



Quickstart Guide

TrackiR PRO 50

Thank you for choosing our product. Please thoroughly go through user manual before operation and keep it well for future reference. All photos here are for reference only, and specifications are subject to the physical product.

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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.

- 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 bottom of the unit.

- PRECAUTIONS -



DANGER

- 1) Please charge the battery with the method described in this Guide and follow the charging procedure and precautions. Improper battery charging will cause heating, damage and even physical injury.
- 2) Do not try to open or disassemble the battery at any time. Once the battery leaks and the spill enters the human eye, wash the eyes with clean water immediately and take medical care.



WARNING

- 1) When using the equipment, please try to keep it stable and avoid violent shaking;
- 2) Do not use or store the equipment in an environment that exceeds the allowable operating temperature or storage temperature;
- 3) Do not directly aim the equipment at high-intensity thermal radiation sources, such as the sun, lasers, spot welding machines, etc.;
- 4) Do not plug the holes on the equipment;
- 5) Do not knock, throw or vibrate instruments and

accessories to avoid damage;

- 6) Do not disassemble the machine by yourself, which may cause equipment damage and loss of warranty rights;
- 7) Do not use soluble or similar liquids on equipment and cables, which may cause damage to the equipment;
- 8) Please do not use the equipment in an environment that exceeds the operating temperature of the equipment, which may cause damage to the equipment;
- 9) Please observe the following measures when wiping 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, especially 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 special lens paper to wipe

it carefully;

- 10) Do not place the battery in a high temperature or near a high-temperature object;
- 11) Do not short circuit the positive and negative poles of the battery;
- 12) Do not expose the battery to moisture or water;
- 13) Do not use non-original adapters or chargers (the contents of the original packaging shall prevail).



NOTES:

- 1) Do not expose the equipment to dust or moisture. Avoid water splashing to the equipment when being used in an environment with water. Cover the lens when not using the camera;
- 2) Please put the camera and all accessories in the special packaging box when not using it.

- COMPONENTS -



- TECHNICAL SPECIFICATIONS -

Model	Track IR PRO 50mm
Detector	
Resolution	640×480
Pixel size	12μm
Optical properties	
Focal length	50mm F1.2
Focusing	Manual Focus
Visual angle	8.7×6.6
Imaging	
Frame Rate	50Hz
Digital Zoom	1×–8×
Display	
Eye lens	1280×960 color LCOS
Visibility regulation	-4~ +2
Machine magnification	2.9–23.2×
Power	
Adapter	5VDCSpecial adapter charging
Working hours	≥4.5 hours @25°C
Interface	
USB	TYPE C, for Power In/ File Transfer
Video Interface	Micro HDMI
External Connection	Picatinny rail

- PRODUCT FUNCTION -

Model	Track IR PRO 50mm
Smooth zoom	Yes
Photo	Yes
Video	Yes
WIFI	Yes
Screen brightness	1~10 levels
Image brightness	1~10 levels
Image contrast	1~10 levels
Image enhancement	Yes
Scene mode	Enhanced/Highlight/Nature
Super energy-saving	Yes
Color palettes	White hot/Black hot/ Adjustable red hot/ Iron/Blue hot
Hot track	Yes
Working indication	Adjustable
Charging indication	Adjustable
Calibration model	Automatic/Scene/Shutter
Stadiametric rangefinder	Yes
Auto power-off	Yes
Auto Stand-by	Yes
Language settings	English/Russian/German/French/Chinese
Time settings	Yes
Watermark settings	Yes
PIP	Yes
Restore default	Yes
Memory card formatting	Yes
Pointer①	Optional function
Ranging②	Optional function
Notes: ①②: Optional function, not available on all models.	

- BUTTONS FUNCTION -

Buttons	Device current status	Short press	Long press
Power button	Power-off	/	Power on
	Power on	Calibration	Display off Power-off
	Display off	Display on	/
 Up button	No display in the menu bar	Switch to scene mode	Zoom in
	Display in the menu bar	Upward switching options Change parameter value	/
M Menu button	No display in the menu bar	Enter the shortcut menu	Enter the main menu
	Display in the menu bar	Enter the sub-menu Select option/ parameter value	Exit the menu bar / back to the previous menu
 Down button	No display in the menu bar	Switch to color palettes mode	Zoom out
	Menu bar display	Downward switching options Change parameter value	/
Photo / video	Photo mode	Photo	/
	Video mode	/	Start video recording
		/	Stop video recording

NOTE:

Users can adjust the device language according to their needs, English/Russian/German/French/Chinese for choose.

- SHORTCUT MENU -

Short press the M button to enter the shortcut menu; Press the Up/Down button to switch between PIP, Screen BRI, Stadiametric Rangefinder, Hot track and Super energy-saving.

- PIP: Select the left / middle / right, the PIP window is open, and the window image is 2X magnification of the main image.
- Screen BRI: Ten brightness levels of 10%-100% can be adjusted.
- Approximate ranging: The position of the lower horizontal line remains unchanged and long-press the up button or the down button to move the upper horizontal line until the spacing between the two lines is equal to the image height of the target. The distance from the target can be estimated by referring to the approximate ranging values of the three animals (rabbit, boar and deer) in the upper left corner. The reference heights of the three animals are 0.35m, 0.9m and 1.5m, respectively.
- Hot track: When hot track is turned on, the cross cursor tracks the point with the highest temperature in the scene.
- Super energy-saving: When the Super energy-saving mode is turned on, the screen brightness is reduced to 30%, and the WiFi is turned off; when the Super energy-saving mode is off, the screen brightness and WiFi are restored to their original state.

NOTE: If WiFi cannot be turned on, please check if the Super energy-saving mode is off.

- MAIN MENU -

Long press the M button to enter the main menu. Press the Up/Down button to switch between Image quality adjustment, Calibration model, WiFi, Power saving settings, Indication settings, General settings and Other settings.

a) Image quality adjustment

- Image enhancement: When the image enhancement is turned on, the effect of the target can be enhanced.
- Scene mode: Image brightness and contrast can be adjusted for each scene mode to achieve the appropriate screen effect.
- Color palettes:
 - White hot: the object with higher temperature shows in white or lightgray.
 - Black hot: the object with higher temperature shows in black or dark gray.
 - Red hot: the object with higher temperature shows in red.
 - Adjustable red hot: the object with higher temperature shows in red, users can adjust the range of red heat from grade 1 to grade 10 according to their requirements.
 - Iron: the object with higher temperature shows in

Ironred.

Blue hot: the object with lower temperature shows in blue or dark blue, and the object with higher temperature shows in red.

- Brightness: 1-10 level(s) can be adjusted.
- Contrast: 1-10 level(s) can be adjusted.

b) Calibration model

- Automatic: The device automatically corrects the image quality without any action.
- Scene: The user manually corrects the image quality as needed, and the lens cover needs to be attached before calibration.
- Shutter: The user manually corrects the image quality as needed, and the device shutter closes for calibration.

c) WiFi

It can be connected to the mobile phone via WiFi, and the thermal imager can be operated remotely via the mobile phone APP.

When WiFi is turned on, but not connected, the WiFi icon flashes and the WiFi name is displayed at the top of the screen.

When the WiFi is connected, the WiFi icon is always on.

- Mobile phone APP: Search and download 'TrackIR' APP in the mobile phone app market, open the app, and find the WiFi name of 'Handheld-TI-XXXX' in the mobile phone WiFi settings, enter the password '12345678',

then after the connection is successful, the user can operate remotely.

- Android: Please search and download in the 360 app market, Google play.
- IOS: Please search and download in the APP store.

d) Power saving settings

- Auto Stand-by: If there is no operation in the setting time, it enters Stand-by mode. If the work indicator is on before entering Stand-by mode, the work indicator will flash in Stand-by mode.
- Auto power-off: If there is no operation in the setting time, power-off.

Note: Auto Stand-by and Auto power-off cannot be performed while WiFi is connected.

e) Indication settings

- Charging indication: In the charging state, control the opening or closing of the charging indicator.
- Working indication: In the normal working state, control the opening or closing of the work indicator.

f) General settings

- Time style: 12H/24H, users can choose different time styles according to their usage habits.
- Date style: Users can choose different date styles according to their usage habits.
- Time setup: Users can adjust the current date and time of the device.

- Watermark settings: Users can choose the display style of date and time watermark on the screen according to their usage habits.
 - Language settings: English/Russian/German/French/Chinese, users can adjust the device language according to their needs.
 - Memory card formatting: Memory card formatting and empty the memory.
 - Restore default: Restore the factory state.
- g) Other settings (Optional accessories feature settings)
- Ranging
 - Ranging adjustment
 - Pointer
 - Pointer adjustment

These functions are used for auxiliary Optional accessories. There are differences between the individual models. For details, please refer to the accessory manual.

- CHARGING -

When using the thermal imager for the first time, make sure to charge the thermal imager for at least 4 hours with a matching USB charger.

When charging, please unplug the USB on the side of the thermal imager, insert the matching Type C USB charging

cable, and plug in the power, and then the charging begins.

Charging specifications: 5V, 2A.

Charging indicator is red during normal charging.

Charging indicator is green when charging is complete.

Note: Charging when power on.



It means that the external power supply is supplying power to the device to ensure normal operation, but is not charging the battery.



It means that the external power supply is also charging the battery while powering the device to ensure normal operation.

- VIDEO OUTPUT -

There is a video output port beside the USB interface on the side of the thermal imager, and the external video is always in the state of power on.

The image of the thermal imager can be output to the external screen through the matching HDMI video cable. There are two display modes, namely the external screen and the screen of the device, but only one mode can be selected!

Note: When HDMI is used to connect the external display screen, the real-time screen can only be viewed by the external display. There is no screen display on the screen of this device. When the HDMI cable is unplugged, the screen of the device is restored.

- TROUBLESHOOTING -

1. Device fails to start.

Solution: Replace the cell or connect the adapter for charging.

2. The device cannot take photos/record.

Solution: the internal storage space of the device is full, format the memory card.

3. The device display time does not match the actual time display.

Solution: Reset the time and date of the device in the menu.

4. Screen goes out during use.

Solution: Short-press any button to wake up the hibernation and light up the screen.

5. The image of the device is blurred during use.

Solution: turn the lens to focus manually until the display is clear.

- STORAGE AND TRANSPORT -

The following is the correct storage and transportation of the product. To prevent danger, property loss, etc., please read the manual carefully before using the device. Strictly observe it, and keep the instruction properly after reading it.

Storage:

1. The packaged product shall be stored in a well-ventilated, clean, condensate-free and corrosive gas-free room with temperature of $-30\text{ }^{\circ}\text{C} \sim 60\text{ }^{\circ}\text{C}$ and relative humidity not exceeding 95%.
2. Please take it out and charge it once every 3 months.

Transport:

During transport, it shall be protected against rain, water flooding and falling, without severe vibration and impact. It shall be handled with care and throwing is strictly prohibited.

Special statement: the version of the Guide will be updated after the technical improvement of the product.