ATHLON
RIDICULOUSLY GOOD OPTICS

CRONUS ATS PRO THERMAL SCOPE

35L-400 | 50L-640

USER MANUAL

athlonoptics.com

CONTENTS

DISCLAIMERS

This product is for civilian use only and shall not be used for infringing the rights of third parties, medical, safety equipment or other applications where product failure may cause danger to life or personal injury. In the event of a conflict between the foregoing and applicable law, the law shall prevail.

IMPORTANT INSTRUCTIONS

This manual is a general manual for a series of products, which means that the product of a specific model you receive might differ from the picture herein. Please refer to the actual product received.

This user manual is prepared for the convenience of users to use and know our products. We have tried our best to ensure the accuracy of its contents, but we are still unable to guarantee its completeness since our products can be continuously updated and upgraded. Athlon Optics reserves the right to modify the manual at any time without notice.

CAUTIONS

⚠ DANGER

1) Please charge the battery with the method described in this guide and follow the charging procedure and precautions. Improper battery charging will cause heating, damage and even physical injury.

2) Do not try to open or disassemble the battery at any time.

3) The internal battery can only be charged through the USB-C port and the external battery does not charge the internal battery. The optic draws current from external battery first and the internal battery when external one runs out power.

⚠ WARNING

1) This scope contains advanced electronics. To prolong the life of this optic, avoid any undue physical damage or violent actions.

2) Do not use or store the equipment in an environment that exceeds the allowable operating or storage temperature.

3) Do not directly aim the equipment at high-intensity thermal radiation sources, such as the sun, lasers, spot welding machines, etc.

4) Avoid allowing debris to enter any ports in this optic.

5) Do not knock, throw or vibrate instruments and accessories to avoid damage.

6) Any modifcation, alterations or attempts to dissassemble this scope will void the user's warranty. All repairs must be made through Athlon Optics.

7) Avoid contaminating this scope with oils or solvents.

8) Please observe the following measures when wiping this Scope:

· Non-optical surface: Use a clean and soft cloth to wipe the non-optical surface of the thermal scope.

· Optical surface: When using the thermal scope, avoid contaminating the optical lens surfaces of this scope. Avoid touching the objective lens with your hands. Oils and solvents can degrade the lens coatings. When the surface of the optical lens is polluted, use special lens paper to wipe it carefully.

9) Do not place the battery in a high temperature or near a high-temperature object.

10) Do not short circuit the positive and negative poles of the battery.

11) Do not expose the battery to moisture or water.

12) Only use the original chargers and adapters provided with this scope.

CHAPTER 1 - PRODUCT INTRODUCTION

Athlon Optics thermal scope retains the appearance of a traditional daylight scope and perfectly incorporates latest premium thermal imaging technology. The design of this scope accommodates traditional hunters' habits of handling the scope and rifle. ATS series adopts 400x300/640×480 12 μm high- sensitivity thermal detector with two different lens options of 35mm, 50mm, and its 10 sets of zero profiles that make it convenient to switch between different calibers of rifles.

CHAPTER 2 - STORAGE AND TRANSPORTATION

In order to prevent danger and property loss, please read this manual carefully before using the scope and strictly abide by it during its use.

STORAGE

1) The packaged product shall be stored in well-ventilated and clean rooms at -22°F ~ 122°F (-30°C - 50°C), without condensing or corrosive gas, under relative humidity of no more than 95%.
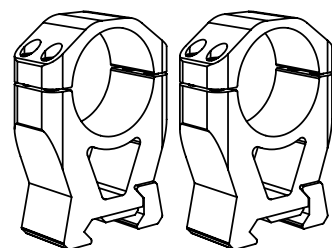
2) Please regularly charge it every 3 months.

TRANSPORTATION

The product shall be protected from rain and water. This optic contains advanced electronics. To prolong the life of this optic, avoid any undue physical damage or violent actions.
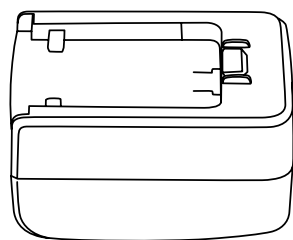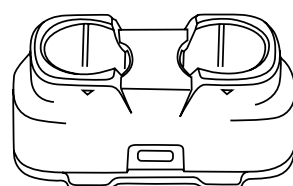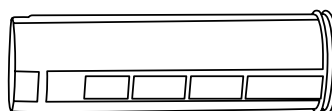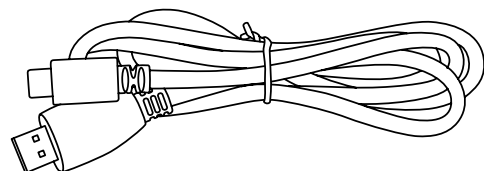
CHAPTER 3 - LIST OF ITEMS
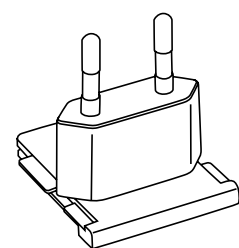
PLUG

PICATINNY COMPATIBLE

POWER ADAPTER

CHARGER

EXTERNAL BATTERY

MICRO HDMI CABLE
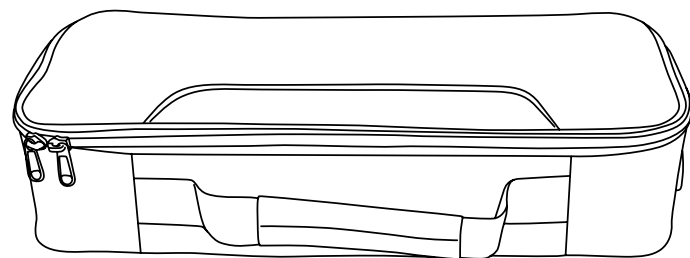
BAG
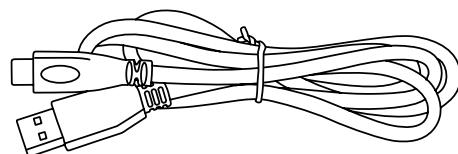
TYPE-C CABLE

Optional:
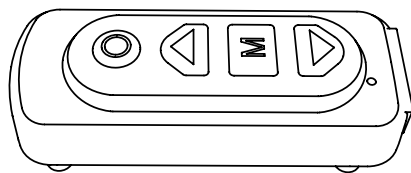
REMOTE CONTROL

CHAPTER 4 - TECHNICAL SPECIFICATION

Product Name		Thermal Imaging Riflescope	
Model		35L - 400 PRO	50L - 640 PRO
Detector	Total Resolution	400×300 @12µm	640×480 @12µm
	Scope Material	Aluminum	
	Effective Resolution	400×300	640×480
	Spectral	8-14µm	
Lens	Focal length	35mm F1.0	50mm F1.0
	Focusing	Manual	
	FOV	7.8° × 5.9°	8.8° × 6.6°
Image	Frame Rate	50Hz	
	Electronic Amplification	1x - 4x	1x - 8x
Power	Battery	1 Built-in Battery, and 2 Spare External Batteries	
	Charging	Chargeable, USB-C	
Scope Interface	USB	USB-C (2.0) can power the Scope and charge both internal and external battery; can transmit data	
	Video Interface	Micro HDMI	
	WIFI	Realtime video transmission, 2.4G frequency range,	
	Bluetooth	Bluetooth remote control, which can connect to Scope for wireless control	
	External Extension	External monitor through USB-C	
	Tube Diameter	30mm	

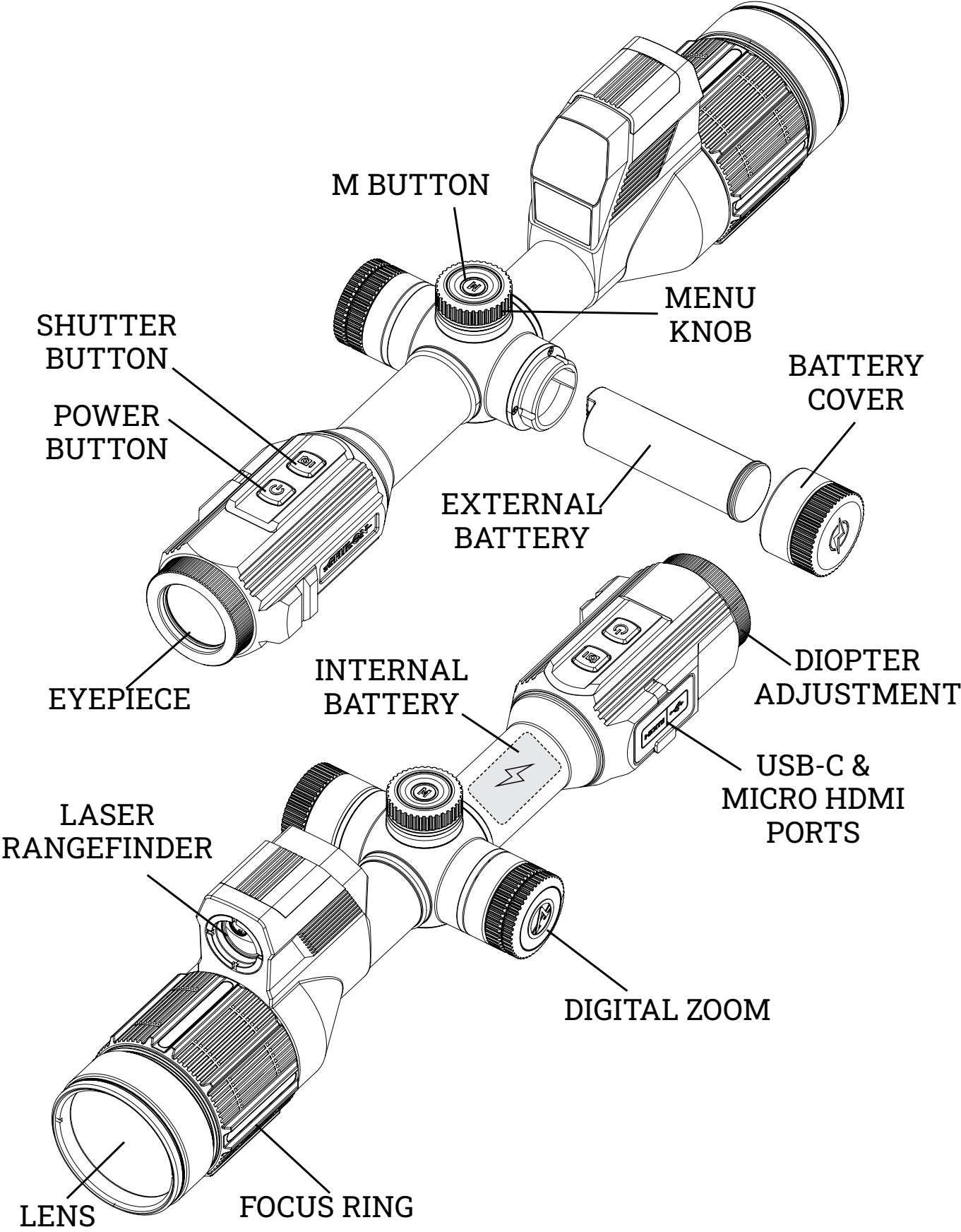| Product Name		35L - 400 PRO	50L - 640 PRO
Display System	OLED	0.49 Inches OLED	
	Resolution	1440x1080, Full screen display	
	Diopter	-4 - +4	
	Distance of exit pupil	48mm	
	Diameter of exit pupil	8mm	
	Eyepiece magnification	14×	
	Scope Magnification	3.3 - 13.2x	2.95 - 23.66x
	Video Output Standard	HDMI	
Button	Power on/off	Yes	
	Menu knob (pressable)	Yes	
	Photo/Recording	Yes	
	Zoom-in knob	Yes	
Function	Linear Magnifying	Yes	
	Screen Brightness	10 levels	
	Detector Brightness	10 levels	
	Detector Contrast	10 levels	
	Image Enhancement	Yes	
	Scene Mode	Natural, Enhanced, Highlight	
	Stadiametric Rangefinder	Yes	
	Eco Mode	Yes	
	Photo Capturing	Yes	
	Video Recording	Yes, through both Scope and APP	

Product Name		35L - 400 PRO	50L - 640 PRO
Function (Continued)	Video Recording with Audio	Yes	
	Color Palettes	White Hot, Black Hot, Red Hot, Green Hot, Iron Red, Blue Hot, Sepia	
	Hotspoting Track	Yes	
	Compensation Mode	Shutter Compensation	
	Automatic Power-off	Off, Automatic power-off in 15/30/60 minutes	
	Auto Sleep	Off, Auto sleep in 5/10/15 minutes	
	Charging Indicator Light	Light that indicates if scope is charging	
	Language Settings	English/French/German/Italian/Spanish	
	Time Settings	Yes	
	Watermark Settings	Yes	
	PIP	Upper Left/Upper Middle/Upper Right, Closed	
	Restore Default	Yes	
	Internal Memory	Yes, can be formatted (128GB capacity)	
	Unit of Measurement	Meter/Yard	
	Bluetooth	Yes	
	Zero Setting	50m/100m/200m/300m/500m 50y/100y/200y/300y/500y	
	Reticle type	10 types in total	
	Reticle color	Black/White/Yellow/Green/Red/Blue	
	Reticle Brightness	10 levels	
	One Shot - Zero in	Yes	
	Built-in Ballistic Calculator	Yes	
	Firmware Upgrade	Yes	

		35L - 400 PRO	50L - 640 PRO
	Product Name	35L - 400 PRO	50L - 640 PRO
System	Power-on Time	≤12s@77˚F ≤12s@25˚C	
Environment Adaptation	Working Temperature	-22˚F ~ 122˚F (external power supply only below -4˚F) -30˚C ~ 50˚C (external power supply only below -20˚C)	
	Storage Temperature	-49˚F ~ 158˚F -45˚C ~ 70˚C	
	Humidity	10% - 95% no condensing	
	Impact	800G/1ms	
	Vibration	10Hz - 150Hz - 10Hz 0.15mm IEC60068-2-6	
	Dust-proof / Water-proof	IP67	
	Certificate	RoHS, CE, FCC, UKAC, UN 38.8	
Package	Items Included	Thermal Scope, USB-C cable, Eyepiece Rubber Cover, 5V2A adapter (US/EU/AU/EU), External Battery ×2, Battery charger, micro HDMI video cable, Scope Ring, Manual, Warranty Card	
	Color	Black	
	Weight	37.4 oz	
	Dimensions	14.3" x 4.2" x 2.35"	14.7" x 4.2" x 2.35"

CHAPTER 5 - PRODUCT COMPONENTS

This manual is applicable to many models of this series, and the illustration may not perfectly match your product.

M BUTTON

MENU KNOB

BATTERY COVER

SHUTTER BUTTON

POWER BUTTON

EXTERNAL BATTERY

EYEPIECE

INTERNAL BATTERY

DIOPTER ADJUSTMENT

USB-C & MICRO HDMI PORTS

LASER RANGEFINDER

DIGITAL ZOOM

LENS

FOCUS RING

CHAPTER 6 - OPERATION INSTRUCTION
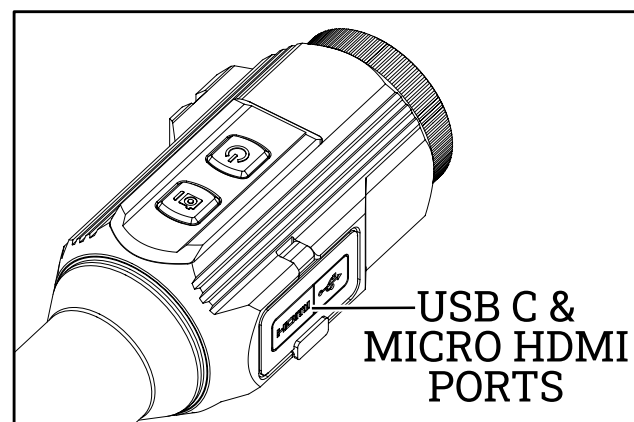
6.1 QUICK START

6.1.1 USB TYPE C & MICRO HDMI

USB-C PORT:
The external port with USB cable can be connected to the external power supply to charge the product. The output of the external power supply is 5V2A.

MICRO HDMI :
A micro HDMI to HDMI cable can be connected to the optic to provide a live feed to an external monitor equipped with HDMI.


USB C & MICRO HDMI PORTS

6.1.2 POWER SUPPLY

POWER CHARGING:
When using the product for the first time, be sure to charge the Scope for at least 4 hours. When charging, please leave the USB cover open, use the provided Type C USB charging cable and power adapter. The charging indicator light stays red, then turns green when charging is completed.

BATTERY COVER:
To install or remove the battery, please remove the battery cover on the right side. Please insert the battery in the direction shown in the figure, do not force the battery in.

BATTERY COVER

EXTERNAL BATTERY

French

German

English

Italian

Spanish

A 50m
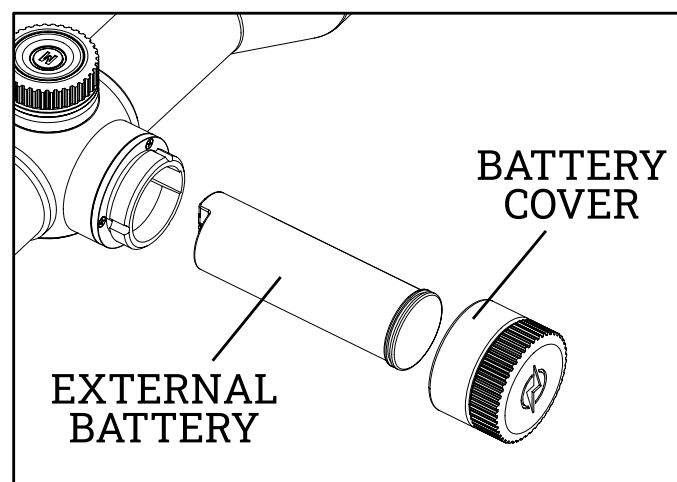
Rotate: MENU KNOB
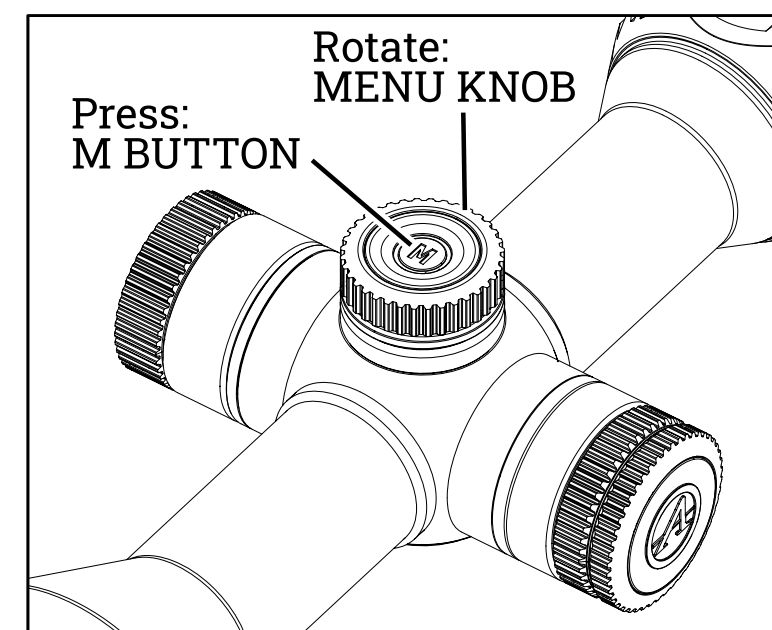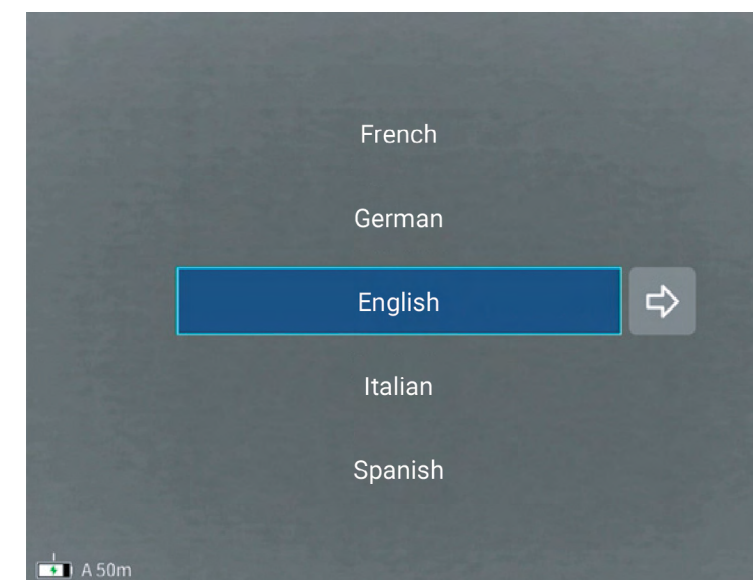
Press: M BUTTON
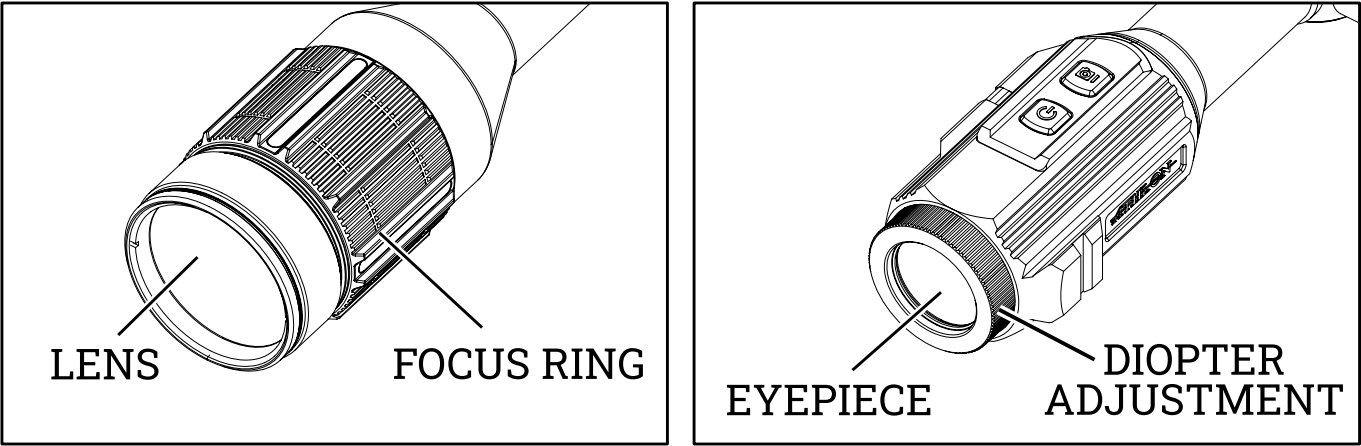
When the scope is powered on for the first time to select the language, rotate the "Menu Knob" to scroll up and down to select the language; Short press the "M Button" to confirm the language selection and jump to the Home interface; long press The "M Button" to return to the language scrolling selection.

6.1.4 FOCUSING

LENS — FOCUS RING

EYEPIECE — DIOPTER ADJUSTMENT

DIOPTER ADJUSTMENT:

After the thermal scope is powered on, rotate the diopter adjustment knob to correct differences for each individual's eye sight until a clear image is observed.

FOCUS:

After the thermal scope is powered on, rotate the focus ring until the target image becomes clear. Repeat this step when distance to the target changes.

POWER BUTTON
SHUTTER BUTTON
Rotate: MENU KNOB
Press: M BUTTON
ZOOM KNOB
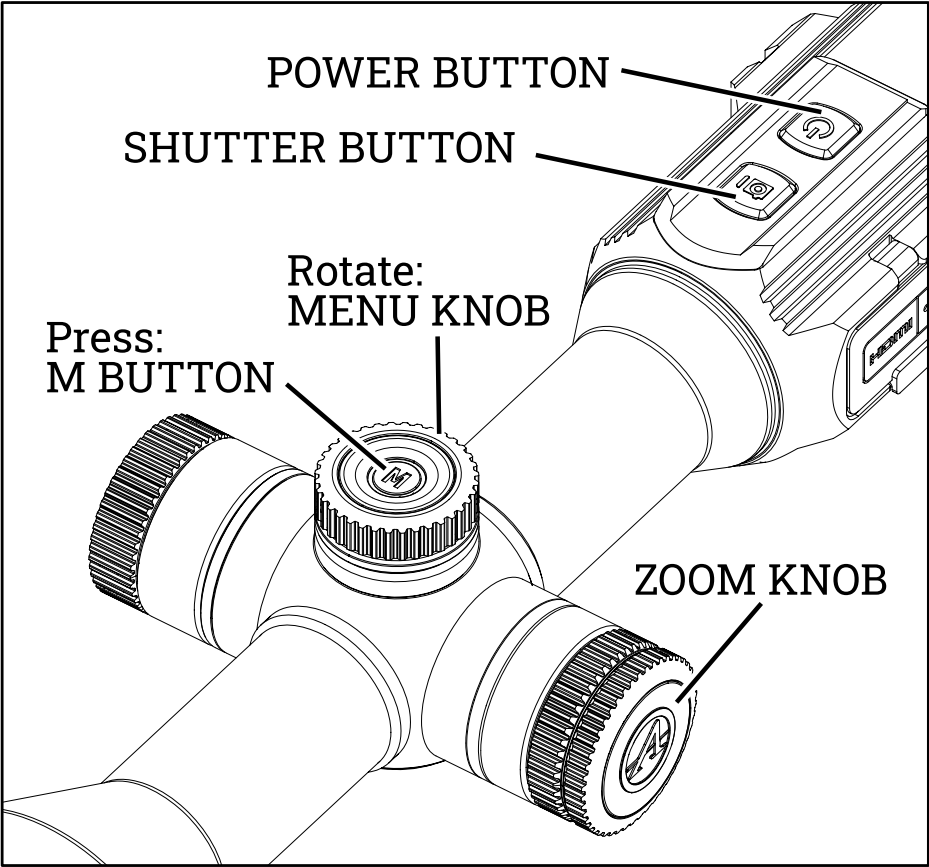
Button	Current device status	Rotation	Short Press	Long Press
Power Button	Power on	/	Compensation	Display on/off
	Power off	/	/	Power on
	Display off	/	Display on	/
Menu Knob	Menu bar not shown	Switch to color palettes	/	/
	Menu bar displayed	Toggle options	/	/
M Button	Menu bar not shown	/	Shortcut menu	Menu
	Menu bar displayed	/	Select current option	Return to previous option
Zoom Knob	Menu bar not shown	Zoom	/	/
		/	Quick Zoom	Holdover distance menu
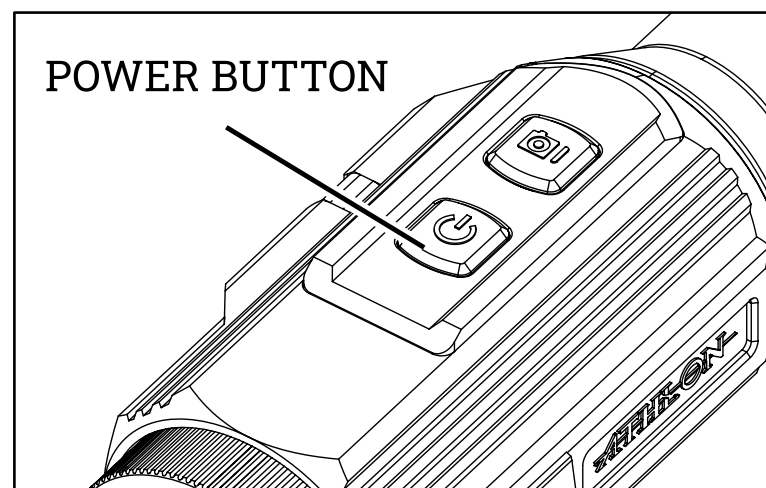
POWER BUTTON

POWER ON:

Long press and hold the power button until the startup picture appears in the eyepiece. If internal battery is completely discharged, the device can not be turned on with external battery only. It can be turned on with the included power adapter through USB-C port.

POWER OFF:

a. Manual power-off: long press and hold the power button, the power-off progress bar will be displayed, and the power-off is completed after the progress bar is finished.

b. Automatic power-off: in the set automatic power-off time, without any button operation, the scope will power down.

DISPLAY ON:

In display off mode, press any button to wake the screen.

DISPLAY OFF:

Press and hold the power button, the progress bar of power-off will be displayed. Before the progress bar is finished, release the power-off button to cancel the power off process and activate the display off mode.

COMPENSATION:

When it is turned on and the menu is not activated, short-press the power on/off button to refresh the thermal sensor. Two Compensation modes, manual and automatic, can be set through the Main Menu.
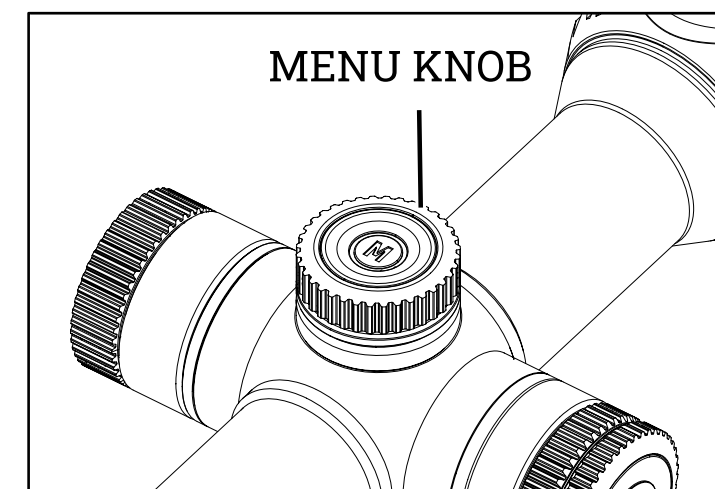
MENU KNOB

QUICK COLOR PALETTE SWITCHING:

When the scope is turned on and the menu is not activated, turn the menu knob to switch between white hot, black hot, red hot, iron red, blue hot, green hot, and sepia color.

MENU MOVEMENT:

When the menu is activated, turn the menu knob clockwise to move menu or option down/to the right; Turn the knob counterclockwise to move menu or option up/to the left.

6.2.3 M BUTTON
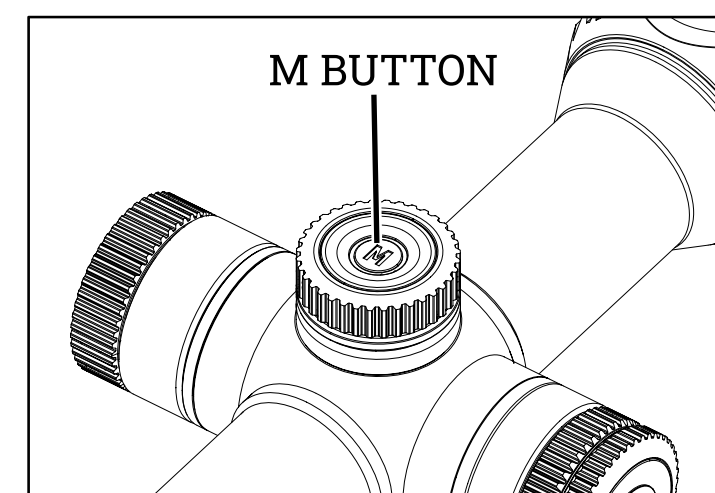
M BUTTON

SHORTCUT MENU:

When it is powered on and the menu is not activated, short-press the "M" button, and the shortcut menu option will appear.

MAIN MENU:

Main menu option is activated by long-pressing the "M" button.

CONFIRM AND BACK/EXIT:

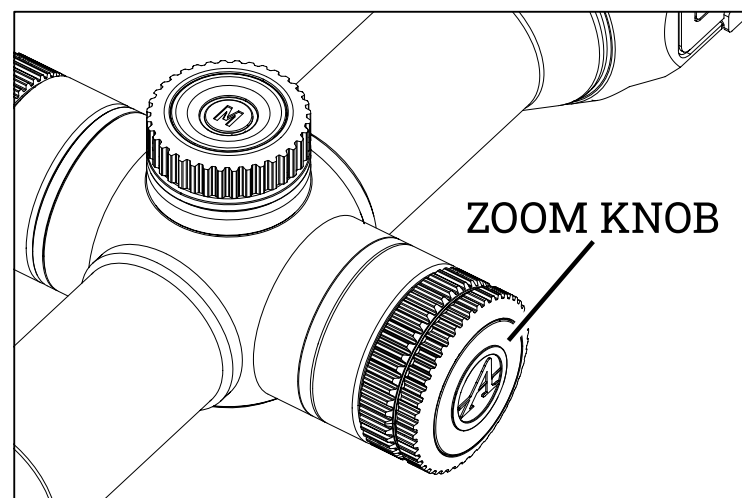When it is powered on and the menu is activated, short-press the "M" button to confirm the current selection and return to the previous menu; Press and hold the "M" button to return to or exit the menu without saving the current settings.

6.2.4 ZOOM KNOB

ZOOM KNOB

ZOOM-IN:

When it is turned on, rotate the zoom knob counter-clockwise to enlarge the image in 0.1X steps, and zooming stops when the maximum magnification is reached.

ZOOM-OUT:

When it is turned on, rotate the zoom knob clockwise to shrink the image by 0.1X, and stop when it reaches the minimum value.

QUICK ZOOM:

The quick zoom can be obtained by short-pressing the button on the zoom knob.

6.2.5 SHUTTER BUTTON

SHUTTER BUTTON

TAKE PHOTOS:

When it is turned on, rotate the zoom knob counter-clockwise to enlarge the image in 0.1X steps, and zooming stops when the maximum magnification is reached.
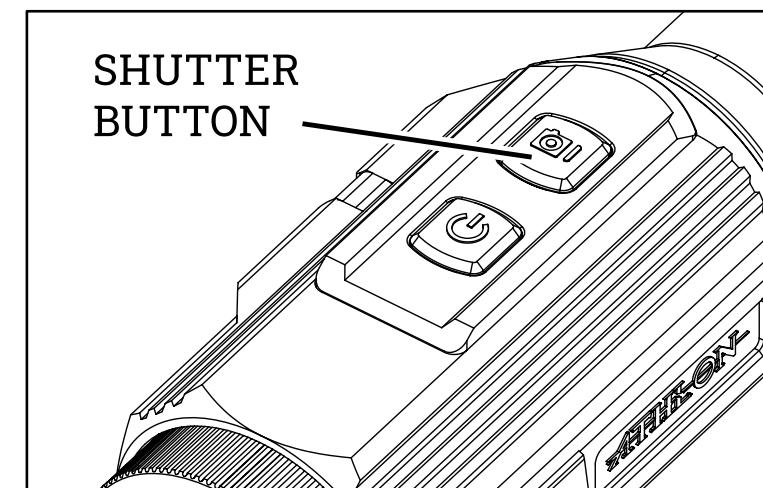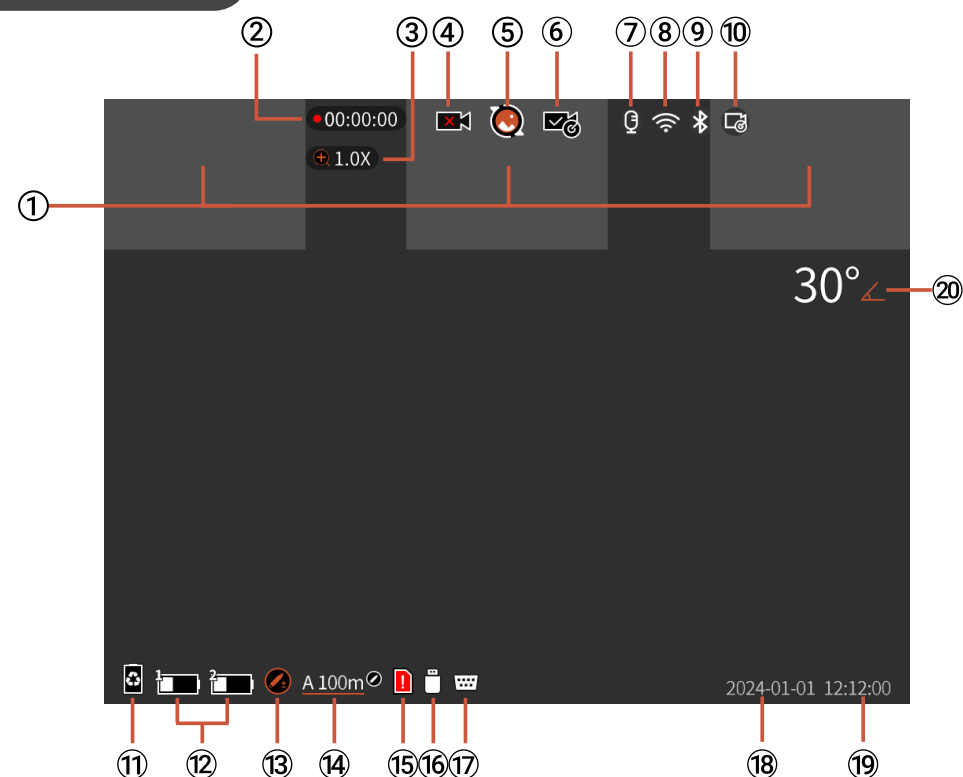
VIDEO RECORDING:

When it is turned on, rotate the zoom knob clockwise to shrink the image by 0.1X, and stop when it reaches the minimum value.

CHAPTER 7 - FUNCTION DESCRIPTION

7.1 HOME SCREEN LIST

30°

1) PIP: left top, middle top, right top display

2) Recording duration

3) Magnification power

4) Video Recording Failed

5) Comensation Mode Indicator

6) Video Recording Successful

7) Audio Input Indicator

8) WiFi connected

9) Bluetooth on

10) Auto-shot Record

11) Eco-mode on

12) Battery capacity indication

13) Ballistic Calculator Indicator

14) Zero in distance / Zero profile

15) Internal memory full warning

16) USB Mode

17) Serial Port Connection Mode

18) Date

19) Time

20) Ranging Angle Indication

When the power is turned on and the menu is not activated, short press the "M Button" to display the shortcut menu options.
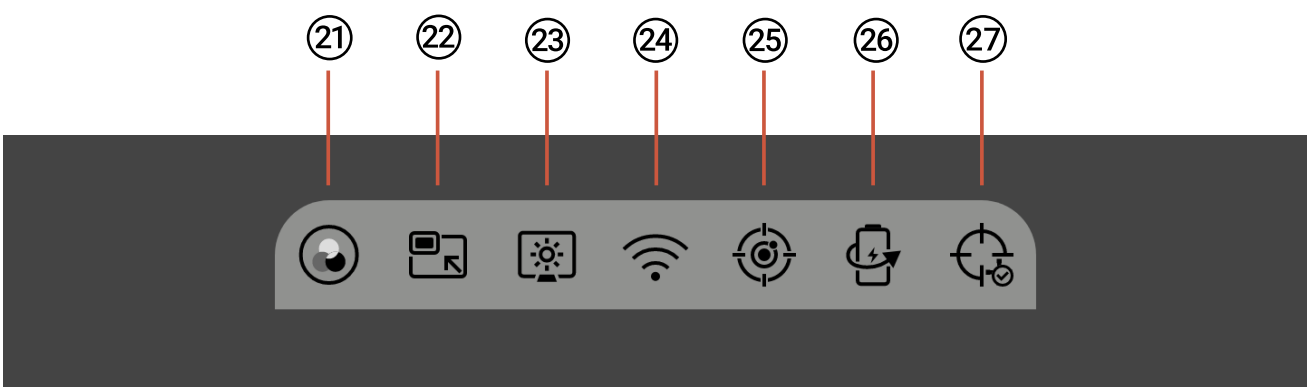
21 COLOR PALETTES

Switch among seven color palettes (white hot, black hot, red hot, iron red, blue hot, green hot, and sepia).

Color Palettes

White Hot

22 PIP

Choose from top left, top middle, and top right positions.

PIP

Off

㉓ SCREEN BRIGHTNESS

1-10 Screen Brightness level can be adjusted.
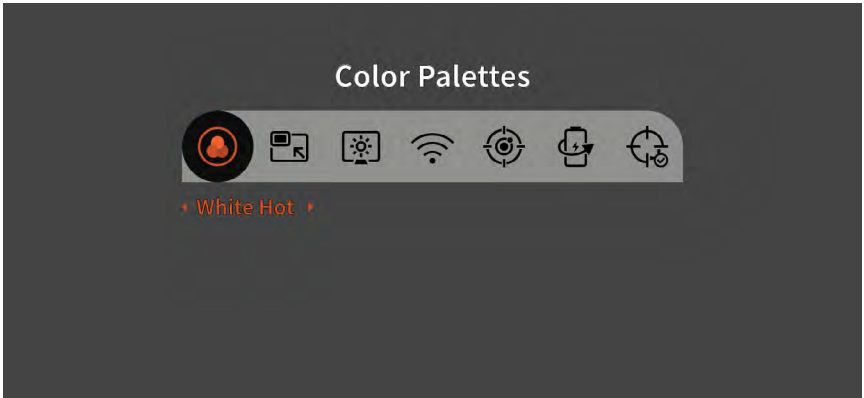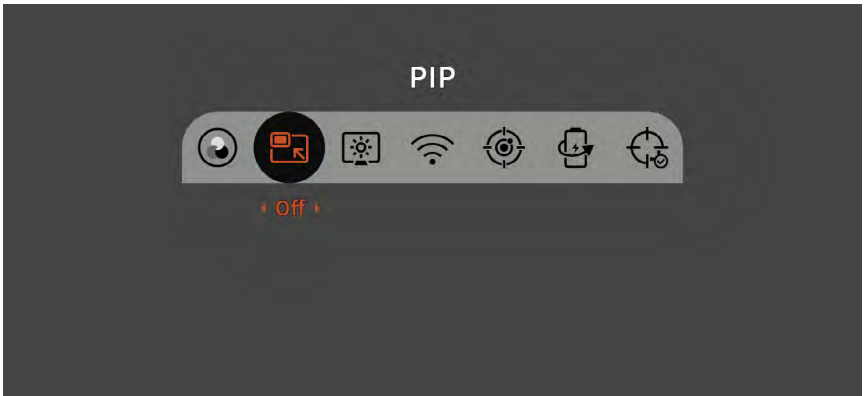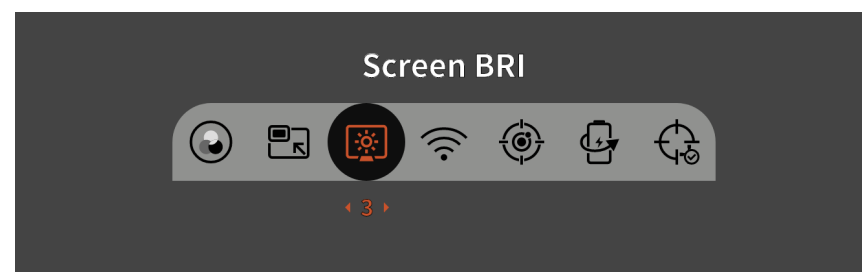
Screen BRI

◄ 3 ►

㉔ WIFI

WiFi can be used to transmit real-time video to the mobile phone after the mobile phone is connected to your device, and the device can be operated through the Athlon Thermal APP to access the photos/videos of the device; photos/videos can be played, shared, deleted, etc.

⚠ **NOTE: Search and download Athlon Thermal APP in the mobile phone APP store, open the APP, find the WiFi name 'Cronus ATS PRO XX-XXX' in the settings of mobile phone WiFi, and enter the password '12345678', to start remote operation after successful connection.**

WiFi

◄ Off ►

WiFi：Cronus-ATS-PRO-50L-640-XXXX
密码：12345678

㉕ HOT TRACK

A white cross cursor is displayed when it is turned on to trace the highest temperature point in the full image.

Hot Track

◄ On ►
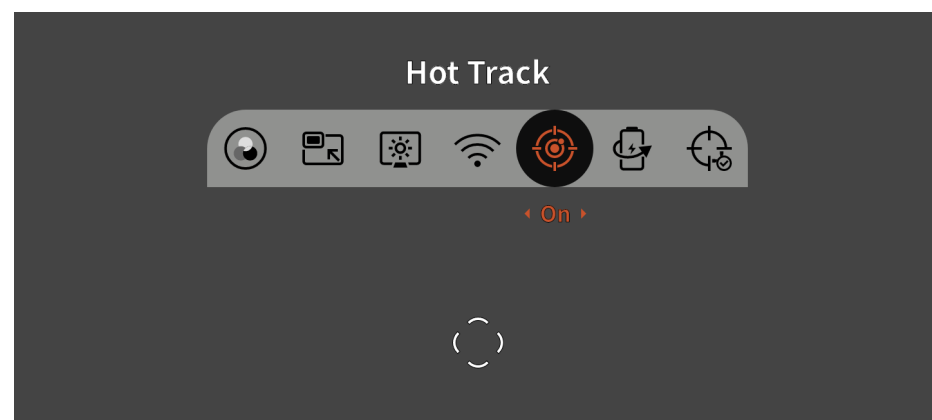
㉖ ECO MODE

After being turned on, the scope will switch to power-saving mode, under which OLED brightness will be fixed to 20% and cannot be adjusted, and WIFI will not be turned on. If the current WIFI is already on, WIFI will be turned off, and the shooting record function cannot be turned on. If you are currently in shooting recording mode, the prompt is turned off.

Eco Mode

◄ Off ►
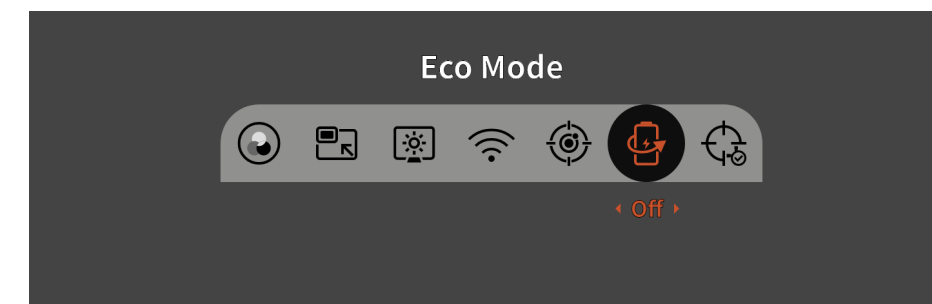
㉗ ZERO CALIBRATION

The preset zero distances under the profile selected in the main menu must match zero calibration in short menu.

⚠ **NOTE: Only select the distances that have been zeroed, and do not select the distance still set at default factory x/y value (0,0).**

Zero Calibration

◄ A 100yd ►

After scope is turned on, long press M Button to activate main menu, exit, and go back to main category level after saving a setting change. Short Press M Button to select a category or a setting, and save changes and exit a setting. Rotate Menu Knob to cycle through categories, individual settings, and values of individual settings. Main menu stays on and turns off if no any input is made within 12 seconds, long press M Button to reactivate it.

28 29 30 31 32 33 34 35

28 **LASER RANGING**

Laser Ranging

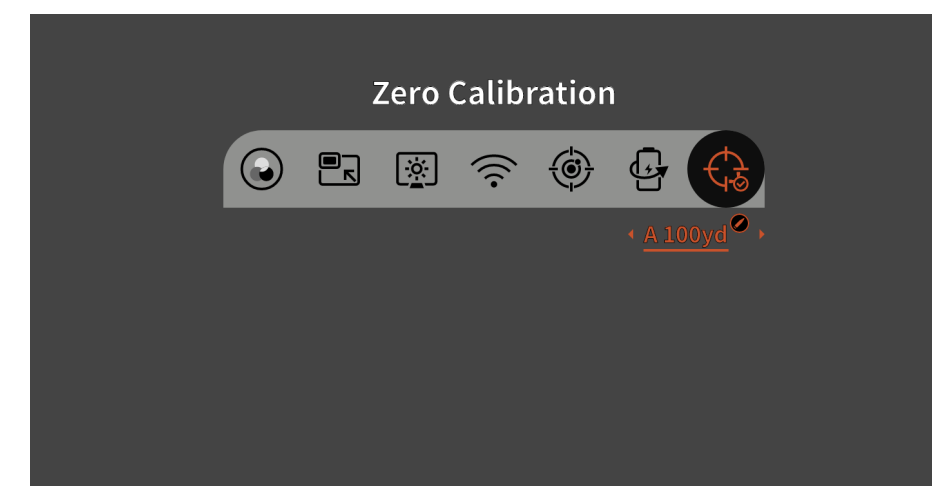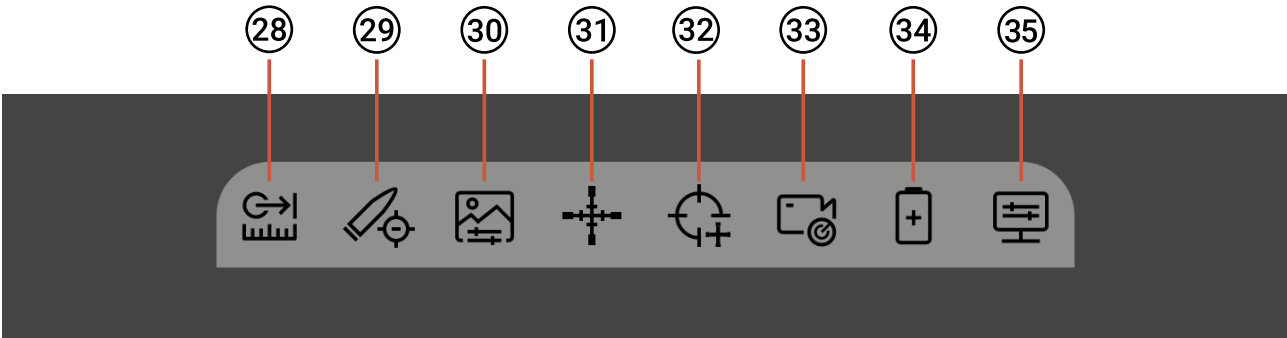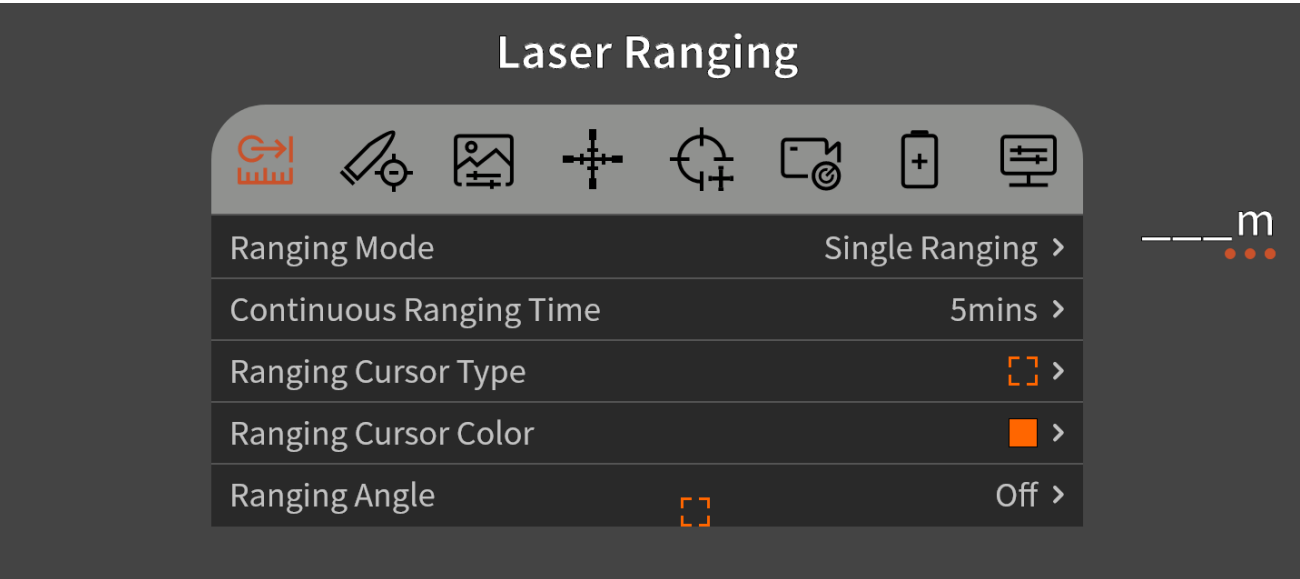| Ranging Mode	Single Ranging ›
Continuous Ranging Time	5mins ›
Ranging Cursor Type	›
Ranging Cursor Color	■ ›
Ranging Angle	Off ›

———m

Ranging Mode: Single Ranging, Continuous Ranging, and Shooting via PIP mode can be selected. When single ranging mode is selected, short press the zoom button to have the bullet drop holdover point for real-time distance. When the continuous ranging mode is selected, the holdover ballistic data in MOA or MIL will be displayed on the screen (no holdover point on the reticle displayed). When the Shooting via PIP mode is selected, the main screen will display the ranging cursor and the holdover ballistic data. The reticle will only be displayed in the PIP.

Laser Ranging

Ranging Mode	‹ Single Ranging ›
Continuous Ranging Time	5mins ›
Ranging Cursor Type	›
Ranging Cursor Color	■ ›
Ranging Angle	Off ›
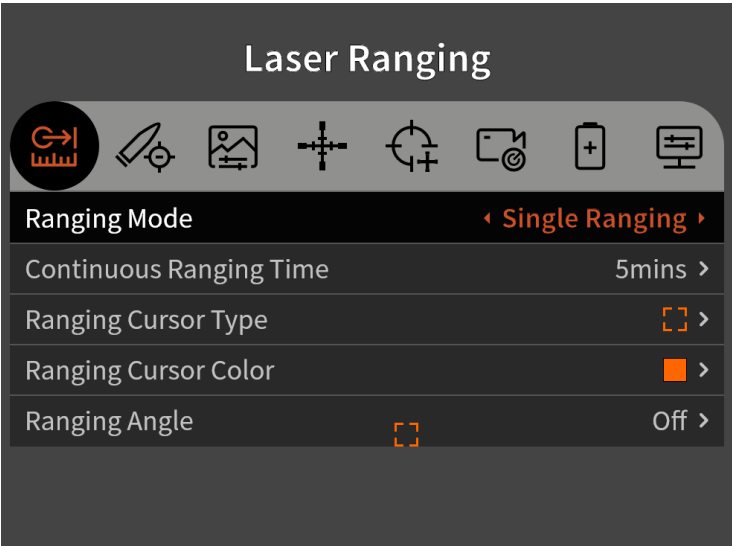
Continuous Ranging Time:
5/10/20 seconds can be selected.

Laser Ranging

Ranging Mode	Single Ranging ›
Continuous Ranging Time	‹ 5mins ›
Ranging Cursor Type	›
Ranging Cursor Color	■ ›
Ranging Angle	Off ›
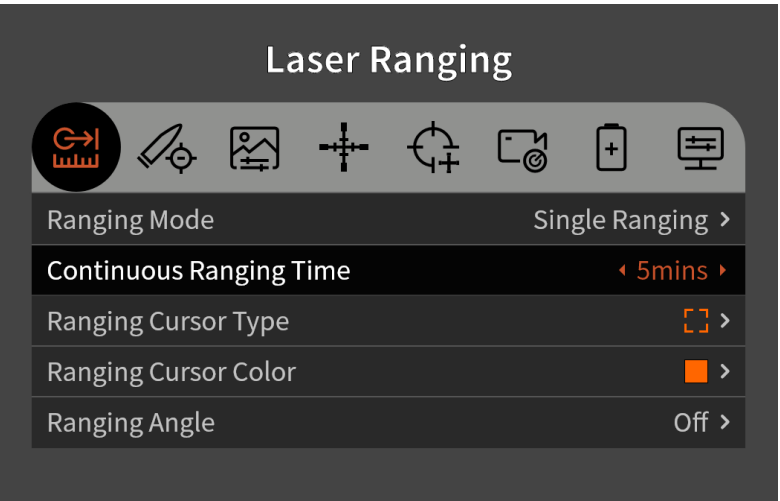
Ranging Cursor Type:
Three ranging cursor types can be selected:

Laser Ranging

Ranging Mode	Single Ranging ›
Continuous Ranging Time	5mins ›
Ranging Cursor Type	›
Ranging Cursor Color	■ ›
Ranging Angle	Off ›
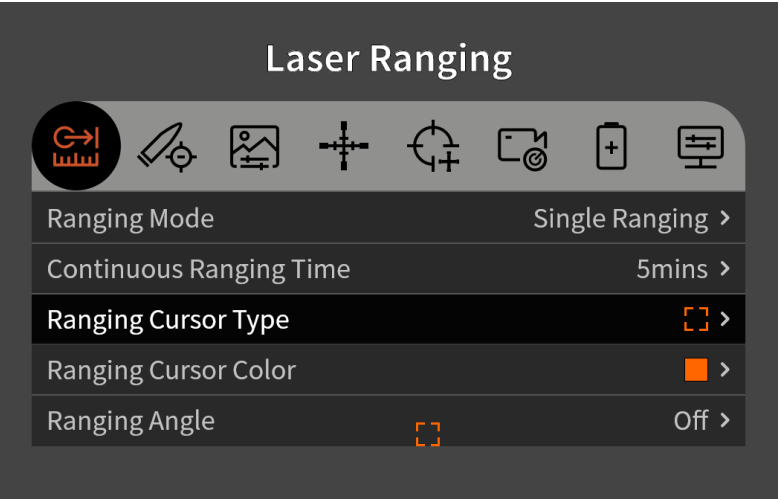
Ranging Cursor Color:
Can be selected in orange/white/blue/green.

Laser Ranging

Ranging Mode	Single Ranging ›
Continuous Ranging Time	5mins ›
Ranging Cursor Type	›
Ranging Cursor Color	‹ ■ ›
Ranging Angle	Off ›
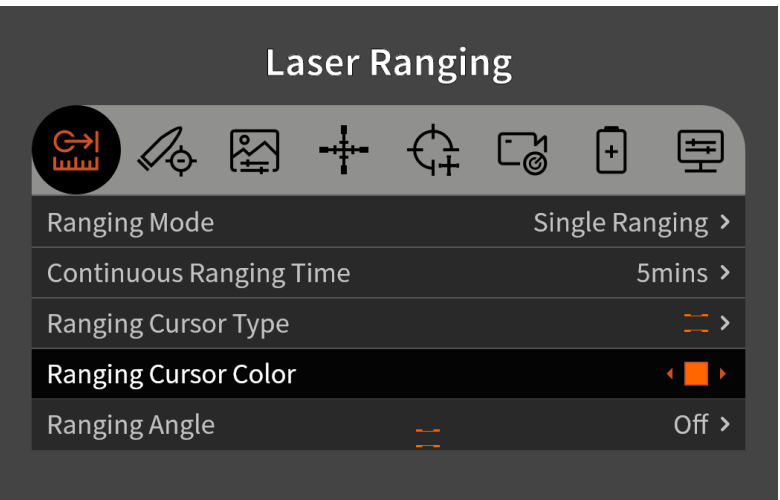
Ranging Angle:
Can be turned on and off.

Laser Ranging

Ranging Mode	Single Ranging ›
Continuous Ranging Time	5mins ›
Ranging Cursor Type	›
Ranging Cursor Color	■ ›
Ranging Angle	‹ On ›

Ballistic Solution

Ballistic Calculator   Off ›
Angular Measurement   MOA ›
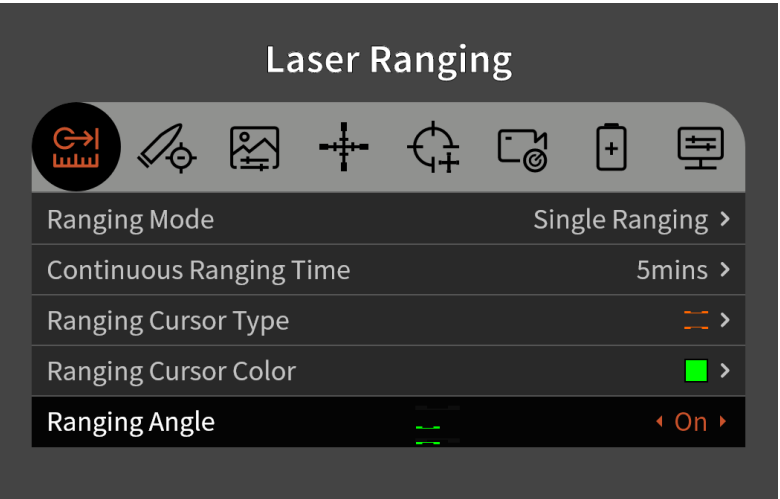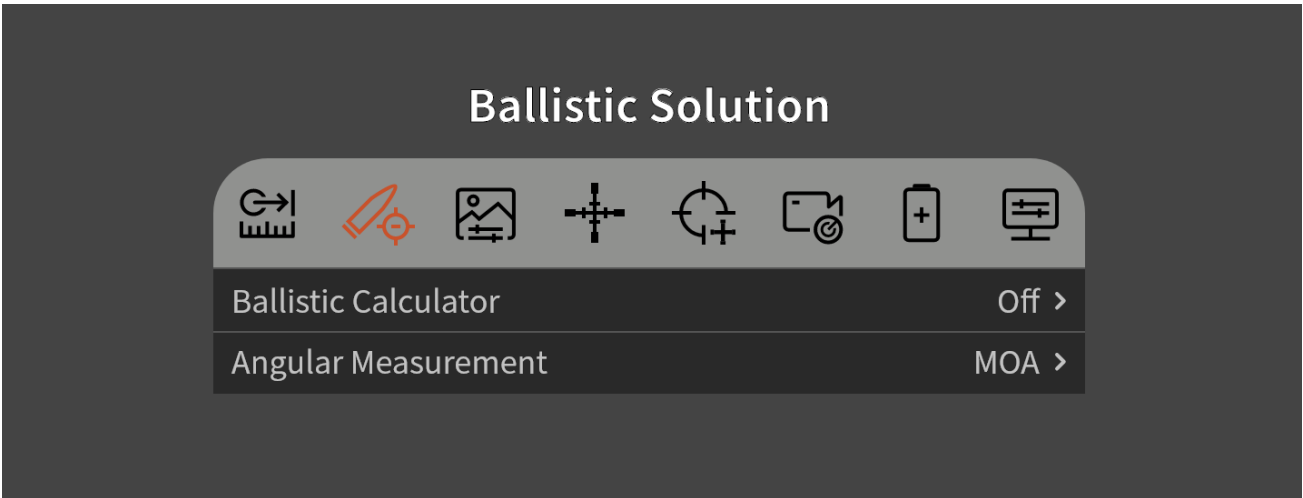
Ballistic Calculator: Can be turned on to provide bullet drop holdover point in real-time distances measured by the laser rangefinder in single range mode. The ballistic data needs to be uploaded to the thermal unit via the Athlon Ballistic APP.

Ballistic Solution

Ballistic Calculator   ‹ On ›
Angular Measurement   MOA ›
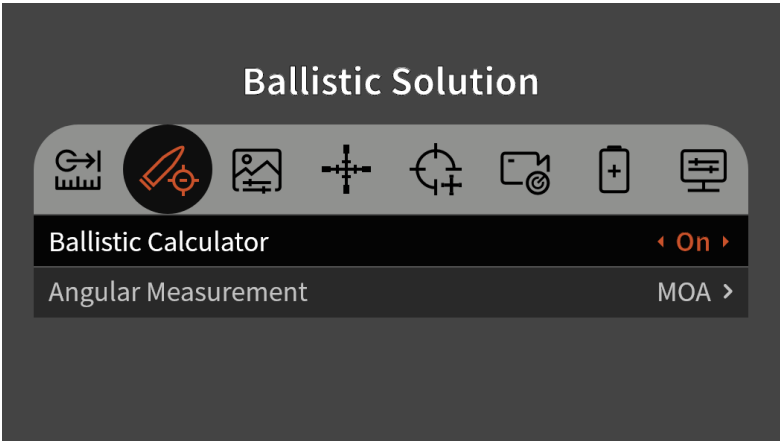
Angular Measurement: Select between MOA and MIL units of measurement.

Ballistic Solution

Ballistic Calculator   Off ›
Angular Measurement   MOA ›

Image Quality Adjustment

Scene Mode   Nature ›
Brightness   4 ›
Contrast   6 ›
Image Enhancement   Off ›
Compensation Mode   Auto ›

Scene Mode: Three scene modes, natural/enhanced/highlight, can be set.

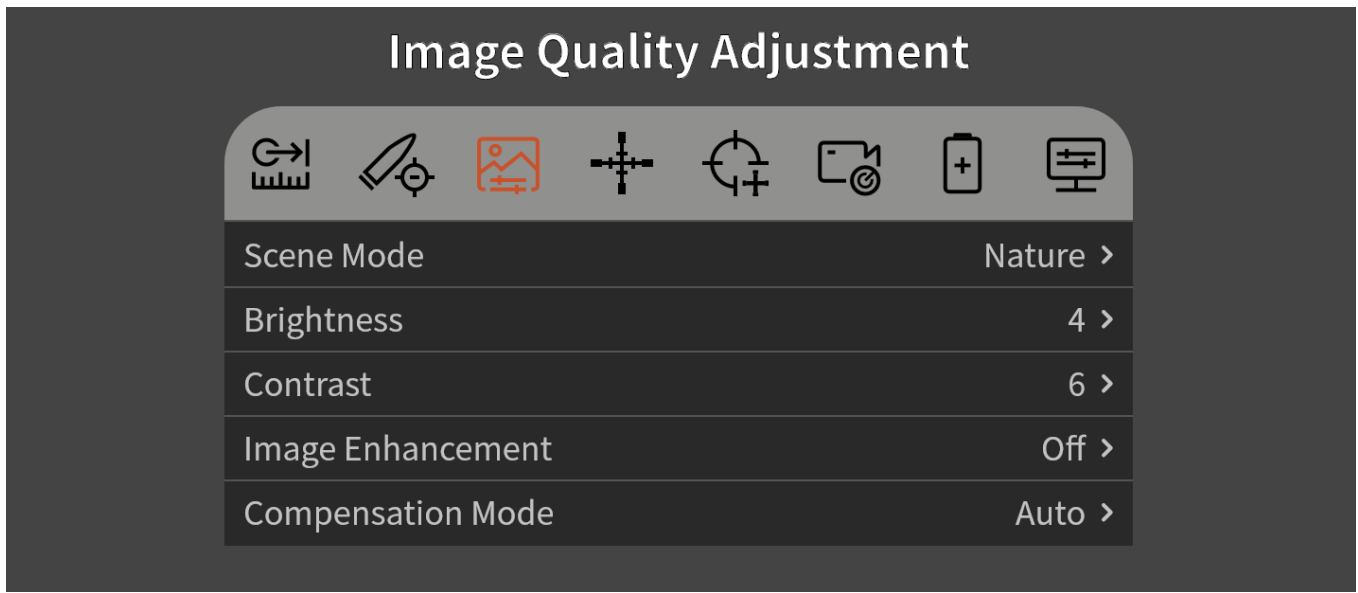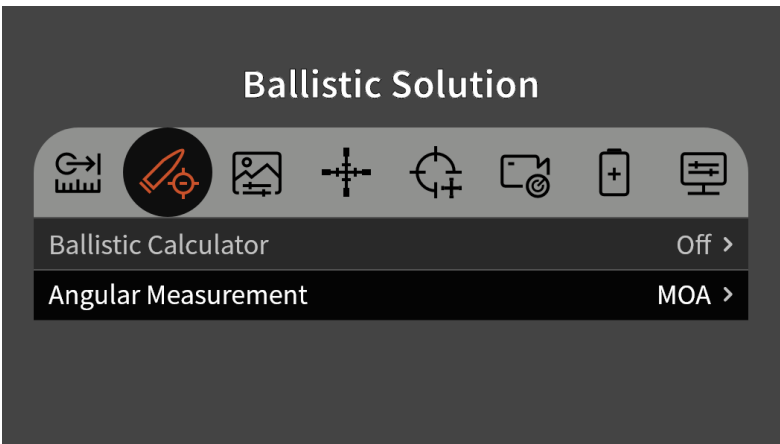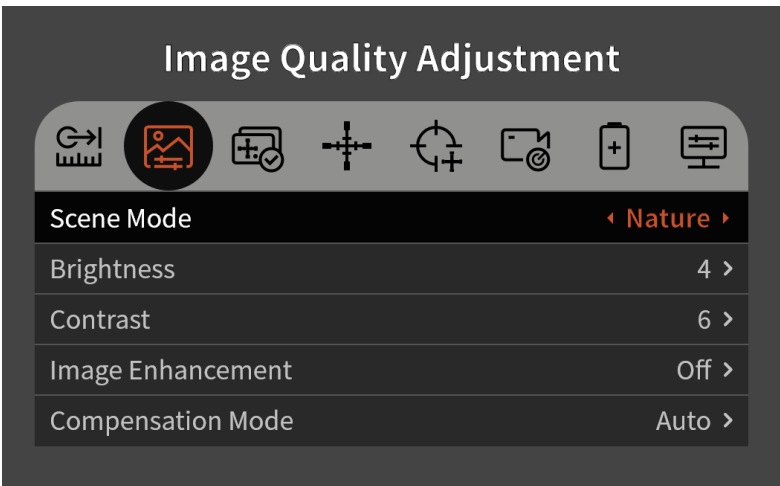**Image Quality Adjustment**

Scene Mode   ‹ Nature ›
Brightness   4 ›
Contrast   6 ›
Image Enhancement   Off ›
Compensation Mode   Auto ›

Brightness: Brightness can be adjusted within 1-10 levels.

⚠ **NOTE: The value of adjusted brightness will be saved in the current scene mode.**

Image Quality Adjustment

Scene Mode   Nature ›
Brightness   ‹ 4 ›
Contrast   6 ›
Image Enhancement   Off ›
Compensation Mode   Auto ›
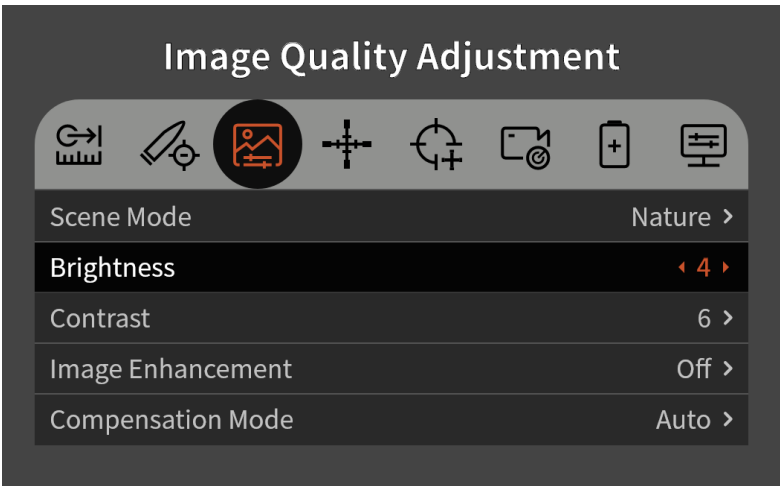
Contrast: Contrast can be adjusted within 1-10 levels.

⚠ **NOTE: The value of adjusted contrast will be saved in the current scene mode.**

Image Quality Adjustment

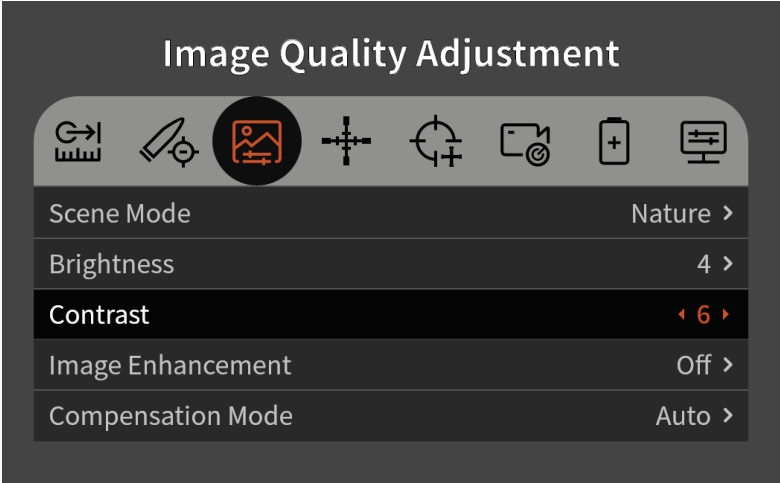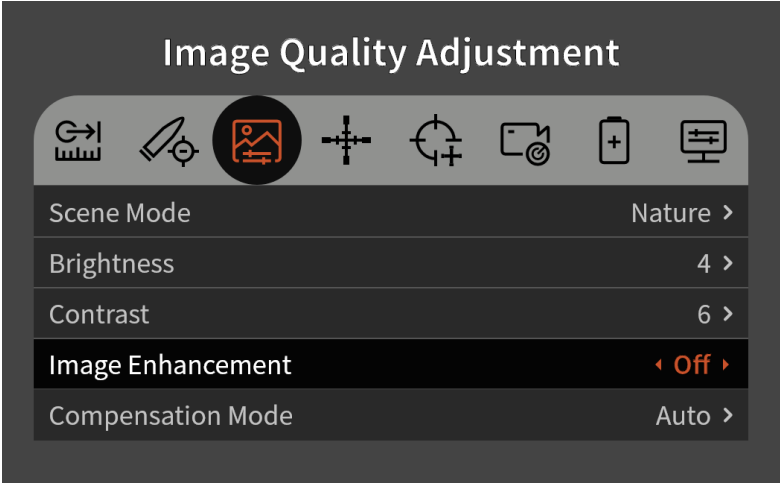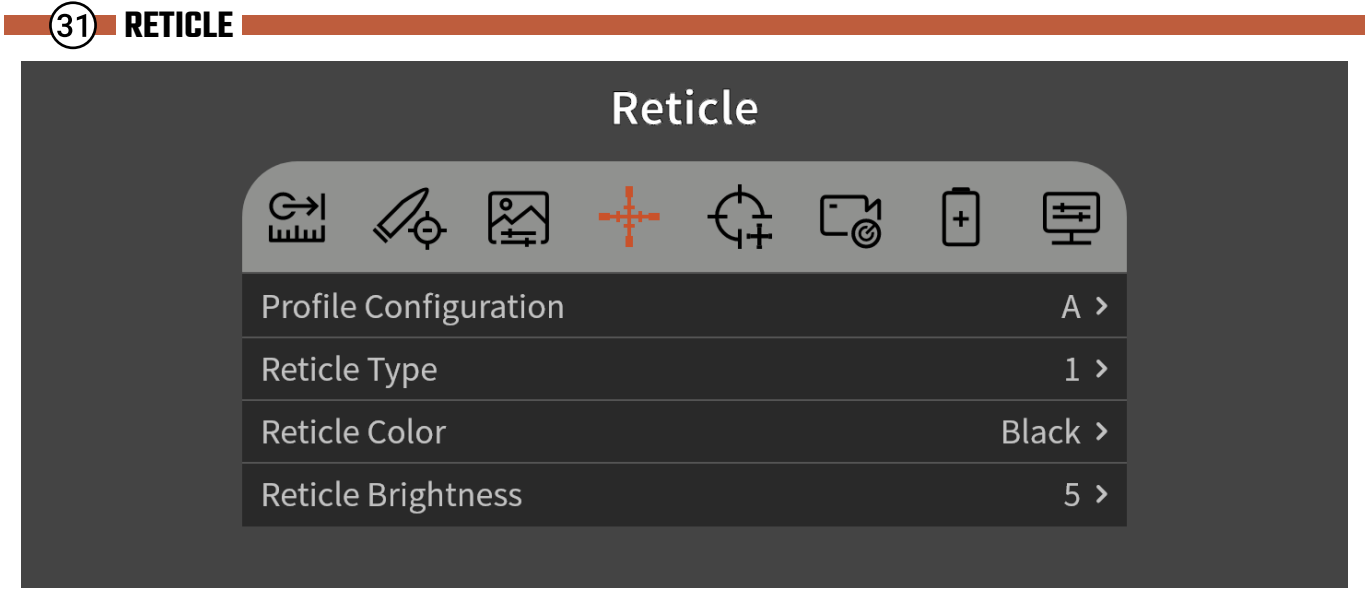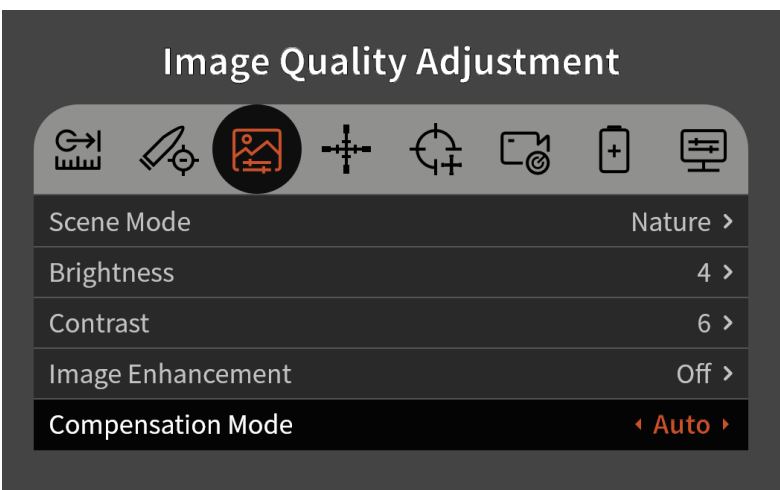|	
Scene Mode	Nature ›
Brightness	4 ›
Contrast	‹ 6 ›
Image Enhancement	Off ›
Compensation Mode	Auto ›

Image Enhancement: Turn on to enhance the image quality.

Image Quality Adjustment

|	
Scene Mode	Nature ›
Brightness	4 ›
Contrast	6 ›
Image Enhancement	‹ Off ›
Compensation Mode	Auto ›

Compensation Mode: Shutter Mode can be set through the Main Menu. Scene Mode sets short pressing the power button to capture an even temperature surface to refresh the thermal sensor. The best way to perform Scene Mode compensation is doing it with the lens cap closed. Shutter Mode sets short pressing the power button to close the device shutter and create an even temperature surface to refresh the thermal sensor.

Image Quality Adjustment

Scene Mode	Nature ›
Brightness	4 ›
Contrast	6 ›
Image Enhancement	Off ›
Compensation Mode	‹ Auto ›

Reticle

Profile Configuration	A ›
Reticle Type	1 ›
Reticle Color	Black ›
Reticle Brightness	5 ›

Profile Configuration: 10 groups of zeroing profiles, from A-J can be saved. The zeroing distance, zeroing location, reticle type, reticle color and reticle brightness are saved for each profile.

Reticle

Profile Configuration	‹ A ›
Reticle Type	1 ›
Reticle Color	Black ›
Reticle Brightness	5 ›
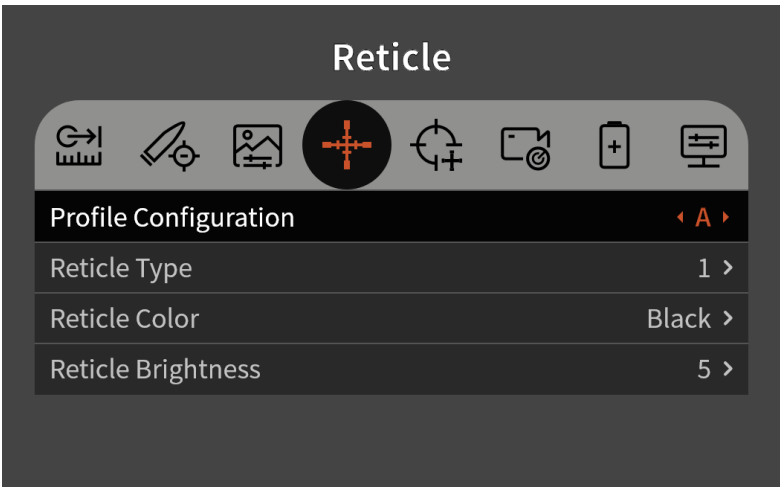
Reticle Type: 10 reticle types in total can be selected.

Reticle

Profile Configuration	A ›
Reticle Type	‹ 1 ›
Reticle Color	Black ›
Reticle Brightness	5 ›
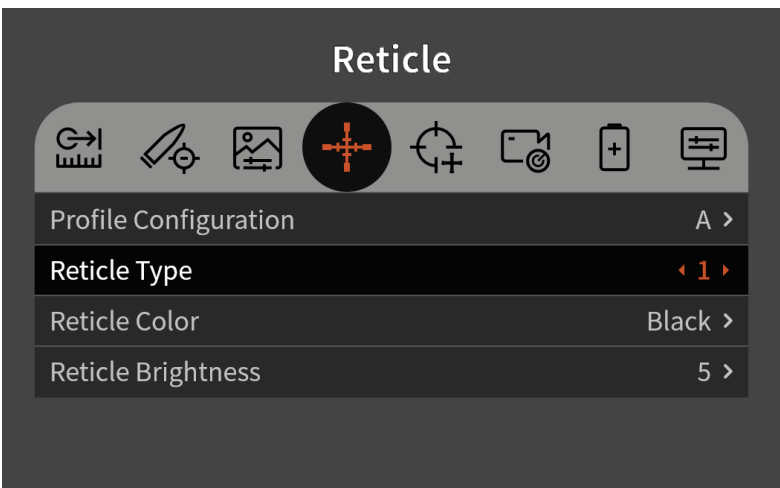
Reticle Color: Can be selected in black/white/yellow/green/blue/red.
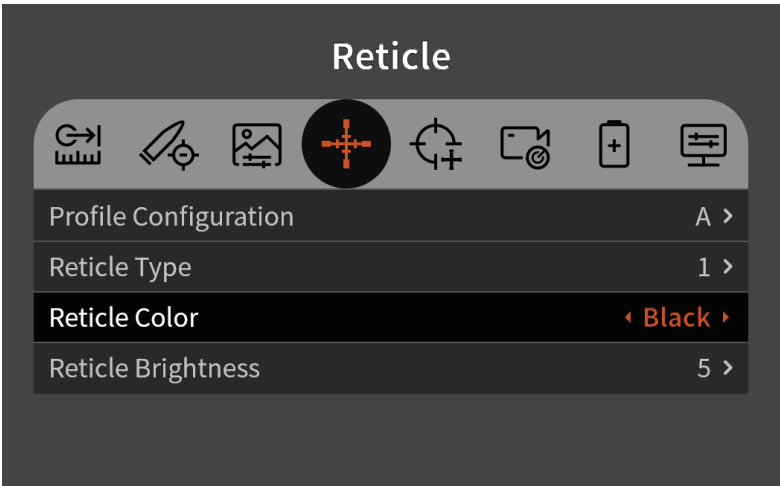
Reticle Brightness: Can be adjusted within 1-10 levels.
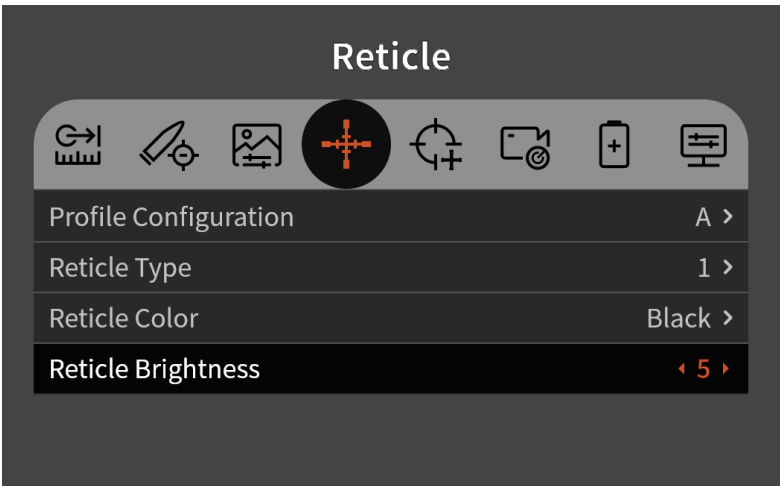
Zeroing Settings: This is the user interface for one-shot zeroing. 50/100/200/300/500 yards or meters can be selected for zeroing under each group of profiles. After zero is set, use the shortcut menu to select the preset zero distance under each profile.

Record Settings

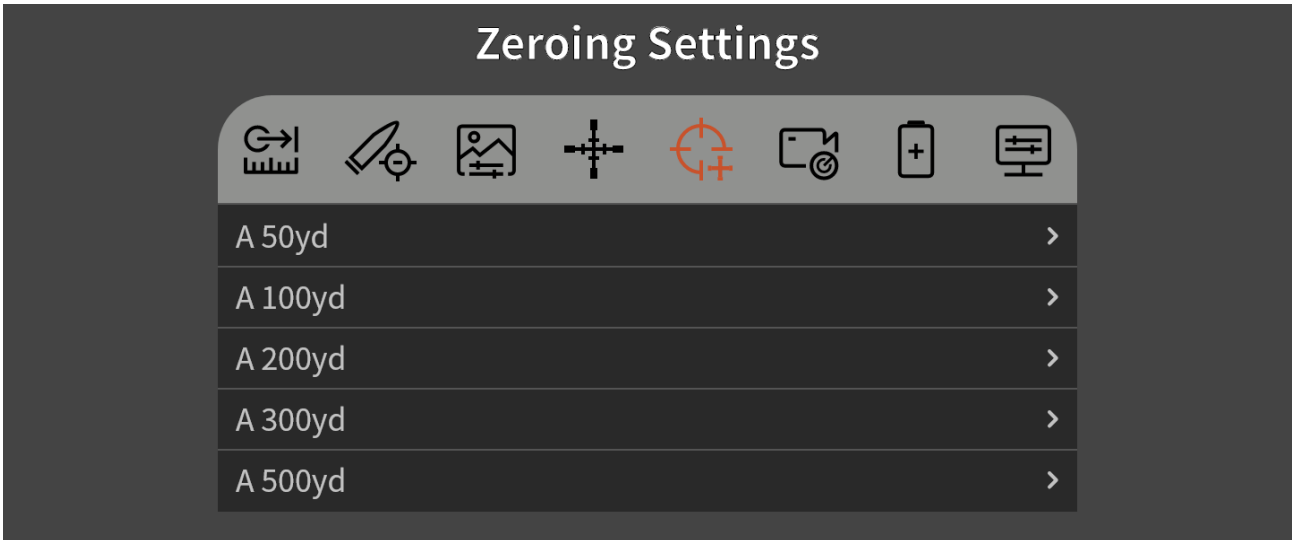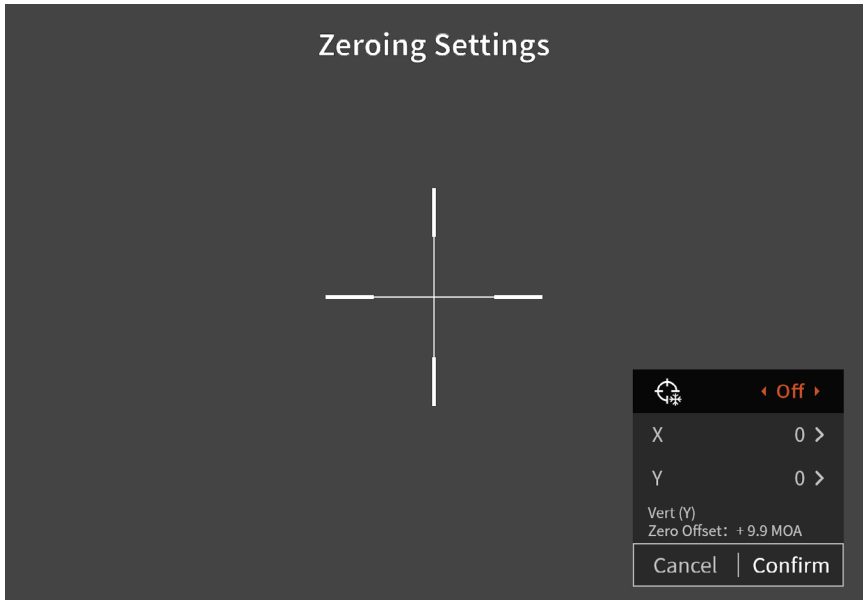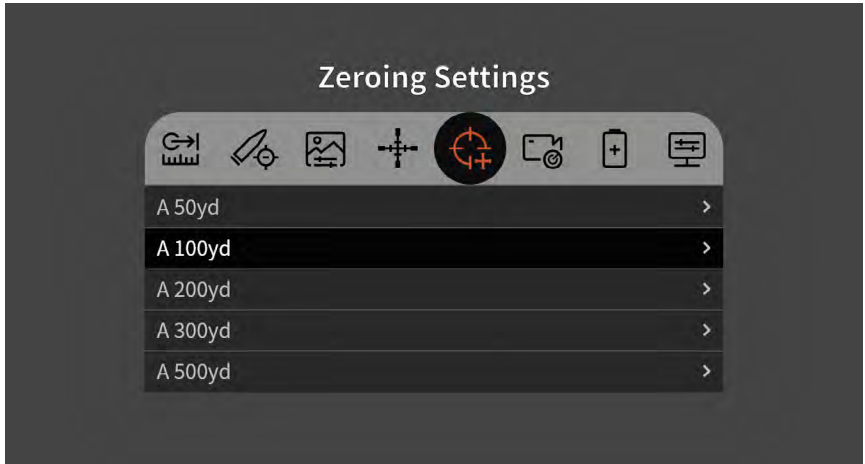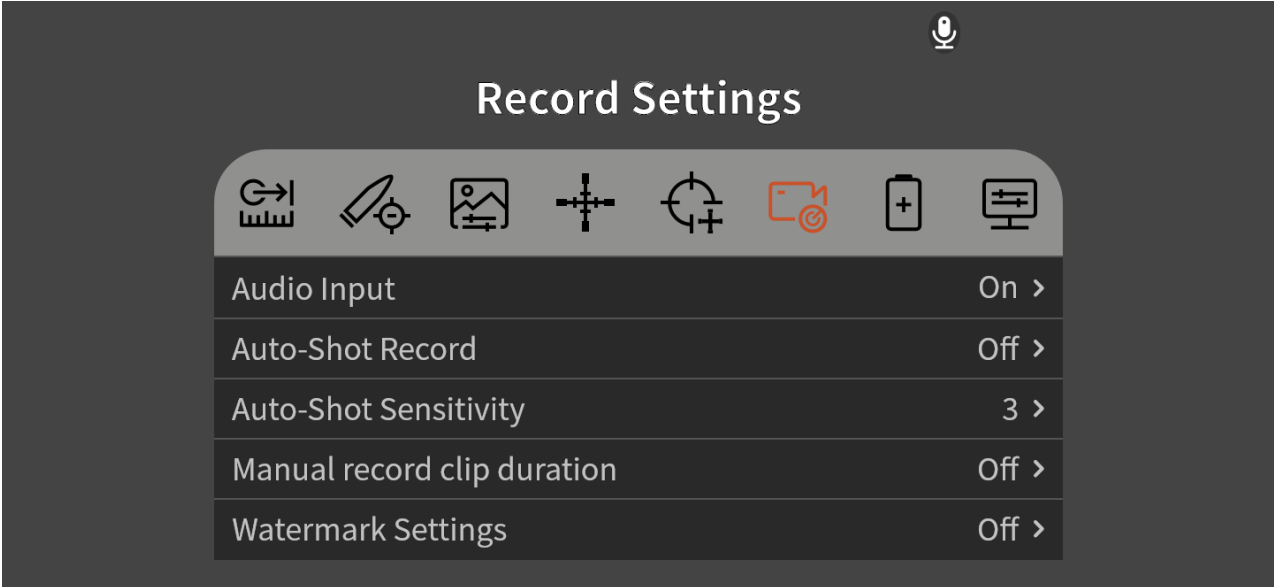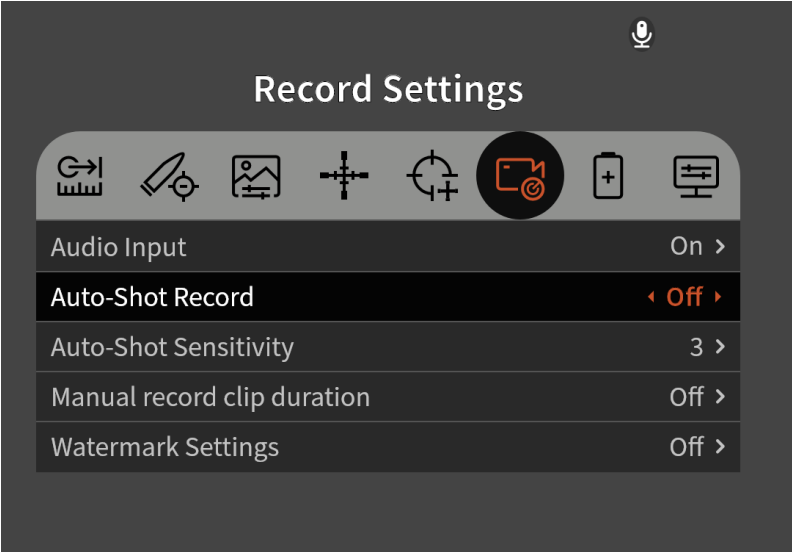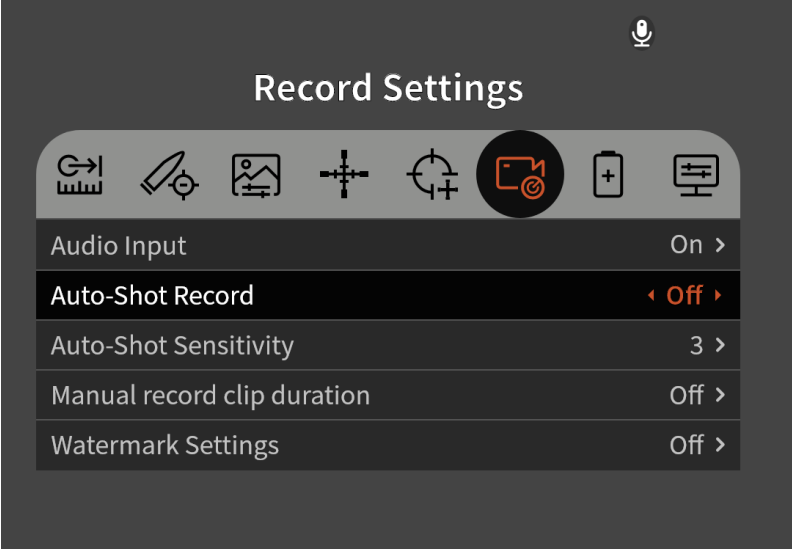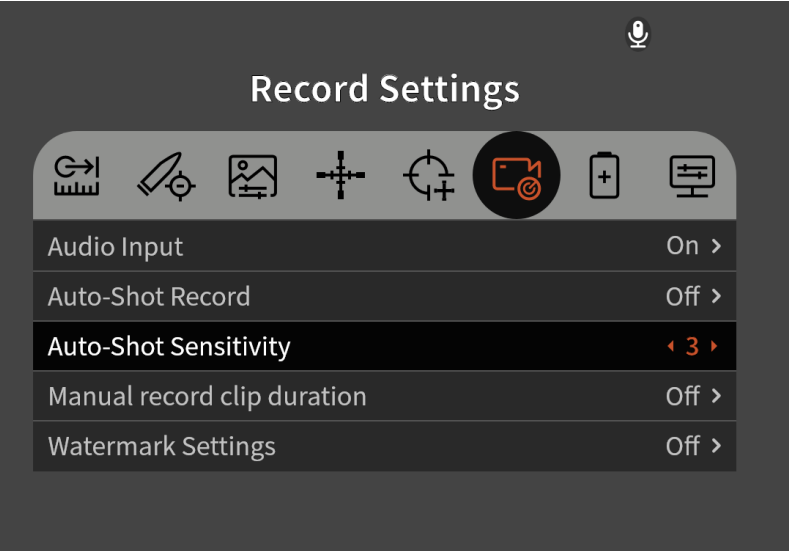|	
Audio Input	On ›
Auto-Shot Record	Off ›
Auto-Shot Sensitivity	3 ›
Manual record clip duration	Off ›
Watermark Settings	Off ›

Audio Input: When the microphone is turned on, you can record audio while recording video, so that the sound is integrated into the video files.

Record Settings

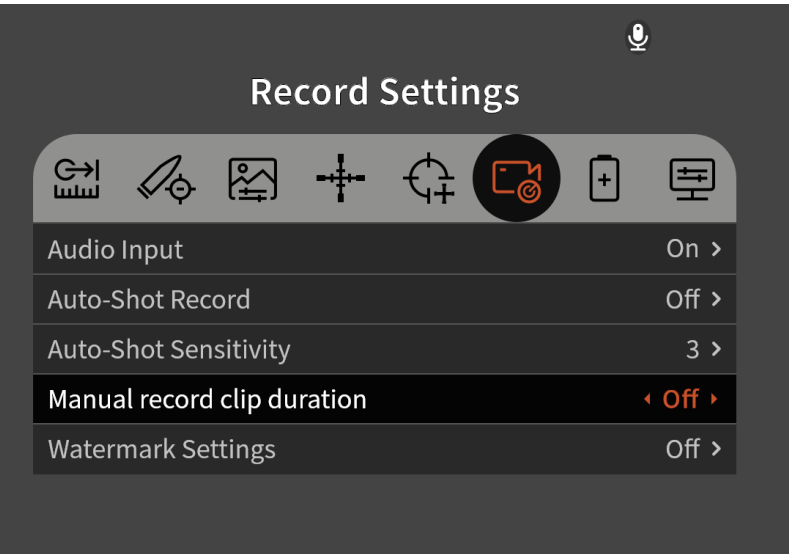|	
Audio Input	On ›
Auto-Shot Record	‹ Off ›
Auto-Shot Sensitivity	3 ›
Manual record clip duration	Off ›
Watermark Settings	Off ›

Auto-Shot Record: When this function is turned on, it will automatically record a video and 5 images when the user shoots (video: 3 seconds before shooting ~ 7 seconds after shooting).
If a shot is made within the 7 seconds, the device will continue recording for 30 minutes.

Record Settings

Audio Input	On ›
Auto-Shot Record	‹ Off ›
Auto-Shot Sensitivity	3 ›
Manual record clip duration	Off ›
Watermark Settings	Off ›

Auto-Shot Sensitivity: Shooting trigger sensitivity, divided into 1-5 settings; the 5th setting is the most sensitive setting.

Record Settings

Audio Input	On ›
Auto-Shot Record	Off ›
Auto-Shot Sensitivity	‹ 3 ›
Manual record clip duration	Off ›
Watermark Settings	Off ›

Manual Record Clip Duration: 15/60 second clip duration can be selected to automatically end video recording within the time selected.

Record Settings

Audio Input	On ›
Auto-Shot Record	Off ›
Auto-Shot Sensitivity	3 ›
Manual record clip duration	‹ Off ›
Watermark Settings	Off ›

Watermark Settings: Support time and date.

Record Settings

Audio Input	On ›
Auto-Shot Record	Off ›
Auto-Shot Sensitivity	3 ›
Manual record clip duration	Off ›
Watermark Settings	‹ Off ›

Power Setting

Auto Sleep   Off >
Auto Power-off   Off >
Timed menu off   Off >
Charging Indication   On >
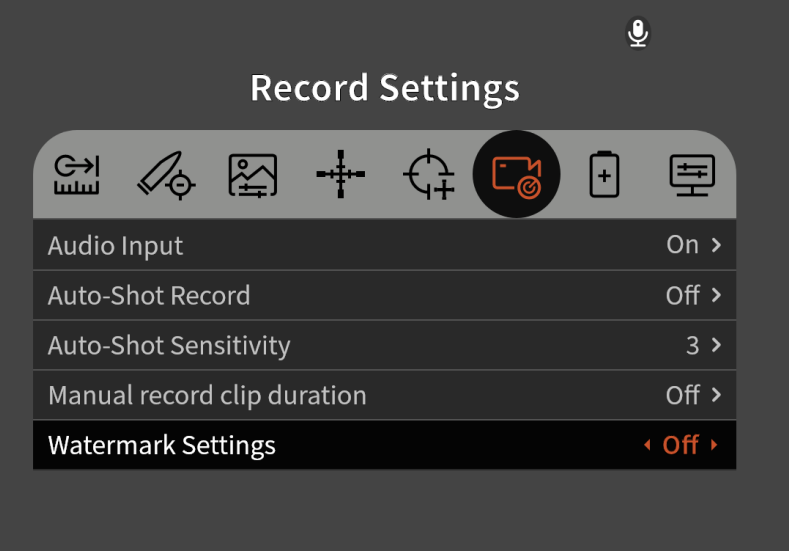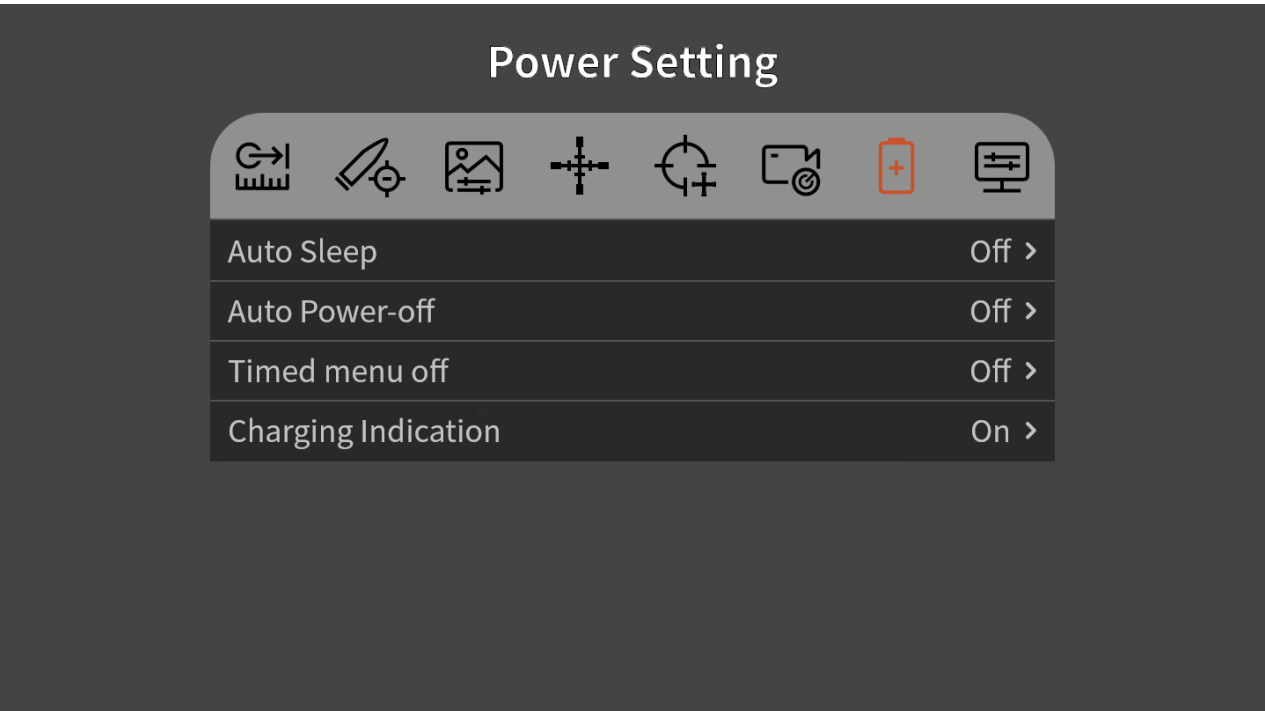
Auto Sleep: The Auto Sleep time can be set to 5/10/15 min. If there is no operation within the set time, the scope will enter sleep mode.

Power Setting

Auto Sleep   ‹ Off ›
Auto Power-off   Off >
Timed menu off   Off >
Charging Indication   On >
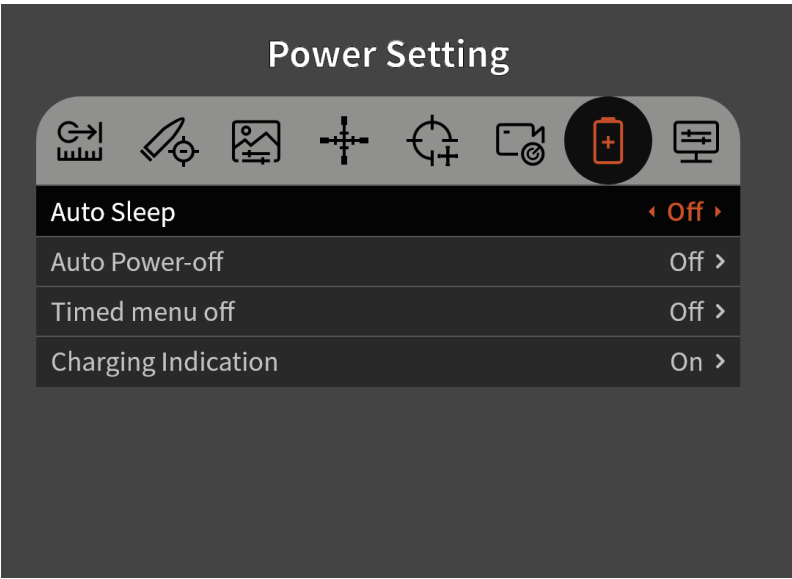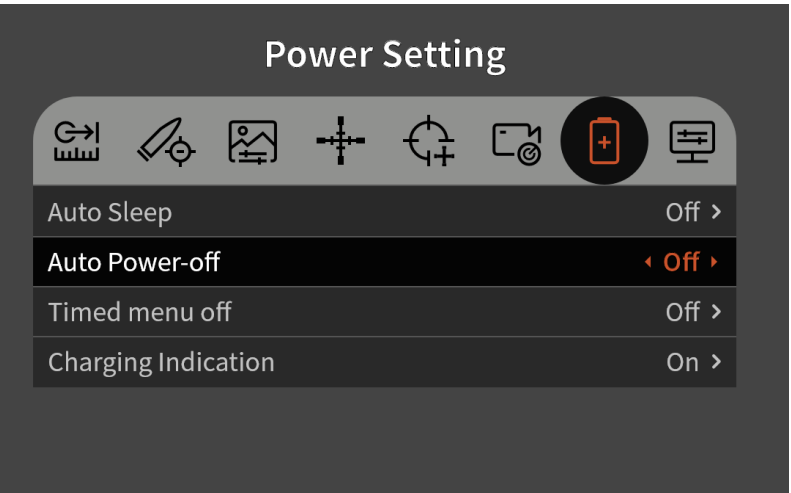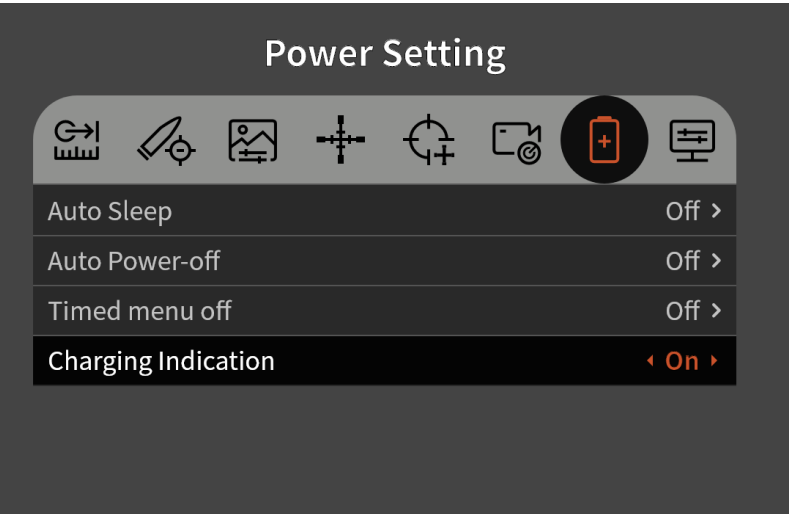
Auto Power-Off: The automatic Power-off time can be set to 15/30/60 minutes. If there is no operation within the set time, the power-off will be activated, and the scope will be powered off.

Power Setting

Auto Sleep   Off >
Auto Power-off   ‹ Off ›
Timed menu off   Off >
Charging Indication   On >

Timed Menu off: the menu can be turned off automatically within 10/20/60 seconds.

Power Setting

Auto Sleep   Off >
Auto Power-off   Off >
Timed menu off   ‹ Off ›
Charging Indication   On >
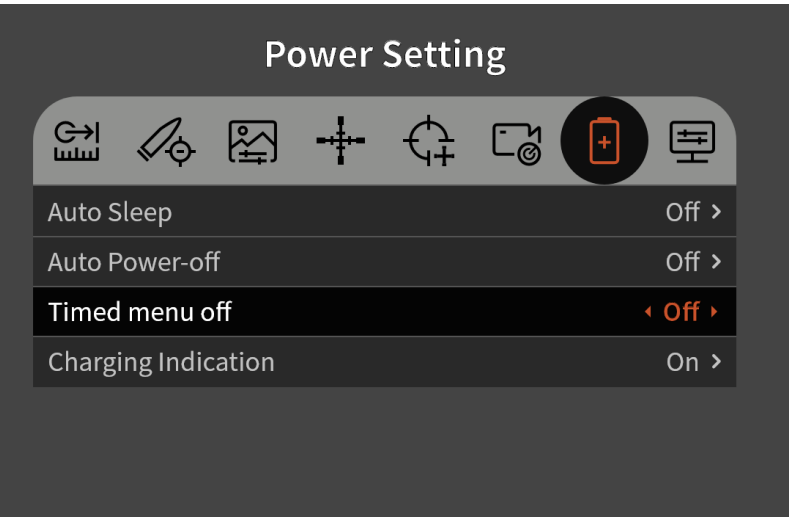
Charging Indication: Switch that turns On/Off the charging port indication light

Power Setting

Auto Sleep   Off >
Auto Power-off   Off >
Timed menu off   Off >
Charging Indication   ‹ On ›

Local Settings

Language Settings	English >
Unit Measurement	Meter >
Time Formats	24H >
Date Formats	YYYY/MM/DD >
Time Setup	>
Black Screen Indication	On >
Bluetooth	Off >
Memory Capacity	10 GB Free/Total 128 GB
Memory Formatting	>
Restore Default	>
About	>

Language Settings: Available in English/French/German/Italian/Spanish

Language Settings	‹ English ›
Unit Measurement	Meter >
Time Formats	24H >
Date Formats	YYYY/MM/DD >
Time Setup	>
Black Screen Indication	On >
Bluetooth	Off >
Memory Capacity	10 GB Free/Total 128 GB
Memory Formatting	>
Restore Default	>
About	>

Unit Measurement: yard or meter

Language Settings	English >
Unit Measurement	‹ Meter ›
Time Formats	24H >
Date Formats	YYYY/MM/DD >
Time Setup	>
Black Screen Indication	On >
Bluetooth	Off >
Memory Capacity	10 GB Free/Total 128 GB
Memory Formatting	>
Restore Default	>
About	>
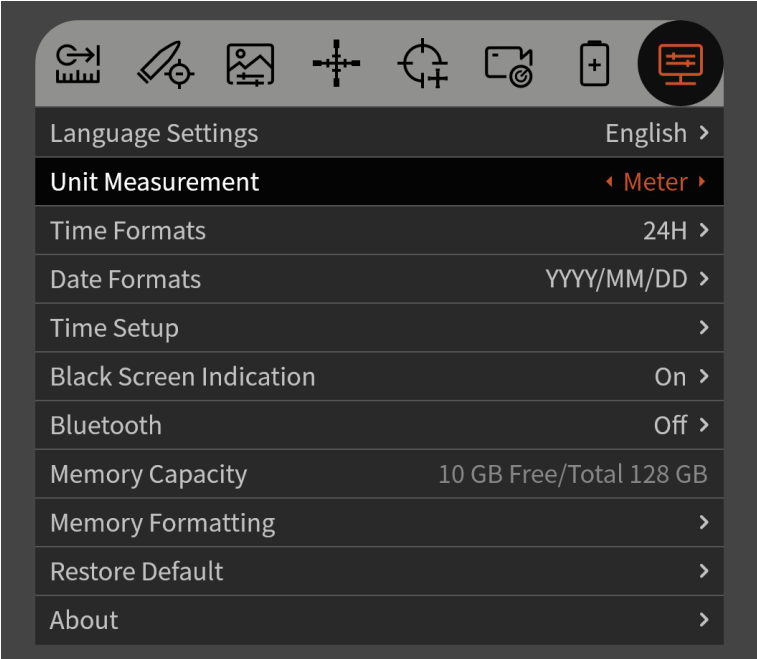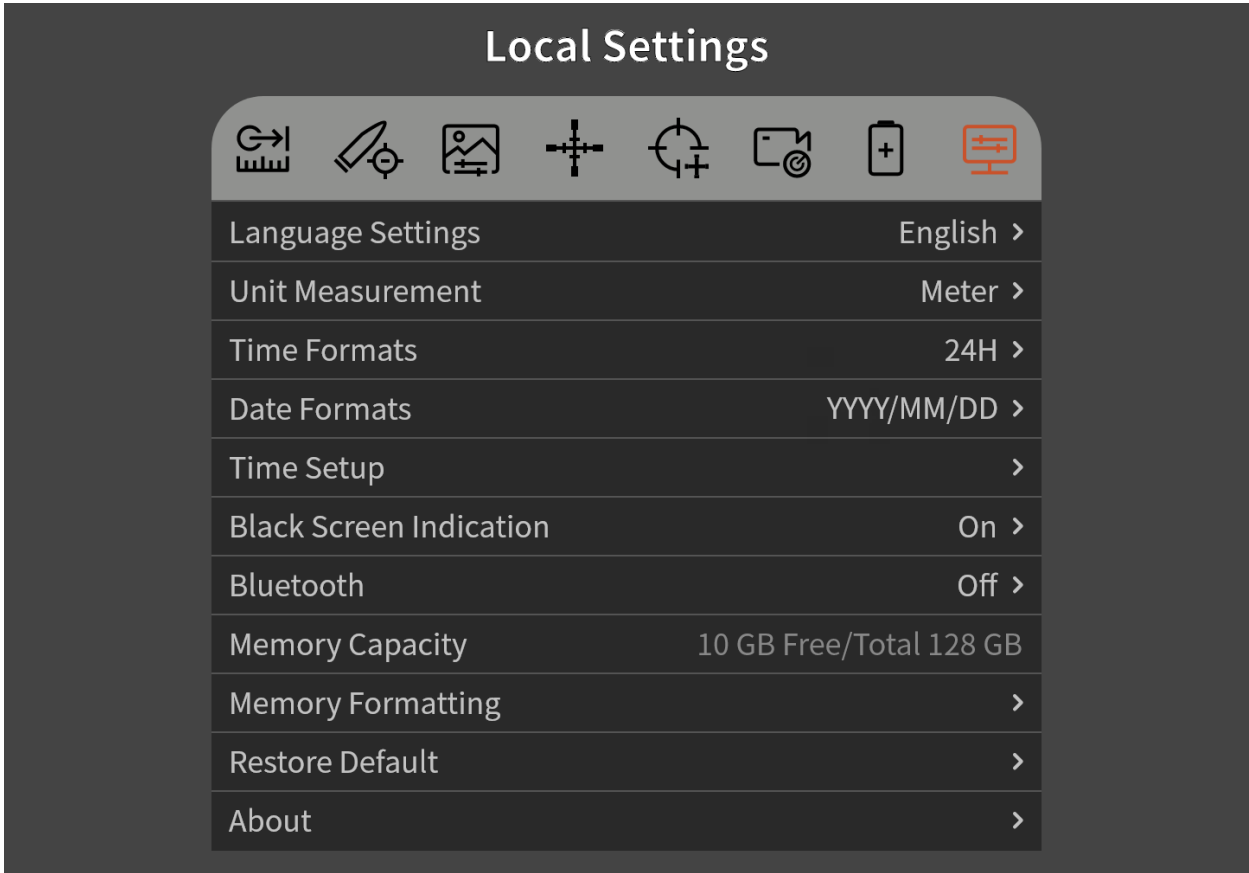
Time Formats: selectable between 12H / 24H

Language Settings	English >
Unit Measurement	Meter >
Time Formats	‹ 24H ›
Date Formats	YYYY/MM/DD >
Time Setup	>
Black Screen Indication	On >
Bluetooth	Off >
Memory Capacity	10 GB Free/Total 128 GB
Memory Formatting	>
Restore Default	>
About	>

Date Formats:
Optional from:
MM-DD-YYYY
YYYY-MM-DD
DD-MM-YYYY

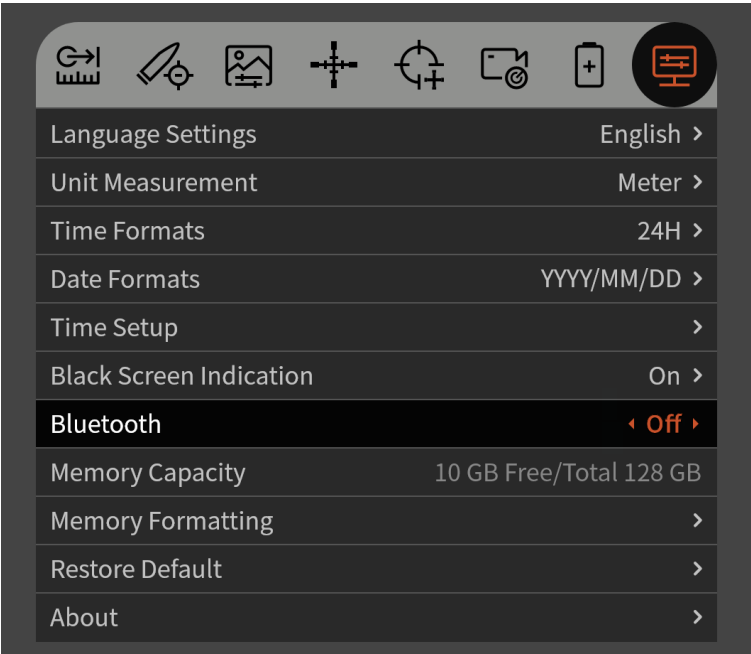|	
Language Settings	English >
Unit Measurement	Meter >
Time Formats	24H >
Date Formats	‹ YYYY/MM/DD ›
Time Setup	>
Black Screen Indication	On >
Bluetooth	Off >
Memory Capacity	10 GB Free/Total 128 GB
Memory Formatting	>
Restore Default	>
About	>
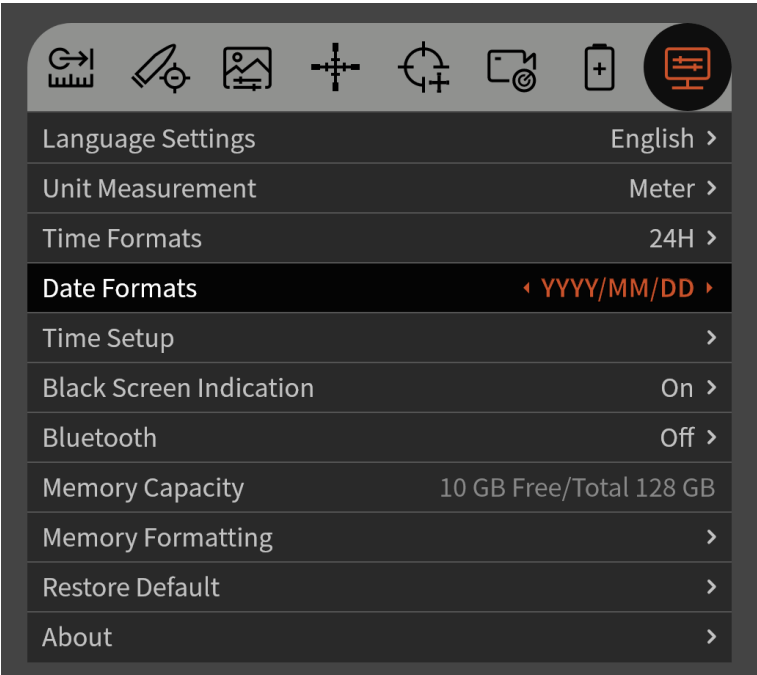
Time Setup: Enter the Time Setup, rotate the Menu knob to move among different options, and press the "M" button to enter the next level adjustment, and then rotate the Menu knob to move between the specific time values
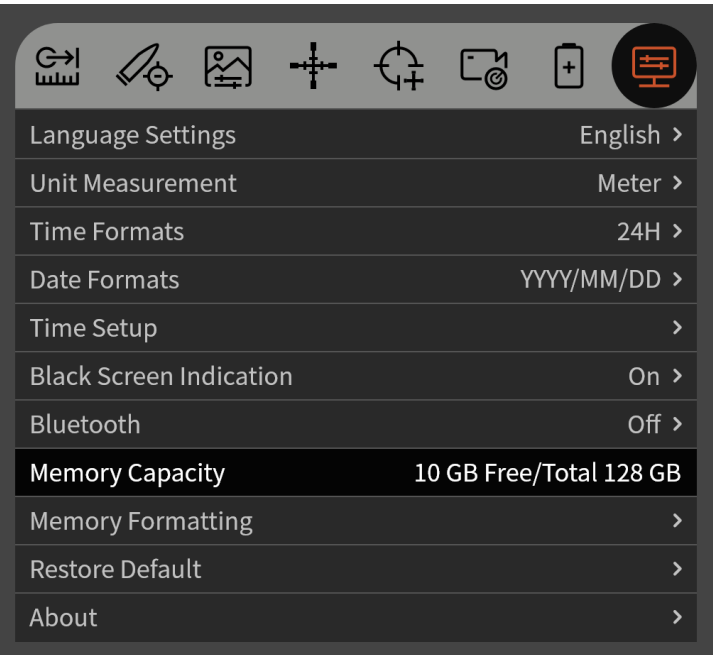
Language Settings	English >
Unit Measurement	Meter >
Time Formats	24H >
Date Formats	YYYY/MM/DD >
Time Setup	>
Black Screen Indication	On >
Bluetooth	Off >
Memory Capacity	10 GB Free/Total 128 GB
Memory Formatting	>
Restore Default	>
About	>

```
            12
            01
2023 - 02 - 02 a.m. 08 : 30
            03
            04
    Cancel        Confirm
```
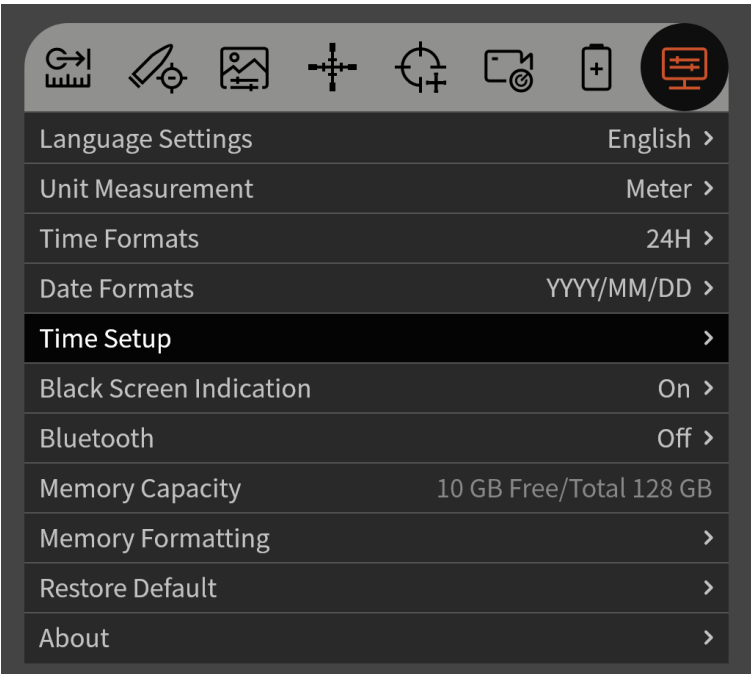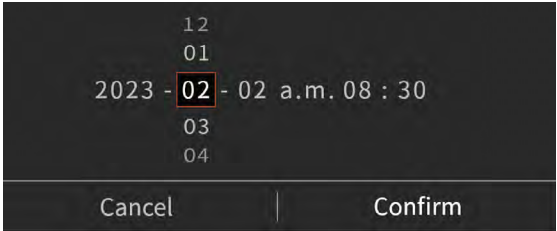
Black Screen Indication: black screen indication icon can be turned on and off

Language Settings	English >
Unit Measurement	Meter >
Time Formats	24H >
Date Formats	YYYY/MM/DD >
Time Setup	>
Black Screen Indication	‹ On ›
Bluetooth	Off >
Memory Capacity	10 GB Free/Total 128 GB
Memory Formatting	>
Restore Default	>
About	>
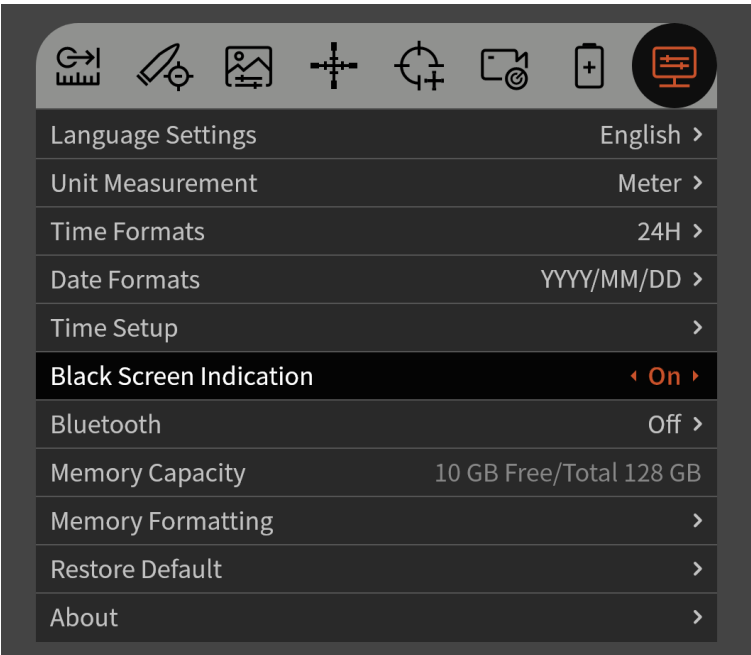
Bluetooth: Can be turned on and off

Language Settings	English >
Unit Measurement	Meter >
Time Formats	24H >
Date Formats	YYYY/MM/DD >
Time Setup	>
Black Screen Indication	On >
Bluetooth	‹ Off ›
Memory Capacity	10 GB Free/Total 128 GB
Memory Formatting	>
Restore Default	>
About	>

Memory Capacity: free memory capacity/total capacity

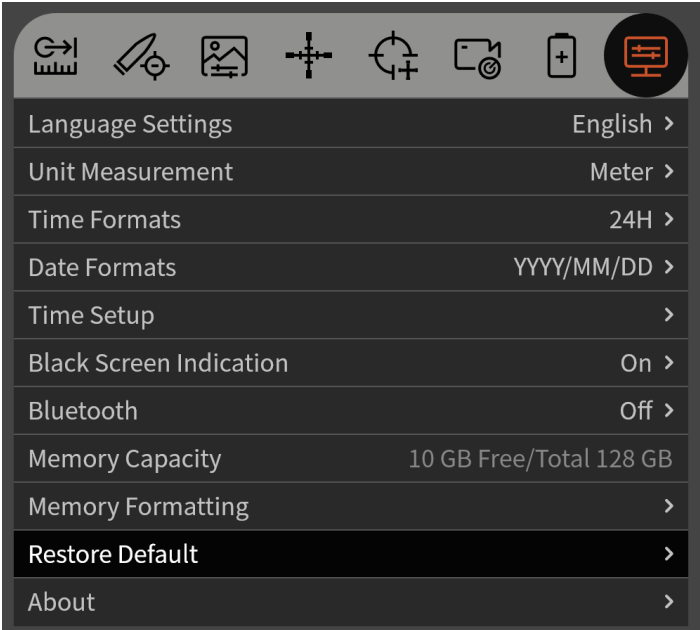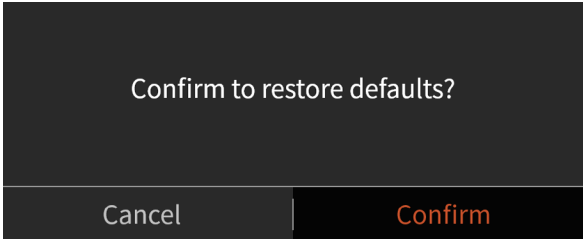|	
Language Settings	English >
Unit Measurement	Meter >
Time Formats	24H >
Date Formats	YYYY/MM/DD >
Time Setup	>
Black Screen Indication	On >
Bluetooth	Off >
Memory Capacity	10 GB Free/Total 128 GB
Memory Formatting	>
Restore Default	>
About	>

Memory Formatting: Select Memory Formatting. Select "Confirm" to confirm formatting, and select "Cancel" to cancel the operation

⚠ **SELECT WITH CAUTION!**

```
Confirm to format the memory?

    Cancel        Confirm
```

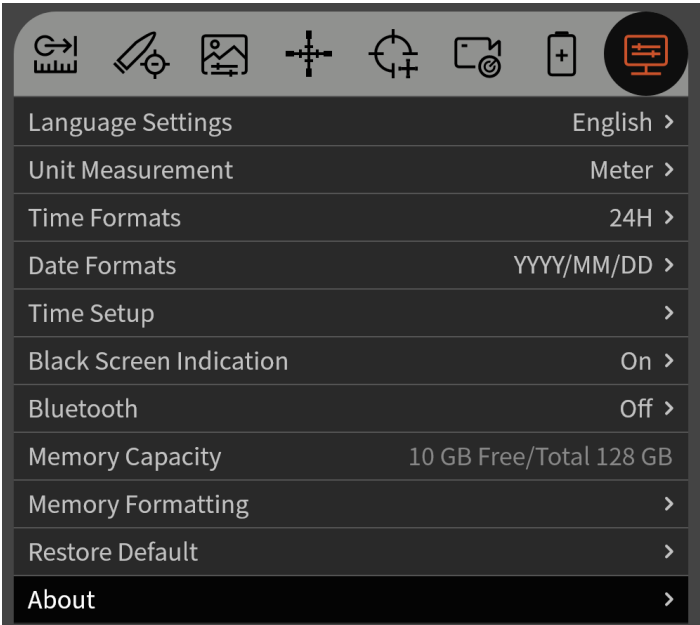|	
Language Settings	English >
Unit Measurement	Meter >
Time Formats	24H >
Date Formats	YYYY/MM/DD >
Time Setup	>
Black Screen Indication	On >
Bluetooth	Off >
Memory Capacity	10 GB Free/Total 128 GB
Memory Formatting	>
Restore Default	>
About	>
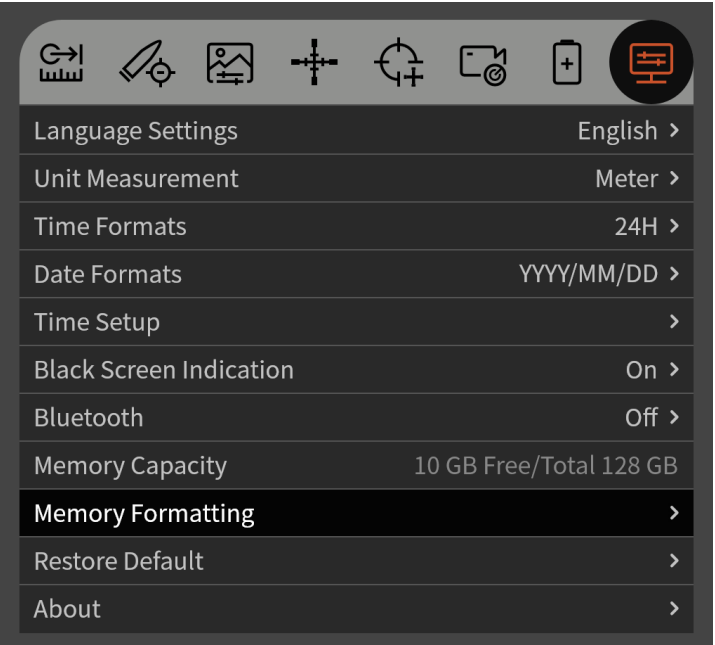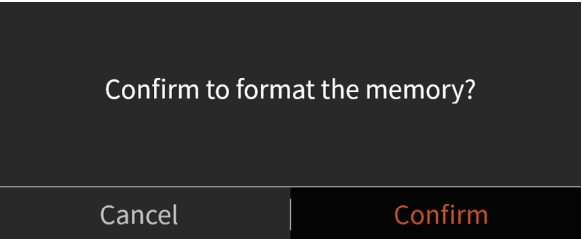
Restore Default: You can choose to restore the factory settings. Select "Confirm" to restore all parameters to factory settings; Select "Cancel" to cancel the operation

⚠ **SELECT WITH CAUTION!**

Confirm to restore defaults?

| Cancel | Confirm |

Language Settings	English ›
Unit Measurement	Meter ›
Time Formats	24H ›
Date Formats	YYYY/MM/DD ›
Time Setup	›
Black Screen Indication	On ›
Bluetooth	Off ›
Memory Capacity	10 GB Free/Total 128 GB
Memory Formatting	›
Restore Default	›
About	›

About: Check the current device in the APP version number and MAC address

SN	: ZG26C11YYWW0001
MAC	: 00-00-00-00-00-00
ASIC	: V1.0.0.20220630
ARM	: V1.0.0.20220630
MCU	: 21.1.11.1
APP	: V1.0.0.20220630

Language Settings	English ›
Unit Measurement	Meter ›
Time Formats	24H ›
Date Formats	YYYY/MM/DD ›
Time Setup	›
Black Screen Indication	On ›
Bluetooth	Off ›
Memory Capacity	10 GB Free/Total 128 GB
Memory Formatting	›
Restore Default	›
About	›

To sight in the rifle to your zero position please follow the steps as below:

Go to Zeroing Settings interface via the main menu to start zeroing in process. Aim the reticle center to the center of the target, and hold the rifle as stable as possible and fire a bullet. Rotate the menu knob to turn on the freeze option in the pop-up window showing "X" and "Y" while making sure the light green X (cross cursor) still pointing at the center of target.

After the image is frozen, short press M Button and then rotate the Menu knob to select and adjust the value of "X" (move left and right) or "Y" (move up and down) to move the center of the reticle until it overlaps with the actual point of impact. Use menu knob to select the "Confirm" option in the Pops up window, and short press the M button to confirm it. Each rotation of the Menu knob moves the center of the reticle by 1px. The cross cursor represents the original aiming point before any adjustment was made.Each rotation of the Menu knob moves the center of the reticle by 1px. The cross cursor represents the original aiming point before any adjustment was made.

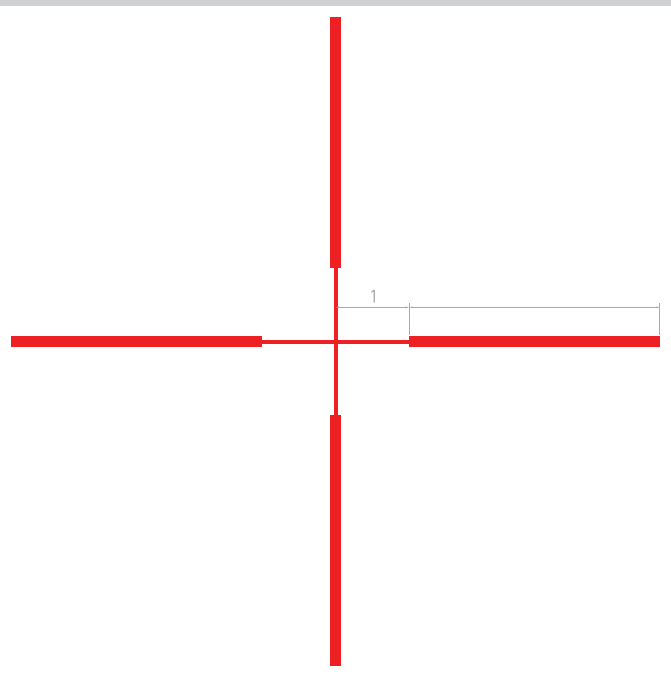The verticle zero offset value can only be set through Athlon Ballistic APP.

Actual point of impact

Center of Reticle

Cross cursor
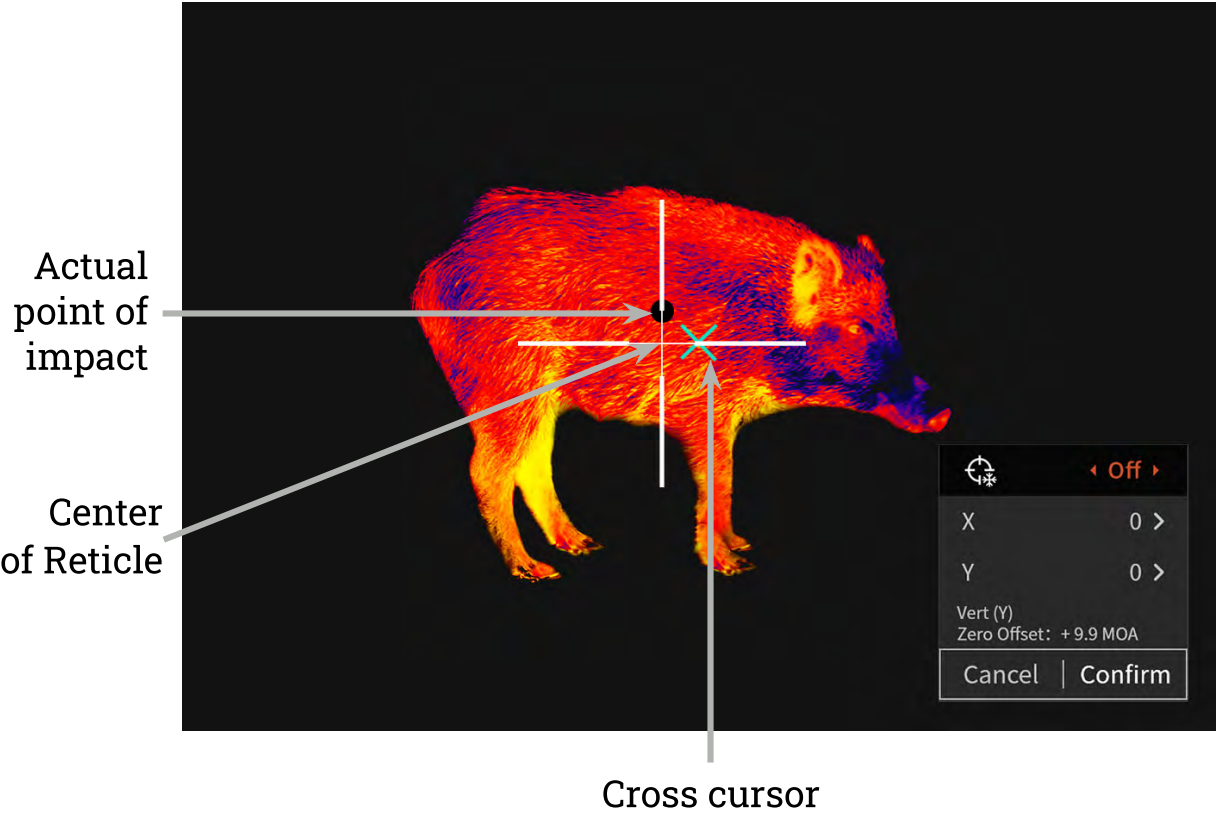
MOA RETICLES
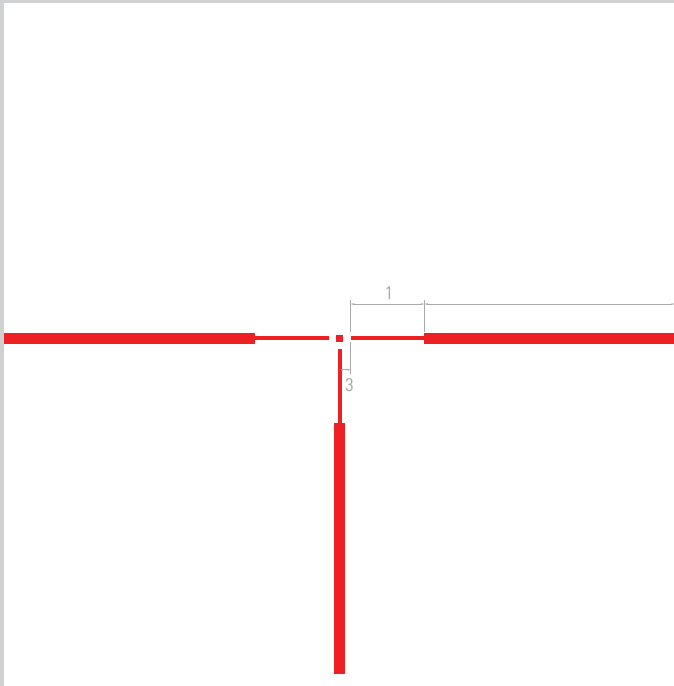
#01 - MOA

1 - 20 MOA
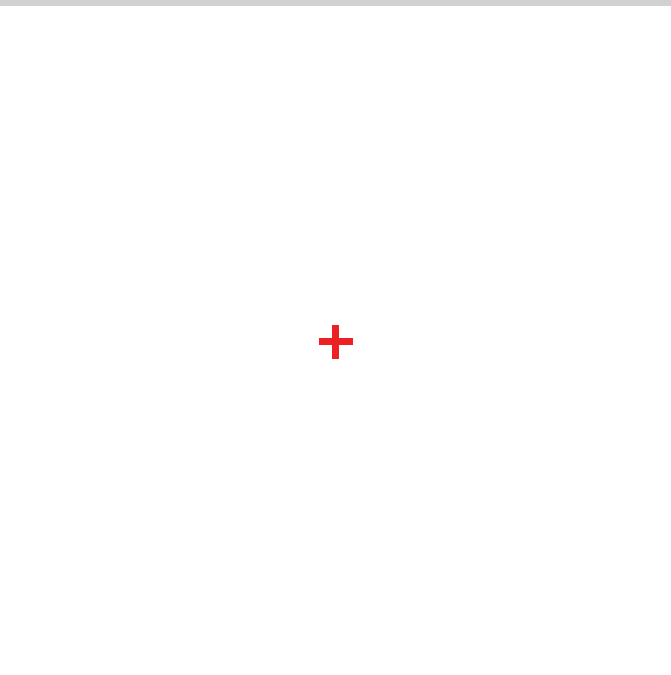2 - 68 MOA
3- 4 MOA

thin line - 2 px
thick line - 6 px
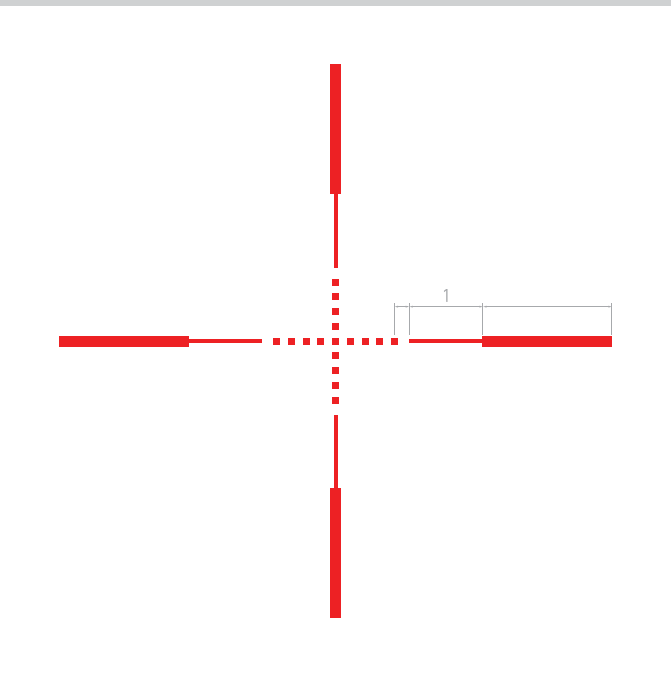dot - 4 px

#02 - MOA

1 - 20 MOA
2 - 68 MOA

thin line - 2 px
thick line - 6 px

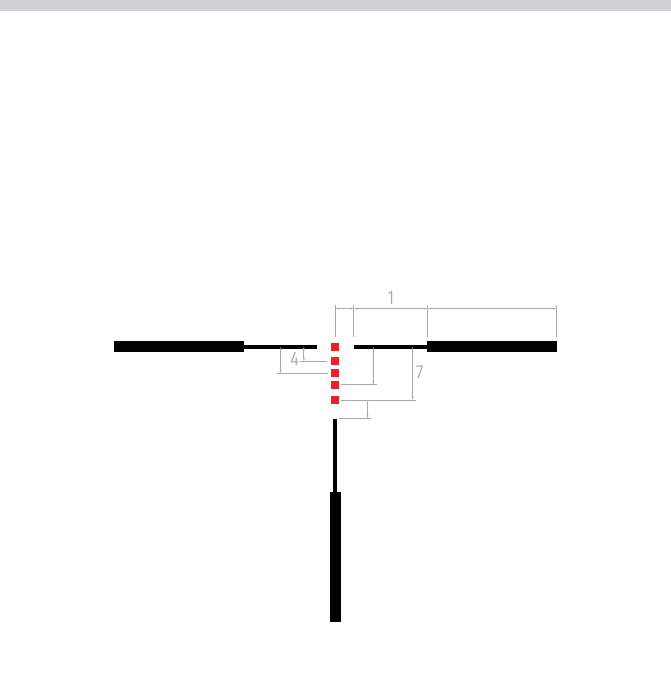### #03 - MOA

20x20 px floating cross
4px line thickness

#04 - MOA

1 - 20 MOA
2 - 35 MOA
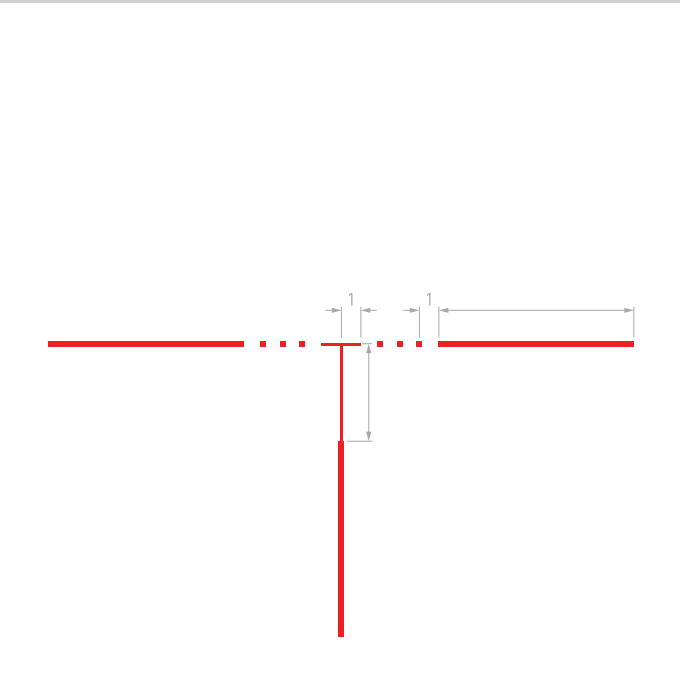3- 4 MOA

thin line - 2 px
thick line - 6 px
dots - 4 px

#05 - MOA

1 - 20 MOA
2 - 35 MOA
3 - 5 MOA
4 - 4 MOA
5 - 7.3 MOA
6 - 10.4 MOA
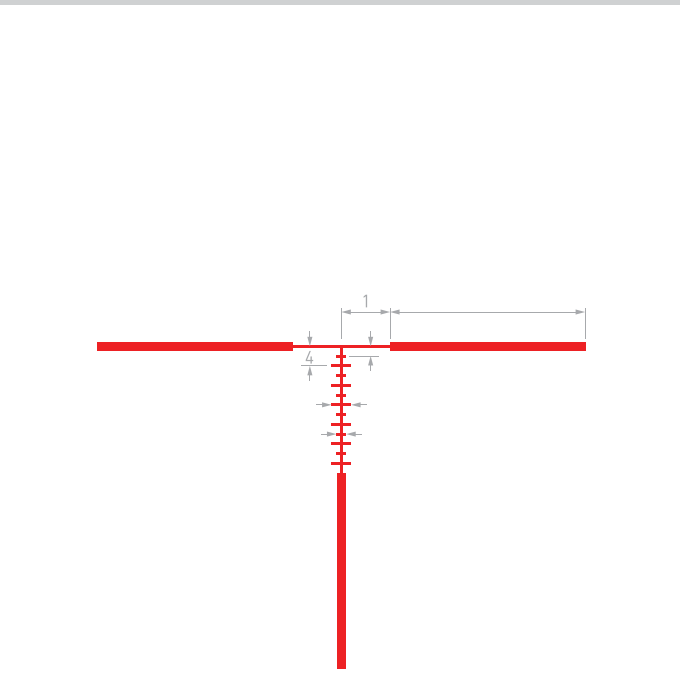7 - 14.6 MOA

thin line - 2 px
thick line - 6 px
dots - 4 px

MIL RETICLES

#01 - MIL

1 - 2 MIL
2 - 20 MIL
3 - 10 MIL

thin line - 2 px
thick line - 4 px
dots - 4 px

#02 - MIL

1 - 5 MIL
2 - 20 MIL
3 - 1 MIL
4 - 2 MIL
5 - 2 MIL
6 - 1 MIL

thin line - 2 px
thick line - 6 px
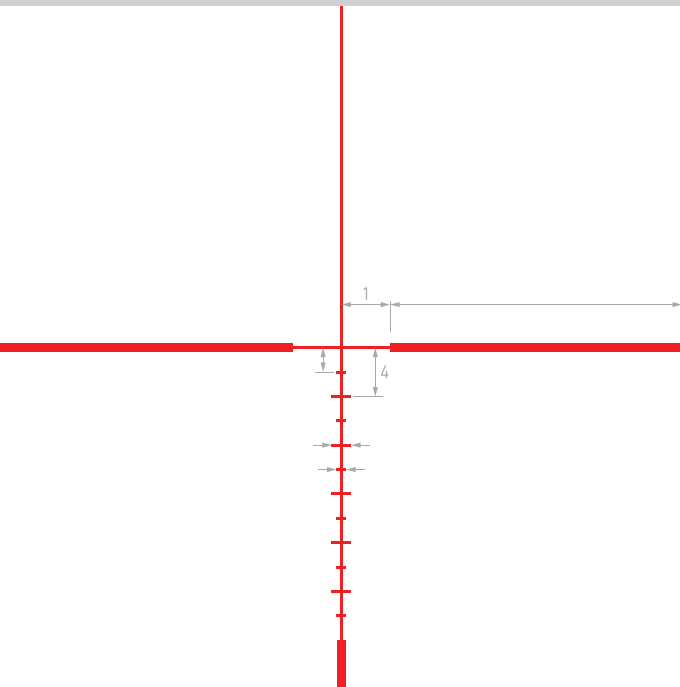
#03 - MIL

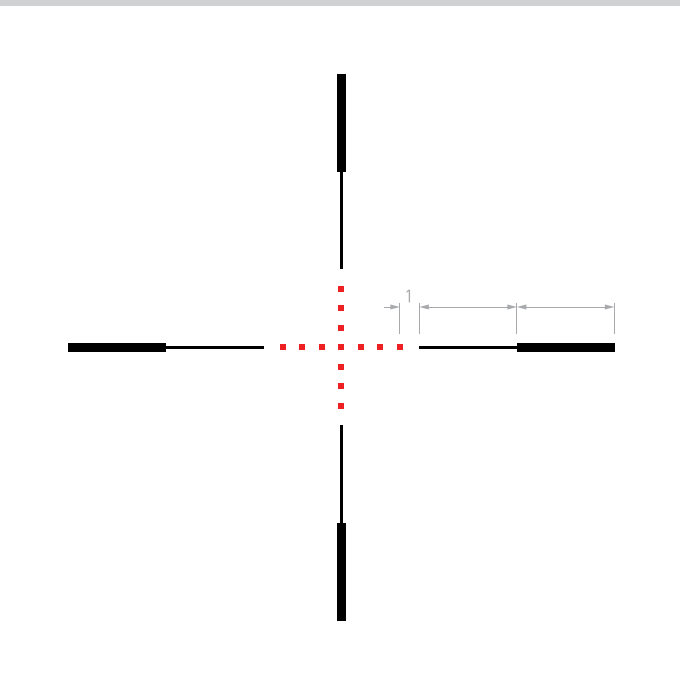1 - 5 MIL
2 - 20 MIL
3 - 2.5 MIL
4 - 5 MIL
5 - 2 MIL
6 - 1 MIL

thin line - 2 px
thick line - 6 px
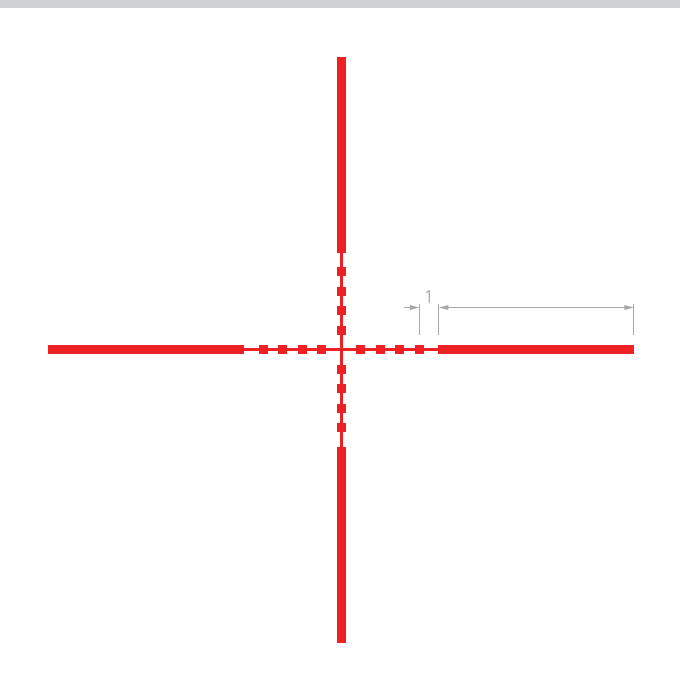
#04 - MIL

1 - 2 MIL
2 - 20 MIL

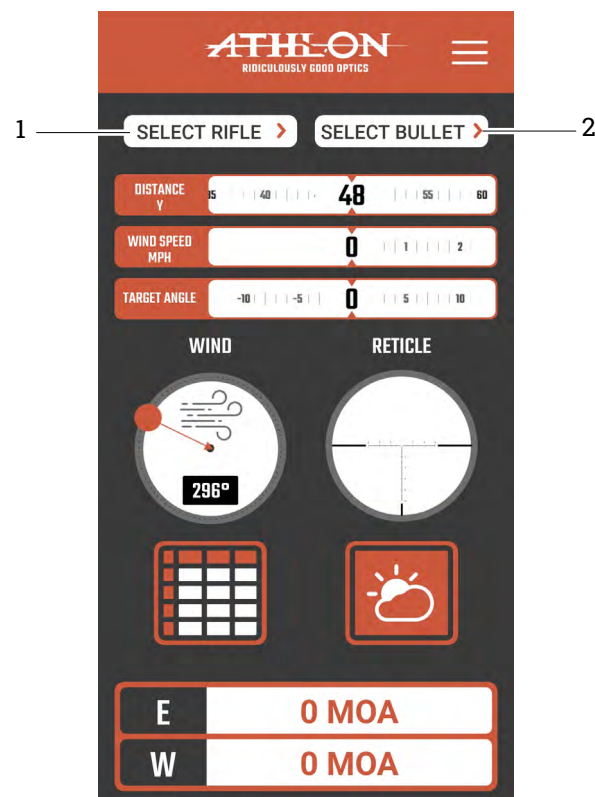thin line - 2 px
thick line - 6 px
dots - 6 px

#05 - MIL

1 - 2 MIL
2 - 10 MIL
3 - 10 MIL

thin line - 2 px
thick line - 6 px
dots - 4 px

CHAPTER 9 - BALLISTICS APP

In order to get ballistics on your thermal device, you will need to download the Athlon Ballistics app to your phone. Here you will create your rifle and bullet profiles to transmit to your thermal device.

1) Create a rifle profile.

2) Create a bullet profile. Once the fields have been completed, clicking DONE will save your profile.

⚠ NOTE: When creating these profiles, ensure you are providing accurate details in order to get accurate ballistics.
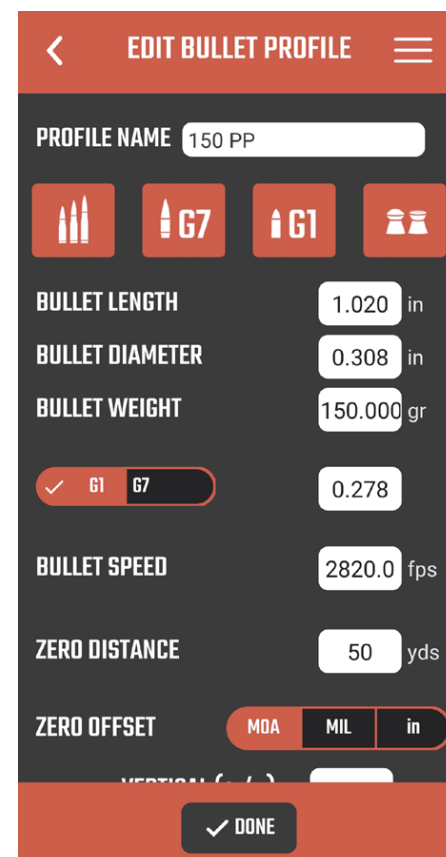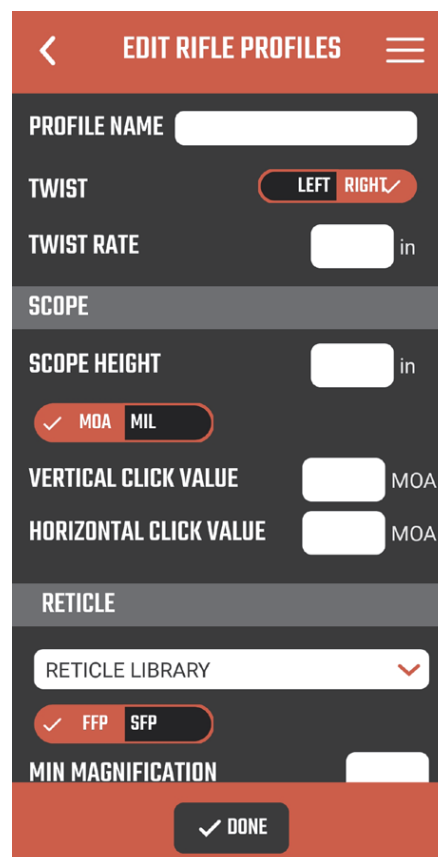
3) Turn on the thermal devices WiFi, and connect your cellular device to the thermal devices WiFi connection.
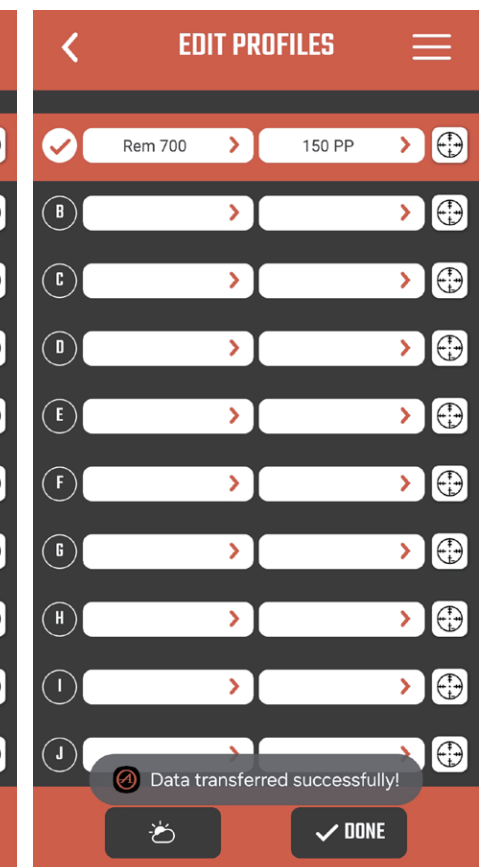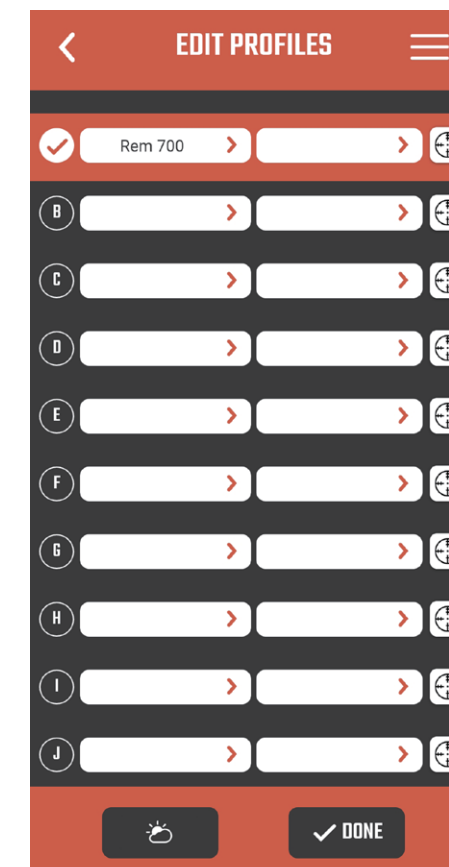
4) Open the hamburger menu and select CONNECT DEVICE.

5) Once in CONNECT DEVICE, the thermal device will be displayed. Click ENTER and then EDIT PROFILES.
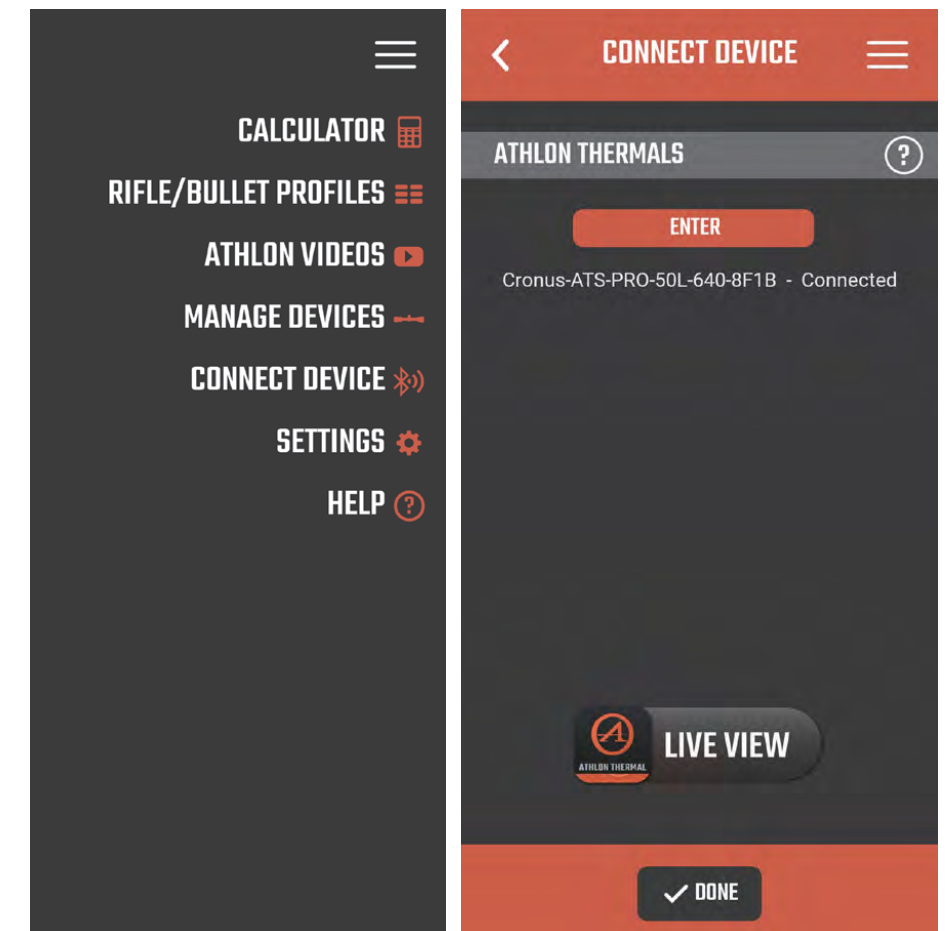
6) Select the Rifle and Bullet profiles that you want to associate with the corresponding thermal Profile Configuration.

7) Clicking DONE will save the changes and transfer the data.

8) The Thermal Reticle page allows you to preview the color palettes of your main reticle, holdover reticle, as well as the crosshairs. You can fine tune the brightness and determine what ranges you want the holdovers to be at.

THERMAL RETICLE

PREVIEW COLOR PALETTE

- None
- Iron Red
- Blue Hot
- Green Hot
- White Hot
- Black Hot
- Sepia

PROFILE NAME   70-154

RETICLE   MIL #1

COLOR   Red

HOLDOVER COLOR   Red

BRIGHTNESS
50%
10%   100%

THERMAL ZEROING DISTANCE   50 yds
ZERO OFFSET ?   +1.5"

BDC HOLDOVER   ✓ ON   OFF
1ST   300 yds
2ND   350 yds
3RD   400 yds
4TH   425 yds

✓ DONE

CHAPTER 10 – OTHER INSTRUCTIONS

10.1 POWER DISPLAY

Power Display: When the thermal scope is turned on and the battery level changes, the battery indicator is displayed in the lower left corner of the screen, and the highlighted part of the battery indicator shows the remaining battery capacity.

High Power   Charging   Medium Power   Low Power   Please Charge
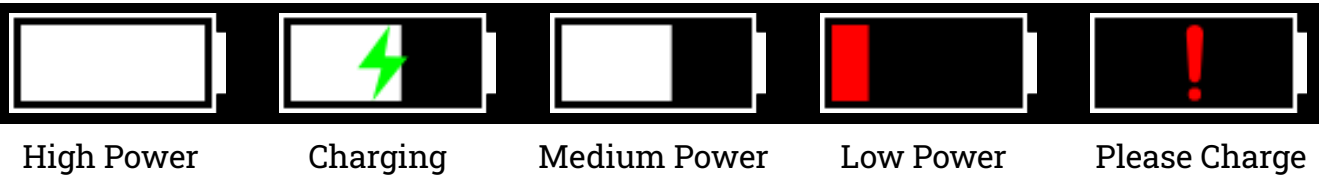
⚠ **NOTE: When the internal battery is low, please charge it as soon as possible. The scope can not be turned on when the internal battery is out of power, and can only be turned on with external power supply through the USB-C port.**

10.2 SOFTWARE CONNECTION

WiFi Connection:

1) Download the 'Athlon Thermal ' APP on your mobile phone;

2) Turn on product's WiFi via main menu

3) Enter the mobile phone WiFi setting, select the WiFi name of "CRONUS ATS PRO XX-xxxx', enter the password '12345678' to connect;

4) Return to "Athlon Thermal" APP on your mobile phone

⚠ **NOTE: In order to ensure reliable Wi-Fi signal connection and stable data transmission, please keep the scope and the phone within 15 yard, and there are no obstacles (such as partition walls, etc.).**

App Function Description:

Control the Scope on the APP: After the APP is successfully connected to the device's WiFi, the Scope can be remotely controlled.
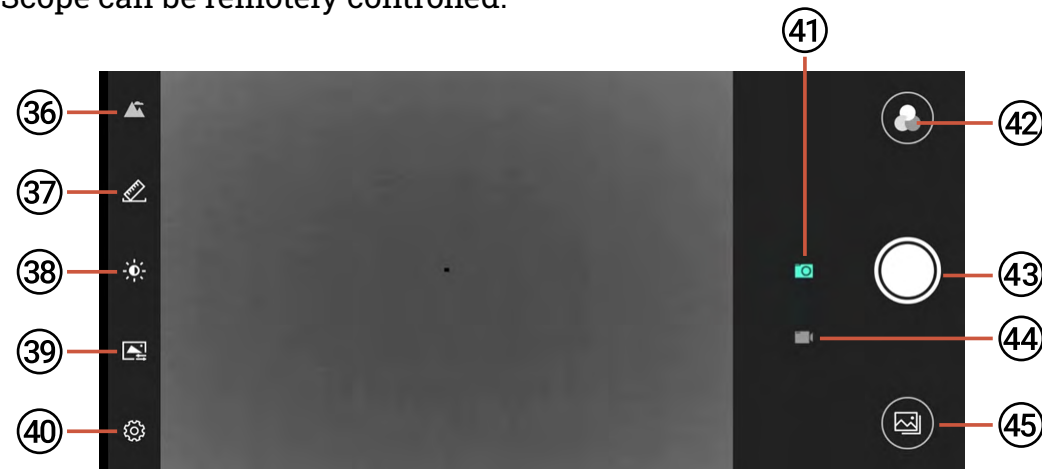

Function Icons:

㊱		Natural/Enhanced/Highlight mode
㊲		Stadiametric Rangefinder
㊳		Brightness / Contrast Adjustment
㊴		Hot track, PIP, Image Enhancement
㊵		Reticle Settings, Common Settings

Other Icons:

㊶		Shooting Status Display
㊷		White Hot/Black Hot/Red Hot/Iron Red/Blue Hot/Green Hot/Sepia
㊸		Shooting/Recording Control Key
㊹		Recording Status Display
㊺		APP Gallery entry
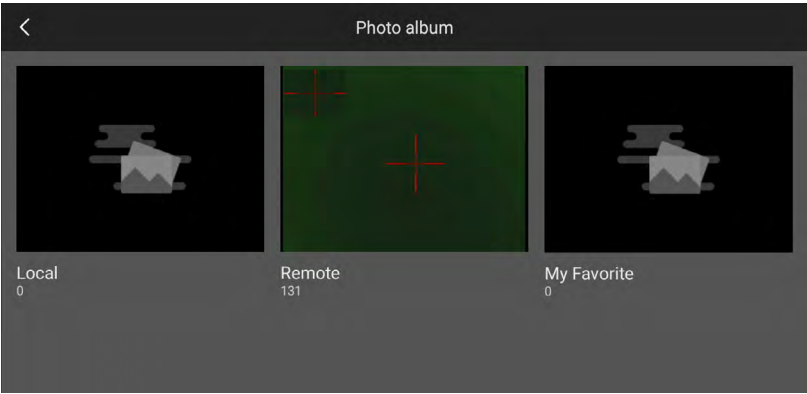
Access files on the APP

Control the scope on the APP: After the APP is successfully connected to the device's WiFi, the scope can be remotely controlled.

- **Local album:** after the APP is connected to the scope's WIFI, the location of the file will be stored on the APP after pictures/videos are taken, and the files will be automatically saved to the local photo album of the mobile phone; the pictures/videos can be collected, shared and deleted.

- **Remote Scope:** after the APP is connected to device's WIFI, the location of the file will be stored on the APP after pictures/videos are taken; the photos/videos can be downloaded, deleted and so on. The files will be automatically saved to the local photo album of the mobile phone.

- **My Favorites:** The location where the pictures/videos are stored after they are added to my favorites.

CHAPTER 11 — FIRMWARE UPDATE

It is recommended for end users to get the latest version of firmware for improved performance and better image quality. Please follow either of the following methods to complete the update:

11.1 UPDATE VIA APP

1) Power on the thermal optic and turn on the scopes WiFi through main menu.

2) Connect the thermal optic to your mobile device using this WiFi connection.

About Device >

Device connected

《User_Agreement》& 《Privacy_Policy》

3) Open the Athlon Thermal mobile APP and click "About Device" in the upper right corner.
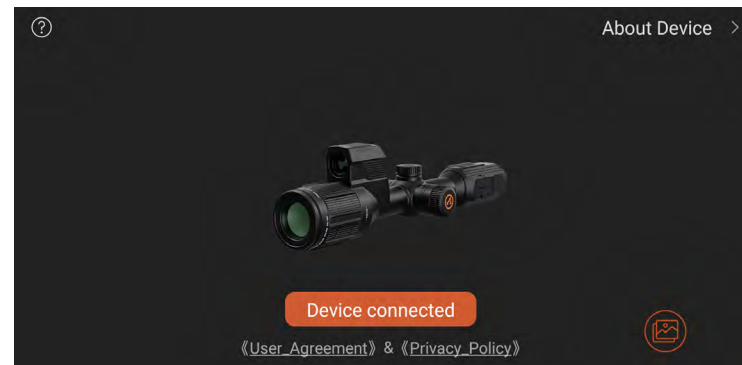
4) Make sure the mobile device has cellular data connection and then tap the "Check for updates" button.

Check for updates
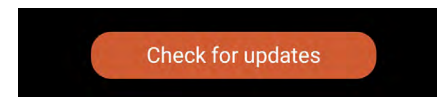
5) If there is an update available, it will appear on the screen. Tap the "Download" button and wait for 100% completion.
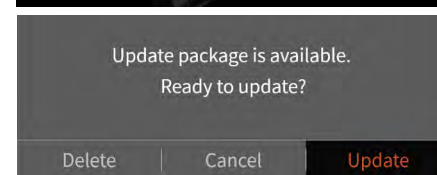
Downloading...

252.63M/489.56M
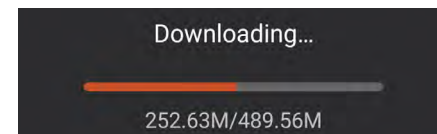
Update

6) After the download is completed, tap the "Update" button to start the transferring process.

Transferring...
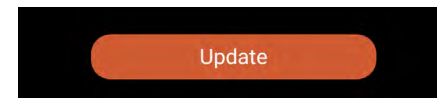
7) Once the firmware transfer is completed, the APP will show "Transfer completed!" on the top of the screen.

< About Device

Transfer completed!
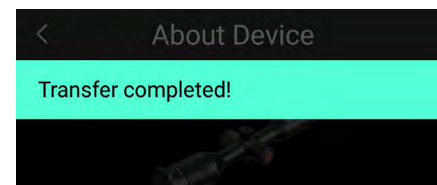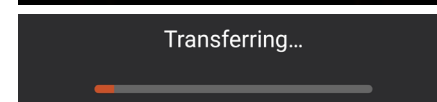
The screen of the thermal scope will show the options "Delete" "Cancel" and "Update." Rotate the menu knob and press the M button to select "Update."

Update package is available. Ready to update?

Delete | Cancel | Update

Once the progress bar shows 100% completion, power off and on the thermal scope to begin enjoying the new firmware.

Update completed, ready to restart!

100%
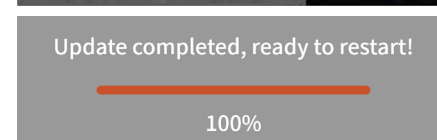
11.2 UPDATE VIA COMPUTER

1) Download the firmware package to your computer.

 • To download the firmware package, visit the following URL: https://athlonoptics.com/thermal-firmware-update/

Thermal Model	What's the update	Firmware Package	ASIC
CRONUS ATS PRO 35-400	Color sensitivity	V.X.X.X	V1.X.X.XXXXXXXX
CRONUS ATS PRO 50-640	Color sensitivity	V.X.X.X	V1.X.X.XXXXXXXX
CRONUS ATS PRO 35L-400	Color sensitivity	V.X.X.X	V1.X.X.XXXXXXXX
CRONUS ATS PRO 50L-640	Color sensitivity	V.X.X.X	V1.X.X.XXXXXXXX

⚠ **NOTE: if you accidently download the update package twice, please use the first download file named ota-asic.img not ota-asic(1).img. The exact file name must be used.**

2) Turn on thermal device to "Com Mode."

 • On the thermal device, long press the power button and M button at the same time when the device powers on, then release the power button while continuing to press the M button.

 • Check the device LED screen to ensure it is in "Com Mode."

3) Connect the thermal device to your computer.

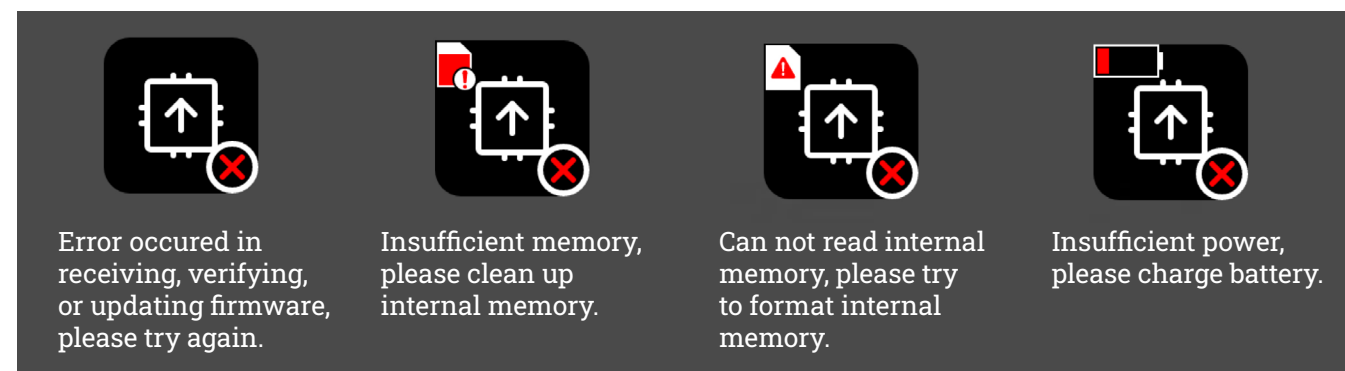 • Use type C cable to connect the thermal device to your computer.

4) Copy the downloaded firmware package to your computer.

 • On your computer, copy the downloaded firmware package (ota-asic.img) to the root directory of the Thermal USB drive.

 • Turn off the thermal device, then turn it back on. The firmware will update automatically.

5) Check if firmware updated successfully.

 • Long press the M button until the Menu appears

 • Select the Local Settings by turning M button. Go to the About screen and confirm the ASIC number matches the number listed with the update package. If it matches, then the firmware has updated successfully.

6) Below warning messages will be displayed if the thermal device has insufficient power, internal memory, or failed receiving and updating the firmware.

Error occured in receiving, verifying, or updating firmware, please try again.

Insufficient memory, please clean up internal memory.

Can not read internal memory, please try to format internal memory.

Insufficient power, please charge battery.

⚠ **NOTE: If the updating failed and the thermal unit cannot be operated normally, please hold the M button and the power button simultaneously for 15 seconds to perform a hard power off and then power on the unit normally to restart the updating process.**

CHAPTER 12 – COMMON TROUBLESHOOTING GUIDE

1) **The device failed to be powered on.**
Solution: Replace the battery or connect charger.

2) **The device has trouble taking pictures/videos.**
Solution: The internal storage space of the device is full and/or the memory card needs to be formatted.

3) **The time displayed on the device does not match the actual time.**
Solution: Reset the time and date of the device in the menu.

4) **The screen goes off during the use.**
Solution: Short press any button to wake up from sleep and light up the screen.

5) **Image displayed on the device is blurry during operation.**
Solution: Turn the lens to focus manually until the image is clear.

6) **The device is in deadlock stage and cannot be powered off normally.**
Solution: Long press the M button and the power button simultaneously for 15 seconds to have a hard power off and then power the unit on normally.

ATHLON
RIDICULOUSLY GOOD OPTICS

PRODUCT WARRANTY CARD

Warranty Registration Required

This product carries a 5-year warranty from the date of purchase. For your product to qualify for this warranty, you must provide proof of purchase, the model and serial number of the device. Once activated, the device is warrantied 5 years from the date of purchase.

1) This warranty does not cover damages caused by deliberate damage, misuse, theft or maintenance provided by someone other than the Athlon Authorized Service Department.

2) Please note that any altering of the products, such as Duracoat, hyrdo dipping or spray painting, will void the warranty on all thermal devices.

Scan the QR code to complete the online form to register your device.

SHARP, TIGHT AND PRICED JUST RIGHT!

Toll free: 1-855-913-5678

contact@athlonoptics.com

10817 RENNER BLVD,
LENEXA, KS 66219

ATHLONOPTICS.COM