

StingIR

THERMAL IMAGING MONOCULAR

USER MANUAL

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FCC INFORMATION

Please take attention that changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.



This equipment complies with FCC/IC RSS-102 radiation exposure limits set forth for an uncontrolled environment.

FCC compliance: This product has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This product generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this product does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

FCC Conditions

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

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

EU CONFORMITY STATEMENT



This product and - if applicable - the supplied accessories too are marked with "CE" and comply therefore with the applicable harmonized European standards listed under the EMC Directive 2014/30/EU, the RoHS Directive 2011/65/EU



2012/19/EU (WEEE directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points. For more information see: www.recyclethis.info



2006/66/EC (battery directive): This product contains a battery that cannot be disposed of as unsorted municipal waste in the European Union. See the product documentation for specific battery information. The battery is marked with this symbol, which may include lettering to indicate cadmium (Cd), lead (Pb), or mercury (Hg). For proper recycling, return the battery to your supplier or to a designated collection point. For more information see: www.recyclethis.info

INDUSTRY CANADA ICES-003 COMPLIANCE

This device meets the CAN ICES-3 (A)/NMB-3(A) standards requirements.

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SAFETY SUMMARY

- Read and follow all instructions
- Read all warnings
- Only use the attachments/accessories specified by the manufacturer
- All service must be provided by the manufacturer

WARNING:

Always make sure your firearm is unloaded before you place the scope on the firearm. Verify that the chamber is empty, particularly if you stop the procedure and resume at a later time. Safe handling rules should be followed at all times.

WARNING:

If a scope is mounted too far to the rear of a weapon, the eyepiece can injure the shooter's brow. Shooting at an uphill angle also increases this risk, because it shortens the distance between the brow and the rear of the scope. When mounting your scope, we recommend positioning it as far forward in the mounts as possible.

With hard-recoiling rifles, serious injury or even death can result from eyepiece impact when discharging the firearm.

BEFORE SHOOTING THE FIREARM, verify that your installation provides sufficient space between your eye and the scope to account for the recoil generated by your rifle.

NOTE: Give special attention to this warning when shooting uphill and/or from a prone position. These shooting conditions can dramatically reduce space allotted for recoil between your eyes and the weapon. PLEASE maintain maximum distance when shooting magnum firearms or firearms with heavy recoil. THE USER ASSUMES ALL RESPONSIBILITY AND LIABILITY FOR HAVING THE RIFLESCOPE PROPERLY MOUNTED TO A FIREARM AND USING THE RIFLESCOPE PROPERLY. ALWAYS CHECK THE CONDITION OF YOUR MOUNTING SYSTEM PRIOR TO USING YOUR FIREARM.

WARNING:

This product contains natural rubber latex, which may cause potentially fatal allergic reactions! If you are allergic to latex, it is important that you strictly avoid exposure to products that contain it.

CAUTION:

When thermal monocular is used as a front-mounted gun scope, it is recommended that you use an eyecup on the eyepiece of the day scope, allowing for the eyepiece diameter and eye relief and having side paddle preferably in order to escape detection.

CAUTIONS:

- **DO NOT DISASSEMBLE THE DEVICE.**
Disassembly can cause permanent damage.
- Do not drop the device or subject it to physical shock.
- Do not place the device in extremely hot (refer to the specification of the device for the detailed operating temperature), cold, dusty or damp locations, and do not expose it to high electromagnetic radiation.
- Do not expose the device to high temperature or direct sun light. If the device overheats or feels hot for a prolonged period, do not use it for a while.
- Do not aim the thermal device at the sun or extra bright places. A blooming or smear may occur otherwise (which is not a malfunction however), and will affect the endurance of sensor at the same time.
- Do not store the equipment with the batteries installed.

NOTES:

- The detector spectral band provides better visibility through smoke, dust, rain, smog, etc.
- Infrared radiation does not travel through glass. As a result, the monocular does not detect objects if they are behind glass windows or other barriers.

1 GENERAL INFORMATION

1.1 SYSTEM DESCRIPTION

The AGM StingIR miniature handheld observational thermal monocular is equipped with 384×288 or 640×480 12μm high-sensitivity infrared detector and high-resolution OLED display. It supports functions of observation, digital compass, inclinometer, and so on. The high-sensitivity built-in thermal detector provides you with clear view even in total darkness.

The AGM StingIR is a full-featured unit, weighing less than 7 ounces/200 grams. The monocular can be used as a handheld device, or mounted on the head harness or helmets for hands-free operations. The device also can be used as a gun scope or front-mounted gun scope.

The monocular is suitable for security enforcement, outdoor hunting, wilderness exploration, search and rescue and other fields.

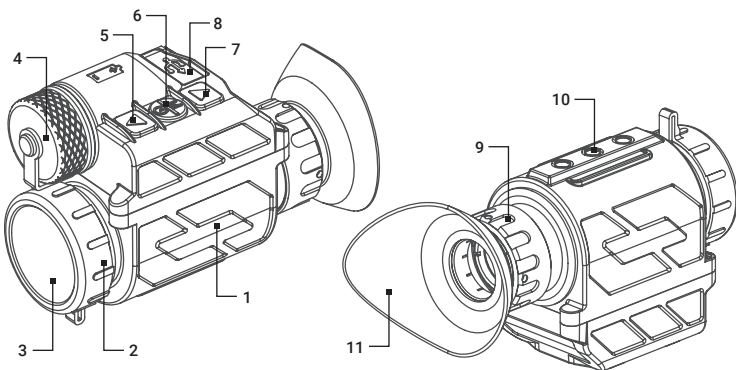


FIGURE 1-1. MAIN PARTS

TABLE 1-1. MAIN PARTS

ITEM	DESCRIPTION
1	Body
2	Focus Ring
3	Lens Cap
4	Battery Cover
5	Up Button
6	Power/Menu Button

ITEM	DESCRIPTION
7	Down Button
8	Type-C Interface
9	Diopter Adjustment Ring
10	Mounting Interface
11	Eyecup

1.2 STANDARD COMPONENTS

The standard components are shown in Figure 1-2 and listed in Table 1-2. The ITEM NO. column indicates the number used to identify items in Figure 1-2.

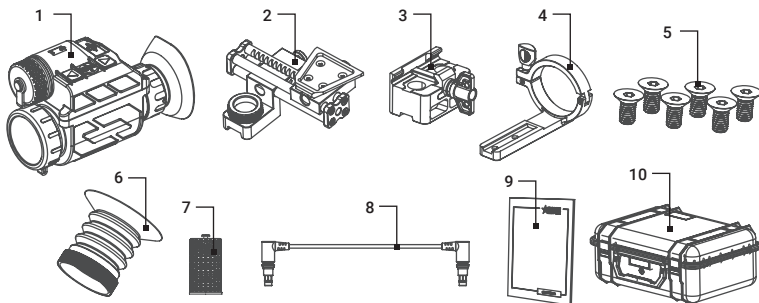


FIGURE 1-2. STANDARD COMPONENTS

TABLE 1-2. STANDARD COMPONENTS

ITEM	DESCRIPTION	QUANTITY
1	Monocular	1
2	Helmet Adapter Bracket	1
3	Weapon Mount	1
4	CO Mount	1
5	M5 Screw	6
6	Gun Scope Eyecup	1
7	18650 Battery Cap	1
8	Type-C Cable	1
9	Operation Manual	1
10	Packing Case	1

1.3 KEY FEATURES

- 12 μ m high-sensitivity detector
- 384 \times 288 or 640 \times 480 resolution
- Head- or helmet-mountable for hands-free usage
- Weapon mountable to use as a gun scope or front-mounted gun scope
- Compact, sturdy design
- High-resolution OLED display
- Multiple thermal image palettes
- Device supports up to 8 \times digital zoom
- Powered by one CR123A/RCR123 or 18650 Lithium battery
- Up to 5 hours continuous running
- Digital compass and inclinometer
- Type-C interface
- 5-year warranty (depending on the region of sale)

2 OPERATING INSTRUCTIONS

2.1. BASIC OPERATIONS

2.1.1 INSTALLING THE BATTERY

StingIR supports three kinds of batteries: CR123A (non-rechargeable Lithium battery), RCR123 (rechargeable Lithium battery), and 18650 (rechargeable Lithium battery). When using the 18650 battery, you need to replace the existing battery cap with the 18650 battery cap.

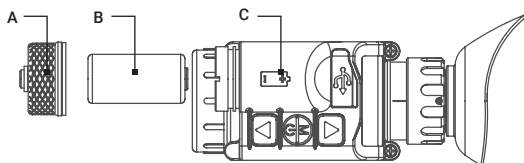


FIGURE 2-1. CR123 BATTERY INSTALLATION

To install a CR123 (B) or CR123A battery, unscrew the battery cap (A) first, put the battery into the battery compartment in the correct polarity (C), and tighten the battery cap.

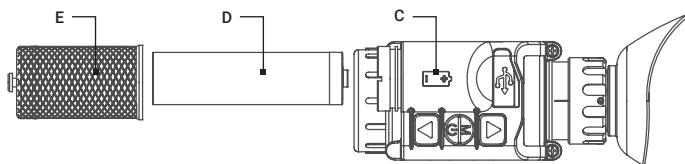


FIGURE 2-2. 18650 BATTERY INSTALLATION

Before using the 18650 battery, you need to replace the CR123 battery cap (A) with the 18650 battery cap (E). The replacement steps are as follows:

1. Unscrew the CR123 battery cap (A) and remove the silicone ring fixing the battery cap.
2. Put the silicone ring fixing the 18650 battery cap (E) on the battery cartridge, and adjust the silicone ring to abut the shell.
3. Install the 18650 battery (D) and tighten the 18650 battery cap.

2.1.2 CONTROL BUTTONS

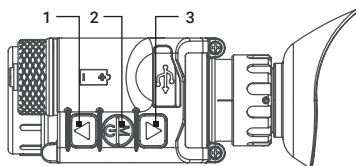


FIGURE 2-3. CONTROL BUTTONS

TABLE 2-1. CONTROL BUTTON FUNCTIONS

ITEM	BUTTON	FUNCTIONS
1	UP	Short press: Turns on digital zoom / Returns to the previous option / Increases the value. Long press: Manual image non-uniformity correction.
2	MENU	Short press: Displays the menu/confirms the option. Long press: Powers on/off the device.
3	DOWN	Short press: Adjusts the image polarity / Moves to the next option / Decreases the value.

2.1.3 POWER ON AND OFF

Power On

Hold the Menu button for 2 seconds to power on the device. An image will appear on the display.

Power Off

When the device is turned on, hold Menu button for 2 seconds to power off the device.

2.1.4 THERMAL VIEW OBSERVATION

Power on the thermal monocular. Look in eyepiece and rotate the diopter adjustment ring until the OSD text or image is clear. Point the monocular towards the object of the view. Bring the object into focus by rotate the objective focus ring.

NOTE:

You must perform the focus adjustment before any further use of the device.

Set the image polarity, brightness, contrast, scenario to display the best image effect.

2.1.5 HOME SCREEN DISPLAY

The information displayed on the home screen of StingIR includes the infrared image, battery level, azimuth information, pitch angle information, roll angle information, digital zoom, image polarity, reticle (displayed after being set in the menu), and PIP (displayed after being set in the menu).

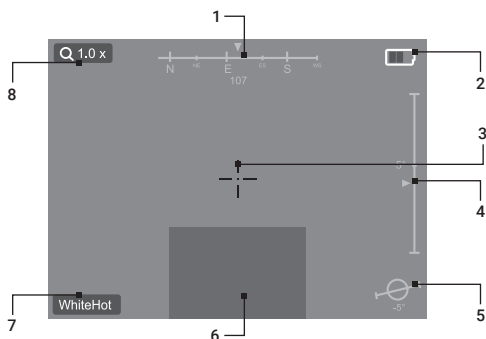


FIGURE 2-10. HOME SCREEN

TABLE 2-2. HOME SCREEN DISPLAY

ITEM	ICON	DESCRIPTION
1	Digital Compass	Displays azimuth (W, NW, N, NE, E, SE, S, and SW) and angle (0 indicates the direction of true north and the value increases eastward).
2	Battery	Displays the battery level. Four bars indicates when the battery is fully charged and turns red when the battery level is less than 10%.
3	Reticle	Is not displayed by default and can be displayed after being set in the menu.
4	Pitch Angle	Displays the pitch angle in the range $-90^{\circ} - 90^{\circ}$
5	Roll Angle	Displays the roll angle in the range $-90^{\circ} - 90^{\circ}$
6	PIP Window	Displays the zoomed central part of the image.
7	Image Polarity	Displays the current image polarity. White Hot, Black Hot, Orange Hot, or Rainbow can be selected.
8	Digital Zoom	Displays the current digital zoom. StingIR-384: 1x, 2x, 3x, 4x StingIR-640: 1x, 2x, 4x, 6x, 8x

2.1.6 DIGITAL ZOOM

On the home screen, short press the **Up** button to display the digital zoom image. By default, the device is set to full-screen digital zoom. E-Zoom mode can be changed to the PIP. Picture-in-Picture mode (PIP) displays the central part of the image with digital zoom in a window at the bottom of the screen.

StingIR-384 supports 1x, 2x, 3x, and 4x digital zoom. StingIR-640 supports 1x, 2x, 4x, 6x, and 8x digital zoom. You can short press the **Up** button to switch digital zoom multiples.

2.1.7 IMAGE POLARITY

On the home screen, short press the **Down** button to cycle switch through the image polarities: White Hot, Black Hot, Orange Hot, and Rainbow.

2.1.8 MANUAL IMAGE CORRECTION

When the infrared image is blurred, degraded, or uneven, the manual image non-uniformity correction (or FFC - Flat Field Correction) is required.

On the home screen long press the **Up** button for 3 seconds to correct the image non-uniformity. You can hear the shutter click during the correction. The correction time is less than one second.

2.1.9 HELMET-MOUNTED USE

For helmet-mounted use you need to install the helmet adapter bracket. The installation steps are as follows:

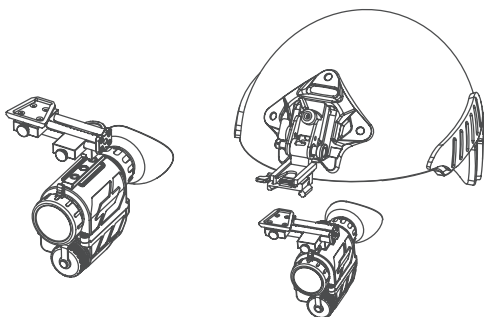


FIGURE 2-4. INSTALLATION ON A HELMET

1. Take out the helmet adapter bracket, and fix the screw on the adapter bracket into the middle screw hole of the thermal monocular mounting interface.
2. Install the device with the helmet adapter into bracket available on the helmet (self-provided).

NOTE:

When used on a helmet, Image Flip must be set in the device menu.

2.1.10 GUN-SCOPE USE

WARNING:

Always make sure your firearm is unloaded before you place the scope on the firearm. Verify that the chamber is empty, particularly if you stop the procedure and resume at a later time. Safe handling rules should be followed at all times.

To use StingIR as a gun scope, you need to install the weapon mount (Picatinny rail adapter) on the device and install the device on the Picatinny rail. The installation steps are as follows:

1. Fix the weapon mount in the two screw holes of the monocular mounting interface with two M5 screws.

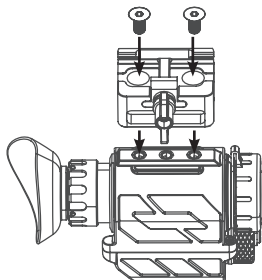


FIGURE 2-5. WEAPON MOUNT INSTALLATION

2. Replace eyecups by removing the U-shaped eyecup and installing the gun scope's eyecup on the eyepiece's diopter adjustment knob.

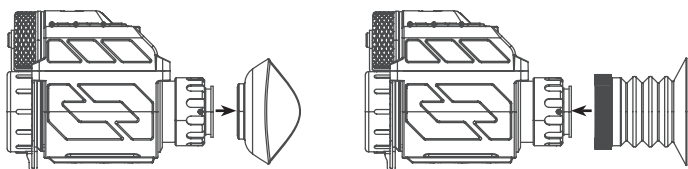


FIGURE 2-6. EYECUP REPLACEMENT

CAUTION:

To remove the U-shaped eyecup, you need to grasp the root of the eyecup and pull it out. Directly pulling the outside of the eyecup may damage the eyecup.

3. Loosen the fixing screw of the weapon mount and install the device on the Picatinny rail. Tighten the fixing screw firmly.

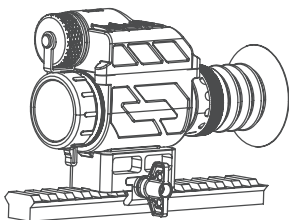


FIGURE 2-7. INSTALLATION ON THE PICATINNY RAIL

2.1.11 FRONT-MOUNTED GUN-SCOPE USE

To use StingIR as a front-mounted clip-on gun scope, you need to install the CO mount (a front-mounted clip-on hoop) on the device and then install the device on the day scope. The installation steps are as follows:

1. Remove the U-shaped eyecup from the device.

CAUTION:

To remove the U-shaped eyecup, you need to grasp the root of the eyecup and pull it out. Directly pulling the outside of the eyecup may damage the eyecup.

2. Fix the CO mount in the two screw holes of the monocular mounting interface with two M5 screws.

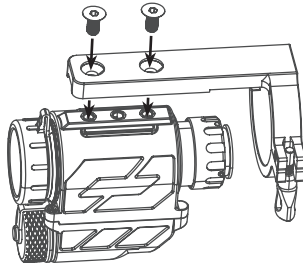


FIGURE 2-8. CO MOUNT INSTALLATION

3. Loosen the fixing screw of the CO mount and install the device on the objective lens of day scope.

NOTE:

It is recommended to turn on the display of the reticle in the menu of the thermal monocular (see paragraph 2.2.3) and, observing through the eyepiece of the day optics, align the thermal image and align the reticles of the thermal device and the day scope.

4. Tighten the fixing screw firmly.

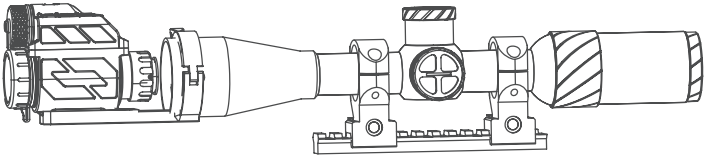


FIGURE 2-9. INSTALLATION ON DAY SCOPE USING CO MOUNT

NOTE:

The CO mount is only compatible with scopes with an objective lens diameter of 40-45 mm.

2.2 MENU OPERATIONS

In the home screen, short press the **Menu** button to enter the main menu. In the main menu, you can set the image, adjust parameters, select application scenarios and view the device status.

The main menu contains five items: **IMAGE**, **SCENARIO**, **DISPLAY**, **SETTINGS**, and **DEVICE STATUS**. Press the **Down** or **Up** button to select menu item and press the **Menu** button to enter or confirm the option. Select Exit and press **Menu** button to exit menu.

In the sub-menus use the **Down** and **Up** buttons to select an option, and to decrease/increase the value of adjustable parameters. Use the **Menu** button to confirm.

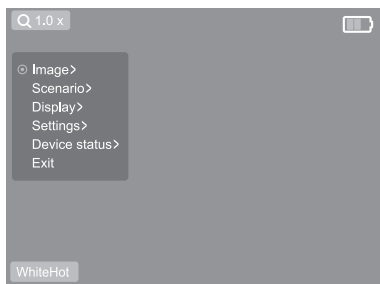


FIGURE 2-11. MAIN MENU

2.2.1 IMAGE

Image menu allows setting options like **Brightness** and **Contrast** of the image. You can set the image brightness and contrast level from 1 to 10. The default value is 5.

2.2.2 SCENARIO

Application Scenario can be **Default**, **Outdoor**, **Arctic**, or **Rainforest**. Specifically, **Default** is the initial mode; **Outdoor** is mainly suitable for environments with fewer outdoor thermal targets to highlight thermal targets; **Arctic** is suitable for scenes with low ambient temperature, like winter; **Rainforest** is suitable for scenes with high ambient temperature and high humidity.

2.2.3 DISPLAY

Display menu allows setting options like **Compass**, **Menu Flip**, **E-Zoom Mode**, and **Reticle Display**. **Reticle Color** and **Reticle Move** options are available when **Reticle Display** is selected.

Compass option allows to enable or disable the display of the digital compass, pitch angle, and roll angle. By default, this information is displayed on the screen.

Menu Flip option allows setting the position of the menu. When changing the position of the device, you can rotate the menu 180 degrees. This option can help when the device is mounted on a weapon.

E-Zoom Mode option allows setting the display mode of the digital zoom. The default is **Full-screen** mode. If **PIP** mode (Picture-in-Picture) will selected, the window with enlarged image will be superimposed on the bottom of the display.

Clip-On option allows to solve the problem of shooting deviation and to achieve better accuracy when using the device as a front-mounted gun scope. Adjust the electronic accuracy correction as follows:

1. Aim your day scope to the middle of target and shoot. This action will test the control of day scope accuracy. Keep daytime optic steady on target using a gun vise, tripod or bipod.
2. Mount the StingIR on the day scope. Aim at the center of the target and shoot again.
3. Enter the StingIR menu and select Display > Clip-On > On. You will see coordinates of display X and Y.
4. Select X and use UP and DOWN buttons to move the display image in horizontal direction, then select Y and use UP and DOWN buttons to move the display image in vertical direction. Move the image until the thermal image window reaches the position to make the Point of Impact (POI) being aimed by the day optics reticle.
5. Aim at the center of the target and shoot again to control of accuracy. Repeat steps 3-5 again if minor adjustments are still needed.

Reticle Display option allows displaying or hiding the reticle. When the reticle is displayed, the color and position of the reticle can be set.

Reticle Color option can be set to White, Black, or Green.

Reticle Move option can be set to Default, Horizontal, or Vertical. If Horizontal or Vertical is selected, the reticle will move horizontally or vertically. The displacement value is in the range from -100 to 100, and each movement step is equal to one screen pixel. Default option resets the coordinates to 0-0 and places the reticle in the center of the screen.

2.2.4 SETTINGS

Settings allows calibrating the device, restoring factory settings, etc., and provides **Azimuth Calibration**, **Pitch Calibration**, **Analog Video**, **Calibration Interval**, **Battery Voltage**, and **Factory Reset** options.

Azimuth Calibration option allows calibrating the digital compass. Azimuth calibration is recommended when using the device for the first time or at a different location. After entering Azimuth Calibration, you can view the instructions on the screen. Select **Start** and press the Menu button to start calibration, then rotate the device horizontally 360° around you. Click **OK** after the rotation is complete.

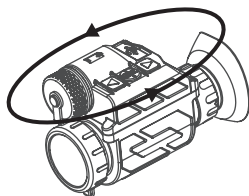


FIGURE 2-12. AZIMUTH CALIBRATION

Pitch Calibration option allows you to calibrate the device tilt indicator. Since the pitch angle is less affected by the changes in geographic locations, you don't need to calibrate it often. After entering Pitch Calibration, you can view the instructions on the screen. Select **Start** and press the Menu button to start calibration. Rotate the device 90° upward and then 90° downward. Click **OK** after the rotation is complete.

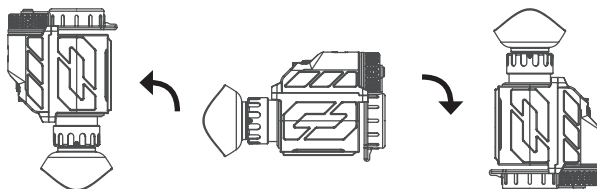


FIGURE 2-13. PITCH CALIBRATION

Analog Video option allows you to enable/disable the analog video output . To view video on an external monitor via the Type-C interface of the device, connect the cable, and turn on Analog Video in the menu in advance.

NOTE:

Analog Video is disabled by default. It is recommended to disable this option when you are not watching analog video to reduce power consumption and extend the battery life.

Calibration Interval option allows you to set the time for image non-uniformity correction (FFC). The factory default is Auto, which means the device performs FFC automatically. You can also set the correction time interval from 1 to 10 minutes. When value is 0, manual image correction is enabled. For manual correction, press and hold the UP button.

Battery Voltage option provides two supply voltages: 3.0V and 3.7V. The user needs to select a value according to the actual voltage of the battery being used.

NOTE:

The factory default of "battery voltage" is 3.7V. Use this setting for RCR123 and 18650 rechargeable batteries. If using CR123A, change the setting to 3.0V.

Factory Reset option allows you to restor factory settings. If necessary, you can use this option, select and press OK to reset the device to factory settings.

2.2.5 DEVICE STATUS

Device Status mainly displays the service time and the serial number of the device.

NOTE:

The factory reset will not clear the service time of the device.

3 MAINTENANCE

3.1 MAINTENANCE

3.1.1 CLEANING PROCEDURES

1. Gently brush off any dirt from the body of the device using a clean, soft cloth.
2. Moisten the cloth with fresh water and gently wipe down the external surfaces (except lenses).
3. Dry any wet surfaces (except lenses) using another dry, clean, soft cloth.
4. Using a lens brush, carefully remove all loose dirt from the lenses.
5. Dampen a cotton swab with ethanol and slowly, gently wipe down the lenses. Clean the glass surfaces using circular movements, starting from the center of the lens and moving out towards the edge, without touching the lens holder. Change the cotton swab after each circular stroke. Repeat this step until the glass surfaces are clean.
6. Clean the accessories with a soft brush (or cloth) dampened with soap and water.

3.1.2 PREPARING FOR EXTENDED STORAGE

CAUTION:

Thoroughly dry each item before placing them into the storage case.

To prepare the monocular for extended storage:

1. Remove the battery.
2. Clean the monocular and accessories.
3. Place all items into the storage case.

3.2 TROUBLESHOOTING

Table 3-1 lists the most common malfunctions that may occur with your equipment. Perform the tests, inspections, and corrective actions in the order they appear in the table.

This table does not list all the malfunctions that may occur with your device, or all of the tests, inspections, and corrective actions that may be necessary to fix them. If the equipment malfunction is not corrected by the suggested actions, or a problem occurs that is not listed in this table, please contact AGM Global Vision's Customer Support center or your retailer.

TABLE 3-1. TROUBLESHOOTING

FAULT	TEST OR CHECK	TROUBLESHOOTING
<p>Unable to screw or open the cover of the battery compartment</p>	<p>(a) Check if the battery is installed in the correct direction. (b) Check if there are sundries or scraps around the battery cover. (c) Check if the battery cover is damaged, worn or deformed. (d) Check if the battery compartment is damaged or deformed.</p>	<p>(a) Reinstall the battery. (b) Clean the threads of the battery cover and battery compartment. (c) Perform the higher level maintenance. (d) Perform the higher level maintenance.</p>
<p>Unable to power on</p>	<p>(a) Check if the battery is installed, if its direction is correct, and if its power is sufficient. (b) Check if the On/Off button can be pressed normally.</p>	<p>(a) Replace the old battery with a new one and install it correctly according to the instructions in Chapter 2. (b) Perform the higher level maintenance.</p>
<p>Unable to display the image</p>	<p>(a) Check if the lens cover is removed and if the focal length is appropriate. (b) Check if the objective lens is blocked during operation. (c) Check if the lens is damaged. (d) Long press the UP button to perform manual image correction.</p>	<p>(a) Remove the lens cover and adjust the objective lens focusing knob. (b) Remove the barriers. (c) Perform the higher level maintenance. (d) Perform the higher level maintenance if the fault persists.</p>
<p>After power on, it displays "The battery is running low, please replace the battery"</p>	<p>(a) Check if the battery power is too low. (b) Confirm that the battery voltage is consistent with the device settings.</p>	<p>(a) Replace the battery. (b) Operation menu "Settings" -> "Battery Voltage", set the voltage to be consistent with the actual battery voltage.</p>

4 WARRANTY INFORMATION

4.1 WARRANTY INFORMATION AND REGISTRATION

The below description of AGM Global Vision warranty terms and conditions refer specifically to AGM branded products purchased within the United States. Customers purchasing AGM products outside the United States can obtain specific information about their product's warranty term on the www.agmglobalvision.eu website.

4.1.1 WARRANTY INFORMATION

This product is guaranteed to be free from manufacturing defects in material and workmanship under normal use for a period of five (5) years from the date of purchase. In the event that a defect covered by the warranty below occurs during the applicable period stated above, AGM Global Vision, at its discretion, will either repair or replace the product; such action on the part of AGM Global Vision shall be the full extent of AGM Global Vision's liability, and the Customer's sole and exclusive reparation. This warranty does not cover a product if it has been (a) used in ways other than its normal and customary manner; (b) subjected to misuse; (c) subjected to alterations, modifications or repairs by the Customer or by any party other than AGM Global Vision without prior written consent of AGM Global Vision; (d) is the result of a special order or categorized as "close-out" merchandise or merchandise sold "as-is" by either AGM Global Vision or the AGM Global Vision dealer; or (e) merchandise that has been discontinued by the manufacturer and either parts or replacement units are not available due to reasons beyond the control of AGM Global Vision. AGM Global Vision shall not be responsible for any defects or damage that in AGM Global Vision's view are a result from the mishandling, abuse, misuse, improper storage or improper operation of the device, including use in conjunction with equipment that is electrically or mechanically incompatible with, or of inferior quality to, the product, as well as failure to maintain the environmental conditions specified by the manufacturer. This warranty is extended only to the original purchaser. Any breach of this warranty shall be enforced unless the customer notifies AGM Global Vision at the address noted below within the applicable warranty period.

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

4.1.2 LIMITATION OF LIABILITY

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

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

4.1.3 PRODUCT REGISTRATION

In order to validate the warranty on your product, the customer must complete and submit AGM Global Vision PRODUCT REGISTRATION FORM on our website (www.agmglobalvision.com/customer-support).

4.1.4 OBTAINING WARRANTY SERVICE

To obtain warranty service on your unit, the End-user (Customer) must notify the AGM Global Vision service department via e-mail. Send any requests to support@agmglobalvision.com to receive a Return Merchandise Authorization number (RMA). When returning any device, please take the product to your retailer, or send the product, postage paid and with a copy of your sales receipt, to AGM Global Vision's service center at the address listed above. All merchandise must be fully insured with the correct postage; AGM Global Vision will not be responsible for improper postage or merchandise that becomes lost or damaged during shipment. When sending product back, please clearly write the RMA# on the outside of the shipping box. Please include a letter that indicates your RMA#, the Customer's Name, a Return Address, reason for the return, contact information (valid telephone numbers and/or an e-mail address), and proof of purchase that will help us to establish the valid start date of the warranty. Product merchandise returns that do not have an RMA# listed may be refused, or a significant delay in processing may occur. Estimated Warranty service time is 10-20 business days. The End-user/Customer is responsible for postage to AGM Global Vision for warranty service. AGM Global Vision will cover return postage/shipping after warranty repair to the End-user/Customer only if the product is covered by the aforementioned warranty. AGM Global Vision will return the product after warranty service by domestic UPS Ground service and/or domestic mail. Should any other requested, required, or international shipping methods be necessary, the postage/shipping fee will be the responsibility of the End-user/Customer.

For service, repair or replacement, please contact:

AGM Global Vision, LLC

173 West Main Street

PO Box 962

Springerville, AZ 85938

Tel. 928.333.4300

support@agmglobalvision.com

www.agmglobalvision.com

5 SPECIFICATIONS

5.1 SPECIFICATIONS

	StingIR-384	StingIR-640
Detector Type	12 μ m Uncooled VOx Microbolometer	12 μ m Uncooled VOx Microbolometer
Resolution	384x288	640x480
Refresh Rate	50 Hz	50 Hz
Lens (Focal Length)	16 mm	27 mm
Aperture	F1.3	F1.1
Field of View (H x V)	16.3° x 12.3°	16.3° x 12.3°
Magnification	1x	1x
Detection Range	730 m (Human Target)	1200 m (Human Target)
Exit Pupil Diameter	12 mm	12 mm
Exit Pupil Distance	20 mm	20 mm
Diopter Adjustment Range	-5 to +2 dpt	-5 to +2 dpt
Digital Zoom	1x, 2x, 3x, 4x	1x, 2x, 4x, 6x, 8x
Monitor	1024x768 OLED	1024x768 OLED
Palettes	White Hot, Black Hot, Orange Hot, Rainbow	White Hot, Black Hot, Orange Hot, Rainbow
Application Scenarios	Default, Outdoor, Arctic, or Rainforest	Default, Outdoor, Arctic, or Rainforest
FFC (Flat Field Correction)	Auto; 1 to 10 min. interval; Manual	Auto; 1 to 10 min. interval; Manual
Digital Compass	Yes	Yes
Digital Inclinometer	Yes (Pitch angle and Roll angle)	Yes (Pitch angle and Roll angle)
PIP	Yes	Yes
Reticle	Display On/Off; Position adjustment; Selection of White, Black, or Green color	Display On/Off; Position adjustment; Selection of White, Black, or Green color
Analog Video Output	PAL video output via USB port	PAL video output via USB port
Battery Type	One CR123A(3V) or RCR123(3.7V) or 18650(4.2V)	One CR123A(3V) or RCR123(3.7V) or 18650(4.2V)
Battery Operating Time (20°C)	CR123A - up to 3 hours RCR123 - up to 2 hours 18650 - up to 5 hours	CR123A - up to 2.5 hours RCR123 - up to 1.5 hours 18650 - up to 4.5 hours
USB Type-C Interface	Power input / USB-RS232 / PAL video output	Power input / USB-RS232 / PAL video output
External Power	5 VDC / 2 A, 1.5 W	5 VDC / 2 A, 1.5 W
Working Temperature	-10°C to 60°C (14°F to 140°F)	-10°C to 60°C (14°F to 140°F)
Protection Level	IP67	IP67
Recoil Rating	200g (5.56 caliber)	200g (5.56 caliber)
Dimension	140 x 70 x 50 mm (5.5 x 2.7 x 2.0 in)	140 x 70 x 50 mm (5.5 x 2.7 x 2.0 in)
Weight	200 g (7.0 oz)	220 g (7.8 oz)

*All data subject to change without notice.



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