

## LIMITED WARRANTY

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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.

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

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

### DISCLAIMER AND LIMITATION OF WARRANTY

DO NOT OPEN THE FLOOR BOX UNDER ANY CIRCUMSTANCE. THIS WILL VOID THE WARRANTY.

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## FEATURES

The Soundblox Tri-Mod Flanger is a new type of flanger or "Envelope Flanger" effect. The unit features multiple flanger types ranging from classic to modern and beyond. Each flanger 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 flanger with the envelope follower, it can also be driven with an LFO (Low Frequency Oscillator). LFOs are most commonly used in effects like flangers, 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 flanger effects: Envelope, LFO, or Hot Hand.

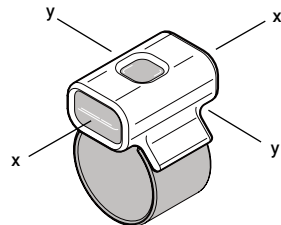
## HOT HAND READY

While the primary function of the Tri-Mod Flanger 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 Flanger. 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 Flanger Filters manual. It is available at [www.sourceaudio.net](http://www.sourceaudio.net). Keep in mind that the Tri-Mod Flanger can only use the x-axis of the ring sensor.



## USE WITH HOT HAND

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 flanger to move more based on smaller motions of the sensor. Decreasing the depth will decrease the movement of the flanger. 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 flanger will be from low to high and in the '-' region the flanger 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 flanger. 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 Flanger 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 flanger 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 flanger 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 FLANGER USERS GUIDE

Thank you for purchasing a Soundblox Tri-Mod Flanger. The Tri-Mod Flanger offers a wide palette of flanger sounds that can be controlled in various ways. The effects and control features allow you to go far beyond the sounds possible with standard flanger effects. The Tri-Mod Flanger 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 flanger 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.

### MOTION CONTROL

All Soundblox pedals are 'Hot Hand Ready' and 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.

## QUICK START

### 1. POWER

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

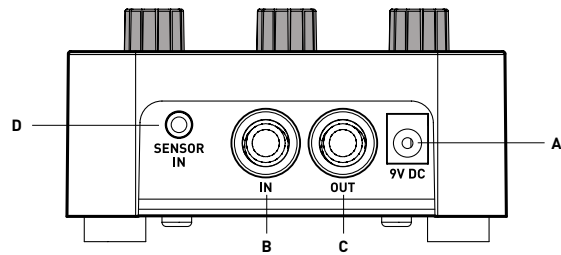
### 2. GUITAR/AUDIO CONNECTIONS

Next, plug your guitar (or other instrument) into the jack labeled GUITAR IN **(B)** via a standard 1/4" cable. Connect your amp (or other audio device) to the GUITAR OUT **(C)** jack, again with a standard 1/4" cable. Both input and output are mono signals.

**Note:** The unit will not power up until a 1/4" 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 Flanger with a Hot Hand sensor: Connect the sensor to the SENSOR IN **(D)** jack and follow any instructions given with the sensor.



## CONNECTIONS

### GUITAR IN

Connect your guitar or other instrument here using a standard MONO 1/4" cable.

### GUITAR OUT

Connect this to your amp, pedal, or other audio device.

### SENSOR IN

Connect an optional Hot Hand sensor here, either wired or wireless.

### 9V DC

Connect an optional SA150 9 Volt DC power supply here, the batteries will be disconnected when a power supply is connected. 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.

## CONTROLS

### EFFECT

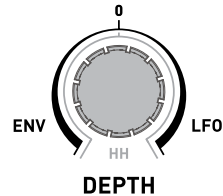
The effect knob selects the type of flanger to be used. The effect knob also allows you to select the CALIBRATE mode for calibrating the signals from a Hot Hand sensor. See the Use with Hot Hand section for details on calibration.

### FREQUENCY

The frequency knob sets the center frequency of the flanger sweep. Turning the knob counterclockwise will result in the flanger moving over lower frequencies for a darker sound. Turning the knob clockwise will result in the flanger sweep moving over higher frequencies which will create a brighter and thinner sound. 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 Flanger. 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. In Hot Hand Mode the depth knob controls how much the flanger will move depending on the motion of the sensor. To the right of the '0' position, the flanger will move from low to high with greater range as you turn the knob further to the right. To the left of the '0' position the flanger will move from high to low with increased range as you turn the knob to the left. This is basically the same as the 'invert' feature on the original Hot Hand Motion Controlled Flanger/Flanger.

### 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. FLAIL being the slowest and PICK being the fastest response. 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. See the section on Use with Hot Hand for more details.

## EFFECTS

Here are some brief descriptions of the effects included in the Tri-Mod Flanger. 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:** Classic Flanger.

**02:** Delayed subtracted from input, producing a hollow sound.

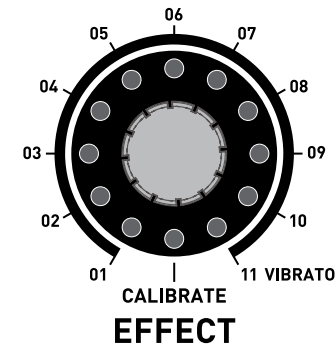
**03:** Multiple, individually varying, delay lines summed.

**04:** High resonance, peaks only, no notches.

**05:** Multiple delays, no resonance.

**06:** Multiple delays, with resonance.

**07:** Delayed signal only, no flanging effect. Meant for pitch modulation, such as vibrato. There are some small resonance peaks, so that vibrato doesn't sound too sterile and mechanical. Slow modulation will be nearly inaudible. Shorter delay times will produce less of an effect than long delay times.



## 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 page xx.
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 as defined on page X.
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](http://www.sourceaudio.net)