

# Atlona HDBaseT Distribution Amplifier Family

AT-HDCAT-4, 8, & 8ED (HDCAT-8ED pictured below)



## USER MANUAL

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## Introduction

The HDCAT allows you to send one source to multiple displays over long distances. With built in audio de-embedding, all audio needs are met in zone and locally. The Atlona HDBaseT HDMI® Distribution Amplifier over Single Category Cable extends audio and video signals up to 230ft (328ft with HDCAT-8ED).

## Package Contents

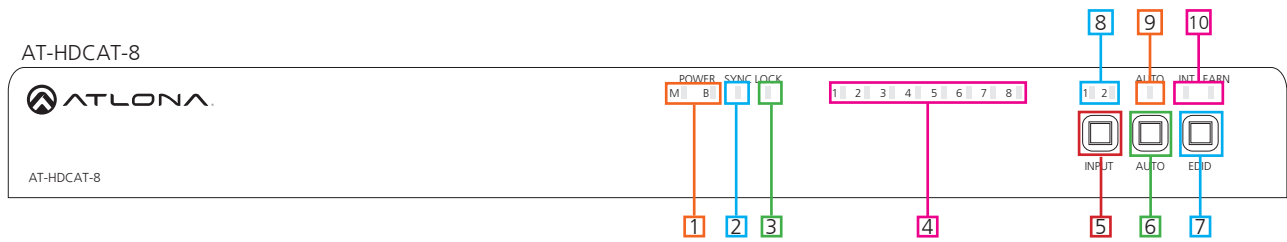
- 1 x AT-HDCAT
- 1 x Female Captive Screw Connector (5 pin for audio)
- 1 x 24V/6.25A DC power supply adaptor
- 1 x Pair of dual purpose wall/rack mounts
- 1 x User manual

## Features

- Extend a source at 1080p up to 230ft over a single category cable (receive up to 328ft with the HDCAT-8ED)
- Send a single source to multiple displays or HDCATs
- Two HDMI source inputs with smart auto switching feature
- EDID learning feature to ensure the best audio and video passed to a display
- Field serviceable firmware port for quick and easy updating
- Optional redundant power supply (AT-PW24V6.25A) provides uninterrupted power in the event of a main power supply failure
- Local HDMI output for in room display, AVR, or cascading to another HDCAT device
- Built in S/PDIF and Analog audio de-embedding, enables multi-channel or stereo audio to be transmitted to an AVR or amplifier
- Provides PoCc™ (Power over category cable) to compatible receivers
- Full 3D pass through
- Lossy and lossless audio formats pass through (up to Dolby TrueHD® and DTS-HD Master Audio™)
- HDCP compliant

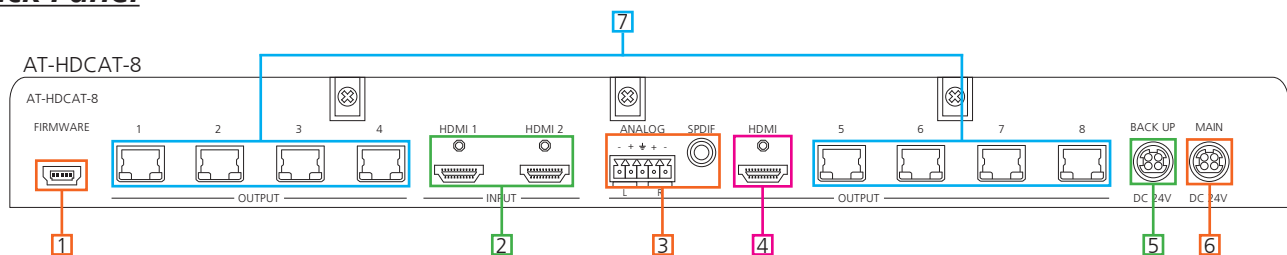
## Panel Description

### Front Panel



1. Power LED - Red LED will illuminate to display connected power supplies. M is main. B is back up.
2. Sync LED - Blue LED indicates it is receiving signal from the selected source.
3. Lock LED - When the function keys are locked the blue LED will illuminate  
Lock - Press the Input button and hold for 5 seconds. All function keys will lock.  
Unlock - Press the Input button and hold for 5 seconds. All function keys will unlock.
4. Output LED - Blue LED will light up for each output connected and sending signal.  
 \*Number of LEDs will vary by HDCAT device
5. Input Button - Press to manually switch between sources.
6. Auto Button - Press to activate or deactivate the smart switching feature.  
 \*\*This feature auto-detects incoming source signals and switches to the corresponding input
7. EDID Button - Press to switch between internal and learned EDID™ options.
8. HDMI® LED - Blue LED will illuminate to indicate the current active input.
9. Auto LED - Blue LED will light up when the auto switching feature is enabled.
10. INT/Learn LED - Blue LED will illuminate to indicate EDID operational status (INT or Learn).

### Back Panel

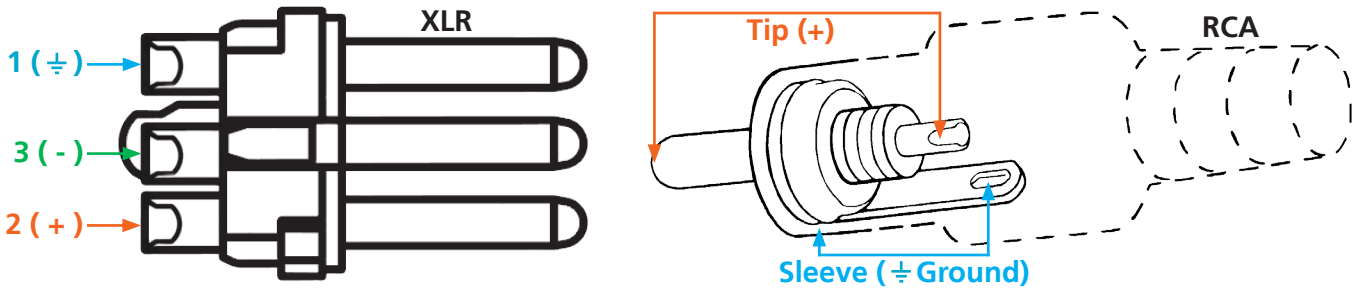


1. Firmware port - Field serviceable USB port for updating firmware.
2. HDMI input - Connect HDMI sources here
3. De-embedded audio - Connect audio from these ports to a local audio receiver or amplifier.
4. Local HDMI output - Local output for in room display, AVR, or HDCAT cascading.
5. Back up power port - Connect second optional power supply (AT-PW24V6.25A - sold separately)
6. Main power port - Connect main power supply to this port.
7. CAT5e/6/7 Output - Connect to a receiver (purchased separately @ atlona.com) to pass signals over extended distances.  
**Ex.** Optional receivers AT-HDRX for 230ft with all HDCAT products. For extended distance with the AT-HDCAT-8ED use AT-HDRX-RSNET (328ft)

## Analog Audio

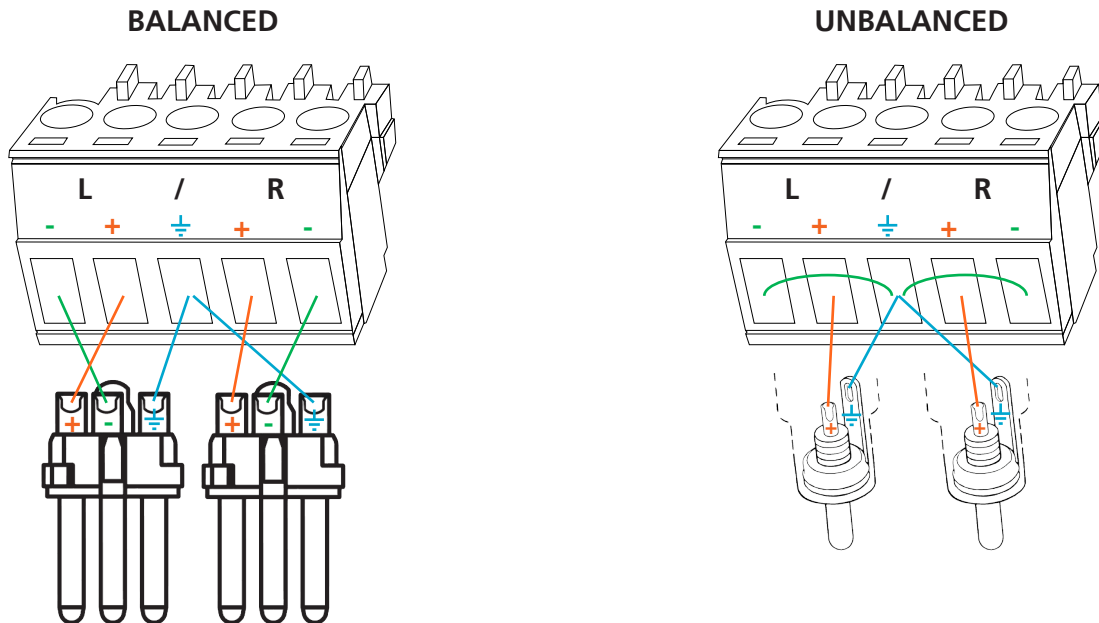
A captive screw analog audio connector is provided to ensure a more reliable and secure connection. The captive screw connector supports balanced and unbalanced audio output.

Balanced audio connections use two signal wires and a ground to minimize interference to an audio signal over longer cable runs. Unbalanced audio connections use two wires for connection with consumer audio components.



**Note:** Pin outs may vary, please refer to the audio device's manual to ensure a correct connection.

**Important!** When terminating cables, please ensure exposed adjacent wires do not touch. This may result in a short that can damage connected devices.

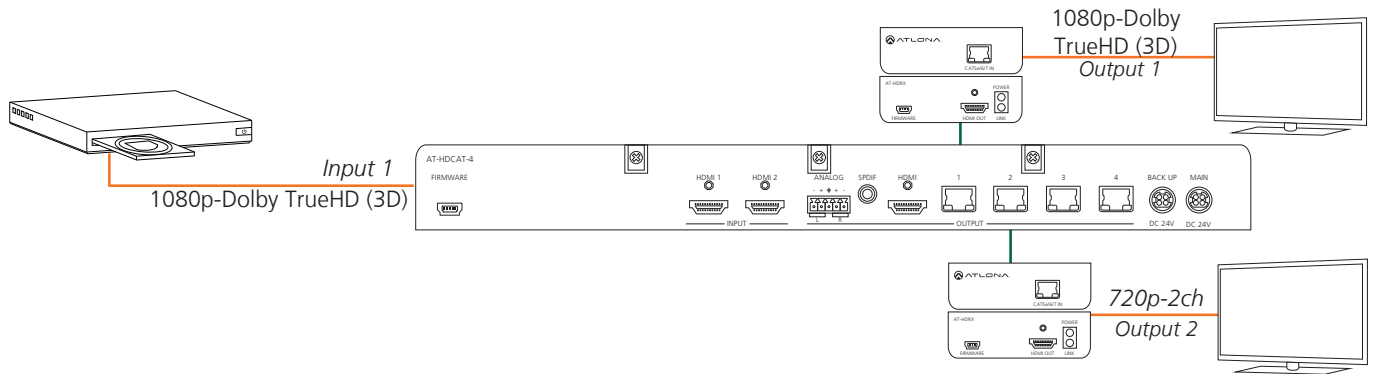


**Important!** With unbalanced connections a jumper is needed between ground and negative to reduce noise

## EDID

When the HDCAT is completely connected and turned on it will load the **Internal EDID™** automatically, which supports the highest common native video resolution and audio format of the devices.

**Example:** With a mix of resolutions and audio formats the HDCAT will default to the highest common video resolution and audio format. In the diagram below the default would be 720p with 2ch audio. **Multi-channel audio and 3D are not enabled on internal mode, unless all devices have these features.**



EDID learn will choose the highest common resolution and audio format between output 1 and the selected source. To learn a specific display's EDID it will need to be connected to output 1.

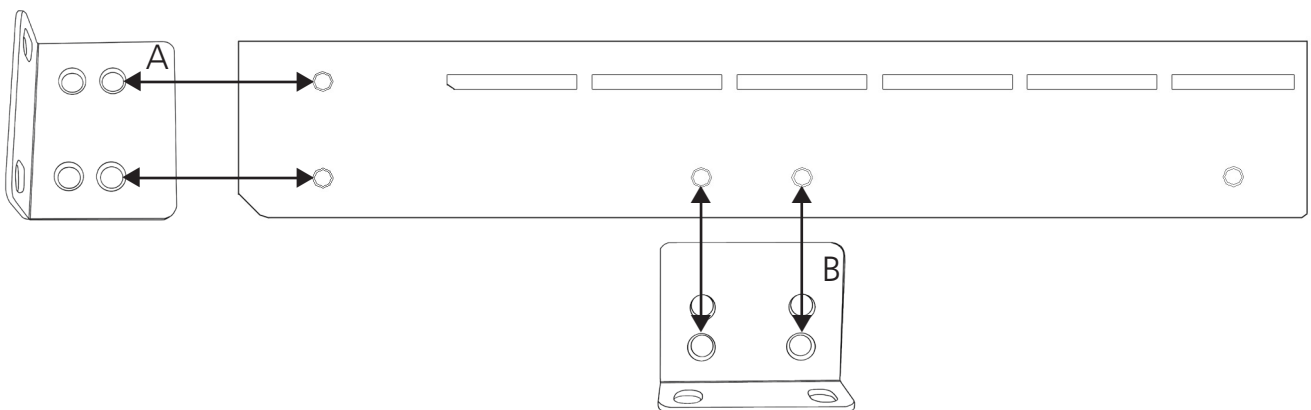
To learn EDID, press and hold the EDID button until the EDID learn LED starts flashing. Learning is completed once the LED is solid.

Note: Using the above diagram, output 2 will receive no audio or video once EDID is learned.

## Wall/Rack mounts

A pair of mounts ears have been included for quick and easy installation to a rack or wall.

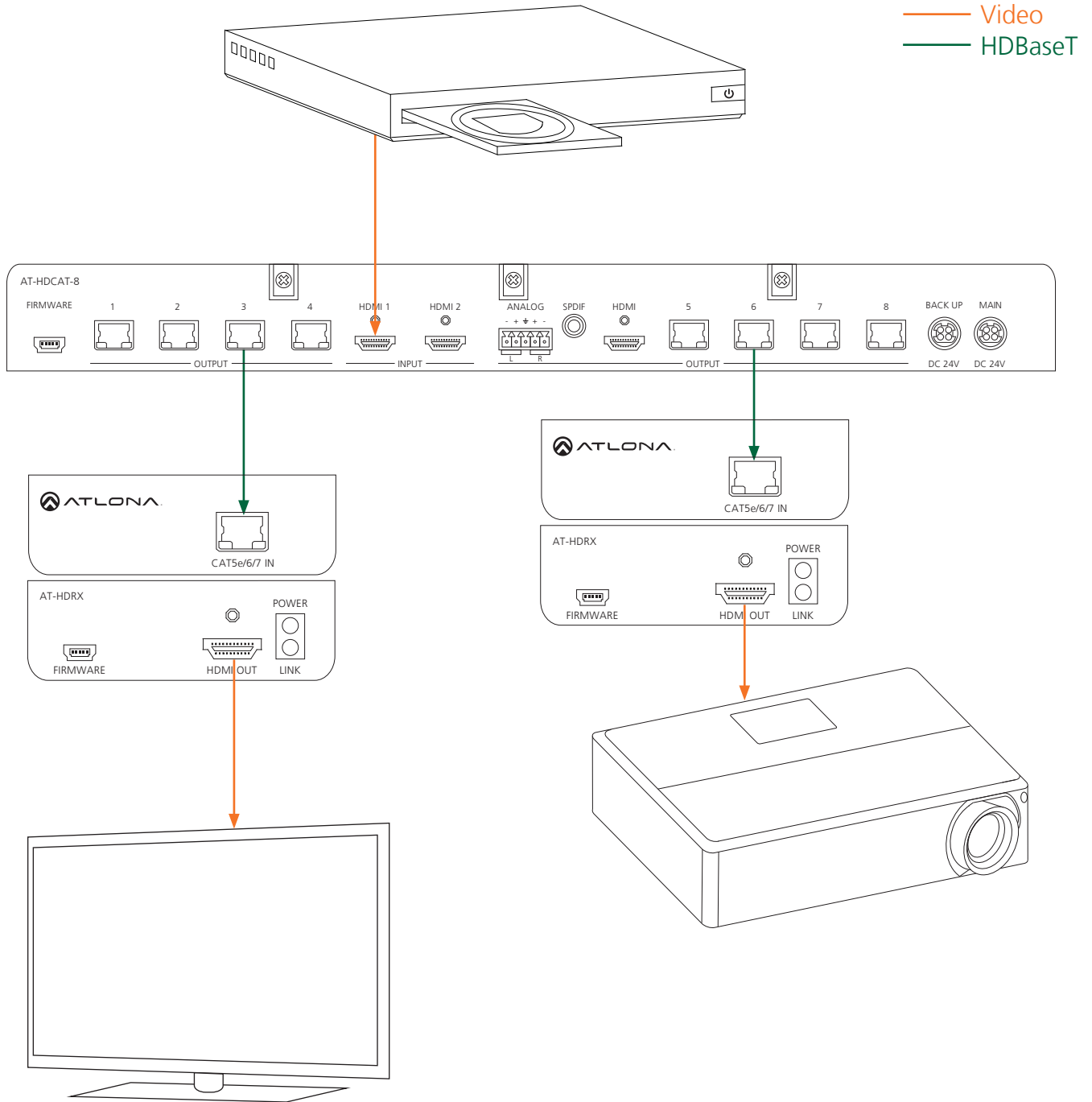
To install the HDCAT into a rack, use the front screws on the side of the case (A - pictured below)



To install the HDCAT onto a wall, use the bottom screws on the side of the case (B - pictured above)

## Connection and Installation

**Note:** Use optional receiver AT-HDRX for a distance of 230ft with all HDCAT products. For extended distance with the AT-HDCAT-8ED use AT-HDRX-RSNET (328ft).



## Specifications

### Resolutions

Video	480i, 480p, 576i, 576p, 720p50/59.94/60, 1080i50/59.94/60, 1080p23.98/24/25/29.97/30/50/59.94/60
VESA	640x480, 800x600, 1024x768, 1280x768, 1280x800, 1280x1024, 1366x768, 1400x1050, 1440x900, 1600x900, 1600x1200, 1680x1050, 1920x1200
Colorspace	RGB, YCbCr 4:4:4, YCbCr 4:2:2 (8-bit only)
Color depth	8-bit, 10-bit, 12-bit

### Audio

Formats	PCM 2, LPCM 5.1, LPCM 7.1, Dolby Digital, Dolby Digital+, Dolby TrueHD, DTS 5.1, DTS-HD Master Audio
Sample Rate	32KHz, 44.1KHz, 48KHz, 88.2KHz, 96KHz, 176.4KHz, 192KHz

### Distance

HDMI	10 meters (@12-bit)	30 feet (@12-bit)
HDMI	15 meters (@8-bit)	50 feet (@8-bit)
CAT5e/6 (4/8)	60 meters	197 feet
CAT6a/7 (4/8)	70 meters	230 feet
CAT5e/6/6a/7 (8ED)	100 meters	328 feet

### Signal

Bandwidth	6.75 Gbps
CEC	No
HDCP	Compliant

### Temperature

Operating	0°C to 40°C	32°F to 104°F
Storage	-20°C to 60°C	-4°F to 140°F
Humidity	20 to 90% non-condensing	

### Power

Consumption (4)	47W
Consumption (8/8ED)	93W
Supply	Input: AC100~240V 50/60Hz Output: DC 24V/6.25A

### Dimension

H x W x D	44 x 433.8 x 255 (mm)	1.73 x 17.08 x 10.04 (inch)
w/feet	55.15 x 433.8 x 255 (mm)	2.17 x 17.08 x 10.04 (inch)
Rack Size	1U	

### Weight

Device (4)	2.88 kg	6.35 lbs
Device (8/8ED)	2.95 kg	6.5 lbs
Shipping (4)	4.61 kg	10.17 lbs
Shipping (8/8ED)	5.13 kg	11.3 lbs

### Certification

Power Supply	CE, FCC, RoHS, cULus
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## Safety Information

### Safeguards



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



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



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



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

### Precautions

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

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

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

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

Avoid excessive humidity, sudden temperature changes or temperature extremes.

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

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

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

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

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

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

### Coverage

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

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

- A) repair or facilitate the repair of defective products within a reasonable period of time, restore products to their proper operating condition and return defective products free of any charge for necessary parts, labor and shipping
- OR**
- B) replace and return, free of charge, any defective products with direct replacement or with similar products deemed by Atlona to perform substantially the same function as the original products
- OR**
- C) refund the pro-rated value based on the remaining term of the warranty period, not to exceed MSRP, in cases where products are beyond repair and/or no direct or substantially similar replacement products exist.

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

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

### Coverage Periods

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

#### **Limited Product Warranty Terms – New Products**

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

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

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

### Remedy

Atlona recommends that end-purchasers contact their authorized Atlona dealer or reseller from whom they purchased their products. Atlona can also be contacted directly. Visit [www.atlona.com](http://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](http://www.atlona.com).

### Exclusions

This Limited Product Warranty excludes:

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

### **Disclaimers**

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

### **Limitation on Liability**

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

### **Exclusive Remedy**

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

### **Other Conditions**

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

## **Atlona, Inc Product Registration**

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

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

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

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