

KVMSwitchTech ANI-44HPSC 4K UHD 4×4 Matrix with Audio Output Instruction Manual

Home » KVMSwitchTech » KVMSwitchTech ANI-44HPSC 4K UHD 4×4 Matrix with Audio Output Instruction

Manual

Contents

- 1 KVMSwitchTech ANI-44HPSC 4K UHD 4×4 Matrix with Audio Output
- **2 Product Information**
- **3 Product Usage Instructions**
- **4 PACKAGE CONTENTS**
- **5 SAFETY INFORMATION**
- **6 INTRODUCTION**
- **7 SYSTEM REQUIREMENTS**
- **8 SAFETY PRECAUTIONS**
- 9 FEATURES
- 10 SPECIFICATIONS
- 11 FRONT PANEL
- 12 Rear Panel
- 13 Remote Control
- 14 IR Cable Pinout
- 15 Cable Specifications
- **16 Front Panel LCD Menu**
- 17 Device Discovery
- 18 WebGUI Overview
- 19 Switch Tab
- 20 EDID Settings Tab
- 21 System Settings Tab
- **22 Telnet Control**
- 23 Serial and Telnet Commands
- **24 CONNECTION DIAGRAM**
- 25 Supported Resolutions (Hz)
- **26 DISCLAIMERS AND LIMITATION OF LIABILITY**
- 27 Documents / Resources
- **28 Related Posts**

KVMSwitchTech ANI-44HPSC 4K UHD 4×4 Matrix with Audio Output



Product Information

The ANI-44HPSC is a 4K UHD+ 4×4 Matrix with Audio Output.

Package Contents:

- ANI-44HPSC unit
- User manual

Features:

- Allows routing of up to 4 sources to 4 outputs
- Supports 4K UHD+ resolution
- · Includes audio output functionality
- Front panel controls for easy operation
- IR remote for convenient control

Specifications:

Product Model: ANI-44HPSC

· Resolution: 4K UHD+

Inputs: 4Outputs: 4

Product Usage Instructions

Safety Information:

- Read the entire manual and other documentation before operating the equipment.
- Follow all instructions printed on the unit chassis for proper operation.
- Avoid spilling liquids onto the unit or operating it in liquid.
- Ensure power outlets meet the specified requirements and protect the unit from rain, water, and excessive moisture.
- Clean the unit with a clean dry cloth and avoid using chemical solvents or aerosol cleaners.
- Do not use the unit if the electrical power cord is frayed or broken.
- Refer to the manual if any of the following conditions occur:
 - The power supply cord or plug is damaged.

- Objects have fallen or liquid has been spilled into the equipment.
- The equipment has been exposed to rain.
- The equipment does not operate normally or exhibits a marked change in performance.
- The equipment has been dropped or the enclosure damaged.

Operation Controls & Functions:

- Power Button: Press this button to power the unit on (green LED) or place it into stand-by mode (red LED).
- IR Receiving Window: Accepts IR signals from the included IR remote for control of this unit only.
- IN 1~4 & OUT A~D Buttons: Press the OUT keys (A~D) of the outputs you wish to route a source to (they will flash to indicate selection). Next, press the IN key of the input (1~4) you wish to route to the selected outputs. Finally, press CONFIRM to confirm your selection and execute the routing change.

PACKAGE CONTENTS

Before attempting to use this unit, please check the packaging and make sure the following items are contained in the box:

- ANI-44HPSC UHD+ 4×4 HDMI Matrix with Audio Output
- 24V/2.7A DC Power Adapter
- Remote Control
- Rackmount Ears (Set of 2)
- Shockproof Feet (Set of 4)

SAFETY INFORMATION

- 1. To ensure the best results from this product, please read this manual and all other documentation before operating your equipment.
 - Retain all documentation for future reference.
- 2. Follow all instructions printed on unit chassis for proper operation.
- 3. To reduce the risk of fire, do not spill water or other liquids into or on the unit, or operate the unit while standing in liquid.
- 4. Make sure power outlets conform to the power requirements listed on the back of the unit. Keep unit protected from rain, water and excessive moisture.
- 5. Do not attempt to clean the unit with chemical solvents or aerosol cleaners, as this may damage the unit. Dust with a clean dry cloth.
- 6. Do not use the unit if the electrical power cord is frayed or broken. The power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords and plugs, convenience receptacles, and the point where they exit from the appliance.
- 7. Do not force switched or external connections in any way. They should all connect easily, without needing to be forced.
- 8. Always operate the unit with the AC ground wire connected to the electrical system ground. Precautions should be taken so that the means of grounding of a piece of equipment is not defeated.
- 9. AC voltage must be correct and the same as that printed on the rear of the unit. Damage caused by connection

- to improper AC voltage is not covered by any warranty.
- 10. Turn power off and disconnect unit from AC current before making connections.
- 11. Never hold a power switch in the "ON" position.
- 12. This unit should be installed in a cool dry place, away from sources of excessive heat, vibration, dust, moisture and cold. Do not use the unit near stoves, heat registers, radiators, or other heat producing devices.
- 13. Do not block fan intake or exhaust ports. Do not operate equipment on a surface or in an environment which may impede the normal\ flow of air around the unit, such as a bed, rug, carpet, or completely enclosed rack. If the unit is used in an extremely dusty or smoky environment, the unit should be periodically "blown free" of foreign dust and matter.
- 14. To reduce the risk of electric shock, do not remove the cover. There are no user serviceable parts inside. Refer all servicing to qualified service personnel. There are no user serviceable parts inside.
- 15. When moving the unit, disconnect Input ports first, then remove the power cable; finally, disconnect the interconnecting cables to other devices.
- 16. Do not drive the Inputs with a signal level greater than that required to drive equipment to full Output.
- 17. The equipment power cord should be unplugged from the outlet when left unused for a long period of time.
- 18. Save the carton and packing material even if the equipment has arrived in good condition. Should you ever need to ship the unit, use only the original factory packing.
- 19. Service Information Equipment should be serviced by qualified service personnel when:
 - A. The power supply cord or the plug has been damaged.
 - B. Objects have fallen, or liquid has been spilled into the equipment.
 - C. The equipment has been exposed to rain.
 - D. The equipment does not appear to operate normally, or exhibits a marked change in performance.
 - E. The equipment has been dropped, or the enclosure damaged.

INTRODUCTION

This 4K UHD+ 4×4 HDMI Matrix provides the ability to connect up to (4) 4K UHD+ HDMI sources to up to (4) 4K UHD+ HDMI displays and freely switch between them. This unit comes with full support for 18Gbps resolutions up to, and including 4K@60Hz (4:4:4, 8-bit) as well as support for 16-bit Deep Color, HDR (High Dynamic Range), HD audio and other features defined by the HDMI 2.0 specification. With a comprehensive EDID management feature that includes the ability to select between built in EDIDs, EDIDs copied from connected sink devices, as well as user provided EDIDs, this matrix can solve many interconnectivity problems. The unit's OSD has the ability to display up to 2 lines of user customized text, on top of the video displayed over each output, in the color of your choice. This unit provides an intuitive set of front panel controls with an OSD as well as RS-232, Telnet, WebGUI, and IR remote control options.

This product has a 3 year warranty.

SYSTEM REQUIREMENTS

- HDMI source equipment such as media players, video game consoles or set-top boxes.
- HDMI receiving equipment such as HDTVs, monitors or audio amplifiers.
- The use of Premium High Speed HDMI cables is highly recommended.

APPLICATIONS

Residential or commercial AV matrix installations

- · Security systems
- · Lecture halls and ballrooms
- · Retail product showrooms
- · Control centers

SAFETY PRECAUTIONS

Please read all instructions before attempting to unpack, install or operate this equipment and before connecting the power supply.

Please keep the following in mind as you unpack and install this equipment:

- Always follow basic safety precautions to reduce the risk of fire, electrical shock and injury to persons.
- To prevent fire or shock hazard, do not expose the unit to rain, moisture or install this product near water.
- Never spill liquid of any kind on or into this product.
- Never push an object of any kind into this product through any openings or empty slots in the unit, as you may
 damage parts inside the unit.
- Do not attach the power supply cabling to building surfaces.
- Use only the supplied power supply unit (PSU). Do not use the PSU if it is damaged.
- Do not allow anything to rest on the power cabling or allow any w(8) to be placed upon it or any person walk on it.
- To protect the unit from overheating, do not block any vents or openings in the unit housing that provide ventilation and allow for sufficient space for air to circulate around the unit.

DISCLAIMERS

The information in this manual has been carefully checked and is believed to be accurate. We assume no responsibility for any infringements of patents or other rights of third parties which may result from its use. We assume no responsibility for any inaccuracies that may be contained in this document. We make no commitment to update or to keep current the information contained in this document. We reserve the right to make improvements to this document and/or product at any time and without notice.

COPYRIGHT NOTICE

No part of this document may be reproduced, transmitted, transcribed, stored in a retrieval system, or any of its part translated into any language or computer file, in any form or by any means — electronic, mechanical, magnetic, optical, chemical, manual, or otherwise — without the express written permission and consent. © Copyright 2021. All Rights Reserved.

Version 1.2 NOV 2021

TRADEMARK ACKNOWLEDGMENTS

All products or service names mentioned in this document may be trademarks of the companies with which they are associated.

FEATURES

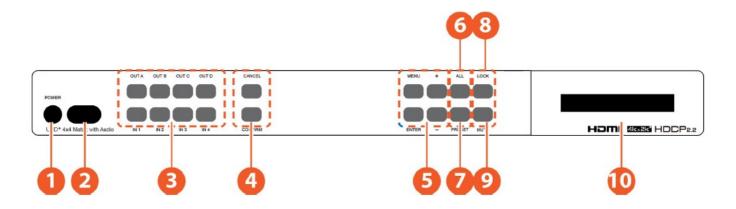
- HDMI inputs and outputs support 18Gbps 4K UHD+ with HDR signals
- DVI 1.0 compliant with the use of an HDMI to DVI adapter
- HDCP 1.x and 2.2 compliant
- HDMI inputs and outputs support UHD+ resolutions up to 4096×2160@60Hz (4:4:4, 8-bit)
- Supports 16-bit Deep Color up to 1080p60

- Supports 1080p downscaling (only on output port A and port C)
- Supports pass-through of LPCM (up to 8 channels), bitstream and HD bitstream audio formats
- High-quality DAC (Digital to Analog audio Conversion) with local analog stereo audio breakout for each HDMI output (LPCM 2.0 sources only)
- Supports (6) internal EDIDs, (4) external EDIDs copied from connected devices, and (4) user provided EDIDs
- OSD with user customizable information text
- Controllable via front-panel buttons with LCD, WebGUI, Telnet, RS-232, and IR remote

SPECIFICATIONS

- HDMI Bandwidth: 18Gbps
- Input Ports: (4) HDMI (Type-A)
- Output Ports
- (4) HDMI (Type-A)
- (4) Analog Stereo (3.5mm)
- Control Ports
- RS-232 (DE-9)
- Ethernet (RJ-45)
- IR Extender (3.5mm)
- Service Port: USB 2.0 (Type A)
- IR Frequency: 38kHz
- Baud Rate: 19200
- Power Supply: 24V/2.7A DC (US/EU standards, CE/FCC/UL certified)
- ESD Protection (HBM):
- ±8kV (Air Discharge)
- ±4kV (Contact Discharge)
- Dimensions (WxHxD): 17.2 x 1.9 x 10.6 in (438x49x269mm) [Case Only] / 19 x 1.9 x 10.8 in (482x49x274mm)
 [All Inclusive]
- Weight: 6.6lb / 2.99kg
- · Chassis Material: Metal (Steel)
- · Chassis Color: Black
- Operating Temperature: 0°C 40°C/32°F 104°F
- Storage Temperature: -20°C 60°C/-4°F 140°F
- Relative Humidity: 20 90% RH (Non-condensing)
- Power Consumption: 34W

FRONT PANEL

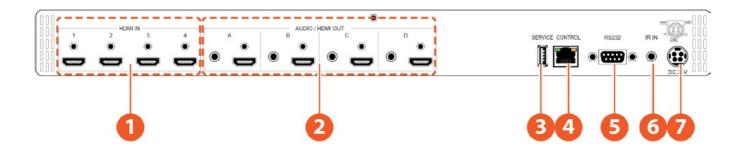


- 1. POWER BUTTON: Press this button to power the unit on (green LED) or place it into stand-by mode (red LED).
- 2. IR RECEIVING WINDOW: Accepts IR signals from the included IR remote for control of this unit only.
- 3. IN 1~4 & OUT A~D BUTTONS: Press the "OUT" keys (A~D) of the outputs you wish to route a source to (they will flash to indicate selection). Next, press the "IN" key of the input (1~4) you wish to route to the selected outputs. Finally, press "CONFIRM" to confirm your selection and execute the routing change.
- 4. CONFIRM BUTTON: Press this button to confirm newly made input/output routing selections. CANCEL BUTTON: Press this button to cancel newly made input/output/preset routing selections before they have been confirmed.
- 5. MENU BUTTON: Press to enter the LCD menu, or to back out from menu items. ENTER BUTTON: Press to confirm a selection within the LCD menu or to go deeper into a menu item.
 - + (PLUS) & (MINUS) BUTTONS: Press to move up and down or adjust selections within the LCD menu.
- 6. ALL BUTTON: Press this button to select all outputs simultaneously for routing. Next, press the "IN" key of the input (1~4) you wish to route to all outputs. Finally, press "CONFIRM" to confirm your selection and execute the routing change.
- 7. PRESET BUTTON: Press to enter the preset recall menu in the LCD window. Press the "+/-" buttons followed by the "ENTER" button to select and activate the preferred preset.
- 8. LOCK BUTTON: Press to lock all button functions on the front panel. Press and hold for 3 seconds to release the lock function. The LCD will display "Lock" when the function is active.
- 9. MUTE BUTTON: The "MUTE" button functions as a blank audio/video source. To use it, follow the standard matrix routing instructions, but use the "MUTE" button as the input to blank out the selected outputs. When a "MUTE" input is in use it will show up as "M" within the routing display.

Note: The associated analog output will not be muted.

10. LCD WINDOW: Displays the unit's menu, settings and information.

Rear Panel

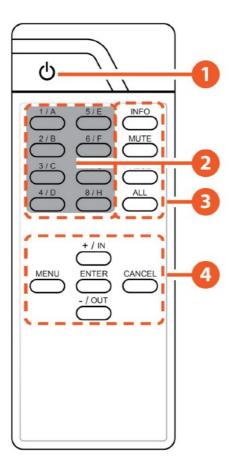


1. HDMI IN 1~4 PORTS: Connect to HDMI source equipment such as media players, game consoles or set-top

boxes.

- 2. AUDIO/HDMI OUT A~D PORTS: Connect the HDMI outputs to devices such as HDMI TVs, monitors or amplifiers for digital video and audio output. Connect the audio outputs to powered speakers or an amplifier for analog stereo audio output. The audio from each stereo analog output will be the same as the HDMI output it is paired with.
- 3. SERVICE PORT: This slot is reserved for firmware update use only.
- 4. CONTROL PORT: Connect directly, or through a network switch, to your PC/laptop to control the unit via Telnet/WebGUI.
- 5. RS-232 PORT: Connect directly to a PC, laptop or other serial control device to send RS-232 commands to control the unit.
- 6. IR IN PORT: Connect to the provided IR Extender to extend the IR control range of the unit. Ensure that the remote being used is within direct line-of-sight of the IR Extender.
- 7. DC 24V PORT: Plug the 24V DC power adapter into the unit and connect it to an AC wall outlet for power.

Remote Control



- 1. POWER BUTTON: Press to power the unit on or place it into stand-by mode.
- 2. 1/A ~ 4/D BUTTON: Press these keys to configure the video routing. Press the "-/ OUT" key followed by the key (A~D) of the outputs you wish to route a source to (they will flash on the LCD to indicate selection). Next, press the "+/IN" key followed by the input
 - (1~4) you wish to route to the selected outputs. Finally, press "ENTER" to confirm your selection and execute the routing change.

Note: Buttons 5/E~8/H have no function with this matrix.

3. ALL BUTTON: Press this key to select all outputs simultaneously for routing. Next, press the key of the input

(1~4) you wish to route to all outputs. Finally, press "ENTER" to confirm your selection and execute the routing change.

MUTE BUTTON: Press this key to mute video output. Press the key of the input (1~4) you wish to route then press mute key to mute video output.

INFO BUTTON: Switches the information displayed on each output's OSD between the user customized text and the current video/Ethernet details.

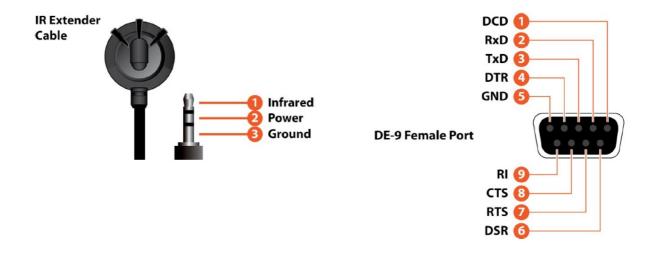
PRESET BUTTON: Press to enter the preset call menu in the LCD window. Press the "+/IN" and "-/OUT" buttons followed by the "ENTER" button to select and activate the preferred preset.

- 4. MENU BUTTON: Press to enter the LCD menu, or to back out from menu items.
 - ENTER BUTTON: Press to confirm a selection within the LCD menu or to go deeper into a menu item. CANCEL BUTTON: Press to cancel newly made input/output/preset routing selections before they have been confirmed.
 - + (PLUS)/IN BUTTON: Press to navigate up within menus or to begin the selection of an input for routing.
 - (MINUS)/OUT BUTTON: Press to navigate down within menus or to begin the selection of outputs for routing.

RS-232 Pinout and Defaults

Serial Port Default Settings	
Baud Rate	19200
Data Bits	8 bits
Parity Bits	None
Stop Bits	1
Flow Control	None

IR Cable Pinout



Cable Specifications

	1080p		4K30	4K60
CABLE LENGTH	8-BIT	12-BIT	(4:4:4) 8-BIT	(4:4:4) 8-BIT
HIGH SPEED HDMI CABLE				
HDMI Input	49 ft / 15M	~33 ft / 10M	16 ft / 5M	~10 ft / 3M
HDMI Output	49 ft / 15M	~33 ft / 10M	16 ft / 5M	~10 ft / 3M

Bandwidth Category Examples:

- 1080p (FHD Video)
 - Up to 1080p@60Hz, 12-bit color
 - Data rates lower than 5.3Gbps or below 225MHz TMDS clock
- 4K30 (UHD Video)
 - 4K@24/25/30Hz & 4K@50/60Hz (4:2:0), 8-bit color
 - Data rates higher than 5.3Gbps or above 225MHz TMDS clock but below 10.2Gbps
- 4K60 (UHD+ Video)
 - 4K@50/60Hz (4:4:4, 8-bit)
 - 4K@50/60Hz (4:2:0, 10-bit HDR)
 - Data rates higher than 10.2Gbps

Front Panel LCD Menu

MAIN MENU
EDID
Preset Setup
Network Status
Network Setup
OSD Setup
CEC Send
Firmware
Firmware Update
Factory Reset

All primary functions of this unit can be controlled by using the front panel LCD menu which is activated by pressing the MENU button on the front of the unit. Use the + (PLUS), - (MINUS), and ENTER buttons to navigate the LCD menu. Press the MENU button to back out from any menu item and then press it again to close the menu.

The individual functions of the LCD menu will be introduced in the following section. Items marked in BOLD are the factory default settings.

1. **IN 1~4:** Select the EDID to assign to each input independently. (6) internal EDIDs, (4) sink EDIDs and (4) user EDIDs are available. Press the "Enter" button to confirm the selection. After making a selection the change will occur immediately on that input.

Note: After changing the EDID on an input, the video will typically black out briefly while the source adjusts to the new information.

EDID	
2ND LEVEL	3RD LEVEL
	01 FHD 2Ch
	02 FHD MCh
	03 UHD 2Ch
	04 UHD MCh
	05 UHD+ 2Ch
	06 UHD+ MCh
In 1~4	07 Sink A
111 1774	08 Sink B
	09 Sink C
	10 Sink D
	11 User 1
	12 User 2
	13 User 3
	14 User 4

2. **IN ALL:** Select the EDID to assign to all inputs. (6) internal EDIDs, (4) sink EDIDs and (4) user EDIDs are available. Press the "Enter" button to confirm the selection. After making a selection the change will occur immediately on all inputs.

Note: This setting will override any independently set EDID selections.

EDID	
2ND LEVEL	3RD LEVEL
	01 FHD 2CH
	02 FHD MCh
	03 UHD 2Ch
	04 UHD MCh
	05 UHD+ 2Ch
	06 UHD+ MCh
In All	07 Sink A
III AII	08 Sink B
	09 Sink C
	10 Sink D
	11 User 1
	12 User 2
	13 User 3
	14 User 4

1. **PRESET SETUP:** Select the number of the preset to store the current routing configuration into. Press the "Enter" button to confirm the selection.

After saving the preset, the stored routing will be displayed on the LCD. Press the "Menu" button to return to normal operation.

PRESET SETUP	
2ND LEVEL	3RD LEVEL
1~4	[Store Preset]

1. **NETWORK STATUS:** Displays the unit's current networking information or status for each item.

NETWORK STATUS	
2ND LEVEL	3RD LEVEL
Link:	[Current link status]
Mode:	[Current network mode]
IP:	[Current IP address]
Mask:	[Current netmask]
Gate:	[Current gateway address]
MAC:	[MAC address]

- 1. **MODE:** Set the unit to Static or DHCP mode. When DHCP mode is selected, all IP address information will be assigned automatically by the local DHCP server. When Static is selected, the IP address, netmask and gateway must be set manually and additional menu items become available.
- 2. **IP:** When DHCP is off, the IP address can be set here. Press the "Enter" button to begin editing the address and use the "+" and "-" buttons to adjust each value. Press the "Enter" button to store the current number segment and move to the next segment.

Note: The unit's default static IP address is 192.168.1.50.

- 3. **MASK:** When DHCP is off, the netmask can be set here. Press the "Enter" button to begin editing the address and use the "+" and "-" buttons to adjust each value. Press the "Enter" button to store the current number segment and move to the next segment.
- 4. **GATE:** When DHCP is off, the gateway address can be set here. Press the "Enter" button to begin editing the address and use the "+" and "-" buttons to adjust each value. Press the "Enter" button to store the current number segment and move to the next segment.

NETWORK SETUP		
2ND LEVEL	3RD LEVEL	
Mode:	STATIC	
	DHCP	
IP:	[Current static IP address]	
Mask:	[Current netmask]	
Gate:	[Current gateway address]	

1. **OUT A~D:** Enable or disable the OSD banner on each output. The change will occur after "Enter" has been pressed on a changed selection.

OSD SETUP	
2ND LEVEL	3RD LEVEL
Out A	OFF
	On
Out B	OFF
	On
Out C	OFF
	On
Out D	OFF
	On

- 1. **OUT A~D:** Pick the preferred output port using the "+" and "-" buttons and then press the "Enter" button to select it. Using the "+" and "-" buttons, pick the appropriate CEC command to send to the display connected to the selected output port.
 - On/Off: Turn the connected display on or off.
 - Vol +/Vol -: Increase or decrease the volume of the connected display.
 - Mute: Mute the audio output of the connected display.

Note: Not all displays can support all CEC commands.

CEC SEND	
2ND LEVEL	3RD LEVEL
Out A~D	On
	Off
	Vol +
	Vol –
	Mute

1. **FIRMWARE:** Displays the unit's current firmware version.

FIRMWARE	
2ND LEVEL	3RD LEVEL
Firmware	[Current firmware version]

1. **DO USB UPDATE:** Selecting "Yes" will prepare the unit to update firmware via the USB port. After inserting a USB thumb drive containing a valid firmware file (*.bin format) the update process will begin. After completion the unit will automatically reboot.

FIRMWARE UPDATE	
2ND LEVEL 3RD LEVEL	
Do USB Update?	NO
	Yes

1. **DO FACTORY RESET:** Selecting "Yes" will perform a factory reset and return the unit to its factory default state. After the reset is complete, the unit will reboot automatically.

FACTORY RESET				
2ND LEVEL 3RD LEVEL				
Do Factory Reset?	NO			
Do I actory Heset:	Yes			

Device Discovery

Please obtain the "Device Discovery" software from your authorized dealer and save it in a directory where you can easily find it.

Connect the unit and your PC/Laptop to the same active network and execute the "Device Discovery" software. Click on "Find Devices

on Network" and a list of devices connected to the local network will show up indicating their current IP address.

Note: The unit's default IP address is 192.168.1.50.



By clicking on one of the listed devices you will be presented with the network details of that particular device.

- 1. IP MODE: If you choose, you can alter the static IP network settings for the device, or switch the unit into DHCP mode to automatically obtain proper network settings from a local DHCP server. To switch to DHCP mode, please select DHCP from the IP mode drop-down, then click "Save" followed by "Reboot".
- 2. WEBGUI HOTKEY: Once you are satisfied with the network settings, you may use them to connect via Telnet or WebGUI. The network information window provides a convenient link to launch the WebGUI directly.

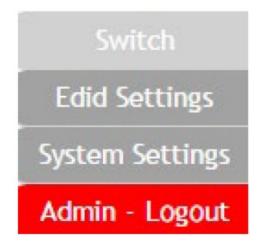


WebGUI Overview



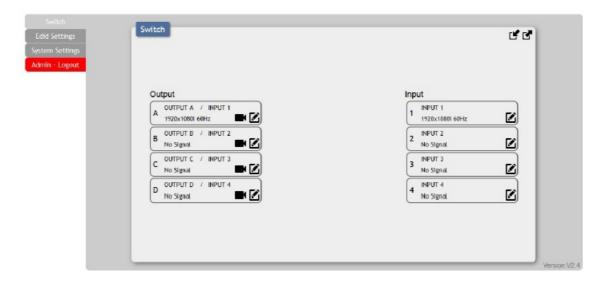
After connecting to the WebGUI's address in a web browser, the login screen will appear. Please enter the appropriate user name and password then click "Submit" to log in.

Note: The default user name and password is "admin".



On the left side of the browser you will see the following menu tabs where all primary functions of the unit are controllable via the built in WebGUI. The individual functions will be introduced in the following sections. Clicking the red "Logout" tab will automatically log the currently connected user out of the WebGUI and return to login page.

Switch Tab



This page provides video routing settings, preset saving/loading, and I/O renaming options. To begin assigning a new video route, please click the button of the HDMI output you wish to send video to and then click on the button of the preferred HDMI input port. If desired, you may select more than one output prior to selecting the input. As you select each button they will change their color to orange. The new route will become active immediately after selecting the input port and the routing information displayed on the buttons will change accordingly.

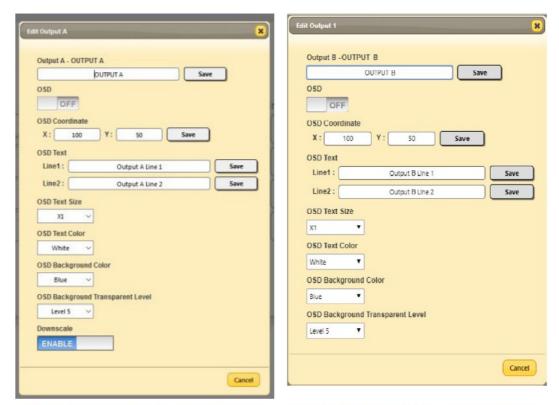
- 1. **OUTPUT:** Buttons for selecting the output (A~D) to route A/V Inputs to. Details about the output names and currently selected Input are also displayed here. Clicking on the "edit" icon opens up the Edit Output window which allows for changing a variety of settings related to the video output.
 - Video Mute: Each output can be individually muted (black video, no audio). To mute an output, please click the icon within the appropriate output button. To unmute the output, please click the icon a second time.

Note: The associated analog output will not be muted.

2. **INPUT:** Buttons for selecting the input to route to the selected output(s). Detail about the input names and signal information is also displayed here. Clicking on the "edit" icon opens up the Edit Input window which allows for changing the input's name.

Note: Blank spaces ("") are not allowed in names.

3. EDIT OUTPUT: This window allows for changing a variety of settings related to the video output. Supports 1080p downscaling only on output port A and port C, because of hardware limitations.
When this setting is turned on, 4K sources will be automatically downscaled to 1080p while maintaining the original framerate.



Web-GUI for Outputs A and C Web-GUI for Outputs B and D

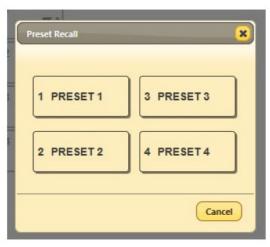
Output Name: To rename the output port, type the new name in the space provided in the Edit window.
 Click the "Save" button to confirm the change.

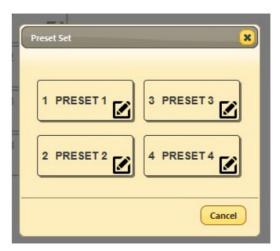
Note: Blank spaces (" ") are not allowed in names.

- OSD: This switch enables or disables the OSD custom text display for this output.
- OSD Coordinate: This section defines the location of the OSD custom text. The X value can be from 1 to 1920 and the Y value can be from 1 to 1080. Click the "Save" button to confirm changes.
- OSD Text: Each output can display up to 2 lines of customized OSD text. Enter each line of text here. Click the "Save" button to confirm changes.

Note: Each line of text can have up to 64 characters.

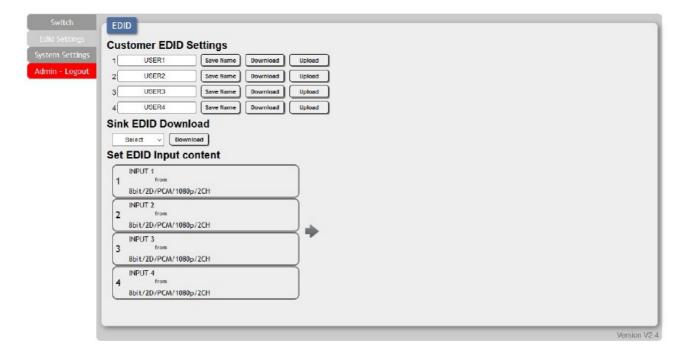
- OSD Text Size: Use the dropdown to select the preferred size for the OSD custom text. Available sizes are: 1x, 2x, and 4x.
- OSD Text Color: Use the dropdown to select the preferred color for the OSD custom text. Available colors
 are: black, white, red, green, blue, magenta, yellow, cyan, and gray.
- OSD Background Color: Use the dropdown to select the preferred background color for the OSD custom text. Available colors are: black, white, red, green, blue, magenta, yellow, cyan, and gray.
- OSD Background Color Transparent Level: Use the dropdown to select the preferred transparency level
 of the OSD custom text's background. The available range is from Level 1 (fully opaque) to Level 8 (fully
 transparent).
- 4. PRESET SETTINGS: This matrix can store up to four video routing presets. Presets can be utilized to store multiple routing states in advance for rapid, hassle-free, recall.





- Preset Set: Once you have the matrix set the way you like, you can click the "Preset Store" icon in the
 upper right corner of the window and the Preset Store window will open. Hovering the mouse over each
 button will display the current routing stored within it. You may also rename each preset by selecting the
 "Edit" icon. Click the center of the preferred preset's button to store the current routing state in that
 preset.
- Preset Recall: To load a previously stored preset, please click the "Preset Recall" icon and you will be
 presented with a choice of the 4 available presets. Hovering the mouse over each button will display the
 routing currently stored within it. The preset will activate immediately upon clicking the button.

EDID Settings Tab



This matrix provides the option of six standard EDIDs, four sink sourced EDIDs and four user uploaded EDIDs that can be assigned to each input port individually. The names of the four user uploaded EDIDs can changed if desired.

1. CUSTOMER EDID SETTINGS:

- Save Name: To change the name of a Customer EDID, type the new name in the space provided, then click on the "Save Name" button.
- Download: To save an existing user EDID to your local PC please press the "Download" button next to

- the EDID you would like to save. Depending on your browser settings you will either be asked where to save the downloaded file, or the file will be transferred to the default download location on your PC.
- **Upload:** To upload a new user EDID, please click the "Upload" button next to the Customer EDID Settings item you would like to change. An EDID Upload window will appear, allowing you to locate and upload the preferred EDID file (*.bin format) from a local PC.
 - Once the correct file has been selected, please click the "Upload" button in the window, and the file will be transferred to the matrix.
- 2. SINK EDID DOWNLOAD: To save the EDID from one of the connected displays to your local PC, select the appropriate sink from the dropdown list then press the "Download" button. Depending on your browser settings you will either be asked where to save the downloaded file, or the file will be transferred to the default download location on your PC.
- 3. SET EDID INPUT CONTENT: Click on the preferred input(s) to open the EDID Source management window. Multiple inputs can be selected at once, if desired.

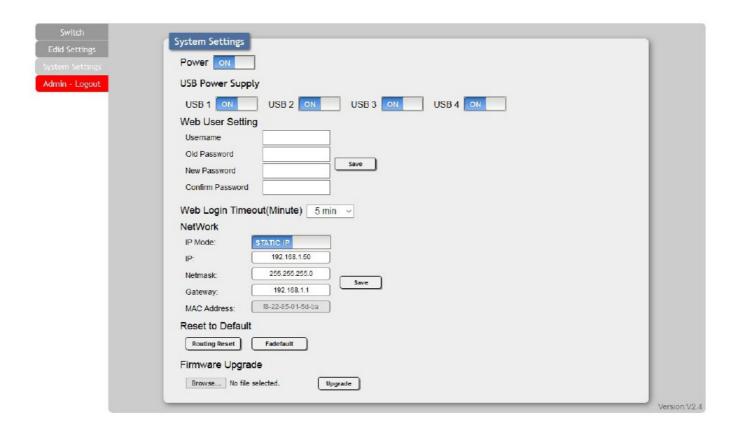
THIS MATRIX PROVIDES THE FOLLOWING 6 DEFAULT EDIDS:				
UNIT'S DEFAULT EDIDS				
FHD/2CH	1920x1080p@60Hz (4.95Gbps) & 8-bit color, LPCM 2.0			
FHD/MCH	1920x1080p@60Hz (4.95Gbps) & 8-bit color, LPCM 7.1 & Bitstream			
UHD/2CH	3840x2160p@30Hz (10.2Gbps) & Deep Color (8/10/12-bit), LPCM 2.0			
UHD/MCH	3840x2160p@30Hz (10.2Gbps) & Deep Color (8/10/12-bit), LPCM 7.1 & Bitstream			
UHD+/2CH	3840x2160p@60Hz (18Gbps) & Deep Color (8/10/12-bit), LPCM 2.0			
UHD+/MCH	3840x2160p@60Hz (18Gbps) & Deep Color (8/10/12-bit), LPCM 7.1 & Bitstream			

Select the new EDID source to use and the change will occur immediately.

Note: In most cases, assigning a new EDID to an input will cause the affected input to briefly blink out while the source adapts to the new information.

Note: In some cases it is possible for custom or external EDIDs to cause compatibility issues with certain sources. If this happens, it is recommended to switch to one of the 6 default EDIDs for maximum compatibility.

System Settings Tab



This page provides system configuration options including turning the unit's power on/off, changing the network settings, resetting the system to factory defaults and updating the firmware.

- 1. POWER: Press this switch to toggle the unit's power between ON and OFF (standby mode).
 - Note: While in standby mode the unit's WebGUI, Telnet and RS-232 controls are still active.
- 2. WEB USER SETTING: This section provides a way to change the user name and password for the Administrator account. Click on "Save" to confirm and activate any changes made to these settings.
 - Note: The default username and password is "admin".
- 3. WEB LOGIN TIMEOUT (MINUTE): Select the length of time to wait before logging the user out of the WebGUI due to inactivity. The available range is from 5 to 60 minutes.
- 4. NETWORK: The unit's IP mode may be switched between Static IP or DHCP. In Static IP mode the IP, netmask and gateway addresses may be manually set. When in DHCP mode, the unit will attempt to connect to a local DHCP server and obtain IP, netmask and gateway addresses automatically. Press "Save" after making any changes to the IP configuration or mode.
 - **Note:** The unit's default IP address is 192.168.1.50. If the IP address is changed then the IP address required for WebGUI/Telnet access will also change accordingly.
- 5. RESET TO DEFAULT: To reset the unit's routing selections to the default settings, click the "Routing Reset" button. To reset the unit to its factory default state press the "Fadefault" button. After the reset is complete, the unit will reboot automatically.
- 6. FIRMWARE UPGRADE: To update the unit's firmware, click the "Choose File" button to open the file selection window and then select the firmware update file (*.bin format) located on your local PC. After selecting the file, click the "Upgrade" button to begin the firmware update process. After the upgrade is complete, the unit will reboot automatically.

Telnet Control

Before attempting to use Telnet control, please ensure that both the unit and the PC/Laptop are connected to the same active networks.

To access the Command Line Interface (CLI)					
In Windows XP	Windows XP Click Start > Run , type " cmd " in the search field and press Enter .				
In Windows 7	Click Start, type "cmd" in the search field and press Enter.				
In Mac OS X Click Go > Applications > Utilities > Terminal.					

Once in the Command Line Interface (CLI) type "telnet" followed bythe IP address of the unit (and the port number if it is non-standard) and then hit "Enter". This will connect us to the unit we wish to control.

```
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.
C:\Users\Administrator>telnet 192.168.1.50 23
```

Note

- 1. If the IP address is changed then the IP address required for Telnet access will also change accordingly.
- 2. The default IP address is 192.168.1.50

Serial and Telnet Commands

COMMAND	DESCRIPTION AND PARAMETERS					
HELPJ	Show the full command list.					
? J	Show the full command list.					
P0 J	Turn the unit off (stand-by mode).					
P1 J	Turn the unit on.					
STJ	Show the unit's current firmware version and routing status.					
FADEFAULTJ	Reset the unit to the factory defaults.					
REBOOTJ	Reboot the unit.					
UPDATEJ	Prepare the unit to update firmware via the USB port. After inserting a USB thumb drive c ontaining a valid firmware file (*.bin format) the update process will begin. After completio n the unit will automatically reboot.					
QUITJ	Log out from the current Telnet session.					
SIPMODE N1J	Set the IP address assignment mode. Available values for N1: STATIC [Static IP mode] DHCP [DHCP mode]					
SETIP N1 N2 N3J	Set the IP address, netmask and gateway address to use when in Static IP mode.					
IPCONFIGJ	Show the unit's current IP configuration information.					
ETH_FADEFAULT	Reset the unit's network settings to the factory defaults.					
NAME N1 N2J	Set a name for the specified preset. N1 = 1~4 [Preset number] N2 = {Preset name} [8 characters maximum]					

	Route the specified input to one or more outputs.				
	$N1 = A \sim D$ [Output port letter(s)]				
	N2 = 1~4	[Input port number]			
N1N2 J	Note: Multiple output letters may be assigned to N1 to route the same source to mor an one output at once.				
	For example: "ABD2" routes input 2 to outputs A, B, and D.				

	Route the specified input to all outputs.					
 IN1 J	N1 = 1~4 [Input port number]					
INT0	Note: For example, "I3" routes input 3 to all outputs.					
RSJ	Reset the unit's routing to the factory default.					
	Save all current routing assignments to the specified preset.					
STORE N1J	N1 = 1~4 [Preset number]					
	List the routing assignments stored in the specified preset.					
SHOW N1J	N1 = 1~4 [Preset number]					
_	Activate the routing assignments saved in the specified preset.					
PRESET N1J	N1 = 1~4 [Preset number]					
	Set the EDID to use on the specified input.					
	N1 = 1~4 [Input port number] Available values for N2:					
	1 [FHD 2CH] 8 [Output B]					
	2 [FHD MCH] 9 [Output C]					
	3 [UHD 2CH] 10 [Output D]					
	4 [UHD MCH] 11 [User EDID 1]					
EM N1 N2 J	5 [UHD+ 2CH] 12 [User EDID 2]					
	6 [UHD+ MCH] 13 [User EDID 3]					
	7 [Output A] 14 [User EDID 4]					
	Set a name for the specified User EDID.					
USEREDID N1 N2 .	N1 = 1~4 [User EDID number]					
_J	N2 = {EDID name} [8 characters maximum]					
	Enable or disable broadcast of command responses to control connections other than the					
BROADCAST N1	e current one. Available values for N1 :					
J ON [Enabled]						
	OFF [Disabled]					
BROADCASTJ	Show the current status of the broadcast setting.					

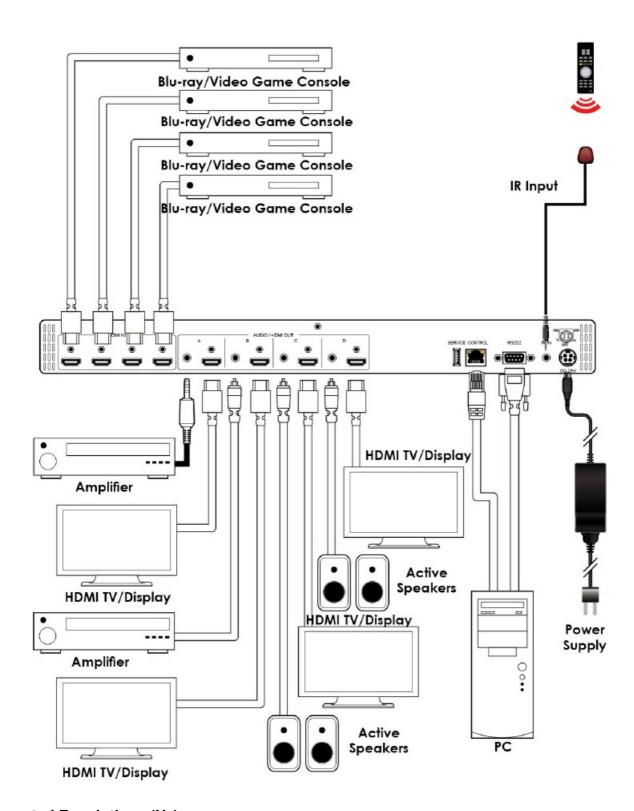
	Send the specified command to the display connected to the specified HDMI output usin g CEC.				
	N1 = 1~4	[Output port number] Available values for N2:			
	ON	[Power off]			
	OFF	[Power on]			
CECOUT N1 N2J	VOL+	[Increase volume]			
	VOL-	[Decrease volume]			
	MUTE	[Mute audio]			
	Enable the C	SD banner text on the specified output.			
OSDON N1J	N1 = 1~4	[Output port number]			
	Disable the OSD banner text on the specified output.				
OSDOFF N1J	N1 = 1~4	[Output port number]			
	Set the horizontal and vertical position of the upper left corner of the OSD banner text of the specified output.				
OSDXY N1 N2 N3 . _J	N1 = 1~4	[Output port number] N2 = 1~1920 [Horizontal = 1~1080 [Vertical position]			

	Set the contents of the OSD banner text used on the specified						
	output.						
	N1 = 1~4	[Output port number]					
OSDSTR N1 N2 N3 +-	N2 = 1~2	[Text line number]					
	N3 = {Text}	[64 characters maximum]					
	Set the font size for the OSD banner on the specified output.						
OSDFSIZE N1 N2 +	N1 = 1~4	[Output port number]					
_	N2 = 1~3	[Font size]					

	Set the color of the font used by the OSD banner on the specified output.					
	N1 = 1~4 [Output port number] Available values for N2:					
	1 [Black] 6 [Magenta]					
	2 [White] 7 [Yellow]					
OSDFCOLOR N1 N	3 [Red] 8 [Cyan]					
2 +	4 [Green] 9 [Gray]					
	5 [Blue]					
	Set the color of the background of the OSD banner on the specified output.					
	N1 = 1~4 [Output port number] Available values for N2:					
	1 [Black] 6 [Magenta]					
	2 [White] 7 [Yellow]					
OSDBGCOLOR N1	3 [Red] 8 [Cyan]					
N2 +-	4 [Green] 9 [Gray]					
	5 [Blue]					
	Set the transparency level for the background of the OSD banner on the specified output.					
OSDTS N1 N2 +- N1 = $1 \sim 4$ [Output port number] N2 = $1 \sim 8$ [Transparency level]						
						Enable or disable replacing the quetem OSD benner toyt with a setem information. Assails
	Enable or disable replacing the custom OSD banner text with system information. Availa ble values for N1 :					
OSDINFO N1 +-	ON [System info display enabled]					
	OFF [System info display disabled]					
ROSDINFO +-	Show the current status of the OSDINFO setting.					
SDI CUSTOM NA	Set the discrete IR customer code to use.					
SDI_CUSTOM N1 +	N1 = 0000~FFFF [Discrete IR code in ASCII hex]					
RDI_CUSTOM +-	Show the current discrete IR customer code.					

Note: Commands will not be executed unless followed by a carriage return. Commands are not case-sensitive.

CONNECTION DIAGRAM



Supported Resolutions (Hz)

RESOLUTION	INPUT	ОИТРИТ	RESOLUTION	INPUT	ОИТРИТ
720x400p@70/85	1	1	1600x1200p@60	1	1
640x480p@60/72/75/85	1	1	1680x1050p@60	1	1
720x480i@60	1	1	1920x1080i@50/60	1	1
720x480p@60	1	1	1920x1080p@24/25/30	1	1
720x576i@50	1	1	1920x1080p@50/60	1	1
720x576p@50	1	1	1920x1200p@60RB	1	1
800x600p@56/60/72/75/85	1	1	2560x1440p@60RB	1	1
848x480p@60	1	1	2560x1600p@60RB	1	1
1024x768p@60/70/75/85	1	1	2048x1080p@24/25/30	1	1
1152x864p@75	1	1	2048x1080p@50/60	1	1
1280x720p@50/60	1	1	3840x2160p@24/25/30	1	1
1280x768p@60/75/85	1	1	3840x2160p@50/60 (4:2:0)	1	1
1280x800p@60/75/85	1	1	3840x2160p@24, HDR10	1	1
1280x960p@60/85	1	/	3840x2160p@50/60 (4:2:0), HDR10	/	/
1280x1024p@60/75/85	1	1	3840x2160p@50/60	1	1
1360x768p@60	1	1	4096x2160p@24/25/30	1	1
1366x768p@60	1	1	4096x2160p@50/60 (4:2:0)	1	1
1400x1050p@60	1	/	4096x2160p@24, HDR10	/	/
1440x900p@60/75	1	/	4096x2160p@50/60 (4:2:0), HDR10	/	/
1600x900p@60RB	1	1	4096x2160p@50/60	1	1

Digital Audio

HDMI Input / Output					
LPCM			BITSTREAM		
Max Channels 8 Channels			Supported Formats	Standard & High-Definition	
Sampling Rate (kHz	32, 44.1, 48, 88.2, 96, 176.4, 192				

Analog Audio

Analog Output			
Max Audio Level 2Vrms		Crosstalk	< -60dB@10kHz
THD+N	< -60dB@0dBFS 1kHz (A-wt)	Impedance	470Ω
SNR	> 70dB@0dBFS	Туре	Unbalanced
Frequency Response	< ±3dB@20Hz~20kHz		

PLEASE READ THE FOLLOWING TERMS AND CONDITIONS CAREFULLY BEFORE USING THIS HARDWARE, COMPONENTS AND SOFTWARE PROVIDED BY, THROUGH OR UNDER A-NeuVideo, INC (COLLECTIVELY, THE "PRODUCT"). By using installing or using the Product, you unconditionally signify your agreement to these Terms and Conditions. If you do not agree to these Terms and Conditions, do not use the Product and return the Product to A-NeuVideo, Inc. at the return address set forth on the Product's packing label at your expense. A-NeuVideo, Inc. may modify these Terms and Conditions at anytime, without notice to you.

RESTRICTIONS ON USE OF THE PRODUCT

It is your responsibility to read and understand the installation and operation instructions, both verbal and in writing, provided to you with respect to the Product.

You are authorized to use the Product solely in connection with such instructions. Any use of the Product not in accordance with such instructions shall void any warranty pertaining to the Product. Any and all damages that may occur in the use of the Product that is not strictly in accordance with such instructions shall be borne by you and you agree to indemnify and hold harmless A-NeuVideo, Inc. from and against any such damage. The Product is protected by certain intellectual property rights owned by or licensed to A-NeuVideo. Any intellectual property rights pertaining to the Product are licensed to you by A-NeuVideo, Inc. and/or its affiliates, including any manufacturers or distributors of the Product (collectively, "A-NeuVideo") for your personal use only, provided that you do not change or delete any proprietary notices that may be provided with respect to the Product.

The Product is sold to you and any use of any associated intellectual property is deemed to be licensed to you by A-NeuVideo for your personal use only.

A-NeuVideo does not transfer either the title or the intellectual property rights to the Product and A-NeuVideo retains full and complete title to the intellectual property rights therein. All trademarks and logos are owned by A-NeuVideo or its licensors and providers of the Product, and you may not copy or use them in any manner without the prior written consent of A-NeuVideo, which consent may be withheld at the sole discretion of A-NeuVideo. The functionality and usability of the Product is controlled by A-NeuVideo, Inc. from its offices within the State of Texas, United States of America. A-NeuVideo makes no representation that materials pertaining to the Product are appropriate or available for use in other locations other than the shipping address you provided with respect thereto. You are advised that the Product may be subject to U.S. export controls.

DISCLAIMERS AND LIMITATION OF LIABILITY

A-NeuVideo may change or modify the Product at any time, from time to time. THE PRODUCT IS PROVIDED "AS IS" AND WITHOUT WARRANTIES OF ANY KIND EITHER EXPRESS OR IMPLIED. A-NEUVIDEO DOES NOT WARRANT OR MAKE ANY REPRESENTATIONS REGARDING THE USE OR THE RESULTS OF THE USE OF THE PRODUCT'S CORRECTNESS, ACCURACY, RELIABILITY, OR OTHERWISE.

A-NeuVideo has no duty or policy to update any information or statements pertaining to the Product and, therefore, such information or statements should not be relied upon as being current as of the date you use the Product. Moreover, any portion of the materials pertaining to the Product may include technical inaccuracies or typographical errors. Changes may be made from time to time without notice with respect to the Product. TO THE FULLEST EXTENT PERMISSIBLE PURSUANT TO APPLICABLE LAW, A-NEUVIDEO DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO IMPLIED WARRANTIES OF

MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT.

A-NEUVIDEO DOES NOT WARRANT THE ACCURACY, COMPLETENESS OR USEFULNESS OF ANY INFORMATION WITH RESPECT TO THE PRODUCT.

A-NEUVIDEO DOES NOT WARRANT THAT THE FUNCTIONS PERTAINING TO THE PRODUCT WILL BE ERROR-FREE, THAT DEFECTS WITH RESPECT TO THE PRODUCT WILL BE CORRECTED, OR THAT THE MATERIALS PERTAINING THERETO ARE FREE OF DEFECTS OR OTHER HARMFUL COMPONENTS. A-NEUVIDEO WILL USE ITS REASONABLE EFFORTS TO CORRECT ANY DEFECTS IN THE PRODUCT UPON TIMELY WRITTEN NOTICE FROM YOU NOT TO EXCEED 10 BUSINESS DAYS AFTER RECEIPT BY YOU OF THE PRODUCT, BUT YOU (AND NOT A-NEUVIDEO) ASSUME THE ENTIRE COST OF ALL NECESSARY SERVICING, REPAIR AND CORRECTION THAT WAS CAUSED BY YOU UNLESS OTHERWISE AGREED TO IN A SEPARATE WRITING BY A-NEUVIDEO.

UNDER NO CIRCUMSTANCES, INCLUDING, BUT NOT LIMITED TO, NEGLIGENCE, SHALL A-NEUVIDEO BE LIABLE FOR ANY SPECIAL OR CONSEQUENTIAL DAMAGES THAT RESULT FROM THE USE OF, OR THE INABILITY TO USE THE PRODUCT IN ACCORDANCE WITH ITS SPECIFICATIONS, EVEN IF A-NEUVIDEO OR ITS REPRESENTATIVES HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. IN NO EVENT SHALL A-NEUVIDEO'S TOTAL LIABILITY TO YOU FROM ALL DAMAGES, LOSSES, AND CAUSES OF ACTION (WHETHER IN CONTRACT, OR OTHERWISE) EXCEED THE AMOUNT YOU PAID TO A-NEUVIDEO, IF ANY, FOR THE PRODUCT.

Documents / Resources



KVMSwitchTech ANI-44HPSC 4K UHD 4x4 Matrix with Audio Output [pdf] Instruction Manu

ANI-44HPSC 4K UHD 4x4 Matrix with Audio Output, ANI-44HPSC, 4K UHD 4x4 Matrix with Audio Output, Matrix with Audio Output, Output

Manuals+,