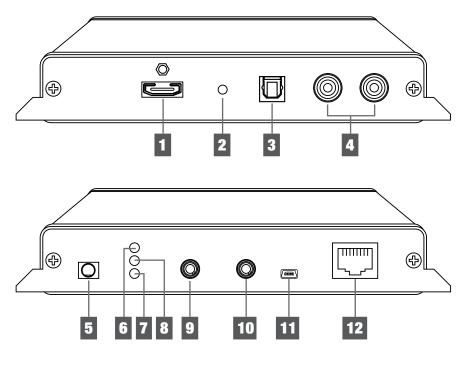
HL-2S Installation Manual

## **Transmitter Connections**

#### TRANSMITTER



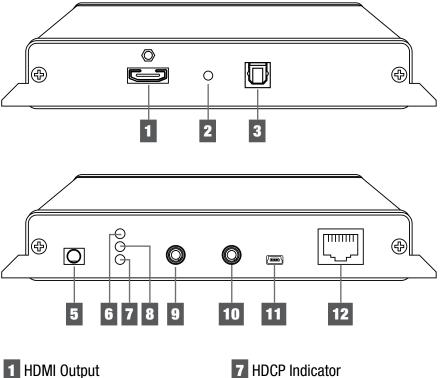
- 1 HDMI Input
- 2 ARC Indicator
- 3 Digital Optical Out (SPDIF)
- 4 Analog Audio Out
- 5 Power Input (Choose One)
- 6 Power Indicator

- 7 HDCP Indicator
- 8 HDBaseT Link Indicator
- 9 IRDA Out
- 10 IRDA In
- 11 Mini USB (Firmware Update)
- 12 HDBaseT Link Connection



## **Receiver Connections**

RECEIVER



- 2 ARC Indicator
- **3** Digital Optical In (SPDIF)
- 5 Power Input (Choose One)
- 6 Power Indicator

- 7 HDCP Indicator
- 8 HDBaseT Link Indicator
- IRDA Out
- 10 IRDA In
- Mini USB (Firmware Update) 11
- 12 HDBaseT Link Connection



# **Transmitter Functions**

## **TRANSMITTER FUNCTIONS - See pg 7**

**1 HDMI Input –** Connect this to your HDMI Source – Cable Box, Disc Player, etc.

**2 ARC Indicator** – This light will illuminate whenever a completed audio signal from ARC or the TOSLINK connection is established.

**3 Digital Optical Out (SPDIF)** – Connect to Optical in of Surround Receiver as an alternative to ARC for improved sound from your SmartTV.

**4 Analog Audio Out –** This is a 2-channel decoded audio source derived from the Audio Return Channel or TOSLINK Digital stream from the TV to an amplifier.

**5 Power Input** – Utilizing the supplied 24V .75A supply, when connected at the Transmitter side, No Power Supply is necessary at the Receiver side.

**6 Power Indicator** – This light indicates that power is being supplied to the unit.Connection of the (included) Power Supply should illuminate this light on both Transmitter and Receiver Units.

**THDCP Indicator** – This light shows that a valid HDMI connection has been made, "handshake" has taken place, and there is a High Definition Copy Protect flag in operation. Attempts to copy Digital content will not be allowed. Any connection to a non-compliant Digital copy device will cause this light to go off, and will result in the loss of signal.

**B HDBaseT Link Indicator** – These lights show that communication has been properly established with the HDBase-T Receiver. No other connections need be made for these lights to indicate your connection is secure. If the "POWER" light is not on, you should check that the power supply is properly connected.

**9 IRDA Out –** Used for connecting to an Infra-Red Emitter for controlling a device at this end. The IR Signal would originate from the Receiver end either from a Powered Pickup or an IR Pass-Thru. (See diagrams on pages 12 and 13)

9



## **Recievers Functions**

**10 IRDA In** – Used for connecting to a 12V Xantech Compatible Powered Infra-Red Pickup Device via 3-conductor mini-jack, or to IR encoded signal for Pass-Thru to the IRDA OUT at the Receiver end. (See diagram on page 12 and 13 for suggested use)

**11 Mini USB (Firmware Update)** – For Firmware updates (provided if necessary) by Transformative Engineering. DO NOT attempt to connect this port for any other reason. Loss of all operation may result.

**12 HDBase-T Link Connection** – Connect via Category 5e/6/7 cable to the HL-2S Receiver Unit ONLY. DO NOT CONNECT THIS RJ-45 CONNECTOR TO ETHERNET. DAMAGE TO THIS PRODUCT AND YOUR NETWORK MAY RESULT. Recommended minimum length is 5 Meters up to our maximum rated specification of 70 Meters.

**12a Audio Return Channel** – Audio Return Channel (ARC) is incorporated into the HDMI connector and serves to provide a pathway for the audio signal that originates from the Display (TV) source. When utilizing ARC-enabled Smart TVs to "stream" content from internet providers, the audio from that content may be presented back to the head-end and into ARC-enabled Surround Receivers. This is effectively a method for bi-directional use of the HDMI signal path. Only Audio from the ARC-enabled TV may be sent over this method. Please refer to setup instructions on your AV Surround Receiver and Television display for details.

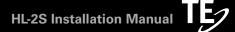
#### **RECEIVER FUNCTIONS - See Page 8**

**1 HDMI Output –** Connect this to your Display device – TV, Projector, etc. All video signals input to the HDMI Input on the Transmitter will appear here.

**2 ARC Indicator** – This light will illuminate whenever a completed audio signal from ARC or the TOSLINK connection is established.

**3 Digital Optical In (SPDIF)** – Use the Optical output from a SmartTV as an alternative to ARC for improved sound.

10



# Troubleshooting

**5 Power Input –** Utilizing the supplied 24V .75A supply, when connected at the Receiver side, No Power Supply is necessary at the Transmitter side.

**6 Power Indicator** – This light indicates that power is being supplied to the unit. Connection of the (included) Power Supply should illuminate this light on both Transmitter and Receiver Units.

7 HDCP Indicator – Refer to Item (7) above.

8 HDBaseT Link Indicator – Refer to Item (8) above.

**9 IRDA Out –** Used for connecting to an Infra-Red Emitter for controlling a device at this end. The IR Signal would originate from the Transmitter end either from a Powered Pickup or an IR Pass-Thru. (See diagrams on pages 12 and 13)

**10 IRDA In –** Used for connecting to a Powered Infra-Red Pickup Device (Xantech compatible) via 3-conductor mini-jack, or to IR encoded signal for Pass-Thru to the IRDA OUT at the Transmitter end. (See diagrams on pages 12 and 13)

**11 Mini USB (Firmware Update)** – For Firmware updates (provided if necessary) by Transformative Engineering. DO NOT attempt to connect this port for any other reason. Loss of all operation may result.

**12 HDBase-T Link Connection –** Refer to Item (1) above.

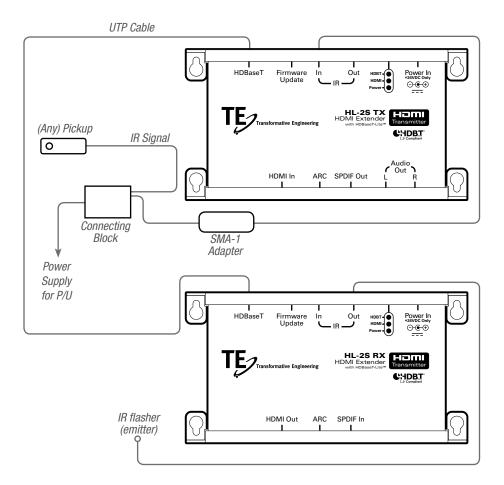
### TROUBLESHOOTING

As mentioned previously, most malfunctions can be addressed by careful examination of the Category cable terminations and suitability of the UTP cable itself. Once the "Link" lights are on, this system is operating normally. Lack of function should be traced to a failure in HDMI interconnection cables or device settings. If all this has been examined with no resolution of your problem, please contact our Technical Support Department at 781-769-6410 or via email at: info@transformativeengineering.com.





## IR Pass Thru IR Connection Diagram





**IR Connection Diagrams** 

# Powered Pickup IR Connection Diagram

