


Soundweb™ London

BLU-GPX

Installation Guide


5068956-A

IMPORTANT SAFETY INSTRUCTIONS



CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN



ATTENTION: RISQUE DE CHOC ELECTRIQUE - NE PAS OUVRIR

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE

The symbols shown above are internationally accepted symbols that warn of potential hazards with electrical products. The lightning flash with arrowpoint in an equilateral triangle means that there are dangerous voltages present within the unit. The exclamation point in an equilateral triangle indicates that it is necessary for the user to refer to the owner's manual.

These symbols warn that there are no user serviceable parts inside the unit. Do not open the unit. Do not attempt to service the unit yourself. Refer all servicing to qualified personnel. Opening the chassis for any reason will void the manufacturer's warranty. Do not get the unit wet. If liquid is spilled on the unit, shut it off immediately and take it to a dealer for service. Disconnect the unit during storms to prevent damage.

The following is indicative of low altitude use; do not use this product above 2000m.



SAFETY INSTRUCTIONS

NOTICE FOR CUSTOMERS IF YOUR UNIT IS EQUIPPED WITH A POWER CORD.

WARNING: THIS APPLIANCE SHALL BE CONNECTED TO A MAINS SOCKET OUTLET WITH A PROTECTIVE EARTHING CONNECTION.

The cores in the mains lead are coloured in accordance with the following code:

GREEN and YELLOW - Earth **BLUE** - Neutral **BROWN** - Live

As colours of the cores in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

- The core which is coloured green and yellow must be connected to the terminal in the plug marked with the letter E, or with the earth symbol, or coloured green, or green and yellow.
- The core which is coloured blue must be connected to the terminal marked N or coloured black.
- The core which is coloured brown must be connected to the terminal marked L or coloured red.

This equipment may require the use of a different line cord, attachment plug, or both, depending on the available power source at installation. If the attachment plug needs to be changed, refer servicing to qualified service personnel who should refer to the table below. The green/yellow wire shall be connected directly to the units chassis.

CONDUCTOR		WIRE COLOR	
		Normal	Alt
L	LIVE	BROWN	BLACK
N	NEUTRAL	BLUE	WHITE
E	EARTH GND	GREEN/	GREEN

WARNING: If the ground is defeated, certain fault conditions in the unit or in the system to which it is connected can result in full line voltage between chassis and earth ground. Severe injury or death can then result if the chassis and earth ground are touched simultaneously.

WARNING:

- Apparatet må tilkoples jordet stikkontakt.
- Apparatet skall anslutas till jordat uttag.
- Laitte on liitettävä suojakoskettimilla varustettuun pistorasiaan.

WARNING FOR YOUR PROTECTION READ THE FOLLOWING:

KEEP THESE INSTRUCTIONS

HEED ALL WARNINGS

FOLLOW ALL INSTRUCTIONS

THE APPARATUS SHALL NOT BE EXPOSED TO DRIPPING OR SPLASHING LIQUID AND NO OBJECT FILLED WITH LIQUID, SUCH AS VASES, SHALL BE PLACED ON THE APPARATUS

CLEAN ONLY WITH A DRY CLOTH.

FOR INDOOR USE ONLY.

DO NOT BLOCK ANY OF THE VENTILATION OPENINGS. INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

DO NOT INSTALL NEAR ANY HEAT SOURCES SUCH AS RADIATORS, HEAT REGISTERS, STOVES, OR OTHER APPARATUS (INCLUDING AMPLIFIERS) THAT PRODUCE HEAT.

ONLY USE ATTACHMENTS/ACCESSORIES SPECIFIED BY THE MANUFACTURER.

UNPLUG THIS APPARATUS DURING LIGHTNING STORMS OR WHEN UNUSED FOR LONG PERIODS OF TIME.

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 wide blade or third prong are provided for your safety. If the provided plug does not fit your outlet, consult an electrician for replacement of the obsolete outlet.

Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

Use only with the cart stand, tripod bracket, or table specified by the manufacture, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.



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.

POWER ON/OFF SWITCH: For products provided with a power switch, the power switch DOES NOT break the connection from the mains.

MAINS DISCONNECT: The plug shall remain readily operable. For rack-mount or installation where plug is not accessible, an all-pole mains switch with a contact separation of at least 3 mm in each pole shall be incorporated into the electrical installation of the rack or building.

FOR UNITS EQUIPPED WITH EXTERNALLY ACCESSIBLE FUSE RECEPTACLE: Replace fuse with same type and rating only.

MULTIPLE-INPUT VOLTAGE: This equipment may require the use of a different line cord, attachment plug, or both, depending on the available power source at installation. Connect this equipment only to the power source indicated on the equipment rear panel. To reduce the risk of fire or electric shock, refer servicing to qualified service personnel or equivalent.

If connected to 240V supply, a suitable CSA/UL certified power cord shall be used for this supply.

This Equipment is intended for rack mount use only.

IMPORTANT SAFETY INSTRUCTIONS

DECLARATION OF CONFORMITY

Manufacturer's Name: BSS Audio
Manufacturer's Address: 8760 S. Sandy Parkway
Sandy, Utah 84070, USA

declares that the product:

Product name: BSS BLU GPX and GPZ
Note: Product name may be suffixed by the letters EU

Product option: PS48POE (power adapter)
PS1225DC (power adapter)

conforms to the following Product Specifications:

Safety: IEC 60065 -01+Amd 2

EMC: EN 55022:2006
EN 55024:1998
FCC Part 15

Supplementary Information:

The product herewith complies with the requirements of the:
Low Voltage Directive 2006/95/EC
EMC Directive 2004/108/EC
RoHS Directive 2011/65/EC
WEEE Directive 2002/96/EC
EC Regulation 278/2009

With regard to Directive 2005/32/EC and EC Regulation 1275/2008 of 17 December 2008, this product is designed, produced, and classified as Professional Audio Equipment and thus is exempt from this Directive.

Rex C. Reed
Director, Engineering
Signal Processing
8760 S. Sandy Parkway
Sandy, Utah 84070, USA
Date: June 12, 2012

European Contact: Your local BSS Audio Sales and Service Office or

Harman Professional Inc.
8760 South Sandy Parkway
Sandy, Utah
84070 USA
Ph: (801) 566-8800
Fax: (801) 568-7583

U.K. MAINS PLUG WARNING

A molded mains plug that has been cut off from the cord is unsafe. Discard the mains plug at a suitable disposal facility. **NEVER UNDER ANY CIRCUMSTANCES SHOULD YOU INSERT A DAMAGED OR CUT MAINS PLUG INTO A 13 AMP POWER SOCKET.** Do not use the mains plug without the fuse cover in place. Replacement fuse covers can be obtained from your local retailer. Replacement fuses are 13 amps and **MUST** be ASTA approved to BS1362.

ELECTROMAGNETIC COMPATIBILITY

This device complies with part 15 of the FCC Rules and the Product Specifications noted on the **Declaration of Conformity**. Operation is subject to the following two conditions:

- this device may not cause harmful interference, and
- this device must accept any interference received, including interference that may cause undesired operation.

Operation of this unit within significant electromagnetic fields should be avoided.

- use only shielded interconnecting cables.



If you want to dispose this product, do not mix it with general household waste. There is a separate collection system for used electronic products in accordance with legislation that requires proper treatment, recovery and recycling.

Private households in the 25 member states of the EU, in Switzerland and Norway may return their used electronic products free of charge to designated collection facilities or to a retailer (if you purchase a similar new one).

For Countries not mentioned above, please contact your local authorities for a correct method of disposal.

By doing so you will ensure that your disposed product undergoes the necessary treatment, recovery and recycling and thus prevent potential negative effects on the environment and human health.

Regulatory Information

An example of this equipment has been tested and found to comply with the following European and international Standards for Electromagnetic Compatibility and Electrical Safety:

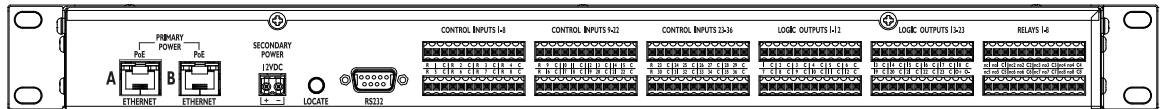
Radiated Emissions (EU): EN55022:2006
Immunity (EU): EN55024:1998
Electrical Safety (EU): IEC60065-01 + AMD2



Important User Information

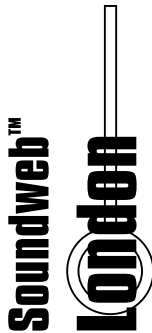
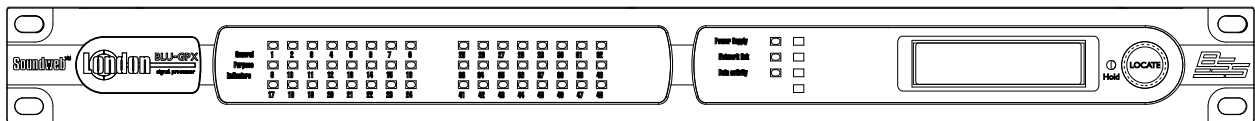
Do not remove covers. No user serviceable parts inside, refer servicing to qualified service personnel. For continued compliance with international EMC regulations, it is important that all cables be screened, and connected as follows: Network cables should be of type Cat 5, fitted with a clip-on ferrite sleeve (STEWART TYPE 28A2029-0A0) near the network socket end. This equipment must be earthed. It should not be necessary to remove any protective earth or signal cable shield connections to prevent ground loops. Any such disconnections are outside the recommended practice of BSS Audio, and will render the EMC or safety certificate void.

Mechanical Installation



If the unit is likely to undergo extreme vibration through extensive road trucking and touring, the unit must be supported at the rear and/or sides to lessen the stress on the front mounting flange. The necessary support can generally be bought ready-built as a rack tray, or the unit can be mounted between other units. Damage caused by insufficient support is not covered by the warranty. To prevent cosmetic damage to the front panel finish, use protective plastic cups under the rack mounting bolts.

Front Panel



General Purpose Indicator LEDs

These 48 software-programmable LEDs can be assigned to a control port or can be driven by the Soundweb London Logic system. Each LED is a multi-color indicator capable of red, green, or yellow illumination and can be independently configured within London Architect.

General Purpose Indicators	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
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Power Supply LED

When lit, this LED provides indication that the BLU-GPX is being powered through the SECONDARY POWER input connection on the back panel.

Network Link

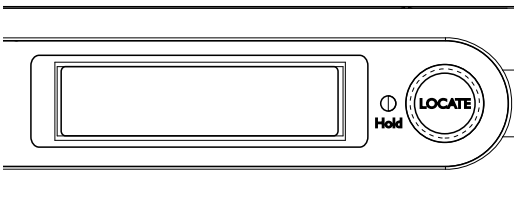
This LED indicates the presence of Cat 5 Ethernet cables. If no cables are connected, the LED is unlit; the LED lights if a control cable is fitted.

Data Activity

This LED will flash to indicate that the device is communicating with another control device, either on the network or via the serial or control ports.

LCD Display

Top line Indicates device name and run state. Bottom line indicates Time, IP Address, Subnet Mask, Model number with firmware version. Also, the device's MAC Address can be viewed by powering the device on whilst pressing and holding the LOCATE switch. This display can be configured to display custom text using the Logic Display object in London Architect.



Locate

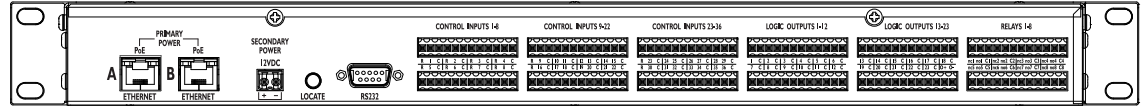
Pressing the LOCATE switch on the front of the unit will illuminate the LOCATE switch on the rear and identify the device within London Architect. Similarly the switch will illuminate if the device is selected from within London Architect or from the LOCATE switch on the rear.

Contrast (Hold)

Pressing and holding the LOCATE switch will cycle the LCD through its contrast range.



Rear Panel



Primary Power

These two PoE-enabled Ethernet ports are used for system communications and for providing primary power to the BLU-GPX.

Secondary Power

This 12VDC connector is provided for power source backup. The front panel 'Power Supply' LED provides convenient indication of power supply status.

NOTE: The BLU-GPX Default Control Panel also provides visual feedback regarding whether the device is powered via PoE ('Primary Power') or the DC input ('Secondary Power').



NOTE: These models shall be powered by a certified AC/DC power adaptor from FranMar International Inc., Model FRA030E-S12-4, rated 100-240V~, 50-60 Hz, 0.7A, Class I (for rated 12Vdc) or powered by certified POE Limited Power Source Adaptor from SL Power, Model PW180KA4800F01, rated 100-250V~, 50-60Hz, 0.5A, Class I (for rated 48Vdc).

Locate

Pressing the LOCATE switch on the rear of the unit will illuminate the LOCATE switch on the front and identify the device within London Architect. Similarly the switch will illuminate if the device is selected from within London Architect or from the LOCATE switch on the front panel.

RS232

Serial port for connection of external control equipment.

Control Inputs 1-36

These CONTROL INPUTS can be connected to contact closures for controlling binary parameters, resistor ladders for controlling multi-state parameters, or potentiometers for controlling continuous parameters, e.g. BLU-3 selector wallplate (Part no. Z-BLU-3). The BLU-GPX has 47 Common (ground) connections (labelled 'C'). A multiplicity of Common connections results in simplified wiring to and from external equipment, reducing the need to span connections across terminal block connectors. The control ports have two modes of operation: 2-wire and 3-wire. Provided are 12 Reference connections (Labelled 'R') which facilitate 3-wire mode operation.

Logic Outputs 1-23

These 23 Logic Outputs are used to connect 'tally' indicator LEDs or relays.

Each Logic Output produces 0V or +5V DC via an internal 440 Ohm resistor and accompanying internally connected common (ground) connection (C).

An LED connected between one output (Anode, A) and common (Cathode, K) will illuminate when the LOGIC OUTPUT is activated, without requiring any external current limiting resistor.

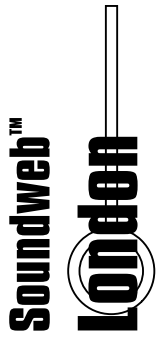
A high sensitivity relay (such as a reed relay) may be driven by connecting four outputs in parallel. This arrangement will develop 4V across a 500-Ohm coil, providing that all four outputs are made logic 1 simultaneously.

Opto Output

The last output located on the 'LOGIC OUTPUTS 13-23' terminal block is labelled 'O'. This is the OPTO OUTPUT, an isolated output which fails safe (open circuit) if the unit becomes faulty.

Relay Outputs 1-8

These 8 integrated RELAY OUTPUTS, each with Normally Open (NO) and Normally Closed (NC) terminals, will open or close in response to HiQnet parameters. They can be connected directly to resistance-controlled electrical components circuits. These RELAY OUTPUTS reduce the need to source and deploy external relays.



Control Inputs

2-wire mode

In this mode, the CONTROL INPUTS are internally 'pulled up' to +5V DC via a 4.7kOhm resistor. Therefore, no external voltage source is needed to create contact closure to ground for switches such as mute buttons or, resistance to ground (for other multi-state or continuous controls such as Parameter Presets or faders).

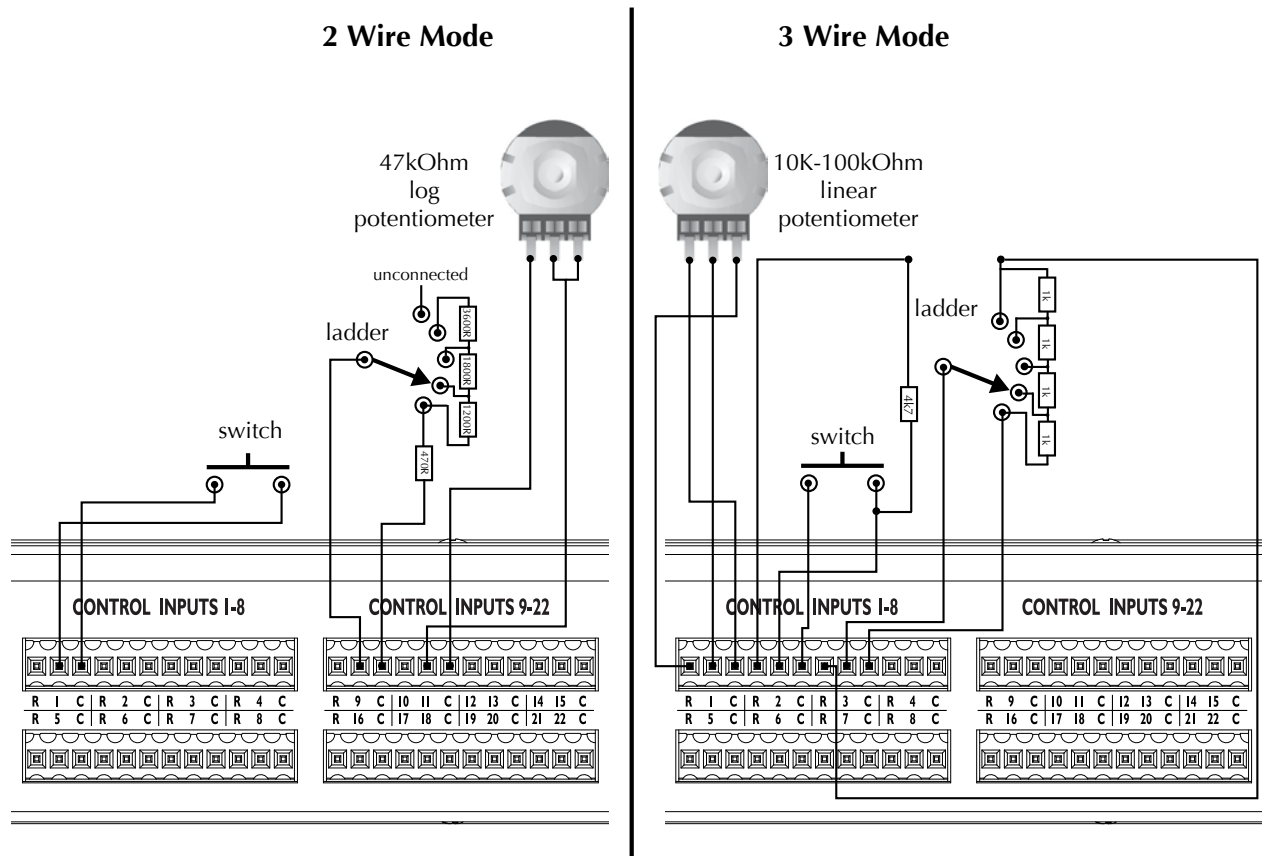
See the Soundweb London help for a table of resistor values for use with Parameter Presets or source selectors.

A 'common' ground connection (C) is provided for every CONTROL INPUT.

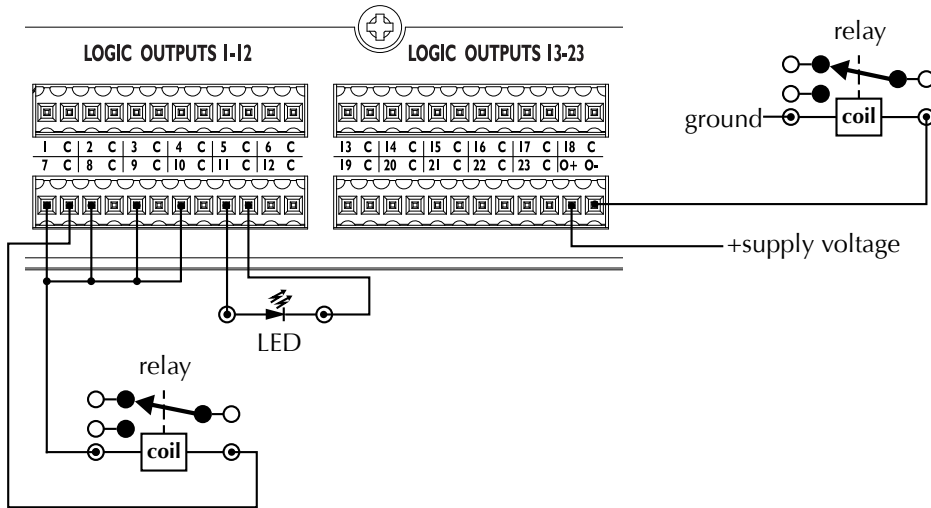
A 47kOhm-log potentiometer (Part no. DM10018) connected between a control input and common will allow parameters to be controlled linearly.

3-wire mode

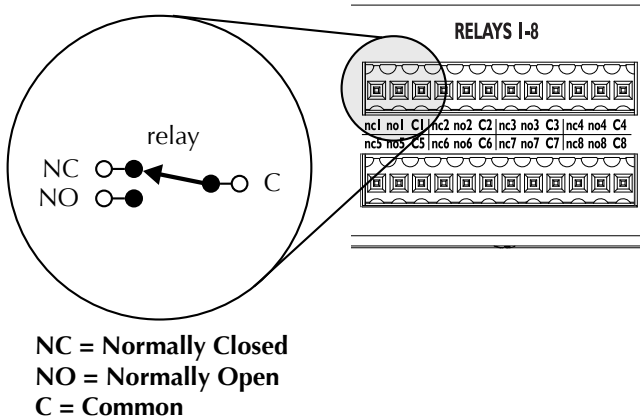
This mode allows the use of linear pots or faders for continuous controls. A pot would be wired as a potential divider with the top of the track connected to the reference output R, the wiper to a control input and the bottom of the track to a common C. For good performance, pots with track resistance between 10K and 100KOhms are recommended.



Logic & Opto Outputs



Relay Outputs





Technical Specifications

FRONT PANEL:

LED Indicators:	48 Software-Programmable LED Red/Green/Yellow Indicators. Power Supply, Network Link, and Data Activity
Other:	LCD display, Locate Button

CONTROL PORTS:

Control Input Voltage:	0 to 4.5v
Control Input Impedance:	4.7k Ω to +5V (2-wire mode), >1M Ω (3-wire mode)
Logic Output Voltage:	0 or +5V unloaded
Logic Output Impedance:	440 Ω
Logic Output Current:	10mA source, 60mA sink

RELAYS:

8 isolated, N/O, N/C, Common terminals, 3.5mm Phoenix/Combicon

WATCHDOG OUTPUT:

Phoenix/Combicon connector for failsafe control	
Opto Output Current:	14mA maximum
Withstanding Voltage:	80V maximum (Off)
Series Impedance:	220 Ω (isolated)

CONTROL NETWORK:

Connectors:	RJ-45 Ethernet connector, DB-9 male RS232
Maximum Cable Length:	100m/300ft on Category 5 cable between device and Ethernet switch

POWER AND DIMENSIONS:

Primary:	IEEE802.3af Power over Ethernet (PoE)
Secondary:	12VDC, 19W external power supply
Operating Temp. Range:	5(41) to 35(95) degrees C(degrees F)
Dimensions (HxWxD):	1.75" (45mm) x 19" (483mm) x 7.75" (197mm)
Weight:	2.96 lbs / 1.34 kg



BSS Audio incorporates high quality mechanical fans in some products. All mechanical fans have a limited life expectancy. We recommend annual inspection of fans for dust occlusion and excessive noise. Fan assemblies should be replaced after six to ten years of use. Environmental factors such as elevated temperature, dust, and smoke can adversely affect fan life. Systems exposed to these conditions should be inspected more frequently. Fan replacement can be performed either at the factory or by an experienced technician in the field. Please contact BSS Technical Support for more information on purchasing replacement parts or product service. BSS Audio has a policy of continued product improvement and accordingly reserves the right to change features and specifications without prior notice.

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