iAiming

User's Manual

SMART THERMAL RIFLE SCOPE

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· Lens Brush
· Lens cloth
· Allen key (M5)
· User Manual
· Carry bag

2.Product structure

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D. Lens cover
E. Power' select and scroll' dial
F. Eyeshade
G. Diopter adjustment ring
H. Lens focusing ring
J. Factory debugging port
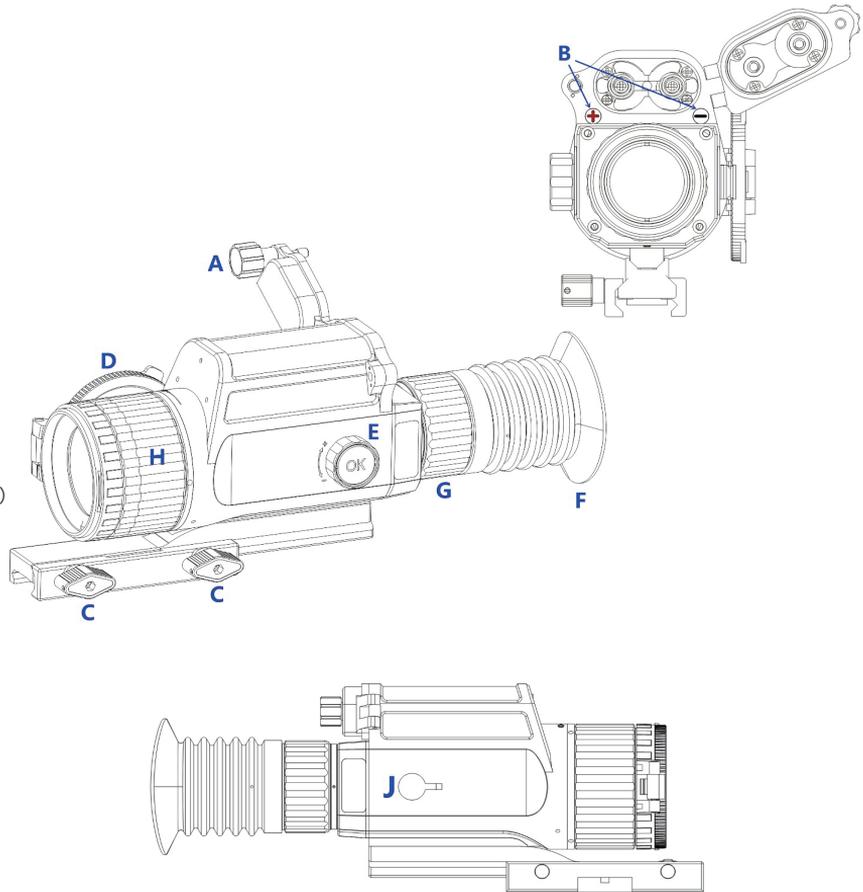
3.Getting Started

◆ Battery Installation

Rotate the battery cover knob (A) counter-clockwise and flip open the cover. Insert one 18650 battery with its +ve terminal facing upwards and the other 18650 with its -ve terminal facing downwards as shown by the + and - indicators under the battery cover (B). While applying gentle pressure to battery cover (B), tighten the cover by turning screw knob (A) clockwise.
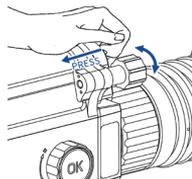
◆ Picatinny Rail Adaptor

With the two screws (C) loosened, mount the thermal scope onto the firearm's Picatinny rail and apply slight forward pressure to ensure the rail adaptor's recoil lug is pressed firmly up against the forward edge of the cross-slot it is located in. Rotate the two screw (C) clockwise to lock the thermal scope in place.

◆ Power On/Off

Power On: With Lens Cover (D) in its closed position, press and hold the Power 'Select and Scroll' Dial (E) for 3-seconds until the display in the eyeshade (F) lights up. After the 'Setup' progress bar indicates complete initialisation, flip Lens cover (D) open for use.

Power Off: Press and hold the Power 'Select and Scroll' Dial (E) for 3-seconds until the display shows the 'Power Off' countdown screen. Continue pressing (E) until the countdown is complete and the scope is turned off. If you accidentally release Dial (E) during the countdown, the scope will abort the power-off sequence and return to normal function.

◆ Diopter Adjustment Ring

With the scope's display illuminated, rotate the Diopter Adjustment Ring (G) until the menu icons across the bottom of the display are in sharp focus.

◆ Lens Focusing

Rotate the lens focusing ring (H) until the observed thermal image is in sharp focus.

4.Homepage

After power-on, the scope displays the homepage. The status bar is located at the bottom of the display and shows the scope's current operating status.
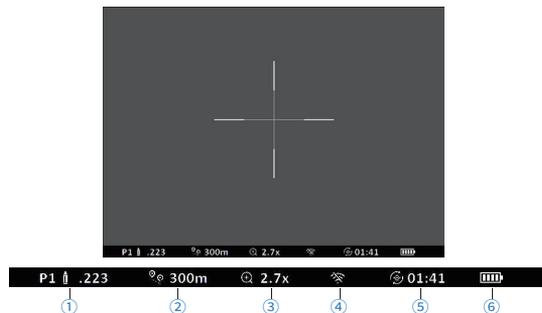
① Profile selected (P1 is current profile selection, totally 5 optional profiles; .223 is current Gun profile selected)
② Distance setting
③ Current zoom (default is 2.4x for iA-612)
④ WIFI connection status (default is off)
⑤ REFRESH interval. (For auto refresh, count down the auto refresh time)
⑥ Battery status (if battery icon is empty and starts to flash, replace with a set of fully recharged 18650 batteries)

5.Button Description

	Homepage (Menu deactivated)	Setting interface (Menu activated)
Short press	Manual REFRESH	Select current option or confirm selection.
Rotate	Zoom in/out	Select among options
Long press for 1s	Call out menu	Hide menu or back to previous menu
Long press for 3s	Power off countdown.	Power off countdown.
Double Click	Display off	/

Note: The screen can be activated by short pressing or double clicking of the button under display off status.

6.Set up Interface

· At homepage, enter the setting mode by a 1s long press of the control button.

· The main menu appears at the left of the screen.

· Auto exit takes place after 60s of inactivity. Any button operation recalls the menu status.

◆ Menu page 1

◆ Menu page 2

Image mode
Select **Mode 1** or **Mode 2** for image mode.

Brightness
Adjust the level of brightness from 1 to 20

Contrast
Adjust level of contrast from 1 to 20

PiP
Users can set PiP (picture in picture) mode to magnify the 'sight picture' and display it on the upper part of the screen. **2X, 4X, 8X** and **OFF** can be chosen. (8X only available on Model iA-612 model)

WIFI
Select WIFI mode **ON/OFF**.

Distance
Set the shooting distance of target. Scope will auto adjust the reticle position according to the set distance under preset gun profiles. User just need to aim at the target by fresh reticle position to get an accurate shooting.

Rangefinder
Where the 'target height' is known, this function can be used to quickly estimate the range to the target.
Select this option and set the estimated height of the target. Align the upper line with the top of the target and the lower line with the bottom of the target. Click the control button to get the estimated target range.

Reticle type
Select Type 1~Type 6 for reticle type. For Type 3, each scale represents 1mil.

Auto Refresh
Select **OFF**, **1 min**, **3 min** or **5 min**.

Pallete
Select either a **White, Black, Ironbow, Globow, Sepia, Red, Green** setting.

Zeroing profile
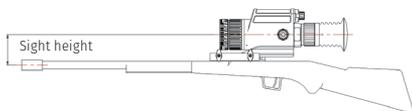Enter the Zeroing profile's submenu.

Profile select
Select current profile number. There are 5 profiles P1~P5. Each profile corresponds to one zeroing data and gun profile.

Sight Height
Set the height difference (cm) between optical axis and axis of the bore from 5.4cm to 9.4cm. The base height of scope is 4.4cm.

For example, the axis of bore is 2cm, user should input 6.4cm (2cm+4.4cm) for sight height.
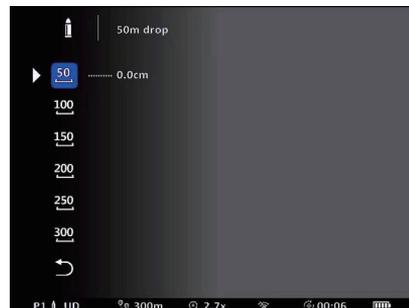
Gun profile
Select matched gun profile from the list for loading the ballistic parameters. If user don't find the right gun profile in the list, user-defined can be selected and set.

When user select **User-defined** option, scope will enter the menu below:

The drop is referred to the zeroing at 0 meter. Up is positive value and Down is negative value.

Profile select
Preset sight-in value for up to 8 user-defined firearms.

50m drop
For zero elevation (horizontal barrel), input the bullet drop at 50m.

100m drop
For zero elevation, input the bullet drop at 100m.

150m drop
For zero elevation, input the bullet drop at 150m.

200m drop
For zero elevation, input the bullet drop at 200m.

250m drop
For zero elevation, input the bullet drop at 250m.

300m drop
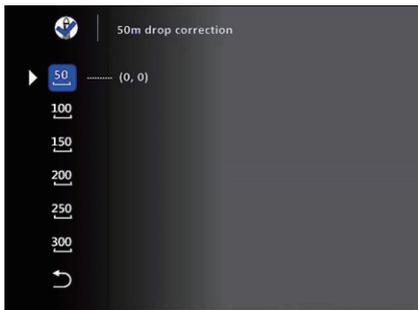For zero elevation, input the bullet drop at 300m.

Return
Return to the previous menu

Profile correction
When user find the vertical deviation between aiming point and impact point, It means the selected Gun profile unmatched; User can use this option to correct the loaded Gun profile.

Default value is 0, no correction to the reticle. Select distance, it will enter into the menu below. The message on the lower left corner tells the value in cm for each one click.
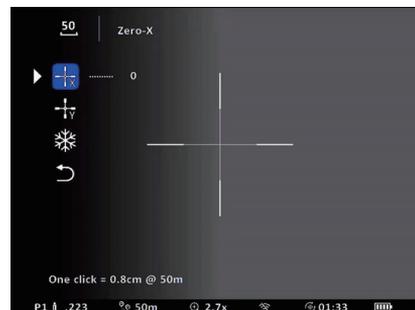
Zero-X (Windage Adjustment)
Adjust the Windage by changing the reticle X-axis value.

Zero-Y (Windage Adjustment)
Adjust the Windage by changing the reticle Y-axis value.

Image freeze
Freeze/unfreeze the image. Move the reticle to the aiming point and freeze the image, then move the reticle to the impact point.

Return
Return to the previous menu

Zeroing
When the thermal scope is first mounted on the firearm, or when there is a large deviation between the 'point of aim' and 'point of impact', sight-in the scope by selecting the **Zero** function. Click to enter the **Zero** submenu. Operation details can be referred to the **Zero instruction**.

Auto zero
Enter into **Auto zero** mode.

Manual zero
Enter into **Manual zero** mode.

Return
Return to the previous menu.

General settings
Enter General settings submenu.

Trigger footage
Set Trigger footage **ON/OFF.** When select **On**, scope will automatically detect shooting action. When shooting triggered, the auto recording will be activated. It will record the video 15s before the shooting and 15s after the shooting

WIFI password set
Set the WIFI password. Default password is **87654321**.

System time set
Set system time.

Defective pixel repair
Enter into Defective pixel repair's submenu, repair the defective pixels.

X-axis (Elevation Adjustment)
Adjust windage by changing the reticle X-axis value.

Y-axis (Elevation Adjustment)
Adjust windage by changing the reticle Y-axis value.

Pixel repair
Repair current reticle pointed pixel.

Pixel restore
Revoke the repair to current point.

Return
Return to the previous menu.

Restore zero reticle
Revert to factory zero reticle setting.

Restore factory settings
Revert back to factory settings.

Return
Return to the previous menu.

Device information
View the device information.

7.Zero Instruction (sighting in)

⚠️ To start first shot auto zero, user need to place the target for sighting in 25 meters away to ensure the bullet is on target. After following the zero steps as instructed, user can aim at the objective or target at 50m or 100m away to verify the accuracy of first shot auto zero.

🜨 Auto Zero

Step 1 : Enter **Auto Zero** mode. The zero range confirmation box appears at the center of the display screen. The zoom and auto REFRESH functions will be disabled automatically.

After confirmation for the 25m zero range, the upper right corner prompts the user to enter the 15-second preparation countdown. During this period, the user can make their firearm ready to shoot (live round chambered).

Step 2 : The 15s countdown finishes, the prompt at the top right corner changes to "Aim at the target and shoot".

Step 3: Aim at the objective or target that is used for zeroing at 25 meters around. Ensure that the 'square reticle' is approximately centered on the target face and then take the shot. The onboard computer will look for the heat signature of the projectile impact on the target face.

Step 4: Keep the firearm stable to hold the square on the target, until the message "Data processing. NO OPERATION, please." pops up. If the user wishes to do so, they can then put the firearm down and wait for the data processing to be completed.


Step 5: When message "Confirm the current options?" pops up, click **Yes**. This confirms that the computer has correctly identified your projectile impact and that the Auto zero process is now complete.

If the message "No bullet holes detected, shoot again" appears, it means that the auto zero process has failed, so please follow steps 1 to 5 again.

Manual Zero

Users can choose this mode to manually sight-in the thermal scope. The user inputs the target distance (m) as well as the deviation between the point of aim and point of impact (cm). The scope then processes this information and automatically adjusts the reticle position to coincide with the observed point of impact.
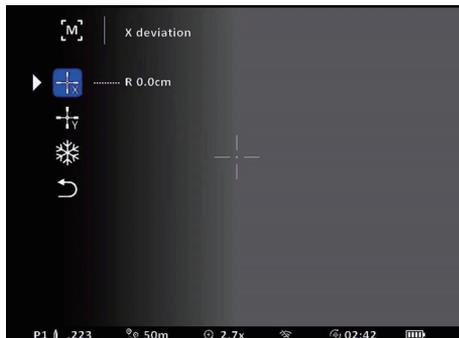
8.WIFI Application

The iAiming App iAiming can be downloaded free of charge from **Google Play** or the **App Store.**

The Android device users can also download it by scanning the QR code.

Users can then link their iAiming scope to their mobile device (smartphone or tablet) via WIFI. This not only allows users to view the thermal sight picture on their mobile device in real time, but they can also remotely control the thermal scope through their mobile device.The detailed user guide is available at www. iaiming.com
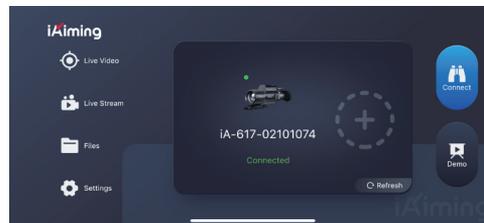
iAiming App Functions
  · Live video recording and still photo capture, adjust image settings;
  · View the device information;
  · Local files and storage files operation;
  · Information about the scope, firmware updates and Language elections.
  · Live stream

9.Specifications

Model Number	iA-317	iA-617	iA-612
Sensor			
Sensor Type	VOx Uncooled		
Sensor Resolution	384 × 288	640 × 512	640 × 512
Pixel Pitch	17 μm	17 μm	12 μm
NETD	≤ 50mk	≤ 40mk	≤ 40mk
Frame Frequency	50Hz		
Optics			
Objective Lens	40mm	40mm	42mm
Angle of View	9.3° × 7.0°	15.2° × 12.3°	10.4° × 8.3°
Continuous Digital Zoom	2.7X~10.8X	1.6X~12.8X	2.4X~19.2X
Eye Relief	48mm		
Diopter of Eyepiece	± 4		
Display			
Display type	OLED		
Resolution	1024*768		
Pallete	White Hot / Black Hot / Ironbow / Glowbow / Sepia /Red Hot / Green Hot		
Detection Range			
Detection Distance (Human, 1.8m)	1200m	1200m	2000m
Reticle			
Adjust Accuracy	0.15mil	0.27mil	0.18mil
Adjust Range	77.5*58.37mil	129.08*103.49mil	87.07*69.72mil
Reticle Type	6 types		
Video Recorder			
Video Resolution	1024*768		

Video Format	avi		
Built-in Memory	32GB		
WIFI			
Wireless Protocol	Wi-Fi		
Wireless Standard	802.11b/g/n		
Frequency	2.4GHz		
Connection range	5m		
Power Supply			
Output Voltage	3.7V		
Battery Type	18650 Battery*2		
Capacity	3400mAh		
Operating time	≥ 8hrs.		
Connections and Compatibilities			
Max. Recoil power on rifles	6000J		
Shock resistance on the smooth-bore rifles	12		
Mounting rail type	Picatinny		
Physical Characteristics			
Body Material	Aluminum alloy		
Weight (Mount & Eyeshade excluded)	760g	760g	750g
Length (Mount & Eyeshade excluded)	182mm	182mm	186mm
Environmental Characteristics			
Degree of Protection, IP code	IP67		
Operating Temperature	-25° C ∼ +50° C		
Storage Temperature	-40° C ∼ +60° C		

10.Trouble Shooting

Listed below are some potential problems that may occur when using the thermal scope. Carry out the recommended checks and solution steps in the table. If the problem experienced with the scope is not listed, or if the suggested solution does not match your problems, please contact the retail outlet or manufacturer.

Problem	Problem cause	Solution
Scope cannot be powered on.	Batteries have been incorrectly installed (wrong polarity).	Reinstall the batteries by following the correct polarity indication.
	Batteries are flat.	Install fully charged batteries.
	Batteries are faulty.	Replace with new, charged batteries.
The scope mounting is not firm and stable.	The contact surface between rail and mounting is worn.	Contact manufacturer or seller for maintenance.
	The lock nut of rail mounting is broken.	Contact after-sale service center for maintenance.
The battery compartment cover cannot be locked.	The lock nut of battery compartment is broken.	Contact after-sale service center for maintenance.
	The battery cover screw is loose.	Contact after-sale service center for maintenance.
The control knob does not work.	The scrolling control knob is loose.	Contact after-sale service center for maintenance.
The menu is blurred.	Poorly adjusted diopter.	Adjust diopter according to instructions.
The image is blurred.	Not focused.	Rotate lens focusing ring until the image is clear.
	Not calibrated.	Activate the REFRESH function to calibrate the image quality.
Impact point does not match the aiming point.	Connection base is loose.	Reinstall the scope on rails.
	Not sighted in.	Perform the auto zero exactly as instructed.
	Select unmatched profile settings.	Select matched profiles.

Auto zero failures.	The operation steps are not followed by guidance.	Perform the auto zero according to steps guided.
WIFI connection fails.	WIFI is not turned on.	Turn on the WIFI.
	Wrong WIFI password input	General setting-WIFI password, check current WIFI password.
System time lost	Internal battery is dead due to no using of scope for long time.	Power on scope. Reset system time and keep scope power-on more than 30 minutes.

11.Maintenance and Storage

· Do not aim at high-intensity energy sources, including the sun, laser emitting scopes and reflections of the above-mentioned objects;

· When not using the product for a long time, it is recommended to remove the batteries and store the thermal scope in a dry and cool place;

· If liquids come in contact with the silver mirrored lens surface, immediately wipe it off with the lens cloth provided. Do not use corrosive or abrassive cleaning agents as these are likely to damage the lens coating and degrade its performance.

· If the scope appears faulty, please contact after-sales service for further technical support. Do not attempt to disassemble the scope, otherwise the warranty may be voided.

12.Warranty and Service

Dear customer,

Congratulations on your purchase of our innovating iAiming products, to protect your purchase and rights, please read carefully the content following:

iAiming strive to make the best thermal products in the market and hold ourselves to the highest standards of engineering, quality, and product performance. iAiming products are warranted for 3 years in country of purchase, from date of purchase to be free of manufacturing defects in workmanship or materials under normal use conditions, battery's and battery chargers are covered by a 1-year warranty, iAiming at its discretion will repair or replace product free of charge.

Note: Thermal technology is highly sensitive equipment, environmental factors such as extreme temperatures both ambient and target temperature will affect devices ability to function the same in every situation. Environmental factors and the way you use this product needs to be considered before purchasing any thermal product, poor image quality, resolution, or inability to identify target due to environmental factors are not warranty please purchase wisely.

× Warranty is void if:

· Damage occurs from misuse.

· Unauthorised repair.

· Physical damage.

· Modification or alteration.

· Recoil over 6000j.

Should you feel your iAiming product is not performing as intended please return product to the original place of purchase with a receipt of Australian purchase, should no proof of purchase be provided iAiming at its discretion will choose to repair, replace or not. Please contact our local exclusive distributor or contact iAiming should you have any questions or concerns regarding your iAiming product warranty.