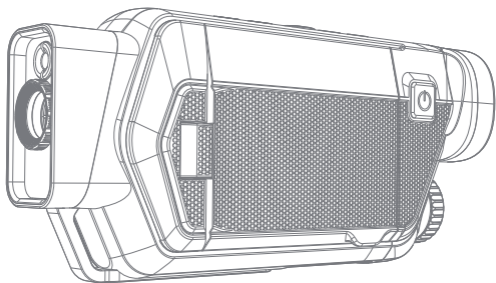


# TESLONG

## Thermal Camera User Manual



Model No. TTS300

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## SAFETY SUMMARY

- Read and follow all instructions
- Read all warnings
- Only use the attachments/accessories specified by the manufacturer.
- All service must be provided by the manufacturer.

### **WARNINGS AND CAUTIONS:**

- All electronic operation should be in strict compliance with the electrical safety regulations, fire prevention regulations and other related regulations in your local region.
- Please use the power adapter, which is provided by a proven manufacturer.
- Do not connect several devices to one power adapter as adapter overload may cause an over-heat or fire hazard.
- Do not drop the device or subject it to physical shock, and do not expose it to high electromagnetic radiation. Avoid installing the device on vibrating surfaces or places subject to shock.
- Make sure the surrounding environment meets the requirement of the device. The operating temperature shall be  $-20^{\circ}\text{C}$  to  $55^{\circ}\text{C}$  ( $-4\text{F}$  to  $131\text{F}$ ), and the operating humidity shall be 95% or less.
- The device is designed for indoor use and should be kept from rain and moisture.
- Exposing the device to direct sun light, low ventilation or heat source such as heater or radiator is not recommended.
- Do not aim the device at the sun, lasers, or bright light sources as the sensor can become damaged.

- The built-in battery cannot be serviced. Please contact the manufacture for repair if necessary.
- For long-term storage of the battery, make sure you fully charge it every 3 months, to ensure the battery does not discharge completely and become damaged.



#### **NOTES:**

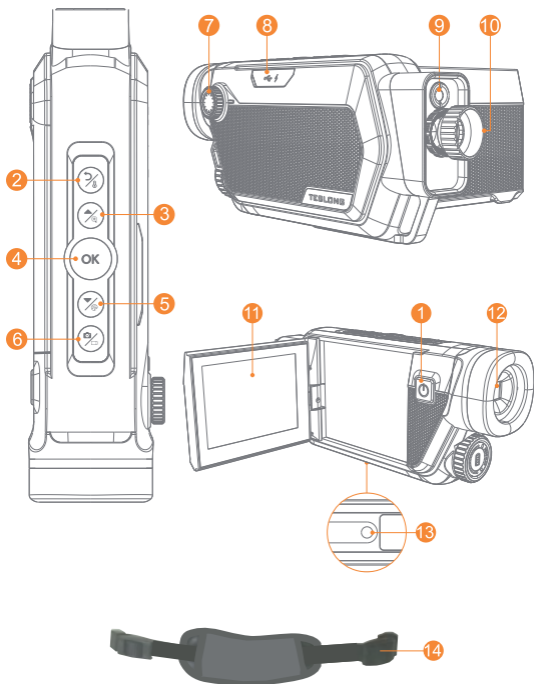
The detector spectral band provides better visibility through smoke, dust, smog, etc. Infrared radiation does not travel through glass.

As a result, the camera does not detect objects if they are behind glass windows or other barriers.







#### **EMERGENCY:**

If smoke, odor, or noise arises from the device, immediately turn off the power, unplug the power cable, and contact the service center.

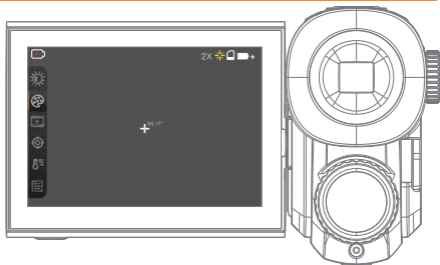
## Components and Controls



## Button Operation

Button		Functions
1	 <b>Press</b>	<b>Press:</b> Turn on/off the laser pointer while the device is on <b>Hold:</b> Power on/off
2	 <b>Return/ Temperature</b>	<b>Menu Navigation:</b> Return to the last menu or quite the Menu Mode <b>Preview Mode:</b> Start/Stop Temperature
3	 <b>Up/ Zoom</b>	<b>Menu Navigation:</b> Move Up <b>Preview Mode:</b> Digital Zoom x1/x2/x4
4	 <b>OK</b>	<b>Menu Navigation:</b> Enter into the next menu or Confirm <b>Preview Mode:</b> Enter into the Menu Navigation
5	 <b>Down/ Palette</b>	<b>Menu Navigation:</b> Move Down <b>Preview Mode:</b> 6 Colors Palette Setting
6	 <b>Photo/ Video</b>	<b>Press:</b> Capture picture and storage (one more press) <b>Hold:</b> Start/Stop Record Video
7	<b>Diopter Adjustment Knob</b>	
8	<b>USB Type-C connector</b>	
9	<b>Laser Pointer</b>	
10	<b>Thermal Imaging Lens &amp; Focusing Ring</b>	
11	<b>3.5 Inch Screen</b>	
12	<b>Eyepiece</b>	
13	<b>Tripod Screw Hole</b>	
14	<b>Hand Strap</b>	

## Menu Description



 00:00:06 :Start/Stop Video


2X : 2X 4X ZOOM

 <sup>95.1F°</sup> : Central Temperature Measurement

 <sup>100.1F°</sup> : The Highest Temperature

 <sup>89.1F°</sup> : The Coldest Temperature

 : Power level  
below 20%

 : 50% power  
remaining

 : 100% power

 : Charging

 : Laser on status

 : < 20%


 : > 50%

 : > 90%

 BRIGHTNESS: Press  to adjust the brightness

 Color Palette: Press  to choose the color palette

 :Albums

 :Temperature Tracking

 :Highest Temperature Tracking

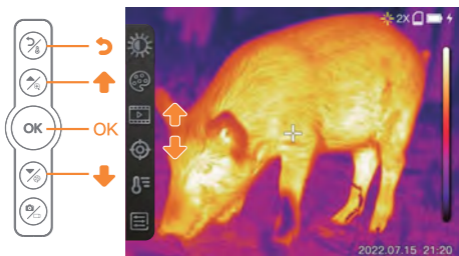
 :Options

## Menu Description

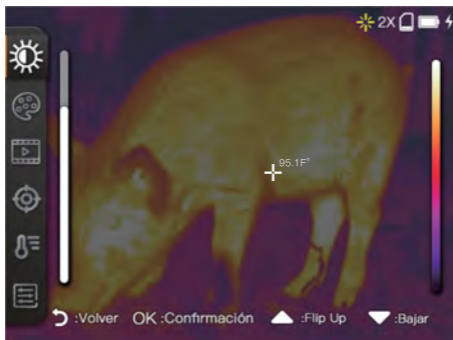
When the device powers on, hold **OK** to enter into the menu.

Press **▲**/**▼** keys to switch.

Press **OK** to confirm



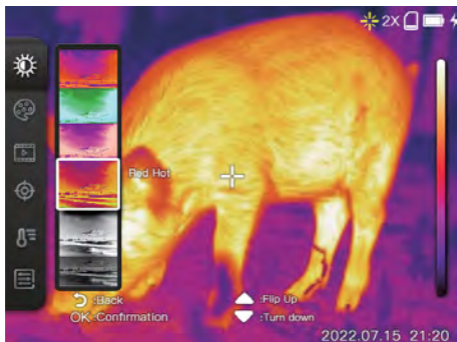
**BRIGHTNESS:** Press **▲**/**▼** to adjust the brightness





## Color Palette:

You can select different palettes to display the same scene with different looks.



<b>Iron</b>		In the high-temperature region, red has a large proportion, which is suitable for detecting the scenario where the high-temperature region occupies the main proportion.
<b>White hot</b>		The high-temperature section adopts white, and the full screen mainly adopts white-and-black transition, which is suitable for users of high temperature subjects on a low temperature background.
<b>Black hot</b>		The high-temperature section adopts black, and the full screen mainly adopts black-and-white transition, which is suitable for users of low temperature subjects on a high temperature background.
<b>Rainbow</b>		Red is used for displaying the maximum temperature, yellow is used for displaying the medium temperature, and blue and black are used for displaying the low temperature, which is suitable for scenarios with distinct ranges of high and low temperature
<b>Red heat</b>		The main colors are red and black, and from the minimum temperature to the maximum temperature, the black, white and red transition mode is adopted, which is suitable for scenarios focusing on the high temperature state
<b>Green hot</b>		The main colors are green and black, and from the minimum temperature to the maximum temperature the black, white and green transition mode is adopted, which is suitable for scenarios focusing on the high temperature state.

## Album:

All photos and videos taken by the camera can be conveniently viewed by clicking [Album]. The interface of the gallery is shown in below.



## Temperature Tracking:

Click the temperature tracking button on the right to enable or disable the measurement of the maximum temperature, minimum temperature and center point temperature on the real-time screen. Red is the maximum temperature, blue is the minimum temperature, and White is the center point temperature. Click to turn on temperature tracking, and click again to turn it off.



## Highlight High-temperature Regions

In this mode, the high temperature region is displayed on the current color palette, and the other regions are displayed as white hot, and the temperature range can be adjusted by the slider on the right side of the color board bar. The analysis mode of highlighted high-temperature regions facilitates most application scenarios that focus solely on temperature values of high-temperature regions.



## Thermal Imaging Lens & Focusing Ring

The TTS300 has a wide range of focus, capable of capturing subjects from telephoto distances (effectively set to infinity) to macro distances (with a minimum focusing distance of 10 cm). The lens does not use an auto-focus mechanism, it adjusts via manual focus. To adjust the lens manually, you will take the removable focusing ring and place it over the end of the lens element where it should snap into place. While looking through the viewfinder or at the flip-out screen, turn the focusing ring clockwise to view subjects as close as 10cm. To then view subjects at a distance you will need to use the focusing ring to turn the lens counterclockwise to achieve a sharp image. The depth of field is reduced when viewing macro subjects close up, so the use of a tripod may be required to hold the desired field of view in sharp focus.

## Diopter

If you wear glasses, the diopter on the right-hand side of the viewfinder can be adjusted to better match your vision. The diopter will not affect the flip-out screen so wear your glasses to view that.

## Settings



### Language setting:

Supports “Simplified Chinese”, “Japanese”, “English”, “French”, “Deutsch”, “Italiano”, “Español” and “Русский”, default is “English”.



### Degree Switch



### Tracking



### Temperature Measurement Distance



### Storage



### Automatic Shutdown

Automatic shutdown: you can choose “Off”, “5 minutes”, or “10 minutes”, Automatic shutdown occurs after the minutes you choose unless you choose “Off” and the feature is disabled.



### Date stamp

After the date stamp is turned on, when you take a photo or video, the date will be displayed in the lower right corner of the photo or video.

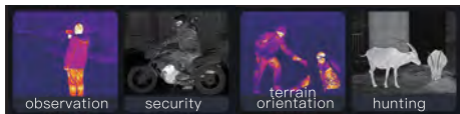


### Laser

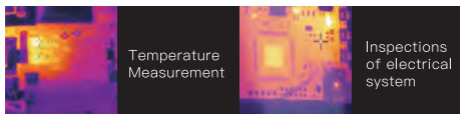
## Application Environment

TTS300 thermal imagers are designed for various applications including hunting, observation, security, terrain orientation, search and rescue operations, etc.

Outdoor:

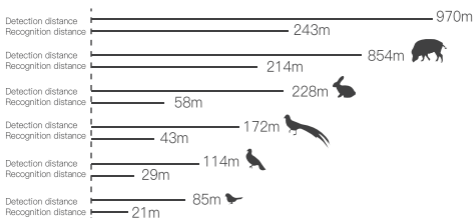


Indoor:



## Detection Distance

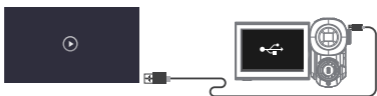
The detection and recognition distances are as follows:



## Specifications

Parameter	Specification
Sensor Type	256 x 192 Infrared Sensor
Screen Resolution	640 x 480
Screen rotation Angle	-90°~180°C (Max to 270°)
Frequency Band	8-14um
Image Frequency	25Hz
Focal Length	11mm
Boot Time	<2 seconds
Zoom	1x, 2x, 4x
Image Capture	Yes
Hot Spot Tracing	Yes
Data Transfer	USB type-C Port
High-speed internal storage	8GB EMMC
Color Palette	Iron, Red hot, White hot, Black hot, Green hot, Rainbow
Battery Type	4000mAh
Battery Life (operating)	> 10 hours (@25°C)
Operating temperature range	0°C(32°F) ~ 45°C(113°F)
Storage Temperature Range	-20°C(-4°F) ~ +60°C(140°F)
Net Weight	450g
Gross Weight	606g
Product Dimension	201mm x 88mm x 52.5mm

## Application Environment



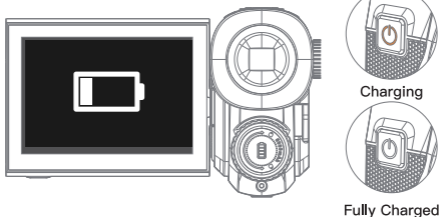
Use the USB-C cable to connect and transfer files to your laptop



Use the cable to connect and transfer files to your phone (if supports OTG)

## Battery


- Please use a 5V adapter which meets safety regulations to charge this device.
- The device supports charging while using.
- For long-term storage of the battery, make sure you fully charge it every 3 months, to ensure the battery does not discharge completely and become damaged.





## Customer Service

Please contact us if you have any questions about our products,  
We would love to hear from you.

-  12-month Limited Warranty
-  Lifetime Technical Support
-  [info@teslong.com](mailto:info@teslong.com) | [support@teslong.com](mailto:support@teslong.com)
-  1-877-899-8809(US)  
(Mon-Fri 8:00 AM-5:00 PM PST)



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