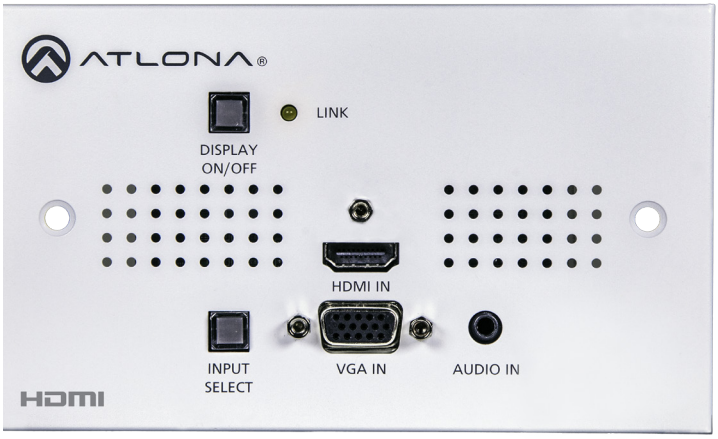
Two-Input
Wall Plate Switcher for HDMI and VGA
with HDBaseT™ Output



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

Atlona Manuals
Extenders

Version Information

Version	Release Date	Notes
2	Apr 2024	Updated warranty information; new color format

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Operating Notes

As of this writing, there are no firmware updates for this product. When new firmware is released, update instructions will be included with the firmware and will be appended to this manual.

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

Warranty

To view the product warranty, use the following link or QR code:

https://atlona.com/warranty/.

Safety and Certification

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 Compliance

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.

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Introduction

The Atlona AT-HDVS-150-TX-WP is a 2×1 switcher and HDBaseT transmitter with an HDMI input plus a VGA input with audio. The HDVS-150-TX-WP features a US two-gang wall plate form factor. Video signals up to 1080p, plus embedded audio can be transmitted up to 230 feet (70 meters). The HDVS-150-TX-WP is designed for use with the AT-HDVS-150-RX receiver and HD scaler, and can serve as the central component of a compact, automated AV system with the convenience of automatic input selection and display control. The switcher is remotely powered by the HDVS-150-RX through Power over Ethernet (PoE).

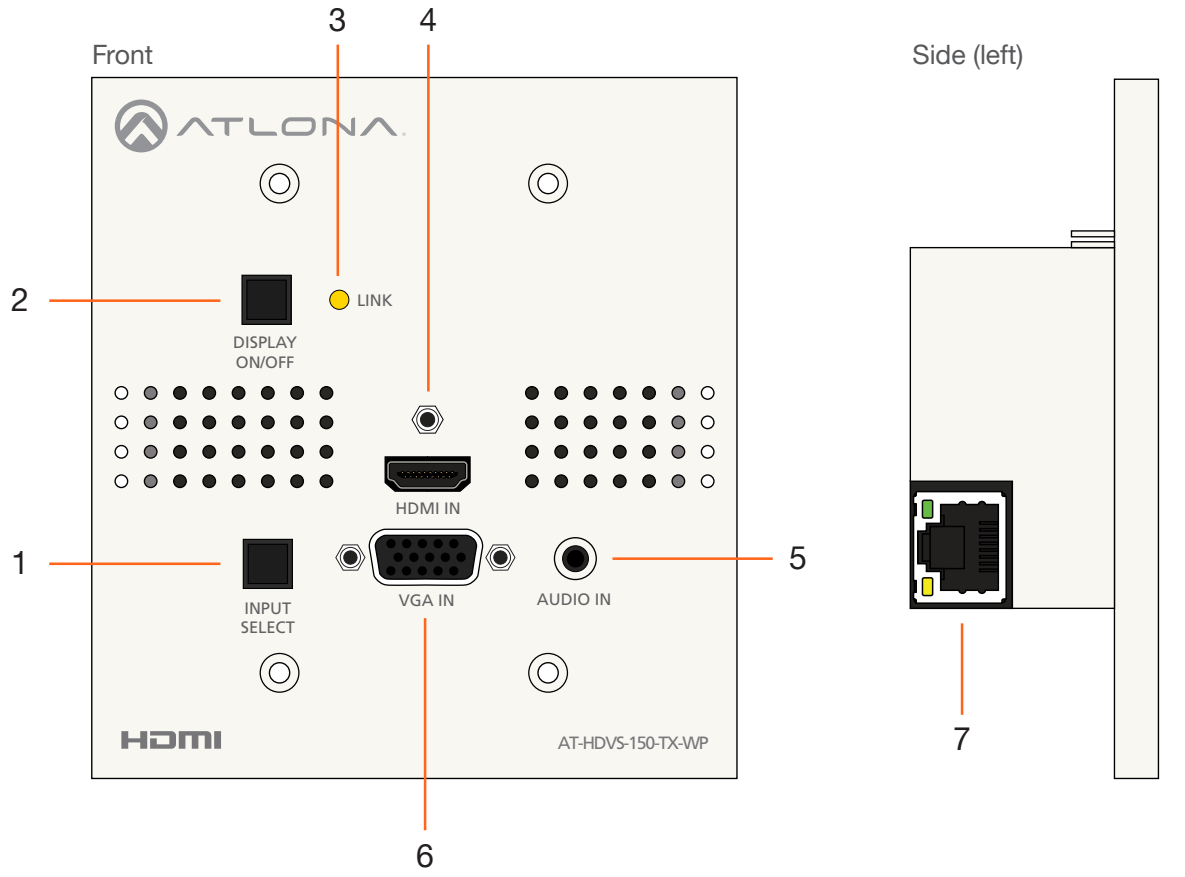
Features

- Extends AV up to 230 feet (70 meters) @ 1080p or 1920×1200.
- Transmits AV up to 230 feet (70 meters) @ 1080p or 130 feet (40 meters) @ 4K/UHD* using CAT6a/7 cable.
- HDMI input plus a VGA input with audio.
- Allows advanced HDMI display devices to be used with legacy VGA sources
- Power for transmitter is supplied by AT-HDVS-150-RX over HDBaseT.
- Shallow, 1.5 inch (40 mm) deep enclosure and recessed RJ-45 connector simplify integration.
- Selects active input when sources are connected or if there is a change in source power status.
- LED indicators provide power and input selection status information
- USB port provides an easy means for device updates.

Package Contents

1 x AT-HDVS-150-TX-WP
1 x Wall plate covers (US)
4 x US wall plate screws
2 x UK wall plate screws
1 x Installation guide

Panel Description



1 **INPUT SELECT**
Press this button to switch between **HDMI IN** and **VGA IN** port. By default, **HDMI IN** is selected port. This button will glow bright blue when the wall plate is powered.

2 **DISPLAY ON/OFF**
Press this button to power-on the display (connected to the receiver), place it in standby mode, or control a connected display using the HDBaseT output.

3 **LINK**
This LED indicator will glow bright amber when a powered link exists between the AT-HDVS-150-TX-WP and a compatible receiver, such as the AT-HDVS-150-RX.

4 **HDMI IN**
Connect an HDMI cable from this port to an HD source.

5 **AUDIO IN**
Connect a 3.5mm mini-stereo audio cable, from an analog audio source, to this port. See Passing Analog Audio (page 11) for more information.

6 **VGA IN**
Connect a VGA cable from this port to a VGA source.

7 **HDBaseT OUT**
Connect an Ethernet cable from this port to a compaibile HDBaseT receiver, such as an AT-HDVS-150-RX.

Installation

Connection Instructions

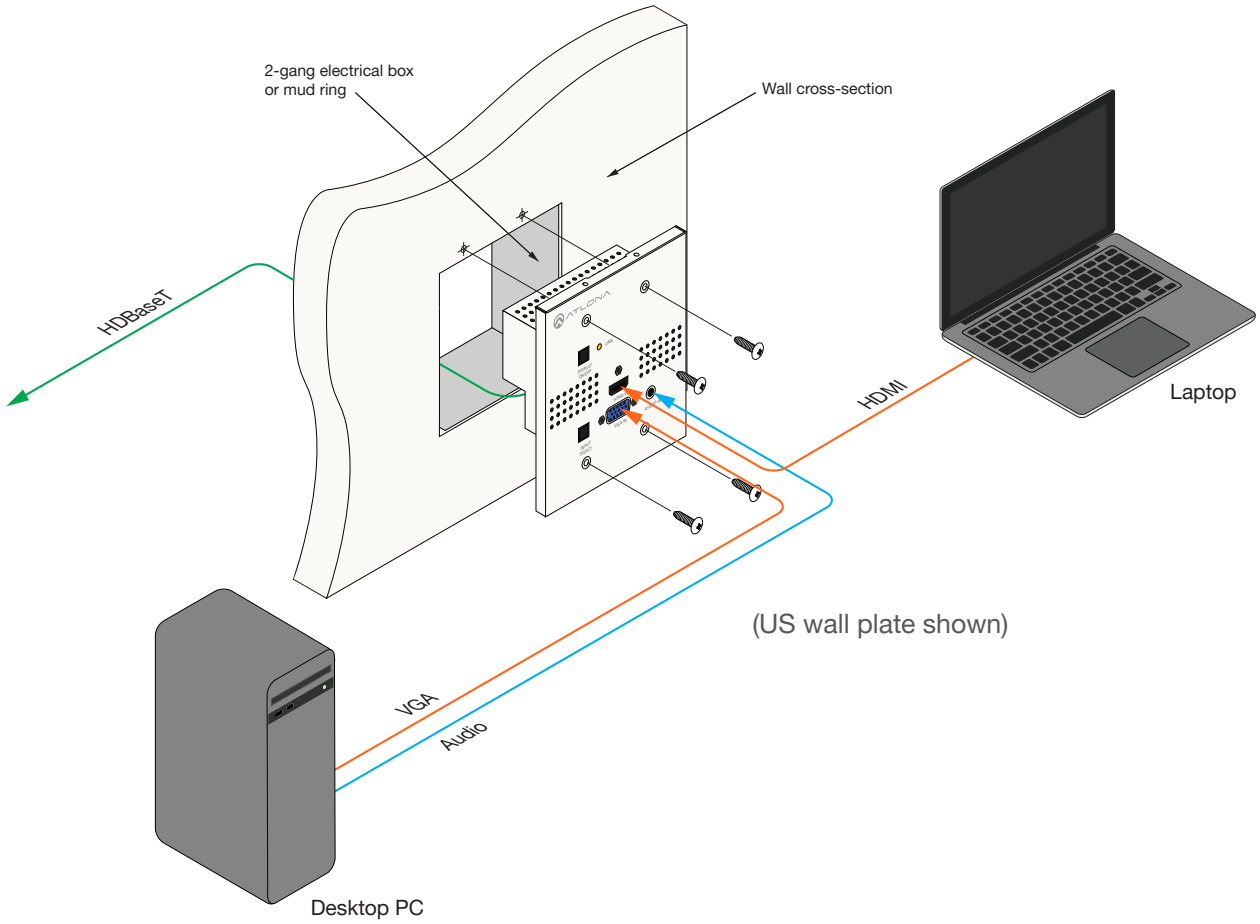
NOTE: Although the wall installation of the US and UK version will differ, the following connection instructions apply to both the AT-HDVS-150-TX-WP and AT-HDVS-150-TX-WP-UK.

1. Connect an Ethernet cable, up to 230 feet (70 meters), from the **HDBaseT OUT** port, on the back of the wall plate, to an HDBaseT-compatible receiver (not included). Ethernet cables should use EIA/TIA-568B termination.
2. Assemble the AT-HDVS-150-TX-WP to the 2-gang electrical box or mud ring using the included screws. When installing into an electrical box, the depth of the box must provide at least 40 millimeters of clearance.
   - **US version**
     Secure the wall plate with the four (included) shorter screws.
   - **UK version**
     Secure the wall plate with the two (included) longer screws.
3. Connect an HDMI cable from the HD source to the **HDMI IN** port on the wall plate.
4. Connect a VGA cable from a VGA source to the **VGA IN** port on the wall plate.
5. 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. Refer to Passing Analog Audio (page 11) for more information.

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

Connection Diagram

NOTE: Although the wall installation of the US and UK version will differ, the following connection diagram applies to both the AT-HDVS-150-TX-WP and AT-HDVS-150-TX-WP-UK.



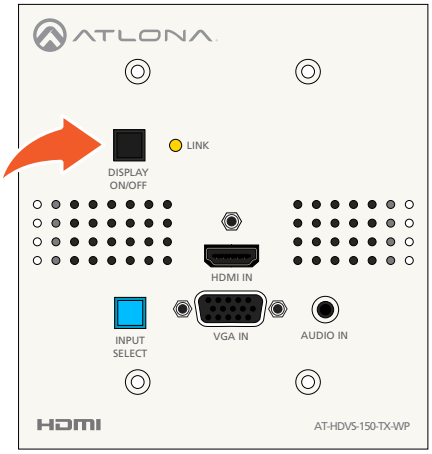
Basic Operation

Powering the Display

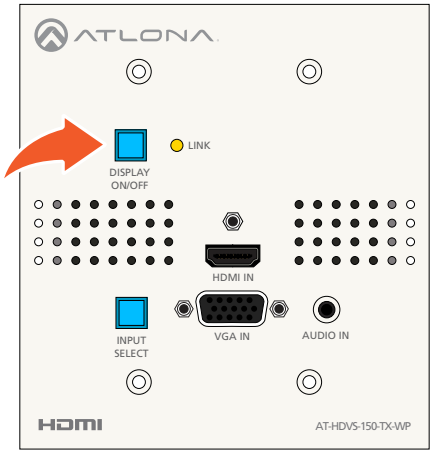
NOTE: The following functionality and operation applies to both the AT-HDVS-150-TX-WP and AT-HDVS-150-TX-WP-UK.

When the AT-HDVS-150-TX-WP is connected to a compatible receiver and display, press the **DISPLAY ON/OFF** button to toggle the display's power state. When connected to a compatible Atlona receiver, the functionality of this button can be customized. Refer to the receiver's User Manual for more information.

Display powered on



Display powered off



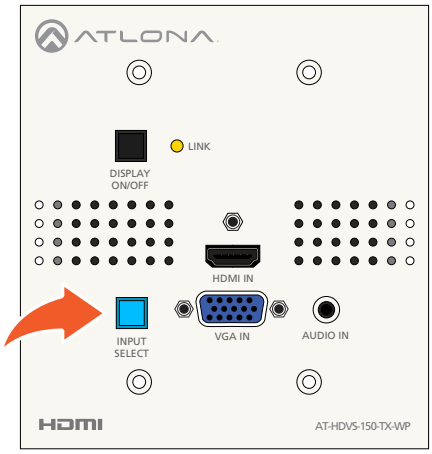
NOTE: When the display is in the "off" state, the **DISPLAY ON/OFF** button will glow bright blue. This functionality is added to assist in locating the wall plate in a darkened room.

Selecting the Input

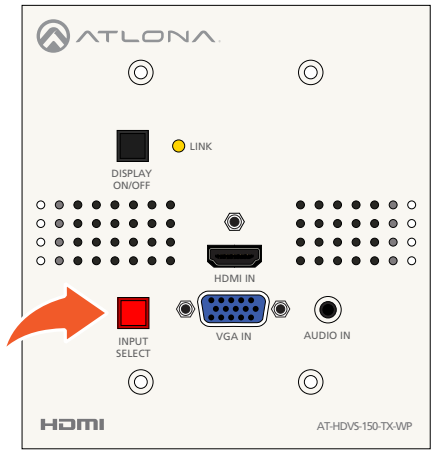
The **INPUT SELECT** button uses a bi-color LED to indicate the currently selected input. If power is interrupted to the wall plate, for any reason, the wall plate will always retain the last selected input. **HDMI IN** is the default input.

Press the **INPUT SELECT** button to toggle between **HDMI IN** and **VGA IN**. The color of the **INPUT SELECT** button will indicate which input is selected.

HDMI IN = blue



VGA IN = red



Auto Switching

The AT-HDVS-150-TX-WP will automatically switch to the most recently-connected or powered source. For example, if both an HDMI and VGA source are connected and then the HDMI source is disconnected, the wall plate will automatically switch to the **VGA IN** port. The default setting is OFF and can be set using a compatible receiver.

NOTE: Auto-switching is triggered by a Hot-Plug Detect (HPD) event. If HPD is not detected, then AT-HDVS-150-TX-WP will not switch inputs. VGA does not support HPD.

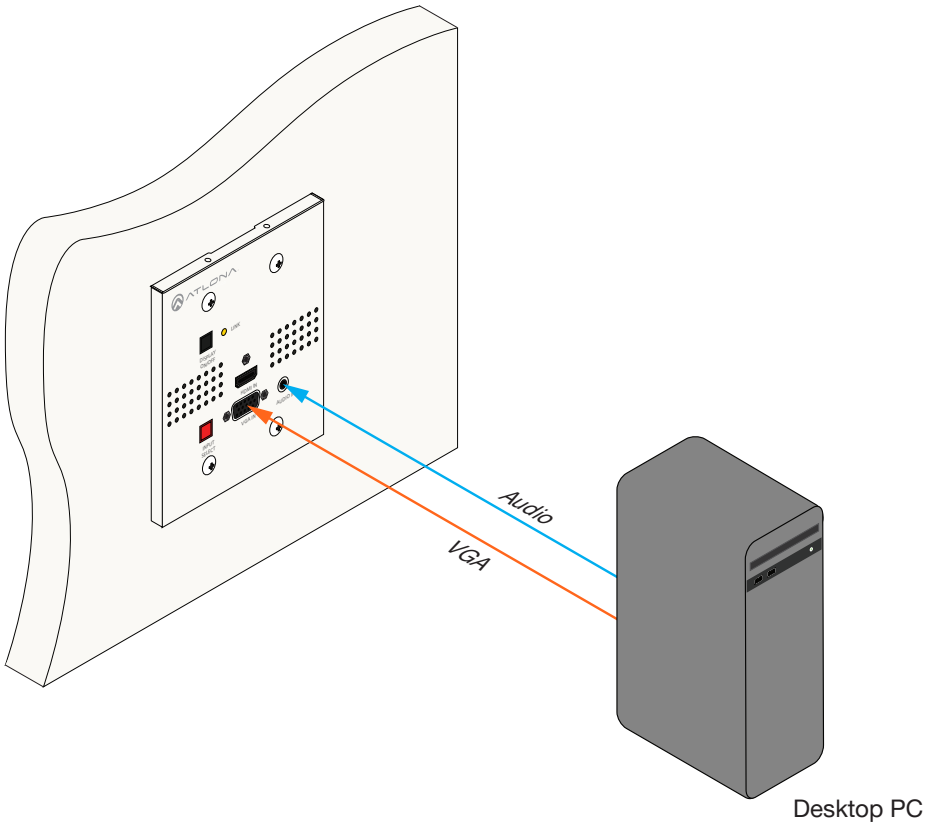
Passing Analog Audio

Two-channel analog audio can be added to 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 or passed without a video signal on the **VGA IN** port.

1. Connect a VGA source to the **VGA IN** port on the wall plate.
2. Connect a 3.5 mm mini-stereo cable from the **AUDIO IN** port to the analog audio source.
3. Make sure the **VGA IN** port is selected. When the **VGA IN** port is the active, the **INPUT SELECT** button will turn bright red.

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

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.



Appendix

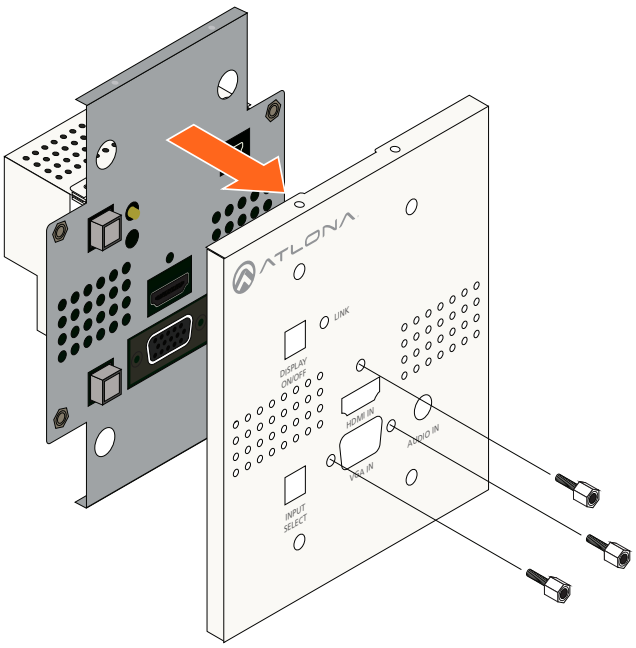
Updating the Firmware

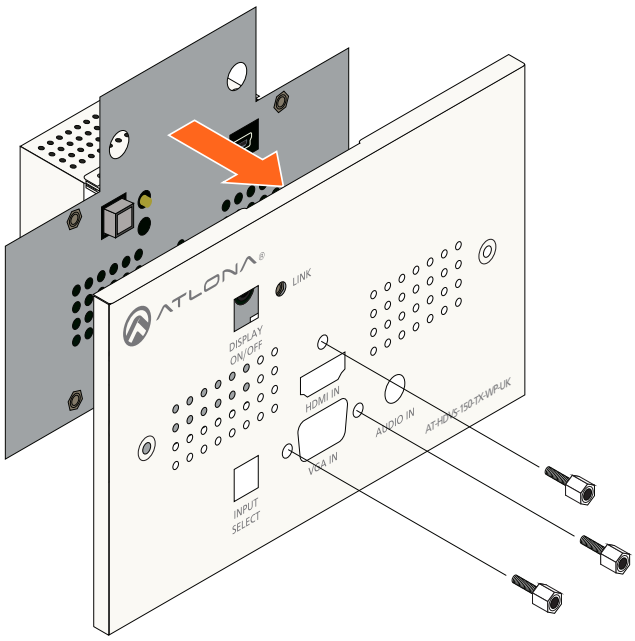
NOTE: The following firmware update procedure applies to both the AT-HDVS-150-TX-WP and AT-HDVS-150-TX-WP-UK.

Requirements

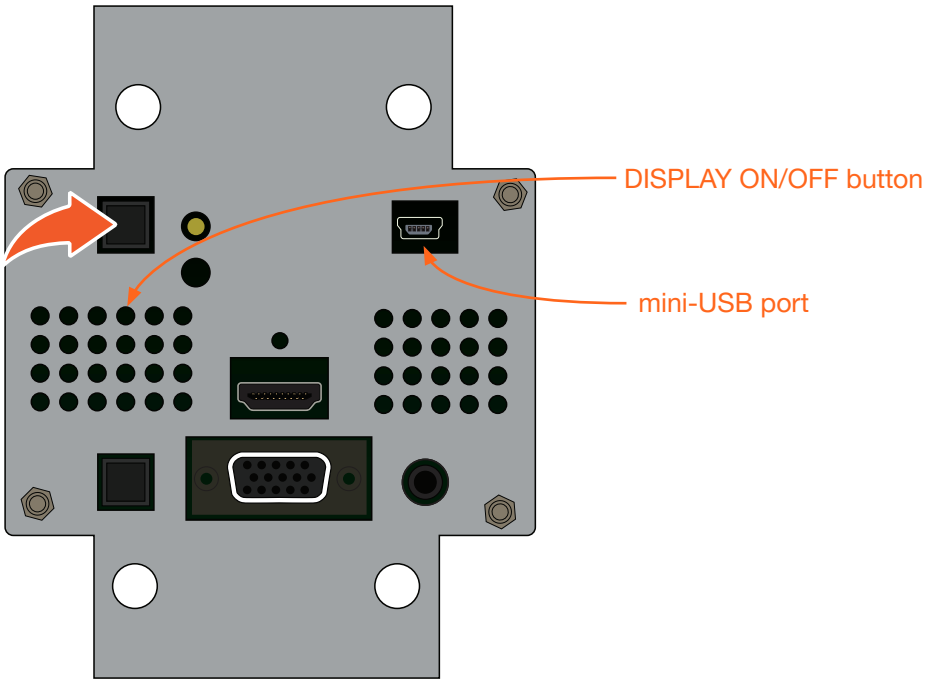
- AT-HDVS-150-TX-WP-US or AT-HDVS-150-TX-WP-UK
- Firmware file: AT-HDVS-150-TX_[version].bin
- USB Type A to Mini-USB Type B cable
- Computer with USB port

1. Download the latest firmware from the Atlona web site.
2. Remove the AT-HDVS-150-TX-WP from the wall, or other surface, by removing the four screws from the front of the wall plate.
3. Disconnect the power to the AT-HDVS-150-TX-WP by disconnecting the Ethernet cable from the **HDBaseT OUT** port on the AT-HDVS-150-TX-WP.
4. Remove the faceplate from the front of the AT-HDVS-150-TX-WP, by unscrewing the two locking connectors for the **VGA IN** port and the locking connector for the **HDMI IN** port, using a small hex driver or pliers.



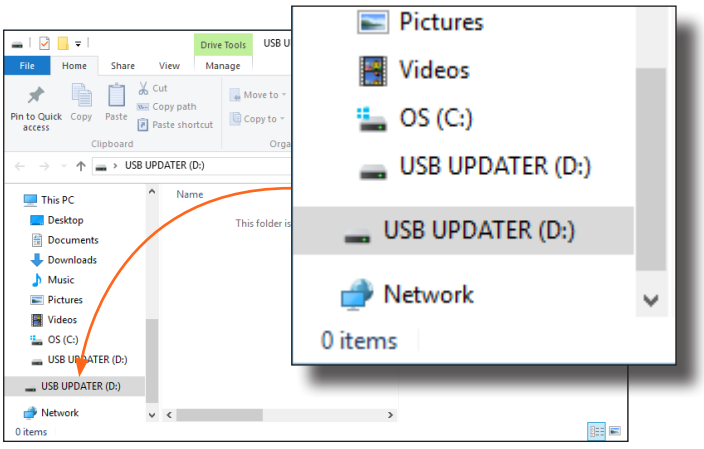


5. Press and hold the **DISPLAY ON/OFF** button, while connecting the USB cable from the computer to the mini-USB port on the AT-HDVS-150-TX-WP.



6. 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-WP.
10. Reconnect the Ethernet cable to the HDBaseT OUT port on the AT-HDVS-150-TX-WP.
11. The firmware update process is complete.
12. Attach the faceplate then reinstall the AT-HDVS-150-TX-WP.

Specifications

Video	
HD/SD	4096×2160@24/25/30/50[1]/60Hz[1], 3840×2160@24/25/30/50[1]/60Hz[1], 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	2560×2048, 2560×1600, 2048×1536, 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[1]
Color Depth	8-bit, 10-bit, 12-bit

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		
Consumption	18.7 W (when paired)	
BTU/h	63.77	

Dimensions	Inches	Millimeters
Wall, 2-gang	1.5	40

Weight	Pounds	Kilograms
Device	0.82	0.37

Certification		
Unit	CE, FCC	

Compliance		
NDAA-889	Yes	
TAA	Yes	

Warranty		
3 years	View the full warranty information here: https://atlona.com/warranty	

Footnotes

(1) 4096x2160 @ 50/60 Hz and 3840x2160 @ 50/60 Hz supports 8-bit 4:2:0 choma subsampling, only.