

HDMI Converter/Scaler

Component/VGA and Audio to HDMI Converter/Scaler

VS310HD2HDMI

Instruction Manual



Actual product may vary from photo

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The Professionals' Source for Hard-to-Find Computer Parts

FCC Compliance Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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Table of Contents

Introduction	1
Features	1
Before You Begin	1
System Requirements	1
Contents	1
Operation controls and functions	2
Remote control and functions	3
Installation - Input connection	4
Installation - Output connection	6
OSD Operation	7
Specifications	9
Technical support	10
Warranty	10

Introduction

Thank for purchasing a StarTech.com VGA/Component to HDMI converter/scaler. This product will allow you to convert analog and digital video to DVI-D or HDMI, while scaling the image for optimized display.

Features

- Supports analog PC Resolution input/output up to WUXGA (1920x1200) @ 60Hz
- Supports analog HDTV RGB / YPbPr / YCbCr input/output up to 1080p @ 60Hz
- DVI / HDMI and HDCP compliant with bandwidth of up to 165MHz
- On-screen display allows for easy setup and configuration
- Automatic 3:2 and 2:2 pull-down detection and recovery

Before You Begin

System Requirements

- A display with HDMI or DVI-D input capability
- An HDMI/DVI-D video source
- HDMI or DVI-D cabling

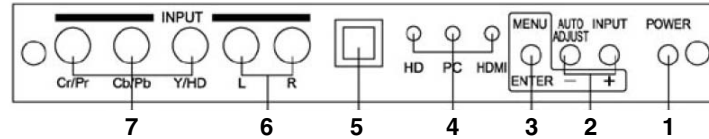
Contents

This package should contain:

- 1 x Video Scaler/Converter
- 1 x Power Adapter
- 1 x Instruction Manual

Operation controls and functions

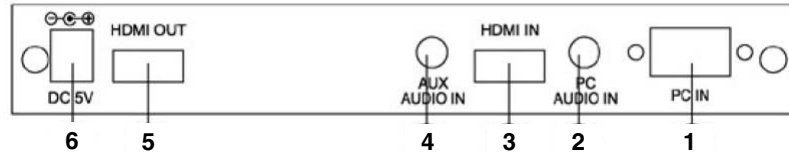
Front Panel



1. **Power:** Press this button to turn the power of the unit **ON** or **OFF** (standby)
2. **+ / - :** These buttons provide three functions:
 - a) **Input Select** - Press the button repeatedly to select your desired input source. The input sources are toggled through the following sequence:

➔ HD (Component) ➔ PC ➔ HDMI ➔
 - b) **Auto Tune (-)** - Press the “-” button to automatically adjust the image for analog inputs (component or PC). This will fine tune the position and color of the output picture.
 - c) When using the On Screen Display, press the + or - button to move up or down the highlight bar to match the desired parameter. Or, once a parameter has been selected with the **MENU/Enter** button, press the button to adjust the value of the selected parameter.
3. **MENU/Enter** - This button serves two purposes:
 - a) Press this button to launch the OSD main menu
 - b) Press this button to enter the sub-menu or to adjust the setting value of the selected parameter
4. **Input LED Indicators** - The LED indicators notify you that the corresponding source is selected as input
5. **IR Sensor** - Infrared remote control sensor
6. **Audio L/R Input** - Stereo audio input, associated with **Component In**
7. **Component Input** - Used to connect to Component Video sources. VS310HD2HDMI accepts both interlaced component input (480i, 576i) and deinterlaced progressive input (480p, 576p...1080p). The input range is 480i, 570i-1080i, 1080p.

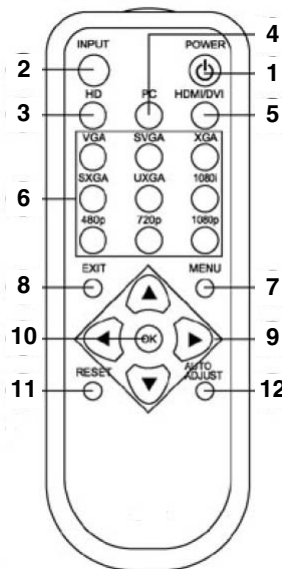
Rear Panel



1. **PC IN** - Connects VS310HD2HDMI to the VGA output of your PC. Acceptable PC resolutions range from VGA - WUXGA
2. **PC Audio IN** - Stereo audio input from video source. Requires 3.5mm audio cable.
3. **HDMI (DVI) IN**: Connects VS310HD2HDMI to your HDMI source equipment
4. **AUX (DVI) Audio IN**: This audio input should be used only when a DVI source is connected to the HDMI input. This device will convert DVI and AUX audio input to HDMI Output.
5. **HDMI OUT** - Connect this output to the HDMI input on your HD display.
6. **Power jack** - For connection to the 5V 2.6A DC power adapter (included).

Remote Control and functions

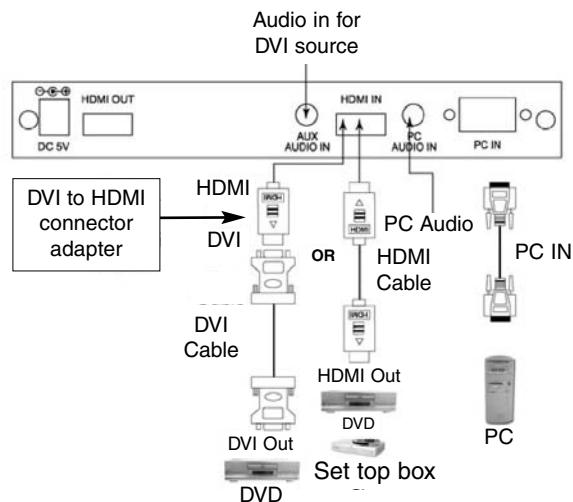
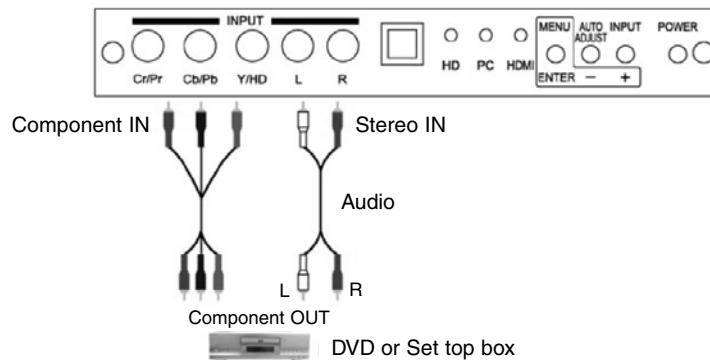
1. **Power** - Press this button once to power on the scaler/ converter. Press a second time to power down
2. **Input** - Press repeatedly, to toggle through input sources
3. **HD Input** - Press to select component input.
4. **PC Input** - Press this button to select PC input
5. **HDMI/DVI Input** - Press to select DVI or HDMI input
6. **Output resolution** - Select from available output resolutions
7. **Menu** - Press to bring up the OSD main menu page
8. **Exit** - Press to exit from a sub-menu or main menu



Instruction Manual

9. **Up/Down/Left/Right** - Press the up/down buttons to move the highlight bar to the desired parameter during OSD operation. exit from a sub-menu or main menu. Press the left/right buttons to increase/decrease the value of a selected parameter.
10. **OK (Enter)** - Press to confirm selections
11. **Reset** - Press to reset the unit's firmware setting to the factory default values
12. **Auto Adjust** - Press to optimize the position of the picture (picture centering) on the screen

Installation - Input connection



VS310HD2HDMI accepts component, PC and HDMI inputs with audio on each. Formats supported by these inputs are as follows:

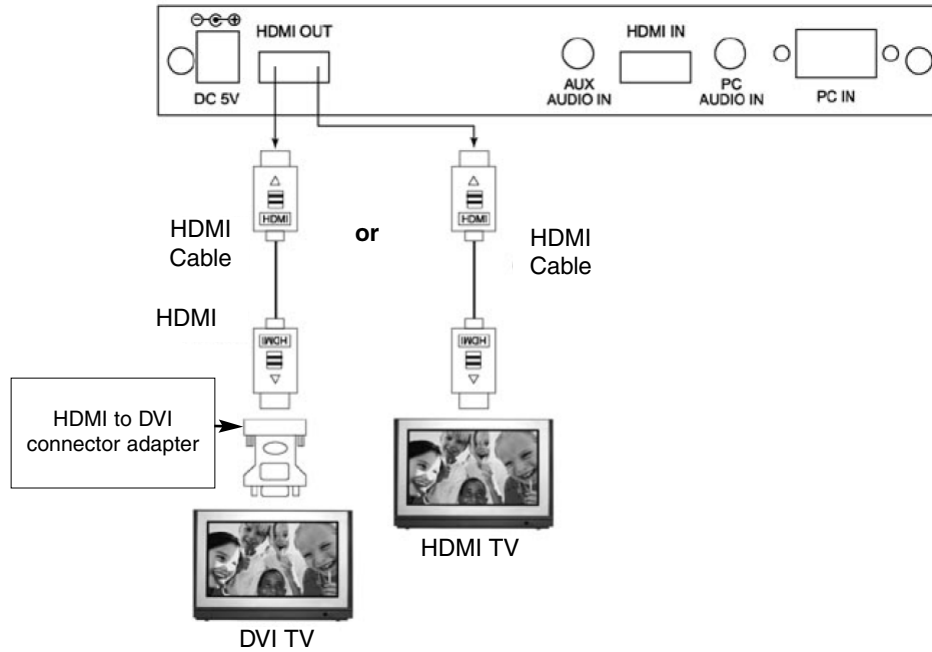
Component Input

YPbPr	480p @50/60Hz
	576p @50Hz
	720p @50/60Hz
	1080i @50/60Hz
	1080p @50/60Hz
YCbCr	480i @ 60Hz
	576i @ 50Hz

RGBHV (PC Input)	VGA/SVGA/XGA/SXGA/UXGA/WXGA/WSXGA/WUXGA
	VGA @ (60/72/75/85Hz) SVGA @ (56/60/72/75/85Hz) XGA @ (60/72/75/85Hz) SXGA @ (60/75/85Hz) UXGA @ (60Hz) WXGA @ (60Hz) WSXGA @ (60Hz) WUXGA @ (60Hz)
Digital (HDMI Input)	VGA @ (60/72/75/85Hz) SVGA @ (56/60/72/75/85Hz) XGA @ (60/70/75/85Hz) SXGA @ (60/75/85Hz) UXGA @ (60Hz) WXGA @ (60Hz) WSXGA @ (60Hz) WUXGA @ (60Hz)

- When connecting to a PC source, use a 15-pin D-sub cable to connect the PC output to the D-Sub input connector of VS310HD2HDMI
- When connecting to a component source, use a RCA cable to connect the YPbPr/YCbCr output of a DVD player or set top box to the YPbPr/YCbCr input connector on VS310HD2HDMI
- When connecting to an HDMI source, use an HDMI cable to connect from the HDMI output of a set top box or DVD player, to the HDMI connector of VS310HD2HDMI
- When connecting to a DVI source, use a DVI cable to connect from the DVI source (output) with a DVI to HDMI connector adapter, which is then connected to the HDMI input on VS310HD2HDMI

Installation - Output connection



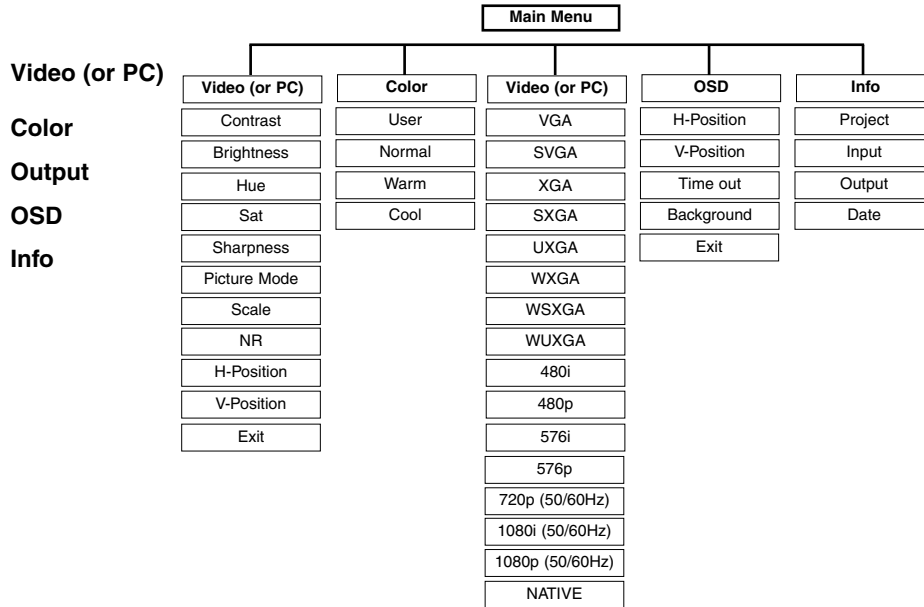
VS310HD2HDMI can output a variety of PC, Standard definition and High definition resolutions in HDMI digital format. The HDMI output supports the following resolutions, all in RGB format:

SD/HD: 480i, 480p, 576i, 576p, 720p @ 50/60Hz, 1080i @ 50/60Hz

PC: VGA @ 60Hz SVGA @60Hz XGA @ 60Hz WXGA@60Hz WSXGA, UXGA, WUXGA

- When connecting to an HDMI display, use a certified HDMI cable to connect from the HDMI output of VS310HD2HDMI to the HDMI input on your television/display
- When connecting to a DVI display, use an HDMI cable in conjunction with an HDMI to DVI connector adapter, to connect to the DVI display

OSD Operation



Using the + and - buttons, move the highlight bar to the desired parameter, then press **MENU/ENTER** to enter into the corresponding sub-menu

Video (or PC) - When **Video** is selected, a sub-menu will appear as follows:

Contrast

Brightness

Hue

Saturation

Sharpness

Picture Mode

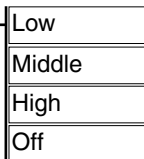
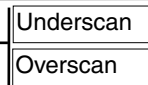
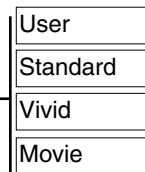
Scale

NR

H-Position (PC)

V-Position (PC)

Exit



To adjust picture quality, use the + or - button to move the highlight bar to the desired parameter, and press the **MENU/ENTER** button to confirm your selection. At this point,

Instruction Manual

the selected parameter will turn red, at which point you can use + or - to increase or decrease the value. Once you've completed the necessary adjustments, press **MENU** to leave the selected parameter. Move the highlight bar to **Exit**, and press **MENU/ENTER** again to exit.

Please note: The H-Position and V-Position are only available when component or PC input is selected. Neither are available when the HDMI input is selected.

Picture mode - There are four picture modes to choose from:

User: Select to adjust to your favorite settings (stored for later use)

Standard: Standard factory default settings for optimal display in a normal environment

Vivid: High saturation picture for optimal display in a bright room

Movie: Picture for comfortable low brightness display in a dark room

Scale - Select **overscan** when the input source is SD or HD video, to ensure no black band appears around the screen border. Select **underscan** when the input source is a PC signal, to ensure full picture content falls within the screen border.

Noise Reduction - This function only works when input is analog RGB or component video. It will not work for HDMI input.

H & V position - To adjust for optimal positioning within the screen

Output - VS310HD2HDMI can output a wide variety of PC and HD resolutions as follows:

VGA (up to 100MH)	DVI/HDMI(Up to 165MH)	Resolution	i/p*	Format
480i	480i	720 x 480	i	RGBHV
480p	480p	720 x 480	p	RGBHV
576i	576i	720 x 576	i	RGBHV
576p	576p	720 x 576	p	RGBHV
720p @ 50/60Hz	720p @ 50/60Hz	1280 x 720	p	RGBHV
1080i @ 25/30Hz	1080i @ 25/30Hz	1920 x 1080	i	RGBHV
1080p @ 50/60Hz	1080p @ 50/60Hz	1920 x 1080	p	RGBHV
VGA @ 60Hz	VGA @ 60Hz	640 x 480	p	RGBHV
SVGA @ 60Hz	SVGA @ 60Hz	800 x 600	p	RGBHV
XGA @ 60 Hz	XGA @ 60 Hz	1024 x 768	p	RGBHV
SXGA @ 60Hz	SXGA @ 60Hz	1280 x 1024	p	RGBHV
UXGA	UXGA @ 60Hz	1600 x 1200	p	RGBHV
WXGA @ 60Hz	WXGA @ 60Hz	1280 x 800	p	RGBHV
WSXGA @ 60Hz	WSXGA @ 60Hz	1680 x 1050	p	RGBHV
WUXGA @ 60Hz	WUXGA @ 60Hz	1920 x 1200	p	RGBHV

OSD Adjust -

H-Position: Adjust the horizontal position of the OSD

V-Position: Adjust the vertical position of the OSD

Time out: Set a predetermined time to turn the OSD menu off, following inactivity

Background: Select transparent or solid OSD background

Specifications

Power Adapter	5V DC 2.6Amp, Type M connector
Connectors	<p>Input: 1 x Component Video 3-RCA Connecters 1 x Audio 2-RCA Connector 1 x HD15 VGA Connector 1 x HDMI Connector 2 x 3.5mm audio connector</p> <p>Output: 1 x HDMI Connector</p>
Maximum Bandwidth	165MHz
Regulatory certifications	FCC, CE, ROHS

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