

# PTI-NKH1-01 Thermal Imager Operating Manual

A	Cover for connectors compartment		
B	Memory card		
C	C-type USB Jack		
D	Front lens Cap		
E	Trigger to record video		
F	Battery		
G	Power Button/photo Button	H	MENU
I	UP	J	Return
K	Button to confirm choice	L	DOWN
M	Right	N	Left
O	Battery Indicator		

## Screen Elements

1. Date and Time
2. Function icon
3. Temperature Scale
4. Central Temperature and Distance  
H: Max Temp. Location  
L: Min Temp. Location
5. Recordable time on Memory Card
6. TL: Highest Temp. TH : Lowest Temp H:Humidity Rate T : Environment Temp
7.  Overheat Warning Icon

## Operating Manual:

### # Power on:

Press  for 3 seconds and release it, the boot process can be complete in seconds.

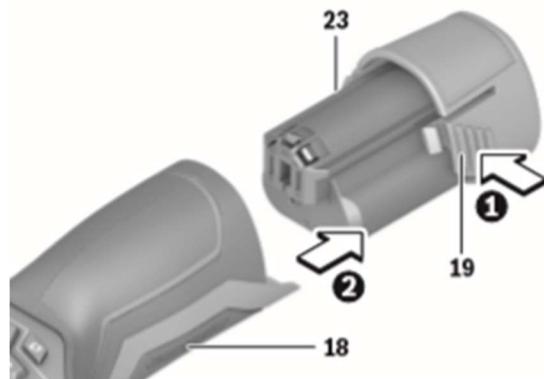
### # Power Off:

Press  for 3 seconds to turn off. To force shutdown, press power button and trigger in the same time and hold for 3 seconds then release the buttons.

### # Photo/Recording video:

To record video, please press trigger to start recording and press trigger again to finish. Short press  to take photo.(It's available to take picture while recording.)

# when installing the battery, please ensure the arrowhead on battery is aligned with the middle of screen to avoid damage to battery or machine.



# To switch function, please see below:

A. Press to . Press to select Thermal Image color bar(7 options).

B. Press to (thermal/grey/sketch). Press to exchange mode

C. Press to switch (°C / °F).

D. Press to AUTO, (Max, Min , Max and Min, Auto)  
Press to exchange mode. Press to set temperature.

: Adjust maximum temperature. : Adjust minimum temperature. : Adjust max and min together.

Auto: Temperature range would be auto adjusted by System.

E. Press to (Info. A/Info. B/Info Off), Information on screen will also be stamped on recorded videos and photos.

Shows all information. Close button information.

Close all information.

F. Press to (OSD A/OSD B/OFF). OSD information won't be

stamped on recorded videos and photos



Normal Screen.



Grid Screen.



Close Battery icon and

recordable time.

G. Press  to     (Auto Focus/Near/Middle/Far) ,   to exchange mode.

This mode help you to focus on small object.



:Auto Focus,



:Under 15 cm,



: 15 ~ 45 cm



: 60 cm and

far

H. Press  to   (Vertical adjustment / horizontal adjustment)

If the thermal image doesn't overlap on the object, press   to exchange mode and  to adjust thermal image location.

I. Press  to  (Temperature Warning Icon On/Off) and press   to set temperature warning icon on or off. After turn on the warning icon,  Press  to adjust warning temperature. Long press for adjusting units digits and short press for adjusting digit after decimal point. Screen will show red area while the detecting temperature reaches over the warning temperature.

## Menu:

Press  into Menu. Press   to switch main menu .  to submenu,  as back button and  as Confirm Button.



Seamless: To set whether limit video recording length. (Off, 1min, 3min, 5min)  
Date Stamp: to set whether show Date& Time while recording.



Light Frequency: Change light frequency to 50Hz or 60Hz.

Power Save: To setup time for auto power off.

Date & Time: Date & Time Setup.

Wi-Fi: To enable Wi-Fi and setup SSID and password.

Language: To select languages

USB Mode: To setup USB Out function.

Format: To delete all recorded video/photos

Reset All: To set back to default.

Information: To review the Thermal Cam information here.



To review recorded videos and photos. Press to switch video/photos review option.

#### **Wifi Connected Setup:**

1. To connect thermal cam to smartphone, please sourcing SBC APP on Google Play Store/Apple App Store(IOS) and installing it to smartphone. Then enable Wifi connect on Smart phone.

2. Press on thermal cam to Menu, then press to .

Press and press to select Wi-Fi => Enable => Yes. Press twice to go back main screen. Wi-Fi icon would show up after few seconds.

3. Please sourcing ThermoCam xxxxxx through Wi-Fi on Smart phone and press password (1234567890) to connect.

Open SBC APP => select Add New Camera => select Wi-Fi Connect => Press and smartphone will show the image on thermal cam.

#### USB Out:

Press on thermal cam to Menu, then press to .

Press and press to select USB Mode. Available functions as below:

\*SD READER : Enable computer to read SD card.

\*Camera image: to setup real-time visual image output.

\*Thermal image: to setup real-time visual and thermal image output.

After connecting thermal cam with computer through USB-C Cable, the computer screen would pop-up real-time image window.

Software Update:

To update software, please visit Panrico official site to download latest version of Thermal cam software. Put software into Thermal cam's SD memory card.

Restart the thermal cam and the system will automatically update the software.

#To check version of software, please see Information under menu.

### **Safety Notes**

Please read and observe all instructions. The integrated protections in the measuring tool may be compromised if the measuring tool is not used in accordance with the instructions provided. **SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE.**

Have the measuring tool repaired only through qualified specialists using original spare parts. This ensures that the safety of the measuring tool is maintained.

Do not operate the measuring tool in explosive environments, such as in the presence of flammable liquids, gases or dusts. Sparks can be created in the measuring tool which may ignite the dust or fumes.

Before any work on the measuring tool itself (e.g. assembling, maintenance, etc.) as well as when transporting and storing, remove the battery pack or the batteries from the measuring tool. Protect the battery pack against heat, e.g., against continuous intense sunlight, fire, water, and moisture. Danger of explosion.

When battery pack is not in use, keep it away from other metal objects like paper clips, coins, keys, nails, screws, or other small metal objects that can make a connection from one terminal to another. Shorting the battery terminals together may cause burns or a fire.

Recharge only with the charger specified by the manufacturer. Only 110V ~ 230V charging stand is used to charge the battery. If charging battery over limit, the battery may be damaged.

The battery pack can be damaged by pointed objects such as nails or screwdrivers or by force applied externally. An internal short circuit can occur and the battery pack can burn, smoke, explode or overheat.

Remove the batteries from the measuring tool when not using it for extended periods. When storing for extended periods, the batteries can corrode and self-discharge.

Protect the measuring tool, particularly the area around the camera and infrared lens, against moisture and snow. The reception lens could fog up and distort the

measurements. Incorrect settings on the tool and other atmospheric influences may make the measurements inaccurate. Objects could be depicted hotter or colder, which may present a danger if touched.

Temperature measurements will only be correct if the emissivity setting and the emissivity of the object match. Objects could be depicted hotter or colder in temperature and/or color, which may present a danger if touched.

The measuring tool is equipped with a radio interface. Local operating restrictions, e.g. in airplanes or hospitals, are to be observed.

Please charge battery in a temperature range of  $\pm 0^{\circ}\text{C}$  to  $+45^{\circ}\text{C}$ . Charging the battery out of this temperature range may cause the battery to overheat or burst. It may also decrease battery' performance and battery life.

#### FEDERAL COMMUNICATIONS COMMISSION INTERFERENCE STATEMENT

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.

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.

#### CAUTION:

Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.

This device and its antenna(s) must not be co-located or operating in conjunction

with any other antenna or transmitter.

### **RF Exposure Information (SAR)**

This device meets the government's requirements for exposure to radio waves. This device is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission of the U.S. Government.

The exposure standard employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 1.6 W/kg. Tests for SAR are conducted using standard operating positions accepted by the FCC with the EUT transmitting at the specified power level in different channels.

The FCC has granted an Equipment Authorization for this device with all reported SAR levels evaluated as in compliance with the FCC RF exposure guidelines. SAR information on this device is on file with the FCC and can be found under the Display Grant section of [www.fcc.gov/eot/ea/fccid](http://www.fcc.gov/eot/ea/fccid) after searching on FCC ID: 2AWI4-PTI-NKH1.

To ensure that RF exposure levels remain at or below the tested levels, use a belt-clip, holster, or similar accessory that maintains a minimum separation distance of 5mm between your body and the device.