

SE-120™

Owner's Manual

Revision 1.0

Description

The SE-120 is a guitar speaker emulator and load box. The input is connected to the speaker output of a guitar amplifier, and the outputs are line or mic level filtered or unfiltered signals. The filtered output emulates the sound of a close-miced guitar speaker cab. There is an internal dummy speaker load for amplifiers rated at up to 120 watts and a THRU jack to connect speakers or dummy loads instead of using the internal load.

Inputs and Outputs (on back panel)

INPUTS: These ¼" mono jacks are used to connect to the speaker output of a guitar amplifier. Use the correct jack based on the output impedance of the amplifier (4, 8 or 16 ohms). A speaker cable must be used for this connection.

THRU IN: This ¼" mono jack is used as the input from the amplifier's speaker out jack only when an external speaker or dummy load is connected to the THRU OUT jack of the SE120. When a cable is plugged into this jack the internal dummy load is disconnected. This jack is not used if the internal dummy load is used.

THRU OUT: This ¼" mono jack is used to connect to a speaker or dummy load. This jack is not used if the internal dummy load is used. If the internal dummy load is used then nothing should be connected to the THRU jack

UNFILTERED OUT: This ¼" mono jack is the line or microphone level unbalanced and unfiltered output. If this output is used then software or other hardware speaker emulation should be used.

FILTERED OUT: This ¼" mono jack is the line or microphone level unbalanced and filtered output. If this output is used then software or other hardware speaker emulation is not needed.

XLR: This jack is the line or microphone level balanced output. This output can be used simultaneously with the other outputs. This output can be switched between filtered, unfiltered and off (center position) with the switch on the right side of the jack. The ground can be floated using the switch on the left side of the jack.

Controls (on front panel)

UNFILTERED VOL: These controls set the volume of the unfiltered outputs. The toggle switch sets the coarse volume range and the knob provides fine volume control.

FILTERED VOL: These controls set the volume of the filtered outputs. The toggle switch sets the coarse volume range and the knob provides fine volume control.

BRIGHT: This knob is used to control the high frequency response of the filtered outputs. Turning clockwise mimics the effects of moving a microphone closer to the center of a speaker.

CAB: This 3-way toggle switch controls the low frequency response of the filtered outputs. The 3 settings mimic different speaker cabinet sizes.

Operating Instructions

Connect the speaker output of a guitar amplifier to the appropriate input jack on the SE-120 using a speaker cable.

If you want to use the internal dummy speaker load, use one of the 4, 8 or 16 ohm input jacks

If you want to use a speaker cab, use the THRU IN jack. ***In this case you must connect a speaker cab to the THRU OUT jack or damage to the amplifier may result.***

Connect one or more of the output jacks to a mixer, recording device or computer. If using the FILTERED OUT ¼" jack it is recommended to switch the XLR jack to the off setting (center position) by using the toggle switch to the right of the XLR jack. This will improve the bass response.

Set the output volume using the VOL controls. Set the volume as high as possible without audible clipping.

Adjust the BRIGHT and CAB controls for the sound you want.

The SE-120 will become quite warm when using high power amplifiers. Keep about 1" of clearance above and 0.5" below the unit.

Keep in mind that running amplifiers at maximum power will shorten the life of the output tubes.

Operating Tips

It is a common practice to use a microphone very close to a speaker cab for live performance or recording. This technique eliminates bleed-through from other instruments and also eliminates room reverberation for a more consistent sound. The result is a dry mono sound that is a little bass-shy due to the lack of floor/room bass reinforcement. EQ and stereo reverb are typically used to produce a sound more like a live performance.

The SE-120 emulates the sound of a close-miced speaker cab, with all of the advantages and some of the limitations mentioned above. Therefore, the SE-120's output may sound dry and a little bass-shy without enhancement. EQ and stereo reverb pedals or software should be used to enhance the bass and add room reverberation.

Specifications

Input impedance

4, 8 16 ohm jacks 4, 8, 16 ohms
(reactive load)

THRU IN jack THRU OUT load

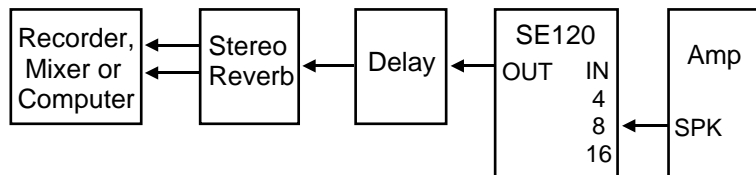
Output impedance

Unbalanced 2K ohms max

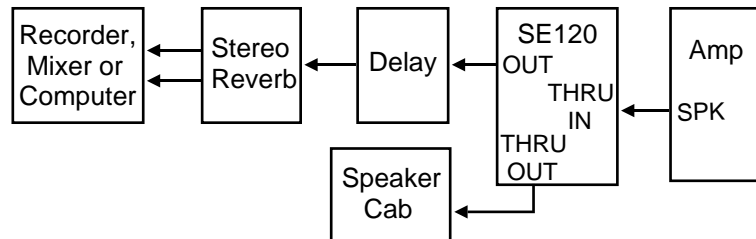
Balanced (XLR) 100 ohms

Maximum amplifier rating 120 watts

Using the Internal Load



Using a Speaker Cab



Warranty and Repair

The warranty period is 2 years. If during the first 2 years the SE-120 needs repair, Surprise Sound Lab will repair or replace it at no charge. The owner will be responsible for shipping charges. Any problems due to misuse, abuse or modification will not be covered under the warranty. Any repairs outside of the warranty will be performed by Surprise Sound Lab for a reasonable fee. Please email info@surprisesoundlab.com for any repair requests.