Gefen

1:4 Distribution Amplifier
For HDMI™

Model # EXT-HDMI-144

U S E R   M A N U A L

1080P
PROGRESSIVE

HDMI
HIGH-DEFINITION MULTIMEDIA INTERFACE

HDTV

HD DVD

Blu-ray Disc™

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INTRODUCTION

The Gefen 1:4 HDMI Distribution Amplifier is the perfect solution for anyone who needs to send one source of digital high definition video to multiple displays at the same time. It supports all HDMI equipment, such as DVD players and satellite set top boxes and all HDMI displays. In operation, the digital video source is connected to the distribution amplifier's one input while four HDMI outputs are available to be used in part or in full. Once the unit is connected and powered, your source can be distributed up to four digital displays at the same time.

How It Works

Simply connect your HDMI video source to the 1:4 HDMI Distribution Amplifier's input using the supplied HDMI cable. Then connect up to four HDMI displays to the unit's four HDMI outputs. Once connected and powered, your source can be seen on all four displays at the same time. When two or more 1:4's are connected together, you can create a larger distribution system.

OPERATION NOTES

READ THESE NOTES BEFORE INSTALLING OR
OPERATING THE 1:4 DISTRIBUTION AMPLIFIER FOR HDMI

• This device supports advanced EDID management. Please see pages 5 & 6 for complete details

• HDMI/HDCP compliant

• Compatible with all HDMI and DVI* displays

*When used with a HDMI to DVI adapter

Features

• Connects up to four HDMI/DVI* displays at the same time to one video source

• Allows simultaneous display

• Supports resolutions up to 1080p, 2K, and 1920 x 1200

• Extends the range of HDMI compliant devices by equalizing and re-clocking the HDMI signal

• HDMI/HDCP compliant

Includes:

(1) 1:4 Distribution Amplifier For HDMI
(1) 6 Ft HDMI cable (M-M)
(1) 5V DC Power Supply
(1) Set of Rack Ears
(1) Users Manual

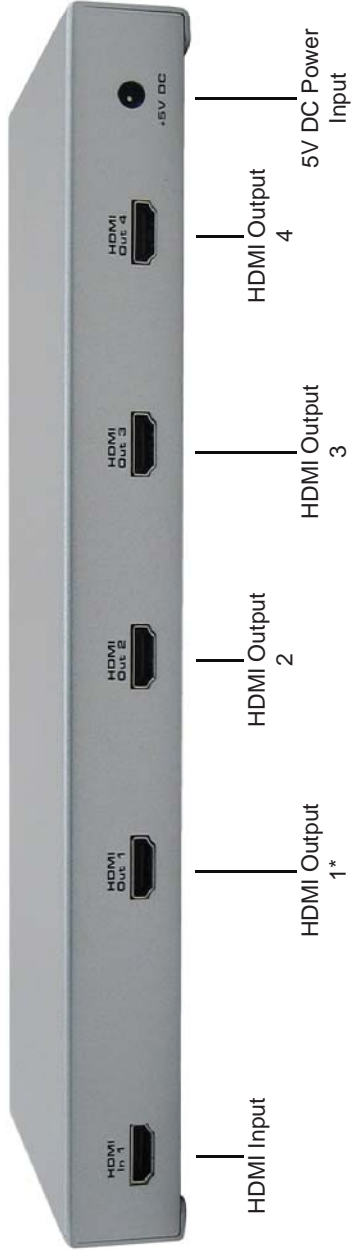*When used with a HDMI to DVI adapter

Front Panel

Power LED
Indicator

1x4 HDMI splitter
HDMI/HDCP COMPLIANT

Gefen

Back Panel

5V DC Power
Input

HDMI Output
4

HDMI Output
3

HDMI Output
2

HDMI Output
1*

HDMI Input

How to Connect the 1:4 Distribution Amplifier For HDMI

1   Connect the supplied cable from the HDTV HDMI source into the HDMI input port of the 1:4 Distribution Amplifier For HDMI.

2   Connect the user supplied cable(s) from your display(s) into the HDMI output port(s) of the1:4 Distribution Amplifier For HDMI.

3   Plug the 5V DC power supply into the 1:4 Distribution Amplifier For HDMI.

EDID MANAGEMENT FEATURE

EDID. What is it and what is it used for?

Under normal circumstances, an source device (digital and analog) will require information about a connected device/display to assess what resolutions and features are available. The source can then cater its output to send only resolutions and features that are compatible with the attached device/display. This information is called EDID (Extended Display Information Data) and a source device can only accept and read one EDID from a connected device/display. Likewise, the source an only output one resolution for use by a connected device/display.

Why is EDID so important with the 1:4 Distribution Amplifier for HDMI?

The 1:4 Distribution Amplifier for HDMI is complex piece of technology that replicates a single source to multiple outputs. The single source device will require one EDID to read. EDID management is carefully handled by 1:4 Distribution Amplifier for HDMI to provide a single EDID for the source to read.

What options do I have to manage the EDID in the 1:4 Distribution Amplifier for HDMI?

First, it is important to note that each source device can only output one video/audio signal type. This includes resolutions and timings. When multiple devices/displays are used, such as with the 1:4 Distribution Amplifier for HDMI, it is important to use devices/displays that have similar or compatible resolutions/features. This will ensure that the single video/audio signal produced by the source device is accepted by all of the connected output devices/displays.

The user has the option, through a combination of DIP switch settings within the 1:4 Distribution Amplifier for HDMI, to choose how the unit will manage the EDID from multiple HDMI devices/displays. Therefore the user has some control over the resolutions/features that the source device will output. The 1:4 Distribution Amplifier for HDMI has a multiple EDID management modes that will control how the EDID information from multiple devices/displays are combined, ignored, and routed.

How do I change EDID modes in the 1:4 Distribution Amplifier for HDMI?

There is an bank of 8 DIP switches located on the main-board inside of the 1:4 Distribution Amplifier for HDMI. DIP switches 1, 2, 5, and 7 are used in different combinations to manage the EDID modes.

To access these DIP switches it will be required to open the unit. To do this, remove all screws on the underside and side of the unit. Remove all HEX screws on the rear panel. This includes the screws above each HDMI port. Carefully slide the unit apart and locate the DIP switch bank on the main-board.

EDID Modes

The diagram below illustrates the 8 DIP switch bank.
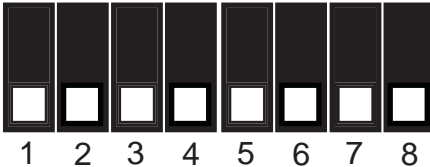
DIP SWITCH	Function
1	EDID Mode
2	EDID Mode
3	N/A
4	N/A
5	EDID Mode
6	N/A
7	EDID Mode
8	N/A

1 2 3 4 5 6 7 8

Use DIP switches 1, 2, 5, and 7 to select the desired EDID management mode.

EDID Mode 0 (Switch 1=OFF Switch2=OFF Switch5=ON)

- Edid is copied from the device connected to the first active hdmi output port.
- All features newer that HDMI 1.2 are cleared.

EDID Mode 1 (Switch 1=ON Switch2=OFF Switch5=ON)

- Same as Mode 0 and adds basic audio support.

EDID Mode 2 (Switch 1=OFF Switch2=ON Switch5=ON)

- Same as Mode 0 and adds full audio support.

EDID Mode 3 (Switch 1=ON Switch2=ON Switch5=OFF)

- EDID is generated based on the common video and audio features of all of the connected output devices.

EDID Mode 4 (Switch 1=OFF Switch2=ON Switch5=OFF)

- Same as Mode 3 and adds basic audio support**.**

EDID Mode 5 (Switch 1=ON Switch2=OFF Switch5=OFF)

- Same as Mode 3 and adds full audio support.

EDID Mode 6 (Switch 1=OFF Switch2=OFF Switch5=OFF) DEFAULT

- EDID is generated based on the common video features of all of the connected devices and the combined audio features of all of the connected output devices.

EDID Mode 7 (Switch 1=ON Switch2=ON Switch5=ON)

- EDID is passed unmodified from the device connected to the first active output port.

SPECIFICATIONS

Video Amplifier Bandwidth .... 165 MHz

Input Video Signal .... 1.2 Volts p-p

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

Single Link Range ....1080p / 1920 x 1200

Input Connector Type .... HDMI Type A 19 Pin

Output Connector Type ....HDMI Type A 19 Pin

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

Power Supply .... 5V DC

Dimensions .... 12"W x 1.25"H x 4.125"D

Shipping Weight .... 5 Lbs