Electro-Voice®

B-115

Bass Guitar System

- **Newly developed speaker combines the "classic" EV 15-inch bass sound with improved low-frequency performance.**
- **Use either full range or biamped as a low-frequency system.**
- **400-watt long-term and 1,600-watt short-term power capacity.**
- **Roadworthy enclosure with metal corners and grille, and heavy-duty handles.**

SPECIFICATIONS

Usable Frequency Response:
30-4,000 Hz
Sensitivity. 1 Watt at 1 Meter:
102 dB
Long-Term ("rms") Power-Handling Capacity:
400 watts
Transducer Complement:
One specially designed, 15-inch cone loudspeaker
Nominal Impedance:
8 ohms
Input Connectors:
Two Neutrik Speakon™ NL4MPR-V connectors, in parallel
Enclosure Material:
Black carpet-covered Roadwood™
Dimensions,
Height:
64.8 cm (25.5 in.)
Width:
61.6 cm (24.25 in.)
Depth:
48.3 cm (19 in.)
Net Weight:
32.3 kg (71 lb)
Shipping Weight:
36.4 kg (80 lb)

DESCRIPTION

The Electro-Voice B-115 is a premium speaker system for bass guitar. The B-115 is designed for full-range use with conventional 4-, 5- and 6-string bass guitars or for low-frequency use in biamped bass guitar systems. This system has been designed for extended low-frequency response. The B-115 provides 5- and 6-string bass players a means to clearly hear and, more importantly, feel the lowest notes that their instruments are capable of with clarity and authority. The high efficiency of the B-115 allows the whole band to experience this as well. The 15-inch driver has all the tonal qualities of a classic 15-inch bass guitar speaker with some major low-frequency performance improvements. When used as a full-range speaker, the B-115 delivers a full-bodied, traditional tone that Electro-Voice 15-inch speakers are famous for. The B-115 is also ideal for use in a biamped system. The warm character of the sound allows the cross-over point to be flexible. The crossover point is best determined by the capabilities of the high-frequency section. Experimentation is the key to finding the sound you are looking for.

The specific speaker improvements are in the area of linear cone travel or excursion. The voice coil is constructed of a single layer of flat aluminum wire for light weight, low inductance and high efficiency. The voice coil also "overhangs" the magnet's front plate substantially to provide greater cone excursion before distortion. The high-excursion "motor" of this speaker is augmented by two exclusive Electro-Voice features: the Thermo Inductive Ring, TIR™, and PROTEF™ coating. The TIR is essentially an aluminum ring fastened to the pole of the magnet. This acts to control coil inductance variations, improving midrange clarity, and also provides a major heat transfer path from the top of the voice coil. PROTEF is a Teflon®-based coating applied to the top plate.[1] Occasionally, violent power peaks of several seconds in duration may expand a normal driver's voice coil into contact with the top plate, causing deterioration. With the PROTEF coating, added protection is provided; the coating lubricates any rubbing contact and provides direct electrical insulation between the coil and the steel top plate. Great care was taken in the selection of diaphragm materials to ensure smooth, musical upper bass tone and accurate low-frequency shock capability (punch). Like most professional Electro-Voice speakers, these speakers utilize extremely rugged cast aluminum frames to ensure long-term mechanical integrity.

1. Teflon® is a registered trademark of Du Pont.

The B-115 enclosure is made from Roadwood™—a structural material made of layered and selectively oriented hardwood strands. Roadwood is dimensionally stable, water resistant and free from voids. All panel joints are dado cut to ensure that your speaker system sounds just as good after the tour as before.

The covering is densely woven, abuse-resistant, black carpeting. Hardware appointments include large, heavy-duty metal corner protectors, recessed handles and large, rubber feet. In addition, sockets have been installed on the enclosure bottom for the use of removable casters. Casters are not included with your system and must be purchased separately—consult your Electro-Voice dealer.

The B-115 input panel incorporates two Neutrik Speakon™ NL4MPR-V connectors. The mating connector is the Neutrik Speakon NL4FC. One NL4FC connector is supplied with the B-115. These connectors were chosen because they are rugged, locking, easily wired, sealed and relatively inexpensive when compared to other professional connectors. Speakon connectors are rated for very high current, much more than this system should ever encounter. The connector's continuous current rating is 30 amps, many times that of 1/4-inch connectors. Speakon connectors also have a much lower contact resistance than even the highest quality 1/4-inch connectors. B-115 and Speakon wiring diagrams are shown on the back of this data sheet (see Figure 1). Notice that in "normal" operation,

pins 2+ and 2– would not be used, but they are "linked" to facilitate customized wiring schemes.

POWER HANDLING TEST

To our knowledge, Electro-Voice was the first U.S. manufacturer to develop and publish a power test closely related to real-life conditions. First, we use a random noise input signal because it contains many frequencies simultaneously, just like real voice or instrument program. Second, our signal contains more energy at extremely high and low frequencies than typical actual program, adding an extra measure of reliability. Third, the test signal includes not only the overall "long-term average" or "continuous" level—which our ears interpret as loudness—but also short-duration peaks which are many times higher than the average, just like actual program. The long-term average level stresses the speaker thermally (heat). The instantaneous peaks test mechanical reliability (cone and diaphragm excursion). Note that the sine-wave test signals sometimes used have a much less demanding peak value relative to their average level. In actual use, long-term average levels exist from several seconds on up, but we apply the long-term average for eight hours, adding another extra measure of reliability.

Specifically, the B-115 is designed to withstand the power test described in EIA Standard RS-426A. The EIA test spectrum is applied for eight hours. To obtain the spectrum, the output of a white noise generator (white noise is a particular type of random noise with equal energy per bandwidth in Hz) is fed to a shaping filter with 6-dB-per-octave slopes below 40 Hz and above 318 Hz. When measured with the usual constant-percentage analyzer (one-third octave), this shaping filter produces a spectrum whose 3-dB-down points are at 100 Hz and 1,200 Hz with a 3-dB-per-octave slope above 1,200 Hz. This shaped signal is sent to the power amplifier with the continuous power set at 400 watts into the EIA equivalent impedance (52.5 volts true rms). Amplifier clipping sets instantaneous peaks at 6 dB above the continuous power, or 1,600 watts peak (105.0 volts peak). This procedure provides a rigorous test of both thermal and mechanical failure modes.

WARRANTY (Limited)

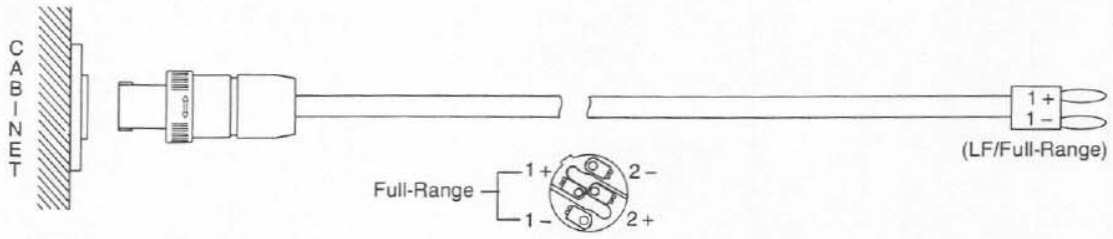
Electro-Voice products are guaranteed against malfunction due to defects in materials or workmanship for a specified period, as noted in the individual product-line statement(s) below, or in the individual product data sheet or owner's manual, beginning with the date of original purchase. If such malfunction occurs during the specified period, the product will be repaired or replaced (at our option) without charge. The product will be returned to the customer prepaid. **Exclusions and Limitations:** The Limited Warranty does not apply to: (a) exterior finish or appearance; (b) certain specific items described in the individual product-line statement(s) below, or in the individual product data sheet or owner's manual; (c) malfunction resulting from use or operation of the product other than as specified in the product data sheet or owner's manual; (d) malfunction resulting from misuse or abuse of the product; or (e) malfunction occurring at any time after repairs have been made to the product by anyone other than Electro-Voice or any of its authorized service representatives. **Obtaining Warranty Service:** To obtain warranty service, a customer must deliver the product, prepaid, to Electro-Voice or any of its authorized service representatives together with proof of purchase of the product in the form of a bill of sale or receipted invoice. A list of authorized service representatives is available from Electro-Voice at 600 Cecil Street, Buchanan, MI 49107 (616/695-6831) and/or Electro-Voice West, at 8234 Doe Avenue, Visalia, CA 93291 (209/651-7777). **Incidental and Consequential Damages Excluded:** Product repair or replacement and return to the customer are the only remedies provided to the customer. Electro-Voice shall not be liable for any incidental or consequential damages including, without limitation, injury to persons or property or loss of use. Some states do not allow the exclusion or limitation of incidental or consequential damages so the above limitation or exclusion may not apply to you. **Other Rights:** This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

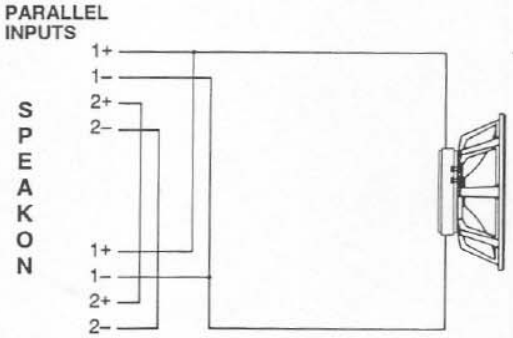
Electro-Voice Speakers and Speaker Systems are guaranteed against malfunction due to defects in materials or workmanship for a period of five (5) years from the date of original purchase. The Limited Warranty does not apply to burned voice coils or malfunctions such as cone and/or coil damage resulting from improperly designed enclosures. Electro-Voice active electronics associated with the speaker systems are guaranteed for three (3) years from the date of original purchase. Additional details are included in the Uniform Limited Warranty statement.

Service and repair address for this product: Electro-Voice, Inc., 600 Cecil Street, Buchanan, Michigan 49107.

Specifications subject to change without notice.

FIGURE 1 — Wiring Diagrams





ELECTRO-VOICE a MARK IV company **600 Cecil Street, Buchanan, Michigan 49107**
MANUFACTURING PLANTS AT ■ BUCHANAN, MI ■ NEWPORT, TN ■ SEVIERVILLE, TN ■ OKLAHOMA CITY, OK ■ GANANOQUE, ONT.

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