

4K@30Hz 8x16 HDMI™
Matrix
USER MANUAL

HDS-816

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Thank you for purchasing this product

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

Important Safety Note – Surge Protection Recommended

This product contains sensitive electronic components that may be damaged by electrical spikes, surges, lightning strikes, or static discharge. To protect and extend the service life of your equipment, we strongly recommend using a surge protection device.

Warranty Registration

Activate your warranty by registering your product at:

→ www.orei.com/register

Need Technical Support? We're Here to Help.

Our experienced Technical Support Team is available to answer your questions, offer expert advice, and help troubleshoot any issues to keep your project on track—on time and on budget.

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Send us an instant message—our team typically responds within moments during live support hours.

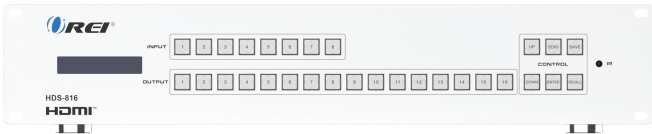
Introduction

The HDS-816 is a professional-grade 8x16 HDMI™ Matrix Switch designed for flexible signal routing in commercial AV environments. It enables seamless switching between 8 HDMI™ sources across 16 HDMI™ displays, making it ideal for video walls, digital signage, control rooms, and large-scale presentation systems.

With support for HDMI™ 1.4 and HDCP 2.2, the HDS-816 transmits video resolutions up to 4K@30Hz with a bandwidth of 10.2Gbps, while also supporting a wide range of audio formats—including Dolby Digital, DTS 5.1, Dolby Atmos, DTS:X, and LPCM up to 7.1CH—through HDMI™.

Advanced EDID management offers optimal device compatibility, and the system allows users to save and recall up to 16 custom switching scenes. The round-robin switching function automates scene cycling at defined intervals.

With control options via front panel, IR remote, RS-232, or WebGUI, and housed in a 2U rack-mount chassis, the HDS-816 is built for easy integration and dependable performance in any commercial setup.



Features & Package Contents

Features

1. **HDMI™ 1.4 and HDCP 2.2 Compliant** – Compatible with a broad range of HDMI™ devices and protected content.
2. **Supports Video Resolutions up to 4K@30Hz** – Delivers high-definition video across all outputs.
3. **10.2Gbps Video Bandwidth** – Ensures stable, high-quality AV transmission.
4. **8x16 Matrix Switching** – Distribute any of 8 HDMI™ sources to any or all of the 16 HDMI™ displays.
5. **Audio Format Support** – Passes LPCM 2.0/5.1/7.1CH, Dolby Digital, Dolby Digital+, Dolby TrueHD, DTS 5.1, DTS-HD Master Audio, Dolby Atmos, and DTS:X via HDMI™.
6. **Advanced EDID Management** – Allows fine-tuned compatibility settings between sources and displays.
7. **Scene Save and Recall** – Store and retrieve up to 16 custom routing presets.
8. **Round-Robin Scene Switching** – Automatically rotate through saved scenes at specified intervals.
9. **Flexible Control Options** – Operate via front panel buttons, IR remote, RS-232 commands, or intuitive WebGUI.
10. **2U Rack-Mount Design** – Durable and space-efficient for professional AV installations.

Package Contents

1.	HDS-816	1 pcs
2.	Remote	1 pcs
3.	Power Adapter	1 pcs
4.	RS-232 Serial Cable	1 pcs
5.	User Manual	1 pcs

Specifications

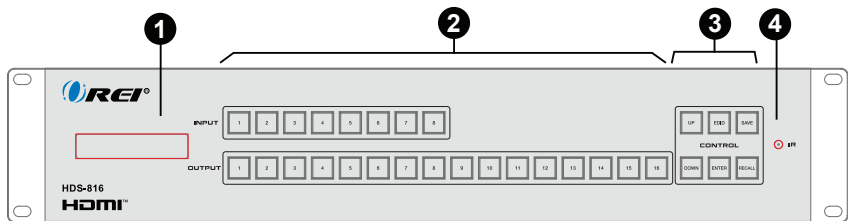
Technical	
HDMI™ Compliance	HDMI™ 1.4
HDCP Compliance	HDCP 2.2
Video Bandwidth	10.2Gbps
Video Resolution	480i ~ 4K@30Hz
Color Depth	8-bit, 10-bit, 12-bit (1080p@60Hz) 8-bit (4K2K@30Hz YUV4:4:4) 8-bit, 10-bit, 12-bit (4K2K@30Hz YCbCr 4:2:2/4:2:0)
Color Space	RGB, YCbCr 4:4:4, YUV 4:4:4, YCbCr 4:2:2/4:2:0
HDMI™ Audio Formats	LPCM 2.0/5.1/7.1, Dolby Digital, DTS 5.1, Dolby Digital+, Dolby TrueHD, DTS-HD Master Audio, Dolby Atmos, DTS:X
ESD Protection	IEC 61000-4-2: ±8kV (Air-gap discharge) & ±4kV (Contact discharge)
Connection	
Inputs	8× INPUT [HDMI™ Type A, 19-pin female]
Outputs	16× OUTPUT [HDMI™ Type A, 19-pin female]
Control	1× RS 232-IN [D-Sub 9, female] 1× RS 232-OUT [D-Sub 9, male] 1× LAN [RJ45]
Mechanical	
Housing	Metal Enclosure
Color	Front panel: Silver Rear case: Black
Dimensions	L: 440mm / 17.32in W: 285mm / 11.22in 88mm / 3.46in
Weight	3.88kg / 8.55lbs
Power Supply	Input: AC 100-240V 50/60Hz Output: DC 12V/3A (US/EU standard, CE/FCC/UL certified)
Power Consumption	17.8W (MAX)

Specifications

Mechanical		
Operating Temperature	0°C ~ 40°C / 32°F ~ 104°F	
Storage Temperature	-20°C ~ 60°C / -4°F ~ 140°F	
Operating Humidity	20%~80% (Relative Humidity, non-condensing)	
Storage Humidity	10%~90% (Relative Humidity, non-condensing)	
Video Resolution	4K30	1080P60
HDMI™ Cable Length (IN / OUT)	10m/33ft	15m/50ft
The use of "Premium High Speed HDMI™" cable is highly recommended.		

Operation Controls and Functions

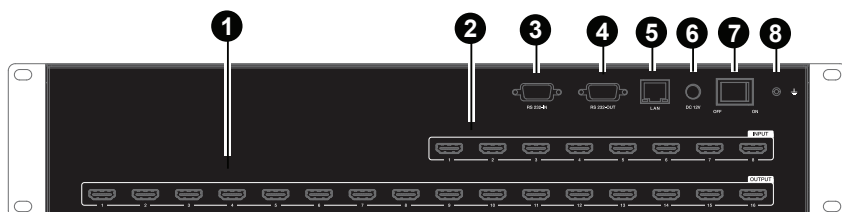
Front Panel



No.	Name	Function Description
1.	LCD screen	The software version and IP address of the matrix is displayed on the screen after powering on. Information such as the current input/output channel mapping, and EDID can be displayed by pressing front panel buttons.
2.	INPUT (1~8)/ OUTPUT (1~16) buttons	Input and output channel switching buttons. First, press the INPUT (1-8) button to select the input channel, the corresponding input button will light in green and the channel number will be displayed on the LCD screen. Then press the OUTPUT (1-16) button to select one or multiple output channels to complete the “one-to-one” or “one-to-many” matrix switching.
3.	CONTROL buttons	UP: Press the UP button to select the previous item. DOWN: Press the DOWN button to select the next item. EDID: Used to set the EDID mode of the input channel. Press the EDID button to enter EDID setting mode, and press the INPUT (1~8) button to select the input channel, then press the UP/DOWN button to select the desired EDID. Finally, press the ENTER button to confirm and save the settings. Pressing the EDID button twice can return to the home page. ENTER: Used to confirm and save EDID settings. SAVE: Used to save the preset scene. Up to 16 scenes can be saved. Press buttons “SAVE+OUTPUT n” to save the current routing scene as scene n (n=1~16). RECALL: Used to recall the saved scene. Press buttons “RECALL+OUTPUT n” to recall routing scene n (n=1~16) as the current routing.
4.	IR window	IR signal receiving window, receiving the IR signal of the remote.

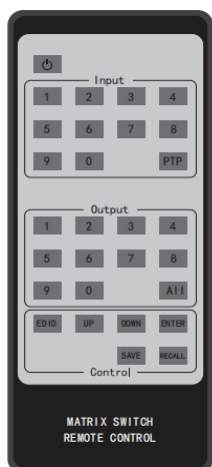
Operation Controls and Functions

Rear Panel



No.	Name	Function Description
1.	OUTPUT 1~16 ports	Connect a display device such as TV, Monitor, etc.
2.	INPUT 1~8 ports	Connect a media device such as DVD player, streaming device, etc.
3.	RS-232-IN port	Connect to a PC or Laptop to control the unit through RS-232 commands.
4.	RS-232-OUT port	RS-232 serial control loop output port.
5.	LAN port	Connect to a laptop/pc or network router to access the Web-GUI.
6.	DC 12V	Connect the included power adapter
7.	Power switch	Used to turn on/off the matrix.
8.	GND	Connect the housing to the ground.

Operation Controls and Functions



⏻: Power on the Matrix or set it to standby mode.

Input buttons

1/2/3/4/5/6/7/8/9/0: Select the input signal source.

PTP:

Press this button to switch the signal status to the one-to-one correspondence state: 1 -> 1, 2 -> 2, 3 -> 3.....8 -> 8.

Output buttons

1/2/3/4/5/6/7/8: Select the output channel.

Signal switching operation:

Signal switching operation: First press input button to select the input source, then press output button to select one or multiple output channels. For example, press Input 01, and press Output 01, 03, 12, then the input signal 1 will be switched to output channel 1, 3 and 12.

ALL: Used to perform one-to-all switching.

e.g. Press "Input m (m=0/1~0/8)→All": Switch input m to all outputs.

Control buttons

EDID: Used to set the EDID mode of the input channel.

Press the EDID button to enter EDID setting mode, and press the Input (1~8) button to select the input channel, then press the UP/DOWN button to select the desired EDID. Finally, press the ENTER button to confirm and save the settings.

UP: Press the UP button to select the previous item.

DOWN: Press the DOWN button to select the next item.

ENTER: Press this button to confirm the EDID switching.

SAVE: Used to save the preset scene. Press buttons "SAVE+Output n (n=0/1~1/6)" to save the current routing scene as scene n (n=1~16).

RECALL: Used to recall the saved scene. Press buttons "RECALL+Output n (n=0/1~1/6)" to recall routing scene n (n=1~16) as the current routing.

EDID Management

This matrix has 12 factory defined EDID settings, 16 copy EDID modes (copy the EDID of the device connected to the corresponding output port) and 2 user defined modes. You can select defined EDID mode or copy EDID mode to input port through front panel buttons.

The EDID modes of the matrix are shown as below:

No.	EDID Mode	No.	EDID Mode
1	1080p, Stereo Audio 2.0	16	Copy HDMI Out 4
2	1080p, Dolby/DTS 5.1	17	Copy HDMI Out 5
3	1080p, HD Audio 7.1	18	Copy HDMI Out 6
4	1080i, Stereo Audio 2.0	19	Copy HDMI Out 7
5	1080i, Dolby/DTS 5.1	20	Copy HDMI Out 8
6	1080i, HD Audio 7.1	21	Copy HDMI Out 9
7	1080p, 3D Stereo Audio 2.0	22	Copy HDMI Out 10
8	1080p, 3D Dolby/DTS 5.1	23	Copy HDMI Out 11
9	1080p, 3D HD Audio 7.1	24	Copy HDMI Out 12
10	4K2K30_444 Stereo Audio 2.0	25	Copy HDMI Out 13
11	4K2K30_444 Dolby/DTS 5.1	26	Copy HDMI Out 14
12	4K2K30_444 HD Audio 7.1	27	Copy HDMI Out 15
13	Copy HDMI Out 1	28	Copy HDMI Out 16
14	Copy HDMI Out 2	29	User Defined 1
15	Copy HDMI Out 3	30	User Defined 2

WebGUI User Guide

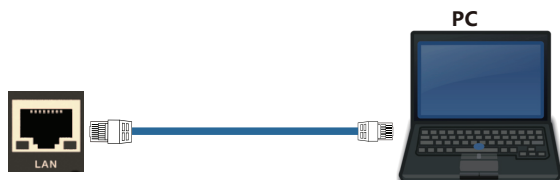
Connection

The Matrix can be controlled by WebGUI. The operation method is shown as below:

Step 1: Get the current IP Address.

Before connecting and logging into the WebGUI, it is necessary to obtain the IP address of the matrix. The default IP address is 192.168.0.100. And the current IP address of the matrix is displayed on the LCD screen on the front panel of the matrix after powering on.

Step 2: Connect the LAN port of the matrix to the PC with an ethernet cable, and set the IP address of the PC to be in the same network segment with the matrix. The default IP of the matrix is 192.168.0.100. You can change the laptop IP to 192.168.0.120.



Login

Input the current IP address of matrix into the browser on the PC to enter the WebGUI login page.



WebGUI User Guide

Select the username and the desired language, then enter the password. The default passwords are as follows.

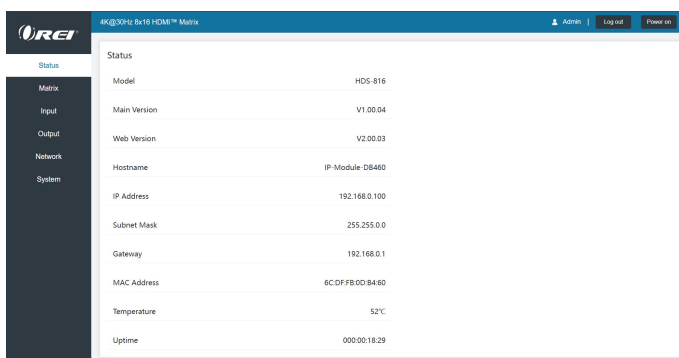
No.	Username	Password
1.	Admin	1234
2.	User	1234

After entering the password, click the “LOGIN” to access the WebGUI main page.

WebGUI Interface Instruction

■ Status Page

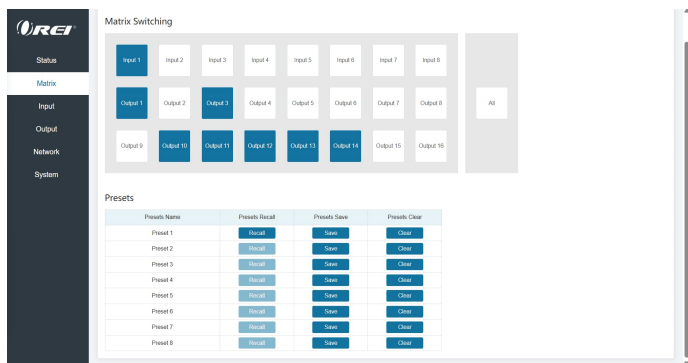
The Status page provides basic information about the Model, the installed firmware version and the network settings of the device.



WebGUI User Guide

■ Matrix Page

In Matrix page, you can configure the HDMI matrix freely and create a preset if needed.



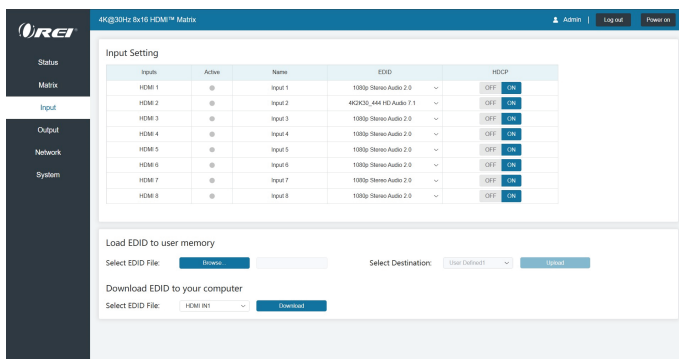
① **Matrix:** You can click and select an output (1~16) firstly, and then select an input source (1~8). One route of video output configuration is completed. You can switch it freely.

ALL: Click this button to select an input source for all outputs 1~16.

② **Preset:** You can set, save or clear any route video matrix configuration if needed. Each group of the Output and Input can be set, save and clear on the page. 8 presets are allowed to be set.

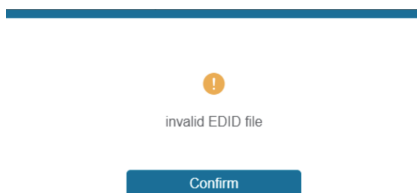
WebGUI User Guide

■ Input Page



You can do the following operations on the Input page:

- ① **Input:** Input channel of the device.
- ② **Active:** It indicates whether the channel is connected to a signal source. It is green if the input signal is detected, and gray if no signal.
- ③ **Name:** The output channel's name. You can modify it by entering the corresponding name (max length: 32 characters) in the input box.
- ④ **EDID:** It indicates the current EDID of the device. You can click the drop-down menu to select other EDIDs.
- ⑤ **HDCP:** Turn on or turn off the HDCP for current device output.
- ⑥ **Load EDID to user memory:** Set EDID for the User. Click the "Browse" button, then select the bin file. If you select the wrong EDID file, there will be a prompt, as shown in the following figure:



WebGUI User Guide

Make sure to select the correct file, then you can check the name of the selected file. Then select destination “User Define1/User Define2/User Define3”, and click “Upload”.

Load EDID to user memory

Select EDID File:

None

Download EDID to your computer

Select EDID File:

HDMI IN1

Download

Select Destination:

User Define1

User Define1

User Define2

User Define3

Upload

After successful setting, it will prompt as follows:

1

Upload Successfull

Confirm

⑦ **Download EDID to your computer:**

If you want to download the existing EDID, click the drop-down box of “Select EDID File” to select the input channel you want, and then click “Download” to save the corresponding EDID file to your computer.

HDMI 7

HDMI 8

HDMI IN1

HDMI IN2

HDMI IN3

HDMI IN4

HDMI IN5

HDMI IN6

HDMI IN7

HDMI IN8

Load EDID to user memory

Select EDID File:

HDMI IN1

Download EDID to your computer

Select EDID File:

HDMI IN1

Download

Input7

Input8

FALLDGE_IN_HDMI_7/3CH

FALLDGE_IN_HDMI_7/3CH

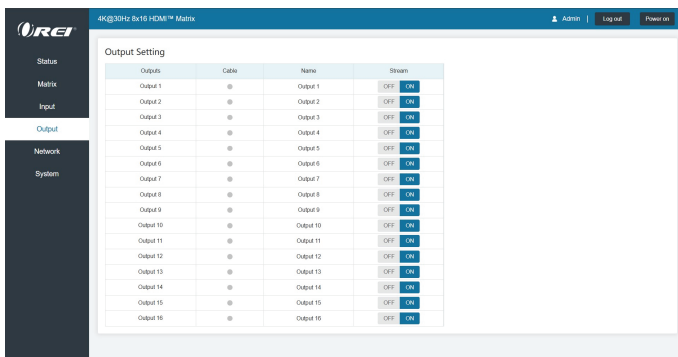
Select Destination:

User Define1

Upload

WebGUI User Guide

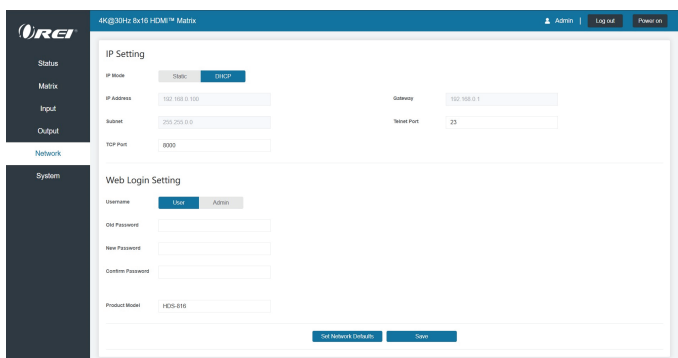
■ Output Page



You can do the following operations on the Output page:

- ① **Outputs:** Output channel of the device.
- ② **Cable:** It indicates the connection status of output ports. When the output port is connected to the display, it shows green, otherwise, it shows gray.
- ③ **Name:** The output channel's name. You can modify it by entering the corresponding name (max length: 32 characters) in the input box.
- ④ **Stream:** Turn on or turn off the output stream.

■ Network Page



WebGUI User Guide

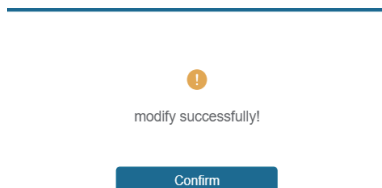
You can do the following operations on the Network page:

① **Modify Network Setting:** Modify the IP Mode/IP Address/Gateway/Subnet Mask/Telnet Port as required, click “Save” to save the settings, and then it will come into effect.

If the Mode is “Static”, you can set manually the IP Address/Gateway/Subnet/Telnet Port as required.

If the Mode is “DHCP”, it will search and be filled with the IP Address assigned by the router automatically. You can’t modify it now.

② **Modify User Password:** Click the “User” button, enter the correct Old Password, New Password, and Confirm Password, and then click “Save”. After successful modification, there will be a prompt, as shown in the following figure:



Note: Input rules for changing passwords:

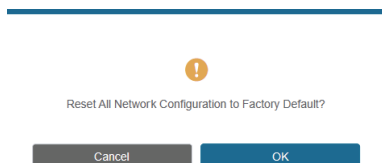
(1) The password can't be empty.

(2) New Password can't be the same as Old Password.

(3) New Password and Confirm Password must be the same.

③ **Set the Default Network:**

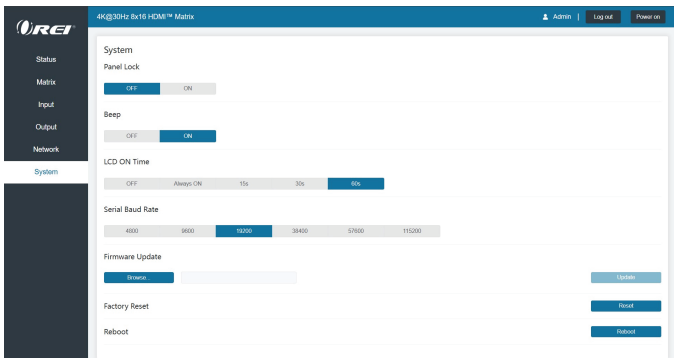
Click “Set Network Defaults”, there will be a prompt, as shown in the following figure:



WebGUI User Guide

Click “OK” to search the IP Address again. After searching is completed, it will switch to the login page, the default network setting is completed.

■ System Page



You can do the following operations on the System page:

- ① **Panel Lock:** Click “ON/OFF” to lock/unlock panel buttons. “ON” indicates that panel buttons are unavailable; “OFF” indicates panel buttons are available.
- ② **Beep:** Turn on/off the beep.
- ③ **LCD On Time:** You can turn on/off the LCD, and set the display duration time (Always ON/15s/30s/60s).
- ④ **Serial Baud Rate:** Click the value to set the Serial Baud Rate.
- ⑤ **Firmware Update:** Click “Browse” to select the update file, and then click “Update” to complete firmware update.
- ⑥ **Factory Reset:** Reset the unit to factory defaults by clicking “Reset”.
- ⑦ **Reboot:** Reboot the unit by clicking “Reboot”.

Note: After reset/reboot, it will switch to the login page.

RS-232 Commands

The matrix also supports RS-232 command control. Connect the RS 232-IN port of the product to a PC with an RS-232 to USB serial cable. Then open a Serial Command tool on the PC to send RS-232 commands to control the matrix. The RS-232 command list is below.

ASCII Commands				
RS-232 Baud rate: 19200; Data bit: 8; Stop bit: 1; Parity bit: none; TCP/IP Port: 8000				
Command Code	Function Description	Example	Feedback	Default
System Setting				
?	Get the list of all commands	?		List all API commands
help	Get the list of all commands	help		List all API commands
get model		get model	HDS-816	HDS-816
status	Get device current status	status	Please refer to the note at the end of the list.	
get version	Get Firmware version	get version	MAIN MCU V1.00.01 WEB V1.00.01	
power on	Power on the device	power on	Power on System Initializing... Initialization Finished! MAIN MCU V1.00.01 WEB V1.00.01	
power off	Power off the device	power off	Power off	
get power	Get current power state	get power	Power on /Power off	
reboot	Reboot the device	reboot	Reboot... System Initializing... Initialization Finished! MAIN MCU V1.00.01 WEB V1.00.01	
reset	Reset system settings to default (Should type "Yes" to confirm, "No" to discard)	reset	Sure to reset system settings to default? Type "Yes" after next prompt to confirm...	

RS-232 Commands

Command Code	Function Description	Example	Feedback	Default
reset all	Reset system and network settings to default (Should type "Yes" to confirm, "No" to discard)	reset all	Sure to reset system and network settings to default? Type "Yes" after next prompt to confirm...	
set front button x	Set front button locked on/off (x=0~1) x=0: Unlocked x=1: Locked	set front button 0	Set front button unlocked	0
get front button	Get front button locked on/off status	get front button	Unlocked	
set beep x	Set buzzer on/off (x=0~1) x=0: Off x=1: On	set beep 0	Set beep off	1
get beep	Get buzzer on/off status	get beep	Off	
get temp	Get device internal temperature	get temp	65C	
get uptime	Get device running time (Day:Hour:Min:Sec)	get uptime	000:00:13:04	
set id x	Set the control ID of the product, x=000~999	set id 888	Set id 888	NO ID
get id	Get the control ID of the product	get id	888	
set lcd logo x to y	Set the x sentence displayed on the LCD to y during power-on x=1:LCD line 1 x=2:LCD line 2 y=[16 characters max]	set lcd logo 1 to HDS-816	Set lcd logo 1 to HDS-816	LCD line 1:Initializing... LCD line 2:
get lcd logo x	Get the x sentence displayed on the LCD during power-on x=0:LCD line 1~2 x=1:LCD line 1 x=2:LCD line 2	get lcd logo 1	LCD line:HDS-816	

RS-232 Commands

Command Code	Function Description	Example	Feedback	Default
Input Setting				
get input x cable	Get input (x=0-8) cable con- nection status x=0: All HDMI Inputs x=1-8: HDMI 1-HDMI 8	get input 1 cable	HDMI 1 cable on	
set input x edid y	Set input (x=0-8) EDID (y=1-30) x=0: All Inputs x=1-8: HDMI 1-HDMI 8 y=1: 1080p Stereo Audio 2.0 y=2: 1080p Dolby/DTS 5.1 y=3: 1080p HD Audio 7.1 y=4: 1080i Stereo Audio 2.0 y=5: 1080i Dolby/DTS 5.1 y=6: 1080i HD Audio 7.1 y=7: 1080p 3D Stereo Audio 2.0 y=8: 1080p 3D Dolby/DTS 5.1 y=9: 1080p 3D HD Audio 7.1 y=10: 4K2K30_444 Stereo Audio 2.0 y=11: 4K2K30_444 Dolby/DTS 5.1 y=12: 4K2K30_444 HD Audio 7.1 y=13-28: Copy HDMI Out 1-Copy HDMI Out 16 y=29: User Defined 1 y=30: User Defined 2	set input 0 edid 1	Set HDMI 1 EDID 1080p stereo audio 2.0 Set HDMI 2 EDID 1080p stereo audio 2.0 Set HDMI 3 EDID 1080p stereo audio 2.0 Set HDMI 4 EDID 1080p stereo audio 2.0 Set HDMI 5 EDID 1080p stereo audio 2.0 Set HDMI 6 EDID 1080p stereo audio 2.0 Set HDMI 7 EDID 1080p stereo audio 2.0 Set HDMI 8 EDID 1080p stereo audio 2.0	1
get input x edid	Get input (x=0-8) EDID mode x=0: All Inputs x=1-8: HDMI 1-HDMI 8	get input 0 edid	HDMI 1 EDID 1080p stereo audio 2.0 HDMI 2 EDID 4K2K30_444 HD audio 7.1 HDMI 3 EDID 4K2K30_444 dolby/DTS 5.1 HDMI 4 EDID copy HDMI out 1 HDMI 5 EDID 1080p stereo audio 2.0 HDMI 6 EDID 4K2K30_444 HD audio 7.1 HDMI 7 EDID 4K2K30_444 dolby/DTS 5.1 HDMI 8 EDID copy HDMI out 1	

RS-232 Commands

Command Code	Function Description	Example	Feedback	Default
Input Setting				
set user edid x <y>	Set user defined EDID (x=1~2) x=1: User Defined 1 x=2: User Defined 2 y = 00 FF FF FF (y is 256 bytes EDID data)	set user edid 1 <00 FF FF FF....>	User defined 1 EDID is loaded successfully	
get edid data x	Get EDID data (x=1~26) x=1~8: HDMI 1~HDMI 8 x=9~24: HDMI Out 1~HDMI Out 16 x=25: User Defined 1 x=26: User Defined 2	get edid data 1	HDMI IN 1 EDID data <00 FF FF FF....>	
set input x hdcpc y	Set input (x=0~8) HDCP on/off x=0: All Inputs x=1~8: HDMI 1~HDMI 8 y=0: Off y=1: On	set input 0 hdcpc 1	Set Input HDMI 1 HDCP on Set Input HDMI 2 HDCP on Set Input HDMI 3 HDCP on Set Input HDMI 4 HDCP on Set Input HDMI 5 HDCP on Set Input HDMI 6 HDCP on Set Input HDMI 7 HDCP on Set Input HDMI 8 HDCP on	1
get input x hdcpc	Get input (x=0~8) HDCP on/off status x=0: All Inputs x=1~8: HDMI 1~HDMI 8	get input 0 hdcpc	Input HDMI 1 HDCP on Input HDMI 2 HDCP on Input HDMI 3 HDCP on Input HDMI 4 HDCP on Input HDMI 5 HDCP on Input HDMI 6 HDCP on Input HDMI 7 HDCP on Input HDMI 8 HDCP on	
Output Setting				
get output x cable	Get output (x=0~16) cable connection status x=0: All HDMI Outputs x=1~16: HDMI Out 1~HDMI Out 16	get output 1 cable	HDMI out 1 cable on	
set output x enable y	Set output (x=0~16) enable on/off x=0: All HDMI Outputs x=1~16: HDMI Out 1~HDMI Out 16 y=0: Off y=1: On	set output 1 enable 1	Set HDMI out 1 enable on	1

RS-232 Commands

Command Code	Function Description	Example	Feedback	Default
Output Setting				
get output x enable	Get output (x=0~16) enable on/off status x=0: All HDMI Outputs x=1~16: HDMI Out 1~HDMI Out 16	get output 1 enable	HDMI out 1 enable on	
Matrix Setting				
set input x to y set input x to y1.y2.y3.y4...	Set input (x =1~8) to output (y=0~16) x=1~8: HDMI 1~HDMI 8 y=0: All HDMI Outputs y=1~16: HDMI Out 1~HDMI Out 16	set input 2 to 1 2	Set HDMI out 1 video source HDMI 2 Set HDMI out 2 video source HDMI 2	
get output x source	Get output (x=0~16) source x=0: All HDMI Outputs x=1~16: HDMI Out 1~HDMI Out 16	get output 1 source	HDMI out 1 video source HDMI 1	
RS-232 Setting				
set serial setting x	Set serial port setting to x x= 19200-8n1 Baud rate: 115200/57600/ 38400/19200/9600/4800 Data bits: 7/8 Parity: n(None)/ o(Odd) / e(Even) Stop bits: 1/2	set serial set- ting 19200- 8n1	Set RS-232 19200-8n1	19200- 8n1
get serial setting	Get serial port setting	get serial setting	RS-232 19200-8n1	
Preset Setting				
set preset save x	Save the current unit's settings to the specified preset (x=1~8) Only video switching state x=1~8: Preset 1 ~ Preset 8	set preset save 1	Set preset 1 save	
set preset recall x	Recall a specified preset into unit (x=1~8) Only video switching state x=1~8: Preset 1 ~ Preset 8	set preset recall 1	Set preset 1 recall	

RS-232 Commands

Command Code	Function Description	Example	Feedback	Default
Preset Setting				
set preset clear x	Clear a specified preset into unit (x=1~8) Only video switching state x=1~8: Preset 1 ~ Preset 8	set preset clear 1	Set preset 1 clear	
Network Setting				
get ipconfig	Get the Current IP Configuration	get ipconfig	IP Mode: DHCP IP: 192.168.62.106 Subnet Mask: 255.255.255.0 Gateway: 192.168.62.1 TCP/IP port: 8000 Telnet port: 23 MAC: 6C:DF:FB:0C:B3:8E (Static: 169.254.100.200 255.255.0.0 169.254.100.1)	default static IP is 192.16 8.0.100/2 55.255.0. 0/192.16 8.0.1
get mac addr	Get network MAC address	get mac addr	MAC: 6C:DF:FB:0C:B3:8E	
set ip mode x	Set network IP mode to static IP or DHCP (x=0~1) x=0: Static x=1: DHCP	set ip mode 0	Set IP mode static (Please use "set net reboot" command to apply new config!)	1
get ip mode	Get network IP mode	get ip mode	DHCP	
set ip addr xxx.xxx.xxx	Set network IP address	set ip addr 192.168.1.100	Set IP address 192.168.1.100 (Please use "set net reboot" command to apply new config!) DHCP on, Device can't config static address, set DHCP off first.	
get ip addr	Get network IP address	get ip addr	192.168.62.106	
set subnet xxx.xxx.xxx	Set network subnet mask	set subnet 255.255.255.0	Set subnet mask 255.255.255.0 (Please use "set net reboot" command to apply new config!) DHCP on, Device can't config subnet mask, set DHCP off first.	

RS-232 Commands

Command Code	Function Description	Example	Feedback	Default
Network Setting				
get subnet	Get network subnet mask	get subnet	255.255.255.0	
set gateway xxx. xxx.xxx.xxx	Set network gateway	set gateway 192.168.1.1	Set gateway 192.168.1.1 (Please use "set net reboot" command to apply new config!) DHCP on, Device can't config gateway, set DHCP off first.	
get gateway	Get network gateway	get gateway	192.168.1.1	
set tcp/ip port x	Set network TCP/IP port (x=1~65535)	set tcp/ip port 8000	Set TCP/IP port 8000	8000
get tcp/ip port	Get network TCP/IP port	get tcp/ip port	8000	
set telnet port x	Set network telnet port(x=1~65535)	set telnet port 23	Set telnet port 23	23
get telnet port	Get network telnet port	get telnet port	23	
set net hostname xxxx	Set network hostname to xxxx(x<=32)	set net host- name 1234	Set net hostname to 1234	
get net hostname	Get network hostname	get net host- name	1234	
set net reboot	Reboot network modules	set net reboot	Search for IP.Please wait ...! IP Mode: DHCP IP: 192.168.62.106 Subnet Mask: 255.255.255.0 Gateway: 192.168.62.1 TCP/IP port: 8000 Telnet port: 23 MAC: 6C:DF:FB:0C:B3:8E (Static: 169.254.100.200 255.255.0.0 169.254.100.1)	
set admin pass- word x	Set admin login password (x=[16 characters max])	set admin password 1234	Set admin password 1234	1234
get admin pass- word	Get admin login pass- word	get admin password	1234	
set user password x	Set user login password (x=[16 characters max])	set user pass- word 1234	Set user password 1234	1234
get user password	Get user login password	get user pass- word	1234	

RS-232 Commands

Note: The feedback of the command of "r status" is as following.

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HDS-816 Status Info

MAIN MCU V1.00.01 WEB V1.00.01

Input	Cable	Resolution	ColorSpace	ColorDepth	HDCP	EDID
HDMI 1	Connected	1920x1080p60	RGB	8bit	1.4	4K2K30_444, Stereo Audio 2.0
HDMI 2	Connected	1920x1080p60	RGB	8bit	1.4	4K2K30_444, Stereo Audio 2.0
HDMI 3	Connected	3840x2160p30	RGB	8bit	2.2	4K2K30_444, Stereo Audio 2.0
HDMI 4	Connected	3840x2160p30	YUV 4:4:4	8bit	Off	User Defined 2
HDMI 5	Connected	1920x1080p60	RGB	8bit	1.4	4K2K30_444, Stereo Audio 2.0
HDMI 6	Connected	1920x1080p60	RGB	8bit	1.4	4K2K30_444, Stereo Audio 2.0
HDMI 7	Connected	3840x2160p30	RGB	8bit	2.2	4K2K30_444, Stereo Audio 2.0
HDMI 8	Connected	3840x2160p30	YUV 4:4:4	8bit	Off	User Defined 2

Output	Cable	Resolution	ColorSpace	ColorDepth	Turn_on/off	Source
HDMI 1	Connected	3840x2160p30Hz	RGB	8bit	On	1
HDMI 2	Connected	3840x2160p30Hz	RGB	8bit	On	1
HDMI 3	Connected	3840x2160p30Hz	RGB	8bit	On	1
HDMI 4	Connected	3840x2160p30Hz	RGB	8bit	On	1
HDMI 5	Connected	3840x2160p30Hz	RGB	8bit	On	1
HDMI 6	Connected	3840x2160p30Hz	RGB	8bit	On	1
HDMI 7	Connected	3840x2160p30Hz	RGB	8bit	On	1
HDMI 8	Connected	3840x2160p30Hz	RGB	8bit	On	1
HDMI 9	Connected	3840x2160p30Hz	RGB	8bit	On	1
HDMI 10	Connected	3840x2160p30Hz	RGB	8bit	On	1
HDMI 11	Connected	3840x2160p30Hz	RGB	8bit	On	1
HDMI 12	Connected	3840x2160p30Hz	RGB	8bit	On	1
HDMI 13	Connected	3840x2160p30Hz	RGB	8bit	On	1
HDMI 14	Connected	3840x2160p30Hz	RGB	8bit	On	1
HDMI 15	Connected	3840x2160p30Hz	RGB	8bit	On	1
HDMI 16	Connected	3840x2160p30Hz	RGB	8bit	On	1

Power	Key	Beep	Baud	Temp(C)	Uptime(Day:Hour:Min:Sec)
On	On	Off	19200	46	000:00:13:04

TCP/IP Telnet MAC

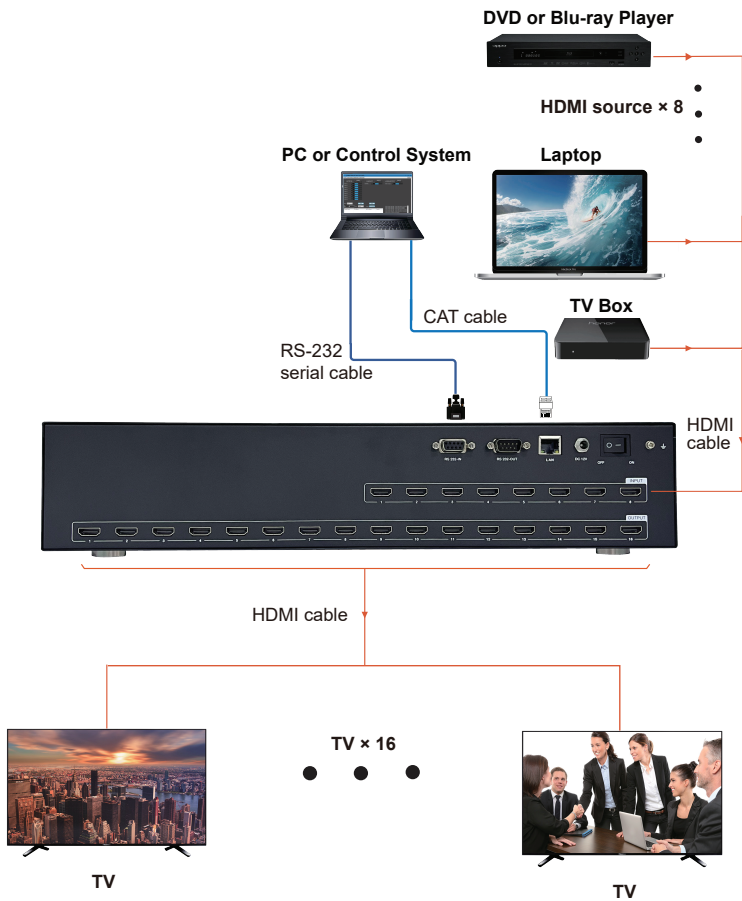
8000 0023 6C:DF:FB:0C:B3:8E

DHCP	IP	Gateway	SubnetMask
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On	192.168.0.100	192.168.0.1	255.255.0.0
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(Static:	192.168.0.100	192.168.0.1	255.255.0.0)
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Application Example



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

FAQs & Troubleshooting

1. No video output on any port

Check if the HDMI cables are connected properly
Try lowering the resolution from the media source
Try changing the EDID settings mentioned on Page 11
Try changing the HDMI cables

2. No video output on a single port

Check if the HDMI cable is connected properly
Try lowering the resolution from the media source
Try one of the COPY EDID settings mentioned on Page 11
Try changing the HDMI cable
Try routing a different input to that output and see if it works
Try connecting a different display to the output and see if the issue follows that output port

3. Unable to access the WebGUI

You need to set the IP address of your laptop/PC to be in the same segment as the matrix, not exactly the same as the Matrix. The default IP of the matrix is 192.168.0.100. Please change the laptop/PC IP to 192.168.0.120. Once changed, you should be able to access the WebGUI.

Still have some questions?

Please feel free to contact us at: info@orei.com. OR Fill out the form on the 'Contact Us' page on the website.

Our team will be more than happy to help you.

OREI Live Technical Support Hours

US team (US/Canada/Mexico): Monday-Friday, 9 a.m. - 5 p.m. Central Time
Support Email - info@orei.com | **Support Number** - 877-290-5530



4K@30Hz 8x16 HDMI™ Matrix

HDS-816

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