English

Music-Pro®
High-Fidelity Electronic Musicians Earplugs

User Manual
Caution

Failure to follow these recommendations may severely reduce the amount of hearing protection provided by the earplugs.

- Earplugs comply with EN-352 standard of measurement.
- Eartips fit ear canal diameters of 6-13 mm. See Eartip section for details.
- At very high SPLs (above 125 dB SPL, where the limit to attenuation is the eartip itself), the foam eartips provide the most protection.
- The following applies when the device is turned off or the battery is drained:

  The level of noise entering a person’s ear, 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. 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.

- Earplugs must be fitted, adjusted and maintained to the manufacturer’s instructions to achieve the expected attenuation and hearing protection.
- Use earplugs at all times in noisy surroundings.
- Make certain that the earplugs provide adequate protection for the noisy environment.
- Earplugs are reusable. Regularly inspect the earplugs to assure their continued serviceability.
- Connecting cord should not be used where there is a risk that the connecting cord can be caught up during use.
- This product may be adversely affected by certain chemical substances. Further information should be sought from the manufacturer.
- This earplug is provided with level-dependent attenuation. The wearer should check correct operation before use. If distortion or failure is detected, the wearer should refer to the manufacturer’s advice for maintenance and replacement of the battery.

**Warning:** The output of the level-dependent circuit of the hearing protector may exceed the daily limit sound level.

- To determine if the device is working, insert a battery, cup the device in your hand and listen for acoustic feedback (squeal). If feedback is present, the battery is working.
Identification

- Eartip
- 2-Position Switch
- Battery Door
- Flexible Neck Cord
- Protective Case
- Filter Tool and Filters™
- Cleaning Tool
- #10 Batteries
Selecting an Eartip

Eartips

<table>
<thead>
<tr>
<th>SM Frost</th>
<th>LRG</th>
<th>SM Long Stem</th>
<th>LRG Long Stem</th>
<th>SM</th>
<th>LRG</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-flange 7-11mm</td>
<td>3-flange 8-13mm</td>
<td>3-flange 7-11mm</td>
<td>White 3-flange 8-13mm</td>
<td>Frost 3-flange 7-11mm</td>
<td>Long Stem White 3-flange 8-13mm</td>
</tr>
<tr>
<td>Gray</td>
<td>LRG</td>
<td>Frost</td>
<td>Foam</td>
<td>Beige</td>
<td>Black</td>
</tr>
<tr>
<td>8-13 mm</td>
<td>8-13 mm</td>
<td>8-13 mm</td>
<td>6-9 mm</td>
<td>8-13 mm</td>
<td></td>
</tr>
</tbody>
</table>

Selecting an eartip:

No two ears are exactly alike. The eartip that is most comfortable is the best choice, but it must seal well to provide proper protection.

When changing eartips make sure the eartip fits securely on the stem of the device.
Battery Insertion

1. The battery compartment is located on the underside of the device.

2. Open the battery door.

3. Remove the yellow tab from the battery.

4. Insert the battery with the flat side facing up.

5. Do not force the battery into the door.

Note: The door will not close if the battery is not inserted correctly.
Insertion & Removal

Insertion

• Make sure the eartip is clean.
• Pull the ear up and out while inserting.
• Twist and push gently until the eartip seals in the ear canal.
• When using 3-flange eartips, moistening may ease insertion.
• When using foam eartips: Roll down or compress the foam eartip before inserting. Hold the eartip in place for about 5 seconds while foam expands to create a tight seal in the ear canal.
• When using glider eartips no compression is needed; simply push it into your ear.

Removal

• Remove the device with a slow twisting motion.
• After removal, place earplugs in a clean, protective case.
Operation

ON/OFF
Earplugs turn on and off by opening and closing the battery door. **Note:** It is not necessary to remove the battery as long as the door is open wide enough to disable the circuit.

Two Modes of Protection

Natural Hearing with 15-dB Sound Reduction
*switch toward device*
- Natural hearing until sound exceeds safe levels
- Automatic 15-dB protection when hearing is at risk
- Impact noise protection

Enhanced Hearing with 9-dB Sound Reduction
*switch away from device*
- 6-dB gain for soft sounds
- Automatic 9-dB protection when hearing is at risk
- Impact noise protection
Batteries

Zinc-Air Batteries
Use commonly-available #10 zinc-air hearing aid batteries. They are easy to find in pharmacies, online, and at various retail locations.
- Zinc-air batteries have a long shelf life, but once the tab is removed, battery life is about 9 days for continuous operation.
- Battery life is about 2 weeks if the devices are turned off after each use.
- Once the tab is removed, zinc-air batteries may self-discharge in about 4 weeks whether used or not.
- The discharge rate varies with temperature and humidity.
- It is sometimes possible to prolong the life of a battery by replacing the tab over the air holes, but results vary.

Low Battery Warning

LOBAT™: A ticking sound becomes faster and louder, like the sound of a motorboat when the battery is about to die. After the warning sound first becomes audible, it may be a few hours before the battery dies. Performance and protection do not change while LOBAT is sounding.
Changing Filters

Each device has a special filter that enhances sound quality and prevents earwax from entering the device. A filter should be changed if the volume decreases or sound quality declines.

Filter Removal

Note: Use the tool to remove the filter.

1. Remove eartip.
2. Insert tool into the filter.
3. Remove filter.

Filter Replacement

Note: Do not use the tool to replace the filter.

1. Insert a new filter.
2. Press gently against a hard surface to secure it in place.
3. Re-attach eartip.
Maintenance

Simple cleaning with the tool provided will keep the eartips clean and the devices working properly.
• Clean after each use. Wipe clean with a damp cloth.
• Do not immerse earplugs in water.
• Do not clean with harsh chemicals. Alcohol is not recommended.
• Use the cleaning tool to pick out or brush off debris.
• 3-flange eartips can be removed and cleaned in mild detergent. Dry eartips thoroughly.
• Replace 3-flange eartips every 60-90 days.
• Replace foam and glider eartips frequently, as needed.
• Remove the devices before using hair products.
• Do not expose to extreme heat or moisture.
• Avoid dropping or hitting on a hard surface.
• Use only accessories and spare parts from Etymotic Research, Inc. to ensure continued performance to specification.

Storage

• Always store earplugs in a clean, protective case.
• Do not store other objects, except a neck cord, in the earplug case.
Noise Reduction Rating 25 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)

ETYMOTIC RESEARCH, INC.
ELK GROVE VILLAGE, IL 60007

Federal law prohibits removal of this label prior to purchase. LABEL REQUIRED BY U.S. E.P.A. REGULATION
40 CFR Part 211, Subpart B.

MP915-BN

3-flange eartips (Test Report: VTEA-2/15/11-1HP-P): NRR=25
Frequency (Hz)  125  250  500  1000  2000  3150  4000  6300  8000
Mean Attenuation  28.1  29.3  32.9  34.3  37.9  41.3  40.4  39.3  40.6
Standard Deviation 3.7  3.6  4.7  5.7  2.6  3.9  5.4  4.6  4.9

Frequency (Hz)  125  250  500  1000  2000  3150  4000  6300  8000
Mean Attenuation  29.1  29.8  33.6  36.1  38.1  43.1  42.7  44.4  45.5
Standard Deviation 4.4  3.9  4.0  6.2  2.3  2.6  2.9  2.5  3.2
Passive Attenuation

<table>
<thead>
<tr>
<th>Frequency (Hz)</th>
<th>125</th>
<th>250</th>
<th>500</th>
<th>1000</th>
<th>2000</th>
<th>4000</th>
<th>8000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Attenuation (dB)</td>
<td>25.3</td>
<td>24.0</td>
<td>24.3</td>
<td>25.6</td>
<td>29.6</td>
<td>32.5</td>
<td>34.8</td>
</tr>
<tr>
<td>Standard Deviation (dB)</td>
<td>5.9</td>
<td>4.6</td>
<td>5.6</td>
<td>4.8</td>
<td>3.3</td>
<td>3.8</td>
<td>4.0</td>
</tr>
<tr>
<td>APV (dB)</td>
<td>19.4</td>
<td>19.5</td>
<td>18.8</td>
<td>20.9</td>
<td>26.3</td>
<td>28.7</td>
<td>30.8</td>
</tr>
</tbody>
</table>

H = 26 dB      M = 21 dB      L = 20 dB      SNR = 25 dB

Active Attenuation – Criterion Levels

<table>
<thead>
<tr>
<th>Switch position</th>
<th>H-noise</th>
<th>M-noise</th>
<th>L-noise</th>
</tr>
</thead>
<tbody>
<tr>
<td>LO (-15)</td>
<td>104</td>
<td>96</td>
<td>86</td>
</tr>
<tr>
<td>HI (-9)</td>
<td>99</td>
<td>93</td>
<td>85</td>
</tr>
</tbody>
</table>

H: Average attenuation characteristics in the high frequency spectrum (>2 kHz)
M: Average attenuation characteristics in the mid frequency spectrum (0.5-2 kHz)
L: Average attenuation characteristics in the low frequency spectrum (<0.5 kHz)
SNR (Single Number Rating): Average attenuation characteristics in the standard frequency spectrum

The European Union testing was conducted by:
Central Institute for Labour Protection—National Research Institute (CIOP-PIB)
ul Czerniakowska 16, 00-701 Warsaw, Poland. Notified Body No. 1437.
This product is in compliance with EN 352-2:2002 and EN 352-7:2002.
Warranty

Etymotic will repair or replace defective product at its option if returned within one year of purchase to our designated service facility. This warranty is in lieu of all other warranties, expressed or implied, including, but not limited to, any implied warranty of merchantability or fitness for a particular purpose.