Manuals+ — User Manuals Simplified.

CONOTECH Polaris Thermal Scope Instruction Manual

POLARIS

Contents

Polaris Thermal Scope

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

RoHS $C \epsilon$

Attention!

⚠️	The proper usage of the device is important for safe exploitation! Therefore read carefully the present manual!
⚠️	If the device was left in storage for a longer period of time, before exploitation check its funtionality.
⚠️	Disassembling of the device is prohibited,except in authorized repair centers.
⚠️	The external optical surfaces should be clean at all times.Touching the optical surfaces with bare hands is not recommended.
⚠️	Sand and sea water can damage the optical coatings!
⚠️	Do not point the device directly at the sun!
⚠️	Image performance is dependent on scenery and atmosphere conditions. Contrast in the same image may vary as a function of the time of day due to the effect of the sun.For example,at sunset objects will have absorbed different levels of heat resulting in greater temperature differences and better contrast.
⚠️	When left in storage for a longer period of time,batteries have to be removed and stored in polyethylene bags to prevent contact with metal.(It is recommended to recharge the batteries every two to three months)
⚠️	When carrying or transporting the device,put the protective lens cap!
⚠️	Condensation can cause fogging of the optical surfaces! Condensation occurs when the temperature or humidity changes as follows: ·When moving the device from cold to warm place or vice versa; · In places with high humidity. When equalizing the temperature of the device with the environmental, the condensation disappears.Use the towel to remove moistu
⚠️	Clean the lens surfaces with the Lens Cloth or with the napkin!

|	
⚠️ **LEGAL NOTIOE**	Before attaching to weapons,check the regional legal regulations in the area of application. The attachment to a weapon is always the sole responsibility of the user.

Appearance
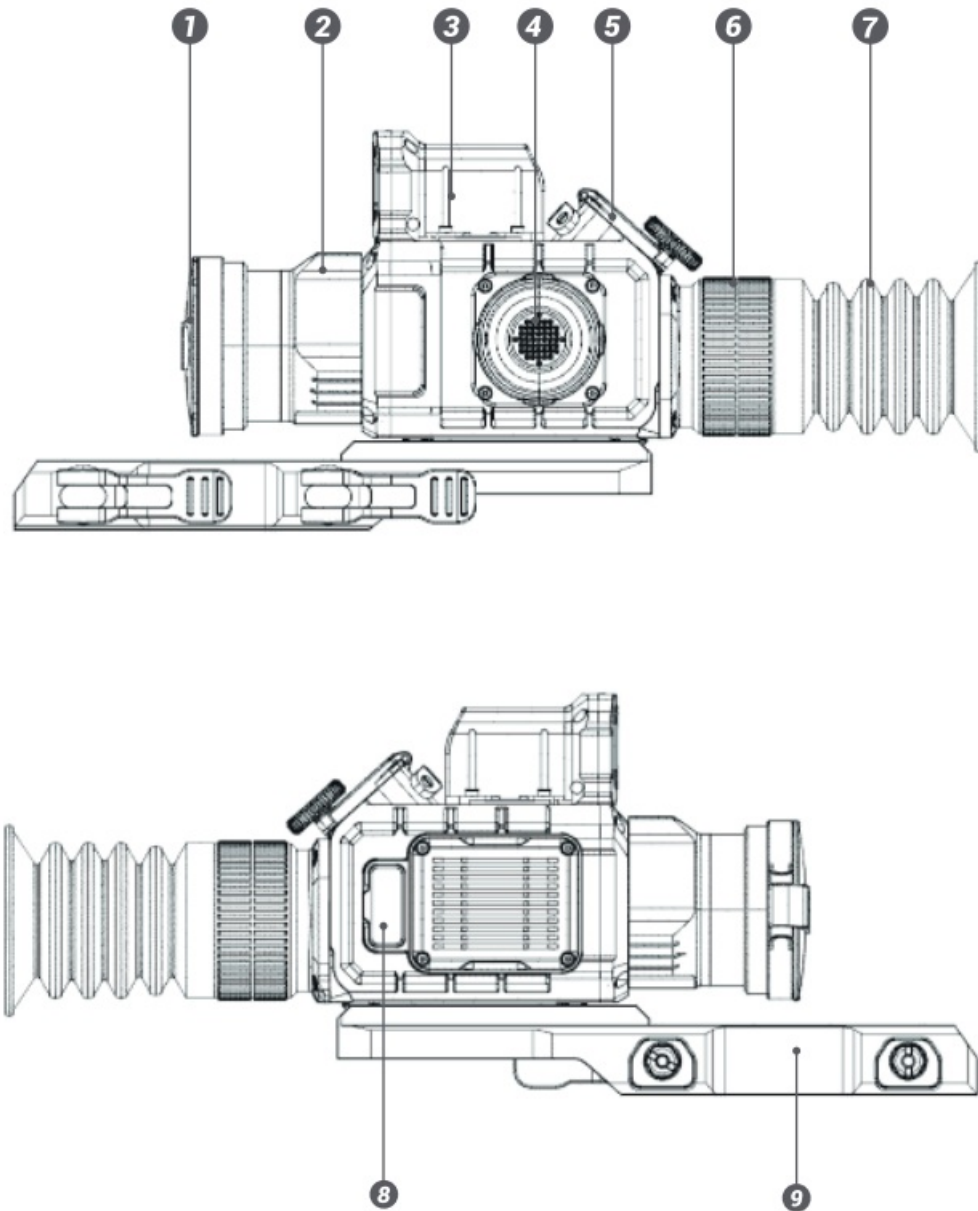
⚠️ **NOTE**

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

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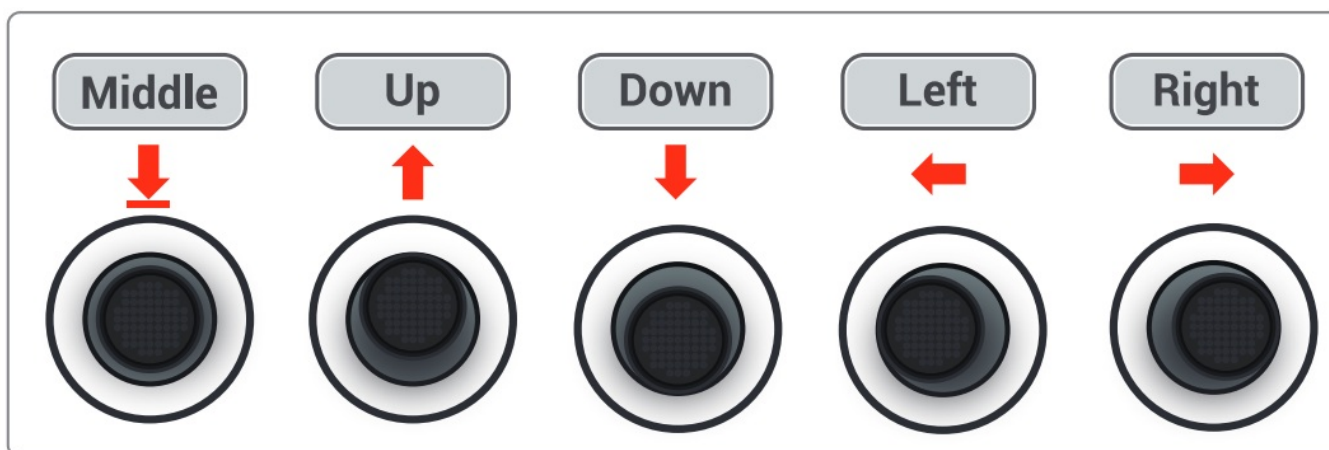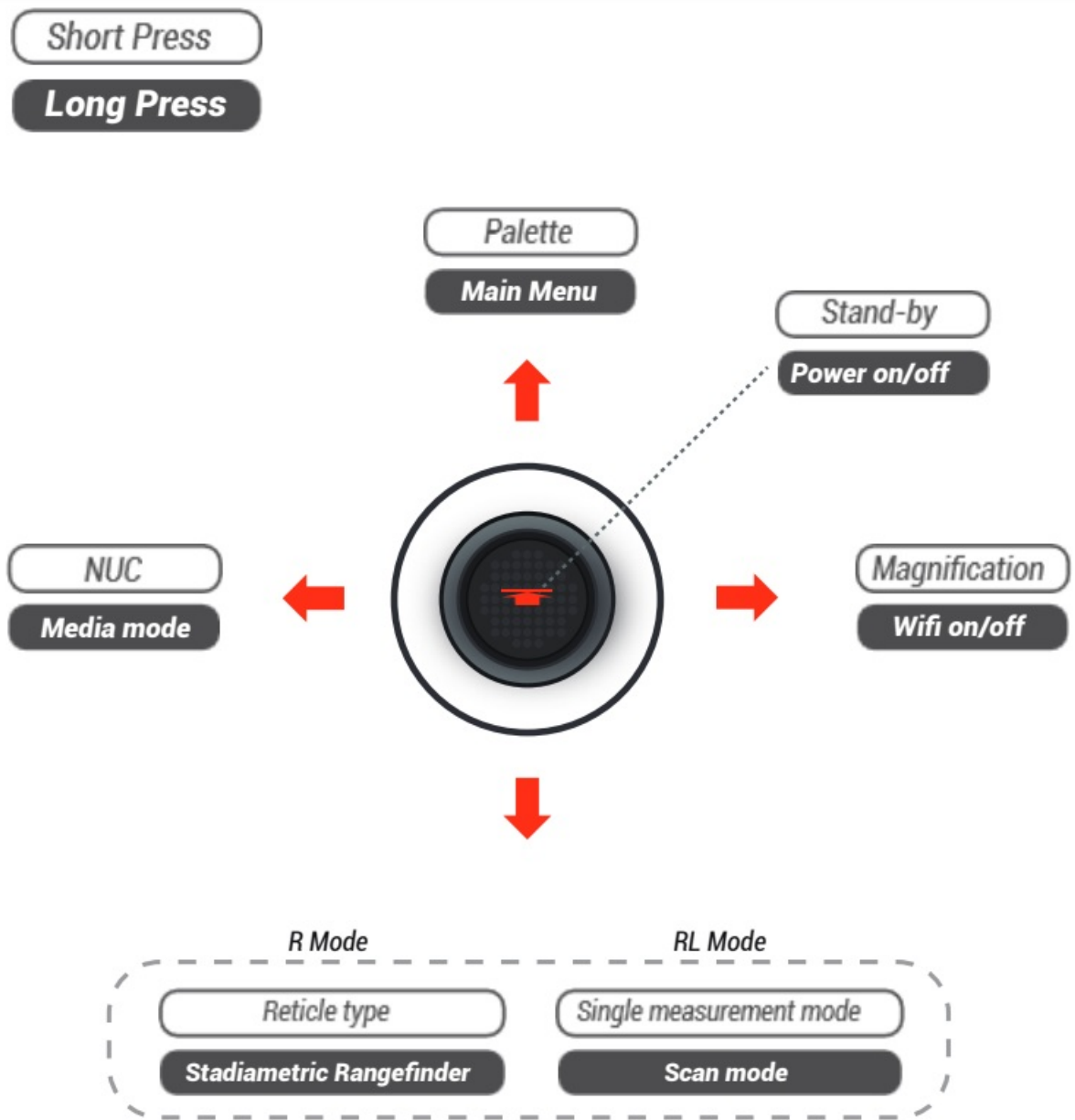8. USB
9. Picatinny rail

Controls

⚠️ **ATTENTION!**

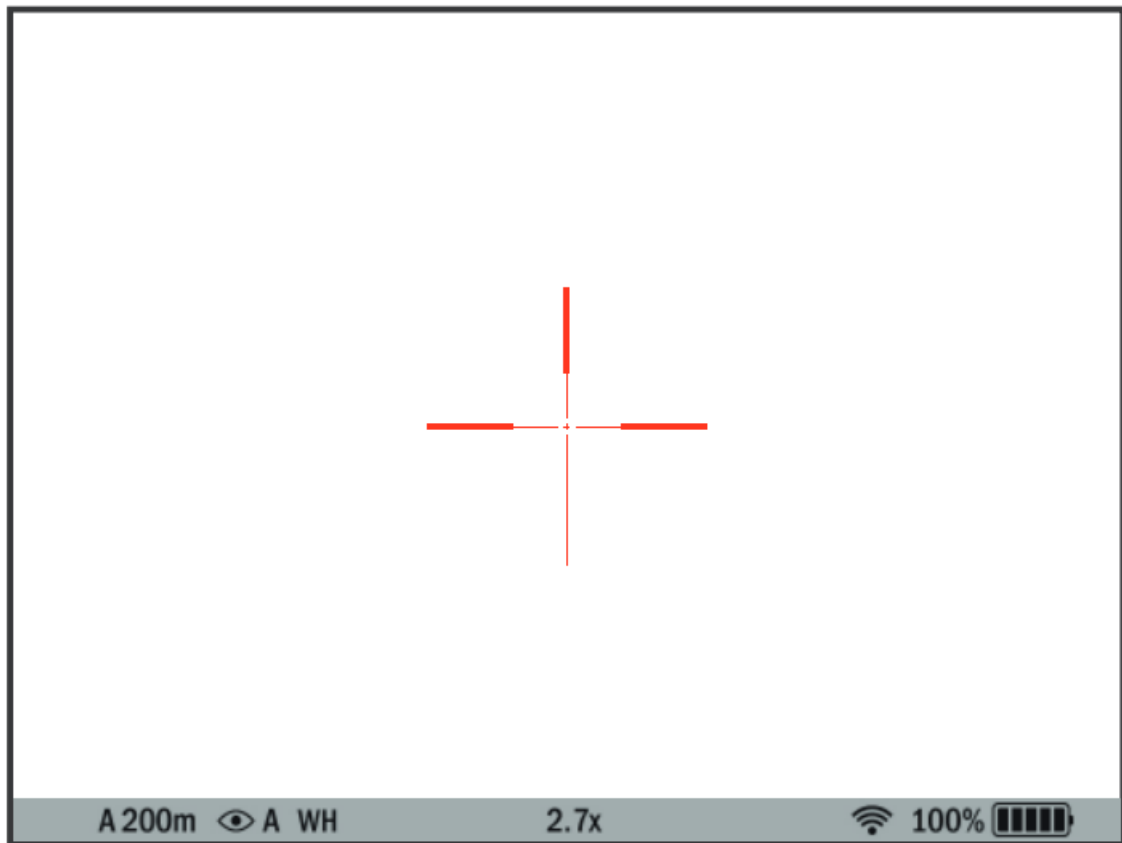The main operations are performed through the "OneTouch Button" (5 position button) .
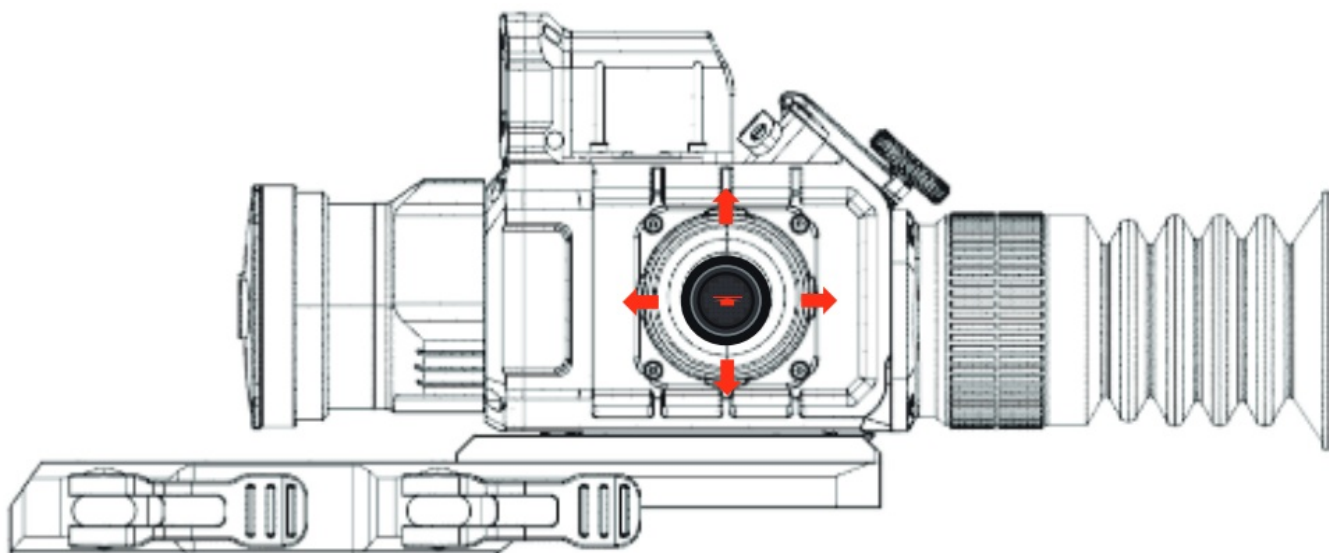
⚠️ **ATTENTION!**

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

Middle	Up	Down	Left	Right
↓	↑	↓	←	→

Short Press

Long Press

Palette / Main Menu

Stand-by / Power on/off

NUC / Media mode

Magnification / Wifi on/off

R Mode
Reticle type / Stadiametric Rangefinder

RL Mode
Single measurement mode / Scan mode

Status Display

A 200m 👁 A WH   2.7x   📶 100% ▮▮▮▮▮
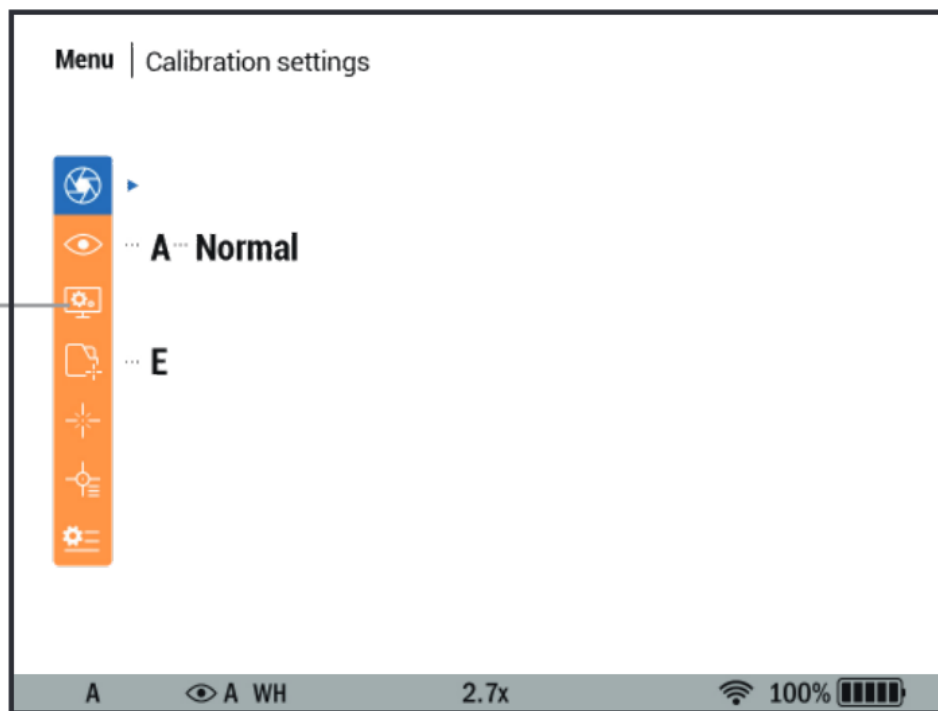
The status bar is located in the lower part of the display and shows information on the actual operating status of the sight,including:

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

Main menu settings icon

Quick Menu

The Quick menu allows change of basic settings.

Palette

Short pressUpButton to switch palette from C1~C6.

C1—White Hot—WH C2—Black Hot—BH C3—Rainbow—RB	C4—Cold Green—CG C5—Glowbow—GB C6—Warm White—WW

Main Menu
Long PressUpButton to enter/exit Main menu.

R Mode

Reticle type
Short pressDownButton to switch the Reticle type.
Rangefinder
Long PressDownButton to enter/exit Stadiametric rangefinder mode.
RL Mode
Single measurement mode
Short pressDownButton to enter Single measurement mode.
Scan mode
Long PressDownButton to enter/exit Scan mode.

NUC

Short pressLeftButton to do Non-Uniformity Calibration.

Media mode

Long pressLeftButton to enter/exit Media mode.

Magnification/PIP

Short pressRightButton to switch Magnification,PIP.

WIFI

Long pressRightButton to turn on/off Wifi.

Stand By

Short PressMiddleButton to make device Stand By.

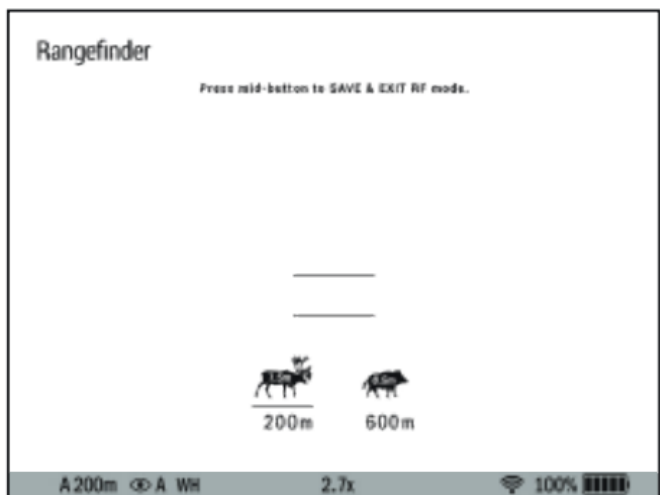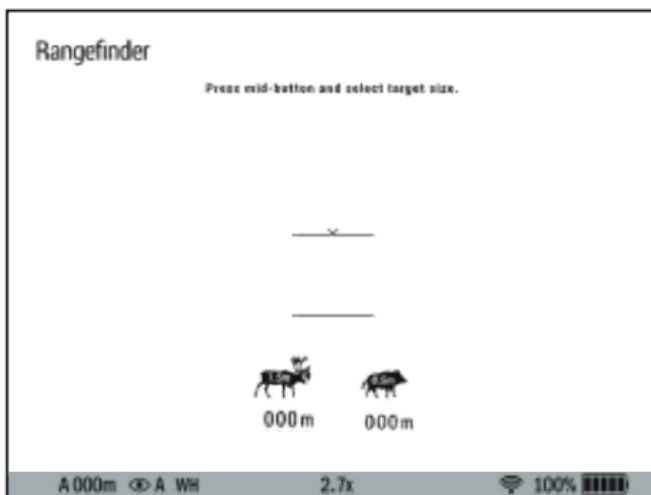Short pressMiddlebutton again to be back to normal display.

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

Power On / Off

Long PressMiddleButton 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 lowerfixed bar under the object automatically appear on display, press theUp/Down buttons to move the upper horizontal bar until the objectfits entirely between the two lines. The distance to the object is automatically recalculated as you move the upper line. PressLeft/Rightbuttons to choose reference object, press Middle button to save & exit RF mode ,range information will not disappear from display automatically.
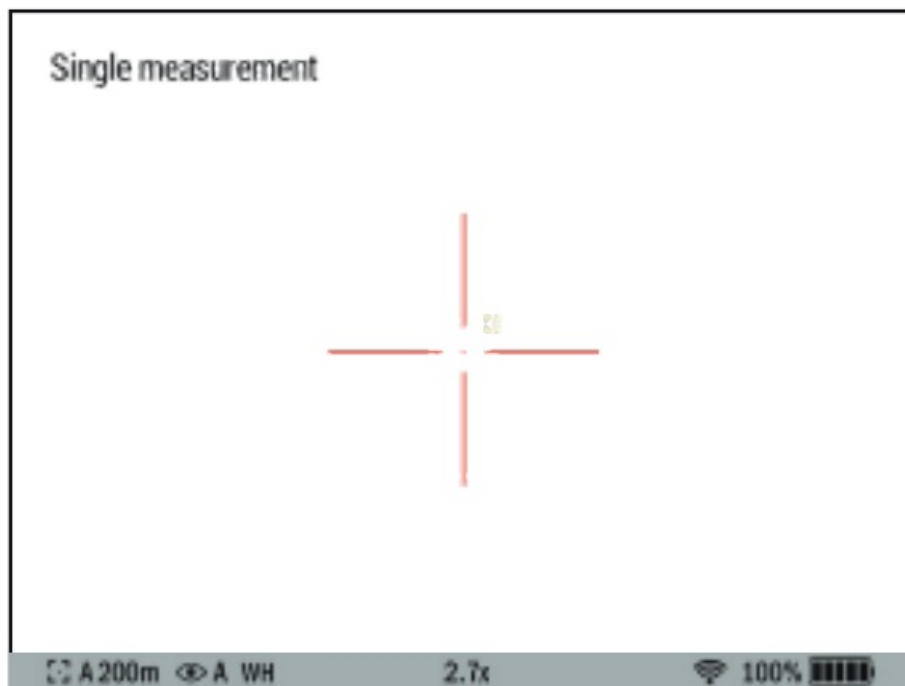
Distance to the object displays in status bar and a " + " on reticle suggests the aiming point accordingly.

A 208m ⊕ A WH   2.7x   🛜 100% ▮▮▮▮▮
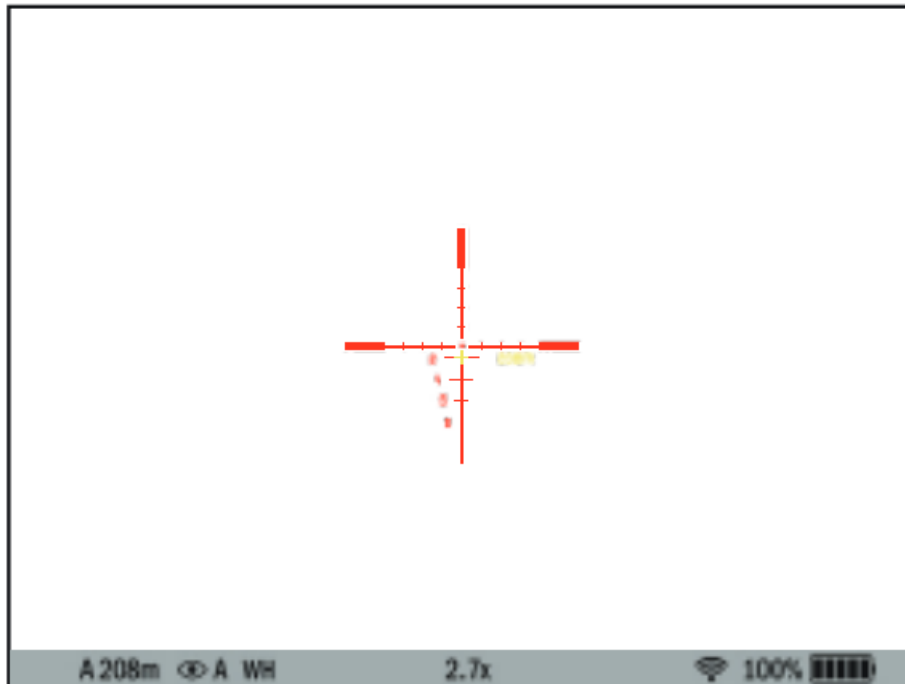
Laser Rangefinder (RL models only)

When under real time image mode, Short pressDownButton to enter Single measurement mode.

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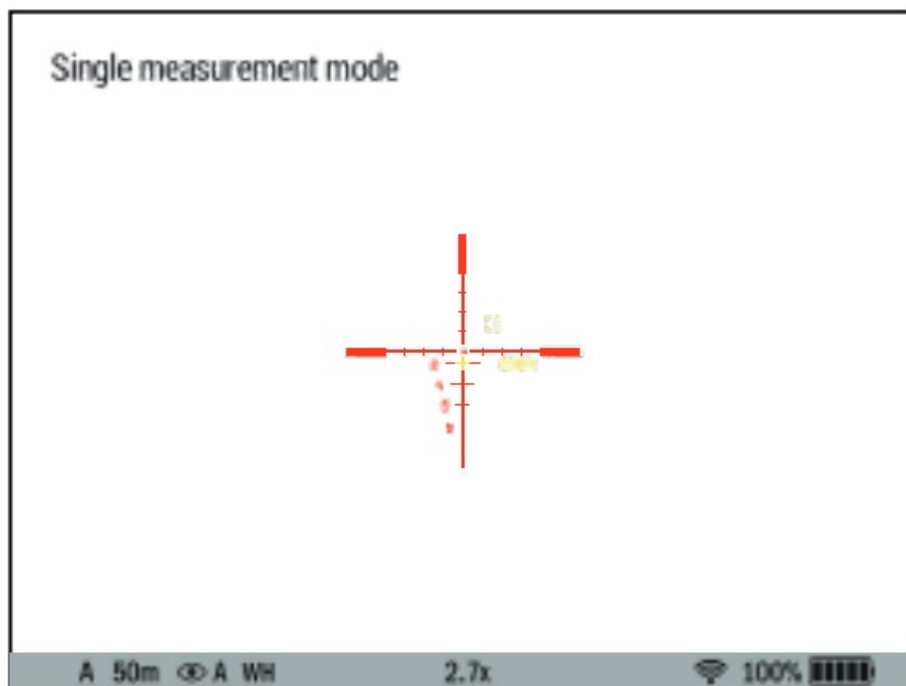display.

Single measurement

⌐:A 200m ⊕ A WH   2.7x   🛜 100% ▮▮▮▮▮

When under real time image mode, Long pressDownButton to enter/exit scan mode.

Aim ⌐¬ to the target, the corresponding distance of target will appearson display.
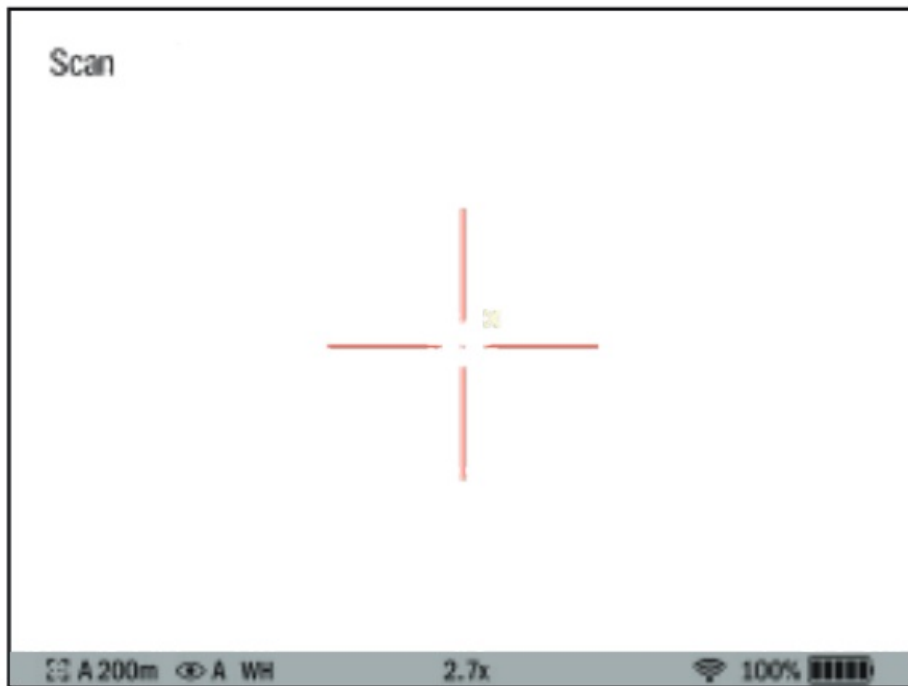
Scan

□ A 200m ⊙ A WH   2.7x   🛜 100% ▮▮▮▮▮

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

Single measurement mode

A 50m ⊙ A WH   2.7x   🛜 100% ▮▮▮▮▮

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.
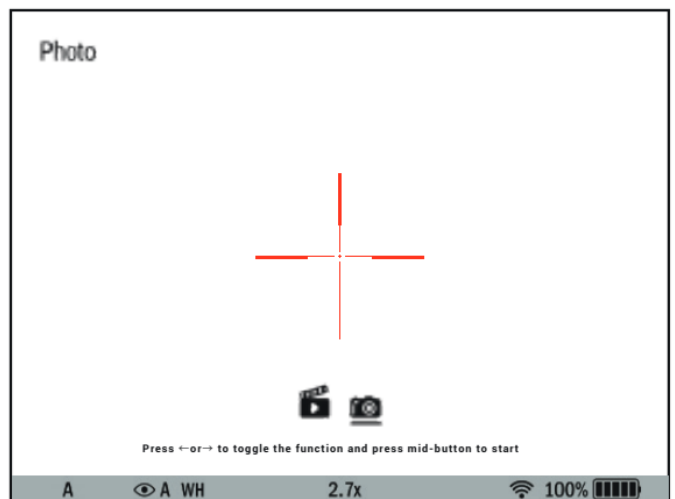**WIFI**
Long pressRightButton to turn on/off Wifi.
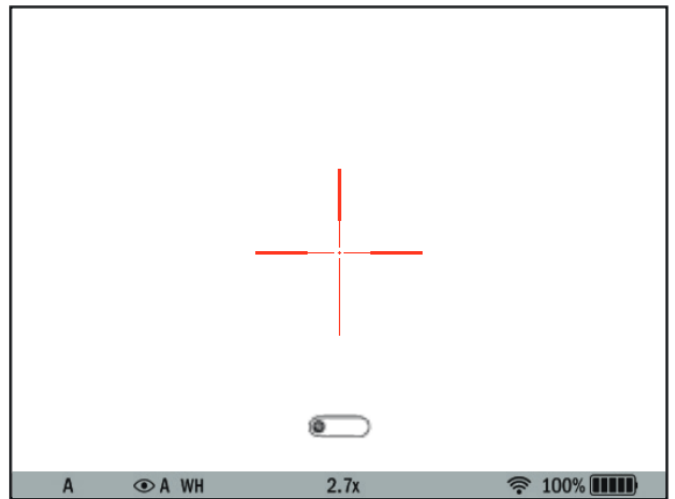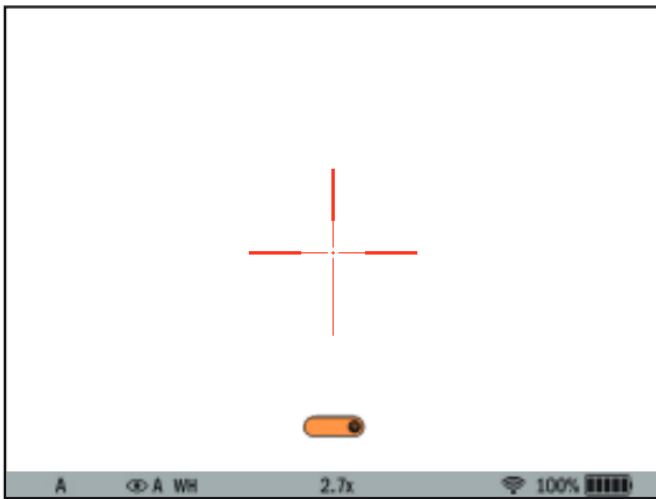
Media mode
Long pressLeftButton to enter/exit Media mode.
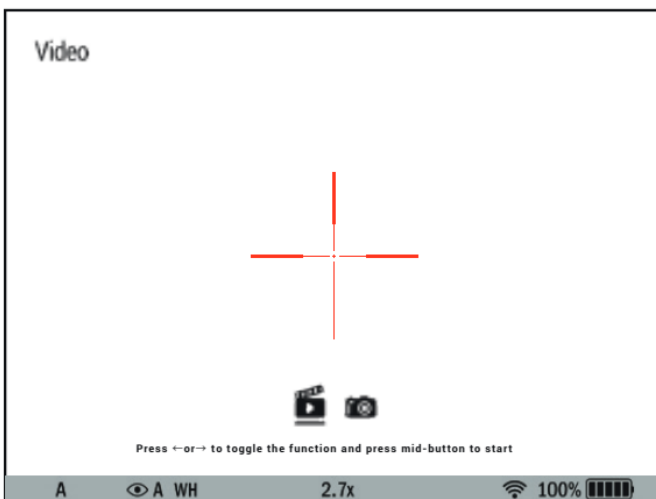
Recording icon or number of photo will be shown on the lower screen.
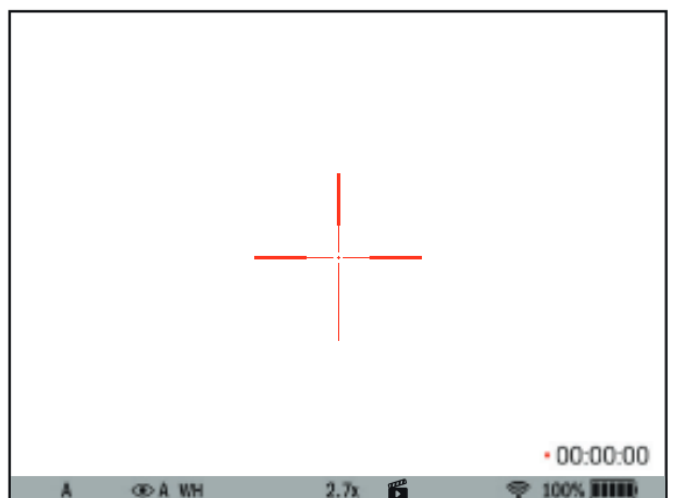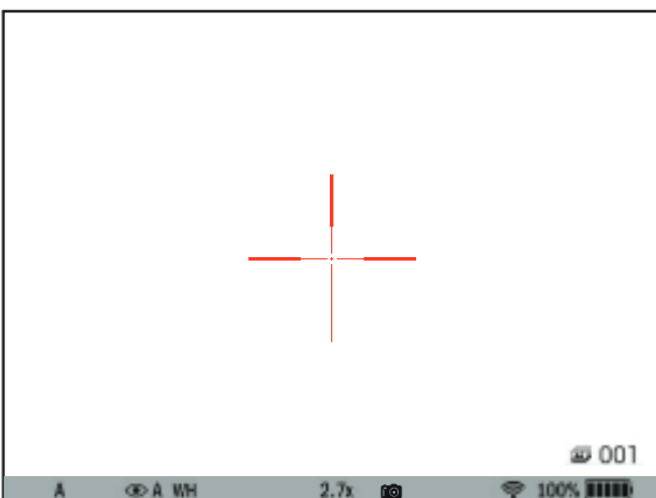
When Recording, Short pressMiddleButton to pause, short pressMiddleButton again to continue recording.
Long pressLeftButton to exit Video and Photo function.
Please note the following before using
When you take photos, do not press too quickly, always wait until 001disappears before you take 002.
You can not take photos/videos while connecting with PC.Otherwise the photos/videos are not actually saved.

Take photo by CONOTECH

User can take photo / video on board or by CONOTECH App.

Replay on Smart phone.

To get started, install the free CONOTECH App on your mobile device.

You can search and download at App Store and GooglePlay.

http://qr02.cn/CHcjvz	**http://qr02.cn/AkCYyl**

Long press Right Button to turn on WIFI.

Find WIFI named:
Polaris ******
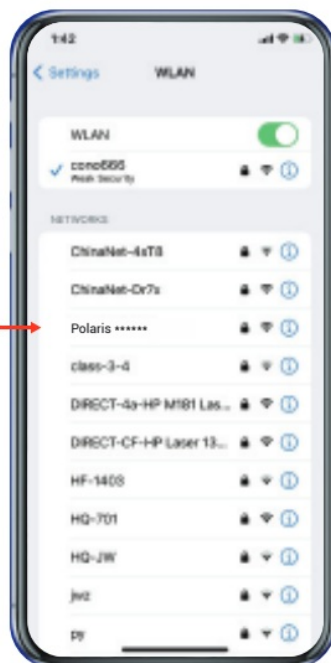
Enter password:
12345678
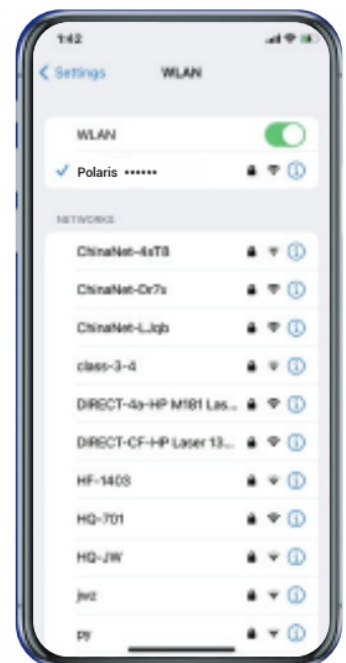
After wait for 10s

How to replay on PC ?

1. Connect the Type-C usb cable to PC.
2. Turn on WIFI and wait 10s.

You will see a folder name "camera".

Open this folder.

A new folder is created each time when you re-power on the device and take photo/record video.

Open the folder you will see phots / videos that you took.
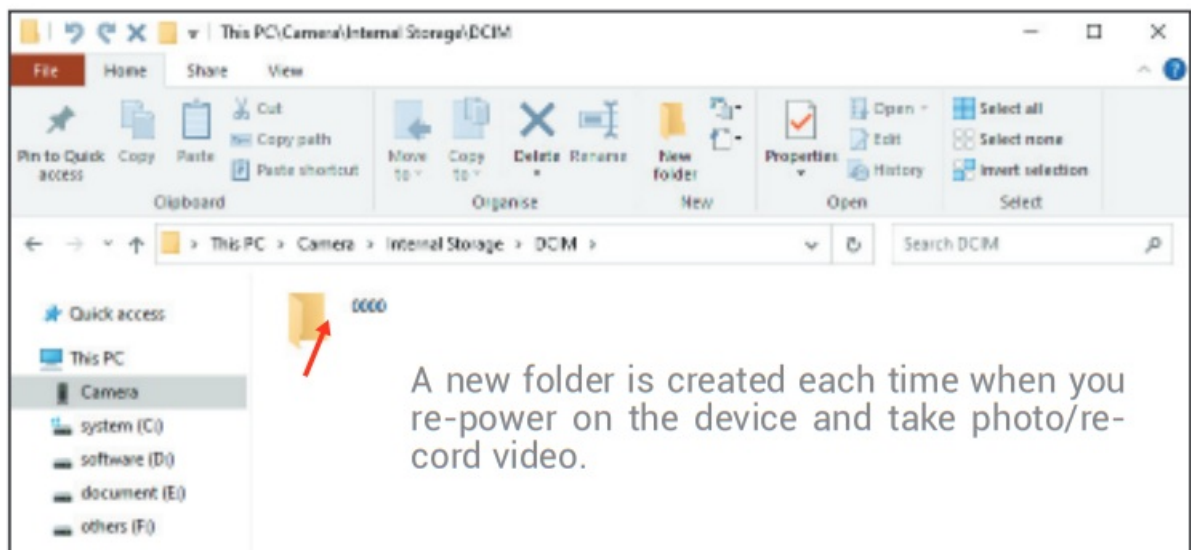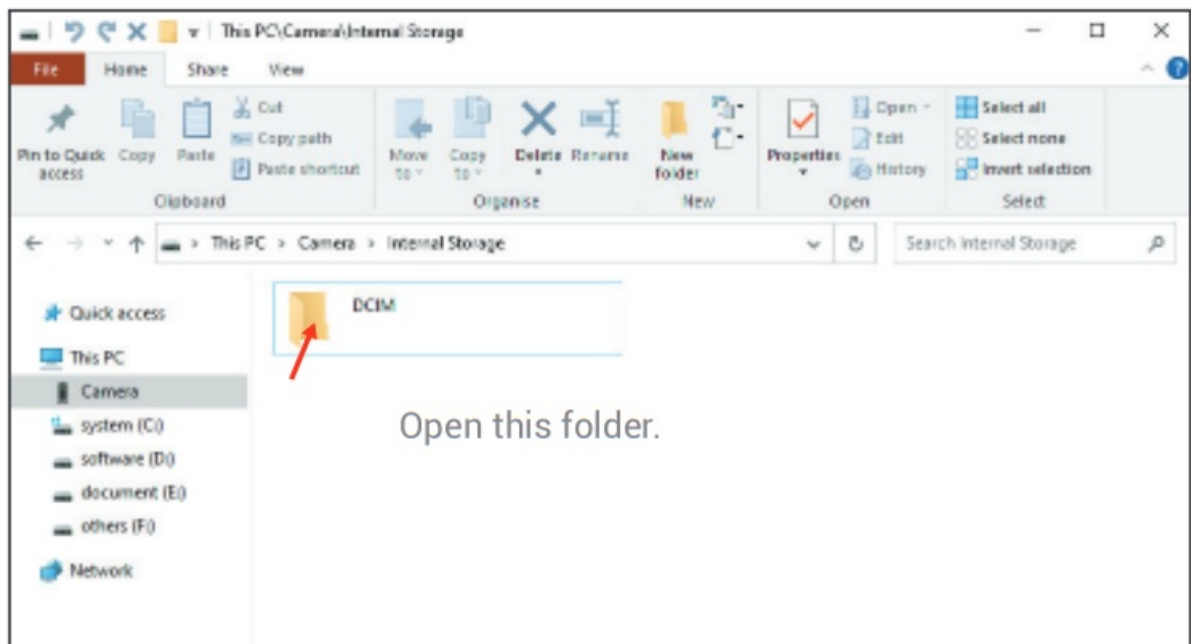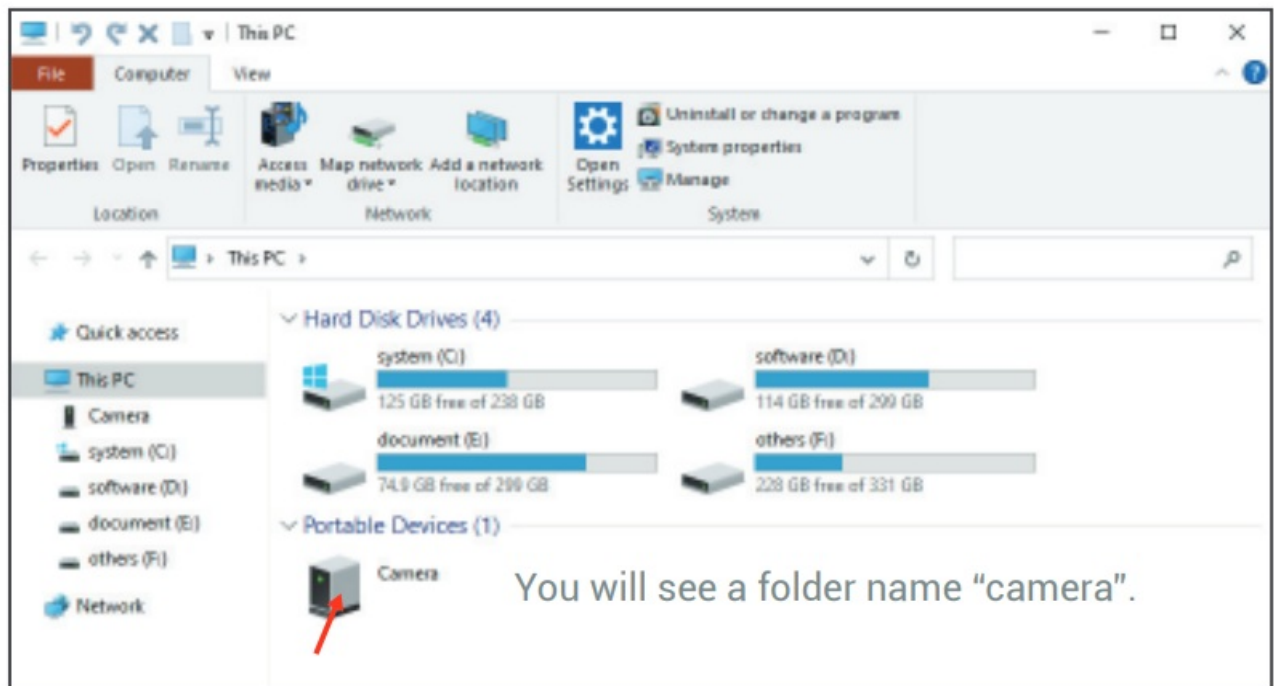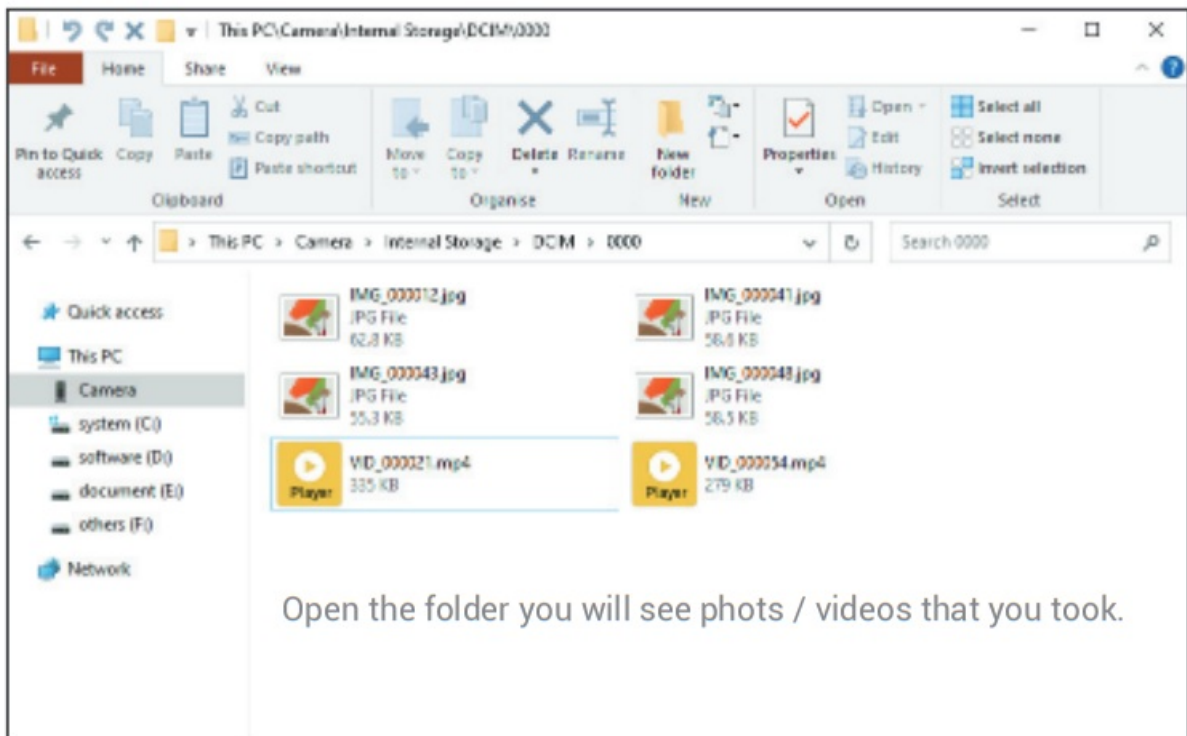
⚠️ NOTE

When under real time image,long press the Up Button to entre 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 Setting
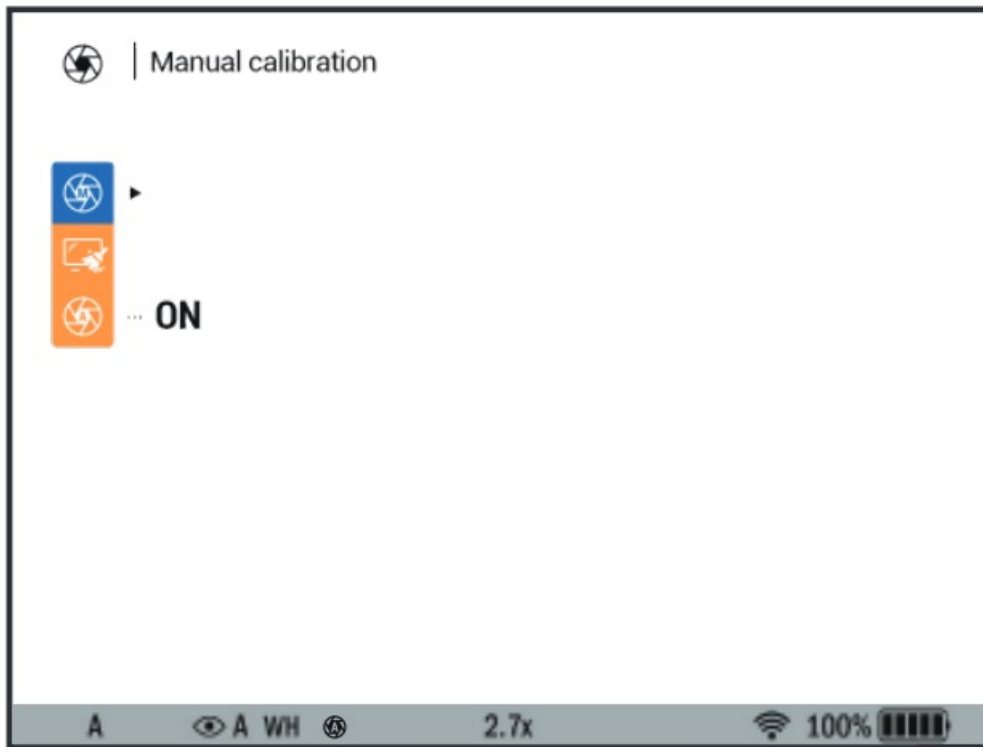
Manual Calibration
PressLeft/RightButton,prompt to close the lens cover, and complete after counting down 3-2-1.

Defective Pixel Repair
PressLeft/RightButton,prompt to close the lens cover, and complete after counting down 3-2-1.

Auto NUC
PressLeft/RightButton to turn Auto NUC On / Off.

Display modes
PressLeft/RightButton to switch display modes.
A … Normal
B … Booster
C … Enhance
D … User mode

Display setting
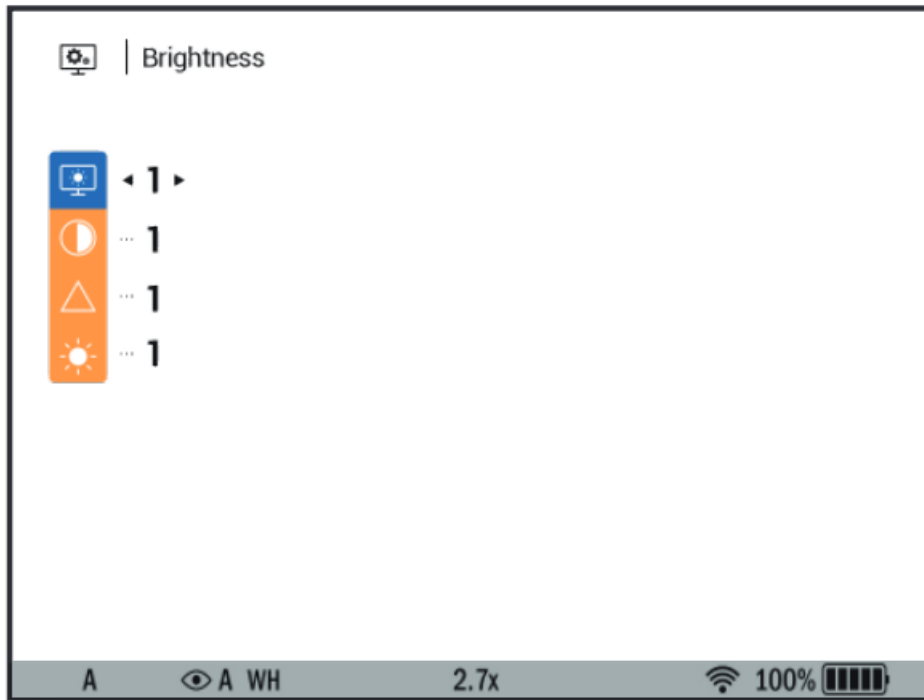
OLED brightness

PressLeft/RightButton to change OLED brightness from 1~5.

Contrast

PressLeft/RightButton to change Contrast from 1~5.

Sharpness

PressLeft/RightButton to change Sharpness from 1~5.

Brightness

PressLeft/RightButton to change image Brightness from 1~5.

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

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 pressLeft/Rightbutton.

Zeroing

To zero your weapon , you need to set a zeroing distancefirst.

New distance

PressLeft/RightButton and you will see **A0000m** , set the value for each digit with Press Up/DownButton,switch between the digits with a short press ofLeft/RightButton. Press MiddleButton to save the new distance.
Note: Max number of zeroing distances is 5 for each profile.
Distance
PressUp/DownButton to select the zeroing distance.

Zeroing parameters settings
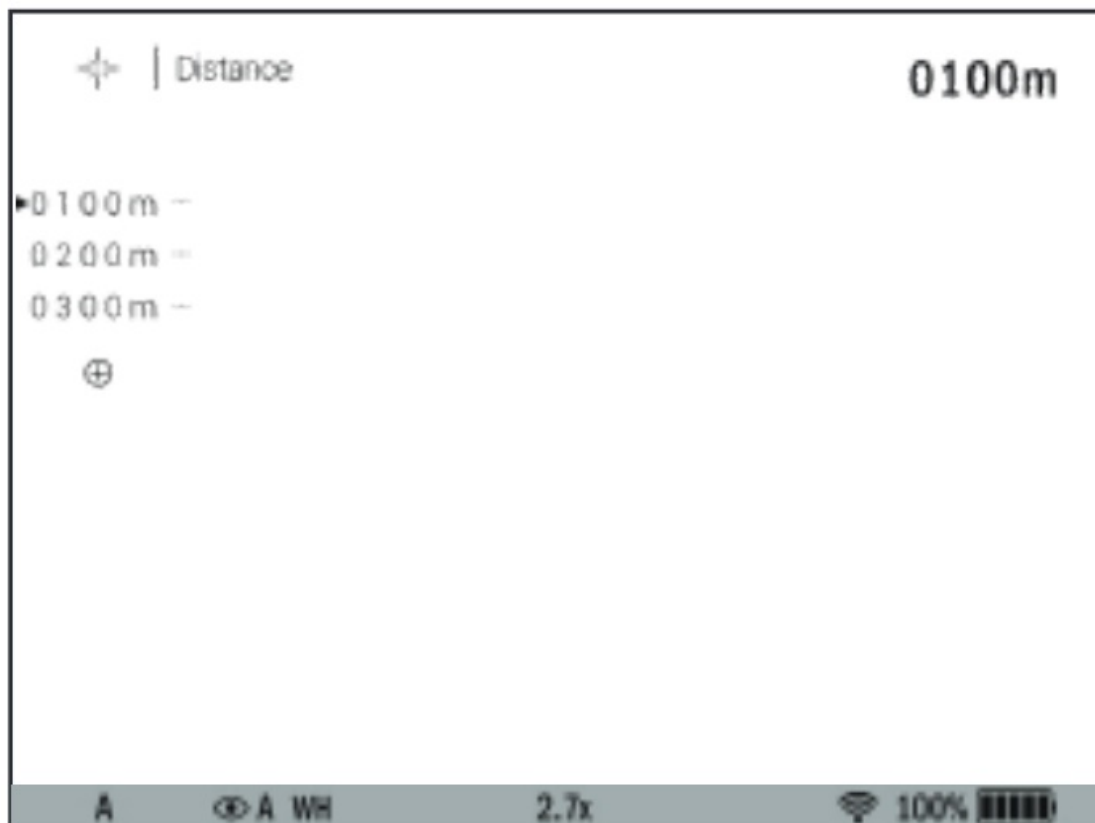
PressLeft/RightButton to zeroing parameters settings.

✛
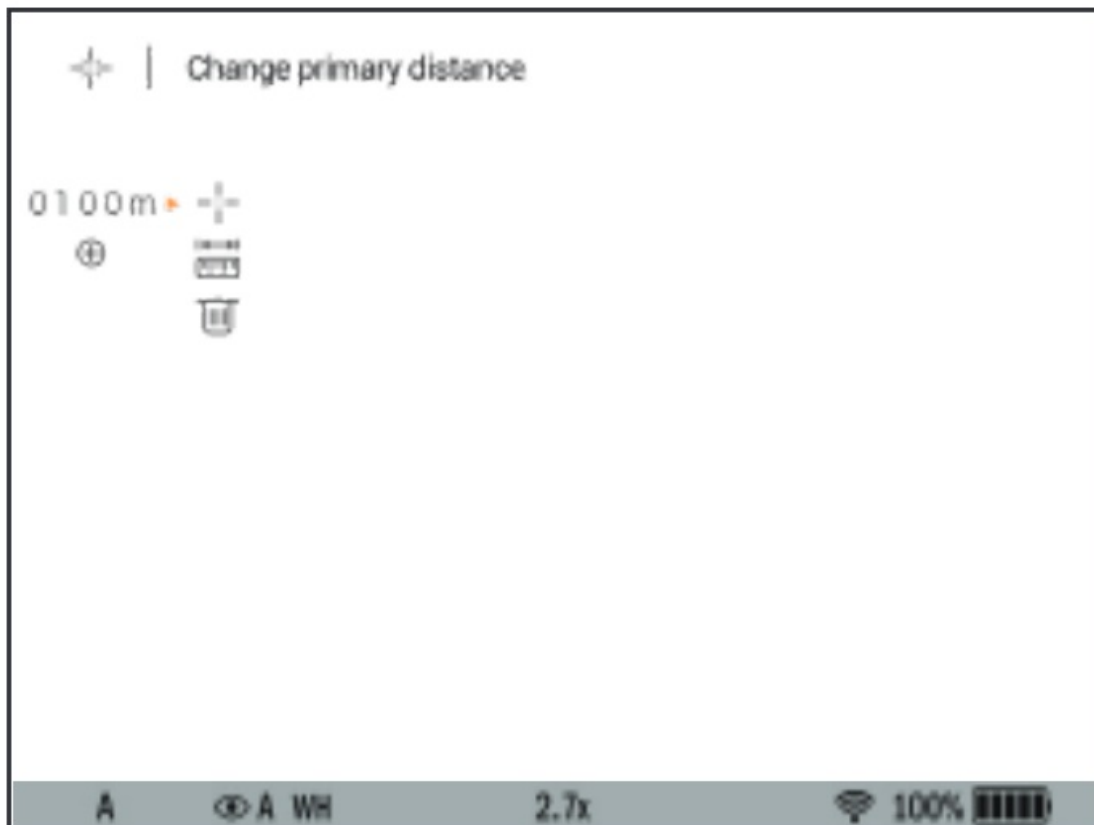
Windage /**Elevation**
Take a shoot, moveUp/Down/Left/RightButton to make cross center of reticle at point of impact. X,Y will show the distance value you move.
Short pressMiddleButton to Save & Exit.
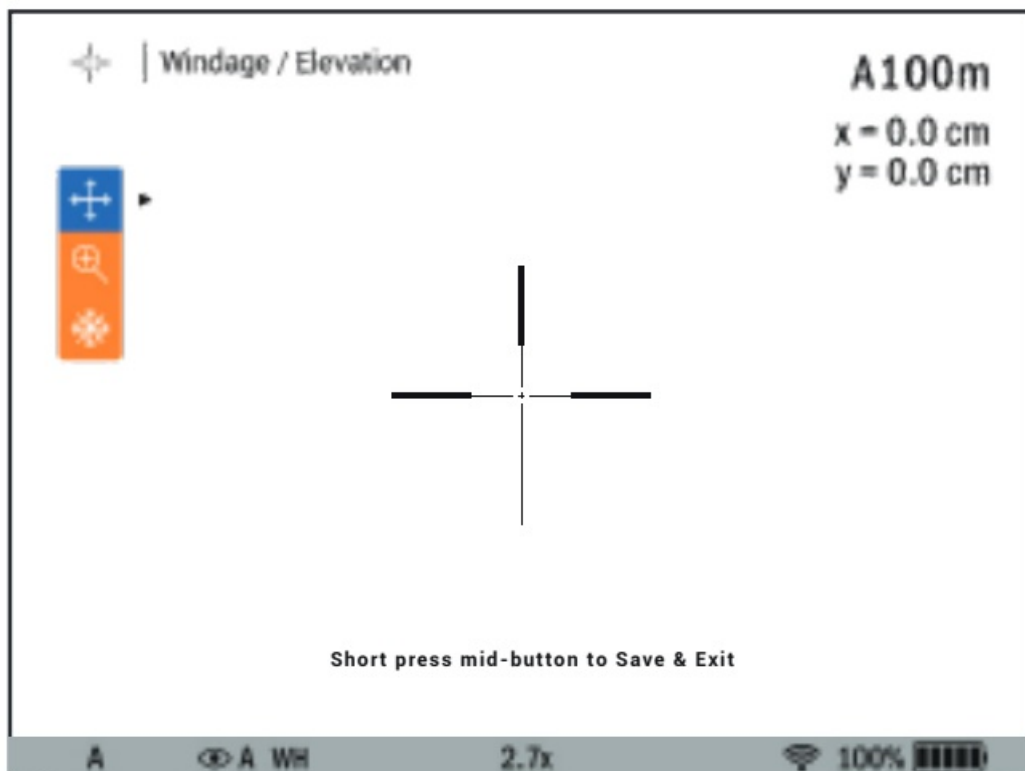
⊕ Magnification

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 pressLeft/RightButton to freeze the infrared image of the current frame, as shown in the followingfigure.
PressLeft/RightButton to unfreeze again to resume normal display of the infrared image.
When freezing the image,you can pressUp/DownButton to adjust other options in the zero calibration.

Change primary distance
PressLeft/RightButton to change primary distance.
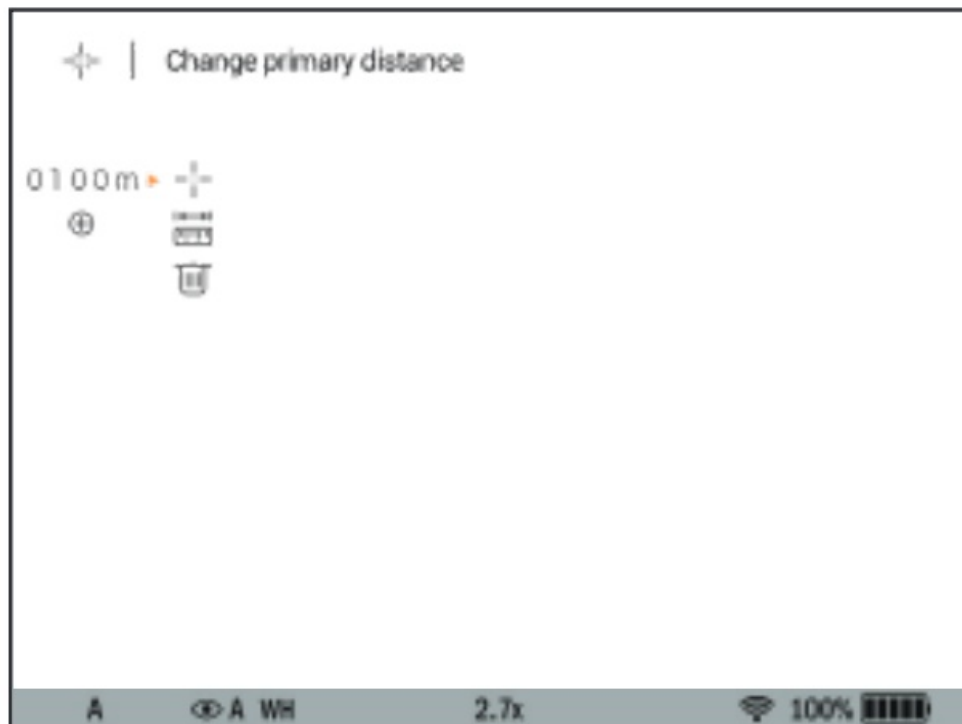
Delete distance
PressLeft/RightButton to delete distance.
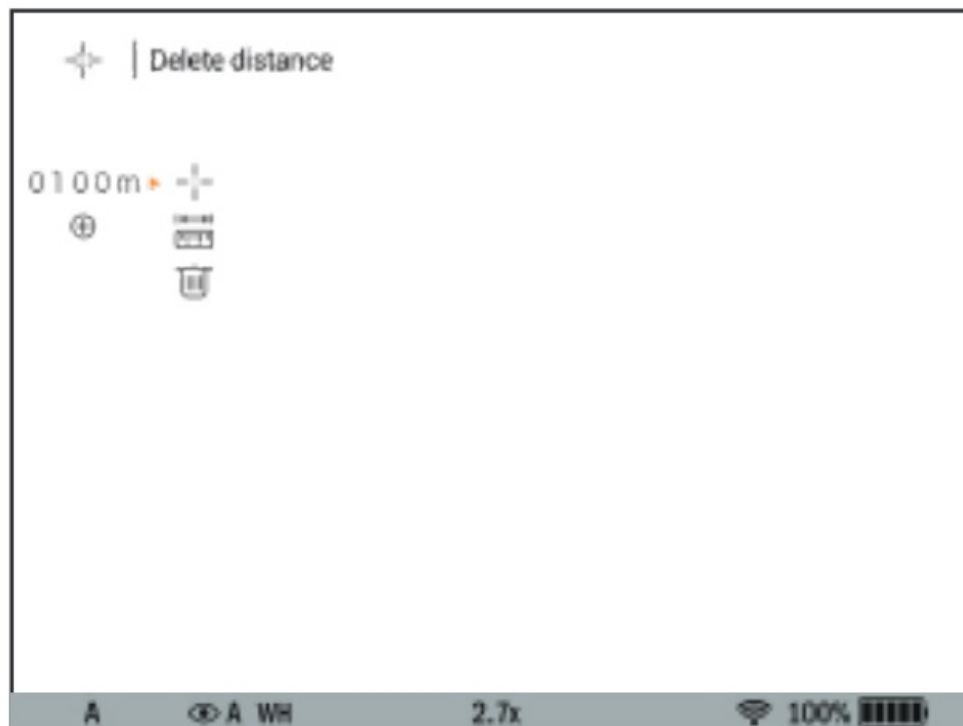
When zeroing isfinished, the hundred digits of the distance you set will be displayed on the reticle.
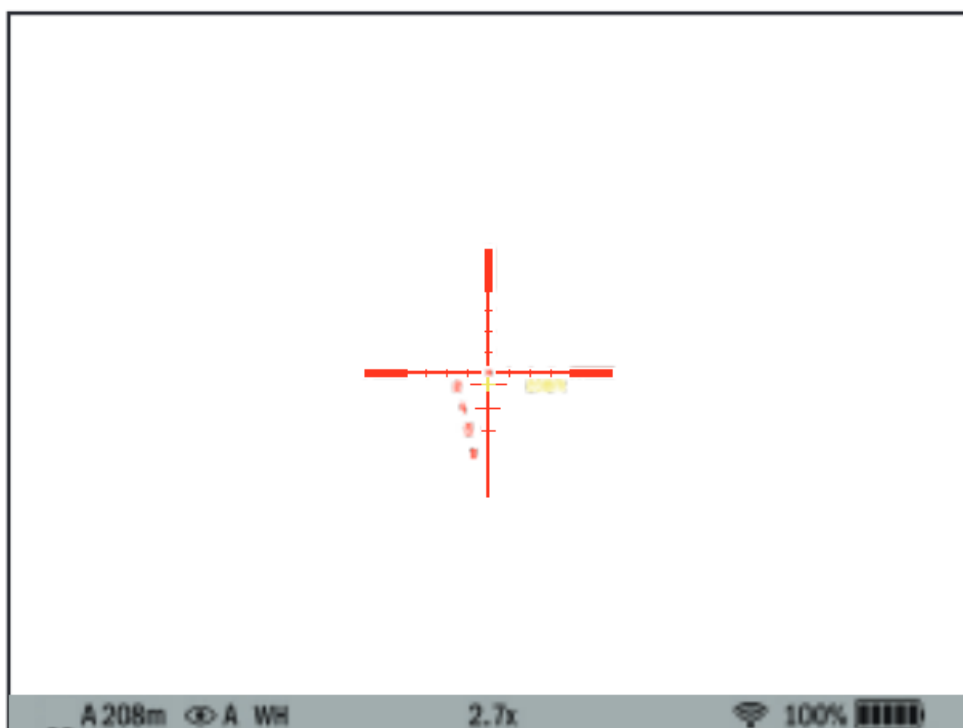
Reticle settings
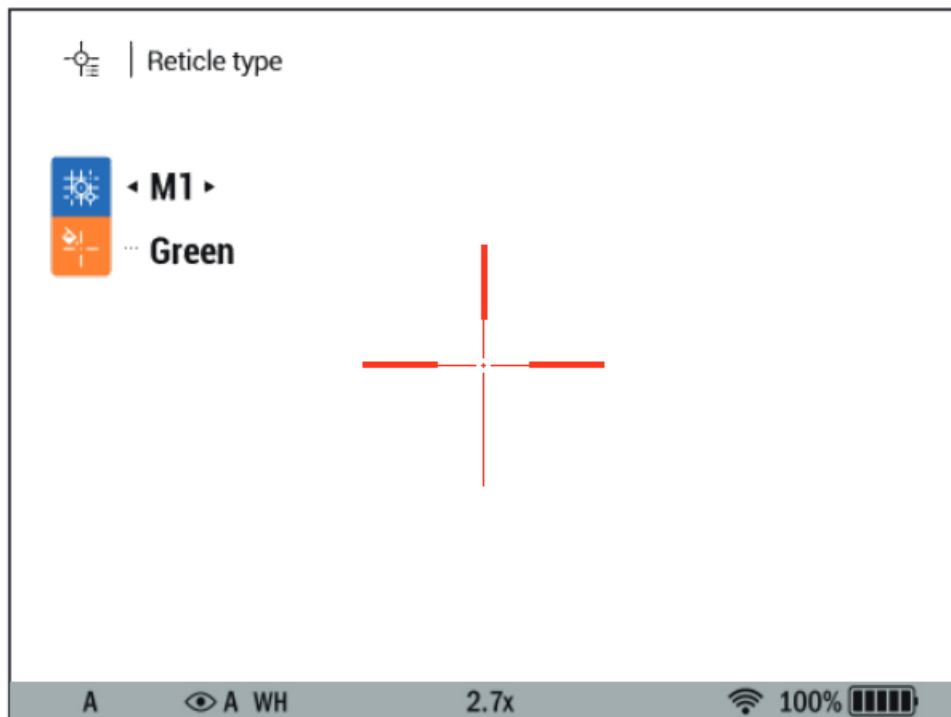
⊹ Reticle type

PressLeft/RightButton to select the reticle type.

M1
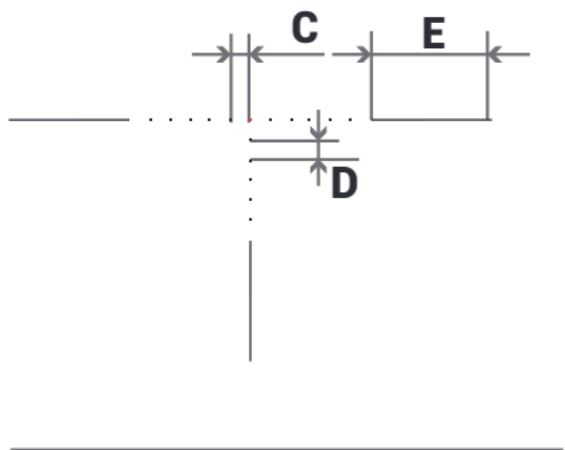
Reticle	MOA/cm@100m			
parameters	384(35mm)	384(50mm)	640(35mm)	640(50mm)
Section A	1.2/4.8	1.2/3.4	1.6/4.6	1.1/3.2
Section B	1.2/4.8	1.2/3.4	1.6/4.6	1.1/3.2
Section C	5.8/24	5.8/17	8/23	5.5/16
Section D	5.8/24	5.8/17	8/23	5.5/16
Section E	37.7/156	37.7/110.5	52/119.6	35.75/104

M2
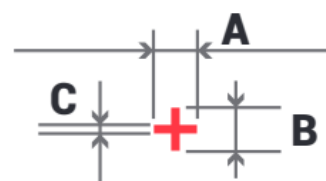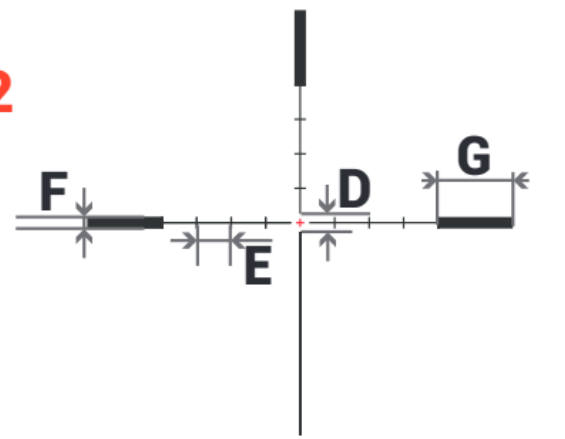
Reticle	MOA/cm@100m			
parameters	384(35mm)	384(50mm)	640(35mm)	640(50mm)
Section A	2.9/12	2.9/8.5	4.8/13.8	3.3/9.6
Section B	2.9/12	2.9/8.5	4.8/13.8	3.3/9.6
Section C	1.2/4.8	1.2/3.4	1.6/4.6	1.1/3.2
Section D	6.38/26.4	6.38/18.7	6.4/18.4	4.4/12.8
Section E	11.6/48	11.6/48	16/46	11/32
Section F	4.06/16.8	4.06/11.9	6.4/18.4	4.4/12.8
Section G	26.68/110.4	26.68/78.2	36.8/105.8	25.3/73.6

M3

Reticle parameters	MOA/cm@100m			
	384(35mm)	384(50mm)	640(35mm)	640(50mm)
Section A	2.9/12	2.9/8.5	4.8/13.8	3.3/9.6
Section B	2.9/12	2.9/8.5	4.8/13.8	3.3/9.6
Section C	1.2/4.8	1.2/3.4	1.6/4.6	1.1/3.2
Section D	29/120	29/85	40/115	27.5/180
Section E	58/240	58/170	80/230	55/160
Section F	46.11/19.08	46.11/135.15	64/184	44/128

M4

Reticle parameters	MOA/cm@100m			
	384(35mm)	384(50mm)	640(35mm)	640(50mm)
Section A	2.9/12	2.9/8.5	4.8/13.8	3.3/9.6
Section B	2.9/12	2.9/8.5	4.8/13.8	3.3/9.6
Section C	1.2/4.8	1.2/3.4	1.6/4.6	1.1/3.2

M5

Reticle parameters	MOA/cm@100m			
	384(35mm)	384(50mm)	640(35mm)	640(50mm)
Section A	1.2/4.8	1.2/3.4	1.6/4.6	1.1/3.2
Section B	1.2/4.8	1.2/3.4	1.6/4.6	1.1/3.2

Reticle Colour

PressLeft/RightButton to select the desired reticle colour: black, white,red and green.

System settings

Unit

PressLeft/RightButton to select units of measurement from Yards and Meters.

Language

PressLeft/RightButton to select language and pressMiddleButton to save.

Restore Default Setting

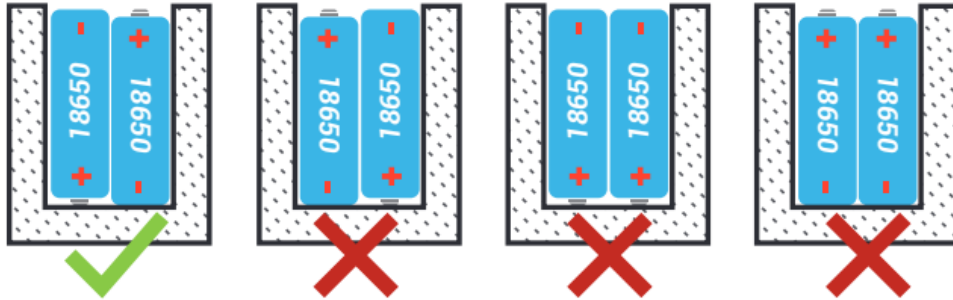PressLeft/RightButton to Restore Default Setting.
(All parameter settings are restored to default values)

Battery Installation

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.
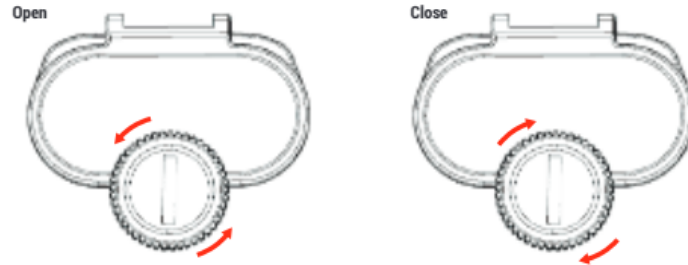
Battery charge level is displayed on the status bar.

| 100% | 80% | 60% | 40% | 20% | 0% |

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.

Cable Connection

1. Power supply / Firmware update

Serves for external power supply andfirmware update

Picatinny Rail Installation

Step 1	Step 2
Step 3	Step 4

Storage and Transportation
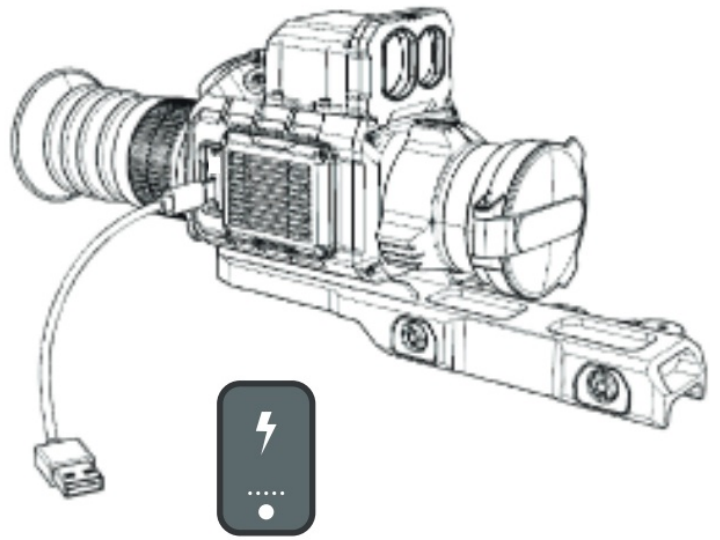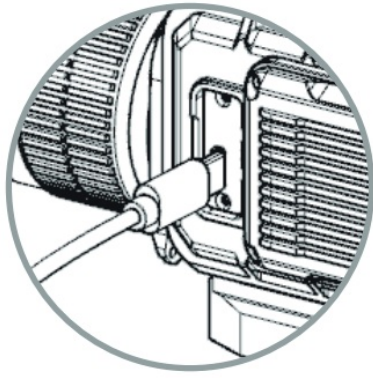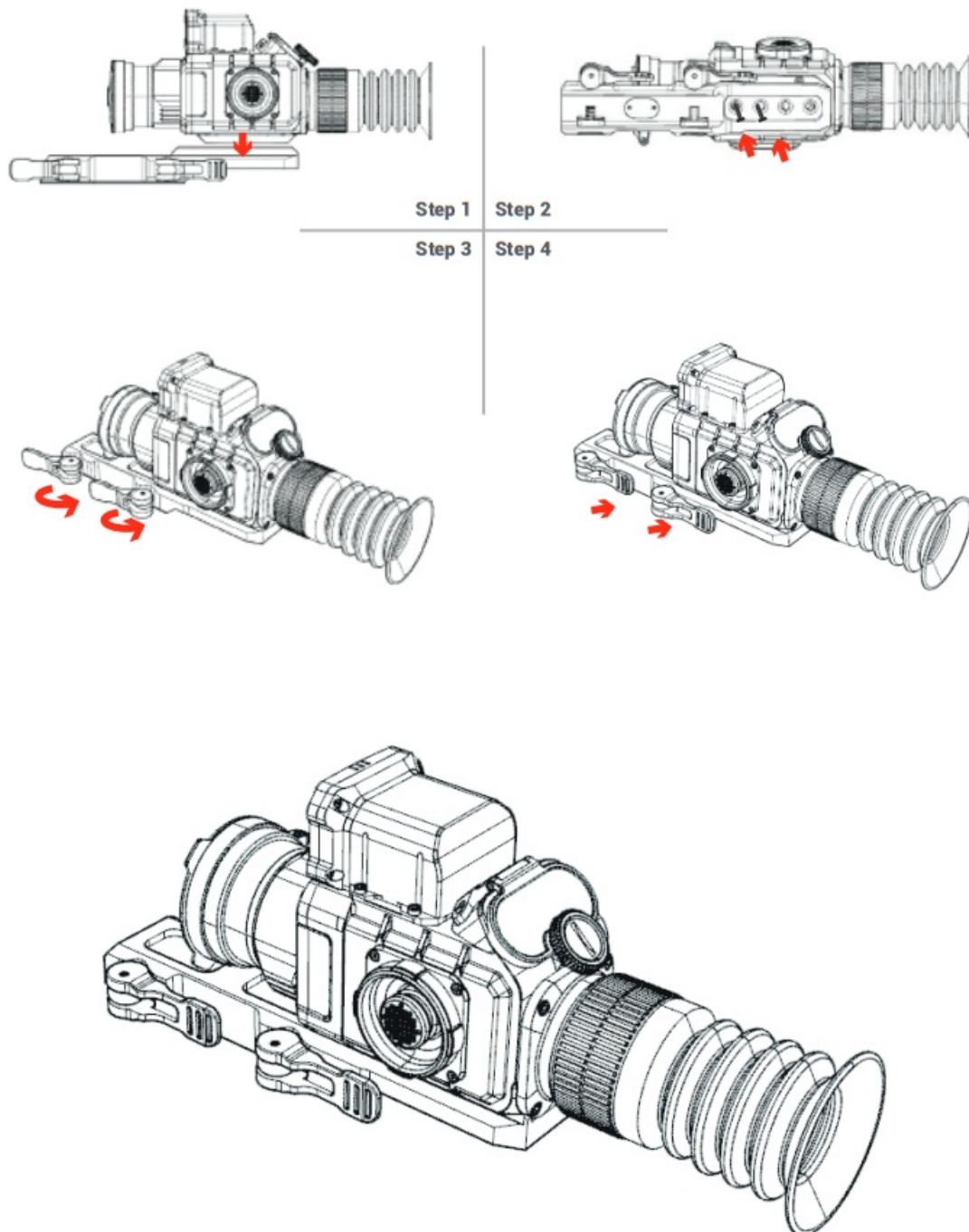
- Before storing it, clean obligatory the device (if on its surface there are moisture, dust or traces of dirt)!
- Make sure that there are no traces of moisture, and the battery compartment is empty! It is also possible for a short periods of time device to be stored in a suitable soft pack, bag or cartridge box.
- The premises in which the device is kept for long term have to be dry, enclosed, unheated and ventilated.
- During the storage should not be allowed exposure to aggressive environments, temperatures below -50°C and above +60°C, relative humidity greater than 80%, and prolonged periods of direct sunlight.
- Before each transportation, the product should be neatly packed in its original packaging (transport bag) and all other items and accessories should be carefully and steadily placed in the bag. After that the bag should be steadily placed in the transport suitcase.
- You can ship the product with all types of transport at different distances and at altitude up to 12000 m.

		Polaris Technical Data Sheet				
	335R	33 5RL 350R	3 50PL	635R	635RL 650R 65ORL	
Detector						
Type		Uncoo led Vox			Uncoo led Vox	
Resolution		384.			640%512	
Frame rate		50Hz			50Hz	
Pitch		12pm			1 2um	
Spectral range		8-1 4pm			8-1 4um	
NETD		-00,0. mk			< 25mk	
Optical Characteristics						
Objective lens	35mm/F1.1		50mm/F1.1	35mm/F1.0		50mm/1.0
Magnification	2.7x		3.8x	1.5X		2.2X
FOV	7.5N5.6′		5.3′ x 4′	12.6'X10′		8.8'X7′
Close-up range		5m			5m	
Dioptre adjustment		-5D-4D			-5D-4D	
Functions						
Zoom		2 x/4 x/PI P			2x/4x/ex/PIP	
Palette		6 optional			6 optional	
Start up time		Less than 5 seconds			Less than 5 seconds	
Image enhancement		DDE			DDE	
Contrast and brightne ss		AGC			AGC	
Online update		Both code and GUI resources			Both code and GUI resources	
Display						
Type		OLED			OLEO	
Resolution		1024×768			1024×768	
External video		WIFI			WIFI	
Storage		32G			32G	
Power Supply						
Battery		2×18650			2×1 8650	
External power supply		5V Type-C			5V Type-C	
Working time with batt ery		8h			6.5h	
Physical Characteristics						

Weight without battery	6189	688g	6509	720g	623g	693g	665g	720g
Size(mm)	2.E+85	180.760 00	19 6.76.83	196.760 00	178.76.83	178.760 00	188.76.83	188.760 00
Erni ronmental Compatibility								
Water proof		IP67				IP67		
Operating temperature		-20 'C-50 '(.'				-20 t'-50 'C'		
Storage temperature		-40 'C' -60 t				-40 t-60t		
Laser Rangefinder(Optional)								
Safety class for laser equipment according t o IEC 60825-1 :2 01 4	/	1	/	1	/	1	/	1
Measuring range	/	5-1000m	/	5-1000m	/	5-1000m	/	5-1000m
Measurement accuracy	/	± 1m	/	± 1m	/	± 1m	/	± 1m

CONOTECH

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Documents / Resources

CONOTECH Polaris Thermal Scope [pdf] Instruction Manual
Polaris, Polaris Thermal Scope, Thermal Scope, Scope

References

- **User Manual**