



THERMAL  
XVT THERMAL REFLEX SIGHT  
XVTR1  
OWNER'S MANUAL



## XVT THERMAL REFLEX SIGHT OWNER'S MANUAL

Thank you for purchasing the XVT Thermal Reflex Sight. The Reflex is a multifunctional device that can be used for both day and night target observation. Its compact size and lightweight design make it easy to carry with multiple mounts. The Thermal Reflex Sight has long operation hours, good concealment, and the ability to quickly detect, recognize and identify objects or targets. The Thermal Reflex Sight is effective at close and long ranges regardless of light and harsh weather conditions, in total darkness, and through smoke, haze, fog, and dust. Please read this manual thoroughly to take full advantage of all the XVTR1 features.

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## (1) Package Contents

Thermal Reflex Sight  
CR123 Battery  
USB-C Cable

## (2) About the Thermal



### (3) Operating Procedures

#### Install Batteries

- (1) Remove the threaded battery cap in a counterclockwise direction.
- (2) Insert a CR123 battery in as positive facing inward and negative facing outward.
- (3) Tighten battery compartment clockwise
- (4) **NOTE:** The device supports CR123 batteries in both 3V and 3.7V, suggest using CR123 battery in 3.7V for better performance
- (5) **NOTE:** The device can connect to an external power supply via the USB-C cable. No need to remove the battery when connected, but a rechargeable battery will not be charged at this time.



#### Power on the Thermal

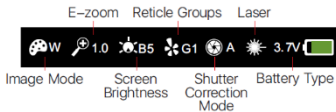
- (1) Press the power button to turn on the unit and the display screen functions will appear
- (2) Press the same button to turn off the unit

#### Status Display

- (1) When device is powered on, there is a status bar at the bottom of the screen that displays regular

functions.

- (2) Display screen functions include image mode, magnification, screen brightness, reticle group, shutter correction mode, laser enabling, battery model, and current battery status.



## Image Mode

There are five image mode types: White Hot (W)-Black Hot (B)- Red Hot (R)- Color (C)-Target Highlight(H).

## Magnification

1-4x magnification

## Screen Brightness Adjustment

Screen brightness level 1 to level 6. The selected screen brightness will be displayed on the status bar.

## Reticle Group

Reticle group: G1, G2, G3 and G4. The selected group will be displayed on the status bar.

## Shutter Correction

There are two shutter correction options: Manual (M) or Automatic (A).

## Laser On/Off

Pushing the joystick downward to turn the laser indicator on/off. A red circular icon "O" will appear in the screen when the laser is turned on.

## **Battery Mode**

There are two battery type options: 3V or 3.7V

## **(4) Display Information**

### **Navigation Menu**

- (1) Short Press joystick for navigation menu 1
- (2) Short press joystick again for navigation menu 2
- (3) Short press again to exit navigation menu options

### **Display Screen**

#### **Screen Brightness Adjustment**

- (1) In the normal mode interface, push the joystick left to adjust screen brightness from levels B6, B5, B4, B3, B2, and B1.
- (2) Continue pushing the joystick to return to B6.

#### **Magnification Adjustment**

- (1) In the normal mode interface, push the joystick upward to increase and decrease magnification 1 to 4 times.

#### **Display Off**

- (1) In the normal mode interface, push the joystick rightward for display off. Repeat to activate the screen.

## **Shutter Correction**

- (1) In the normal mode interface, push the joystick downward for shutter correction.

## **Blind Pixel Calibration**

- (1) Press the middle part of the joystick for 3 seconds in the home screen to enter the pixel calibration interface
- (2) Short or long press the joystick in four directions (up, down, left, right) to move the cursor to the position of the blind pixel
- (3) Press the middle button briefly to finish calibration accompanied by a sound of shutter correction and long press to save and exit.

## **Navigation Menu 1**

- (1) In the normal mode interface, press the joystick briefly to access the Navigation Menu 1, press again to access Navigation Menu 2 -and press again to exit the Navigation Menu.
- (2) When accessing the Navigation Menu 1, four-function icons will appear in the four directions of "top, bottom, left and right" on the screen, which corresponding to the "top, bottom, left, right" keys of the joystick.
- (3) In the Navigation Menu 1 interface, there are four functions: image mode, laser state, shutter correction mode and battery type.

## Image Mode

- (1) There are five image mode types: White Hot (W)- Black Hot (B)- Red Hot (R)- Color (C)-Target Highlight(H).
- (2) Push the joystick in the center to activate the navigation menu 1 then press the joystick upward to switch the image mode.
- (3) The selected mode will display at the bottom of the screen.
- (4) Once the image mode is selected, short press joystick twice in the center to exit navigation menus and return to home screen.

## Laser On/Off & Position Adjustment

- (1) Pushing the joystick downward to turn the laser indicator on/off. And a red circular icon "O" will appear in the screen when the laser is turned on.
- (2) Turn the laser on in the Navigation Menu 1, then push the joystick downward for 3s to enter the laser position adjustment interface with the laser icon flashing.
- (3) Position movement can be achieved by pushing the joystick up, down, left and right. When the adjustment is done, press and hold the joystick to save and exit.
- (4) **NOTE:** The laser function depends on the legal restrictions of different countries and regions.



## Shutter Correction Mode

- (1) Push the joystick leftward to switch the correction mode: Manual (M) or Automatic (A) with the icon shown on the status bar.

## Battery Type Mode

- (1) Push the joystick rightward to switch battery type: 3V or 3.7V with the icon shown on the status bar.

## Navigation Menu 2

- (1) In the Navigation Menu 2 interface, the reticle functions can be set: reticle color, reticle pattern, reticle profile, and the reticle position adjustment.
- (2) **NOTE:** The reticle related functions (such as the navigation menu 2) are hidden by factory default. When using the device for the first time, push the joystick in the following order to activate the reticle and related functions: down-up-down-up-left-left.

## Reticle Color

- (1) Pushing the joystick upward to switch following four reticle colors: white-black-red-green.

## Reticle Pattern

- (1) Pushing the joystick downward to switch four reticle patterns which are crossing, T shape, box, and red dot and none.

## Reticle Group

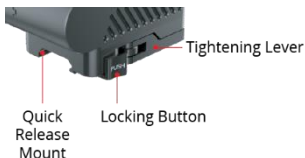
- (1) Up to four groups of reticle calibration data can be stored. Push the joystick leftward to switch the reticle group between G1, G2, G3 and G4. The selected group will be displayed on the status bar at the display bottom.

## Reticle Position Adjustment

- (1) Pushing the joystick rightward to enter the reticle adjustment interface.
- (2) Adjust the reticle position by pushing the joystick up, down, left, or right.
- (3) When the adjustment is done, long press the middle part of the joystick until the message "OK" appears
- (4) When "OK" appears, the current reticle position has been saved in the current reticle group  
You can reset each reticle group under the reticle position adjustment setting

## (5) Mounting Information

- (1) Push locking button in
- (2) Flip open the tightening lever
- (3) When tightening lever is flipped open, adjust the screen cap to desired tightness. 1-2 clicks should



secure thermal to mount.

- (4) Mount the device onto the proper position of the picatinny rail (or handle) and push tightening lever in to lock and secure
- (5) Turn Screw Cap clockwise to tighten the clamping plate
- (6) Turn Screw Cap counterclockwise to loosen the clamping plate



**NOTE:** The bottom of the device has a picatinny quick release mount

**NOTE:** The device can either be mounted on the Picatinny rail by the fixture or be assembled to the matching handle (purchased separately).

**NOTE:** A single detachable 18650 battery can be connected as an external power supply.

## (6) Troubleshooting

### Reset to Factory Settings

- (1) In the home screen, push the joystick in the following directions: up-down-up-down-left-left to enter the factory reset interface
- (2) The firmware version appears on the bottom right (W 1.0 B5 G1) corner of the screen.
- (3) Push the joystick upward / downward to select ✓ or X, and short press the middle button to confirm selection.

## (7) Safety Warnings

The product implements a laser beam. Please pay attention to the following:

- Do not point the laser at the eyes
- Do not point the laser at people
- Do not look into the laser with optical devices
- Do not disassemble, alter, or repair the device yourself
- The laser can be hazardous to your health
- The product has been tested to meet the following standards: **LASER RADIATION, AVOID DIRECT EYE EXPOSURE, CLASS 3R LASER PRODUCT**
- The wavelength of the laser is 635 nm.
- The maximum power is  $< 5\text{mW}$ .

## (8) FCC Statement

### Labeling requirements

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, and (2) this device must accept any interference received, including interference that may cause undesired operation.

## **Information to user**

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

## **Information to the user**

**Note:** This equipment 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 equipment 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 equipment 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

## **Body Operation**

This device was tested for typical body-support operations. To comply with RF exposure requirements, a minimum separation distance of 0.5cm must be maintained between the user's body and the handset, including the antenna. Third-party belt-clips, holsters, and similar accessories used by this device should not contain any metallic components. Body accessories that do not meet these requirements may not comply with RF exposure requirements and should be avoided. Use only the supplied or an approved antenna

## (9) Specifications

- **Magnification:** 1-4x
- **Resolution:** 320 x 280
- **Pixel Size:** 17 $\mu$ m
- **Frame Rate:** 25Hz
- **Objective Lens:** 13 mm
- **Field of View:** 23.6°x20.7°
- **Detection Range:** (target size: 1.7m x .5m, P(n)=99%)  
520 yd / 476 m
- **NETD:**  $\leq$ 40mk
- **Display:** 1.63" AMOLED
- **Laser:** 650nm
- **Reticle:** Multiple patterns and color options
- **Display Screen:** Color AMOLED
- **Power Supply:** CR123 (qty. 1)
- **Max. Battery Life:** 3.5 hours
- **IP Rating:** IP67
- **Dimension:** 2.3 in x 3.17 in x 2.9 in / 58.5mm x 80.5 mm x 74.5 mm
- **Weight:** 0.55lb / 250g
- **Mount:** Quick Release Mount



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