

Gefen[®]

VGA To DVI Scaler Plus

EXT-VGA-2-DVISP
User Manual



www.gefen.com

ASKING FOR ASSISTANCE

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Notice

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INTRODUCTION

Congratulations on your purchase of the VGA to DVI Scaler Plus. Your complete satisfaction is very important to us.

Gefen

Gefen delivers innovative, progressive computer and electronics add-on solutions that harness integration, extension, distribution and conversion technologies. Gefen's reliable, plug-and-play products supplement cross-platform computer systems, professional audio/video environments and HDTV systems of all sizes with hard-working solutions that are easy to implement and simple to operate.

The Gefen VGA to DVI Scaler Plus

The VGA to DVI Scaler Plus connects traditional analog video graphic cards (VGA) to DVI compliant digital monitors. The VGA to DVI Scaler PLUS enables users to connect laptops or legacy PC computers equipped with HD-15 video connections to the DVI (digital visual interface) video display format. The VGA to DVI Scaler Plus will also work with component video sources such as DVD players and set top boxes. You can even add a converter cable to achieve HDMI video, or go further and merge external audio sources with the HDMI signal to create HDMI video with embedded digital audio.

How It Works

Simply connect the supplied VGA (M-F) cable to the input side of the VGA to DVI Scaler PLUS. Then connect the DVI monitor or projector to the DVI output of the VGA to DVI Scaler Box. The converter generates the compatible analog to digital conversion signals to make the connection between the analog input and the digital output work. Navigation through the menu is easily done via the buttons in the front of the unit.

OPERATION NOTES

READ THESE NOTES BEFORE INSTALLING OR OPERATING THE VGA TO DVI SCALER PLUS

- The VGA to DVI Scaler Plus provides an auto-adjust (auto-sync) feature each time the VGA source is connected to the VGA to DVI Scaler Plus. The VGA to DVI Scaler Plus will also perform an auto-adjust during a hot-plug event, a power-cycle event, or if the resolution is changed.

FEATURES

Features

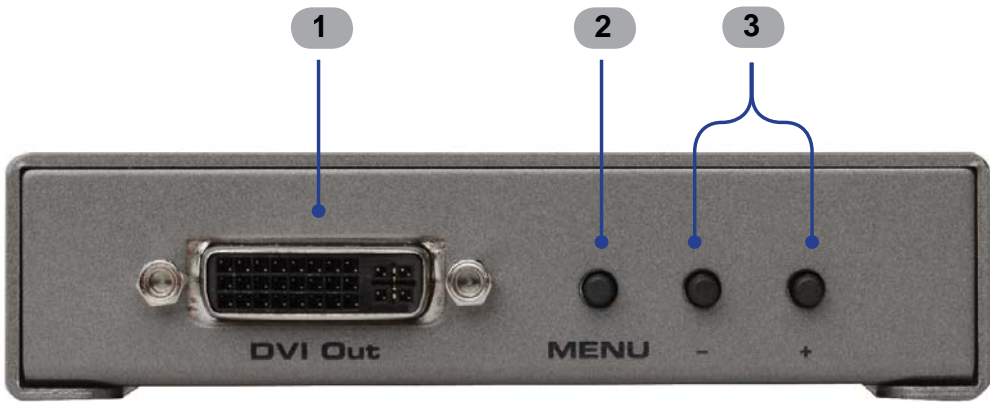
- The input is analog PC or HDTV signal in the format of either RGBHV, YPbPr or YCbCr.
- The output is digital+analog PC or HDTV signal in the format of digital RGBHV bit stream plus analog RGBHV, known as DVI-I (Integrated digital and analog).
- The input resolution is automatically detected while the output resolution and refresh rate can be selected through OSD menu and front panel push buttons.
- 48 MB frame memory for frame rate conversion.
- Output picture adjustment on brightness, contrast, color, RGB level and H-V position.
- DVI output enables an all digital rendering of video without the losses associated with an analog interface and is ideal for use with digital display such as LCD, Plasma and DLP projectors.
- High performance Scaler that converts and scales analog RGB inputs to DVI-I (digital or analog) outputs
- Output resolution can be easily selected using the OSD (On Screen Display)
- Supports input/output computer resolutions up to 1920x1200 / 2048 x 1080 (2K) at 60Hz
- Supports HDTV resolution up to 1080p as input and output.
- Supports DDWG standard for DVI compliant monitors
- Aspect ratio control for native and full view modes
- Controllable by optional IR remote control

Package Includes

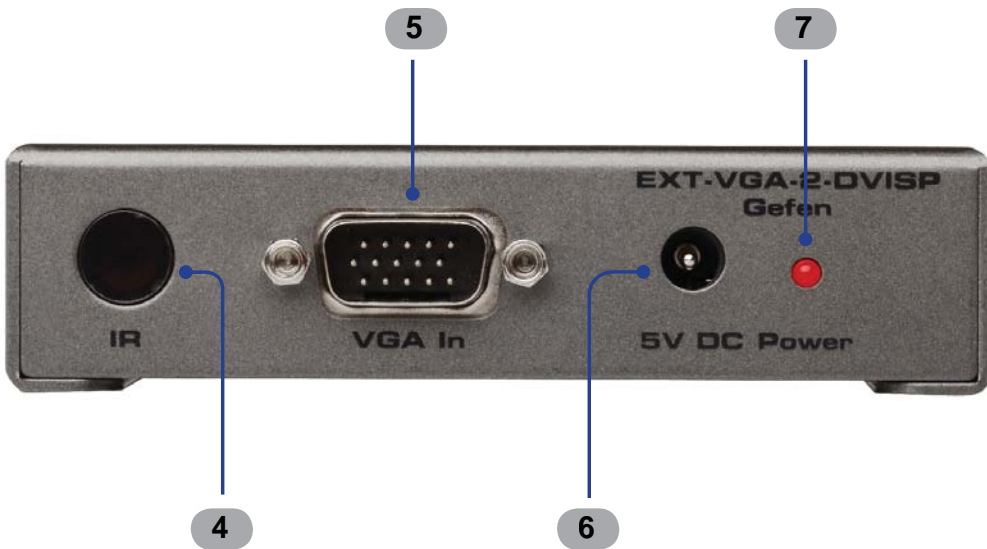
- (1) VGA to DVI Scaler Plus
- (1) 6 ft. VGA cable (M - F)
- (1) 5V DC Power Supply
- (1) Quick-Start Guide

PANEL LAYOUT

Front Panel



Back Panel



PANEL DESCRIPTIONS

1 DVI Out

Connect a DVI cable from this port to a DVI display.

2 Menu

Press this button to display / hide the built-in Menu System.

3 Navigation (- / +)

Press these buttons to change values within the Menu System, such as brightness, color, output resolutions, etc. These buttons are also used to navigate the Menu System. Depress and hold the Menu and the - button to reset the Scaler.

4 IR

Not used.

5 VGA In

Connect a VGA cable from this port to the VGA source.

6 5V DC

Connect the included 5V DC locking power supply to this receptacle.

7 Power

This LED will turn bright red once the included 5V DC power supply has connected to the unit and the power supply has been connected to an available electrical outlet.

CONNECTING THE VGA TO DVI SCALER PLUS

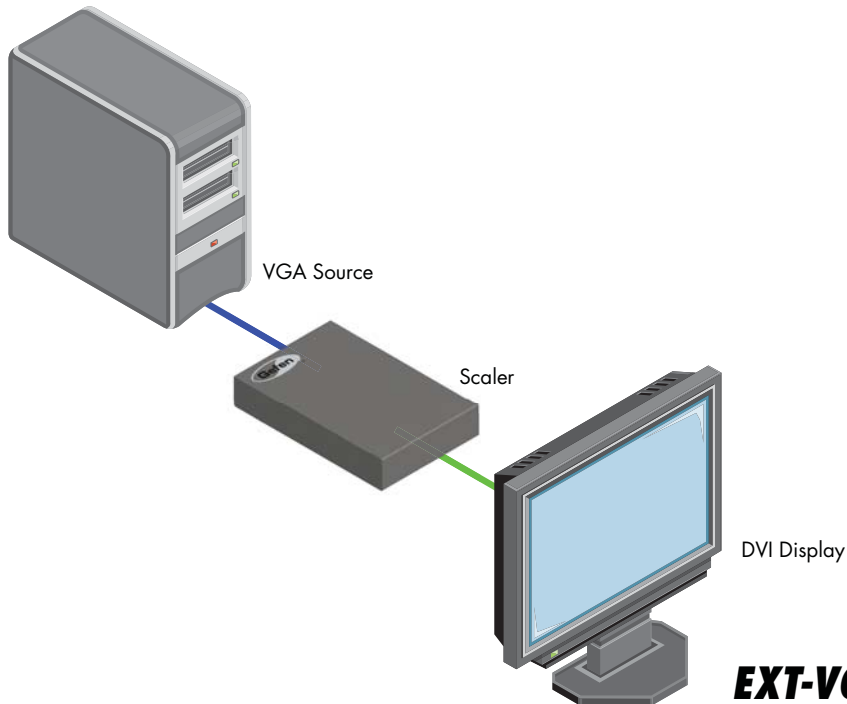
How to Connect the VGA to DVI Scaler Plus

1. Connect the included VGA cable from the VGA source to the VGA In connector on the Scaler.
2. Connect a DVI cable between the DVI Out connector on the Scaler and the DVI display.
3. Connect the 5V DC power supply to the VGA to DVI Scaler Plus, then connect the AC power cord from the power supply to an available electrical outlet. The LED on the VGA to DVI Scaler Plus will turn bright red indicating that the unit is powered.
4. Power-on both the VGA source and the DVI display.

Wiring Diagram for the VGA to DVI Scaler Plus



DVI CABLE 
VGA CABLE 



WARNING: This product should always be connected to a grounded electrical socket.

MENU SYSTEM

PC Menu

To access the PC Menu, press the Menu button on the front panel. Use the + or - buttons to highlight the PC Menu icon. Press the Menu button to enter the PC Menu. Use the + or - buttons to scroll through each of the parameters. After selecting the desired parameter, press the Menu button to make changes. Use the + or - buttons to increase or decrease the values. Press the Menu button to accept the settings.



Contrast

Adjusts the Contrast by increments of 1. Minimum value: 1, Maximum value: 100.

Brightness

Adjusts the Brightness by increments of 1. Minimum value: 1, Maximum value: 100.

H-Pos

Specifies the horizontal position of the input signal.

V-Pos

Specifies the vertical position of the input signal.

Clock

Adjusts the video input clock to bring the picture into focus.

MENU SYSTEM

Phase

Adjusts the phase to bring the picture into focus.

Scale

Sets the scaling adjustment. Options are: Full, Overscan, Underscan, Letterbox U.S. (Underscan), PanScan U.S. (Underscan), Letterbox Full, and PanScan Full.

Exit

Returns control to the Menu System.

Color Menu

To access the Color Menu, press the Menu button on the front panel. Use the + or - buttons to highlight the Color Menu icon. Press the Menu button to enter the Color Menu. Use the + or - buttons to scroll through each of the parameters. After selecting the desired parameter, press the Menu button to make changes. Use the + or - buttons to increase or decrease the values. Press the Menu button to accept the settings.



Color Temp.

- **Normal**
Use for general content.
- **Warm**
Red-shifts RGB values for a warmer video color.

MENU SYSTEM

- **Cool**
Blue-shifts RGB values for a cooler video color.
- **User**
Allows individual adjustment of Red, Green, and Blue color components.

Red

Adjusts the Red value by increments of 1. Minimum value: 1, Maximum value: 100.

Green

Adjusts the Green value by increments of 1. Minimum value: 1, Maximum value: 100.

Blue

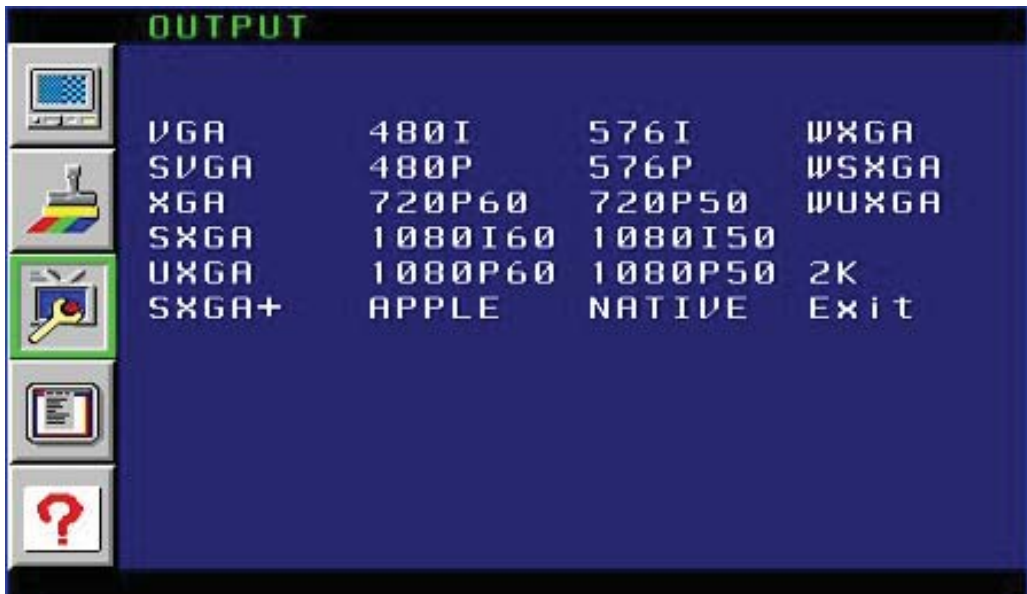
Adjusts the Blue value by increments of 1. Minimum value: 1, Maximum value: 100.

Exit

Exits the Color Menu and returns control to the Main Menu.

Output Menu

To access the Output Menu, press the Menu button on the front panel. Use the + or - buttons to highlight the Output Menu icon. Press the Menu button to enter the Output Menu. Use the + or - buttons to select an output resolution. Press the Menu button to set the new output resolution.



MENU SYSTEM

Output Resolutions

VGA	480i	576i	WXGA
SVGA	480p	576p	WSXGA
XGA	720p60	720p50	WUXGA
SXGA	1080i60	1080i50	
UXGA	1080p60	1080p50	2K
SXGA+	APPLE	NATIVE*	Exit

* The Native option will select the native resolution of the connected display based on the EDID from the display.



If a resolution that is not supported by the display is selected, then the output signal will no longer be visible. If this occurs, reset the Scaler using the procedure outlined on page 12.

Exit

Exits the Output Menu and returns control to the Main Menu.

MENU SYSTEM

OSD Menu

Use the + or - buttons to highlight the OSD Menu icon. Press the Menu button to enter the OSD Menu. Use the + or - buttons to highlight the desired parameter. Press the Menu button to make changes. Use the + or - buttons to change the values. Press the Menu button to accept the changes.



H-Position (Horizontal Position)

Adjusts the horizontal position on the Menu System on the screen. Minimum value: 1, Maximum value: 100.

V-Position (Vertical Position)

Adjusts the vertical position of the Menu System on the screen. Minimum value: 1, Maximum value: 100.

TimeOut

Adjusts the amount of time (in seconds) before the OSD automatically closes. Minimum value: 1, Maximum value: 100.

Background

Sets the transparency level of the OSD background. Minimum value: 0, Maximum value: 8.

Remote Channel

Sets the IR channel for use with the optional IR Remote Control Unit (Gefen part no. EXT-RMT-SR-IR). Minimum value: 0, Maximum value: 3.

Exit

Exits the OSD Menu and returns control to the Main Menu.

MENU SYSTEM

Information Menu

To access the Information Menu, press the Menu button on the front panel. Use the + or - buttons to highlight the Information Menu icon.



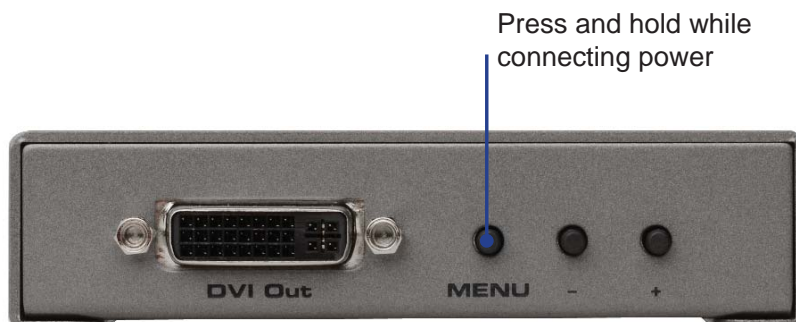
Resetting the Scaler

Resetting the Scaler will reset the output resolution to the native resolution of the display. Should you need to reset the scaler, do the following:

1. Hold down the **MENU** button and remove the power supply.

Note: The MENU button does not work without the source plugged in.

2. Wait three seconds and plug the power supply into the unit.
3. Once unit is powered on, let go of the **MENU** button.
4. After three seconds, the scaler will reset to the displays native resolution.



SPECIFICATIONS

Maximum Pixel Clock.....	165MHz (DVI)
Video Amplifier Bandwidth.....	350MHz (VGA)
Input Sync Signal.....	5V p-p (TTL)
Horizontal Frequency Range.....	15 - 70kHz
Vertical Frequency Range.....	30 - 170Hz
Video Input Connector.....	(1) VGA HD-15, female
Video Output Connector.....	(1) DVI-I 29 pin, female
Power Supply.....	5V DC
Power Consumption.....	10W (max.)
Operating Temperature.....	0° to +40°C / +32 to +104 °F
Storage Temperature.....	-20 to +60°C / -4 to +140 °F
Relative Humidity.....	20 to 90%, non-condensing
Dimensions.....	5.8" W x 4.1" D x 1" H
Shipping Weight.....	3 lbs

WARRANTY

Gefen warrants the equipment it manufactures to be free from defects in material and workmanship.

If equipment fails because of such defects and Gefen is notified within two (2) years from the date of shipment, Gefen will, at its option, repair or replace the equipment, provided that the equipment has not been subjected to mechanical, electrical, or other abuse or modifications. Equipment that fails under conditions other than those covered will be repaired at the current price of parts and labor in effect at the time of repair. Such repairs are warranted for ninety (90) days from the day of reshipment to the Buyer.

This warranty is in lieu of all other warranties expressed or implied, including without limitation, any implied warranty or merchantability or fitness for any particular purpose, all of which are expressly disclaimed.

1. Proof of sale may be required in order to claim warranty.
2. Customers outside the US are responsible for shipping charges to and from Gefen.
3. Copper cables are limited to a 30 day warranty and cables must be in their original condition.

The information in this manual has been carefully checked and is believed to be accurate. However, Gefen assumes no responsibility for any inaccuracies that may be contained in this manual. In no event will Gefen be liable for direct, indirect, special, incidental, or consequential damages resulting from any defect or omission in this manual, even if advised of the possibility of such damages. The technical information contained herein regarding the features and specifications is subject to change without notice.

For the latest warranty coverage information, refer to the Warranty and Return Policy under the Support section of the Gefen Web site at www.gefen.com.

PRODUCT REGISTRATION

Please register your product online by visiting the Register Product page under the Support section of the Gefen Web site.



Rev A8

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This product uses UL listed or CE listed power supplies.