LONGOT TECHNIC K3 Pro Multi Function Thermal Monocular User Manual

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Contents

DISCLAIMER

This product is prohibited for illegal use, including illegal hunting, military, chemical, biological or nuclear weapons, illegal privacy photographing, and other violations of laws and regulations. It is prohibited to transport goods prohibited by the United Nations, the European Union or the OSCE. The products are only sold in the place where the company is registered and cannot be exported.
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.

LONGOT TECHNIC

Device Information

This multi-function thermal monocular can be used for target search and ostentation at night, in dim, no light conditions, sender weather conditions and other complicated scenarios. It is low in Swaps and has long battery life, can be head-mounted, handheld, thermal scope mounted and clip-on thermal scope mounted. It is widely applied in law enforcement, outdoor ostentation, wild adventure, sea arch and rescue, and other fields.

Package details

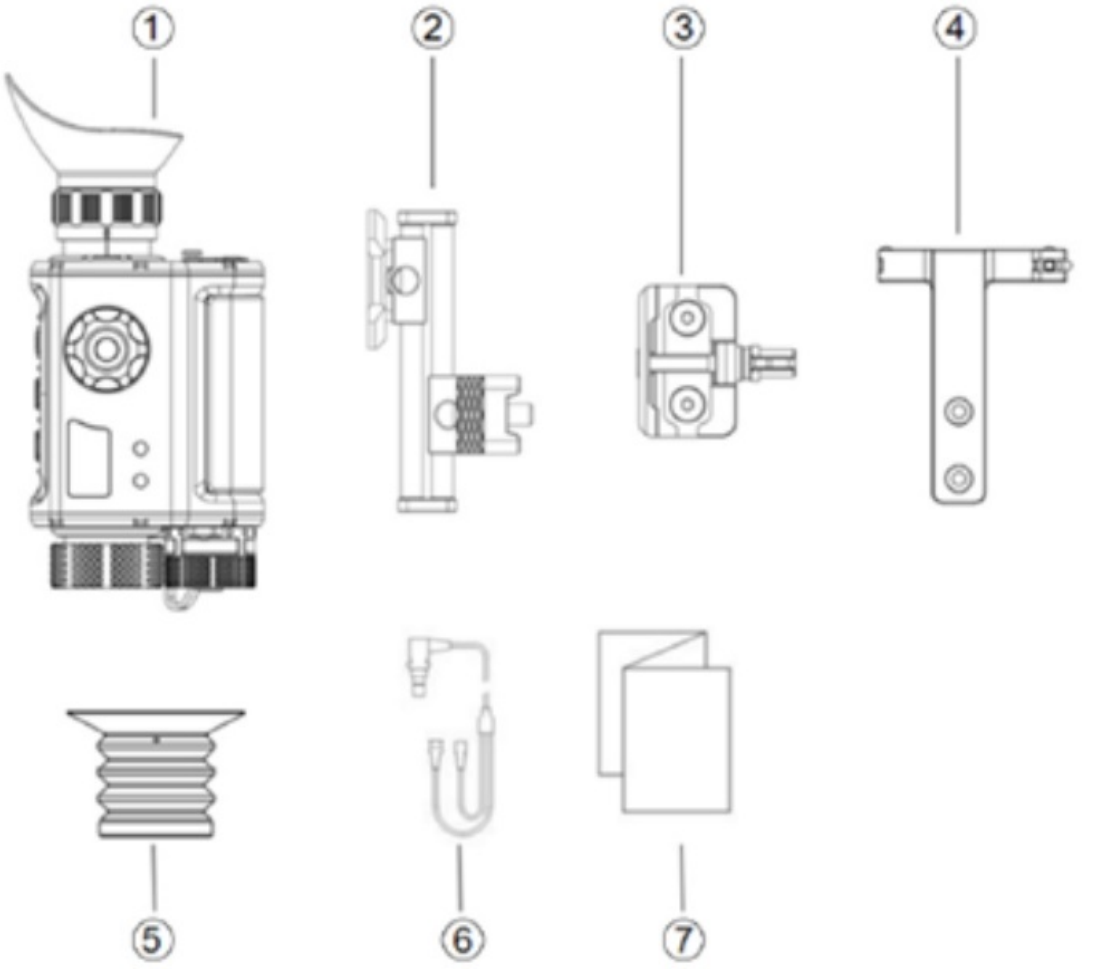


Figure 1.1 Device Illustration

① Device
② Helmet adapter bracket(optional)
③ Picatinny rail adapter
④ Clip-on hoop
⑤ Thermal scope eyecup
⑥ Cables
⑦ User manual
⑧ Charger and wiring
⑨ Battery
⑩ Warranty card

Device Parameters

Model	K3 Pro	**K6**	**K9**
Pixel Pitch,μm	12	12	12
Resolution	384 ‘288	384 ‘288	640’512
Frame Rate,Hz	50	50	50
Response wave band	8-14μm	8-14μm	8-14μm
Display, OLED	1024X768	1024X768	1024X768
Focal Length of Objecti ve Lens	16mm F-1.0	27mm f-1.0	27mm f-1.0
FOV	16.3°X 12.3°	*9.a· x1.4•*	16.3 X 12.3″
Magnification	lx	l.7x	lx
Diopter Adjustment	5, * 2	5, * 2	5, * 2
Exit Pupil Diameter	12mm	12mm	12mm
Exit Pupil Diameter	20mm	20mm	20mm
Polarity	Black heat, White heat, Red heat, Rouge, Colorl.Color2		
Mode	Outdoor ,Arctic, Rainforest. Bird, Observation		
Digital Zoom	1-4x	l-8x	l-8x
Digital Compass	Azimuth, Pitch, Roll		

Wi-Filmage Transmissio n	Support		
Image/Video Capture	Support		
Battery	l X 18650 (3. N)		
Max. Banery Li le	>6h	>6h	>5h
Reticle type	7 Multiple modes		
Reticule color	White / Black / Red / Invert Colors		
Motion sensor	Support		
Laser Pointer	Support		
Targel type	1500m	2550m	2550m
Weight (w/o battery	356g(<318g)	378g(<340g)	378g(<340g)
Dimension(mm}	120·12·44		
Mounting Type	**Hand held, h1>ad** I **hl'rmal** **COPI', clip-on** Iht-rmal **~c-op .. ,k6 not wpport)**		
Waterproof	20•c~4o•c / 4o•c 4o•c (optional)		
Operating Temperatur e Range	**IP67**		
Shock	**6000J**		
Vibration	**6.06G**		

Note: Max. detection range of an object meaning:l.7xl.2 meter target in natural nigh conditions. The distance is affected by temperature, humidity, weather ,anc environment etc.

Installation and Power on

Product Mounting and Dismounting

There are four usage types: handheld, head-mounted, thermal sight, clip-on thermal sight. Different accessories and mounting types for different usages. Install battery first before use.

Battery Installation

Support 18650 battery (Battery diameter :18mm± length: 65mm±O.S)

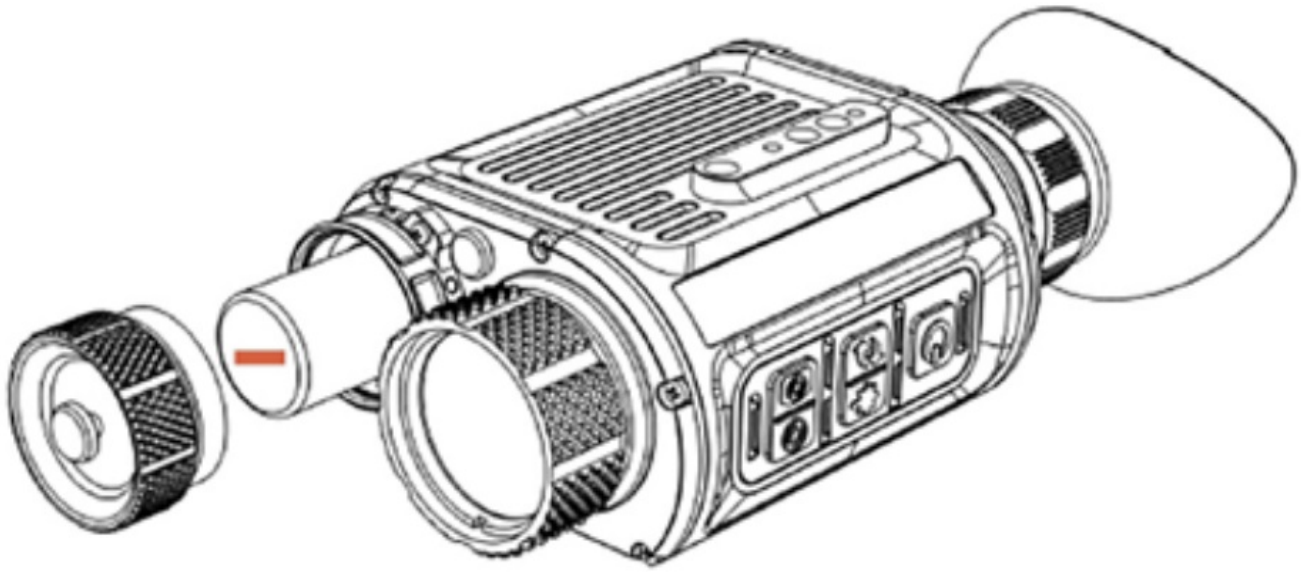


Figure 2.1 Battery Installation Illustrations

Handheld

No accessories are needed for handheld use, the monocular can be used directly after the battery is installed, hand held use by default.

Head-mounted Use

The head-mounted adapting bracket (optional) should be installed after the battery is inserted, the mounting procedures are as follows:

1. Remove the head-mounted adapting bracket, fix the set screw of the bracket into the holes of the deceive;
2. Put the deceive onto the standard helmet support;

Note: The flip image should be set first in the system menu for head-mounted use.

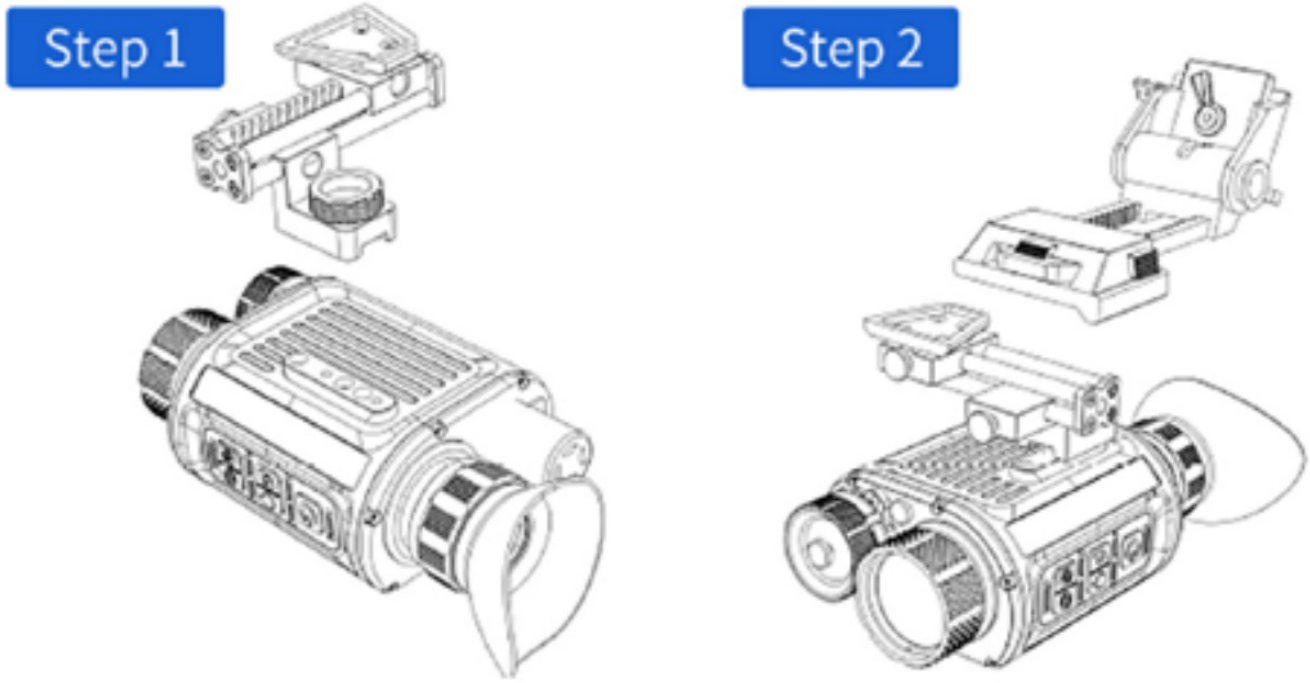


Figure 2.2 Illustrations of Head-mounted Use

Thermal Sight Use

The Picatinny rail adapter should be installed on the device after the battery is inserted for thermal sight use, then mount the device onto the Picatinny rail, the installation procedures are as follows:

1. Remove the Picatinny rail adapter, and mount it on the two screw holes with 2 • MS screws;
2. Change eyecup, remove the U-shaped eyecup and install the thermal sight eyecup onto the diopter adjustment wheel of the eyepiece;
3. Mount the monocular installed with rail adapter to the Picatinny rail.

Note: you should pull out the U-shaped eyecup from the bottom part, dragging the outer parts may cause eyecup damage.

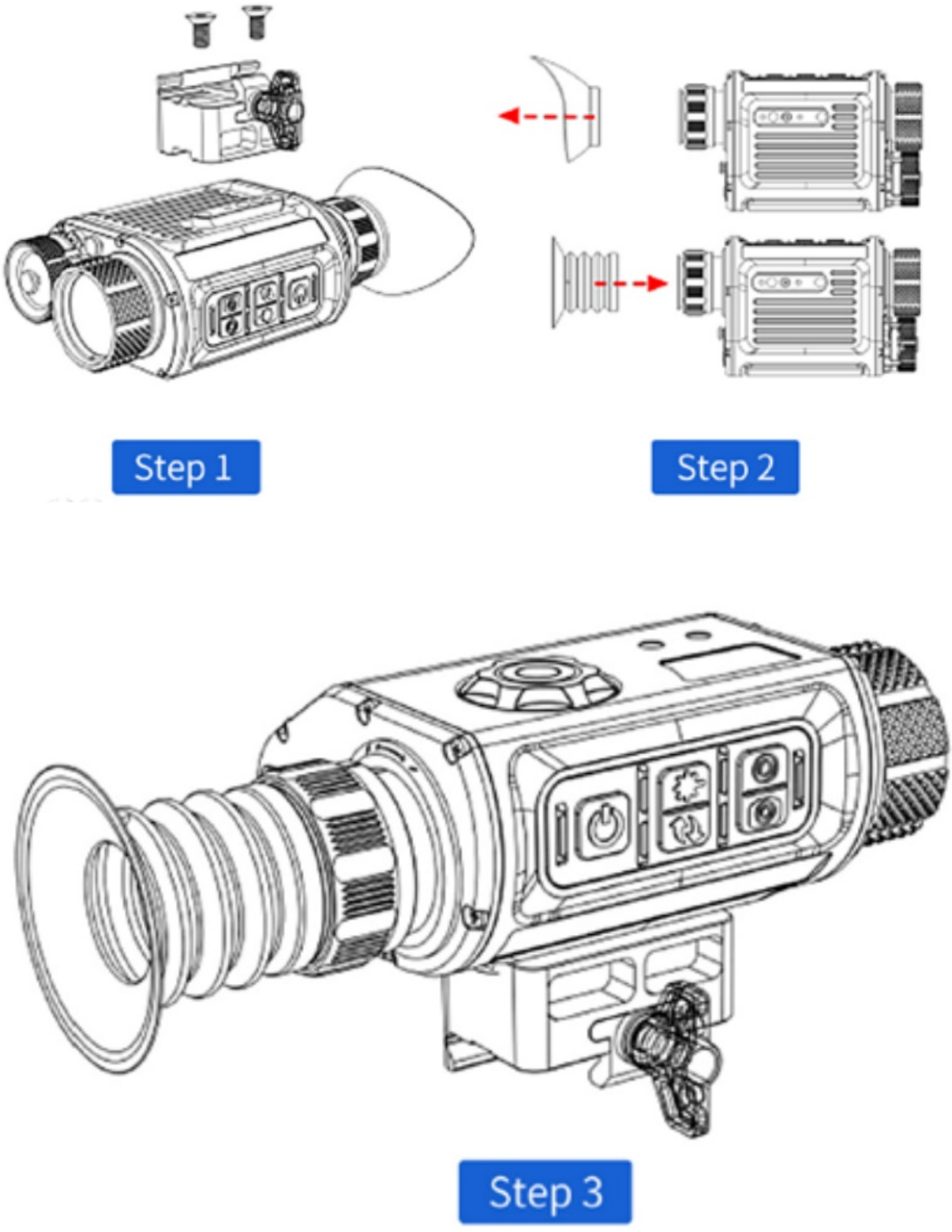


Figure 2.3 Installation Illustrations

Clip-on Sight Use

The clip-on hoop should be installed on the monocular after battery insertion during clip-on sight use, then mount the monocular on the optical sight, the installation procedures are as follows:

1. Remove the U-shaped eyecup, and mount it on the two screw holes with 2 • MS screws;

2. Mount the monocular installed with clip-on hoop onto the objective lens of daylight optical sight.

Note: You should pull out the U-shaped eyecup from the bottom part, dragging the outer parts may cause eyecup damage. The diameter of the daylight sight must be between 40 and 45mm to mate with the clip-on hoop.

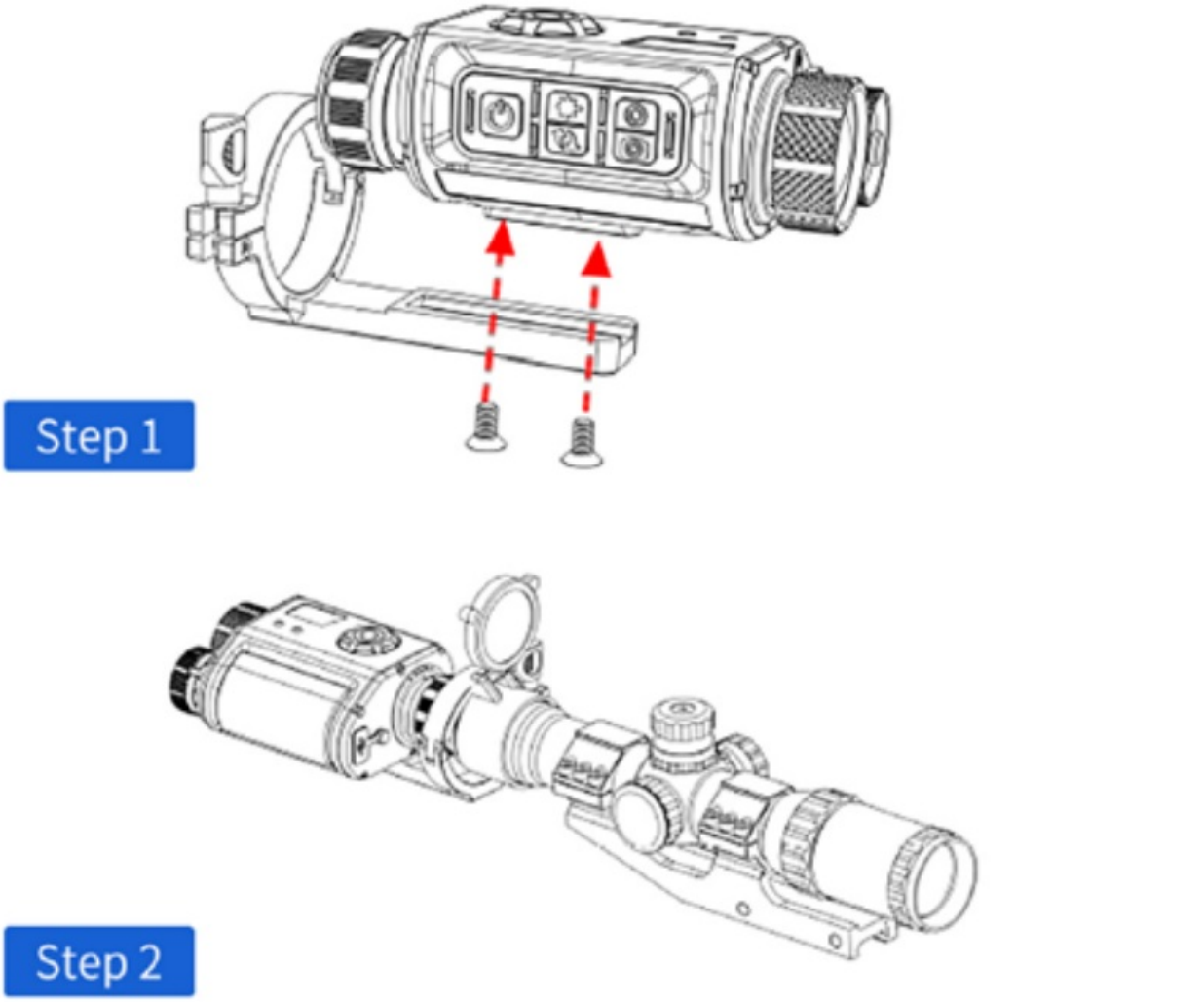


Figure 2.4 Installation Illustrations of Clip-on Thermal Scope

Power On

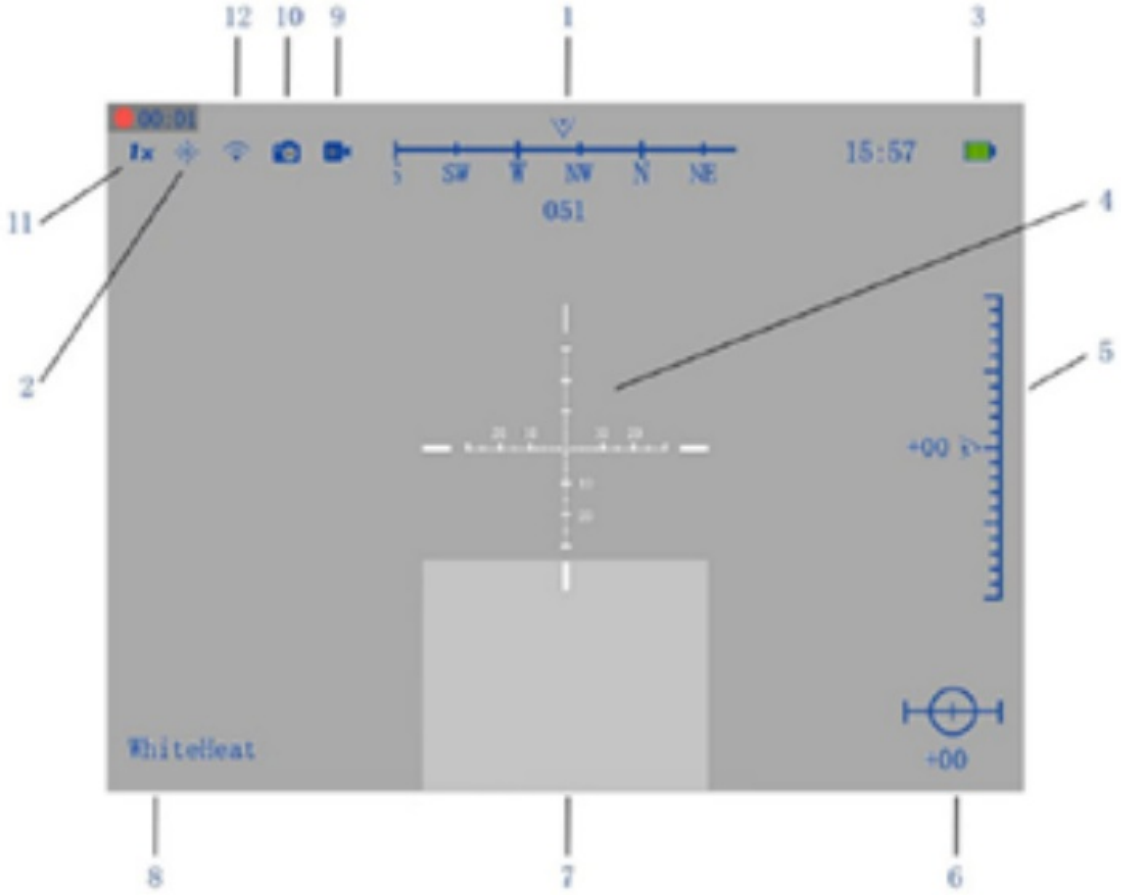
Remove the objective lens cap before power on, long press On/Off button for 2s, the start-up Logo will appear on the screen, the image will be presented after shutter correction.

Operation Introduction

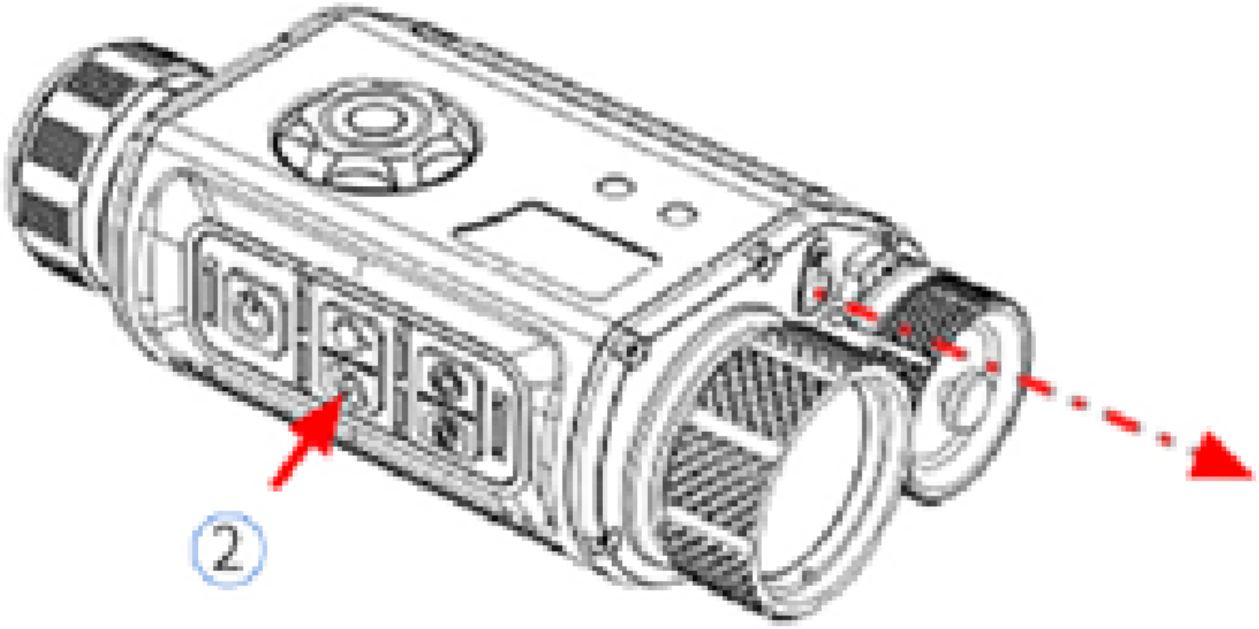
Operations on Main Interface

I Main Menu Display

The display information on Main Menu includes: infrared image, battery capacity, azimuth, pitch, roll, digital zoom magnification, image polarity, the reticle (display after setup in the menu). PIP (display after setup in the menu);


12
10
9
1
3
11
2
4
5
8
7
6
00:01
1x
SW
W
NW
N
NE
051
15:57
+00
+00
WhiteHeat

No.	Icon	Descriptions
1	Compass	Di play W, NW, N, NE, E, SE, S, S\V, with angle value
2	Laser Ico n	Display laser On/Off status
3	Battery C apacity In dicaion	4 scale for full battery , the icon will turn to red when the battery is less then 10%
4	Reticle	not displayed by default, displayed after setup ,n menu
5	Pitch	-90° .. 90°
6	Roll	-90° .. 90°
7	PIP	full Screen digital 100m by default , displayed after setup in he menu
8	Image Po larity	Black heat, Wlh1te heat, Red heat, Rouge. Color 1 ,Color2
9	Video Re cording	Video recording prompt
10	Image Ca pture	Image capture prompt
11	D1g1tal Z oom	Support 1-4 *x* (384 X288), support l -8X (640 X512)
12	Wi- Fi	Display Wi-Fi function



Digital Zoom

Rotate the knob lo adjust the digital zoom on the main Menu,
full-screen display of digital zoom by default.
Support l •4x for 384×288 thermal resolution product,
image-centered lx/2x/3x/4x magnification;
Support l ·8x for 640×512 thermal resolution product,
image-centered lx/2x/4x/6x/8x magnification ;

Mode Switch

Short press the knob to change image mode on the main Menu, and support cyclic switch among Black heal, White heal, Red heal, Rouge, Colorl,Color2.

Manual Image Correct ion

When there is blur, degradation, brightness uniformity or halo on the main Menu, the shutter correction should be performed. Long press ② for 3s to perform manual shutter correction, when you can hear the shutter click, the correction time is less than ls.

Image Capture

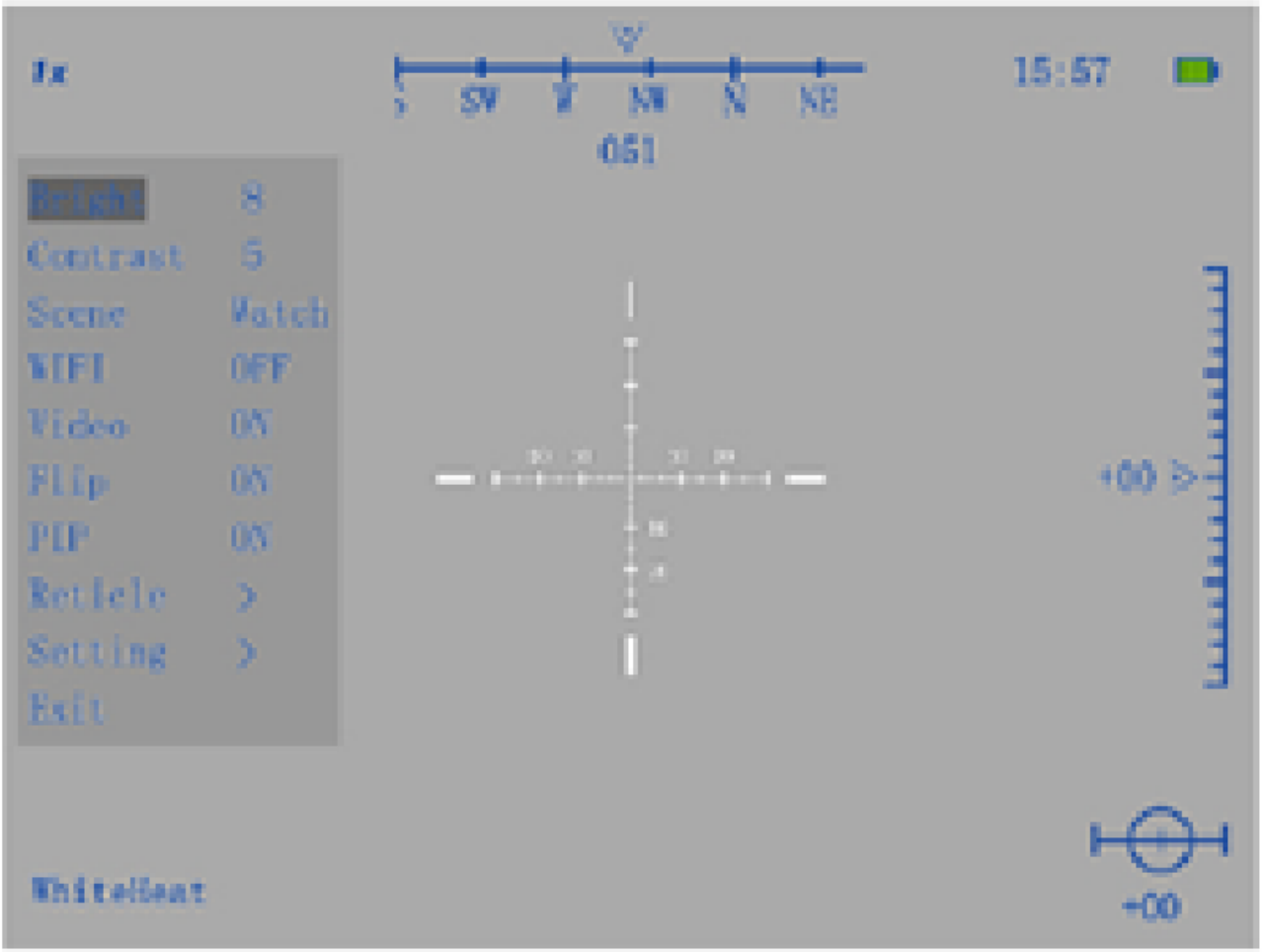
Short press button③ to capture an image on the main menu, the image file will be named and saved according to the current time.

Video Recording

Long press ③ to record videos on the main menu, the video file will be named and saved according to the current time, the max recording time is 30min.

Menu Operations

Long press the knob to enter the menu on the main menu, you can perform image settings, scenario settings, display settings and other settings under menu mode.



Brightness

The brightness level is higher, the image grows brighter. When the main interface is too dark, users can adjust the brightness to adjust the clarity of image displayed. The adjustment range is 1-10, 5 by default.

Contrast

The contrast level is higher, the chiaroscuro and colors contrast is more obvious. users can adjust the contrast lo highlight different targets in complex environments. The adjustment range is 1-10, 5 by default.

Scene mode

Short press the menu button to change the scene mode: observation, arctic, forest, bird. Different scene modes correspond to different operating environments.
Users can select proper scene mode to get the better image effect in previewing.

Wi-Fi

Short press to enable or disable WIFI. The device supports WIFI connection. Users can connect with cellphone by WIFI lo build wireless internet connection.(initial password:12345678)

Video output

Short press to enable or disable video output. After enabling it, users can connect the external display by Type-C cable. It could output the video for extending display and zooming in to check the details of image.

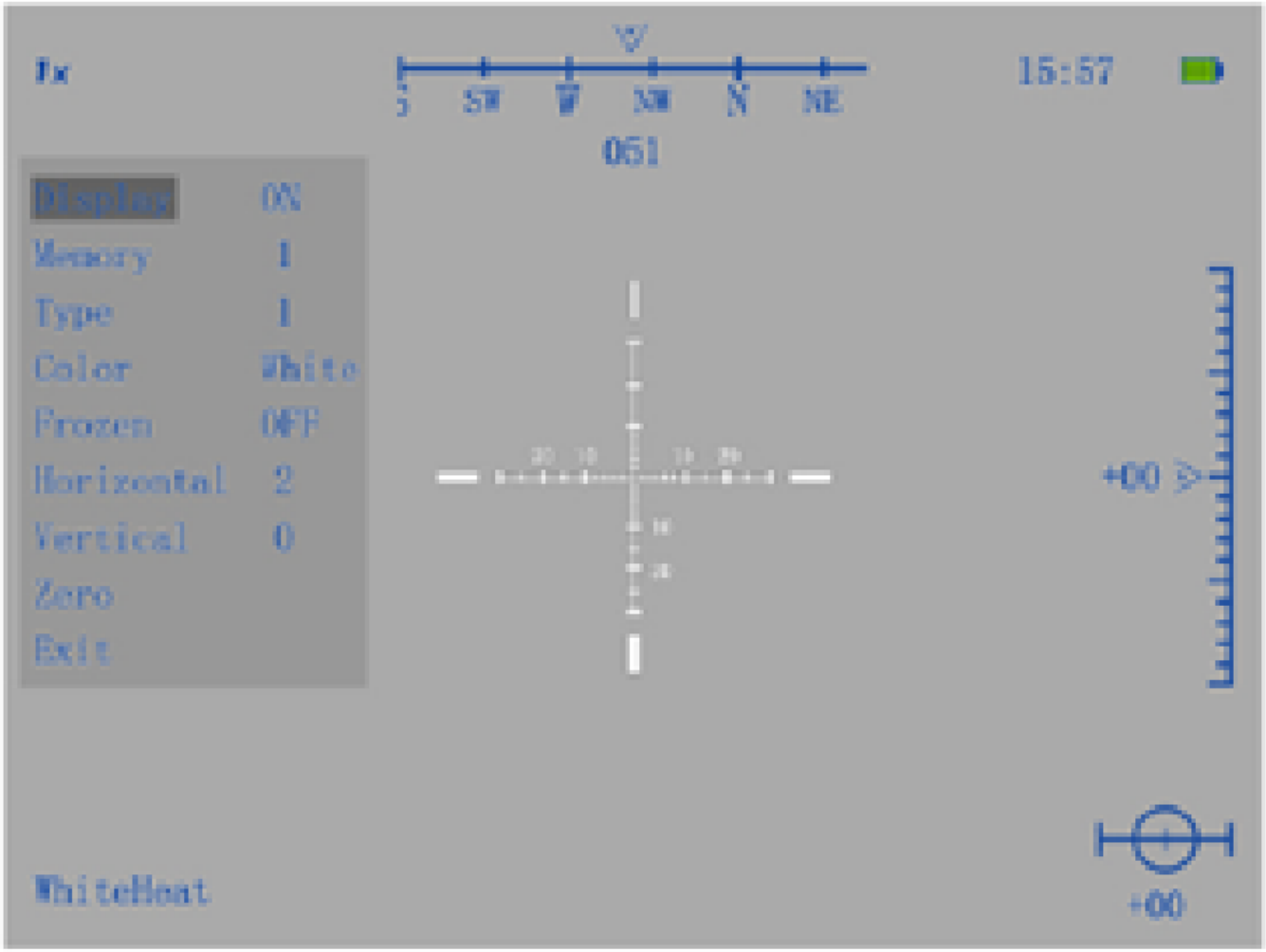
Auto flip

Short press to enable or disable the automatic flip. Automatic flip can automatically adjust the screen aimed at the direction of device.

PIP

Short press the menu button to enable or disable the PIP function. The PIP is the image of zooming in the center of scene partial ly and overlapping in the preview interface, users can open t he PIP to check the details of critical image

Reticle settings



Reticle display

Set reticle display, reticle style, reticle color and reticle movement enable or disable.

Reticle memory

When the reticle is enabled, users cam select the different reticle memory groups by themselves if the device shares between with many person or has many requirements of reticle setting. Each memory group can independently configure different reticle types. (1-5 memory groups)

Reticle style

When the reticle is enabled, short press the menu button to switch reticle style.(It has 7 kinds)

Reticle color

When the reticle is enabled, short press the menu button to switch the reticle color(white, black, green and invert color). Please select proper color for recognizing conveniently according to the color of environment. The invert color has adaptive color. (E.g.: the reticle color will change automatically to black if the target is too bright.)

Freezing and calibration

Freezing: Fix the device firmly and short press menu button after shooting to freeze the image. Observing the point of impact in the freezing image, users select “horizon·· (left and right) or “vertical” (up and down) and rotate the button to move the center of reticle to coincide with the point of impact. The parameter will save automatically after exiting and the calibration is finished.

Calibration: Fixing the device firmly and put a piece or lighted cigarette or other heat sources in the point of impact after shooting. Observing the point or impact in the freezing image, users select “horizon• (left and right) or “vertical” (up and down) and rotate the button to move the center of reticle to coincide with the point of impact. Tile parameter will save automatically after exiting and the calibration is finished.

Reset

If any memory group needs to reset the calibration point, users can select reset to restore the current reticle parameters to default.

Other settings

Compass: Display of compass information, pitch angle, roll angle enable or disable, enable by default.
Azimuth calibration: It is mainly used to calibrate the
azimuth. which is recommended to be performed for the first use or the place of use is changed. The calibration operation instructions will be presented after azimuth calibration is selected: rotate 360° horizontal centered by the device itself and cl ick start then rotate, click OK to finish calibration after rotation.
Pitch calibration: It is mainly used to calibrate the pitch angle. The calibration operation instructions will be presented after pitch calibration is selected: rotate 1so• horizontal centered by the device itself and click start then rotate, click OK to finish calibration after rotation.
Language: User can switch between Chinese and English according to the situation.
System time: Short press menu button to switch year, month, day, hour, min or second. Rotate the button to adjust the time and confirm to finish.
Auto shutter: It can adjust time interval between shutter corrections. The options are 3,5,7, auto, and off.
Restore to factory default settings: Confirm to restore to factory default settings will be appear, the device will restore to factory default settings and exit all menus after Yes is selected.

Device status: It shows the operation time and SN code.
Notice: The operation time will be reset after resetting factory default settings.
Format: Delete all pictures and videos. Please cautiously use to prevent being mistaken delete

Malfunction and Correction Actions

The common malfunctions of K series are listed in the below Table, please check and perform the corresponding corrective actions listed in Table 4,1. Please confirm whether the problem has. been solved after corrective actions. Not MI possible malfunctions are listed in Tatrlemtip it t he malfunctions not lisl d appear or the problem can not be solved alter corrective actions, please seek higher. level maintenance.

No.	Malfunction	Test or Check
1	The battery compartment cap cannot be tightened or cannot be opened.	(a) Check whether the battery has been inserted correctly. (positive/negative terminal)
		(b) Check whether there is foreign object around the battery cap knob.
		(c) Check whether the battery cap has been damaged, worn out or deformed.
		(d) Check whether the battery compartment has been damaged or deformed.
2	Unable to power on.	(a) Check whether the battery has been installed, the positive/ negative terminal is inserted correctly, the battery capacity is enough.
		(b) Check whether the power on/off button can be pressed normally.
3	No image displayed.	(a) Check whether the objective lens cap has been removed, whether the focal length is suitable.
		(b) Check whether the objective lens has been blocked during operation.
		(c) Check whether the lens has been broken.
		(d) Press and hold ▲ button to perform manual shutter correction.
4	The battery power is running out, please replace the battery is displayed when powered on.	(a) Check whether the battery power is low.
		Check whether the battery voltage is consistent with settings of the device.

No.	Corrective Actions
1	(a) Install the battery correctly.
	(b) Clean thread on the battery cap or battery compartment.
	(c) Please seek higher level maintenance.
	(d) Please seek higher level maintenance.
2	(a) Change new battery and install battery correctly following the rules described in Chapter 2.
	(b) Please seek higher level maintenance.
3	(a) Open objective lens cap and adjust focus ring.
	(b) Move the blocking object.
	(c) Please seek higher level maintenance.
	(d) Please seek higher level maintenance if there is still no image.
4	(a) Replace battery.
	Make the voltage consistent with the actual voltage value in Settings->Battery Voltage.

FCC Warning

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. Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. **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 or an experienced radio/TV technician for help. The SAR limit adopted by USA is 1.6 watts/kilogram (W/kg) averaged over one gram of tissue. The highest SAR value reported to the Federal Communications Commission (FCC) when it is tested for use at the body is 0.614W/kg, and the head is 0.106W/kg. The device complies with the RF specifications when the device is used near your head or at a distance of 0 mm from your body. Ensure that the device accessories such as a device case and a device holster are not composed of metal components.

Documents / Resources

	**LONGOT TECHNIC K3 Pro Multi Function Thermal Monocular** [pdf] User Manual K3PRO, 2A6JR-K3PRO, 2A6JRK3PRO, K3 Pro Multi Function Thermal Monocular, K3 Pro, Multi Function Thermal Monocular, Thermal Monocular, Monocular