



# Technical Support

TECHNICAL NOTE

## Technical Note TN-930 TM8100 Mobile Radio Recalibration Requirements

12 October 2004

### Applicability

This Technical Note applies to the TM8100 family of mobile radios, which includes the TM8105, TM8110 and TM8115.

## 1. Information

If recalibration of the TM8100 Mute is required, the following need to be programmed into the personality of the radio prior to recalibration.

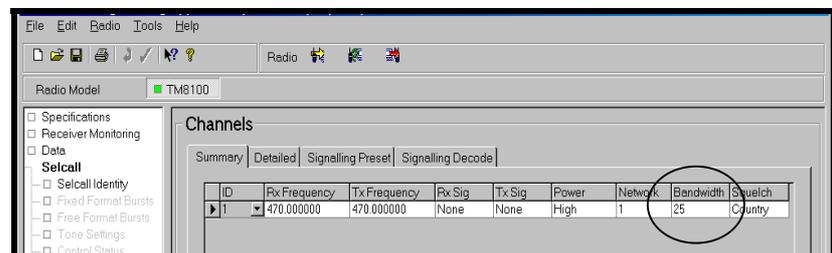
If these are not set, the completed calibration will produce poor squelch opening points, especially at the high frequency end of the band.

Tests of a TM8100 H6 band (450-530 MHz) with one or both parameters not set as required below show a 3dBm discrepancy across the band.

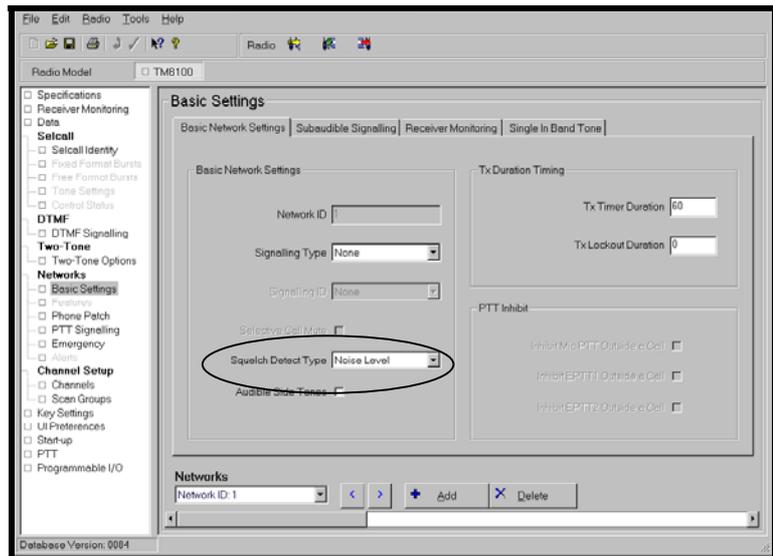
Figures show that at the high frequency end of the band 12 dB SINAD was around -116dBm in calibration mode, but around -119dBm in operational mode.

To set the mute calibration test correctly:

- Channel 1 set to 25KHz Bandwidth (the frequency does not need to be changed as the Calibration Application will advise the test frequencies during the procedure).



- The Network assigned to Channel 1 should have Squelch Detect Type set to Noise Level.



Ensure the radio to be recalibrated has these parameters programmed then start-up the Calibration Application and follow the Mute Calibration instructions. The application will take an average of 35 noise measurements to determine accurate opening and closing points for Country, City, and Hard.

NOTE: The mute parameters for Medium and Narrow bandwidth receive are automatically derived from this calculation.

**Compliance Issues**

None.

**CSO Instruction**

Inform all Technical staff and accredited dealers of the production change and procedure detailed here.

## 2. Issuing Authority

**Name and Position of Issuing Officer**

Graham Brenchley  
Technical Support Engineer.

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**Distribution Level**

Associate.

**Document History**

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