



**StageBug™**  
**SB-2 PASSIVE**

[www.radialeng.com](http://www.radialeng.com)



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Thank you for purchasing your very own StageBug SB-2 Passive direct box! We are excited about producing a personal DI that can fit in your bass case and be 'at the ready' anytime you need to connect to a PA system. Although the SB-2 is designed to be plug & play easy to use, please take a minute to read this short manual. It will give you insight on how to best use your Radial direct box and get the most out of it.

#### OVERVIEW

The SB-2 Passive is an ultra-compact direct box designed for keyboards, active basses, acoustic guitars and other devices that produce high output levels. What makes the SB-2 particularly useful is that it employs a transformer isolated circuit that does not require any powering whatsoever to make it work. You simply plug in and play. When hit hard, the SB-2's passive circuit naturally rounds out the peaks, producing a warm, pleasing tone. Better yet, the SB-2's transformer provides galvanic isolation between the input and output to help eliminate troublesome buzz and hum caused by ground loops. A ground loop can sometimes occur when connecting two AC powered devices such as a keyboard and a mixer together. The SB-2 Passive breaks the ground loop and eliminates noise.

#### CONNECTING TO THE PA SYSTEM

Before making connections, always turn audio levels down or the PA off. This will help eliminate turn-on transients that can damage more sensitive components like tweeters. Connect your instrument to the SB-2 input using a standard 1/4" instrument cable. Connect the XLR output from the SB-2 to the PA or recording system using a standard XLR cable. You can now turn on the PA and start testing. Always test at low volumes as this provides a margin of safety should something not be connected properly.



#### ADDING A STAGE AMP OR TUNER

The SB-2 is equipped with a THRU-put connection that lets you connect your instrument to an on-stage amp or personal monitoring system so that you can create a comfortable listening environment for yourself. This output is fed directly from the instrument and is not affected by the PAD switch. If you like you can also use the THRU output to feed a tuner.



#### USING THE AUTO MERGE

The SB-2 is equipped with an auto-merge feature that combines the left and right outputs from a stereo device like a keyboard or MP3 player to produce a mono output at the XLR to feed the PA. This innovative function saves valuable channels at the mixing console while eliminating the need to reprogram audio files or stereo setups before a show. To use the auto-merge, simply connect the left and right outputs from your stereo device to the 1/4" INPUT and THRU jacks and the SB-2 will do the rest for you!



#### USING THE GROUND LIFT

In some instances, you may find that you are experiencing excessive hum or buzz that may not have been present at your last show. This is known as a ground loop and is often caused by the audio ground interacting with the electrical ground. The SB-2's passive circuit is equipped with a transformer that often helps solve the problem. This is augmented with a ground lift switch that disconnects pin-1 on the XLR to lift the audio ground. If you encounter noise, simply push in the LIFT switch.

#### USING THE PAD FOR LOUDER INSTRUMENTS

Although the SB-2 is perfectly suited for high output instruments like digital keyboards and active basses, every so often, you may encounter an instrument or audio source that is louder than normal. Examples include digital pianos or the headphone output from some audio players. These can overload the SB-2 and cause distortion. The SB-2 features a -15dB PAD switch that enables these high output instruments to be used without distortion. If you hear distortion, simply engage the PAD and increase the level on the PA or recording system to compensate.

#### RECORDING DIRECT WITH THE SB-2

Using a direct box to match the impedance will produce a warmer more natural tone versus plugging the instrument directly into the recording system. The StageBug SB-2 is well suited for this as it both balances the signal and matches the impedance simultaneously. Simply connect your instrument to the SB-2 and the XLR output to the mic input on your recording system. You will find the SB-2 will work remarkably well when tracking bass and acoustic guitar.

