CDPS-41SQ

4 by 1 HDMI Seamless Switcher

Operation Manual

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SAFETY PRECAUTIONS

Please read all instructions before attempting to unpack, install or operate this equipment and before connecting the power supply.

Please keep the following in mind as you unpack and install this equipment:

- Always follow basic safety precautions to reduce the risk of fire, electrical shock and injury to persons.
- To prevent fire or shock hazard, do not expose the unit to rain, moisture or install this product near water.
- Never spill liquid of any kind on or into this product.
- Never push an object of any kind into this product through any openings or empty slots in the unit, as you may damage parts inside the unit.
- Do not attach the power supply cabling to building surfaces.
- Use only the supplied power supply unit (PSU). Do not use the PSU if it is damaged.
- Do not allow anything to rest on the power cabling or allow any weight to be placed upon it or any person to walk on it.
- To protect the unit from overheating, do not block any vents or openings in the unit housing that provide ventilation and allow for sufficient space for air to circulate around the unit.

REVISION HISTORY

VERSION NO.	DATE (DD/MM/YY)	SUMMARY OF CHANGE
VR0	17/10/13	Preliminary Release
VS0	23/05/13	Updated Format/Diagrams
VR1	07/03/14	Add Support Chart
VR2	20/06/14	Update RS-232 & OSD, Add WebGUI
VR3	18/07/14	Added RS-232 Commands
VS4	22/08/14	Updated text

CONTENTS

1. Introduction 1
2. Applications 1
3. Package Contents 1
4. System Requirements 1
5. Features 2
6. Operation Controls and Functions 3
6.1 Front Panel 3
6.2 Rear Panel 4
6.3 Remote Control 5
6.4 OSD Menu 6
6.5 RS-232 Protocols 15
6.6 RS-232 and Telnet Commands 15
6.7 Telnet Control 21
6.8 Web GUI Control 23
7. Connection Diagram 26
8. Specifications 27
8.1 Technical Specification 27
8.2 Supported Resolution 28
9. Acronyms 29

1. INTRODUCTION

This 4 by 1 HDMI Seamless Switcher is an advanced HDMI switch with integrated Picture-in-Picture (PIP) technology that can be easily configured and controlled. It allows 4 different sources to be selected and arranged on a single display and supports video resolutions up to 1080p and audio up to 8CH/192kHz. Preset hot keys, IR remote control, OSD menu, RS-232, and Telnet/Web GUI support allows instant control and switching.

2. APPLICATIONS

- Broadcasting control room
- Surveillance control room
- Public advertisement displays
- HDMI input extending
- Video wall system

3. PACKAGE CONTENTS

- 1×4 by 1 HDMI Seamless Switcher
- 1× Remote Control (CR-124)
- 1×12V/3 A DC Power Adaptor
- 1×Operation Manual

4. SYSTEM REQUIREMENTS

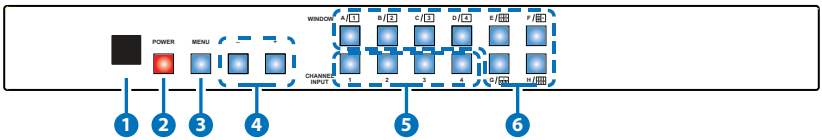
HDMI source devices such as DVD/Blu-ray players or PC/Laptop devices and output to HDTV/monitor or to an HDMI distribution system.

5. FEATURES

- Integrate 4 HDMI sources to a single display or video wall system
- Seamless switching between channels and windows
- Supports Picture-in-Picture (PIP), Picture-out-of-Picture (POP) and multi-window display
- 8 screen preset hot keys and 4 extra customizable screen setting favourites
- Supports individual channel size and position adjustments
- Zoom, shrink and overlay the source channels
- Supports Fade-In/Fade-Out, Chromakey, Mirror and Rotation (90˚ left or right and 180˚ upside down) functions
- Save and recall up to 4 customisable favorite screen arrangements
- Supports OSD menu, RS-232, Telnet/Web GUI, IR remote control and on-panel controls

6. OPERATION CONTROLS AND FUNCTIONS

6.1 Front Panel



1. **IR WINDOW:** Accepts the IR signal from the supplied remote control.
2. **POWER:** Press to turn the unit on or to put it into standby mode.
3. **MENU:** Press this button to bring up the On-screen Display (OSD) menu on screen.
4. **MINUS/PLUS (−/+):** Press these buttons to navigate down/up the OSD menu.
5. **CHANNEL INPUT 1~4:** Press to cycle through the four HDMI sources to be displayed in the corresponding window. All windows can display the same input or each channel can display a different input.
6. **WINDOW A~H:** Press these hot keys to select the required screen configuration. Windows A to D will display the selected channel in full screen. Windows E to H can simultaneously display a combination of channels on the same screen.

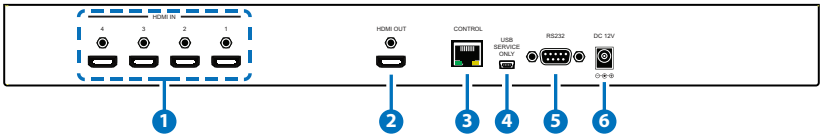
   Windows A to D's source selection corresponds to channel inputs 1 to 4. To change the input channel for window A, press the button for channel input 1. You will not be able to select the buttons for channel inputs 2 to 4 when window A is selected. The sizes for Windows E to H are adjustable through the OSD menu settings.

   Note: Only Window G is PIP (Picture-in-Picture) whereas E, F and H are POP (Picture-out-of-Picture) modes.

   The order of priority when windows overlap each other is Channel 4 > Channel 3 > Channel 2 > Channel 1 i.e Channel 4 will cover Channel 3, Channel 3 will cover Channel 2 and so on.

   Note: Under some circumstances the window borders may show some interference, adjusting the display's motion setting may resolve this issue.

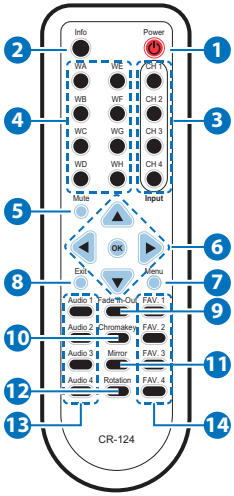
6.2 Rear Panel



1. **HDMI IN 1~4:** Connect to up to four source HDMI equipped source devices such as DVD/Blu-ray players and/or PC/Laptop devices.
   Note: When input 1 or 2 has no source connected a warning message will appear on the OSD.
2. **HDMI OUT:** Connect to an HDTV/monitor or HDMI matrix for display of the image.
3. **CONTROL:** Connect to an active network for Telnet or Web GUI control (Please refer to Sections 6.6, 6.7 and 6.8).

   Warning: Please do not connect this port directly to the PC/Laptop as the Telnet function will not work.
4. **USB SERVICE ONLY:** Manufacturer use only.
5. **RS-232:** Connect to a PC/Laptop or RS-232 control system to use RS-232 commands to control the unit (Please refer to Sections 6.5 and 6.6).
6. **DC 12V:** Connect the 12V DC power supply to the unit and plug the adaptor into an AC outlet.

6.3 Remote Control



1. **Power:** Press this button to switch the unit on or to set it to standby mode.
2. **Info:** Press this button to display the unit's firmware version.
3. **Input CH 1~CH 4:** Press these buttons to cycle through the HDMI sources (1 to 4) for each channel to be displayed on screen.
4. **WA~WH:** Press these hot keys to select the screen setting where WA to WD display the selected channel in full screen and WE to WH display different combinations of all 4 channels on the same screen.
5. **Mute:** Press this button to mute the audio from the HDMI output.
6. **▲/▼/◄/► and OK:** Press these buttons to navigate through the OSD menu and press OK to enter or confirm settings.
7. **Menu:** Press this button to enter into the OSD menu.
8. **Exit:** Press this button to exit the OSD menu or settings.
9. ***Fade-In-Out:** Press this button to switch on or off the Fade in/out function.
10. ***Chromakey:** Press this button to activate the Chroma key function where CH 1 is the background and CH 2 is the overlaid (top) image.
11. ***Mirror:** Press this button to display the screen in mirror image.
12. ***Rotation:** Press this button to rotate the image 90˚ left/right or 180˚ upside down.
13. **Audio 1~4:** Press these buttons to select the audio from HDMI input source 1 to 4.
14. **FAV. 1~4:** Press these buttons to bring up the previously stored customized screen settings.

Note: The functions with an asterisk (*) will only work when displaying Windows A to D. The system will revert to Window A if these functions are used when Windows E to H are displayed.

6.4 OSD Menu

MAIN MENU	1ST LAYER	2ND LAYER	3RD LAYER
I/O Setup	Output Resolution	480P 579P 720P50 720P60 1080P24 1080P25 1080P30 1080P50 1080P60 1024×768 1280×800 1280×1024 1366×768 1440×900 1600×900 1600×1200 1680×1050 1920×1200 NATIVE	
		Menu Back	
	OSD Settings	Info Display	On/**Off**
		H Offset	0~20 **(5)**
		V Offset	0~20 **(5)**
		Timeout	**Off**~50
		Gain	0~10 **(2)**
		Menu Back	
	Menu Exit		

MAIN MENU	1ST LAYER	2ND LAYER	3RD LAYER
Image Adjust	Brightness Adjust	CH 1	0~100 **(50)**
		CH 2	0~100 **(50)**
		CH 3	0~100 **(50)**
		CH 4	0~100 **(50)**
		Value Reset	
		Menu Exit	
	Contrast Adjust	CH 1	0~100 **(50)**
		CH 2	0~100 **(50)**
		CH 3	0~100 **(50)**)
		CH 4	0~100 **(50)**
		Value Reset	
		Menu Exit	
	Hue Adjust	CH 1	0~100 **(50)**
		CH 2	0~100 **(50)**
		CH 3	0~100 **(50)**
		CH 4	0~100 **(50)**
		Value Reset	
		Menu Exit	
	Saturation	CH 1	0~100 **(50)**
		CH 2	0~100 **(50)**
		CH 3	0~100 **(50)**
		CH 4	0~100 **(50)**
		Value Reset	
		Menu Exit	
	Picture Reset		
	Menu Exit		

MAIN MENU	1ST LAYER	2ND LAYER	3RD LAYER
Window Setup	Channel 1 Select	Size	CH1 Wxxx Hxxx
			Width Unit
			Width Ten
			Width Hundred
			Height Unit
			Height Ten
			Height Hundred
		Position	CH1 Hxxx Vxxx
			Horizontal Unit
			Horizontal Ten
			Horizontal Hundred
			Vertical Unit
			Vertical Ten
			Vertical Hundred
		Image Output	**On**/Off
		Priority	CH1→4,CH2→3, CH3→2,CH4→1
		Window Reset	
		Menu Exit	

MAIN MENU	1ST LAYER	2ND LAYER	3RD LAYER
Window Setup (Cont.)	Channel 2 Select	Size	CH2 Wxxx Hxxx
			Width Unit
			Width Ten
			Width Hundred
			Height Unit
			Height Ten
			Height Hundred
		Position	CH2 Hxxx Vxxx
			Horizontal Unit
			Horizontal Ten
			Horizontal Hundred
			Vertical Unit
			Vertical Ten
			Vertical Hundred
		Image Output	**On**/Off
		Priority	CH1→4,CH2→3, CH3→2,CH4→1
		Window Reset	
		Menu Exit	

MAIN MENU	1ST LAYER	2ND LAYER	3RD LAYER
Window Setup (Cont.)	Channel 3 Select	Size	CH3 Wxxx Hxxx
			Width Unit
			Width Ten
			Width Hundred
			Height Unit
			Height Ten
			Height Hundred
		Position	CH3 Hxxx Vxxx
			Horizontal Unit
			Horizontal Ten
			Horizontal Hundred
			Vertical Unit
			Vertical Ten
			Vertical Hundred
		Image Output	**On**/Off
		Priority	CH1→4,CH2→3, CH3→2,CH4→1
		Window Reset	
		Menu Exit	

MAIN MENU	1ST LAYER	2ND LAYER	3RD LAYER
Window Setup (Cont.)	Channel 4 Select	Size	CH4 Wxxx Hxxx
			Width Unit
			Width Ten
			Width Hundred
			Height Unit
			Height Ten
			Height Hundred
		Position	CH4 Hxxx Vxxx
			Horizontal Unit
			Horizontal Ten
			Horizontal Hundred
			Vertical Unit
			Vertical Ten
			Vertical Hundred
		Image Output	**On**/Off
		Priority	CH1→4,CH2→3, CH3→2,CH4→1
		Window Reset	
		Menu Exit	
	Label Select	VIDEO 1	VIDEO **1**/2/3/4
		VIDEO 2	VIDEO 1/**2**/3/4
		VIDEO 3	VIDEO 1/2/**3**/4
		VIDEO 4	VIDEO 1/2/3/**4**
		Menu Exit	

MAIN MENU	1ST LAYER	2ND LAYER	3RD LAYER
Window Setup (Cont.)	Favors Store	FAV 1 Store	On/**Off**/OK
		FAV 2 Store	On/**Off**/OK
		FAV 3 Store	On/**Off**/OK
		FAV 4 Store	On/**Off**/OK
		Menu Exit	
	Menu Exit		
Window Convert	Channel 1 Convert	Mirror	On/**Off**
		Fade In-Out	**Off**/1.0/1.1/1.2 Convert /1.3/1.4 /1.5/1.6/1.7/1.8/ 1.9/2.0/2.1/2.2/2 .3/2.4/2.5/2.6/2.7 /2.8/2.9/3.0
		Rotation	R90/L90/Up-Side Down180/Off
		Window Reset	
		Menu Exit	
	Channel 2 Convert	Mirror	On/**Off**
		Fade In-Out	**Off**/1.0/1.1/1.2 Convert /1.3/1.4 /1.5/1.6/1.7/1.8/ 1.9/2.0/2.1/2.2/2 .3/2.4/2.5/2.6/2.7 /2.8/2.9/3.0
		Rotation	R90/L90/Up-Side Down180/Off
		Window Reset	
		Menu Exit	

MAIN MENU	1ST LAYER	2ND LAYER	3RD LAYER
Window Convert (Cont.)	Channel 3 Convert	Mirror	On/**Off**
		Fade In-Out	**Off**/1.0/1.1/1.2 Convert /1.3/1.4 /1.5/1.6/1.7/1.8/ 1.9/2.0/2.1/2.2/2 .3/2.4/2.5/2.6/2.7 /2.8/2.9/3.0
		Rotation	R90/L90/Up-Side Down180/Off
		Window Reset	
		Menu Exit	
	Channel 4 Convert	Mirror	On/**Off**
		Fade In-Out	**Off**/1.0/1.1/1.2 Convert /1.3/1.4 /1.5/1.6/1.7/1.8/ 1.9/2.0/2.1/2.2/2 .3/2.4/2.5/2.6/2.7 /2.8/2.9/3.0
		Rotation	R90/L90/Up-Side Down180/Off
		Window Reset	
		Menu Exit	
***Chromakey Setup**	Minimum For R	000~255 **(0)**	
	Maximum For R	000~255 **(15)**	
	Minimum For G	000~255 **(0)**	
	Maximum For G	000~255 **(15)**	
	Minimum For B	000~255 **(0)**	
	Maximum For B	000~255 **(15)**	
	Switch	ON/**OFF**	
	Exit		

MAIN MENU	1ST LAYER	2ND LAYER	3RD LAYER
Ethernet Setup	IP Mode	Static/**DHCP**	
	Static Set	IP/Mask/Gate	
	Byte1 High	XXX **192 255 192**	000~255
	Byte2	XXX **168 255 168**	000~255
	Byte3	XXX **5 255 5**	000~255
	Byte4 Low	XXX **159 0 254**	000~255
	Re-Link	**No**/Yes	
	Exit		
Information	Static/DHCP IP	LINKED/NOT LINKED	
	IP	IP/Mask/Gate	
	Mask	XXX.XXX.XXX.XXX	
	Gate	XXX.XXX.XXX.XXX	
	Mac	XXX.XXX.XXX.XXX	
	Sink HDMI /DVI		
	Model xxxxxxx		
	Native xxxxxxx		
	F/V version		
Menu Exit			

Note:

1. *Chromakey Setup only works when CH 1and CH 2 are selected. CH 1 is the background and CH 2 is the top layer to be overlaid.*
2. *The Chromakey function is designed for overlapping two video images (such as news reports, weather forecasts or educational videos). The background color of CH 2 is usually a single, solid, color which can be easily removed. The RGB setting is for the CH2 video where the minimum setting figures cannot be greater than the maximum figures and the maximum figures cannot be lower than the minimum setting figures.*
3. *Figures in BOLD are default settings.*

6.5 RS-232 Protocols

HDMI SWITCHER	
Pin	Definition
1	NC
2	Tx
3	Rx
4	NC
5	GND
6	NC
7	NC
8	NC
9	NC

▶
◀

REMOTE CONTROL (PC)	
Pin	Definition
1	NC
2	Rx
3	Tx
4	NC
5	GND
6	NC
7	NC
8	NC
9	NC

Baud Rate: 115200bps
Data Bit: 8 bits
Parity: None
Flow Control: None
Stop Bit: 1

6.6 RS-232 and Telnet Commands

COMMAND A	DESCRIPTION
RESO 0~18	Set output resolution: 0=480p 1=576p 2=720p@50Hz 3=720p@60Hz 4=1080p@24Hz 5=1080p@25Hz 6=1080p@30Hz 7=1080p@50Hz 8=1080p@60Hz 9=1024×768@60Hz 10=1280×800@60Hz 11=1280×1024@60Hz 12=1366×768@60Hz 13=1440×900@60Hz 14=1600×900@60Hz 15=1600×1200@60Hz 16=1680×1050@60Hz 17=1920×1200@60Hz 18=NATIVE
OSDDIS 0/1	Enable/disable onscreen display: 0=Off, 1=On.

COMMAND A	DESCRIPTION
OSDH 0~20	OSD H offset 0~20.
OSDV 0~20	OSD V offset 0~20.
OSDTIME 0~50	OSD timeout 0~50.
OSDGAIN 0~10	OSD gain value 0~10.
BRI 0~4 0~100	Set brightness value for channel: 0=All, 1~4=Channel, 0~100=Value.
CON 0~4 0~100	Set contrast value for channel port: 0=All, 1~4=Channel, 0~100=Value.
SAT 0~4 0~100	Set saturtation value for channel port: 0=All, 1~4=Channel, 0~100=Value.
HUE 0~4 0~100	Set hue value for channel port: 00=All, 1~4=Channel, 0~100=Value.
HSIZE 1~4 0~X	Set image horizontal size: 1~4=Channel, 0~X=Horzontal pixel for current resolution.
VSIZE 1~4 0~X	Set image vertical size:1~4=Channel, 0~X=Vertical pixel for current resolution.
HPOS 1~4 0~X	Set horizontal position of specified channel: 1~4=Channel, 0~X=Horzontal pixel for current resolution.
VPOS 1~4 0~X**	Set vertical position of specified channel: 1~4=Channel, 0~X=Vertical pixel for current resolution.
IMAGE 1~4 0~1	Channel(s) output on/off: 1~4=Channel, 0=Off, 1=On.
PRI 1~4 1~4	Set channel priority: 1~4=Channel, 1~4=Priority.
LABEL 1~4 XXX**	Assign a video name: 1~4=Video, XXX=A~H.
STORE 1~4	Save the current window state to FAV.: 1~4=FAV.

COMMAND A	DESCRIPTION
RECALL 1~12	Recall a window state: 1=WINDOW A 2=WINDOW B 3=WINDOW C 4=WINDOW D 5=WINDOW E 6=WINDOW F 7=WINDOW G 8=WINDOW H 9=WINDOW FAV.1 10=WINDOW FAV.2 11=WINDOW FAV.3 12=WINDOW FAV.4
MIRROR 0/1*	Enable/disable mirror effect: 0=Off, 1=On.
FADE 0~21	Enable/disable fade effects: 0=OFF 1=1.0s 2=1.1s 3=1.2s 4=1.3s 5=1.4s 5=1.5s 6=1.6s 7=1.7s 8=1.8s 9=1.9s 10=2.0s 11=2.1s 12=2.2s 13=2.3s 14=2.4s 15=2.5s 16=2.6s 17=2.7s 18=2.8s 19=2.9s 20=3.0s
ROTATE 0~3	Set video rotation video to preset positions: 0=Rotate off, 1=R90, 2=L90, 3=180
CHRC R/G/B MIN/MAX 0~15*	Set the RGB color range for the chroma key: R/G/B= Color channel, MIN/MAX= Color value, 0~15= Set present value 0~255. RBG MAX: 0=15 1=31 2=47 3=63 4=79 5=95 6=111 7=127 8=143 9=159 10=175 11=191 12=207 13=223 14=239 15=255 RGB MIN: 0=00 1=16 2=32 3=48 4=64 5=80 6=96 7=112 8=128 9=144 10=160 11=176 12=192 13=208 14=224 15=240
CHRSW 0/1	Set the chroma key on/off: 0=Off, 1=On.
IPMODE 0/1	Set IP mode to dhcp or static: 0=DHCP, 1=Static.
IPADD XXX.XXX.XXX.XXX	Set IP address: XXX=0~255.
MAADD XXX.XXX.XXX.XXX	Set Subnet address: XXX=0~255.

COMMAND A	DESCRIPTION
GAADD XXX.XXX.XXX.XXX	Set Gateway address: XXX=0~255.
ETHTIME 0~6	Ethernet timeout: 0=Off, 1=10 Minute, 2=20 Minute, 3=30 Minute, 4=40 Minute, 5=50 Minute, 6=60 Minute.
RELINK	Relink the unit in 2 seconds.
DEFAULT	Reset the unit to factory defaults.
VICH 1~4 0~4	Video channel command: 1~4=Video, 0=All channel outputs, 1~4=Channel outputs.
MUTE 0/1	Mute audio on/off: 0=Off, 1=On.
POW 0/1	Power the unit on/off: 0=Off, 1=On.
AUDIO 1~4	Change output audio to specified source: 1~4=Audio source.
IMRE B/C/S/H	Reset the image to factory defaults: B=Brightness, C=Contrast, S=Saturation, H=Hue.
PIRE	Reset the unit picture settings to factory defaults.
CHRE 0~4**	Reset the windows settings to factory defaults: 0=All channel outputs, 1~4=Channel outputs.
WICORE*	Reset the window convert to factory defaults.
RIPM	Show current IP mode.
IPCONFIG	Show IP configuration.
HELP	Print all available RS-232/Telnet commands to the screen.
?	Print all available RS-232/Telnet commands to the screen.

Note: Commands with one asterisk (*) will function under Windows A to D. Commands with two asterisks (**) will function under Windows E to H and FAV. 1 to 4.

COMMAND B	DESCRIPTION
WND001	Change to window A
WND002	Change to window B
WND003	Change to window C
WND004	Change to window D
WND005	Change to window E
WND006	Change to window F
WND007	Change to window G
WND008	Change to window H
CH1001	Change CH1 to source 1
CH1002	Change CH1 to source 2
CH1003	Change CH1 to source 3
CH1004	Change CH1 to source 4
CH2001	Change CH2 to source 1
CH2002	Change CH2 to source 2
CH2003	Change CH2 to source 3
CH2004	Change CH2 to source 4
CH3001	Change CH3 to source 1
CH3002	Change CH3 to source 2
CH3003	Change CH3 to source 3
CH3004	Change CH3 to source 4
CH4001	Change CH4 to source 1
CH4002	Change CH4 to source 2
CH4003	Change CH4 to source 3
CH4004	Change CH4 to source 4
IO1000**	CH1 image off
IO1001**	CH1 image on
IO2000**	CH2 image off
IO2001**	CH2 image on
IO3000	CH3 image off
IO3001	CH3 image on

COMMAND B	DESCRIPTION
IO4000	CH4 image off
IO4001	CH4 image on
MUT000	Mute off
MUT001	Mute on
AUD001	Change output audio to source 1
AUD002	Change output audio to source 2
AUD003	Change output audio to source 3
AUD004	Change output audio to source 4
FAD000*	Fade in-out off
FAD001*	Fade in-out on
CHR000*	Chromakey function off
CHR001*	Chromakey function on
MIR000*	Mirror function off
MIR001*	Mirror function on
ROT000*	Rotation function off
ROT001*	Rotation function right
ROT002*	Rotation function left
ROT003*	Rotation function up-side down
SFA001**	Store window format to FAV. 1
SFA002**	Store window format to FAV. 2
SFA003**	Store window format to FAV. 3
SFA004**	Store window format to FAV. 4
RFA001**	Recall window from FAV. 1
RFA002**	Recall window from FAV. 2
RFA003**	Recall window from FAV. 3
RFA004**	Recall window from FAV. 4
POW000	Power off
POW001	Power on

Note: Commands with one asterisk (*) will function under Windows A to D. Commands with two asterisks (**) will function under Windows E to H and FAV. 1 to 4.

6.7 Telnet Control

Before attempting to use the telnet control, please ensure that both the Scaler (via the 'CONTROL' port) and the PC/Laptop are connected to the active networks.

To access the telnet control in Windows 7, click on the 'Start' menu and type "cmd" in the Search field then press enter.

Under Windows XP go to the 'Start' menu and click on 'Run', type "cmd" with then press enter.

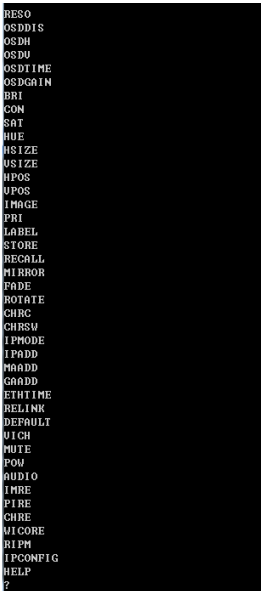
Under Mac OS X, go to Go→Applications→Utilities→Terminal.

See below for reference.

Once in the command line interface (CLI) type "TELNET", then the IP address of the unit and hit enter.

Note: The IP address of the unit can be found under 'Ethernet Setup' on the unit's OSD menu.

This will bring us into the unit which we wish to control. Type "?" to lists all the available commands.



Type "IPCONFIG" to show all IP configurations. To reset the IP, type "IPMODE" to set static IP/DHCP (see Section 6.6 for details).

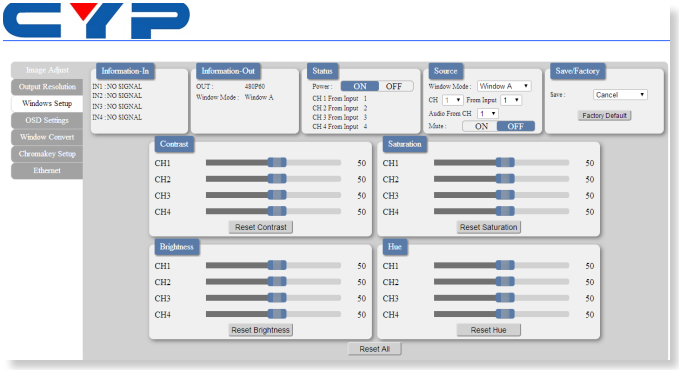
Note:

1. *Commands will be not executed unless followed with a carriage return. Commands are not case-sensitive.*
2. *If the IP is changed then the IP Address required for Telnet access will also need to be changed accordingly. A power cycle is also required for every IP change.*

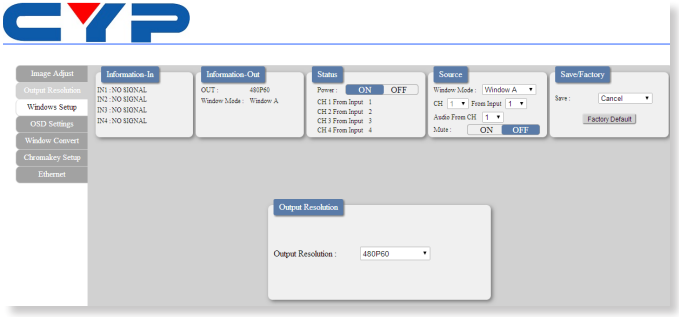
6.8 Web GUI Control

On a PC/Laptop that is connected to the same active network as the Scaler, open a web browser and type the unit's IP address on the web address entry bar. The browser will display the unit's Image Adjust, Output Resolution, etc.

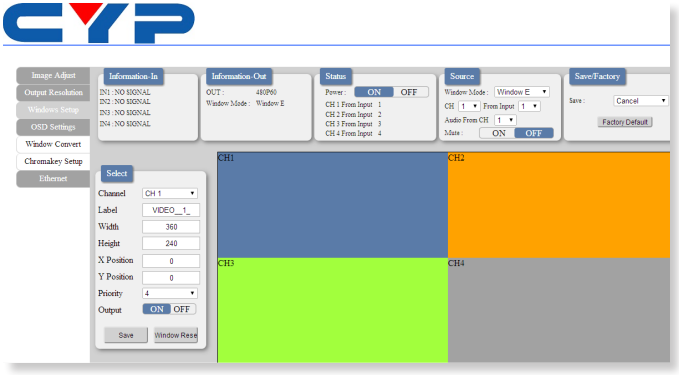
Click on the 'Image Adjust' tab to set the values of Contrast, Brightness, Saturation and Hue.



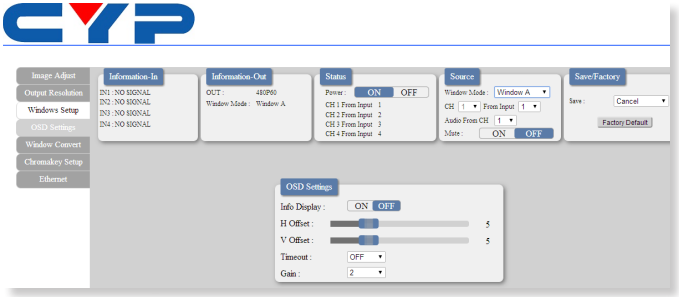
Click on the 'Output Resolution' tab to set the output display resolution.



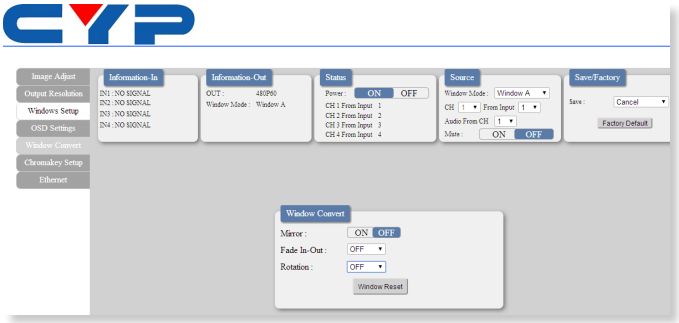
Click on the 'Windows Setup' tab to set the output display format. This function is only available under window E~H.



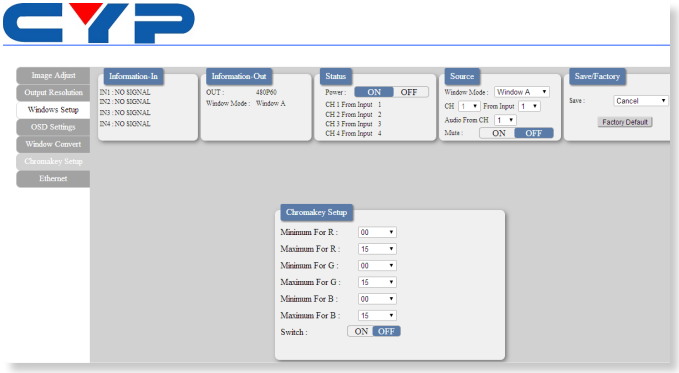
Click on the 'OSD Settings' tab to set the OSD function and position.



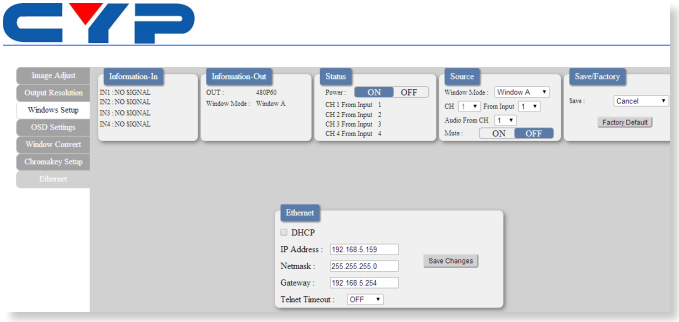
Click on the 'Window Convert' tab to set the output display angle. This function is only available under window A~D.



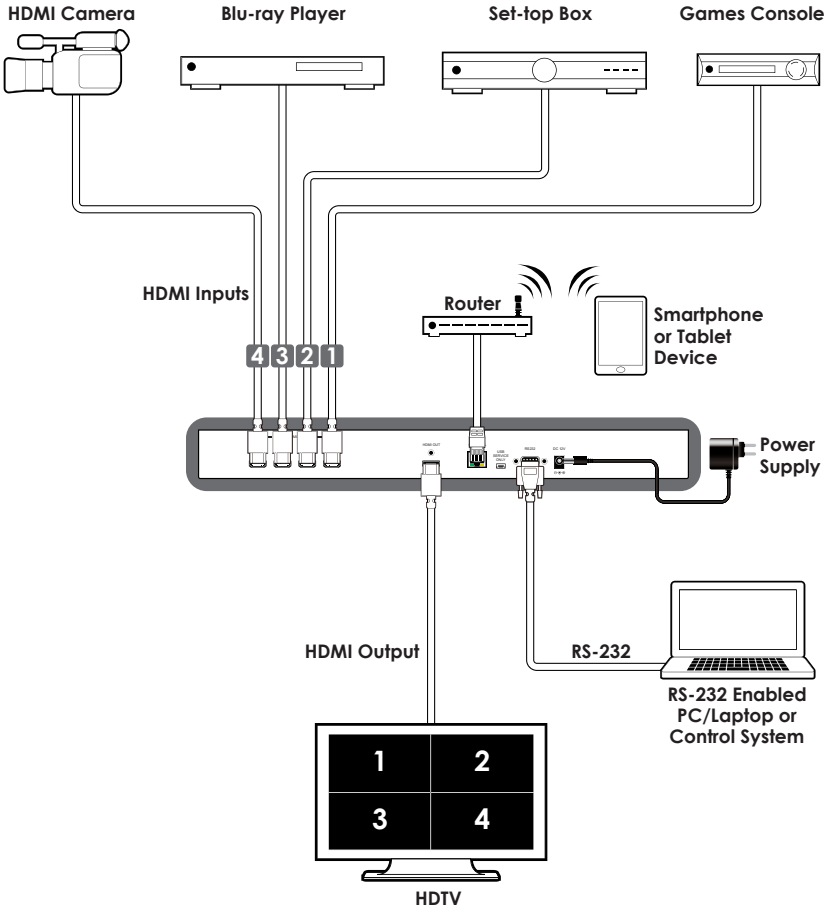
Click on the 'Chromakey Setup' tab to set the output display color. This function is only available under window E~H.



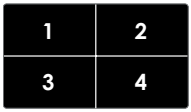
Click on the 'Ethernet' tab to reset the IP configuration. The system will ask for a reboot of the unit when any of these settings are changed. The IP address needed to access the Web GUI control will also need to be changed accordingly on the web address entry bar.



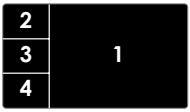
7. CONNECTION DIAGRAM



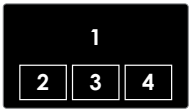
Screen Configurations:



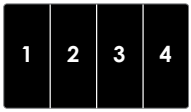
Window E
(POP)



Window F
(POP)



Window G
(PIP)



Window H
(POP)

8. SPECIFICATIONS

8.1 Technical Specification

Video Bandwidth	225 MHz/6.75 Gbps
Input Ports	4×HDMI
Output Port	1×HDMI
Supported Input Resolutions	PC:VGA~WUXGA, HD: 480i~1080p
Supported Output Resolutions	1080p@60
HDMI Input Cable Distance	Up to 15m@1080p/12-bit
HDMI Output Cable Distance	Up to 15m@1080p/8-bit
Supports Sampling Rate	32~192 kHz
ESD Protection	Human body model: ±8kV (air-gap discharge) ±4kV (contact-gap discharge)
Power Supply	12V/3A DC (US/EU standards, CE/FCC/UL certified)
Dimensions	436mm(W) × 247mm(D) × 44mm(H)
Weight	2200 g
Chassis Material	Aluminum
Silkscreen Color	Black
Operating Temperature	0 ˚C ~ 40 ˚C / 32 ˚F ~ 104 ˚F
Storage Temperature	−20˚C ~ 60 ˚C / −4 ˚F ~ 140 ˚F
Relative Humidity	20 ~ 90 % RH (non-condensing)
Power Consumption	18 W

8.2 Supported Resolution

HDMI RESOLUTION	INPUT	OUTPUT
640×480@60/72/75/85	✓	-
800×600@56/60/72/75/85	✓	-
1024×768@60/70/75/85	✓	1024×768@60
1360×768@60	✓	-
1280×768@60/75	✓	-
1280×800@60	-	✓
1280×1024@60/75	✓	1280×1024@60
1366×768@60	✓	✓
1440×900@60	-	✓
1600×900@60	-	✓
1600×1200@60	✓	✓
1680×1050@60	-	✓
1920×1200@60	✓	✓
480i@60	✓	-
576i@50	✓	-
480p@60	✓	✓
576p@50	✓	✓
720p@50	✓	✓
720p@60	✓	✓
1080i@50	✓	-
1080i@60	✓	-
1080p@24	✓	✓
1080p@25	-	✓
1080p@30	-	✓
1080p@50	✓	✓
1080p@60	✓	✓

9. ACRONYMS

ACRONYM	COMPLETE TERM
CEC	Consumer Electronics Control
DVI	Digitalisual Interface
HDCP	High-bandwidth Digital Content Protection
HDMI	High Definition Multimedia Interface
PIP	Picture-in-Picture
POP	Picture out of picture
IR	Infrared

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