



Technical Note TN-651

**Upcoming Changes to
The T2000 Screw Types &
Diecast Components.**

27th November 2000

Applicability

This Technical Note only applies to the T2000 product range.

1. Information.

Details

In an effort to improve the T2000 product performance both in the field and in the factory, a decision has been made to change the type of screws being used.

The screws that are currently being used (TAPTITE) are planned to be replaced with a screw type produced by a German company called EJOT. The name of the new screw type will be **PTDG**. The PTDG screw type is a TORX screw as opposed to the POZI type method employed by the TAPTITE screw. It is the same TORX driving method used on the Tait Orca products. This difference in driving methods will require service spare kits to carry both the TAPTITE and PTDG screws for the remaining lifetime of the T2000 product.

The castings used for the T2000 will also have to be changed to accommodate the screw change. The letters 'PTDG' on the inside of the covers will identify these new castings. This indicates that a PTDG screw type is required. This will unfortunately introduce some compatibility issues, which will be explained later in this document.

In addition to the changes, it was decided that in order to prevent two different drive methods being used in the field and on the production line, the **Plastite** screws used in the T2000 control heads will also be changed to the **Torx** head type screw made by PTDG.

2. Advantages.

Why change at all?

The investigation into the new PTDG screw was prompted because of on going quality issues being reported from both the T2000 production line and the field. These problems were mostly to do with the TAPTITE screws stripping the top cover threads. There were also reports of microphonics caused by the 'binding' of the top and bottom covers not being strong enough.

What are the advantages?

The advantages that the PTDG screw has over the TAPTITE screw are as follows:

- **Lower installation forces:**

This means that the actual downward pressure required to screw the PTDG screw in is much less than the TAPTITE screw. The design of the PTDG allows the screw to 'guide' itself into position rather than relying on the user applying downward force.

- **Higher clamping (binding) forces:**

Using the PTDG screw increases the grounding of the radio by clamping the top and bottom covers as well as the chassis tightly together.

- **Increased stripping torque:**

More pressure will have to be applied to the PTDG screw in order to make the screw actually strip the thread in the diecasting.

- **Cleaner Finish:**

The PTDG screws have a much cleaner finish.

3. Compatibility Issues.

How will this affect older radios?

- If older radios require screw replacement, the TAPTITE screw type will still be available.
- If older radios require the top cover to be replaced for any reason, the screws used on that radio will have to be replaced with PTDG screws as the replacement top cover will only be compatible with the PTDG type screw.

Part Names?

The TAPTITE screws currently used on the T2000 production have two different head sizes. They are the M3 (small head) and the M4 (large head). Both of these screw types come in varying lengths.

With the move to the PTDG screw type and the **Torx** head driving method, the driver bit size names will change to the following:

M3 will use a **T10 Torx head bit.**

M4 will use a **T20 Torx head bit.**

The Tait Orca Torx screws require a T6 bit.

4. Picture Comparison.

The Taptite screw is on the left and the new PTDG screw from Ejot is on the right.



NOTE

This change is not scheduled to take place until March / April of 2001. Please register any concerns you may have regarding this change to the Customer Support Team before this time.

5. Issuing authority

**Name and position
Of issuing officer**

Barry Crates
T2000 & T3000 Customer Support Engineer