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› WeiVision 360 Degree Bird View System Instruction Manual

weivision BDV09-7

Instruction Manual

WEIVISION 1080P FHD 360 DEGREE BIRD VIEW SURROUND PANORAMIC VIEW CAR VEHICLE DVR CAMERA SYSTEM KIT

Model: BDV09-7

Introduction

This manual provides detailed instructions for the installation, operation, and maintenance of your WeiVision 1080P FHD 360 Degree Bird View Surround Panoramic View Car Vehicle DVR Camera System Kit. This system is designed to enhance driving safety by providing a comprehensive 360-degree view around your vehicle, eliminating blind spots, and offering continuous recording capabilities. It is specifically engineered for larger vehicles such as fire engines, buses, school buses, trucks, semi-trailers, box trucks, and RVs.

What's in the Box

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

- 7 Inch HD Monitor (LVDS signal compatible only with WeiVision special monitor)
- Four 1080P 190° wide angle fish eye cameras
- 16GB USB Disk
- User Manual (this document)
- Control Box (Host)
- Various AV Cables (16ft, 66ft, 33ft x2)
- 1.6M*1.2M Calibration Cloth (4 pieces)
- Power Cable
- Mini HDMI to HDMI Cable
- IR Receiver
- Remote Control
- HD 1080P video output cable

What will you get



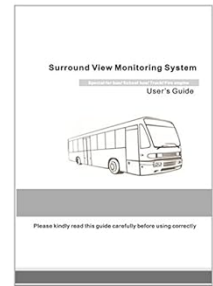
7 Inch HD Monitor



Four Cameras



16GB USB Disk



User Manual



Control Box



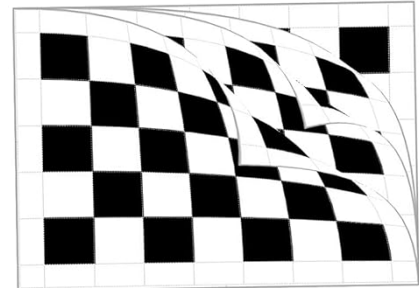
16ft AV Cable

66ft AV Cable



33ft AV Cable

33ft AV Cable



1.6M*1.2M Calibration Cloth*4pcs



Power Cable



MINI HDMI to HDMI Cable



IR Receiver



Remote Control

Image: All components included in the WeiVision 360 Degree Bird View System Kit, including the 7-inch HD monitor, four cameras, 16GB USB disk, user manual, control box, various AV cables, calibration cloths, power cable, HDMI cable, IR receiver, and remote control.

Setup and Installation

Proper installation is crucial for optimal performance of the 360-degree bird view system. It is recommended to have this system installed by a qualified professional, especially for larger vehicles.

Component Placement:

- **Cameras:** The system includes four cameras designed for placement at the front, rear, left side, and right side of the vehicle. Ensure cameras are mounted securely and have an unobstructed view.
- **HD Displayer (Monitor):** Connect the 7-inch HD monitor to the control box. This monitor is specifically designed for LVDS signals and is only compatible with WeiVision special monitors.
- **Control Box (Host):** This central unit processes the camera feeds. Mount it in a secure, dry location within the vehicle.
- **Cabling:** Use the provided 4-pin copper shielding cables to connect the cameras to the control box. These cables are designed for durability and signal integrity.



Image: A diagram illustrating the recommended placement of the rear camera (1), side cameras (2, 3), front camera (4), HD displayer (5), and control box (6) on a recreational vehicle (RV).

Calibration:

After installation, the system requires calibration to stitch the camera feeds seamlessly into a single bird's eye view. The WeiVision 360° Around View Camera System features an auto-calibration function that takes approximately 5 seconds. Use the provided calibration cloths as indicated in the calibration diagram.

Simplified Calibration

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

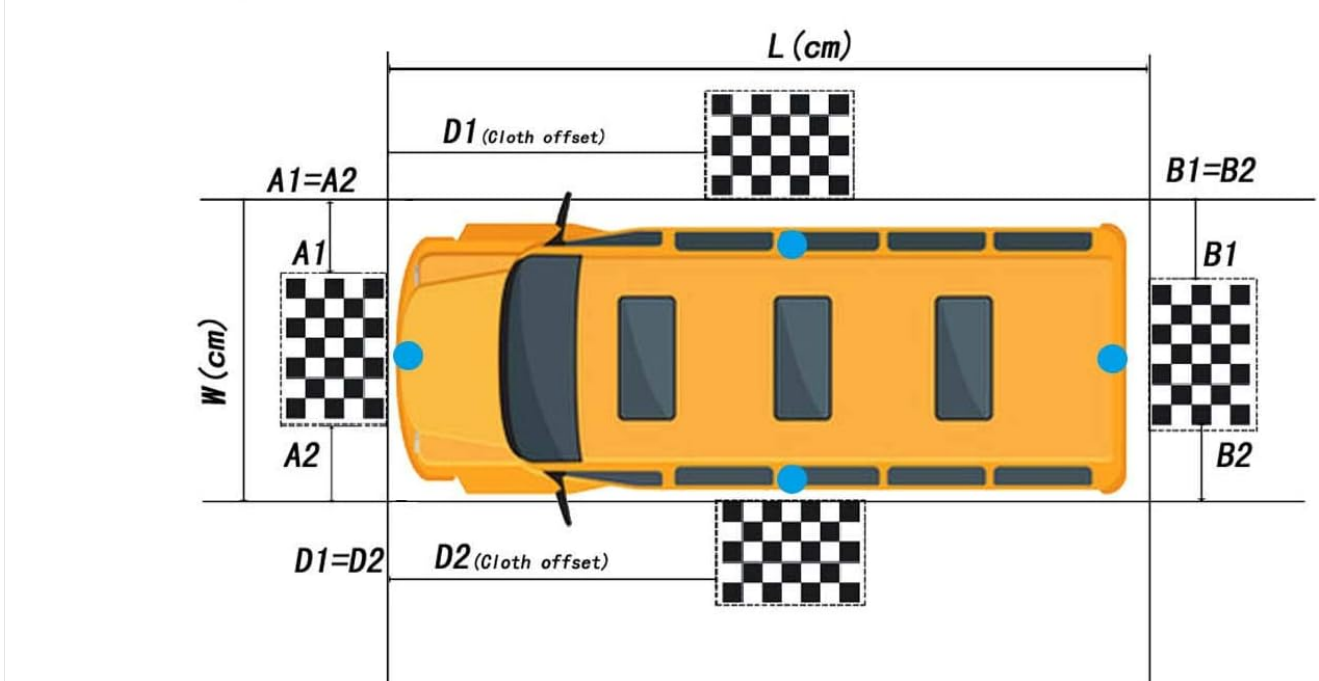


Image: A simplified diagram demonstrating the placement of the four calibration cloths around a vehicle for the auto-calibration process, indicating length (L) and width (W) measurements.

Operating Instructions

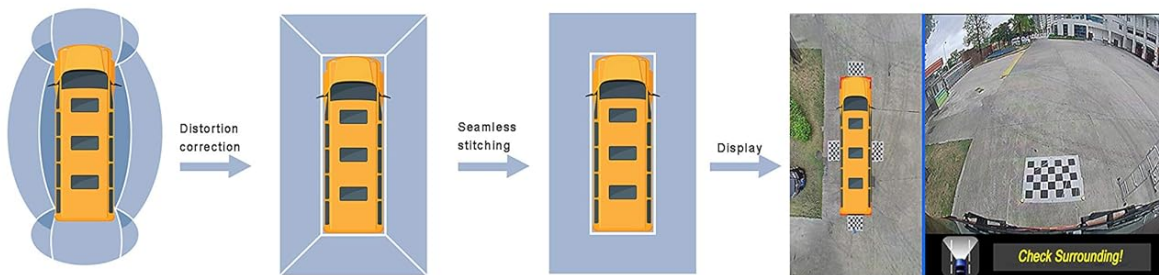
The WeiVision 360° Bird's Eye View Camera System provides various views to assist with driving and parking maneuvers.

Driving Modes:

- **Normal Driving:** In normal driving conditions, the system displays a bird's eye view of the vehicle's surroundings, along with a front-facing camera view. This helps in checking the immediate surroundings.
- **Turn Signal Engagement:** When the vehicle's left or right turn indicator is engaged, the display automatically switches to show the corresponding side view along with the bird's eye view, assisting with lane changes and turns.
- **Reverse Gear Engagement:** When the reverse gear is engaged, the system automatically displays the rear camera view along with the bird's eye view, providing comprehensive visibility for backing up.

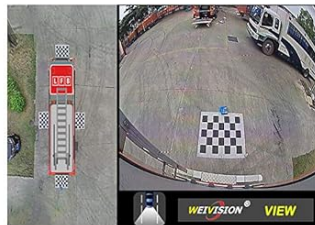
Panoramic Image Synthesis

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.



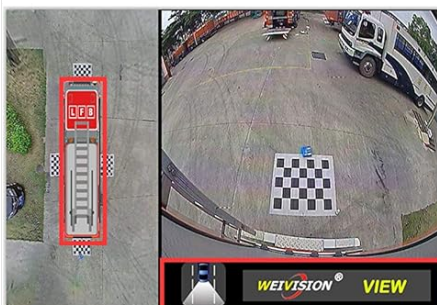
Left side View+Bird's Eye View

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.

Image: Illustrations demonstrating the panoramic image synthesis process (distortion correction, seamless stitching, display) and various views: Front View + Bird's Eye View, Rear View + Bird's Eye View, Left Side View + Bird's Eye View, and Right Side View + Bird's Eye View.

Recording Functionality:

The system features 4-channel 1080P recording from all four cameras. When the vehicle ignition is switched ON, the system automatically begins recording. It supports loop recording, typically storing about 4 hours of footage on a 16GB card. An USB interface is available for connecting to a PC to copy data from the disk.

Your browser does not support the video tag.

Video: Demonstration of the 360-degree bird view system in operation, showcasing various views during normal driving, turn signals, and reverse, as well as the automatic recording feature upon ignition.

Night Vision:

The system incorporates Super HD Night Vision without requiring additional light. Utilizing a Sony sensor and a full 6-glass lens, it features strong light suppression and noise reduction, enabling clear visibility in low-light conditions, making night appear similar to daytime.



Image: An illustration highlighting the Super HD Night Vision capability, showing how the system provides clear visibility in dark environments, making it appear like daytime.

Maintenance

To ensure the longevity and optimal performance 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.

- **Wiring:** Periodically inspect all cables and connections for any signs of wear, damage, or loose connections. Ensure all connections remain secure.
- **Control Box:** Keep the control box free from dust and moisture. Ensure it is mounted in a location where it is not exposed to extreme temperatures or direct water.
- **Software Updates:** If available, update the system's firmware as recommended by the manufacturer to ensure the latest features and bug fixes. Contact WeiVision service for update files.

Troubleshooting

This section addresses common issues you might encounter with the WeiVision 360 Degree Bird View System.

- **No Image on Monitor:**
 - Check all power connections to the control box and monitor.
 - Ensure the monitor is correctly connected to the control box via the LVDS signal cable. Note that this system is only compatible with WeiVision special monitors.
 - Verify that the vehicle ignition is ON.
- **Distorted or Incomplete Bird's Eye View:**
 - Perform a system calibration using the provided calibration cloths. Ensure the cloths are placed correctly as per the diagram.
 - Check if any camera lenses are dirty or obstructed.
 - Verify that all four cameras are securely connected and functioning. If a camera is disconnected, it may result in missing segments of the view.
- **Poor Image Quality (e.g., washed out by sunlight):**
 - Ensure the monitor is not exposed to direct, strong sunlight. Consider installing a sunshade for the monitor if glare is an issue.
 - Clean camera lenses to ensure maximum clarity.
- **Recording Issues:**
 - Ensure the 16GB USB disk is properly inserted into the control box.
 - Check if the USB disk has sufficient free space. The system supports loop recording, but a full disk might prevent new recordings if loop recording is not active or configured.
- **System Not Responding to Remote Control:**
 - Check the batteries in the remote control.
 - Ensure the IR receiver is properly connected and not obstructed.

Specifications

Feature	Detail
Product Dimensions	17 x 8 x 10.6 inches
Item Weight	11 pounds
Model Number	BDV09-7
Batteries Required	1 Lithium Ion (included)

Feature	Detail
Display Type	LCD (IPS)
Screen Size	7 Inches
Monitor Resolution	1024*600
Video Input (Monitor)	LVDS Signal
Camera Chip Sensor	225
Camera Sensor Size	1/3 color sensor
Effective Pixels	1280(h)*960(v)
Horizontal Resolution	960H
Dynamic Range	> 78dB
Video Output (Camera)	CVBS-PAL/NTSC
Video Resolution (Recording)	2560*1440 (1080P HD output)
Camera Working Voltage	5v
Camera Working Current	< 100mA
Waterproof Rating	IP67
Host CPU	Quad-core Cortex-A7
Host FLASH	4GB
Host DDR	512MB
Host Working Voltage Range	9-36V
Host Working Current	400mA
Host Standby Current	< 10mA
Working Temperature Range	-30°C~80°C
Working Humidity	40%~80%
Optical Sensor Technology	CMOS
Lux Rating	0.1 Lux
Installation Type	Butterfly Mount