

# Mini DVI Switcher

EXT-MINIDVI-241N

User Manual

Release A2



# Important Safety Instructions

## GENERAL SAFETY INFORMATION

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this product near water.
6. Clean only with a dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install or place this product near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. To reduce the risk of electric shock and/or damage to this product, never handle or touch this unit or power cord if your hands are wet or damp. Do not expose this product to rain or moisture.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. Batteries that may be included with this product and/or accessories should never be exposed to open flame or excessive heat. Always dispose of used batteries according to the instructions.

## Warranty Information

Gefen warrants the equipment it manufactures to be free from defects in material and workmanship.

If equipment fails because of such defects and Gefen is notified within two (2) years from the date of shipment, Gefen 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 cables must be in their original condition.

The information in this manual has been carefully checked and is believed to be accurate. However, Gefen assumes no responsibility for any inaccuracies that may be contained in this manual. In no event will Gefen 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 the features and specifications is subject to change without notice.

For the latest warranty coverage information, refer to the Warranty and Return Policy under the Support section of the Gefen Web site at [www.gefen.com](http://www.gefen.com).

### PRODUCT REGISTRATION

**Please register your product online by visiting the Register Product page under the Support section of the Gefen Web site.**

# Contacting Gefen Technical Support

Gefen, LLC  
c/o Customer Service  
20600 Nordhoff St.  
Chatsworth, CA 91311

Telephone: (818) 772-9100  
(800) 545-6900

Fax: (818) 772-9120

Email: [support@gefen.com](mailto:support@gefen.com)

Visit us on the Web: [www.gefen.com](http://www.gefen.com)

Technical Support Hours: 8:00 AM to 5:00 PM Monday - Friday, Pacific Time

**Mini DVI Switcher** is a trademark of Gefen, LLC.

### **Important Notice**

Gefen, LLC reserves the right to make changes in the hardware, packaging, and any accompanying documentation without prior written notice.

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# Operating Notes

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# Features and Packing List

## Features

- Saves money on hardware and space on your desktop - there is no need to purchase multiple displays
- Saves time - there is no need to disconnect and reconnect equipment - everything is always connected and accessible
- Maintains hi-res video modes up to 1080p (HDTV) and 1920x1200 (computers)
- Compatible with all DVI-equipped devices
- Offers operational flexibility - Switch sources with the front panel button on the Switcher or with the IR remote control
- Conforms with DVI 1.0 specifications for resolutions up to 1920 x 1200
- Easy to install and simple to operate



## Packing List

The Mini DVI Switcher ships with the items listed below. If any of these items are not present in your box when you first open it, immediately contact your dealer or Gefen.

- 1 x Mini DVI Switcher
- 2 x 6 ft. dual-link DVI cables (M-M)
- 1 x IR remote control unit
- 1 x 5V DC power supply
- 1 x Quick-Start Guide



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# Mini DVI Switcher

## 01 Getting Started

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# Panel Layout

## Front Panel



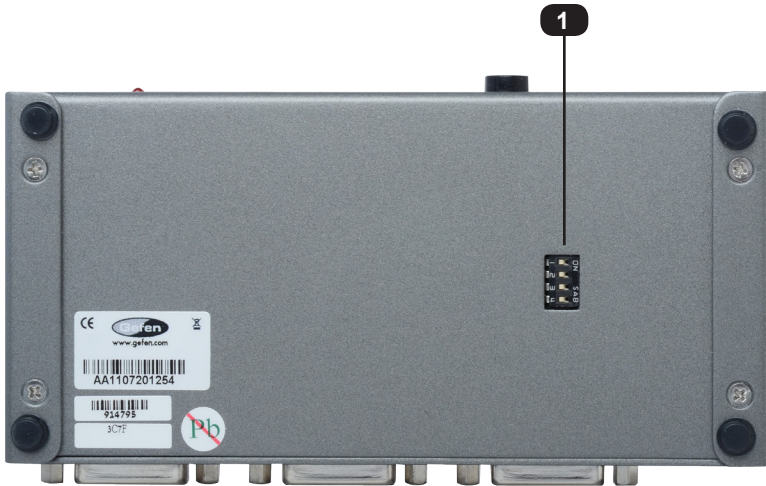
ID	Name	Description
1	Power	This LED indicator will glow bright red when the unit is powered.
2	IR	Receives IR signals from the included IR remote control unit.
3	Ext-IR	Connect an IR Extender (Gefen part no. EXT-RMT-EXTIR) or RMT-2 remote (Gefen part no. EXT-RMT-2) to this port. See <a href="#">Switching between Sources</a> for more information.
4	1	This LED will glow bright blue when the unit is powered and the currently selected input is DVI In 1.
5	2	This LED will glow bright blue when the unit is powered and the currently selected input is DVI In 2.
6	Select	Press this button to switch between DVI In 1 and DVI In 2. The indicator LEDs on the front panel will indicate the currently selected input.
7	EQ 1	Use this trimpot to adjust the output signal when DVI In 1 is the active input.
8	EQ 2	Use this trimpot to adjust the output signal when DVI In 2 is the active input.

## Back Panel



ID	Name	Description
1	5V DC	Connect the included 5V DC power supply to this power receptacle.
2	DVI In 1	Connect a DVI source to this port using one of the included DVI cables.
3	DVI In 2	Connect a DVI source to this port using one of the included DVI cables.
4	DVI Out	Connect a DVI cable from this port to a DVI display (or other sink device).

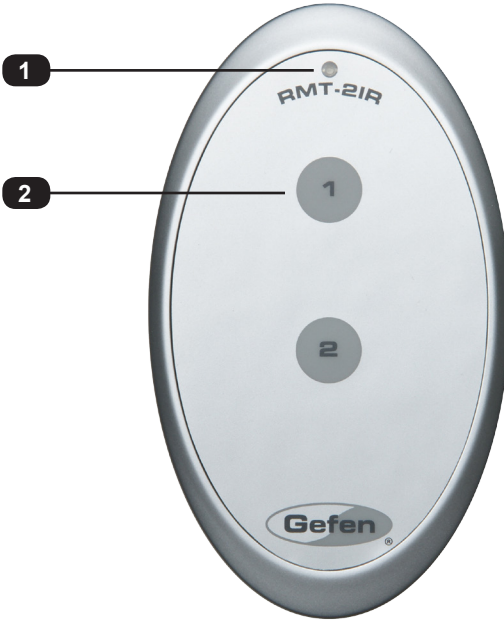
## Bottom Panel



ID	Name	Description
1	DIP switches	These DIP switches are used to set the IR channel of the switcher as well as control the method of remote control (IR / contact closure). See <a href="#">Configuring the Switcher</a> for more information.

# IR Remote Control Unit

## Front



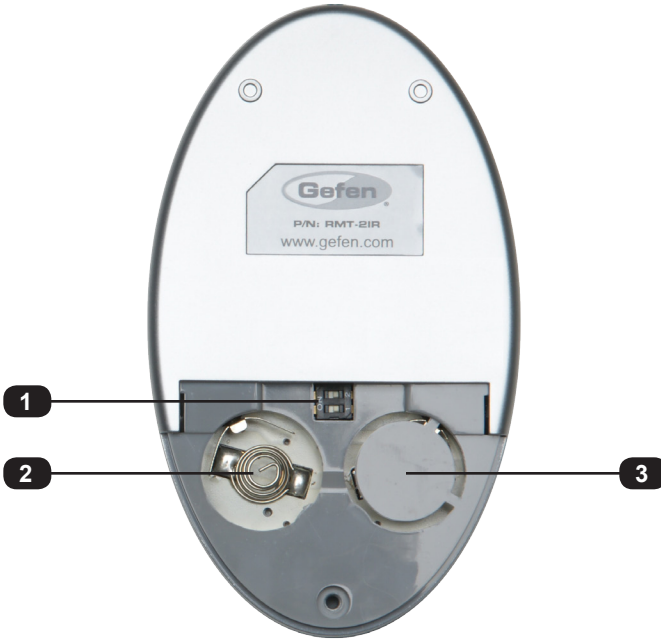
ID	Name	Description
1	Activity indicator	This LED glows bright orange when a key is pressed on the remote.
2	Buttons (1 - 2)	Used to select the desired input.



**NOTE:** If the Activity Indicator, on the IR remote control unit, flashes quickly while holding down any one of the buttons, then this indicates a low battery. Replace the battery as soon as possible.

**Back**

(shown with cover removed)



ID	Name	Description
1	DIP switch bank	Use these DIP switches to set the IR channel of the remote.
2	Primary battery slot (shown without battery)	Holds the battery for operating the remote. Use only 3V CR2032-type batteries. Make sure that the positive (+) side of the battery is facing up.
3	Alternate battery slot	Allows for the installation of secondary (backup) battery.

## Installing the Battery

The IR remote control unit ships with two batteries. Only one battery is required for operation. The second battery is a spare. Use only 3V CR2032-type batteries.

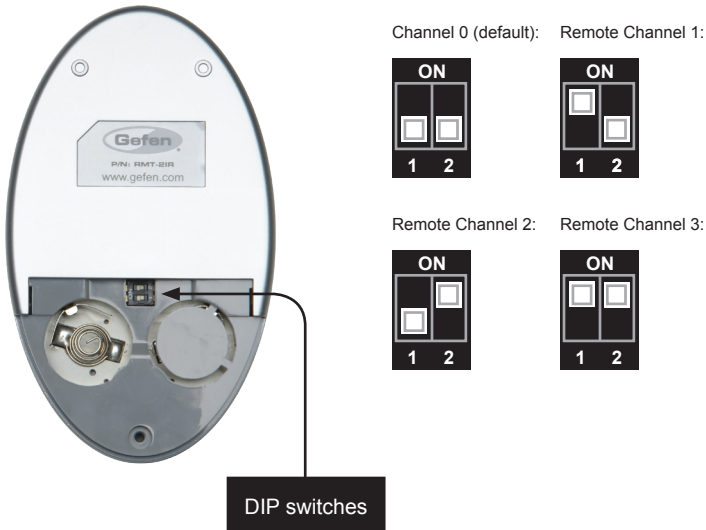
1. Remove the back cover the IR Remote Control unit.
2. Insert the included battery into the primary battery slot. The positive (+) side of the battery should be facing up.
3. Replace the back cover.



**WARNING:** Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.

## Setting the IR Channel

In order for the included IR remote control to communicate with the Mini DVI Switcher, the IR remote control must be set to the same channel as the matrix. See [Configuring the Switcher](#) for instructions on setting the IR channel of the switcher.

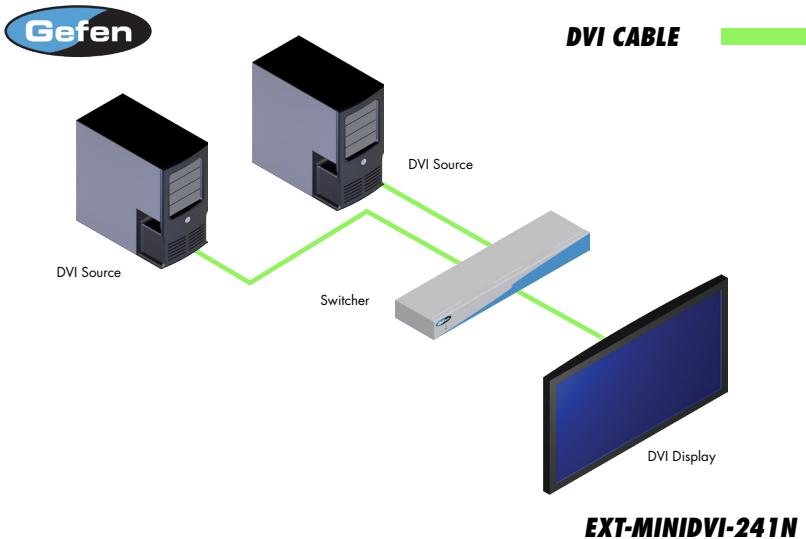


# Installation

## Connecting the Mini DVI Switcher

1. Connect 2 DVI sources to both DVI In 1 and DVI In 2 ports on the switcher using the included DVI cables.
2. Use another DVI cable to connect the display to the DVI Out port on the switcher.
3. Connect the included 5V DC power supply to the switcher, then connect the AC power cord to an available electrical outlet.
4. Before operating this product, see [DIP Switch Configuration](#) for important configuration information.

## Sample Wiring Diagram







# Mini DVI Switcher

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# Switching between Sources

## Using the Select button

1. Make sure the Mini DVI Switcher is powered. The **Power** LED should glow bright red if the unit is properly powered.
2. Press the **Select** button on the front panel to toggle between DVI In 1 and DVI In 2.
3. The active input will be indicated on the front panel. In the example below, LED 1 is active indicating that **DVI In 1** is the selected input.



4. Pressing the **Select** button, again, will toggle the input to **DVI In 2**. LED 2 will glow bright blue, indicating that **DVI In 2** is the active input.



## Using the IR Remote Control Unit

1. Point the IR remote control at the IR sensor on the front panel of the switcher.  
  
If an IR Extender is connected to the switcher, make sure to point the IR remote control unit at the IR sensor on the IR Extender.
2. The IR remote control unit provides discrete switching: Press the button on the IR remote control unit that corresponds with the input to be selected. For example, to select **DVI In 1**, press button 1 on the IR remote control unit.

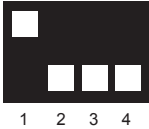


3. Pressing button 2 on the IR remote control unit will select **DVI In 2**. LED 2 will glow bright blue, indicating that **DVI In 2** is the active input.

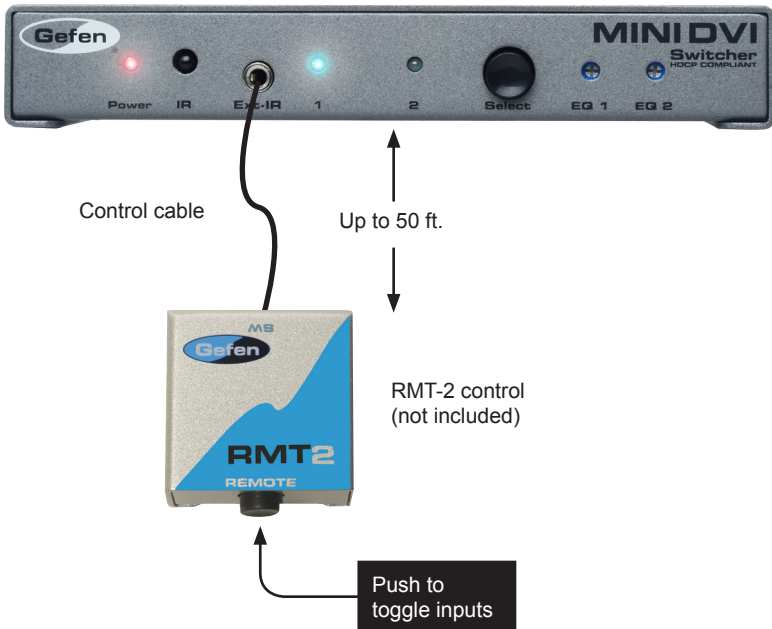
## Using the RMT-2 Remote (not included)

Instead of using an IR Extender, the RMT-2 can be connected to the switcher up to 50 feet away (using an extension cable). The RMT-2 works on the principle of contact closure. The RMT-2 uses a 3.5mm mini-mono extension cable which may be purchased from Gefen.

1. Remove the IR Extender (if connected) from the Ext-IR port on the front panel.
2. Connect a 3.5mm mini-mono cable between the RMT-2 remote and the Ext-IR port on the front panel of the switcher.
3. Connect the other end of the 3.5mm mini-mono cable to the RMT-2 remote.
4. Set DIP switch 1 to the ON position, as shown below. See [Configuring the Switcher](#) for more information.



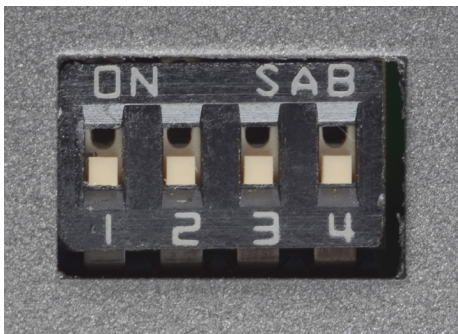
5. Press the button on the RMT-2 remote to toggle between DVI In 1 and DVI In 2. The LED indicators on the front panel will display the currently active input.



# Configuring the Switcher

## DIP Switches

On the bottom panel of the Mini DVI Switcher are a bank of 4 DIP switches. Remove the piece of colored tape to reveal the DIP switch bank. DIP switches 3 and 4 are used to set the IR channel of the switcher. DIP switch 1 switches control between IR and the RMT-2 remote (not included). DIP switch 2 is not used.



DIP Switch	Setting	Description
1	OFF (default)	The switcher uses IR control and uses the IR Extender (if connected).
	ON	Enables the use of the RMT-2 control, if connected. The RMT-2 uses contact-closure to toggle between inputs.
2	NOT USED	

DIP Switch	IR channel 1	IR channel 2	IR channel 3	IR channel 4
3	OFF (default)	OFF	ON	ON
4	OFF (default)	ON	OFF	ON



**IMPORTANT:** If using an IR Extender, DIP switch 1 must be in the OFF (down) position in order for the IR Extender to function correctly.

## Adjusting the Input Signal

The input signal may need to be equalized depending on the length and quality of the DVI cables that are being used. If, after connecting all equipment and powering on the system, there is either no picture or video noise on the output display device, the signal may have to be equalized.

For equalization, there are two EQ knobs on the front panel. Each EQ knob represents each input. According to the length of the cable, the EQ knob should be adjusted.







# Mini DVI Switcher

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# Specifications

## Supported Formats

Resolutions (max.)	<ul style="list-style-type: none"> <li>• 1920 x 1200 (WUXGA)</li> <li>• 1080p Full HD</li> </ul>
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## Electrical

Maximum Pixel Clock	<ul style="list-style-type: none"> <li>• 165 MHz</li> </ul>
Power Indicator	<ul style="list-style-type: none"> <li>• 1 x LED, blue</li> </ul>
Link Indicator	<ul style="list-style-type: none"> <li>• 1 x LED, green</li> </ul>

## Connectors

Input (Sender)	<ul style="list-style-type: none"> <li>• 1 x DVI-I, 29-pin, female (digital only)</li> </ul>
Output (Receiver)	<ul style="list-style-type: none"> <li>• 1 x DVI-I, 29-pin, female (digital only)</li> </ul>
Link (Sender / Receiver)	<ul style="list-style-type: none"> <li>• 1 x RJ-45</li> </ul>

## Control

DIP Switches (Sender unit)	<ul style="list-style-type: none"> <li>• 4 x DIP switches for EDID management, HPD, and HDCP</li> </ul>
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## Operational

Power Input (Sender / Receiver)	<ul style="list-style-type: none"> <li>• 1 x 5V DC</li> </ul>
Power Consumption (Sender / Receiver)	<ul style="list-style-type: none"> <li>• 10W per unit (max.)</li> </ul>
Operating Temperature	<ul style="list-style-type: none"> <li>• +32 to 113 °F (0 to +45 °C)</li> </ul>
Operating Humidity (non-condensing)	<ul style="list-style-type: none"> <li>• 0 to 90% RH</li> </ul>

## Physical

Dimensions (W x H x D)	<ul style="list-style-type: none"> <li>• 4.3" x 1" x 4.3" (110mm x 26mm x 86mm)</li> </ul>
Unit Weight (each)	<ul style="list-style-type: none"> <li>• 1.5 lbs (0.70 kg)</li> </ul>





Stretch it, Switch it, Split it, Control it.  
Gefen's got it. ®

20600 Nordhoff St., Chatsworth CA 91311  
1-800-545-6900 818-772-9100 fax: 818-772-9120  
[www.gefen.com](http://www.gefen.com) [support@gefen.com](mailto:support@gefen.com)

