TECHNICAL NOTE TN-1112

TM8200/TM9100
Control Head Programming

9th December 2005

Applicability

This Technical Note applies to the control head(s) of the TM8200 and the TM9100 mobile radios only. While the control heads do differ in appearance and firmware the information programmed is the same.

1.   Introduction

With the introduction of the TM8200 and the TM9100 series of mobile radios the interaction between the torso (or body) of the radio and the control head has changed. Whereas the control head of the T2000 held none of the programming information, the control head of the TM8200 and the TM9100 do hold some of the programming information of the radios' database.

2.   Information

What is Programmed Into The Control Head?

The following is a list of items that are programmed into the Control Head. If appropriate, the page heading is in brackets after the item concerned.

- Function Keys (Function Ctrl Settings)
- Power Up Message (Startup/Shutdown)
- Security PIN (Startup/Shutdown)
- Scroll Keys (Function Ctrl Settings)
- Left Selection Key (Function Ctrl Settings)
- Most Text e.g. menus. Channel labels and Status Labels etc. are stored in the torso.
- The complete UI Preferences page. This includes backlighting, confidence tones and volume as well as display time outs.
- Visual/Audible indicators such as Ptt Inhibit.

Why Was It Changed?

There are two reasons why this change has been made.
1. One of the main design considerations for the TM8200 is the ability to connect multiple control heads to one torso. With the above programming information in the control head it is possible to program each control head with different information.
2. The processing power of the control head has increased dramatically (it has it's own FPGA) since the days of the T2000. Because of this it was decided that the control head could take some of the load off the torso. This would also ease the data traffic between the control head and the torso and therefore speed the overall operation of the radio up.

What Are The Implications?

There are three main issues that CSO's and Dealers will need to bear in mind when programming TM8200s and TM9100s.
1. When an order is being processed each control head will need to be programmed as well as the torsos. It isn't recommended to use just one control head to program multiple torsos. This would mean that the only control head correctly programmed would be the control head used to program the torsos. All other control heads in the order will contain default factory programming. This

What Are The Implications? (cont)	also means that if the start up message is unique to each radio then the control head/torso pair will need to be maintained otherwise the user may end up with a startup message that does not match with the torso it is fitted too. More importantly it may mean that the Function buttons are programmed to perform a task that the torso does not support (e.g. a function button programmed for a scan group where no scan group exists). This will cause the radio to generate an error and possibly lock up
	2. If only the torso is sent in for repair, the information programmed into the control head will not be available. This may be important when diagnosing faults.
	3. If only a torso is sent in for repair and the torso firmware is updated an incompatibility will occur with the firmware of the customers control head. This may mean that the radio will not power up correctly when returned to the customer.

| **Compliance Issues** | None. |

| **CSO Instruction** | **CSO's** – Please inform all technical staff, and appropriate dealers of this Technical Note. |

3.   Issuing Authority

| **Name and Position Of Issuing Officer** | Paul Anderson Technical Support Engineer |

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| **Distribution Level** | Associate |

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