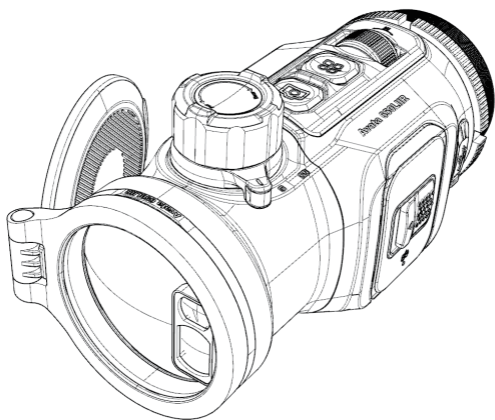


CONOTECH

AVATA

THERMAL FRONT ATTACHMENT



Attention!

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



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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 or napkin.

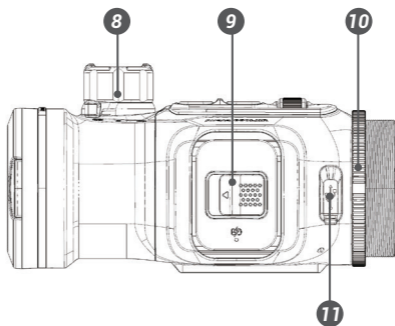
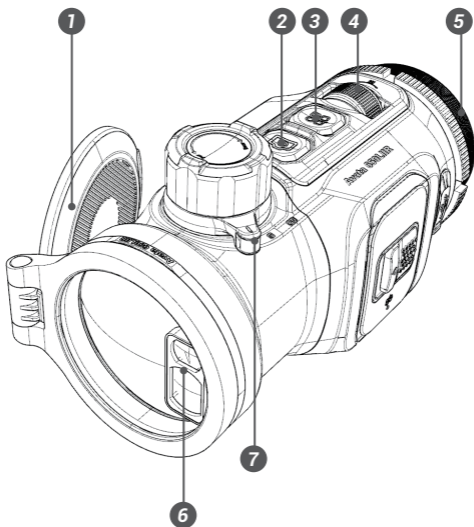


**LEGAL
NOTICE**

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

- **Laser in IR**
- **Highly sensitive thermal imaging sensor**
- **Ultra-light, ultra-compact**
- **7000J high shock resistance**
- **0.67 MOA accuracy**
- **Three-position switch**
- **No re-zeroing required and quickly mounted**
- **Easy charging**
- **Quick charging**
- **Power on with 1 or 2 batteries**
- **Built-in audio & video recording**
- **Firmware update via APP**

Appearance



- 1 Lens cover
- 2 Media button
- 3 Function button
- 4 Controller
- 5 Mount for adaptor
- 6 Laser rangefinder
- 7 Three-position switch
- 8 Focus ring
- 9 Battery compartment
- 10 Reduction ring
- 11 USB port

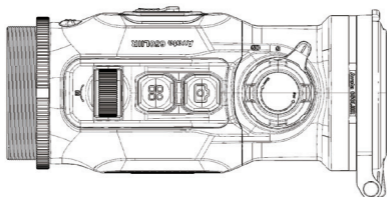





NOTE



All images used in this instruction manual are for illustrative purpose only.

Actual product may vary due to product enhancement. (V3.1)

Controls



	Three-position switch	Mode (on/off/standby)
	Media button	Short press: Take photos Long press: Record videos
	Function button	Short press: Enter the selected mode (Measurement/Color /Image/Pure) Long press: Turn on the measurement mode

	<p>Controller</p>	<p>Rotate: Monocular mode: Magnification Clip-on mode: Interface resizing Short press: Quick menu Short press twice: NUC Long press: Main menu</p>
	<p>Long press Media button then rotate controller. Rotate left to select Clip-on mode Rotate right to select Monocular mode</p>	

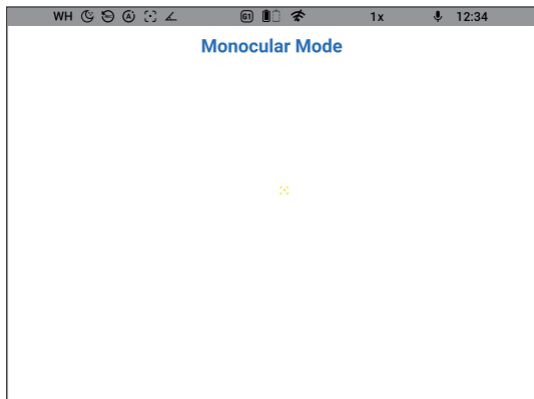
As a Clip-on

AVATA is designed for both daytime and nighttime use, even in challenging weather conditions such as fog, smog, and rain. When using as a clip-on, please ensure the device is in Clip-on mode.



As a Monocular

When using AVATA as a monocular, ensure the device is set to Monocular Mode for optimal performance. For an enhanced viewing experience, it is recommended to use the optional Magnetic Magnifier. In this mode, the magnification is 1X/2X/4X.



ATTENTION!

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

Installation

The device is designed for both daytime and nighttime use, even in challenging weather conditions such as fog, smog, and rain. To ensure proper installation on a day scope, please follow the steps below:

1. Pre-installation check:

Ensure that your day scope is properly zeroed before mounting the device.

2. Measure & select adapter:

Measure the outer diameter of your day scope's objective lens.

Choose a compatible adapter with an internal thread of M52×0.75, along with an appropriate insert that matches your scope's lens diameter.

3. Adapter installation:

Fully insert the selected insert into the adapter.

Firmly mount the adapter with the insert onto the objective lens of your day scope.

Verify that the adapter is securely fitted. If there is any clearance, follow these steps:

- Use the wrench to loosen the locking screw (based on the adapter model).
- Tighten the screw with the necessary clamping force to ensure a secure fit.
- Re-tighten the locking screw.

4. Attaching the device:

Mount the device onto the adapter.


Rotate securely to lock the device in place.

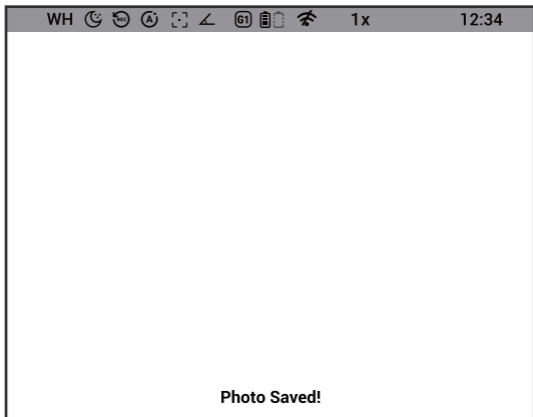


5. Display Alignment:

If the center of device is not aligned with the center of your day scope: Loosen the locking screw using the wrench and proceed with necessary adjustments.

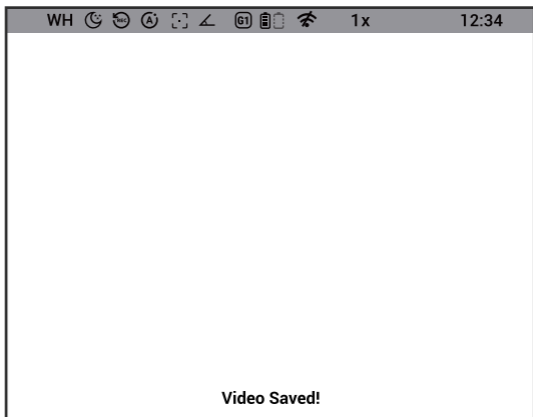
Photography

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 64GB memory.

Users can download photos via the CONOTECH app or by connecting to a computer.



All videos are stored in the device's built-in 64GB memory.

Users can download videos via the CONOTECH app or by connecting to a computer.







NOTE

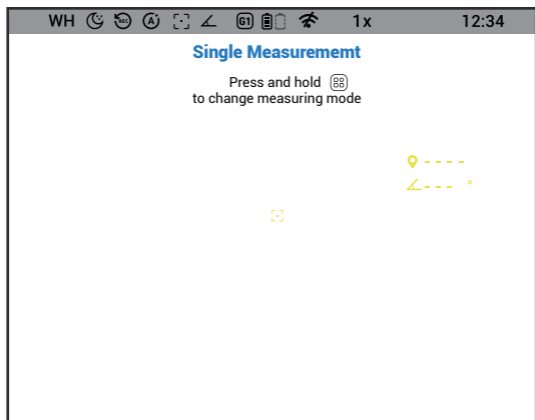
The number of files is limited by the device's internal memory capacity.



To ensure sufficient storage, regularly check the available space and transfer videos and photos to external media as needed.

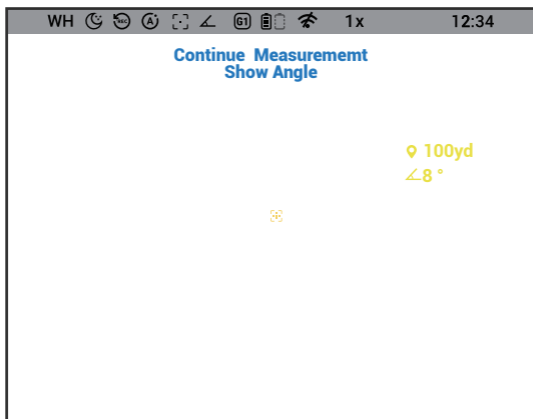
Laser rangefinder

(only available in LIIR series)

When the  has already been set to measurement mode, short press  to enter it. When the  has been set to other modes, long press  to enter measurement mode.



In the single measurement, long press  to switch continues measurement, vice versa. Aim  to the target, then the relevant distance will show up.



NOTE




If the Show Angle feature is turned on, then the angle will be displayed on the screen alongside the distance.



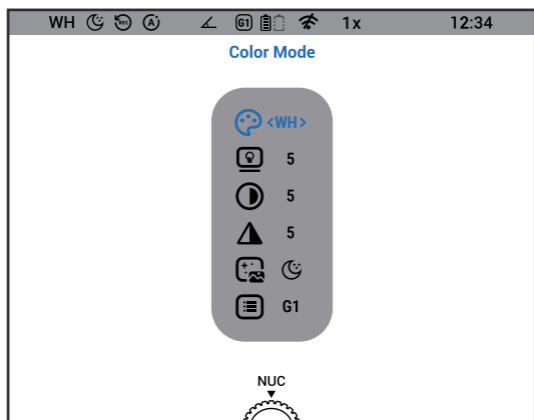
The status icons are respectively located at the top of the display and show information on the actual operating status of the device, including:

- Color Mode
- Image Mode
- Photo/Video
- Calibration Mode
- Rangefinder
- Angle/Horizontal Distance
- Zeroing Profile
- Battery
- Wifi
- Magnification
- Bluetooth
- USB-C
- Microphone
- Real Time



Quick Menu

Short press the  to enter the quick menu, press  and  to select the modes.

In the quick menu, if the user makes no input within 5 seconds, the program will automatically save all changes and return to real image.



Color Mode



Rotate the  to select the palette, long press the  to save and exit.

WH - White Hot
RH - Red Hot

BH - Black Hot
RB - Rainbow





Screen Brightness

Rotate the  to select the Screen Brightness from 1-10, long press the  to save and exit.



Contrast

Rotate the  to select the Contrast from 1-10, long press the  to save and exit.



Sharpness





Rotate the  to select the Sharpness from 1-10, long press the  to save and exit.



Image mode

Rotate the  to select the Sharpness from Clear Night, Rain or Foggy, long press the  to save and exit.

 Clear Night



 Foggy

 Rain



Zeroing profile



(Only available in Clip-on mode)

Rotate the  to select the Sharpness from G1-G4, long press the  to save and exit.



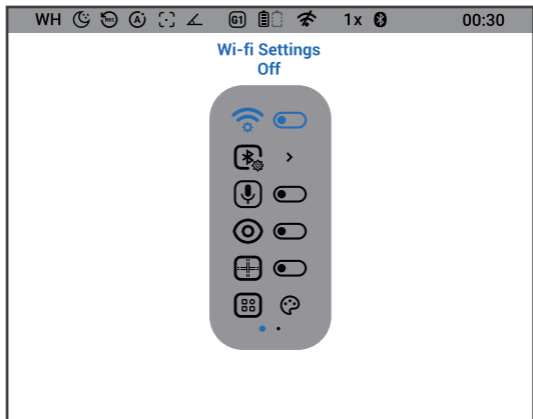
PIP

(Only available in Monocular mode)



Rotate the  to turn on/off PIP, long press the  to save and exit.

Long press the  to enter/exit Main Menu, press

 and  to select the settings.





WIFI

Rotate the  to turn on/off WIFI, long press the  to save and exit.

The WIFI password is 12345678.





Bluetooth Settings

Rotate the  to enter the Bluetooth Settings, then rotate  to turn on/off Bluetooth. When turn on Bluetooth, please power on the Wireless Remote Control 'JX-05S' (Optional) and pair it.





Microphone

Rotate the  to turn on/off Microphone, long press the  to save and exit.



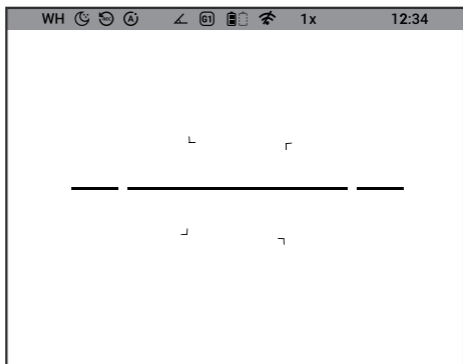
Extreme Mode

Rotate the  to turn on/off Extreme Mode, long press the  to save and exit. Extreme mode improves the brightness and sharpness in bad weather conditions such as rain and heavy fog.

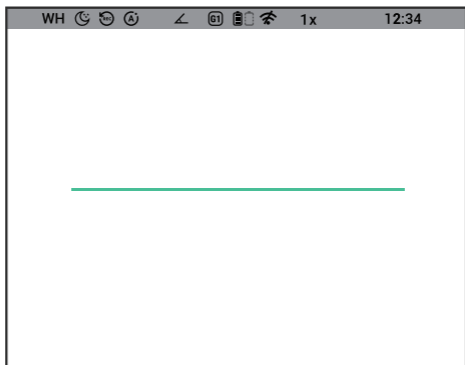



Display Alignment

(Only available in Clip-on mode)





When the device is not horizontally aligned with the day scope, the above image will appear. In this case, users need to turn on display alignment and adjust the device's position.



When the device is horizontally aligned with the day scope, the above image will appear. In this case, users need to turn off display alignment, then long press the  to save and exit.



Function Button

Rotate the  to select the function of Measurement/Color/Image/Pure mode, long press the  to save and exit.

Please pay attention, the selected function will be shown on the function button as well.



Color mode



Measurement mode





Image mode



Pure mode



Calibration Mode

Rotate the  to select the Calibration Mode, long press the  to save and exit.



Auto



Manual






Silent calibration

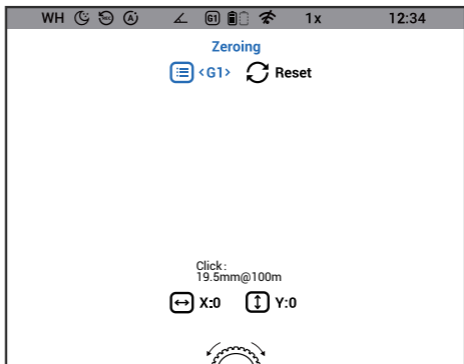


Zeroing

(Only available in Clip-on mode)

Please align the display before zeroing.

Rotate the  to enter Zeroing, press  and  to select the zeroing profile, reset, X value and Y value. Then rotate the controller to select the value.



Take a shot, adjust the X and Y value to match the target.

335(LIIR) / 1Click=16.7mm@100m

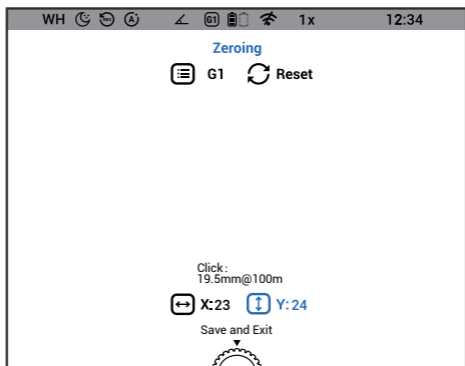
635 / 1Click=19.5mm@100m

650(LIIR) / 1Click=28mm@100m

S50 / 1Click=16mm@100m

The range of movement in the X direction is from -100 – 100 px.


The range of movement in the Y direction is from -70– 70 px.



After zeroing,  to save and exit.

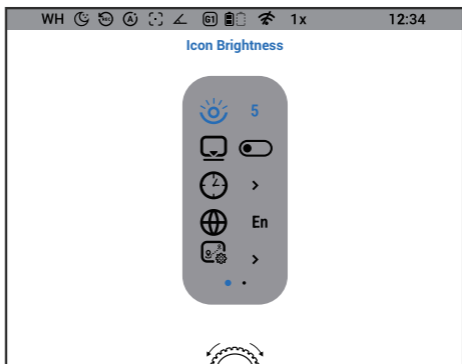


Defective Pixel Repair



Short press the  to make the defective pixel repair, please cover objective lens to form the calibration.





General Settings



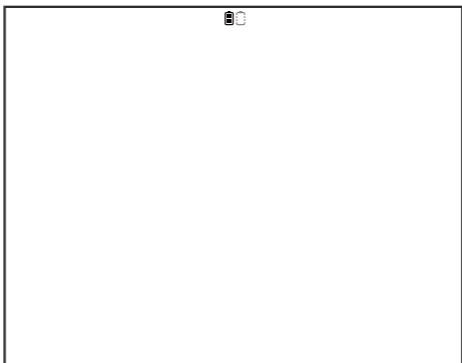
Icon Brightness

Rotate the  to select the Icon Brightness from 1-10, long press the  to save and exit.





Pure Mode

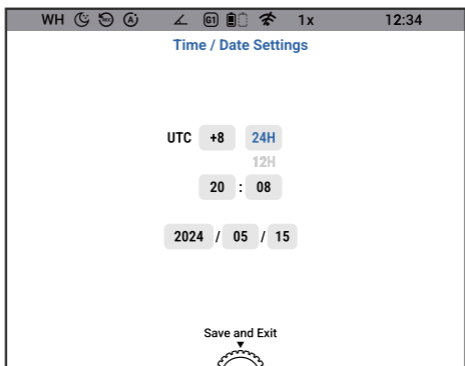
Rotate the  to turn on/off Pure Mode, long press the  to save and exit.

In Pure Mode, only the battery icon will be displayed on the screen.





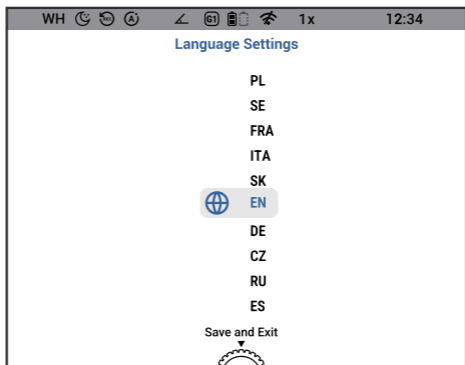
Time/Date Settings

Rotate the  to select time zone, 12H/24H, AM/PM in time setting, press  and  to select real time and date, long press the  to save and exit.





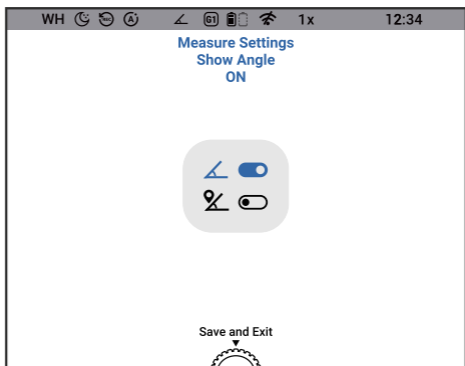
Language Settings

Rotate the  to select the language, long press the  to save and exit.





Measurement Settings (only available in LIIR series)



Rotate the  to turn on/off showing angle or horizontal distance, when perform distance measurement, long press the  to save and exit.





Unit Settings

Rotate the  to select Metric or Imperial, long press the  to save and exit.

Gyroscope




Rotate the  to turn on/off Gyroscope, long press the  to save and exit.

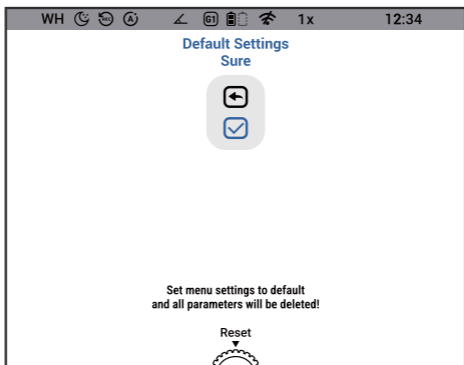
Rocil Activated Video

Rotate the  to turn on/off Rocil Activated Video, long press the  to save and exit.



When Recoil Activated Video is turned on, the device will automatically save footage 10 seconds before and 10 seconds after the impact.

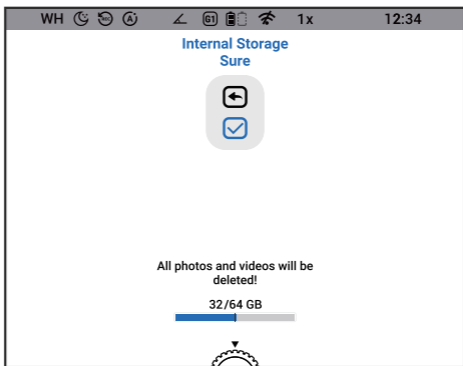
Default Settings

Rotate the  to select default settings, short press the  to confirm, long press the  to save and exit.



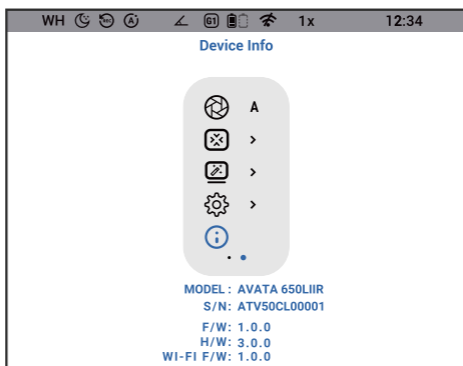
Internal Storage

Rotate the  to check the Internal Storage, Select to delete all photos and videos, long press the  to save and exit.



Device Info

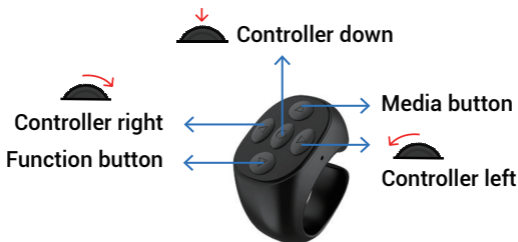
It indicates the device model, S/N number, firmware version and hardware version.



Remote Control (Optional)

The device can be controlled via a remote control, which is designed to be worn on the hand for convenient and practical operation.

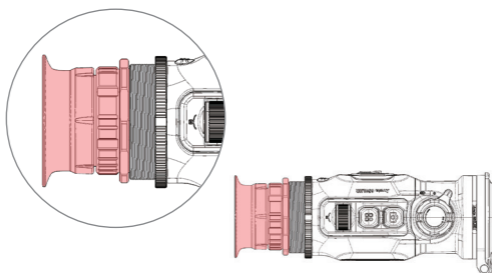
Please turn on the Bluetooth and power on the Wireless Remote Control "JX-05S" to get paired.



Magnetic Magnifier (Optional)

Automatic Magnetic Attachment

The magnifier effortlessly attaches via a magnetic system, eliminating the need for manual assembly. Enjoy immediate setup and smooth operation.



Enhanced Clarity

With a magnification factor of 1.5x, magnetic magnifier provides a sharper and clearer image.

Smart Mode Switching

When paired with the AVATA, the magnifier automatically switches to monocular mode upon attachment and returns to clip-on mode when removed, ensuring a hassle-free, intuitive user experience.

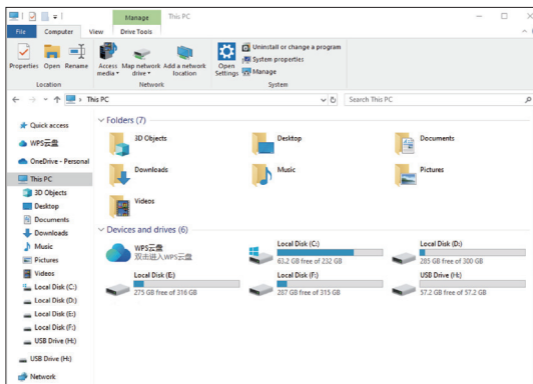
Firmware update via APP

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

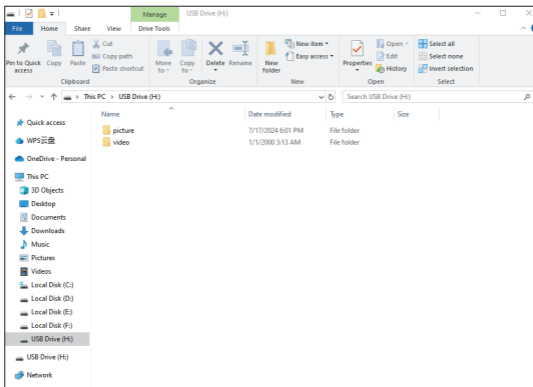


How to replay on PC

Connect the USB-C cable to the PC



Turn on WIFI and wait 10s.

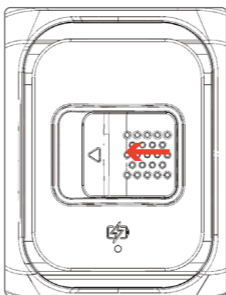


Removable battery

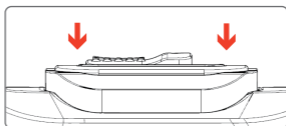
Please install the battery based on the positive and negative signs.

Replace the battery and close the compartment knob.

Open



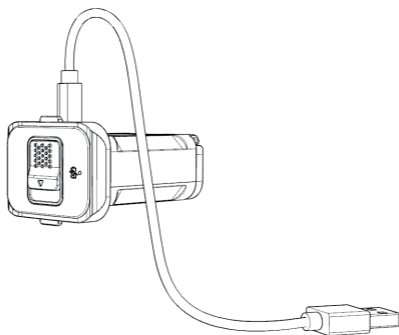
Close



Battery compartment

AVATA battery compartment can function separately as a charger for 18500 batteries. Please be advised that the battery compartment must be removed to initiate charging. Upon connection with a USB-C cable, the charging process commences.

The red light signifies that the battery is charging, and the green light indicates that the battery is fully charged.



External battery

AVATA is powered by external battery package. It contains two removable and rechargeable 18500 batteries. The device can also function with just one battery.

External power supply

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

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 km.

Specification

Avata Specification						
Model	Avata 335	Avata 335LIIR	Avata 635	Avata 650	Avata 650LIIR	Avata S50
Main characteristics						
Detector type	Uncooled Vox					
Resolution	384×288	640×512			1280×1024	
Frame rate	50HZ					
Pixel	12μm					
Spectral range	8-14μm					
NETD	<15mK					
Optical characteristics						
Objective lens	35mm			50mm		
Magnification	1×					
FOV (H×V), m@100m	13.16×9.87	22×17.5	15.4×12.3	30.72×24.58		
Functions						
Zoom	1×/2×/4×					
Palettes	4					
Firmware update via APP	YES					
Display						
Type	OLED					
Resolution	1024×768				1920×1080	
External video	WIFI					
Built-in memory	64G					

Avata Specification						
Model	Avata 335	Avata 335LIIR	Avata 635	Avata 650	Avata 650LIIR	Avata S50
Power supply						
Battery	2×18500					
External power supply	5V USB-C					
Operating time (at t=22°C)	7h					6h
Physical characteristics						
Weight	450g	470g	450g	460g	460g	590g
Dimension	67×70×147mm					
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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