

Ralcam N306-S2M

Ralcam N306-S2M Two-Way Articulating Borescope Instruction Manual

Model: N306-S2M

1. INTRODUCTION

Thank you for choosing the Ralcam N306-S2M Two-Way Articulating Borescope. This industrial-grade endoscope is designed for precise visual inspection in hard-to-reach areas, offering advanced features for professionals and DIY enthusiasts alike. Please read this manual thoroughly before operating the device to ensure safe and effective use.

2. PRODUCT OVERVIEW

The Ralcam N306-S2M features a robust design with a focus on maneuverability and clear imaging. Key features include:

- **210° Two-Way Articulating Probe:** Allows for easy adjustment of viewing angles, eliminating blind spots. Constructed with 19-in-1 ultra-fine durable stainless steel wire for long-term stability.
- **6.2mm/0.24in Inspection Camera:** Equipped with 4 adjustable LED lights for excellent illumination in dark and humid environments, ensuring clear detail visibility.
- **6.6FT Semi-rigid Cable with Anti-slip Handle:** The semi-rigid cable directs the probe tip precisely, while the anti-slip texture on the handle provides a secure grip.
- **3.5-inch HD Display with 4x Zoom:** High-resolution display with a 1/9 CMOS chip offers clear and lifelike images. The screen rotates 180° for flexible viewing angles.
- **High-Temperature Protection:** The endoscope camera probe is IP67 waterproof and oil-proof. Features a high-temperature warning function and built-in mic/speaker for recording video and pictures.



Image: Ralcam Borescope demonstrating 210-degree two-way articulation for comprehensive viewing.

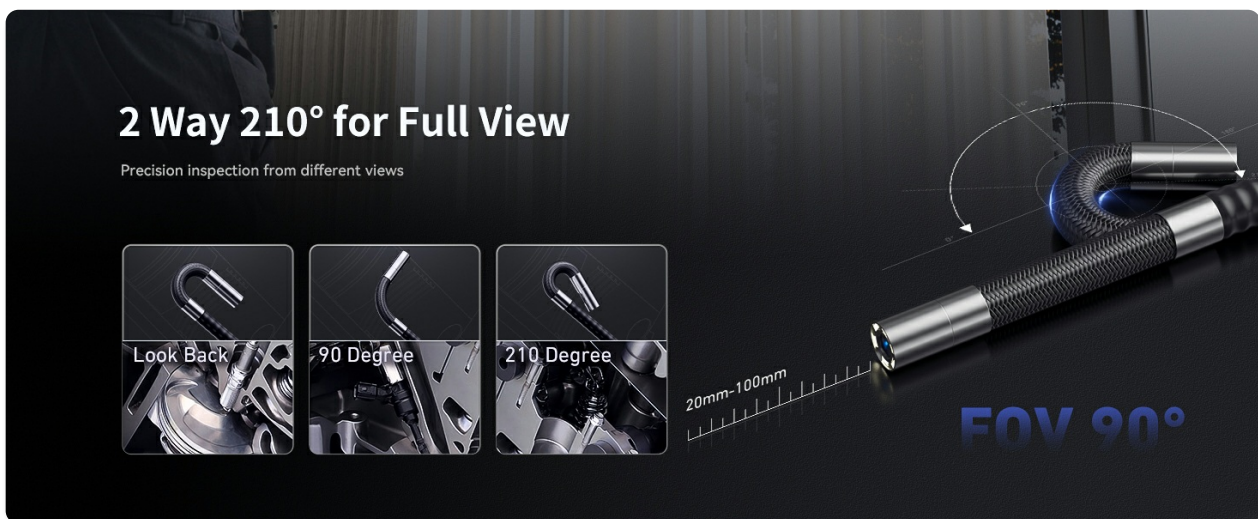


Image: Ralcam Borescope highlighting the slim 6.2mm camera for navigating narrow spaces.

3. WHAT'S IN THE BOX

The Ralcam N306-S2M package typically includes the following components:

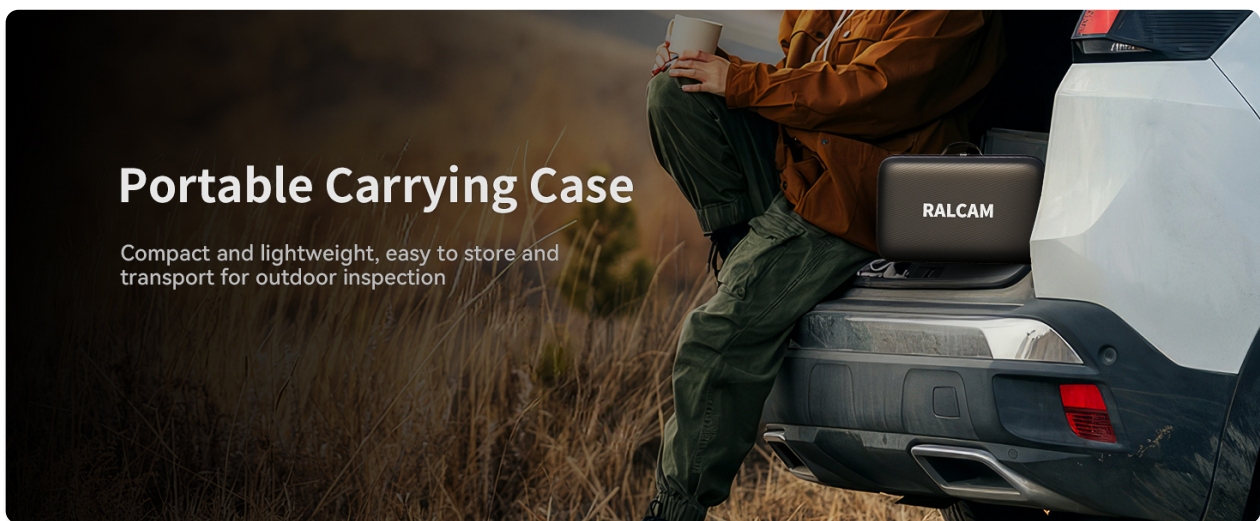
- Ralcam N306-S2M Borescope Unit (with integrated 3.5-inch display and 6.6FT semi-rigid cable)
- USB-C Charging/Data Transfer Cable
- User Manual
- Portable Carrying Case
- 1 Lithium Polymer Battery (included and pre-installed)



USB-C Charging/Data Transfer Cable

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

Image: Ralcam Borescope connected to a laptop via USB-C cable for charging and data transfer.



Portable Carrying Case

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

Image: Ralcam Borescope stored in its compact and lightweight portable carrying case.

4. SETUP

Before first use, ensure the device is fully charged. Connect the USB-C cable to the borescope and a power source. The battery indicator on the screen will show charging status.

4.1 Power On/Off

- **To Power On:** Press and hold the power button (usually marked with a power symbol) until the screen illuminates.
- **To Power Off:** Press and hold the power button until the screen turns off.

4.2 Initial Settings

Upon first power-on, you may need to adjust basic settings such as language, date, and time. Navigate through the menu using the directional buttons and confirm selections with the 'OK' button.

5. OPERATING INSTRUCTIONS

5.1 Articulation Control

The unique 210° two-way articulation allows precise control of the camera probe's direction. Use the articulation wheel/lever on the handle to bend the probe tip left or right. Move the wheel smoothly and slowly for optimal control and to prevent damage.

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Video: Teslong TD500 Articulating Borescope First Use. This video demonstrates the articulation control and basic operation of a similar borescope model.

5.2 Adjusting LED Lights

The 4 adjustable LED lights provide illumination in dark areas. Use the light button (often marked with a sun symbol) to cycle through different brightness levels or to turn the lights off/on.

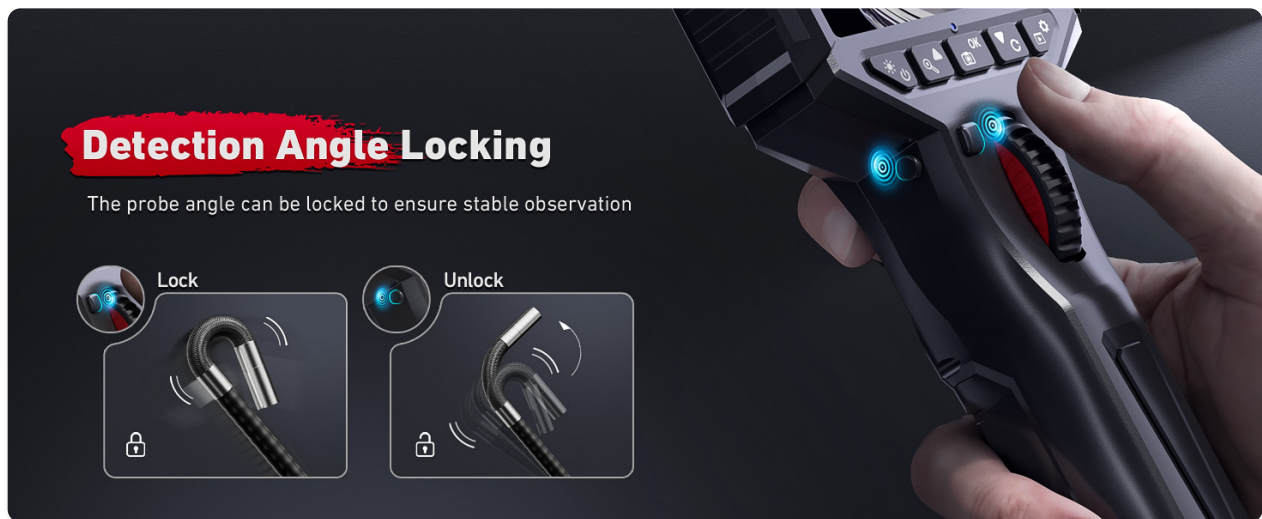


Image: Ralcam Borescope showing the one-touch brightness control for its 4-level LED lighting.

5.3 Photo and Video Capture

The borescope allows you to capture still images and record videos. Use the dedicated photo/video button (often on the handle or near the screen) to switch between modes and capture media.

- **To Take a Photo:** In photo mode, press the photo/video button once.
- **To Record Video:** In video mode, press the photo/video button once to start recording, and press again to stop.

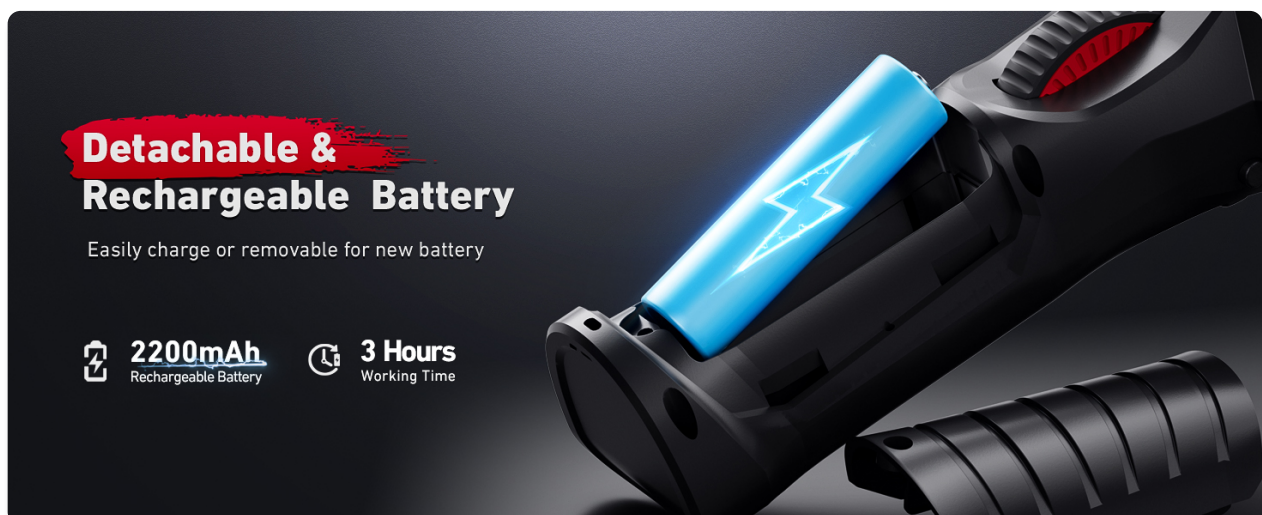


Image: Ralcam Borescope illustrating the photo and video switching functionality for recording inspection details.

5.4 Zoom Function

Utilize the 4x zoom function to get a closer look at details. The zoom controls are typically integrated with the directional buttons or a dedicated zoom button.

5.5 Screen Rotation

The 3.5-inch HD display can rotate 180° to optimize your viewing angle, especially when working in awkward positions. This feature is usually controlled via a dedicated button or a menu option.



Image: Ralcam Borescope showing the 180-degree screen rotation and 4x zoom feature for detailed close-up views.

6. MAINTENANCE

6.1 Cleaning the Camera Lens

To ensure optimal image clarity, clean the camera lens before and after each use. Use a soft microfiber cloth or a cotton swab. For stubborn stains, a small amount of warm water or rubbing alcohol can be applied to the cloth/swab. Avoid using strong solvents.

6.2 Cleaning the Monitor and Handle

Wipe down the monitor screen and device handle with a microfiber cloth to remove dust and fingerprints. A few drops of warm water or rubbing alcohol can be used for more thorough cleaning.

6.3 Storage

When not in use, store the borescope in its portable carrying case to protect it from dust, moisture, and physical damage.

7. TROUBLESHOOTING

7.1 No Image on Screen

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

- Restart the device.

7.2 Poor Image Quality

- Clean the camera lens as described in the Maintenance section.
- Adjust the LED light brightness to suit the environment.
- Ensure the camera is within the optimal focal distance from the object.

7.3 Device Overheating

The borescope has a high-temperature warning function. If the device indicates overheating, immediately power it off and allow it to cool down before further use. Avoid prolonged use in environments exceeding 95°C (203°F).

8. SPECIFICATIONS

Feature	Detail
Manufacturer	Ralcam
Model Number	N306-S2M
Probe Diameter	6.2mm / 0.24in
Cable Length	6.6FT (2 meters)
Cable Type	Semi-rigid
Articulation	210° Two-Way
Display Size	3.5-inch HD
Video Capture Resolution	720p
Zoom Type	Optical Zoom (4x)
Water Resistance Level	IP67 (Waterproof & Oil-proof)
Battery Type	1 Lithium Polymer (included)
Hardware Interface	USB Type C
Item Weight	1.02 kg

9. WARRANTY AND SUPPORT

For warranty information, technical support, or any inquiries regarding your Ralcam N306-S2M borescope, please contact Ralcam customer service. Refer to the contact details provided in your product packaging or visit the official Ralcam website.

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Video: Teslong TD300P Articulating Borescope First Use. This video provides an overview of a similar product's initial setup and features, which may be helpful for general understanding.

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Video: Teslong USB-C Two-Way Articulating Borescope with Light. This video showcases the features and functionality of a comparable borescope model, including its USB-C connectivity.

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Video: Teslong TD450S Articulating Borescope First Use. This video demonstrates the initial use and features of a similar articulating borescope, offering insights into its operation.

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Video: NIDAGE Two-Way Articulating Borescope Camera with Light. This video illustrates the capabilities of a comparable two-way articulating borescope with integrated lighting.