Technical Support

TECHNICAL NOTE

TECHNICAL NOTE TN-1070-SR

First Commercial Release of TM8200 MPT1327 Firmware v2.05

5 September 2005

Applicability

This Technical Note applies to the TM8200 Mobile radio platform.

1.   Introduction

The TM8200 Mobile radio is now capable of full MPT1327 Trunked Dispatch functionality over and above the already available full Conventional functionality.

TEL Marketing has defined the current full functional Conventional (only) radio as the TM8250 and the new fully functional MPT1327 trunked dispatch radio as the TM8255.

MPT1327 operation on the TM8200 requires a SFE (Software Feature Enabler) key upgrade from a standard Conventional radio to activate.
SFE order code is **TMAS011**.
Radios ordered as TM8255 from the factory are already MPT1327 enabled. If you wish to upgrade existing TM8250's to TM8255's please request the SFE key for each radio through the normal Logistics chain.

The released firmware version is v2.05.00.0002.
The released PC Application is v2.01.00.0000.
The current TM8000 Calibration Application is v2.73.00.0008.

For TM8000 firmware upgrade procedures see **TN-969**.
See **TN-999** on how to obtain and program a SFE key.

**TM8200
Points to Note:**

- When reading or writing to a TM8200 that has a TMAA02-08 Keypad Mic attached the radio will need to be power-cycled. At power-up the TM8200 tests to see if a Keypad Mic is attached and if successful sets the data rate through the head to suit. This is a different rate to a read/write operation.
  TIP: "Change Mode" if assigned to a function key achieves the same result.
- The menu option *RADIO SETTINGS > FUNCTION SETTINGS > VOX SENSITIVITY* will display a graphic of the VOX sensitivity, but setting more (+) actually makes the VOX less sensitive and vice-versa. Raised in TM8200 Field Trial 950 and to be solved in TIMS 39419.
- Currently only the first Conventional zone will display the Global > Start-up > Power-up Message text. It will however always appear in MPT1327 mode power-up. Raised as TIMS 50217.
- During a firmware upgrade procedure the TM8200 display shows backlighting only and no text or icons. This is to be resolved in a later release.
- The implementation of (DSP) audio paths in the TM8000 platforms means that beep, alert and ringing tones replace any received audio to speaker. The outcome of this is that *during* a missed Selcall alerting ring any channel voice traffic will not be heard.
- Highly perceptive users of TM8200's with 10-watt external speakers (TMAA10-03) may notice the ~80ms delay between audio from the external and internal speakers. This is due to the switching times to different audio paths. If this causes problems, the best solution is to disconnect the internal speaker in the control head.

**Points to Note
(cont.)**

- After setting Selcall External Alert in the PC Application you need to enable "External Alert" in the TM8200 menu too. See *MENU > RADIO SETTINGS > ALERT SETTINGS > EXTERNAL ALERT > ON*. You will then see this icon appear on screen.

- If you need to downgrade the TM8200 firmware from v2.05 or later to v1.04 you must FIRST unselect MPT in Global > Start-Up > Start-Up Mode and un-tick "GPS Info" in Conventional Menu. These database items didn't exist in earlier versions and will not allow a downgrade to complete.

2. Conventional changes

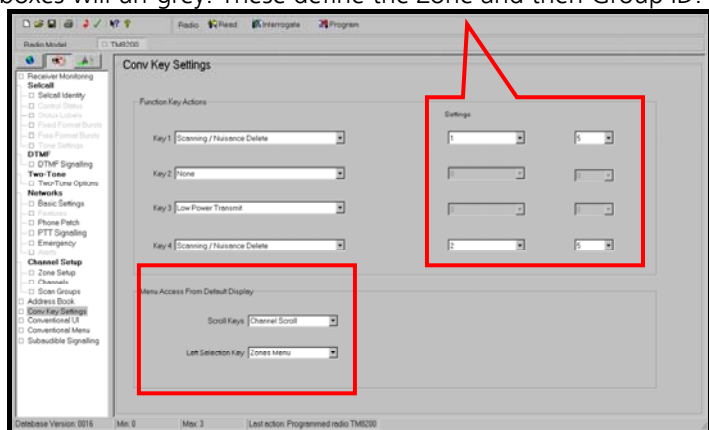Updates in v2.05 firmware for TM8200 Conventional operation.

- If Enable User Editing of scan group in Scan Groups > Common Options is enabled, the Add/delete channel(s) from a Scan group, in the menu, is permanent. This is not to be confused with Nuisance Delete, as a Function key option, which is only temporary for the duration of that active Scan group.

- TM8200 Users who have a GPS receiver connected can now display the received NMEA string's information to screen. The display options are:
  - Latitude
  - Course (in degrees)
  - UTC Time
  - Longitude
  - Speed (in kph)

If the GPS display is actioned from the front panel it stays active until forced off again or the radio is switched off.
NOTE: GPS Display in TM8200 Conventional mode requires a SFE key.
SFE order code is **TMAS015**.

- Corrected displayed ID when the radio voted to a new channel but the display reverted to the first channel in the group at idle again. Raised as Focus 20259.

- Channels (within a zone) can now be scrolled directly using the centre up/down front panel keys either on the front panel or Keypad Mic, similar to a T2020. This option is called Channel Scroll found in Conv Key Settings > Menu Access from Default Display > Scroll Keys.
  Also on this page you can now define a Function Key to Scan groups that are not in the *current* zone. When Scanning is set, the next two Settings boxes will un-grey. These define the Zone and then Group ID.
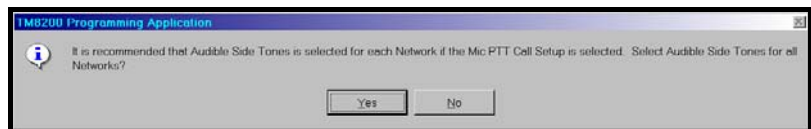
- Solved an issue where an attached Keypad Mic would not be functional at power-up if the radio was powered-off while on a Scan group. The issue was related to Off-Hook Scanning. Raised as Focus 20557.

- Corrected a number of items raised around Vote Groups causing two major issues in the TM8200. These were:
  1. Very slow to enter transmit mode at the first PTT request in a group.
  2. A subsequent PTT may cause the radio to reset.
  Raised as Focus 20369.

- The menu items in the Conventional and the MPT1327 can now be un-ticked if not required by those users. This allows users to have simpler menu views for only those functions they use, and ensures some users don't set items that may inadvertently impact on normal functionality. Raised as Focus' 19935 and 19941.

- Corrected an issue where Selcall <u>Leading ANI</u> was missing if <u>Global > PTT > PTT Press Call Setup</u> was disabled. Raised as TM8200 Field Trial 1074.

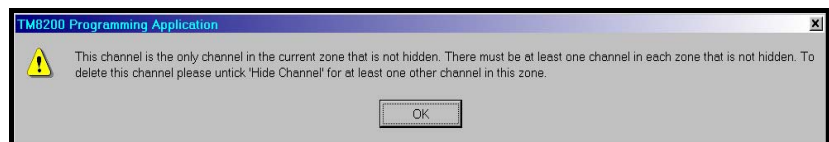# 3. MPT1327 functionality

TM8200 MPT1327 functionality

The current known limitations on MPT1327 functionality are:
- Only one MPT1327 Network currently supported.
- Direct Connect GPS (for MPT) is not yet functional.
- Only MPT1343 and Nokia ANN dialling schemes are currently supported.

- By default the T203x / T2040 radios would allow the user to call the ID present on screen simply by a single PTT press.
  The TM8200 needs the following to achieve the same functionality:
  In <u>Global > PTT > Mic PTT</u> enable the tickbox PTT Press Call Setup.
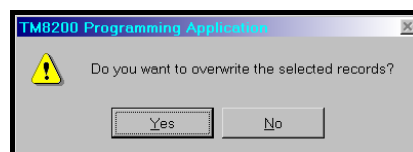 The following pop-up may appear:

While this pop-up is specifically identifying Networks in Conventional Mode, click <u>Yes</u> for MPT1327 operation regardless of whether or not Conventional channels/Networks have been defined for the user.

- Importing channels from Microsoft Excel to the TM8200 PC App may produce the following pop-up:

To stop this occurring, when the first pop-up (below) appears:

Click <u>No</u>.
This will add the new channels to the list. The unwanted channels can then be removed individually.

Tip	One option in the TM8255 is to display the MPT1327 Network Identity in <u>MPT UI > Idle Display</u>. This text is defined in <u>Network Settings > Network Identity > Network Label</u> and you can use this as an idle screen 14-character text, such as "Drive Safely".
First Serial Number(s)	The first serial numbers with firmware v2.05 installed are: TM8200 Torso TMAB22-xxxx S/N **(TBA).** TM8200 Head TMAC40-0T S/N **(TBA).**

4.   TM8000 Calibration Application

The current TM8000 Calibration Application is v2.73.
Some early MPT field trial users may have v2.75 installed. It is suggested that version of application now be removed and v2.73 re-installed. The only updates for v2.75 are for RF bands not yet released. Version 2.73 is fully compatible with all releases of TM8100 and TM8200 firmware.

Compliance Issues	None.
CSO Instruction	Inform all sales and service staff and dealers of the released information.

5.   Issuing Authority

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