



# GP338

The Power Tool for Contact & Control



GP338  
PORTABLE RADIO -  
A VERSATILE RADIO

## KEY FEATURES AND BENEFITS

### X-PAND™ Audio Technology

Motorola's special voice compression and expansion technology called X-PAND™ enables crisper, clearer and stronger audio quality, allowing you to keep communicating, even in any noisy environment.

### 128 Channels

Maximum of 128 channels to organise work groups with ease and efficiency.

### 14-Character Alpha Numeric Dot Matrix Display

Clear and easy to read text display.

### Battery Strength Indicator

Easy-to-read on-screen LCD display indicator alerting user on battery strength.

### Name & Tone Tagging

Capability to assign up to 8 unique ring tones to different users/talkgroups, and the visual caller ID display makes caller identification possible.

### Received Signal Strength Indicator

A very user-friendly feature to display radio signal strength in the vicinity where you operate in.

### Clock and Reminder Alarm

Set time stamp on incoming recorded messages; Or, set the alarm to remind user of important appointments.

### Emergency Siren

Easy-to-access, one-touch button with piercing alarm to seek help in critical situations.

### 6 Programmable Buttons

Quick and easy access to most frequently used features.

### Adjustable RF Power Levels

Optimised coverage and conserve battery consumption.

### Internal Voice Operated Transmissions (VOX)

For hands-free operation, activate this option by speaking with the optional headsets.

### Repeater/Talkaround

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.

### 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.
- III) Mandown Alert for triggering an emergency procedure when the radio is horizontal or still for a pre-defined time. Ideal for radio users who work alone or in isolated environments.

## FLEXIBLE WITH GOOD AUDIO QUALITY

### Performs under any condition:

The GP338 is essential for growing organisations because of its unique versatility. When necessary, the radio can easily be programmed in the field to add or delete features. So, whether it's the harsh environment of a construction site or the posh elegance of an exclusive hotel, the radio of choice is the GP338. It's the radio that grows with you.

### Ideal when you need:

- To communicate frequently with multiple work groups.
- A rugged radio to perform under harsh outdoor condition.
- To communicate in a high-noise environment.
- To coordinate law enforcement and emergency.
- Constant up-to-the-minute information.

## 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 your productivity. 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**

## ENHANCED SIGNALLING FEATURES

The GP338 two-way radio supports these three signalling protocols:

### I) MDC1200 Signalling:

- PTT-ID (Encode/Decode)  
Identify your outgoing calls and incoming callers
- Voice Selective Call (Encode/Decode)  
Send and receive a call from a specific group or individual
- Selective Radio Inhibit (Decode)  
Allows system owner to disable stolen or missing radios
- Status/Messages (Encode)  
Pre-defined text messages can be assigned to enable users to send frequently used messages and statuses quickly, without the need to talk
- Call Alert (Encode/Decode)  
Inform unavailable users that you're trying to reach them, and receive alerts of incoming calls when you're a short distance away from your radio
- Radio Check (Encode/Decode)  
Check whether another user's radio is activated, and let others check your radio status
- Emergency (Encode)  
Sounds an alarm or alerts dispatcher in urgent situations

### II) Quik Call II Signalling:

- Call Alert (Encode/Decode)
- Voice Selective Call (Encode/Decode)

### III) Dual Tone Multiple Frequency (DTMF) Signalling

## OTHER GP338 FEATURES

- Channel Scan
- Time-Out-Timer
- PL / DPL
- Busy Channel Lockout

## ACCESSORIES SOLUTION

### Battery Options

Flexible choice of batteries:

- NiCD Battery
- High Capacity NiMH Battery
- Ultra High Capacity NiMH Battery
- Factory Mutual Approved NiCD & NiMH Batteries
- Lithium Ion Battery#

### Powerful impres™ Smart Energy Solution

The impres™ Smart Energy System helps battery maintenance, predicts end-of-service life and provides real-time battery usage information.

## GP338 SPECIFICATIONS\*

### GENERAL

*Frequency (MHz) :	29.7 - 42 / 35 - 50 / 136 - 174 / 330 - 400 / 403 - 470 / 450 - 527				
Channel Capacity:	128 Channels				
Power Supply:	Provided through rechargeable battery - 7.5V				
DIMENSIONS:	H	x	W	x	D
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
	(Radio footprint height excluding knobs)				
WEIGHT:					
With Standard High Capacity NiMH Battery:	428 gm				
With Ultra High Capacity NiMH Battery:	508 gm				
With NiCD Battery:	458 gm				
#With Lilon Battery:	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/EIA603				

TRANSMITTER			RECEIVER		
SPECIFICATION	Low Band	VHF/UHF	SPECIFICATION	Low Band	VHF/UHF
*Frequency (MHz)	29.7 - 42, 35 - 50	136-174 / 330-400 / 403-470 / 450-527	*Frequency (MHz)	29.7 - 42, 35 - 50	136-174 / 330-400 / 403-470 / 450-527
Frequency separation	Full bandsplit#		Frequency separation	Full bandsplit#	
Channel spacing	12.5 / 20 / 25kHz		Sensitivity (12dB SINAD) EIA	.30µV	.25µV
Freq Stability: (-30°C to 60°C,+25°C Ref.)	± 0.0010%	+/- 0.00025%	Intermodulation (EIA)	65dB	70dB
Power	6W	5W (VHF)	Adjacent Channel Selectivity	60dB @12.5,	60dB @ 12.5kHz,
		4W (UHF)		70dB @ 25kHz	70dB @ 25kHz
Modulation limiting	±2.5 @ 12.5kHz, ±4.0 @ 20kHz, ±5.0 @ 25kHz		Spurious Rejection	70dB	
			Rated Audio	500 mW	
FM Hum & Noise	40dB		Audio Distortion	3%	
Conducted/Radiated Emission	36 dBm < 1 GHz / 30 dBm > 1 GHz		Hum and Noise	-45dB @ 12.5kHz, -50dB @ 25kHz	
			Audio Response (300-3000Hz)	+1 to -3dB	
Modulation FCC Type	12.5 kHz 11K0 F3E / 25 kHz 16K0F3E		Conducted Spurious Emission	-57dBm < 1Ghz, -47dBm > 1Ghz / FCC Part 15	
Audio Response (from 6 dB/octave pre-emphasis 300-3000Hz)	+1 to -3dB				
Audio Distortion	3%				

\* Availability subject to country's laws and regulations. Radios meet applicable regulatory requirements.  
All specifications subject to change without notice. Specifications are not representative of all radios and may vary in different radios.

# Not applicable to Low Band

## 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	506.3	1, 2	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

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 approval battery option.

## Motorola: Reliability & Quality



**Accelerated Life Testing**  
Stringent Motorola Accelerated Life Testing simulating five years of hard use in real life.



**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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