Marshall Electronics

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

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

- 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)
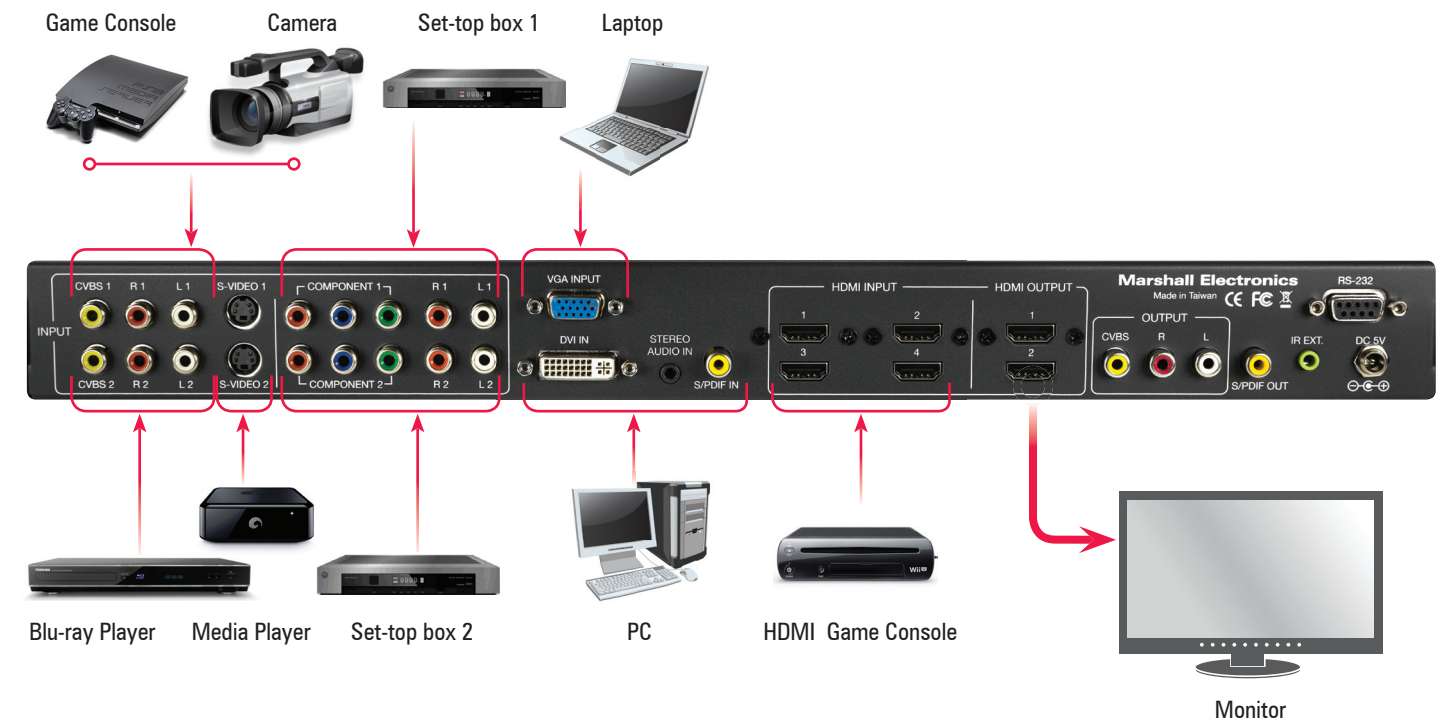- 8-CH audio down-mix to 2-CH
- Multiple video formats supported

3. Package Contents

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

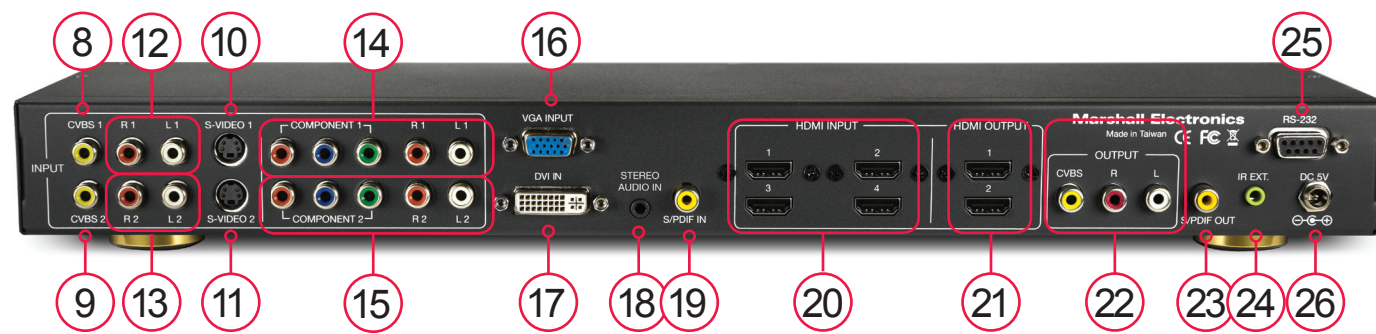|	
Model Name	VSW-1000 / Video Switcher
Input Video Bandwidth	HDMI:225 MHz DVI/VGA:165 MHz Component: 74.25MHz
Output Video Bandwidth	297MHz
Audio Support	HDMI: bypass to HDMI output/ SPDIF output/ stereo output SPDIF: bypass to HDMI output or SPDIF output Stereo: bypass to HDMI output or stereo output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

5. Connection Diagram

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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
23. S/PDIF Output
24. IR Extension Port
25. RS232 Control Port
26. +5VDC Power

7. IR Remote Control

(power icon)	Power On/Off
EXIT	Exit Menu
MENU	Menu ON
STATUS	Source and Resolution information
ENTER	Enter Key
MUTE	Mute Master Output Audio
(up icon)	Up Key
(right icon)	Right Key
(left icon)	Left Key
(down icon)	Down key
Aspect ratio	Aspect ratio change
4K2K	Select 4K2K output resolution
1080p	Select 1080p60 output resolution
720p	Select 720p60 output resolution
HDMI 1	Select HDMI 1 source
HDMI 2	Select HDMI 2 source
HDMI 3	Select HDMI 3 source
HDMI 4	Select HDMI 4 source
CVBS 1	Select CVBS 1 source
CVBS 2	Select CVBS 2 source
DVI	Select DVI source
VGA	Select VGA source
YPbPr 1	Select YPbPr 1 source
YPbPr 2	Select YPbPr 2 source
S-Video 1	Select S-Video 1 source
S-Video 2	Select S-Video 2 source

8. OSD Menu

Picture Levels	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
Physical Adjustment	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
System Adjustments	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:
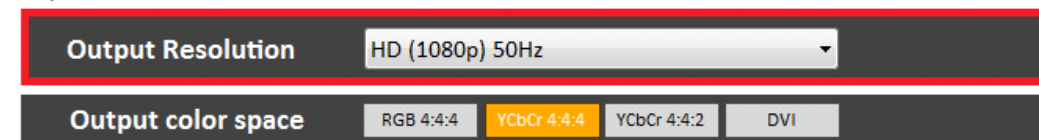
- Select Com Port.
  Enter to find com port

- Select Source
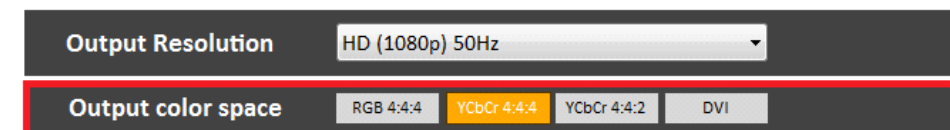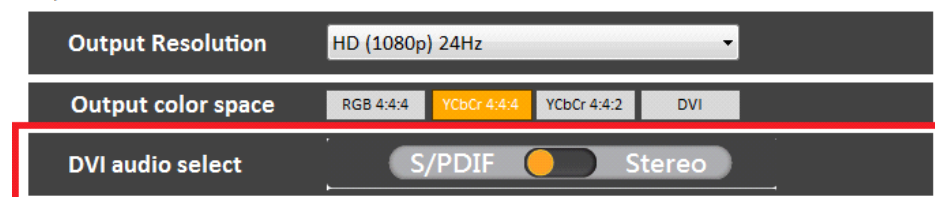

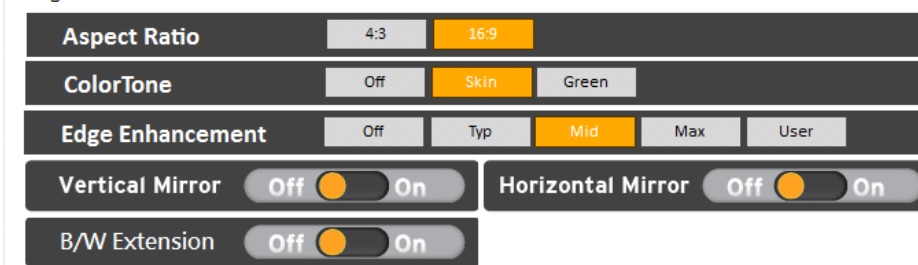- Setup Output Resolution.

- Setup Output Color Space.

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

- Setup Aspect Ratio and Color Tone…

• 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

Marshall Electronics warranties 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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