

使用说明

AL PRO



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朗高特科技



快捷键功能



短按，确认选项。长按，打开/关闭电源。



短按，电子变倍放大。长按，切换工作模式（观察-透雾-明亮）



短按，电子变倍缩小。长按，切换工作模式（观察-透雾-明亮）

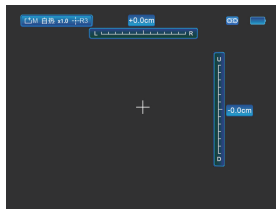
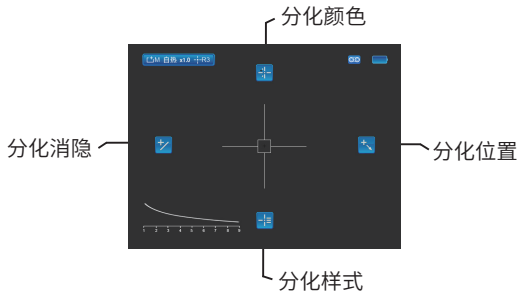
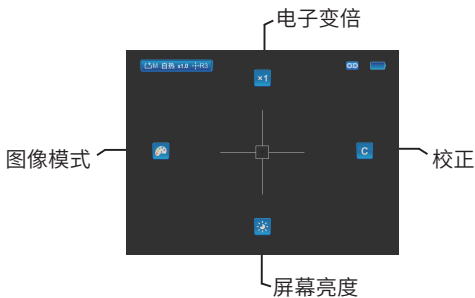
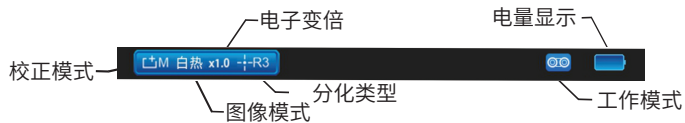


短按，图像模式切换

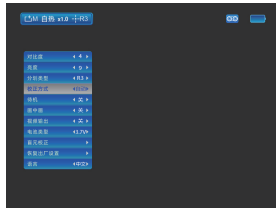


短按快门校正，长按背景校正。

图标介绍



分化位置调整界面



高级菜单界面

1.技术参数

型号	RL350P	RL360P	RL650P
探测器	384x288	384x288	640x512
像元尺寸,μm	12μm	12μm	12μm
帧频, Hz	50	50	50
物镜,mm	f35mm/F1.0	f50mm/F1.1	f50mm/F1.1
视场角度,°	7.2*5.4°	5.0*3.7°	8.5*6.7°
显示屏	OLED	OLED	OLED
分辨率	1024*768	1024*768	1024*768
视度调节	-4~+4	-4~+4	-4~+4
电池类型	CR123A*2 CR123A*4	CR123A*2 CR123A*4	CR123A*2 CR123A*4
出瞳直径, mm	6	6	6
出瞳距离, mm	55	55	55
工作时间,h	6	6	6
防护等级	IP67	IP67	IP67
外接电源接口	DC (5~12) V	DC (5~12) V	DC (5~12) V
模拟视频接口	PAL视频接口	PAL视频接口	PAL视频接口
工作温度	-40°C~55°C	-40°C~55°C	-40°C~55°C
存储温度	-55°C~70°C	-55°C~70°C	-55°C~70°C
机械冲击	1200g/0.3ms	1200g/0.3ms	1200g/0.3ms
外形尺寸, mm	225*70*80	236*70*80	236*70*80
裸机重量	695g	725g	725g
探测距离,m	1650m	2360m	2360m

备注：
发现距离：指正常环境下1.7*1.2米的目标，发现距离受温度、湿度、天气、环境影响变化。

2. 包装明细

多用型热成像 多用充电器 产品说明书	底座（短） 擦镜布 保修卡	电源/视频输出双线 CR123A 电池 软包
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3.主要性能

- 高清氧化钽探测器
- 带电池电量检测功能
- OLED显示器，3D视觉效果
- 低功耗，6小时以上待机
- 轻巧紧凑仅680-730g，人性化设计
- 2-4x数字变倍
- 抗冲击1200g
- 防水等级IP67

4.安装电池注意事项

- 请严格按照电池仓内壁上的标签指示安装；
- 电池成组使用，切勿混合，以免损伤；
- 拆装电池前请务必确认产品处于关机状态，若在开机状态下打开电池仓盖拆卸电池，将对产品寿命造成严重损害；
- 首次使用产品前，请务必确认电池有电；
- 请勿拆解、抛摔、或使电池短路，以防意外；
- 电池在使用、充电、存储期间，如果发现过热、变色、变形、散发气味或其他反常现象，应立即停止使用。

5.开机/关机

开机：长按电源键3秒，屏幕上出现开机画面。
关机：开机状态下，长按电源键3秒，关机。

6.目镜视度调节

为了适应不同视力的使用者，产品设有-4~+4°的视度调节。当屏幕中的界面图标或文字模糊时，表示目镜视度与使用者视度不匹配，请微调旋转视度调焦环，直到画面中的图标文字清晰可见为止。

7.镜头调焦

将其对准观察目标，根据目标位置，旋转镜头调焦环，直到图像清晰。当观察目标距离发生变化时，图像可能会出现模糊不清，应旋转镜头调焦环重新对焦，直到目标图像清晰。

8.图像调整

短按一次菜单键，切换出一级菜单。一级菜单上的“上、下、左、右”四个方向按键分别控制菜单界面“上、下、左、右”四个图标功能。如要退出主菜单，短按电源键即可退出选项。

8.1电子变倍

短按上键，实现图像 $\times 1$ - $\times 2$ - $\times 4$ 循环放大显示。

可将红外图像以分划中心区域进行放大显示，以便更清楚的观察目标对象。

RL350P的电子变倍有四种模式可选： $\times 1$ 、 $\times 2$ 、 $\times 4$ ，分别代表1倍放大、

2倍放大、4倍放大。每次开机默认为1倍放大

模式，提示信息显示在屏幕左上角位置。

使用“ $\times 1$ ”模式，图像视场较广，利于发现目标。

使用“ $\times 2$ ”、“ $\times 4$ ”，目标图像更大。

8.2图像模式

短按左键，转换黑热、白热、高温热、铁热，彩虹一，彩虹二，彩虹三，七种图像模式。

图像模式调节可以使红外图像显示成不同的色彩，以方便用户观察识别目标。产品初次开机默认的图像模式为“白热”，红外图像当前的图像模式显示在屏幕上方左上角。



8.3屏幕亮度调节

短按下键，控制屏幕亮度的切换，实现屏幕亮度8档循环显示。

亮度调节可增大或降低OLED显示屏的亮度。产品设有8档显示屏亮度可调，亮度依次从暗到亮。默认状态下的屏幕亮度为第4档，用户可根据个人观看习惯和当前环境选择合适的亮度。

8.4校正

短按右键进行快门校正；

长按右键进行背景校正，在进行背景校正时，屏幕上方会出现“背景校正时，请保持镜头盖闭合”字样，信息消隐代表校正完成，可以打开镜头盖。

9.分化操作功能

短按两次菜单键，切换出二级菜单，二级菜单主要为分划菜单，控制画面中的分划各项功能。二级菜单的，上、下、左、右四个方向按键分别控制菜单界面“上、下、左、右”四个图标功能。如要退出菜单界面，短按电源键，即可退出选项。

·在对分划功能进行操作前，请先确定分划已打开，分划未打开，此分划菜单下的操作亦无任何响应。

9.1分划颜色

在二级菜单下，短按上键，控制分划颜色的切换，实现分划白色——黑色——红色——绿色的循环显示。

分化颜色调节可以使分划显示成不同的色彩，以方便用户观察识别目标。

9.2分划样式

在二级菜单下，短按下键，控制分划样式的切换，实现7种样式的循环显示，分划线将显示在画面中央。校零后，用户可用分划线的中央进行观测。

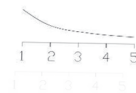


9.3分化测距显示

在二级菜单模式下，短按左键，显示物理测距，屏幕左下角出现测距分划。

横坐标1处一格表示100m距离。

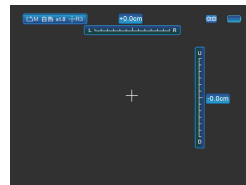
横坐标2处二格表示200m距离。



9.4校零

在二级菜单模式下，短按右键，进入校零界面。

在校零界面下，分划统一显示为小十字分划，便于调整位置，上、下、左、右四个按键对应上下左右四个方向的操作，每次点击，分划朝对应方向移动1像素，长按则每秒移动20个像素，RL350P型号每移动1像素状态栏数字变化约1.7cm，RL650P型号每移动1像素状态栏数字变化约2cm，状态栏总长200像素，分12小段。



根据实际点在屏幕中的显示的位置，提供两种校零方式，具体步骤如下。
在进行校零操作之前，请先确定分划类型的选择，具体操作详见10.3“分划类型”，出厂默认下分划类型为R1。

校零操作步骤：

校零方式一（实际点显示在屏幕之内）：

在分划位置调整界面下，用十字分划中心对准目标，并操作；
操作完成后，观察实际点与目标中心的位置；
短按电源键，画面冻结，同时在屏幕的左上方出现冻结标识；



在画面冻结的情况下，通过移动上下左右方向键，移动十字分划至实际点的位置；
将分划位置移动到实际点之后，长按电源键，当中心位置出现“OK”时，松开电源键，即为已保存当前分划状态，并退出菜单界面。

如不需保存，长按电源键，等中心位置“OK”字样消失后（OK字样显示时间为2S），松开电源键，即不保存退出界面。

校零方式二（实际点无法在屏幕中观察到）：

在分划位置调整界面下，用十字分划中心对准目标，并操作；
操作完成后，观察实际点与目标中心的位置；

如果无法在产品屏幕中观察到实际点的位置，则将产品十字分划中心对准目标中心不动，测量实际点到目标中心的距离；

根据测量距离来调整分划位置，如果实际点离目标中心水平偏差1.7cm，则RL350P水平移动1.7cm，RL650P水平移动2cm（校准距离默认为100米）。

将分划位置移动到实际点之后，长按电源键后，当中心位置出现“OK”时，松开电源键，即为已保存当前分划状态，并退出菜单界面。

为确保位置的准确性，可用调整后的分划线再次对准目标中心，然后反复上面的操作，直到实际点与目标中心重合；

如不需保存，可直接短按电源键，等中心位置“OK”字样消失后（OK字样显示时间为2S），松开电源键，即不保存退出界面。

10.图像调整

在二级菜单功能下，继续短按电源键，切换出高级菜单栏。

短按上键或下键，进行高级菜单中各个选项的切换，当切换到某一选项时，该选项的背景色由蓝变白；然后通过短按左键或者右键，对该选项的参数进行设置。

10.1对比度

图像对比度调节可以增大或降低图像的对比度，使目标更突显。

产品设有0-9档图像对比度可选，对比度从0档到9档，依次从弱到强。默认状态下的对比度为“5”档，用户可根据个人观看习惯和当前环境情况选择合适的对比度。

调节步骤：

在高级菜单下，通过上下键来切换选项至“对比度”选项；
切换到“对比度”选项后，通过左键和右键来对对比度的档位进行调节；
短按左键或右键，一次进行一个档位的变化；
操作完成后，短按上下键进入其他菜单选项的设置，或者短按电源键，退出高级菜单界面。

10.2亮度

亮度调节可以增大或降低图像的亮度。

产品设有0-9档图像亮度可选，亮度从0档到9档，依次从暗到亮。默认状态下的亮度为“5”档，用户可根据个人观看习惯和当前环境情况选择合适的亮度。

调节步骤：

在高级菜单下，通过上下键来切换选项至“亮度”选项；
切换到“亮度”选项后，通过方向键的左键和右键来对亮度的档位进行调节；
短按左键或右键，一次进行一个档位的变化。
操作完成后，短按上键或下键进入其他菜单选项的设置，或者短按电源键，退出高级菜单界面。

10.3分划类型

产品可存储4种类型的校零位置。用户如果已经存储了多种型号校零位置，更换不同装备后，请务必先选择当前装备所保存的分划类型，产品会将分划线位置自动适配当前型号，以保证更好的观测精度。

出厂时，分划默认隐藏。之后每次开机时，默认的分划类型为上一次操作时所选择的分划类型。

选择步骤：

在高级菜单下，通过上下键来切换选项至“分划类型”选项；
切换到“分划类型”选项后，通过短按左键和右键来对分划型号R1、R2、R3、R4四种型号的选择；
操作完成后，短按上下方向键进入其他菜单选项的设置，或者短按电源键，退出高级菜单界面；
如果存储的型号不满足当前装配的使用，可以对分划位置进行重新设置。

10.4校正方式

A: 自动校正，产品会根据内部参数自动不定期地进行快门校正；

M: 手动校正，产品使用期间不会进行任何校正操作，如需校正，需要用户手动进行操作。

选择步骤：

在高级菜单下，通过上下键来切换选项至“校正方式”选项；

切换到“校正方式”选项后，通过左键和右键来选择自动校正“A”和手动校正“M”，同时屏幕左上角的校正模式图标也将随之变化；

操作完成后，短按上键或下键进入其他菜单选项的设置，或者短按电源键，退出高级菜单界面。

10.5待机功能

待机时间可设置为“5”“15”“30”分钟，在此时间内不操作机器，则机器自动待机，进入省电模式。在待机状态下短按电源键，唤醒屏幕。

10.6画中画（PIP）

在开启画中画功能之后，在主画面上显示原始画面，而在屏幕上上部显示以十字分划为中心的部分区域放大2倍的图像。

设置步骤：

在高级菜单下，通过上下键来切换选项至“PIP”选项；

切换到“PIP”选项后，通过左键和右键来对“PIP”模式的开、关进行选择；

操作完成后，短按上键或下键进入其他菜单选项的设置，或者短按电源键，退出高级菜单界面。

10.7视频输出

打开模拟视频后，通过配套的工装线可将模拟视频信号传输至其它外部显示设备。

设置步骤：

在高级菜单下，通过上下键来切换选项至“视频输出”选项；

切换到“视频输出”选项后，通过左键和右键来对“视频输出”模式的开、关进行选择；

操作完成后，短按上键或下键进入其他菜单选项的设置，或者短按电源键，退出高级菜单界面。

10.8盲元校正

在操作过程中，如果出现不符合画面场景的亮点或者暗点（统称盲元）时，可以对其进行盲元校正操作。

操作步骤：

在高级菜单下，通过上下键来切换选项至“盲元校正”选项；

切换到“盲元校正”选项后，通过短按左键或右键进入盲元校正界面，界面左下角上将会显示已选中的坏点数量；

在盲元校正界面上，通过上下左右键移动光标至盲元处，短按上下左右键，每次移动1个像素，长按上下左右键，每次移动10个像素。

当光标和盲元点重合时，短按电源键可以选中并消除盲元，如果没有选择正确，可以再次短按电源键取消盲元，校正完毕后，长按电源键可以保存并退出。

10.9电池类型

本产品可以使用3.7V可充电锂电池CR123A或3V干电池CR123A，选择相应的电池类型能显示正确的电池电量。亦可外接电源，适配DC 5-12伏外接电源。

接入外接电源后，机器将不消耗电池电量，并一直处于开机状态，无法关机属于正常现象。

10.10恢复出厂设置

进入高级菜单后，选择“恢复出厂设置”，可将产品恢复到出厂设置。

设置步骤：

在高级菜单下，通过上下键来切换选项至“恢复出厂设置”选项；

切换到“恢复出厂设置”选项后，短按右键或左键，将会出现对话框；

对话框中将提示客户“确认恢复出厂设置？”，通过短按左键或右键，选择“是”或“否”。

10.11语言设置

本产品设置了中文/英语/俄语/德语/波兰语5种语言，用户可根据需要自行设置。

设置步骤：

在高级菜单下，短按上下键来切换选项至“语言”选项；

切换到“语言”选项后，短按左键或右键，对语言进行设置；

操作完成后，短按上键或下键进入其他菜单选项的设置，或者短按电源键，退出高级菜单界面。

11.维护保养

·观测完毕或开机后长时间不观测目标，应及时关机，以延长产品的有效利用时间。

·产品镜头为重要的光学部件，在安装使用过程中，避免油渍及各种化学物质沾染及损伤镜头表面，使用完毕后，请盖上镜头盖。

·未使用产品时以及在运输过程当中，请取出电池，并将产品置于包装箱内。

·产品长期存储或不工作时，应尽量储存在阴凉干燥的环境中。

·请勿用化学溶剂、稀释剂等擦洗热像瞄准镜机壳，可以用干净、柔软、干燥的绒布擦拭。

·产品镜头仅在明显弄脏时才需清洁，请避免触摸镜头表面，指纹遗留下的皮肤上的酸性物质会损伤涂层和镜头表面，仅能用专用镜头布清洁镜头。

·长期不用时，每半年应通电检查并校正一次。

DISCLAIMER

This product is prohibited use for illegal way, including illegal hunting, people's private illegal photographing , purpose connected with army, chemical, biological or nuclear weapons, or missiles capable of delivering such weapons and other acts that violate laws and regulations. that we will not supply the goods to an entity in the future in a destination subject to UN, EU or OSCE embargo where that act would be in breach of the terms of that embargo 9; and that we will not supply the goods, or any replica of them, in the future if we know or suspect that they are intended or likely to be used in any nuclear explosive activity i or unsafeguarded nuclear fuel cycle.

LONGOT TECHNIC



Button



Short press : OK.

Long press: Turn on / off the power



Short press :to zoom in

Long press to switch work pattern(observation-sharpen-brightness)



Short press :to zoom out

Long press to switch work pattern(observation-sharpen-brightness)

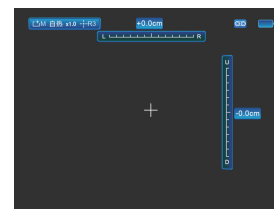
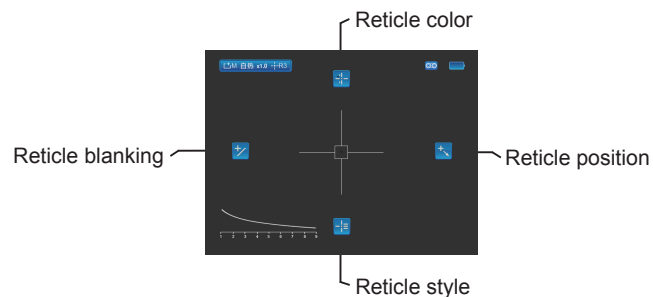
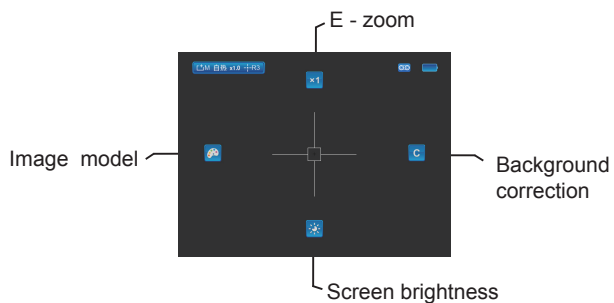
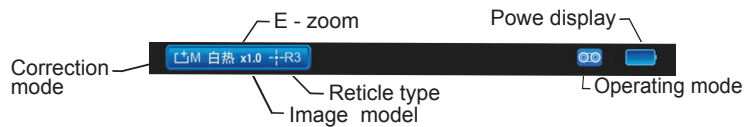


Short press :to switch image model

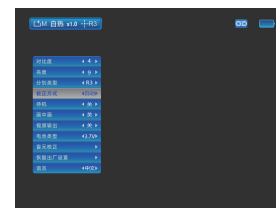


Short press : to correct shutter

Icon Introduction



Zero Calibration



Advanced setting

1. Specification

Model	RL350P	RL360P	RL650P
Detector	384x288	384x288	640x512
Pixel Size,μm	12μm	12μm	12μm
Frame rate, Hz	50	50	50
Objective Lens,mm	f35mm/F1.0	f50mm/F1.1	f50mm/F1.1
FOV,°	7.2*5.4°	5.0*3.7°	8.5*6.7°
Display type	OLED	OLED	OLED
Resolution, pix	1024*768	1024*768	1024*768
Diopter adjustment, D	-4~+4	-4~+4	-4~+4
Battery Type	CR123A*2 CR123A*4	CR123A*2 CR123A*4	CR123A*2 CR123A*4
Exit pupil, mm	6	6	6
Eye relief, mm	55	55	55
Operating Time ,h	6	6	6
Degree of protection	IP67	IP67	IP67
Output Voltage	DC (5~12) V	DC (5~12) V	DC (5~12) V
Video interface	PAL	PAL	PAL
Operating temperature	-40°C~55°C	-40°C~55°C	-40°C~55°C
storage temperature	-55°C~70°C	-55°C~70°C	-55°C~70°C
Recoil Power on Rifled Weapon, g/s	1200g/0.3ms	1200g/0.3ms	1200g/0.3ms
Dimension, mm	225*70*80	236*70*80	236*70*80
Weight, g	695g	725g	725g
Detection Range, m	1650m	2360m	2360m

Note: Max. detection range of an object meaning :1.7x1.2 meter target in natural night conditions .
The distance is affected by temperature, humidity, weather, and environment etc.

2. Package Contents

Thermal Imaging Riflescopes
Battery charger
Manual
Mount
CR123A battery
Data cable
Lens cloth
Bag
warranty card

3. Performance

- High-performance vanadium oxide detector provides clear images at night and in harsh weather conditions;
- With battery power detection function
- 1024x768 high resolution OLED display, excellent visual effect;
- Lightweight and compact, only 680-730g, humanized design
- 2-4x digital zoom
- Shock resistance 1200g
- IP67 waterproof rating.
- Low power dissipation, over 7.5H standby time

4. Installing The Batteries

- When installing the batteries, follow the label on the inner wall of the battery compartment;
- Use batteries in groups and do not mix them in order to avoid damage;
- Before disassembling the batteries, make sure that the thermal imaging scope is turned off, or else it will damage the thermal imaging scope;
- Before using the thermal imaging scope for the first time, make sure that the batteries has power;
- Do not disassemble, drop or short circuit the batteries in order to prevent accidents;
- If the batteries are found to be overheated, discolored or deformed, have smells or other abnormalities during use, charging or storage, stop using immediately.

5. ON / OFF

Press and hold the power button for 3 seconds, the power-on. (The ribbon appears on the screen is the core self-test, not failure of the thermal imaging scope).

In power on state, press and hold the power button for 3 seconds to turn off the thermal imaging scope.

6.Eyepiece Diopter Adjustment

When the interface icon or text on the screen is blurred, it means that the eyepiece diopter does not match the user's diopter. Slowly turn the eyepiece diopter adjustment ring, until the icon and text in the picture are clearly visible, which means that the eyepiece has been adapted to the user's diopter and the adjustment is completed.

7.Lens Focusing

After the thermal imaging scope is turned on, aim the thermal imaging scope at the target. Rotate the lens focus ring according to the target position until the image is clear. When the target distance changes, the image may be blurred. In this case, rotate the lens focus ring to refocus until the target image is clear.

8.Image adjustment

Short press the menu button once to switch to the first-level menu. The "Up, Down, Left and Right" buttons on the main menu control the functions of the "Up, Down, Left and Right" icons on the menu interface. To exit the main menu, press the power button .

8.1E-zoom

Short press the up button. The electronic zoom of the thermal imaging scope has four modes: $\times 1$, $\times 2$, $\times 4$

- When a large-scale search is needed to find the target, it is recommended to use " $\times 1$ " mode, which has wider image field and is easy to find the target.
- When it is necessary to identify the target state (e.g. whether the target is a person or a person's posture, etc.), it is recommended to use " $\times 2$ ", " $\times 4$ " which have larger target image.

8.2Image Mode

- Short press the left button to switch among seven image pattern which are White heat, black heat, red heat, rouge, rainbow1, rainbow2, rainbow3.
- The image mode adjustment can make the infrared image display in different colors, so that it is easy for the user to recognize the target.
- The default image mode of the thermal imaging scope is "White heat", and the current mode of the infrared image is displayed in the upper left corner of the screen.

8.3Screen Brightness Adjustment

- Short press the down button to control the switch of screen brightness, and realize the 8-level cycle display of screen brightness.
- Brightness adjustment can increase or decrease the brightness of the OLED display. The product is equipped with 8 levels of adjustable display brightness, the brightness is from dark to bright. The screen brightness in the default state is the Four gear, and the user can choose the appropriate brightness according to personal viewing habits and the current environment.

8.4Image Background Correction

- Short press the right button to perform shutter correction;
- Long press the right button to perform background correction.
- During background correction, the words "Cover lens when calibration." appear at the top of the screen. The correction is completed when the message hides and the lens cover can be opened.

9.Reticle Function

Short press the menu button twice to switch to the secondary menu. The "Up, Down, Left and Right" buttons on the main menu control the functions of the "Up, Down, Left and Right" icons on the menu interface. To exit the main menu, press the power button .

- When reticle is off, all menu items of reticle will be hidden.
- Long press the three buttons together 5 seconds to switch reticle display on/off.

9.1Reticle Color

- In the secondary menu mode, short press the up button, four division colors for users to choose from, which are black, white, green and red.
- Division color adjustment can make the division display in different colors and facilitate the user to observe and recognize the target.

9.2Reticle pattern

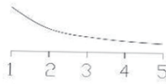
- In the operation interface of the secondary menu, short press the down button to switch among the seven Reticle pattern.



9.3Reticle ranging

- In the secondary menu mode, short press the left button to display the physical distance measurement, and the distance measurement division appears in the lower left corner of the screen.

- The position of digit 1 on the horizontal axis in the picture indicates that the object of 180cm tall at 100m is located at the height of the screen.
- The position of digit 2 on the horizontal axis in the picture indicates that the object of 180cm tall at 200m is located at the height of the screen.



9.4Zero Calibration

Zero calibration mode 1 (actual impact point is displayed on the screen):

- In the reticle adjustment interface, aim at the bullseye with a cross - dividing center and shoot
- Observe the actual impact point and the position of the bullseye ;
- Short press Power button, freezing the screen, and a freeze logo appears in the upper left of the screen
- Move the reticle to the actual point by moving the up, down, left, and right button Long press the power button when the reticle move to actual impact point. Hold the power button and release when " OK " appears in the center position to save the current division state and exit the menu interface
- Hold the power button when " OK " appears in the center position (about 2s), release the power button to exit the interface without saving.

Zeroing calibration mode 2(the actual impact point can't be observed on the screen):

- Aim at the bullseye with a cross - dividing center and shoot ;
 - Observe the actual impact point and the position of the bullseye ;
- If the actual impact point can't be observed on the screen, then keep aiming the reticle mid-point to the bull's eye steady, and measure the distance between the actual impact point and the bull's-eye. According to the measured distance, adjust the reticle position. With the movement of the cross, the corresponding movement distance will be displayed on the status bar located on the top and the right of the screen. If the horizontal deviation from the impact point to the bull's eye is 1cm, move horizontally that is 1.7cm (RL350), Pmove horizontally that is 2cm (RL650P) (the default target range is 100 meters)
- After moving the reticle to the actual impact point, the zeroing is completed. Long press the main menu button, then release the main menu button to save the current reticle state and exit the menu interface .
 - To ensure the accuracy of the position, aim the reticle after adjustment to the bull's eye again, and shoot, then repeat the steps above, until the bull's eye is hit.
 - Short press the POWER button to exit the interface without saving.

10. Advanced Menu

In the secondary menu, continue to press the power button to call out the advanced menu bar. Short press the up or down button to switch the options in the advanced menu. When switching to an option, the background color changes from blue to white. Short press the left or the right button to set the parameters of the option.

10.1 Contrast

Image contrast adjustment can increase or decrease the contrast of the image to make the target more prominent.

The contrast option of the thermal imaging scope is 0 - 9 from weak to strong.

By default, the contrast is "5". You can select the appropriate contrast according to personal viewing habits and environmental conditions.

Image contrast adjustment steps:

- In the advanced menu, use the Up/Down buttons to switch the option to "Contrast";
- Then, adjust the contrast level using the Left/Right buttons;
- Press Left/Right buttons to change the contrast level one at a time;
- After operation, press the Up/Down buttons to enter the settings of other menu options, or press the power button to exit the advanced menu interface.

10.2 Brightness

Brightness adjustment can increase or decrease the brightness of the image.

The brightness option of the thermal imaging scope is 0 - 9 from weak to strong.

By default, the brightness is "5". You can select the appropriate brightness according to personal viewing habits and environmental conditions.

Image brightness adjustment steps:

- In the advanced menu, use the Up/Down buttons to switch the option to "Brightness";
- Then, adjust the brightness level using the Left/Right buttons;
- Press Left/Right buttons to change the brightness level one at a time,
- After operation, press the Up/Down buttons to enter the settings of other menu options, or press the power button to exit the advanced menu interface.

10.3 Reticle Type

The thermal imaging scope can store 4 zero calibration positions. If you have stored a variety of model calibration positions, be sure to select the division type for the current tool type after changing the tool type.

The thermal imaging scope will automatically adapt the position of the reticle line to the current model to ensure better aiming accuracy.

When the product is delivered, the division is hidden by default. After it is turned on each time, the default reticle type is the one selected in the previous operation.

Reticle type selection steps:

- In the advanced menu, use the Up/Down buttons to switch the option to "Reticle Type";
- Then, select from the division types R1, R2, R3 and R4 using the Left/Right buttons;
- After operation, press the Up/Down buttons to enter the settings of other menu options, or press the power button to exit the advanced menu interface;
- If the stored model does not meet the current assembly, repeat the operation to reticle position.

10.4 Correction Method

The thermal imaging scope has two calibration modes available: "A" and "M".

A: Automatic correction; the thermal imaging scope will automatically and occasionally perform shutter correction according to internal parameters;
M: Manual calibration; no correction operation will be performed during the use of the thermal imaging scope.

Correction method selection steps:

- In the advanced menu, use the Up/Down buttons to switch the option to "Correction Method";
- Then, select the automatic correction "A" and the manual correction "M" using the Left/Right buttons, and the correction mode icon in the upper left corner of the screen will change accordingly;
- After operation, press the Up/Down buttons to enter the settings of other menu options, or press the power button to exit the advanced menu interface.

10.5 Sleep Delay

Standby can be set to 5, 15, 30 minutes. If you do not operate the machine during this time, the machine will automatically stand by and enter the power saving mode. In standby mode, short press the power button to wake up the screen.

10.6 Picture in Picture (PIP)

The thermal imaging scope provides picture-in-picture (PIP) and small window display. When the PIP function is turned on, the original picture is displayed on the main screen, and the upper middle of the screen shows the image of the area centered on the cross division magnified twice.

PIP mode setting steps:

- In the advanced menu, use the Up/Down buttons to switch the option to "PIP";
- Then, turn on/off the "PIP" mode using the Left/Right buttons;
- After operation, press the Up/Down buttons to enter the settings of other menu options, or press the power button to exit the advanced menu interface.

10.7 Video out

Connect an external display for video output.

Video out selection steps:

- In the advanced menu, use the Up/Down buttons to switch the option to "Video out";

- Then, turn on/off the "Video out" mode using the Left/Right buttons;
- After operation, press the Up/Down buttons to enter the settings of other menu options, or press the power button to exit the advanced menu interface.

10.8 Blind Pixel Correction

During the operation, if the thermal imaging scope does not match the bright or dark spots of the scene (collectively referred to as blind pixels), the blind pixels can be corrected.

Blind pixel correction steps:

- In the advanced menu, use the Up/Down buttons to switch the option to "Blind Pixel Correction";
 - Then, enter the blind pixel correction interface using the Left/Right buttons; the number of selected dead pixels will be displayed in the lower left corner of the interface;
 - In the blind pixel correction interface, move the cursor to the blind pixel with the direction buttons; press a direction button to move 1 pixel each time, or press and hold a direction button to move 10 pixels each time.
- When the cursor coincides with the blind pixel, short press the power button to select and eliminate. If the blind pixel is not correctly selected, short press the power button again to cancel the blind pixel and long press the power button to save and exit.

10.9 Restore Factory Settings

In the advanced menu, select "Restore Factory Settings" to restore the thermal imaging scope to the factory settings.

Factory settings restore steps:

- In the advanced menu, use the Up/Down buttons to switch the option to "Restore Factory Settings";
- Then, press the Right/Left button to show the dialog box;
- The dialog box prompts "Do you want to restore factory settings?" Press Up/Down button to select "Yes" or "No".

10.10 Language Settings

The thermal imaging scope has 5 languages: Chinese, English, German, Russian and Polish. You can set as needed.

Language setting steps:

- In the advanced menu, use the Up/Down buttons to switch the option to "Language";
- Then, set the language using the Left/Right buttons;
- After operation, press the Up/Down buttons to enter the settings of other menu options, or press the power button to exit the advanced menu interface.

11. Routine Maintenance and Correction

- If it won't be used after observation or turning on, please turn off the power in time to extend the effective use time of the thermal imaging scope.
- The lens of the thermal imaging scope is an important optical component. During installation and use, avoid oil stains and chemical substances from the lens surface. After use, put on the lens cover.
- If the thermal imaging scope is not used and during transportation, remove the batteries and place the thermal imaging scope in a protective packaging.
- When the thermal imaging scope is stored for a long time or isn't used, store it in a cool and dry place.
- Do not scrub the enclosure of the thermal imaging scope with chemical solvents or thinners; instead, wipe with clean, soft, dry flannelette.
- The lens of the thermal imaging scope needs to be cleaned only when it is obviously dirty. Avoid touching the lens surface and the acid left by the fingerprint can damage the coating and the lens surface. Clean the lens only with dedicated lens cloth.
- If the scope is not used for a long time, it should be checked and corrected once every six months.