

Operation Instructions for The Monocular Outdoor Thermal Imaging Telescope



ETI-50 Series

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-Important Note-

Thank you for purchasing this product, please read this manual before use, and please collect it carefully for future reference.

We hope that this product will meet your expectations.

This manual is a general manual for a series of products, which means that your specific type of product may differ from the manual picture, as received.

This user manual is organized for the convenience of users use and understanding of our products.

We will try our best to ensure the accuracy of this manual, but still can not guarantee the completeness of the contents of this manual.

Because our products are constantly being updated and upgraded, the company reserves the right to modify them at any time without notice.

–Matters Need Attention–

(1) Please do not disassemble the machine by yourself. This may cause damage to the equipment and loss of warranty rights;

(2) Do not point the device directly at high-intensity heat radiation sources, such as the sun, laser Optical device, spot welding machine, etc., otherwise the infrared detector of the thermal imager may be damaged or permanently damaged;

(3) When the thermal imager is not used for a long time, the battery should be removed from the battery compartment during storage. And store the thermal imager in a dry and ventilated environment.

(4) Do not attempt to open or disassemble the battery. Once the battery leaks and the liquid If the product enters the human eye, the eyes should be rinsed with clean water immediately and medical care should be provided.

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(5) Do not charge the battery in an environment above 40°C, and do not expose the battery to The positive and negative terminals are short circuited.

(6) Do not use the device in an environment that exceeds the operating or storage temperature allowed by the device. use or store instruments;

(7) For users who use this product due to their own reasons and third parties Errors and accidents caused by reasons or misjudgment of images resulting in property and Our company does not assume any legal liability for personal injury.



Product button description of ranging version

| key | Short press | Long press |
|-----|---|---------------------------------------|
| | / | Turn on / off |
| | Laser indicator switch / left selection (in menu mode) | Pseudo-color regulation |
| | Laser ranging switch / ballistic calculation off / Right selection (in menu mode) | Electron double |
| | Ballistic calculation is open (real-time image interface) / confirmation (in menu mode) | Call Out Menu / Return (in menu mode) |
| | Refresh the block | Call out meters / hidden meters |

–Range version menu function description–

Enter the menu interface by long pressing M. In the menu interface, single-click the left key/right key to navigate through the menu. Switch between:

brightness

Single-click the M key to select the brightness menu, and adjust it with the single-click left/right key. There are 1–9 levels in total.

Adjust, used to adjust the brightness of the imaging screen. After the adjustment is completed, press and hold M to save and return to the previous level.

Contrast

Single-click the M key to select the contrast menu, and adjust it with the single-click left/right key, totaling 1–9 Levels are adjustable, used to adjust the brightness of the imaging screen. After the adjustment is completed, press and hold M to save and return to the previous level.

False color

Single-click the M key to select the pseudo-color menu, and use the single-click left/right key to adjust, in order: Fusion Close, red heat, white heat, black heat. After the adjustment is completed, press and hold M to save and return to the previous level.

Ranging Calibration

Single-click the M key to select to enter the distance measurement calibration menu. Single-click the M key again to switch to select X/Y. After X/Y, you can precisely adjust the Press and hold the left key/right key once to quickly adjust the X/Y position with 15 values for adjusting the laser pointer position. After the adjustment is completed, press and hold M to save and return to the previous level.

Display Mode

After selecting the single-point M key, use the single-point left key/right key to adjust, in order: user mode, Plain mode, dense forest mode, heat source prominence mode, search mode, after the adjustment is completed, press and hold M to save and Return to previous level.

Smart shot meter

After single-clicking the M key to select it, click M again to select Yes/No to freeze the calibration. You can select it according to your needs. Please select whether to freeze the screen by single-clicking the left/right key. After selecting Yes/No, click M to enter the smart mode. Energy meter submenu, the switching of the submenu can be achieved by single-clicking the M key:

Type: The type of shot meter can be adjusted by pressing the single-point left/right key. There are 5 types to choose from;

Zoom: Electronic zoom can be performed through the single-point left/right key, with $\times 1$, $\times 2$, $\times 4$, and $\times 8$ available;

X: The X-axis position can be accurately adjusted by pressing the left/right key 1 value at a time, or the X-axis position can be quickly adjusted by pressing the left/right key 15 values at a time;

Y: The Y-axis position can be accurately adjusted by pressing the left/right key 1 value at a time, or the Y-axis position can be quickly adjusted by pressing the left/right key 15 values at a time;

Color: The color of the radiator can be adjusted by pressing the single-click left/right button, with black/white options available;

Ballistic calibration: It is divided into two types: conventional and intelligent. Both conventional and intelligent ballistic calibration values need to be set according to your actual situation.

When both have set values, the intelligent calibration will be given priority and the location of the landing point will be given.

Set After completion, long press the M key to save and return to the previous menu.

After single-clicking M on the main interface to turn on the smart drop point, the ranging function will be turned on simultaneously.

Aim the ranging frame at the target and single-click the M key again.

Distance information collection, synchronization will be in Y The axis calculates and displays the landing point position corresponding to the distance.

If you change the target and perform the same operation again, the landing point position corresponding to the new target distance will be calculated and displayed again on the Y axis.

After this function is used, the single point will point to the right. key or long press the M key to turn off the intelligent drop point function, which will turn off the laser ranging simultaneously;

General: By setting a distance value and a corresponding Y value as a group, for example, a distance of 20 meters corresponds to a Y value of 5, a distance of 60 meters corresponds to a Y value of 20, and a distance of 100 meters corresponds to a Y value of 60.

Set three groups of data. The more values, the more accurate the landing point. Up to 20 groups can be set.

After the setting is completed, when the smart landing point is turned on, the landing point will be given by matching the corresponding Y value based on the collected distance information.

For example, we If the ranging distance value is 30, the Y value of the nearest landing point is 5. For example, if our ranging distance value is 70, the Y value of the nearest landing point is 20;

Intelligent: Automatically generate a drop point parabola by setting three sets of distance values and corresponding Y values.

For example, set the starting point with a distance of 10, and the Y value of the distance is 0, and then still use a distance of 20 meters corresponding to a Y value of 5 and a distance of 60 meters.

The corresponding Y value is 20, the distance is 100 meters, the corresponding Y value is 60. Set three sets of data.

After the setting is completed, it will be automatically generated. The distance value and the complete parabola of the Y-axis landing point.

When the smart landing point is turned on, the corresponding Y value will be calculated based on the collected distance information to give the landing point, which is more intelligent and accurate;

video output

After selecting the single-point M key, use the single-point left/right key to adjust. There is an option to turn on/off.

Mainly used for video output when an external screen is connected; after the adjustment is completed, press and hold M to save and return to the previous level;

Correction refresh

After selecting the single-point M key, use the single-point left/right key to adjust. There is an option to turn on/off.

Used to control the automatic refresh of the shutter, whether this setting is on/off, in the real-time menu interface You can refresh the shutter by clicking the C key. After the adjustment is completed, press and hold M to save and return to the previous level;

picture within picture

After selecting the single-point M key, use the single-point left/right key to adjust. There are options for turning on and off.

The center area of the cross can be enlarged and displayed in the upper right corner. After the adjustment is completed, press and hold M to save and return to the previous level;

Zoom

After selecting the single-point M key, use the single-point left/right key to adjust, including $\times 1$, $\times 2$, $\times 4$, $\times 8$

Available for selection. After the adjustment is completed, press and hold M to save and return to the previous level; the real-time imaging main interface can be accessed through

Long press the right button to adjust;

Hotspot

After selecting the single-point M key, use the single-point left/right key to adjust. There are options for turning on and off. The high temperature point can be tracked and displayed on the screen. After the adjustment is completed, press and hold M to save and return to the previous level;

Remove bad pixels

Single-click the M key to select and then click the M key again to enter the submenu. Switching between submenus is achieved by single-clicking the M key. Use the single-click left/right key to adjust the X/Y position to select the bad pixel. After selecting the bad pixel Single-click the C key to remove bad pixels. The magnified display of the bad pixels and the submenu position are divided into upper and lower positions for selection. After removing the bad pixels, long press the C key to save and exit;

Factory reset

Single-click the M key to select and select Yes/No by single-clicking the left/right key. After the selection is completed, single-click the M key to confirm. All settings can be restored to the factory state. After the adjustment is completed, press and hold M to save and return to the previous level;

language

After selecting the single-click M key, use the single-click left/right key to adjust. There are two languages Chinese/English to choose from. After the adjustment is completed, press and hold M to save and return to the previous level;

sharpness

After selecting the single-point M key, use the single-point left/right key to adjust. There are a total of 0-7 levels to choose from, which can adjust the image target edge sharpness. After the adjustment is completed, press and hold M to save and return to the previous level;

–Non–range version menu function description–

Enter the menu interface by long pressing the M key. In the menu interface, single-click the left key/right key to switch between menus:

Brightness

Single-click the M key to select the brightness menu, and adjust it through the single-click left/right key. There are 1–9 levels of adjustment, which are used to adjust the brightness of the imaging screen. After the adjustment is completed, press and hold M to save and return to the previous level.

Contrast

Single-click the M key to select the contrast menu, and adjust it through the single-click left/right key. There are 1–9 levels of adjustment, which are used to adjust the brightness of the imaging screen. After the adjustment is completed, press and hold M to save and return to the previous level.

False color

Single-click the M key to select the pseudo-color menu, and use the single-click left/right key to adjust, in order: fusion, red heat, white heat, black heat. After the adjustment is completed, press and hold M to save and return to the previous level; real-time imaging The main interface can be adjusted by pressing the single-click left button.

Display mode

After selecting the single-point M key, use the single-click left/right key to adjust. The order is: user mode, plain mode, dense forest mode, heat source protrusion mode, search mode. After the adjustment is completed, press and hold M to save and return to the previous level.

Smart shot meter

After single-clicking the M key to select, click M again to select Yes/No to freeze calibration. You can select whether to freeze the screen by single-clicking the left/right key according to your own needs. After selecting Yes/No, click M to enter the smart meter. Menu and submenu can be switched and selected by pressing the M key.

Type: The type of shot meter can be adjusted by pressing the single-point left/right key. There are 5 types to choose from;

Zoom: Electronic zoom can be performed through the single-point left/right key, with $\times 1$, $\times 2$, $\times 4$, and $\times 8$ available;

X: The X-axis position can be accurately adjusted by pressing the left/right key 1 value at a time, or the X-axis position can be quickly adjusted by pressing the left/right key 15 values at a time;

Y: The Y-axis position can be accurately adjusted by pressing the left/right key 1 value at a time, or the Y-axis position can be quickly adjusted by pressing the left/right key 15 values at a time;

Color: The color of the radiator can be adjusted by pressing the single-click left/right button, with black/white options available;

video output

After selecting the single-point M key, use the single-point left/right key to adjust. There is an on/off option, which is mainly used for video output when an external screen is connected. After the adjustment is completed, press and hold M to save and return to the previous level;

Correction refresh

After selecting the single-point M key, adjust it through the single-point left/right key. There is an option of opening/closing, which is used to control the automatic refresh of the shutter. This setting can be passed in the real-time menu interface regardless of whether it is in the open/closed state. Single-click the C key to refresh the shutter. After the adjustment is completed, press and hold M to save and return to the previous level;

picture within picture

After selecting the single-point M key, use the single-point left/right key to adjust. There are options for turning on and off. The center area of the cross can be enlarged and displayed in the upper right corner. After the adjustment is completed, press and hold M to save and return to the previous level;

Zoom

After selecting the single-point M key, use the single-point left/right key to adjust. There are $\times 1$, $\times 2$, $\times 4$, and $\times 8$ to choose from. After the adjustment is completed, press and hold M to save and return to the previous level; real-time imaging main interface, which can be adjusted by pressing the single-point right button;

Hotspot

After selecting the single-point M key, use the single-point left/right key to adjust. There are options for turning on and off, and the high temperature point can be tracked and displayed on the screen. After the adjustment is completed, press and hold M to save and return to the previous level;

Remove bad pixels

Single-click the M key to select and then click the M key again to enter the submenu. Switching between submenus is achieved by single-clicking the M key. Use the single-click left/right key to adjust the X/Y position to select the bad pixel. After selecting the bad pixel Single-click the C key to remove bad pixels. The magnified display of the bad pixels and the submenu position are divided into upper and lower positions for selection. After removing the bad pixels, long press the C key to save and exit;

Factory reset

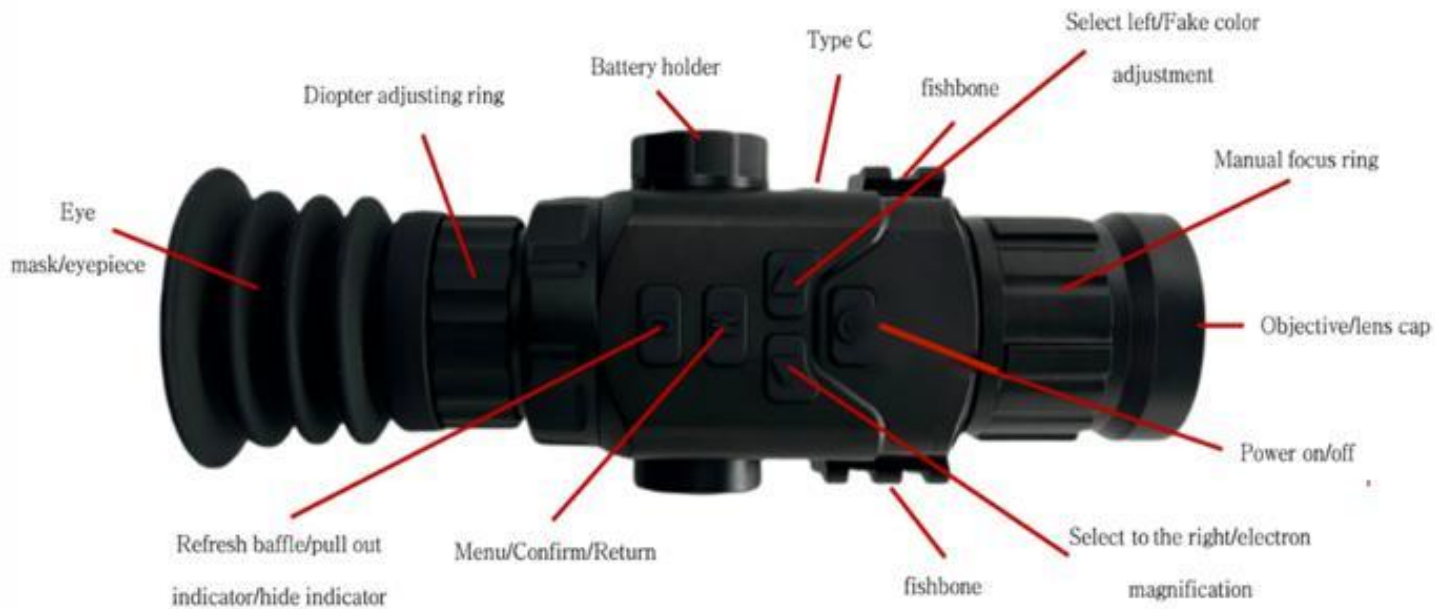
Single-click the M key to select and select Yes/No by single-clicking the left/right key. After the selection is completed, single-click the M key to confirm. All settings can be restored to the factory state. After the adjustment is completed, press and hold M to save and return to the previous level;

language






After selecting the single-click M key, use the single-click left/right key to adjust. There are two languages Chinese/English to choose from. After the adjustment is completed, press and hold M to save and return to the previous level;

Sharpness

After selecting the single-point M key, use the single-point left/right key to adjust. There are a total of 0-7 levels to choose from. Adjust the image target edge sharpness. After the adjustment is completed, press and hold M to save and return to the previous level;



Instructions for product buttons of non-ranging version

| key | Short press | Long press |
|---|--|---------------------------------|
|  | / | Power-on / off |
|  | Pseudocolor adjustment / left selection (in menu mode) | / |
|  | Electronic zoom / right selection (in menu mode) | / |
|  | Menu / Confirm | Return (in menu mode) |
|  | Refresh the block | Call out meters / hidden meters |

| Product Model | ETI-50 | ETI-50 LRF | ETI-56 LRF |
|-----------------------------------|--|------------------|--------------|
| Detector | | | |
| DetectorType | Vanadium Oxide uncooled detector | | |
| Response band | 8~14 μ m | | |
| NETD | <35mk(@25° °C,F#=1.0) | | |
| Infrared resolution | 384 × 288@12 μ m | 640 × 512@12 μ m | |
| Frame frequency | 50fps | | |
| Lens | | | |
| Focal length | 50mm | 50mm | 50mm |
| Field Angle | 5.3° × 4.0° | 5.3° × 4.0° | 10.8° × 8.1° |
| Base multiple | 4X | 4X | 2.8X |
| Focusing | Manual Focus | | |
| Display system | | | |
| Display Screen | Color 0.39" OLED screen, 1024 × 768 | | |
| Video output | CVBS The CVBS format support external videos | | |
| Image function | | | |
| Correction mode | Background correction | | |
| Non-uniformity | Shutter calibration technique | | |
| Brightness/Contrast | Support adjustment, level 1 to 5 adjustable | | |
| AGC Mode | automatic | | |
| Noise reduction | Support | | |
| Electron amplification | × 1, × 2, × 4, × 8 | | |
| Pseudo-color mode | Black heat, white heat, red heat, fusion | | |
| Bad spot repair | Support | | |
| Video output interface | Type-C | | |
| Startup speed | <5S | | |
| Parameter saving | Support | | |
| Cross cursor | 5 kinds | | |
| Menu | Support | | |
| Power Supply | | | |
| Battery Type | Rechargeable lithium-ion battery (18500 × 1) | | |
| Working Time | The continuous working time of single battery is more than 8 hours, and the battery can be replaced | | |
| Environmental adaptability | | | |
| Operating temperature | -40°C ~ 60°C, <90%RH | | |
| Dust/water proof | IP67 | | |
| Physical characteristics | | | |
| Weight | ≤ 450g | | |
| Dimensions | 180mm × 65mm × 53mm | | |
| Standard configuration | Host × 1 Picatinin rail × 1 Portable bag × 1 Charger × 1 18500 Battery × 2 Specification × 1 Warranty card × 1 | | |
| Packaging content | | | |
| Reference object | ETI-50 | ETI-50 LRF | ETI-56 LRF |
| People | R: 1900m | | R: 3800m |
| Pig/Deer | R: 1672m | | R: 3344m |
| Rabbit | R: 487m | | R: 974m |
| Chickens | R: 356m | | R: 712m |
| Sparrows | R: 195m | | R: 390m |



ABOUT US

ABOUT US

EVER VIEW



When it comes to quality, we ensure that every product meets the highest standards so that every customer can experience our commitment to excellence. When facing customers, we always put their needs and satisfaction first and provide a service experience that exceeds expectations.

Our Mission

Customer first, excellent quality



Become the world's leading technical solution provider in the field of night vision and thermal imaging, lead the future with innovation, become a model of sustainable development in the industry, and promote industry progress.

Our Vision

Innovation driven, sustainable development



We adhere to the principles of honesty and transparency, make products serve customers, give back to customers with quality, continue to innovate, and promote technological development.

Our Values

Integrity, responsibility, win-win, enterprising



Customer first, excellent quality, innovation-driven, sustainable development, integrity, responsibility, win-win, enterprising.

Working Hours

Monday - Friday 7/24 Hours

Saturday 09:00 - 18:00

Sunday 09:00 - 18:00

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Our Gallery

