



Technical Note TN-739

Production Release of T2010/15 Firmware

9th October 2002

Applicability

This Technical Note applies to the T2010 and T2015 radio units being assembled on the T2000 production line.

1. Introduction

Why Has It Been Released?

The last **FULL** release of T2010/15 radio software to be used on the T2000 line was T201X v2.05. This radio software has now been replaced by **T201X v3.05 firmware**.

The new radio software will be placed in radios from serial number **17180564** using the logic board with the **IPN 220-01377-09**.

2. Information

What Has Been Changed or Corrected?

It should be noted that because V2.05 was released in 1995 only the major changes have been included in this Technical Note with emphasis being put on changes since v3.00.

Changes Made:-

- Inaccurate Selcall tone gaps fixed
- Allows a 5 tone Rx decode sequence with requiring a continuation of the carrier
- Compatible with the 68HC05C9A micro'.
- Rectifies the "T2010 radio unmutes after ringing timeout" fault
- Scanning to slow on T201X radios
- Change BCD processing and loading of shift register information for new data radio
- T2015 radio hangs up in the scan mode if it is programmed to have a priority or secondary priority channel without any other scan channels

Changes Made (cont')

- The T2015 radio cannot receive working channel after exiting scan edit mode by timeout
- Mute not opening under some valid conditions
- Increase reverse tone burst duration from 30ms to 150ms
- Incorrect operation of the channel keys on a T2010 when BCD Channel Change enabled
- In T2015 radios on channels which are programmed with a call sequence number (TxCd) greater than four the called party sequence actually sent is incorrect.
- While the radio is alerting to an incoming call, and with “Tx Inhibit” programmed to “Busy”, the user is able to Tx on a busy channel. This was corrected so that the “Tx Inhibit” setting (Off, Mute, or Busy) is respected at all times.
- Default emergency call channel: If the radio’s “current channel” is a non-Selcall channel when an emergency call is initiated, the radio shall change to channel 1 before proceeding with the call.
- If the radio is in scanning mode and a valid selcall is received and if auto quiet timer is activated in PGM, then scanning will resume when the microphone is placed back on hook.
- When a radio receives a valid selcall sequence the radio will ring, activate the auto quiet timer, and immediately open mute so that the caller can be heard. If the radio is left unanswered then the mute will be closed after the auto quiet timer times out.
- When in enhanced scanning mode, the radio scans the priority channels every second. And if a busy channel is detected then hold that busy channel for two seconds before looking to do another priority channel scan.
- 9ms delay required for TX key off to meet ETS300-113 specification
- The T201x has been modified to reduce the delay from PTT to 90% Tx power. This shall be achieved by changing the functionality of the AUX output line on the MCU to be the PTT input line and then polling it more often. This shall be a programmable option.

Changes Made (cont')

- After transmission of a trailing ANI sequence via PTT press, a T201X radio will continue to transmit the carrier for a variable period up to 1200msec. This may cause disruption to other traffic on the same channel. This release will terminate transmission of the carrier after trailing ANI sequence plus 10msec.

Note: if a combination of trailing ANI and random/leading ANI are enabled altogether, then the variable TX tail will still be present.

NOTE:- Even though the firmware is described as T201X it is **not** intended for, and can't be used in, the T2017.

Please Note:-

- Kan Ban stock will not be upgraded unless requested by the CSO
- The new radio software and programming application are available for download off the Technical Support website (www.taitworld.com/support) The firmware is in the firmware section and will only be available to persons with **Tait Only** access.

Compliance

None

CSO Instruction

CSO's – Please inform all logistics, sales and technical staff, and dealers of these changes.

3. Issuing authority

Name and position of issuing officer

Paul Anderson
Customer Support Engineer - Mobiles

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