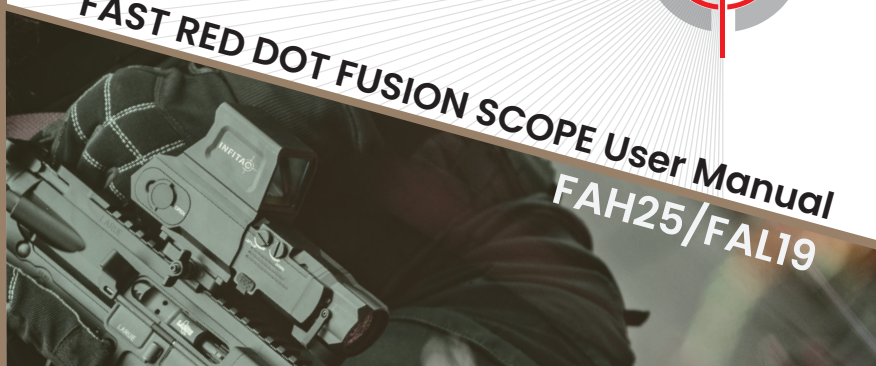
1020 W Exchange Parkway, Unit 1130 Allen, Texas 75013
infitacusa.com
Phone：1-888-559-4166
support@infitacusa.com

INFITAC

FAST RED DOT FUSION SCOPE User Manual

FAH25/FAL19



Join Our Community
Discover new tips and tricks from our experienced pros.
Visit www.infitacusa.com

WARNINGS AND PRECAUTIONS

WARNING! ITAR REQUIREMENTS
These products may be subject to export and foreign trade control laws of the United States and may not be exported without prior approval of the U.S. Department of State. Learn more at *www.infitacusa.com*.

WARNING! CHOKING HAZARD
Children under 3 years old can choke or suffocate on small parts of this product. This product is not a toy, keep out of reach of children.

WARNING!
The lens of the product must not be pointed at any sources of intense radiation energy, such as laser-emitting devices or the sun. This may damage the electronic components in the device. Damage caused by failure to comply with this User Manual is not covered under warranty.

IMPORTANT NOTICES!
- Before installing the optic on a firearm, ensure the firearm is UNLOADED.
- If you need to make a product warranty claim, please keep the product packaging and warranty card.

PRECAUTIONS

- The lens is an important optical component. When installing and using it, avoid contamination and damage to the lens surface from oil and various chemicals.
- Do not use chemical solvents or diluents to clean the surface of the device shell. You can use a clean, soft, dry cloth to wipe it.
- Remove the battery when the device is not in use, and store the device in its provided protective case. For long-term storage, keep the device in a dry, well-ventilated environment.
- Do not expose the device to temperatures below -40℉ (-40 ℃) or above +122℉ (+50°C)for extended periods.
- If the device malfunctions or is damaged, please send it to our after-sales service department for repair. Unauthorized disassembly, modification, or repair by anyone other than authorized INFITAC personnel is prohibited.

1 OVERVIEW

The INFITAC Fast series scopes, models FAH25 and FAL19, merge thermal imaging with red dot. Both models operate at a 50Hz refresh rate, with the FAH25 featuring a 640x512 resolution thermal sensor and the FAL19 at 384x288. They include sharp 25mm and 19mm F1.0 lenses respectively. Built tough, each is IP67 waterproof and with stands up to 1200g of recoil.

2 FEATURES

- 1× red dot, visual magnification of 1, which gives the user a three-dimensional visual effect when the user observes objects with both eyes through the scope.
- All-weather application day and night, combining the traditional red dot scope with the infrared thermal function.
- Multiple image modes (single red dot/single thermal mode/outline mode/special fusion mode).
- Multi-layer coating technology, which can effectively reduce the interference of stray light during use.
- IP67, dust-resistant and waterproof.
- Impact resistance up to 1200g, applicable to gun types below 7.62 mm.

3 TECHNICAL SPECIFICATIONS

Model	FAH25	FAL19
Direct View Optics		
Magnification	1×	
Display Type	0.6inch@800×600 High luminance OLED	
Window Size	1.3×1inch(34×25mm)	
Eye Relief	3.5inch(90mm)	
Thermal Channel		
Resolution	640×512/12μm	384×288/12μm
Frame Rate	50Hz	50Hz
NETD	≤18mk	≤20mk
Objective Lens	25mm f/1.0	19mm f/1.0
Field of View	17.5 °×14°	13.8°×10.4°
Focus Range	5yds-∞	
Digital Zoom	1×, 2×	

Model	FAH25	FAL19
Mode	Red dot/Thermal/ Fusion/Outline	
Polarity	Green hot/Black hot	
Electrical		
Battery	2×CR123	
Max. Operating Time (at temp.=71.6℉ (22 ℃))	Thermal mode>4h* Red dot mode>65h*	
External Power Supply	5V (USB Type-C)	
Physical Specifications		
Mechanical Interface	Picatinny	
Weight (Without Battery)	≤24oz (680g)	≤23.3oz (660g)
Dimension	≤6.9×2.5×4.1" (175×63×104mm)	
Max. Recoil	1200 g/s²	
Operating Temperature	-40℉ ~+122℉ (-40 ℃ ~ +50℃)	
IP Rating	IP67	

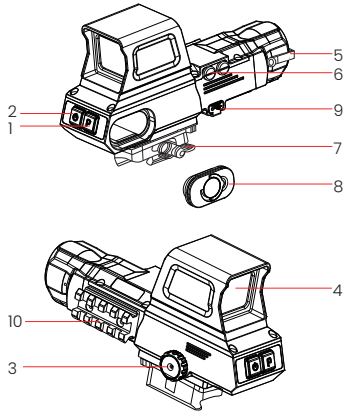
*The actual working time depends on the use intensity of the product.
Improvements may be made to the design and software of this product to enhance its features without prior notice.
You can download this User Manual at our official website: infitacusa.com.

4 ACCESSORIES

- Fast red dot Fusion Scope
- Portable bag
- USB Type-C Cable
- Lens Cloth
- Recoil-absorbing mount
- Support screws: M3×6 cross recessed screw (2 pcs)
- Wrench: M3 L-shaped cross wrench
- Operating Manual
- Warranty Card

5 COMPONENTS AND CONTROLS

1. P button
2. Power button
3. Rotary function button
4. Window
5. Objective lens cover
6. Red dot adjusting screw
7. Recoil-absorbing mount
8. Battery compartment waterproof cover
9. USB-C interface
10. Picatinny rail



6 TECHNICAL INSPECTION

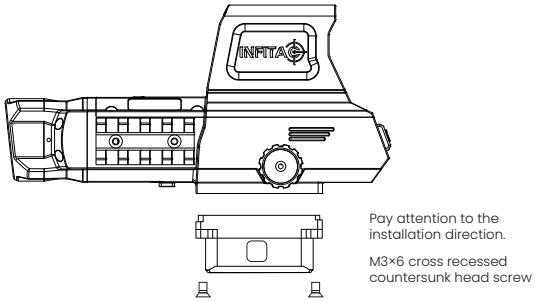
Perform a technical inspection to check the following items each time before you use the device.

- Device Appearance: The shell should be free of visible cracks and damage.
- Lens Condition: The lens surface should be free of cracks, oil, stains, or other sediments.
- Device Installation Status: Securely mounted on the firearm with no signs of loosening.
- Battery Status: The battery is fully charged and there is no foreign matter in the battery compartment.
- The device can be turned on and used normally.
- The device image is clear and free of interference.
- Check that the device's thermal imaging settings are correct.

For further information and safety instructions, please refer to the operation instructions provided. This is also available on our website in the download center: infitacusa.com.

7 INSTALLATION AND USAGE

To ensure shooting accuracy, please fix the Fast red dot fusion scope at a proper picatinny rail position on the equipment.



- Fixing the Fast red dot fusion scope requires the use of recoil-absorbing mount provided in the packaging, as follows:

  a) Find the notch of the recoil-absorbing mount and align it with the corresponding notch at the bottom of the product.
  b) Use the support screw (M3×6 cross recessed countersunk head screw) and fixing wrench (L-shaped M3 cross wrench) attached to the package to fix the recoil-absorbing mount at the bottom of the device.

- During installation, you can adjust the installation position of the Fast red dot fusion scope according to the comfortable distance between your eyes and the device (eye relief). If you fail to follow this suggestion, the eyesight part may hurt the shooter during the shooting.
- It is recommended to use a torque wrench to tighten the screws of the installation clamps, so as to avoid damaging the support locking mechanism due to being over-tightened, and the recommended torque shall not exceed 20 in/lbs.
- When the scope is used for shooting or hunting, please carry out the zeroing operation first according to the instructions as specified in **Chapter 13** Zeroing in this manual.

8 BUTTONS FUNCTIONS

Button	Current screen/Menu or Device status	Short press	Long press
Power Button	Device off	/	Power on the device
	Home screen	Apply digital zoom	Power off the device
	Menu screen	Return to the home screen	Power off the device
Menu Button	All screen	Calibrate the image	Switch the image mode
Rotary function button	Device off	/	Turn on/off the red dot
	Home screen	**Short press:** Enter the main menu **Rotate**: Change the brightness of the red dot	
	Menu screen	**Short press**: Confirm **Rotate**: Switch parameter options	

Button	Current screen/Menu or Device status	Short press	Long press
+ P	Device off		/
	Home screen/ Menu screen	Enter Standby mode	/
	In standby mode	Exit standby	/

9 BATTERY

The Fast red dot fusion scope adopts two CR123/CR123A batteries for power supply, providing up to 4 hours of normal operation. Please insert 2 new or fully charged CR123/CR123A batteries before first use.

9.1 Battery Installation and Replacement

- Rotate the handle of the battery compartment waterproof cover clockwise.
- Hold the handle and pull it out.
- Install two CR123/CR123A batteries into the battery compartment according to the positive and negative poles.
- Install the battery compartment waterproof cover back in the correct direction.
- Rotate the battery cover handle anti-clockwise, lock the battery compartment waterproof cover, and fix it to the corresponding position.

Note: The product supports 3V and 3.7V batteries. To ensure the correct display of the power level, please select the correct battery voltage in the menu.

9.2 Battery Precautions

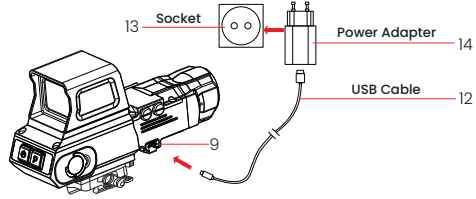
- If the device is not in use for a long time, the battery shall be taken out of the device and stored in a dry place.
- The battery compartment is equipped with battery reverse connection protection, but it is best to avoid incorrect installation.
- The device shall be used at the temperature of +32℉ ~+104℉ (0 ℃ ~ +40℃), under which the battery is of the best performance.
- When the device is used under sub-zero temperatures, the battery capacity drops. This is normal and does not indicate a defect.

10 EXTERNAL POWER SUPPLY

The Fast red dot fusion scope supports external power supply, such as using a phone charger (5V) or a computer USB interface.

Steps for Use:

- Connect the external power source to the Fast red dot fusion scope USB Type-C port using a USB cable.
- Then the device automatically switches to the external power supply.
- When the external power is turned off or disconnected, the device will switch to the battery for the power supply.



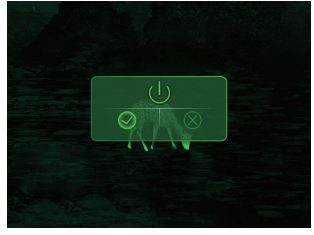
Precautions:

- When the USB interface is used for the power supply, the default power will come from the power supply, and the internal battery power will be stopped
- Using a USB interface for power will not charge the battery inside the device.
- Do not leave the device unattended for extended periods when using an external power supply.

11 POWERING ON AND SETTINGS

- Open the **objective lens cover (5)**. If the outdoor sunlight is relatively strong, pay attention not to point the infrared lens directly to the sun to avoid burns.
- Long press the **power button (2)** for 3s to power on the device;
- To set the image mode: On the home screen, long press the **P button (1)** to choose from green hot, black hot, outline (breathing effect), and fusion in sequence. The icon on the top status bar is updated in real time.
- To open the red dot: On the home screen, long press the **rotary function button (3)**. A bright spot appears in the center of the screen. Then rotate the **rotary function button (3)** to adjust the color and brightness of the red dot on the screen.

- To set the display brightness and image contrast: Short press the **rotary function button (3)** to enter the shortcut menu to set the display brightness and image contrast (refer to **Chapter 12** shortcut menu for details).
- After use, long press the **power button (2)** for 3 seconds. A shutdown countdown is displayed. Rotate the **rotary function button (3)**, select ✓ and short press the **rotary function button (3)**. Then the display turns black and the device is powered off. When the device is powering off and saving data, do not disconnect it from the power source. Otherwise, the data cannot be saved.



11.1 Standby Mode

You can manually enter Standby mode to save battery power.

- On the home screen or menu screen, short press the **Power button (2)** and **P button (1)** at the same time The display will turn black, and the device will enter Standby mode.
- Short press the **Power button (2)** and **P button (1)** at the same time again to exit Standby mode.

11.2 Status Bar Overview

The status bar is located at the top of the screen and displays the information related to the current operating status of the device. From left to right, there are:

- Current image mode: including green hot, black hot, outline (breathing effect), and fusion.
- Analog video switch state: On or Off
- Shutter Calibration Mode: displays the current shutter calibration (NUC) mode icon, which can be set to Auto or Manual or background calibration.
- Digital Zoom: displays the current image magnification, 1×, 2×
- Battery Level: displays the current battery level, from 0 bars to 4 bars.
- Battery Type: 3V or 3.7V.

Note: When the inside of the icon is in green, the battery level is higher than 20%, indicating that the battery power is sufficient. When the icon flashes, the battery level is low. Please charge it promptly.

11.3 Digital Zoom

The Fast red dot fusion scope can enlarge an image to 1× or 2×.

- On the home screen of infrared mode, short press the **power button (2)** to zoom the image.
- The magnification status is displayed at the status bar of the display area in real time.

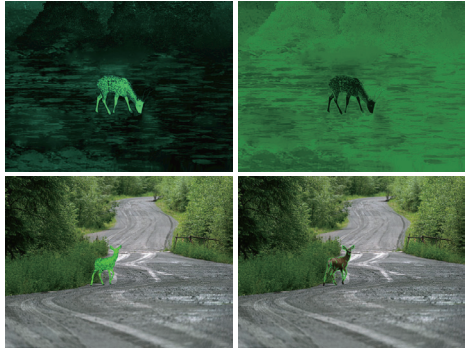
12 SHORTCUT MENU

The shortcut menu can be used for a quick setup of the basic settings of some common functions, including image mode, image contrast, display brightness, reticle brightness, correction mode，and advanced menu. Short press the **rotary function button (3)** to enter the shortcut menu, then short press the button to save, and short press the **power button (2)** to return to the home screen.

- On the home screen, short press the **rotary function button (3)** to go to the shortcut menu screen;

- Rotate the **rotary function button (3)** to switch between the following function options, The icon background of the selected option is highlighted:

a) **Image mode:** Rotate the **rotary function button (3)** to select this option, and then short press the **rotary function button (3)** to adjust among green hot, black hot, outline (breathing effect), and fusion modes.



b) **Image contrast:** Rotate the **rotary function button (3)** to select this option, and then short press the **rotary function button (3)** to adjust the image contrast between 0 and 9.

c) **Display brightness:** Rotate the **rotary function button (3)** to select this option, and then short press the **rotary function button (3)** to adjust the display brightness between 0 and 9.

d) **Reticle brightness:** Rotate the **rotary function button (3)** to select this option, and then short press the **rotary function button (3)** to adjust the reticle brightness between 0 and 5.

e) **Correction mode:** Rotate the **rotary function button (3)** to select this option, and then short press the **rotary function button (3)** to switch the shutter correction mode (Auto or Manual or background calibration).

- Short press the **power button (2)** to return to the home screen.

Note: After the status bar is automatically hidden and the shortcut menu is opened, if there is no operation within 15s, the device will return to the home screen.

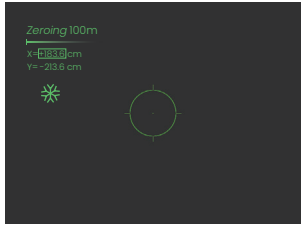
13 ADVANCED MENU

- On the home screen, short press the **rotary function button (3)** to go to the shortcut menu, and select to enter the advanced menu.
- Rotate the **rotary function button (3)** to switch between the function options in the menu, rotate clockwise to move right and anticlockwise to move left.
- Short press the **rotary function button (3)** to modify the parameters of the current option or go to the submenu.
- On any menu screen, short press the **power button (2)** to go back to the previous menu or to the home screen.
- On some menu screens, the device will automatically return to the home screen without saving the changes when there is no operation within 15s.

Advanced Functions and Descriptions

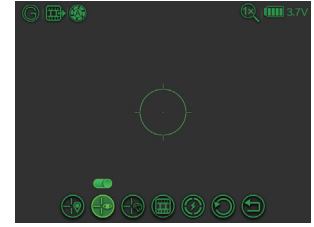
13.1 Zeroing

On the zeroing menu, you can adjust the reticle's X/Y position to match the actual point of impact (See **Chapter 14** Zeroing for details).



13.2 Reticle Switch

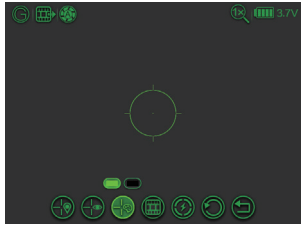
On the reticle switch menu, you can choose to turn the reticle on or off
- The default reticle is ON.



13.3 Reticle Color

On the reticle color menu, you can choose the reticle color between green and black:

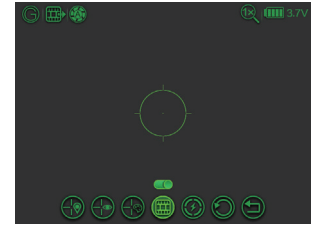
- The default reticle color is green.



13.4 Analog Video

On the Analog Video menu, you can choose to turn the Analog Video on or off.

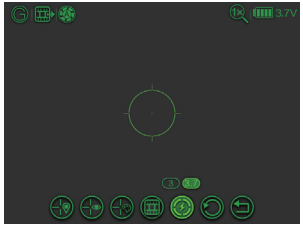
- The default Analog Video is OFF.



13.5 Battery Type

On the battery type menu, you can set the correct "Battery Type" status between 3V and 3.7V.

- The default battery type is 3V.



13.6 Factory Reset

On the factory reset menu, you can choose to restore certain functions of the device to their factory default settings.

The following functions will be restored to their default parameters after finishing the reset:

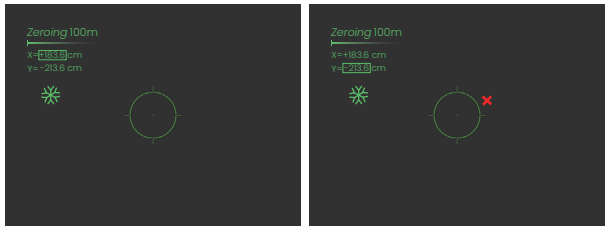
-Image mode: Green hot
-Image contrast: 5
-Display brightness: 5
-Reticle brightness: 5
-Shutter correction mode: Automatic
-Zeroing setting: 0 by default
-Analog video: Off
-Reticle display: On
-Battery type: 3V
-Reticle color: Green
-Digital zoom: 1.0×

14 ZEROING

The Fast red dot fusion scope adopts the "frozen" method for zeroing. It is recommended to carry out the zeroing operation within the range of operating temperature of the scope. (The calibration function only works under black hot and green hot modes.)

- Fix the scope on the weapon with a support.
- Select a suitable target at the desired distance(e.g.,a shooting target 100yds away).
- Adjust the scope according to the operating instructions as described in **Chapter 11**.
- To select Zeroing: Long press the **rotary function button (3)** to enter the advanced menu interface and select the zeroing option, and short press the **rotary function button (3)** to enter the submenu of the zeroing function.
- Enter the zeroing screen. The coordinate position (X axis and Y axis) of the reticle are on the upper left corner of the screen.
- Shoot at the target.

- Observe the position of the actual point of impact. Now the screen is frozen and a frozen snow icon ❄ appears on the left of the screen. Assume that the red mark "**×**" in the figure on the right is the position of the point of impact (This mark is only for illustration. It should actually be a bullet hole).
- Turn the **rotary function button (3)** to move the reticle. Rotate the button clockwise to move the cursor left or down, and rotate the button anti-clockwise to move the cursor right or up.
- Turn the **rotary function button (3)** to switch between the X axis and Y axis, The position of the bright cursor indicates the currently selected item, and the icon turns blue.
- After the reticle is moved, a small dot appears on the display, indicating the position of the reticle before moved.
- After moving the reticle to the actual point of impact, short press the **rotary function button (3)** to exit moving, and then short press the **power button (2)** to save the current reticle position and return to the main screen of the advanced menu;
- Repeat aiming and shooting, until the position of the point of impact is consistent with that of the reticle.



15 CLEANING & GENERAL CARE

The maintenance should be carried out at least twice a year and includes the following steps:

- Use a clean, soft, dry cotton cloth to wipe the external surfaces of the product's metal and plastic parts, removing dust and dirt.
- Clean the electric contact and battery slots on the device using a non-greasy organic solvent.
- Check the glass surface of the lens. If necessary, clear off the dust and sand on the lens (it is perfect to use a non-contact method). Use a specialized wiping tool and solvent to clean the optical surfaces.

16 GENERAL TROUBLESHOOTING

The following table lists some potential issues when operating the device and their corresponding solutions. If you encounter these issues while using the product, please follow the suggestions and solutions in the table to troubleshoot and fix them. If the issue persists or an unlisted fault occurs that cannot be self-repaired, contact the supplier for factory repair immediately. You can also visit *www.infitacusa.com* for solutions to your product problems, or email us at *support@infitacusa.com* for more detailed information. Do not disassemble and repair it yourself or have it repaired by a third party not authorized by INFITAC, as this will void your product warranty.

Fault	Possible Causes	Solutions
The scope cannot be started.	The battery is out of charge.	Replace with a new battery.
The device cannot be powered by using an external power supply.	The USB cable is damaged.	Replace the USB cable.
	The external power supply is insufficient.	If necessary, check the external power supply.
Images are unclear or the background is not even.	Calibration is required.	Perform image calibration
The image is too dark.	The screen is not bright enough.	Adjust the screen brightness.
The icons are clear but the image is blurry.	The lens is not focused.	Rotate the lens focus ring to adjust the focus.
	The inner or outer opticalsurface of the lens is dusted or iced.	Wipe the outer optical surface by using a soft cotton cloth or leave the scope to dry in a warm and dry environment for more than 4 hours.

Fault	Possible Causes	Solutions
The position of the reticle moves after shooting.	The scope or the fixing clamp is not installed firmly.	Check whether the scope is installed firmly. Ensure that the bullet type and caliber you use are consistent with that used for zeroing. If you perform zeroing in summer but use the scope in winter (or vice versa), the zeroing point may move slightly.
The scope cannot focus.	There are configuration errors.	Set the scope according to the contents as specified in **Chapter 11** "Powering On and Settings". Check the outer surface of the objective lens and eyepiece. If necessary, wipe off any dust and frost on it. In cold weather, a special antifogging coating can be applied (such as those used on eyeglasses or car rearview mirrors).
The observed target disappears.	You are observing the target through the glass.	Observe the target directly without the presence of glass.
The image quality is poor or the detection range shortens.	These problems are likely to occur when you use the device in harsh weather (such as snow, rain, and fog).	

17 WARRANTY POLICY

Under normal use and maintenance conditions, if this product experiences performance failure due to material, workmanship, or manufacturing issues within the warranty period, we promise to provide warranty service.
Our warranty follows the product. During the announced warranty period, at our sole discretion, INFITAC will repair or replace products found defective under normal use without charge, excluding any delivery costs, which will be born by purchaser. We will not be liable for incidental, consequential, or special damages arising out of or in any connection with the use or performance of this product.
Our warranty covers only normal use and does not include normal wear and tear of the device's appearance, theft, loss, intentional damage, any force majeure, or any situation arising from unexpected use.
Visit *www.infitacusa.com/pages/warranty-policy* for the latest complete warranty information and other conditions.

18 TRADEMARKS

INFITAC is trademark owned by INFITAC. For more details, visit *www.infitacusa.com*.