

ACCUFIRE THERMAL SIGHT

INCENDIS INC4-35 Product Specification



SPECIFICATIONS

SKU	
Model	
Microbolometer	
Type	Uncooled
Resolution, pixels	384x288
Pixel size, μm	17
Frame rate, Hz	50(PAL)/60(NTSC)
Optical characteristics	
Magnification	1x
Digital zoom	2x,4x
Objective lens, mm	35mm/F1.2
Horizontal field of view, degree	10.7
Field of view, m at 100 m	18.7
Exit pupil diameter,mm	20
Eye relief, mm	10
Detection range of people 1.8 m high, m/yard, approx	1000/1094
Recognition range of people 1.8 m high, m/yard, approx	500/547
Close-up range, m	2
Display	
Type	OLED
Resolution, pixel	1024x768
Operational characteristics	
Power supply, V	5-7.2
Battery type	4×ICR16340/4×CR123A
External power supply	5V(USB)
Operating time on a battery set ($t=25^{\circ}\text{C}$), hour	3+
Degree of protection	IP54

(attachment / monocular), IP code (IEC60529)	
Operating temperature	-30°C~+50°C/-22°F~+122°F
Dimensions,mm/inch	180×77×80/7.1×3.0×3.1
Weight(without batteries), kg/oz	0.69/24.3

PACKAGE CONTENTS

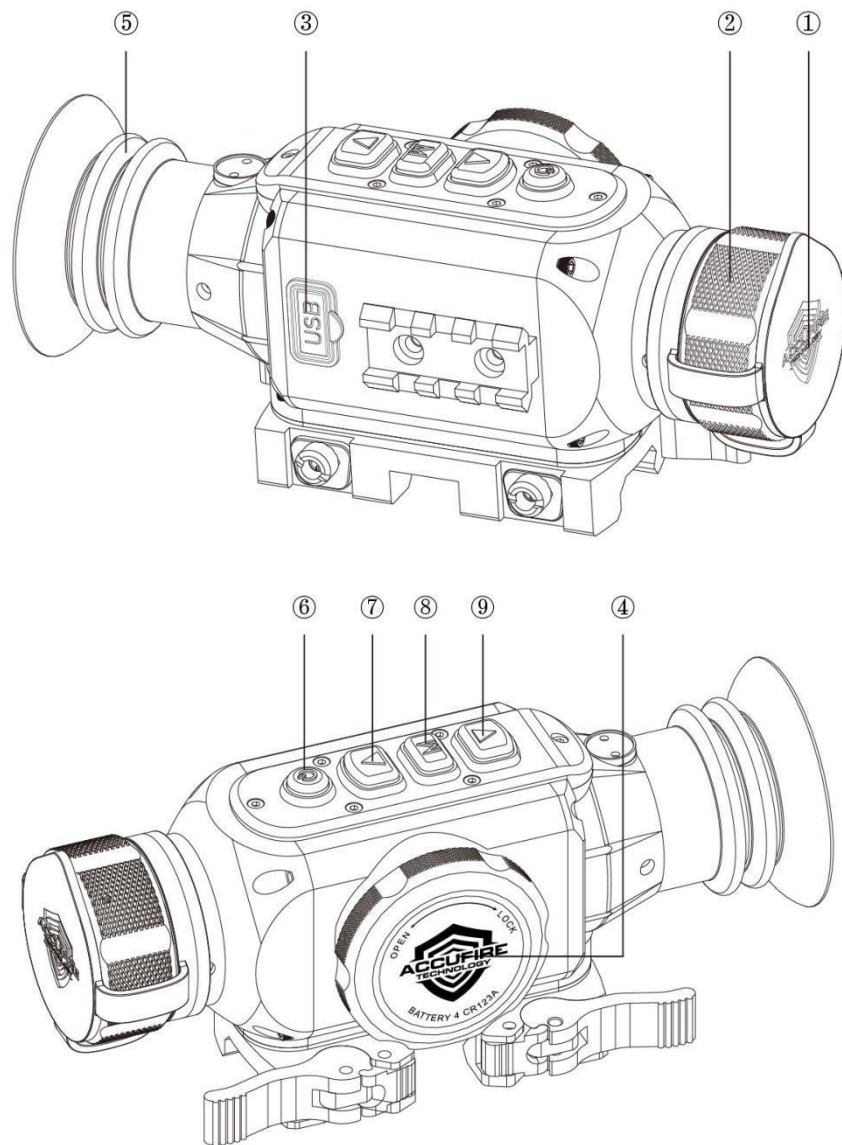
- Incendis Thermal
- Eyepiece attachment
- Neoprene bag
- USB-C cable with Video-out
- USB one-in-four charging cable
- Certificate of inspection
- Lens cloth
- Warranty card
- 4 x Rechargeable CR123 Batteries (ICR16340)

FEATURES

- 384x288 pixel sensor size
- The device is mountable on any standard picatinny rail
- Thermal detection range: 1100 yards
- Display: OLED (1024x768 pixels)
- Can be used as a stand-alone thermal optic with independent reticle and forward of an optic tandem clip-on
- Any external battery can be used with the USB-C external power source
- USB-C interface with video output
- Three calibration modes, automatic calibration, manual calibration, and shutter calibration
- Three scene contrast presets
- 4 pseudo-color modes, including white hot, black hot, red tracker, and green
- Sustainable operation at temperatures from -22 °F to +122 °F
- Compact size
- Lightweight

EXTERNAL VIEW AND CONTROLS

- ① Lens
- ② Focusing Ring
- ③ USB-C Interface
- ④ Battery Cover
- ⑤ Eyepiece
- ⑥ ON/OFF Button
- ⑦ UP Button
- ⑧ MENU Button
- ⑨ DOWN Button



























Buttons	First long press	Next long press	Short press	Menu operation	
				Short press	Long press

“ON/OFF”	Turn on the Incendis	Turn off the Incendis	Calibrate the Incendis	---	---
		Display off	Display on		
“UP”	---	---	Switch magnification	Switch menu option	---
“Down”	---	---	Switch the pseudo-color mode	Switch menu option	---
“MENU”	Functional menu display	---	Switch the scene mode	Enter/exit menu/select	Cancel Menu w/o saving

Notes: When the Incendis is on, press the power button for a long time to display the off progress bar. Before finishing the progress bar, release the power button to cancel power off and enter into sleep mode; under the sleep mode, press any button for a short time to leave rest mode.

MENU / STATUS BAR ICONS:

	Exit		Hotpoint track
	Screen brightness		Factory reset
	Calibration		Automatic Shutter compensation
	Scene compensation		Shutter compensation manual
	Video output		Open the video output
	White heat		Black heat
	Red heat		Green heat
	Auto power-off		Auto sleep
	Picture contrast		Picture brightness
	Cursor/screen adjustment		X-axis adjustment
	Y-axis adjustment		save and exit
	Cursor position selection		Reticle On/Off switch



Reticle adjustment



Image enhancement



High brightness



Natural brightness

Notes: When the Incendis is simultaneously used with a traditional riflescope, select the cursor/screen adjustment to adjust the screen's central position and make it consistent with the reticle of your riflescope (NOTE: screen adjustment does not alter reticle sight-in); when the Incendis is used as a stand-alone optic, turn on the reticle; the screen displays the reticle, select the reticle adjustment, and adjust the reticle using the X & Y axis adjustments.

GUIDELINES FOR OPERATION



To maintain stable operation of the product, please observe the following rules:





- Before use, ensure that the device is installed and adjusted (levers should engage resistance approximately 20 degrees before close position);
- Batteries will need to be charged before first use
- To insure best return to zero mounting, when mounting, (1) attach the unit to the same rail platform as previously attached (2) shift the unit forward if there is any play in the rail section where mounted (3) shift the lever to close position nearest to the eye objective first before shifting second lever near the front into place.
- When unit is put into storage, remove the batteries;
- When cleaning the non-optical surface of the Incendis, do not wipe it with chemical solvents. It is better to wipe the shell by using clean, soft, and dried cloth
- Any attempt to dismantle or maintain the Incendis will void the warranty.

BATTERY INSTALLATION

Rotate the battery compartment cover ④ counterclockwise to open the battery compartment, and install 4 CR123A or 4 ICR16340 batteries. Please install batteries correctly according to positive and negative terminals, replace the battery cover, and rotate it in clockwise until it is tightened.

After the Incendis is powered on, life of the batteries is shown at the top the screen.

There are 6 battery level states, including fully charged , 80% charged ,

50% Charged , 25% Charged , 10% Charged , and low battery .

Note: Rechargeable batteries will not be properly indicated in the battery indicator symbol

EXTERNAL POWER SUPPLY

Open the USB-C rubber plug ③, insert the USB cable into the USB-C interface, and insert any 5V USB mobile power to another USB interface of the USB cable to supply power.

Video output

Open the USB-C rubber plug ③, insert the USB cable into the USB-C interface, and insert another end of the USB cable into the display that supports this interface. Recording devices must have independent power supplies.

OPERATION

Start and setup

Leave the rubber lens cover on, press “ON/OFF” button ⑥ until the Accufire logo appears on the screen; the battery indicator will disappear 3 seconds later.

- Image calibration; see details in “image calibration” description in the MENU;
- Remove the lens cover, rotate the optical focusing ring ② until the image is clear

Adjust magnification

Short press “UP” button ⑦ to switch the device magnification between 1x, 2x, and 4x in order.

Switch the pseudo-color mode

Short press “DOWN” button ⑨ to switch the pseudo-color mode between white hot, black hot, red tracker, and green in order.

Switch the scene mode

Short press “MENU” button ⑧ to switch the scene mode between scene settings. These

settings may be individually adjusted through the menu when selected.


MENU

Long press “MENU” button ⑧ to make the device enter into the first-level menu mode; in the first-level menu mode, long press the button ⑧ to exit/cancel the menu mode and return to the main screen; in the first-level menu mode, short press the button ⑦ or the button ⑨ to select menu setting sub menus or options.




Exit Menu

Press the button ⑦ or the button ⑨ for a short time to select the icon , exit the MENU, and return to the main menu.

Screen brightness

Set up the screen brightness which includes 10 grades from 1 to 10; short press the button ⑦ or the button ⑨ to select the icon , short press the button ⑧ to enter into the screen brightness setup, short press the button ⑦ or the button ⑨ to select the screen brightness, and short press the button ⑧; after finishing setup, long press the button ⑧ to exit the current setup and return to the first-level menu.

The compensation mode

Set up the compensation mode, including automatic compensation “Aub”, scene compensation  and shutter compensation . Short press the button ⑦ or the button ⑨ to select the icon , short press the button ⑧ to enter into the compensation mode setup, short press the button ⑦ or the button ⑨ to switch the mode selection, and short press the button ⑧ for setup; after finishing setup, long press the button ⑧ to exit the current setup to return the first-level menu.

➤ Automatic compensation

Start up, remove the rubber lens cover, select the automatic compensation mode, save and exit. The software algorithm will be automatically operated to calculate compensation.



➤ Shutter compensation manual

Start up, remove the rubber lens cover, select the shutter compensation mode, save and exit, and short press “ON/OFF” button ⑥ to execute the compensation.


➤ **Scene compensation**


Start up, remove the rubber lens cover, select the scene compensation mode, save and exit, and short press “ON/OFF” button ⑥ to execute the compensation. Scene compensation deactivates the physical shutter in the unit.

Video output

Open/close video output; when video output is opened, videos are routed to the display of the external video interface. Short press the button ⑦ or the button ⑨ for to select the icon , short press the button ⑧ to start setup, short press the button ⑦ or the button ⑨ to select on or off, short press the button ⑧ for confirmation, start up the operation, long press the button ⑧ to exit the current setup and return to the first-level menu, and display the icon  will be displayed at the lower right of the screen.


Hotpoint track

Open/close hotpoint track; when using hotpoint track, the cross cursor  will track the highest point of temperature in the display.

Short press the button ⑦ or the button ⑨ to select the icon , short press the button ⑧ to enter into setup, short press the button ⑦ or the button ⑨ to select on or off, short press the button ⑧ for confirmation, long press the button ⑧ to exit the current setup and return to the first-level menu.


Auto sleep:

Auto sleep can be turned on and the amount of time until auto sleep can be set up. No auto sleep is displayed as “Nona”. Time to start auto sleep can be set up as 5min, 10min, and 15min. After sleeping, press any button to wake the sleep.

Short press the button ⑦ or the button ⑨ to select the icon , short press the button ⑧ to enter into setup, short press the button ⑦ or the button ⑨ to select the mode, short press the button ⑧ for confirmation, and long press the button ⑧ to exit the current setup and return to the first-level menu.

Auto power off


Auto power off can be turned on and the amount of time until auto power off can be set up; no auto power off is displayed as “Nona”. Time in auto power off can be set up as 15min, 30min, and 60min.

Short press the button ⑦ or the button ⑨ to select the icon , short press the button ⑧

to enter into setup, short press the button ⑦ or the button ⑨ to select the mode, short press the button ⑧ for confirmation, and long press the button ⑧ to exit the current setup and return to the first-level menu.


Factory reset

Select “yes” to execute factory reset. All parameters will recover to factory settings. Select “no” to cancel factory reset.

Short press the button ⑦ or the button ⑨ to select the icon , short press the button ⑧ to enter into setup, short press the button ⑦ or the button ⑨ to select the mode, and short press the button ⑧ for confirmation,


Picture contract

Set up 10 grades from 1 to 10

Short press the button ⑦ or the button ⑨ to select the icon , short press the button ⑧ to enter into setup, short press the button ⑦ or the button ⑨ to select the mode, short press the button ⑧ for confirmation, and long press the button ⑧ to exit the current setup and return to the first-level menu.


Picture brightness

Set up 10 grades from 1 to 10


Short press the button ⑦ or the button ⑨ to select the icon , short press the button ⑧ to enter into setup, short press the button ⑦ or the button ⑨ to conduct the grade selection, short press the button ⑧ for confirmation, and long press the button ⑧ to exit the current setup and return to the first-level menu.


Cursor position selection

There are 3 position parameters; select to set up one of them for utilization.


Short press the button ⑦ or the button ⑨ to select the icon , short press the button ⑧ to enter into selection, short press the button ⑦ or the button ⑨ to conduct the data selection, short press the button ⑧ for confirmation, and long press the button ⑧ to exit the current setup and return to the first-level menu.

Cursor/screen adjustment


Short press the button ⑦ or the button ⑨ to select the icon , short press the button ⑧ to enter into setup, short press the button ⑦ or the button ⑨ to select X and Y or exit; after pressing the button ⑧ to select X or Y, short press the button ⑦ or the button ⑨ to make position adjustments; after finishing adjustments, long press the button ⑧

to exit the adjustment, select the icon , and short press the button ⑧ to save and return to the previous menu. Adjusting the screen WILL NOT unsight the reticle if you've sighted the reticle in.

Reticle On/Off




Short press the button ⑦ or the button ⑨ to select the icon , short press the button ⑧ to enter into setup, short press the button ⑦ or the button ⑨ to select ON/OFF, and short press the button ⑧ to return after setup.

Reticle adjustment


Short press the button ⑦ or the button ⑨ to select the icon , and short press the button ⑧ to enter into setup. The reticle adjustment mode is consistent with the cursor position adjustment mode.

SIGHT IN: Sight in procedure is recommended as follows:


For standalone use:

- (1) Turn on reticle 
- (2) Sight in reticle using 2 shot sight-in 
 - a. When sighting in X and Y for the reticle, the sight-in cursor will be overlapped upon entering the menu for reticle adjustment. When the up and down buttons are pressed, the cursor will move from original position. Leave the original cursor on the point of aim and move the moveable cursor to the point impact.
 - b. **NOTE: USER MUST SHORT PRESS THE MENU BUTTON TO SAVE AND BACK OUT OF THE SIGHT-IN MENU** and use the  to save the settings once adjusted. A long press of the menu button at any point during this process will **CANCEL** all prior settings and close the menu **WITHOUT SAVING**.

For Tandem Clip-On

- (3) Repeat the sight in for the reticle.
- (4) Enter the screen adjustment setting using this icon 

(5) Drag the cursor and screen the same distance until the sighted reticle is lined up with the reticle of your riflescope. (This may take a few fine adjustments)

- a. NOTE: USER MUST SHORT PRESS THE MENU BUTTON TO SAVE AND BACK OUT OF THE SCREEN ADJUSTMENT MENU and use the  to save the settings once adjusted. A long press of the menu button will CANCEL all prior settings and close the menu WITHOUT SAVING.**

TIPS AND TRICKS FOR SIGHT-IN:

For easiest sight-in and clearest picture, a thermal target is recommended. If one is unavailable, AR550 or AR500 steel is recommended outdoors. If needed, you can heat the steel with a small torch to create finer contrast before sight-in.

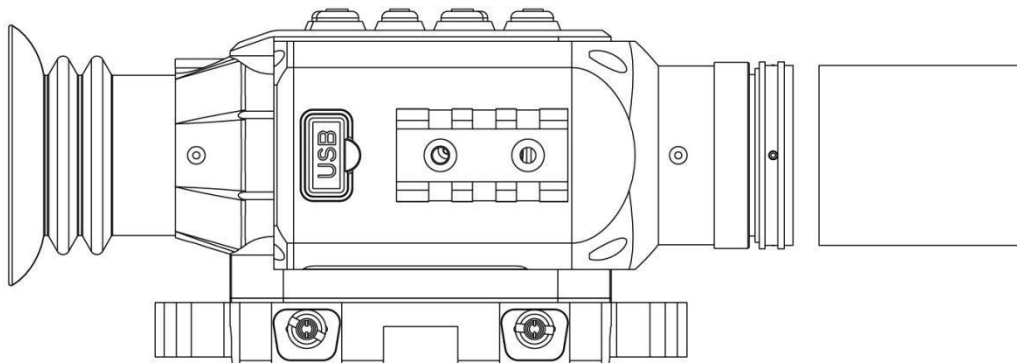
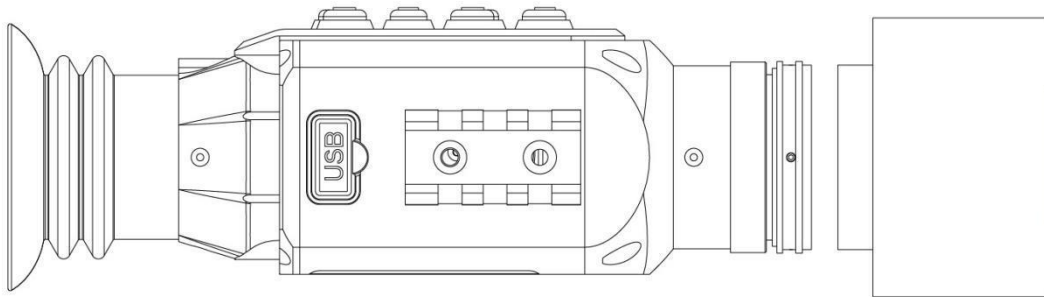
Should the user sight-in at an indoor range, it is recommended that the user use either a thermal target or cut a hole in a cardboard target to create a thermal variance between target and surroundings. For additional contrast, foil tape or foil can be taped over the hole for better contrast. For maximum contrast, users can use cooling paste. Please note that indoor ranges often have air conditioning and other ventilation that may partially obscure a target.

USING THERMAL IMAGING FINDER WITH OTHER OPTICAL DEVICES

The Incendis not only used as a stand-alone optic, but also can be used in tandem with other optical devices , such as the traditional riflescope.

When it is equipped with a traditional riflescope there are two mounting options.

Option one is to mount the Incendis using the picatinny rail mount. Option two is to remove the picatinny rail mount and use a metal adapter ring.



MAINTENANCE AND STORAGE

- The protection grade of the device is IP54.
- Please keep the device in a dry and well-ventilated place. To lengthen the service life, please take out the batteries after every use.
- The battery should not be exposed to direct sun or heat.
- If the front lens is dirty, use the cloth provided to remove dust on the lens surface. Do not blow the lens surface by mouth to prevent saliva particles from smudging the lens surface.
- If the cloth does not thoroughly remove the dust, please prepare absolute ether and absolute ethyl alcohol(ethyl alcohol), mix it at the ratio of 1:1, use the degreasing cotton(medical cotton ball) with the mixture, start from the lens center to the outside of the lens in circular motion, and lightly wipe the lens surface.
- Do not use an old cloth or reused alcohol mixture cotton as a cleaning tool.
- Do not use the glasses cloth, handkerchief, lens tissue or ordinary tissue for wiping.

TROUBLESHOOTING

Some faults or troubleshooting steps during the device's use process are listed below. Please contact the Accufire directly if there are possible issues beyond what is in this table.

Problem	Possible cause	Corrective action
The device does not start up	Inaccurate battery installation	Ensure the correct battery polarity and reinstall
	The battery cover is not on correctly	Ensure there is no cross threading of the cover and try to tighten the cover again.
	The battery cover or the battery compartment's contact point has oxidation	Clean the contact points
	Battery power is insufficient or there is one or multiple battery faults	Charge the batteries if rechargeable or replace with new batteries if they are disposable.
Image blurring,	Out of calibration	Refer to the compensation

strips and uneven		mode
situation	Buildup on lens	Refer to the maintenance and storage for cleaning
Dark image	Brightness is set too low	Reset the brightness

NOTES