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: BLU-HIF

Not: Product name may be suffered by the EU.

Product option: None

conforms to the following Product Specifications:

Safety: IEC 60865-01+Amd. 1
EMC: EN 55022:2006
EN 61000-4-2

Supplementary Information:
The product herewith complies with the requirements of:

Low Voltage Directive 2006/95/EC
EMC Directive 2004/108/EC.
RoHS Directive 2002/95/EC
WEEE Directive 2002/96/EC.

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

Roger Johnsen
Vice-President of Engineering
8760 S. Sandy Parkway
Sandy, Utah 84070, USA
Date: June 16, 2010

European Contact: Your local BSS Audio
Sales and Service Office or
Harman Music Group
8760 South Sandy Parkway
Sandy, Utah 84070, USA
Ph: (801) 566-8800
Fax: (801) 566-7583

U.K. MAINS PLUG WARNING

A molded mains plug that has been cut off from the cable 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.

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 case in the mains lead is 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 blue.
• 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. An 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 unit chassis.

ELECTROMAGNETIC COMPATIBILITY

This unit conforms to 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.

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

POWER ADAPTER:

Ensure a minimum of $8$ inches of clearance and ventilation around the adapter.

WARNING FOR YOUR PROTECTION

READ THE FOLLOWING:

KEEP THESE INSTRUCTIONS

HEED ALL WARNINGS

FOLLOW ALL INSTRUCTIONS

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

CLEAN ONLY WITH A DRY CLOTH.

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 APPLIANCES (INCLUDING AMPLIFIERS) THAT PRODUCE HEAT.

ONLY USE ATTACHMENTS/ACCESSORIES SPECIFIED BY THE MANUFACTURER.

UNPLUG THIS APPLIANCE 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, 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.

Keep the mains plug of this apparatus readily accessible.

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.

For 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 a retailer (if you purchase a similar new one).

If you want to dispose of 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.
Operating Instructions

Overview
The BSS Audio BLU-HIF Telephone Headset Interface facilitates connection of the headset jack of a VoIP/digital phone to an AEC input and analog output of a Soundweb London device. The BLU-HIF therefore allows the VoIP/digital phone to be used as the dialing interface and hybrid for a conference system. This simple interface eliminates the programming requirements associated with third-party control systems, while providing a familiar and low-cost dialing interface to the end user.

Connections

Audio Tx
This balanced connection is for sending near-side audio. Connect it to a standard analog output of a Soundweb London device. See Figures 1 and 2 for system connection and DSP configuration diagrams.

Audio Rx
This balanced connection is for receiving far-side audio. Connect it to an AEC input on a Soundweb London device. See Figures 1 and 2 for system connection and DSP configuration diagrams. While the BLU-HIF provides substantial isolation of the Rx and Tx signals, near-side audio will still be heard on the Rx channel due to the presence of sidetone. As such, BSS Audio recommends always feeding the Rx channel to an AEC input, as opposed to a standard analog input. The AEC algorithm will remove the side-tone.

The Audio Tx and Rx connections are via Klippon pluggable terminal block connectors (also known as BL, Phoenix or Combicon). 6-way female Klippon connectors are supplied for making these connections.

Soundweb products provide cable shielding ‘back from the destination’ to eliminate ground loop problems. This means that the shield (S) connection on an input is grounded, whereas the shield connection on an output is floating (although connected via an internal network to ground for EMC compliance).
Balanced wiring - The convention for balanced wiring (2-core plus shield) is shown here:

Unbalanced wiring - The convention for unbalanced wiring to the inputs (1-core plus shield) is shown here:

**Telephone Headset – RJ-22 Jack**
The BLU-HIF features an RJ-22 jack for connection to the headset jack of a VoIP/digital phone. See Figure 1 for a system connection diagram using the telephone headset RJ-22 jack. The wiring configuration within the headset jack of a VoIP/digital phone often differs, depending on the manufacturer. The BLU-HIF comes with two cables whose 4P4C RJ-22 connectors are compatible with the two most common wiring configurations found in the headset jack of VoIP/digital phones. See Figure 3 for the BLU-HIF internal wiring diagram.

**Caution:** before connecting to the RJ-22 jack, ensure that the internal jumper is set to the appropriate position. Do not connect to both Telephone Headset jacks (RJ-22 and 2.5mm) on the BLU-HIF simultaneously. Doing so risks damaging the connected devices. By default, the BLU-HIF ships with the jumper set to the Telephone Headset RJ-22 jack position. See Figure 5 for an internal jumper configuration diagram.
**Telephone Headset – 2.5mm Jack**

The additional 2.5mm jack facilitates connection of two-way communication devices such as cellular phones to a Soundweb London device. This gives the end user the advantage of having an alternate communication path to the outside world, which is particularly useful as a backup to the main phone system. See Figure 3 for the BLU-HIF internal wiring diagram.

**Caution:** Before connecting to the 2.5mm jack, ensure that the internal jumper is set to the appropriate position. Do not connect to both Telephone Headset jacks (RJ-22 and 2.5mm) on the BLU-HIF simultaneously. Doing so risks damaging the connected devices. By default, the BLU-HIF ships with the jumper set to the Telephone Headset RJ-22 jack position. See Figure 5 for an internal jumper configuration diagram.

### Diagrams

**Figure 1:** Using the BLU-HIF with a VoIP/Digital Telephone

[Diagram of BLU-HIF with VoIP/Digital Telephone connection]

**Figure 2:** Using the BLU-HIF with a Phone Equipped with a 2.5mm TRS Jack

[Diagram of BLU-HIF with 2.5mm TRS Jack connection]

**Figure 3:** Wiring Diagram – BLU-HIF Telephone Headset Jacks

[Diagram of BLU-HIF wiring diagram with 2.5mm jack connection]

Caution: Do not connect to both jacks simultaneously. Doing so risks damaging the connected devices. Before connecting to either jack, ensure that the internal jumper is set to the appropriate position. By default, the BLU-HIF ships with the jumper in the Headset RJ-22 jack position.
Figure 4: Locating the Internal Jumper

Jumper Pins

BLU-HIF internal view

Figure 5: Setting the Internal Jumper

Jumper pins

Jumper

<table>
<thead>
<tr>
<th>A</th>
<th>OR</th>
<th>OR</th>
<th>= RJ-22 Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>= 2.5mm Position</td>
<td></td>
<td></td>
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Jumper position A + connection to the 2.5mm jack = No transmittal of near side audio

Jumper position B + connection to the RJ-22 jack = Caution! Possible damage to the connected VoIP/digital phone

Simultaneous connection to the 2.5mm and RJ-22 jacks = Caution! Possible damage to the connected VoIP/digital phone
**TECHNICAL SPECIFICATIONS:**

<table>
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<tr>
<th>Feature</th>
<th>Specification</th>
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<tbody>
<tr>
<td>Headset Jacks</td>
<td>RJ-22 or 2.5mm TRS</td>
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<tr>
<td>Line-Level Audio Jacks</td>
<td>6 Pos 5.08 Phoenix/Combicon</td>
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<tr>
<td>Headset I/O</td>
<td>Transformer Isolated</td>
</tr>
<tr>
<td>Line-Level Audio I/O</td>
<td>Transformer Isolated, Balanced</td>
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<tr>
<td>Maximum Input level</td>
<td>+10dBu</td>
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<tr>
<td>THD+N</td>
<td>&lt; 0.1% typical (200Hz to 20kHz @ 0dBu), &lt; 0.3% typical (100Hz to 200Hz @ 0dBu)</td>
</tr>
<tr>
<td>Frequency Response</td>
<td>100Hz to 20kHz +/-0.5dB</td>
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<tr>
<td>Dimensions (HxWxD)</td>
<td>5.24” (133.1mm) x 2.10” (53.34mm) x 1.61” (40.89mm)</td>
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<tr>
<td>Weight</td>
<td>1.75 lbs / 0.79 kg</td>
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BSS Audio has a policy of continued product improvement and accordingly reserves the right to change features and specifications without prior notice.
BSS Audio
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