Hearing Protection

**CUSTOM•FIT**

Musicians Earplugs are a customized product made from ear impressions and purchased from hearing professionals. The combination of custom molds and Etymotic’s attenuators (filters) produces a resonance that replicates the response of a normal ear canal, resulting in smooth, flat sound reduction. Interchangeable filters are available in three levels of sound reduction: 9 dB, 15 dB and 25 dB.

**High-Fidelity Ready-Fit Hearing Protection**

**ETY•Plugs**

ETY•Plugs use a tuned resonator and acoustic resistor to replicate the natural response of the ear canal. Their unique construction and proprietary sound path reduce sound levels evenly across the frequency range. When sound enters the earplug, it is reduced without changing sound quality—the same as the ear would hear it, only quieter.

- Reduces sound evenly by 20 decibels
- Reusable
- 2 sizes: standard and large

**ER•20XS**

ER•20XS earplugs have the identical response characteristics of ETY•Plugs through 4 kHz, with improved high-frequency presence. The stem-less design allows them to sit snugly in the outer ear. This makes them especially comfortable to wear under hats, helmets and other headgear.

- Reduces sound evenly by 20 decibels
- Reusable
- 2 sizes: standard and large

**Personal Noise Dosimeters**

Sound level meters measure at discrete times; whereas, dosimeters measure continuously over time for a more accurate estimate of risk.

- Hearing loss from exposure to loud sounds is cumulative.
- Most people find it difficult to judge safe exposure.
- Noise-induced hearing loss is preventable.

**DÖSIMETER**

<table>
<thead>
<tr>
<th>Modes of Operation</th>
<th>ER•200</th>
<th>ER-200D Series</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quick Check Mode</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>(2-minute test estimates dose per hour)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Status Check Mode</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Memory-full alert</td>
<td>●</td>
<td></td>
</tr>
<tr>
<td>Normal Mode</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Continuously measures noise up to 16 hours</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Low-battery alert</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Auto power-off after 16 hours</td>
<td>●</td>
<td>●</td>
</tr>
</tbody>
</table>
Hearing Protection

High-Definition Electronic Earplugs

**Music·PRO**
For persons who want to hear naturally, need protection when hearing is at risk, and want to avoid the inconvenience of removing earplugs to hear. Two levels of protection: 15-dB and 9-dB + 6-dB enhancement.

- Directors and music educators
- Security personnel
- Performers
- Front-of-house crews
- Professional shooters
- Audiences

**GunSport·PRO**
For persons who need protection from firearm blasts, but also need protection from loud continuous noise from vehicles, machinery or repeated gunfire from nearby shooters. Improves distance detection up to 5X.

- Hunters
- Gun sport enthusiasts
- Professional shooters
- Guides and instructors

**EB15**
For persons who want to maintain natural hearing while protecting their ears from impulse and continuous loud noises like sirens, gunfire, explosions, vehicles, and machinery.

- Law enforcement
- First responders
- Corrections personnel

**HD·15**
For persons who operate some or most of the time around continuous loud noise such as power tools, machinery, trucks or construction equipment, and want both maximum protection from loud impact noise and natural hearing when no background noise is present.

- Manufacturing
- Construction
- Automotive

**HD TOP SAFETY EARPHONES**
Use of HDS Earphones at full volume on portable music players is within OSHA Permissible Exposure Limits for 10 ½ hours per day (52 ½ hours per week).

- NRR: 27 dB Foam eartips
- NRR: 22 dB Triple-flange eartips

**Adaptive Attenuation:** Circuitry in electronic earplugs automatically changes output as input levels change. Hearing is natural, as if nothing is in the ears, until sound reaches unsafe levels. Natural hearing is restored when sound returns to safe levels.
The ER•1 was designed to imitate the normal resonance of the open ear, and is used for speech audiometry where the goal is to reproduce the same frequency response at the eardrum for speech as would be produced in the live situation.

The ER•3C earphones are the next generation of insert earphones, replacing ER•3A earphones, which have been the worldwide standard for audiometric insert earphones since 1985.

The frequency response and performance characteristics of ER•3C earphones are virtually identical to the original ER•3A earphones at all audiometric frequencies.

10 Ohm and 50 Ohm models available.

The ER•2 was designed for research with humans and animals when a 16 kHz bandwidth is required.

The ER•30 is a special earphone for use in magnetically unfriendly environments. The extra-long (20 ft) silicone tubing allows the earphones to be placed up to 20 feet away from the magnetic source. Eartips provide 30 dB of noise reduction.
Auditory Research

**ER•7C**

The **ER•7C Series B Microphone** has an equalized flat frequency response to 10 kHz, providing accurate measurements even in small ear canals. It contains a convenient built-in calibrator, and the preamplifier is battery operated to prevent ground loop problems.

**ER•10B+**

The **ER•10B+ Low Noise DPOAE Microphone** has a flat frequency response through 10 kHz, with a noise level 10 dB below that of the human ear. Battery operation prevents ground loop problems. Requires external sound source. Wide-band earphones (ER-2) or high-output earphones (ER-3 Series). Earphones are sold separately.

**ER•10C**

The **ER•10C Low Noise DPOAE Microphone** has a built-in sound source, eliminating the need for separate earphones. Battery operation eliminates ground loop problems.

**ER•10X**

- Extended bandwidth to 40 kHz (animals)
- Independent transducers for three stimuli
- Lowest noise microphone
- Low distortion (up to 100 dB SNR)
- 90 dB SPL (or better) maximum output
- Extremely small and lightweight
- Single use, disposable probe tubes
Speech-In-Noise Tests

QuickSIN™ Speech-in-Noise Test
Most widely used speech-in-noise test
• 12 equivalent lists
• Four-talker babble represents real-world conditions
• High-pass and low-pass filtered lists for special uses
• Additional tracks with separated speech and babble

BKB-SIN™ Speech-in-Noise Test
Norms for children, adults and cochlear implant users
• Bamford-Kowal-Bench sentences in 4-talker babble
• 18 equivalent list pairs
• Easier sentences than QuickSIN
• Additional tracks with separated speech and babble

Home Hearing Test

HHT®
• Developed and validated by audiologists
• PC-based
• Simple navigation
• Printable reports
• Unlimited tests

Personal Sound Amplifiers

The BEAN®
• Amplifies only soft sounds
• Wide-dynamic-range Adaptive Compression®
• 16-kHz bandwidth

<table>
<thead>
<tr>
<th>T-Coil BEAN</th>
<th>BEAN</th>
<th>Platinum</th>
<th>Bronze</th>
<th>Brushed Gold</th>
</tr>
</thead>
<tbody>
<tr>
<td>Platinum</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
Noise-Isolating Earphones & Headsets

Earphones and Headsets

Etymotic’s noise-isolating, high-fidelity in-ear earphones were derived from Etymotic’s original insert earphone technology. All of Etymotic earphones and headsets seal the ear canal so users can listen at lower, safer levels. Etymotic makes the world’s most accurate noise-isolating earphones. Models range from precision earphones for professional musicians to safe-listening earphones for children.

microPro® series
- Reference-standard frequency response accuracy and sound quality
- Includes channel-matching compliance graph
Models:
ER•4PT
ER•4B
ER•4S

hf series
- Highest fidelity, surpassed only by the ER•4 MicroPro®
Models:
hf5
hf2
hf3

mc series
- Tight, accurate bass with clear, high-frequency detail
Models:
mc5
mc3

mk isolator earphones
- Best value
- 6-mm drivers with ACCU•Chamber® Technology

ETY•kids® series
- Engineered for safe sound output
- Exceptional sound quality
Models:
ek5
ek3

Hands-Free Headsets

- Ideal for hearing-impaired users
- Especially effective for family and friends talking to hearing-impaired persons
- Users can hear and be heard clearly in high background noise (tested up to 100 dB)

hf2 headset + earphones for audio devices and smartphones
hf3 headset + earphones with Apple 3-button control

mc3 headset + earphones with Apple 3-button control

Earphone
Noise-isolating earphone lets the talker hear in noise

Flexible boom
Places microphone close to the mouth for optimal speech clarity in noise

Microphone
Bi-directional, noise-canceling microphone lets the talker be heard clearly, even in the noisiest environments
For over three decades, Etymotic Research has designed innovative products to measure, enhance and protect hearing. Etymotic’s products and programs are designed to improve clinical practice and auditory research with precision instrumentation, high-fidelity passive and electronic hearing protection and consumer electronics products.

✓ **Adopt-a-Band Program**
Over 400 music groups participate in Etymotic’s Adopt-a-Band program. Hearing professionals are encouraged to connect with school music programs to educate young musicians, parents, music educators and administrators about the dangers of overexposure to loud sound. Become a local resource for ready-fit and custom hearing protection. Consumer brochures, print, web, video and educational materials are available from Etymotic for presentations and outreach in the community.

✓ **Custom-Fit Program**
Custom molds are often requested by musicians, audiophiles and business road warriors who want to upgrade to customized headsets and earphones. Designated earmold labs make custom molds for Musicians Earplugs, electronic hearing protection and consumer electronics products such as earphones, headsets and personal sound amplifiers. Etymotic directs consumers to providers through an online Dealer Locator.

✓ **Dealer Locator Listing**
Hearing professionals who provide a wide range of Etymotic products are invited to list their practice in the Dealer Locator on Etymotic’s website. The listing helps consumers search for providers of custom molds, ready-fit earplugs and many other Etymotic products.