

PARKVISION PJ-180SW

PARKVISION 180° Wide-Angle Backup/Front Camera (Model PJ-180SW) Instruction Manual

	Product Overview	Key Features	Compatibility	Package		
Contents	Installation	Operation	Maintenance	Troubleshooting	Specifications	Warranty & Support

1. PRODUCT OVERVIEW

The PARKVISION PJ-180SW is a versatile 180° wide-angle camera designed for use as both a backup and front camera in various vehicles. It features a real horizontal 180-degree and vertical 105-degree viewing angle, utilizing a fisheye wide-angle lens. This camera is engineered to enhance driving safety by providing an expansive view, helping to prevent collisions with obstacles such as children or pets that might otherwise go unnoticed when reversing or navigating tight spaces.

Its robust design includes an IP68 waterproof and dustproof rating, ensuring reliable performance in diverse weather conditions. The camera supports both normal and mirror image switching, as well as selectable guideline display, making it adaptable for different installation needs and user preferences.



Image 1.1: The PARKVISION PJ-180SW camera illustrating its 180-degree wide-angle capability, designed to eliminate blind spots and improve safety.



Image 1.2: An overhead view demonstrating how the 180-degree camera view assists in safe parking maneuvers.

2. KEY FEATURES

2.1. Advanced Imaging Technology

The camera is equipped with a high-performance, high-pixel CMOS image sensor, ensuring clear and detailed video recording. It incorporates HDR (High Dynamic Range) technology, which automatically corrects for overexposure in bright sunlight and underexposure during night driving, significantly improving visibility. Advanced 3D digital noise reduction processing minimizes flickering, delivering a consistently sharp image by reducing noise in the video signal.



Image 2.1: A close-up view of the camera's lens and internal circuitry, highlighting its advanced imaging components.

2.2. Durable and Weatherproof Design

The camera is fully sealed with waterproof adhesive, providing an IP68 waterproof and dustproof rating. This design eliminates concerns about water or fog intrusion during rainy conditions. Each unit undergoes rigorous testing, including 8-12 hours of shock resistance and high-pressure waterproof/anti-fog tests, to ensure long-term durability and reliable operation. High-quality materials are used for the sensor, camera casing, and mounting bracket, supporting continuous power supply for extended periods, making it suitable for front camera applications.

2.3. Versatile Image Modes

The camera's output defaults to a rearview (mirror image) mode with parking guidelines. Users can easily switch to a front view (normal image) without guidelines as needed. This flexibility allows the camera to function effectively as a backup camera, front camera, or even a side camera.

ほとんどのDC 9V-18V 車種に対応可能

乗用車

ミニトレーラ

SUV

ピックアップカー

ミニバン

ミニバス

Image 2.2: Display examples showing the camera's clear image quality during the day, at night, in sunny conditions, and in rain.

3. COMPATIBILITY AND CONNECTIVITY

The camera features a mini 4-pin connector and an RCA video output terminal, making it compatible with most aftermarket navigation systems and monitors. It is designed for universal use with DC9V to 18V vehicles, including trucks, SUVs, and minivans. While it offers compatibility with genuine car backup cameras, it is not compatible with mirror-type dashcams due to potential voltage and wiring signal differences that could cause malfunctions.



Image 3.1: Illustration of various vehicle types compatible with the camera, including sedans, SUVs, minivans, and buses.

4. PACKAGE CONTENTS

Please verify that all items listed below are included in your package:

- 1 x PARKVISION PJ-180SW Camera Unit (with 1M cable)
- 1 x RCA Video Cable (8M)
- 2 x Mounting Screws
- 1 x Strong Double-Sided Tape
- 1 x Instruction Manual



Image 4.1: A visual representation of all components included in the PARKVISION PJ-180SW camera package.

5. INSTALLATION

This section provides general guidance for installing your PARKVISION PJ-180SW camera. For detailed, vehicle-specific instructions, it is recommended to consult a professional installer or your vehicle's service manual.

5.1. Mounting Location

- **Rear Camera:** Typically mounted above the license plate or on the rear bumper for optimal rearview visibility. Ensure the camera has a clear line of sight and is not obstructed by any vehicle parts.
- **Front Camera:** Mount on the front grille or bumper. Consider the desired viewing angle to assist with parking or navigating tight spaces.
- **Side Camera:** Can be mounted on the side mirrors or other suitable locations to cover blind spots.

5.2. Wiring Connections

- **Power Connection:** Connect the camera's power cable to a DC9V-18V power source in your vehicle. For a backup camera, connect to the reverse light circuit so it activates when reversing. For a front camera, connect to an accessory power source that activates with the ignition.
- **Video Connection:** Connect the RCA video output cable from the camera to the video input of your compatible navigation system or monitor.
- **Ground Connection:** Ensure a secure ground connection for stable operation.

Important: Before finalizing installation, test all connections to ensure the camera functions correctly and displays the image as desired. Route cables carefully to avoid interference with vehicle components and protect them from damage.

6. OPERATION

The PARKVISION PJ-180SW camera offers adjustable settings to suit your specific needs. These settings are typically controlled by cutting specific wires on the camera's cable.

6.1. Image Mode Switching (Normal/Mirror Image)

The camera can display either a normal image (for front/side view) or a mirror image (for rearview). To switch between these modes, locate the designated wire on the camera's cable (refer to the wiring diagram in the included manual). Cutting this wire will toggle the image mode. Ensure the power is off before making any changes to the wiring.



Image 6.1: Illustration of the wire-cutting method to switch between mirror image (for rearview) and normal image (for front view).

6.2. Guideline Display (ON/OFF)

The camera can display parking guidelines on the screen to assist with parking maneuvers. These guidelines can be turned on or off by cutting another specific wire on the camera's cable (refer to the wiring diagram). Ensure the power is off before making any changes to the wiring.



Image 6.2: Illustration of the wire-cutting method to toggle parking guidelines on or off.

7. MAINTENANCE

Proper maintenance ensures the longevity and optimal performance of your PARKVISION PJ-180SW camera.

- **Cleaning the Lens:** Regularly clean the camera lens with a soft, damp cloth to remove dirt, dust, or water spots. Avoid using abrasive cleaners or materials that could scratch the lens.
- **Checking Connections:** Periodically inspect all wiring connections to ensure they are secure and free from corrosion or damage.
- **Mounting Security:** Verify that the camera is securely mounted and has not become loose due to vibrations or impacts. Tighten screws if necessary.
- **Environmental Exposure:** While the camera is IP68 rated, extreme temperatures or prolonged exposure to harsh chemicals should be avoided to prevent potential damage.

8. TROUBLESHOOTING

If you encounter issues with your PARKVISION PJ-180SW camera, refer to the following common problems and

solutions:

Problem	Possible Cause	Solution
No image on monitor	Loose power or video connection; incorrect power source; monitor input not selected.	Check all cable connections. Ensure camera is receiving power (DC9V-18V). Select the correct video input on your monitor/navigation system.
Image is distorted or flickering	Poor video connection; electrical interference; damaged cable.	Ensure RCA cable is securely connected. Check for any loose wires. Avoid routing video cables near high-power electrical lines. Replace cable if damaged.
Image is reversed (mirror/normal)	Incorrect image mode setting.	Refer to Section 6.1 to switch the image mode by cutting the designated wire.
Guidelines not appearing/always appearing	Incorrect guideline setting.	Refer to Section 6.2 to toggle guideline display by cutting the designated wire.
Poor image quality at night	Lens is dirty; insufficient ambient light.	Clean the camera lens. The camera has low-light capabilities, but extreme darkness may still limit visibility.

If the problem persists after attempting these solutions, please contact PARKVISION customer support for further assistance.

9. SPECIFICATIONS

Feature	Detail
Brand	PARKVISION
Model	PJ-180SW
Product Dimensions (L x W x H)	22mm x 22mm x 22mm
Compatible Devices	12V vehicles (DC9V-18V)
Mounting Type	Butterfly Mount
Voltage	12 Volts (Operating range DC9V-18V)
Optical Sensor Technology	CMOS
Lens Type	Wide-angle, Fisheye Lens
Actual Angle of View	Horizontal 180°, Vertical 105°
Connector Type	RCA (4-pin mini connector)
Optical Sensor Size	1/3 inch
Minimum Illumination	0.01 LUX
Waterproof/Dustproof Level	IP68

Feature	Detail
Signal System	NTSC
Automatic Control	Automatic Gain Control, White Balance, Backlight Compensation
Frame Rate	30 frames/second
Noise Processing	3D Digital Noise Reduction
UPC	768253676136

10. WARRANTY AND SUPPORT

The PARKVISION PJ-180SW camera comes with a **1-year warranty** from the date of purchase. This warranty covers manufacturing defects and malfunctions under normal use. Please retain your proof of purchase for warranty claims.

For technical support, warranty service, or any inquiries regarding your product, please contact PARKVISION customer service through the retailer where you purchased the product or visit the official PARKVISION website for contact information.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

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

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question

