



EL-5500

Advanced HDMI/VGA Presentation Switch

OPERATION MANUAL

www.cie-group.com



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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 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	SUMMARY OF CHANGE
v1.00	29/09/13	First Release

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1. INTRODUCTION

The EL-5500 is an advanced rack mountable HDMI, VGA, Composite, and Component presentation switcher. This device can scale and switch input sources to its two HDMI outputs, with their associated audio signals to the native resolutions supported by the connected display. Control is via the IR remote, RS-232, IP, or via manual selection buttons. Both digital and analogue stereo audio is supported via a built-in DAC (Digital to Analogue Converter) and ADC (Analogue to Digital Converter). The EL-5500 is the perfect solution for any educational or commercial environment requiring integration of multiple sources and signal formats to two HDMI displays.

2. APPLICATIONS

- /// Lecture hall
- /// Meeting room
- /// Conference hall

3. PACKAGE CONTENTS

- /// Multi Input Scaler
- /// Remote Control (CR-122)
- /// D-Sub to RCA adaptor cable
- /// Power Adaptor
- /// Operation Manual

4. SYSTEM REQUIREMENTS

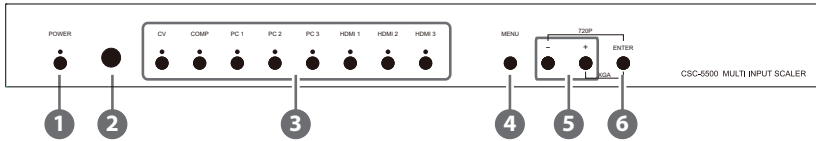
Input source equipments such as Blu-ray/DVD players or PC/NB, output display and amplifier or speakers.

5. FEATURES

- /// v1.3 HDMI, HDCP 1.1 and DVI 1.0 compliant
- /// Digital to Analogue & Analogue to Digital Audio conversion (DAC/ADC)
- /// Supported Resolutions: HDTV: 480i to 1080p PC: VGA to WUXGA
- /// Aspect Ratio Adjustment
- /// Motion Adaptive De-interlace (3D)
- /// Video Noise Reduction
- /// Underscan / Overscan Selection
- /// Picture Adjustment Settings

6. OPERATION CONTROLS AND FUNCTIONS

6.1 Front Panel



1 POWER & LED:

Press this button to switch ON or set the device to standby mode. Once the device is connected with power supply the LED will illuminate and the device will switch to ON automatically.

2 IR:

This IR window receives only the IR signal from the remote control included in the package.

3 INPUT button and LEDs:

Press this button sequentially to switch in between the input sources rotationally. LED will illuminate accordingly to the selected input source.

4 MENU:

Press this button to enter into the OSD menu.

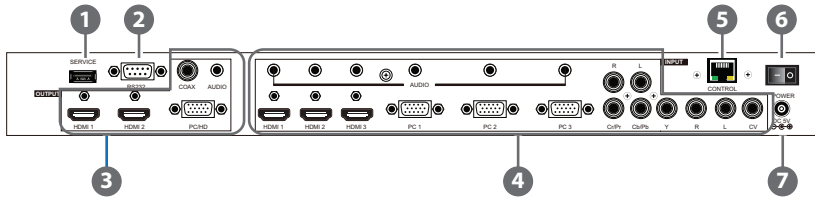
5 -/+:

Press these buttons to scrolled down and up in the OSD selection.

6 ENTER:

Press this button to confirm the selection. Press this button together with + button to switch output to XGA instantly or with - button to switch output to 720p instantly.

6.2 Rear Panel



1 SERVICE:

Reserved for factory use only.

2 RS-232:

Connect with PC/NB and use RS-232 command to control the device.

3 OUTPUT:

HDMI 1 & 2: Connect to HDMI display or amplifier for video or video and audio display.

COAX: Connect to active speaker or amplifier for audio output in digital format.

AUDIO: Connect to active speaker or amplifier for audio output in stereo format.

PC/HD: Connect to monitor/display for video output display. For HD output, use D-Sub 9pin to 3 RCA adaptor cable for output HD timing from 480p~1080p.

4 INPUT:

HDMI 1~3: Connect to HDMI source equipment such as Blu-ray/DVD player for both video and audio signal sending.

PC 1~3: Connect with PC/NB source equipment for video signal input with D-Sub 15pin cable.

L/R: Connect to source equipment's L/R output corresponding to the input jack below with 3.5Ø phone jack for audio signal sending. The priority audio input of HDMI is from HDMI, only when HDMI input has no audio signal the L/R audio will be inserted into.

YCbCr/YPbPr + L/R: Connect to source equipment such as video/DVD player for both video and audio signal sending.

CV + L/R: Connect to source equipment such as video/DVD player for both video and audio signal sending.

5 CONTROL:

This port is the link for Telnet or Web GUI controls, connect to an active Ethernet link with an RJ45 terminated cable.

6 POWER:

Switch this power toggle to turn on and activate the device or to turn off to shut it down.

7 DC 5V:

Plug the power adaptor included in the package and connect it to the AC wall outlet for power supply.

6.3 Remote Control

1 **POWER:** Press this button to switch ON or set the device to standby mode. Once the device is connected with power supply.

2 **HDMI1~3/PC1~3/CV/COMP:** Press these hot keys to switch input source instantly.

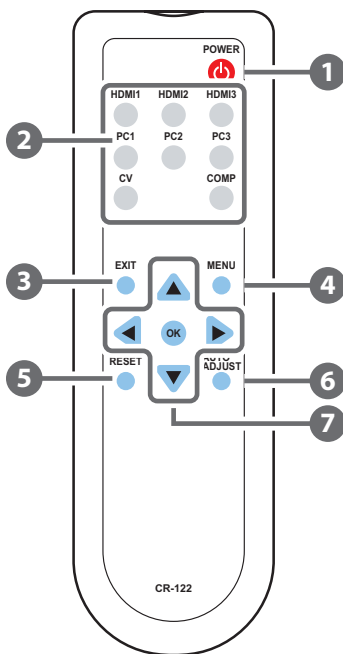
3 **EXIT:** Press this button to exit the menu or the current selection under OSD.

4 **MENU:** Press this button to enter into the OSD menu.

5 **RESET:** Press this button to set the device back into the factory default setting.

6 **AUTO ADJUST:** Press this button when output image is not fitting the display's screen perfectly. The device will auto adjust the image to full screen.

7 **OK & ▲ ▼ ◀ ▶:** Press OK to confirm the selection or press the arrow buttons to scrolled in the OSD selections.



6.4 RS-232 Protocols

EL-5500			Remote Control	
PIN	Assignment		PIN	Assignment
1	NC		1	NC
2	Tx		2	Rx
3	Rx		3	Tx
4	NC	▶	4	NC
5	GND	◀	5	GND
6	NC		6	NC
7	NC		7	NC
8	NC		8	NC
9	NC		9	NC

Baud Rate: 9600bps

Data bit: 8 bits

Parity: None

Flow Control: None

Stop Bit: 1

6.5 RS-232 Commands

Command	Description	Contents
iJL	Start RS-232	
S SOURCE 1~8	Select input source	HDMI1(1) / HDMI2(2) / HDMI3(3) / YPBP(34) / VIDEO(5) / PC(6) / PC2(7) / PC3(8)
R SOURCE	Inquire input source	
S OUTPUT 1~25	Select output timing	640*480(1)/800*600(2)/1024*768(3)/1280*768(4)/1360*768(5)/1280*720(6)/1280*800(7)/1280*1024(8)/1440*900(9)/1400*1050(10)/1680*1050(11)/1600*1200(12)1920*1080(13)/1920*1200(16)/480p(17)/720p 60(18)/ 1080p 60(19)/ 1080i 60(20)/576p(22)/720p 50(23)/ 1080p 50(24)/ 1080i 50(25)
R OUTPUT	Inquire output timing	
S SIZE 0~6	Select output size	OVERSCAN(0) / FULL(1) /BEST FIT(2) / PAN SCAN(3)/LETTER BOX(4) /UNSER 2(5) / UNDER 1(6)
R SIZE	Inquire output size	
S CONTRAST 0~60	Contrast Setting	
R CONTRAST	Inquire contrast setting	
S BRIGHTNESS 0~60	Brightness setting	
R BRIGHTNESS	Inquire brightness setting	
S HUE 0~60	Hue setting	
R HUE	Inquire hue setting	
S SATURATION 0~60	Saturation setting	
R SATURATION	Inquire saturation setting	
S SHARPNESS 0~30	Sharpness setting	
R SHARPNESS	Inquire sharpness setting	
S NR 0~3	Noise reduction setting	OFF(0) / LOW (1) / MIDDLE(2) / HIGH(3)
R NR	Inquire noise reduction setting	

S AUDIODELAY 0~3	Audio delay setting	OFF(0) / 40ms (1) / 110ms(2) / 150ms(3)
R AUDIODELAY	Inquire audio delay setting	
S AUDIOMUTE 0/1	Audio mute setting	ON(0) / MUTE(1)
R AUDIOMUTE	Inquire audio mute setting	
S KEY LOCK 0/1	Key lock setting	ENABLE(0) / DISABLE(1)
R KEY LOCK	Inquire key lock setting	
S RESET 1	Pre-reset	
S POWER 0/1	Firmware checking	OFF(0) / ON(1)
R POWER	Request power status	
PORT (0~8)	Set active port when repower on	LAST MEMORY(0) / HDMI(1) / HDMI2(2) / HDMI3(3) / YPBPR(4) / VIDEO (5) / PC(6) / PC2(7) / PC3(8)
ST	FW vers. & source info.	0.00~x.xx SOURCE: HDMI ~ PC3 PORT ON:LAST ~ PC3
EXIT	Exit	

Note: iJL command must first be insert before starting using RS-232 command to control the device. This command is CASE-SENSITIVE.

Other RS-232 command will be not executed unless followed with a carriage return + LF and commands are case-insensitive.

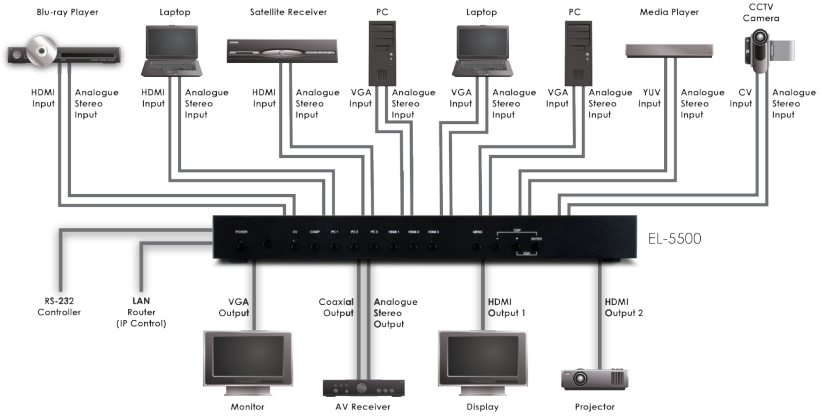
6.6 OSD MENU

1 ST LAYER	2 ND LAYER	3 RD LAYER	4 TH LAYER
DISPLAY	OUTPUT	640x480 60	
		800x600 60	
		1024x768 60	
		1280x768 60	
		1360x768 60	
		1280x720 60	
		1280x800 60	
		1280x1024 60	
		1440x900 60	
		1400x1050 60	
		1680x1050 60	
		1600x1200 60	
		1920x1080 60	
		1920x1200 60	
		1280X720P 60	
		1920X1080I 60	
		1920X1080P 60	
		720X576P 50	
		1280X720P 50	
		1920X1080I 50	
	1920X1080P 50		
	OVER SCAN		
	SIZE (VIDEO mode only)	FULL	
		BEST FIT	
		PAN SCAN	
		LETTER BOX	
		UNDER 2	
		UNDER 1	
	MODE INFO	OFF	
		INFO	
	PC (PC mode only)	ON	
AUTO SETUP			
H_POSITION			
V_POSITION			
PHASE			
CLOCK			
WXGA/XGA		XGA	
RESET		WXGA	

1 ST LAYER	2 ND LAYER	3 RD LAYER	4 TH LAYER
COLOR	COLOR	R 0~1023 (512)	
		G 0~1023 (512)	
		B 0~1023 (512)	
		R OFFSET 0~1023 (512)	
		G OFFSET 0~1023 (512)	
		B OFFSET 0~1023 (512)	
	CONTRAST	0~60 (30)	
	BRIGHTNESS	0~60 (30)	
	HUE	0~60 (30)	
	SATURATION	0~60 (30)	
	SHARPNESS	0~30 (0)	
NR.		OFF	
		LOW	
		MIDDLE	
		HIGH	
AUDIO	VOLUME	0~100	
	DELAY	OFF	
		40mS	
		110mS	
	SOUND	ON	
	MUTE		
SETUP	FACTORY RESET		
	KEY LOCK	OFF	
		ON	
	POWER SAVE	OFF	
	ON		
INFORMATION	INPUT		
	OUTPUT		
	REVISION		

Factory default setting.

7. CONNECTION DIAGRAM



8. SPECIFICATIONS

Input Port	1 x Component, 3 x VGA, 3 x HDMI, 6 x LR , 1 x USB (service only), 1 x RS-232 (Control Only)
Output Port	2 x HDMI, 1 x PC/HD, 1 x Coaxial, 1 x L/R
Supports Input Resolution	Up to UXGA & 1080p
Supports Output Resolution	Up to WUXGA & 1080p
Power Supply	5V/3A DC (US/EU standards, CE/FCC/UL certified)
Dimensions (mm)	432 mm(W) x 83 mm(D) x 47 mm(H)
Weight(g)	2140
Chassis Material	Metal
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(W)	10.5