



TAC Series

Quick Start Guide



For detailed information about the device, please download the complete user manual:

https://http://www.kingnighteyes.com/Download/list_lcid_3.html

Attention!

Product in this document subject to update without notice.

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RoHS

TAC Series

Quick Start Guide

TAC Series

Thermal Imaging

1-17

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Packaging List

·TAC series Monocular Thermal Imager	·Type-C USB Data Cable
·Thermal Scope Clamp (including screws)	·Lens Cleaning Cloth
·Hex Wrench	·Thermal sight eyecup
·18650 Rechargeable Lithium Battery×2	·Handheld eyecup
·Dual Battery Charger	·Clip-on eyecup (optional)
	·Lens Cleaning Cloth
	·Quick Start Guide
	·Warranty Card

Components and Button Operations

- 1.Objective Lens Cover
- 2.Eyepiece Focus Ring
- 3.Laser Window
- 4.Battery Compartment Cover
- 5.Battery Compartment Anti-loss Strap
- 6.Photo /Record Button
- 7.Laser/Shutter Button
- 8.Power Button

9.Menu Button

10.Nameplate

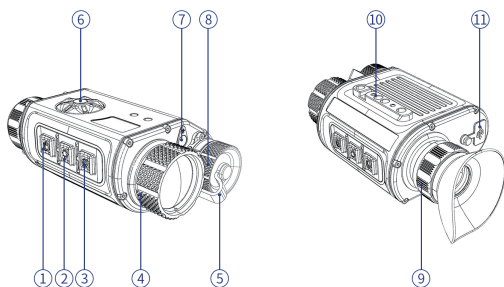
11.Non-slip Hand Glue

12.Type-C Interface

13.Eyepiece focusing ring

14.Eyecup

15.Mounting interface



Device Charging

The TAC series is equipped with 18650 rechargeable lithium batteries. The battery has remaining battery capacity before leaving the factory. It is recommended that the device be charged before first use. Please use a power adapter with an input of AC 110V-240V, output of 5V = 2A, and connect it to the device's Type-C port using the Type-C USB data cable for charging.

·When the device is charging, the charging indicator light will turn red and remain on. Once charging is complete, the charging indicator light will turn off. After charging is complete, please remove the battery from the charger to avoid overcharging.

Notice: If the user does not plan to use this product in the short term, ensure the battery is charged to at least 75% to prolong its lifespan.

Operation Instructions

·Long press the power button 8 for 3 seconds to start the device. After starting, open the objective lens cover 1.

·Rotate the diopter adjustment knob (13) until the text on the display appears clear. For the same user, there is no need to adjust the diopter when used again.

·Rotate the focus ring of the objective lens 2 to adjust the focal length and focus on the object to be observed.

·Short press the menu button(9) to switch the color. Short press the photo/record button (6) to take a picture, Long press the photo/record button (6) to record. Short press the laser/ shutter button (7) to refresh the shutter, and long press the laser/ shutter button (7) to turn on/off the laser.

·Long press the menu button (9) to open the main menu, rotate the menu button(9) to switch to the corresponding menu.

Short press the menu button again (9) to cycle through options brightness, contrast, scene mode, WIFI, video output, Auto flip, PIP, reticle settings, Clip-on mode, and strong light protection. Then long press the menu button(9) to the main screen.

·Long press the power button (3) for 2 seconds. When the shutdown countdown appears on the screen, the device will power off.

Handheld

·Unscrew the battery compartment cover (8) on the device. Install the 18650 battery into the battery compartment with the positive terminal facing downward. Tighten the battery compartment cover (8).

·For handheld, it can be used directly after installing the battery. The factory default is handheld use.

Head-mounted

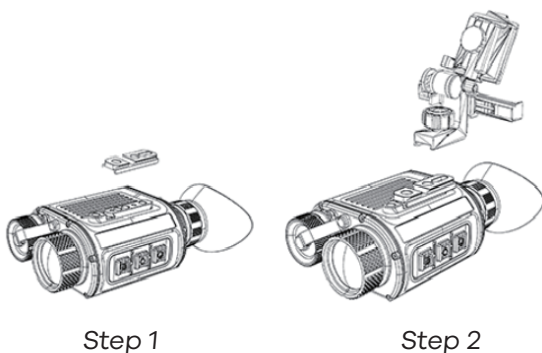
·Unscrew the battery compartment cover (8) on the device. Install the 18650 battery into the battery compartment with the positive terminal facing downward. Tighten the battery compartment cover (8).

When using the head-mounted mode after installing the battery, user need to install the adapter bracket (optional). The installation steps are as follows:

1.Take out the helmet adapter accessory and the head-mounted adapter bracket. Attach the helmet adapter accessory to the corresponding installation position at the bottom of the device. Insert the screw into the central screw hole of the installation interface and tighten

2.Connect it to the head-mounted adapter bracket.

Note: When using the head-mounted mode, ensure that the display interface is set to flip mode in the operation menu.



Integrated Thermal Scope

·Unscrew the battery compartment cover (8) on the device. Install the 18650 battery into the battery compartment with the positive terminal facing downward. Tighten the battery compartment cover (8).

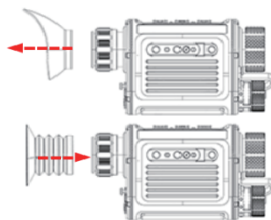
After installing the battery, attach the Picatinny rail adapter mount to the device, then mount the device onto the Picatinny rail. Follow these steps:

1. Take out the adapter mount and secure it using two M5 screws in the two screw holes on the outer side of the device's installation interface.
2. Remove the handheld thermal imaging eyecup and replace it with the thermal scope eyecup. Install the new eyecup onto the eyepiece diopter adjustment ring.

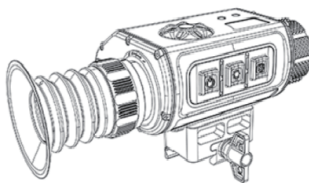
Note: When removing the handheld thermal imaging eyecup, hold it firmly at the base near the eyepiece. Pulling directly on the outer part of the eyecup may damage it.



Step 1



Step 2



Step 3

Clip-on thermal sights

When using the device as a clip-on thermal sight, install the battery first and then mount the device in front of the optical sight. Follow these steps:

1.Remove the handheld thermal imaging eyecup and replace it with the thermal scope eyecup. Attach the new eyecup to the eyepiece adjustment ring.

2.Mount the device with the Picatinny rail onto a suitable position in front of the optical sight's objective lens. Complete the installation.

Note: When removing the handheld thermal imaging eyecup, hold it firmly at the base near the eyepiece and pull it out. Pulling directly on the outer part of the eyecup may cause damage. The recommended magnification for the optical sight used with the clip-on is 1x to 9x.



Clip-On Mode Operation

Long press the power button (⑧) for 3 seconds to turn on the device.

Once started, open the objective lens cover (①).

Rotate the diopter adjustment knob (⑧) until the text on the display appears clear. For the same user, there is no need to adjust the diopter when used again.

Rotate the objective lens focusing ring (②) to adjust the focus on the observed object.

Short press the menu button (⑨) to switch color mode;

Short press the photo /record button (⑥) to take a photo;

Long press the photo /record button (⑥) to record videos.

Short press the laser/ shutter button (⑦) to calibrate shutter: .

Long press the laser /shutter button (⑦) to enable/disable Laser.

Long press the menu button (⑨) to open the main menu. Rotate the menu button (⑨) to navigate through the menu options. Short press the menu button (⑨) to adjust settings such as: clip-on mode settings, brightness, Wi-Fi, zeroing screen adjustments in clip-on mode. After completing the adjustments, long press the menu button (⑨) to return to the main interface.

Long press the power button (⑧) for 2 seconds. The device will shut down after the power-off countdown appears on the screen.

Function of the Button

Button	Current operating mode	Short Press	Long Press	Rotate
Power Button	Any Status	/	Power On/Off	
Menu Button	Main Interface State	Switch color mode	Open Main Menu	Zoom in/ Zoom out
	Main Menu Interface	Cycle Through Current Menu Options	Exit Main Menu	Switch menu options
	Clip-on mode	Cycle Through Current Menu Options	Open/Exit Main Menu	Switch menu options
Laser/ Shutter Button	Any Status	Shutter calibration	Turn the laser on/off	/
Photo/ Record Button	Any Status	Take a photo	Start/Stop Recording	/

Technical specification parameter

Model	TH16	TH27	TQ27
Detector Specifications			
Detector Type	Vox	Vox	Vox
Resolution, Pixel	384×288	384×288	640×512
Pixel Size, μm	12μm	12μm	12μm
NETD, mK	≤25mk	≤25mk	≤25mk
Frame Rate, Hz	50Hz	50Hz	50Hz

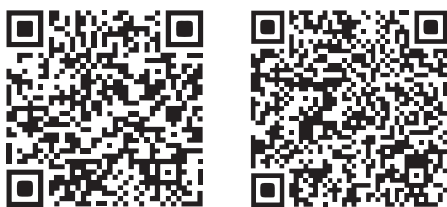
Optical Characteristics			
Objective lens, mm	16mm	27mm	27mm
Magnification, x	1x	1.7x	1x
Digital zoom, x	1x, 2x, 4x	1x, 2x, 4x, 8x	1x, 2x, 4x, 8x
Min Focus Distance, M/Y	5m/5.468yd	5m/5.468yd	5m/5.468yd
Exit pupil distance, mm	20 mm	20 mm	20 mm
Exit pupil Diameter, mm	12 mm	12 mm	12 mm
Field of View (H × V),degree	16.3°x12.3°	9.8°x7.4°	16.3°x12.3°
Diopter, D	-5D~+2D	-5D~+2D	-5D~+2D
Detection Range, m (Target size: 1.7m×0.5m)	907m	1530m	1530m
Detacrction range (Vehicle)	1227m	2070m	2070m
Electrical Characteristics			
Display Type	OLED	OLED	OLED
Resolution, pixels	1024×768	1024×768	1024×768
WiFi Frequency,GHz	2.4GHz	2.4GHz	2.4GHz
Video/Photo fomats	mp4/jpg	mp4/jpg	mp4/jpg
Built-in memory, GB	64G	64G	64G
Power Supply, V	3~4.2V	3~4.2V	3~4.2V
Battery type×QTY /Capacity, mA	18650 Battery x 1/3200mAh	18650 Battery x 1/3200mAh	18650 Battery x 1/3200mAh
External power supply, V	5V2A	5V2A	5V2A

Others Characteristics			
Operating time, hours (T=22°C)	>8hrs	>8hrs	>7hrs
Operating temperature, °C	-20°C~+40°C	-20°C~+40°C	-20°C~+40°C
Storage temperature, °C	-40°C~+60°C	-40°C~+60°C	-40°C~+60°C
Body material	aluminium alloy	aluminium alloy	aluminium alloy
Degree of protection, IP code (IEC60529)	IP67	IP67	IP67
Felt recoil, G/ms	850g/ms	850g/ms	850g/ms
Dimension (L×W×H), mm	125×72×44 /4.92×2.83×1.73	125×72×44 /4.92×2.83×1.73	125×72×44 /4.92×2.83×1.73
Weight (without battery), g/oz	330g/12.56oz	378g/13.33oz	378g/13.33oz

Kingnight APP

Download the Kingnight App, and easily transmit highlights captured by the TAC series thermal imaging devices to your smart device in real-time via WiFi. The app also allows the user to perform basic device settings, capture snapshots, or record unforgettable moments.

Download KINGNIGHT View App



850g/ms



·Actual usage time depends on factors such as Wi-Fi, ambient temperature, display brightness, and the extent of built-in recording usage.

·Signal reception range is influenced by various factors including obstacles and wireless networks.

·The maximum repair period for the product is two years.

We are committed to continuously improving the performance and design of our products to enhance your experience.

For more products, please visit our website:

<http://www.kingnighteyes.com/>

Disclaimer

When using this product, please strictly comply with applicable laws and regulations, avoid infringing on third-party rights, including but not limited to rights of publicity, intellectual property rights, data rights, or other privacy rights. You must not use this product for illegal hunting, military purposes, invading others' privacy, or any other illegal or harmful activities to the public interest. You must not use this product for the development of weapons of mass destruction, biological or chemical weapons, nuclear explosions, or any other unsafe use of atomic energy that could infringe upon human rights.

Purchase of this machine is equivalent to accepting the constraints of this statement, equivalent to agreeing to sign the relevant liability statement. In case of any violation, the company shall not be held responsible.

Safety

- Ensure the device has no visible damage before using.
- Test if the device displays clear and uninterrupted images.
- Strictly follow national and regional electrical safety regulations while installing and using.
- Do not point the lens at strong light sources (e.g., the sun or incandescent lamps) to prevent damage to the lens or thermal imaging detector.

·Do not use the device in extreme conditions (e.g., excessive heat, cold, dust, high humidity, or low air pressure). For detailed temperature and humidity requirements, refer to the product's specifications.

·Do not touch the image sensor directly.Cover the sensor with a dust cap when not in use to protect it.

·Battery capacity decreases in low-temperature environments. This is due to the battery characteristics, not a device fault.

·Use only power adapters provided by formal manufacturers.Refer to the product specifications for specific requirements.Do not connect multiple devices to a power adapter to prevent overheating or fire hazards.

·USB Compatibility

·Use only a dry, soft cotton cloth or lens cleaning paper to clean the lens to avoid scratches.

·Do not connect multiple devices to a single power adapter to prevent overheating or fire hazards.

·The device supports connections only via USB Type-C interfaces.

·If the device is damaged or malfunctioning, send it to the Longot after-sales service department for repair.

·The device is designed for natural observation, field search and rescue, and high-temperature heat source monitoring.

Use the device only as described in the manual. The manufacturer and distributors are not responsible for damage caused by improper or unintended use.

·Don't drop or subject the device to strong vibrations.Keep the device away from magnetic interference locations and do not install it on surfaces prone to vibration or impact locations, as this may damage the device.

Battery Safety

·The device contains a battery that must not be disassembled, replaced, or modified by non-professionals. Doing so may result in explosion, fire, or chemical corrosion hazards.

·Charge the battery only in environments with temperatures between 0°C and 50°C.

·If the battery malfunctions, contact after-sales service for replacement. Do not attempt unauthorized repairs or replacements.

·If the battery leaks and liquid comes into contact with your skin or eyes, rinse thoroughly with clean water and seek medical attention immediately.

·In case of battery fire, extinguish using foam fire extinguishers, dry powder extinguishers, or fire sand.

·Do not immerse the product in water or get wet.

Don't place the product in or near extremely high temperatures, such as fires or heating appliances, as this may cause the battery to explode or release flammable liquids or gases.

·Do not place the product in appliances like heaters, washing machines, or pressure vessels.

·Don't place the product in low-pressure environments, which could lead to battery explosion or leakage of flammable substances.

·If the product is equipped with an adapter, only use the supplied adapter.

·If not, ensure the power adapter or supply meets LPS (Limited Power Source) standards. Refer to the product label for specific power supply output parameters.

·Store the product indoors in a dry, shaded environment.

Avoid exposing the battery to direct sunlight, potential rain, and submersion locations.

·Batteries are classified as toxic and hazardous waste. Dispose of them in compliance with applicable national laws, regulations, and standards.

·The product is not suitable for use in areas where children may be present.

Laser Safety

·Avoid direct observation of the laser beam.Laser beams can cause glare, flash blindness, and afterimages.If the user is in operations requiring high safety standards, it needs to be noticed potentially interfering with visual.

- Do not direct the laser at human eyes to prevent eye damage.
- Laser protection can be achieved by wearing protective glasses. Ensure the goggles' working wavelength covers the laser's peak wavelength, and the optical density (OD) exceeds 5.
- Avoid exposing skin and eyes to the laser beam to prevent burns.
- Direct exposure of the laser to combustible materials at close range may pose a fire risk. Maintain a safe distance during installation and operation.
- After the laser is activated, do not aim it at glass, mirrors, or other highly reflective objects, as reflected lasers could damage the thermal imaging detector.

