



BUILT FOR THE EXTREME

# THE MOTOROLA MTP830 S TETRA RADIO

When you're working under extreme conditions, you need a radio that's up to the challenge. That is why we created the MTP830 S, a rugged radio that combines louder audio and enhanced ergonomics with simplified controls – a combination that allows fire fighters and other first responders to focus on the task at hand and not on the technology.

## ENHANCED ERGONOMICS

**Simplified controls:** By enlarging the rotary knob, we've made the radio glove-friendly so it's easier to control talkgroup and volume settings.

**Specialist accessories:** Operating a radio under protective clothing can be challenging. Through our partnerships with world leading accessory suppliers, we've made this easier by ensuring that the MTP830 S can safely inter-operate with a wide range of specialist audio and push-to-talk equipment.

## BETTER PERSONAL SAFETY

**Man-Down detector:** The built-in angle and motion detector will trigger an emergency call for help when you don't move for a period of time - helping you stay safe in harsh conditions.

**Advanced GPS:** Knowing where your colleagues are not only helps you work more efficiently, it also improves your safety. With the latest GPS technology and powerful reporting profiles, the MTP830 S helps you achieve this.

**Automatic accessory sensing:** The MTP830 S automatically adjusts audio settings based on pre-loaded profiles for detected accessories. It also enables you to select the best audio profile for different working environments.

**Configurable user interface:** You should not need to go through multiple key presses to get to the functions you need. With its configurable user interface, the MTP830 S helps keep button presses to a minimum.

## UNCOMPROMISING PERFORMANCE

**Extended Operational Range:** The combination of a highly sensitive RF receiver and transmission power that is adjustable to 1.8W provides extended operational range, helping you stay connected wherever work takes you.

**Rugged Design:** IP55 ingress protection means the MTP830 S is extremely weather resistant – giving you the robustness you require in a radio.

**PRODUCT SPEC SHEET**  
MTP830 S

**GENERAL**

|                      |   |                 |
|----------------------|---|-----------------|
| Dimensions mm        | Standard Battery<br>125 x 59 x 36                 |                 |
| Weight               | 174g (radio only)<br>234g (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 4 (1W)                        | Class 3L (1.8W)* |
| RF Power Level Accuracy      | +/- 2 dB                            |                  |
| Adaptive Power Control       | Per EN 300 392-2                    |                  |
| 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 oC          | -30 to +60                  |
| Storage Temperature oC            | -40 to +85                  |
| Humidity                          | ETSI 300 019-1-7 Class 7.3E |
| Dust and Water Ingress Protection | IP55 per IEC 60529          |
| Shock, drop and vibration         | ETSI 300-019 1-7 Class 5M3  |

**SECURITY SERVICES**

|  |   |
|--|---|
| Authentication (Mutual)                  |   |
| Air Interface Encryption (CESG Baseline) | Class 1 (CLEAR), Class 2 (SCK), Class 3 (CCK, DCK, GCK), OTAR |
| E2E Encryption (CESG Enhanced)           |   |
| BSI SIM Card Encryption                  |   |

**MAIN DATA SERVICES**

|                         |  |
|-------------------------|--|
| Packet Data             | WAP Browser (Image Browsing)<br>Multi-Slot Packet Data   |
| Short Data              | STATUS Messaging in TMO & DMO<br>SDS Messaging in TMO & DMO<br>Short Data Application                            |
| TNP1                    | Simultaneous operation of Packet Data and Short Data Services over a common Peripheral Equipment Interface (PEI) |
| Remote Terminal Control | Remote control of radio terminal via SDS   |
| AT Commands             | Comprehensive set of AT Commands (including Voice Control)   |
| Radio Management        | Fully compatible with Motorola Integrated Terminal Management system for fleet management (remote programming)   |

**LICENSES/OPTIONS\***

|   |  |
|---|--|
| Call-Out  |  |
| Greyscale or Colour Display Options                 |  |
| GPS   |  |
| Multi-Slot Packet Data                              |  |
| WAP Browser   |  |
| Enhanced Security                                   |  |
| Permanent Disable                                   |  |
| Temporary Disable                                   |  |
| Radio User Assignment/Radio User Identity (RUA/RUI) |  |
| Language & Keypad Options                           |  |
| Air Interface Encryption Options                    |  |
| End to End Encryption Options                       |  |
| Man-Down Feature                                    |  |
| Class 3L (1.8W) Option                              |  |
| PTT Double Push                                     |  |

**LOCATION SERVICES**

|                         |   |
|-------------------------|---|
| Simultaneous Satellites | 12  |
| GPS antenna             | Helical integrated into TETRA antenna     |
| Sensitivity             | -152 dBm / -182 dBW                       |
| Accuracy                | 5m (50% probable)      10m (95% probable) |
| Protocols               | ETSI LIP & Motorola LRRP                  |

**ACCESSORIES**

|  |
|--|
| Antennas (Short stubby, long stubby, whip) |
| Battery (Li Ion 1850 mAh)                  |
| Various carrying solutions                 |
| Battery Chargers & Vehicle Adapters        |
| Audio headsets                             |
| Remote Speaker Microphones                 |
| Earpieces                                  |
| In-Vehicle Solutions                       |
| Serial & USB Programming Cables            |

**USER INTERFACE**

|                                |   |
|--------------------------------|---|
| Colour Display                 | 130x130 pixel screen with 65,536 vivid colours<br>Flip screen and large/x-large text & icon options;<br>Backlight |
| Screen Saver                   | Gif image & text (any user's selection)   |
| Universal Time Display         |   |
| Multiple Languages             |   |
| Keypad Lock                    | Includes automatic keypad locking   |
| 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<br>Menu Shortcuts<br>Menu Configuration  |
| Contacts Management            | Cellular Type (Rapid Search)  |
| Contact List                   | Up to 1000 contacts<br>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) with concatenated messages up to 1,000 characters  |
| Text message list              | 100 Predefined or user defined  |
| Intelligent Keypad Text Input  |   |
| Status List                    | 400   |
| 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   |
| Dialling            |                | Direct, Scroll, Speed,<br>One touch button<br>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 needing to press PTT (user enabled)                                |
|                     | STATUS Message | Sent to dispatch console (user enabled)   |
|                     | DMO to TMO     | Enter DMO emergency (with/without gateway) or enter TMO emergency               |

**Preemptive Priority Calls**

\* Only a subset of available licenses/options are listed. Product features may be subject to infrastructure support. Selected features are subject to optional or future software upgrade.

For more information on how your organisation can benefit from the MTP830 S, please visit us on the web at: [www.motorola.com/tetra](http://www.motorola.com/tetra)

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