

MONOPRICE

Blackbird™ 4K 8x8 HDMI® Matrix

P/N 24180

User's Manual

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SAFETY WARNINGS AND GUIDELINES

Please read this entire manual before using this device, paying extra attention to these safety warnings and guidelines. Please keep this manual in a safe place for future reference.

- This device is intended for indoor use only.
- Do not expose this device to water or moisture of any kind. Do not place drinks or other containers with moisture on or near the device. If moisture does get in or on the device, immediately unplug it from the power outlet and allow it to fully dry before reapplying power.
- Do not touch the device, the power cord, or any other connected cables with wet hands.
- Do not expose this device to excessively high temperatures. Do not place it in, on, or near heat sources, such as a fireplace, stove, radiator, etc. Do not leave it in direct sunlight.
- This device ventilates excessive heat through the slots and openings in the case. Do not block or cover these openings. Ensure that the device is in an open area where it can get sufficient airflow to keep from overheating.
- Do not place or install this device in an area where it can be exposed to excessive amounts of dust, humidity, oil, smoke, or combustible vapors.
- Prior to operation, check the unit and power cord for physical damage. Do not use if physical damage has occurred.
- Before plugging the unit into a power outlet, ensure that the outlet provides the same type and level of power required by the device.
- Unplug this device from the power source when not in use.
- Take care to prevent damage to the power cord. Do not allow it to become crimped, pinched, walked on, or become tangled with other cords. Ensure that the power cord does not present a tripping hazard.
- Never unplug the unit by pulling on the power cord. Always grasp the connector head or adapter body.

- Ensure that power is turned off and disconnected before making any electrical connections.
- Remove the batteries from the controller if it will go unused for a lengthy period of time.
- Clean using a soft, dry cloth only. Do not use chemical cleaners, solvents, or detergents. For stubborn deposits, moisten the cloth with warm water.
- This device has no user serviceable parts. Do not attempt to open, service, or modify this device.

INTRODUCTION

Thank you for purchasing this Blackbird™ 4K 8x8 HDMI® Matrix Switch! This matrix allows you to independently distribute any of eight HDMI inputs to any of eight displays. It includes an IR remote control and allows for front panel, IR, RS232, and TCP/IP control using the web-based GUI. The LCD screen on the front panel shows the real-time connection status. Rear panel DIP switches allow for manual control of the EDID information sent to the source devices. It features a maximum video resolution of 4K@60Hz 4:4:4, including 1080p 3D video. It is fully compliant with the HDMI 2.0 and HDCP 2.2 standards.

FEATURES

- Independently distributes any of eight HDMI® sources to any of eight HDMI displays
- Includes eight digital coaxial S/PDIF outputs
- Supports video resolutions up to 4K@60Hz 4:4:4, including 1080p 3D video
- Includes an IR remote control and allows for front panel, IR, RS232, and TCP/IP control using the web-based GUI
- Features DIP switches for manual EDID management
- Front panel LCD screen shows real-time connection information

CUSTOMER SERVICE

The Monoprice Customer Service department is dedicated to ensuring that your ordering, purchasing, and delivery experience is second to none. If you have any problem with your order, please give us an opportunity to make it right. You can contact a Monoprice Customer Service representative through the Live Chat link on our website **www.monoprice.com** during normal business hours (Mon-Fri: 5am-7pm PT, Sat-Sun: 9am-6pm PT) or via email at **support@monoprice.com**

PACKAGE CONTENTS

Please take an inventory of the package contents to ensure you have all the items listed below. If anything is missing or damaged, please contact Monoprice Customer Service for a replacement.

- 1x 4K 8x8 HDMI® matrix
- 1x IR remote control
- 1x IR receiver
- 1x RS232 cable (3-pin to DB9)
- 2x Mounting brackets
- 6x Mounting screws
- 4x Plastic feet
- 1x AC power adapter (24 VDC, 2.71A)
- 1x User's manual

PRODUCT OVERVIEW

Front Panel



1. **FIRMWARE:** Micro USB port for performing firmware updates.
2. **POWER LED:** The LED illuminates red when power is on. It illuminates green when in standby mode and flashes red when upgrading the firmware.
3. **IR:** IR "eye" for receiving signals from the included IR remote control.
4. **SYSTEM MONITOR:** LCD screen displays the real-time connection status.
5. **INPUTS:** Eight buttons for selecting the input source.
6. **OUTPUTS:** Eight buttons for selecting the output channel.

Rear Panel

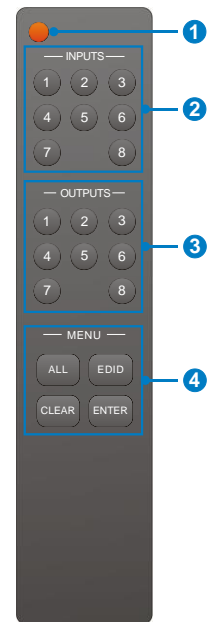


1. **INPUTS:** Eight HDMI® jacks for connecting the source devices.
2. **OUTPUTS:** Eight HDMI jacks for connecting the displays and eight digital coaxial S/PDIF jacks for connecting an external amplifier or receiver.
3. **CONTROL:** RJ45 jack for TCP/IP control using the built-in web-based GUI. 3.5mm IR IN jack for connecting the included IR receiver. RS232 connector for connecting to a computer for RS232 control. DIP switches for setting manual EDID management.

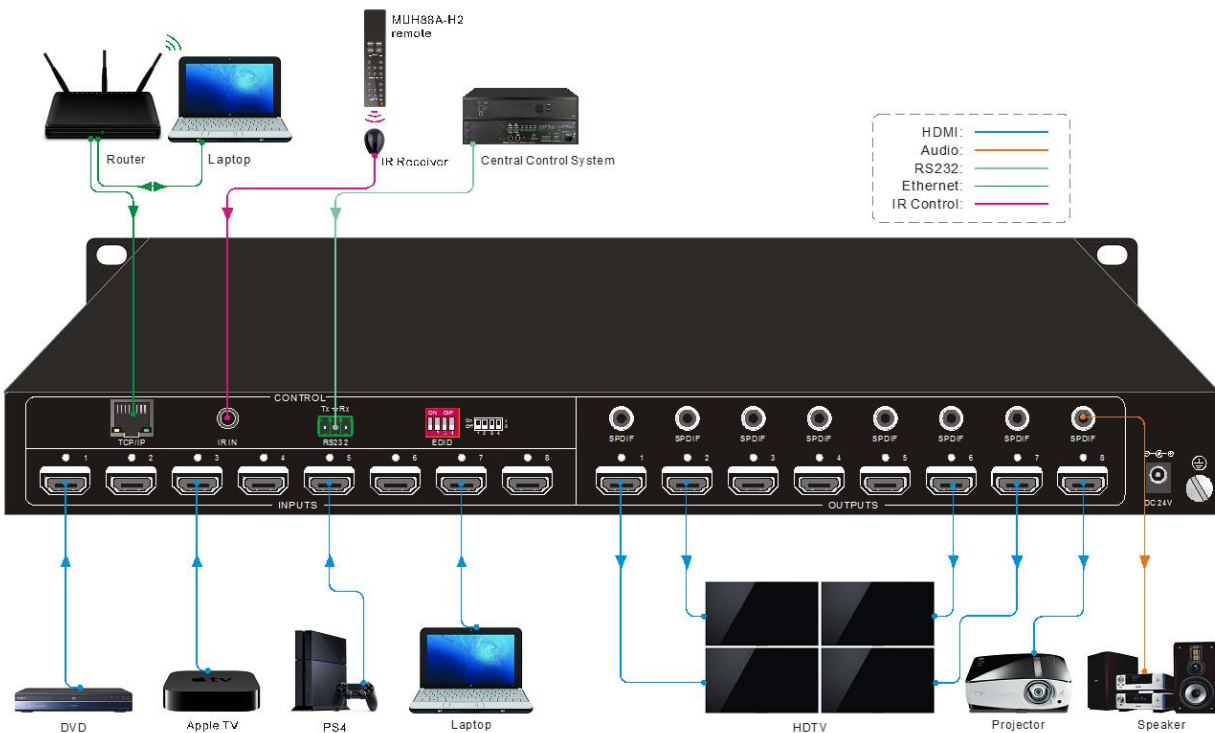
4. **DC 24V:** DC barrel connector for connecting the included AC power adapter.
5. **GROUND:** Ground connection.

Remote Control

1. **STANDBY:** Press the button to power the matrix on or to put it into standby.
2. **INPUTS:** Eight numbered buttons for selecting the input source.
3. **OUTPUTS:** Eight numbered buttons for selecting the output channel.
4. **MENU:** **ALL** button for selecting all inputs or outputs. **EDID** button for EDID management. **CLEAR** button for canceling an operation. **ENTER** button for confirming the operation.



SAMPLE CONNECTION DIAGRAM



INSTALLATION

Perform the following steps to install your matrix:

1. Ensure that all equipment to be connected is powered off and unplugged from its power source.
2. Place or mount the matrix in its intended location. Use the included mounting brackets or plastic feet, as desired.
3. Using a High Speed HDMI® Cable (not included), plug one end into the HDMI input on one of your displays, then plug the other end into one of the **OUTPUTS** on the matrix. Repeat for the other seven displays.
4. (Optional) Using a digital coaxial S/PDIF cable (not included), plug one end into the digital coaxial input on your external amplifier or receiver, then plug the other end into the **SPDIF** output on the matrix. Repeat for the other seven SPDIF connections, as desired.
5. Using a High Speed HDMI Cable (not included), plug one end into one of the **INPUTS** on the matrix, then plug the other end into the HDMI output on one of your source devices. Repeat for the other seven source devices.
6. (Optional) If the IR "eye" on the front panel will be obstructed, plug the included IR receiver into the **IR IN** jack on the matrix, then position the IR "eye" where it can receive signals from the included IR remote control.
7. (Optional) If you will be controlling the matrix using a third party RS232 control software (not included) on your PC, plug the included RS232 cable into the **RS232** connector on the matrix, then plug the other end into a serial port on your computer.
8. (Optional) If you will be controlling the matrix using the built-in web GUI, plug one end of an Ethernet cable (not included) into the **TCPIP** jack on the matrix, then plug the other end into either an Ethernet router or switch in your existing network (recommended) or directly into the Ethernet jack on your PC (not recommended).
9. Plug the DC barrel connector on the included AC power adapter into the **DC 24V** jack on the matrix, then plug the adapter into a nearby AC power adapter. The

POWER LED on the front panel will illuminate green, indicating that the matrix is in standby mode.

10. (Optional) Determine the maximum resolution and audio capabilities of your least capable display (the one with the lowest resolution and fewest audio channels), then set the DIP switches on the rear panel to the appropriate positions for the video and audio capabilities. See the *EDID MANAGEMENT* section for details on how to set the DIP switches.
11. Plug in and power on all connected equipment. Start video playback on each source device and verify that the video can be seen on each display. Use the IR remote control to verify that you can switch each output to view the video from each input. Refer to the *OPERATION* section for operating instructions.

Congratulations, your new matrix is now installed and ready for normal operation.

CONNECTION STATUS

Press any of the eight **OUTPUTS** buttons on the front panel. The LED for the connected **INPUT** will briefly illuminate.

CONFIGURING FOR DIRECT TCP/IP CONTROL

If you connected the matrix to an Ethernet switch or router, there is nothing special that needs to be done for TCP/IP control. Refer to either the *TCP/IP Software Control* or *TCP/IP GUI Control* portions of the *OPERATION* section below for connection and operation details.

However, if you connected the matrix directly to the Ethernet jack on your PC, you will need to configure it to communicate with the matrix. Perform the following steps to change the network connection settings:

1. Open **Control Panel**.
2. Click the **Network and Internet** option.
3. Click the **View network status and tasks** link.

4. Click the **Change adapter settings** link.
5. Right click the **Local Area Connection** icon and select **Properties** from the menu.
6. Left click the **Internet Protocol Version 4 (TCP/IPv4)** entry, then click the **Properties** button.
7. Click the radio button next to the **Use the following IP address:** entry, then input the following:

IP Address: 192.168.0.178

Subnet Mask: 255.255.255.0

Default Gateway: 192.168.0.1

Internet Protocol Version 4 (TCP/IPv4) Properties

General

You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.

☐ Obtain an IP address automatically

☒ Use the following IP address:

IP address: 192 . 168 . 0 . 178

Subnet mask: 255 . 255 . 255 . 0

Default gateway: 192 . 168 . 0 . 1

☐ Obtain DNS server address automatically

☒ Use the following DNS server addresses:

Preferred DNS server: . . .

Alternate DNS server: . . .

☐ Validate settings upon exit

Advanced...

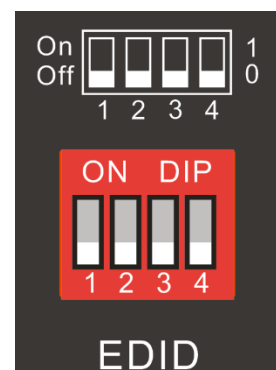
OK Cancel

8. Click the **OK** button to close the **TCP/IPv4 Properties** dialog, then click the **Close** button to close the **Local Area Connection Properties** dialog.

EDID MANAGEMENT

The DIP switches on the rear panel allow you to set the EDID information that is passed to the source devices. Use the following table to determine the settings for the DIP switches for specific video resolution and audio capabilities. When in the down position, each switch represents a 0, while putting the switch in the up position represents a 1.

#	Switch	Video	Audio
0	0000	Pass-through (default)	
1	0001	720p 2D	Pass-through
2	0010	720p 3D	Pass-through
3	0011	1080p 2D	Pass-through
4	0100	1080p 3D	Pass-through
5	0101	4K@30Hz	Pass-through
6	0110	4K@30Hz	2-channel
7	0111	4K@30Hz	7.1-channel
8	1000	4K@60Hz 4:2:0	Pass-through
9	1001	4K@60Hz 4:2:0	7.1-channel
10	1010	4K@60Hz 4:4:4	Pass-through
11	1011	4K@60Hz 4:4:4	7.1-channel
	1111	Enable software EDID management (RS232 or TCPIP)	



OPERATION

Front Panel

Perform the following steps to connect an input to one or more outputs.

1. Press the **INPUTS** button corresponding to the desired source device.
2. Press one or more of the **OUTPUTS** buttons, corresponding to the display(s) on which you want to view the selected input.
3. The LED corresponding to the buttons pressed will blink three times if the operation was successful. If not, the LEDs will remain off.

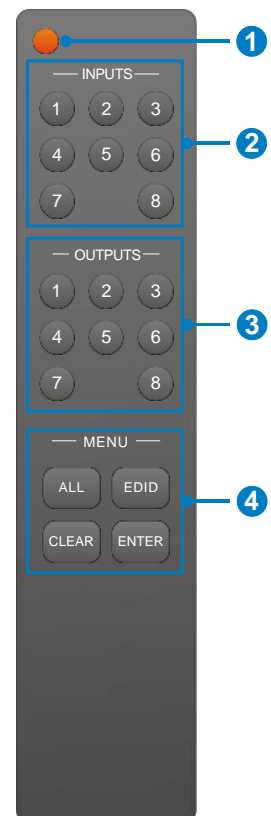
Examples:

- To connect input 1 to output 7, press the **INPUTS 1** button, then press the **OUTPUTS 7** button.
- To connect input 2 to both output 2 and output 6, press the **INPUTS 2** button, then press the **OUTPUTS 2** button, followed by the **OUTPUTS 6** button.

IR Remote Control

Perform the following steps to direct one of the inputs to one or more outputs.

1. Press the numbered button in the **INPUTS** section of the remote control corresponding to the desired source device.
2. Press one or more numbered buttons in the **OUTPUTS** section corresponding to the display on which you want to view the selected input. Alternatively, press the **ALL** button if you want to view the selected input on all output displays.
3. Press the **ENTER** button in the **MENU** section to confirm the operation. Alternatively, press the **CLEAR** button in the **MENU** section if you want to cancel the operation.



Examples:

- To connect input 5 to output 3, press the **5** button in the **INPUTS** section, then press the **3** button in the **OUTPUTS** section, and finally press the **ENTER** button.
- To connect input 8 to both output 2 and output 7, press the **8** button in the **INPUTS** section, then press both the **2** and **7** buttons in the **OUTPUTS** section, and finally press the **ENTER** button in the **MENU** section.

Perform the following steps to manage the EDID settings for one or more inputs.

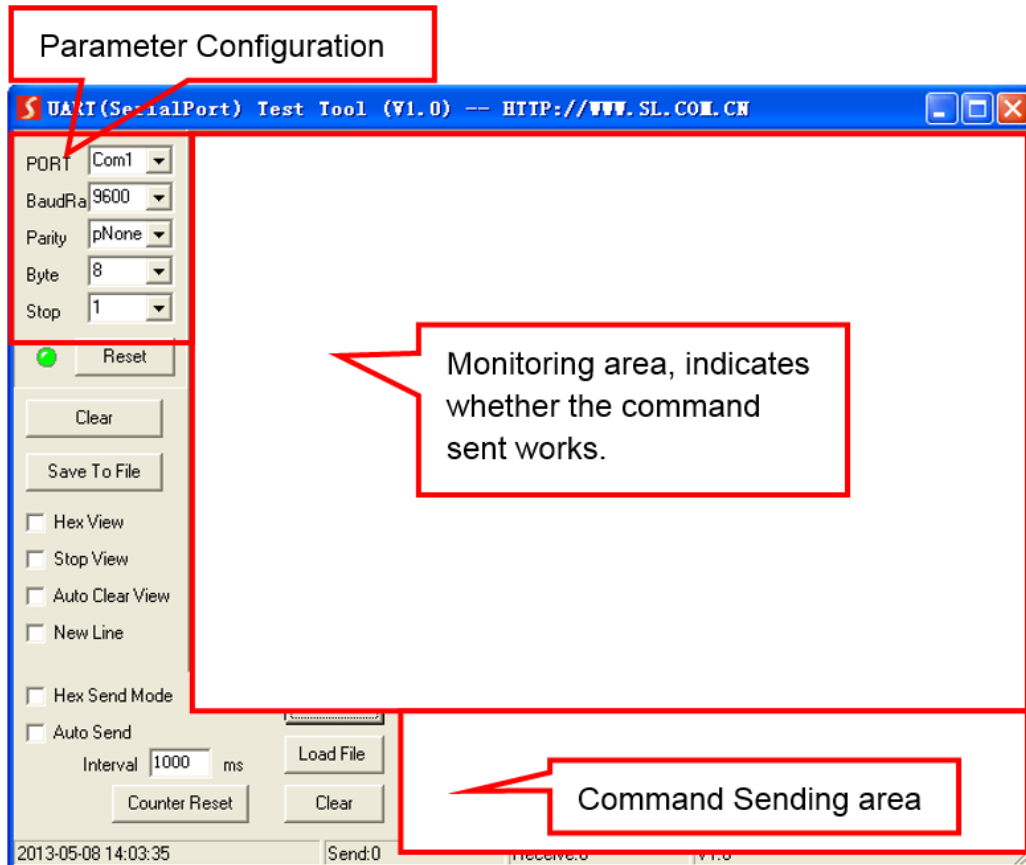
1. Press the **EDID** button in the **MENU** section.
2. Press one of the numbered buttons in the **INPUTS** section corresponding to the source device you want to send the EDID information. Alternatively, press the **ALL** button in the **MENU** section if you want to send the EDID information to all the source devices.
3. Press the numbered button in the **OUTPUTS** section corresponding to the display whose EDID settings you want to send to the selected source devices.
4. Press the **ENTER** button in the **MENU** section to confirm the operation. Alternatively, press the **CLEAR** button in the **MENU** section to cancel the operation.

Examples:

- To send the EDID information from display 3 to input 5, press the **EDID** button in the **MENU** section, then press the **5** button in the **INPUTS** section, then press the **3** button in the **OUTPUTS** section, and finally press the **ENTER** button in the **MENU** section.
- To send the EDID information from display 4 to all the inputs, press the **EDID** button in the **MENU** section, then press the **ALL** button in the **MENU** section, then press the **4** button in the **OUTPUTS** section, and finally press the **ENTER** button in the **MENU** section.

RS232 Control

For RS232 control you will need to connect your PC to the matrix using the included RS232 cable. You will also need to use a third party RS232 control software, such as CommWatch (not included). The following image shows the basic interface of CommWatch.



Use the following communications parameters:

Baud Rate: 9600

Data Bits: 8

Stop Bits: 1

Parity: none

To allow for RS232 control, you must set the EDID DIP switches on the rear panel to 1111.

The matrix responds to the commands contained in the following table. Note that the braces in the following commands (i.e., [and]) are not part of the commands and are used only for clarity. The other punctuation marks ARE part of the commands.

System Commands		
Command	Function	Feedback Example
/ *Type;	Query the model	XXXXX
/ ^Version;	Query the firmware version	VX.X.X
Demo .	Puts the matrix in "demo" mode, which switches the inputs and outputs every 2 seconds. After switching through all inputs and outputs, the matrix will return to normal operation mode.	Demo Mode AV:01->01 AV:01->02 AV:01->03 AV:01->04 AV:01->05 ... Normal Mode
Undo .	Cancels the current operation	Undo OK!
PWON .	Turns the matrix on	PWON
PWOFF .	Puts the matrix into standby mode. Send the PWON command to turn the matrix on.	PWOFF.
STANDBY .	Puts the matrix in standby mode. Press any button to turn the matrix on.	STANDBY
%9962 .	Query the power status	STANDBY, PWOFF, or PWON
%9964 .	Query the IP address	IP:XXX.XXX.X.XXX
%0911 .	Reset the matrix to the factory defaults	Factory Default

Lock/Unlock Commands		
Command	Function	Feedback Example
/%Lock;	Lock the front panel buttons	System Locked!
/%Unlock;	Unlock the front panel buttons	System Unlock!
%9961.	Query the system lock status	System Locked! or Unlock!

Switching Commands		
Command	Function	Feedback Example
[x]All.	Connect input [x] to all output channels	X To All. (X=01~08)
All#.	Connect each input to the corresponding output channel, i.e., 1->1, 2->2, etc.	All Through.
All\$.	Switch off all output channels	All Closed.
[x]#.	Connect input [x] to output [x]	X Through. (X=01~08)
[x]\$.	Switch off output [x]	X Closed. (X=01~08)
[x]@.	Switch on output [x]	X Open. (X=01~08)
All@	Switch on all output channels	All Open. Out 01 02 03 04 In 01 02 03 04 Out 05 06 07 08 In 05 06 07 08
[x1]V[x2].	Connect input [x1] to one or several output [x2]. Separate multiple output channels with a comma.	AV:X1->X2 (X1/X2=01~08)

Switching Commands (continued)		
Command	Function	Feedback Example
Status [x] .	Query the connection status of output [x]	AV:Y->X (X/Y=01~08)
Status .	Query the connection status of each input and output channel	AV:01->01 AV:01->02 AV:01->03 AV:01->04 AV:01->05 AV:01->06 AV:01->07 AV:01->08
%9971 .	Query the connection status of the inputs	In 01 02 03 04 Connect Y Y Y Y In 05 06 07 08 Connect Y N Y Y
%9972 .	Query the connection status of the outputs	Out 01 02 03 04 Connect Y Y Y Y In 05 06 07 08 Connect Y N Y Y
%9975 .	Query the connection status of the inputs and outputs	In 01 02 03 04 Out 04 04 04 04 In 05 06 07 08 Out 04 04 04 04

Switching Commands (continued)		
Command	Function	Feedback Example
%9976.	Query the output resolution	Resolution Out 1 3840x2160P Out 2 3840x2160P Out 3 3840x2160P Out 4 3840x2160P Out 5: 3840x2160P Out 6: 3840x2160P Out 7: 3840x2160P Out 8: 3840x2160P

Scene Commands		
Command	Function	Feedback Example
Save[Y].	Save the current operation to the preset command [Y]	Save to FY (Y=1-10)
Recall[Y].	Recall the preset command [Y]	Recall From FY (Y=1-10)
Clear[Y].	Clear the preset command [Y]	Clear FY (Y=1-10)

HDCP Compliance		
Command	Function	Feedback Examples
/%[Y]/[X]:[Z].	HDCP management command. Y=output channel X=input port Y=1~8 or ALL) Z=HDCP status (1=compliant, 0=non-compliant)	/%Y/ALL:0.
%0801.	Auto HDCP management, activate carrier native mode	%0801

HDCP Compliance (continued)		
Command	Function	Feedback Examples
%9973.	Query the HDCP status of the input signals	In 01 02 03 04 HDCP Y N Y N In 05 06 07 08 HDCP Y N Y N
%9974.	Query the HDCP status of the output signals	Out 01 02 03 04 HDCP Y N Y N Out 05 06 07 08 HDCP Y N Y N

EDID Commands (note that the DIP switches must be set to 1111 for these to work)		
Command	Function	Feedback Examples
EDIDH[x]B[y].	Input port [y] learns the EDID from output port [x]. If the EDID data is available and the audio portion supports only PCM, then force-set it to support PCM mode only. If the EDID data is not available, then set it as initialized EDID data.	EDIDH1B1
EDIDPCM[x].	Set the audio for input port [x] to PCM	EDIDPCM[x]
EDIDG[x].	Get EDID data from output [x] and display the output port number	Hexadecimal EDID data and carriage return character
EDIDMInit.	Restore the factory default EDID data for each input	EDIDMInit.

EDID Commands (continued) (note that the DIP switches must be set to 1111 for these to work)		
Command	Function	Feedback Examples
EDIDM[X]B[Y] .	Manual EDID switching. Enable input [Y] to learn the EDID data of output [X]. If the EDID data is not available, then set it as initialized EDID data.	EDIDM[X]B[Y]
EDID/[x] [y] .	Set the EDID data of input port [x] to built-in EDID # [y]. [y]=0~11 corresponding to the 12 embedded EDID settings. Refer to the <i>EDID MANAGEMENT</i> section above.	EDID/[x]/[y]
EDIDUpgrade[x] .	Upgrade EDID data through the RS232 connection. [x]=input port 1~8, 9=All input ports. When the switch receives the command, it will show a message to prompt you to send the EDID file (.bin file). The operation will be canceled after 10 seconds.	Please send the EDID file EDID Upgrade OK!
GetInPortEDID[X]	Get the EDID data of input [X]. [X]=1~8	
%9979 .	Get the DIP switch status	EDID RS232 GUI CONTROL 1111

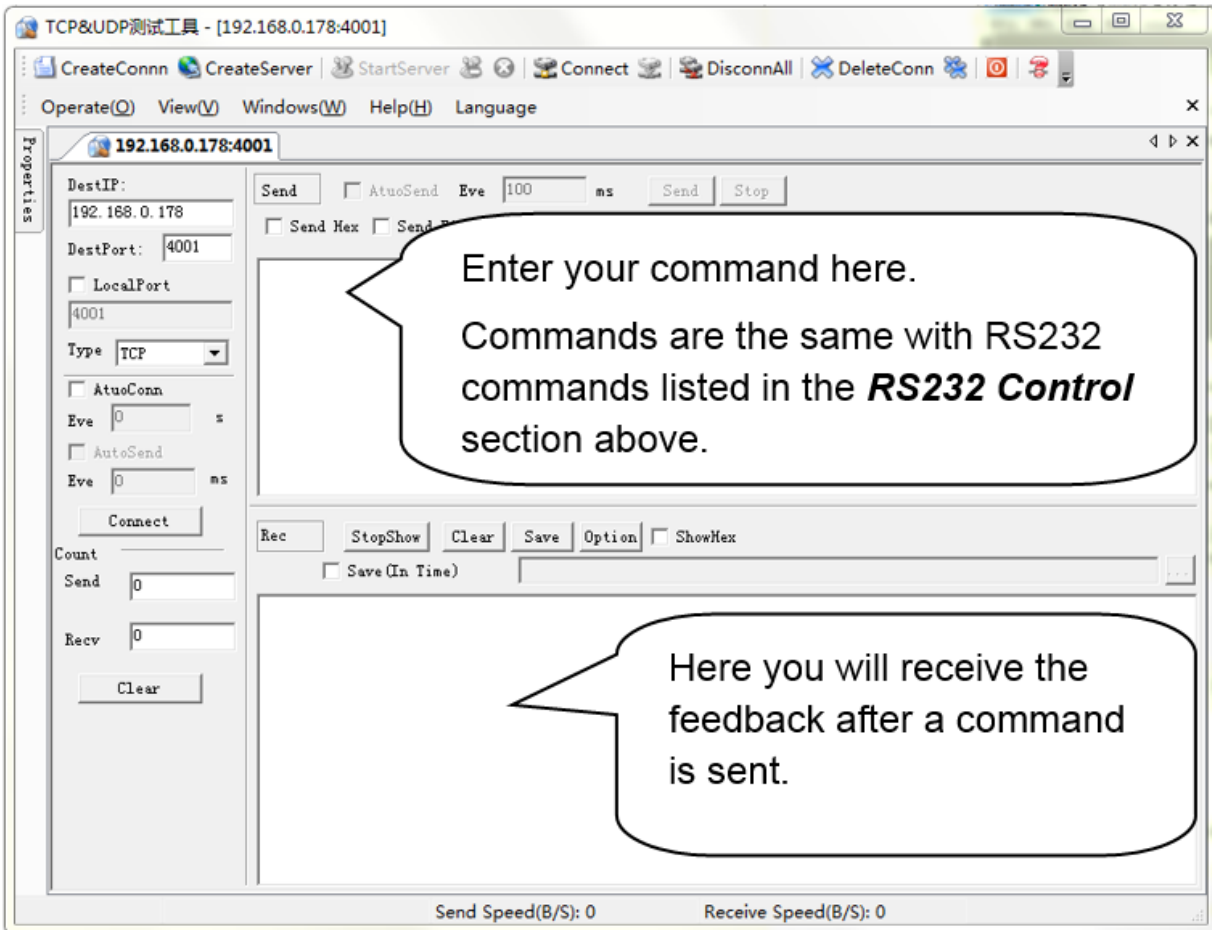
Digital Audio Commands		
Command	Function	Feedback Example
DigitAudioON[x].	Enable SPDIF audio output port [x]. [x]=1~8, 9=All ports	DigitAudio ON [x]/ALL Outputs
DigitAudioOFF[x].	Disable SPDIF audio output port [x]. [x]=1~8, 9=All ports	DigitAudio OFF [x]/All Outputs
%9977.	Query the status of digital audio for all output channels	Out 01 02 03 04 Audio Y Y Y Y Out 05 06 07 08 Audio Y Y Y Y

TCP/IP Software Control

You can connect to the matrix using a third party TCP/IP control software program, such as TCPUDP (not included). Use the following settings to connect to the matrix:

IP Address: 192.168.0.178

Port: 4001

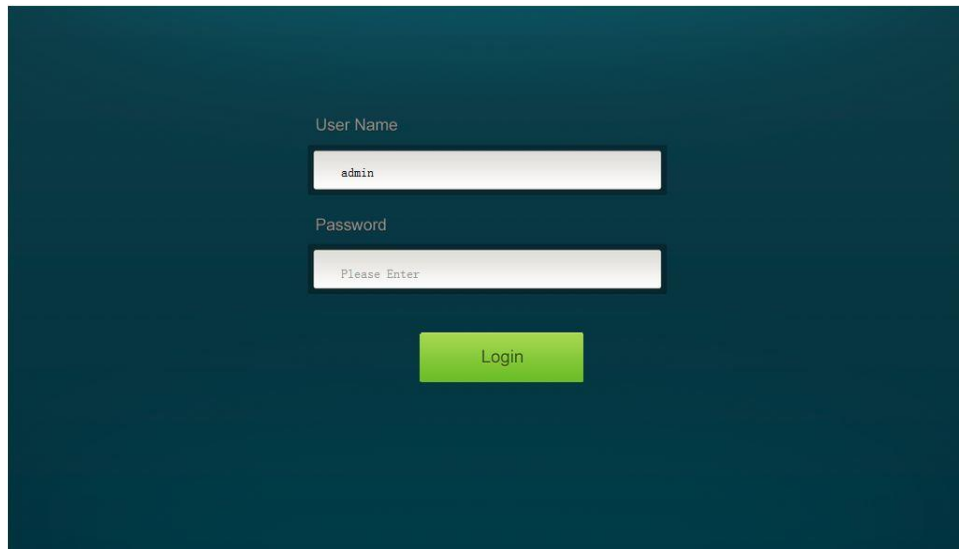


TCP/IP GUI Control

You can use the built-in web based GUI to control the matrix. To do so, open your internet browser and type the following into the address bar:

192.168.0.178

You will be presented with the GUI login screen, as shown below:

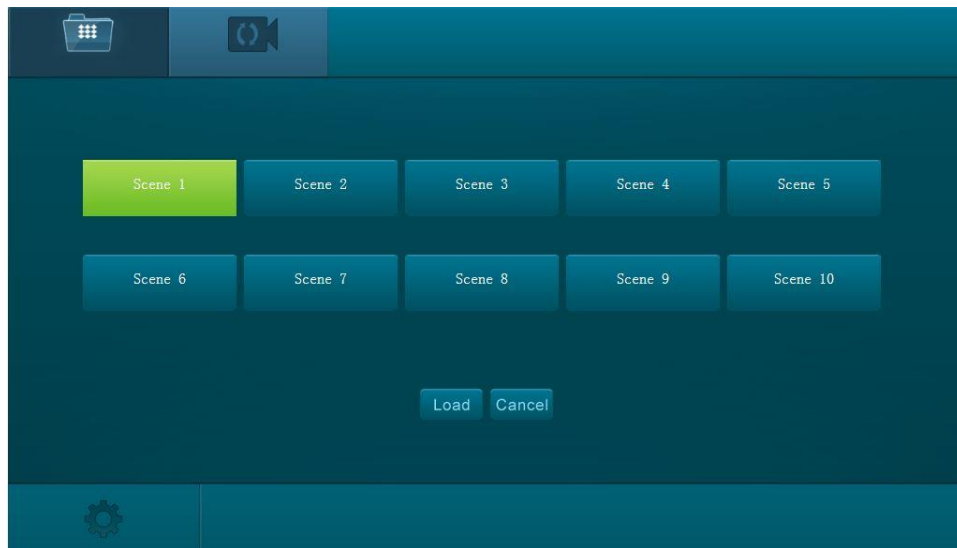


There are two sets of usernames and passwords you can use:

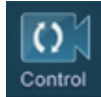
Username	Password
admin	admin
user	user

After typing in the username and password, click the **Login** button

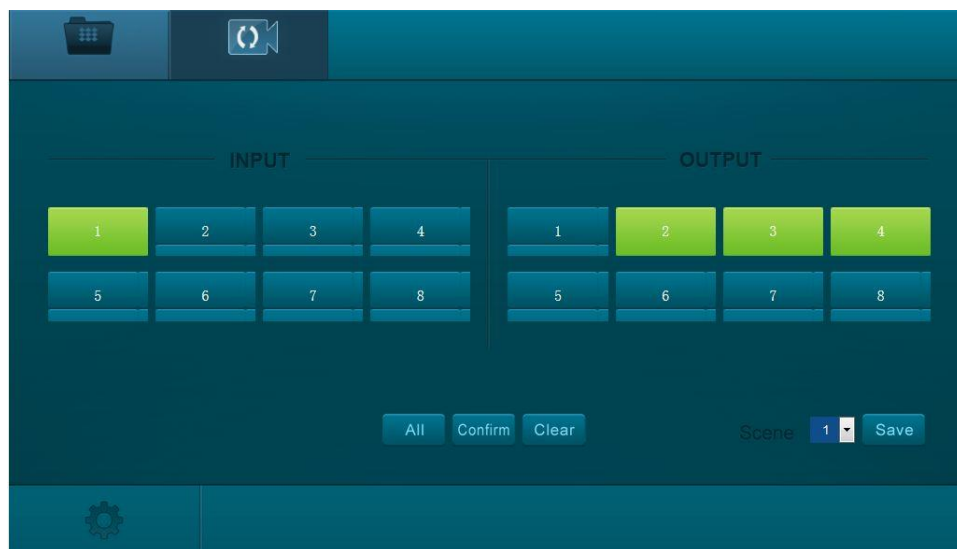
Once you have logged in, you will see the **Scene** screen, as show below. This screen allows you to select and load a previously saved "scene". Each "scene" is a saved configuration preset. By default the matrix has no saved configuration presets.



To load a "scene", click one of the **Scene** buttons, then click the **Load** button.



Click the **Control** tab to display the **Control** screen. This screen allows you to direct specific inputs to specific outputs and to save the result as a "scene".




To change a connection, first click one of the **INPUT** buttons, then click one of the **OUTPUT** buttons, and finally click the **Confirm** button.

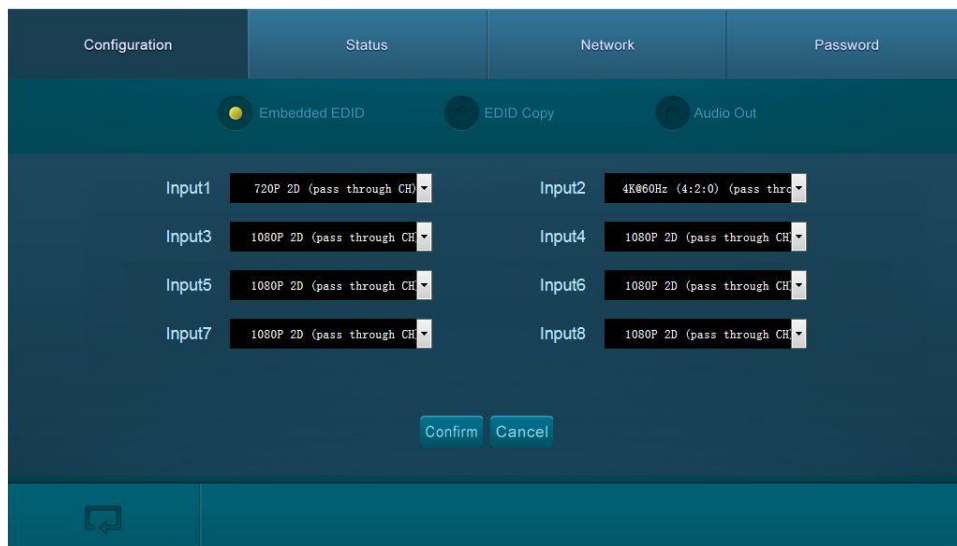
If you want to direct the input to all outputs, first click one of the **INPUT** buttons, then click the **All** button, and finally click the **Confirm** button.

Click the **Clear** button at any time prior to clicking the **Confirm** button to cancel the change.

To save the current connection status as a "scene", first make the changes you want to make, then use the **Scene** drop-down list to select a scene number, and finally click the **Save** button.



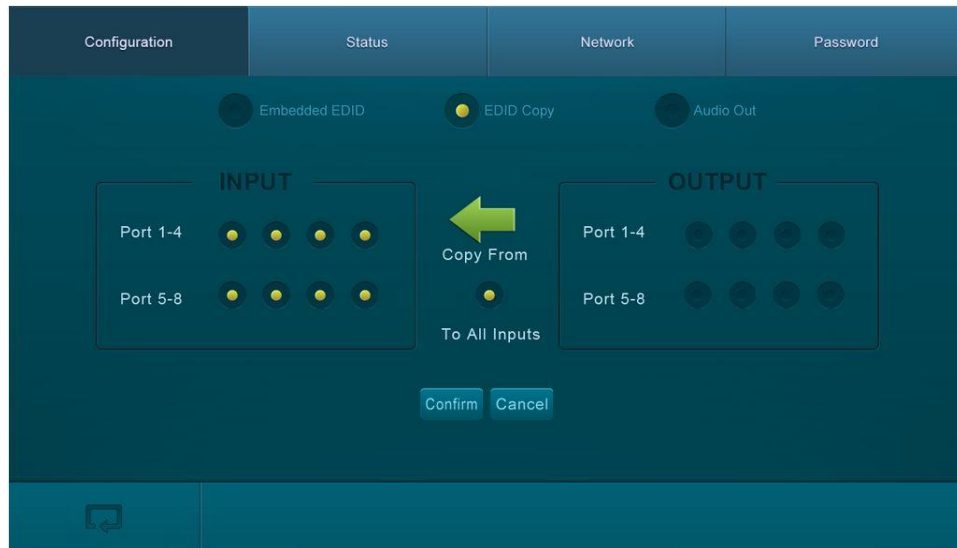
Click the  button to display the **Configuration / Embedded EDID** screen. This screen allows you to set the EDID data for each input.

A screenshot of the Configuration / Embedded EDID screen. The screen has a dark blue background with a light blue header bar containing four tabs: Configuration, Status, Network, and Password. Below the tabs, there are three radio buttons: Embedded EDID (selected), EDID Copy, and Audio Out. The main area contains eight input labels (Input1 through Input8) arranged in two columns. Each input label has a corresponding drop-down menu showing the current EDID setting. For example, Input1 shows '720P 2D (pass through CH)' and Input2 shows '4K@60Hz (4:2:0) (pass thro'. At the bottom of the screen, there are two buttons: Confirm and Cancel. A small icon of a monitor is visible in the bottom left corner.

Use the drop-down lists next to each Input label to change the EDID for each specific input, then click the **Confirm** button to save your changes.

Click the **Cancel** button at any time prior to clicking the **Confirm** button to cancel the change.

Click the **EDID Copy** radio button to display the **Configuration / EDID Copy** screen. This screen allows you to copy the EDID data from one of the OUTPUT channels to one or all of the INPUT devices.

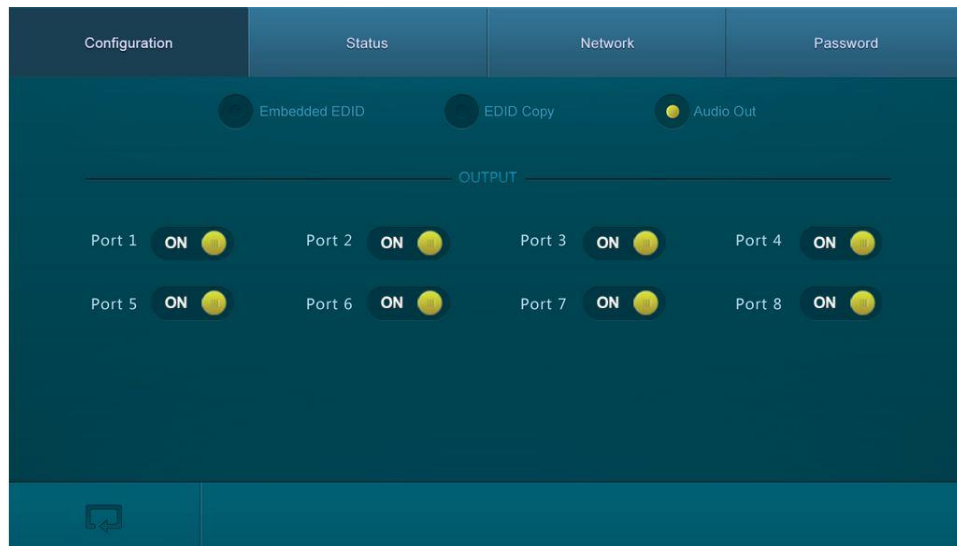


To copy the EDID data, first click the radio button corresponding to the desired **OUTPUT**, then click the radio button corresponding to the desired **INPUT**, and finally click the **Confirm** button to make the change.

To copy the EDID data to all inputs, first click the radio button corresponding to the desired **OUTPUT**, then click the **To All Inputs** radio button in the center, then click the **Confirm** button.

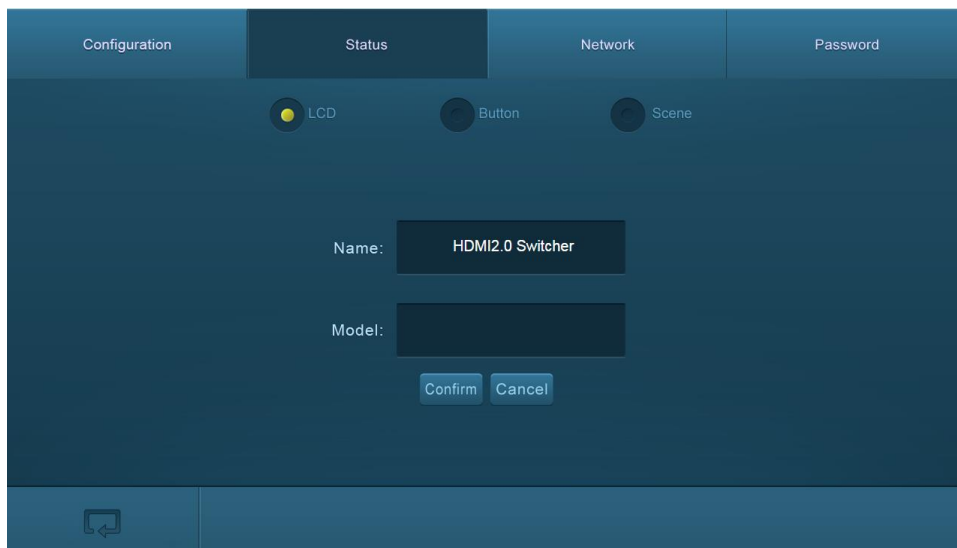
Click the **Cancel** button at any time prior to clicking the **Confirm** button to cancel the change.

Click the **Audio Out** radio button to display the **Configuration / Audio Out** settings screen. This screen allows you to enable or disable the S/PDIF outputs.



To enable or disable the S/PDIF audio output for any port, simply click the button to change the status to **ON** or **OFF**.

Click the **Status** tab to display the **Status / LCD** screen. This screen allows you to change the name and model that are displayed on the front panel LCD screen.



To change the name and model, simply click inside the text box, type in the desired name and model, then click the **Confirm** button to save the changes.

Click the **Cancel** button at any time prior to clicking the **Confirm** button to cancel the change.

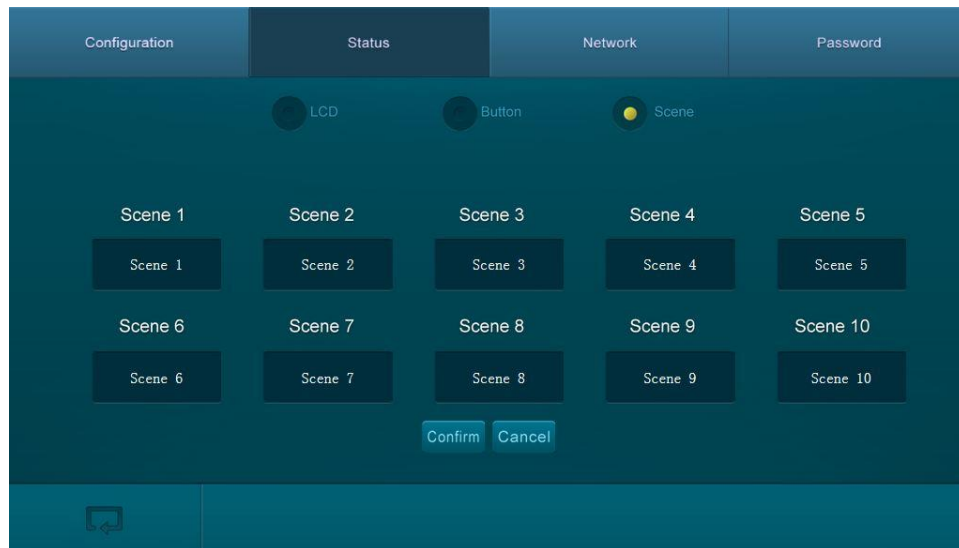
Click the **Button** radio button to display the **Status / Button** screen. This screen allows you to change the name that is displayed on the front panel LCD screen for each **INPUT** and **OUTPUT**.

Configuration				Status				Network				Password					
<div>LCD <input type="radio"/> Button <input checked="" type="radio"/> Scene <input type="radio"/></div>																	
INPUT								OUTPUT									
1 - 4		1	2	3	4	1 - 4		1	2	3	4	1 - 4		1	2	3	4
5 - 8		5	6	7	8	5 - 8		5	6	7	8	5 - 8		5	6	7	8
<div>Confirm Cancel</div>																	

To change the button names, simply click inside the text box, type in the desired name, then click the **Confirm** button to save the changes.

Click the **Cancel** button at any time prior to clicking the **Confirm** button to cancel the change.

Click the **Scene** radio button to display the **Status / Scene** screen. This screen allows you to change the names shown on the front panel LCD screen for each custom "scene".



To change the scene names, simply click inside the text box, type in the desired name, then click the **Confirm** button to save the changes.

Click the **Cancel** button at any time prior to clicking the **Confirm** button to cancel the change.

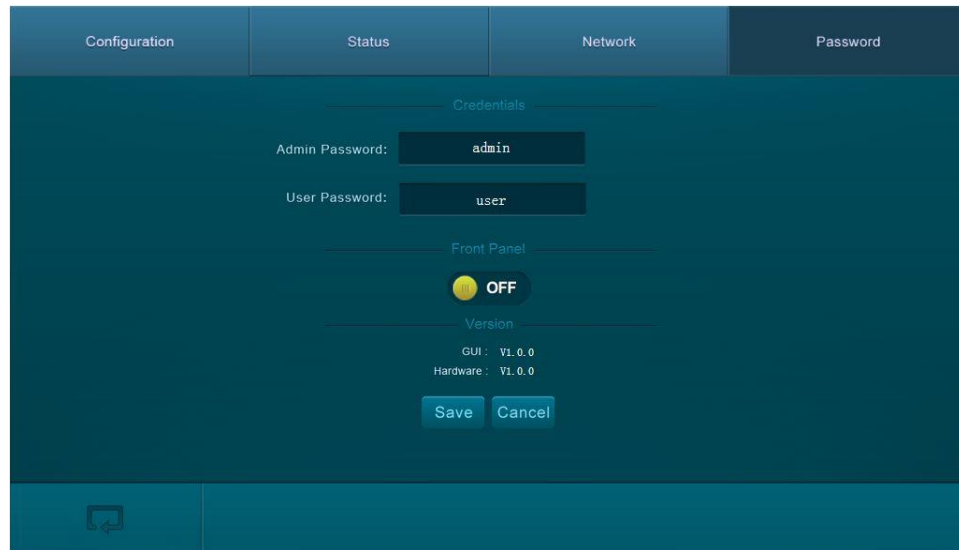
Click the **Network** tab to display the Network screen. This screen displays the MAC address, allows you to swap between DHCP and Static IP, and change the IP Address, Subnet Mask, and Gateway addresses.

To change between DHCP and Static IP, click the button to toggle its position, then click the **Confirm** button to save the change.

To change the IP Address, Subnet Mask, or Gateway, click simply click inside the text box, type in the desired address, then click the **Confirm** button to save the change.

Click the **Cancel** button at any time prior to clicking the **Confirm** button to cancel the change.

Click the **Password** tab to display the Password screen. This screen allows you to change the Admin and User passwords from their defaults of admin and user, respectively. It also displays the GUI and Hardware version numbers and allows you to lock or unlock the front panel controls.



To change a password, simply click inside the text box, type in the desired password, then click the **Save** button to save the change.

To lock or unlock the front panel control, click the **Front Panel** button to change the status to **OFF** or **ON**, as desired, then click the **Save** button to save the change.

Click the **Cancel** button at any time prior to clicking the **Save** button to cancel the change.



Click the button in the lower left corner to display the **Scene** screen. Refer to the description of the **Scene** screen at the beginning of this section.

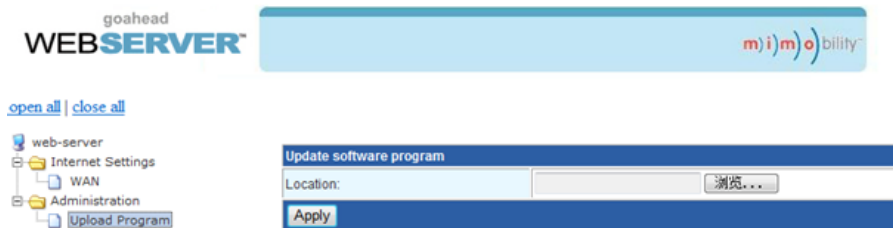
TCP/IP PORT CONFIGURATION

While you can change the IP Address, Subnet Mask, and Gateway addresses using the built-in GUI, you cannot make other network changes using the GUI. Instead, you need to use the built-in WebServer to configure the IP Port, reset the IP addresses to the factory default values, reset the password to the factory default, and update the firmware.

To access the WebServer, open your internet browser and type **192.168.0.178:100** into the address bar. If you changed the default IP address, use the new one instead. Use **admin** for both the Username and Password.



To upgrade the GUI firmware, click the **Administration / Upload Program** option. Next, click the **Browse...** button and use the file browser to locate the update file. Finally, click the **Apply** button to perform the upgrade.

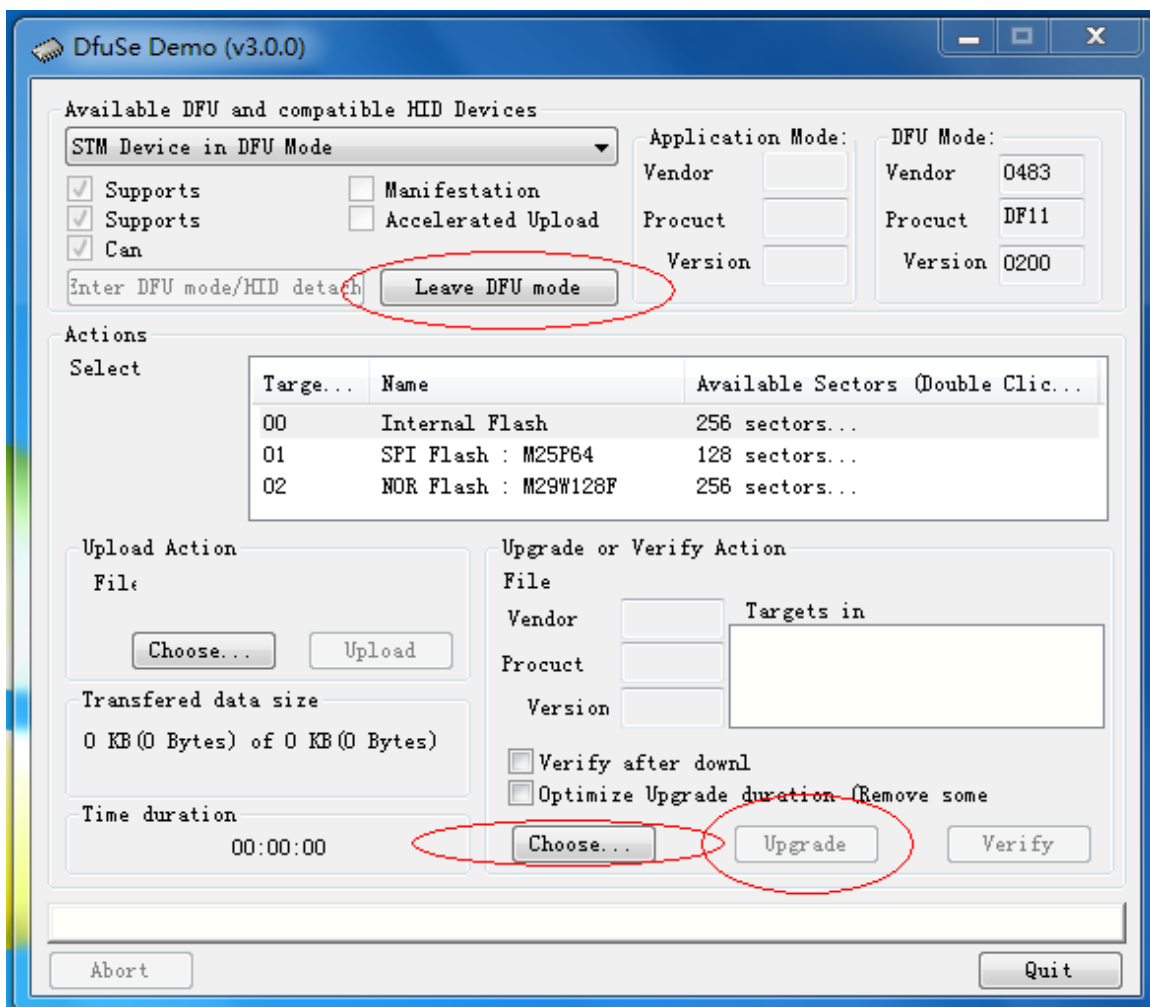


USB FIRMWARE UPGRADE

In the event that a firmware upgrade is made available, perform the following steps to upgrade the matrix.

1. Go to **Monoprice.com**, type **24180** into the search bar, then press the ENTER key or click the search icon.
2. Download the .zip file containing the firmware upgrade program.
3. Extract the .zip file to get the **DfuSe Demonstration** firmware upgrade program.

4. Download the .zip file containing the firmware upgrade file.
5. Extract the .zip file to get the **.dfu** firmware upgrade file.
6. Using a micro USB cable (not included), plug one end into one of your PC's USB ports, then plug the other end into the **FIRMWARE** port on the front panel.
7. Using the included IR remote control, put the matrix into **Standby** mode.
8. While pressing and holding the **INPUT 2** and **INPUT 3** buttons, use the remote control to power the matrix on. The **Power LED** will begin flashing red, indicating that the matrix is in firmware upgrade mode. If it does not, put the matrix back into standby mode and try again.
9. Double-click the **DfuSe Demonstration** icon to launch the firmware upgrade program.



10. Verify that the **Leave DFU mode** button is available. If not, your PC is not properly connected and you should repeat the process starting at step 6 above.
11. Click the **Choose...** button. Use the file browser to locate and select the **.dfu** firmware upgrade file.
12. Once the **.dfu** file is selected, the **Upgrade** button will be available. Click it to begin the firmware upgrade process.

TECHNICAL SUPPORT

Monoprice is pleased to provide free, live, online technical support to assist you with any questions you may have about installation, setup, troubleshooting, or product recommendations. If you ever need assistance with your new product, please come online to talk to one of our friendly and knowledgeable Tech Support Associates. Technical support is available through the online chat button on our website **www.monoprice.com** during regular business hours, 7 days a week. You can also get assistance through email by sending a message to **tech@monoprice.com**

SPECIFICATIONS

Model	24180
Inputs	8x HDMI®
Outputs	8x HDMI, 8x S/PDIF Digital Coaxial Audio
Maximum Resolution	4K@60Hz 4:4:4
HDMI Version	2.0
HDCP Version	2.2
Control Options	Front panel buttons, IR remote control, RS232 software, TCP/IP GUI, TCP/IP software
Input Power	24 VDC, 2.71A
AC Adapter Input Power	100 ~ 240 VAC, 50/60 Hz
Maximum Power Consumption	21 watts
Operating Temperature	+14 ~ +131°F (-10 ~ +55°C)
Operating Humidity	10 ~ 90% RH, non-condensing
Dimensions	17.2" x 9.3" x 1.7" (437 x 237 x 44 mm)
Weight	4.0 lbs. (1.82 kg)

REGULATORY COMPLIANCE

Notice for FCC



Modifying the equipment without Monoprice's authorization may result in the equipment no longer complying with FCC requirements for Class B digital devices. In that event, your right to use the equipment may be limited by FCC regulations, and you may be required to correct any interference to radio or television communications at your own expense.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Notice for Industry Canada

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

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HDMI®, the HDMI Logo, and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC in the United States and other countries.

PlayStation® is a registered trademark of Sony Computer Entertainment Inc. PS4™ is a trademark of the same company.