

# isolator™

earphones



*User Manual*

**ER-6**  
**ER-6i**

## ***Earphone Descriptions***

**ER-6 Isolator earphones** have a flat real-ear response for reproducing CD and MP3 recordings. The sound accuracy is comparable to professional earphones.

**6i Isolator earphones** have 8 dB greater overall sensitivity and 8 dB more bass than the ER-6 earphones. The higher sound output and enhanced bass of the 6i make these earphones ideal for MP3, CD, DVD and other portable players, and eliminates the need for a headphone amplifier.

## **ER•6**

**ER•6 Isolator earphones**

**5 ft. cord with 3.5 mm stereo plug**

**1 pair 2-flange eartips**

**1 pair foam eartips**

**2 replacement filters**

**Filter changing tool**

**Shirt clip**

**Pouch (not shown)**



## **ER•6i**

**6i Isolator earphones**

**5 ft. cord with 3.5 mm stereo plug**

**1 pair white 3-flange eartips**

**1 pair foam eartips**

**2 replacement filters**

**Filter changing tool**

**Shirt clip (not shown)**

**Pouch (not shown)**



# ***Eartips***

In addition to flanged eartips, ETYMOTIC Isolator earphones are supplied with disposable foam eartips. Both types provide excellent sound reproduction when properly inserted. If the earphones seem to lack bass, insert the earplug deeper into the ear canal to obtain a better seal, or try the foam eartip option.

## **Flanged eartips**

These reusable eartips should be cleaned regularly.

### **Cleaning the flanged eartips**

1. Carefully remove the eartip from the earphone.
2. Use water and mild soap to remove dirt and earwax.
3. Rinse and completely dry the eartip.
4. With a slight twisting motion, push the eartip on the stem until it fits securely.

## **Foam eartips**

- Disposable foam eartips compress to form a tight seal that holds the earphones firmly in place.
- The eartips at the end of the earphones can be replaced by sliding them off and on. A combination of twisting and pulling is recommended for eartip removal.

## ***Eartip Insertion***

### **Flanged eartip insertion**

- For best results, moisten the flanged eartip before insertion.
- Carefully insert one earphone at a time while pulling up and out on the back of the ear. The earphone should seal deeply and comfortably in the ear canal.



### **Foam eartip insertion**

- Use a foam eartip if a good seal cannot be obtained with a flanged eartip.
- Compress the foam at the end of the earphone by *rolling* it between your thumb and forefinger before inserting it. Hold the eartip in place for about 5 seconds while the foam expands to create a tight seal in the ear canal.

## ***Removal***

Remove earphones slowly with a twisting motion to gradually break the seal. Do not pull on the cords to remove earphones.

## ***Filters***

ETYMOTIC Isolator earphones have special filters that smoothe the frequency response and prevent earwax from entering the earphones. These filters are located at the tip of the earphone and are visible when the eartip is removed. If the filters become clogged they should be replaced. A dirty filter will reduce earphone output. The frequency with which the filters need to be changed will vary widely among users. The filters should be changed if the volume decreases or the sound quality declines.

**Note:** Once removed, the filters are not reusable.

# Changing Filters (ER•6)



1. Remove eartip.



2. Line up the tip of the screw with the white dot in the middle of the filter.

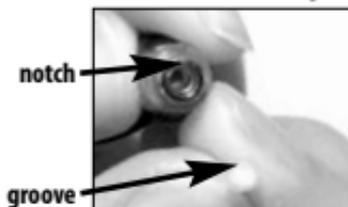


3. Push the screw into the old filter with a slow twisting motion until it grabs the filter.



4. Pull the filter straight out.

## ER-6 Filter Replacement



1. The filter has a groove in it which must line up with the notch on the earphone rim.



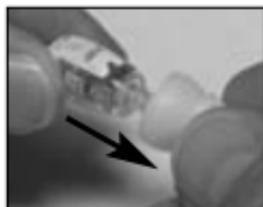
2. Place the filter into the end of the earphone. Push gently on the filter and it will lock into place.



3. Attach eartip.

# Changing Filters (6i)

## 6i Filter Removal



1. Remove eartip.



2. Line up the tip of the screw with the middle of the filter and push the screw firmly into the filter with a slow twisting motion until it grabs the filter.



3. Pull filter straight out.

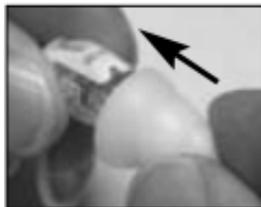
## 6i Filter Replacement



1. The eartip has a clear plastic tab at the top. The filter has a notch that lines up with the tab.



2. Place the filter into the end of the earphone. Turn and push it slowly until it locks into place.



3. Attach eartip.

## *Proper Care*

- Do not expose earphones to extreme temperatures.
- Avoid dropping or strong impact. Extreme shock can damage the earphones.
- Always leave an eartip on the earphone for shock protection.
- Perspiration entering the nozzle may cause the earphone to temporarily stop working. Normal operation usually returns after the earphone dries out.
- Do not pull on the cord to remove it from the jack or the ear.
- Clean or replace the eartips prior to use by others.
- Replace disposable foam eartips regularly.
- Earwax buildup can reduce the earphone output. When the filters become clogged they should be replaced. See **Changing Filters**.

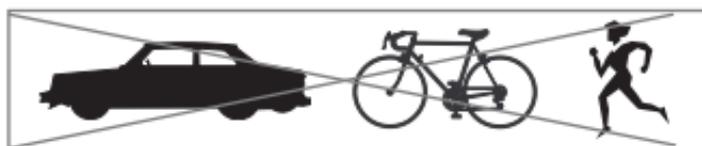
## ***Caution***

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

ETYMOTIC Isolator earphones exclude most external sounds even at low listening levels. It is unsafe to use insert earphones while driving a motorized vehicle, operating machinery, bicycling or jogging, because you may not be alerted to potential danger.

**Do not use the earphones at excessively loud levels.**

Noise-induced hearing loss is a function of exposure time, the average sound level and the peak of very loud sounds. Decreased listening levels allow for longer periods of safe listening time.



## ***Best Performance***

A full bass response depends on the user's ability to properly insert and seal the earphones in the ear canals.

## ***In Flight Use***

ETYMOTIC Isolator earphones were designed to provide exceptional sound quality when used with high-fidelity audio systems. Note that sound systems on some aircraft do not qualify as high-fidelity, which can produce noisy audio at normal listening levels. An in-line volume control adapter (such as Radio Shack #42-2559) will solve the problem.

# Specifications

**Frequency response:** 20 Hz to 16 kHz

**Tolerance:**  $\pm 3$  dB to 6 kHz,  $\pm 6$  dB to 16 kHz re nominal

**Transducer type (ER-6):** balanced armature

**Transducer type (ER-6i):** balanced armature

**1 kHz sensitivity (ER-6):** 108 dB SPL for a 0.4 V input

**1 kHz sensitivity (ER-6i):** 108 dB SPL for a 0.126 V input

**Impedance (ER-6):** 48 Ohms

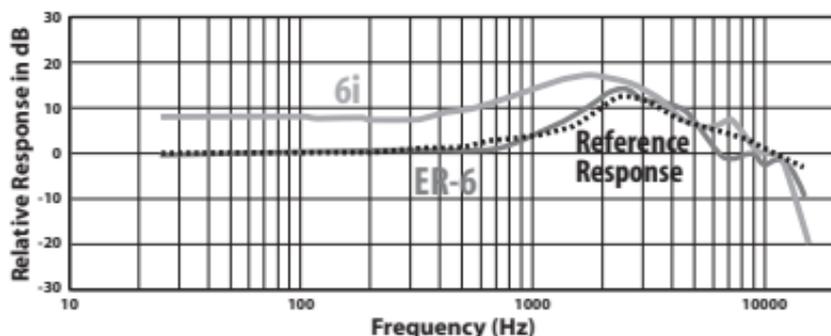
**Impedance (ER-6i):** 16 Ohms

**Maximum output:** 120 dB SPL

**Maximum continuous input:** 2.5 Vrms

**Weight:** less than 1 oz.

## Effective Response of Isolator Earphones



The above graph indicates that 6i earphones have 8 dB higher sound output and increased bass compared to the original ER-6 earphones. The dotted line is the reference response of the open ear to live performances (CD equalization).

## **Warranty**

Etymotic Research, Inc. warrants this product against defects in material or workmanship for a period of 90 days from the date of original purchase from an authorized Etymotic distributor or reseller.

The warranty can be extended for up to one year if Etymotic receives an on-line warranty registration any time within the first 90 days. Locate Isolator earphones at [www.etymotic.com](http://www.etymotic.com). Click on **Warranty Registration**, fill out the form and submit.

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

# **ETYMŌTIC RESEARCH Inc.**

Etymotic Research has spent over twenty years developing in-the-ear technology for auditory research, precision monitoring and critical listening. ER has developed many innovative hearing technologies available today. ER products are used by musicians and others who insist on superior sound quality. Etymotic means "true to the ear."

Other Etymotic consumer products:

MicroPro™ Earphones

Musicians Earplugs™

High Fidelity Earplugs

ETY•COM™ handsfree headset for mobile phones

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## ETYMOTIC RESEARCH INC.

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Isolator™ is a trademark of Etymotic Research, Inc. The Isolator™ earphones are covered by one or more of the following U.S. patents: #4,677,679, #4,763,753, #5,887,070 and other patents pending.

Comply™ is a trademark of Hearing Components, Inc. covered by patents #4,880,076 and #5,002151

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