Gefen

2x1 DisplayPort KVM

EXT-DPKVM-241

User Manual

2x1 DP KVM Switch
DisplayPort USB Audio Switcher

Gefen

Power   IR   1   2   Select

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ASKING FOR ASSISTANCE

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INTRODUCTION

Congratulations on your purchase of the 2x1 DisplayPort KVM. 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 2x1 DisplayPort KVM

The 2x1 DisplayPort KVM Switcher allows effortless switching of DisplayPort between two computers using just one display and one USB2.0 port for a keyboard and mouse. Audio, video and control signals are switched for each computer upon selection, providing an easy and effective method of accessing two computers from one workstation without the hassle of network. Switching can also be performed through the front panel Select button, IR remote control or via RS232.

How It Works

DisplayPort's plug-and-play construction and compact connector enables faster, easier installations with less chance of errors.

Connect a DisplayPort display and USB 2.0 keyboard/mouse to the Switcher's outputs. Connect both computers' DisplayPort, USB and audio ports to the Switcher's inputs using the supplied cables. The Switcher is compatible with both Macintosh and PC keyboards, mice and displays.

Note: If the source and/or display is not DisplayPort compliant, a protocol-specific protocol adapter will be required in order to connect the source to the Switcher and/or the Switcher to the high-resolution display.

**READ THESE NOTES BEFORE INSTALLING OR
OPERATING THE 2X1 DISPLAYPORT KVM**

- Display Information (EDID) is normally required by source/host devices to determine the capabilities of the attached peripherals. The 2x1 DisplayPort KVM features complete EDID passthrough. This means that when EDID is present on the output device, it will be passed to the active source/host device.

Features

• Switches one High-Resolution Display between two DisplayPort-equipped computers with audio/video and USB keyboards

• Compact connector for easier installations

• Switches up to 2560x1600 maximum resolution

• Supports RGB and YCbCr color spaces

Package Includes

(1) DisplayPort KVM Switcher
(2) 6-foot DisplayPort cable
(2) 6-foot USB 2.0 cable
(2) 6-foot 3.5mm mini-stereo audio cable
(1) 5V DC Universal Power Supply
(1) IR Remote Control
(1) User's Manual

PANEL LAYOUT

Front Panel

Back Panel
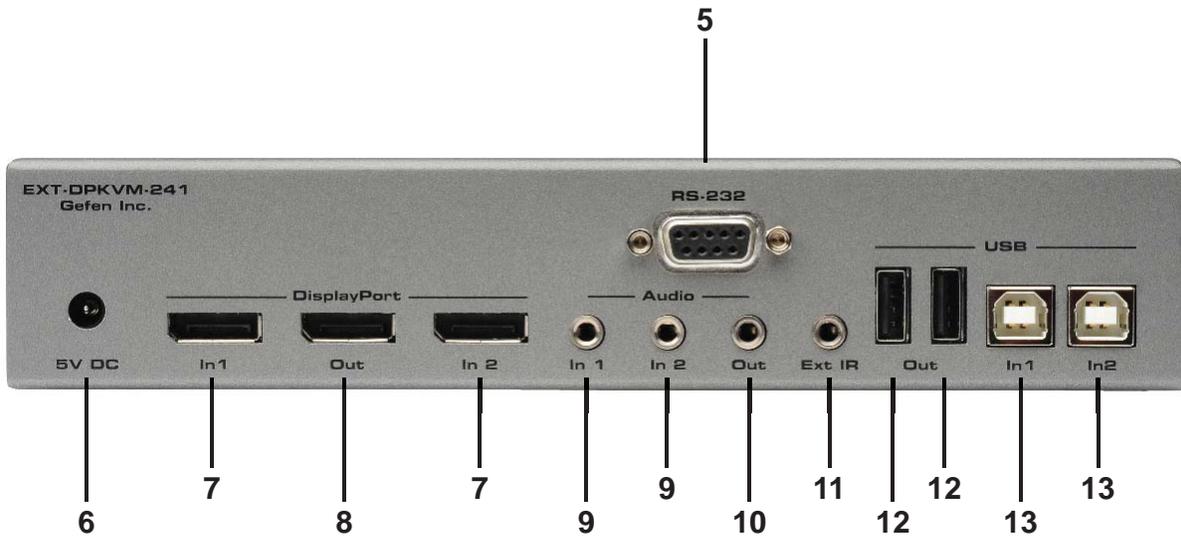
PANEL DESCRIPTIONS

1   **LED Power Status Indicator**

This LED will be active once power is being supplied by the included 5V power supply.

2   **Infrared (IR) Receiver**

This IR receiver will accept switching commands from the included RMT-2IR remote control.

3   **LED Input Status Indicator 1 & 2**

This currently selected source input will be indicated with an active LED.

4   **Input Selector Button**

Pressing this button will cycle the input, 1 or 2, which will be selected for output.

5   **RS-232 Communications Input**

Switching commands can be initiated by using a serial communications device and this port. For more information please see page 11.

6   **5V DC Power Input**

This receptacle will accept power via the included 5V DC power supply.

7   **DisplayPort Input 1 & 2**

This port will accept a single standard DisplayPort source device. Two ports are available for use.

8   **DisplayPort Output**

This port will accept a single standard DisplayPort output device. The currently selected DisplayPort input source will be output via this port.

9   **3.5mm Analog Audio Input 1 & 2**

This port will accept audio from a single 3.5mm analog mini-jack source. Two ports are available for use and are associated with DisplayPort inputs 1 & 2, respectively.

10   **3.5mm Analog Audio Output**

This port will accept a single 3.5mm analog mini-jack cable for connection to an amplified audio device. The currently selected audio input source will be output via this port.

11   **Infrared (IR) Receiver Extension**

This port will accept an optional IR Receiver Extension product (part# EXT-RMT-EXT-IR) for relocation of the IR receiver. This port can be used for additional switching options. Please see page 12 for more information.

12   **USB Type A Port**

This port will accept a USB Type A device for use by the source device. Two ports for the simultaneous connection of two USB devices.

13   **USB Type B Port 1 & 2**

This port will accept a single USB Type B cable for connection to a USB source device. Two ports are available for use and are associated with DisplayPort inputs 1 & 2, respectively.

CONNECTING AND OPERATING THE 2X1 DISPLAYPORT KVM

Connecting Source Devices to the 2x1 DisplayPort KVM

1. Connect up to two DisplayPort source devices (i.e. Computer Video Output) to the DisplayPort inputs on the 2x1 DisplayPort KVM using the included DisplayPort cables. DisplayPort Input 1 will be routed to the DisplayPort output when Input 1 is selected, and DisplayPort Input 2 will be routed to the DisplayPort output when Input 2 is selected.

2. Connect up to two audio sources (i.e. Computer Audio Output) to the 3.5mm analog audio mini-jack inputs using the included audio cables. Audio Input 1 will be routed to the audio output when Input 1 is selected, and Audio Input 2 will be routed to the audio output when Input 2 is selected.

3. Connect up to two USB source devices (i.e. Computer's USB port) to the USB Type B inputs using the included USB Type A to B cables. USB Input 1 will be routed to the connected USB devices when Input 1 is selected, and USB Input 2 will be routed to the connected USB devices when Input 2 is selected.

Connecting Output Devices to the 2x1 DisplayPort KVM

1. Connect a DisplayPort device (i.e. DIsplayPort Display) to the DisplayPort output on the 2x1 DisplayPort KVM using a user/device supplied DisplayPort cable.

2. Connect an audio device (i.e. Audio Amplifier) to the 3.5mm analog audio mini-jack output using a user supplied 3.5mm analog audio cable.

3. Connect up to two USB devices (i.e. Keyboard & Mouse) to the USB Type A inputs using user/device supplied USB cables.

Connecting Power to the 2x1 DisplayPort KVM

1. Connect the included 5V power supply to the power receptacle on the 2x1 DisplayPort KVM.

2. Connect the opposite end of the power supply to an open wall socket power source.

OPERATING THE 2X1 DISPLAYPORT KVM

How to Operate the 2x1 DisplayPort KVM

Switching can be accomplished via the front panel selector button, infrared (IR) remote control, or the RS-232 communications port. Additional switching options can be found on page 12

1   For information on switching via the front panel selector button, please see this page.

2   For information on switching via the infrared (IR) remote control, please see page 8.

3   For information on switching via RS-232 serial communications, please see page 11.

Switching - Front Panel Selector Button

Switching can be accomplished via the front panel selector button. This button will alternate between Inputs 1 & 2. Each press of this button will change the selected input.

Front Panel Input Selector
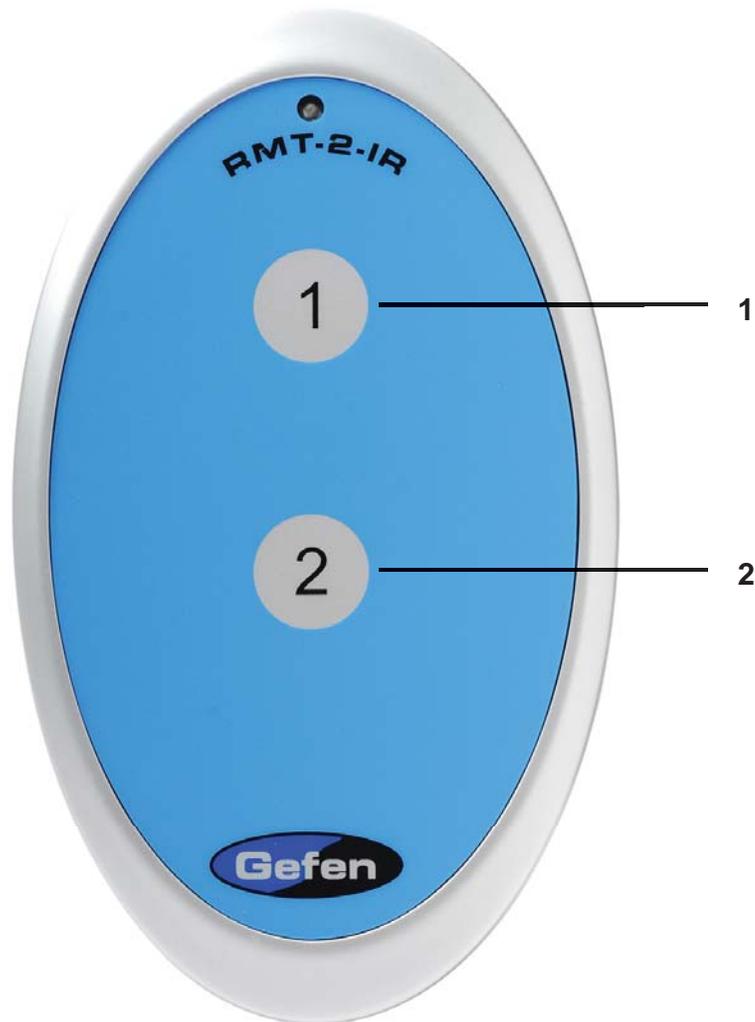
1   Pressing this button will select Input 1 as the source. All devices connected to the input ports labeled 1 will be selected and output.

2   Pressing this button will select Input 2 as the source. All devices connected to the input ports labeled 2 will be selected and output.

RMT-2IR REMOTE INSTALLATION

To use the RMT-2IR remote, remove the battery cover on the back of the remote to reveal the battery compartment. Insert the included battery into the open battery slot. The positive (+) side should be facing up. Ensure that both DIP (Dual Inline Package) switches are in the OFF position. Replace the battery cover. The remote ships with 2 batteries. One battery is needed for operation and the other battery is complimentary.

Empty Battery Slot

IR Code Dip Switches
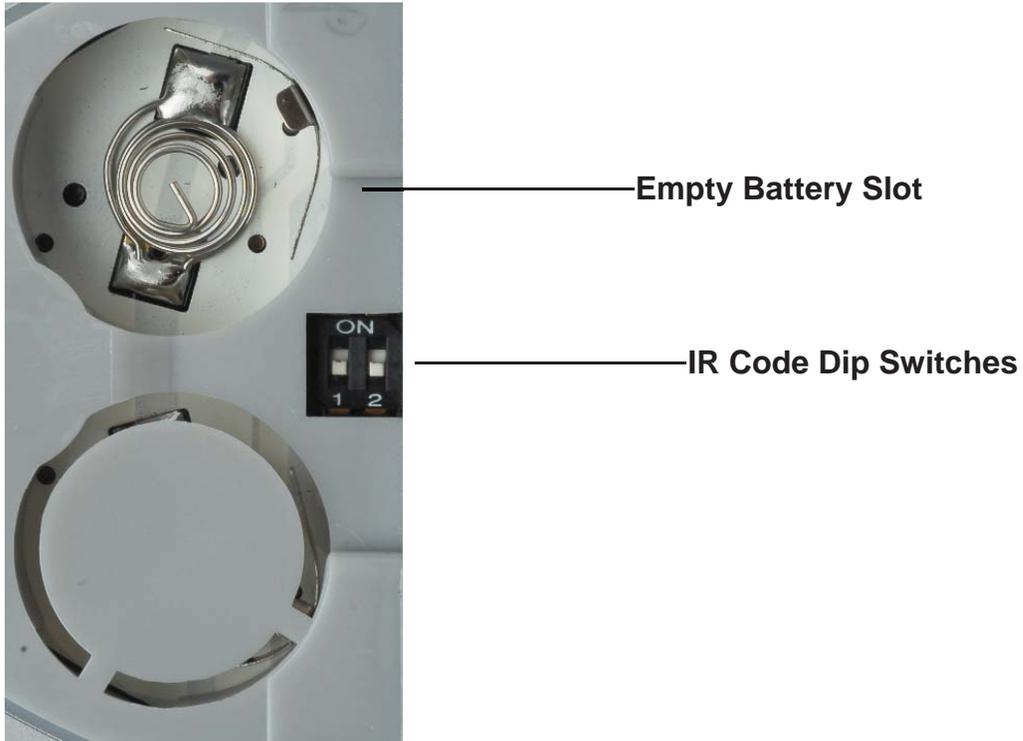
INFRARED (IR) CODE CHANNEL CONFIGURATION

How to Resolve IR Code Conflicts

In the event that IR commands from other remote controls conflict with the supplied RMT-2IR remote control, changing the remote channel will alleviate this issue. The RMT-2IR remote control and the 2x1 DisplayPort KVM both have banks of DIP (Dual Inline Package) switches for configuring the remote channel that both units use to communicate. These settings must exactly match each other for proper operation.

The DIP switch bank on the RMT-2IR is located underneath the battery cover. DIP switch banks for the 2x1 DisplayPort KVM are located on the underside of the unit beneath a black piece of metallic tape. Switches 1 and 2 on the RMT-2IR directly correspond to DIP Switches 1 and 2 on the 2x1 DisplayPort KVM. Only switches 1 and 2 (of 4 in that bank) are used for IR Code settings.

Remote Channel 1: Default

Remote Channel 2:

1 2

1 2

Remote Channel 3:

Remote Channel 4:

1 2

1 2
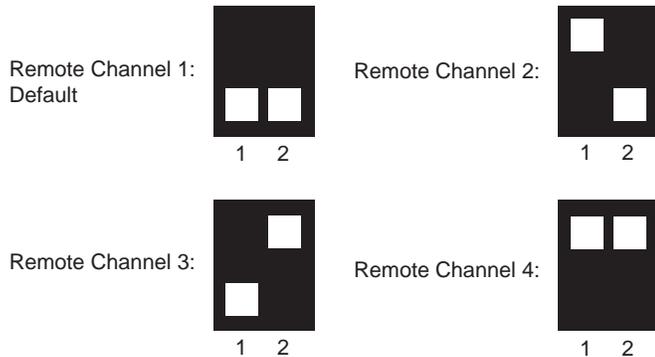
Left: Picture of the opened rear battery compartment of the RMT-2IR remote showing the exposed DIP Switch bank between the battery chambers.

2x1 DisplayPort KVM DIP Switch Settings

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
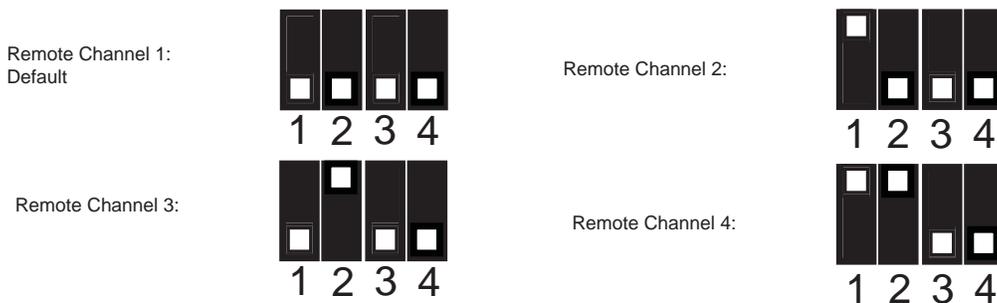
RS-232 SERIAL CONTROL INTERFACE

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

The 2x1 DisplayPort KVM can accept commands through the RS-232 serial communications port located on the rear panel. The current RS-232 control features are:

•   Switching of inputs.

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 2x1 DisplayPort KVM?

Only pins 2 (Receive), 3 (Transmit), and 5 (Ground) are used for communication. A null-modem adapter should not be used with this product.
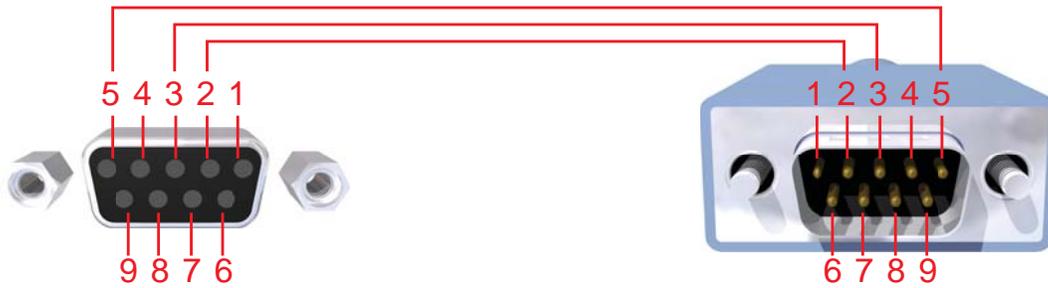
Only Pins 2 (RX), 3 (TX), and 5 (Ground) are used on the RS-232 serial interface

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	RMT-2IR Button	Binary
1	1	0011 0001
2	2	0011 0010

ADDITIONAL SWITCHING OPTIONS

The underside of the 2x1 DisplayPort KVM features a DIP swich bank that is used to configure additional features. Specifically, DIP switches 3 & 4 will control the function of the IR Extender port on the rear panel.

This port can be configured to accept additional switching devices
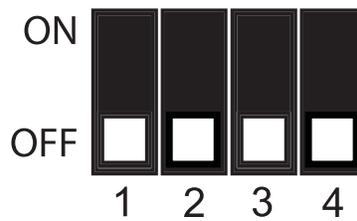
DIP SWITCH	Function
1	IR Channel
2	IR Channel
3	Remote/Closure
4	IR Extender

DIP Switch 3

Enabling DIP switch 3 will allow the user to utilize a contact closure type of remote control such as Gefen product # EXT-RMT-2 to initiate input switching. By default, this switch is in the OFF position and will rely on the standard switching methods outlined previously in this manual.

DIP Switch 4

DIP switch 4 is the master switch that will enable/disable the ability to use an IR remote extender (Part# EXT-RMT-EXTIR) for relocation of the IR receiver. By default, this switch is in the OFF position and will disable the use of an IR Extender.

SPECIFICATIONS

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Input Connector .... (2) DisplayPort (from computers)

Output Connector .... (1) DisplayPort (to display)

 Input Connector:...(2) USB 2.0 Type "B" (from computers)

Output Connector: ....(2) USB 2.0 Type "A" (to keyboard/mouse)

Input Connector .... (2) 3.5mm analog L/R audio (from computers)

Output Connector .... (1) 3.5mm analog L/R audio (to speakers or amplifier)

Color Spaces .... RGB and YCbCr

Maximum Resolution 2560x1600

Shipping Weight .... 6 lbs

WARRANTY

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.

PRODUCT REGISTRATION

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

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This product uses UL listed power supplies.