



# Gefentv<sup>®</sup>

Composite To HDMI Scaler

GTV-COMPSVID-2-HDMIS

User Manual

[www.gefentv.com](http://www.gefentv.com)

## ASKING FOR ASSISTANCE

---

### Technical Support:

Telephone (818) 772-9100  
(800) 545-6900

Fax (818) 772-9120

### Technical Support Hours:

8:00 AM to 5:00 PM Monday thru Friday PST.

### Write To:

Gefen, LLC  
c/o Customer Service  
20600 Nordhoff St  
Chatsworth, CA 91311

[www.gefentv.com](http://www.gefentv.com)  
[support@gefentv.com](mailto:support@gefentv.com)

### Notice

Gefen, LLC reserves the right to make changes in the hardware, packaging and any accompanying documentation without prior written notice.

**Composite & S-Video To HDMI Scaler** is a trademark of Gefen, LLC

© 2010 Gefen, LLC, All Rights Reserved

All trademarks are the property of their respective companies

**Rev X5**

# CONTENTS

---

- 1 Introduction**
- 2 Operation Notes**
- 3 Features**
- 4 Panel Layout**
- 5 Panel Description**
- 6 Connecting And Operating The Composite & S-Video To Hdmi Scaler**
- 7 Configuring The Composite & S-Video To Hdmi Scaler**
- 12 Specifications**
- 13 Warranty**

# INTRODUCTION

---

Congratulations on your purchase of the Composite & S-Video To HDMI Scaler. Your complete satisfaction is very important to us.

## **Gefen TV**

Gefen TV is a unique product line catering to the growing needs for innovative home theater solutions. We specialize in total integration for your home theater, while also focusing on going above and beyond customer expectations to ensure you get the most from your hardware. We invite you to explore our distinct product line and hope you find your solutions. Don't see what you are looking for here? Please call us so we can better assist you with your particular needs.

## **The Gefen TV Composite & S-Video To HDMI Scaler**

The new GefenTV Composite to HDMI Scaler takes either Composite Video or S-Video as input and converts it to digital HDMI video, then scales it up to a maximum output of 1080p resolution (or 1920x1200 when used with a computer monitor).

## **How It Works**

Simply plug in your Composite or S-Video video source to its input jack on the rear of the Scaler. The Scaler will automatically detect the video frequency and resolution of the source signal, then convert that picture to a digital HDMI video signal. You will then choose the best output resolution and viewing format of the picture on your HDTV via the on-screen menu system (using the optional IR remote) or using the buttons on the front of the Scaler.

## **OPERATION NOTES**

---

### **READ THESE NOTES BEFORE INSTALLING OR OPERATING THE COMPOSITE & S-VIDEO TO HDMI SCALER**

- The Composite & S-video to HDMI Scaler will cross convert between some digital and audio formats. All audio outputs (HDMI, digital TOSLINK, and analog stereo mini-jack) will be active. The Composite & S-video to HDMI Scaler will not, however, down-mix multi-channel audio formats to 2 channel analog stereo. Please see the chart on page 6 for more information.
- To switch between Composite and S-Video inputs, press the “+” button
- Compatible with all HDMI and DVI\* displays.

# FEATURES

---

## Features

- Inputs S-Video or Composite Video at 480i or 576i resolutions
- Outputs HDMI video at resolutions of up to 1080p
- Input resolution is automatically detected while the output resolution and refresh rate can be selected via the on-screen display (OSD) menu system and front panel push-buttons
- 48MB frame buffer for frame rate conversion
- Scales Composite Video and S-Video to HDMI with embedded audio
- Supports video output resolutions for computer equipment at up to 1920x1200

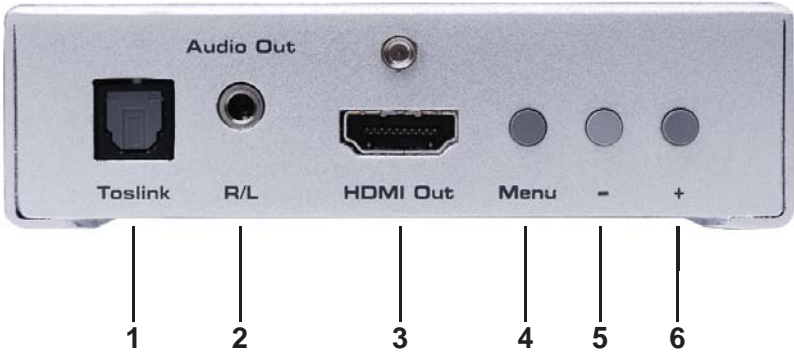
## Package Includes

- 1 - Composite To HDMI Scaler
- 1 - 6 ft 3 RCA Composite Cable (M-M)
- 1 - 5V DC Power Supply
- 1 - User's Manual

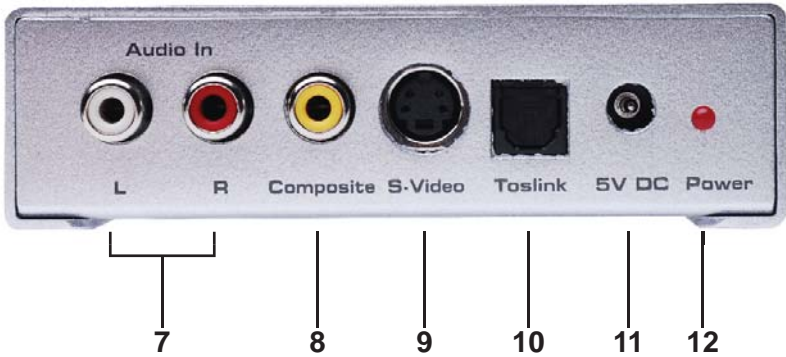
# PANEL LAYOUT

---

## Front Panel



## Back Panel



## PANEL DESCRIPTION

---

### 1 **TOSLINK Audio Output**

Digital TOSLINK audio output. This port is constantly active. It will output 2 channel PCM, Dolby Digital, and DTS formats. Output format is dependant on the chosen input format which can be selected through the on-screen GUI.

### 2 **R/L Analog Audio**

Stereo analog mini-jack output for analog audio. It will only output a stereo analog signal when the selected input is either from digital or analog stereo source. Multi-channel TOSLINK tracks will not be converted to stereo.

### 3 **HDMI Output**

This connector will accept a standard 19 pin HDMI male cable. Video output is scalable to a maximum resolution of 1080p 60Hz. The output resolution is selected through the on-screen GUI. Audio is permanently active through this connection. Both stereo and multi-channel audio is supported, based on the selected audio input.

### 4 **Menu Button**

Pressing this button will activate the on-screen GUI. It is also the confirmation button for all sub menus. Use this button to enter sub menus and to begin adjustment for selected menu items.

### 5 **Down / - Button**

This button will scroll down through menu selections and will decrease the selected adjustment value.

### 6 **Up / + Button**

This button will scroll up through the menu system and will increase the selected adjustment value. This button will also switch between the composite and s-video input sources.

### 7 **Analog Audio Inputs**

Stereo RCA right and left analog audio inputs. Input a stereo analog audio source which will be translated to the digital and analog output ports on the front panel.

### 8 **Composite Video Input**

Standard composite RCA input. This input will accept a composite input of 480i and 576i for the conversion to HDMI. This source is selectable by the Up / + button located on the front panel.

### 9 **S-Video Video Input**

Standard 4 pin s-video input. This input will accept a s-video input of 480i and 576i for the conversion to HDMI. This source is selectable This source is selectable by the Up / + button located on the front panel.

### 10 **TOSLINK Audio Input**

Digital TOSLINK audio input. This port will accept multiple audio formats for translation to the digital and analog audio output ports on the front panel. Multiple audio formats are supported, including 2 channel PCM, multi channel PCM, Dolby Digital, and DTS.

### 11 **Power Input**

Input for the included 5V DC power supply. Please only use the included power supply.

### 12 **Power LED Indicator**

This LED indicator will become active once the power supply is properly connected. If the light is not active, the power supply may not be the correct one, or the unit may have a fault. Please contact GefenTV technical support.

# CONNECTING AND OPERATING THE COMPOSITE & S-VIDEO TO HDMI SCALER

---

## How to Connect the Composite & S-Video To HDMI Scaler

1. Connect the composite or s-video source to the scaler using user supplied cables.
2. Connect the audio source (digital or analog) to the scaler using user supplied cables.

**NOTE:** The Composite & S-video to HDMI Scaler will cross convert between some digital and audio formats. All audio outputs (HDMI, digital TOSLINK, and analog stereo mini-jack) will be active. Composite & S-video to HDMI Scaler will not, however, down-mix multi-channel audio formats to 2 channel analog stereo. Please see the chart below to see if audio will be heard out of a particular output based on the audio input format.

INPUT ►	TOSLINK 2 CHANNEL LPCM	TOSLINK DOLBY DIGITAL & DTS	ANALOG STEREO 2 CHANNEL
OUTPUT ▼			
HDMI	YES	YES	YES
TOSLINK	YES	YES	YES
ANALOG STEREO MINI-JACK	YES	NO	YES

3. Connect the HDMI display to the scaler using a user supplied HDMI cable.
4. Connect the desired audio output to the desired audio device using user supplied cables.
5. Connect the included 5V DC power supply to the scaler.

**NOTE:** Once the unit is connected and powered, the displays native resolution will be detected and set as the output on the Composite & S-video to HDMI Scaler.

## OPERATING THE COMPOSITE & S-VIDEO TO HDMI SCALER

---

Both the Composite and S-Video inputs can be connected at the same time but only one source can be viewed at one time. To switch between the Composite and S-Video inputs, press the - button located on the front panel of the unit.

The Composite & S-video to HDMI Scaler has a built in GUI for navigating the various functions. The GUI is navigated by the front panel buttons or the optional GTV-SR-IR remote control (sold separately).

# **CONFIGURING THE COMPOSITE & S-VIDEO TO HDMI SCALER**

## **Entering the Menu System**

Pressing the Menu button on the front panel will display the GUI (graphical user interface) for adjustment options.

The GUI is overlaid onto the outgoing video to the display. Therefore, the source must be outputting a compatible resolution for viewing on the display. If video is not visible on the display, the GUI will also fail to be displayed. To correct this, please reset the unit by following the steps below follow the steps below.

### **Reset**

1. Verify that the source is on and outputting a video signal.
2. Verify that the display is connected and powered on.
3. Press and hold the menu button, located on the front panel.
4. While holding the menu button, remove the power supply connector from the unit and wait 5 seconds.
5. While continuing to hold the menu button, re-insert the power supply into the unit and then release the menu button.

This will reset the unit and allow it to detect the display's native resolution based on its EDID. If an image is still not being displayed, it is possible that either the display's EDID is corrupt or the Composite & S-video to HDMI Scaler cannot output the display's native resolution. Please call Gefen's technical support line.

## **Navigation**

Navigation of the GUI is accomplished using the front panel buttons. Please see the chart below for the functions of each panel button.

<b>Button</b>	<b>Function</b>
<b>MENU</b>	Shows the On Screen Menu and acts as the confirmation button in all menus
+	Moves menu cursor DOWN the menu / Increases adjustment values (Also Switches between the Composite and S-Video Inputs)
-	Moves menu cursor UP the menu / Decreases adjustment values

# CONFIGURING THE COMPOSITE & S-VIDEO TO HDMI SCALER

## MAIN MENU

The following are the main menu options. Use the - and + buttons to choose your desired subcategory and press Menu to enter it.

**CONTRAST**  
**BRIGHTNESS**  
**FINE TUNE**  
**COLOR**  
**OUTPUT**  
**OSD**  
**AUDIO**  
**INFORMATION**

## CONTRAST

Press the - and + buttons to select the CONTRAST option and press the MENU button to select it. Use the - and + buttons to adjust the CONTRAST setting. When you are finished adjusting the CONTRAST press the MENU button to return to the previous menu.

## BRIGHTNESS

Press the - and + buttons to select the BRIGHTNESS option and press the MENU button to select it. Use the - and + buttons to adjust the BRIGHTNESS setting. When you are finished adjusting the BRIGHTNESS press the MENU button to return to the previous menu.

## FINE TUNE

Press the - and + buttons to select the FINE TUNE option and press the MENU button to select it. There are several sub-categories that are available for adjustment. Select the desired option using the - and + buttons and press the MENU button to begin adjustment. Use the - and + buttons to adjust the selected option and press the MENU button when you are finished. The following options are available:

<b>HUE</b>	Use this option to adjust the image HUE.
<b>SATURATION</b>	Use this option to adjust the color SATURATION.
<b>SHARPNESS</b>	Use this options to adjust the image SHARPNESS.
<b>NR</b>	Use this option to adjust the amount of NOISE REDUCTION to be applied to the video signal.
<b>EXIT</b>	Pressing the MENU button when this option is selected will return you to the MAIN MENU.

## COLOR

Press the MENU button to select the COLOR option. There are several sub-categories that are available for adjustment. Select the desired option using the - and + buttons and press the MENU button to begin adjustment. Use the - and + buttons to adjust the selected option and press the MENU button when you are finished. The following options are available:

# CONFIGURING THE COMPOSITE & S-VIDEO TO HDMI SCALER

## COLOR

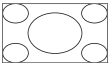
Press the MENU button to select the COLOR option. There are several sub-categories that are available for adjustment. Select the desired option using the - and + buttons and press the MENU button to begin adjustment. Use the - and + buttons to adjust the selected option and press the MENU button when you are finished. The following options are available:

- RED** Use this option to adjust the amount of RED in the video signal.
- GREEN** Use this option to adjust the amount of GREEN in the video signal.
- BLUE** Use this option to adjust the amount of BLUE in the video signal.
- EXIT** Pressing the MENU button when this option is selected will return you to the MAIN MENU.

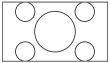
## SIZE

Press the - and + buttons to select the SIZE option and press the MENU button to select it.. There are several sub-categories that are available for adjustment. Select the desired option using the - and + buttons and press the MENU button to begin adjustment. Use the - and + buttons to adjust the selected option and press the MENU button when you are finished. The following options are available:

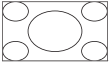
*4:3 Source*



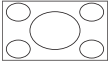
**Full** - Stretches the image to fill the screen



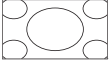
**Pan Scan** - Stretches the image to 4:3 aspect ratio without underscan



**Letterbox** - Stretches the image to 16:9 aspect ratio without underscan



**Underscan** - Stretches the image to fullscreen and just within the border of the screen



**Overscan** - Stretches the image to fullscreen and just beyond the border of the display

# CONFIGURING THE COMPOSITE & S-VIDEO TO HDMI SCALER

## OUTPUT

Press the - and + buttons to select the OUTPUT option and press the MENU button to select it.. There are several sub-options that are available for selection. Select the desired option using the - and + buttons and press the MENU button to select it and exit. The following options are available:

VGA	UXGA	1080i 60	720p 50	WSXGA
SVGA	480i	1080p 60	1080i 50	WUXGA
XGA	480p	576i	1080p 50	Native
SXGA	720p 60	576p	WXGA	

## AUDIO

Press the MENU button to select the AUDIO option. There are several sub-categories that are available for adjustment. Select the desired option using the - and + buttons and press the MENU button to begin adjustment. Use the - and + buttons to adjust the selected option and press the MENU button when you are finished. The following options are available:

- SOURCE** Use this option to select the audio SOURCE. Options are L/R (analog stereo input) and OPTICAL (digital audio input).
- DELAY** Use this option to adjust the audio DELAY. Options are 40, 110, and 150 milliseconds of DELAY.
- SOUND** Use this options to mute all SOUND from the output.
- EXIT** Pressing the MENU button when this option is selected will return you to the MAIN MENU.

## OSD

Press the MENU button to select the OSD option. There are several sub-categories that are available for adjustment. Select the desired option using the - and + buttons and press the MENU button to begin adjustment. Use the - and + buttons to adjust the selected option and press the MENU button when you are finished. The following options are available:

- H-POS** Use this option to select the HORIZONTAL POSITION of the on-screen display.
- V-POS** Use this option to select the VERTICAL POSITION of the on-screen display.
- TIMER** Use this options to adjust how long the on-screen display will remain on the display, in seconds, when there is no user input. After this time period the menu will automatically close.
- BACKGROUND** Use this options to adjust the opacity of the on-screen display's background.
- EXIT** Pressing the MENU button when this option is selected will return you to the MAIN MENU.

# **CONFIGURING THE COMPOSITE & S-VIDEO TO HDMI SCALER**

## **FACTORY RESET**

This option will reset the entire unit to factory settings.

Press the MENU button to select the FACTORY RESET option. Press the MENU button once and a confirmation will appear with the word YES. Press the MENU button once more to confirm a FACTORY RESET.

## **INFORMATION**

Press the MENU button to view information on the current status of the unit. The following categories are displayed:

- |                |  |
|----------------|--|
| <b>SOURCE</b>  | This will display the currently selected source.                   |
| <b>INPUT</b>   | This will display the resolution of the currently selected source. |
| <b>OUTPUT</b>  | This will display the current output resolution.                   |
| <b>VERSION</b> | This will display the current firmware revision.                   |

Pressing the MENU button will return you to the MAIN MENU.

## SPECIFICATIONS

---

Digital Video Amplifier Bandwidth .....	165 MHz
VGA Amplifier Bandwidth .....	10 MHz
Input DDC Signal .....	5 Volts p-p (TTL)
S-Video Connector .....	Mini-DIN
Composite Connector .....	RCA Jack
Power Consumption .....	10 Watts (max)
Power Supply .....	5V DC
Dimensions .....	5"W x 1"H x 3.5"D
Shipping Weight .....	2 lbs.