



SW-HDMI-4

HDMI Switch – 4 Input – 1 Output

CUSTOMER SUPPORT INFORMATION

Order toll-free in the U.S. 800-959-6439
FREE technical support, Call **714-641-6607** or fax **714-641-6698**
Address: **Hall Research**, 1163 Warner Ave. Tustin, CA 92780
Web site: www.hallresearch.com E-mail: info@hallresearch.com

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FEDERAL COMMUNICATIONS COMMISSION

RADIO FREQUENCY INTERFERENCE STATEMENT

This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in strict accordance with the manufacturer's instructions, may cause interference to radio communication. This equipment is designed to comply with the limits for a Class A computing device in accordance with the specifications in Subpart B of Part 15 of FCC rules, which are intended to provide reasonable protection against such interference when the equipment is operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case the user at their own expense will be required to take whatever measures may be necessary to correct the interference.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.



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1. Introduction

1.1 General

This User's Manual applies to Hall Research Model SW-HDMI-4.

This model is a high performance HDMI Switcher capable of switching and boosting 4 independent HDMI Video+Audio sources to 1 output.

Make selections by using the front panel push buttons, using the IR remote control or by RS232 from an external controller.

Since HDMI (and DVI) digital signals have cable distance limitations, the SW-HDMI-4 provides the ability to boost the output signal to drive long HDMI cables to about 50 feet. Furthermore, the unit has built in automatic equalizers on the inputs so that it can handle long input video cables (to 65 feet).

1.2 Features

- Perfect solution for high-end home-theatre setups
- Use only one connection to your HDMI compatible HDTV
- Equalizes the inputs for losses in the cable to 65 feet
- Auto signal enhancement (Boost) improves video quality over long cables
- Front panel LED indicators for status monitoring
- Supports PC resolutions to 1920x1200 and HD to 1080p
- Includes a simple to use Remote Control
- Plug and play installation – takes minutes to setup
- Bandwidth of 1.65 Gbps (Gigabits/second) for sharp digital image
- HDMI 1.3, HDCP 1.1, and DVI 1.0 Compliant
- Supports 30/36 bit color depth
- Supports High Definition audio – Dolby Digital TrueHD and DTS-HD
- Supports HDMI Cable Locking

2. Installation

2.1 Package Contents

Your package should contain the SW-HDMI-4 unit, a Universal power supply (5 vDC @ 2A), an IEC320 Power Cord, an IR remote control and a User's Manual.

3. Configuration & Operation

- Connect all the video sources to the INPUT connectors on the back of the SW-HDMI-4
- Connect the display device to the OUTPUT connector on the back of the SW-HDMI-4
- Connect the Power Supply to the power input on the back of the SW-HDMI-4
- Connect an external controller or PC to the RS232 port on the back of the SW-HDMI-4, if required.
- Press the POWER button on the front of the unit to turn the unit on. The LED next to the button will always display the power status.
- Press the INPUT button to cycle thru the available video inputs connected. The input selection LED's will show which input is directed to the OUTPUT connector.

Model SW-HDMI-4

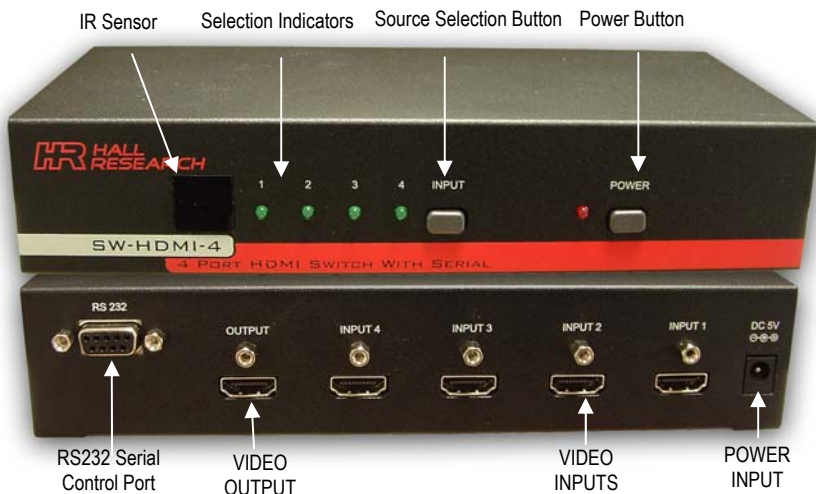


Figure 1 - Front & Back View

3.1 RS232 Operation

- The unit operates at 9600 baud, No Parity, 8 Data Bits and 1 Stop Bit
- When IR is used, the commands response is transmitted out the RS232 port.
- The following commands are available:

COMMAND	Syntax	Function
?		Prints List of commands
PWn<CR>	n=0 means POWER OFF n=1 means POWER ON	Turn unit on or off
PW<CR>	Response= PWn<CR> as described above	Query Power Status
FR<CR>		Firmware Reset to default Boost OFF Output 1 to Input 1
FB<CR>		Firmware Boot & Power On
BOOn<CR>	n=0 means BOOST OFF n=1 means BOOST ON	Boost signal to correct for losses due to cable length
BO<CR>	Response=BOOn<CR> as described above	Boost Status Query
COOn,m<CR>	n = output #, m = input # n=1 (Always a 1 for the SW-HDMI-4) m=0 thru 4 where: m=0 means blank m=1 to 4 means select that INPUT	Connect Output to Input
CO1<CR>	Response=CO1<CR> as described above	Connection Status Query
ST<CR>	Responds with P ower, B oost and C onnection status query information as described above	Status Query

4. Troubleshooting

There are no field serviceable parts or circuits in the device. Opening the unit will void the warranty.

4.1 Contacting Hall Research

If you determine that the SW-HDMI-4 is malfunctioning, do not attempt to repair the unit instead, contact Hall Research Technical Support at 714-641-6607.

Before you do, make a record of the history of the problem. We will be able to provide more efficient and accurate assistance if you have a complete description.

4.2 Shipping and Packaging

If you need to transport or ship your unit:

- Package it carefully. We recommend that you use the original container.
- Before you ship the units back to Hall Research for repair or return, contact us to get a Return Authorization (RMA) number.

5. Specifications

Frequency Bandwidth	2.25 Gbps (Single Link)
Input Ports	4 x HDMI Female with Locking Capability
Output Ports	1 x HDMI Female with Locking Capability
Power Supply	5 vDC @ 1aDC (US/EU Standard, CE/FCC/UL Certified)
Dimensions	8.1" (206) W x 4.375" (111) D x 1.3" (32) H
Shipping Weight	1.5 lb (0.70kg)
Product Weight	0.75 lb (0.35kg)
Enclosure	Metal
Operating Temperature	Storage: -40 to +158 °F (-40 to +70 °C) / 10% to 90%, non-condensing Operating: +32 to +122 °F (0 to +50 °C) / 10% to 90%, non-condensing
MTBF	90,000 hours
Warranty	2 years parts and labors



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