



EX™ Series

# **EX560•XLS™**

Professional Submersible Two-Way Portable Radio



# EX560•XLS™ PROFESSIONAL SUBMERSIBLE TWO-WAY PORTABLE RADIO

## Submersible, compact and lightweight, clear audio

Rain, wind, snow and dust are every day challenges when you operate in all weathers and environments or in occupations where inhospitable conditions are a hazard to conventional communication devices. In such conditions, you need to consider personal and group safety first when carrying out and managing work functions. Reliable and efficient communication can help ensure that your team completes work tasks efficiently and safely.

## For professionals who need to stay in contact

- Outdoor Security
- Civil Engineering
- Construction
- Utilities
- Petrochemical & Manufacturing
- Container Depots
- Forestry
- Quarrying

## Designed for durability

The EX560•XLS two-way radio complies with the following standards:

- MIL-STD-810-C, D, E & F
- IP67 – sealing against dust and water intrusion – submersible in up to 1 meter of fresh water for up to 30 minutes
- FM approved as intrinsically safe
- Motorola Accelerated Life Testing (ALT) simulation of five years use

## Water and dust tight solution

The EX560•XLS two-way radio is rated IP67 for resilience to the ingress of dust and water. Ideal for even the harshest outdoor working environments, the EX560•XLS two-way radio helps to ensure constant communication.

## Compact and lightweight

With its compact and lightweight design, the EX560•XLS will not hamper your users during work routines. It has six simple, programmable buttons to ensure fast communication and an ergonomically designed Push-to-Talk button that provides easy operation, even with gloved hands.

## Crisp, clear audio

Crisp, clear and strong audio quality in virtually any noisy environment. X-Pand™ Voice Compression and low level expansion allows further improvements in audio quality by reducing noise usually heard during pauses in conversation. And the emergency signaling feature can be configured to send a help signal to a pre-defined person or group of people at a single push of a button.





## Key features

- Available in conventional or trunking
- 160 channels (conventional)
- Six programmable buttons
- Available in VHF (136-174 MHz), UHF (403-470 MHz & 450-527 MHz)

## Standard package

- Display/Limited Keypad Portable Radio
- Standard Antenna with Sealed Connection
- FM Approved\* Li-Ion 1400 mAh Submersible Battery
- Single Unit Rapid Charger
- Carry Holster
- Operating Instruction Manual
- Three-year Standard Warranty

\* Approved for use with FM approved radio units.

## EX560•XLS™ features

### Signaling

The radio software encompasses Private Line™ and five-tone selective signaling.

### X-Pand™ voice compression and low level expansion

Crisp, clear and strong audio quality in virtually any noisy environment. Low level expansion allows further improvements in audio quality by reducing noise usually heard during pauses in conversation.

### Voice Operated Transmit (VOX)

Hands-free operation when used with VOX headset accessory.

### Adjustable power levels

The radio output power has two settings – low power extends battery life and high power allows the radio to transmit over a greater distance.

### Tight / normal squelch

Enhances audio clarity by filtering out unwanted interference. A tight squelch gives clearer playback of messages, while a normal squelch increases coverage.

### Enhanced Li-Ion battery performance

Each EX560•XLS radio is fitted as standard with a high-capacity Lithium Ion battery. Providing for longer battery life and having no memory or 'over-charge' side effects, Li-Ion batteries offer you increased operating times and extended service life when compared to NiCd or NiMH batteries.

### Emergency signaling

Sends a help signal to a pre-defined person or group of people.

### Programmable channel spacing (12.5/20/25 KHz)

Flexible and easy migration of channel spacing requirements in any situation.

### Trunking capability

Designed to operate on LTR® trunking systems, the EX560•XLS can enhance your communication by providing a wider calling range, faster channel access, greater privacy, and higher user and talkgroup capacity.

### Talkaround

You have the freedom to communicate utilizing a system or dispatcher for wide-area coverage, or you can bypass and talk directly to another unit for easy local unit-to-unit communications.

### Whisper

Allows you to speak quietly into a radio and still be heard clearly.

### Call forward

Allows calls to be forwarded to another radio user if you are unable to answer your calls personally.

# EX560•XLS™ ACCESSORIES

Extend the functionality of your radio even further with this collection of proven Motorola Original accessories. You'll find remote speaker microphones for more convenient control. Carry cases for ease when on the move. Premium batteries to extend work time, and more. They're all ready to help you work smarter, harder and with greater confidence.

## PMMN4022

Windporting remote speaker microphone with 3.5 earjack



## WPLN4187

Multi-unit charger



## JMNN4023

1000 mAh slim Li-Ion battery



## JMNN4024

1300 mAh  
Li-Ion battery



# EX560•XLS™ Accessories

## Audio

### Remote speaker microphones

PMMN4022 Windporting RSM with 3.5 earjack

PMMN4023 Windporting RSM with IP57

### Lightweight headsets

JMMN4066 Single-muff, adjustable, lightweight headset with boom microphone, in-line PTT switch

## Chargers

AAHTN3003 120V aingle-unit rapid rate charger

WPLN4187 Multi-unit charger

WPLN4192 Multi-unit charger with display

## Batteries

JMNN4023 1000 mAh slim Li-Ion battery

JMNN4024 1300 mAh Li-Ion battery

JMNN4025 700 mAh NiMH intrinsically safe (FM) battery

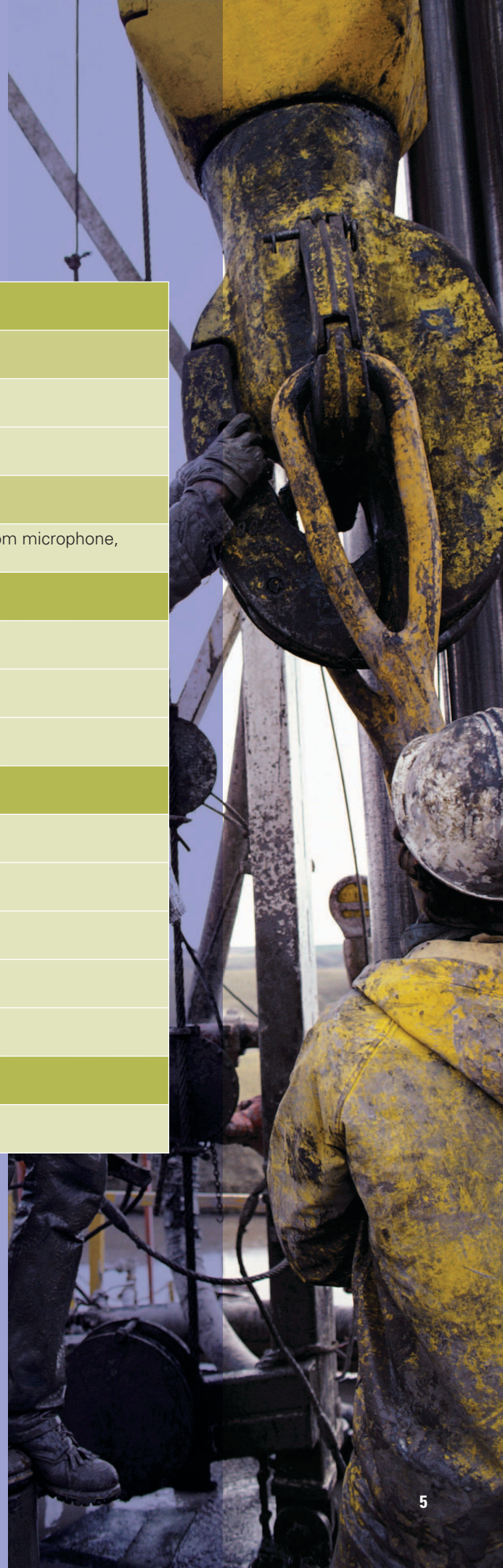
PMNN4073 1400 mAh Li-Ion intrinsically safe (FM) IP67 battery

PMNN4074 1400 mAh Li-Ion standard IP67 battery

## Carry case

PMLN5089 Nylon case for EX560 IP67 display radio

Additional accessories coming soon.



# EX560•XLS™ Specifications

## General

	VHF	UHF 1	UHF 2
Frequency:	136-174 MHz	403-470 MHz	450-527 MHz
Channel capacity:	EX500: 16 Channels; EX600: 128 Channels; EX560•XLS, EX600•XLS: 160 Channels		
Power supply:	7.5 Volts +/- 20%		
Dimensions:	Plain Radio		Keypad Radio
With standard high capacity lithium battery:	101.5mm x 55.5mm x 30.5mm		101.5mm x 55.5mm x 33mm
With ultra high capacity lithium battery:	101.5mm x 55.5mm x 35.5mm		101.5mm x 55.5mm x 38mm
EX560•XLS with IP67 Li-Ion battery:	-		101.5mm x 56.5mm x 39mm
Weight:			
With standard high capacity lithium battery:	250 g		265 g
With ultra high capacity lithium battery:	270 g		285 g
EX560•XLS with IP67 Li-Ion battery:	-		320 g
Average battery life @ (5-5-90 duty cycle):	Low Power		High Power
Standard high capacity lithium battery:	>10 hrs		>7 hrs
Ultra high capacity lithium battery:	>14 hrs		>10 hrs
IP67 Li-Ion battery:	>13 hrs		>10 hrs
Sealing:	Meets MIL-STD-810-C, D, E & F and IPX7 / IPX4 MIL-STD-810C method 506.1 pro. I & II→EX500, EX600, EX600•XLS, EX560•XLS MIL-STD-810D method 506.2 pro. I & II→EX500, EX600, EX600•XLS, EX560•XLS MIL-STD-810E method 506.3 pro. I & II→EX500, EX600, EX600•XLS, EX560•XLS MIL-STD-810F method 506.4 pro. I & III→EX560•XLS IEC 60529 IPX7→EX560•XLS; IEC 60529 IPX4→EX500, EX600, EX600•XLS		
Shock:	Meets MIL-STD-810-C, D, E & F MIL-STD-810C method 516.2 pro. II→EX500, EX600, EX600•XLS, EX560•XLS MIL-STD-810D method 516.3 pro. IV→EX500, EX600, EX600•XLS, EX560•XLS MIL-STD-810E method 516.4 pro. IV→EX500, EX600, EX600•XLS, EX560•XLS MIL-STD-810F method 516.5 pro. IV→EX560•XLS		
Vibration:	Meets MIL-STD-810-C, D, E & F MIL-STD-810C method 514.2 pro. VIII cat. F→EX500, EX600, EX600•XLS, EX560•XLS MIL-STD-810D method 514.3 pro. I cat. 10→EX500, EX600, EX600•XLS, EX560•XLS MIL-STD-810E method 514.4 pro. I cat. 10→EX500, EX600, EX600•XLS, EX560•XLS MIL-STD-810F method 514.5 pro. I cat. 24→EX560•XLS		
Dust:	Meets MIL-STD-810-C, D, E & F and IP6X / IP5X MIL-STD-810C method 510.1 pro. I→EX500, EX600, EX600•XLS, EX560•XLS MIL-STD-810D method 510.2 pro. I→EX500, EX600, EX600•XLS, EX560•XLS MIL-STD-810E method 510.3 pro. I→EX500, EX600, EX600•XLS, EX560•XLS MIL-STD-810F method 510.4 pro. I→EX560•XLS IEC 60529 IP6X→EX560•XLS; IEC 60529 IP5X→EX500, EX600, EX600•XLS		
Humidity:	Meets MIL-STD-810-C, D, E & F MIL-STD-810C method 507.1 pro. II→EX500, EX600, EX600•XLS, EX560•XLS MIL-STD-810D method 507.2 pro. II→EX500, EX600, EX600•XLS, EX560•XLS MIL-STD-810E method 507.3 pro. II→EX500, EX600, EX600•XLS, EX560•XLS MIL-STD-810F method 507.4→EX560•XLS		
FCC Description:	AZ489FT3801	AZ489FT4844	AZ489FT4845

## Transmitter

	VHF	UHF 1	UHF 2
RF output Li-Ion @ 7.5V:	Low 1W High 5W	Low 1W High 4W	
Frequency:	136-174 MHz	403-470 MHz	450-512 MHz
Channel spacing:	12.5 / 20 / 25 kHz		
Frequency stability: (-30°C to +60°C)	0.00025%		
Spurs/harmonics:	-36 dBm < 1GHz -30 dBm > 1GHz		
Audio response: (from 6 dB/oct. Pre-emphasis, 300 to 3000Hz)	+1, -3 dB		
Audio distortion: @ 1000 Hz, 60% rated max. dev.	<5%		

FM noise: -40 dB

## Receiver

	VHF		UHF 1		UHF 2	
Frequency:	12.5 kHz	20/25 kHz	12.5 kHz	20/25 kHz	12.5 kHz	20/25 kHz
Sensitivity	0.35 µV					
12dB EIA SINAD:						
Adjacent channel selectivity ETS	-60 dB	-70 dB	-60 dB	-70 dB	-60 dB	-70 dB
Intermodulation ETS	-65 dB					
Frequency stability: (-30°C to +60°C)	0.00025%					
Spur rejection:	-70 dB					
Image rejection:	-70 dB					
Audio output: @ <5% distortion	500 mW					

EX500, EX560•XLS and EX600•XLS radio models are FM approved as intrinsically safe for use in Division 1, Class I, II, III, Group C,D,E,F and G. Division 2, Class I, Groups A,B,C,D when ordered with the FM option and battery.

All specifications are subject to change without notice.



## Trusted and proven product platform

For over 75 years, Motorola has been a leader in radio communications. From the earliest walkie-talkies, to the first words transmitted from the moon, and currently, to outfitting today's busy professionals with the most efficient means of radio communications – Motorola has always set the standard, which the industry follows. Our innovative thinking has resulted in many of the wireless communication tools available on the market today.

Motorola's EX560•XLS Professional Submersible Two-Way Portable Radio compliments this philosophy. The radio is designed and manufactured for durability – with IP67 specifications for protection against water and dust intrusion, compact and lightweight design to not hamper users during work routines and crisp, clear audio. A cost-effective communication solution for professionals operating in hazardous and inhospitable environments, this discreet, compact, ruggedized, water and dust resistant radio is designed with integral feature sets to suit various operating scenarios.

Designed to operate in the harshest of outdoor environments, Motorola's EX560•XLS two-way radio and accessories provide exceptional quality, performance, durability and reliability to your organization's two-way communication solution by keeping users in contact when working in tough environments and allowing them to concentrate on their jobs.

To put Motorola's rugged EX560•XLS two-way radio to work in your environment, contact your Motorola authorized dealer.



**MAGNUM**  
**ELECTRONICS, INC**



**MOTOROLA**  
**SOLUTIONS**

Radio Solutions Channel Partner

**MOTOROLA SOLUTIONS**

**PLATINUM CHANNEL PARTNER**

Manufacturers Representative  
Professional & Commercial Radio Elite Specialist  
P25 Systems

**Magnum**  
**Electronics, Inc**

927 Horsepond Road  
Dover, DE 19901  
302-734-9250  
302-734-1056 Fax  
23@magnumelectronics.com

[www.magnumelectronics.com](http://www.magnumelectronics.com)



MOTOROLA and the Stylized M Logo are registered in the US Patent & Trademark Office. All other product or service names are the property of their respective owners. © Motorola, Inc. 2007. All rights reserved. 0507

[www.motorola.com](http://www.motorola.com)

Motorola, Inc., 1301 E. Algonquin Road, Schaumburg, IL 60196  
Phone: 1-800-422-4210 TTY: 1-800-522-5210 Fax: 1-800-622-6210