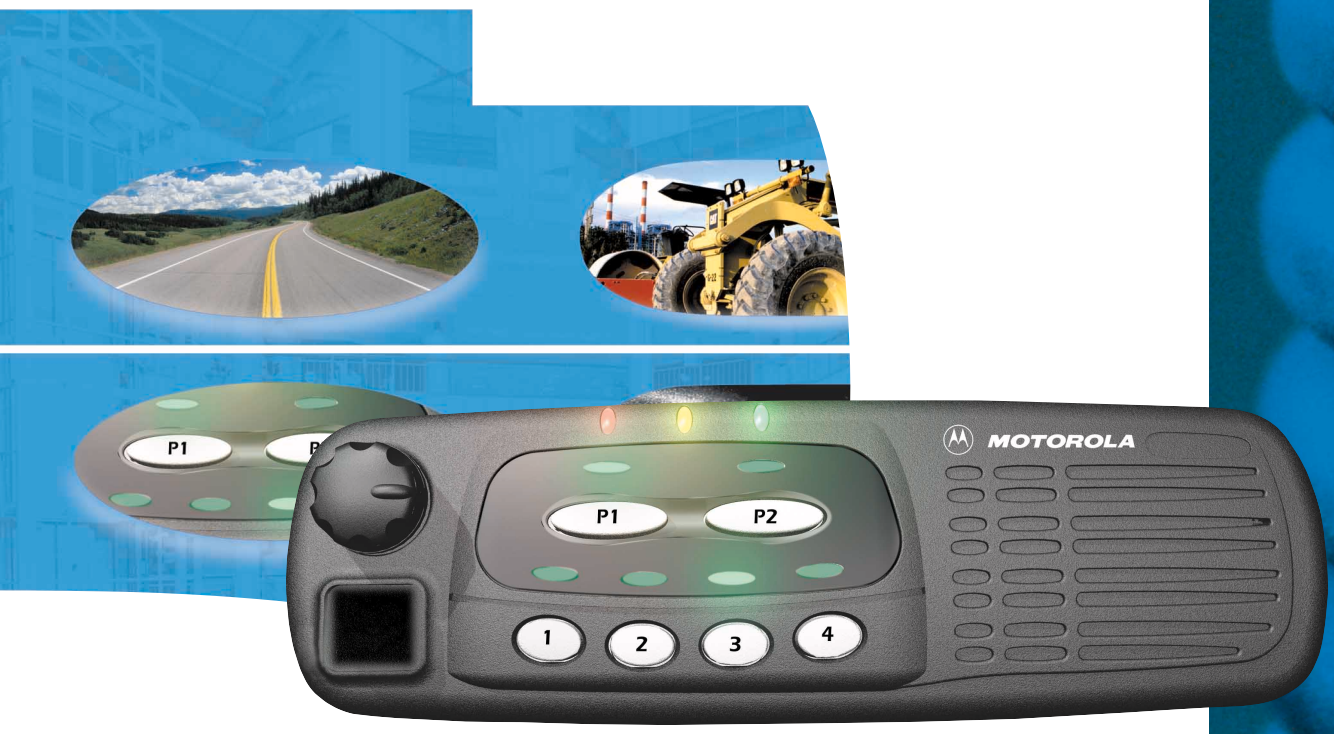
MOTOROLA

TWO-WAY RADIOS

GM140: The Popular Radio

The Motorola GM140 Professional Radio is a popular choice amongst organisations that require an affordable communication tool for their mobile workforce. The easy-to-use GM140 delivers the fundamental functionality necessary to help ensure that your vehicle-based staff operates efficiently and effectively.



As Dedicated As You Are

Professional Radio

The benefits offered by the GM140 include:

- Reliability and robustness
  The GM140, like all Motorola two-way radios, has passed the unique Motorola Accelerated Life Test which simulates 5 years hard use in real-life conditions. Designed for use in extreme operating conditions, the GM140 exceeds the demanding requirements set out in US Military Standards and IP54 specification.
- Ease of use
  The simple push-button operation, combined with easily understood LED indicators, allows your employees to communicate effectively with minimal training.
  User-friendliness is further enhanced through the use of swappable, programmable buttons. This means that those features most valued by your workforce can be programmed to specific buttons labelled with instantly recognised legends.
- Excellent Audio Quality
  The Motorola X-Pand™ audio enhancement system helps to ensure that voice communications are heard first time, every time, even in noisy working environments
- Data capable
  In addition to supporting a range of value-add accessories, the GM140's rear I/O connector provides an interface for third-party terminals, enabling seamless data communications on the move.
- PC Programmable
  Enables your Motorola Authorised Dealer to customise your radio's feature set to meet your own specific requirements.
- Expandability
  The GM140 supports the Motorola PROIS Specification which means that it's fundamental feature set may be enhanced through a range of Motorola, and third-party, plug-in option boards. Examples of the option boards available include:
  - voice storage for message recording, storage and play-back
  - encryption for enhanced security
  - SmarTrunk II for low-cost trunking
- Fundamental Signalling Capability
  The GM140 supports the following over-air signalling schemes:
  - Private Line™ (CTCSS) and Digital Private Line™
  - MDC1200
  - DTMF

Additional features include:

- PTT-ID
- Channel Scanning
- Busy Channel Lockout
- Monitor Mode
- Repeater Talkaround
- Selective Radio Inhibit

GM140 Mobile Two-Way Radio Specifications

General		
Specification	**VHF**	**UHF**
Frequency Range:	136-174 MHz	403-470 MHz
Frequency Stability (-30°C to +60°C, 25°C Ref.)	±2.5 PPM	±2 PPM
Channel Capacity:	4	
Channel Spacing:	12.5/20/25 kHz	
Power Output:	25-45W	25-40W
Power Supply:	13.2Vdc (10.8 - 15.6 Vdc) negative vehicle ground	
Dimensions (L x W x H)	177mm x 176mm x 56mm (add 8mm for Volume Knob) (6.97" x 6.93" x 2.2" - add 0.3" for Volume Knob)	
Weight:	1590 g (3.5 lbs)	
Operating Temperature	-30 to 60°C	
Sealing	Passes rain testing to IP54	
Shock and Vibration	Meets MIL-STD 810-C,D&E and TIA/EIA 603	
Dust	Meets MIL-STD 810-C,D&E and TIA/EIA 603	
Humidity	Meets MIL-STD 810-C,D&E and TIA/EIA 603	

Mobile Military Standards 810 C, D, & E						
	810C		810D		810E	
Applicable MIL-STD	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	2	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	2	506.2	2	506.3	2
Humidity	507.1	2	507.2	2,3	507.3	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	516.4	1

Transmitter	
Specification	**VHF/UHF**
Modulation Limiting:	±2.5 kHz @ 12.5 kHz ±4.0 kHz @ 20 kHz ±5.0 kHz @ 25 kHz
FM Hum and Noise:	-40 dB @ 12.5 kHz -45 dB @ 20/25 kHz
Conducted/Radiated Emissions:	-36 dBm < 1 GHz -30 dBm > 1 GHz
Adjacent Channel Power	-60 dB @ 12.5, -70 dB @ 25 kHz
Audio Response: (300 to 3000Hz)	+1, -3dB
Audio Distortion: @ 1000 Hz, 60% Rated Maximum Deviation:	3% Typical

Receiver		
Specification	**VHF**	**UHF**
Sensitivity (12dBSINAD): (ETS)	0.30µV (0.22 µV Typical)	
Intermodulation: (ETS)	>65 dB	
Adjacent Channel Selectivity: (ETS)	80dB @ 25 kHz 75dB @ 20 kHz 65dB @ 12.5 kHz	75 dB @ 25 kHz 70 dB @ 20 kHz 65 dB @ 12.5 kHz
Spurious Rejection: (ETS)	80 dB @ 20/25 kHz 75 dB @ 12.5 kHz	75 dB @ 20/25 kHz 70 dB @ 12.5 kHz
Rated Audio: (ETS)	3W Internal 7.5W & 13W External	
Audio Distortion @ Rated Audio:	3% Typical	
Hum and Noise:	-40 dB @ 12.5 kHz -45 dB @ 20/25 kHz	
Audio Response: (300 to 3000Hz)	+1, -3dB	
Conducted Spurious Emission per FCC Part 15:	-57 dBm <1 GHz -47 dBm >1 GHz	

*Availability subject to individual country's law and regulations.

Specifications are subject to change without notice and are issued for guidance purposes only.

All specifications listed are typical. Radios meet applicable regulatory requirements.

Conforms to EC directive 89/336/EEC

Complies with ETS 300 113

Contact your local Authorised Motorola Dealer to find out more about how communicating with the Professional Radio series will benefit your organisation.

UK Sales Office, Middle East and Africa Headquarters
Motorola Ltd
Jays Close, Viables Industrial Estate
Basingstoke
Hampshire RG22 4PD
Tel. +44 (0) 1256 358 211
Fax +44 (0) 1256 469 838

Central Europe Headquarters, Eastern Europe,Turkey and Central Asia Headquarters
Motorola GmbH
Heinrich Hertz Strasse 1
65232 Taunusstein
Germany
Tel. +49 (0)6128 700
Fax +49 (0)6128 951084

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

MOTOROLA