Table of Contents

Please read this manual thoroughly and follow the **Installation** procedures to prevent any damage to the unit or any connecting device.

* *The final specifications are the actual product based.*
* *Features and functions are subject to change since the manual was written.*
  Please visit the related website to download the latest version of manual for reference.

RoHS

---------- *Introduction*

Overview

The **3D HDMI Switch-Splitter** is one of the most outstanding 3D Video switch-splitters. Users can easily select one HDMI source and then distribute to multiple HDMI displays via push button / IR remote controller / serial control. The extraordinary EDID copy Pre-setting function ensures the accurate output display, and the Audio signal configuration function guarantees the precise audio sound playing on 5.1 / 7.1 channel Home Theater System.

Moreover, the optional Graphical User Interface (GUI) function makes control easier and more effectively. The well-designed GUI can free users from giving complex commands. What's more amazing is that it allows you to name and portray your source and display icons for user-friendly operation.

This product is 3D support, Full HD 1080p, HDCP compliant, Blu-ray ready and is 1 RU Rack mountable for professional installations. It is perfect for situations that require immediate and easy to set up, such as presentations in boardrooms, trades shows, windows displays, and training facilities.

Features

- Select 1 from 2 / 4 HDMI source and then distribute to 4 / 8 / 16 HDMI displays (depends on model)
- Provide various ways to control via
  1. Front panel button control
  2. IR remote controller
  3. Serial control-simple serial connection
  4. Serial control-GUI operation
- Individually turn ON / OFF display signal
- Configurable Audio channel setting ideal for 5.1 / 7.1 Home Theater AV Receiver
- Front panel LEDs show input/ output status
- Support the resolution up to Full HD 1080p / 2048 x 1152
- One IR remote controller can control up to 16 units
- Mandatory 3D-video, HDCP compliant and Blu-ray ready
- Non-volatile memory stores all settings in case of blackout
- Energy-saving function for increasing efficient energy use
- Avoid unnecessary flicker when adding system instruments
- Signal Optimization choosing the best output setting from the available alternatives

EGO (Advanced Auto-sensing) Functions

- Versatile port selection functions of Priority, Auto-sensing and Switch modes
- User-friendly port switching via button pressing or priority setting
- Matrix mode supports 2-Bus function which can display 2 sources simultaneously (depends on model)

EDID Functions

- Multi-functions for EDID setting, like EDID Copy and EDID Pre-setting, ensuring accurate output display
- Enable separately learn Audio and Video EDID for multimedia / Home Theater system integration
- Provide the default EDID, if a display's EDID is not available
- Emulating EDID information ensures the optimum video performance
- Read and store the EDID from the connecting display to the video extension

GUI Operation Features

- Graphically describe connection status
- Most commonly used menu items are duplicated as icons on the top
- Common icons are provided
- Can name and use your own images for every source and display icon
- GUI function makes control easier and more effective

Package Contents

Your package should contain the following:

Content	Quantity
HDMI Switch-Splitter Unit	1
Power Adapter with necessary AC Cord or Plug-in Power Adapter	1 set
IR Remote Controller	1
CD (User's Manual & GUI Application)	1
Quick Start Guide	1
Foot Pad Set	1
Optional	
Serial Cable (see *Serial Configuration* chapter)	
HDMI Cable (M-to-M) 1.8m for HDMI A/V source connection	

System Requirements

- HDCP compliant monitors with HDMI interface for the HDCP video source
- HDMI Cable

Product List — 3D HDMI Switch-Splitter

with EGO MX (Advanced Auto-sensing with 2-BUS) Function

Model w/ Serial	**Input**	**Output**	**EGO MX**	**Dimension**
VGM-S2104	2	4	No	37 x 255 x 130
VGM-S2108	2	8	Yes	
VGM-S4104	4	4	No	
VGM-S4108	4	8	Yes	
VGM-S4116	4	16	Yes	55 x 255 x 130

Related Product — 3D HDMI Splitter

Model		**Input**	**Output**
w/ Serial	w/o Serial		
VS3D-S1104	**VS3D-1104**	1	4
VS3D-S1108	**VS3D-1108**	1	8
VS3D-S1116		1	16

Connection Pattern

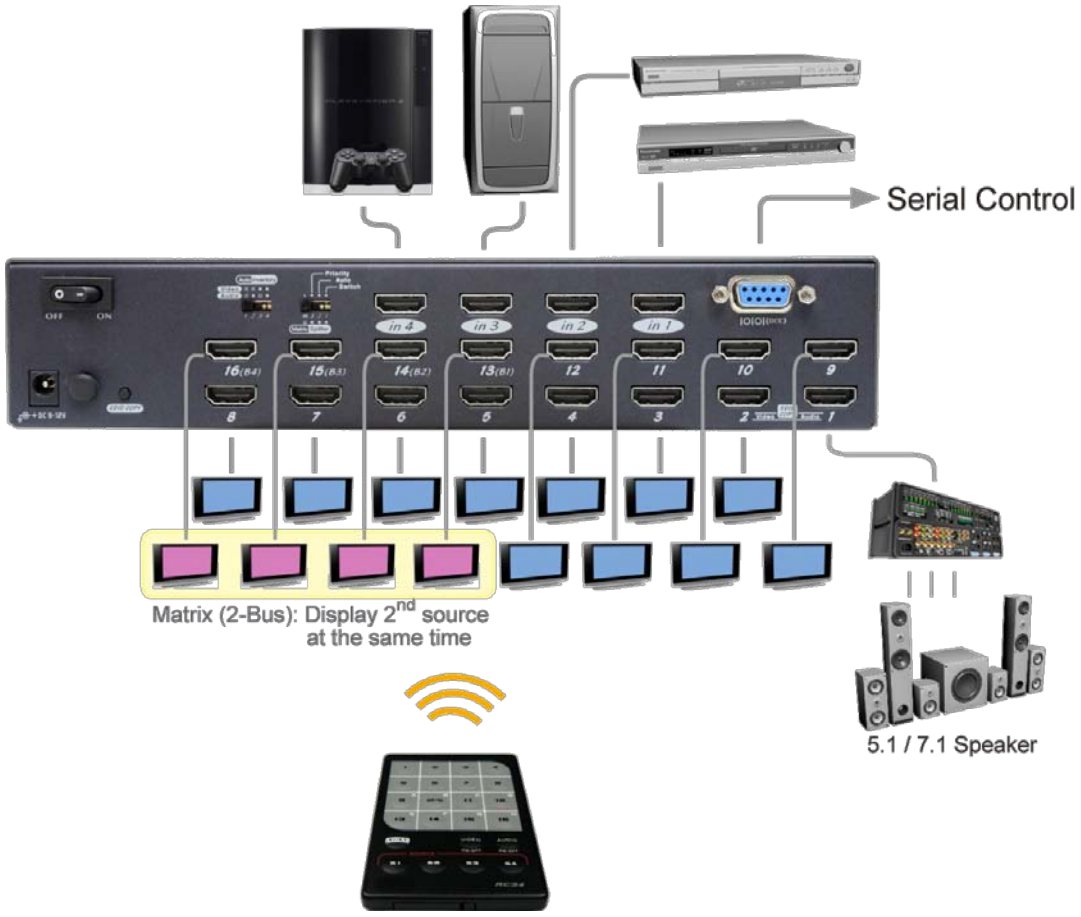
WARNING
- Ensure that all devices are powered off before connecting to the switch.
- Make sure all devices you will connect are properly grounded.

1. Slide the switches to the desired positions; see *Product Description - Slide Switch* section.
2. Use an HDMI cable to connect the HDMI display to the HDMI output port on the rear of the switch-splitter.
3. Use an HDMI cable to connect the source device to the HDMI input port on the switch splitter. The HDMI input ports are located on the rear of the switch-splitter.
4. Plug the power supply into the switch-splitter and connect the adapter to AC wall outlet. After finishing the installation you may now turn on the HDMI display and source devices.
5. If necessary, apply EDID Copy process; see *EDID Setting* section.

NOTE: If users encounter no screen display in computer connection

1. Make sure the device cables are correctly and firmly attached.
2. Set your display device's (TV, monitor, etc.) input source as HDMI.
3. Check the PC BIOS configuration about the video output setting.
4. Connect your video source to the HDMI display DIRECTLY to check if the video signal gets through.
5. Slide the switches to the correct positions according to your displays (see *Product Description - Slide Switch* section).
6. Apply EDID Copy to your display (see *EDID Setting* section).

Device Connection

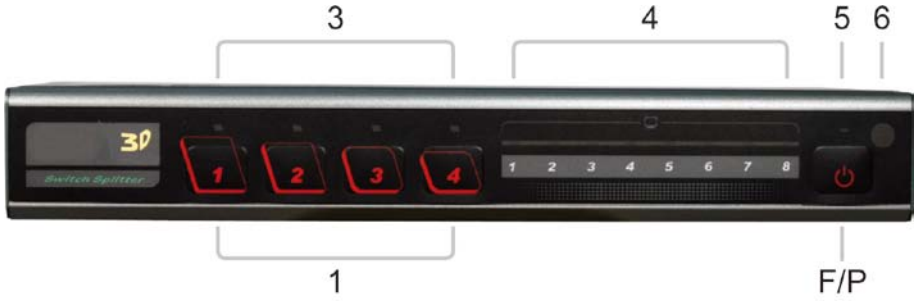


---------- *Product Description*

The model you have purchased may be slightly different from those described in the figures.

Front Panel

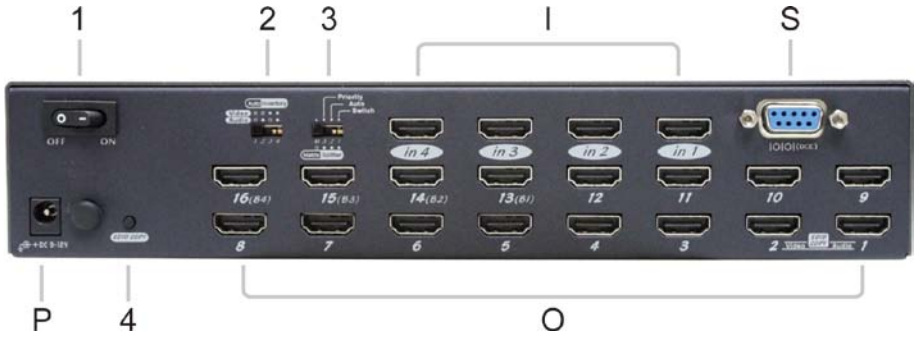
4 / 8-Output Port Model



16-Output Port Model

1	Select Push Button	Port selection	
F/P (4/8 Output Port) **F** **P** (16-Output Port)	Function/ Power Push Button	Stand-by & System configuration	
3	Input Port LED Indicator	Green: Port selected Flash: Programming	2-input model: x 2 4-input model: x 4
4	Output Port LED Indicator	Green: Power on Flash: Programming	4-output model: x 4 8-output model: x 8 16-output model: x 16
5	Status LED Indicator	Green: Power on / Flash: Programming	
6	IR Sensor	IR remote controller sensor	

Rear Panel



1	Power Switch	Turn on/off the unit	
2	Audio/Video EDID Setting Switch	See the diagram of *Audio/Video Setting Switch*	
3	EGO (Advanced Auto-sensing) Setting Switch	See the diagram of *EGO (Advanced Auto-sensing) Setting Switch*	
4	EDID Copy Button	Copy EDID compliant display (Audio & Video)	
I	HDMI Input Connector	Connect to HDMI source	2-input model: x 2 4-input model: x 4
O	HDMI Output Connector	Connect to HDMI display	4-output model: x 4 8-output model: x 8 16-output model: x 16
S	Serial Control Port	Connect to a serial console (PC)	

Slide Switch

Audio /Video EDID Setting Switch

Mode	Video	Audio
1	Auto	Auto
2	Auto	Inventory
3	Inventory	Auto
4	Inventory	Inventory

* For more operation details, please refer to *Operation* section.

EGO MX (Advanced Auto-sensing with 2-BUS) Setting Switch

1	Switch	(All monitors as 1 group) Manually switch Source-n for all displays		
2	EGO: Auto-sensing	(All monitors as 1 group) System will automatically select the latest video source for displays		
3	EGO: Priority	(All monitors as 1 group) System will automatically select Source 1 for displays (Priority: Source-1 > Source-2 > Source-3 > Source-4)		
M	Matrix (2-BUS)		BUS-A	BUS-B
		4-Output Port Model	(reserved)	
		8-Output Port Model	Output Port 1 ~ Output Port 4	Output Port 5 ~ Output Port 8
		16-Output Port Model	Output Port 1 ~ Output Port 12	Output Port 13 ~ Output Port 16

---------- *Operation (4/8-Output Port Model)*

There are three types of LED indicators on the front panel for confirmation, and each LED interprets distinct status.

Output Ports	*BUS-A*	*BUS-B*
8-Port	Port-1~4	Port-5~8
4-Port	(reserved)	

I. LED Indicator

Status LED (Green + Blue)

Status LED Indicator	
LED	**STATUS**
Flashing blue (slow)	Stand-by mode
Steady green	Power on

Input Port LED (Blue + Green + Red)

◇ **Splitter Mode (Switch, EGO: Auto-sensing, EGO-Priority):**

Input LED	STATUS		
	Source selected?	Source input?	HDCP status
OFF	NO	--	--
Emits red with green flashing once per 2 sec.	YES	NO	--
Steady green	YES	YES	non-HDCP content
Steady orange	YES	YES	HDCP content

◇ **Matrix Mode (2-Bus)**

BUS-A:

Input LED	STATUS		
	Source selected?	Source input?	HDCP status
OFF	NO	--	--
Emits red with green flashing once per 2 sec.	YES	NO	--
Steady green	YES	YES	non-HDCP content
Steady orange (red + green)	YES	YES	HDCP content

BUS-B:

Input LED	STATUS		
	Source selected?	Source input?	HDCP status
OFF	NO	--	--
Emits red with blue flashing once per 2 sec.	YES	NO	--
Steady blue	YES	YES	non-HDCP content
Steady purple (red + blue)	YES	YES	HDCP content

While all output ports are in the same BUS, the Input LED…

Input LED	STATUS		
	Source selected?	Source input?	HDCP status
Emits red with green & blue flashing once per 2 sec.	YES	NO	--
Steady green + blue	YES	YES	non-HDCP content
Steady white (red + green + blue)	YES	YES	HDCP content

Output Port LED

◇ **Splitter Mode (Switch, EGO: Auto-sensing, EGO-Priority):**

Output LED	STATUS		
	Output port	Source input?	Output device ready?
OFF	OFF	--	--
Flashes green 3 times per 2 sec.	ON	NO	--
Flashes green twice per 2 sec.	ON	YES	NO
Emits green and goes off twice	ON	YES	HDCP doesn't match
Steady green	ON	YES	Yes, no HDCP issue (non-HDCP content or HDCP matched)

◇ **Matrix Mode (2-Bus):** Green: BUS-A / Blue: BUS-B

BUS-A: 8-Port Model -- Port-1~4

Output LED	STATUS		
	Output port	Source input?	Output device ready?
OFF	OFF	--	--
Flashes green 3 times per 2 sec.	ON	NO	--
Flashes green twice per 2 sec.	ON	YES	NO
Emits green and goes off twice	ON	YES	HDCP doesn't match
Steady green	ON	YES	Yes, no HDCP issue (non-HDCP content or HDCP matched)

BUS-B: 8-Port Model -- Port-5~8

Output LED	STATUS		
	Output port	Source input?	Output device ready?
OFF	OFF	--	--
Flashes blue 3 times per 2 sec.	ON	NO	--
Flashes blue twice per 2 sec.	ON	YES	NO
Emits blue and goes off twice	ON	YES	HDCP doesn't match
Steady blue	ON	YES	Yes, no HDCP issue (non-HDCP content or HDCP matched)

II. Basic Operation (Push Button Control)

Users may select 1 from 2/4 HDMI sources and distribute to 4/8 HDMI displays via push button, wireless remote and serial control. A built-in buzzer generates a high-pitched beep for a correct push button command and a short-long beep for completing a command. Otherwise, one low-pitched generates for an error, and the bad key sequence will not be forwarded to the unit.

NOTE: 1 ~ 4 = Key1, Key2, Key3, Key4 = 

4/8-Output Port Model

Button	1	2	3	4	F/P	
Function Overview	**Group 1 (Output Port 1-4)**	**Group 2 (Output Port 5-8)**	--	**EQ**	**Stand-by mode (BUS-B)**	

1. A/V Source Selection (Audio & Video routing simultaneously)

For source 1-4, just press the related push button to select the desired source you request.

◇ **Switch-Splitter Mode (Switch, EGO: Auto-sensing, EGO: Priority)** <LED: GREEN (all monitors & selected source)>

Press 1 / 2 / 3 / 4 : Select Source1 / Source 2 / Source 3 / Source 4

◇ **Matrix Mode (2-Bus)** < LED: GREEN (BUS-A monitors) / BLUE (BUS-B monitors)>

For 8-Output Port models

For BUS-A (Output Port 1~4)
Press 1 / 2 / 3 / 4 : Select Source1 / Source 2 / Source 3 / Source 4

For BUS-B (Output Port 5~8)
Press and hold F/P → Press 1 / 2 / 3 / 4 : Select Source1 / Source 2 / Source 3 / Source 4

NOTE:
1. Idle time-out is set to around 6 sec.
2. (BUS-A) The selected source LED and its output LED emit green.
3. (BUS-B) The selected source LED and its output LED emits blue.
4. The selected source LED may emit green and blue if BUS-A & BUS-B monitors display the same source.

2. A/V Monitor Selection (Audio & Video routing simultaneously)

The **3D HDMI Switch-Splitter** provides 4/8 HDMI outputs which can be divided into several groups: monitor 1-4 as Group-1 and monitor 5-8 as Group -2. **[**That is, monitor 1-4 represents push button 1, 2, 3, 4 respectively in Group-1; monitor 5-8 stands for push button 1, 2, 3, 4 respectively in Group-2 (for 8-Output Port model). **]** For instance, if you'd like to turn on/off monitor 2, you can double-click on F/P, press 1 (select Group-1), and finally press 2. For other monitors selection, please refer to the following steps.

For Group-1 (Output Port 1~4) (for 4 / 8-Output Port models)
Double-click F/P
→ Press 1 (LED 1-4 light according to its status; others are off)
→ Press 1 ~ 4 (Toggle ON/OFF Output Port 1 ~ Output Port 4)
→ Press F/P to exit

For Group-2 (Output Port 5~8) (for 8-Output Port models)

Double-click F/P

→ Press 2 (LED 5-8 light according to its status; others are off)

→ Press 1 ~ 4 (Toggle ON/OFF Output Port 5 ~ Output Port 8)

→ Press F/P to exit

3. EDID Setting

3-1. EDID Copy

When using an EDID compliant monitor, the unit's EDID Copy function will enable the EDID communication between the monitor and the unit for optimal performance. If you own advanced HDMI output devices, like 7.1 ch. Home Theater AV Receiver and Full HD monitors, this function allows you to separately or simultaneously copy audio and video EDID from different HDMI output devices.

NOTE: Before starting, the *EDID Setting Switch* can be slid to the position 2/3/4.

Mode	Video	Audio	
1	Auto	Auto (Min.)	--
2	Auto	Inventory	Copy Audio EDID
3	Inventory	Auto (Min.)	Copy Video EDID
4	Inventory	Inventory	Copy all EDID

Step 1 Connect EDID compliant output devices (monitor, amplifier, etc.) to *Output port-1* (copy audio) and/or *Output port-2* (copy video), and then power on the unit. Once pressing "EDID Copy" button, the system will SIMULTANEOUSLY copy both EDID of audio and video. So if you'd like to copy only one audio or video EDID, please unplug either *Output port-2* (video) or *Output port-1* (audio). (For example, you may have your 7.1 ch. amplifier connected to output port-1 and Full HD monitor connected to output port-2.)

Step 2 Press and hold the button "EDID Copy" for 3~5 sec. and release the button RIGHT AFTER the Status LED flashes GREEN.

Result If the Status LED returns to normal status, it indicates that the EDID Copy is completed.

Otherwise, if all Input LEDs flash RED, it indicates that:
a. The monitor is not properly connected.
b. The monitor is not powered on.
c. EDID data of the monitor is not applicable.

3-2. EDID Emulation

Slide the switch to the desired position as following shows.

Mode	Video	Audio
1	Auto (Va)	Auto (Aa)
2	Auto (Va)	Inventory (Ai)
3	Inventory (Vi)	Auto (Aa)
4	Inventory (Vi)	Inventory (Ai)

Va)	Video Auto Mixing:	Automatically optimize all valid video outputs for minimum requirement
Aa)	Audio Auto Mixing:	Automatically perform the minimum audio format of all attached displays
Vi)	Video Inventory:	After copying Video EDID, use the copied Video EDID to the connected display
Ai)	Audio Inventory:	After copying Audio EDID, use the copied Audio EDID to the connected display

III. Advanced Operation (Push Button Control)

1. EDID Default Setting

Step 1. Press and hold the button "EDID Copy" and release the button RIGHT AFTER Status LED flashes BLUE. (6~7 sec.)
Step 2. The LEDs return to normal status, it indicates that EDID Default Setting is completed.

2. EQ Adjustment

To optimize video quality, users can adjust the video equalization (sharpness) for **all** video output ports through push button configuration. Since 8 levels for EQ adjustment are provided, the Output Port LED flashes green to indicate which level is selected.

Step 1 Press F/P, and then press 4 to enter **EQ Adjustment** mode
Step 2 Press 4 sequentially to adjust EQ level (press 1~8 times based on video quality)
Step 3 Press F/P to exit the setting

3. Stand-by mode

Press F/P button for 3 sec. and release right after the Status LED flashes green. Then when the Status LED flashes blue per 3 seconds, the system is in the stand-by mode. And just follow the same steps to wake up from stand-by mode.

4. Factory Default Setting

In case your settings are misbehaving, resetting it to the factory default might be just the way you are looking for. To return all settings to factory state, you can press and hold the buttons 1 and 2, and then press and hold 3 and 4. Next, release 3 and 4, and then release 1 and 2.

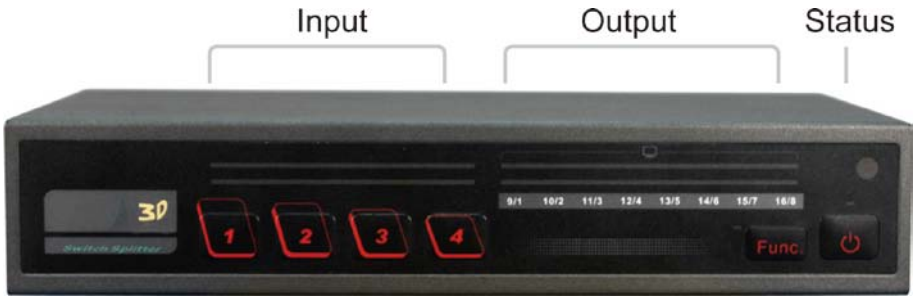
Tip: Press and hold 1 + 2 → Press and hold 3 + 4
→Release 3 + 4 → Release 1 + 2

---------- *Operation (16-Output Port Model)*

There are three types of LED indicators on the front panel for confirmation, and each LED interprets distinct status.

Output Ports	*BUS-A*	*BUS-B*
16-Port	Port-1~12	Port-13~16

I. LED Indicator



Status LED

Status LED Indicator	
LED	**STATUS**
Flashing blue (slow)	Stand-by mode
Steady green	Power on

Input Port LED

◇ **Splitter Mode (Switch, EGO: Auto-sensing, EGO-Priority): lower row** (Green + Red)

Input LED	**STATUS**		
	Source selected?	Source input?	HDCP status
OFF	NO	--	--
Emits red with green flashing once per 2 sec.	YES	NO	--
Steady green	YES	YES	non-HDCP content
Steady orange (red + green)	YES	YES	HDCP content

◇ **Matrix Mode (2-Bus):**

BUS-A: lower row (Green + Red)

Input LED	**STATUS**		
	Source selected?	Source input?	HDCP status
OFF	NO	--	--
Emits red with green flashing once per 2 sec.	YES	NO	--
Steady green	YES	YES	non-HDCP content
Steady orange (red + green)	YES	YES	HDCP content

BUS-B: upper row (Blue + Red)

Input LED	**STATUS**		
	Source selected?	Source input?	HDCP status
OFF	NO	--	--
Emits red with blue flashing once per 2 sec.	YES	NO	--
Steady blue	YES	YES	non-HDCP content
Steady purple (red + blue)	YES	YES	HDCP content

NOTE: The upper row LED (BUS-B) lights in Matrix mode only.

Output Port LED:

◇ **Splitter Mode (Switch, EGO: Auto-sensing, EGO-Priority):**

Output LED	STATUS		
	Output port	Source input?	Output device ready?
OFF	OFF	--	--
Flashes green 3 times per 2 sec.	ON	NO	--
Flashes green twice per 2 sec.	ON	YES	NO
Emits green and goes off twice	ON	YES	HDCP doesn't match
Steady green	ON	YES	Yes, no HDCP issue (non-HDCP content or HDCP matched)

◇ **Matrix Mode (2-Bus):** Green—BUS-A / Blue—BUS-B

BUS-A: Port-1~12

Output LED	STATUS		
	Output port	Source input?	Output device ready?
OFF	OFF	--	--
Flashes green 3 times per 2 sec.	ON	NO	--
Flashes green twice per 2 sec.	ON	YES	NO
Emits green and goes off twice	ON	YES	HDCP doesn't match
Steady green	ON	YES	Yes, no HDCP issue (non-HDCP content or HDCP matched)

BUS-B: Port-13~16

Output LED	STATUS		
	Output port	Source input?	Output device ready?
OFF	OFF	--	--
Flashes blue 3 times per 2 sec.	ON	NO	--
Flashes blue twice per 2 sec.	ON	YES	NO
Emits blue and goes off twice	ON	YES	HDCP doesn't match
Steady blue	ON	YES	Yes, no HDCP issue (non-HDCP content or HDCP matched)

II. Basic Operation (Push Button Control)

Users may select 1 from 4 HDMI sources and distribute to 16 HDMI displays via push button, wireless remote and serial control. A built-in buzzer generates a high-pitched beep for a correct push button command and a short-long beep for completing a command. Otherwise, one low-pitched generates for an error, and the bad key sequence will not be forwarded to the unit.

NOTE: 1 ~ 4 = Key1, Key2, Key3, Key4 = 

16-Output Port Model

Button	1	2	3	4	P	
Function Overview	**Group 1 (Output Port 1-4)**	**Group 2 (Output Port -8)**	**Group 3 (Output Port 9-12)**	**Group 4 (Output Port 13-16)**	**Stand-by mode**	
Button	1	2	3	4	F	
Function Overview			--	**EQ**	**(BUS-B)**	

1. A/V Source Selection (Audio & Video routing simultaneously)

For source 1-4, just press the related push button to select the desired source you request.

◇ **Switch-Splitter Mode (Switch, EGO: Auto-sensing, EGO: Priority)** <LED: GREEN (all monitors & selected source)>

Press 1 / 2 / 3 / 4 : Select Source1 / Source 2 / Source 3 / Source 4

◇ **Matrix Mode (2-Bus)** < LED: GREEN (BUS-A monitors) / BLUE (BUS-B monitors)>

For BUS-A (Output Port 1~12)
Press 1 / 2 / 3 / 4 : Select Source1 / Source 2 / Source 3 / Source 4

For BUS-B (Output Port 13~16)
Press and hold F → Press 1 / 2 / 3 / 4 : Select Source1 / Source 2 / Source 3 / Source 4

NOTE:
1. Idle time-out is set to around 6 sec.
2. (BUS-A) The selected source LED and its output LED emit green.
3. (BUS-B) The selected source LED and its output LED emits blue.
4. The selected source LED may emit green and blue if BUS-A & BUS-B monitors display the same source.

2. A/V Monitor Selection (Audio & Video routing simultaneously)

The **3D HDMI Switch-Splitter** provides 16 HDMI outputs which can be divided into several parts: monitor 1-4 as Group-1 and monitor 5-8 as Group -2. **[**That is, monitor 1-4 represents push button 1, 2, 3, 4 respectively in Group-1; monitor 5-8 stands for push button 1, 2, 3, 4 respectively in Group-2. **]** For instance, if you'd like to turn on/off monitor 2, you can double-click on P, press 1 (select Group-1), and finally press 2. For other monitors selection, please refer to the following steps.

For Group-1 (Output Port 1~4)
Double-click P
→ Press 1 (LED 1-4 light according to its status; others are off)
→ Press 1 ~ 4 (Toggle ON/OFF Output Port 1 ~ Output Port 4)
→ Press P to exit

For Group-2 (Output Port 5~8)
Double-click P
→ Press 2 (LED 5-8 light according to its status; others are off)
→ Press 1 ~ 4 (Toggle ON/OFF Output Port 5 ~ Output Port 8)
→ Press P to exit

For Group -3 (Output Port 9~12)

Double-click P

→ Press 3 (LED 9-12 light according to its status; others are off)

→ Press 1 ~ 4 (Toggle ON/OFF Output Port 9 ~ Output Port 12)

→ Press P to exit

For Group -4 (Output Port 13~16)

Double-click P

→ Press 4 (LED 13-16 light according to its status; others are off)

→ Press 1 ~ 4 (Toggle ON/OFF Output Port 13 ~ Output Port 16)

→ Press P to exit

3. EDID Setting

3-1. EDID Copy

When using an EDID compliant monitor, the unit's EDID Copy function will enable the EDID communication between the monitor and the unit for optimal performance. If you own advanced HDMI output devices, like 7.1 ch. Home Theater AV Receiver and Full HD monitors, this function allows you to separately or simultaneously copy audio and video EDID from different HDMI output devices.

NOTE: Before starting, the *EDID Setting Switch* can be slid to the position 2/3/4.

Mode	Video	Audio	
1	Auto	Auto (Min.)	--
2	Auto	Inventory	Copy Audio EDID
3	Inventory	Auto (Min.)	Copy Video EDID
4	Inventory	Inventory	Copy all EDID

Step 1 Connect EDID compliant output devices (monitor, amplifier, etc.) to *Output port-1* (copy audio) and/or *Output port-2* (copy video), and then power on the unit. Once pressing "EDID Copy" button, the system will SIMULTANEOUSLY copy both EDID of audio and video. So if you'd like to copy only one audio or video EDID, please unplug either *Output port-2* (video) or *Output port-1* (audio). (For example, you may have your 7.1 ch. amplifier connected to output port-1 and Full HD monitor connected to output port-2.)

Step 2 Press and hold the button "EDID Copy" for 3~5 sec. and release the button RIGHT AFTER the Status LED flashes GREEN.

Result If the Status LED returns to normal status, it indicates that the EDID Copy is completed.

Otherwise, if all Input LEDs flash RED, it indicates that:
a. The monitor is not properly connected.
b. The monitor is not powered on.
c. EDID data of the monitor is not applicable.

3-2. EDID Emulation

Slide the switch to the desired position as following shows.

Mode	Video	Audio
1	Auto (Va)	Auto (Aa)
2	Auto (Va)	Inventory (Ai)
3	Inventory (Vi)	Auto (Aa)
4	Inventory (Vi)	Inventory (Ai)

Va)	Video Auto Mixing:	Automatically optimize all valid video outputs for minimum requirement
Aa)	Audio Auto Mixing:	Automatically perform the minimum audio format of all attached displays
Vi)	Video Inventory:	After copying Video EDID, use the copied Video EDID to the connected display
Ai)	Audio Inventory:	After copying Audio EDID, use the copied Audio EDID to the connected display

III. Advanced Operation (Push Button Control)

1. EDID Default Setting

Step 1. Press and hold the button “EDID Copy” and release the button RIGHT AFTER Status LED flashes BLUE. (6~7 sec.)
Step 2. The LEDs return to normal status, it indicates that EDID Default Setting is completed.

2. EQ Adjustment

To optimize video quality, users can adjust the video equalization (sharpness) for **all** video output ports through push button configuration. Since 8 levels for EQ adjustment are provided, the Output Port LED flashes green to indicate which level is selected.

Step 1 Press F, and then press 4 to enter **EQ Adjustment** mode
Step 2 Press 4 sequentially to adjust EQ level (press 1~8 times based on video quality)
Step 3 Press F to exit the setting

3. Stand-by mode

Press P button for 3 sec. and release right after the Status LED flashes green. Then when the Status LED flashes blue per 3 seconds, the system is in the stand-by mode. And just follow the same steps to wake up from stand-by mode.

4. Factory Default Setting

In case your settings are misbehaving, resetting it to the factory default might be just the way you are looking for. To return all settings to factory state, you can press and hold the buttons 1 and 2, and then press and hold 3 and 4. Next, release 3 and 4, and then release 1 and 2.

Tip: Press and hold 1 + 2 → Press and hold 3 + 4
→Release 3 + 4 → Release 1 + 2

IR Remote Control

Users may select A/V source, and turn on/off A/V output signals via IR remote controller.

1. **A/V Source Selection:**

   ◇ **Splitter Mode (Switch, EGO: Auto-sensing, EGO: Priority)** < Green: BUS-A >

   Press one of the buttons "**S1**/ **S2** / **S3** / **S4**" to route one source (1/2/3/4) to the display monitors.

   ◇ **Matrix Mode (2-Bus)** < Green: BUS-A / Blue: BUS-B >

   For BUS-A

   Press one of the buttons "**S1**/ **S2** / **S3** / **S4**" to route one source (1/2/3/4) to the display monitors

   For BUS-B

   Press and hold SHIFT and then press "**S1**/ **S2** / **S3** / **S4**" to route one source (1/2/3/4) to the display monitors

2. **A/V Monitor Selection** (Audio & Video routing simultaneously)**:**

   Press the port number and then press Video to turn on/off its signal.

   Tip: n → Video : Turn on/off output port-**n** signal (n represents the output port number 1 ~ 4/ 8/ 16)

   eg. 4 → Video : Turn on/off output port-**4** signal

NOTE: The period of idle time-out is set to around 6 seconds.

Multiple Units Application

This section is written for multiple units placed on the same location.
Up to 16 units can share one remote controller. In order to avoid ambiguities in receiving commands simultaneously, ID setting for each unit is strongly suggested. For its non-volatile memory feature, the system can retain the stored information even when not powered; it means that the unit won't lose its ID after re-powering up.

■ ID Setting via IR Remote Controller

This function is designed to name the units via IR remote controller

Step 1 Power OFF the unit

Step 2 Press and hold button 1 and 2 simultaneously

Step 3 Power ON the unit

Step 4 Release button 1 and 2 RIGHT AFTER the unit is powered ON and the Status LED flashes blue.

Step 5 IMMEDIATELY (within one second or two) press one of the numbers "1" to "16" on the IR remote controller as the unit controller ID.

(For example, press number"4" on the controller. This sets the unit IR remote controller ID to 4.)

NOTE:

1. Take Steps 1 to 5 if controller ID set-up for more than one unit is needed.
2. Each unit should have a unique control ID to avoid any confusion on receiving commands from the IR remote controller simultaneously.
3. Remote control ID is set to "0" as factory default.

■ ID Operation via IR Remote Controller

All units will accept the same signal from the IR remote controller whenever the units are powered up. In order to avoid confusion on receiving the commands simultaneously before any operation on a specific unit via the IR remote controller, users need to press **"SHIFT" + ID** on the IR remote controller first. Then, this unit will beep once and Status LED will flash consecutively. It means this unit is ready to accept the oncoming commands via the IR remote controller. To conclude, before pressing **"SHIFT" + ID** action, all units share the same commands. But once after finishing this action, each unit has their own definite orders.

■ Clear the IR Remote Controller ID

To clear all IR remote controllers' ID, please follow the steps as shown below.

Step 1 Power OFF the unit

Step 2 Press and hold button 1 and 2 simultaneously

Step 3 Power ON the unit

Step 4 Release button 1 and 2 RIGHT AFTER the unit is powered ON and the Status LED flashes blue.

Step 5 IMMEDIATELY (within a second or two) press Video on the IR remote controller.

The **3D HDMI Switch-Splitter** with built-in serial interface allows users to control the Unit through a PC, serial controller devices or Home Theater system.

NOTE: Use the following cable for serial connection

Serial Cable (straight type, male-female)

If there's no serial connector on your computer, you may use LAN-to-serial adapter or USB-to-serial adapter for connection.

The configuration of controller's serial port is shown as below.

Baud Rate	38400 bps
Data Bits	8
Parity	None
Stop Bits	1
Flow Control	None

★ Simple Serial Connection

The following window is an example of Windows XP HyperTerminal.
Connect and power on the Unit, and then set up serial configuration, such as correct baud rate and com port.

★ GUI over Serial

The **Switch-Splitter** allows users to control the unit by GUI operation via built-in serial interface. Please follow the installation and operation steps as shown below.

Installing Application

The serial console (PC) running Windows 98/ 2000/ XP/ Vista/ 7 is required to install the appropriate software. Please follow the step-by-step instructions as listed below.
All prompt screens and dialog boxes shown in this section are for Windows XP and above. Some dialog boxes and folders may slightly different in other versions of Windows.

- Install the "**AV Console Center**" application (Windows 98 and above)
  Insert the CD into the CD/DVD-ROM drive and browse:
  There are two ways to install the driver.
  a) Manually copy the file "**TuApp.exe**" to the Windows platform and run it directly.
  b) Run "**Setup.exe**" to automatically install the utility on the Windows platform. The "**Setup.exe**" will create a shortcut "**AV Console Center**" on Windows' desktop, and a program group "**AV Console Center**".

Uninstalling Application

To uninstall the application, it depends on the installation method you have applied.

a) If you have manually installed the utility, you can just manually delete the file "**TuApp.exe**" from the Windows platform.
b) If you have installed "**Setup.exe**" before, you have two ways to uninstall the application. One is that uninstall "**AV Console Center**" from Windows' Control Panel. The other is by clicking the icon "Uninstall" from the "AV Console Center" program group.

Description & Operation

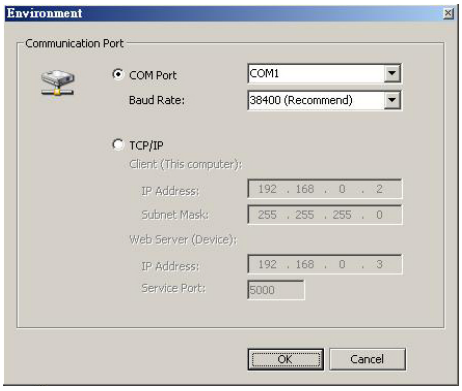
The Graphical User Interface (GUI) is designed for users to operate easier and friendlier. We divide this application into two parts—Basic Operation and Advanced Operation. For more information, please refer to the following statements.

Basic Operation

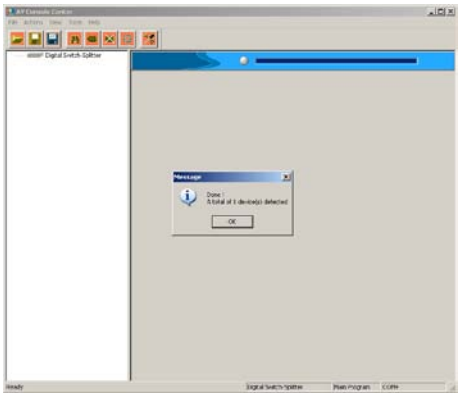
1. GUI Connection

After software installation, connect the *DB9 RS-232 serial cable* (straight type male-female) to serial port of the **Switch-Splitter**. And connect the other end to the serial port (COM1, COM2…) of your computer. Next, open *Program files* on Windows and then click "*AV Console Center*" to start GUI operation.

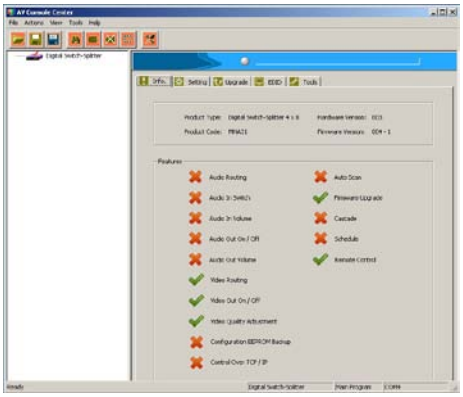
Step 1. Check "COM Port" and choose the proper serial port you connect, such as COM1, and set the Baud Rate as "38400".



Step 2. A dialog box will pop out indicating device(s) detected.

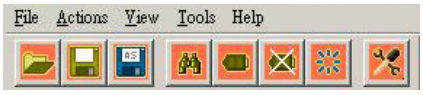


Step 3. Double-click "Digital Switch-Splitter" on the left block. (There are other ways to detect the device. Please refer to *Toolbar Guidance / Action*.)



2. GUI Toolbar Guidance

You can see the toolbar on the upper-left corner. Both top toolbars are identical in functions. For further information, please refer to the following guidance.



2.1 File: Allow users to open or save topology files. A topology is a usually schematic description of the arrangement of a network, including its nodes and connecting lines. So it is suggested saving a topology file.

2.1	Option	Function
1	Open Existing Topology	Open pre-stored topology file
2	Save Current Topology	Allow users to save current topology file in the software installed location
3	Save Current Topology As…	Allow users to save current topology file in the requested location
4	Exit	Exit the system

2.2 Actions: Detect all devices or connect the selected device.

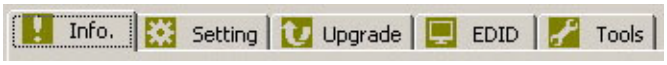
When checking *Detect All Devices*, it will show the dialog box below which means successfully detect the device.

2.3 View: Show or hide the (*Icon) Toolbar* / *Status Bar* (on the bottom of the window)

2.4 Tools: Select *Environment* to set up COM Port and Baud Rate or set up TCP/IP address for the device..

2.5 Help: Show the software version and copyright information.

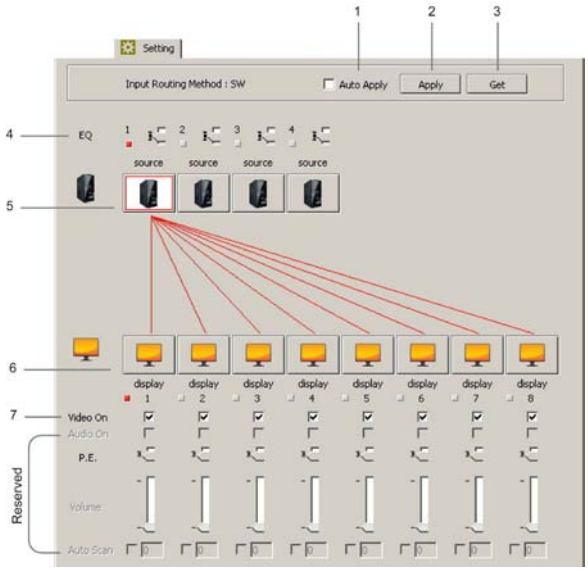
3. GUI Function Description



The following will describe the overall functions. And four sections will be included: Info, Setting, Upgrade, EDID and Tools.

3.1 Info: Show information and features.

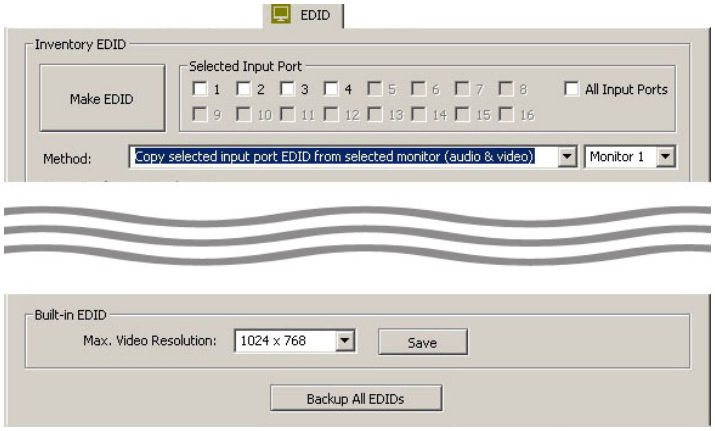
3.2 Setting: In this section, users can set up port connection, enable or disable audio/video separately, set scan time rate, etc. By default, the system will automatically apply source 1 routing to all displays as shown below.



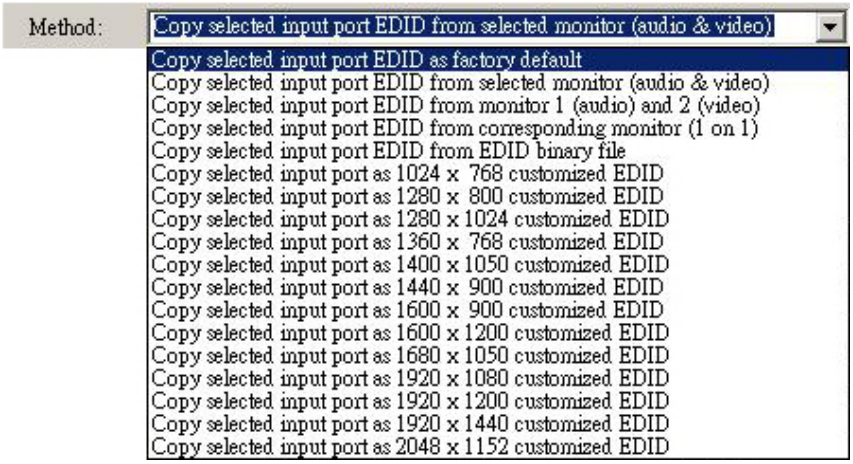
3.2	Option	Function
1	Auto apply	Automatically apply settings. It is not suggested checking this item for it may result in loading down the system.
2	Apply	To bring the settings into action.
3	Get	Detect and show the current setting status for users may operate the unit via front panel push button or IR remote controller
4	EQ	Adjust the video equalization (sharpness)
5	Source Icon	Double-click the icon and there will be a pop-up menu. Users can change the picture (*.ico file* with 32x32 or 36x36 pixel) and give an alias for the source or display. ◆ Linking: Click one of the source icons and then click “Apply” to bring the settings into action.
6	Display Icon	
7	Video On	Check/ uncheck the item to turn on/off the display

Advanced Operation

3.3 EDID: Users can not only select the desired ports to copy EDID via multiple methods, but also use built-in EDID for all connected monitors.



3.3	Option		Function
1	Inventory EDID	Make EDID	Copy EDID to the selected input port(s).
2		Method	Multiple methods of EDID copy are provided. See the diagram below.
3	Built-In EDID (optional)		All connected monitors use the selected built-in EDID; resolution ranging from *1024 x 768* to *2048 x 1152*. After saving, it is required to reboot the system (click "reboot the selected device" icon on the top toolbar).



Method	Operation Steps
Copy selected input port EDID as factory default	Step 1. Check the desired input port(s) or check *All input ports* to select all. Step 2. Click *Make EDID*.
Copy selected input port EDID from selected monitor (audio & video)	Step 1. Check the desired input port. Step 2. Select the desired *Monitor* (next to *Method*) Step 3. Click *Make EDID*.
Copy selected input port EDID from corresponding monitor (1 on 1)	Step 1. Check the desired input port(s) or check *All input ports* to select all. Step 2. Click *Make EDID*. NOTE: For 2-Input Port model, only input port 1 & 2 can copy the corresponding monitor, and the rest uses default setting. For 4-Input Port model, only input port 1 - 2 can copy the corresponding monitor, and the rest uses default setting.

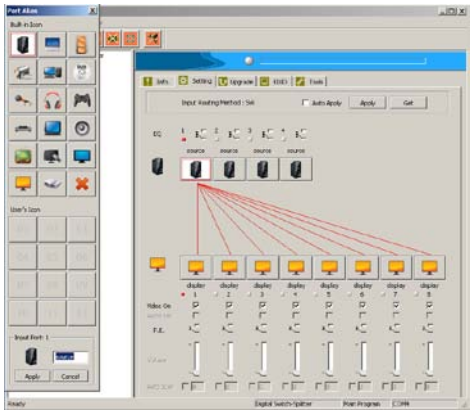
Copy selected input port EDID from *EDID binary file	*EDID binary file: A file that store EDID information Step 1. Check the desired input port(s) or check *All input ports* to select all. Step 2. Click *Make EDID*. Step 3. Select the desired binary file.
Copy selected input port as **1024 x 768* customized EDID	*Customized EDID: selectable resolution ranging from *1024 x 768* to *2048 x 1152* Step 1. Check the desired input port(s) or check *All input ports* to select all. Step 2. Click *Make EDID*.

3.4 Tools: Allow users to set up Remote Controller ID. Up to 16 units can share one remote controller. Therefore, it is designed to name the units for fear of confusion on receiving commands simultaneously.

◇ **Changing Source/Display Icon**:

Double-click the source/display icon and there will be a pop-up window. Users may change the icon and name the selected source or display.

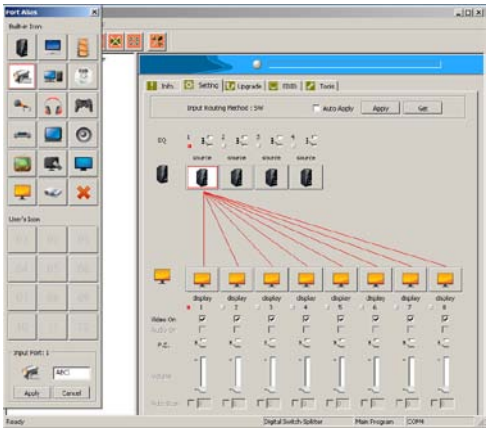
Name the display/source: click the corresponding icon and insert any name you want.



Change the icon

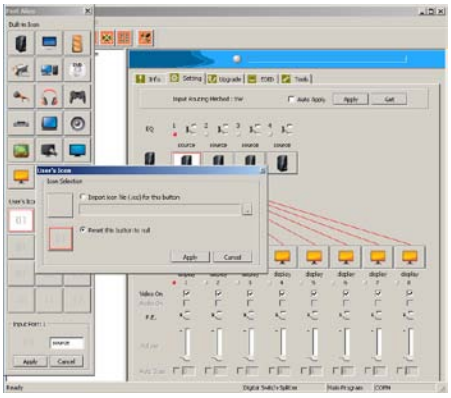
a) Built-in Icons:

The GUI application provides commonly used icons (*Built-in Icons*) as shown on the upside of pop-up window.



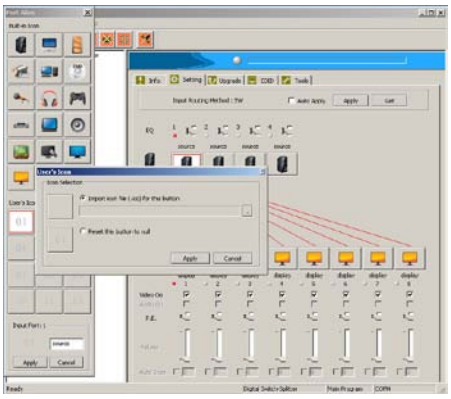
b) User’s Icon - Reset the button to null

As shown on the downside of pop-up window; double-click the icon (01-12) and following by one dialogue box. Click this option to set the icon as blank.



c) User’s Icon - Import icon file (.ico) for this button

As shown on the downside of pop-up window; double-click the icon (01-12) and following by one dialogue box. You may upload your own icon but it should be *.ico file* with 32x32 or 36x36 pix.



Specifications

Model		VGM-S2104	VGM-S2108
		VGM-S4104	VGM-S4108
Number of HDMI Input		HDMI Female x 2	HDMI Female x 2
		HDMI Female x 4	HDMI Female x 4
Number of HDMI Output	Switch Splitter	HDMI Female: 4-Port	HDMI Female: 8-Port
	Matrix (2-BUS)	(reserved)	HDMI Female: 4-Port + 4-Port
LED Indicators	Power	1	1
	Video Input	2	2
		4	4
	Video Output	4	8
Video Resolution (Max.)		Full HD 1080p (1920 x 1080), WUXGA (1920 x 1200), 2048x1152	
Frequency Range		25 ~225 MHz	
Video Mode	Mandatory 3D	1080p @ 24Hz 720p @ 60Hz 720p @ 50Hz	
	2D	HDMI 1.3b compliant	
Slide Switch	EGO (Advanced Auto-sensing) Setting	Switch / Auto-sensing / Priority	Switch / Auto-sensing / Priority / Matrix Mode
	Audio/Video EDID Setting	Audio / Video / Inventory	
Remote Control Support		Yes	
Serial Control Support		DB-9F	
EDID Copy Button		1	
Mechanism		Aluminum	
Power Supply		DC 9~12V	
Dimensions H x W x D (mm)		37 x 255 x 130	37 x 255 x 130

Model		VGM-S4116
Number of HDMI Input		HDMI Female x 4
Number of HDMI Output	Switch Splitter	HDMI Female: 16-Port
	Matrix (2-BUS)	HDMI Female: 12-Port + 4-Port
LED Indicators	Power/Func.	1
	Video Input	4
	Video Output	16
Video Resolution (Max.)		Full HD 1080p (1920 x 1080), WUXGA (1920 x 1200), 2048x1152
Frequency Range		25 ~225 MHz
Video Mode	Mandatory 3D	1080p @ 24Hz 720p @ 60Hz 720p @ 50Hz
	2D	HDMI 1.3b compliant
Slide Switch	EGO (Advanced Auto-sensing) Setting	Switch / Auto-sensing / Priority / Matrix Mode
	Audio/Video EDID Setting	Audio / Video / Inventory
Remote Control Support		Yes
Serial Control Support		DB-9F
EDID Copy Button		1
Mechanism		Aluminum
Power Supply		DC 9~12V
Dimensions H x W x D (mm)		50 x 255 x 130

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