

Introduction

The T800-60 Slimline Repeater kit enables one T800 receiver and one T800 transmitter to be mounted horizontally side by side in a standard 483mm (19") rack frame.

The kit contains a front panel complete with speaker, an options tray (for mounting a power supply, duplexer, etc), and a wiring loom to connect the two T800 modules to the terminal blocks mounted on the rear of the options tray.

The T708-91 power supply (available separately) is designed to fit the Slimline Repeater front panel instead of the options tray.

The rack height of the assembled unit is 2U.

Parts Required

The Slimline Repeater kit should contain the following items:

1 x front panel c/w speaker	2 x M3 shakeproof washers
1 x wiring loom c/w D-range sockets	4 x M3 washers
4 x D-range latching blocks	2 x M3 nuts
1 x options tray	1 x spacer bracket
1 x options tray connector block	1 x rubber grommet
12 x M3 x 8mm button head screws	1 x label sheet
4 x M3 x 16mm screws	3 x Heyco bushes
2 x M3 x 20mm screws	

Installation

1. Remove the front panel from each of the T800 modules.

Remove the plastic bushes from these front panels and fit them into the equivalent holes in the Slimline Repeater front panel.

Note: If there are no bushes fitted in the "Gating Sensitivity" and "Line Level" holes in the receiver, or the "Line Sensitivity" hole in the transmitter, use the three Heyco bushes supplied.

2. Attach the options tray or power supply to the Slimline Repeater front panel in the most suitable of the two positions available with the M3 x 8mm button head screws.

Note: If fitting the options tray only, position the connector block on the top side of the options tray at the rear, adjacent to the label, and secure with the M3 x 20mm screws, M3 shakeproof washers and nuts (insert the screws from the top of the connector through the holes provided in the tray).

3. **For Fitting The T708-91 Only**

Remove the power supply chassis top from the chassis bottom by unscrewing the three retaining screws on each side of the unit.

Feed the speaker wire from the T800-60 front panel through the power supply to the connector block on the rear panel via the plastic grommets provided in the front and rear panels and the two cable ties fixed to the side of the chassis.

Replace the chassis top.

2 **T800-60 Fitting Instructions**

4. Attach each module to the Slimline Repeater front panel in the appropriate position with the M3 x 8mm button head screws provided, ensuring each LED is located securely in the appropriate bush.
5. Remove the bottom cover from each module (the bottom cover is opposite the handle).
6. Remove the D-range location pins and fit the supplied latching blocks in their place with the M3 x 16mm screws & M3 washers provided.
7. Remove the top cover from the transmitter and fit the rubber grommet in the "Exciter Out" hole in the front panel.

Note: If the transmitter is replaced with an exciter, do not fit the rubber grommet.

8. Fit the spacer bracket between the two T800 modules at the rear as shown in Figure 1.

Replace the top & bottom covers.

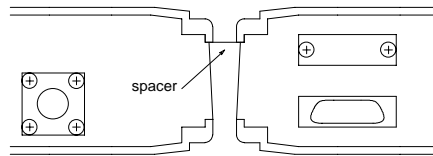


Figure 1 Spacer Fitting

9. Fit the Slimline Repeater wiring loom D-range sockets to the T800 rear panel D-range plugs.
10. Connect the wiring loom to the connector blocks on the rear of the options tray or power supply as shown in Figure 2.

CTCSS Operation: The wiring loom is configured for a T800-02 CTCSS unit fitted in the T800 receiver.

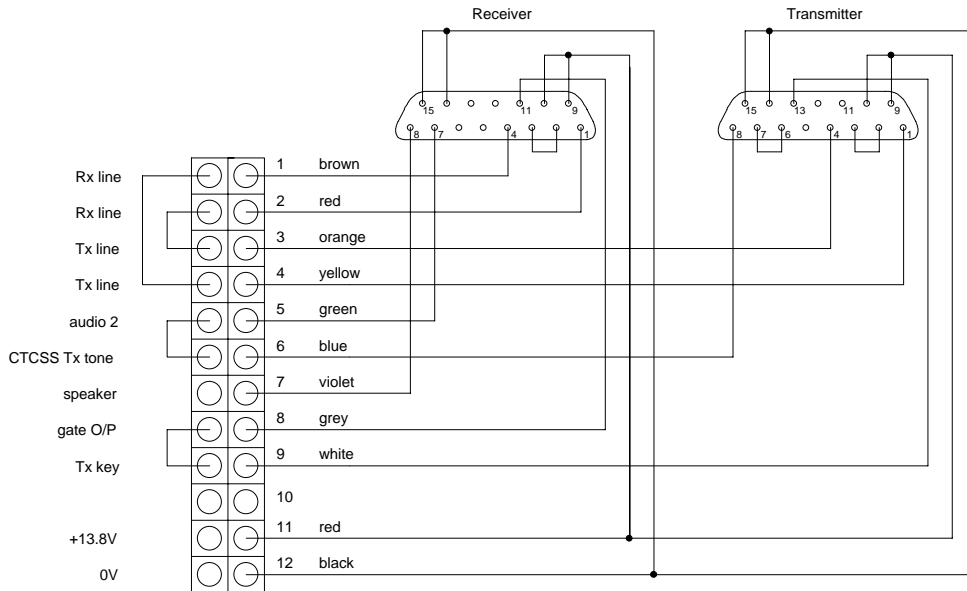


Figure 2 T800-60 Loom Wiring Details

11. T800 series transmitter and receiver identification labels are supplied and the appropriate type and variant labels must be fixed to the Slimline Repeater front panel above the words "Transmitter" and "Receiver".

T708-91 Power Supply

Caution: The mains supply must be removed from the power supply before commencing any servicing.

Warning: This equipment must be earthed.

Mains Plug Wiring

Connect a suitable mains plug to the supplied mains cable as directed below:

Wire	Connect To
green/yellow	earth (E)
blue	neutral (N)
brown	live/phase (L)

Servicing

As the T708-91 power supply is electrically the same as (although mechanically different from) the standard T708-01 power supply, the T708 service manual (M708-01) should provide all the required information. However, those sections referring to installation and construction are no longer applicable.

The IPNs for the chassis top and bottom are as follows:

chassis top 303-11173-00
chassis bottom 303-11098-01

Float Charging Option

The T708-91 power supply has a limited capacity to float charge a lead acid battery, but this is *not* fitted as standard. This option does not compensate for the temperature dependence of lead acid batteries and is current limited to about 8.5A.

The following parts are required to fit the float charging option:

1 x 001-00011-45 rectifier diode	1 x 353-00010-11 M3 flat washer
1 x 030-54560-20 resistor 5k6	1 x 353-00010-13 M3 shakeproof washer
1 x 345-00040-08 M3 x 12 screw	1 x 362-00010-26 silpad
1 x 352-00010-08 M3 nut	1 x 10A in-line fuse

1. Disconnect the power supply from the mains, dismantle the unit from the rack if necessary, remove the six screws that hold the chassis halves together and separate the two halves.

Loosen the terminal block screws that clamp the output wires and pull the wires back through the grommet.

4 *T800-60 Fitting Instructions*

2. Fit the diode into the three holes in the PCB marked as "D8" and loosely fix in place with the M3 x 12 screw.
Carefully tack one leg to the PCB with a soldering iron and remove the screw.
 3. Remove the two M3 screws that secure the aluminium extrusion to the chassis and remove the three M3 screws that attach the PCB to the chassis.
Remove the PCB from the chassis and detach the spade connectors as necessary.
 4. Solder the remaining legs of the diode.
Desolder the red output wire from the eyelet marked "POS+" and resolder into either of the eyelets marked "+FLOAT".
Trim back the wire and legs of the diode to prevent shorts to the chassis.
 5. Change R20 from 4k7 to 5k6. This changes the start point of current limiting from 10.5A to 8.5A.
Trim back the legs when finished.
 6. Refit the PCB into the chassis, checking the alignment of the diode with respect to the mounting hole, and fit the three M3 screws that retain the PCB in the chassis.
Refit the two M3 screws that hold the aluminium extrusion into the chassis.
 7. Fit the silpad between the diode and the chassis and insert the M3 x 12 screw from the outside.
Assemble the M3 flat washer, shakeproof washer and nut and torque to 6in.lb.
 8. Pass the output wires through the grommet in the chassis and secure in the appropriate terminal block.
Reconnect any spade terminals previously disconnected.
 9. Reconnect the power and measure the output voltage.
Using RV10, set the voltage to the total float voltage at the battery at normal ambient temperature.
- Example:** For a 12V lead acid battery, the recommended float voltage per cell may be 2.25-2.3V, which corresponds to 13.5-13.8V. Refer to the battery manufacturer's data for float voltage temperature compensation.
10. Disconnect the power and assemble the case halves of the power supply.
Reassemble into the rack if necessary.
 11. Before connecting the battery, fit a 10A fuse in the positive line of the lead from the power supply to the battery.