

## Model No. VSW-1000

### Presentation Switcher

(HDMI/DVI/VGA/Composite/Component Input & HDMI Output)



## Operating Instructions

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## IMPORTANT SAFETY INSTRUCTIONS:



The VSW-1000 Presentation Switcher has been tested for conformance to safety regulations and requirements, and has been certified for international use. However like all electronic equipments, the **VSW-1000** should be used with care. Please read and follow instructions to protect yourself from possible injury and to minimize the risk of damage to the unit.

- Follow all instructions and warnings marked on this unit.
- Do not attempt to service this unit yourself, except where explained in this manual.
- Provide proper ventilation and air circulation and do not use near water.
- Keep objects that might damage the device and assure that the placement of this unit is on a stable surface.
- Use only the power adapter and power cords and connection cables designed for this unit.
- Do not use liquid or aerosol cleaners to clean this unit. Always unplug the power to the device before cleaning.

## 1. Introduction

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The VSW-1000 Presentation Switcher offers the highest compatibility among composite, component, DVI, VGA, HDMI and S-Video to CVBS, VGA (Optional) & HDMI in the market. This unique device supports analog and digital conversion and scaling. With the embedded advanced deinterlacer for interlaced video inputs, such as component, composite and S-Video, can be further improved. VSW-1000 supports the insertion of stereo analog audio and S/PDIF inputs into HDMI output. With this advanced feature, users can combine asynchronous video and audio sources into the state-of-art HDMI compliant A/V signal for further long range lossless transmission and high standard A/V experience!

The VSW-1000 is designed to ease format conversion among the available video formats to common VGA, CVBS and HDMI outputs. With the VSW-1000, bothersome video format issues will not create bottlenecks in your applications and the handy audio support can make input video and audio HDMI ready. With IR remote control and push button controls, the VSW-1000 offers easy conversion, routing and scaling of videos as needed.

## 2. Features

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- Supports IR remote control
- Software control through RS-232 control port
- Supports OSD control interface
- Input Video bandwidth HDMI: 225MHz; DVI/ VGA: 165MHz; Component: 74.25MHz
- S/PDIF & Stereo input supported
- Deinterlacing
- Supports noise reduction and video enhancement features (only for HDMI output)
- Over / Under scan adjustment (only for HDMI output)
- Video H/V mirror (only for HDMI output)
- Active video area adjustment
- RS-232 firmware
- Output scalable up to 4K (2K supported)
- 8-CH audio down-mix to 2-CH
- Multiple video formats supported

## 3. Package Contents

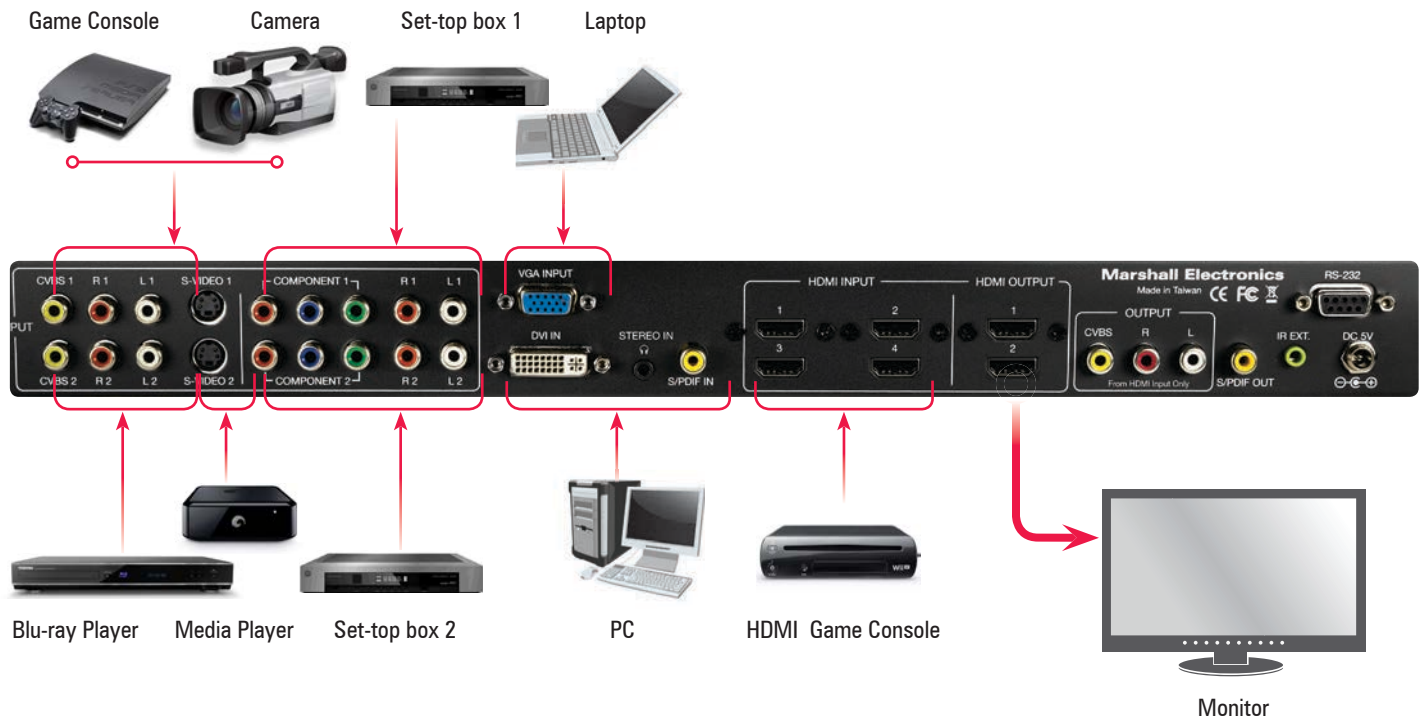
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1. 1x Case VSW-1000 and 1x 5V/2A
2. 1x IR receiver
3. 1x IR remote
4. 1x Installation software CD
5. 1x User Manual
6. 2x Rack Mount Ears

## 4. Specifications

<b>Model Name</b>	VSW-1000 / Video Switcher
<b>Input Video Bandwidth</b>	HDMI:225 MHz DVI/VGA:165 MHz Component: 74.25MHz
<b>Output Video Bandwidth</b>	297MHz
<b>Audio Support</b>	HDMI: bypass to HDMI output/ SPDIF output/ stereo output SPDIF: bypass to HDMI output or SPDIF output Stereo: bypass to HDMI output or stereo output
<b>ESD Protection</b>	[1] Human body model - $\pm 19\text{kV}$ [air-gap discharge] & $\pm 12\text{kV}$ [contact discharge] [2] Core chipset - $\pm 2\text{kV}$
<b>PCB stack-up</b>	4-layer board [impedance control - differential 100W; single 50W]
<b>Firmware Update</b>	Feasible via RS232 Port
<b>CEC Channel</b>	ByPass
<b>Input TMDs Signal</b>	1.2 Volts [peak-to-peak]
<b>Input DDC Signal</b>	5 Volts [peak-to-peak, TTL]
<b>Input</b>	2xYPbPr&L-R + 2xS-Video + 2xCVBS&L-R + 1x VGA + 1xDVI + 1xStereo + 1xSPDIF + 4xHDMI
<b>Output</b>	2x HDMI + 1xVGA(Optional) + 1xCVBS + 2xRCA
<b>Y,Pb,Pr</b>	3xRCA(Video) + 2xRCA(Audio) [female]
<b>S-Video</b>	9 pin S-Video [female]
<b>CVBS</b>	1xRCA (Video) + 2xRCA (Audio) [female]
<b>VGA connector</b>	HD-15 [15-pin D-sub female]
<b>HDMI connector</b>	HDMI [19-pin female]
<b>RS-232 connector</b>	9-Pin D-sub female
<b>Mechanical</b>	
<b>Housing</b>	Metal enclosure
<b>Dimensions [L x W x H]</b>	17.25"W $\times$ 1.8"H $\times$ 4.8"D
<b>Weight</b>	3.6 lb (1.64 kg)
<b>Power Supply</b>	5V 2A DC
<b>Power Consumption</b>	10W
<b>Operating Temperature</b>	0~40°C [32~104°F]
<b>Storage Temperature</b>	-20~60°C [-4~140°F]
<b>Relative Humidity</b>	20~90% RH [no condensation]

## 5. Connection Diagram

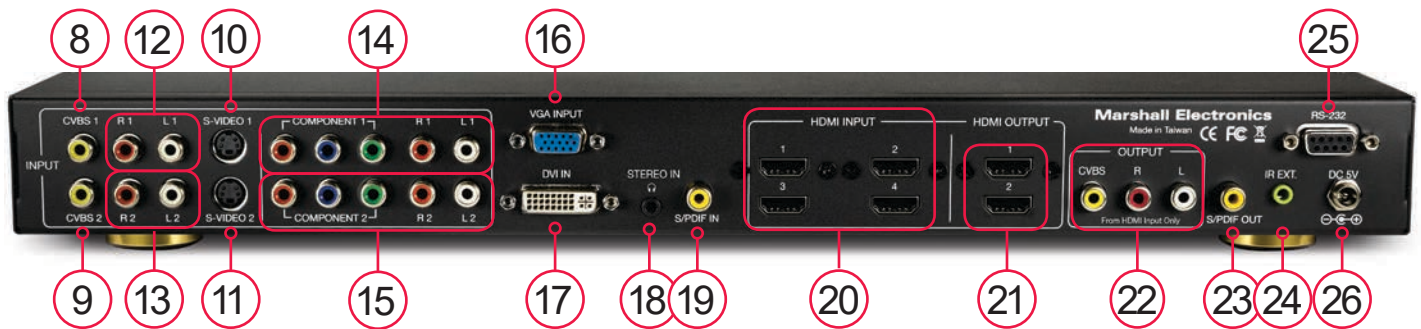


## 6. Panel Descriptions

### Front Panel








### Rear Panel



1. OSD Control Panel
2. Input Source Switching
3. Output Status
4. Selected Source Indicator Light
5. Signal Indicator Light
6. Power Indicator Light
7. IR Sensor
8. CVBS1 input
9. CVBS2 input
10. S-Video1 Input
11. S-Video2 Input
12. Analog Audio1 Input (for CVBS1/S-Video1 Source)
13. Analog Audio2 Input (for CVBS2/S-Video2 Source)
14. YPbPr1 Input with Analog Audio
15. YPbPr2 Input with Analog Audio
16. VGA Input
17. DVI Input
18. Stereo Audio Input (for VGA/DVI Source)
19. S/PDIF Audio Input (for VGA/DVI Source)
20. HDMI1~4 Inputs
21. HDMI1&2 Outputs
22. CVBS Output with Analog Audio  
(From HDMI Input only)
23. S/PDIF Output
24. IR Extension Port
25. RS232 Control Port
26. +5VDC Power

## 7. IR Remote Control

	Power On/Off
<b>EXIT</b>	Exit Menu
<b>MENU</b>	Menu ON
<b>STATUS</b>	Source and Resolution information
<b>ENTER</b>	Enter Key
<b>MUTE</b>	Mute Master Output Audio
	<b>Up</b> Key
	<b>Right</b> Key
	<b>Left</b> Key
	<b>Down</b> key
<b>Aspect ratio</b>	Aspect ratio change
<b>4K 2K</b>	Select 4K 2K output resolution
<b>1080p</b>	Select 1080p60 output resolution
<b>720p</b>	Select 720p60 output resolution
<b>HDMI 1</b>	Select HDMI 1 source
<b>HDMI 2</b>	Select HDMI 2 source
<b>HDMI 3</b>	Select HDMI 3 source
<b>HDMI 4</b>	Select HDMI 4 source
<b>CVBS 1</b>	Select CVBS 1 source
<b>CVBS 2</b>	Select CVBS 2 source
<b>DVI</b>	Select DVI source
<b>VGA</b>	Select VGA source
<b>YPbPr 1</b>	Select YPbPr 1 source
<b>YPbPr 2</b>	Select YPbPr 2 source
<b>S-Video 1</b>	Select S-Video 1 source
<b>S-Video 2</b>	Select S-Video 2 source

## 8. OSD Menu

<b>Picture Levels</b>	Contrast	0~255 of Contrast Level
	Contrast	0~255 of Contrast Level
	Brightness	0~255 of Brightness Level
	Saturation	0~255 of Saturation Level
	Hue	0~255 of Hue Level
	B/W Extension	On/Off
	Color Tone	Off
		Skin
		Green
	Edge Detail Enhancement	Low
		Medium
		High
		Off
	Sharpness	0~+127 of Sharpness Level
<b>Physical Adjustment</b>	Under/Over Scan	-50%~+50% of Scan Level
	Aspect Ratio	16:9/ 4:3
	H-Mirror	On/Off
	V-Mirror	On/Off
	H-Shift	-100~+100 of H-Shift Level
	V-Shift	-50~+50 of V-Shift Level
<b>System Adjustments</b>	Input Res. Info	
	Input Select	
	Audio Source*	S/PDIF
		Stereo
	VGA Color Swap**	On/Off
	Output Resolution	
	Output Mode	
	HDMI Port EDID	
	F/W Version	
	Factory Reset	

\*Only available in VGA or DVI mode.

\*\*Only available in VGA mode. Some VGA sources might have Color Swap issues. Use this function to adjust as needed.



## 9. SOFTWARE PROCEDURES

### Software Interface:

- Select Com Port.  
Enter to find com port



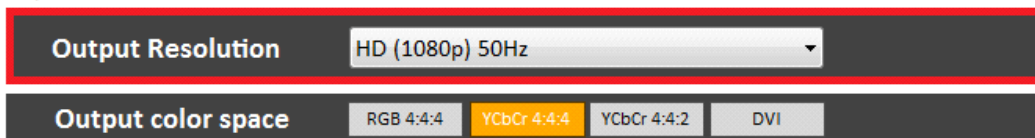
- Select Source

Chose Input Format :



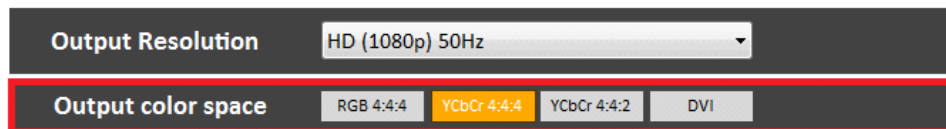
- Setup Output Resolution.

Output



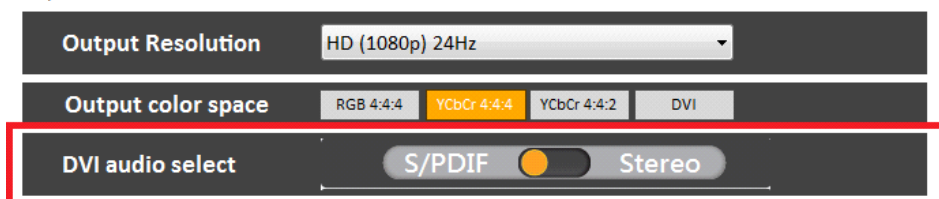
- Setup Output Color Space.

Output



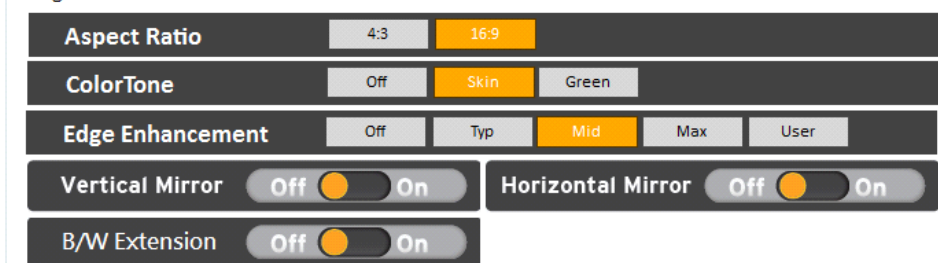
- If Source is VGA or DVI, menu shows VGA or DVI audio selection. You can also choose S/PDIF or Stereo.

Output



- Setup Aspect Ratio and Color Tone...

Image



- Picture Setup

Color

Contrast

98

Brightness

152

Saturation

89

Hue

170

Sharpness

69

- Image Adjustment

Image Adjustment

Under/Over Scan

-8

Horizontal Shift

27

Vertical Shift

-13

## 10. Warranty

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Marshall Electronics warrants to the first consumer that this VSW-1000, Presentation Switcher will, under normal use, be free from defects in workmanship and materials, when received in its original container, for a period of one year from the purchase date. This warranty is extended to the first consumer only, and proof of purchase is necessary to honor the warranty. If there is no proof of purchase provided with a warranty claim, Marshall Electronics reserves the right not to honor the warranty set forth above. Therefore, labor and parts may be charged to the consumer. This warranty does not apply to the product exterior or cosmetics. Misuse, abnormal handling, alterations or modifications in design or construction void this warranty.

No sales personnel of the seller or any other person is authorized to make any warranties other than those described above, or to extend the duration of any warranties on behalf of Marshall Electronics, beyond the time period described above.

### Note:

Due to constant effort to improve products and product features, specifications may change without prior notice.

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