

Three-Input Switcher for HDMI and VGA with HDBaseT™ Output



AT-HDVS-150-TX
AT-HDVS-150-TX-PSK

Atlona Manuals
Switchers

Version Information

Version	Release Date	Notes
1	09/16	Initial release
2	01/17	Combined TX and TX-PSK manual

Welcome to Atlona!

Thank you for purchasing this Atlona product. We hope you enjoy it and will take a 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>

Sales, Marketing, and Customer Support

Main Office

Atlona Incorporated
70 Daggett Drive
San Jose, CA 95134
United States

Office: +1.877.536.3976 (US Toll-free)
Office: +1.408.962.0515 (US/International)

Sales and Customer Service Hours
Monday - Friday: 6:00 a.m. - 4:30 p.m. (PST)

<http://www.atlona.com/>

International Headquarters

Atlona International AG
Ringstrasse 15a
8600 Dübendorf
Switzerland

Office: +41 43 508 4321

Sales and Customer Service Hours
Monday - Friday: 09:00 - 17:00 (UTC +1)

Operating Notes

- This product does not support multichannel audio.



IMPORTANT: Visit <http://www.atlona.com/product/AT-HDVS-150-TX> and <http://www.atlona.com/product/AT-HDVS-150-TX-PSK> for the latest firmware updates and User Manual.

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 and Discontinued Products

- 3 years from proof of purchase date for all Refurbished (B-Stock) and Discontinued 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 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 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: TO REDUCE 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.

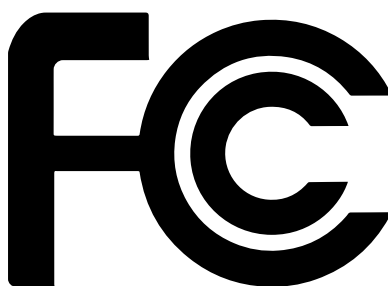


The information bubble is intended to alert the user to helpful or optional operational instructions in the literature accompanying the product.

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	8
Features	8
Package Contents	8
Panel Description	9
Installation	10
Connection Instructions	10
Connection Diagram	11
Solution Setup and Configuration Guide	12
Toggling Power on the Display	12
Selecting the Input	13
Passing Analog Audio	14
Input Auto Switching	15
Display Control	17
Appendix	22
Updating the Firmware	22
Specifications	24
Index	26

Introduction

The Atlona **AT-HDVS-150-TX** is a 3x1 switcher with display control for HDMI and VGA transmission over HDBaseT™. It features two HDMI inputs plus a VGA input with 3.5mm audio connector. The AT-HDVS-150-TX combines the benefits of a switcher with built-in auto-switching and the advantages of long-distance HDBaseT signal extension over a single cable. HDMI signals up to 4K/UHD @ 60Hz with embedded audio, VGA input signals up to 1920x1200 video, and control signals can be extended up to 230 feet (70 meters). The switcher enables auto display on/off, auto-switching, along with other features. The switcher receives power from the AT-HDVS-150-RX using Power over Ethernet. The AT-HDVS-150-TX is ideal for long distance transmission and display control in corporate or educational settings using analog and digital sources.

The Atlona **AT-HDVS-150-TX-PSK** is identical to the AT-HDVS-150-TX, with the addition of local powering capability and an external power supply. This makes it ideal for extending AV and control directly to a projector with an HD-BaseT input. The AT-HDVS-150-TX can serve as the central component of a small, automated AV system through automatic input selection, and by sending RS-232 control commands to the display. With automatic display control capability, the AT-HDVS-150-TX can power the display on or off whenever a source is connected or disconnected from the unit.

Features

- Two HDMI inputs plus a VGA input with 3.5mm audio connector.
- Extends 1080p up to 230 feet (70 meters) and 4K/UHD up to 130 feet (40 meters) using CAT6a/7 cable.
- Automatically changes projector power state based on active or standby mode of the switcher (in conjunction with the AT-HDVS-150-RX). Control signals are transmitted via RS-232.
- Combines analog audio and VGA onto HDBaseT output.
- Field-upgradable via USB interface.
- Includes external power supply (AT-HDVS-150-TX-PSK only) – ideal for point-to-point installations with an HDBaseT-equipped display or projector.
- Front panel input select button.
- Automatic input selection using 5-volt detection.

Package Contents

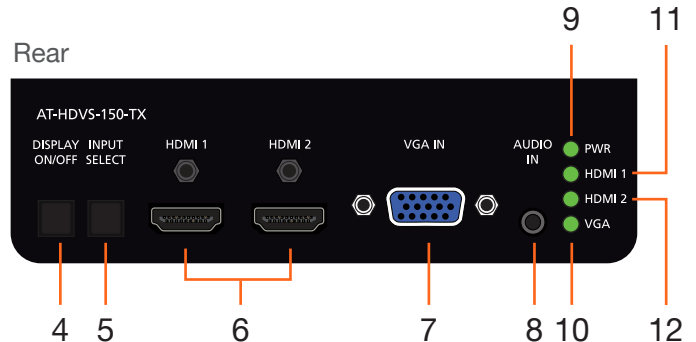
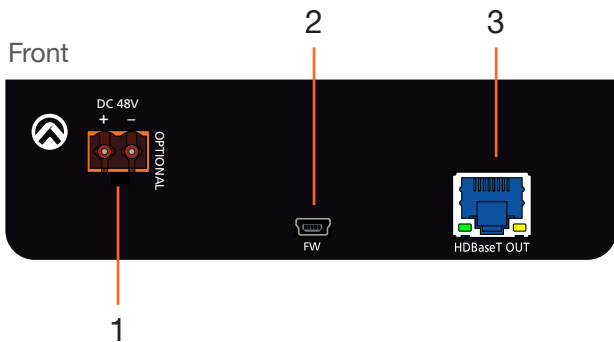
AT-HDVS-150-TX

1 x AT-HDVS-150-TX
1 x Mounting ears (pair)
1 x Installation Guide

AT-HDVS-150-TX-PSK

1 x AT-HDVS-150-TX-PSK
1 x 2-pin Phoenix connector
1 x 48V DC power supply
1 x Mounting ears (pair)
1 x Installation Guide

Panel Description



- 1 DC 48V**
Connect the power supply to this port to power an HDBaseT receiver, projector, or other PoE device.

NOTE: The **DC 48V** port is only available on the AT-HDVS-150-TX-PSK.
- 2 FW**
Connect a mini USB to USB-A type cable from this port to a computer to update the firmware. See [Updating the Firmware \(page 22\)](#) for more information.
- 3 HDBaseT OUT**
Use an Ethernet cable to connect an HDBaseT PoE receiver to this port.
- 4 DISPLAY ON/OFF**
Press this button to power-on / power-off the display that is connected to the receiver.
- 5 INPUT SELECT**
Press this button to select the desired input.
- 6 HDMI 1 / HDMI 2**
Connect up to two HD sources using these HDMI ports.

- 7 VGA IN**
Connect a VGA source to this port.
- 8 AUDIO IN**
Connect a 3.5mm mini-stereo audio cable, from an analog audio source, to this port. See [Passing Analog Audio \(page 14\)](#) for more information.
- 9 PWR**
This LED indicator will glow bright green when the switcher is powered.
- 10 VGA**
This LED indicator will glow bright green when the VGA IN port is selected.
- 11 HDMI 1**
This LED indicator will glow bright green when the HDMI 1 port is selected.
- 12 HDMI 2**
This LED indicator will glow bright green when the HDMI 2 port is selected.

Installation

Connection Instructions

AT-HDVS-150-TX / AT-HDVS-150-TX-PSK

1. Use HDMI cables to connect up to two HD sources to the HDMI 1 and HDMI 2 ports on the switcher.
2. Connect a VGA cable from a VGA source to the **VGA IN** port on the switcher.
3. Connect a 3.5 mm mini-stereo cable from the **AUDIO IN** port on the switcher to the analog audio source. This port allows two-channel analog audio to be included when the VGA IN port is selected. See [Passing Analog Audio \(page 14\)](#) for more information.
4. Connect an Ethernet cable, up to 230 feet (70 meters), from the **HDBaseT OUT** port on the switcher to a PoE-compatible receiver (not included). Ethernet cables should use EIA/TIA-568B termination.



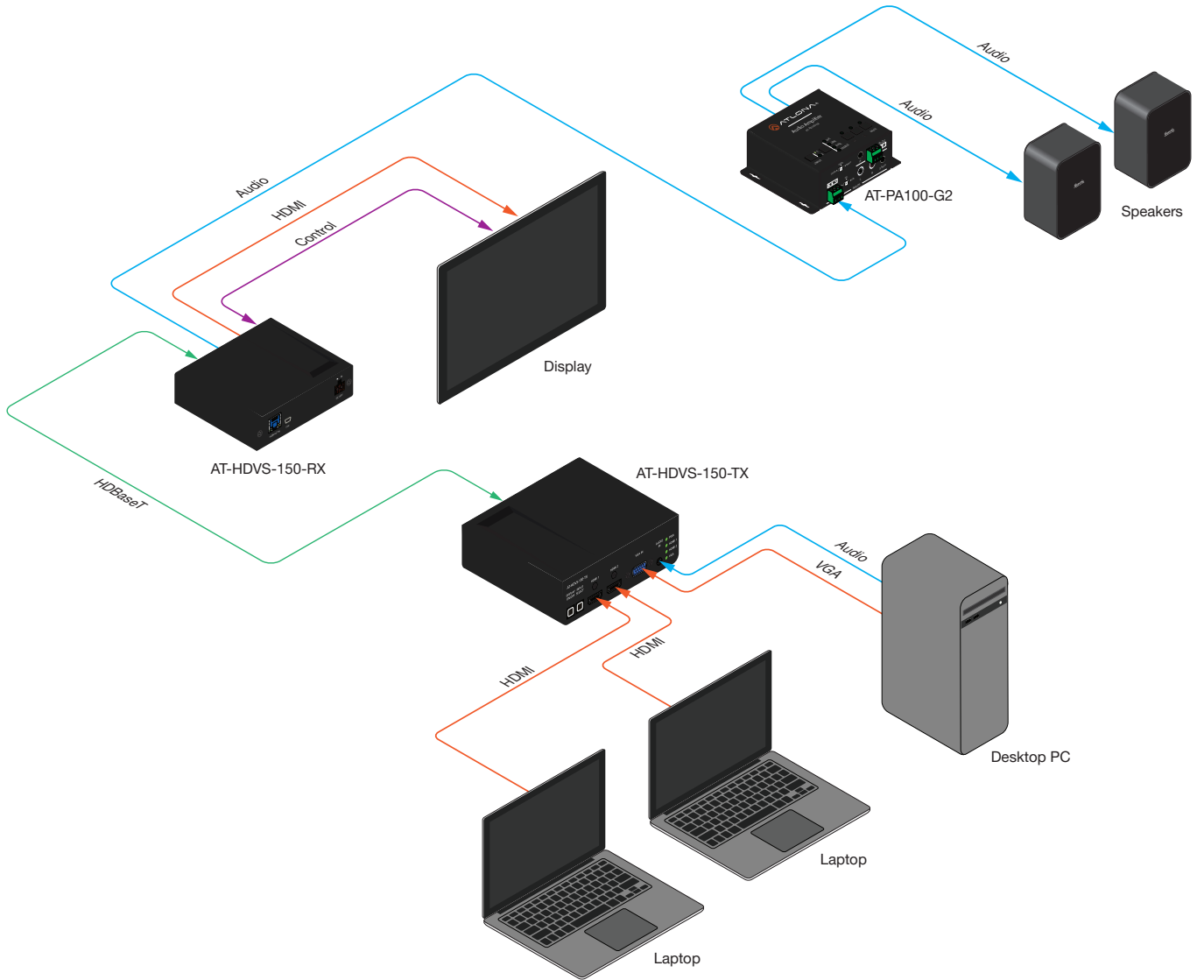
IMPORTANT: Using EZ RJ-45 connectors are being used, make sure that each twisted pair does not extend beyond the RJ-45 connector. Exposed twisted-pair wires may cause a short when connected to the **HDBaseT OUT** port.

No power supply is required for the AT-HDVS-150-TX. This unit will be powered over the Ethernet cable, from an HDBaseT receiver.

AT-HDVS-150-TX-PSK Only

5. Connect the included power supply to the **DC 48V** port. Connect the power supply if the HDBaseT receiver or projector not a PoE-capable device
6. Connect the power supply to an available AC outlet.

Connection Diagram



Solution Setup and Configuration Guide

The following sections provide step-by-step instructions for the following topics:

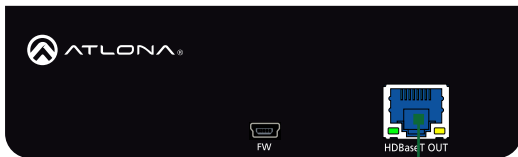
- Toggling Power on the Display
- Selecting the Input
- Passing Analog Audio
- Input Auto Switching
- Display Control

Toggling Power on the Display

When the unit is connected to a compatible receiver and display, pressing the **DISPLAY ON/OFF** button will send a command to set the display power state. This is a programmable button and requires a compatible Atlona receiver.

1. Connect a category cable from the **HDBaseT OUT** port on the AT-HDVS-150-TX to the **HDBaseT IN** port on a compatible receiver. In this example, the AT-HDVS-150-TX is connected to an AT-HDVS-150-RX.

AT-HDVS-150-TX



AT-HDVS-150-RX



2. Connect an HDMI cable from the **HDMI OUT** port on the receiver to a display.
3. Press the **DISPLAY ON/OFF** button on the AT-HDVS-150-TX. The power state of the display, connected to the receiver, will be toggled.



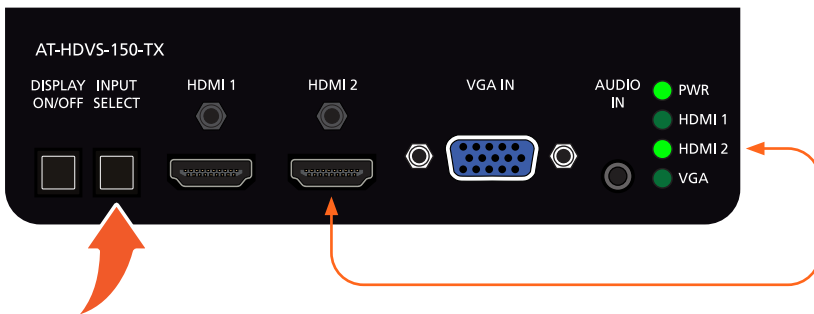
Selecting the Input

Press the **INPUT SELECT** button to cycle through each of the available inputs on the unit. The unit will always retain the last selected input when the unit is powered-off.

1. Below, the **HDMI 1** LED indicator is bright green, indicating that **HDMI 1** is the active input.



2. Press the **INPUT SELECT** button, to select HDMI 2. The **HDMI 2** LED indicator will turn bright green.

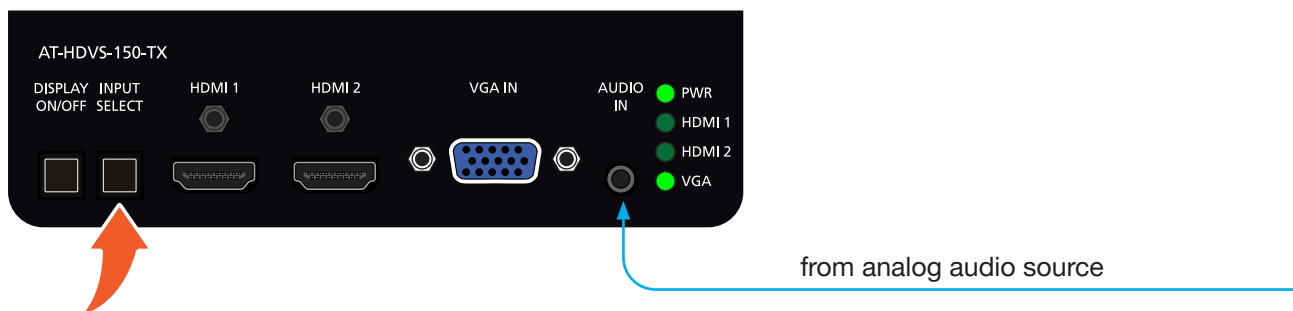


3. Press the **INPUT SELECT** button a third time, to select the **VGA IN** port. The **VGA** LED indicator will turn bright green.
4. Press the **INPUT SELECT** button again to return to **HDMI 1**.

Passing Analog Audio

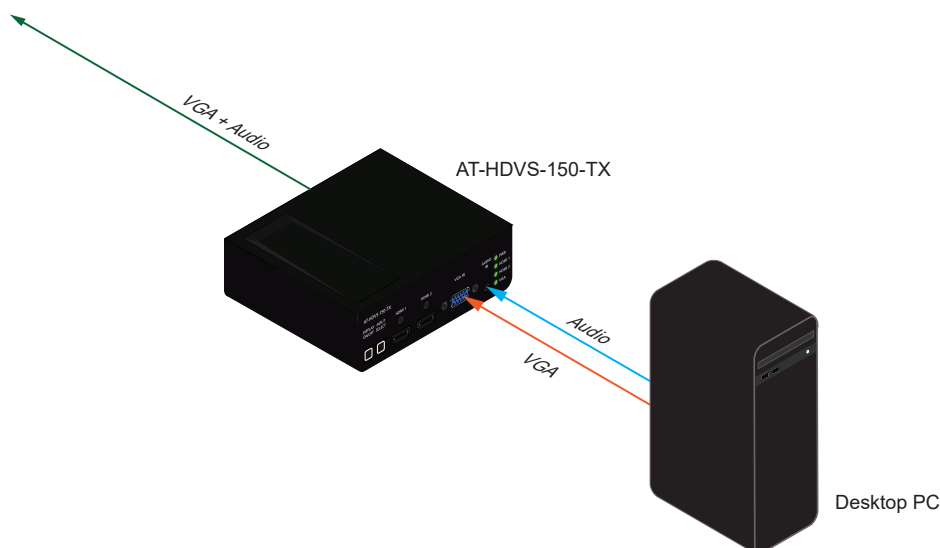
Both products can pass two-channel analog audio with the VGA signal. In order for the audio to be passed to the receiver, an active VGA source must be connected to the **VGA IN** port and the port must be selected. Analog audio *cannot* be embedded on an HDMI signal.

1. Connect a VGA source to the **VGA IN** port on the transmitter.
2. Connect a 3.5 mm mini-stereo cable from the **AUDIO IN** port to the analog audio source.
3. Press the **INPUT SELECT** button until the **VGA** indicator turns bright green.



IMPORTANT: The **AUDIO IN** port will pass audio only when both the **VGA IN** port is selected *and* when the **VGA IN** port is connected to an active VGA source. Audio cannot be passed without video.

The example below, shows a desktop PC providing both the audio and video source. However, these signals may be connected to separate sources.



Input Auto Switching

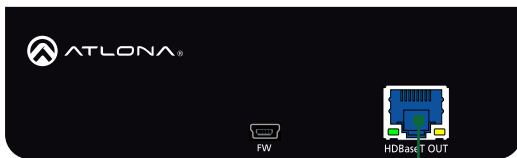
The AT-HDVS-150-TX provides auto-switching capability between HDMI IN 1 and HDMI IN 2, which will automatically switch the input to the most recently-connected or powered source when a source is disconnected. For example, if the connection sequence is **HDMI 2 > HDMI 1**, and a source is disconnected from **HDMI 1**, then the AT-HDVS-150-TX will automatically switch to the **HDMI 2**. Auto-switching mode is enabled or disabled through the on-screen display (OSD) menu system, and is enabled (On), by default.

NOTE: Auto-switching is triggered by a Hot-Plug Detect (HPD) event. If HPD is not detected, then AT-HDVS-150-TX will not switch inputs. VGA does not support HPD. Therefore, the **VGA** port cannot be used in the auto-switching cycle.

1. Connect a category cable from the **HDBaseT OUT** port on the AT-HDVS-150-TX to the **HDBaseT IN** port on the AT-HDVS-150-RX using a category cable (CAT-5e or better). The category cable should not exceed 230 feet (70 meters) in length.

The AT-HDVS-150-RX must be connected to the AT-HDVS-150-TX, in order to manage auto switching.

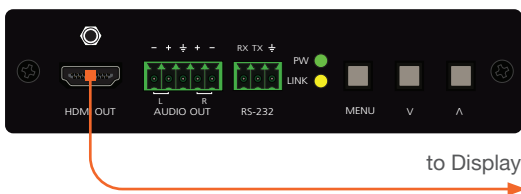
AT-HDVS-150-TX



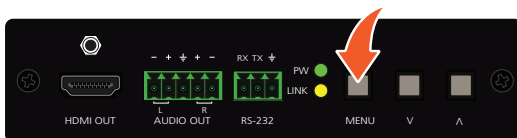
AT-HDVS-150-RX



2. Connect an HDMI cable from the **HDMI OUT** port on the AT-HDVS-150-RX to a display.

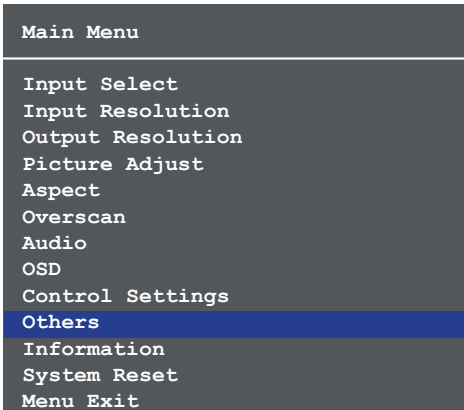
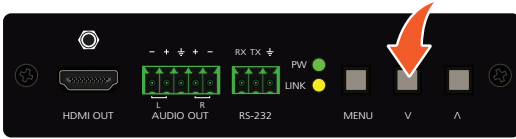


3. Press the **MENU** button on the front panel of the AT-HDVS-150-RX to display the on-screen display (OSD) menu system.

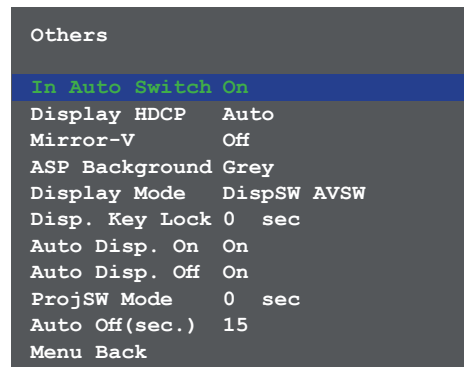
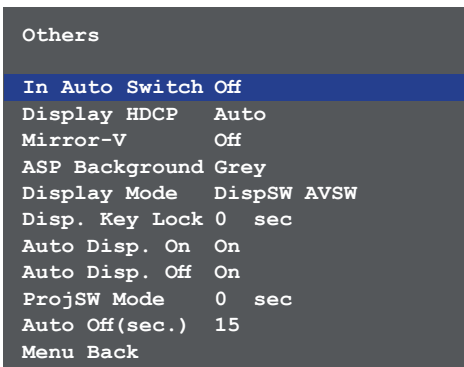


Solution Setup and Configuration Guide

- Press and release the **VOL DN** button until the **Others** menu is highlighted in blue.



- Press and release the **MENU** button to enter the **Others** menu. The **In Auto Switch** option will be highlighted in blue.
- Press and release the **MENU** button. The **In Auto Switch** text will be displayed in green, indicating that the option can be changed.
- Press and release the **VOL DN** buttons to change the value to the **On** setting.



- Press and release the **MENU** button to commit changes. The **In Auto Switch** option will be displayed in white.
- Highlight the **Menu Back** option, then press the **MENU** button to return to the **Main Menu**.
- Select the **Menu Exit** option, in the **Main Menu**, and press and release the **MENU** button to exit the menu system.

Display Control

The AT-HDVS-150-RX features a control interface which can be used to program connected transmitters, allowing them to power-on/off displays as well as adjust the appearance of the output image.

In order to configure display control, the control software should be downloaded and installed. The control software is available for download, under the AT-HDVS-150-RX page on the Atlona web site, and supports programming of the following transmitters.

Supported Transmitters

AT-HDVS-150-TX	AT-HDVS-150-TX-WP	AT-HDVS-150-TX-WP-UK
----------------	-------------------	----------------------

Installing the Software

1. Download the control software from the Atlona web site.
 - a. Go to <http://atlona.com/product/at-hdvs-150-rx/>.
 - b. Scroll down the page and locate the **Resources** tab.
 - c. Click on the **Control Software Version** hyperlink to begin downloading the software.
2. Extract the files from the .zip file.
3. Double-click the setup.exe to run the installation wizard. Follow the directions on each screen to install the software.



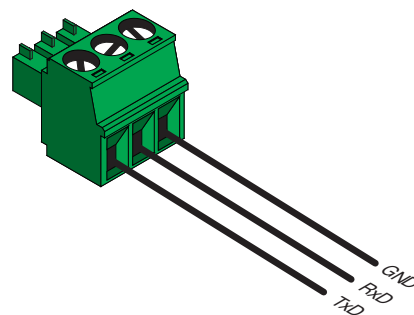
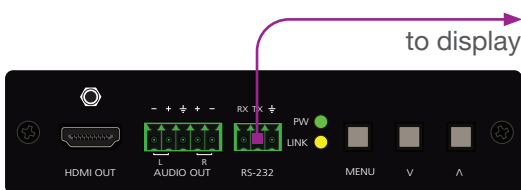
IMPORTANT: Note the folder/directory where the control software is being installed on the computer. This information will be necessary, later. The default installation directory is \Program Files (x86)\AT_HDVS_RX.

Connecting RS-232

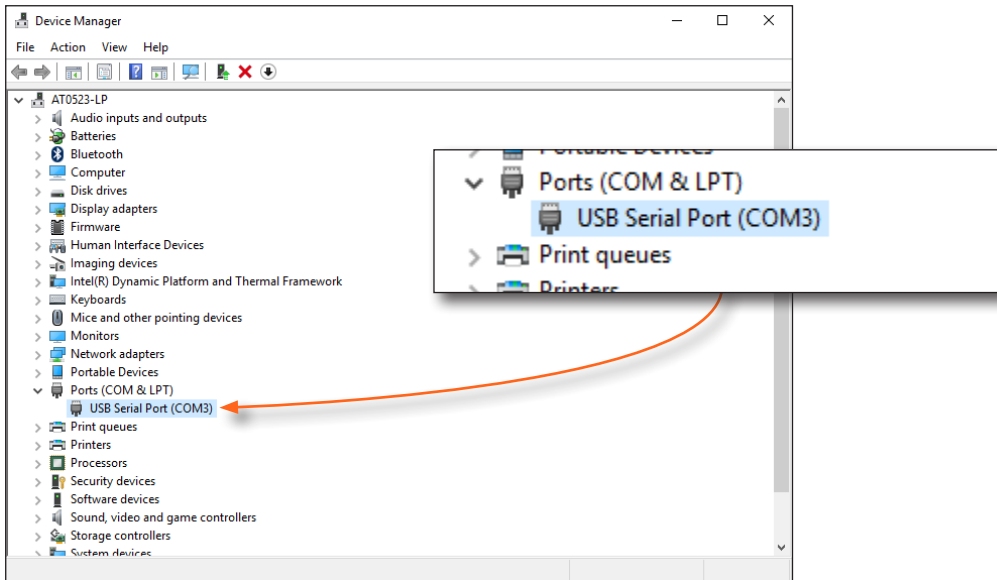
1. Connect a serial cable from the **RS-232** port on the AT-HDVS-150-RX, to the RS-232 port on the display. The included 3-pin captive screw connector should be wired as shown. If a DE-9 port is not available on the computer, a DE-9 to USB cable may be used.



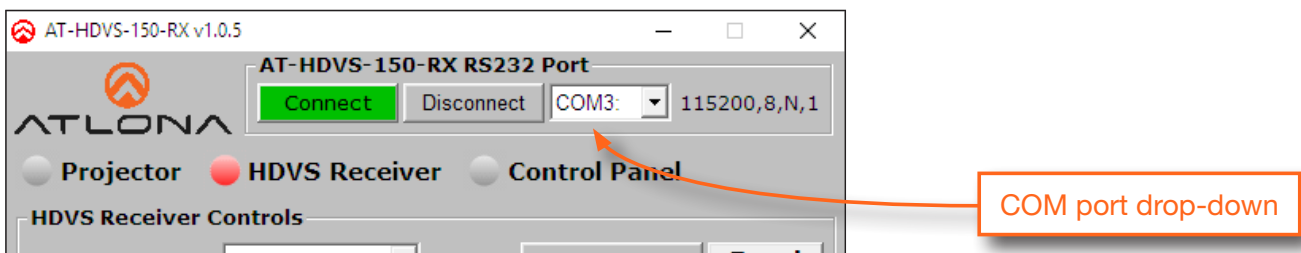
NOTE: DE-9 to USB cables usually require a driver. Refer to any documentation that was provided with the cable to ensure correct functionality.



- Go to the Windows Device Manager and verify the installed COM port, under Ports (COM & LPT).

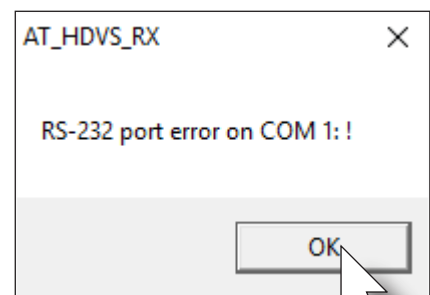


- If running **Windows 10**, perform the step 3a. Otherwise, continue with step 4.
 - Install the **gulim.ttc** font file by double-clicking it. This file must be installed, if running the software under Windows 10.
- Open Windows Explorer and locate the folder/directory where the AT-HDVS-150-RX Control Software is installed. The default installation directory is \Program Files (x86)\AT_HDVS_RX.
- Double-click the **AT_HDVS_150_RX_AP.exe** file to launch the control software and select the correct COM port from the COM port drop-down list.



If a message box, similar to the following, is displayed, then click the **OK** button and check the following:

- The incorrect COM port is selected in the control software. Select another COM port from the drop-down list, next to the Connect and Disconnect buttons.
- Windows was unable to install the COM port. Check the connection between the computer and the AT-HDVS-150-RX. In addition, verify that the captive screw terminal block is wired correctly to the DE-9 interface. After verifying the connection, check that the COM port is available under the Device Manager. If the problem persists, contact an Atlona Technical Support Engineer for assistance.

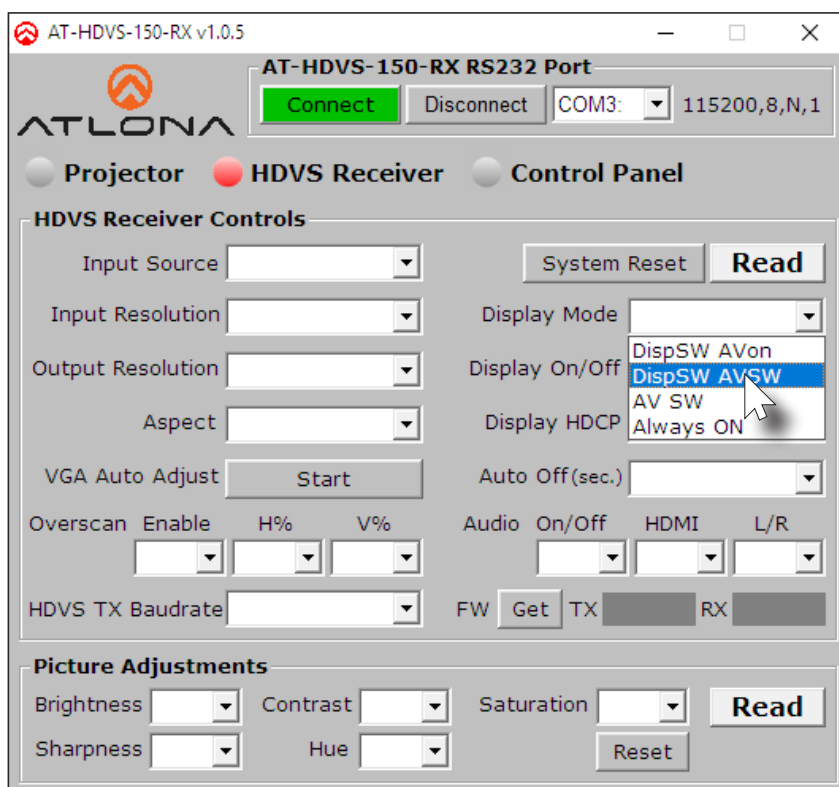


Programming the AT-HDVS-150-RX

Once the control software is running, it can be used to program the AT-HDVS-150-RX to affect the behavior of the connected display. For example, the display can automatically be turned on, when the source device is turned on. Conversely, when the source is turned off (or disconnected), then display is automatically turned off.

Controlling Display Power

1. Click the **Display Mode** drop-down list, in the control software.
2. Select the desired mode. In this example, **DispSW AVSW** is selected. This will instruct the display to “follow” the power-on / power-off state of the source device.
3. Refer to the table below, for a list of available settings and a brief description.
4. Refer to the AT-HDVS-150-RX User Manual for more information on other settings.



Setting	Description
DispSW AVon	Turns the display on or off; the source is unaffected.
DispSW AVSW	Display switches on/off, source audio/video signal switches on/off.
AV SW	Display is always on, source audio/video signal switches on/off
Always ON	Pressing the DISPLAY button will have no affect on the display or the source.

Projector Control

If a projector is being controlled by the AT-HDVS-150-RX, then click the **Projector** radio button in the top-portion of the screen, as shown below. This section of the control software is similar to the HDVS Receiver section. In addition, this area also provides two fields for RS-232 “Display On” and “Display Off” commands.

1. Click the **Projector** radio button in the top-portion of the screen.
2. Click the Read button to fetch the RS-232 settings from the projector’s RS-232 port. The **Baud Rate**, **Data Bit**, **Parity**, and **Stop Bit** fields will be filled in automatically.

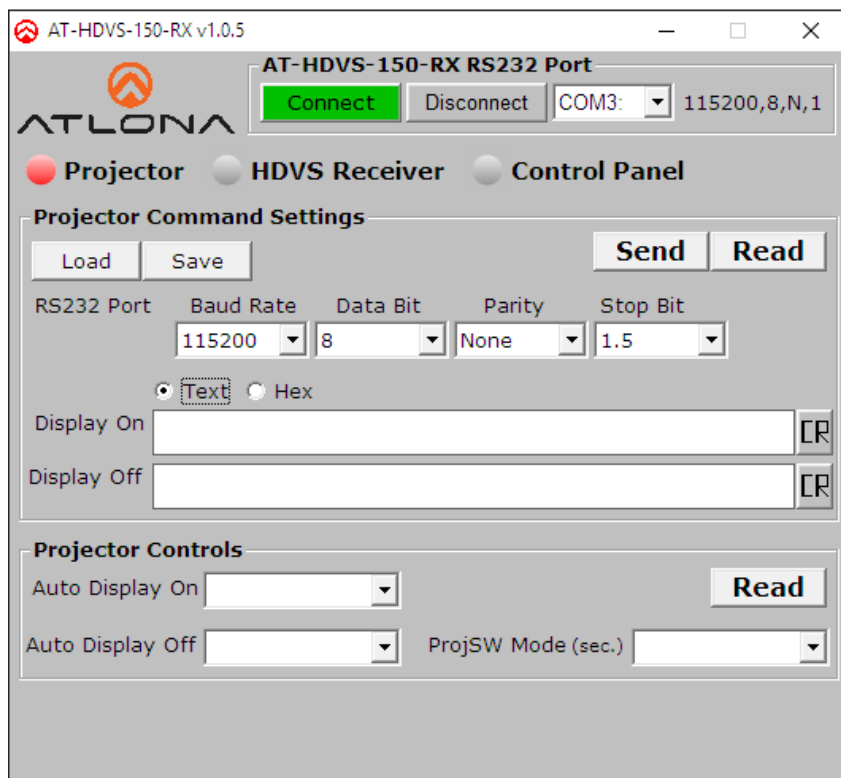


NOTE: If the RS-232 command cannot be read from the projector system, the **Baud Rate**, **Data Bit**, **Parity**, and **Stop Bit** fields will need to be entered manually. Click each of the drop-down lists to specify the required values.

3. Once the projector’s RS-232 settings are known, they can be saved to a local .ini file. Click the **Save** button to save the RS-232 settings to the desired file. It is recommended that the name of the file be descriptive of the projector manufacturer / model. This way, if multiple projectors are used, the proper file can be loaded.
4. Click on the **Text** or **Hex** radio button to specify the type of command string that will be sent to the projector. Refer to the projector’s User Manual for a list of commands.
5. Enter the command for the “display on” and “display off” in the **Display On** and **Display Off** fields, respectively.

An example of a power-on command, might be:

```
PWON // text format
BEEF030600BAD20100006001000D // hex format
```



The screenshot shows the AT-HDVS-150-RX v1.0.5 software interface. At the top, there is a title bar and a window title "AT-HDVS-150-RX RS232 Port". Below the title bar, there is a "Connect" button (highlighted in green) and a "Disconnect" button. To the right, there is a "COM3:" dropdown menu and the text "115200,8,N,1".

Below the connection controls, there are three radio buttons: "Projector" (selected), "HDVS Receiver", and "Control Panel".

The "Projector Command Settings" section contains a "Load" button, a "Save" button, and "Send" and "Read" buttons. Below these are five dropdown menus for "RS232 Port", "Baud Rate" (set to 115200), "Data Bit" (set to 8), "Parity" (set to None), and "Stop Bit" (set to 1.5). There are two radio buttons for "Text" (selected) and "Hex". Below these are two text input fields for "Display On" and "Display Off", each with a "CR" button to its right.

The "Projector Controls" section contains two dropdown menus for "Auto Display On" and "Auto Display Off", and a "ProjSW Mode (sec.)" dropdown menu. A "Read" button is located to the right of the "Auto Display On" dropdown.

Solution Setup and Configuration Guide

- Once the proper command strings have been entered, refer to the tables below for information on setting the Auto Display On and Auto Display Off features.

Auto Display On

Click this drop-down list to select when the display will be powered-on, based on the detection of a source.

Setting	Description
On	Powers-on the display when a source is detected.
Off	Display is not powered-on when a signal is detected.

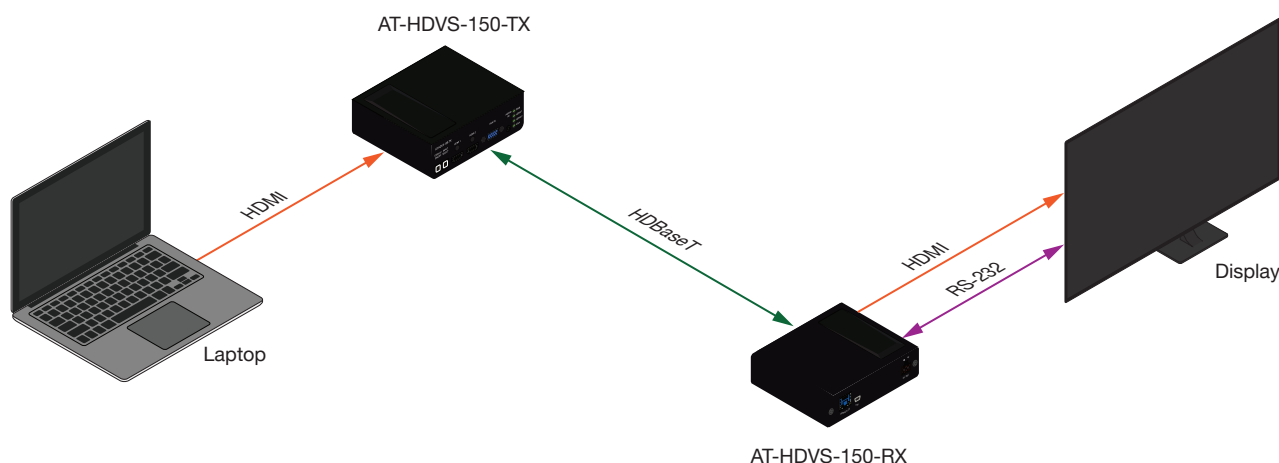
Auto Display Off

Click this drop-down list to select when the display will be powered-off, based on the detection of a source.

Setting	Description
On	Power-off the display when no signal is detected for the time interval specified in the ProjSW Mode (sec.) drop down list.
Off	Display is not powered-off when no signal is detected.

Connecting the AT-HDVS-150-RX to the Display

Once programming is completed, connect the RS-232 cable from the AT-HDVS-150-RX to the RS-232 port on the display or projector device, as shown in the illustration below. The display / projector will now function based on the programming which was performed in the control software. If a change to the display behavior is desired, then disconnect the RS-232 cable from the display, reconnect the RS-232 computer to the AT-HDVS-150-RX, launch the control software, and make the necessary changes.



Appendix

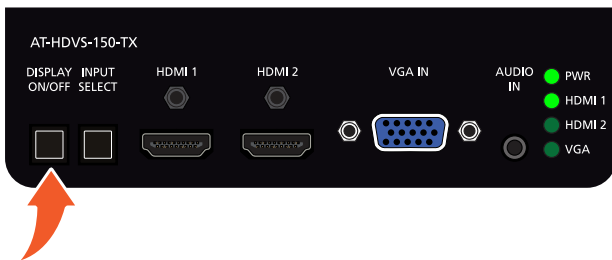
Updating the Firmware

The following procedure is used for both the AT-HDVS-150-TX and the AT-HDVS-150-TX-PSK. The firmware file for the AT-HDVS-150-TX is used for both models.

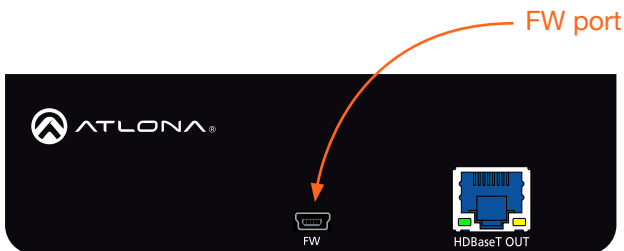
Requirements

- AT-HDVS-150-TX or AT-HDVS-150-TX-PSK
- Firmware file: AT-HDVS-150-TX_[version].bin
- USB Type A to Mini-USB Type B cable
- Computer with USB port

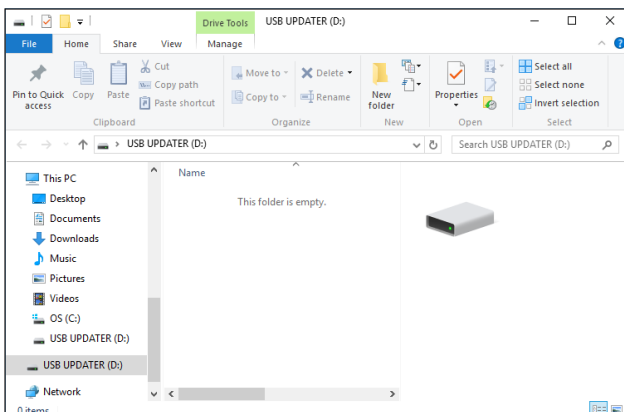
1. Download the latest firmware from the Atlona web site.
2. Disconnect the power to the AT-HDVS-150-TX by disconnecting the Ethernet cable from the **HDBaseT OUT** port on the AT-HDVS-150-TX.
3. Press and hold the **DISPLAY ON/OFF** button.



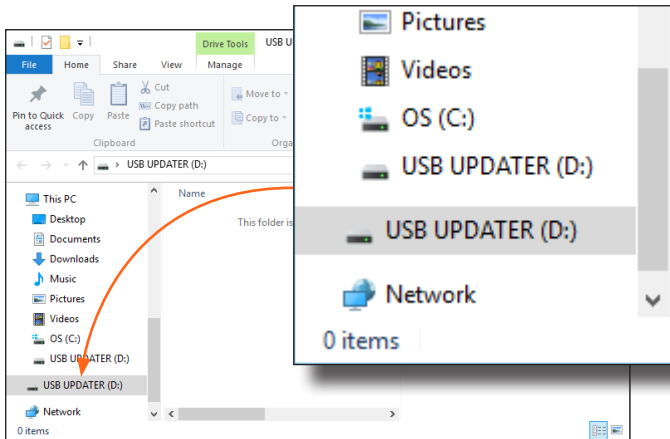
4. While pressing the **DISPLAY ON/OFF** button, connect the USB cable from the computer to the **FW** port on the AT-HDVS-150-TX. When the USB cable is connected, the **PWR** LED indicator will glow solid green.



5. After a few seconds, a folder with the name USB UPDATER, will be displayed. Release the **DISPLAY ON/OFF** button.



If the folder is not displayed, open Windows Explorer and locate the drive named USB UPDATER.



7. Delete all files from the USB drive, if any are present.
8. Drag-and-drop the `AT-HDVS-150-TX_[version].bin` firmware file to the drive.
9. After the file has been copied, disconnect the USB cable from both the computer and the AT-HDVS-150-TX.
10. Reconnect the Ethernet cable to the **HDBaseT OUT** port on the AT-HDVS-150-TX.
11. The update process is complete.

Specifications

Video	
HD/SD	4096x2160@24/25/30/50*/60Hz*, 3840x2160@24/25/30/50*/60Hz* (UHD), 2048x1080p, 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	2560x2048, 2560x1600, 2048x1536, 1920x1200, 1680x1050, 1600x1200, 1600x900, 1440x900, 1400x1050, 1366x768, 1360x768, 1280x1024, 1280x800, 1280x768, 1152x864, 1024x768, 800x600, 640x480
Color Space	YUV, RGB
Chroma Subsampling	4:4:4, 4:2:2, 4:2:0*
Color Depth	8-bit, 10-bit, 12-bit

*4096x2160 @ 50/60 Hz and 3840x2160 @ 50/60 Hz supports 8-bit 4:2:0 chroma subsampling, only.

Audio	
Analog In	PCM 2Ch
HDMI In / HDBaseT Out	PCM 2Ch
Sample Rate	32 kHz, 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz, 176.4 kHz, 192 kHz
Bit Rate	24-bit (max.)

Resolution / Distance	4K/UHD - Feet / Meters		1080p - Feet / Meters	
HDMI	15	5	30	10
CAT-5e / CAT-6	115	35	197	60
CAT-6a / CAT-7	130	40	230	70

Signal	
Bandwidth	10.2 Gbps
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	AT-HDVS-150-TX	AT-HDVS-150-TX-PSK
Consumption	18.7 W (when paired)	18.7 W (when paired)
Idle Consumption	N/A	22 W
Supply	N/A	Input: 100 - 240 V AC, 50/60 Hz Output: 48 V DC, 3.125 A

Dimensions	Inches	Millimeters
H x W x D	1.50 x 5.00 x 4.02	38 x 127 x 102

Weight	Pounds	Kilograms
Device	5.16	2.34

Certification	
Unit	CE, FCC

Index

A

Audio

- AUDIO IN*
 - port 9
 - passing analog audio 14

Auto-switching 15

C

Connection

- diagram 10
- instructions 10

Contents

- package 8
- table of 7

Control software

- installation 17

Customer support 3

D

DC 48V

- port 9

Display

- control 17
- DISPLAY ON/OFF button 9

F

FCC statement 6

Features 8

Firmware

- FW port 9
- updating 22

H

HDBaseT OUT

- port 9

HDMI 1

- port 9

HDMI 2

- indicator 9
- port 9

I

INPUT SELECT

- button 9

Installation 10

O

Operating notes 3

P

Power

- port 9
- PWR
 - indicator 9

R

Resolutions

- supported 24

RS-232

- control, display 17

S

Safety information 6

Specifications 24

Switching

- auto 15

T

Transmitters

- supported 17

W

Warranty 4

