# Ethernet-Enabled
# HDBaseT™ Scaler
## with HDMI and Analog Audio Outputs

# Version Information

| Version | Release Date | Notes |
| --- | --- | --- |
| 1 | 01/16 | Initial release |
| 2 | 06/17 | New format |

# Welcome to Atlona!

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 only takes a few minutes and protects this product against theft or loss.  In addition, you will receive notifications of product updates and firmware.  Atlona product registration is voluntary and failure to register will not affect the product warranty.

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

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# Operating Notes

⚠️ **IMPORTANT:** Visit http://www.atlona.com/product/AT-HDVS-200-RX for the latest firmware updates and User Manual.

- Consumer Electronics Control (CEC): Atlona has confirmed proper CEC functionality with several current models of Samsung, Panasonic, and Sony displays.  However, it is not guaranteed that CEC will work with all displays.  Many manufacturers do not support the CEC "off" command, and older displays use proprietary commands.  Atlona only supports displays that use the CEC command structure defined in HDMI 1.2a.  It is recommended that dealers request an evaluation product from Atlona, before designing a system using the CEC protocol.  If this is not possible, then other control methods will need to be considered, in order to control displays using Atlona products.

# Atlona, Inc. ("Atlona") Limited Product Warranty

## 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:

- 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

- 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

- 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 products is the purchaser's exclusive remedy and Atlona 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 products and is non-transferrable to any subsequent purchaser(s) or owner(s) of these products.

## Coverage Periods

Atlona 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 packaging 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.

# Important Safety Information

**CAUTION**
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCT THE RISK OF
ELECTRIC SHOCK
DO NOT OPEN ENCLOSURE OR EXPOSE
TO RAIN OR MOISTURE.
NO USER-SERVICEABLE PARTS
INSIDE REFER SERVICING TO
QUALIFIED SERVICE PERSONNEL.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance instructions in the literature accompanying the product.

The information bubble is intended to alert the user to helpful or optional operational instructions in the literature accompanying the product.

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 a 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 product.

11. Only use attachments/accessories specified by Atlona.

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 product during lightning storms or when unused for long periods of time.

14. Refer all servicing to qualified service personnel. Servicing is required when the product 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 product, the product has been exposed to rain or moisture, does not operate normally, or has been dropped.

# FCC Statement
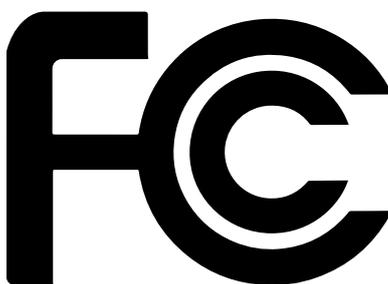
FCC Compliance and Advisory Statement: This hardware device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: 1) this device may not cause harmful interference, and 2) this device must accept any interference received including interference that may cause undesired operation. This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a commercial installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed or used in accordance with the instructions, may cause harmful interference to radio communications. However there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: 1) reorient or relocate the receiving antenna; 2) increase the separation between the equipment and the receiver; 3) connect the equipment to an outlet on a circuit different from that to which the receiver is connected; 4) consult the dealer or an experienced radio/TV technician for help. Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. Where shielded interface cables have been provided with the product or specified additional components or accessories elsewhere defined to be used with the installation of the product, they must be used in order to ensure compliance with FCC regulations.

# Table of Contents

# Introduction

The Atlona **AT-HDVS-200-RX** is an HDBaseT receiver and HD scaler for video signals up to 1080p, plus embedded audio, control, and Ethernet over distances up to 330 feet (100 meters). The HDVS-200-RX is designed for use with the HDVS-200-TX switching transmitters, but can also be used with Atlona switchers, matrix switchers, and distribution amplifiers with HDBaseT outputs. The HDVS-200-TX and HDVS-200-RX together serve as a compact, automated AV system with the convenience of automatic input selection, display control, and HD scaling. The HDVS-200-RX remotely powers the HDVS-200-TX through Power over Ethernet (PoE).

The HDVS-200-RX offers advanced scaling capabilities including image adjustment capability, and a feature for automatically matching incoming signals to the display's native resolution. Integrated scaling and video processing help optimize image quality and switching performance. This receiver also features audio de-embedding, and third-party TCP/IP and RS-232 control of the scaler and display. Additionally, the HDVS-200-RX includes contact closure ports for controlling a motorized screen or display lift.

# Features

- HD video scaler with HDMI® output and input resolution control
- Ideal for an HDVS-200-TX switching transmitter and Atlona HDBaseT-equipped switchers
- HDBaseT™ receiver for AV, Ethernet, power, and control up to 330 feet (100 meters)
- Automatic display control (when used with the HDVS-200-TX or compatible Atlona switcher)
- TCP/IP and RS-232 scaler and display control
- Contact closure for screen or display lift control
- Audio de-embedding
- Local AC powering – PoE (Power over Ethernet) source for HDVS-200-TX
- On-screen display with front panel menu controls

# Package Contents

1 x AT-HDVS-200-RX
2 x Captive screw connectors, 5-pin
1 x Captive screw connectors, 3-pin
1 x Captive screw connectors, 2-pin
1 x Mounting brackets
1 x 48V DC power supply
1 x Installation Guide

# Panel Description



Front

1  2  3  4  6

Rear

10  11

5  7

8  9  12  13
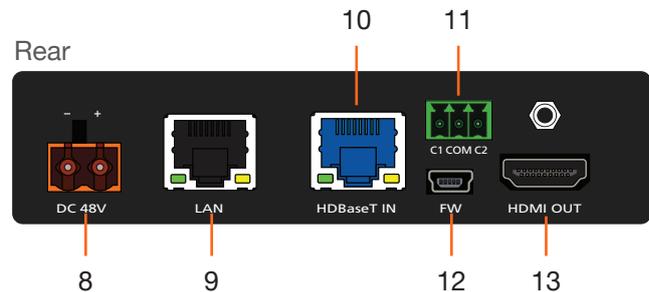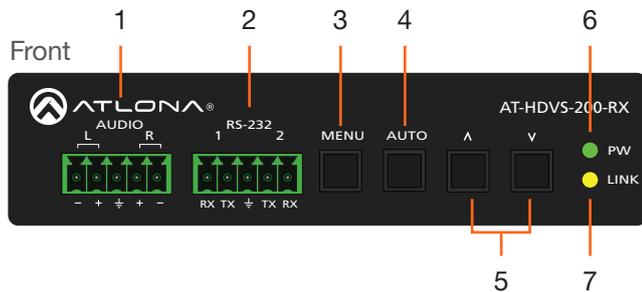
**1  AUDIO**
Connect the included 5-pin Phoenix block from this connector to an audio amplifier.

**2  RS-232**
Use the included 5-pin captive screw connector to connect up to two RS-232 controllers or automation systems.  Port 1 is used for controlling a display or other sink device.  Port 2 is used for controlling the AT-HDVS-200-RX.

**3  MENU**
Press this button to display the built-in On-Screen Display (OSD).

**4  AUTO**
Press this button to perform an auto-adjust on VGA signals, connected to the transmitter.  This feature automatically corrects the clock and phase of the VGA source.

**5  Cursor buttons**
Press these buttons to select items within the OSD.

**6  PW**
This LED indicator will glow bright green when the scaler is powered.

**7  LINK**
This LED indicator will glow bright amber when a link is established between the transmitter and receiver.

**8  DC 48V**
Connect the included 48V DC power supply to this power receptacle.

**9  LAN**
Connect an Ethernet cable from this port to the network.

**10  HDBaseT IN**
Use an Ethernet cable to connect an HDBaseT PoE transmitter to this port.

**11  RELAY**
Connect the included 3-pin captive screw connector to this port to control screens, drapes, lights, or other devices.

**12  FW**
Connect a mini USB type-B cable to this port to update the firmware.  Refer to Updating the Firmware (page 53) for more information.

**13  HDMI OUT**
Connect an HDMI cable from this port to a display or other sink device.

# Installation

## RS-232 Connector

The AT-HDVS-200-RX provides two RS-232 ports.  Port 1 is used for controlling a display or other sink device.  Port 2 is used to control the AT-HDVS-200-RX.  This step is optional.

1.  Use wire strippers to remove a portion of the cable jacket.

2.  Remove at least 3/16" (5 mm) from the insulation of the RX, TX, and GND wires.

3.  Insert the TX, RX, and GND wires into correct terminal on the included Phoenix block.  If using non-tinned stranded wire, presss the orange tab, above the terminal, while inserting the exposed wire.   Repeat this step for the TX, RX, and GND connections.  The illustration below, shows how to connect both RS-232 cables.
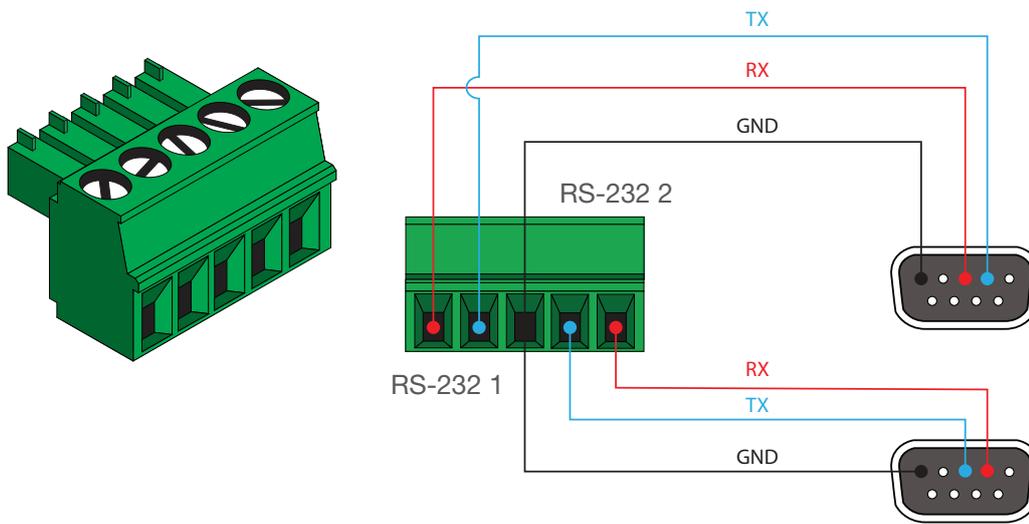


## Audio Connector

The **AUDIO OUT** connector on the AT-HDVS-200-RX provides the connection of either balanced or unbalanced audio outputs using XLR connectors.  Use the included 5-pin Phoenix terminal block.

Balanced audio connections use two signal wires and a ground to minimize interference in audio signals. Unbalanced audio connections use one signal wire and a ground and are used if system components don't support balanced signals.
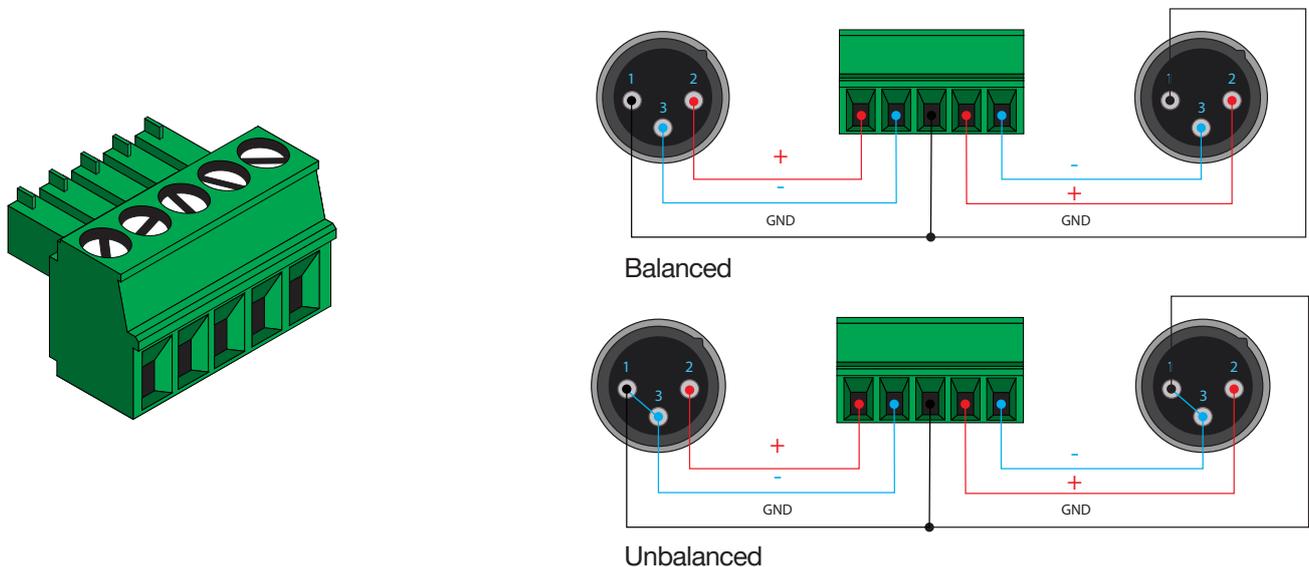
## Relay Connector

The AT-HDVS-200-RX provides a **RELAY** port, allowing the control of screens, curtains, and other devices. Use a 48 V DC relay with no more than 1 A current draw.

When the AT-HDVS-200-RX is powered-on or rebooted, **C1** and **C2** are set to the Normally Open (NO) state.
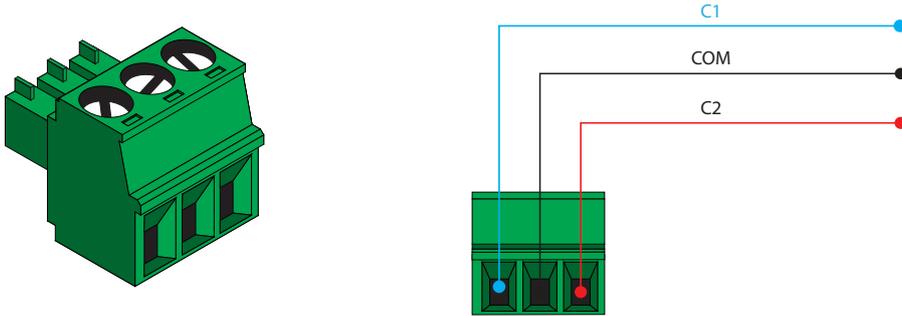
## Power Connector

Locate the included orange Phoenix terminal block and wire the included power supply to the block, as shown below. Do not use high-torque devices, when securing the wires to the Phoenix terminal block, as this may damage the screws and/or block.

1.  Insert the wires into the correct terminal on the included Phoenix block, as shown below.

2.  Tighten the screws to secure the wires. Do not use high-torque devices as this may damage the screws and/or connector block.
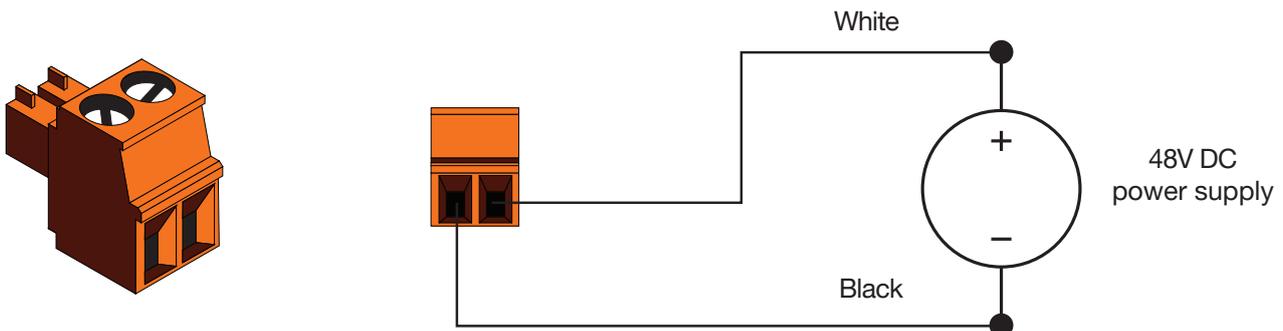
## Connection Instructions

1.  Use an HDMI cable to connect an HDMI display to the **HDMI OUT** port on the unit.

2.  Connect an Ethernet cable, up to 230 feet (70 meters), from the **HDBaseT IN** port on the unit to a PoE-compatible transmitter (not included).  Ethernet cables should use EIA/TIA-568B termination.

3.  Connect an Ethernet cable, up to 330 feet (100 meters), from the **LAN** port to the network.

4.  Optionally connect the **RS-232 1** port to a display or other sink device.  Connect the **RS-232 2** port to an automation control system.

5.  Connect the included power supply to the **DC 48V** port.

> ⚠️ **IMPORTANT:** The included 48 V DC power supply should always be connected to the AT-HDVS-150-RX, for proper operation.
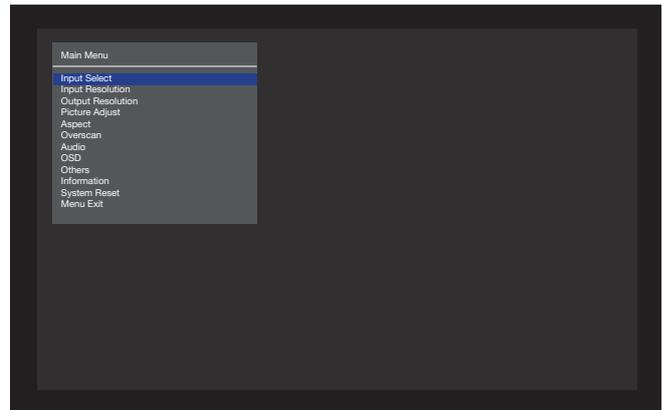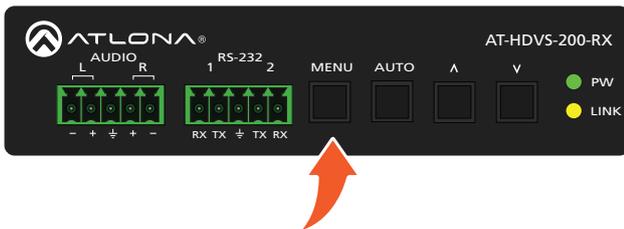
## Connection Diagram
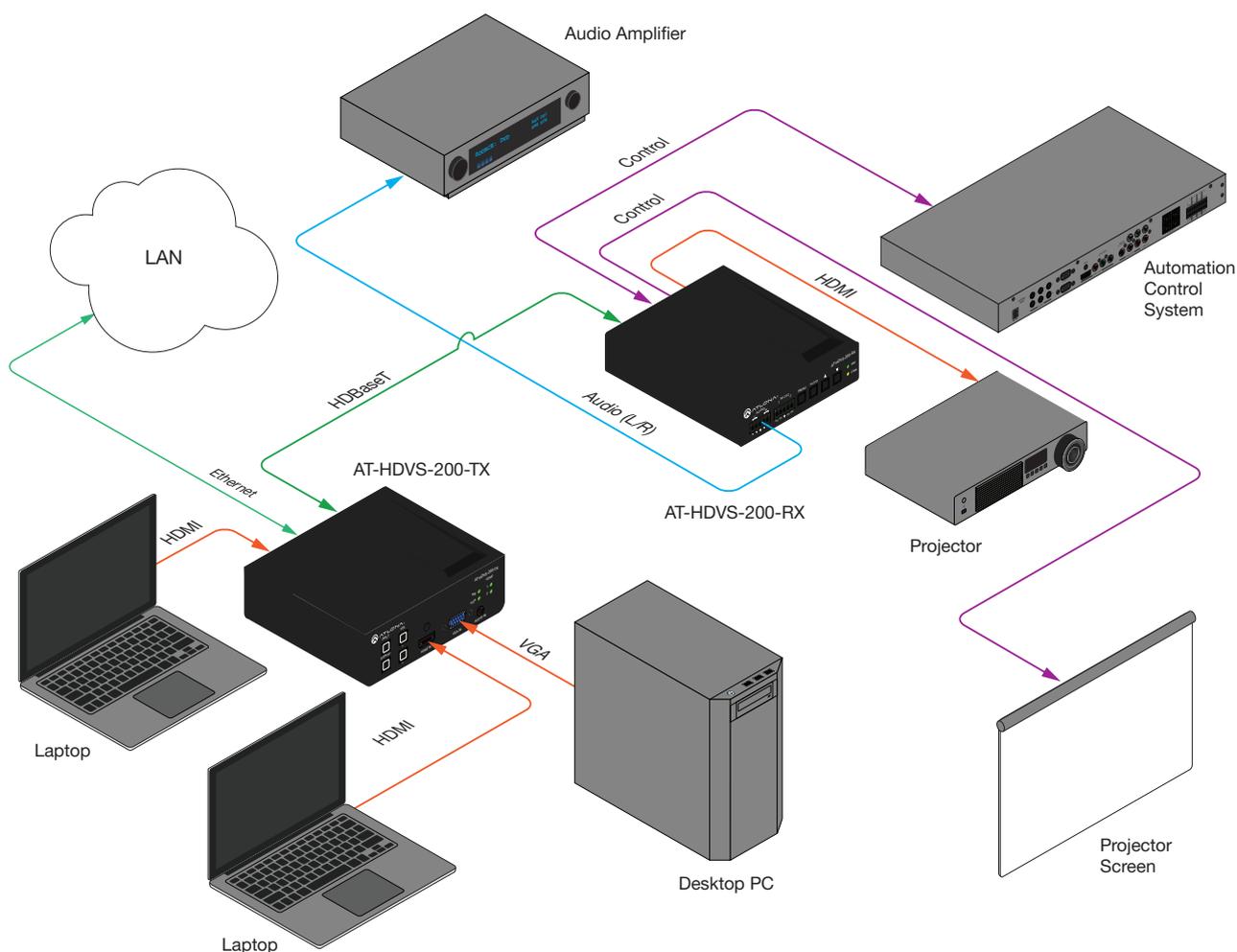


> ℹ️ **NOTE:**  The AT-HDVS-200-RX is designed to be used with the AT-HDVS-200-TX.
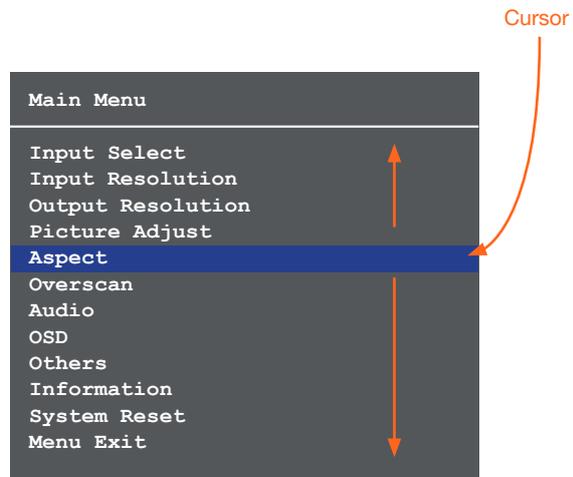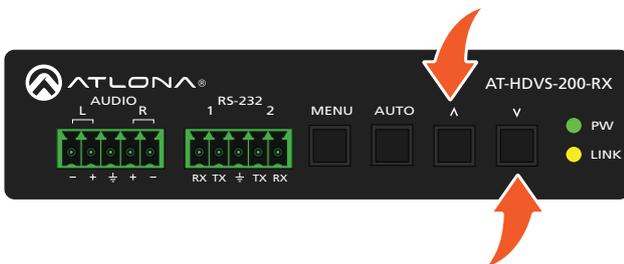
# Menu System

## Accessing the On-Screen Display

The AT-HDVS-200-RX includes a built-in On-Screen Display (OSD) menu system to manage and control all video features.

1. Press and release the **MENU** button to display the OSD.



2. Press the **UP/DN** buttons to highlight the various menu options. The currently selected menu item will be highlighted with a blue cursor bar. Press the **UP** button to move the cursor up through the menu system and press the **DN** button to move down.

Cursor

**Main Menu**

**Input Select**
**Input Resolution**
**Output Resolution**
**Picture Adjust**
**Aspect**
**Overscan**
**Audio**
**OSD**
**Others**
**Information**
**System Reset**
**Menu Exit**

3. Once the desired menu item is highlighted, press the **MENU** button to access its settings.

**Aspect**

**Full**
**16:9    TV**
**16:10   TV**
**4:3     TV**
**Keep Ratio**
**Menu Back**
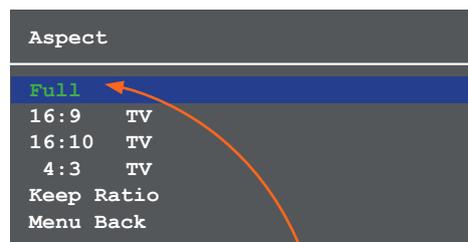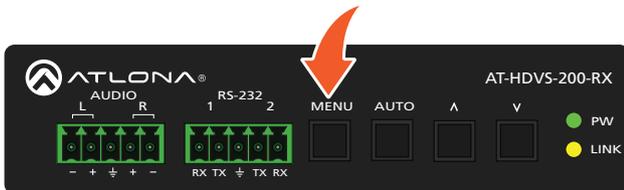
Within the menu item, the current setting will always be highlighted in green.

In this illustration, the **Aspect** menu item indicates that **Full** is the currently selected aspect ratio setting. Refer to Aspect (page 16) for more information.

Current setting

## Input Select

Selects the desired input.

1.  Under the **Main Menu**, highlight the **Input Select** menu item using the **UP/DN** buttons on the front panel.

2.  Press the **MENU** button.

3.  The **Input Select** menu will be displayed.

4.  Press the **UP/DN** buttons to highlight the desired input.

```
Input Select

HDMI
VGA
Menu Back
```

5.  Press the **MENU** button to confirm the selection.

6.  Press the **Menu Back** option to return to the **Main Menu**.

## Input Resolution

Selects the desired input resolution.

1.  Under the **Main Menu**, highlight the **Input Select** menu item using the **UP/DN** buttons on the front panel.

2.  Press the **MENU** button.

3.  The **Input Resolution** menu will be displayed.

4.  Press the **UP/DN** buttons to highlight the desired input.

5.  Press the **MENU** button to confirm the selection and display the list of available input resolutions.

```
Input Resolution

HDMI
VGA
Menu Back
```

```
Input Resolution

1280x800
1920x1080
1024x768
1280x720
1920x1200
1366x768
800x600
1600x900
Native
Menu Back
```

6.  Press the **UP/DN** buttons to select the desired resolution.
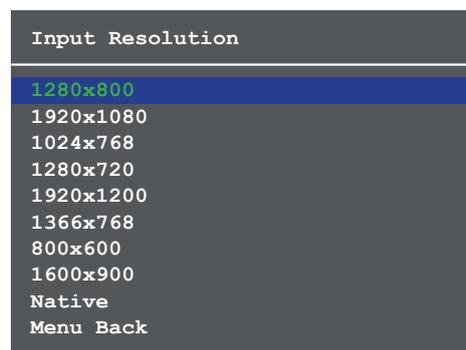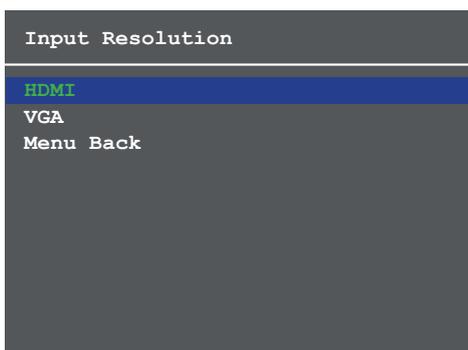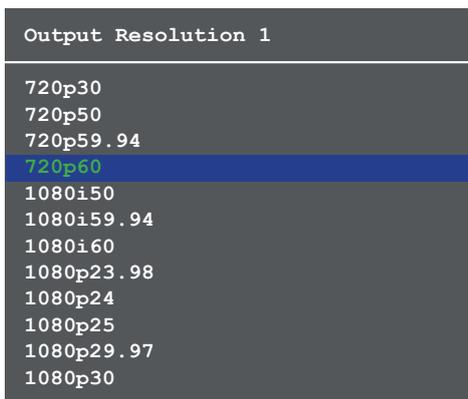
7.  Press the **MENU** button to confirm the selection.

8.  Press the **Menu Back** option to return to the **Main Menu**.

## Output Resolution

Selects the desired output resolution.  The default output resolution is 720p (1280x720).  The **Output Resolution** menu consists of three pages.

1.  Under the **Main Menu**, highlight the **Output Resolution** menu item using the **UP/DN** buttons on the front panel.

2.  Press the **MENU** button.

3.  The **Output Resolution** menu will be displayed.

4.  Press the **UP/DN** buttons to highlight the desired resolution.

```
Output Resolution 1

720p30
720p50
720p59.94
720p60
1080i50
1080i59.94
1080i60
1080p23.98
1080p24
1080p25
1080p29.97
1080p30
```

5.  Press the **MENU** button to confirm the selection.

6.  Scroll down and select the **Menu Back** option, under **Output Resolution 3**, then press the **MENU** button to return to the **Main Menu**.

## Picture Adjust

Provides custom adjustment of picture brightness, contrast, saturation, hue, sharpness, and color space.

1.  Under the **Main Menu**, highlight the **Output Resolution** menu item using the **UP/DN** buttons on the front panel.

2.  Press the **MENU** button.

3.  The **Picture Adjust** menu will be displayed.

4.  Press the **UP/**D**N** buttons to highlight the desired option.

```
Picture Adjust

Brightness          64
Contrast            64
Saturation          64
Hue                 64
Sharpness           32
Picture Reset
Menu Back
```

5.  Press the **MENU** button to confirm the selection.

6.  The current value will be highlighted in green and surrounded by brackets and two arrowheads.

## Aspect

Allows the aspect ratio of the output image to be changed.

1. Under the **Main Menu**, highlight the **Output Resolution** menu item using the **UP/DN** buttons on the front panel.

2. Press the **MENU** button.

3. The **Aspect** menu will be displayed.
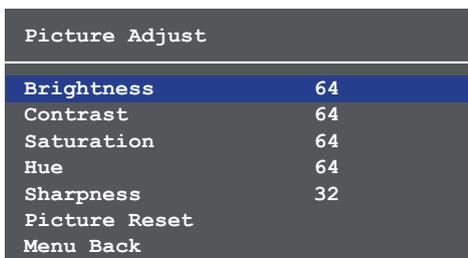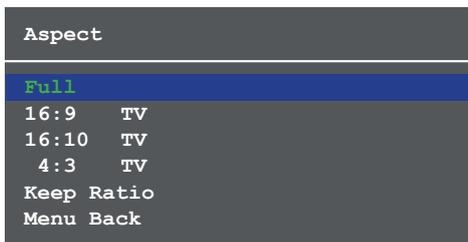
4. Press the **UP/DN** buttons to highlight the desired aspect ratio.

5. Press the **MENU** button to confirm the selection.

```
Aspect

Full
16:9    TV
16:10   TV
 4:3    TV
Keep Ratio
Menu Back
```

| Setting | Description |
|---------|-------------|
| Full | The output signal will be scaled to fill the screen. |
| 16:9  TV | The output signal will be scaled to fit as 16:9. |
| 16:10 TV | The output signal will be scaled to fit as 16:10. |
| 4:3   TV | Output signal will be set to 4:3.  If the input is HD, approximately 35% of the total horizontal resolution will be lost. |
| Keep Ratio | The input aspect ratio is preserved on the output. |

6. Select the **Menu Back** option, then press the **MENU** button, to return to the **Main Menu**.

## Overscan

Adjusts the overscan setting of the output video signal.  By default, overscan is *disabled*.

1. Under the **Main Menu**, highlight the **Overscan** menu item using the **UP/DN** buttons on the front panel.

2. Press the **MENU** button.

3. The **Overscan** menu will be displayed.

4. Press the **UP/DN** buttons to highlight the **Enable** option.

5. Press the **MENU** button to change the **Enable** value
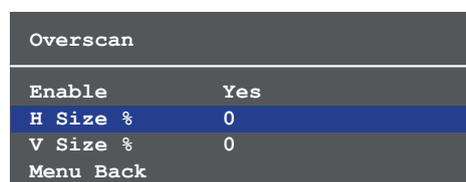
```
Overscan

Enable          ◄[No        ]►
H Size %         0
V Size %         0
Menu Back
```

```
Overscan

Enable          Yes
H Size %         0
V Size %         0
Menu Back
```

6.  When overscan is *enabled*, the **H Size %** and **V Size %** fields can be adjusted.  Press the **UP/DN** buttons to highlight the desired field.

7.  Press the **MENU** button to select the field.

8.  Press the **UP/DN** buttons to change the value.  Press the **UP** button to *increase* the value; press the **DN** button to *decrease* the value.

9.  Press the **MENU** button to confirm the change.

10. Highlight the **Menu Back** option, then press the **MENU** button to return to the **Main Menu**.

## Audio

The Audio menu allows adjustment of all audio settings.

1.  Under the **Main Menu**, highlight the **Audio** menu item using the **UP/DN** buttons on the front panel.

2.  Press the **MENU** button.

3.  The **Audio** menu will be displayed.

```
Audio

HDMI Audio      Enable
L/R  Audio      Enable
Mute            Off
Volume             0dB
Treble          0
Bass            0
Menu Back
```

| Setting | Description |
| --- | --- |
| HDMI Audio | Controls the HDMI audio, only.  Set to Disable to mute the HDMI audio. |
| L/R Audio | Toggles the analog audio output Enable or Disable.  Set to Disable to mute the analog audio output. |
| Mute | Provides muting of both HDMI and analog audio outputs.  Set this value to Disable to mute all audio. |
| Volume | Controls the output volume.  This value can be set from -80 dB to 0dB. |
| Treble | Set the amount of treble applied to the output.  Both HDMI and analog audio are affected.  This value can be set from -12 to +15. |
| Treble | Set the amount of bass applied to the output.  Both HDMI and analog audio are affected.  This value can be set from -12 to +15. |

4.  Press the **UP/DN** buttons to highlight the desired option.

5.  Press the **MENU** button to confirm the selection.  The current value will be highlighted in green and surrounded by brackets and two arrowheads.

7.  Press the **UP/DN** buttons to select the desired value.  Press the **UP** button to increase the value; press **DN** to decrease the value.

8.  Press the **MENU** button to confirm the value.

9.  Highlight the **Menu Back** option, then press the **MENU** button to return to the **Main Menu**.

## OSD

Adjusts the appearance and position of the On-Screen Display (OSD) on the screen.

1.  Under the **Main Menu**, highlight the **Audio** menu item using the **UP/DN** buttons on the front panel.

2.  Press the **MENU** button.  The **OSD** menu will be displayed.

3.  Press the **UP/DN** buttons to highlight the desired option.

```
OSD

Position       Left Top
Transparency   12
Info. Timer    10
Menu Timer     20
Info. Display  Auto
Menu Display   Auto
Background     Grey
Menu Back
```

| Setting | Description |
| --- | --- |
| Position | Sets the position of the OSD on the display.  The following options are available: <br> • **Left Top** <br> • **Right Top** <br> • **Right Bottom** <br> • **Left Bottom** <br> • **Center** |
| Transparency | Adjusts the transparency setting of the OSD. <br> • **Range:** 5 to 100 |
| Info. Timer | The duration, in seconds, of how long the **Info Display** screen is displayed. <br> • **Range:** 5 to 100 |
| Menu Timer | The duration, in seconds, of how long the OSD remains on the screen, after no activity. <br> • **Range:** 5 to 100 |
| Info. Display | Adjusts the display settings of the **Info Display** screen, which indicates the input and output resolution.  Refer to the illustration below for an example of the **Info Display** screen. The following options are available: <br> • **Auto** - Automatically displays the **Info Display** screen when a change is made to the input or output signal.  The screen will automatically be hidden after approximately five seconds. <br> • **Off** - Prevents the **Info Display** screen from being displayed. <br> • **On** - The **Info Display** screen is always displayed. |
| Menu Display | Controls the behavior of the main menu after the **MENU** button is pressed. <br> • **Auto** - After the **MENU** button is pressed, the Main Menu will be displayed for the length of time, specified in the Menu Timer field. <br> • **On** - Overrides the Menu Timer value.  To exit the Main Menu, the Menu Exit option must be selected, within the Main Menu. |

| Setting | Description |
|---|---|
| Background | Sets the background color of the OSD.  The following options are available:<br>• **Grey**<br>• **Cyan**<br>• **Magenta**<br>• **Yellow** |

4. Press the **MENU** button to confirm the selection.

5. The current value will be highlighted in green and surrounded by brackets and two arrowheads.

6. Press the **UP/DN** buttons to change the value.  For settings that contain a value, press the **UP** button to *increase* the value; press the **DN** button to *decrease* the value.

7. Press the **MENU** button to confirm the change.

8. Highlight the **Menu Back** option, then press the **MENU** button to return to the **Main Menu**.

## Others

This menu provides control for various other settings, such as auto-switching, HDCP, and vertical mirroring.

1. Under the **Main Menu**, highlight the **Others** menu item using the **UP/DN** buttons on the front panel.

2. Press the **MENU** button.  The **Others** menu will be displayed.

3. Press the **UP/**D**N** buttons to highlight the desired option.

```
Others

Display HDCP   Compliant
In Auto Switch On
VGA Auto Adjust
Mirror-V       Off
ASP Background Grey
Menu Back
```

```
OSD

Position       Left Top
Transparency   12
Info. Timer    10
Menu Timer     20
Info. Display  Auto
Menu Display   Auto
Background     Grey
Menu Back
```
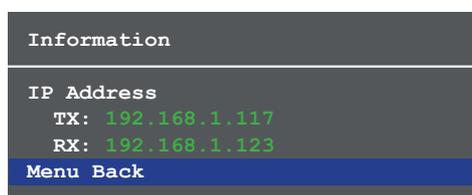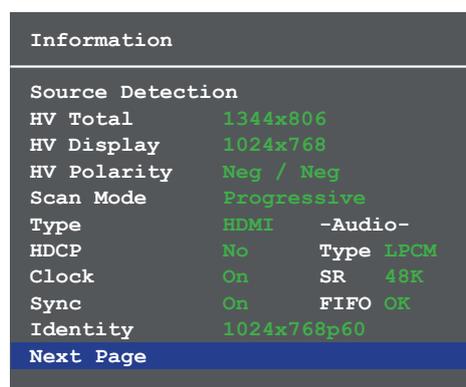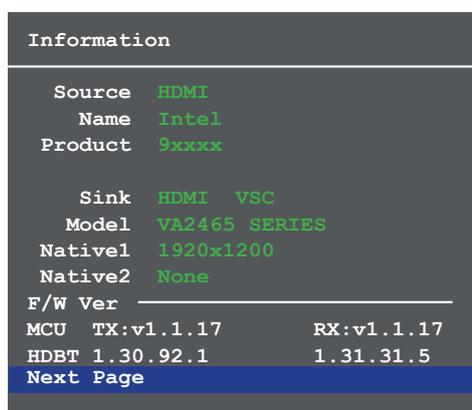
| Setting | Description |
|---|---|
| Display HDCP | Provides control over the transmission of HDCP content for the HDMI IN port on the transmitter (TX).  The following options are available:<br>• **Compliant** - Reports to the source that the AT-HDVS-200-RX is an HDCP-compliant sink device.<br>• **Noncompliant** - Reports to the source that the AT-HDVS-200-RX is an HDCP-compliant sink device.<br>• **Auto** - Automatically detects the presence of HDCP-compliant sink devices.  If an HDCP-compliant display is detected, then HDCP content will be sent.  Otherwise, non-HDCP content will be sent.<br><br>**NOTE:**  Some source devices will enable HDCP if an HDCP-compliant display (sink) is detected.  However, there may be applications where sending HDCP content is not desired.  This feature does *not* provide decryption of HDCP content to non-HDCP sink devices |

| Setting | Description |
|---------|-------------|
| In Auto Switch | Enables or disables auto-switching.  The following options are available:<br>• **On** - Enables auto-switching.<br>• **Off** - Disables auto-switching. |
| VGA Auto Adjust | Automatically tunes the phase and clock of the VGA signal. |
| Mirror-V | Vertically flips the output signal.  The default setting is Off.  The following options are available:<br>• **On** - Vertically flips the output image.<br>• **Off** - The output image is unaltered. |
| ASP Background | Changes the color of background bars when changing the aspect ratio of the output image.  The default color is Black.  The following options are available:<br>• **Black**<br>• **Grey** |

### Information

The **Information** menu displays current information about the AT-HDVS-200-RX.  The **Information** menu consists of two pages.  None of the fields within this menu can be edited.

1. Under the **Main Menu**, highlight the **Information** menu item using the **UP/DN** buttons on the front panel.

2. Press the **MENU** button.

3. The **Information** menu will be displayed.

4. Press and release the **MENU** button to view the next two pages.

5. Press the **MENU** button again to return to the **Main Menu**.

```
Information

  Source  HDMI
    Name  Intel
 Product  9xxxx

    Sink  HDMI  VSC
   Model  VA2465 SERIES
 Native1  1920x1200
 Native2  None
F/W Ver ─────────────────
MCU  TX:v1.1.17      RX:v1.1.17
HDBT 1.30.92.1        1.31.31.5
Next Page
```

```
Information

Source Detection
HV Total        1344x806
HV Display      1024x768
HV Polarity     Neg / Neg
Scan Mode       Progressive
Type            HDMI    -Audio-
HDCP            No      Type LPCM
Clock           On      SR   48K
Sync            On      FIFO OK
Identity        1024x768p60
Next Page
```

```
Information

IP Address
  TX:  192.168.1.117
  RX:  192.168.1.123
Menu Back
```

| Setting | Description |
| --- | --- |
| Source | The current input source that is displayed.  The source will be displayed as HDMI or VGA. |
| Name | The name of the source, if available. |
| Product | The product name, if available. |
| Sink | Contains the manufacturer's abbreviation of the sink. |
| Model | Displays the model of the display. |
| Native1 | The native (preferred) timing for the display. |
| Native2 | Displays any detailed (alternate) timing information for the display. |
| MCU TX / RX | Indicates the firmware version of both the transmitter (TX) and receiver (RX).  If the TX is not connected, then "Unknown" will be listed next to the TX field. |
| HDBT | Displays the version of HDBaseT on the transmitter and the receiver. |
| HV Total | The total number of horizonal and vertical pixels. |
| HV Display | The display resolution. |
| HV Polarity | Polarity of both the horizontal and vertical sync pulse. |
| Scan Mode | The scan mode - either progressive or interlaced. |
| Type | The type of video signal. |
| HDCP | Indicates whether or not if HDCP content is present. |
| Clock | Indicates whether the source status of the TMDS clock is detected (On) or has been lost (Off). |
| Sync | Indicates whether the source status of the TMDS sync is detected (On) or has been lost (Off). |
| Identity | Displays the detected resolution of the source. |
| Type (Audio) | Displays the audio format. |
| SR (Audio) | Displays the sampling rate of the audio signal. |
| FIFO (Audio) | Displays the status of the FIFO audio buffer. |
| TX | The IP address of the transmitter. |
| RX | The IP address of the receiver. |

## System Setup

The **System Reset** menu provides the ability to reset the AT-HDVS-200-RX to factory-default settings.

1.  Under the **Main Menu**, highlight the **System Reset** menu item using the **UP/DN** buttons on the front panel.

2.  Press the **MENU** button.

3.  The **System Setup** menu will be displayed.

```
System Setup

Factory Reset        No
MCU F/W Update       No
HDBT F/W Update      No
Menu Back
```

4.  Press the **UP/DN** buttons to highlight the desired option.

5.  Press the **MENU** button to confirm the selection.

6.  Highlight the **Menu Back** option, then press the **MENU** button to return to the **Main Menu**.

| Setting | Description |
|---|---|
| Factory Reset | Resets the AT-HDVS-200-RX to factory-default settings.  The following options are available:<br>• **No** - Cancels the factory-reset procedure.<br>• **Yes** - Proceeds with the factory-reset procedure. |
| MCU F/W Update | This options allows the firmware to be updated.  After selecting this item, use one of the following options:<br>• **No** - Cancels the update procedure.<br>• **Yes** - Proceeds with the update procedure. |
| HDBT F/W Update | This options allows the HDBaseT firmware to be updated.  After selecting this item, use one of the following options:<br>• **No** - Cancels the update procedure.<br>• **Yes** - Proceeds with the update procedure. |

# The Web GUI

## Introduction to the Web GUI

The AT-HDVS-200-RX includes a built-in web GUI. Atlona recommends that the web GUI be used to set up the AT-HDVS-200-RX, as it provides intuitive management of all features.

The AT-HDVS-200-RX is shipped with DHCP enabled. Once connected to a network, the DHCP server will automatically assign an IP address to the unit. Use an IP scanner to determine the IP address of the AT-HDVS-200-RX. If a DHCP server is not available or if a static IP address is desired, it can be assigned using the IPStatic command or through the System page (page 33) of the web GUI. The default static IP address of the AT-HDVS-200-RX is 192.168.1.254.

1. Launch a web browser.

2. In the address bar, type the IP address of the AT-HDVS-200-RX.

3. The **Login** page will be displayed.
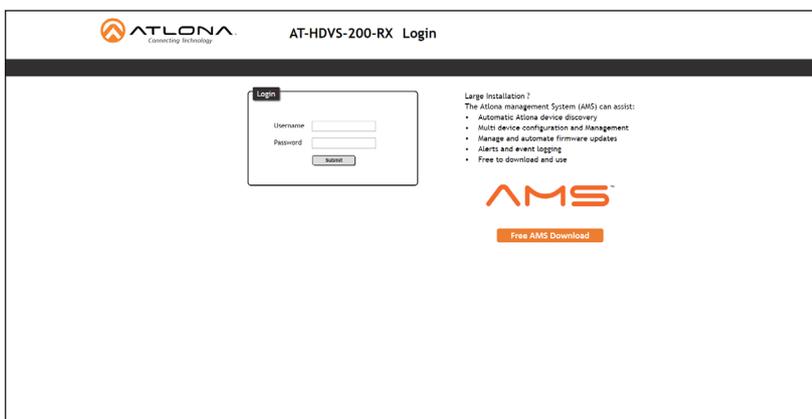


4. Type root, using lower-case characters, in the **Username** field.

5. Type Atlona in the **Password** field. The password field is case-sensitive. When the password is entered, it will be masked. The password can be changed, if desired. Refer to the Config page (page 18) for more information.

6. Click the **Submit** button or press the ENTER key on the keyboard.
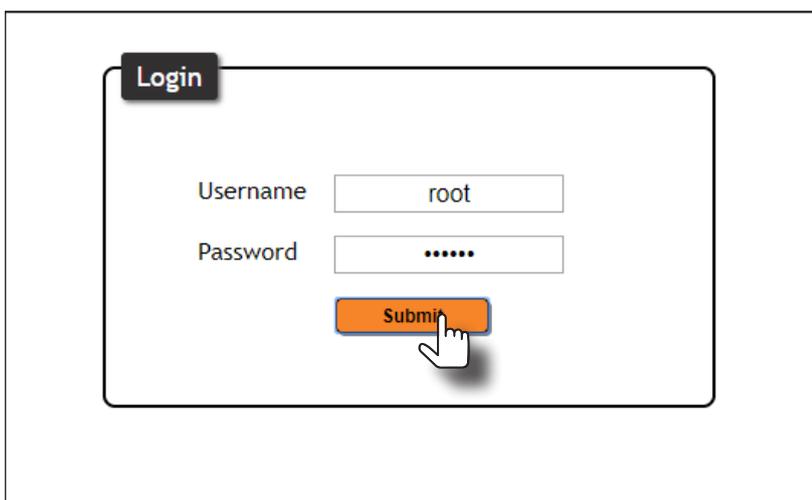
7.  The **Info** page will be displayed.
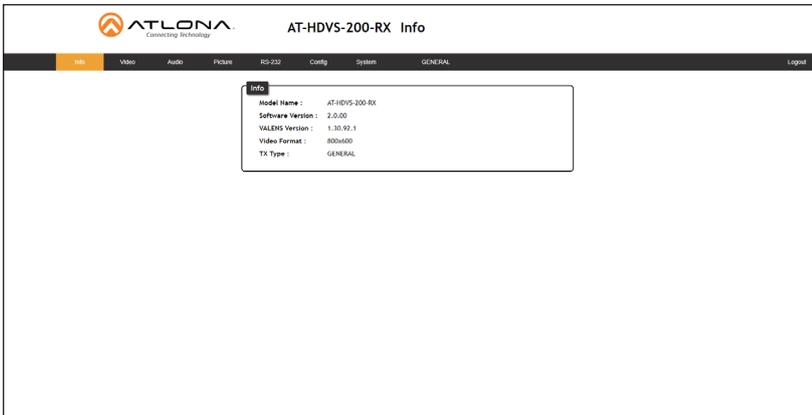


## Menu Bar

The dark-colored bar, near the top of the screen, is the menu bar. When the mouse is moved over each menu element, it will be highlighted in light orange. Once the desired menu element is highlighted, click the left mouse button to access the settings within the menu.



Menu bar

In this example, clicking **Video**, in the menu bar, will display the **Video** page.
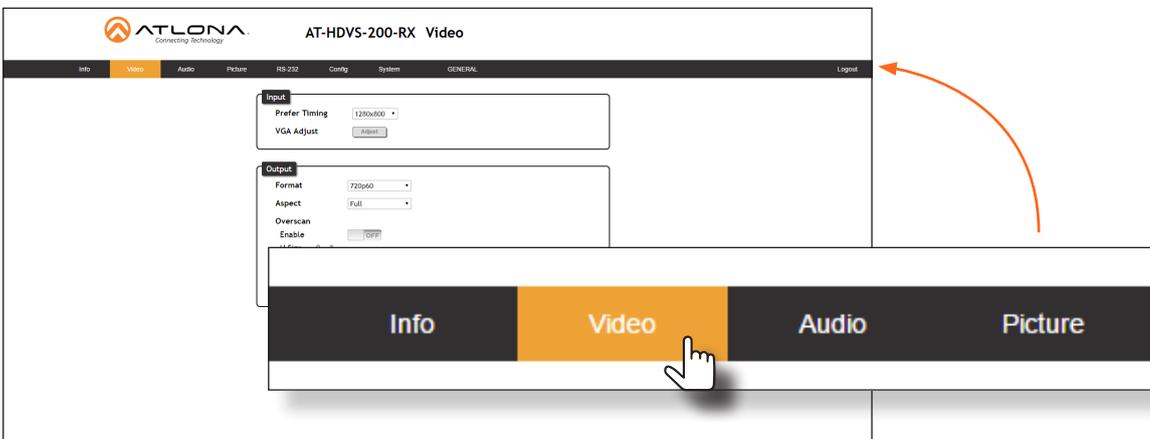
## Toggles

Several settings within the Web GUI use *toggles*, which enable, disable, or assign one of two settings. Generally, when the *toggle* is blue, it means that the feature is *enabled* or ON. If a feature is *disabled*, then the *toggle* will appear gray and be labeled as OFF. Toggle buttons may also indicate its current setting and, when enabled or set to a particular state, may also provide access to another set of controls or text fields within the Web GUI, as shown with the **IP Mode** toggle.
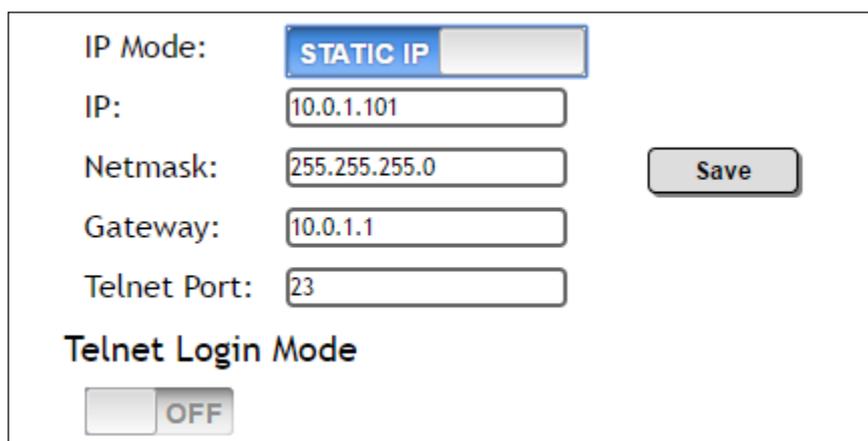


## Sliders

Click and drag slider controls to change their value.
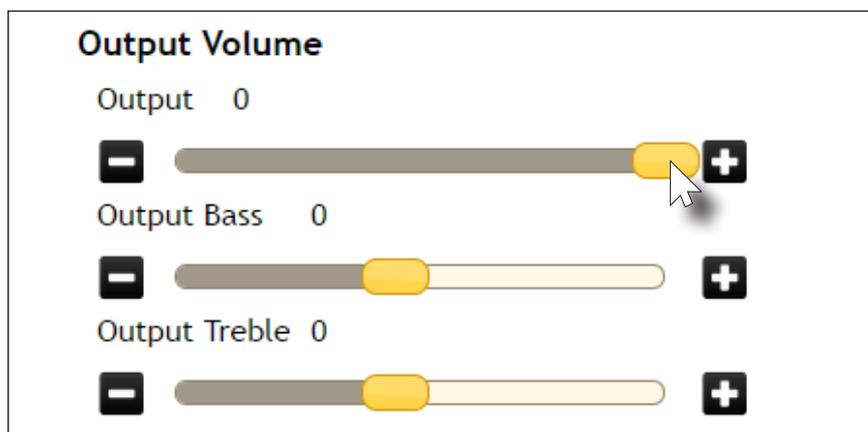


## Buttons

Buttons are used to execute an action or setting. Several pages within the Web GUI include a **Save** button. Clicking the **Save** button will apply and save all settings in the current page. Other buttons, such as the **Factory Defaults** button, under the System page, will reset the AT-HDVS-200-RX to factory-default settings.

# Info page

After logging in, the Info page will be displayed. The **Info** page provides basic information about the receiver, including the model name, software version, input video timing, and the device being using as the transmitter.
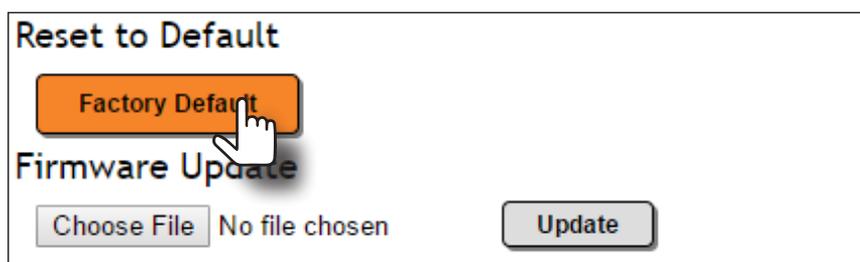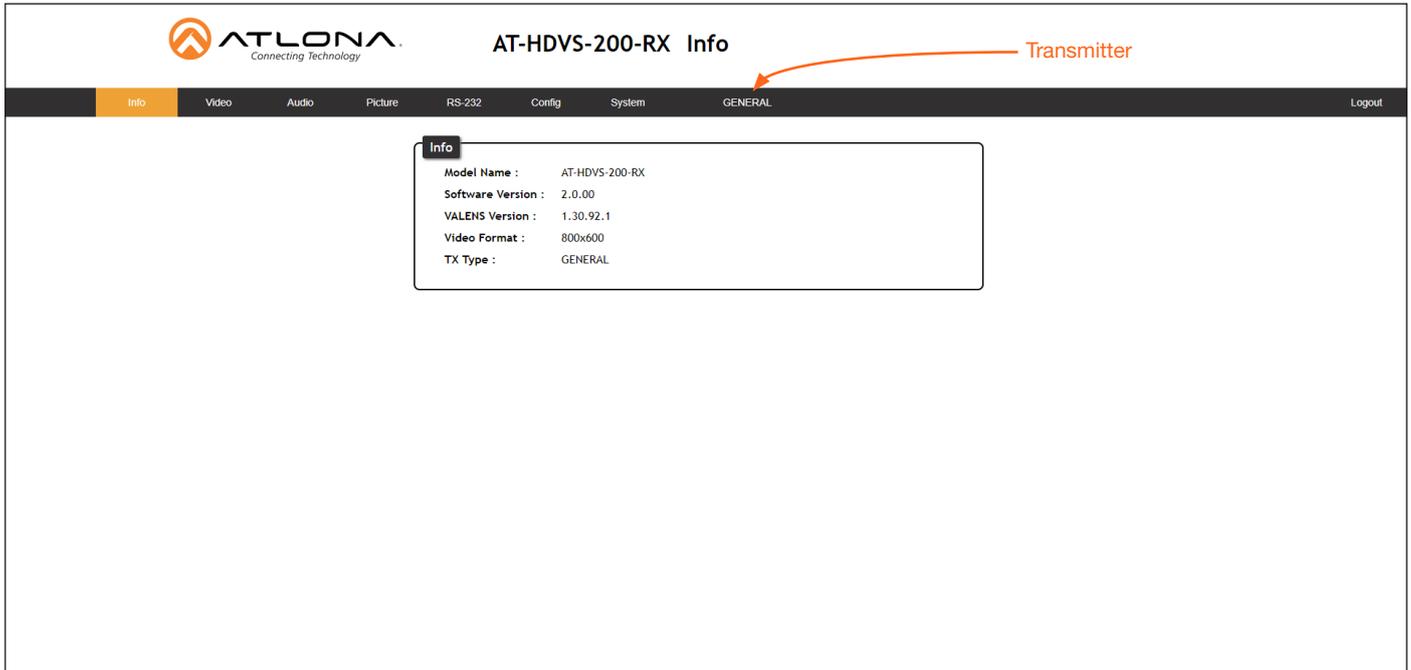


**Model Name**
The model SKU of this product.

**Software Version**
The version of firmware that the AT-HDVS-200-RX is running. Always make sure to check the AT-HDVS-200-RX product page, on the Atlona web site, for the latest version of firmware.

**VALENS Version**
The version of firmware used by the Valens chipset.

**Video Format**
Displays the input resolution of the source device.

**TX Type**
The version of the boot loader.

**GENERAL**
If the web GUI is accessed without a transmitter attached, this tab will be labeled as "GENERAL". However, if another device is connected to the AT-HDVS-200-RX, such as the AT-HDVS-200-TX (using the **HDBaseT** port), this tab will change to the name of that device and act as a hyperlink to open that web GUI.

# Video page

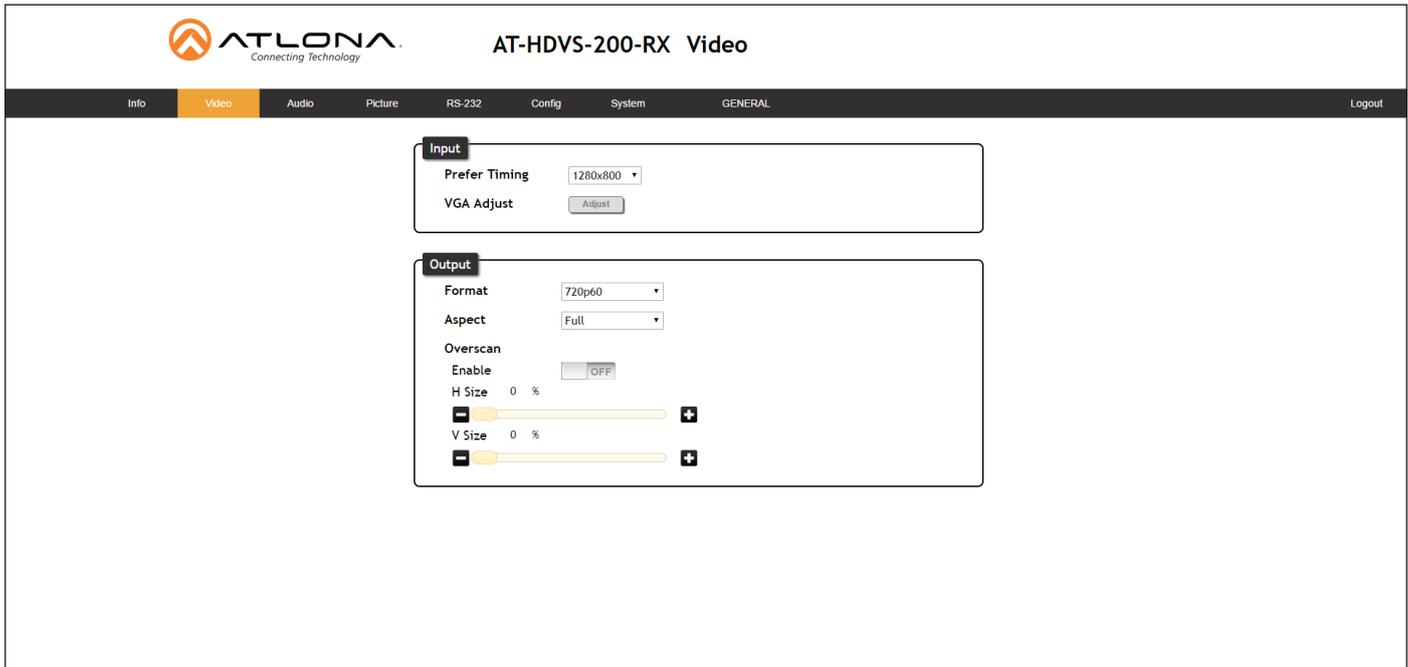The **Video** page is divided into two sections:  **Input** and **Output**.  The **Input** section allows the preferred input timing to be selected as well as a button to perform an auto-adjust of the VGA signal at the transmitter.  The **Output** section provides options to control the output resolution, aspect ratio, and overscan.



## Input

**Prefer Timing (HDMI)**
Click this drop-down list to select the desired input timing.

| Available Input Timings | | |
|---|---|---|
| 800x600 | 1024x768 | 1280x720 |
| 1280x800 | 1366x768 | 1600x900 |
| 1920x1080 | 1920x1200 | Native |

**VGA Adjust**
In most situations, adjustment of the VGA signal should not necessary.  However, if the VGA signal does not appear correctly, click the **Adjust** button to automatically correct the clock and phase.

## Output

**Format**
Click this drop-down list to select the desired output timing.

| Output Resolutions | | | |
|---|---|---|---|
| 800x600 | 1024x768 | 1280x800 | 1280x1024 |
| 1366x768 | 1400x105 | 1600x900 | 1600x1200 |

| Output Resolutions | | | |
|---|---|---|---|
| 1680x1050 | 1920x1200 | 720p25 | 720p29.97 |
| 720p30 | 720p50 | 720p59.94 | 720p60 |
| 1080i50 | 1080i59.94 | 1080i60 | 1080p23.98 |
| 1080p24 | 1080p25 | 1080p29.97 | 1080p30 |
| 1080p50 | 1080p59.94 | 1080p60 | Input |
| Native | | | |

**Aspect**
Click the **Aspect** drop-down list and select the desired aspect ratio.

| Aspect Ratio | Description |
|---|---|
| Full | The input signal is adjusted to fill the screen. |
| 16:9 | Set the aspect ratio to 16:9; common aspect ratio for HD and widescreen formats; also notated as 1:77.1 |
| 16:10 | Set the aspect ratio to 16:10; typical aspect ratio for computer and tablet displays. |
| 4:3 | Sets the aspect ratio to 4:3; if the input signal is 16:9 or 16:10, up to 30% of the vertical resolution is lost. |
| Keep Ratio | The output aspect ratio is the same as the input. |

**Overscan**
In most situations, adjusting overscan will not be necessary.  To adjust the overscan, click the **Enable** toggle to the ON setting.  Click and drag the *slider* controls to adjust the horizontal and vertical size.  The **Enable** toggle must remain in the ON position, in order for the overscan to be applied.  To disable overscan, click the **Enable** toggle to the OFF position.

**H Size**
Adjust the horizontal scaling of the output image.

**V Size**
Adjust the vertical scaling of the output image.

## Audio page
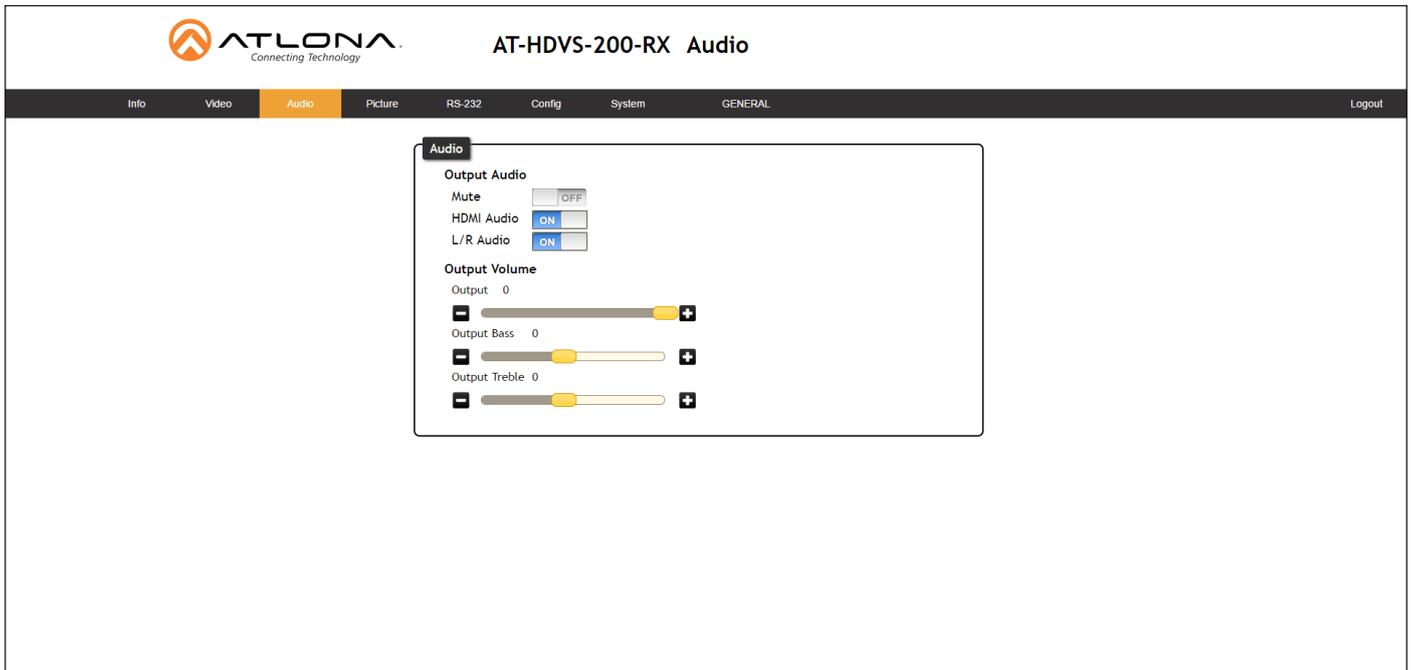


**Mute**
Click this toggle button to the ON setting to mute audio on both the HDMI and analog audio outputs.

**HDMI Audio**
Click this toggle button to the ON setting to mute *only* the HDMI audio on the output. Analog audio is preserved.

**L/R Audio**
Click this toggle button to the ON setting to mute *only* the analog audio on the output. HDMI audio is preserved.

**Output Volume**
Click and drag the Output slider control to adjust the output volume. Range: -80 to 0.

**Output Bass**
Click and drag the Output Bass slider control to adjust the amount of bass applied to the audio output. Range: -12 to 15.

**Output Treble**
Click and drag this slider control to adjust the amount of treble applied to the audio output. Range: -12 to 15.

## Picture page
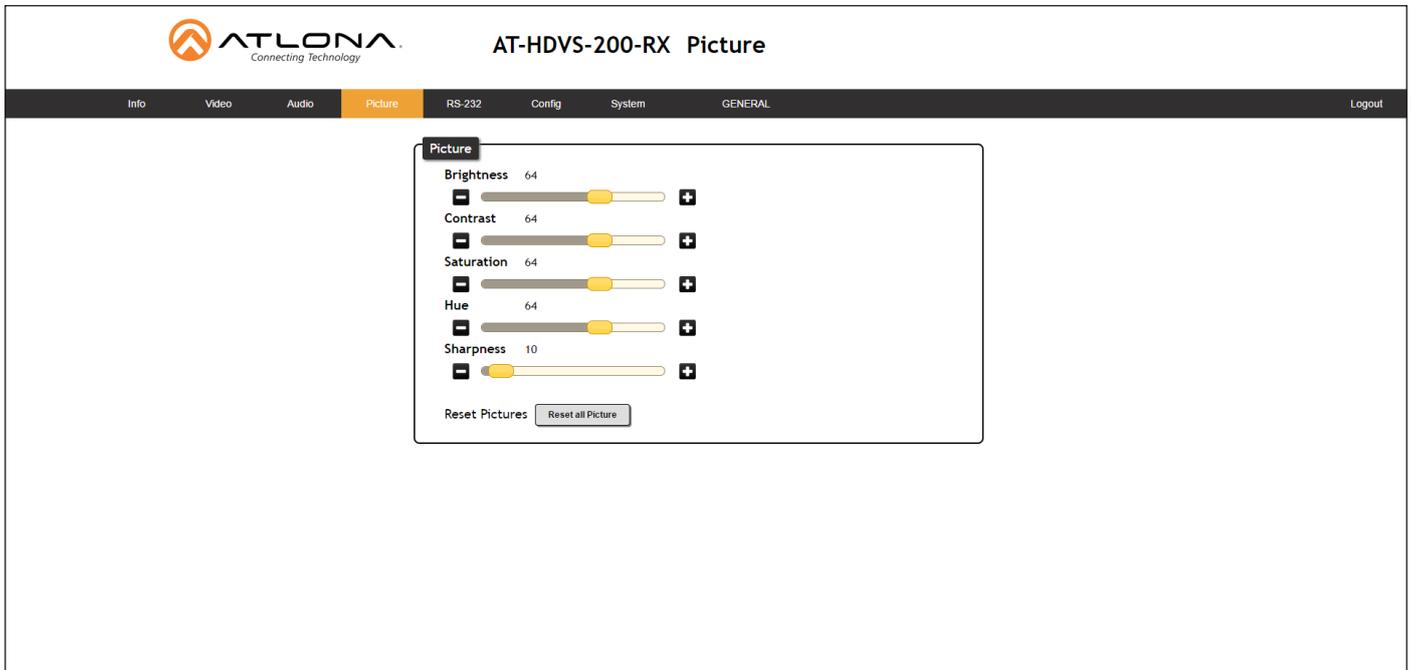


**Brightness**
Adjusts the brightness setting of the output signal.  Range: 0 to 100

**Contrast**
Adjusts the contrast setting of the output signal.  Contrast is the difference between the lightest and darkest area of an image.  Range: 0 to 100

**Saturation**
Adjusts the color saturation of the output signal.  Range: 0 to 100

**Hue**
Adjusts the hue of the output signal.  Range: 0 to 100

**Sharpness**
Adjusts the sharpness of the output signal.  Range: 0 to 100

**Reset Pictures**
Click this button to reset the above picture settings to their factory-default settings.

# RS-232 page



**RX RS232 1 / 2**
The AT-HDVS-200-RX provides two RS-232 ports.  Each port can be configured separately using the appropriate drop-down list.  The available values/settings for each drop-down list are the same for both ports.  Click the **Save** button, next to each set of drop-down lists, to save the settings.
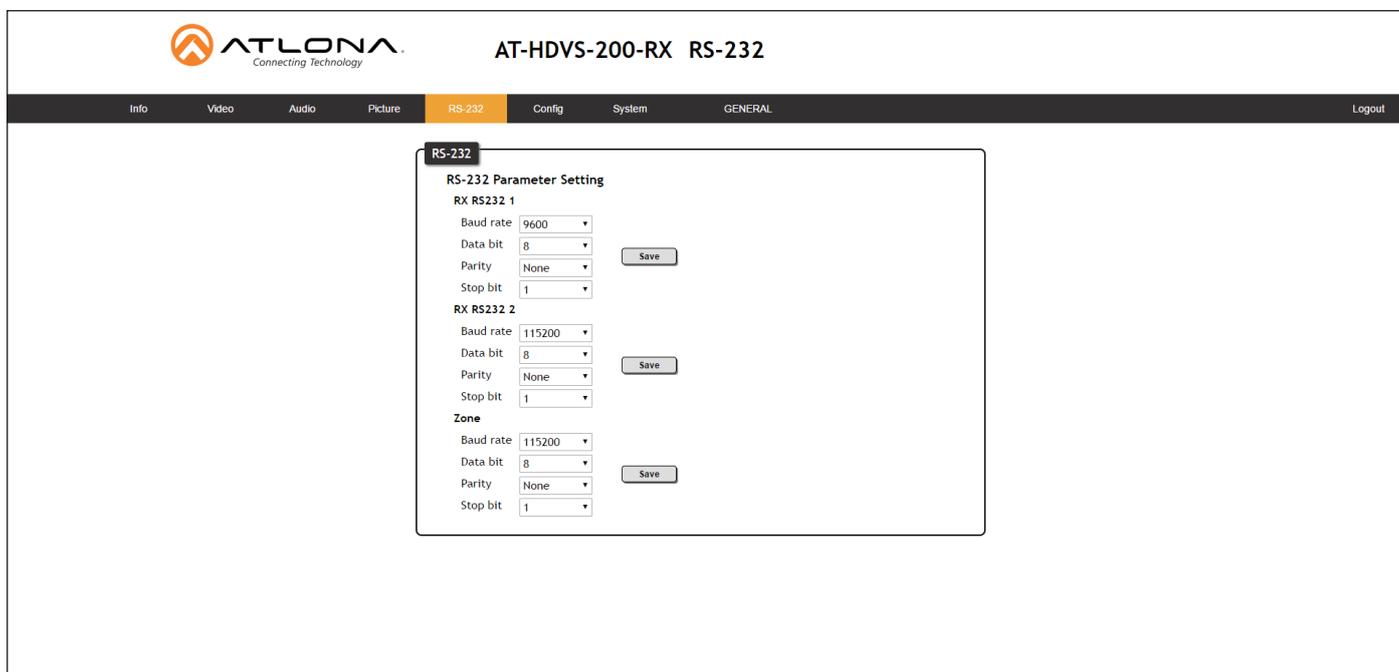
| Setting | Description |
| --- | --- |
| Baud rate | Sets the baud rate.  The following options are available: 2400, 9600, 19200, 38400, 56000, 57600, 115200. |
| Data bit | Sets the number of data bits used to represent each character of data.  The following options are available:  7 or 8. |
| Parity | Sets the parity bit, which can be included with each character to detect errors during the transmission of data.  The following options are available:  None, Odd, or Even. |
| Stop bit | Sets the stop bit.  Stop bits are sent at the end of each character, allowing the client to detect the end of a character stream.  The following options are available:  1 or 2. |

**Zone**
When the AT-HDVS-200-RX is connected to the AT-HDVS-200-TX, they are placed in "kit mode".  In this mode, these drop-down list boxes will be disabled and the HDBaseT baud rate will be locked at 115200.

If the AT-HDVS-200-RX is connected to another HDBaseT device, such as the AT-UHD-CLSO-824, each of these drop-down list boxes can be set to the baud rate of the HDBaseT port on the corresponding device.

The available settings for each drop-down list can be found in the table, above.  Click the **Save** button, next to the **Zone** settings, to save the settings.

# Config page
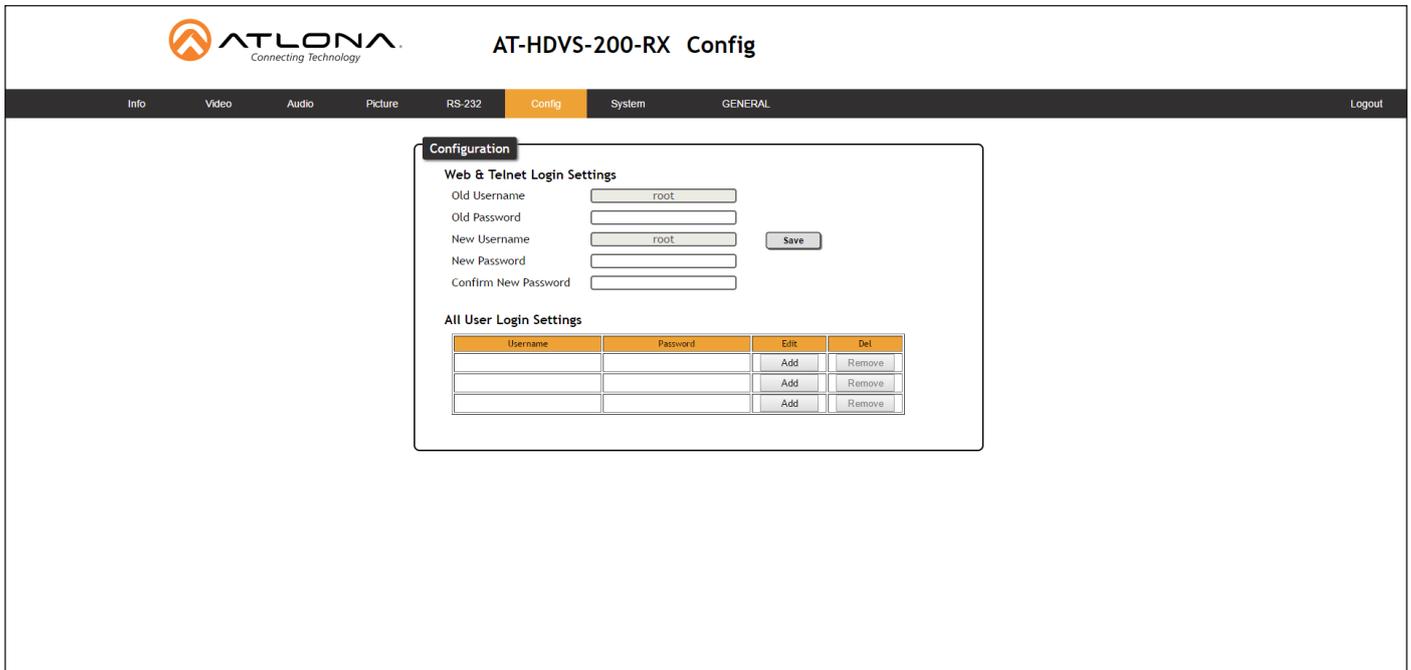


**Old Username**
This field cannot be changed. "root" is the administrator user.

**Old Password**
Enter the current password for the "root" username in this field. The default password is "Atlona".

**New Username**
This field cannot be changed.

**Save**
Click this button to save all changes.

**New Password**
Enter the new password fro the "root" username in this field.

**Confirm New Password**
Verify the new password by retyping it in this field.

**All User Login Settings**

- **Username**
  Displays the username.

- **Password**
  Displays the password for the associated username.

- **Edit**
  Click the **Add** button, in this column, to edit the username and password in the row.

- **Del**
  Click the **Remove** button to delete the user in the row. This button will only be available if a username and password have been created.

## System page
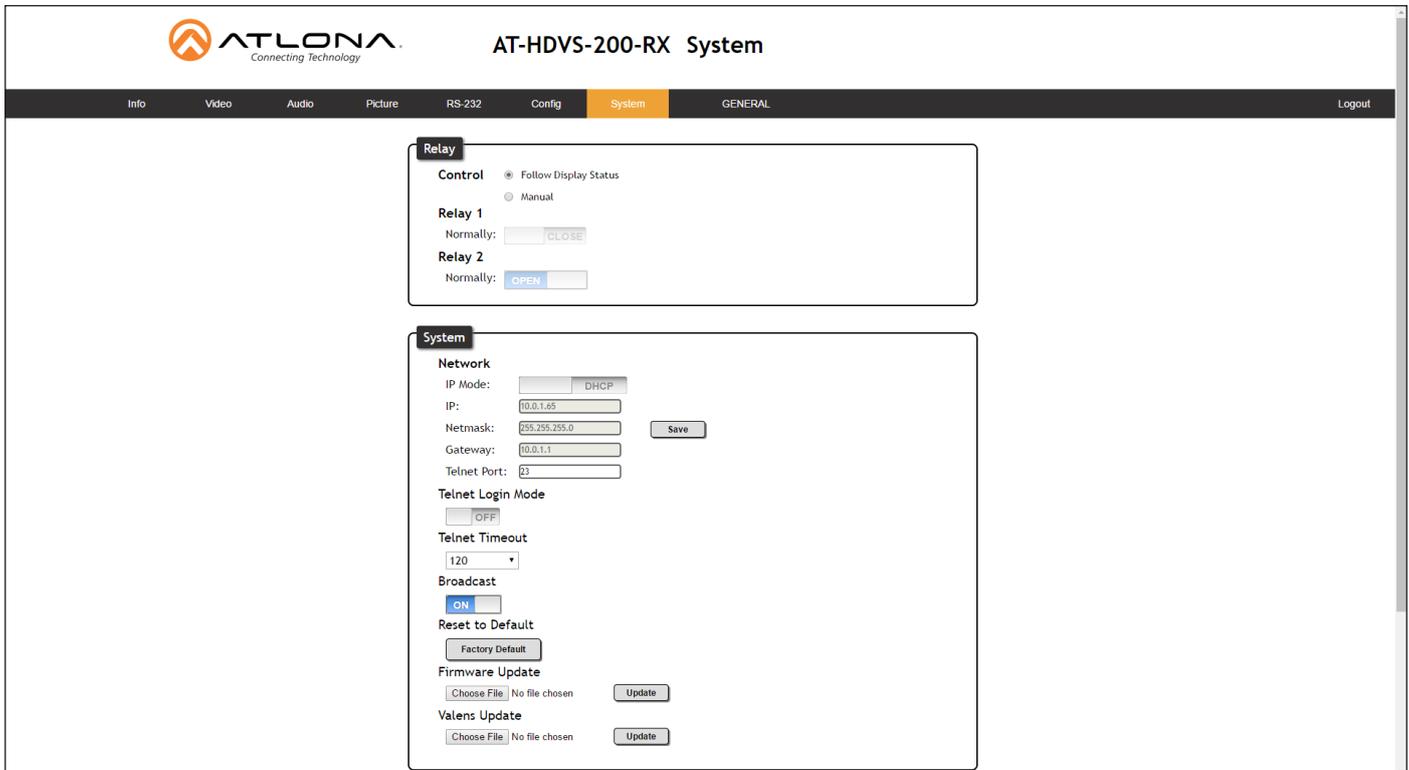


## Relay

**Control**

Click this radio button to select the behavior of the relays.  Each relay has two states:  normally open (NO) and normally closed (NC).

- **Follow Display Status**
  The relays will toggle, based on the state of the HDVS-200-TX.  For example, when the system is powered on, the relay will turn the display.  If the system is powered off, then the display will be powered off.

- **Manual**
  Relays can be triggered manually using the web GUI or using the RelayAct and RelayAuto commands.

**Relay 1**

Click this toggle button to set Relay 1 to OPEN (NO) or CLOSE (NC).

**Relay 2**

Click this toggle button to set Relay 2 to OPEN (NO) or CLOSE (NC).


## System

**IP Mode**

Click this toggle to set the IP mode of the AT-HDVS-200-RX.  By default, the AT-HDVS-200-RX is set to DHCP mode.

**IP**

Enter the IP address of the AT-HDVS-200-RX in this field.  This field will only be available if **IP Mode** is set to STATIC IP.

**Netmask**

Enter the subnet mask in this field.  This field will only be available if **IP Mode** is set to STATIC IP.

**Gateway**
Enter the gateway (router) address in this field.  This field will only be available if **IP Mode** is set to STATIC IP.

**Telnet Port**
Enter the Telnet port in this field.

**Telnet Login Mode**
Click this toggle to set the login mode to ON or OFF.  If this feature is set to on, then the AT-HDVS-200-RX will prompt for both the username and password.  Use the same credentials as the web GUI.

**Telnet Timeout**
Click this drop-down list to select the timeout interval, in seconds, before the Telnet connection is automatically closed after no activity.

**Broadcast**
By default, broadcast mode is set to off.  When set to ON, changes in the web GUI will also be affected on the control system (if connected), via TCP/IP.  To separate control between web GUI and Telnet, set this feature OFF.

**Reset to Default**
Click the **Factory Default** button to set the AT-HDVS-200-RX to factory-default settings.

**Firmware Update**
Click the **Choose File** button to select the firmware file, when upgrading the firmware on the AT-HDVS-200-RX.  Once the firmware file is selected, click the **Update** button.  Refer to Updating the Firmware (page 53) for more information.

**Valens Update**
Click the **Choose File** button to select the Valens firmware file, when upgrading the Valens chip on the AT-HDVS-200-RX.  Once the firmware file is selected, click the **Update** button.

# Commands

The following tables provide an alphabetical list of commands available on the AT-HDVS-200-RX. All commands are case-sensitive and must be entered as documented. If the command fails or is entered incorrectly, then the feedback is "Command FAILED".

⚠ **IMPORTANT:** Each command is terminated with a carriage-return (0x0d) and the feedback is terminated with a carriage-return and line-feed (0x0a).

| Command | Description |
|---------|-------------|
| Aspect | Sets the aspect ratio of the output signal |
| Bass | Increases / decreases the amount of bass on the output |
| Blink | Enables or disables blinking of the **DN** button on the front panel |
| Broadcast | Enables / disables broadcast mode |
| BRT | Sets the picture brightness |
| CSpara | Sets the baud rate, data bits, stop bits, and parity for the **RS-232 2** port |
| CTRST | Sets the picture contrast |
| HDBTRS232 | Sets the baud rate, data bits, parity bit, and stop bits for the HDBaseT IN port. |
| HDCPSet | Sets the HDCP reporting mode for the HDMI input on the transmitter |
| HDMIAUD | Enables / disables audio on the HDMI output |
| help | Displays the list of available commands |
| HUE | Sets the picture hue |
| HZoom | Sets the horizonal overscan setting for the output image |
| Input | Sets the active input |
| IPAddUser | Adds a user for Telnet control |
| IPCFG | Displays the current network settings for the AT-HDVS-200-RX |
| IPDelUser | Deletes the specified Telnet user |
| IPDHCP | Enables / disables DHCP mode on the AT-HDVS-200-RX |
| IPLogin | Enables / disables login credentials when starting a Telnet session |
| IPPort | Sets the Telnet listening port for the AT-HDVS-200-RX |
| IPStatic | Sets the static IP address, subnet mask, and gateway for the AT-HDVS-200-RX |
| IPTimeout | Specifies the time interval of inactivity before the Telnet session is closed |
| KitMode | Displays the model information and the IP address of the transmitter |
| Mreset | Resets the AT-HDVS-200-RX to factory-default settings |
| PictureRst | Resets all picture settings |
| PrefTimg | Sets the preferred HDMI input timing |

| Command | Description |
|---------|-------------|
| RelayAct | Configures the specified relay port |
| RelayAuto | Sets the state of the specified relay |
| RS232para | Sets the baud rate, data bits, stop bits, and parity for the **RS-232 1** port |
| RS232zone | Send a command to the display device |
| SATRT | Sets the picture color saturation |
| SHARP | Sets the picture sharpness |
| System | Displays system information about the AT-HDVS-200-RX |
| TREBLE | Increases / decreases the treble on the output |
| Type | Displays model information |
| Version | Displays the current firmware version of the AT-HDVS-200-RX |
| VidOutRes | Sets the video output resolution |
| VOUT | Increases / decreases the audio volume |
| VOUTMute | Mutes / unmutes the audio |
| VZoom | Adjusts the vertical zoom (overscan) of the output image |
| Zoom | Enables / disables overscan |

## Aspect

Sets the aspect ratio of the output signal.  The default setting is **Full**.

| Syntax |
| --- |
| Aspect X |

| Parameter | Description | Range |
| --- | --- | --- |
| X | Aspect ratio | 0 = Full<br>1 = 16:9<br>2 = 16:10<br>3 = 4:3<br>4 = Keep Ratio |

**Example**
Aspect 1

**Feedback**
Aspect 1

## Bass

Increases / decreases the amount of bass on the **output**.  In addition to specifying an integer value, the **+** and **-** arguments can be used, by themselves, to increase or decrease the bass by 1 value, respectively.

| Syntax |
| --- |
| Bass X |

| Parameter | Description | Range |
| --- | --- | --- |
| X | Value | -12 ... 15, sta |

**Example**
Bass -5
Bass +

**Feedback**
Bass -5
Bass -4

## Blink

Enables or disables blinking of the **DN** button on the front panel.  When set to on, the **DN** button will flash red and can be used to physically identify the unit on a network.  on = enables **DN** button blinking; off = disables **DN** button blinking; sta = displays the current Blink setting.  The default setting is off.

| Syntax |
| --- |
| Blink X |

| Parameter | Description | Range |
| --- | --- | --- |
| X | Value | on, off, sta |

**Example**
Blink on

**Feedback**
Blink on

## Broadcast

Enables / disables broadcast mode.  By default, broadcast mode is set to off.  When set to on, changes in the web GUI will also be affected on the control system (if connected), via TCP/IP.  To separate control between web GUI and Telnet, set this feature off.  on = enables broadcast mode; off = disables broadcast mode; sta = displays the current Broadcast setting.

| Syntax |
| --- |
| Broadcast X |

| Parameter | Description | Range |
| --- | --- | --- |
| X | Value | on, off, sta |

**Example**
Broadcast on

**Feedback**
Broadcast on

## BRT

Sets the picture brightness.  Use the sta argument to display the current brightness setting.

| Syntax |
| --- |
| BRT X |

| Parameter | Description | Range |
| --- | --- | --- |
| X | Value | 0 ... 100, sta |

**Example**
BRT 60

**Feedback**
BRT 60

## CSpara

Sets the baud rate, data bits, parity bit, and stop bits for the **RS-232 2** port on the AT-HDVS-200-RX. Use this port to control the AT-HDVS-200-RX. Each argument must be separated by a comma; no spaces are permitted. Brackets must be used when typing this command. Use the sta argument to display the current serial port settings.

| Syntax |
| --- |
| CSpara[W,X,Y,Z] |

| Parameter | Description | Range |
| --- | --- | --- |
| W | Baud rate | 2400, 4800, 9600, 19200, 38400, 57600, 115200 |
| X | Data bits | 7, 8 |
| Y | Parity bit | None, Odd, Even |
| Z | Stop bits | 1, 2 |

**Example**
CSpara[115200,8,0,1]
CSpara[sta]

**Feedback**
CSpara[115200,8,0,1]
CSpara [115200,8,0,1]

## CTRST

Sets the picture contrast. Use the sta argument to display the current contrast setting.

| Syntax |
| --- |
| CTRST X |

| Parameter | Description | Range |
| --- | --- | --- |
| X | Contrast | 0 ... 100, sta |

**Example**
CTRST 65

**Feedback**
CTRST 65

## HDBTRS232

Sets the baud rate, data bits, parity bit, and stop bits for the **HDBaseT IN** port.  Each argument must be separated by a comma; no spaces are permitted.  Brackets must be used when typing this command.  Use the sta argument, *without brackets and including a space*, to display the current settings.

| Syntax |
| --- |
| HDBTRS232[W,X,Y,Z] |

| Parameter | Description | Range |
| --- | --- | --- |
| W | Baud rate | 2400, 4800, 9600, 19200, 38400, 57600, 115200 |
| X | Data bits | 7, 8 |
| Y | Parity bit | None, Odd, Even |
| Z | Stop bits | 1, 2 |

**Example**
HDBTRS232[115200,8,0,1]

**Feedback**
HDBTRS232[115200,8,0,1]

## HDCPSet

Set the HDCP reporting mode of the **HDMI IN** port on the transmitter.  Some computers will send HDCP content if an HDCP-compliant display is detected.  Setting this value to off, will report to the source device that the AT-HDVS-200-RX is not an HDCP-compliant device.  This allows the source to transmit non-HDCP content to the sink.  Setting this value to off will *not* decrypt HDCP content.  on = enables HDCP detection; off = disables HDCP detection; sta = displays the current HDCPSet setting.

| Syntax |
| --- |
| HDCPSet X |

| Parameter | Description | Range |
| --- | --- | --- |
| X | Value | on, off, sta |

**Example**
HDCPSet on

**Feedback**
HDCPSet on

## HDMIAUD

Enables / disables audio on the HDMI output.  on = enables HDMI audio output; off = disables HDMI audio output; sta = displays the current HDMIAUD setting.

| Syntax |
| --- |
| HDMIAUD |

| Parameter | Description | Range |
| --- | --- | --- |
| X | Value | on, off, sta |

**Example**
HDMIAUD off

**Feedback**
HDMIAUD off

## help

Displays the list of available commands.  To obtain help on a specific command, enter the **Help** command followed by the name of the command.

| Syntax |
| --- |
| help X |

| Parameter | Description | Range |
| --- | --- | --- |
| X | Command name (optional) | Command |

**Example**
help

**Feedback**
Command List:
-----------------
Aspect
HDMIAUD
RS232para
RS232zone
HDCPSet
Version
Input
VidOutRes
Zoom
HZoom
...
...

## HUE

Sets the picture hue.  Use the sta argument to display the current HUE value.

| Syntax |  |
| --- | --- |
| HUE X |  |

| Parameter | Description | Range |
| --- | --- | --- |
| X | Value | 0 ... 100, sta |

**Example**
HUE 40

**Feedback**
HUE 40

## HZoom

Set the horizontal zoom for the output image.  Use the sta argument to display the current HZoom value.

| Syntax |  |
| --- | --- |
| HZoom X |  |

| Parameter | Description | Range |
| --- | --- | --- |
| X | Value | 0 ... 50, sta |

**Example**
HZoom 10

**Feedback**
HZoom 10

## Input

Sets the active input.  When specifying an HDMI input, the number of the input must also be specified.  Do not add a space between HDMI argument and the input number. Use the sta argument to display the currently active input.

| Syntax |  |
| --- | --- |
| Input X Y |  |

| Parameter | Description | Range |
| --- | --- | --- |
| X | Input | HDMI, VGA, sta |
| Y | HDMI port identifier | 1 ... 2 |

**Example**
Input HDMI2

**Feedback**
Input HDMI2

## IPAddUser

Adds a user for Telnet control.  This command performs the same function as adding a user within the **Config** page of the web GUI.  Refer to Config page (page 32) of the web GUI for more information.

| Syntax |
| --- |
| IPAddUser X Y |

| Parameter | Description | Range |
| --- | --- | --- |
| X | User name | 20 characters (max) |
| Y | Password | 20 characters (max) |

**Example**
IPAddUser BigBoss b055man

**Feedback**
IPAddUser BigBoss b055man
TCP/IP user was added

## IPCFG

Displays the current network settings for the AT-HDVS-200-RX.

| Syntax |
| --- |
| IPCFG |

**This command does not require any parameters**

**Example**
IPCFG

**Feedback**
IP Addr: 10.0.1.101
Netmask: 255.255.255.0
Gateway: 10.0.1.1
IP Port: 23

## IPDelUser

Deletes the specified TCP/IP user.  This command performs the same function as removing a user within the **Config** page of the web GUI.  Refer to the Config page (page 32) for more information.

| Syntax |
| --- |
| IPDelUser X |

| Parameter | Description | Range |
| --- | --- | --- |
| X | User | User name |

**Example**
IPDelUser BigBoss

**Feedback**
IPDelUser BigBoss
TCP/IP user was deleted

## IPDHCP

Enables / disables DHCP mode on the AT-HDVS-200-RX.  on = enables DHCP mode; off = disables DHCP mode; sta = displays the current IPDHCP setting.  If this feature is disabled, then a static IP address must be specified for the AT-HDVS-200-RX.  Refer to the IPStatic command for more information.

| Syntax | |
|---|---|
| IPDHCP X | |

| Parameter | Description | Range |
|---|---|---|
| X | Value | on, off, sta |

**Example**
IPDHCP on

**Feedback**
IPDHCP on


## IPLogin

Enables / disables the use of login credentials when starting a Telnet session on the AT-HDVS-200-RX.  If this feature is set to on, then the AT-HDVS-200-RX will prompt for both the username and password.  Use the same credentials as the web GUI.  on = login credentials required; off = no login required; sta = displays the current IPLogin setting.

| Syntax | |
|---|---|
| IPLogin X | |

| Parameter | Description | Range |
|---|---|---|
| X | Value | on, off, sta |

**Example**
IPLogin off

**Feedback**
IPLogin off


## IPPort

Sets the Telnet listening port for the AT-HDVS-200-RX.  Use the sta argument to display the current port setting.

| Syntax | |
|---|---|
| IPPort X | |

| Parameter | Description | Range |
|---|---|---|
| X | Port | 0 ... 65535, sta |

**Example**
IPPort 23

**Feedback**
IPPort 23

## IPStatic

Sets the static IP address, subnet mask, and gateway (router) address of the AT-HDVS-200-RX.  Before using this command, DHCP must be disabled on the AT-HDVS-200-RX.  Refer to the IPDHCP command for more information.  Each argument must be entered in dot-decimal notation and separated by a space.  The default static IP address is 192.168.1.254.

| Syntax |
| --- |
| IPStatic X Y Z |

| Parameter | Description | Range |
| --- | --- | --- |
| X | IP address | 0 ... 255 (per byte) |
| Y | Subnet mask | 0 ... 255 (per byte) |
| Z | Gateway (router) | 0 ... 255 (per byte) |

**Example**
IPStatic 192.168.1.112 255.255.255.0 192.168.1.1

**Feedback**
IPStatic 192.168.1.112 255.255.255.0 192.168.1.1

## IPTimeout

Specifies the time interval of inactivity before the Telnet session is automatically closed.

| Syntax |
| --- |
| IPTimeout X |

| Parameter | Description | Range |
| --- | --- | --- |
| X | Interval (in seconds) | 1 ... 60000 |

**Example**
IPTimeout 300

**Feedback**
IPTimeout 300

## KitMode

Displays the model information and the IP address of the transmitter.  The sta argument must be specified.

| Syntax |
| --- |
| KitMode X |

| Parameter | Description | Range |
| --- | --- | --- |
| X | Value | sta |

**Example**
KitMode sta

**Feedback**
AT-HDVS-200-TX IP:10.0.1.161

## Mreset

Resets the AT-HDVS-200-RX to factory-default settings.

| Syntax |
| --- |
| MReset |

**This command does not require any parameters**

**Example**
Mreset

**Feedback**
Mreset

## PictureRst

Resets the picture settings to factory-default settings.  This command does not reset the unit to factory-default settings.  Refer to the Mreset command for more information.

| Syntax |
| --- |
| PictureRst |

**This command does not require any parameters**

**Example**
PictureRst

**Feedback**
PictureRst

## PrefTimg

Sets the preferred input timing.  Specify a value from 0 to 8.

| Syntax |
| --- |
| PrefTimg X |

| Parameter | Description | Range |
| --- | --- | --- |
| X | Timing | 0 .. 8 |

**Input Timing List**
0 = 1280x720
1 = 1920x1080
2 = 1024x768
3 = 1280x720

4 = 1920x1200
5 = 1366x768
6 = 800x600
7 = 1600x900
8 = Native

**Example**
PrefTimg 3

**Feedback**
PrefTimg 3

## RelayAct

Sets the initial state of the specified relay:  normally-open (NO) or normally-closed (NC).  The first argument specifies the relay and the second argument sets the state.  open = opens the relay, close = closes the relay; sta = displays the current state of the **RelayAct** setting.  When returning the relay state, the relay number must also be specified.

| Syntax |
| --- |
| Relay X Y |

| Parameter | Description | Range |
| --- | --- | --- |
| X | Relay | 1 ... 2 |
| Y | State | open, close, sta |

**Example**
RelayAct 1 open
RelayAct 1 sta

**Feedback**
RelayAct 1 open
RelayAct1 open

## RelayAuto

Toggles the state of both relays. on = toggles the relay state and sets the control state to "follow display status"; off = toggles the relay state and set the control state to "manual"; sta = returns the current **RelayAuto** setting.  An example of the "follow display status" state would be:  When the projector is powered on, relay 1 (C1) could lower the projecftor screen and relay 2 (C2) might dim the lights.  The "manual" control state provides the ability to override the current relay settings.

| Syntax |
| --- |
| RelayAuto X |

| Parameter | Description | Range |
| --- | --- | --- |
| X | Value | on, off, ? |

**Example**
RelayAuto on

**Feedback**
RelayAuto on

## RS232para

Sets the baud rate, data bits, parity bit, and stop bits for the **RS-232 1** port on the AT-HDVS-200-RX.  This port is used to send commands to the connected display.  Each argument must be separated by a comma; no spaces are permitted.  Brackets must be used when typing this command.  Use the sta argument, *without brackets and including a space*, to display the current settings.

| Syntax |
| --- |
| RS232para[W,X,Y,Z] |

| Parameter | Description | Range |
| --- | --- | --- |
| W | Baud rate | 2400, 9600, 19200, 38400, 56000, 57600, 115200 |
| X | Data bits | 7, 8 |
| Y | Parity bit | None, Odd, Even |
| Z | Stop bits | 1, 2 |

**Example**
RS232para[115200,8,0,1]
RS232para sta

**Feedback**
RS232para[115200,8,0,1]
RS232para[115200,8,0,1]

## RS232zone

Sends commands to the connected display.  Refer to the User Manual of the display device for a list of available commands.  Brackets must be used when specifying the command to be sent.  The command line string must not contain any spaces.

| Syntax |
| --- |
| RS232zone[X] |

| Parameter | Description | Range |
| --- | --- | --- |
| X | Command | String |

**Example**
RS232zone[command]

**Feedback**
RS232zone[command]

## SATRT

Sets the picture color saturation value.  Use the sta argument to display the current SATRT setting.

| Syntax |
| --- |
| SATRT X |

| Parameter | Description | Range |
| --- | --- | --- |
| X | Saturation | 0 ... 100, sta |

**Example**
SATRT 50

**Feedback**
SATRT 50

## SHARP

Sets the picture sharpness.  Use the sta argument to display the current SHARP setting.

| Syntax |
| --- |
| SHARP X |

| Parameter | Description | Range |
| --- | --- | --- |
| X | Sharpness | 0 ... 100, sta |

**Example**
SHARP 70

**Feedback**
SHARP 70

## System

Displays system information about the AT-HDVS-200-RX.  The sta argument must be specified.

| Syntax |
| --- |
| System X |

| Parameter | Description | Range |
| --- | --- | --- |
| X | Status | sta |

**Example**
System sta

**Feedback**
Model: AT-HDVS-200-RX
MAC Addr: b8-98-b0-00-36-a6
Address Type: DHCP
IP Addr: 10.0.1.65
Netmask: 255.255.255.0
Gateway: 10.0.1.1
HTTP Port: 80
Telnet Port: 23
Firmware: 1.1.28
On/Up Time <dd HH:mm:ss>: 00 01:12:47

## TREBLE

Increases / decreases the amount of treble.  In addition to specifying an integer value, the **+** and **-** arguments can be used, by themselves, to increase or decrease the amount of treble by 1 value, respectively.  To display the current value, use the sta argument.

| Syntax |
| --- |
| TREBLE X |

| Parameter | Description | Range |
| --- | --- | --- |
| X | Value | -12 ... 15, sta |

**Example**
Treble 7
Treble -

**Feedback**
Treble 7
Treble 6

## Type

Displays the model information of the AT-HDVS-200-RX.

| Syntax |
| --- |
| Type |

**This command does not require any parameters**

**Example**
Type

**Feedback**
AT-HDVS-200-RX

## Version

Displays the firmware version of the AT-HDVS-200-RX.  No spaces must exist between the command and the argument.  MCU = displays the microprocessor firmware, VSRX = displays the Valens firmware.

| Syntax |
| --- |
| VersionX |

| Parameter | Description | Range |
| --- | --- | --- |
| X | Value | MCU, VSRX |

**Example**
VersionMCU

**Feedback**
V1.1.28

## VidOutRes

Sets the video output resolution.  Use the sta argument to display the current video output resolution.

| Syntax |
|--------|
| VidOutRes |

| Parameter | Description | Range |
|-----------|-------------|-------|
| X | Value | 0 ... 28, sta |

**Output Resolution List**
0 = 800x600
1 = 1024x768
2 = 1280x800
3 = 1280x1024
4 = 1366x768
5 = 1400x1050
6 = 1600x900
7 = 1600x1200
8 = 1680x1050
9 = 1920x1200
10 = 720p25
11 = 720p29.97
12 = 720p30
13 = 720p50

14 = 720p59
15 = 720p60
16 = 1080i50
17 = 1080i59.94
18 = 1080i60
19 = 1080p23.98
20 = 1080p24
21 = 1080p25
22 = 1080p29.97
23 = 1080p30
24 = 1080p50
25 = 1080p59.94
26 = 1080p60
27 = Input
28 = Native

**Example**
VidOutRes 26

**Feedback**
VidOutRes 26

## VOUT

Increases / decreases the audio output volume.  In addition to specifying an integer value, the **+** and **-** arguments can be used, by themselves, to increase or decrease the volume by 1 value, respectively.  To display the current value, execute the **VOUT** command without any arguments.

| Syntax |
|--------|
| VOUT |

| Parameter | Description | Range |
|-----------|-------------|-------|
| X | Value | -80 ... 6 |

**Example**
VOUT 4
VOUT +

**Feedback**
VOUT 4
VOUT 5

## VOUTMute

Mutes / unmutes the audio. on = enables muting; off = disables muting; sta = displays the current **VOUTMute** setting.

| Syntax |
| --- |
| VOUTMute X |

| Parameter | Description | Range |
| --- | --- | --- |
| X | Value | on, off, sta |

**Example**
VOUTMute on

**Feedback**
VOUTMute on

## VZoom

Adjusts the vertical zoom (overscan) of the output image. Use the sta argument to display the current **VZoom** setting.

| Syntax |
| --- |
| VZoom X |

| Parameter | Description | Range |
| --- | --- | --- |
| X | Value | 0 ... 50, sta |

**Example**
VZoom 10

**Feedback**
VZoom 10

## Zoom

Enables / disables overscan. on = enables overscan; off = disables overscan; sta = displays the current **Zoom** setting.

| Syntax |
| --- |
| Zoom X |

| Parameter | Description | Range |
| --- | --- | --- |
| X | Value | on, off, sta |

**Example**
Zoom on

**Feedback**
Zoom on

# Appendix

## Updating the Firmware

Updating the firmware can be completed using either the USB interface or the web GUI. Atlona recommends using the web GUI for updating the firmware. However, If a network connection is not available, the AT-HDVS-200-RX firmware can be updated using a USB-A to USB mini-B cable

### Using the Web GUI

Requirements

- AT-HDVS-200-RX
- Firmware file
- Computer

1. Connect an Ethernet cable from the computer, containing the firmware, to the same network where the AT-HDVS-200-RX is connected.

2. Go to the System page (page 33) in the web GUI.
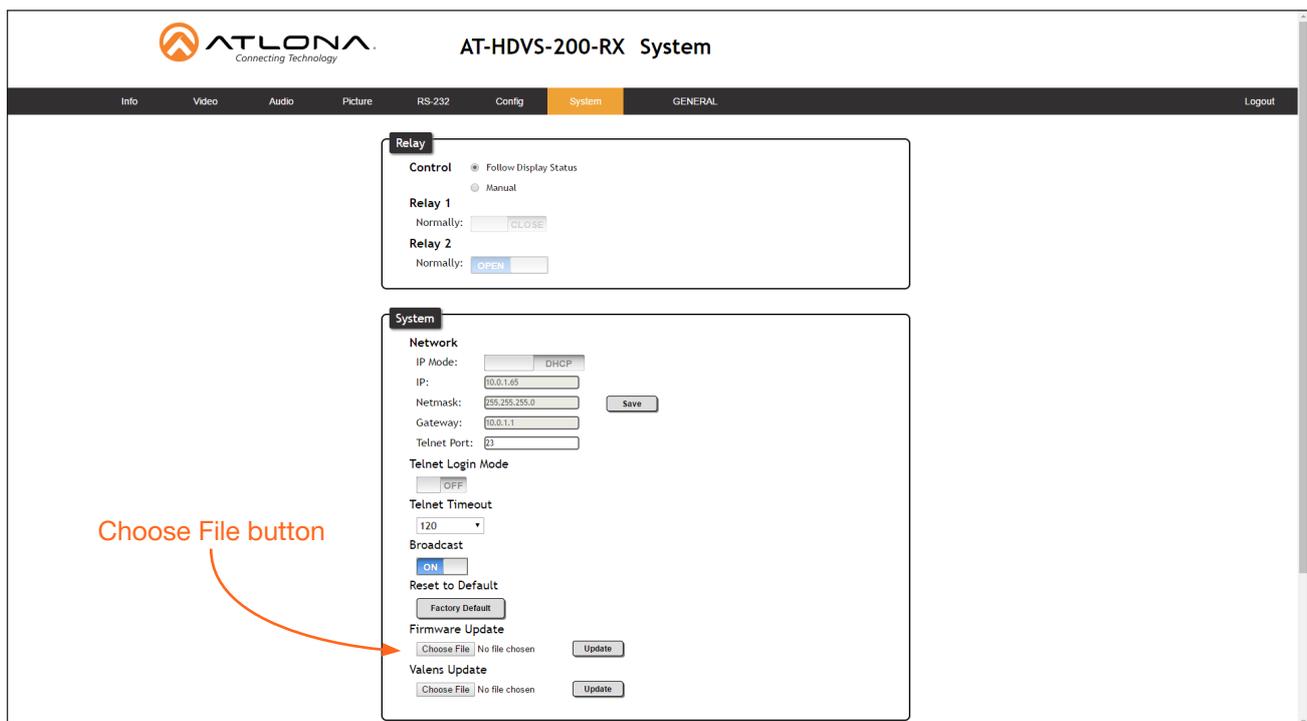


Choose File button

3. Click the **Choose File** button, under the **Firmware Update** section.

> ⚠️ **IMPORTANT:** When updating the firmware, make sure to select the **Choose File** button under **Firmware Update**. The **Valens Update** section does not apply to this procedure.

4. Browse to the location of the firmware file, select it, and click the **Open** button.

5. Click the **Update** button, under the **Firmware Update** section.

6. The following message box will be displayed.
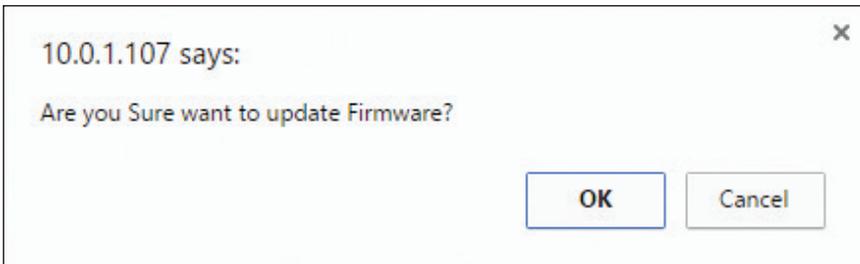


7. Click the **OK** button to begin the firmware update process. Click the **Cancel** button to cancel the process.

8. After the firmware update process is complete, the **Login** screen will be displayed.
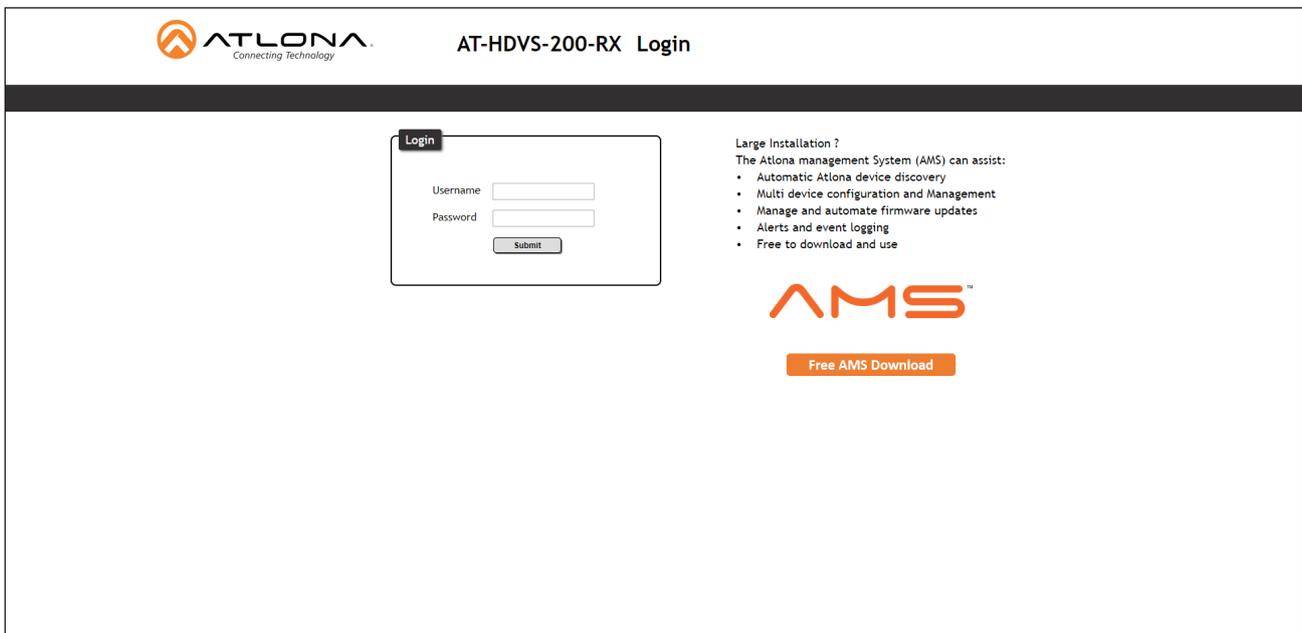


## Using USB

Requirements

- AT-HDVS-200-RX
- Firmware file
- Computer
- USB-A to USB mini-B cable

1. Disconnect power from the AT-HDVS-200-RX.

2. Connect the USB-A to USB mini-B cable from the computer to the **FW** port on the AT-HDVS-200-RX.



FW port

3. Press and hold the **MENU** key, on the front panel, while connecting power to the AT-HDVS-200-RX.

4. The USB UPDATE folder will be displayed.

   If this folder is not displayed, automatically, select the USB UPDATE drive from Windows Explorer.
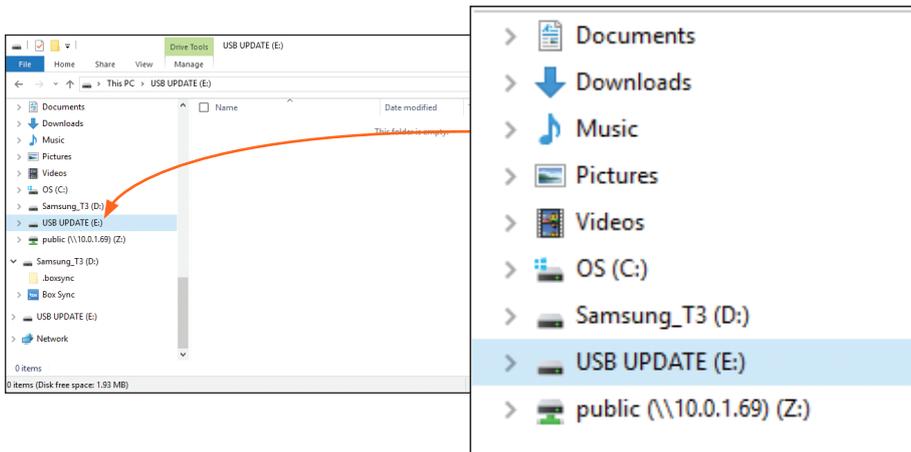


7. Delete all files from the USB UPDATE drive, if any are present.

8. Drag-and-drop the firmware file to the drive.

9. After the file has been copied, disconnect the USB cable from both the computer and the AT-HDVS-200-RX.

10. Power-cycle the AT-HDVS-200-RX by disconnecting then reconnecting the power supply.

11. The firmware update process is complete.

# Default Settings

The following tables list the factory-default settings for the AT-HDVS-200-RX.

| Feature | Settings | |
|---------|----------|---|
| Resolution | Preferred Input Timing<br>Output Format | 1920x1080<br>720p60 |
| Aspect ratio | Full | |
| Overscan | Disabled | |
| Audio | Mute<br>HDMI Audio<br>L/R Audio<br>Bass<br>Treble | Off<br>On<br>On<br>0<br>0 |
| Picture | Brightness<br>Contrast<br>Saturation<br>Hue<br>Sharpness | 64<br>64<br>64<br>64<br>10 |
| RS-232 port 1 | Baud Rate<br>Data Bits<br>Parity<br>Stop Bits | 9600<br>8<br>None<br>1 |
| RS-232 port 2 | Baud Rate<br>Data Bits<br>Parity<br>Stop Bits | 115200<br>8<br>None<br>1 |
| Zone | Baud Rate<br>Data Bits<br>Parity<br>Stop Bits | 115200<br>8<br>None<br>1 |
| Login | Username (default)<br>Password (default) | root<br>Atlona |
| Relay | Control<br>Relay 1<br>Relay 2 | Follow Display Status<br>Normally Closed (NC)<br>Normally Open (NO) |
| Other | Display HDCP<br>In Auto Switch<br>Mirror-V<br>ASP Background | Compliant<br>On<br>Off<br>Grey |

| Feature | Settings | |
|---------|----------|---|
| OSD | Position | Left Top |
| | Transparency | 12 |
| | Info Timer | 10 (seconds) |
| | Menu Timer | 20 (seconds) |
| | Info Display | Auto |
| | Menu Display | Auto |
| | Background | Grey |
| System | IP Mode | DHCP |
| | Static IP Address (default) | 192.168.1.254 |
| | Netmask | 255.255.255.0 |
| | Gateway | 192.168.1.1 |
| | Telnet Port | 23 |
| | Telnet Login Mode | Off |
| | Telnet Timeout | 120 (seconds) |
| | Broadcast | On |

## Specifications

| Video | |
|---|---|
| Video | 1080p@23.98/24/25/29.97/30/50/59.94/60Hz, 1080i@50/59.94/60Hz, 720p@50/59.94/60Hz, 576p, 576i, 480p, 480i |
| VESA | 1920×1200, 1680×1050, 1600×1200, 1600×900, 1440×900, 1400×1050, 1366×768, 1360×768, 1280×1024, 1280×800 1280×768, 1152×768, 1024×768, 800×600, 640×480 |
| Color Space | YUV, RGB |
| Chroma Subsampling | 4:4:4, 4:2:2, 4:2:0* |
| Color Depth | 8-bit, 10-bit, 12-bit |

| Audio | |
|---|---|
| Analog | PCM 2Ch (de-embedded) |
| HDMI OUT & HDBaseT IN | PCM 2Ch, LPCM 5.1, LPCM 7.1, Dolby® Digital, DTS® 5.1, Dolby Digital Plus, Dolby TrueHD, DTS-HD Master Audio™ |
| Sample Rate | 32 kHz, 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz, 176.4 kHz, 192 kHz |
| Bit Rate | 24-bit (max.) |

| Cable | Feet | Meters |
|---|---|---|
| CAT5e/6 @ 1080p | 330 | 100 |
| HDMI IN / OUT @ 1080p | 30 | 10 |

| Signal | |
|---|---|
| Bandwidth | 6.75 Gbps |
| CEC | Yes |
| HDCP | 1.4 |

| Temperature | Fahrenheit | Celsius |
|---|---|---|
| Operating | 32 to 122 | 0 to 50 |
| Storage | -4 to 140 | -20 to 60 |
| Humidity (RH) | 20% to 90%, non-condensing | |

| Power | |
|---|---|
| Consumption | 12 W<br>30 W (when paired) |
| Supply | Input: 100 - 240 V AC, 50/60 Hz<br>Output: 48 V DC, 0.83 A |

| Dimensions | Inches | Millimeters |
|---|---|---|
| H x W x D | 1.5 x 5 x 4.02 | 38 x 127 x 102 |

| Weight | Pounds | Kilograms |
|---|---|---|
| Device | 1.00 | 0.45 |

| Certification | |
|---|---|
| Unit | CE, FCC |

# Index