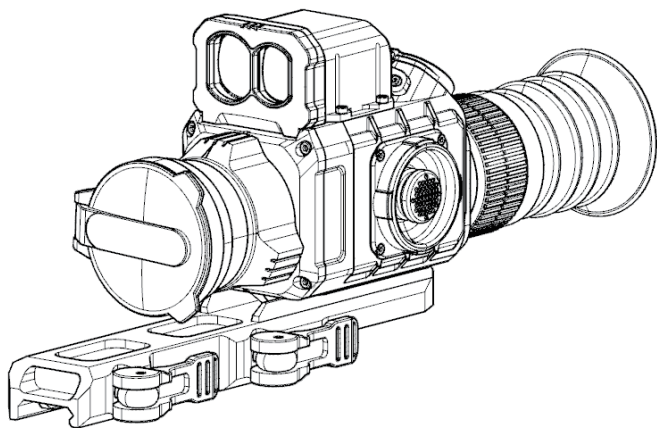


CONOTECH

Precision without compromise

POLARIS



Attention!

Export of **Polaris Serise** models
May have export limitations depending on
the laws in your region.

RoHS  

Attention!



Proper usage of this device is essential for safe operation. Please read this manual carefully before use.



If the device has been in storage for an extended period, check its functionality before use.



Do not disassemble the device. Only an authorized repair center is allowed to do this.



Ensure the external optical surfaces remain clean. Avoid touching them with bare hands.



Sand and sea water can damage the optical coatings.



Never point the device directly at the sun.



Image quality may vary depending on environmental and atmospheric conditions. For instance, at sunset, temperature differences between objects can enhance contrast.



Remove batteries and store them in polyethylene bags to avoid contact with metal if the device will be stored for an extended period.



Use the protective lens cap during transportation or storage.



Condensation may fog the optical surfaces. This occurs when the device transitions between environments with differing temperatures or humidity levels. Once the temperature stabilizes, condensation will dissipate. Wipe away moisture with the towel.



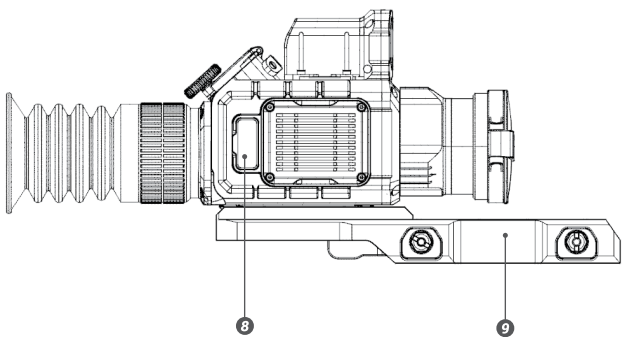
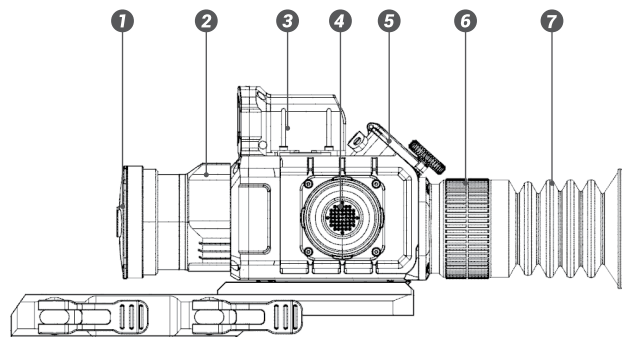
Clean lenses with the Lens Cloth or napkin.



**LEGAL
NOTICE**

Attaching this device to a weapon is the sole responsibility of the user. Check regional legal regulations before doing so.

Appearance





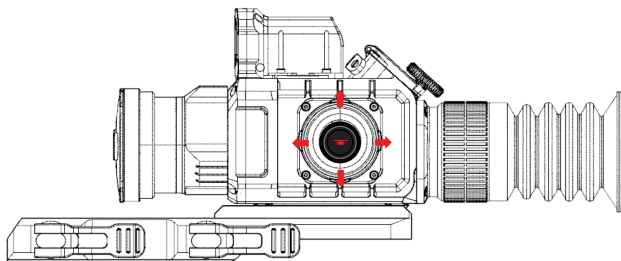
All images used in this instruction manual are for illustrative purpose only. Actual product may vary due to product enhancement. (V.2.0)

- 1** Lens cover
- 2** Focus ring
- 3** Laser rangefinder (*RL models only*)
- 4** OneTouch Button
- 5** Battery compartment cap
- 6** Eyepiece
- 7** Eyepiece rubber
- 8** USB
- 9** Picatinny rail



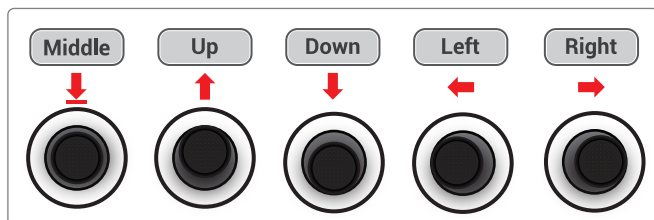
ATTENTION!

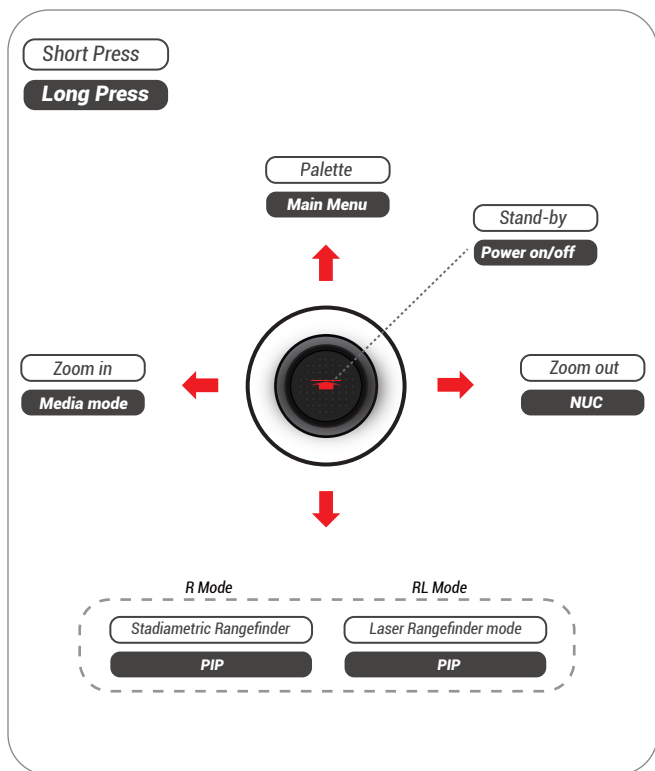
The main operations are performed through the "OneTouch Button" (5 position button) .

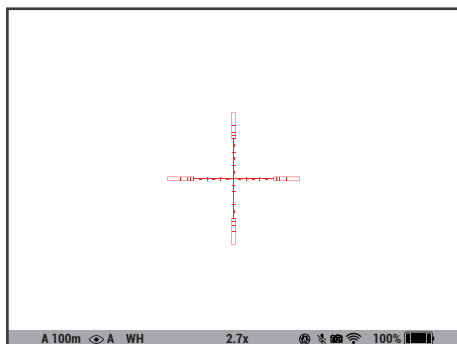


ATTENTION!

Turn off the device after usage, otherwise you can permanently damage the batteries!







The status bar is located in the lower part of the display and shows information on the actual operating status of the sight, including:

- Zeroing profile A/B/C/D/E
- Distance display
- Display mode(A-B-C-D)
- Color palette
- Magnification
- Auto NUC
- Microphone
- Media mode
- WIFI status
- Battery capacity

The Quick menu allows change of basic settings.

Up



Palette

Short press **Up** Button to switch palette from C1~C6.

C1---White Hot---WH

C4---Cold Green---CG

C2---Black Hot---BH

C5---Glowbow---GB

C3---Rainbow---RB

C6---Warm White---WW

Main Menu

Long Press **Up** Button to enter/exit Main menu.

Down



R Mode

Rangefinder

Short Press **Down** Button to enter/exit Stadiametric rangefinder mode.

PIP mode

Long Press **Down** Button to enter/exit PIP mode.

RL Mode

Laser Rangefinder

Short press **Down** Button to enter Laser Rangefinder mode.

PIP mode

Long Press **Down** Button to enter/exit PIP mode.

Left



Magnification

Short press **Left** Button to Zoom in.

Media mode

Long press **Left** Button to enter/exit Media mode.

Right



Magnification

Short press **Right** Button to Zoom out.

NUC

Long press **Right** Button to enter/exit NUC.

Middle



Stand By

Short Press **Middle** Button to make device Stand By.

Short press **Middle** button again to be back to normal display.

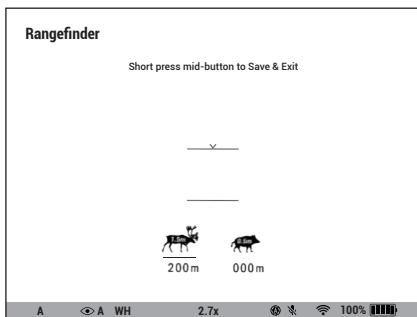
The device will shut down automatically after 1-hour standby.

Power On / Off

Long Press **Middle** Button to power on /off the device.

Stadiametric Rangefinder

Polaris R models are equipped with a stadiametric rangefinder which allows the user to estimate approximate distance to an object of known size.



You will see on the display: measurement bars, icons of two reference objects and respective distances for the two objects.

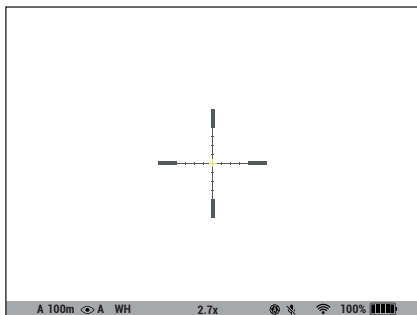
There are two pre-set reference objects:

Wild boar-height 0.5m

Deer-height 1.5m



The lower fixed bar under the object automatically appear on display, press the **Up/Down** buttons to move the upper horizontal bar until the object fits entirely between the two lines. The distance to the object is automatically recalculated as you move the upper line. Press **Left/Right** buttons to choose reference object, press **Middle** button to save & exit RF mode, range information will not disappear from display automatically.

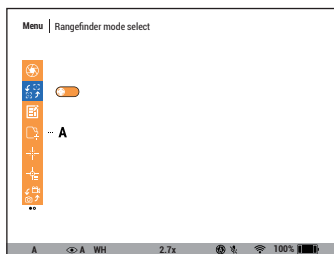
Distance to the object displays in status bar and a "+" on reticle suggests the aiming point accordingly.




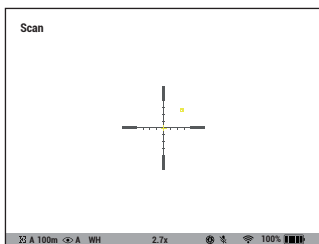
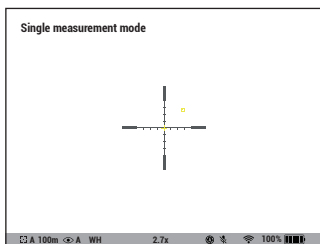
Laser Rangefinder (RL models only)


When under real time image mode, Short press Down Button to enter Rangefinder mode.
(Single measurement mode  or Scan mode )

Aim  /  to the target, then short press **Down Button**, the corresponding distance of target will appears on display.



Distance to the object displays in status bar and a "  " on reticle suggests the aiming point accordingly.



Note: When under Scan mode, "  "only can be displayed after you quit the Scan mode.
And the calculation is based on the distance of your last measurement.

Recoil Activated Video

Recoil Activated Video is enabled by default and operates automatically, requiring no manual action. When shooting, the device will automatically capture video starting 10 seconds before and ending 10 seconds after the shot. The video is saved in the built-in storage.

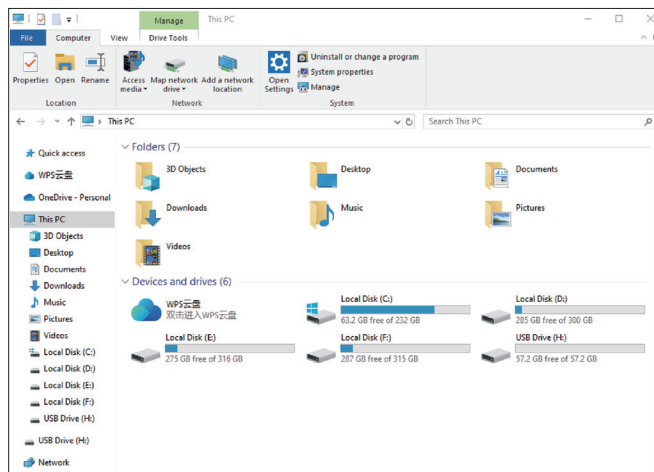
Firmware update via APP

Easily keep your device at the forefront of technology with firmware updates directly through our dedicated app.

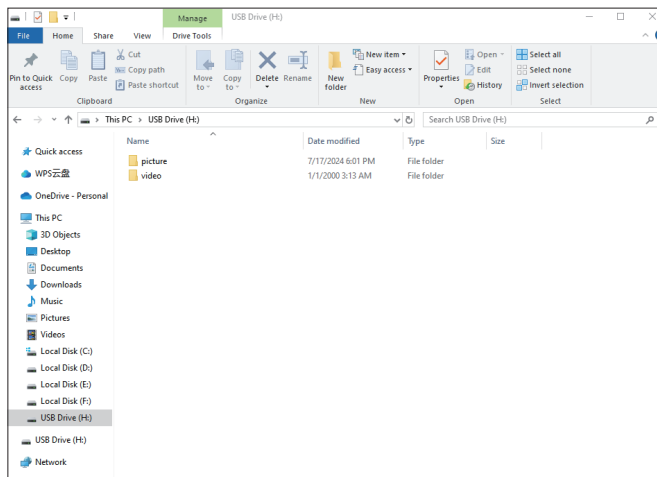


How to replay on PC ?

Connect the USB-C cable to the PC



Turn on WIFI and wait 10s.



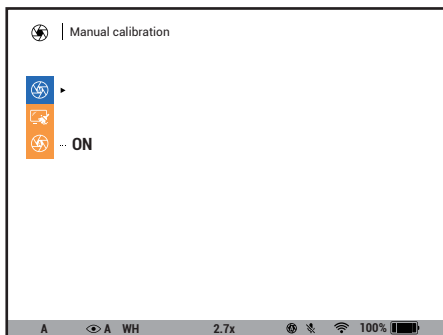


NOTE

When under real time image, long press the Up Button to enter the main menu.
When under main menu, long press the Up Button to return to previous menu.
Press the Up/Down Button to select between the menu options.
Press the Left/Right Button to change the setting.



Calibration Settings



Manual Calibration

Press **Left/Right** Button, prompt to close the lens cover, and complete after counting down 3-2-1.



Defective Pixel Repair

Press **Left/Right** Button, prompt to close the lens cover, and complete after counting down 3-2-1.

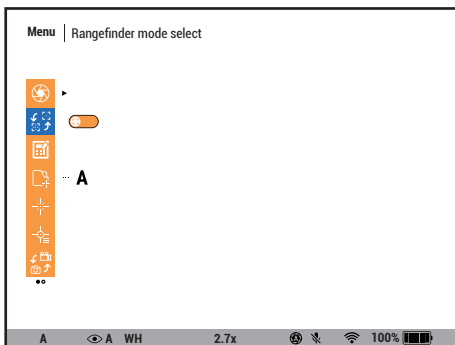



Auto NUC

Press **Left/Right** Button to turn Auto NUC On / Off.



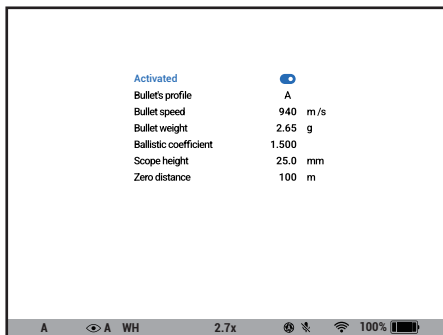
Only in RL Model



-  Single ranging
-  Scan



Ballistic Calc. Settings



Short press **Left/Right** Button to enter intelligent ballistic calculation. Short press **Up/Down** Button to select Bullet's profile, Bullet speed, Bullet weight, Ballistic coefficient, Scope height and Zero range, then short press **Left/Right** Button to select the value matching your rifle. Long press **Left/Right** Button to save and exit.

Bullet's profile, Bullet speed, Bullet weight, Ballistic coefficient - On the bullet package or ask the bullet supplier

Scope height - The distance from the center of the weapon barrel to the center of the lens

Zero distance - The distance of zeroing setting

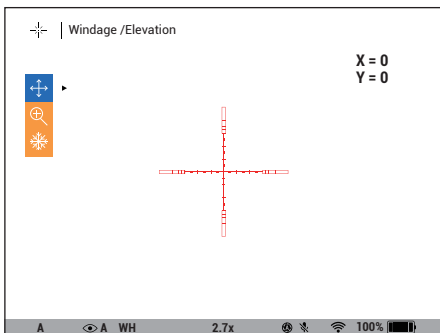


Zeroing Profile

Various profiles can be used when employing the sight on different rifles and when shooting different cartridges. Select one of the Zeroing profiles (shown with letters A;B;C;D;E) with short press **Left/Right** button.



Zeroing



Windage /Elevation

Take a shot, adjust X and Y value based on the reticle setting. Short press **Middle** Button to Save & Exit.



Magnification

Magnification allows you to use a digital zoom of the riflescope when zeroing, which reduces the minute of angle click for zeroing accuracy improving.

Press **Left/Right** Button to change the magnification.



Freeze

The feature of the freeze function is that there is no need to constantly keep the riflescope at the point of aiming.

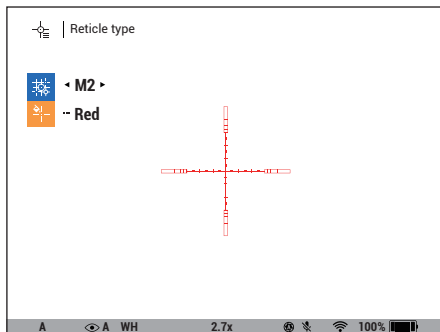
After shooting, the user needs to align the dividing center point with the center of the cross target, and then press **Left/Right** Button to freeze the infrared image of the current frame, as shown in the following figure.

Press **Left/Right** Button to unfreeze again to resume normal display of the infrared image.

When freezing the image, you can press **Up/Down** Button to adjust other options in the zero calibration.



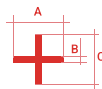
Reticle settings



Reticle type

Press **Left/Right** Button to select the reticle type.

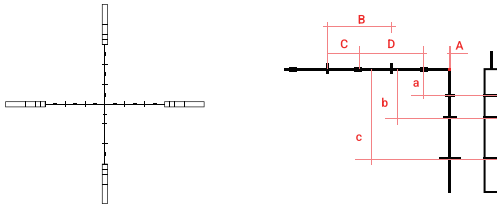
M1



Section	335		350	
	MOA	cm @100m	MOA	cm @100m
Section A	3.1	8.93 (1 MIL)	3.3	9.6 (1 MIL)
Section B	0.44	1.28	0.3	0.87
Section C	3.1	8.93 (1 MIL)	3.3	9.6 (1 MIL)

Section	635		650	
	MOA	cm @100m	MOA	cm @100m
Section A	3.9	11.3 (1 MIL)	3.71	10.8 (1 MIL)
Section B	0.78	2.27	0.53	2.3
Section C	3.9	11.3 (1 MIL)	3.71	10.8 (1 MIL)

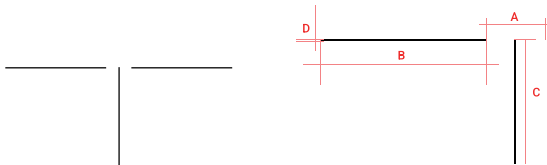
M2



Section	335		350	
	MOA	cm @100m	MOA	cm @100m
Section A	0.44	1.28	0.3	0.87 on 1x magnification
Section B	6.6	17.9 (1 MIL) on 2x magnification	6.9	10 (1 mil) on 2x magnification
Section C	3.52	10.2 (1 MIL) on 1x magnification	3.6	10 (1 mil) on 1x magnification
Section D	6.6	17.9 (1 MIL) on 2x magnification	6.9	10 (1 mil) on 2x magnification
Section a	1mil (10 cm @ 100m) on 1x magnification		1mil (10 cm @ 100m) on 1x magnification	
Section b	1mil (10 cm @ 100m) on 2x magnification		1mil (10 cm @ 200m) on 2x magnification	
Section c	1mil (10 cm @ 100m) on 4x magnification		1mil (10 cm @ 400m) on 4x magnification	

Section	635		650	
	MOA	cm @100m	MOA	cm @100m
Section A	0.78	2.3 on 1x magnification	0.53	1.54 on 1x magnification
Section B	8.6	10 (1 mil) on 2x magnification	6.92	10 (1 mil) on 2x magnification
Section C	3.9	10 (1 mil) on 1x magnification	3.72	10 (1 mil) on 1x magnification
Section D	8.6	10 (1 mil) on 2x magnification	6.92	10 (1 mil) on 2x magnification
Section a	1mil (10 cm @ 100m) on 1x magnification		1mil (10 cm @ 100m) on 1x magnification	
Section b	1mil (10 cm @ 200m) on 2x magnification		1mil (10 cm @ 200m) on 2x magnification	
Section c	1mil (10 cm @ 400m) on 4x magnification		1mil (10 cm @ 400m) on 4x magnification	

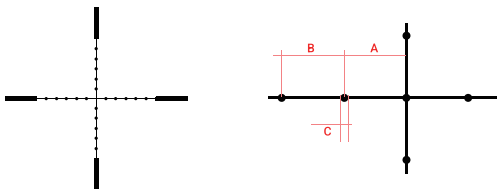
M3



Section	335		350	
	MOA	cm@100m	MOA	cm@100m
Section A	17.1	50	16.8	48.6
Section B	68.6	200	66.4	192.6
Section C	68.6	200	66.4	192.6
Section D	0.88	2.55	0.6	1.74

Section	635		650	
	MOA	cm@100m	MOA	cm@100m
Section A	18	52	17.6	50
Section B	72.7	210.8	70.8	205
Section C	72.7	210.8	70.8	205
Section D	1.56	4.5	1.06	3.0

M4



Section	335		350	
	MOA	cm @100m	MOA	cm @100m
Section A	3.52	10.24 (1 MIL)	3.3	9.6 (1 MIL)
Section B	3.52	10.24 (1 MIL)	3.3	9.6 (1 MIL)
Section C	1.32	3.84 (0.36 MIL)	0.9	2.6 (0.27 MIL)

Section	635		650	
	MOA	cm @100m	MOA	cm @100m
Section A	3.9	11.4 (1 MIL)	3.7	11(1 MIL)
Section B	3.9	11.4 (1 MIL)	3.7	11(1 MIL)
Section C	2.34	6.8 (0.6MIL)	1.6	4.6(0.43 MIL)

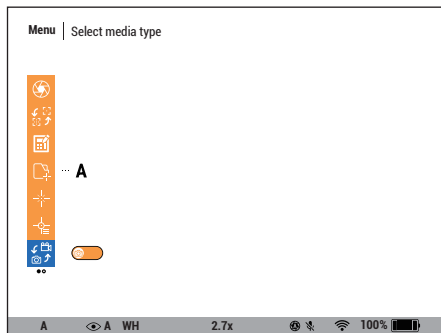


Reticle Colour

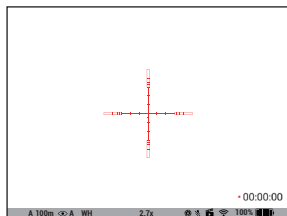
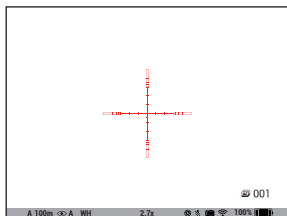
Press Left/Right Button to select the colour.



Media mode



Short press **Left/Right** Button to select take photos or video recording.
Long press **Left/Right** Button to save and exit.



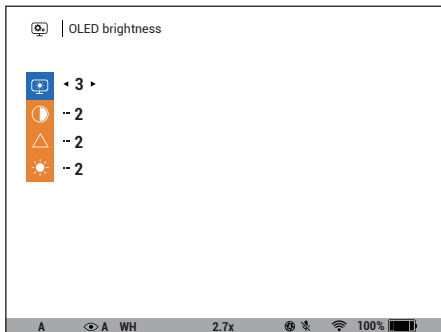
Please note the following before using:

When you take photos, do not press too quickly, always wait until 001 disappears before you take 002.

You can not take photos/videos while connecting with PC. Otherwise the photos/videos are not actually saved.



Display settings



OLED brightness

Press **Left/Right** Button to change OLED brightness from 1~5.



Contrast

Press **Left/Right** Button to change Contrast from 1~5.



Sharpness

Press **Left/Right** Button to change Sharpness from 1~5.



Brightness

Press **Left/Right** Button to change image Brightness from 1~5.

Note: When under A/B/C display mode, you can only adjust the OLED brightness.



Display modes

Press **Left/Right** Button to switch display modes.

A ... Normal mode

B ... Sensitive mode

C ... Contrast mode

D ... User mode



WiFi

Press **Left/Right** Button to turn on/off Wifi.
The WiFi password is 12345678.

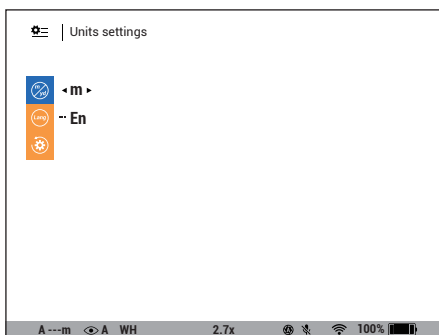


Microphone

Press **Left/Right** Button to turn on/off microphone.



System settings



Units settings

Press **Left/Right** Button to select units of measurement from Yards and Meters.



Language

Press **Left/Right** Button to select language and press **Middle** Button to save.



Restore default settings

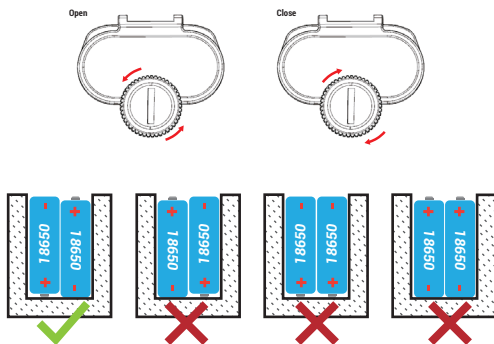
Press **Left/Right** Button to Restore default settings.
(All parameter settings are restored to default values)



Hardware/Software version

It indicates the S/N number, software version and hardware version of the device.

Turn the battery compartment knob counterclockwise until stop.
Please install the battery according to the positive and negative signs. Otherwise, the Polaris will not start.
Replace the battery and close the compartment knob.



Battery charge level is displayed on the status bar.



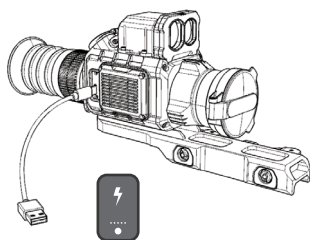
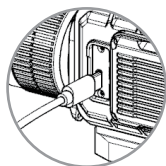
NOTE:

Zeroing information will be saved when unit shut down due to empty battery.
If unit is shut down by opening battery cover without proper power off, Zeroing information will not be saved.

1. Power supply / Firmware update



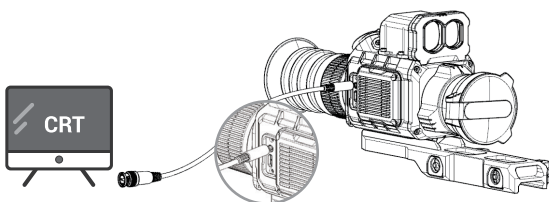
Serves for external power supply and firmware update



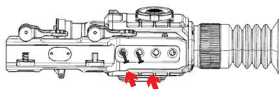
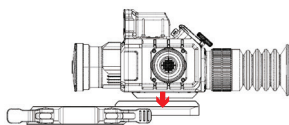
2. Video Cable



Video cable serves for external displaying



Picatinny Rail Installation

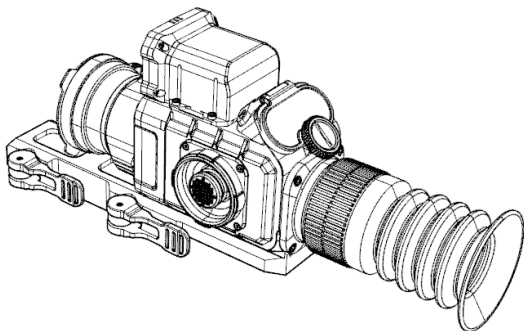
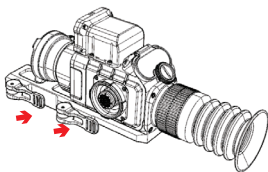
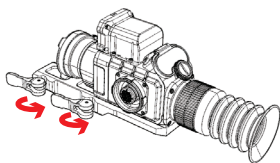


Step 1

Step 2

Step 3

Step 4



- Clean the device thoroughly before storage, ensuring it is free of moisture and dust.
- Make sure that the batteries are removed and that the battery compartment is empty.
- It is possible for the device to be stored for short periods in a suitable soft pack, bag, or cartridge box.
- Store the device in a dry, enclosed, unheated, and ventilated space for long-term storage.
- Avoid exposing the product to aggressive environments, temperatures below -50°C or above $+60^{\circ}\text{C}$, relative humidity over 80%, or prolonged periods of direct sunlight.
- Before transportation, neatly pack the product in its original packaging (transport bag), ensuring all items and accessories are carefully placed in the bag. Then, securely place the bag in the transport suitcase.
- The device can be shipped via various transport methods, up to an altitude of 12.000 m.

Polaris Specification								
	335R	335RL	350R	350RL	635R	635RL	650R	650RL
Detector								
Type	Uncooled Vox				Uncooled Vox			
Resolution	384×288				640×512			
Frame rate	50Hz							
Pixel	12μm							
Spectral range	8-14μm							
NETD	<20mk							
Optical Characteristics								
Objective lens	35mm		50mm		35mm		50mm	
Magnification	2.7x		3.8x		1.5X		2.2X	
Field of view (H×V), degrees	7.5°×5.6°		5.3° x 4°		12.6×10°		8.8×7°	
Close-up range	5m							
Dioptre adjustment	-5D-4D							
Functions								
Zoom	2x/4x/PIP				2x/4x/8x/PIP			
Palettes	6							
Display								
Type	OLED							
Resolution	1024×768							
External video	WIFI/PAL							
Built-in memory	64G							
Power Supply								
Battery	2x18650				2x18650			
External power supply	5V Type-C				5V Type-C			
Operating time (at t=22°C)	10h							
Physical Characteristics								
Weight without battery	618g	688g	650g	720g	623g	693g	665g	720g
Dimension, mm	180×76×83	180×76×100	196×76×83	196×76×100	178×76×83	178×76×100	188×76×83	188×76×100
Environmental Compatibility								
Ingress protection rating	IP67							
Operating temperature	-20°C -50°C							
Storage temperature	-40°C -60°C							
Laser Rangefinder (Optional)								
Safety class for laser equipment according to IEC 60825-1:2014	/	1	/	1	/	1	/	1
Measuring range	/	5-1000m	/	5-1000m	/	5-1000m	/	5-1000m
Measurement accuracy	/	±1m	/	±1m	/	±1m	/	±1m



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