

# Mag One™ by Motorola



*Motorola  
Meets Your  
Needs...  
With a  
Quality  
Radio at an  
Affordable  
Price*



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# What is Mag One™ by Motorola?

**Mag One™**  
by Motorola

Mag One by Motorola is a new two-way radio portfolio – at an incredible value and price that is perfect for your business.

The Mag One by Motorola *BPR™40* two-way radio offers a new choice of affordable communications with a complete assortment of accessories for radio customization. So when you select the *BPR40*, you will experience a reliable, easy to use two-way radio at a great value.

Motorola is excited to introduce an affordable, high-performance communication tool that offers enhanced value and a reliable solution for you with great quality backed by Motorola service and a 1-year limited radio warranty.

## ***BPR40* is Ideal for You!**

It's a little radio with a big list of features:

- **8 channels** for communication to a wide group
- **2 programmable buttons** for easy use and versatility
- **12 programmable features** to choose from
- **Small size and light weight** make it ideal for any businesses
- **High/low power** provides flexibility for a variety of situations
- Complete assortment of **accessories increases radio versatility**
- Backed by Motorola service and a 1-year limited radio warranty

## **The Mag One by Motorola Difference – Quality and Value**

We develop our two-way radios with several key factors in mind to provide you with great quality and enhanced value. These key factors represent the essential elements you are looking for, and Mag One by Motorola brings them all together.

- **Value** ensures you get the most for your communication dollars
- **Reliability** so you can depend on your radio
- **Ease of use** for simple operation and customization
- **Audio quality** to get your message through loud and clear
- **Programmable** to customize features of each radio for each user



# BPR™ 40 Features

**Mag One™**  
by Motorola

**Small and Lightweight**  
For optimal portability.

**On/Off and Volume Control**  
Large size to adjust volume quickly.

**Large Rotary Channel Selector**  
Changes channels quickly and easily.

**8 Channels**  
Organize teams into different talk groups to improve efficiency.

**Adjustable Power Levels**  
Helps save battery life. Adjusts transmit power to accommodate user environment.

**Squelch Levels**  
Helps minimize interference from undesired weak signals and helps weak signals be heard.

**Tricolor LED**  
Indicates radio status and battery levels at a glance.

**Large, Textured Push-to-Talk Button**  
Easy to find and use without looking.

**2 Programmable Buttons**  
Easy access to favorite features. Supports your choice of up to four product features. 12 features to choose from!

**Repeater Talkaround**  
Unit-to-unit communication, bypassing a repeater.

**Single Priority Scan**  
Frequently scan higher priority channels.

**Nuisance Channel Delete**  
Temporarily removes a specific channel in the scan list user no longer wants to hear activity on.

**2" Spring Belt Clip**  
For optimal portability.



**Accessory Connector**  
Convenient access for audio accessories.

**Speaker**

**Rugged, Die-Cast Chassis**  
With polycarbonate housing for greater protection.

**Microphone**



Shown actual size

# BPR™40



## Standard Package

- Radio – Ships at 1 Watt
- 1200mAh NiMH Battery
- 6-Hour Mid-rate Charger
- 2" Spring Belt Clip
- VHF/UHF Antenna
- Operating Manuals
- Safety Manual
- 1-Year Limited Radio Warranty

## Programmable Features

**The Mag One™ by Motorola BPR™40 has 12 programmable features to choose from!**

### High/Low Power

Selects desired power level to High or Low.

### Volume Set

Allows you to check the audio and alert tone volume level.

### Monitor

Allows you to monitor the current channel for activity; disables squelch.

### Sticky Monitor

The radio monitors continually until you press this button again.

### Scan

Starts or Stops channel scan.

### Nuisance Channel Delete

Removes unwanted channel(s) temporarily from scan list during scan.

### Repeater Talkaround

Toggles radio between functioning in Repeater mode or Talkaround mode.

### PL/DPL

Enables/Disables radio from requiring matching PL/DPL to receive messages.

### Button Lock

Locks or unlocks all buttons except PTT, Channel Knob and On/Off/Volume Knob.

### Battery Save Mode

Toggles between functioning with Battery Saver ON or Battery Saver OFF.

### Squelch

Selects desired squelch level: Normal or Tight.

### No Operation

No function is programmed to this button.

**Mag One™  
by Motorola  
BPR™ 40 Radio  
Accessories**



**Mag One 1200mAh NiMH Battery**  
PMNN4071\_R



**Mag One 12-hour Slow Charger Kit** (includes Base and Transformer) PMLN4738\_R  
**Mag One 6-hour Mid-rate Charger Kit** (includes Base and Transformer) PMLN4683\_R



**Mag One 2" Spring Belt Clip**  
PMLN4743



**Mag One Standard Belt Clip**  
PMLN4691\_R



**Mag One Hard Leather Case**  
PMLN4742



**Mag One VHF 150-174 MHz Stubby Antenna** PMAD4051\_R



**2-Wire Surveillance Kit with Clear Acoustic Tube**  
PMLN4606



**Clear Acoustic Tube**  
PMLN4605



**D-Shell Earset with Boom Microphone with PTT/VOX Switch** PMLN4658



**Mag One Remote Speaker Microphone** PMMN4008



**Mag One Earbud with In-line Microphone and PTT/VOX Switch** PMLN4442



**Earbud with Microphone and PTT Combined**  
PMLN4294



**Mag One Ear Receiver with In-line Microphone and PTT/VOX Switch** PMLN4443\_B



**Mag One Ultra Lightweight Headset with In-line PTT/VOX Switch** PMLN4445

Accessory*	Part Number	Description
<b>Energy Solutions</b>	PMNN4071_R	Mag One 1200mAh NiMH Battery
	PMLN4683_R	Mag One 12-hour Slow Charger Kit (includes Base and Transformer)
	PMLN4738_R	Mag One 6-hour Mid-rate Charger Kit (includes Base and Transformer)
<b>Carry Solutions</b>	PMLN4742	Mag One Hard Leather Case
	PMLN4743	Mag One 2" Spring Belt Clip
	PMLN4691_R	Mag One Standard Belt Clip
<b>Antenna</b>	PMAD4051_R	Mag One VHF 150-174 MHz Stubby Antenna
	PMAE4020_R	Mag One UHF 450-470 MHz Stubby Antenna
<b>Audio Solutions</b>	PMLN4606	2-Wire Surveillance Kit with Clear Acoustic Tube
	PMLN4605	Clear Acoustic Tube
	PMLN4658	D-Shell Earset with Boom Microphone with PTT/VOX Switch
	PMMN4008	Mag One Remote Speaker Microphone
	PMLN4442	Mag One Earbud with In-line Microphone and PTT/VOX Switch
	PMLN4294	Earbud with Microphone and PTT Combined
	PMLN4443_B	Mag One Ear Receiver with In-line Microphone and PTT/VOX Switch
	PMLN4445	Mag One Ultra Lightweight Headset with In-line PTT/VOX Switch

\* Mag One by Motorola Accessories are covered by a 6-month limited warranty and a 1-year limited warranty on the Mag One by Motorola battery. All other accessories are covered by a 1-year limited warranty.

# BPR™ 40 Portable Two-Way Radio Specifications

GENERAL SPECIFICATIONS	VHF 150-174 MHz	UHF 450-470 MHz
Channel Capacity	8	8
Model Numbers	AAH84KDS8AA1_N	AAH84RCS8AA1_N
FCC Designation	AZ489FT3810	AZ489FT4873
FCC Emissions Designators	11K0F3E/16K0F3E	11K0F3E/16K0F3E
Power Supply	One rechargeable nickel-metal hydride	
Dimensions (H x W x L)	4.21" x 2.28" x 1.46" (107 x 58 x 37 mm)	
Weight (with standard battery)	12.3 ounces (350 g)	
<b>Average Battery Life @ 5-5-90 Duty Cycle<sup>1</sup></b>		
High Power (5W/4W)	Up to 8 hours	
Low Power (1W)	Up to 11 hours	

TRANSMITTER	VHF	UHF
Frequency Range	150-174 MHz	450-470 MHz
Channel Spacing	12.5/25 kHz	12.5/25 kHz
RF Output	1 to 5W	1 to 4W
Frequency Stability <sup>2</sup>	±2.5 ppm	±2.5 ppm
Spurs and Harmonics	-63 dBc (-26 Bm)	-63 dBc (-27 Bm)
Frequency Stability <sup>2</sup>	±2.5 ppm	±2.5 ppm
FM Hum & Noise Ratio <sup>2</sup> (12.5/25 kHz)	40 dB	40 dB
Modulation Limiting <sup>2</sup> (12.5/25 kHz)	±2.5 kHz / ±5 kHz	±2.5 kHz / ±5 kHz
Audio Response (0.3-3 kHz) <sup>2</sup>	+1 to -3 dB	+1 to -3 dB
Audio Distortion <sup>2</sup>	5%	5%

RECEIVER	VHF	UHF
Frequency Range	150-174 MHz	450-470 MHz
Channel Spacing	12.5/25 kHz	12.5/25 kHz
Sensitivity <sup>2</sup> (12 dB SINAD)	<-119 dBm (.25uV)	-117.5 dBm (.3uV)
Adjacent Channel Selectivity <sup>2</sup> (12.5/25 kHz)	-60 dB / -65 dB	-60 dB / -65 dB
Intermodulation <sup>2</sup> (12.5/25 kHz)	-60 dB / -65 dB	-60 dB / -65 dB
Spurious Rejection <sup>2</sup>	65 dB	65 dB
Audio Distortion <sup>2</sup>	<5%	<5%
Hum & Noise Ratio <sup>2</sup> (12.5/25 kHz)	40 dB	40 dB
Conducted Emission	-57 dBm	-57 dBm
Audio Output @ <5% Distortion <sup>2</sup>	500 mW (at 8 ohm)	500 mW (at 8 ohm)

MILITARY STANDARDS 810 C, D, E and F								
	810 C		810 D		810 E		810 F	
	Methods	Procedures	Methods	Procedures	Methods	Procedures	Methods	Procedures
High Temperature	501.1	1	501.2	1	501.3	1	501.4	1
Low Temperature	502.1	1	502.2	1, 2	502.3	1, 2	502.4	1, 2
Temperature 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
Humidity	507.1	2	507.2	2, 3	507.3	2, 3	507.4	3
Salt Fog	509.1	1	509.2	1	509.3	1	509.4	1
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

ENVIRONMENTAL SPECIFICATIONS	
Operating Temperature	-30°C to +60°C (Radio Only)
Sealing	Passes rain testing per IPX4
Shock & Vibration	Die-cast with impact resistance polycarbonate housing, passes EIA 603B
Dust & Humidity	Weather-resistant housing passes EIA 603B

<sup>1</sup> 5% receive, 5% transmit, 90% standby.

<sup>2</sup> All electrical specifications and methods refer to EIA/TIA 603 standards. Specifications shown are typical and subject to change without notice.