



GP Series

The Power Tool for Contact & Control

GP328 & GP338





THE GP328 & GP338

PORTABLE RADIOS : THE CHOICE OF PROFESSIONALS

Designed for People who want Contact and Control

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 professionals use to stay competitive. They know that through effective two-way communication their customers' demands can be immediately met and productivity dramatically increased. Two-way allows teams of employees to stay in constant communication, working toward a common goal - getting the job done.

Instant Connection, Optimum Investment

With an affordable one time fixed investment cost and no talktime charges, Motorola's GP Series brings new level of productivity to your workplace. Small-to-large companies, in virtually all industries, use Motorola Two-Way Radio - you get instant communication with people on the move.

Public and Private Security:

When every second counts, instant communication at a push of the button is what differentiates two-way radios from other wireless communications systems. Whether your police patrols or security checks are on-site locally, or spread over a wide area covering multiple locations, Motorola Two-Way Radio provides clear audio reception for an efficient operation.

Manufacturing:

With machinery and people spread over a large area, you have the most challenging tasks on hand - how to keep in touch to

stay in control? Equip everybody with reliable Motorola Two-Way Radio. They are robust and easy to use, enabling teamwork and co-operation with increased productivity to your bottom line.

Mining:

Be it a coal mine or a diamond mine, if you work in a high-noise underground tunnel amidst flying dust and debris, Motorola Two-Way Radio gives instantaneous connection at a simple press of the button.

Construction:

Increased efficiency and safety is what you can expect with the ruggedly designed Motorola Two-Way Radio. From directing the crane operator to scheduling and co-ordinating a pipe shipment, you are informed and in control at all times. Push a button and you are in touch instantly with your project foreman and even the hospital if need be, for greater safety reinforcements to on-site accidents.

Oil and Gas:

From day to day operations to fighting oil spills, fire, or just about any life threatening situations in an offshore oil refinery, you can rely on Motorola Two-Way Radio. Ruggedly designed to perform under the most drilling conditions, you get even greater mobility with hands free accessories like headset and earset.

Hotels:

Conducting floor-to-floor security checks, tackling sprinkler bursts in hotel rooms and managing understaffed and overstretched ballroom staff, Motorola Two-Way Radio is a smart investment. Instant response through Motorola Two-Way Radios will surely guarantee guest satisfaction and ensure a clock-work hotel operation.



Instant communication with people on the move

Introducing Motorola Professional Radio Series as Dedicated as you are :

Designed to fit the way you work, the Professional Radio Series offers you simple solutions to your complicated work life; yet provides the level of contact you need to meet your unique business requirements. It keeps you mobile in and out of your workplace. Outdoor professionals will find that the radio has all the power and durability they need to accomplish their jobs, even in the harshest environments. Indoor professionals will enjoy its lightweight, ergonomic design, ensuring your organisation is running at the highest level of efficiency at all times.

The Professional Series comes in two models – GP328 with 16 channels and optional retrofit keypad; and GP338 with 128 channels. Voice quality is critical for effective communications. The Professional series of radios can be heard in almost any environment because of Motorola's technology of voice compression and expansion called X-PAND™. Audio quality is crisper, clearer and stronger, allowing you to keep communicating, even in any noisy environment.

Easy-to-use key features include one-touch high-pitch alert tone for emergency, full MDC Signalling, group call, alpha and tone tagging for constant monitoring of communication, and PTT ID. The optional Lithium Ion battery makes the radio one of the lightest in its range. The Professional Radio Series is the ultimate solution for instant contact and control.

GP328 – Making the Difference to your Business

The Motorola GP328 is an affordable solution for professionals who need to stay in contact but don't require extra features. This workhorse brings practicality to an organisation's two-way communications solution. It can easily increase productivity by keeping its users in contact, yet streamlines their radio use - allowing them to concentrate on their job. The GP328 is designed to endure those bumps and bounces of industries such as hotels, warehousing operations, property management, retails, schools and construction sites.

Communicate in clearer audio quality, result of the special built-in X-PAND™ feature. The user-friendly GP328 comes with

intuitive programmable buttons for easy manipulation in any situation. Make quick and hassle-free telephone call from the optional retrofit keypad with groups outside your organisation, anytime, anywhere. Battery life lasts longer with the switchable RF power level. GP328's powerful signalling features keep you constantly connected to your team. With GP328, you can be in even when you're out. All these smart features to enhance your productivity.

GP328 – The Practical Radio for those who Need ...

- A simple and easy to operate two-way radio.
- To contact people who are mobile and are often away from their desk.
- To make several calls to repeat the same message.
- To manage a facility or more than one building.
- Majority of your company's communication needs are within the vicinity.
- To communicate within a close vicinity.

GP338 – Versatile Communication on the Go

The GP338 is the natural choice for someone who is constantly on the go and need an intelligent powerhorse to talk two-way and ensure increased productivity with reduced downtime. It is especially ideal for builders, contractors, engineers, security officers, miners, surveyors and more because they offer an expandable list of features.

Like other model in the series, the GP338 offers superb audio clarity. Feature such as caller identification where incoming caller's name is displayed through the 14-character Alpha Numeric display allows immediate communication of vital information without wasting time identifying callers. Universally recognisable icons on the radio's large LCD monitor clearly displays its features and commands. It's so easy to use as you scroll through the menu. Gain effortless one-touch communication with the 128 channels available.

And if you require communication with groups outside your organisation, the versatile GP338 is capable of making and receiving telephone calls and pages from virtually anyone, anywhere. Truly, the GP338's expandability makes it an essential communications tool for any organisation.



GP328

GP338

GP338 – The Versatile Radio for those who need ...

- To communicate frequently with multiple work groups.
- To be on the move outdoor most of the time.
- To communicate in a high-noise environment.
- To co-ordinate law enforcement and emergency.
- Constant up-to-the-minute information.

The Professional Radio Series Signalling Features :

The Professional Series supports these Signalling systems:

I) MDC1200:

- PTT-ID: Every time the PTT button is pressed, a unique ID is sent. This allows the dispatcher to identify which radio is transmitting.
- Call Alert: If your call to a radio is unanswered, you can leave a page for that person. The radio emits an alert tone until a response is made.
- Voice Selective Call: The radio receives an individual or group voice message with an alert to indicate that it is a selective call.
- Radio Check: Auto check if radio is operating or within range.
- Selective Radio Inhibit: Radio can be disabled over-the-air from control system preventing unauthorised usage of stolen or lost radio.

II) Quick Call II:

- Call Alert: Voiceless paging with continuous alert tones that alert user on incoming calls.
- Voice Selective Call: Paging alert followed by a voice message.

III) Dual Tone Multiple Frequency (DTMF) Signalling Encode:

- Easy access to a land-line telephone network or to operate remote control devices.
- GP328 non-keypad model does not offer DTMF encode feature.

Enhance Your Radio's Capabilities

A comprehensive range of accessories is available so that the radios can be customised to suit your needs. Adding the proper headsets, microphones, batteries, chargers or carry cases can enhance the productivity of the people who use two-way radios. Motorola accessories are built with the highest quality standards and are specially engineered to assure maximum performance of your radio, no matter what profession you're in.



Light Weight Headset
AZRMN4018



NiMH Battery
PMNN4008
Belt Clip
HLN9714 (order separately)



Carry Case
HLN9701



Multi-Unit Charger
WPLN4187
(US Cord)
WPLN4188
(UK Cord)
WPLN4189
(Euro Cord)



Single Unit Charger
PMTN4024
(US Plug)
PMTN4025
(Euro Plug)
PMTN4026
(UK Plug)



Remote Speaker Microphone
PMMN4021

GP328 & GP338 Specifications

GENERAL - LB, VHF, UHF

*Frequency: (MHz)	29 - 42 / 35 - 50 / 136 - 174 / 330 - 400 / 403 - 470 / 450 - 527				
Channel Capacity:	GP328 is 16 Channels		GP338 is 128 Channels		
Power Supply:	Provided through rechargeable battery - 7.5V				
DIMENSIONS:	H	x	W	x	D (Radio footprint height excluding knobs)
With Standard High Capacity NiMH Battery:	137mm	x	57.5mm	x	37.5mm
With Ultra High Capacity NiMH Battery:	137mm	x	57.5mm	x	40.0mm
With NiCD Battery:	137mm	x	57.5mm	x	40.0mm
With Lilon Battery:	137mm	x	57.5mm	x	33.0mm
WEIGHT:	GP328		GP338		
With Standard High Capacity NiMH Battery:	420 gm		428 gm		
With Ultra High Capacity NiMH Battery:	500 gm		508 gm		
With NiCD Battery:	450 gm		458 gm		
With Lilon Battery:	350 gm		358 gm		
AVERAGE BATTERY LIFE @ 5/5/90 CYCLE	Low Power		High Power		
With Standard High Capacity NiMH Battery:	11 hours		8 hours		
With Ultra High Capacity NiMH Battery:	14 hours		11 hours		
With NiCD Battery:	12 hours		9 hours		
With Lilon Battery:	11 hours		8 hours		
Sealing:	Withstands rain testing per MIL-STD 810 C/D/E/F and IP54				
Shock and Vibration:	Protection provided via impact resistant housing exceeding MIL-STD 810 C/D/E/F and TIA/EIA 603				
Dust and Humidity:	Protection provided via environment resistant housing exceeding MIL-STD 810 C/D/E/F and TIA/EIA 603				

TRANSMITTER

SPECIFICATION	VHF / UHF
*Frequency (MHz)	136 -174 / 330 - 400 / 403 -470 / 450-527
Frequency separation	Full bandsplit
Channel spacing	12.5 / 20 / 25kHz
Freq Stability:(-30oC to 60oC,+25oCRef.)	+/- 0.00025%
Power	5W (VHF) 4W (UHF)
Modulation limiting	±2.5 @ 12.5kHz, ±4.0 @ 20kHz, ±5.0 @ 25kHz
FM Hum & Noise	-40dB
Conducted/Radiated Emission	-36dBm < 1GHz / -30dBm > 1GHz
Modulation FCC Type	12.5kHz 11K0F3E 25kHz 16K0F3E
Audio Response (from 6 dB/octave pre-emphasis 300-3000Hz)	+1 to -3dB
Audio Distortion	3%

RECEIVER

SPECIFICATION	VHF / UHF
*Frequency (MHz)	136 -174 / 330 - 400 / 403 - 470 / 450 - 527
Frequency separation	Full bandsplit
Sensitivity (12dB SINAD)EIA	.25mV
Intermodulation(EIA)	70dB
Adjacent Channel Selectivity	60dB @ 12.5kHz, 70dB @ 25kHz
Spurious Rejection	70dB
Rated Audio	500 mW
Audio Distortion	3%
Hum and Noise	-45dB @ 12.5kHz, -50dB @ 25kHz
Audio Response(300-3000Hz)	+1 to -3dB
Conducted Spurious Emission	-57dBm < 1GHz, -47dBm > 1Ghz, FCC Part 15

Low Band Specification:

TRANSMITTER

*Frequency (MHz)	29 - 42, 35 -50
Channel Spacing	12.5 / 20 / 25kHz
Freq. Stability (-30oC to 60oC, +25oCRef.)	±0.0010%
Power	6W
Modulation limiting	±2.5@ 12.5kHz, ±5.0 @ 20kHz, ±5.0 @ 25kHz
FM Hum & Noise	-40dB
Conducted/Radiated Emission	-36dBm < 1 GHz / -30dBm > 1 GHz
Audio Response (from 6 dB/octave pre-emphasis 300-3000Hz)	+1 to -3dB
Audio Distortion	3%

RECEIVER

Sensitivity (12 dB SINAD)	.30mV
Intermodulation	65dB
Adjacent Channel Selectivity	60dB @ 12.5, 70dB @ 25kHz
Spurious Rejection	70dB
Rated Audio	500 mW
Audio Distortion @ Rated Audio	3%
Hum and Noise	-45dB @ 12.5kHz, -50dB @ 25kHz
Modulation FCC Type	25kHz 16K0F3E
Audio Response (300 - 3000 Hz)	+1 to -3dB
Conducted Spurious Emission	-57dBm < 1GHz, -47dBm > 1GHz, FCC Part 15

* Availability subject to country law and regulations.

Radios meet applicable regulatory requirements.

All specifications shown are subject to change without notice. Specifications are not representative of all radios and may vary in different radios.

GP328 and GP338 Key Features and Benefits:

Features	GP328	GP338
X-PAND™ Audio Technology	Motorola's voice compression and expansion technology that produces crisper, clearer and stronger audio quality, allowing you to keep communicating, even in any noisy environment.	
Emergency Siren	Easy to access, one-touch button with piercing alarm to seek help in critical situation.	
Switchable RF Power Level	Optimise coverage and conserve battery consumption.	
Programmable Channel Spacing of 12.5 / 25 kHz mode	Flexible and easy migration of channel spacing requirements in any situation.	
Repeater/Talkaround Enable/Disable	Freedom to communicate via a repeater for wide area coverage; or bypass a repeater and talk directly to another unit for easy local unit-to-unit communications.	
Internal Voice Operated Transmission(VOX)	Hands-free operation with voice activated transmission on optional headsets.	
Flexible Battery Options	Choice of batteries: Standard High Capacity and Ultra High Capacity NiMH Battery, NiCD Battery or the lightweight Lithium Ion battery	
Tight / Normal Squelch	Flexibility to switch to tight squelch to filter out excessive noise; or, normal squelch for normal coverage.	
Field Retrofit Option Boards	Easy to install, affordable add-on functionality whenever your needs arise. Option Boards are available for: i) DTMF Decode for in-coming calls capability. ii) Voice Storage for recording and playing back voice messages.	

	GP328	GP338
Channels	Maximum of 16 channels to organise work groups with ease and efficiency.	Maximum of 128 channels to organise work groups with ease and efficiency.
Battery Strength Indicator	Tri-colour LED Battery Gauge with early warning on low battery strength.	Easy to read on-screen LCD display indicator alerting user on low battery strength.
Name & Tone Tagging	Tone tagging only with capability to assign up to 8 different ringing tones to 8 specific users/talkgroups.	Name and tone tagging with capability to assign 8 different ringing tones and visual caller ID to 8 specific users/talkgroups.
14-Character Alpha Numeric Display Monitor	Not Available	Easy to read dot matrix text display.
Received Signal Strength Indicator	Not Available	Easy to read on-screen display indicator alert user on signal strength.
Clock and Reminder Alarm	Not Available	Set time stamp on incoming recorded messages; Or, set the alarm to remind of important appointments.
Menu Keys	Not Available	Select functions through easy to navigate menu keys.
Other GP328 & GP338 Features:	Channel Scan Time-Out-Timer PL/DPL Busy Channel Lockout	Channel Scan Time-Out-Timer PL/DPL Busy Channel Lockout

Portable Military Standards 810 C, D, E & F

Applicable MIL-STD	810C		810D		810E		810F	
	Methods	Procedures	Methods	Procedures	Methods	Procedures	Methods	Procedures
Low Pressure	500.1	1	500.2	2	500.3	2	500.4	2
High Temp	501.1	1, 2	501.2	1, 2	501.3	1, 2	501.4	1, 2
Low Temp	502.1	1	502.2	1, 2	502.3	1, 2	502.4	1, 2
Temp. Shock	503.1	1	503.2	1	503.3	1	503.4	1
Solar Radiation	505.1	1	505.2	1	505.3	1	505.4	1
Rain	506.1	1, 2	506.2	1, 2	506.3	1, 2	506.4	1, 3
Humidity	507.1	2	507.2	2, 3	507.3	2, 3	507.4	-
Salt Fog	509.1	1	509.2	1	509.3	1	509.4	-
Dust	510.1	1	510.2	1	510.3	1	510.4	1
Vibration	514.2	8, 10	514.3	1	514.4	1	514.5	1
Shock	516.2	1, 2, 5	516.3	1, 4	516.4	1, 4	516.5	1, 4

Factory Mutual Approval

GP328 & GP338 radio units are certified by Factory Mutual Approvals as intrinsically safe for use in Division 1, Class I, II, III, Groups C, D, E, F, G and Division 2, Class I, Groups A,B,C,D, when ordered with the Factory Mutual approved battery option.

Motorola: Reliability & Quality



Accelerated Life Testing
Stringent Motorola Accelerated Life Testing simulating five years of hard use in real life, EIA RS-316B in Shock, Vibration, Dust, Humidity, IP54 for Sealing.



MIL-STD 810C, D, E and F
Stamp of approval from the U.S. Military for use in rough environments.



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



MOTOROLA

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