

# **E Series Earphone User Guide**













# USING THIS SYSTEM AT EXCESSIVE VOLUMES CAN CAUSE PERMANENT HEARING DAMAGE. USE THE LOWEST VOLUME LEVEL POSSIBLE.

To use this system safely, avoid prolonged listening at excessive sound pressure levels. Please use the following guidelines established by the U.S. Occupational Safety Health Administration (OSHA) on maximum time exposure to sound pressure levels before hearing damage occurs.

90 dB SPL at 8 hours 105 dB SPL at 1 hour 95 dB SPL at 4 hours 110 dB SPL at  $^{1}/_{2}$  hour 100 dB SPL at 2 hours 115 dB SPL at 15 minutes

120 dB SPL - avoid or hearing damage may occur

It is difficult to measure the exact Sound Pressure Levels (SPL) present at the eardrum, since the SPL in the ear is affected by ambient sound from floor wedges or other devices in addition to the volume setting on the PSM. The isolation provided by the fit of quality earphones is also an important factor in determining the SPL in the ear.

Here are some general tips to follow for safe use of this product:

- 1. Turn up the volume control only far enough to hear properly.
- 2. Ringing in the ears may indicate that the gain levels are too high. Try lowering the gain levels.
- 3. Shure recommends that you have your ears checked by an audiologist on a regular basis. If you experience wax buildup in your ears, stop using the earphones until an audiologist has examined your ears.
- 4. Wipe the earphones with an antiseptic before and after use to avoid infections. Stop using the earphones if they are causing great discomfort or infection.

#### **EARPHONE FEATURES**

The Shure E Series earphones are designed for use with Shure Personal Monitor Systems. They are also ideally suited for use with CD players, MP3 players, notebook computers and any other listening device that has a  $3.5 \text{ mm} (^{1}/_{g}\text{-inch})$  stereo output.

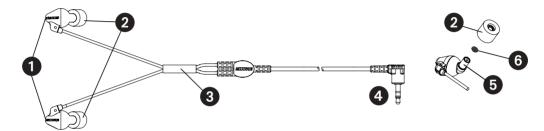
Features:	E2	E3	E5
Low-mass, high-energy transducer	8	4	4
Full-range dynamic transducer	4	8	8
Universal fit	4	4	4
Variety of isolating sleeves included	4	4	4
Custom-molded sleeves optional	8	4	8
Adjustment tube for securing cables	4	4	4
Tool for removing wax buildup in earphone	8	4	4
Wax guard to prevent wax buildup in earphone	4	8	8

4 = Model has listed feature.

8 = Model does not have listed feature.

### **EARPHONE COMPONENTS**

The earphone components are illustrated below, using the E2 model as an example. Earphone shapes vary, depending on the model.



- **Earphones:** When properly inserted in the ear, the Shure logo will appear right-side up on the outside of the earphone with the cable exit pointing upwards. For complete instructions on inserting earphones, see page 4.
- **Sleeves:** All earphone models come with a pair of sleeves installed and an additional assortment of flex and foam sleeves. See *Sleeve Varieties* on page 5.
- **3** Adjustment Tube: For a secure fit, slide the adjustment tube up and down to adjust the slack of the cables leading to the earphones.
- 4 Input Connector: 3.5 mm (<sup>1</sup>/<sub>8</sub>-inch) plug connects to the 3.5 mm stereo earphone output of a listening device.
- **Nozzle:** This part of the earphone, which is covered by the sleeve, delivers the sound into the ear canal. It's important to keep this component clean (see *Care and Cleaning* on page 7).
- **Wax Guard:** (model E2 only) The earphones include special wax guards (not installed) for preventing earwax from entering the nozzle. For instructions on installing the wax guards, see page 9.

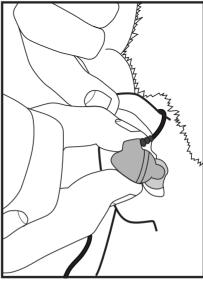
#### INSERTING THE EARPHONES

The quality of both the frequency response and the sound isolation depend on how well the earphone sleeve seals the ear canal. If the earphone seems to be lacking in low frequency response, try one of the other sleeve options to obtain a better seal.

- 1. Insert the earphones using the following guidelines:
  - Note the difference between the right and left earphones:
    - **E2:** earphone all one color = left ear bicolored earphone = right ear
    - **E3:** earphone with blue dot and "L" = left ear earphone with red dot and "R" = right ear
    - **E5:** earphone with blue dot = left ear earphone with red dot = right ear

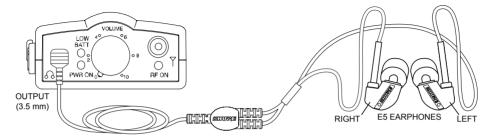
When inserting the earphones, pull the ear upward and outward to straighten out the ear canal, as illustrated.

- Flex sleeves Try the different sizes to determine the best fit for comfort and isolation.
- Foam sleeves Compress the foam sleeve at the end of the earphone by rolling it between your thumb and forefinger. Insert the earphone into your ear and hold it in place for about 10 seconds while the foam expands and creates a tight seal. The E2 comes with three sizes of foam sleeves: try the different sizes to determine the most comfortable fit.



- 2. **E2 and E3:** wrap the earphone cord over the top and down the back of the ear. **E5:** wrap the formfitting wire over the top and down the back of the ear.
- 3. Use the adjustment tube to secure the cables comfortably.

#### CONNECTING TO A BODY PACK



- Turn down the volume of your listening device.
- 2. Connect the 3.5 mm ( $\frac{1}{8}$ -inch) plug into the earphone output jack.
- Insert earphones into your ears (see previous page).
- Slowly raise the volume to a comfortable listening level.



WARNING: Always turn the volume down before plugging the earphones into a sound source.

#### SLEEVE VARIETIES

Your earphones include a fit kit with a variety of sleeve options so you can find the best sleeve fit for any application. The E3 and E5 also come with a cleaning tool (see Figure 1 on page 7) and the E2 comes with wax quards (see the Wax Guard section on page 9) to prevent wax buildup in the earphone nozzle.

Foam Sleeves. These disposable foam sleeves compress to fit in the ear canal. Once in the ear, the foam expands to form a tight seal. Once tightly sealed, the sleeves hold the earphones firmly in place. The E3 and E5 come with yellow foam sleeves. The E2 earphones come with three sizes of orange foam sleeves to choose from—small, medium or large—for the best fit.



Flex Sleeves. These reusable sleeves, made of a clear pliable plastic (PA756) or a soft, gray silicone rubber (PA758), fit comfortably in the ear and allow for ease of insertion. Choose from 3 sizes—small, medium or large for the best fit. These should be cleaned regularly, using alcohol wipes or an antiseptic.



Triple-Flange Sleeves (optional accessory for E3 and E5 only). These reusable sleeves form a tighter seal than flex sleeves while holding the earphones firmly in place. These should be cleaned regularly, using alcohol wipes or an antiseptic.

# **CHANGING SLEEVES**

The sleeves at the end of the earphones can be replaced by sliding them off and on. A combination of twisting and pulling is recommended for sleeve removal.



**IMPORTANT:** Make sure that the sleeve completely covers the nozzle. If the nozzle is exposed, the sleeve is not properly installed.



ROUGH SIDE SMOOTH SIDE

NOTE: On each foam sleeve there is a rough side and a smooth side. For greater comfort, Shure recommends that you place the smooth side facing out, away from the earphone. On the E2 model earphones, the sleeve will only fit the earphone properly with the smooth side facing out.

#### CARE AND CLEANING

Follow these tips to prevent service costs and ear infections:

- Avoid getting moisture in the nozzle, as this can adversely affect sound quality. Sweat entering the nozzle may cause the earphone to temporarily stop working. However, normal operation often returns after the earphone dries out.
- Avoid striking or dropping the earphones. Extreme shock can damage them.
- Return earphones to carrying pouch when not in use.
- E3/E5: clean the nozzles after each use using the supplied wax removal tool.

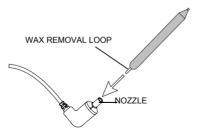


FIGURE 1: E3/E5 Wax Removal

- E2: Routinely check the wax guard on the tips of the nozzles (see figure 2 on page 9). If the wax guards appear to be clogged, replace them.
- Foam sleeves should be disposed of and replaced when they get dirty.
- Flex and triple-flange sleeves should be cleaned with an antiseptic or soapy water after each use and when sharing.
- Always remove the sleeve from the earphone nozzle before cleaning.
- Wipe down the case and cable with an antiseptic after each use. Stop using the earphones if they are causing great discomfort or infection.



**CAUTION:** Shure earphones are not immersible. Make sure flex and flange sleeves are completely dry before replacing on earphone nozzles.

**NOTE:** Nozzles can collect cerumen (earwax), which can clog the earphone and lower the sound quality. If you experience sound loss, check the nozzles for clogging before sending the product in for service. There is a service charge for removing wax.

If you believe this product is defective within the warranty period, carefully repack the unit, insure it and return it postage prepaid to:

Shure Incorporated Attention: Service Department 5800 W. Touhy Avenue Niles, IL 60714-4608 U.S.A.

Outside of the United States, return the product to your dealer or Authorized Service Center.

#### WAX GIIARD

You should place wax guards on the nozzle of your E2 earphones before using them. These protective rings are found on an adhesive strip in the fit kit that comes with your earphones.

To place a wax guard on one of your E2 earphones:

- 1. Remove the sleeve from the earphone nozzle.
- 2. If there is a dirty wax guard on the earphone, peel it off.
- 3. Clean the tip of the E2 nozzle with an antiseptic or alcohol wipe.
- 4. Make sure that the tip of the nozzle is dry, then remove a wax guard from the supplied strip and place it on the tip of the nozzle, adhesive side down.
- 5. Replace the sleeve on the earphone.



FIGURE 2: E2 Wax Guard Installation



**IMPORTANT:** Do not place wax guards on sleeves! Wax guards are intended for use on the tip of the earphone only. If wax guards are placed on sleeves they will not function properly and may fall off the sleeves into your ears.

#### **SPECIFICATIONS**

	E2	E3	E5	
Transducer Type	Dynamic	Low mass/ high energy	Dual low mass/ high energy	
Sensitivity (at 1kHz)	105 dB SPL/mW	115 dB SPL/mW	122 dB SPL/mW	
Impedance (at 1kHz)	16Ω	26Ω	110Ω	
Output Connector	Gold-plated, 3.5 mm ( <sup>1</sup> / <sub>8</sub> in.), stereo plug			
Cable Length	1.57m (62 inches)	1.57 m (62 inches)	1.55 m (61 inches)	
Net Weight	30 g (1 oz)	28 g (0.9 oz)	31 g (1.1 oz)	

## **CERTIFICATION**

Eligible to bear CE marking. Conforms to European EMC Directive 89/336/EEC. Meets applicable tests and performance criteria in European Standard EN 55103 (1996) Parts 1 and 2, for residential (E1) and light industrial (E2) environments.

#### **FURNISHED ACCESSORIES**

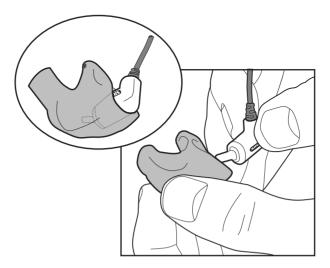
E2 Carrying pouch	95A2232
E3 Carrying pouch	95B2232
E5 Carrying pouch	
E2 Fit Kit w/ wax guards	
(2 each-small, medium, large foam and clear flex sleeves)	. 90XH1371
E3/E5 Fit Kit w/cleaning tool	
(2 each-small, medium, large clear flex and soft gray flex	
sleeves, one pair foam sleeves)	90XJ1371
E5 Triple-Flange sleeves	90WX1371

#### OPTIONAL ACCESSORIES

E3/E5 Earphones:	
Bag of 20 foam sleeves	PA750
Bag of 500 foam sleeves	PA754
Bag of 10 clear flex sleeves (small)	
(medium)	
(large) <sup>′</sup>	
Bag of 10 gray flex sleeves (small)	
(medium)	
(large)	
Triple-Flange sleeves (2)	
E2 Earphones:	
Bag of 10 foam sleeves (small)	PA752S
(medium)	
(large) <sup>′</sup>	
Bag of 10 flex sleeves (small)	
(medium)	
(large)	
Bag of 10 replacement wax guards	
Bag of 100 foam sleeves (small)	
(medium)	
(large)	

# **CUSTOM EAR MOLDS**

A Hearing Health Care Professional can make custom-fit ear molds for the E3 from impressions of your ears. Custom-made ear molds can provide better comfort and ambient noise isolation for some users. The E3 fits in a custom ear mold as shown in the following illustration.



For more information, contact:

Sensaphonics Hearing Conservation 660 N. Milwaukee Avenue Chicago, IL 60622

Toll Free: (877) 848-1714 In Chicago: (312) 432-1714 (ph) (312) 431-1738 (fax)

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www.sensaphonics.com



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