GENERAL

Dimensions HxWxD mm	125 x 50 x 37.5	(with standard battery)
Weight	170 g	(radio only)
	240g	(with standard battery)
Battery Performance	Class 4 (1W)	Class 3L (1.8W)
Duty Cycle (5/5/90)	> 23 hours	> 20.5 hours
Duty Cycle (5/35/60)	> 17 hours	> 15.5 hours
Talk Time	3.5 hours	2.5 hours

RF SPECIFICATIONS

Frequency Bands	380-430 MHz
Transmitter RF Power	Class 3L (1.8W) & Class 4 (1W)
RF Power Level Accuracy	2 dB
Adaptive Power Control	A and B
Receiver Class	A and B
Receiver Static Sensitivity	-112 dBm minimum (-115 dBm typical)
Receiver Dynamic Sensitivity	-103 dBm minimum (-107 dBm typical)

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature °C	-30 to +60
Storage Temperature °C	-40 to +85
Humidity	ETSI 300 019-1-7 class 7.3E
Dust and Water Ingress Protection	IP54 per IEC 60529
Shock, drop and vibration	ETSI 300-019 1-7 class 5M3

LICENSES/OPTIONS / ACCESSORIES

LICENSES/OPTIONS	ACCESSORIES
Call-Out License	Antennas (stubby, whip)
GPS License	Battery (Li Ion 1850 mAh)
Multi-Slot Packet Data License	Various carrying solutions
WAP Browser License	Battery Chargers & Vehicle Adapters
Enhanced Security License	Audio headsets
Permanent Disable License	Remote Speaker Microphones
Temporary Disable License	Earpieces
RUA/RUI License	In-Vehicle Solutions
Language & Keypad Options	Serial & USB Programming/Data Cables
Air Interface Encryption Options	
End to End Encryption Options	
Class 3L (1.8W) License	

SECURITY SERVICES

Authentication (Mutual)
Class 1, 2, and 3
Air Interface Encryption (CESG Baseline)
E2E Encryption (CESG Enhanced)

MAIN DATA SERVICES

Packet Data	WAP Browser (Image Browsing)
	Multi-Slot Packet Data
Short Data	STATUS Messaging in TMO & DMO
	SDS Messaging in TMO & DMO
	Short Data Applications
TNP1	Simultaneous operation of Packet Data and Short Data Services
	over a common Peripheral Equipment Interface (PEI)
AT Commands	Full Set of AT Commands (including Voice Control)
iTM	Fleet Management (Remote Programming)

LOCATION SERVICES

Simultaneous Satellites	12
GPS antenna	Helical integrated into TETRA antenna
Sensitivity	-152 dbm / -182 dbW
Accuracy	5 meter (50% probable)*
	10 meter (95% probable)*
Protocols	ETSI LIP & Motorola LRRP

USER INTERFACE

Colour Display	130x130 pixel screen with 65,536 vivid colours
	Flip screen and large/x-large text & icon options Backlight
Screen Saver	gif image & text (any user's selection)
Universal Time Display	
Multiple Languages	
Keypad Lock	
Talkgroup Management	User friendly, flexible, efficient, fast
Talkgroups – TMO	2048
Talkgroups – DMO	1024
Talkgroup Folders	Dual layer folder structure (folder/subfolder) 256 folders
Favourite Folders	Up to 3 (to store any favourite talkgroup)
Menu	Tailored to user needs
	Menu Shortcuts
	Menu Configuration
Contacts Management	Cellular Type (Rapid Search)
Contact List	up to 1000 contacts
	up to 6 numbers per contact, max 2000 numbers
Multiple Dialling Methods	user selects how to dial
Fast/Flexible Call Response	Private Call Response to a Group Call via One Touch Button
Vibrator & Multiple Ring Tones	
Message Manager	Cellular Type (Flexible)
Text message list	20
Intelligent Keypad Text Input	
Status list	100
Country/Network Code List	100
Scan lists	40 lists of 20 groups
User Controls	
Multi-function Rotary Knob	Volume, List Scroll, and/or Talkgroup Selection
One touch Buttons & Keys	each button key can be programmed with one
	of the multiple functions available
Adaptive Audio Control	Best audio profile for a given working environment
Covert Mode	

MAIN VOICE SERVICES

Full Duplex	TMO	Private, PABX, PSTN, Emergency
Half Duplex	TMO	Private, Group, Emergency
	DMO	Private, Group, Emergency
		Inter-MNI, Gateway, Repeater
Dialling		Direct, Scroll, Speed, One touch but-
ton/key		
		Alpha Search, Call History Redial
Emergency	Tactical	Emergency Group Call to ATTACHED
talkgroup		
(tailored by users)	Non-Tactical	Emergency Group Call to DEDICATED
talkgroup		
	Individual	Emergency Call to PREDEFINED party
		(half/full duplex)
	HOT MIC	talk without need to PTT (user enabled)
	Status Msg	sent to dispatch console (user enabled)
	DMO to TMO	enter DMO emergency (with/without
		gateway) or enter TMO emergency
Preemptive Priority Calls		
Call Out		

The information contained in this brochure may be subject to change without further notice

• Product features may be subject to infrastructure support

• Selected features are subject to optional or future software upgrade

MOTOROLA

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MTP850 TETRA Handportable Terminal

Versatile and adaptable voice and Data Communications

www.motorola.com/tetra

ONE MILLION AND COUNTING…

Motorola reached the milestone of 1 Million TETRA Radios shipped at the end of 2008. This demonstrates the trust that users around the world put in Motorola to deliver TETRA service for their mission effectiveness and personal safety.
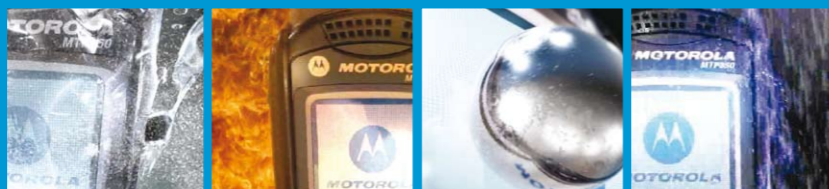
MTP850 TETRA TERMINAL

We test our terminals in our labs, not on our Customers

Motorola has been designing Mission Critical Communications for over 70 years and if there's one thing we've learned it's that Public Safety is a tough place to be.

Not just in the obvious places, like the fires or the major incidents, but it's a tough place every single day.

It's that experience that has taught us that all of our products need to be tough, 'every single day' tough.

That's why we came up with our Accelerated Life Testing

Our ALT™ and other programmes test our radios to simulate a full five years of hard use. Five years worth of being dropped, bashed, shaken, heated, frozen, shocked, and soaked; And that's not just five 'consumer' years, but five 'mission critical' years of hard use.

Durability is only one half of the story, we test for toughness too. Here are a couple of examples of standard tests that all, not just our rugged ones, terminals have to exceed;

• **Thermal Shock Test** - Frozen to -57°C for two hours, them heated to +80°C in less than fifteen seconds and kept there for a further two hours. This is then repeated a further five times in 24 hours.

• **Drop Test** - Dropped from a height of 1.2 meters on each of the six faces of the radio onto a smooth concrete or steel surface. This is repeated and only passes if the terminal continues to function throughout the test and this includes the battery not falling off and providing continuous power to the terminal.

HIGH POWER AND HIGH SENSITIVITY COUPLED WITH EASE OF USE

Featuring fully integrated voice and data services that can provide access to up to date information to make quick and informed decisions. The MTP850 also features a superior, customisable menu system with fast access to essential features including talkgroups, contact lists, mailbox, text messaging and the powerful 'My Groups' feature for rapid access to common talkgroups.

New for 2009. Adding Class 3L (1.8W) power output as an option will improve coverage in TMO and DMO usage. Taken together with high receiver sensitivity this gives the MTP850 the TETRA capability for the most demanding critical communication applications.

Improved productivity through:

• Instant access to information databases through integrated WAP browser - make decisions based on the latest information.

• Update your availability and situation using Status Messaging - monitor the progress of job assignments, or call for support when needed.

Improved resource management through:

• Ability to locate resources - with state of the art integrated GPS receiver.

• Knowing where your resources are enables you to allocate tasks based on up to date information.

• Integrated Terminal management which automatically configures radios and uploads latest software.

Improved security through:

• Hitting the emergency button not only alerts colleagues to critical situations, but sends and updates your location, so help is sent when and where it is needed. GPS position is also relayed to the control desk when in Direct Mode Operation. Silent emergency enables the user to send emergency alerts without an indication on the screen. This will be vital in some high risk situations.

• Secure communications, whether inherent protection from TETRA digital signalling or encrypted communications. The MTP850 supports both TETRA Air Interface Encryption and for those with enhanced security needs - End to End Encryption solutions.

Terminal Services - Ensuring Maximum Performance to Meet your Mission Critical Requirements

• **Service Centre Excellence**: We deliver. With our proven same day repair capability, you can be sure your equipment is expertly repaired and back in your end users' hands quickly. Using the latest tools and with strict adherence to Motorola engineering procedures, our European Radio Support Centre's expert technicians diagnose and repair units to original manufacturing specifications.

• **Technical Expertise**: Get answers to your technical questions, reduce downtime and improve issue resolution times. Experienced technical support engineers work with you to diagnose and resolve hardware and software problems resulting in swift resolution of issues for your end users.

• **Customer Service**: A single source for support delivered through our new state of the art call centre, available 24x7 to track customer issues and 8x5 for technical support. Ready to assist by telephone, e-mail or fax.

• **Certified solutions**: All our services are fully certified to comply with ISO, ATEX / FM and CENELEC thereby providing the peace of mind that can only come from an experienced and trusted supplier.

• **Defined Service Level Agreements (SLAs)**: All Motorola services are offered to committed SLAs including turnaround times.

SAFETY AND EFFECTIVENESS THROUGH

1 Class 3L Transmit Power and High Receiver Sensitivity
The MTP850 has been upgraded with a more powerful transmit power option. This will benefit the user with greater DMO and TMO range and in building coverage.

2 Designed to Deliver - Designed for the Future
The MTP850 comes with processing power to ensure users can take advantage of applications such as WAP and Multi Slot Packet Data.

3 Personal Safety
Protecting your staff is vital. The MTP850 helps you achieve this, with its high quality voice calls, backed up by emergency calls with automatic location updates.

4 True Colour - Truly Original
The MTP850 has a 130 x 130 pixel display capable of displaying over 65,000 colours - ideal for viewing high resolution images via your WAP browser.

5 Secure Communications
Maintaining private and secure communications is increasingly important, with potentially sensitive information flowing through voice or data. The MTP850 provides security, from inherent protection of a digital system to the highest levels of security using Air Interface Encryption or an integrated End-to-End.

PERFORMANCE MATCHED ACCESSORIES

Professional radio users operate in varied and demanding conditions. Enhance your MTP850 with a wide range of Motorola Genuine.

Audio Accessories
From covert surveillance to high noise environments Motorola offers solutions to meet your needs

Carry Options
Carrying accessories in various forms and materials. Coupled with audio accessories, a Motorola solution offers convenience and hands free mobility

Batteries
Genuine Motorola batteries designed to deliver optimum performance

Charging & Vehicle Solutions
Whether on your desk or in your vehicle, Motorola charging solutions maximise