KRAMER





VS-88H2A Quick Start Guide

This guide helps you install and use your VS-88H2A for the first time.

Go to <u>www.kramerav.com/downloads/VS-88H2A</u> to download the latest user manual and check if firmware upgrades are available.

Step 1: Check what's in the box

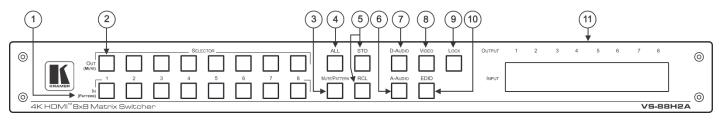
✓ VS-88H2A 4K HDMI 8x8 Matrix Switcher

1 Quick start guide4 Rubber feet

1 Set of rack ears

✓ 1 Power cord

Step 2: Get to know your VS-88H2A

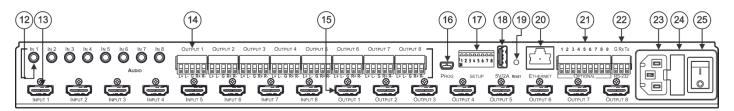


#	Feature	Function		
1	IN (PATTERN) SELECTOR Buttons	Press to select the input (1 to 8) to switch after selecting an output (also used for storing machine setups in the STO-RCL modes and for selecting a pattern in the Pattern mode).		
2	OUT (MUTE) SELECTOR Buttons	Press to select an output (1 to 8) to which the input is routed. Also used for storing machine presets.		
3	MUTE/PATTERN Button	Press to view the current pattern status and select the output/s to which a pattern is routed. Press to mute audio or video on a selected output when D-AUDIO/A-AUDIO, and/or VIDEO buttons are pressed (lit).		
4	ALL Button	Press to perform an action on all outputs (for example setting Mute mode, Pattern mode and so on). For switching, press ALL and then a specific IN button to route the selected input to all outputs. For example, press ALL and then IN 2 to route input 2 to all the outputs.		
5	STO and RCL Buttons	Press STO to store the current switching setting to a preset button. Press RCL to recall the switching setting from a preset button.		
6	A-AUDIO Button	Press to enable analog audio routing. When pressed together with VIDEO, the analog audio is routed together with the video signal.		
7	D-AUDIO Button	Press to enable digital audio routing. When pressed together with VIDEO, the digital audio is routed together with the video signal.		
8	VIDEO Button	Press to select video inputs. When pressed together with D-AUDIO/A-AUDIO, video is switched together with audio.		
9	LOCK Button	Press and hold to toggle locking/releasing of the front panel buttons. Press to save the following setups: HDCP (On/Off), ARC, Fast Switch and Switch mode.		
10	EDID Button	Press to capture the EDID.		
11	OUTPUT/INPUT 7-segment LED Display	Displays the selected inputs switched to the outputs (marked above each input).		

The terms HDMI, HDMI High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing Administrator, Inc.

VS-88H2A Quick Start

Rev:



#	Feature	Function	
12	AUDIO IN on 3.5 Mini Jack Connectors	Connect to unbalanced stereo analog audio sources (from 1 to 8).	
13	INPUT HDMI Connectors	Connect to HDMI sources (from 1 to 8).	
14	AUDIO OUTPUT on 5-pin Terminal Block Connectors	Connect to balanced stereo analog audio acceptor (from 1 to 8). For information on the pinout, see Step 4 : Connect the inputs and outputs.	
15	OUTPUT HDMI Connectors	Connect to HDMI acceptors (from 1 to 8).	
16	PROG Mini USB Port	Use for firmware upgrade or communication (connecting to a PC or a serial controller).	
17	SETUP DIP-Switches	For future use.	
18	5V/2A USB Port	Use to charge a device.	
19	RESET Button	Press and hold for 7-8 seconds to hard-reset the device to its factory default values (IP settings included).	
20	ETHERNET RJ-45 Port	Connect to your LAN.	
21	OPTIONAL Terminal Block Connectors	For future use.	
22	RS-232 3-pin Terminal Block Connectors	Connect to a PC or a serial controller.	
23	Mains Power Connector	Connect to the mains power.	
24	Mains Power Fuse	Fuse for protecting the device.	
25	Mains Power Switch	Switch for turning the device on or off.	

Step 3: Install the VS-88H2A

To rack mount the machine, attach both rack ears (by removing the screws from each side of the machine and replacing those screws through the rack ears) or place the machine on a table.

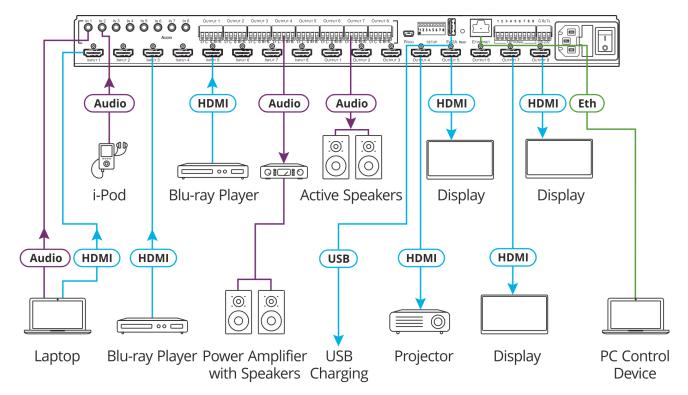




- Ensure that the environment (e.g., maximum ambient temperature & air flow) is compatible for the device.
- Avoid uneven mechanical loading.
- Appropriate consideration of equipment nameplate ratings should be used for avoiding overloading of the circuits.
- Reliable earthing of rack-mounted equipment should be maintained.

Step 4: Connect the inputs and outputs

Always switch OFF the power on each device before connecting it to your **VS-88H2A**. For best results, we recommend that you always use Kramer high-performance cables to connect AV equipment to the **VS-88H2A**.



Connecting the audio output

To a balanced stereo audio acceptor:



L+ L- G R+ R-

To an unbalanced stereo audio

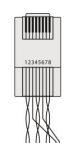
Wiring the RJ 45 Connectors

This section defines the TP pinout, using a straight pin-to-pin cable with RJ 45 connectors.



For HDBT cables, it is recommended that the cable ground shielding be connected/soldered to the connector shield.

EIA /TIA 568B				
PIN	Wire Color			
1	Orange / White			
2	Orange Green / White			
3				
4	Blue			
5	Blue / White			
6	Green			
7	Brown / White			
8	Brown			





For optimum range and performance use the recommended Kramer cables available at www.kramerav.com/product/VS-88H2A. Using third-party cables may cause damage!

Step 5: Connect the power

Connect the power cord to VS-88H2A and plug it into the mains electricity.



Safety Instructions (See $\underline{\text{www.kramerav.com}}$ for updated safety information) Caution:

- For products with relay terminals and GPI\O ports, please refer to the permitted rating for an external connection, located next to the terminal or in the User Manual.
- There are no operator serviceable parts inside the unit.

Warning:

- Use only the power cord that is supplied with the unit.
- Disconnect the power and unplug the unit from the wall before installing.
- Do not open the unit. High voltages can cause electrical shock! Servicing by qualified personnel only.

 To ensure continuous risk protection, replace fuses only according to the rating specified on the product label which located on the bottom of the unit.

Step 6: Operate the VS-88H2A

Via the front panel buttons:

The 7-segment display shows the status of VS-88H2A during normal operation and displays device information.

Use the front panel buttons as follows:

- To switch an input to an output, press an output button and then an input button to switch to that output.
- Press ALL to perform an action on all outputs (for example setting Mute mode, Pattern mode and so on).

RS-232 and Ethernet:

RS-232/Ethernet							
Baud Rate:	115,200	Parity:	None				
Data Bits:	8	Command Format:	ASCII Protocol 3000				
Stop Bits:	1						
Example (Route in	#VID1> 1 <cr></cr>						
Ethernet Parameters							
IP Address:	192.168.1.39	Default TCP Port #:	5000				
Subnet Mask:	255.255.0.0	Default UDP Port #:	50000				
Default Gateway:	192.168.0.1						
Full Factory Reset							
OSD:	Front panel buttons: power off the device, press and hold the LOCK, EDID and STO buttons simultaneously for 3 seconds while powering the device, and then release.						
Protocol 3000:	"#factory" command.						
Web Pages:	In the Device Settings page, click Reset.						
Web Pages Authentication							
User:	Admin	Password:	Box left empty				

To switch an input to an output via front panel buttons

Use the front panel buttons for the following switching modes:

- Press VIDEO to switch the video signal of a selected input to the selected output.
- Press D-AUDIO (HDMI embedded audio signal) to switch the digital audio signal of a selected input to the selected output.
- Press A-AUDIO (analog signal on 3.5mm mini jack) to switch the analog audio signal of a selected input to the selected output.
- Press VIDEO + D-AUDIO simultaneously to switch the video and digital audio signals of a selected input to the selected output.
- Press VIDEO + A-AUDIO simultaneously to switch the video and analog audio signals of a selected input to the selected output.
- Press MUTE/PATTERN to switch a pattern signal (selected by the input buttons) to the selected output.
- Press D-AUDIO + A-AUDIO and then an input button to set that input source to ARC.

7-segment display example

When in Video mode, the 7-segment display shows the input-output status:



In this example: Input 1 is routed to output 1, input 3 is routed to output 2, input 2 is routed to outputs 3 and 7, a pattern is routed to output 4, output 5 is set to mute, and so on.

To read the EDID via the front panel buttons

To read the EDID from the output:

- 1. Press EDID+STO.
 - The EDID and STO button LEDs light. The 7-segment display shows the current EDID status.
- Press one or more input buttons or press ALL, the corresponding 7-segment LEDs flash.
- 3. Press an output button that is connected to a display. The 7-segment LEDs show the output number from which the EDID is read.
- Press EDID. Wait approx. 5 seconds. The EDID of the display is copied to the input port/s and the device exits EDID
 mode.

To read the default EDID:

- 1. Press EDID+STO.
 - The EDID and STO button LEDs light. The 7-segment display shows the current EDID status.
- 2. Press one or more input buttons or press ALL, the corresponding 7-segment LEDs flash.
- 3. Press MUTE/PATTERN. The 7-segment LED flashes and shows "d".
- 4. Press EDID. Wait approx. 5 seconds. The default EDID is copied to the input port/s and the device exits EDID mode.

To use the VS-88H2A Web pages

Switching: Set input and output parameters (HDCP support, switching speed, and so on), select switching

modes, set test patterns, perform switching operations, and so on.

Device Settings: View device parameters (model, name, serial number, and so on), set network parameters, perform

firmware upgrade, and reset to factory defaults.

Password Settings: Set password for Admin.

Timeout Settings: Set the timeout per output when no signal is detected.

Auto Switch Settings: Set switch mode (manual, last connected, or priority), select the ports included in the last connected

mode; set the priority order.

Step-in Settings: Control Step-in devices that are connected to the inputs. Select a device (that is connected to a VS-

88H2A input), set the input signal type, and set the outputs to which the input signal is switched

when the Step-in button is pressed (on the Step-in device).

EDID Management: Set the default EDID or read the EDID from an output or file to one or more of the inputs.

 $C \in \mathcal{C}$