

CAMECHO B0FQTCVQMC

CAMECHO Brake Light Reversing Camera User Manual

For Mercedes Benz Vito W447 (2016-2024)

1. PRODUCT OVERVIEW

This manual provides instructions for the CAMECHO Brake Light Reversing Camera, designed for Mercedes Benz Vito W447 models manufactured between 2016 and 2024. This camera integrates into the vehicle's brake light housing, offering a rear view display for enhanced safety during reversing and parking maneuvers.

Key features include a 1.0 megapixel sensor for 720P high-definition video, 140° wide-angle lens, IR night vision with 6 LED lights, IP67 waterproof rating, and support for both CVBS and AHD 720P video formats.



Image 1.1: The CAMECHO Brake Light Reversing Camera is compatible with Mercedes Benz Vito W447 models from 2016 to 2024.



Image 1.2: Integrated brake light camera with a 140-degree wide-angle lens for comprehensive rear visibility.

2. PACKAGE CONTENTS

Verify that all components are present in the package before beginning installation:

- Brake Light Reversing Camera Unit
- 10m Video Transmission Line
- 20cm Adapter Cable
- 1m Power Cable
- User Manual



Image 2.1: Illustration of the camera unit, cables, and manual included in the package.

3. INSTALLATION GUIDE

Follow these steps for proper installation of the reversing camera. Professional installation is recommended if you are unfamiliar with vehicle electrical systems.

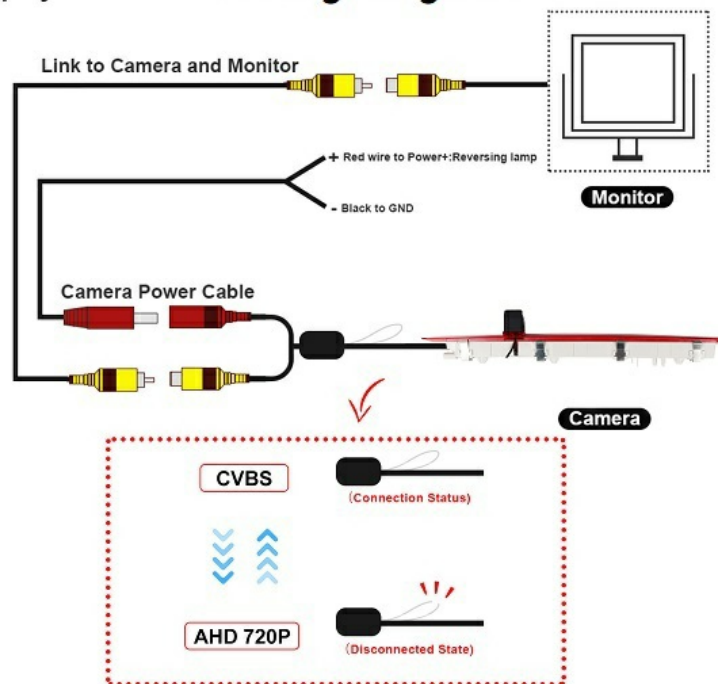
1. **Preparation:** Ensure the vehicle's ignition is off and the parking brake is engaged. Disconnect the vehicle's battery to prevent electrical shorts.
2. **Remove Original Brake Light:** Carefully remove the existing brake light assembly from your Mercedes Benz Vito W447. Refer to your vehicle's service manual for specific removal instructions.
3. **Install Camera Unit:** Insert the CAMECHO Brake Light Reversing Camera unit into the brake light housing. Ensure it is securely fitted and aligned.
4. **Connect Power:**
 - Connect the **red wire** of the camera power cable to the vehicle's reversing lamp positive (+) power supply. This ensures the camera activates when reverse gear is engaged.
 - Connect the **black wire** of the camera power cable to a reliable ground (GND) point on the vehicle chassis.
5. **Connect Video Cable:**
 - Connect one end of the 10m video transmission line to the camera's video output.
 - Route the video transmission line safely through the vehicle's interior to the location of your display monitor.
 - Connect the other end of the video transmission line to the video input of your monitor. Use the 20cm adapter cable if necessary for compatibility.
6. **Reconnect Battery:** Once all connections are secure, reconnect the vehicle's battery.
7. **Test Functionality:** Start the vehicle and engage reverse gear to test the camera's operation and display on your monitor.

Two adjustable formats, suitable for more displays

- 1 CVBS PAL mirror image with backup line
- 2 AHD 720P PAL mirror image without backup line



Wiring Diagram



Method of switching modes:

CVBS signal: connect to the White control wire. AHD signal: cut the White control wire

Image 3.1: Detailed wiring diagram showing connections for power and video signal to the monitor.

4. OPERATING INSTRUCTIONS

4.1 Camera Activation

The camera automatically activates when the vehicle is shifted into reverse gear, provided it is correctly wired to the reversing lamp power supply. The video feed will appear on your connected display monitor.

4.2 Video Format Switching (CVBS / AHD 720P)

This camera supports two video output formats: CVBS PAL (with backup lines) and AHD 720P PAL (without backup lines). The format can be switched using the white control wire integrated into the camera's power cable.

- To select **CVBS PAL**: Ensure the white control wire is connected (loop closed). This mode typically displays dynamic parking guidelines.
- To select **AHD 720P PAL**: Cut the white control wire (loop open). This mode provides a higher definition image without parking guidelines.

Note: Ensure your display monitor is compatible with the selected video format (AHD or CVBS).

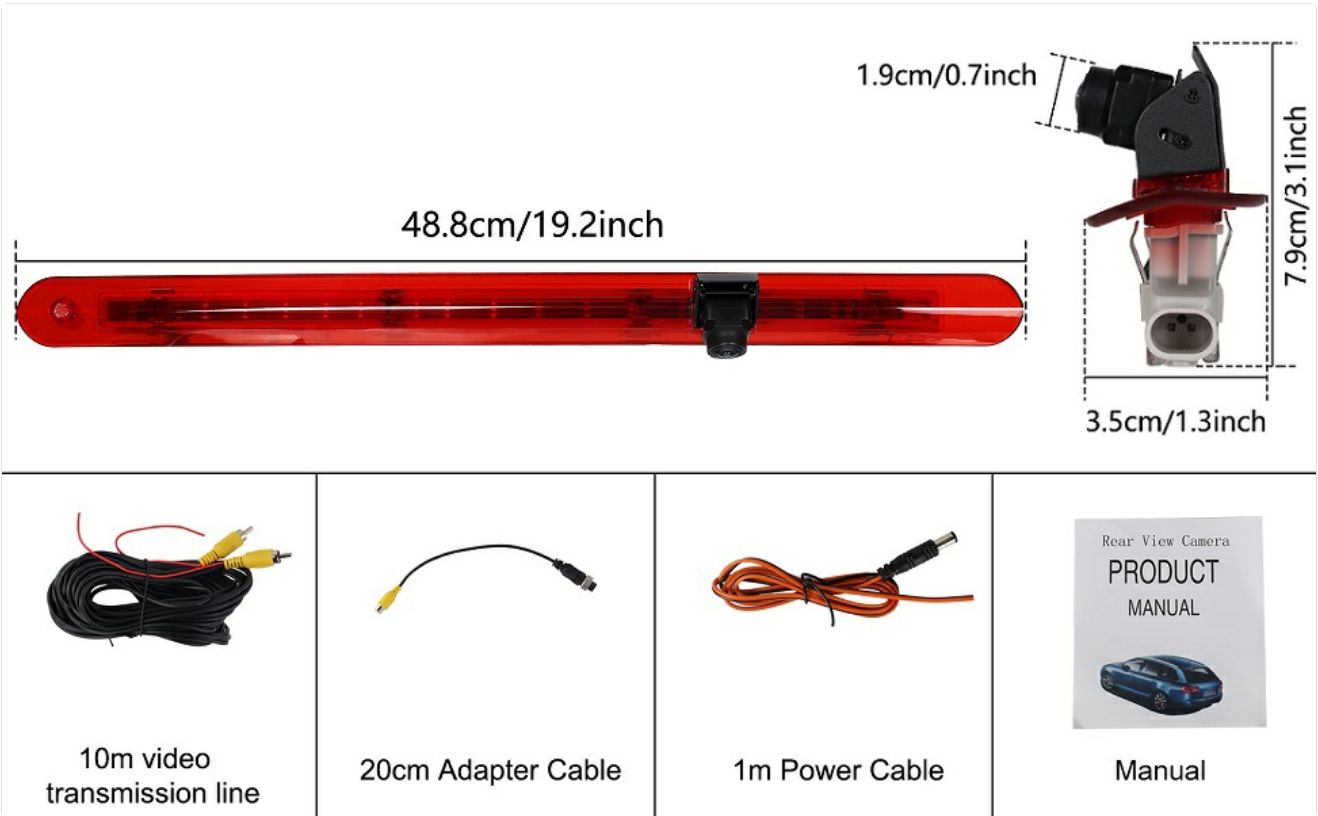


Image 4.1: Instructions for switching between CVBS and AHD 720P video formats using the white control wire.

4.3 Night Vision

The camera is equipped with 6 infrared LED lights and a photosensitive sensor, providing clear night vision images in low-light conditions. This feature activates automatically.

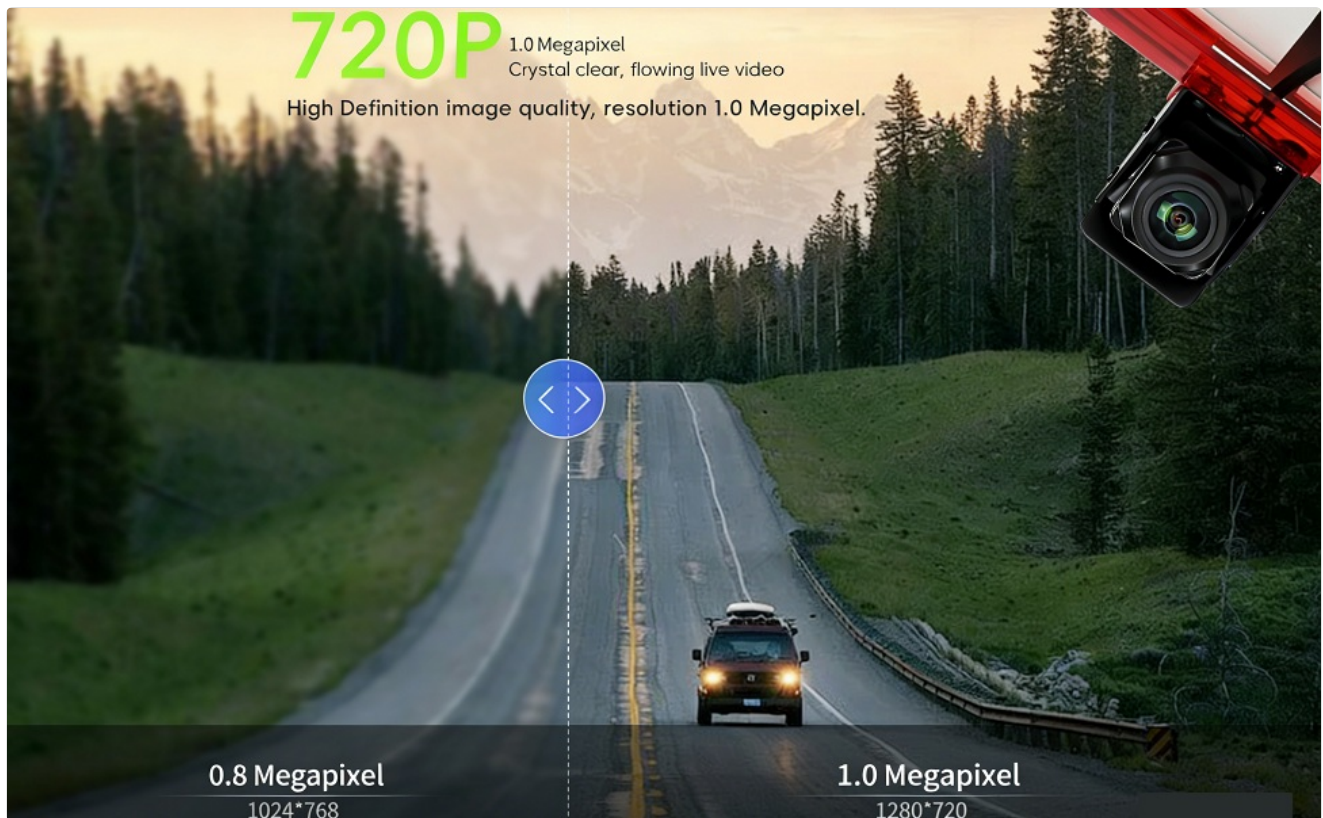


Image 4.2: Comparison of daytime and night vision clarity provided by the camera's IR LEDs.

5. MAINTENANCE

To ensure optimal performance and longevity of your CAMECHO Brake Light Reversing Camera, follow these maintenance guidelines:

- **Regular Cleaning:** Periodically clean the camera lens with a soft, damp cloth to remove dirt, dust, or water spots that may obstruct the view. Avoid abrasive cleaners.
- **Check Connections:** Annually inspect all wiring connections for corrosion or looseness. Secure any loose connections.
- **Waterproof Rating:** The camera has an IP67 waterproof rating, protecting it from dust and temporary immersion in water. However, avoid high-pressure washing directly onto the camera lens.
- **Environmental Protection:** While designed for outdoor use, extreme temperatures or prolonged direct sunlight can affect electronic components over time.

IP67 Waterproof

Fearless of wind and rain, it ensures that the backup camera works stably in any environment and captures every important moment clearly.



Image 5.1: The camera's IP67 rating ensures resistance to water and dust, suitable for various weather conditions.

6. TROUBLESHOOTING

If you encounter issues with your reversing camera, refer to the following troubleshooting steps:

Problem	Possible Cause	Solution
No image on monitor	<ul style="list-style-type: none">Loose power or video connection.Incorrect power source (not connected to reversing lamp).Monitor input not selected or faulty.Camera or cable damage.	<ul style="list-style-type: none">Check all power and video cable connections.Verify the camera is receiving power when reverse gear is engaged.Ensure your monitor is set to the correct video input channel.Inspect cables for damage. If possible, test with another monitor or camera.
Image is blurry or distorted	<ul style="list-style-type: none">Dirty camera lens.Incorrect video format selected (e.g., AHD camera to CVBS monitor).Poor video signal quality.	<ul style="list-style-type: none">Clean the camera lens.Verify the camera's video format matches your monitor's input capabilities. Adjust the white control wire if needed.Check video cable for damage or interference.
Night vision is poor	<ul style="list-style-type: none">Obstructed IR LEDs.Faulty IR LEDs or photosensitive sensor.	<ul style="list-style-type: none">Ensure nothing is blocking the IR LEDs on the camera.Contact customer support if the issue persists after cleaning.

7. SPECIFICATIONS

Feature	Detail
Compatibility	Mercedes Benz Vito W447 (2016-2024)
Resolution	1.0 Megapixel (720P HD)
Video Output Formats	CVBS PAL (with parking lines), AHD 720P PAL (without parking lines)
Lens Angle	140° Wide-Angle
Night Vision	IR Night Vision with 6 LED lights and photosensitive sensor
Waterproof Rating	IP67
Transmission Type	Wired
Product Dimensions	19.2 x 3.1 x 1.3 inches (48.8 x 7.9 x 3.5 cm)
Item Weight	0.018 ounces

8. WARRANTY AND SUPPORT

CAMECHO products are designed for reliability and performance. For any questions, technical assistance, or warranty inquiries, please contact our customer support team.

Customer Support Email: CAMECHOVIP@126.com

Please include your product model (B0FQTCVQMC) and a detailed description of your issue when contacting support for faster assistance.



Image 8.1: Contact information for CAMECHO customer support.