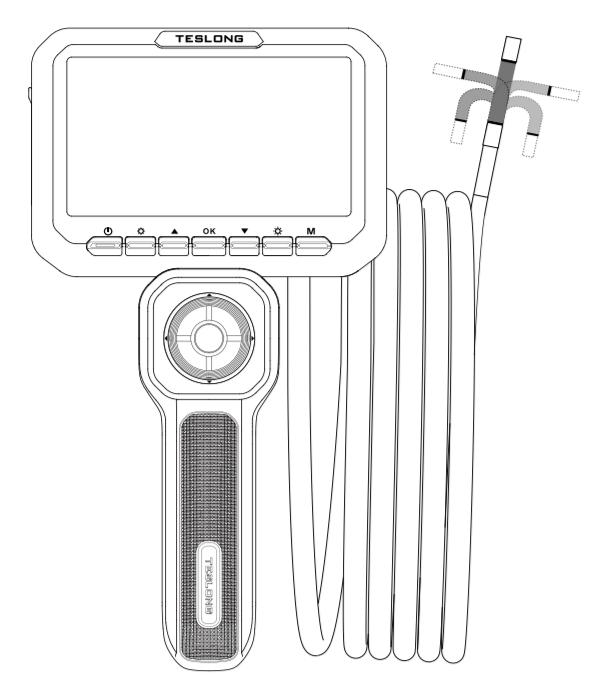


TESLONG

Articulating Borescope
User Manual



Model No.: TF500

Table Of Contents

Product Introduction	1
Product Features	1
Product Specifications	2
UI Instruction	7
Quick Guide Autofocus/Manual Focus	9
Settings Interface	10
Wi-Fi Connecting	12
Transferring Files	13
Application	14
Safety Warnings	15
Fault Diagnosis	16

Product Introduction

The TF500 inspection camera features a high-definition 5-inch LCD display with a tempered glass screen. It is primarily used for inspecting hard-to-reach areas such as automotive evaporators, fuel tanks, and three-way catalytic sensors. With its flexible probe, users can easily maneuver the small tip into narrow spaces and view vivid, clear, and comprehensive images or videos on the display screen or mobile app.

Product Features

- 5-inch HD display with a resolution of 854x480
- Temperature detection function: The device is equipped with a temperature sensor to monitor the surrounding environment's temperature in real-time, which is displayed on the main interface.
- High-definition 5-inch LCD display
- Wi-Fi capability, allowing connection to a mobile app
- Detachable and installable screen module
- Directional joystick controls multi-directional bending of the lens, with a bending angle of ≤ 210°
- LED brightness adjustment for the camera
- Supports connection to a computer for data transfer
- Type-C charging port

Product Specifications

1. Product Specifications	
Lens Specifications	
Display Size	5-inch LCD screen
Display Resolution	854x480
Screen Glass	Tempered glass
Type-C Port	1. Charging port 2. Connects to computer
TF Card Slot	Insert TF card, includes a 32 GB memory card
Physical Characteristics	
Product Size	250x137x120 mm
Net Weight	540 g
Product Color	Gummet gray + black
Product Material	ABS + PC + Rubber
Dust and Waterproof	Probe: IP67, Device: Non-waterproof
Working Temp	0-45°C (32-113°F)
Storage Temp	0-45°C (32-113°F)

2. Functional Parameters

Functional Parameters	
Temperature Detection	The probe is equipped with a temperature sensor that can monitor the surrounding environment temperature in real-time and display it on the screen.
High-Temperature Alarm	When the lens temperature reaches 74°C, the temperature value will turn red as a warning. When the lens temperature reaches 84°C, a high-temperature warning appears on the main interface, and the camera stops working. The camera will automatically restart when the lens temperature drops below 60°C.
Lens Bending	Supported. The lens can be bent in multiple directions by the two joysticks on the handle, with a maximum bending angle of 210 degrees.
Image Magnification	Supported. Press the up button to magnify the image 1X → 1.3X → 1.5X.
Image Rotation	Supported. Press the down button to rotate the image 90° clockwise or 90° counter-clockwise.
Photo & Video	Supported. Switch to photo or video mode first, then press the photo button to capture an image or start recording a video.
Album	Photos and videos can be directly viewed and played in the album.
Wi-Fi	Supported. Press and hold the settings button to turn Wi-Fi on/off, or access the settings menu to change Wi-Fi settings.
App Connection	Supported. Connect to the Smart Endoscooper app.
Camera Light Brightness Adjustment	Supported. Press the light button to control the brightness of the LED light. Adjustable brightness levels: Bright → Medium → Off.
Data Transfer	Supported. Connect to a computer via the Type-C port.

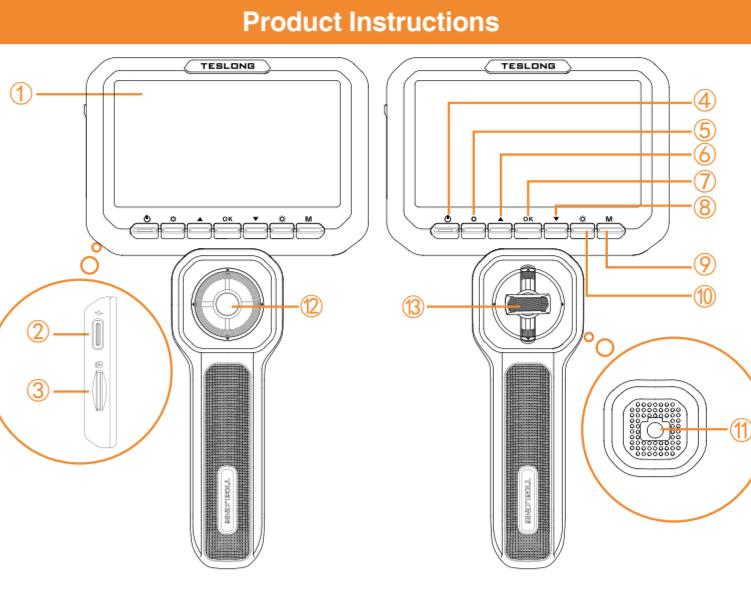
3. Working Parameters

Electrical Parameters Information	
Charging Voltage	DC 5V
Operating Voltage	3.7V
Power Supply	3000mAh Lithium Polymer Battery
Charging Time	Approximately 3 hours 20 minutes
Discharging Time	Approximately 4 hours 20 minutes
Indicator Light	<ul style="list-style-type: none"> Power On: Solid green light Charging while powered on: Green light and orange light alternately flashing Charging while powered off: Solid orange light Charging while powered off: Solid orange light turns on when fully charged

4. Camera Parameters

Model	4.3 inch Single Lens	6.0 inch Dual Lens	3.9 inch Single Lens	8.1 inch AF
Camera Lens	Single Lens	Dual Lens	Single Lens	Single Lens
Megapixel	2 MP	1 MP	1 MP	1 MP
Frame Rate	20fps	20fps	20fps	20fps
Camera Voltage	3.3 V	3.3 V	3.3 V	3.3 V
Recording Duration	The device will automatically start a new clip after recording for 10 minutes.			

5. Product Instructions



- 1 -

- 2 -

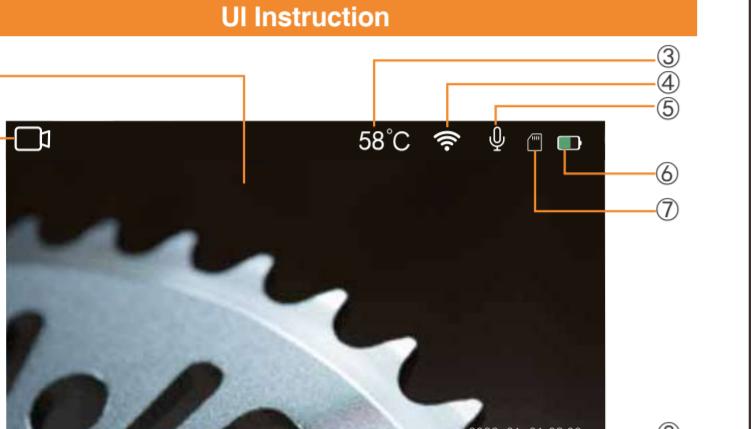
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- 6 -

UI Instruction



Function Description

① Display Window Image display interface

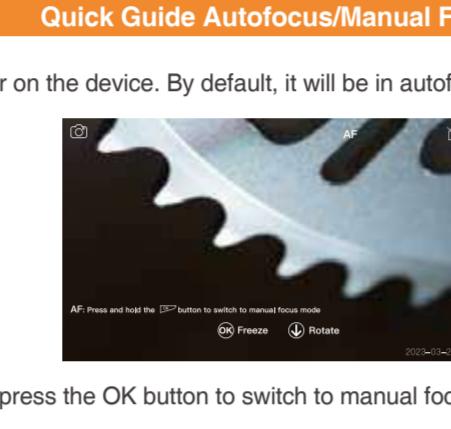
② Photo/Vedio/ Album Icons When switching modes by pressing the M button, the corresponding icon will be shown in this position.

③ Temperature Display The camera has a temperature sensor that monitors the surrounding environment's temperature in real-time and displays it on the screen. When the temperature reaches 74°C, the temperature value turns red. When the temperature reaches 84°C, a high-temperature warning appears on the main interface, and the camera stops working. The camera will automatically restart when the lens temperature drops below 60°C.

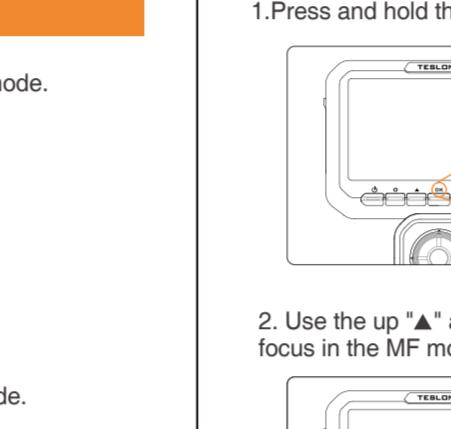
④ Wi-Fi Icon When WiFi is enabled, the WiFi icon appears. If not connected, the WiFi icon will blink continuously. After a successful connection, the WiFi icon stops blinking, and double arrows will appear next to the WiFi icon.

Quick Guide Autofocus/Manual Focus

1. Press and hold the "OK" button to switch between AF/MF mode.

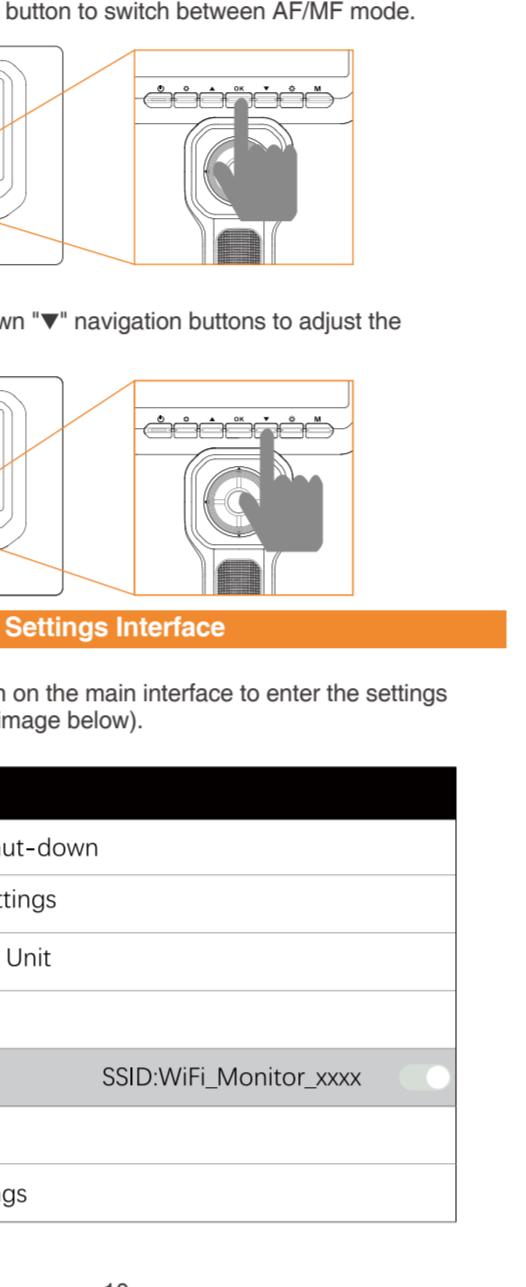


2. Long press the OK button to switch to manual focus mode.



Settings Interface

Click the Settings button on the main interface to enter the settings menu (as shown in the image below).



Wi-Fi Connecting: How to display the Image on Your Phone/Tablet

① Use your device to scan the QR code to turn on the WiFi in "Smart Endoscooper" app.



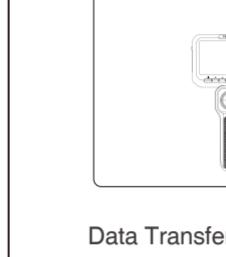
② Turn on your device's WiFi in Settings and turn on the host's WiFi. Indicator light (blue).



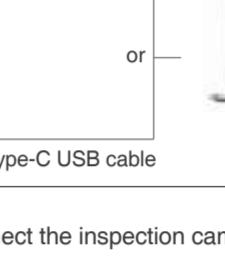
③ Connect the WiFi.



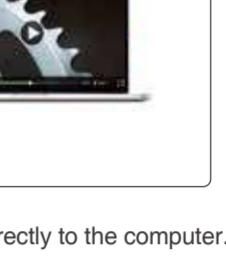
④ Run the app.



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



⑥ You should see the image displayed on your mobile device.



Transferring Files

Data Transfer: Connect the inspection camera directly to the computer. (It can either be powered on.) Once the connection is successful, the computer will automatically recognize the device, allowing you to copy photos and video files from it.

- 7 -

- 8 -

- 9 -

- 10 -

- 11 -

- 12 -

- 13 -

- 14 -

Safety Warnings

⚠ Note

1. Keep away from humid and sun-exposed environments.

2. Avoid contact with sharp objects.

3. Do not use strong detergents or organic solvents to clean the lens; it is recommended to use a soft cloth dampened with water or rubbing alcohol for cleaning.

⚠ Warnings

1. Do not pierce the product casing with nails or other sharp objects.

Do not strike or step on the product.

2. Avoid using it near fire or in extremely hot conditions.

3. Do not disassemble the product in any way.

Fault Diagnosis

Symptoms	Diagnostic Methods
The imaging effect is unclear	1. Check if the lens has dust or stains: if so, clean it gently with a soft, damp cloth. 2. Check if the distance between the probe and the lens is at least 5 cm for the clearest image.
Unable to operate the device after connecting to the mobile app	This is normal. The device does not support simultaneous operation with both the mobile app and the computer. After connecting to the mobile app, the device will automatically turn off the computer and cannot take photos or record videos.
Cannot take photos or record videos	Try replacing the TF card. Sometimes, a faulty TF card can cause the camera to stop working or be unable to save photos or videos.
Lens cannot bend or bends at a small angle	The more the cable is wound, the harder it is to bend the lens. You can try straightening the cable. In this case, the bending angle between these two configurations, the maximum bend angle can reach 210 degrees.
Unable to charge	- Remove and relocate the charging antenna. - Increase the separation between the equipment and receiver. - Check if the probe is connected to the correct port 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.

FCC Notice

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 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)
www.teslong.com



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3.06.06.002200

- 15 -

- 16 -

Function Description

① Display Screen 5-inch display screen

② Charging Port 1. Type-C charging port
2. Connect to a computer for file transfer

③ TF Card Slot Insert TF card

④ Power Button Long press to turn on/off the device

⑤ Settings Button 1. In photo/video mode, press once to enter the system settings menu.
2. In album mode, pressing the settings button will enter the photo/video mode.
3. Long press the settings button to quickly toggle 3.06.06.002200

⑥ Up Button Zoom during photo/video mode: 1X-1.3X-1.5X

⑦ OK Button In photo/video mode, press the OK button to pause the photo/video, album

⑧ Down Button Rotate screen: 180 degrees during photo/video mode

⑨ M Button Mode switch (photo, video, album)

⑩ Light Control Button Adjustable LED light brightness for the lens. Cycle: Bright - Medium Bright - Low Bright - Off

⑪ Photo Button In photo/video mode, press once to start photo/video recording, press again to stop recording.

⑫ Four-way Joystick Can drive the lens to bend in all directions, with a single-direction bending angle ≤ 210° (Note: When the bending angle reaches 210°, the bending angle will be 0°). When the bending angle reaches 0°, the bending angle can reach 210°.

⑬ Two-way Joystick Can drive the lens to bend in two directions, with a single-direction bending angle ≤ 90° (Note: When the bending angle reaches 90°, the bending angle can reach 180°).

4. Camera Parameters

Model	4.3 inch Single Lens	6.0 inch Dual Lens	3.9 inch Single Lens	8.1 inch AF
Camera Lens	Single Lens	Dual Lens	Single Lens	Single Lens
Megapixel	2 MP	1 MP	1 MP	1 MP
Frame Rate	20fps	20fps	20fps	20fps
Camera Voltage	3.3 V	3.3 V	3.3 V	3.3 V
Recording Duration	The device will automatically start a new clip after recording for 10 minutes.			

- 1 -

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Application

For professional use, this portable, articulating inspection camera can be used to inspect hard-to-reach places.

This device is suitable for inspection of automobile engines, HVAC units, plumbing, computers, buildings, and more!

Operating Environment

Camera Probe In The Air: 0°C to 70°C
Machine In The Air: 0°C to 45°C
Input Voltage DC 5V
Humidity 10% to 90%

Notice

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

- Do not scrape the product against hard objects to avoid scratches, abrasion, or other hardware damage.
- Please note that the exposed metal parts of this product are conductive. Avoid exposure to live electrical circuits.
- Keep this product out of the reach of children.
- This is not a medical product and is NOT intended to be used in any animal body.
- Keep the product clean and avoid direct exposure to oil or corrosive liquids.
- This product is not waterproof. Avoid contact with liquids.
- Make sure the articulation wheel returns to the neutral position before pulling out the coiled probe. Do not turn the wheel aggressively.
- Do not twist or pull the articulating probe at the front of the probe.
- Please handle the inspection camera gently. Do not bend the camera probe excessively.

Transferring Files

Data Transfer: Connect the inspection camera directly to the computer. (It can either be powered on.) Once the connection is successful, the computer will automatically recognize the device, allowing you to copy photos and video files from it.

- 7 -

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