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› Ralcam H406BD Dual Lens Articulating Borescope User Manual

## Ralcam H406BD

# Ralcam H406BD Dual Lens Articulating Borescope User Manual

Model: H406BD-Max-1.5M

## 1. PRODUCT OVERVIEW

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The Ralcam H406BD Dual Lens Articulating Borescope is an advanced inspection camera designed for detailed visual examination of inaccessible areas. It features a 6.5mm slim probe with dual lenses, offering both front and side views simultaneously or individually. The probe is equipped with adjustable LED lights and a two-way articulation mechanism for precise maneuverability. The device includes a 5-inch IPS display for clear, real-time viewing and is powered by a rechargeable battery, making it suitable for automotive, HVAC, plumbing, and industrial inspections.



Figure 1: Ralcam H406BD Dual Lens Articulating Borescope main unit.

## 2. PACKAGE CONTENTS

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Verify that all items listed below are included in your package:

- 1 x Ralcam H406BD Borescope Main Unit
- 1 x 1.5m/5.0ft Flexible Snake Tube (Probe)
- 1 x Carrying Case
- 1 x 32GB TF Card (pre-installed)
- 1 x USB-C Charging/Data Transfer Cable
- 1 x User Manual

# 5 Inch Large IPS Screen

More larger, see more, do faster



Figure 2: Borescope main unit, flexible probe, and accessories neatly stored in the carrying case.

## 3. SETUP

### 3.1 Charging the Device

Before first use, fully charge the borescope's built-in rechargeable battery. Connect the provided USB-C cable to the charging port on the main unit and plug the other end into a compatible USB power adapter (not included).

Figure 3: The borescope features a detachable and rechargeable battery for convenience.

### 3.2 Attaching the Probe

Carefully align the connector of the flexible snake tube probe with the port on the main unit. Push firmly until it clicks into place, ensuring a secure connection.

### 3.3 Powering On/Off

Press and hold the power button (usually marked with a power symbol) for approximately 2 seconds to turn the device on. The indicator light will turn green. To power off, press and hold the power button again for 2 seconds.

## 4. OPERATING INSTRUCTIONS

### 4.1 Display and Controls

The 5-inch IPS screen provides a clear, real-time view of the inspection area. The control panel below the screen allows access to various functions.



Figure 4: The 5-inch IPS screen offers a large and detailed view for inspections.

### 4.2 Adjusting LED Lights

The probe features 6+1 adjustable LED lights to illuminate dark inspection areas. Use the dedicated light adjustment button on the main unit to cycle through different brightness levels (Low-light, Middle-light, Ultra-bright) to suit various lighting conditions and avoid glare.



## USB-C Charging/ Data Transfer Cable

Charging with USB-C port cable or transfer photos and videos to your PC

Figure 5: Adjustable LED lights provide optimal illumination in various environments.

### 4.3 Switching Lens Modes (Front, Side, Dual View)

The Ralcam H406BD features dual lenses. Long press the appropriate button (indicated by a camera icon with an arrow) to toggle between Front Camera (default), Side Camera, and Dual Camera Modes. This allows for comprehensive inspection without repositioning the probe.



## Portable Carrying Case

Compact and lightweight, easy to store and transport for outdoor inspection

Figure 6: Switching between front, side, and dual camera views for thorough inspection.

### 4.4 Articulation Control

The probe offers two-way 210° articulation. Use the red control wheel on the handle to precisely adjust the angle of the camera tip, allowing navigation around obstacles and viewing from multiple perspectives.



Figure 7: Two-way 210° articulation for flexible viewing in confined spaces.

#### 4.5 Taking Photos and Recording Videos

The borescope allows you to capture high-resolution images and videos. Use the dedicated buttons on the control panel to switch to capture mode, take photos, or start/stop video recording. All media is saved to the included 32GB TF card.

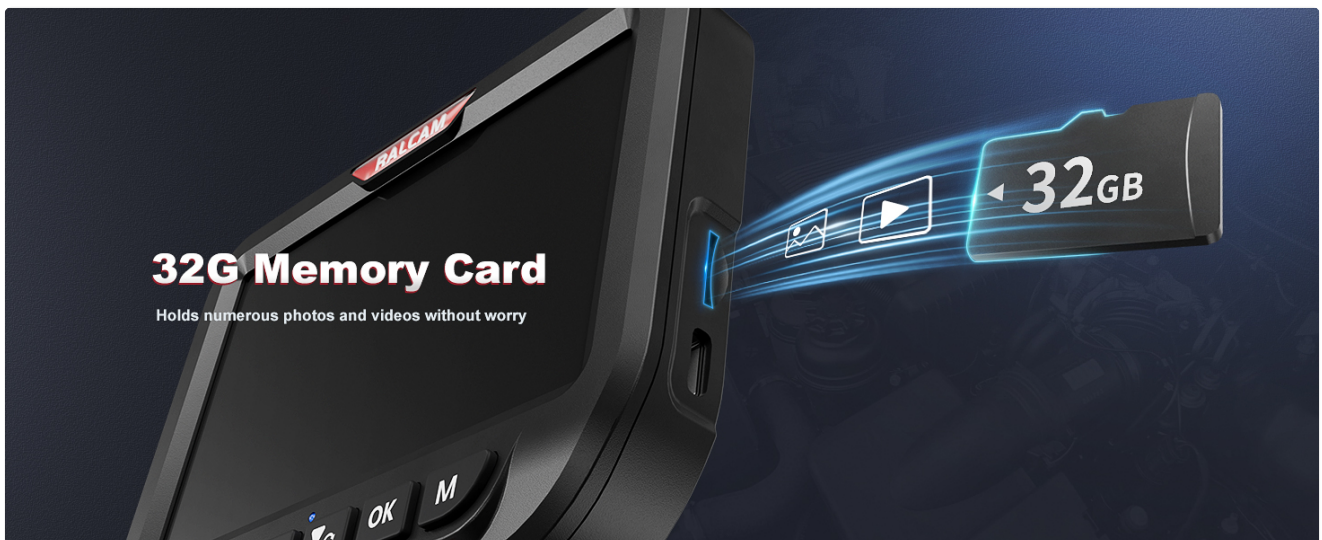


Figure 8: Utilize 4X digital zoom for closer inspection of details.

Your browser does not support the video tag.

Video 1: Demonstration of the Ralcam H406BD borescope's features, including articulation, LED adjustment, and dual-lens viewing, during an automotive inspection.

## 5. MAINTENANCE

### 5.1 Cleaning the Probe and Lens

The probe is IP67 waterproof, allowing for use in wet and dusty environments. After each use, especially in dirty conditions, gently wipe the probe and camera lens with a soft, damp cloth. Ensure no debris obstructs the lens for clear imaging.



## High Temperature Protection

Shut down for protection when the temperature is higher than **95°C**

Figure 9: The IP67 waterproof probe is designed for durability in challenging environments.

### 5.2 Data Transfer

To transfer photos and videos to your computer, connect the borescope to your PC using the provided USB-C cable. The device will appear as a removable storage device, allowing you to access and copy your files.



## Detachable & Rechargeable Battery

Easily charge or remove for new battery

Figure 10: USB-C port for convenient charging and data transfer to a computer.

## 6. TROUBLESHOOTING

### 6.1 No Image on Screen

- Ensure the device is powered on and fully charged.
- Check that the probe is securely connected to the main unit.
- Restart the device.

### 6.2 High Temperature Protection

The device is equipped with high-temperature protection. If the probe temperature exceeds 90°C (194°F), the device may automatically shut down to prevent damage. Allow the probe to cool down before resuming operation.

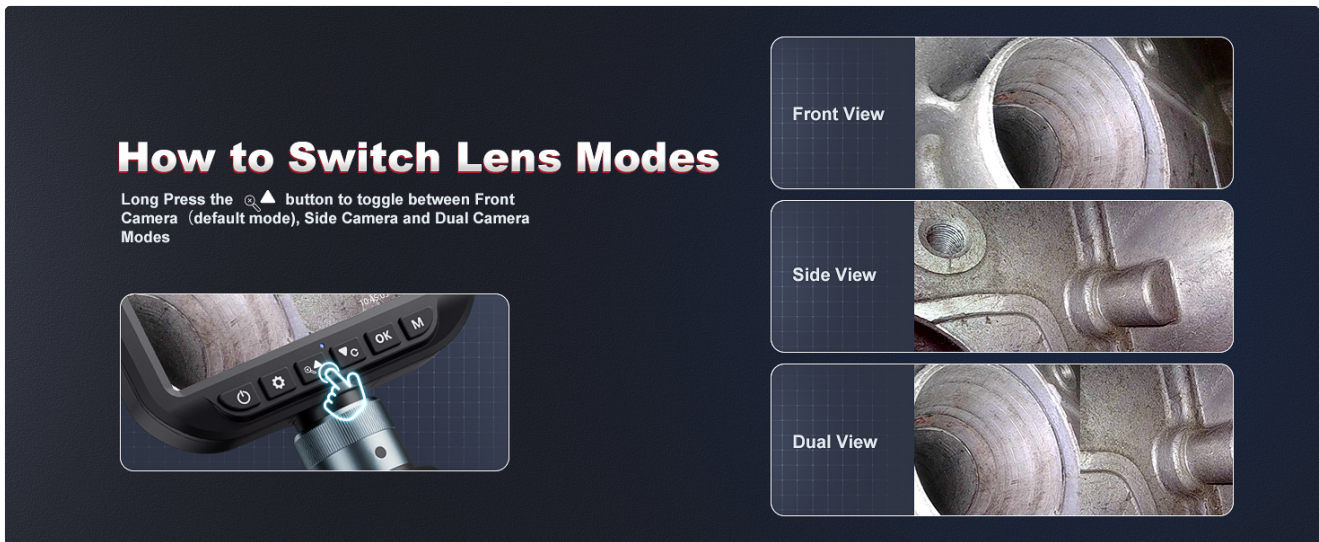


Figure 11: High temperature protection warning on the screen.

### 6.3 Poor Image Quality

- Clean the camera lens as described in the Maintenance section.
- Adjust the LED brightness to optimize illumination and reduce glare.
- Ensure the probe is positioned at an optimal distance from the object being inspected.

## 7. SPECIFICATIONS

Feature	Specification
Model Number	H406BD-Max-1.5M
Probe Diameter	6.5mm
Cable Length	5.0FT (1.5M) Flexible Cable
Video Capture Resolution	1080p
Screen Size	5 inches IPS
Articulation	Two-Way 210°
LED Lights	6+1 Adjustable LEDs
Waterproof Rating	IP67 (Probe)
Battery	Rechargeable (1 A battery included)
Storage	Micro SD Card (32GB included)
Connectivity	USB-C for charging and data transfer
Item Weight	3.03 pounds
Color	Black

## 8. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the documentation included with your product or

contact Ralcam customer service. Specific warranty terms and conditions may vary.