SY-MSU44-18G

User Manual

4x4 HDMI 2.0 Matrix Switcher
4K2K @ 60Hz YCbCr 4:4:4
With Automatic 4K → 2K Scaling per Output

Thank you for purchasing the SY-MSU44-18G

The SY-MSU44-18G is designed with the professional AV installers in mind. The many extensive features assist in system integration, validation and maintenance. It is still the slimmest HDBaseT extender in the world with tremendous flexibility and extraordinary capabilities.

Installation precautions

This product has special circuitry to protect it against moderate surges and static discharges. However, to ensure reliable operation and long service life, it is important to take all necessary precautions against possible spikes, surges and static discharges.

Place the unit away from heat sources and allow adequate ventilation.

As much as possible cables should be routed away from any noisy sources and avoid long runs in close proximity to AC mains cables.

The SY-MSU44-18G is a full 18Gbps 4x4 HDMI matrix switcher with both analogue and digital audio extraction for each output. Each output automatically scaled 4K → 2K to ensure an image will be displayed. The matrix has four control methods: Front Panel, RS232, LAN or IR. A front panel locking feature prevents accidental operation.

Features

- HDMI 2.0 up to 4K60 4:4:4 (18Gbps)
- HDMI resolution up to 4K60 4:4:4 (18Gbps)
- Auto-scaling 4K → 2K per output
- Compliant to HDCP 1.4 and HDCP 2.2
- Supports HDR10, HLG, Dolby Vision
- EDID Management
- 4 HDMI Inputs
- 4 HDMI Outputs
- 4 Analogue audio outputs
- 4 Digital coax audio outputs
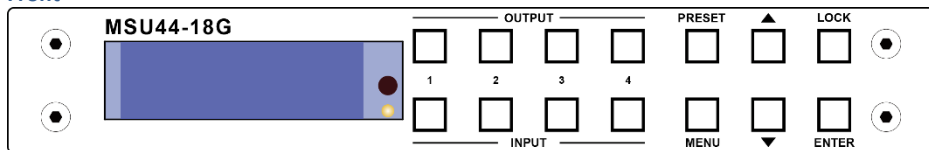- Control from front panel, RS232, LAN or IR

Package Contents

- 1x SY-MSU44-18G
- 1x 12V 2A DC PSU with UK and EU adapters
- 1x IR remote control
- 5x 3-way pluggable terminal connectors for RS232 and analogue audio outputs
- 1x Mini CD for Control Software and Manual

Optional Extras

- 1U Rack Mount Kit – Part No. SY-RS-MSU44

Connectors and Controls

Front

Name	Description
LCD Panel	Displays matrix status and menu options
IR Sensor	Located to the right of the LCD panel
Power LED	Lit when the SY-MSU44-18G is powered
Output Buttons	Press to select an output
Input Buttons	Press to select an input
Preset	Press to select a preset from the LCD panel
▲ (Up)	Press to go up a menu level
Lock	Lock or Unlock the front panel
Menu	Press to open the LCD menu, this is also the Left or ◄ button
▼ (Down)	Press to go down a menu level
Enter	Press to make menu selections, this is also the Right or ▶ button

Rear
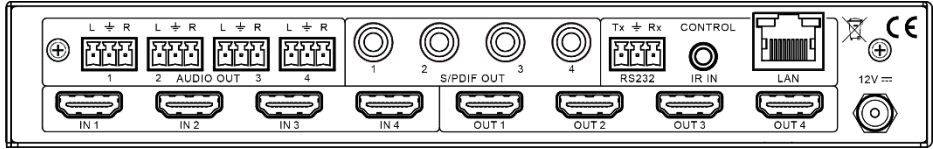
Name	Description
Audio Output	Analogue L/R Stereo audio outputs
S/PDIF Output	Digital coax audio outputs
RS232	RS232 control port
IR IN	Input for IR-Eye to control the SY-MSU44-18G
LAN	LAN control port
HDMI Inputs	Four HDMI input ports
HDMI Outputs	Four HDMI output ports
12V DC	12V DC PSU input

Using this Product

1. Connect the HDMI sources to the input ports.
2. Connect the HDMI display devices to the output ports.
3. If required, connect the RS232, LAN Ethernet cable to control the MSU44-18G.
4. If required, connect to the analogue or digital coax audio outputs.
5. Connect the 12V DC PSU.
6. Power up the matrix, sources and displays.

Control Options

The SY-MSU44-18G has five control methods:

1. Front Panel buttons
2. IR Remote Control
3. RS232 control
4. Direct TCP/IP Control
5. Web Interface Control

Front Panel Control

The SY-MSU44-18G has four methods for making video selections from the front panel:

1. Select an output button then select an input button to make individual channel selections.
2. Select multiple outputs and then select an input to switch that input to the chosen outputs in one go.
3. Press and hold any output for three seconds, then select an input to switch that input to the chosen outputs in one go.
4. Press and hold an input button for three seconds to set all outputs to the chosen input.

After three seconds the currently selected button will flash rapidly to indicate that the long press time out has elapsed and the button may be released. The output button will stop flashing and an input button can still be selected. The action is cancelled after five seconds if no input buttons are pressed.

IR Remote Control

The IR remote control supplied with the SY-MSU44-18G provides another method for controlling the SY-MSU44-18G. The table below details the function of each button on the IR remote controller.

← Previous and Next video selections
← Menu navigation buttons
← These buttons have no function for the SY-MSU44-18G

Button	Description
⏻	Toggle the power state of the SY-MSU44-18G.
M	Toggles the HDMI audio mute state of the selected output. Select an output then press the M button.
W	Toggles the front panel lock. While the panel is locked, only this button and the front panel LOCK button are operational.
Output Numbers	Buttons 1 to 4 select the desired output. Note that multiple outputs may be selected to set them each to a single input. Buttons 5 to 8 have no function.
ALL	The ALL button in the output group selects all outputs together to allow an individual input selection to all outputs in one go. Select the desired input from the Input group.
PTP	Select any output and this button to set the outputs to display their respective inputs (Out 1 = In 1, Out 2 = In 2, Out 3 = In 3, and Out 4 = In 4).
X	Select any output and this button toggles the HDMI output video state. Either display an input video or display a black image.
Input Numbers	Buttons 1 to 4 select the desired input. Buttons 5 to 8 have no function. Select an output then select an input.
ALL	The ALL button in the input group has no function.
◄	The ◄ button in the input group will cycle left through the inputs while an output number is active. In all the cases this button has no function.
►	The ► button in the input group will cycle right through the inputs while an output number is active. In all the cases this button has no function.
◄	The ◄ button below the input group will open the LCD menu system. While the menu is active, this button operates as the Left navigation button.

Button	Description
▲	The ▲ button below the input group is the Up navigation button while the menu is active.
▼	The ▼ button below the input group is the Down navigation button while the menu is active.
▶	The ▶ button below the input group acts as both the Right menu navigation button and the Enter button when making selections in the menu system of the SY-MSU44-18G.
F1 to F4	These four buttons have no function.

Navigating the LCD Menu System

The LCD menu system is activated by pressing the MENU button. The menu display automatically times out after a few seconds of inactivity. Pressing the Menu button again will re-open the menu at same place it was at when it timed out. While in the menu, the direction navigation keys operate as follows:

Front Panel	IR Remote	Action
MENU	◀	Go back one menu level until the top level is reached.
▲	▲	Go up through the listed options on the Menu display.
▼	▼	Go down through the listed options on the Menu display.
ENTER	▶	Go to the next menu level or accept a setting as displayed.

Any currently active menu option will have the '@' character shown after it on the LCD.

Several menu options include an '**All**' setting, this will set all outputs to the selection made in the next menu level. The following table details the LCD menu structure.

Level 1	Level 2	Level 3	Level 4	Description
Video	Switching	Output 1 Output 2 Output 3 Output 4 All	Input 1 Input 2 Input 3 Input 4	Video routing selections.
	On/Off	Output 1 Output 2 Output 3 Output 4 All	On	Unmute the HDMI output video. The **All** option sets all outputs to the desired selection.
			Off	Mute the HDMI output video.
Audio	Line out	Output 1 Output 2 Output 3 Output 4 All	On	Unmute the audio of the HDMI output.
			Off	Mute the audio of the HDMI output.
	De-embed	Output 1 Output 2 Output 3 Output 4 All	On	Unmute the de-embedded audio.
			Off	Mute the de-embedded audio.

Level 1	Level 2	Level 3	Level 4	Description
EDID	Input 1 Input 2 Input 3 Input 4 All	Default 1		4K60 4:4:4, No HDR, 2.0ch
		Default 2		4K60 4:4:4, No HDR, 5.1ch
		Default 3		4K60 4:4:4, No HDR, 7.1ch
		Default 4		4K60 4:2:0, HDR, 2.0ch
		Default 5		4K60 4:2:0, HDR, 5.1ch
		Default 6		4K60 4:2:0, HDR, 7.1ch
		Default 7		4K30 4:4:4, HDR, 2.0ch
		Default 8		4K30 4:4:4, HDR, 5.1ch
		Default 9		4K30 4:4:4, HDR, 7.1ch
		Default 10		4K24 4:4:4, HDR, 2.0ch
		Default 11		4K24 4:4:4, HDR, 5.1ch
		Default 12		4K24 4:4:4, HDR, 7.1ch
		Default 13		1080p60 4:4:4, No HDR, 2.0ch
		Default 14		1080p60 4:4:4, No HDR, 5.1ch
		Default 15		1080p60 4:4:4, No HDR, 7.1ch
		User 1		Copy the EDID data from User 1 memory
		User 2		Copy the EDID data from User 2 memory
		User 3		Copy the EDID data from User 3 memory
		User 4		Copy the EDID data from User 4 memory
		Output 1		Copy the EDID data from Output 1
		Output 2		Copy the EDID data from Output 2
		Output 3		Copy the EDID data from Output 3
		Output 4		Copy the EDID data from Output 4
Preset	Call Save Clear	Preset 1 to Preset 8		Recall, Save or Erase the selected preset
Setup	Baud	115200		Set the RS232 baud rate
		57600		
		19200		
		9600		
	DHCP	Off		Set static IP mode.
		On		Set DHCP mode.
	Reboot	No		Do not perform a system reboot.
		Yes		Perform a system reboot.
	Factory	Common	No	Do not erase any user settings data.
			Yes	Reset the User settings back to factory defaults.
		All	No	Do not erase any settings data.
			Yes	Erase all settings and restore factory defaults.
Info	System			Display the Company ident, product type and firmware version.
	IP			Display the IP address, subnet mask, gateway address and MAC address.

RS232 Control

All RS232 commands are sent to the SY-MS44-18G with the following default settings:

<div align="center">

115200 baud, 8 bits, no parity and 1 stop bit.

</div>

The baud can be changed using the menu system on the LCD or the built-in Web GUI. The other available baud rates are 57600, 19200, and 9600.

All the commands use ASCII notation and must be used as given in the following tables. The spaces shown in the commands are required and the command must contain only the values given in the Description column.

- All commands end with a single carriage return character.
- All responses end with a CR/LF character sequence.
- These RS232 commands can also be transmitted over IP to TCP/IP port 5000.

For the RS232 commands, the placeholder values are as follows:

Value	Range
x	1 to 4 for outputs 1 to 4.
y	1 to 4 for inputs 1 to 4.
z	**ON** or **OFF** as required, or a numerical value as detailed for that command.
p	A preset number in the range 1 to 8.
<…>	A required parameter that MUST be present. See specific command for details.

Input Selection

These commands control video selections and the HDMI output mode.

Command	Response	Description
SET OUT **x** VS IN **y**	OUT **x** VS IN **y**	Set output **x** to show input **y**. Both **x** and **y** are in the range 1 to 4 inclusive.
GET OUT **x** VS	OUT **x** VS IN **y**	Get the input number showing on output x.
SET OUT **x** STREAM **z**	OUT **x** STREAM **z**	Enable or Disable the output HDMI data stream.
GET OUT **x** STREAM	OUT **x** STREAM **z**	Return the status of the HDMI output stream.

When the HDMI output stream is set to OFF, a black image is output.

Presets

These commands allow control of the preset settings for saving and recalling the video matrix. The factory default is all with presets blank.

Command	Response	Description
SET PRESET **p** LOAD	PRESET **p** LOAD	Recall preset p
SET PRESET **p** SAVE	PRESET **p** SAVE	Store the current switcher matrix setting to preset p
SET PRESET **p** CLEAR	PRESET **p** CLEAR	Erase preset p

Power Mode

Use these command to control the power state of the SY-MSU44-18G.

Command	Response	Description
SET PWR **z**	PWR **z**	Set the power mode to ON or OFF.
GET PWR	PWR **z**	Return the current power mode.
SET POWER START **t**	PWR START **t**	Set the time in minutes for the SY-MSU44-18G to self-repower.
SET POWER SHUT **s**	PWR SHUT **s**	Set the time in minutes for the SY-MSU44-18G to self-shutdown.
GET POWER TIMES	PWR SHUT **s** START **t**	Return the shut-down and start-up delay values.

Audio Settings

The de-embedded audio outputs and the HDMI audio can be enabled or disabled independently.
Note: There is no volume control for any audio channel.

Command	Response	Description
SET OUT **x** EXA EN	OUT **x** EXA EN	Enable the Line Out and S/PDIF audio outputs for channel x.
SET OUT **x** EXA DIS	OUT **x** EXA DIS	Disable the Line Out and S/PDIF audio outputs for channel x.
GET OUT x EXA	*One of the two above responses*	Return the Line Out and S/PDIF audio status for channel x.
SET OUT **x** HDA EN	OUT **x** HDA EN	Enable the HDMI audio output for channel x.
SET OUT **x** HDA DIS	OUT **x** HDA DIS	Disable the HDMI audio output for channel x.
GET OUT **x** HDA	*One of the two above responses*	Return the HDMI audio status for channel x.

EDID Settings

Command	Response	Description
SET IN **y** EDID **z**	IN **y** EDID **z**	Set Input EDID **y** to **z**, where **z** is 0~22 representing one of the values given in the table below.
GET IN **y** EDID	IN **y** EDID **z**	Return the EDID selection, **z**, for input **y**. See the table below for **z** value
SET IN **y** EDID CY OUT **x**	IN **y** EDID CY OUT **x**	Copy EDID from output **x** to input **y**
SET OUT **x** EDID U **y**	OUT **x** EDID U **y**	Copy EDID from output **x** to USER **y** **x** is the output number 1~4 **y** is the input USER number 1~4

Command	Response	Description
SET EDID U **x** DATA **z**	EDID U **x** DATA **z**	Write EDID Data **z** to User memory **x** (1~4) **z** is 256 pairs of hexadecimal ASCII values, for example: 00 FF FF FF ...
GET IN y EDID U **x** DATA	EDID U **x** DATA **z**	Read the EDID Data from input **x** (1~4) **z** is 256 pairs of hexadecimal ASCII values, for example: 00 FF FF FF ...

This table gives the value **z** used by the SET IN **y** EDID **z** command in the previous table.

EDID Value **z**	EDID Setting
0	4K60 4:4:4 2.0 ch, No HDR
1	4K60 4:4:4 5.1 ch, No HDR
2	4K60 4:4:4 7.1 ch, No HDR
3	4K60 4:2:0 2.0 ch, HDR
4	4K60 4:2:0 5.1 ch, HDR
5	4K60 4:2:0 7.1 ch, HDR
6	4K30 4:4:4 2.0 ch, HDR
7	4K30 4:4:4 5.1 ch, HDR
8	4K30 4:4:4 7.1 ch, HDR
9	4K24 4:4:4 2.0 ch, HDR
10	4K24 4:4:4 5.1 ch, HDR
11	4K24 4:4:4 7.1 ch, HDR
12	1080p60 2.0 ch, No HDR
13	1080p60 5.1 ch, No HDR
14	1080p60 7.1 ch, No HDR
15	Copy EDID data from User 1 memory
16	Copy EDID data from User 2 memory
17	Copy EDID data from User 3 memory
18	Copy EDID data from User 4 memory
19	Copy EDID data from Output 1
20	Copy EDID data from Output 2
21	Copy EDID data from Output 3
22	Copy EDID data from Output 4

HDCP Settings

These commands control the HDCP mode of the HDMI outputs.

Command	Response	Description
`SET OUT x HDCP CASCADE`	`OUT x HDCP CASCADE`	Set HDCP on output **x** to None (HDCP off) (cascade mode)
`SET OUT x HDCP 1.4`	`OUT x HDCP 1.4`	Set HDCP on output **x** to 1.4 only
`SET OUT x HDCP 2.2`	`OUT x HDCP 2.2`	Set HDCP on output **x** to 2.2 only
`SET OUT x HDCP FOLLOW`	`OUT x HDCP FOLLOW`	Set HDCP on output **x** be the same as the input (default)
`GET OUT x HDCP`	*Any one of the above four responses*	Get the current HDCP setting for output **x**

Network Settings

These commands control or report the network IP settings.

Command	Response	Description
`SET DHCP ON`	Responds with the new network settings.	Enable dynamic IP (DHCP) mode
`SET DHCP OFF`		Enable static IP mode
`GET DHCP`		Get the current DHCP mode setting
`SET IP <ip_addr>`	`IP <ip_addr>`	Set the static IP address `<ip_addr>` in the format **aaa.bbb.ccc.ddd**
`GET IP`	`IP <id_addr>`	Return the current IP address `<ip_addr>` in the format **aaa.bbb.ccc.ddd**
`SET MASK`	`MASK <mask>`	Set the subnet mask `<mask>` in the format **aaa.bbb.ccc.ddd**
`GET MASK`	`MASK <mask>`	Return the current subnet mask `<mask>` in the format **aaa.bbb.ccc.ddd**
`SET GW <gateway>`	`GW <gateway>`	Set the gateway IP address in the format **aaa.bbb.ccc.ddd**
`GET GW`	`GW <gateway>`	Get the current gateway IP address in the format **aaa.bbb.ccc.ddd**
`SET DNS <id_addr>`	`DNS <id_addr>`	Set the DNS IP address
`GET DNS`	`DNS <id_addr>`	Return the current DNS IP address
`SET NETBIOS w`	`NETBIOS w`	Set the NetBIOS name to **w** (see note below)
`GET NETBIOS`	`NETBIOS w`	Return the current NetBIOS name
`GET MAC`	`MAC <mac_addr>`	Return the current MAC address of the IP interface in the format: **xx-xx-xx-xx-xx-xx**

For the NETBIOS command, **w** is a set of characters that must conform to a valid NetBIOS name (A-Z, 0-9; from 1 to 15 characters).

Account Control

Command	Response
SET REGISTER **\<acc\> \<user\> \<pwd\>**	REGISTER **\<acc\> \<user\>**

Register a new user **\<user\>** with account level **\<acc\>** and password **\<pwd\>**

Command	Response	Description
SET LOGIN **\<user\> \<pwd\>**	LOGIN **\<user\>**	Login a registered user with their assigned password

Port Names

This command sets the name for the specified output.

Command	Response	Description
SET NAME **x w**	NAME **x w**	Set HDMI output port **x** to the name given in **w**
GET NAME **x**	NAME **x w**	Get the name for HDMI output **x**

LCD Commands

Command	Response	Description
SET LCD CONTRAST **z**	LCD CONTRAST **z**	Set the LCD contrast level, **z** is 0 to 100, default is 50
SET LCD BL_LVL **z**	LCD BL_LVL **z**	Set the LCD backlight level, **z** is 0 to 100, default is 50
SET LCD BL_TIME **z**	LCD BL_TIME **z**	Set the on time delay in seconds for the LCD backlight. Max is 250 seconds, a value of 0 means do not turn off. Default is 20 seconds.
SET LCD HOME_TIME **z**	LCD HOME_TIME **z**	Set the time delay in seconds before reverting to the default home display on the LCD. Max is 250 seconds, a value of 0 means do not turn off. Default is 10 seconds.
SET LCD CH_TIME **z**	LCD CH_TIME **z**	Set the time delay in seconds for showing channel selections. Max is 250 seconds, a value of 0 means do not turn off. Default is 5 seconds.

Test Pattern Commands

Note: the test pattern is de-activated when an input selection is made to the output displaying the test pattern.

Command	Response	Description
SET PATTERN OUT **x**	PATTERN OUT **x**	Select the output to show the test pattern. 0 may be used for all outputs.
SET PATTERN VIC **z**	PATTERN VIC **z**	Select the output resolution for the test pattern.
SET PATTERN **z**	PATTERN **z**	Select the test pattern to display.

The SET PATTERN VIC and SET PATTERN commands require a numeric value as detailed in this table:

Value	VIC Resolution Setting	Test Pattern Setting
0	720 x 480p 60	Black
1	1280 x 720p 60	Chequerboard
2	1080p60	Stripes
3	4K24	Red
4	4K25	Green
5	4K30	Blue
6	4K24W (4069x2160)	White
7	4K50	Ramp
8	4K60	Red Ramp
9	—	Green Ramp
10	—	Blue Ramp
11	—	Pseudo-Random Bit Stream

System Commands

Command	Response	Description
HELP	*The actual response depends on the available commands*	Output a list of all available commands including any firmware version numbers
GET FW VERSION	*The actual response depends on the installed version numbers*	Display all installed firmware version numbers. For example, boot code version, main firmware version, web IF version, etc.
SET FACTORY OPER	FACTORY RESET OPER	Reset all operator data to factory defaults
SET FACTORY ALL	FACTORY RESET ALL	Reset all data including IP settings to factory defaults
SET REBOOT	*The actual response depends on the normal start up sequence*	Perform a system reboot

Direct TCP/IP Control

The SY-MSU44-18G is controllable via the IP port using the following default settings:

Default IP: 192.168.1.168
Default Gateway: 192.168.1.1
Default Subnet: 255.255.255.0
DHCP: Off (Static IP)
TCP/IP Port: 5000
Telnet Port: 23 (requires login details)

The IP control commands are the same as the above RS232 commands.

Web Interface Control

To use the built-in web interface simply connect the SY-MSU44-18G to a network enter its current IP address into a web browser. If the current IP is not known, it can be discovered by either sending the RS232 command GET IP or by navigating the front panel menu system on the LCD.

The web interface and Telnet both require login details, the default settings are:

User Name	Password
admin	admin
user	user

After logging in, the Video Control page appears. The left sidebar selects the various control and configuration pages.

The border colour of the input and output buttons denotes the presence or absence of the HDMI signal for the respective input or output.

Border Colour	Meaning
Blue	The HDMI signal is not present for that input or output
Purple	The HDMI signal is present for that input or output

Video Control

The Video Control page allows for video selections and preset management.

Video Selection

To make a video selection, select as many of the left-hand buttons in the Output group and then select an input button in the Input group. The All button will select all outputs at once.

The numbered buttons in the output group begin with the input number and end with the output number, for example, **03 >> 01** means input 3 is selected to output 1.

Output Enable/Disable

Each output is enabled or disabled by clicking on the buttons on the right of the output box. The output is enabled when the button reads ON and it is disabled when the button read OFF.

Preset Selection

The preset memories can store a set of selections for instant recall. To use a preset memory,

first select the preset to use and then click on Save or Recall. Only one preset memory can be selected at any instant.

Modify Port Name

The modify port name displays another panel that allows for renaming of the input, outputs and presets.
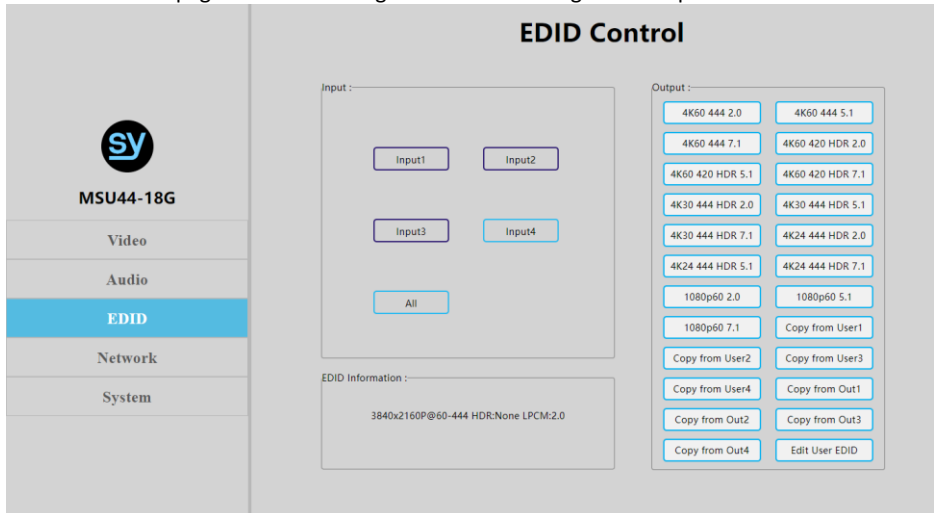
Audio Control

The Audio Control page provides individual control of the HDMI and the de-embedded analogue audio output states. When the respective button is blue, that audio output is enabled.
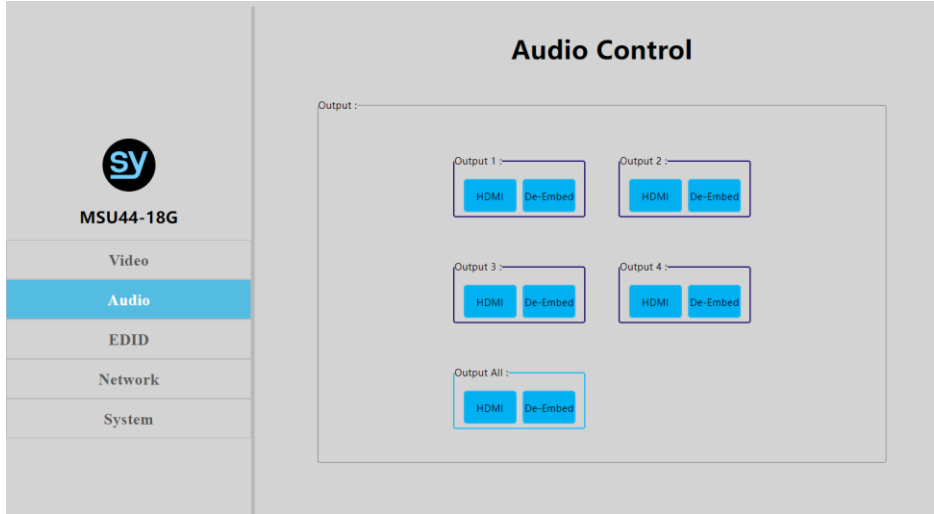

EDID Control

The EDID control page is used to configure the EDID setting for the inputs.

The Input buttons can be selected individually or collectively to set either a single input or multiple inputs to the desired EDID setting. The Copy buttons will copy the EDID data either from one of the four User memories or from the display device connected to the selected output.

The Edit User EDID button opens a separate panel to select which EDID goes to one of the four User EDID memories as the destination. Click the Set button to accept the changes then click Exit to cancel the panel. Clicking Exit without Set will cancel the selection and retain the previous User memory EDID settings.

EDID Edit Page ⊠

Copy EDID From [Default1 ▾] to [User1 ▾] [Set]

[Exit]
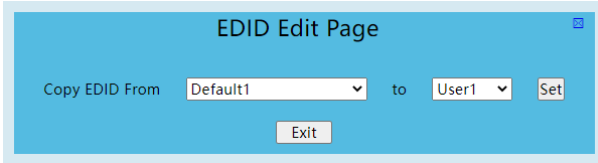
The Copy EDID from drop down list follows the same order as for the EDID settings:

Copy EDID From List	EDID Setting
Default 1	4K60 4:4:4 2.0 ch, No HDR
Default 2	4K60 4:4:4 5.1 ch, No HDR
Default 3	4K60 4:4:4 7.1 ch, No HDR
Default 4	4K60 4:2:0 2.0 ch, HDR
Default 5	4K60 4:2:0 5.1 ch, HDR
Default 6	4K60 4:2:0 7.1 ch, HDR
Default 7	4K30 4:4:4 2.0 ch, HDR
Default 8	4K30 4:4:4 5.1 ch, HDR
Default 9	4K30 4:4:4 7.1 ch, HDR
Default 10	4K24 4:4:4 2.0 ch, HDR
Default 11	4K24 4:4:4 5.1 ch, HDR
Default 12	4K24 4:4:4 7.1 ch, HDR
Default 13	1080p60 2.0 ch, No HDR
Default 14	1080p60 5.1 ch, No HDR
Default 15	1080p60 7.1 ch, No HDR
User 1	Copy EDID data from User 1 memory
User 2	Copy EDID data from User 2 memory
User 3	Copy EDID data from User 3 memory
User 4	Copy EDID data from User 4 memory
HDMI Out1	Copy EDID data from Output 1
HDMI Out 2	Copy EDID data from Output 2
HDMI Out 3	Copy EDID data from Output 3
HDMI Out 4	Copy EDID data from Output 4

Network Information

This page allows for configuration of the network parameters.

Set the DHCP button to off when a static IP address is required. The SY-MSU44-18G also has RS232 commands to control the IP settings – see Network Settings.

System Settings

The System Settings panel provides the following features:

Button	Purpose
Reboot	Restart the SY-MSU44-18G.
Factory Common	Reset any user settings back to their factory defaults.
Factory All	Restore all settings to their factory defaults.
RS232 Baud Rate	Set the RS232 communication speed.

The Change Password panel is used to configure new users and their associated passwords.

Click the Apply button to set the changes in the SY-MSU44-18G.

Specifications

General

Inputs	4x HDMI
Outputs	4x HDMI, 4x L/R Analogue audio, 4x Digital Coax Audio
Control	Front panel, RS232, LAN, Web GUI, IR
HDMI Resolutions	All HDMI resolutions up to 4K60 4:4:4 (18Gbps) 4K60 4:4:4, 4K60 4:2:0, 4K30 4:4:4, 4K24 4:4:4, 1080p60
HDMI Standard	HDMI 1.4 and HDMI 2.0
HDCP Compliance	1.4 and 2.2
HDR10, HLG and Dolby Vision	Supported for 4K60 4:2:0, 4K30 4:4:4, 4K24 4:4:4 resolutions only. Not supported in 4K60 4:4:4 and 1080p60.
Audio Formats	2.0 ch, 5.1 ch and 7.1 ch in each built-in EDID setting. LPCM 2.0, Dolby True HD, DTS-HD Master, LPCM 7.1.
Audio Sample Rates	All audio sample rates up to 192kHz
Default IP Settings	IP: 192.168.1.168 Mask: 255.255.255.0 Gateway: 192.168.1.1
Default baud rate:	115200, can be set to 57600, 19200 or 9600 Always 8 bits, no parity and one stop bit

Environmental

Operating Temperature	0 ~ 40°C (32 ~ 104°F)
Operating Humidity	10 ~ 90% RH – non-condensing

Physical

Dimensions (WxHxD)	216.2 x 128.5 x 34.0
Weight	470g

Safety Instructions

To ensure reliable operation of this product as well as protecting the safety of any person using or handling these devices while powered, please observe the following instructions.

1. **ONLY USE** the power supply provided. If an alternate supply is required, check the voltage, polarity and that it has sufficient power to supply the device it is connected to.

2. **DO NOT** operate this product outside the specified temperature and humidity range given in the above specifications.

3. Ensure there is adequate ventilation as this product generates heat while operating.

4. Repair of this product should only be carried out by qualified professionals as this product contains sensitive devices that may be damaged by any mistreatment.

5. Only use this product indoors and in a dry environment. **DO NOT** allow any liquids or harmful chemicals to come into contact with this product.

After Sales Service

1. Should you experience any problems while using this product, firstly refer to the Troubleshooting section in this manual and/or your local dealer before contacting SY Technical Support.

2. When calling SY Technical Support, please provide the following information:
    - Full Product Name and Model Number
    - Product Serial Number
    - Details of the fault and any conditions under which the fault occurs.

3. This product has a two year standard warranty beginning from the date of purchase as stated on the sales invoice. For full details please refer to our Terms and Conditions.

4. The SY Product warranty is automatically void under any of the following conditions:
    - The product is already outside of its warranty period
    - Damage to the product due to incorrect usage or storage
    - Damage caused by unauthorised repairs
    - Damage caused by mistreatment of the product

5. Please direct any questions or problems you may have to your local dealer before contacting SY Electronics.