

QUICK START

1. POWER

To power the unit, insert 4 AA batteries (included) or connect a Source Audio SA150 9 Volt DC power supply to the 9V DC jack (A).

Note: Power supply must be REGULATED, minimum 200mA, and use a negative tip plug. Use of a non-Source Audio power supply may cause damage and void the warranty.

2. GUITAR/AUDIO CONNECTIONS

Next, plug your guitar (or other instrument) into the jack labeled GUITAR IN (B) via a standard ¼-inch cable. Connect your amp (or other audio device) to the GUITAR OUT (C) jack, again with a standard ¼-inch cable. Both input and output are mono signals.

Note: The unit will not power up until a MONO ¼-inch plug is inserted into the guitar input. This is to conserve power when the unit is running on batteries. Don't forget to unplug the cable from the input when the unit is not in use—otherwise the batteries will continue to drain.

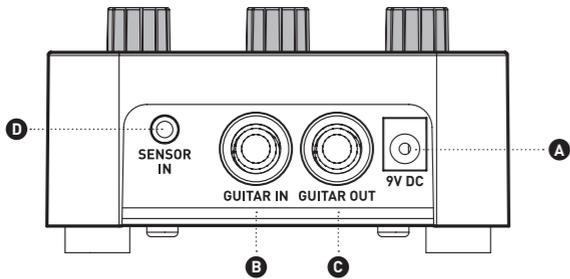
3. SENSOR IN (optional)

To use your Tri-Mod Phaser with a Hot Hand sensor: Connect the sensor to the SENSOR IN (D) jack and follow any instructions supplied with the sensor. The sensor input works with both wired and wireless sensors.

4. BRIEF KNOB AND PEDAL DESCRIPTIONS

(see *Controls* section for more details)

- **EFFECT** selects desired effect type.
- **FREQUENCY** adjusts the center frequency of the phaser.
- **DEPTH** controls the depth of the envelope (left of center) or the depth of the LFO (right of center).
- **ON/OFF** engages and disengages the effect.



CONTROLS

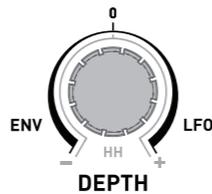
EFFECT

The effect knob selects the type of phaser to be used. The effect knob also allows you to select the CALIBRATE mode for calibrating the signals from a Hot Hand sensor. See the *Use with Hot Hand* section for details on calibration.



FREQUENCY

The frequency knob sets the center frequency of the phaser sweep. Turning the knob counterclockwise will result in the phaser notches moving over lower frequencies. Turning the knob clockwise will result in the phaser notches moving over higher frequencies. This control is also useful for adjusting the frequency range to match another instrument such as a bass guitar or keyboard.



DEPTH

The depth knob is a multi-purpose control on the Tri-Mod Phaser. It controls the depth of the effect and additionally controls the type of modulation being used. The control is broken down into two regions. To the left of the '0' position (12 o'clock) the effect will be driven using an envelope follower. Turning the knob further to the left will increase the depth of the envelope. To the right

of the '0' position the effect will be driven using an LFO. Turning the knob further to the right will increase the depth of the LFO. This way you can easily switch back and forth between using the envelope or LFO to drive the effect.

Note: If you plug a Hot Hand sensor in the SENSOR IN jack both the envelope and LFO modes will be disabled and the unit will be put into Hot Hand Mode. See the *Use with Hot Hand* section for more details.



SPEED

In envelope mode, the speed knob controls the attack and decay time of the envelope with '-' being the slowest and '+' being the fastest. In LFO mode, it controls the speed of the oscillator again with '-' being the slowest and '+' the fastest. In Hot Hand mode, the knob controls the response of the motion sensor. See the *Use with Hot Hand* section for more details.

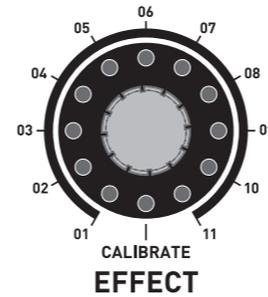
Note: The envelope follower signal can be reset to zero by a very brief moment of silence, allowing the next note played to experience the full sweep of the envelope all the way from zero.

ON/OFF

The ON/OFF switch engages or disengages the effect. When the effect is engaged, the ON/OFF LED will be lit. The LED will be off in bypass mode. The ON/OFF switch is also used to start the calibration routine when the EFFECT knob is set to CALIBRATE. Turning the knob further to the left will increase the depth of the envelope. To the right

EFFECTS

Here are some brief descriptions of the effects included in the Tri-Mod Phaser. The type of modulation used to control the effect, either Envelope, LFO, or Hot Hand, can create dramatically different sounds for the same effect setting. We encourage you to experiment with different combinations to find what you like best.



01: A model of one of the oldest rotating speaker simulators. 2 notches, but one is such low frequency as to be nearly inaudible. No resonance.

02: Standard 2 notch. Some resonance.

03: Standard 3 notch. No resonance.

04: Standard 4 notch. Some resonance.

05: Standard 6 notch. Some resonance.

06: 6 notch, but shifted signal subtracted from input rather than added. Produces a hollow sort of sound. No resonance.

07: 2 notch, but 6 peaks. More resonance.

08: 12 notches. Why? Because we can. Hollow sound, more resonance.

09: 3 notches, more resonance. The feedback loop that creates the resonance peaks has some extra delay in it, giving a more complicated frequency response curve, with more peaks.

10: 6 notches, more resonance. Longer delay in feedback loop.

11: 12 notches, more resonance, hollow sound. Very long delay in feedback loop.

SPECIFICATIONS

Dimensions

- L: 7 inches
- W: 4 inches
- H: 2 inches (including knobs)

Weight

- 1.25lbs

Power

- 110mA @ 9V DC (max 145mA with Hot Hand Wireless Adapter)
- 15-20 hours battery life
- NEGATIVE tip power jack

Audio Performance

- 115dB DNR audio ADC
- 24-bit audio conversion
- 56-bit digital data path
- Analog bypass

TROUBLESHOOTING

Noise:

Low Power	Change batteries or plug in a DC power supply.
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.

Low volume:

Low power	Change batteries or plug in a DC power supply.
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Hot Hand doesn't work:

Low power	Change batteries or plug in a DC power supply.
Not calibrated properly	Calibrate the Hot Hand (see <i>Use with Hot Hand</i>).
Not connected	Check Hot Hand connections.

Knobs don't work /light up:

Low power	Change batteries or plug in a DC power supply.
Wrong power supply	Use correct power supply (see <i>Quick Start</i>).
Corroded input cable plug	Check input cable plug for corrosion on sleeve, swap out cable if necessary.
TRS (stereo) cable used	Only use mono cable for input cable.

For additional assistance, please visit www.sourceaudio.net

LIMITED WARRANTY

Source Audio, LLC (hereinafter "Source Audio") warrants that your new Source Audio Soundblox Effects Pedal, 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 one (1) year 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.



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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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FEATURES

The Soundblox Tri-Mod Phaser is a new type of phaser or "Envelope Phaser" effect. The unit features multiple phaser types ranging from classic to modern and beyond. Each phaser type can be controlled by an envelope follower or an LFO. An envelope follower is an algorithm that responds to the amplitude (or volume) of the incoming signal and creates a control signal based on the input level. This control signal is used to "move" or modulate the phasing effect. In addition to controlling the phaser with the envelope follower, it can also be driven with an LFO (Low Frequency Oscillator). LFOs are most commonly used in effects like phasers, flangers, and choruses. Finally, the phasing effects can also be controlled by a Hot Hand Motion Sensor. Either a wired or wireless sensor can be plugged into the sensor input on the back panel. When a sensor is plugged in, the LFO and envelope follower are disengaged and the unit goes into "Hot Hand Mode" and the controls take on slightly different functions. Also, the calibrate feature is intended for use with the "Hot Hand Mode" only. The Tri-Mod name comes from the fact that there are three distinct modulation sources for controlling the phaser effects: Envelope, LFO, or Hot Hand.

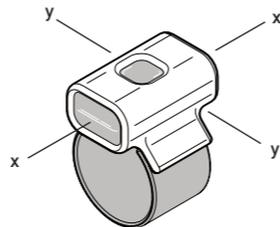
HOT HAND READY

While the primary function of the Tri-Mod Phaser is as a standalone effect pedal you also have the option of exploring some additional functions by plugging in a Hot Hand sensor. When a sensor is plugged in the envelope and LFO modes are disabled and the unit goes into Hot Hand mode. In Hot Hand mode, the controls take on some secondary functions. These are shown by the white text beneath main label of the knobs.

Hot Hand Basics

The Hot Hand motion sensors are sold separately and come in either wired or wireless versions. Both will work with the Tri-Mod Phaser. Additionally, the SENSOR IN jack will be compatible with any future Source Audio sensors.

The Hot Hand ring contains an accelerometer that responds to acceleration and is not based on any type of proximity to the guitar. By moving your hand or by changing the position of your hand you can modulate the effect. For a good description of Hot Hand Theory, download the Hot Hand Motion Controlled Phaser/Flanger manual. It is available at www.sourceaudio.net. Keep in mind that the Tri-Mod Phaser can only use the x-axis of the ring sensor.



USE WITH HOT HAND

Depth

In Hot Hand mode, the depth knob becomes the depth of the effect based on the sensor input. It can alternatively be thought of as a gain control for the Hot Hand signal. Increasing the depth will cause the phaser to move more based on smaller motions of the sensor. Decreasing the depth will decrease the movement of the phaser. In envelope and LFO mode, the two regions of the depth knob were used to control the depth in two separate modes. In Hot Hand mode, the depth increases turning the knob to the left or right except that in the '+' region the motion of the phaser will be from low to high and in the '-' region the phaser will move from high to low. This effectively inverts the Hot Hand signals.

Motion Control

The SPEED control becomes the MOTION control in Hot Hand mode and is used to smooth out the input from the sensor by filtering out fast changes in the signals. The amount of smoothing is controlled by the knob. Turning the knob towards FLAIL provides the most amount of smoothing and the effect will now only react to large, slow motions of the sensor. This is useful when you only want the effect to respond to large, deliberate motions. Turning the knob all the way to PICK sets the smoothing at a minimum. This means that fast changes in the sensor signal will be applied to the effect. The motions created from normal picking will be enough to move the phaser. This may cause the sound to be too "jittery", in which case, turn the knob towards STRUM and FLAIL to get the desired response. The STRUM setting is a nice compromise that allows some moderately fast motions through without being too jittery.

Calibration

The Tri-Mod Phaser has a calibration feature which is only used in Hot Hand mode. However, calibration is not required before use. The calibration feature allows you to set the midpoint of the phaser sweep for any position of your hand. Depending on your playing style, you may find it useful to try some different calibration positions. The most common use of calibration is setting your resting hand position on the guitar to be the midpoint of the phaser sweep. Calibration can also be useful if you are putting the sensor on a headband or other alternate locations.

To perform a calibration

- Turn the EFFECT knob to the CALIBRATE position.
- Hold the sensor in the desired position.
- While holding the sensor steady, press the ON/OFF footswitch and wait for 1 second.
- Turn the EFFECT knob away from calibrate to use your new calibration setting. Note: Calibration settings will be saved between power cycles.
- 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.

TRI-MOD PHASER

USERS GUIDE

Thank you for purchasing a Soundblox Tri-Mod Phaser. The Tri-Mod Phaser offers a wide palette of phaser sounds that can be controlled in various ways. The effects and control features allow you to go far beyond the sounds possible with standard phaser effects. The Tri-Mod Phaser and other effects in the Soundblox line are all HOT HAND® READY and can be controlled with any Hot Hand motion sensor for even more sonic possibilities.

Enjoy!
The Source Audio team

- **DIVERSE SOUND PALETTE**
Featuring 11 types of phaser effects.
- **MULTIPLE CONTROL OPTIONS**
Any of the 11 effects can be controlled with three distinct modulation sources.
- **MODERN DESIGN**
A thoughtfully designed box which features rugged construction and sleek looks.
- **STATE-OF-THE-ART DSP**
Our proprietary 56-bit Digital Signal Processor, the SA601, and crystal clear 24-bit converters.
- **HOT HAND READY**
All Soundblox pedals can be used with any Hot Hand motion sensor to extend the capabilities of the unit.
- **ACTIVE ANALOG BYPASS**
Bypass is fully routed around the DSP and active input ensures zero signal degradation.

SA122

SOURCE AUDIO
SoundbloxTM
STRUM
PICK
FLAIL