SHURE®

A15BT -- Bridging Transformer

General Description

The A15BT matches, bridges, or isolates balanced and unbalanced devices of different impedances and levels.

Impedance: XLR socket (Female), 33,000 Ω. XLR plug (Male), 7500 Ω, easily converted to 600 Ω.

Unbalancing: Either end can be unbalanced by connecting pins 1 and 3.

Voltage difference: From 33,000 Ω to 7500 Ω, 6.4 dB. From 33,000 Ω to 600 Ω, 17.4 dB.

Medium-Impedance Selection

As supplied, the A15BT XLR plug is at 7500 Ω. To convert to 600 Ω, refer to Figure 1 and proceed as follows:

1. Remove the three-pin plug element by turning the screw counterclockwise and withdrawing the element from the case.
2. Remove the GREEN lead pin jack from pin 3, and insulate the jack and bare lead.
3. Remove the tape from the pin jack on the WHITE lead and push the jack firmly onto pin 3.
4. Replace the plug element in the housing and fasten the screw firmly in place (turn clockwise).

Typical Applications

To connect the 600 line output of a preamplifier, mixer, or recorder to a high-level, high-impedance, unbalanced (Aux) input:

Connect the 600Ω output to the 33,000Ω XLR socket of the A15BT. Unbalance the XLR plug on the A15BT and convert it to 7500Ω or 600Ω to provide the proper level and best signal-to-noise ratio. Connect the A15BT to the Aux input. In this configuration, the A15BT “bridges” the 600Ω line output. Refer to the table on the back page for the maximum input level to the A15BT.

To match a high-impedance microphone output to a medium-impedance (approximately 10,000 Ω) input on a reel-to-reel or cassette recorder:

Unbalance both ends of the A15BT. Connect the microphone output to the 33,000 Ω XLR socket. Connect the 7,500 Ω XLR plug to the recorder.

For an unbalanced Aux input to accept a balanced low-impedance output: Unbalance the 33,000 Ω XLR socket on the A15BT and connect it to the Aux input. Convert the XLR plug to 7500 Ω or 600 Ω and connect it to the balanced low-impedance device.

When a balanced 600 line output is needed on a unit with an Aux output (such as the Shure SCM268):

Unbalance the A15BT 33,000 Ω XLR socket and connect it to the Aux output. The A15BT XLR plug offers a balanced line output at both 600 Ω (at about a –20 dBm level) and 7500 Ω.

Specifications

Frequency Response

20 to 20,000 Hz

Impedance

XLR Pin Connector (M)	7500 Ω or 600 Ω
XLR Pin Connector (F)	33,000 Ω

Voltage Ratio

Medium-impedance to high-impedance	7500 Ω	+6.4 dB
	600 Ω	+17.4 dB
High-impedance to medium-impedance	7500 Ω	-6.4 dB
	600 Ω	-17.4 dB

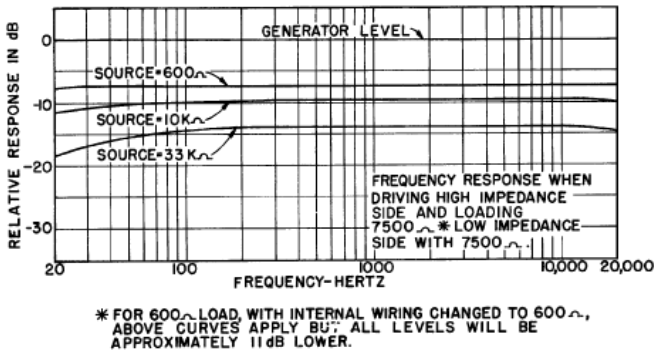
Housing

Full magnetic shield, steel with gray enamel finish

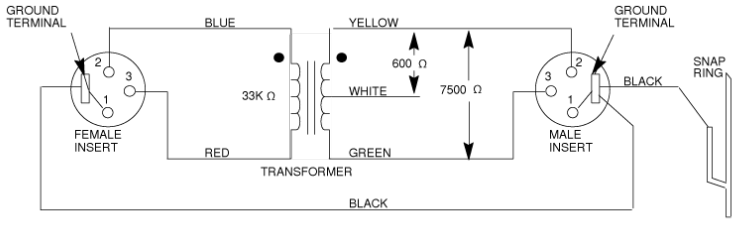
Dimensions

19 mm (.75in.) diameter; 89 mm (3.5 in.) long

Driving Source Impedance (ohms)	Winding Being Driven (ohms)	Maximum Level (Volts)
600	600	0.5
600	7500	2.5
600	33000	6.0
7500	7500	1.5
7500	33000	5.0
33000	33000	5.0



TYPICAL FREQUENCY RESPONSE



CONNECTOR WIRING DIAGRAM