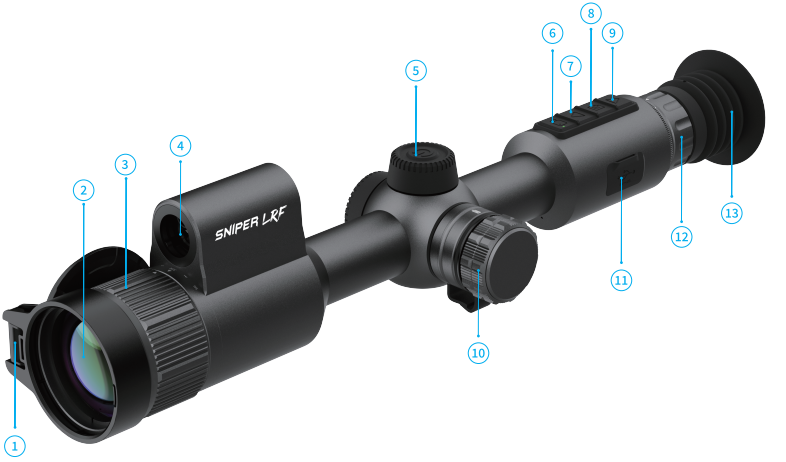
THERMAL IMAGING SCOPES

INSTRUCTIONAL MANUAL: SNIPER / SNIPER LRF

Predator Thermal Optics

Double check to make sure the firearm / weapon is unloaded / uncocked before scope installation.



1. Lens Cover	2. Objective Lens	3. Lens Focusing Ring
4. Laser Rangefinder	5. Power (ON/OFF) Button	6. Record Button (REC)
7. Navigation UP Button	8. MENU Button	9. Navigation DOWN Button
10.Battery Cap, **NOTE:** Battery MUST be inserted (+) positive end first into the scope.		
11.Data Compartment	12. Diopter Adjustment Ring	13. Eyeshade

In The Box

- Thermal Imaging Sight
- Manual
- Type-C Cable
- 5V 2A Adapter Plug
- Battery
- 26650/18650 Battery Converter Tube

Quick Start

Power On and Image Settings

- Hold the power (ON/OFF) button (5) for 3 seconds to power on.
- Rotate the diopter adjustment ring (12) to get a clear image of the icons on the display.
- Rotate the lens focusing ring (3) to get a clear image of the observed object.
- Press the navigation UP button (7) to select the operating modes (White Hot, Sky Mode, Black Hot, Red Hot, Fusion).
- Press the navigation DOWN button (9) to select digital magnification (1x, 2x, 4x, 8x).
- Press and hold the navigation DOWN button (9) to turn ON/OFF the LRF (Laser Range Finder).
- Press the MENU button (8) to enter the menu to select the appropriate parameter.
- Hold the power (ON/OFF) button (5) for 3 seconds to power off. The LED indicator will be turned off after the device is powered off.

Buttons

Button Layout / Function

① Power (ON/OFF) Button

1. Hold the power (ON/OFF) button for 3 seconds to power on/off. The LED indicator will be turned off after power off. Hold the power (ON/OFF) button for 1-3 seconds to go into sleep mode. The LED indicator will be green when the device is in sleep mode. Wake the device by short pressing the power (ON/OFF) button.

② Record Button(REC)

When not in menu mode:

1. Short press to start recording video. Short press again to stop recording.
2. Long press to take a photo.

③ ↑ Navigation Up Button

1. In menu mode: Press to switch menu items upward.
2. When not in menu mode: Quick press to switch between color palettes.
3. Long press to turn on/off Picture in Picture.

④ MENU Button

1. Short press to bring up the menu, move the menu options up and down, and short press the "M" key to enter the secondary menu.

⑤ ↓ Navigation DOWN Button

1. In menu mode: Press to switch menu items downwards.
2. When not in menu mode: Press to zoom 1x, 2x, 4x, 8x.
3. Long press to turn ON/OFF the Laser Range Finder.

Menu Functions

Number	Main Menu Description	Sub Menu Description
1	Operating Modes	Options: "White Hot"/"Sky Mode"/"Black Hot"/"Red Hot"/"Fusion". Default mode is "White Hot".
2	Picture in Picture	Options: "On"/"Off".
3	WIFI	Options: "On"/"Off" Turn on WiFi on both the device's Menu and user's phone. On user's phone, find and connect to "SNIPER-XXX" WiFi network with password 12345678. Live image will be displayed on the App after the phone is connected to the device's WiFi.
4	OLED Brightness	Options: 1-10.
5	Target Brightness	Options: 1-10.

6	Contrast Ratio	Options: 1-10.
7	Image Sharpness	Options: 1-5.
8	Reticle Type	Options: Off/Select the preferred reticle type from 8 choices.
9	Reticle Color	Options: Black, White, Orange, Red, Green.
10	Reticle Profiles	Select one of the saved profiles (Max. 10 profiles).
11	Reticle Adjustment	Freeze the image by pressing the MENU button. Move the reticle horizontally or vertically with the UP/DOWN buttons. Switch between horizontal and vertical adjustments by pressing REC button. After the reticle matches the point of impact, press the MENU button to save the position. Input the target distance and select the unit (Meter/Yard). The reticle profile will be saved with the distance as it’ s name.
12	LRF Setting	1. 5 - Seconds. 2. 15 - Seconds. 3. 30 - Seconds. 4. Continuous.
13	Laser Rangefinder Unit	Options: Meter/Yard.
14	Record Audio	Options: On/Off Default is off.

15	Gyro	Options: On/Off.
16	Auto Ballistic Calculator	Enter the main menu and scroll to the heading "Auto Ballistics Calculator". Turn on /off or settings to change specifics.
17	Date/Time	Move the options by pressing the MENU button. Change the value using the UP/DOWN button. Confirm the values by pressing the MENU button. Quit by holding the MENU button.
18	Format	Options: Confirm/Cancel.
19	Default setting	Options: Confirm/Cancel.
20	Image Adjustment	Options: "Cancel"/"Confirm" Select “Image Adjustment” in the main menu. Press MENU button to select "Confirm" and cover the lens if the image adjustment is required.
21	Pixel Fix	Select "Pixel Cure" and press MENU button to get to the submenu. The lens should be covered with lens cover before performing the pixel cure. Press the MENU button and follow the prompts to fix the bad pixels. After repair, please remember to save it. Hold the UP/DOWN button to move X/Y position. Press the Power button to switch between X/Y/Save.
22	Video Output	Options: "On"/"Off" The video output function CVBS will be on/off accordingly.

23	Language	Options: English/Chinese/Other Languages
24	Version	Select "Version" to view the device's software version.

Installing The Battery

- Please use Predator Thermal Optics Lithium Rechargeable 18650 or 26650 Flat Top Batteries only.
- Using an 18650 will require the use of the provided 18650 minimizer sleeve.
- Remove the battery cap and install the 18650, or 26650 into the scope positive end first. Re-install the cap and ensure it is fully tightened.

Using the Integrated Laser Rangefinder / LRF Models Only.

- Hold the power (ON/OFF) button (11) for 3 seconds to power on the device.
- Hold the navigation DOWN button (6) for 3 seconds to activate the laser rangefinder.
- The rangefinder indicator box will appear on the screen / display.
- Point the rangefinding indicator box at an object to measure the distance... The distance will then be displayed on the screen / display.

Mount / Rings Installation

- The Sniper line of Thermal Optics uses a 30mm scope tube. Traditional upright 30mm rings, or a 30mm cantilever style mount is suggested. **NOTE:** Using high quality mounting rings is suggested and ensures the highest performance from your optic.
- **NOTE:** It is critical to follow the mount / ring manufacturers suggested in/lbs (Inch Pounds) of torque to ensure proper installation on your scope.

Thermal Sight in Process

1. Find the Reticle you want to use by going to “Reticle Type” in the Menu. **Note:** To enter the Main Menu, simply tap the Menu Button. Then, scroll up or down using the up or down buttons. Once you have found your desired reticle, push the menu button to choose your option. Then, hold the menu button to exit.

2. Find the Reticle Color by going to “Reticle Color” on the Menu. Once you have found your desired reticle color, push the menu button to choose your option. Then, hold the menu button to exit.

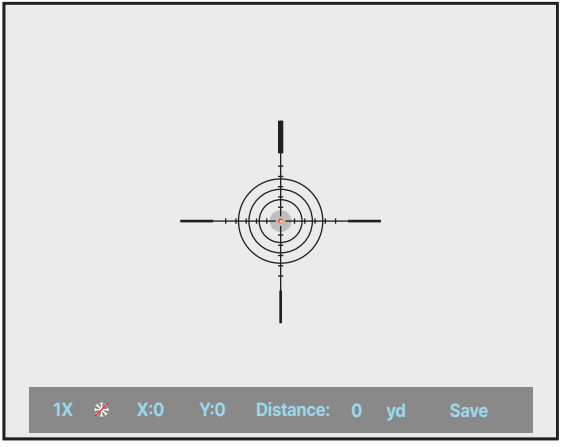
3. Select your Reticle Profile in the Menu. Push the menu button to choose your option. Then, hold the menu button to exit. **Note:** The first time, you should be using the top reticle profile, (A).

4. Go to Reticle Adjustment in the Menu and click the Menu Button to enter.

5. When you enter Reticle Adjustment, you will see the following icons at the bottom (Snowflake with a red line, X:0, Y:0, Distance: 0, the letter M / Y. **Note:** This is for yards or meters. Save.)

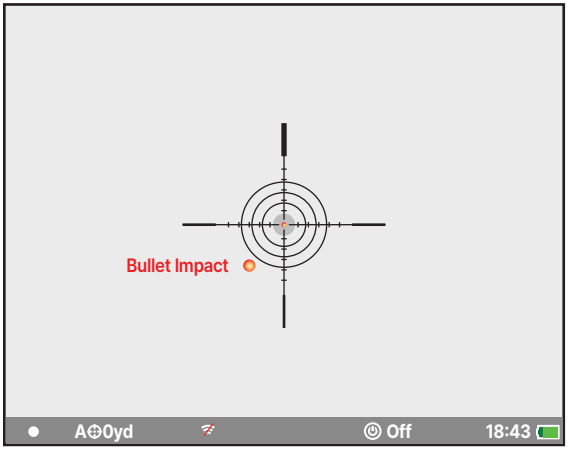
6. To rotate through the bottom icons, you simply tap the Record Button, and you will see the icon highlight that you are on.

7. While in the Reticle Adjustment, take your first shot at 50 yards max. **Note:** An ice cube, hand warmer, or piece of aluminum foil can be used as a center mark for a bullseye.



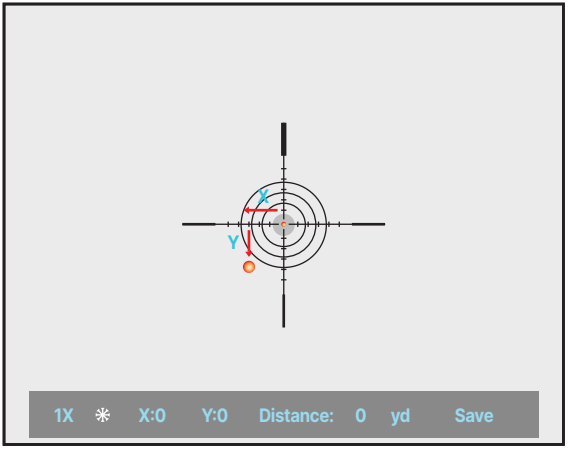
Shot #1

8. You should see where the bullet impacted the target by a visible heat mark, or visually inspecting the target.



Shot placement was low and left of the intended target...Reticle adjustment is required.

9. While in Reticle Adjustment, make sure the Snowflake is Highlighted and tap the Menu Button when the Center of your Crosshair is on the bullseye where you were attempting to shoot. This will change the Snowflake with a Red Cross to a Solid Snowflake with no Red Cross. This means you froze your Screen. Now you can move the scope, and the Screen will be frozen.

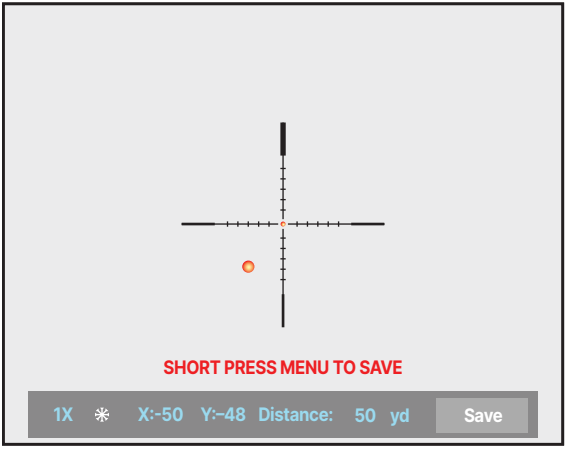


Once you have frozen your reticle / screen, you can now make X and Y adjustments to move the reticle to the last shot by following steps 10 and 11.

10. Navigate to the X:0 by clicking the Record Button. Once highlighted over the X:0, using the UP/Down Button, Tap/Hold to move the crosshair to the point of impact of the bullet. You will physically see the crosshair moving on the display.

11. Next, you will tap the Record Button to go to Y:0. Now, you can move the Crosshair Up/down to the Point of Impact. Once the Crosshair is on the Point of Impact, tap the Record Button again, and you can adjust the target distance: 0 by using the Up/Down and Y/M if you want the distance to be saved as Meters or Yards.

12. You will now see that the X and Y numbers have changed while making the required reticle adjustments. Because you are at 50 yards, you can also change the distance to 50 y. You can now scroll to the "Save" icon and the words ,"SHORT PRESS MENU TO SAVE" will appear. Press the main menu button and the words, "Save OK" will then appear on the screen and then disappear... Your new reticle adjustments have now been saved. Your next shot should be close to your intended bullseye.



Reticle adjustments and distance have been changed... You can now SAVE.

13. Repeat these steps if necessary to make minor adjustments. Once you are close to your target's bullseye at 50 yards, it is suggested that you move your target to 100 yards and zero again at that distance. 100 Yards is a common zero distance and for your scope. NOTE: If you resight your scope at 100y, be sure to change your distance from 50y to 100y. Follow the steps above to resight at 100y.

Advanced Setting / Tools: Ballistics Calculator Setup for (LRF) Laser Range Finder Scopes only.

1. Enter the main menu and scroll to the "**Auto Ballistics Calculator**", press the main menu tab to enter the BC Menu which will display, ON/OFF/SETTINGS.

2. Enter Ballistics Information / BC Type: Select the "Settings" tab to enter the Ballistics Calculator main settings menu. You have the ability to use 5x different profiles for 5 x different ballistic specifics to the ammunition you intend to use... A, B, C, D, E.

3. BC Type: Choose the desired profile A, B, C, D, E by using the up / down buttons / arrows… Once the profile has been chosen, press the Record button to move to the next profile setting, (Bullet Weight).

4. Bullet Weight: Enter the bullet weight by using the up / down arrow buttons…. Once the bullet weight is entered, press the Scopes button to move to the BC tab.

5. BC / Ballistic Coefficient: Enter the manufacturers BC if provided. The BC can differ from weapon to weapon depending on several variables…Fine tuning is often required.

6. Ballistic Speed: Enter the manufacturers ballistic speed… Ballistic speed can also vary amongst weapons so using a properly calibrated chronograph is suggested.

7. Baseline Height: Baseline height refers to the vertical distance between the center of the rifle barrel (bore) and the centerline of the scope at the muzzle.

8. Zero Distance: Enter your desired zero distance, a common distance is (100 Yards).

9. Altitude: Enter the altitude for the intended area of use.

10. Temperature: Enter the temperature for the intended area of use.

11. Marking Color: This allows you to choose the desired color of your reticle for the ballistics calculated crosshair. (Red, Green, Yellow).

12. Confirm: Once all the appropriate ballistics' information has been entered, scroll to "confirm" and press the main menu button… You have now saved the ballistics information entered. Once saved, you will be taken back to the main menu with the "**Auto Ballistics Calculator**" still highlighted. Enter the Ballistics menu to either turn the ballistics calculator ON, OFF, or SETTINGS to make further adjustments.

NOTE: It is critical that the Auto Ballistics Calculator is “OFF” if you have not implemented the proper information into the settings section or simply do not want to use the feature. Having the ballistics calculator “ON” without the proper ballistics’ information entered, can affect your accuracy.

Ballistics Calculator Use

Ensuring all ballistics information has been entered properly, your scope is now set up to use the Auto Ballistics Calculator.

1. Re-enter the Ballistics Calculator menu and ensure the ballistics calculator is turned on.

2. The ballistics calculator will automatically calculate proper reticle placement when using the (LRF) Laser Range Finder.

3. Aiming the scope at a desired target and pressing the rear arrow button will utilize the laser LRF. A small white box will appear on your screen. Place the white box on the desired target to range. A distance reading will then appear on the screen. At the same time, if ballistics calculations are needed to make an accurate shot, a secondary reticle / crosshair will appear on your screen. This secondary crosshair has taken ballistics calculations into account and placed the reticle properly for your desired shooting / target distance.

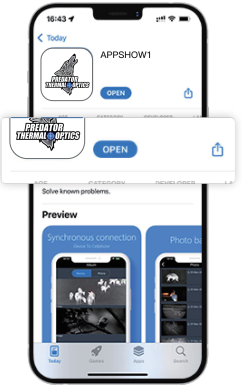
4. Once the ballistics calculator has brought up the secondary crosshair, quickly press the main menu button to "lock" the calculated crosshair position into place while on target.

Locking the crosshair onto the desired target will ensure the calculations will not change even if you move your crosshair off the target. Once the crosshair is "locked" a small red lock will appear on the screen. To unlock the crosshair, simply press the main menu button again, and the red lock will disappear.

NOTE: It is critical that the Auto Ballistics Calculator is "OFF" if you have not implemented the proper information into the settings section or simply do not want to use the feature. Having the ballistics calculator "ON" without the proper ballistics' information entered, can affect your accuracy.

APP Connection

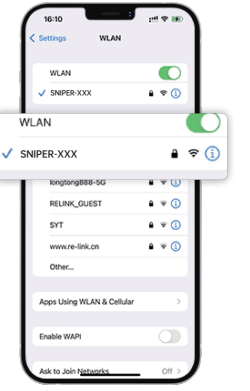
Download APP by Scanning the QR code according to the mobile phone system.



Download the APP

Turn on WiFi on device and phone

Enter APP



Choose WiFi "SNIPER-..." to connect WiFi (Password:12345678)

1. 18650 / 26650 Battery Safety

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2. Warranty Information and Registration

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3. Limitation of Liability

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4. Product Registration

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5. Obtaining Warranty Service

Predator Thermal Optics
Info@PredatorThermalOptics.com
www.PredatorThermalOptics.com
(810) 356-3442

18650/26650 Rechargeable Battery Safety

The 18650/26650 cell contains flammable chemicals such as organic solvents. If the battery is mishandled, it may cause fire, smoke, or an explosion and the battery's functionality will be seriously damaged. 18650/26650 batteries are the most popular type of lithium-ion batteries. Even though there are many safety precautions, they are surprisingly hardy and safe to use. Each authentic cell is rigorously tested for safety, including one meter drop test before they reach you. Nonetheless, you must treat your 18650/26650 batteries with respect.

1. IMMERSION- Do not immerse the battery in ANY liquid such as water, ocean water, soda, or beer.
2. HIGH TEMPERATURE- Do not use or place the battery near fire or high temperatures (over 70 degree C).
3. WRONG CHARGER- Do not use unauthorized chargers. Max charge should be 4.2 V for most 18650/26650s.
4. REVERSE POLARITY- Make sure the + and - poles are oriented correctly. Do not force into the mount.
5. DIRECT CONNECTION- Do not connect the battery with AC plug (outlet) or car plugs.
6. SHORT -CIRCUIT- Do not connect the + and - terminals with conductive materials. Keep out of pockets.
7. IMPACT- Avoid unnecessary impact to the battery. Keep in a hard case during transport.
8. PENETRATION - Be careful not to penetrate the battery in any way.
9. SOLDERING - Do not directly solder on to the battery: the insulator could melt or damage the vent.
10. DISASSEMBLY & RECONSTRUCTION- Do not disassemble the battery. You may damage the protection circuit or worse.
11. DEFORMATION- Do not use a battery with conspicuous damage or deformation.
12. INGESTION- The batter should be kept away from infants and children.
13. STORING- Do not put the battery in the microwave or other cooking appliances.
14. MIXED USE- Do not use the battery with other batteries unless they will always be used together.
15. RUST, COLOR CHANGE- Stop using battery if there is abnormal smell, heat, deformities, or discoloration.
16. CHARGING TIME- Stop charging if the battery cannot finish charging within the specified time.
17. LEAKAGE- Do not touch leaking batteries. Battery liquid exposed to your skin or eyes could cause significant damage.
18. TRANSPORT- To prevent short-circuits or damage, tightly pack the battery in a case or box.
19. DIRECT SUNLIGHT- Do not use or leave the battery in excessive heat such as in a car or in direct sunlight.
20. STATIC ELECTRICITY- Do not use batteries where it generates more than 100v of static electricity.
21. CHARGING TEMPERATURE- The charging temperature range is regulated between 10 and 45 Celsius.
22. MANUAL- You should read both the manual for your device and the battery charger before use.
23. FIRST TIME USE- If battery has unusual color, heat generation, or rust, contact vendor.
24. FLAMMABLE MATERIALS- Do not charge or discharge near flammable materials.
25. LEAKAGE ON SKIN- If leakage gets on skin or clothing, flush with water to help prevent irritation.
26. INSULATION- If wires or metal objects come out from the battery, please dispose of the battery properly.
27. RECYCLE- Recycle battery at local battery drop-off point or contact vendor you bought from.

The 18650/26650 cell contains flammable chemicals such as organic solvents. If the battery is mishandled, it may cause fire, smoke, or an explosion and the battery's functionality will be seriously damaged. 18650/26650 batteries are the most popular type of lithium-ion batteries. Even though there are many safety precautions, they are surprisingly hardy and safe to use. Each authentic cell is rigorously tested for safety, including one meter drop test before they reach you. Nonetheless, you must treat your 18650/26650 battery with respect.

WARRANTY INFORMATION AND REGISTRATION

This product is guaranteed to be free from manufacturing defects in material and workmanship under normal use for a period of five (5) years from the date of purchase. In the event that a defect covered by the warranty below occurs during the applicable period stated above, Predator Thermal Optics, at its discretion, will either repair or replace the product; such action on the part of Predator Thermal Optics shall be the full extent of Predator Thermal Optics liability, and the customer's sole and exclusive reparation. This warranty does not cover a product if it has been; (a) used in ways 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 Predator Thermal Optics without prior written consent of Predator Thermal Optics; (d) is the result of a special order or categorized as "close-out" merchandise or merchandise sold "as-is" by either Predator Thermal Optics or the Predator Thermal Optics 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 Predator Thermal Optics. Predator Thermal Optics shall not be responsible for any defects or damage that in Predator Thermal Optics view are a result from the mishandling, abuse, misuse, improper storage or improper operation of the device, including use in conjunction with equipment that 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 enforced unless the customer notifies Predator Thermal Optics 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

Predator Thermal Optics 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. Predator Thermal Optics' 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 Predator Thermal Optics Inc. 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 Predator Thermal Optics and the customer; Predator Thermal Optics obligations under this agreement extend solely to the customer. Predator Thermal Optics liability hereunder for damages, regardless of the form or action, shall not exceed the fees or other charges paid to Predator Thermal Optics, by the customer or customer's dealer. Predator Thermal Optics 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 REGISTRATION

In order to validate the warranty on your product, the customer must complete and submit the Predator Thermal Optics PRODUCT REGISTRATION FORM on our website within 30 days from the date of purchase. Hard copies will not be accepted. https://PredatorThermalOptics.com/product-warranty-registration

OBTAINING WARRANTY SERVICE

To obtain warranty service on your unit, the End-user (Customer) must notify the Predator Thermal Optics service department via e-mail. Send any requests to Info@PredatorThermalOptics.com to receive a Return Merchandise Authorization number (RMA). When returning any device, please take the product to your retailer, or send the product, postage paid and with a copy of your sales receipt, to Predator Thermal Optics service center at the address listed at the bottom of this page. All merchandise must be fully insured with the correct postage; Predator Thermal Optics will not be responsible for improper postage or merchandise that becomes lost or damaged during shipment. When sending product back, please clearly write the RMA# on the outside of the shipping box. Please include a letter that indicates your RMA#, the customer's name, a return address, reason for the return, contact information (valid telephone numbers and/or an e-mail address), and proof of purchase 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 and also dependent on if the item is currently in stock. The end-user/customer is responsible for postage to Predator Thermal Optics for warranty service. Predator Thermal Optics will cover return postage/shipping after warranty repair to the end-user/customer only if the product is covered by the aforementioned warranty. Predator Thermal Optics will return the product after warranty service by domestic UPS Ground service and/or domestic mail. Should any other requested, required, or international shipping methods be necessary, the postage/shipping fee will be the responsibility of the end-user/customer. For service, repair, or replacement, please contact Predator Thermal Optics at:

Info@PredatorThermalOptics.com or 810-356-3442.

Safety Summary

1. Double check to make sure the firearm / weapon is unloaded / uncocked before scope installation.

2. Read and follow all manufacturers instructions / warnings.

3. Only use the provided batteries, and accessories specified by the manufacturer.

4. All service repairs / warranty work MUST be performed by the manufacturer.

5. 18650 / 26650 Batteries MUST be removed from the thermal device during periods of storage.

LEGAL NOTICE: Before installation to a weapon / firearm, check the regional legal regulations regarding the use of thermal devices.

Attaching a Predator Thermal Optics device to any weapon is always the sole responsibility of the user.

PREDATOR THERMAL OPTICS

Info@PredatorThermalOptics.com www.PredatorThermalOptics.com

(810) 356-3442 Predator Thermal Optics