

SPECTRUM-IR

DIGITAL DAY & NIGHT VISION SCOPE

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, RE Directive 2014/53/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 (B)/NMB-3(B) standards requirements.

1. This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: this device may not cause interference, and
2. This device must accept any interference, including interference that may cause undesired operation of the device.

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

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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:

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.

WARNINGS AND CAUTIONS:

Laws and Regulations

- Use of the product must be in strict compliance with the local electrical safety regulations.

Transportation

- Keep the device in original or similar packaging while transporting it.
- Keep all wrappers after unpacking them for future use. In case of any failure occurred, you need to return the device to the factory with the original wrapper. Transportation without the original wrapper may result in damage on the device and the company shall not take any responsibilities.
- DO NOT drop the product or subject it to physical shock. Keep the device away from magnetic interference.

Power Supply

- Input voltage should meet the Limited Power Source (5 VDC, 2A) according to the IEC61010-1 standard. Please refer to technical specifications for detailed information.
- Make sure the plug is properly connected to the power socket.
- DO NOT connect multiple devices to one power adapter, to avoid over-heating or fire hazards caused by overload.

Battery

- Improper use or replacement of the battery may result in explosion hazard. Replace with the same or equivalent type only.
- The built-in battery type is 18650 with the protection board, and the battery size should be 23 mm × 67 mm. The rated voltage and capacity are 3.6 VDC/3350 mA (12.18 Wh).

- The external removable battery type is CR123A, and the max. rated voltage and capacity are 3 VDC/2 A and 1600 mA. Dispose of used batteries in conformance with the instructions provided by the battery manufacturer.
- Make sure the battery temperature is between 0°C to 45°C (32°F to 113°F) when charging.
- Install the external battery before the built-in battery runs out, or the device cannot be turned on.
- Confirm there is no flammable material within 2 m of the charger during charging.
- DO NOT place the battery near heating or fire source. Avoid direct sunlight.
- DO NOT place the battery in the reach of children.
- Use the power adapter provided by qualified manufacturer. Refer to the product specification for detailed power requirements.

Maintenance

- If the product does not work properly, please contact your dealer or the nearest service center. We shall not assume any responsibility for problems caused by unauthorized repair or maintenance.
- Wipe the device gently with a clean cloth and a small quantity of ethanol, if necessary.
- If the equipment is used in a manner not specified by the manufacturer, the protection provided by the device may be impaired.
- It is recommended to reboot the device every 2 hours when using it to ensure the device performance.

Using Environment

- Make sure the running environment meets the requirement of the device. The operating temperature shall be between -30°C to 55°C (-22°F to 131°F), and humidity shall be 5% to 95%.
- DO NOT expose the device to high electromagnetic radiation or dusty environments.
- DO NOT aim the lens at the sun or any other bright light.
- Place the device in a dry and well-ventilated environment.
- When any laser equipment is in use, make sure that the device lens is not exposed to the laser beam, or it may burn out.

EMERGENCY:

- If smoke, odor, or noise arises from the device, immediately turn off the power, unplug the power cable, and contact the service center.

1 GENERAL INFORMATION

1.1 SYSTEM DESCRIPTION

The Spectrum-IR is the digital day & night vision scope developed for 24 hours operation in all ambient light. The Spectrum-IR can be mounted to the weapon using standard 30mm scope rings. Ideal for professional hunters who prefer the familiar shape and function of common traditional scopes but seek technological superiority.

The Spectrum-IR digital scope has an advanced high-resolution sensor and 1024×768 OLED display – providing full-color clarity in daytime and classic black & white viewing at night.

The scope is equipped with unique dual power system. Two built-in 18650 rechargeable batteries with one CR123A replaceable Lithium battery provide up to 11 hours of continuous operation. The device has fast 64GB EMMC storage for on-board video recording and image capture. Shot Activated Recording (SAR) function allows you not to worry about having to start recording manually each time. Wi-Fi module for live video streaming and video/images recording via application are also available.

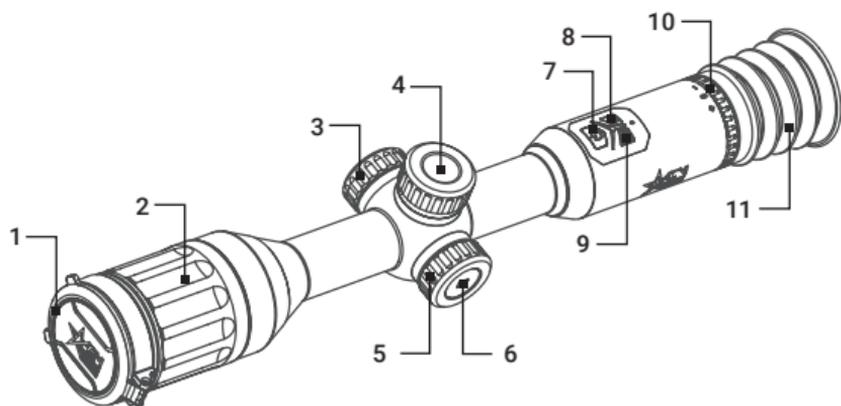


FIGURE 1-1. MAIN PARTS

TABLE 1-1. MAIN PARTS

ITEM	DESCRIPTION
1	Lens Cap
2	Focus Ring
3	USB Interface Cover
4	Battery Cover
5	Operation Wheel
6	Wheel Button
7	Power Button
8	Mode Button
9	Record Button
10	Eyepiece Focus Ring
11	Eyecup

1.2 KEY FEATURES

- 1920x1080 High-definition sensor
- Supports Day/Night mode
- Various reticle types and colors
- Detection range up to 600m
- On-board video/audio recording and image capture
- Shot Activated Recording (SAR)
- Fast 64GB EMMC built-in storage
- Wi-Fi data transmission
- 1024x768 resolution OLED display
- Waterproof & Shockproof
- Standby mode
- Dual power system
- Up to 13 hours continuous working
- External power supply capability
- 3-year warranty

1.3 STANDARD COMPONENTS

The standard components are shown in Figure 1-2 and listed in Table 1-2.

The ITEM column indicates the number used to identify items in Figure 1-2.

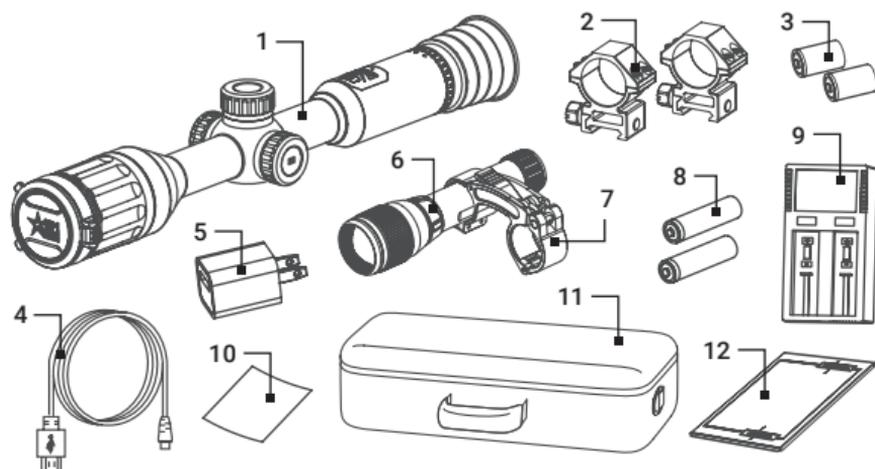


FIGURE 1-2. STANDARD COMPONENTS

TABLE 1-2. STANDARD COMPONENTS

ITEM	DESCRIPTION	QUANTITY
1	Rifle Scope	1
2	CR123A Battery	2
3	Power Adapter	1
4	Type-C USB Cable	1
5	IR Illuminator	1
6	IR Illuminator Mount	1
7	18650 Battery for IR Illuminator	2
8	18650 Battery Charger	1
9	Lens Cloth	1
10	Carrying Case	1
11	User Manual	1

* Standard components may vary depending on the region of sale.

1.4 OPTIONAL EQUIPMENT

Optional items are shown in Figure 1-3 and listed in Table 1-3.

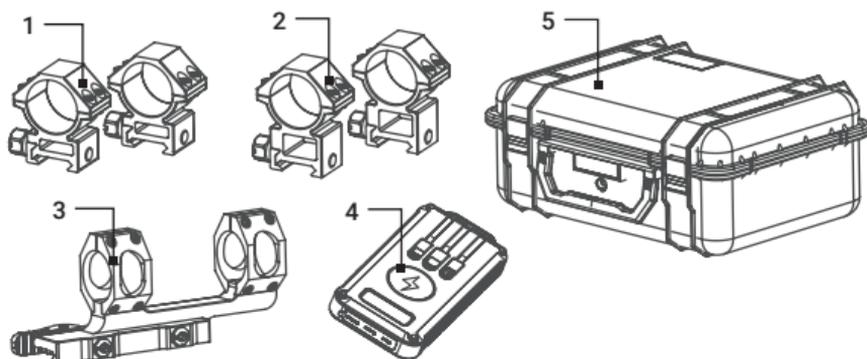


FIGURE 1-3. OPTIONAL EQUIPMENT

TABLE 1-3. OPTIONAL EQUIPMENT

ITEM	DESCRIPTION	PART NO.
1	AGM-2114 Scope Ring Mount for Adder TS35. Pair of 30mm rings with 1.14" (29mm) centerline height.	63061141
2	AGM-2115 Scope Ring Mount for Adder TS50. Pair of 30mm rings with 1.38" (35mm) centerline height.	63061151
3	AGM-2116 ADM Quick Release Mount for Adder TS35/50. Quick release mount with two 30mm rings. 1.47" (37.3 mm) centerline height.	63061161
4	AGM Power Bank	6308EPB1
5	Hard Case for Storage/Transportation	6610HCS1

2 OPERATING INSTRUCTIONS

2.1. BASIC OPERATIONS

2.1.1 UNPACKING

The following steps must be completed prior to each mission.

1. Open the carrying case, remove the device, and verify that all components are included.
2. Inspect the device for any obvious evidence of damage to the optical surfaces, body, eyecup, operation buttons, etc. Ensure that all optical surfaces are clean and ready for use. Clean all optical surfaces with a lens tissue.

2.1.2 CHARGING THE BUILT-IN BATTERY

When the device is turned on, the OSD (on-screen display) shows the battery status. Icon  means the battery is fully charged, and icon  means that the battery is low.

When the low power note shows, charge the battery.

NOTE:

Please charge the battery with the delivered USB cable and power adapter. The charging temperature should be 0°C to 45°C (32°F to 113°F).

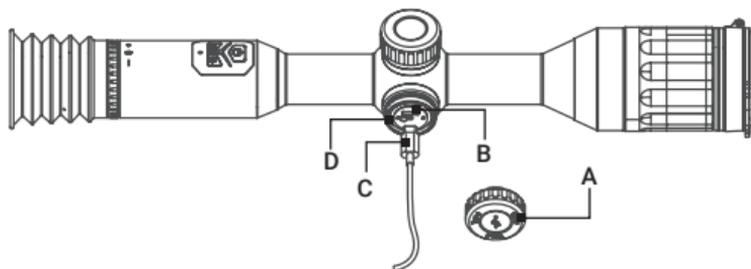


FIGURE 2-1. USB INTERFACE

1. Unscrew the USB interface cover (Figure 2-1, A).
2. Connect the power adapter to the scope's interface port (B) using the USB cable (C).
3. Plug in the power adapter and charge the device. Icon  in the FOV of scope indicates the charging process. The color LED (D) near USB port indicates the charging status.

TABLE 2-1. BATTERY LED INDICATOR STATUS

INDICATOR	FUNCTIONS
Flashing Red & Green	Error occurred.
Solid Red	Battery is properly charging.
Solid Green	Battery is fully charged.
Off	Battery is not charged.

2.1.3 ADDITIONAL CR123A BATTERY INSTALLATION

1. Turn the battery cover (Figure 2-2, A) anticlockwise to open it.
2. Insert the CR123A battery (B) into the battery compartment (C) with the positive mark inward.
3. Turn the battery cover clockwise to tighten it.

In the OSD, the vertical battery icon  indicates the status of the additional battery.

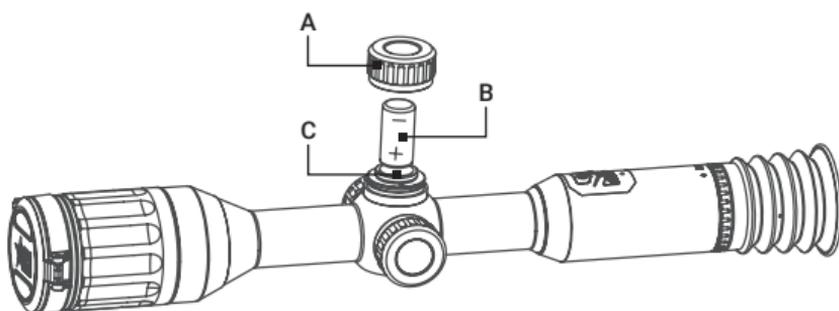


FIGURE 2-2. CR123A BATTERY INSTALLATION

NOTE:

Remove the battery from the battery compartment if the device is not used for a long time.

2.1.4 CONTROL BUTTONS

The Spectrum-IR controls are shown in Figures 2-3 and are defined in Tables 2-2.

Each button is responsible for some functions selected by short press or long press (hold) the button. Pushing a button for 2+ second is considered "long press" (hold).

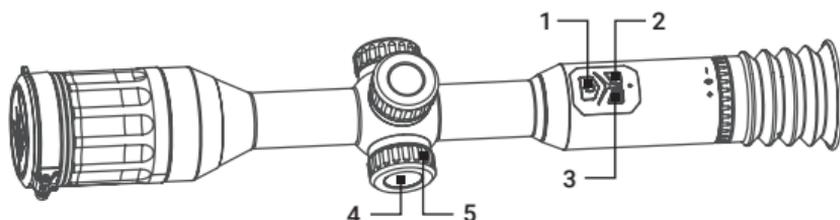


FIGURE 2-3. SPECTRUM-IR CONTROLS

TABLE 2-2. SPECTRUM-IR CONTROL FUNCTIONS

ITEM	CONTROLS	FUNCTIONS
1	 POWER BUTTON	Press: Standby mode / Wake up device Hold: Power ON/OFF
2	 MODE BUTTON	Press: Enable/disable PIP Hold: Switch Day/Night mode
3	 RECORD BUTTON	Press: Capture Hold: Start/Stop video recording
4	 WHEEL BUTTON	Hold: Menu operation
5	OPERATION WHEEL	Rotate: Switch digital zoom

2.1.5 POWER ON AND OFF

Power On

When the battery is enough, hold the POWER button  for about 2 seconds to power on the device.

Power Off

When the device is turned on, hold the POWER BUTTON  for 2 seconds to power off the device.

2.1.6 AUTO POWER OFF

In the “Auto Power Off” menu you can set the time for the automatic shutdown of the device.

1. Hold the wheel button  to go to the menu.
2. Rotate the wheel to select  **AUTO POWER OFF** menu item and press button  to select OFF, 30 min or 45 min.
3. Hold the wheel to save and exit.

2.1.7 STANDBY MODE

Standby mode is used to save battery power. In power-saving mode, some power-consuming features such as the display, network hardware, or internal storage will be temporarily disabled.

To turn on the standby mode short press the POWER button . To exit standby mode, short press the POWER button again.

When the standby mode is turned off, the normal operation of the device is quickly restored.

2.1.8 ON-SCREEN DISPLAY (OSD)

On-screen interface displays the main setup menu items and device status indicators. When OSD is on, the information of Wi-Fi hotspot activation, magnification, storage memory status, battery status, time and date displays on the screen.

Hold the MENU button  in the view mode to display or hide the menu.

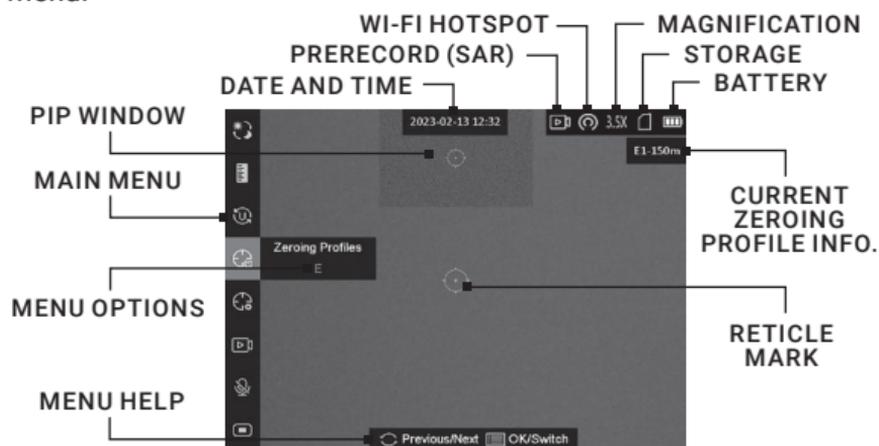


FIGURE 2-4. ON-SCREEN DISPLAY

2.1.9 OBSERVATION

1. Power on the device.
2. Adjust the diopter adjustment ring until the OSD text or image is clear.
3. Point the device towards the target 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 rifle scope.

4. Set day or night mode, brightness, contrast, to display the best image effect.

2.1.9 DIGITAL ZOOM

In the live view mode, rotate the operation wheel to switch the digital zoom of the device between 1×, 2×, and 4×. The image magnification value is displayed on the screen: 3.5X, 7X, 14X.

2.1.10 VIDEO RECORDING AND IMAGE CAPTURE

Video Recording

In the live view interface, hold the RECORD button  to start/stop video recording.

Recording time information is displayed in the upper left corner of the image.

Shot Activated Recording (SAR)

After enabling SAR function, the device can automatically record the 7, 10 or 15 seconds before and after the recoil-activation (see section 2.2.11 for more detail).

Image Capture

In the live view interface, press the RECORD button  to capture image.

NOTE:

When captured, the image freezes for 1 second and a prompt shows on the display.

For exporting captured videos and pictures, refer to Files Export.

2.1.11 FILE EXPORT

1. Unscrew the USB interface cover. Connect the thermal scope to your PC with USB cable and open the detected disk.
2. Open computer disk and select the disk of device. Go to the DCIM folder and find the folder named after the capture year and month. For example, if you capture a picture or record a video on March 2023, go to DCIM -> 202303 to find the picture or video.
 - Select and copy the videos to PC and play the file with the player.
 - Select and copy the snapshots to PC and view the files.
3. Disconnect the device from your PC.

NOTE:

- The device displays images when you connect it to PC. But functions such as recording, capture and hot spot are disabled.
- When you connect the device to PC for the first time, it installs the drive program automatically.

You can also download files from the scope to your phone using the AGM Connect app (see section 2.3).

2.1.12 INSTALLING THE SPECTRUM-IR ON A PICATINNY/WEAVER RAIL WITH SCOPE RINGS

WARNING:

Always make sure your firearm is unloaded before you place the scope on the firearm. Reconfirm that the chamber is empty if you stop the procedure then resume later. Safe firearms handling rules should be followed at all times.

You can mount the Spectrum-IR scope on a Picatinny/Weaver rail of weapon using pair of AGM 30mm scope rings (Figure 2-5).

1. Remove every screw (A) along with the upper parts (B) of the scope rings.
2. Loosen the fixing screws (C) of the lower parts (D) of the rings and install them on the rail.
3. Then, you can try to fit the scope before placing the upper rings. The scope rings need to be at a proper distance from the objective bell as well as the turrets so that the eye relief adjustment can be done.

4. You can insert a thread locker and tighten the fixing screws of the lower parts of the rings.
5. Place the upper rings and slightly fixing them with the screws only enough to allow the scope to rotate and move back and forth.
6. Adjust the eye relief. Position the scope far enough to keep your eye safe from recoil.
7. Turn on the power of the scope and activate the reticle.
8. With the rifle held level, rotate the scope until the reticle is precisely vertical and horizontal.
9. Check the position of the scope and tighten the ring screws. Ensure an even fit by alternately tightening the screws.

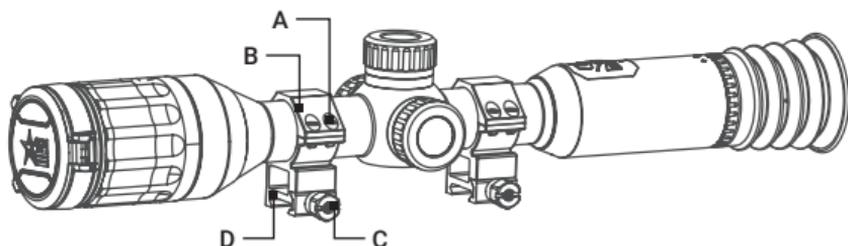


FIGURE 2-5. INSTALLATION WITH SCOPE RINGS

2.1.13 INSTALLING THE SPECTRUM-IR ON A PICATINNY/WEAVER RAIL WITH QUICK RELEASE MOUNT

You can mount the Spectrum-IR scope on a Picatinny/Weaver rail of weapon using optional quick release (QR) mount (Figure 2-6).

1. Unlock the clamping devices of the QR mount by pushing down on the lever holders (A) and unlocking the levers (B).
2. Install the mount on the Picatinny/ Weaver rail so that the stops (C) slide into the transverse slots on the rail.
3. Affix the mount to the rail by locking the levers (B).
4. Verify that the clamping devices are firmly holding the mount. If necessary, adjust each clamping device's lever-cam lock as detailed below:
 - 1) Remove the QR mount from the rail.
 - 2) With the clamping device unlocked, push the cam (D) towards the arrow, which will cause the nut (E) to slide out of its hole.
 - 3) To tighten/ loosen the clamping device, push down on the cam (D) and turn the nut (E) CW/ CCW respectively, in one-two

increments (see note below). Much like when the cam (D) is released, backward-moving spring will cause the nut (E) to slide back into its hole.

NOTE:

The eight-sided nut of the mount lever-cam lock will only fit into their hole if turned in one of the discrete positions, using increments equal to $360^\circ/8$.

- 4) Verify that the adjusted lever-cams lock securely hold the weapon mounting rail.
5. Remove all screws (F) along with the ring halves (G) and (H) (you can remove the QR mount from the rail for convenience).
6. Place the scope between the halves of the rings and slightly fixing it with the screws (F) only enough to allow the scope to rotate and move back and forth.
7. Place the QR mount with the scope mounted on the weapon rail and affix it by locking the levers. Adjust the eye relief. Position the scope far enough to keep your eye safe from recoil.
8. Turn on the power of the scope and activate the reticle.
9. With the rifle held level, rotate the scope until the reticle is precisely vertical and horizontal.
10. Check the position of the scope and tighten the ring screws. Ensure an even fit by alternately tightening the screws.

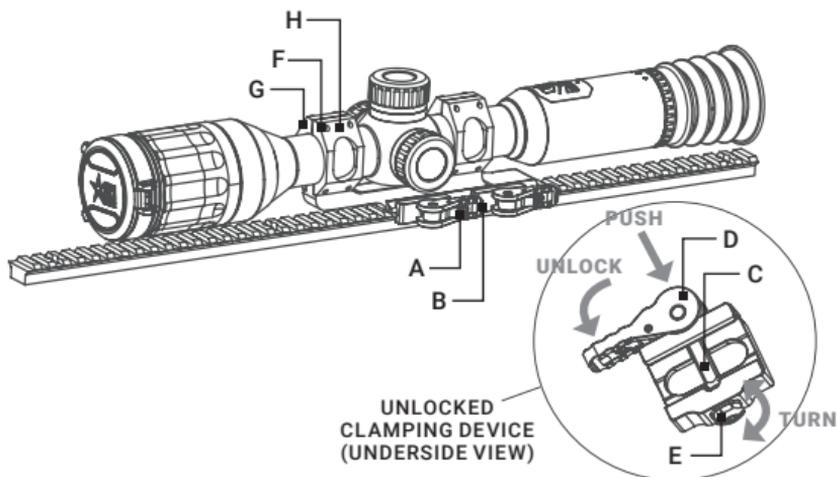


FIGURE 2-6. INSTALLATION WITH QUICK RELEASE MOUNT

2.1.14 IR ILLUMINATOR INSTALLATION AND OPERATION

You can mount a long-range IR illuminator on a Spectrum-IR scope using including special IR mount (Figure 2-7).

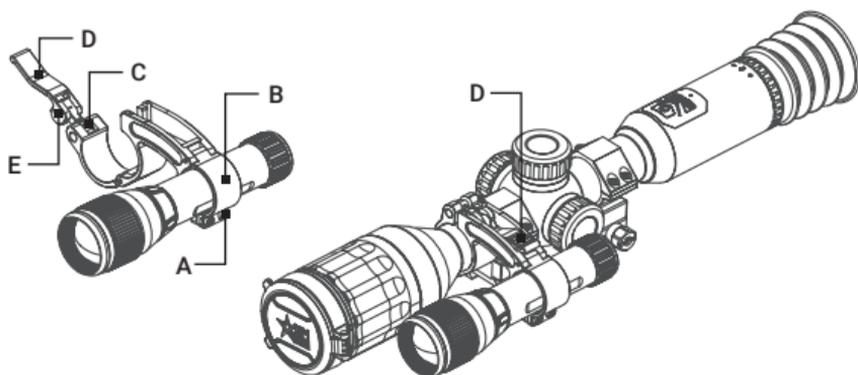


FIGURE 2-7. IR ILLUMINATOR INSTALLATION

1. Unscrew two screws (A) of IR mount.
2. Place the IR illuminator between the halves of the rings (B) and screw the screws (A) back into place.
3. Open the clamping device (C) of the IR mount by unlocking the lever (D).
4. Install the mount around the tube of the Spectrum-IR scope, push the lever cam (E) into place and then turn the lever (D) to lock the mount. Verify that the clamping devices are firmly holding the mount. The clamping force can be adjusted with a screw.

To operate the IR illuminator (Figure 2-8):

1. Unscrew the battery cap (A) of IR illuminator and Install full-charged 18650 battery (B).
2. To turn on the IR illuminator rotate the operation ring clockwise (C).
3. Keep turning the operation ring (C) to adjust the IR lighting power.
4. To adjust IR beam divergence, rotate the focus ring (D).
5. To turn off the IR illuminator rotate the operation ring counterclockwise until it stops.

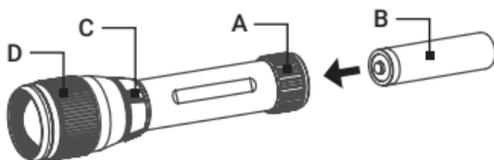


FIGURE 2-8. IR ILLUMINATOR

2.2 MAIN FUNCTIONS

2.2.1 MENU OPERATION

When the device is turned on, press and hold the wheel button  to display the menu.

Rotate the operation wheel to move between menu items. The active element is highlighted in orange. Press the wheel button  to select menu item or change an option. Hold the wheel button  to exit the menu.

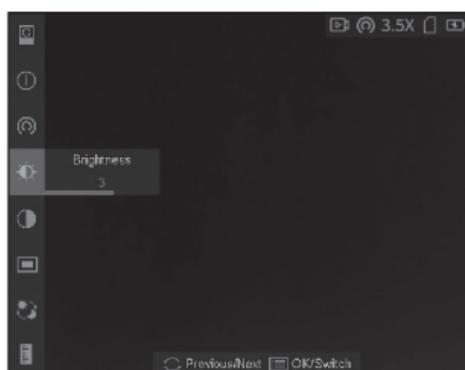


FIGURE 2-9. MAIN MENU

TABLE 2-4. MENU FUNCTIONS

MENU ITEM	SYMBOL	OPTION	FUNCTION
BRIGHTNESS		10 Levels of brightness	Adjusts the image brightness.
CONTRAST		10 Levels of contrast	Adjusts the image contrast.
PIP		OFF	Enables or disables the PIP function.
		Center	
DAY /NIGHT		Day	Switch between the Day mode and Night mode.
		Night	

MENU ITEM	SYMBOL	OPTION	FUNCTION
MEASURE		Grey Wolf / Brown Bear / Deer / Custom	Measures the distance between the target and the observation position.
UNIT		yard / m	Sets the distance unit.
ZEROING PROFILES		5 Zeroing Profiles (A/B/C/D/E)	Zeroing profile selection with user saved reticle settings.
RETICLE		5 Zeroing 5 Reticles 8 Colors	Reticle type and reticle color selection. Boresight correction.
PRERECORD		OFF / 7s / 10s / 15s	Shot Activated Recording (SAR) .
AUDIO		OFF	Audio record off.
		ON	Audio record on.
OSD		OSD / Time / Date	Enables or disables OSD, time, date.
LANGUAGE		19 Languages	Choice of interface language.
TIME SYNC.		Time Format / Time / Date	Setting the time and date.
AUTO POWER OFF		OFF/ 30 min/ 45 min	Setting the automatic shutdown time.
RESTORE		---	Restoring the default device settings.
VERSION		---	Firmware version and serial number.
NETWORK		Close	Enables or disables hot spot mark (marking the spot of highest temperature).
		Hotspot	

2.2.2 CONTRAST ADJUSTMENT

1. Hold the wheel button  to go to the menu.
2. Rotate the wheel to select  **CONTRAST** menu item and press the wheel button  to adjust the image contrast. You can select one of ten levels of the contrast.
3. Turn the wheel to move to another menu item or hold the wheel button  to exit a menu.

2.2.3 BRIGHTNESS ADJUSTMENT

You can select one of five levels of the brightness to adjust the image lighter or darker.

1. Hold the wheel button  to go to the menu.
2. Rotate the wheel to select  **BRIGHTNESS** menu item and press the wheel button  to adjust the brightness. You can select one of ten levels of the brightness.
3. Turn the wheel to move to another menu item or hold the wheel button  to exit a menu.

2.2.4 PICTURE-IN-PICTURE (PIP) MODE

The Picture-in-Picture (PIP) mode allows you to see simultaneously both a 2x magnified image of the central part in a PIP window and the main image. The PIP window is displayed at the up-center of the live view.

1. Hold the wheel button  to show the menu.
2. Rotate the wheel to select  **PIP** menu item, and press the wheel button  to activate or deactivate PIP mode.
3. Turn the wheel to move to another menu item or hold the wheel button  to exit a menu.

You can also quickly enable or disable PIP mode by pressing the **MODE** button .

NOTE:

When reticle is enabled, the PIP view is the detail of reticle. When reticle is not enabled, the PIP view is the detail of central part. If digital zoom is enabled, the PIP view also zooms. If the digital zoom ratio exceeds 4, the PIP does not zoom.

2.2.5 DAY AND NIGHT MODES

You can select the proper scene mode according to the lighting conditions to improve the display effect.

1. Hold the wheel button  to go to the menu.
2. Rotate the wheel to select  **SCENE MODE** menu item and press the wheel button  to switch scene.
3. Turn the wheel to move to another menu item or hold the wheel button  to exit a menu.

You can also quickly change between Day and Night mode by holding down the MODE button .

2.2.6 DISTANCE MEASUREMENT

You can detect the distance between the target and the observation position by using the stadiametric rangefinder.

NOTE:

When measuring the distance, keep your hand and the position steady. Otherwise, the accuracy may be affected.

1. Hold the wheel button  to show the menu.
2. Rotate the wheel to select  **MEASURE** menu item and press the wheel button  to go to the setting interface.



FIGURE 2-10. DISTANCE MEASUREMENT

3. Set the parameters for the target.

1) Rotate the wheel to select the target from **Deer, Grey Wolf, Brown Bear, and Custom**.

2) Press button  and rotate the wheel to set the target height. Each target height preset can be modified from 0.1 to 9.9 m.

3) Press the wheel button  to confirm.

4) Hold the wheel button  to save the settings and return to the distance measurement interface.

4. Align the center of the bottom mark with the bottom edge of the target and press the wheel button  to confirm. The top mark blinks and then changes to the bottom mark.

5. Align the center of the bottom mark with the bottom edge of the target and press the wheel button  to confirm. The bottom mark blinks and then disappears.

The left top of the image displays the distance measurement result and the height of the target. You can select the unit of measurement (see section 2.2.7).

2.2.7 UNIT

You can set the unit (yards or meters) of measurement for distance.

1. Hold the wheel button  to show the menu of device.

2. Select  **UNIT** item and press the wheel button  to switch the unit.

3. Hold the wheel button  to save settings and exit.

2.2.8 ZEROING PROFILES

The user can customize and save five profiles with different reticle settings. In each profile, you can configure up to five types of reticle, firing distances and reticle corrections.

1. In the view mode, hold the wheel button  to show the menu.

2. Rotate the wheel to select  **ZEROING PROFILES** menu item.

3. Press the wheel button  to switch the zeroing profile.

4. Turn the wheel to move to another menu item or hold the wheel button  to exit a menu.

The right top of the image displays the profile information. For example, E1-150m means you are using Zeroing setting #1 for a range of 150 meters in Zeroing Profile E.



FIGURE 2-11. ZEROING PROFILES MENU

2.2.9 RETICLE SETTINGS

In the current zeroing profile you can set parameters such as type, color, and boresight correction (coordinates) for the reticle.

Select a zeroing profile first.

1. In the view mode, hold the wheel button  to show the menu.
2. Rotate the wheel to select  **RETICLE** menu item and press the wheel button  to enter the reticle setting interface.



FIGURE 2-12. RETICLE SETTINGS

3. Select **Zeroing** and press the wheel button  to select a Zeroing Number (1 to 5). You can select **OFF** to disable the reticle.
4. Set reticle type:
 - 1) In the Reticle setting interface, rotate the wheel to select **Type**.

- 2) Press the wheel button  to select a reticle pattern. You can choose from five reticle patterns.

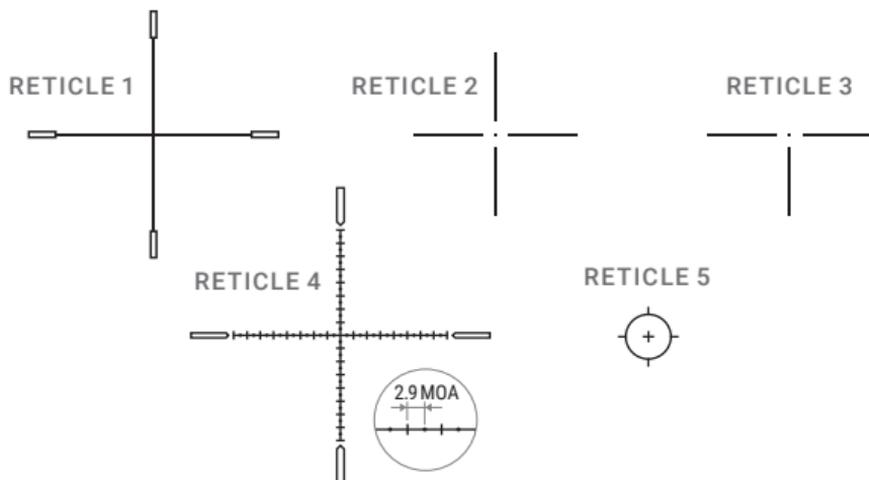


FIGURE 2-12. RETICLE PATTERNS

NOTE:

The scale intervals of the Reticle 4 changes synchronously under the current digital zoom. The value of one scale interval of the Reticle 4 is 0.84 mil / 2.9 MOA.

5. Set reticle color:

- 1) Rotate the wheel to select **Color**.
- 2) Press the wheel button  to switch the color of the reticle. You can choose from eight reticle colors: White, Grey, Black, Red, Green, Yellow, Blue, Orange.

6. (Optional) Repeat 3 to 6 to set type and color for other reticles in this profile.

NOTE

When you switch the Zeroing number, a prompt will appear on the interface. Select OK to save the parameters for the current zeroing.

7. Hold the wheel button  to exit the interface according to the prompt:
- **OK:** Save the parameter and exit.
 - **Cancel:** Exit and not save the parameter.

NOTE

- There are 5 reticles that can be configured in a zeroing profile.
- If the PIP function is enabled, the aimed target can be magnified on the interface.

2.2.10 ZEROING

Zeroing (correcting the reticle) can help you aim at the target with high accuracy. The rifle scope has the ability to boresighting using the “One-Shot Zeroing” method.

Set the target to the selected zeroing distance. Select the Zeroing Profile in the menu of the scope. Align the reticle with the center of the target and shoot. If the point of impact does not coincide with the aiming point, correct the reticle.

1. In the view mode, hold the wheel button  to show the menu.
2. Rotate the wheel to select  **RETICLE** menu item and press the wheel button  to enter the Reticle setting interface.
3. Select **Zeroing** and press the wheel button  to select a Zeroing Number you want to correct.



FIGURE 2-13. ZEROING

4. Set the distance to the target:
 - 1) Rotate the wheel to select **Distance**.
 - 2) Press the wheel button  to select the number you want to change.
 - 3) Rotate the wheel to change the number.
5. (Optional) Rotate the wheel to select **Freeze**, and press the wheel button  to enable the function.

NOTE

When enabling the freeze function, you can adjust the position of the cursor on a frozen image. This function can prevent image flutter.

- Reference small crosshair will appear in the centre of the display. Zero the scope by moving the reticle on the screen. Set the reticle position:
 - Aim the big reticle at the target.
 - (Optional) Rotate the wheel to select **Zoom**, and press the wheel button  to switch the zoom ratio.
 - Rotate the wheel to select the coordinates, and press the wheel button  to switch the X and Y axis.
 - Holding the reference small crosshair at the aiming point (center of the target), rotate the wheel to move the reticle until it is aligned with the point of impact.
- (Optional) Repeat 3 to 6 to set the position for other reticles in this profile.

NOTE

When you switch the Zeroing number, a prompt will appear on the interface. Select OK to save the parameters for the current Zeroing.

- Hold the wheel button  to exit the interface according to the prompt:
 - OK:** Save the parameter and exit.
 - Cancel:** Exit but not save the parameters.

TABLE 2-5. BORESIGHT CORRECTIONS

ADJUSTMENT VALUE	RETICLE OFFSET	BORESIGHT INCREMENT
1 click	1 pixel	0.1 mil / 0.36 MOA / 1 cm at 100 m distance / 0.4 in at 100 yd distance

2.2.11 SHOT ACTIVATED RECORDING (SAR)

After enabling SAR function and select the prerecording time, the device can automatically start recording the 7, 10 or 15 seconds before the recoil-activation and end recording the 7, 10 or 15 seconds after the recoil-activation.

- In the main live view, hold the wheel button  to show the menu.

2. Rotate the wheel to select  **PRERECORD** menu item.
3. Press the wheel button  to switch the prerecording time. 7s, 10s, 15s, and OFF are selectable.
4. Turn the wheel to move to another menu item or hold the wheel button  to exit a menu.

NOTE:

If you activate recoils continuously, the device will record the 7 seconds before the first recoil until the 7 seconds after the last recoil.

2.2.12 AUDIO RECORDING

The Audio function allows you to record sound along with video. If there is too much noise when recording, this function can be disabled.

1. Hold the wheel button  to show the menu of device.
2. Rotate the wheel to select  **AUDIO** menu item and press button  to select Audio ON/OFF.
3. Turn the wheel to move to another menu item or hold the wheel button  to exit a menu.

2.2.13 OSD

You can display the information of Wi-Fi hotspot activation, current magnification, storage memory status, battery status, time and date in top of viewfinder.

1. Hold the wheel button  to show the menu.
2. Select  **OSD** menu item and press the wheel button  to enter.
3. Press the wheel button  to select the OSD, time or date. Press the wheel button  to switch on/off mode and confirm.
4. Hold the wheel button  to exit.

2.2.14 LANGUAGE SETTING

You can select different languages of user interface.

1. Hold the wheel button  to show the menu.
2. Rotate the wheel to select  **LANGUAGE** menu item and press the wheel button  to enter.
3. Rotate the wheel to select the language as required, and press the wheel button  to confirm.

2.2.15 TIME SYNCHRONIZATION

You can display the date and time on the screen. 24-hour and 12-hour time format are available.

1. Hold the wheel button  to show the menu.
2. Rotate the wheel to select  **TIME SYNC** menu item and press the wheel button  to enter.
3. Rotate the wheel to select **24-Hour Time** and press the wheel button  to switch the time format.
4. Rotate the wheel to select **Time** or **Date**. Press the wheel button  and rotate the wheel to set the time and date. Press the wheel button  again to finish the setting.
5. Hold the wheel button  to save settings and exit.

2.2.16 AUTO POWER OFF

You can set the time for the automatic shutdown of the device as required.

1. Hold the wheel button  to show the menu of device.
 2. Rotate the wheel to select  **AUTO POWER OFF** menu item and press button  to select OFF, 30 min or 45 min.
 3. Hold the wheel button  to save settings and exit.
- ### 2.2.17 Restore Device

You can reset the settings of device.

1. Hold the wheel button  to show the menu of device.
2. Select  **RESTORE** menu item and press the wheel button . The window "Initialize?" will appear.
 - **OK**: Restore the device to defaults.
 - **CANCEL**: Exit without changing the settings.

2.2.18 VERSION

1. Hold the wheel button  to show the menu of device.
2. Select  **VERSION** menu item and press the wheel button . You can view the device information such as firmware version, and serial number.
3. Turn the wheel to move to another menu item or hold the wheel button  to exit a menu.

2.2.19 RESTORE DEVICE

You can reset the settings of device.

1. Hold the wheel button  to show the menu of device.
2. Select  RESTORE menu item and press the wheel button . The window “Initialize?” will appear.
 - **OK:** Restore the device to defaults.
 - **CANCEL:** Exit without changing the settings.

2.2.20 NETWORK CONFIGURATION

Connect your phone to the Wi-Fi hotspot of the rifle scope, you can configure the parameters and realize functions of the device.

1. Hold the wheel button  to show the menu.
2. Select  NETWORK menu item and press the wheel button  to enable or disable Wi-Fi hotspot.
3. Turn the wheel to move to another menu item or hold the wheel button  to exit a menu.

Open the AGM Connect APP and connect your phone with the device (refer to Section 2.3). You can view the interface of rifle scope on your phone.

NOTE:

When the power is less than 15%, the Wi-Fi hotspot function will be turned off automatically.

2.3 CLIENT SOFTWARE INTRODUCTION

Search the AGM Connect software in App Store (iOS System) or Google Play™ (Android System) and install the application on your mobile phone. Turn on the Wi-Fi hotspot on the digital device and then connect your phone to the hotspot.

- Hotspot Name: Wlan-<Serial No.>

- Hotspot Password: Last 9 digits of Serial Number of your digital scope.

NOTE:

The device password is set by user at first activation. If the password was lost or forgotten, it can be reset. To make a reset, provide the following action:

1. Hold the wheel button  to show the menu of device.
2. Move the cursor to  menu item and press the wheel button  to restore all parameters to default settings.
1. Run the app and connect the phone or tablet with the device.
2. If the device is inactivated, set the password and activate it. If the device is activated, enter the password to add it to the app.
3. When the device is added, the live view can be seen. You can view the interface of the rifle scope on the software. User can change such image parameters as brightness, contrast, zoom, palettes directly via phone or tablet as well as record video on phone/tablet memory.

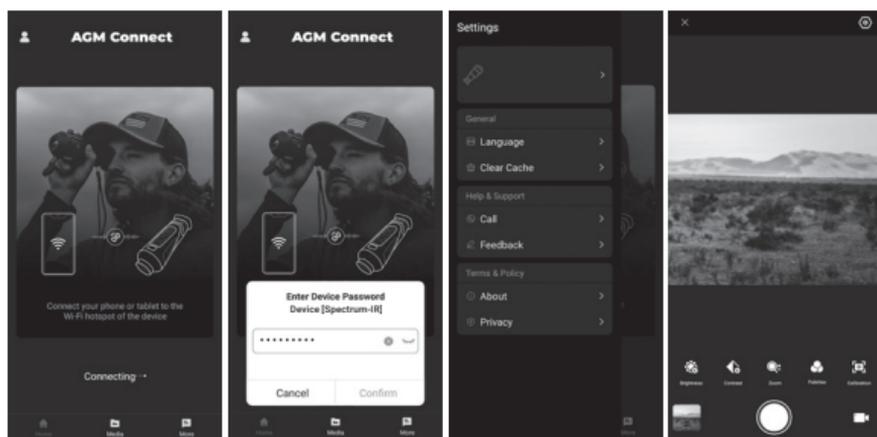


FIGURE 2-14. AGM CONNECT APP

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 rifle scope for extended storage:

1. Clean the rifle scope and accessories.
2. Place all items into the storage case.

3.1.3 UPDATING THE DEVICE FIRMWARE

1. Visit www.agmglobalvision.com/firmware website. Select your product, download the firmware update package to your PC and unzip it. Follow the detailed instructions on the website.
2. Connect the device to your PC with USB cable.
3. Turn on the device. Make sure the Wi-Fi hotspot function is disabled.
4. Open the detected disk (USB drive) in file manager program. Copy the unzipped digicap.dav file and paste it to the root directory of the device.
5. Turn off the device completely, then power it back on. After awhile, the firmware update process will start automatically. During the update, the screen will display the inscription "Upgrading...". The update process will be completed when the inscription "Upgrading..." goes out.
6. Turn off the device and disconnect it from your PC.

You can also enjoy automatic update function in AGM Connect App (see section 2.3 for details).

1. Start the AGM Connect App and tap the Settings icon in the left top corner.
2. Tap your device in the device list. The information about your device will shown.
3. Tap **Checking for Upgrade** to detect and download the latest FW version.

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 Connect's Customer Support center or your retailer.

TABLE 3-1. TROUBLESHOOTING

MALFUNCTION	CORRECTIVE ACTION
The rifle scope fails to activate.	Charge the inner battery of the scope.
The image of the rifle scope is not clear.	Perform the rifle scope adjustment referring to section 2.1.
Wi-Fi is not found.	Examine whether the Wi-Fi function is turned on. If not, go to OSD menu and turn on Wi-Fi.
Capture or recording failed.	<p>Examine the items below:</p> <ol style="list-style-type: none"> 1. Whether the device is connected to your PC and disabled the capture and recording. 2. Whether the storage space is full. 3. Whether the device is low-battery.
The PC cannot identify the rifle scope.	<p>Examine the items below:</p> <ol style="list-style-type: none"> 1. Whether the device is connected to your PC with standard USB cable. 2. If you use other USB cables, make sure the cable length is no longer than 1 m.

4 WARRANTY INFORMATION

4.1 WARRANTY INFORMATION AND REGISTRATION

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 three (3) 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:

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Tel. 928.333.4300

support@agmglobalvision.com

www.agmglobalvision.com

5 SPECIFICATIONS

5.1 RIFLE SCOPE SPECIFICATIONS

Max. Resolution	1920 × 1080
Frame Rate	50 Hz
Lens System	50 mm; F1.2
Magnification	3.5× - 14×
Field of View	7.7° × 5.8°
Display	1024×768, 0.39 inch, OLED
Focusing Range	3 m to infinity
Exit Pupil	5 mm
Eye Relief	60 mm
Diopter Adjustment	-5 to +5
Digital Zoom	1×, 2×, 4×
Boresight Increment	0.1 mil / 0.36 MOA
Image Mode	Day, Night
Image Capture	Yes (1440x1080)
Record Video	On-board video recording (1440x1080)
Shot Activated Recording	Yes
Audio Recording	Yes
Standby Mode	Yes
Storage	Built-in EMMC (64 GB)
PIP	Yes
Reticle	Yes
Freeze Zeroing	Yes
Max. Recoil	1000 g

Wi-Fi Hotspot	Yes (using AGM Connect APP)
Battery Type	Rechargeable Lithium battery (internal) and one replaceable CR123A (external)
Battery Operating Time	Up to 13 hours continuous running (@25°C, Wi-Fi off)
Battery Capacity Display	Yes
Anti-reverse Battery Connection	Yes
Overvoltage Protection	Yes
Power Supply	5 V DC/2 A, USB Type-C interface (supports QC3.0)
Operating Temperature	-30°C to 55°C / -22°F to 131°F
Protection Level	IP67
Dimensions	442 × 78 × 83 mm / 17.4 × 3.1 × 3.3 in (without mount)
Weight	1.06 kg / 2.34 lb (without mount, eyecup and CR123A)

5.2 IR ILLUMINATOR SPECIFICATIONS

Emitter	LED
IR Wave Length	850 nm
IR Optical Power	Up to 700 mW
IR Radiation Distance	Up to 200 m
Beam Angle	6° to 35°
Battery Type	One 18650 rechargeable Lithium
Battery Operating Time	Up to 5.5 hours continuous running (3350 mAh battery, @25°C)
Operating Temperature	-20°C to 50°C / -4°F to 122°F
Protection Level	IP67
Dimensions	151 × 38 × 38 mm / 5.95 × 1.5 × 1.5 in (without mount)
Weight	150 g / 0.33 lb (without mount and battery)

**All data subject to change without notice.*



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