



Technical Note TN-721

Tait Orca Calibration issue when setting the PA Bias

25th June 2002

Applicability

This Technical Note applies to the Tait Orca Calibration Application, TOP CALA v3.4.0, when it is used to change the PA bias on the TOP-Bxxxx radio platform.

1. Introduction

What products are involved

A problem has been identified in the Tait Orca Calibration Application v3.4.0 and affects only the calibration of Power Amplifier bias levels for the **TOP-Bxxxx** (136-174) VHF portable radio with hardware version **xx05**.

The PA Bias calibration page is only available with Factory Mode in the Orca Calibration Application. In Customer Mode the page is not listed in the menu.

2. Information

What is incorrect

The Orca Portable B-band product range recently moved over to a new PCB which includes a number of hardware changes that resolves some component obsolescence issues.

If the current version of the Orca Calibration Application is used to calibrate the radio's Power Amplifier bias it will correctly specify the target current (used for transmit High Power) as 250mA and the user will set the DAC accordingly, but it will then apply the wrong 'factor' to the PA bias DAC settings for Medium and Low power.

The wrong 'factors' are applied to the radio when the user is in the PA bias setting and 'Okays' it.

The consequence of this is that the radio will then not transmit the RF level expected of Medium or Low power.

At Low power in particular the radio may not transmit any measurable RF power.

How can this be corrected

All future releases of the Orca Tait Programming Utilities TPU v2.2 produced after **25 June 2002** will have the correction in the Calibration Application, which can be identified as TOP CALA v3.5.0.

A patch for current users of TOP CALA v3.4.0 is available from the website www.taitworld.com/support.

To apply the patch to existing applications:

- Download v3.5.0 from the website (it is in a Zipped format)
- Save this to any preferred location on your PC
- Double-click on it and it will launch your Un-Zip application
- Extract the un-zipped file and save it to the directory where the TOP CALA v3.4.0 is resident
- As this *replaces* the existing file, the application title is the same, and you will be requested to save this file over an existing file
- Click YES to overwriting the original file

When the Orca Calibration is restarted, it should now display TOP Calibration Application - Customer Mode - Version 3.5.0

Compliance

None.

CSO Instruction

We advise the Technical Staff to not use version 3.4.0 of the Orca Calibration Application to change the P A Bias on the TOP-Bxxxx VHF radio platform and to upgrade all PC's with the Calibration Application resident to version 3.5.0.

3. Issuing authority

Name and position of issuing officer

Graham Brenchley
Customer Support Engineer

Confidentiality

Confidential – This message or document contains proprietary information intended only for the person(s) or organisation(s) to whom it is addressed. All Recipients are legally obliged to not disclose Tait technological or business information to any persons or organizations without the written permission of Tait.