connect the ToneLab ST's OUTPUT/PHONES jack to your guitar amp, mixer, or other device.**
   NOTE: Lower the volume of your guitar amp or mixer before you make connections.
   The OUTPUT/PHONES jack is a stereo output. Use a phone plug to make connections.

If you use a monaural phone plug cable to connect this to your amp etc., only the sound of the L (left) channel will be output.

If you want to connect this in stereo to a mixer or recorder, use a "stereo phone plug (output) -> monaural phone plug x 2 (input)" adapter cable.

3. **Turn the rear panel LEVEL knob to "0" (all the way to the left as seen from the rear panel).**

4. **Connect the plug of the included AC adapter to the DC12V jack, and plug the AC adapter into an AC outlet.**
   Wrap the AC adapter cable around the cable hook.

5. **Connect the cable from your guitar to the INPUT jack.**

6. **Make sure that the volume of your amp or mixer is turned down, and then turn the STANDBY switch on.**

7. **Raise the volume controls of your amp or mixer, and turn the rear panel LEVEL knob to adjust the volume.**

   NOTE: Since the ToneLab ST uses a vacuum tube, there might not be sound for a few seconds until the vacuum tube has warmed up.

Trying out the programs

The ToneLab ST has a total of one hundred programs, consisting of rewritable user programs (No.0–49) and preset programs (No.50–99).

For details on the preset programs, refer to "Preset program list" (p.31).

1. **Press the UP or DOWN pedal to switch programs.**
   Play your guitar, and try out the various programs.

   Each program contains settings that assign the expression pedal to control wah, volume, delay feedback, reverb input level, or some other effect parameter. Operate the expression pedal to try out the assignment for each program.

   HINT: To increment the program number by 10, hold down the UP pedal and press the EXIT/TUNE key. Similar, to decrement the program number by 10, hold down the DOWN pedal and press the EXIT/TUNE key.

Creating your own sounds

There are two ways to create your own sound: you can start with a program that's similar to what you have in mind and then edit the parameters as desired, or you can create a program from scratch.

Creating a sound

Here we'll explain how to create a program from scratch.

1. **Turn off the cabinet model and effect types.**
   If the CABINET on/off switch, MOD/DELAY on/off switch, and REVERB on/off switch LEDs are lit, press each switch to turn them off.
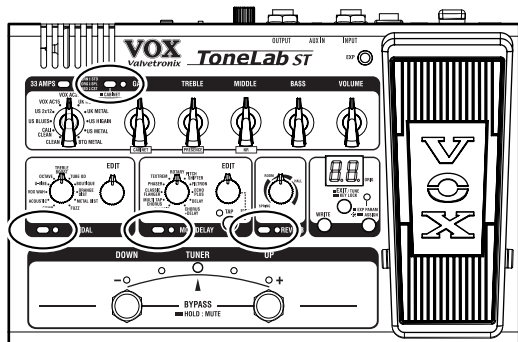
2. **Press the AMP bank select switch to select a bank, and use the AMP selector to select an amp model.**
   Each time you press the AMP bank switch, the bank will cycle through STD (Standard), SPL (Special), CST (Custom), STD ...
   For details on the amp models, refer to "Amp models" (p.13).

3. **Use the GAIN, TREBLE, MIDDLE, BASS, and VOLUME controls to adjust the tone and volume.**
   The GAIN control adjusts the gain.

   The TREBLE, MIDDLE, and BASS controls adjust the high, mid, and low-frequency tone.

   The VOLUME control adjusts the volume.

   HINT: The sound might be distorted in an undesirable way depending on the settings of the TREBLE, MIDDLE, or BASS controls, or depending on other settings. If so, adjust the VOLUME control to an appropriate volume.

4. **If desired, select a cabinet model and adjust the high-frequency tone.**

   To turn the cabinet model on
   Press the CABINET on/off switch. The LED will light.

   To change the cabinet mode
   Hold down the CABINET on/off switch for about one second to enter OPTION parameter setting mode (the CABINET on/off switch LED will blink). Then turn the GAIN control.

   For details on the cabinet models, refer to "Cabinet models" (p.17).

Adjusting the high-frequency tone (Presence)
Hold down the CABINET on/off switch for about one second to enter OPTION parameter setting mode, and then turn the TREBLE control.

5. **Select and adjust the effects of other sections.**
For example if you want to add delay, turn the MOD/ DELAY selector to select DELAY.
If the selector is already positioned at DELAY, turn it to some other delay type and then back to re-select DELAY.
Use the TAP switch or EDIT knob to set the delay time, delay level (the mix amount of delay sound), and feedback.

To set the delay time
Press the TAP switch twice (the time will be set to the interval at which you press the switch).

To adjust the delay level or feedback
Delay level: Turn the EDIT knob.
Feedback: Hold down the TAP switch and turn EDIT.
For details on the effect types, refer to "Effect types" (p.18).
HINT: If you've selected a pedal effect, it might be easier to make adjustments if other effects are not being applied. If so, adjust the pedal effect after you've specified the amp model and cabinet model, but before you make settings for other effects.

6. **When you've come up with a sound that you like, save it as a program.**
For details, refer to "Saving a program" (p.12).
NOTE: If you switch to a different program or turn off the power before saving, the changes you've made will be discarded, and the settings will revert to their original state.

Parameter original value indication

This is a way for you to check **the original value** of a parameter; i.e., the value that was saved in the preset program or user program.
When you're using a knob to edit the value of a parameter, the decimal point in the lower left of the program display LED is lit momentarily when the edited value matches the original value.
HINT: You can take advantage of this original value indication to find out the actual settings of a program that you like.
NOTE: The settings of the rear panel LEVEL knob and AMP/ LINE switch are not saved, and will not be shown by the original value indication. Nor will the original value of the SPEED parameter or TIME parameter be shown when you use the TAP switch to set the SPEED parameter or TIME parameter.

Noise reduction settings

Noise reduction reduces the unwanted noise that might be heard between notes. This setting is made independently for each program.
HINT: High-gain amp models are particularly prone to noise, so we recommend using noise reduction in this case.

1. **Hold down the CABINET on/off switch for about one second to enter OPTION parameter setting mode.**
The CABINET on/off switch LED will blink.

2. **Turn the MIDDLE control to adjust the noise reduction sensitivity.**

Turning the knob toward the right will increase the amount of noise reduction.
Turning the knob all the way to the left will turn noise reduction off; it will have no effect.

NOTE: Depending on the guitar you're using, excessively high settings of noise reduction may cause notes to be cut off unnaturally.

3. **When you've finished making settings, press the EXIT/TUNE switch.**

Saving a program

When you've come up with a sound you like, here's how to save (write) it.

> **NOTE:** If you switch to a different program or turn off the power before saving, the changes you've made will be discarded, and the settings will revert to their original state.

1. **Press the WRITE switch.**
   The program display and the UP/DOWN pedal LEDs will blink.

2. **Press the UP or DOWN pedal to select the user program (No.0–49) in which you want to save your settings.**
   When selecting the save-destination, holding down the UP pedal and pressing the EXIT/TUNE key will increment the program number by ten. Similarly, holding down the DOWN pedal and pressing the EXIT/TUNE key will decrement the program number by ten.

   NOTE: Your settings will overwrite the program you select here. Take care not to overwrite an important program that you want to keep. You can't save to a preset program (No.50-99).

   HINT: If you decide to cancel the Write operation, press the EXIT/TUNE switch. You will return to the previous mode, and the LED will stop blinking.

3. **Press the WRITE switch once again.**
   Your settings will be written to the user program you selected in step 2, and the UP/DOWN LED will return to the steadily lit state.

About the amp models, cabinet models, and effect types

This section provides details about the amp models and cabinet models, and on the pedal effects, mode/delay effects, and reverb effect.

The following illustration shows the signal flow within the ToneLab ST.
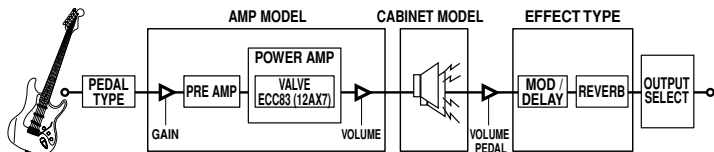
Amp models

Here we'll explain the 33 different amp models.

HINT: Each amp model's GAIN (adjusted by the top panel GAIN control) can be assigned to the expression pedal for control. For details on how to assign a parameter to the expression pedal, refer to "Assigning a function to the expression pedal (Quick Assign)" (p.24).

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 mid-range 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 models only a four-band tone control that produces an undistorted, pure, clean tone. The GAIN control is disabled. Setting BASS, MIDDLE, and TREBLE to the center and PRESENCE to the minimum setting will produce the same result as turning the amp model off. If you want to obtain a sparkling clean tone as when using a line input, turn the cabinet model off.

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 modifies 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 will become a crunch sound rich in overtones when you turn up the volume.

CST (Custom)
This models a wood-finished 30W boutique amp head that cost more than $25,000. It delivers sparkling glassy clean tones, and raising the gain will produce overdrive sounds that are startlingly sweet in a musical way.

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)
This original amp model is based on an old British amp that delivers the ideal kind of powerful distortion for rock, but with the tone control changed to an active circuit that has a stronger effect than the conventional one, allowing a wide range of tones to be created.
You can obtain basic distortion sounds at the flat setting, or take advantage of the active tone circuit to create highly distinctive lead sounds.

6. VOX AC30

STD (Standard)
This models an AC30 amp with the "top boost" circuit that was included as standard starting with units produced in 1964. It delivers a smooth and refined top end, majestically deep over-drive, and a rich and brilliant clean sound.

SPL (Special)
This models is a hand-wired all-tube amp head sold to com-memorate VOX's fiftieth anniversary. This amp has no rival in its ability to create sparkling chime-like clean sounds and creamy warm overdrive sounds.

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 that 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 that 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 liking for silk hats. If you have a desire for ultimate metal tones, this amp will be 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 ToneLab ST produces rich overtones and highly musical response.

SPL (Special)

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

CST (Custom)

This is an original amp model based on a recent high-gain amp, but with the tone control changed to an active circuit that has a stronger effect than the conventional one, allowing a wide range of tones to be created.

A wide range of settings are possible; you can raise the BASS to bring out the ultra-lows, or raise or lower the MIDDLE to obtain hot lead sounds or a "scooped" sound.

10.US METAL

STD (Standard)

This models the modern high-gain channel from a wild beast of a high-gain 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 that 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 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 emanated from a German-made 100W four-channel amp head. We chose the "Heavy" channel that 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.

Cabinet models

These simulate the acoustical character of a guitar amp's cabinet.

1. TWEED 1x8

This is an open back cabinet containing an 8-inch 3.2 ohm Alnico speaker, found in simple amplifiers with a 6V6 output tube.

2. TWEED 1x12

This cabinet has an important influence on the sound of the Tweed 1x12 amp. The speaker uses an Alnico magnet.

3. TWEED 4x10

This is an open back cabinet containing four 10-inch 8 ohm speakers connected in parallel for a 2 ohm impedance.

4. BLACK 2x10

This is the cabinet of a 35W open back combo amp containing two 10-inch ceramic magnet speakers.

5. BLACK 2x12

This contains two 12-inch ceramic magnet speakers, connected in parallel as a 4 ohm load.

6. VOX AC15

This is the cabinet of an open back combo amp containing one of the famous 12-inch "VOX blue Alnico speakers" made by the British company Celestion.

7. VOX AC30

The famous VOX sound is completed by this speaker cabinet which contains two 12-inch VOX blue Alnico speakers connected in series as a 16 ohm load.

8. VOX AD120VTX

This is the closed back cabinet VTX containing two custom-designed Celestion speakers with neodymium magnets.

9. UK H30 4x12

This is a heavy-duty cabinet containing 30W speakers from the late 60's made by the same manufacturer as the UK T75 4x12 described below.

10.UK T75 4x12

This is a more modern 4x12 cabinet containing 75-watt British-made speakers.

11.US V30 4x12

Known as the "black beast," this cabinet uses British-made "Vintage" speakers, and is known for its deep low-range and well-defined highs.

Examples of amp and cabinet combinations

You can freely combine amp models with cabinet models to create a wide range of sounds, so be sure to try out various combinations.

Here are some typical combinations.

Amp model		Cabinet model
CLEAN	2	TWEED 1x12
	4	BLACK 2x10
	5	BLACK 2x12
	9	UK H30 4x12
	For the CST amp model, we recommend that you turn the cabinet model off.	
CALI CLEAN	1	TWEED 1x8
	2	TWEED 1x12
	4	BLACK 2x10
	5	BLACK 2x12
US BLUES	2	TWEED 1x12
	3	TWEED 4x10
	5	BLACK 2x12
	9	UK H30 4x12
US 2x12	4	BLACK 2x10
	5	BLACK 2x12
VOX AC15	6	VOX AC15
	7	VOX AC30
	8	VOX AD120VTX
VOX AC30	6	VOX AC15
	7	VOX AC30
	8	VOX AD120VTX
UK ROCK	9	UK H30 4x12
	10	UK T75 4x12
UK METAL	9	UK H30 4x12
	10	UK T75 4x12
US HIGAIN	10	UK T75 4x12
	11	US V30 4x12

Amp model		Cabinet model
US METAL	10	UK T75 4x12
	11	US V30 4x12
BOUTIQUE METAL	9	UK H30 4x12
	10	UK T75 4x12
	11	US V30 4x12

Effect types

Here we'll explain the pedal types, mod/delay types, and reverb types.

The illustration on page 13 shows the signal flow within the ToneLab ST.

Pedal types

The ToneLab ST provides eleven of the most popular types of pedal effect. You can use the EDIT knob to adjust the major parameters.

HINT: Parameters that can be assigned to the expression pedal are marked by "*".

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.

Knob	Parameter	
EDIT	SENS*	Adjusts the sensitivity. Turn the knob toward the right to increase the compression and sustain.

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.

Knob	Parameter	
EDIT	TONE*	Adjusts the tone.

3. VOX WAH

This models the legendary V848 Clyde McCoy VOX wah pedal. Its distinctive tone, and throats being wrung, have made this pedal a favorite with musicians.

> **HINT:** When you select VOX WAH, the expression pedal will automatically operate as a wah pedal.

Knob	Parameter	
EDIT	MANUAL*	Adjusts the tone.

4. U-VIBE

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

Knob	Parameter	
EDIT	SPEED*	Adjusts the vibrato speed.

5. OCTAVE

This models a pedal that adds weight to the sound by generating a sound one octave below, and mixing this with the original sound.

Knob	Parameter	
EDIT	LEVEL*	Adjusts the mix amount of the octave-lower sound.

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.

Knob	Parameter	
EDIT	GAIN*	Adjusts the gain.

7. TUBE OD

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

Knob	Parameter	
EDIT	GAIN*	Adjusts the gain.

8. BOUTIQUE

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

Knob	Parameter	
EDIT	GAIN*	Adjusts the gain

9. ORANGE DIST

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

Knob	Parameter	
EDIT	GAIN*	Adjusts the gain.

10. METAL DIST

This is a distortion unit that's idea for metal.

Knob	Parameter	
EDIT	GAIN*	Adjusts the gain.

11. FUZZ

Retro, brazen, and rough-edged.

Knob	Parameter	
EDIT	GAIN*	Adjusts the gain.

Mode/Delay types

The ToneLab ST provides eleven types of modulation effect, delay effect, and other effect.

The SPEED parameter of modulation-type effects and the TIME parameter of delay-type effects can be easily adjusted by pressing the TAP switch twice.

You can use the EDIT knob to adjust the most important parameter (EDIT 1). In addition, you can hold down the TAP switch and turn the EDIT knob to make more detailed settings (EDIT 2).

> **HINT:** Parameters that can be assigned to the expression pedal are indicated by "*". For details on how to assign a parameter to the expression pedal, refer to "Assigning a function to the expression pedal (Quick Assign)" (p.24).

1. CLASSIC CHORUS

This models a standard rich-sounding analog chorus unit.

Knob/Switch	Parameter	
EDIT	DEPTH*	Adjusts the modulation depth.
TAP	SPEED*	Adjusts the modulation speed in a range of 0.1...15 Hz.
TAP+EDIT	SPEED*	Adjusts the speed.

2. MULTI TAP CHORUS

This is a deep and spacious chorus with independent chorus taps at left, center, and right.

Knob/Switch	Parameter	
EDIT	DEPTH*	Adjusts the modulation depth.
TAP	SPEED*	Adjusts the modulation speed in a range of 0.1...15 Hz.
TAP+EDIT	SPEED*	Adjusts the speed.

3. CLASSIC 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."

Knob/Switch	Parameter	
EDIT	RESONANCE*	Adjusts the amount of resonance.
TAP	SPEED*	Adjusts the modulation speed in a range of 0.1...15 Hz.
TAP+EDIT	SPEED*	Adjusts the speed.

4. PHASER

This models a popular analog phaser in a banana-colored box.

Knob/Switch	Parameter	
EDIT	RESONANCE*	Adjusts the amount of resonance.
TAP	SPEED*	Adjusts the modulation speed in a range of 0.1...15 Hz.
TAP+EDIT	SPEED*	Adjusts the speed.

5. TEXTREM

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

Knob/Switch	Parameter	
EDIT	DEPTH*	Adjusts the tremolo depth.
TAP	SPEED*	Adjusts the modulation speed in a range of 1.0...15 Hz.
TAP+EDIT	SPEED*	Adjusts the speed.

6. ROTARY

This models a rotary speaker.

Knob/Switch	Parameter	
EDIT	DEPTH*	Adjusts the modulation depth.
TAP	SPEED*	Adjusts the modulation speed in a range of 0.8...15 Hz.
TAP+EDIT	SPEED*	Adjusts the speed.

7. PITCH SHIFTER

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

Knob/Switch	Parameter	
EDIT	BALANCE*	Adjusts the balance between direct sound and effect sound.
TAP	PITCH*	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.
TAP+EDIT	PITCH*	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

8. FILTRON

This is an envelope-controlled filter (wah) that opens or closes a filter according to the input from the guitar.

Knob/Switch	Parameter	
EDIT	SENS*	Adjusts the sensitivity to the guitar's volume. If this parameter is assigned to the expression pedal, the cutoff frequency will be controlled by the expression pedal, meaning that the opening/closing of the filter will not be affected by the input from the guitar.
TAP	TYPE	Specifies the direction of movement (up or down). If Up is selected, the TAP switch LED will light.
TAP+EDIT	RESONANCE*	Adjusts the amount of resonance.

9. ECHO PLUS

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

Knob/Switch	Parameter	
EDIT	LEVEL*	Adjusts the mix amount of the delay sound. If this parameter is assigned to the expression pedal, the input level to the delay will be controlled by the expression pedal.
TAP	TIME	Specifies the delay time in a range of 40...1480 ms.
TAP+EDIT	FEEDBACK*	Adjusts the amount of feedback.

10. DELAY

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

Knob/Switch	Parameter	
EDIT	LEVEL*	Adjusts the mix amount of the delay sound. If this parameter is assigned to the expression pedal, the input level to the delay will be controlled by the expression pedal.
TAP	TIME	Specifies the delay time in a range of 40...1480 ms.
TAP+EDIT	FEEDBACK*	Adjusts the amount of feedback.

11. CHORUS+DELAY

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

Knob/Switch	Parameter	
EDIT	LEVEL*	Adjusts the mix amount of the delay sound. If this parameter is assigned to the expression pedal, the input level to the delay will be controlled by the expression pedal.

Knob/Switch	Parameter	
TAP	TIME	Specifies the delay time in a range of 40...1480 ms.
TAP+EDIT	FEEDBACK*	Adjusts the amount of feedback.

Reverb types

Three types of reverb are provided.

Depending on the position of the knob, this selects the reverb type (SPRING, ROOM, or HALL) and adjusts the mix amount of the reverb sound.

> **HINT:** If reverb is assigned to the expression pedal, the expression pedal will control the input level to the reverb. For details on how to assign a parameter to the expression pedal, refer to "Assigning a function to the expression pedal (Quick Assign)" (p.24).

1. SPRING

This simulates the spring reverb built into many guitar amps.

2. ROOM

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

3. HALL

This models the reverberation of a concert hall containing numerous echo components.

Tuner

The ToneLab ST has a built-in auto chromatic tuner.

Tuning procedure

1. **If you want to tune with the effects bypassed, press the UP pedal and DOWN pedal simultaneously.**
   The program display will indicate " - - ".
   HINT: If the QUICK ASSIGN LED or the program display are not blinking, you can also press the EXIT/TUNE switch to tune with the effects bypassed.
   If you want to tune with the sound muted, hold down the UP pedal and DOWN pedal simultaneously for about two seconds.
   The program display will indicate " - - " for about one second, and will then indicate " ˍ ˍ ". If you're tuning on stage, we recommend that you use this method.
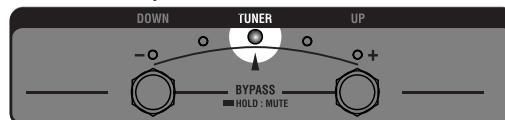
2. **Play a single note on your guitar, and tune the string approximately so that the desired note name appears in the program display.**
   The note name is shown as follows.

C	C♯	D	D♯	E	F	F♯	G	G♯	A	A♯	B
C	*C'*	*d*	*d'*	*E*	*F*	*F'*	*G*	*G'*	*A*	*A'*	*b*

3. **While watching the LEDs of the program section and tuner section, tune the guitar string precisely.**

Tune so that only the center LED is lit.

The LEDs at the right will light if the pitch of your guitar is sharp, and the LEDs at the left will light if it is flat.

4. **When you've finished tuning, press the UP or DOWN pedal.**
   HINT: You can also press the EXIT/TUNE switch to return to the previous operation.

Calibrating the tuner

Calibration specifies the reference pitch for tuning (expressed as the frequency of the middle 'A' note on a piano). You can adjust this in a range of 438 Hz–445 Hz.
   NOTE: The calibration setting you specify here will be discarded when you turn off the power. When you turn the power on again, it will automatically be set to 440 Hz.

1. **Activate the tuner as described in step 1 of "Tuning procedure" (p.23).**

2. **While holding down the EXIT/TUNE switch, use the UP/DOWN pedals to adjust the reference pitch.**
   The program display will indicate "38"–"45" (438 Hz–445 Hz). Specify the desired reference pitch.

3. **Release the EXIT/TUNE switch to complete the calibration setting.**

Using the expression pedal for control

Expression pedal settings

The ToneLab ST's programs assign various functions to the expression pedal, allowing you to control not only wah or volume but many other kinds of effect parameters with the expression pedal.

> **HINT:** If you select VOX WAH, the expression pedal will automatically function as a wah pedal.

For each program, you can specify which parameter will be controlled by the expression pedal and how it will be controlled.

When you save a program, the position (angle) of the expression pedal at that moment will be saved in the program as the parameter value. When you select that program, the value saved in the program will be recalled as the setting of the assigned parameter.

In the following cases, however, the value is not saved.
- Volume
- Input level to the delay effect
- Input level to the reverb effect
- PITCH parameter of PITCH SHIFTER
- Cutoff frequency of FILTRON

Assigning a function to the expression pedal (Quick Assign)

On the ToneLab ST, it's easy to assign an effect parameter or the effect input level to the expression pedal.

> **HINT:** For details on the effect parameters that you can assign, refer to "About the amp models, cabinet models, and effect types" (p.13).

To assign a function to the expression pedal

As an example, here's how to assign the SPEED parameter of the U-VIBE pedal effect to the expression pedal.

1. **Turn on the effect.**
   In this example, press the PEDAL on/off switch to turn the pedal effect on.

2. **Use the selector to select a effect, and then operate the EDIT knob.**
   Use the PEDAL selector to select U-VIBE, and then turn the EDIT knob. The QUICK ASSIGN LED will light.

3. **Hold down the EXP PARAM switch for about two seconds.**
   The SPEED parameter will be assigned to the expression pedal; the program display will indicate " CP " for one second, and will then show the program number.

4. **If desired, save this setting in the program.**
   For details on how to save, refer to "Saving a program" (p.12).

NOTE: The settings you made will return to their original values if you switch programs or turn off the power before saving.

To assign volume, gain, or the input level to the reverb or delay effect, proceed as follows.

- **Volume:** Operate the VOLUME knob, and then hold down the EXP PARAM switch for about two seconds.
- **Gain:** Turn on the AMP on/off switch, operate the GAIN knob, and then hold down the EXP PARAM switch for about two seconds.
- **Input level to the reverb effect:** Turn on the REVERB on/off switch, operate the REVERB knob, and then hold down the EXP PARAM switch for about two seconds.
- **Input level to the delay effect:** Turn on the MOD/DELAY switch, and use the MOD/DELAY selector to select "ECHO PLUS," "DELAY," or "CHORUS+DELAY." Then operate the EDIT knob, and then hold down the EXP PARAM switch for about two seconds.

To clear the expression pedal to an unassigned state

Hold down the EXP PARM switch and press the EXIT/TUNE screen. The expression pedal assignment will be cleared, and the EXP LED will go dark.

The expression pedal will also revert to an unassigned state if you switch to a different effect. However in the following cases, the setting will be maintained and the assignment will not change.

- If the amp model's GAIN parameter is assigned to the expression pedal, changing the amp model will leave the GAIN parameter assigned to the expression pedal.

- If the input level to the reverb effect is assigned to the expression pedal, changing the reverb type will leave the reverb input level assigned to the expression pedal.
- If the input level to the delay effect ECHO PLUS, DELAY, or CHORUS+DELAY is assigned to the expression pedal, changing between these three delay effects will leave the delay effect input level assigned to the expression pedal.

Expression pedal minimum and maximum values

The minimum value is when the expression pedal is fully returned toward yourself; the maximum value is when the expression pedal is fully advanced away from yourself. When you assign a parameter or volume to the expression pedal, the minimum and maximum values of the expression pedal will be set automatically.

Adjusting the minimum and maximum parameter values

When you assign an effect parameter to the expression pedal, the minimum and maximum values appropriate for that parameter will be assigned as the minimum and maximum values of the expression pedal. If you assign the PITCH parameter of the PITCH SHIFTER, the minimum value will be "0" (no pitch shift) and the maximum value will be the current value.

You can adjust the minimum and maximum values as follows.

NOTE: If the reverb effect input level is assigned to the expression pedal, the minimum and maximum values will be set automatically, and cannot be changed.

1. **Press the EXP PARAM switch.**
   The QUICK ASSIGN LED will blink.

If an effect is assigned to the expression pedal

The on/off switch LED of the assigned effect will blink, and the program display will indicate " P_- ".

If no function is assigned to the expression pedal

The program display will blink " $--$ " and then the program number will be displayed. In this case, use Quick Assign to assign a function (p.24, "Assigning a function to the expression pedal (Quick Assign)").

2. **Use the EDIT knob of the assigned effect (whose on/off switch LED is blinking), or the GAIN control to specify the minimum value.**

HINT: You can skip this step, if you do not change the minimum value.

3. **Press the EXP PARAM switch.**

The program display will indicate " P^- ".

4. **Use the EDIT knob you operated in step 2, or the GAIN control to specify the maximum value.**

HINT: You can skip this step, if you do not change the maximum value.

NOTE: If you decide to cancel the setting, press the EXIT/TUNE switch.

5. **Press the EXP PARAM switch.**

The program display will indicate " CP " for about one second, and will then indicate the program number.
The QUICK ASSIGN LED will go dark.

NOTE: The assignment of a function to the expression pedal, the minimum value, and the maximum value are specified independently for each program.

6. **If desired, save these settings to the program.**

For details on the procedure, refer to "Saving a program" (p.12).

NOTE: The settings you made will return to their original values if you switch programs or turn off the power before saving.

Adjusting the minimum and maximum volume

If volume is assigned to the expression pedal, you can adjust the minimum and maximum values as follows.

1. **Press the EXP PARAM switch.**
The EXP LED and QUICK ASSIGN LED will blink, and the program display will indicate " P_- ".

2. **Use the VOLUME control of the AMP section to specify the minimum value, and then press the EXP PARAM switch.**
The minimum value will be specified, and the program [DEC][INC] will indicate " P^- ".

3. **Use the VOLUME control to specify the maximum value, and then press the EXP PARAM switch.**

The maximum value will be specified; the program display will indicate " CP " for about one second, and will then indicate the program number.

# Adjusting the sensitivity of the expression pedal

If the minimum and maximum values of the parameter are assigned as the minimum and maximum values of the expression pedal, but the effect or volume fails to reach the maximum (or minimum) setting when the expression pedal is fully advanced (or returned), you can adjust the sensitivity of the expression pedal as follows so that it will operate optimally.

NOTE: When adjusting the sensitivity, you must operate the expression pedal with your foot; in some cases, it may not be possible to adjust the pedal sensitivity if you operate it with your hand.

1. **Turn the power off.**

2. **While holding down the EXP PARAM switch and WRITE switch, turn the power on.**

3. **When the program display indicates " Pd ," release the switches.**

4. **Advance the expression pedal so that the effect switches on/off.**
This will be assigned as the weight that will switch on/off the effect assigned to the expression pedal.
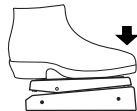
5. **Use your foot to slowly return the expression pedal toward yourself, and take your foot off when the pedal stops.**

6. **Softly advance the expression pedal, and take your foot off when the pedal stops.**
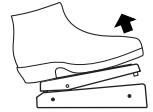
NOTE: If you decide to cancel this sensitivity adjustment, press the EXIT/TUNE switch.

7. **Press the WRITE switch.**

The program display will indicate " CP " for about one second, and then the program number will appear.

If the sensitivity adjustment could not be performed correctly, the program display will blink " Er ", and will then indicate " Pd ". In this case, perform the procedure from step 4.

NOTE: If you are repeatedly unsuccessful in adjusting the sensitivity, it is possible that the ToneLab ST has malfunctioned. Please contact your nearby VOX dealer.

Connecting to your computer (USB connection)

If you use a commercially available USB cable to connect the ToneLab ST to your computer, you'll be able to use librarian software on your computer to manage user programs, and use the ToneLab ST as a USB audio interface.

Using librarian software

If you install the USB-MIDI driver on your computer, you'll be able to use the dedicated librarian software to back up programs and manage your data library.
Download the USB-MIDI driver and the librarian software from the manufacturer's website (www.voxamps.com).
For details on using the librarian software, refer to the owner's manual (PDF file) of the librarian software.

Operating requirements
Windows: Microsoft Windows XP SP3/Windows Vista SP1 or later
Mac: OS X 10.4 or later (Power PC G4 or more/Intel CPU)

Transferring audio data

If the ToneLab ST is connected to your computer via a USB cable, the ToneLab ST's effect output can be recorded directly into an audio track of your DAW software. You'll also be able to monitor the audio playback of your software via the ToneLab ST.

NOTE: If you're using Windows, you'll need to install the USB-ASIO driver in your computer in order to transfer audio data via the USB connector.
Download the USB-ASIO driver from the manufacturer's website (www.voxamps.com).

The following illustration shows the signal flow when connected to your computer.

The ToneLab ST's effects will not be applied to the audio input from the USB connector.

Operating requirements
Windows: Microsoft Windows XP SP3/Windows Vista SP1 or later
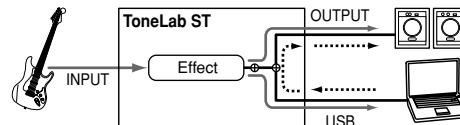**Mac:** OS X 10.4 or later (Power PC G4 or more/Intel CPU)

Restoring the factory settings

Here's how to restore the ToneLab ST to its factory-set state.

NOTE: This operation will initialize the programs you've saved, returning all of them to the factory-set programs.

1. **Turn the power off.**

2. **While holding down the EXIT/TUNE switch and EXP PARAM screen, turn the power on.**

3. **When the UP/DOWN pedal LEDs blink, release the switches.**

   HINT: If you decide to cancel this procedure, press the EXIT/TUNE switch.

4. **Press the WRITE switch.**

   Initialization will be completed, the program display will indicate "0".

   NOTE: Never turn the power off while initialization is being performed.

Troubleshooting

Power is not applied when you turn the STANDBY switch on

- Is the AC adapter connected to the rear panel DC12V jack?
- Is the AC adapter plugged into an AC outlet?
- Is the AC outlet working properly?
- Could the AC adapter be damaged?

No sound

- Could the volume of your guitar be turned down?
- Is your guitar cable connected correctly?
- Could your guitar cable be broken?
- Could the rear panel LEVEL knob be set to the minimum value?
- Could the top panel VOLUME and GAIN controls be set to the minimum value?
- Check the settings of the TREBLE, MIDDLE, and BASS controls be set to the minimum value?
  For some amp models, there may be no sound from the amp if the TREBLE, MIDDLE, and BASS control values are low.
- Make sure that your headphones or connection cable is not defective or broken.
- Could the expression pedal be assigned as gain and volume, and returned all the way toward yourself?
- Could you have activated the tuner in a muted state?

Effects don't apply

- Could the effect setting be off?
  Use the selector to select the effect that you want to use, or use the effect on/off switch to turn the effect on.

• Could the tuner be active?
The effects are bypassed if the tuner is active. Press the EXIT/TUNE switch to defeat bypass.
• Could an EDIT knob be set to the minimum value?
Adjust the EDIT knob.

Something is wrong with the sound
• Are the OPTION parameters set appropriately?
Hold down the CABINET on/off switch about one second to enter OPTION parameter setting mode, and adjust the parameters to appropriate values.
• Is the AMP/LINE switch set appropriately for the output destination that's connected?
Set the AMP/LINE switch correctly as described in step 1 of "Making connections" (p.8).

The sound does not change when you operate the switches, selectors, or knobs on the top panel
• Could the effect setting be off?
Use the selector to select the effect that you want to use, or use the effect on/off switch to turn the effect on.
• Could you be in OPTION parameter setting mode?
In OPTION parameter setting mode, the BASS, and VOL-UME controls do not change the sound. Press the EXIT/TUNE switch to exit OPTION parameter setting mode.
• Could the tuner be active?
The effects are bypassed if the tuner is active. Press the EXIT/TUNE switch to defeat bypass.
• Could you be specifying the expression pedal's minimum and maximum values?
While you're specifying the expression pedal's minimum and maximum values, parameters other than the one assigned to the expression pedal will not change. Press the EXIT/TUNE switch to return to normal operation.

• Could you have activated the Key Lock function?
If the Key Lock function is active, you won't be able to operate the switches, selectors, or knobs on the top panel. Hold down the EXIT/TUNE switch for about two seconds to defeat the Key Lock function.

Preset program list

No.	Program Type	PEDAL	AMP		CABINET	MOD/DLY	REVERB	Expression Pedal
50	Song	off	UK ROCK	SPL	ON	*off*	ROOM	classic chorus
51	Song	BOUTIQUE	US HIGAIN	CST	ON	ECHO PLUS	SPRING	VOLUME
52	Song	off	US BLUES	STD	ON	*off*	ROOM	textrem
53	Song	FUZZ	UK ROCK	STD	ON	DELAY	*off*	spring
54	Song	TUBE OD	VOX AC15	CST	ON	DELAY	ROOM	VOLUME
55	Song	*off*	US 2x12	STD	ON	off	ROOM	u-vibe
56	Song	*off*	UK METAL	CST	ON	off	SPRING	vox wah
57	Song	off	UK METAL	STD	ON	*off*	SPRING	phaser
58	Song	FUZZ	US BLUES	STD	ON	*off*	ROOM	pitch shifter
59	Song	off	US HIGAIN	STD	ON	*off*	SPRING	classic chorus
60	Song	ORANGE DIST	UK METAL	STD	ON	ECHO PLUS	SPRING	VOLUME
61	Song	COMP	VOX AC15	SPL	ON	CLASSIC CHORUS	ROOM	VOLUME
62	Song	TUBE OD	US BLUES	STD	ON	*off*	ROOM	textrem
63	Song	off	US METAL	CST	ON	*off*	ROOM	classic flanger
64	Song	*off*	UK ROCK	STD	ON	off	ROOM	vox wah
65	Song	off	UK METAL	STD	ON	PITCH SHIFTER	HALL	PITCH SHIFTER
66	Song	TREBLE BOOST	VOX AC15	CST	ON	ECHO PLUS	ROOM	VOLUME
67	Song	METAL DIST	US METAL	STD	ON	*off*	ROOM	classic flanger
68	Song	TREBLE BOOST	VOX AC30	CST	ON	*off*	SPRING	echo plus
69	Song	*off*	US METAL	STD	ON	ECHO PLUS	HALL	vox wah
70	Clean	COMP	CLEAN	CST	off	CHORUS+DELAY	HALL	CHORUS+DELAY
71	Crunch	*off*	VOX AC30	SPL	ON	MULTI TAP CHORUS	ROOM	boutique
72	Heavy	TUBE OD	VOX AC30	CST	ON	*off*	ROOM	pitch shifter
73	Heavy	TUBE OD	US METAL	CST	ON	PHASER	off	PHASER
74	Clean	ACOUSTIC	CALI CLEAN	CST	ON	CHORUS+DELAY	ROOM	CHORUS+DELAY

No.	Program Type	PEDAL	AMP		CABINET	MOD/DLY	REVERB	Expression Pedal
75	Crunch	COMP	CLEAN	STD	ON	*off*	ROOM	multi tap chorus
76	Heavy	off	UK METAL	SPL	ON	off	off	AMP GAIN
77	Scifi	OCTAVE	US HIGAIN	STD	ON	PHASER	off	OCTAVE
78	Clean	COMP	CLEAN	SPL	ON	CHORUS+DELAY	ROOM	VOLUME
79	Crunch	TREBLE BOOST	UK ROCK	STD	ON	DELAY	SPRING	VOLUME
80	Crunch	METAL DIST	US 2x12	CST	ON	TEXTREM	SPRING	TEXTREM
81	Heavy	BOUTIQUE	UK ROCK	SPL	ON	off	SPRING	SPRING
82	Clean	COMP	US BLUES	SPL	ON	PITCH SHIFTER	HALL	PITCH SHIFTER
83	Crunch	COMP	VOX AC15	STD	ON	ECHO PLUS	SPRING	SPRING
84	Heavy	VOX WAH	US METAL	SPL	ON	off	SPRING	VOX WAH
85	Heavy	off	US HIGAIN	CST	ON	PITCH SHIFTER	SPRING	PITCH SHIFTER
86	Scifi	OCTAVE	US METAL	SPL	ON	PITCH SHIFTER	HALL	HALL
87	Clean	COMP	CLEAN	CST	off	CLASSIC CHORUS	SPRING	VOLUME
88	Clean	COMP	CLEAN	CST	off	PHASER	HALL	PHASER
89	Crunch	TUBE OD	UK ROCK	CST	off	*off*	SPRING	echo plus
90	Heavy	COMP	US HIGAIN	STD	off	DELAY	*off*	hall
91	Scifi	off	VOX AC30	STD	off	FILTRON	off	FILTRON
92	Clean	COMP	CLEAN	CST	off	DELAY	SPRING	DELAY
93	Heavy	TREBLE BOOST	US BLUES	SPL	off	*off*	HALL	phaser
94	Clean(Scifi)	off	CLEAN	CST	off	FILTRON	HALL	FILTRON
95	Crunch	*off*	CALI CLEAN	STD	off	DELAY	SPRING	vox wah
96	Scifi	U-VIBE	CLEAN	STD	off	PITCH SHIFTER	HALL	U-VIBE
97	Crunch	U-VIBE	VOX AC30	STD	off	off	SPRING	U-VIBE
98	Acoustic	ACOUSTIC	CLEAN	CST	off	*off*	ROOM	pitch shifter
99	Heavy	FUZZ	UK ROCK	SPL	off	ECHO PLUS	SPRING	ECHO PLUS

Specifications

Amp models: 33
Cabinet models: 11
Pedal types: 11
Mod/Delay types: 11
Reverb types: 3
Noise reduction: 1
Programs: 100 (50 preset, 50 user)
Audio input
    INPUT jack, AUX IN jack
Audio output
    OUTPUT/PHONES jack (stereo/mono dual use)
    LEVEL knob, AMP/LINE switch
USB
    USB connector (Type B)
Tuner
    Detection range: A0–E6 (27.5Hz–1,318.5Hz)
    Calibration: A=438–445 Hz
Other
    DC12V connector, STANDBY switch
Signal processing
    A/D conversion: 24-bit
    D/A conversion: 24-bit
    Sampling frequency: 44.1kHz

Power supply: AC adapter (DC12V, ⊖–⦶–⊕)
Current consumption: 540mA
Dimensions (W x D x H): 270 x 180 x 70 (mm)/10.63 x 7.09 x 2.76 (inches)
Weight: 1.6kg/3.53lbs.
Included items: AC adapter

Specifications and appearance are subject to change without notice for improvement.

ToneLab ST

Owner's Manual

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