

## TECHNICAL NOTE TN-1298d

### Type Changing and Upgrading Firmware on the TP8100 Portable

14 August 2007

(Updated 14 July 2008)

#### Applicability

This Technical Note applies to the TP8100 portable radios.

## 1. Information

#### What you need to type-change

This Technical Note describes the procedures for 'type changing' the model and/or upgrading the installed Firmware of a TP8100 portable radio. Type changing can change the product tier or change the functional operation as either Conventional or MPT1327 trunked.

Before the type-change process can take place successfully, ensure you have these prerequisites:

- Firmware that the radio will become i.e. if the radio is currently a TP8120 and is to become a TP8140 you must have TP8140 (MPT1327) Firmware available.
- Correct ECC (Electronic Configuration Code) based on the TP8100 product code that the radio will become. To get this ECC code contact your nearest Tait CSO they will require you to provide:
  - Radio's serial number 25xxxxxx (the best option is the serial number read-in and displayed by the TP8100 Conventional or Trunked PC Application's Specifications page).
  - The TP8100 product code that the radio will become e.g. T03-00006-CAAA – TP8140 16-key H5.
- The latest version of the TP8100 Programming Utilities installed.
- The new Firmware for the current TP8100 model.
- The latest version of the TP8100 Programming Utilities installed.

#### What you need to upgrade

## 2. Firmware Upgrade

#### Save Existing Radio Data

**Before upgrading or type-changing a TP8100 radio it is essential to save the radio's calibration database.**

**NOTE:** If a radio is to be type-changed from Conventional to MPT1327 trunked or vice-versa it is not necessary to save the personality file.

- Launch the TP8100 Conventional or Trunked PC Application and 'Read' (Yellow arrow in the toolbar) the current personality.
- Click on 'Save' for that personality file.
- Launch the TP8100 Calibration Application and 'Read' the calibration database from the radio.
- Click on 'Save' for that calibration database.

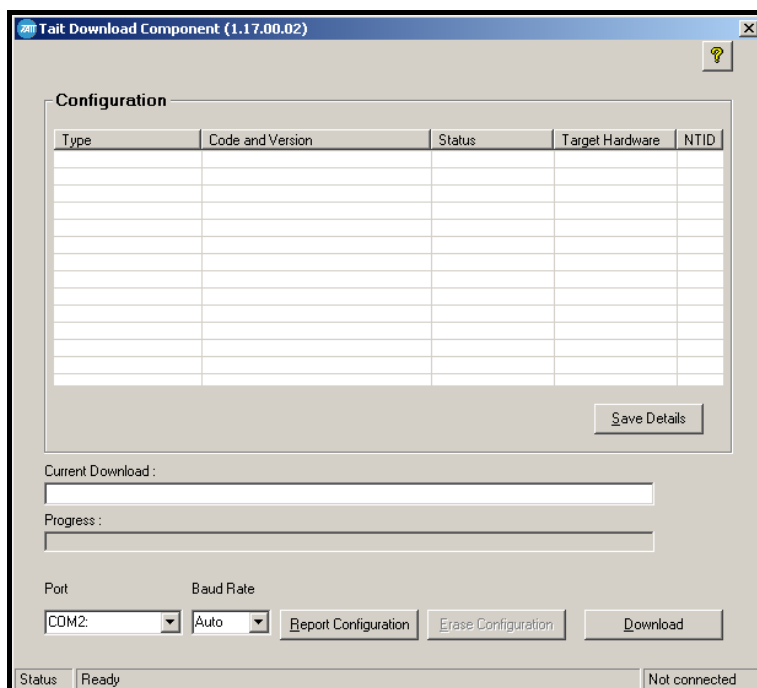
The TP8100 PC Application Toolbars have these icons:



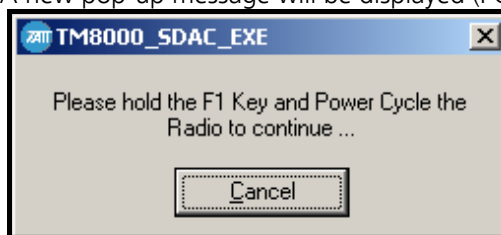
## Select Firmware to Download

The new Firmware (for the type of radio the radio will become) is now selected.

- Launch the Download Application by clicking TOOLS > LAUNCH DOWNLOAD



- Click 'Download'.
- Browse for the new Firmware in the new pop-up window and click 'Open'.
- A new pop-up message will be displayed (PC App v1.00 onwards):



While this title says TM8000 it's actually a common application used by all current TM and TP products.

## Placing TP8100 in Bootstrap mode

For the TP8100 to accept new Firmware the radio must be placed in bootstrap mode. To do this:

- Ensure the radio is turned off.
- Hold in Function Key 1, and whilst holding it down, turn the radio on. Function Key 1 is highlighted below.



The pop-up will then disappear and the Firmware will be written to the flash. On completion the Download Application will refresh and display the installed Firmware.

**NOTE:** The refreshed Download App display will only show 2 columns, Type plus Code and Version, because the TP8100 does not have the same bootloader as the TM8000 mobiles.

- Close the Download Application.

If the process is only to upgrade the Firmware then skip to Step 4, page 4.

### 3. Type Change Procedure

#### Entering the new ECC

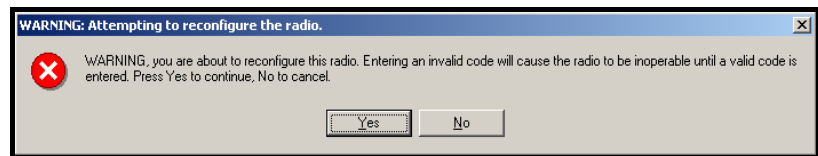
Once the new Firmware has been downloaded, the TP8100 will display:

\*\* PROG \*\*  
MODEL ERROR

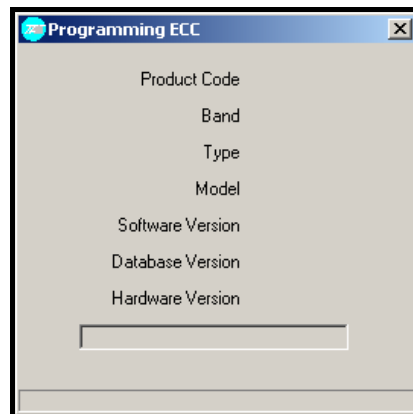
and now requires a valid ECC to type-change the radio.

**NOTE:** Entering an invalid ECC at this point will render the radio inoperable until a valid ECC is entered.

- In the Programming Application click TOOLS > CONFIGURE RADIO
- Enter the ECC code provided previously.
- Click 'Configure'.
- The following warning pop-up message will appear.



- Click 'Yes'.
- The following pop-up will appear.



- When the new ECC has been written successfully the following message will appear.



- Click 'OK'.

## 4. Write Calibration Data

Once the upgrade or type-change procedure has been completed the calibration database must be programmed back into the radio.

While the TP8100 may not necessarily display:

\*\* PROG \*\*  
CALIB ERROR

it is good practice to write the calibration database back to the radio anyway.

- Switch back to the TP8100 Calibration Application.
- Click 'Program' (Red arrow in the toolbar) to write the existing calibration database back into the radio.

If the TP8100 is only being Firmware upgraded skip to Step 5.

### Step 4b Type changed?



If the radio has changed from Conventional to Trunked or vice-versa, launch the correct programming application and either define a new personality file or load an existing one.

Set the model type and band as required. Found on [SPECIFICATIONS](#) page.

The TP8100 **4-key** models are:

TP8115 in Conventional which is Model Code T03-00002-xxxx or  
TP8135 in MPT1327 trunked which is Model Code T03-00005-xxxx.

The TP8100 **16-key** models are:

TP8120 in Conventional which is Model Code T03-00003-xxxx or  
TP8140 in MPT1327 trunked which is Model Code T03-00006-xxxx.

The TP8100 **No-key** model is TP8110 in Conventional only and is Model Code T03-00001-xxxx. It's listed here for consistency only as it cannot be changed to MPT1327.

## 5. Write Personality Data

At this stage the TP8100 radio display will have:

\*\* PROG \*\*  
DBASE ERROR

- Launch the required TP8100 PC Application, if not already running, and load an existing personality or create a new one.

If the radio has only changed tier then set the model type as required.  
TP8110 <> TP8115 <> TP8120

TP8135 <> TP8140

Found in [SPECIFICATIONS > MODEL](#). The PC App fields will automatically update to reflect only those fields relevant for that radio model.

- The final step is to 'Write' the required personality data to the radio (Red arrow) from the PC Application.
- The radio will then reset into normal operation.

**Compliance Issues**

None.

**CSO Instruction**

Inform all sales, technical staff and dealers of the upgrade process and type change instructions.

## 6. Issuing Authority

**Name and Position  
of Issuing Officer**

Graham Brenchley  
Technical Support Team Leader

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**Distribution Level**

Associate

**Document History**

|     |                               |                  |     |
|-----|-------------------------------|------------------|-----|
|     | Original Release              | 14 August 2007   | GCB |
| (b) | Updated Bootstrap pop-up      | 3 September 2007 | GCB |
| (c) | Changed for Associate release | 23 June 2008     | MJD |
| (d) | Included TP8110 model         | 14 July 2008     | GCB |