



ATLONA
2x16 HDMI SWITCHER
AT-HD-V216

USER MANUAL



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INTRODUCTION

Atlona Technologies' AT-HD-V216 is a 2x16 HDMI Switcher designed to work as a switcher for any High Definition Video application. With 2 HDMI Inputs and 16 HDMI Outputs, the AT-HD-V216 is capable of switching High Definition signal from two sources to sixteen displays. This switcher has multiple control options available including manual, IR Remote, or RS232 Control. HDMI formats can reach resolutions up to 1080p or 1920x1200 and same for DVI. With Automatic input/output HD signals detection and HDCP Compliance, Atlona's 2x16 HDMI Routing Switcher is perfect for all applications switching High Definition Video signals between multiple displays.

FEATURES

- 2x16 HDMI Switcher: 2 HDMI Output, 16 HDMI Inputs
- HDMI with HDCP Digital Video and Digital Audio
- HDMI, DVI and HDCP compliant
- Supports video bandwidth up to 6.75 Gbps (link clock rate of 225 MHz)
- Supports wide range of PC resolutions from VGA to WUXGA 1920x1200 and HDTV/DTV resolutions 480i/480p, 576i/576p, 720p, 1080i,1080p and 1920x1200
- Compatible with all HDMI devices, PC monitors, Plasma TV display and HDTV
- Supports Digital Video TMDS formats in Deep Color 36bits
- Supports color depth of up to 36
- Bi-direction color space conversion(SCS) between RGB and YCBCR color spaces
- Auto-Scan input and outputs status via LED display on front panel
- Control by Select buttons on front panel, IR Remote Controller, or RS232
- IR Extender with 300M long distance
- Ear mount and 19 inch Rack mountable type panel
- Power supply 12V DC

SPECIFICATIONS

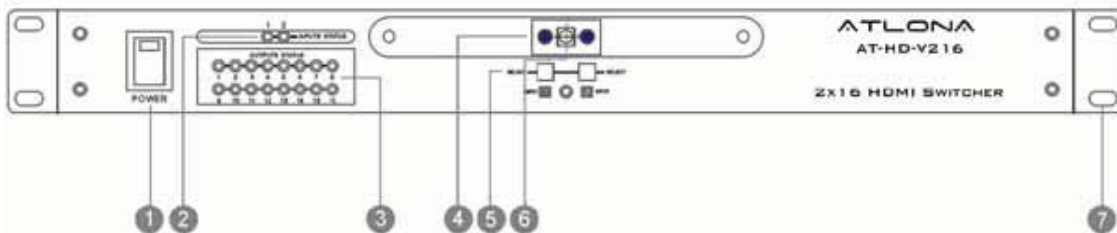
- 2x16 HDMI Switcher: 2 x HDMI Input to 16 x HDMI Outputs
- Supports :HDMI Standard, DVI and HDCP Compliant
- Video Support: HDMI and DVI formats up to 1080p or 1920x1200.
- Audio Support: DTS-HD Master Audio, Dolby True -HD & Dolby Digital Plus
- Signal: TMDS Digital Video
- Compliant with HDMI standard: HDMI and HDCP.
- HDTV Support: HDMI formats up to 1080p or 1920x1200 resolution.
- Controls: Manual or IR Remote and IR Extender (Maximum Distance 300M), or RS232
- Data Rates: 250Mbps to 6.75 Gbps.
- Pixel clocks: 25MHz to 225 Mhz.
- HDMI Cable Distance: 40ft at 6.75Gbps.
- Supports digital video standards such as: RGB/YCBCR: 24/30/36-bits; YCBCR :8/10/12/16/20/24-bits; Double data rate interface for RGB/YCBCR: 12/15/18-bits
- Infrared frequency: 38KHz.
- Safety Approvals: CE, FCC, RoHS(2002/95/EC).
- Power Supply: 12V DC

PACKAGE CONTENTS:

- 2x16 Switcher Unit (AT-HD-V216)
- Instruction Manual
- IR Remote Control
- Universal AC/DC power adapter: 12VDC
- 19 inch Ear mount pair
- IR Extender receiver
- RS232 package (RS232 DVD Drive & Cable)

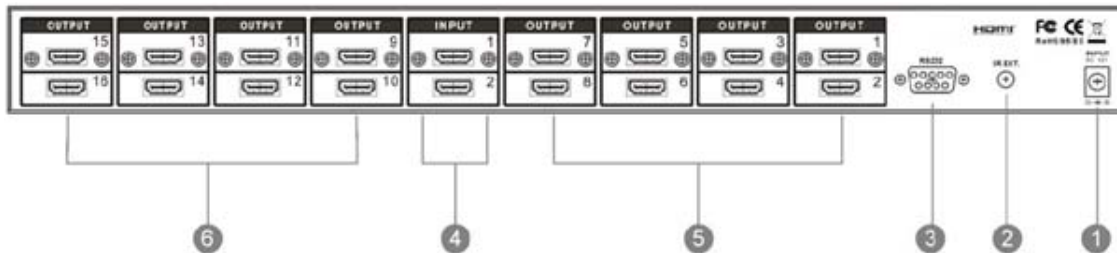
PANEL DESCRIPTIONS

1. Front Panel



1. POWER SWITCH. The power switch turns the unit on and off. The LED will illuminate red to indicate that the switcher is ON
2. INPUT SOURCES STATUS DISPLAY. Input sources 1 - 2 LED illuminates blue to indicate that a video source is present on that input.
3. OUTPUT SOURCES STATUS DISPLAY. Output Channels 1~16 show by LED display.
4. OUTPUT CHANNEL DISPLAY. Separate output 1~2 source channel select displays are provided for each destination.
5. SOURCE SELECT BUTTONS. A separate output 1~2 source select buttons are provided for each destination. Select sources are 1-HDMI or 2-HDMI
6. IR SENSOR. The IR sensor receives IR commands from the supplied remote controller.
7. 19 INCH EAR MOUNT PAIR. 19 inch case Ear Mount pair

2. Rear Panel



1. DC POWER INLET. Power Input: 12VDC
2. IR EXTENDER CONTROL. Support one of IR Extender' extend distance maximum 300Meters
3. RS 232 CONNECTION. RS232 Remote: DB-9pin Female connector. RS 232 control via this DB-9pin Female connector for serial RS-232 control.
4. VIDEO INPUTS: HDMI Input 1-2. HDMI digital video/audio connector(Female).
5. VIDEO OUTPUTS: HDMI Outputs 1-16. HDMI digital video/audio connector(Female)

REMOTE CONTROL

Ensure the mains voltage supply matches the label on the supplied plug-Pack (+/- 10%)

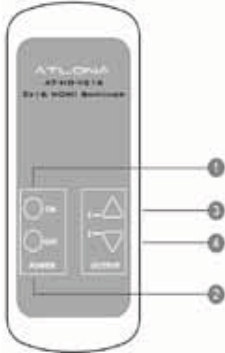
Ensure that the power switch is OFF

Connect all audio video sources and destination equipment

Power up all HD Sources and Displays

For each desired output select the appropriate input by using the front panel select buttons, RS232 or IR remote control

When powering up the AT-HD-V216 will return to its last used setting before Powered down.

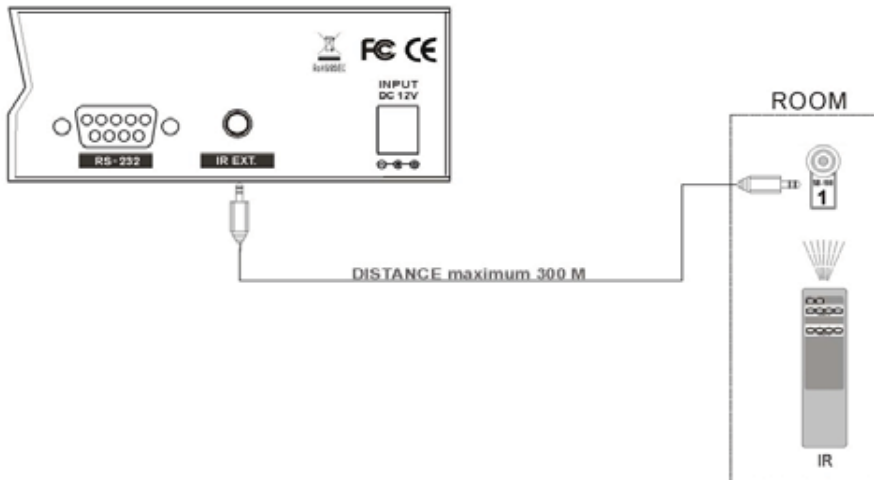


- 1, 2. SWITCH POWER ON or OFF
3. INPUT-1 SOURCES SELECTION
Select input sources 1 or 2 with selection button
4. INPUT-2 SOURCES SELECTION
Select input sources 1 or 2 with selection button

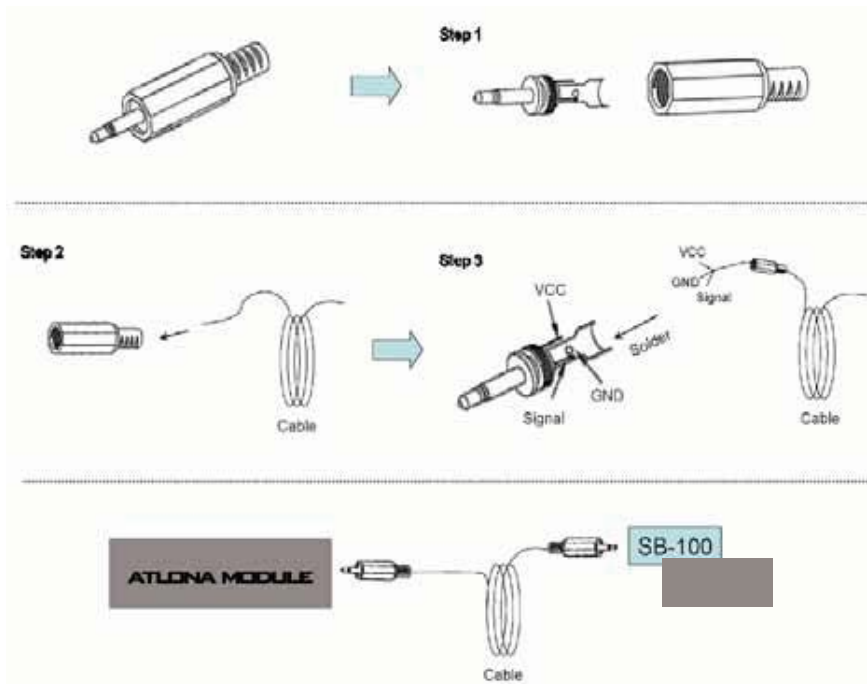
IR EXTENDER

1. IR Extender Connection

REAR PANEL IR EXTENDER PORT

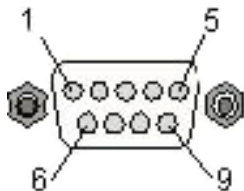


2. The IR Extender Components Setup



RS-232 SERIAL INTERFACE

RS-232 SERIAL INTERFACE CONNECT a PC or CONTROL SYSTEM



Pin	RS-232	Definition
1	-	Not used
2	TX	Transmitter
3	RX	Receiver
4	-	Not used
5	GND	Ground
6	-	Not used
7	-	Not used
8	-	Not used
9	-	Not used

RS-232

Atlona Technologies' switcher can be controlled via the RS-232 serial control port to allow for interfacing to a PC, The serial communication parameters are 9600 baud, 8 bit, No Parity and 1 stop bit - this is often referred to as 9600 8N1.

When the unit recognizes a complete command it will perform the requested action - there is no delimiter character required. The unit does not send out a message when a value is changed from the front panel or by IR control. If the unit needs to be controlled via the front panel in addition to the RS232 control, you should regularly poll the unit status to ensure the control system accurately reflects the current settings, or similar third party control system.

COMMANDS

To Switch Inputs to Outputs

SBI0X00Y- Where X is Output Number (1-1) and Y is Number (1-2)

Unit will respond with

SBUD0X0Y- Where X is Output Number (1-1) and Y is Input Number (1-2)

Example : Send Input 2 to Output 1

SBI02001-Send

SBUD0201-Rcvd

RS-232 PROTOCOL COMMANDS

STANDBY MODE

Note: Turning the unit System Power Off over RS232 will distinguish the LED display leaving only the Power Switch LED on. The Video and Audio outputs will also mute. While the unit is turned off by RS232 it will continue to accept and act upon switching commands. For example, if the unit is in the off mode (via RS232) and you send a command to switch an input to an output, that route will complete and the video and audio will now appear on that channel only. The front panel LED for that particular output will also show the input selected (for that single output channel only). The remaining LED's will remain off and video and audio outputs muted. The unit will still return status and change messages in response to commands sent while in Power Off state. A hard reset command (SBALLRST) will return the unit to normal operation and also unlock the front panel.

POWER OFF MODE

SBSYSMOF- Put system into Standby (Soft Power Off)

SBSYSMON- Bring unit out of Standby (Soft Power On)

Unit will respond with

SBALOFAK- Unit is in Standby

SBALONAK- Unit is no longer in Standby

Example : Put Unit in Standby (Soft Power)

SBSYSMOF-Send

SBALOFAK-Rcvd

FRONT PANEL LOCK

Note : Hard resetting the unit will unlock the Front Panel controls..

SBSYSMLK- When front panel is locked, changes can only be made by RS-232

SBSYSMUK- Front Panel Unlock

Unit will respond with

SBSYSLOK- Front Panel has been Locked

SBSYSULK- Front Panel has been Unlocked

Example : Lock Front Panel Buttons

SBSYSMLK-Send

SBSYSLOK-Rcvd

UNIT RESET

SBALLRST - Reset every output to Input 1

Unit will respond with

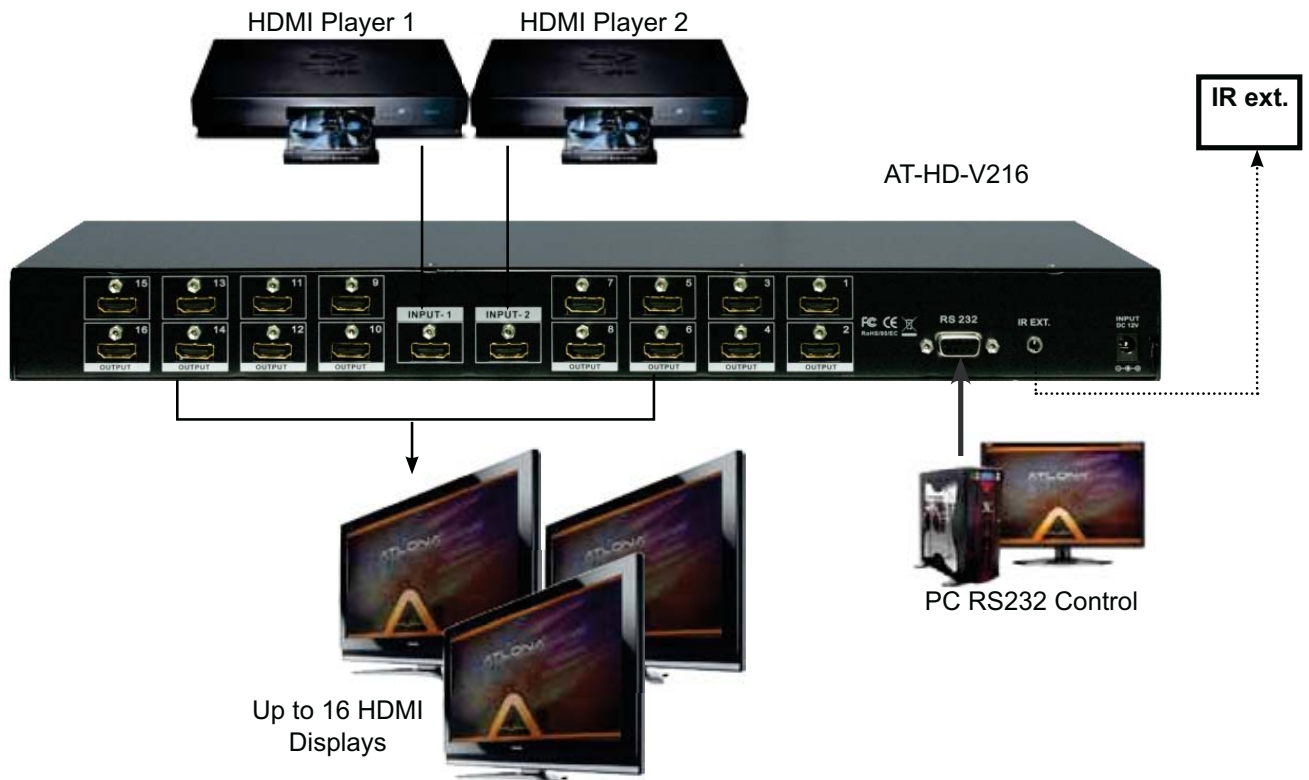
SBRSTACK- Unit has reset each Output to Input 1

Example : Reset all outputs to Input 1

SBALLRST-Send

SBRSTACK-Rcvd

APPLICATIONS



Safeguards

To reduce the risk of electric shock, do not expose this product to rain or moisture.

If the wall plug does not fit into your local power socket, hire an electrician to replace your obsolete socket.

Do not modify the wall plug. Doing so will void the warranty and safety features.

This equipment should be installed near the socket outlet and the device should be easily accessible in case it requires disconnection.

Precautions

FCC Regulations state that any unauthorized changes or modifications to this equipment not expressly approved by the manufacturer could void the user's authority to operate this equipment.

Operate this product using only the included external power supply. Use of other power supplies could impair performance, damage the product or cause fires.

In the event of an electrostatic discharge, this device may automatically turn off. If this occurs, unplug the device, and plug it back in.

Protect and route power cords so they will not be stepped on or pinched by anything placed on or against them. Be especially careful of plug-ins, or cord exit points from this product.

Avoid excessive humidity, sudden temperature changes or temperature extremes.

Keep this product away from wet locations such as bathtubs, sinks, laundries, wet basements and swimming pools.

Use only accessories recommended by ATLONA to avoid fire, shock or other hazards.

Unplug the product before cleaning. Use a damp cloth for cleaning. Do not use cleaning fluid or aerosols, which could enter the unit and cause damage, fire or electrical shock. Some substances may also mar the finish of the product.

Never open or remove unit panels or make any adjustments not described in this manual. Attempting to do so could expose you to dangerous electrical shock or other hazards. It may also cause damage to your AT-HD-V216. Opening the product will void the warranty.

Do not attempt to service the unit. Instead disconnect it and contact your Authorized ATLONA reseller or contact ATLONA directly.

WARRANTY

1. LIMITED WARRANTY

Atlona Technologies warrants that (a) its products (the "Product") will perform substantially in accordance with the accompanying written materials for a period of 3 YEARS from the date of receipt and (b) that the Product will be free from defects in materials and workmanship under normal use and service for a period of 3 years. In the event applicable law imposes any implied warranties, the implied warranty period is limited to 3 years from the date of receipt. Some jurisdictions do not allow such limitations on duration of an implied warranty, so the above limitation may not apply to Customer.

2. CUSTOMER REMEDIES

Atlona Technologies and its suppliers' entire liability and Customer's exclusive remedy shall be, at Atlona Technologies' option, either return of the price paid for the Product, or repair or replacement of the Product that does not meet this Limited Warranty and which is returned to Atlona Technologies with a copy of Customer's receipt. This Limited Warranty is void if failure of the Product has resulted from accident, abuse, or misapplication. Any replacement Product will be warranted for the remainder of the original warranty period or 3 year, whichever is longer.

3. NO OTHER WARRANTIES

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