Technical Note TN-722

Control Head Changes for the T2035

19th July 2002

Applicability This Technical Note only applies to the T2035 trunking radio.

1. Introduction

The existing T2035 control head PCB (002-10144-99) uses the MC14499DWR2 display driver, which has become obsolete. The solution being implemented in production is based on a T2015 control head with an extra digit being added. The **PCB IPN** for the new T2035 control head is **220-01570-01**. The orderable "T" for the new control head is **T2000-A835.**

There are no outward changes to the appearance of the control head. However there will be small changes to the L.E.D. Segment Display operation of the radio and these are explained below.

New T2035 firmware **(v3.51std and v4.15gps)** and T203X programming software **(v1.60pgm)** has been written to incorporate the new control head.

The serial number of the first production radio using the new control head is **17173792**

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2. Information

Changes Made

Other than the display changes described below, there is only one change and that is in the "**Specifications"** page of the Pgm. The change is the addition of a new field called **Display Type**. This new field can be set (via a drop down menu) to **New** or **Old**.

Please see the warning at the end of this Technical Note regarding programming of radios with the new control head.

Radios with the new control head will be identified with a sticker on the underneath of the control head. This sticker will have information regarding minimum Pgm version needed and the identity of this Technical Note.

Service Note Requires Pgm V1.60 or later See TN722 for more detail

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The following table lists the display differences between the old and new control heads.

Description	Current 'Old' Control Head Radio software 3.47 or earlier	New Control Head (IPN: 220-01570-00A) Radio software 3.49 or later
Queue is empty	**"– – –"**	**".... ...."**
No status value for this call	**".... – –"**	**".... ...."**
Call queue is empty	**".... ...."**	**".... ...."**
Do not disturb	**".... ...."** flashing	**".... ...."** flashing
Preset call	**"– 0 – "** DESP LED flashing	**".... 0. ...."** DESP LED flashing
Function preset call	**"– 0 – "** FCN LED flashing	**".... 0. ...."** FCN LED flashing
Function not available	**"U A O"** flashing	**"0. .... 0"** flashing
System busy	**"U A 1"** flashing	**"0. ....1"** flashing
Call unavailable	**"U A 2"** flashing	**"0. .... 2"** flashing
Number unobtainable	**"U A 3"** flashing	**"0. .... 3"** flashing
Called party busy	**"U A 4"** flashing	**"0. .... 4"** flashing
Program mode logon	**"– U U"** flashing	**".... 0 0"** flashing
Flash Mode (Download)	**"U U U "**	**"0 0 0"**
Manual test mode	**"– – –"** All LEDs on	**".... ...."** All LEDs on
CCT mode logon	**"– – –"**flashing	**".... ...."** flashing
CCN mode logon	**"– – –"** Top LEDs on	**".... ...."** Top LEDS on
ESN check sum error	**"– U 1"** flashing	**".... 0 1"** flashing
Database check sum error	**"– U 2"** flashing	**".... 0 2"** flashing
Configuration error	**"– U 3"** flashing	**".... 0 3"** flashing
CONFIG register mode error	**"– U 7"**	**".... 0 7"**
MODB Link mode error	**"– U 8"**	**".... 0 8"**
Test Link mode error	**"– U 9"**	**".... 0 9"**
Inter Fleet number	**"– 1 –"**	**".... 1. ...."**
PSTN number	**"– 2 –"**	**".... 2. ...."**
PABX number	**"– 3 –"**	**".... 3. ...."**
Undisplayable number	**"– 4 –"**	**"…. 4. ...."**
Fixed groups enabled	**"– – –"**	**".... ...."** + DESP + FCN LED flashing

.... Blank digit **–** Dash **....** Digit decimal point

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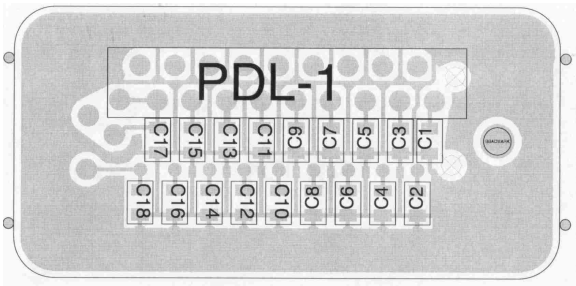
Note		Because the new T2035 control head is a modified T2015 control head there are two changes that need to be carried out to the EMC Filter board. This modification only needs to be carried out if an old type control head is being replaced with a new type control head. The changes are the removal of C4 (150p, IPN 015-23150-01), and the addition of C2 (470p, IPN 015-23470-08) 

Warning

Due to the difference in size of the SPI data array for the two control head display types it is **imperative** that the correct display type is selected BEFORE attempting a flash download. If the correct display type is not selected the download firmware in the radio will be expecting to use the incorrect array size for the display data and memory control flags. This will result in the incorrect data being sent and will render the download useless. The radio will be inoperable and will have to be returned to the factory. The MCU EEPROM will have to be erased and the radio re-programmed using the factory PGM as the ESN will have been erased from EEPROM.

Compliance

None unless specifically required by network operators.

CSO Instruction

CSOs – Please inform all your sales staff, technical staff and dealers of these changes.

3. Issuing authority

Name and position of issuing officer

Paul Anderson
Customer Support Engineer - Mobiles

Confidentiality

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