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WINWEND 1

WINWEND Endoscope Camera with Light User Manual

Model: 1

1. INTRODUCTION

This manual provides detailed instructions for the proper use, setup, maintenance, and troubleshooting of your WINWEND Endoscope Camera with Light. This device is designed for inspecting hard-to-reach areas, offering clear visual feedback on its integrated 4.3-inch LCD screen. Its robust design, including IP67 waterproofing and adjustable LED lighting, makes it suitable for various inspection tasks in diverse environments.



Figure 1.1: WINWEND Endoscope Camera with Light and accessories.

The image above displays the complete WINWEND Endoscope Camera system, including the handheld display unit, the flexible semi-rigid cable with an integrated camera and LED lights, and the practical accessories: a hook, a magnet, and a side mirror, which attach to the camera tip for enhanced functionality.

2. WHAT'S IN THE BOX

Verify that all components are present in the package:

- WINWEND 4.3-inch LCD Industrial Endoscope (Main Unit)
- Semi-Rigid Inspection Cable (16.5ft)
- USB Charging Cable (charging plug not included)
- User Manual
- Accessory Set:
 - Hook
 - Magnet

- Side Mirror



Figure 2.1: Package Contents.

This image illustrates the primary components included in your product package: the main endoscope unit with its integrated screen, the long semi-rigid cable, and the small accessory attachments designed to enhance the camera's utility.

3. PRODUCT FEATURES

- **Integrated 4.3-inch LCD Screen:** Provides real-time, high-definition 1080P image viewing without the need for external devices like smartphones or driver software.
- **180° Image Rotation:** Allows for adjustment of the image orientation on the screen for optimal viewing angles in various inspection scenarios.
- **8 Adjustable LED Lights:** Equipped with eight LED beads around the camera lens, offering adjustable brightness levels to illuminate dark inspection areas effectively.
- **IP67 Waterproof Camera and Cable:** The camera probe and semi-rigid cable are rated IP67, making them

resistant to dust and immersion in water up to 1 meter for 30 minutes, suitable for wet environments.

- **16.5ft Semi-Rigid Cable:** The flexible yet firm cable can be navigated through narrow and complex spaces, and is detachable for convenient storage.
- **Ergonomic Design:** The handheld unit features an ergonomic grip for comfortable one-handed operation.
- **Long-Lasting Battery:** Built-in 2000mAh Lithium Ion battery provides approximately 3.5 hours of working time on a 3-hour charge.
- **Practical Accessories:** Includes a hook, magnet, and side mirror that attach to the camera tip for retrieving objects or viewing at different angles.



Figure 3.1: 8 Adjustable LED Lights.

This image highlights the camera's tip, showing the eight integrated LED lights that provide adjustable illumination for clear visibility in dark or confined spaces.

Instant to Start



No Phone Needed



No WiFi Needed



No App Needed



Figure 3.2: Instant Operation.

This visual emphasizes the standalone nature of the device, indicating that no external phone, Wi-Fi connection, or application is required for operation, allowing for immediate use upon powering on.

IP67

WATERPROOF



Figure 3.3: IP67 Waterproofing.

The image demonstrates the IP67 waterproof capability of the camera probe, showing it resistant to water, which allows for inspections in wet or submerged conditions.



Figure 3.4: Battery Life.

This diagram illustrates the internal battery specifications, highlighting its 2000mAh capacity, 3-hour charging time, and approximately 3.5 hours of continuous operation.

4. SETUP

1. **Charge the Device:** Before first use, fully charge the endoscope camera using the provided USB charging cable. Connect the USB cable to the Type-C charging port on the side of the main unit and plug the other end into a standard USB power adapter (not included). The charging indicator will show the charging status.
2. **Attach the Semi-Rigid Cable:** Align the connector of the semi-rigid cable with the port on the top of the main unit. Gently push and twist clockwise to secure the connection.
3. **Attach Accessories (Optional):** If needed, screw the hook, magnet, or side mirror onto the threaded tip of the camera probe. Ensure they are securely fastened to prevent detachment during inspection.

5. OPERATING INSTRUCTIONS

1. **Power On/Off:** Press and hold the power button (usually located on the front or side of the main unit) for a few seconds to turn the device on or off. The LCD screen will illuminate.
2. **Adjust LED Lights:** Use the dedicated LED adjustment buttons (often marked with light bulb icons or '+' and '-' symbols) on the handle to increase or decrease the brightness of the camera's LED lights. There are typically multiple brightness levels.
3. **Image Rotation:** Press the 180° image rotation button to flip the image on the screen. This is useful when navigating in confined spaces where the camera orientation might be inverted.
4. **Zoom Function:** If available, use the zoom buttons to magnify the image on the screen for closer inspection of details.
5. **Navigate the Cable:** Carefully guide the semi-rigid cable into the area you wish to inspect. The cable's flexibility allows it to bend around corners, while its rigidity helps in pushing it through longer distances.
6. **Optimal Focal Range:** The camera has a specific focal range (0.78 to 3.94 inches / 20 to 100mm). For the clearest image, position the camera within this distance from the object of interest.

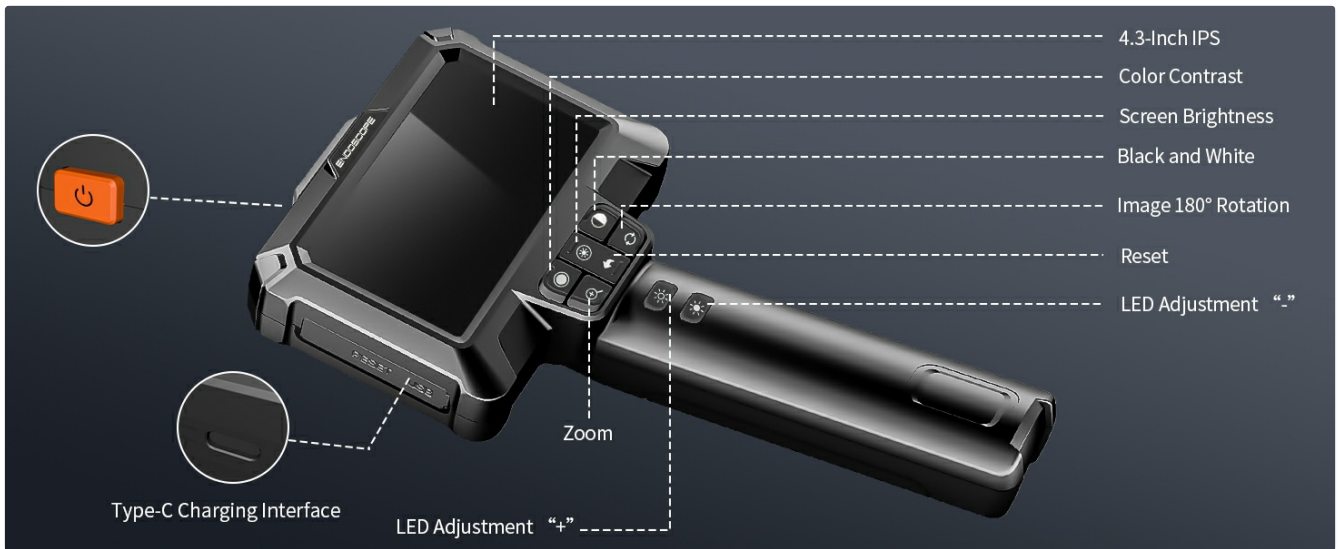


Figure 5.1: Control Panel Overview.

This diagram provides a detailed view of the endoscope's control panel, indicating the function of each button, including power, image rotation, LED brightness adjustment, and the Type-C charging port.



Figure 5.2: 180° Image Rotation.

This image visually demonstrates the 180-degree image rotation feature, showing how the display can be flipped to provide a correctly oriented view regardless of the camera's physical position.

6. MAINTENANCE

- **Cleaning the Camera Lens:** After each use, especially in dirty or wet environments, gently wipe the camera lens with a soft, dry, lint-free cloth. For stubborn dirt, a slightly damp cloth can be used, followed by drying. Do not use abrasive cleaners or solvents.
- **Cleaning the Cable:** Wipe down the semi-rigid cable with a damp cloth to remove any debris or moisture. Ensure the cable is dry before coiling and storing.
- **Storage:** Store the endoscope camera and its accessories in a cool, dry place, away from direct sunlight and extreme temperatures. Ensure the cable is not kinked or bent sharply during storage.
- **Battery Care:** To prolong battery life, avoid fully discharging the battery frequently. If storing for an extended period, charge the battery to approximately 50% every few months.
- **Waterproof Integrity:** While the camera probe is IP67 waterproof, avoid prolonged submersion beyond specified limits and ensure the Type-C charging port cover is securely closed when operating in wet conditions.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
Device does not power on.	Low battery; Power button not pressed correctly.	Charge the device fully. Press and hold the power button firmly for several seconds.
Poor image quality / Blurry image.	Camera lens is dirty; Object is outside focal range; Insufficient lighting.	Clean the camera lens. Adjust the distance between the camera and the object (optimal 0.78-3.94 inches). Increase LED brightness.
LED lights are not working.	LED brightness set to minimum; Device malfunction.	Press the LED adjustment '+' button to increase brightness. If problem persists, contact customer support.
Cable difficult to maneuver.	Sharp bends or obstructions.	Gently adjust the cable's path. Do not force the cable, as this may cause damage.

8. SPECIFICATIONS

Feature	Specification
Display Screen	4.3-inch Color LCD
Video Capture Resolution	1080p
Camera Diameter	Not specified (typical for borescope)
Cable Length	16.5 feet (approx. 5 meters)
Waterproof Rating	IP67 (Camera and Cable)
LED Lights	8 Adjustable LED Beads
Macro Focus Range	0.78 to 3.94 inches (20 to 100mm)
Battery Type	1 Lithium Ion battery (included)
Battery Capacity	2000mAh
Charging Time	Approx. 3 hours
Working Time	Approx. 3.5 hours
Color	Black
Item Model Number	1
Package Dimensions	11.02 x 5.91 x 2.95 inches
Item Weight	1.32 Pounds

9. WARRANTY AND SUPPORT

WINWEND is committed to customer satisfaction. For any questions regarding your borescope inspection camera or the instructions provided in this manual, please do not hesitate to contact WINWEND customer service. We provide professional and attentive after-sales service to assist you.

Please refer to your purchase documentation for specific warranty terms and contact information.

