MTM5000 Series Terminals
MTM5500, MTM5400, MTM5200, MTM800FuG & MTM800FuG ET
TETRA Terminals

MR10.6.10 Software Release

Firmware & Codeplug Versions

Terminal	Freq. MHz	Build	Firmware	Codeplug
MTM5000 Series	All	Feature	R27.XX0. 8626	CP 0405
MTM800FuG Series	380	Feature	R27.XX0. 8626	CP 0405
NGCH / RECH / TSCH for MTM5000 / MTM800FuG Series	-	Feature	R14.000. 8626	CP 7400

Release Packets (.rpk): Feature Build MR10.6.10 FW8626_R06106400

CPS Plus Release : 6.2 UCM Version: R02.12.09
CPS Plus : R06.20.09.00

Document Rev.: D

Compass Locations: http://compass.mot-solutions.com/go/467753677 .pdf
http://compass.mot-solutions.com/go/469737058 .doc

MOL Locations: https://moleurope.mot-solutions.com/DOCS/Europe/TETRATerminals_TETRATerminalUpdates_MR5.14.10_10.6.10/MR10.6.10_Release_Note_Version_D.pdf

https://emeaonline.motorolasolutions.com/DOCS/Europe/TETRATerminals_TETRATerminalUpdates_MR5.14.10-10.6.10/MR10.6.10_Release_Note_Version_D.pdf

Revision Date: 16 Sep 2014

Change History

Rev	Date	Author	Description
O draft 1	11Mar14	J Callaway	Release Note Initial Draft
O	17Mar14	J Callaway	Released with minor update
A	26Mar14	J Callaway	C3 case update
B	03Apr14	J Callaway	Further updates
C	09Apr14	J Callaway	Annex 12 Announcement added
D	16Sep14	J Callaway	CR22256 removed

Acronyms and Abbreviations

Acronym	Definition
APME	Asia Pacific Middle East Region
AT	Hayes Command set
AuC	Authentication Centre
CMG	Crypto Management Group
CPS	Customer Programming Software
CR	Change Request
CP	Codeplug
DGNA	Dynamic Group Number Assignment
DMO	Direct Mode Operation
E2EE	End to End Encryption
EIA	Europe, Israel and Africa
FDPC	Full Duplex Private Call (ie a normal phone call to a TETRA Terminal)
GCAI	Global Core Accessory Interface
GSSI	Group Subscriber Identification (Talk Group)
HDPC	Half Duplex Private Call
IOP	Intra-Operability
ISSI	Individual Subscriber Identification
KVL	Key Variable Loader
LIP	Location Information Protocol
MMI	Man to Machine Interface
MR	Mobile Release
MS	Mobile Station also known as ‘Terminal’
MSPD	Multislot Packet Data
NGCH	Next Generation Control Head – used to control the MTM800E transceiver
OTAR	Over The Air Rekeying
OTB	One-Touch Button. Buttons 1 to 9, * and # can be configured in the CPS as One-Touch Buttons.
PABX	Private automatic branch exchange (that serves a particular business or office)
PD	Packet Data
PDU	Protocol Data Unit
PEI	Peripheral Equipment Interface
PHF	Personal Hands-Free
PIN	Personal Identity Number
PPC	Pre-emptive Priority Call
PSTN	Public switched telephone network
RUA/RUI	Radio User Authentication (RUA) & Radio User Identity (RUI)
SCK	Static Cipher Key
SDS	Short Data Service
SwMI	Switching and Management Infrastructure
Tanapa	Radio Transceiver of a specific hardware build
TXI	Transmit Inhibit
UCM	Universal Crypto Module
UCM-M	Universal Crypto Module – Motorola Advanced Crypto Module

Table of Contents

Introduction

The overall purpose of this document is to introduce the reader to the MR10.6.10 software release prior to operating TETRA terminals covered.

The MR10.6.10 software release supports the following TETRA terminals.

Terminal	350MHz Band	380MHz Band	450MHz Band	800MHz Band
MTM5200	Yes	Yes	Yes	Yes
MTM5400	Yes	Yes	Yes	Yes
MTM5500	Not available	Yes	Yes	Yes
MTM800FuG	Not applicable	Yes	Not applicable	Not applicable
MTM800FuG ET	Not applicable	Yes	Not applicable	Not applicable

This document outlines the key functionality with the MR10.6.10 Software release. For more detailed descriptions of the TETRA terminal, please refer to:

1. Previous Customer Release Notes available from;-

Motorola Online http://moleurope.mot.com

or https://emeaonline.motorola.com (accessible for Motorola Partners).

or through your usual Motorola channel partner account manager.

Changes from the previous release MR10.6.9 are detailed in section 2.5 below.

1 Benefits

1.1 New Features

The MR10.6.10 is a software release that operates on the TETRA Terminals as listed above; new features are listed in the table below and are applicable to the platforms identified.

For a full description refer to the Feature User Guide (which can be found in **Motorola Online** > **Resource Centre** > **TETRA Terminals** and then either to **Portable Radios** or **Mobile Radios** and then to the specific model you are interested in – e.g. MTM800 FuG and then to **Manuals**.)

MR10.6.10 is introduced alongside CPS Plus 6.2. For further information on these refer to Motorola On Line Resource Centre under TETRA Terminals/CPS Plus.

The MR10.6.10 Features are detailed below:

Feature	Summarised Description	Enablement Needed	Platforms Affected
TETRA Enhanced Data Service (TEDS)	TEDS adds a number of new radio carriers offering up to 10x MSPD data speeds. The new radio carriers can be used as packet data channels, i.e. traffic channels The control channel function remains unchanged on the existing TETRA 1 control channel. The increased speed is achieved by using more advanced modulation and coding techniques, and by using wider RF channels. An Icon displays the state of the data connection	Yes Also requires TEDS equipped basestation sites.	MTM5500 380MHz MTM5400 350 & 380MHz MTM5200 350 & 380MHz
LIP Status Target SSI (Shadow Group) via Selected Talk Group : Address Bundle. Tracking Ref: 16535 & CR 2783	Enables redundancy arrangements in Command & Control with LIP, status and RMS/FMS messages being sent to all valid command and control centres. Address Bundle assignment to Talkgroups and functionality. Codeplug configurable	Yes. New SW Selling Feature ‘Shadow Groups’	MTM800FuG ET MTM800FuG MTM5500 MTM5400 MTM5200
GPS location update activity Icon Tracking Ref R16530	Notifies user when the terminal is enabled for GPS but is searching for a fix. Solid icon – GPS fix obtained Blinking icon – Searching for GPS fix Codeplug configurable	Yes – within existing GPS	MTM800FuG ET MTM800FuG MTM5500 MTM5400 MTM5200
DGNA Home Group (last selected) Tracking Ref R16532	De-assignment of formerly assigned DGNA triggers the selection of a ‘default talkgroup’ Codeplug configurable	No	MTM800FuG ET MTM800FuG MTM5500 MTM5400 MTM5200
Visibility of Audio Profile : Tracking Ref R16537	User notification that loudest profile has been selected. Profile name and profile icon visible in idle screen. Codeplug configurable	No	MTM800FuG ET MTM800FuG MTM5500 MTM5400 MTM5200
Separate FW and CPS programming and Tiered User Access Level Control	Provides new access levels enabling control over the actions available to different user types.	No	iTM/CPS feature
7.5Watt Loudspeaker Tracking Ref CR2754	An intermediate volume loudspeaker for use with MTM800FuG and MTM5000 series terminals. Porfolio now has has 5W, 7.5W and 13W Loudspeakers	No	MTM800FuG ET MTM800FuG MTM5500 MTM5400 MTM5200
Audio Improvements for BSI E2EE Tracking Ref CR2788	Through ‘frame stealing’ the audio quality of BSI E2EE has been improved.	Yes New SW Selling Feature ‘BSI E2EE Enhanced Audio’	MTM800FuG ET MTM800FuG

Feature	Summarised Description	Enablement Needed	Platforms Affected
AT Command to extract System Times Tracking Ref CF2803	AT Command '+CCLK ' extracts the system time, broadcast by the basestation, from the Tetra terminal.	No	MTM800FuG ET MTM800FuG MTM5500 MTM5400 MTM5200
450 MHz band models: MTM5500, MTM5400, MTM5200	TMO: 410 – 470MHz DMO: 410 – 470MHz Full SW feature set of MR10.6.10 and TEDS Hardware ready. MACE E2EE encryption via Option board is supported. Hardware ready for Glonass and Galileo/BeiDou location based applications	No	MTM5500 MTM5400 MTM5200
800 MHz band models: MTM5500, MTM5400, MTM5200	TMO: 806 – 870MHz DMO: 851 – 870MHz Full SW feature set of MR10.6.10 and TEDS Hardware ready. MACE E2EE encryption via Option board is supported. Hardware ready for Glonass and Galileo/BeiDou location based applications	No	MTM5500 MTM5400 MTM5200
Configurable Idle Screen	This feature gives the user the ability to configure which items should be displayed on idle screen. It is possible to configure which line will display specific information. It is also possible to configure the priority of particular item or information where one line is specified for multiple items of information. In case there is not enough lines available in idle screen items with lower priorities will not be displayed		MTM800FuG ET MTM800FuG MTM5500 MTM5400 MTM5200

1.2 Features now made available or improved

Please be aware that for the purpose of 'visibility of audio mode; feature, an additional functionality of configurable idle screen has been added to legacy portable and MTM5000 mobile series. This powerful feature allows for flexible configuration of elements that are presented to the user on Home screen, on CPS level. However, default configuration is set in a way to provide backward compatibility, so that the layout is the same as in previous releases, and it is highly recommended to familiarize with CPS online help regarding this functionality before introducing any changes

1.3 Features changed

The following features have been changed from earlier releases of Terminals and now in MR10.6.10, operate differently:

Note that there is no change in the cabling arrangement or identification for MTM5000 series. Please refer to the Installation Manual to ensure the correct cable and connections are made during installation. Incorrect cabling can damage the terminal equipment.

Feature	Summarised Description	Enablement Needed	Platforms Affected
None			

CPS Plus upgrade / downgrade

Upgrades
CPS Plus supports Upgrade from the following releases.

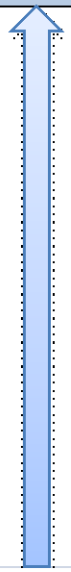
Upgrade Matrix	Project	MTM5X00 / MTM800FuG (with NGCH)	MTM5X00 / MTM800FuG ET (with TSCH or ESCH)
	MR10.6.10	Available	Available
	MR10.6.9a	Available	Available
	MR10.6.9	Available	Available
	MR10.6.5a		Available
	MR10.6.5		Available
	MR10.6.3c	Available	
	MR10.6.3b	Available	
	MR10.6.3a	Available	
	MR10.6.3	Available	
	MR10.6	Available	
	MR10.3	Available	
	MR10.2	Available	
	MR10.1.1	Available	
	MR10.1	Available	

Table 1 CPS Release Compatibility

*CPS and iTM prevents upgrade directly from pre-MR10.6.3 to MR10.6.10.

To upgrade from 10.6 or earlier to MR10.6.9 has to be done in two steps:
Step 1 – upgrade to MR10.6.3c then turn radio off.
Step 2 – turn radio on, upgrade to MR10.6.10

There is an upgrade limitation preventing users from upgrading pre-MR10.6.3 radios to MR10.6.9 or later releases. See below table for details.

Release	Before MR10.6.3	MR10.6.3 - MR10.6.3c	MR10.6.5 - MR10.6.5a	MR10.6.9	
Before MR10.6.3	N/A	Yes	No	No	Upgrade
MR10.6.3	Yes	N/A	Motorola DC Only	Yes	Upgrade
MR10.6.5	No	Motorola DC Only	N/A	Yes	Upgrade
MR10.6.9	Yes	Yes	Yes	N/A	Upgrade
	Downgrade	Downgrade	Downgrade	Downgrade	

Note: It is not possible to Downgrade a NON ETHERNET radio from 10.6.9 to MR10.6.5

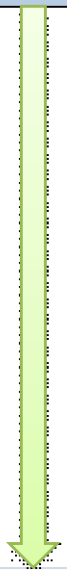
Downgrades

Downgrades are also possible to the releases shown in section 1.1 (please do not downgrade to MR10.3) but only the sensitive data (including tuning data) is maintained during the downgrading. If you want to roll back a radio to a previous version, the correct way is first to backup the codeplug to be used, then downgrade to the version required, then to use the 'Restore Radio' function, which directly uses the previously backed up codeplug.

Radio's will no longer be orderable from Motorola with MR10.3 software loaded, please see note above regarding downgrade.

It is strongly recommended that radios containing MR10.6.10 Software are not moved to MR10.3.

SCK Keys and H-Card enablement needs to be re-loaded after downgrade from MR10.6.10 (*this is not required when upgrading to MR10.6.10*) .

Downgrade Matrix	Project	MTM5X00 / MTM800FuG (with NGCH)	MTM5X00 / MTM800FuG ET (with TSCH or ESCH)
	MR10.6.10	Available	Available
	MR10.6.9a	Available	Available
	MR10.6.9	Available	Available
	MR10.6.5a		Available
	MR10.6.5		Available
	MR10.6.3c	Available	
	MR10.6.3b	Available	
	MR10.6.3a	Available	
	MR10.6.3	Available	
	MR10.6	Available	
	MR10.3	Available	
	MR10.2	Available	
	MR10.1.1	Available	
	MR10.1	Available	

2 Product and Release Information

MR10.6.10 Software release is for the following platforms only in the following frequency bands:

Band Platform*	350-390MHz	380-430MHz	440-470 MHz	806– 870MHz
MTM800FuG		X		
MTM800 FuG ET		X		
MTM5500		X	X	X
MTM5400	X	X	X	X
MTM5200	X	X	X	X

2.1 Frequency limitation

The software release MR10.6.10 is certified to be used for with bands detailed in 2 above.

2.2 Sales Models

All relevant part numbers and pricing can be found on the electronic catalogue pages (ECAT).

The new 800MHz band MTM5200, MTM5400 and MTM5500 terminals may be ordered as follows:

For APME Region
AZM83UCA6TZ5AN MTM5200 806-870 DATA MT753C
AZM83UCS6TZ2AN MTM5200 806-870 M'CYCLE MT753C
AZM83UCS6TZ4AN MTM5200 806-870 DESK MT753C
AZM83UCS6TZ5AN MTM5200 806-870 DASH MT753C
AZM83UCS6TZ6AN MTM5200 806-870 REMOTE MT753C
AZM83UFA6TZ5AN MTM5400 806-870 DATA MT753C
AZM83UFS6TZ2AN MTM5400 806-870 M'CYCLE MT753C
AZM83UFS6TZ4AN MTM5400 806-870 DESK MT753C
AZM83UFS6TZ5AN MTM5400 806-870 DASH MT753C
AZM83UFS6TZ6AN MTM5400 806-870 REMOTE MT753C
AZM83UFT6TZ6AN MTM5500 806-870 REMOTE MT753C
800MHz is not available in EIA Region

The new 450MHz band MTM5200, MTM5400 and MTM5500 terminals may be ordered as follows:

For APME Region
AZM83RCA6TZ5AN MTM5200 410-470 DATA MT553C
AZM83RCS6TZ2AN MTM5200 410-470 M'CYCLE MT553C
AZM83RCS6TZ4AN MTM5200 410-470 DESK MT553C
AZM83RCS6TZ5AN MTM5200 410-470 DASH MT553C
AZM83RCS6TZ6AN MTM5200 410-470 REMOTE MT553C
AZM83RFA6TZ5AN MTM5400 410-470 DATA MT553C
AZM83RFS6TZ2AN MTM5400 410-470 M'CYCLE MT553C
AZM83RFS6TZ4AN MTM5400 410-470 DESK MT553C
AZM83RFS6TZ5AN MTM5400 410-470 DASH MT553C
AZM83RFS6TZ6AN MTM5400 410-470 REMOTE MT553C
AZM83RFT6TZ6AN MTM5500 410-470 REMOTE MT553C
For EIA Region
MDM83RCA6TZ5AN MTM5200 410-470 DATA MT553C
MDM83RCS6TZ2AN MTM5200 410-470 M'CYCLE MT553C
MDM83RCS6TZ4AN MTM5200 410-470 DESK MT553C
MDM83RCS6TZ5AN MTM5200 410-470 DASH MT553C
MDM83RCS6TZ6AN MTM5200 410-470 REMOTE MT553C
MDM83RFA6TZ5AN MTM5400 410-470 DATA MT553C
MDM83RFS6TZ2AN MTM5400 410-470 M'CYCLE MT553C
MDM83RFS6TZ4AN MTM5400 410-470 DESK MT553C
MDM83RFS6TZ5AN MTM5400 410-470 DASH MT553C
MDM83RFS6TZ6AN MTM5400 410-470 REMOTE MT553C
MDM83RFT6TZ6AN MTM5500 410-470 REMOTE MT553C

MR10.6.10 software is the first applicable release and is ordered with option:
GA01110AA ADD: MR10.6.10 SOFTWARE

The following new Ethernet and Telephone Style Control Head options are introduced:
GA01080AA ADD: ETHERNET CH (ECH) REMOTE ARABIC
GA01081AA ADD: TELEPHONE STYLE CH(TSCH) ARABIC
GA01082AA ADD: DUAL ECH REMOTE ARABIC
GA01083AA ADD: DUAL TSCH ARABIC
GA01084AA ADD: DUAL CH MIX ECH AND TSCH ARABIC
GA01085AA ADD: ETHERNET CH (ECH) REMOTE CYRILLIC
GA01086AA ADD: TELEPHONE STYLE CH(TSCH) CYRILLIC
GA01087AA ADD: DUAL ECH REMOTE CYRILLIC
GA01088AA ADD: DUAL TSCH CYRILLIC
GA01089AA ADD: DUAL CH MIX ECH AND TSCH CYRILLIC
GA01090AA ADD: ETHERNET CH (ECH) REMOTE HEBREW
GA01091AA ADD: TELEPHONE STYLE CH(TSCH) HEBREW
GA01092AA ADD: DUAL ECH REMOTE HEBREW
GA01093AA ADD: DUAL TSCH HEBREW
GA01094AA ADD: DUAL CH MIX ECH AND TSCH HEBREW
GA01095AA ADD: ETHERNET CH (ECH) REMOTE CHINESE
GA01096AA ADD: TELEPHONE STYLE CH(TSCH) CHINESE
GA01097AA ADD: DUAL ECH REMOTE CHINESE
GA01098AA ADD: DUAL TSCH CHINESE
GA01099AA ADD: DUAL CH MIX ECH AND TSCH CHINESE
GA01100AA ADD: ETHERNET CH (ECH) REMOTE TAIWANESE
GA01101AA ADD: TELEPHONE STYLE CH(TSCH) TAIWANESE
GA01102AA ADD: DUAL ECH REMOTE TAIWANESE
GA01103AA ADD: DUAL TSCH TAIWANESE
GA01104AA ADD: DUAL CH MIX ECH AND TSCH TAIWANESE
GA01105AA ADD: ETHERNET CH (ECH) REMOTE KOREAN
GA01106AA ADD: TELEPHONE STYLE CH(TSCH) KOREAN
GA01107AA ADD: DUAL ECH REMOTE KOREAN
GA01108AA ADD: DUAL TSCH KOREAN
GA01109AA ADD: DUAL CH MIX ECH AND TSCH KOREAN

Note – these are new options specifically for MTM5500 and will be orderable as applicable to appropriate regions.

The 7.5 Watt loudspeaker RSN4003A is now also orderable as an option for use with MTM5000 series.
GA01176AA ADD: Speaker 7.5W
Another may be ordered as an option
GA01177AA ADD: 2nd SPEAKER, 7.5W

The new orderable features in MR5.14.10 / MR10.6.10 are:

Feature	**Option via Dongle**	**Option pre-installed**
Enable Shadow Groups License	QA04347AA	QA04346AA
Enable TEDS (QAM)	QA04221AA	QA04218AA
Enable TEDS (QAM) with Multislot Packet Data (MSPD)	QA04222AA	QA04219AA
Enable TEDS (QAM) with Multislot Packet Data, WAP and WAP Push	QA04223AA	QA04220AA
Enable BSI E2EE Enhanced Audio (Note this is only orderable by GMOI customer)	QA04375AA	QA04374AA

2.3 New Hardware Support

The MR10.6.10 release includes two new bands for the MTM5000 series terminals: 410-470 and 806 -870 MHz and new keypads for the Ethernet and Telephone Style control heads with Arabic, Chinese, Cyrillic, Hebrew, Korean or Taiwanese characters.

2.4 Product Details

The following terminals with the following encryption possibilities are supported by MR10.6.10:

AIE	E2E	MTM 800 FuG	MTM 800 FuG ET	MTM5500 380/450/ MHz	MTM5500 800MHz	MTM5400 380/450/ MHz	MTM5400 800MHz	MTM5400 350MHz	MTM5200 380/450/ MHz	MTM5200 800MHz	MTM5200 350MHz
Clear	Clear			X	X	X	X	X	X	X	X
TEA1	Clear			X	X	X	X	X	X	X	X
TEA2	Clear	X	X	X		X			X		
TEA3	Clear			X	X	X	X	X	X	X	X
Clear	MACE			X	X	X	X		X	X	
TEA1	MACE			X	X	X	X		X	X	
TEA2	MACE			X		X			X		
TEA3	MACE			X	X	X	X		X	X	
TEA2	BSI SIM	X	X								

Figure 1 Supported Software and platform configuration

2.5 Fixes to Reported Problems

The following list includes all the Customer Care Cases (C3 Case) closed with MR10.6.10 Software releases. Refer to section 2.5.1 for details of the resolution

FRB	C3	Description	SR	Behaviour Change
CR21642	23548473, 23549798	Sending SDS to Own ISSI via PEI Fails in MR5.14.3c	CCMPD01791043	Enable functionality for own ISSI
	23603805	MTM800FuG Additional Character in Displayed OPTA	CCMPD01807641	Fixed
CR21972	23624822	MTM800 FuG does not swich off, if no SIM card inserted [Gerät mit Zundungsplus ohne BO	CCMPD01811071	Radio switches off when ignition is off
CR21930	23580330	Zetron M390n can initiate an emergency calls even if the feature is disabled at codeplug	CCMPD01809592	Emergency won't work when feature disabled
CR21973	23624876	Permanent transmit when PTT is pressed in hangtime of Receive Only Announcement call	CCMPD01810511	Fixed
CR21932	23626313	Reset when attempting to view active scan list if the first scan list is disabled	CCMPD01815519	Fixed
CR21974	23625141	MTM800 uses different TG in the location update demand compared to selected TG	CCMPD01816411	Fixed
CR21453	23432657	MTP850FuG MR5.14.3: Not possible to select Extra Zoom in CPS+	CCMPD01761387	Fixed
CR21641	23527049	Radio does not transmit if transmit request had been queued (PEI behaviour change)	CCMPD01793529	Immediate connection on TX grant

FRB	C3	Description	SR	Behaviour Change
	00000000	Time to read talkgroup information from PEI increased when DAIM is enabled	CCMPD01793531	Improved time for TGs reading
CR22059	23527011	Different PEI behaviour between MR5.11 and MR5.14	CCMPD01796523	Fixed
CR21931	23616006 23793817	Low battery warning is never cleared on MTM5400	CCMPD01809935	Warning is not posted after Voltage is back on valid level
	23440816	Radios Response to TG Affiliation Change	CCMPD01811868	See detailed description under the table
CR20506	23311724	MTM800E CRC error on PEI-PPP protocol	CCMPD01728577	Fixed
CR21048	23323044	MTP850 MR5.14: Behaviour change in the Start Monitoring Threshold Delta function	CCMPD01755928	Fixed
CR21715	23483969	GW indicates channel busy by yellow led although channel is free	CCMPD01811038	Fixed
CR17760	22707522	DTMF tones are not sending from MS	CCMPD01820427	Fixed
	23637737	Reset during gateway Operation MR10.6.3c	CCMPD01810066	Fixed
	23499638	MTM800E Control Head Car Radio Mute Output does not function	CCMPD01816327	Fixed
CR20257	23287409	Corrupted data in ATCMD output while RTS line change by TE	CCMPD01774689	Fixed
CR18258	22878486	MS doesn't re-attached to DGNA'd TG's with mode Attachment for next ITSI attach	CCMPD01835174	Fixed
CR21561	23237957	MTM800 doesn't terminate PPP connection correctly	CCMPD01837814	Fixed
	23304469	MTM800 FuG AT+CNUM? output delays and delayed/missing CRLF	CCMPD01724450	Fixed
CR20535	23329261	Double OK notification after ATH command	CCMPD01846948	Fixed

FRB	C3	Description	SR	Behaviour Change
	23435787 23421301	Intermittent behavior of Charging and iTM programming	CCMPD01758760	Fixed
CR22005	23518849	Some radios in the system are "Register-mode "in affiliation display	CCMPD01834033	Fixed
	23592161	MTM5400 won´t power up and frequently there are an issues to ready it by CPS PLUS	CCMPD01818296	Fixed
CR22359	23611181	MTP850Ex Split Screen issue	CCMPD01824581	Fixed
CR21931	23616006 23702072	Low battery warning is never cleared on MTM5400	CCMPD01832982	Fixed
	23624851	Scrambling Vector of all zeros is not used for color code zero	CCMPD01836407	Fixed
CR22124	23628691	RHINO MTP850S/FuG: Connected SAD earpiece Max Volume cannot be set	CCMPD01756987	Fixed
CR22443	23674292	Slow response of Tx noise filter	CCMPD01852224	Fixed
	23688458	ManDown Icon Covered by Alert type/Vibration Icon	CCMPD01840417	Fixed
CR22334	23689888 23708909	User Defined Language Text also in English	CCMPD01830877	Fixed
CR22335	23698311 23713913	MTM800FuG 'Unknown accry combination' after upgrade to MR10.6.9	CCMPD01839443	Fixed
CR22441	23699094	Monitoring Fails on Background Mode Gateway	CCMPD01840027	Fixed
CR22361	23707326	Radio ends up on wrong TG when making Non-Tactical EGC after DGNA Deassign	CCMPD01837511	Fixed
	23712268 23733051	Talkgroup Call without any Audio	CCMPD01843464	Fixed
	23721651	SwMi Initiated scanning is started even if Scanning is disabled in codeplug	CCMPD01847981	Fixed

FRB	C3	Description	SR	Behaviour Change
	23721719	All multiple remote control responses marked as last part	CCMPD01845118	Fixed
	23723957	MTM 800FuG - No Line_out	CCMPD01848915	Fixed
CR22396	23725342	MTP850 shows wrong TG names when listed through MMI options.	CCMPD01840324	Fixed
	23743418	Date/Time display lost on receipt of status.	CCMPD01846381	Fixed
	23745103	Talkgroup becomes free but no transmit 2nd time PTT held	CCMPD01849293	Fixed
	23751380	MTM5400 PI=138 unusable after upgrade to MR10.6.9	CCMPD01849602	Fixed
	23751786	Extra Zoom on/off toggle does not work after switching radio off	CCMPD01852292	Fixed
	23773097	MTM5400 - wrong font size for Danish letters	CCMPD01852273	Extra large font is only available for English and German
	23790821	D8.1 - MTM800E with Remote Control Head cannot be powered up through ignition sense	CCMPD01865005	NGCH Timer expiry change to 3 sec
	23827204	MTM5000 Series terminal powers down and does not restart after cranking	CCMPD01877966	On short (>250ms) voltage drop radio resets instead of turning off
CR21643	23492063	Sending radio shows message failed when using resend option to resend group SDS	CCMPD01826899	Fixed
CR22525	23733040	NETWORK ALIAS displayed is incorrect	CCMPD01847731	Fixed
CR22542	23732704	Occasional E2E transmissions with no audio	CCMPD01848021	Fixed
CR22615	23755962	MTM800E status via PEI fails in MR5.14.9 using Motorola syntax	CCMPD01858323	Fixed
CR20194	23287962	Helptext for remove cells after failed scanning is wrong in CPS	CCMPD01718037	Helptext corrected.

- **C3 Case resolved in CPSPlus and Release Packages.**

FRB	C3	SR	Headline	Behavior Change
	2377 8991	CCMPD0 1856817	C3:23778991 SDS ACK cannot be disabled in the TETRA CPS 6.1	Fields “Individual SDS L3 Status Ack” and “Group SDS L3 Status Ack” are ready only if customer upgrade to CPS6.1, the fix is to make them editable.
	2375 1786	CCMPD0 1855488	C3:23751786 Extra Zoom on/off toggle does not work after switching radio off	Once Extra Zoom is enabled, current settings for Font Level, Extended Status Icons and Large Idle Font will be saved. And Font Level, Extended Status Icons and Large Idle Font will be restored once Extra Zoom is disabled.
	2374 1819	CCMPD0 1854791	C3:23741819 - Error Message & Incorrect Import	When “TalkGroups -> DMO -> DMO Folders List -> Number of Talkgroups in the Range” is modified to less than the talkgroups, CPS will accept the change and warning message will propmpt ”New Range is insufficient to store all Talkgroups. Groups out of range were removed from this folder.”.
	2368 9899	CCMPD0 1839064	C3:23689899 Feature flag & Language Names Entirely in Uppercase Characters	Some CP fields name in German language should be written with the first character in uppercase and the following characters in lowercase
	2362 4851	CCMPD0 1836485	C3:23624851 - Scrambling Vector of all zeros is not used for colour code zero	Add new field “Mobility and System Parameters -> Mobility Parameters-> Scrambling vector for colour code 0”
CR210 76	2343 7226	CCMPD0 1762836	C3:23437226 - LKP RADIOS VS FULL KEY PAD RADIOS - INCONSISTENT DISPLAY SETUP IN CPS	Add GUI field “Group Setup->My Groups->New Folder” for LKP models.
	2327 3419	CCMPD0 1748295	C3:23273419 Missing and insufficient help text for mobile accessories	Integrate new OLH to fix some help text issue, node name “Transceiver Hands Free Mic Connected” was updated to “Transceiver Hands Free Mic Connected”.

2.5.1 Details of C3 Cases Resolved in MR10.6.

2.5.1.1 C3: 23548473 - Sending SDS to Own ISSI via PEI Fails in MR5.14.3c

User symptom: Customer upgraded MTM800E from MR5.14 to MR5.14.3c and having issue when trying to send an SDS to its own ISSI.
Resolution: Enable functionality for own ISSI
Products affected: ALL
SW releases affected: MR5.14.10, MR5.EOL.14.17, MR10.7

2.5.1.2 C3: 23603805 MTM800FuG Additional Character in Displayed OPTA

User symptom: Customer upgraded MTM800E from MR5.14 to MR5.14.3c and having issue when trying to send an SDS to its own ISSI.
Resolution: Delete last character
Products affected: MTM5000 Series / MTM800FuG
SW releases affected: MR10.6.10

2.5.1.3 C3: 23624822 - MTM800 FuG does not swich off, if no SIM card inserted [Gerät mit Zundungsplus ohne BO

User symptom: MTM800 FuG does not swich off on ignition off

Resolution: Radio switches off when ignition is off
Products affected: MTM5000 Series / MTM800FuG
SW releases affected: MR10.6.10

2.5.1.4 C3: 23580330-Zetron M390n can initiate an emergency calls even if the feature is disabled at codeplug

User symptom: Emergency via RC works when feature is disabled
Resolution: Emergency won't work when feature is disabled
Products affected: MTM5000 Series / MTM800FuG, MTP8xx
SW releases affected: MR10.6.10, MR5.14.10

2.5.1.5 C3: 23624876 - Permanent transmit when PTT is pressed in hangtime of Receive Only Announcement call

User symptom: Receive only folder with TG1 as ATG when making call to TG2 set to AAG of TG1 enters into permanent transmit (complex scenario, described inside SR CCMPD01810511)
Resolution: Radio doesn't enter constant transmit mode
Products affected: MTM800E, MTP8xx
SW releases affected: MR5.14.10

2.5.1.6 C3: 23625141 - MTM800 uses different TG in the location update demand compared to selected TG

User symptom: Radio resets
Resolution: Radio works fine
Products affected: MTM800, MTM800E
SW releases affected: MR5.14.10

2.5.1.7 C3: 23432657 - MTP850FuG MR5.14.3: Not possible to select Extra Zoom in CPS+

User symptom: Unable to select ExtraZoom in CPS
Resolution: ExtraZoom option not supported for BSI devices to accommodate OPTA length
Products affected: MTP8x0, MTP8x0E
SW releases affected: MR5.14.10

2.5.1.8 C3: 23527049 - Radio does not transmit if transmit request had been queued (PEI behaviour change)

User symptom: Radio doesn't wait few seconds on transmit with CARLS solution after TX grant
Resolution: Radio works like for 10.3 release – immediate connection on TX grant
Products affected: MTP8x0, MTM800FuG
SW releases affected: MR10.6.10

2.5.1.9 C3: 00000000 - Time to read talkgroup information from PEI increased when DAIM is enabled

User symptom: Time rised significantly from .3 release
Resolution: TG read time is ok
Products affected: MTM5x00/MTM800FuG
SW releases affected: MR10.6.10

2.5.1.10 C3: 23527011 - Different PEI behaviour between MR5.11 and MR5.14

User symptom: MS does not open MIC in case the FDPC is imitated via PEI on the MR10.6 (VOX disabled in CP)
Resolution: Radio works fine
Products affected: MTP8xx
SW releases affected: MR5.14.10

2.5.1.11 C3: 23626313 - C3:23616006 - Low battery warning is never cleared on MTM5400

User symptom: 'Low Battery' warning indication continues to be posted every 2 minutes.
Resolution: Warning is not posted after Voltage is back on valid Level
Products affected: MTM5000/MTM800FuG
SW releases affected: MR10.6.10

2.5.1.12 C3: 23440816 - Radios Response to TG Affiliation Change

User symptom: Issues with the output on the PEI interface when changing the talkgroup from Motobridge (via PEI AT command) the Teltronic SwMi sends a 'Temporary 1 detachment' for the detached talkgroup.
Resolution: Radio shall check GSSI and attach/detach this particular group from the radio;
Radio will have to remember which groups have been requested for attach / detach in case where everything is accepted and there is no "Group identity uplink/downlink" element in the acknowledge;
Products affected: All
SW releases affected: MR5.14.10/MR10.6.10

2.5.1.13 C3:23499638 MTM800E Control Head Car Radio Mute Output does not function

User symptom: Car radio mute output on Pin1 on DB25 connector on back head does not function
Resolution: Feature implementation is ported from MTM5400/MTM5500
Products affected: MTM800e
SW releases affected: MR5.14.10

2.5.1.14 C3:23483969 GW indicates channel busy by yellow led although channel is free

User symptom: The radio indicates channel busy with yellow led although it's free
Resolution: Reject out of context PDUs so that the GW remains in idle state.
Products affected: Gateway – MTM5000 Series / MTM800FuG
SW releases affected: MR10.6.10

2.5.1.15 C3: 23323044 - MTP850 MR5.14: Behaviour change in the Start Monitoring Threshold Delta function

User symptom: Radio is not able to roam to neighbor cells. When radio camp on specific cell it stops monitoring neighbors and hence is not able to roam.
Radio behaves that way regardless of the level of CP field "Start Monitoring Threshold Delta".
Resolution: Radio properly interprets CP field "Start Monitoring Threshold Delta", enabling monitoring of neighbor cells if necessary.
Products affected: ALL
SW releases affected: MR5.14.10 / MR10.6.10

2.5.1.16 C3:23624851 - Scrambling Vector of all zeros is not used for colour code zero

User symptom: when radio is trying to register to the site that has colour code set to zero it is using MCC and MNC to scramble packets and hence is not able to communicate with the site and to register to the site
Resolution: radio is using scrambling vector of all zeros in case of registering to the site with colour code zero.
Products affected: ALL
SW releases affected: MR5.14.10 / MR10.6.10

2.5.1.17 C3:23237957 - MTM800 doesn't terminate PPP connection correctly

User symptom: When the user's Packet Data System is sending data to an MS terminal at regular intervals and the RDT attempts to terminate the PPP link, the link fails to disconnect properly. If the RDT then attempts to reconnect the PPP link it fails to connect.
Resolution: New requirements were created and implementation which followed replaced the previous incomplete resolution.
Products affected: ALL
SW releases affected: MR5.14.10 / MR10.6.10

2.5.1.18 C3 23518849 Some radios in the system are "Register-mode "in affiliation display

User symptom: In a switchover scenario, radio stuck in the "register mode". The radis have a green led and can transmit but do not receive.
Resolution : fix switchover scenario.
Products affected: ALL
SW releases affected: MR5.14.10 / MR10.6.10

2.5.1.19 C3:23674292 Slow response of TX noise filter

User Symptom: When the user presses PTT and speaks immediately, the noise may not be reduced from the transmitted audio. It is relevant to very noisy conditions like noise from air-conditioning fans.
Resolution: Improve initial noise estimate in TX Noise Suppressor.

Products affected: MTM5000 series, MTM800FuG
SW releases affected: MR10.6.10

2.5.1.20 C3:23628691 RHINO MTP850S/FuG: Connected SAD earpiece Max Volume cannot be set

User Symptom: There are two symptoms:
a) RSM earpiece uses incorrect audio settings if it is configured as connected before connecting RSM to the radio including powering the radio on with RSM connected.
b) RSM earpiece uses incorrect audio settings till end of the call if it's configured as connected during call RSM earpiece connected settings does not work if they are set before connecting RSM to the radio.
Resolution: Radio works fine
Products affected: MTP850FuG, MTP850S
SW releases affected: MR5.14.10

2.5.1.21 C3:23611181 - Split Screen issue

User symptom: Screen is unreadable (looks like only a part of the display is rendered).
Resolution: Radio display is fine
Products affected: MTP850 Ex
SW releases affected: MR5.14.10

2.5.1.22 C3: 22878486 - MS doesn't re-attached to DGNA'd TG's with mode Attachement for next ITSI attach

User symptom: This customer is using an EADS network and the network is sending talkgroups to the radio via DGNA. the system sends the talkgroups to the radio with an attachement mode of 'Attached, attachment for next ITSI Attach required' and a priority CoU e.g. CoU 4 (Scanned - Normal Priority)
Resolution: Resolved by correcting CP
Products affected: ALL
SW releases affected: MR5.14.10 / MR10.6.10

2.5.1.23 C3: 23304469 MTM800 FuG AT+CNUM? output delays and delayed/missing CRLF

User symptom: When there are numerous dynamic talkgroups configured in the radio codeplug TMO talkgroup list, the radio takes a long time to respond to the AT+CNUM? command.
Resolution: new functionality added
Products affected: ALL
SW releases affected: MR5.14.10 / MR10.6.10

2.5.1.24 C3: 23329261 Double OK notification after ATH command

User symptom: Following the ATH command to clear a call there is a Double OK notofication on Cassidian SwMI
Resolution: Cassidian SwMI responses too slow, functionality changed in SW to fit SwMI behaviour
Products affected: ALL
SW releases affected: MR5.14.10 / MR10.6.10

2.5.1.25 C3: 23616006 - Low battery warning is never cleared on MTM5400

User symptom: Low battery warning is never cleared on MTM5400/MTM800FuG
Resolution: The 'Low Battery' warning indication continues to be posted every 2 minutes.
Products affected: MTM800FuG
SW releases affected: MR10.6.5

2.5.1.26 C3: 23688458 ManDown Icon Covered by Alert type/Vibration Icon

User symptom: After upgrade of MTP850FuG from MR5.14.3 to MR5.14.9 the Alert Type icon was found to cover the ManDown icon
Resolution: fixed
Products affected: MTP850S, MTP8x0Ex
SW releases affected: since MR5.14.10

2.5.1.27 C3: 23689888 User Defined Language Text also in English

User symptom: English language description (in white) overlapped by the translated description of the codeplug derived User Defined Language
Resolution: fixed
Products affected: MTM5000 Series / MTM800FuG
SW releases affected: since MR10.6.10

2.5.1.28 C3: 23713913 MTM800FuG 'Unknown accry combination' after upgrade to MR10.6.9

User symptom: MTM800FuG it unable to use the HSM1 or HSM2 with a speaker connected to the rear accessory connector.
Resolution: fixed
Products affected: MTM5000 Series / MTM800FuG
SW releases affected: MR10.6.10

2.5.1.29 C3: 23699094 Monitoring Fails on Background Mode Gateway

User symptom: Call Monitoring on a gateway in background mode appears to fail for the second item within the reservation time of a call
Resolution: fixed
Products affected: MTM5000 Series / MTM800FuG
SW releases affected: MR10.6.10

2.5.1.30 C3: 23707326 - Radio ends up on wrong TG when making Non-Tactical EGC after DGNA Deassign

User symptom: The customer reported that an MTP850 (R13.010.8416) that was configured with Non-tactical Emergency was seen to send an Emergency Alarm and Emergency call setup to a group other than the configured Non-Tactical talkgroup.
Resolution: Non-tactical was started during handling dgna deassign in background task and dgna task had wrong information about current selected talk group.
Products affected: ALL
SW releases affected: since MR10.6.10

2.5.1.31 C3: 23721651 SwMi Initiated scanning is started even if Scanning is disabled in codeplug

User symptom: C3: 23721651 SwMi Initiated scanning is started even if Scanning is disabled in codeplug
Resolution: fixed
Products affected: ALL
SW releases affected: MR5.14.10/MR10.6.10

2.5.1.32 C3: 23721719 All multiple remote control responses marked as last part

User symptom: When a remote control command generates a response in multiple parts all the parts are incorrectly marked as the last part in the sequence number field.
Resolution: Only that last part is marked as the last in the sequence number field.
Products affected: ALL
SW releases affected: since MR5.14.10/MR10.6.10

2.5.1.33 C3: 23723957- MTM 800FuG - No Line_out

User symptom: The customer reported that approx every other time the MTM800 FuG radio boots up there is no audio available on Pin 14 of the RAC
Resolution: fixed
Products affected: MTM5000 Series / MTM800FuG
SW releases affected: MR10.6.10

2.5.1.34 C3: 23725342 - MTP850 shows wrong TG names when listed through MMI options.

User symptom: Our Customer noticed that when they go through radio MMI Options -> TG by Folder -> RAPS Gavleb and when the list it downwards it appears that radio list same TG all the time
Resolution: fixed
Products affected: ALL
SW releases affected: MR5.14.10 / MR10.6.10

2.5.1.35 C3: 23733040 - NETWORK ALIAS displayed is incorrect

User symptom: The group name instead of network alias is displayed on the idle MMI.
Resolution: closed without fix
Products affected: ALL
SW releases affected: MR5.14.10 / MR10.6.10

2.5.1.36 C3: 23743418 Date/Time display lost on receipt of status.

User symptom: When a OPTA is configured with more than 12 digits, the OPTA display overflows into the next line of the MTP850FuG display and when a status is received, the status text overwrites the date/time on the display.
Resolution: Fixed in CPS at Codeplug -> Display Parameters -> Configurable Idle Screen
Products affected: ALL
SW releases affected: MR5.14.10 / MR10.6.10

2.5.1.37 C3: 23744870 MTP850EX MR5.14.3c PTTs on a Receive Only group

User symptom: After upgrade of the MTP850EX to the MR5.14.3c software it was found to be possible to transmit on a receive-only talkgroup.
Resolution: fixed prior to MR5.14.10
Products affected: ALL
SW releases affected: MR5.14.10 / MR10.6.10

2.5.1.38 C3: 23745103 Talkgroup becomes free but no transmit 2nd time PTT held

User symptom: An MTM800FuG is controlled by a Carls Typ3 controller (uses AT commands). After a talkgroup is newly occupied (by a MTP850) the MTM800FuG operator presses the PTT in order to transmit on the talkgroup as soon as it becomes free. The MTM800FuG displays 'Please wait' until the MTP850 user releases his PTT. Then the MTM800FuG correctly transmits and can speak on the talkgroup.
Resolution: Cassidian SwMI interaction, functionality changed in SW to fit SwMI behaviour
Products affected: MTM800FuG
SW releases affected: since MR10.6.9

2.5.1.39 C3: 23751380 MTM5400 PI=138 unuseable after upgrade to MR10.6.9

User symptom: After upgrade of a MTM5400 from MR10.6.3c to MR10.6.9 it was discovered that it was no longer possible to register a terminal equipment to the MTM5400 via the PEI for Protocol Identifier 138. Protocol Identifier 138 is used with a customer's concatenated text application for long text messages.
Resolution: Registering ""TE Only"" service profile for PI=138 has been enabled.
Products affected: MTM5000 Series / MTM800FuG
SW releases affected: MR10.6.10

2.5.1.40 C3: 23751786 Extra Zoom on/off toggle does not work after switching radio off

User symptom: Extra Zoom On/Off is programmed to the # key as a One Touch Button. This works as expected until the MTP850FuG is switched off with Extra Zoom on.
Resolution: remove restoring of saved values on startup
Products affected: ALL
SW releases affected: MR5.14.10 / MR10.6.10

2.5.1.41 C3: 23773097 - MTM5400 - wrong font size for Danish letters

User symptom: After upgrade from MR10.6.3c to MR10.6.9 the Danish letters Æ and Ø appear in too small font size compared to the rest of the text on the terminal display.
Resolution: disable biggest font for other languages
Products affected: ALL
SW releases affected: MR5.14.10 / MR10.6.10

2.5.1.42 C3: 23790821 HK - MTR Corporation Limited - D8.1 - MTM800E with Remote Control Head cannot be powered up through ignition sense

User symptom: Radio is not able to power up via Ignition pin or short button presses
Resolution: Timeout expiry for synchronizing with control head has been extended from 1 to 3 sec. That implies that solutions without CH (data radio) may power up around 2 seconds longer. Third party solutions vendors shall take it into consideration as well.

Products affected: MTM800E
SW releases affected: MR5.14.10

2.5.1.43 C3: 23827204 MTM5000 / MTM800FuG Series terminals power down and does not restart after cranking

User symptom: terminal installed in vehicles doesn't power up after cranking
Resolution: Stop all active services and reset (preserving all settings) if the power voltage falls below 9.7V for at least 250ms. After the reset radio monitors voltage level and delays entering application mode until voltage goes above 10.3V
Products affected: MTM800FuG Series / MTM5000 Series
SW releases affected: MR10.6.10

2.5.1.44 C3: 23492063 - Sending radio shows message failed when using resend option to resend group SDS

User symptom: Radio shows message failed, although it was delivered
Resolution: On re-send message from Outbox, MS shall check the target address type. If Group or ESN then delivery report shall always be "no report reply", otherwise for Private it shall follow the original request
Products affected: All
SW releases affected: MR10.6.10

2.5.1.45 C3: 23733040 - NETWORK ALIAS displayed is incorrect

User symptom: The group name instead of network alias is displayed on the idle MMI
Resolution: Closed without fix
Products affected: All
SW releases affected: MR5.14.10/MR10.6.10

2.5.1.46 C3: 23732704 - Occasional E2E transmissions with no audio

User symptom: No audio occasionally
Resolution: Closed without fix
Products affected: All
SW releases affected: MR5.14.10

2.5.1.47 C3: 23755962 - MTM800E status via PEI fails in MR5.14.9 using Motorola syntax

User symptom: No audio occasionally
Resolution: Closed without fix
Products affected: All
SW releases affected: MR5.14.10

2.6 Unresolved Problems / Known Limitations

CCMPD Reference	Headline	Details
CCMPD01848714	Bad attribute of tones CP field cause customer complaint	**Problem Description:** Cloning CP from radio which was in Covert Mode causes loss of tones settings. **Scenario:** Put radio into covert mode, power off, read CP, clone CP. Setup new radio with saved data. **Impact:** n/a **Workaround/Avoidance:** Make sure, radio is in default mode before cloning CP. **Recovery**: Radio is fully operational after writing new CP.

CCMPD Reference	Headline	Details
CCMPD01815375	[RESET]Radio falls in reset during makes/receives GC in specific SwMI configuration	**Problem Description:** Radio may reset in specific SwMI configurations and when performing stress test scenarios **Scenario:** Initial Settings: Zone Configuration Manager->Zone Settings Window->Configuration Tab-> 'Initial Transmissions' parameter set to non-default value greater than 4. Steps: Intense continuous PTT pressing for several seconds when radio is in idle or in group call hang time. Radio reset may eventually occur **Impact:** Several seconds of delay in service availability (radio recovery time) **Workaround/Avoidance:** Use default value of 'Initial Transmissions' parameter or avoid continuous intense PTT pressing. **Recovery:** Radio recovers automatically after reset and is fully operational
CCMPD01862209	[RANGE TESTS] Unstable Repeater in UCM configuration.	**Problem Description:** It has been observed that UCM version of repeater on Patriot-based portable radios (MTP850, MTP850Ex, MTH800) may be less stable in field usage in comparison to other SW versions. This includes gaps on call starts, delays in reception and handling calls, and in rare cases resets. It applies mainly to handling private calls with presence check sequence, and may be exposed more if DM-SCK encryption is additionally used. **Scenario:** Intensive usage of DM-REP in high distance/poor RSSI conditions. **Impact:** Stability and reliability for DM-REP with UCM E2E. **Workaround/Avoidance:** Don't use combination of all of the following features: DM-REP on UCM E2E, DM-SCK encryption, DMO individual calls with presence check. Avoid using DMO emergency alarm, as it is not supported by the Motorola repeater radios. **Recovery:** n/a

CCMPD Reference	Headline	Details
CCMPD01861660	[10.6.10] Radio displays 'No Group' after emergency non-tactical w/o attachment	**Problem Description**: "No group" on a screen, although it is attached to main group. **Scenario**: User starts radio with emergency button After ~2 seconds, end button twice (radio attached to main group, but didn't attached to always scanned group yet) MS ends up in "No group" on a screen, although it is attached to main group. **Workaround/Avoidance**: Don't end call with double pressing END button when radio is during registration **Recovery**: Wait some time (5-30 secs)
CCMPD01865199	[MR5.14.10] VOX doesn't work with fist mic connected to GCAI after power up NGCH	**Problem Description:** VOX doesn't work on fist mic connected to CH GCAI after power up. When user make another call everything works correctly . Problem seen In both calls Private and PABX. This happens in ca. 10%. **Impact:** VOX capability on accessories in particular configuration **Scenario:** Radio equipped with speaker and two fist microphones: "Fist Mic1" and "Fist Mic2" (e.g. GCAI Fist mic connected to the Control Head and TELCO Fist mic connected via junction box). After power up and receiving a call by pressing SEND button, it won't transmit to the other party. **Workaround/Avoidance:** Accept the call using PTT. **Recovery:** Press PTT if call was accepted by SEND button.
CCMPD01864431	[MR14.0][DMO,GW,DGNA] DGNA is not working on GW after power up	**Problem description:** DGNA auto-assign is not working on GW after power up (MS is not sending attachment to new assigned TG - manually accepted either) **Workaround/Avoidance:** The functionality of DGNA auto-assign is questionable in gateway mode. It's highly recommended not to use this functionality for gateway radios. In future releases, the radio behavior in this context is a subject to change. **Recovery:** n/a

CCMPD Reference	Headline	Details
CCMPD01838138, CCMPD01804512	USB connection loss or block	**Problem description:** For intensive usage of USB ports (e.g. for TEDS connection with MTM5000 radio as a modem) it may rarely happen that the USB connection will be lost or will become unresponsive. This may especially happen when there are significant temperature changes. This applies only to MTM5000 radios produced before Q3 2014. **Impact:** USB connection stability **Workaround/Avoidance:** Use newer MTM5000 radios or avoid exposing radios to wide temperature changes (e.g. from -20 C to heated environment when radio continuously transmit, when it can achieve +60 C). **Recovery:** Radio power-off and power-on.
CCMPD01862832	[TEDS] Radio entering SSPD while roaming between two TEDS supporting cells	**Problem description:** Radio may enter single slot packet data mode while roaming between two TEDS supporting sites. This implies the bandwith to be lower, and therefore the number of lost packets may increase as well. TEDS transmission will resume after subsequent channel change (new separate transmission is requested). **Impact:** TEDS in roaming scenarios, may be particularly disturbing for continuous transmission (streaming) **Workaround/avoidance:** Problem is less frequently reproducible if no air interface encryption is used. **Recovery:** Radio recovers on its own for the next transmission.
CCMPD01878887	[MR 10.6.9.b] Radio does not power up in emergency after reset caused by low voltage	**Problem description:** Radio will not power up in emergency mode if reset occurs in emergency mode due to low voltage (e.g. vehicle ignition) **Impact:** Emergency will not be preserved **Workaround/avoidance:** N/A **Recover:** Press emergency button after radio powers up.

2.7 Release Version Information (Release Name)

Refer to Section 2.4

2.7.1 CPS PLUS support

CPS PLUS Release: R06.20.09 PLATFORM P6.2

RPK: R06.10.63.00

CPS PLUS Version: 6.2

Depot **R06.10.63.00**

Customer **R06.10.63.00**

2.7.2 Codeplugs

The following CP structure should be used:

- MTM5400: **0405**
- MTM800FuG: **0405**
- NGCH/RECH/TSCH: **7400**

2.8 Software Distribution Location

Tetra Release Area Link
http://tetrareleasearea.comm.mot.com

CPS
http://cps.sc.mcel.mot.com/tetracpsrelease1/Gen4/Panda/CPS_Plus_6.2/R06.20.09.00_PLATFORM_P6.2/Tetra/

MR10.6.10 CPS Release Packet

http://cps.sc.mcel.mot.com/tetracpsrelease1/ReleasePackets/MR10.6.10/FW8626_R06106400/

2.8.1 For Customers

On Motorola Online: https://moleurope.mot-solutions.com/Member/ContentManagement/resourcecenter.asp

Resource Centre → All File Content Types → TETRA Terminals→ TETRA Terminal Updates→ MR5.14.10/MR10.6.10.

2.9 Limitations to use

2.9.1 Main limitations inherited from MR10.6.5 and applicable for MR10.6.10 are:

MTM5500/MTM800FUG ET: Software installation on the MTM5500 transceiver is not possible through the Control Head

MTM5500/MTM800FUG ET: No simultaneous display rendering in mixed dual configuration (RECH+TSCH)

Cloning shall be done from default mode only. Covert mode fields don't clone properly.

2.9.2 Upgrade from MR10.x to MR10.6.10.

During upgrade some critical software system components are updated and it is important the upgrade procedure is not interrupted or the radio can end up in a state only recoverable by service. Customers must ensure all programming cables and power supplies are securely connected. Once upgrade procedure is started it must not be interrupted until the CPS/iTM shows successful programming completed.

Note: Using CPS Plus, upgrading MTM5x00 series terminals via the control head front connector using cable HKN6184 (CABLE CH, PROGRAMMING, USB) from MR10.6.3, MR10.6.3b or MR10.6.3c to MR10.6.10 will take approximately 8 minutes.

The upgrade time, using CPS Plus, can be considerably reduced by upgrading the transceiver via the rear connector using cable PMKN4110A (USB Flash Cable), at the same time as control head is attached to the transceiver and is being upgraded via the front connector using cable HKN6184 (CABLE CH, PROGRAMMING, USB).

Refer to manuals for detailed instructions.

2.9.3 Alert tones in E2EE calls

Repeating Clear Alert and Repeating Muted Reception Alert tones are not supported for E2EE (UCM-M) calls, single alert is supported, CPS setting of single tones is supported.

2.9.4 Data Box with E2EE

Data Box models, with E2EE, can only be end-to-end keyed with control head connected.

2.10 Operation Notes

This section outlines all exceptions and defects known at the time of issue that are considered to have a customer impact. Any customer impacting exceptions are defined below:

- A defect or fault for which there is a valid and viable workaround but the lack of awareness of the workaround could have safety implications or render the product unusable.
- A temporary change in procedures is required to 'workaround' a defect or fault in order to maintain a feature or function.
- Cosmetic problems which may mislead users and cause unnecessary alarm or which are particularly distracting or annoying.

This section does not include:

- Anomalies observed during the System Integration phase of the release, which are not reproducible.
- Defects that cause performance degradation, which cannot be detected by the user.
- Cosmetic defects that are not listed above.
- Defects that will only manifest as faults after two or more consecutive low probability system faults have occurred.

Unless stated otherwise within the text of the exception/defect, a solution to each problem is being sought by the development group.

The following section outlines brief Operation Notes for respectively TETRA terminal and CPS PLUS.

2.10.1 Language Handling

MR10.6.5, on which MR10.6.9 is baselined, introduced the arrangement of language data being in both control head and transceiver; this is continued in MR10.6.10
MTM5000 series MR10.6.10 Software Radio Transceiver and Control Head both contain language data.

Two conditions must be met or '**Software Incompatible ver'** will be displayed and the radio will not operate:

1. Font sizes in the Terminal and the Control Head **must** match.
2. Languages in the MTM5000 series Transceiver **must** be the same as, or a subset of, the languages in the Control Head.

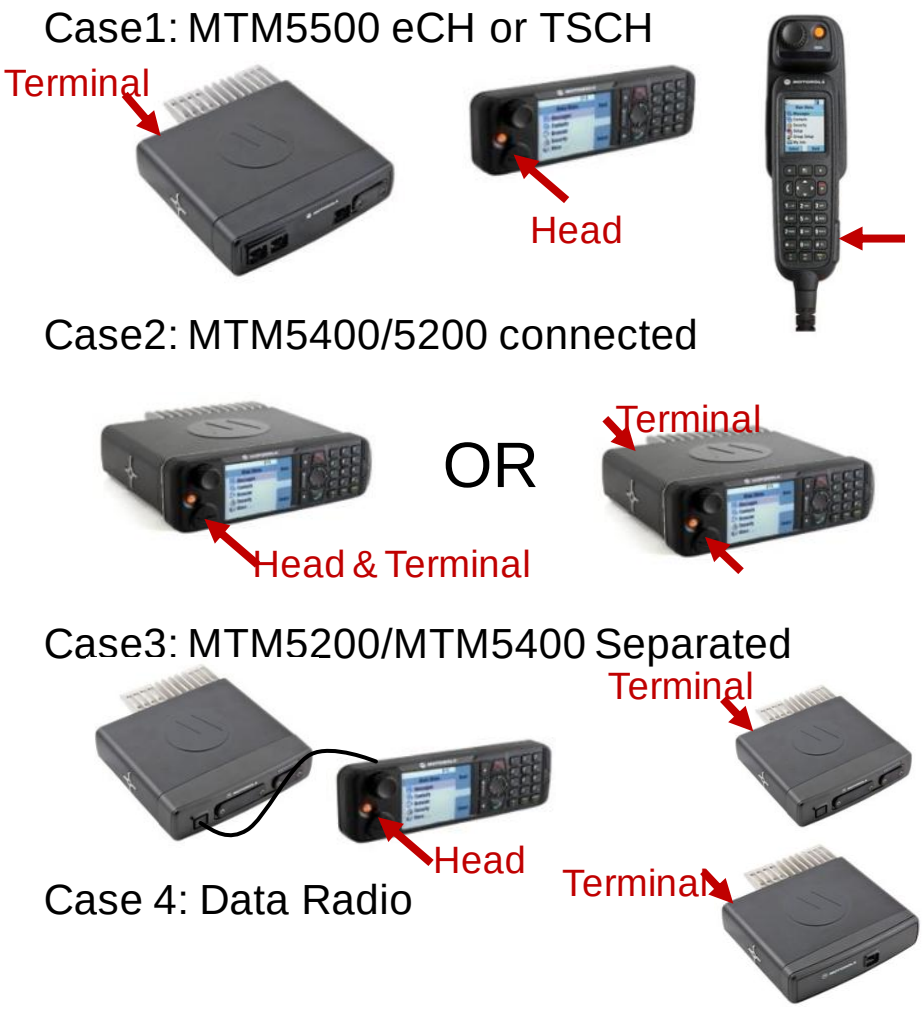
When configuring their Transceiver and Control heads, customers can select another language which must be installed in both the Transceiver and Control Head.

Language installation into the MTM5500 Transceiver has to be performed separately from the Ethernet Style or Telephone Style Control Head as in Case 1 below

If, as in Case 2, below the MTM5400 or MTM5200 Transceiver is connected to the control head, language installation can be performed via the control head.

When the control head is remote from the transceiver it is necessary to load the language data to the transceiver and control head separately, as shown in case 3 below.

For Terminals connected to Data control head as shown in Case 4 there is no language matching requirement.



2.10.1.1 Font Sizes

The following range of languages and font sizes may be installed in MTM5000 Series Control Head and Transceiver.

If Simplified Chinese or Traditional Chinese language is loaded only ‘Standard’ sized font of any other language may also be loaded.

Language	Standard Size	Zoom
Arabic	Yes	Yes
Catalan	Yes	Yes
Danish	Yes	Yes
Dutch	Yes	Yes
English	Yes	Yes
French	Yes	Yes

Language	Standard Size	Zoom
German	Yes	Yes
Hebrew	Yes	Yes
Italian	Yes	Yes
Korean	Yes	Yes
Lithuanian	Yes	Yes
Norwegian	Yes	Yes
Polish	Yes	Yes
Portuguese	Yes	Yes
Romanian	Yes	Yes
Russian	Yes	Yes
Simplified Chinese	Yes	n/a
Spanish	Yes	Yes
Swedish	Yes	Yes
Traditional Chinese	Yes	n/a

2.10.2 'Limited Mode' and 'Full Mode' AT Command Syntax Differences:

Command	Syntax in Limited Mode	Syntax in Full Mode
AT+CTOM	AT+CTOM=<AI mode>,[<unsolicited>]<CR>	AT+CTOM=<AI mode><CR>
AT+CTGS	AT+CTGS=[<group type>/<unsolicited>],[<selected GSSI/GTSI>] [,[<group type>], <scan GSSI/GTSI>] ... [,[<group type>], <scan GSSI/GTSI>] <CR>	AT+CTGS=[<group type>],<selected GSSI/GTSI> [,[<group type>],<scan GSSI/GTSI>] ... [,[<group type>],<scan GSSI/GTSI>]<CR>
AT+RCSCAN	AT+RCSCAN=<scanning owner><CR>	Not supported
AT+CTSCAN	Not require to be proceeded with setting Service Profile (+CTSP before) nor sending AT+RCSCAN=1 to take ownership of the scanning feature	Require to be proceeded with Service Profile first (+CTSP)
ATH	Service Profile (+CTSP) is not required to send to controlled MT first	Service Profile (+CTSP) is required to send to controlled MT first

Other differences:

Command	Syntax in Limited Mode	Syntax in Full Mode
AT+CREG	Only "read" mode is supported.	All modes: "set, read, test" are supported
AT+CSQ	Only "read" mode is supported	All modes: "set, read, test" are

Command	Syntax in Limited Mode	Syntax in Full Mode
		supported
AT+GPSPOS	Only “read” mode is supported	All modes: “set, read, test” are supported
AT+CLVL	Only “read” mode is supported	All modes: “set, read, test” are supported

2.10.3 CPS Plus 6.2 Cautions

2.10.3.1 CPS does not support USB 3.0

- USB 3.0 is not supported; please contact your IT support to disable USB3.0 on your PC.

2.10.3.2 CPS on Windows Vista/7

- Reboot is required on Windows Vista/7

After installing the CPS on Windows Vista/7, the OS must be rebooted to reflect the driver updates for CPS.

- Make sure the folder is R/W

On Windows Vista/7, when setting up the directory in CPS->Options, make sure the folder has R/W permission. If the folders are READ ONLY, then the CPS Codeplug Backup, Log and related CPS features that require writing access will not work.

2.10.3.3 Import TMO TG User data

MR5.11 CPS changed the TMO Talkgroup (TG) structure compared to MR5.8, MR5.9 and MR5.10 CPS. TMO TG user data exported from MR5.8, MR5.9 and MR5.10 CPS cannot be imported into MR5.11 and latest CPS. The user can use MR5.11 CPS open the MR5.8, MR5.9 and MR5.10 Codeplug, then export the user data again.

2.10.3.4 Downgrade cautions

Downgrade will only keep the tuning data and reset all other codeplug fields back to default. This functionality may be used ONLY on new radios from the factory. To rollback a radio to a previous version the “Tools->Restore Radio” shall be used instead of the downgrade. This functionality is used to downgrade both the phone software version and codeplug tuning data.

2.10.3.5 GSSI Caution

The Non-Tactical Emergency GSSI shall be added to TMO Talkgroup list (if not already there) before enabling the Enhanced Security licence.

2.10.3.6 Some fields need be re-configured after importing TMO Talkgraoups

Problem Description: After importing the User Data which contains the TMO talkgoups list, the value in One Touch Button, Scan List, Favourite Group, "Codeplug->TMO Voice Services->Emergency Options->Default TMO TG for Emergency DMO to TMO" and "User Application->Call-Out->Call-Out Fallback TG" need to be re-configured.
Impact: If one Touch Button is assigned to “Change TalkGroup” function, the field “Select TalkGroup” shall not be left as “unassigned”, otherwise if user enter to TMO Talkgroup List or TMO Folder List, then cannot leave the node and save codeplug.
Workaround/Avoidance: close the Codeplug and open again.

2.10.3.7 Cautions for features Auto-Recover

Problem Description: Please do not remove the battery when programming radio because it may cause CPS cannot recover the radio correctly.
Impact: Auto-recovery feature is available for MTH800, MTP850, MTM800E, MTP850 Ex/MTP810 Ex, MTP830/CEP400; it is not available for MTM5000 Series, MTM800, TCR1000, TOM100 or PDA.
Workaround/Avoidance: The USB cable must not be un-plugged during recovery; otherwise the radio cannot be recovered.

2.10.4 KNOWN ISSUES and WORKAROUNDS FOR ISSUES

2.10.5 Please do not uncheck the options in Tools->User Options-> Compress data.

Scenario:
Please do not change the default selection -'Tools->User Options->Compress data'. If it is un-checked, sometimes MTM800E radio cannot be programmed by Tetra CPS Plus

Impact: MTM800E cannot be programmed by Tetra CPS plus, the programming task may be interrupted.
Workaround/Avoidance: Keep the default value – Compress Data
Recovery: N/A

2.10.6 Transceiver can not be detected by CPS sometimes.

Scenario:
Get MTM800E radio enter to programming mode
Connect the radio to PC and open Tetra CPS plus
Check the Control head and transceiver status in Terminal Icon list
Sometimes the transceiver does not list in Terminal Icon list
Impact: CPS cannot detect transceiver.
Workaround/Avoidance: plug out and plug in the USB cable or turn off radio and turn on.
Recovery: plug out and plug in the USB cable again or turn off radio and turn on again.

2.10.7 Wrong display order in Codeplug Compare window

Scenario:
Prepare two codeplug
Disable [Display Parameters->Menu Configuration->Setup->Vibrate] in CP1
Compare this two CP
Click the row - [Display Parameters->Menu Configuration->Vibrate] and observe the synchronization in the Compare codeplug window
The cursor shall jump to field – Display Parameters->Menu Configuration->Vibrate**, but it is not – it jump to field,** Display Parameters->Menu Configuration-> Display Parameters->Menu Configuration->Security->Convert Mode->Vibrate

Impact: The display order is wrong, jump to a wrong field
Workaround/Avoidance: N/A
Recovery: N/A

2.10.8 Please turn off radio after MTM800 FUG/MTM5400/MTM800 FUG ET/MTM5500 upgrade/downgrade finish

Scenario:
After upgrade or downgrade MTM800 Fug/MTM5400/MTM800 FUG ET/MTM5500 radio, please firstly turn off radio before you do other programming task. Otherwise, the programming task will fail, for example, after upgrade finish and then do the read radio operation at once without turn off radio, the read operation will fail.

Impact: The task will fail if the radio does not turn off and turn on.
Workaround/Avoidance: Pleas turn off radio after the upgrade/downgrade operation finish.
Recovery: N/A

2.10.9 SR CCMPD01815761 [F][3] - 5 radio failed when setting password for 16 boromir at the same time

Scenario:
Program 16 Boromir or Aragorn radios at the same time by using CPS6.1.

Impact:
Some radios will be failed on programming.

Workaround/Avoidance:
For Boromir and Aragorn radio, it is recommended that up to 12 radios can be programmed at the same time on the same PC.

Recovery:
N/A

2.10.10 SR CCMPD01806152 [F][3] - The TR part of MTM5200/MTM5400/MTM800FuG is broken when MTM5200/MTM5400/MTM800FuG and MTM5500/MTM800FuG ET upgrade at the same time

Scenario:
Program MTM5200/MTM5400/MTM800FuG and MTM5500/MTM800FuG ET at the same time on the poor USB performance PC, *for exmple HP6000*.

Impact:
The programming may fail.

Workaround/Avoidance:
Don't use a poor USB performance PC, like HP6000, for radio programming.

Recovery:
N/A

2.10.11 Cannot upgrade previous x64bit CPS to CPS6.1 or future releases

Scenario:
Previous x64bit CPS has been installed on PC, customer expects to get x64bit CPS6.1 by upgrading installation.

Impact:
CPS6.1 only provides the x32bit version. Then customer cannot upgrade previous x64bit CPS to CPS6.1.

Workaround/Avoidance:
1. If the customer has fully installation package, the customer can do fully installation to get CPS6.1.
2. If the customer has only upgrade installation package, the customer has to uninstall previous x64 bit CPS and install x32bit previous CPS. Then upgrade CPS to 6.1.

Recovery:
N/A

2.10.12 SR CCMPD01856114 [F][3] – [Headline] Enhance Invalid status in AB List

Scenario:
1. Enable [Address Bundle],
2. Enable [TalkGroups -> TMO -> TMO Address Bundle List -> Status],
3. Input a [Address Bundle Name],
4. Check the [TMO Address Bundle List] and [TalkGroups]
5. Disable [Address Bundle],
6. Check the invalid fields.

The invalid fields will not be prompted in the "invalid view" and there is no invalid icon on the left tree view on GUI.

Impact:
1. This issue was found in iTM6.1 and iTM6.2.
2. The “Address Bundle” feature was affected.
3. CPS will prompt error message when the end user save the codelug with invalid fields or attempt to write the codeplug into radio.

Workaround/Avoidance:
If the end user changes codeplug fields on ”Address Bundle” feature, the invalid fields should be checkd on the ”Address Bundle” feature page in CPS. As ususally, the invalid fields will be marked as red on the right view.

Recovery:
N/A

2.10.13 SR CCMPD01866839 [F][3] – [Headline]USB Driver tool no response if upgrade install from CPS 6.0.2

Scenario:
If ” USB Driver tool” does not work in your current installed CPS, after upgrade install CPS to 6.2, the Tool does not work either.
Impact:
Then ”USB Driver tool” may not work
Workaround/Avoidance:
Uninstall CPS and re-install the P6.2 CPS again.

Recovery:
N/A

2.11 CPS Behaviour Changes Introduced By Defect Fix

2.11.1 SR CCMPD01843936 - [P6.2] CPS may popup warning message when power off radio

Scenario:
If user clicks ”turn off radio” button on CPS, CPS may popup warning message saying failed to power off radio, but radio has been powered off.
Impact:
CPS will not prompt any warning message during radio turn-off, one log will be added into CPS task manager after turn off radio whatever it is successful or failed.

2.11.2 SR CCMPD01832390 - MR10.6.10:Remove 15 maxmimum limition of language enabled in CPS

Scenario:
User can only enable less than 15 languages under ”Language Parameters -> Language Settings” befor MR5.14.10/MR10.6.10.
Impact:
This limitation has been removed from MR5.14.10/MR10.6.10. But it doesn’t mean user can write all luangages into radio. How many language can be written into radio depends on the language flash pack size and radio language memory size.

2.11.3 OPERATIONAL LIMITATIONS

2.11.3.1 Downgrade

Downgrade will only keep the tuning data and reset all other codeplug fields back to default**.** This functionality may be used ONLY on new radios from the factory. For rollback a radio to a previous version the “Tools->Restore Radio” shall be used instead of the downgrade. For how to use the Restore Radio, please refers to the CPS Online help.

2.11.3.2 Downgrade

Downgrade will only keep the tuning data and reset all other codeplug fields back to default**.** This functionality may be used ONLY on new radios from the factory. For rollback a radio to a previous version the “Tools-

>Restore Radio" shall be used instead of the downgrade. For how to use the Restore Radio, please refers to the CPS Online help.

2.11.4 USERS HOW-TOS

How to re-install the CPS Plus (not for the first time):

A) For Customer CPS Plus:

1. Run Setup.exe;
2. The different dialog will appeared according whether the computer has installed CPS Plus before:
    a. If no any CPS Plus was installed, then installation program directly goes into the first installation welcome dialog;
    b. If a lower CPS Plus version was installed, then installation program will ask whether the customer to upgrade the existed version;
    c. If a same CPS Plus version was installed, then installation program will prompt the following installation type:
        i. Modify
        ii. Repair
        iii. Remove
    d. If a higher CPS Plus version was installed, then installation program will reject to run.

B) For Depot CPS Plus:

1. Run Setup.exe;
2. If the computer doesn't have .Net 3.5 SP1 framework installed, then the CPS will guide to the Microsoft download website to download and install the .Net framework;
3. The different dialog will appeared according whether the computer has installed CPS Plus before:
    a. If no any CPS Plus was installed, then installation program directly goes into the first installation welcome dialog;
    b. If a lower CPS Plus version was installed, then installation program will ask whether the customer to upgrade the existed version;
    c. If a same CPS Plus version was installed, then installation program will prompt the following installation type:
        i. Modify
        ii. Repair
        iii. Remove
    d. If a higher CPS Plus version was installed, then installation program will reject to run.

How to start working with the CPS Plus:

- With dongle
- The Depot CPS is protected by the hard key.
- Different CPS modes require different hard keys to operate.

2.11.5 KVL

- No new operation notes.

2.12 New Terminal Features

To supplement the summarised information in sections 1.1 may find the following information useful.

- No additional operation notes.

2.13 TIB (Technical Information Bulletin)

Technical Information Bulletins (TIBs) provide important updates on Motorola products', including upgrades, options and revisions, as well as alerts to potential problems and workarounds.

To gain access to TIBs please use the process described in section 2.13.1 below. Once you have been granted access, to view TIBs please log into the TIB Database via MOL (https://emeaonline.motorola.com/). The TIBs can then be accessed through the icon Resource Center / Technical Information Bulletins.

2.13.1 Requirements for Technical Information Bulletin (TIB) Access via MOL

- 3 Steps you need to follow before you get started -
Step 1:
Identify the person(s) within your company's staff that need TIB access.
Step 2:
If not already done so create an **individual** MOL User ID for the above identified person(s) and check the "Access TIB" permissions in the individual user profile.

Note: This is done by your company's MOL administrator.

Step 3:
Send an Email to the TIB Administration Team, Mr. Juergen Feick,
Juergen.Feick@motorolasolutions.com, c.c.: **dmeredi1@motorolasolutions.com**,
with the following information:
• Your Company name
• Your Customer number
• The full name(s) of the individuals requiring TIB Access (see Step 1 above)
• The individual MOL user ID(s) of the above (see Step 2 above)
Once the TIB Access has been configured you will receive a notification via Email.
For any questions related to the above steps please contact your Sales Representative or Juergen Feick, Email: Juergen.Feick@motorolasolutions.com,
Tel.: +49 6126 9576 326

2.14 User manuals

User guides may be found at Motorola online (https://moleurope.mot.com/Login.aspx). Having logged in they may be found at the following paths:

2.14.1 Resource Centre > TETRA Terminals > TETRA Generic Literature > Marketing Material

Specification Sheets
Brochures
Presentations
Accessories Catalogue

2.14.2 Resource Centre > TETRA Terminals > TETRA Generic Literature > Generic User Documentation

CPS Start-up Guides
Product Information Manual
Hardware / Software Cross Reference Matrix
Software release Matrix

2.14.3 Resource Centre > TETRA Terminals > Portable Radios > [specific model] > Manuals

Feature User Guides
Quick Start Guides
Service Manuals

2.14.4 Resource Centre > TETRA Terminals > Mobile Radios > [specific model] > Manuals

Feature User Guides
Quick Start Guides
Service Manuals

The features introduced in MR10.6.10 are detailed in the Feature User Guides

2.15 Features removed in this Release

None.

3 ACCESSORIES

All existing accessories (refer to section 0) will be certified with MR10.6.10.

3.1 Accessories being newly Certified with MR10.6.10

none

4 Annex – Software enablement kit

With MR5.3 a software Selling mechanism was introduced. This same mechanism applies for MR10.6.10. The chosen approach is a dongle with counters for each one of the features requiring enablement

The features are enabled at the same time the user programs the radio - in one operation

- A dongle is connected to the PC which is used to configure the terminal
- The dongle has a counter for each of the features
- The dongle counters are ”charged” as per what the customer has ordered/purchased (e.g. WAP in 100 terminals)
- Every time a feature is enabled in a terminal the dongle counter is decreased for the feature in question

Software Enablement - Example

The following order is entered
- 20 radios
- 10 GPS software options
- 20 ENABLE CELL SELECT BY TALKGROUP software options

This order results in
- 20 radios delivered
- 1 dongle delivered with two counters set to:
  - 10 GPS
  - 20 ENABLE CELL SELECT BY TALKGROUP

The CPS will not allow additional radios to be enabled with GPS nor ENABLE CELL SELECT BY TALKGROUP (unless further SW options are ordered)

5 Annex – CPS Upgrade

Refer to section 2.9.7 Users How-Tos

6 Annex – MR10.6.10 CPS Plus Operating Requirements

6.1.1 Computer Hardware

For single radio programming:
Processor faster than of 2 GHz single processor
Two USB 2.0 ports
1G byte RAM
20 GB of free HD space
Drive for reading CDs
Display resolution of minimum 1024x768

For multiple radio programming:
Processor fast than 2GHz dual core processor
Two USB 2.0 ports
2G byte RAM
20GB of free hard disk space
Driver for reading CDs
Display resolution of 1280x1024

CPS Plus supports the following operating system:

- Windows XP Professional x32 Edition Service Pack 3.
- Windows Vista Business x32 edition, with SP2.
- Windows Vista Ultimate x32, Service Pack 2.
- Windows 7 Professional x86/x64 edition, with SP1.
- Windows 7 Ultimate x86/x64, with SP1.

- **Notes**

- For security of data integrity, we recommend that CPS must run in completely clean PC. The programming PC is not recommended to connect to internet and install other applications.

- CPS must be installed by logging in with an account in Administrators Group. After installed the CPS can run under the Power User Group in Windows XP or User Group in Windows Vista and Windows 7.

- Virtual COM Ports are not supported (e.g. the Virtual Comp port created for Bluetooth Device). Go to CPS->Tools->Options->Communications->Serial->Working Ports, uncheck all the virtual ports and only leave the physical COM port.

- For multi-programming through USB, the recommended maximum number of Portable radios which can be programmed simultaneously is **12** units. The recommended USB Hub is Belkin (Belkin F5U234zh 4 Ports and Belkin F5U237zhAPL-S 7Ports)

- The recommended maximum number of Mobile radios which can be programmed simultaneously is **4** units. The recommended USB Hub is Belkin(Belkin F5U234zh **4** Ports and Belkin F5U237zhAPL-S 7Ports)

The following brand PCs have been tested and work well with Tetra Customer CPS Plus:

Desktop/Laptop	Model
HP laptop	8510w
HP laptop	6910P
HP desktop	Dx6120st
HP desktop	Dc5800
Dell Desktop	GX620
Dell Desktop	GX280
HP Desktop	HP6000
HP Desktop	HP6200

7 Annex – CPS Plus User Data Manual.

7.1 CPS Plus User Data File Format

The CPS Plus User Data file is in XML format, and it contains the Microsoft Excel header so that it can be opened and edited by the Microsoft Excel 2003/2007/2010.

7.2 CPS Plus User Data Content Format

The CPS Plus User Data content (the content seen in the Excel, no the raw file content format) is divided into two parts:
a. Metadata part;

b. Data part.

7.3 Metadata Part Format

The metadata part has the following content:
CallListNumber <number of the exported list nodes>
CodeplugVersion <exported codeplug version>
ModelNumber <exported radio model number>
LanguageID <languageID, the format shall be [two character language code]-[country code]>
An example of the metadata part is:
CallListNumber 95
CodeplugVersion 7365
ModelNumber H60UCN6TZ5ANuni
LanguageID en-US
When importing a user data to a codeplug/profile, the CPS will check the codeplug version, model number and the language ID. If the language ID in the user data is not the same as the target CPS's MMI language, the CPS will reject to importing. And if the user data's codeplug version and model number doesn't match the target codeplug/profile's codeplug and model number, the CPS will prompt a warning message to the customer to identify that the incompatible data may exist, and the customer can choose whether to continue the importing or abort it.

7.4 Data Part Format

The data part contains all exported nodes' data and it has the following format pattern:
<Node1 section>
<Node2 section>
…
<NodeN section>
And each section has the following format:
NodeNumber<Node ID>:<Node GUI full path>
<Column1 header name> <Column2 header name> … <ColumnM header name>
<Cell (1, 1) value> <Cell (1, 2) value> … <Cell (1, M) value>
<Cell (2, 1) value> <Cell (2, 2) value> … <Cell (2, M) value>
…
<Cell (N, 1) value> <Cell (N, 2) value> … <Cell (N, M) value>
End of Section Data
The <Cell (x, y) value> means the displayed value at cell with row x and column y in the CPS's right panel (data panel).
The following is the example of data part format:
NodeNumber1808:DMO Parameters -> DMO MNI Partnership List
Country Code Network Code
0 0
0 0
0 0
0 0
0 0
0 0
0 0
0 0

End of Section Data
NodeNumber52:TalkGroups -> TMO -> TMO Scan Lists -> Scan List17 -> Attributes
Field Name Field Value
Name Scan List17
Status True
End of Section Data

7.5 User Data Constraints Validation

The CPS Plus will add simple data constraints to the exported user data file. These constraints can be recognized by the Excel and will help the customer to input valid value when editing the user data in the Excel software. The available constraints are:
1. If a field is a numeric field, then the CPS will put the value range constraint to it in the user data file;

2. If a field is a dropdown list field, then the CPS will put the make it also a dropdown list in the user data file.

Note: Because the constraints in the user data are just simple constraint so it's looser than CPS's full constrains, which means that the customer also need to check the codeplug/profile field's value after the user data get imported.

8 Annex - System Version

The TETRA terminals with MR5.14.10 Software were tested using the following infrastructure:

Dimetra SR-6.2	Component	Version	Remarks
SwMI	SW	R6.2	
		- NM - R17.01.00.02 + patch R17.02.06.05	
		- ATR/STM - DSTM-06.02.00.19 + DSTM_PATCH-06.02.02.13 + DSTM_PATCH-06.02.02.14	
		- ZC - R06.02.73.07	
		- NMT - DMNM-R17.02.06.04	
		- PDR - R06.02.03_CPX	
		- SDR - R06.02.10	
SC		R06.42.86	
BRC		R06.22.48 (TEA2)	
AIE	**Component**	**Version**	**Remarks**
PrC	App	None	Provisioning Centre
	Database	None	
AuC	App	R06.02.02.07(App)	Authentication Centre
	Database	R06.02.02.07(DB)	
CC	CCC	0302	Crypto Card
	CE	0502	
KVL	SW	R04.01.24	

Dimetra SR-7.1	Component	Version	Remarks
SwMI	SW	R7.1	
		- NM - R71.00.05.07 + DMNM_PATCH-R71.01.10.05	
		- ATR/STM - DSTM-07.01.10.18_X86 + DSTM_PATCH-07.01.00.27	

Dimetra SR-7.1	Component	Version	Remarks
		- ZC - R07.01.61.03	
		- NMT – DMNM-PATCH-R71.01.10.03	
		- PDR - R07.01.12	
		- SDR - R07.01.05	
SC		R07.31.32	
BRC		R07.31.29 (TEA3)	
AIE	Component	Version	Remarks
PrC	App	None	Provisioning Centre
	Database	None	
AuC	App	R07.01.01.07(App)	Authentication Centre
	Database	R07.01.01.07(DB)	
CC	CCC	0302	Crypto Card
	CE	0502	
KVL	SW	R04.01.24	

Dimetra SR-8.2	Component	Version	Remarks
SwMI	SW	R8.2	
		- NM – R82.00.04.03	
		- ATR/STM - DSTM-08.02.00.04	
		- ZC - R08.01.10.03	
		- NMT – R82.00.04.03	
		- PDR - R08.02.02	
		- SDR - R08.02.01	
SC		R08.42.18	
BRC		R08.22.09 (TEA2)	
AIE	Component	Version	Remarks
PrC	App	R08.22.00.09	Provisioning Centre
	Database	R08.22.00.09	
AuC	App	R08.22.00.09	Authentication Centre
	Database	R08.22.00.09	
CryptR2		R01.01.03	Crypto Device
KVL	SW	R04.01.24	

Cassidian system used in the testing:

- Release 6.0 SCD2.0
- Release 5.5 – during test slots in ZPL lab Berlin

9 Annex - Previous Releases

The current version of this software release Matrix may be found on Motorola Online at:
Resource Centre > TETRA Terminals > TETRA Generic Literature > Generic User Documentation

10 Annex - Previous Accessories

MR10.6.10 is certified with the following list of accessories which have been previously ship accepted with earlier releases:

MTM5400	MTM800FUG	MTM5500	MTM800FUGET	MTM5200	Accessory
x	x	x	x	x	GMAE4253_ 380 - 400 MHz Antenna Glass Mount
x	x	x	x	x	GMAE4254_ 410 - 430 MHz Antenna Glass Mount
x	x	x	x	x	GMAE4255_ 380 - 430 MHz Antenna Panel Mount
x	x	x	x	x	GMAE4256_ 380 - 400 MHz Antenna Magnetic Mount
x	x	x	x	x	GMAE4257_ 410 - 430 MHz Antenna Magnetic Mount
x	x	x	x	x	GMAE4258_ 380 - 400 MHz Antenna Covert
x	x	x	x	x	GMAE4259_ 410 - 430 MHz Antenna Covert
x	x	x	x	x	GMAE4260_ 380 - 400 MHz Antenna Low Profile
x	x	x	x	x	GMAE4261_ 410 - 430 MHz Antenna Low Profile
x	x	x	x	x	GMAE4262_ 380 - 400 MHz Antenna Wall Mount
x	x	x	x	x	GMAE4263_ 410 - 430 MHz Antenna Wall Mount
x	x	x	x	x	GMAE4266_ 380 - 400 MHz Antenna Motorcycle
x	x	x	x	x	GMAE4267_ 410 - 430 MHz Antenna Motorcycle
x	x	x	x	x	GMLN4276_ all Antenna Mount Panel/Roof
x	x	x	x	x	GMLN4277_ all Antenna Mount Panel/Roof
x	x	x	x	x	GMLN4278_ all Antenna Mount Magnetic
x	x	x	x	x	GMAE4281_ 380 - 430 MHz Antenna Whip - Flexible Hinged
x	x	x	x	x	GMAE4283_ 410 - 430 MHz Antenna Whip – Hinged
x	x	x	x	x	GMAE4284_ 380 - 430 MHz Antenna Whip – Hinged
x	x	x	x	x	GMAE4507_ all Combined Antenna Tetra 380 -430
x	x	x	x	x	GMAG4253_ all GPS Antenna, Panel Mount with
x	x	x	x	x	GMAG4254_ all GPS Antenna, Magnetic Mount with
x	x	x	x	x	PMKN4114_ all GPS Adaptor, for use with
x	x	x	x	x	PMKN4110_ all USB Programming Cable (Terminal Rear
x	x	x	x	x	PMKN4104_ all Active Data Cable
x	x	x	x	x	HKN6184_ all USB Programming Cable (Mobile
x	x	x	x	x	NTN7373_ all Linecord US (3060665A04) Packaged
x	x	x	x	x	NTN7374_ all Linecord Euro (3060665A05) Packaged
x	x	x	x	x	NTN7375_ all Linecord UK (3002120F02) Packaged
x	x	x	x	x	GKN6266_ all Power Cable (Power Supply to Desktop

MTM5400	MTM800FUG	MTM5500	MTM800FUGET	MTM5200	Accessory
x	x	x	x	x	RKN4077_ all 3 m Remote Mount Cable
x	x	x	x	x	RKN4078_ all 5 m Remote Mount Cable
x	x	x	x	x	RKN4079_ all 7 m Remote Mount Cable
x	x	x	x	x	PMKN4020_ all 10 m Remote Mount Cable
x	x	x	x	x	PMKN4029_ all 2.3 m Accessories Expansion Cable
x	x	x	x	x	PMKN4030_ all 2.3 m M/C Mount Telco Cable
x	x	x	x	x	PMKN4056_ all 4 m Accessories Expansion Cable
x	x	x	x	x	GKN6270_ all 12 V Power Cable to Battery
x	x	x	x	x	GKN6274_ all 12V Power Cable to Battery,
x	x	x	x	x	PMKN4120_ all Ignition Sense Cable
x	x	x	x	x	HLN7016_ all Impress Telephone Style Handset Kit
x	x	x	x	x	HLN7016ASP01 all Impres Telephone Style Handset with
x	x	x	x	x	NNTN7232_ all Kit, Telephone Handset Bracket
x	x	x	x	x	NNTN7214_ all Kit, Telephone Handset Hardware
x	x	x	x	x	PMLN5093_ all DIN Trunnion for Enhanced Control
x	x	x	x	x	PMLN4912_ all Standard Remote Mount Trunnion Kit
x	x	x	x	x	PMLN5092_ all Trunnion for Enhanced M/C Control
x	x	x	x	x	PMLN5072_ all Accessory Connector Kit - Radio Rear
x	x	x	x	x	GLN7318_ all Desktop Tray without Loudspeaker
x	x	x	x	x	HPN4007C all Desktop Power Supply
x	x	x	x	x	GPN6145_ all Desktop Power Supply
x	x	x	x	x	GMLN5091_ all External Alarm Relay (PTO Kit that
x	x	x	x	x	GLN7317_ all High Profile Mounting Trunnion
x	x	x	x	x	RLN4779_ all Key Lock Mounting Kit
x	x	x	x	x	GLN7324_ all Low Profile Mounting Trunnion
x	x	x	x	x	PMLN5094_ all Mounting Frame to Install Transceiver in
x	x	x	x	x	GMLN5089_ all Junction Box (replaces GMLN3002)
x	x	x	x	x	HLN9457_ all Accessory Connector Kit (16-pin
x	x	x	x	x	GKN6272_ all External Alarm Relay
x	x	x	x	x	GMUN1006_ all Telco Telephone-Style Handset
x	x	x	x	x	GMUN1006BASP01 (sell trhough GMOI only) all Telco Telephone-Style Handset with
x	x	x	x	x	GMSN4078_ all Compact External Speaker 5 Watts

MTM5400	MTM800FUG	MTM5500	MTM800FUGET	MTM5200	Accessory
x	x	x	x	x	GMSN4066_ all 13 watts Speaker
x	x	x	x	x	GMMN4063_ all Heavy Duty Fist Microphone (Telco
x	x	x	x	x	RLN4836AR all External PTT with Emergency
x	x	x	x	x	RLN4858_ all Gooseneck (16-pin Connector)
x	x	x	x	x	RLN4857_ all Pushbutton (16-pin Connector)
x	x	x	x	x	PMKN4103_ all 2 m Transceiver to Junction Box Cable
x	x	x	x	x	PMKN4102_ all 4 m Transceiver to Junction Box Cable
x	x	x	x	x	PMKN4101_ all 6 m Transceiver to Junction Box Cable
x	x	x	x	x	GMKN4084_ all Speaker Extension Cable, for use with
x	x	x	x	x	GMSN4078_ all Compact External Speaker 5 Watts
x	x	x	x	x	RSN4002_ all External Speaker 13 watts
x	x	x	x	x	RSN4004_ all External Speaker 5 watts
x	x	x	x	x	PMKN4119 all Loudspeaker Extension Cable
x	x	x	x	x	RSN4005_ all Desktop Tray with Loudspeaker
x	x	x	x	x	RMN5106_ all Desktop Microphone
x	x	x	x	x	RMN5107_ all Compact Fist Microphone
x	x	x	x	x	RMN5111_ all Heavy Duty Microphone
x	x	x	x	x	RMN5054_ all Impres Smart Visor Microphone
x	x	x	x	x	PMMN4070_ all BMI Hearer Speaker Microphone
x	x	x	x	x	PMWN4009_ all Enhanced Control Head, Roman
x	x	x	x	x	PMWN4010_ all Enhanced Control Head, Chinese
x	x	x	x	x	PMWN4011_ all Enhanced Control Head, Korean
x	x	x	x	x	PMWN4012_ all Enhanced Control Head, Arabic
x	x	x	x	x	PMWN4013_ all Enhanced Control Head, Taiwanese
x	x	x	x	x	PMWN4014_ all Enhanced Control Head, Cyrillic
x	x	x	x	x	PMWN4015_ all Enhanced Control Head, Hungarian
x	x	x	x	x	PMWN4016_ all Enhanced Control Head, Hebrew
x	x	x	x	x	PMWN4017_ all Remote Mount Enhanced Control Head,
x	x	x	x	x	PMWN4018_ all Remote Mount Enhanced Control Head,
x	x	x	x	x	PMWN4019_ all Remote Mount Enhanced Control Head,
x	x	x	x	x	PMWN4020_ all Remote Mount Enhanced Control Head,
x	x	x	x	x	PMWN4021_ all Remote Mount Enhanced Control Head,
x	x	x	x	x	PMWN4022_ all Remote Mount Enhanced Control Head,
x	x	x	x	x	PMWN4023_ all Remote Mount Enhanced Control Head,

MTM5400	MTM800FUG	MTM5500	MTM800FUGET	MTM5200	Accessory
x	x	x	x	x	RLN4836AR all External PTT with Emergency
x	x	x	x	x	RLN4858_ all Gooseneck (16-pin Connector)
x	x	x	x	x	RLN4857_ all Pushbutton (16-pin Connector)
x	x	x	x	x	RLN5926_ all Pushbutton
x	x	x	x	x	PMLN4908_ all Data Expansion Control Head
x	x	x	x	x	PMLN4904_ all Remote Head
x	x	x	x	x	MDHLN7016A – Impress Telephone Style Handset Kit
	x				MDHLN7016ASP02_(sell through GMOI only – tested by customer project team) Impress PH-Handset Mid PTT Neutrik
x	x	x	x	x	GMMN4065C_Visor Mounted Microphone
	x				PMMN4070A_(sell through GMOI only) MTM800FuG Mob Hearer Speaker Mic
x	x	x	x	x	PMMN4086A_(sell through GMOI only) Hearer Spkr Mic with Jack Vol C & Emer
x	x	x	x	x	MDRLN4941 Rx only earpiece with translucent tube
x	x	x	x	x	MDRLN4885B earbud with 3.5mm
x		x	x	x	PMMN4086A HSMII Hearer Speaker Mic
x	x	x	x	x	MDHLN7016A CGAI handset
x		x	x	x	MDHLN7016ASP01 GCAI handset middle PTT

10.1 List of ship accepted 3rd party products supported by MR10.6.10

MTM800FUG	MTM800FUGET	MTM5200	Accessory	Comments
x	x	x	GMLN5246A SIM RDR2 W/ SERIAL IF	Known as Hund SIM reader with IP54 (similar to GMLN5100A).
x	x	x	GMLN5101A SIM CARD HOUSING	
x	x	x	WALN5079A Transportable - MTM SIM ready Fully Equipped	To be discussed if the radio SW is fully tested with all accy's this test is probably not required, because this is just the radio built in a suitcase
x	x	x	68015000917 VRC2012 serial number certificate	VRC2012 is a console program which runs on a PC. SW and standard USB

MTM800FUG	MTM800FUGET	MTM5200	Accessory	Comments
				programming cable and runs of the PC.
x	x	x	GMDN4046B CMA882-1 STANDARD HWR10	
x	x	x	GMDN3251B CMA882 HBG32 HANDSET	
x	x	x	GMLN5277A VISOR MICROPHONE MTM5400/MTM800FuG	same as PMMN4087A, but with a different connector
x	x	x	GMKN4814A MRT UNIVERSAL SYSTEM CBL 20M	connectors mounted on both ends, for Hessen
x	x	x	GMKN4794A MRT ADAPTER CBL SET ETHERNET CH/HS	1 Set includes 2 adapter cables 0.5M
x	x	x	GMDN4178A ZSE933 SET FOR MTM800FUG	
			GMDN3784A TOS800 vers. I	TOS800 uses 1 wire interface. Non-smart accessories are supported in .9 (in other words accessories without a '1 wire interface' are supported): R16255 HE/LS: FRODO non ADS Accessory support refers
x	x	x	tbd Carls FRT with FRODO	Used by only one customer and no plan to sell it to other customers. Klaus Dieter to provide part number.
			GMDN4457A FBT 897 SIKA PLUG II GMDN4458A FBT 897 SIKA PLUG II SOCKET W CABLE GMDN4459A FBT 897 SIKA PLUG II EXTENDER	GMDN4457A and GMDN4458A to be tested together. GMDN4457A and GMDN4459A to be tested together.
			tbd VpD Type K with Frodo	Voice plus Data motorcycle solution

MTM800FUG	MTM800FUGET	MTM5200	Accessory	Comments
			GMDN4383A TOS800 vers. II	Non-smart accessories are supported in .9 (in other words accessories without a '1 wire interface' are supported): R16255 HE/LS: FRODO non ADS Accessory support refers
			GMDN3927B MTL 381	Line Extender allows a remote installation of the control head by 1000 metres
			Voice plus Data 2+2 migration solution	
			Voice plus Data 2+1+1 migration solution	Klaus Dieter to arrange shipment of equipment to Pawel

11 Annex – New Codeplug Fields

MR5.14.10 / MR10.6.10 provides the following new codeplug fields

Platform	Codeplug Parameter Name	Codeplug Parameter Path	Codeplug Parameter Default Setting	Codeplug Parameter range	Codeplug Parameter Purpose	Selling feature
MTM5000 Series, MTM800FuG Series; MTH8x0, MTP8x0, MTP8x0Ex Series;TCR1000	Shadow Groups (Address Bundle)	Feature Flags->Shadow Groups (Address Bundle)	FALSE	false,true	If enabled, this field activates the Shadow Groups (Address Bundle) functionality. The Shadow Groups (Address Bundle) feature allows the configuration of radios to send status messages/emergency alarms, GPS LIP messages, and RMS/FMS messages to up to four different addresses per talkgroup when in TMO, and to one address per talkgroup when in DMO. This is a selling feature.	Yes
MTM5000 Series, MTM800FuG Series; MTH8x0, MTP8x0, MTP8x0Ex Series;TCR1000	Authentication of Disable during Packet Data	Security->Authentication of Disable during Packet Data	On CCH	0^On CCH; 1^On PDCH	This field defines the channel on which the radio is authenticated after receiving a Disable request. The available options are: - On CCH - on the control channel - On PDCH - on the packet data channel	No
MTM5000 Series, MTM800FuG Series; MTH8x0, MTP8x0, MTP8x0Ex Series;TCR1000	Allow SC1 on LST	Security->Allow SC1 on LST	FALSE	false,true	If this field is enabled, the radio can operate on Local Site Trunking sites that belong to Security Class 1.	No
MTM5000 Series, MTM800FuG Series; MTH8x0, MTP8x0, MTP8x0Ex Series;TCR1000	Alarm SSI	Emergency Alarm Destination - DMO->Alarm SSI	16777215	1-16777215	This field sets a predefined emergency ISSI for sending emergency alarms. To make this field visible, set Codeplug → Emergency Options → Emergency Alarm Options → Emergency Alarm Destination - DMO → Destination to Pre-defined Address.	No
MTM5000 Series, MTM800FuG Series; MTH8x0, MTP8x0, MTP8x0Ex Series;TCR1000	Number of Valid ACCESS-ASSIGN PDUs to Allow Reception of TCH	Voice Services Options->Number of Valid ACCESS-ASSIGN PDUs to Allow Reception of TCH	5	1-255	not ready in .10 project.	No
MTM5000 Series, MTM800FuG Series; MTH8x0, MTP8x0, MTP8x0Ex Series;TCR1000	Connect Ack FCD	DMO Frame Count Down Values->Connect Ack FCD	3	1--4	This field defines how many times the radio transmits the DM-CONNECT acknowledgement Protocol Data Unit (PDU).	No
MTM5000 Series, MTM800FuG Series; MTH8x0, MTP8x0, MTP8x0Ex Series;TCR1000	Application Inactivity Time, sec	Timers->Application Inactivity Time, sec	60	30-3600	This field defines the time (in seconds) after which an application (for example, the camera, the WAP browser or Bluetooth) is closed and the radio goes back to the Idle Screen.	No
MTM5000 Series, MTM800FuG Series;MTH8x0, MTP8x0, MTP8x0Ex Series;TCR1000	Status/Alarms Addressing	TMO Talkgroup List->Status/Alarms Addressing	None	valid address bundle	This field determines the address bundle used for sending status messages and emergency alarms. Address bundles are defined in Codeplug → TalkGroups → TMO → TMO Address Bundle List	No
MTM5000 Series, MTM800FuG Series;MTH8x0, MTP8x0, MTP8x0Ex Series;TCR1000	GPS LIP Addressing	TMO Talkgroup List->GPS LIP Addressing	None	valid address bundle	This field determines the address bundle used for sending GPS Location Information Protocol messages. Address bundles are defined in Codeplug → TalkGroups → TMO → TMO Address Bundle List.	No
MTM5000 Series, MTM800FuG Series;MTH8x0, MTP8x0, MTP8x0Ex Series;TCR1000	RMS/FMS Addressing	TMO Talkgroup List->RMS/FMS Addressing	None	valid address bundle	This field determines the address bundle used for sending Radio Messaging System messages. Address bundles are defined in Codeplug → TalkGroups → TMO → TMO Address Bundle List	No
MTM5000 Series, MTM800FuG Series;MTH8x0, MTP8x0, MTP8x0Ex Series;TCR1000	Default Address Bundle Status/Alarms Addressing	Dynamic Group Number Assignment->Default Address Bundle Status/Alarms Addressing	None	valid address bundle	When adding a new group through a DGNA action, this field defines the default address bundle to be used for sending status messages and emergency alarms while attached to this group.	No
MTM5000 Series, MTM800FuG Series;MTH8x0, MTP8x0, MTP8x0Ex Series;TCR1000	Default Address Bundle GPS LIP Addressing	Dynamic Group Number Assignment->Default Address Bundle GPS LIP Addressing	None	valid address bundle	When adding a new group through a DGNA action, this field defines the default address bundle to be used for sending GPS Location Information Protocol messages while attached to this group	No
MTM5000 Series, MTM800FuG Series;MTH8x0, MTP8x0, MTP8x0Ex Series;TCR1000	Default Address Bundle RMS/FMS Addressing	Dynamic Group Number Assignment->Default Address Bundle RMS/FMS Addressing	None	valid address bundle	When adding a new group through a DGNA action, this field defines the default address bundle to be used for sending Radio Messaging Services messages while attached to this group.	No
MTM5000 Series, MTM800FuG Series;MTH8x0, MTP8x0, MTP8x0Ex Series;TCR1000	Address Bundle Name	TMO Address Bundle List->Address Bundle Name	None	Max length: 24	Use this field to enter a name for the selected address bundle.	No
MTM5000 Series, MTM800FuG Series;MTH8x0, MTP8x0, MTP8x0Ex Series;TCR1000	Status	TMO Address Bundle List->Status	FALSE	false;true	If this field is enabled, the corresponding address bundle can be selected. The related Address Bundle Name field cannot be empty and at least one address value needs to be provided If this field is disabled, the corresponding address bundle cannot be selected.	No
MTM5000 Series, MTM800FuG Series;MTH8x0, MTP8x0, MTP8x0Ex Series;TCR1000	1st Address	TMO Address Bundle List->1st Address	0	0-16777215	This field contains the first address from the selected bundle. A 0 value indicates no address is set.	No
MTM5000 Series, MTM800FuG Series;MTH8x0, MTP8x0, MTP8x0Ex Series;TCR1000	2nd Address	TMO Address Bundle List->2nd Address	0	0-16777215	This field contains the second address from the selected bundle. A 0 value indicates no address is set.	No
MTM5000 Series, MTM800FuG Series;MTH8x0, MTP8x0, MTP8x0Ex Series;TCR1000	3rd Address	TMO Address Bundle List->3rd Address	0	0-16777215	This field contains the third address from the selected bundle. A 0 value indicates no address is set.	No
MTM5000 Series, MTM800FuG Series;MTH8x0, MTP8x0, MTP8x0Ex Series;TCR1000	4th Address	TMO Address Bundle List->4th Address	0	0-16777215	This field contains the fourth address from the selected bundle. A 0 value indicates no address is set.	No
MTM5000 Series, MTM800FuG Series;MTH8x0, MTP8x0, MTP8x0Ex Series;TCR1000	Status/Alarms Addressing	DMO Talkgroup List->Status/Alarms Addressing	None	valid address bundle	This field determines the address bundle used for sending status messages and emergency alarms. Address bundles are defined in Codeplug → TalkGroups → DMO → DMO Address Bundle List.	No
MTM5000 Series, MTM800FuG Series;MTH8x0, MTP8x0, MTP8x0Ex Series;TCR1000	GPS LIP Addressing	DMO Talkgroup List->GPS LIP Addressing	None	valid address bundle	This field determines the address bundle used for sending GPS Location Information Protocol messages. Address bundles are defined in Codeplug → TalkGroups → DMO → DMO Address Bundle List.	No

Platform	Codeplug Parameter Name	Codeplug Parameter Path	Codeplug Parameter Default Setting	Codeplug Parameter range	Codeplug Parameter Purpose	Selling feature
MTM5000 Series, MTM800FuG Series;MTH8x0, MTP8x0, MTP8x0Ex Series;TCR1000	Address Bundle Name	DMO Address Bundle List->Address Bundle Name	None	Max length: 24	Use this field to enter a name for the selected address bundle.	No
MTM5000 Series, MTM800FuG Series;MTH8x0, MTP8x0, MTP8x0Ex Series;TCR1000	Status	DMO Address Bundle List->Status	FALSE	false;true	If this field is enabled, the corresponding address bundle can be selected. The related Address Bundle Name field cannot be empty and the address value needs to be provided If this field is disabled, the corresponding address bundle cannot be selected.	No
MTM5000 Series, MTM800FuG Series;MTH8x0, MTP8x0, MTP8x0Ex Series;TCR1000	Address	DMO Address Bundle List->Address	0	0-16777215	This field contains the address of the selected bundle. A 0 value indicates no address is set.	No
MTM5000 Series, MTM800FuG Series;MTH8x0, MTP8x0, MTP8x0Ex Series;TCR1000;milan2E;milan2	Scrambling Vector for Colour Code 0	Mobility Parameters->Scrambling Vector for Colour Code 0	Add MNI	0^All Zeros; 1^Add MNI	This field defines how the radio builds the scrambling vector if the color code is 0. The available options are: - All Zeros - Add MNI	No
MTM5000 Series, MTM800FuG Series;MTH8x0, MTP8x0, MTP8x0Ex Series	GPS Icon when No Fix Available	GPS Settings->GPS Icon when No Fix Available	FALSE	false;true	If this field is enabled, the radio displays a blinking GPS icon when GPS attempts to acquire a location fix.	No
MTM5000 Series, MTM800FuG Series;MTH8x0, MTP8x0, MTP8x0Ex Series	Calling Party Base Address	RMS Settings->Calling Party Base Address	0	1-16777215	This field defines the lowest authorized ISSI of the calling party for RMS messages.	No
MTM5000 Series, MTM800FuG Series;MTH8x0, MTP8x0, MTP8x0Ex Series	Calling Party Upper Address	RMS Settings->Calling Party Upper Address	0	1-16777215	This field defines the highest authorized ISSI of the calling party for RMS messages.	No
MTM5000 Series, MTM800FuG Series;MTH8x0, MTP8x0, MTP8x0Ex Series	Lock Power-Off Key	Keypad->Lock Power-Off Key	FALSE	false,true	Enabling this field makes the On/Off key inoperative while the keypad is locked.	No
MTM5000 Series, MTM800FuG Series;MTH8x0, MTP8x0, MTP8x0Ex Series	Profile Name Visible	User Profile 1->Profile Name Visible	FALSE	false,true	If this field is enabled, the radio displays the audio profile name on the idle screen.	No
MTM5000 Series, MTM800FuG Series;MTH8x0, MTP8x0, MTP8x0Ex Series	Item	Configurable Idle Screen->Item		0^;1^Network;2^Range;3^TG Name;4^Time&Date;5^Home Mode;6^RMS/FMS;7^ISSI;8^OPTA;10^Gateway TMO Zone;11^Gateway TMO TG;12^Gateway DMO Zone;13^Gateway DMO TG;14^BSI Registration Status;15^Radio Status;16^Audio Profile Name	This field is used to select an item displayed on the Idle Screen from the list of all available items. The available options are: - Network - a network alias or number - Range - the folder containing the current talkgroup - TG Name - a talkgroup alias or number - Time&Date - the current time and date - Home Mode - the user-defined message on the Home Mode Display - RMS/FMS - Radio Messaging System messages - ISSI - the ISSI number of the radio - OPTA - the Operational Tactical Address value - Gateway TMO Zone - the folder of the current Gateway TMO talkgroup - Gateway TMO TG - the current Gateway TMO talkgroup - Gateway DMO Zone - the folder of the current Gateway DMO talkgroup - Gateway DMO TG - the current Gateway DMO talkgroup - BSI Registration Status - the registration status of the BSI functionality - Radio Status - No Service, TXI Mode, KVL Mode, In emergency, Gateway or Repeater - Audio Profile Name - the name of the current audio profile	No
MTM5000 Series, MTM800FuG Series;MTH8x0, MTP8x0, MTP8x0Ex Series	Priority	Configurable Idle Screen->Priority		0^;1^1;2^2;3^3;4^4;5^5;6^6;7^7;8^8;9^9;10^10;11^11;12^12;13^13;14^14;15^15;16^16;17^17;18^18;19^19;20^20;21^21;22^22;23^23;24^24;25^25;26^26;27^27;28^28;29^29;30^30;31^31;32^32	This field defines the priority assigned to each item. This number (from 1 to 32) is unique for each item, so it is impossible to have two items with the same priority. The highest number equals the highest priority.	No
MTM5000 Series, MTM800FuG Series;MTH8x0, MTP8x0, MTP8x0Ex Series	Item Font Size	Configurable Idle Screen->Item Font Size	System Font Size	1^Large Font Size; 0^System Font Size; 2^Auto Font Size	This field sets the size of the font visible on the Idle Screen for the selected item. The available options are: - Large Font Size - the item will be displayed using the maximum available font size - System Font Size - the item will be displayed using currently selected font size on the radio - Auto Font Size - the radio automatically adjusts the font size so that the item fits the line	No
MTM5000 Series, MTM800FuG Series;MTH8x0, MTP8x0, MTP8x0Ex Series	Group	Configurable Idle Screen->Group	more default value and different for different platform	0^;1^A;2^B;3^C;4^D;5^E;6^F;7^G;8^H;9^I;10^J	This field is used to group items together. Only the highest priority item from each group is displayed on the Idle Screen. Grouping is optional and can be omitted.	No
MTM5000 Series, MTM800FuG Series;MTH8x0, MTP8x0, MTP8x0Ex Series	Number of Concatenated Text Messages Retransmissions	Short Data Service->Number of Concatenated Text Messages Retransmissions	0	0-5	not ready in .10 project.	No

Platform	Codeplug Parameter Name	Codeplug Parameter Path	Codeplug Parameter Default Setting	Codeplug Parameter range	Codeplug Parameter Purpose	Selling feature
MTH8x0, MTP8x0, MTP8x0Ex Series	Color of Icon	User Profile 1->Color of Icon	Yellow	0^Yellow;1^Yellow blinking;2^Red;3^Red blinking;4^Blue;5^Blue blinking;6^Green;7^Green blinking;8^Brown;9^Brown blinking	This field sets the color for icons associated with the audio profile. The available options are: - Yellow (default) - Yellow blinking - Red - Red blinking - Blue - Blue blinking - Green - Green blinking - Brown - Brown blinking	No
MTH8x0, MTP8x0, MTP8x0Ex Series	Large Idle Font	Display Options->Large Idle Font	TRUE	false,true	This field enables the use of the largest font size on the Idle Screen.	No
MTH8x0, MTP8x0, MTP8x0Ex Series	Man Down Status after Power Up	Man-Down->Man Down Status after Power Up	Always ON	0^Always OFF;1^Always ON;2^Preserve User Selection	This field determines the status of the Man Down feature after turning on the radio. The available options are: - Always Off - the Man Down feature is disabled on radio startup - Always On - the Man Down feature is enabled on radio startup - Preserve User Selection - the status of the Man Down feature is the same as it was on radio shutdown	No
MTH8x0, MTP8x0, MTP8x0Ex Series	Man Down Status	Man-Down->Man Down Status	TRUE	false;true	This field stores the status of the Man Down feature. If enabled and Codeplug → Man-Down → Man Down Status after Power Up is set to Preserve User Selection, the Man Down feature is enabled on radio startup. If disabled and Codeplug → Man-Down → Man Down Status after Power Up is set to Preserve User Selection, the Man Down feature is disabled on radio startup.	No
MTH8x0, MTP8x0, MTP8x0Ex Series	Man Down Menu	Man-Down->Man Down Menu	TRUE	false;true	If this field is enabled, the radio displays the Man Down menu.	No
MTH8x0, MTP8x0, MTP8x0Ex Series	Man Down OTB	Man-Down->Man Down OTB	TRUE	false;true	If this field is enabled, the user can assign the Man Down On/Off function to a one-touch button in Codeplug → Buttons, Keys and Accessories → One-Touch Buttons.	No
MTM5000 Series, MTM800FuG Series_350-380MHz	QAM	Feature Flags->QAM	FALSE	false,true	If enabled, this field activates the TEDS (TETRA Enhanced Data Speed) functionality using Quadrature Amplitude Modulation (QAM) for faster data transmission.	Yes
MTM5000 Series, MTM800FuG Series_350-380MHz	Implicit Acknowledgement on Original Advanced Link	Packet Data Parameters->Implicit Acknowledgement on Original Advanced Link	FALSE	false;true	If this field is enabled, the radio applies a delay-reducing algorithm when processing packet data link acknowledgments.	No
MTM5000 Series, MTM800FuG Series_350-380MHz	AR Latency	Packet Data Parameters->AR Latency	1	0-30	This field defines the timing of Acknowledgment Requests when transmitting data on the uplink. The radio transmits uplink data in bursts containing several timeslots (the size and timing of bursts is controlled by the SwMI). For each transmitted burst, the radio requests the SwMI to send back an acknowledgement - this setting controls how many slots before the end of the burst the request is sent.	No
MTM5000 Series, MTM800FuG Series_350-380MHz	Extended Advanced Link	Packet Data Parameters->Extended Advanced Link	TRUE	false;true	If this field is enabled, the radio uses the extended advanced link protocols for long message transmission. The extended advanced link is an improved version of the original advanced link and can be used on TEDS channels.	No
MTM5000 Series, MTM800FuG Series_350-380MHz	QAM Preferred	Packet Data Parameters->QAM Preferred	FALSE	false;true	If this field is enabled, the radio selects a cell with QAM support as soon as the cell becomes radio usable. The preference for QAM is only active when the radio is actively transmitting or receiving data. The radio is considered to be actively transmitting or receiving data when it has been on a packet data channel for a minimum amount of time, as set in Codeplug → Data Services → Packet Data Parameters → READY Threshold. If the radio is not using a packet data channel for a period of time set in Codeplug → Data Services → Packet Data Parameters → QAM Preferred Timer, the QAM stops being the preferred service.	No
MTM5000 Series, MTM800FuG Series_350-380MHz	QAM Preferred Timer	Packet Data Parameters->QAM Preferred Timer	180	15-36000	This field defines the period of time (in seconds) after which QAM (TEDS) stops being the preferred service.	No
MTM5000 Series, MTM800FuG Series_350-380MHz	READY Threshold	Packet Data Parameters->READY Threshold	30	0-1000	This field defines how long (in seconds) the radio must use a packet data channel before QAM is selected as the preferred service.	No
MTM5000 Series, MTM800FuG Series_350-380MHz	Minimum TEDS Slow Reselect Threshold	Mobility Parameters->Minimum TEDS Slow Reselect Threshold	-80	(-120)-(-70)	This field defines the minimum slow reselect threshold (in dBm) when QAM is the preferred service.	No
MTM5000 Series, MTM800FuG Series	Incoming Emergency Tone Selection	MMI Options->Incoming Emergency Tone Selection	Default Emergency Tone	0^Default Emergency Tone;1^Emergency Tone 2	This field sets the tone for incoming emergency calls. The available options are: - Default Emergency Tone - Emergency Tone 2	No
MTM5000 Series, MTM800FuG Series	Incoming Emergency Tone Selection	Tones->Incoming Emergency Tone Selection	Default Emergency Tone	0^Default Emergency Tone;1^Emergency Tone 2	This field sets the tone for incoming emergency calls. The available options are: - Default Emergency Tone - Emergency Tone 2	No

Platform	Codeplug Parameter Name	Codeplug Parameter Path	Codeplug Parameter Default Setting	Codeplug Parameter range	Codeplug Parameter Purpose	Selling feature
MTM5000 Series, MTM800FuG Series	Audio Icon	User Profile 1->Audio Icon	No Icon	0^No Icon; 1^Normal; 2^Loud	This field defines the type of Speaker On and Speaker Off icons associated with the audio profile. The available options are: - No Icon - no icon is shown when the speakers of both control heads are on - Normal - Loud	No
MTM5000 Series, MTM800FuG Series	Default Profile	Audio Settings->Default Profile	User Profile 1:General 1	seleted user profile	Defines the audio profile that the radio loads when powering on. To select an audio profile to be the default, put the pointer into the field value, click on the arrow, and drag the pointer to the desired selection.	No
MTM5000 Series, MTM800FuG Series	Enable Audio Profile	User Profile 1->Enable Audio Profile	TRUE	false,true	This field allows enabling the corresponding audio profile.	No
MTM5000 Series, MTM800FuG Series	Profile Alias/Name	User Profile 1->Profile Alias/Name	General 1	Max length: 12	This field allows setting the corresponding audio profile name. The name is visible to the radio user in the MMI.	No
MTM5000 Series, MTM800FuG Series	Editable	User Profile 1->Editable	FALSE	false,true	This field enables modifying audio parameters in the corresponding audio profile. If disabled, all the parameter values in the corresponding user profile are set to their default values (as per the template used).	No
MTM5000 Series, MTM800FuG Series	Audio Profile	Digit Key ->Audio Profile	User Profile 1:General 1	seleted user profile	This field defines the audio profile activated on pressing the related key or button.	No
MTM5000 Series, MTM800FuG Series	Audio Profile	Menu Configuration->Audio Profile	TRUE	false,true	N/A	No
Normal MTM5000 Series, MTM800FuG Series	Audio Parameters	Audio Settings -> User Profile [1-2] -> Audio Parameters	CPS node	N/A	This node contains audio-related configuration options for an individual user.	No
Normal MTM5000 Series, MTM800FuG Series	Volume Settings	Audio Settings -> User Profile [1-2] -> Audio Parameters -> Volume Settings	CPS node	N/A	This node contains parameters related to voice and tone volume settings for the radio and the accessories.	No
MTM5200, MRM5400, MTM800FuG	Voice	Audio Settings -> User Profile [1-2] -> Audio Parameters -> Volume Settings -> Voice	CPS node	N/A	This node contains parameters related to voice volume settings for radios and accessories.	No
MTM5200, MRM5400, MTM800FuG	Field Name	Audio Settings -> User Profile [1-2] -> Audio Parameters -> Volume Settings -> Voice->Field Name	RSM / HSM;	RSM / HSM;	This field sets the maximum volume offset and the volume range for specific accessories	No
MTM5200, MRM5400, MTM800FuG	Max Vol Offset	Audio Settings -> User Profile [1-2] -> Audio Parameters -> Volume Settings -> Voice->Max Vol Offset	0	(-20)-20	This field sets the maximum volume offset and the volume range for specific accessories	No
MTM5200, MRM5400, MTM800FuG	Vol Range	Audio Settings -> User Profile [1-2] -> Audio Parameters -> Volume Settings -> Voice->Vol Range	39	0-50	This field sets the maximum volume offset and the volume range for specific accessories	No
MTM5200, MRM5400, MTM800FuG	Field Name	Audio Settings -> User Profile [1-2] -> Audio Parameters -> Volume Settings -> Voice->Field Name	External Speaker;	External Speaker;	This field sets the maximum volume offset and the volume range for specific accessories	No
MTM5200, MRM5400, MTM800FuG	Max Vol Offset	Audio Settings -> User Profile [1-2] -> Audio Parameters -> Volume Settings -> Voice->Max Vol Offset	0	(-20)-20	This field sets the maximum volume offset and the volume range for specific accessories	No
MTM5200, MRM5400, MTM800FuG	Vol Range	Audio Settings -> User Profile [1-2] -> Audio Parameters -> Volume Settings -> Voice->Vol Range	39	0-50	This field sets the maximum volume offset and the volume range for specific accessories	No
MTM5200, MRM5400, MTM800FuG	Field Name	Audio Settings -> User Profile [1-2] -> Audio Parameters -> Volume Settings -> Voice->Field Name	Headset;	Headset;	This field sets the maximum volume offset and the volume range for specific accessories	No
MTM5200, MRM5400, MTM800FuG	Max Vol Offset	Audio Settings -> User Profile [1-2] -> Audio Parameters -> Volume Settings -> Voice->Max Vol Offset	0	(-20)-20	This field sets the maximum volume offset and the volume range for specific accessories	No
MTM5200, MRM5400, MTM800FuG	Vol Range	Audio Settings -> User Profile [1-2] -> Audio Parameters -> Volume Settings -> Voice->Vol Range	26	0-50	This field sets the maximum volume offset and the volume range for specific accessories	No
MTM5200, MRM5400, MTM800FuG	Field Name	Audio Settings -> User Profile [1-2] -> Audio Parameters -> Volume Settings -> Voice->Field Name	Earpiece;	Earpiece;	This field sets the maximum volume offset and the volume range for specific accessories	No
MTM5200, MRM5400, MTM800FuG	Max Vol Offset	Audio Settings -> User Profile [1-2] -> Audio Parameters -> Volume Settings -> Voice->Max Vol Offset	0	(-20)-20	This field sets the maximum volume offset and the volume range for specific accessories	No
MTM5200, MRM5400, MTM800FuG	Vol Range	Audio Settings -> User Profile [1-2] -> Audio Parameters -> Volume Settings -> Voice->Vol Range	26	0-50	This field sets the maximum volume offset and the volume range for specific accessories	No
MTM5200, MRM5400, MTM800FuG	Field Name	Audio Settings -> User Profile [1-2] -> Audio Parameters -> Volume Settings -> Voice->Field Name	Handset	Handset	This field sets the maximum volume offset and the volume range for specific accessories	No
MTM5200, MRM5400, MTM800FuG	Max Vol Offset	Audio Settings -> User Profile [1-2] -> Audio Parameters -> Volume Settings -> Voice->Max Vol Offset	0	(-20)-20	This field sets the maximum volume offset and the volume range for specific accessories	No
MTM5200, MRM5400, MTM800FuG	Vol Range	Audio Settings -> User Profile [1-2] -> Audio Parameters -> Volume Settings -> Voice->Vol Range	26	0-50	This field sets the maximum volume offset and the volume range for specific accessories	No
MTM5200, MRM5400, MTM800FuG	Tones	Audio Settings -> User Profile [1-2] -> Audio Parameters -> Volume Settings ->Tones	CPS node	N/A	This node contains parameters related to tone volume settings for the control head and the accessories	No

Platform	Codeplug Parameter Name	Codeplug Parameter Path	Codeplug Parameter Default Setting	Codeplug Parameter range	Codeplug Parameter Purpose	Selling feature
MTM5200, MRM5400, MTM800FuG	High Audio	Audio Settings -> User Profile [1-2] -> Audio Parameters -> Volume Settings ->Tones->High Audio	CPS node	N/A	This node contains parameters related to tone volume settings for the control head and the accessories when high audio is active	No
MTM5200, MRM5400, MTM800FuG	Field Name	Audio Settings -> User Profile [1-2] -> Audio Parameters -> Volume Settings ->Tones->High Audio->Field Name	0^Alert Tone;1^Duplex Ring;2^Simplex Ring;3^Keypad;4^Call-Out	0^Alert Tone;1^Duplex Ring;2^Simplex Ring;3^Keypad;4^Call-Out	This node contains parameters related to tone volume settings for the control head and the accessories when high audio is active	No
MTM5200, MRM5400, MTM800FuG	Max Vol Offset	Audio Settings -> User Profile [1-2] -> Audio Parameters -> Volume Settings ->Tones->High Audio->Max Vol Offset	-7	(-20)-20	This node contains parameters related to tone volume settings for the control head and the accessories when high audio is active	No
MTM5200, MRM5400, MTM800FuG	Vol Range	Audio Settings -> User Profile [1-2] -> Audio Parameters -> Volume Settings ->Tones->High Audio->Vol Range	39	0-50	This node contains parameters related to tone volume settings for the control head and the accessories when high audio is active	No
MTM5200, MRM5400, MTM800FuG	Low Audio	Audio Settings -> User Profile [1-2] -> Audio Parameters -> Volume Settings ->Tones->Low Audio	CPS node	N/A	This node contains parameters related to tones volume settings for the control head and the accessories when low audio is active.	No
MTM5200, MRM5400, MTM800FuG	Field Name	Audio Settings -> User Profile [1-2] -> Audio Parameters -> Volume Settings ->Tones->Low Audio->Field Name	0^Alert Tone;1^Duplex Ring;2^Simplex Ring;3^Keypad;4^Call-Out	0^Alert Tone;1^Duplex Ring;2^Simplex Ring;3^Keypad;4^Call-Out	This node contains parameters related to tones volume settings for the control head and the accessories when low audio is active.	No
MTM5200, MRM5400, MTM800FuG	Max Vol Offset	Audio Settings -> User Profile [1-2] -> Audio Parameters -> Volume Settings ->Tones->Low Audio->Max Vol Offset	11	(-20)-20	This node contains parameters related to tones volume settings for the control head and the accessories when low audio is active.	No
MTM5200, MRM5400, MTM800FuG	Vol Range	Audio Settings -> User Profile [1-2] -> Audio Parameters -> Volume Settings ->Tones->Low Audio->Vol Range	39	0-50	This node contains parameters related to tones volume settings for the control head and the accessories when low audio is active.	No
MTM5200, MRM5400, MTM800FuG	Mic Gain	Audio Settings -> User Profile [1-2] -> Audio Parameters -> Volume Settings->Mic Gain	CPS node	N/A	This node contains microphone gain parameters for accessories connected to the control head.	No
MTM5200, MRM5400, MTM800FuG	Field Name	Audio Settings -> User Profile [1-2] -> Audio Parameters -> Volume Settings->Mic Gain->Field Name	0^RSM / HSM;1^Handset;2^Fist Mic;3^Visor Mic	0^RSM / HSM;1^Handset;2^Fist Mic;3^Visor Mic	This field sets the microphone gain offset values for duplex and simplex calls for specific accessories.	No
MTM5200, MRM5400, MTM800FuG	Mic Gain Duplex Offset	Audio Settings -> User Profile [1-2] -> Audio Parameters -> Volume Settings->Mic Gain->Mic Gain Duplex Offset	0	(-20)-20	This field sets the microphone gain offset values for duplex and simplex calls for specific accessories.	No
MTM5200, MRM5400, MTM800FuG	Mic Gain Simplex Offset	Audio Settings -> User Profile [1-2] -> Audio Parameters -> Volume Settings->Mic Gain->Mic Gain Simplex Offset	0	(-20)-20	This field sets the microphone gain offset values for duplex and simplex calls for specific accessories.	No
MTM5200, MRM5400, MTM800FuG	Voice Filters	Audio Settings -> User Profile [1-2] -> Audio Parameters -> Volume Settings->Voice Filters	CPS node	N/A	This node contains parameters related to the enhancement of the audio quality.	No
MTM5200, MRM5400, MTM800FuG	Tx Noise Suppressor	Audio Settings -> User Profile [1-2] -> Audio Parameters -> Volume Settings->Voice Filters->Tx Noise Suppressor	FALSE	false;true	This field allows activating a filter that reduces noises in the microphone	No
MTM5200, MRM5400, MTM800FuG	Echo Canceller	Audio Settings -> User Profile [1-2] -> Audio Parameters -> Volume Settings->Voice Filters->Echo Canceller	TRUE	false;true	This parameter allows activating a filter that reduces sound reflections (echo) during a call.	No
MTM5200, MRM5400, MTM800FuG	Tx AGC	Audio Settings -> User Profile [1-2] -> Audio Parameters -> Volume Settings->Voice Filters->Tx AGC	TRUE	false;true	This field allows activating the transmit automatic gain control.	No
MTM5200, MRM5400, MTM800FuG	Side Tone Enabled	Audio Settings -> User Profile [1-2] -> Audio Parameters -> Volume Settings->Voice Filters->Side Tone Enabled	TRUE	false;true	This field enables the side tone feature.	No
MTM5200, MRM5400, MTM800FuG	Side Tone Constant Loudness Enabled	Audio Settings -> User Profile [1-2] -> Audio Parameters -> Volume Settings->Voice Filters->Side Tone Constant Loudness Enabled	TRUE	false;true	If enabled, this field preserves the side tone loudness regardless of the radio volume settings.	No
MTM5500, MTM800FuG ET	Audio Parameters	Audio Settings -> User Profile [1-2] -> Audio Parameters	CPS node	N/A	see above	No
MTM5500, MTM800FuG ET	Control Head 1 (RJ-50 1) Settings	Audio Settings -> User Profile [1-2] -> Audio Parameters->Control Head [1-2] (RJ-50 [1-2]) Settings	CPS node	N/A	This node contains settings related to Control Head 1.	No
MTM5500, MTM800FuG ET	External Supply	Audio Settings -> User Profile [1-2] -> Audio Parameters->Control Head [1-2] (RJ-50 [1-2]) Settings->External Supply	12V	1^12V; 2^24V	This field enables setting the external power supply voltage. The available options are: - 12V - 24V	No
MTM5500, MTM800FuG ET	Volume Settings	Audio Settings -> User Profile [1-2] -> Audio Parameters->Control Head [1-2] (RJ-50 [1-2]) Settings->Volume Settings	CPS node	N/A	This node contains parameters related to voice and tone volume settings for the radio and the accessories.	No
MTM5500, MTM800FuG ET	Voice	Audio Settings -> User Profile [1-2] -> Audio Parameters->Control Head [1-2] (RJ-50 [1-2]) Settings->Volume Settings->Voice	CPS node	N/A	This node contains parameters related to voice volume settings for radios and accessories	No
MTM5500, MTM800FuG ET	Field Name	Audio Settings -> User Profile [1-2] -> Audio Parameters->Control Head [1-2] (RJ-50 [1-2]) Settings->Volume Settings->Voice->Field Name	RSM / HSM;	RSM / HSM;	This field sets the maximum volume offset and the volume range for specific accessories	No
MTM5500, MTM800FuG ET	Max Vol Offset	Audio Settings -> User Profile [1-2] -> Audio Parameters->Control Head [1-2] (RJ-50 [1-2]) Settings->Volume Settings->Voice->Max Vol Offset	0	(-20)-20	This field sets the maximum volume offset and the volume range for specific accessories	No
MTM5500, MTM800FuG ET	Vol Range	Audio Settings -> User Profile [1-2] -> Audio Parameters->Control Head [1-2] (RJ-50 [1-2]) Settings->Volume Settings->Voice->Vol Range	39	0-50	This field sets the maximum volume offset and the volume range for specific accessories	No

Platform	Codeplug Parameter Name	Codeplug Parameter Path	Codeplug Parameter Default Setting	Codeplug Parameter range	Codeplug Parameter Purpose	Selling feature
MTM5500, MTM800FuG ET	Field Name	Audio Settings -> User Profile [1-2] -> Audio Parameters->Control Head [1-2] (RJ-50 [1-2]) Settings->Volume Settings->Voice->Field Name	External Speaker;	External Speaker;	This field sets the maximum volume offset and the volume range for specific accessories	No
MTM5500, MTM800FuG ET	Max Vol Offset	Audio Settings -> User Profile [1-2] -> Audio Parameters->Control Head [1-2] (RJ-50 [1-2]) Settings->Volume Settings->Voice->Max Vol Offset	0	(-20)-20	This field sets the maximum volume offset and the volume range for specific accessories	No
MTM5500, MTM800FuG ET	Vol Range	Audio Settings -> User Profile [1-2] -> Audio Parameters->Control Head [1-2] (RJ-50 [1-2]) Settings->Volume Settings->Voice->Vol Range	39	0-50	This field sets the maximum volume offset and the volume range for specific accessories	No
MTM5500, MTM800FuG ET	Field Name	Audio Settings -> User Profile [1-2] -> Audio Parameters->Control Head [1-2] (RJ-50 [1-2]) Settings->Volume Settings->Voice->Field Name	Headset;	Headset;	This field sets the maximum volume offset and the volume range for specific accessories	No
MTM5500, MTM800FuG ET	Max Vol Offset	Audio Settings -> User Profile [1-2] -> Audio Parameters->Control Head [1-2] (RJ-50 [1-2]) Settings->Volume Settings->Voice->Max Vol Offset	0	(-20)-20	This field sets the maximum volume offset and the volume range for specific accessories	No
MTM5500, MTM800FuG ET	Vol Range	Audio Settings -> User Profile [1-2] -> Audio Parameters->Control Head [1-2] (RJ-50 [1-2]) Settings->Volume Settings->Voice->Vol Range	26	0-50	This field sets the maximum volume offset and the volume range for specific accessories	No
MTM5500, MTM800FuG ET	Field Name	Audio Settings -> User Profile [1-2] -> Audio Parameters->Control Head [1-2] (RJ-50 [1-2]) Settings->Volume Settings->Voice->Field Name	Earpiece;	Earpiece;	This field sets the maximum volume offset and the volume range for specific accessories	No
MTM5500, MTM800FuG ET	Max Vol Offset	Audio Settings -> User Profile [1-2] -> Audio Parameters->Control Head [1-2] (RJ-50 [1-2]) Settings->Volume Settings->Voice->Max Vol Offset	0	(-20)-20	This field sets the maximum volume offset and the volume range for specific accessories	No
MTM5500, MTM800FuG ET	Vol Range	Audio Settings -> User Profile [1-2] -> Audio Parameters->Control Head [1-2] (RJ-50 [1-2]) Settings->Volume Settings->Voice->Vol Range	26	0-50	This field sets the maximum volume offset and the volume range for specific accessories	No
MTM5500, MTM800FuG ET	Field Name	Audio Settings -> User Profile [1-2] -> Audio Parameters->Control Head [1-2] (RJ-50 [1-2]) Settings->Volume Settings->Voice->Field Name	Handset	Handset	This field sets the maximum volume offset and the volume range for specific accessories	No
MTM5500, MTM800FuG ET	Max Vol Offset	Audio Settings -> User Profile [1-2] -> Audio Parameters->Control Head [1-2] (RJ-50 [1-2]) Settings->Volume Settings->Voice->Max Vol Offset	0	(-20)-20	This field sets the maximum volume offset and the volume range for specific accessories	No
MTM5500, MTM800FuG ET	Vol Range	Audio Settings -> User Profile [1-2] -> Audio Parameters->Control Head [1-2] (RJ-50 [1-2]) Settings->Volume Settings->Voice->Vol Range	26	0-50	This field sets the maximum volume offset and the volume range for specific accessories	No
MTM5500, MTM800FuG ET	Tones	Audio Settings -> User Profile [1-2] -> Audio Parameters->Control Head [1-2] (RJ-50 [1-2]) Settings->Volume Settings->Tones	CPS node	N/A	This node contains parameters related to tone volume settings for the control head and the accessories	No
MTM5500, MTM800FuG ET	High Audio	Audio Settings -> User Profile [1-2] -> Audio Parameters->Control Head [1-2] (RJ-50 [1-2]) Settings->Volume Settings->Tones->High Audio	CPS node	N/A	This node contains parameters related to tone volume settings for the control head and the accessories when high audio is active	No
MTM5500, MTM800FuG ET	Field Name	Audio Settings -> User Profile [1-2] -> Audio Parameters->Control Head [1-2] (RJ-50 [1-2]) Settings->Volume Settings->Tones->High Audio->Field Name	0^Alert Tone;1^Duplex Ring;2^Simplex Ring;3^Keypad;4^Call-Out	0^Alert Tone;1^Duplex Ring;2^Simplex Ring;3^Keypad;4^Call-Out	This node contains parameters related to tone volume settings for the control head and the accessories when high audio is active	No
MTM5500, MTM800FuG ET	Max Vol Offset	Audio Settings -> User Profile [1-2] -> Audio Parameters->Control Head [1-2] (RJ-50 [1-2]) Settings->Volume Settings->Tones->High Audio->Max Vol Offset	-7	(-20)-20	This node contains parameters related to tone volume settings for the control head and the accessories when high audio is active	No
MTM5500, MTM800FuG ET	Vol Range	Audio Settings -> User Profile [1-2] -> Audio Parameters->Control Head [1-2] (RJ-50 [1-2]) Settings->Volume Settings->Tones->High Audio->Vol Range	39	0-50	This node contains parameters related to tone volume settings for the control head and the accessories when high audio is active	No
MTM5500, MTM800FuG ET	Low Audio	Audio Settings -> User Profile [1-2] -> Audio Parameters->Control Head [1-2] (RJ-50 [1-2]) Settings->Volume Settings->Tones->Low Audio	CPS node	N/A	This node contains parameters related to tones volume settings for the control head and the accessories when low audio is active.	No
MTM5500, MTM800FuG ET	Field Name	Audio Settings -> User Profile [1-2] -> Audio Parameters->Control Head [1-2] (RJ-50 [1-2]) Settings->Volume Settings->Tones->Low Audio->Field Name	0^Alert Tone;1^Duplex Ring;2^Simplex Ring;3^Keypad;4^Call-Out	0^Alert Tone;1^Duplex Ring;2^Simplex Ring;3^Keypad;4^Call-Out	This node contains parameters related to tones volume settings for the control head and the accessories when low audio is active.	No
MTM5500, MTM800FuG ET	Max Vol Offset	Audio Settings -> User Profile [1-2] -> Audio Parameters->Control Head [1-2] (RJ-50 [1-2]) Settings->Volume Settings->Tones->Low Audio->Max Vol Offset	11	(-20)-20	This node contains parameters related to tones volume settings for the control head and the accessories when low audio is active.	No
MTM5500, MTM800FuG ET	Vol Range	Audio Settings -> User Profile [1-2] -> Audio Parameters->Control Head [1-2] (RJ-50 [1-2]) Settings->Volume Settings->Tones->Low Audio->Vol Range	39	0-50	This node contains parameters related to tones volume settings for the control head and the accessories when low audio is active.	No

Platform	Codeplug Parameter Name	Codeplug Parameter Path	Codeplug Parameter Default Setting	Codeplug Parameter range	Codeplug Parameter Purpose	Selling feature
MTM5500, MTM800FuG ET	Mic Gain	Audio Settings -> User Profile [1-2] -> Audio Parameters->Control Head [1-2] (RJ-50 [1-2]) Settings->Volume Settings->Mic Gain	CPS node	N/A	This node contains microphone gain parameters for accessories connected to the control head.	No
MTM5500, MTM800FuG ET	Field Name	Audio Settings -> User Profile [1-2] -> Audio Parameters->Control Head [1-2] (RJ-50 [1-2]) Settings->Volume Settings->Mic Gain->Field Name	0^RSM / HSM;1^Handset;2^Fist Mic;3^Visor Mic	0^RSM / HSM;1^Handset; 2^Fist Mic;3^Visor Mic	This field sets the microphone gain offset values for duplex and simplex calls for specific accessories.	No
MTM5500, MTM800FuG ET	Mic Gain Duplex Offset	Audio Settings -> User Profile [1-2] -> Audio Parameters->Control Head [1-2] (RJ-50 [1-2]) Settings->Volume Settings->Mic Gain->Mic Gain Duplex Offset	0	(-20)-20	This field sets the microphone gain offset values for duplex and simplex calls for specific accessories.	No
MTM5500, MTM800FuG ET	Mic Gain Simplex Offset	Audio Settings -> User Profile [1-2] -> Audio Parameters->Control Head [1-2] (RJ-50 [1-2]) Settings->Volume Settings->Mic Gain->Mic Gain Simplex Offset	0	(-20)-20	This field sets the microphone gain offset values for duplex and simplex calls for specific accessories.	No
MTM5500, MTM800FuG ET	Voice Filters	Audio Settings -> User Profile [1-2] -> Audio Parameters->Control Head [1-2] (RJ-50 [1-2]) Settings->Volume Settings->Voice Filters	CPS node	N/A	This node contains parameters related to the enhancement of the audio quality.	No
MTM5500, MTM800FuG ET	Tx Noise Suppressor	Audio Settings -> User Profile [1-2] -> Audio Parameters->Control Head [1-2] (RJ-50 [1-2]) Settings->Volume Settings->Voice Filters->Tx Noise Suppressor	FALSE	false;true	This field allows activating a filter that reduces noises in the microphone	No
MTM5500, MTM800FuG ET	Echo Canceller	Audio Settings -> User Profile [1-2] -> Audio Parameters->Control Head [1-2] (RJ-50 [1-2]) Settings->Volume Settings->Voice Filters->Echo Canceller	TRUE	false;true	This parameter allows activating a filter that reduces sound reflections (echo) during a call.	No
MTM5500, MTM800FuG ET	Tx AGC	Audio Settings -> User Profile [1-2] -> Audio Parameters->Control Head [1-2] (RJ-50 [1-2]) Settings->Volume Settings->Voice Filters->Tx AGC	TRUE	false;true	This field allows activating the transmit automatic gain control.	No
MTM5500, MTM800FuG ET	Side Tone Enabled	Audio Settings -> User Profile [1-2] -> Audio Parameters->Control Head [1-2] (RJ-50 [1-2]) Settings->Volume Settings->Voice Filters->Side Tone Enabled	TRUE	false;true	This field enables the side tone feature.	No
MTM5500, MTM800FuG ET	Side Tone Constant Loudness Enabled	Audio Settings -> User Profile [1-2] -> Audio Parameters->Control Head [1-2] (RJ-50 [1-2]) Settings->Volume Settings->Voice Filters->Side Tone Constant Loudness Enabled	TRUE	false;true	If enabled, this field preserves the side tone loudness regardless of the radio volume settings.	No

12 Annex – Announcement

Product Marketing

Announcement

TETRA MR5.14.10/MR10.6.10 9th Apr 2014

Introduction

The Global TETRA Terminal team is pleased to announce the shipment of the new MR5.14.10/MR10.6.10 Release.

The release includes two new bands for the MTM5000 series terminals: 410-470 and 806 -870 MHz and new keypads for the Ethernet and Telephone Style control heads with Arabic, Chinese, Cyrillic, Hebrew, Korean or Taiwanese characters.

The MR5.14.10/MR10.6.10 highlight features are:

- TETRA Enhanced Data Service (TEDS)
- On-screen GPS location activity icon
- DGNA de-assignment to default group
- Shadow Groups to which status messages are also sent
- Audio profile name and icon visible in idle screen
- Enhancements to ‘Man Down’
- Battery not charging (due to excessive temperature) alert
- Configurable Idle Screen
- AT command to extract System Time via a terminal
- Audio Improvements for BSI Encrypted terminals
- Allow Clear communication in Local Site Trunking
- SDS Free entry of target address
- 7.5W loudspeaker for MTM5000/MTM800FuG series

MTM5000 Series terminals have also gained Rail Certification to EN50121 & EN50155

MR5.14.10 is planned to be the last feature and last service release for the majority of models in the terminal families: MTP830S, MTP850, MTP850 Class 3L, MTP850S, MTH800, MTM800, MTM800E, MTP810Ex, MTP850Ex, TOM100, TCR1000.

Documentation

At Motorola Online you can find:

A slide presentation explaining the benefits of this release at: Resource Centre → All File Content Types → TETRA Terminals→ TETRA Terminal Updates→ MR5.14.10/MR10.6.10.

Please read the MR5.14.10 and/or MR10.6.10 Release Notes, also to be found at the same location as the slide presentation, before installing the new CPS Plus and upgrade the radios.

The release note provides the description for all new features, operation notes and limitations.

Also the release note lists all the customer sought enhancements provided with this software release.

User Guides at: Resource Centre → Technical Documentation Library → TETRA Terminals. *Note : Each radio has its own user documentation section.*

Manuals can be found at :

- Motorola Online http://moleurope.mot.com or https://businessonline.motorola.com

Resource Centre → Tetra Terminals → Mobile Radios →

Software Enablement Kit

Software enablement kits are the preferred mechanism to provide Customers with desired additional features, these product enhancements are further enhanced in the software release MR5.14.10 / MR10.6.10.

When purchasing software features (e.g. Shadow Groups) the customer can select to receive an enablement kit consisting of a dongle that will activate the features at the same time as the TETRA terminal is provisioned.

Customers in Europe, Israel and Africa can, alternatively, select to have the additional feature enabled by Motorola Solutions prior to terminal shipment.

The new orderable features in MR5.14.10 / MR10.6.10 are:

Feature	Option via Dongle	Option pre-installed
Enable Shadow Groups License	QA04347AA	QA04346AA
Enable TEDS (QAM)	QA04221AA	QA04218AA
Enable TEDS (QAM) with Multislot Packet Data (MSPD)	QA04222AA	QA04219AA
Enable TEDS (QAM) with Multislot Packet Data, WAP and WAP Push	QA04223AA	QA04220AA
Enable BSI E2EE Enhanced Audio (Note this is only orderable by GMOI customer)	QA04375AA	QA04374AA

TEDS operation requires MSPD to be enabled since TEDS doesn't operate as Single Slot

Other, previously orderable features, are also available in MR5.14.10 / MR10.6.10

CPS Plus

MR5.14.10 / MR10.6.10 is supported from CPS Plus 6.1 onwards, however since CPS 6.2 will be available with MR5.14.10/MR10.6.10 it is recommended.

The version is: **R06.20.09.00** it replaces the previously issued CPS versions.

With new terminals the new CPS DVD should be ordered:

- GMVN6006A CPS Plus 6.2

Customers wishing to upgrade their terminals from previous releases should order the DVD appropriate to the encryption level already installed.

- GMVN6007A UPGRADE CPS 6.2 + CLR MR5.14.10/MR10.6.10
- GMVN6008A UPGRADE CPS 6.2 + TEA1 MR5.14.10/MR10.6.10
- GMVN6009A UPGRADE CPS 6.2 + TEA2 MR5.14.10/MR10.6.10
- GMVN6010A UPGRADE CPS 6.2 + TEA3 MR5.14.10/MR10.6.10
- GMVN6011A UPGRADE CPS 6.2 + TEA2+BSI E2EE

  MR5.14.10/MR10.6.10

This CPS is compatible with TETRA terminals:

MTP3000 Series
MTP6000 Series
MTP830 FuG
MTP830 S
MTP850
MTP850 Class 3L
MTP850 FuG
MTP850 S
MTH800
MTM800
MTM800E
MTM5000 Series
MTM800 FuG
MTM800 FuG ET
MTP810 EX
MTP850 EX
TOM100
MTC100
TCR1000

Encryption software upgrades must be ordered on COF from the European Software Factory as the usual export controls apply to these items.

Ordering

All relevant part numbers and pricing can be found on the electronic catalogue pages (ECAT).

The new 800MHz band MTM5200, MTM5400 and MTM5500 terminals may be ordered as follows:

For APME Region

AZM83UCA6TZ5AN	MTM5200 806-870 DATA MT753C
AZM83UCS6TZ2AN	MTM5200 806-870 M'CYCLE MT753C
AZM83UCS6TZ4AN	MTM5200 806-870 DESK MT753C
AZM83UCS6TZ5AN	MTM5200 806-870 DASH MT753C
AZM83UCS6TZ6AN	MTM5200 806-870 REMOTE MT753C
AZM83UFA6TZ5AN	MTM5400 806-870 DATA MT753C
AZM83UFS6TZ2AN	MTM5400 806-870 M'CYCLE MT753C
AZM83UFS6TZ4AN	MTM5400 806-870 DESK MT753C
AZM83UFS6TZ5AN	MTM5400 806-870 DASH MT753C
AZM83UFS6TZ6AN	MTM5400 806-870 REMOTE MT753C
AZM83UFT6TZ6AN	MTM5500 806-870 REMOTE MT753C

800MHz is not available in EIA Region

The new 450MHz band MTM5200, MTM5400 and MTM5500 terminals may be ordered as follows:

For APME Region

AZM83RCA6TZ5AN	MTM5200 410-470 DATA MT553C
AZM83RCS6TZ2AN	MTM5200 410-470 M'CYCLE MT553C
AZM83RCS6TZ4AN	MTM5200 410-470 DESK MT553C
AZM83RCS6TZ5AN	MTM5200 410-470 DASH MT553C
AZM83RCS6TZ6AN	MTM5200 410-470 REMOTE MT553C
AZM83RFA6TZ5AN	MTM5400 410-470 DATA MT553C
AZM83RFS6TZ2AN	MTM5400 410-470 M'CYCLE MT553C
AZM83RFS6TZ4AN	MTM5400 410-470 DESK MT553C
AZM83RFS6TZ5AN	MTM5400 410-470 DASH MT553C
AZM83RFS6TZ6AN	MTM5400 410-470 REMOTE MT553C
AZM83RFT6TZ6AN	MTM5500 410-470 REMOTE MT553C

For EIA Region

MDM83RCA6TZ5AN	MTM5200 410-470 DATA MT553C
MDM83RCS6TZ2AN	MTM5200 410-470 M'CYCLE MT553C
MDM83RCS6TZ4AN	MTM5200 410-470 DESK MT553C
MDM83RCS6TZ5AN	MTM5200 410-470 DASH MT553C
MDM83RCS6TZ6AN	MTM5200 410-470 REMOTE MT553C
MDM83RFA6TZ5AN	MTM5400 410-470 DATA MT553C
MDM83RFS6TZ2AN	MTM5400 410-470 M'CYCLE MT553C
MDM83RFS6TZ4AN	MTM5400 410-470 DESK MT553C
MDM83RFS6TZ5AN	MTM5400 410-470 DASH MT553C
MDM83RFS6TZ6AN	MTM5400 410-470 REMOTE MT553C
MDM83RFT6TZ6AN	MTM5500 410-470 REMOTE MT553C

Ordering continued

MR10.6.10 software is the first applicable release and is ordered with option:

GA01110AA	ADD: MR10.6.10 SOFTWARE

The following new Ethernet and Telephone Style Control Head options are introduced:

GA01080AA	ADD: ETHERNET CH (ECH) REMOTE ARABIC
GA01081AA	ADD: TELEPHONE STYLE CH(TSCH) ARABIC
GA01082AA	ADD: DUAL ECH REMOTE ARABIC
GA01083AA	ADD: DUAL TSCH ARABIC
GA01084AA	ADD: DUAL CH MIX ECH AND TSCH ARABIC
GA01085AA	ADD: ETHERNET CH (ECH) REMOTE CYRILLIC
GA01086AA	ADD: TELEPHONE STYLE CH(TSCH) CYRILLIC
GA01087AA	ADD: DUAL ECH REMOTE CYRILLIC
GA01088AA	ADD: DUAL TSCH CYRILLIC
GA01089AA	ADD: DUAL CH MIX ECH AND TSCH CYRILLIC
GA01090AA	ADD: ETHERNET CH (ECH) REMOTE HEBREW
GA01091AA	ADD: TELEPHONE STYLE CH(TSCH) HEBREW
GA01092AA	ADD: DUAL ECH REMOTE HEBREW
GA01093AA	ADD: DUAL TSCH HEBREW
GA01094AA	ADD: DUAL CH MIX ECH AND TSCH HEBREW
GA01095AA	ADD: ETHERNET CH (ECH) REMOTE CHINESE
GA01096AA	ADD: TELEPHONE STYLE CH(TSCH) CHINESE
GA01097AA	ADD: DUAL ECH REMOTE CHINESE
GA01098AA	ADD: DUAL TSCH CHINESE
GA01099AA	ADD: DUAL CH MIX ECH AND TSCH CHINESE
GA01100AA	ADD: ETHERNET CH (ECH) REMOTE TAIWANESE
GA01101AA	ADD: TELEPHONE STYLE CH(TSCH) TAIWANESE
GA01102AA	ADD: DUAL ECH REMOTE TAIWANESE
GA01103AA	ADD: DUAL TSCH TAIWANESE
GA01104AA	ADD: DUAL CH MIX ECH AND TSCH TAIWANESE
GA01105AA	ADD: ETHERNET CH (ECH) REMOTE KOREAN
GA01106AA	ADD: TELEPHONE STYLE CH(TSCH) KOREAN
GA01107AA	ADD: DUAL ECH REMOTE KOREAN
GA01108AA	ADD: DUAL TSCH KOREAN
GA01109AA	ADD: DUAL CH MIX ECH AND TSCH KOREAN

Note – these are new options specifically for MTM5500 and will be orderable as applicable to appropriate regions.

The 7.5 Watt loudspeaker RSN4003A is now also orderable as an option for use with MTM5000 series.

GA01176AA	ADD: Speaker 7.5W

Another may be ordered as an option

GA01177AA	ADD: 2nd SPEAKER, 7.5W

Further information:

Please contact your usual Motorola channel partner account manager.

General Disclaimer

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