

# CSC-5300

## PC/Video/HD to HDMI 1.3 Switcher Operation Manual

**Operation Manual**



**CSC-5300**



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## **1. Introduction**

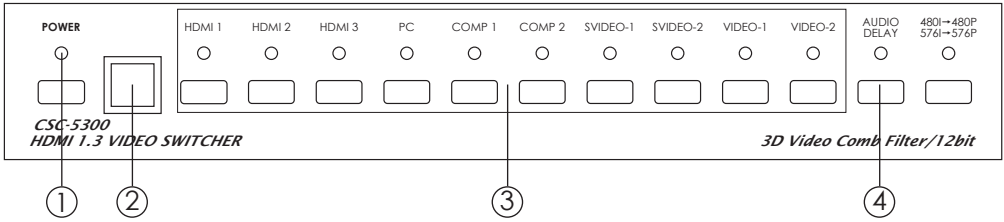
Looking for a way to watch all of your Analog/Digital devices on an HDMI display without having to constantly switch devices? Well this powerful PC/ Video/HD to HDMI 1.3 Switcher gives you the ability to convert your Analog and digital signals to HDMI v1.3 output. The product is compatible to HDMI v1.3 specifications, which is a cutting edge technology that defines the transfer of Deep Color (10-bit and 12-bit) video. Using the front panel or the remote control select the desired input source and sit back and relax as your media is effortlessly displayed, then switch to another source just easily. This HDMI switcher is the smart way to handle your multiple A/V sources.

## **2. Features**

- HDMI 1.3, HDCP1.1 and DVI1.0 compliant.
- Deep Color video up to 12bit, 1080p (24/60)Hz.
- Supports analog/digital video/audio input and HDMI v1.3 output.
- Supports a wide range of PC and HDTV resolutions from VGA to SXGA@60Hz and 480i to 1080p.
- Supports 3D comb filter and 3D noise reduction (DNR).
- Simply press a button on the front panel or remote control to convert from 480i/576i to 480p/576p.
- Has an audio delay for 150ms, this feature will not function when under HDMI input.
- Support IR remote control and RS-232 control.

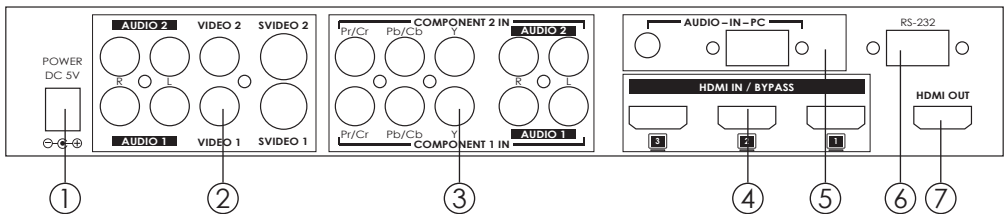
### 3. Operation Controls and Functions

#### 3.1 Front Panel:



- ① Power button and power LED indicator: Press the button to turn the unit on and the power LED will switch on.
- ② IR sensor.
- ③ Input source selection: Press the input button to switch to your desired input source, the LED will turn on to indicate which input source is selected.
- ④ Audio delay: Press to delay audio sources for 150ms, the LED will switch on when power is on.

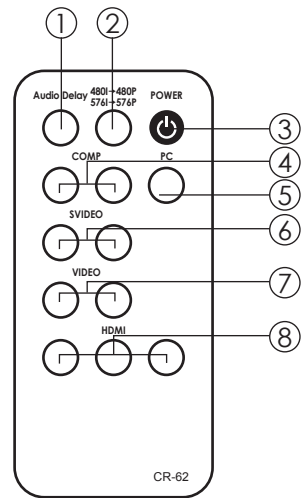
#### 3.2 Rear Panel:



- ① Power: Plug the 5V DC power supply into this unit and connect the adaptor to an AC outlet.
- ② CV/SV inputs: Connect each of the input ports to the CV/SV and R/L output ports of your source equipments such as DVD player or set-top-box. The CV1/SV1/Audio1 and CV2/SV2/Audio2 are individual loops for source equipments.
- ③ Component inputs: Connect each of the input ports to the component and R/L output ports of your source equipments such as DVD/Blu-Ray player or set-top-box. The mponent1/Component Audio1 and Component2/Component Audio2 are individual loops for source equipments.
- ④ HDMI inputs: Connect each of the input ports to the HDMI/DVI output ports of your source equipment such as DVD/Blu-Ray player or set-top-box.
- ⑤ PC input: Connect the PC/audio input port to the PC/audio output port of your source equipment such as Laptop or PC.
- ⑥ RS232: 9-pin D-Sub connector for connecting to your PC or other control console for remote control of the switcher.
- ⑦ HDMI output: Connect the output port to the HDMI display.

## 4. Remote Control

1. Audio Delay: Press to delay audio output for 150ms.
2. Format selection: To switch between Interlace and Progressive format.
3. Power: Press the button to turn on/off the unit.
4. Component 1/2: Press to select Composite 1 or 2 inputs.
5. PC: Press for PC input.
6. S-Video 1/2: Press to select S-Video 1 or 2 inputs.
7. Video 1/2: Press to select Video 1 or 2 inputs.
8. HDMI 1/2/3: Press to select HDMI 1, 2 or 3 inputs.



## 5. RS-232 Remote Control Protocol

\* The connection between this unit and the remote control with **RS-232 modem cable**.

### Pins definition of modem cable

| System |            | Remote Controller |            |
|--------|------------|-------------------|------------|
| Pin    | Definition | Pin               | Definition |
| 1      | NC         | 1                 | NC         |
| 2      | TxD        | 2                 | RxD        |
| 3      | RxD        | 3                 | TxD        |
| 4      | NC         | 4                 | NC         |
| 5      | GND        | 5                 | GND        |
| 6      | NC         | 6                 | NC         |
| 7      | NC         | 7                 | NC         |
| 8      | NC         | 8                 | NC         |
| 9      | NC         | 9                 | NC         |

\* RS-232 transmission format:

Baud Rate : 9600 bps

Data Bit : 8 bits

Parity : None

Stop Bit : 1 bit

## 5.1 RS-232 transmission format:

### (a)Set Command

| Command Code   | Response                        | Description                     |
|----------------|---------------------------------|---------------------------------|
| S POWER 0      | > POWER OFF                     | POWER OFF                       |
| S POWER 1      | > POWER ON                      | POWER ON                        |
| S SOURCE 0     | > SOURCE HDMI1                  | HDMI1 INPUT                     |
| S SOURCE 1     | > SOURCE HDMI2                  | HDMI2 INPUT                     |
| S SOURCE 2     | > SOURCE HDMI3                  | HDMI3 INPUT                     |
| S SOURCE 3     | > SOURCE PC                     | PC INPUT                        |
| S SOURCE 4     | > SOURCE COMP1                  | COMPONENT1 INPUT                |
| S SOURCE 5     | > SOURCE COMP2                  | COMPONENT2 INPUT                |
| S SOURCE 6     | > SOURCE SV1                    | SV1 INPUT                       |
| S SOURCE 7     | > SOURCE SV2                    | SV2 INPUT                       |
| S SOURCE 8     | > SOURCE CV1                    | CV1 INPUT                       |
| S SOURCE 9     | > SOURCE CV2                    | CV2 INPUT                       |
| S AUDIODELAY 0 | > AUDIODELAY OFF                | OFF : NO DELAY                  |
| S AUDIODELAY 1 | > AUDIODELAY ON                 | ON : DELAY 150ms                |
| S SD_ITOP 0    | > 480i/576i TO<br>480p/576p OFF | OFF : NO 480i/576i TO 480p/576p |
| S SD_ITOP 1    | >480i/576i TO<br>480p/576p ON   | ON : 480i/576i TO 480p/576p     |
| S RESET 1      | > RESET ON                      | RESET ACTION                    |

| Command Code | Response                          | Description                           |
|--------------|-----------------------------------|---------------------------------------|
| R POWER      | > POWER ON~OFF                    | SHOW POWER STATUS                     |
| R SOURCE     | > SOURCE HDMI~CV                  | SHOW SOURCE STATUS                    |
| R AUDIODELAY | > AUDIODELAY OFF~ON               | SHOW AUDIO DELAY STATUS               |
| R SD_ITOP    | >480i/576i TO 480p/576p<br>OFF~ON | SHOW 480i/576i TO 480p/576p<br>STATUS |
| R FW_VER     | > FIRMWARE VERSION : Vx.xx        | SHOW FIRMWARE VERSION                 |

## 6. Connection and Installation



## 7. Specifications

|                       |                                                                                                                                |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------|
| Frequency Bandwidth   | 2.25Gbps (single link)                                                                                                         |
| Input Ports           | 3 x HDMI female ports (Type A connector)<br>1 x PC with audio jack<br>2 x Y/Pb/Pr with R/L<br>2 x CV/SV with R/L<br>1 x RS-232 |
| Output Port           | 1 x HDMI female port (signal link)                                                                                             |
| Power Supply          | 5VDC/2.6A (US/EU standards, CE/FCC/UL certified)                                                                               |
| Dimensions (mm)       | 280(W) x 147(D) x 44(H)                                                                                                        |
| Weight(g)             | 1380                                                                                                                           |
| Chassis Material      | Metal                                                                                                                          |
| Silkscreen Color      | Gray                                                                                                                           |
| Operating Temperature | 0°C ~ 40°C                                                                                                                     |



**Input Signal Specifications**

| <b>PC Resolution</b>    |            | <b>Vert Rate</b> |
|-------------------------|------------|------------------|
| VGA                     | 640x480    | 60/72/75/85Hz    |
| SVGA                    | 800x600    | 56/60/72/75/85Hz |
| XGA                     | 1024x768   | 60/70/75/85Hz    |
| SXGA                    | 1280x1024  | 60/75Hz          |
| UXGA                    | 1600x1200  | 60 Hz            |
| WUXGA                   | 1920x1200  | 60 Hz            |
| <b>HDTV Resolutions</b> |            | <b>Vert Rate</b> |
| 480p                    | 720x480    | 60Hz             |
| 480i                    | 720x480    | 60Hz             |
| 576p                    | 720x576    | 50Hz             |
| 576i                    | 720x576    | 50Hz             |
| 720p                    | 1280x720   | 50, 60Hz         |
| 1080i                   | 1920x1080i | 50, 60Hz         |
| 1080p                   | 1920x1080p | 50, 60Hz         |

**Output Signal Specifications**

| <b>PC Resolution</b>    |            | <b>Vert Rate</b> |
|-------------------------|------------|------------------|
| VGA                     | 640x480    | 60/72/75/85Hz    |
| SVGA                    | 800x600    | 56/60/72/75/85Hz |
| XGA                     | 1024x768   | 60/70/75/85Hz    |
| SXGA                    | 1280x1024  | 60Hz             |
| UXGA                    | 1600x1200  | 60Hz             |
| WUXGA                   | 1920x1200  | 60Hz             |
| <b>HDTV Resolutions</b> |            | <b>Vert Rate</b> |
| 480p                    | 720x480    | 60Hz             |
| 480i                    | 720x480    | 60Hz             |
| 576p                    | 720x576    | 50Hz             |
| 576i                    | 720x576    | 50Hz             |
| 720p                    | 1280x720   | 50, 60Hz         |
| 1080i                   | 1920x1080i | 50, 60Hz         |
| 1080p                   | 1920x1080p | 50, 60Hz         |

**Note:** Output resolution limit depends on the TV/Monitor/Displays specifications.







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