

▶ **MX44VW**
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

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

Do not disassemble Blustream units for any reason. Doing so will void the manufacturer's warranty.

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Introduction

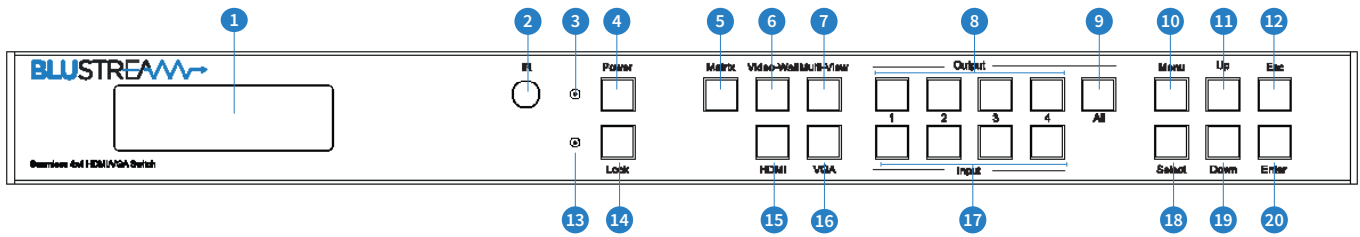
Our MX44VW HDMI/VGA matrix is a multi-purpose high-speed video processing system. The MX44VW can be configured for 3 different output modes. The MX44VW can perform as a 4x4 seamless matrix switcher, as a 2x2, 4x1 or 1x4 video wall solution and as a quad multi-view presentation system.

Inputs can be assigned as either HDMI or VGA with associated L/R analogue audio with control of the switcher via the front-panel push buttons, IR remote control, RS-232 interface, TCP/IP and Web GUI interface.

FEATURES:

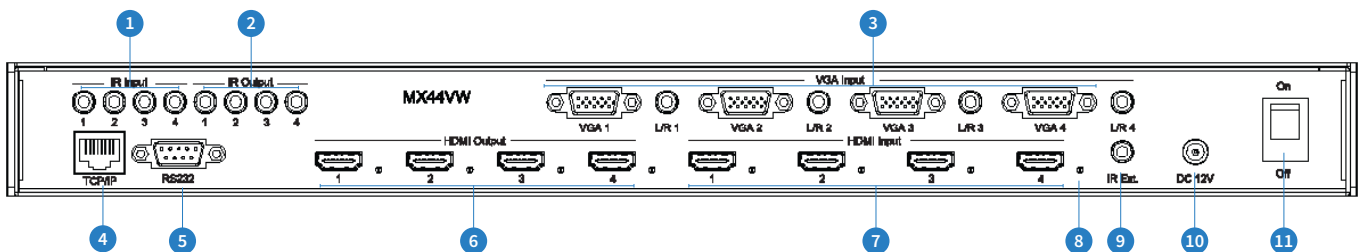
- Features 3 operational modes:
 - 4x4 Matrix (selected HDMI or VGA inputs)
 - Video wall (2x2, 4x1 or 1x4 configuration)
 - Multi-viewer mode
- Features 4x video inputs that can be configured as HDMI video or VGA video with associated L/R analogue audio
- Seamless video switching
- Video inputs support all industry standard video resolutions including VGA-WUXGA (up to 1920x1200 @60Hz) and 480i-4K (3840 x 2160 @30Hz 4:4:4, 4096 x 2160 @24Hz 4:4:4)
- HDMI output resolution fixed to 1080p 60Hz
- Maximum PCM 7.1 96 KHz audio input, PCM 2CH 96KHz audio output.
- IR routing
- Supplied with Blustream IR receivers and emitters
- Control via front panel, IR, RS-232 and TCP/IP
- Web Interface Module for control and configuration of the Matrix
- 3rd Party drivers available for all major home control brands
- Advanced EDID management
- HDCP compliant

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 Matrix mode button - Press to activate Matrix mode.
- 6 Video-Wall mode button - Press to activate Video-Wall mode.
- 7 Multi-View mode button - Press to activate Multi-View mode.
- 8 HDMI output selection button 1 to 4 - To select the output from 1 to 4.
- 9 All button for HDMI outputs – All outputs will work as one (Selects all outputs).
- 10 Menu button – Press to enter EDID set mode (see page 5).
- 11 Up selection button - Press to change segment's value.
- 12 ESC – Press to quit EDID set mode.
- 13 Lock indicator.
- 14 Lock button – Press to lock the buttons of the front panel.
- 15 HDMI input selection button - Press to individually change inputs 1-4 to HDMI.
- 16 VGA input selection button - Press to individually change inputs 1-4 to VGA.
- 17 Input selection button 1 to 4 – Press to select the input from 1 to 4.
- 18 Selection button – Press to select current setting.
- 19 Down selection button – Press to change segment's value.
- 20 Enter button – Press to confirm mode selection or set EDID to specified INPUT or copy EDID from specified OUTPUT to specified INPUT.

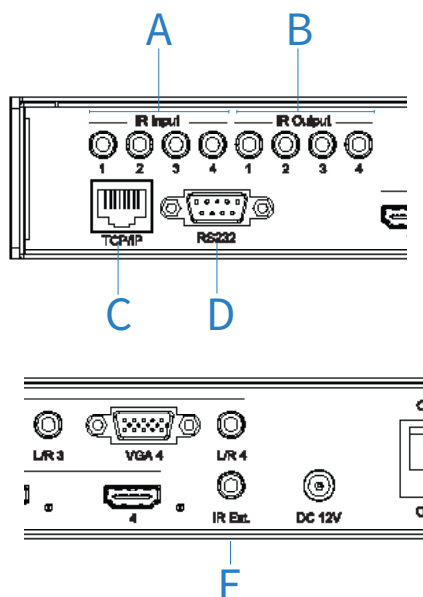
Rear Panel



- 1 IR inputs – 3.5mm stereo jack. Routes IR to the current source selected IR output. When using the IRCAB cable ensure cable direction is correct.
- 2 IR outputs – 3.5mm mono jack – Source specific routed IR. Use supplied Blustream 5V IR emitters.
- 3 VGA inputs with associated 3.5mm L/R Analogue audio – Connect to VGA sources.
NOTE: Either HDMI **OR** VGA signal type must be assigned per source input. Both video inputs cannot be active at the same time.
- 4 TCP/IP (RJ45) – Connect to LAN for TCP/IP control of Matrix or control by built-in Web-GUI interface.
- 5 RS-232 port – For control of the Matrix switcher from PC or control processor.
- 6 HDMI output – Connect to HDMI displays.
- 7 HDMI inputs – Connect to HDMI sources.
- 8 HDMI active connection LED - Lit when active HDMI connection is connected.
- 9 IR input for matrix control – For hard wired IR connection. Connect to control processor or Blustream 5v IR receiver.
- 10 Power port – Use supplied 12V 3A DC adaptor to power.
- 11 Power switch - Turn Matrix On/Off

MX44VW Control Ports

The MX44VW main communication ports are located on the rear panel and includes the following connections:-



Connections:

- A.** IR Input (3.5mm stereo jack) for routed IR pass-through to the associated source output emitters.
- B.** IR Output (3.5mm mono jack) for routed IR control of source equipment*
- C.** TCP/IP – For control of the Matrix (RJ45 Connector)
- D.** RS-232 – For control of the Matrix (9 pin serial connection)
- E.** Global IR Input 3.5mm stereo jack - For control of the Matrix Switcher*

*Note - Blustream products use 5V IR hardware. For further details please see page 12 'Infrared Distribution'

Blustream MX44VW Matrix is supplied with all required 5V IR emitters and Receivers.

TCP/IP

The Blustream MX44VW Matrix can be controlled via TCP/IP.

For the full list of protocols please see 'MX44VW Control Protocols' located at the rear of this manual.

The MX44VW Matrix features a built-in web browser user interface allowing control and configuration of the matrix. For further details please see page 21 'Web Browser User Interface'.

A 'Straight-through' RJ45 patch lead should be used

RS-232 2-Way

The Blustream Matrix can be controlled via a 9-pin serial cable.

For the full list of protocols please see 'MX44VW Control Protocols' located at the rear of this manual.

Details of RS232 pin assignment and communication are adjacent. Please note that depending on your control device serial port pin configuration you may require either a 'Straight' RS-232 cable or 'Null-modem' type.

BLUSTREAM RS-232		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

Matrix Front Panel Control

Turning On/Off HDMI outputs

It is possible to turn off each individual HDMI output using RS-232, TCP/IP or in-built Web GUI interface. This can be helpful when using panels with a 'signal sense' power on/off feature.

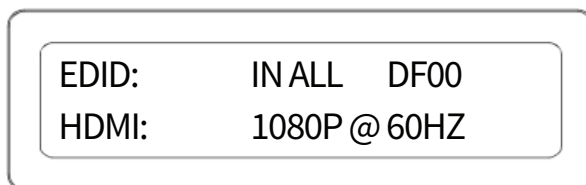
Please see page 17 for list of product RS-232 and Telnet commands.

Note: There is no indication on the front panel to inform users that the outputs of the Matrix have been turned off. If you are unsure of the status of the zone outputs you can force all outputs back on in one of two ways:

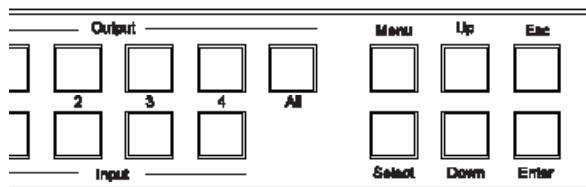
- Powering OFF/ON the matrix. All outputs will be turned on when powered up.
- Zone outputs can be forced back on by pressing and holding 'OUTPUT 1' button on the front panel for 10 seconds. The matrix will reset and all outputs will be turned back on.

EDID Management - Global or individual input settings

The following characters show adjusting the EDID for 'All' inputs (Global). Current EDID value is DF00 (Default setting 0) which is 1080p @ 60Hz.



To change the EDID value for source inputs using the Matrix front panel buttons press the following:-



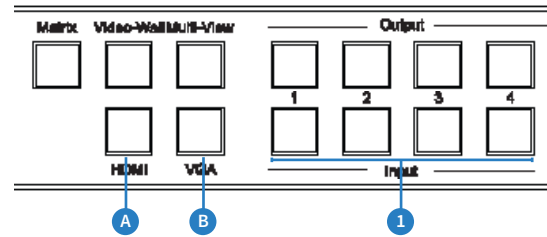
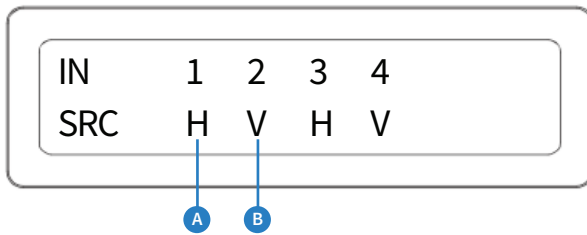
- Press **MENU** button.
- Panel will display 'EDID settings'. Press **SELECT** button
- Select the input you wish to fix the EDID on (1-4) or select 'All'. Use **UP/DOWN** buttons to toggle selection and **ENTER** button to confirm.
- Select video resolution required (1080p, 1080i DVI etc). Use **UP/DOWN** buttons to toggle selection and **SELECT** button to confirm. Options are standard EDID settings (DF00-DF04) or 'COPY' EDID from outputs 1-4.
- Press the **ESC** button to exit.

Matrix Front Panel Control

Video Input Type Selection

The MX44VW allows you to switch between HDMI and VGA+ audio per source input. It is only possible to select either HDMI or VGA per source and it is not possible to view both video types on the same input, I.E- You cannot select HDMI input 1 and VGA input 1 at the same time.

- To change input video type first press 'INPUT' button (1-4).
- The chosen input number will start to flash.
- Press either the 'HDMI' or 'VGA' select button.
 - A. When HDMI is selected the letter 'H' will be displayed under the source input number.
 - B. When VGA is selected the letter 'V' will be displayed under the source input number.



Matrix Mode

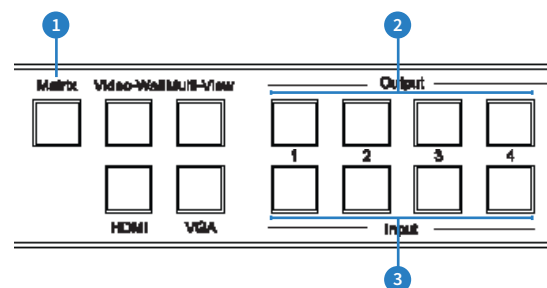
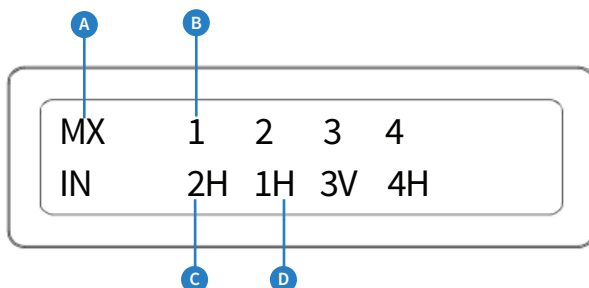
The following shows how to activate 'Matrix' mode and change source inputs.

Matrix Mode Selection

- To enter 'Matrix' mode first press 'MATRIX' button .
To confirm selection press the 'ENTER' button.

Source Selection

- To change source selection per HDMI output press the desired 'OUTPUT' button (1-4) or 'ALL'.
 - Press desired source 'INPUT' button.
- The display will show both the source input selected and if this is HDMI (H) or VGA (V) video type (see above).



Understanding the display:

- 'MX' shows that the products is in Matrix mode.
- Indicates the output
- Indicates the source input selected (1-4)
- Indicates the video signal type (V or H). H=HDMI, V=VGA

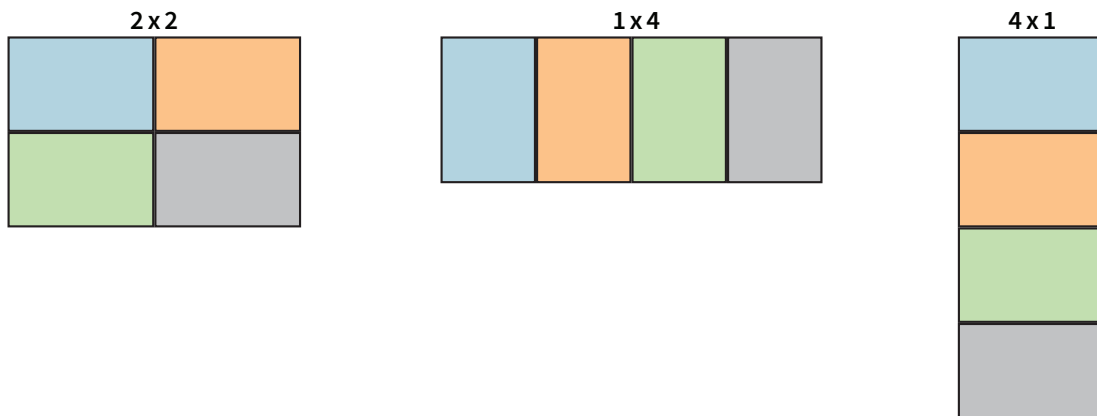
Matrix Front Panel Control

Video Wall Mode

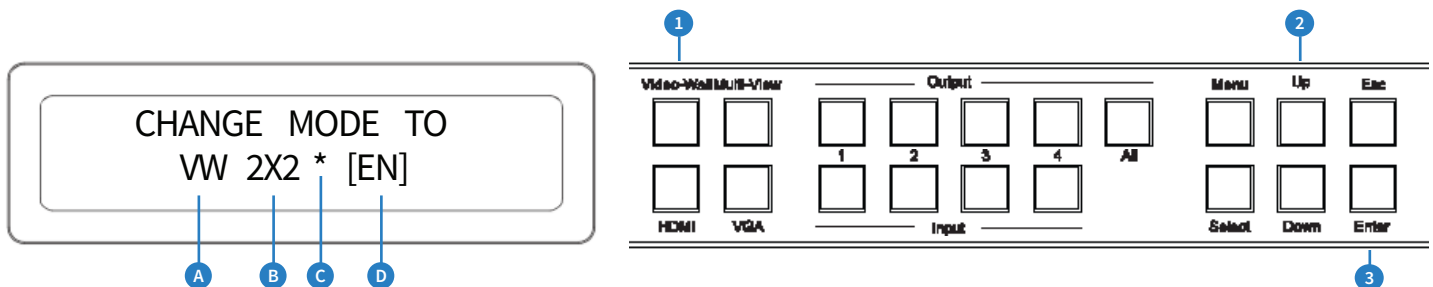
The following shows how to active 'Video Wall' mode, change screen layouts and change source inputs

Selecting Video Wall Mode:

1. To select Video Wall mode first press 'Video Wall' button
2. The display will change and the current screen layout configuration will begin to flash. You must select the required screen configuration using the 'UP' or 'DOWN' buttons. The screen layouts are:



3. Press the 'ENTER' button to finalise the Video Wall configuration.



Understanding the display:

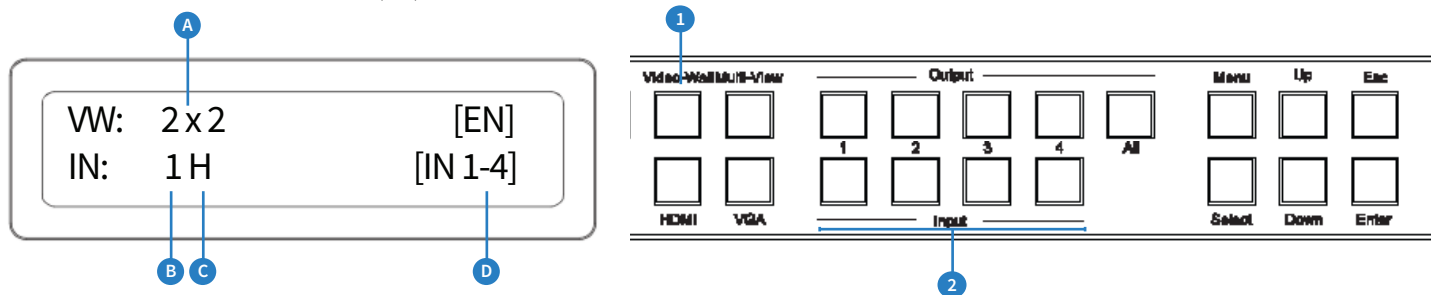
- A. 'VW' shows that the products is in Video Wall mode.
- B. Indicates the screen configuration currently selected.
- C. * Indicates the current screen configuration shown is active.
- D. [EN] is a reminder to press 'ENTER' button to finalise selection.

Matrix Front Panel Control

Video Wall Mode

Changing Source inputs when in Video Wall mode:

- To change the source input selection first press 'Video Wall' button
The display will change showing the current screen layout configuration and input selected.
- Press desired 'INPUT' button (1-4)



Understanding the display:

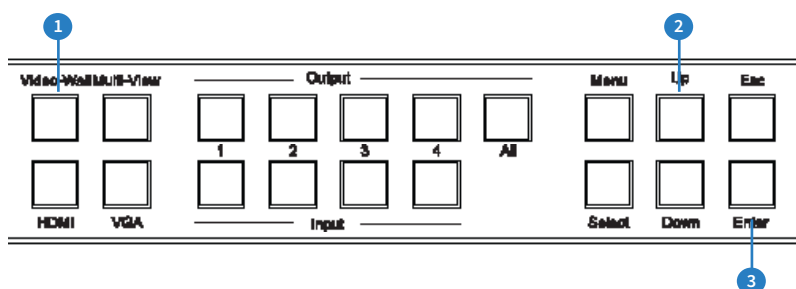
- A. '2 x 2' shows that the current screen configuration selected/to be selected.
- B. Indicates the source input currently selected.
- C. Indicates the video signal type (V or H). H=HDMI, V=VGA
- D. [EN] is a reminder to press 'ENTER' button to finalise the selection.
[IN 1-4] is a reminder of source inputs available.

Changing Source input video types between HDMI and VGA when in Video Wall mode:

See page 7 - 'Video input type selection'

Changing the screen configuration when in Video Wall mode:

- To change screen configuration first press 'Video Wall' button
- The display will change and the current screen layout configuration will begin to flash. You must select the required screen configuration using the 'UP' or 'DOWN' buttons.
- Press the 'ENTER' button to finalise selection.



Matrix Front Panel Control

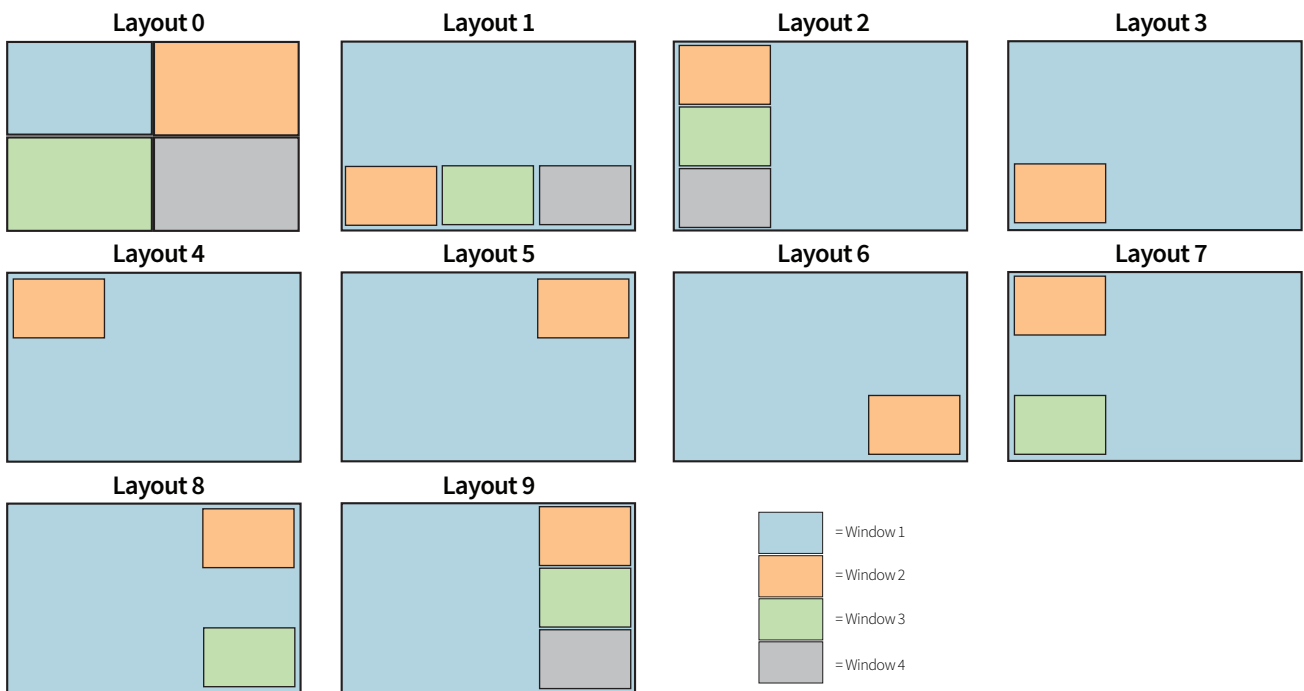
Multi-View Mode

The following shows how to active 'Multi-View' mode, change screen layouts and change source input selection.

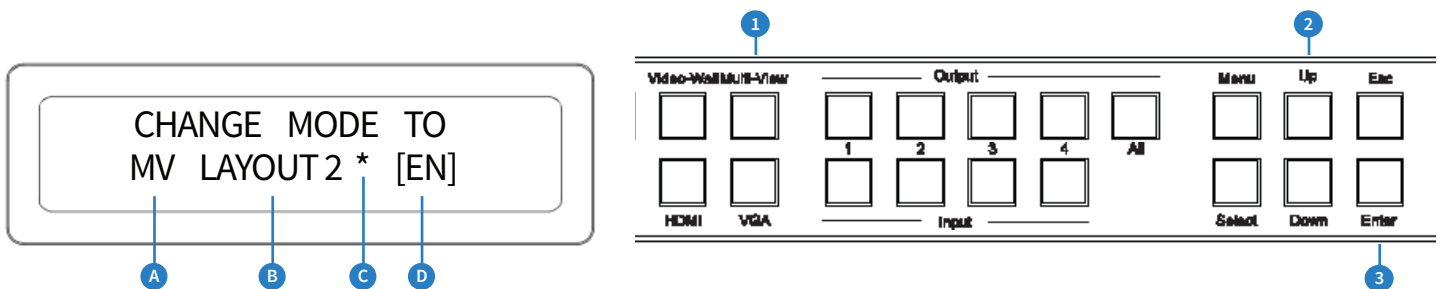
When in Multi-View mode all HDMI outputs will display the same Multi-View selected layout.

Selecting Multi-View Mode:

- To select Multi-View mode first press 'Multi-View' button
- The display will change and the current screen layout configuration will begin to flash. You must select the required Multi-View screen configuration (0-9) using the 'UP' or 'DOWN' buttons. The screen layouts are:



- Press the 'ENTER' button to finalise the Multi-View configuration.



Understanding the display:

- 'MV' shows that the products is in Multi-View mode.
- Indicates the screen configuration currently selected.
- * Indicates the current screen configuration shown is active.
- [EN] is reminder to press 'ENTER' button to finalise selection.

* Please note that 'layout 0' is the default configuration

Layout 9 has been designed for use with VGA source inputs that are not standard 16:9 size

Matrix Front Panel Control

Multi-View Mode

Changing Source inputs when in Multi-View mode:

The 'OUTPUT' buttons are used to adjust the Window layouts when in Multi-View mode. Output 1 = Window 1, Output 2 = Window 2 etc...

Please see page 10 for Window positions per layout.

To allocate a source input to a particular Window:-

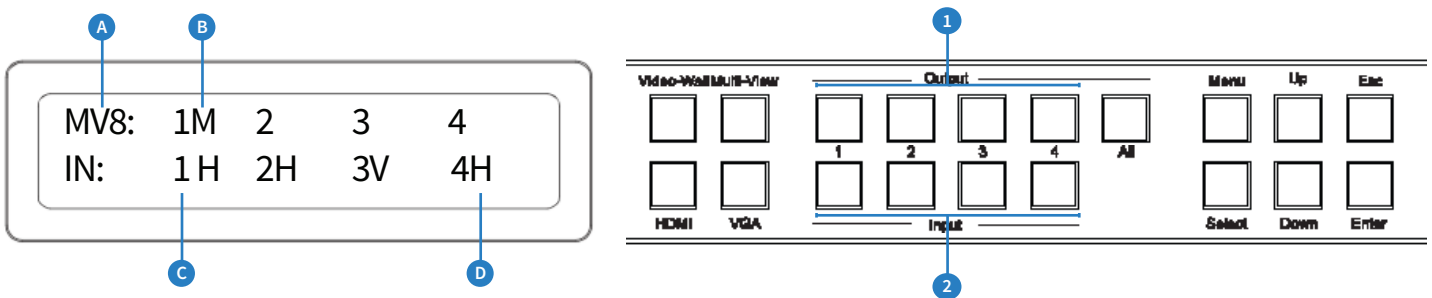
1. Press the desired 'OUTPUT/Window' button (1-4).
2. Press desired source 'INPUT' button .

The display will show both the source input selected and if this is HDMI (H) or VGA (V) video type.

Note: The master Window/output is always Window 1. The source allocated for Window 1 cannot be replicated on any other output Window.

The secondary Windows (2-4) can display the same source input as each other should this be required.

Should you try to allocate the same source that is selected for Window 1 to another Window (2-4) an error message will appear.



Understanding the display:

- A. 'MV8' shows that the product is in Multi-View mode and in the above example, layout 8 has been selected.
- B. 'M' indicates that this is the main Window/Output
- C. Indicates the Source input selected
- D. Indicates the video signal type (V or H). H=HDMI, V=VGA

Changing Source input video types between HDMI and VGA when in Multi-View mode:

See page 7 - 'Video input type selection'

InfraRed (IR) Distribution

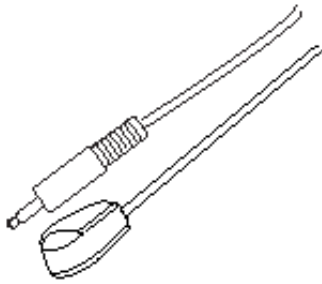
The Blustream range of matrix products include multiple options for control and routing of IR.

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.

Each Blustream Matrix and HDBaseT receiver is supplied with all necessary IR hardware required and includes:

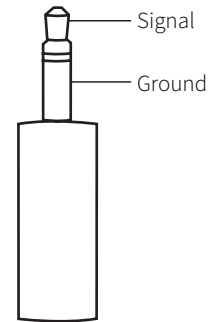
IR Emitter - IR1 & IR2 (IR2 sold separately)

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



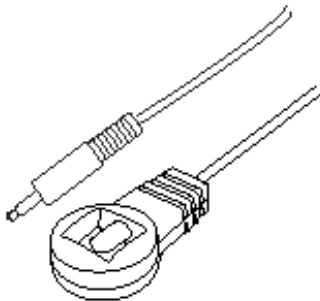
Infrared 3.5mm Pin-Out

IR Emitter - Mono 3.5mm

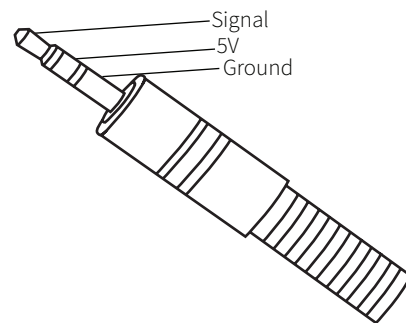


IR Receiver - IRR

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



IR Receiver - Stereo 3.5mm

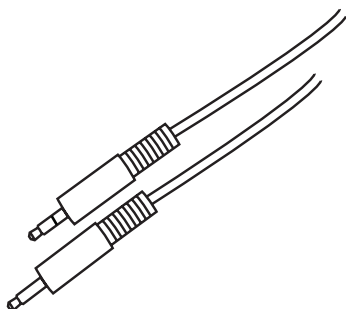


IR Control Cable - IRCAB

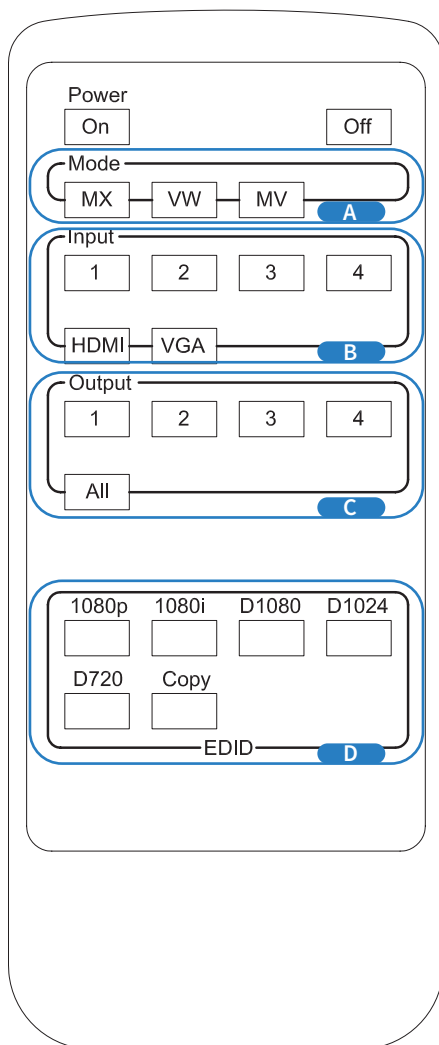
Blustream IR Control cable 3.5mm Mono to 3.5mm Stereo for linking third party control solutions to Blustream products.

Compatible with 12V IR third party products.

Note: Cable is directional as indicated



Remote Control Description



MODE SELECTION

- A** Switches between Matrix modes:
- MX - Matrix mode
 - VW - Video Wall mode
 - MV - Multi-View mode

HDMI/VGA INPUT TYPE SELECTION

- B** Inputs 1-4 can be assigned as EITHER HDMI or VGA video. This selection can be achieved for each input.
- HDMI selection - Press an input button followed by the HDMI button.
 - VGA selection - Press an input button followed by the VGA button.

OUTPUT AND INPUT SELECTION

- C** Selects the zone OUTPUT you wish to change the source on (Numbers 1 - 4 correspond to the zone outputs 1 - 4)
- B** Selects the source INPUT you wish to change on the selected zone (Numbers 1 - 4 correspond to the source inputs 1 - 4)

EXAMPLE

To switch source 2 to zone 4 you would press 4 in the output section (C) followed by pressing 2 in the Input section (B).

ALL button: The all button selects all the inputs or outputs in its corresponding box. Example: (The "All" button in the Output box selects all the zones so all zones will change to what source input is selected next).

NOTE: THE BUTTON PRESS SEQUENCE SHOULD BE FINISHED IN 5 SECONDS, OTHERWISE THE OPERATION IS DISCARDED

EDID SET UP

The MX44VW provides a comprehensive range of EDID settings. Below are three examples of how to deploy the desired EDID setting when using the supplied remote.

- 1. Fix EDID to an Input or ALL inputs:** Press the desired video resolution button (1080i / 1080p etc), then select the source input you want this EDID information allocated to by pressing the INPUT 1 - 4 or the ALL button
- 2. 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.
- 3. 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

EDID Control

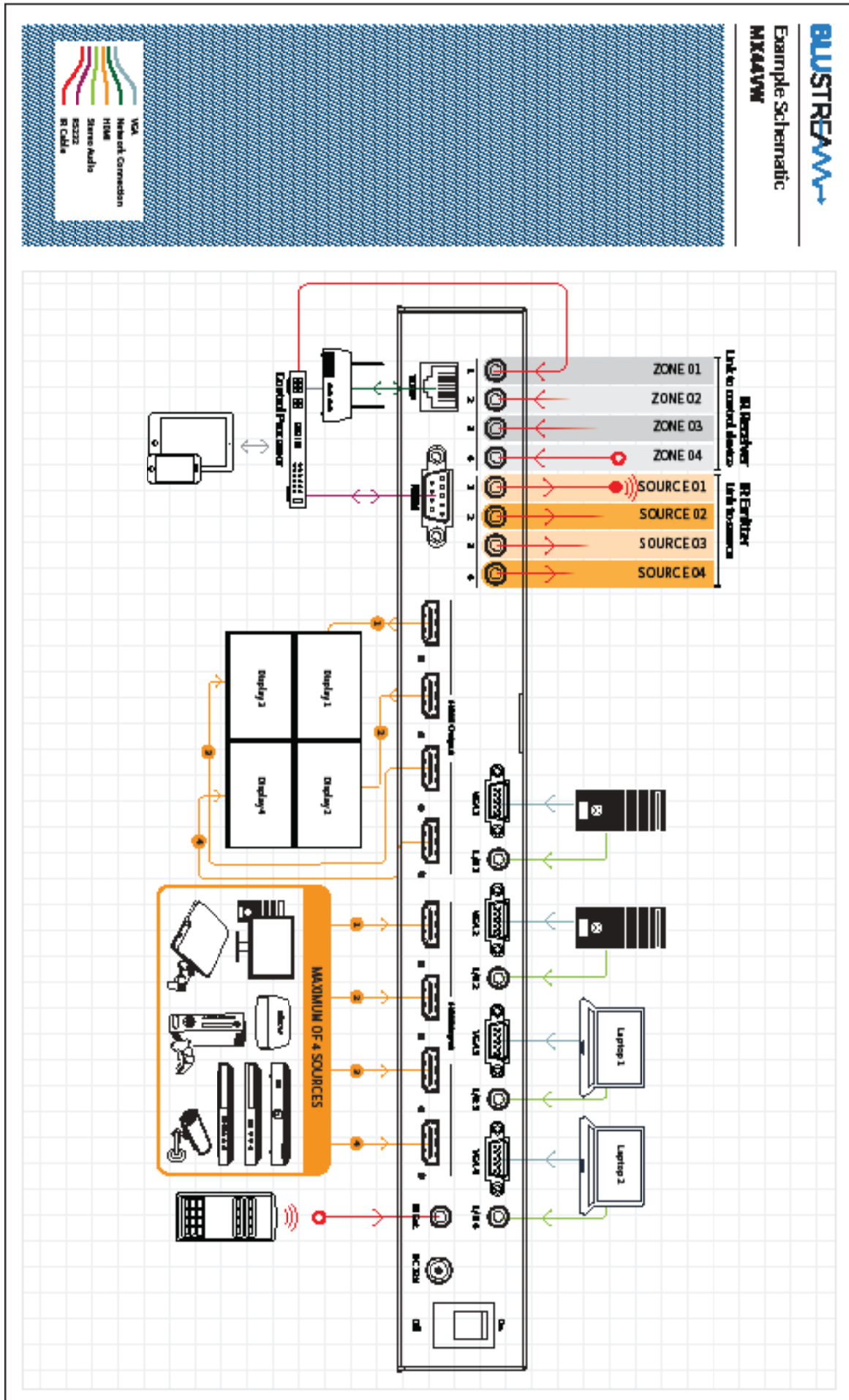
EDID (Extended Display Identification Data) is a data structure that is used between a display and a source. This data is used by the source to find out what audio and video resolutions are supported by the display then from this information the source will discover what the best audio and video resolutions 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 acheived in one of four ways:-

- 1 Using Matrix PC Software (See 'Blustream Matrix Software Guide' for further details available at www.blustream.co.uk)
- 2 Using Matrix web browser interface (See 'Blustream Web Browser Interface Guide' for further details available at www.blustream.co.uk)
- 3 Using Matrix Front Panel Buttons (For further details see page 6)
- 4 Using Supplied Blustream Matrix IR Remote Control (For further details see page 13)



Specifications

- Video Input Connectors: 4x HDMI Type A & 4x VGA
 - Video Output Connectors: 4x HDMI Type A
 - Audio Input Connectors: 4x 3.5mm Analogue audio stereo jack (associated with VGA inputs)
 - RS-232 serial port: 1x DB-9, female
 - TCP/IP Control: 1x RJ45, female
 - IR Input Ports: 5x 3.5mm stereo jack
 - IR Output Ports: 4x 3.5mm mono jack
 - Rack-Mountable: 1U rack height, rack ears included
 - Dimensions (WxDxH): 438 x 245 x 44mm, without feet
 - Shipping Weight: 2.4kg
 - 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 12V 3A DC
-

Package Contents:

- 1 x MX44VW
 - 1x Rack mounting kit
 - 1 x 12V/3A power supply
 - 1 x Remote control
 - 1 x IRCAB IR control cable - 3.5mm-3.5mm cable
 - 4 x IR emitters
 - 5 x IR receivers
 - 1 x User manual
-

Maintenance

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

RS232 and Telnet Commands

The Blustream MX44VW can be controlled via serial and TCP/IP. The following pages list all available serial commands for the MX44VW Matrix. Details of RS232 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

RS232 and Telnet Commands (Continued)

RS232 COMMAND	DESCRIPTION
?	Print Help Information
HELP	Print Help Information
STATUS	Print System Status And Port Status
PON	Power On, System Run On Normal State
POFF	Power Off, System Run On Power Save State
IRON/OFF	Set System IR Control On Or Off
KEYON/OFF	Set System KEY Control On Or Off
DBGON/OFF	Set Debug Mode On Or Off
BEEPON/OFF	Set Onboard Beep On Or Off
RESET	Reset System To Default Setting (Should Type "Yes" To Confirm, "No" To Discard)
OUTxxON/OFF	Set OUTPUT:xx On Or Off
OUTxxFRyy	Set OUTPUT:xx From INPUT:yy
EDIDxxCPyy	Copy EDID from output (yy) to input (xx) Both yy & xx can be set individually (01-08) or as ALL (00)
EDIDxxDFzz	Set Input:xx EDID To Default EDID:zz xx=00: Select All INPUT Port xx=[01...04]: Select One INPUT Port zz=00: HDMI 1080p@60Hz, Audio 2CH PCM zz=01: HDMI 1080p@60Hz, Audio 5.1CH PCM/DTS/DOLBY zz=02: HDMI 1080p@60Hz, Audio 7.1CH PCM/DTS/DOLBY/HD zz=03: HDMI 1080i@60Hz, Audio 2CH PCM zz=04: HDMI 1080i@60Hz, Audio 5.1CH PCM/DTS/DOLBY zz=05: HDMI 1080i@60Hz, Audio 7.1CH PCM/DTS/DOLBY/HD zz=06: HDMI 1080p@60Hz/3D, Audio 2CH PCM zz=07: HDMI 1080p@60Hz/3D, Audio 5.1CH PCM/DTS/DOLBY zz=08: HDMI 1080p@60Hz/3D, Audio 7.1CH PCM/DTS/DOLBY/HD zz=09: HDMI 4K2K, Audio 2CH PCM zz=10: HDMI 4K2K, Audio 5.1CH PCM/DTS/DOLBY zz=11: HDMI 4K2K, Audio 7.1CH PCM/DTS/DOLBY/HD zz=12: DVI 1280x1024@60Hz, Audio None zz=13: DVI 1920x1080@60Hz, Audio None zz=14: DVI 1920x1200@60Hz, Audio None
OUTMODEmm	Set Output mode: mm = MX (matrix) mm = MV (multi-view) mm = VW (video wall) mm = MV01, MV02 etc (multi-view layout 1, layout 2 etc) mm = MV01, MV02 etc (multi-view layout 1, layout 2 etc) mm = VW22 (video wall 2x2), VW41 (video wall 4x1), VW14 (video wall 1x4)
OUTMVRyy	Set Multi-View Main window (window 1) from input yy (01-04)
OUTWFRyy	Set Video Wall Output from input yy (01-04)
OUTxxVCLbb OUTxxVCRbb OUTxxVCTbb OUTxxVCBbb	Pixel shift when in Video Wall mode xx = Output port (01-04 or 00 for all outputs) VCL = Left boarder VCR = Right boarder VCT = Top boarder VCB = Bottom boarder bb = Pixel shift (00-100)
INxxFRyy	Set input video type to HDMI or VGA xx = Input port (01-04 or 00 for all inputs) yy = HDMI (from HDMI signal) yy = VGA (from VGA signal)
MVAUDaa	Multi-View audio output from input aa aa = 01-04 (inputs) aa = 00 (audio will follow output/window 1)

Blustream PC Configuration Software

The Blustream MX44VW matrix unit can be configured using the Blustream matrix PC configuration software.

Please download the specific software and PC software manual at the following link:

<http://www.blustream.co.uk/MX44VW>

Upgrading Product Firmware

There may be instances when the Blustream products require a firmware update. All new firmware is available to download on the Blustream website at the following link:

<http://www.blustream.co.uk/MX44VW>

To update the firmware you will require the Blustream Matrix PC configuration software and an RS-232 adaptor cable to communicate with the product.

Full instructions can be found at the above website address.

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.

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.



www.blustream.co.uk
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