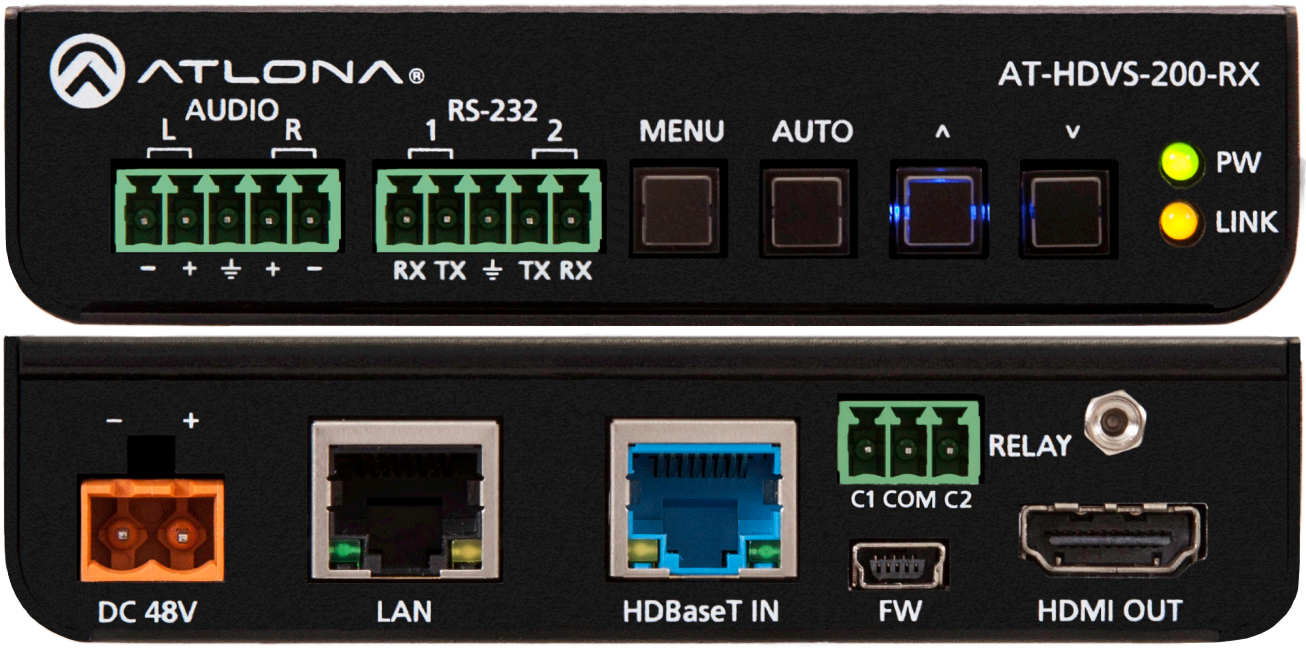
ATLONA
Connecting Technology

Ethernet-enabled HDBaseT Scaler with HDMI and Analog Audio Outputs

AT-HDVS-200-RX

User Manual



Please check http://www.atlona.com/products/AT-HDVS-200-RX for the most recent **firmware update** or **manual**

Toll free: 1-877-536-3976
Local: 1-408-962-0515

Table of Contents

Note: To ensure compatibility, please be certain both transmitter and receiver have blue HDBaseT ports. This ensures both products are PoE (48V) compliant. The HDVS-200-TX is not compatible with PoCC (black RJ45, 24V) devices

Introduction

The AT-HDVS-200-RX is an HDBaseT scaler with HDMI and analog audio outputs. It features an HDMI output with balanced analog audio de-embedding and display control using CEC, IP, or RS-232. The AT-HDVS-200-RX combines the benefits of an extended-distance HDBaseT receiver with built-in scaling and the capabilities of a control processor for simplified A/V system installation and operation. When used with the AT-HDVS-200-TX switcher, it receives HDMI signals with embedded audio and control signals at distances up to 328 feet (100 meters). The switcher/scaler pair enables automatic display control, automatic input selection, volume adjustment, or optional third-party control. The AT-HDVS-200-RX supplies power to the AT-HDVS-200-TX switcher via Power over Ethernet and together they create a standalone A/V switching and control system with scaling for classrooms and huddle rooms.

Note: To ensure compatibility, please be certain both transmitter and receiver have blue HDBaseT ports. This ensures both products are PoE (48V) compliant. The HDVS-200-TX is not compatible with PoCC (black RJ45, 24V) devices

Package Contents

- 1 x AT-HDVS-200-RX
- 4 x Captive screw female connector (5 pin: audio, 5 pin: RS-232, 3 pin: relay, 2 pin: power)
- 1 x 48V DC captive screw power adapter
- 1 x pair of mounting brackets
- 1 x User manual

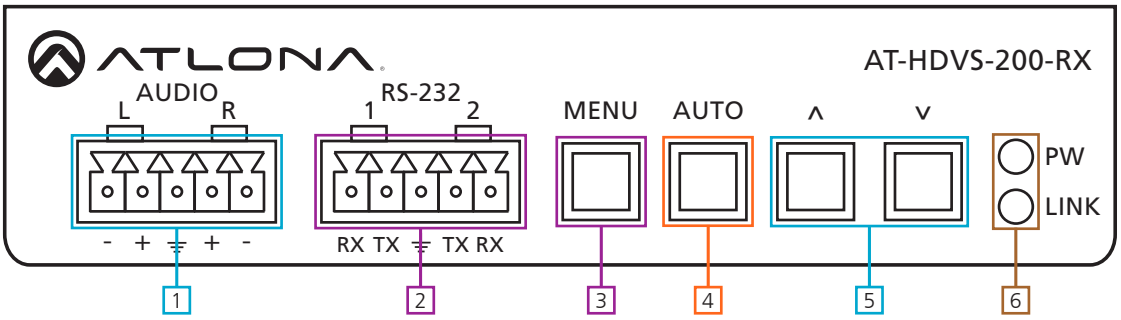
Features

- Scales incoming signals at a variety of common resolutions up to 1080p or 1920x1200
- Dry contact closure control for two signals
- Complete control of video brightness, contrast, saturation, hue, and more
- Projector control through RS-232, IP, webGUI, or CEC*****
- Ethernet for configuration, upgrading, and device management/control
- Ethernet-enabled HDBaseT extension
- Automatic display control - powers display on/off based on RX power mode (standby or active)
- Volume control
- Adjust treble and bass of audio output to ensure the best speaker performance
- Audio de-embedding for use with an amplifier (**e.g.** AT-PA100-G2)
- Power over Ethernet to power compatible transmitters (**e.g.** AT-HDVS-200-TX)
- EDID management for better compatibility
- Firmware upgrade via USB or webGUI for easy field service

***Note:** Consumer Electronics Control (CEC): Atlona does not guarantee the function of CEC with all televisions. We can confirm proper operation with many current Samsung, Panasonic, and Sony TVs. Many manufacturers do not support the CEC "Off" command when sent from a source and older TVs use proprietary commands. Atlona only supports those TVs that follow CEC command structure from HDMI 1.2a and support the "off" command when issued by a source. We encourage any dealer to get evaluation product from Atlona prior to designing a system around this control technology or be prepared to use other methods to control their displays if Atlona CEC is not compatible with the installed displays.

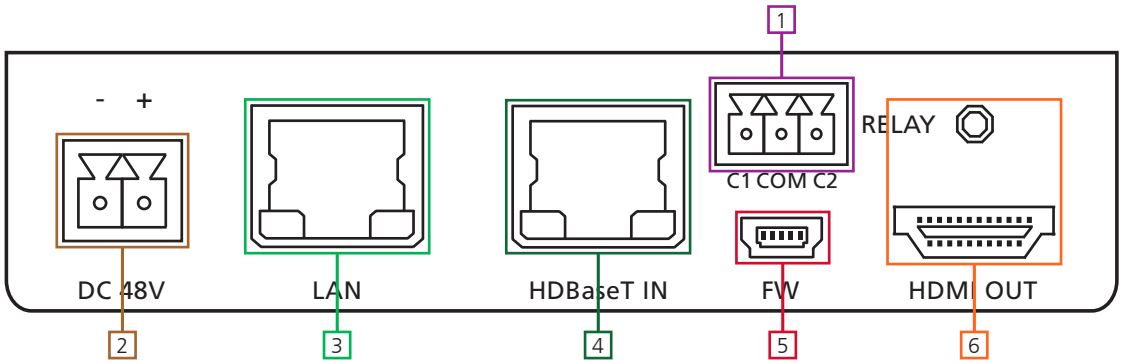
Panel Description

Front Panel



1. **AUDIO** output**:** Connect to an amplifier (**e.g.** AT-PA100-G2)
2. **RS-232** dual port**:** Connect to a display (port 1) and a control system (port 2)
3. **MENU** button**:** Use to enter, exit, and select within the on-screen display menu
4. **AUTO** button**:** When using compatible transmitters (**e.g.** AT-HDVS-200-TX) will auto adjust VGA signals
5. **^** and **v** buttons**:** Use to navigate the OSD menu
6. **PW** LED**:** Will illuminate when receiving power
   LINK LED**:** Illuminates when the HDBaseT connection is functioning properly

Back Panel

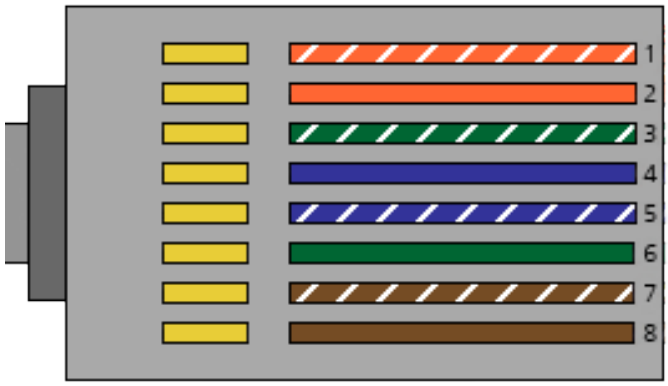


1. **RELAY** dual signal port**:** Creates a closed/open circuit for device control
2. **DC 48V** port**:** Connect included 48V DC adapter here to power RX and compatible transmitters
3. **LAN** (black) port**:** Connect network switch or router to this port for Ethernet, TCP/IP, or webGUI control
4. **HDBaseT OUT** (blue) port**:** Connect to an HDBaseT PoE transmitter
   e.g. AT-HDVS-200-TX, AT-UHD-SW-52ED, or UHD-CLSO series switchers (**e.g.** AT-UHD-CLSO-824)
   Note: Switchers with internal scalers are not recommended for use with HDVS-200-RX, as it may cause artifacts due to double scaling of the signal (**e.g.** AT-UHD-CLSO-601)
5. **FW** port**:** Firmware update port, connect a mini USB to USB A cable to a computer
   Note: Firmware is downloadable through http://www.atlona.com/products/AT-HDVS-200-RX/
6. **HDMI OUT** port**:** Connect to a display

Note: To ensure compatibility, please be certain both transmitter and receiver have blue HDBaseT ports. This ensures both products are PoE (48V) compliant. The HDVS-200-TX is not compatible with PoCC (black RJ45, 24V) devices

Category Cable

For the category cables used in the installation of these products, please be sure to use a 568B termination as pictured below:



1. White - Orange
2. Orange
3. White - Green
4. Blue
5. White - Blue
6. Green
7. White - Brown
8. Brown

Use the table below to verify the best category cable for the installation.

Performance Rating		Type of LAN cable	
Wiring	**Shielding**	**CAT5e/6**	**CAT6a/7**
Solid	Shielded (STP/FTP)	***	****
	Unshielded (UTP)	**	N/A
Stranded - Patch cable (Not recommended)	Unshielded (UTP)	*	N/A
	Shielded (STP/FTP)	*	N/A
Termination		**Please use EIA/TIA-568-B termination**	

Important! 4K (UHD) signals are sensitive to cable quality and installation technique. It is recommended to use CAT6a/7 solid core cables for best results.

Note: For cable distances see the specifications on page 20

Connector

Connector type and size is very important to ensure extenders work correctly. Please use the matching cable type with the correct RJ45 connector.

CAT5e cables should use only CAT5e RJ45 connectors
CAT6 cables should use only CAT6 connectors
CAT6a cables should use only CAT6a connectors
CAT7 cables should use only CAT7 connectors

Using the wrong size connectors may result in interference causing loss of signal.

Important! "EZ RJ45 connectors" are not recommended with HDBaseT extenders. Doing so may result in interference with audio and video transmission.

Note: To ensure compatibility, please be certain both transmitter and receiver have blue HDBaseT ports. This ensures both products are PoE (48V) compliant. The HDVS-200-TX is not compatible with PoCC (black RJ45, 24V) devices

OSD Menu

Menu			
Input Select	HDMI 1		
	HDMI 2		
	VGA		
	Menu Back		
Input Resolution	800x600	1280x800	1920x1200
	1024x768	1366x768	Native
	1280x720	1920x1080	Menu Back
Output Resolution	800x600	720p25	1080p24
	1024x768	720p29.97	1080p25
	1280x800	720p30	1080p29.97
	1280x1024	720p50	1080p30
	1366x768	720p59.94	1080p50
	1400x1050	720p60	1080p59.94
	1600x900	1080i50	1080p60
	1600x1200	1080i59.94	Input
	1680x1050	1080i60	Native
	1920x1200	1080p23.98	Menu Back
Picture Adjust	Brightness	0 to 100	
	Contrast	0 to 100	
	Saturation	0 to 100	
	Hue	0 to 100	
	Sharpness	0 to 100	
	Picture Reset		
	Menu Back		
Aspect	Full	16:10 TV	Keep Ratio
	16:9 TV	4:3 TV	Menu Back
Overscan	Enable	Yes or No	
	H Size %	0 to 50	
	V Size %	0 to 50	
	Menu Back		
Audio	HDMI Audio	Enable or Disable	
	L/R Audio	Enable or Disable	
	Hot Keys	None	
	Mute	On or Off	
	Volume	0 to -80 dB	
	Treble	-12 to +15	
	Bass	-12 to +15	
	Menu Back		

Menu Option							
OSD	Position	Left-Top, Right-Top, Right-Bottom, Left-Bottom, Center					
	Transparency	0 (transparent) to 15 (solid)					
	Info. Timer	5 to 60 seconds					
	Menu Timer	5 to 60 seconds					
	Info. Display	Always On, Auto, Always Off					
	Menu Display	Always On, Auto, Always Off					
	Background	Grey, Cyan, Magenta, or Yellow					
	Menu Back						
Others	In Auto Switch	On or Off					
	VGA Auto Adjust	(used with compatible transmitter)					
	Display HDCP	Auto, Compliant, Noncompliant					
	Mirror-V	On or Off					
	ASP Background	Grey or Black					
	Menu Back						
Information	Source Name Product Sink Model Native1 Native2 FW Ver MCU HDBT Next Page	----- ----- ----- ----- ----- ----- ----- ---------- TX: V. XX V. XX	- V. XX RX: V. XX V. XX	Source Detection HV Total HV Display HV Polarity Scan Mode Type HDCP Clock Sync Identify Menu Back	X X X X X X X X X	-Audio- Type SR FIFO	 X X X
System Setup	Factory Reset	No or Yes					
	MCU F/W Update	No or Yes					
	HDBT F/W Update	No or Yes					
	Menu Back						
Menu Exit							

Network Connections

For convenience, the HDVS-200-RX comes with DHCP on. This enables the scaler to be connected to a network without knowing available IP addresses. If your network does not allow dynamic IP addresses or if you are using the switcher with a TCP/IP control system, this feature may be turned off and the IP address set using RS-232 commands or the webGUI.

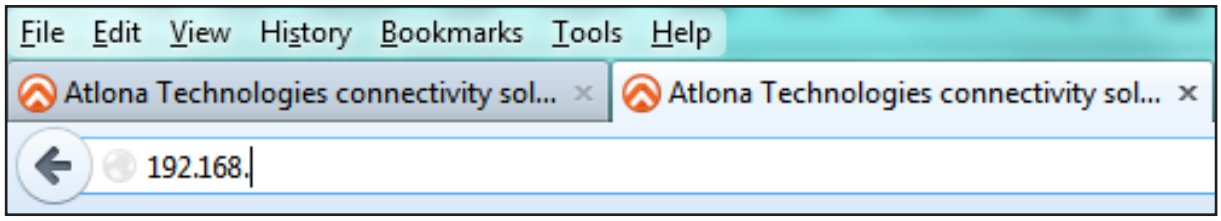
WebGUI

Atlona has created an easy to use webGUI for initial setup and later changes to the configuration of the HDVS-200-RX.

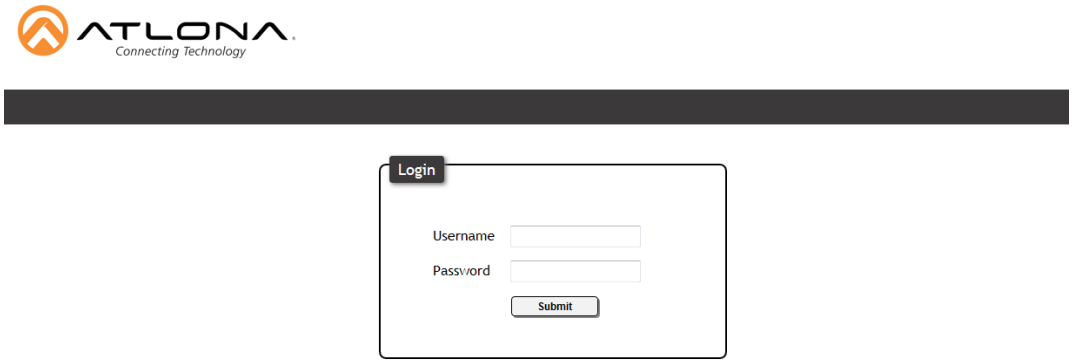
To begin, plug a LAN cable into the LAN port of the HDVS-200-RX and the network switch, then type the IP address of the unit into a web browser of a PC connected to the same network (as seen below).

To find the switcher IP: use RS-232 command "IPCFG".

Note: IP addresses may also be found using common free IP scanner software such as "Advanced IP Scanner"
Atlona does not assume responsibility for damage caused by other programs installed onto a computer, verify programs before installing

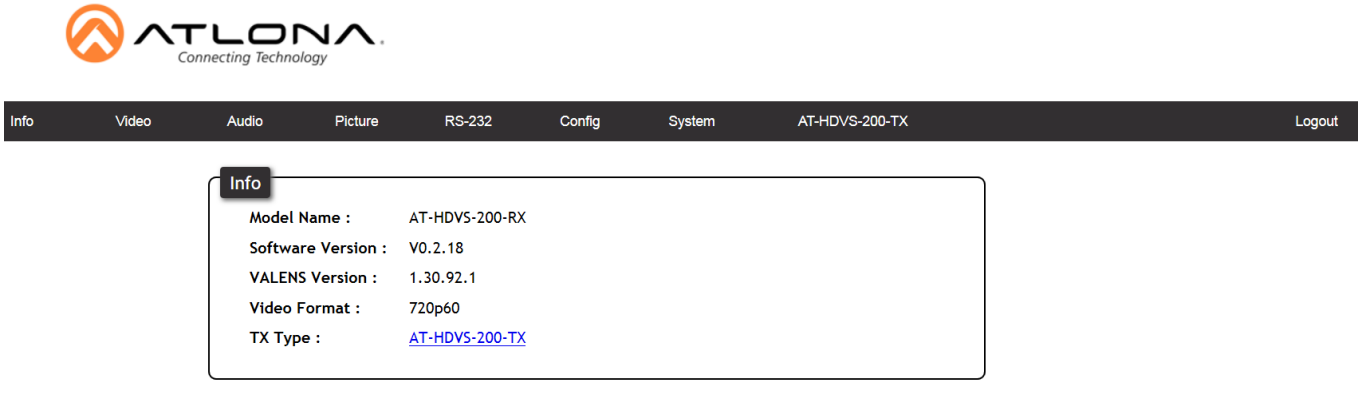


Important: If any stability issues are experienced, disable any anti-virus or firewall that may interfere with network communication to the switcher. Once set up is done and the scaler webGUI is no longer being used, the firewall and anti-virus can be re-enabled.



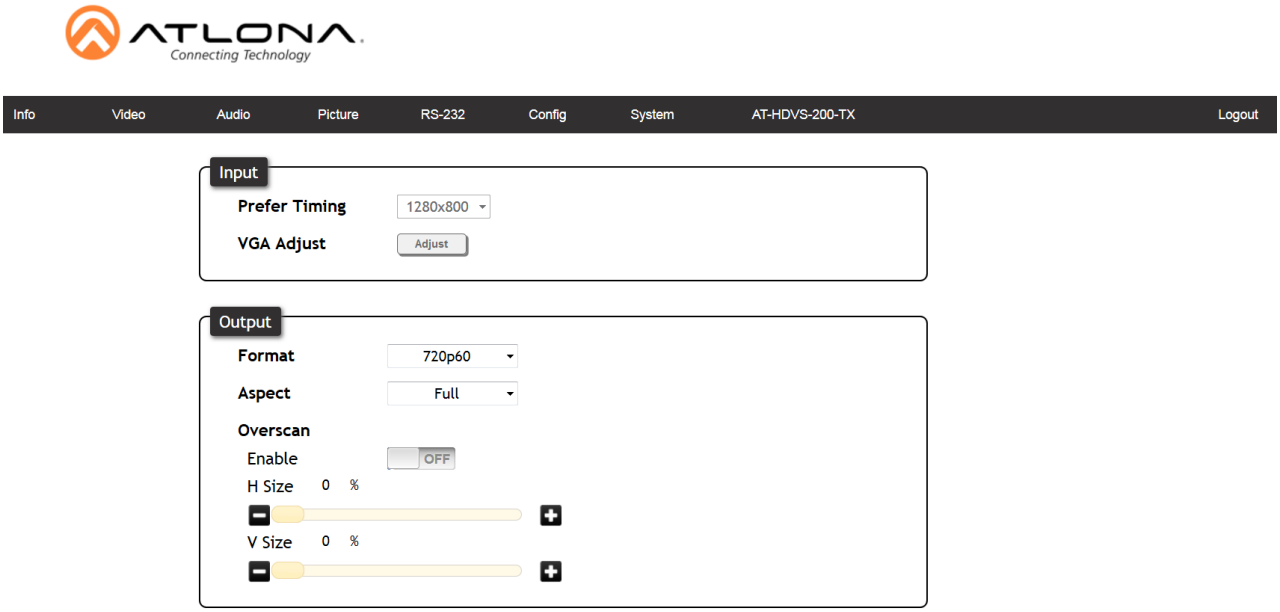
A login screen will appear (this is the same log in for admin and general users). For the first log in (and future admin changes) the username is "root" and password is "Atlona".

Note: Only the admin password can be changed (see page 11). The username will always remain "root".



The Info Page displays general system information.

Note: When connected to a transmitter other than the HDVS-200-TX it will display GENERAL in the navigation bar.



The Video Page enables input selection, VGA alignment, and auto-switch configuration.

Input

Prefer Timing - Select the best resolution to ensure compatibility with the input & output
VGA Adjust - Adjusts the VGA timing on the display
Output Resolution - Select the output resolution for the HDMI output (see resolution list below)

Note: The RX will scale all sources to the chosen resolution

Aspect - Adjusts the height and width of the image (see aspect list below)

Note: When used with the HDVS-200-TX, preferred timing and VGA adjust will not be selectable. Select preferred timing and VGA adjust through the TX webGUI

Output Resolution -

0 800x600p60	**1** 1024x768p60	**2** 1280x800p60	**3** 1280x1024p60	**4** 1366x768p60
5 1400x1050p60	**6** 1600x900p60RB	**7** 1600x1200p60	**8** 1680x1050p60	**9** 1920x1200pRB
10 1280x720p25	**11** 1280x720p29	**12** 1280x720p30	**13** 1280x720p50	**14** 1280x720p59
15 1280x720p60	**16** 1920x1080i50	**17** 1920x1080i59	**18** 1920x1080i60	**19** 1920x1080p23
20 1920x1080p24	**21** 1920x1080p25	**22** 1920x1080p29	**23** 1920x1080p30	**24** 1920x1080p50
25 1920x1080p59	**26** 1920x1080p60	**27** Input	**28** Native	

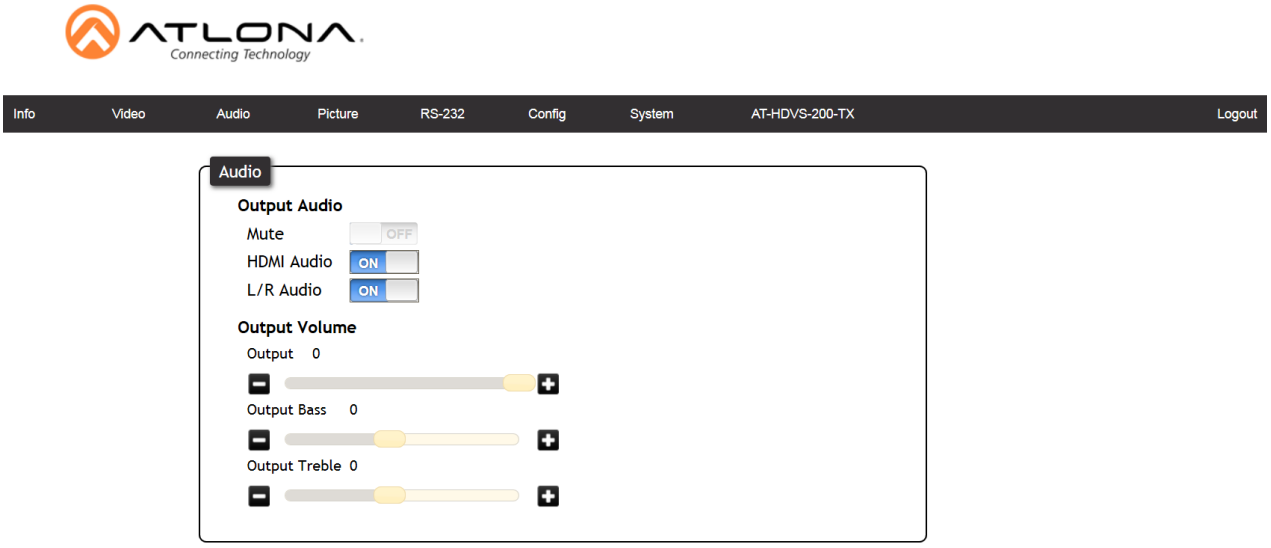
Aspect Ratio -

1 Full	**2** 16:9	**3** 16:10	**4** 4:3	**5** Keep Ratio

Note: Keep ratio maintains the aspect ratio of the source, even if it does not match connected display's aspect ratio

Overscan

Enable - Toggle on/off to enable horizontal and vertical sizing
H Size - Adjusts the width of the video
V Size - Adjusts the height of the video



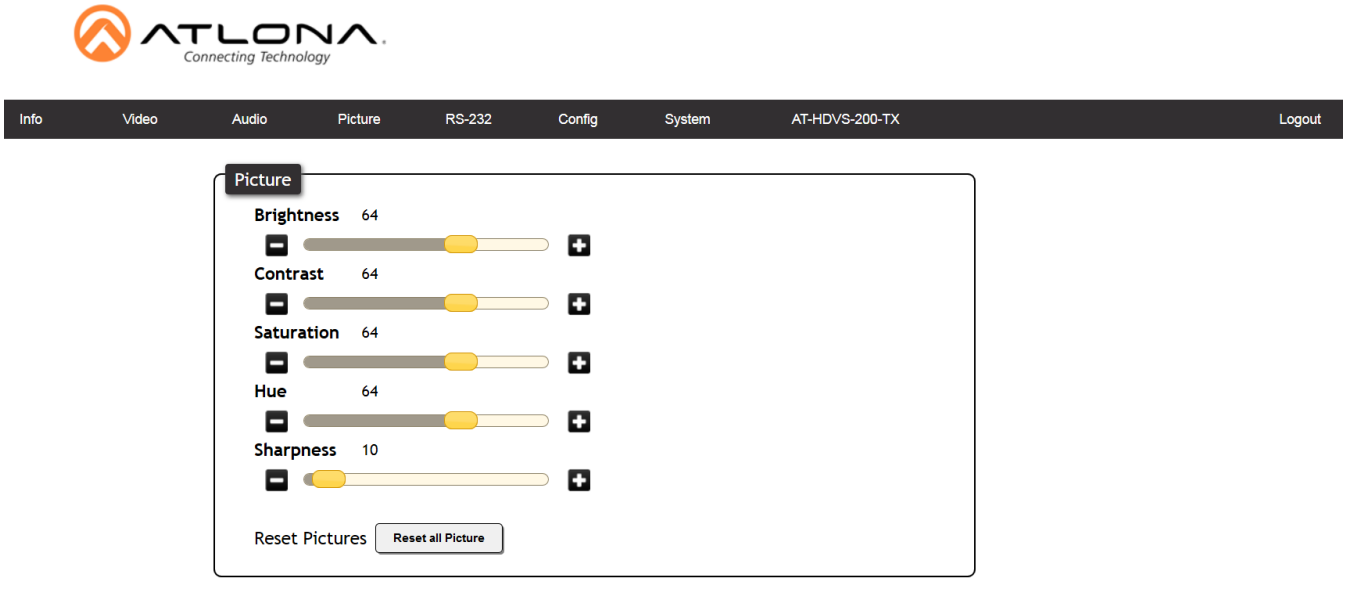
The Audio Page enables adjustments of volume, bass, and treble

Output Audio:

Mute - Toggle the output audio of both the HDMI and analog audio output
HDMI Audio - Toggle the HDMI audio on and off
L/R Audio - Toggle the analog audio on and off

Output Volume:

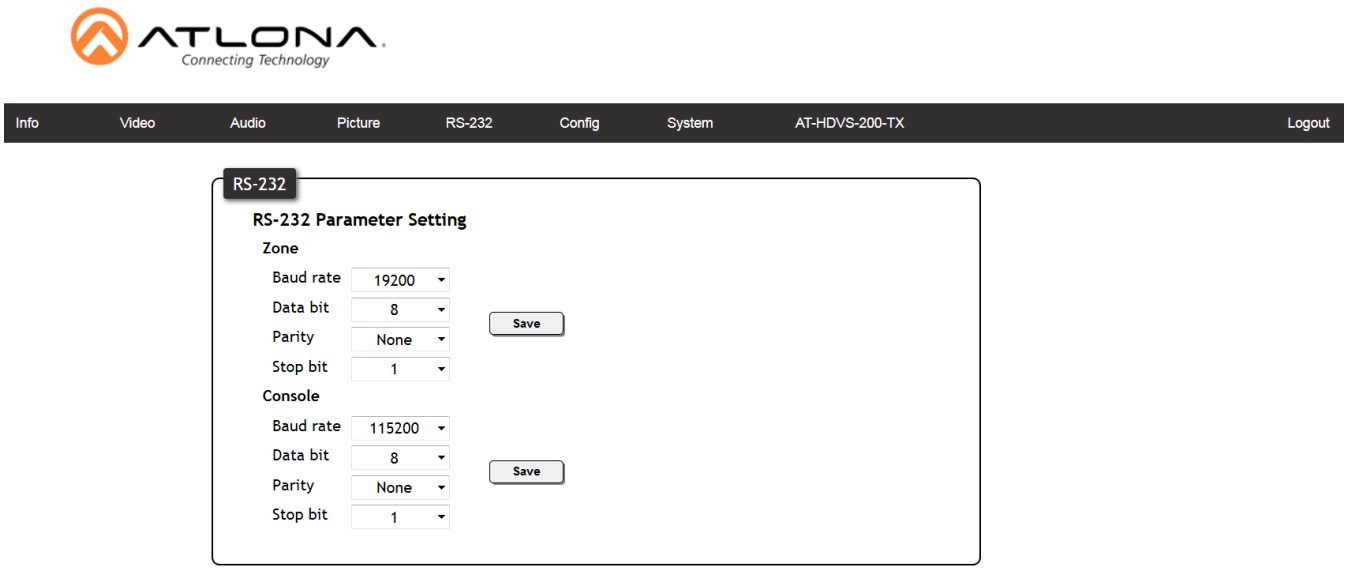
Output - Adjust the output volume
Output Bass - Adjust the bass of the output
Output Treble - Adjust the treble of the output



The Picture Page provides output adjustment for brightness, contrast, saturation, hue, and sharpness.

Note: Calibrate the display before using these settings to adjust the picture

Reset Picture - Resets the picture settings of the unit



RS-232 Parameter Setting

Zone -

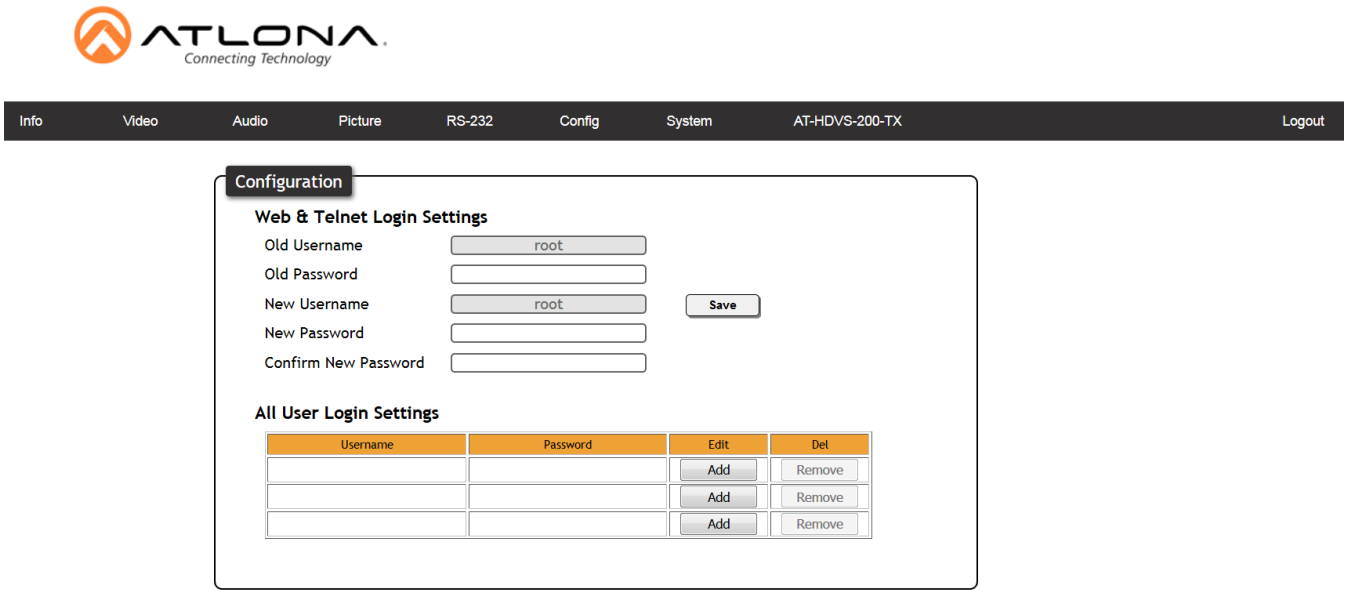
Adjust the RS-232 parameters of RS-232 port 1 of the HDVS-200-RX for display control

Console -

Adjust the RS-232 parameters of the HDVS-200-RX RS-232 port 2 to make it compatible with control systems.

Save -

Once the RS-232 parameters are changed, press the save button to make it live on the unit.

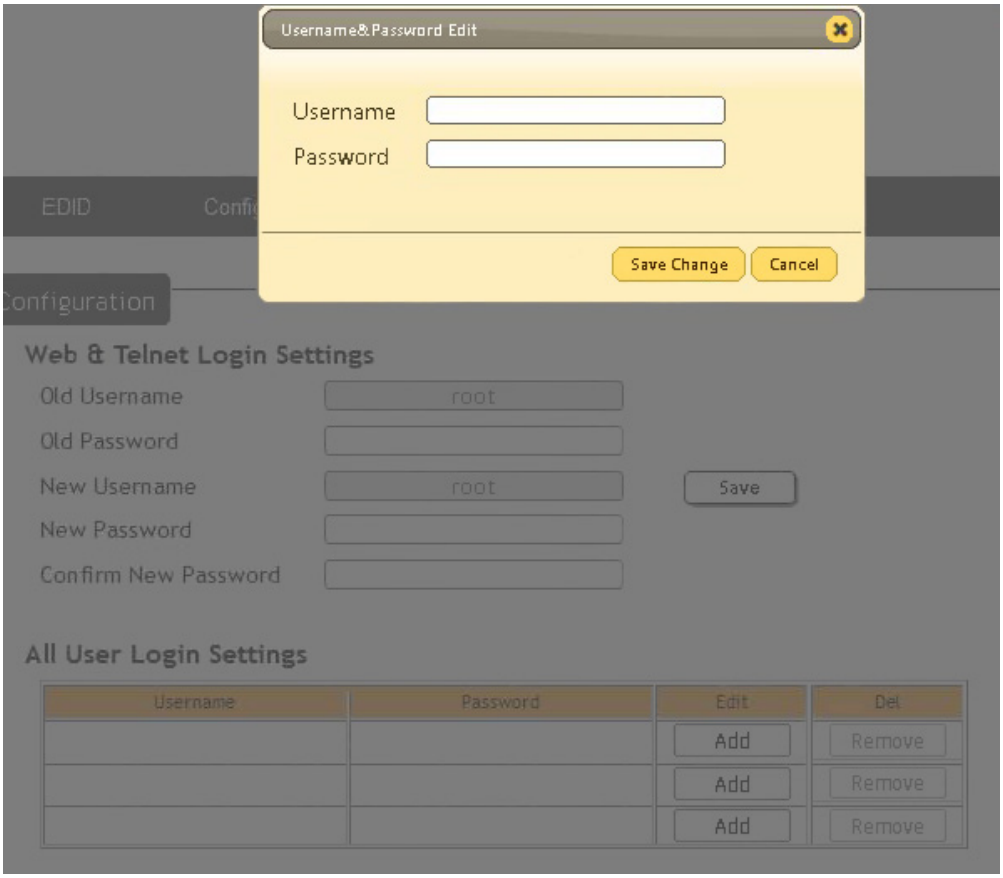


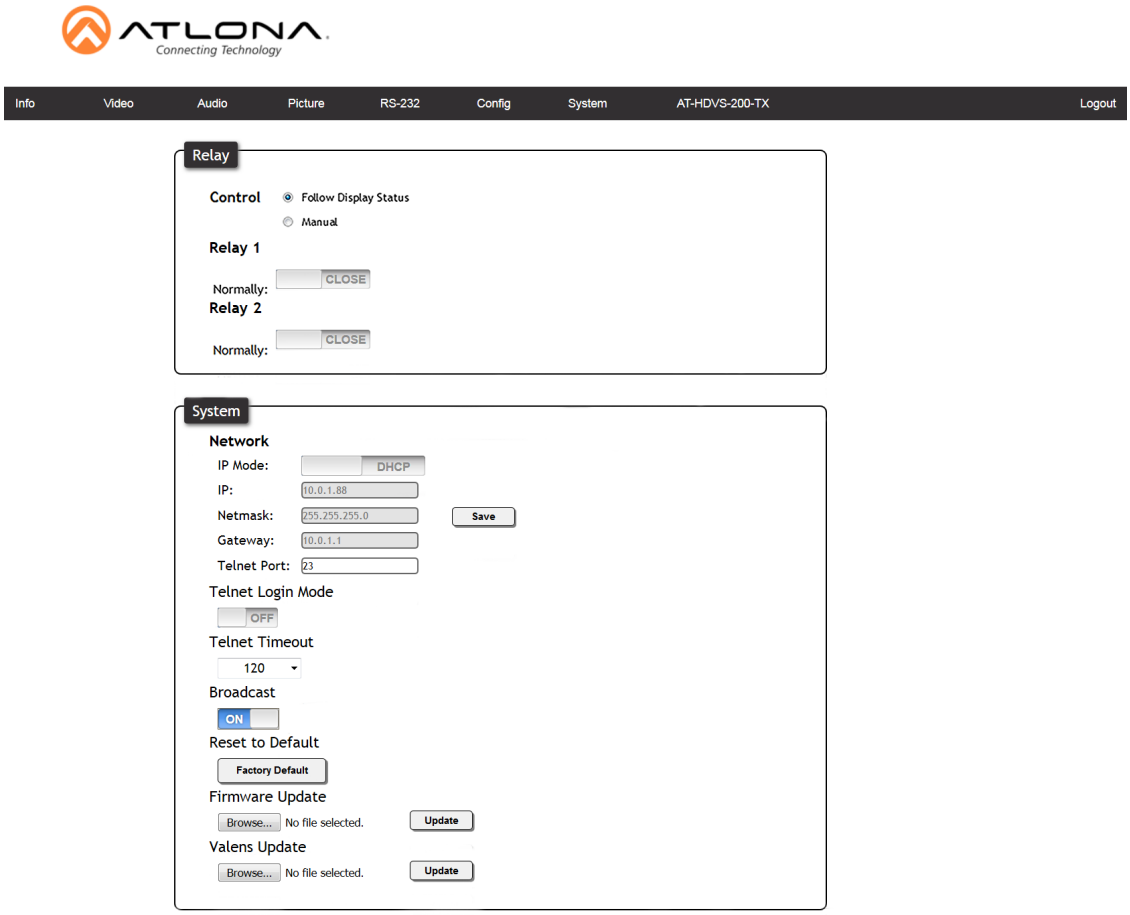
The Configuration Page allows non-admin users to be added or the admin password to be changed.

Only 3 non-admin users can be added. Press the add button. A pop up screen will appear (see below). Fill in the username and password than press save changes. Users will not have the ability to access this page.

Admin password can also be changed. Be sure to write this information down as admin is the only profile allowed to add/remove users.

Note: Default username= "root" and password= "Atlona"





Relay

Control

Follow Display Status: When power is turned on or off, the relays will auto switch based on signal status

Manual: Open and close the relays through IP/RS-232 commands

Relay 1 & 2 (see set up on page 16)

Open: Breaks the contact

Close: Completes the circuit, sending power to trigger the device function

System

Network - IP address, netmask, gateway, and telnet port can be set to any settings compatible with your network. The Netmask and Gateway must match your existing network settings

IP Mode:

Static - Set a fixed IP

Note: For a stable connection when using a control system, it is best to set up a static IP. As you select an IP address, make certain no other devices on your network are using that IP address

DHCP - Dynamic Host Configuration Protocol will automatically select an IP address on the network that is not already in use

Telnet Login Mode - Turn on/off - requires a password to adjust settings

Telnet Timeout - Set the auto log-off time between 1 and 3600 seconds

Broadcast - Turn on and off the feedback through all control ports

Reset to Default - Reset the device to factory settings

Firmware Update - Use this feature to find and load the MCU firmware to the switcher

Note: Firmware can be found and downloaded from http://www.atlona.com/products/AT-HDVS-200-RX/ page under the firmware tab

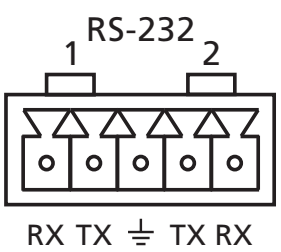
Valens Update - Use this feature to find and load the HDBaseT chip firmware to the switcher

RS-232

Connection

RS-232 pin out will be determined by the connected device and will connect as ⏚ (ground), TX (transmitter), and RX (receiver). (See picture 1)

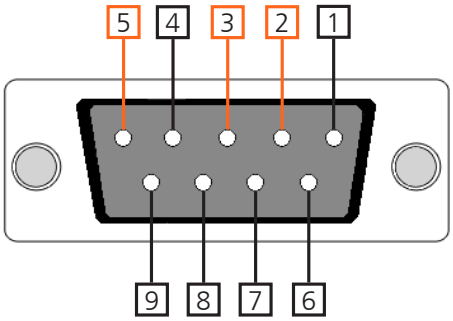
Note: To control the unit you will need to connect to the right three ports of the captive screw connector.



Wire color will differ by cable manufacturer.

RS-232 is often connected through a DB 9-pin to captive screw connector. The pins will have specific signals associated with them, some are unassigned.

Note: Typical DB9 connectors use pin 2 for TX, pin 3 for RX, and pin 5 for ground. On some devices, the functions of pins 2 and 3 are reversed.

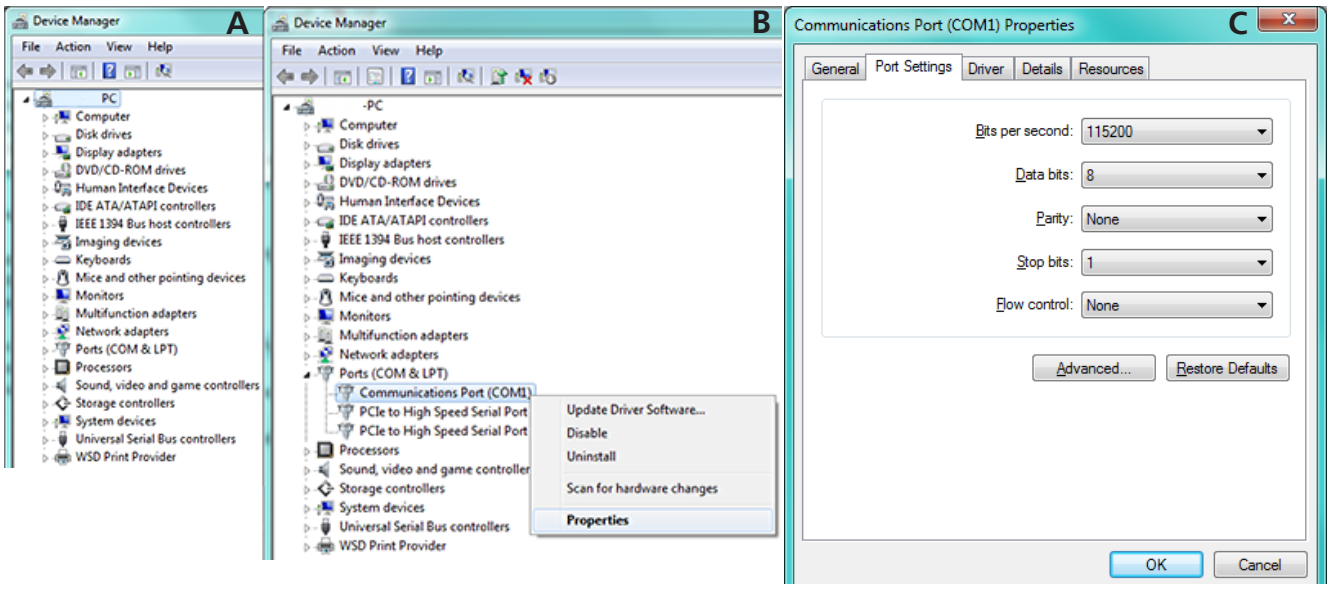


Set Up

To set up the RS-232 terminal (if not using 3rd party software) use the following steps:

1. Connect the HDVS-200-RX to a PC using a DB9 to DB9 and DB9 to USB adaptor cable
   Note: A gender changer and/or null modem may be needed between some connections
   a. Remove the DB9 connector, strip and connect the wires to the included captive screw connector (as explained above), then connect the captive screw connector to the switcher
2. Go to the Device Manager folder (see picture A)
3. Find the HDVS-200-RX COM port and right click with a mouse and select properties (see picture B)
   Note: If unsure which COM port is the HDVS-200-RX, unplug the cable and plug it back in. It will disappear and reappear on the COM port list.
4. Under the properties menu select the port settings tab and update the menu to the **HDVS-200-RX default settings of**: Bits Per Second: 115200, Data Bits: 8, Parity: None, Stop Bits: 1 and Flow Control: None. (see picture C)

Set up is done and any terminal program may be used to control the HDVS-200-RX now.



Command	Feedback	Description
Type	Type	Displays the model number of the unit
Version	Version	Displays the bootcode and firmware version
Mreset	Mreset	Reset the unit to factory settings and restarts the switcher
PrefTimg X	PrefTimg X	Set preferred timing to EDID. X= 0-8 & sta
VOUT + **e.g.** VOUT +	VOUT XX **e.g.** VOUT -5	Increase the volume output by 1 **e.g.** Increases the volume output by 1
VOUT - **e.g.** VOUT -	VOUT XX **e.g.** VOUT -20	Decrease the volume output by 1 **e.g.** Decreases the volume output by 1
VOUT X **e.g.** VOUT -10	VOUT X **e.g.** VOUT -10	Set the volume to a specific level from -80 to 0 **e.g.** Set the volume to -10
VOUTMute X **e.g.** VOUTMute on	VOUTMute X **e.g.** VOUTMute1 on	Mute/unmute all audio output X= on, off, sta **e.g.** Mute all audio output
HDMIAUD X **e.g.** HDMIAUD off	HDMIAUD X **e.g.** HDMIAUD off	Turns audio on/off for the HDMI output x=on, off, sta **e.g.** Turns the audio off for the HDMI output
LRAUD X **e.g.** LRAUD on	LRAUD X **e.g.** LRAUD on	Turns the audio on/off for the analog audio output **e.g.** Turns the analog audio output on
Bass X **e.g.** Bass +	Bass X **e.g.** Bass 5	Adjusts the bass of the audio output X= +, -, sta, -12 to 15 **e.g.** Increases the bass by 1
Treble X **e.g.** Treble -5	Treble X **e.g.** Treble -5	Adjusts the treble of the audio output X= +, -, sta, -12 to 15 **e.g.** Sets the treble to -5
VidOutRes X **e.g.** VidOutRes 22	VidOutRes X **e.g.** VidOutRes 22	Set the output resolution x=0-27, sta **e.g.** Set the output resolution to 1920x1080p29
Aspect X **e.g.** Aspect 2	Aspect X **e.g.** Aspect 2	Set the output aspect ratio x=0-4 **e.g.** Set the output aspect ratio to 16:10
Zoom X **e.g.** Zoom on	Zoom X **e.g.** Zoom on	Enable/disable overscan (zoom) x=on, off, sta **e.g.** Enables overscan
HZoom X **e.g.** HZoom 10	HZoom X **e.g.** HZoom 10	Adjusts the horizontal overscan x=0-50, sta **e.g.** Adjust the width of the signal to 10
VZoom X **e.g.** VZoom 12	VZoom X **e.g.** VZoom 12	Adjusts the vertical overscan x=0-50, sta **e.g.** Adjust the height of the signal to 12
BRT XX **e.g.** BRT 30	BRT XX **e.g.** BRT 30	Set output brightness value **e.g.** Set output brightness to 30
CTRST XX **e.g.** CTRST 20	CTRST XX **e.g.** CTRST 20	Set output contrast value **e.g.** Set output contrast to 20
SATRT XX **e.g.** SATRT 65	SATRT XX **e.g.** SATRT 65	Set output saturation value **e.g.** Set output contrast to 65
HUE XX **e.g.** HUE 38	HUE XX **e.g.** HUE 38	Set output hue value **e.g.** Set output hue to 38
Sharp XX **e.g.** Sharp 11	Sharp XX **e.g.** Sharp 11	Set output sharpness value **e.g.** Set output sharpness to 11
PicReset	PicReset	Resets all picture settings to default

Each command is terminated with a carriage return.
Feedback is terminated with a carriage return and line feed.

Note: If the command fails or is incorrect the feedback should be "Command FAILED"

Preferred Timings -

0 Default	**1** 1280x800	**2** 1920x1080	**3** 1024x768	**4** 1280x720
5 1920x1200	**6** 1366x768	**7** 800x600	**8** 1600x900	**sta**

Output Resolution -

0 800x600p60	**1** 1024x768p60	**2** 1280x800p60	**3** 1280x1024p60	**4** 1366x768p60
5 1400x1050p60	**6** 1600x900p60RB	**7** 1600x1200p60	**8** 1680x1050p60	**9** 1920x1200pRB
10 1280x720p25	**11** 1280x720p29	**12** 1280x720p30	**13** 1280x720p50	**14** 1280x720p59
15 1280x720p60	**16** 1920x1080i50	**17** 1920x1080i59	**18** 1920x1080i60	**19** 1920x1080p23
20 1920x1080p24	**21** 1920x1080p25	**22** 1920x1080p29	**23** 1920x1080p30	**24** 1920x1080p50
25 1920x1080p59	**26** 1920x1080p60	**27** Input	**28** Native	**sta**

Aspect Ratio -

1 Full	**2** 16:9	**3** 16:10	**4** 4:3	**5** Keep Ratio

Note: Incorrect aspect ratio will display with horizontal or vertical bars to fill the excess space

RS-232 Parameters

Default baud rate to control the scaler is 115200

Note: For the display's actual baud rate, refer to the owner's manual

To change the baud rate of the scaler (for scaler control - port 2) or the zone output (for display/projector control - port 1), the commands below will be needed:

Scaler parameter command

CSpara[baudrate,data-length,parity,stop-bit] (data-length, parity, and stop-bit for switcher must be 8,0,1)

e.g. To change the baud rate to 38400 use **CSpara[38400,8,0,1]**

Note: Use this command if the connected control system does not output 115200

Zone output parameter commands **(for display control)**

RS232para[baudrate,data-length,parity,stop-bit]

e.g. To change the output baud rate to 19200 use RS232para[19200,8,0,1]

Note: Use this command if the connected display uses a different baud rate

RS232zone[command]

Once the scaler and zone output have been set up for the best communication, commands can be sent to control the display. The commands will come from the user manual of the display or projector. The commands and any carriage returns/line feeds in the commands will need to be placed in the bracket.

e.g. To turn the display or projector on if the command is PWRON carriage return, use the command:

RS232zone[PWRON$_{CR}$]$_{CR}$

Note: $_{CR}$ = carriage return

IP Commands

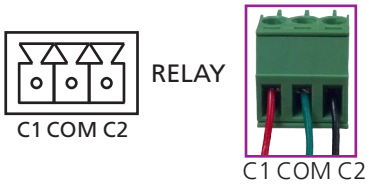
Command	Feedback	Description
IPCFG	IP Addr : x.x.x.x Netmask : x.x.x.x Gateway : x.x.x.x IP Port: x.x.x	Displays IP address configuration
IPTimeout XX **e.g.** IPTimeout 120	IPTimeout XX **e.g.** IPTimout 120	Determines amount of seconds of inactivity before TCP/IP disconnects
IPAddUser	TCP/IP username & password list: - user password - user password - user password	Will display a list of users
IPAddUser X Y	TCP/IP user was added	Add a user for TCP/IP control. X=User Y=Password **e.g.** IPAddUser Atlona 1234 (User=Atlona 1234=Password)
IPDelUser X	TCP/IP user was deleted	Delete a user from TCP/IP X=User (Ex. IPDelUser Atlona)
IPDHCP sta	IPDHCP sta **e.g.** IPDHCP on	Displays the status of DHCP
IPDHCP on	IPDHCP on	Turns DHCP on
IPDHCP off	IPDHCP off	Turns DHCP off
IPStatic X Y Z **e.g.** IPStatic 192.168.1.1 255.255.255.0 192.168.1.200	IPStatic X Y Z **e.g.** IPStatic 192.168.1.1 255.255.255.0 192.168.1.200	Sets static IP address IPStatic Address(X) Netmask(Y) Gateway(Z)
IPPort X	IPPort X	Set the TCP/IP port (ex. IPPort 230)
IPLogin X **e.g.** IPLogin on	IPLogin X **e.g.** IPLogin on	Enable/disable and view status of IP login X= on, off, sta **e.g.** IPLogin is on
IPLogin on	IPLogin on	Enables IPLogin
IPLogin off	IPLogin off	Disables IPLogin
Broadcast X e.g. Broadcast sta	Broadcast X e.g. Broadcast on	Enable/disable and view status of broadcast mode X= on, off, sta e.g. Broadcast is currently on

Relay

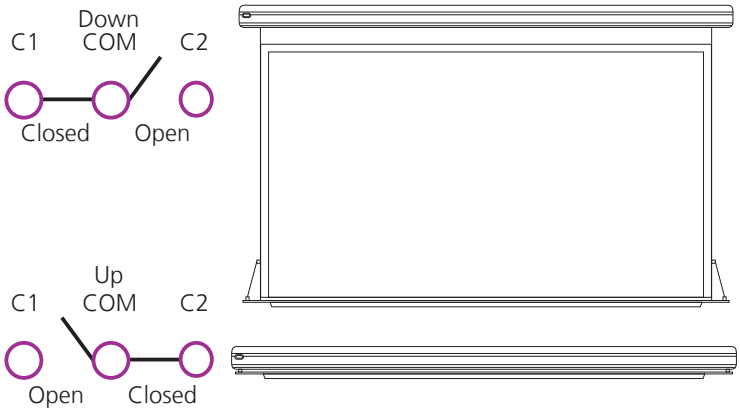
A dual low-voltage signal relay is built into the HDVS-200-RX for control of devices such as electric screens and display lifts.

There are 3 connections for the relay: C1, COM, and C2 (Circuit 1, Common, and Circuit 2 - pictured below). Connect wires from the device to the three pin captive screw connector (see picture below) and then plug the connector into the relay port.

Note: This relay is designed to be used with low voltage/current circuits

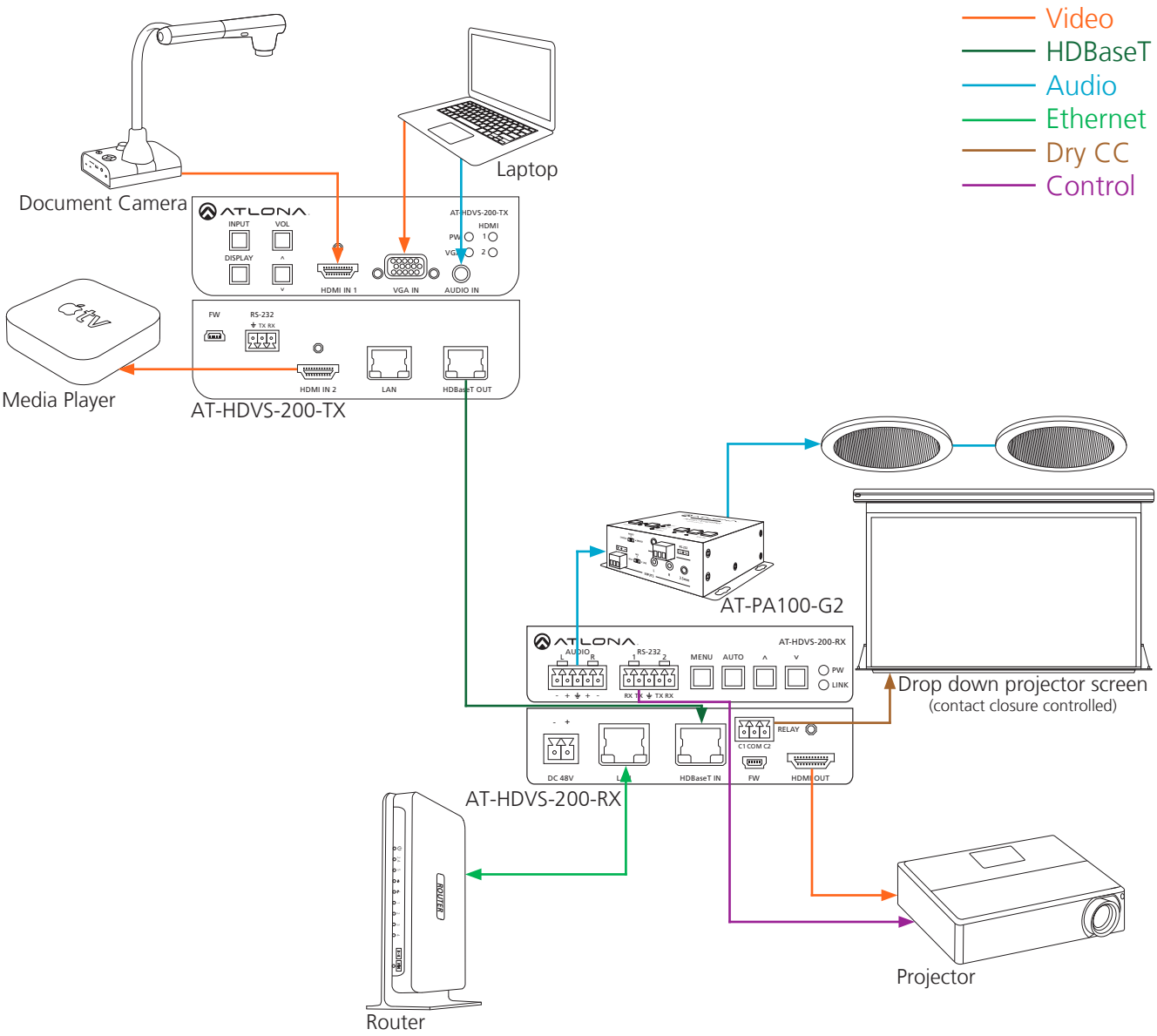


When using a dual signal relay with an electric projection screen, it allows for two different circuits to be controlled: up and down. Examples of what that would look like are pictured to the right.

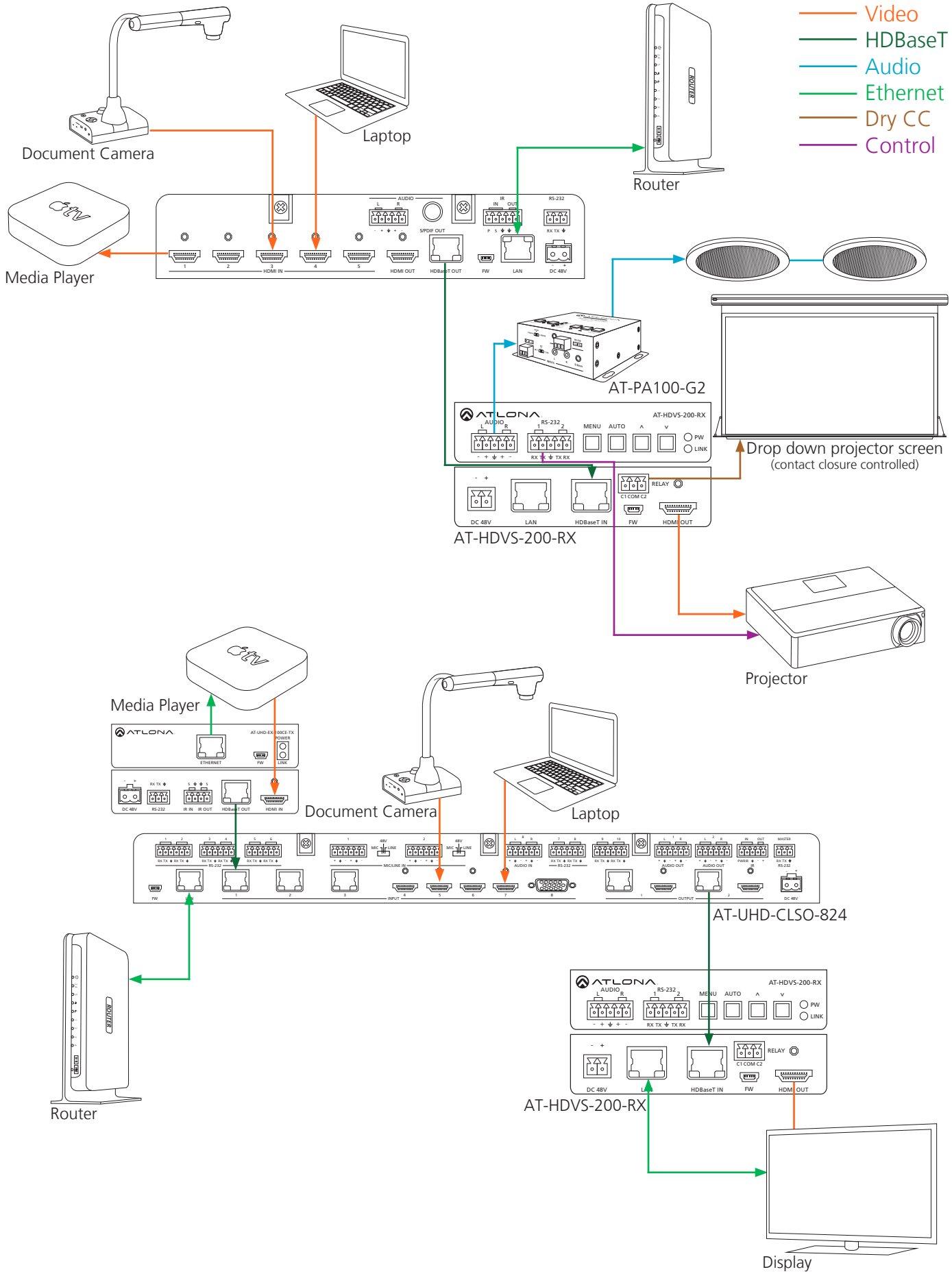


When "Follow Display" is selected, the relay will trigger automatically based on the power/status of the display/projector. If the HDVS-200-RX stops receiving a signal it will trigger one circuit (**e.g.** up in the above example) and if the HDVS-200-RX starts receiving signal from the display it will trigger the opposite circuit (**e.g.** down in above example). This provides a simple automatic solution for device control.

Connection Diagram (with HDVS-200-TX)



Connection Diagram (with Switchers)



Specifications

Video Resolutions

IN	480i, 480p, 576i, 576p, 720p@25/29/30/50/59/60Hz, 1080i@50/59/60Hz, 1080p@23/24/25/29/30/50/59/60Hz	
	640x480, 720x400, 800x600, 1024x768, 1152x864, 1280x768, 1280x800, 1280x960, 1280x1024, 1366x768, 1400x1050 1440x900, 1600x900, 1600x1200, 1680x1050, 1920x1200RB	
OUT	1080p@23/24/25/29/30/50/59/60, 1080i@50/59/60, 720p@25/29/30/50/59/60	
	1920x1200RB, 1680x1050, 1600x1200, 1600x900RB, 1400x1050, 1366x768, 1280x1024, 1280x800, 1024x768, 800x600	
Color Space	RGB, YUV	
Color Depth	10-bit, 12-bit, 16-bit	

Audio

Analog OUT	PCM 2Ch	
HDMI / HDBaseT	PCM 2Ch, LPCM 5.1, LPCM 7.1, Dolby Digital, DTS 5.1, Dolby Digital Plus, Dolby TrueHD, DTS-HD Master Audio, Dolby Atmos	
Sample Rate	44.1kHz, 48kHz, 96kHz, 192kHz	

Distance

CAT @ 1080p	up to 100 m	up to 328 ft
HDMI	10 m	30 ft

Signal

Bandwidth	6.75 Gbps	
CEC	No	
HDCP	Compliant	

Temperature

Operating	0°C to 50°C	32°F to 122°F
Storage	-20°C to 60°C	-4°F to 140°F
Humidity	20 to 90% non-condensing	

Power

Consumption	30W (when paired with HDVS-200-TX)
Supply	Input: AC100-240V ~ 50/60Hz Output: DC 48V/0.83A

Dimension

H x W x D	30 x 122 x 125 (mm)	1.18 x 4.8 x 4.92 (inch)

Weight

Device	0.46 kg	1.01 lbs

Certification

Unit	CE, FCC
Power Supply	CE, FCC, Level VI, RoHS, cULus, RCM, CCC

Note: To ensure compatibility, please be certain both transmitter and receiver have blue HDBaseT ports. This ensures both products are PoE (48V) compliant. The HDVS-200-TX is not compatible with PoCC (black RJ45, 24V) devices

Safety Information

Safeguards

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

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

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

This equipment should be installed near the socket outlet and the device should be easily accessible in the 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, fish tanks, 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 and not cleaning fluid or aerosols. Such products could enter the unit and cause damage, fire, or electric shock. Some substances may also mar the finish of the product.

Never open, 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 product. Opening the product will void the warranty.

Do not attempt to service the unit. Disconnect the product and contact your authorized Atlona reseller or contact Atlona directly.

Atlona, Inc. (“Atlona”) Limited Product Warranty Policy

Coverage

Atlona warrants its products will substantially perform to their published specifications and will be free from defects in materials and workmanship under normal use, conditions and service.

Under its Limited Product Warranty, Atlona, at its sole discretion, will either:

A) repair or facilitate the repair of defective products within a reasonable period of time, restore products to their proper operating condition and return defective products free of any charge for necessary parts, labor and shipping

OR

B) replace and return, free of charge, any defective products with direct replacement or with similar products deemed by Atlona to perform substantially the same function as the original products

OR

C) refund the pro-rated value based on the remaining term of the warranty period, not to exceed MSRP, in cases where products are beyond repair and/or no direct or substantially similar replacement products exist.

Repair, replacement or refund of Atlona’s products is the purchaser’s exclusive remedy and Atlona’s liability does not extend to any other damages, incidental, consequential or otherwise.

This Limited Product Warranty extends to the original end-user purchaser of Atlona’s products and is non-transferrable to any subsequent purchaser(s) or owner(s) of these products.

Coverage Periods

Atlona’s Limited Product Warranty Period begins on the date of purchase by the end-purchaser. The date contained on the end-purchaser ‘s sales or delivery receipt is the proof purchase date.

Limited Product Warranty Terms – New Products

- 10 years from proof of purchase date for hardware/electronics products purchased on or after June 1, 2013
- 3 years from proof of purchase date for hardware/electronics products purchased before June 1, 2013
- Lifetime Limited Product Warranty for all cable products

Limited Product Warranty Terms – Refurbished (B-Stock) Products

- 3 years from proof of purchase date for all Refurbished (B-Stock) hardware and electronic products purchased on or after June 1, 2013

Remedy

Atlona recommends that end-purchasers contact their authorized Atlona dealer or reseller from whom they purchased their products. Atlona can also be contacted directly. Visit www.atlona.com for Atlona’s contact information and hours of operation. Atlona requires that a dated sales or delivery receipt from an authorized dealer, reseller or end-purchaser is provided before Atlona extends its warranty services. Additionally, a return merchandise authorization (RMA) and/or case number, is required to be obtained from Atlona in advance of returns.

Atlona requires that products returned are properly packed, preferably in the original carton, for shipping. Cartons not bearing a return authorization or case number will be refused. Atlona, at its sole discretion, reserves the right to reject any products received without advanced authorization. Authorizations can be requested by calling 1-877-536-3976 (US toll free) or 1-408- 962-0515 (US/international) or via Atlona’s website at www.atlona.com.

Exclusions

This Limited Product Warranty excludes:

- Damage, deterioration or malfunction caused by any alteration, modification, improper use, neglect, improper packing or shipping (such claims must be presented to the carrier), lightning, power surges, or other acts of nature.
- Damage, deterioration or malfunction resulting from the installation or removal of this product from any installation, any unauthorized tampering with this product, any repairs attempted by anyone unauthorized by Atlona to make such repairs, or any other cause which does not relate directly to a defect in materials and/or workmanship of this product.
- Equipment enclosures, cables, power supplies, batteries, LCD displays, and any accessories used in conjunction with the product(s).
- Products purchased from unauthorized distributors, dealers, resellers, auction websites and similar unauthorized channels of distribution.

Disclaimers

This Limited Product Warranty does not imply that the electronic components contained within Atlona's products will not become obsolete nor does it imply Atlona products or their electronic components will remain compatible with any other current product, technology or any future products or technologies in which Atlona's products may be used in conjunction with. Atlona, at its sole discretion, reserves the right not to extend its warranty offering in instances arising outside its normal course of business including, but not limited to, damage inflicted to its products from acts of god.

Limitation on Liability

The maximum liability of Atlona under this limited product warranty shall not exceed the original Atlona MSRP for its products. To the maximum extent permitted by law, Atlona is not responsible for the direct, special, incidental or consequential damages resulting from any breach of warranty or condition, or under any other legal theory. Some countries, districts or states do not allow the exclusion or limitation of relief, special, incidental, consequential or indirect damages, or the limitation of liability to specified amounts, so the above limitations or exclusions may not apply to you.

Exclusive Remedy

To the maximum extent permitted by law, this limited product warranty and the remedies set forth above are exclusive and in lieu of all other warranties, remedies and conditions, whether oral or written, express or implied. To the maximum extent permitted by law, Atlona specifically disclaims all implied warranties, including, without limitation, warranties of merchantability and fitness for a particular purpose. If Atlona cannot lawfully disclaim or exclude implied warranties under applicable law, then all implied warranties covering its products including warranties of merchantability and fitness for a particular purpose, shall provide to its products under applicable law. If any product to which this limited warranty applies is a "Consumer Product" under the Magnuson-Moss Warranty Act (15 U.S.C.A. §2301, ET SEQ.) or other applicable law, the foregoing disclaimer of implied warranties shall not apply, and all implied warranties on its products, including warranties of merchantability and fitness for the particular purpose, shall apply as provided under applicable law.

Other Conditions

Atlona's Limited Product Warranty offering gives legal rights, and other rights may apply and vary from country to country or state to state. This limited warranty is void if (i) the label bearing the serial number of products have been removed or defaced, (ii) products are not purchased from an authorized Atlona dealer or reseller. A comprehensive list of Atlona's authorized distributors, dealers and resellers can be found at www.atlona.com .

Atlona, Inc Product Registration

Thank you for purchasing this Atlona product. - We hope you enjoy it and will take an extra few moments to register your new purchase.

Registration creates an ownership record if your product is lost or stolen and helps ensure you'll receive notification of performance issues and firmware updates.

At Atlona we respect and protect your privacy, assuring you that your registration information is completely secure. Atlona product registration is completely voluntary and failure to register will not diminish your limited warranty rights.

To register go to: http://www.atlona.com/registration