



SAFETY

Earplugs + Earphones

User Manual English

In the box

- HD-Safety earphones (Mass = 12 grams)
- Assortment of ACCU-Fit™ eartips
- Zipper pouch
- Shirt clip



- A. HD-Safety Earphones
B. Assortment of ACCU-Fit™ eartips and zipper pouch
C. Shirt clip

Safe Listening

Use of these earphones at full volume on portable music players is within OSHA Permissible Exposure Limits (PEL) for 10 ½ hours per day (52 ½ hours per week). Because of the noise-isolating properties of the eartips (NRR=22 dB for 3-flange eartips and NRR=27 dB for foam eartips) ambient (industrial) noise (up to 102 dB for 3-flange eartips or up to 108 dB for foam eartips) has a negligible effect on overall noise dose.

The HD5 Safe Listening Earphones have been tested in accordance with the EN50332-2:2013 sound system equipment: Headphones and earphones associated with personal music players — Maximum sound pressure level measurement methodology.

The acoustic output of the HD5 is more than 20 dB below the maximum limit in EN 60950-1/A 12:2011 Information technology equipment - Safety -- Part 1: General requirements. Because of the noise-isolating properties of the eartips (SNR 27 to 28), ambient environmental noise up to 108 dB has a negligible effect on overall noise dose.

Warnings

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

- Earphones should not be used where there is a risk that the cables can be caught up during use.
- Secure connecting cables away from entanglement hazards.
- Eartips fit ear canal diameters of 6-14 mm. See “Selecting an Eartip” section for details.
- Eartips must be fitted, adjusted and maintained to the manufacturer’s instructions to achieve the expected attenuation and hearing protection.
- Use hearing protection at all times in noisy surroundings.
- Make certain that hearing protection provides adequate protection for the noisy environment.
- Eartips are reusable. Regularly inspect the eartips to assure their continued serviceability.
- This product may be adversely affected by certain chemical substances. Further information should be sought from the manufacturer.

Warnings (continued)

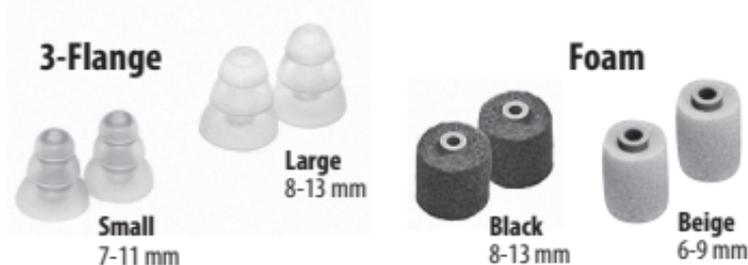
Human ear canals are about an inch long and Etymotic eartips are designed to seal deeply in the ear canal. This may feel slightly uncomfortable at first, but should become comfortable with repeated use. Discontinue use if any discomfort persists.

In rare instances an eartip may come off in the ear canal when removing the earphone. If this should occur and the eartip cannot be easily removed, it is recommended that you promptly contact an audiologist or other medical professional. A professional can use blunt tweezers to remove the eartip.

Consult an audiologist or physician if you have excessive ear wax, difficulty inserting the eartips, or discomfort after prolonged use.

Be aware of the environment you are working in and know the hazards of over protection as well as under protection.

Selecting an Eartip



The eartip that is most comfortable is the likely choice, but it must seal well for maximum protection. **Important:** Sound quality, full bass response and noise isolation all depend on a good eartip seal in the ear canal.

All Etymotic eartips are designed to be safely inserted into normal, healthy ear canals. Do not insert anything into your ear canal if you have discomfort or foreign material in your ears.

When changing eartips secure the eartip completely on the stem.



correct



incorrect

Insertion

Make sure the eartip is clean.

- **When using foam eartips:**
Roll down or compress foam before inserting (Fig. 1).
- Pull the ear up and out while inserting (Fig. 2).
- Twist and push gently until the eartip seals in the ear canal.
- Hold the eartip in place for about 5 seconds while foam expands to create a tight seal in the ear canal.
- **When using 3-flange eartips:**
Moistening may ease insertion.



Fig. 1



Fig. 2

Removal

- Remove earphones with a slow *twisting* motion.
Do not pull on the cables to remove the earphones from the ears.

Storage

- Always store earphones in a clean, protective case.
- Do not store other objects in the earphone case.

Maintenance

Visually inspect your eartips before each use for signs of discoloration (soiling) and note any changes in flexibility. Eartips that display any of these signs or other significant wear should be replaced. 3-flange eartips should be replaced every 3 to 6 months with average use. For heavy use (8-16 hours/daily) they may need replacement in 3-6 weeks.

Foam eartips typically need to be changed more frequently than 3-flange eartips. Individual experience will vary, depending on total use time and environmental conditions.

- Examine eartips after each use.
- Do not immerse earphones in water.
- Do not clean with harsh chemicals. Alcohol is not recommended.
- 3-flange eartips can be removed and cleaned in mild detergent before reattaching. Dry eartips thoroughly before reattaching.
- Do not expose to extreme heat or moisture.
- Avoid dropping or hitting on a hard surface.
- Use only accessories from Etymotic Research, Inc. to ensure continued performance to specification.

Noise Reduction

Noise Reduction Rating **27** 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

HD5 with Foam eartip

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.



Attenuation Foam Eartips

Frequency in Hz	63	125	250	500	1000	2000	4000	8000
Mean Attenuation in dB	26.9	27.8	26.8	27.3	29.6	35.8	42.6	42.1
Standard Deviation in dB	4.8	4.8	5.1	6.0	6.5	3.8	2.7	4.9
APV in dB	22.1	22.9	21.6	21.3	23.1	32.0	39.9	37.3

SNR = 28 dB, H = 31 dB, M = 24 dB, L = 23 dB

Noise Reduction Rating **22** 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

HD5 with 3-Flange eartip

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Attenuation 3-Flange Eartips

Frequency in Hz	63	125	250	500	1000	2000	4000	8000
Mean Attenuation in dB	26.8	28.3	28.4	27.6	31.1	33.0	32.1	39.5
Standard Deviation in dB	7.2	7.7	7.1	7.5	6.7	4.6	6.5	7.4
APV in dB	19.6	20.6	21.3	20.2	24.4	28.4	25.7	32.1

SNR = 27 dB, H = 27 dB, M = 24 dB, L = 22 dB

Noise Reduction (continued)

- 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

European Union testing conducted by SATRA Technology Test Laboratory Centre Ltd. United Kingdom.

Attenuation was determined in accordance with EN352.

Warranty

Etymotic Research, Inc. warrants this product against defects in material or workmanship for a period of one year from the date of original purchase from an authorized Etymotic distributor or reseller.

Etymotic will repair or replace the defective product at its option if returned within the warranty period 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.



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