



# ***MOTOROLA CEP400***

Portable TETRA Radio and Accessories



# Heavyweight capabilities. Lightweight portability.

*In demanding environments, an effective and reliable communications infrastructure is vital to ensuring the safety of the workforce and achieving service continuity. That's why business-critical users value the advanced features and capabilities offered by Motorola's CEP400 portable radio.*

*The CEP400 leverages advanced capabilities to deliver the reliable and robust communications platform required by oil and gas, utilities, hospitality, transportation and other commercial businesses.*



# Setting a new standard in performance

The CEP400 TETRA portable enables the high performance required for critical communications. This rugged yet lightweight radio delivers easy-to-use advanced features to ensure that employees in demanding workplaces stay safe, informed and productive.

## **Enhanced Personnel Safety**

With its high quality audio, large emergency 'panic' button and built-in GPS, the CEP400 supports a wide range of sophisticated safety features:

- Hot 'Mic' activates the microphone so that surrounding audio is captured without having to press the PTT button. At the same time, the dispatcher is notified of the user's location.
- Ambience listening allows the microphone to be remotely activated so that audio is captured and the dispatcher's situational awareness increased.

## **Built to Last**

The CEP400 provides uncompromising durability and has been made to the highest quality levels, exceeding all 11 categories in the stringent MIL-810 standard.

## **Superior Audio Quality**

The CEP400 incorporates advanced noise reduction digital technology. This helps to accurately filter out background noise from the caller's voice. By virtually eliminating background noise, the need to repeat messages is minimised, increasing operational efficiency.

## **Longer battery life**

Leveraging advanced power management technology, the CEP400's standard Li Ion battery provides more than 23 hours operational use (5/5/90 duty cycle) to meet the demands of a high performance workforce.

## A customised solution for you

*A full line of Motorola Original accessories including headsets, carry cases, antennas, batteries, charging systems and vehicular car kits are available to meet your specific business needs. For enhanced investment security, all accessories are shared with the market proven MTP850 product.*



### **D-Shell Earpiece**

Ultra lightweight and stylish earpiece designed to ensure comfort needed when working long shifts. In-line push-to-talk and microphone enhance ease of use.



### **Leather Carry Cases**

Constructed of top-grain leather to protect the radio from harsh working environments. Keeps the radio secure in high activity applications while allowing the radio to swing freely with body movements.



## CEP400 Portable Radio Features

- ① Programmable rotary knob for volume control and scrolling through to talkgroups
- ② Easy to locate emergency button – situated next to the base of the antenna
- ③ Loud speaker
- ④ Large, textured PTT button and programmable side keys
- ⑤ Patented helical GPS antenna integrated into TETRA antenna
- ⑥ 130x130 pixels display with 65, 536 vivid colours.
- ⑦ Loudspeaker button
- ⑧ Lower microphone – activated during phone calls
- ⑨ Programmable arrow keys for fast access to key functions
- ⑩ Upper microphone – used during group calls

### Instant Familiarity

To minimise training costs, the CEP400 incorporates a familiar cellular phone style user interface. It also includes a large colour display option that supports 65, 536 vivid colours and large scalable fonts. For fast and intuitive device interaction, the radio includes a customisable menu and programmable One Touch buttons.

### Operational Resilience

The CEP400 allows users to leverage reliable TETRA networks for internal and external workgroup communications through its support for private, group, PABX and PSTN calls. This enables independence from public networks and improved operational resilience.

## Performance matched accessories with the quality you expect

*Motorola accessories are performance matched to guarantee the same high standards of quality that you enjoy with your Motorola Tetra terminal. When you buy a Motorola accessory, you know the accessories are built and tested to meet the highest standards that you expect.*



### Dual Unit Charger

Rapid charging solution that allows you to quickly charge your radio along with a spare battery at the same time to ensure your radio is charged and ready to go when you are.



### Digital Car Kit

For a seamless communications experience, Motorola's vehicle kits provide convenience and easy access to key portable functions while in a vehicle.

*"We are confident that Motorola's TETRA system will enhance our operational effectiveness and enable us, in turn, to provide high standards of service and safety for our passengers"*

**Mr Siddharth D Patel,**  
Construction Manager  
Rail Systems, West  
Rail, Kowloon-Canton  
Railway Corporation.



## Ensuring Maximum Performance

Motorola has sold and supports more TETRA terminals in the field than any other manufacturer. With over 75 years experience of delivering mission critical and business critical solutions, Motorola has the expertise to ensure the optimal performance of your TETRA terminals.

To get the maximum benefit from your investment, Motorola provides a comprehensive suite of applications and terminal services.

### **Service Centre Excellence**

With our proven same day repair capability, you can be sure your equipment is expertly repaired and back in your end users' hands quickly.

### **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**

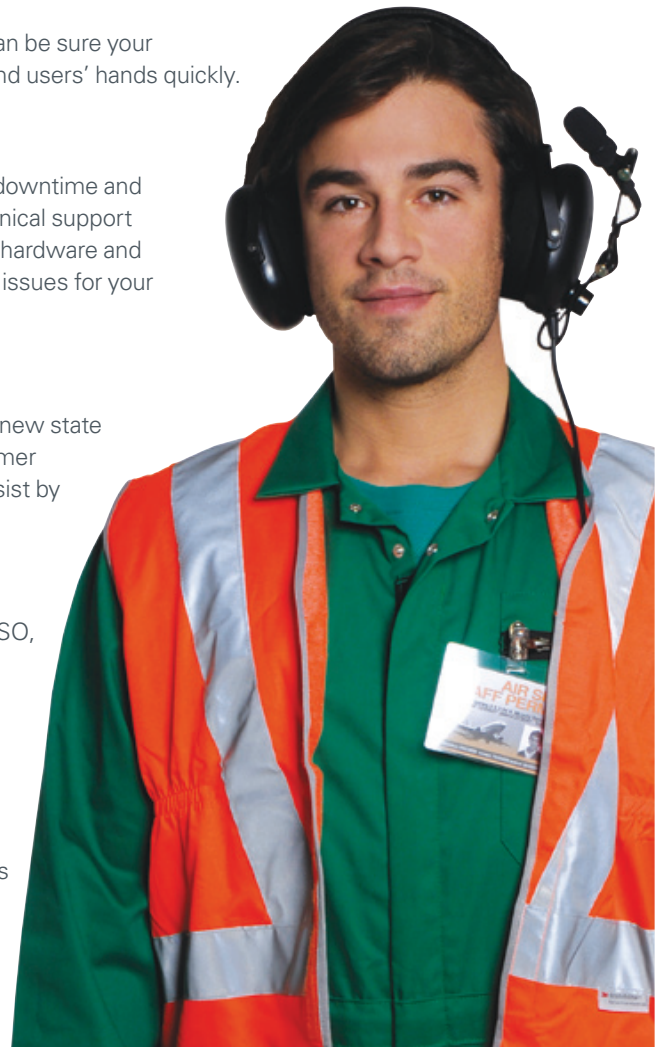
A single source for support delivered through our new state of the art call centre, available 24x7 to track customer issues and 8x5 for technical support. Ready to assist by telephone, e-mail or fax.

### **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.

### **Customised applications**

To deliver highly tailored solutions for customers, we work with technology partners that are leaders in their field of expertise. Our solutions include personnel and vehicle tracking, video surveillance and a variety of tools for enhanced situational awareness.



# Specifications

## GENERAL

Dimensions HxWxD mm	125 x 50 x 37.5	(with standard battery)
Weight g	170	(radio only)
Battery Performance	240	(with standard battery)
mAh		Standard Li-Ion
Duty Cycle (5/5/90) hours		1850
Duty Cycle (5/35/60) hours		> 23 hours
Talk time hours		> 17 hours
		3.5 hours

## RF SPECIFICATIONS

Frequency Bands (MHz)		380 - 430
		806 - 870
Switching Bandwidth TMO (MHz)		50 (380-430)
	19 (TX: 806-825, RX:851-870)	
Switching Bandwidth DMO (MHz)		50 (380-430)
		19 (851-870)
RF Channel Bandwidth (kHz)		1W
RF Power Control		3 Steps of 5 dB
RF Power Level Accuracy		+/- 2 dB
Receiver Class		A & B
Receiver Static Sensitivity (dBm)		-112 minimum, -115 typical
Receiver Dynamic Sensitivity (dBm)		-103 minimum, -107 typical

## ENVIRONMENTAL SPECIFICATIONS

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

## OPTIONS

GPS License	
Local Language Options	
Colour and Greyscale Display Option	

## PERIPHERALS AND ACCESSORIES

Audio	Earpieces, headsets and remote speaker microphones
Batteries	1850 mAh battery
Carrying & In-Vehicle Solutions	Various carrying solutions and vehicle adapters
Antenna	Includes stub, whip options
Remote Programming	Via Intelligent terminal management solution

## SECURITY SERVICES

Authentication	Mutual
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## DATA SERVICES

Short Data	STATUS messaging in TMO & DMO Short Data Service messaging in TMO & DMO Short Data applications
AT Commands	Reduced set of AT commands (excludes voice control)

## 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

Display	Colour (or Gray Scale) 130x130 pixels with 65, 536 vivid colours Backlight   Flip screen and scalable text font options Gif image & text (user defined)
Screen Saver	
Universal Time Display	
Multiple Languages	
Keypad Lock	
Talkgroup Management	User friendly, flexible, fast and efficient interface
Talkgroups – TMO	2048
Talkgroups – DMO	1024
Talkgroup Folders	Dual layer folder structure (folder/sub-folder) 256 folders
Favourite Folders	Up to 3 (to store favourite talk groups)
Menu	Customisable to user needs Menu Shortcuts Menu Configuration
Contacts Management	Cellular phone style
Contacts List	Up to 1000 contacts Up to 6 numbers per contact, max. 2000 entries
Multiple Dialling Methods	User defined
Fast/Flexible Call Response	Private Call Response to a Group Call via One Touch button Vibrator and Multiple ringtones
Alerting Modes	
Message Manager	Cellular phone style
Text Message Inbox	20 messages
Intelligent Keypad Text input	
Status List	100 alias messages
Country/Network Code List	100
Scan lists	40 lists of 20 talkgroups
User Controls	
Multi-function Rotary Knob	Volume, Talkgroup scroll and/or selection
One Touch Buttons	Single button activation for multiple functions
Adaptive Audio Control	Selects best audio profile for a given environment
Authentication	Mutual

## VOICE SERVICES

Full Duplex	TMO	Private, PABX, PSTN, Emergency
Half Duplex	TMO	Private, Group, Emergency
	DMO	Private, Group, Emergency
Dialling		Inter-MNI, Gateway, Repeater Direct, Scroll, Speed, One Touch button/key Call History Redial
Emergency and Safety (User-defined)	Tactical	Emergency Group Call to ATTACHED talkgroup
	Non-Tactical	Emergency Group Call to DEDICATED talkgroup
	Individual	Emergency Call to PREDEFINED party
	HOT MIC	Talk without pressing PTT button (user enabled)
	Status Message	Message sent to dispatch console (user enabled)
	DMO to TMO	Enter DMO emergency (with/without gateway) or enter TMO emergency
Pre-emptive Priority Calls		

**FLASH**  
SERVICES

## Flash Services

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