



MOTOROLA

TWO-WAY RADIOS

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As Dedicated As You Are

Professional Radio



GP Series
SmartZone Trunked
Two-Way Radios
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Two-Way Radios

Motorola GP540 and GP580 SmartZone Trunked Radios for StartSite, SmartNet and SmartZone Systems

In today's dynamic environment, effective and instant communications are critical to the success of your organisation. Improve operational efficiency, health and safety and fine-tune the emergency response mechanism with the latest SmartZone trunked radios from Motorola.

This series comes in 2 models - the GP540 (non-keypad version) and the GP580 (full keypad version) based on the popular global Motorola Professional Series platform designed with the requirements of today's businesses and Public Safety organisations in mind.

Motorola Quality & Reliability

A market leader and innovator in the wireless communications business for over 70 years with good reason - The GP540 and GP580 come with Motorola's reliability and quality standards. Built to the exacting industry specifications of IP54 (environmental resistance) and MIL-STD 810, the stamp of approval from the U.S. Military for use in the most challenging environments. A Factory Mutual (FM) version is also available.

Designed to withstand robust industrial usage, Motorola GP540 and GP580 have also been subjected to Motorola's rigorous 5 year Accelerated Life Testing.

Enhanced features for today's StartSite, SmartNet and SmartZone users:

- ▼ **Crisp and Clear Audio Quality**
Designed to be heard and understood even in the noisiest of industrial environments, the GP540 and GP580 feature strong audio quality and Low Level Expansion (LLE) to reduce noise in conversational pauses.
- ▼ **Seamless Communications**
The RSSI roaming feature extends communications beyond the reach of a single trunked site. When moving between trunked sites, the radio will seamlessly switch to the strongest available signal.
- ▼ **Prevent Unauthorised Use and Stay in Control**
Selective Radio Inhibit allows a radio to be blocked remotely should it be lost or stolen. The Remote Monitor Function lets authorised individuals listen to voice traffic, should a security or user issue be identified.
- ▼ **User Flexibility**
Dual Mode Capability allows the user easy access to both the trunked system and conventional operation.
- ▼ **Get the Message**
In addition to the standard scanning function, the GP540 and GP580 offer Priority Scan. This means that the radio will switch to the talkgroup with the highest priority when activity is detected, regardless of mode (trunked or conventional).
- ▼ **Failsoft Operation**
In the unlikely event of an infrastructure problem, the radio will automatically revert to a pre-assigned conventional voice channel.
- ▼ **Manage Emergencies**
In critical situations, access to communication is crucial. An emergency alarm can be sent allowing priority access to talkgroups and identifying the radio user who requires assistance. Emergency calls can be directed to specific talkgroups, sites or announcement groups. The radio can be programmed to transmit automatically allowing an emergency situation to be monitored remotely. Silent Emergency mode disables all radio audio and visual indicators in sensitive circumstances.

GP540 SmartZone Trunked Radio



- ▼ **Organise the team in the field**
When in trunked mode Dynamic Regrouping allows different talk groups to be amalgamated to create a temporary work group without taking radios out of service for reprogramming.
- ▼ **System Compatibility**
Also capable of operating on MDC1200 conventional systems affording the additional benefits of Private Call, Call Alert, Telephone Interconnect, Emergency Alarm/Call and Radio Check.

GP540 - Affordable and Easy to Use

Designed for professionals who need to keep in touch and enhance productivity:

- ▼ **Meeting Your Communication Requirements**
The 16 talkgroups or channels allow the GP540 to meet many different communication needs.
- ▼ **Multiple System Interoperability**
Offers the flexibility of access to up to 15 different talkgroups on up to 16 different systems if required.
- ▼ **Quick and Easy Access**
Assign regularly used functions to the 4 Programmable Buttons.
- ▼ **Avoid Downtime**
Low Battery Alert notifies users of low battery through the LED indicator and audible alert.

Call Flexibility

- ▼ **Private Call Decode**
Users can receive a one-to-one call from another radio user without disturbing the team. Assures privacy when discussing sensitive issues.
- ▼ **Call Alert Decode**
Missed call notification via a series of audible signals minimising disruption.
- ▼ **Telephone Interconnect**
Receive an incoming telephone call through the trunked system for enhanced communication flexibility.

GP580 SmartZone Trunked radio



GP580 – Smart and Versatile

Building upon the features of the GP540, GP580 users benefit from the following increased functionality:

- ▼ **Enhanced User Experience**
The Alpha-numeric and iconic display allows easy access to the intuitive menu and gives instant access to talkgroup identities, phone book and contact list. Along with a battery gauge icon, these are all features that make using the GP580 easy.
- ▼ **One Touch Dialling**
For speed-dial style access to talkgroups or individuals.
- ▼ **Manage A Number of Workers**
250 modes keep a large number of diverse user talkgroups constantly in touch with each other.
- ▼ **Discreet Communications**
Send and receive one-to-one radio calls through a preprogrammed contact list or via direct keypad entry. Eight statuses and 16 pre-programmed message options can be used when voice communication is inappropriate.
- ▼ **Missed Call Identity**
Displayed and supported by a series of audible signals.
- ▼ **Telephone Interconnect**
Make and receive telephone calls through the trunked system for enhanced communication flexibility.



Motorola provides a complete two-way radio communication solution with a comprehensive selection of accessories: batteries, chargers, remote speaker microphones, earpieces, headsets and carry cases.

This extensive portfolio of Motorola original accessories allows users to customise further their Professional Radio and satisfy their individual communications needs above and beyond those already incorporated in the standard package.

Accessories and Batteries

Category	Part No.	Description	
Batteries	HNN9008	NiMH High Capacity Battery	
	HNN9009	NiMH Ultra High Cap Battery	
	HNN9010	NiMH Ultra High Cap FM Battery	
	HNN9011	NiCd High Capacity FM Battery	
	HNN9012	NiCd High Capacity Battery	
	HNN9013	Lithium Ion Battery	
Battery Chargers	MDHTN3000	120V Single Unit Charger (US Plug) Not CE Compliant	
	MDHTN3001	230V Single Unit Charger (Euro Plug)	
	MDHTN3002	230V Single Unit Charger (UK Plug)	
	MDHTN3003	120V Multi Unit Charger (US Plug) Not CE Compliant	
	MDHTN3004	230V Multi Unit Charger (Euro Plug)	
	MDHTN3005	230V Multi Unit Charger (UK Plug)	
	NLN7967	Multi Unit Charger Wall Mount Kit	
	MDRLN4883	Travel Charger	
Carry Accessories	HLN9701	Nylon Carry Case with Standard Belt Loop	
	HLN9952	Belt Clip Carry Holder	
	HLN9714	50.8mm Spring Belt Clip	
	HLN9844	38.1mm Spring Belt Clip	
	<i>with Nickel Metal Hydride and Nickel Cadmium battery</i>		
	HLN9652	Leather Case with Standard Belt Loop	
	HLN9676	Leather Case with Swivel Belt Loop	
	HLN9689	Leather Carry Case with Standard Belt Loop, for Keypad Model	
	HLN9694	Leather Carry Case with Swivel Belt Loop, for Keypad Models	
	<i>with Lithium Ion battery</i>		
	HLN9665	Leather Case with Standard Belt Loop	
	HLN9670	Leather Case with Swivel Belt Loop	
	HLN9677	Leather Carry with Standard Belt Loop, for Keypad Models	
	HLN9690	Leather Carry Case with Swivel Belt Loop, for Keypad Models	
Antennas	PMAD4012	VHF 9cm Antenna 136-155MHz	
	PMAD4025	VHF 9cm Antenna 150-161MHz	
	PMAD4013	VHF 9cm Antenna 155-174MHz	
	PMAD4014	VHF 14cm Antenna 136-155MHz	
	PMAD4023	VHF 14cm Antenna 150-161 MHz	
	PMAD4015	VHF 14cm Antenna 155-174MHz	
	NAD6502A	VHF Wideband Antenna 146-174MHz	
	PMAE4002	UHF 9cm Antenna 403-433MHz	
	PMAE4003	UHF 9cm Antenna 438-470MHz	
	NAE6483A	UHF Whip Antenna 403-470MHz	
	NAF5037	800 MHz Half Wave Whip Antenna 806-870MHz	
	NAF5042	800 MHz Half Wave Whip Antenna 806-941MHz	
	Audio Accessories	MDHMN9052	Remote Speaker Microphone Standard
		MDHMN9053	Remote Speaker Microphone (Noise Cancelling)
MDHMN9054		Public Safety Microphone (for UHF models only)	
ENMN4014		3 Wire Mini Lapel Mic Kit (Black)	
ENMN4017		3 Wire Mini Lapel Mic Kit (Beige)	
MDPMLN4418		Earbud with Combined PTT/Microphone	
MDRLN4885		Earbud with 3.5mm Jack	
MDRMN4022		Discreet Earpiece & Microphone Beige	
MDRMN4029		Discreet Earpiece & Microphone Black	
MDRMN4028		Discreet Earpiece, Black	
MDRMN4021		Discreet Earpiece, Beige	
RLN4760		Comfortable Earpiece, Right, Small	
RLN4761		Comfortable Earpiece, Right, Medium	
RLN4762		Comfortable Earpiece, Right, Large	
RLN4763		Comfortable Earpiece, Left, Small	
RLN4764		Comfortable Earpiece, Left, Medium	
RLN4765		Comfortable Earpiece, Left, Large	
MDRLN4941		Receive Only Earpiece with Translucent Tube	
WADN4190		Flexible Ear Receiver with Cable	
ENMN4012		Breeze Headset	
ENMN4016		Behind the Head Headset	
MDRMN4018		Lightweight Headset with PTT	
MDRMN4019		Medium Weight Headset with PTT	
NTN8370		Acoustic Tube with Clear Voicetube (Extreme Noise Kit)	
NTN8371		Acoustic Tube with Rubber Ear Tip (Low Noise Kit)	
ENMN4010		Noise Com™	
ENMN4018		Helmet Com™ and PTT Module	
EN1006		VHF Vehicle Adapter 136-174MHz	
EN1007		UHF Vehicle Adapter 403-470MHz	

Technical Specifications

General - VHF, UHF GP540 & GP580	
*Frequency:	136 - 174 / 403 - 470 / 800
Power Supply: (Provided through rechargeable battery)	7.5 V
Dimensions: H x W x D (Radio footprint height excluding knobs) With Standard High Capacity NiMH Battery: With Ultra High Capacity NiMH Battery: With NiCd Battery: With Lilon Battery:	137mm x 57.5mm x 37.5mm 137mm x 57.5mm x 40.0mm 137mm x 57.5mm x 40.0mm 137mm x 57.5mm x 33.0mm
Weight: With Standard High Capacity NiMH Battery: With Ultra High Capacity NiMH Battery: With NiCd Battery: With Lilon Battery:	420 gm 428 gm 508 gm 508 gm 450 gm 458 gm 350 gm 358 gm
Average Battery Life @5/5/90 Cycle: With Standard Capacity NiMH Battery: With Ultra High Capacity NiMH Battery: With NiCd Battery: With Lilon Battery:	Low Power High Power 11 hours 8 hours 14 hours 11 hours 12 hours 9 hours 11 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

Portable Military Standards 810 C, D, & E						
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

Transmitter			
All Specs Measured to TIA/EIA-603	VHF	UHF	800 MHz
*Frequency (MHz):	136-174	403-470	806-825 851-870
Frequency Separation:	Full Bandsplit		
Channel Spacing:	12.5/20/25 kHz		25 kHz
Frequency Stability: (-30°C to +60°C, +25°C Ref.)	±2.5ppm		±1.5ppm
Power:	1 - 5W	1 - 4W	1 - 2.5W
Modulation Limiting:	±2.5 kHz @ 12.5 kHz ±4.0 kHz @ 20 kHz ±5.0 kHz @ 25 kHz		
FM Hum & Noise:	<-34 dB @ 12.5 kHz -40dB <-38 dB @ 20 kHz <-40 dB @ 25 kHz		
Conducted/Radiated Emission	-66 dBw < 1 GHz -66 dBw < 1 GHz -60 dBw > 1 GHz -60 dBw > 1 GHz		
Modulation FCC Type:	12.5 kHz 11K0F3E 25 kHz 16K0F3E		
Adjacent Channel Power:	-60 dBc @ 12.5 kHz -70 dBc -70 dBc @ 20/25 kHz		
Audio Response: (from 6dB/octave pre-emphasis, 300 - 3000Hz)	+1 to -3 dB		
Audio Distortion	3%		

Receiver	
All Specs Measured to TIA/EIA-603	VHF/UHF 800 MHz
*Frequency (MHz):	136-174, 403-470, 851-870
Frequency Separation:	Full Bandsplit
Sensitivity (12dB SINAD)	0.25 μ V
Intermodulation:	-70 dB -65 dB
Adjacent Channel Selectivity:	-60 dB @ 12.5 kHz -70 dB @ 20/25 kHz
Spurious Rejection:	-70 dB
Rated Audio: Audio Distortion:	0.5 W 3% typical
Hum and Noise:	-34 dBm @ 12.5 kHz -37dB -38 dBm @ 20 kHz -40 dBm @ 25 kHz
Conducted Spurious Emission:	-57dBm < 1 GHz -57 dB < 1 GHz -47dBm < 1 GHz -47 dB < 1 GHz
All Rx Hum & Noise numbers assume low level expander is used	

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

ISO 9001 Standard

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

Radio meets applicable regulatory requirements to ETSI Euro norms and conforms to European directive 1999/5/EC

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