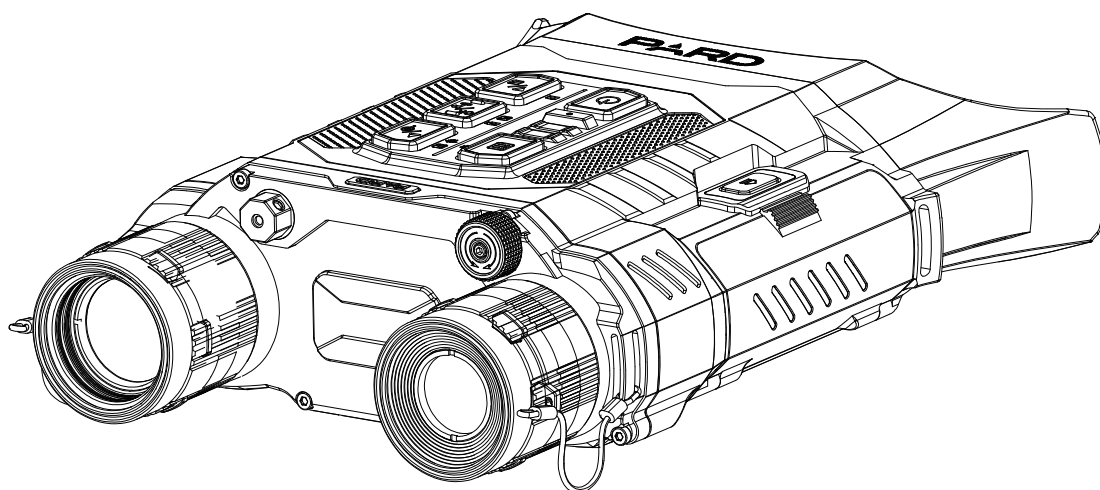




Digital Night Vision Binocular

# **Merlin Series**

## **Quick Start Guide**



Shenzhen Pard Technology Co.,Ltd

# Important Reminder

- 1** All PARD products are exclusively designed for civilian use and strictly prohibited for any military purposes.
- 2** All PARD products are not authorized for export to, including but not limited to Russia, Belarus, Palestine, Israel, Sudan, South Sudan, and other conflict zones.

# Scan To Enjoy Privilege



## Scan The QR Code To Join Our Membership

- 1 Extend warranty
- 2 Enjoy 1 on 1 expert service
- 3 Get the product experience officer opportunity

PACKAGE CONTENTS

| Icon | Contents                               | Quantity |
|------|----------------------------------------|----------|
| 1    | Merlin Unit                            | 1        |
| 2    | 21700 Rechargeable Lithium-Ion battery | 1        |
| 3    | Type-C cable                           | 1        |
| 4    | Cloth                                  | 2        |
| 5    | User's manual                          | 1        |
| 6    | After-sales card                       | 1        |

COMPONENTS

Merlin Series

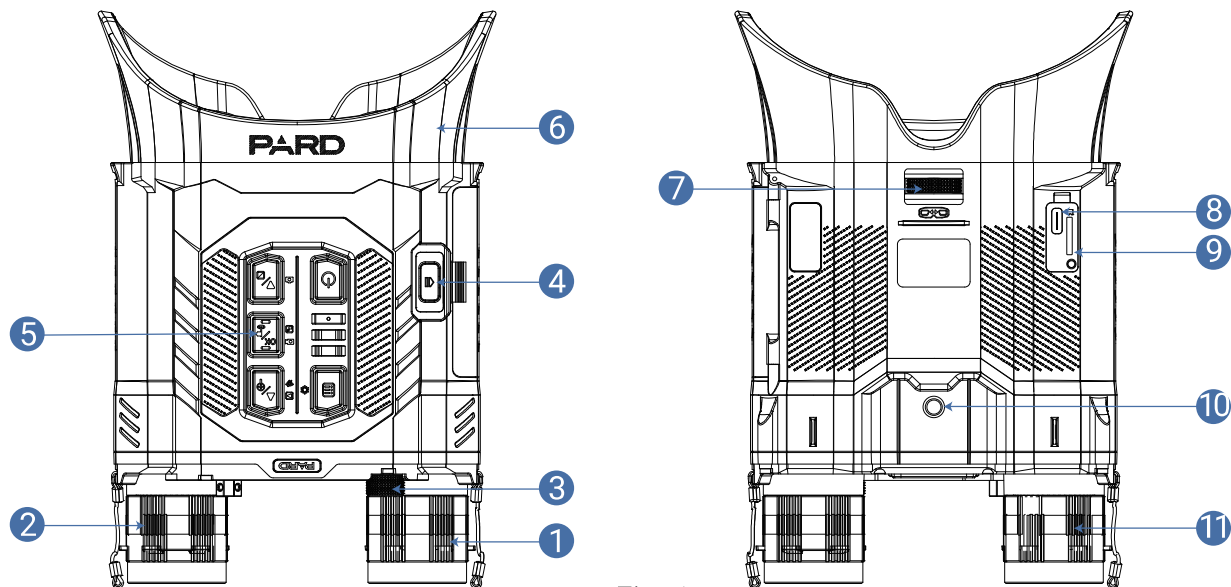


Fig. 1

| No. | Name                   | No. | Name                            |
|-----|------------------------|-----|---------------------------------|
| 1   | IR illuminator         | 7   | Interpupillary Adjustment Wheel |
| 2   | Objective Lens         | 8   | Type-C charging Port            |
| 3   | Diopter Focusing Wheel | 9   | Micro SD Card Slot              |
| 4   | Battery Cap Button     | 10  | Tripod screw hole               |
| 5   | Keypad                 | 11  | Objective Lens focusing ring    |
| 6   | Rubber eyepiece        |     |                                 |

## Shortcut Mode

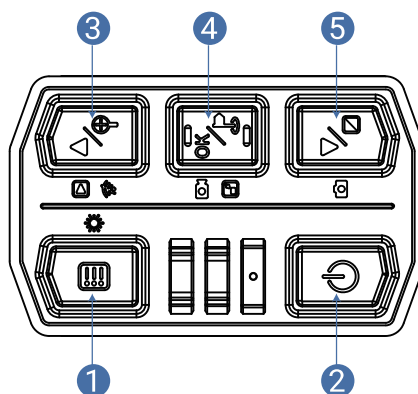


Fig. 2

| Keypad | Single Press                         | Press and Hold                    | Double Press    |
|--------|--------------------------------------|-----------------------------------|-----------------|
| ①      | Turn on/off menu                     | -                                 | -               |
| ②      | Sleep mode                           | Power on/off                      | -               |
| ③      | Up/Zoom in                           | Playback/Turn off WiFi            | -               |
| ④      | OK                                   | Record/Save video                 | Turn on/off PIP |
| ⑤      | Down/<br>Adjust IR illuminator level | Switch black&white/<br>color mode | Take photos     |

## INSTALLATION

### 1. Battery Installation and Startup

Please following the steps below for battery installation:

- (1) Press the battery cap button until it opens and remove the battery.
- (2) Remove the insulating tape from the battery.
- (3) Put the positive pole(+) of the battery near the objective lens, and then press 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 PARD logo appears on the screen, the device is ready for use)

#### Note:

- ① Use a single 21700 rechargeable lithium-ion battery with a voltage rating 3.7V;
- 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.

## 2. Diopter Adjustment Ring

Diopter adjustment in a night vision device refers to the ability to adjust the focus of the device's eyepiece to compensate for differences in users' vision. It allows individuals with varying levels of eyesight to achieve a clear and focused view of the displayed content on the device's screen.

- 1 After turning on the device, rotate the diopter adjustment ring until the texts or icons on the screen are clearly.
- 2 Please note that the image may not be clear after diopter adjustment. As long as the text on the screen is clear and visible, it is sufficient.

**Note:** If the objective lens is not properly focused, the image may be unclear.

## 3. Interpupillary distance adjustment

Adjust the appropriate interpupillary distance by toggling the wheel.

## 4. Objective Lens Adjustment Ring

- 1 Before adjusting the objective lens, it is important to complete the diopter focusing.
- 2 Then adjust the objective lens focus ring until a clear image of the target is achieved.

## 5. E-compass Calibration

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.



Fig. 3

## Key Features

- 1920\*1080 CMOS Image Sensor
- Adjustable interpupillary distance function
- Visible Light Enhancement Algorithm (VLEA)
- Adjustable beam IR illuminator with a range of 350m
- Capture photos and videos to record exciting moments during outdoor activities
- IP67 Rating
- One large display, comfortable for observation

## PRECAUTIONS

- Please remove the insulating tape from the battery before first use. Use a fully charged lithium-ion battery with a voltage rating of 3.7V.
- Please turn off the device and remove the battery if not use for more than 10 days. Store the device & battery in a dry and safe place.
- Be extra caution 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 temperature should not be lower than -30°C/-22°F or higher than 55°C/131°F.
- Do not disassemble the device without proper authorization. If you encounter any problems, please contact our after-sales team and report them issues on our official website. Failure to do so will render the warranty service null and avoid.
- **Attention!** All PARD night-vision and thermal imaging devices require a license when exported to outside your country.

# Specifications

| Model                    |            | Merlin                          |
|--------------------------|------------|---------------------------------|
| Classification           |            | Digital Night Vision(Binocular) |
| Sensor                   |            |                                 |
| Type                     |            | CMOS                            |
| Resolution(Pixel)        |            | 1920*1080                       |
| Pixel Size(μm)           |            | 2.9                             |
| Sensitivity(Lux)         |            | 0.001                           |
| Frame Rate(Hz)           |            | 60(Color)/30(B&W)               |
| Image Engine             |            | PARD VLEA                       |
| Optics                   |            |                                 |
| Objective Lens(mm)       |            | 35/50                           |
| Optical Magnification(X) |            | 3.2/4.6                         |
| Digital Zoom(X)          |            | 2                               |
| Field of View(HxV)       | Horizontal | 6.8°/4.8°                       |
|                          | Vertical   | 5.1°/3.6°                       |
|                          | Diagonal   | 8.5°/6.0°                       |
| Focus Range              |            | 3m-∞                            |
| Diopter Adjustment(D)    |            | -5~3                            |
| IR Illuminator           |            |                                 |
| IR Type                  |            | VCSEL                           |
| IR Power(W)              |            | 5                               |
| IR Illuminating Level    |            | 3 Levels                        |
| IR Distance(M)           |            | 350                             |
| IR Wavelength(nm)        |            | 850/940                         |
| Display                  |            |                                 |
| Type                     |            | OLED                            |
| Resolution(Pixel)        |            | 640*480                         |
| Color Mode               |            | Color/Black&White               |

| Main Function                |                            |
|------------------------------|----------------------------|
| PiP                          | Yes                        |
| Auto Recording               | Yes                        |
| Loop Recording               | Yes                        |
| Time Stamp                   | Yes                        |
| Record Audio                 | Yes                        |
| Exposure Compensation        | Yes                        |
| Storage(GB)                  | Micro SD card (Max. 128GB) |
| Connections                  |                            |
| Usb Type-c                   | Yes                        |
| WiFi                         | Yes                        |
| Supported Apps               | PardVision2                |
| Power Supply                 |                            |
| Battery Type                 | Lithium Ion 21700*1        |
| Output Voltage(V)            | 3.7                        |
| Operating Time(h,Max)        | 6                          |
| External Power Supply(V)     | Type-C                     |
| Environmental Characteristic |                            |
| Degree of Protection         | IP67                       |
| Operating Temp(°C/°F)        | -30 ~ +55 / -22 ~ +131     |
| Material                     |                            |
| Housing                      | AL6061 & Composite         |
| Objective Lens               | Glass                      |

## 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 in conjunction with any other antenna or transmitter.

# Follow Us



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@Pardvision



@pard.europe



Please Search and follow our channel for more information

## Website

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

## Business Cooperation

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## Service Center

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



RoHS