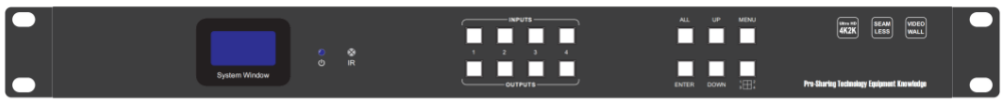
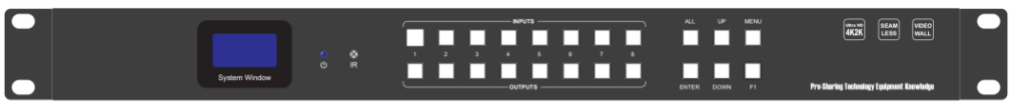
USER MANUAL

# WolfPack 4K 8X8 HDMI Matrix with 8-Video Wall Views & Seamless Switching

# 8x8VW-8





Version: V2.0.1

# Safety Reminder

To protect the device and operating personnel from electrostatic discharge, you need to check and ensure that the device is grounding well before the device is powered on. Please observe the following when you install, use, maintain this equipment.

Make sure the device ground connection.

***Important Safety Instructions***

**1.** Do not expose this apparatus to rain, moisture, dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.

**6.** Clean this apparatus only with dry cloth.

**2.** Do not install or place this unit in a bookcase, built-in cabinet or in another confined space. Ensure the unit is well ventilated.

**7.** Unplug this apparatus during lightning storms or when unused for long periods of time.

**3.** To prevent risk of electric shock or fire hazard due to overheating, do not obstruct the unit's ventilation openings with newspapers, tablecloths, curtains, and similar items.

**8.** Protect the power cord from being walked on or pinched particularly at plugs.

**4.** Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

**9.** Only use attachments / accessories specified by the manufacturer.

**5.** Do not place sources of naked flames, such as lighted candles, on the unit.

**10.** Refer all servicing to qualified service personnel.

# Warnings of FCC

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 decoder.

-- Connect the equipment into an outlet on a circuit different from that to which the decoder is connected.

-- Consult the dealer or an experienced radio/TV technician for help.

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

# Contents

**Warnings of FCC ..... 1**

**1. Product Introduction ..... 3**

**2. Features ..... 3**

**3. Specification ..... 3**

**4. Connection Diagram ..... 4**

**5. Packing ..... 4**

**6. Panel description ..... 5**

**7. Matrix Switcher control ..... 6**

Remote Control ..... 6

WEB GUI Browser control ..... 6

The 3rd Party Control command ..... 11

## 1. Product Introduction

This is a new WolfPack 4K 8X8 HDMI Matrix with 8-Video Wall Views & Seamless Switching series with the seamless switch, Video Wall function EDID management, audio breakouts and the resolution can up to 4K30Hz with scaling funtion and all ports are HDCP compliant. With the friendly user control methods: IR remote control, 2-Press push buttons with background blue light, WEB GUI/TCPIP/RS232/IR remote control, supports the WEB smart EDID management, this matrix switcher can work with the Blu-Ray Players, Set-Top boxes, Home Theater, and game consoles etc HDMI input sources to route to the HDMI displays, it has been widely used in different audio visual applications.

## 2. Features

- The resolution can up to 4K@30Hz inputs and outputs with scaling
- Supports seamless switching, no black/blue screen during the sources switch
- Supports the video wall function and bezel corrections
- Supports the 3.5mm audio embedded and de-embedded
- Supports smart EDID management
- Supports RS-232 and TCP/IP Control(WEB GUI, APP), IR remote control
- Supports the push buttons control with blue lights
- Supports to rename the inputs and outputs
- Supports up to 20 scenes

## 3. Specification

| | | |
|---|---|---|
| **Video** | Resolution | Inputs UHD(3840x2160)/30Hz and under |
| | | Outputs 4K@30\1080P\720P\1366*768@60 |
| | HDMI protocol | HDMI1.4 |
| | HDCP protocol | HDCP1.4 |
| | Color depth | 8/10/12 bit |
| | Color space | YCbCr,RGB |
| | EDID | Built-in and output ports learning/copy |
| | HDMI output | 4 inputs or 8 inputs |
| | HDMI output | 4 outputs or 8 outputs |

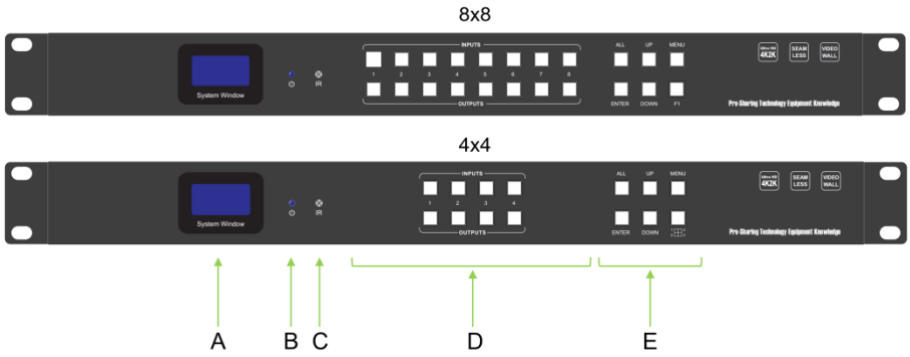
| | | |
|---|---|---|
| **Audio** | Audio format | PCM 2.1Ch, Dolby Digital, Dolby True-HD, DTS-HD(Only supports 2.1) |
| | Audio sampling | 32kHz, 44.1kHz, 48kHz, 88.2kHz, 96kHz, 176.4kHz, 192kHz |
| | Audio baud rate | Up to 16~24-bit |
| **Control** | RS232 | DB9 female connector |
| | IR | IR receiver |
| | LAN | RJ45 for the TCP/IP control |
| **Other** | Power | Power adapter 24V/3A |
| | Consumption | 20W |
| | Size | 440*215*44mm |
| | Weight | 3kg |
| | Working temp | 0℃~50℃ |
| | Storage temp | -20℃~ 60℃ |
| | Working Humdity | 20%-90% |

## 4. Connection Diagram


## 5. Packing

| No. | Name | Qty | Unit |
|---|---|---|---|
| 1 | Matrix switcher | 1 | Pcs. |
| 2 | DC 24V3A power adapter | 1 | Pcs |
| 3 | Remote Control | 1 | Pcs |
| 4 | IR remote extension cable | 1 | Pcs |

## 6. Panel description




**Front panel**

A: LCD screen for the switching, EDID, IP etc information display.

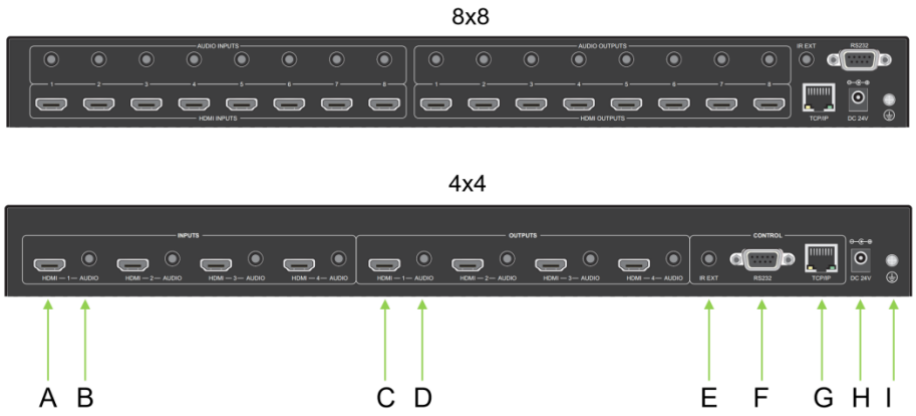
B: Power indicator

C: IR for the IR remote control

D: Inputs and outputs buttons

E: Control buttons

**Back panel**




A: HDMI input ports

B: 3.5mm audio embedded ports

C: HDMI output ports

D: 3.5mm audio de-embedded ports

E: IR extension port for the IR remote control

F: RS232 ports for the 3rd party control

G: RJ45 port for the WEB GUI/TCP/IP control

H: Power supply port

I: Grounding

## 7. Matrix Switcher control

This Matrix switcher can support IR remote, WEB GUI browser, TCP/IP/RS232 control, or the front push-buttons control.

**Remote Control**


**Standby:** for the matrix to standby or back to working status

**Input:** 1~8/1~4 HDMI input buttons

**Clear:** Clear all the selected channels

**Enter:** Press to confirm the operations

**All:** to select all the output channels

**EDID:** EDID → F1/F2(select the built in EDID or copy/learn from the outputs)EDID→ press Enter to confirm the EDID → Then will need to select the Input channel → then press Enter to confirm

**Output:** 1~8/1~4 HDMI output buttons

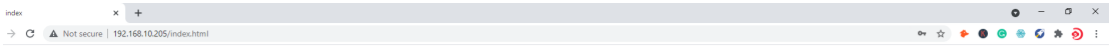
**F1/F2:** to work with the EDID button

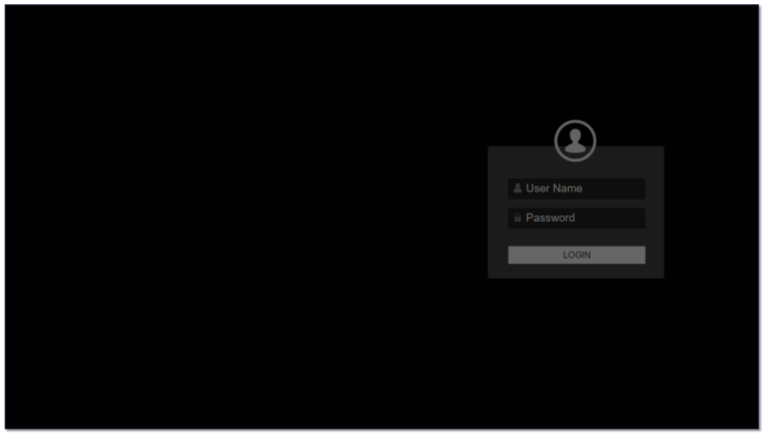
**WEB GUI browser Control**

Users also can use the WEB browser to control the matrix switcher, users can have the matrix switcher connected with the PC with the LAN cable directly or have the matrix switcher connected the same network switch. The default IP address of the matrix switcher is 192.168.10.205.

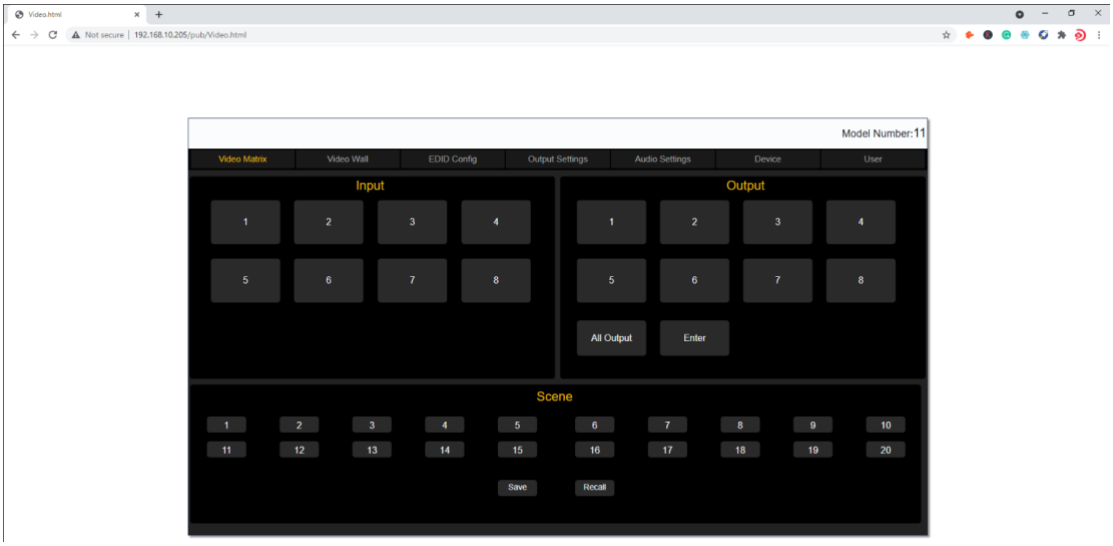
After opening the browser, users can type the matrix switcher IP address and press enter:

The default user name is admin and the password is admin.

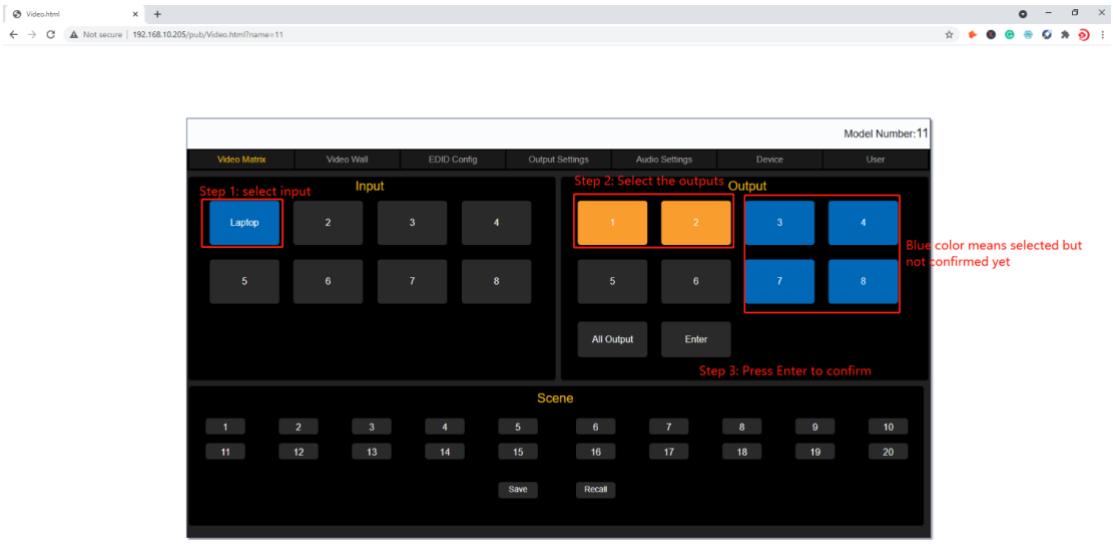


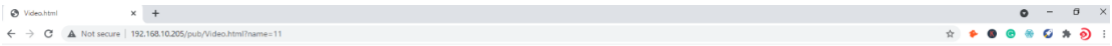
After login, it will turn to **“Video Matrix”** interface, users can do the sources switching, scenes recall and save.



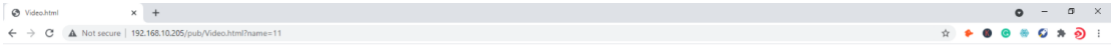

On the input and output buttons, users also can view the active ports by the button color, 3 steps for the switching



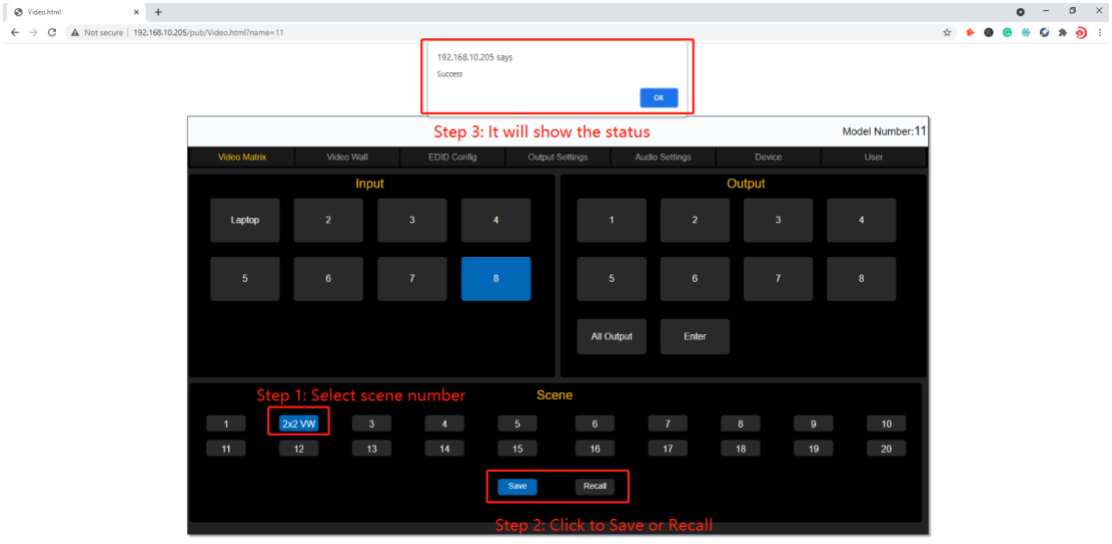

**Input button rename:** right click on the input button, it will pop-up the window for users to change the names, and option for the Display OSD function.




For the output buttons and scenes renaming will the same way to use the right click on the button, it will also pop-up the window:




**Scenes Save and Recall:** It will take 2 steps to Save or Recall the scenes, select the scene number first, and then click “Save” or “Recall” button:

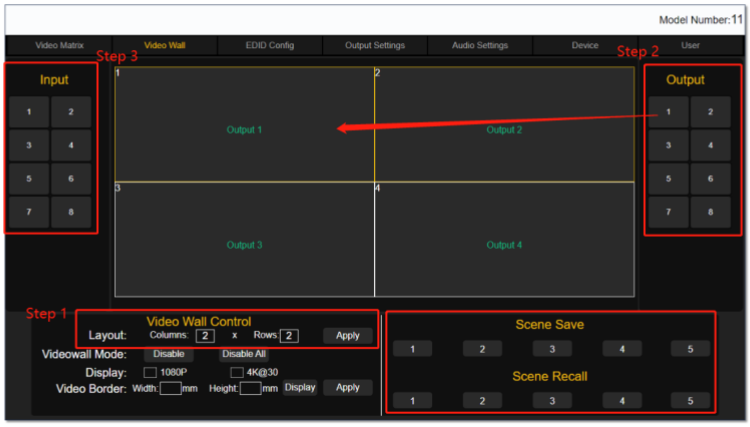


Video Wall: users can setup the VW wall, adjust the bezel, VW resolution, or save/recall the VW scenes:

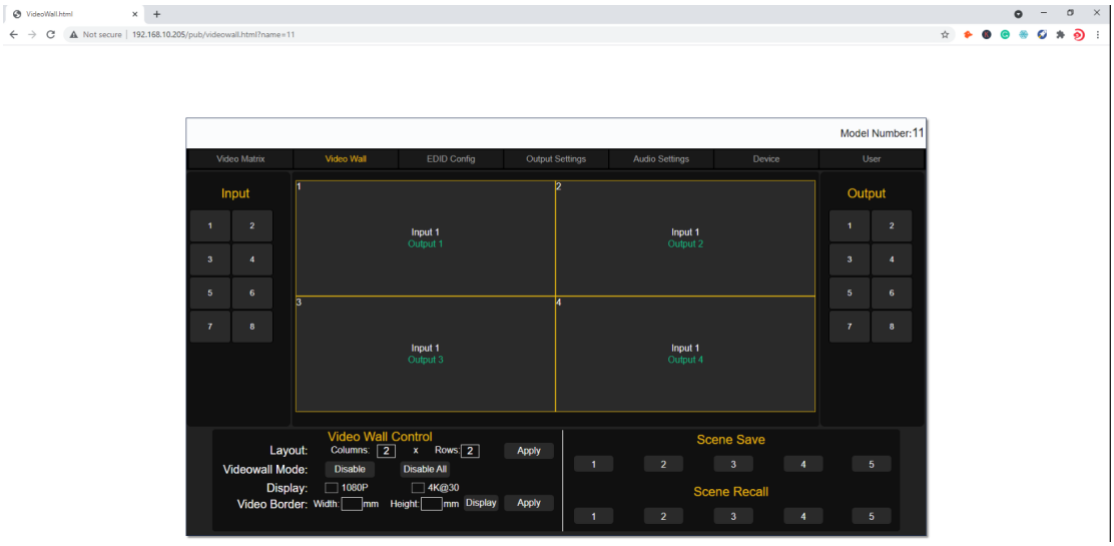
**Step1:** Configure the VW size by entering the columns&rows number, and then hit the Apply button:

**Step2:** Drag the outputs from the right side to this VW boxes accordingly, will need to use the right click to confirm the output after dragged to the VW box, the box edge will in yellow color(Without the right click to confirm, it will be white edge)

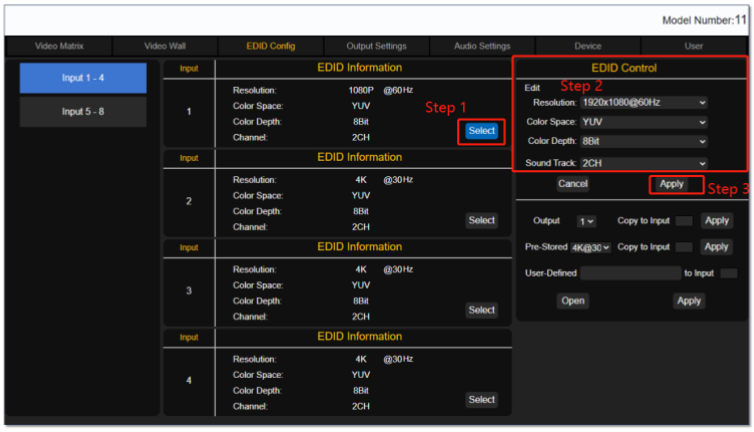
Step3: After confirmed the outputs in the VW box(all edge in yellow), then drag the input to this VW to finish the switching



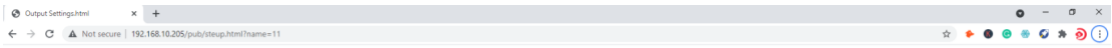

Video Wall box edge in yellow color means that outputs to this VW are all confirmed(use the mouse right click to confirm after drag the outputs)

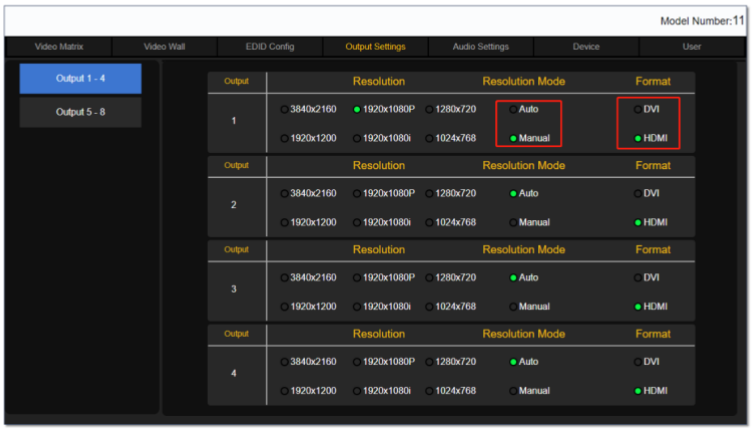



EDID Management:




Output Settings:

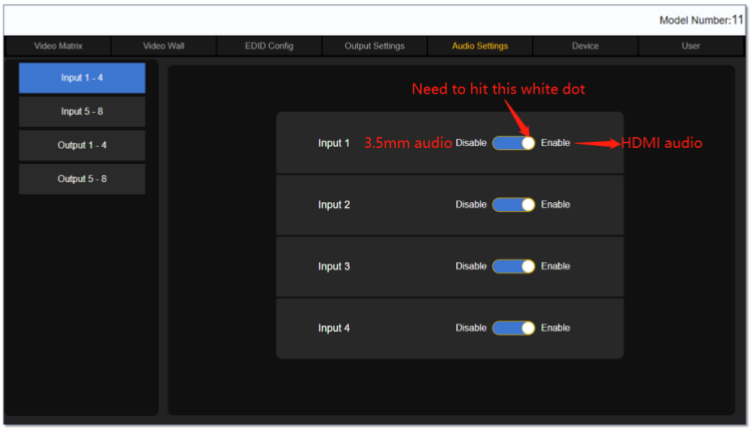





Audio Settings: users can select audio either from the 3.5mm or from the HDMI

Disable means: disable the HDMI sound, but use the 3.5mm embedded audio

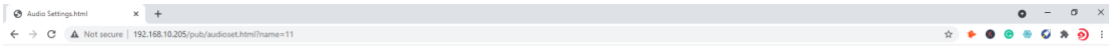
Enable means to use the HDMI sound

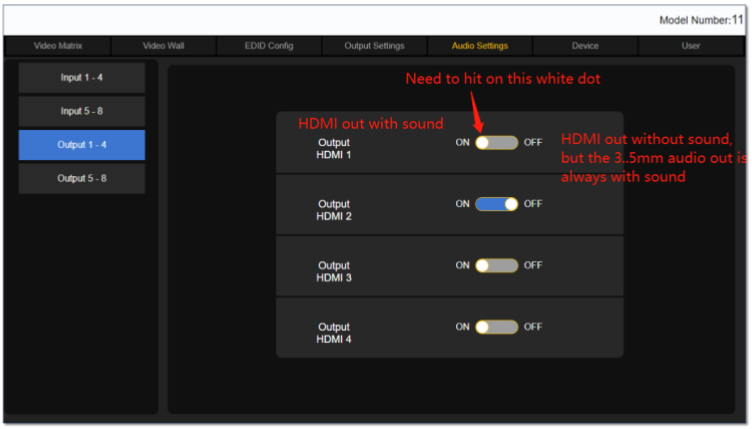



For the Audio out:

ON means to turn on the HDMI sound, but use the 3.5mm de-embedded still have the sound

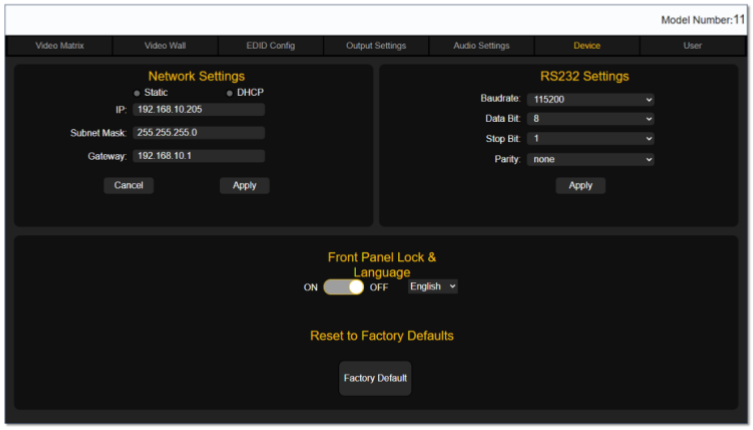
OFF means to turn off the HDMI sound, but use the 3.5mm de-embedded still have the sound

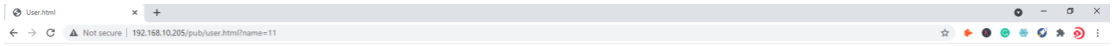


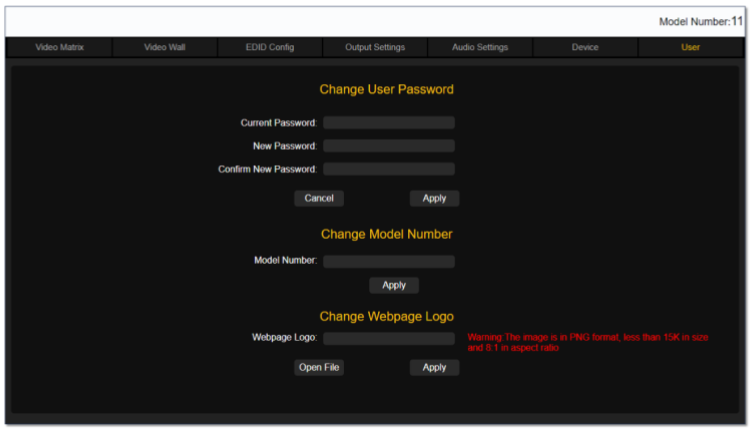



Device is for users to set up the IP address, RS232, or lock the front panel push-button, language or factory default settings:

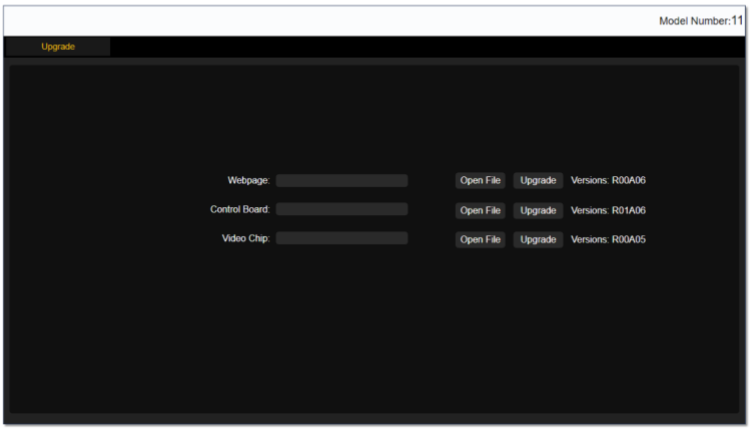
User tap is user the users to change the password, model number and the WEB GUI logo:








Upgrade page will need to enter the IP/upload in the browser:




TCP/IP/RS232 control details and commands:

The default IP IS 192.168.10.205, Port number: 4001

The default RS232 baud rate is 115200, 8, 1, none

| Function | Command Format | Function | Remark |
|---|---|---|---|
| **Video Switch** | AT+HTO2A=MX88,IN$<br>e.g. AT+HTO2A=MX88,1$ | One switch to all output channel | +RSPHTO2A=MX88,IN$ |
| | AT+HTO2M=MX88,IN,O1,O2…ON$<br>e.g. AT+HTO2M=MX88,1,5,6,7,8$ | One switch to many output Channel | +RSPHTO2M=MX88,IN,O1,O2…ON$ |
| **Output Setup** | AT+HTSETAUTORES=MX88,Mode,On$<br>Mode 1:Auto 0:Manual<br>On:output channel number(1-8) | Set output resolution mode | +RSPSETAUTORES=MX88,Mode$ |
| | AT+HTSETOUTRES=MX88,Res,O1,O2,On,…$<br>On:output channel number(1-8) | Set output resolution | +RSPHTSETOUTRES=MX88,Res$ |

| | | | |
|---|---|---|---|
| | AT+HTTVBLACK=MX88,mod,O1,O2,...On$<br>On:output channel number(1-8)<br>mod:set TV black (0--1) 0:no black 1:black | Set TV black | |
| | AT+HTTVSET=MX88,On,mod$<br>On:output channel number(1-8)<br>mod:set TV mute or unmute(1--2) 1:mute 2:unmute | set TV MUTE | |
| | AT+HTOUTMOD=MX88,Mode,On$<br>Mode 1：HDMI 2：DVI<br>On:output channel number(1-8) | Set output mode(DVI or HDMI) | +RSPHTOUTMOD=MX88,Mode$ |
| **EDID Setup** | AT+HTEDIDH=MX88,In,On$<br>In: input chnnel number(1-8)<br>On:output channel number(1-8) | Switch corresponding output's EDID to input | +RSPHTEDIDH=MX88,In,On$ |
| | AT+HTEDIDINT=MX88,INTn,In$<br>In: input chnnel number(1-8)<br>INTn: one certain internal EDID number.<br>(2-5) | Switch one Internal EDID to certain input's EDID | +RSPHTEDIDINT=MX88,In,INTn$ |
| | AT+HTEDIDINFOSET=MX88,CHn,ResID,ColorSpace,ColorDepth,AudioCh$<br>CHn: the input Card's channel number;<br>ResIDn: Resolution ID,<br>ResIDn(1--3);1:720P@60,2:1080P@60,3:4k@30<br>ColorSpaceN: color space id, ColorSpaceN(1--2);1:RGB,2:YUV<br>ColorDepthN: color depth<br>id;ColorDepthN(1--4);1:8bit,2:10bit,3:12bit,4:16bit<br>AudioChN:Audio ID,AudioChN(1--3);1:2Ch,2:6Ch,3:8Ch | Set one input card's certain channel's edid information | +RSPHTEDIDINFOSET=MX88,CHn$ |
| | AT+HTEDIDUPLOAD=MX88,In$<br>In, (1--8);<br>When received this command, delay 100ms, send the EDID data. | Upload EDID from WebPage | +RSPHTEDIDUPLOAD=MX88,In$ |
| **Scene Setup** | AT+HTSCESA=MX88,N$ | scene save | +RSPHTSCESA=MX88,N$ |
| | AT+HTSCERC=MX88,N$ | scene recall | +RSPHTSCERC=MX88,N$ |
| | | | |
| **System Setup** | AT+HTFACT=MX88$<br>When No Cn parameter, factory set main control board and GUI model. | Factory setup | +RSPHTFACT=MX88$<br>No Cn parameter, if using to factory set main control board and GUI model |

| | | | |
|---|---|---|---|
| | AT+HTUILOCK=MX88,Val$<br>Val: 1, locked; 2, Unlocked; | GUI Lock | +RSPHTUILOCK=MX88,Val$ |
| | AT+HTUARTCFG=MX88,Baud,Databits,Stopbits,Parity$<br>Baud: 0, 9600; 1, 19200; 2, 38400;3, 57600; 3, 115200;<br>Databits: 0, 8bits; 1, 9bits;<br>Stopbits: 0, 1stopbit; 1, 2stopbits;<br>Parity: 0, none; 1, ODD; 2, even; | UART configure | |
| **Audio Setup** | AT+HTAUDSET=MX88,On,Mode$<br>Mode:Enable(1)/Disable(2)<br>On:output channel number(1-8) | Set input card's Audio | AT+HTAUDSET=MX88,Val$ |
| **Video wall** | AT+HTVIDJNTSA=MX88,N$<br>N=1~5 | scene save | +RSPHTVIDJNTSA=MX88,N$ |
| | AT+HTVDWALLRC=MX88,N$<br>N=1~5 | scene recall | |
| **Video Border** | AT+HTBEZEL=MX16,N1,N2,N3$<br>N= width ,height , out | Video Border | +RSPHTBEZEL=MX16,N1,N2,N3$ //width,height,out |