



# ***GM338 / GM398***

Conventional MDC Mobile Radio

Versatility & Sophistication on the Move





## **THE GM338 & GM398**

### **INSTANT & RELIABLE COMMUNICATION TO KEEP YOUR MOBILE TEAM WORKING EFFICIENTLY**

In a rapidly changing market, you need a communication solution that enables you to respond immediately to your customer requests and maximise productivity. With Motorola GM338 and GM398 conventional mobile, you can now enjoy instant and reliable communication to keep your mobile team working efficiently.

Whether you are a courier service personnel where information on direction is critical, or a foreman at a construction site needing emergency backup at an accident scene, or a transportation company that wants to improve its fleet management, both the GM338 & GM398 mobile radios are solutions that let you stay in touch and in control.

#### **GM338 & GM398**

##### **Common Key Features & Benefits**

###### **Advanced Signalling Capability**

GM338 & GM398 support a comprehensive range of signalling schemes such as MDC1200, Private Line & Digital Private Line, Quick Call II and DTMF.

###### **Excellent Audio Technology**

Motorola's special voice compression and low level expansion technology ensure crisper, clearer and stronger audio quality, allowing you to communicate even in a noisy working environment.

###### **Programmable Channel Spacing (12.5/20/25 kHz)**

Both radios allow programmable channel spacing of 12.5/20/25kHz, offering flexibility and easy migration of channel spacing and protecting your investment should your country's regulatory channel spacing requirement change.

###### **Large Control Buttons**

The intuitive driven menu together with the large control buttons on the front panel of the radio provide users easy navigation of menu and exit functions.

###### **Dual Priority Scan**

Both GM338 & GM398 support up to 16 scan lists and the scan function can be assigned to any of the function buttons. The dual priority scan feature allows frequent scanning of priority channels.

###### **Remote Mount Control Head**

The remote mount control head can be mounted on the dash board without the radio chassis, ideal when space is a constraint.

###### **Status Call/Messaging**

Up to 16 pre-defined text messages can be assigned to enable users to send frequently used messages and statuses quickly, without the need to talk.

###### **Covert Emergency Signalling**

Allows users to discreetly send help signals to a pre-defined person or group of users, providing added peace of mind.



## *Instant Communication With People On The Move*

### ***GM338 - Versatility on the Go***

Perfect for growing organisations, the GM338's rich feature set enable it to meet your rapidly changing business needs - keeping users communicating at higher levels of efficiency.

#### ***GM338 Features & Benefits***

##### **4 Customised Buttons**

Easy to use, users have the flexibility to dedicate the most useful operations to these specific buttons for instant one-touch access.

##### **Optional Voice Storage**

Through an optional voice storage board, the GM338's capabilities can be expanded to incorporate the recording & playback of messages, or personal memos for up to 120 seconds.

##### **128 Channel Capacity**

With a full 128-channel operating capacity, the GM338 conventional mobile allows users greater flexibility to program each channel individually for different power output, private line (PL)/Digital private line (DPL) for privacy call, as well as repeater/talkaround and busy channel lock out to enhance communication efficiency.

##### **14 Characters 1-line Alphanumeric Display**

The large alphanumeric display with icons such as signal strength indicator and caller identification makes it easy to read both text and icon displays.

### ***GM398 - Sophistication on the Move***

The GM398 mobile is fully equipped for organisations that require high levels of flexibility and functionality. The GM398 mobile builds on the benefits provided by the GM338 radio, taking its users to a whole new level of communication capability.

### ***GM398 Features & Benefits***

##### **7 Customised Buttons**

Easy to use, users can have the flexibility to assign your most useful operation to these specific buttons and replace them with recognised symbols.

##### **160 Channel Capacity**

The extensive 160-channel operating capacity on the GM398 mobile enables it to accommodate a vast number of users and work groups concurrently. Users can program each channel individually for different power output, private line(PL) or digital private line (DPL) for privacy call, as well as repeater/talkaround and busy channel lock out to enhance communication efficiency.

##### **14 Characters 4-line Alphanumeric Display**

The large alphanumeric display enables users to read up to 14 characters and 4 lines of text quickly. The display also features icons such as radio signal strength indicator and caller identification.

##### **Full Keypad**

The full alphanumeric keypad makes it easy to edit the list and enable quick entry of the desired channel number, call list address, status or message number.

##### **Built-in Voice Storage**

The built-in voice storage board provides users with a paperless notepad to store and retrieve messages. The radio performance is further enhanced through recording & playing back of important messages, or personal memos for up to 120 seconds.



GM338



GM398

## Enhanced Signalling Features for GM338 & GM398

### I) MDC1200 Signalling Protocol

- **PTT ID**  
Enables the transmission of caller ID and allows users to identify incoming callers.
- **Selective Radio Inhibit**  
Should the radios be stolen or go missing, the selective radio inhibit feature enables remote deactivation of the radios, providing greater security.
- **Call Alert**  
The radio emits an alert tone to notify individual users that someone is trying to reach them.
- **Voice Selective Call**  
The radio receives and sends dedicated individual voice messages for privacy or group voice messages for improved productivity.
- **Radio Check**  
This feature monitors if the radio is working or operating within range.
- **Emergency Signalling**  
Sends help signals for added security.

### II) Quick Call II Signalling Protocol

- **Call Alert**  
Voiceless paging with continuous alert tones that alerts users on incoming calls.
- **Selective Call**  
Paging alerts followed by a voice message.

## 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.

## ACCESSORIES FOR GM338 & GM398



### Microphone

- AARMN4026** Keypad Microphone
- PMMN4007** Compact Microphone
- AARMN4038** Heavy Duty Microphone



### Hands-free Solution

- RLN4857** Push Button with Remote PTT
- RLN4856** Foot Switch with Remote PTT
- AARMN4027** Visor Microphone (for use with remote PTT accessories)



### Remote Mount Kit

Remote Mount Kit

## GM338 & GM398 Specifications\*

GENERAL SPECIFICATION	Low Band (GM338 only)	VHF	UHF
*Frequency Range	29.7-36MHz 36-42MHz 42-50MHz	136-174MHz	403-470MHz 450-527MHz (1-25W) 450-520MHz (25-40W)
Frequency Stability (-30 C to 60 C, 25c Ref.)	5ppm	± 2.5ppm	± 2ppm
Channel Capacity	GM338: 128 Channels GM398: 160 Channels		
Power Output	40 - 60 W	1 - 25W 25 - 45W (GM338 only)	1 - 25W 25 - 40W (GM338 only)
Power Supply	13.2Vdc (10.8 - 15.6 Vdc) Negative Vehicle ground		
Channel Spacing	12.5/20/30kHz	12.5/20/25 kHz	
Dimensions (L x W x H)			
GM338: (add 9mm for volume knob)	255mm x 185mm x 72mm	186mm x 179mm x 59mm	
GM398: (add 7mm for volume knob)	188mm x 185mm x 72mm		
Weight	2040gms (4.5lbs)	1400gms (3.15 lbs)	
Operating Temperature	-30°C 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		
Transmitter	Low Band (GM338 only)	VHF	UHF
Modulation Limiting	± 12.5 @ 12.5kHz ± 5.0 @ 20/30kHz	± 2.5kHz @ 12.5kHz ± 4.0kHz @ 20kHz ± 5.0kHz @ 25kHz	
FM Hum & Noise	- 40dB @ 12.5kHz - 45dB @ 20/30kHz	- 40dB @ 12.5kHz - 45dB @ 20/25kHz	
Conducted/Radiated Emissions	- 26dB < 1 GHz	- 36dBm < 1 GHz - 30dBm < 1 GHz	
Adjacent Channel Power	- 60dB < 12.5kHz - 70dB < 20/30kHz	- 60dBm @ 12.5kHz - 70dBm @ 20/25kHz	
Audio Response (300 to 3000Hz)	+ 1, - 3dB		
Audio Distortion @ 1000Hz, 1000Hz, 60% Rated Max. Deviation	3%		
Receiver	Low Band (GM338 only)	VHF	UHF
Sensitivity (12dB SINAD)	0.25uV Typical	0.22uV	
Intermodulation (EIA)	78dB Typical	78dB @ 25kHz 78dB @ 20kHz 75dB @ 12.5kHz	75dB @ 25kHz 75dB @ 20kHz 75dB @ 12.5kHz
Adjacent Channel Selectivity	65dB @ 12.5kHz 80dB @ 20/30kHz	80dB @ 25kHz 70dB @ 20kHz 65dB @ 12.5kHz	75dB @ 25kHz 70dB @ 20kHz 65dB @ 12.5kHz
Spurious Rejection	70dB @ 12.5kHz 80dB @ 20/30kHz	80dB @ 20/25kHz 75dB @ 12.5kHz	75dB @ 20/25kHz 70dB @ 12.5kHz
Rated Audio	3W Internal 7.5W & 13W External		
Audio Distortion @ rated audio	3% Typical		
Hum & Noise	- 40dB @ 12.5kHz - 45dB @ 20/30kHz	- 40dB @ 12.5kHz - 45dB @ 20/25kHz	
Audio Response (300 to 3000Hz)	+ 1, 3dB		
Conducted Spurious Emission per FCC part 15	- 57dBm > 1 GHz - 47dBm > 1 GHz		

\* 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.

## 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 Temp	501.1	1, 2	501.2	1, 2	501.3	1, 2
Low Temp	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

## Motorola: Reliability & Quality



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



**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 – an international quality system assurance on design, development, production, installation and servicing of a product.



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