

Gefen

2X2 Switcher for HDMI 1.3

EXT-HDMI1.3-242

User Manual



www.gefen.com

1080P
PROGRESSIVE

HDMI
HIGH DEFINITION MULTIMEDIA INTERFACE

HD TV

HD DVD

Blu-ray Disc™

ASKING FOR ASSISTANCE

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Rev A1

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INTRODUCTION

Congratulations on your purchase of the 2x2 Switcher for HDMI 1.3. 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 2x2 Switcher for HDMI 1.3

Gefen's 2x2 Switcher for HDMI 1.3 is equipped with two HDMI inputs and two HDMI outputs. Two inputs accommodate the simultaneous connection of up to two high definition video sources, such as satellite systems and Blu-Ray players. Two outputs send the high definition audio/video signals to up to two HDTV displays. Switching is done via the included IR remote.

How It Works

Connect all your sources to the 2x2 Switcher for HDMI 1.3 inputs. Then connect up to two displays on the output ports. Once the sources, the switcher and the displays are powered and connected, you then select which source you want to view using the IR remote.

Note:

All displays that cannot show the same video resolution(s) as the Primary Display connected to Output #1 may fail to show a picture. Secondary displays follow the Primary by sharing the resolution and capability information (EDID) obtained from the Primary Display.

OPERATION NOTES

READ THESE NOTES BEFORE INSTALLING OR OPERATING THE 2X2 SWITCHER FOR HDMI 1.3

- Display information (EDID) is needed by the source to determine the capabilities of the connected display. This is especially important for HDMI 1.3 sources because without the right information in the EDID none of the features for HDMI 1.3 will be enabled. The 2x2 Switcher for HDMI 1.3 features an EDID selection that will allow the user to choose an external EDID from an attached display or an built-in internal EDID. Please see page 6 for more details.
- The source device will output a single video resolution that all displays must be capable of accepting.
- This devices is HDMI 1.3 compliant. Please see page 3 for supported HDMI 1.3 features.
- Supports HDTV resolutions up to 1080p Full HD and computer resolutions of 1900 x 1200.

FEATURES

Features

- Switch easily between any two HDMI™/DVI sources
- Outputs are mirrored to two HDMI™/DVI displays simultaneously
- Maintains high resolution video - beautiful, sharp HDTV resolutions up to 1080p, 2k, and computer resolutions up to 1920 x 1200 are easily achieved
- Discrete IR remote (included)
- HDMI™ and HDCP compliant

HDMI 1.3 Features

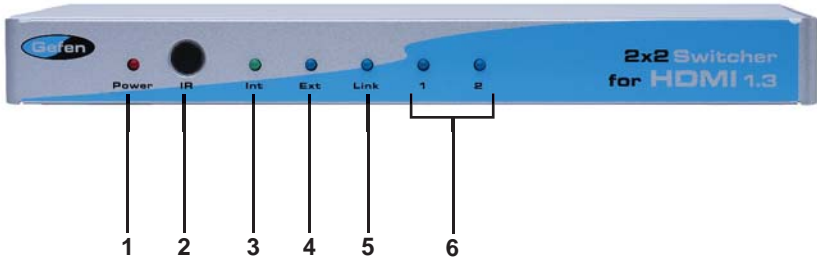
- Lip-Sync Pass Through
- 225 MHz (up to 12 bit YUV 444 supported @ 1080p)
- Deep Color Supported (XV Color Supported)
- Color Space Conversion Supported
- Dolby TrueHD & DTS Master Supported
- CEC Pass Through

Package Includes

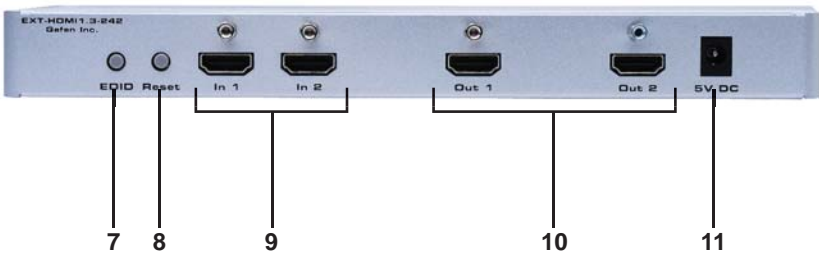
- (1) 2x2 Switcher for HDMI 1.3
- (1) RMT-2IR Remote Control
- (2) 6-Foot HDMI cables
- (1) 5V DC Power Supply
- (1) User's Manual

PANEL LAYOUT

Front Panel



Back Panel



PANEL DESCRIPTIONS

1 Power LED Indicator

This LED will become active once the included 5V DC power supply is properly connected between the unit and a open wall power receptacle.

2 IR (Infrared) Receiver

This receiver will accept command for switching between input HDMI devices using the included RMT-2IR remote control.

3 Internal EDID Mode LED Indicator

This LED will become active when the unit is using the pre-loaded EDID. Please see page 6 for more details.

4 External EDID Mode LED Indicator

This LED will become active when the unit is using the EDID from the HDMI device connected to HDMI output port 1. Please see page 6 for more details.

5 Link LED Indicator

This LED will become active when the unit is properly connected to an HDMI capable device on either of the HDMI output ports.

6 Currently Selected Input LED Indicator

There is one LED for each of the four input ports. The LED for the currently selected HDMI input will be active.

7 EDID Selection Toggle Button

This button will toggle between the internal external EDID modes. To determine which mode is currently being used, please note which EDID mode LED is active on the front panel of the unit.

8 Reset Button

This button will reset the unit and force all devices in the chain to re-transmit/re-read EDID. It is essential that the unit be reset after the EDID mode has been changed. Please see page 6 for more details.

9 HDMI Input Ports 1-2

Connect up to 2 HDMI source devices to these HDMI input ports. Selection between these inputs are made using the included RMT-2IR remote control.

10 HDMI Output Ports 1-2

Connect up to 2 HDMI capable devices to these HDMI output ports. The currently selected HDMI input source device will be output through both of these HDMI output ports.

11 5V DC Power Input Port

Connect the included 5V DC power supply between this port and an open wall power receptacle.

CONNECTING AND OPERATING THE 2X2 SWITCHER FOR HDMI 1.3

How to Connect the 2x2 Switcher for HDMI 1.3

1. Connect up to two HDMI source devices to the 2x2 Switcher for HDMI 1.3 using the supplied HDMI cables.
2. Connect up to two HDMI capable devices to the 2x2 Switcher for HDMI 1.3 using the supplied HDMI cables.

NOTE: The display connected to the port labeled OUT 1 will have its EDID used when the external EDID mode is active. If there are displays with different resolutions in the setup it is recommended that the display with the lowest resolution be placed on the HDMI port labeled OUT 1. This way, all of the displays should be able to display an image when the external EDID mode is active.

3. Connect the included 5V DC power adapter to the 2x2 Switcher for HDMI 1.3 power input port.
4. Power on the displays first and then the source.

How to Operate the 2x2 Switcher for HDMI 1.3

Use the included RMT2-IR remote control to switch between HDMI inputs. Please see page 7 for a description of the RMT2-IR remote control.

EDID Modes and Reset Buttons

The EDID source is selectable between the display connected to the HDMI output port labeled OUT 1 or the built-in internal EDID. These 2 modes are selectable by toggling the EDID button located on the back panel. To switch modes, follow the instructions below.

1. Note the current EDID mode by viewing the front panel's LED array. If the INT LED is active the internal EDID mode is in use. If the EXT LED is active the external EDID mode is in use.
2. If the currently selected EDID mode is not the desired EDID mode, press the EDID button on the rear panel once. The active LED will now switch and the new EDID mode will become active once the unit is reset.
3. Press the reset button to cycle power and initiate the newly selected EDID mode.

The EDID carries import information that the source reads to determine what resolutions and features are supported. The internal EDID has support for resolutions up to 1080p and includes Dolby TrueHD and DTS-HD features.

RMT2-IR REMOTE CONTROL DESCRIPTION



The included RMT-2IR remote control is used to switch between inputs on the 2x2 Switcher for HDMI 1.3. Only one input can be selected at a time and this input is then mirrored to the four HDMI outputs on the rear panel.

Switching

Press the 1 button to switch to HDMI input 1.

Press the 2 button to switch to HDMI input 2.

IR CHANNEL CONFIGURATION

Why would I need to change the remote channel?

In some instances, the 2x2 Switcher for HDMI 1.3 may use IR codes that conflict with other IR remote control devices. The unit may switch inputs when another brand IR remote control is used or the RMT-2IR may cause other brand IR controlled devices to behave unexpectedly.


I am experiencing the issues listed above. What do I do?

In these cases it is recommended to change the IR channel that the RMT-2IR remote control and the 2x2 Switcher for HDMI 1.3 use. The IR channel is configured independently on the RMT-2IR remote control and the 2x2 Switcher for HDMI 1.3 but the channel selection must match on both units for proper operation.

How Do I change the Remote Channel?





There are service DIP switches on the RMT-2IR remote control for channel configuration. The 2x2 Switcher for HDMI 1.3 uses a combination of buttons on the rear panel to configure the IR channel. There are 4 channels available for use. Please use the diagram below and information on the next page to locate and change the IR channel to one that is not the default. Remember that the IR channel must match on both the unit and remote control for successful operation.

RMT-2IR Remote Control



Remove the battery cover on the rear side of the RMT-2IR remote control to expose the DIP switches.

2 DIP switch bank for IR channel configuration.

Remote Channel 1: Default		Remote Channel 2:	
	1 2		1 2
Remote Channel 3:		Remote Channel 4:	
	1 2		1 2

IR CHANNEL CONFIGURATION

2x2 Switcher for HDMI 1.3

LED Indicators

The 2x2 Switcher for HDMI 1.3 uses inactive LED and blinking LED combinations to indicate to the user which channel is currently active. The **Currently Selected Input LED Indicators** (Item 6 on page 4 and 5) are the two LEDs used to indicate the IR channel. These LED's will directly correspond to DIP switches 1 and 2 on the RMT-2IR remote control.

LED Input Indicator 1 corresponds to DIP switch 1 on the RMT-2IR remote control.

LED Input Indicator 2 corresponds to DIP switch 2 on the RMT-2IR remote control.

An inactive LED will correspond to a DIP switch set to OFF.

A blinking LED will correspond to a DIP switch set to ON.

For example: IR Channel 2 would be indicated by the following:

RMT-2IR:	DIP switch 1 - ON
	DIP Switch 2 - OFF

Main Unit:	LED Input Indicator 1 - Blinking
	LED Input Indicator 2 - OFF

Changing IR Channels on the 2x2 Switcher for HDMI 1.3.

The 2x2 Switcher for HDMI 1.3 will use the EDID and Reset buttons, located on the rear panel, for IR channel configuration. Use the steps below to change the IR channel. Please ensure that the IR channel matches on both the RMT-2IR remote control and the 2x2 Switcher for HDMI 1.3.

1. Press and hold down the EDID button.
2. While holding the EDID button, press the Reset button once.
3. The LED indicators for the current IR channel will be active.
4. While holding the EDID button, press the Reset button once to cycle to the next IR channel. The LED indicators will indicate the IR channel change.
5. Repeat step 4 until the desired channel is reached.

Note: The IR channel will cycle from Channel 1 through Channel 4 and then cycle back to Channel 1.

SPECIFICATIONS

Video Amplifier Bandwidth	225 MHz
Input Video Signal	1.2 Volts p-p
Input DDC Signal	5 Volts p-p (TTL)
Single Link Range	1080p/60 12 bit color depth, 1920x1200
HDMI Connector	Type A 19 Pin Female
Power Supply	5V DC
Power Consumption	10 Watts (max)
Dimensions	12"W x 1.25"H x 4.25"D
Shipping Weight	6 lbs.