



# Phoenix 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](https://http://www.kingnighteyes.com/Download/list_lcid_3.html)

Attention!

Product in this document subject to update without notice.

### **Download Quick Start Guide**



**RoHS**

# Phoenix Series

Quick Start Guide

**Phoenix Series**

*Thermal Imaging*

1-12

ENGLISH

## Packaging List

- Phoenix Series Thermal Scope
- 8500 Rechargeable Lithium Battery×2
- Dual Battery Charger
- Portable Bag
- Type-C USB Data Cable
- Lens Cleaning Cloth
- Quick Start Guide
- Warranty Card

## Components and Button Operations

- 1.Objective Lens Focus Ring
- 2.Laser Rangefinder
- 3.Objective Focus Knob
- 4.Encoder
- 5.Power /Menu Button
- 6.Nameplate
- 7.Eyepiece Diopter Adjustment Ring



8.Eyecup

9.Charging indicator

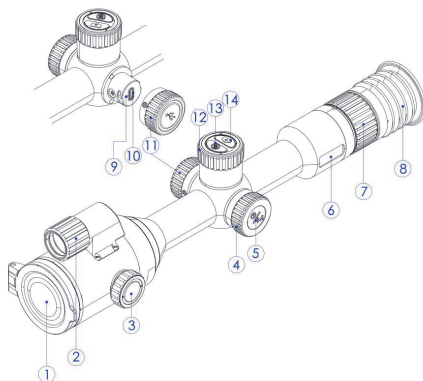
10.Type-C Interface

11.Type-C Interface Cover

12.Battery Compartment Cover

13.Ranging Button

14.Nameplate



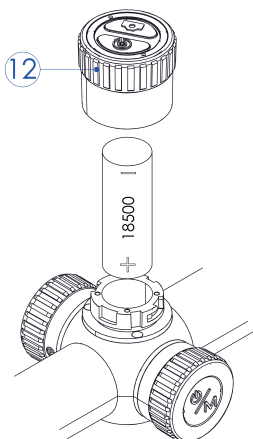
## Device Charging

The Phoenix Series is equipped with a built-in lithium battery. 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 and an output of 5V =2A and connect it to the device's Type-C port (10) using the Type-C USB data cable for charging..

When the device is charging, the charging indicator light (12) will turn red and remain on. Once charging is complete, the charging indicator light (12) will turn off. After charging is complete, please remove the battery from the charger to avoid overcharging.

## Install Battery

Unscrew the battery compartment cover (12) on the device. Install the 18500 battery into the battery compartment with the positive terminal facing downward. Tighten the battery compartment cover (12). If the device's internal battery has enough power, users can decide whether to install an external battery or not by themselves.



## Operation Instructions

•**Power On:** Long press the power/menu button (⑤) for 5 seconds to start. Once powered on, open the objective lens cover (①).

•**Diopter Adjustment:** Rotate the eyepiece diopter adjustment ring (⑦) 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:** Short press the Power /Menu Button (⑤) to open the shortcut menu. Rotate the Power /Menu Button to navigate through the menu. Short press the Power /Menu Button (⑤) and rotate the encoder (④) repeatedly to cycle through options such as zeroing distance, screen brightness, contrast, scene mode, color mode , PIP and Wi-Fi switch. Once settings are complete, short press the the Power /Menu Button (⑤) confirm the selection. Long press the Power/Menu Button (⑤) to exit to the main screen.

•**Power Off:** Long press the Power/Menu Button (⑤) for 3 seconds. When the shutdown countdown appears on the screen, the device will power off.

## Function of the button

| Power / Menu Button         | Main Interface                                                                               | Menu Settings Interface                      |
|-----------------------------|----------------------------------------------------------------------------------------------|----------------------------------------------|
| Short press                 | Open shortcut settings menu                                                                  | Select current option or confirm             |
| Rotate                      | Adjust digital zoom magnification                                                            | Switch options                               |
| Long press for 1 second     | Open main settings menu                                                                      | Hide menu bar or return to the previous menu |
| Long press for 3 second     | Enter shutdown 3-second countdown                                                            | Enter shutdown 3-second countdown            |
| Ranging Button              | Main Interface (Without Menu Bar)                                                            |                                              |
| Single Ranging              | Short press to display ranging icon; shortpress again to perform one ranging operation.      |                                              |
| Continuous ranging          | Short press to turn on continuous ranging; short press again to turn off continuous ranging. |                                              |
| Long press for 1 second     | Shutter calibration                                                                          |                                              |
| Photo Button /Record Button | Main Interface (Without Menu Bar)                                                            |                                              |
| Short press                 | Take a photo                                                                                 |                                              |
| Long press for 1 second     | Start/Stop video recording                                                                   |                                              |

## Technical specification parameter

| Model                                          | PH35L                              | PQ35L                              | PQ50L                              |
|------------------------------------------------|------------------------------------|------------------------------------|------------------------------------|
| Detector Specifications                        |                                    |                                    |                                    |
| Detector Type                                  | Vox                                | Vox                                | Vox                                |
| Resolution, Pixel                              | 384×288                            | 640×512                            | 640×512                            |
| Pixel Size, μm                                 | 12μm                               | 12μm                               | 12μm                               |
| NETD, mK                                       | ≤25mk                              | ≤20mk                              | ≤20mk                              |
| Frame Rate, Hz                                 | 50Hz                               | 50Hz                               | 50Hz                               |
| Optical Characteristics                        |                                    |                                    |                                    |
| Objective lens, mm                             | 35mm                               | 35mm                               | 50mm                               |
| Magnification, x                               | 3.4×                               | 2.0×                               | 2.8×                               |
| Digital zoom, x                                | 1x~8x (步进1x)                       | 1x~8x (步进1x)                       | 1x~8x (步进1x)                       |
| Min Focus Distance, M/Y                        | 10m                                | 10m                                | 10m                                |
| Exit pupil distance, mm                        | 48mm                               | 48mm                               | 48mm                               |
| Exit pupil Diameter, mm                        | 6mm                                | 6mm                                | 6mm                                |
| Field of View (H × V), degree                  | 7.5°×5.6°                          | 12.5°×10°                          | 8.8°×7.0°                          |
| Diopter, D                                     | ±4D                                | ±4D                                | ±4D                                |
| Detection Range, m<br>(Target size: 1.7m×0.5m) | 1800m                              | 1800m                              | 2600m                              |
| Detection Range, m<br>(Target size: 1.7m×0.5m) | 3500 m                             | 3500 m                             | 4800 m                             |
| Rangefinder Characteristics                    |                                    |                                    |                                    |
| Wavelength, nm                                 | 905nm                              | 905nm                              | 905nm                              |
| Measuring Range, M/Y                           | 1000m                              | 1000m                              | 1000m                              |
| Measurement accuracy, M/Y                      | 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                               |

|                                          |                                                        |                                                        |                                                        |
|------------------------------------------|--------------------------------------------------------|--------------------------------------------------------|--------------------------------------------------------|
| Resolution, pixels                       | 1024×768                                               | 1024×768                                               | 1024×768                                               |
| WiFi Frequency, GHz                      | 2.4GHz                                                 | 2.4GHz                                                 | 2.4GHz                                                 |
| Video/Photo format                       | avi/jpg                                                | avi/jpg                                                | avi/jpg                                                |
| Built-in memory, GB                      | 32G                                                    | 32G                                                    | 32G                                                    |
| Power Supply, V                          | 3~4.2V                                                 | 3~4.2V                                                 | 3~4.2V                                                 |
| Battery type×QTY /Capacity, mA           | Built-in 18650 Battery X 2, external 18500 Battery x 1 | Built-in 18650 Battery X 2, external 18500 Battery x 1 | Built-in 18650 Battery X 2, external 18500 Battery x 1 |
| External power supply, V                 | 5V2A                                                   | 5V2A                                                   | 5V2A                                                   |
| Others Characteristics                   |                                                        |                                                        |                                                        |
| Operating time, hours (T=22°C)           | ≥18hrs                                                 | ≥17hrs                                                 | ≥17hrs                                                 |
| Operating temperature, °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                                          |
| Body material                            | aluminium alloy                                        | aluminium alloy                                        | aluminium alloy                                        |
| Degree of protection, IP code (IEC60529) | IP67                                                   | IP67                                                   | P67                                                    |
| Felt recoil, G/ms                        | 900g/ms                                                | 900g/ms                                                | 900g/ms                                                |
| Dimension (L×W×H), mm                    | 405mm×83mm ×82mm                                       | 420mm×83mm ×90mm                                       | 420mm×83mm ×90mm                                       |
| Weight (without battery), g              | 1020g                                                  | 1040g                                                  | 1040g                                                  |

## Kingnight APP

Download the Kingnight App, and easily transmit high-lights captured by the Phoenix 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.