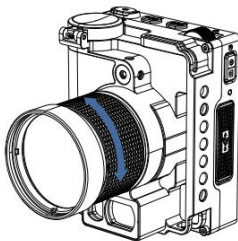




## BT Series



## User Manual

## INTRODUCTION

Thank you for your continued support and for choosing PARD BT Series thermal imaging camera. Please read this manual carefully before using the device for the first time. Please follow the instructions in this manual to avoid any damage caused by improper use and to ensure that your device operates properly.

After reading, please keep this manual in a safe place, for future reference. This manual provides step-by-step instructions on how to use your multi-spectral digital camera and is intended for your reference only.

Please note that PARD reserves the right to update this manual without prior individual notifications. For the latest information and updates, we recommend you to visit our official website. Additionally, PARD reserves the final right of interpretation of this manual.

## PRECAUTION

- Please remove the insulating tape on the battery before first use. It is recommended to use a fully charged lithium-ion battery with a rated voltage of 3.7V.
- Please turn off the device and remove the battery when it's not in use for more than 10 days, and store the device & battery in a dry and safe place.
- Be extra cautious and handle the device with care during use or transportation. It is recommended to use the original packaging during transportation.
- Do not use the device to focus directly on strong sources of light such as the sun or electric welding. The detector may be damaged and it will void the warranty.
- Avoid lens scratches and damage caused by oil or chemical contamination of the lens. Keep the lens cap on when not in use.
- The device should be placed in a cool, dry, and ventilated environment without strong electromagnetic fields, and the storage environment temperature should not be lower than ( $-30^{\circ}\text{C}/-22^{\circ}\text{F}$ ) or higher than ( $55^{\circ}\text{C}/131^{\circ}\text{F}$ ).
- Do not disassemble the device without authorization. If you encounter any problems, please contact our after-sales team and report them on our official

website. Failure to do so will render the warranty service null and void.

- Attention! All PARD night-vision and thermal imaging devices require a license when exported to outside your country.

## PACKAGE CONTENTS

| Icons                                                                             | Contents                                    | Quantity |
|-----------------------------------------------------------------------------------|---------------------------------------------|----------|
|                                                                                   | Thermal Imaging Device                      | 1        |
|  | 3.7V 18650 Rechargeable Lithium-Ion Battery | 1        |
|  | Type-C Cable                                | 1        |
|  | Allen Wrench                                | 2        |
|                                                                                   | User's Manual                               | 1        |
|  | After Sales Card                            | 1        |
|                                                                                   |                                             |          |
|                                                                                   |                                             |          |
|                                                                                   |                                             |          |
|                                                                                   |                                             |          |

# SPECIFICATION

| Model                         |            | BT 52                  | BT 56         |
|-------------------------------|------------|------------------------|---------------|
| Classification                |            | Thermal Imaging scope  |               |
| Sensor                        |            |                        |               |
| Type                          |            | Uncooled Vox IR Sensor |               |
| Resolution(pixel)             |            | 256*192                | 640*512       |
| Pixel Size(μm)                |            | 12*12                  | 12*12         |
| NETD                          |            | ≤25mK(0.025℃)          | ≤18mK(0.018℃) |
| Frame Rate(Hz)                |            | 50                     | 50            |
| Human Detection Distance(m)   |            | 600                    | 1800          |
| Vehicle Detection Distance(m) |            | 800                    | 2200          |
| Image Engine                  |            | PARD IREA              | PARD IREA     |
| Objective lens(mm)            |            | 13                     | 35            |
| Optical Magnification(x)      |            | 1                      | 1.2           |
| Digital Zoom(x)               |            | 2/4/6/8                | 2/4/6/8       |
| Field of View (HxV)           | Horizontal | 13.5                   | 12.5          |
|                               | Vertical   | 10.1                   | 10            |
|                               | Diagonal   | 16.8                   | 16            |
| Display                       |            |                        |               |

|                                   |                                      |
|-----------------------------------|--------------------------------------|
| <b>Type</b>                       | LCD                                  |
| <b>Resolution(pixel)</b> 1024*768 |                                      |
| <b>Reticle Style</b>              | 6                                    |
| <b>Reticle Color</b>              | 4(Red/White/Yellow/Green)            |
| <b>Scene Mode</b>                 | City/Rain/Forest                     |
| <b>Image Mode</b>                 | WT-HOT/BK-HOT/EDGE/RD-HOT/IN-HOT/SKY |
| <b>Photo / Video</b>              |                                      |
| <b>Photo Resolution(pixel)</b>    | 1536*1536                            |
| <b>Photo Format</b> .JPG          |                                      |
| <b>Video Resolution(pixel)</b>    | 768*768                              |
| <b>Video Format</b>               | .mp4                                 |
| <b>Storage(GB)</b>                | Micro SD card (Max. 128)             |
| <b>Main Function</b>              |                                      |
| <b>LRF Detection Range(yd/m)</b>  | 1200/1000                            |
| <b>PIP</b> Yes                    |                                      |
| <b>Gyroscope</b>                  | Yes                                  |
| <b>Loop Recording</b>             | Yes                                  |
| <b>Hot track</b>                  | Yes                                  |
| <b>E-compass</b>                  | Yes                                  |
| <b>Shutter</b>                    | Mechanical shutter                   |
| <b>Microphone</b>                 | Yes                                  |

|                                                     |                             |
|-----------------------------------------------------|-----------------------------|
| <b>Firmware Upgrade</b>                             | Yes                         |
| <b>Connections</b>                                  |                             |
| <b>USB Type-C</b>                                   | Yes                         |
| <b>HDMI Output</b> Yes                              |                             |
| <b>WiFi</b>                                         | Yes                         |
| <b>Supported Apps</b>                               | PardVision2                 |
| <b>Power Supply</b>                                 |                             |
| <b>Battery type</b>                                 | Li-ion 18650*1              |
| <b>Output Voltage(V)</b> 3.7                        |                             |
| <b>Operating Time(h)</b>                            | ≤5                          |
| <b>External Power Supply Type</b>                   | Type-C                      |
| <b>Environmental characteristic</b>                 |                             |
| <b>Degree of Protection</b>                         | IP67                        |
| <b>Operating Temp(°C/°F)</b> -30 ~ +55 / -22 ~ +131 |                             |
| <b>Recoil Resistance(J)</b>                         | 6000                        |
| <b>Material</b>                                     |                             |
| <b>Housing</b>                                      | Aluminum Alloy              |
| <b>Objective lens</b>                               | All-glass multi-coated lens |
|                                                     |                             |
|                                                     |                             |

# INSTALLATION

## 1.

Before using this device, please do the following:

- ① Open the box and remove the device.
- ② Check to ensure that the package contents listed above are all included in the box.
- ③ Check the device for any damage to the display, body, lens, buttons, etc.
- ④ Make sure that the objective lens and eyepiece are clean & functioning properly.

Note: If any accessories are missing or damaged, please contact our after sales service.

## 2. Battery Installation

The battery installation steps are as follows:

- (1) Unscrew the battery cap button until it opens and remove the battery.
- (2) Remove the insulating tape.

- (3) Put the positive pole (+) of the battery inwards, and then screw the battery cap until the battery cap is locked.
- (4) To turn on the device, press and hold the power button for about 3 seconds. (When the power light illuminates and the PARD Logo appears on the screen, the device is ready for use.

**Note:**

- ① Please use a single 18650 rechargeable lithium-ion battery rated 3.7V voltage.
- ② Do not expose the battery pack to high temperature or to a naked flame.
- ③ Do not put the device into water when the battery cover is open;
- ④ Do not expose disassemble the device without authorization;
- ⑤ Do not pierce the device with sharp objects;
- ⑥ Battery should be kept out of reach of children, and the positive and negative terminals of the battery should be installed correctly;
- ⑦ Whilst charging the battery do not leave the battery unattended.
- ⑧ When using the battery at cold(low) temperatures, the battery capacity decreases, this is normal and not a defect.
- ⑨ Do not use the battery if it has been damaged in any way.
- ⑩ After charging is complete do not leave the battery on charge connected to the



network.

Please act responsibly and recycle or dispose of all used batteries according to the law.

### 3. Objective Lens

- ① Before you focus the objective lens, ensure that the diopter focusing has been completed.
- ② Aim at the target you want to see, and turn the focus lever of the objective lens until you can see the target image clearly.

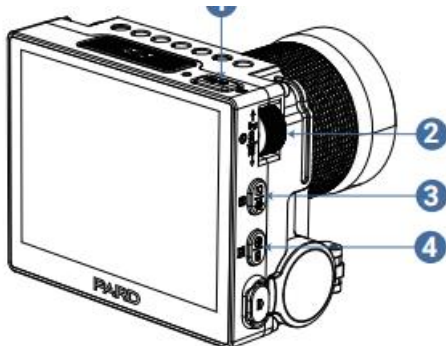
### 4. Compass

After the eyepiece is focused, please use the "figure 8 pattern method" to calibrate the electronic compass. Users are required to tilt and move the device in a figure 8 motion until the compass is calibrated as shown in picture 7.



Fig. 7

**Shortcut Mode**



**Fig. 10**

| <b>Keypad</b> | <b>Rotate<br/>Counterclockwise</b> | <b>Rotate Clockwise</b> |   |
|---------------|------------------------------------|-------------------------|---|
| <b>Knob</b>   | Down/-/Zoom out                    | Up/+ /Zoom in           | - |

| <b>(Key 1)</b> | <b>Single press</b> | <b>Press and hold</b> | <b>Double press</b> |
|----------------|---------------------|-----------------------|---------------------|
|                | Quick Menu/Ok key   | Full Menu             | PIP                 |
|                | <b>Single press</b> | <b>Press and hold</b> | <b>Double press</b> |
| <b>Key 2</b>   | Color Palettes      | Switch Scenes         | -                   |
| <b>Key 3</b>   | Take a Photo        | Record Video          | Files               |
| <b>Key 4</b>   | LRF/Back            | WiFi                  | Shutter Correction  |

## Explanation:

### Knob (key 1)

#### 1. Single press:

- ① **Home screen mode:** press [Key 1] to enter the shortcut menu;
- ② **Menu mode:** press [Key 1] means confirm;

#### 2. Press and hold:

**Home screen mode:** press and hold [Key 1] to enter the full menu;

#### 3. Double press:

**Home screen mode:** double press [Key 1] to open/close the PIP function;

#### 4. Rotate counterclockwise:

- ① **Home screen mode:** rotate the [knob] counterclockwise to zoom out;
- ② **Menu mode:** rotate the [knob] counterclockwise to scroll down between menu options. In the parameter setting interface under the sub menu, rotate the [knob] counterclockwise to decrease the values;

#### 5. Rotate clockwise:

- ① **Home screen mode:** rotate the [knob] clockwise to zoom in;

② Rotate the [knob] clockwise in the menu option interface to switch menu options upward. In the parameter setting interface under the sub menu, rotate the [knob] clockwise to increase the values.

#### Key 2:

##### 1. Single press:

**Home screen mode:** press [Key 2] to switch between image mode: WT-HOT/BK-HOT/EDGE/RD-HOT/IN-HOT/SKY;

##### 2. Press and hold:

**Home screen mode:** press and hold [Key 2] to switch between city/forest/rain scene modes.

#### Key 3:

##### 1. Single press:

**Home screen mode:** press [Key 3] to take a photo;

##### 2. Press and hold:

**Home screen mode:** press and hold [Key 3] to record a video. Press and hold [Key 3] again to save the video and exit;

### 3. Double press:

**Home screen mode:** double press [Key 3] to enable the playback function. After entering this interface, the video and picture files in the memory card will be displayed.

- Rotate the [Knob] to switch between files.
- Press [Knob] to play/pause the saved videos.
- When playing videos, rotate the [Knob] to fast forward or rewind 2x/4x/8x times.
- Press [Key 4] to access the following settings:

|                                                                                                 |                                                                                                                                                    |                                                                                                                   |
|-------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| 1)Delete: <ul style="list-style-type: none"><li>• Delete Current</li><li>• Delete All</li></ul> | 2)File Protection: <ul style="list-style-type: none"><li>• Lock Current</li><li>• Unlock Current</li><li>• Lock All</li><li>• Unlock All</li></ul> | 3)Slide Show: <ul style="list-style-type: none"><li>• 2 seconds</li><li>• 5 seconds</li><li>• 8 seconds</li></ul> |
|-------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|

- Press [Key 4] again to return to the files interface, then press and hold [Key 4] to return to the home screen.

#### Key 4:

### 1. Single press:

① **Home screen mode:**

- a) Press [Key4] to start the range detection function (For LRF version, the distance will be measured and displayed automatically. For non LRF version, the distance is not measured automatically and will display "[0]m or [0]yds". You need to manually input the target distance value by pressing [Key1]).
- b) Press [Key 4] a second time to turn on the ballistic indicator (when the ballistic calculator is turned off, the range indicator is turned off);
- c) Press [Key 4] a third time to turn off the ballistic indicator; (when the ballistic calculator is turned on);

② **Menu mode:** press [Key 4] to return to the previous page;

**2. Press and hold:**

**Home screen mode:** turn on/off the Wi-Fi function;

**Note:** When the WiFi is turned on, you cannot access the menu. Press and hold [Key 4] to turn off the Wi-Fi and then enter the menu interface;

**3. Double press:**

**Home screen mode:** double press [Key 4] to start the shutter correction function (To use this short cut key function, you must first enable the auto shutter in the menu).

## 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.

**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.

**Note:** The Grantee is not responsible for any changes or modifications not expressly approved by the party responsible for compliance. such modifications could void the user's authority to operate the equipment. The device has been evaluated to meet general RF exposure requirement. This equipment complies with FCC's RF radiation exposure limits set forth for an uncontrolled environment. This device and its antenna(s) must not be co-located or conjunction with any other antenna or transmitter.

The device can be used in portable exposure conditions without restriction.

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## Website

 [www.pard.co](http://www.pard.co)

## Business

 [info@pard.co](mailto:info@pard.co)

## Service

 [support@pard-tech.](mailto:support@pard-tech.)

## PARD USA



Optimax Technology LLC

+1 (800) 986 4370

3500 Lakeside Court Suite 200, Reno,  
NV 89509, US

CE  FC RoHS