

PARD SA series thermal imaging



Rangefinder Version

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ATTENTION

Export of this model with a refresh rate of 50 Hz may have export limitations depending on the laws in your region.

Claim

This manual is for reference ONLY, is subject to change without notice.

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CLAIM, CAUTION & ATTENTION

CAUTION

Always remember to turn off the device when it is not in use. If you do not plan on using it for a period of more than 10 days, you should remove the battery.

- ▷ Attempts to disassemble or repair the unit without authorization will void the warranty.
- ▷ Keep Lens cap on when not in use.
- ▷ Do not scratch the external lens surfaces or touch them using your fingers.
- ▷ Do not look at laser directly, as it will damage your eyes.
- ▷ **Do not aim at intense light sources such as the sun, welding flames, laser, etc. This behavior may disable electronic components of the unit. Improper operation will void the warranty.**

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1、Specification

Model	SA19/ SA19LRF	SA25/ SA25LRF	SA35/ SA35LRF	SA45/ SA45LRF	
Field of view - ang	19.5*14.7	14.9*11.2	10.7 *8.0	7.2*5.2	
Human detection distance	700m	980m	1500m	1800m	
Vehicle detection distance	1000m	1960m	3000m	3800m	
Main body size(mm)	147*51*65.5	155*51*65.5	162*51*65.5	170*51*65.5	
	147*74.6*65.5	155*74.6*65.5	162*74.6*65.5	170*74.6*65.5	
Weight(no battery)	330/350g	340/360g	400/420g	420/440g	
General parameters					
Sensor	17 μ m 384x288	Digital zoom	1x, 2x, 3x	Eye relief	45mm
Diopter adjustment	± 5	Reticle	8 styles 4 colors	Color palettes	WT-HOT/BK-Hot/RD-HOT/IN-HOT/Sky
Battery	18650 Li-ion battery	Degree of Protection	IP 67	Housing material	6061 Aeronautical alloy aluminum

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2、Packaging Contents

Item No.	Packing Contents	Quantity	Remark
1	SA thermal imaging sight	1	
2	Carrying case	1	
3	Mount	1	
4	Battery charger	1	
5	Li-ion 18650 3.7V rechargeable battery	1	
6	User manual	1	
7	Warranty card	1	

3、Description

SA Thermal imaging riflescope is designed for the use on rifles or as a handheld device that can be used both at night and in the daylight. It has a wide range of applications including outdoor hunting, night observation, outdoor adventure, rescue operations, night patrol and self-defense , and so on.

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- User-friendly interface-menus and controls.
- Wide range of operating temperatures.
- Powered by Li-ion 18650 3.7V Rechargeable Battery.
- **One shot zeroing.**
- Weather resistant.
- Limited 3-year warranty.

5、Components and Control

- ① Power Button

② Ranging module

③ + Key

④ Menu Button

⑤ - Key

⑥ Ranging key

⑦ Battery Compartment Cap

⑧ Laser Indicator

⑨ Objective Len focus Ring

⑩ Video output interface

⑪ Eyepiece Focusing

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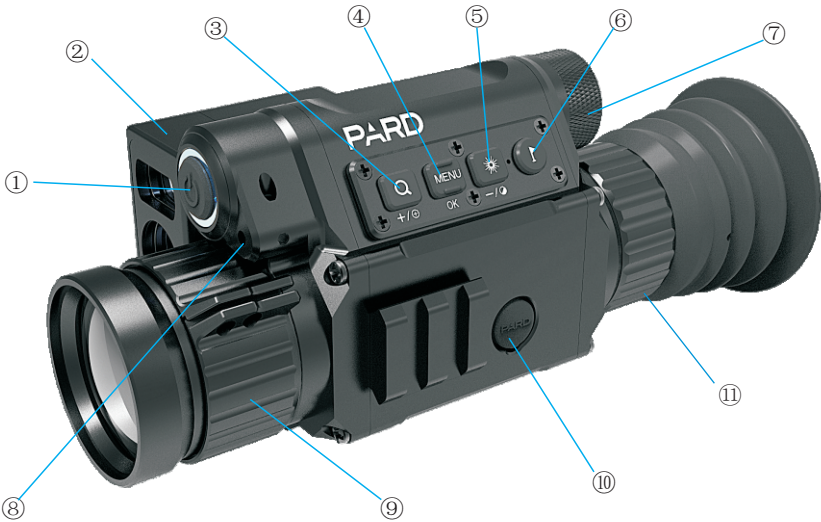
By adopting an un-cooled 384x288 detector, it senses the differences in heat emitted by objects in its field of view and converts the received temperature pattern into a visible image that represents the scene in contrasting black and white or colorful patterns, depending on the user's selected image palette.

Do not aim at high-intensity radiation sources, such as the Sun, welding flames, laser, etc. This behavior is possible to damage the detector inside. Even though the detector can repair itself automatically, it can not be repaired if the damage is permanent.

4、Main Feature

- High-performance thermal imaging sight-Enhanced nighttime sensitivity.
- Multi-functional ergonomic robust design, mini-sized, compact and lightweight.
- Built-in laser rangefinder and E-COMPASS.
- Easy quick-release mounting, installation, disassemble and operation.
- Defective pixel repair function.

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(Standard version without ranging module)

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6、Battery Installation



- ▷ Remove the battery cap by unscrewing it counterclockwise;
- ▷ Insert a 3.7V 18650 lithium-ion battery, set the positive polar towards to the direction inward.
- ▷ Put the cap back and screw it until tight.
- ▷ Make sure the cap screwed tight, or the unit will restart due to vibration.
- ▷ Press POWER BUTTON to turn on the unit, and in POWER ON status, press the button again to enter SLEEP mode, press and hold to turn it off.

8、Objective lens Adjustment

- Make sure the eyepiece diopter adjustment is finished.
- Remove the cap from the Objective lens at first, point at one target, rotate the adjustment ring back and forth slowly until you can see a sharp image of the target.
- Thermal imaging device require a minimum focusing range, it is normal that target can not be seen clearly within 3 meters.
- Be noted that the device can not see through GLASS.

9、Interface Operation

This thermal imaging device is classified and defined as below:

1. Non menu mode (SHORTCUT Mode); 2. Menu mode

10、Interface Operation - Non Menu Mode

Non menu mode is the default mode that enable a quick setup by pressing buttons directly (boot 15 seconds later).

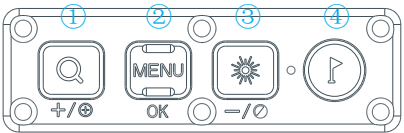
Reminder:

- Please do not use batteries of different types.
- Please DO NOT over tighten the cap because it will be difficult to reopen the cap by the next time you replace the battery.

7、(Eyepiece) Diopter Adjustment

At the beginning, you need to adjust the diopter manually. The diopter adjustment allows you to achieve a sharp and focused image inside the viewfinder.

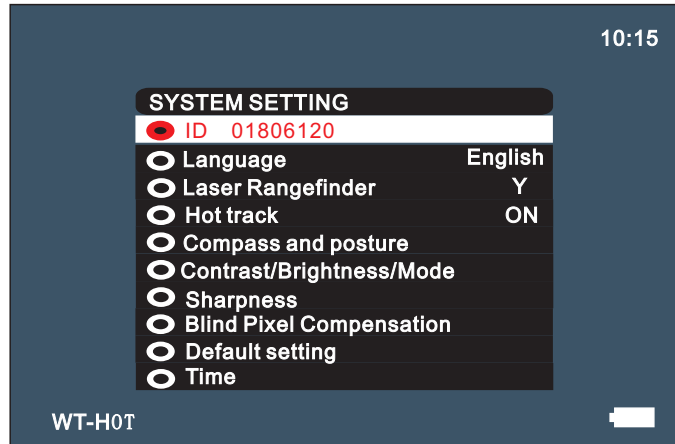
- A. Rotate the Eyepiece Focus Ring back and forth, until you get a clear view of the icons or letters on the screen, and then the setting is done.
- B. Point the unit at a warm object located at a certain distance,100 meters, etc, your eyes will pick up images inside the viewfinder.
- C. Please be noted that it's normal that the image of your target is not clear in this step.
- D. No further adjustment should be required. One adjustment only for each user.



①	Press [+] button	Short press [+] button to activate magnification mode, and to switch among 1x, 2x, 3x	Long press [+] button to turn on/off Hot Track
②	Press [Menu] Button	Enter the submenu Zeroing with a long press of [Menu] Button, short press [Menu] to switch among options, set values by pressing [+/-] button.	8 Reticle patterns available 4 reticle colors available
③	Press [-] button	Enter Color palettes with a long press of [-] button, and switch among “WT-HOT/ BK-HOT/ RD-HOT/ IN-HOT/ Sky”.	Short press [-] button to turn on/off laser
④	Press [Ranging] button	Turn on/off Laser Rangefinder with a short press of [Ranging] button. Two units available: meter or yard. Measuring distance of rangefinder: 5-600m.	Please do not block or cover up the “Laser Rangefinder module”

11-Interface Operation - Menu Mode

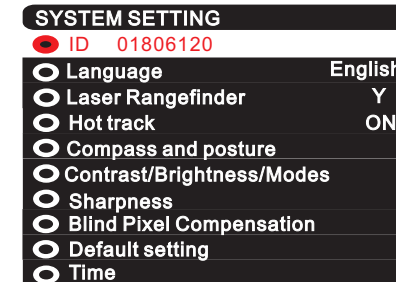
Enter System Settings with a short press of [Menu] button (The SHORTCUT Mode is invalid under this condition).



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11.1-Menu Mode - Unique ID

Every and each PARD PRODUCT has a UNIQUE ID number to be identified, so that we as the manufacturer can track and distinguish it from many others.

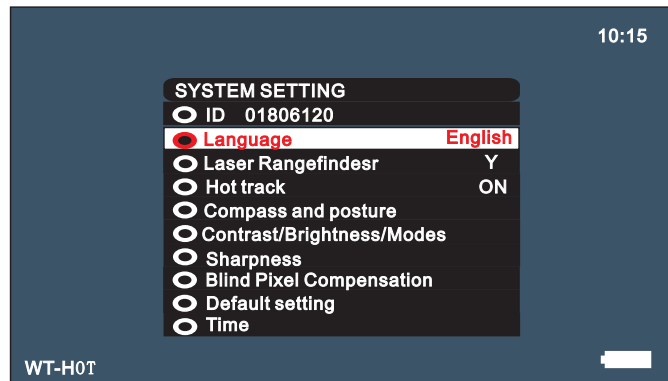


11.2-Menu Mode - Language

Select the submenu Language with a short press of [-] button after entering Menu. There are four options: Chinese, English, Arabic and Russian.

Switch the language with a short press of [Menu] button. Confirm and exit the submenu with a long press of [Menu] button.

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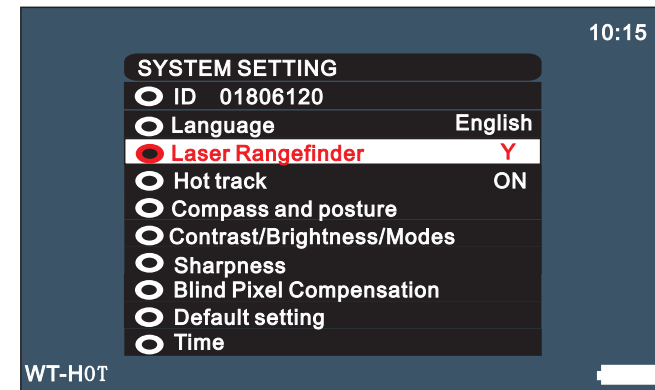


11.3-Menu Mode - Laser Rangefinder

This setting is to select the unit of the distance of laser rangefinder. Two options are available: M (meter) and Y (yard).

Select the submenu Laser Rangefinder by pressing [+/-] button, switch the unit by a short press of [Menu] button. Confirm and exit the submenu with a long press of [Menu] button.

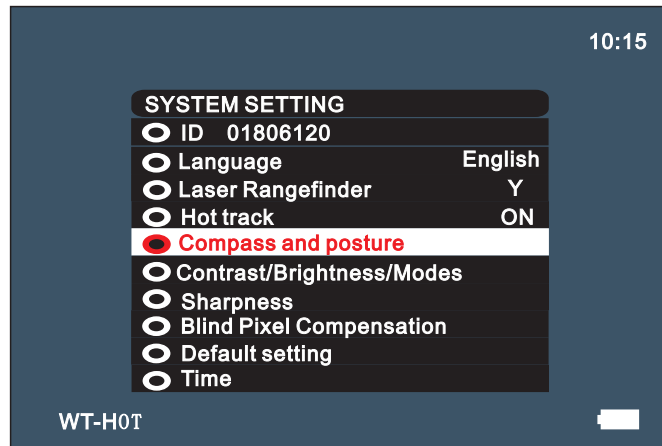
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11.4-Menu Mode - Hot Track

- This setting is to turn on or off the function of hot track.
- Select the submenu Hot Track by pressing [+/-] button, select ON or OFF with a short press of [Menu] button. Confirm and exit the submenu with a long press of [Menu] button.

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11.5-Menu Mode - Compass and posture

This setting is to turn on or off the function of compass and posture.

- Select the submenu Compass and posture by pressing [+/-] button, enter this submenu with a short press of [Menu] button.

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This setting is to adjust and control the contrast/ brightness/ mode of display.

- Select the submenu Contrast/Brightness/Mode by pressing [+/-] button, enter this submenu with a short press of [Menu] button.
- To plus value by clicking [+] button while pressing [-] button to minus value.
- Switch options by pressing [Menu] button.
- Confirm and exit the submenu with a short press of [Menu] button.

Recommended value of Contrast: 100; Brightness: 65.

11.7-Menu Mode - Sharpness

This setting is to adjust and control the sharpness of display. There are five values available for setting: 0, 1, 2, 3 and 4.

- Select the submenu Sharpness by pressing [+/-] button, enter this submenu with a short press of [Menu] button.
- Select value by clicking [+/-] button.
- Confirm and exit the submenu with a short press of [Menu] button.

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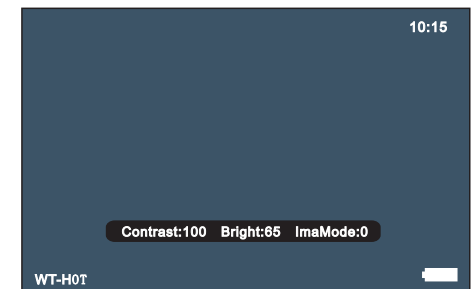
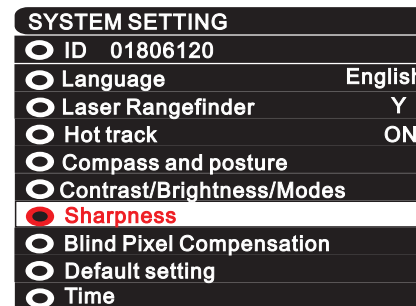
- Turn on or off by pressing [+/-] button. Switch options with a short press of [Menu] button.
- Confirm and exit the submenu with a short press of [Menu] button.

11.6-Menu Mode - Contrast/Brightness/Mode



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Recommended value of Sharpness: 1.



11.8-Menu Mode - Blind Pixel Compensation

This setting is to detect and compensate of blind pixels. Two modes are available in this setting: Auto mode and Manual mode.

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Auto mode

- Select the submenu Blind Pixel Compensation by pressing [+/-] button, enter this submenu with a short press of [Menu] button.
 - Enter auto mode with a short press of [+] button. Follow the instruction “Please close the lens cover and press the menu button”.
 - The compensation is finished after the display show “complete it!” Exit the submenu with a short press of [Menu] button.
- (Please aim at wall or desk with average temperature if there’s no cover.)

Manual mode

Select the submenu Blind Pixel Compensation by pressing [+/-] button, enter this submenu and select Manual by pressing [Menu] button. Enter manual mode with a short press of [+] button. Follow the instruction “Please close the lens cover and press the menu button”.

The compensation of blind pixel begin after a click of [Menu] button. Switch

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11.9-Menu Mode - Default Setting

- Select the submenu Default Setting by pressing [+/-] button, enter this submenu with a short press of [Menu] button.
- You will see an instruction “Confirm recovery/long press exit?” Confirm to recovery default setting with a short press of [Menu] button.
- Exit the setting with a long press of [Menu] button.

11.10-Menu Mode - Time

- Select the submenu Time by pressing [-] button, enter this submenu with a short press of [Menu] button.
- Switch options by pressing [Menu] button.
- Change options or values by pressing [+/-] button.
- Exit the setting with a short press of [Menu] button.

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options by pressing [Menu] button. You'll see a square frame on the middle of the screen, move it to the area of blind pixel by setting the value of X and Y.

The setting of X-value is to move the frame in a horizontal direction by pressing [+/-] button.

The setting of Y-value is to move the frame in a vertical direction by pressing [+/-] button.

Select Threshold by pressing [Menu] button, change the value of threshold by pressing [+/-] button.

Select Compensation by pressing [Menu] button. Default option is N(NO), switch to Y(YES) by pressing [+] button.

Select Save by pressing [Menu] button. Default option is N(NO), switch to Y(YES) by pressing [+] button, switch to N(NO) by pressing [-] button. Save and exit with a short press of [Menu] button.

Recommended value of Threshold is at 20. The lower the value is, the stronger capability the compensation has.

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Warranty

This product is warranted against defects in materials and workmanship for a period of three years from the date of purchase.

This warranty is for the original purchaser only!

Notice :

Attempts to disassemble or repair the device without authorization will void the warranty. Please contact with the factory in time if there is anything wrong.

The warranty does not cover damage caused by human factors, accident, misuse of the product including use in abnormal working conditions, failure to follow the instructions. No warranty is offered for products which have gone beyond the period of warranty.

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