

ThOR 6 mini Series

COMPACT THERMAL RIFLESCOPE



MANUAL



AMERICAN
TECHNOLOGIES
NETWORK CORP.

Welcome to the ATN Family!

Thank you for choosing the **ThOR 6 mini Compact Thermal Riflescope!**

This manual will guide you through the setup, operation, and maintenance of your device to ensure optimal performance and long service life.

Please read this manual carefully before using the product and retain it for future reference.

REVISION HISTORY

Version	Revision Text	Released
V1.1.0	Updated Version	April 2026

ABOUT THIS MANUAL

- This manual is provided **for reference only**. Minor differences may exist between the descriptions in this manual and the actual product.
- We are **not liable for any loss or damage** resulting from operation of the product in ways that are not in accordance with this manual.
- The manual may be updated in accordance with the latest **laws, regulations, or product revisions**. For detailed or updated information, please refer to the printed manual, QR code, or our official website.
- All **designs, features, and software** are subject to change without prior notice. Product updates may result in differences between your device and the information in this document.
- **Printing errors or discrepancies** in function descriptions, operations, or technical data may occur. In case of doubt or dispute, we reserve the right of final interpretation.
- If the PDF version of this manual cannot be opened, please **update your reader software** or try another standard PDF reader.
- All **trademarks and registered trademarks** mentioned in this manual are the property of their respective owners.
- If any issues occur while using the device, please **contact your supplier, local distributor, or customer service** for assistance.
- In the event of any uncertainty or disagreement, the manufacturer reserves the **right of final explanation**.

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1. PRODUCT INTRODUCTION

The **ThOR 6 mini Compact Thermal RifleScope** provides high-precision thermal imaging with exceptional clarity and a fast frame rate, ensuring smooth and accurate target tracking even in dynamic environments.

Designed for continuous operation under all lighting and weather conditions, the riflescope detects the thermal signatures of objects, animals, and structures in complete darkness, fog, haze, or intense light — maintaining optimal situational awareness in every scenario.

Built for demanding field applications, the **ThOR 6 mini** delivers reliable performance, advanced image processing, and consistent visual quality across a wide range of operational environments.

2. PRODUCT OVERVIEW

2.1 PACKAGE CONTENTS



Mount



2x18650 battery



Battery charger



ATN THOR 6 mini



USB Type-C cable



Lens cloth



Heated target
for zeroing



Carrying bag

2.2 DEVICE DESCRIPTION



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. ATN Corp. assumes no responsibility or liability for any errors or inaccuracies that may appear in this book.
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2.3 BUTTON DESCRIPTION

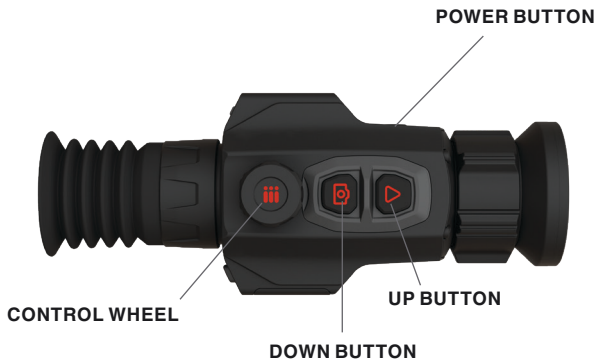


Table 2.3.1 Button description

Button	Current Status	Short Press	Long Press
POWER BUTTON	Powered off	—	Power on the device
	Home screen	NUC (Non-Uniformity Correction)	On the Home screen, a 3-2-1 countdown prompt appears: <ul style="list-style-type: none"> • If the Power button is released during the countdown, the device enters into Standby mode. • When the countdown completes, the device will power off.
	Quick/Main Menu interface	Return to home screen	
UP BUTTON	Home screen	Turn PIP on/off	Change Palette
DOWN BUTTON	Home screen	Take a photo	Start/Stop video recording

Button	Current Status	Short Press	Long Press
CLICK CONTROL WHEEL	Home screen	Enter the Quick Menu interface	Enter the Main Menu interface
	Quick Menu interface	Adjust parameters	Save and back
	Main Menu interface	Adjust parameters / Enter the submenu	Save and back
	Zeroing/ Pixel Correction interface	Switch the movement direction	Save and back
ROTATE CONTROL WHEEL	Home screen	PIP is ON: zoom PIP image PIP is OFF: zoom main image	
	Quick Menu interface	Change options and values	
	Main Menu interface	Change options and values	
	Zeroing/ Pixel Correction interface	Change reticle position	

2.4 SPECIFICATIONS

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	Thor 6 mini 215	Thor 6 mini 225	Thor 6 mini 325	Thor 6 mini 335	Thor 6 mini 635	Thor 6 mini 650
Model	TIWST6M215	TIWST6M225	TIWST6M325	TIWST6M335	TIWST6M635	TIWST6M650
Detector Type	12 μ m VOx Uncooled Focal Plane Array					
Sensor Resolution	256x192	256x192	384x288	384x288	640x512	640x512
Refresh Rate	50 Hz					
Thermal Sensitivity (NETD)	\leq 20mK					
SharpIR[®]	Yes					
Non-Uniformity Correction (NUC)	Auto / Semi Auto / Manual					
Lens System	15 mm (Ge); F/1.0	25 mm (Ge); F/1.0	25 mm (Ge); F/1.0	35 mm (Ge); F/1.0	35 mm (Ge); F/1.0	50 mm (Ge); F/1.0
Field of View (HxV)	11.7° x 8.8°	7.0° x 5.3°	10.5° x 7.9°	7.5° x 5.7°	12.5° x 10.0°	8.8° x 7.0°
Focus Mechanism	Manual, Front Lens Adjustment					
Magnification	2-16x	3.5-28x	2.5-20x	3.5-28x	2-16x	3-24x

	ThOR 6 mini 215	ThOR 6 mini 225	ThOR 6 mini 325	ThOR 6 mini 335	ThOR 6 mini 635	ThOR 6 mini 650
Digital Zoom	1x, 2x, 4x, 8x					
Zoom Type	Step & Smooth Zoom					
Detection Range	1200 m	1500 m	2300 m	2710 m	3000 m	3500 m
Display Resolution	0.32" OLED, 800x600	0.32" OLED, 800x600	0.49" OLED, 1920x1080	0.49" OLED, 1920x1080	0.49" OLED, 1920x1080	0.49" OLED, 1920x1080
Picture-in-Picture (PIP)	Yes					
Reticle Types	10 Styles					
Zeroing Freeze	Yes					
Color Palettes	White Hot, Black Hot, Iron Red, Alarm, Green Hot, Sepia					
Eye Relief	50 mm					
Diopter Range	-5 to +5 D					
Battery Type	1 x 18650 Rechargeable (Replaceable)					
Battery Life	~8 hrs (4 hr per battery)	~8 hrs (4 hr per battery)	~7 hrs (3.5 hr per battery)	~7 hrs (3.5 hr per battery)	~7 hrs (3.5 hr per battery)	~7 hrs (3.5 hr per battery)

	ThOR 6 mini 215	ThOR 6 mini 225	ThOR 6 mini 325	ThOR 6 mini 335	ThOR 6 mini 635	ThOR 6 mini 650
Supports External Power Supply	Yes, USB Type-C (5 VDC / 2A)					
Internal Storage	64 GB					
Video / Audio Recording	Yes					
Geomagnetic + Gyroscope	Yes					
Hot Point Tracking	Yes					
Reticle Transparency Control	Yes					
Internal Gallery	Yes					
Recoil Activated Video (RAV)	Yes					
Standby / Sleep Mode	Yes					
Start Up Time	<7 seconds (instant from Standby)					
Media Output	USB Type-C					

	Thor 6 mini 215	Thor 6 mini 225	Thor 6 mini 325	Thor 6 mini 335	Thor 6 mini 635	Thor 6 mini 650
Built-in Wi-Fi (Hotspot)	Yes					
App (Apple Store / Google Play)	Yes (ATN Connect 6 – iOS & Android)					
Material	Magnesium Alloy					
Mounting	Picatinny Rail					
Weight	500 g / 1.10 lbs	528 g / 1.16 lbs	528 g / 1.16 lbs	540 g / 1.19 lbs	540 g / 1.19 lbs	580 g / 1.28 lbs
Dimensions (L x W x H)	180x65x65 mm/ 7.09x2.56x2.56in	180x65x65 mm/ 7.09x2.56x2.56in	180x65x65 mm/ 7.09x2.56x2.56in	190x65x65 mm/ 7.48x2.56x2.56in	190x65x65 mm/ 7.48x2.56x2.56in	200x65x65 mm/ 7.87x2.56x2.56in
Max Recoil Rating	6000 Joules / 1000g acceleration over 0.4 ms					
Operating Temperature	-30°C to 55°C (-22°F to 131°F)					
Waterproof / IP Rating	IP67					

Actual battery life may vary depending on the frequency of feature usage such as Wi-Fi, video recording, and other power-consuming functions.

Design and software improvements may be implemented to enhance product performance without prior notice.

The latest version of this user manual is available for download at: www.atnincorp.com

2.5 MOUNTING THE RIFLESCOPE



Follow the steps below to correctly mount your **ThOR 6 mini** Compact Thermal Rifle Scope using the supplied **QD (Quick-Detach) mount**. The QD mount secures to the rifle rail with two bolts and locks with quick-release levers for fast, repeatable installation and removal.

Steps

1. Prepare the QD mount

- Check the provided Picatinny QD mount and the screws for mechanical damage.
- Use the two provided with the mount screws to attach the ThOR 6 mini to the QD mount. The orientation must be such that the mount is protruding forward to the objective lens of the thermal sight.
- Make sure the conic heads of the screws are lying in their beds in the mount properly and tighten the two screws.
- Open the QD levers so the mount can be placed on the Picatinny rail of the weapon platform.
- Ensure the two mounting bolts with the quick-release levers are loosely installed so that the mount can sit fully on the upper surface of the teeth of the Picatinny rail of the weapon platform.

2. Position the ThOR 6 mini

Place the ThOR 6 mini together with the assembled QD mount and move it to the desired fore/aft position on the weapon platform Picatinny rail for the desired eye relief and balance.

3. **Attach assembly to the Picatinny rail**

- Place the mount assembly onto the rifle rail at the chosen position.
- Close the QD quick-release levers to lock the mount onto the rail.
- Check if the lever tension needs adjustment, It should be moving freely about 60% of the travel from open to closed position. The tension needs to increase in the last 30-40% of movement to the fully closed position.
- If it is too loose or too tight - open the levers and push them in, so that their threaded nuts pop out from the opposite side of the QD mount.
- With the nuts popped out - rotate them CW or CCW to tighten or loosen them. Then release the pressure from the lever side so they can sink back into their nests.

4. **Final alignment and tightening**

- With the levers closed and the QD mount tightened to the rail of the weapon platform, ensure the riflescope is level.
- Confirm the QD levers are firmly closed, locked and the mount is securely fixed.

3. DEVICE OPERATION

3.1 POWER SUPPLY

The **ThOR 6 mini Compact Thermal Riflescope** is powered by a **single removable 18650 rechargeable battery** (included in the package).

The device can also be powered or charged directly through the **USB Type-C port**.

NOTE

- ***When connecting external power via Type-C, the device can operate and charge simultaneously.***
- ***Always ensure the battery is fully charged before extended use in the field.***

3.1.1 INSTALLING THE BATTERY

Open the cover of the battery compartment located on the right side of the riflescope.

Insert the provided **18650 rechargeable battery**, ensuring it is installed according to the **polarity markings** on the device housing.

Close the battery compartment cover securely.

TIP

Use only high-quality, button-top 18650 batteries to ensure stable contact and reliable power supply.

3.1.2 CHARGING THE DEVICE

You can charge the riflescope through the **Type-C port** using the included data cable.

The **battery level indicator** is displayed on the status bar when the device is powered on. Charge the unit promptly when the level is low to ensure proper operation.

Charging Guidelines:

- Maintain a battery temperature between **32°F** and **140°F** during charging.
- Always use the **original charging cable** supplied with the device.

Charging Steps:

- **Open** the rubber cover protecting the **Type-C port**.
- **Connect** the provided **Type-C cable** to the port and a power source.

Charging Indicator States:

- **Red and green flashing alternately** – Charging error.
- **Red light on** – Charging in progress.
- **Green light on** – Fully charged.
- **Light off** – Not connected or not charging.

RECOMMENDATION

Fully charge the device before first use and recharge every 3–6 months during long-term storage to maintain battery health.

3.2 POWER ON / OFF

Power On

Press and hold the **Power button** until the ATN logo appears on the display. After startup, remove the **lens cover** before operation.

Power Off

Press and hold the **Power button** until the countdown **3-2-1** finishes. Once the countdown completes, the riflescope will power off automatically.

Standby Mode

To enter **Standby Mode**, press and hold the **Power button**, then **release it before** the countdown **3-2-1** ends.

To wake the riflescope from **Standby Mode**, short-press the **Power button** once.

TIP

If you hold the button until the countdown finishes, the device will shut down completely.

Releasing it early activates Standby Mode, allowing faster wake-up and lower power consumption.

3.3 CONTROLS

When the riflescope is powered on, press and hold the **Control Wheel** to open the Main Menu.

The functions of the buttons are as follows:

- Rotate the Control Wheel to navigate up or down through the menu.
- Press the Control Wheel to select or confirm a setting.
- Press and hold the Control Wheel to go back if you are in a submenu. Press the Power button to exit the menu.

3.4 INITIAL SETUP

When starting the riflescope for the first time, or after performing a factory reset, you will need to set the **language**, **Wi-Fi password**, and **device time**.

Step 1: Power On

Press and hold the **Power button** to turn on the riflescope. The **Language Selection** screen will appear.

Step 2: Set Language

1. Rotate the **Control Wheel** to highlight your preferred language.
2. Press the **Control Wheel** to confirm. The **Wi-Fi Password** screen will appear.

Step 3: Set Wi-Fi Password

1. Rotate the **Control Wheel** to select a digit, or choose **Skip** to use the default password “12345678.”
2. Press the **Control Wheel** to confirm the selection.
3. Rotate again to adjust the value, then press to save. Repeat steps 1–3 for each digit of the password. Once complete, select **Next** and press the Control Wheel.

Step 4: Set Device Time

1. Rotate the **Control Wheel** to select the time field (hours, minutes, seconds).
2. Press to confirm, then rotate to adjust. Repeat for each field. Once done, select **Next** and press the Control Wheel.

The main viewing screen will appear, and the riflescope is ready for use.

3.5 IMAGE ADJUSTMENT

3.5.1 DIOPTER ADJUSTMENT



To achieve a sharp and comfortable view, adjust the **diopter ring** according to your eyesight.

It is recommended to perform this adjustment before configuring other settings.

Steps:

1. Aim the riflescope at a well-lit target or a clear background.
2. Look through the eyepiece and slowly rotate the **diopter adjustment ring** clockwise or counterclockwise until the on-screen icons and image appear sharp and clear.

3.5.2 FOCUS ADJUSTMENT

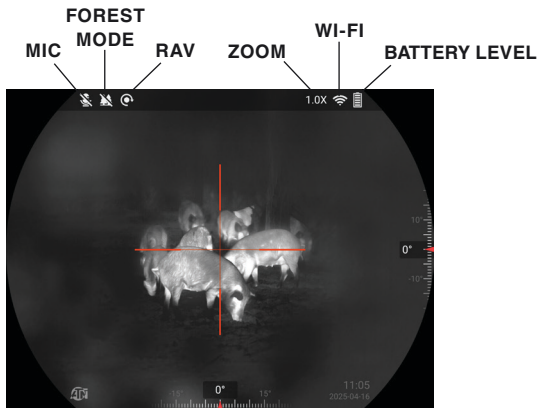
Manually rotate the **Focus adjustment ring** to achieve a clear image of the target.

Steps:

1. Aim the riflescope at your target.
2. Rotate the **Focus adjustment ring** clockwise or counterclockwise until the image becomes crisp and well-defined.



3.5.3 STATUS BAR DISPLAY



The **Status Bar** provides real-time information such as battery level, zoom, and connection status.







To enable or disable the status bar:


1. **Press and hold** the **Control Wheel** to open the **Main Menu**.
2. **Rotate** the Control Wheel to navigate to **Settings** → **Status Bar**.
3. **Press** the **Control Wheel** to toggle the Status Bar **On** or **Off**.
4. **The status bar** will now appear (or disappear) on the display.

TIP

Keeping the status bar enabled ensures you can monitor key system parameters during operation.

Table 3.5.3 Description of status bar

Icon	Name	Description
	Record Audio	<ul style="list-style-type: none">• The microphone is active — videos will be recorded with sound.• The microphone is turned off — videos will be recorded without sound.
	Forest Mode	Optimizes the thermal image for environments with dense foliage, enhancing object visibility and fine detail in areas with heavy vegetation.
	RAV	<ul style="list-style-type: none">• When RAV is enabled, the riflescope automatically starts video recording once the impact sensor detects a shot.• When RAV is disabled, the riflescope will not start recording automatically.
	Digital Zoom	Supports multiple levels of digital zoom. The available zoom magnification may vary depending on the model.
 	Wi-Fi	<ul style="list-style-type: none">• The Wi-Fi module is active — the device can connect to a smartphone or other devices.• Wi-Fi is turned off — wireless connection is unavailable.

Icon	Name	Description
	Battery level	Displays the current battery charge level in real time.

3.5.4 ADJUSTING BRIGHTNESS

Adjusts the overall display brightness. Increasing the level makes the image appear brighter.

To adjust brightness:

1. Press the **Control Wheel** to open the **Quick Menu**.
2. Rotate the **Control Wheel** to select **Brightness**.
3. Press the **Control Wheel** to confirm.
4. Rotate the **Control Wheel** to increase or decrease brightness.

TIP

Higher brightness levels improve visibility in daylight, while lower levels are recommended for night operations.

3.5.5 ADJUSTING SHARPNESS

Controls the clarity of object edges in the image. Higher sharpness levels make contours appear more defined.

To adjust sharpness:

1. Press the **Control Wheel** to open the **Quick Menu**.
2. Rotate the **Control Wheel** to select **Sharpness**.
3. Press the **Control Wheel** to confirm.
4. Rotate the **Control Wheel** to increase or decrease sharpness.

TIP

A moderate sharpness level provides a natural and balanced image.

3.6 VIDEOS RECORDING AND CAPTURING IMAGES

3.6.1 RECORDING VIDEOS

To manually record a video, follow these steps:

1. On the **viewing screen**, **press and hold the Down button** for **3 seconds** to start recording.
 - The **recording icon** will flash on the screen.
 - The **recording timer** will appear, showing the elapsed time.
2. To **stop recording**, **press and hold the Down button** again for **3 seconds**.
 - The recording icon will disappear.
 - The video camera icon with a check mark will display briefly on screen.

TIP

Make sure you have enough storage space before recording long videos.

3.6.2 CAPTURING IMAGES

To take a still image:

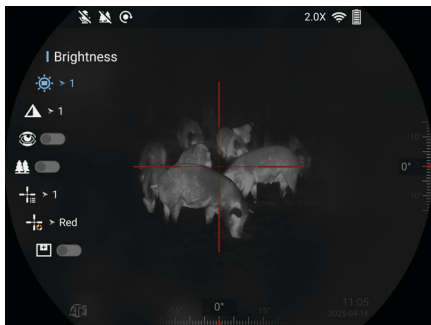
1. Press the **Down button** once.
2. When the image is successfully saved, a **camera icon** will appear briefly on the screen.

NOTE

Images are automatically saved in the Gallery and can be viewed or exported later through the Type-C connection.

4. CONFIGURING THE RIFLESCOPE

4.1 QUICK MENU



The **Quick Menu** provides fast access to the most commonly used image settings, allowing you to adjust the display without entering the full system menu.

You can quickly modify **Brightness, Sharpness, SharpIR, Forest Mode, Reticle Type, Reticle Color, PIP.**

To access and use the


Quick Menu:







1. **Press** the **Control Wheel** to open the **Quick Menu**.
2. **Rotate** the **Control Wheel** to highlight the parameter you wish to adjust.
3. **Press** the **Control Wheel** to confirm and modify the selected parameter.
4. **Rotate** the **Control Wheel** again to fine-tune the value.
5. **Press and hold** the **Control Wheel** to **exit and save** the configuration.

TIP

The Quick Menu is designed for rapid adjustments in the field—ideal when lighting or environmental conditions change suddenly.

Table 4.1 Quick Menu

Icon	Name	Description
	Brightness	Adjusts the overall screen brightness. Increasing brightness helps in daylight, while lowering it improves visibility at night.

Icon	Name	Description
	Sharpness	Controls the clarity of image edges. Higher sharpness enhances detail, while lower settings make the image smoother.
	SharpIR	Powered by ATN's proprietary SharpIR® technology , the device uses advanced AI-driven algorithms to enhance image sharpness and clarity in real time. This intelligent processing dynamically refines edge definition and contrast, making it easier to distinguish heat signatures in cluttered or low-visibility environments.
	Forest Mode	Optimizes the thermal image for environments with dense foliage, enhancing object visibility and fine detail in areas with heavy vegetation.
	Reticle Type	Allows you to select the reticle style that best suits your shooting or observation needs.
	Reticle Color	Changes the color of the reticle for better visibility against different backgrounds.
	PIP (Picture in-Picture)	Enables a small magnified view of the central area on the screen, helping with precise aiming while maintaining full field awareness.

4.2 MAIN MENU

The **Main Menu** provides access to all advanced configuration options of the riflescope.

Press and hold the **Control Wheel** to open the Main Menu. Rotate the Control Wheel to navigate through the categories and press it to enter a selected item.

MAIN MENU STRUCTURE





1. **Forest Mode**
2. **Thermal**
3. **Reticles**
4. **Zeroing Profile**
5. **Zeroing Setup**
6. **Ranging**
7. **Gallery**
8. **RAV**
9. **Functionalities**
10. **Settings**



4.2.1 THERMAL

This section allows you to adjust key image parameters to achieve the best thermal performance under different environmental conditions.

Use it to fine-tune brightness, contrast, sharpness, and color palettes for optimal image clarity, detail, and target detection.

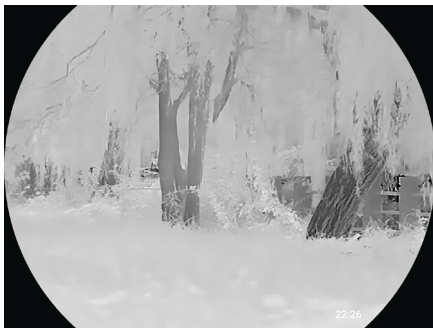
Table 4.2.1 Thermal menu

Icon	Name	Description
	Forest Mode	Optimizes the thermal image for environments with dense foliage, enhancing object visibility and fine detail in areas with heavy vegetation.
	Brightness	Adjusts the overall screen brightness. Increasing brightness helps in daylight, while lowering it improves visibility at night.
	Contrast	Adjusts the difference between warm and cold areas to enhance image depth and object separation.
	Sharpness	Controls the clarity of image edges. Higher sharpness enhances detail, while lower settings make the image smoother.

Icon	Name	Description
	SharpIR	<p>Powered by ATN's proprietary SharpIR® technology, the device uses advanced AI-driven algorithms to enhance image sharpness and clarity in real time.</p> <p>This intelligent processing dynamically refines edge definition and contrast, making it easier to distinguish heat signatures in cluttered or low-visibility environments.</p>
	Palette	<p>Selects the thermal color scheme used to represent temperature variations on the display.</p>

Available Color Palettes:

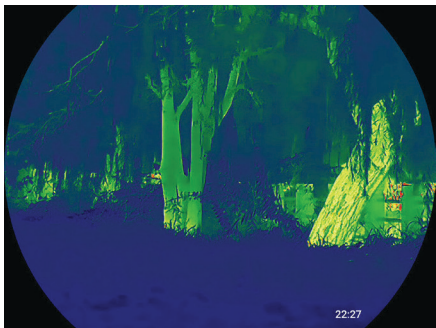
White Hot: Hotter objects appear white. The higher the temperature, the brighter the image.



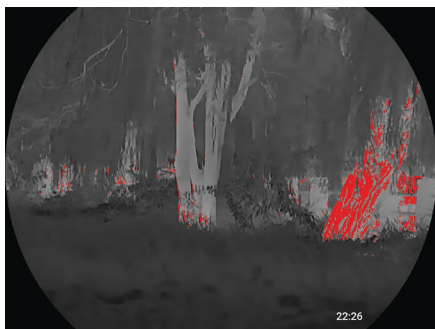
Sepia: Hotter objects appear amber. Higher temperatures produce brighter tones.



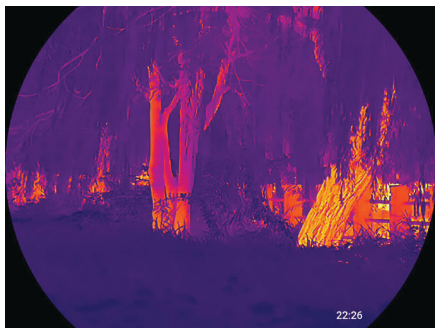
Green Hot: Hotter objects appear green. Brighter green indicates higher heat.



Alarm: Hot objects appear red for quick visual detection.



Iron Red: Hotter objects appear in red or orange tones.



Black Hot: Hotter objects appear darker; colder areas are lighter.



TIP

Choose the palette that provides the best contrast for your environment or preference.




4.2.2 RETICLES

This section allows you to customize the aiming reticle according to your shooting preferences and environmental conditions.

You can adjust the reticle type, color, and transparency to achieve the best visibility and precision under different lighting and background conditions.



Table 4.2.2 Reticle menu

Icon	Name	Description
	Reticle Type	Choose from multiple reticle designs to match your shooting style and preferences. Different types provide better visibility and alignment for various distances and conditions.
	Reticle Color	Adjust the reticle color to ensure optimal contrast and visibility against different backgrounds and lighting environments. This helps maintain accuracy in diverse field conditions.
	Transparency	Control the reticle's opacity to achieve a comfortable balance between visibility and target clarity, ensuring that the reticle remains clear without obscuring the target image.

4.2.3 ZEROING PROFILE



This menu displays all existing zeroing profiles and allows basic management functions. You can **create** new profiles, **rename** them, or **delete** unnecessary ones.

Table 4.2.3 Zeroing Profile menu

Name	Description
List of Profiles	Displays the list of available zeroing profiles stored in the device. Each profile can contain a unique zeroing configuration, allowing you to maintain different setups for various rifles.
Add Profile	Create a new zeroing profile. This allows you to store additional zeroing configurations without overwriting existing ones. Each newly added profile can later be customized and renamed for easier recognition.
Delete Profile	Delete the selected zeroing profile from the list. Use this function to remove outdated or unnecessary profiles and keep your list organized. A confirmation prompt will appear before deletion to prevent accidental data loss.
Rename Profile	Rename the selected profile to a custom label that reflects its use — for example, the rifle model or specific zeroing distance. Custom names make it easier to identify and switch between profiles in the field.





4.2.4 ZEROING SETUP

The Zeroing Setup section allows you to precisely align the riflescope's reticle with the point of impact for each saved profile.

From this menu, you can select the shooting distance, fine-tune reticle position, adjust zoom, and use the freeze-frame function for accurate one-shot zeroing.



Table 4.2.4 Zeroing Setup menu

Icon	Name	Description
	Distance	Select the target distance at which you are performing zeroing. Use the Control Wheel to choose a distance value according to your shooting setup.
	Position Adjustment	Adjust the position of the reticle along the X (horizontal) and Y (vertical) axes to align the point of aim with the actual point of impact. After firing a shot, rotate the Control Wheel to move the reticle to the bullet impact position. Press and hold the Control Wheel to confirm and save the adjustment.
	Zoom	Change the magnification level during the zeroing process for greater precision when aligning the reticle with the impact point. Rotate the Control Wheel to zoom in for fine adjustments or zoom out for a wider field of view.
	Freeze Frame	Capture a still frame of the current image to simplify zeroing. After firing, activate Freeze Frame to lock the display image, then adjust the reticle without worrying about target movement or heat dissipation.

4.2.5 OPTICAL RANGING MODE

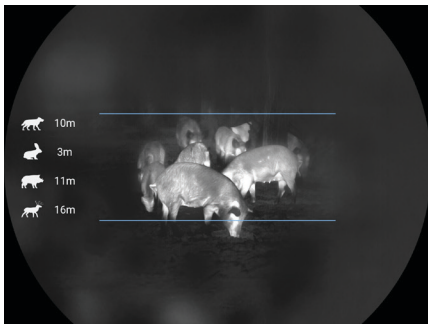
This feature allows manual range estimation using the reticle's reference marks or on-screen scale.

The optical ranging mode estimates the distance to the target by adjusting two horizontal reference lines so that they align with the top and bottom of the target's silhouette.

The system then calculates and displays the approximate distance based on the selected target type and apparent size.

Steps

1. **Press and hold** the **Control Wheel** to open the **Main Menu**.
2. **Rotate** the Control Wheel to highlight **Ranging** and **press** to open it.
3. **Rotate** the Control Wheel to move the blue lines until they touch the top and bottom edges of the target.



Once aligned, the system will display the estimated distance between the target and the riflescope.

4.2.6 GALLERY

All photos and videos captured on the riflescope are automatically stored in the internal memory.

You can access and review them directly from the device through the **Gallery** menu.

Steps

1. **Press and hold** the **Control Wheel** to open the **Main Menu**.
2. **Rotate** the **Control Wheel** to select **Gallery**, then **press** to open it.
3. **Browse and view** content:
 - **Rotate** the Control Wheel to scroll through the list of saved images and videos.
 - **Press** the Control Wheel to open and play the selected file.

TIP

Long-press the Control Wheel to exit the Gallery and return to the Main Menu.

4.2.7 RAV (RECOIL ACTIVATED VIDEO)

The **RAV** function automatically starts video recording when the riflescope detects recoil from a shot.

This ensures you never miss a key moment without needing to manually press record.

Steps

1. **Press and hold** the **Control Wheel** to open the **Main Menu**.
2. **Rotate** the Control Wheel to select **RAV**.
3. **Press** the Control Wheel to toggle the feature:
 - **On** — The riflescope will automatically record when recoil is detected.
 - **Off** — Recording will only occur manually when the user presses the record button.

TIP

Ensure the device is securely mounted to detect recoil accurately.

NOTE


The RAV function may not trigger with low-recoil calibers or when using suppressors.




4.2.8 FUNCTIONALITIES



The Functionalities menu provides access to additional tools and features that enhance the operation and user experience of your riflescope.

These options allow you to customize interface elements, enable useful widgets, and optimize the device for different field conditions.

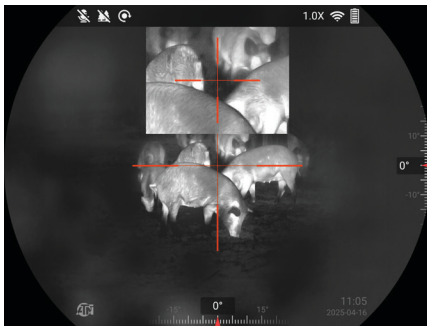
Table 4.2.8 Functionalities menu

Icon	Name	Description
	Zoom Step	Defines the increment used when changing digital zoom levels. Smaller steps allow for smoother, more precise adjustments, while larger steps enable faster zoom changes.

Icon	Name	Description
	Compass	<p>When the compass feature is active, the current heading is displayed at the top of the screen.</p> <p>Compass calibration: To begin compass calibration, rotate the rifle-scope along all three axes within 20 seconds, ensuring each axis completes at least one full 360° rotation.</p> <p>Once the rotation phase is complete, the device will display a pop-up prompting you to point the riflescope north. After aligning the device and confirming the north direction, the calibration process will finalize, and the system will return to the Main Menu.</p>
	Burning Warning	<p>When the system detects a potential overheating risk for the sensor, a warning message will appear on the screen and the shutter will automatically close to prevent damage.</p> <p>RECOMMENDATION</p> <p><i>Avoid aiming at extremely hot objects for long durations.</i></p>
	Pitch & Roll	<p>Displays device tilt and inclination relative to the horizon. These indicators help maintain proper leveling of the riflescope, improving long-range shot consistency.</p> <p>TIP</p> <p><i>Use this feature to ensure accurate zeroing and stability when shooting from uneven terrain.</i></p>

Icon	Name	Description
	<p>PIP</p>	<p>Displays a magnified section of the thermal image in a small window while keeping the full scene visible. Enhances target precision without losing situational awareness.</p> <p>For more details, see “4.2.8.1 PIP (Picture-in-Picture) Mode”.</p>
	<p>Hot Point</p>	<p>Highlights the hottest object detected in the field of view with a small marker. Useful for quickly locating heat sources such as game, vehicles, or human presence.</p> <p>NOTE</p> <p><i>The marker dynamically updates as the scene changes.</i></p> <p>For more details, see “4.2.8.2 Hot Point Tracking”.</p>

4.2.8.1 PIP (PICTURE-IN-PICTURE) MODE



The **PIP (Picture-in-Picture)** mode allows you to view a magnified portion of the thermal image in a smaller window while maintaining a wide field of view on the main screen.

This helps with precise aiming or observation without losing situational awareness.

Steps:

1. **Press and hold** the **Control Wheel** to open the **Main Menu**.
2. **Rotate** the Control Wheel to select Functionalities -> PIP.
3. **Press** the Control Wheel to enable or disable PIP mode.

When enabled, a zoomed-in window of the image center will appear at the **top center of the screen**.

TIP

- **Use PIP mode for accurate long-distance aiming while maintaining visibility of your surroundings.**
- **PIP settings can also be quickly accessed through the Quick Menu.**

4.2.8.2 HOT POINT TRACKING

The **Hot Point** function automatically detects and marks the hottest object in the visible area, making it easier to identify heat sources in real time.

Steps:

1. **Press** and hold the **Control Wheel** to open the **Main Menu**.
2. **Rotate** the Control Wheel to select Functionalities -> Hot Point.



3. **Press** the Control Wheel to enable or disable the function.

When enabled, a small **hot point icon** will appear on the screen, continuously tracking the area with the highest temperature.



NOTE







The Hot Point feature is most effective in stable environments and may fluctuate in scenes with multiple strong heat sources.








4.2.9 SETTINGS

The Settings menu allows you to configure core system parameters, manage power options, and adjust device behavior to match your personal preferences and operational needs.

Table 4.2.9 Settings menu

Icon	Name	Description
	NUC	<p>Corrects temperature drift and sensor noise to maintain image quality.</p> <ul style="list-style-type: none">• Auto: The system performs NUC automatically when needed.• Semi-Auto: NUC can be triggered manually or occurs occasionally.• Manual: The user can initiate NUC anytime from the menu or by pressing the assigned button. <p>For more details, see “4.2.9.1 Setting NUC”.</p>
	Pixel Correction	<p>Fixes defective (stuck or dead) pixels on the thermal sensor.</p> <ul style="list-style-type: none">• Auto: The device automatically detects and corrects bad pixels after user confirmation.• Manual: Opens the manual correction menu where you can individually mark and correct defective pixels.• Restore: Restores the default pixel map. <p>For more details, see “4.2.9.2 Setting Pixel Correction”.</p>

Icon	Name	Description
	Sleep Mode	Sets the period of inactivity after which the riflescope enters low-power standby mode. Options: Off, 1 min, 3 mins, 5 mins, 10 mins. NOTE Press any button to wake the device from sleep.
	Shutdown	Specifies the duration of inactivity before the riflescope powers off automatically. Options: Off, 5 mins, 10 mins, 30 mins, 60 mins. Use this feature to conserve battery power during extended downtime.
	Logo	When enabled, the logo appears in the lower-left corner of the screen.
	Record Audio	Press the Control Wheel to enable or disable audio recording. <ul style="list-style-type: none">• On: Videos are recorded with sound.• Off: Videos are recorded without sound.
	Status Bar	Press the Control Wheel to show or hide the status bar at the top of the screen. For more details, see “3.5.3 Status Bar Display”
	Wi-Fi	<ul style="list-style-type: none">• Wi-Fi: Turns the wireless connection On/Off for mobile app pairing or file transfer.• Wi-Fi Band: Choose between 5 GHz (faster, shorter range) or 2.4 GHz (slower, longer range).• Wi-Fi Password: Displays the SSID and current password in an information window. For more details, see “4.2.9.3 Wi-Fi Connection Setup”

Icon	Name	Description
	USB Mode	<ul style="list-style-type: none"> • ON: The riflescope will function as a storage device for file transfer. • OFF: The USB port can be used only as a power supply.
	Language	Select your preferred interface language.
	Units	Switch between Metric and Imperial measurement systems.
	Time Settings	<ul style="list-style-type: none"> • Time Display: Enable or disable on-screen time display. • Time Format: Choose the preferred date/time format. • Date & Time: Manually set the current date and time using the Control Wheel to adjust each value.
	Device Info	Device Information page, displaying firmware version, serial number, and other system data.
	Restore Default	Resets all menu parameters and user configurations to their factory defaults.
	Format	Deletes all images and videos stored in the device memory.

4.2.9.1 SETTING NUC (NON-UNIFORMITY CORRECTION)

NUC (Non-Uniformity Correction), is used to optimize the thermal image by compensating for small temperature variations across the sensor. This process ensures uniformity and helps detect even subtle temperature changes more accurately.

Procedure

1. Press and hold the **Control Wheel** to open the **Main Menu**.
2. Rotate the Control Wheel to select **Settings** → **NUC**.

3. Press the Control Wheel to access the **NUC configuration screen**.

Modes

- **Auto:**

The riflescope performs automatic flat-field calibration at regular intervals. This helps maintain consistent image quality during long observation periods.

- **Semi-Auto:**

Press the **Power button** on the viewing screen to manually trigger calibration at any time. Recommended when the image appears slightly uneven or blurry.

- **Manual:**

Close the lens cap, then press the **Power button** to manually perform calibration. This is useful for precise control or when environmental conditions (e.g., rapid temperature changes) affect image stability.

TIP

Regularly performing NUC ensures the best image uniformity and helps eliminate fixed-pattern noise, especially after large temperature fluctuations.

4.2.9.2 SETTING PIXEL CORRECTION

The **Pixel Correction** function allows you to fix defective (hot, dead, or stuck) pixels on the thermal sensor to maintain a clean, high-quality image.

Procedure

1. Press and hold the **Control Wheel** to open the **Main Menu**.
2. Rotate the **Control Wheel** to select **Settings** → **Pixel Correction**.
3. Press the **Control Wheel** to open the Pixel Correction configuration screen.

Modes

- **Auto:**

The riflescope automatically detects and corrects defective pixels.

1. Select **Auto**.
2. Follow on-screen instructions to **close the lens cap**.

3. Rotate the Control Wheel to select **Confirm**, then press the Control Wheel to begin correction.

- **Manual:**

Allows you to manually locate and correct defective pixels.

1. Press the Control Wheel to select **X-axis** and **Y-axis**.

2. Rotate the Control Wheel to move the cursor over the defective pixel.

3. Double-press the Control Wheel to save the correction. The center of the cursor marks the corrected pixel.

- **Restore:**

Restores the pixel correction map to its **factory default state**.

A confirmation message appears once the reset is complete.

TIP

Run Pixel Correction if you notice fixed bright or dark points that do not move with the image — this will recalibrate your thermal sensor for optimal image quality.

4.2.9.3 WI-FI CONNECTION SETUP



After enabling Wi-Fi, the riflescope creates its own wireless hotspot, allowing you to connect a smartphone or tablet and access live view, media files, or control features through the ATN mobile app.

Connection Procedure

1. On your smartphone, open the App Store (iOS) or Google Play (Android) and search for “**ATN Connect 6**”

to download and install the application.

2. Press and hold the **Control Wheel** to open the **Main Menu**.

3. Rotate the Control Wheel to select **Setting>WiFi**, then press the Control Wheel to enter.
4. Enable **Wi-Fi**. The device will broadcast its hotspot with the following credentials:
 - **Wi-Fi Name (SSID)**: You can find it on the label attached to the lens cap, or by navigating to **Main Menu** → **Settings** → **Wi-Fi Password**.
 - **Password**: The password you created during the initial setup. If you skipped that step, the default password is **12345678**. (See “3.4 Initial Setup” for details.)
5. Then launch the **ATN Connect 6**, choose the device, and follow the on-screen prompts.

NOTE

The Wi-Fi password can also be changed directly through the ATN Connect 6 mobile app in the Settings section.

Switching Wi-Fi Band

In the **Wi-Fi Settings** menu, select **Wi-Fi Band** and rotate the **Control Wheel** to choose between:

- 2.4 GHz: Longer range, more stable connection in open areas.
- 5 GHz: Faster data transfer speed and lower latency for close-range use.

5. SYSTEM UPDATE

You can update the riflescope firmware **manually** using a USB connection.

NOTE

Always ensure the device battery level is above 30% before starting the update.

If the charge is below this level, the update will be blocked and a notification will appear prompting you to recharge the device.

5.1 MANUAL FIRMWARE UPDATE

Follow these steps to update the firmware manually:

1. **Download** the latest firmware file from the official ATN website.
2. **Copy** the firmware file (.bin) to the **root directory** of the riflescope's internal storage.
3. **Disconnect** the device safely from the computer.
4. **Reboot** the device.
5. When a new firmware version is detected, a message will appear:
“*Confirm to upgrade*”
6. **Select** “Confirm” using the Control Wheel.
7. The update process will begin automatically.

NOTE

During Update: Do not power off or disconnect the device. The process may take several minutes.

If the battery charge is insufficient, the message will state:

“*Low battery. Please charge before updating.*”

After a successful update, the riflescope will automatically restart.

5.2 FIRMWARE UPDATE VIA MOBILE APP

When the mobile app detects a new firmware version available for your riflescope, it will display a notification on your screen.

1. **Open the app** and connect to your device via Wi-Fi.
2. When prompted, tap **Push-message** to begin the update process.
3. The firmware will download and install automatically.
4. Once the installation is complete, the riflescope will **restart** to finalize the update.

NOTE

Keep your phone close to the device and ensure a stable Wi-Fi connection throughout the process. Interrupting the update may cause firmware corruption or incomplete installation.

6. EXPORTING FILES

You can transfer recorded videos and captured images from the riflescope to a computer via a **USB Type-C** connection for viewing, editing, or storage.

Steps

1. Connect to a Computer

- Use a **Type-C data** cable to connect the riflescope to your computer.
- The driver will install automatically during the first connection.

IMPORTANT

Connect the cable before powering on the riflescope. Avoid hot-swapping the Type-C port while the device is running.

2. Enable USB Mode

- Go to Settings > USB Mode > On.

3. Access Files on the Computer

- On your desktop, open **This PC (My Computer)** → locate and open the **riflescope drive** under **Removable Storage**.
- Browse to find your photo and video files.
- **Copy** the desired files to your computer.

4. Playback

- To view exported videos, use a compatible **media player** for optimal performance.

5. Disconnect Safely

- When finished, safely eject the drive and disconnect the Type-C cable.

TIP

Keep the device powered and stable during file transfer to avoid data corruption.

7. IMPORTANT SAFETY INFORMATION

This section provides essential information on the **safe handling and operation** of the device.

Please read this section carefully before use to **avoid personal injury, prevent equipment damage, and ensure reliable performance.**

Follow all safety instructions and warnings strictly during operation, transportation, and maintenance of the device.

Transportation Requirements

- Transport the device only within the **recommended temperature and humidity limits.**
- Avoid **drops, impacts, excessive vibration, or liquid exposure** during transport. Handle the device gently to prevent internal damage or loose cable connections.
- Always use the **original packaging** or equivalent protective materials. Transporting the device without proper packaging may result in damage.

Storage Requirements

- Store the device within the **allowed temperature and humidity range.**
- Keep it away from **humid, dusty, extremely hot or cold environments,** and areas with **strong electromagnetic radiation or unstable lighting.**
- Avoid squeezing, vibration, or mechanical shock during storage.
- Store the device in a **well-ventilated, dry area** free from electromagnetic interference.
- If storing for long periods, **fully recharge the battery every six months** to maintain performance and prevent damage.

Operation Requirements

- Prevent liquids from entering the device to avoid internal damage.

- Do not insert foreign objects into any openings — this may cause a short circuit or injury.
- Avoid high-dust or high-radiation environments.
- Never aim the lens at the **sun or intense light sources**, as this can permanently damage the sensor.
- Improper battery use or replacement may cause an **explosion hazard**.
- Use only the **provided charger** and ensure no flammable materials are within **2 meters** during charging.
- Ensure the power plug is securely connected to the socket.
- Do not connect multiple devices to one power adapter to avoid **overheating or fire hazards**.
- If **smoke, odor, or abnormal noise** occurs, immediately power off the device, unplug it, and contact customer service.
- Do not disassemble the device. Repairs must be performed by **qualified professionals** only. Unauthorized disassembly may cause water ingress or image quality degradation.
- **Operating temperature:** -22°F to $+121^{\circ}\text{F}$; **humidity:** $\leq 95\%$ RH.

Maintenance and Repair Requirements

- Prevent liquids from entering the device. If liquid intrusion occurs, **power off immediately**, disconnect all cables, and contact customer service.
- Use only **manufacturer-approved accessories**. Maintenance should be performed by qualified technicians.
- Disconnect power before cleaning to prevent electric shock.
- Clean the device using a **soft, dry cloth**. For stubborn dirt, lightly dampen the cloth with neutral detergent and wipe gently, then dry completely.
- **Do not use** alcohol, benzene, thinner, or abrasive cleaners — they can damage the coating and impair performance.
- Retain the **original packaging**. If service is required, pack the device securely in its factory packaging before shipping.

Laser Safety Requirements

WARNING



The integrated laser can cause permanent eye injury.

- *Never look directly into the laser beam or through optical instruments while the laser is active.*
- *Always ensure the laser is used in compliance with local safety regulations.*

8. FCC COMPLIANCE STATEMENT

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

This device may not cause harmful interference.

This device must accept any interference received, including interference that may cause undesired operation.

This device has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This device generates, uses, and can radiate radio frequency energy and, if not installed and 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 device does cause harmful interference to radio or television reception, which can be determined by turning the device off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the device and the receiver.
- Connect the device into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

WARNING

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

The Effective Radiated Isotropic Power (ERIP) of this device is below 4mW (dBm). If the ERIP exceeds this limit, SAR testing is required to comply with FCC regulations.

9. PROP 65 WARNING

PROPOSITION 65 WARNING FOR CALIFORNIA CONSUMERS

For more information go to www.p65warnings.ca.gov

WARNING

This product can expose you to Nickel (Metallic), which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

EXPORT DISCLAIMER

Important Export Restrictions! Commodities, products, technologies and services contained in this manual are subject to one or more of the export control laws and regulations of the U.S. Government and they fall under the control jurisdiction of either the US Department of State or the US BIS-Department of Commerce. It is unlawful and strictly prohibited to export, or attempt to export or otherwise transfer or sell any hardware or technical data or furnish any service to any foreign person, whether abroad or in the United States, for which a license or written approval of the U.S. Government is required, without first obtaining the required license or written approval from the Department of the U.S. Government having jurisdiction. Diversion contrary to U.S. law is prohibited.

10. WARRANTY AND SUPPORT INFORMATION

5-YEAR LIMITED PRODUCT WARRANTY

Your ATN product is warranted to be free from defects in materials and workmanship under **normal use** for a period of **five (5) years** from the original date of purchase.

Rechargeable batteries supplied with the product are covered by a limited warranty of **six (6) months** from the date of purchase.

The warranty does not cover normal wear and tear, including battery capacity degradation resulting from regular use

If a covered defect arises during the warranty period, **ATN Corporation**, at its discretion, will **repair or replace** the product. This action represents the full extent of ATN's liability, and the customer's exclusive remedy.

This warranty **does not cover**:

- Products used outside normal operating conditions or subjected to misuse, abuse, or unauthorized repair/modification.
- Products sold "as-is," special order, or discontinued items.
- Damage resulting from improper storage, handling, or operation with incompatible equipment.

This warranty applies **only to the original purchaser** and is **non-transferable**.

All implied warranties, including merchantability or fitness for a particular purpose, are expressly disclaimed.

LIMITATION OF LIABILITY

ATN shall not be liable for **any indirect, incidental, or consequential damages**, including loss of profit, data, or revenue.

ATN's total liability under this warranty is limited to the purchase price of the product.

Operation and use of the product are the sole responsibility of the customer.

PRODUCT WARRANTY REGISTRATION

To validate your warranty, please complete the **Product Warranty Registration** online at www.atncorp.com or mail the completed registration card to: **ATN Corporation 2400 NW 95 Ave, Doral, FL 33172, USA.**

OBTAINING WARRANTY SERVICE

To obtain service under warranty:

1. Contact ATN's Service Department at **(800) 910-2862** or **(650) 989-5100**, or email service@atncorp.com to receive a **Return Merchandise Authorization (RMA)** number.
2. Return the product (postage paid) with proof of purchase and a note describing the issue to: **ATN Corporation, 2400 NW 95 Ave, Doral, FL 33172, USA.**
3. Mark the **RMA number** clearly on the outside of the package.
4. Include your contact details (phone, email, return address).

ATN is not responsible for uninsured or improperly shipped items.

Service time: approximately **10–20 business days.**

Customers are responsible for inbound shipping; ATN covers return shipping within the continental USA for valid warranty repairs.

NEED HELP?

For technical assistance, visit our support center:

www.atncorp.com/support

or contact our service team directly at

service@atncorp.com



FOR CUSTOMER SERVICE AND TECHNICAL SUPPORT,
PLEASE CONTACT

AMERICAN TECHNOLOGIES NETWORK CORP.

2400 NW 95 AVE, DORAL, FL 33172

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