



Orion Series

Quick Start Guide



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

https://http://www.kingnighteyes.com/Download/list_l-cid_3.html

Attention!

Product in this document subject to update without notice.

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Orion Series

Quick Start Guide

Orion Series

Thermal Imaging

1-12

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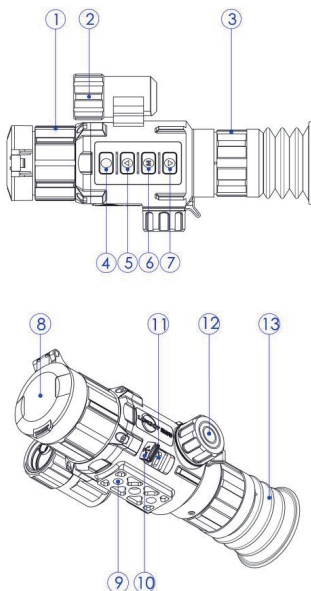
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Packaging List

- Orion Series Monocular Thermal Scope
- Picatinny Rail
- Rail Screws ×4
- Hex Key
- Brush Pen
- Dual Battery Charger
- Carrying Case
- Type-C USB Data Cable
- Lens Cleaning Cloth
- Extended battery compartment cover
- 18650 rechargeable lithium battery*1
- 18650 rechargeable Lithium Battery*1
- Warranty Card

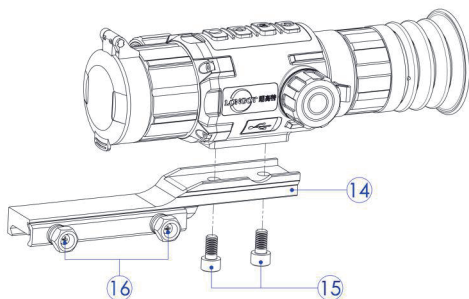
Components and Button Operations

- 1、 Objective Lens Cover
- 2、 Objective Focusing Ring
- 3、 Power Button
- 4、 Up Button / Photo Button
- 5、 Menu Button / M Button
- 6、 Down Button / Zoom Button
- 7、 Eyepiece
- 8、 Diopter Adjustment Knob
- 9、 USB Waterproof Cover
- 10、 Laser Window
- 11、 Type-C Interface
- 12、 Charging Indicator Light
- 13、 External Screen Interface



Rail Mount Installation

- Before using the device, attach the mounting rail(14) to the two installation holes at the bottom of the product.
- Use the provided hex wrench and screws (15) to secure and tighten the bracket (14) onto the device's mounting base (9)
- Mount the rail(14) onto the Picatinny rail.
- Tighten the fastening nut (16) to secure the setup after installation.



Device Charging

The Orion Series is equipped with 18500/18650 rechargeable lithium batteries. The battery is partially charged before leaving the factory. It is recommended to charge the device 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

·Install Battery: Unscrew the battery compartment cover (12) on the device. Install the 18500/18650 battery into the battery compartment with the positive terminal facing downward. Tighten the battery compartment cover (12).

·Power On: Long press the power button (4) for 4 seconds to start. Once powered on, open the objective lens cover (8).

·Diopter Adjustment: Rotate the diopter adjustment knob (3) until the text on the display appears clear. For the same user, there is no need to adjust the diopter when used again.

·Focus Adjustment: Rotate the objective focusing ring (1) to adjust the focus on the observed object.

·Shortcut Menu Navigation: Short press the menu button (6) to open the shortcut menu. Use the Up Button / Zoom Button (5) and Down Button / Ranging Button (7) to navigate through the menu.

Short press the menu button (6) repeatedly to cycle through options such as Reticle Distance Memory, Screen Brightness, Contrast, Scene Mode, PIP, Wi-Fi Switch, Ranging Settings. Long press the menu button (5) to exit to the main screen after finishing.

·Power Off: Long press the power button (4) for 2 seconds, the shutdown countdown screen will appear and the device will shut down.

Key function

Button	Device Status Current operating mode	Short Press	Long Press
Power Button	Any Status	Standby /Wake Up	Power On/Off
Menu Button	Main Interface State	Open Shortcut Menu	Open Main Menu
	Shortcut Menu /Main Menu Interface	Cycle Through Current Menu Options	Manual Shutter Calibration
Up Button / Photo Button	Main Interface State	Cycle Zoom	Manual Shutter Calibration
	Shortcut Menu /Main Menu Interface	Scroll Up Through Menu Options	Fast Upward Movement
	Blind Pixel Calibration Interface	Move Up/Left	Fast Upward /Leftward Movement
Down Button / Zoom Button	Main Interface State	Ranging on/off (short press the down button again for a single distance)	Switch Color Palette
	Shortcut Menu /Main Menu Interface	Scroll Down Through Menu Options	Fast Downward Movement
	Reticle/Blind Pixel Calibration Interface	Move Down/Right	Fast Downward /Rightward Movement
Up Button + Down Button	Main Interface State	Stadiametric Ranging	/
Menu Button + Down Button	Main Interface State	Manual Shutter Calibration	/

Technical specification parameter

Model	OE25	OH35L	OQ35L	OQ50L
Detector Specifications				
Detector Type	VOX	VOX	VOX	VOX
Resolution, Pixel	256×192	384×288	640×512	640×512
Pixel Size, μm	12μm	12μm	12μm	12μm
NETD, mK	≤40mk	≤20mk	≤20mk	≤20mk
Frame Rate, Hz	50Hz	50Hz	50Hz	50Hz
Optical Characteristics				
Objective lens, mm	25mm	35mm	35mm	50mm
Magnification, x	3.6x	3.4x	2.0x	2.8x
Digital zoom, x	1x、2x、3x、4x	1x、2x、4x	1x、2x、4x、8x	1x、2x、4x、8x
Min Focus Distance, M	5m	10m	10m	10m
Exit pupil distance, mm	48mm	48mm	48mm	48mm
Exit pupil Diameter, mm	6mm	6mm	6mm	6mm
Field of View (H × V), degree	7°×5.3°	7.5°×5.6°	12.5°×10°	8.8°×7°
Diopter, D	-4D~+4D	-4D~+4D	-4D~+4D	-4D~+4D
Detection Range, m (Target size: 17m×0.5m)	1000m	1800m	1800m	2600 m
Detacrion range (Vehicle)	1800m	3500m	3500m	4800 m
Rangefinder Characteristics				
Wavelength, nm	/	905	905	905
Measuring Range, M	/	600m/800m/1000m/1200m		
Measurement accuracy, M	/	① 5m~400m, ±1m; ② >400m, ±(d×0.3%)	① 5m~400m, ±1m; ② >400m, ±(d×0.3%)	① 5m~400m, ±1m; ② >400m, ±(d×0.3%)

Electrical Characteristics				
Display Type	OLED	OLED	OLED	OLED
Resolution, pixels	1024×768	1024×768	1024×768	1024×768
WiFi Frequency,GHz	2.4GHz	2.4GHz	2.4GHz	2.4GHz
Video/Photo format	avi/jpg	avi/jpg	avi/jpg	avi/jpg
Built-in memory, GB	32G	64G	64G	64G
Power Supply, V	3~4.2V	3~4.2V	3~4.2V	3~4.2V
Battery type×QTY /Capacity, mA	18500 Battery x 1/18650 Batteryx1/2300mAh /3200mAh	18500 Battery x 1/18650 Batteryx1/2300mAh /3200mAh	18500 Battery x 1/18650 Batteryx1/2300mAh /3200mAh	18500 Battery x 1/18650 Batteryx1/2300mAh /3200mAh
External power supply, V	5V2A	5V2A	5V2A	5V2A
Others Characteristics				
Operating time, hours (T=22°C)	≥7hrs≥10hrs	≥5hrs≥8hrs	≥4hrs≥7hrs	≥4hrs≥7hrs
Operating - temperature, °C	-20°C~+50°C	-20°C~+50°C	-20°C~+50°C	-20°C~+50°C
Storage temperature, °C	-40°C~+60°C	-40°C~+60°C	-40°C~+60°C	-40°C~+60°C
Body material	Aluminium alloy	Aluminium alloy	Aluminium alloy	Aluminium alloy
Degree of protection, IP code (IEC60529)	IP67	IP67	IP67	IP67
Felt recoil, G/ms	900g/ms	900g/ms	900g/ms	900g/ms
Dimension (L×W×H), mm	198×74×60	200×106×64	200×106×64	216×106×74
Weight (without battery), g/oz	538g/18.98oz	575g/20.28oz	575g/20.28oz	665g/23.45oz

Kingnight APP

Download the Kingnight App, and easily transmit highlights captured by the Orion 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



·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 Kingnight 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.