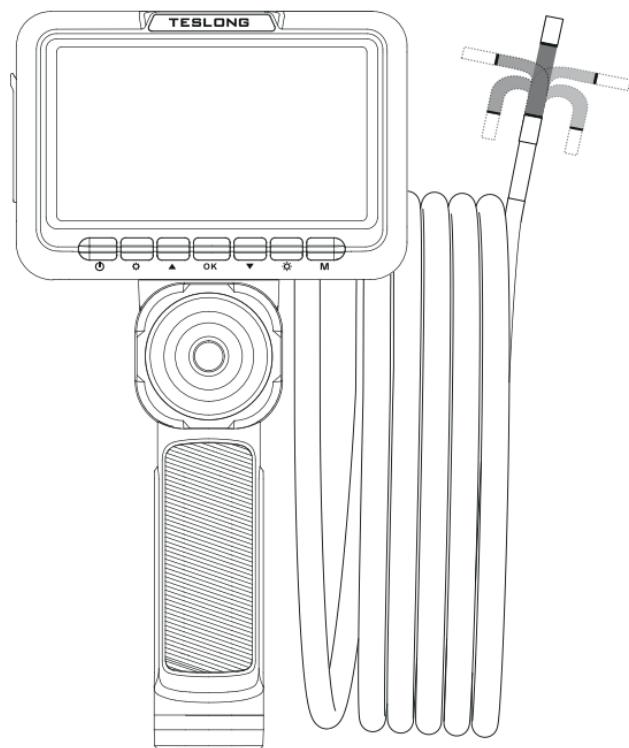


TESLONG

Articulating Borescope User Manual



Model No.: TF550

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Product Introduction

The TF550 articulating inspection camera features a high-definition 5-inch LCD display with a tempered glass screen. It is mainly used for inspecting hard-to-reach areas such as the vehicle evaporator box, fuel tank, and catalytic converter sensors. The flexible probe allows users to easily insert the small tip into narrow spaces, providing vivid, clear, and comprehensive images or videos either on the display screen or via the mobile app.

Product Features

- 5-inch HD display with a screen resolution of 854x480
- Real-time temperature monitoring: Equipped with a temperature sensor that continuously monitors the real-time temperature of the probe with data displayed on the screen.
- High-temperature alarm function
- Supports Wi-Fi connectivity, allowing connection to a mobile app for remote viewing.
- The directional joystick enables the lens to bend in multiple directions, with a bending range of 210°.
- Adjustable LED brightness
- Supports computer connection
- Type-C charging interface

Product Specifications

1. Specifications and Dimensions

Device Specifications	
Display Size	5-inch LCD screen
Display Resolution	854x480
Screen Glass	Tempered glass
Type-C Port	Supports charging and computer connection.
TF Card Slot	Supports TF card insertion, includes a 32 GB memory card.

Physical Characteristics	
Product Size	265x138x120 mm
Net Weight	540 g
Product Color	Gun grey + black
Product Material	ABS + PC + Rubber
Dustproof & Waterproof	IP67-rated camera probe Device body is not waterproof
Working Temp	0-45°C (32-113°F)
Storage Temp	0-45°C (32-113°F)

2. Device Features

Device Features	
Temperature Detection	The probe integrates a real-time temperature sensor that continuously monitors and displays the probe's temperature.
High-Temperature Alarm	At 74°C, the display will turn red to indicate a warning. If the temperature reaches 84°C, a high-temperature alarm will activate, and the lens will automatically power down. The lens will restart once the temperature drops below 60°C.
Lens Bending	The lens can bend up to 210° using the joystick on the handle, providing flexible positioning.
Image Magnification	Press 'Up' to magnify the image in the following steps: 1X → 1.3X → 1.5X.
Image Rotation	Press 'Down' to rotate the image 180°
Photo & Video	Switch to photo or video mode, then press the photo button to capture an image or start recording.
Album	View and play photos and videos directly from the album.
Wi-Fi	Press and hold the settings button to toggle Wi-Fi or enable it through the settings menu.
App Connection	Compatible with the Smart Endoscope app.
Camera Light Brightness Adjustment	Adjust brightness using the light button, with four settings: Bright → Medium → Dim → Off.
Data Transfer	Connect to a computer via the Type-C port.

Photo/Video Specifications	
Photo Format	JPG
Image Resolution	1920x1080,1280x720
Video Format	MOV
Video Resolution	1920x1080,1280x720
Video Recording Limit	The device automatically creates a new clip after 10 minutes of recording.

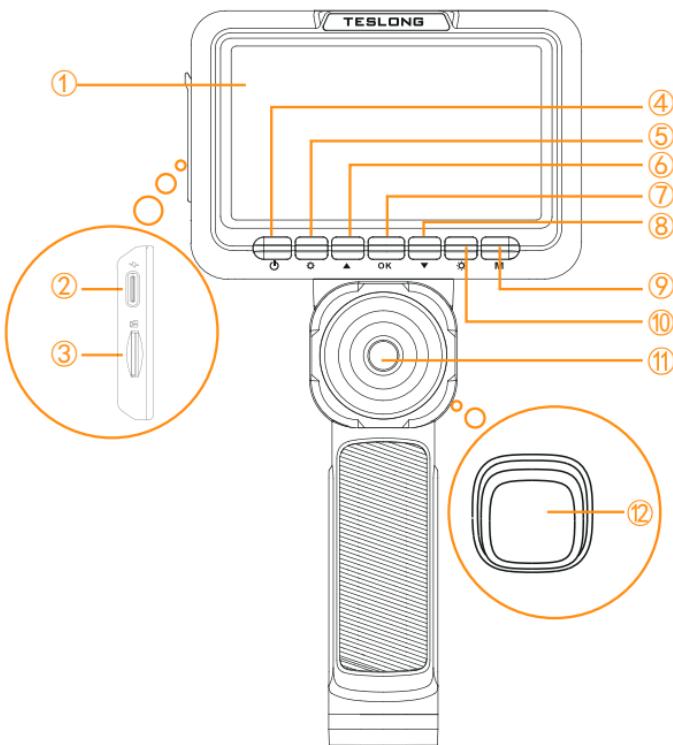
3. Working Parameters

Power and Charging Specifications	
Charging Voltage	DC 5V
Operating Voltage	3.7V
Power Supply	3000mAh Lithium Polymer Battery
Charging Time	About 3.5 hours
Discharging Time	About 4 hours
Indicator Light	<ul style="list-style-type: none"> • Power On: Solid green • Charging while powered on: Green and orange lights alternate flashing; orange light turns off when fully charged • Charging while powered off: Solid orange; orange light turns off when fully charged

4. Camera Parameters

Model	Basic	Dual-Lens	Auto-Focus
Diameter	6.5mm	6.5mm	6.5mm
Megapixel	2.0 MP	1.0 MP	1.0 MP
Frame Rate	20fps	20fps	20fps
Field of View	70°	90°	90°
Light Source	6 LED Lights	6+1 LED Lights	6 LED Lights
Focal Length	2-10 cm	1 cm-∞	0.5 cm-∞
Cable Length	1.55 m	1.55 m	1.55 m

Product Instructions



Function Description		
①	Display Screen	5-inch display
②	Charging Port	Type-C port for charging and file transfer
③	TF Card Slot	Insert TF card
④	Power Button	Press and hold to turn on/off the device
⑤	Settings Button	<p>1. In photo/video mode, press to access system settings</p> <p>2. In album mode, press to delete or protect options</p> <p>3. Press and hold the settings button to quickly toggle Wi-Fi on or off</p>
⑥	Up Button	<p>1. Navigate upwards</p> <p>2. Zoom in photo/video mode: 1X → 1.3X → 1.5X</p>
⑦	OK Button	<p>1. In photo/video mode, press to pause the screen</p> <p>2. In album mode, press to play/pause a selected video</p>
⑧	Down Button	<p>1. Navigate downwards</p> <p>2. Rotate the screen 180° in photo/video mode</p>
⑨	M Button	Switch modes (photo, video, album)
⑩	Light Control Button	Adjust LED light brightness Cycle: Bright → Medium → Low → Off
⑪	Directional Joystick	Controls lens movement, bends up to 210° (Note: the bending angle can reach 210° when the probe is straight or in a U-shape)
⑫	Photo Button	Press once to start photo/video recording, press again to stop recording

Icon State

 : Photo Mode

 : Video Mode

 : No TF Card

 : With TF Card

 : Charge Immediately

 : Power 25%

 : Power 50%

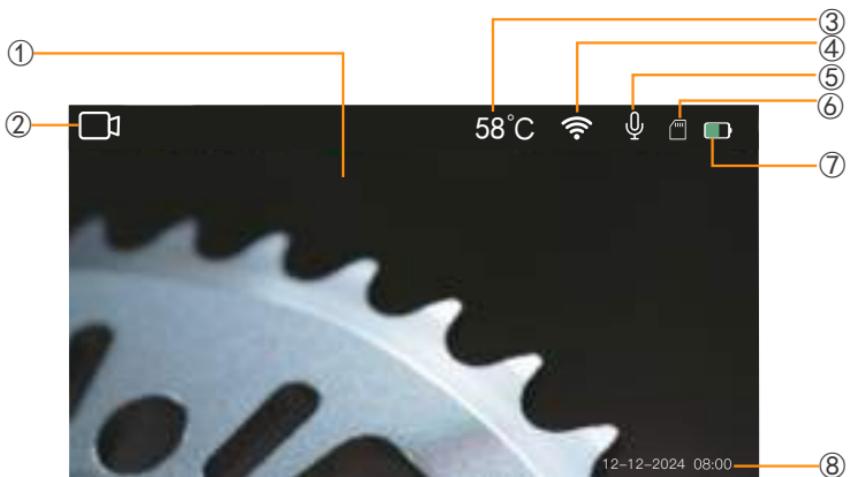
 : Power 75%

 : Full Battery

 : Charging

 : Automatic alarm when over 75°C. Automatic power off when over 85°C.

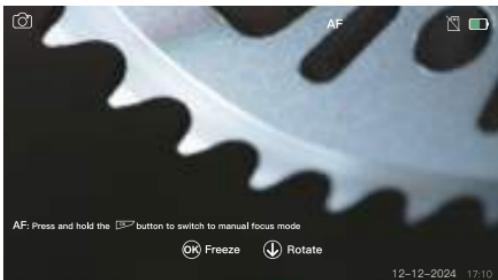
UI Instruction



Function Description		
①	Display Window	Image display interface.
②	Photo/Video/Album Icons	When switching modes using the M button, the corresponding icon will appear.
③	Temperature Display	1. The camera is equipped with a temperature sensor that monitors and displays the probe's temperature in real time.
		2. When the lens temperature reaches 74°C, the display turns red.
		3. At 84°C, a high-temperature warning appears, and the camera stops working. It resumes when the temperature drops below 60°C.
④	Wi-Fi Icon	When Wi-Fi is enabled, the Wi-Fi icon will appear. If not connected, the Wi-Fi icon will blink continuously. After a successful connection, the Wi-Fi icon stops blinking and displays two arrows.
⑤	Recording Icon	Appears in video mode to indicate recording is active. The recording function is enabled by default but can be turned off in the settings menu.
⑥	Memory Card Icon	Displays the memory card status. A slash (/) appears if no card is present or if the card is unrecognized.
⑦	Battery Level	Displays the current battery level. A lightning symbol indicates charging.
⑧	Date and Time	Displays the current date and time (can be adjusted in [Settings - Date/Time]).

Autofocus/Manual Focus Switch

1. Power on the device; it will default to autofocus mode.

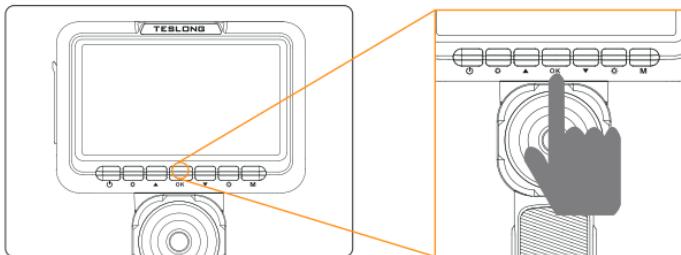


2. Press and hold the "OK" button to switch to manual focus mode.

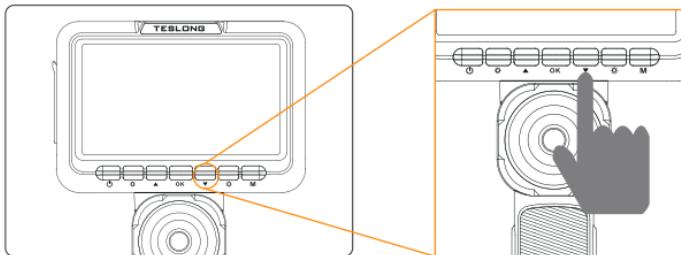


Adjust Focus in Manual Mode

1. Press and hold the "OK" button to toggle between autofocus (AF) and manual focus (MF) modes.

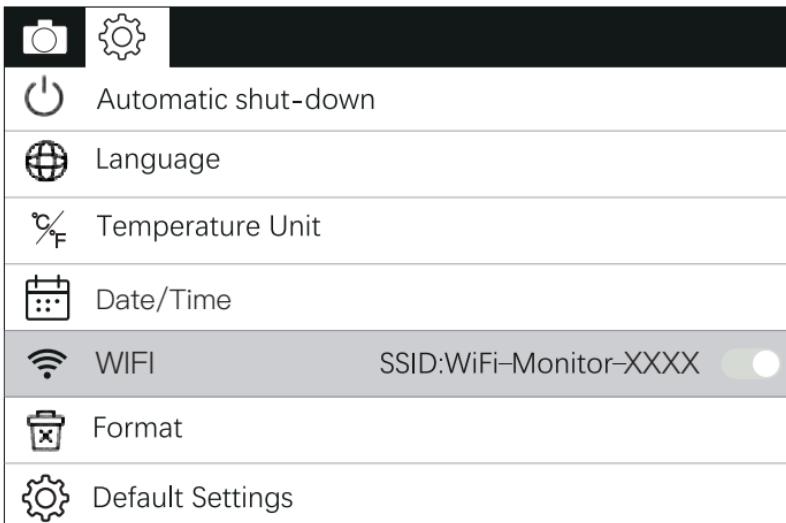


2. In manual focus mode, use the up "▲" and "▼" down buttons to adjust the focus.



Settings Interface

Press the Settings button on the main interface to open the settings menu (see image below).



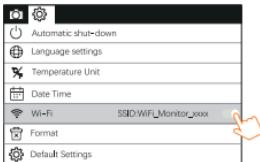
Settings Configuration	
Resolution	Photo Mode: 1920x1080, 1280x720 Video Mode: 1920x1080, 1280x720
Date Stamp	Enable or disable the date stamp, which will be displayed on photos or videos (Default: enabled).
Shutter Sound	Choose to enable or disable the shutter sound (Default: enabled).
Automatic shut-down	Set the auto power-off time: Off, 5 minutes, or 10 minutes (Default: Off). After the selected period of inactivity, the device will automatically power off.
Language	Select the language from 8 options: English, German, French, Italian, Spanish, Russian, Japanese, Chinese (Default: English).
Temperature Unit	Choose the temperature unit: Celsius (°C) or Fahrenheit (°F) (Default: °F).
Date/Time	Manually set the date and time.
WIFI	The device has Wi-Fi functionality; press the "OK" button to turn it on or off. The default is off. When powered on, press and hold the settings button on the main interface to toggle Wi-Fi.
Format	Format the files on the TF card. Note: All files will be deleted after formatting. The photo album will display "No Files."
Default Settings	Restore all settings to their default state (except Date/Time).
Version	View the device model and version information.

Wi-Fi Connection and App Setup

① Scan the QR code with your phone or tablet to download the "Smart Endoscope" app.



② Turn on your device's Wi-Fi in Settings (the Wi-Fi indicator on the device will blink).



③ Connect to the Wi-Fi network.



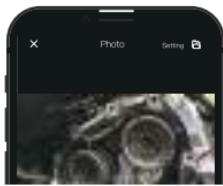
④ Open the app.



⑤ Tap the "⊕" button in the app to set up the device and start using it with your mobile device.



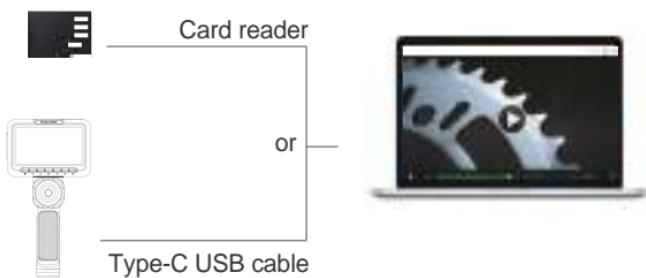
⑥ The image should display on your mobile device.



Note: Once the app starts displaying images, the photo/video button on the device will not work. All operations must be performed in the app.

⚠ After a successful connection, the Wi-Fi icon on the device will stop blinking and display two arrows, indicating the connection is successful. If the Wi-Fi icon does not show two arrows, the connection failed, and the app will not display images. Please reconnect.

Transferring Files



Data Transfer: Connect the inspection camera to the computer. Once connected, the computer will automatically recognize the device, allowing you to transfer photos and videos.

Operating Conditions

This portable, articulating inspection camera is ideal for professional use, enabling inspection of hard-to-reach areas. It is the perfect tool for precision inspections of automobile engines, HVAC systems, plumbing, computers, buildings, and more.

Operating Environment	Camera Probe	In The Air: -10°C to 70°C
		In The Air: 0°C to 45°C
Input Voltage	Machine	DC 5V
Humidity		10% to 80%

Notice

Please read this manual carefully before using the product and follow the instructions to avoid damage.

- Disassembly of this product is prohibited.
- Do not drag the product across hard surfaces to prevent scratches, abrasion, or other damage
- Note that the exposed metal parts of this product are conductive. Avoid contact with live electrical circuits.
- Keep this product out of reach of children.
- This product is not a medical device and is not intended for use in or on any living body.
- Keep the product clean and avoid direct exposure to oil or corrosive liquids.
- This product is not waterproof; avoid contact with liquids.
- Ensure that the articulation wheel returns to the neutral position before retracting the coiled probe. Do not turn the wheel forcefully.
- Do not twist or pull the articulating probe excessively at the front.
- Handle the inspection camera gently and avoid excessive bending of the camera probe.

Safety Warnings

Note:

1. Keep the product away from humid or sun-exposed environments.
2. Avoid contact with sharp objects.
3. Do not use harsh detergents or organic solvents to clean the lens.
It is recommended to use a soft cloth dampened with water or rubbing alcohol.

Warning:

1. Do not puncture the product casing with nails or other sharp objects.
Avoid striking or stepping on the product.
2. Do not use near fire or in extremely hot environments.
3. Do not disassemble the product in any way.

Troubleshooting

Symptoms	Diagnostic Methods
The image is blurry	<ol style="list-style-type: none">1. Check if the lens is dirty or has stains. If so, gently clean it with a soft, damp cloth.2. Ensure the distance between the lens and the subject is at least 3 cm for a clearer image.
Unable to operate the device after connecting to the mobile app	This is normal. The device cannot operate and connect to the mobile app simultaneously. After connecting, only the settings interface is accessible; photo and video functions are disabled.
Cannot take photos or record videos	Try replacing the TF card. A faulty TF card may prevent the camera from responding or saving photos and videos.
Lens cannot bend or bends at a small angle	<p>If the cable is tightly coiled, it may restrict lens movement. Try straightening the cable or arranging it in a U-shape. In these configurations, the lens can bend up to 210 degrees.</p>
Unable to charge	The charging port may be dirty. Clean it with a soft brush and try again.
	The charging cable might be faulty. Try using a different cable.

FCC Caution:

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.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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



Customer Service

Please contact us if you have any questions about
your product.

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