

## 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.



# GP338

The Power Tool for Contact & Control

**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 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 Head Set  
AZRMN4018



NiMH Battery & Belt Clip



Nylon Carry Case  
HLN9701



Multi-unit Charger



impres™ Smart  
Energy System



Remote Speaker Microphone  
PVMN4002

### 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) :	29-42 / 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 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/EIA603

### TRANSMITTER

SPECIFICATION	Low Band	VHF/UHF
*Frequency (MHz)	29 - 42, 35 - 42	136-174 / 330-400 / 403-470 / 450-527
Frequency separation	Full bandsplit#	
Channel spacing	12.5 / 20 / 25kHz	
Freq Stability: (-30oC to 60oC,+25oC Ref.)	± 0.0010%	+/- 0.00025%
Power	6W	5W (VHF) 4W (UHF)
Modulation limiting	±2.5 @ 12.5kHz, ±4.0 @ 20kHz, ±5.0 @ 25kHz	
FM Hum & Noise	40dB	
Conducted/Radiated Emission	36 dBm < 1 GHz / 30 dBm > 1 GHz	
Modulation FCC Type	12.5 kHz 11K0 F3E / 25 kHz 16K0F3E	
Audio Response (from 6 dB/octave pre-emphasis)	300-3000Hz +1 to -3dB	
Audio Distortion	3%	

### RECEIVER

SPECIFICATION	Low Band	VHF/UHF
*Frequency (MHz)	29 - 42, 35 - 42	136-174 / 330-400 / 403-470 / 450-527
Frequency separation	Full bandsplit#	
Sensitivity (12dB SINAD) EIA	.30µV	.25µV
Intermodulation (EIA)	65dB	70dB
Adjacent Channel Selectivity	60dB @12.5, 70dB @ 25kHz	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	

\* Availability subject to country law and regulations.  
Radios meet applicable regulatory requirements.  
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**

Applicable MIL-STD	810 C		810 D		810 E	
	Methods	Procedures	Methods	Procedures	Methods	Procedures
Low Pressure	500.1	1	500.2	2	500.3	2
High Temp	501.1	1, 2	501.2	1, 2	501.3	1, 2
Low Temp	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

**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 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-3168 in Shock, Vibration, Dust, Humidity, IP54 for Sealing.



**MIL-STD 810C, D AND E**

Stamp of approval from the U.S. Military for use in rough environments.



**ISO 9001 STANDARD**

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

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