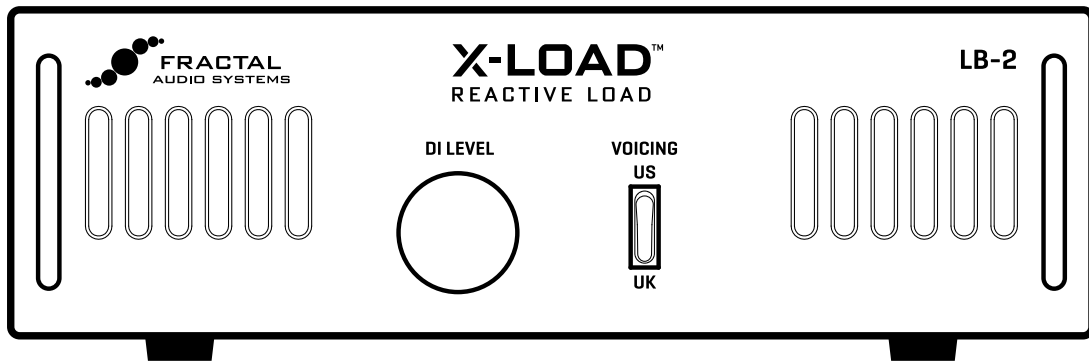




X-LOAD™

REACTIVE LOAD

OWNER'S MANUAL



LB-2

INTRODUCTION

The X-LOAD LB-2 Reactive Load Box is a high-quality passive load box from Fractal Audio Systems. It offers a range of great features including front-panel output level control, a voicing switch, speaker thru capability, and both active and passive DI outputs. We designed the LB-2 because other reactive load boxes did not meet our needs. We needed a device that would react and interact with an amp like a real speaker. It needed to be ideal for both live and studio applications, and above all else, it needed to sound great. Mission accomplished in the X-LOAD LB-2!

When considering the X-Load LB-2, it is important to understand the difference between speaker load simulation and speaker tone simulation. A guitar speaker cabinet has two significant effects on your overall tone. The first is caused by interaction between the speaker and your amp. The speaker and cabinet dynamically affect the sound of the amp because of a **reactive impedance curve**. The LB-2 accurately emulates this effect using our proprietary Dynamic Impedance™ Technology, which changes the impedance of the load depending on the power levels of the connected amplifier. This causes the amp to interact with the LB-2 as if it were a real speaker. The result is unprecedented realism that other reactive load devices cannot match.

The LB-2 also features a Voicing Switch for different load options based on the behavior characteristics of real speakers. This switch causes your amplifier to behave differently—as if it were connected either to an iconic “UK” or “US” speaker load.

The second effect a speaker has on overall tone is caused by the distinctive sound of the speaker itself. Guitar speakers are limited in comparison to full range speakers, with typical bandwidth in the range of 75 Hz – 5 kHz. The LB-2 X-Load does *not* simulate speaker tone, but this is by design so you can “re-cab” using the sophisticated speaker tone simulations in the Fractal Audio Axe-Fx, AX8, Cab-Lab, or 3rd party products.

For maximum versatility, the X-Load LB-2 can be used with or without a connected speaker. This allows you to operate at normal levels or silently. When no speaker is connected, the LB-2 safely loads your amp as though it were connected to a speaker cab. The X-Load LB-2 is built for years of reliable use and will satisfy even the most demanding players, producers and engineers both today and tomorrow, as speaker tone simulation technology continues to evolve.

WARNINGS

- ⚠ The LB-2 is an 8-ohm (8Ω) device. Be sure to connect its Amp In jack to the proper output on your amplifier to avoid damage. Mismatching impedance can cause damage to your amp.
- ⚠ The maximum power rating of the LB-2 is 100W. Do not connect any amplifier that is rated greater than 100W to the LB-2 as this can damage the unit and/or the amp.
- ⚠ Do not block the front vents or rear fan inlet. Do not disconnect the internal fan. The fan runs when the applied power exceeds 30W and is required to keep the heatsink within operating limits.
- ⚠ Running your amp at high output levels causes extreme stress on its power tubes and transformers and can result in damage to your amp and/or the LB-2. Old amps, vintage amps and lower quality amps are especially susceptible to thermal overstress due to component degradation and/or the use of low-quality components. Fractal Audio Systems, LLC is not responsible for damage that may occur through use of the LB-2.

FRONT PANEL CONTROLS

The X-Load LB-2 is extremely simple to operate, with only two front panel controls.

DI LEVEL – This controls the DI output volume of the LB-2 at both the Unbalanced 1/4" and Balanced XLR jacks. Set this knob as required so as not to overdrive the input of a device connected to the DI Output of the LB-2.

VOICING – A tube amp interacts differently with different types of speakers. The voicing switch of the LB-2 changes the resonance of its load to simulate this. The "UK" position simulates a classic British guitar speaker. The "US" position lowers the resonance frequency to replicate the experience of playing through a classic American guitar speaker.

REAR PANEL CONNECTORS

AMP IN – Connect the speaker output of your tube amp to this jack. The X-Load LB-2 is an 8-ohm (8 Ω) device with a maximum power rating of 100W.

SPEAKER THRU – Connecting a speaker to this output jack disconnects the internal load and connects the **Amp In** jack to the speaker instead. The DI output will still be active so you can simultaneously record or process the DI signal while using your amp with a real speaker.

⚠ WARNING: Never connect **Speaker Thru** to any mic, instrument or line-level inputs!

UNBALANCED DI/LINE OUTPUT – (1/4") This passive DI output provides a line-level signal. Neither phantom power nor external power are required to use this output.

BALANCED DI/LINE OUTPUT – (XLR) This active DI output provides a line level signal. For long cable lengths and maximum fidelity the XLR output is preferred as it provides a low-impedance output and immunity to noise conduction. This output requires that the X-Load LB-2 be powered in one of two ways:

A) Connect an external power supply to the power input jack of the X-Load LB-2. Use a 9–24 VDC, center negative power supply (as typically used with "stomp boxes").

–OR–

B) Supply phantom power via the connected XLR cable.

GROUND LIFT – This switch disconnects the ground of the X-Load LB-2 from the ground of the XLR output. This may help in breaking noisy ground loops.

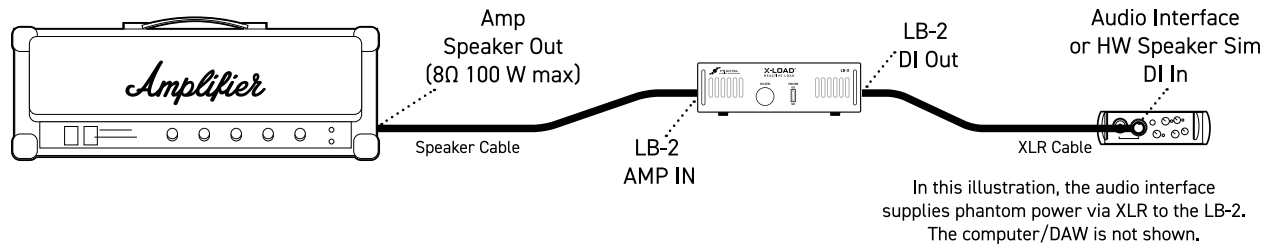
SUPPORT

Should you require assistance with your X-Load LB-2, please visit support.fractalaudio.com

The LB-2 comes with a 1-year warranty, a copy of which appears at the end of this manual.

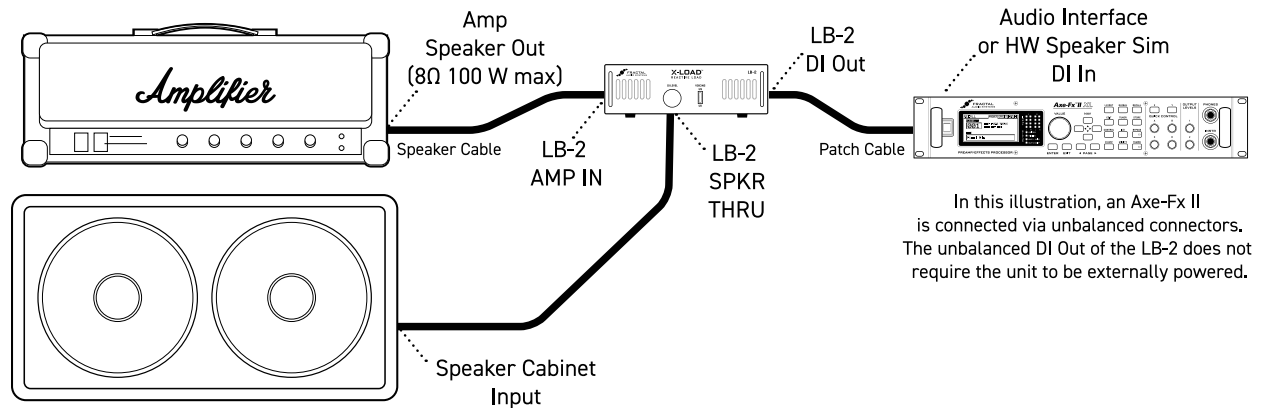
SETUP: SILENT LOAD BOX/DI

Connect your amplifier's 8-ohm output to the Amp In jack on the rear of the LB-2. Connect either the Unbalanced or Balanced DI output to your audio interface or hardware cabinet emulator.



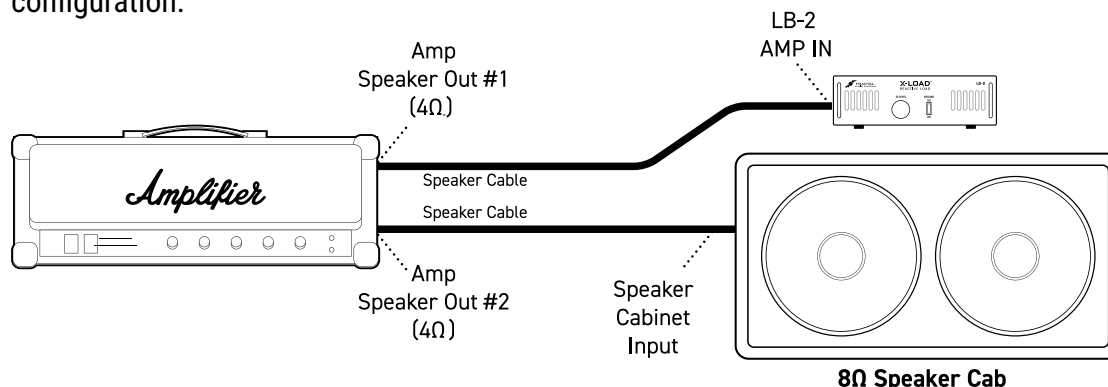
SETUP: DI + GUITAR SPEAKER

Connect your amplifier's speaker output to the Amp In jack on the rear of the LB-2. Connect a speaker to the rear panel Speaker Thru jack. Connect either the Unbalanced or Balanced DI output to your audio interface or hardware cabinet emulator.



SETUP: ATTENUATOR

The LB-2 can be also be used to reduce the volume of your amp by diverting half the power into its load. Connect one 4 ohm output of your amp to an 8 ohm speaker. Connect the other 4 ohm output to the LB-2 Amp In jack. This will present two 8 ohm loads in parallel to your amp which is equivalent to a 4 ohm load. Half of your amp's output power will go the speaker and the other half into the LB-2 reducing the volume of your amp by 6 dB. You can also use the DI features of the LB-2 in this configuration.



WARRANTY

Fractal Audio Systems warrants that your new Fractal Audio Systems product shall be free of defects in materials and workmanship for a period of one (1) year from the original date of purchase. During the warranty period, Fractal Audio Systems shall, at its sole option, either repair or replace any product that proves to be defective upon inspection by Fractal Audio Systems.

Fractal Audio Systems reserves the right to update any unit returned for repair and to change or improve the design of the product at any time without notice. Fractal Audio Systems reserves the right to use reconditioned parts and assemblies as warranty replacements for authorized repairs. This warranty is extended to the original retail purchaser for units purchased directly from Fractal Audio Systems or one of its authorized distributors or resellers.

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