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> Weivision Universal 360 Degree Bird View System Car DVR Instruction Manual

weivision BDV001

Universal 360 Degree Bird View System Car DVR Instruction Manual

Brand: weivision | Model: BDV001

1. PRODUCT OVERVIEW

The Weivision Universal 360 Degree Bird View System is a comprehensive car DVR and panoramic monitoring solution designed to provide drivers with a complete, seamless view of their vehicle's surroundings. This system enhances safety by eliminating blind spots during driving, parking, and maneuvering in tight spaces. It integrates four wide-angle cameras to create a unified bird's-eye perspective, along with recording capabilities.

Key Features:

- Perfect bird view (aerial view, round view, or panoramic view) of the car surroundings.
- 4-channel recording from the 4 cameras.
- HD chip lens, night vision function, waterproof (IP69).
- Eliminates most blind spots, simplifying parking and navigating narrow roads.
- Seamless Splicing Technology for auto image mosaic.
- Parking monitoring with shock sensor and auto record function (MP4 video format).

2. PACKAGE CONTENTS

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

- Control Box (Host)
- Front View Camera
- Rear View Camera
- Left View Camera

- Right View Camera
- Power Cable
- Rear Cable (19ft)
- Rear Cable (11ft)
- Left Cable (11ft)
- Right Cable (11ft)
- IR Receiver
- Remote Control
- User Manual
- 1.6M*1.2M Calibration Cloth (4pcs)
- 16GB USB Disk
- Shocking Sensor

What will you get



Figure 2.1: All components included in the package.

3. INSTALLATION GUIDE

Professional installation is highly recommended for this system. The universal design requires drilling a 20mm hole in the car side mirrors for camera installation.

3.1 Camera Placement

Proper placement of the four cameras is crucial for accurate panoramic view synthesis.

- **Front Camera:** Typically mounted on the front grille or bumper.
- **Rear Camera:** Typically mounted above the license plate or on the rear bumper.
- **Left & Right Cameras:** Installed within the side mirrors. Ensure the camera lens is flush and provides a clear view of the side of the vehicle.

Cameras installation



Front camera



Rear camera



Left camera



Right camera

Figure 3.1: Camera installation locations.

3.2 Wiring Diagram

Follow the wiring diagram carefully to connect all components to the main control box and the vehicle's electrical system. Ensure all connections are secure and properly insulated.

- Connect the four cameras to their respective ports on the control box.
- Connect the power cable to the vehicle's power source (ACC ON, 12V, Ground).

- Connect the AV OUT (RCA) from the control box to your display unit (DVD, navigation, monitor) that has an AV IN (RCA) connector.
- Connect the blue wire to the DVD screen trigger line for automatic display switching.
- Connect the IR Receiver to the control box and place it in a location where it can receive signals from the remote control.
- Install the shock sensor and connect it to the control box.

Wiring Diagram

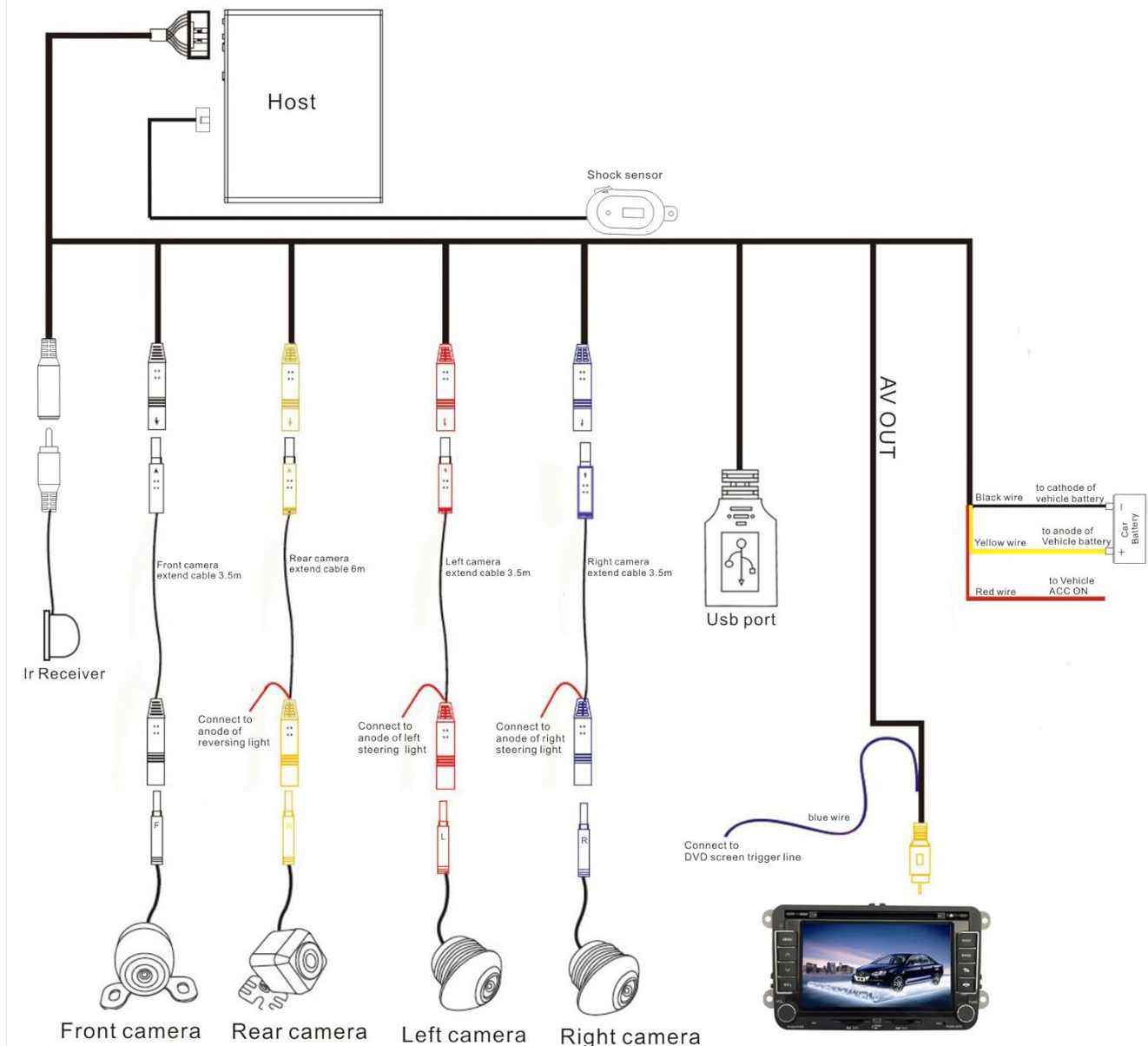


Figure 3.2: System Wiring Diagram.

4. SETUP AND CALIBRATION

After installation, the system requires calibration to accurately stitch the camera feeds into a seamless panoramic view. The WeiVision 360° Around View Camera System features simplified auto-calibration.

4.1 Calibration Process

Use the provided calibration cloths and remote control for the calibration process. Ensure the vehicle is parked on a flat, open surface.

- Place the four calibration cloths around the vehicle as shown in the diagram, ensuring they are centered relative to the cameras and 10cm from the vehicle's body.
- Turn on the vehicle's ignition (ACC ON).
- Put the vehicle in reverse.
- Using the remote control, press the red power button on the module's remote control, then the menu button to access the calibration menu.
- Select the auto-calibration option. The system will automatically correct the panoramic image in approximately 5 seconds.

Simplified Calibration

*WeiVision 360° Around View Camera System calibration is very easy and fast,
Auto calibration only 5 seconds.*

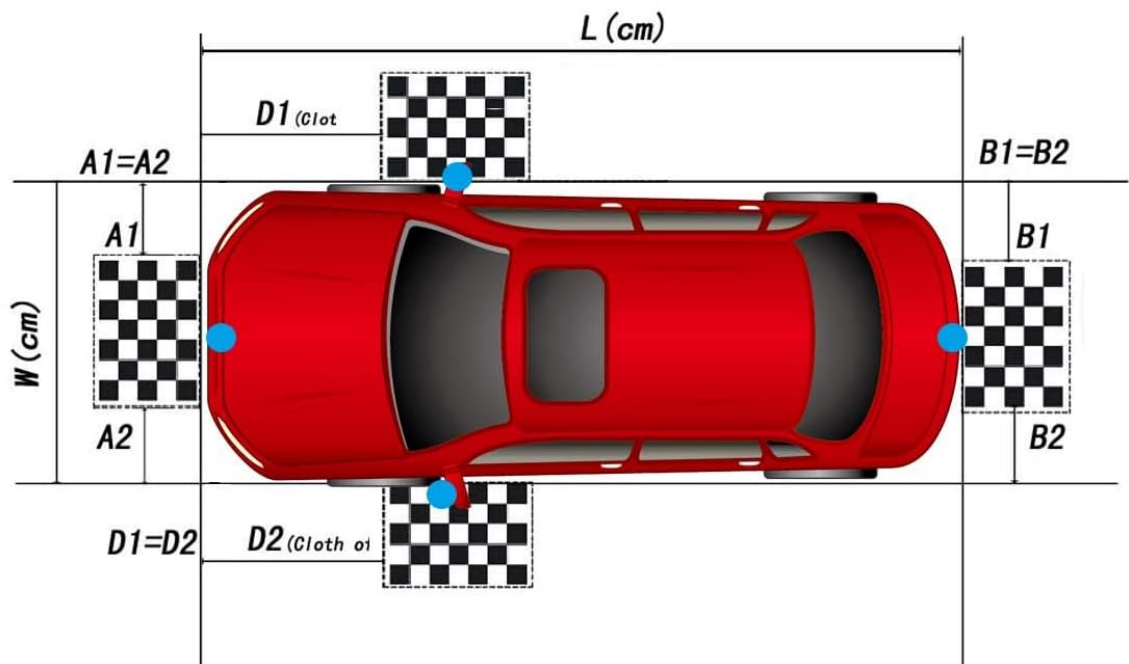


Figure 4.1: Simplified Calibration setup.

5. OPERATING INSTRUCTIONS

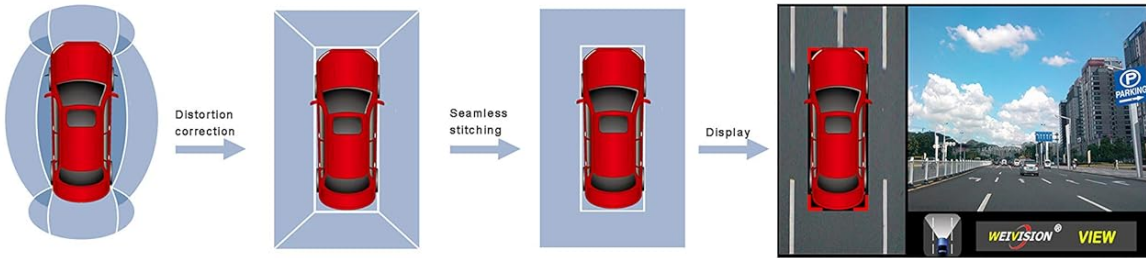
Once installed and calibrated, the system provides real-time panoramic views to assist with driving and parking.

5.1 Driving and Parking Assistance

- **Driving:** The system displays a front view combined with a bird's-eye view.
- **Reverse:** When shifting to reverse, the display automatically switches to the rear view and bird's-eye view, providing guidance lines.
- **Turning:** Activating the left or right turn signal will automatically display the corresponding side view along with the bird's-eye view.

Panoramic Image Synthesis

Panoramic image synthesis: rectify distortion of 4CH 1080P FHD image to stitch seamlessly, render real-time scene, display actual driving scenario, and achieve the real bird's-eye view around your car.cene, display actual driving scenario, and achieve the real bird's-eye view around your truck.



Front View+Bird's Eye View

When the car foward,
the display shows
Front View+Bird's Eye View.



Rear View+Bird's Eye View

When the car reverse,
the display shows
Rear View+Bird's Eye View.



Left side View+Bird's Eye View

When the car turn left,
the display shows
Left side View+Bird's Eye View



Right View+Bird's Eye View

When the car turn right,
the display shows
Right View+Bird's Eye View.



Here can be updated by yourself

If you would like to update the car logo
and add your company logo,
please send message to us, we send you the update file.

Figure 5.1: Panoramic Image Synthesis in various driving scenarios.

5.2 Recording Functionality

- The system continuously records from all four cameras, providing 4-channel recording.
- Video resolution is 2560*1440.
- Recordings are saved in MP4 format on the inserted memory card (16GB USB Disk included).
- **Parking Monitoring:** The integrated shock sensor triggers automatic recording (2-3 seconds) and locks the video file if the car experiences an impact while parked.



Figure 5.2: Parking Monitoring feature.



6. MAINTENANCE

To ensure optimal performance and longevity of your Weivision 360 Degree Bird View System, follow these maintenance guidelines:

- **Camera Lenses:** Regularly clean camera lenses with a soft, damp cloth to remove dirt, dust, or water spots that may obstruct the view. Avoid abrasive cleaners.
- **Connections:** Periodically check all wiring connections to ensure they are secure and free from corrosion.
- **Software Updates:** Check the manufacturer's website for any available firmware updates to improve system performance or add new features.
- **Memory Card:** Format the memory card periodically (e.g., once a month) to prevent data corruption and ensure continuous recording. Back up any important video files before formatting.

7. TROUBLESHOOTING

This section addresses common issues you might encounter with the system. If you experience problems not covered here, please contact customer support.

7.1 No Display / Blank Screen

- **Check Power:** Ensure the control box is receiving power. Verify all power connections (ACC, 12V, Ground) are correctly wired and secure.
- **Display Connection:** Confirm the AV OUT cable from the control box is properly connected to the AV IN port on your display unit.
- **Display Input:** Ensure your display unit is set to the correct video input source (AV IN).
- **Camera Connections:** Check that all camera cables are securely connected to the control box. A loose connection on one camera might affect the entire display.

7.2 Distorted or Misaligned Panoramic View

- **Recalibration:** The system may require recalibration. Follow the steps in Section 4.1.
- **Camera Position:** Ensure cameras are securely mounted and their lenses are clean and unobstructed. Any shift in camera position after calibration can cause distortion.
- **Calibration Cloths:** Verify that the calibration cloths were placed accurately and on a flat surface during calibration.

7.3 Recording Issues

- **Memory Card:** Ensure a compatible memory card is inserted correctly. Try formatting the card (this will erase all data).
- **Power Supply:** Insufficient or unstable power supply can affect recording.
- **Shock Sensor:** If parking monitoring is not triggering, check the shock sensor connection and its sensitivity settings (if adjustable).

8. SPECIFICATIONS

Feature	Specification
Model Number	BDV001
Product Dimensions	5 x 3 x 1 inches
Item Weight	4.29 pounds
Video Capture Resolution	1080p or 720p
Field Of View	170+ Degrees (Super wide angle)
Camera Waterproof Rating	IP69
Connectivity Technology	USB
Display Technology	LCD (requires external display)
Color	Black
Manufacturer	Weizhen Technology
Country of Origin	China
First Available Date	June 17, 2015

9. WARRANTY AND SUPPORT

This product comes with a 1-year safety information period. For any technical assistance, warranty claims, or further inquiries, please contact the seller or manufacturer directly. Ensure you have your product model number (BDV001) and purchase details ready when contacting support.

Manufacturer: Weizhen Technology

Seller: WEIVISION