



## ELECTRONIC EARMUFF User Guide



MPH-UM-71/81

Models MHP71/MHP81

### For More Information

For further information, you may call Motorola Solutions, Inc. at 1-800-638-5119 (U.S. and Canada), e-mail us at [giantintl@callcenter.com](mailto:giantintl@callcenter.com) or visit us on the Internet at [motorolasolutions.com/talkabout](http://motorolasolutions.com/talkabout).

### Safety Precautions

#### Important Information on Safe and Efficient Operation.

##### Read this Information Before Using your Headset.

- Listening to music or any other sound at a high volume over time can cause permanent damage to your hearing. Noise-induced hearing loss can occur even when you are enjoying music on a personal listening device. The user is responsible for proper selection, use, care and maintenance of this device. Improper selection use or maintenance may lead to serious hearing loss.
- The output of the level dependent circuit of this headset may exceed the external sound level.
- Improper fit of this device will reduce its effectiveness in lessening noise. Although hearing protectors can be recommended for protection against the harmful effects of impulse noise, the Noise Reduction Rating (NRR) is based on the attenuation of continuous noise and may not be an accurate indicator of the protection attainable against impulse noise such as gunfire. Constant or repetitive exposure to impulse noise may lead to serious injury, including temporary or permanent deafness.

### Product At-A-Glance

1. Cable assembly with PTT microphone for Motorola 2-way radio
2. Cable assembly for audio device
3. Headband
4. Microphone with wind protector
5. Battery compartment
6. Height adjustment slider
7. Ear cushion
8. Volume and Power Control
9. Ear cup
10. Audio input jack



### Getting Started

Your Motorola headset amplifies surrounding sounds such as voices, animals, and environmental sounds to safe levels while providing protection against loud sounds that can damage your hearing. Because of the two separate microphones and circuit boards, you are better able to pinpoint where a sound originates for improved situational awareness. The earmuffs have 2 audio jack inputs for connection with the Motorola FRS/GMRS Talkabout® 2-Way radios and other input devices such as MP3 players and scanners.

#### Installing the Batteries

1. Using the volume control knob on each ear cup, turn the headset off.
2. Gently lift the foam flap on the inside of each ear cup to expose the battery holder.
3. Insert two new N alkaline batteries into each ear cup battery holder by following the polarity (+/-) markings on the holder.

#### Replacing the Batteries

1. Using the volume control knob on each ear cup, turn the headset off.
2. Gently lift the foam flap on the inside of each ear cup to expose the battery holder.
3. Remove the old N alkaline battery by gently easing each battery up and out of the battery compartment.
4. Insert two new N alkaline batteries into each ear cup battery holder following the polarity (+/-) markings on the holder.

#### Notes

1. Exercise care when removing batteries.
2. Do not use sharp or conductive tools to remove the batteries.
3. Performance of the microphone amplifier can deteriorate with battery usage.
4. New batteries will typically last over 220 hours of operation.
5. Properly dispose of old batteries in accordance with local environmental regulations.
6. Remove the batteries before storing your headset for extended periods of time. Batteries corrode over time and may cause permanent damage to your headset.

#### Fitting the headset

Adjust the height adjustment sliders downward from the top to an appropriate position based on your head size.

Move the cups up and down until the cups are secured over the ear. For best results, remove all hair from under the cushion. Noise reduction will be adversely affected by anything that impairs the seal of the earmuff cushions against the head such as glasses or a hat. Height Adjustment Sliders should be evenly extended from the headband.

#### Placing the ear cups over each ear

The input jacks can face either forward or backward, depending on how you intend to drape the cable assembly when connecting to an audio device.

#### Removing and replacing damaged or worn-out ear seals

1. Hold the cup in one hand and place the fingers of the other hand underneath the hard plastic ear seal flange.
2. The ear seal and flange will snap off of the cup with moderate force.
3. Put the new ear seal over the cup and snap into place.

### Removing and replacing worn-out headbands

1. Hold one ear cup firmly in place with one hand.
2. Use your other hand to slide each pivot pin of the yoke out of the cup's rubber socket. A slight rotation of the cup will help release the pin from the rubber socket.
3. Repeat 1 and 2 above to remove the other cup.
4. Hold one ear cup firmly in place with one hand.
5. Rotate and press the ends of the yoke pins of the new headband into the 2 rubber sockets located on the ear cup.

#### Connecting your audio player to your headset

1. Locate the cable assembly with the 3.5 mm plug at the end.
2. With your headset off, plug the white and red 2.5 mm connectors into the jacks on each cup. The headset has no front or back. You should ensure that the left and right connectors are plugged into the accessory jack that matches your preferred way of wearing the headset.
3. With your player off, plug the headset's single connector into the player's accessory jack.
4. Turn the music player on and adjust volume to a comfortable listening level.

#### Connecting your Motorola Talkabout® 2-Way radio to your headset

1. Locate the cable assembly with PTT microphone and all black 2.5 mm connectors.
2. With your headset off, plug the white/red connectors into the jacks on each cup. The headset has no front or back. The 2-Way radio is monophonic, and the left and right connectors can be plugged into either cup.
3. With your 2-way radio off, plug the 2.5 mm connector into the radio's accessory jack.
4. Turn the radio on and adjust the volume to a comfortable listening level.
5. Hold the PTT microphone 2.5 cm from the mouth for best audio clarity.
6. To transmit, press the PTT (Push-To-Talk) button. To receive, release the button.

#### Amplification Control and Audio Connection

Adjust each volume control knob to the minimum comfort level to maintain situational awareness. Amplification does not exceed the recommended safe decibel level for continuous operation. The volume control on the headset only controls the volume of the amplification. To control the volume of an external device use the device volume adjustment.

#### IMPORTANT USER INSTRUCTIONS

1. The earmuffs should be regularly inspected for serviceability.
2. If you encounter excessive crackling or distortion in the speakers, turn off the volume controls and replace the batteries with new N alkaline batteries.
3. If the distortion continues, contact the manufacturer. The manufacturer information can be found in the warranty section of this user guide.
4. Inspect the ear cushions for cracks or hard spots or separation from the cups. Replace damaged or worn-out ear seals.
5. After extended use, clean/disinfect ear seals with a soft cloth and warm soapy water. DO NOT SUBMERSE EARMUFFS IN WATER! Store in a cool, dry place. The ambient temperature for storage should not exceed 55 degrees C (130 degrees F).
6. The microphone wind protector should be properly secured. Replacement wind protectors are available from the manufacturer.

7. The earmuff is equipped with an electrical audio input jack. The user should check for proper operation before use.
8. Two separate cord assembly cables are included. One cable has a 2.5 mm connector and an in-line microphone for use with your Motorola Talkabout® FRS/GMRS two-way radio. The second cable has 3.5 mm connector for use with other input devices.

#### Sound Attenuation Data for Hearing Protectors in the USA. (ANSI S3.19-1974)

Tested and approved in accordance with ANSI S3 19: 1974 at Michaels & Associates, Inc. (in passive mode with electronics off).

#### MHP71

Mean Attenuation Levels		NRR 21 dB								
Frequency (Hz)		125	250	500	1000	2000	3150	4000	6300	8000
Mean Attenuation (dB)		15	17.7	23.6	28.2	32.7	38	39.1	40.3	39.8
Standard Deviation (dB)		2.5	1.9	2.6	2.9	2.9	3.6	3.7	3.5	3.9

#### MHP81

Mean Attenuation Levels		NRR 21 dB.								
Frequency (Hz)		125	250	500	1000	2000	3150	4000	6300	8000
Mean Attenuation (dB)		13.5	17.1	25.4	27.5	34.5	37.9	41.4	39.4	40.5
Standard Deviation (dB)		2.9	2.5	2.6	2.8	3.3	2.9	3.4	3.3	4.2

#### Sound Attenuation Data for Hearing Protectors in Canada.

Frequency, Hz	Minimum attenuation, dB		
	Class A	Class B	Class C
125	10	5	None
250	18	12	None
500	26	16	None
1000	31	21	11
2000	31	23	13
3150	33	23	13
4000	31	21	11
6300	33	23	13
8000	33	23	13

Source: CSA Standard Z94.2-02

The MHP71 is rated CSA Class B.

The MHP81 is rated CSA Class B.

#### MHP71

**Noise Reduction Rating** 21 Decibels  
(When used as directed)

THE RANGE OF NOISE REDUCTION RATINGS FOR EXISTING HEARING PROTECTORS IS APPROXIMATELY 0 TO 30 (HIGHER NUMBERS DENOTE GREATER EFFECTIVENESS)

Motorola Solutions, Inc. Model MHP71

Federal law prohibits removal of this label prior to purchase. EPA Label required by U.S. EPA Regulation 40 CFR Part 211, Subpart D

#### MHP81

**Noise Reduction Rating** 21 Decibels  
(When used as directed)

THE RANGE OF NOISE REDUCTION RATINGS FOR EXISTING HEARING PROTECTORS IS APPROXIMATELY 0 TO 30 (HIGHER NUMBERS DENOTE GREATER EFFECTIVENESS)

Motorola Solutions, Inc. Model MHP81

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The NRR calculated from these laboratory-based attenuation data is 21. Improper fit of this device will reduce its effectiveness in attenuating noise. Consult instructions for use for proper fit.

The level of noise entering a person's ears when a hearing protector is worn as directed is closely approximated by the difference between the A-weighted environmental noise level and the NRR.

#### EXAMPLE:

1. The environmental noise level as measured at the ear is 92 dBA.
2. The NRR is 25 decibels. (dB)
3. The level of noise entering the ear is approximately equal to 67 dBA.

**CAUTION:** For noise environments dominated by frequencies below 500 Hz, the C-weighted environmental noise level should be used. Earmuffs must be worn at all times in noisy surroundings for proper protection. Although hearing protectors can be recommended for protection against the harmful effects of impulsive noise, the noise reduction rating (NRR) is based on the attenuation of continuous noise and may not be an accurate indicator of the protection attainable against impulsive noise such as gunfire.

The EPA has selected the NRR as the measure of a hearing protector's noise reducing capabilities. Giant International and Motorola make no warranties as to the suitability of the NRR as a measure of actual workplace protection since such protection is highly dependent on user training, motivation, and utilization. A better estimate of workplace protection can be obtained by derating the labeled NRR of this, or any other hearing protector, by 50%.

## Warranty

### Limited 1 year Warranty

**Coverage:** Giant International Ltd. warrants this accessory against defects in materials and workmanship under normal use for 1 year from the date of purchase. Giant International Ltd., at its option, will at no charge repair, replace or refund the purchase price of any accessories that do not conform to this warranty. This warranty is valid only in the United States and Canada and extends to the first purchaser only and is not transferable.

**Exclusions:** This warranty does NOT cover batteries, defects or damage resulting from misuse, accident or neglect, improper operation or alteration, normal wear and tear, cosmetic or surface damage, or accessories on which serial numbers or date tags have been altered. DAMAGES OR DEFECTS RESULTING FROM SERVICE WORK PERFORMED BY SERVICE CENTERS NOT AUTHORIZED BY GIANT INTERNATIONAL LTD. ARE NOT COVERED BY THIS WARRANTY.

**Obtaining Service:** To obtain warranty service, call 1-800-638-5119 in the USA and Canada. All accessories must be shipped to a Giant International Ltd. Service Center freight and insurance prepaid by the consumer, and include dated proof of purchase, description of problem, and the consumer's address and telephone number.

**General Conditions:** REPAIR, REPLACEMENT, OR REFUND AS PROVIDED UNDER THIS EXPRESS WARRANTY IS THE EXCLUSIVE REMEDY OF THE CONSUMER. IMPLIED WARRANTIES, INCLUDING WITHOUT LIMITATION THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE GIVEN ONLY IF SPECIFICALLY REQUIRED BY APPLICABLE LAW. IN NO EVENT SHALL MOTOROLA SOLUTIONS, INC. OR GIANT INTERNATIONAL LTD. BE LIABLE FOR DAMAGES IN EXCESS OF THE PURCHASE PRICE OF THE ACCESSORY, OR FOR ANY INDIRECT, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PRODUCT, TO THE FULL EXTENT THESE DAMAGES MAY BE DISCLAIMED BY LAW.

Some states and jurisdictions do not allow the limitation or exclusion of incidental or consequential damages, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights that vary from state to state or from one jurisdiction to another.

### How to Obtain Warranty Service or Other Information?

#### USA and Canada Headset Earmuffs

1-800-638-5119

giantintl@callcenter.com

To obtain service or information, please call the telephone number designated above. You will receive instructions on how to ship the Products or Accessories at your expense, to a GIANT INTERNATIONAL LTD. Authorized Repair Center. To obtain service, you must include: (a) a copy of your receipt, bill of sale or other comparable proof of purchase; (b) a written description of the problem; (c) the name of your service provider, if applicable; (d) the name and location of the installation facility (if applicable) and, most importantly; (e) your address and telephone number.

#### Other Motorola Talkabout® products

The Motorola Talkabout® Electronic Earmuffs (MHP81 and MHP71) and the Motorola Talkabout® Isolation Earmuffs (MHP61) can be used with standard music devices that have a 3.5mm jack and with all headset-capable Motorola FRS/GMRS Talkabout® 2-way radios.

Motorola FRS/GMRS Talkabout® 2-Way radios are designed to provide dependable communication, ideal for the outdoor enthusiast.

Our radios work in remote areas, are rugged and convenient to use and provide instant access without depleting your cell phone minutes. They complement the use of your earmuffs by adding the ability to communicate with a group or instructor that is out of hearing range and allows instructors to communicate with a group simultaneously.

**Motorola Talkabout® Earmuffs are compatible with the following FRS/GMRS Motorola 2-Way Talkabout® radio series:**

EM, FV200, FV300, FV500, FV600, FV700, FV800, MB, MC, MH, MJ, MR, MS, MT, MU, SX500, SX700, SX800, SX900, T4800, T4900, T5000, T5300, T5400, T5500, T5600, T5700, T5800, T5900, T6200, T6300, T6400, T6500, T7100, T7200, T7400, T8500, T8550, T9500

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