ILIHOME Single Lens

ILIHOME Borescope Camera (Single Lens) User Manual

Model: Single Lens

Brand: ILIHOME

1. Introduction

This manual provides detailed instructions for the safe and effective use of your ILIHOME Borescope Camera (Single Lens). Please read this manual thoroughly before operating the device and retain it for future reference.
The ILIHOME Borescope Camera is designed for visual inspection in hard-to-reach areas. It features a 1080P HD camera with 8 adjustable LEDs, a 4.3-inch IPS color screen, and a 16.4ft semi-rigid cable, making it suitable for various industrial, automotive, and household inspection tasks.

2. Safety Information

Observe the following safety precautions to prevent injury or damage to the device:

- Do not immerse the main unit (screen) in water. Only the camera probe and cable are IP67 waterproof.
- Do not use the device in environments with flammable or explosive gases.
- Keep the device away from strong electromagnetic fields.
- Do not attempt to disassemble or modify the device. Repairs should only be performed by authorized personnel.
- Ensure the device is fully charged before use to avoid interruptions during inspection.
- Clean the camera lens gently with a soft cloth to maintain image clarity.
- Store the device in a dry, cool place when not in use.

3. Package Contents

Verify that all items are present in the package:

- ILIHOME Borescope Camera (Main Unit with 4.3" IPS Screen)
- 16.4ft (5m) Semi-Rigid Camera Cable with 8mm IP67 Waterproof Lens
- USB Type-C Charging Cable

- Accessory Kit: Hook, Magnet, Side Mirror
- User Manual



Figure 3.1: Contents of the ILIHOME Borescope Camera package.

4. Product Overview

Familiarize yourself with the components and controls of your borescope camera.

4.1 Main Unit



Figure 4.1: Main unit of the borescope camera.

- **4.3-inch IPS Screen:** High-definition display for real-time viewing.
- **Control Panel:** Buttons for power, LED brightness, image rotation, and zoom.
- **Camera Cable Port:** Connects the semi-rigid camera cable to the main unit.
- **Type-C Charging Port:** For charging the internal battery.

4.2 Camera Probe and Cable



Figure 4.2: 8mm IP67 waterproof camera lens with integrated LEDs.

- **8mm Camera Lens:** Provides 1080P HD resolution for clear images.
- **8 Adjustable LEDs:** Integrated lights around the camera for illumination in dark environments.
- **IP67 Waterproof Rating:** The camera probe and cable are resistant to water and dust, suitable for wet or oily conditions.
- **Semi-Rigid Cable:** Maintains its shape for easier navigation through confined spaces.

4.3 Accessory Kit



Figure 4.3: Included accessories: magnet, hook, and side mirror.

- **Hook:** For retrieving small objects.
- **Magnet:** For picking up metallic items.
- **Side Mirror:** Attaches to the camera tip for viewing at a 90-degree angle.

5. Setup

5.1 Charging the Device

Before first use, fully charge the borescope camera. Connect the USB Type-C charging cable to the device's charging port and a compatible 5V/2A USB power adapter (not included) or power bank. The charging indicator will show the charging status.



Figure 5.1: Charging the borescope camera via Type-C port.

5.2 Connecting the Camera Cable

Insert the connector of the semi-rigid camera cable into the designated port on the main unit. Ensure a secure connection. The cable is detachable and replaceable, allowing for different lengths or easy replacement if damaged.



Figure 5.2: Connecting the detachable camera cable.

5.3 Attaching Accessories

To attach the hook, magnet, or side mirror, carefully screw the desired accessory onto the threaded tip of the camera lens.

6. Operation

6.1 Powering On/Off

Press and hold the **Power Button** (usually marked with a power symbol) to turn the device on or off. The screen will illuminate upon startup.



Figure 6.1: Control panel buttons.

6.2 Adjusting LED Brightness

Press the **LED Brightness +** or **LED Brightness -** buttons to cycle through the 3 levels of LED illumination (low, medium, high) or turn them off. This helps optimize visibility in various lighting conditions.



Figure 6.2: Adjusting LED brightness.

6.3 Image Rotation

Press the **180° Rotation Button** to rotate the image on the screen by 180 degrees. This is useful when the camera is oriented upside down in a confined space.

6.4 Zoom Function

Use the **Zoom In** and **Zoom Out** buttons to magnify or reduce the view on the screen, allowing for closer inspection of details.

6.5 Black and White Mode

Press the **B/W Mode Button** to switch the display between color and black & white. This can sometimes improve contrast in low-light conditions.

6.6 Optimal Observation Distance

For the clearest image, position the camera lens between 2 to 10 centimeters (approximately 0.8 to 4 inches) from the

object being inspected.

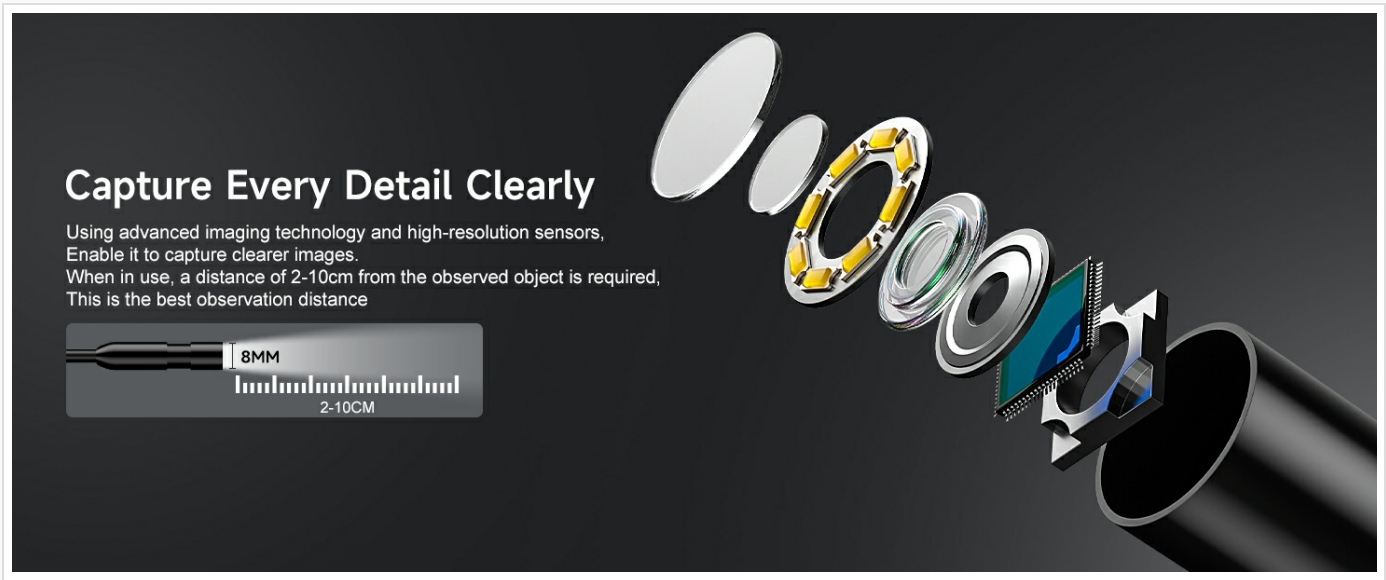


Figure 6.3: Optimal camera observation distance.

7. Maintenance

7.1 Cleaning

- **Camera Lens:** Gently wipe the camera lens with a soft, lint-free cloth. For stubborn dirt, a small amount of lens cleaner can be applied to the cloth, not directly to the lens.
- **Main Unit:** Wipe the screen and body with a dry, soft cloth. Avoid using abrasive cleaners or solvents.
- **Cable:** Clean the semi-rigid cable with a damp cloth if it becomes dirty. Ensure it is dry before coiling for storage.

7.2 Storage

When not in use, store the borescope camera and its accessories in a clean, dry, and cool environment, away from direct sunlight and extreme temperatures. Coil the camera cable loosely to prevent damage.

7.3 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.

8. Troubleshooting

Problem	Possible Cause	Solution
Device does not power on.	Battery is depleted.	Charge the device fully using the provided USB Type-C cable.
No image on screen.	Camera cable not properly connected.	Ensure the camera cable is securely plugged into the main unit.
Image is blurry or unclear.	Camera lens is dirty; Object is outside optimal focus range.	Clean the camera lens. Adjust the distance between the lens and the object (2-10cm).

Problem	Possible Cause	Solution
LEDs are not working.	LED brightness set to minimum or off.	Press the LED Brightness + button to increase illumination.
Screen freezes or malfunctions.	Temporary software glitch.	Power off the device, then power it back on. If the issue persists, contact customer support.

9. Specifications

Feature	Detail
Model	Single Lens
Screen Size	4.3-inch IPS Color Screen
Video Capture Resolution	1080P HD
Camera Diameter	8mm
LED Lights	8 Adjustable LEDs (3 levels)
Waterproof Rating	IP67 (Camera Probe and Cable)
Cable Length	16.4ft (5 meters) Semi-Rigid
Battery	1 Lithium Polymer battery (included), 2000mAh
Charging Port	USB Type-C (5V/2A)
Optimal Focal Length	2-10 cm (0.8-4 inches)
Package Dimensions	8.54 x 5.87 x 2.83 inches
Item Weight	1.19 Pounds
Manufacturer	ILIHOME

10. Warranty and Support

10.1 Warranty Information

The ILIHOME Borescope Camera typically comes with a 2-year warranty. Please refer to your purchase documentation or contact ILIHOME customer support for specific warranty terms and conditions.

10.2 Customer Support

For technical assistance, troubleshooting not covered in this manual, or warranty claims, please contact ILIHOME customer support through the retailer where the product was purchased or visit the official ILIHOME website for contact information.

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Example: How do I reset this device or fix this error?

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