



# **4x2 HDMI Switcher**

**USER MANUAL**

## ASKING FOR ASSISTANCE

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### Notice

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# INTRODUCTION

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Congratulations on your purchase of the ex•tend•it 4x2 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 4x2 HDMI Switcher allows access to four HDTV devices, using two HDTV displays. Both output displays will have mirrored images. Also included is a SPDIF output that will output the digital audio signal in audio form.

The ex•tend•it line offers solutions for Home Theater, A/V installation, 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 ex•tend•it 4x2 HDMI Switcher allows four 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 4x2 HDMI Switcher can also be placed at the end of a long HDMI cable to regenerate the HDMI signal.

# FEATURES

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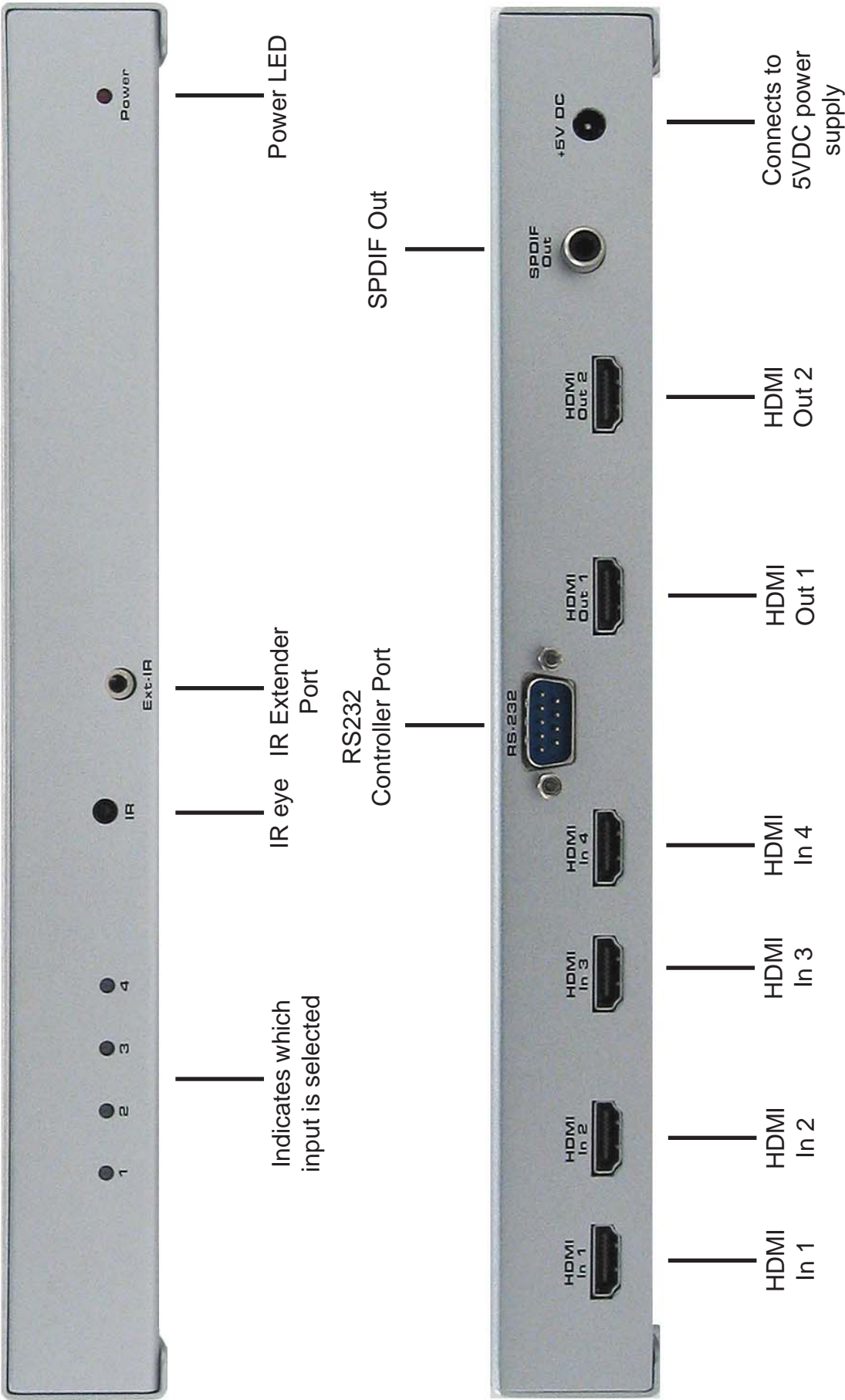
## Features

- Switches easily between any four 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 SPDIF 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) 4x2 HDMI Switcher
- (4) 6' HDMI cables (M-M)
- (1) 5VDC Power Supply
- (1) RMT4-IR
- (1) Users Manual





# CONNECTING AND OPERATING THE 4x2 HDMI SWITCHER

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## How to Connect the 4x2 HDMI Switcher to your devices

- 1 Connect the supplied cables from the HDTV HDMI sources into the 4x2 HDMI Switcher inputs.
- 2 Connect the cables from your displays (monitor or projector) into the HDMI outs of the 4x2 HDMI Switcher.
- 3 Connect any Digital Audio System into the SPDIF OUT of the 4x2 HDMI Switcher
- 4 Plug the 5VDC power supply into the 4x2 HDMI Switcher.

## How to enable the SPDIF on the 4x2 HDMI Switcher

The SPDIF audio is only enabled if you are using an HDMI source and an HDMI display, otherwise the source goes into DVI mode by reading the DVI display EDID. If you are using a DVI display you will have to open the switcher box to access the dip switches and flip dip switch #2 (refer to page 6) to enable the SPDIF audio out. If you are using both an HDMI and DVI display, make sure you have the HDMI display on output 1 in order to enable the SPDIF audio out.

## How to Control the 4x2 HDMI Switcher

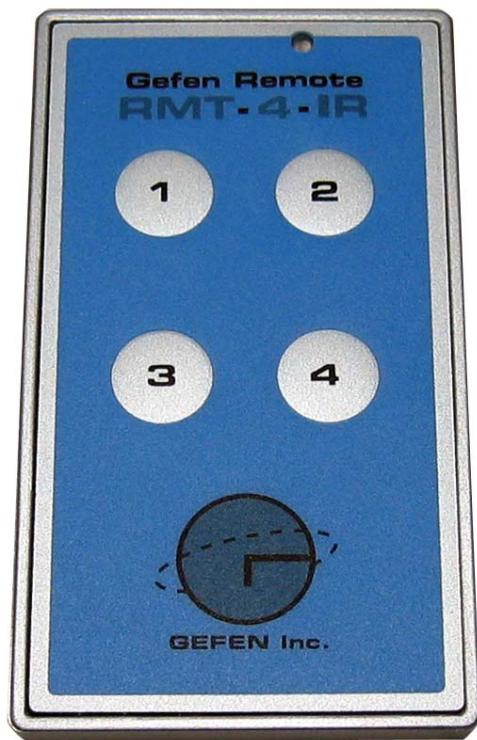
Use the RMT4-IR remote control to toggle between sources.

## RMT4-IR INSTALLATION

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1. Remove battery cover from the back of the RMT4-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 RMT4-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 RMT4-IR ships with two batteries. One battery is required for operation, the second battery is complimentary.



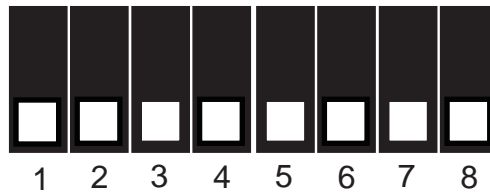
The optional IR extender allows you to relocate your HDMI Switcher and still have IR control of the HDMI Switcher



## DIP SWITCH GUIDELINES

Inside the 4X2 HDMI Switcher is a bank of Dip Switches. Below is a table describing their functions. By default, all switches are set to the Off position.

Dip Switch #	Name	Description
1	Switching Delay	Adds a 3 second delay to switching
2	On Board EDID	Feeds a Generic HDMI EDID to all Inputs
3	IR Code Dip Switch	Corresponds to Dip Switch 1 on RMT16-IR
4	IR Code Dip Switch	Corresponds to Dip Switch 2 on RMT16-IR
5	Unused	
6	Unused	
7	Unused	
8	Edge Select	+Edge Pixels



### How to open the 4x2 HDMI Switcher:

To access the dip switches, first remove the 2 hex nuts on the back of the unit (2 for RS232 port). Remove the 5 Philips screws under the unit and the 4 screws on each side of the unit. Now carefully remove the cover of the 4x2 HDMI Switcher.

# 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:



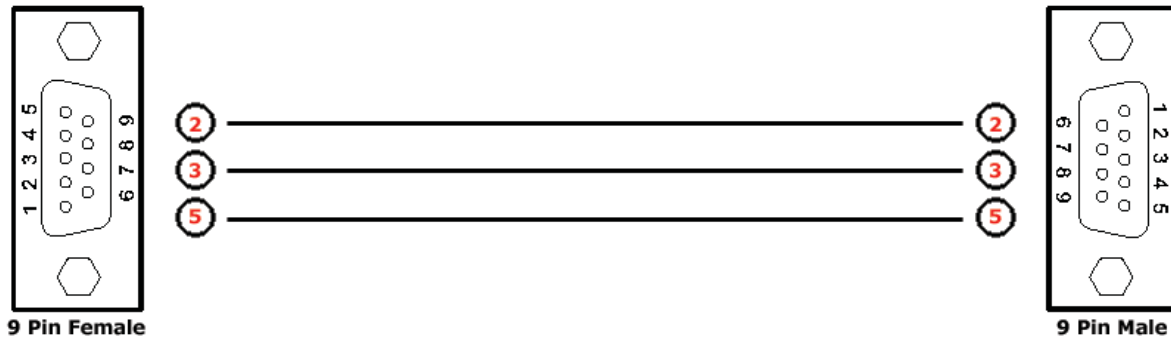
Remote Channel 3:



Remote Channel 4:



## RS-232 INTERFACE



### Binary Table

ASCII	Input	Binary
1	1	0011 0001
2	2	0011 0010
3	3	0011 0011
4	4	0011 0100

### Terminal Settings

Bits per second ..... 19200

Data bits ..... 8

Parity ..... None

Stop bits .....1

Flow Control ..... None

## SPECIFICATIONS

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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.....	S/PDIF
Remote Control Port .....	Male RS232
Power Consumption .....	15 Watts (max.)
Power Supply .....	5VDC
Dimensions .....	11.125"W x 1.375"H x 4.125"D
Shipping Weight .....	6 Lbs

## WARRANTY

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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 4x2 HDMI Switcher features and specifications is subject to change without notice.