



SERIES



A6/A7/A9/A10/A10LRF

观瞄型热像仪用户手册

Thermal sight user manual

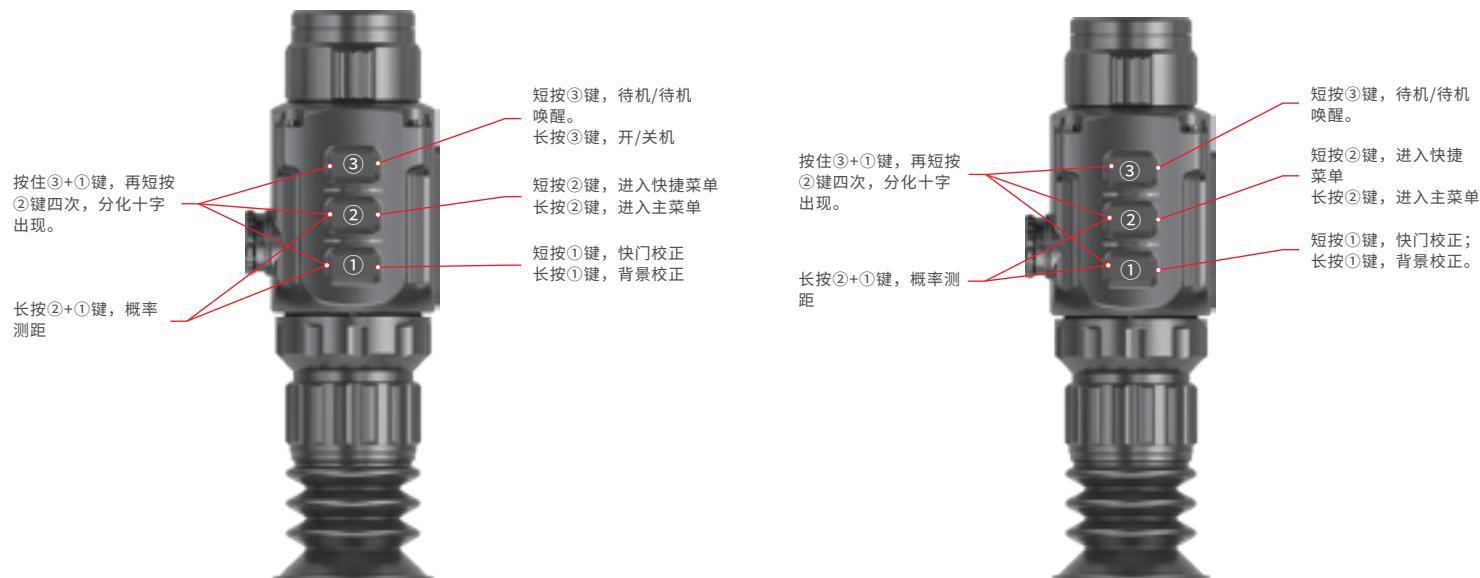
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朗高特科技

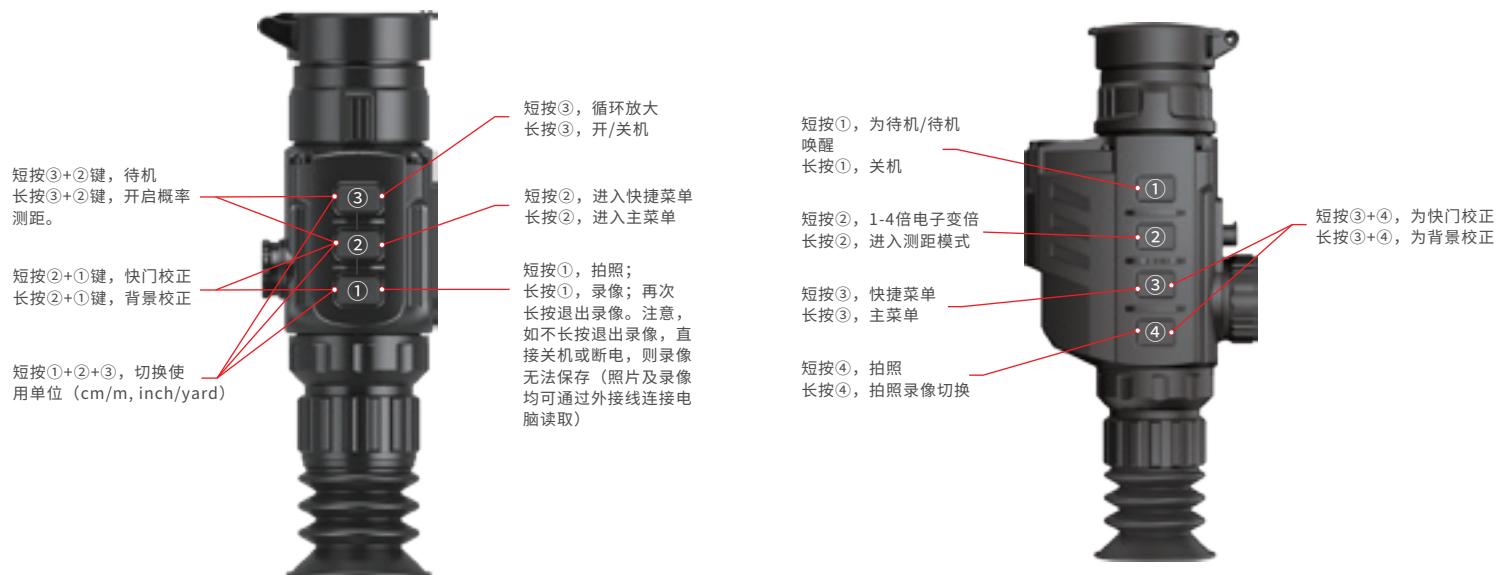


以下说明书中；

- ①为“C键”
- ②为“M键”
- ③为“电源键”

以下说明书中；

- ①为“C键”
- ②为“M键”
- ③为“电源键”



## 1.技术参数

型号	A6	A7	A9
探测器	256*192	384*288	384*288
像元尺寸,μm	12	17	17
NETD,mk	≤50	≤50	≤50
物镜,mm	19	25	35
视场角度,°	9.2*6.9	14.2*11.2	9.2*6.9
显示屏	LOCS	LOCS	LOCS
分辨率	1280*960	1280*960	1280*960
放大倍率,x	2.3-4.6	1.4-5.6	2.0-8.0
视度调节	-5~+5	-5~+5	-5~+5
电池类型	CR123*2	CR123*2	CR123*2
分化样式	4	4	4
防护等级	IP66	IP66	IP66
工作时间,h	8	4	4
WIFI,拍摄录像	—	—	—
电子罗盘	—	—	—
运动传感器	√	—	—
物理测距	√	√	√
重量,g	380	410	420
尺寸,mm	186*61*61	180*60*60	195*60*60
USB接口	Type-c	Type-c	Type-c
内存空间	—	—	—
探测距离,m	980	1050	1500
测量距离,m	—	—	—

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。

型号	A10	A10 LRF
分辨率	384*288	384*288
像元尺寸,μm	12	12
NETD,mk	≤50	≤40
物镜,mm	35	35
视场角度,°	7.5*5.7	7.5*5.7
显示屏	LOCS	OLED
分辨率	1280*960	1024*768
放大倍率,x	2.8-11.2	2.8-11.2
视度调节	-5~+5	-5~+5
电池类型	CR123*2	26650
分化样式	8	8
防护等级	IP66	IP66
工作时间,h	3.5	7
WIFI,拍摄录像	√	√
电子罗盘	√	√
运动传感器	√	√
物理测距	√	激光测距
重量,g	410	600
尺寸,mm	195*61*61	225*100*65
USB接口	Type-c	Type-c
内存空间, G	8	32
探测距离,m	1800	1800
测量距离,m	—	1000

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	底座	底座螺丝
多用充电器	电源单线	电源/视频输出双线
产品说明书	保修卡	软包
CR123*2电池	26650电池 (A10 LRF专配)	

## 3.电池安装

### (适用机型：A6/A7/A9/A10)

逆时针拧开电池盖，根据电池仓内的电池极性标签，正确放置两节CR123电池。盖上电池盖时用力按压，直到听见咔哒一声。

本机具备电池型号切换功能，既可以选择电压为3V的普通CR123电池，又可使用3.7V的可充电CR123电池。开机后，请先在高级菜单中选择使用的电池类型，否则会因为电池电量指示不准确，导致使用过程中断电。

### (型号：A10 LRF)

逆时针拧开电池仓盖。根据电池仓内的电池极性标签正确地放置一节26650电池。安装完电池之后，顺时针将电池仓盖扭紧。

注：

- 请不要使用不同型号或不同电量的电池。
- 本机可通过Type-c数据线连接外部电源供电，连接成功后，屏幕右上方会出现USB图标。

## 4.开关机

### (适用机型：A6/A7/A9/A10)

在关机状态时，长按“电源键”3s，出现开机画面，设备启动完成。

在开机状态下，长按“电源键”3s，出现关机界面，短按“电源键”或“C键”选择“√”，

短按“M键”，确认关机。

### (型号：A10 LRF)

在关机状态时，长按“电源键”3s，出现开机画面，设备启动完成。

在开机状态下，长按“电源键”3s，出现关机界面，短按“放大键”或“拍照键”选择“√”，

短按“M键”，确认关机。

## 5.待机模式

### (适用机型：全部机型)

开机状态下，短按“电源键”进入待机睡眠状态，此状态下可以节省设备电量；再次短按“电源键”唤醒设备。

## 6.视度调节

为了适应不同视力的使用者，产品设有-5~+5°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.焦距调节

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.校正

### (适用机型：A6/A7/A9)

短按“C键”进行快门校正，长按“C键”进行背景校正。

### (适用机型：A10/A10 LRF)

短按“M键”+“拍照键”进行快门校正，长按“M键”+“拍照键”进行背景校正。

## 9.分划开启与隐藏

### (适用机型：A6/A7/A9/A10)

首次开启，长按“电源键”+“C键”的同时，再单击4次“M键”，分划功能开启。

注：同时长按“电源键”+M键+“C键”约7s，是分划开启关闭的快捷键。

分划隐藏后，高级菜单中的校正、武器类型、盲元校正等选项也会随之隐藏。

### (型号：A10 LRF)

首次开启，长按“放大键”+“拍照键”的同时，再单击4次“M键”，分划功能开启。

注：同时长按“放大键”+M键+“拍照键”约7s，是分划开启关闭的快捷键。

分划隐藏后，高级菜单中的校正、武器类型、盲元校正等选项也会随之隐藏。

## 10.测距

### (适用机型：A6/A7/A9)

长按“M键”+“C键”，进入概率测距界面，在光标上下位置出现两条横线，通过“电源键”和“C键”调整横线至目标位置，左侧图标显示对应目标的大约距离。长按“M键”可退出测距界面。

### (适用机型：A10)

长按“电源键”+“M键”，进入概率测距界面，在光标上下位置出现两条横线，通过“电源键”和“拍照键”调整横线至目标位置，左侧图标显示对应目标的大约距离。长按“M键”可退出测距界面。

### (适用机型：A10 LRF)

观察模式下，长按“放大键”进入测距模式。一共两种测距模式，分别是单次测距（SGL）和连续测距（CONT），长按“放大键”，可对测距模式进行切换。首次进入测距模式为SGL单次测距模式，在此模式下，短按“放大键”进行距离。在连续测距模式下，右上角测距信息会根据框选目标的变化实时更新。短按“电源键”可退出测距模式。

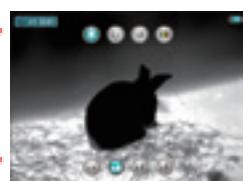
## 11. 快捷菜单

### (适用机型：A6)

短按M键进入快捷菜单。

#### 快捷菜单1：图像模式和锐度

短按“电源键”，对图像模式进行调节，依次为：白热、黑热、红热、伪彩。



短按“C键”，对图像锐度进行调节，分别有4个档位。

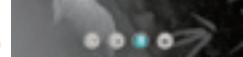


#### 快捷菜单2：图像对比度和屏幕亮度

短按“电源键”，对图像对比度参数进行调节，分别有4个档位。



短按“C键”，对屏幕亮度进行调节，分别有4个档位。



#### 快捷菜单3：分化颜色和分化类型

短按“电源键”，对分化颜色进行调节，有白色、黑色、红色和绿色。



短按“C键”，对分化类型进行调节，共有四种类型可选。

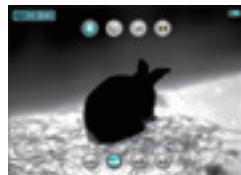


### (适用机型：A7,A9)

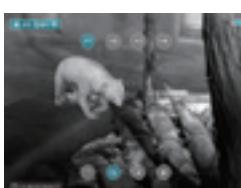
短按M键进入快捷菜单。

#### 快捷菜单1：图像模式和锐度

短按“电源键”，对图像模式进行调节，依次为：白热、黑热、红热、伪彩。



短按“C键”，对图像锐度进行调节，分别有4个档位。



#### 快捷菜单2：电子变倍和屏幕亮度

短按“电源键”，可进行倍率放大，1—4倍循环放大。



短按“C键”，对屏幕亮度进行调节，分别有4个档位。



#### 快捷菜单3：分化颜色和分化类型

短按“电源键”，对分化颜色进行调节，有白色、黑色、红色和绿色。



短按“C键”，对分化类型进行调节，共有四种类型可选。



### (适用机型：A10)

短按M键进入快捷菜单。

#### 快捷菜单1：电子变倍和屏幕亮度

短按“电源键”，可进行倍率放大，1—4倍循环放大。



短按“拍照键”，对屏幕亮度进行调节，共有四个档位。

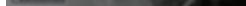


#### 快捷菜单2：图像模式和锐度

短按“电源键”，对图像模式进行调节，依次为：白热、黑热、红热、伪彩。



短按“拍照键”，对图像锐度进行调节，分别有4个档位。



#### 快捷菜单3：分化颜色和分化样式

短按“电源键”，对分化颜色进行调节，有白色、黑色、红色和绿色。



短按“拍照键”，对分化类型进行调节，共有八种类型可选。



#### (适用机型：A10LRF)

#### 快捷菜单1：图像模式和屏幕亮度

短按“放大键”，对图像模式进行循环调节，依次为白热、黑热、红热和伪彩

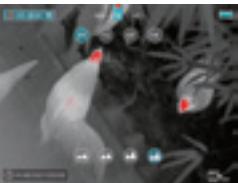


短按“拍照键”，对屏幕亮度进行调节，分别有4个档位。



#### 快捷菜单2：电子变倍和锐度

短按“放大键”，对屏幕亮度进行调节，分别有4个档位。



短按“拍照键”，对图像锐度进行调节，分别有4个档位。

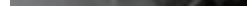


#### 快捷菜单3：图像亮度和对比度

短按“放大键”，对图像亮度进行循环调节，分别有4个档位。



短按“拍照键”，对图像对比度进行循环调节，分别有4个档位。



#### 快捷菜单4：分化颜色和分化样式

短按“放大键”，对分化颜色进行调节，有白色、黑色、红色和绿色。



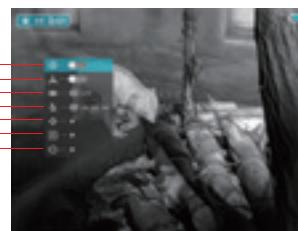
短按“拍照键”，对分化类型进行调节，共有八种类型可选。



## 12.高级菜单

#### (适用机型：A6)

长按M键进入高级菜单。



#### ①自动快门校正

开启自动快门校正后，设备会在使用过程中，根据软件算法自动进行快门校正。

#### ②运动传感器

开启后，屏幕右侧会显示倾角以及俯仰角的标尺及刻度。其中水平标尺表示倾角，垂直标尺表示俯仰角。

#### ③电池类型

根据电池规格进行电压选择。如果电池类型与电池电压不匹配，会导致电池电量检测不准确。

普通CR123干电池请选择3V。充电CR123电池请选择选择 3.7V。

#### ④校准类型

4种校准数据可储存。更换装备只需选择对应的武器类型即可。

#### ⑤校准

在进行设置前,请先确保十字分划处于开启状态,并在高级菜单中选择校准类型。

在校准界面下,分划统一显示为小分划,便于调整位置;

将分划中心瞄准100米处的目标,并操作;

操作完成后,观察实际点的位置。

实际点的位置在屏幕内:

保持热像仪位置不动,同时长按“M键”和“C键”,画面冻结,同时在左上方的状态栏中出现冻结标识;

短按“M键”进行上下方向或者左右方向的选择,短按或长按“电源键”或“C键”移动十字分划至实际点的位置;

将分划移动到实际点之后,长按“M键”,保存并退出。

实际弹点的位置不在屏幕内:

保持热像仪位置不动,测量实际点到目标的垂直和水平距离;

测量的距离,通过短按或长按“电源键”或“C键”移动分划光标,短按“M键”进行上下方向和左右方向的切换,调整分划位置至标尺上标注的距离与测量的距离一致;将分划位置移动到实际点之后,长按“M键”,保存当前分划位置并退出。

操作说明:

为确保位置的准确性,校准完成后,可再次重复上述的操作,直到与目标重合。

在校准界面下,短按“M键”或“C键”,每次点击分划朝相应方向移动1个像素,长按则每次移动10个像素,底部信息栏显示了光标的移动信息,每移动1个像素状态栏数字变化2.53cm。显示屏内的小白点表示未调整前分划的初始位置。

#### ⑥盲元校正

选择进入盲元校正后,短按“电源键”或“C键”进行上下或者左右方向移动分划光标,短按“M键”进行上下方向和左右方向的切换;

选中盲元后,同时长按“电源键”和“C键”进行盲元校正,在同一位置再次长按“电源键”和“C键”取消盲元校正,同时图像下方会显示校正的盲元的数量;长按“M键”保存并退出盲元校正界面。

#### ⑦恢复出厂设置

选择恢复出厂设置功能后,短按“M键”进入恢复出厂设置选项界面;

短按“电源键”或“C键”进行“√/×”选项切换,选择“√”表示确定恢复至出厂设置,选择“×”表示取消恢复出厂设置;

确认选项后,短按“M键”完成操作。

### (适用机型: A7,A9)

长按M键进入高级菜单。



#### 1. 超清模式

Ultraclear模式可以使热像仪在大雾、雨雪等恶劣天气环境下,图像细节更丰富。

#### 2. 蓝牙

蓝牙功能暂未开通。

#### 3. 视频输出

在外接显示屏时,请打开视频输出开关。

#### 4. PIP

开启画中画功能之后,在屏幕正上方显示以十字分划为中心的部分区域放大2倍的图像。

#### 5. 电池类型

根据电池规格进行电压选择。如果电池类型与电池电压不匹配,会导致电池电量检测不准确。

普通CR123干电池请选择3V。充电CR123电池请选择选择3.7V。

#### 6. 武器选择

4种校准数据可储存。更换装备只需选择对应的武器类型即可。

#### 7. 激光十字校准

在进行校准设置前,请在高级菜单中选择武器类型;

然后通过上下键将选项切换至十字校准功能,短按“M键”进入校准界面;

在校准界面下,将产品的十字分化对准100米处的目标,并操作;

操作完成后,观察实际点的位置;

如果可以在产品显示屏上观察到实际点的位置;

保持产品位置不动,同时长按“M键”和“C键”冻结画面,在左上方的状态栏中会出现冻结图标;

然后短按“M键”进行上下方向或者左右方向的选择,短按或者长按“电源键”或“C键”移动十字分化至实际点的位置;

将分化移动到实际点之后,长按“M键”保存并退出。

如果无法在热像仪屏幕上观察到实际点的位置:

保持热像仪位置不动,测量实际弹着点到靶心的垂直和水平距离;

通过短按或长按“上键”和“下键”进行上下或者左右方向移动分划光标,至标

尺上标注的距离与测量的距离一致，每次点击分化朝相应方向移动1个像素，长按则每次移动10个像素，上部和右侧标尺显示了光标的移动信息，A7每移动1个像素，状态栏变化3.4cm，A9每移动1个像素，状态栏变化2.4cm。

将分化移动到实际点之后，长按“M键”保存并退出。

为确保位置的准确性，校准完成后，可再次重复上述的操作，直到命中靶心。

在校准界面下，小白点表示未调整前分划的初始位置；

## 8. 盲元校正

通过上下键将选项切换至盲元校正功能后，短按“M键”进入盲元校正界面；短按“电源键”或“C键”进行上下或者左右方向移动分划光标，短按“M键”进行上下方向和左右方向的切换；

选中盲元后，同时长按“电源键”或“C键”进行盲元校正，在同一位置再次长按“电源键”或“C键”取消盲元校正，同时图像下方会显示校正的盲元的数量；长按“M键”保存并退出盲元校正界面。

## 9. 恢复出厂设置

选择恢复出厂设置功能后，短按“M键”进入界面；

短按“电源键”或“C键”进行√/×选项切换，选择√表示确定恢复至出厂设置，选择×表示取消恢复出厂设置；确认选项后，短按“M键”完成操作。

## (适用机型：A10)

长按M键进入高级菜单。



## 1. 超清模式

UltraClear模式可以使热像仪在大雾、雨雪等恶劣天气环境下，图像细节更丰富。

## 2. WIFI

打开机器wifi，用手机连接WIFI后（初始密码为12345678），打开下载好的APP，可通过手机观察实时图像，并进行拍照录像等操作，照片及视频会存储到手机中。

## 3. 自动快门校正

开启自动快门校正后，设备会在使用过程中，根据软件算法自动进行快门校正。

## 4. 视频输出

在外接显示屏时，请打开视频输出开关。

## 5. PIP

开启画中画功能之后，在屏幕正上方显示以十字分划为中心的部分区域放大2倍的图像。

## 6. 电子罗盘

在此选项下，单击M键，进入罗盘校准界面，按图示方向，在30秒内将设备分别进行三个轴向的旋转，完成罗盘校准。

## 7. 运动传感器

显示水平和垂直的倾斜角度，提高用户体验。

## 8. 电池类型

根据电池规格进行电压选择。如果电池类型与电池电压不匹配，会导致电池电量检测不准确。

普通CR123干电池请选择3V。充电CR123电池请选择3.7V。

## 9. 武器选择

4种校准数据可储存。更换装备只需选择对应的武器类型即可。



## 11. 激光十字校准

在进行校准设置前，请先确保十字分划处于开启状态，并提前在高级菜单中选择武器类型；

将热像仪的十字分划中心瞄准100米处的靶心，并操作；

操作完成后，观察实际点的位置；

如果可以在热像仪显示屏中观察到实际点的位置：

保持热像仪位置不动，同时长按“M键”和“拍照键”，画面冻结，同时在左上方的状态栏中出现雪花冻结标识；

然后短按“M键”进行上下方向或者左右方向的选择，之后通过短按或长按“电源键”或者“拍照键”移动十字分划至实际弹着点位置；

将分划移动到实际弹着点之后，长按“M键”，保存并退出；

如果无法在热像仪屏幕上观察到实际弹着点的位置：

保持热像仪位置不动，测量实际弹着点到靶心的垂直和水平距离；

测量的距离，通过短按或长按“电源键”和“拍照键”进行上下或者左右方向移动分划光标，短按“M键”进行上下方向和左右方向的切换，调整分划位置至标尺上标注的距离与测量的距离一致；

将分划位置移动到实际弹着点之后，长按“M”键，保存当前分划位置并退出。

操作说明：

为确保位置的准确性，校准完成后，可再次重复上述的操作，直到命中靶心。

在校准界面下，短按“M键”或“拍照键”，每次点击分划朝相应方向移动1个像素，长按则每次移动10个像素，下方标尺显示了光标的移动信息。100米的距离下每移动1个像素状态栏数字变化1.71cm；切换单位后，100米的距离下，每移动一个像素状态栏数字变化0.62英寸；

在校准界面下，小白点表示未调整前分划的初始位置；

### 12. 盲元校正

通过上下键将选项切换至盲元校正功能后，短按“M键”进入盲元校正界面；短按“电源键”或“拍照键”进行上下或者左右方向移动分划光标，短按“M键”进行上下方向和左右方向的切换；

选中盲元后，同时长按“电源键”和“拍照键”进行盲元校正，在同一位置再次长按“电源键”和“拍照键”取消盲元校正，同时图像下方会显示校正的盲元的数量；长按“M键”保存并退出盲元校正界面。

### 13. 罗盘校准

在此选项下，单击“M键”，进入罗盘校准界面，按图示方向，在30秒内将设备分别进行三个轴向的旋转，完成罗盘校准。

### 14. 版本信息

显示产品相关信息。

### 15. 恢复出厂设置

选择恢复出厂设置功能后，短按“M键”进入界面；

短按“电源键”或“拍照键”进行√/×选项切换，选择√表示确定恢复至出厂设置，选择“×”表示取消恢复出厂设置；确认选项后，短按“M键”完成操作。

## (适用机型：A10LRF)

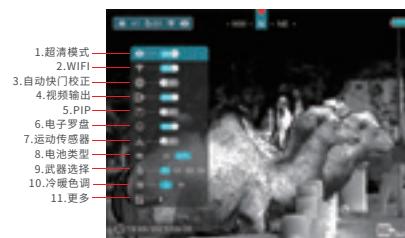
长按M键进入高级菜单。

### 1. 超清模式

Ultraclear模式可以使热像仪在大雾、雨雪等恶劣天气环境下，图像细节更丰富。

### 2. WIFI

打开机器wifi，用手机连接WIFI后(初始密码为12345678)，打开下载好的APP，可通过手机观察实时图像，并进行拍照录像，照片及视频会存储到手机中。



### 3. 自动快门校正

开启自动快门校正后，设备会在使用过程中，根据软件算法自动进行快门校正。

### 4. 视频输出

在外接显示屏时，请打开视频输出开关。

### 5. PIP

开启画中画功能之后，在屏幕正上方显示以十字分划为中心的部分区域放大2倍的图像。

### 6. 电子罗盘

在此选项下，单击M键，进入罗盘校准界面，按图示方向，在30秒内将设备分别进行三个轴向的旋转，完成罗盘校准。

### 7. 运动传感器

显示水平和垂直的倾斜角度，提高用户体验。

### 8. 电池类型

根据电池规格进行电压选择。如果电池类型与电池电压不匹配，会导致电池电量检测不准确。

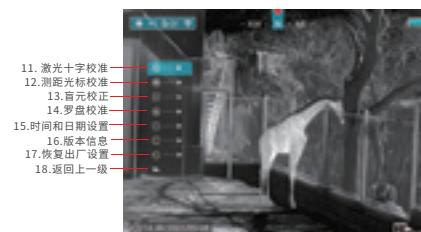
普通26650干电池请选择3V。充电26650电池请选择选择 3.7V。

### 9. 武器选择

4 种校准数据可储存。更换装备只需选择对应的武器类型即可。

### 10. 冷暖色调

暖色调图像更加柔和，适合长时间观察，冷色调图像更加锐利，细节更加丰富。



## 11. 激光十字校准

在进行校准设置前,请先确保十字分划处于开启状态,并提前在高级菜单中选择武器类型;

将热像仪的十字分划中心瞄准100米处的靶心,并操作;

操作完成后,观察实际点的位置;

如果可以在产品显示屏中观察到实际点的位置;

保持产品位置不动,同时长按“M键”和“拍照键”冻结画面,在左上方的状态栏中会出现冻结图标;

然后短按“M键”进行上下方向或者左右方向的选择,短按或者长按“电源键”或“拍照键”移动十字分化至实际点的位置;

将分化移动到实际点之后,长按“M键”保存并退出。

如果无法在热像仪屏幕上观察到实际点的位置:

保持热像仪位置不动,测量实际弹着点到靶心的垂直和水平距离;

通过短按或长按“上键”和“下键”进行上下或者左右方向移动分划光标,至标尺上标注的距离与测量的距离一致,每次点击分化朝相应方向移动1个像素,长按则每次移动10个像素,上部和右侧标尺显示了光标的移动信息,A7每移动1个像素,状态栏变化3.4cm,A9每移动1个像素,状态栏变化2.4cm。

将分化移动到实际点之后,长按“M键”保存并退出。

为确保位置的准确性,校准完成后,可再次重复上述的操作,直到命中靶心。

在校准界面下,小白点表示未调整前分划的初始位置;

## 12. 测距光标校准

通过上下键将选项切换至测距光标校准功能后,短按“M键”进入测距光标校准界面。用户无专业设备校准时,可选择100m外前后差距较大的建筑进行校准(如空旷处的大楼)。

将设备从左向右缓慢移动,使建筑物缓慢在目镜中出现,同时观察右上角测距数据,当测距数据由-m突变为设备到建筑物的距离,此时将测距光标左右移动至建筑与背景交界,完成左右位置的校准。

将设备从上向下缓慢移动,使建筑物缓慢在目镜中出现,同时观察右上角测距数据,当测距数据由-m突变为设备到建筑物的距离,此时将测距光标上下移动至建筑与背景交界,完成上下位置的校准。

## 13. 盲元校正

通过上下键将选项切换至盲元校正功能后,短按“M键”进入盲元校正界面;短按“上键”或“下键”进行上下或者左右方向移动分划光标,短按“M键”进行上下方向和左右方向的切换;

选中盲元后,同时长按“上键”和“下键”进行盲元校正,在同一位置再次长按“上键”和“下键”取消盲元校正,同时图像下方会显示校正的盲元的数量;长按“M键”保存并退出盲元校正界面。

## 14. 罗盘校准

通过上下键将选项切换至盲元校正功能后,短按“M键”进入罗盘校准界面,在30秒内将设备分别进行三个轴向的旋转,完成罗盘校准。

## 15. 时间和日期设置

通过“放大键”或“拍照键”将选项切换至盲元校正功能后,短按“M键”进入时间和日期设置。

短按M键分别可设置年、月、日、时、分,当前项的图标会变成蓝色,同时图标上下位置出现一对三角形;选中更改的选项后,短按“放大键”与“拍照键”调节数值,调节完成后,长按M键保存退出。

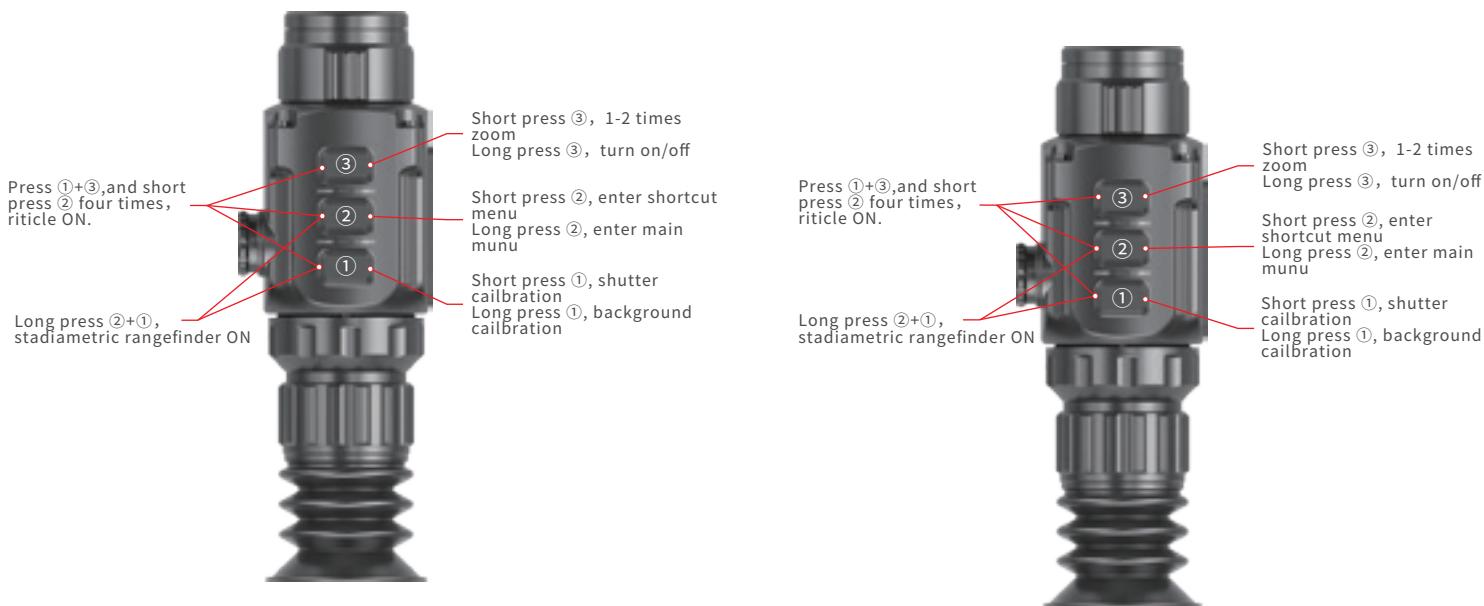
## 16. 版本信息

显示产品相关信息。

## 17. 恢复出厂设置

选择恢复出厂设置功能后,短按“M键”进入界面;

短按“上键”或“下键”进行√/×选项切换,选择√表示确定恢复至出厂设置,选择×表示取消恢复出厂设置;确认选项后,短按“M键”完成操作。



In the following manual;

- ① is "C Button"
- ② is "M Button"
- ③ is "Power Button"

In the following manual;

- ① is "C Button"
- ② is "M Button"
- ③ is "Power Button"

Short press ③+②, standby  
Long press ③+②, stadiametric rangefinder ON

Short press ②+①, shutter calibration  
Long press ②+①, background calibration

Short press ①+②+③, switch the unit of use (cm/m, inch/yard)

Short press ③,  
zoom cycle  
Long press ③,  
turn on/off

Short press ②,  
enter shortcut menu  
Long press ②,  
enter main menu

Short press ①,  
take photos;  
Long press ①,  
record video;  
Press the button again to exit the recording (Note that the video will not save if you skip the process and shut down the device suddenly instead)  
The photos and videos can be read on the computer by USB cable



Long press ①,  
standby/wakes up  
Long press ①, turn on/off

Short press ②, 1-4times zoom  
Long press ②, stadiametric rangefinder ON

Short press ③,  
enter shortcut menu  
Long press ③,  
enter main menu

Short press ④, take photos  
Long press ④, switch photos/video



Short press ③+④,  
shutter calibration  
Long press ③+④,  
background calibration

- ① is “Power Button”
- ② is “Zoom Button”
- ③ is “Menu Button”
- ④ is “Cream Button”

In the following manual;  
① is “Camera Button”  
② is “M Button”  
③ is “Power Button”

## 1.Specification

Model	A6	A7	A9
Resolution,pix	256*192	384*288	384*288
Pixel size,µm	12	17	17
NETD,mk	≤50	≤50	≤50
Objective lens,mm	19	25	35
FOV,°	9.2*6.9	14.2*11.2	9.2*6.9
Display	LOCS	LOCS	LOCS
Resolution,pix	1280*960	1280*960	1280*960
Magnification,x	2.3-4.6	1.4-5.6	2.0-8.0
Diopter adjustment-5~+5	-5~+5	-5~+5	-5~+5
Battery	CR123*2	CR123*2	CR123*2
Reticle	4	4	4
IP protection	IP66	IP66	IP66
Operation time,h	8	4	4
WIFI,Photo	—	—	—
Compass	—	—	—
Msensor	✓	—	—
Range	✓	✓	✓
Weight,g	380	410	420
Size,mm	186*61*61	180*60*60	195*60*60
USB	Type-c	Type-c	Type-c
Memory,G	—	—	—
Discover,m	980	1050	1500

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.

Model	A10	A10 LRF
Resolution,pix	384*288	384*288
Pixel size,µm	12	12
NETD,mk	≤50	≤40
Objective lens,mm	35	35
FOV,°	7.5*5.7	7.5*5.7
Display	LOCS	OLED
Resolution,pix	1280*960	1024*768
Magnification,x	2.8-11.2	2.8-11.2
Diopter adjustment	-5~+5	-5~+5
Battery	CR123*2	26650
Reticle type	8	8
IP protection	IP66	IP66
Operation time,h	3.5	7
WIFI,Photo	✓	✓
Compass	✓	✓
Msensor	✓	✓
Ranger	✓	Laser Ranging
Weight,g	410	600
尺寸,mm	195*61*61	225*100*65
USB	Type-c	Type-c
Memory,G	8	32
Discover,m	1800	1800

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 sight  
Power single line  
Power/video output dual cable  
CR123\*2 battery  
Charger  
User manual  
Carrying case  
Mount  
Warranty card  
Carrying case  
26650 Battery (A10 LRF)

## 3.Battery installation

### (Compatible model: A6/A7/A9/A10)

Unscrew the battery compartment cover counterclockwise and place two CR123A batteries correctly according to the battery polarity label in the battery compartment; press firmly on the battery cover until you hear a “click” sound.

Note:

- Please do NOT install the different battery models or battery capacity.
- The battery models switch function is in the camera. Either 3V CR123A x2 or 3.7V CR123A x2 batteries can be installed. After installed, power on camera, please choose the battery model in the Advance Menu, otherwise the batty capacity status label will display wrong, or the camera could be shut down suddenly.

### (Compatible model: A10 LRF)

- Unscrew the battery compartment cover counterclockwise and place two 26650 battery correctly according to the battery polarity label in the battery compartment. After that, screw the battery compartment cover clockwise.

## 4. ON,OFF

### (Compatible model: A6/A7/A9/A10)

When the power is off, long press “Power button” for 3s, the device starts.

When the power is on, long press “Power button” for 3s, the shutdown image is displayed on the screen, short press “Power button” or “C button” to select the “√” to shutdown camera.

### (Compatible model: A10 LRF)

When the power is off, long press “Power button” for 3s, the device starts.

When the power is on, long press “Power button” for 3s, the shutdown image is displayed on the screen, short press “Zoom button” or “camera button” to select the “√” to shutdown camera.

## 5. Standby mode

### (Compatible model:All)

Under the observation interface, Short press “Power button” to enter into

standby mode, short press the power button again to restore to the observation interface.

## 6. Diopter adjustment

Rotating the focus ring and eyepiece adjustment to get the clearest image after starting up the unit.

## 7. Focus

Rotate the eyepiece focus ring till the image clear.

## 8. Calibration

### ( Compatible model:A6/A7/A9)

Short press the C button to calibrate image with background

### ( Compatible model:A10/A10 LRF)

Short press “M button” + “Camera button” to calibrate image with background .

## 9. Reticle display on/off

### ( Compatible model:A6/A7/A9/A10)

For the first time,long press the "Zoom button" + "Camera button" , then click 4 times "M button " to open the reticle function.

Note: Long press the three buttons for about 7S, It is the shortcut key of reticle function.

When reticle is off, all menu items of reticle, as reticle color / reticle pattern of shortcut menu or zeroing / firearms type / blind pixel correction will be hidden.

### ( Compatible model:A10 LRF)

For the first time,long press the "Zoom button" + "Camera button" , then click 4 times "M button " to open the reticle function.

Note: Long press the three buttons for about 7S, It is the shortcut key of reticle function.

When reticle is off, all menu items of reticle, as reticle color / reticle pattern of shortcut menu or zeroing / firearms type / blind pixel correction will be hidden.

## 10. Stadiametric ranging

### ( Compatible model:A6/A7/A9)

Long press the “ M button” and “C button”, to enter the stadiametric ranging interface, and two horizontal lines will appear on the upper and lower positions of the cursor.

Adjust the horizontal lines to the target position by the “ Power button” and “C button”.The icon on the left shows the approximate distance of the corresponding target.

Long press the M button to exit to the stadiametric ranging interface.

#### (Compatible model:A10)

Long press the "Power button" and "M button", to enter the stadiametric ranging interface, and two horizontal lines will appear on the upper and lower positions of the cursor.

Adjust the horizontal lines to the target position by the "Power button" and "M button".The icon on the left shows the approximate distance of the corresponding target.

Long press the M button to exit to the stadiametric ranging interface.

#### (Compatible model:A10 LRF)

Long press the "Zoom button" to enter the ranging interface.It has two ranging models- SGL&CONT. Long press "Zoom button" to switch the ranging model.

For the first time, ranging model is SGL,short press "Zoom button" to switch the model.

In CONT model, the ranging information will real-time update when the target change.

Short press "Power button" to exit the ranging model.

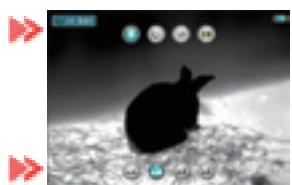
### 11.Shortcut menu

#### (Compatible model:A6)

Short pressing the M button to bring up the shortcut menu.

##### Shortcut menu 1: Adjust paletteand image sharpness

Short press the "Power button" to perform image mode setting-white hot, black hot, red hot and color.

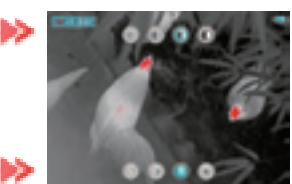


Short press the "C button" to adjust 1 to 4 sharpness level.



##### Shortcut Menu 2: Adjust imagecontrast and screen brightness

Short press "Power button" toperform image contrast setting from level one to four.



Short press "C button" to switch perform screen brightness setting from level one to four.



#### Shortcut Menu 3: Adjust reticle color and reticle pattern

Short press "Power button" to switch reticle color type:white, black, red and green.



Short press "C button" to switch the reticle pattern.

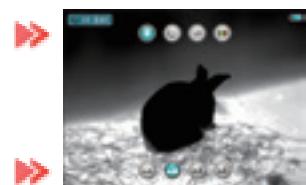


#### (Compatible model:A7,A9)

Short pressing the M button to bring up the shortcut menu.

##### Shortcut menu 1: Adjust paletteand image sharpness

Short press "Power button" to perform image mode setting-white hot, black hot, red hot and color.



Short press "C button" to adjust 1 to 4 sharpness level.



##### Shortcut menu 2: E-zoom and brightness setting

Short press "Power button" to perform 1 to 4 sharpness level settings.



Short press "C button" to perform 1 to 4 brightness level setting.



##### Shortcut Menu 3: Adjust reticle color and reticle pattern

Short press "Power button" to switch reticle color type:white, black, red and green.



Short press "C button" to switch the reticle pattern.



### (Compatible model:A10)

Short pressing the M button to bring up the shortcut menu.

Shortcut menu 1: E-zoom and brightness setting

Short press "Power button" to perform 1 to 4 sharpness level settings.



Short press "Camera button" to perform 1 to 4 brightness level setting.



Shortcut menu 2: Adjust palette and image sharpness

Short press "Power button" to perform image mode setting-white hot, black hot, red hot and color.



Short press "Camera button" to adjust 1 to 4 sharpness level.



Shortcut Menu 3: Adjust reticle color and reticle pattern

Short press "Power button" to switch reticle color type:white, black, red and green.



Short press "Camera button" to switch the reticle pattern.



### (Compatible model:A10)

Shortcut menu 1: Adjust palette and brightness setting

Short press "Zoom button" to perform image mode setting -white hot, black hot, red hot and color.



Short press "Power button" to perform 1 to 4 brightness level setting.



Shortcut menu 2: E-zoom and brightness setting

Short press "Zoom button" to perform 1 to 4 times setting



Short press "Camera button" to adjust 1 to 4 sharpness level.



Shortcut menu 3: Adjust image contrast and screen brightness

Short press "Zoom button" to perform image contrast setting from level one to four



Short press "Camera button" to switch perform screen brightness setting from level one to four.



Shortcut Menu 4: Adjust reticle color and reticle pattern

Short press "Power button" to switch reticle color type:white, black, red and green.



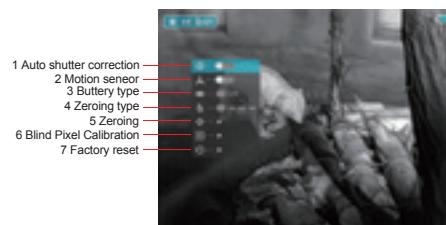
Short press "Camera button" to switch the reticle pattern.



## 12. Main menu

### (Compatible model:A6)

Short press the M button to bring up the shortcut menu.



## 1. Auto shutter correction

When the function is enabled, the device will automatically performs shutter correction based on the software algorithm if needed.

## 2. Motion sensor

When motion sensor is enabled, it will be displayed on the right side of the screen, showing dip Angle and pitch Angle. The horizontal radian scaleplate represents the dip Angle, while the vertical scaleplate represents the pitch Angle.

## 3. Battery types

Two battery types can be used according to the battery parameters. If the battery type does not match the battery voltage, the battery power detection will be inaccurate. 3V ordinary dry batteries and 3.7V rechargeable batteries are supported.

However, it is not recommended to use the rechargeable battery due to nonstandard quality.

## 4. Zeroing type

Short pressing the M button to toggle among the zeroing data types. Up to four kinds of zeroing data can be stored.

## 5. Zeroing

Before setting Zeroing, please make sure that the reticle is on and select the zeroing type in advanced menu firstly.

Select the Zeroing item, and press the M button to pop up the Zeroing interface. In the Zeroing interface, the reticle is shown as a small cross for position adjustment.

Then aim the center of the reticle at the bull's-eye 100 meters away and shoot.

Locate the bullet hole after shot.

If the bullet hole can be seen on the display screen:

- Keep the position of the scope fixed, press and hold the M and down button at the same time to freeze the image, and a snowflake icon appears on the upper-left corner of the screen.
- Short press the M button to move up, down, left and right. Short press or long press the UP or down button to move the reticle to the actual impact point position.
- Press and hold the M button to save and exit when the process is done.

If the bullet hole cannot be seen on the display screen of the scope:

- Measure the horizontal and vertical distance between the bull's eye and bullet hole.
- According to the measured distance, move the reticle up, down, left and right by short or long -pressing the UPbutton and down button. Short pressing the M button to move up, down, left and right. Adjust the reticle position to the distance marked on the scale plate consistent with the measured distance.
- Press and hold the M button to save and exit when the process is done.

To ensure the accuracy of the position, aim the bull's-eye again and repeat the operations above after zeroing, until the bull's-eye is hit. In the zeroing interface, the reticle moves one pixel when short click M or down button to the corresponding direction, and ten pixels movement by long pressing. The scale plate on the top and left shows the reticle movement distance.

The digit of scale plate changes by 3.4cm per one-pixel movement. In the zeroing interface, there is a white dot that represents the original position of the reticle before calibration.

## 6. Blind pixel calibration

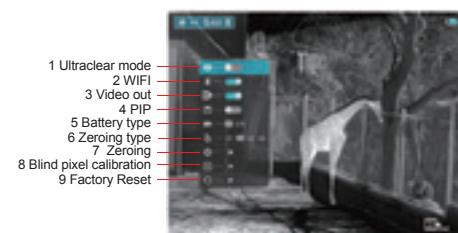
- In the advanced menu, press the Power/C button to select the blind pixel calibration item and press the M button to enter the calibration interface.
- In the blind pixel calibration interface, press UP and down button to move the reticle up/down or left/right. Press M button to switch up/down or left/right.
- After selecting the blind pixel, long press UP and down button to calibration, and press the same button again for cancelation. The number of the blind pixels calibrated is displayed on the bottom of the screen.
- Repeat the above process till all blind pixels are calibrated, and long-press the M button to save and exit.

## 7. Factory Reset

- In the advanced menu, press Up/down button to select the default resetting item, then press M button to enter the resetting interface.
- Then press the UP and down button to switch the option. The “√” is to reset to the default, and the “✗” is to cancel.
- When selecting “√” or “✗”, short press the M button to confirm the selection and exit to the normal interface.

(Compatible model:A7, A9)

Short press the M button to bring up the shortcut menu.



### 1. Ultraclear mode

Ultraclear Mode will give more image details in harsh weather such as heavy fog, rain and snow.

## 2.Bluetooth

Bluetooth is not activated.

## 3. Video out

Use with external display.

## 4. PIP

The device provides picture-in-picture (PIP), a small window displaying function. When the PIP function is on, a small window will be displayed on the screen, which shows the magnified image of two times of certain zone with reticle as mid-point.

## 5. Battery types

Two battery types can be used according to the battery parameters. If the battery type does not match the battery voltage, the battery power detection will be inaccurate. 3V ordinary dry batteries and 3.7V rechargeable batteries are supported.

However, it is not recommended to use the rechargeable battery due to nonstandard quality.

## 6. Zeroing type

Short pressing the M button to toggle among the zeroing data types. Up to four kinds of zeroing data can be stored.

## 7. Zeroing

Before setting Zeroing, please make sure that the reticle is on and select the zeroing type in advanced menu firstly.

Select the Zeroing item, and press the M button to pop up the Zeroing interface. In the Zeroing interface, the reticle is shown as a small cross for position adjustment.

Then aim the center of the reticle at the bull's-eye 100 meters away and shoot.

Locate the bullet hole after shot.

**If the bullet hole can be seen on the display screen:**

- Keep the position of the scope fixed, press and hold the M and down button at the same time to freeze the image, and a snowflake icon appears on the upper-left corner of the screen.
- Short press the M button to move up, down, left and right. Short press or long press the UP or down button to move the reticle to the actual impact point position.
- Press and hold the M button to save and exit when the process is done.

**If the bullet hole cannot be seen on the display screen of the scope:**

- Measure the horizontal and vertical distance between the bull's eye and bullet hole.

According to the measured distance, move the reticle up, down, left and right by short or long -pressing the UPbutton and down button. Short pressing the M button to move up, down, left and right. Adjust the reticle position to the distance marked on the scale plate consistent with the measured distance.Press and hold the M button to save and exit when the process is done.

To ensure the accuracy of the position, aim the bull's-eye again and repeat the operations above after zeroing, until the bull's-eye is hit. In the zeroing interface, the reticle moves one pixel when short click M or down button to the corresponding direction, and ten pixels movement by long pressing. The scale plate on the top and left shows the reticle movement distance.

For the A7, the digit of scale plate changes by 3.4cm per one-pixel movement.

For the A9, the digit of scale plate changes by 2.4cm per one-pixel movement.

In the zeroing interface, there is a white dot that represents the original position of the reticle before calibration.

## 8. Blind pixel calibration

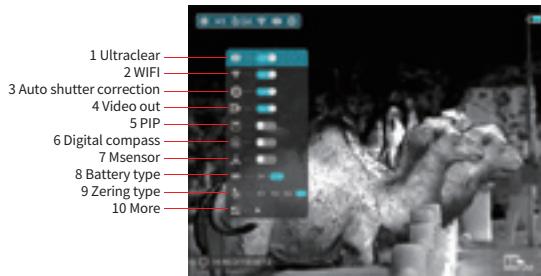
- In the advanced menu, press the Power/C button to select the blind pixel calibration item and press the M button to enter the calibration interface.
- In the blind pixel calibration interface, press UP and down button to move the reticle up/down or left/right. Press M button to switch up/down or left/right.
- After selecting the blind pixel, long press UP and down button to calibration, and press the same button again for cancelation. The number of the blind pixels calibrated is displayed on the bottom of the screen.
- Repeat the above process till all blind pixels are calibrated, and long-press the M button to save and exit.

## 9. Factory Reset

- In the advanced menu, press Up/down button to select the default resetting item, then press M button to enter the resetting interface.
- Then press the UP and down button to switch the option. The “√” is to reset to the default, and the “×” is to cancel.
- When selecting “√” or “×”, short press the M button to confirm the selection and exit to the normal interface.

**(Compatible model:A10)**

Short press the M button to bring up the shortcut menu.



### 1. Ultraclear mode

Ultraclear Mode will give more image details in harsh weather such as heavy fog, rain and snow.

### 2. Wi-Fi

The A10 series is equipped with wireless communication with external devices (computer, smartphone) via Wi-Fi.

- Turn on Wi-Fi in the main menu. Then the device will be recognized by an external device.
- Enter the password on an external device, and establish a connection. The initial password is 12345678.
- And then, the device can be controlled through APP such as taking pictures and recording. Meanwhile, photos and videos will be stored in the external device.

### 3. Auto shutter correction

When the function is enabled, the device will automatically performs shutter correction based on the software algorithm if needed.

### 4. Video out

Use with external display.

### 5. PIP

The device provides picture-in-picture (PIP), a small window displaying function. When the PIP function is on, a small window will be displayed on the screen, which shows the magnified image of two times of certain zone with reticle as mid-point.

### 6. Digital compass

Buit-in accelerometer and digital compass improve accuracy by precisely identifying cant and angles. The A10 series can indicate the direction and degree of lateral tilting.

### 7. Motion sensor

When motion sensor is enabled, it will be displayed on the right side of the screen, showing dip Angle and pitch Angle. The horizontal radian scaleplate represents the dip Angle, while the vertical scaleplate represents

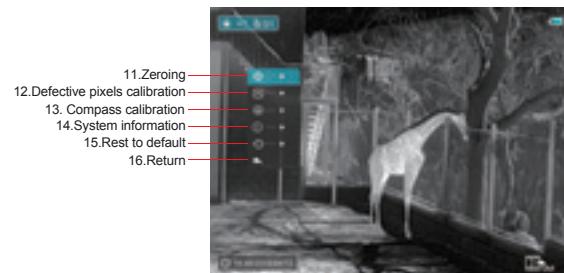
### 8. Battery types

Two battery types can be used according to the battery parameters. If the battery type does not match the battery voltage, the battery power detection will be inaccurate. 3V ordinary dry batteries and 3.7V rechargeable batteries are supported.

However, it is not recommended to use the rechargeable battery due to nonstandard quality.

### 9. Zeroing type

Short pressing the M button to toggle among the zeroing data types. Up to four kinds of zeroing data can be stored.



### 11. Zeroing

Before setting Zeroing, please make sure that the reticle is on and select the zeroing type in advanced menu firstly.

Select the Zeroing item, and press the M button to pop up the Zeroing interface. In the Zeroing interface, the reticle is shown as a small cross for position adjustment.

Then aim the center of the reticle at the bull's-eye 100 meters away and shoot.

Locate the bullet hole after shot.

**If the bullet hole can be seen on the display screen:**

- Keep the position of the scope fixed, press and hold the M and down button at the same time to freeze the image, and a snowflake icon appears on the upper-left corner of the screen.
- Short press the M button to move up, down, left and right. Short press or long press the UP or down button to move the reticle to the actual impact point position.
- Press and hold the M button to save and exit when the process is done.

**If the bullet hole cannot be seen on the display screen of the scope:**

- Measure the horizontal and vertical distance between the bull's eye and bullet hole.
- According to the measured distance, move the reticle up, down, left and right by short or long -pressing the UPbutton and down button.

Short pressing the M button to move up, down, left and right. Adjust the reticle position to the distance marked on the scale plate consistent with the measured distance.

- Press and hold the M button to save and exit when the process is done.

To ensure the accuracy of the position, aim the bull's-eye again and repeat the operations above after zeroing, until the bull's-eye is hit. In the zeroing interface, the reticle moves one pixel when short click M or down button to the corresponding direction, and ten pixels movement by long pressing. The scale plate on the top and left shows the reticle movement distance.

For the A10, the digit of scale plate changes by 2.4cm per one-pixel movement.

In the zeroing interface, there is a white dot that represents the original position of the reticle before calibration.

## 12. Defective pixels calibration

- In the advanced menu, press the Power/C button to select the blind pixel calibration item and press the M button to enter the calibration interface.
- In the blind pixel calibration interface, press UP and down button to move the reticle up/down or left/right. Press M button to switch up/down or left/right.
- After selecting the blind pixel, long press UP and down button to calibration, and press the same button again for cancelation. The number of the blind pixels calibrated is displayed on the bottom of the screen.
- Repeat the above process till all blind pixels are calibrated, and long-press the M button to save and exit.

## 13. Compass Calibration

Rotate the device in three axial directions in 30 seconds according to the shown direction to complete the calibration.

## 14. System information

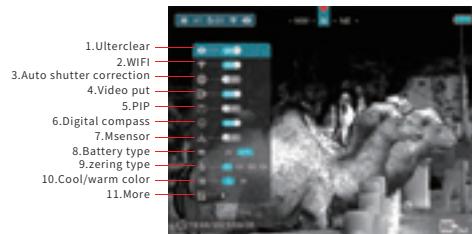
Select the 'System Information' option by UP or down button, and short press the M button to bring up information about the software version.

## 15. Reset to default

- In the advanced menu, press Up/down button to select the default resetting item, then press M button to enter the resetting interface.
- Then press the UP and down button to switch the option. The “√” is to reset to the default, and the “x” is to cancel.
- When selecting “√” or “x”, short press the M button to confirm the selection and exit to the normal interface.

(Compatible model:A10 LRF)

Short press the M button to bring up the shortcut menu.



### 1. Ultraclear mode

Ultraclear Mode will give more image details in harsh weather such as heavy fog, rain and snow.

### 2. Wi-Fi

The A10 series is equipped with wireless communication with external devices (computer, smartphone) via Wi-Fi.

- Turn on Wi-Fi in the main menu. Then the device will be recognized by an external device.
- Enter the password on an external device, and establish a connection. The initial password is 12345678.
- And then, the device can be controlled through APP such as taking pictures and recording. Meanwhile, photos and videos will be stored in the external device.

### 3. Auto shutter correction

When the function is enabled, the device will automatically performs shutter correction based on the software algorithm if needed.

### 4. Video out

Use with external display.

### 5. PIP

The device provides picture-in-picture (PIP), a small window displaying function. When the PIP function is on, a small window will be displayed on the screen, which shows the magnified image of two times of certain zone with reticle as mid-point.

### 6. Digital compass

Built-in accelerometer and digital compass improve accuracy by precisely identifying cant and angles. The A10 series can indicate the direction and degree of lateral tilting.

### 7. Motion sensor

When motion sensor is enabled, it will be displayed on the right side of the screen, showing dip Angle and pitch Angle. The horizontal radian scaleplate represents the dip Angle, while the vertical scaleplate represents

## 8. Battery types

Two battery types can be used according to the battery parameters. If the battery type does not match the battery voltage, the battery power detection will be inaccurate. 3V ordinary dry batteries and 3.7V rechargeable batteries are supported.

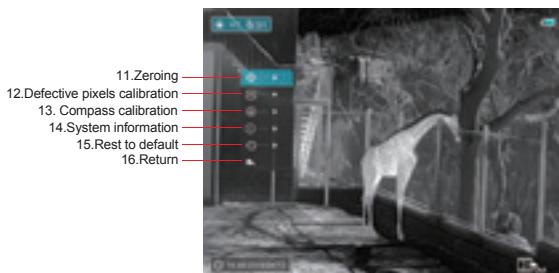
However, it is not recommended to use the rechargeable battery due to nonstandard quality.

## 9. Zeroing type

Short pressing the M button to toggle among the zeroing data types. Up to four kinds of zeroing data can be stored.

## 10. Cool/ warm tones.

Warm tones make images softer and better for longer viewing, while cool tones make images sharper and offer more detail.



## 11. Zeroing

Before setting Zeroing, please make sure that the reticle is on and select the zeroing type in advanced menu firstly.

Select the Zeroing item, and press the M button to pop up the Zeroing interface. In the Zeroing interface, the reticle is shown as a small cross for position adjustment.

Then aim the center of the reticle at the bull's-eye 100 meters away and shoot. Locate the bullet hole after shoot

Short pressing the M button to move up, down, left and right. Adjust the reticle position to the distance marked on the scale plate consistent with the measured distance.

Press and hold the M button to save and exit when the process is done.

To ensure the accuracy of the position, aim the bull's-eye again and repeat the operations above after zeroing, until the bull's-eye is hit. In the zeroing interface, the reticle moves one pixel when short click M or down button to the corresponding direction, and ten pixels movement by long pressing. The scale plate on the top and left shows the reticle movement distance.

For the A10, the digit of scale plate changes by 2.4cm per one-pixel movement.

In the zeroing interface, there is a white dot that represents the original position of the reticle before calibration.

Short pressing the M button to move up, down, left and right. Adjust the reticle position to the distance marked on the scale plate consistent with the measured distance.

· Press and hold the M button to save and exit when the process is done.

To ensure the accuracy of the position, aim the bull's-eye again and repeat the operations above after zeroing, until the bull's-eye is hit.

In the zeroing interface, the reticle moves one pixel when short click M or down button to the corresponding direction, and ten pixels movement by long pressing. The scale plate on the top and left shows the reticle movement distance.

For the A10, the digit of scale plate changes by 2.4cm per one-pixel movement.

In the zeroing interface, there is a white dot that represents the original position of the reticle before calibration.

## 12 Ranging cursor calibration

-Switch to ranging cursor calibration function by up button and down button, short press "M button" to enter ranging cursor calibration interface. If user do not have professional machine to calibrate, user can choose a large architecture outside of 100m which have a great gap between before and after target to calibrate.(e.g: buliding in open outdoor)

-Moving the product from left to right to make the architecture appear in the objective lens slowly. Meanwhile, observe the ranging data in the upper right corner.

-When the data turn to detail meter from —m, move the ranging cursor left or right to the junction of architecture and background and calibration of the left and right is finished.

-Moving the product from up to down to make the architecture appear in the objective lens slowly. Meanwhile, observe the ranging data in the upper right corner.

-When the data turn to detail meter from —m, move the ranging cursor up or down to the junction of architecture and background and calibration of the up and down is finished.

## 13 Defective pixels calibration

· In the advanced menu, press the Power/C button to select the blind pixel calibration item and press the M button to enter the calibration interface.

· In the blind pixel calibration interface, press UP and down button to move the reticle up/down or left/right. Press M button to switch up/down or left/right.

· After selecting the blind pixel, long press UP and down button to

calibration, and press the same button again for cancelation. The number of the blind pixels calibrated is displayed on the bottom of the screen.

- Repeat the above process till all blind pixels are calibrated, and long-press the M button to save and exit.

#### 14. Compass Calibration

Rotate the device in three axial directions in 30 seconds according to the shown direction to complete the calibration.

#### 15. System information

Select the 'System Information' option by UP or down button, and short press the M button to bring up information about the software version.

#### 16. Reset to default

- In the advanced menu, press Up/down button to select the default resetting item, then press M button to enter the resetting interface.
- Then press the UP and down button to switch the option. The “√” is to reset to the default, and the “×” is to cancel.
- When selecting “√” or “×”, short press the M button to confirm the selection and exit to the normal interface.