BA-1 Balun

Assembly Manual

LDG ELECTRONICS

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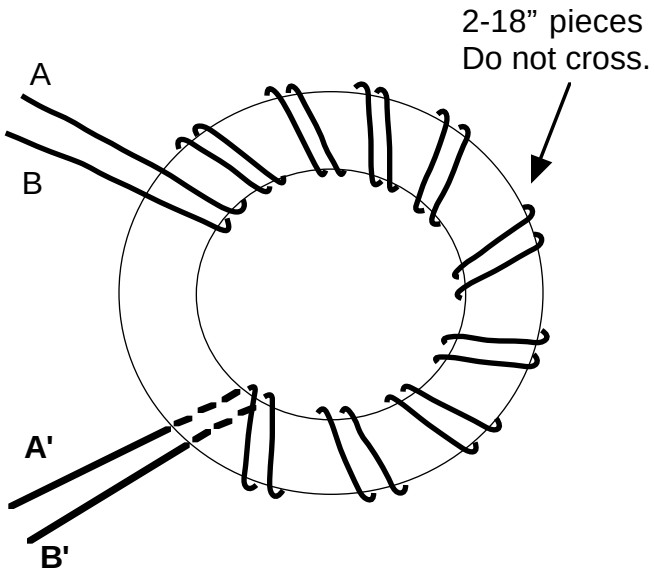
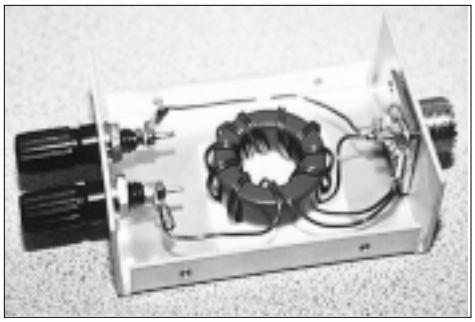
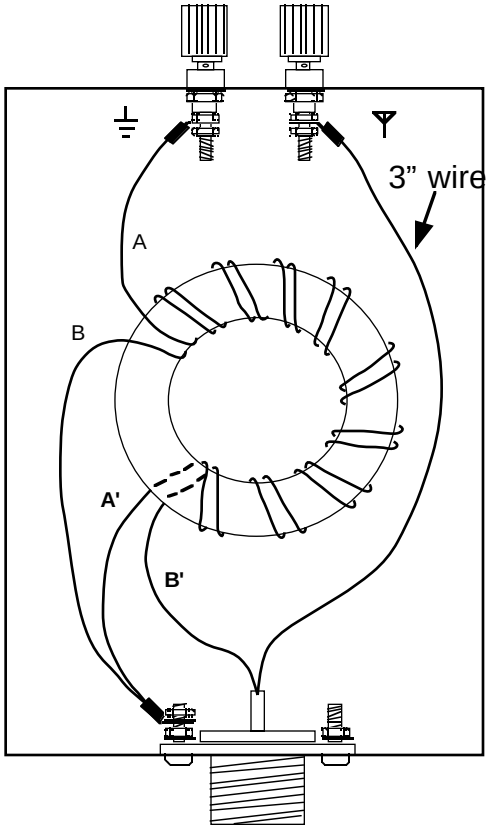
BA-1 Balun

	Part	Quantity
[ ]	T-130-2	1
[ ]	#18 Thermaleze	3' 4"
[ ]	SO-239	1
[ ]	Bannana Jack	2
[ ]	Enclosure	1
[ ]	Enc. screws	4
[ ]	Nut	3
[ ]	Washer	3
[ ]	Bolt	2
[ ]	Solder Lug	3
[ ]	Tape	1
[ ]	Manual	1







Top View

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Step-by-Step Assembly Instructions for the BA-1 4:1 Balun

1. ( ) Carefully unpack the BA-1 and compare the enclosed parts with the parts-list.
2. ( ) Position the enclosure section (with the one large and two small holes) printed side down , with the two small holes facing away from you. This is the reference position for assembly.
3. ( ) Install the two banana jacks in the two small holes using the nuts and lock washers supplied with the jacks. (See the assembly drawing for nut and washer placement).
4. ( ) Install the SO-239 (UHF Coax female connector) in the large hole. Use two machine screws, two lock washers, and two nuts. (See the assembly drawing for nut and washer placement).
5. ( ) Tighten all hardware being careful NOT to over tighten the banana jack hardware. Set the enclosure assembly aside.
6. ( ) Locate the square of double sided tape. Peel off one side of the tape and apply it to the middle of the inside of the enclosure in which you have just installed parts.
7. ( ) Carefully straighten the 39 inches of enameled wire. Be careful not to kink the wire or break the enamel insulation.
8. ( ) Cut off and remove a 3 inch section of wire.
9. ( ) Carefully remove 1/2 inch of insulation from each end of the 3 inch section. Use a knife or razor to gently scrape off the enamel. Be careful not to nick the wire. Set this section of wire aside.
10. ( ) Fold the remaining 36 inches of wire in half and cut into two equal 18 inch sections.
11. ( ) Carefully remove 1/2 inch of insulation from each end of the 18 inch sections. Use a knife or razor to gently scrape off the enamel. Be careful not to nick the wire. Set this section of wire aside.
12. ( ) Locate the toroid core and place it in front of you. Either side can be facing you!
13. ( ) Place the two 18 inch sections of wire side-by-side. Pick up the two wires, and while holding them side-by-side begin winding them around the toroid. Do Not Cross the wires as you wind them.

Special winding instructions: Allow 2 to 2 1/4 inches to "stick-out" or "hang over" the toroid. At this point begin winding from the top (side facing you) of the toroid down, inside, and around, until ten evenly spaced windings have been made. NOTE - the beginning of the first winding, on top of the toroid, is counted as the first winding!)

14. ( ) Locate the three eyelet's and three inch section of wire, and the wound toroid. Solder the eyelet's to the following wires: (Refer to the assembly drawing)
    a. One eyelet to one end of the three inch section of wire
    b. One eyelet to wire A
    c. One eyelet to wires A1 and B (Two wires into one eyelet)

Refer to the Assembly Drawing for the Following Steps 15 thru 18

15. ( ) Place the toroid in the enclosure as shown. Insert wires B1 and the free end of the 3 inch wire to the center conductor of the SO-239 coax connector. Solder both wires in the center conductor.
16. ( ) Attach the eyelet on wires B and A1 to the left screw on the SO-239. Use 2 lock washers and one nut. Tighten securely.
17. ( ) Attach the eyelet on wire A to banana jack marked with the ground symbol. Also, attach the eyelet on the 3 inch wire to the banana jack marked with the antenna symbol. Use the hardware supplied on the jacks. Tighten securely. DO NOT over tighten as this would break the jack.
18. ( ) Position the toroid and bend the wires in the enclosure as needed to resemble the drawing.

Final Assembly

19. ( ) Visually inspect your assembly and compare with the assembly drawing.
20. ( ) With 4 sheet metal screws, attach the remaining half of the enclosure.