4x4 HDMI FST Matrix Switcher Installation Guide

Introduction

The *4x4 HDMI FST Matrix Switcher* provides high definition video sources plus multi-channel digital audio from any of the four HDMI sources to the remote displays at the same time.

Features and Benefits

- Distribute content from any of the four HDMI sources to any connected display
- Device and display switching via push buttons, IR remote control, RS-232 control and Ethernet control
- Supports HDMI Deep Color, full 3D and HDCP 2.0
- Supports Fast Switch and no blinking technology
- Supports stereo & 7.1 channel digital audio
- Metal housing with wall mount support

Package Contents

- *4x4 HDMI FST Matrix Switcher*
- Power adapter
- Remote control and IR blaster cable
- Mounting ears and screws(6)
- Software CD
- Installation guide

Layout

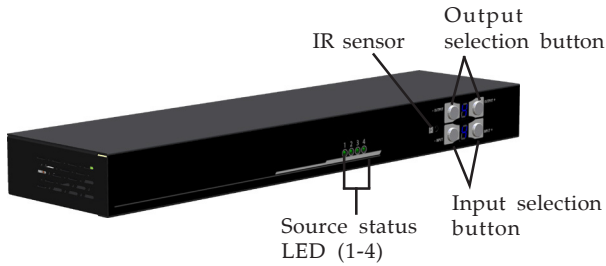


Figure 1: Front Panel Layout

- **Source status LED**: HDMI input source status LED indicator. Steady blue light when HDMI source is connected. Each HDMI IN connector has a LED indicator
- **IR sensor**: IR sensor for receiving the IR commands from IR remote
- **Output selection button**: Press the Output button(s) to select the output display
- **Input selection button**: Press the Input button(s) to select the input signal

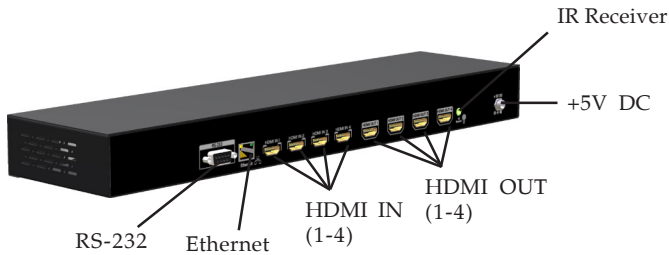


Figure 2: Rear Panel Layout

- **RS-232**: RS-232 control port
- **Ethernet**: IP (Ethernet) control port

- **HDMI IN (1-4)**: Connects to your HDMI source's HDMI output via HDMI cables (cables not included)
- **HDMI OUT (1-4)**: Connect your HDMI displays here
- **IR Receiver**: Connect your IR blaster cable here
- **+5V DC**: Connect your power adapter here

Hardware Installation

1. Power off all source devices and displays.
2. Connect up to four HDMI source devices to the *Matrix Switcher*'s HDMI input ports by HDMI cables (cables not included).
3. Connect up to 4 HDMI displays to the *Matrix Switcher*'s HDMI output ports by HDMI cables (cables not included).
4. For PC software control over the input/output selection and related settings, please connect the RS-232 cable and Ethernet cable to the *Matrix Switcher*'s serial port and Ethernet port.

> **Note:** If you want to control device switching through RS-232 port, connect an RS-232 cable to the PC only. If you want to control device switching through Ethernet port, connect both RS-232 cable to the PC and Ethernet cable to a router or switch on your network at the beginning.

5. Plug the power adapter into the *Matrix Switcher*'s power jack, then plug the power adapter into a reliable power outlet. The *Matrix Switcher* is powered on automatically.
6. Power on all devices connected to the switch.
7. The *Matrix Switcher* is now ready for use.

Operation

There are four ways to control the input and output: 1. Selection button on the front panel; 2. IR remote control; 3. RS-232 control port; 4. IP (Ethernet) control port.

Control over Input selection button

Refer to **Figure 3** for the position of each control button:

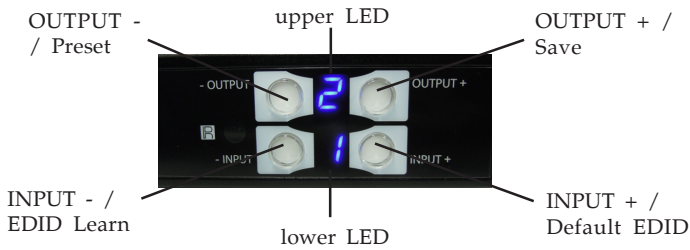


Figure 3

INPUT / OUTPUT Selection

1. Press **INPUT +** (the bottom, right button) or **INPUT -** (the bottom, left button) button to choose your input source.
   "+" means increasing in the number of the input, "-" means decreasing. The lower LED will display the selected input number.
2. Press **OUTPUT +** (the top, right button) or **OUTPUT -** (the top, left button) to choose your output display. "+" means increasing in the number of the display, and "-" means decreasing. The **upper LED** will display the selected output number.
3. After both output and input are selected, the LED will blink twice, and the setting is taking effect now. The selected output will display the input source you selected.

Save Mapping

1. Press **INPUT +** or **INPUT -** button to choose your input.
2. Press **OUTPUT +** or **OUTPUT -** button to choose your output. Once the your preferred output is selected, keep pressing the **OUTPUT+** button (that is, **Save mapping** button), the upper LED will show **d**. The *Matrix Switcher* is in saving mode now.

   Note: Continue to hold down the **OUTPUT+** button (**Save mapping** button) until instructed otherwise.
3. Press **INPUT +** or **INPUT -** button to choose a channel from **0-7**. The channel you choose is the channel you save this mapping in.
4. Release the **OUTPUT+** button **(Save mapping** button) now, the upper and lower LED will blink twice. The mapping is saved now.

Delete Saved Mapping

1. Press and hold down the **OUTPUT -** button (that is, **Preset** button). **Note:** Continue to hold down the **Preset button** until instructed otherwise.
2. When the **upper LED** shows **P**, press **INPUT +** or **INPUT -** button to choose the channel from **0-7**. The channel you choose is the channel you want to erase the mapping memory.
3. Release the **Preset** button now, the upper and lower LED will blink twice. The mapping is erased now.

Learning Default EDID

1. Press **INPUT +** or **INPUT -** button to choose an input you want to learn the default EDID. Once your preferred input is selected, keep pressing the **INPUT+** button (that is, **Default EDID** button).

Note: Continue to hold down the **Preset button** until instructed otherwise.

2. Press **OUTPUT +** or **OUTPUT -** button, the upper LED will show **E**, and the lower LED will show **d**. The *Matrix Switcher* is in default EDID learning mode.
3. Press **OUTPUT +** or **OUTPUT -** button to choose the default EDID mode from 1-8.

   1) Full-HD(1080p@60)-24bit 2D & 2ch
   2) Full-HD(1080p@60)-24bit 2D & 7.1ch
   3) Full-HD(1080p@60)-24bit 3D & 2ch
   4) Full-HD(1080p@60)-24bit 3D & 7.1ch
   5) Full-HD(1080i@60)(720p@60)-24bit 2D & 2ch
   6) Full-HD(1080i@60)(720p@60)-24bit 2D & 7.1ch
   7) Full-HD(1080p@60)-36bit 2D & 2ch
   8) Full-HD(1080p@60)-36bit 2D & 7.1ch

4. Release the **Default EDID** button, the upper and lower LED will blink twice. The selected default EDID is learned now.

EDID Learning Mode

1. Press **INPUT +** or **INPUT -** button to choose an input you want to learn. Once your preferred input is selected, keep pressing the **INPUT-** button (that is, **EDID Learning** button).

   Note: Please don't let go of the **EDID Learning** button until instructed to do so.
2. Press **OUTPUT +** or **OUTPUT -** button, the upper LED will show **E**, and the lower LED will show **L**.The *Matrix Switcher* is in EDID learning mode now.

3. Press **OUTPUT +** or **OUTPUT -** button to select a EDID port from 1-4.
4. Release the **EDID Learning button** now, the upper and lower LED will blink twice. The EDID is learned by your selected output.

Control over IR Remote Control

INPUT / OUTPUT Selection

Select your input and output by pressing the circled buttons below. See **Figure** 4.

Take button B for example, button B is on the crossed point of input 2 and output 1. So when you press button B, the signals from input 2 will display on output 1.

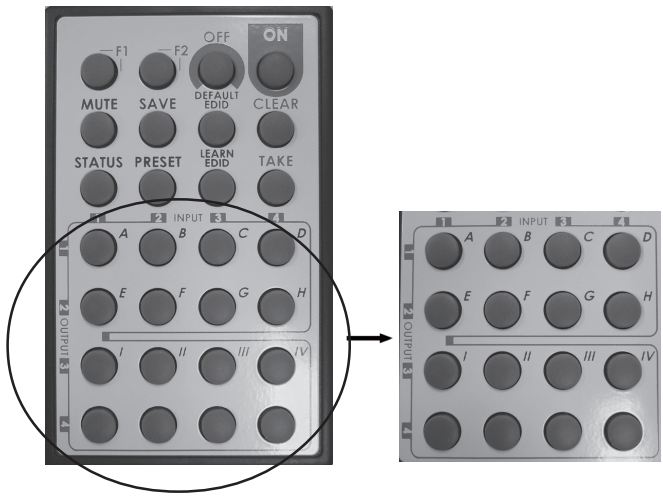


Figure 4

Save Mapping

1. After the preferred input/output is selected, press **SAVE**. The upper LED on *Matrix Switcher* will show **d**.
2. Press button **A-H** to select your storage channel. **Note:** Buttons **A-H** represent storage channels 1-8.
3. Press the **TAKE** button. The mapping has been saved.

Delete Saved Mapping

1. If you want to delete a saved mapping, press the **PRESET** button. The upper LED on *Matrix Switcher* will show **P**.
2. Press button **A-H** to select your storage channel. **Note:** Buttons **A-H** represent storage channels 1-8.
3. Press the **TAKE** button. The mapping has been deleted.

Learning Default EDID

1. Press the **DEFAULT EDID** button . The upper LED will show **E** and lower LED will show **d**.
2. Press button **A-H** to select your default EDID mode.

   Note: Buttons **A-H** represent default EDID mode 1-8. Please refer to page 6 for the default EDID list.
3. Press button **I-IV** to select a desired input. **Note:** Buttons **I-IV** represent input source 1-4.
4. Press the **TAKE** button.

EDID Learning Mode

1. Press the **LEARN** button. The upper LED will show **E** and lower LED will show **L**.
2. Press button **A-H** to select EDID port.
3. Press button **I-IV** to select a desired input. **Note:** Buttons **I-IV** represent input source 1-4.
4. Press the**TAKE** button.

Disable Output

1. If you want to disable any of your outputs, press the **MUTE** button.
2. Press button **A-D** to select your output display. **Note:** Buttons **A-D** represent output display 1-4.
3. Press the **TAKE** button.

Others: Function Key Definition

Refer to Table 1 below for the definition of each button:

Button	Function
OFF	Set the matrix switcher to standby mode
ON	Power on the matrix switcher
MUTE	Disable output display(s)
STATUS	Preset output status
SAVE	Save current mapping mode
PRESET	Delete saved mapping mode
DEFAULT EDID	Begin default EDID selection
LEARN EDID	Begin EDID learning from one output
CLEAR	Clear the previous IR operation procedure
TAKE	Trigger the previous setting
F1	Reserved
F2	Reserved

Table 1

Control over RS-232 Control Port

Make sure the RS-232 cable (not included) is connected to your PC computer before proceeding. The software only can be used under Windows 7 and XP.

1. Double click the **setup** file in the **HDMI FST Matrix Switcher** folder of your driver CD to start the program.

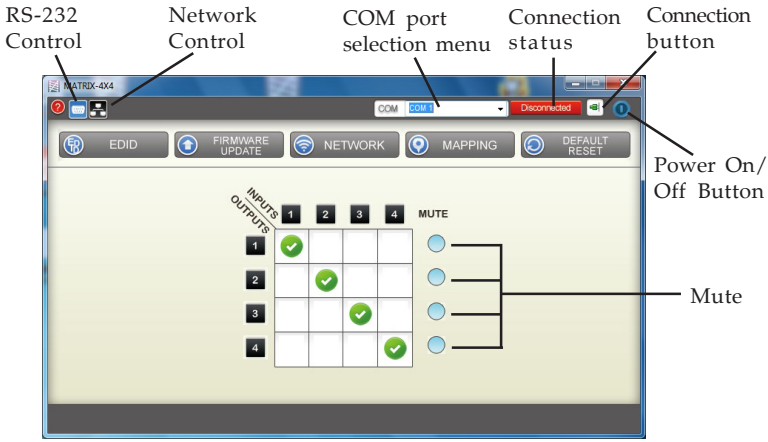


Figure 5

2. Select your COM port from the **COM port selection menu**, then click the **Connection button**.

   When successfully connected, the **Connection status** will show **Connected**, see **Figure 6a**.

   Note: Make sure the status is connected before you go to the next section. If the status is not connected, the connection status will show **Connecting** (orange) or **Disconnected** (red). See **Figure 6b** and **6c** respectively.

Figure 6a

Figure 6b

Figure 6c

INPUT / OUTPUT Selection

After sucessful connection, select your input/output by clicking the crossed cell of the input and output.

See **Figure 7a** for example, all four input sources output to different displays. Input source 1 to display 1, source 2 to display 2, source 3 to display 3, source to display 4.

See **Figure 7b** for example, input source 1 outputs to all 4 displays.

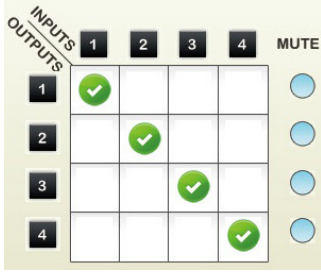


Figure 7a

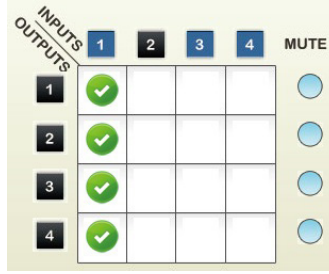


Figure 7b

Disable Output

If you want to disable the output display(s), click the Mute bullet on the right side. The bullet will turn red when disabled. Click the red bullet again to enable the display.

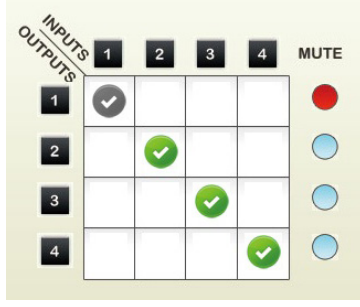


Figure 8

EDID Setup

Click the EDID button on the main menu to enter EDID setup.

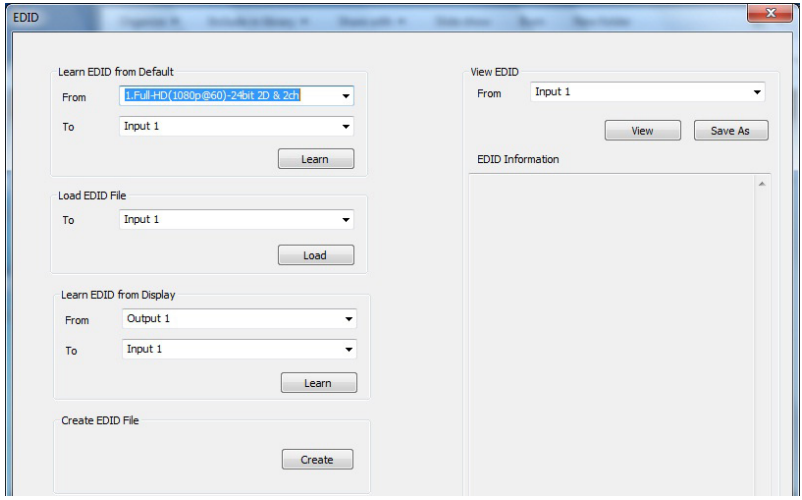


Figure 9

1. Learning Default EDID:

   Select the default EDID mode from the drop down list, select the input, then click **Learn**.

2. Load EDID File:

   Select Input from the drop down list, then click **Load** to load the EDID file.

3. Create EDID File

   Click **Create** to create a new EDID file.

4. View EDID

   Select Input from the drop down list, then click **View** to view the EDID information.

Firmware update

Firmware updates are released periodically, updates are not needed if your switcher is working properly. Check for any firmware updates at SIIG website: www.siig.com/download.

1. Click **Load File** to select firmware file.
2. Click **Break**.
3. Quickly remove and reconnect the power adapter.
4. Click **Start** to begin the firmware update procedure.

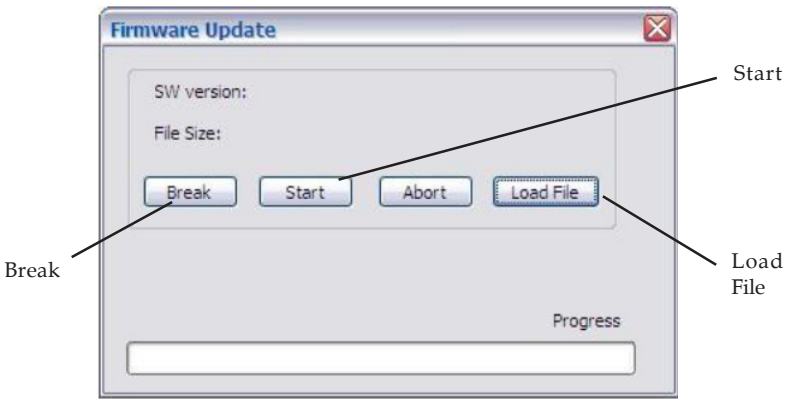


Figure 10

Mapping

1. Save mapping:
   Select mapping from 1-8, then click **Save**.
2. Preset mapping:
   Select mapping from 1-8, then click **Recall**.
3. Rename mapping:
   Rename the mapping, then click **Confirm**.

Figure 11

Control over Ethernet Control Port

Configuring the Ethernet Control Port

Make sure an RS-232 cable (not included) is connected to your PC and an Ethernet cable (not included) is connected to a router or switch on your network before proceeding.

1. Double click the **setup** file in HDMI FST Matrix Switcher folder on your driver CD.
2. Select your COM port from the **COM port selection menu**, then click the **Connection button**. See **Figure 5** on page 11.
3. Make sure the **Connection status** is **Connected**. At the main menu, click **NETWORK** tab.

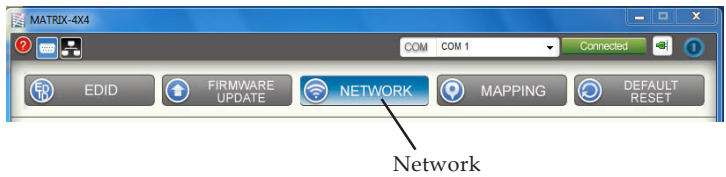


Figure 12

4. At the **Device Setting** window, select **RS232**, then click **Read From Device**. See **Figure 13**.

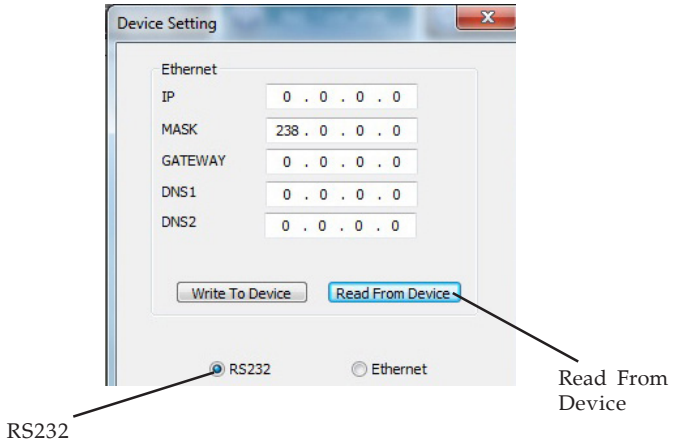


Figure 13

5. Fill in the **IP** and **MASK** column so that the *Matrix Switcher* is in the same IP domain as your network. Then click **Write to Device**. (Ask your Network/IT administrator or use network utilities **IPconfig** and **Ping** for the correct network settings)

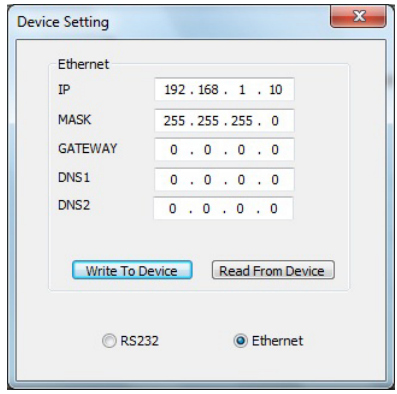


Figure 14

6. At the prompted **Complete** window, click **OK**.
7. Select **Ethernet**, type in the IP, then click **OK**. See **Figure 15**.

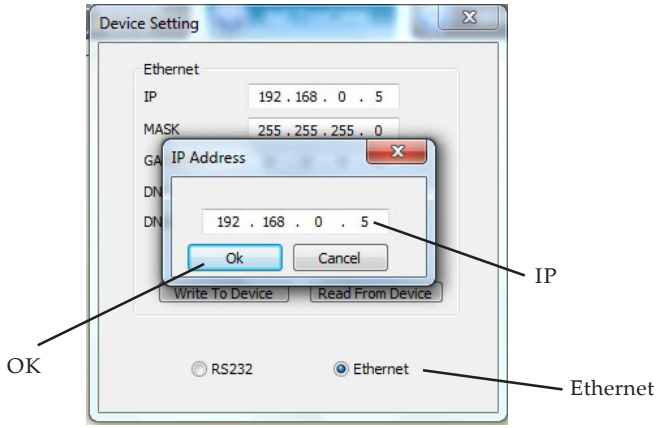


Figure 15

8. The Ethernet connection is established now. You can control the *Matrix Switcher* through Ethernet port now. Go to pages 11 through 13 for the various software device control options.

> **Note**: The serial cable can be disconnected if device switching via RS-232 control port is not needed.

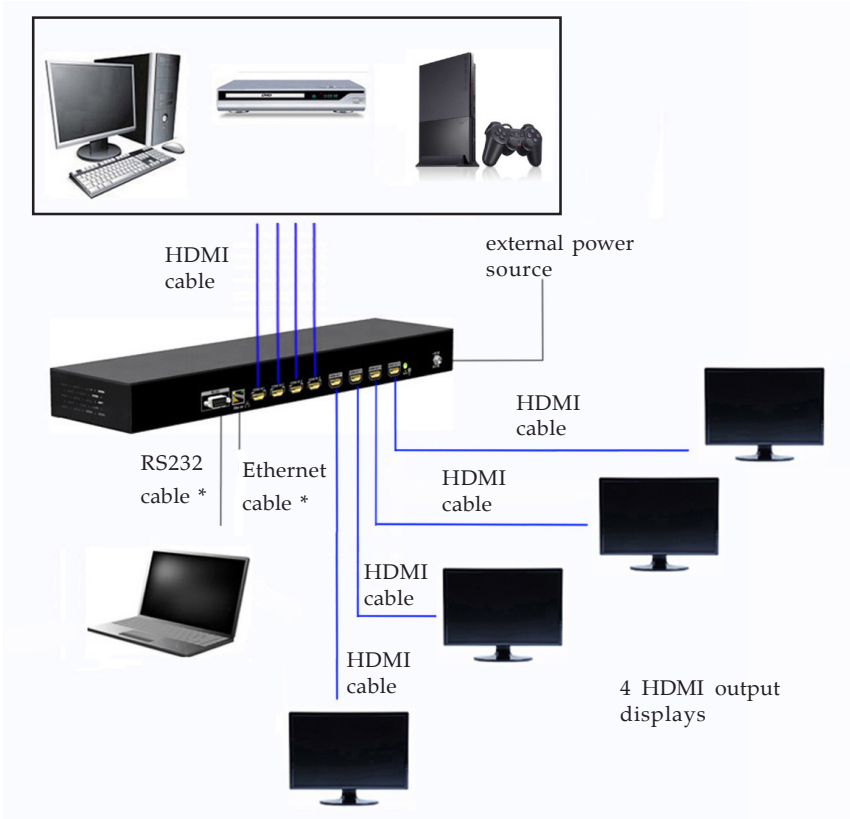
Ethernet Device Control

Make sure you have already configured the Matrix Switch's Ethernet control port before proceeding.

1. Double click the **setup** file in the HDMI FST Matrix Switcher folder of your driver CD to start the program.
2. Select **Network control** icon, then click the **Connection button**  When successfully connected, the **Connection status** will show **Connected**.
3. Go to pages 11 through 14 for the various software device control options.

Application

4 HDMI inputs (PC, PS3, DVD player, etc)



* Connect an RS232 cable to your PC and an Ethernet cable to a Router/ Switch on your network for software control.

Figure 16: Application

Technical Support and Warranty

QUESTIONS? SIIG' s **Online Support** has answers! Simply visit our web site at ***www.siig.com*** and click **Support**. Our online support database is updated daily with new drivers and solutions. Answers to your questions could be just a few clicks away. You can also submit questions online and a technical support analyst will promptly respond.

SIIG offers a 3-year manufacturer warranty with this product. This warranty covers the original purchaser and guarantees the product to be free of any defects in materials or workmanship for three (3) years from the date of purchase of the product.

SIIG will, at our discretion, repair or replace (with an identical product or product having similar features and functionality) the product if defective in materials or workmanship. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Please see our web site for more warranty details.

If you encounter any problems with this product, please follow the procedures below.

A) If it is within the store's return policy period, please return the product to the store where you purchased it.

B) If your purchase has passed the store's return policy period, please follow these steps to have the product repaired or replaced.

Step 1: Submit your RMA request. Go to **www.siig.com**, click **Support**, then **Request A Product Replacement** to submit a request to SIIG RMA or fax a request to 510-657-5962. Your RMA request will be processed, if the product is determined to be defective, an RMA number will be issued.

Step 2: After obtaining an RMA number, ship the product.

- Properly pack the product for shipping. All software, cable(s) and any other accessories that came with the original package must be included.
- Clearly write your RMA number on the top of the returned package. SIIG will refuse to accept any shipping package, and will not be responsible for a product returned without an RMA number posted on the outside of the shipping carton.
- You are responsible for the cost of shipping to SIIG. Ship the product to the following address:

  SIIG, Inc.
  6078 Stewart Avenue
  Fremont, CA 94538-3152, USA
  RMA #: _____

- SIIG will ship the repaired or replaced product via Ground in the U.S. and International Economy outside of the U.S. at no cost to the customer.

About SIIG, Inc.

Founded in 1985, SIIG, Inc. is a leading manufacturer of IT connectivity solutions (including Serial ATA and Ultra ATA Controllers, FireWire, USB, and legacy I/O adapters) that bridge the connection between Desktop/ Notebook systems and external peripherals. SIIG continues to grow by adding A/V and Digital Signage connectivity solutions to our extensive portfolio. All centered around the distribution and switching of A/V signals over CAT5/6, these products include matrix switches, distribution amplifiers, extenders, converters, splitters, cabling, and more.

SIIG is the premier one-stop source of upgrades and is committed to providing high quality products while keeping economical and competitive prices. High-quality control standards are evident by one of the lowest defective return rates in the industry. Our products offer comprehensive user manuals, user-friendly features, and most products are backed by a lifetime warranty.

SIIG products can be found in many computer retail stores, mail order catalogs, and e-commerce sites in the Americas, as well as through major distributors, system integrators, and VARs.

PRODUCT NAME

4x4 HDMI FST Matrix Switcher

FCC RULES: TESTED TO COMPLY WITH FCC PART 15, CLASS B OPERATING ENVIRONMENT: FOR HOME OR OFFICE USE

FCC COMPLIANCE STATEMENT:

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

THE PARTY RESPONSIBLE FOR PRODUCT COMPLIANCE

SIIG, Inc.
6078 Stewart Avenue
Fremont, CA 94538-3152, USA
Phone: 510-657-8688

October, 2013