Owner's Manual

Infinity Series Thermal Monocular

TM55

DISCOVER **THE UNSEEN.**

XVISIONOPTICS.COM

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- IMPORTANT -

Thank you for choosing this product. Please read this guide before use and keep it for future reference. We hope you'll be satisfied with this product.

This guide is a general guide for a series of products, which means that the specific model you receive may differ from the picture in the guide. Please refer to the actual product you receive.

This user guide is organized for the convenience of users to use and understand our products. We will do our best to ensure the accuracy of the contents of this guide, however, we still cannot guarantee the completeness of the contents thereof. As our products are subject to continuous upgrading, we reserve the right to modify this guide from time to time without prior notice.

- WELCOME -

Thank you for purchasing the Infinity TM55 Thermal Monocular. The Thermal Monocular is a multifunctional device that can be used for both day and night target observation. X-Vision Optics' all new Thermal Monocular boasts a 256 x 192 thermal detector and a 1.8 to 3.6x digital magnification, allowing it to detect big game out to 1,100 yards away. Weighing in at 0.75lb and an overall length of 6", the TM55 is compact and lightweight. Features of the TM55 include WiFi capabilities, picture and record function, internal memory storage, hot spot tracking, and free phone app compatibility. This device is dust and water resistant to an international protection rating of IP66. X-Vision Optics' TM55 is the best all-around thermal monocular for hunting, scouting, and surveilling. Please read this manual thoroughly to take full advantage of all your device's features.

- FCC WARNING -

This equipment may generate or use radio frequency energy. Changes or modifications to this equipment may cause harmful interference unless the modifications are expressly approved in the instruction manual. The user could lose the authority to operate this equipment if an unauthorized change or modification is made.

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.

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.

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.
- The rating information is located at the button of the unit.

- PRECAUTIONS -

⚠️ **DANGER**

1) Please charge the battery with the method described in this Guide, following the charging procedure and precautions. Improper battery charging can cause heating, damage and even physical injury.

2) Do not open or disassemble the battery. If the battery leaks, do not touch the leaked fluid. If the leaked fluid gets in your eyes, rinse them immediately with clean water for at least 15 minutes and seek medical attention.

⚠️ **WARNING**

- Try to keep equipment stable and avoid violent shaking when in use.
- Do not use or store the device in an environment that exceeds the allowable operating temperature or storage temperature.
- Do not directly aim the device at high-intensity thermal radiation sources, such as the sun, lasers, spot welding machines, etc..
- Do not plug the device ports.

- Do not disassemble the machine by yourself. This may cause equipment damage and loss of warranty rights.
- Do not use soluble or similar liquids on equipment and cables. This may cause damage to the equipment.
- Please do not use in environments that exceed the operating temperature of the device. This may cause damage to the equipment.
- Please observe the following measures when cleaning this device:
    - Non-optical surface: Use clean and soft cloth to wipe the non-optical surface of the thermographic camera;
    - Optical surface: When using the thermographic camera, please avoid polluting the optical surface of the lens. Avoid touching the lens with your hands, because the sweat on your hands will leave traces on the lens glass and may corrode the optical coating on the glass surface. When the surface of the optical lens is polluted, use a microfiber cloth to clean.

- Do not store the battery at a high temperature or near a high-temperature object.
- Do not short circuit the positive and negative poles of the battery.
- Do not expose the battery to moisture or water.
- Remove the battery when in storage
- Use only the original chargers and adapters that came with your device. Using other chargers or adapters can damage your device, or cause a fire.
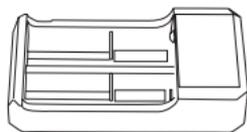
⚠️ **NOTES:**

1) Do not expose the device to dust or moisture. Avoid water splashing on the equipment when being used in a wet environment. Cover the lens when not in use.

2) Please put the camera and all accessories in the case when not in use.
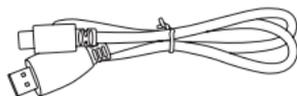
- PACKAGE CONTENTS -

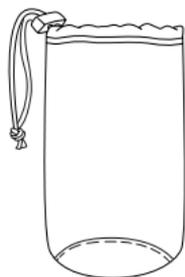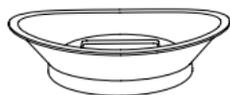| Number	Items	Qty
1	18650 BATTERY	1 PCS
2	18650 CHARGER	1 PCS
3	USB TYPE-C CABLE	1 PCS
4	CARRYING CASE	1 PCS
5	EYESHADE	1 PCS
6	WRIST STRAP	1 PCS

18650 battery   18650 charger   USB Type-C cable

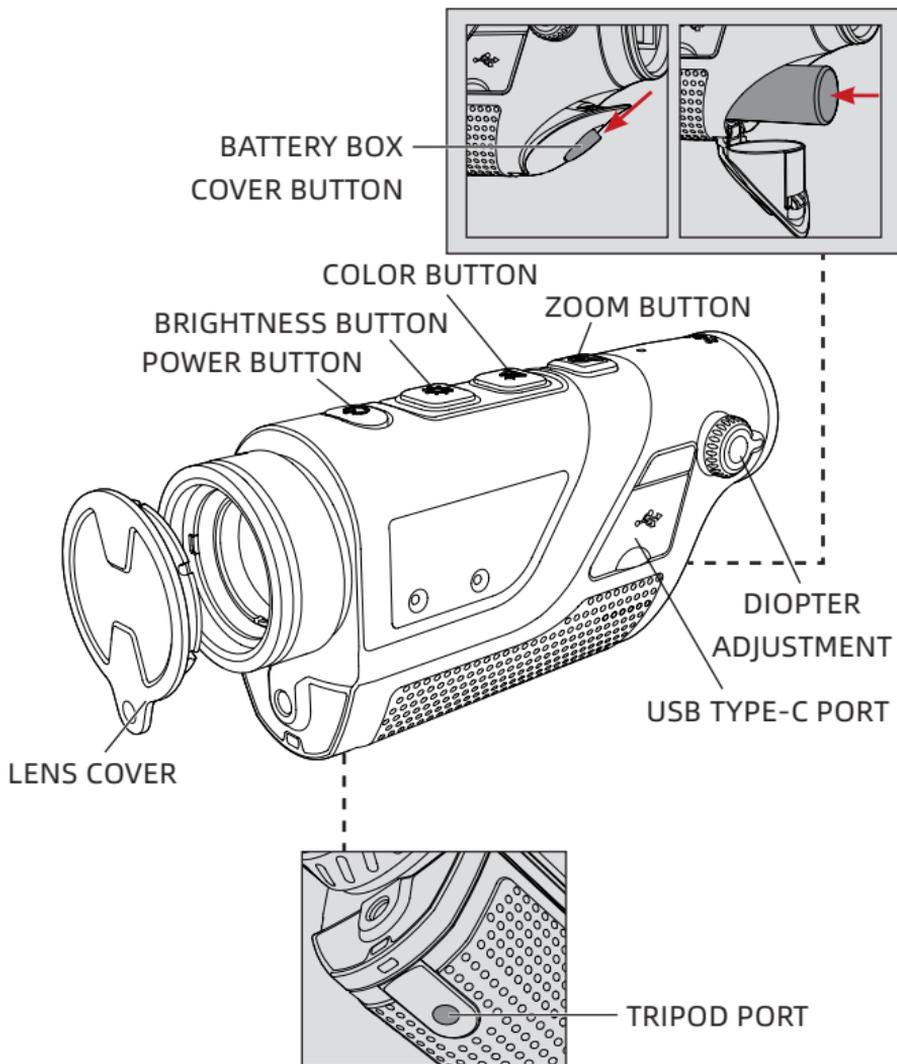Carrying case   Eyeshade   Wrist strap

- ABOUT INFINITY SERIES -

This Guide is applicable to each product of this series, but
the illustration only shows the TM55.

BATTERY BOX
COVER BUTTON

COLOR BUTTON

ZOOM BUTTON

BRIGHTNESS BUTTON
POWER BUTTON

DIOPTER
ADJUSTMENT

USB TYPE-C PORT

LENS COVER

TRIPOD PORT

1. **LENS COVER**
    Please cover the lens for protection when the product is not in use!

2. **USB TYPE C PORT**
    To connect the external power supply, plug the connector into the external port of the device. The output of the external power supply must be 5V2A. You can also use the video cable to connect the device screen to output to an external monitor.

⚠️ **Note: The external power supply will provide power, but will NOT charge the battery.**

3. **BATTERY COVER**
    Slide the battery cover button down, and Press to open. Insert the charged battery according to the positive and negative labels.

⚠️ **Note: Please place the battery in the direction shown. Do not push in forcibly.**

4. **TRIPOD INTERFACE**
    1/4 inches standard interface, supporting PTZ.

- BUTTON DESCRIPTION -

Buttons	Current Device Status	Short press	Long press
Power button	Power on (No menu display)	Calibration	Display off/ Power off
	Power off	/	Power on
	Display off	Display on	Display on
	Power on (Menu display)	Calibration	Display off/ Power off
Brightness button	Power on (No menu display)	Set screen brightness	/
	Power on (Menu display)	Scroll menu to the right	/
Color button	Power on (No menu display)	Switch the pseudo color	Enter the menu setting interface
	Power on (Menu display)	Adjust the corresponding option value	Exit the menu and save the settings
Zoom button	Power on (No menu display)	increase zoom	/
	Power on (Menu display)	Scroll menu to the right	/

1. POWER BUTTON

POWER ON

Long-press the power button until the startup picture appears in the display, indicating the device has been turned on successfully.

POWER OFF

Manual power-off: long-press the power button and the power-off progress bar will be displayed. Continue holding, and the device will shut down once the progress bar is complete.

Automatic power-off: This feature will power-off the device after a set amount of time if the device is left idle. Automatic power-off can be disabled or enabled in settings.

DISPLAY OFF

Long-press the power button, and the progress bar of power-off will be displayed. Before the progress bar is finished, release the power button and Display off mode will be entered.

DISPLAY ON

In Display off mode, long-press or short-press the power button to wake up the screen.

CALIBRATION

Short press the power button while the device is on to complete the corresponding calibration action. A prompt indicating successful calibration will be displayed at the top of the screen.

2. **BRIGHTNESS BUTTON**

When the menu is not displayed, short-press the brightness button to adjust the screen brightness, which may be observed in real time.

When the menu is displayed, short-press the brightness button to scroll left on the menu.

3. **COLOR BUTTON**

When the menu is not displayed, short-press the color button to display pseudo colors, such as white hot, black hot, red hot, iron red, blue hot, and green hot in sequence circularly. Continue to short-press until the preferred color is selected.

When the menu is not displayed, long-press the color button to enter the menu setting interface. Once the menu is displayed, short-press the color button to adjust the corresponding value. Long-press the pseudo color button again to exit the menu and save the settings.

4. ZOOM BUTTON

When the menu is not displayed, short-press the zoom button to adjust the magnification.
When the menu is displayed, short-press the zoom button to scroll the menu to the right.

FUNCTION DESCRIPTION

- **Hotspot tracking:** When hotspot tracking is enabled, a teal cursor is displayed, indicating the highest temperature point in the display image.

- **Wi-Fi:** When connected via WiFi to a mobile device, users may preview real-time images, remotely control the device, and record photo/video.

  o Download the "TargetIR" app.

  (Available on iOS and Android).

  o Connect the phone to the device WiFi network and enter the password "12345678".

  o Open the app to view and operate the device remotely

  ⚠ **Note: This device does not have internal recording capability, but users can record directly to a mobile device via WiFi connection.**

- **Working indicator:** the working indicator can be enabled or disabled.
- **Video output:** the device video output switch can be enabled or disabled.
- **Scene mode:** natural, enhanced, and highlighted   modes are available. The three modes may save   the corresponding detector brightness contrasts respectively.
- **Picture in Picture (PIP):** Modes of Off, Top Left, Top Center, and Top Right are available. This enabled a secondary view at 2x magnification.
- **Screen brightness:** the screen brightness may be adjusted at 5 levels, in real time.
- **Image brightness:** the detector brightness may be adjusted at 5 levels, in real time.

Note: The value after brightness adjustment will be

9. • **Image contrast:** the contrast may be adjusted at 5 levels, and may be observed or adjusted in real time.

Note: The brightness/contrast adjustment will be saved in the current scene mode.

- **Automatic sleep:** Automatic sleep time can be set at 5, 10, or 15min. If no operation is made within the set time, the device will enter sleep mode (set on the mobile app).
- **Automatic power off:** Automatic power off time can be set at 15, 30, or 60min. If no operation is made within the set time, a countdown to power off will appear and the device will be shut down when complete (set on the mobile app).

-TROUBLESHOOTING-

1. **The device cannot be powered on**
   Solution: replace the battery or use the adapter to connect the external power supply. The external power supply will work when connected, but will not charge the battery.

2. **The screen goes black during use**
   Solution: short press/long press the power button to wake up the screen.

3. **The image of the device is blurred during use.**
   Solution: Adjust the device to focus manually until the display is clear.

- STORAGE AND TRANSPORT -

To prevent damage, danger, property loss, etc., please read the manual carefully before using the device. Follow the instructions in this manual closely, and keep for future reference

Storage:

1. The packaged product must be stored in a well-ventilated, clean, condensate-free and corrosive gas-free room with temperature of -22F ~ 140F and relative humidity not exceeding 95%.

2. Please charge the device once every 3 months to prevent deterioration.

3. Remove the battery when in storage.

Transport:

During transport, the device should be protected against water, falling, and any severe vibration or impact. Handle with care

	TM55
Magnification	0.7 to 1.4x
Thermal Sensor	256 x 192
Pixel Size	12 μm
Frame Rate	50 Hz
Objective Lens	10mm
Field of View	95ft @ 100yd
Detection Range	500yd
Recognition Range	175yd
Hotspot Tracking	YES
Picture in Picture	YES
NETD	≤50 mk
Temperature Variation Detection	0.08° F
Display Resolution	640 x 400
Color Palettes	5
Power Supply	Rechargeable 18650 Battery
Battery Life	12 Hours
IP Rating	IP66
Dimensions	5.5" x 2.9" x 1.8"
Weight	0.62 Pound
Internal Memory	16 GB
Mount	Tripod Mount
Wi-Fi Capability	YES
Photo and Video	YES
Applications	YES
Accessories	Charging Cable, Protective Case, Lanyard, One 18650 Battery, Lens Cap

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