



# Motorola Ear Microphone System

Compact, Durable Accessory that Meets the Unique Needs of Emergency Personnel



This Ear Microphone System picks up sound through bone vibrations in the ear canal, giving emergency personnel the ability to hear and speak directly to others on the scene. This lightweight earpiece is comfortable to wear, yet durable enough to meet the rigorous needs of emergency response personnel.

Benefits of the Ear Microphone System include:

- Built in bone conduction and receiver **eliminates the need for a boom microphone**
- Voice is picked up directly from the ear canal **minimizing ambient noise** transmitted
- Miniature earpiece **leaves the face unobscured**, allowing users to hear and speak directly to others on the scene
- Compact push-to-talk interface module is **lightweight and easy to clip** on clothing
- Optional remote push-to-talk ring switch provides a **flexible and easily accessible** push to talk option
- Optional body push-to-talk button allows easy **access with or without gloves**
- May be worn with protective masks or other hazardous material equipment **without reduction in sound clarity**
- **Voice Activated Capability (VOX)** enables hands-free communication critical in harsh working conditions when used with compatible radios
- Rated as **Intrinsically Safe\*** when used with an intrinsically safe Professional Series Radio

\* Intrinsically Safe: Motorola approved accessories are a critical part of the specific radio and accessory system certified by a recognized testing organization as intrinsically safe. Non-Motorola approved accessories are not certified as part of the overall Motorola Professional Series radio system. Use of non-Motorola approved accessories could result in equipment that is unapproved or unsafe in hazardous environments.

## PRODUCT SPECIFICATIONS

### Ordering an Ear Microphone System

- **RMN5117** Push-to-Talk or Voice-Activated Interface Module.

Select one of the following Ear Microphones

- **BDN6768** Ear Microphone, for standard noise levels, black (up to 95dB)
- **BDN6769** Ear Microphone, for standard noise levels, beige (up to 95dB)
- **BDN6770** Ear Microphone, for high noise levels, gray (up to 105dB)

### Optional Accessories

- **0180358B38** Remote Push-To-Talk Ring Switch
- **0180300E83** Remote Push-To-Talk Body Switch

Other accessories include:

- Earholders to secure the microphone in your ear
- Eartips for hygienic sharing of the ear microphone system

### EAR MICROPHONE SYSTEM SPECIFICATIONS

Part Number:	RMN5117
Description:	Push-to-Talk or Voice-Activated (VOX) Interface Module
Radio Compatibility:	PR860, HT750, HT1250, HT1250.LS+, HT1550.XLS, MTX850, MTX8250, MTX950, MTX9250

### ELECTRICAL SPECIFICATIONS

Microphone Line	Output Level:	-30dBm $\pm$ 3dB at Vin=1 mVrms, F=1KHz, Load R=600
	Distortion (THD):	1.0 % max at Vin=1 mVrms, F=1kHz, Load R=600 ohms
	Output Impedance:	100 ohm $\pm$ 20% at Vin=1 mVrms, F=1kHz
Speaker Line	Input impedance:	3400 ohm $\pm$ 20% at F=1kHz, Ear Microphone and Earpiece connected
	Output SPL:	90 dB( C ) typ., at Vin = 0 dBm, F=1kHz, Ear Microphone and Earpiece connected
	VOX operating at F=300 Hz:	Sensitivity: 2.5 mV rms min Attack time: 20 ms max.
	Recovery time:	1.35s $\pm$ 20%

### MECHANICAL SPECIFICATIONS

Dimensions (LxWxH):	70mm x 39mm x 18mm
Weight :	100 grams

### CONTROLS

Push-to-Talk:	Large button on the front housing
VOX/Push-to-Talk switch:	Rocking switch on the front housing

### POWER

Power Source:	AAA 1.5V Battery	
Minimum Operating Voltage:	0.95V	
Battery Life:	Manganese battery:	Approximately 80 hours in continuous VOX transmit
	Alkaline battery:	Approximately 110 hours in continuous VOX transmit
Current drain in PTT mode:	Standby = 0mA, Receive = 0mA, Transmit = 2mA max at Vin = 0, Ear Microphone and earpiece connected	
Current drain in VOX mode:	Standby = 3mA, Receive = 3mA, Transmit = 3mA at Vin = 0, Ear Microphone and earpiece connected	

### ENVIRONMENTAL SPECIFICATIONS

Operating Temperature:	-30°C to +60°C
Storage Temperature:	-55°C to +85°C
Thermal shock:	-40°C to +80°C
Humidity:	90% - 95% Relative Humidity at +50°C for 8 hours
Dust:	MIL810F Method 510.4 Procedure 1
Vibration:	MIL810F Method 514.5 Procedure 1 Category 24
Mechanical Shock:	MIL810F Method 516.5 Procedure 1
Regulatory:	FM

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