6 HDMI sources to 2 HDMI displays

Optional Accessories

RMT IR Extender

6x2 HDMI Switcher

Connect and Access One of Multiple Sources from the Same Display(s)

6 Sources + 2 Displays = Greater Integration Options

Gefen's 6x2 HDMI™ Switcher is a small metallic unit equipped with six HDMI™I inputs and two HDMI outputs. Six inputs accommodate the simultaneous connection of up to six high definition video sources, such as satellite systems and HD DVD players. Two outputs send the high definition audio/video signals to two high definition displays or one display and one audio receiver. Digital audio and high definition video for each source is accessed immediately when the unit "switches" to it. You control the switching by using the IR remote that comes with the unit.

Fully HDCP Compliant
HDCP (high bandwidth digital content protection) is a standard encoded into the video signal to prevent it from being pirated. If a source device is HDCP coded and is connected to a display or projector without the proper decoding mechanism, the picture is relegated to "snow" or in some cases, very low (480P) resolutions of the images. In order to see high resolution digital video with HDCP compliance, both the source, the display and anything in between must be equipped with HDMI connections that can enable HDCP decoding, such as the 6x2 HDMI Switcher.

How It Works

You simply connect all your sources to the Switcher's inputs. You have a choice of connecting either two displays or a display and a receiver to the Switcher's outputs. 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.

Note: This HDMI product supports BOTH Audio and Video signals.

A connected display 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.

DVI, HDCP & HDMI Defined

Features:

- Switch easily between any six HDMI™ sources
- Outputs are mirrored to two HDMI™ Displays
- Additional digital optical audio output extracted from HDMI™ input for easy connection to multi-channel audio receivers
- Extends the range of HDMI™ compliant device by equalizing and reclocking the HDMI signal
- 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)
- Serial RS-232 remote port
- Rack ears included
- HDMI™ compliant
- HDCP compliant

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
- HDMI Connector: type A 19 pin female
- Digital Audio Output: TOSlink
- Remote Control Port: female RS232, mini-stereo
- Power Supply: 24V DC
- Power Consumption: 60 watts (max)
- Dimensions: 17 "W x 1.75"H x 5.875"D
- Shipping Weight: 10 lbs.

Package Includes:

- The 6x2 HDMI Switcher
- RMT-6IR Remote control
- Rack Ears
- Six 6-foot HDMI cables
- 24VDC power supply
- User's Manual

Product Options:

Choose input cables:
- (6) HDMI to HDMI cable
- (5) HDMI to HDMI and (1) DVI to HDMI cable
- (4) HDMI to HDMI and (2) DVI to HDMI cable
- (3) HDMI to HDMI and (3) DVI to HDMI cable
- (2) HDMI to HDMI and (4) DVI to HDMI cable
- (1) HDMI to HDMI and (5) DVI to HDMI cable
- (6) DVI to HDMI cable

HDMI RoHS 1080P PROGRESSIVE Blu-ray Disc

EXT-HDMI-642

meditronik części elektroniczne i komputerowe

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6x2 HDMI Switcher

USER MANUAL

www.gefen.com

ASKING FOR ASSISTANCE

Technical Support:

Telephone	(818) 772-9100
	(800) 545-6900
Fax	(818) 772-9120

Technical Support Hours:
8:00 AM to 5:00 PM Monday through Friday.

Write To:

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C/O Customer Service
20600 Nordhoff St.
Chatsworth, CA 91311

www.gefen.com
support@gefen.com

Notice

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HDMI is a trademark of hdmi.org

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INTRODUCTION

Congratulations on your purchase of the Gefen 6x2 HDMI Switcher. Your complete satisfaction is very important to us.

Gefen's line of HDTV switches, extenders, and splitters are designed to make your A/V equipment use more comfortable, more productive and less expensive.

The 6x2 HDMI Switcher allows access to six HDTV devices, using two HDTV displays. Both output displays will have mirrored images. Also included is a TOSLINK output that will output the HDMI digital audio signal in Toslink digital audio form.

The Gefen line offers solutions for Home Theater, A/V installation, noise, space and security concerns, data center, information distribution, conference room presentation, 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 support from a team of outstanding engineers.

The Gefen 6x2 HDMI Switcher allows six HDTV HDMI devices to be switched easily in to two HDTV HDMI compatible monitors or projectors. Simply connect your HDTV displays to the Switcher's display outputs. The 6x2 HDMI Switcher can also be placed at the end of a long HDMI cable to regenerate the HDMI signal.

Features

- Switches easily between any six HDMI sources
- Maintains 480i, 480p, 720p, 720i, and 1080i, 1080p resolutions
- Maintains highest HDMI single link video resolution
- Maintains highest HDMI digital audio signal
- Includes TOSLINK output for easy hookup to digital audio systems
- Supports HDCP compliant devices
- HDMI or DVI to HDMI cables are used to connect the inputs and switcher output
- Inputs can be switched with the IR remote control, contact closure controller or through the RS232 connector.
- Installs in seconds

Includes:

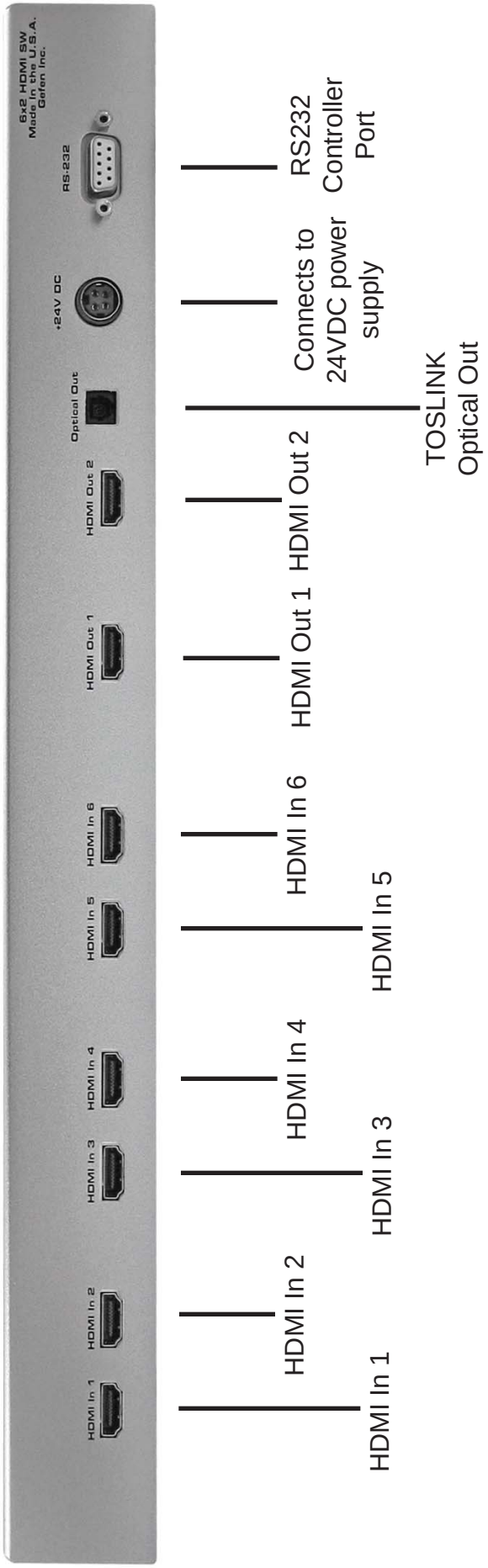
(1) 6x2 HDMI Switcher
(6) 6’ HDMI cables (M-M)
(1) 24VDC Power Supply
(1) RMT6-IR
(1) Rack Ears
(1) Manual

IR Extender Eye Port

IR eye

Indicates if input 1,2,3,4,5, or 6 is selected

BACK PANEL DESCRIPTIONS



How to Connect the 6x2 HDMI Switcher to your devices

1 Connect the supplied cables from the HDTV sources into the 6x2 HDMI Switcher inputs.

2 Connect the cable from your display (monitor or projector) into the HDMI outs of the 6x2 HDMI Switcher.

3 Connect any Digital Audio Receiver into the Toslink out of the 6x2 HDMI Switcher

3 Plug the 5VDC power supply into the 6x2 HD Switcher.

How to Control the 6x2 HDMI Switcher

Use the RMT6-IR remote control to toggle between sources.

RMT6-IR INSTALLATION

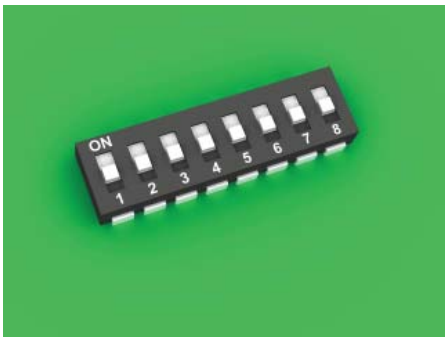
1. Remove battery cover from the back of the RMT6-IR remote.

2. Verify that dip switches 1 & 2 are in the down (OFF) position.

3. Insert the battery, hold the battery so that you can see the positive side facing up. The side that is not marked must be facing down.

4. Test the RMT6-IR remote by pressing ONLY one button at a time. The indicator light on the remote will flash once each time you press a button. WARNING: Do not press multiple buttons simultaneously and do NOT press buttons rapidly. These actions will cause the remote to reset and steps 1-4 will have to be repeated.

Note: The RMT6-IR ships with two batteries. One battery is required for operation, the second battery is complimentary.



Dip Switch EDID Guide

Extended display identification data (EDID) is a data structure provided by a display to describe its capabilities to any source that asks for it. The EDID includes manufacturer name, product type, timings supported by the display, display size, luminance data, (for digital displays only) pixel mapping data, supported audio channels and formats. This information is used by the source to cater its output to resolutions and audio formats that are supported by the display.

Additional EDID modes are available and configured using a combination of dip switches 1, 2, and 5. Please refer below for the different EDID modes.

To access the Dip Switches, remove all screws from the bottom and sides of the Gefen unit. Remove the hex screw heads from each side of the RS-232 port. Carefully slide the unit apart. The 8 Bank of Dip Switches are located on the main PCB. Once adjustments are complete, slide the unit back together and replace all removed screws.

EDID Mode 0 (Switch 1=OFF Switch2=OFF Switch5=ON)
-EDID is copied from the first HDMI port

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 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 devices

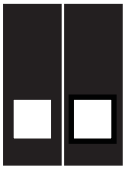
IR CODE CONFLICTS

How to Resolve IR Code Conflicts

There are matching pairs of dip switches underneath the Switcher unit and under the remote battery cover. Switch 1 & 2 on the Remote and Switch 3 & 4 inside the unit (page 6) are the matching switches. These switches need to be matched for the remote to communicate with the switcher. There are 4 possible sets of IR codes and at least one of these sets should be able to resolve any IR conflicts with other home theater devices.

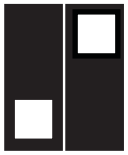
Remote

Remote Channel 1:

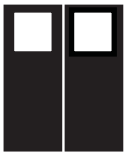


Remote Channel 2:

Remote Channel 3:

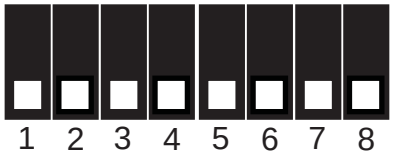


Remote Channel 4:



4x2 HDMI Internal Switches

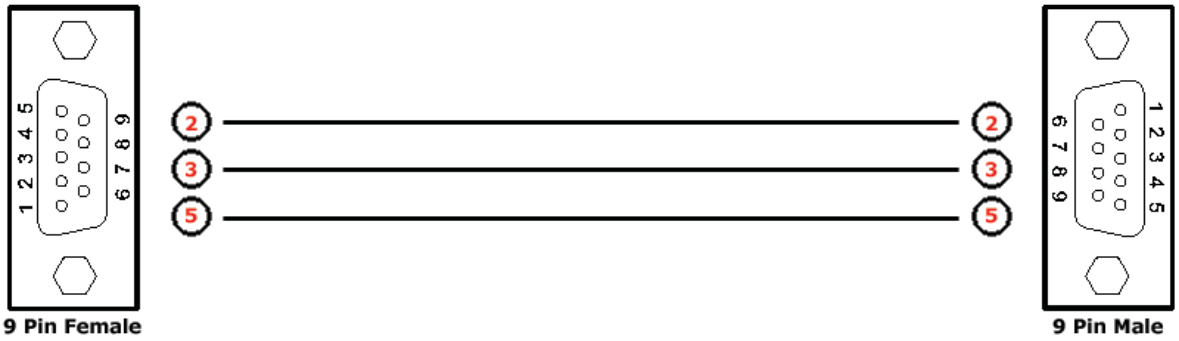
Remote Channel 1: Default



Remote Channel 2:

Remote Channel 3:

Remote Channel 4:



Binary Table

ASCII	Input	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

Additional control of the EDID modes and IR channel are possible using the RS-232 interface. For any of these modes to be successfully written to the EEPROM, all Dip Switches must be in the OFF position.

ASCII	EDID Mode
m0	0
m1	1
m2	2
m3	3
m4	4
m5	5
m6	6

ASCII	Remote Channel
r1	1
r2	2
r3	3
r4	4

OK is printed out on screen when a mode has successfully been changed.

Terminal Settings

Bits per second 19200

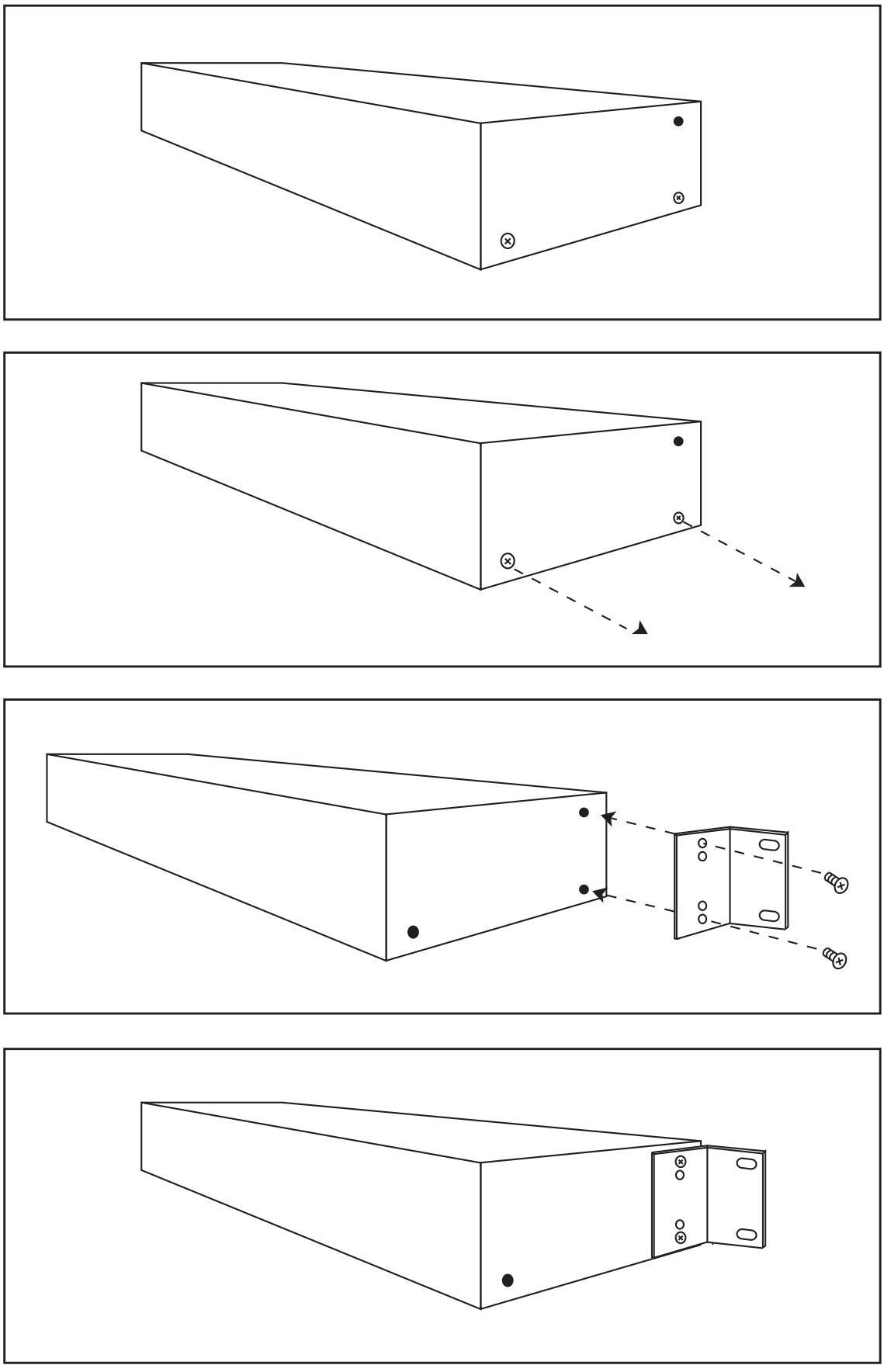
Data bits 8

Parity ..... None

Stop bits 1

Flow Control ..... None

6x2 HDMI SWITCHER RACK MOUNT DIAGRAM



SPECIFICATIONS

Video Amplifier Bandwidth ..... 1.65 GHz

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

Output Connector Type .....HDMI

Output Audio Connector Type..... ...TOSLINK

Power Consumption ..... 15 Watts (max.)

Power Supply 24VDC

Dimensions ..... 17”W x 1.75”H x 5.875”D

Shipping Weight ..... 8 Lbs