



# Installation Instructions

# Product Overview

Part Number	Description	Product
CM2305+CM2301	7" Monitor with Doorway/ Rear Camera	 +  +  +  +  +  + 
CM2305+CM2302	7" Monitor with Rear Camera (with Marker Light)	 +  +  +  +  +  + 
CM2305+CM2301+ CM2302	7" Monitor with Doorway/Rear Camera and Rear Camera (with Marker Light)	 +  +  +  +  +  + 
CM2305+CM2303+ CM2304	7" Monitor with L/R Side CameraS(with Marker LighT)	 +  +  +  +  +  + 
CM2305+CM2301+ CM2303+CM2304	7" Monitor with Doorway/Rear Camera and L/R side Cameras (with Marker Light)	 +  +  +  +  +  +  + 
CM2305+CM2302+ CM2303+CM2304	7" Monitor with Rear and L/R side Cameras (with Marker Light)	 +  +  +  +  +  +  + 
CM2305+CM2301+ CM2302+CM2303+ CM2304	7" Monitor with Doorway/ Rear and Rearand L/R side Cameras(with Marker Light)	 +  +  +  +  +  +  +  + 

## Installation Instructions

# Monitor Specification

Panel Size	7" LED Touch Screen Monitor
Operating Voltage	DC 10-36V
Video System	NTSC / PAL Auto Detection
Aspect Ratio	16:9
Resolution	1024*600
Brightness	650 cd/m <sup>2</sup>
Contrast Ratio	700:1
Field of View	Top 85°, Bottom 85°, L/R 85°
Operating Temperature	-20 to 60 °C
Storage Temperature	-30 to 70 °C
Transmission Type	Digital Wireless
Transmission Range	984ft(300m)
Auto Pair	Yes
Power Consumption	<3.6W
Overall Dimensions	190*125*32mm
Split-Screen Mode	Quad/2-Split
Camera Channel	4-Channel
Installation Type	Dash mount base with tape, windshield mount suction cup

# Installation Instructions

## Camera Specification

	<i>L/R Side Camera</i>	<i>Rear Camera</i>	<i>Doorway Camera</i>
Product Dimension	175*95*45mm	200*65*45mm	155*80*70mm
Image Sensor-CMOS	1/2.9"		
Resolution / Active Pixels	1920*1080		
Chief Ray Angle	15°		
Night Vision Range	<15m		
IR LEDS	8		
Waterproof Level	IP68		
Transmission Range	2406-2478MHz		
Power Supply	DC12~32V		
Viewing Angle-Diagonal	170°		
Viewing Angle-Horizontal	135°		
Viewing Angle-Vertical	70°indshield mount suction cup		
Power Consumption	3W	3W+4.6W(LED)	
Current Consumption	130~250mA@12V	130~250mA+380mA@12V	
S/N Ratio	38dB		
Electronic Shutter	1/50-1/1000000s/ 1/60-1/1200000s		
Video Output	AHD		
Working Temperature	-30~70 ℃		
Storage Temperature	-40~80 ℃		
Wireless Frequency	2.4G Wireless		
Lux Rating	0.1Lux		

## Install and Use 7" Monitor

# Install and Use Monitor

When mounted in the cab, the 7" monitor typically works as an observation system together with a rear mounted camera (for rear observation) and two side cameras (for traffic observation). When mounted in the coach, the 7" monitor typically works as a security system together with a doorway camera.

## Product overview



# Activate the Monitor

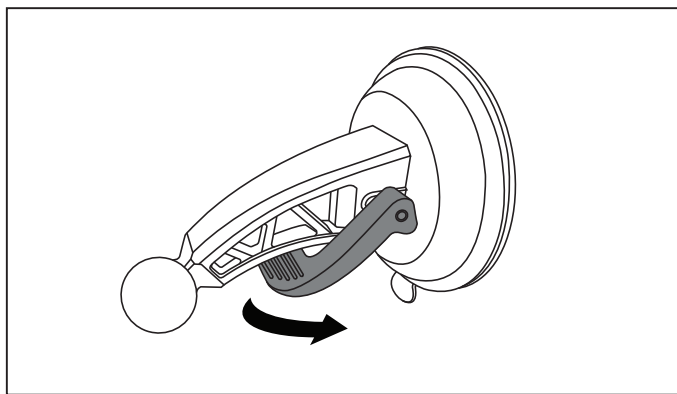
## • Mount in cab for observation

**IMPORTANT:** Choose a monitor location in your vehicle that does not block your view and complies with local laws for safe driving. Do not place in an area where it might interfere with driving.

1. Choose a mounting method.

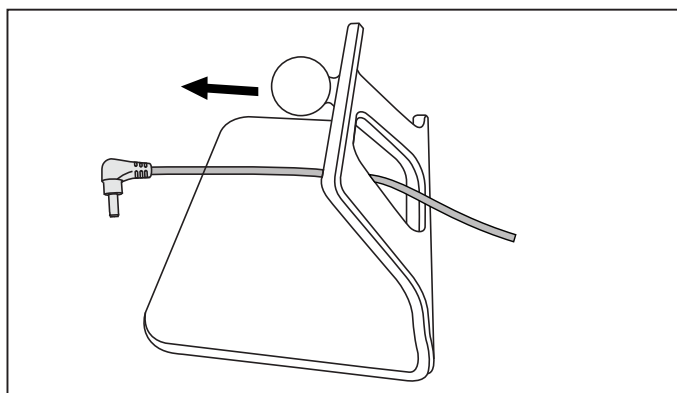
### When using the windshield stand:

Clean the mounting area and remove the protective film from the suction cup. Then place the suction cup onto the appropriate location and push the locking arm downwards to stick securely.

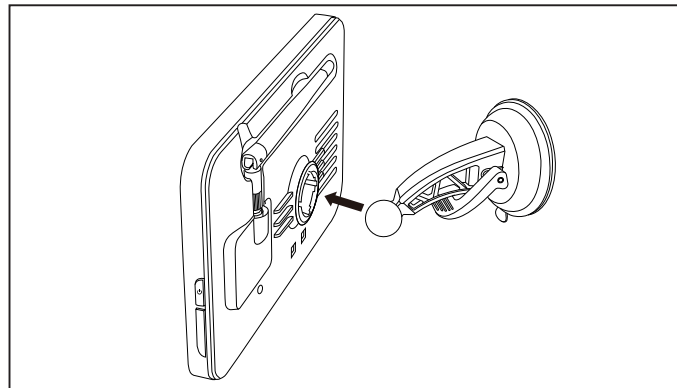


### When using the table stands:

Place the table stand designed with four non-slip pads on a stable surface, and route the monitor power cable as shown.

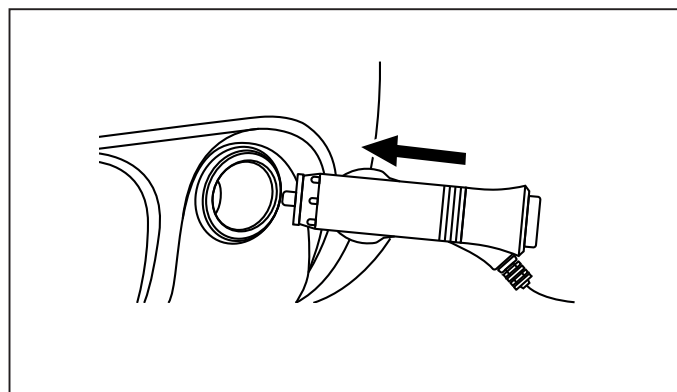


2. Align the ball on the bracket with the opening on the back of the monitor and push firmly to lock into place.

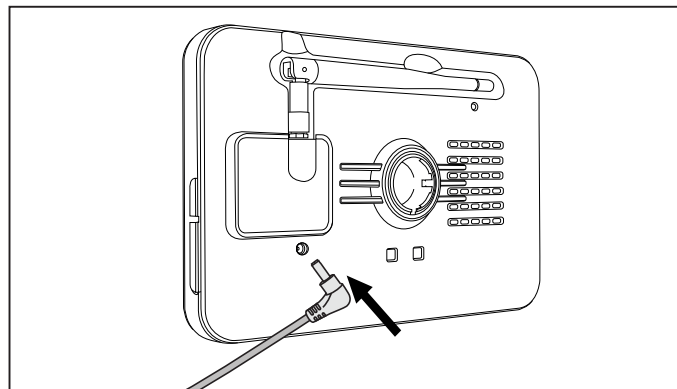


3. Connect the cigarette lighter connector of the monitor power cable to a cigarette lighter socket.

**NOTE:** There is a 12V 1A inline fuse under the plunger of the cigarette lighter plug.



4. Connect the DC connector to the power socket on the monitor.



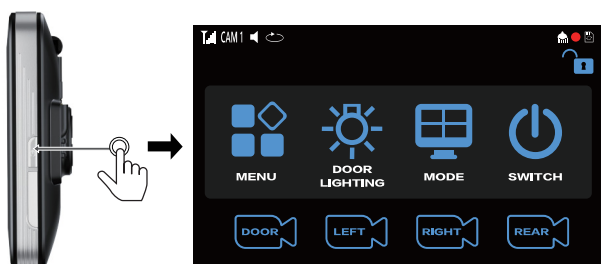
5. Rotate the monitor to adjust the visual angle as needed.

# Pair with a camera

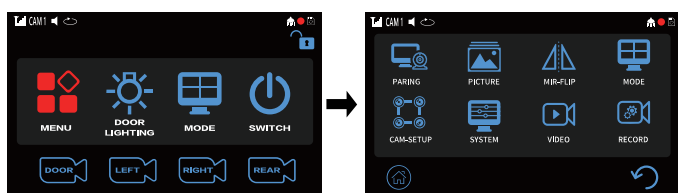
If this monitor comes in a bundle with one or more cameras of our series, it is paired with the camera(s) by default. If you cannot find the video from the camera on the monitor screen or wrong location of a camera image on the monitor, follow the procedures below for pairing.

**⚠ Note:** For bundles with a doorway security / rear camera but no rear camera, the doorway security / rear camera is paired to the **DOOR CAM** channel instead of the **REAR CAM** channel by default.

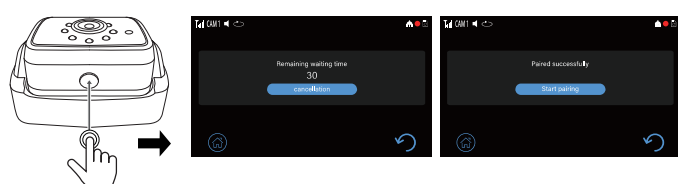
1. Ensure you have turned on the monitor and camera(s) to be paired (see the installation and wiring section of each camera for details).
2. Tap the screen and select the location of camera to be paired (**DOOR/LEFT/RIGHT/REAR**).



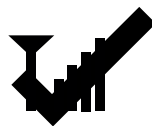
3. Tap the Menu button on the screen to enter the setup menu and select **PARING**.



4. Tap the Menu button on the screen to enter the setup menu and select **PARING**.



5. Tap the Menu button on the screen to enter the setup menu and select **PARING**.



Good Signal



Poor Signal

## • Activate the Monitor

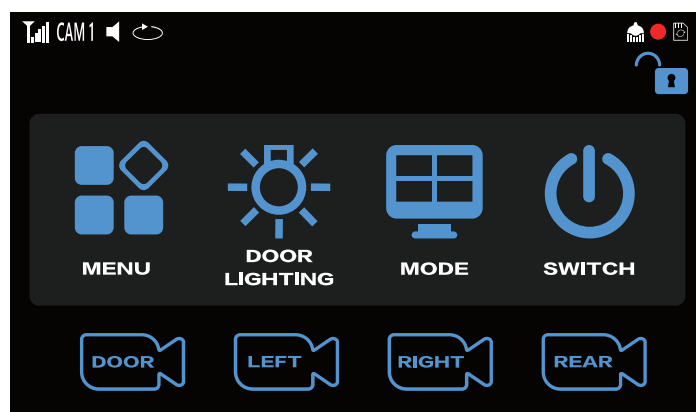
Press the switch button on the right of the monitor or tap the screen to wake up the monitor.









## Notes:

- The doorway security/rear camera transmits a clear and wide image with audio from the area behind the vehicle or at the vehicle door to the monitor inside. To avoid unnecessary noise when the vehicle is moving, you can mute your vehicle speaker system.
- When the monitor is off, it can turn on again automatically and display camera images after receiving a video signal on the 2.4GHz frequency band from a camera.
- The monitor adjusts color, brightness, and contrast automatically for either daytime or nighttime viewing. At night the picture will sometimes appear black and white. This is due to the low light level and is normal.
- The monitor in a wireless system is always watching for a video signal when it is off. Signals from other wireless camera systems may cause interference. For example, security cameras, baby monitors, and even other backup camera systems can also trigger the monitor to briefly light up. This is normal for wireless products.








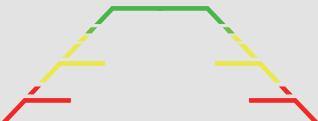
# Touchscreen operation

Tap once on the monitor screen to bring up the camera selection interface and control menu for the camera shown. It will stay 10 seconds, then go back to previous single camera view.



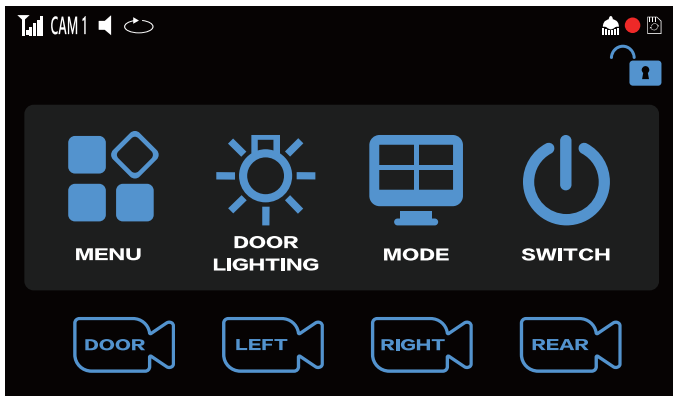
Icon	Description
	Tap to select the door camera (CAM1 in CAM-SETUP).
	Tap to select the left camera (CAM2 in CAM-SETUP).
	Tap to select the right camera(CAM3 in CAM-SETUP).
	Tap to select the rear camera(CAM4 in CAM-SETUP).
	Tap to enter the setup menu (gray and not clickable when in multi channel)
	Tap to turn ON/OFF door lighting (when it is non-gray)
	Tap to switch to multi channel mode that set in mode setting interface in advance
	Tap to turn ON/OFF the monitor.



	Status icon of the door lighting (change when door lighting turn ON/OFF. Disappear when door lighting is not clickable and gray)
	To show signal strength
CAM 1   CAM 2   CAM 3   CAM 4	To show which camera the single channel view belong
	To show whether sound channel is ON/OFF
	To show whether auto-scan is ON/OFF
	Flicker during recording
	<ul style="list-style-type: none"> <li>• The first icon shows that SD card is normal and loop record is off.</li> <li>• The second icon shows that SD card is near full capacity.</li> <li>• The third icon shows that SD card is normal and the loop record is on. When SD is near full capacity, it will delete the earliest file automatically.</li> <li>• The fourth icon shows abnormal SD card.</li> </ul>
	Tap to lock /unlock the screen.
no signal	Shows when monitor and camera are unconnected
	Parking line. Set ON/OFF in SYSTEM setting.

# Mode Switch:

1. Tap the center of the monitor screen to bring up the camera selection and control interface.



2. Select either camera to lighten the **MENU** button (gray When in quadrant mode) and tap it to enter the setup menu.

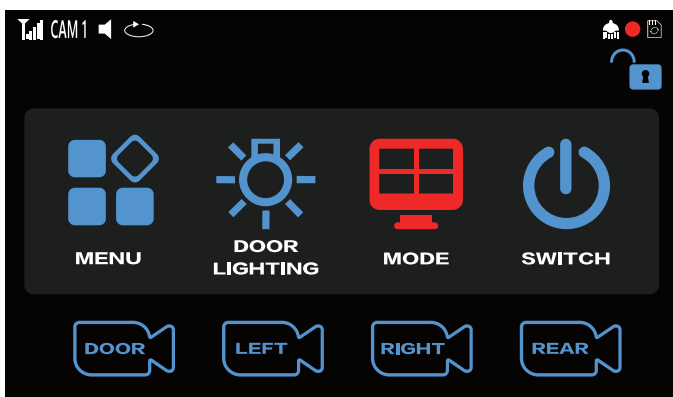


3. Press the **MODE** button and switch between **SPLIT**, **QUAD**, **H SPLIT** and **OFF**. You can select either two cameras for split. (The currently selected setting will be highlighted red.)

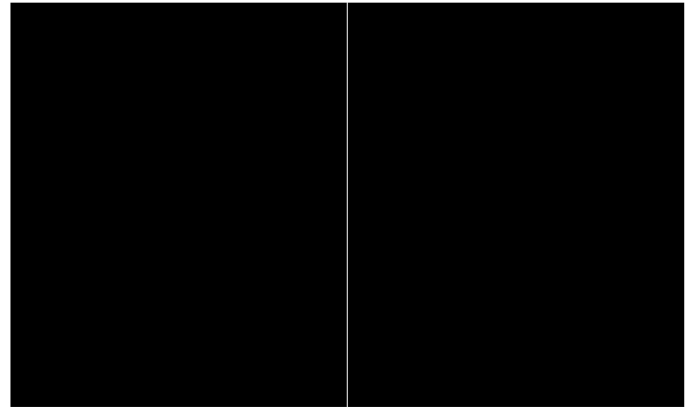


4. The monitor will return to single camera image automatically 10 seconds after selecting mode. Or you can return to last interface by pressing

5. Tap the **MODE** button in the control interface and it will show camera images as the mode you select.



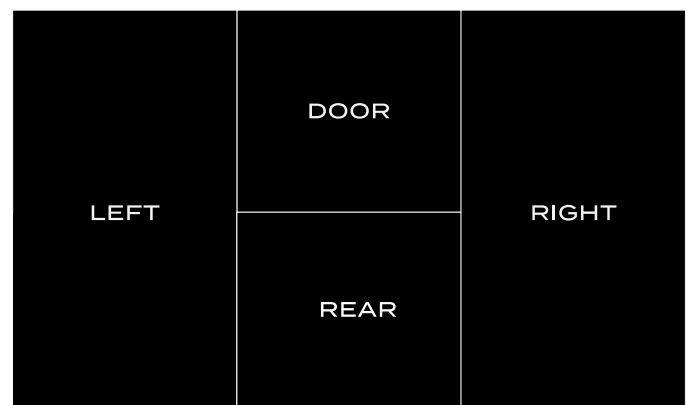
- channel display when **SPLIT** is selected.



- channel display when **QUAD SPLIT** is selected:




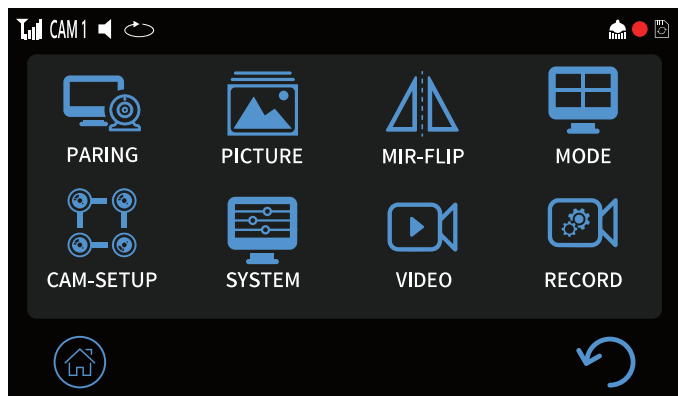
- channel display when **H SPLIT** is selected:



**NOTE:** Quad view mode is not recommended for observation while you are driving.

## • Change Menu Settings

1. There are eight options that allow you to set up the wireless vehicle observation/ security system before operation.
2. Tap one of the eight options to enter the setting page or tap  to return to the previous page.



## • Image Setting

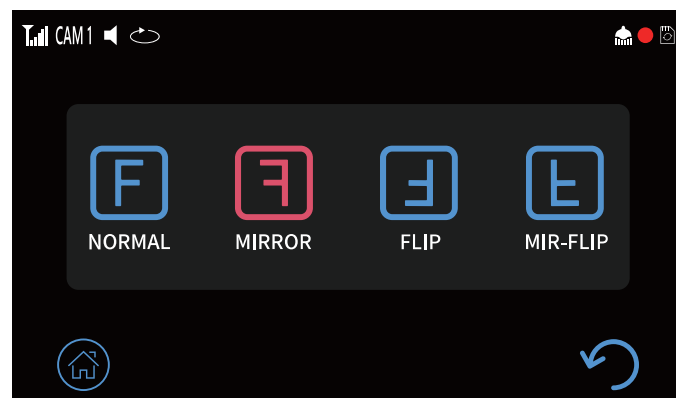
1. Select a camera you are going to set in control interface.
2. Tap **MENU** and then tap **PICTURE** to enter image setting of selected camera.



3. Adjust Brightness/Contrast/Saturation/ Volume by pressing + or -.
4. About the Brightness, it can also adjust by swiping left and right in the screen when in single channel view.
5. About the Volume, it can also adjust by swiping up and down in the screen when in single channel view. When in multi-channel view, you can switch to either camera sound channel by pressing that camera image for 3 seconds.

## • Mirror Setting

1. Select a camera you are going to set.
2. Tap **MENU** and then **MIR-FLIP** to enter the submenu. The currently selected setting will be highlighted red.
3. Tap to set the camera image rotation angle as NORMAL (0°), MIRROR (Horizontal Mirror), FLIP (Vertical Mirror), or MIR+FLIP (180°).

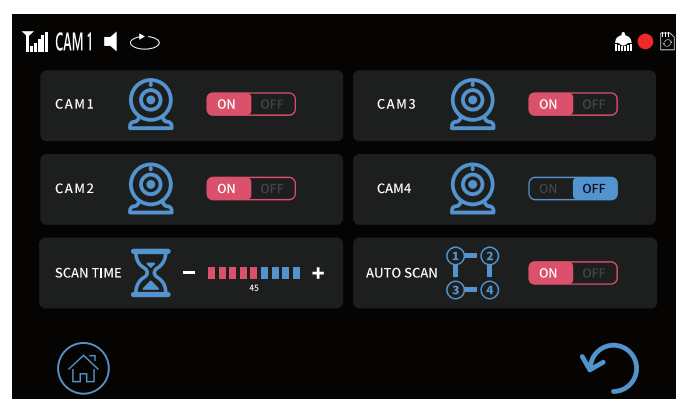


4. Repeat the above steps to set the other cameras.

## • Auto Scan Setting and Camera Setting

When this function is enabled, the monitor can switch back to single-channel display mode automatically after the monitor stays 10 seconds or you can tap to return to previous image.

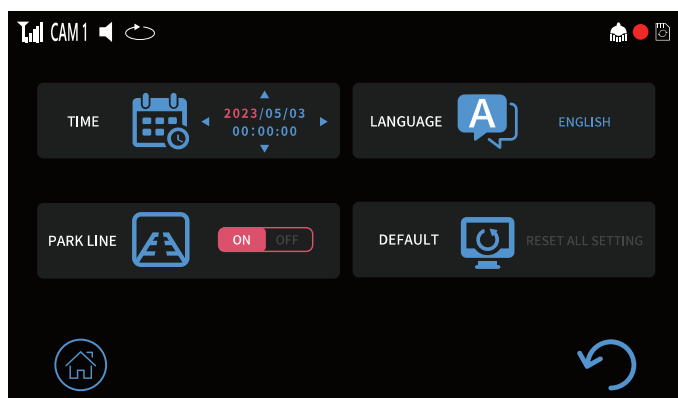
1. Tap **CAM-SETUP** to enter the submenu.
2. Adjust the SCAN-TIME as you like and then turn on **AUTO SCAN**.



3. The monitor scan from **CAM1** to **CAM4** automatically. And the **CAM1** to **CAM4** correspond to the camera order in control interface. If you want a different scan mode, turn **ON/OFF** either CAM1-4 as you like (At least turn on one camera)

## • System Setting

1. Tap **SYSTEM** to enter the submenu.



2. Select **TIME** area to enter time setting state. The currently setting field will be highlighted red.

3. Adjust number by pressing arrows. ▲ for decrease and ▼ for increase. Tap and hold for continuous increase or decrease. ◀ and ▶ for switching setting item and preserving.

4. Tap language area to switch between English and Chinese.

5. Select **PARK LINE** to turn it **ON/OFF**.

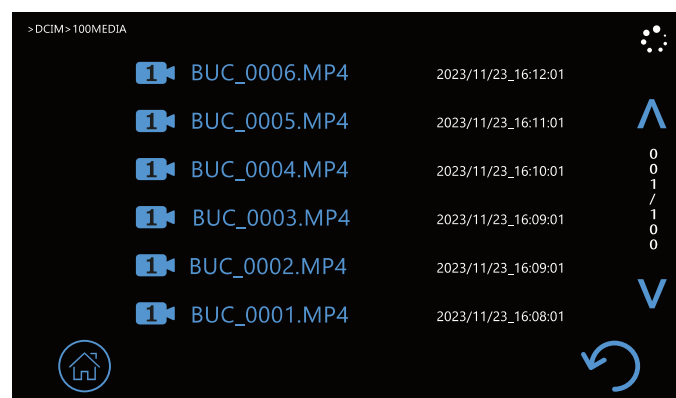
6. Tap **RESET ALL SETTINGS** in default area and click to confirm for restoring default.

## • Video Setting

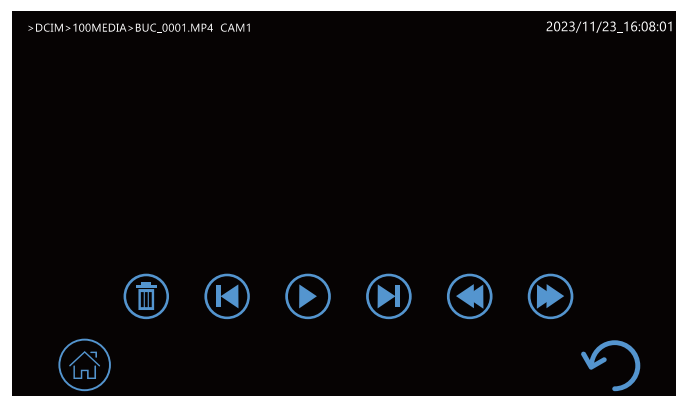
1. Tap **VIDEO** to enter the video folder page and it will show folder names and created time. Page number shows on the right. (150 pages at most).



2. Click either folder to enter and show videos in that folder.

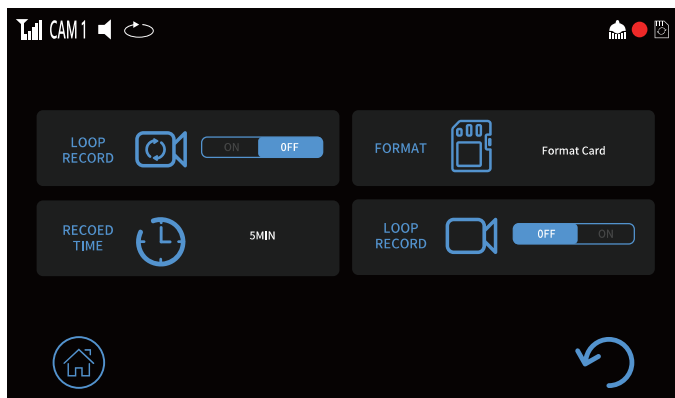


3. Select either video and enter video playback. Above the video displays folder, video name, which camera belong to, and created time. There are six operation options. Tap [Delete] to delete current video and switch to the next. Tap [Previous] to switch to the previous video. Tap [Next] to switch to next video. Tap [Fast Rewind] for fast rewind playback and [Fast Forward] for fast forward playback.



## • Record Setting

1. Tap **RECOED** to enter the submenu.



2. Tap to set the **LOOP RECORD** ON/OFF. Adjust the **RECOED TIME** to set the loop record time.



3. Tap to set the **RECOED** ON/OFF . When it is on,  will flicker in status bar.

4. Click to select whether to format SD card.



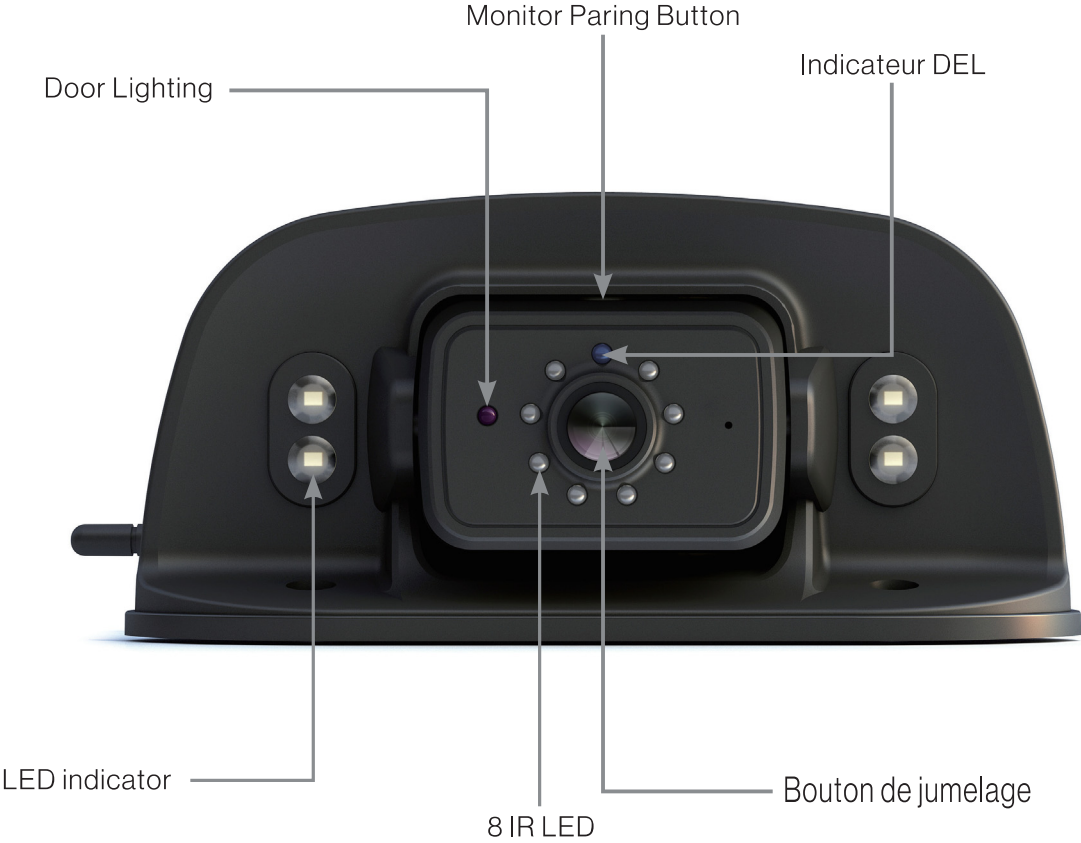
# Install Doorway Security/Rear Camera

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# Install Cameras

## Product overview

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# Mount bracket

**⚠ Note:** Skip this section if your RV is pre-installed with a bracket for camera installation.

**IMPORTANT:** Before any installation and wiring operation, remove the key from the ignition and isolate the 12V / 24V power source.

Always seek professional assistance if you are unsure about the installation and wiring operation.

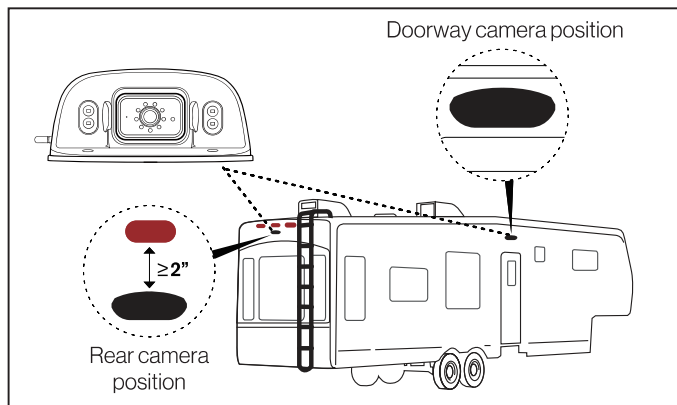
1. Determine the mounting location on your RV. Ensure that there is no obstacle blocking the camera view. The recommended mounting location is shown below:

- **For rear camera position:**

At the top center on the rear of your RV and as high as practicable (2" below the red marker light if available).

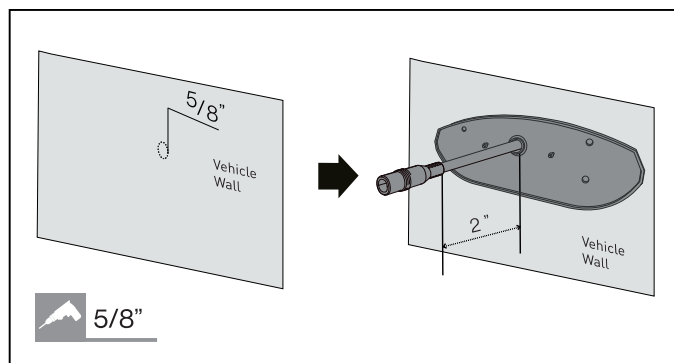
- **For doorway camera position:**

Above the top of the door.



**⚠ Note:** The RV shown here is for reference only. You can mount our cameras onto various types of RVs such as trailers and Class A/B/C motorhomes.

2. Use the gasket as a template to mark a basic outline on the chosen location with a pencil. Drill a center hole. Then route the female connector of the camera power cable through the hole and leave 2 inches of slack.



3. Connect the bare ends of the camera power cable to the nearest 12V / 24V power supply.

- **For rear camera position:**

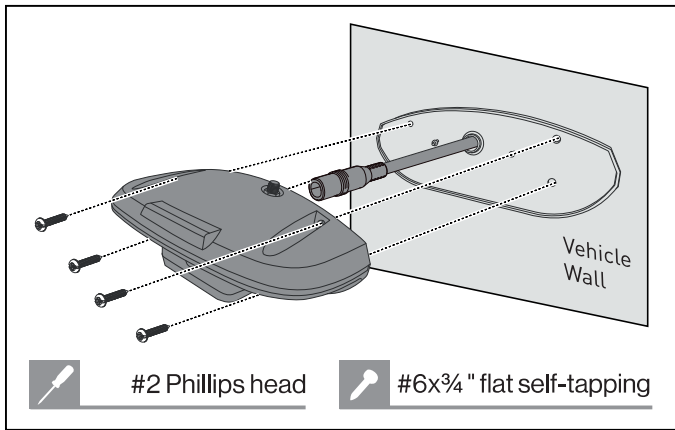
You are suggested to share the same power line from the nearest marker light (such as the red marker light at the top center on the rear if available).

- **For doorway camera position:**

You are suggested to share the power line from your RV porch light (or the nearest light source from the RV/trailer battery).

**⚠ Note:** Ensure that the fuse on the connected power line provides additional 1A fusing current for the camera. Ensure proper cable isolation for all bare ends (e.g. by using insulation tape).

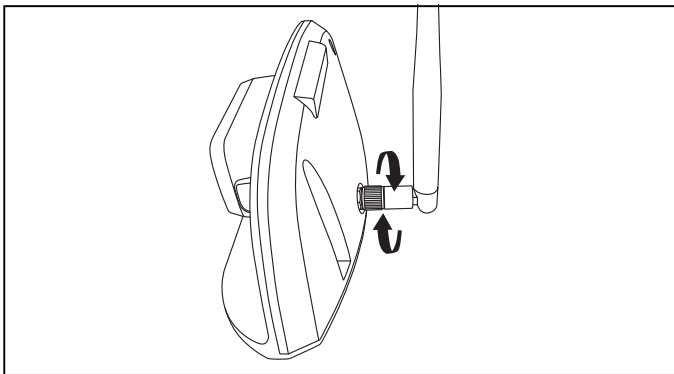
4. Fix the gasket and bracket with 4 self-tapping screws. If the mounting surface is uneven, apply sealant between the gasket and RV surface, and around the holes at the screw locations for better sealing.



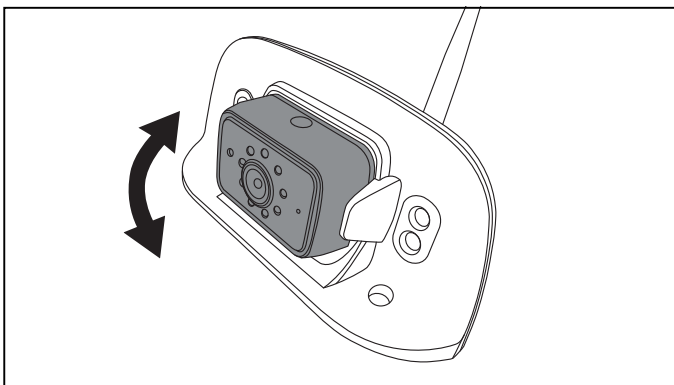
## • Mount camera

If this camera comes in a bundle with our monitor, it is paired with the monitor by default. You can connect it to the female connector on the Y type power cable of the monitor and resume power temporarily to check the pairing status before installation.

1. Mount the antenna onto the camera securely and keep the antenna straight.



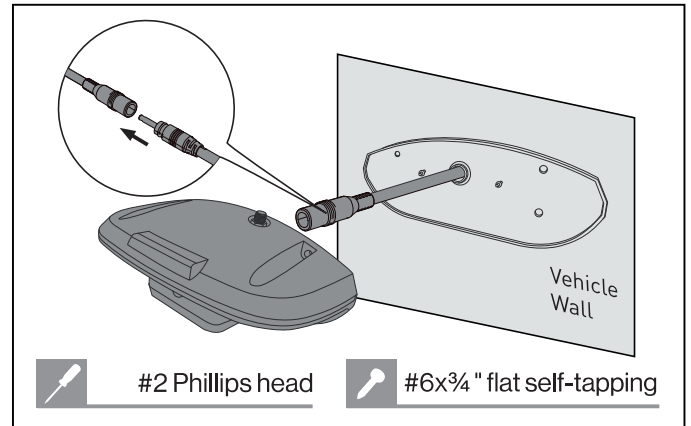
2. If there is a cover on the bracket housing, remove it first. Connect the female connector of the camera power cable to the male connector on the back of the camera, and put the redundant cables inside the bracket housing.



3. Adjust the view angle of the camera by rotating it upwards and downwards (0~50°) so that you can see:

(For rear camera position): the bottom edge of your vehicle and the road conditions behind;

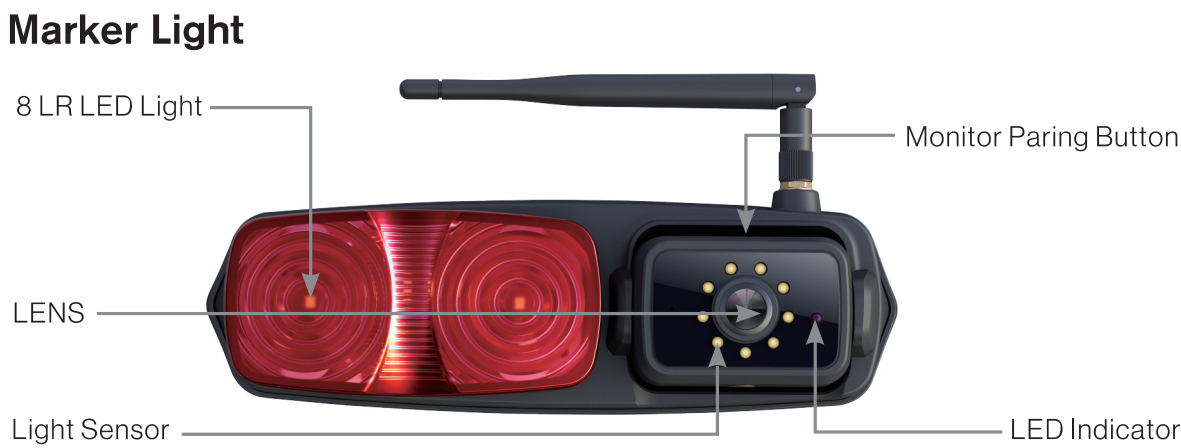
(For doorway camera position): the bottom edge of the door.





# Install Side Cameras & Rear Camera with Marker Light

## Product overview



# Mount bracket and camera

**IMPORTANT:** Before any installation and wiring operation, remove the key from the ignition and isolate the 12V / 24V power source.

Always seek professional assistance if you are unsure about the installation and wiring operation.

1. Determine the mounting location on your RV. Ensure that there is no obstacle blocking the camera view. To avoid drilling new holes, you are recommended to replace the original marker lights with our products directly as shown below:

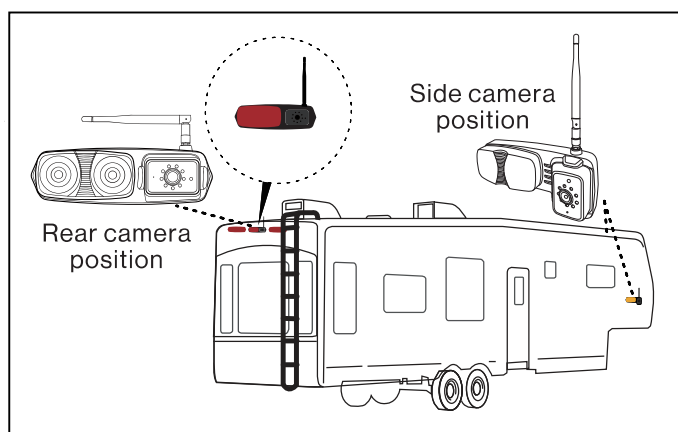
- **For rear camera position:**

Location of the original rear marker light at the top center on the rear of your RV. To accommodate the camera, ensure that there is at least 7.5" space between the central points of the two adjacent marker lights. You are suggested to use the power line for the original rear marker light directly.

- **For side camera position:**

Location of the original side marker lights (as front as possible). You are suggested to use the power line for the original side marker lights directly.

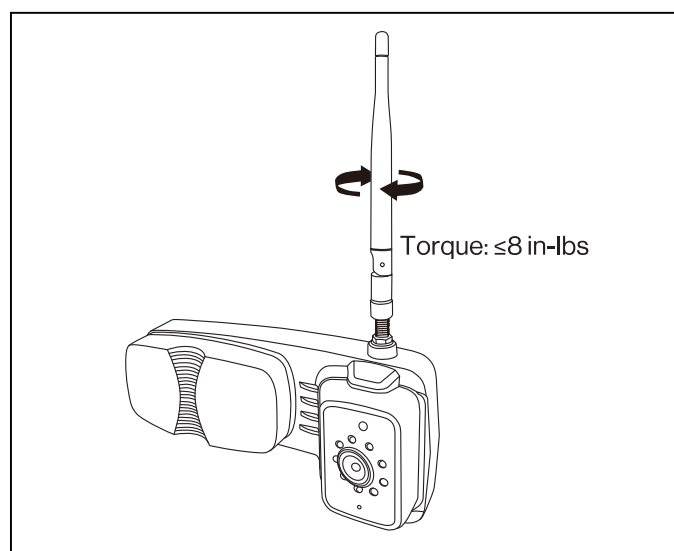
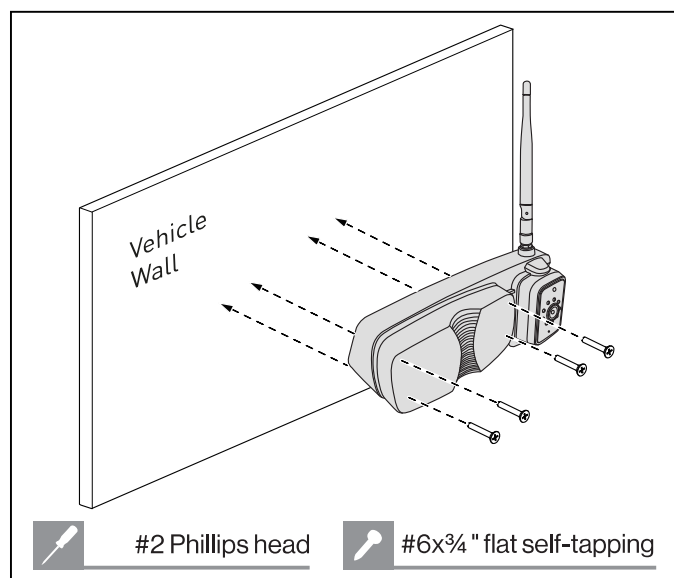
**⚠ Note:** Ensure that the fuse on the connected power line provides additional 1A fusing current for the camera.



Ensure proper cable isolation for all bare ends (e.g., by using insulation tape).

2. Remove the original marker light from the corresponding location.

3. Connect the bare ends of the power cable on the back of the bracket to the nearest 12V/24V power supply: black : + ; white\_grounding : -
4. Secure the gasket and marker light bracket onto your vehicle using 4 self-drilling screws. If the mounting surface is uneven, apply sealant between the gasket and RV surface, and around the holes at the screw locations for better sealing.



For the rear camera, mount the antenna onto the camera securely and keep the antenna straight. Adjust the view angle of the camera by rotating it upwards and downwards (0~50°) so that you can see the bottom edge of your vehicle and the road conditions behind.

# Installation Instructions

## Troubleshooting

<b><i>Problem</i></b>	<b><i>Solution</i></b>
<b>Monitor won' t turn on (no red LED)</b>	Check the power cable is connected.
	Check that the power supply has 12-24V DC output.
	Check all fuses and breakers (including fuses in the cigarette power adapter and fuse box).
	Power off and on again to reset.
<b>Wireless camera(s) and monitor won' t pair</b>	Our monitor can only pair with our cameras. Pairing with products from other manufacturers is not supported.
	Check if the camera is receiving power. <ul style="list-style-type: none"><li>– Ensure that the fuse on the connected power line provides additional 1A fusing current for the camera.</li><li>– Ensure proper cable isolation for all bare ends to avoid short-circuit.</li></ul>
<b>Intermittent/weak signal icon appears</b>	Check if the camera antenna is fitted and secured correctly - it should be vertical.
	Large dense objects could be obscuring the signal. If possible, move the objects
	Interference from electrical appliances may be affecting the wireless signal. Turn off the appliances when using the system.
	Interference from overhead power lines may be affecting the signal.
	Try unpairing and pairing again.
<b>Blurry images on the monitor</b>	Remove the protective film from the camera lens upon completion of installation.
	The camera lens may be dirty. Wipe them with a piece of soft and clean cloth.
	Some adverse weather conditions such as heavy fog, rain, floating dust or mud splashes may either partially or entirely block the camera view. Clean the camera lens immediately after driving to a safe place.

<b><i>Problem</i></b>	<b><i>Solution</i></b>
<b>Images too dark/bright on the monitor</b>	Adjust the brightness and contrast settings.
	The image may be too bright when the camera lens are facing towards a direct light source. This is not a malfunction.
<b>Night vision is poor or does not function</b>	The light sensor on the camera may be dirty or obstructed. Clean the light sensor or remove obstacles.
	If the ambient light is too strong, the night vision function may not engage. This is not a malfunction.
	Ensure that the camera is installed at least 2 inches away from marker lights.
<b>Monitors Red LED off with no</b>	The camera has no power connected.
	Ensure the tow vehicle is running.
	Ensure the 7 way connector is connected.

**FCC Caution:**

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

**FCC Radiation Exposure Statement:**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.