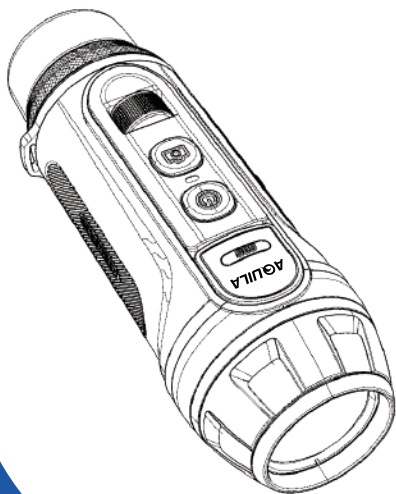


**CONOTECH**

# **INSTRUCTION MANUAL**

— **AQUILA**  
THERMAL IMAGING MONOCULAR



RoHS  

## Attenzione



L'uso corretto del dispositivo è importante per un utilizzo sicuro!  
Leggere quindi attentamente il presente manuale!



Se il dispositivo è stato lasciato in magazzino per un periodo di tempo lungo, prima dell'uso verificane la funzionalità.



È vietato lo smontaggio del dispositivo, tranne che nei centri di riparazione autorizzati.



Le superfici ottiche esterne devono essere sempre pulite. Non è consigliato occare le superfici ottiche con le dita



Sabbia e acqua salata possono danneggiare i rivestimenti delle lenti



Non puntare l'apparecchio direttamente verso il sole



Le prestazioni dell'immagine dipendono dalle condizioni atmosferiche. Il contrasto nella stessa immagine può variare in funzione dell'ora del giorno a causa dell'effetto del sole. Ad esempio, al tramonto gli oggetti avranno assorbito diversi livelli di calore con conseguenti differenze di temperatura e un migliore contrasto.



Se inonutilizzate per un periodo di tempo lungo, le batterie devono essere rimosse ( se possibile ) e conservate in sacchetti di polietilene per evitare il contatto con il metallo. Altrimenti si consiglia di ricaricare le batterie ogni due o tre mesi

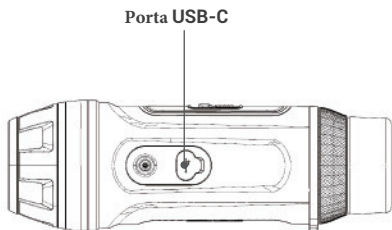
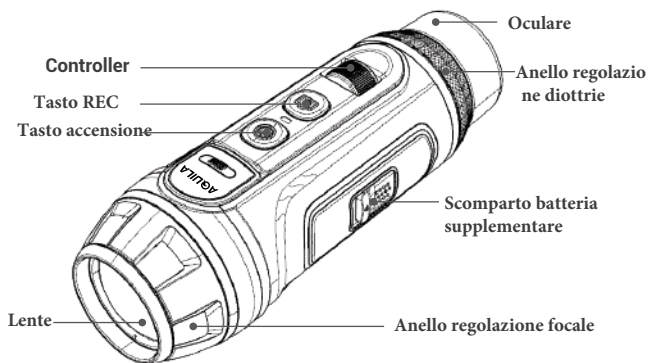


La condensa può causare l'appannamento delle superfici ottiche! ssi verifica quando la temperatura o l'umidità cambiano come segue:

- Quando si sposta il dispositivo da un luogo freddo a uno caldo o viceversa
  - In luoghi con elevata umidità
- Quando si equalizza la temperatura del dispositivo con quella ambientale, la condensa scompare. Usa l'asciugamano per rimuoverla



Pulisci le superfici delle lenti con il panno per lenti o con un fazzoletto








## Standby mode

For LIIR series, long press  1.5s, then rotate  right to enter standby mode.

Press any buttons to exit standby mode. If not operated, AQUILA will turn off.

For others, short press  to enter standby mode.

## Take photo/video

Short press  to take photos, long press  to record videos.

## Firmware update via APP

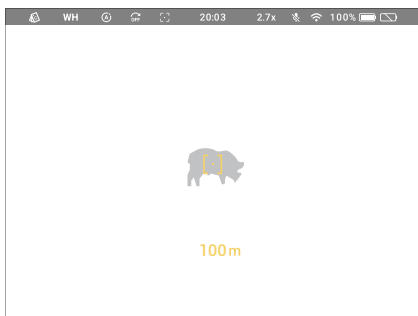
Easily keep your device at the forefront of technology with firmware updates directly through our dedicated app.



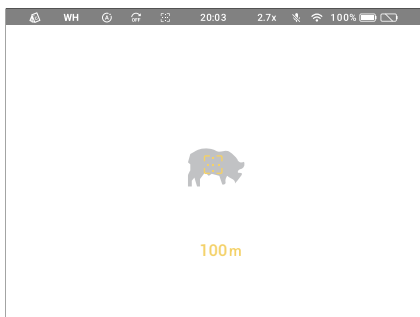
## Laser rangefinder

(only available in Aquila LIIR series)

Short press , then distance will be shown on the screen.

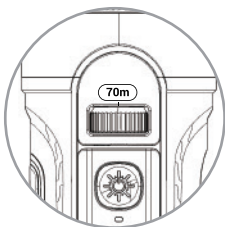


When in scan mode, aim  to the target, and the relevant distance will show up.



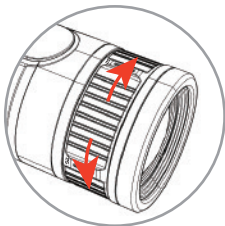
## Focus adjustment (70m) (only available in Aquila LIIR series)

The AQUILA LIIR series feature a precise focusing adjustment with a fin lever. When the focus reaches the 70m (76yd) mark, it aligns with a ridge on the device's housing. This design allows for quick and accurate focusing, even without directly looking at the AQUILA.



## Dual-field of view (only available in Dual series)

Use a wide FOV (19/25mm) for detection and a narrow FOV (38/50mm) for identification. Seamlessly switch between these dual views in 2 steps: set focus once, then twist the Dual-FOV controller to change views without refocusing for continued sharp image quality.



## Status Display

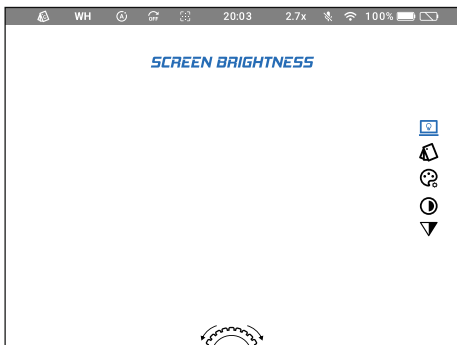


**The status bar is on the top of the display and shows information on the actual operating status of the AQUILA.**



- Tone adjustment
- Palettes
- Calibration mode
- Standby mode
- **Rangefinder** (only available in Aquila LIIR series)  
/ **Focal length** (only available in Dual series )
- Real time
- Magnification
- Microphone
- WIFI
- Built-in battery level
- Built-in battery
- External battery



Short press  to enter the quick menu, long press  to exit the quick menu.



## ***Screen Brightness***

Short press , then rotate to select the screen brightness from 1-5.  
Short press  to save and exit.





## ***Tone Adjustment***

Short press , then select the cold/warm mode.





## ***Color Mode***

Short press , then rotate to select the palettes.  
Short press  to save and exit.





## ***Contrast***

Short press , then rotate to select the contrast from 1-5.  
Short press  to save and exit.

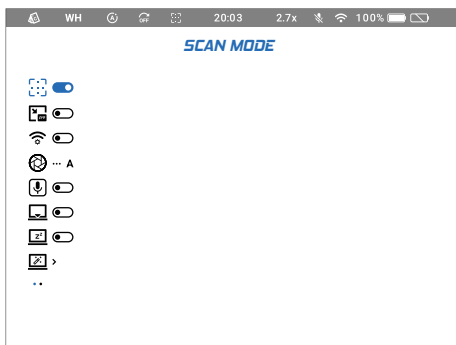


## ***Sharpness***

Short press , then rotate to select the sharpness from 1-5.  
Short press  to save and exit.

# Main Menu

Long press  to enter the main menu.



## **SCAN MODE**

Short press  to turn on/off scan mode.



## **PIP**

Short press  to turn on/off PIP.



## **WIFI**

Short press  to turn on/off WIFI.



## **Calibration Mode**

Short press  , then rotate to select the A, M, S.

Short press  to save and exit.

**A** Automatic

**M** Manual

**S** Silent



## **Microphone**

Short press  to turn on/off microphone.




## **Pure Mode**

Short press  to turn on/off pure mode.




## **Auto Standby**

Short press  to turn on/off auto standby.  
AQUILA enters auto standby mode after 2 minutes of inactivity



## **Defective Repair**

Cover the objective lens and short press  to perform defective pixel repair.



## **Unit**

Short press  to select meter or yard.



## **Language**

Short press  to select the language,  
then short press  to save and exit.



## **Device Info**

It indicates the Model name, S/N, software version and hardware version.



## **Reset**

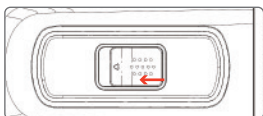
Short press  to select No or Yes.

## Power Supply

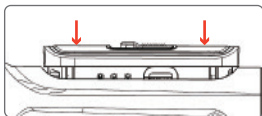
### Removable battery

Please install the battery based on the positive and negative signs.  
Replace the battery and close the compartment knob.

Open

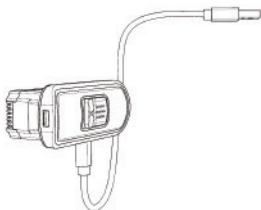


Close



### Battery compartment

AQUILA battery compartment can function separately as a charger for 18500 batteries. However, please note that to charge, the battery compartment needs to be removed and connected via a USB-C cable. While charging the red light flashes, when the battery is fully charged, the green light stays on.



### Built-in battery

AQUILA is powered by a built-in rechargeable battery and a removable 18500 battery. When both type of battery are fully charged, AQUILA is powered by the removable battery. It will switch to built-in battery once the removable battery level is low. Replacing the external battery does not affect the operation of the AQUILA.

### External power supply

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

### Cable connection

Power supply /Charge built-in battery.

- Before storing it, clean obligatory the device.  
(In case of moisture, dust or traces of dirt on its surface )
- Make sure that there are no traces of moisture, and the battery compartment is empty!
- It is also possible for a short period 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  $-50^{\circ}\text{C}$  and above  $+60^{\circ}\text{C}$ , 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.
- You can ship the product with all types of transport at different distances and at altitude up to 12000m.

Aquila Specification					
Model	Aquila 325	Aquila 335	Aquila 3D 19/38	Aquila 3D 25/50	Aquila 350LIIR
<b>Main Characteristics</b>					
Detector	Uncooled Vox				
Resolution	384x288				
Frame rate	50HZ				
Pixel	12µm				
Spectral range	8-14µm				
NETD	<25mK				
<b>Optical Characteristics</b>					
Objective lens	25mm	35mm	19mm/38mm	25mm/50mm	50mm
Magnification	2.4x	3.3x	1.8x-3.7x	2.4x-4.8x	4.8x
FOV(H×V), m @100m	18.4×13.8	13×9.9	12.1×9.1 / 24.3×18.2	9.2×6.9 / 18.4×13.8	9.2×6.9
Close-up range	2m				
Dioptr adjustment	±5D				
<b>Functions</b>					
Smooth zoom	2.4x-10x	3.3x-13.8x	1.8x-7.5x / 3.7x-15.4x	2.4x-10x / 4.8x-20x	4.8x-20x
Palettes	8				
Audio recording	YES				
Firmware update via APP	YES				
Photo/Video	YES				
<b>Display</b>					
Type	OLED				
Resolution	1024x768				
External video	WIFI				
Built-in memory	32GB				
<b>Power Supply</b>					
Battery	Dual Battery				
External power supply	5V USB-C				
Operating time (at t=22°C)	10h				
<b>Physical Characteristics</b>					
Weight (without external battery)	≤540g	≤540g	≤570g	≤600g	≤560g
Dimension	≤φ61x179mm	≤φ61x179mm	≤φ61x205mm	≤φ61x205mm	≤φ61x193mm
<b>Environmental Compatibility</b>					
Ingress protection rating	IP67				
Operating temperature	-20°C~+50°C				
Storage temperature	-40°C~+70°C				
<b>Laser Rangefinder (Only available in Aquila 350LIIR and 650LIIR)</b>					
Safety class for laser equipment according to IEC 60825-1:2014	/				1
Measuring range	/				5-1200m
Measurement accuracy	/				±1m

AquilaSpecification (640)				
Model	Aquila 635	Aquila 6D 19/38	Aquila 6D 25/50	Aquila 650LIIR
<b>Main Characteristics</b>				
Detector	Uncooled Vox			
Resolution	640x512			
Frame rate	50HZ			
Pixel	12µm			
Spectral range	8-14µm			
NETD	<25mK			
<b>Optical Characteristics</b>				
Objective lens	35mm	19mm/38mm	25mm/50mm	50mm
Magnification	1.9x	1.0x-2.0x	1.4x-2.7x	2.7x
FOV(H×V), m @100m	22×17.5	20.2×16.2 / 40.4×32.3	30.7×24.6 / 15.35×12.3	15.35×12.3
Close-up range	2m			
Dioptre adjustment	±5D			
<b>Functions</b>				
Smooth zoom	1.9x-10x	1.0x-5.2x / 2.0x-10.4x	1.4x-7.3x / 2.7x-14x	2.7x-14x
Palettes	8			
Audio recording	YES			
Firmware update via APP	YES			
Photo/Video	YES			
<b>Display</b>				
Type	OLED			
Resolution	1024x768			
External video	WIFI			
Built-in memory	32GB			
<b>Power Supply</b>				
Battery	Dual Battery			
External power supply	5V USB-C			
Operating time (at t=22°C)	10h			
<b>Physical Characteristics</b>				
Weight (without external battery)	≤540g	≤570g	≤600g	≤560g
Dimension	≤φ61x179mm	≤φ61x205mm	≤φ61x205mm	≤φ61x193mm
<b>Environmental Compatibility</b>				
Ingress protection rating	IP67			
Operating temperature	-20°C~+50°C			
Storage temperature	-40°C~+70°C			
<b>Laser Rangefinder (Only available in Aquila 350LIIR and 650LIIR)</b>				
Safety class for laser equipment according to IEC 60825-1:2014	/			1
Measuring range	/			5-1200m
Measurement accuracy	/			±1m



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