

Gefen

8x1 Switcher for HDMI 1.3

EXT-HDMI1.3-841

User Manual



www.gefen.com

1080P
PROGRESSIVE

HDMI™
HIGH DEFINITION MULTIMEDIA INTERFACE

HDTV

HD DVD

Blu-ray Disc™

ASKING FOR ASSISTANCE

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INTRODUCTION

Congratulations on your purchase of the 8x1 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 8x1 Switcher for HDMI 1.3

The Gefen 8x1 Switcher for HDMI 1.3 routes eight different HD sources at resolutions of up to 1080p full HD to a single HDTV display. This unit supports HDMI 1.3 which adds features such as enhanced color and audio capabilities that enrich the Hi-Def experience.

The availability of up to eight HDMI inputs makes this unit ideal for simultaneous connection of multiple HDMI devices such as set-top boxes, satellite systems, Blu-Ray players, and gaming consoles such as the XBox 360 and PlayStation 3.

How It Works

You simply connect all your sources to the Switcher's inputs. Then connect the display on the output port. Once the sources, the Switcher and the display(s) are powered and connected, you simply select which source you want to view using the IR remote.

OPERATION NOTES

READ THESE NOTES BEFORE INSTALLING OR OPERATING THE 8X1 SWITCHER FOR HDMI 1.3

- This device 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 eight HDMI sources
- Extends the range of HDMI compliant devices by equalizing and reclocking the HDMI signal
- Serial RS-232 port for remote switching
- Discrete IR remote included
- HDMI and HDCP pass-through

HDMI 1.3 Features

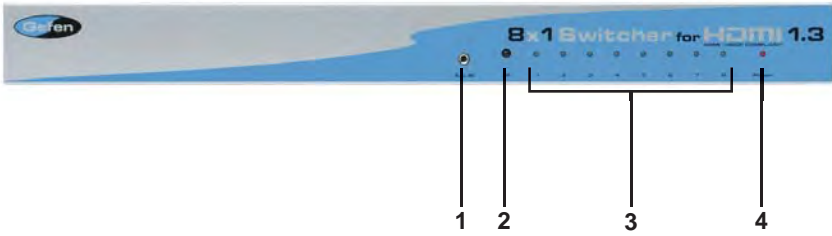
- Dolby TrueHD & DTS Master Audio
- Deep Color Supported (XV Color)
- 225 MHz (up to 12 bit YUV 444 supported @ 1080p)
- CEC Protocol Pass Through
- Lip-Sync Pass Through

Package Includes

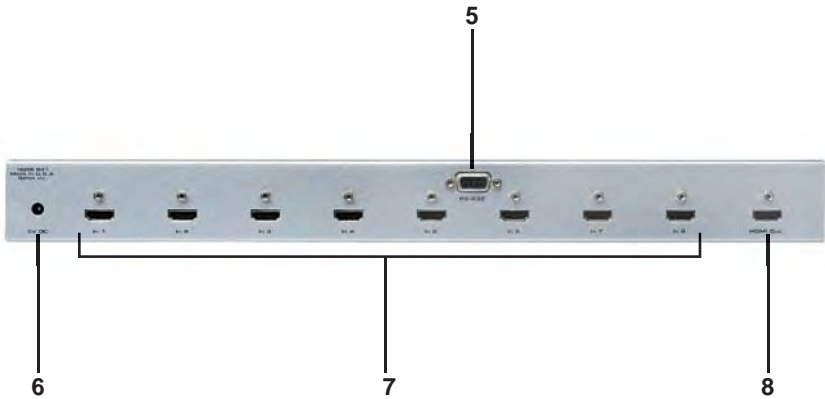
- (1) Gefen Switcher for HDMI 1.3
- (8) 6 Foot HDMI cables (M-M)
- (1) 5V DC Power Supply
- (1) RMT-8IR Remote control
- (1) User's Manual

PANEL LAYOUT

Front Panel



Back Panel



PANEL DESCRIPTIONS

1 *Infrared (IR) Receiver Extension Port*

This port will accept an optionally purchased IR extension cable (Gefen part# EXT-RMT-EXTIR). This is useful for installations where the IR receiver, located on the front panel (Item 2 on this page), is not in line-of-sight with the IR remote control used to relay commands to the device at the sender's location.

2 *Infrared (IR) Receiver*

This IR receiver will relay IR commands from the receiving unit to the sending unit for output to a IR transmitter (blaster) on a IR controllable device.

3 *Currently Selected Input LED Indicator*

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

4 *LED Power Indicator*

This LED will become active once the included 5V DC power supply is properly connected between the sender and an open wall power socket.

5 *RS-232 Serial Communication port*

This port will accept a DB-9 serial communication cable for control by a separate device. This port only uses the send, receive, and ground pins. Please see page 9 for more information.

6 *5V DC Power Receptacle*

This receptacle will require power from the included 5V DC power supply for proper operation. Connect the included power supply between this port and an open wall power socket.

7 *HDMI Input Ports 1-8*

Connect up to eight HDMI source devices to these HDMI input ports. Selection of the viewable input is executed by the included RMT-8IR remote control or by an external device that uses the RS-232 serial communication port.

8 *HDMI Output Port*

Connect one HDMI capable device (i.e. HDMI display) to this HDMI output port. The currently selected HDMI input source device will be output through this port.

CONNECTING AND OPERATING THE 8X1 SWITCHER FOR HDMI 1.3

How to Connect the 8x1 Switcher for HDMI 1.3

1. Connect up to eight HDMI source devices to the 8x1 Switcher for HDMI 1.3 using the supplied HDMI cables (8 are included).
2. Connect one HDMI capable device (i.e. HDMI display) to the 8x1 Switcher for HDMI 1.3 using a user supplied HDMI cable.
3. Connect the included 5V DC power supply to the power receptacle on the 8x1 Switcher for HDMI 1.3. Connect the power plug on the opposite end to an open wall power socket.
4. Initialize (power on) the HDMI capable output device (i.e. HDMI display) first and then the HDMI source devices.

How to Operate the 8x1 Switcher for HDMI 1.3

Use the included RMT8-IR remote control to switch between HDMI inputs. Please see page 7 for a description of the RMT8-IR remote control.

RMT-8IR REMOTE CONTROL DESCRIPTION



The included RMT-8IR remote control is used to switch between inputs on the 8x1 Switcher for HDMI 1.3. Only one input can be selected at a time and this input is then output through the single HDMI output port 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.

Press the 3 button to switch to HDMI input 3.

Press the 4 button to switch to HDMI input 4.

Press the 5 button to switch to HDMI input 5.

Press the 6 button to switch to HDMI input 6.

Press the 7 button to switch to HDMI input 7.

Press the 8 button to switch to HDMI input 8.

IR CHANNEL CONFIGURATION

Why would I need to change the remote channel?

In some instances, the 8x1 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-8IR 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-8IR remote control and the 8x1 Switcher for HDMI 1.3 use. The IR channel is configured independently on the RMT-8IR remote control and the 8x1 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-8IR remote control and also inside the 8x1 Switcher for HDMI 1.3. Use the diagrams below to locate and change the IR channel to one that is not the default. Remember that the channel must match on both the unit and remote control for successful operation.

RMT-8IR Remote Control







Remove the battery cover on the rear side of the RMT-8IR 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

8x1 Switcher for HDMI 1.3

The IR channel DIP switches for the 8x1 Switcher for HDMI 1.3 are located on an 4 bank DIP switch on the underside of the unit. The DIP switch bank is hidden under a piece of silver metallic tape. Remove the tape and locate DIP switches 1 and 2. DIP switches 1 and 2 on the unit correspond to DIP switches 1 and 2 on the IR remote control. The channel must match on both devices for successful operation. DIP switches 3 and 4 are not used.

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

RS-232 SERIAL COMMUNICATION

What features are available via the RS-232 serial communications port?

The 8x1 Switcher for HDMI 1.3 can accept commands through the RS-232 serial communications port located on the rear panel. The current RS-232 control features are:

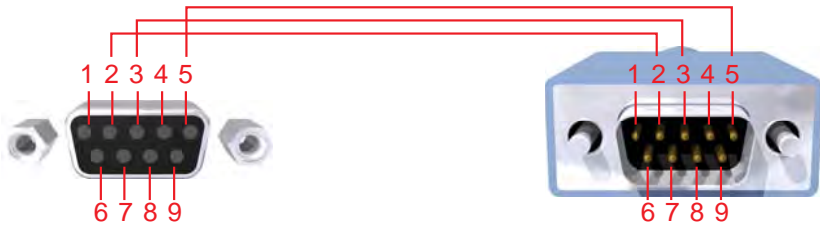
- Switching/routing of inputs to outputs without the RMT-8IR remote control.

How do I use these features?

These features were initially intended for utilization by custom installers in automated setups. However, these features can be tested by using any Windows PC with the Hyperterminal program.

What pins are used for communication with the 8x1 Switcher for HDMI 1.3?

Only pins 2 (Receive), 3 (Transmit), and 5 (Ground) are used for communication. A null-modem adapter should not be used with this product.



Only Pins 2 (RX), 3 (TX), and 5 (Ground) are used on the RS-232 serial interface

What are the communication port settings?

Bits per second 19200
Data bits 8
Parity None
Stop bits 1
Flow Control None

Switching/Routing Binary Table

ASCII	Corresponding RMT16-IR Button	Binary
1	1	0011 0001
2	2	0011 0010
3	3	0011 0011
4	4	0011 0100
5	5	0011 0101
6	6	0011 0110
7	7	0011 0111
8	8	0011 1000

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
Remote Control Port	RS232 female, mini-stereo 3.5mm jack
Power Supply	5V DC
Power Consumption	10 Watts (max)
Dimensions	13.25"W x 1"H x 2.75"D
Shipping Weight	6 lbs.