Quick Start Guide

V1.0

Saim SCH | Thermal Imaging Riflescopes

SCH50

IMPORTANT SAFETY INFORMATION

Environmental influences

Note: Never point the lens of the device directly at intense heat sources such as the sun or laser equipment. The objective lens and eyepiece can function as a burning glass and damage the interior components.

Risk of swallowing

Caution: Do not place this device in the hands of small children. Incorrect handling can cause small parts to come loose which may be swallowed.

Safety instructions for use

- Do not expose the device to fire or high temperatures.

- The battery capacity decreases when operated in a cold ambient temperature. This is not a fault and occurs for technical reasons.

- Always store the device in its carrying bag in a dry, well-ventilated space. For prolonged storage, remove the batteries.

- Do not expose your device to extreme temperatures lower than - 20°C and higher than + 50°C.

- The product shall only be connected to a USB Type C interface.

- If the device has been damaged or the battery is defective, send the device to our after-sales service for repair.

User information on the disposal of electrical and electronic devices (private households)

The WEEE symbol on products and/or accompanying documents indicates that used electrical and electronic products must not be mixed with ordinary household waste. For proper treatment, recovery and recycling, take these products to the appropriate collection points where they will be accepted without charge. In some countries, it may also be possible to return these products to your local retailer when you purchase a corresponding new product. The proper disposal of this product serves to protect the environment and prevents possible harmful effects on human beings and their surroundings, which may arise as a result of incorrect handling of waste.

More detailed information on your nearest collection point is available from your local authority. In accordance with state legislation, penalties may be imposed for the improper disposal of this type of waste.

For business customers within the European Union

Please contact your dealer or supplier regarding the disposal of electrical and electronic devices. He will provide you with further information.

Information on disposal in other countries outside of the European Union

This symbol is only applicable in the European Union. Please contact your local authority or dealer if you wish to dispose of this product and ask for a disposal option.

Intended use

The device is intended for displaying heat signatures during nature observation, remote hunting observations and for civil use. This device is not a toy for children.

Use the system only as described in this instruction manual. The manufacturer and the dealer accept no liability for damages which arise due to non-intended or incorrect use.

Function test

- Before use, please ensure that your device has no visible damage.
- Test to see if the device displays a clear, undisturbed image.
- Check that the settings for the thermal imaging camera are correct. See the notes in the section Observation mode.

Installing/removing the battery

The Saim thermal imaging riflescope need to install two CR123 batteries for use. Refer to the Section 3 Battery Installing for details.

Observation with and without glasses

Thanks to the flexible eyecup, the Saim series can be used with or without glasses. It offers a full field of view in both cases.

1 Specification

Model	Saim SCH50
Microbolometer	
Resolution, pixels	640 × 512
Pixel size, μm	12
NETD, mk	≤40
Frame rate, Hz	50
Optical Characteristics	
Objective lens, mm	50
Field of view	8.8° × 6.6°
Magnification, x	2.91 - 11.64
E-zoom, x	1 / 2 / 3 / 4
Diopter Adjustment, D	-5 ~ +5
Detective range, m (Target size:1.7m*0.5m, P(n)=99%)	2597
Display	
Display type	OLED
Resolution, pixels	1024 × 768
Power Supply	
Battery type	CR123 × 2
External Power Supply	5V (Type C USB)

Max. Operation time (at t=22℃), h★	3.5
Operational Characteristics	
Wi-Fi & Recorder	√
Compass & Motion sensor	√
Max. Recoil Power on Rifled Weapon, g/s²	1000
Degree of protection, IP code	IP67
Amount of built-in memory, Gb	32
Operating Temperature Range, ℃	-10~+50
Weight (without batteries), g	＜510
Dimension, mm	216 × 61 × 61

★ The actual operating time depends on the intensity of using Wi-Fi, video recorder.

➢ Improvements may be made to the design and software of this product to enhance its useful features. Technical parameters of the device may be improved without prior notice of the customer.

2 Description

The Saim series is a low-cost Thermal Imaging Riflescope, which can be mounted on various firearms for night hunting and target observation. Its compact size and lightweight design make it easy to carry. What makes it outstanding is long operation hours, good concealment and great ability to detect, recognize and identify objects or targets fast and easy. The Saim series effective at close and long ranges irrespective of light and harsh weather conditions, that is, in total darkness, through heavy smoke, haze, fog, and dust.

3 Components and Controls

1. Eyeshade
2. Eyepiece diopter adjusting ring
3. Type C interface
4. C (Camera) button
5. M (Menu) button
6. P (Power) button
7. Battery compartment
8. Lens focus ring
9. Objective lens
10. Lens cover

4 Battery Installing
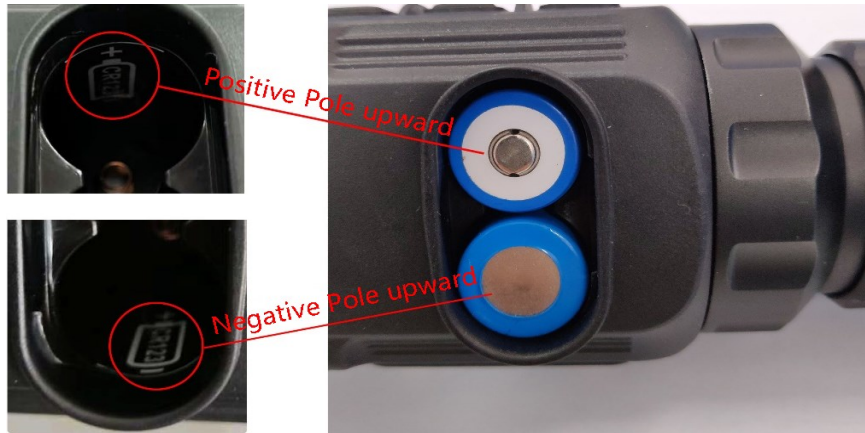
Battery installation

➤ Open the battery compartment cover anticlockwise according to the schematic diagram on the cover.

➤ Install two CR123 batteries correctly according to the polarity labels in the battery compartment as shown in the figure above.

➤ When done, covering and pushing the battery cover till you hear "click" to ensure both sides of the cover is installed correctly.

Attention

- **Disposable batteries are ONLY supported!** Risks are existing to use rechargeable batteries due to nonstandard quality.

- Please do not use different types of batteries or batteries with different power levels.

- The Saim series supports external power supply via Type-C cable with a USB icon displayed on the screen.

5 Icons Instructions

☀	Image mode: **White hot**
☾	Image mode: **Black hot**
🔥	Image mode: **Red hot**
▮▮▮	Image mode: **Color**
×1/ ×2 / ×3 / ×4	E-zoom
☼ ☼ ☼ ☼	Display brightness
▲ ▲ ▲ ▲	Image sharpness
▦	Image brightness
◐	Image contrast
👁	Ultraclear mode
📶	Wi-Fi

Ⓐ	Auto correction mode
▯▶ ▯Out	Video out
▪	PIP
▲	Digital compass
𓂀	Motion sensor
▭	Battery type
❄	Zeroing type ❄ G1 ❄ G2 ❄ G3 ❄ G4
❄	Image hue
▪▫	More
⊕	Zeroing
⊞	Defective pixels calibration
Ⓐ	Compass calibration
⚙	Stadiametric Rangefinder Setting
🕐	Time and date
ⓘ	System information
↻	Factory reset
←	Return to the Main Menu
▭▭▭▭▭▬	Battery indicator

6 Operation

➢ Open the lens cover **(10)**.

➢ Press and hold down the **P (6)** button for 3s to power the riflescope on. Waite for 6s until thermal image appears on the display.

➢ **Diopter Adjustment:** Adjust the sharp resolution of the icons on the display by rotating the diopter adjusting ring **(2)** of the eyepiece.

➢ **Lens Focus Adjustment:** rotate the lens focus ring to focus **(8)** on the object being observed.

➢ **Calibration:** calibration the image with a short press of the **M (5)** and **C (4)** button for shutter correction or long press the **M (5)** and **C (4)** button for background correction.

➢ **Image Settings:** adjust the image mode, display brightness, image sharpness, image brightness, image contrast in the shortcut menu (for more details, see the **Shortcut Menu Functions** section)

➢ **Standby Mode:** Briefly press the **P (6)** and **M (5)** buttons at the same time to switch the device to the standby mode. Briefly press the **P (6)** and **M (5)** buttons again to wake up the device.

➢ **Power off:** to power off the riflescope, long press **P (6)** button for 5s

until the shutdown option menu appears, select the "√" to shut down and "×" to cancel. Then short press the **M (5)** button to confirm the selection.

➢ **Reticle On:** click the **M (4)** button four times in a row while pressing and holding the **P (5) + C (4)** button to invoke the reticle function for the first time use, then long press the **P (5) + M (4)** + **C (4)** button simultaneously for 7 seconds to turn the reticle on. This function should be activated when the reticle first enabled.

Attention

➢ When the reticle is turned off, all the operations related to it in the menu will be hidden, including the adjustment of the reticle color and pattern (in shortcut menu), the options of zeroing and blind pixel correction in the advanced menu.

7 Zeroing

Zeroing is recommended to be done at the temperature close to the riflescope operating temperature.

Before implementing zeroing setting, please make sure that the reticle is on and zeroing type is selected in the main menu.

➢ Mount the riflescope on your weapon.

➢ Set a target at 100m distance, and power on the riflescope.

➢ For the first use of the riflescope, please make sure that the reticle is on before zeroing (according to the instructions of section 6 **Operation**).

➢ Long press the **M (5)** button on the home screen to enter the main menu.

➢ Select one zeroing profile in the main menu.

➢ Select the Zeroing item in the sunmenu of the MORE item, and press the **M (5)** button to enter the Zeroing interface. In the Zeroing interface, the reticle is shown as a small cross for position adjustment.

➢ Then aiming the center of the reticle at the bull's-eye 100 meters away and shooting.

➢ Locating the bullet hole after shooting.

➢ **If the bullet hole can be seen on the display screen:**
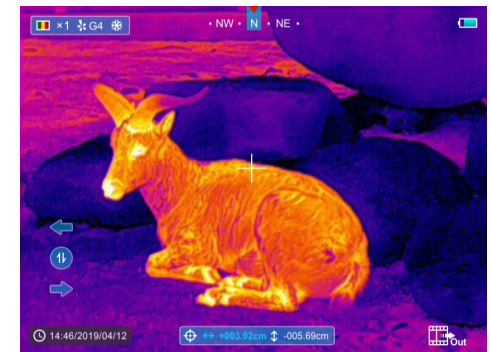
- Keeping the position of the device fixed, press and hold the **M (5)** and **C (4)** button at the same time to freeze the image, and a snowflake icon ❄ appears on the upper-left corner of the screen.

- Move the reticle to the position of the actual impact point by the **P (6)** or **C (4)** button.

- Short press the **M (5)** button to switch the movement direction between UP-DOWN and RIGHT-LEFT.

- Press and hold down the **M (5)** button to save and exit when the process is done.

➢ **If the bullet hole cannot be seen on the display screen:**

- Keep the position of the device fixed, and measure the horizontal and vertical distance between the bull's eye and the bullet hole.

- According to the measured distance, move the reticle position by long or short pressing the **P (6)** or **C (4)** button until the distance marked on the scale plate consistent with the measured distance.

- Short press the **M (5)** button to switch the movement direction between UP-DOWN and RIGHT-LEFT.

- Press and hold down the **M (5)** button to save and exit when the process is done.

Notes

- To ensure the accuracy of the position, aiming the bull's-eye again and repeat the operations until the bull's-eye is hit.

- In the zeroing interface, the reticle moves one pixel with a short pressing **P (6)** or **C (4)** button to the corresponding direction while ten pixels movement with a long-pressing. One pixel means to move 1.5cm at a distance of 100 meters or 0.54 inches at a distance of 100 yards.

- Short press the **P (6) + M (5) + C (4)** buttons at the same time to switch units (cm/m, inch/yard).

- In the zeroing interface, there is a white dot that represents the original position of the reticle before calibration implement.

- After zeroing, the center of all reticle will be changed accordingly.

8 Shortcut Buttons Instructions

To quickly realize the frequently used functions, the Saim SCH series made the default shortcut buttons of the most commonly used functions in the observation interface.

Button	Short press	Long press
P button	E-zoom	Power on /off
M button	Enter the shortcut menu	Enter the main menu
C button	Take a photo	Video recording
M + C button	Shutter correction	Background correction
P + M button	Turn the standby mode on/off	Turn the stadiametric rangefinder function on/off
P + M + C button	Switch the units between cm/m and inch/yard	———

9 Shortcut Menu

The basic settings (using the function of smooth digital zoom, adjusting the display brightness, switching the image palette, adjusting the image sharpness, setting the image brightness and contrast, selecting the reticle color and pattern) can be changed using the shortcut menu.

➢ In the home screen, short press the **M (5)** button to enter the shortcut menu.

➢ There are four pages (when the reticle function is invoked) and two functions on each page, one at the top and one at the bottom.

➢ On each page, press the **P (6)** button briefly to switch the options of the top function, and press the **C (4)** button briefly to switch the options of the bottom function. And each function has four options

➢ Press the **M (5)** button briefly to switch the next page.
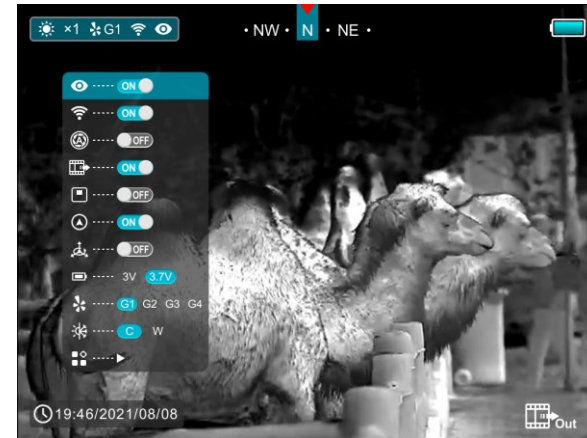
Shortcut Menu Options and Descriptions

Times of pressing the M (5) button	Shortcut Menu	Interface	Operation
1 time	Enter the first page of the shortcut menu to adjust the image palette and screen brightness		➢ Short pressing the **P (6) button** to adjust image palette from white hot, black hot, red hot to color. ➢ Short pressing the **C (4) button** to adjust the image brightness level from 1 to 4 gradually enhanced.
2 times	Enter the second page of the shortcut menu to adjust E-zoom and image sharpness		➢ Short pressing the **P (6) button** to perform E-zoom parameter x1, x2, x3 and x4. ➢ Short pressing the **C (4) button** to adjust the image brightness level from 1 to 4 gradually enhanced.

3 times	Enter the third page of the shortcut menu to adjust the image brightness and image contrast		➢ Short press the **P (6) button** to cyclically adjust the image brightness level from 1 to 4 gradually enhanced. ➢ Short pressing the **C (4) button** to adjust the image brightness level from 1 to 4 gradually enhanced.
4 times	Enter the fourth page of the shortcut menu to adjust reticle color and reticle pattern		➢ Short pressing the **P (6) button** to adjust the reticle color: white, black, red and green. ➢ Short pressing the **C (4) button** to select the reticle pattern. There are 8 patterns for selection.
5 times	Exit to the home screen from Shortcut Menu		――

10 Main Menu

➢ In the home screen, press and hold the **M (5) button** to enter the main

   menu, which including Ultraclear mode, Wi-Fi, auto shutter correction,

   video output, PIP, compass, motion sensor, battery type, zeroing type,

   image hue, more.

➢ Press the **P (6)** or **C (4)** button to move through the main menu items.

➢ Press the **M (5)** button briefly to set up the item parameter or to enter the

   function interface.

➢ Long press the **M (5)** button to exit the main menu.
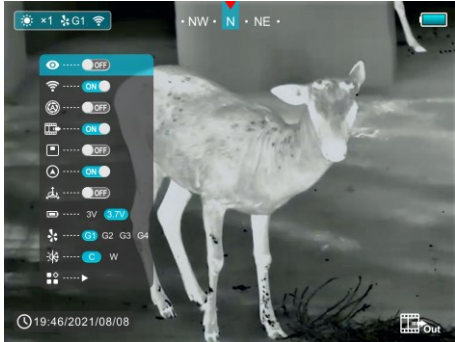
Main Menu Options and Descriptions

Ultraclear ![eye icon]	**Turn Ultraclear mode on/off** ➢ Press and hold down the **M (5)** button to enter the Main Menu. ➢ Select the **Ultraclear** menu option with the **P (6) / C (4)** button. ➢ Turn Ultraclear mode on /off with a short press of **M (5)** button, along with the sound of shutter calibration. ➢ The icon will be displayed on the status bar in the upper left corner of the screen when the Ultraclear mode is on. ➢ Under heavy fog, rain or snow weather, Ultraclear Mode will show more image details.
Wi-Fi ![wifi icon]	**Turn Wi-Fi function on/off** ➢ Press and hold down the **M (5)** button to enter the Main Menu.

	➢ Select the **Wi-Fi** menu option with the **P (6) / C (4)** button.
	➢ Turn Wi-Fi function on /off with a short press of **M (5)** button.
	➢ The icon will be displayed on the status bar in the upper left corner of the screen when the wi-Fi is on.
Auto shutter correction	**Turn the auto shutter correction on/off**
	➢ Press and hold down the **M (5)** button to enter the Main Menu.
	➢ Select the **Auto Shutter Correction** menu option with the **P (6) / C (4)** button.
	➢ Briefly press of the **M (5)** button to turn the auto shutter correction on /off.
	➢ The icon will be displayed on the status bar in the upper left corner of the screen when the auto shutter correction is on.
	➢ Before automatic calibration, there will be a 5 second countdown prompt behind the shutter icon on the status bar, that can be to cancelled this calibration during countdown with a short press of the **Power (3)** button.
Video Output	**Turn video output on/off**
	➢ Press and hold down the **M (5)** button to enter the Main Menu.
	➢ Select the **Video Output** option with the **P (6) / C (4)** button.
	➢ Briefly press of the **M (5)** button to turn video out on/off.
	➢ The icon will be displayed on the lower right corner of the screen when the video output function is on.
	➢ Video out function enable connectivity with an eternal display or recording device.

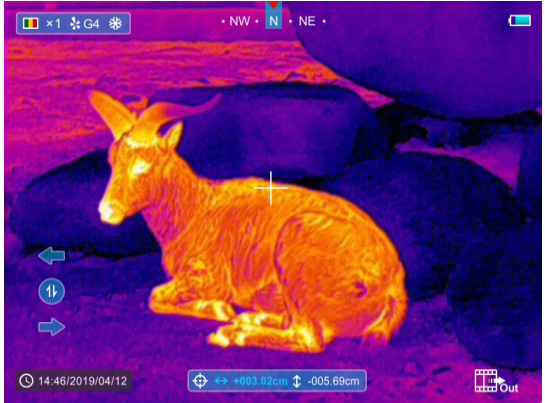|	
PIP 	**Turn Picture-in-Picture on/off** ➤ Press and hold down the **M (5)** button to enter the Main Menu. ➤ Select the **PIP** option with the **P (6) / C (4)** button. ➤ Briefly press of the **M (5)** button to turn PIP on/off. ➤ When the PIP function is on, a small window will appear on the top of the display.
Compass 	**Turn on/off the digital Compass function** ➤ Press and hold down the **M (5)** button to enter the Main Menu. ➤ Select the **Compass** menu option with the **P (6) / C (4)** button. ➤ Briefly press of the **M (5)** button to turn the digital compass on/off. ➤ When the compass function is turned on, it will reveal in the center of top status bar.
Motion Sensor 	**Turn on/off the motion sensor** ➤ Press and hold down the **M (5)** button to enter the Main Menu. ➤ Select the **Motion Sensor** menu option with the **P (6) / C (4)** button. ➤ Briefly press of the **M (5)** button to turn the motion sensor on/off. ➤ Two scales are displayed on the right sides of the screen when the motion sensor is on. ➤ The horizontal scale shows tilt angle, and the vertical one shows pitch angle.

Battery Type ▬■	**Select the battery voltage** ➢ Press and hold down the **M (5)** button to enter the Main Menu. ➢ Select the **Battery Type** option with the **P (6) / C (4)** button. ➢ Briefly press of the **M (5)** button to select 3V or 3.7V according the battery voltage. ➢ 3V is selected for dischargeable battery and 3.7V is for chargeable battery, but **dischargeable battery is suggested only**.
Zeroing Type	**Select the zeroing type** ➢ Press and hold down the **M (5)** button to enter the Main Menu. ➢ Select the **Zeroing Type** option with the **P (6) / C (4)** button. ➢ There are four types for selection. ➢ Briefly press of the **M (5)** button to select one zeroing type.
Image hue	**Select the image hue** ➢ Press and hold down the **M (5)** button to enter the Main Menu. ➢ Select the **Image Hue** option with the **P (6) / C (4)** button. ➢ Briefly press of the **M (5)** button to select C or W. C is for cool hue, and W is for warm hue.

More

■◇
■■

Enter the secondary menu for more settings

➢ Press and hold down the **M (5)** button to enter the Main Menu.

➢ Select the **More** menu option with the **P (6) / C (4)** button.

➢ Briefly press of the **M (5)** button to enter the secondary menu for more settings,

  including zeroing, defective pixels calibration, compass calibration, system

  information, factory settings.

Zeroing

⊕

Enter the zeroing interface

Saim series support the 100m zeroing distance.

➢ Select the **Zeroing** option with the **P (6) / C (4)** button in the **More** submenu.

➢ Briefly press of the **M (5)** button to enter the zeroing interface.

➢ Then aim the center of the reticle at the bull's-eye 100 meters

  away and shoot.

➢ Locate the bullet hole after shot.

➢ Then, zero your riflescope according the **Section 5 Zeroing.**

➢ Press and hold the **M (5)** button to save and exit to the **More**

  submenu.

	Pixels Defect Calibration ⊞	Defect pixels are pixels that do not change brightness compare with others on the image, they are either brighter or darker than surrounding pixels. Saim series offer the possibility of removing any defective pixels on the sensor using software, as well as to cancel any deletion. ➢ Select the **Pixels Defect Calibration** option with the **P (6) / C (4)** button in the **More** submenu. ➢ Briefly press of the **M (5)** button to enter the pixels defect calibration interface. ➢ A small cross cursor instead of the reticle will appear on the center of the screen. ➢ The Picture in Picture (PIP) window will appear on the lower left corner of the screen. A tooltip is appeared on the bottom of the screen that displays the number of the blind pixels calibrated, the movement direction and location. ➢ Move the cursor to align with the defective pixel with a short or long press the **P (6) / C (4)** button. Short press to move one pixel every time and long press to move ten pixels once. ➢ Switch the movement direction with a short press of the **M (5)** button. ➢ After selecting the blind pixel, long press **P (6)** and **C (4)** button to calibrate the defective pixel, and press the same button again for cancelation. ➢ Repeat the above processes until all blind pixels are calibrated.

		➢ Press and hold the **M (5)** button to save the calibration and exit to the **More** submenu.
Compass Calibration ⊙	**Calibrate the digital compass** ➢ Select the **Compass Calibration** option with the **P (6) / C (4)** button in the **More** submenu. ➢ Briefly press the **M (5)** button to enter the **Compass Calibration** interface. ➢ An icon like a triaxial coordinate system appears on the screen. ➢ Follow the icon prompt to rotate the riflescope along three axes at least 360 degrees each axis in the 15 seconds. ➢ After 15s, the calibration is finished and exit to the home screen.	
Stadiametric Rangefinder Setting	**Setting the prey type, prey height and effective range** ➢ Select the **Stadiametric Rangefinder Setting** option with the **P (6) / C (4)** button in the **More** submenu. ➢ Briefly press the **M (5)** button to enter the **Stadiametric Rangefinder Setting** interface. ➢ In the setting interface, the order from left to right is prey type, prey height and effective range. ➢ Switch item among the three functions with a briefly press of the **M (5)** button.	

		➤ When the item is selected, the icon turns blue and a pair of triangles appear above and below the icon. ➤ Press the **P (6) or C (4)** button to set the parameter of the item. ➤ There are five prey type for selection, including deer (🦌), wild boar (🐗), coyote (🐺), hare (🐇) and custom (🐾). Each prey type corresponds to a default height with a default effective range of 100m. The corresponding default height is 1.7m for deer, 0.9m for wild boar, 0.5m for coyote, and 0.2m for hare. ➤ When short pressing the **P (6) / C (4)** button, the value of the prey height will change by 0.1m every time, and the value of the effective range changes 5m, and when long pressing will change continuously. ➤ Press and hold the **M (5)** button to save the calibration and exit to the **More** submenu.
	Time Setting 🕐	**Reset the system date and time** ➤ Select the **Time Setting** option with the **P (6) / C (4)** button in the **More** submenu ➤ Briefly press the **M (5)** button to enter the **Time Setting** interface. ➤ The order from left to right is year, month, day, hour and minute. And the time format is in 24-hours format. ➤ Switch among year, month, day, hour and minute with a short press of the **M (5)** button. The selected item will turn blue and two triangle icons will appear above and below the value.

		➢ Select the correct value with a short press of the **P (6) / C (4)** button. ➢ Save settings and exit to the **More** submenu with a long press of the **M (5)** button.
	System Information (i)	**Show device information** ➢ Select the **System Information** menu option with the P (6) / C (4) button in the **More** submenu. ➢ The relevant information of riflescope will be shown by a short press of the **M (5)** button. ➢ This item allows the user to view the following information about the riflescope: the product model, GUI version, SYS Info, Boot version, FPGA, PN and SN number of the riflescope, Hardware version. ➢ Press and hold the **M (5)** button to return to the submenu.
	Factory Reset (reset icon)	**Reset to the Factory Settings** ➢ Select the **Factory Reset** option with the **P (6) / C (4)** button in the **More** submenu. ➢ A prompt box will appear on the screen with a briefly press of the **M (5)** button. ➢ Short press the **P (6)** or **C (4)** button to select the option. The "√" is to reset to the default, and the "×" is to cancel and exit to

		the **More** submenu.
		➢ Confirm the selection with a short press of the **M (5)** button.
Return ⬅		**Return to the main menu** ➢ Select the **Return** option by **P (6)** or **C (4)** button. ➢ Short press the **M (5)** button to return to the main menu.

11 Photographing and Video Recording

Saim SCH series thermal imager is equipped with a function for video recording and photographing observed images onto the built-in memory card. The files of images and videos will be named after the time, so it is recommended to reset the system time in the **Main Menu – More - Time Setting** or to synchronize the system time and date in the Settings of the APP **InfiRay Outdoor** before using the camera and video function. For specific operations.

Photographing

➢ Take a photo with a short press of the **C (4)** button in the home screen.

➢ A camera icon (📷) shows in the upper-right of the screen and the image will freeze for 0.5s when the function performs.

Video recording

➢ Press and hold the **C (4)** button in the home screen to start the video recording.

➢ A tooltip showing the recording time in MM: SS (minutes: seconds) format will appear in the upper right corner of the display.

➢ The red dot in the tooltip flashes during recording.

➢ During recording, short press the **C (4)** button to take a photo also.

➢ Press and hold the **C (4)** button again to exit the recording when done.

➢ Video and picture files are stored in the built-in memory card after video recording has been turned off. But the video will not be saved if you skip the process and shut down the device suddenly instead.

➢ The photos and videos can be read on the computer via the USB cable.

Note

- You can enter and work on the menu during video recording.

- The recording time is accumulated in minutes until the recording stops, that is, the time shows 60:00 after 59:59.

- The maximum duration of a video recording file is 10 minutes. When it's more than 10 minutes, the video will be recorded onto a new file.

- The number of files is limited by the capacity of the device's built-in memory. Regularly monitor the amount of free memory in the built-in memory card, transferring footage and photos to other media to free up space on the memory card.

Memory Access

When the device is turned on and connected to a computer, it is recognized by the computer as a flash memory card, which is used to access the device's memory and make copies of pictures and videos.

➢ Turn on the device and connect it to the computer through the USB cable.

➢ Double-click "my computer" on the desktop - double-click to open the device named "Infiray" - then click and open the device named "Internal Storage" to access memory.

➢ There are different folders named by time in memory.

➢ Recorded videos and photographs are saved in these folders in the format: IMG_HHMMSS_XXX. jpg (for photos) and VID_HHMMSS.mp4 (for video). HHMMSS- hour/minute/ second; XXX - three-digit common file counter for photos which is NOT reset.

12 Wi-Fi Function

The device is equipped with wireless communication with external

devices (computer, smartphone) via Wi-Fi.

➢ In the home screen, press and hold the **M (5)** button to enter the menu.

➢ Select the **Wi-Fi** option with the **P (6) / C (4)** button.

➢ Briefly press of the **M (5)** button to turn Wi-Fi on.

➢ The device is recognized by an external device under the label 'Saim_xxxxx-xxxxxx', xxxxx-xxxxxx is the SN code of the device.

➢ Enter the password on an external device, and establish a connection. The initial password is 12345678.

➢ And then, the device can be controlled through the InfiRay Outdoor.

Set Wi-Fi name and password

The Wi-Fi name and password of your device can be set in the APP.

➢ Click the "setting" icon ⚙ in the APP to enter the setting interface.

➢ In the text box, enter and submit the name (SSID) and password of the new Wi-Fi.

➢ It needs to restart the device to take the new name and password effect.

13 Stadiametric Rangefinder

Saim series is equipped with a stadiametric rangefinder, which allows you

to estimate the approximate distance to an object, if its size is known.

➢ In the home screen, press and hold the **P (6)** + **M (5)** buttons at the same time to enter the stadiametric ranging interface, and two measurement lines will appear on the upper and lower positions of the cursor.

➢ Locate the object in the middle of the lines, then move the lines to locate the target between lines by the **P (6)** or **C (4)** button.

➢ The approximate distance of the target is displayed on the left of the screen.

➢ Short press the **P (6)** + **M (5)** + **C (4)** buttons at the same time to switch the unit between cm/m and inch/yard.

14 Range Notification Interface

➢ In the stadiametric rangefinder interface, long press **P (6)** + **M (5)** or **M (5)** button to enter the range notification interface.

➢ In the range notification interface, the prey type, height and effective

range is displayed on the bottom. The measurement lines become two horizontal lines which cannot be moved.

➢ The distance between two horizontal lines indicates the height mapped to the display of the current ranging settings.

➢ When the object is higher than the two horizontal lines distance, it means the object is in the effective range.

➢ In the range notification interface, it is possible to operate the device, such as, you can operate the prey settings in the main menu by long pressing the **M (4)** button, referring to the Section 9 **Main menu - More-Stadiametric Rangefinder Setting.**

➢ Long press the **P (6) + M (5)** buttons again to exit from the range notification interface and back to the home screen.

15 PIP Function

➢ In the home screen, press and hold down the **M (5)** button to enter the Main Menu.

➢ Select the **PIP** option with the **P (6) / C (4)** button.

➢ Briefly press of the **M (5)** button to turn PIP on/off.

➢ When the PIP function is on, a small window will appear on the top of the display.

➢ The image in the small window is a 2x magnified image centered by the reticle center.

➢ When the main image is enlarged through **P (6)** button, the PIP image will be enlarged 2× synchronously.

16 Update and APP Technology

In order to continuously improve the product performance and provide better user experience, the software program, as well as parameters and operating instruction of the device will be constantly updated. Users can go to the official website (**www.infirayoutdoor.com**) to download and update. The Saim series support APP technology, and can be connected to a

smartphone or tablet PC via Wi-Fi for real-time image transmission, control operations, and program updates.

About InfiRay Outdoor

➢ You can download and install the **InfiRay Outdoor** app on **www.infirayoutdoor.com** or App store. Otherwise, you can download the app by scanning the QR code.

➢ When installation completed, open **InfiRay Outdoor** application.

➢ If your device is already connected with a mobile device, please switch on the mobile data in mobile device. After connection, the update detection is performed automatically with a prompt in the application. Click '**Now**' to download the updates or click '**Later**' to update later.

➢ **InfiRay Outdoor** will automatically store the last connected device. So, if your device has not connected with your mobile device, but linked to **InfiRay Outdoor** before, the update prompt will appear if there is an update when turning on **InfiRay Outdoor**. You can download the update first via mobile Wi-Fi and then connect your device with mobile device to

finish the update.

➢ After finishing the update, the device will root.

➢ Instructions for using **InfiRay Outdoor** can also be downloaded from the official website.

17 Technical Inspection

A technical inspection of the device is recommended before use.

➢ Check the external appearance of the device (there should be no cracks in the casing).

➢ Check the condition of the lens and eyepiece (there should be no cracks, greasy spots, dirt or other deposits)

➢ Check the condition of the rechargeable battery (this should be charged) and the electrical contracts (there should be no presence of salts or oxidation).

18 Maintenance

Maintenance should be carried out at least twice a year and consist of the following actions.

➢ Wipe the external surfaces of metal and plastic parts free of dust and dirt with a cotton cloth. Silicone grease maybe used for this.

➢ Clean the electrical contacts of the battery and battery slot on the unit using a non-greasy organic solvent.

➢ Check the glass surfaces of the eyepiece and the lens. If necessary, remove dust and sand from the lenses (preferably using a non-contact method). Cleaning of the external surfaces of the optics should be done with substances designed especially for this purpose.

19 Legal and Regulatory Information

Wireless transmitter module frequency range: WLAN: 2.400- 2.483 GHz

Wireless transmitter module power: 100 m

IRay Technology Co., Ltd. thus declares that the Saim SCH50 complies with the directives 2014/53/EU and 2011/65/EU. The full text of the EU declaration of conformity as well as additional information are available at: www.infirayoutdoor.com.

This device may be operated in all member states of the EU.

FCC Statement

FCC-ID: 2AYGT-256

Labeling requirements

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Information to the user

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These

limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment.

Body-worn Operation

This device was tested for typical body-support operations. To comply with RF exposure requirements, a minimum separation distance of 0.5cm must be maintained between the user's body and the handset, including the antenna. Third-party belt-clips, holsters, and similar accessories used by this device should not contain any metallic components. Body accessories that do not meet these requirements may not comply with RF exposure requirements and should be avoided. Use only the supplied or an approved antenna.

We, IRay Technology Co., Ltd., hereby declare that this product was tested conforming to the applicable FCC rules under the most accurate measurement standards possible, and that all the necessary steps have been taken and are in force to assure that production units of the same equipment will continue to comply with the Commissions requirements.