

# TET-EMTRON

## TB-11K

### 1:1 Balun Kit

1 kW PEP Current Balun.

#### Tools Needed:-

Soldering iron and solder.  
No.1 Phillips head Screwdriver.  
Small pliers.  
8mm Socket  
Sharp Craft Knife

#### Parts List.

##### Part No.

607 Balun Box with lid x 1.  
205 F14 Ferrite ring x 1.  
402 625mm of RG316 coax x 1.  
232 100mm cable ties x 4.  
454 SO239 2 hole connector x 1.  
31 M3x12mm bolts x 2.  
41 M3 Nyloc nuts x 2.  
204 Small solder tag x 1.

##### Part No.

35 M5x20mm bolt x 1.  
82 M5 Wing Nut x 1.  
0 Plastic button x 1.  
45 M5x12mm Bolts x 2.  
28 1/4x5/8 Flat Washers x 2.  
14 M6 Spring Washers x 2.  
860 TB Kit Sticker x 1.  
861 TB Kit Cover Film x 1.

#### Instructions.

1. Unpack the kit and make sure it is all there according to the parts list at the top of this page.
2. Bolt the connector on using the 2 x M3 bolts, M3 Nyloc nuts and the solder tag. I usually put the solder tag on the right, as in the photo(Fig.1). Make sure the solder tag is facing up, so you can bend it down over the nut to solder to it. Another helpful hint is mount the connector so the open side of the pin you solder to is at the top.
3. Put the coax through the ferrite about 30mm(call this the bottom). Put two of the cable ties over it in a cross fashion, one on each side and tighten. Wind the balun in the same fashion as the Picture in Fig.2. Four turns one way, cross over, four turns the other way. Secure using the other cable ties in the same cross pattern as the first two.
4. Strip 20mm of the outer jacket of the bottom of the coax. Pull the braid to the right hand side when the coax is coming over the balun and twist up.
5. Strip about 7mm off the centre conductor .
6. On the other end (top) trim the coax to about 50mm long and strip the braid off the same. About 10mm strip on the centre conductor. Tin the stripped ends and also the solder tag. Refer to Fig.3.
7. Place the wound ferrite in the box and solder the bottom connections on. Crimp the top connections and solder them also.
8. It is a good idea at this time to check the connections for good continuity or a short with a multimeter or test light.
9. Next screw the M5x20 bolt through the hole from the inside. Best with a drill and socket.
10. I usually pump some non-acidic silicone under the balun, and on top, before I glue the lid on. This is to hold the internals sturdy, act as a buffer to heavy handling, and stop movement on the solder joints.
11. Glue the lid on using a good glue. I recommend and use "Holdit CA80", but any good "superglue" style or epoxy will work. Use a vice or similar clamp to hold the box together for a good bond.
12. When dry, put the cable strain relief hanger disc and wing nut on.(Fig.4) Put the flat washers and then the spring washers on the brass mounts with the M5x 12 bolts and your balun is complete.
13. Just fill in the Label with either a ball point pen or a fine permanent marker, and stick it on. The clear film provided should be stuck over the top of the writing part of the label, and will stop the writing from weathering.



Fig.1



Fig.2



Fig.3



Fig.4

**TET-EMTRON.**

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