

## 2 Mechanical

### 2.1 Torx Recess Head Screws

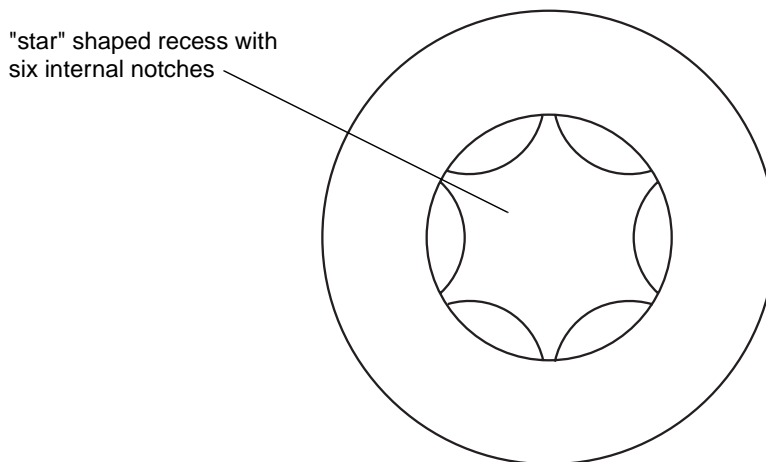
Torx recess head screws are becoming the standard screw head type in all T800 Series II equipment, with Pozidriv and Philips recess head screws being used in fewer applications.

The Torx recess head has the advantage of improved screwdriver tip location, reducing the chances of screw head damage caused by the driver tip rotating within the recess. In addition, using a ball-tip Torx screwdriver allows you to drive a Torx head screw with the driver on a slight angle, which can be useful in situations where access is restricted.

It is important that you use the correct Torx screwdriver tip:

M3 screws - T10  
M4 screws - T20.

Figure 2.1 below shows a typical Torx recess head screw (actual hardware may differ slightly from this illustration due to variations in manufacturing techniques).



**Figure 2.1 Torx Screw Identification**

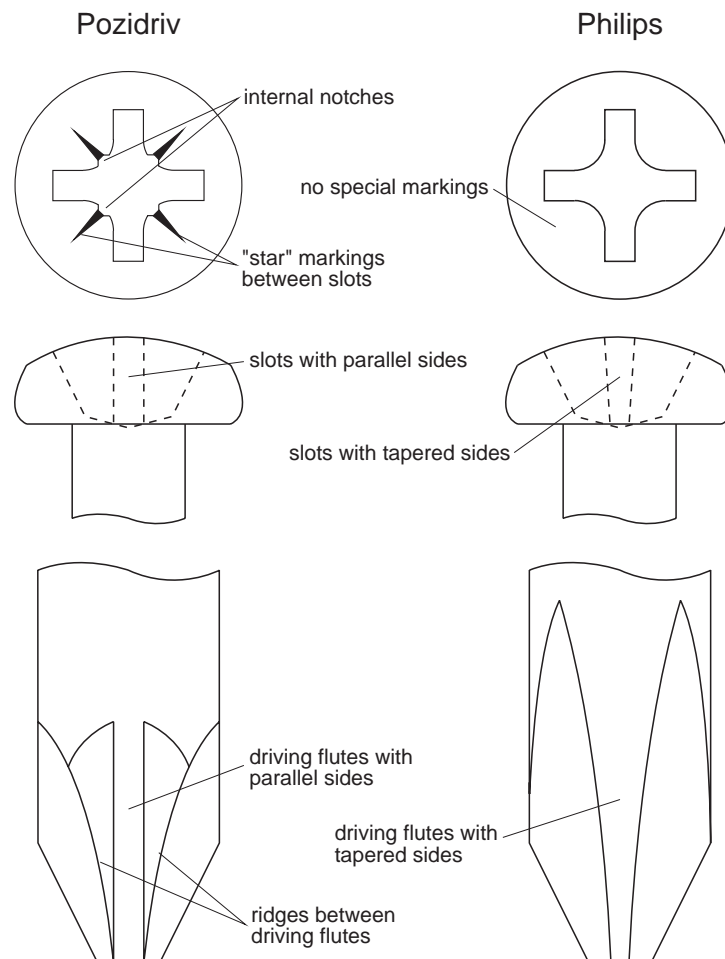
## 2.2 Pozidriv & Philips Recess Head Screws

Pozidriv and Philips recess head screws will continue to be used in T800 Series II equipment in a few special applications. It is important that you use the correct type and size screwdriver for each screw type to avoid damaging the screw head.

It is particularly important that you do not use Philips screwdrivers on Pozidriv screw heads as the tapered driving flutes of the Philips screwdriver do not engage correctly with the parallel-sided slots in the Pozidriv screw head. This can result in considerable damage to the screw head if the screwdriver tip turns inside the recess.

**Note:** If you find you need excessive downwards pressure to keep the screwdriver tip in the Pozidriv screw head, you are probably using the wrong type and/or size screwdriver.

Figure 2.2 below shows the main differences between typical Pozidriv and Philips screw heads and screwdriver tips (actual hardware may differ slightly from these illustrations due to variations in manufacturing techniques).



**Figure 2.2** Pozidriv & Philips Screw & Screwdriver Identification

## 2.3 Disassembly/Reassembly

### 2.3.1 Receivers/Transmitters

To carry out alignment or change option links, you need to remove only the top cover, i.e. the one adjacent to the front panel handle and on the opposite side to the main D-range connector (D-range 1/PL100).

You need to remove the bottom cover to:

- access the transmitter RF power module;
- change solder blob links;
- fit test leads to circuit block access points.

### 2.3.2 Power Amplifiers

You should carry out the tuning and power output level setting procedures with the cover on.

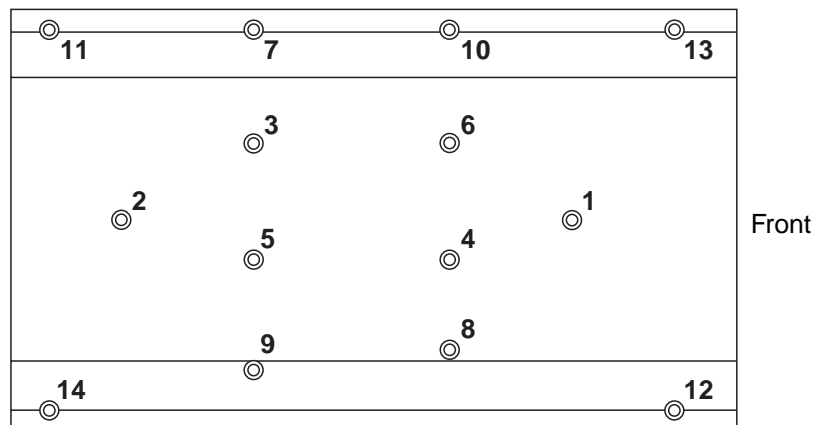
**Note:** All black finish Pozidriv screws used in the T889 are 4-40 UNC thread and cannot be interchanged with M3 screws. Note that different lengths are used in different applications.

## 2.4 Cover Screw Torques

Receivers/Transmitters .. 2.0Nm/18in.lbf.

Power Amplifiers .. 0.9Nm/8in.lbf.

**Note:** To ensure that the receiver and transmitter will continue to meet their performance specifications, you must tighten the screws securing the bottom cover (the one furthest from the handle) to the correct torque, and in the correct order, as shown below.



**Figure 2.3** Receiver/Transmitter Bottom Cover Screw Tightening Order

## 2.5 Chassis & Cover Compatibility

The chassis and covers used in T800 Series II modules incorporate a number of design changes to improve Electro-Magnetic Compatibility (EMC) performance. It is important that only the new-design covers are fitted to the new chassis to ensure correct mechanical fit and continued compliance with appropriate EMC Type Approval regulations.

Figure 2.4 below shows some of the main features which can be used to identify the new-design chassis and covers.

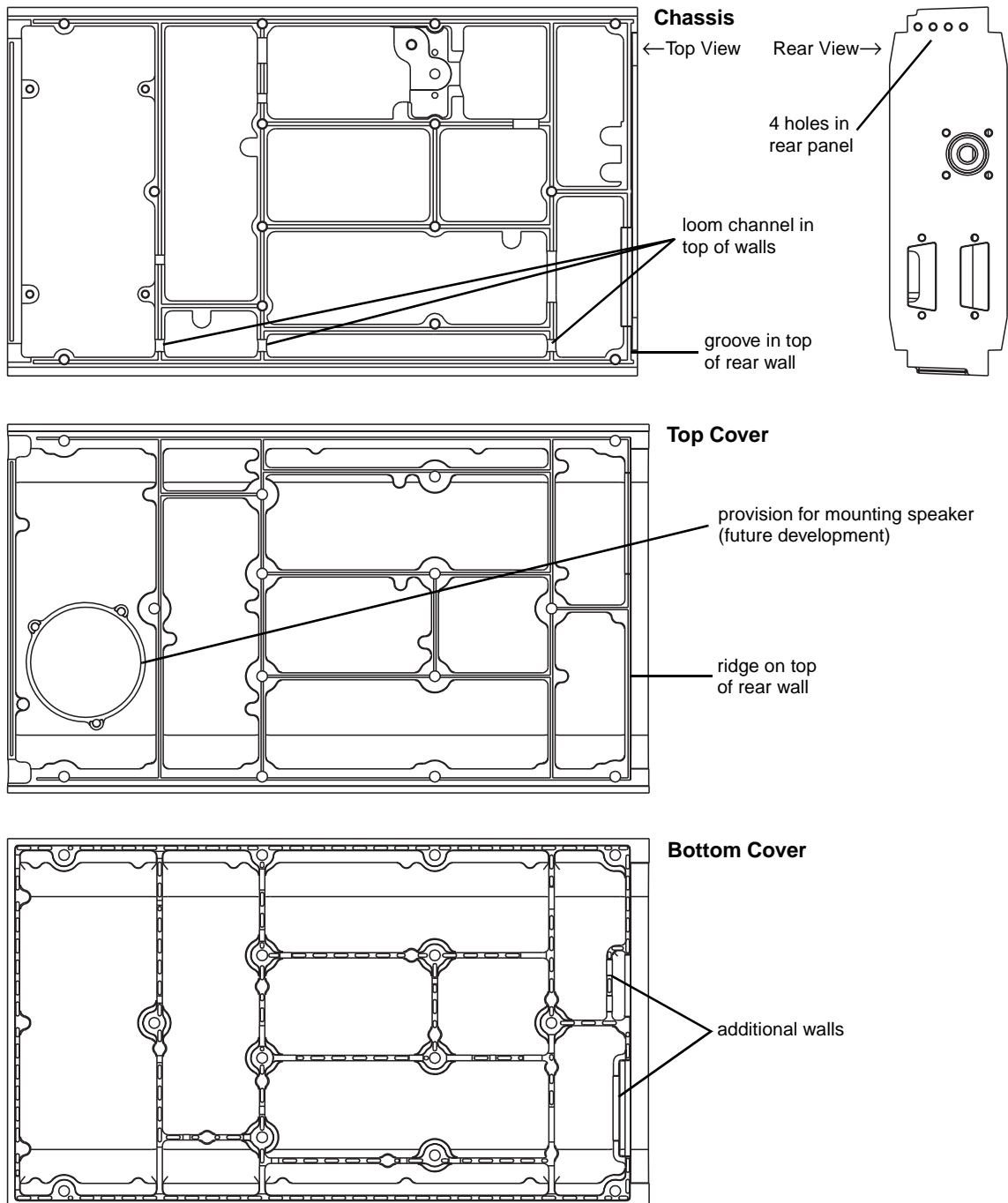


Figure 2.4 Identification Of New-Design Chassis & Covers

