

**FEATURES AND FUNCTIONS**

- ① **INPUT** - 1/4" jack connects the cable from your instrument.
- ② **SEND-1 ~ RETURN-1** - 1/4" output and input jacks for the first effects loop.
- ③ **SEND-2 ~ RETURN-2** - 1/4" output and input jacks for the second effects loop.
- ④ **9VDC** - Power jack connection for power supply (for LED's only).
- ⑤ **1 FOOTSWITCH** - Turns LOOP-1 on and off. LED status light indicates loop is active.
- ⑥ **2 FOOTSWITCH** - Turns LOOP-2 on and off. LED status light indicates loop is active.
- ⑦ **OUTPUT** - 1/4" jack connects to your amplifier.
- ⑧ **LOOP-1 LIFT** - Reduces ground loop hum by disconnecting the ground at the RETURN-1 jack.
- ⑨ **LOOP-2 LIFT** - Reduces ground loop hum by disconnecting the ground at the RETURN-2 jack.
- ⑩ **LOOP-2 MUTE** - Converts LOOP-2 into a mute function to allow silent tuning.



IMPORTANT NOTICE!

The Radial BigShot EFX is a passive switcher specifically designed for use with amplifiers with proper electrical safety grounds approved by nationally recognized electrical authorities such as UL in the United States, CSA in Canada and other similar bodies in countries around the world.

It is further understood that due to the unpredictable nature of connecting any number of different amplifiers and pedals together, using the EFX can pose a potential for electric shock, and as such, the user is completely responsible for any and all consequences as these are beyond our control.

You are completely responsible to ensure the safe and proper use of the EFX and clearly understand that using the EFX confirms you have taken full responsibility. If you are not 100% sure of your actions, please consult a qualified technician for advice before using this device or connecting any of your equipment to it.

**RADIAL LIMITED THREE YEAR TRANSFERABLE WARRANTY**

Radial Engineering Ltd. warrants this product to be free from defects in material and workmanship and will remedy any such defects free of charge according to the terms of this warranty. Radial Engineering will repair or replace at its option any defective component(s) of this product, excluding the finish, the tube, the footswitch (tubes and footswitches are warranted for 90 days) and wear and tear from normal use, for a period of three (3) years from the original date of purchase. In the event that a particular product is no longer available, Radial Engineering reserves the right to replace the product with a similar product of equal or greater value. To make a request or claim under this limited warranty, the product must be returned prepaid in the original shipping container (or equivalent) to Radial Engineering or to an authorized repair centre and you must assume the risk of loss or damage. A copy of the original invoice showing date of purchase and the dealer name must accompany any request for work to be performed under this limited warranty. This limited warranty shall not apply if the product has been damaged due to abuse, misuse, misapplication, accident or as a result of service or modification by any other than an authorized repair centre.

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# BigShot EFX™ User Guide



**CAUTION: PLEASE READ THE IMPORTANT NOTICE ON THE BACK COVER BEFORE USING THE BIGSHOT EFX**

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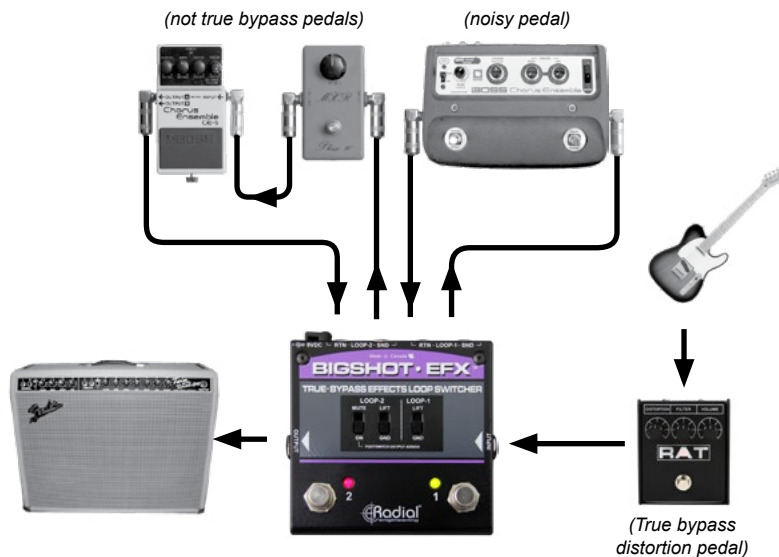
**CONGRATULATIONS** on your purchase of the Radial BigShot EFX. The Radial BigShot EFX is a foot-controllable device that allows a guitarist to insert a series of effect pedals into the signal chain and take them out when not in use. Two separate loops make it easy to prepare complex pedal setups in 'standby' and activate them with a single foot stomp. Best of all, old noisy effects (or ones that rob you of tone when bypassed) can now be taken out of the signal chain when not required. The BigShot EFX features a 100% passive audio circuit, without any buffering or loading of its own. True bypass switching guarantees the full natural tone of your instrument is always delivered to the amp.

To add versatility, the second loop can be used as a tuner output for quiet on-stage tuning. The BigShot EFX is ideal for guitar, bass and keyboards for use on advanced pedalboards.

### CONNECTING THE BIGSHOT EFX

To power the LED's, the BigShot EFX requires an external Boss style power supply that outputs 9VDC wired center pin negative. Before making any connections confirm your amplifier is turned off and the volume controls are turned all the way down. We will begin with a simple setup.

1. Start by connecting your guitar to the INPUT jack and the OUTPUT jack to your amplifier.
2. Connect effect pedals to LOOP-1. Connect the SEND-1 jack to the input of your first effect pedal. Connect the output of the pedal to the RETURN-1 jack. Using good quality cables with proper shielding will help reduce the potential for noise. When connecting several pedals, pay close attention to the signal path to make sure you go from one pedal's output to the next pedal's input. Most effects loop problems are due to simple hook-up errors.
3. You are now ready to turn on your amp to test the first loop. Always start testing at a low volume. When you depress the LOOP-1 footswitch, the signal path is routed from the SEND-1 jack, through the pedals, and brought back through the RETURN-1 jack. Test the pedals by turning them on and off in sequence. If all pedals are working, you can now repeat the process for LOOP-2.



### USING THE BIGSHOT EFX

#### Loop footswitches:

Each loop features its own true bypass footswitch. When the footswitches are in their bypass position, the guitar signal passes through the switch as if hardwired. Depressing the LOOP-1 footswitch diverts the signal to the SEND-1 jack and to the effect pedals in that loop. The signal is received back through the RETURN-1 jack and passed on to the LOOP-2 footswitch where the process is repeated using the SEND-2 and RETURN-2 jacks. Note that the two loops are in series so the guitar signal will pass through effect pedals in LOOP-1 before pedals in LOOP-2.

#### Ground lift switches:

Each effects loop on the BigShot EFX is equipped with a ground lift switch. This disconnects the circuit ground at the RETURN jack. If you encounter buzz or hum, lifting the circuit ground can sometimes help eliminate or reduce noise.

#### Using LOOP-2 as a tuning mute:

The second loop on the EFX can be used as a mute switch to allow silent tuning. When LOOP-2 is used as a tuner mute it cannot be used as an effects loop. To set up LOOP-2 as a tuner mute, connect SEND-2 to your tuner, select the MUTE position on the slider switch and you are set to go! Now, when you hit the LOOP-2 footswitch, the sound going to your amp will shut off while diverting your guitar signal to your tuner. Hitting the LOOP-2 footswitch again will turn the signal back on.

#### Using the BigShot EFX in an amplifier's effects loop:

Since the BigShot EFX has a passive audio circuit, it can be safely used in your amp's effects loop. This will effectively double the amp's effects loop capacity. Most effects loops in amplifiers use buffers to condition the signal. If this is followed by another buffer, distortion can occur. The BigShot EFX's bufferless design makes it perfect for this application. To use the BigShot EFX in your amplifier's effects loop, simply connect the amplifier's effect send to the BigShot EFX input. Then connect the BigShot EFX output to the amp's effect return. Connect any number of effect pedals to the BigShot EFX SEND and RETURN jacks as described above.

### ORGANIZING LOOPS AND PEDALS

Although there are no rules as to how pedals are set up, there are some general practices that you should consider. For instance, some devices such as fuzz pedals and wah-wahs react directly to the guitar pickup. Because of this, fuzz and wah pedals tend to be connected at the beginning of the signal chain before other types of effects. Since LOOP-1 is ahead of LOOP-2 in the signal chain, try placing fuzz and wah pedals in LOOP-1.

A chorus or EQ pedal will have less of an effect if placed in front of a distortion. Consider placing EQ and modulation pedals after distortion and fuzz effects in LOOP-2. Conversely, you may want to set up the BigShot EFX for rhythm and lead tones. For this type of setup, place the effects you use for your rhythm sound in LOOP-1 and use LOOP-2 for you lead effects.

Another real advantage of the BigShot EFX is its ability to take a noisy pedal out of the signal chain when not in use. For this you may want to isolate the offending pedal by itself, or with other noisy pedals in one of the BigShot EFX loops. This not only reduces noise, but also reduces the load on the pickup, giving you a more natural tone when the loop is bypassed.

Effect order is a matter of personal preference. The best approach is to try your pedals in different orders until you get a setup you like best. There are no rules - just have fun!

### FAQ

#### What does true bypass mean?

True bypass pedals are those that pass the guitar signal directly from input to output when the pedal is not engaged without passing through any electronic circuitry. You can test this by simply disconnecting the power. If the signal passes when there is no power (make sure you are in bypass mode), then your pedal is, in all likelihood, a true bypass pedal. The advantage of true bypass is that the guitar signal does not get loaded down by the circuit. The downside is that most true bypass pedals tend to produce a slight "click" or "pop" when turned on or off. This is because of the mechanical nature of the footswitch.

#### What is loading?

Every time you connect a pedal to your guitar, the pedal uses the signal from your pickup to make it work. This applies a load to your pickup. When the pedal is not in use (bypassed), it can still apply some type of load which can draw signal away from the amplifier. This is known as loading. As the loading increases, the guitar signal weakens and becomes thin and less punchy. True bypass pedals avoid this problem by passing the signal directly from the input to the output without passing through any electronics.

#### What is buffering?

A buffer is a pre-amplifier that lets you run long cables and lots of pedals without adding noise. A buffer exerts very little load on the pickup and is used to help drive the signal. Buffering can be good but watch for poor circuit designs that can sound awful, change your tone and make your guitar sound brittle. The buffer used in the Loopbone is an audiophile quality Class-A buffer that sounds amazing. It also features Drag™ control that lets you control the amount of loading. Passive devices like the BigShot EFX do not employ any buffering whatsoever, allowing the user to decide where buffers should be used in their signal chains, if at all.

#### Can I use the BigShot EFX to switch amps on or off like an ABY switcher?

Many older amps do not have safety grounds. These old amps are notorious for causing shocks! As such, we are unable to recommend this practice due to legal liability. Please consult a qualified technician should you wish to use your BigShot EFX in an application it was not intended for.

#### Will the Bigshot EFX function without power?

Yes. The BigShot EFX features a completely passive audio circuit that will work even when no power is present. Power is only required for the LED status indications.

#### I hear a slight clicking when I switch effects. Is this normal?

Yes. The BigShot EFX is a true bypass pedal and the click occurs as the mechanical switches make contact to the effects loops as they are engaged. This is normal for true bypass devices like the EFX. The alternative is electronic switching schemes that route the signal through an IC when bypassed and can change the tone of your instrument. The only switches that do not click or affect your tone when bypassed are the types that employ opto-couplers. These more expensive units quickly ramp up and down the signal to avoid the on-off click transient.