RIX

THERMAL IMAGING SCOPE

STORM SERIES

User Manual V4.0

Please inspect your batteries for any external damage before charging.

Please make sure you fully charge your batteries before use.

Do not point at the sun and/or high heat sources.

We appreciate you choosing RIX.
Please read the instruction manual carefully before using this product.
Thank you and happy hunting!

Please visit the RIX official website or the Rix mobile APP
to view the lastest product manuals.

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Linktree

RTX

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01 PRODUCT OVERVIEW

Introducing the STORM series, featuring advanced thermal imaging technology and high-sensitivity infrared detectors for exceptional outdoor hunting and night vision capabilities. With the ability to perform in adverse weather conditions, such as rain, snow, fog, and haze, the STORM series is perfect for night hunting, observation, and geographic positioning. It offers a range of functions including photography, video recording, recoil activated video, digital zoom, PIP and multiple reticle options.

02 PRODUCT FEATURES

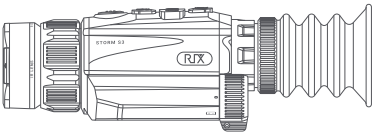
Light weight, less than 1lb	Optical Zoom: 3.5× - 14×
High resolution 1024x768 display	PIP function
Replaceable 18650 battery, long battery life	Built-in Wi-Fi module, supporting app connection
High image quality	Weather mode
Built-in 32GB storage, photo and video recording available	

03 PRODUCT DESCRIPTION

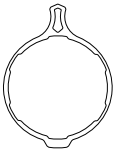
Model	S1	S2	S3	S6
Sensor Specifications				
Type	VOx Uncooled			
Resolution, pixels	192 × 144	256 × 192	384 × 288	640 × 512
Pixel pitch, µm	12			
NETD, mK	< 25			
Frame rate, Hz	50			
Optical Specifications				
Objective lens, mm	19 F1.0	25 F1.0	35 F1.0	35 F1.0
Optical zoom, ×	3.5	3.5	3.5	2
Field of view, degrees / yd@100yd	6.9 / 12.1	7.0 / 12.3	7.5 / 13.2	12.5 / 21.9
Digital zoom, ×	1 to 2	1 to 4		
Eye relief, mm	48			
Diopter adjustment, D	-5 to +5			
Detection range, m/yd	1000 / 1093	1300 / 1422	1800 / 1969	1800 / 1969
Display Specifications				
Type	OLED			
Resolution, pixels	1024 × 768			
Wi-Fi				
Wireless protocol	Wi-Fi			
Frequency, GHz	2.4			
Video Recorder				
Video / Photo resolution, pixels	1024 × 768			
Video / Photo format	.mp4 / .jpg			
Built-in memory, GB	32			

Model	S1	S2	S3	S6
Physical Specifications				
Degree of protection, IP code	IP67			
Operating temperature range, °F	-4 to +122			
Weight, lb	0.9		0.97	
Dimensions, inch	5.3 × 2.5 × 2.2			
Connections and Compatibilities				
Battery type	18650			
Capacity, mAh	3200			
Operating time on battery pack (at t=72°F), h	6	6	6	5
External power supply, V	5 (Type C USB)			
Max. recoil power on rifled weapon (Eo), g/Joules	1000 / 6000			
Compatible mounts	Picatinny mount			

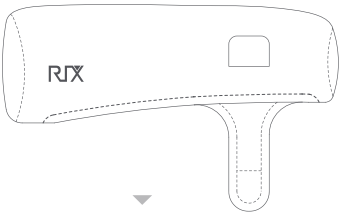
04 IN THE BOX



The STORM Series Thermal Imaging Scope

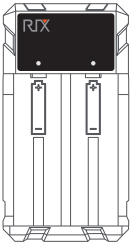


Throw lever

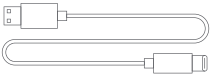


Dust cover

Thermal target × 10

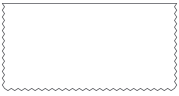


Battery charger



USB type c cable

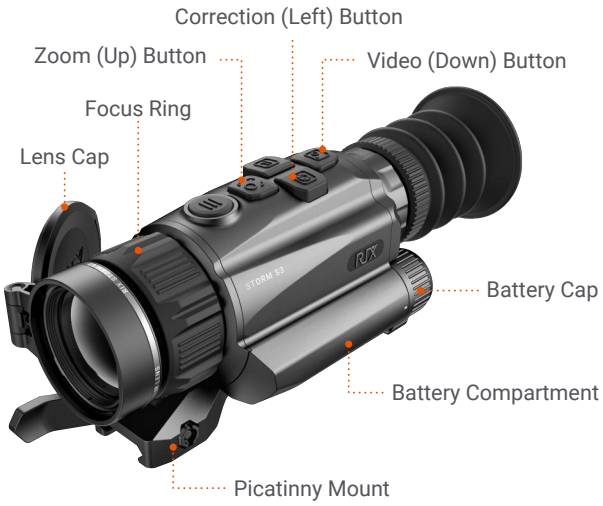
Battery × 2



Lens cloth

Hex key

05 PRODUCT APPEARANCE



06 PRODUCT INSTALLATION

There is a Picatinny compatible scope mount installed on the Storm. Please follow the schematic below for proper installation.

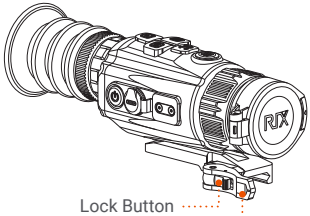
▸ Before attempting to install your Storm, please ensure that your firearm is unloaded and the muzzle is pointed in a safe direction.

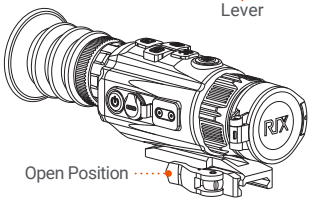
▸ Unlock the mount. To do this, depress the lock button and swing the lever 180° to the open position.

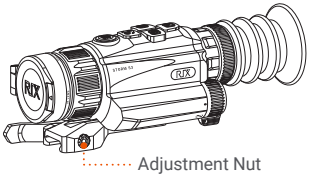
▸ Install the assembly onto the rail and move the lever to the locked position.

▸ Check the tension to close. The correct amount of tension is the maximum amount you apply with one hand to move the lever to a closed position.

▸ To adjust the tension, move the lever to the open position and push the lever towards the base. This will make the adjustment nut protrude on the opposite side of the base. With the nut protruding, turn it to the left or right to make the necessary adjustment. This process may take a few tries to get it where you want it.



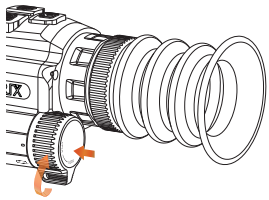


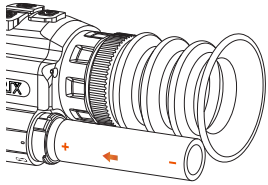


07 POWER SUPPLY

The STORM series is powered by a replaceable 18650 battery.

▸ Press and rotate the battery cap 90° clockwise and pull the battery cap outward.
▸ Install the 18650 battery into the battery compartment, positive pole (+) inward and negative pole (-) outward, as indicated by the symbols inside the battery compartment.
▸ After inserting the battery, press and rotate the cover to lock it.





Warning

▸ Remove the battery if the device is not in use for extended periods of time.
▸ Do not power the device with a modified or damaged battery.
▸ Please note, the decrease in battery capacity under sub-zero temperatures is normal and not a factory defect.
▸ Do not use the battery at a temperature above 122°F (50°C), as it may reduce the life of the battery.

08 BUTTONS AND KNOBS OPERATION

Current State	Button	Short Press	Press and hold
Powered off	Power	—	Power on the device
Standby	Power	Wake up the device	Wake up the device
Power on	Power	Standby	Shut down
Home screen	Menu	Open the shortcut menu	Open the main menu
	Up	Switch digital zoom / Switch PIP zoom	Turn on/off the PIP function
	Left	Image correction	Switch weather mode
	Right	Switch image patterns	Turn on/off RET mode
	Down	Start / Stop video recording	Take a photo
Shortcut menu screen	Power	Return to the home screen with saved changes	—
	Menu	Return to the home screen with saved changes	
	Up	Switch image contrast	—
	Left	Switch reticle color	—
	Right	Switch reticle type	—
	Down	Adjust screen brightness	—
Main menu screen	Power	Return to the home screen with saved changes	—
	Menu	Switch menu pages	Return to the home screen with saved changes
	Up	Turn on/off Wi-Fi or RAV	—
	Left	—	Enter bad pixel correction screen
	Right	Enter zeroing screen	—
	Down	Switch zeroing profiles / angle unit	—

Current State	Button	Short Press	Press and hold
Zeroing screen	Power	Choose whether to save and exit	—
	Menu	Freeze / Resume	Return to the home screen with saved changes
	Up	Move reticle up slowly	Move reticle up quickly
	Left	Move reticle left slowly	Move reticle left quickly
	Right	Move reticle right slowly	Move reticle right quickly
	Down	Move reticle down slowly	Move reticle down quickly
Bad pixel correction screen	Power	Choose whether to save and exit	—
	Menu	Confirm/cancel bad pixel	Return to the home screen with saved changes
	Up	Move reticle up slowly	Move reticle up quickly
	Left	Move reticle left slowly	Move reticle left quickly
	Right	Move reticle right slowly	Move reticle right quickly
	Down	Move reticle down slowly	Move reticle down quickly

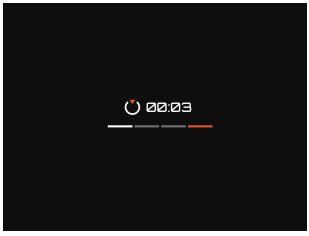
09 POWER ON/OFF

Power On / Starting

1. Open the objective lens cap.
2. Press and hold the Power button for 3 seconds to turn on the rifle scope. The RIX logo will appear.

Powering Off / Stopping

1. Press and hold the Power button. The power-off screen will open, showing a 3-second countdown.
2. Continue holding the Power button until the 3-second countdown completes.



Warning

▸ If using an external power supply, do not disconnect the power supply when saving data, otherwise the data may not be saved.

10 STATUS BAR

The status bar is located at the bottom of the screen and displays the status of the riflescope, from left to right:

1. Weather mode (sunny [default], rain)
2. Zeroing profile (A to E)
3. Current magnification (e.g., ×3.5)
4. Wi-Fi connection (Wi-Fi off, Wi-Fi on)
5. RET mode
6. Clock
7. Battery Level

11 SHORTCUT FUNCTION

Digital Zoom (Press Zoom button)

On the home screen, simply press the Zoom button to zoom in and out of the image. The status bar provides a real-time display of the corresponding magnification level as you adjust it.

PIP (Press and hold Zoom button)

On the home screen, press and hold the Zoom button to enable the PIP function. The digital zoom returns to 1×. When the PIP (picture in picture) function is enabled, the digital zoom of PIP will change by pressing Zoom button.

When the PIP function is activated, a small window appears on the upper part of the display, magnifying the selected area. This allows users to easily observe target details and aim more accurately.

Image Correction (Correction button)

If the image effect becomes worse, you can correct the image effect by pressing the Correction button.

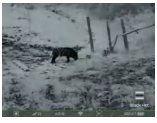
Weather Mode Switching (Press and hold Correction button)

On the home screen, toggle the weather mode by pressing the Correction button. The available options include sun mode (default) and rain mode.

Image Mode Switching (Image mode button)

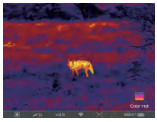
On the home screen, toggle the image mode by pressing the Image mode button. The available options include white hot (default), black hot, red hot, color and red monochrome.

White Hot (Default)



Black Hot

Red Hot



Color

Red Monochrome

RET Mode (Press and hold Image mode button)

On the home screen, enable/disable the RET (Resolution Enhancement Technology) mode by pressing and holding the Image Mode button. More image details will be displayed after the RET mode is on, but this will increase power cunsumption.

Photo / Video (Video Button)

▸ **Photo Taking**

On the home screen, press and hold the Video button to take a

photo, and the screen will freeze, with a photo icon flashing in the upper left corner.

▸ Video Recording

On the home screen, press the Video (Down) button to start recording, and a prompt box showing the recording time appears in the upper right corner of the screen, with a time format of HH:MM:SS (hour: minute: second). Press the Video (Down) button again to stop and save the video recording.

Note

▸ The photos and videos taken will save on the built-in memory card in the format of PIC_HHmmss.jpg (photos) and VIDEO_HHmmss.mp4 (videos). It is recommended to synchronize the device time and date through the app before using photo/video mode. You can find detailed instructions on the STORM Product App, which is available for download on our website, www.rixoptics.com.

▸ The maximum duration of a single video is 10 minutes. When the duration of a recorded video exceeds 10 minutes, the device will automatically start recording a new video file for the remainder of time.

▸ To download photos and videos, turn on the device, and connect it to a computer with the data cable. On your computer, Double-click MY COMPUTER on the Desktop Screen, find the device named "RIX", and double-click to open the device named as "STORM_ S3" to access the captured media.

▸ You can easily free up storage space by either deleting or moving the media files to an external storage device.

▸ To avoid damaged or corrupted video footage, please turn off the device properly.

12 SHORTCUT MENU

On the home screen, press the Menu button to open the shortcut menu.

Contrast Settings

In the shortcut menu, press the Up (Zoom) button to switch image contrast, with a range of 1-5 and 3 as the default.

Screen Brightness Settings

Press the Down (Video) button to switch screen brightness, with a range of 1-5 and 3 as the default.

Reticle Color Settings

Press the Left (Correction) button to switch reticle color, and choose from white, black, red, and green.

Reticle Type Settings

Press the Right (Image Mode) button to switch reticle type, with a total of 8 reticle type options available.

13 MAIN MENU

On the home screen, press and hold the Menu button to open the main menu. The main menu has two pages, which can be switched by pressing the Menu button.
When the page 2 of the main menu is opend, the system information automatically displayed on the right side of the screen.

Page 1 of the Main Menu

WiFi

Press the Up (Zoom) button to enable or disable Wi-Fi function. The STORM series has a built-in Wi-Fi module. The device can connect to an external device (computer or mobile phone) via Wi-Fi.

Search for the Wi-Fi named as "STORM_S3_XXXXXX" on the external device, where "XXXXXX" is the serial number of the device.
Select the Wi-Fi and enter the password to connect. The initial password is 12345678.

After a successful connection to Wi-Fi, the device can be controlled via the mobile app.

Note

- The STORM series allows you to change the name and password of the Wi-Fi in the app.
- In the app, find the My Device icon, and click it to enter the interface for Settings.
- In the text box, enter and submit the new Wi-Fi name (SSID) and password.
- Submit the changes and reset the device to activate them.

Switch Zeroing Profiles

Press the Down (Video) button to switch zeroing profiles, range from A to E . The reset zeroing function will be based on the current selection.

Pixel Defect Correction

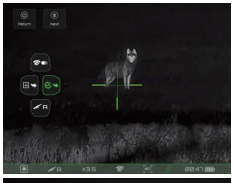
When using the scope, you may see pixel defects, such as visible light spots or dark spots with stable brightness. To address this problem, the Pixel Defect Correction function can be used to remove the pixel defects.

In the page 1 of main menu, press and hold the Left (Correction) button to enter pixel defection correction screen.
On the zeroing screen, press the direction (Up, Down, Left, Right) buttons to move the cross.
Press the Menu button to select or unselect the bad pixel.
Press and hold the Menu button to save and exit Pixel Defect Correction function.
To exit without saving the zeroing data, press the Power button and then press the Down (Video) button.

Reset Zeroing

In the page 1 of main menu, press the Right (Image Mode) button to enter zeroing screen.

On the zeroing screen, press the Menu button to freeze or unfreeze the screen.
Use the direction (Up, Down, Left, Right) buttons to move the reticle.
Press and hold the Menu button to save the zeroing data.



Page 2 of the Main Menu

Press the Menu button to switch to the page 2 of the main menu from page 1.

RAV Function

In the page 2 of main menu, press the Up (Zoom) button to enable or disable RAV function.

If the RAV function is enabled, the device will automatically record befor and after shooting.

Note

- To avoid damaged video footage, please turn off the device properly.

Angle Unit

In the page 2 of main menu, press the Down (Video) button to switch angle unit. Partial reticle will display MOA or mil number to assist aim.

14 AUTO IMAGE CORRECTION

Calibration is an effective solution for enhancing degraded or uneven images. By balancing the background temperature of the detector, calibration can eliminate image defects and improve overall quality. The STORM series automatically detects image defects and corrects them promptly if the image quality deteriorates. And the STORM series will not correct when you aim and shoot, to avoid giving you a bad experience.

15 FIRMWARE UPDATE

Copy the firmware file to device.
Press and hold the Power button to turn off, it then detects the firmware file and upgrades.

Note

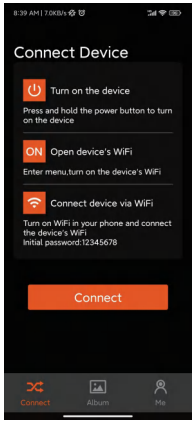
▸ For additional information on the updating procedure, please visit RIX website: www.rixoptics.com.

16 APP DESCRIPTION

The STORM series comes with a dedicated app. By connecting the device to the app on a mobile phone, tablet, or laptop you can enjoy real-time image transmission, perform device operations, and receive program updates. Download instructions for using the app from the official website (www.rixoptics.com).

Users have the option to update the firmware of the STORM product by utilizing the app or downloading the latest version from www.rixoptics.com.

You can download and install the app from the official website (www.rixoptics.com) or by searching RIX+ in an app store.



RIX+

GET IT ON Google Play

Download on the App Store

17 PRODUCT MAINTENANCE

Prior to using the device, it is important to conduct a thorough technical inspection to ensure the following items are in proper working condition.

To remove dust and dirt from the metal and plastic parts, use a cotton cloth and gently wipe the surface clean.

Make sure that the 18650 battery being used is free from any bulges or deformities and that the plastic cover is undamaged.

18 PRODUCT TROUBLESHOOTING

Refer to the table below, which outlines potential issues that may arise during operation. For any product issues that cannot be remedied or are not listed below, please contact the RIX Optics customer support by visiting our website at www.rixoptics.com or call +1 (800) 580-5281.

Fault	Possible Causes	Solutions
The scope cannot be started.	The battery is out of charge.	Charging
The device cannot be powered by 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.
The image is too dark.	The screen brightness is set too low.	Adjust the brightness
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.	
The device cannot connect to a mobile phone or computer.	The Wi-Fi password is incorrect.	Enter the correct password or reset the device back to factory setting.
	There are too many Wi-Fi networks in the range of the device, which may cause interference.	For a stable network connection, it is recommended to relocate the device to an area with a lower number of Wi-Fi networks.
Wi-Fi signals are lost or interrupted.	The device is beyond Wi-Fi coverage. There is blocking (such as concrete walls) between the device and the receiver.	Move the device to a place where you can receive Wi-Fi signals.
When the device is used at a low temperature, the imaging quality is poorer than that at a normal temperature.	At temperatures above 0°C, the temperature rise varies with the observed objects (environment and background) due to different heat conductivity coefficients. As a result, high-temperature contrast occurs and the image quality is better. At low temperatures, the observed targets (background) usually cool down to a similar temperature because of reduced temperature contrast. Therefore, the image quality (details in particular) is poor, which is a characteristic of thermal imaging devices.	

19 LEGAL AND REGULATORY INFORMATION

Wireless Transmitter Module Frequency Range

WLAN: 2.412-2.472GHz

Wireless transmitter module power < 20dBm

FCC Statement

FCC-ID: 2A7ZZ-5A-03

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.

EMC Class A

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

To comply with RF exposure requirements, a minimum separation distance of 0.00 cm must be maintained between the user’ s body and the handset, including the antenna.

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