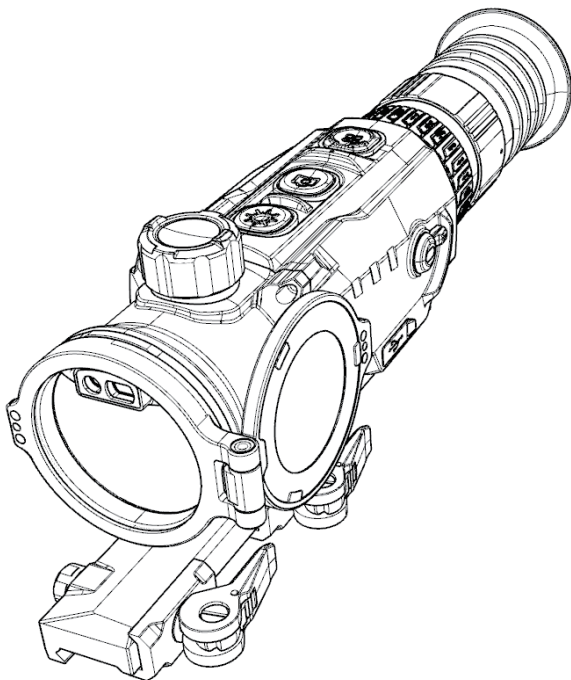


CONOTECH

ARCTIC

Thermal Scope



Attention!

Export of **ARCTIC** models
may have export limitations depending on
the laws in your region.

RoHS  

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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.



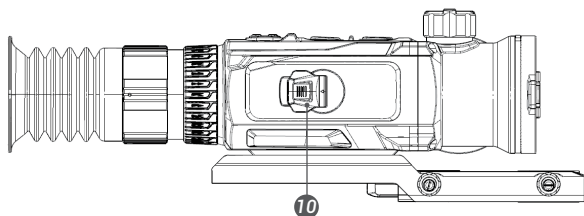
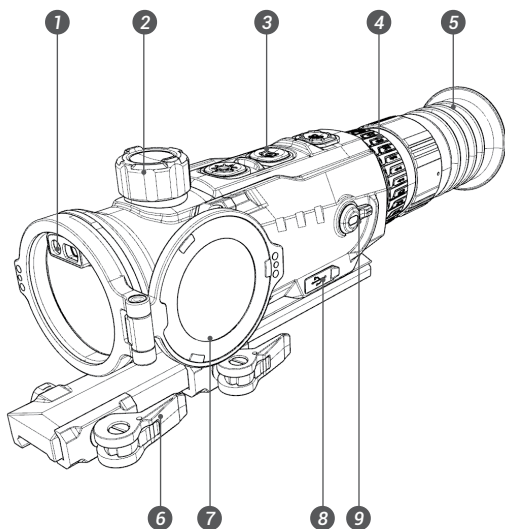
Clean lenses with the Lens Cloth.



**LEGAL
NOTICE**

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

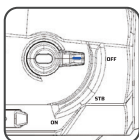
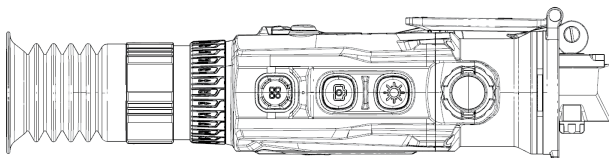
Appearance



**NOTE**

All images used in this instruction manual are for illustrative purposes only. Actual product may vary due to product enhancement. (V.1.0)

- 1** LIIR Pro
- 2** Focus ring
- 3** Buttons
- 4** Controller
- 5** Eyepiece rubber
- 6** Mounting rail
- 7** Lens cover
- 8** USB
- 9** Three-position switch
- 10** Battery compartment

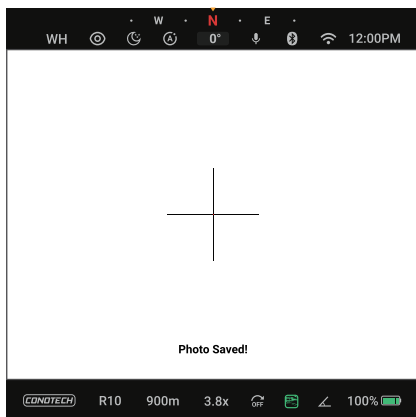


	Three-position switch	Mode (Off/Standby/On)
	REC Button	Short press: Take photos Long press: Turn on/off video recording
	Laser rangefinder Button	Short press: Enter single measurement mode/Display BC reticle Long press: Enter/Exit continuous measurement mode

	Menu Button	Short press: Enter quick menu Long press: Enter main menu/Exit menu
	Controller	Real-time image status: Rotate: Zoom in/out Menu activation status: Rotate: Up/Down switch Zeroing/Calibration interface: Rotate: Move the reticle position
	LRF + REC Button	Long press: Calibration (NUC)
	REC + Menu Button	Long press: Enter/Exit Zeroing interface

Photography

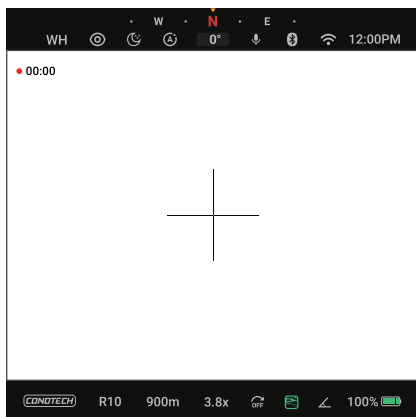
Short press the  to capture a photo. A "Photo Saved" icon will appear on the screen.



All photos are stored in the device's built-in memory. Users can download photos via the CONOTECH app or by connecting the device to a computer.

Video Recording

Long press the  to start video recording. The recording time is displayed on the screen in MM:SS format (minutes:seconds).



While recording, short pressing the  allows users to capture a simultaneous photo.

Users can access the quick menu or main menu without interrupting the recording. Long press the  again to stop and save the recording. A "video saved" icon will be appear on the screen.

All videos are stored in the device's built-in memory. Users can download videos via the CONOTECH app or by connecting the device to a computer.



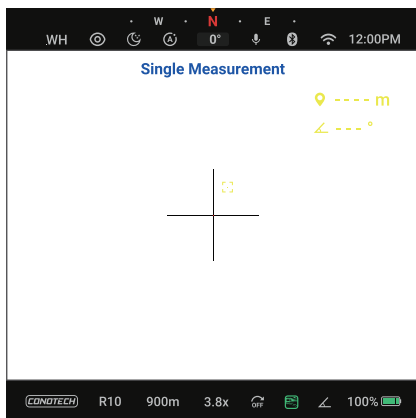
NOTE

The number of files is limited by the device's internal memory capacity. To ensure sufficient storage, regularly check the available space and transfer videos and photos to external media as needed.

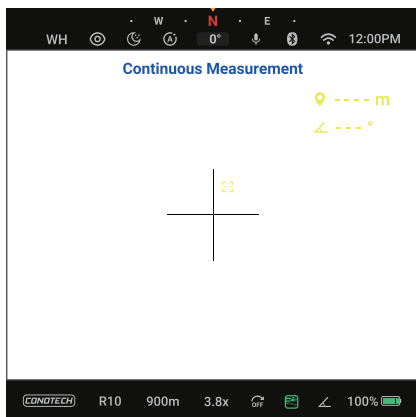
Laser Rangefinder

(Only available in LIIR series)

Short press the  to enter the single measurement.

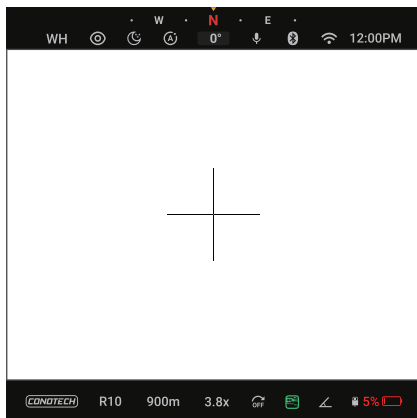


Long press the  to enter the continuous measurement, aim  at the target, then the relevant distance will show up. Long press the  to exit the continuous measurement.



Status Display

The status bar is on the top and bottom of the display and shows information on the actual operating status of the ARCTIC.



The top of the display shows information including:

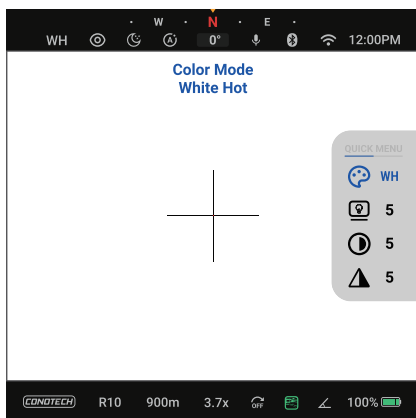
- Electronic compass
- Color mode
- Extreme mode
- Image mode
- Calibration mode
- Microphone
- Bluetooth
- WIFI status
- Real time

The bottom of the display shows information including:

- Zeroing profile
- Magnification
- Auto standby
- Ballistic calculator
- Measurement settings
- USB-C
- Battery

Quick Menu

Short press the  to enter quick menu. Long press the  to exit. When entering quick menu, rotate the  to select menu options, then short press the  to confirm your selection. If no input occurs within 5s while in the quick menu, the device automatically saves all changes and returns to the real-time image.



Color Mode

Rotate the  to change the color modes, and short press the  to confirm and exit.

WH-White Hot, BH-Black Hot, RH-Red Hot,
RB-Rainbow, IOR-Iron, RM-Red Monochrome,
GH-Green Hot, WW-Warm White



Screen Brightness

Rotate the  to change the Brightness value from 1-10, and short press the  to confirm and exit.



Contrast

Rotate the  to change the Contrast value from 1-10, and short press the  to confirm and exit.



Sharpness

Rotate the  to change the Sharpness value from 1-10, and short press the  to confirm and exit.



Image Mode

Rotate  the to switch the image mode, and short press the  to confirm and exit.



PIP

Short press the  to turn PIP On/Off.



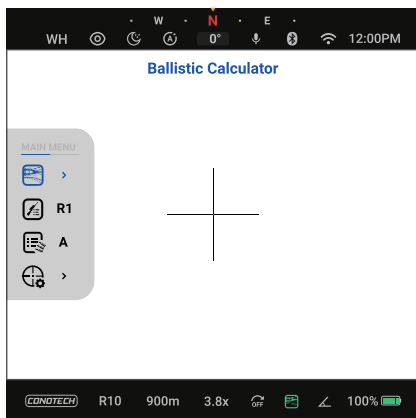
WIFI

Short press the  to turn WIFI On/Off.



Hot Tracking

Short press  to turn Hot tracking on/off.



Ballistic Calculator

Short press the  to turn on/off Ballistic calculator.

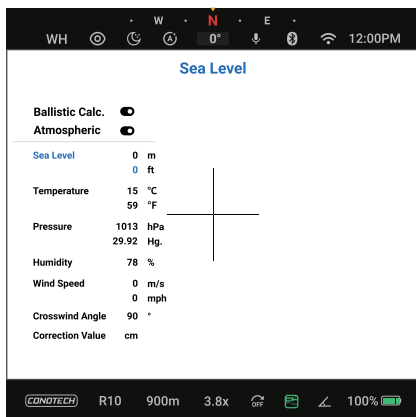
Rotate the  to access Atmospheric conditions, then

short press the  to activate. Rotate the

 to select and adjust values such as Sea Level,

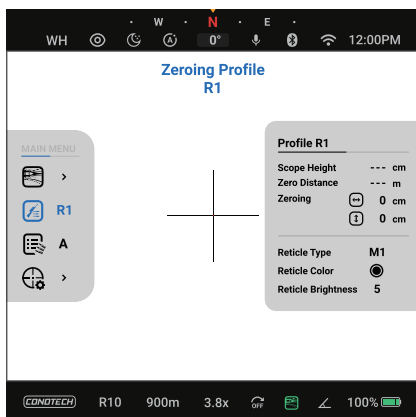
Temperature, Humidity, Wind Speed, Crosswind Angle,

and Correction Value. Long press the  to save and exit.

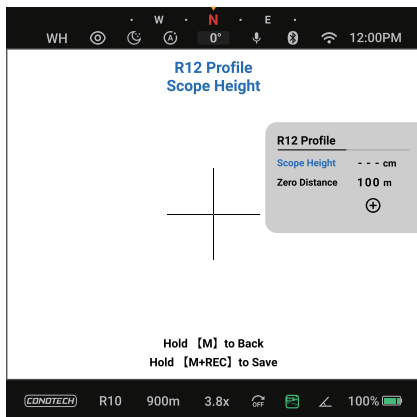


Zeroing Profile

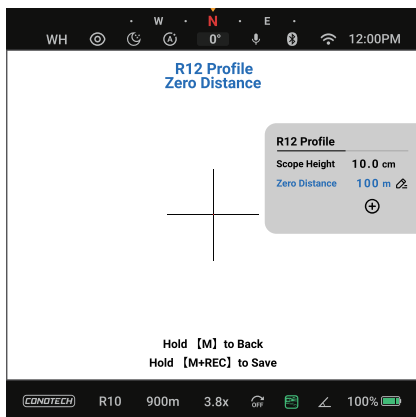
Short press the  to enter Zeroing Profile, then rotate the  to select various zeroing profiles from R1-R12.



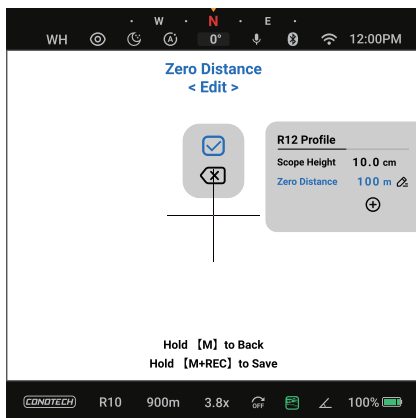
Hold the  and  to edit the zeroing profile.

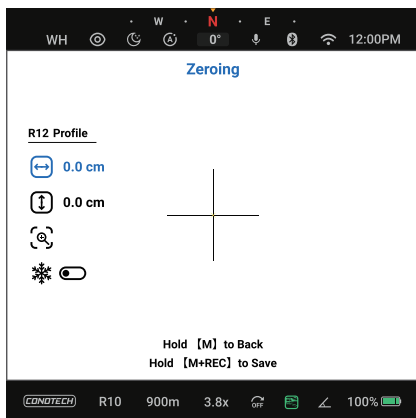


Short press the  to select Scope Height or Zero Distance, then rotate the  to select the value and short press the  to save. Rotate the  to select , short press the  to add a new Zero distance, and repeat the same process to set values.



Rotate the to select to enter Zero Distance then press the to enter, rotate the to select or , then short press the to save.





XY Value

After taking a shot, adjust the X and Y values separately by short pressing the  to edit, rotate the  to adjust the values and short press the  to save.

Magnification

Magnification engages a digital zoom during zeroing, which reduces the minute of angle click. Rotate the  to select the Magnification, then short press the  to confirm.

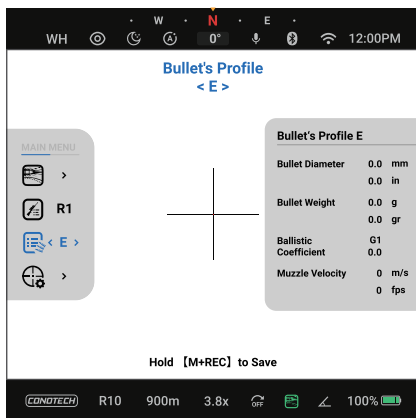
Freeze

The Freeze function allows you to adjust the reticle without keeping the scope constantly aimed at the target. After taking a shot, the user needs to align reticle center with the actual point of impact. Short press the  to activate Freeze, freezing the current thermal image on screen and allowing you to proceed with other adjustments.



Bullet's Profile

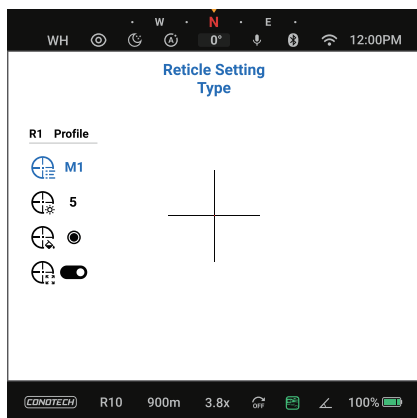
Short press the  to enter Bullet's Profile, then rotate the  to select various zeroing profiles from A-E. Hold the  and  to enter editing page. Short press the  to select Bullet Diameter, Bullet weight, Ballistic Coefficient, and Muzzle Velocity, then rotate the  to select the value and hold the  and  to save.



Note: Bullet Diameter, Bullet weight, Ballistic Coefficient, and Muzzle Velocity are located on the bullet package or can be obtained directly from the bullet supplier.



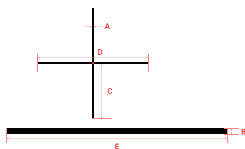
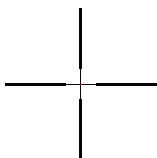
Reticle Setting



Short press the  to enter Reticle, then rotate the  to select various Reticle Setting Type from M1-M9. Apply the same process to select Reticle Setting Brightness from 1-10, and to select Reticle Setting Colors.

Rotate the  to select Reticle Setting Scalable and short press the  to turn it on/off. When activated, the reticle size synchronizes and scales proportionally with the digital zoom.

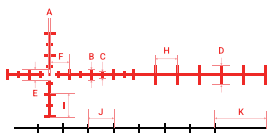
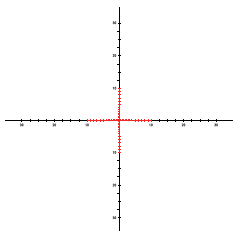
M1



Section	635		650/650LIIR	
	MOA	cm @100m	MOA	cm @100m
Section A	0.57	1.66 (0.16 MIL)	0.40	1.16 (0.12 MIL)
Section B	1.72	4.99 (0.49 MIL)	1.20	3.48 (0.36 MIL)
Section C	9.17	26.59 (2.64 MIL)	8.80	25.52 (2.64 MIL)
Section D	18.34	53.17 (5.16 MIL)	17.20	49.88 (5.16 MIL)
Section E	35.53	103.03(10.08 MIL)	33.60	97.44 (10.08 MIL)

Section	S60/S60LIIR	
	MOA	cm @100m
Section A	0.10	0.30 (0.1 MIL)
Section B	0.31	0.91 (0.09 MIL)
Section C	10.45	30.29 (2.98 MIL)
Section D	20.89	60.58 (5.97 MIL)
Section E	41.15	119.35 (11.76 MIL)

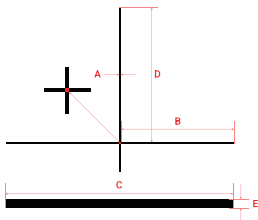
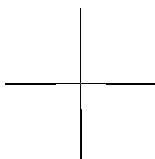
M2



Section	635		650/650LIIR	
	MOA	cm @100m	MOA	cm @100m
Section A	0.57	1.66 (0.16 MIL)	0.40	1.16 (0.12 MIL)
Section B	2.87	8.31 (0.82 MIL)	2.00	5.80 (0.60 MIL)
Section C	1.72	4.99 (0.49 MIL)	1.20	3.48 (0.36 MIL)
Section D	3.44	9.97 (1 MIL)	3.60	10.44 (1 MIL)
Section E	2.87	8.31 (0.82 MIL)	2.00	5.80 (0.60 MIL)
Section F	3.44	9.97 (1 MIL)	3.60	10.44 (1 MIL)
Section H	3.44	9.97 (1 MIL)	3.60	10.44 (1 MIL)
Section I	3.44	9.97 (1 MIL)	3.60	10.44 (1 MIL)
Section J	8.60	24.93 (2.5 MIL)	8.80	25.52 (2.5 MIL)

Section	S60/S60LIIR	
	MOA	cm @100m
Section A	0.10	0.30 (0.1 MIL)
Section B	0.52	1.51 (0.15 MIL)
Section C	0.31	0.91 (0.09 MIL)
Section D	0.73	2.12 (0.21 MIL)
Section E	1.78	5.15 (0.51 MIL)
Section F	3.55	10.30 (1 MIL)
Section H	3.55	10.30 (1 MIL)
Section I	3.55	10.30 (1 MIL)
Section J	8.88	25.75 (2.5 MIL)

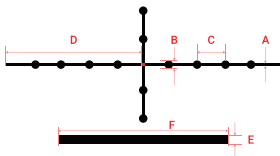
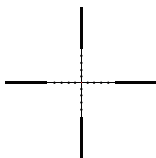
M3



Section	635		650/650LIIR	
	MOA	cm @100m	MOA	cm @100m
Section A	0.57	1.66 (0.16 MIL)	0.4	1.16 (0.12 MIL)
Section B	21.77	63.14 (6.24 MIL)	20.80	60.32 (6.24 MIL)
Section C	42.04	122.97 (12.12 MIL)	40.40	117.16 (12.12 MIL)
Section D	64.18	186.11 (18.36 MIL)	61.20	177.48 (18.36 MIL)
Section E	1.72	4.99 (0.49 MIL)	1.20	3.48 (0.36 MIL)

Section	S60/S60LIIR	
	MOA	cm @100m
Section A	0.10	0.30 (0.1 MIL)
Section B	24.86	72.09 (7 MIL)
Section C	49.62	143.88 (14.18 MIL)
Section D	74.48	215.98 (21.28 MIL)
Section E	0.31	0.91 (0.09 MIL)

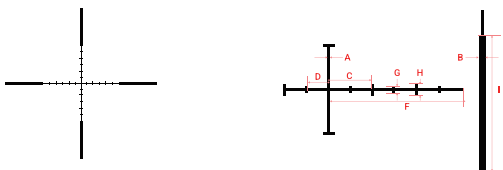
M4



Section	635		650/650LIIR	
	MOA	cm @100m	MOA	cm @100m
Section A	0.57	1.66 (0.16 MIL)	0.40	1.16 (0.12 MIL)
Section B	1.72	4.99 (0.49 MIL)	1.20	3.48 (0.36 MIL)
Section C	3.44	9.97 (1 MIL)	3.60	10.44 (1 MIL)
Section D	17.76	51.51 (5 MIL)	17.60	51.04 (5 MIL)
Section E	1.72	4.99 (0.49 MIL)	1.20	3.48 (0.36 MIL)
Section F	21.20	61.48 (6 MIL)	20.80	60.32 (6 MIL)

Section	S60/S60LIIR	
	MOA	cm @100m
Section A	0.10	0.30 (0.1 MIL)
Section B	0.31	0.91 (0.09 MIL)
Section C	3.55	10.30 (1 MIL)
Section D	17.76	51.50 (5 MIL)
Section E	0.31	0.91 (0.09 MIL)
Section F	21.31	61.79 (6 MIL)

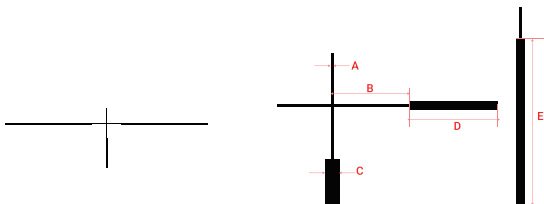
M5



Section	635		650/650LIIR	
	MOA	cm @100m	MOA	cm @100m
Section A	0.57	1.66 (0.16 MIL)	0.40	1.16 (0.12 MIL)
Section B	1.72	4.99 (0.49 MIL)	1.20	3.48 (0.36 MIL)
Section C	6.88	19.94 (2 MIL)	6.8	19.72 (2 MIL)
Section D	3.44	9.97 (1 MIL)	3.60	10.44 (1 MIL)
Section F	21.20	61.48 (6 MIL)	20.80	60.32 (6 MIL)
Section G	1.72	4.99 (0.49 MIL)	1.20	3.48 (0.36 MIL)
Section H	2.87	8.31 (0.82 MIL)	2.00	5.80 (0.60 MIL)
Section I	21.20	61.48 (6 MIL)	20.80	60.32 (6 MIL)

Section	S60/S60LIIR	
	MOA	cm @100m
Section A	0.10	0.30 (0.1 MIL)
Section B	0.31	0.91 (0.09 MIL)
Section C	7.10	20.60 (2 MIL)
Section D	3.55	10.30 (1 MIL)
Section F	21.31	61.79 (6 MIL)
Section G	0.31	0.91 (0.09 MIL)
Section H	0.52	1.51 (0.15 MIL)
Section I	21.31	61.79 (6 MIL)

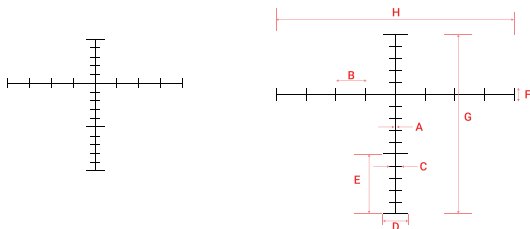
M6



Section	635		650/650LIIR	
	MOA	cm @100m	MOA	cm @100m
Section A	0.57	1.66 (0.16 MIL)	0.4	1.16 (0.12 MIL)
Section B	22.80	66.40 (6.4 MIL)	16.04	46.40 (4.56 MIL)
Section C	2.85	8.30 (0.8 MIL)	2.01	5.80 (0.57 MIL)
Section D	136.8	398.40 (38.4 MIL)	96.26	278.40 (27.36 MIL)
Section E	46.17	134.50 (13 MIL)	32.50	94.00 (9.23 MIL)

Section	S60/S60LIIR	
	MOA	cm @100m
Section A	0.10	0.30 (0.1 MIL)
Section B	16.19	46.95 (4.63 MIL)
Section C	0.52	1.51 (0.15 MIL)
Section D	97.14	281.71 (27.75 MIL)
Section E	32.80	95.12 (9.37 MIL)

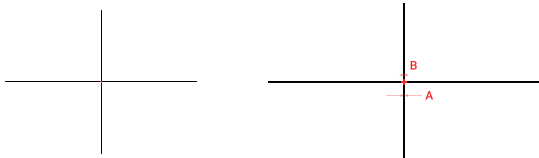
M7



Section	635		650/650LIIR	
	MOA	cm @100m	MOA	cm @100m
Section A	0.57	1.66 (0.16 MIL)	0.4	1.16 (0.12 MIL)
Section B	7.41	21.58 (2.08 MIL)	5.21	15.12 (1.49 MIL)
Section C	2.85	8.30 (0.8 MIL)	2.01	5.82 (0.60 MIL)
Section D	6.27	18.26 (1.76 MIL)	4.41	12.80 (1.26 MIL)
Section E	14.82	43.16 (4.16 MIL)	10.43	30.24 (2.98 MIL)
Section F	2.85	8.30 (0.80 MIL)	2.00	5.80 (0.60 MIL)
Section G	43.32	126.16 (12.16 MIL)	30.48	88.40 (8.71 MIL)
Section H	57.57	167.66 (16.16 MIL)	40.51	117.48 (11.57 MIL)

Section	S60/S60LIIR	
	MOA	cm @100m
Section A	0.10	0.30 (0.1 MIL)
Section B	5.22	15.15 (1.49 MIL)
Section C	0.52	1.51 (0.15 MIL)
Section D	4.49	13.03 (1.28 MIL)
Section E	10.55	30.59 (3 MIL)
Section F	2.09	6.06 (0.6 MIL)
Section G	31.75	92.09 (9.07 MIL)
Section H	40.78	121.17 (11.49 MIL)

M8



Section	635		650/650LIIR	
	MOA	cm @100m	MOA	cm @100m
Section A	0.57	1.66 (0.16 MIL)	0.4	1.16 (0.12 MIL)
Section B	1.71	4.98 (0.48 MIL)	1.2	3.48 (0.35 MIL)

Section	S60/S60LIIR	
	MOA	cm @100m
Section A	0.10	0.30 (0.1 MIL)
Section B	0.31	0.91 (0.09 MIL)

M9



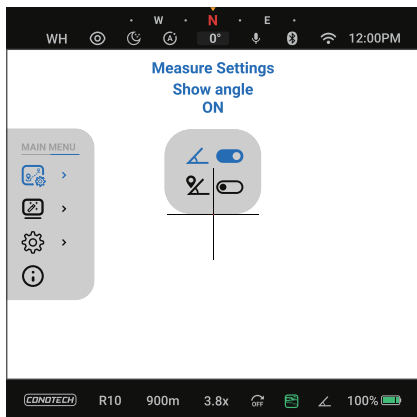
Section	635		650/650LIIR	
	MOA	cm @100m	MOA	cm @100m
Section A	0.57	1.66 (0.16 MIL)	0.4	1.16 (0.12 MIL)
Section B	1.71	4.98 (0.48 MIL)	1.2	3.48 (0.35 MIL)

Section	S60/S60LIIR	
	MOA	cm @100m
Section A	0.10	0.30 (0.1 MIL)
Section B	0.31	0.91 (0.09 MIL)



Measure Settings

(Only available in LIIR series)



Short press the to enter Measure settings, then rotate the to scroll up or down through the selections.

Show Angle

Short press the to turn on/off.

Show Horizontal Distance

Short press the to turn on/off.



Defective Pixel Repair

Cover the objective lens and short press the to perform defective pixel repair. A three-second count-down will appear on the screen, and the calibration will be started.



General Settings

Short press the  to enter the General settings, rotate the  to upper and down the selection, long press the  to exit.



OSD Brightness

Short press the  to enter OSD brightness and rotate the  to select from 1-10.



Extreme Mode

Short press the  to turn Extreme mode On/Off.

Calibration Mode

Short press the  to enter Calibration and rotate the  to select values from A, M or S. Short press the  to save and exit.

A Automatic

M Manual

S Silent (Please close lens cap when calibrating)

Bluetooth

Short press the  to turn Bluetooth On/Off.

Microphone

Short press the  to turn Microphone On/Off.

Pure Mode

Short press the  to turn Pure mode On/Off, which isolates the display to show only the WIFI and Battery icons.

Auto Standby

Short press the  to turn Auto standby On/Off. When this function is turned on, the device will automatically enter sleep mode once it is placed upright.

Brand Logo

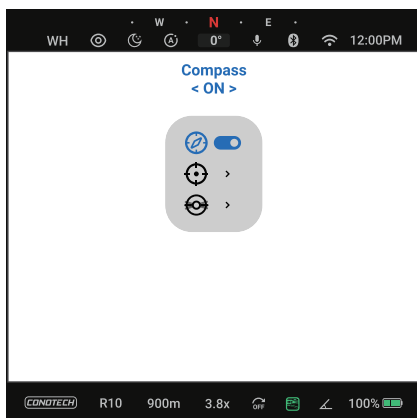
Short press the  to turn Brand logo On/Off. If this function is turned on, both real-time images and photography records will display the stamp logo.

Unit Settings

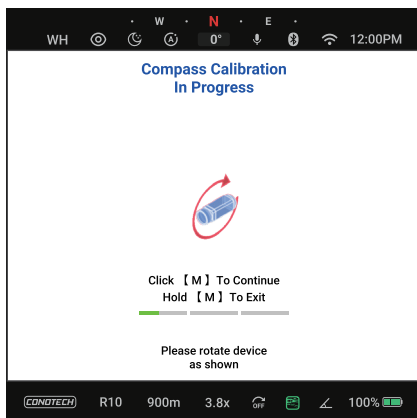
Short press the  to enter the Unit Settings and rotate the  to select from Meter and Yard, short press the  to save.

Gyroscope Calibration

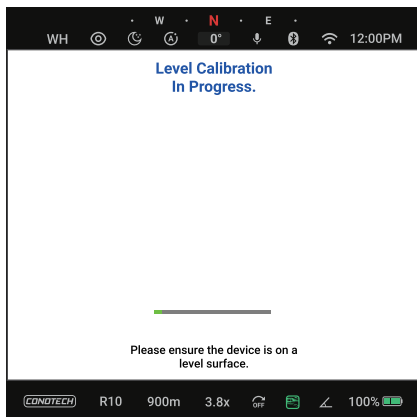
Short press the  to enter the Gyroscope settings and rotate the  to select menu. Short press the  to turn the Compass On/Off.



Short press the  to enter Compass calibration, during this time, please rotate the device until the calibration is completed.

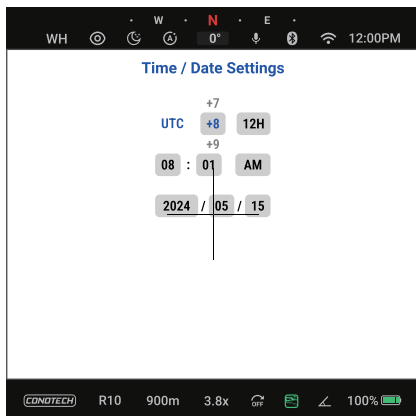


Short press the  to enter Level calibration, during this time, please ensure the device is on a level surface.



Time/Date Settings

Short press the  to enter Date/Time settings. Rotate the  to adjust the number and short press the  to save the selection and switch to the next number. Long press the  to exit.



Language Settings

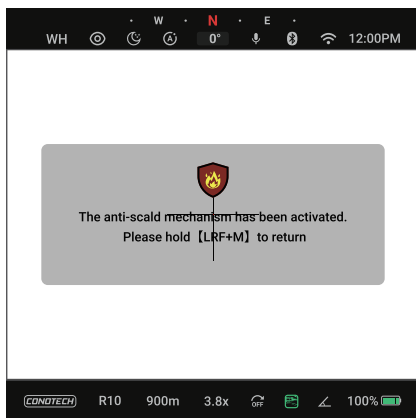
Short press the  to enter the Language settings and rotate the  to select the language, short press the  to save.



Burn Prevention

Short press the  to turn Burn prevention On/Off.

When activated, hold the  and the  to exit, or wait for 10 seconds to automatically exit.



Video Output

Short press the  to turn Video output On/Off.

Note: When the Video Output function is enabled, the device can't be recognized as a removable storage device when connected to a computer via a USB cable.

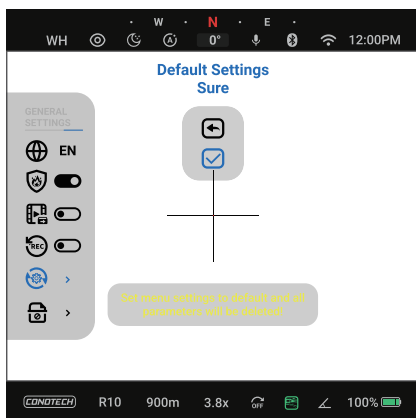


Recoil Activated Video

Short press the  to turn Recoil Activated Video On/Off. When activated, Arctic automatically records the 10 seconds before and the 10 seconds after the shot.

Default Settings

Short press the  to enter the Default Settings and rotate the  to change the selection. Short press the  again to confirm  or . Once confirmed, the menu will be set to default and all parameters will be deleted.



Internal Storage

Short press the  to enter Internal storage, and rotate the  to select  or . Once you choose , all photos and videos will be deleted.

Device Info

It indicates the Model name, S/N, Firmware version, Hardware version, and WIFI Firmware version.

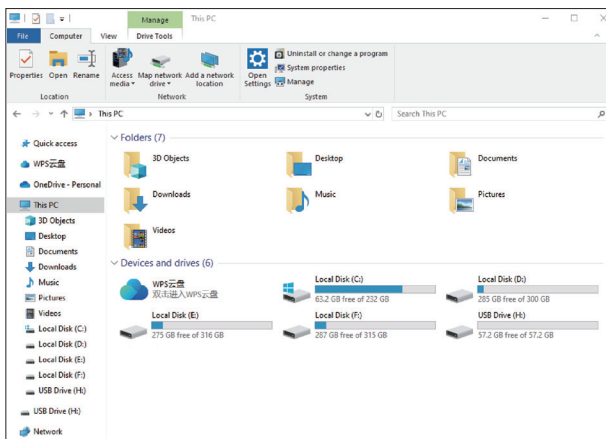
Firmware Update via APP

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

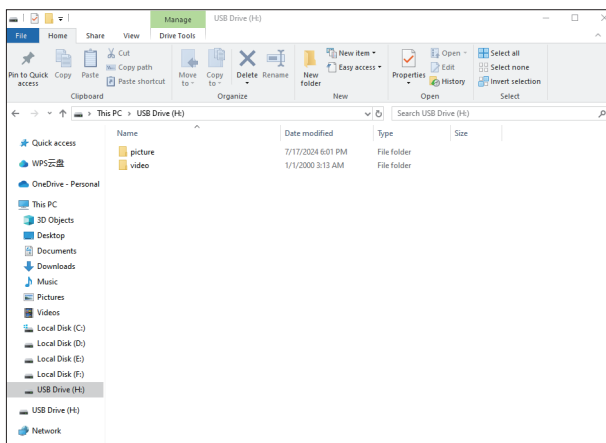


How to Replay on PC

Connect the USB-C cable to the PC.



Turn on WIFI and wait 10s.



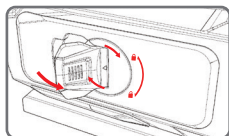
Battery Installation

Removable Battery

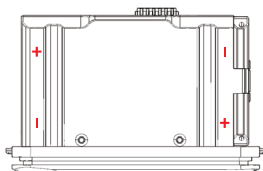
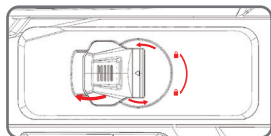
The batteries should be charged before first use. Push the main release latch and rotate the battery cap counterclockwise, then pull it out to open the battery compartment. Next, lift the small side latch on the compartment to open the inner cover.

Please install the batteries according to the positive and negative signs. Otherwise, the device will not start.

Open



Close



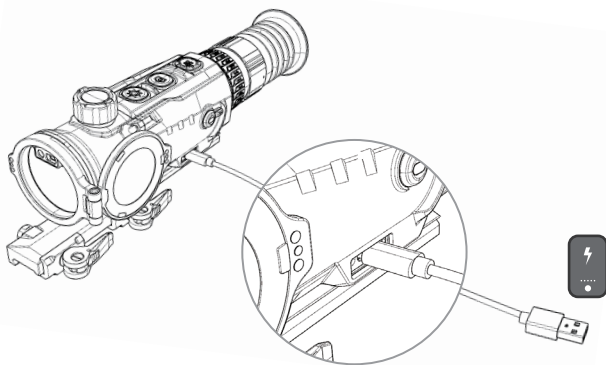
External Power Supply

External power can be supplied from an external source, such as a power bank.

1. Power supply / Firmware update

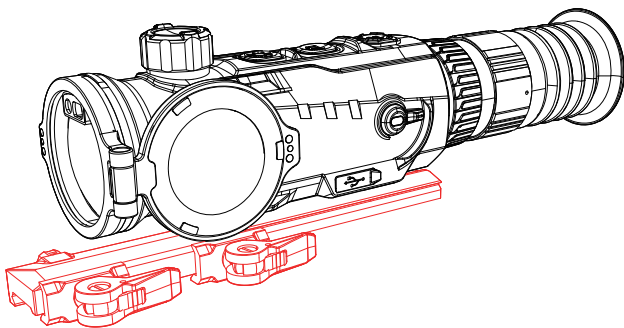


Serves for external power supply and firmware update



Attach to Rifle

To ensure precise accuracy, ARCTIC must be properly mounted on the rifle. Adjust the position of the scope along the rail to achieve optimal and comfortable eye relief. Failure to maintain proper eye relief may result in physical injury from recoil.



Storage and Transportation

- 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.

Specification

Arctic Specification					
Model	Arctic 635	Arctic 650	Arctic 650LIIR	Arctic S60	Arctic S60LIIR
Main characteristics					
Detector type	Uncooled Vox				
Resolution	640×512			1280×1024	
Frame rate	50Hz				
Pixel	12μm				
Spectral range	8-14μm				
NETD	<15mK				
Optical characteristics					
Objective lens	35mm	50mm		60mm	
Magnification	2.6-20.8×	3.8-30.4×		2.3-18.4×	
FOV(H×V), m@100m	21.94×17.55	15.36×12.29		25.6×20.48	
Functions					
Palettes	Multiple				
Firmware update via APP	Yes				
Display					
Type	OLED				
Resolution	2560×2560				
External video	WIFI/USB				
Power supply					
Battery	2×18650				
External power supply	5V USB-C				
Operating time (at t=22℃)	8h			7h	

Arctic Specification

Model	Arctic 635	Arctic 650	Arctic 650LIIR	Arctic S60	Arctic S60LIIR
Physical characteristics					
Weight	860g			960g	
Dimension, mm	280×78×80			298×86×80	
Environmental compatibility					
Ingress protection rating	IP67				
Operating temperature	-20°C~+50°C				
Storage temperature	-40°C~+70°C				
Shock resistance	7000J				
Laser rangefinder					
Safety class for laser equipment according to IEC 60825-1:2014	/	/	1	/	1
Measuring range	/	/	5-1200m	/	5-1200m
Measurement accuracy	/	/	± 1m	/	± 1m



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