

ELECRAFT BL2 WIDEBAND BALUN

Assembly and Operating Manual

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Introduction

The Elecraft BL2 is a ruggedized general-purpose wideband balun that can be configured as either a 1:1 or 4:1 balun by means of a slide switch. It is intended to match balanced feed lines to the unbalanced antenna connection of an Elecraft or other manufacturer's transceiver or antenna tuner.

Specifications

Power Rating: 250 watts with a matched load.
Bandwidth: Input VSWR less than 1.25 when connected to a 200 ohm resistive load, 500 kHz to 55 MHz.

Parts List

1 BL2 Printed Circuit Board, E100253	1 PC-mount BNC Connector, E620020
24 inches (61 cm) of Balun Wire, E760025	3 Thumb Screws, E700038
3 Right-Angle Output Terminals, E700012	4 Self-Adhesive Mounting Feet, E700024
6 #6 Flat Washers, E700067	1 DPDT Slide Switch, E640019
2 Ferrite balun cores, E680022	

BN43-7051

Assembly

- Perform an inventory of all parts in the kit.
- It is easier to wind the transformers if the two cores are fastened together by some means. Any type of glue or thin double-sided tape can be used. If "super glue" is used, be very careful to use a minimal amount. One drop is sufficient and the Gel type will give more working time to align the two cores. The photo on the next page shows the two cores glued together.
- Cut the sheathed twisted pair cable into two 12-inch (30.5 cm) lengths.
- Leaving about 2 inches of wire exposed, begin winding the cores. Start at one end of the bottom core and pass the wire through this hole and then back through the hole directly above. Continue winding the core until the wire has passed a total of three times through the bottom hole and two times through the top hole. Repeat these winding steps on the other side of the core. The photo on the next page shows the completed transformer.
- Trim the cable (4 places) to about 1 inch (2.54 cm).
- Remove the outer sheath from the trimmed ends of the cable and then strip the conductors so only about 1/4-inch (6.3 mm) of the RED and WHITE colored insulation is exposed.
- Mount the completed transformer in the space indicated on the PCB. Pass each stripped wire end through the hole marked with its color.
- Install J1, the BNC connector, in the position indicated on the PC board silkscreen.
- Install S1, the DPDT slide switch, in the position indicated on the PC board silkscreen.
- Install the right angle output terminals in the 3 places indicated on the PCB.

- Install a thumb screw and 2 flat washers into each right angle output terminal.
- Turn the PCB over and install mounting feet as shown in the photo.

