8x8

sources displays

DVI KVM
Dual Link Matrix
with Push Button Control

GEF-DVIKVM-848DL-PB

User Manual
Release B8

GefenPRO 8x8 DVIKVM DL Matrix

Gefen PRO®

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.

RACK MOUNT SAFETY INFORMATION

a. Maximum recommended ambient temperature: 40 ˚C (104 ˚F).

b. Increase the air flow as needed to maintain the recommended temperature inside the rack.

c. Do not exceed maximum weight loads for the rack. Install heavier equipment in the lower part of the rack to maintain stability.

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.

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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.

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

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Contacting Gefen Technical Support

Gefen, LLC
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Fax:	(818) 772-9120
Email:	support@gefenpro.com
Visit us on the Web:	www.gefenpro.com
Technical Support Hours:	8:00 AM to 5:00 PM Monday - Friday, Pacific Time
	For 24 / 7 support, see the back of the product for the support number

8x8 DVI KVM Dual Link Matrix with Push Button Control
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.

Operating Notes

*   The 8x8 DVI KVM Dual Link Matrix with Push Button Control will not pass HDCP content.

*   There is no internal scaling in the 8x8 DVI KVM Dual Link Matrix with Push Button Control. All of the attached monitors must be able to display the resolutions output by the source devices. For maximum compatibility it is recommended that only one compatible/common resolution be used by all of the source devices.

*   Advanced EDID features and IP configuration features are accessible via the RS-232 serial communication port. See RS-232 Configuration for more information.

*   Routing and EDID features can be accessed via a web browser using the IP control feature, built into the 8x8 DVI KVM Dual Link Matrix.

*   The Gefen Syner-G Software Suite is a free downloadable application from Gefen that provides automatic download and installation of firmware upgrades for this product.

    Download the application here: http://www.gefen.com/support/download.jsp

*   The Gefen Matrix Switcher Keyboard Controller is a free downloadable application from Gefen that allows a computer keyboard to be used to switch between sources. This application uses the Telnet protocol to control any Gefen switcher or matrix that uses IP control.

    Download the application here: http://www.gefen.com/support/download.jsp

> ⚠ **IMPORTANT:** If the unit is installed in a closed or multi-rack assembly, do not block the ventilation holes of the enclosure.

Features and Packing List

Features

- Supports 1080p Full HD at 120Hz and dual-link resolutions up to 3840 x 2400 or single-link resolutions up to 1920 x 1200
- Supports USB 2.0 compliant devices and backwards compatible with USB 1.1
- Support 2CH analog audio
- Programmable routing presets
- Output masking command
- IR Remote Control
- RS-232 control
- Telnet / IP Control
- Independent audio routing
- User-defined Input and Output naming
- Built-in IR Extender
- Grounding Pin
- Internal Power Supply
- Standby mode
- Supports DDWG standards for DVI
- Power ON / OFF switch
- Advanced EDID management permits upload of custom internal or external EDID settings
- Status LCD (shows routing status)
- Front panel control buttons for local switching
- Compatible with the Gefen Keyboard Controller software
- Rack-Mountable

Packing List

The *8x8 DVI KVM Dual Link Matrix with Push Button Control* 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 GefenPRO 8x8 DVI KVM Dual Link Matrix
- 8 x 6ft. DVI dual link cables (M-M)
- 8 x 6ft. audio cables
- 8 x 6ft. USB cables
- 1 x IR remote control unit
- 1 x AC power cord
- 1 x Quick-Start Guide

Table of Contents

04   Appendix

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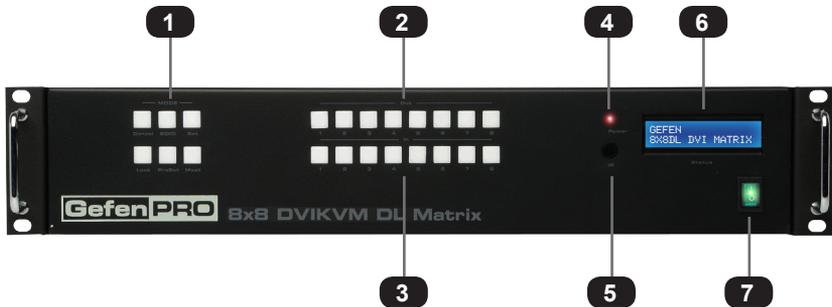# 8x8

sources   displays

DVI KVM
Dual Link Matrix
with Push Button Control

01   Getting Started

Panel Layout

Front

ID	Name	Description
1	Mode	These buttons are used to control various features on the matrix. See Routing Basics for more information.
2	Out	Each of these buttons represents an output on the matrix. Press these buttons to select the desired output during the routing process. See Routing Basics for more information.
3	In	Each of these buttons represents an input on the matrix. Press these buttons to select the desired input during the routing process. See Routing Basics for more information.
4	Power	This LED indicator will glow bright red when the matrix is powered-on.
5	IR	This IR sensor receives signals from the included IR remote control unit.
6	LCD display	Provides feedback of matrix features during operation.
7	Power switch	Press this toggle switch to power-on or power-off the matrix. This switch will glow bright green when the matrix is powered on.

Back

ID	Name	Description
1	RS-232	Connect the included RS-232 cable from this port to an RS-232 device. See RS-232 Configuration for more information.
2	IEC connector	Connect the included AC power cord between this power receptacle and an available electrical outlet.
3	Audio In	Use the included audio cables to connect audio sources to these ports.
4	Out (1 - 8)	Use DVI cables to connect each DVI port to a display or other sink device.
5	In (1 - 8)	Use the included DVI cables to connect a DVI source to each of these ports.
6	Audio Out	Connect a 3.5mm audio cable from each audio port to an amplifier or other sink device.
7	USB In	Connect the included USB cables from each USB host device and these USB In ports.
8	USB Out	Connect a USB device (e.g. mouse, keyboard) to each of these USB Out ports.

Back
(continued)

ID	Name	Description
9	IP Control	Connect an Ethernet cable between this jack and a LAN to use IP control. See IP Configuration for more information.
10	Grounding terminal	Connect a grounding wire from the grounding terminal to an approved ground path.
11	Ext IR	Connect an IR Extender (Gefen part no. EXT-RMT-EXTIR) to this port.

IR Remote Control Unit

Front
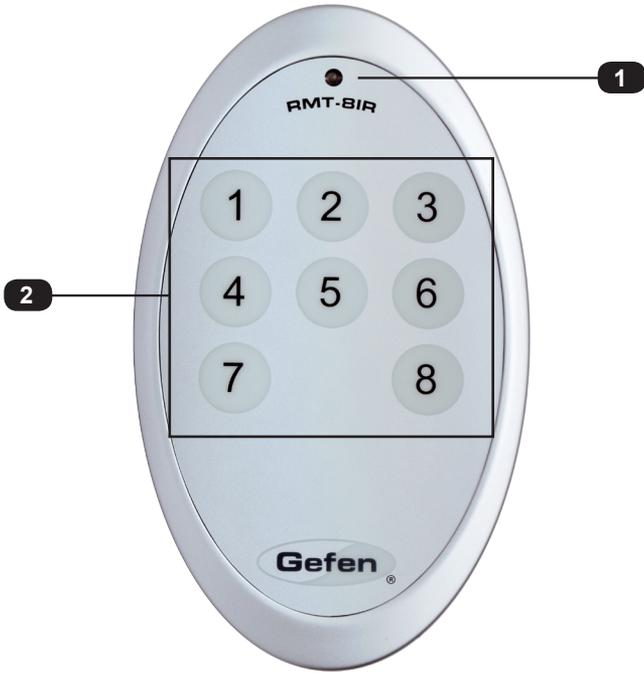
ID	Name	Description
1	Activity indicator	This LED glows bright orange when a key is pressed on the remote.
2	Buttons (1 - 8)	Used to select the desired input when routing.

Back
(shown with cover removed)

ID	Name	Description
1	DIP switch bank	Use these DIP switches to set the IR channel of the remote. See Setting the IR Channel for more information.
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.

> ℹ **NOTE:** An Activity Indicator that flashes quickly while holding down any one of the buttons indicates a low battery. Replace the battery as soon as possible.

Setting the IR Channel

In order for the included IR remote control to communicate with the *8x8 DVI KVM Dual Link Matrix with Push Button Control*, the IR remote control must be set to the same channel as the processor. Use the `#set_ir` command to set the IR channel of the *8x8 DVI KVM Dual Link Matrix with Push Button Control*.

Channel 0 (default):   Remote Channel 1:

Remote Channel 2:   Remote Channel 3:

DIP switches

Installation

Connection Instructions

1. Use the included DVI cables to connect up to eight DVI sources to the DVI **In** ports on the back panel of the matrix.

2. Connect up to eight DVI cables between the DVI **Out** ports and each display or other sink device.

3. Use the included USB cables to connect each USB host device to the **USB In** ports.

4. Connect up to 16 USB devices (mouse, keyboard, external drives, etc.) to each **USB Out** port.

5. Use the included 3.5mm mini-stereo cables to connect up to eight audio sources to the **Audio In** ports.

6. Connect up to eight 3.5mm mini-stereo cables from the **Audio Out** ports to an amplifier or other audio output device.

7. Connect an Ethernet cable between the **IP Control** jack and a LAN in order to use IP control. See IP Configuration for more information.

8. Connect the included AC power cord from the IEC connector on the matrix to an available electrical outlet.

Sample Wiring Diagram
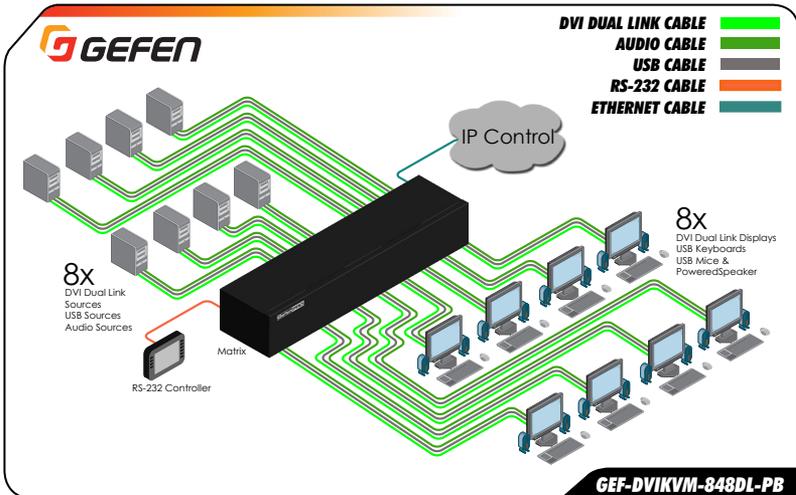
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DVI KVM
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02   Operating the
8x8 DVI KVM Dual Link Matrix
with Push Button Control

Front Panel Controls

Front Panel Buttons

There are a total of 22 buttons on the front panel of the matrix. These buttons are grouped according to their function.

Out and In

The **Out** and **In** buttons comprise the largest group of buttons. The top row of 8 buttons represent each output. The bottom row of 8 buttons represent each input.

For example, button 1 on the top row represents Output 1, button 2 represents Output 2, and so on. The input buttons on the bottom row are arranged in a similar fashion: Button 1 on the bottom row represents Input 1, button 2 represents Input 2, and so on.
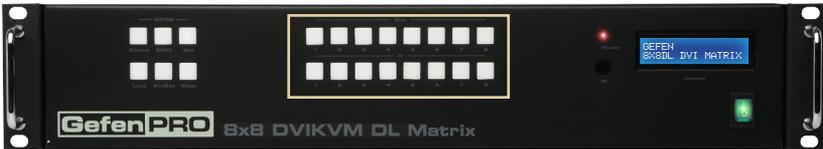
Mode

The Mode buttons are used to control various other functions on the matrix such as output masking and loading / storing of routing presets.

Front Panel LCD Screen

The front-panel of the *8x8 DVI KVM Dual Link Matrix with Push Button Controls* contains a 16-character 2-line LCD display which is used to provide feedback when performing routing functions. In addition, this display is used to show the current routing status of the matrix.

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```

Besides displaying routing information and other feedback during various operations, the matrix provides setting information, from the Home screen. Consecutively press the **Cancel** button to display other matrix settings. The matrix will automatically return to the Home screen after a few moments if the **Cancel** button is not pressed within a certain amount of time.

LCD Screen	Description
FW 2.1.9 BOLO 1.6	Displays the current firmware and boot loader version.
IP ADDRESS 192.168.2.232	Displays the current IP address of the matrix. See IP Configuration for information on changing the IP address of the matrix.
MAC ADDRESS 0.1C.91.1.30.58	Displays the MAC address of the matrix. The MAC address cannot be changed.
IR ADDRESS SW1=0, SW2=0	Displays the required DIP switch settings in order for the IR remote control unit to communicate with the matrix. See Setting the IR Channel.

Routing Basics

Routing Inputs to Outputs

The following example illustrates the routing process. An input may be routed to a single or multiple outputs. Multiple inputs cannot be routed to a single output.

1. Press the **Set** button on the front panel. Pressing the **Set** button tells the matrix that we want to perform a routing, masking, or preset operation. The **Set** button will glow bright blue, indicating that it has been pressed.

2. The LCD on the front panel will indicate that routing mode is active.

ROUTING MODE

3. Press the desired output button(s) (1 - 8). For this example, we will route an input to multiple outputs. First, select the outputs: Output 1, Output 3, Output 5, and Output 6. Press buttons **1**, **3**, **5**, and **6** on the top row. The selected buttons will glow bright blue.

4. Select the desired input (source) button (1 - 8). For this example, we will route the source connected to Input 6 to each of the outputs in step 3. Therefore, press button **6** on the bottom row. The selected input will glow bright blue.

> **NOTE:** Only one input can be routed at a time. If the wrong input button is accidentally pressed, then continue by pressing the correct input button. The previous input button will automatically be deselected.

5. Press the **Set** button on the front panel, once again. Pressing the **Set** button again tells the matrix that we have completed the routing operation. Once the **Set** button has been pressed, the LCD will indicate that the routing process has been completed.

6. After a few moments, the selected buttons on the front panel will turn off and the LCD will return to the Home screen.

Getting the Current Routing Status

To display the current routing status of the Matrix, press any one of the Input or Output buttons on the front panel.

From our previous routing example, we already know that Input 6 is routed to Output 1, 3, 5, and 6. However, let's use this to illustrate how to retrieve the current routing status of an input or output.

Outputs to Inputs

1. Press the button **3** on the top row of buttons.

    When we pressed **3** (on the top row), button **6** on the bottom row was also selected. This tells us that Input 6 has been routed to Output 3.

2. Now, press button **5** on the top row of buttons.

    We can see that Output 5 is also connected (routed) to Input 6. This agrees with our previous routing example.

If Output button **1** or **3** is pressed, the button for Input 6 will also be selected.

Inputs to Outputs

1. Press the **6** button on the bottom row of buttons.

    By querying an input, all Outputs that are connected (routed) to the input are displayed:

2. Now, press another Input button on the matrix. We will arbitrarily select Input 2 (button **2**).

    In the example above, we can see that Input 2 is routed to Output 2. When an input of the same number is routed to an output of the same number (2-2, 3-3, 5-5, etc), this is called "one-to-one" routing.

One-to-One Routing

When an input-output pair share the same number, it is called "one-to-one" routing. By default, the 8x8 DVI KVM Dual Link Matrix with Push Button Control is shipped in "one-to-one" mode. This means that Input 1 is routed to Output 1, Input 2 is routed to Output 2, and so on.

Saving the Current Routing State

The *8x8 DVI KVM Dual Link Matrix with Push Button Control* allows routing (and masking) states to be saved to internal non-volatile memory. Each routing state can be recalled at a later time (see Recalling a Saved Routing State). Even if the matrix is powered OFF, the presets will be retained in memory.

We'll illustrate an example by saving the routing state, created in the section Routing Inputs to Outputs.

1. To make sure we are saving the correct routing state, press Input 6 on the front panel. The following routing state should be displayed:

    This is the routing state we created earlier.

2. Press the **Cancel** button to hide the displayed routing state. The **Cancel** button will flash momentarily when pressed.

3. Press the **PreSet** button, *twice*.

    The LCD will indicate that the matrix is in *save preset mode*:

4. Select a preset location by pressing any of the first eight input buttons (1 - 8). The matrix supports up to eight preset locations. For this example, we will store the routing preset using button **1**.

5. Press the **Set** button to store the routing state in the selected location. The **Set** button will flash momentarily.

Set button

6. The matrix will indicate that the current routing state has been saved.

```
PRESET MODE
COMPLETE
```

7. After a few moments, the selected buttons will turn off and the LCD will return to the Home screen.

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```

Recalling a Saved Routing State

The *8x8 DVI KVM Dual Link Matrix with Push Button Control* allows saved routing (and masking) states to be recalled from memory for instant access.

In this example, we will recall the routing preset that we stored in the previous example. In order to clearly see how the recall-process works, try changing the routing state of Input 6 to Output 2. Then, use the steps below to recall the original routing state.

1.   Press the **PreSet** button, *once*. The LCD will indicate that the matrix is in *recall preset mode*.

2.   Since we stored our preset in Preset 1, press the button for Input 1 to recall the routing state.

3.   Press the **Set** button to recall the routing state from the selected location. The **Set** button will flash momentarily.

4.   After a few moments, the selected buttons will turn off and the LCD will return to the Home screen.

Masking

Masking Outputs

"Masking" prevents the output device (display, etc) from receiving an output signal. Instead of powering-down or disconnecting the output device, individual or multiple outputs can be masked. Inputs cannot be masked.

To illustrate masking, we'll use our original routing example from the section Routing Inputs to Outputs.

1. Press the **Mask** button. The Mask button will glow bright blue and the LCD will indicate that the matrix is in *mask mode*.

2. Select the desired outputs to be masked. In this example, we will select Output 5 and Output 6.

3. Press the **Set** button to mask the selected outputs. The **Set** button will flash momentarily.

Set button

4. Once the **Set** button is pressed, the LCD display will indicate that the masking process was successful:

```
MASK MODE
MASK COMPLETED
```

5. After a few moments, the selected buttons will turn off and the LCD will return to the Home screen.


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Getting the Current Masking Status

If the masking state is unknown, it can be queried using the Mask button. Alternatively, the masking state can be retrieved through the Web Interface or by using the m command.
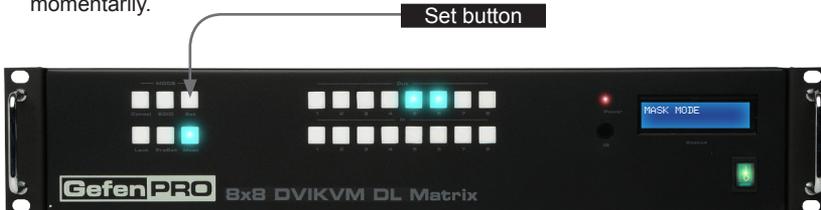
1.   Press the **Mask** button. The Mask button will glow bright blue and the LCD will indicate that the matrix is in *mask mode*.

      If any outputs are currently masked, they will be indicated on the front panel. For example, since we recently masked Output 5 and Output 6, these buttons will glow bright blue, as shown below.


```
MASK MODE
```

2.   After a few moments, the selected buttons will turn off and the LCD will return to the Home screen.


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Unmasking Outputs

Once an output (or multiple outputs) has been masked, it can be unmasked.
Unmasking an output will allow the video signal to be displayed after a masking operation.

We'll continue with our previous example and unmask Output 5 and Output 6.

1.   Press the **Mask** button. The **Mask** button will glow bright blue and the LCD will
       indicate that the matrix is in mask mode.

       Once the mask button is pressed, any outputs that have been masked will be
       indicated on the front panel.

2.   To unmask an output, press the desired output(s). In our case, we will select both
       Output 5 and Output 6. Each button will turn off as it is pressed.

3.   Press the **Set** button. The **Set** button will flash momentarily.

Set button

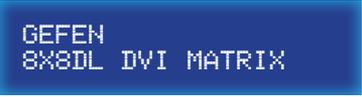4.   Once the **Set** button is pressed, the LCD display will indicate that the unmasking process was successful:

```
MASK MODE
MASK COMPLETED
```

5.   After a few moments, the matrix will return to the Home screen.


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8X8DL DVI MATRIX
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Locking the Matrix

Locking the matrix will prevent any changes by disabling all buttons (except the Lock button) on the front panel. This feature is useful in preventing routing or other changes caused by accidentally bumping or pressing the buttons on the front panel.

1.   Press the **Lock** button under the Mode group. The **Lock** button will glow bright blue, indicating that the matrix is now locked. The LCD display will also indicate that the matrix has been locked.

2.   To unlock the matrix, press the **Lock** button again. The **Lock** button will turn off and the LCD display will return to the Home screen.

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EDID Management

The 8x8 DVI KVM Dual Link Matrix with Push Button Control incorporates EDID management support. Basic EDID functions, such as storing EDID data to inputs can be performed using the buttons on the front panel. Advanced EDID management features are controlled using EDID Management commands or through the Web Interface.

Saving the Downstream EDID to an Input

1. Press the **EDID** button, *once*. The **EDID** button will glow bright blue and the LCD will indicate that the matrix is ready to copy the downstream EDID.

DSTOLO is an abbreviation for "DownStream TO LOcal".

2. Press the desired output. For this example, we are going to use the EDID of the display that is connected to Output 7. Therefore, we will press the button for Output 7.

3.   Select the desired input where the EDID will be stored. We will arbitrarily select Input 4, by pressing button **4**.

4.   Press the **Set** button. The **Set** button will flash momentarily.

Set button

5.   Once the **Set** button is pressed, the matrix will begin copying the downstream EDID from the display (or other sink) to the EDID from the selected output to the specified input.

      The LCD will indicate that the matrix is copying the EDID:

```
EDID LOADING
PLEASE WAIT
```

6.   After the EDID has been successfully copied to the selected input, the LCD will display the following message:

```
EDID LOADING
COPY COMPLETE
```

7.   After a few moments, the selected buttons will turn off and the LCD will return to the Home screen.

Saving the Default EDID to an Input

There may be instances when the downstream EDID data is corrupt or the EDID is not being read correctly by the matrix. On the other hand, it may be desirable to use a "generic" EDID as opposed to the downstream EDID. In any case, the matrix provides a default (internal) EDID that can be used. Let's look at an example.

1. Press the **EDID** button, *twice*. The EDID button will glow bright blue and the LCD will indicate that the matrix is ready to copy the default EDID to the specified input.

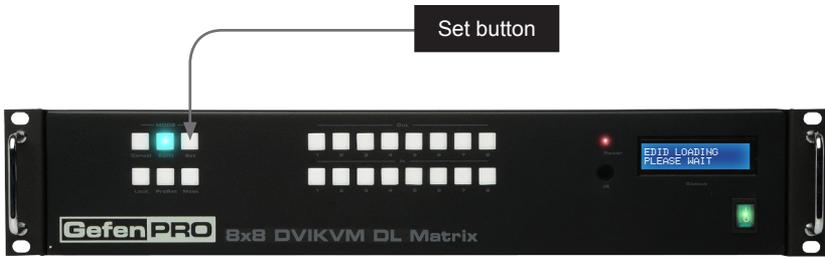

    EDID DETOLO MODE

    DETOLO is an abbreviation for "DEfault TO LOcal".

2. Select the input where the default EDID will be copied. For this example, we will copy the default EDID to Input 5. Therefore, we will press the button for Input 5.

3.   Press the **Set** button. The Set button will flash momentarily.

Set button

EDID LOADING
PLEASE WAIT

GefenPRO 8x8 DVIKVM DL Matrix

4.   Once the **Set** button is pressed, the matrix will begin copying the default EDID
      to the specified input.

      The LCD will indicate that the matrix is copying the EDID:

EDID LOADING
PLEASE WAIT

5.   After the EDID has been successfully copied to the selected input, the LCD will display
      the following message:

EDID LOADING
COPY COMPLETE

6.   After a few moments, the selected buttons will turn off and the LCD will return to the
      Home screen.

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03 Advanced Operation

IP Configuration

Using Syner-G™

When using this product for the first time, it is recommended that the unit be configured using the Gefen Syner-G™ Software Suite. The Gefen Syner-G™ Software Suite is free software that is available from the Gefen Web site.

1. Download and install the Gefen Syner-G™ Software Suite. Download the application here: http://www.gefen.com/synerg/

2. Connect an Ethernet cable from the network to the **IP control** port on the product.

3. Launch the Gefen Syner-G™ Software Suite.

4. Click the GEFDVIKVM-848DL-PB from the product list.

Select Function

Discover and Configure IP	Manage a Product	EDID Editor

My PC	10.5.64.90	00:1D:09:7E:E1:1F	Local Area Connection ▾

Product Name	IP Address	MAC Address	Description
EXT-CU-LAN	10.5.64.138	00:1C:91:04:60:75	EXT-CU-LAN RD MASTER
EXT-HDKVM-LAN-S	10.5.64.67	02:1D:00:5A:8D:53	EXT-DVIKVM-LAN-L-S
EXT-CU-LAN	10.5.64.146	00:1C:91:04:60:17	Dev CU-FAN Nick Desk
EXT-CU-LAN	10.5.64.130	00:1C:91:04:60:5D	EXT-CU-LAN RDSLAVE
GEF-DVIKVM-848DL-PB	192.168.1.72	00:1C:91:04:80:14	DVI 8x8DL

Device Settings

Product Name	GEF-DVIKVM-848DL-PB	IP Mode	Static ▾
MAC Address	00:1C:91:04:80:14	Web GUI Port	80
IP Address	192.168.1.72	Telnet Port	23
Subnet Mask	255.255.255.0	Firmware Version	v2.1.9
Gateway IP	192.168.1.1	Hardware Version	v2.0
DNS		Description	DVI 8x8DL

5. Under the Device Settings section, enter the desired IP address, subnet mask, gateway IP address, Web GUI port, and Telnet port in the supplied fields.

If desired, the **Description** field can be changed as well. This is useful to identify if you have multiple units running on a network.

6. Click the **Save** button at the bottom right-corner of the screen.

7. Click the **Reboot** button.

8. Click the **Web GUI** link, above the **Reboot** button, to access the built-in web interface.

The following table lists the default IP settings for this product.

Description	Address / Port	Description	Address / Port
IP Address	192.168.1.72	Gateway	192.168.1.1
Subnet	255.255.255.0	HTTP Port	80

RS-232 Configuration

RS-232 Interface

5 4 3 2 1

6 7 8 9
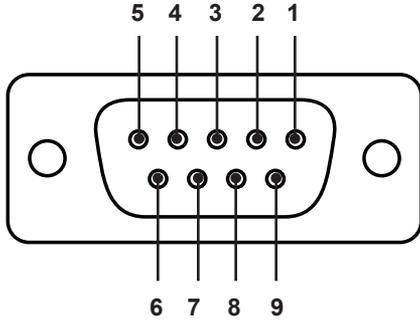
RS-232 Controller   Matrix

DCD	1		1	DCD
RXD	2		2	RXD
TXD	3		3	TXD
DTR	4		4	DTR
GND	5		5	GND
DSR	6		6	DSR
RTS	7		7	RTS
CTS	8		8	CTS
R1	9		9	R1
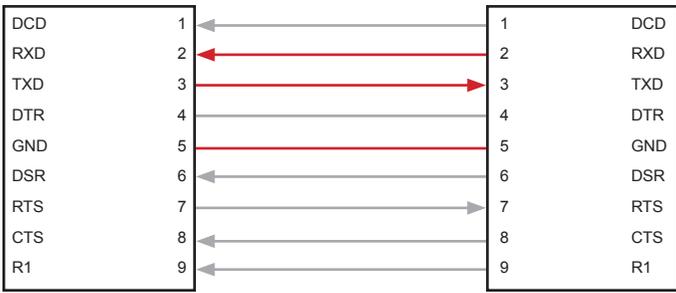
Only TXD, RXD, and GND pins are used.

RS-232 Settings

Description	Setting
Baud rate	19200
Data bits	8
Parity	None
Stop bits	1
Hardware flow control	None

> ⚠️ **IMPORTANT:** When sending RS-232 commands, a carriage return must be included at the end of the command. A space *must* be included between the command and the parameter.

Commands

IP / Telnet Configuration

Command	Description
#display_telnet_welcome	Set Telnet welcome message on login
#ipconfig	Displays the current TCP/IP settings for the matrix
#resetip	Resets IP configuration to factory settings
#set_http_port	Sets the Web server listening port
#set_telnet_pass	Prompts for password when using Telnet
#set_telnet_port	Sets the Telnet listening port
#set_telnet_username	Sets the user name for the login procedure
#sgateway	Sets the gateway address
#show_telnet_pass	Displays the Telnet password
#show_telnet_username	Displays the Telnet user name
#sipadd	Sets the IP address of the matrix
#snetmask	Sets the network mask
#use_telnet_pass	Enable / disable the Telnet password prompt

#display_telnet_welcome

The #display_telnet_welcome command enables / disables the Telnet welcome message on login.

Syntax:

#display_telnet_welcome param1

Parameters:

param1   Value   [0 ... 1]

Value	Description
0	Disable welcome message
1	Enable welcome message

Example:

#display_telnet_welcome 1
Telnet welcome at login is set to ON

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Note:

If enabled, the following message will be displayed when a Telnet session is started:

```
------------- Welcome to DVI8x8_DL Telnet Server -----------
- You are user number  1 of  2 allowed.                    -
- You will be disconnected after 5 minutes of inactivity.  -
------------------------------------------------------------
```

#ipconfig

The `#ipconfig` command displays the current TCP/IP settings for the matrix.

Syntax:

#ipconfig

Parameters:

None

Example:

```
#ipconfig

 -------------- TCP/IP settings -------------

MAC add  = 00:1C:91:01:00:00
IP add   = 192.168.2.232
Net Mask = 255.255.255.0
Gateway  = 192.168.2.1
Web Server Port = 80
Telnet Server Port = 23
Telnet password at login is set to OFF
Telnet welcome at login is set to ON
```

#resetip

The #resetip command resets the IP configuration to factory-default settings. The matrix must be rebooted after executing this command.

Syntax:

```
#resetip
```

Parameters:

None

#set_http_port

The #set_http_port command specifies the Web server listening port. The matrix must be rebooted after executing this command. The default port setting is 80.

Syntax:

```
#set_http_port param1
```

Parameters:

param1   Port   [1 ... 65535]

Example:

```
#set_http_port 82
New HTTP port set to: 82
```

#set_telnet_pass

The `#set_telnet_pass` command sets the Telnet password. The matrix must be rebooted after executing this command. The password cannot exceed 20 characters in length. The default password is `Admin`.

Syntax:

#set_telnet_pass param1

Parameters:

param1   Password

Example:

#set_telnet_pass reindeer
Telnet password updated to: reindeer

#set_telnet_port

The `#set_telnet_port` command sets the TCP terminal server listening port.
The matrix must be rebooted after executing this command. The default port setting is `23`.

Syntax:

#set_telnet_port param1

Parameters:

param1   Port   [1 ... 65535]

Example:

#set_tcp_term_port 21
New Telnet port set to: 21

#set_telnet_username

The `#set_telnet_username` command sets the Telnet user name. The matrix must be rebooted after executing this command. The user name cannot exceed 20 characters in length.

Syntax:

```
#set_telnet_username param1
```

Parameters:

param1   User name

Example:

```
#set_telnet_username flynn
Telnet login updated to: flynn
```

#sgateway

The `#sgateway` command sets the new IP gateway. The gateway must be typed using dot-decimal notation. The matrix must be rebooted after executing this command.
The default gateway is `192.168.1.1`.

Syntax:

```
#sgateway param1
```

Parameters:

param1   Gateway

Example:

```
#sgateway 192.168.2.1
New IP Gateway set to: 192.168.2.1
```

#show_telnet_pass

The #show_telnet_pass command displays the current Telnet password.
Use the #set_telnet_pass command to set the Telnet password.

Syntax:

```
#show_telnet_pass
```

Parameters:

None

Example:

```
#show_telnet_pass
Telnet password: reindeer
```

#show_telnet_username

The #show_telnet_name command displays the current Telnet user name.

Syntax:

```
#show_telnet_username
```

Parameters:

None

Example:

```
#show_telnet_username
Telnet login: flynn
```

#sipadd

The `#sipadd` command sets the IP address of the matrix. The IP address must be entered using dot-decimal notation. The matrix must be rebooted after executing this command. The default IP address of the matrix is `192.168.1.72`.

Syntax:

```
#sipadd param1
```

Parameters:

param1   IP address

Example:

```
#sipadd 192.168.1.127
New IP set to: 192.168.1.127
```

#snetmask

The `#snetmask` command sets the subnet mask. The net mask must be entered using dot-decimal notation. The matrix must be rebooted after executing this command. The default net mask is `255.255.255.0`

Syntax:

```
#snetmask param1
```

Parameters:

param1   Gateway

Example:

```
#snetmask 255.255.0.0
New IP Mask set to: 255.255.0.0
```

#use_telnet_pass

The `#use_telnet_pass` command enables / disables the login credentials when starting a Telnet session.

Syntax:

```
#use_telnet_pass param1
```

Parameters:

param1   Value   [0 ... 1]

Value	Description
0	Disable password prompt
1	Enable password prompt

Example:

```
#use_telnet_pass 1
Telnet password at login is set to ON
```

EDID Management

Command	Description
#dynamic_edid	Enables / disables the Dynamic EDID feature
#edidbatolo	Read downstream EDID and stores in any Local Input
#ediddetolo	Set to default EDID on Local Input
#ediddstoba	Read downstream EDID and stores in EDID Bank
#ediddstolo	Read downstream EDID and stores into a Local EDID
#lock_edid	Locks Local EDID and disables auto-loading after power-up
#prbaedid	Read downstream EDID from bank and sends to serial port
#prdsedid	Read downstream EDID and sends to serial port
#predidst	Spools the EDID details to the serial port
#prloedid	Read Input Local EDID and sends to serial port

#dynamic_edid

The #dynamic_edid command provides the ability to route any downstream EDID to any input. When enabled, the EDID is copied to all inputs from the last selected active output. When disabled, the EDID is copied to all inputs from the first active display detected, starting from Output 1. The default setting is *disabled.*

Syntax:

#dynamic_edid param1

Parameters:

param1   Value   [0 ... 1]

Value	Description
0	DRC Off
1	DRC On

Example:

#dynamic_edid 1
Enable Dyanmic EDID mode

#edidbatolo

The `#edidbatolo` command loads the EDID from the specified EDID bank and writes it to the specified input(s). At least one input must be specified. If *param2* = 0, then the EDID in the specified bank is copied to all 8 inputs.

Syntax:

```
#edidbatolo param1 param2 [... param9]
```

Parameters:

param1	EDID bank offset	[1 ... 20]
param2 - param9	Input list	[1 ... 8]

Examples:

```
#edidbatolo 2 3 6 7

Loading EDID bank 2 to locals Inputs: 3 6 7, please
wait.....
Finished Loading
```

```
#edidbatolo 5 0

Loading EDID bank 5 to all locals Inputs, please wait.....
Finished Loading
```

#ediddetolo

The `#ediddetolo` command stores the default (Internal) EDID to the specified input(s). At least one input must be specified. If *param2* = 0, then the EDID in the specified bank is copied to all 8 inputs.

Syntax:

```
#ediddetolo param1 [... param9]
```

Parameters:

param1 - param8   Input   [1 ... 8]

Examples:

```
#ediddetolo 5 6 7

Loading default EDID to locals Inputs: 5 6 7, please wait.....
Finished Loading


#ediddetolo 0

Loading default EDID to all locals Inputs, please wait.........
Finished Loading
```

#ediddstoba

The `#ediddstoba` command reads the downstream EDID and stores it to the specified EDID bank.

Syntax:

```
#ediddstoba param1 param2
```

Parameters:

param1	Output	[1 ... 8]
param2	EDID bank	[1 ... 20]

Example:

```
#ediddstoba 5 17

Loading Downstream EDID 5 to EDID bank 17, please wait....
Finished Loading
```

#ediddstolo

The #ediddstolo command reads the downstream EDID and stores it to a Local EDID.
If *param2* = 0, then the EDID in the specified bank is copied to all 8 inputs. At least one input must be specified.

Syntax:

```
#ediddstolo param1 param2 [...param9]
```

Parameters:

param1	Output	[1 ... 8]
param2	Input	[1 ... 8]

Example:

```
#ediddstolo 2 6 7

Loading Downstream EDID 2 to locals Inputs: 6 7, please wait....
Finished Loading
```

#lock_edid

The #lock_edid command secures the EDID stored on all inputs. This prevents the default EDID from being loaded to all inputs during a power-up procedure. This feature can be enabled or disabled.

Syntax:

#lock_edid param1

Parameters:

param1   Value   [0 ... 1]

Value	Description
0	Disable Lock EDID
1	Enable Lock EDID

Example:

#lock_edid 1
Enable Lock EDID mode

#prbaedid

The #prbaedid command displays the EDID stored in the specified EDID bank.

Syntax:

```
#prbaedid param1
```


Parameters:

param1   EDID bank   [1 ... 3]

Example:

```
#prbaedid 3
Print the Bank EDID 3 on terminal screen

0x00 0xFF 0xFF 0xFF 0xFF 0xFF 0xFF 0x00
0x10 0xAC 0x2E 0xA0 0x53 0x46 0x41 0x32
0x2C 0x11 0x01 0x03 0x80 0x34 0x20 0x78
0xEE 0xEE 0x91 0xA3 0x54 0x4C 0x99 0x26
0x0F 0x50 0x54 0xA5 0x4B 0x00 0x71 0x4F
0x81 0x80 0xA9 0x40 0x01 0x01 0x01 0x01
0x01 0x01 0x01 0x01 0x01 0x01 0x28 0x3C
0x80 0xA0 0x70 0xB0 0x23 0x40 0x30 0x20
0x36 0x00 0x06 0x44 0x21 0x00 0x00 0x1A
0x00 0x00 0x00 0xFF 0x00 0x52 0x4E 0x30
0x37 0x31 0x37 0x41 0x55 0x32 0x41 0x46
0x53 0x20 0x00 0x00 0x00 0xFC 0x00 0x44
0x45 0x4C 0x4C 0x20 0x45 0x32 0x34 0x38
0x57 0x46 0x50 0x0A 0x00 0x00 0x00 0xFD
0x00 0x38 0x4C 0x1E 0x53 0x11 0x00 0x0A
0x20 0x20 0x20 0x20 0x20 0x20 0x00 0xF7
```

#prdsedid

The #prdsedid command displays the EDID stored in the specified EDID bank.

Syntax:

#prdsedid param1

Parameters:

param1   Output   [1 ... 8]

Example:

```
#prdsedid 8
Print the Downstream EDID 8 on terminal screen, please wait...

0x00 0xFF 0xFF 0xFF 0xFF 0xFF 0xFF 0x00
0x10 0xAC 0x35 0x40 0x4C 0x32 0x33 0x32
0x31 0x13 0x01 0x03 0x80 0x41 0x29 0x78
0xEA 0x8F 0x95 0xAD 0x4F 0x32 0xB2 0x25
0x0F 0x50 0x54 0xA5 0x4B 0x00 0x81 0x80
0xA9 0x40 0xD1 0x00 0xD1 0x40 0x71 0x4F
0x81 0x00 0xB3 0x00 0x01 0x01 0xB0 0x68
0x00 0xA0 0xA0 0x40 0x2E 0x60 0x30 0x20
0x36 0x00 0x81 0x90 0x21 0x00 0x00 0x1E
0x00 0x00 0x00 0xFF 0x00 0x47 0x35 0x30
0x31 0x48 0x39 0x43 0x32 0x32 0x33 0x32
0x4C 0x0A 0x28 0x3C 0x80 0xA0 0x70 0xB0
0x23 0x40 0x30 0x20 0x36 0x00 0x81 0x91
0x21 0x00 0x00 0x1C 0x00 0x00 0x00 0xFD
0x00 0x31 0x56 0x1D 0x71 0x1C 0x00 0x0A
0x20 0x20 0x20 0x20 0x20 0x20 0x00 0x41
```

#predidst

The #predidst command displays the EDID used by each input.

Syntax:

#predidst param1

Parameters:

None

Example:

```
#predidst

 Input  |  Source   | Name
 -------|-----------|------
  1     |   Default | GEFEN_XPT_DL
  2     |   Default | GEFEN_XPT_DL
  3     |   Default | GEFEN_XPT_DL
  4     |   Default | GEFEN_XPT_DL
  5     |   Default | GEFEN_XPT_DL
  6     |   Default | GEFEN_XPT_DL
  7     |   Default | GEFEN_XPT_DL
  8     |   Default | GEFEN_XPT_DL
```

#prloedid

The #prloedid command displays the EDID stored in the specified input.

Syntax:

```
#prloedid param1
```

Parameters:

param1   Input   [1 ... 8]

Example:

```
#prloedid 3

Finished reading EDID from Local EDID input 3
0x00 0xFF 0xFF 0xFF 0xFF 0xFF 0xFF 0x00
0x1C 0xA6 0x00 0x01 0x00 0x00 0x00 0x01
0x01 0x14 0x01 0x03 0x80 0x50 0x2D 0x78
0x0A 0x0D 0xC9 0xA0 0x57 0x47 0x98 0x27
0x12 0x48 0x4C 0x21 0x4F 0x00 0x81 0x00
0xA9 0x40 0xD1 0x00 0x71 0x40 0x01 0x01
0x01 0x01 0x01 0x01 0x01 0x01 0x30 0x2A
0x00 0x98 0x51 0x00 0x2A 0x40 0x30 0x70
0x13 0x00 0x52 0x0E 0x11 0x00 0x00 0x1E
0xB0 0x68 0x00 0xA0 0xA0 0x40 0x2E 0x60
0x30 0x20 0x36 0x00 0x81 0x90 0x21 0x00
0x00 0x1E 0x00 0x00 0x00 0xFC 0x00 0x47
0x45 0x46 0x45 0x4E 0x5F 0x58 0x50 0x54
0x5F 0x44 0x4C 0x20 0x00 0x00 0x00 0xFD
0x00 0x3B 0x3D 0x0F 0x71 0x1C 0x00 0x0A
0x20 0x20 0x20 0x20 0x20 0x20 0x00 0x3C
```

Routing and Masking

Command	Description
#audswitch	Enables / disables independent audio switching
#callpreset	Restores the specified routing / masking preset
#maskaud	Masks / unmasks the specified audio output
#maskout	Masks the specified output(s)
#maskusb	Masks the specified USB output port
#prpreset	Displays all presets in tabular form
#saudio	Routes the specified audio inputs
#savepreset	Saves the current routing state to the specified preset
#set_input_name	Names the specified input
#set_output_name	Names the specified output
#unmaskout	Unmasks the specified outputs
m	Displays the current matrix status in tabular form
r	Routes the specified input to the specified outputs
s	Routes the specified inputs to all outputs

#audswitch

The #audswitch command enables / disables independent audio switching. Use the #saudio command to perform independent audio switching.

Syntax:

#audswitch param1

Parameters:

param1   Value   [0 ... 1]

Value	Description
0	Disable audio switching
1	Enable audio switching

Example:

#audswitch 1
Enable independent audio routing

#callpreset

The #callpreset command restores the specified routing / masking preset. If the specified preset is empty, then Empty Set will be returned.

Syntax:

#callpreset param1

Parameters:

param1   Preset   [1 ... 8]

Example:

#callpreset 2
Recall Saved Set 2

#maskaud

The #maskaud command masks / unmasks the specified audio output.

Syntax:

```
#maskaud param1 param2
```

Parameters:

param1	Audio Output	[1 ... 8]
param2	State	[0 ... 1]

Value	Description
0	Disable masking (active)
1	Enable masking

Examples:

```
#maskaud 1 1
Mask AUDIO Output 1

#maskaud 1 0
Active AUDIO Output 1
```

#maskout

The #maskout command masks the specified video output(s). Up to eight video outputs can be specified at a time. If *param1* = 0, then all video outputs will be masked. Use the #unmask command to unmask video outputs.

Syntax:

```
#maskout param1 [...param8]
```

Parameters:

param1	Video Output	[1 ... 8]

Examples:

```
#maskout 1 3 5 6
Mask outputs: 1 3 5 6

#maskout 0
Masked all outputs
```

#maskusb

The #maskusb command masks / unmasks the specified USB output port.

Syntax:

```
#maskusb param1 param2
```


Parameters:

param1	Video Output	[1 ... 8]
param2	State	[0 ... 1]

Value	Description
0	Disable masking (active)
1	Enable masking

Examples:

```
#maskusb 3 1
Mask USB DownStream 3

#maskout 3 0
Active USB DownStream 3
```

#prpreset

The #prpreset command displays the current list of presets in tabular form.

Syntax:

#prpreset

Parameters:

None

Example:

```
#prpreset

PreSet|Out1| 2 | 3 | 4 | 5 | 6 | 7 | 8
------|----|---|---|---|---|---|---|----
  1   |M 0 |M 0|M 0|M 0|M 0|M 0|M 0|M 0
  2   |M 0 |M 0|M 0|M 0|M 0|M 0|M 0|M 0
  3   |M 0 |M 0|M 0|M 0|M 0|M 0|M 0|M 0
  4   |M 0 |M 0|M 0|M 0|M 0|M 0|M 0|M 0
  5   |M 0 |M 0|M 0|M 0|M 0|M 0|M 0|M 0
  6   |M 0 |M 0|M 0|M 0|M 0|M 0|M 0|M 0
  7   |M 0 |M 0|M 0|M 0|M 0|M 0|M 0|M 0
  8   |M 0 |M 0|M 0|M 0|M 0|M 0|M 0|M 0
------|----|---|---|---|---|---|---|----
Audio |Out1| 2 | 3 | 4 | 5 | 6 | 7 | 8
------|----|---|---|---|---|---|---|----
  1   |  1 | 1 | 1 | 1 | 1 | 1 | 1 | 1
  2   |  2 | 2 | 2 | 2 | 2 | 2 | 2 | 2
  3   |  0 | 0 | 0 | 0 | 0 | 0 | 0 | 0
  4   |  0 | 0 | 0 | 0 | 0 | 0 | 0 | 0
  5   |  0 | 0 | 0 | 0 | 0 | 0 | 0 | 0
  6   |  0 | 0 | 0 | 0 | 0 | 0 | 0 | 0
  7   |  0 | 0 | 0 | 0 | 0 | 0 | 0 | 0
  8   |  0 | 0 | 0 | 0 | 0 | 0 | 0 | 0
------|----|---|---|---|---|---|---|----
```

#saudio

The #saudio command routes audio independently from video outputs. If *param1* = 0, then audio routing is placed in a "1-to-1" state with the current video routing. Independent audio routing must be enabled before using this command. See the #audswitch command for more information.

Syntax:

#saudio param1

Parameters:

param1   Audio Input   [1 ... 8]

Examples:

#saudio 2
Independent audio route input 2 to all outputs

#saudio 0
Independent audio routing 1-1,2-2...

#savepreset

The #savepreset command saves the current routing and masking state to a specified preset. To restore a saved preset, use the #callpreset command.

Syntax:

```
#savepreset param1
```

Parameters:

param1   Preset   [1 ... 8]

Example:

```
#savepreset 2
Saved current as set 2
```

#set_input_name

The #set_input_name command names the specified input. The name of the input cannot exceed 15 characters in length. Spaces are not permitted when naming outputs. If a space is required, use the underscore ("_") character.

Syntax:

```
#set_input_name param1 param2
```

Parameters:

param1   Input   [1 ... 8]
param2   Name

Example:

```
#set_input_name 4 signal_gen
signal_gen is assigned to input 4
```

#set_output_name

The #set_output_name command names the specified output. The name of the output cannot exceed 15 characters in length Spaces are not permitted when naming outputs. If a space is required, then use the underscore ("_") character.

Syntax:

```
#set_output_name param1 param2
```

Parameters:

param1	Output	[1 ... 8]
param2	Name	

Example:

```
#set_output_name 7 Dell_24
Dell_24 is assigned to output 7
```

#unmaskout

The #unmaskout command unmasks the specified output(s). Multiple outputs can be specified. If *param1* = 0, then all outputs will be unmasked.

Syntax:

```
#set_output_name param1 [... param9]
```

Parameters:

param1	Output	[1 ... 8]

Examples:

```
#unmaskout 4 5 8
Activate outputs: 4 5 8

#unmaskout 0
Active all outputs
```

m

The m command displays the current matrix status in tabular form. The current DIP switch settings for the IR remote control unit are also displayed, based on the current IR channel of the matrix. Do not precede this command with the "#" symbol.

Syntax:

m

Parameters:

None

Example:

```
m

   Output       |    Input       |  HPD  | Status | AUDIOin
----------------|----------------|-------|--------|--------
       Output_1|         Input_1|   LOW | ACTIVE | 1
       Output_2|         Input_2|   LOW | ACTIVE | 2
       Output_3|         Input_3|   LOW | ACTIVE | 3
       Output_4|         Input_3|   LOW | ACTIVE | 4
       Output_5|         Input_5|   LOW | ACTIVE | 5
       Output_6|         Input_6|   LOW | ACTIVE | 6
        Dell_24|         Input_7|   LOW | ACTIVE | 7
       Output_8|         Input_8|   LOW | ACTIVE | 8
----------------|----------------|-------|--------|--------
EDID lock state
RMT_IR - SW1=0,SW2=0
```

r

The `r` command routes the specified input to the specified outputs. Up to eight outputs can be specified at a time. Do not precede this command with the "#" symbol. If *param2* = 0, then the specified input will be routed to all outputs. Also see the `s` command.

Syntax:

```
r param1 param2 [... param9]
```

Parameters:

param1	Input	[1 ... 8]
param2	Output	[1 ... 8]

Example:

```
r 1 2 3 7 8
Input 1 is routed to outputs: 2 3 7 8


r 5 0
All outputs are routed to input 5
```

s

The s command routes the specified inputs to all outputs. Do not precede this command with the "#" symbol. If *param1* = 0, then the matrix will be placed in a "1-to-1" routing state. In other words, Input 1 is routed to Output 1, Input 2 is routed to Output 2, and so on. Also see the r command.

Syntax:

```
s param1
```

Parameters:

param1	Input	[1 ... 8]

Example:

```
s 2
All outputs are routed to input 2


s 0
Routed 1-1,2-2...
```

System

Command	Description
#fadefault	Resets the routing and masking to factory-default settings
#help	Displays a list of available RS-232 / Telnet commands
#lock_fo	Enables / disables the power lock state
#set_ir	Sets the IR channel of the matrix
#show_temp	Displays the temperature of each board within the matrix
#show_ver_data	Displays the current hardware and firmware version
#show_voltage	Displays the input and output board voltages
l	Displays the single link / dual link state of each input

#fadefault

The #fadefault command resets the matrix to factory-default settings.

Syntax:

#fadefault

Parameters:

None

Example:

```
#fadefault
Reset to factory default, Please wait
Routing 1-1,2-2,...
Unmasked all Outputs

Loading default EDID to all locals Inputs, please wait........
Finished Loading
```

#help

The #help command displays the list of available RS-232 / Telnet commands. The #help command can also be used to provide help on a specific command.

Syntax:

```
#help [param1]
```

Parameters:

param1   Command (optional)

Notes:

When asking for help on a specific command, the "#" character must be included as part of the command.

Examples:

```
#help #maskout

Cmd #maskout: Mask outputs
Syntax: #maskout param1..param8
Param1 = 0 (All outputs)
Param1..Param8 = 1-8 (Outputs)
 e.g: #maskout 5 6 7


#help

Available cmds:

#help
#ipconfig
#sipadd
#snetmask
#sgateway
#set_http_port
#set_telnet_port
#show_telnet_username
#set_telnet_username
...
...

#dynamic_edid
#maskusb
#maskaud
a
#audswitch
#saudio
```

#lock_fo

The #lock_fo command enables / disables the power lock state. Enabling this feature will store the +5V status for each input prior to powering-down (or power-cycling) the matrix. The +5V state is preserved when the matrix is powered.

Syntax:

#lock_fo param1

Parameters:

None   Value   [0 ... 1]

Value	Description
0	Disable +5V status
1	Enable +5V status

Example:

#lock_fo 1
Enable Lock power mode

#set_ir

The #set_ir command sets the IR channel of the matrix. In order for the included IR remote control unit to function correctly with the matrix, both the matrix and the IR remote must share the same IR channel. After executing this command, the DIP switch settings for the included IR remote control unit are returned. See Setting the IR Channel for information on setting the IR channel on the IR remote control unit.

Syntax:

```
#set_ir param1
```

Parameters:

param1   IR channel   [0 ... 3]

Example:

```
#set_ir 2
RMT_IR - SW1=0,SW2=1
```

#show_temp

The #show_temp command displays the temperature of each board within the matrix.

Syntax:

#show_temp

Parameters:

None

Example:

#show_temp

Temperature near main power supply is 43
Temperature near cross point is 54
Temperature near power supply input board is 45

#show_ver_data

The #show_ver_data command displays the current hardware and firmware version.

Syntax:

#show_ver_data

Parameters:

None

Example:

#show_ver_data

Hardware version 1
Firmware Release version 2.1.9
Release date: Mar 3 2013
Release time: 10:09:48
Boot loader version 1.6

#show_voltage

The #show_voltage command displays the input and output board voltages.

Syntax:

#show_voltage

Parameters:

None

Example:

```
#show_voltage
Voltage 3.3 , measured 3356 mV
Voltage 5   , measured 5054 mV
Voltage 12  , measured 11965 mV
Voltage 1.2 , measured 1203 mV
Voltage 1.8 , measured 1803 mV
Voltage 3.3 , measured 3265 mV
```

1

The `l` command displays the dual link / single link status of each input. Do not precede this command with the "`#`" symbol.

Syntax:

```
l
```

Parameters:

None

Example:

```
l
Input   |  Signal  | Link
--------|----------|--------
  1     |    NONE  | Single
  2     |    NONE  | Single
  3     |    NONE  | Single
  4     |    NONE  | Single
  5     |    NONE  | Single
  6     |    NONE  | Single
  7     |    NONE  | Single
  8     |    NONE  | Single
--------|----------|--------
```

Web Interface

Using the built-in Web Server

Access the built-in Web interface by entering the IP address of the matrix that was specified under the section IP Configuration. Once connected, the View Matrix Status page will be displayed.

The Web interface is divided into five main pages: **View Matrix Status**, **Manage EDID**, **Masking**, **IP Configuration**, and **Power Management**. Each of these pages is represented by a tab. Click on the desired tab to open the page. The Manage EDID page has its own set of tabs which can be accessed.

View Matrix Status

VIEW MATRIX STATUS
Click this button access this menu system.

Matrix Status
Displays the current routing status of each input and output on the matrix.

Refresh
Click to refresh the Matrix Status screen

Auto Refresh
Check this box to enable Auto Refresh. The Auto Refresh function automatically refreshes the interface every 10 seconds.

Update Dynamic EDID State
Dynamic EDID mode can be enabled or disabled by selecting the **Off** or
On radio buttons. See #dynamic_edid for more information on using
Dynamic EDID.

Switch Outputs
Used to route the specified input to the selected output(s). To route a source,
place a check mark next to each Output. Next, click the radio button next to
the desired Input. Click the **Switch** button (see next page) to apply the routing
change.
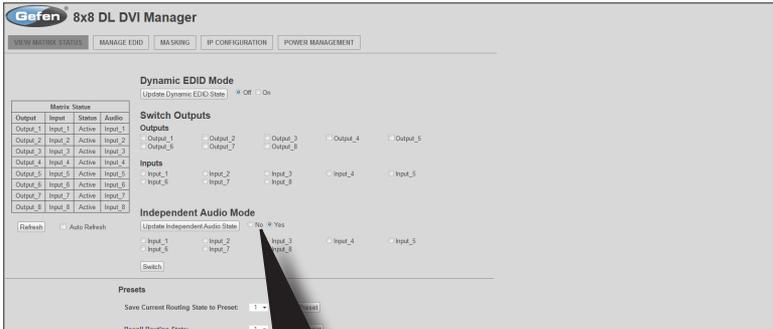
Independent Audio Switch

Enables / disables independent audio switching.
Click the **Yes** radio button to enable independent
audio switching. To disable, click the **No** radio
button.

Once independent audio switching is enabled, click
the radio button next to the desired Input. Each input
can be independently enabled or disabled.

Click the **Switch** button to apply the changes.

Switch

Click this button to apply
the routing changes.

Save Preset

Click the down-arrow on the pull-down list to select the preset location (1 - 8). Click the **Save Preset** button to save the preset.
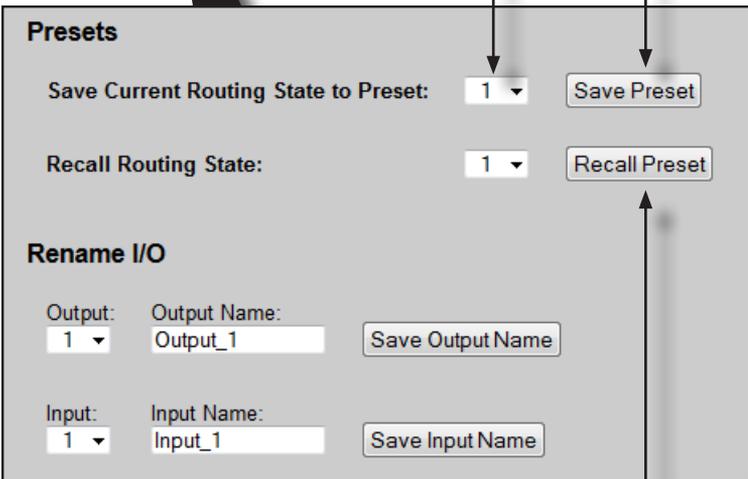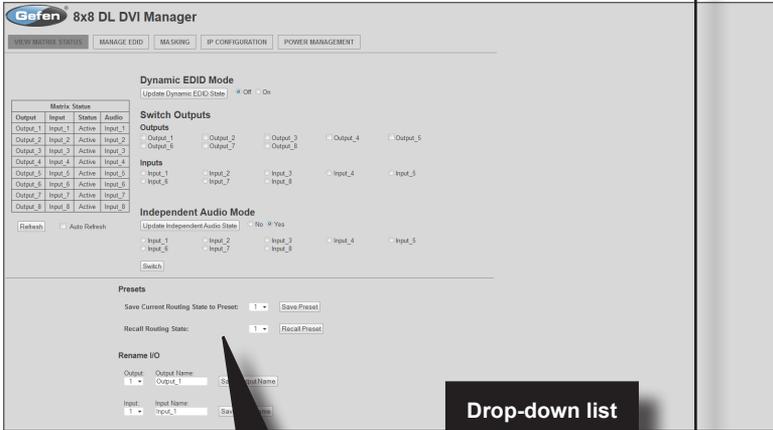
Drop-down list

Recall Preset

Click the down-arrow on the pull-down list to select the routing state (1 - 8) to recall. Click the **Recall Preset** button to recall the preset.

Save Output Name
Click the down-arrow on the drop-down list to select the desired output (1 - 8).
Enter the name of the output in the **Output Name** field. Click the **Save Output Name** button to rename the output.
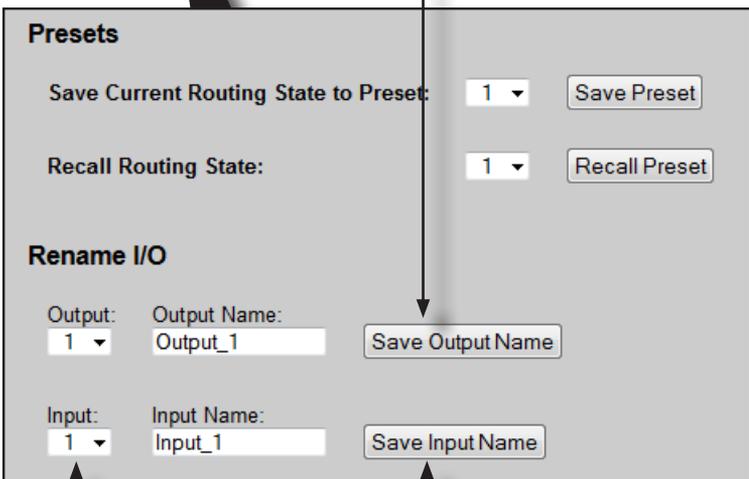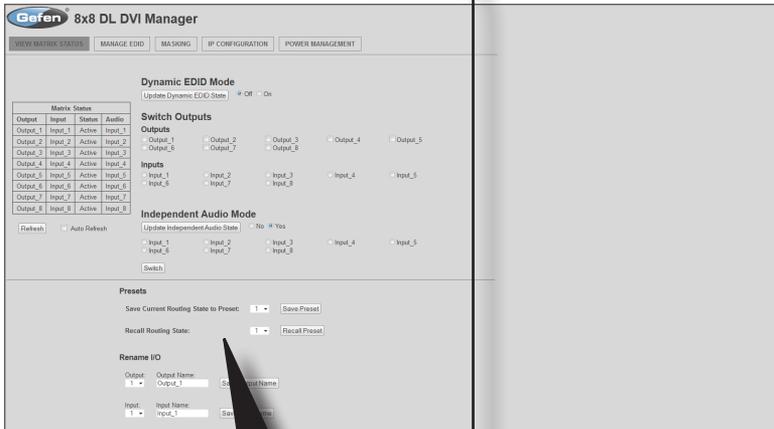
Drop-down list

Save Input Name
Click the down-arrow on the drop-down list to select the desired input (1 - 8).
Enter the name of the output in the **Input Name** field. Click the **Save Input Name** button to rename the input.

Manage EDID

Set Input to Default EDID

Set Input to Default EDID
Press this button from the **Manage EDID** screen to access this menu system.

Refresh
Click to refresh the Matrix Status screen

Auto Refresh
Check this box to enable Auto Refresh. The Auto Refresh function automatically refreshes the interface every 10 seconds.

EDID Status
Displays the current EDID status for each input on the matrix and indicates the current Lock State.

Set Default EDID

Place a check mark next to the input(s) that should be set to the default EDID. Click the **Set Default EDID** button to apply the default EDID to the selected inputs.

Upload EDID

Upload EDID
Press this button from the **Manage EDID** screen to
access this menu system.

Upload EDID

Gefen 8x8 DL DVI Manager

VIEW MATRIX STATUS | MANAGE EDID | MASKING | IP CONFIGURATION | POWER MANAGEMENT

Set Input to Default EDID | Upload EDID | Download EDID | Copy EDID | EDID Lock State

	EDID Status - Lock State: ON	
Input	EDID Source	Name
Input_1	Default	GEFEN_XPT_DL
Input_2	Default	GEFEN_XPT_DL
Input_3	Default	GEFEN_XPT_DL
Input_4	Default	GEFEN_XPT_DL
Input_5	Default	GEFEN_XPT_DL
Input_6	Default	GEFEN_XPT_DL
Input_7	Default	GEFEN_XPT_DL
Input_8	Default	GEFEN_XPT_DL

Select Input(s) to Upload to:
☐ Input_1 ☐ Input_2 ☐ Input_3 ☐ Input_4 ☐ Input_5
☐ Input_6 ☐ Input_7 ☐ Input_8

Upload EDID File
[   ] Browse...
Load EDID file

Refresh ☐ Auto Refresh

Select Input(s) to Upload to:

☐ Input_1   ☐ Input_2   ☐ Input_3   ☐ Input_4
☐ Input_6   ☐ Input_7   ☐ Input_8

Upload EDID File

[   ] Browse...

Load EDID file

Load EDID file
Place a check mark next to the input(s) that will receive the EDID data
from the file. The EDID file must be in .bin format. Click the **Browse**
button to locate the EDID on the computer. Click the **Load EDID file**
button to upload the EDID file to the matrix.

Download EDID

Download EDID
Press this button from the **Manage EDID** screen to
access this menu system.

Download EDID File to PC
Select the radio button next to the output, containing the EDID to be
downloaded. Click the **Download EDID File to PC** button to confirm
the change. The downloaded EDID file will be in .bin format.

Copy EDID

Copy EDID
Click this button from the **Manage EDID** screen to access this menu system.

Select Source to Copy from / Select Input(s) to Copy to
Click the radio button next to the input or output containing the EDID to copy. Note that only a single input or output can be selected at a time. Place a check mark next to the input(s) where the EDID will be copied. Click the **Set EDID** button to confirm the operation.

EDID Lock State

EDID Lock State
Press this button from the **Manage EDID** screen to
access this menu system.

Update EDID Lock State
Secures the Local EDID and disables the automatic loading of the
downstream EDID after the Matrix is powered on. Select the radio button
next to the **Off** or **On** option then click the **Update EDID Lock State** button
to apply the change.

The EDID Lock State has no effect when the Dynamic EDID function is
activated.

Masking

MASKING
Click this button access this menu system.

Refresh
Click to refresh the Matrix
Status screen

Save Changes
Click this button...

Auto Refresh
Check this box to enable
Auto Refresh. The
Auto Refresh function
automatically refreshes the
interface every 10 seconds.

Mask
Click the **Mask** button to mask the desired output. If the output is not masked
then the button will read *Active* (masking disabled). Click the *Active* button to
toggle the mask the output masking state to *Mask* (masking enabled).

IP Configuration

IP CONFIGURATION
Click this button access this menu system.

IP CONFIGURATION

Gefen 8x8 DL DVI Manager

VIEW MATRIX STATUS   MANAGE EDID   MASKING   IP CONFIGURATION   POWER MANAGEMENT

IP Settings
MAC Address: 00:1C:91:01:00:00
IP Address: 192.168.2.232   (default: 192.168.1.72)
Subnet: 255.255.255.0   (default: 255.255.255.0)
Gateway: 192.168.2.1   (default: 192.168.1.254)
HTTP Port: 80   (default: 80)
Telnet Port: 23   (default: 23)
Save

Reset IP Configuration to Defaults: Reset

Telnet Login Settings
User Name: Admin   (default: A
Password: Admin   (default: Ad
Force Login:
Welcome message:
Save

IP Settings

MAC Address: 00:1C:91:01:00:00

IP Address: 192.168.2.232   (*default: 192.168.1.72*)

Subnet: 255.255.255.0   (*default: 255.255.255.0*)

Gateway: 192.168.2.1   (*default: 192.168.1.254*)

HTTP Port: 80   (*default: 80*)

Telnet Port: 23   (*default: 23*)

Save

Reset IP Configuration to Defaults: Reset

Telnet Login Settings

User Name: Admin   (*default: Admin*)

Password: Admin   (*default: Admin*)

Force Login:

Welcome message: ✓

Save

IP Settings
Assigns IP address, subnet, gateway, HTTP listening port, and Telnet
port. The MAC address can not be changed. Click the **Save** button to
apply changes. The matrix must be rebooted for the changes to take
effect.

Telnet Login Settings
Sets the user name and password for Telnet sessions to the matrix. Click the
Save button to apply changes.

Power Management

POWER MANAGEMENT
Click this button access this menu system.

POWER MANAGEMENT

Refresh
Click to refresh
the Power Status
screen

Save Changes
Click to save the power lock status.

Auto Refresh
Check this box to
automatically update
the screen every 10
seconds.

Power State
The current power state is listed under the column titled "5 Volt". Click these
buttons to toggle the input power state.
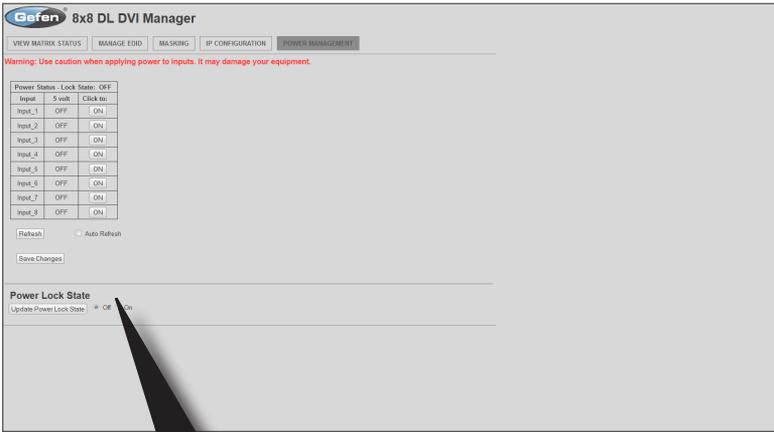
Power Lock State

In the case of an accidental power loss to the matrix, the +5V state for each input can be preserved.

Set the specified Power Status buttons (see previous page) and click the ON button. Click the **Update Power Lock State** button to apply changes.

By default, this option is set to Off.

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8x8
sources   displays

DVI KVM
Dual Link Matrix
with Push Button Control

04   Appendix

Specifications

Supported Formats	
Resolutions (max.)	• 3840 x 2400 • 2560 x 1600 • 1080p Full HD

Electrical	
Maximum Pixel Clock	• 2 x 165 MHz

Connectors	
Video Inputs	• 8 x DVI-I, 29-pin, female
Video Outputs	• 8 x DVI-I, 29-pin, female
USB Inputs	• 8 x USB 2.0, Type-B
USB Outputs	• 16 x USB 2.0, Type-A
Audio Inputs	• 8 x 3.5mm mini-stereo
Audio Outputs	• 8 x 3.5mm mini-stereo
IR Extender	• 1 x 3.5mm mini-stereo
RS-232	• 1 x DB-9, female
Ethernet	• 1 x RJ-45, shielded

Operational	
Power Input	• 100 - 240V AC
Power Consumption	• 90W (max.)
Operating Temperature	• +32 to +104 °F (0 to +40 °C)

Physical	
Dimensions (W x H x D)	• 17.25" x 3.5" x 11.6" (438mm x 89mm x 295mm)
Unit Weight	• 16.4 lbs (7.4 kg)

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