



Technical Support

TECHNICAL NOTE

Technical Note TN-807 TM8000 Mobile Radio Operational Limitations on Release 1

3 November 2003

Applicability

This Technical Note provides information on the features and functions not available with the initial production run for sale (known as Release 1) of the TM8105 and TM8115 mobile radio.

1. Release 1

Limitations

The issues raised below are limitations and known issues in the first release of the TM8105 and TM8115 mobile radios:

- At the end of a calibration exercise, the software asks the user to go to the tool bar and select the "Accept" button. The Cancel and Accept button are greyed out on the first release of calibration software (Version 2.47.00.16).
- The PC Application (v2.48.00.03) freezes when attempting to access the channels grid if the channel listing is out-of-sync with the vertical scrollbar. This is noted if a situation similar to the one below is attempted.
 - 1) Add 14 channels on the channels form
 - 2) Click the top of the vertical scrollbar to move to the first channel
 - 3) Select a channel
 - 4) Application freezes.

This issue has been fixed in later PC Application versions.

Operational Features in Release 2

Companding Audio and Automatic Noise Reduction

- Companding audio compresses the signal as it is transmitted, and expands the signal to its original level when received. This process improves the overall signal-to-noise ratio.
- When the Audio Reduction field is checked audio quality is improved by reducing the background noise usually heard during pauses in conversation when the mute is open but no audio is being received.

NOTE: You cannot enable both Companding and Automatic Noise Reduction simultaneously.

Voting

- In voting, a group of channels carrying the same traffic is systematically sampled for greatest signal strength and the transmission sent on that channel.

DTMF ANI

- ANI stands for automatic number identification. A DTMF system can be set so that each radio automatically transmits its identity on each transmission.

Direct connect GPS (NMEA)

- GPS location data can be sent after receiving a poll request, during alarm mode, or during an emergency call.

CCDI-2 (using the UART data/control interface)

- CCDI (computer controlled data interface) allows for the implementation of communications systems such as SDMs (Short Data Messages), computerised dispatch terminals, remote out-stations and data radio terminals.

THSD Tait High Speed Data

- Tait high-speed data is an optional signalling method that can be used when transferring data between two conventional radios. Data can be transmitted at rates up to 12000 bps on wideband channels and narrowband channels. The modulation format is CP4GFSK. Forward Error Correction is included.

**Features
anticipated in
Release 3**

Single in-band tone

- This is a tone of programmable frequency and duration used in place of a sub-audible tone to open receivers. The receivers will close again when the carrier drops.

Type 99 Decode

- This two-tone signalling format (sometimes known as Type 99) is for selective calling of individual units or groups of units.

Encryption (simple inversion)

- The TM8115 will be able to produce a simple voice inversion type of encryption from Firmware.

CCDI-2 Caller ID

- An enhanced version of Computer Controlled Data Interface-2 will make Caller ID available when using SDM - Short Data Messages.

CCR

- Computer Controlled Radio is an option that allows full control of the transceiver's operation from a PC. This will have the same level of control as the T2020 allowed.

THSD Tait High Speed Data

- Data can be transmitted at rates up to 19200 bps on wideband channels and 12000 bps on narrowband channels. The modulation format is CP4GFSK. Forward Error Correction is included.

Compliance None.

CSO Instruction Please inform technical and sales staff and accredited dealers of the limitations of the initial release of the TM8100 mobile radio.

3. Issuing Authority

Name and Position of Issuing Officer Graham Brenchley
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