

## 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. DO NOT block any ventilation openings. Allow sufficient distances for adequate ventilation and install in accordance with the manufacturer's instructions.
8. DO NOT install near any heat sources such as open flames, radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat. Do not place any open flame sources on the product.
9. DO NOT defeat the safety purpose of the polarized or grounding type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wider blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. PROTECT the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. ONLY USE attachments/accessories specified by the manufacturer.
12. USE only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.



13. UNPLUG this apparatus during lightning storms or when unused for long periods of time.
14. 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.

15. DO NOT expose the apparatus to dripping and splashing. DO NOT put objects filled with liquids, such as vases, on the apparatus.
16. The MAINS plug or an appliance coupler shall remain readily operable.
17. The airborne noise of the Apparatus does not exceed 70dB (A).
18. Apparatus with CLASS I construction shall be connected to a MAINS socket outlet with a protective earthing connection.
19. To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.
20. Do not attempt to modify this product. Doing so could result in personal injury and/or product failure.
21. Operate this product within its specified operating temperature range.

### Explanation of Symbols



Caution: risk of electric shock



Caution: risk of danger (See note.)



Direct current



Alternating current

On (Supply)



Equipment protected throughout by DOUBLE INSULATION or REINFORCED INSULATION



Stand-by



Equipment should not be disposed of in the normal waste stream

**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.

## SBC450 and SBC850 Networked Charging Stations

SBC450 and SBC850 networked charging stations provide simple charging, configuration, and storage for either four or eight ULXD6 and ULXD8 transmitters. Charge transmitters for 15 minutes to get one hour of use, or charge for three hours for a full charge.

Connect to a network to adjust transmitter settings and monitor rechargeable battery information. Use Shure control software such as Wireless Workbench® or other external control systems such as AMX or Crestron to monitor and make changes.

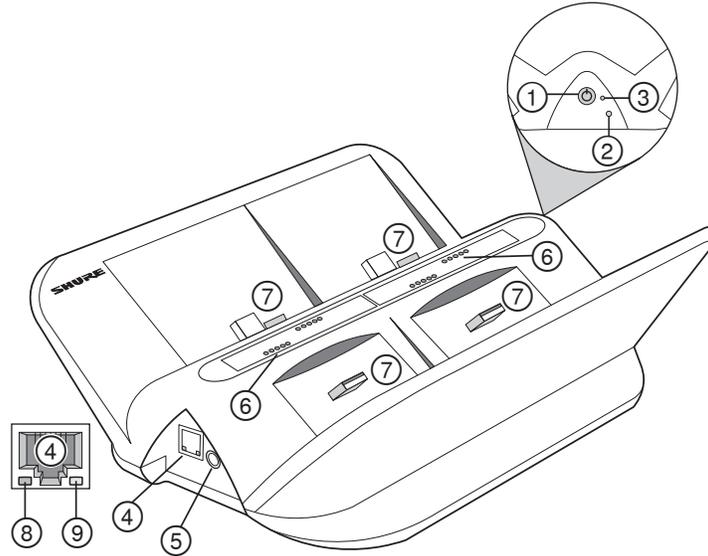
### Features

- Compatible with ULXD6 and ULXD8 transmitters using Shure rechargeable batteries
- Charge four or eight transmitters for 15 minutes to get one hour of use or three hours for a full charge
- Easily adjust transmitter settings using Shure control software such as Wireless Workbench and external control systems such as AMX or Crestron
- Monitor rechargeable battery information such as health, temperature, charge, and cycle using control software
- Update transmitter and charger software using Shure Update Utility

## Included Components

- PS60 power supply (some models available without power supply)

## Charger Controls and Connectors



### ① Power Button

Press to turn charger on; press and hold to turn charger off.

### ② Reset Button

- Charger reset: Press and hold reset button while simultaneously powering on charger to restore factory settings. IP addressing will be reset to Automatic. Charging LEDs = solid green.
- Transmitter reset: Place transmitters in charging docks. Press and hold reset button for five seconds to restore transmitter factory settings. Transmitter mute LEDs = flashing.

### ③ Power LED

- On = Charger is on
- Off = Charger is off

### ④ Ethernet Port

Connect to an Ethernet network to enable remote device control and monitoring using Wireless Workbench or other control software.

### ⑤ Power Input

Connect to power supply.

### ⑥ Charging Status LEDs

Each charging slot has five LEDs that illuminate to show the battery's charge level:

LED	% Battery Charge
1	Flashing: <10% Solid: >10%
2	>25%
3	>50%
4	>75%
5	100%

### ⑦ Charging Slots (USB 3.0)

Slide any ULXD6 or ULXD8 transmitter with Shure rechargeable batteries into slots to begin charging.

**⑧ Ethernet Link Speed LED (Amber)**

- Off = 10 Mbps
- On = 100 Mbps

**⑨ Ethernet Status LED (Green)**

- Off = No network link
- On = Network link established
- Flashing = Network link active

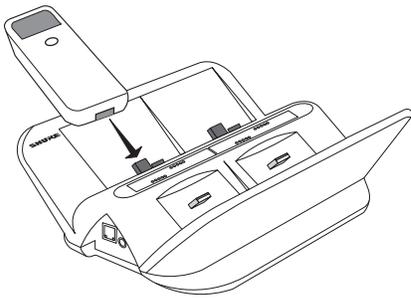
## Power Connections

1. Connect power supply to power outlet and charger power input.
2. Charger automatically turns on when connected to power. Press and hold power button to turn off.

If you experience a loss of power, the charging station will automatically resume charging after power is restored.

## Charging Boundary and Gooseneck Base Transmitters

Slide any ULXD6 or ULXD8 transmitter with Shure rechargeable batteries into a charging slot as shown:

**Charging Time**

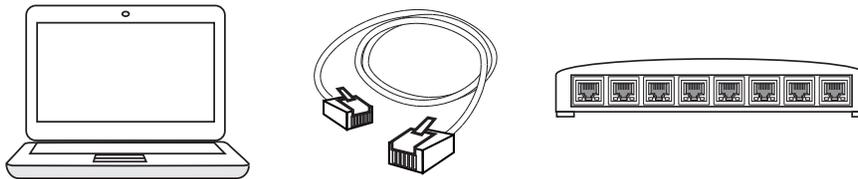
- 15 minutes = 1 hour of use
- 1 hour = 50% charged
- 3 hours = 100% charged

**Note:** If charging station loses power, transmitters will also power off. Transmitters will resume charging when power is restored.

## Connecting Shure Devices to Wireless Workbench

Wireless Workbench lets you control and monitor devices over the network. To get started, visit [www.shure.com/wwb](http://www.shure.com/wwb) and download Wireless Workbench software. Wireless Workbench communicates with connected devices over a standard Ethernet network.

**Required equipment:** Shure device, computer with Wireless Workbench installed, Cat 5 (or better) Ethernet cable, and router or network switch



1. Connect the device to your computer with a shielded Cat 5 (or better) Ethernet cable to ensure reliable network performance. If you have multiple devices to manage, connect each device to a router or network switch. The Ethernet port LEDs on your device will illuminate to indicate network connectivity. Verify that Shure devices can see each other by looking for the network connectivity icon on the front panel (location varies).
2. For most applications, use the Automatic mode (default) to let your switch or router assign an IP address using DHCP addressing. If no DHCP server is present, your devices will fall back to a link-local address in the 169.254.xxx.xxx range. If you need to assign specific IP addresses, set the IP mode to Manual in the Network menu. Find model-specific instructions at <http://shure-community.custhelp.com/posts/a21b97f121>.
3. Open Wireless Workbench software.
4. Select a Network Interface in the pop-up window. Choose the network that most closely matches the Ethernet port where your devices are connected.
5. Your device will appear in the Inventory tab when the connection is successful.

## Configuration Tips

- Check your firewall settings to make sure Wireless Workbench has access to your network
- Use multiple Ethernet switches to extend the network for larger installations

For more help, visit the Help menu in Wireless Workbench or [www.shure.com/wwb](http://www.shure.com/wwb).

## Monitoring Batteries with Wireless Workbench

Wireless Workbench provides detailed battery information for each transmitter.

Click the Inventory tab to view the networked charging station in Wireless Workbench.

Each tab in the charger panel provides different battery statistics:

### Charge

Displays charge as a percentage of the total battery capacity. Also shows time remaining to full charge.

### Health

Displays health of selected battery as a percentage of the charge capacity of a new battery. Charge capacity (battery life when fully charged) will decline as a result of repeated charge cycles, age, or storage conditions.

### Cycle

Displays total number of times that the battery has undergone one full count of discharge and charge. Recharging after discharging halfway counts as one half of a cycle. Recharging after discharging a quarter of the way counts as one quarter of a cycle.

### Temperature

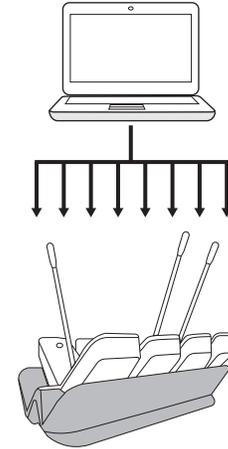
Displays battery temperature (in Celsius and Fahrenheit) and status.

## Controlling Transmitters with Networked Chargers

Quickly review and control many transmitter settings using Wireless Workbench or other external control systems.

You can adjust the following settings:

- Mute button and mute LED behavior or brightness
- High-pass filter
- RF power
- Power lock
- Initial state from charger
- Battery type
- Device name
- Channel name
- Frequency
- Normal or High-Density Mode
- Boundary and gooseneck offset



1. Place transmitters on charger. Check that charger is connected to network and to Wireless Workbench.
2. Open the Item Properties for the networked charger in Wireless Workbench.
3. Select one or multiple transmitters.
4. Make changes to transmitter settings and click Apply. Transmitters are now ready to use.

## Connecting to an External Control System

SBC450 and SBC850 networked charging stations connect to external control systems such as AMX or Crestron via the Ethernet. Use only one controller per system to avoid messaging conflicts. For a comprehensive list of command strings, visit [www.shure.com](http://www.shure.com).

- Connection: Ethernet (TCP/IP; SBC450 or SBC850 is the client)
- Port: 2202

## Firmware Updates

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 improvements, download new versions of the firmware using the Shure Update Utility tool.

Download Shure Update Utility at [www.shure.com/suu](http://www.shure.com/suu).

### Updating Transmitter Firmware with Charging Station

1. Place transmitters on charging station and ensure charging station is connected to the network.
2. Launch Shure Update Utility to find firmware updates.
3. Download updates and click Send Updates.

## Model Variations

All include power supply unless otherwise noted.

Region	Model
United States	SBC450-US or SBC850-US
Argentina	SBC450-AR or SBC850-AR
Brazil	SBC450-BR or SBC850-BR
Europe	SBC450-E or SBC850-E
United Kingdom	SBC450-UK or SBC850-UK
Japan	SBC450-J or SBC850-J

Region	Model
China	SBC450-CN or SBC850-CN
Korea	SBC450-K or SBC850-K
Taiwan	SBC450-TW or SBC850-TW
Australia	SBC450-AZ or SBC850-AZ
India	SBC450-IN or SBC850-IN
Global	SBC450 (no power supply)
Global	SBC850 (no power supply)

## Specifications

**SBC450/SBC850****Charge Time**

ULXD6 and ULXD8	15 minutes = 1 hour runtime; 1 hour = 50% charged; 3 hours = 100% charged
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**Network Interface**

10/100 Mbps Ethernet

**Power Requirement**

15 V DC @ 4.0 A maximum, supplied by external power supply (tip positive)

**Housing**

Molded Plastic, Cast Zinc Alloy

**Dimensions**

SBC450	82.1 mm x 224.4 mm x 192 mm (3.23 in. x 8.83 in. x 7.56 in.), H x W x D
SBC850	82.1 mm x 392 mm x 192 mm (3.23 in. x 15.43 in. x 7.56 in.), H x W x D

**Weight**

SBC450	1.59 kg (3.51 lbs)
SBC850	2.67 kg (5.89 lbs)

**Operating Temperature Range**

0°C (32°F) to 45°C (113°F)

**Storage Temperature Range**

-29°C (-20°F) to 74°C (165°F)

**Certifications**

Authorized under the verification provision of FCC Part 15B.

**Industry Canada ICES-003 Compliance Label:** CAN ICES-3 (B)/NMB-3(B)**Note:** See the label located on the bottom side of the charger enclosure for the FCC marking, the CE marking, the RCM marking, the KC marking, and the electrical ratings.

Meets requirements of the following standards:

**Information to the user**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

**LICENSING INFORMATION**

Licensing: A ministerial license to operate this equipment may be required in certain areas. Consult your national authority for possible requirements. Changes or modifications not expressly approved by Shure Incorporated could void your authority to operate the equipment. Licensing of Shure wireless microphone equipment is the user's responsibility, and licensability depends on the user's classification and application, and on the selected frequency. Shure strongly urges the user to contact the appropriate telecommunications authority concerning proper licensing, and before choosing and ordering frequencies.

**WARNING:** Danger of explosion if incorrect battery replaced. Operate only with AA batteries.**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
- Only use Shure charger to recharge Shure rechargeable batteries
- **WARNING:** Danger of explosion if battery incorrectly replaced. Replace only with same or equivalent type.
- Never put batteries in mouth. If swallowed, contact your physician or local poison control center
- Do not short circuit; may cause burns or catch fire
- Do not charge or use battery packs other than Shure rechargeable batteries
- 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

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

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