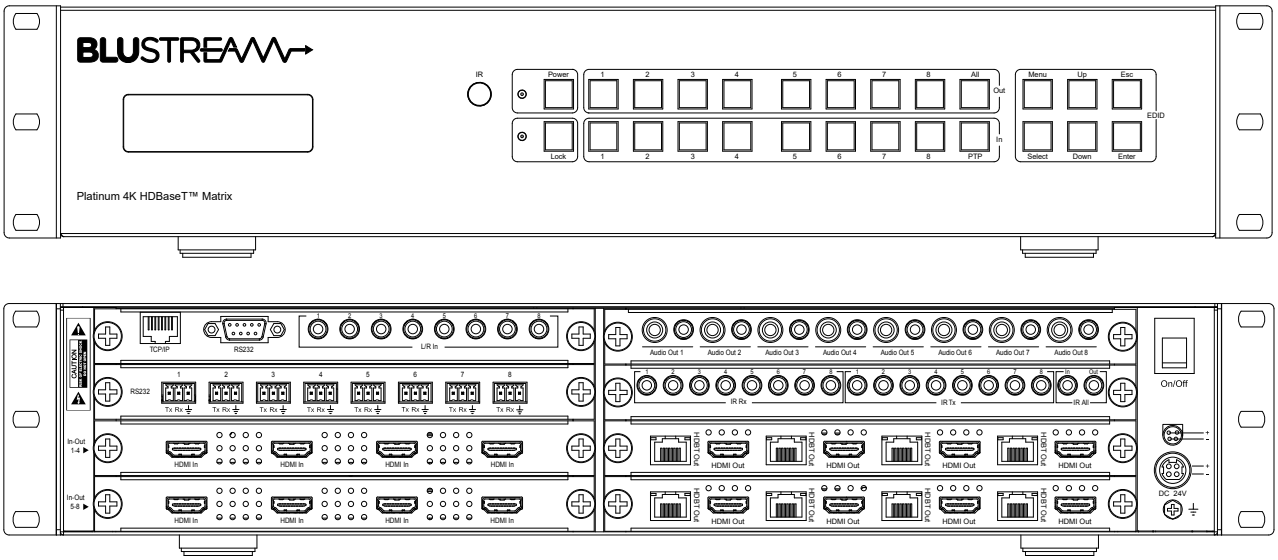


Custom Pro Matrix Solution

User Manual

Thank you for purchasing this product.

For optimum performance and safety, please read these instructions carefully before connecting, operating or adjusting this product. Please keep this manual for future reference.

Surge protection device recommended

This product contains sensitive electrical components that may be damaged by electrical spikes, surges, electric shock, lightning strikes, etc. Use of surge protection systems is highly recommended in order to protect and extend the life of your equipment.

Safety And Performance Notice

The transmission distances of HDMI over UTP cables are measured using TE CONNECTIVITY 1427071-6

EIA/TIA-568-B termination (T568B) of cables is recommended for optimal performance.

To minimise interference of the unshielded twisted pairs in the CAT5e/6/6a cable do not run the HDBaseT / CAT5e/6/6a cabling with or in close parallel proximity to mains power cables.

Do not substitute or use any other power supply other than the enclosed unit, or a Blustream approved replacement.

Do not disassemble either the Transmitter or Receiver units for any reason. Doing so will void the manufacturer's warranty.

Contents

Introduction

The Blustream Custom Pro Matrix achieves new levels of performance and flexibility. AV installers can now easily specify their desired I/O structure and choose the additional control features required for a specific project. The Custom Pro Matrix has been specifically designed to operate in challenging AV environments. Its robust housing and interlocking board configuration make both installation and maintenance a seamless experience. Advanced features include audio breakout, IR routing, simultaneous HDBaseT™/HDMI outputs, RS-232 pass through and a web browser interface module for control and configuration of the matrix (subject to I/O card specification).

Key Features

- 2-Way and 4-Way Interchangeable input & output boards
- Optional control boards; IR Routing, Audio breakout, RS-232
- Supports 4K UHD video up to 40m (3840 x 2160 @30Hz 4:4:4, 4096 x 2160 @24Hz 4:4:4, and 4K @60Hz 4:2:0) and up to 70m 1080p using HDBaseT distribution
- Web browser interface for control and configuration of Matrix
- Control via front panel, IR, RS-232, TCP/IP and IOS/Android apps
- Supports PoH (Power over HDBaseT™) to power compatible HDBaseT™ receivers
- 3rd Party drivers available for all major home control brands
- Advanced EDID management
- HDCP 2.2 compliant

Pro Matrix Solution Modular options

The Blustream Pro Matrix now allows AV installers to easily specify their desired Input/Output structure and choose the additional control features required for a specific project. Available Modular Board options are shown below:

Custom Pro Chassis	
CUSTOMPRO-HUB	Custom Pro Matrix Hub

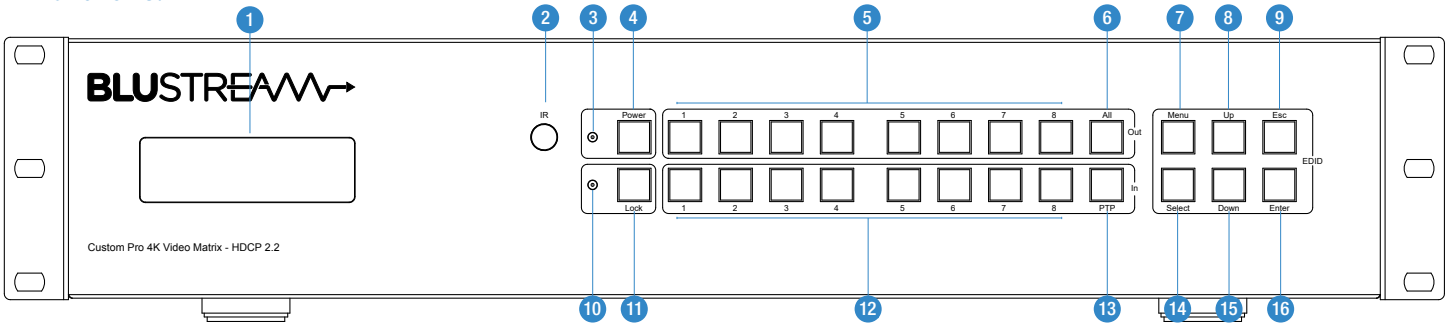
Custom Pro Video Output Boards	
PRO-OUT2H	2-Way HDMI Output Board
PRO-OUT4H	4-Way HDMI Output Board
PRO-OUT2TL	2-Way HDBaseT™ Lite Output Board (70m 1080p)
PRO-OUT4TL	4-Way HDBaseT™ Lite Output Board (70m 1080p)
PRO-OUT4TLS	4-Way HDBaseT™ Lite / HDMI Output Board (70m 1080p)

Custom Pro Video Input Boards	
PRO-IN2H	2-Way HDMI Input Board
PRO-IN4H	4-Way HDMI Input Board

Custom Pro Feature Boards	
PRO-8IR	8-Way IR Control Board
PRO-8RS232	8-Way RS-232 Control Board
PRO-8AB	8-Way Audio Breakout Board

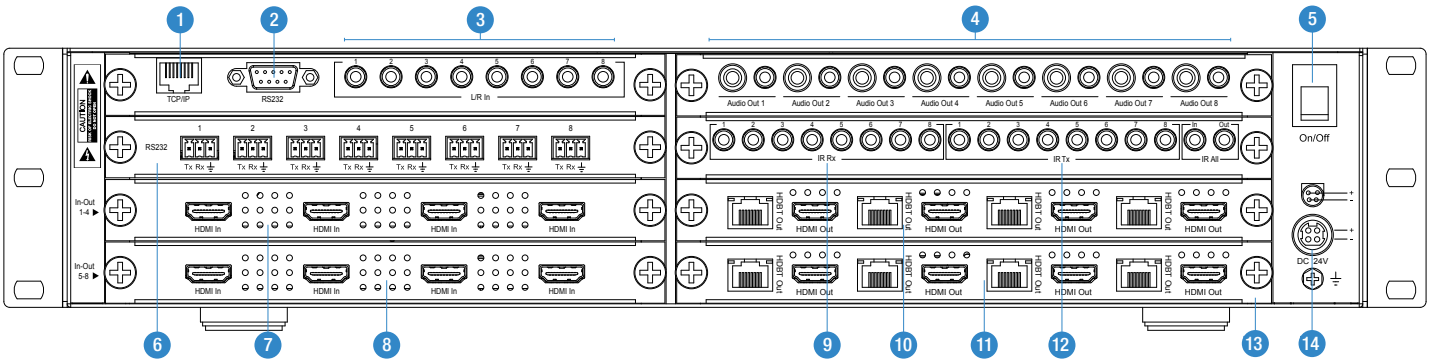
Panel Descriptions

Front Panel



1. LCD display – Shows the status of input/output selection, EDID etc.
2. IR receiver window.
3. Power LED indicator.
4. Power button – Press to power on/off the Matrix.
5. HDMI output selection button 1 to 8 – To select the output from 1 to 8.
6. All button for HDMI outputs – All outputs will work as one (Selects all outputs).
7. Menu button – Press to enter EDID set mode.
8. Up selection button - Press to change segment's value.
9. ESC – Press to quit EDID set mode.
10. Lock indicator.
11. Lock button – Press to lock the buttons of the front panel.
12. HDMI input selection button 1 to 8 – Press to select the input from 1-8.
13. PTP button – Press to mirror all inputs and outputs (e.g. output 1 to input 1, output 2 to input 2).
14. Selection button – Press to select current setting.
15. Down selection button – Press to change segment's value.
16. Enter button – Press to set EDID to specified INPUT or copy EDID from specified OUTPUT to specified INPUT.

Rear Panel



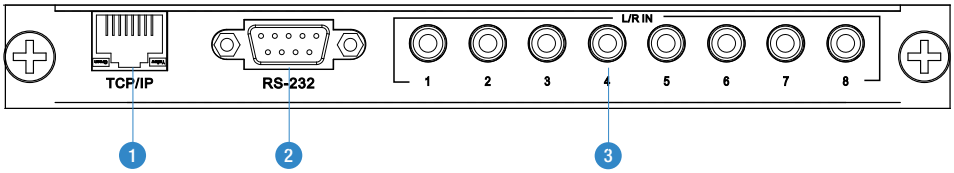
1. TCP/IP (RJ45) – Connect to LAN for TCP/IP & web browser interface control of Matrix.
2. RS-232 port - For control of the Matrix from PC or third party control processor.
3. Analogue L/R line level input (3.5mm stereo jack) Audio can be embedded onto video outputs
4. Audio Output Card (Optional) - Coaxial digital audio output and L/R line level analogue audio outputs (3.5mm stereo jack). Extracted audio will be concurrent with the corresponding HDMI video output. Please note: input must be PCM 2ch audio as Matrix does not down-mix 5.1ch audio signals.
5. Power switch.
6. RS-232 Routing Card (Optional) - Bi-directional RS-232 ports. Connect to third party control device to extend RS-232 commands to HDBaseT receiver's RS-232 port.
7. Video Input Card 1 (Optional) - HDMI inputs – Connect to HDMI sources.
8. Video Input Card 2 (Optional) - HDMI inputs – Connect to HDMI sources.
9. IR Routing Card (Optional) - IR inputs (3.5mm stereo jack). Transmits IR to the zone HDBaseT receiver (displays). When using the IRCAB cable (supplied with modular card) ensure cable direction is correct.
10. Video Output Card 1 (Optional) - HDBaseT/HDMI simultaneous output. Connect to HDBaseT receiver and HDMI display.
11. Video Output Card 2 (Optional) - HDBaseT/HDMI simultaneous output. Connect to HDBaseT receiver and HDMI display.
12. IR Routing Card (Optional) - IR outputs (3.5mm mono jack). Routed IR from HDBaseT extender (zone output).
13. Quick release screw fittings to secure Custom Pro modular boards in place.
14. Power port – Use supplied 24V 6A DC adaptor to power Matrix.

Custom Pro Matrix Modular Options

Each of the Custom Pro Modular Boards feature quick release card module fittings allowing simple installation into the Custom Pro Matrix hub.
The following pages list the Custom Pro Modular Board options available for the CUSTOMPRO-HUB chassis.

Matrix Main Communication Board

The Blustream Custom Pro Matrix Chassis (CUSTOMPRO-HUB) includes a web browser interface module for control and configuration of the matrix, RS-232 for third party control as well as analogue audio embedding per zone.



1. TCP/IP – For control of Matrix (RJ45 Connector)
2. RS-232 2-way (9-pin DB9) for 3rd party control of Matrix.
3. L/R 2CH Analogue input (Audio embedding)

TCP/IP
The Blustream Matrix can be controlled via TCP/IP.
For full list of protocols please see 'RS-232 & Telnet Commands' located at the rear of this manual.
A 'Straight-through' RJ45 patch lead should be used

RS-232 2-Way
The Blustream matrix can be controlled via the 9-pin serial connection.
For full list of 3rd party control protocols please see 'RS-232 & Telnet Commands' located at the rear of this manual.
Details of RS-232 pin assignment and communication are below:

CUSTOM PRO		REMOTE CONTROL CONSOLE	
PIN	Assignment	PIN	Assignment
1	NC	1	NC
2	Tx	2	Rx
3	Rx	3	Tx
4	NC	4	NC
5	GND	5	GND
6	NC	6	NC
7	NC	7	NC
8	NC	8	NC
9	NC	9	NC

Baud Rate: 57600 bps

Data Bit: 8-bit

Parity: None

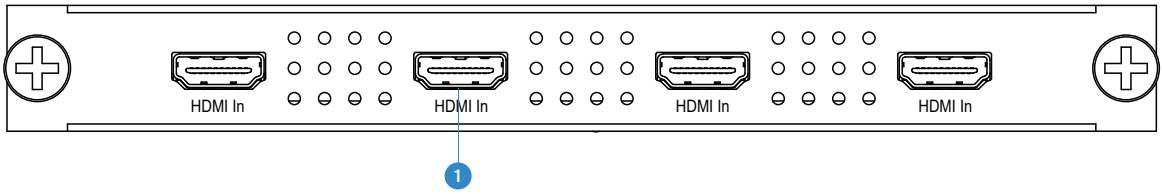
Stop Bit: 1-bit

Flow Control: None

Custom Pro Matrix Input Boards

PRO-IN4H 4 Input HDMI Board

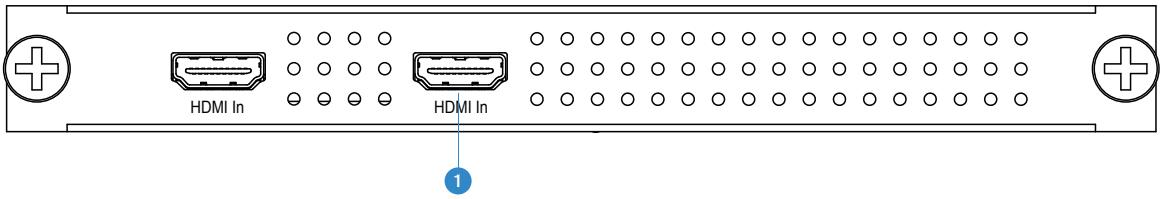
The PRO-IN4H input board offers 4x HDMI sources that can be independently routed to any HDMI/HDBaseT output board.



1. HDMI Inputs

PRO-IN2H 2 Input HDMI Board

The PRO-IN2H input board offers 2x HDMI sources that can be independently routed to any HDMI/HDBaseT output board.

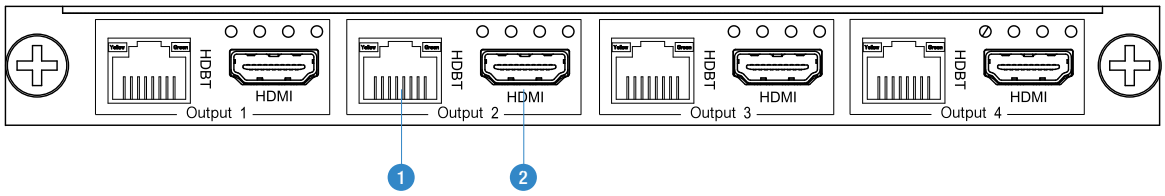


1. HDMI Inputs

Custom Pro Matrix Output Boards

PRO-OUT4TLS 4 Output Dual HDBaseT Lite/HDMI Board

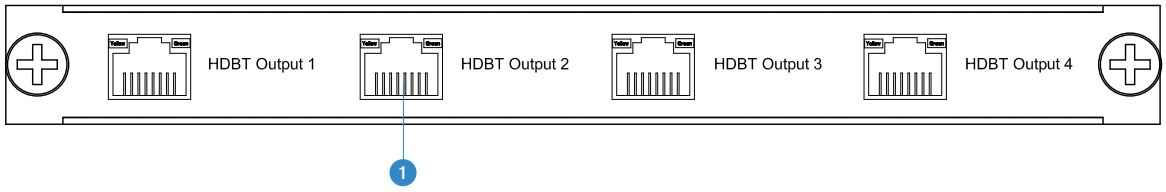
The PRO-OUT4TLS output board offers 4x simultaneous HDMI/HDBaseT™ Lite outputs for connection to a HDBaseT™ receiver and HDMI display per zone.
Note: The PRO-OUT4TLS HDBaseT connections support 1080P up to 70m and 4K up to 40m.
Note: HDMI Outputs are HDMI 1.4 only (Maximum 3840 x 2160 @ 24Hz/25Hz/30Hz and 4096 x 2160 @ 24Hz).



1. HDBaseT Outputs
2. HDMI Outputs

PRO-OUT4TL 4 Output HDBaseT Lite Board

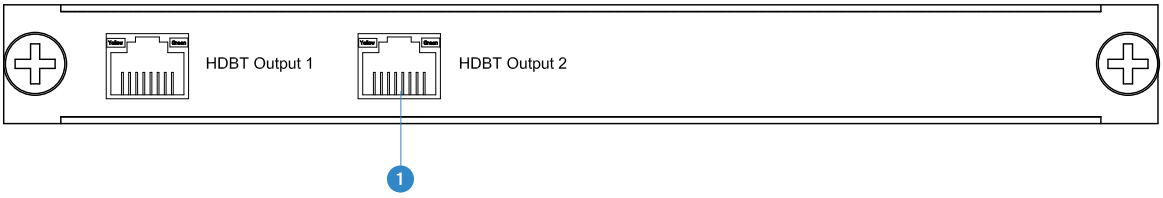
The PRO-OUT4TL output board offers 4x independent HDBaseT™ Lite outputs for connection to HDBaseT™ receiver devices.
Note: The PRO-OUT4TL supports 1080P up to 70m and 4K up to 40m.



1. HDBaseT Outputs

PRO-OUT2TL 2 Output HDBaseT Lite Board

The PRO-OUT2TL output board offers 2x independent HDBaseT™ Lite outputs for connection to HDBaseT™ receiver devices.
Note: The PRO-OUT2TL supports 1080P up to 70m and 4K up to 40m.

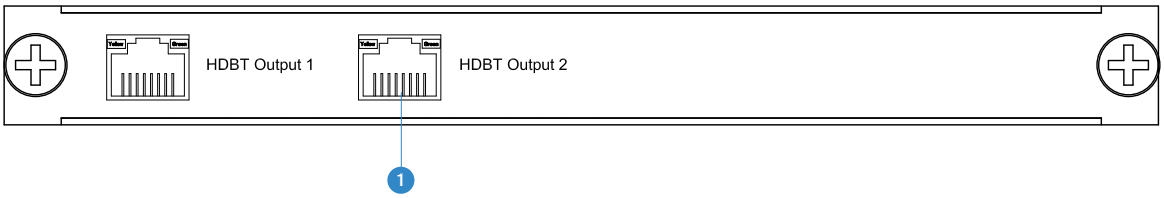


1. HDBaseT Outputs

Custom Pro Matrix Output Boards

PRO-OUT2TL 2 Output HDBaseT Lite Board

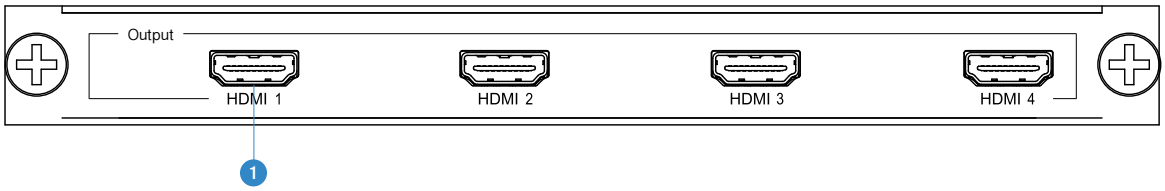
The PRO-OUT2TL output board offers 2x independent HDBaseT™ Lite outputs for connection to HDBaseT™ receiver devices.
Note: The PRO-OUT2TL supports 1080P up to 70m and 4K up to 40m.



1. HDBaseT Outputs

PRO-OUT4H 4 Output HDMI Board

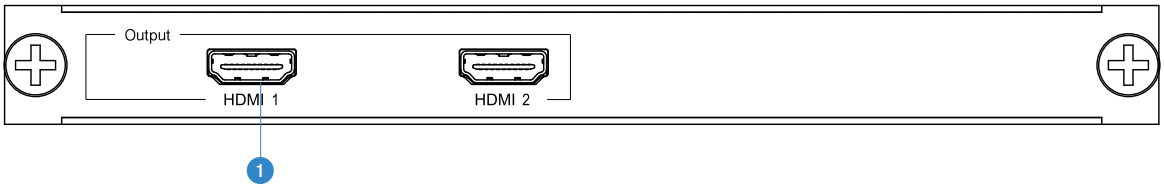
The PRO-OUT4H output board offers 4x independent HDMI outputs for connection to HDMI display devices.
Note: HDMI Outputs are HDMI 1.4 only (Maximum 3840 x 2160 @ 24Hz/25Hz/30Hz and 4096 x 2160 @ 24Hz).



1. HDMI Outputs

PRO-OUT2H 2 Output HDMI Board

The PRO-OUT2H output board offers 2x independent HDMI outputs for connection to HDMI display devices.
Note: HDMI Outputs are HDMI 1.4 only (Maximum 3840 x 2160 @ 24Hz/25Hz/30Hz and 4096 x 2160 @ 24Hz).

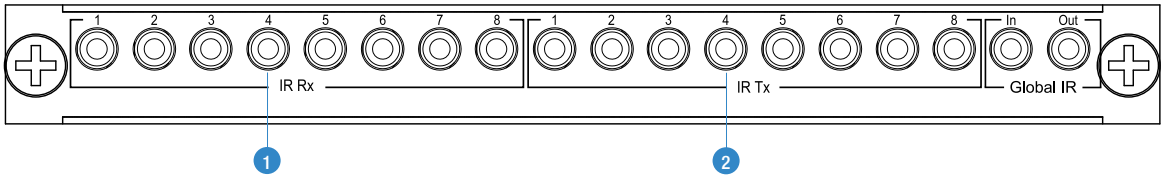


1. HDMI Outputs

Custom Pro Matrix Feature Boards

PRO-8IR Bi-Directional IR Control Board

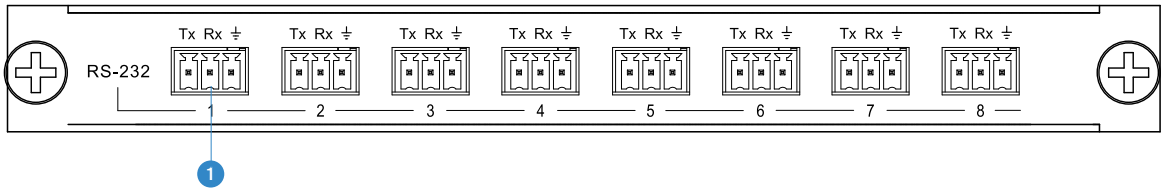
The PRO-8IR IR routing board offers 8x IR outputs for routed control of local source hardware and 8x IR inputs for distribution of IR to compatible HDBaseT™ receivers.



1. 8x 3.5mm Stereo 5V IR inputs for distribution of IR to compatible HDBaseT™ receivers
2. 8x 3.5mm Mono 5V IR outputs for routed control of local source hardware from compatible HDBaseT™ receivers
3. 1x 3.5mm Stereo 5V IR input for global IR control (used for control of Matrix and distribution of IR to all IR TX ports)
4. 1x 3.5mm mono 5V IR output for global IR output (all Matrix/HDBaseT extender IR RX signals will output on the Global IR output)

PRO-8RS232 RS-232 Routing Board

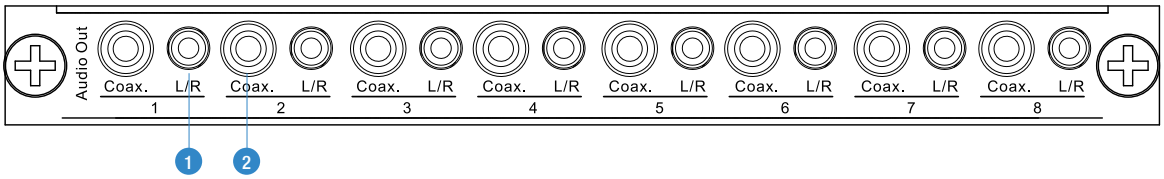
The PRO-8RS232 RS-232 routing board offers 8x bi-directional RS-232 ports for serial communication from all input and output locations when used with compatible HDBaseT™ transmitters & receivers.



1. 3-Pin RS-232 Phoenix Connectors

PRO-8AB Audio Breakout Board

The PRO-8AB audio breakout board offers 8x simultaneous coaxial digital and analogue L/R audio outputs. Note: If using the Analogue audio outputs, the audio input must be PCM 2ch audio as Matrix does not down-mix 5.1ch audio signals.



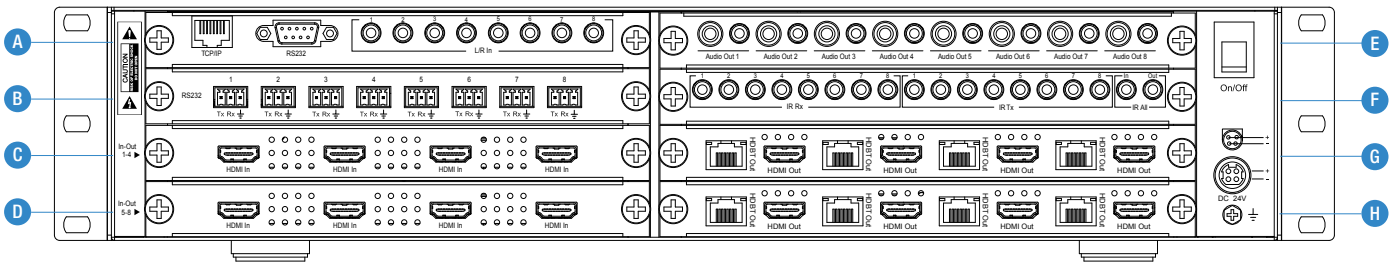
1. Analogue fixed 2CH output 3.5mm stereo jack
2. Coaxial digital output

Installing Modular Matrix Boards

Installing the Modular Matrix boards in the CUSTOMPRO-HUB is a simple process but please note the following:-

1. Please power down the Matrix and remove the external power supply prior to removing or installing and modular boards
2. When installing the Matrix modular boards please make sure the board is located firmly in the chassis and the retaining screws are tightened to fix the board in position
3. The Custom Pro Matrix can only support a maximum of 8x inputs (2x modular boards) and 8x outputs (2x modular boards)

- Matrix input location **A** can only support the Matrix main communication board
- Matrix input location **B** can only support the PRO-8RS232 Bi-directional routing board
- Matrix locations **C** & **D** support all video input boards only
- Matrix input location **E** can only support the PRO-8AB audio breakout board
- Matrix input location **F** can only support the PRO-8IR bi-directional IR control board
- Matrix locations **G** & **H** support all video output boards only



4. Once all Custom Pro Matrix modular boards are installed please connect the external power supply and power the Matrix. The Matrix will auto-configure itself based on the input/output boards installed.
5. Custom configuration of the Matrix can be achieved using the Matrix Web GUI interface. By default the Matrix is set to DHCP so will obtain an IP address based on your router configuration. If you are unsure of the IP address of the Custom Pro Matrix please use the Blustream IOS/Android Matrix app which has an auto-discover feature. If you are not connected to a local network you can connect directly to the Matrix product from your PC using straight RJ45 CAT network patch cable. When the Matrix is not assigned an IP address by a router its default IP address is 192.168.0.200.
6. Default Web GUI login details are:

   User: admin

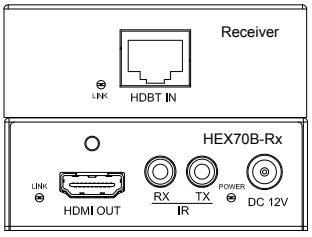
   Password: 1234
7. For further details and instruction on using the Web GUI Interface please download the Blustream 'Web GUI & App Interface Guide' from the dealer area of our Blustream website www.blustream.co.uk

Matrix HDBaseT Receiver Options

There are three HDBaseT receiver options that are compatible with the HDBaseT outputs of the Blustream Pro Matrix:-

HEX70B-RX

Basic HDBaseT Receiver with 2-way IR pass-through. Supports distances up to 40m @ 4K and 70m @ 1080p. HDCP 2.2 compliant.
Note: IR routing requires PRO-8IR board.



HDBaseT input

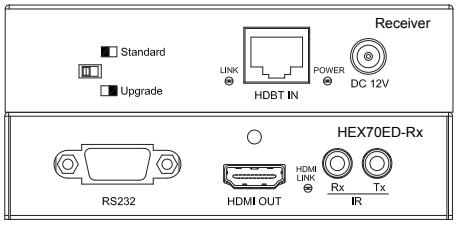
HDMI output

IR Output 3.5mm mono jack

IR Input 3.5mm stereo jack

HEX70ED-RX

Mid-Level HDBaseT receiver which has the same features as the HEX70B-RX receiver but with added 2-way RS-232 control. HDCP 2.2 compliant.
Note: IR routing requires PRO-8IR board. RS-232 routing requires PRO-8RS232 board.



HDBaseT input

HDMI output

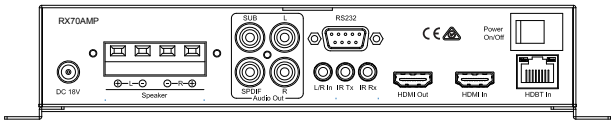
2-way RS-232 (9-pin serial)

IR Output 3.5mm mono jack

IR Input 3.5mm stereo jack

RX70AMP

The RX70AMP is a combination of HDBaseT receiver and Class D digital audio amplifier (30W per channel). The unit has local HDMI and Analogue audio inputs as well as supporting HDMI ARC (Audio Return Channel) with compatible products. Should you wish to use alternate power amplification the unit has variable analogue outputs. Control of the unit is possible via front panel or by bi-directional RS-232 or IR control. Supports distances up to 40m @ 4K and 70m @ 1080p. HDCP 1.4 compliant.
Note: IR routing requires PRO-8IR board. RS-232 routing requires PRO-8RS232 board.



HDBaseT input

HDMI output

HDMI Local input for connection of local source

2.1 Stereo audio output @ 30W per channel (capable of drive 4, 6 & 8 Ohm speakers) & analogue Subwoofer output (RCA)

Variable analogue line level outputs (RCA)

Digital Coaxial S/PDIF output

Local analogue L/R audio input 3.5mm Stereo Jack

2-way RS232 (9-pin serial)

IR Output 3.5mm mono Jack

IR Input 3.5mm stereo Jack

Built-in IR receiver on front panel of unit

Matrix Front Panel Control

Front Panel Display - Input/Output selection

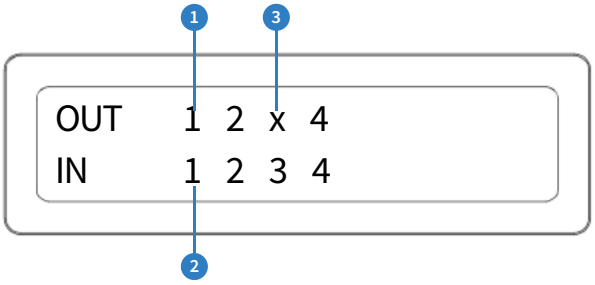
The following display shows current source input selection per zone output.

1. To change input selection first press 'OUTPUT' button (1-4)
2. Press desired 'INPUT' button (1-4)
3. An 'X' indicates that the zone output has been turned off.

   Zones can be turned on/off using RS-232/TCP/IP commands.

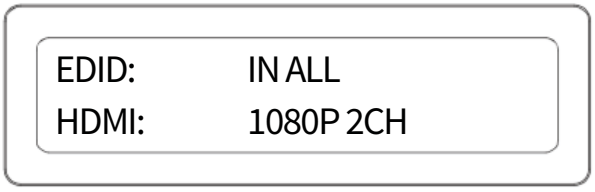
   Zone outputs can be forced back on by powering OFF/ON the Matrix. All outputs will be turned on when powered up.

   Zone outputs can be forced back on by pressing and holding 'OUTPUT 1' button on the front panel for 10 seconds. The Matrix will reset and all outputs will be turned back on.

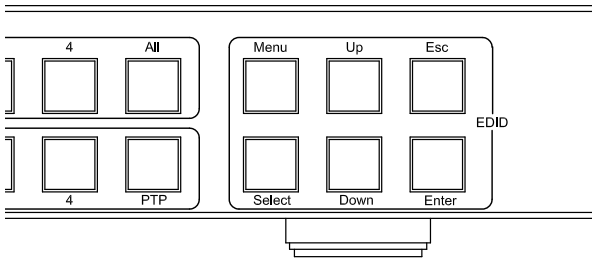


EDID Management - Global or individual input settings

The following characters show adjusting the EDID for 'All' inputs (Global). Current EDID value is set to 1080P & 2CH audio.



To change the input signal type using the Matrix front panel buttons press the following:-



Using Matrix Front Panel Buttons

a. Press MENU button
b. Panel will display 'EDID settings'. Press SELECT button
c. Select the input you wish to fix the EDID on (1-8) or select 'All'. Use UP/DOWN buttons to toggle selection and SELECT button to confirm
d. Select video resolution required (4K, 1080p, 3D etc). Use UP/DOWN buttons to toggle selection and SELECT button to confirm
e. Select audio resolution required (2CH, 5.1 or 7.1). Use UP/DOWN buttons to toggle selection and SELECT button to confirm
f. Press the ESC button to exit

EDID Control

EDID (Extended Display Identification Data) is a data structure that is used between a display and a source. This data is used by the source to find out what audio and video resolutions are supported by the display then from this information the source will discover what the best audio and video resolutions need to be outputted.

While the objective of EDID is to make connecting a digital display to a source a simple plug and play procedure issues do arise when multiple displays or video matrix switching is introduced because of the increased number of variables.

By pre-determining the video resolution and audio format of the source and display device you can reduce the time need for EDID hand shaking thus making switching quicker and more reliable.

Configuration of Matrix EDID settings can be achieved in one of three ways:-

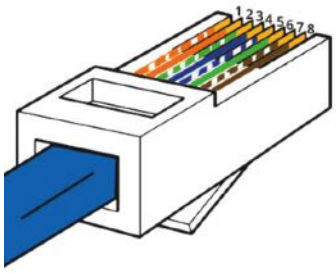
1. Using Matrix web browser interface (See 'Blustream Web Browser Interface Guide' for further details available at www.blustream.co.uk)
2. Using Matrix Front Panel Buttons (For further details see page 12)
3. Using Supplied Blustream Matrix IR Remote Control (For further details see page 16)

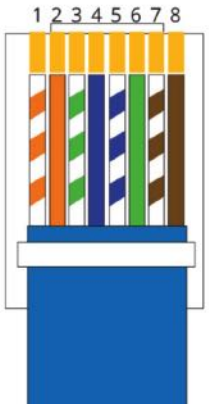
Terminating HDBaseT CAT cable

It is important that the interconnecting CAT cable between the Blustream HDBaseT products is terminated using the correct RJ45 pin configuration. The link CAT cable MUST be a 'straight' (pin-to-pin) CAT cable and it is advised that this is wired to the T568B wiring standard as this format is less prone to EMI (Electro-Magnetic Interference).

When installing CAT cables it is advised that you use the best possible CAT cable quality possible. HDMI distribution products will only work if used with CAT5e standard cable or above. Blustream recommends using a CAT6 cable for your installations, especially when running over longer distances, in areas of high EMI, or for 4K signal distribution. It is advised that using any method of patch panel, wall plate or join in the CAT cable is avoided as these will result in HDBaseT signal degradation. Blustream also recommend using the best quality RJ45 connectors possible.

RJ45 Wiring - T568B





Understanding the Matrix / Receiver HDBaseT status lights

The Blustream Matrix and HDBaseT extender solutions include status LED indicators on both the Matrix and Receiver products to show all connections are active and to help diagnose possible problems.

Understanding the status lights:-

Blustream Matrix:

- The Yellow HDBaseT status link light will be off when the zone output has been turned off or there is a problem with the specific Matrix output.
- The Yellow HDBaseT status link light will blink when the zone output is on and working
- The Green HDBaseT link light will blink if there is an unstable connection between the Blustream Matrix and HDBaseT Receiver
- The Green HDBaseT link light will be lit when a there is an active HDBaseT Receiver connected to the Matrix
- The Green HDBaseT link light will be off when a there is no connection with a HDBaseT receiver

Blustream HDBaseT Receiver:

- The HDMI link light will be off when there is no connection with a display
- The HDMI link light will be on when there is an active connection with a display (NOTE - Not all HDBaseT RX feature a HDMI status LED)
- The HDBaseT link light will be off when there is no CAT cable/active HDBaseT connection on the RJ45 HDBaseT input
- The HDBaseT link light will blink if there is an unstable connection between the Blustream Matrix and HDBaseT receiver
- The HDBaseT link light will be lit when a CAT cable is connected to the HDBaseT RJ45 output on the Matrix and an active connection is achieved with the Blustream HDBaseT Receiver.

Infrared (IR) Distribution

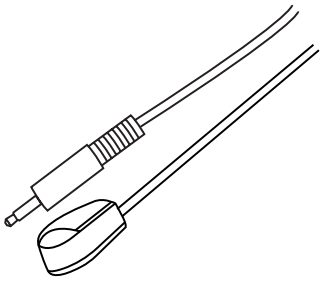
The Blustream range of matrix products include multiple options for control and routing of IR.

IMPORTANT: Blustream Infrared products are all 5v and NOT compatible with alternative manufacturers Infrared solutions. When using third party 12v IR control solutions please use supplied Blustream IRCAB cable for IR conversion.

The Blustream PRO-8IR Modular Board is supplied with all necessary IR hardware required and includes:

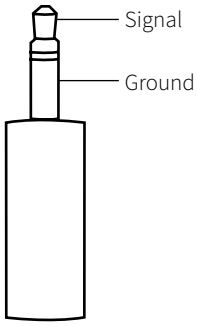
IR Emitter - IRE1 & IRE2 (IRE2 sold separately)

Blustream 5V IR Emitter designed for discrete IR control of hardware



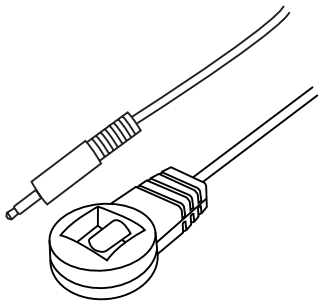
Infrared 3.5mm Pin-Out

IR Emitter - Mono 3.5mm

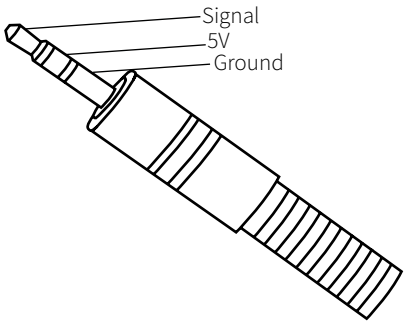


IR Receiver - IRR

Blustream 5V IR receiver to receive IR signal and distribute through Blustream products



IR Receiver - Stereo 3.5mm

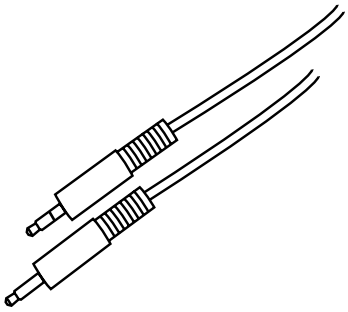


IR Control Cable - IRCAB

Blustream IR Control cable 3.5mm Mono to 3.5mm Stereo for linking third party control solutions to Blustream products.

Compatible with 12v IR third party products.

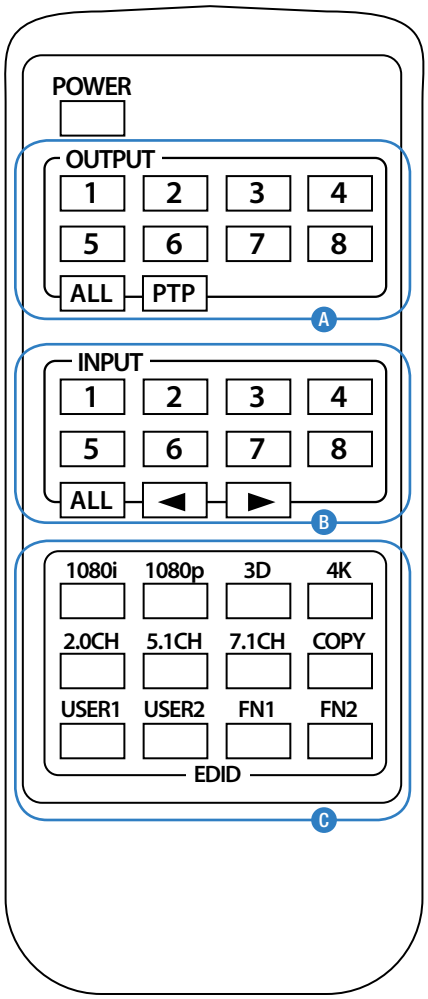
Note: Cable is directional as indicated



Infrared (IR) Control

The Blustream Pro Series matrix units are supplied with IR Remote Control for source selection and general setup. As well as controlling matrix solutions using the original Blustream remote the Blustream products can be controlled using the original Infrared NEC codes shown at the rear of this manual.

Remote Control Description



OUTPUT AND INPUT SELECTION

A Select the zone OUTPUT you wish to change the source on (Numbers 1-8 correspond to the zone outputs 1-8).

B Select the source INPUT you wish to change on the selected zone to
(Numbers 1-8 corresponds to the source inputs 1-8)

C Press PTP button If you wish to instantly mirror all inputs and outputs
(Example - Input 1 to output 1, input 2 to output 2 etc).

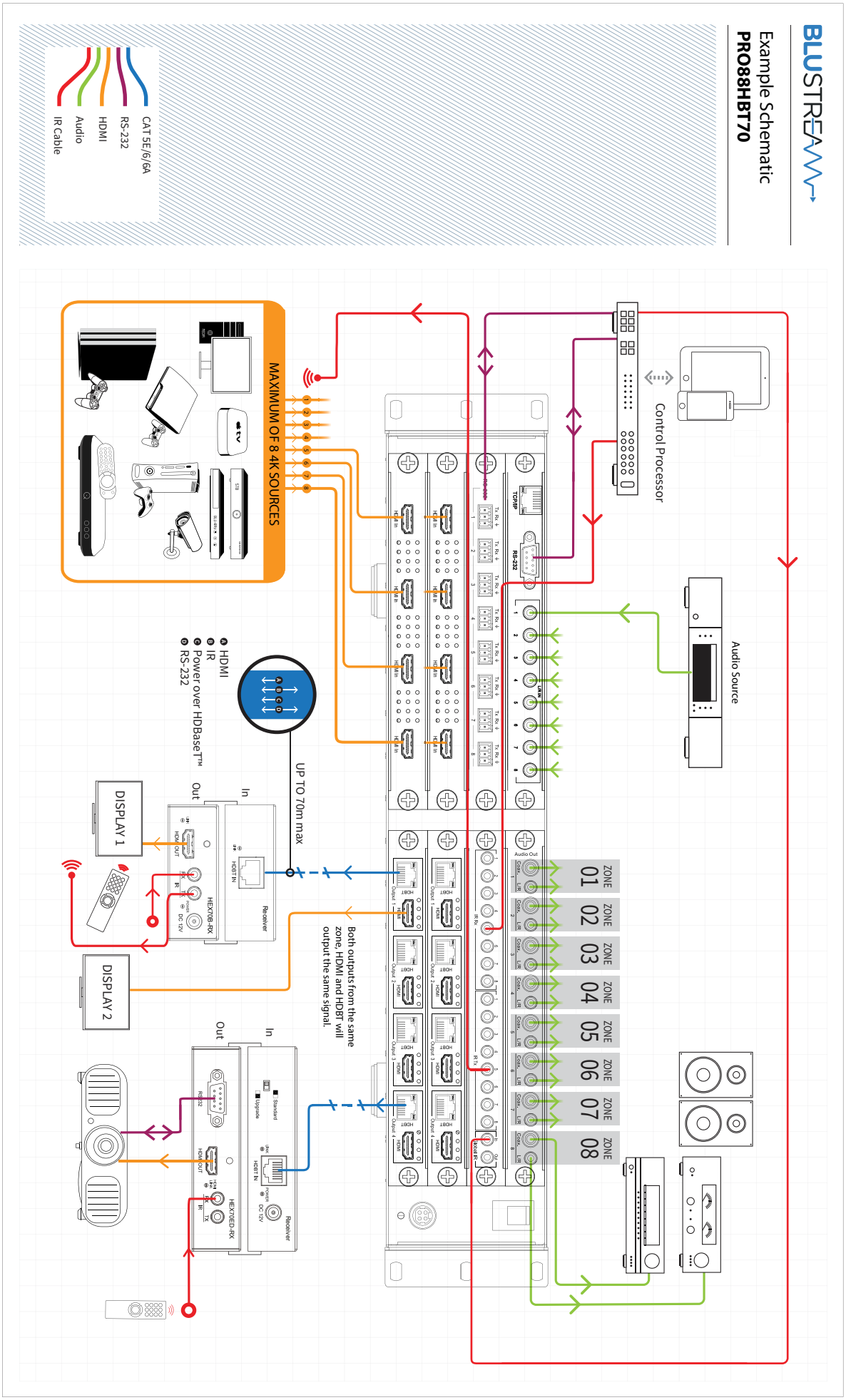
EDID SET UP

The Custom Pro Matrix provides a comprehensive range of EDID settings. Below are three examples of how to deploy the desired EDID setting when using the supplied remote.

A. Fix EDID to an Input or ALL inputs: Press the desired video resolution button (1080I / 1080P / 3D / 4K), then select the desired audio format (2.0CH / 5.1CH / 7.1CH), then select the source input you want this EDID information allocated to by pressing the INPUT 1–4 or the ALL button.

B. Copy EDID of Output-X to an Input or ALL: Press the COPY button then select the OUTPUT you wish to copy the EDID information from, then select the source input you want to copy this EDID to by selecting the INPUT 1-4 or the ALL button.

C. User defined EDID to an Input or ALL inputs: Press USER1 / USER2 button then select the source you wish to assign this EDID to by selecting INPUT 1-4 or the ALL button.


BLUSTREAM
Example Schematic
PRO88HBT70
CAT 5E/6/6A
RS-232
HDMI
Audio
IR Cable
Control Processor
Audio Source
MAXIMUM OF 8 4K SOURCES
HDMI
IR
Power over HDBaseT™
RS-232
UP TO 70m max
DISPLAY 1
DISPLAY 2
Both outputs from the same zone, HDMI and HDBT will output the same signal.
ZONE 01
ZONE 02
ZONE 03
ZONE 04
ZONE 05
ZONE 06
ZONE 07
ZONE 08

Specifications

CUSTOMPRO-HUB modular chassis

Audio Input Connections: 8x 3.5mm stereo jack

RS-232 serial port: 1x DB-9, female

TCP/IP Control: 1x RJ45, female

Rack-Mountable: 2U rack height, rack ears included

Casing Dimensions (W x D x H): 440mm x 283mm x 87mm, without feet

Dimensions (W x D x H): 440mm x 291mm x 94mm, with feet

Shipping Weight: 5.5kg

Operating Temperature: 32°F to 104°F (0°C to 40°C)

Storage Temperature: -4°F to 140°F (-20°C to 60°C)

Power Supply: 1x 24V/6A DC

Custom Pro Feature Boards

PRO-8IR Bi-Directional IR Control Board

IR Input ports: 9x 5V 3.5mm stereo jack

IR Output ports: 9x 5V 3.5mm mono jack

Dimensions (W x D x H): 202mm x 177mm x 22mm

Shipping Weight: 0.5kg

Operating Temperature: 32°F to 104°F (0°C to 40°C)

Storage Temperature: -4°F to 140°F (-20°C to 60°C)

PRO-8AB Audio Breakout Board

Audio Output Connections: 8x RCA (SPDIF)
8x 3.5mm stereo jack (L/R)

Dimensions (W x D x H): 202mm x 177mm x 22mm

Shipping Weight: 0.5kg

Operating Temperature: 32°F to 104°F (0°C to 40°C)

Storage Temperature: -4°F to 140°F (-20°C to 60°C)

PRO-8RS232 RS-232 Routing Board

RS-232 serial port: 8x 3 pin Phoenix

Dimensions (W x D x H): 190mm x 177mm x 22mm

Shipping Weight: 0.5kg

Operating Temperature: 32°F to 104°F (0°C to 40°C)

Storage Temperature: -4°F to 140°F (-20°C to 60°C)

Custom Pro Video Input Boards

PRO-IN4H 4 Input HDMI Board

Video Input Connections: 4x HDMI type A, 19-pin, female

Dimensions (W x D x H): 190mm x 177mm x 22mm

Shipping Weight: 0.5kg

Operating Temperature: 32°F to 104°F (0°C to 40°C)

Storage Temperature: -4°F to 140°F (-20°C to 60°C)

PRO-IN2H 2 Input HDMI Board

Video Input Connections: 2x HDMI type A, 19-pin, female

Dimensions (W x D x H): 190mm x 177mm x 22mm

Shipping Weight: 0.5kg

Operating Temperature: 32°F to 104°F (0°C to 40°C)

Storage Temperature: -4°F to 140°F (-20°C to 60°C)

Custom Pro Video Output Boards

PRO-OUT4H 4 Output HDMI Board

Video Output Connections: 4x HDMI type A, 19-pin, female

Dimensions (W x D x H): 202mm x 177mm x 22mm

Shipping Weight: 0.5kg

Operating Temperature: 32°F to 104°F (0°C to 40°C)

Storage Temperature: -4°F to 140°F (-20°C to 60°C)

PRO-OUT4TL 4 Output HDBaseT Lite Board

Video Output Connections: 4x HDBaseT RJ45

Dimensions (W x D x H): 202mm x 177mm x 22mm

Shipping Weight: 0.5kg

Operating Temperature: 32°F to 104°F (0°C to 40°C)

Storage Temperature: -4°F to 140°F (-20°C to 60°C)

PRO-OUT4TLS 4 Output Dual HDBaseT Lite/HDMI Board

Video Output Connections: 4x HDBaseT RJ45
4x HDMI type A, 19-pin, female

Dimensions (W x D x H): 202mm x 177mm x 22mm

Shipping Weight: 0.5kg

Operating Temperature: 32°F to 104°F (0°C to 40°C)

Storage Temperature: -4°F to 140°F (-20°C to 60°C)

PRO-OUT2H 2 Output HDMI Board

Video Output Connections: 2x HDMI type A, 19-pin, female

Dimensions (W x D x H): 202mm x 177mm x 22mm

Shipping Weight: 0.5kg

Operating Temperature: 32°F to 104°F (0°C to 40°C)

Storage Temperature: -4°F to 140°F (-20°C to 60°C)

PRO-OUT2TL 2 Output HDBaseT Lite Board

Video Output Connections: 2x HDBaseT RJ45

Dimensions (W x D x H): 202mm x 177mm x 22mm

Shipping Weight: 0.5kg

Operating Temperature: 32°F to 104°F (0°C to 40°C)

Storage Temperature: -4°F to 140°F (-20°C to 60°C)

NOTE: *Specifications are subject to change without notice. Weight details are approximate and will alter per model.*

Package Contents:

CUSTOMPRO-HUB

- 1 x CUSTOMPRO-HUB
- 1 x Rack mounting kit
- 1 x 24V/6A power supply
- 1 x Remote control
- 1 x Quick reference guide

PRO-8IR

- 1x PRO-8IR
- 9x IR emitter
- 9x IR receiver.
- 9x IR 3.5-3.5mm stereo to mono, 12v to 5v interface cable

PRO-8RS232

- 1x PRO-8RS232
- 8x 3-Pin Phoenix serial connector

PRO-8AB

- 1x PRO-8AB

PRO-IN4H

- 1x PRO-IN4H

PRO-IN2H

- 1x PRO-IN2H

PRO-OUT4H

- 1x PRO-OUT4H

PRO-OUT2H

- 1x PRO-OUT2H

PRO-OUTTL

- 1x PRO-OUT4TL

PRO-OUT2TL

- 1x PRO-OUT2TL

PRO-OUT4TLS

- 1x PRO-OUT4TLS

Maintenance

Clean this unit with a soft, dry cloth. Never use alcohol, paint thinner or benzene to clean this unit.

IR commands

NEC Customer Code = 1898
Advanced Matrix features are not available via IR commands

COMMAND	NEC	HEX
POWER	0X14	0000 0069 0000 002a 0150 00a8 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 003f 0015 0015 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 003f 0015 0015 0015 003f 0015 003f 0015 003f 0015 05d3
OUTPUT 1	0X09	0000 0069 0000 002a 0150 00a8 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 0015 0015 0015 0015 003f 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 003f 0015 003f 0015 003f 0015 003f 0015 05d3
OUTPUT 2	0X1d	0000 0069 0000 002a 0150 00a8 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 0015 0015 003f 0015 003f 0015 003f 0015 0015 0015 0015 0015 0015 0015 0015 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 003f 0015 05d3
OUTPUT 3	0X1f	0000 0069 0000 002a 0150 00a8 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 003f 0015 003f 0015 003f 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 003f 0015 05d3
OUTPUT 4	0X0d	0000 0069 0000 002a 0150 00a8 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 003f 0015 0015 0015 0015 0015 003f 0015 003f 0015 003f 0015 003f 0015 05d3
OUTPUT 5	0X19	0000 0069 0000 002a 0150 00a8 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 003f 0015 003f 0015 003f 0015 05d3
OUTPUT 6	0X1b	0000 0069 0000 002a 0150 00a8 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 003f 0015 0015 0015 0015 0015 003f 0015 003f 0015 003f 0015 05d3
OUTPUT 7	0X11	0000 0069 0000 002a 0150 00a8 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 003f 0015 0015 0015 003f 0015 003f 0015 003f 0015 05d3
OUTPUT 8	0X15	0000 0069 0000 002a 0150 00a8 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 0015 0015 003f 0015 0015 0015 003f 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 003f 0015 0015 0015 003f 0015 0015 0015 003f 0015 003f 0015 003f 0015 05d3
OUTPUT ALL	0X17	0000 006D 0000 0022 0157 00AC 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 003F 0016 003F 0016 003F 0016 003F 0016 0016 0016 003F 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 003F 0016 0016 0016 003F 0016 003F 0016 003F 0016 0689
OUTPUT PTP	0X12	0000 006D 0000 0022 0157 00AC 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 003F 0016 0016 0016 003F 0016 0016 0016 0016 0016 003F 0016 0016 0016 0016 0016 0016 0016 003F 0016 0016 0016 003F 0016 003F 0016 0016 0016 003F 0016 003F 0016 003F 0016 0689

COMMAND	NEC	HEX
INPUT 1	0X50	0000 0069 0000 002a 0150 00a8 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 003f 0015 0015 0015 003f 0015 0015 0015 003f 0015 003f 0015 003f 0015 003f 0015 0015 0015 003f 0015 0015 0015 003f 0015 05d3
INPUT 2	0X55	0000 0069 0000 002a 0150 00a8 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 0015 0015 003f 0015 0015 0015 003f 0015 0015 0015 003f 0015 0015 0015 0015 0015 003f 0015 0015 0015 003f 0015 0015 0015 003f 0015 0015 0015 003f 0015 05d3
INPUT 3	0X48	0000 0069 0000 002a 0150 00a8 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 003f 0015 0015 0015 0015 0015 003f 0015 0015 0015 003f 0015 003f 0015 003f 0015 0015 0015 003f 0015 003f 0015 0015 0015 003f 0015 05d3
INPUT 4	0X4a	0000 0069 0000 002a 0150 00a8 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 0015 0015 0015 0015 003f 0015 0015 0015 003f 0015 0015 0015 0015 0015 003f 0015 0015 0015 003f 0015 0015 0015 003f 0015 0015 0015 003f 0015 003f 0015 0015 0015 003f 0015 05d3
INPUT 5	0X5e	0000 0069 0000 002a 0150 00a8 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 003f 0015 003f 0015 0015 0015 003f 0015 0015 0015 003f 0015 0015 0015 0015 0015 0015 0015 0015 0015 003f 0015 0015 0015 003f 0015 05d3
INPUT 6	0X06	0000 0069 0000 002a 0150 00a8 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 003f 0015 0015 0015 0015 0015 003f 0015 003f 0015 003f 0015 003f 0015 003f 0015 05d3
INPUT 7	0X05	0000 0069 0000 002a 0150 00a8 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 0015 0015 003f 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 003f 0015 0015 0015 003f 0015 003f 0015 003f 0015 003f 0015 003f 0015 05d3
INPUT 8	0X03	0000 0069 0000 002a 0150 00a8 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 0015 003f 0015 003f 0015 003f 0015 003f 0015 003f 0015 003f 0015 05d3
INPUT ALL	0X47	0000 006D 0000 0022 0157 00AC 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 003F 0016 003F 0016 003F 0016 003F 0016 0016 0016 0016 0016 0016 0016 003F 0016 0016 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 003F 0016 0016 0016 003F 0016 0689
INPUT DOWN	0X07	0000 006D 0000 0022 0157 00AC 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 003F 0016 003F 0016 003F 0016 003F 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 003F 0016 003F 0016 003F 0016 0689
INPUT UP	0X40	0000 006D 0000 0022 0157 00AC 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 003F 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 003F 0016 0016 0016 003F 0016 003F 0016 003F 0016 003F 0016 003F 0016 003F 0016 0016 0016 003F 0016 0689

COMMAND	NEC	HEX
1080i	0X18	0000 006D 0000 0022 0157 00AC 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 0016 003F 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 003F 0016 0016 0016 0016 0016 003F 0016 003F 0016 003F 0016 0689
1080p	0X44	0000 006D 0000 0022 0157 00AC 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 003F 0016 0016 0016 0016 0016 003F 0016 0016 0016 0016 0016 0016 0016 003F 0016 0016 0016 003F 0016 003F 0016 0016 0016 003F 0016 003F 0016 003F 0016 0016 0016 003F 0016 0689
3D	0X0F	0000 006D 0000 0022 0157 00AC 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 003F 0016 0016 0016 0016 0016 003F 0016 0016 0016 0016 0016 0016 0016 003F 0016 0016 0016 003F 0016 003F 0016 0016 0016 003F 0016 003F 0016 003F 0016 0016 0016 003F 0016 0689
4K	0X51	0000 006D 0000 0022 0157 00AC 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 003F 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 0016 0016 003F 0016 0016 0016 003F 0016 0016 0016 0016 0016 003F 0016 003F 0016 003F 0016 0016 0016 003F 0016 0016 0016 003F 0016 0689
2.0CH Audio	0X0A	0000 006D 0000 0022 0157 00AC 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 003F 0016 0016 0016 003F 0016 0016 0016 003F 0016 0016 0016 0016 0016 0016 0016 0016 003F 0016 0016 0016 003F 0016 0016 0016 003F 0016 003F 0016 003F 0016 003F 0016 0689
5.1CH Audio	0X1E	0000 006D 0000 0022 0157 00AC 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 003F 0016 0016 0016 003F 0016 003F 0016 003F 0016 003F 0016 0016 0016 0016 0016 0016 0016 0016 003F 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 003F 0016 0689
7.1CH Audio	0X0E	0000 006D 0000 0022 0157 00AC 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 003F 0016 0016 0016 003F 0016 003F 0016 003F 0016 0016 0016 0016 0016 0016 0016 0016 003F 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 003F 0016 003F 0016 0689
Copy EDID	0X1A	0000 006D 0000 0022 0157 00AC 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 003F 0016 0016 0016 003F 0016 003F 0016 003F 0016 0016 0016 0016 0016 0016 0016 0016 003F 0016 0016 0016 003F 0016 0016 0016 0016 0016 003F 0016 003F 0016 003F 0016 0689
User 1	0X53	0000 006D 0000 0022 0157 00AC 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 003F 0016 003F 0016 003F 0016 0016 0016 0016 0016 003F 0016 0016 0016 003F 0016 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 003F 0016 0016 0016 003F 0016 0689

COMMAND	NEC	HEX
User 2	0X52	0000 006D 0000 0022 0157 00AC 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 003F 0016 0016 0016 003F 0016 0016 0016 0016 0016 003F 0016 0016 0016 003F 0016 0016 0016 003F 0016 003F 0016 0016 0016 003F 0016 0016 0016 003F 0016 0689
User 3	0X01	0000 006D 0000 0022 0157 00AC 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 003F 0016 003F 0016 0689
User 4	0X45	0000 006D 0000 0022 0157 00AC 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 0016 0016 003F 0016 003F 0016 0016 0016 003F 0016 0016 0016 0016 0016 0016 0016 003F 0016 0016 0016 0016 0016 003F 0016 0016 0016 003F 0016 003F 0016 003F 0016 0016 0016 003F 0016 0689

RS-232 and Telnet Commands

The Blustream Custom Pro Matrix products can be controlled via serial and TCP/IP. The following pages list all available serial commands for the Custom Pro Matrix. Details of RS-232 pin assignment can be found on page 5.

Commonly used Serial commands:

There are several commands that are commonly used for control and testing:-

STATUS	Status will give feedback on Matrix such as zones on, type of connection etc
PON	Power on
POFF	Power off
OUTxxON	(xx is the zone number you wish to turn on)
Example:-	OUT01ON (This would turn output one back on)
OUTxxFRyy	(xx is the zone out, yy is the input)
Example:-	OUT01FR04 (This would switch output 1 to source input 4)

Common Mistakes

- Carriage return – Some programs do not require the carriage return where as other will not work unless sent directly after the string. In the case of some Terminal software the token <CR> is used to execute a carriage return. Depending on the program you are using this token maybe different. Some other examples that other control systems deploy include \r or 0D (in hex)

- Spaces – Blustream commands do not require space between commands unless specified. There may be some programs that require spacing in order to work.

  - How the string should look is as follows OUT01ON

  - How the string may look if spaces are required: OUT{Space}01{Space}ON

- Baud rate or other serial protocol settings not correct - please see Page 5 for Matrix settings

RS-232 and Telnet Commands

NO.	COMAND	ACTION
1	?	Print Help Information
2	HELP	Print Help Information
3	STATUS	Print System Status And Port Status
4	PON	Power On, System Run On Normal State
5	POFF	Power Off, System Run On Power Save State
6	IR ON/OFF	Set System IR Control On Or Off
7	KEY ON/OFF	Set System KEY Control On Or Off
8	APM ON/OFF	Set Advanced Process Mode On Or Off
9	BEEP ON/OFF	Set Onboard Beep On Or Off
10	RESET RESET ALL	Reset System To Default Setting (Should Type "Yes" To Confirm, "No" To Discard) Reset System And Network To Default Setting
11	MXIR xx FR yy Output Port IR:xx From Local IR:yy	xx=[00]: All Output IR, [01...08]: Output IR yy=[01...08] Local IR
12	MXIR GI (+-)xx Global IR_IN Signal To Input/ Output IR:xx	xx=[01...08]: Input IR, [09...16]: Local IR xx=[17...24]: Output IR +: Add xx To Current Setting -: Remove xx From Current Setting
13	MXIR GO (+-)xx Global IR_OUT Signal From Input/Output IR:xx	xx=[01...08]: Input IR, [09...16]: Local IR xx=[17...24]: Output IR, [25]: Global IR In +: Add xx To Current Setting -: Remove xx From Current Setting
14	MXRS-232 xx TO yy Local RS-232:xx Connect To Input/ Output RS-232:yy	xx=[01...08]: Local RS-232, [09]: Global RS-232 yy=[00]: Disconnect With Any RS-232 yy=[01...08]: Input RS-232, [09...16]: Output RS-232
15	MXSTA	Print Matrix IR And RS-232 Connect State
16	AUD STA	Print Input/Output Port Audio Setting State
17	AUD IN xx ORG	Input Port:xx Use Original Receive HDMI/DVI Signal

NO.	COMAND	ACTION
18	AUD IN xx ANA	Input Port:xx Insert Stereo To HDMI/DVI Signal
19	AUD IN xx AUTO	Input Port:xx Insert Stereo To DVI Signal Only xx==[00]: All Input Port, [01...08]: Input Port
20	POH TX xx ON/OFF	Output xx turn ON/OFF POH (Keeps Zone active but cuts POH for when output is connected to third party HDBaseT hardware
21	OUT xx ON/OFF	Set OUTPUT:xx On Or Off
22	OUT xx FR yy	Set OUTPUT:xx From INPUT:yy
23	OUT xx EH/ET	Set OUTPUT:xx Use HDMI/HDBT EDID xx=[00]: All OUTPUT Port, [01...08]: OUTPUT Port yy=[01...08]: INPUT Port
24	MUTE ON/OFF OUT yy	Set Output Audio: yy Mute ON or OFF
25	NET DHCP ON/OF	Set Auto IP(DHCP) ON Or OFF
26	NET IP xxx.xxx. xxx.xxx	Set IP Address
27	NET GW xxx.xxx. xxx.xxx	Set Gateway Address
28	NET SM xxx.xxx. xxx.xxx	Set Subnet Mask Address
29	NET RB	Set Network Reboot and Apply New Config!!!
30	NET TN xxxx	Set Telnet Port

NO.	COMAND	ACTION
31	EDID xx CP yy	Set Input:xx EDID Copy From Output:yy
32	EDID xx DF zz	Set Input:xx EDID To Default EDID:zz xx=[00]: All INPUT Port, [01...06]: INPUT Port yy=[01...06]: OUTPUT Port zz=00: HDMI 1080p@60Hz, Audio 2CH PCM zz=01: HDMI 1080p@60Hz, Audio 5.1CH DTS/DOLBY zz=02: HDMI 1080p@60Hz, Audio 7.1CH DTS/DOLBY/HD zz=03: HDMI 1080i@60Hz, Audio 2CH PCM zz=04: HDMI 1080i@60Hz, Audio 5.1CH DTS/DOLBY zz=05: HDMI 1080i@60Hz, Audio 7.1CH DTS/DOLBY/HD zz=06: HDMI 1080p@60Hz/3D, Audio 2CH PCM zz=07: HDMI 1080p@60Hz/3D, Audio 5.1CH DTS/DOLBY zz=08: HDMI 1080p@60Hz/3D, Audio 7.1CH DTS/DOLBY/HD zz=09: HDMI 4K@30Hz 4:4:4, Audio 2CH PCM zz=10: HDMI 4K@30Hz 4:4:4, Audio 5.1CH DTS/DOLBY zz=11: HDMI 4K@30Hz 4:4:4, Audio 7.1CH DTS/DOLBY/HD zz=12: DVI 1280x1024@60Hz, Audio None zz=13: DVI 1920x1080@60Hz, Audio None zz=14: DVI 1920x1200@60Hz, Audio None zz=15: User EDID 1 zz=16: User EDID 2 zz=17: GUI Download EDID zz=18: HDMI 4K@60Hz 4:2:0, Audio 2CH PCM zz=19: HDMI 4K@60Hz 4:2:0, Audio 5.1CH DTS/DOLBY zz=20: HDMI 4K@60Hz 4:2:0, Audio 7.1CH DTS/DOLBY/HD

Certifications

FCC Notice

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 receiver.
- Connect the equipment into 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.

CAUTION - changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

CANADA, INDUSTRY CANADA (IC) NOTICES

This Class B digital apparatus complies with Canadian ICES-003.

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

CANADA, AVIS D'INDUSTRY CANADA (IC)

Cet appareil numérique de classe B est conforme aux normes canadiennes ICES-003.

Son fonctionnement est soumis aux deux conditions suivantes : (1) cet appareil ne doit pas causer d'interférence et (2) cet appareil doit accepter toute interférence, notamment les interférences qui peuvent affecter son fonctionnement.

CORRECT DISPOSAL OF THIS PRODUCT

This marking indicates that this product should not be disposed with other household wastes. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmentally safe recycling.

Notes