

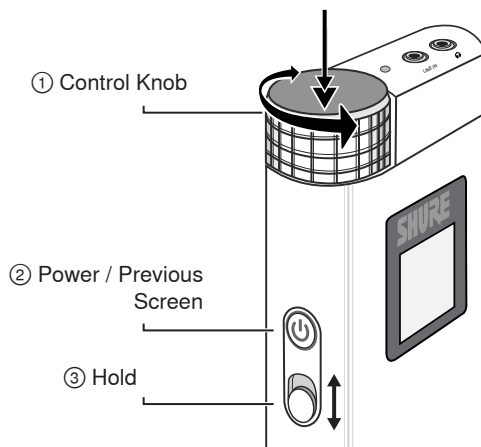
## General Description

The Shure SHA900 is a compact, portable headphone amplifier that is compatible with both analog and digital audio sources. Audiophile-quality conversion delivers an exceptionally detailed audio signal over a micro-B USB connection, while premium analog components provide a clean, uncolored signal path for analog audio sources. A full set of furnished accessories includes a Lightning® cable, micro-B USB cable, two 3.5 mm cables, and an AC power adapter.

## Features

- Connects to digital (USB) and analog audio sources
- Supports up to 24-bit, 96 kHz digital audio
- Powered by an internal, rechargeable Lithium-ion battery
- Four band parametric equalizer, limiter, and input pad
- Factory and custom user presets

## Controls and Navigation



**Powering on / off:** Long press the power button ②

**Adjusting volume:** Turn the control knob ①

**Accessing the menu:** Double-click the control knob ①

**Scroll through the menu:** Turn the control knob ①

**Select an item:** Press the control knob button ①

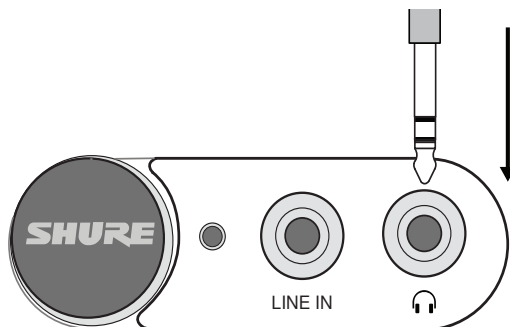
**Return to previous screen:** Press the power button ②

**Lock / unlock the controls:** Slide the hold switch ③ to lock and unlock the power button and control knob. When switch displays red background, hold is enabled.

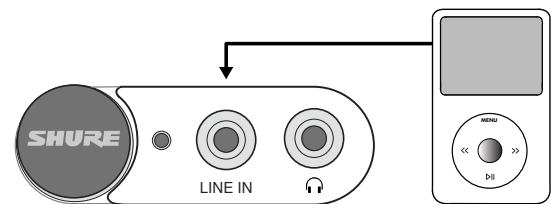
## Setup

### Step 1: Connect a pair of headphones or earphones to the amplifier

Plug into the amplifier with the amplifier powered off.



To charge the battery while using an analog source, connect the amplifier to a computer or external battery.

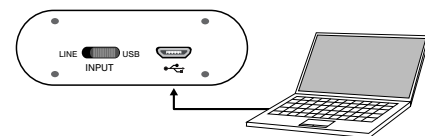


Connecting to an Analog Source

### USB (digital audio and power)

Use the USB cable when listening to music from a computer or other USB-equipped device and set the INPUT switch to USB. When connected to a computer, USB simultaneously streams digital audio and charges the amplifier battery.

**Note:** You have the option to disable automatic charging in the Utilities menu.



Connecting to a USB Source

### Step 2: Connect a sound source to the amplifier

Set the INPUT switch to LINE for analog 3.5 mm sources or USB for digital sources.

#### 3.5 mm input (analog audio)

Plug the audio device into the LINE IN input and set the INPUT switch to LINE.

### Step 3: Power on the amplifier

The driver automatically installs when the amplifier is first plugged into a device. The SHA900 should take over as the default audio device.

**Note:** Volume controls are disabled on Windows, Mac, and iOS. Volume should be adjusted only by using the amp volume knob for best performance. Ensure that volume is maximized in iTunes or the Windows Media Player.

## Firmware

Firmware is embedded software in each component that controls functionality. Periodically, new versions of firmware are developed to incorporate additional features and enhancements. To take advantage of design improve-

ments, new versions of the firmware can be downloaded and installed using the Shure Update Utility tool.

Software is available for download from <http://www.shure.com/update-utility>.

## Specifications

### Bit Depth

16-bit / 24-bit

### Sampling Rate

44.1 / 48 / 88.2 / 96 kHz

### Frequency Response

10 Hz to 50 kHz

### Signal-to-Noise Ratio

up to 107 dB A-weighted

### Adjustable Gain Range

-60 dB to +17 dB

### THD+N

0.05% (1 kHz)

### Output Power

Maximum, 1% THD

16 $\Omega$	135 mW + 135 mW
42 $\Omega$	95 mW + 95 mW

### Output Impedance

0.35  $\Omega$

### Headphone Impedance Range

6  $\Omega$  to 600  $\Omega$

### Limiter

Selectable Analog RMS Limiter

### Equalizer

4-band Parametric

### USB Input

USB Micro-B Receptacle

### Line-In Input

3.5 mm (1/8")

### Headphone Output

3.5 mm (1/8")

### Charging Requirements

USB-powered: 5 V, 0.5 A to 1 A

### Housing

Chrome Plated Aluminum

### Net Weight

182.0 g (6.42 oz.)

### Dimensions

111 x 59 x 21 mm H x W x D

### Operating Temperature Range

-18 to 57 °C (0 to 135 °F)

## Battery Specifications

### Battery Type

Rechargeable Li-Ion

### Nominal Voltage

3.6V DC

### Battery Life

Analog in (BYPASS EQ mode)	up to 20 hours
USB Input (EQ mode)	up to 10 hours

### Battery Charging Temperature Range

0 to 45 °C (32 to 113 °F)



This symbol indicates that dangerous voltage constituting a risk of electric shock is present within this unit.



This symbol indicates that there are important operating and maintenance instructions in the literature accompanying this unit.

## IMPORTANT SAFETY INSTRUCTIONS

1. READ these instructions.
2. KEEP these instructions.

3. HEED all warnings.
4. FOLLOW all instructions.
5. DO NOT use this apparatus near water.
6. CLEAN ONLY with dry cloth.
7. ONLY USE KSE earphones with KSA amplifiers.
8. UNPLUG this apparatus during lightning storms or when unused for long periods of time.
9. PROTECT the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
10. ONLY USE attachments/accessories specified by the manufacturer.
11. REFER all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
12. DO NOT expose the apparatus to dripping and splashing. DO NOT put objects filled with liquids, such as vases, on the apparatus.
13. The MAINS plug or an appliance coupler shall remain readily operable.
14. To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.
15. Do not attempt to modify this product. Doing so could result in personal injury and/or product failure.
16. Operate this product within its specified operating temperature range.
17. PROTECT the earphone cable from being pinched or cut.
18. DO NOT use this apparatus if the earphone cable, housing, or connector is damaged.

**WARNING:** Voltages in this equipment are hazardous to life. No user-serviceable parts inside. Refer all servicing to qualified service personnel. The safety certifications do not apply when the operating voltage is changed from the factory setting.

Changes or modifications not expressly approved by Shure Incorporated could void your authority to operate this equipment.

**WARNING:** This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

## Certifications

**Industry Canada ICES-003 Compliance Label:** CAN ICES-3 (B)/NMB-3(B)

**Note:** Testing is based on the use of supplied and recommended cable types. The use of other than shielded (screened) cable types may degrade EMC performance.

This product meets the Essential Requirements of all relevant European directives and is eligible for CE marking.

The CE Declaration of Conformity can be obtained from:  
[www.shure.com/europe/compliance](http://www.shure.com/europe/compliance)

Authorized European representative:  
 Shure Europe GmbH  
 Headquarters Europe, Middle East & Africa  
 Department: EMEA Approval  
 Jakob-Dieffenbacher-Str. 12  
 75031 Eppingen, Germany  
 Phone: +49-7262-92 49 0  
 Fax: +49-7262-92 49 11 4  
 Email: [info@shure.de](mailto:info@shure.de)

### Android Compatibility

The Portable Listening Amplifier is compatible with Android devices that support USB Audio Class 2.0 and Micro-B OTG (On-The-Go) connectivity.

## WARNING

### LISTENING TO AUDIO AT EXCESSIVE VOLUMES CAN CAUSE PERMANENT HEARING DAMAGE. USE AS LOW A VOLUME AS POSSIBLE.

Over exposure to excessive sound levels can damage your ears resulting in permanent noise-induced hearing loss (NIHL). Please use the following guidelines established by the Occupational Safety Health Administration (OSHA) on maximum time exposure to sound pressure levels before hearing damage occurs.

<b>90 dB SPL</b> at 8 hours	<b>95 dB SPL</b> at 4 hours	<b>100 dB SPL</b> at 2 hours	<b>105 dB SPL</b> at 1 hour
<b>110 dB SPL</b> at ½ hour	<b>115 dB SPL</b> at 15 minutes	<b>120 dB SPL</b> Avoid or damage may occur	

**Note:** Use only with the included power supply or a Shure-approved equivalent.

## WARNING

- Battery packs may explode or release toxic materials. Risk of fire or burns. Do not open, crush, modify, disassemble, heat above 140°F (60°C), or incinerate.
- Follow instructions from manufacturer
- Do not short circuit; may cause burns or catch fire
- Do not charge with products other than those specified in this user guide.
- Dispose of battery packs properly. Check with local vendor for proper disposal of used battery packs.
- Batteries (battery pack or batteries installed) shall not be exposed to excessive heat such as sunshine, fire or the like

**Note:** Battery replacement to be performed only by Shure authorized service personnel.

Please follow your regional recycling scheme for batteries, packaging, and electronic waste.

Not all Android devices are compatible. Android is a trademark of Google Inc.

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