Gefen

VGA to DVI Scaler
USER MANUAL

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Notice
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Congratulations on your purchase of the Gefen VGA to DVI Scaler. Your complete satisfaction is very important to us. Gefen's line of KVM (Keyboard Video & Mouse), DVI, ADC, USB, switches, extenders, converters and hubs is designed to make computer use more comfortable, more productive and less expensive.

KVM switches allow access to multiple computers from a single keyboard, while the extenders give the user control over a computer up to 330 feet away from the work area.

The line offers solutions for noise, space and security concerns, data center control, information distribution, conference room presentation, and school and corporate training environments.

Our Commitment

Gefen will always offer the finest quality product at the best possible price. Included in that price is a lifetime of free support from a team of outstanding engineers.

Introduction

The VGA to DVI Scaler connects traditional analog video graphic cards to DVI compliant digital monitors. It connects laptops or legacy computers equipped with HD-15 video connections to the new DVI (Digital Visual Interface) video display format.

Features

- Input can be analog PC or HDTV signal in the format of either RGBHV, YPbPr or YCbCr.

- Output can be 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)

- Input resolution is automatically detected while the output resolution and refresh rate can be selected through OSD menu and front panel push buttons.

- 48MB frame memory for frame rate conversion.

- Output picture adjustment on brightness, contrast, color, RGB level and H-V position.

- 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 computer resolutions up to 1280x1024 at 75Hz

- Supports output computer resolutions up to 1920x1200*** (See Page 5)

- Will scale 1080i input signals to resolutions up to 1280x1024

- Supports DDWG standard for DVI compliant monitors

 Includes:

(1) VGA to DVI Scaler
(1) 6' VGA cable (M-M)
(1) 5V Power Supply

DVI Out   MENU   −   +
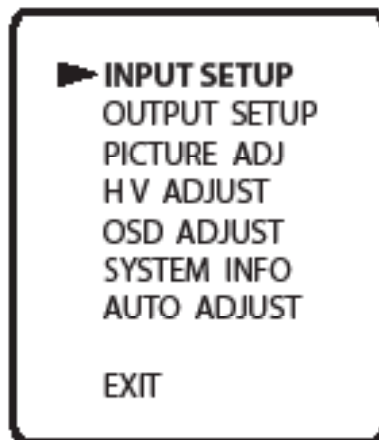
VGA-2-DVIS
Gefen Inc.

VGA In   +5 Vdc Power
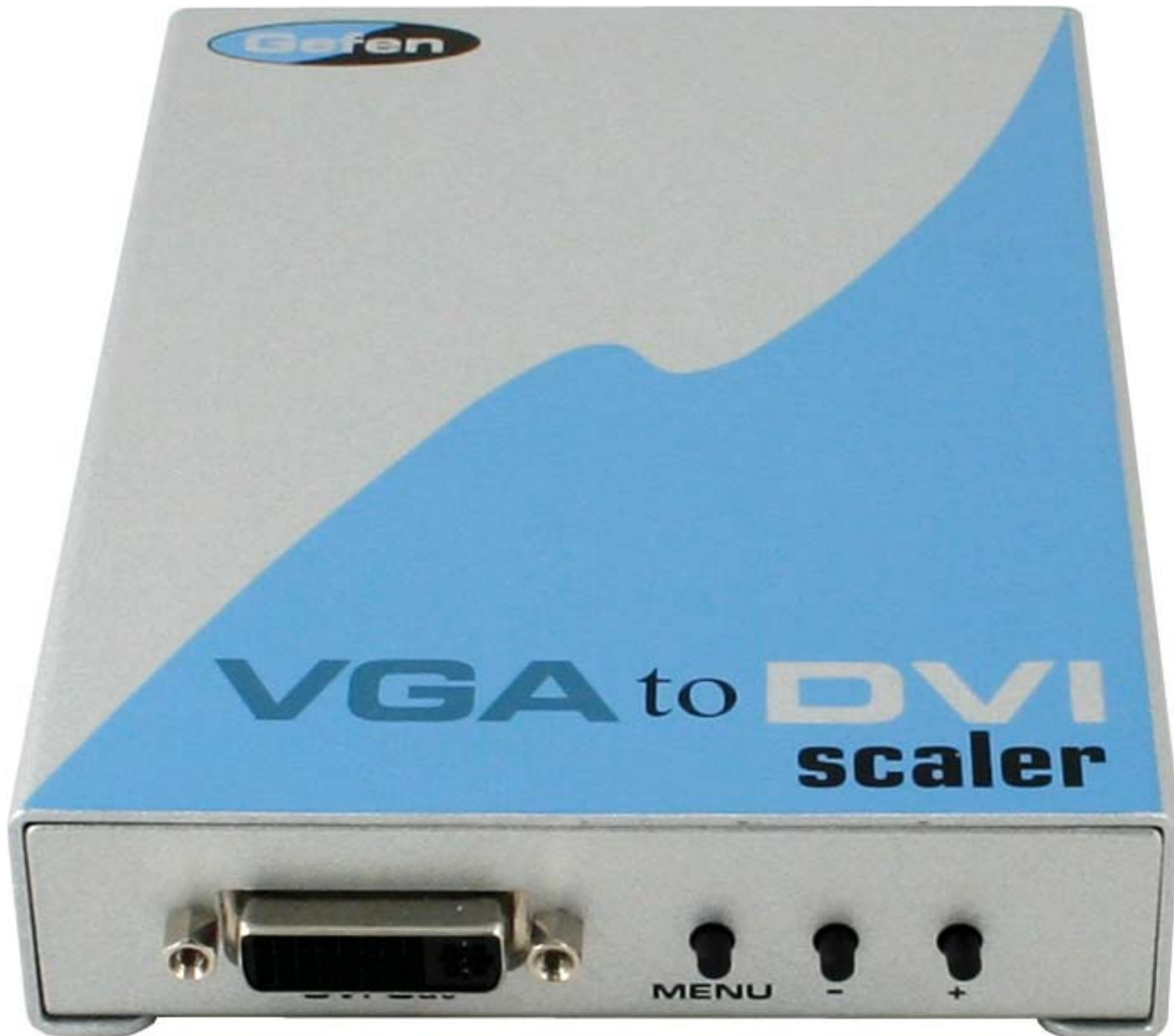
CONNECTING AND OPERATING THE VGA TO DVI SCALER

How to Connect the VGA to DVI Scaler

1- Connect your analog video card to the HD-15 female connector at the input side of the VGA to DVI Scaler. (Note: The Menu button of the VGA to DVI Scaler will not work without a source plugged in)

2- Connect the DVI (m-m) cable between the DVI connector on the digital display and the DVI output of the VGA to DVI Scaler.

3- Connect the power supply.

*Note: The default resolution of the VGA to DVI Scaler is 1024x768 (labeled 15" ADC).

Operating the VGA to DVI Scaler

```
►  INPUT SETUP
    OUTPUT SETUP
    PICTURE ADJ
    H V ADJUST
    OSD ADJUST
    SYSTEM INFO
    AUTO ADJUST

    EXIT
```

| Button	Function
MENU	Shows and Hides the On Screen Menu / Menu and Item Selection
+	Moves menu cursor DOWN the menu / Increases adjustment values
-	Moves menu cursor UP the menu / Decreases adjustment values
Pressing **-** and **+** simultaneously	Resets all settings with output resolution set to **1024x768***
Pressing **MENU** and **-** simultaneously	Resets all settings with output resolution set to **480p****

```
INPUT SETUP

▶ CLOCK    ████████░░░░░    032
  PHASE    ████░░░░░░░░░    012

  EXIT
```
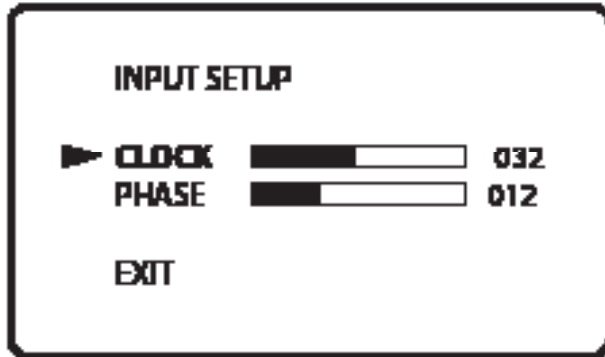
Input Setup Menu
Clock:

Clock adjustment for focus

Phase:

Phase adjustment for focus

– – – – – – – – – –

```
OUTPUT SETUP

▶ DVI A      "DVI D
  MODE      20" DVI

  EXIT
```
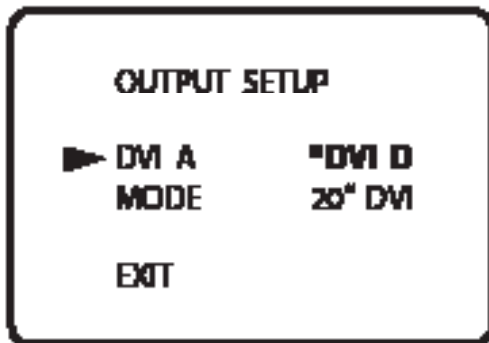
Output Setup Menu

DVI A / DVI D:

The first item in the Output Setup Menu selects DVI A (Analog) Output or DVI D (Digital) Output

Mode:

Selects the desired resolution to output. Resolutions supported by the VGA to DVI Scaler are listed to the right.
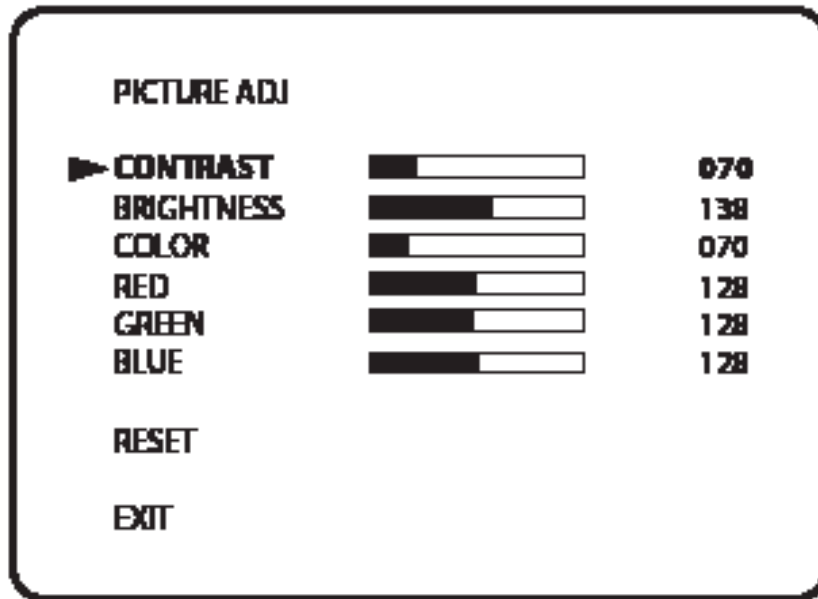
* 1st Reset Setting

** 2nd Reset Setting

*** Input resolutions up to 1280x1024 supported; 1080i input not supported

Output Resolutions supported
(in the order they appear in the menu.)

1. 15" ADC (1024x768)*
2. 640X400 85hz
3. 720x400 70hz
4. 640x480 60hz
5. 640x480 72hz
6. 640x480 75hz
7. 640x480 85hz
8. 800x600 60hz
9. 800x600 72hz
10. 800x600 75hz
11. 800x600 85hz
12. 1024x768 60hz
13. 1024x768 70hz
14. 1024x768 75hz
15. 1024x768 85hz
16. 1280x1024 60hz
17. 1280x1024 75hz
18. 480p**
19. 576p
20. 720p
21. 720p 50hz
22. 1080i***
23. 1080i 50hz***
24. 1280x960 60hz
25. 1152x864 70hz
26. 1152x864 75hz
27. 1280x800 (30" DVI Single Link)
28. 1280x768
29. 22" ADC***
30. 20" ADC***
32. 20" DVI (1680x1050)***
33. 1920x1200***
34. 17" ADC

```
PICTURE ADJ

▶ CONTRAST      ■■□□□□      070
  BRIGHTNESS    ■■■■□□      138
  COLOR         ■■□□□□      070
  RED           ■■■□□□      128
  GREEN         ■■■□□□      128
  BLUE          ■■■□□□      128

  RESET

  EXIT
```

Picture Adjust Menu

Contrast:
    Adjusts the picture contrast

Brightness:
    Adjusts the picture brightness

Color:
    Adjusts overall color of the picture

Red:
    Adjusts the picture's red color saturation

Green:
    Adjusts the picture's green color saturation

Blue:
    Adjusts the picture's blue color saturation

Reset:
    Resets all values to default values

```
HV ADJUST

▶ H POS    ■■■□□    080
  V POS    ■■■■□    021

  EXIT
```
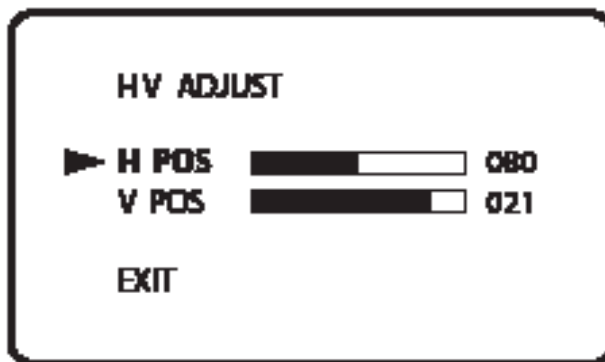
HV Adjust Menu

H POS:
    Adjusts the picture's Horizontal Position

V POS:
    Adjusts the picture's Vertical Position

```
OSD ADJUST

▶ H POS  ■▭▭▭▭▭▭  010
  V POS  ■▭▭▭▭▭▭  010

  EXIT
```
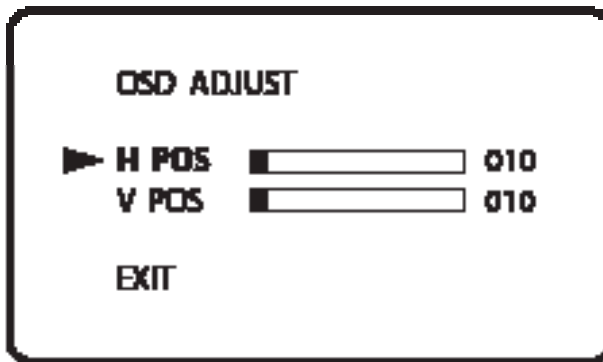
OSD (On Screen Display) Adjust Menu

H POS:

      Adjusts the Horizontal Position of the On Screen Display

V POS:

      Adjusts the Vertical Position of the On Screen Display

— — — — — — — — —

```
GEFEN INC.
VGA TO DVI SCALER

FW REV      1.1
INPUT:      1280 x 1024
OUTPUT:     1920 x 1200
```
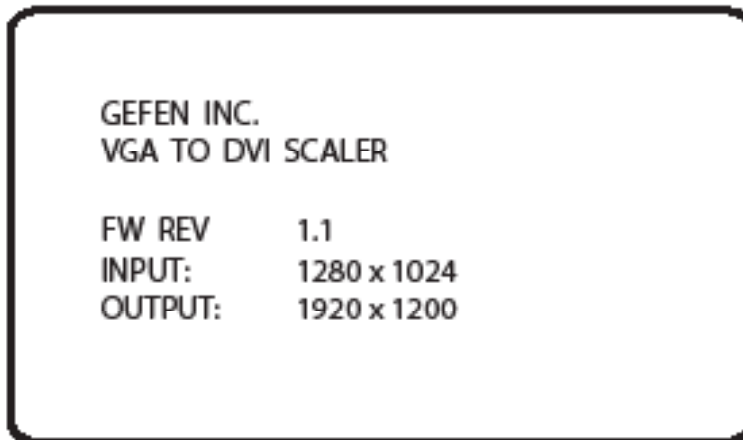
System Information Screen

FW REV:

      Displays the current Firmware version

INPUT:

      Displays the current Input resolution

OUTPUT:

      Displays the current Output resolution

— — — — — — — — —

Auto Adjust

      Resets all values to Factory Default settings

No Picture appears on bootup:

If no picture appears on bootup, first reset the VGA to DVI Scaler to either 480p (for HDTV's) or to 1024x768 (for computer monitors); for more information on resetting the unit's resolution, please see Connecting and Operating the VGA to DVI Scaler on page 4.

Monitors without an internal scaler (Any Apple Display as well as the Dell 30" monitor) require the VGA to DVI Scaler to output the monitor's exact native resolution to display a picture. To set the Scaler to the correct resolution, do the following:

1.   Reset the scaler to 1024x768 by pressing the "**-**" and "**+**" buttons down simultaneously. Wait 10 seconds for the VGA to DVI Scaler to fully reset.

2.   Press the following key combination:
          "**MENU", "+", "MENU", "+", "MENU"**

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

3.   Refer to the list of output resolutions supported on page 5. The current resolution the VGA to DVI Scaler is set to is 15" ADC (1024x768). Press the "-" button to move up the list of resolutions and press the "+" button to move down.

        (NOTE: Pressing the "**-**" button once will change the output resolution from 15"ADC to 17" ADC, which is listed at the bottom of the list.)

4.   When you feel you have reached the correct output resolution, press the "MENU" button to select it. You should see a picture.

5.   If you need to start over for any reason, unplug and replug the power on the VGA to DVI Scaler and then repeat steps 1-4.

SPECIFICATIONS

DVI Bandwidth .... 1.65 GHz

VGA Bandwidth .... 350 MHz

Input Video Signal .... 1.2 volts p-p

Input DDC Signal .... 5 volts p-p (TTL)

Maximum Single Link Range .... 1920 x 1200

DVI Connector Type ....DVI-I 29 pin female

VGA Connector Type HD-15

Power Consumption .... 10 Watts (max.)

Power Supply 5VDC

Dimensions .... 6"W x 1"H x 4"D

Shipping Weight .... 5 Lbs

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

If equipment fails because of such defects and Gefen Inc. is notified within two (2) year from the date of shipment, Gefen Inc. 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 cable must be free from any scratches, markings, and neatly coiled.

The information in this manual has been carefully checked and is believed to be accurate. However, Gefen Inc. assumes no responsibility for any inaccuracies that may be contained in this manual. In no event will Gefen Inc., 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 VGA to DVI Scaler features and specifications is subject to change without notice.