
TECHNICAL NOTE TN-969c
**How to Upgrade Firmware in
TM8100 and TM8200 Mobile Radios**

1 July 2005

Applicability

This Technical Note details how to upgrade Firmware in TM8100 and TM8200 mobile radios.

1. Upgrading firmware

Upgrading TM8100

STEP 1: Saving the Calibration file

- Open the TM8000 Calibration Application from the Start Menu of Windows. **Start > Programs > Tait Applications > TM8000.**
- In this application select the com port required in **Tools > Options.**
- Read the radio's Calibration information using **Radio > Read** or clicking the Yellow arrow read-from-radio icon on the toolbar.



- Once completed save this file to the PC by selecting **File > Save As.** By default this will be saved using the radio's serial number eg: "TM8000 Cal – 19xxxxxx"

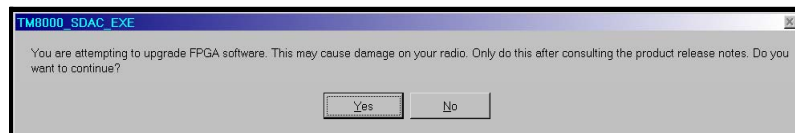
STEP 2: Saving the personality file

- Open the TM8100 (or TM8200) Programming Application from the Start Menu of Windows. **Start > Programs > Tait Applications > TM8000.**
- In this application select the com port required in **Tools > Options.**
- Read the radio's personality datafile using **Radio > Read** or clicking the Yellow arrow read-from-radio icon on the toolbar.
- Once completed save this file to the PC by selecting **File > Save As.**

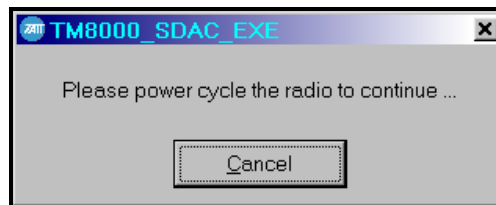
Upgrading TM8100

STEP 3:

- Select the Download application in the TM8100 Programming Application. This is located in **Tools > Download**
 - A new window will open.
- On this window you can view the currently loaded firmware version(s) by clicking **Report Configuration**.
- To change the firmware version click the **Download** button.
- A 'browse' window will open to search for the saved location of the new firmware.
- Once the firmware file QMA1Fstd_xx_xx_xx_xx.s2 is located click 'Open'.
- The Downloading will start automatically.
- The following windows *may* appear:



- Select Yes.
- Another pop up will then ask you to cycle the power to the Radio.



- Do this by **removing** the DC supply to the radio.
 - Wait 5 seconds.
 - Re-apply the DC.
- The TM8115 radio will then display 'UP' during the upgrade process.
- Once the upgrade process is complete the Radio's display may change to 'Pr' or return to channel display.

This means that the download process has now completed.
Proceed to STEP 5.

Upgrading TM8200 complete

NOTE:
**Complete STEP 1
And STEP 2 first.**

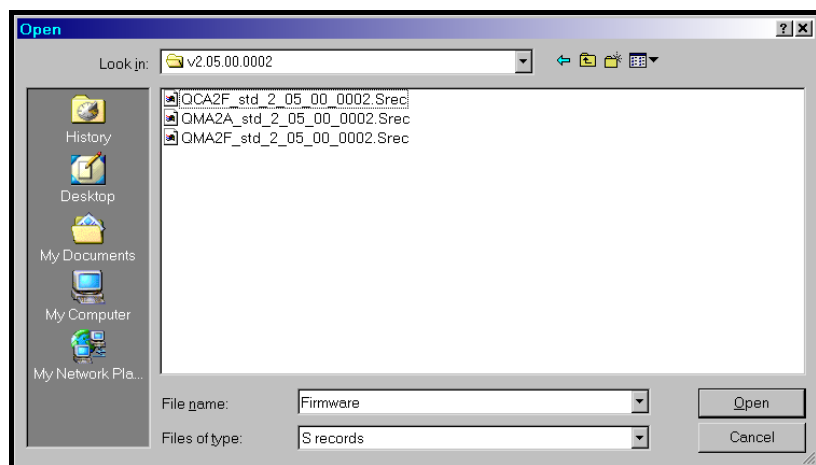
STEP 4:

Other than using the TM8200 Programming Application instead of the TM8100 App, the process for upgrading the TM8200 mobile radio is exactly the same as the TM8100 defined previously.

The only differences to note is there are different firmware version codes for the body and the head. These are identified below:

QMA2A_std_x_xx_xx_xxxx.Srec – Mobile (Torso DSP) Firmware.
QMA2F_std_x_xx_xx_xxxx.Srec – Mobile (Torso) Firmware.
QCA2F_std_x_xx_xx_xxxx.Srec – Control Head Firmware.

- In the 'browse' window you can select all required files by pressing "Ctrl / Left-Mouse-Click" and clicking the required files.
- Click Open and the process will continue. The files will write to the radio and head in sequence.



On completion, the Download Application will refresh the display with the installed versions.

Proceed to STEP 5.

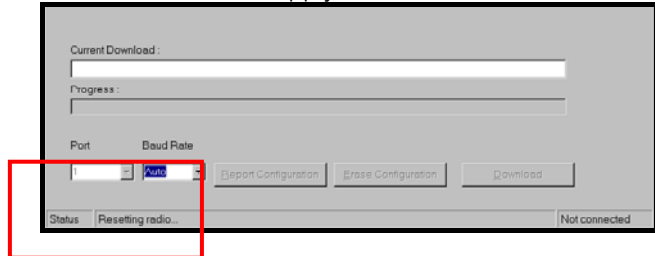
Upgrading TM8200 Torso only

NOTE:
Complete STEP 1
And STEP 2 first.

STEP 4b:

If the situation arises where the TM8200 torso only requires upgrading, follow these steps:

- Switch off DC supply to the assembled TM8200 radio
- Select the Download application in the TM8200 Programming Application. This is located in **Tools > Download**
 - A new window will open
- Click **Report Configuration**.
- When the 'Status' in the bottom left of the Application says "Resetting Radio" switch on the DC supply to the TM8200 radio



- When the read is complete switch off the DC supply again
- To update the torso's firmware and DSP versions (QMA2Fstd_xx.. and QMA2Astd_xx..) to the same as the head click the **Download** button.
 - A 'browse' window will open to search for the saved location of the control head firmware.
- Once the two files are located click 'Open'
- When the 'Status' in the bottom left of the Application says "Resetting Radio" switch on the DC supply to the TM8200 radio
- On completion of these the radio should reset and power-up to normal operation.

Proceed to STEP 5.

Tip:

If the TM8200 control head is not available and you have a spare TM8100 control head this can be used instead to upgrade the torso alone.

The upgrade process is identical to that detailed for torso above, the only difference is the download application will only display the torso's versions at Report Configuration.

On completion, proceed to STEP 5.

Upgrading TM8200 Control Head only

STEP 4c:

If the situation arises where the TM8200 control head only requires upgrading, follow these steps:

- Switch off DC supply to the assembled TM8200 radio
- Select the Download application in the TM8200 Programming Application. This is located in **Tools > Download**
 - A new window will open
- Click **Report Configuration**.
- When the 'Status' in the bottom left of the Application says "Resetting Radio" switch on the DC supply to the TM8200 radio (See screenshot above)
- When the read is complete switch off the DC supply again
- To update the control head's firmware version (QCA2Fstd_xx..) to the same as the torso click the **Download** button.
 - A 'browse' window will open to search for the saved location of the control head firmware.
- Once the firmware file is located click 'Open'
- When the 'Status' in the bottom left of the Application says "Resetting Radio" switch on the DC supply to the TM8200 radio
- On completion of this the radio should reset and power-up to normal operation.

Proceed to STEP 5.

STEP 5: Programming back the databases

- Close the Download Application window.
- In the relevant Programming Application load in the previously saved customer's datafile. Click **File > Open**.
- Write the database to the radio using either **Radio > Program** or clicking the Red arrow write-to-radio icon on the toolbar.



- Once completed close the Programming Application.
- Click (or open) the TM8000 Calibration Application.
- Load the previously saved customer's calibration datafile. Click **File > Open**.
- Write this file into the radio by selecting **Radio > Program** or clicking the Red arrow write-to-radio icon on the toolbar.
- Close the Calibration Application.
- Upgrade process complete.

Compliance Issues None.

CSO Instruction Inform all sales and technical staff of the upgrade process instructions.

2. Issuing Authority

Name and Position of Issuing Officer Graham Brenchley
Technical Support Engineer

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	Added Control Head update	5 Sep 2005	GCB
	Added TM8200 Torso only	15 Sep 2005	GCB