ATN Blaze Hunter Series

THERMAL MONOCULAR CAMERA



MANUAL





CAUTION!

THIS PRODUCT CONTAINS NATURAL RUBBER LATEX, WHICH MAY CAUSE ALLERGIC REACTIONS

The instructions in this manual are for informational use only and subject to change without notice. This manual is not to be construed as a commitment by ATN Corp.

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APPLICATION

The thermal monocular camera captures sharp thermal imaging at a fast frame rate for smooth, impeccable vision on running targets and from moving vehicles. Designed to increase situational awareness at any time of day, the camera can detect humans, animals, and objects in complete darkness, haze, or through glaring light, equipping law enforcement professionals, hunters, and outdoor enthusiasts with reliable thermal imaging in tough conditions. Featuring the laser range finder, the Camera can accurately measure the target distance. It is widely used in outdoor scenarios for hunting, rescue, animal observation, and more.

SPECIFICATIONS

Item	BlazeHunter 335	BlazeHunter 335 LRF	BlazeHunter 635	BlazeHunter 635 LRF	BlazeHunter 650 LRF
SKU	TIMNBLH335	TIMNBLH335LRF	TIMNBLH635	TIMNBLH635LRF	TIMNBLH650LRF
Sensor	384x288, 50 Hz, 12 μm, <18mK		640x512, 50 Hz, 12 μ		ım, <18mK
Lens		35 ו	mm		50 mm
Magnification	4-32x		2.5-20x		3.5-28x
Field of view	7.8 x 5.9		12.4 x 10		8.7 x 6.9
Display Resolution	OLED 1440×1080				
Eye relief	15 mm				
Color modes	White hot, Black hot, High red, Green hot, Sepia, Ironbow				
Battery type	Replaceable, rechargeable, type 18650				
Battery life	2 batteries included in the set, 7 h per battery, 14 h total				
Charging	Separate charger included in the set				
IP rating	IP67				
Human Detection Range	1800 m 2300 r			2300 m	
Operating Temperature	–30 °C to +50 °C –22 °F to +122 °F				
Dimensions	7.32" × 2.32" × 3.23" / 186 mm × 59 mm × 82 mm				
Weight	0.8 lb/360 g without battery	0.83 lb / 375 g without battery	0.8 lb/ 360 g without battery	0.83 lb / 375 g without battery	0.95 lb / 430 g without battery
Warranty	3 years				

* ATN reserves the right to change the above specifications at any time without notice.

PREPARING THE DEVICE

UNPACKING

The following steps must be performed before using the device:

- 1. Open packaging box, remove Blaze Hunter and check the contents.
 - Thermal monocular
 - Battery 2 pcs
 - Battery Charger
 - Camera Pouch
 - Type-C Cable
 - User manual
 - Lens cloth
 - Warranty card
- 2. Make sure that nothing is missing.
- 3. Inspect the device for damage to optical surfaces, body, eyecups, operation buttons, etc.
- 4. Ensure that all optical surfaces are clean and ready for use.

NOTE

If any accessories are missing or broken contact ATN's Customer Service at 1.800.910.2862.

CHARGING THE DEVICE

The start bar will display battery information after the Camera starts. When the battery is low, charge the Camera timely to make sure the normal function.

- When charging the Camera, keep the battery temperature 0 °C to +60 °C (+32 °F to +140 °F). Otherwise the charging function will be automatically disabled.
- Charge the Camera with the Type-C data cable that comes with the delivery.
- STEP 1. Open the sealing cover of the Type-C port when charging.

STEP 2. Connect the Type-C cable to the Type-C port to charge the Camera.

The charging indicator states:

- Red light on: charging.
- Green light on: fully charged.
- Off: not connected to data cable to charge.

ON/OFF

Press and hold the power button to start or shut down the Camera; press the power button to suspend or weak up the Camera.

NOTE

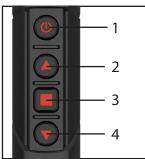
After starting the Camera, remove the protective cover of the lens.



When the Camera is off, press and hold the power button to start it. When the Camera is on, press and hold the power button to shut down it. When the Camera is on, press the power button to suspend the Camera/ When the Camera is in suspend mode, press the power button to weak up it.

INTERFACE

MAIN OPERATIONS



OPERATION WITH KEYPAD

1. POWER BUTTON

• Press and hold to start or shut down the Camera.

• Press to enable or disable the suspend mode.

2. UP BUTTON

- Press and hold to record videos.
- Press to capture images.

For devices with laser range finder:

- Press to enable the laser ranging mode.
- Press and hold to record videos.

CAUTION

Laser can cause damages to eyes. Do not look directly at the laser beam or observe the beam with optical devices when the laser is on.

NOTE

Make sure that you have set the laser ranging mode before enabling the function. For detail, see "Setting Laser Ranging".

The ranging function is only available when the distance is longer than 10 m.

3. MENU BUTTON

- Press and hold to enter the main menu.
- Press to select the color plates.
- 4. DOWN BUTTON
 - Press and hold to manually adjust the shutter.
 - Press for digital zoom.

UP BUTTON + MENU BUTTON

Press the two buttons at the same time to capture images.

FUNCTIONS

CONFIGURING THE CAMERA

MENU DESCRIPTION

When the Camera is on, press and hold MENU BUTTON to enter the main menu. Functions of all buttons are as follows.

1. Press UP BUTTON to move upward the cursor.

NOTE

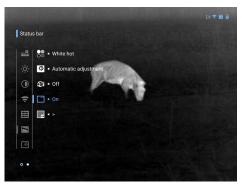
For the camera with laser range finder, press to move upward the cursor. In this section, we use UP BUTTON as an example.

- 2. Press DOWN BUTTON to move downward the cursor.
- 3. Press MENU BUTTON to confirm.
- 4. Press and hold POWER BUTTON to exit.

DISPLAY

SETTING STATUS BAR DISPLAY

- 1. On the main menu, press UP BUTTON or DOWN BUTTON to select DISPAY.
- 2. Use UP BUTTON or DOWN BUTTON to go to STATUS BAR and then press MENU BUTTON to enable or disable the status bar.



SETTING SCREEN BRIGHTNESS

Adjusts the overall screen brightness. The higher the level is, the brighter the screen will be.

- 1. On the main menu, press UP BUTTON or DOWN BUTTON to select Brightness.
- 2. Press MENU BUTTON to select the brightness level. The higher the level is, the brighter the screen will be.



SETTING CONTRAST

You can set the contrast. The higher the level is, the more the contrast will be between bright and dark areas.

- 1. On the main menu, press UP BUTTON or DOWN BUTTON to select Contrast.
- 2. Press MENU BUTTON to select the contrast level.



IMAGE ADJUSTMENT



ADJUSTING DIOPTER

To get clear images, rotating the diopter adjustment knob to fit your eyesight.

NOTE

For the first-time use, adjust the diopter before configuring the functions.

1. Aim the lens at the target, and then make your eyes close to the eyeshade.

2. Adjust clockwise or counterclockwise the knob according to your eyesight.



ADJUSTING FOCUS

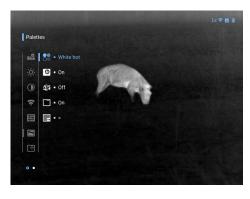
Rotate the focusing ring to get a clear view. This function is only available on the models with adjustable lens.

1. Aim the thermal lens to the target.

2. Adjust clockwise or counterclockwise the focusing ring until the view is clear.

NOTE

During the adjustment, do not touch the lens to avoid smudging it; otherwise it may affect the image quality.



SETTING COLOR PLATES

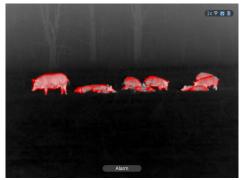
Select the color plates, which adds color to the thermal image and uses color to indicate the temperature.

On the viewing screen, press MENU BUTTON to open the MENU and from there use the UP BUTTON and DOWN BUTTON to select DIS-PLAY. Once in the DISPLAY menu, use the UP BUTTON or DOWN BUTTON to select PALETTES and press the MENU BUTTON to select it. The available palettes are:

White Hot: The objects with high temperature are white. The higher the temperature, the brighter the color.



High red: The objects with high temperature are red. The objects can stand out.



Iron Red: The objects with high temperature are red. The higher the temperature, the brighter the color.



Black Hot: The objects with high temperature are black. The higher the temperature, the darker the color.



Sepia: The objects with high temperature are brown. The higher the temperature, the brighter the color.



Green Hot: The objects with high temperature are green. The higher the temperature, the brighter the color.



SETTING DIGITAL ZOOM

Digital zoom helps to zoom in the image.

On the viewing screen, press $\ensuremath{\mathsf{DOWN}}$ BUTTON to do digital zoom, and the image changes.

SETTING IMAGE BRIGHTNESS



Adjusts the image brightness. The higher the level is, the brighter the image will be.

1. On the main menu, press UP BUTTON or DOWN BUTTON to select Brightness.

2. Press DOWN BUTTON to select the brightness level. The higher the level is, the brighter the image will be.

SETTING THE SCENE MODE

Adjusts scene mode in accordance with the user's preference.

- 1. On the main menu, use the UP BUTTON or DOWN BUTTON to select SCENE MODE.
- 2. Select the desirable scene mode.

VIDEO AND SNAPSHOT

RECORDING VIDEOS

On the viewing interface, press UP BUTTON and hold for 3 seconds to start recording a video. The recording icon flashes on the screen and the recording time is display.

Press and hold UP BUTTON again for 3 seconds to stop the recording. When the recording stops, the recording time will display normally.



CAPTURING IMAGES

On the viewing page, press UP BUTTON to capture images.

The screen will display an icon when the capturing succeeds.



EXPORTING FILE

Exports the recorded and captured files.

1. Connect the Camera to the computer through a Type-C data cable.

The driver will automatically be installed for first-time connection.

NOTE

Connect the cables before starting the Camera. Do not hot swap the Type-C port of the Camera.



Select Storage on the USB Mode configuration screen after connecting the Camera to the computer.

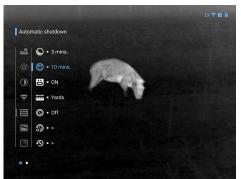
- 2. On the computer desktop, double-click My Computer, and then open the Camera disk at a mobile storage device.
- 3. Select the files to export and copy them to the computer.

The specific computer client is required for playing the exported files.

4. Disconnect the Type-C data cable with the computer.

After connecting the Camera to the computer, images can be displayed on the Camera, but the functions of recording and capturing will not be available.

AUTOMATIC SHUTDOWN



1. Press and hold MENU BUTTON to go to the main menu.

2. Press UP BUTTON or DOWN BUTTON to select SETTINGS.

3. Press MENU BUTTON to go to the SETTINGS menu.

4. Press UP BUTTON or DOWN BUTTON to select Automatic shutdown after inactivity.

5. Press MENU BUTTON to set the auto shutdown time. If there is no operation in the configured

time, the Camera will automatically shut down.

6. Press and hold MENU BUTTON to save the configuration and exit.

After finishing the auto shutdown settings, the Camera will suspend first, and then shut down.

SETTINGS

SETTING HOT POINT



Tracks the point with the highest temperature in real time.

1. On the main menu, use the UP BUTTON or DOWN BUTTON to select Hot Point.

2. Press MENU BUTTON to enable or disable Hot Point.

After enabling Hot Point, the hot point icons will automatically locate at the point with the highest temperature in the image.

STADIAMETRIC RANGE FINDER

The stadiametric range finder can measure the distance to 4 preset target types.

This function is only available on the models without laser range finders. For models with laser range finders, see "Setting Laser Ranging".

NOTE

To guarantee the measurement accuracy, keep your hand steady when measuring the range.

- 1. On the main menu, press UP BUTTON or DOWN BUTTON to select STADIAMETRIC RANGE FINDER.
- Press MENU BUTTON to go to the STADIAMETRIC RANGE FINDER interface.
- Press UP BUTTON or DOWN BUTTON to move the blue lines to the top and bottom of the target to get the distance between the target and the Camera.

Use the following fig as an example:

- If the target is a jackal, it is 20 m away from Camera.
- If the target is a rabbit, it is 7 m away from Camera.
- If the target is a wild boar, it is 22 m away from Camera.
- If the target is a deer, it is 33 m away from Camera.



SETTING LASER RANGING

This function is only available on the models with laser range finders. For models without laser range finders, see "Setting Ranging Mode".

CAUTION

Laser can cause damages to eyes. Do not look directly at the laser beam or observe the beam with optical devices when the laser is on.

MEASUREMENT CONSIDERATIONS

1. MEASUREMENT TARGETS

The Camera is suitable for measuring the distance between the camera and the targets with high reflectivity (such as road signs on highways), the targets with moderate reflectivity (such as wall) and the targets with low reflectivity (such as tree, golf flag, utility pole, and animal). When the reflectance is reduced to a certain extent, the range will be reduced accordingly.

2. FACTORS THAT INFLUENCE RANGING CAPABILITY

- Target reflectivity: Generally, the higher the reflectivity of the target, the better the ranging ability. For example, the measuring range of the Camera is 1,500 m for a target with moderate reflectivity, which can be up to 1,800 m for a target with high reflectivity, and 600 m for the targets with low reflectivity. (It might fail to measure the target that hardly generates diffuse reflection, such as water surface.)
- Target shape: When a target is too small or uneven, the ranging ability will decrease.
- Measuring angle: The measurement is more accurate when the reflection surface of target is vertical to the laser emission's direction. If you use the Camera under some extreme conditions, the measurement might be inaccurate.
- Measuring environment: The environment factors include sunshine intensity, the concentration of water vapor in the air and suspended particles (such as rain, fog, snow, fog and haze).

- 3. THE RANGE ABILITY OF THE CAMERA DEFINED UNDER THE FOL-LOWING CONDITIONS:
 - The measurement target is with moderate reflectivity, such as walls.
 - The reflection surface of target is vertical to laser emission direction.
 - The weather condition is sunny but not under the condition of direct sunlight.
 - The reflection area is larger than 2 m x 2 m.

USING THE LASER RANGING FUNCTION

After selecting the LASER RANGE FINDER, the device can measure the range towards targets.

NOTE

To guarantee the measurement accuracy, keep your hand steady when measuring the range.

- 1. On the main menu, use the UP BUTTON and DOWN BUTTON to select Laser Range Finder.
- 2. Press MENU BUTTON to select the laser ranging mode.
 - Once: After pressing the laser button, the Camera measures the distance between the camera and the target once.
 - Continue: After pressing the laser button, the Camera continuously measures the distance between the Camera and the target in 15 s.

SETTING WI-FI CONNECTION

To connect your ATN device to your smartphone or tablet, follow these steps: **ENABLE WIFI ON YOUR ATN DEVICE**

- Long press the Menu button.
- Use the Up and Down buttons to navigate the menu.
- Select and enable the WiFi function.

INSTALL THE ATN APP

Download the ATN Blaze app from the App Store or Google Play.

Open the app and follow these steps:

- 1. Tap Connect New Device.
- 2. Choose your device type and tap next.

NOTE

When this is completed, choose the first option "Connect to Blaze Hunter".

- 3. Ensure your device's WiFi is enabled.
- 4. Tap Read SSID from QR Code and scan the QR code located on the back of the device lens cover.
- 5. Enter the WiFi password (12345678) when prompted.
- 6. Tap Next.

Once the app confirms "We found your Blaze Hunter," your device is successfully connected. You can now control your device, access live streaming, and browse the gallery directly from your phone or tablet.

WIFI SPECIFICATIONS

- Frequency band: 2.4 GHz (2.4 GHz to 2.4835 GHz).
- Transmitted power limit: 20 dBm.

SETTING LANGUAGE

You can select the language as needed.

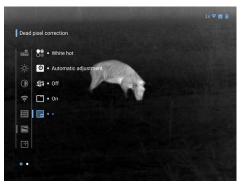
- 1. On the main menu, press UP BUTTON or DOWN BUTTON to select Language.
- Press MENU BUTTON to go to the language selection screen.
- 3. Press DOWN BUTTON to select the language as needed.
- 4. Press MENU BUTTON to save and exit.

SETTING DPC

After enabling DPC (Defective / Dead Pixels Correction), you can correct the defective pixels in the image.

- 1. On the main menu, use the UP BUTTON and DOWN BUTTON to select DISPLAY.
- 2. Press MENU BUTTON to go to the DISPLAY menu.
- 3. Use the UP BUTTON and DOWN BUTTON to select Dead Pixel Correction.





- 4. Press the MENU BUTTON to go to the Dead Pixel Correction menu.
 - Auto: The Camera automatically corrects the defective pixels in the image.
 - 1. Select Auto.
 - 2. Press MENU BUTTON to start the auto correction.
 - 3. Follow the screen instructions to close the lens cover.
 - 4. Press MENU BUTTON to save the configurations.
 - Manual: You need to correct the defective pixels manually.
 - 1. Press MENU BUTTON to select X-axis and Y-axis.

2. Press and hold UP BUTTON or DOWN BUTTON to calibrate the defective pixels.

3. Press and hold MENU BUTTON to save the configuration.

NOTE

The center of the cursor is the position of the defective pixel.

• Restore: The DPC configuration is restored to the primary state.

FUNCTIONS

- 1. On the main menu, use the UP BUTTON and DOWN BUTTON to select Function Settings.
- 2. Press MENU BUTTON to go to the desired configuration screen.

3. Use the UP BUTTON and DOWN BUTTON to select the function to be configured.

SETTINGS				
Parameter	Desription			
Standby mode after inactivity	Allows the user to set timer for the device to go into stand-by mode after a period of inactivity.			
Automatic shutdown after inactivity	Allows the user to set timer for the device to go into shut down after a period of inactivity.			
USB data transfer	Allows or forbids the data transfer trough the USB Type-C port.			
Rangefinder units	Allows the user to change the range finder units into meters or yards.			
Date format	Allows the user to set the desired format for date and time.			
Set date and time	Allows the user to set the device date and time.			
Reset default	Resets the device default settings.			
settings	NOTE: This operation will restore the device to default configuration. Please be careful.			

DISPLAY		
Parameter	Desription	
Palettes	Allows the user to change the thermal imaging color palettes.	
Burning warning	Allows the user to enable the burning warning func- tion. When the sensor is under the risk of burning, a pop-up will be displayed on the screen and the shutter will be off automatically.	
Logo	Allows the user to enable and disable the ATN logo during boot-up.	
status bar	Allows the user to enable or disable the status bar.	
Dead pixel correction	Takes the user to the Dead Pixel Correction menu.	

MAIN MENU		
Parameter	Desription	
Brightness	Allows the user to change the image brightness.	
Contrast	Allows the user to change the image contrast.	

MAIN MENU		
WiFi	Allows the user to select the mode of operation of the WiFi modula or the turn it off.	
Hot point	Allows the user to enable this function. It marks the hottest point on the currently observed scene.	
NUC	Allows the user to select the non-uniformity correction to automatic, manual or to perform it imediately.	
Device and WiFi information	Displays information about the device and the WiFi status.	
Scene mode	Allows the user to select a scene mode wich fits better to the observed environment.	
Language	Allows the user to change the language in the menus.	

WARNINGS AND CAUTIONS

- Prevent liquid from flowing into the Camera to avoid damage to the internal components.
- Do not stuff foreign materials into the Camera to prevent a short circuit which could result in the Camera being damaged or people becoming injured.
- Do not expose the device to high electromagnetic radiation or dusty environments.
- Do not aim the lens at the sun or any other bright light.
- Improper use or replacement of the battery may result in explosion hazard.
- Do not charge other battery types with the supplied charger. Confirm there is no flammable material within 2 m of the charger during charging.
- Make sure that the plug is properly connected to the power socket.
- Do not connect multiple devices to one power adapter, to avoid over-heating or fire hazards caused by overload.
- If smoke, odor, or noise arises from the device, immediately turn off the power, unplug the power cable, and contact the service center.
- Do not dismantle the Camera. The internal components can only be repaired by a qualified professional. Dismantling it without professional assistance might cause water seeping in or might result in the Camera producing poor quality images.
- Operating temperature: -30 °C to +55 °C (-22 °F to +131 °F), and the operating humidity shall be 95% or less.
- Prevent liquid from flowing into the Camera to avoid damage to the internal components. In case the liquid enters the Camera, immediately stop using the Camera, cut off the power, and disconnect all the cables, and then contact your local customer service center.
- Use the accessories regulated by the manufacturer. The Camera should be maintained by qualified professionals.
- Make sure to cut off the power before cleaning the Camera, to prevent electric shock.

- Clean the Camera body with a piece of soft dry cloth. For any dirt that is hard to remove, pick up a piece of clean and soft cloth, dip it into a little neutral detergent and gently wipe the dust away.
- After that, wipe away all the remaining liquid on the Camera with another dry cloth. Never use volatile solvents such as alcohol, benzene and thinner, or cleaners that are strong and abrasive.
- Otherwise, the Camera's surface coating will be damaged and its working performance will be encumbered.

CAUTION

Failure to follow these safety instructions could result in damage to the device!

3 YEAR PRODUCT WARRANTY

This product is guaranteed to be free from manufacturing defects in material and workmanship under normal use for a period of 3 (three) years from the date of purchase. In the event a defect that is covered by the foregoing warranty occurs during the applicable period stated above, ATN, at its option, will either repair or replace the product, and such action on the part of ATN shall be the full extent of ATN's liability, and the Customer's sole and exclusive remedy. This warranty does not cover a product (a) used in other than its normal and customary manner; (b) subjected to misuse; (c) subjected to alterations, modifications or repairs by the Customer or by any party other than ATN without prior written consent of ATN; (d) special order or "close-out" merchandise or merchandise sold "as-is" by either ATN or the ATN dealer; or (e) merchandise that has been discontinued by the manufacturer and either parts or replacement units are not available due to reasons beyond the control of ATN. ATN shall not be responsible for any defects or damage that in ATN's opinion is a result from the mishandling, abuse, misuse, improper storage or improper operation, including use in conjunction with equipment which is electrically or mechanically incompatible with or of inferior quality to the product, as well as failure to maintain the environmental conditions specified by the manufacturer. This warranty is extended only to the original purchaser. Any breach of this warranty shall be waived unless the customer notifies ATN at the address noted below within the applicable warranty period.

The customer understands and agrees that except for the foregoing warranty, no other warranties written or oral, statutory, expressed or implied, including any implied warranty of merchantability or fitness for a particular purpose, shall apply to the product. All such implied warranties are hereby and expressly disclaimed.

LIMITATION OF LIABILITY

ATN will not be liable for any claims, actions, suits, proceedings, costs, expenses, damages or liabilities arising out of the use of this product. Operation and use of the product are the sole responsibility of the Customer. ATN's sole undertaking is limited to providing the products and services outlined herein in accordance with the terms and conditions of this Agreement. The

provision of products sold and services performed by ATN to the Customer shall not be interpreted, construed, or regarded, either expressly or implied, as being for the benefit of or creating any obligation toward any third party of legal entity outside ATN and the Customer; ATN's obligations under this Agreement extend solely to the Customer. ATN's liability hereunder for damages, regardless of the form or action, shall not exceed the fees or other charges paid to ATN by the customer or customer's dealer. ATN shall not, in any event, be liable for special, indirect, incidental, or consequential damages, including, but not limited to, lost income, lost revenue, or lost profit, whether such damages were foreseeable or not at the time of purchase, and whether or not such damages arise out of a breach of warranty, a breach of agreement, negligence, strict liability or any other theory of liability.

PRODUCT WARRANTY REGISTRATION

In order to validate the warranty on your product, ATN must receive a completed Product Warranty Registration Card for each unit or complete warranty registration on our website at www.atncorp.com. Please complete the included form and immediately mail it to our Service Center: ATN Corporation, 2400 NW 95 Ave, Doral, FL 33172.

OBTAINING WARRANTY SERVICE

To obtain warranty service on your unit, End-user must notify ATN service department by calling **800-910-2862** or **650-989-5100** or via e-mail **service@atncorp.com** to receive a Return Merchandise Authorization number (RMA).

When returning please take or send the product, postage paid, with a copy of your sales receipt to our service center, ATN Corporation at the address noted above. All merchandise must be fully insured with the correct postage; ATN will not be responsible for improper postage or, missing or damaged merchandise during shipment.

When sending product back, please clearly mark the RMA# on the outside of the shipping box. Please include a letter that indicates your RMA#, Name, Return Address, reason for service return, Contact information such as valid telephone numbers and/or e-mail address and proof of purchases that will help us to establish the valid start date of the warranty. Product merchandise returns that do not have an RMA listed may be refused or a significant delay in processing may occur.

Estimated Warranty service time is 10-20 business days. End-user/customer is responsible for postage to ATN for warranty service. ATN will cover return postage/shipping to continental USA end-users/customers after warranty repair only if product is covered by aforementioned warranty. ATN will return product after warranty service by domestic UPS ground and/or domestic mail. Any other requested, required or international shipping method the postage/shipping fee will be the responsibility of the end-user/customer.



FOR CUSTOMER SERVICE AND TECHNICAL SUPPORT, PLEASE CONTACT

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