

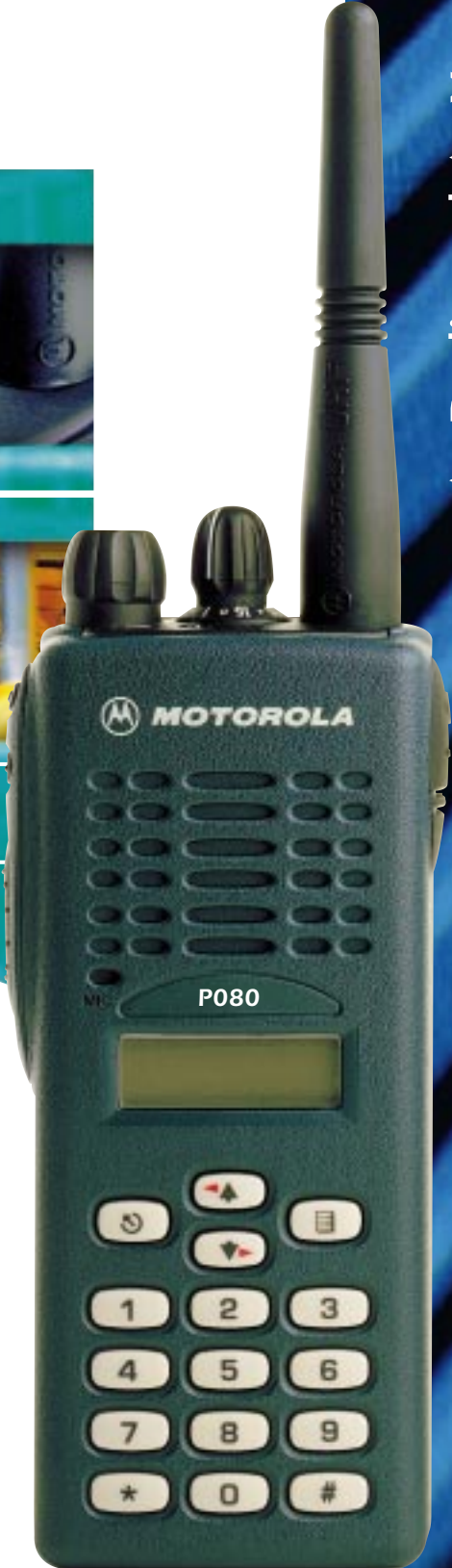


TWO-WAY RADIOS

contact



control



As Dedicated As You Are

Professional Radio

P Series Two-Way Radios
P Series
P Series
P Series

# Motorola and Two-Way Radio

## Two-Way Radio: Keeping in touch

By simply pressing a button, you can contact one, one dozen, or one hundred people, instantly\*. That is the power of two-way radio. Unlike any other form of communication, two-way can link individuals or entire groups together without costly usage fees.

Two-way radio is what today's smart business people use to stay competitive. They know that through effective two-way communication their customers' demands can be more quickly addressed and productivity can be dramatically increased. Two-way radio allows teams of employees to stay in constant communication, working towards a common goal - getting the job done.

## Motorola: The Undisputed Leader in Two-way Radios

For over 65 years, Motorola has been an undisputed leader in wireless communications; from the earliest walkie-talkies, to the first words transmitted from the moon, and currently, to equipping today's busy workforce with one of the most efficient means of wireless communications.

Motorola's innovative thinking has resulted in many of the wireless communication tools available on the market today. It was Motorola, who, long ago, began building an entire world of wireless convenience and efficiency with its products and systems. And it is Motorola, who, to this day, is renowned for its standards of quality, innovation and invention.

## The P Series: The Perfect Balance of Performance and Affordability

Better management of your business communications helps boost productivity and satisfy your customers' demands. Businesses need to respond quickly to changing situations, getting the right message to the right person - right away. By focusing on your essential communication requirements, we saw the need to incorporate consistent performance and essential features - economically. That's why Motorola developed the P Series of professional radios. The P Series two-way radio is not just a better communication device, it's a management tool that helps orchestrate your entire workforce for success.

## The P Series: The Entry Level Professional Radio

Introducing the new Motorola P Series of Entry Level Professional Portable Radios - fundamental business tools at an attractive price\*\*.

Small and light enough to fit in the palm of your hand, but with the power and flexibility to put you in control of your business. The P Series radios provide essential communication capabilities yet are simple to operate and cost effective.

\*Depending on terrain and conditions.

\*\*Check availability in your area with your dealer.



The P Series of Entry Level Professional Portable Radios consists of two distinct tiers:

## P080



16 Channel  
Portable  
Radio, with  
LCD Display,  
Menu  
Navigation  
Keys and  
3 x 4 CCITT  
Keypad

## P040



4 Channel  
Portable  
Radio

## Features & Benefits

Applicable to both tiers of radios:

- **Signalling:**  
*The P Series radios support the Motorola Private Line™ signalling system, allowing you to organise your workforce communications effectively and efficiently, by filtering out unwanted calls.*
- **X-Pand™ Audio Enhancement:**  
*Companding and Low Level expansion help ensure crisper, clearer and stronger audio. This means that you stay in touch with your colleagues, even when working in environments with high levels of background noise.*
- **Voice Operated Transmit (VOX):**  
*VOX enables “hands-free” operation, allowing your staff to concentrate on the task in hand rather than the radio in hand.*
- **Adjustable Transmit Power Levels:**  
*The radio user can choose between a low power setting, to extend battery life, or a high power setting to assist in extending communication range.*
- **Time Out Timer:**  
*This important feature helps to prevent a single radio user from monopolising the communication channel by limiting talk time.*
- **Programmable Channel Spacing:**  
*Enables quick and easy migration to another communication system with different channel spacing requirements.*
- **Compact & Robust Design:**  
*The compact, lightweight design is convenient to use and carry throughout the duration of your working day. The P Series radios meet US Military Standards for use in hostile environments as well as the IP54 specification for driving rain and dust.*
- **FM Approved:**  
*The P Series radios have been approved by the Factory Mutual Corporation for use in hazardous environments.*
- **Option Board Expandability:**  
*You can expand the capabilities of your P Series radio by adding one of the following option boards:*
  - SmarTrunk II for low-cost trunking.
  - Transcript scrambling for over-air message security.
- **Repeater Talkaround:**  
*If your system utilises a repeater, the Repeater Talkaround feature helps ensure that, in the absence of the repeater, local communications resume at the push of a button.*
- **Scanning:**  
*The P Series radios support scanning to allow activity on different communications channels to be monitored and answered, thus ensuring that critical calls are received.*
- **Busy Channel Lockout:**  
*This enforces system discipline by preventing radio users from interrupting each other’s communications.*

Applicable to the P080 models only:

- **Display:**  
*The LCD display, with 7 alpha-numeric characters and intuitive icons, provides instant visual feedback of radio operating status and enhances radio functionality through the use of user-driven Menus and Channel Aliasing.*
- **Keypad:**  
*The 3 x 4 CCITT keypad generates DTMF tones, allowing you to make telephone calls from your radio, providing that suitable telephone interface infrastructure is available and is subject to local PTT regulations.*



# Entry Level Professional Specifications

General - VHF, UHF	
*Frequency:	136-174/403-470/450-527
Channel Capacity:	P040: 4 channel P080: 16 channel
Power Supply:	7.5v
Dimensions: With Standard High NiMH Battery: With NiCd Battery:	HxWxD Radio footprint height excluding knobs 137mm x 57.5mm x 37.5mm 137mm x 57.5mm x 40mm
Weight: With Standard NiMH Battery: With NiCd Battery:	429g 454g
Average Battery Life @5/5/90 Cycle: With Standard Capacity NiMH Battery: With NiCd Battery:	Low Power High Power 10 hours 8 hours 10 hours 8 hours
Sealing:	Withstands rain testing per MIL-STD-810-C,D & E and IP54
Shock and Vibration:	Protection provided via impact resistant housing exceeding MIL-STD-810-C,D & E and TIA/EIA 603
Dust and Humidity:	Protection provided via environment resistant housing exceeding MIL-STD-810-C,D & E and TIA/EIA 603

Transmitter	
Specification:	VHF/UHF
*Frequency:	136-174/403-470/450-527
Frequency Separation:	Full Bandsplit
Channel Spacing:	12.5/20/25 kHz
Frequency Stability: (*-30°C to +60°C, +25°C Ref.)	+/- 0.00025%
Power:	5W: 136-174 4W: 403-470, 450-527
Modulation Limiting:	+/- 2.5 @ 12.5 kHz +/- 4.0 @ 20 kHz +/- 5.0 @ 25 kHz
FM Hum & Noise: Conducted/Radiated Emission:	-40 dB -66 dBw
Modulation FCC Type:	12.5 kHz 11K0F3E 25 kHz 16K0F3E
Audio Response: (from 6dB/octave pre-emphasis, 300 - 3000Hz)	+1 to -3 dB
Audio Distortion	3%

Applicable MIL-STD	810C		810D		810E	
	Methods	Procedures	Methods	Procedures	Methods	Procedures
Low Pressure	500.1	1	500.2	2	500.3	2
High Temperature	501.1	1,2	501.2	1,2	501.3	1,2
Low Temperature	502.1	1	502.2	1,2	502.3	1,2
Temp. Shock	503.1	1	503.2	1	503.3	1
Solar Radiation	505.1	1	505.2	1	505.3	1
Rain	506.1	1,2	506.2	1,2	506.3	1,2
Humidity	507.1	2	507.2	2,3	507.3	2,3
Salt Fog	509.1	1	509.2	1	509.3	1
Dust	510.1	1	510.2	1	510.3	1
Vibration	514.2	8,10	514.3	1	514.4	1
Shock	516.2	1,2,5	516.3	1,4	516.4	1,4

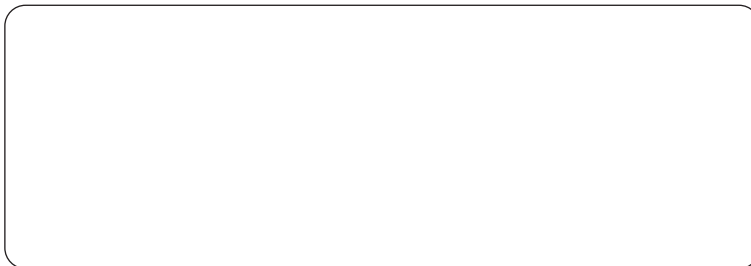
Receiver	
Specification:	VHF/UHF
*Frequency:	136-174/403-470/450-527
Frequency Stability: (*-30°C to +60°C)	0.00025%
Frequency Separation:	Full Bandsplit
Sensitivity (12dB SINAD) (EIA)	.25 µV
Intermodulation (EIA)	70 dB
Adjacent Channel Selectivity:	60 dB @ 12.5 kHz 70 dB @ 25 kHz
Spurious Rejection:	70 dB
Rated Audio: Audio Distortion:	500 mW 3%
Hum and Noise: Audio Response (300-3000 Hz)	-45dB @ 12.5 kHz, -50dB @ 25 kHz +1 to -3 dB
Conducted Spurious Emission:	-57dBm<1GHz/-47dBm>1GHz/FCC Part 15

\*Availability subject to country law and regulations/Specifications subject to change without notice. All specifications shown are typical. Radios meet applicable regulatory requirements.

The Motorola P Series has been developed to offer a high level of durability and operational reliability. Like all of our products, the P Series has passed the unique Motorola Accelerated Lift Test, which simulates five year's use in the field.

Motorola Original accessories offer you complete communications solutions to both enhance and simplify your radio applications.

For exceptional performance, reliability and quality, Motorola Original accessories and batteries are the only options. For full details, please refer to the P Series Radio Accessories brochure.



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