**Tait Orca & Tait Orca 5000
Type Conversion Procedure**

23 April 2004

Applicability	This Technical Note applies to all Tait Orca and Tait Orca 5000 portable radios.
Related Documents	This Technical Note supersedes TN-530 and TN-564. These Technical Notes are now obsolete.

1. Introduction

What does this Technical Note contain?	This Technical Note describes the procedure of 'type changing' a Tait Orca. This 'type changing' can change the product tier and / or conventional / MPT trunked operation of a radio.
Before You Begin	Before the conversion process can take place successfully, ensure you have the prerequisites detailed below:

- Firmware that the radio will become. (ie if the radio is currently a Tait Orca 5020 and is to become a Tait Orca 5040 you must have Tait Orca 5040 firmware available).
- Correct ECC (Electronic Configuration Code) based on the Tait Orca 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 (The most correct serial number is the serial number read by the Tait Orca Conventional or Trunked Programming Application).
  - ➢ The Tait Orca product code that the radio will become (eg TOP-H2620).
- The latest version of the Tait Programming Utilities. These can be downloaded from support.taitworld.com. **Note: To access this download you will require a login, if you do not have a login please contact your nearest Tait CSO.**

2. Type Change Procedure

Save Existing Radio Data

Before type changing a radio it is recommended to save the personality data-file, and it is essential to save calibration data.

Note: If a radio is to be type changed from conventional to trunked or vice versa the necessity of saving the personality file is not necessary.
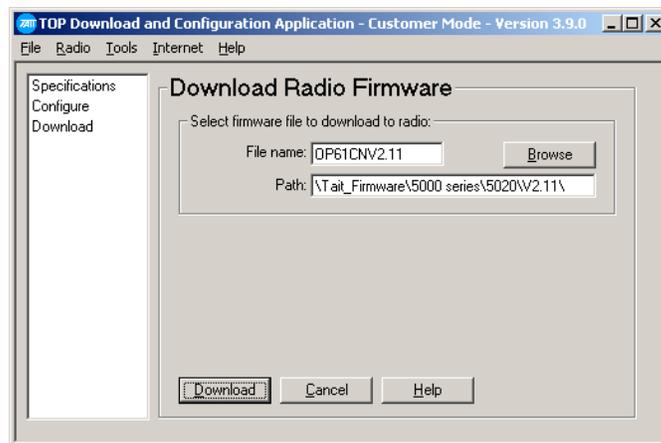
The process to read and save this data is as follows:

➢ Launch the Conventional or Trunked Programming Application and 'Read' the personality information from the radio.
➢ Click 'Save' and specify a filename to save the personality file.

➢ Launch the Calibration Application and 'Read' the calibration database from the radio.
➢ Click 'Save' and specify a filename to save the calibration database.

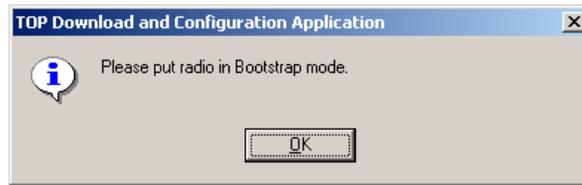**Select Firmware to Download**

The new firmware (for the type of radio the radio will become) must now be selected.

➢ Launch the Download and Configuration Application.
➢ Click the 'Download' option in the left hand menu.

➢ The top field in the newly presented screen reads 'Select firmware file to download to radio'.
➢ Click 'Browse' option to the right of the Filename field and select the firmware file.

➢ Once the correct firmware file has been selected, click the 'Download' button at the bottom of this screen.

➢ A new message will be displayed.

Place Radio in Bootstrap mode

For the radio to accept new firmware the radio must be placed in bootstrap mode.
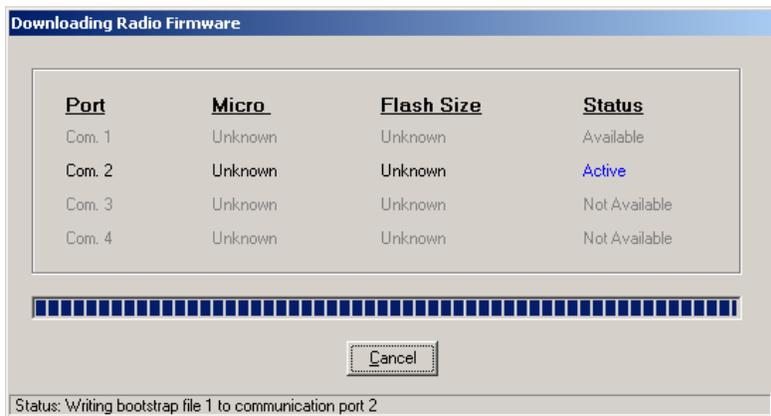
To do this:
  ➢ Ensure the radio is turned off.
  ➢ Hold down Function Key 1, and whilst holding it down, turn the radio on.

Note: Function Key 1 is indicated in the picture below. It will either be Green or Blue.

Begin the Firmware Download

➢ Click 'OK' to confirm the radio has been placed in bootstrap mode.
➢ The following screens will appear as the new firmware is downloaded to the radio.

➢ During the download process the radio's LED will flash red.

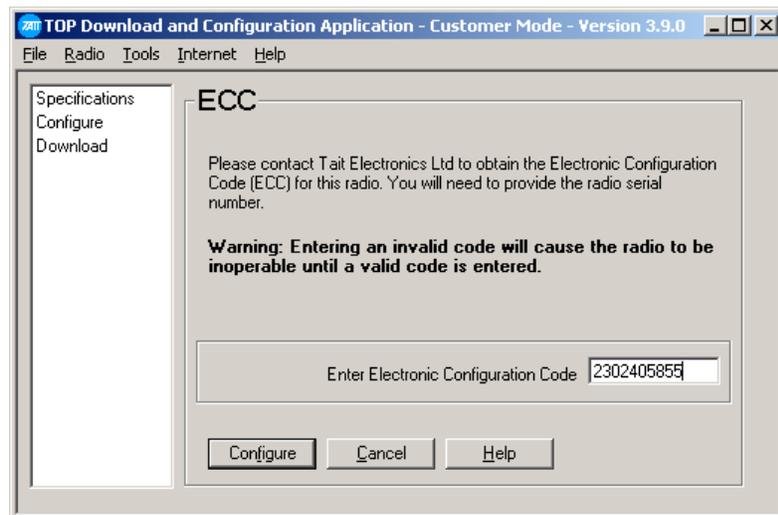> Once complete the Download and Configuration Application indicates:

> Click 'OK'.

Entering new ECC

Now the new firmware has been downloaded, the radio 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 Download and Configuration Application click the 'Configure' option in the left hand menu.
> In the Enter Electronic Configuration Code field enter the ECC code provided previously from your nearest Tait CSO.
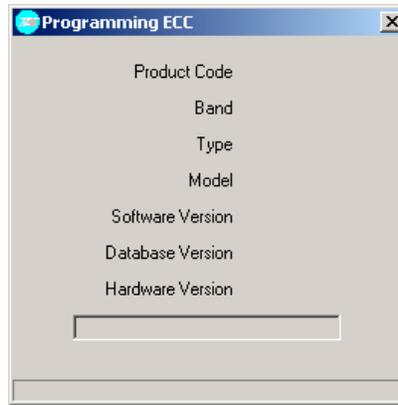

> Click 'Configure'.
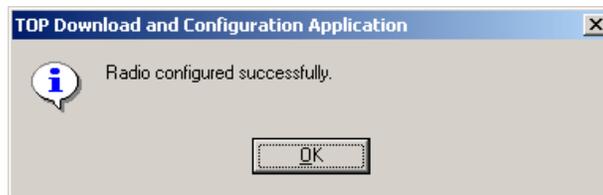> The following warning message will appear.

> Click 'Yes'.

➢ The following screen will appear.

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

➢ Click 'Ok'.

Reprogramming Radio Data

Now that the type-change procedure has been completed, the calibration database must be reprogrammed back into the radio. Also, if the radio has only changed tier the personality file can be reprogrammed into the radio.

➢ Close the Download and Configuration Application.

➢ Switch back to the Calibration Application.
➢ Click 'Program' to program the existing calibration database back into the radio, if it is still open. Or load the calibration database from the saved location.

If the radio has changed from Conventional to Trunked or vice versa, launch the correct programming application and define a new personality file for the radio.

If the radio has only changed tier:

➢ Switch back to the Programming Application.
➢ Click 'Specifications' in the left-hand menu.
➢ In the Model field select the model that the radio has become.
➢ All the fields should automatically update to reflect the available fields for that radio type.
➢ Click 'Program' to program the radio's personality file.

Compliance Issues   None

CSO Instruction   Please inform all dealers of this process on an "as needed" basis.

3.   Issuing Authority

Name and Position   Tim Lummis
of Issuing Officer   Technical Support Engineer

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Distribution Level   Associate and Tait Only

Document History   Original Release   23 April 2004   TPL