



INT-PS82-H2 Quick Install Guide



This guide is for quick installation only.
For complete owners manual go to www.libav.com or use a QR reader to access the manual via QR code below.



Scan QR Code with your Smart-phone or Tablet

Product Overview

The INT-PS82-H2 is an 8x2 multi-format seamless presentation matrix switcher featuring four HDMI, one HDBaseT, one USB-C, one DisplayPort and one VGA input as well as an HDBaseT and two HDMI outputs, one of which is mirrored from the HDBaseT output. The switcher supports automatic switching based on video sensing, and each output can be configured separately for auto or manual switching. The INT-PS82-H2 provides true 4K up/down scaling up to 4K@60Hz / 4:4:4 / 8 bit deep color and both outputs can be scaled to different resolutions independently. The INT-PS82-H2 provides external audio inputs that can be embedded in HDBaseT, HDMI and VGA video inputs respectively. Moreover, it provides a global, auxiliary MIX audio input that can be assigned to any output. The switcher can de-embed digital and/or analog audio from both outputs for audio reinforcement purposes.

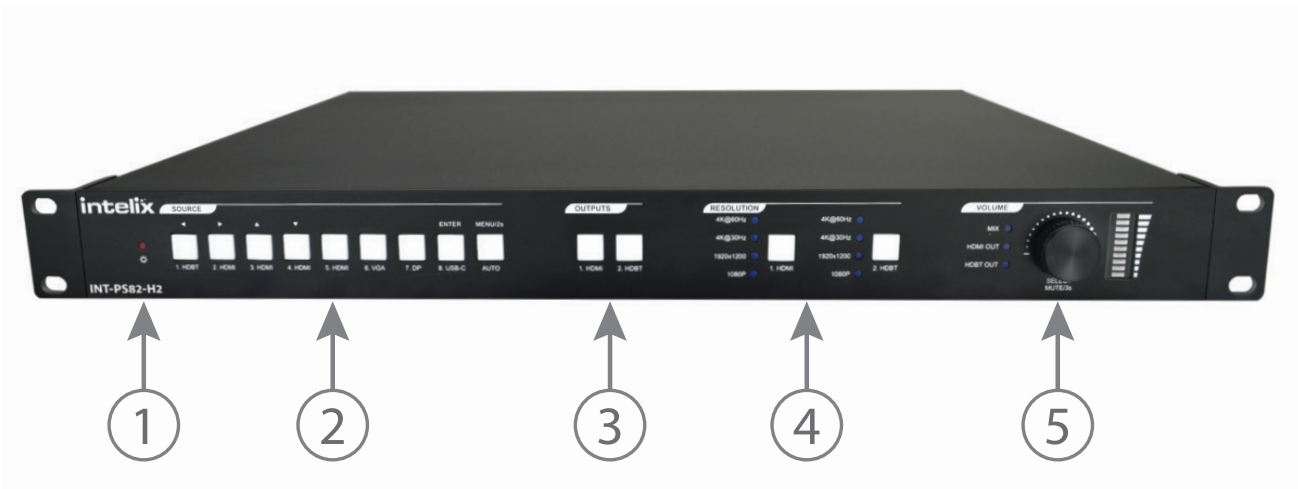
The INT-PS82-H2 ships with an 18G HDMI 2.0 HDBaseT receiver capable of extending 4K signals up to 40m / 132' or 1080p up to 70m / 232'. The INT-PS82-H2 can also tunnel RS232 and bi-directional IR signals to and from the HDBaseT receiver. The extension system enables high data rates by utilizing visual lossless compression at a 2:1 data compression rate when the signal surpasses 10Gbps, anything under 10Gbps will never be compressed. Supports static HDR (HDR10) only when data rate exceeds 18Gbps, supports dynamic HDR (HDR10+ / Dolby Vision) when data rate is 10Gbps or less.

The switcher's functions can be controlled by built-in web server / GUI, IR remote, RS232, IP or by front panel button operation. Two relay switches are built in for projector or shades control. For a list of available control commands for RS232 and IP control, please see the owner's manual for this product located online at www.libav.com.

Package Contents

- INT-PS82-H2 8x2 HDMI 2.0 Switcher
- 70m HDBaseT 2.0 Receiver
- Quick Install Guide
- (3) 3-pin Phoenix connectors
- (7) 5-pin Phoenix connectors
- (1) 3.5mm Audio Cable (for IR cascading)
- IR Remote
- (1) IR Emitter
- (1) IR Receiver
- (1) DC24V 6A power supply with US power plug
- (2) Rack mount ears with 6 mounting screws
- (4) Plastic Cushions

Front Panel View- Switcher



1. POWER LED - Illuminates solid RED when switcher is in standby mode or illuminates GREEN when device is powered ON.

2. SOURCE

- 1- *HDBT* - HDBaseT input selection / Left key for On Screen Display (OSD)
- 2- *HDMI* - HDMI input selection / Right key for On Screen Display (OSD)
- 3- *HDMI* - HDMI input selection / Up key for On Screen Display (OSD)
- 4- *HDMI* - HDMI input selection / Down key for On Screen Display (OSD)
- 5- *HDMI* - HDMI input selection
- 6- *VGA* - VGA input selection
- 7- *DP* - DisplayPort input selection
- 8- *USB C* - USB-C input selection / Enter key for On Screen Display (OSD)
- *AUTO* - Auto switch selector. Press this to enter / exit auto switch mode. Press and hold for 2 seconds to enable OSD menu

3. OUTPUTS

- 1- *HDMI* - HDMI output selector
- 2- *HDBT* - HDBaseT output selector

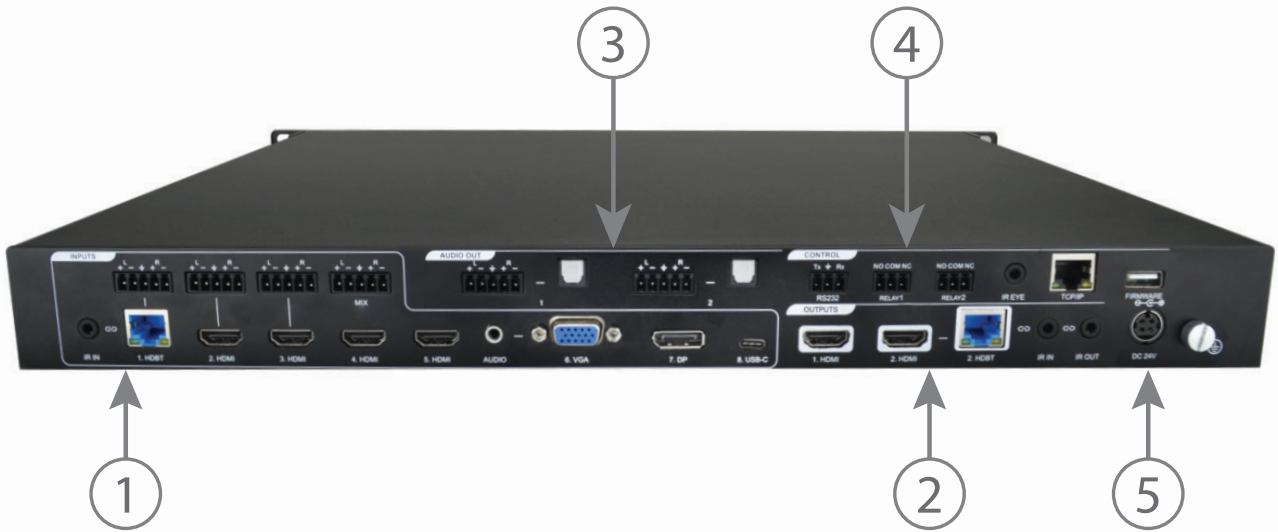
Note: To make a video route, select the desired *SOURCE* button, then select the desired *OUTPUT* button. The video will switch in 2 to 3 seconds. For faster switch response, select the desired *SOURCE* button, then select the desired *OUTPUT* button and then press the selected *SOURCE* button again.

4. RESOLUTION - Two output video resolutions selectors. Press 1.*HDMI* or 2.*HDBT* button repeatedly to cycle through the available video resolutions.

5. VOLUME - Variable audio control

- Press the volume knob to toggle among *MIX*, *HDMI OUT* and *HDBT OUT* audio control.
- Rotate the knob to increase decrease volume of the selected audio
- Press and hold the knob at least 3 seconds to mute selected audio, rotate the knob to unmute

Back Panel View- Switcher



1. INPUT

- 1- HDBT - RJ45 / HDBaseT Input, external 5 pin phoenix for balanced audio input
- 2- HDMI - HDMI input, external 5 pin phoenix for balanced audio input
- 3- HDMI - HDMI input, external 5 pin phoenix for balanced audio input
- 4- HDMI - HDMI input
- 5- HDMI - HDMI input
- 6- VGA - VGA with 3.5mm audio input
- 7- DP - DisplayPort input
- 8- USB C - USB-C input- supports ALT-DP
- IR - 3.5mm IR input to connect IR receiver for IR pass through
- MIX- 5 pin phoenix for global balanced audio input

2. OUTPUTS

- 1- HDMI - HDMI output
- 2- HDMI - HDMI output (mirrors HDBT output)
- 2- HDBT - HDBaseT output
- IR IN - 3.5mm IR input to connect IR receiver for IR pass through
- IR OUT - 3.5mm IR input to connect IR emitter for IR pass through

3. AUDIO OUTPUT

- 1 - 5 pin phoenix for balanced analog audio input and one digital SPDIF audio output for 1-HDMI output audio de-embedding
- 2 - 5 pin phoenix for balanced analog audio input and one digital SPDIF audio output for 2-HDBT output audio de-embedding

4. CONTROL

- RS232 - 3 pin phoenix connector for RS232 control
- RELAY 1-2 - (2) 3 pin phoenix connectors for relay control
- IR EYE - 3.5mm IR input to connect IR receiver for local switcher control
- TCP/IP - RJ45 to control device via network / web GUI
- FIRMWARE- Type A USB port for firmware upgrade

5. DC24V- Locking power supply port

Front Panel View- HDBaseT Receiver

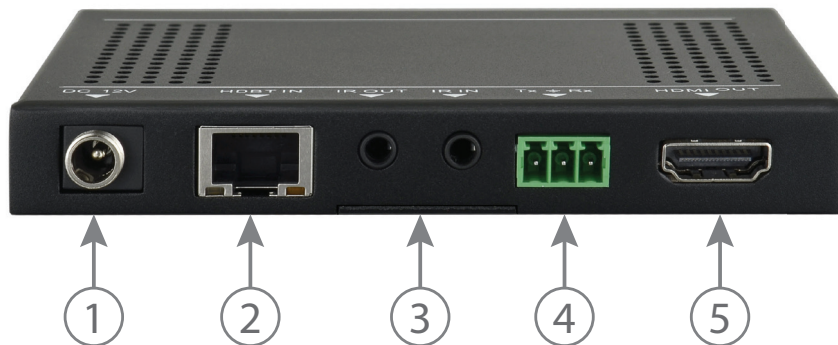


1. MODE SWITCH

- *CTRL* - When placed in control mode, HDBaseT receiver will receive RS232 pass through commands from the switcher
- *UPDATE B* - Update mode for system program
- *UPDATE A* - Update mode for Valens program

2. POWER LED - Illuminates solid RED when power is applied

Back Panel View- HDBaseT Receiver



1. **DC12V**- Locking power supply port
2. **HDBT IN** - RJ45 HDBaseT connection. Connect Cat6 cable to HDBT output transmitter of the INT-PS82-H2
3. **IR IN / IR OUT**
 - 3.5mm IR input port for connection to IR receiver or IR system
 - 3.5mm IR output port for connection to IR emitter
4. **RS232** - 3 pin Phoenix connector port for connecting / passing RS232 control from INT-PS82-h2
5. **HDMI OUT** - HDMI output port for connection to video display

Connectivity Instructions

1. Verify all components included with the INT-PS82-H2 set are present before installation.
 2. If the INT-PS82-H2 is going to be permanently mounted in a rackmount case, attach the included mounting brackets with the supplied screws.
 3. Turn off power and disconnect the audio/video equipment by following the manufacturer's instructions.
 4. Connect Category 6 or greater twisted pair cable with RJ45 connectors between the INT-PS82-H2 HDBaseT output / transmitter to the supplied receiver and HDBaseT input / receiver to a compatible Intelix HDBaseT transmitter. TIA/EIA-568B straight-through wiring connections must be used.
 5. Connect an HDMI cable that is less to or equal to 5 meters in length between the display and the HDMI output of the INT-PS82-H2 HDBaseT receiver.
 6. Connect an HDMI cable that is less to or equal to 5 meters in length between the display and the HDMI output of the INT-PS82-H2. For display devices that are further away, an HDMI extension device will be required to complete the connection.
 7. Connect a source device to the HDBaseT transmitter input using a HDMI cable that is less than or equal to 5 meters in length.
 8. Connect a source device to the HDMI inputs using a HDMI cable that is less than or equal to 5 meters in length. For source devices that are further away, an HDMI extension device will be required to complete the connection.
 9. Connect a source device to the DisplayPort input using a DisplayPort cable that is less than or equal to 5 meters in length. For source devices that are further away, an extension device will be required to complete the connection.
 10. Connect a source device to the USB-C input using a USB-C video cable that is less than or equal to 2 meters in total length.
 11. Connect a VGA source device to the VGA input using a 15-pin VGA cable.
 12. Connect a 3.5mm audio cable into the respective VGA audio input
 13. Connect RS232 control between the display to control connected display or connect to a 3rd party control system to control switcher functions (optional)
 14. Connect TCP/IP control to a 3rd party control system to control switcher functions (optional)
- NOTE:** A list of control commands for this unit is available in the owners manual online at www.libav.com under the *DOCUMENTATION* tab of the INT-PS82-H2 product page
15. Connect IR receiver to IR EYE port to control switcher via supplied IR remote (optional)
 16. Connect the included power supply to the INT-PS82-H2 and lock the power supply to the power connector by twisting the locking collar clockwise.
 17. Power on attached audio/video devices.

Cabling Wiring Requirements

HDBaseT Cabling

To ensure proper performance of the INT-PS82-H2, it is recommended that you use solid core, shielded Category 6 F/UTP cabling at a minimum. Category 5e F/UTP may perform well but may not support power over HDBaseT reliably over longer distances.



When using shielded category cabling *ALWAYS*...

-use shielded connectors
-properly ground the category cable

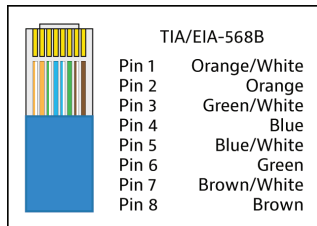
For optimized HDBaseT performance use the following Liberty Wire and Cable branded cabling;

Category 6 plenum; **24-4P-P-L6SH**

Category 6A plenum; **24-4P-P-L6ASH**

Category 6 NON-plenum; **24-4P-L6SH**

Category 6A NON-plenum; **24-4P-L6ASH**

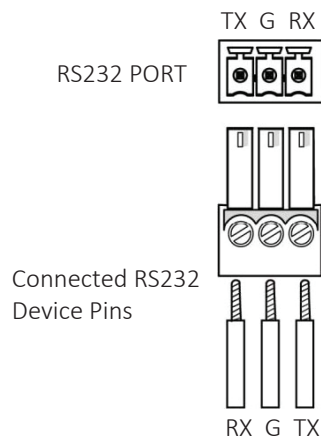


Twisted Pair Wiring

Use TIA/EIA-568B wiring for Category 6 connection between send and receive units.

RS232 Wiring

Some controllers may not have a DB9 port available for RS232 communication, but may have removable terminal block connections. Consult the manual of the control device(s) to determine which pins the TX/RX signals are carried on. Be sure to always connect TX to RX and RX to TX.



Technical Specifications- Switcher

Video	
Video Inputs	(1) HDBaseT, (4) HDMI, (1) DisplayPort, (1) VGA, (1) USB-C
Video Input Connectors	(1) RJ45 (HDBaseT), (4) HDMI Type A Female, (1) USB-C , (1) DisplayPort, (1) 15-pin VGA
Input video Signal	HDMI for HDMI input, ALT-DP Mode for USB-C 3.0, DP Version 1.2 for DisplayPort input
HDBaseT Input Resolution Support	Up to 4Kx2K@60Hz 4:2:0 / 8 bit deep color (10.2Gbps)
HDMI Input Resolution Support	Up to 4Kx2K@60Hz 4:4:4 / 8 bit deep color
USB C Input Resolution Support	Up to 4Kx2K@30Hz 4:4:4 / 8 bit deep color
DisplayPort Input Resolution Support	Up to 4Kx2K@60Hz 4:4:4 / 8 bit deep color
VGA Input Resolution Support	Up to 1920x1200 (50/60Hz)
Video Output	(2) HDMI, (1) HDBaseT
Video Output Connector	(2) Type-A Female HDMI, (1) RJ45
Output Resolution Support	Up to 3840 x 2160 @60Hz / 4:4:4 / 8 bit deep color
Standards	HDMI 2.0, HDCP 2.2 and CEC
Bandwidth	<i>HDBaseT Input (Receiver): 10.2Gbps</i> <i>All other inputs / outputs: 18Gbps</i>
24V DC Power	One (1) Locking Barrel (5.5 mm OD, 2.1 mm ID)
Audio Input	
Audio Input	(1) External balanced audio (L+R) for 1-HDBT input port (1) External balanced audio (L+R) for 2-HDMI input port (1) External balanced audio (L+R) for 3-HDMI input port (1) Stereo auxiliary audio for 6-VGA input port (1) Balanced MIX audio
Audio Input Connector	(4) 5-pin terminal blocks (1) 3.5mm jack
Frequency Response	20Hz – 20KHz, ±3dB
Max Input Level	2.0Vrms ± 0.5dB. 2V = 16dB headroom above- 10dBV (316mV) nominal consumer line level signal.
Input Impedance	>10KΩ
Audio Output	
Audio Output	(1) Balanced audio (L+R) for 1-HDMI output audio de-embedding (1) Digital SPDIF audio (L+R) for 1-HDMI output audio de-embedding (1) Balanced audio (L+R) for 2-HDBT output audio de-embedding (1) Digital SPDIF audio (L+R) for 2-HDBT output audio de-embedding
Audio Output Connector	(2) 5-pin terminal blocks (2) Toslink connectors
Frequency Response	20Hz – 20KHz, ±3dB
Max Input Level	2.0Vrms ± 0.5dB. 2V = 16dB headroom above-10dBV (316mV) nominal consumer line level signal
Output Impedance	70Ω

Technical Specifications- Switcher

Control	
Control Ports	(1) RS232, (2) Relay 1-2, (1) IR Eye, (2) IR IN, (1) IR OUT, (1) TCP/IP, (1) Firmware
Control Connectors	(3) 3-pin terminal blocks, (4) 3.5mm jacks, (1) RJ45, (1) Type-A USB
IR Carrier Frequency Range	33-55kHz at 5 volts
HDBaseT Signal Characteristics	
Maximum Distance	<i>HDBaseT Input (Receiver):</i> 70 m (up to 1080p) , 40 m (up to 4K@60Hz / 4:2:0 / 8 bit deep color) <i>HDBaseT Output (Transmitter):</i> 70 m (up to 1080p) , 40 m (up to 4K@60Hz / 4:4:4 / 8 bit deep color)
Cable Requirements	Solid core shielded Category 6 F/UTP cable or greater with TIA/EIA-568B crimp pattern
Bandwidth	<i>HDBaseT Input (Receiver):</i> 10.2Gbps <i>HDBaseT Output (Transmitter):</i> 18Gbps
Chassis and Environmental	
Dimensions (WxHxD)	436 mm x 44 mm x 356.5 mm (17 in x 1.7 in x 14 in) – 1RU
Shipping Weight	2.87kg (6.3 lbs.)
Operating Temperature	0° to +55° C (+32° to +131° F)
Operating Humidity	10% to 90%, Non-condensing
Storage Temperature	-20° to +70° C (+14° to +158° F)
Storage Humidity	10% to 90%, Non-condensing
Power, ESD, and Regulatory	
Power Supply Input	100V-240VAC / 50-60 Hz
Power Supply Output	24VDC / 6A
Power Consumption	85 watts (max)
ESD Protection	15kV
Product Regulatory	FCC, CE, RoHS
Power Supply Regulatory	CE, RoHS
Other	
Standard Warranty	5 years
Included Accessories	Quick Install Guide, (3) 3-pin Phoenix connectors, (7) 5-pin Phoenix connectors, (1) 3.5mm Audio Cable (for IR cascading), IR Remote, (1) IR Emitter, (1) IR Receivers, (1) DC24V 6A power supply with US power plug, (2) Rack mount ears with 6 mounting screws, (4) Plastic Cushions
Compatible Transmitters	INT-HD70-TXWP, INT-HD70-TX, AS-1H1V, AS-1H1V-WP-W, AS-2H, AS-2H-WP-W, INT-HD52

Distances and picture quality may be affected by cable grade, cable quality, source and destination equipment, RF and electrical interference, and cable patches.

Technical Specifications- HDBaseT Receiver

Supported Audio and Video	
Video Compliance	HDMI 2.0a, HDCP 2.2, CEC
Output Resolution Support	SMPTE: Up to 4096x2160@60Hz (4:4:4 chroma sub-sampling / 8 bit deep color) VESA: Up to 1920x1200
Embedded Audio	2 Channel Stereo
IR Carrier Frequency Range	33-55kHz at 5 volts
RS232 Baud Rate	up to 115200
HDBaseT Signal Characteristics	
Maximum Distance	70 m (up to 1080p) , 40 m (up to 4K@60Hz / 4:2:0 / 8 bit deep color)
Cable Requirements	Solid core shielded Category 6 F/UTP cable or greater with TIA/EIA-568B crimp pattern
Bandwidth	18Gbps
Chassis and Environmental	
Dimensions (WxHxD)	115 mm x 16 mm x 84 mm (4.5 in x .6 in x 3.3 in)
Shipping Weight	153g (.3 lbs.)
Operating Temperature	0° to +40° C (+32° to +104° F)
Operating Humidity	10% to 90%, Non-condensing
Storage Temperature	-10° to +50° C (+14° to +122° F)
Storage Humidity	10% to 90%, Non-condensing
Power, ESD, and Regulatory	
Power Consumption	14 watts (max)
ESD Protection	15kV
Product Regulatory	FCC, CE, RoHS
Power Supply Regulatory	CE, RoHS
Other	
Standard Warranty	5 years

Distances and picture quality may be affected by cable grade, cable quality, source and destination equipment, RF and electrical interference, and cable patches.

Thank you for your purchase.

For Technical Support please call our toll free number at
800-530-8998 or email us at supportlibav@libav.com

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