



MOTOTRBO™

PROFESSIONAL DIGITAL TWO-WAY PORTABLE RADIOS





ACCELERATE PERFORMANCE

MOTOTRBO™ PROFESSIONAL DIGITAL TWO-WAY RADIO SYSTEM THE FUTURE OF TWO-WAY RADIO

Motorola is a company of firsts with a rich heritage of innovation. We continue to invent what's next, connecting people, delivering mobility and making technology personal. Versatile and powerful, MOTOTRBO combines the best in two-way radio functionality with digital technology, making it the ideal communication solution for your business. You get enhanced features, increased capacity, integrated data applications, exceptional voice quality and extended battery performance. This means more productive employees and lower operating costs for your business.

THE DIGITAL DIFFERENCE

Two-way radio has been a successful analogue communication solution for generations, and it proves itself every day in countless deployments around the world.

But in today's technologically advanced environment, a new platform is possible, a digital platform that breaks through to new levels of performance and productivity.

In the same way digital technology has transformed other media, it is now revolutionising the way mobile professionals communicate. The time to take advantage of digital two-way radio technology is now.

TAKE ADVANTAGE OF DIGITAL

Digital two-way radios offer several advantages over analogue solutions, to name a few:

- Clearer audio to help assure messages are understood without background noise and static
- Integrated data applications such as text messaging, GPS-based location tracking, work order ticket management and much more
- 40% longer battery life for extended work shifts
- Increased capacity – twice the number of users for the price of one frequency license

TDMA – THE BEST CHOICE

There are two primary digital radio technologies: Time-Division Multiple-Access (TDMA) and Frequency-Division Multiple-Access (FDMA).

While both digital technologies provide significant benefits over analogue, TDMA is the best choice.

TDMA technology delivers advantages over FDMA

- *Double your capacity per channel with less than half the infrastructure per channel*
TDMA divides your existing channels into two time slots enabling you to double the number of users on your system or utilise data applications. A second call does not require a second repeater, resulting in lower costs for you, as you do not need to purchase, install and maintain additional infrastructure equipment.
- *Double your capacity without the hassle*
TDMA provides two time slots on your existing licensed channels, doubling your capacity. There is no increased risk of interference, and there is no need for new licenses, simply amend your existing licenses to specify digital. Compatibility with all legacy radios working in 12.5 kHz analogue channels is also maintained by TDMA.
- *Longer battery life*
TDMA uses only half of the transmitter's capacity, resulting in longer battery life. During long work shifts or where productivity enhancing data applications place an increased power demand on the radio, this extended battery life is invaluable.
- *Advanced features*
TDMA enables smart control features like "transmit interrupt" that makes it possible to interrupt lower priority communication so critical instructions can be delivered exactly when they're needed. And to help you maximise your infrastructure investment, TDMA can transmit voice and data on the same channel.

STANDARDS BASED, FUTURE READY SOLUTION

MOTOTRBO is designed to comply with the globally recognized European Telecommunications Standard Institute (ETSI) Digital Mobile Radio (DMR) Tier 2 standard for professional two-way radio users.

DMR is widely backed by industry leading two-way radio manufacturers, and it is the most widely deployed digital mobile radio technology for professional radio users around the world. This open standard assures long-term stability and develops a community of manufacturers who build interoperable equipment that can compete on features, benefits and price.

The DMR Association represents a collection of companies and organisations that manufacture DMR equipment, supply related products and service or support the standard in other ways. Motorola is an active member of the DMR Association so you can be assured that MOTOTRBO will always be a robust and future-ready digital radio solution.





UNIQUE MOTOTRBO™ SYSTEM BENEFITS FOR ENHANCED PRODUCTIVITY

MOTOTRBO offers a robust, standards-based solution that can be tailored to meet your unique coverage and feature needs. This versatile portfolio provides a complete system of portable radios, mobile radios, repeaters, accessories, data applications, and services, a comprehensive communication solution for your business. MOTOTRBO:

- **Integrates voice and data** into one device to increase your operational efficiency and support integrated applications including MOTOTRBO Text Messaging Services. Also features an integrated GPS module for use with third-party location-tracking applications.
- Uses Time-Division Multiple-Access (TDMA) digital technology to provide **twice the calling capacity** (as compared to analogue or FDMA radios) for the price of one frequency license. A second call doesn't require a second repeater, saving you equipment costs.
- In digital mode, provides **clearer voice communications** throughout the coverage area, as compared to analogue radios, rejecting static and noise.
- Offers **enhanced battery life**. MOTOTRBO digital two-way portable radios can operate up to 40 percent longer between recharges compared to typical analogue radios.
- Provides **easy migration** from analogue to digital with the ability to operate in both analogue and digital modes.
- **Enables additional functionality** including dispatch data, enhanced call signaling, basic and enhanced privacy-scrambling and option board expandability.
- Features the **transmit interrupt** suite - voice interrupt, remote voice dekey, emergency voice interrupt or data over voice interrupt - to help prioritise critical communication exactly when needed.

EXTENDED COVERAGE WITH IP SITE CONNECT

Imagine using your MOTOTRBO digital two-way radio to speak instantly to a colleague in a plant on the other side of the world.

The IP Site Connect digital solution uses an IP network to extend the coverage of your MOTOTRBO communication system no matter where you may be located.

You can communicate easily among geographically dispersed locations located across the city, state or country. You can create wide area coverage and automatically roam from one coverage area to another with no manual intervention. Or you can simply enhance coverage at a single site like a high-rise building that contains physical barriers.

IP Site Connect enables you to extend the voice and data communication capability of your workforce far beyond what two-way radio has ever achieved before. This means dramatically improved customer service and increased productivity.

INCREASED CAPACITY WITH CAPACITY PLUS SINGLE-SITE TRUNKING

As a scalable, single-site digital trunking solution, Capacity Plus expands the capacity of your MOTOTRBO communication system even further. Over a thousand radio users can quickly and efficiently share business-critical voice and data communication on the same system without impacting on call set-up times or reliability.

MOTOTRBO INTEGRATED DATA ENABLES ADVANCED APPLICATIONS

ONE DEVICE FOR VOICE AND DATA

In addition to voice, MOTOTRBO supports text messaging, GPS location tracking capability, and custom applications from Motorola's Professional Radio Application Partner Programme such as telephony, dispatch, work order ticket solutions and much more. MOTOTRBO keeps your employees connected to the information they need to be more efficient, with the convenience of one device.

CONVENIENT AND DISCRETE MOTOTRBO TEXT MESSAGING

Text messaging enables your employees to quickly and easily share information when voice communication isn't practical. It is ideal in loud environments, for delivering messages that don't need an immediate response, or when voice communication could be disrupting to guests, students, customers, or patients.

MOTOTRBO text messaging communicates between radios, radios and dispatch systems, and even radios to any email capable device.

TRACK VEHICLES AND PEOPLE WITH INTEGRATED GPS

MOTOTRBO radios are available with an integrated GPS module to use for tracking people outside your facility, vehicles or other remote assets operating in your coverage area. Unlike other GPS capable radios, MOTOTRBO's module is integrated into the handset so there is no clumsy additional equipment to attach, carry or maintain.

This enables you to better manage your mobile work force and quickly respond to incidents by locating the nearest employee and dispatching them to the scene. It also makes it easier to manage your fleet so you can make deliveries and drive routes more efficiently.

For utility crews, taxi services, the hospitality industry, and countless other industries, the ability to see where your vehicles and employees are located with just a glance is invaluable. Your employees will be far more efficient and your customer service can improve significantly.



CUSTOM DATA APPLICATIONS WITH MOTOROLA'S PROFESSIONAL RADIO APPLICATION PARTNER PROGRAMME

MOTOTRBO can accommodate custom data applications that adapt the radios to support your specific business tasks.

You can, for example, work with third-party developers or your own IT staff to extend the functionality of MOTOTRBO using Motorola's Professional Radio Application Partner Programme.

With this development tool you can create unique applications such as a program to help you manage your work order tickets, to integrate your dispatch and billing systems, to link your MOTOTRBO radios to your telephone system, or to connect to email.

MOTOTRBO is a powerful tool for communication with the flexibility to adapt to your work force, your customers and your business.



MOTOTRBO™ SYSTEM COMPONENTS AND BENEFITS

DP 3600 / DP 3601 DISPLAY PORTABLE RADIO

- 1 Flexible, menu-driven interface with user-friendly icons or two lines of text for ease of reading text messages* and navigating through the menus.
- 2 Tri-color LED indicator for clear, visible feedback of calling, scanning, roaming and monitoring features.
- 3 Emergency button to alert supervisor or dispatcher in an emergency situation.
- 4 Accessory connector meets IP57 submersibility specifications and incorporates RF, USB and IMPRES™ audio capability.
- 5 Integrated GPS module (DP 3601) enables the use of location-tracking data applications.*
- 6 Large, easy-to-use navigation buttons allow easy access to intuitive menu-driven interfaces.
- 7 Radio housing meets IP57 specifications; submersible in 1 meter of fresh water up to 30 minutes. Offers intrinsically safe FM battery options for use in locations where flammable gas, vapors or combustible dust may be present.
- 8 Powerful, front projecting speaker.
- 9 Three side and two front programmable buttons for easy access to frequently used features.
- 10 Large, textured push-to-talk button provides good tactile response and easy access, even when wearing gloves.
- 11 Up to 1,000 channels.



ADDITIONAL FEATURES

- Enhanced call management
 - Digital calling features*
 - Encode/Decode: call alert, emergency, push-to-talk ID, radio check, remote monitor, private call, all call, transmit interrupt (voice interrupt, remote voice dekey, emergency voice interrupt or data over voice interrupt), radio disable
 - Quik-Call II™ analogue calling features
 - Encode/decode: call alert, call alert with voice, select call
- Dual-mode analogue and/or digital scan and mixed mode priority scan*, facilitates a smooth migration from analogue to digital
- Option board for added capabilities
- Basic or Enhanced privacy built-in scrambling for increased security*
- Free-form and quick text messaging*
- Contacts list accommodates up to 1,000 contacts
- Voice Activated Transmit (VOX) hands-free communication
- Expanded coverage across multiple sites with IP Site Connect*
- Increased voice and data capacity with Capacity Plus single-site trunking*

*Digital mode only

DISPLAY PORTABLE RADIO STANDARD PACKAGE

- Display Portable Radio
Digital/Analogue Radio
- Antenna: Standard Whip (DP 3600) / GPS Monopole (DP 3601)
- IMPRES NiMH 1300 mAh battery
- IMPRES Single Unit Charger
- 2.5" Belt Clip
- Two-year Standard Warranty



DP 3400 / DP 3401 NON-DISPLAY PORTABLE RADIO

- 1 Tri-color LED indicator for clear, visible feedback of calling, scanning, roaming and monitoring features.
- 2 Emergency button to alert supervisor or dispatcher in an emergency situation.
- 3 Accessory connector meets IP57 submersibility specifications and incorporates RF, USB and IMPRES audio capability.
- 4 Integrated GPS module (DP 3401) enables the use of location-tracking data applications.*
- 5 Radio housing meets IP57 specifications; submersible in 1 meter of fresh water up to 30 minutes. Offers intrinsically safe FM battery options for use in locations where flammable gas, vapors or combustible dust may be present.
- 6 Powerful, front projecting speaker.
- 7 Three side programmable buttons for easy access to frequently used features.
- 8 Large, textured push-to-talk button provides good tactile response and easy access, even when wearing gloves.
- 9 32 channels.

NON-DISPLAY PORTABLE RADIO STANDARD PACKAGE

- Non-Display Portable Radio
Digital/Analogue Radio
- Antenna: Standard Whip (DP 3400) / GPS Monopole (DP 3401)
- IMPRES NiMH 1300 mAh battery
- IMPRES Single Unit Charger
- 2.5" Belt Clip
- Two-year Standard Warranty

ADDITIONAL FEATURES

- Enhanced call management
 - Digital calling features*
 - Encode/Decode: private call, call alert, all call, transmit interrupt (voice interrupt, remote voice dekey, emergency voice interrupt or data over voice interrupt)
 - Encode only: emergency, push-to-talk ID
 - Decode only: radio check, remote monitor, radio disable
 - Quik-Call II™ analogue calling features
 - Decode only: call alert, call alert with voice, select call
- Dual-mode analogue and/or digital scan and mixed mode priority scan*, facilitates a smooth migration from analogue to digital
- Option board for added capabilities
- Basic or Enhanced privacy built-in scrambling for increased security*
- Send quick text messages via programmable buttons*
- Voice Activated Transmit (VOX) hands-free communication
- Expanded coverage across multiple sites with IP Site Connect*
- Increased voice and data capacity with Capacity Plus single-site trunking*

*Digital mode only

MOTOTRBO™ PORTABLE RADIO SPECIFICATIONS



DISPLAY VHF/UHF

DP 3600 / DP 3601
(with integrated GPS)

General Specifications

Channel Capacity	1000
Frequency	136-174 MHz (VHF) 403-470 MHz (UHF1) 450-512 MHz (UHF2)
Dimensions (HxWxL) with NiMH Battery 1300mAh with Lilon Std Battery 1500mAh with Lilon HiCap Battery 2200mAh with Lilon FM Battery 1400mAh	131.5 x 63.5 x 37.2 mm 131.5 x 63.5 x 35.2 mm 131.5 x 63.5 x 39.2 mm 131.5 x 63.5 x 37.2 mm
Weight with NiMH Battery with Lilon FM Battery with Lilon HiCap Battery with Lilon Std Battery	430 g 370 g 375 g 360 g
Power Supply	7.2V nominal
Average battery life at 5/5/90 duty cycle with battery saver enabled in carrier squelch and transmitter in high power.	
IMPRES Lilon Std Battery IMPRES Lilon HiCap Battery IMPRES FM Lilon Battery NiMH Battery	Analogue: 9 hrs / Digital: 13 hrs Analogue: 13.5hrs / Digital: 19 hrs Analogue: 8.5 hrs / Digital: 12 hrs Analogue: 8 hrs / Digital: 11 hrs
Digital Protocol	ETS1-TS 102 361-1, 2 & 3

Receiver

Frequency	136-174 MHz (VHF) 403-470 MHz (UHF1) 450-512 MHz (UHF2)
Channel Spacing	12.5 kHz/ 20 kHz/ 25 kHz
Frequency Stability (-30° C, +60° C, +25° C)	+/- 1.5 ppm (DP 3600) +/- 0.5 ppm (DP 3601)
Analogue Sensitivity	0.35 uV (12 dB SINAD) 0.22 uV (typical) (12 dB SINAD) 0.4 uV (20 dB SINAD)
Digital Sensitivity	5% BER: 0.3 uV
Intermodulation	65 dB
Adjacent Channel Selectivity	60 dB @ 12.5 kHz 70 dB @ 20/25 kHz
Spurious Rejection	70 dB
Rated Audio	500 mW
Audio Distortion @ Rated Audio	3% (typical)
Hum and Noise	-40 dB @ 12.5 kHz -45 dB @ 20/25 kHz
Audio Response	+1, -3 dB

Military Standards

Applicable MIL-STD	810E		810F	
	Methods	Procedures	Methods	Procedures
Low Pressure	500.3	II	500.4	II
High Temperature	501.3	I/A, II/A1	501.4	I/Hot, II/Hot
Low Temperature	502.3	I/C3, II/C1	502.4	I/C3, II/C1
Temperature Shock	503.3	I/A1C3	503.4	I
Solar Radiation	505.3	I	505.4	I
Rain	506.4	I, II	506.4	I, III
Humidity	507.3	II	507.4	-
Salt Fog	509.3	I	509.4	I
Dust	510.3	I	510.4	I
Vibration	514.4	I/10, II/3	514.5	I/24
Shock	516.4	I, IV	516.5	I, IV

¹ 20 kHz is not supported in 450 - 512 MHz (UHF2) nor in VHF

Specifications subject to change without notice. All specifications shown are typical. Radio meets applicable regulatory requirements.

Transmitter

Frequency	136-174 MHz (VHF) 403-470 MHz (UHF1) 450-512 MHz (UHF2)
Channel Spacing	12.5 kHz/ 20 kHz/ 25 kHz
Frequency Stability (-30° C, +60° C, +25° C)	+/- 1.5 ppm (DP 3600) +/- 0.5 ppm (DP 3601)
Power Output UHF1 and UHF2 VHF	1W and 4 W 1W and 5 W
Modulation Limiting	+/- 2.5 kHz @ 12.5 kHz +/- 4 kHz @ 20 kHz +/- 5.0 kHz @ 25 kHz
FM Hum and Noise	-40 dB @ 12.5 kHz -45 dB @ 20/25 kHz
Conducted / Radiated Emission	-36 dBm < 1 GHz -30dBm > 1GHz
Adjacent Channel Power	-60 dB @ 12.5 kHz -70 dB @ 20/25 kHz
Audio Response	+1, -3 dB
Audio Distortion	3%
Digital Vocoder Type	AMBE+2

GPS (DP 3601 only)

Accuracy specs are for long-term tracking (95th percentile values > 5 satellites visible at a nominal -130 dBm signal strength)

TTFF (Time To First Fix) Cold Start	< 2 minutes
TTFF (Time To First Fix) Hot Start	< 10 seconds
Horizontal Accuracy	< 10 meters

Environmental Specifications

Operating Temperature*	-30° C / +60° C
Storage Temperature	-40° C / +85° C
Temperature Shock	Per MIL-STD
Humidity	Per MIL-STD
Water Intrusion	EN60529-IP57
Packaging Test	MIL-STD 810D and E

* With Lilon battery, operating temperature specification is -10° C / +60° C.
With NiMH battery, operating temperature specification is -20° C / +60° C

FACTORY MUTUAL APPROVALS - DP family of radios are certified by Factory Mutual Approvals as intrinsically safe for use in Division 1, Class I, II, III, Groups C, D, E, F, G, when ordered with the Factory Mutual approved battery option. Two versions of the VHF (136-174 MHz) portable are available; one which does not support 20 kHz, but can be ordered with the Factory Mutual approved battery option and one which supports 20 kHz but can not be ordered with the FM approved battery option.



NON-DISPLAY VHF/UHF

DP 3400 / DP 3401
(with integrated GPS)

General Specifications

Channel Capacity	32
Frequency	136-174 MHz (VHF) 403-470 MHz (UHF1) 450-512 MHz (UHF2)
Dimensions (HxWxL) with NiMH Battery 1300mAh with Lilon Std Battery 1500mAh with Lilon HiCap Battery 2200mAh with Lilon FM Battery 1400mAh	131.5 x 63.5 x 37.2 mm 131.5 x 63.5 x 35.2 mm 131.5 x 63.5 x 39.2 mm 131.5 x 63.5 x 37.2 mm
Weight with NiMH Battery with Lilon FM Battery with Lilon HiCap Battery with Lilon Std Battery	430 g 340 g 345 g 330 g
Power Supply	7.2V nominal
Average battery life at 5/5/90 duty cycle with battery saver enabled in carrier squelch and transmitter in high power.	
IMPRES Lilon Std Battery IMPRES Lilon HiCap Battery IMPRES FM Lilon Battery NiMH Battery	Analogue: 9 hrs / Digital: 13 hrs Analogue: 13.5hrs / Digital: 19 hrs Analogue: 8.5 hrs / Digital: 12 hrs Analogue: 8 hrs / Digital: 11 hrs
Digital Protocol	ETSI-TS 102 361-1, 2 & 3

Receiver

Frequency	136-174 MHz (VHF) 403-470 MHz (UHF1) 450-512 MHz (UHF2)
Channel Spacing	12.5 kHz/ 20 kHz/ 25 kHz
Frequency Stability (-30° C, +60° C, +25° C)	+/- 1.5 ppm (DP 3400) +/- 0.5 ppm (DP 3401)
Analogue Sensitivity	0.35 uV (12 dB SINAD) 0.22 uV (typical) (12 dB SINAD) 0.4 uV (20 dB SINAD)
Digital Sensitivity	5% BER: 0.3 uV
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Hum and Noise	-40 dB @ 12.5 kHz -45 dB @ 20/25 kHz
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Low Temperature	502.3	I/C3, II/C1	502.4	I/C3, II/C1
Temperature Shock	503.3	I/A1C3	503.4	I
Solar Radiation	505.3	I	505.4	I
Rain	506.4	I, II	506.4	I, III
Humidity	507.3	II	507.4	-
Salt Fog	509.3	I	509.4	I
Dust	510.3	I	510.4	I
Vibration	514.4	I/10, II/3	514.5	I/24
Shock	516.4	I, IV	516.5	I, IV

Transmitter

Frequency	136-174 MHz (VHF) 403-470 MHz (UHF1) 450-512 MHz (UHF2)
Channel Spacing	12.5 kHz/ 20 kHz/ 25 kHz
Frequency Stability (-30° C, +60° C, +25° C)	+/- 1.5 ppm (DP 3400) +/- 0.5 ppm (DP 3401)
Power Output UHF1 and UHF2 VHF	1W and 4 W 1W and 5 W
Modulation Limiting	+/- 2.5 kHz @ 12.5 kHz +/- 4 kHz @ 20 kHz +/- 5.0 kHz @ 25 kHz
FM Hum and Noise	-40 dB @ 12.5 kHz -45 dB @ 20/25 kHz
Conducted / Radiated Emission	-36 dBm < 1 GHz -30dBm > 1GHz
Adjacent Channel Power	-60 dB @ 12.5 kHz -70 dB @ 20/25 kHz
Audio Response	+1, -3 dB
Audio Distortion	3%
Digital Vocoder Type	AMBE+2

GPS (DP 3401 only)

Accuracy specs are for long-term tracking (95th percentile values > 5 satellites visible at a nominal -130 dBm signal strength)

TTFF (Time To First Fix) Cold Start	< 2 minutes
TTFF (Time To First Fix) Hot Start	< 10 seconds
Horizontal Accuracy	< 10 meters

Environmental Specifications

Operating Temperature*	-30° C / +60° C
Storage Temperature	-40° C / +85° C
Temperature Shock	Per MIL-STD
Humidity	Per MIL-STD
Water Intrusion	EN60529-IP57
Packaging Test	MIL-STD 810D and E

* With Lilon battery, operating temperature specification is -10° C / +60° C.
With NiMH battery, operating temperature specification is -20° C / +60° C

¹ 20 kHz is not supported in 450 - 512 MHz (UHF2) nor in VHF
Specifications subject to change without notice. All specifications shown are typical.
Radio meets applicable regulatory requirements.

FACTORY MUTUAL APPROVALS - DP family of radios are certified by Factory Mutual Approvals as intrinsically safe for use in Division 1, Class I,II,III, Groups C,D,E,F,G, when ordered with the Factory Mutual approved battery option. Two versions of the VHF (136-174 MHz) portable are available; one which does not support 20 kHz, but can be ordered with the Factory Mutual approved battery option and one which supports 20 kHz but can not be ordered with the FM approved battery option.

MOTOTRBO™ ACCESSORIES

PORTABLE RADIO

To complement the MOTOTRBO portables, Motorola Original® accessories are specifically designed for your critical communication needs. Whether it is harsh working conditions, noisy environments, long shifts or the focus is on discrete communication, a MOTOTRBO accessory is available to meet the challenge.

It is recommended that your MOTOTRBO radio always be paired with Motorola approved batteries or accessories. Use of non-Motorola approved batteries or accessories may result in RF energy exposure standards being exceeded. Use of non-Motorola approved batteries or accessories may cause your Motorola radios to become non-compliant to other regulations and standards, for example, EMC or FM.



AUDIO SOLUTIONS

Remote and Public Speaker Microphones are versatile and reliable accessories that allow users to remain in full contact without removing the radio from the belt or carry case. Motorola offers a range of these speaker microphones that provide features such as IMPRES™, Windporting, IP57 submersibility and noise-canceling acoustics.

Motorola also offers a wide range of earpieces, surveillance kits, headsets and temple transducers to ensure you have the right audio accessory for your specific business need.

BATTERY AND CHARGING SOLUTIONS

IMPRES batteries are designed to maximise talk time and optimise battery life. Four batteries are available to meet your specific power needs. Complementing the battery portfolio are a range of IMPRES charging solutions from single-unit chargers, multi-unit chargers and vehicular chargers.

CARRYING SOLUTIONS

The ability to perform the job while staying in contact requires good carrying solutions. MOTOTRBO offers a wide range of solutions including belt clips, nylon- and leather carry cases, shoulder straps and chest packs. All designed to increase comfort and enhance functionality such as ruggedness as well as water and dust resistance.

IMPRES™ SMART AUDIO SYSTEM EXCLUSIVE AUDIO TECHNOLOGY THAT ENABLES HIGH QUALITY COMMUNICATIONS

Motorola digital technology enables breakthrough radio performance and features. Our state-of-the-art IMPRES audio technology allows communication between the radio and audio accessories, enabling enhanced performance and capabilities, both in analogue and digital modes, now and into the future.



• **IMPRES Smart Audio System:** Provides businesses and agencies with a solution that optimises key aspects of two-way audio quality, loudness, clarity and intelligibility.

Optimal Audio Performance: When an IMPRES accessory is attached, the accessory parameters are sent to the MOTOTRBO™ radio enabling the radio to optimise its output for each type of audio accessory. This results in more consistent output across all audio accessory types. For example, the IMPRES remote speaker microphone capitalizes on the MOTOTRBO radio's intelligent signal processing for outstanding noise suppression, speech clarity, and loudness – even in difficult weather conditions.

Customisation: Accessory programmable buttons can be programmed to any feature available in the radio CPS, rather than being linked to radio programmable button programming. This allows accessories with programmable buttons to have independently programmed features. This flexibility allows the radio to be customised to fit your specific applications and needs.

Enhanced Audio Gain Capability (AGC): IMPRES audio accessories have significantly enhanced audio gain capability. When you are speaking either quietly or speaking in a normal

volume but not directly into the microphone, IMPRES audio technology can detect that condition and will automatically increase the microphone gain. AGC eliminates the need to adjust volume levels repeatedly.

- **Built-in Antenna Signal:** The portable connector design incorporates the antenna signal within the audio connector, eliminating the need for an external radio frequency (RF) adapter for public safety microphones.
- **Submersibility:** This connector design meets IP57 submersibility requirements. This allows for use with submersible accessories, such as the submersible remote speaker microphone, which provides reliable communications even in wet conditions.
- **Forward compatibility:** The portable connector design also incorporates built-in USB capability to allow for the use of USB-capable accessories. The audio accessory interface is now the Motorola standard audio accessory interface for mid- to high-tier two-way radios. Future accessory development is based on this interface so you will be able to take advantage of future releases of new audio accessories.



IMPRES SMART ENERGY SYSTEM, A UNIQUE BATTERY CHARGING AND RECONDITIONING SOLUTION



Motorola's state-of-the-art IMPRES technology allows communication between the battery and the charger to automate battery maintenance. The result, prolonged life of your batteries and maximised talk time.

- **Automated battery maintenance:** Manual tracking and recording of battery use are a thing of the past. IMPRES uses a unique communications protocol to facilitate adaptive reconditioning, the charger evaluates the details of the battery's usage pattern to determine the optimal reconditioning interval. This automated process works to diminish memory effect and optimize the cycle life of the battery and maximise talk time.
- **Long-term safe charging:** IMPRES batteries may be left in IMPRES chargers for extended periods without heat damage from the charger. Charge levels are also monitored by the charger, so that radios are charged to the appropriate level and ready to go whenever needed.
- **Chargers that communicate:** IMPRES chargers are available with a two-line display module. You now have access to valuable information such as:
 - ~ Battery capacity (in mAh and percent of minimum rated capacity) and voltage while charging and at completion of charge
 - ~ Time remaining to complete rapid charging (NiCd and NiMH only)
 - ~ Current battery charge status
 - ~ The battery's unique serial number, part number and chemistry
 - ~ Knowledge is power. You can make informed decisions on battery replacement and asset management.
- **Extended warranty:** When used exclusively with IMPRES chargers, MOTOTRBO IMPRES batteries have an 18 month capacity warranty coverage, six months longer than Motorola Premium Li-Ion batteries.
- **Proven Tough:** IMPRES batteries are subjected to the same rigorous testing and held to the same high standards as all Motorola Premium batteries. Actual results of Drop, Vibration and ESD (Electrostatic Discharge) tests prove Motorola batteries outperform the competition.
- **Environmentally Friendly:** IMPRES chargers have technology that avoids overcharging and our single-unit IMPRES chargers with external power supplies consume 40 percent less energy in standby mode than required by the U.S. Energy Independence and Security Act of 2007.





MOTOTRBO™ SERVICE OFFERINGS

SUBSCRIBER REPAIR

Managing the in-house repair and maintenance of your subscriber radios takes a dedicated staff of technicians, as well as an ongoing investment in diagnostic equipment, repair tools, and the technical training to keep up to speed on the latest technology. Motorola has made that investment and can help you easily and cost effectively keep your radios in top operating condition to ensure optimal efficiency and productivity.

Our subscriber repair service offering allows you to budget for your repairs, preventing unexpected service and maintenance costs. Extended Care Option repairs receive priority service and meet committed cycle times from our European Radio Service Centre.

• Extended Care Option (ECO):

Extended Care Option is a post-warranty service offering that extends the service coverage of Motorola portable or mobile subscriber radios. ECO can be purchased as an option to new radio purchases and is available to extend service coverage for up to five years.

• ECO Service Benefits:

With our proven 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 Center's expert technicians diagnose and repair units to original manufacturing specifications. With the Extended Care Option, you receive:

- Fast and committed turnaround times
- Predictable budgets
- Cost effective repairs
- Peace of mind



Stringent Motorola Accelerated Life Testing simulating five years of hard use in real life. EA RS-3188 in Shock, Vibration, Cycle Humidity, dPS4 for Sealing.



Compliance with ISO 9001 Standard on international quality system assurance on design, development, production, installation and servicing of a product.



Stamp of Approval from the U.S. Military for use in rough environments.



To ensure compliance with RF energy exposure standards and regulations, use only Motorola-approved batteries and accessories. Use of non-Motorola-approved batteries and accessories may result in RF energy exposure standards being exceeded.

For more information please contact your local Motorola Authorised Dealer or Distributor



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