



THERMAL IMAGING MULTIFUNCTIONAL DEVICE

Hunter
650LRF
GEN2 VIPER
by NITEHOG™

INSTRUCTION MANUAL

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SAFETY INSTRUCTIONS

Make sure to carefully read the present manual before using the device to ensure its safe exploitation.

- Thoroughly test the device before use after it has been left in storage for a long period of time.
- Disassembling the device is prohibited, except in authorized repair centres.
- The external optical surfaces should be clean at all times. Touching the optical surfaces with bare hands is not recommended.
- Sand and sea water can damage the optical coatings!
- Do not point the device directly at the sun!
- Image performance (quality) depends on the scenery and the atmosphere conditions.
- The contrast of the image may vary as a function of the time of day due to the effect of the sun. For example, at sunset objects will have absorbed different levels of heat resulting in greater temperature differences and better contrast.
- When storing the device for a longer period of time, the battery has to be removed and stored in polyethylene bags to prevent contact with metal. It is recommended to recharge the battery every two to three months.
- Condensation can cause fogging of the external optical surfaces! Condensation occurs when:
 - Moving the device from cold to warm place or vice versa;
 - The device's temperature differs significantly from the ambient one;
 - Using the device in places with high humidity.

When the temperature of the device is equalized with the ambient one, the condensation disappears. Use the cleaning cloth to remove moisture. Condensation also can be prevented with anti-fogging sprays or with the provided rubber pieces.

Condensation on the objective does not affect the performance of the device!

- Clean the lens surfaces with the cleaning cloth.

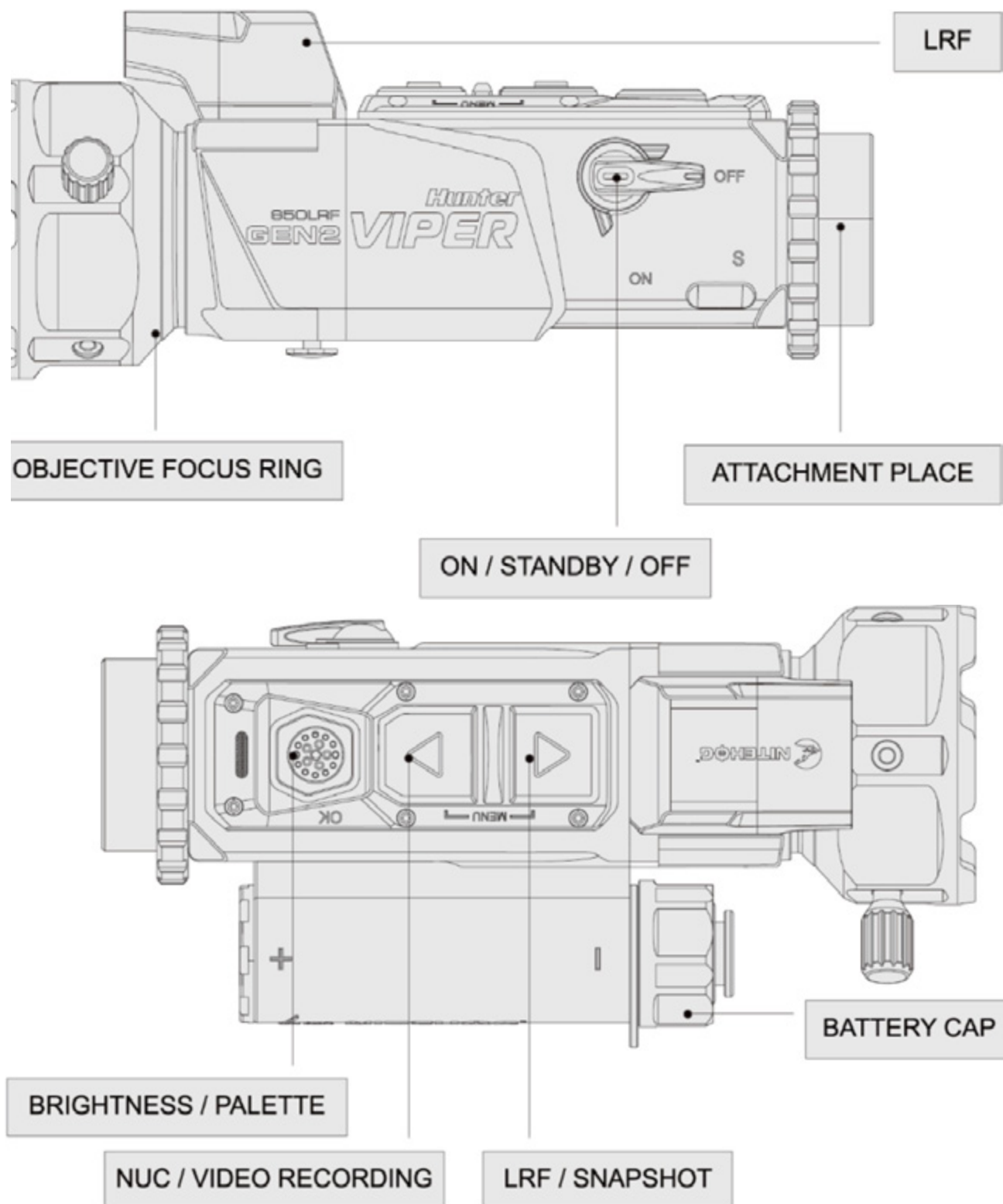
1 Delivery Set

N	DESCRIPTION	QTY.
1	Thermal imaging multifunctional device Viper GEN2 650LRF	1
2	Transport Box	1
3	Accessories Box	1
4	Soft bag	1
5	Rechargeable battery 18650	1
6	Protective rubber lens cap	1
7	USB cable	1
8	Bluetooth remote ring	1
9	Counter ring	1
10	Cleaning cloth	1
11	User manual	1
12	Warranty card	1

2 Device Overview

Note!

All images used in this instruction manual are for illustrative purpose only. Actual product may vary due to product enhancement.



3 Technical Parameters

DETECTOR	
Detector Type	Uncooled Vox
Resolution	640 x 512
Frame rate	50 Hz
Pixel	12 μ m
Spectral range	8 - 14 μ m
NETD	≤ 15 mK
OPTICS	
Objective lens	50 mm F1.2 (non-athermalized)
Magnification	1x
FOV	8.8° x 7°
FOV(H×V), m @100m	15.4 x 12.3m (100 m)
Close-up range	3 m
Eye relief	25 mm
Exit pupil diameter	15 mm
THERMAL IMAGING PERFORMANCE	
Digital zoom	1x (Clip-on mode) / 1x 2x 3x 4x (Observation mode)
Palettes	Black hot / White hot / Red hot / Isotherm / Auto Isotherm / Ironbow / Rainbow
Scene	Highlights / Panorama / AI scene
Weather Type	Hot / Normal / Wet
Filter	Smooth / Normal / Sharp
Startup time	< 6s
Menu and Information	GUI
Image enhancement	DDE
Brightness and contrast	AGC

FUNCTIONS	
Controls	Togger switch + 3 buttons
Target track	Support
Target lock	Support
Auto/Manual BRP	Support
Leveler & Compass	Support
Recoil activated video	10 s before/after shooting
Microphone	Support
Bluetooth	Support
Storage	64G
Upgrade	APP online upgrade / Serial port upgrade
DISPLAY	
Type	Micro OLED MDP03C
Resolution	1024 x 768
Output video	WI-FI
POWER SUPPLY	
Battery type	1 x 18650
Type-C	5 V 2 A
Operation time	≥ 5 h
PHYSICAL CHARACTERISTICS	
Weight (without battery)	≤ 369 g
Dimension	140 x 70 x 46mm
Thread	M33.5 x 0.75
ENVIRONMENTAL COMPATIBILITY	
Working temperature	-20°C to +50°C
Storage temperature	-40°C to +70°C
Shock resistance	> 6000 J
LASER RANGE FINDER	
safety class for laser equipment according to IEC 60825-1:2014	1
Measuring range	5-1200 m
Measurement accuracy	±1m

4 Description of Controls

4.1 THREE POSITION TOGGLE SWITCH

TOGGLE SWITCH	POSITION	STATUS
	ON	Power ON
	S	Standby
	OFF	Power OFF

4.2 CONTROLS

BUTTONS	SHORT PRESS		LONG PRESS	WITH MENU ACTIVATED	
	OBSERVA- TION MODE	CLIP-ON MODE	Snapshot	SHORT PRESS	LONG PRESS
	Perform LRF based on the selected mode (Single or Scan)			Curse up	
	NUC activating		Video recording on/off	Curse down	
OK	Change between four values of the display luminance		Fast access to palette mode menu	Function select	Exit Menu
OK + 	Switch between clip-on, observation and Helmet mode (available only when Fast Switching is enabled)		Reset the zeroing distance (applicable only in clip-on mode)		
OK + 	Digital Zoom	UI Scale			
 + 	Enter Menu				

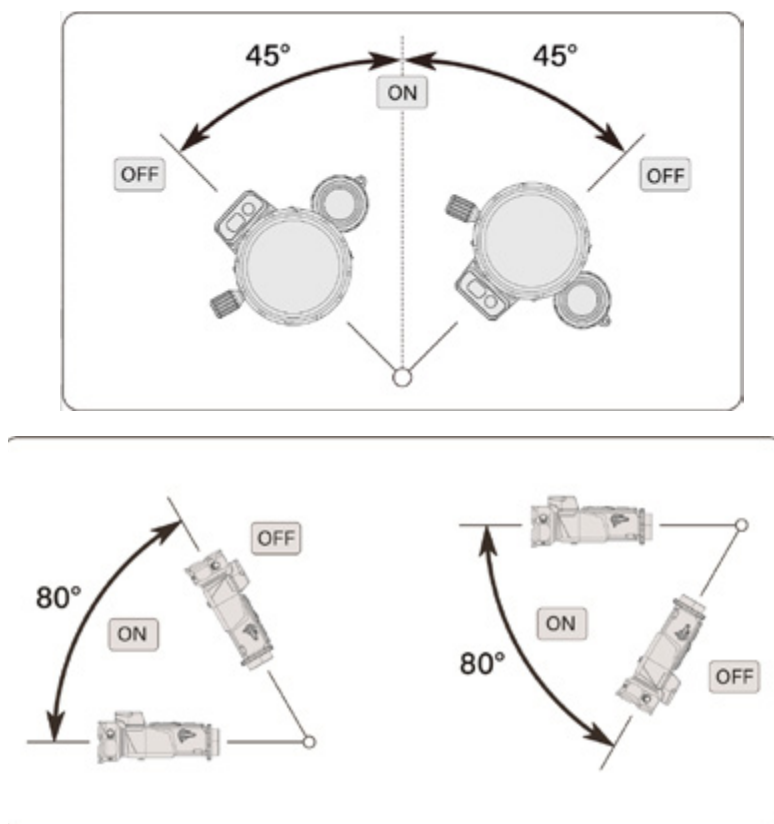
5 Basic Operation

5.1 POWER ON/OFF/STANDBY

Move the toggle switch to the desired position for **ON**, **S (Standby)** and **OFF** settings.

Note!

The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.



Note!

When the toggle switch is in the Standby position:

- The device will remain powered on if the tilt range is within 45° to either side and 80° upwards or downwards. The device will automatically enter Standby mode if the tilt exceeds 45° to either side or 80° upwards or downwards.
- If the device and user interface remain inactive for 5 minutes, the display will automatically turn off to conserve power and minimize unwanted light. However, if the device is streaming video, this functionality will remain active.

5.2 INTERFACE DISPLAY

After powering on, the basic OSD is displayed. Pressing any button will switch to the full OSD. If no operation is performed within 3 seconds under full OSD, the full OSD will automatically revert to the basic OSD.



Basic OSD in Clip-on Mode



Full OSD in Clip-on Mode



Basic OSD in Observation Mode



Full OSD in Observation Mode

Attention!

When the device is powered on, the basic OSD is displayed in both clip-on mode and observation mode. Pressing any button will trigger the full OSD, which will remain on-screen for 3 seconds before disappearing automatically.

Note!

When entering **OBSERVATION MODE**, the  will be displayed in the center of the screen for 15 seconds. After 15 seconds, it will automatically move to the top-right corner of the screen.

5.3 HELMET MODE



Attention!

When the device is powered on, the basic OSD is displayed in both clip-on mode and observation mode. Pressing any button will trigger the full OSD, which will remain on-screen for 3 seconds before disappearing automatically.

Note!

When entering Helmet Mode, the  will be displayed in the top right corner of the screen.

5.4 DIGITAL ZOOM (ONLY AVAILABLE IN OBSERVATION MODE)

Short press the **Up + OK** buttons simultaneously in **OBSERVATION** mode to zoom in or zoom out between **1x/2x/3x/4x**. The current digital zoom is shown on the right side of the screen.



5.5 LRF (LASER RANGE FINDER)

Short press the **Up** button to perform the a single laser measurement. The measured distance will be displayed on the screen. Long press the **Up** button to exit the laser measurement.



Note!

-----m indicates an invalid distance measurement.

Important!

The **LRF MEASUREMENT MODE** can be set to **SINGLE MEASUREMENT** or **SCAN MEASUREMENT** in the main menu.

When **BALLISTIC CALCULATOR** is enabled, the ballistic correction value and measured distance will be displayed on the screen. For details, refer to the **BALLISTIC CALCULATOR** section under **FEATURES**.

5.6 SNAPSHOT

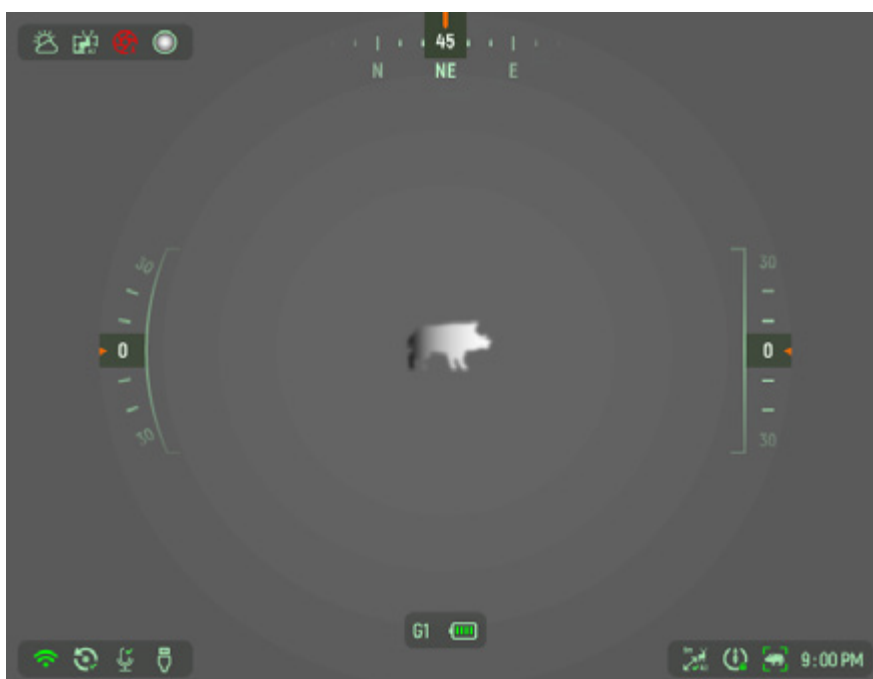
Long press the **Up** button to take a photo, and the capture icon appears on the screen for 1s before disappearing.



5.7 NUC

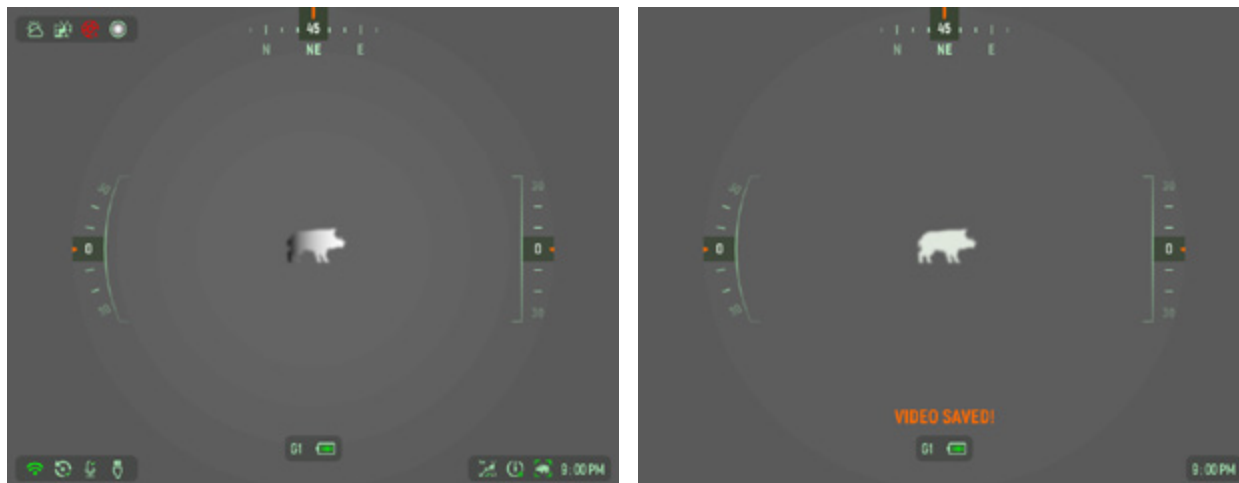
Short press the Down button to do non-uniformity correction. When using the **AUTO NUC mode** (automatic calibration), a visual warning will appear **3 seconds prior to shutter activation**.

The **NUC icon** will **blink in red**, clearly indicating that calibration is about to occur.



5.8 VIDEO RECORDING

Long press the **Down** button to start a video recording. A recording timer displays on the screen. Long press the **Down** button to stop and save the video recording.



5.9 DISPLAY LUMINANCE ADJUSTMENT

Short press the **OK** button to change between four values of the display luminance:



Note!

When **AUTO ISOTHERM** is activated, short press **OK** button to perform sampling.

5.10 PALETTE MODE

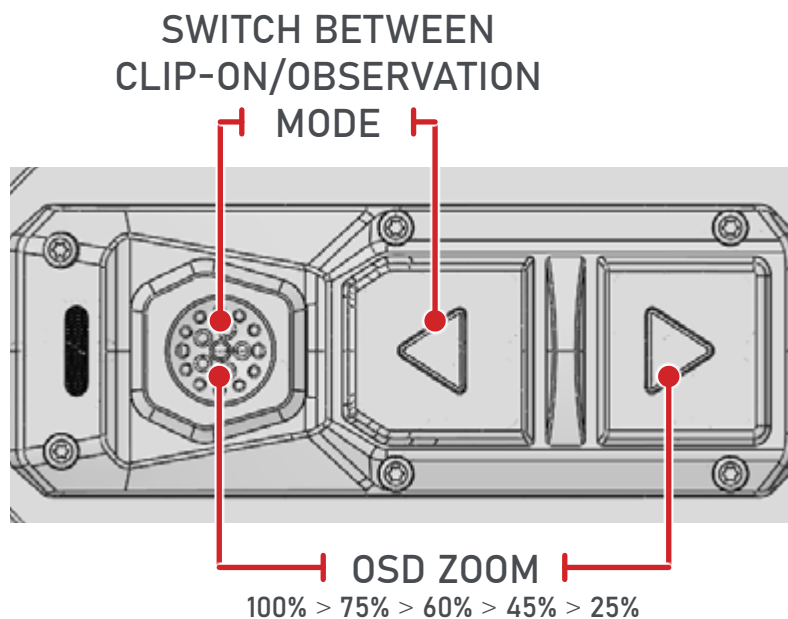
Long press the **OK** button to switch the palette from **BLACK HOT**, **WHITE HOT**, **RED HOT**, **ISOTHERM**, **AUTO ISOTHERM**, **IRONBOW** and **RAINBOW**.

5.11 SWITCH BETWEEN CLIP-ON MODE AND OBSERVATION MODE

Press the **OK** button and the **Down** button simultaneously to quick switch between **CLIP-ON MODE** and **OBSERVATION MODE**.

Note!

The quick switch function can only be performed when it is activated from the main menu.



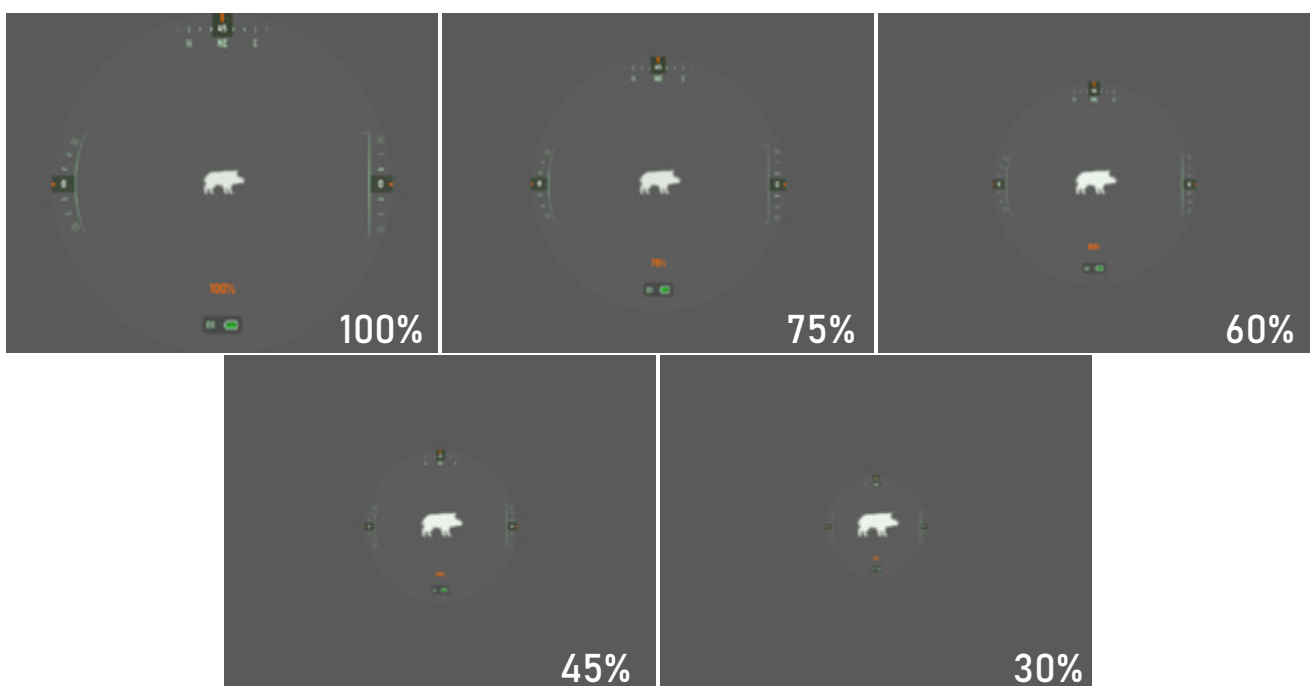
5.12 OSD ZOOM

The Viper device offers an advanced **OSD (On-Screen Display) zoom** feature, allowing users to scale the menu and icons to remain fully visible through the field of view of the daytime rifle scope—even at up to 6× optical magnification.

Press the **OK** button and the **Up** button simultaneously to quick switch to activate the **OSD zoom** function, with each press, the OSD elements will cycle through five zoom levels:

100% > 75% > 60% > 45% > 25%

This ensures optimal visibility of menu icons at various magnification levels.



6 Menu

6.1 NAVIGATION

Move the toggle switch to the desired position for **ON**, **S (Standby)**, and **OFF** settings.

BUTTONS	SHORT PRESS	LONG PRESS
	Enter menu	---
	Move the curse up	---
	Move the curse down	---
OK	Function select	Exit menu

6.2 IMAGE SETTINGS

Press the **Up** button and the **Down** button simultaneously to enter the **Menu**, press the **Up** and **Down** button to select **IMAGE SETTINGS**, and press the **OK** button to enter its secondary menu to adjust the parameters of the current option.

6.2.1 BRIGHTNESS

Select **BRIGHTNESS** to adjust the level of image brightness from 1 to 4 by pressing the **Up** or **Down** button, and press the **OK** button to save, and exit to the upper interface.



Note!

BRIGHTNESS in **IMAGE SETTING** is not related with the **LUMINANCE** adjustment.

6.2.2 CONTRAST

Select **CONTRAST** to adjust the level of image contrast from 1 to 4 by pressing the **Up** or the **Down** button, and press the **OK** button to save and exit to upper interface.



6.2.3 SCENE

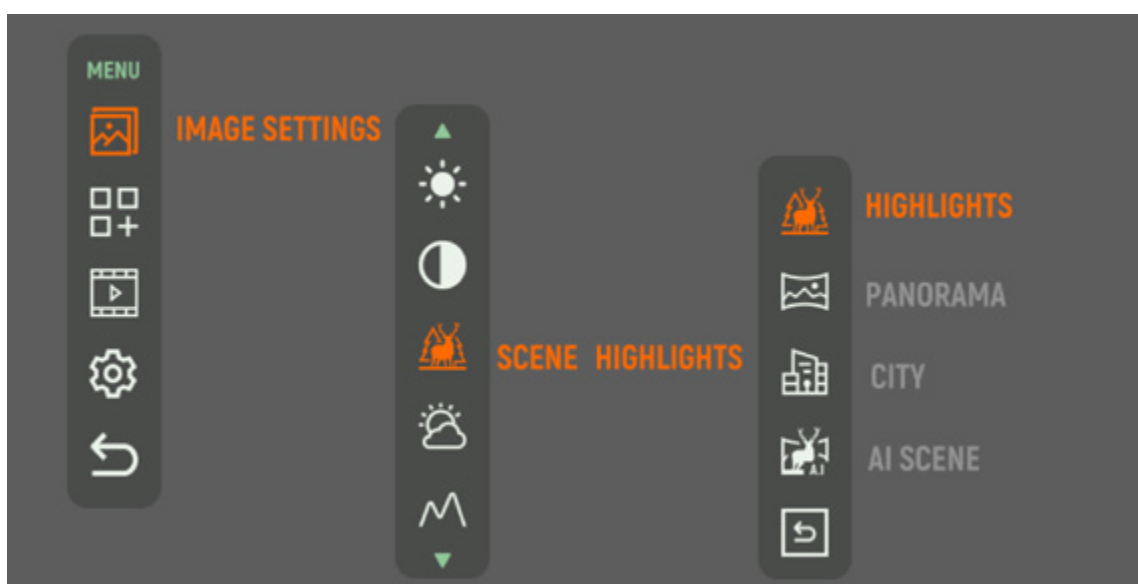
Select a scene mode based on the properties of the scene and your preferences. Short press the **Up** or **Down** button to switch the scene mode among **HIGHLIGHTS**, **PANORAMA**, **CITY**, and **AI SCENE**. Short press the **OK** button to save and exit to the upper interface.

 **HIGHLIGHTS** - this type of image contrasting is suitable for detection and observation.

 **PANORAMA** - this type of image contrasting is suitable for observing panoramic scenes with combination of: forest and sky, earth and sky, and scenes on the horizon.

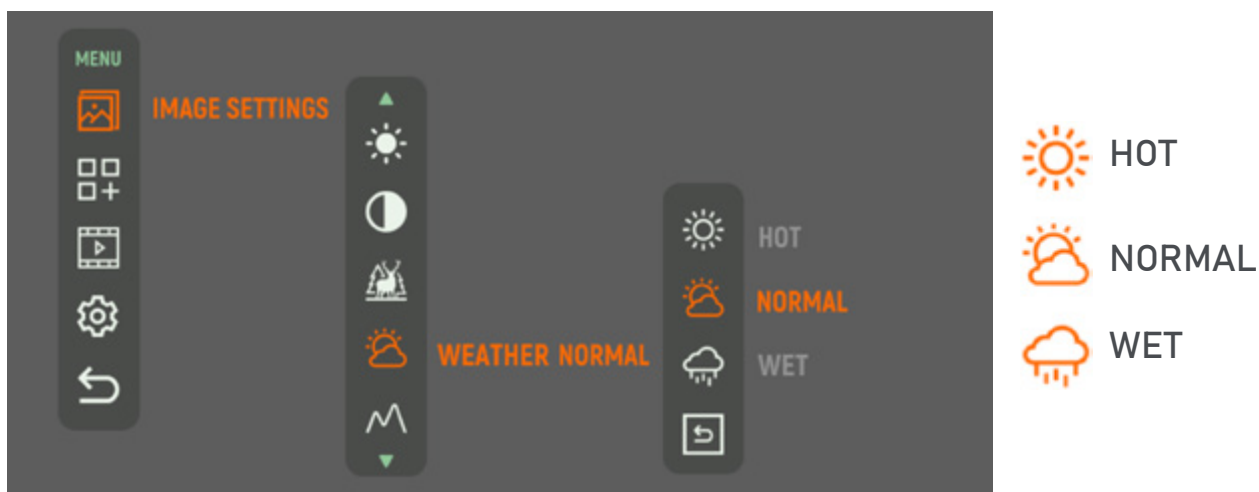
 **CITY** - this type of image contrasting is suitable for high-temperature scenes.

 **AI SCENE - ADAPTIVE SCENE MODE**, automatically selects and switches between **HIGHLIGHTS**, **PANORAMA**, and **CITY** based on the environmental conditions.



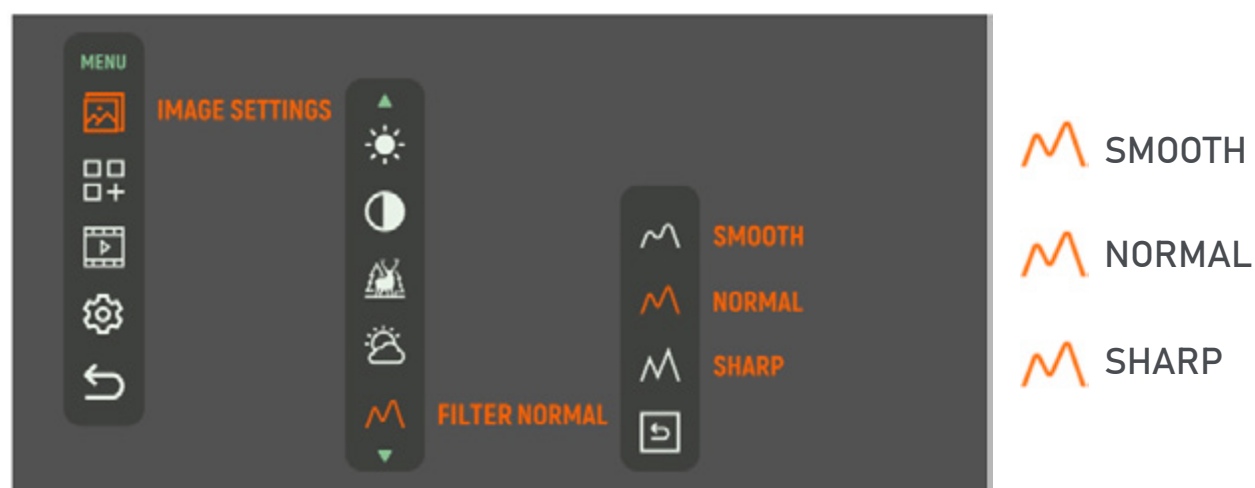
6.2.4 WEATHER

Select the **WEATHER** mode and switch between **NORMAL**, **WET** and **HOT** by short pressing the **Up** or **Down** button. Press the **OK** button to save and exit to upper interface.



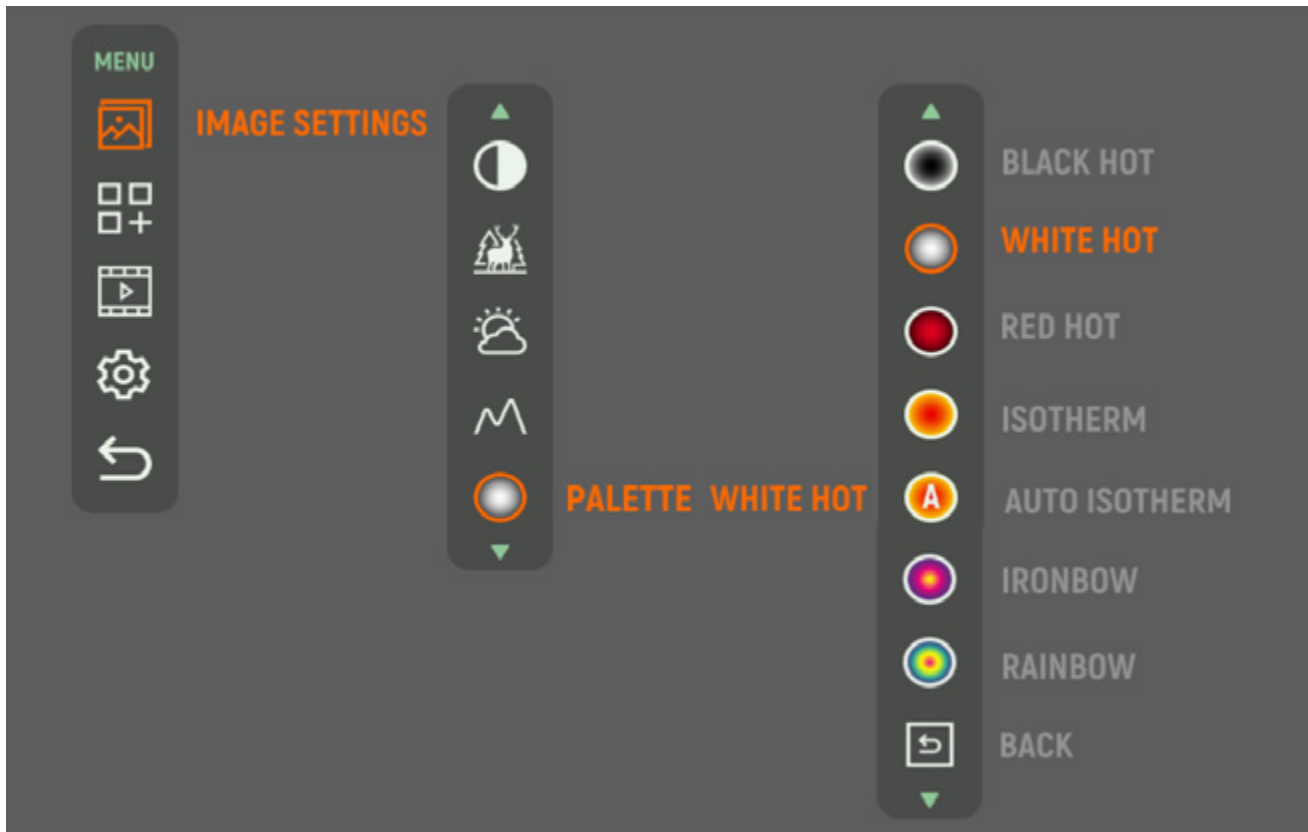
6.2.5 FILTER

Select the **FILTER** mode and switch between **SMOOTH**, **NORMAL** and **SHARP** by short pressing the **Up** or **Down** button. Press the **OK** button to save and exit to upper interface.



6.2.6 PALETTE

Select the **PALETTE** mode and switch among **BLACK HOT**, **WHITE HOT**, **RED HOT**, **SMOOTH**, **ISOTHERM**, **AUTO ISOTHERM**, **IRONBOW**, and **RAINBOW** by short pressing the **Up** or **Down** button. Press the **OK** button to save and exit to upper interface.

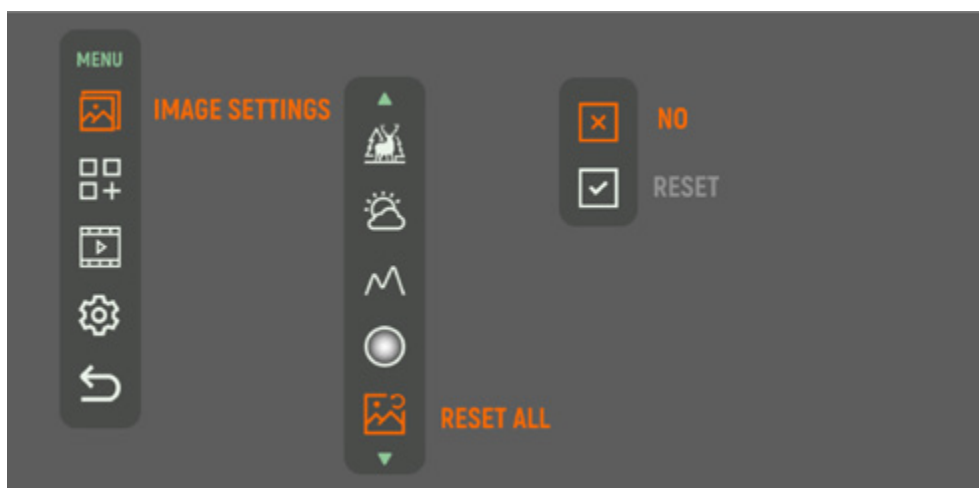


-  **BLACK HOT** - Warmer object appears in black.
-  **WHITE HOT** - Warmer object appears in white.
-  **RED HOT** -The image is red-black to minimize the blue light emitting from the display and is more comfortable on the eyes.
-  **ISOTHERM** - the objects above the threshold temperature are colored in different shades of red. The temperature threshold can be set (increase/decrease) by the temperature scale shown. Increasing the threshold value ignores the colorization of the colder objects. This option is highly dependent on the distance to the object. It is highly recommended to try different values of the threshold in daily usage to find the right value for your personal preference. Short press the **OK** button to adjust the temperate threshold, and decrease or increase the value by short pressing the **Up** or **Down** button.

-  **AUTO ISOTHERM** - This mode enables a marked object to be set as the lowest temperature object in the scene, and the other objects in the scene with higher temperatures are highlighted with yellow-red colors with graduation to this temperature threshold automatically. When Auto Isotherm is activated, short press the **OK** button to set the value (marking the object).
-  **IRONBOW** - It helps increase chances for recognition & identification of the objects.
-  **RAINBOW** - It helps increase chances for recognition & identification of the objects.

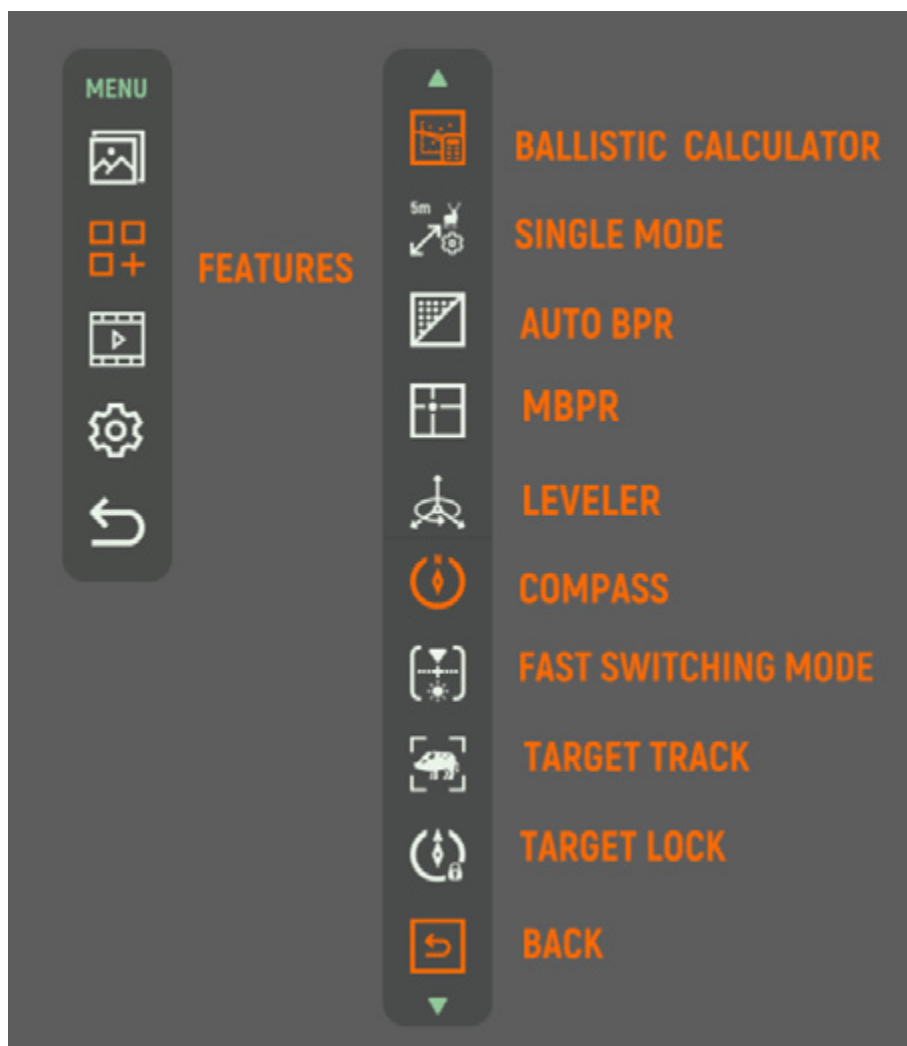
6.2.7 IMAGE SETTINGS RESET

Select **RESET ALL** and switch between **NO** or **RESET** by sort pressing the **Up** or **Down** button. Press the **OK** button to confirm and it will exit to the upper interface automatically.



6.3 FEATURES

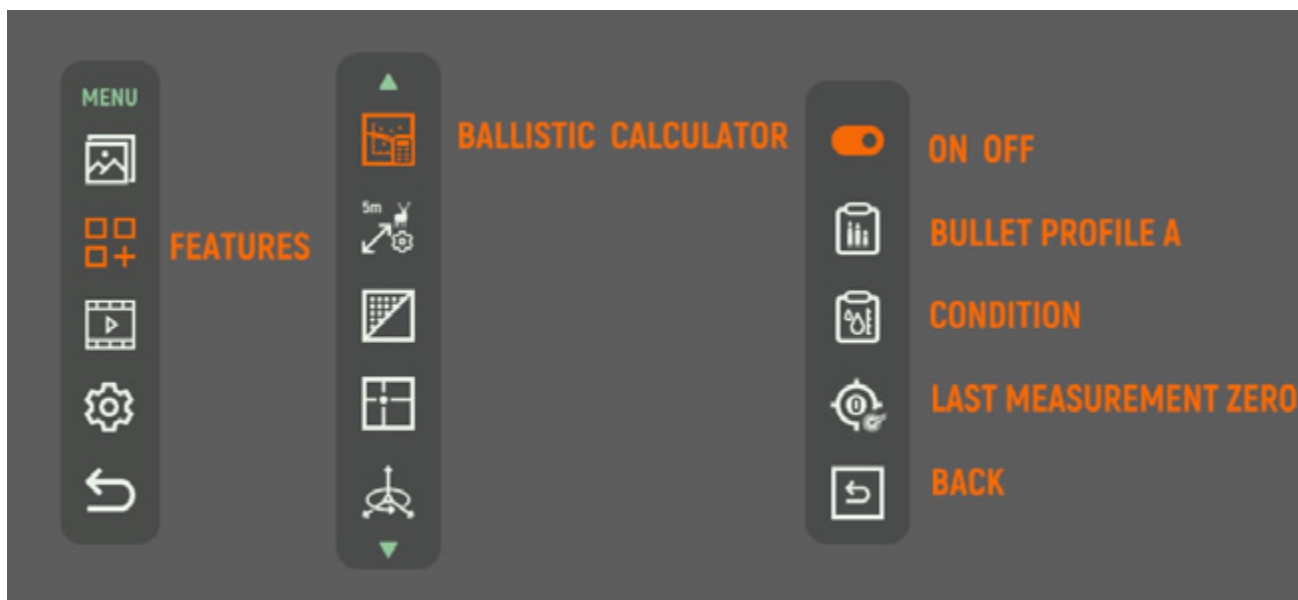
Press the **Up** and **Down** buttons simultaneously to access the **Menu**. Use the **Up** and **Down** buttons to navigate to the **FEATURES** option, and press the **OK** button to enter its sub-menu for various functions.



6.3.1 BALLISTIC CALCULATOR

Select **BALLISTIC CALCULATOR** function, short press the **OK** button to enter its secondary

menu, switch among **ON/OFF**, **BULLET PROFILE**, **CONDITION**, **LAST MEASUREMENT ON/OFF** and **Back** by short pressing **Up** or **Down** button.



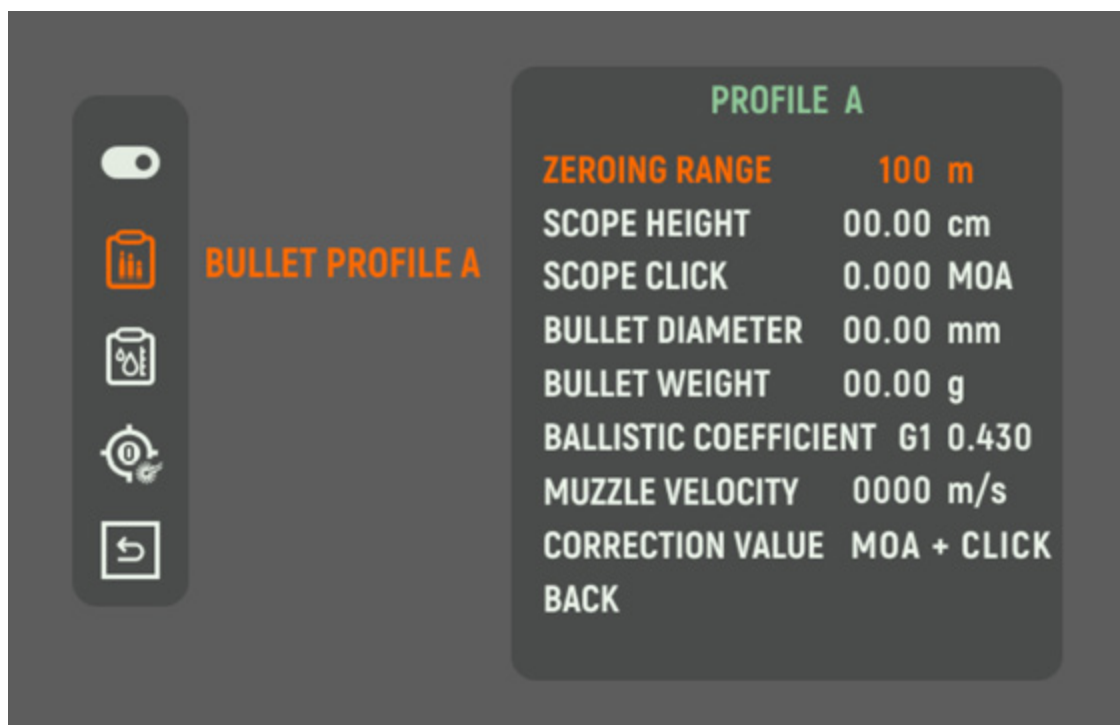
6.3.1.1 ON/OFF



Select **On/Off**, short press the **OK** button to turn on/off the **Ballistic Calculator_x0002_**

6.3.1.2 BULLET PROFILE

Select **Bullet Profile** and short press the **OK** button to enter the sub-menu. Short press the **OK** button to switch between profile options, and press the **Up/Down** button to select the desired bullet profile. The device provides five bullet profiles: **A**, **B**, **C**, **D**, and **E**.



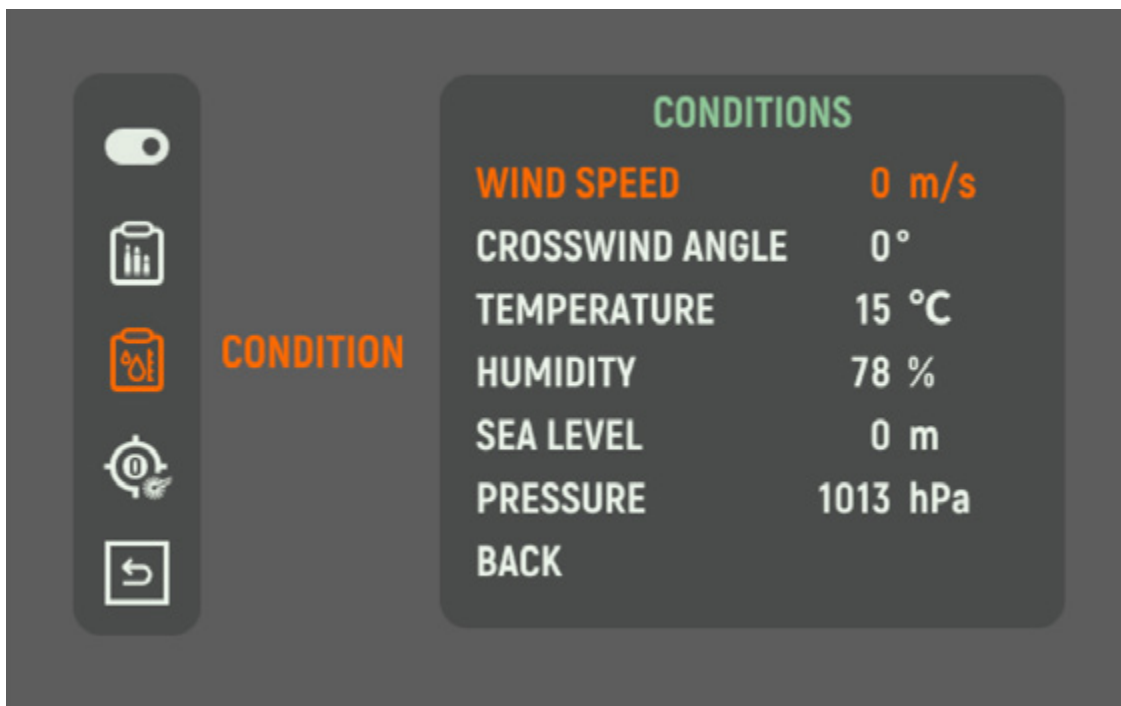
Use the **Up/Down** button to select a setting. Short press **OK** to switch between digits and units, then press **Up/Down** to adjust the value or select the unit.

SETTING	ADJUSTMENT
Zeroing Range	000 format, digit-by-digit adjustment (m)
Scope Height	00.00 format, digit-by-digit adjustment (cm/inch)
Scope Click	0.000 format, digit-by-digit adjustment (MOA/CM/MRAD)
Bullet Diameter	0.000 format, digit-by-digit adjustment (mm/inch)
Bullet Weight	00.00 format, digit-by-digit adjustment (g)
Ballistic Coefficient	G1 (G1/G2/G3.../G7), 00.00 format, adjustable digit by digit
Muzzle Velocity	0000 format, digit-by-digit adjustment (m/s)
Correction Value	MOA/CLICK, CM/CLICK, MRAD/CLICK

6.3.1.3 BULLET PROFILE



Select **CONDITION** and short press the OK button to enter the sub-menu. Use the **Up/Down** button to select a setting. Short press the OK button to select a digit, then use the **Up/Down** button to adjust the value.



SETTING	ADJUSTMENT
Wind Speed	00 format, digit-by-digit adjustment (m/s)
Crosswind Angle	000 format, digit-by-digit adjustment (°)
Temperature	±00 format, digit-by-digit adjustment (°C)
Humidity	000 format, digit-by-digit adjustment (%)
Sea Level	±0000 format, digit-by-digit adjustment (m)
Pressure	0000 format, digit-by-digit adjustment (m)

6.3.1.4 LAST MEASUREMENT ZERO



Select **LAST MEASUREMENT ZERO** and short press the **OK** button to switch between **ON** and **OFF**.



OFF: The **BALLISTIC CALCULATOR** correction value is calculated according to the day scope zeroing distance.

ON: The **BALLISTIC CALCULATOR** correction value is calculated according to the last range measurement.

When **LAST MEASUREMENT ZERO** is **ON**, the **BALLISTIC CALCULATOR** calculates the correction value based on the last measured distance (shown in red). The correction value display format can be selected in the **BULLET PROFILE** menu: **MOA & CLICKS**, **MOA & MRAD**, or **CLICKS & MRAD**. For example, the correction value shown below indicates that the reticle should be adjusted upward by 8 clicks.

In this case, users can press and hold the **Down + OK** buttons simultaneously to reset the zeroing range. After the reset, the **BALLISTIC CALCULATOR** calculates the correction value based on the day scope zeroing distance.



SGL Current distance measured in **SINGLE MEASUREMENT MODE**.

ZERO Last measured distance.

ZERO Day scope zeroing distance.

Note!

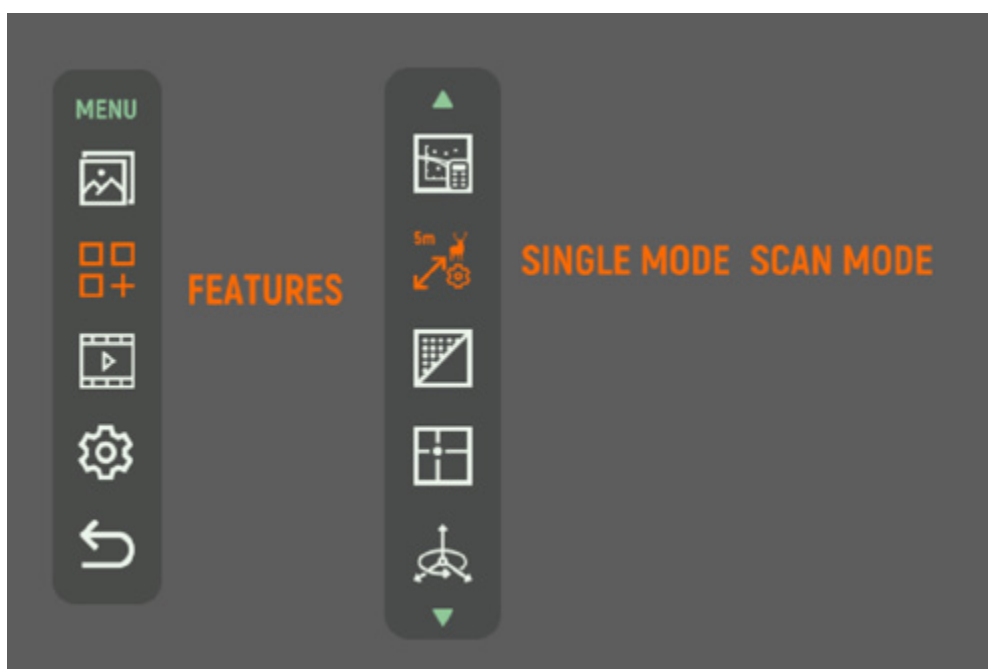
1. Before resetting the zeroing range, the rifle's scope reticle must be reset first.
2. When **SCAN MEASUREMENT MODE** is enabled, the **BALLISTIC CALCULATOR** function is unavailable.

When **LAST MEASUREMENT ZERO** is **OFF**, the **BALLISTIC CALCULATOR** always calculates the correction value based on the day scope zeroing distance.



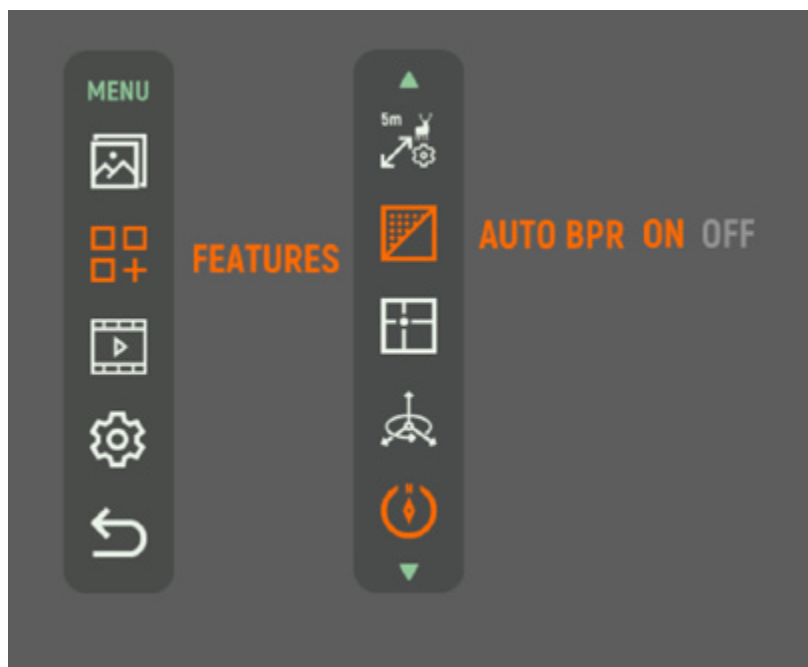
6.3.2 MEASUREMENT MODE

Select **MEASUREMENT MODE** function, short press the **OK** button to switch between **SINGLE MODE** and **SCAN MODE**.



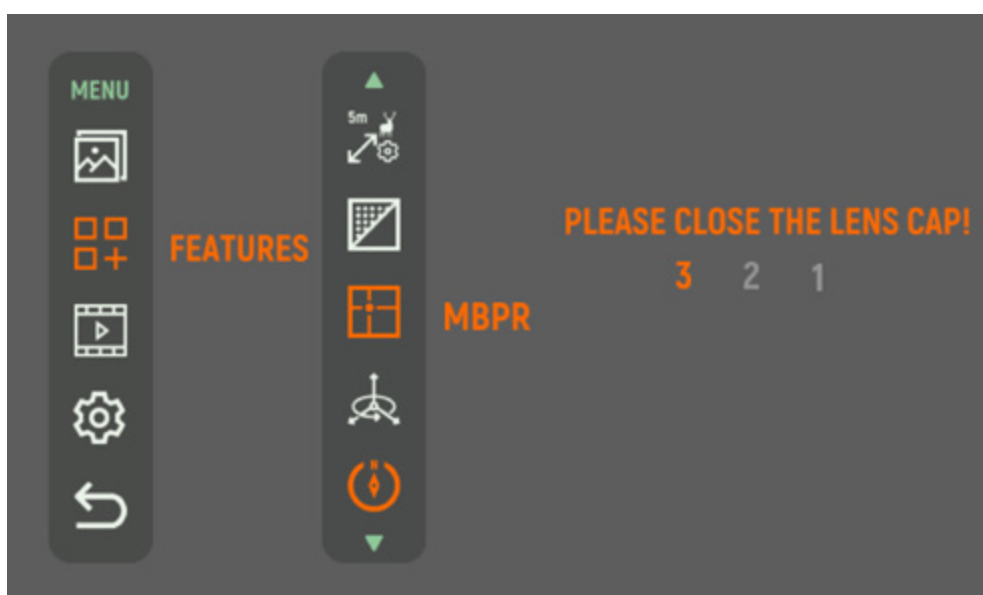
6.3.3 AUTO BPR

Select **AUTO BPR** function, short press the **OK** button to switch between **ON** and **OFF**.



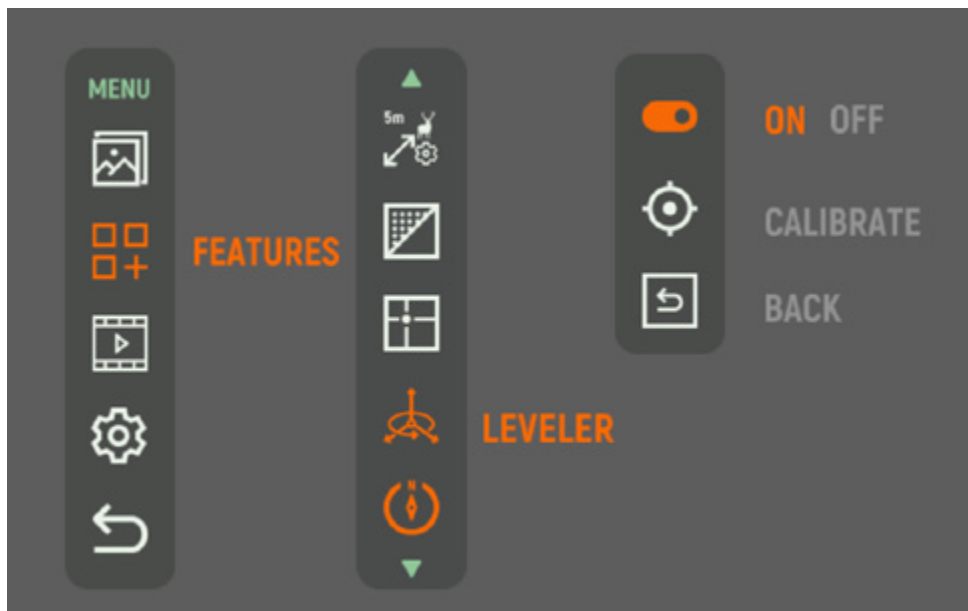
6.3.4 MBPR

Select **MBPR** function to do **MBPR** (manual bad pixel correction), close the lens cover, complete after counting down 3-2-1, and it will exit to upper interface automatically.



6.3.5 LEVELER

Select **LEVELER** function, short press the **OK** button to enter its secondary menu, switch among **ON/OFF**, **CALIBRATE** and **BACK** by short pressing **Up** or **Down** button.



 Select **ON/OFF**, short press the **OK** button to turn on/off the **LEVELER**.

 Select **CALIBRATE**, short press **OK** button to perform calibration. Position the device on a flat surface away from strong magnetic interference, and keep it stationary until the calibration progress bar is complete.



 Select **BACK**, short press the **OK** button to exit to upper interface.

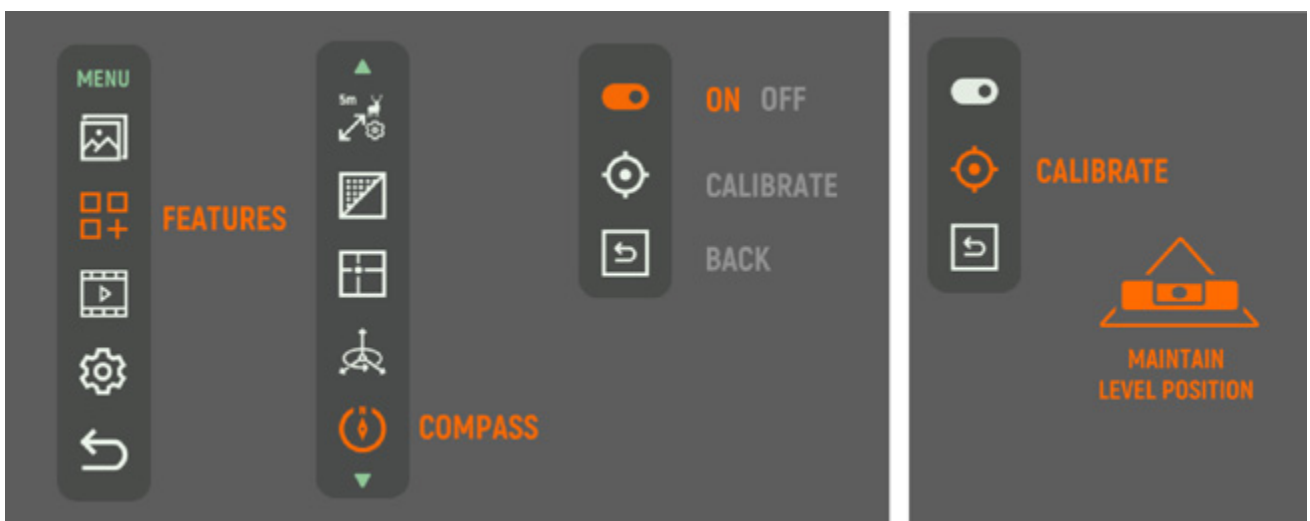
Note!

After upgrading the firmware through the app, perform the level calibration first, and then proceed with the compass calibration.



6.3.6 COMPASS

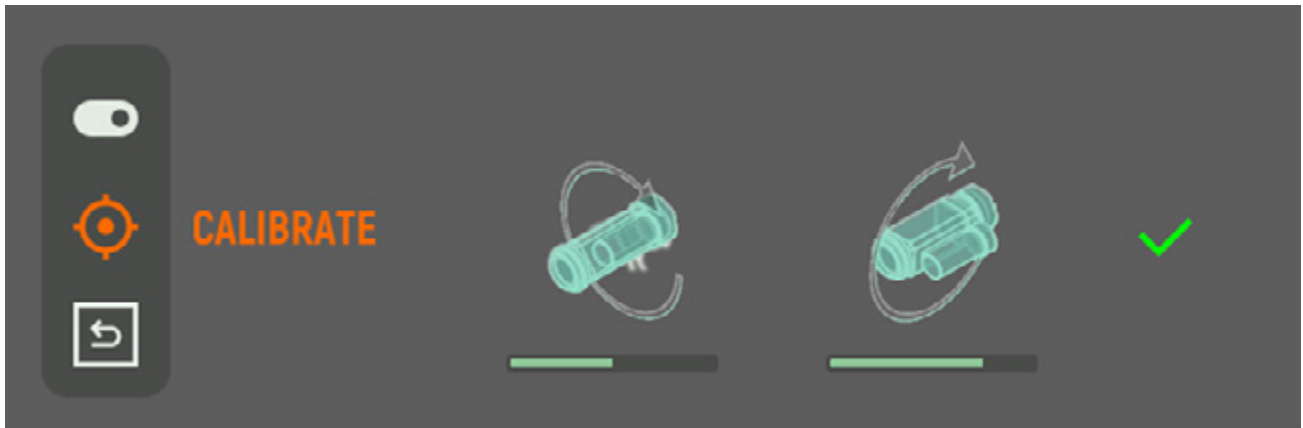
Select **COMPASS** function, short press the **OK** button to enter its secondary menu, switch among **ON/OFF**, **CALIBRATE** and **BACK** by short pressing **Up** or **Down** button.



 Select **ON/OFF**, and short press the **OK** button to turn on/off the compass.



Select **CALIBRATE**, and short press the **OK** button to perform calibration. A progress bar will appear on the screen, rotate the device in all directions (front, back, left, and right) until the progress bar reaches 100%. Once the calibration is complete, it will automatically exit to upper interface.



Select **BACK**, and short press the **OK** button to exit to upper interface.

Note!

Please ensure the device has been calibrated with leveler, and on a level surface to perform calibration. An incorrect angle will prevent the device from performing the calibration.

Important!

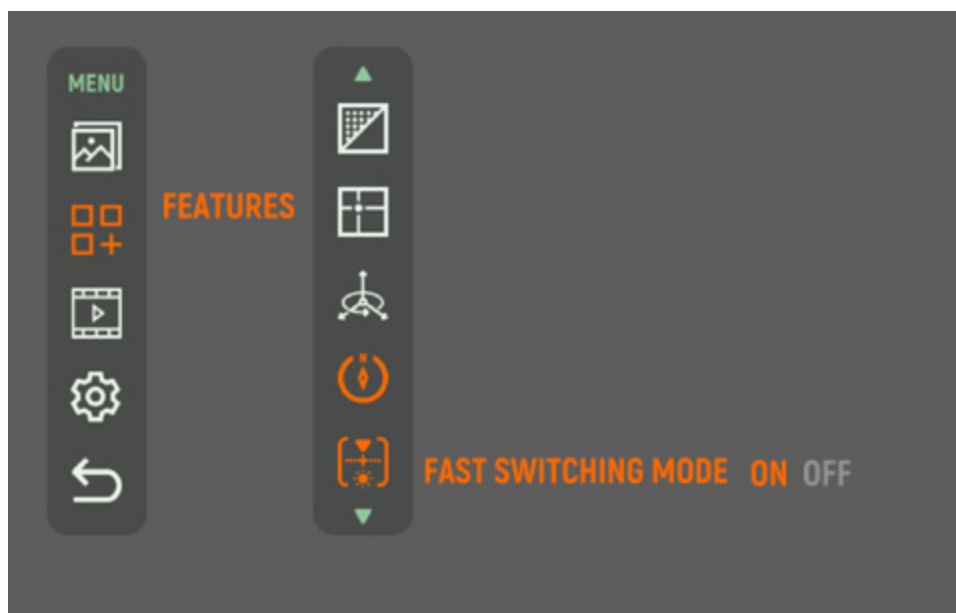
After upgrading the firmware, please perform the compass calibration. Prior to the compass calibration, ensure that the level calibration has been completed.



6.3.7 FAST SWITCHING MODE

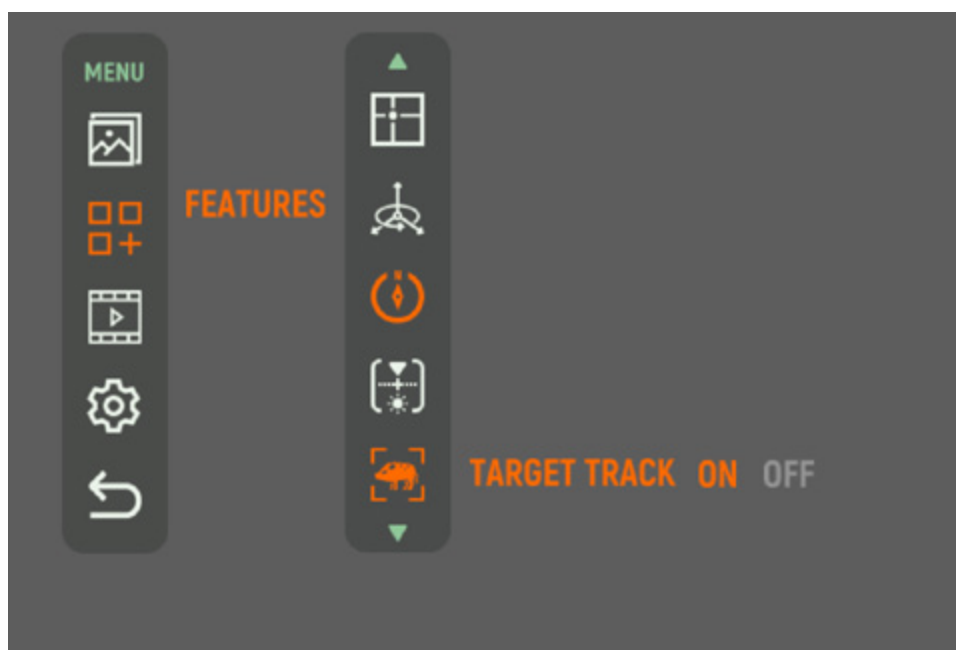
To activate or deactivate the **FAST SWITCHING MODE** between **OBSERVATION** and **CLIP-ON MODE**, press the **OK** button briefly.

To return to the previous menu (upper interface), press and hold the **OK** button.



6.3.8 TARGET LOCK

Select **TARGET LOCK**, and short press the **OK** button to turn on or turn off **TARGET LOCK**.



When **TARGET LOCK** is **On**, the device will automatically mark the current position with a red lock icon  when it detects a shot.

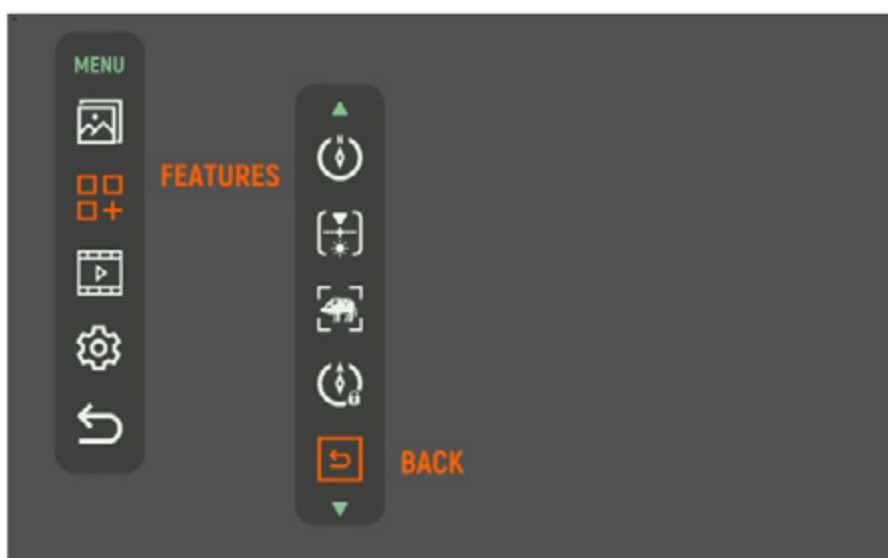


When the target moves out of the field of view, the arrow icon  will point to the marked position.



6.3.9 BACK

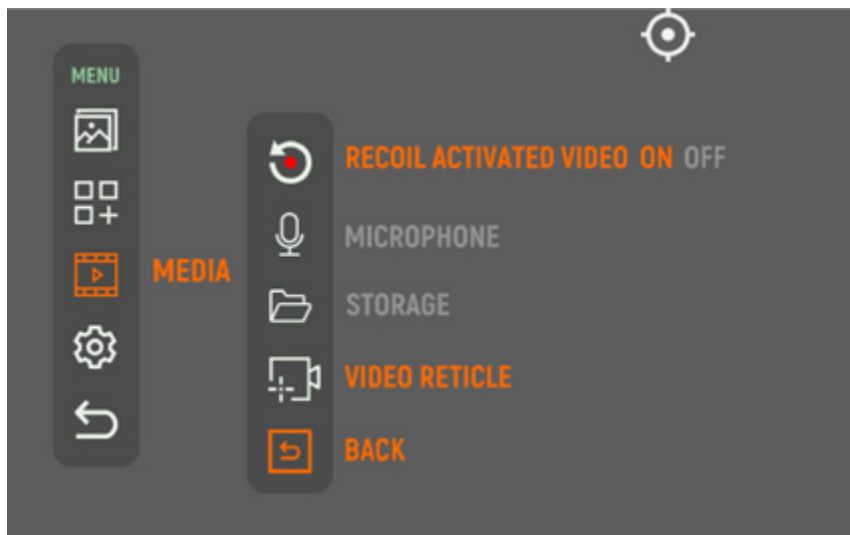
Select **BACK**, short press the **OK** button to exit to upper interface.



6.4 MEDIA

Press the **Up** and **Down** buttons simultaneously to access the **Menu**. Use the **Up** and **Down** buttons to navigate to the **MEDIA** option, and press the **OK** button to enter its sub menu.

Short press **OK** button to turn on or turn off the **RECOIL ACTIVATED VIDEO** , **MICROPHONE**  or **VIDEO**  function. Viper series has built-in 64GB storage space for photography and video recording. User can check the used memory through the **STORAGE**  function. If the used memory reaches 63GB, it will display "INTERNAL STORAGE SPACE IS INSUFFICIENT AND NEEDS TO BE CLEARED IMMEDIATELY".



6.4.1 VIDEO RETICLE

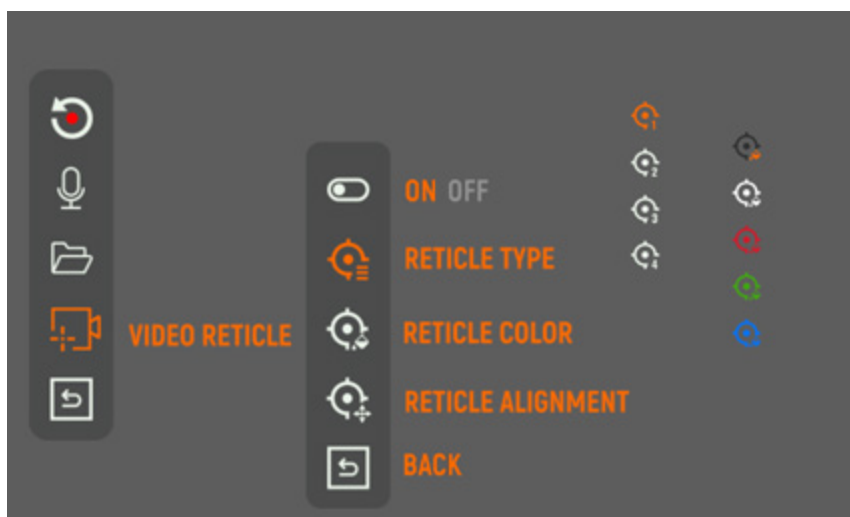
Select **VIDEO RETICLE**, short press the OK button to enter its secondary menu, switch among **ON/OFF**, **RETICLE TYPE**, **RETICLE COLOR**, **RETICLE ALIGNMENT** and **BACK**.

Note!

1. This function is only available in Clip-On mode.
2. When the video reticle is enabled, the Wi-Fi connection will automatically disconnect.
3. When Wi-Fi is enabled, the video reticle function will be automatically disabled.

Select  **RETICLE TYPE** to choose from four different reticles.

Select  **RETICLE COLOR** to choose from five reticle colors: black, white, red, green, and blue.



6.4.2 RETICLE ALIGNMENT

The reticle alignment can help you aim at the target with high accuracy. Due to laws and regulations, the live view will be suspended when enabling the **RETICLE ALIGNMENT**.

Select  **RETICLE ALIGNMENT** to adjust the video reticle position. Press **OK** button to switch **X** and **Y** axis, and press **Up** or **Down** button to set the coordinates until the reticle aligns with the point of impact. Press **SAVE & EXIT** button to confirm.

Note!

In reticle alignment mode, if there is no operation within 15 seconds, the system will automatically save the settings and exit.



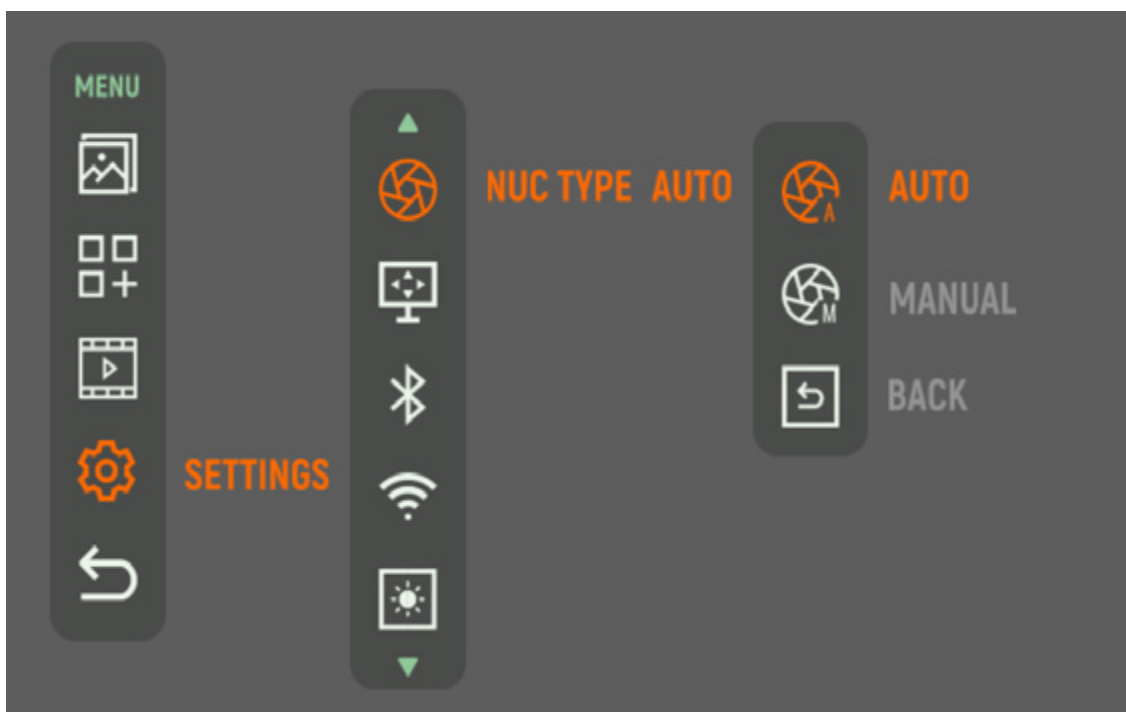
6.5 SETTINGS

6.5.1 NUC TYPE

Select **NUC TYPE**, short press the **OK** button to enter its secondary menu, and switch between **AUTO NUC**, **MANUAL NUC**, and **BACK** by short pressing the **Up** or **Down** button.

AUTO MODE - The calibration is performed automatically at regular intervals and with a shutter mechanism located in the device.

MANUAL MODE - The calibration is performed by the user, by pressing the **Down** button at desired intervals with a shutter mechanism located in the device. It is not necessary for the user to close the lens cap.



Note!

When the user selects a **NUC** mode (**AUTO NUC** / **MANUAL NUC**), the setting will be retained even after the device is powered off and will be restored on the next startup.

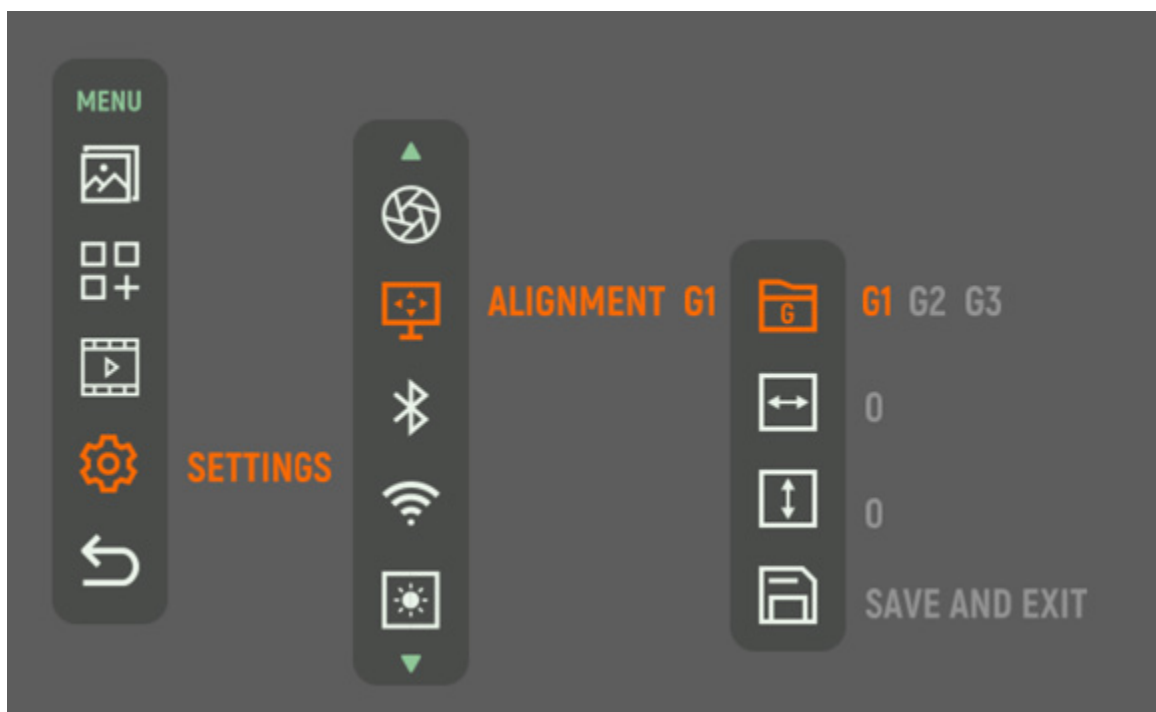
Important!

If **MANUAL NUC** mode is selected, the setting will be saved and automatically applied each time the device is restarted

6.5.2 ALIGNMENT

The Viper series is factory-calibrated to ensure perfect alignment with your rifle scope's line of sight when used as a clip-on. However, adding another device can change the scope's vibrations and sag, potentially shifting the point of impact. To counter this, the **ALIGNMENT** function enables precise adjustments to the optical axis of the day sight and clip-on attachment for optimal accuracy and performance.

Short press the **OK** button to select among **ALIGNMENT** file, **Reset X** value, **Reset Y** value, **SAVE**, and **EXIT** by short pressing the **Up** and **Down** buttons. There are 3 types of alignment file: **G1**, **G2**, **G3**.



Aiming at the target at 100 meters and shoot. Measure the horizontal distance and vertical distance between the bullet hitting point and the aiming point afterwards.

1Click X= 2.6 cm@100m
1Click Y= 2.6 cm@100m

Short press the **OK** button to select an alignment profile, reset **X** value option or reset **Y** value option. Short press **Up** or **Down** button to increase or reduce the **X/Y** value. Short press the **OK** button to confirm.



For example, if the bullet impact point is **5 cm above** and **17 cm to the left** of the aiming point:

$X = -17 \text{ cm} \approx -7 \times 2.6 \text{ mm}$, meaning **7 clicks** of adjustment **to the left**.

$Y = 5 \text{ cm} \approx 2 \times 2.6 \text{ mm}$, meaning **2 clicks** of adjustment **upward**.

Select the alignment profile **G1** and press the **OK** button to confirm.

Navigate to **X Value Reset**, press the **OK** button to enter the adjustment interface, and set the **X** value to **-7** using the **UP/DOWN** buttons. Press **OK** to confirm.

Repeat the same steps for **Y Value Reset**. Set the **Y** value to **2** and press the **OK** button to confirm.

Note!

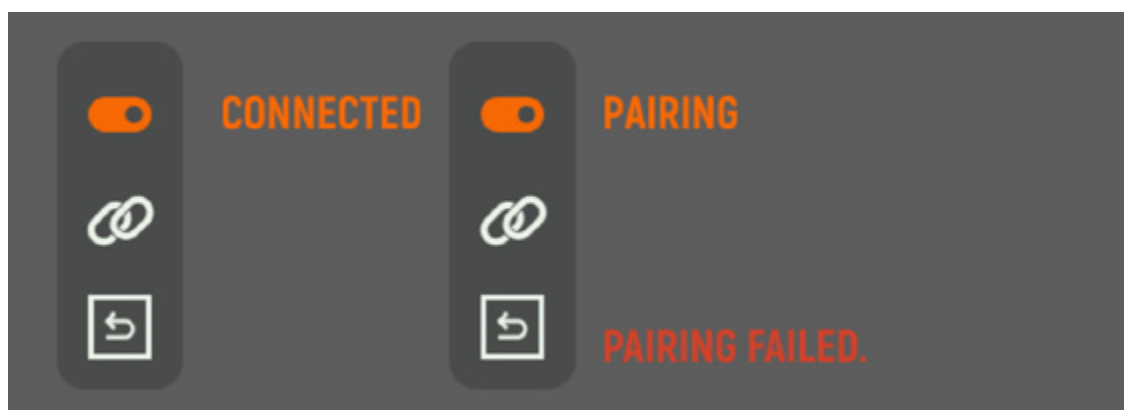
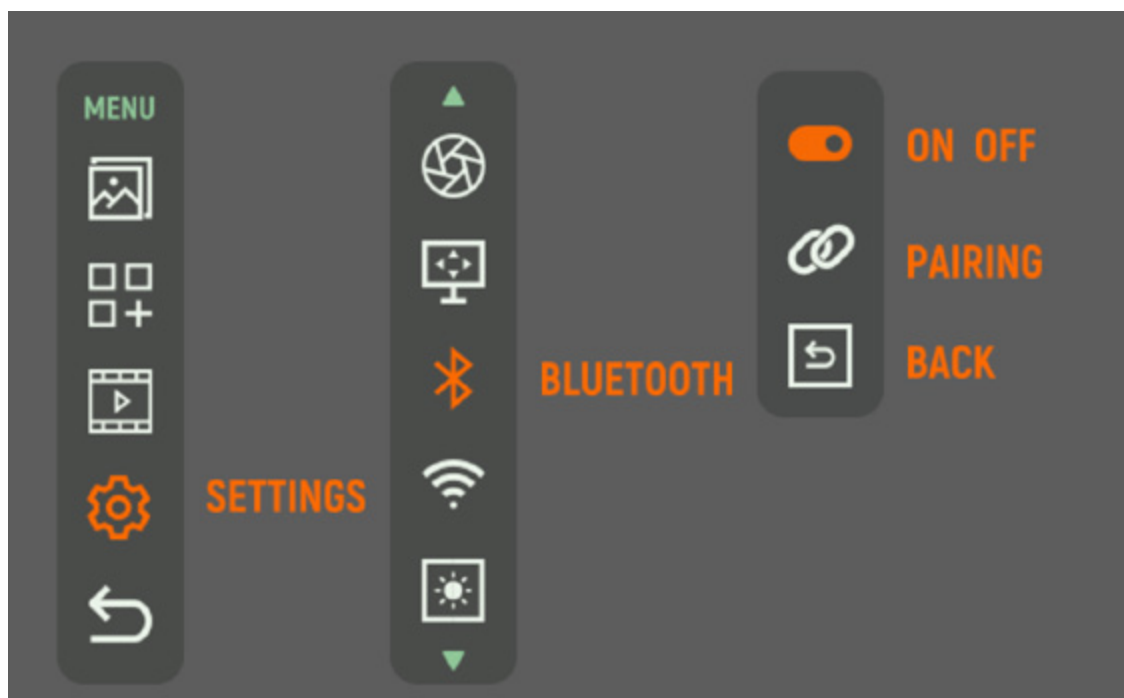
Restoring the device to factory settings does not reset the alignment profile. The existing configuration will be retained.

Important!

Zeroing Instructions: When sighting in the thermal clip-on device, the display image adjustment must follow the point of impact. For example: if your shot impacts low and left compared to where your daytime scope is zeroed, you need to move the display reticle down and left to match. In other words, **move the image in the same direction as the point of impact shift**.

6.5.3 BLUETOOTH

Select **BLUETOOTH Type**, short press the **OK** button to enter its secondary menu, and switch between **ON/OFF**, **PAIRING**, and **BACK** by short pressing the **UP** or **DOWN** button.



Note!

Before pairing, ensure the wireless remote controller is powered on and sufficiently charged.

Real time



Menu

ON



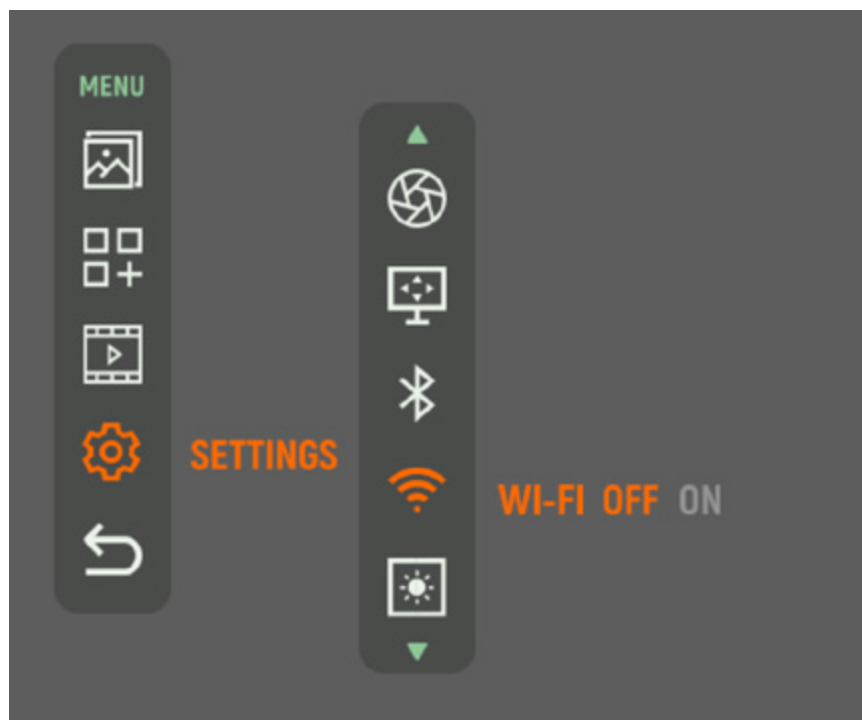
Wireless Bluetooth Remote Controller and Device Button Function Mapping

Note!

For initial pairing and when activating pairing mode from the Viper device, the ring must be inside the case. At the start of the procedure, remove it and turn it on. Pairing must complete within 30 seconds. If pairing does not occur, check that the remote is powered on and the blue LED is blinking. Then repeat the procedure: place the remote in the charging case, activate pairing on the Viper device, and remove the remote again.

6.5.4 WI-FI

Short press the **OK** button to select between turn on or turn off **Wi-Fi**.

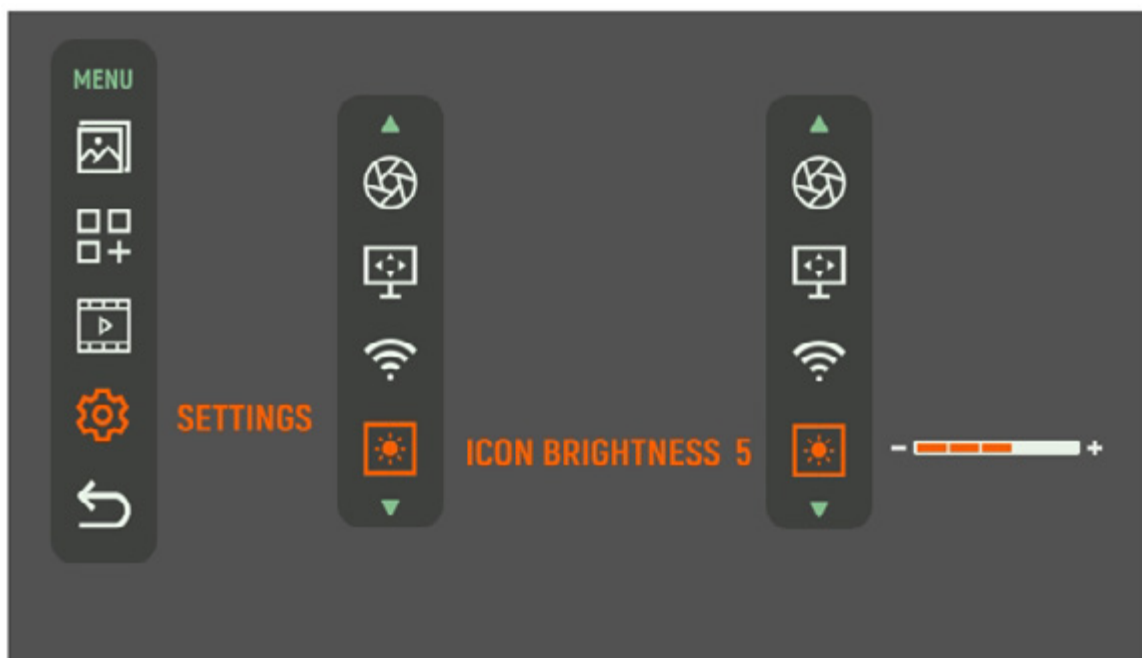


Note!

Wi-Fi Power Management: Wi-Fi stays on once enabled until manually disabled. Keep this in mind to preserve battery life.

6.5.5 ICON BRIGHTNESS

Short press the **OK** button to adjust the Icon **BRIGHTNESS** from 1 to 5 by pressing the **Up** or the **Down** button, short press the **OK** button to save and exit to the upper interface.



6.5.6 DATE & TIME

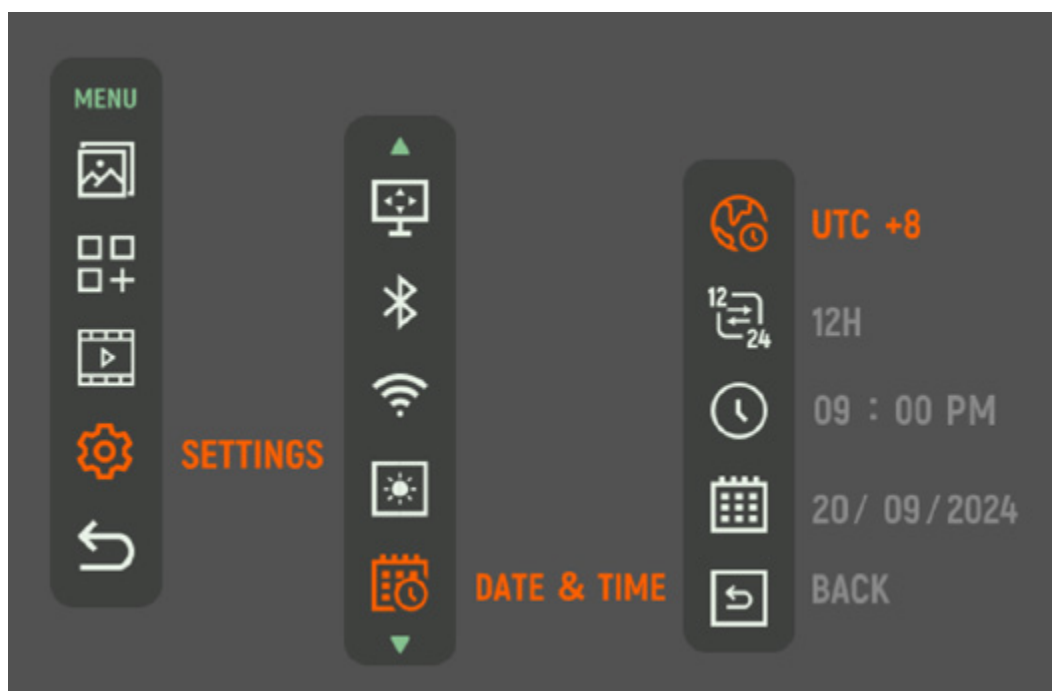
In the **DATE & TIME** sub-menu interface, select **TIME ZONE** , short press the **Up** or **Down** button to change time zone and press the **OK** button to confirm.

Select , short press the **OK** button to switch between the 12-hour and 24-hour formats.

Select , short press the **OK** button to activate the time reset function, press the **UP** or **Down** button to set the number, and short press the **OK** button to save and switch among **HOUR**, **MINUTE** and **AM&PM** settings.

Select , short press the **OK** button to activate the date reset function, press the **Up** or **Down** button to set the number, and short press the **OK** button to save and switch between **DAY**, **MONTH** and **YEAR**.

Select , short press the **OK** button to exit to upper interface.



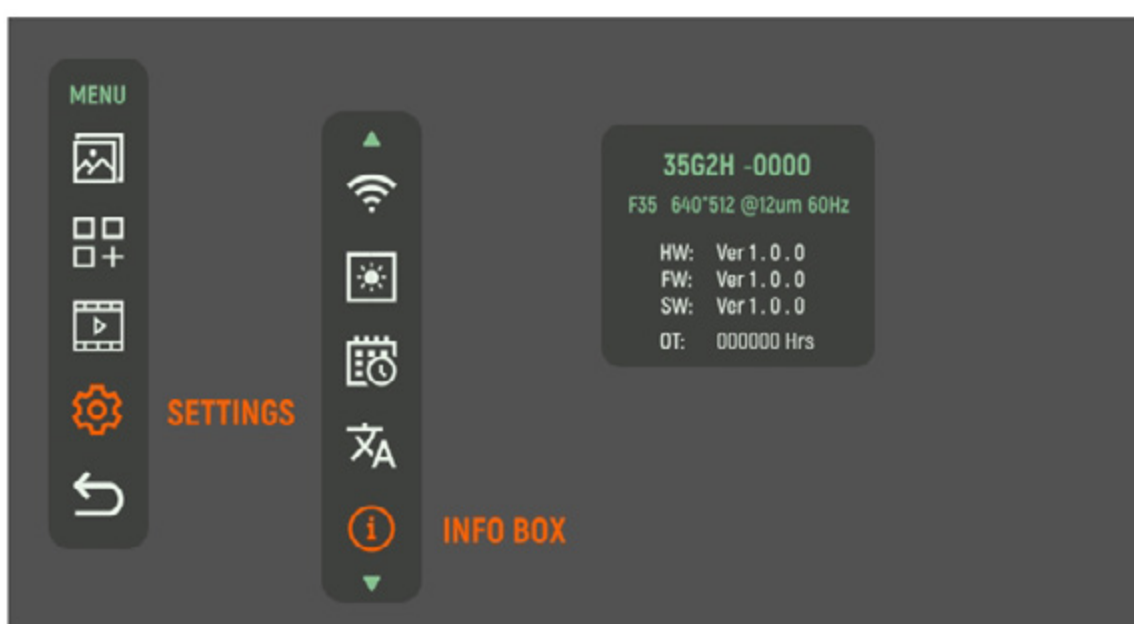
6.5.7 LANGUAGE

Select a **LANGUAGE** by briefly pressing the **OK** button to access the **LANGUAGE** submenu, then use the **Up** or **Down** button to choose from **EN**, **DE**, **ES**, **IT**, or **FR**.



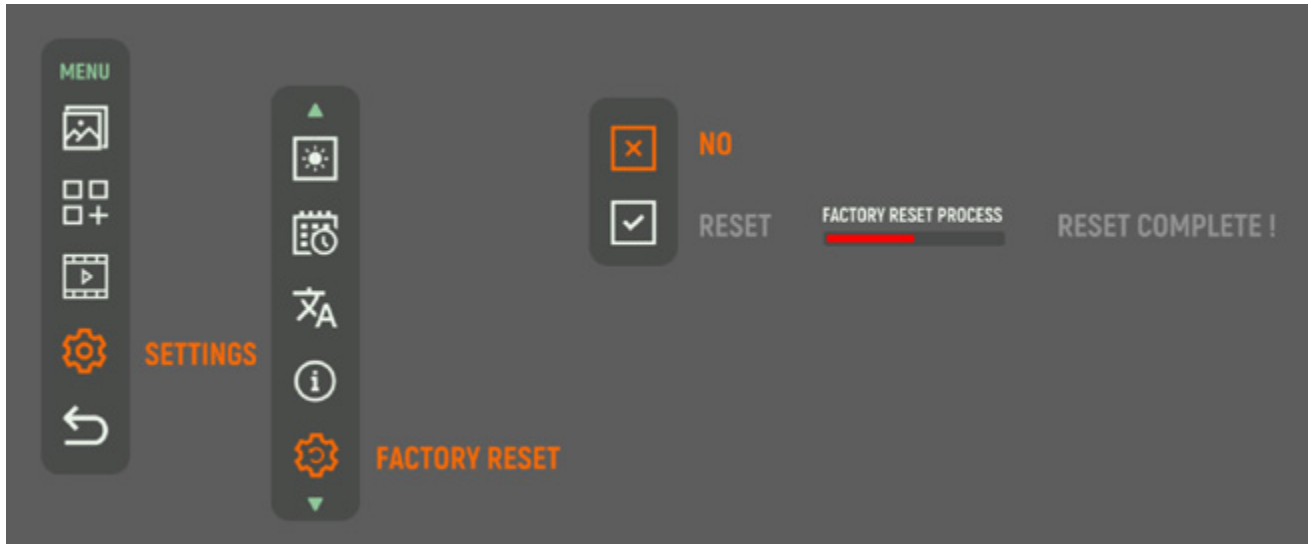
6.5.8 INFO BOX

Select **INFO BOX**, and short press the **OK** button to show the relevant information including device model, main technical characteristics, hardware version, firmware version, and actual operation time of the device.



6.5.9 FACTORY RESET

Select **FACTORY RESET**, short press the **OK** button to enter **FACTORY RESET** interface, short press **Up** or **Down** button to select **NO** or **RESET** , and confirm your selection by short press the **OK** button.



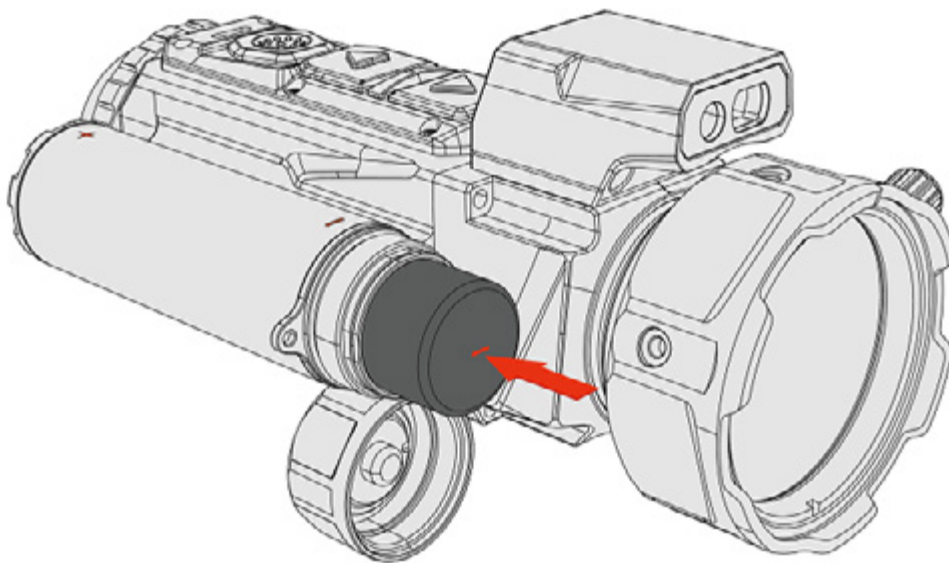
Note!

By performing the **Factory Reset** procedure, you will delete the settings saved on the device including alignment with the day optical sight. However, any on-boarding videos and photos will remain unaffected and will not be deleted

7 Battery use

7.1 BATTERY REPLACEMENT

The device is powered by 1 piece of 18650 Li-Ion rechargeable battery. The battery replacement instructions are presented below. Please remove the protective rubber lens cap before opening the battery compartment and replacing the battery.



Note!

Attempting to power on the device, when the battery is fully depleted, will cause a red indicator to blink for a few seconds.

Important!

Always place the battery using the correct battery orientation (shown in the battery holder) to avoid damaging the device.

Note!

The batteries are not covered by the warranty!

Important!

Please keep all batteries away from moisture.

Note!

Make sure the device is turned off before replacing the battery.



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