SOURCE AUDIO

soundblox® 2

GUITAR | microMODELER

OVERDRIVE FUZZ DISTORTION

USER'S GUIDE

SA227

WELCOME

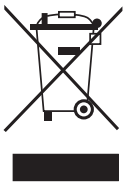
Thank you for purchasing the Soundblox 2 OFD Guitar microModeler. The OFD packs a comprehensive collection of new and vintage overdrive, fuzz, and distortion tones into a single stage-ready stompbox perfect for guitarists of all genres. Each effect has been meticulously crafted to provide precise and responsive tones, from warm and chunky tube overdrive to over-the-top fuzz.

The OFD Guitar microModeler is housed in a compact and extremely durable cast-aluminum casing. Its sturdy exterior and relay based buffered or true bypass switches are built to withstand endless gigging and rehearsal. Plus the compact 4.5 x 4.5 inch footprint easily finds a place on any sized pedalboard.

The OFD also offers a multitude of forward thinking and useful design functions like preset morphing, easy-to-adjust internal noise gates, and external Hot Hand®, Expression Pedal, or MIDI control — step up to an entirely new stompbox experience.

The Quick Start guide will help you with the basics. For more in-depth information about the OFD, move on to the following sections.

Enjoy! -The Source Audio team



If possible, dispose of the device at a recycling center. Do not dispose of the device with the household waste.

For full compliance with EN 61000-4-6 standard, input cable must be less than 3 meters in length.

OVERVIEW

DIVERSE SOUND PALETTE
Featuring 12 different overdrive, fuzz, and distortion tones.

COMPACT DESIGN
Compact, rugged, cast-aluminum housing.

UNIVERSAL BYPASS
Select either analog buffered or relay-based True Bypass.

2 USER PRESETS
Easy to configure user presets, selectable via two footswitches.

3-BAND TONE CONTROL
Extra-flexible TREBLE, MID, and BASS tone control.

EXTERNAL CONTROL
The SENSOR IN multi-purpose control input allows for preset morphing or knob-by-knob expression control via Source Audio's own Hot Hand® Motion Sensor Ring, the Source Audio Dual Expression Pedal, or MIDI.

ONBOARD NOISE GATE
Easy-to-engage, three level noise gate.

STATE-OF-THE-ART DSP
Our proprietary 56-bit Digital Signal Processor, the SA601, and crystal clear 24-bit converters.

QUICK START

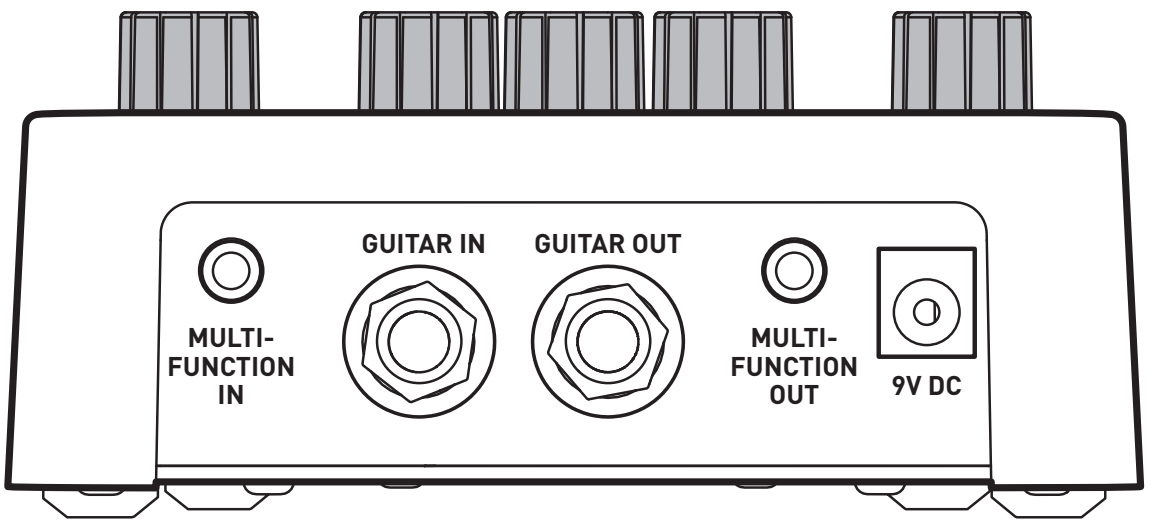
1. POWER

To power the unit, connect the included DC adapter power supply to the 9V DC jack on the back panel.

Note: Using a non-Source Audio power supply could damage the unit. Please be very cautious when using a 3rd party supply.

2. GUITAR/AUDIO CONNECTIONS

Using standard ¼" mono cables, connect your guitar to the GUITAR IN jack. Connect the pedal from the GUITAR OUT jack to your amp or other audio device.

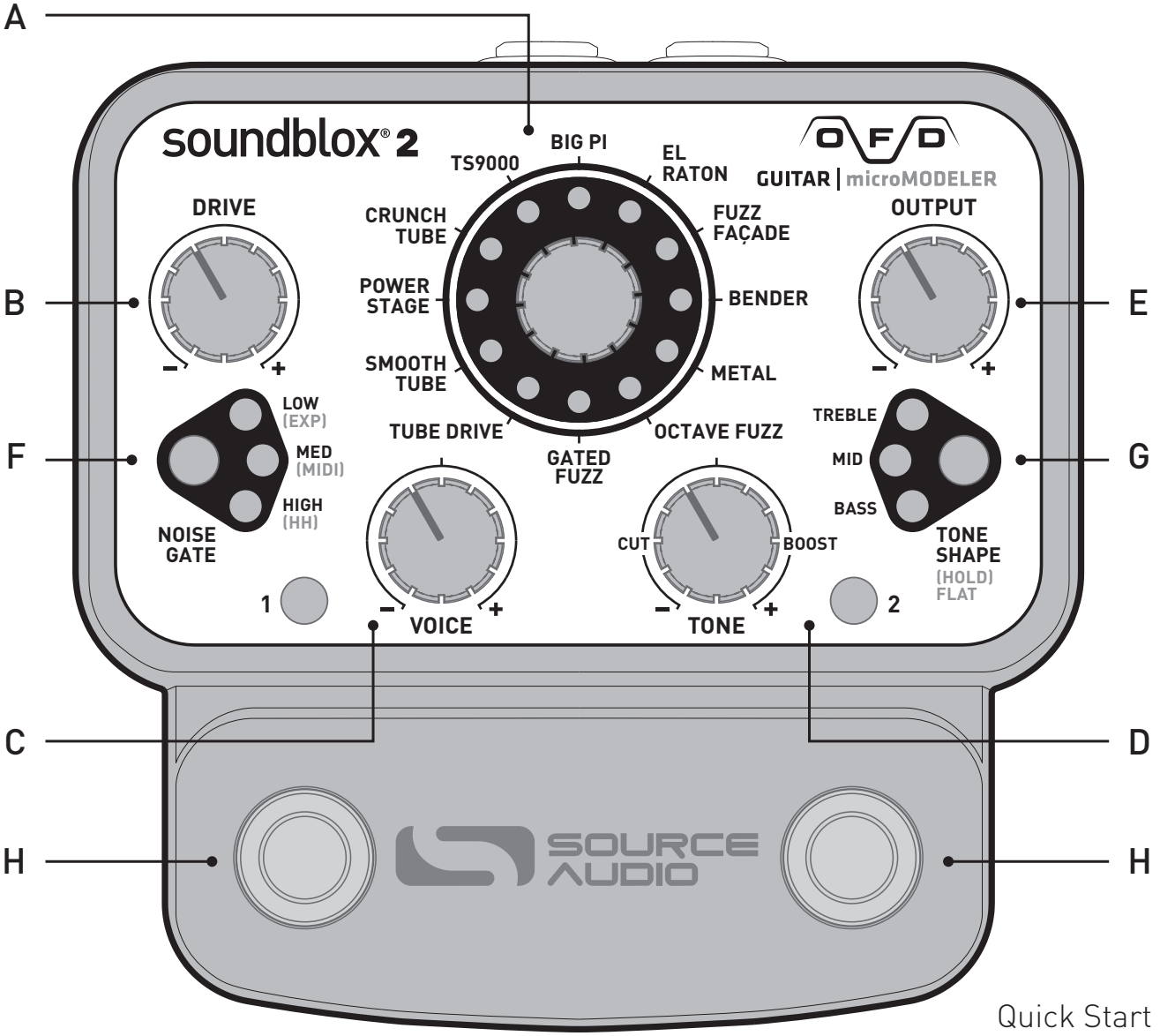


3. BRIEF KNOB, FOOTSWITCH, AND BUTTON DESCRIPTIONS

(see *Controls* section for more details)

- **EFFECT KNOB (A):** selects the type of distortion.
- **DRIVE (B):** adjusts the amount of distortion applied to the signal.

- **VOICE (C):** a gradual timbre adjustment affecting the overall character of each distortion
- **TONE (D):** cuts or boosts the selected TONE SHAPE (TREBLE, MID, and BASS).
- **OUTPUT (E):** adjusts the output level of the effect.
- **NOISE GATE BUTTON (F):** selects the noise gate threshold level. Also selects the External Control mode.
- **TONE SHAPE BUTTON (G):** selects which frequency range will be adjusted by the TONE knob.
- **FOOTSWITCHES (H):** enable/disable presets. Press and hold to save an edited preset.



CONNECTIONS

GUITAR IN (A): Connect your guitar or other instrument here using a standard mono ¼" cable.

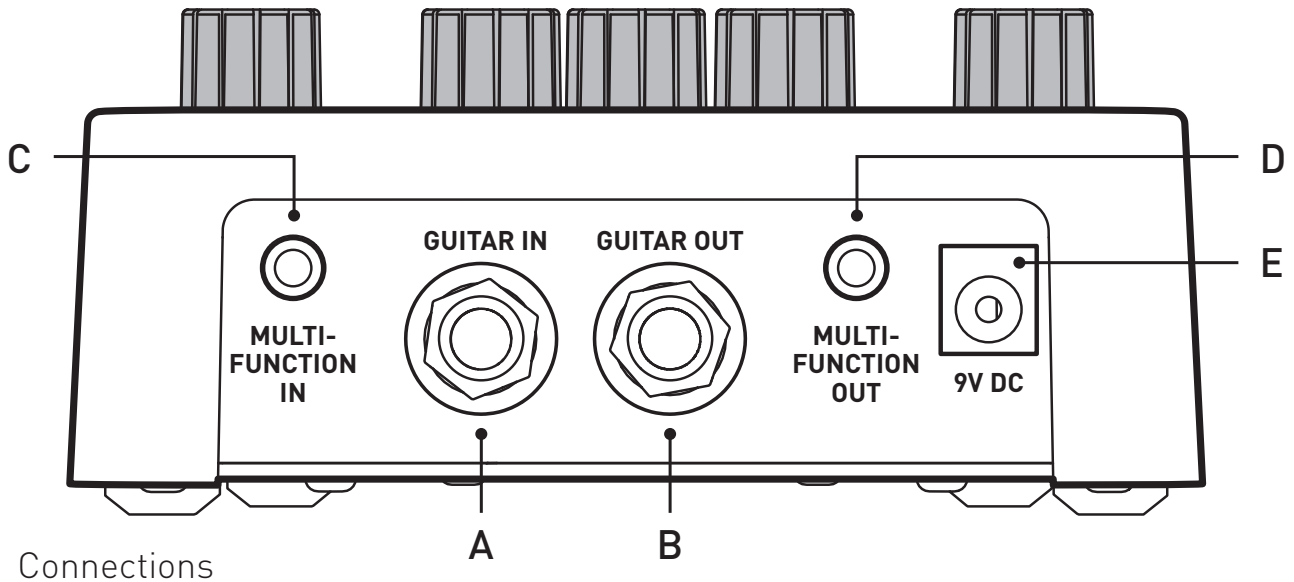
GUITAR OUT (B): Connect this to your amp, pedal, or other audio device.

MULTI-FUNCTION IN (C) (optional): The multi-function input is a flexible control input for use with external controllers. It can accept digital or analog signals, which allow the OFD to interface with the following accessories:

- SA110/SA115 Hot Hand Wireless Adapter
- SA111 Hot Hand Wired Sensor
- SA161 Source Audio Dual Expression Pedal
- Source Audio Soundblox 2 MIDI Adapter

MULTI-FUNCTION OUT (D) (optional): Use a Source Audio daisy-chain cable to connect this jack to the sensor input of another Soundblox pedal providing simultaneous control of all your Source Audio pedals.

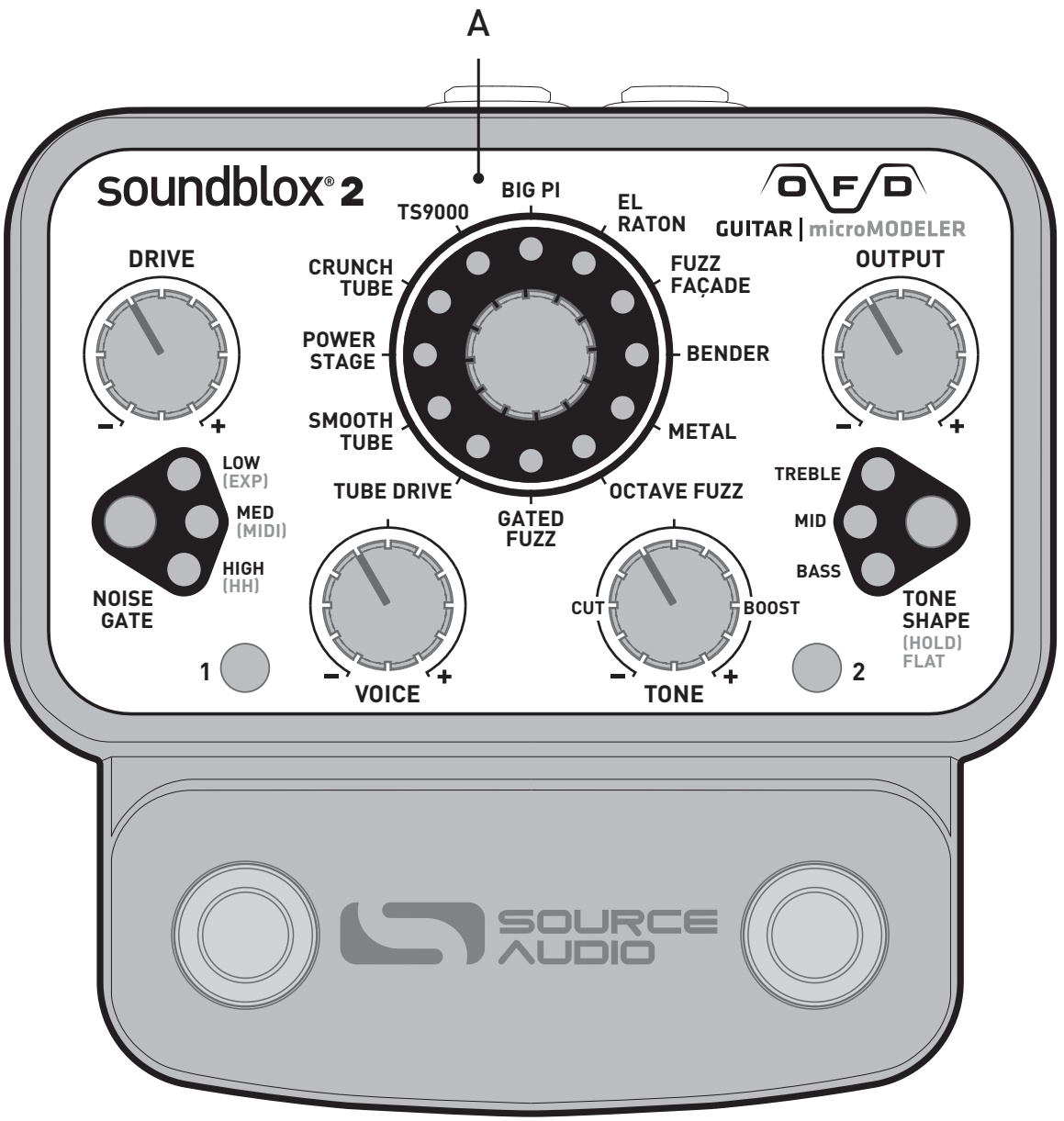
9V DC (E): Connect the included 9 Volt DC power supply here. Use of a non-Source Audio power supply may cause damage.



CONTROLS: KNOBS

EFFECT (A) (not labeled)

The effect knob selects which overdrive, fuzz, or distortion type will be used. For information on the individual settings see the Effect Types section.

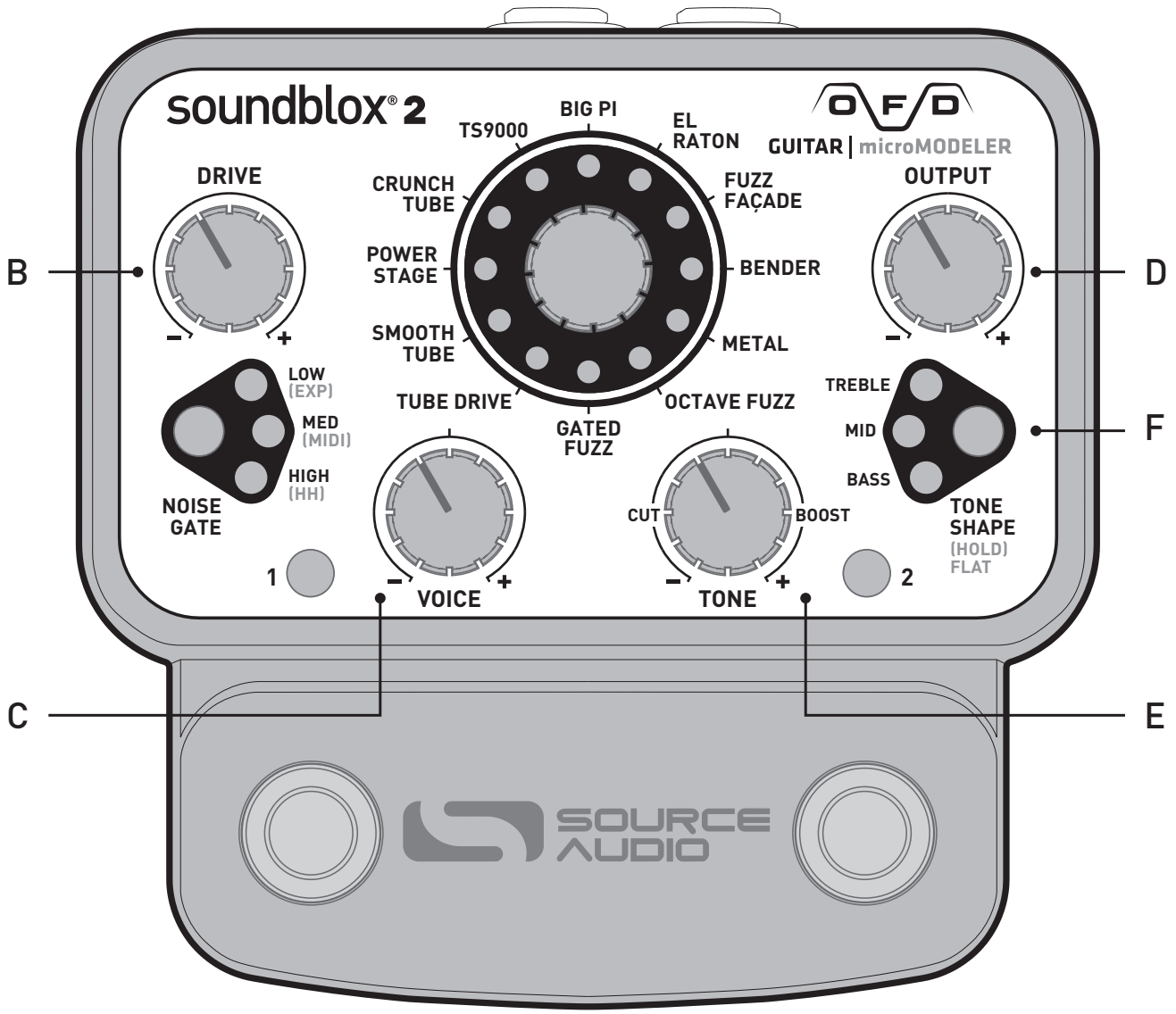


DRIVE (B)

The DRIVE knob adjusts the amount of gain applied to the signal. Dial down the drive for a cleaner, more articulate tone and crank it up for over-the-top doses of distortion.

VOICE (C)

The VOICE knob adjusts a midrange control located within the distortion section of processing. This knob has a very different impact on the overall character of the distortion than a simple EQ adjustment. Turn the knob to the left for a warmer, cleaner tone and to the right for a thicker, more cutting drive.

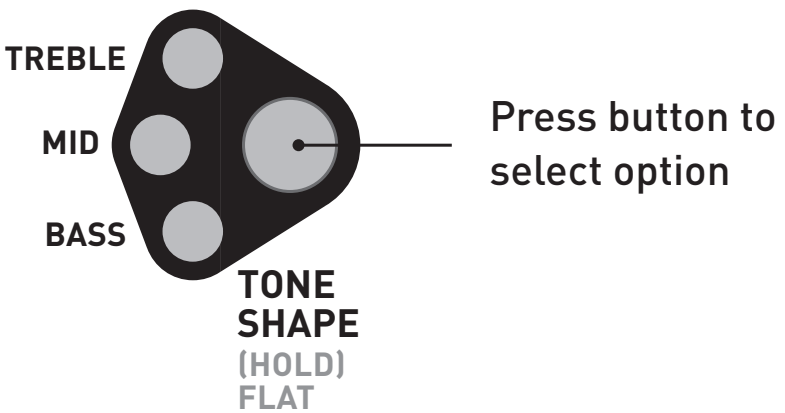


OUTPUT (D)

Adjusts the output level of the effect. This is useful for setting the level of the effect compared to the bypass signal. Note that because the effect compresses the signal, the dynamic range of the distorted signal will be less compared to the dry signal. This should be accounted for when setting levels.

TONE (E)

The TONE knob along with the TONE SHAPE control **(F)** will cut or boost the TREBLE, MID, or BASS frequencies, depending on which mode is selected. To flatten all three bands, press and hold the TONE SHAPE button **(F)** until all three LEDs blink two times. Flattening the TONE sets the knob positions of TREBLE, MID, and BASS to 12 o'clock.



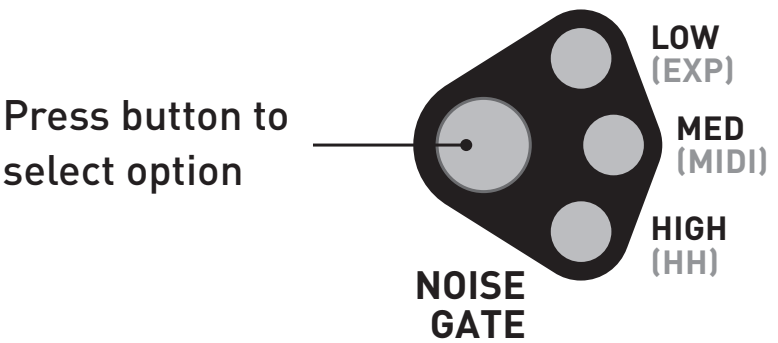
Note: Since the Soundblox 2 OFD microModeler preset values can differ from the physical knob positions, it can be useful to determine the positions of the preset knob values. To do this, start with the pedal in bypass and set all of the knobs to the full counter-clockwise position. Next, enable the preset and slowly turn each knob up, one at a time, until the preset indicator LED begins to blink rapidly. When this happens, the current position of the knob matches the saved value.

CONTROLS: BUTTONS

NOISE GATE

This control allows for quick adjustments to the noise gate threshold. Since distortion effects can have very high signal gain, the background noise and hum are also gained up and can become undesirably loud. Enabling the noise gate on the Soundblox 2 OFD microModeler will help silence the background noise when the guitar is not being played. There are four noise gate threshold levels: OFF (all LEDs off), LOW, MED, HIGH. LOW being the lowest threshold and least aggressive gate action, HIGH being the highest threshold with the most gating action

Note: this button is also used to select and control the function of an external controller through the MULTI-FUNCTION input. See the *External Control* section.

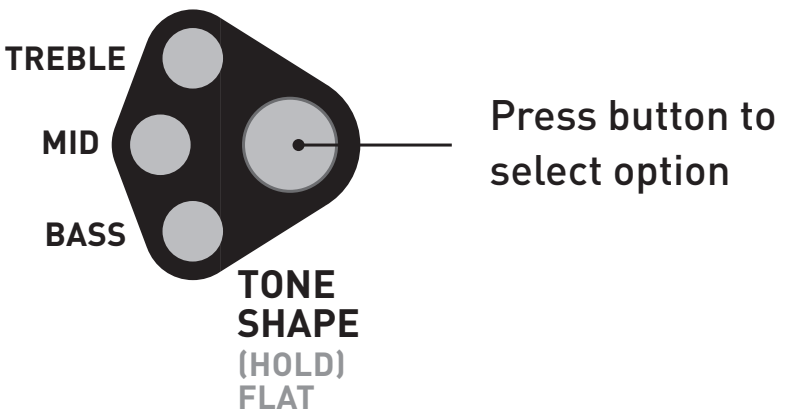


TONE SHAPE

There are three selectable EQ shapes: TREBLE, MID, and BASS. This control works in conjunction with the TONE knob. Press the TONE SHAPE button to scroll through the three tone control options. The TONE knob will adjust the level of cut or boost for the selected frequency range. The three tone shapes can be set independently and will not affect each other. If you need to quickly set all of the three bands back to the default flat setting (the 12 o'clock knob position), simply press and hold the TONE SHAPE button for 2 seconds. The TREBLE, MID, and BASS LEDs will rapidly blink three times, indicating that they have been reset.

FACTORY RESET

Should you wish to perform a factory reset, unplug the power supply from the pedal, then press and hold the TONE SHAPE button while plugging the power supply back in. Continue holding the TONE SHAPE button until the 1 and 2 preset LEDs blink in succession — this will erase any saved presets.



CONTROLS: FOOTSWITCHES

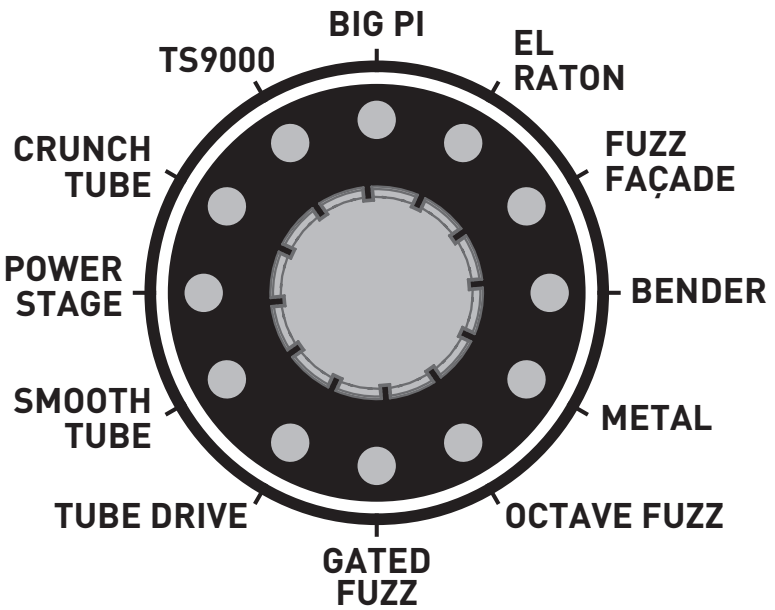
There are two footswitches on the OFD. The left footswitch corresponds to preset 1 and the right footswitch corresponds to preset 2. Pressing either of the footswitches will engage its respective preset. Pressing the engaged footswitch will put the effect back into bypass mode and pressing the unengaged footswitch will change to the other preset without going into bypass. The illumination of the LEDs labeled “1” and “2” indicate which preset is currently enabled. While the effect is in bypass mode both LEDs remain off.

When a preset is enabled and any sort of adjustment is made, the indicator LED for that preset will begin to blink, showing that the preset has been edited. After a preset has been edited, save it by pressing and holding either footswitch. The corresponding LED will blink quickly to indicate that the preset has been saved. Once changes are saved, the LED will illuminate continuously. An edited preset can be saved to either of the two preset locations. For example if preset 1 has been selected and edited, it can be saved to preset location 2 by pressing and holding the right footswitch.

Note: Changes made to a preset will be lost if you go into bypass or switch to another preset without saving.

EFFECT TYPES

Here are some brief descriptions of the effects included in the Soundblox 2 OFD microModeler.



TUBE DRIVE
TUBE DRIVE offers a vintage tube overdrive reminiscent of a Marshall Plexi. At lower drive levels this effect creates a punchy overdrive perfect for chunky rhythm tones. Crank the DRIVE knob for cutting lead tones.

SMOOTH TUBE
The SMOOTH TUBE overdrive offers a heavily saturated tone reminiscent of Mesa-Boogie® amplifiers. This aggressive approach to overdrive with its boosted highs and lows generates the thick, focused and heavily sustaining tone that inspired countless artists from Carlos Santana to Metallica.

POWER STAGE
POWER STAGE provides a tone similar to the Fulltone OCD®. It's a versatile effect that falls somewhere between tube overdrive and transistor distortion, rich with warm overtones and a thick, punchy grind.

CRUNCH TUBE
CRUNCH TUBE is an extra aggressive tube overdrive effect that boldly goes where no amp has gone before. If your current overdrive doesn't have quite enough hair on it, reach for the CRUNCH TUBE.

TS9000
Based on the Ibanez Tube Screamer®, the TS9000 supplies a go-to tone for rock and contemporary blues players alike. A subtle midrange bump provides a punchy and transparent overdrive that cuts through any mix.

BIG PI
Based on the Big Muff Pi®, BIG PI offers the extreme in guitar fuzz. Plenty of low-end and endless sustain creates a vintage "violin" like fuzz.

EL RATON
The EL RATON creates a classic and versatile distortion reminiscent of the ProCo Rat®. Dial in sparkling low-gain tones or intense distortion drenched lead tones.

FUZZ FAÇADE
The FUZZ FAÇADE generates a vintage fuzz inspired by the Dallas Arbiter Fuzz Face®. This highly transparent fuzz delivers that damaged speaker sound that has graced so many great records.

BENDER
Based on the MK II Tone Bender®, the BENDER effect provides the thick, heavily saturated fuzz synonymous with Yardbirds era Beck or early Zeppelin era Page. Fat chords and maximum sustain lead tones characterize this timeless fuzz.

METAL
Our METAL distortion provides a heaping dose of the heavily saturated, "scooped" tone synonymous with the metal genre. Searing highs and thunderous lows reign in this hardline distortion.

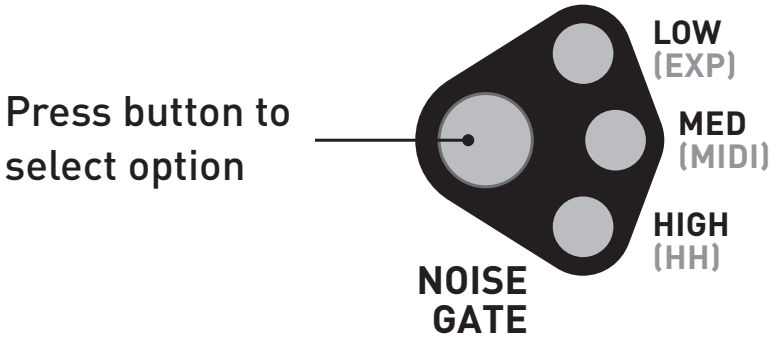
OCTAVE FUZZ
The OCTAVE FUZZ is based on the original octave pedal, the Octavia®. This selection generates a soaring octave up effect along with some very nasty fuzz. Try turning down the tone knob on your guitar to really bring out the higher octave.

GATED FUZZ
The GATED FUZZ offers a thick, fuzz-heavy tone with a unique attack and decay. An internal high threshold noise gate combined with an intense "Velcro" like fuzz give this effect its abrupt attack and sputtering decay. Don't worry, your amp isn't about to explode — that's how the GATED FUZZ was designed to sound.

EXTERNAL CONTROL

One of the Core Features of the Soundblox 2 line of effects is the MULTI-FUNCTION Input. The MULTI-FUNCTION input is an intelligent control input that accepts both digital and analog control signals. It replaces the SENSOR input on previous Soundblox pedals. The MULTI-FUNCTION input connects to wired or wireless Hot Hand accessories, the Source Audio Dual Expression Pedal, or a future Source Audio MIDI interface that will enable full MIDI I/O access to the pedal.

Selecting an external control input:
Press and hold the TONE SHAPE button, then quickly press the NOISE GATE button — the LOW/(EXP) LED will turn from green to red. This will change the function of the NOISE GATE button. Now press the NOISE GATE button again to select between the control options. The options are indicated in white text below the gate level labels. There are four possible settings:



- **OFF (no LEDs on):** External control is disabled in this mode
- **EXP:** Expression Pedal mode. Select EXP to enable use with the SA161 Source Audio Dual Expression Pedal. By default, the expression pedal will control the Morph (see the *Morphing* section for details). The Expression Pedal can also be assigned

to control any individual knob parameter.

- **MIDI:** MIDI control mode. Select this mode to enable MIDI I/O through the Soundblox 2 MIDI Interface
- **HH:** Hot Hand mode. Select HH to enable Hot Hand control. By default, Hot Hand will be assigned to control the morph parameter. Hot Hand can also be also be assigned to control any individual knob parameter.

Press the NOISE GATE button again while holding the TONE SHAPE button to resume normal Noise Gate adjustments.

CONTROL ASSIGN

By default, all external control units (Hot Hand, Expression Pedal, or MIDI) are mapped to control the morphing function, but it may be desirable to assign external control to an individual knob parameter. To assign control to a knob:

1. Ensure that you are in external control edit mode (NOISE GATE LEDs are red)
2. Select the desired external control option: EXP for expression pedal, HH for Hot Hand, or MIDI.
3. Press and hold the NOISE GATE button until the red LED begins to blink slowly.
4. Select the knob to which you would like to assign external control and turn it to the desired low position.
5. Press the NOISE GATE button again; the LED will start blinking rapidly.
6. Set the assigned knob to your desired high position.
7. Press the NOISE GATE button one more time to complete the assignment. The LED will blink three times, indicating the process is complete.

To return to the default Morph control, set the external control to OFF. Press and hold the NOISE GATE button again until all three LEDs blink

rapidly.
Note: Different control assignments can be used for each preset. Don't forget to save your settings!

MORPHING

The MULTI-FUNCTION control input can be used to morph between the two presets. For example, if preset 1 is saved as a low gain TUBE DRIVE and preset 2 is saved as a high gain BIG PI tone you can transform from Preset 1 to Preset 2 by rocking a Source Audio Expression Pedal from heel to toe (this process can also be performed with Hot Hand or a MIDI control device). As you morph between the presets, the two footswitch LEDs will change brightness depending on where you are in the transition.

It's worth mentioning that the morphing function is not a cross fade between two sounds, but rather a gradual shift between each preset's individual parameters. So the middle of the expression pedal range is truly an "in-between" sound. Some obvious applications are morphing from clean to distorted sounds, low drive settings to high drive settings, changes in volume, or between dramatically different sounds.

The expression pedal can be effectively inverted depending on which preset is initially enabled. Keep in mind that adjusting knobs while using the expression pedal will only control the originally selected preset, independent of the expression pedal position. Also, while tweaking presets to get the desired pair of sounds for morphing, don't forget to save before switching to the other preset.

MIDI CONTROL

The Soundblox 2 OFD microModeler can be controlled via general MIDI messages. In order to use the MIDI functionality, the unit requires a Source Audio Soundblox 2 MIDI Adapter. Please check www.sourceaudio.net for availability. The adapter connects to the MULTI-FUNCTION input and provides standard MIDI IN and OUT 5-pin DIN connectors.

Using Soundblox 2 pedals with MIDI greatly extends the functionality of the units. Having MIDI I/O allows for remote automation, external controllers, firmware updates and more. If you have more than one Soundblox 2 pedal, only one MIDI Adapter is necessary — the Soundblox 2 MIDI adapter will simultaneously control multiple Soundblox 2 pedals.

For information on using your Soundblox 2 with MIDI and for MIDI mappings, please visit our website at **www.sourceaudio.net**.

USE WITH HOT HAND®

All Soundblox pedals are compatible with our Hot Hand accessories. Hot Hand units consist of a ring-mounted accelerometer that translates motion into a control signal that can be applied to effect parameters. On the OFD, connect Hot Hand to the Multi-Function input. Select the HH mode as the external control option. This will take the input signals from Hot Hand and use them to control either the Morphing function or the assigned knob parameter (See Control Assign Section).

The Soundblox 2 OFD microModeler can also be calibrated to change the midpoint of the Hot Hand control range — for instructions, follow the calibration procedure below. Note that Calibration is only used for Hot Hand mode and calibration is NOT required before use.

To perform a calibration:

1. Select a preset by pressing a footswitch.
2. Enable Hot Hand control by selecting HH mode from the external controls (See External Control section).
3. Press and hold the NOISE GATE button until the HH red LED begins to blink slowly (this is the same as the control assign procedure).
4. Put the Hot Hand sensor into the desired calibration position.
5. Press the footswitch for the currently selected preset.
6. The HH LED will blink when the calibration is complete.

If you have trouble with calibration and need to get back to the default setting, place the sensor on a flat, level surface with the blue LED facing down and run the calibration procedure again.

UNIVERSAL BYPASS™

Most effect pedals offer either true or buffered bypass. Soundblox 2 pedals offer Universal Bypass, which allows you to select between the two. We recommend choosing between the OFD's active analog (a.k.a. buffered bypass) and relay-based true bypass (a.k.a. true bypass) based on your pedalboard's signal chain (Ideally, the first pedal in a signal chain would be a buffered input followed by true bypass in the rest of the signal chain).

By default, the OFD is set to relay-based true bypass. To switch the pedal to buffered bypass, press and hold the right footswitch while powering up the pedal. Continue to hold the footswitch until the corresponding LED blinks three times. The pedal is now in buffered bypass. To switch back to true bypass, replicate this process with the left footswitch.

Both bypass methods have clear advantages. Buffered bypass provides consistent input impedance, so if the input instrument is susceptibl to variations in input impedance (like a guitar pickup), there won't be a noticeable change in tone. True bypass has the benefit of providing a dedicated hardwire bypass signal path. However, hardwire connections require mechanically complex 3PDT (3-pole, double throw) switches, which are not design to accommodate audio level signals. The OFD microModeler offers a solution to this problem with its special relay-based true bypass, which is a far superior design for audio level signals.

SPECIFICATIONS

Dimensions
- L: 4.5 inches
- W: 4.5 inches
- H: 2.25 inches (including knobs)

Weight
- 1.00 lbs

Power
- 140mA @ 9V DC (max 180mA with Hot Hand Wireless Adapter)
- Negative tip power jack

Audio Performance
- Maximum input level: 2.0 Vrms (+6 dBV)
- Input impedance: 1 MOhm
- Output impedance: 1 kOhm
- 115dB DNR audio path
- 24-bit audio conversion
- 56-bit digital data path
- Universal Bypass™ (buffered or relay-based true bypass)

TROUBLESHOOTING

Noise:

Power Source	Ensure that the proper power supply is being used.
Near noise source	Move pedal away from power supplies and other equipment.
Other equipment	Remove other effects from signal chain, see if noise persists.
Bad cables	Swap out audio cables.

Hot Hand doesn't work:

Low power	Ensure that the proper power supply is being used.
Not calibrated properly	Calibrate the Hot Hand — see page 20.
Not connected properly	Check Hot Hand connections.

Unit appears dead/no LEDs lit:

Wrong power supply	Use correct power supply as defined on page 4.
Input plug not connected	Ensure that input cable is connected to the GUITAR input.
Corroded input cable plug	Check input cable plug for corrosion on sleeve, swap out cable if necessary.

LIMITED WARRANTY

Source Audio, LLC (hereinafter "Source Audio") warrants that your new Source Audio Soundblox 2 OFD Guitar microModeler, when purchased at an authorized Source Audio dealer in the United States of America ("USA"), shall be free from defects in materials and workmanship under normal use for a period of two (2) years from the date of purchase by the original purchaser. This Limited Warranty does not extend to the batteries which are purchased as is. Please contact your dealer for information on warranty and service outside of the USA.

Under this Limited Warranty, Source Audio's sole obligation and the purchaser's sole remedy shall be repair, replacement, or upgrade, at Source Audio's sole discretion, of any product that, if properly used and maintained, proves to be defective upon inspection by Source Audio. Source Audio reserves the right to update any unit returned for repair and to change or to improve the design of the product at any time without notice. Source Audio reserves the right to use reconditioned parts and assemblies as warranty replacements for authorized repairs. Any product repaired, replaced, or upgraded pursuant to this Limited Warranty will be warranted for the remainder of the original warranty period.

This Limited Warranty is extended to the original retail purchaser. This Limited Warranty can be transferred to anyone who may subsequently purchase this product provided that such transfer is made within the applicable warranty period and Source Audio is provided with all of the following information: (i) all warranty registration information (as set forth on the registration card) for the new owner, (ii) proof of the transfer, within thirty (30) days of the transfer, and (iii) a photocopy of the original sales receipt. Warranty coverage shall be determined by Source Audio in its sole discretion. This is your sole warranty. Source Audio does not authorize any third party, including any dealer or sales representative, to assume any liability on behalf of Source Audio or to make any warranty on behalf of Source Audio.

WARRANTY INFORMATION

Source Audio may, at its option, require proof of the original purchase date in the form of a dated copy of original authorized dealer's invoice or sales receipt. Service and repairs of Source Audio products are to be performed only at the Source Audio factory or a Source Audio authorized service center. Prior to service or repair under this Limited Warranty, the purchaser must request from Source Audio a return authorization, which is available at:

Source Audio LLC
120 Cummings Park, Woburn, MA 01801
(781) 932-8080 or at www.sourceaudio.net.

Unauthorized service, repair, or modification will void this Limited Warranty.

DISCLAIMER AND LIMITATION OF WARRANTY

DO NOT OPEN THE EFFECTS PEDAL UNDER ANY CIRCUMSTANCE. THIS WILL VOID THE WARRANTY.

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