**ACCUFIRE THERMAL SIGHT**

**INCENDIS INC4-35**

**Product Specification**

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**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℃), hour | 3+ |
| Degree of protection (attachment / monocular), IP code (IEC60529) |  IP54 |
| Operating temperature | -30℃~+50℃/-22℉~+122℉ |
| 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 I:\=瞄准器网站资料\=热成像\热成像仪图标\33.png33 Automatic Shutter compensation |
| I:\=瞄准器网站资料\=热成像\热成像仪图标\03.png03 Scene compensation I:\=瞄准器网站资料\=热成像\热成像仪图标\04.png04 Shutter compensation manual |
|  Video output I:\=瞄准器网站资料\=热成像\热成像仪图标\06.png06 Open the video output  |
| I:\=瞄准器网站资料\=热成像\热成像仪图标\27.png27 White heat I:\=瞄准器网站资料\=热成像\热成像仪图标\28.png28 Black heat |
| I:\=瞄准器网站资料\=热成像\热成像仪图标\29.png29 Red heat I:\=瞄准器网站资料\=热成像\热成像仪图标\30.png30 Green heat |
|  Auto power-off  Auto sleep  |
|  Picture contrast  Picture brightness  |
|  Cursor/screen adjustment I:\=瞄准器网站资料\=热成像\热成像仪图标\31.png31 X-axis adjustment  |
| I:\=瞄准器网站资料\=热成像\热成像仪图标\32.png32 Y-axis adjustment I:\=瞄准器网站资料\=热成像\热成像仪图标\17.png17 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 button⑦ 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** 
	1. **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.**
	2. **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**

1. **Repeat the sight in for the reticle.**
2. **Enter the screen adjustment setting using this icon** 
3. **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)**
	1. **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, strips and uneven situation  | Out of calibration | Refer to the compensation mode  |
| Buildup on lens | Refer to the maintenance and storage for cleaning  |
| Dark image  | Brightness is set too low | Reset the brightness  |

**NOTES**