

Intelligent Safety Driving System

Electronic Rear View Mirror Blind Zone Assistant System



VD1237 User Manual and Installation Instruction

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Note: Please refer to the object you received, if any design or specification difference, please check with supplier!

Packing List

1. Mirror Monitor	1
2. Wing Camera	1
3. Reversing camera(optional)	1
4. Remote Control	1
5. GPS Module	1
6. Power harness	1
7. Fuse harness	1
8. Adapter cable	1
9. Reversing camera cable(Optional)	1
10. A pillar installation bracket package	1
11. Screw M6*30 mm	10
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User Notice

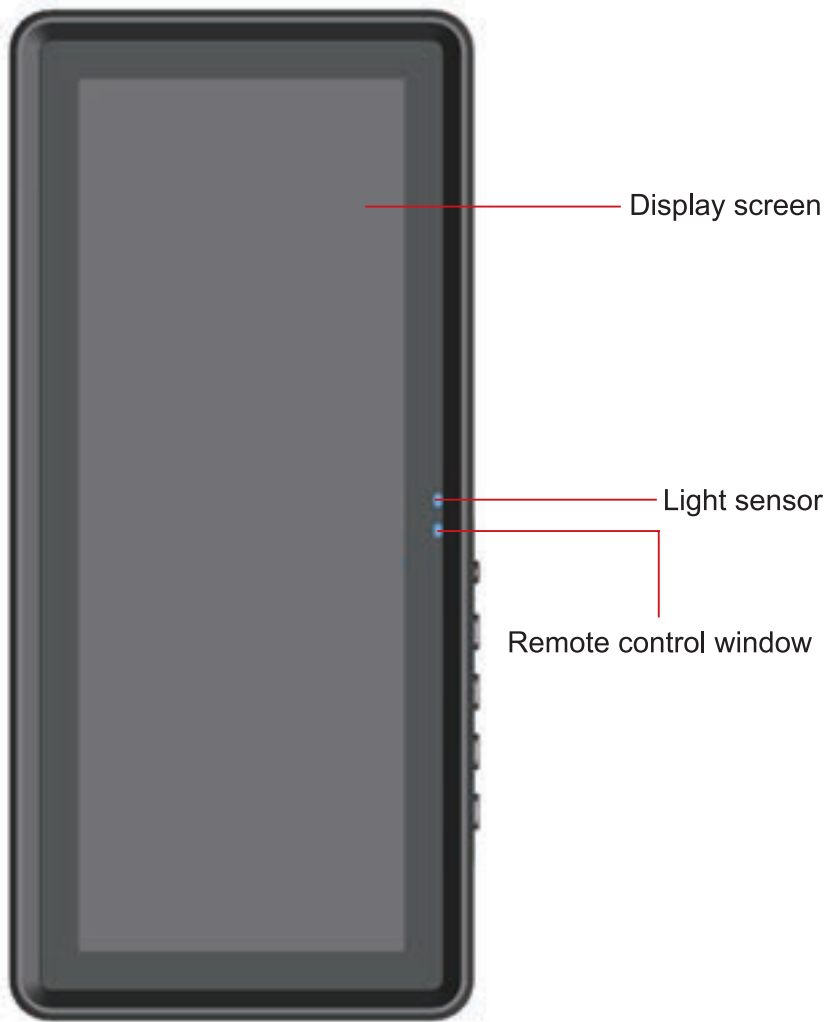
Please read carefully before using, and do as it advised to make sure a safety using without troubleshooting.

1. The device requires vehicle 11.7-30V power system(negative pole connects ground wire);
2. Please install the device at a proper position, avoid blocking driver's view and normal driving;
3. Please do not change the fuse wire without guide of professional staff, or it would cause damage or fire hazard;
4. Please do not disassemble the device or any parts by yourself; if any product issue, please shut down the power and stop using, and then contact local service shop;
5. Please avoid falling and strong hit, and do not click on the screen with thin and sharp stuffs;
6. Please use soft cloth and neutral cleanser to clean the display screen, do not use alcohol or hard cloth;
7. Please do not put the device in moist condition or even under water to avoid short circuit, device damage and fire hazard;
8. Please keep the device away from too hot or too cold place;
9. This device is mainly used to take picture of blind zone of left and right, if any loss caused by driving condition(radiation,moist) and SD damage, we are not responsible for above conditions.

Notice:

- Please read carefully all the tips and we suggest you to install the device by local professional maintenance service shop.
- To avoid accident, please shut down all the power supply, cut down the connection of device with ACC, B+ cable before installation.

Product Appearance







Long-arm camera(suitable for Truck)



Short-arm camera(suitable for Motorhome)

Device button	Function
 Power/Main	After entering menu settings, click to enter recording main page.
 Up	Move up and select in menu page; Playback the previous video; Increase brightness, increase the value for date/time adjustment.
 Down	Move down and select in menu page; Playback the next video; Decrease brightness, decrease the value for date/time adjustment.
 Lock/OK	Lock video when recording; Confirm current selection in menu page; Stop/play video when playback; In video list page/ when playback, press and hold to delete video according to pop-up.
 Menu/Return	In recording page, press and hold menu button to enter menu settings; Return to previous page in menu page.

Note: Regarding 3 composite keys, the first function of "power", "lock" and "menu" is effective only in recording preview page, when enter into "menu" page, the corresponding second function of 3 composite keys is workable.

Remote Control Button Functions



VD1237 Remote control

Icon	Button	Function
	Power	When device in "Power OFF" status, press it to open the mirror; When in "Power ON" status, press 【Power】 to close the mirror.
	Menu	In recording page, click this button to enter into system menu(Video Settings, file manager , display, safety settings, storage , more settings etc.); After entering menu settings page, click it to return recording settings.
	Return	After entering system menu, click it to return to the previous page.

M	Mode	In recording page, short press 【Power】 to: recording page-status bar-turn off screen-recording page.
	Up	In menu settings page, move up to select any menu item and settings item, and in playback list page to move up and select any video item; In video playback page, click to play the previous video.
	Down	In menu settings page, move down to select any menu item and settings item, and in playback list page to move down and select any video item; In video playback page, click to play the next video.
	Left	In recording page, if the auto brightness adjustment is off, click it to darken the screen; In menu settings page, move left to select any menu item and settings item.
	Right	In recording page, if the auto brightness adjustment is off, click it to lighten the screen; In menu settings page, move right to select any menu item and settings item.
OK	OK	In recording page, click it to lock selected video; When enter the menu settings page, click it to enter the next menu item; When settings one submenu in menu settings, click it to save this submenu settings specifications; When enter the video playback list, click it to confirm play the selected video; When in video playback status, click it to "pause/play".

Product Features

- **1080P Left Right Blind Zone Rear View**

Super wide view angle, reduce blind zone; high speed video transmission, real-time display; clear image, nice image quality.

- **Super HD Starlight Night Vision**

HD image display, full glass lens, no distortion; Super Star Light Night Vision System, anti-flashing, anti-glare.

- **HD Dual DVR Recording**

Distant/nearby view dual HD recording, Loop recording ,support video file lock protection; Professional vehicle camera, anti-vibrating.

- **Video Playback**

Easy operation, support video playback, support video list select/lock/delete.

- **Reversing (optional)**

It can display fast and automatically, support super wide view angle, no distortion; with built-in speaker, receive reversing instruction, it can greatly strength reversing safety of big size vehicles.

- **Remote control and button control**

Super wide view angle, reduce blind zone; high speed video transmission, real-time display; clear image, nice image quality.

- **Screen brightness auto adjustment**

Support backlight brightness adjustment automatically at day and night, that can extend product usage lifetime.

- **Camera LED auto light**

Support camera LED auto light according to different road conditions to create a better driving condition by opening LED light and adjusting screen brightness.

Basic Operation

1. Turn on, turn off

(1) Turn on

After installation finished, you only need to light ACC and the device will turn on automatically and do not need to press the power button “  ”.

If the vehicle engine is on, you can press power button “  ” to turn on if you turn off the device by pressing power button “  ” before; or you can light the vehicle again after the engine is off and the device will turn on automatically.

(2) Turn off

When the vehicle engine is off, you can press and hold power button “  ” to turn on the device; after the vehicle engine if off, the device will turn off automatically.

Notice:

If you opened Delay Recording function, even you turn off the device while the device is recording normally, it will keep recording 27s more and then turn off.

2. Icon Description

Icon	Description
	DVR ON and it is recording

	DVR ON, but distant view camera is not working or it is disconnected;
	DVR ON, but nearby view camera is not working or it is disconnected;
	DVR OFF or no SD card inserted
	Found SD card
	No SD card found
	SD card abnormal
	Voice ON
	Voice OFF
	GPS Signal Strong
	GPS Signal Poor
	Lock

3. DVR

DVR will be ON by default when the device is turned on, it will start record if SD card is working normally.

(1) If the upper left red dot is blinking, distant/nearby view recording icon “” light up, it means it starts recording, and videos are stored in circular-delete mode, when videos storage surpass the storable space, and when it records new videos, the earliest videos will be deleted. (Picture 1)

(2) If one of the distant/nearby video icon is in gray, it means that camera is broken or is disconnected. Distant video icon is normal, but nearby video icon is in gray, it mean the nearby view camera is broken or is disconnected, and screen showed "no signal". (Picture 2)

(3) If upper left shows “” “”, it means SD card is broken or no SD card detected, the device is not able to record normally.



Picture 1



Picture 2



Picture3 (page 14)

(4) If upper left the distant/nearby video icon is in gray“  ”, please check whether video is OFF, or check if there is a SD card or SD card is broken, the user should click “  ” button to enter into settings menu--Switch on "automatic recording when power on".

4. Video Voice

Voice recording switch is at OFF status by default, and it can record voice only in recording status, it can not record voice in non-recording status, even the voice switch is ON.

- (1) If upper left showed icon “  ”, it means it starts recording video and voice.
- (2) If upper left showed gray icon “  ”, it means it turned off voice recording, if you need to record voice, press menu button “  ” to enter into settings menu to open it.

5. Lock Video

In video preview page settings press “ **OK** ”button to lock video, locked video will be marked with icon“  ”(2s pop-up notice), locked video stored in circular-delete mode(with reserved 30% DVR storage space), when videos storage surpass the storable space, and when it records new locked videos, the earliest locked videos will be deleted. Please backup important locked videos timely, and the normal videos and locked videos will be stored in normal video file. (Picture 3, page 13)

- (1) If it is recording, press lock button “ **OK** ” to lock current video, if it just starts to record or about to finish a recording, you can still lock the previous or next video.

6. Menu Settings

- (1) In driving preview status, press button on the device/remote control button “  ” to enter into settings menu page, and it will activate buttons “  ”

“  ” “  ” , and then press button of the device/remote control button “  ” “  ” to select and press “ **OK** ” to confirm or press “  ” to return to the previous layer.

(2) Enter into video settings, click automatic recording when power on, it is "ON" by default, switch to "OFF" status, it will not record.

(3) Enter video settings, click time watermark, it is "ON" by default, switch to "OFF" status, it records without time watermark.

7. Video Playback

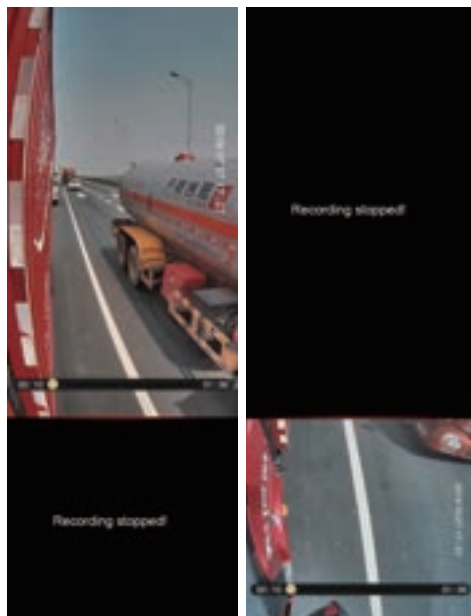
(1) In driving preview page, press remote control/device button “  ” to enter menu page, and the second function of 4 composite keys will be activated, and then press “  ” “  ” button to select video, and press “ **OK** ” or “  ” button to confirm the video that you want to playback.

(2) Video files include normal videos and locked videos, the videos that recorded in the same day will be stored in one file, and that file will be named with shooting time, and locked videos will be marked with icon “  ”. Please go and check any video file according to the naming rules.

(3) After selecting one video, press button “ **OK** ” to playback that video, the distant view video and nearby view video will be played in the up and down preview position of the screen; Press button “ **OK** ” or “  ” to pause/play or return to the video list; press and hold the device button “ **OK** ” to delete selected video, press button “  ” “  ” to play the previous or next video. (Picture 4, page 16)

Tips:

When playback video, recording will be stopped automatically, and it will start recording automatically again after exiting playback page.



Picture 4 (Page 15)

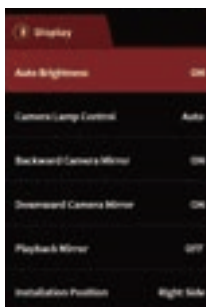
8. Display

(1) After entering menu settings, press button “  ” “  ” to select display settings, and then press button “ **OK** ” to display settings page;

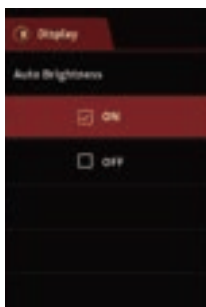
(2) Enter “ Display ”, press “  ” “  ” to select settings, press “ **OK** ” to confirm.(Picture 5, page 17)

(3) Select " Auto Brightness " function, screen brightness will be adjusted automatically according to surroundings light condition; Switch off it, you can set the screen brightness manually in driving preview page by pressing button “  ” “  ” .
(Picture 6, page 17)

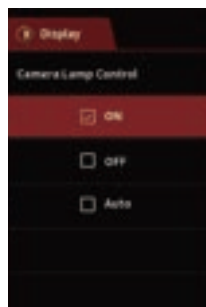
(4) Set "Camera LED Control" into "ON" status, when the device opened, the camera LED light will open all the time; Set it into "OFF" status, the camera LED light will close all the time; Set it into "AUTO" status, the camera LED light will synchronize the car lamp status on or off.(Picture 7, page 17)



Picture 5
(Page 16)



Picture 6
(Page 16)



Picture 7
(Page 16)

9. Safety Settings

After entering menu settings, select "safety settings" menu item, press “ **OK** ” and enter safety settings page; safety settings page includes reversing settings, power exception prompt, press button “  ” “  ” to select one and set it.

(1) Reversing Settings (Picture 8, page 19)

Enter "Reversing Settings" page, "Reversing Switch" is opened by default. When parking, the reverse image will be displayed in the screen. If you installed two devices at the same time, just connect the reverse trigger of the device that you want to display as reversing; If you connect two reverse triggers, please make sure which device that you want to choose to display as reversing, and turn off the reverse function of the other device.

Enter the "Safety Settings" menu, and close this function.

If the customer need to install the reverse camera, you need to advise them the reverse image will be displayed in one of the device, Please turn off the reverse function of the device that don't need to display as reversing, in reverse settings page, switch on/off "Reverse delay time" and "Reverse voice".

Reversing Camera settings

Friendly Reminder: Please select the camera type accordingly, if you set it to "Auto", the reversing image display response will not as quick as it supposed to be.

Trouble-shooting:

If two devices' reverse trigger are connected, and the reverse switch are opened, one of the device will not display the reverse image, and you need to turn off the "reversing switch" of that device.

(2) Power exception prompt,

When connection is abnormal, there will be a pop-up to remind the user.

10. Storage

Enter "Storage " page to check the SD card storage and used storage, format the SD card and unload the SD card, format the SD card will clear all the date, please save the important date before formatting the card. If you need to remove the card, please unload the SD card at first. (Picture 9, page 19)

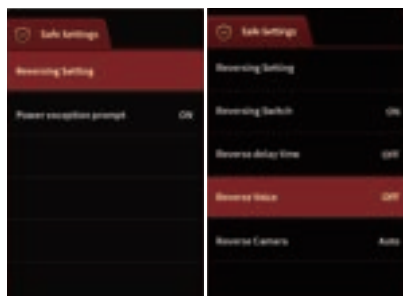
Tips:

Frequent use will affect the SD card performance and cause failure recording, in case of this situation, please format the SD card every two month, or replace with a new card half an year.

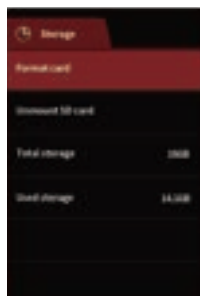
11. More Settings (Picture 10, page 19)

(1) Enter"More Settings" page,check "Languages" "Date Time Settings".

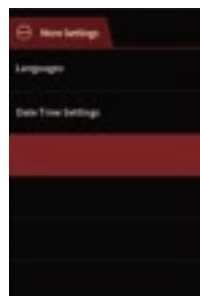
(2) "Chinese" "English" "German" is optional; In "Date Time Settings" menu item, set time and date of the device VD1237 and make sure record the video effectively.



Picture 9 (Page 19)



Picture 10
(Page 20)



Picture 11
(Page 20)

12. About Device VD1237

Enter "My Device" page and press “  ” “  ” to "About Device VD1237", press button “  ” and enter "About Device VD1237" page, you can check information of item model, QR code, firmware information, hardware version and recover to factory settings.

Simple Troubleshooting

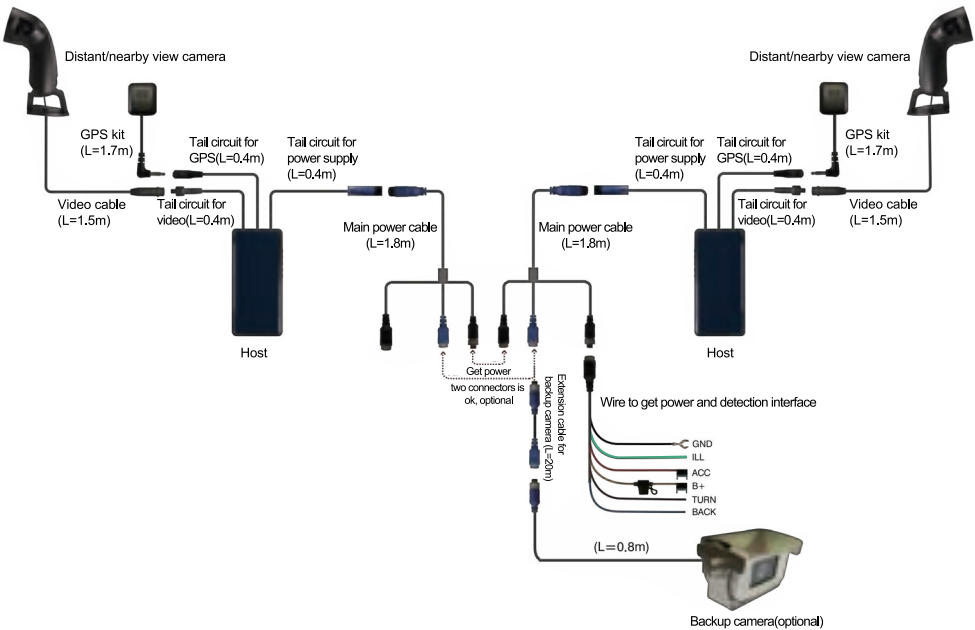
If there is any trouble on the mirror, please check below:

Troubles	Possibly caused by	Solutions
Unable to boot up	1. Overheating by strong sunlight 2. Power cable poor contact 3. Fuse damage	1.Boot up after cooling down 2.Please re-plug the power cable when power off 3. Call your account manager
System halted, black screen, button disabled	1. Mirror overheating 2. System running slow caused by interference	Press and hold power key to power off then restart
Can not record after power on	1. SD card not inserted 2. SD card abnormal or damaged. 3. Recording switched off 4. Too much personal data in SD card	1. Please insert SD Card 2. Please format SD card or replace with a new one 3. Please switch on recording 4. Please delete personal data
Record abnormal, stop automatically	1. SD card abnormal 2. SD card damaged	Please format SD card or replace with a new one
Recording video has no sound	1. The recording sound is disabled	1. Go to recording settings and enable the sound

Blurry Image/video	The lens is too dirty or with the film on	Wipe out with clean cloth, remove the unnecessary film
Previous videos disappeared	When the SD card is about to full, the initial videos has been removed to save more new videos	Please back up important videos
Wrong recording time	Wrong time settings	Set the correct date and time on menu
Remote control and mirror buttons doesn't work	The emergency recording is on	Wait till the emergency recording is finished.

If the above solutions can not work for your troubles, please contact your account manager for support, do not disassemble the mirror by yourself.

VD-1237 On Vehicle Wiring Diagram

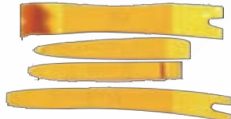


VD1237 Installation Procedures

1. Checking host and accessories

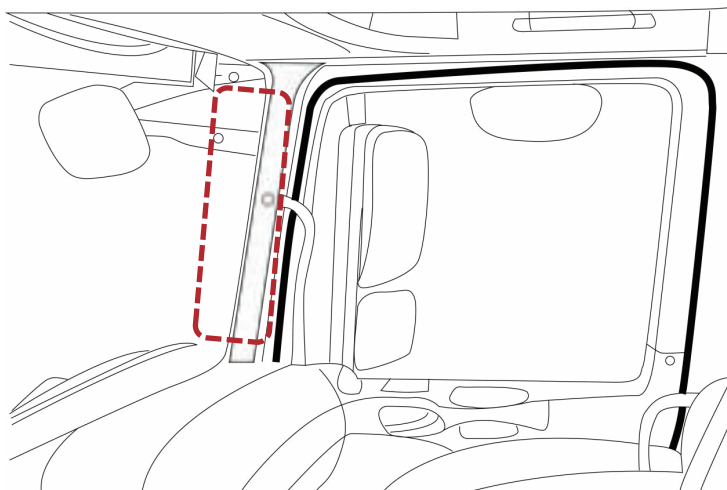
Accessories list			
No.	Item	Picture	QTY
1	Host		1
2	Camera		1
3	Main power cable		1
4	Wire to get power		1
5	Video cable for camera		1
6	GPS kit		1
7	Remote control		1
8	Camera base		1
9	Host mounting base		1
10	Rivet nut M6x15mm		10
11	Screw M6x30mm		10

2. Preparing tools

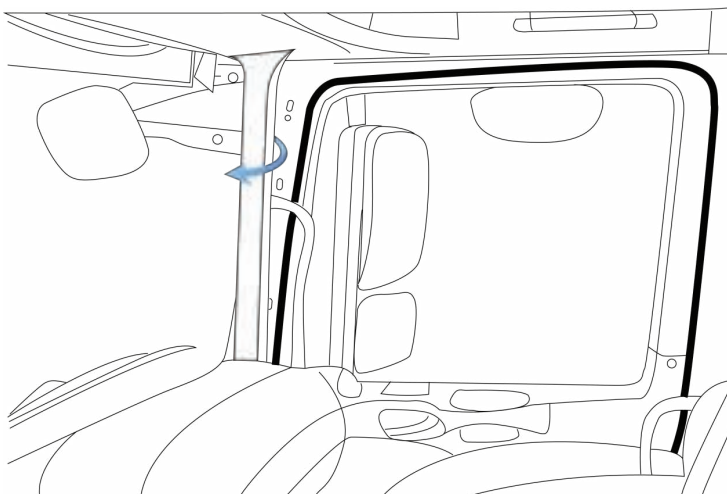
Tool list			
No.	Item	Picture	QTY
1	3mm drills		1
2	9mm drills		1
3	20mm hole saw		1
4	35mm hole saw		1
5	The riveting tool		1
6	Electric drill		1
7	Spanner		1
8	Allen wrench		1
9	Crow plate		1
10	Screwdriver		1

3. Installing host

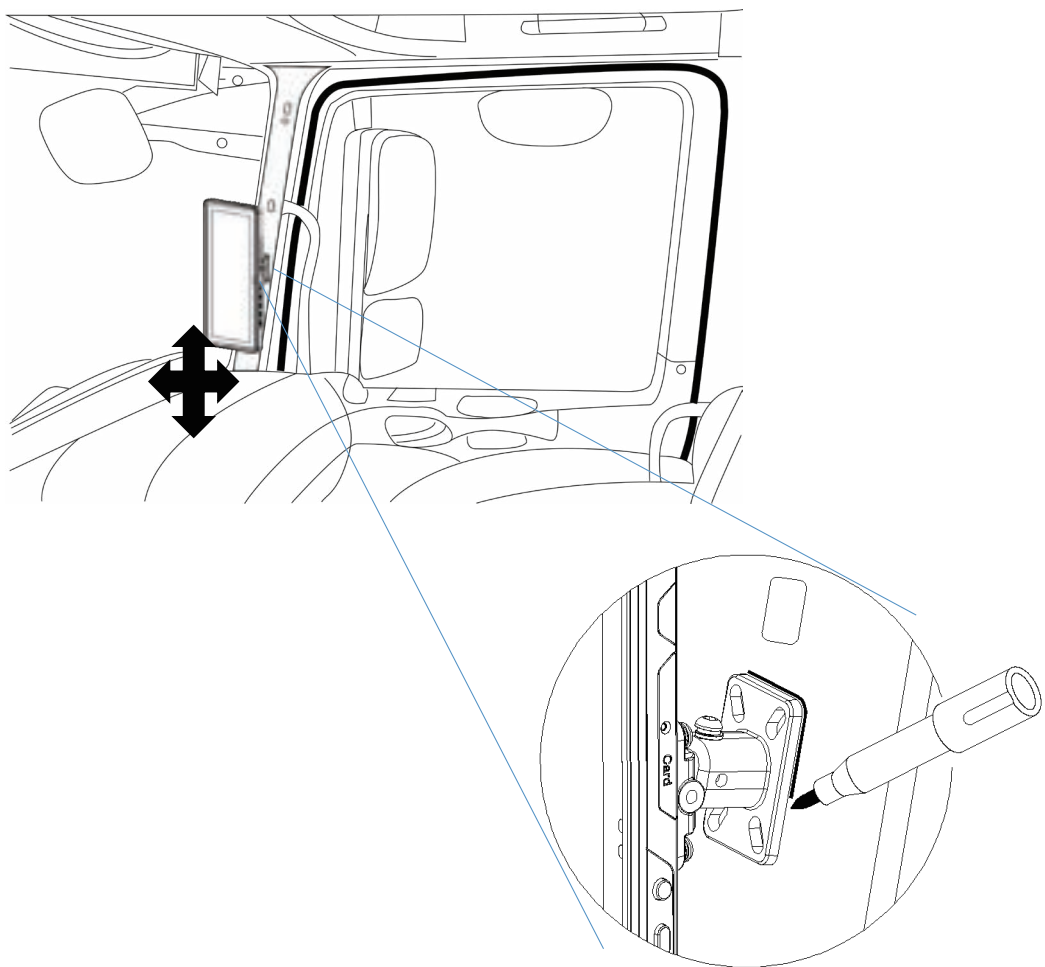
Installation position is at A pillar of the vehicle



(01) Disassemble the trim panel of A pillar

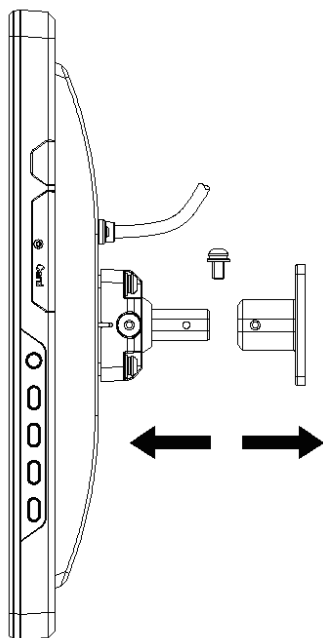


(02) Observe from the driver's place, to adjust the suitable installation position on A pillar. (According to installation experience, make the host installation position close to the instrument panel is more appropriate)

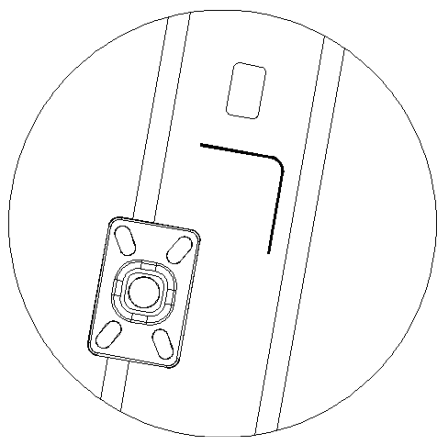


Mark the lines on edges of base to remember the position of A pillar's surface.

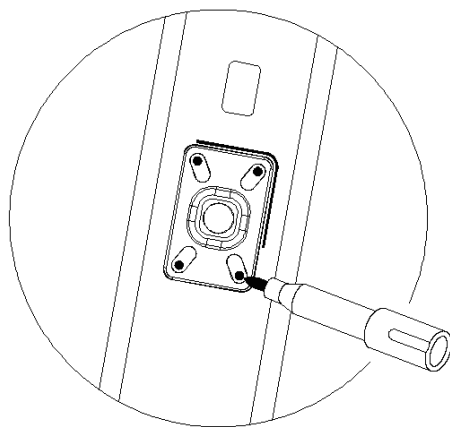
(03) Disassemble the base from the host



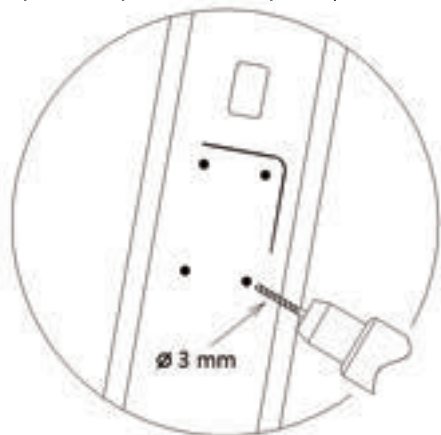
Align base to the marked place
on A pillar's surface



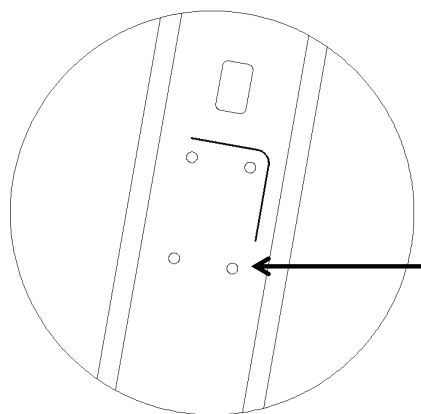
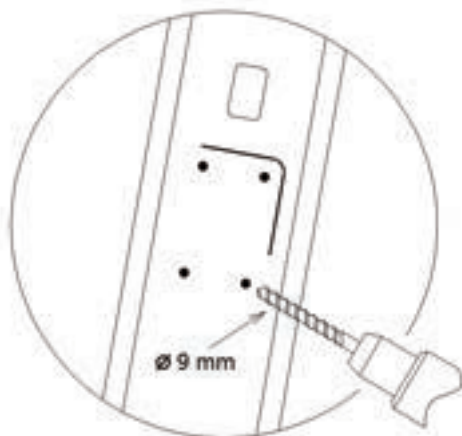
Mark the base's center place of 4 screws
on A pillar's surface



(04) Use 3mm drill to drill holes on the marked center places (tips: keep the center place)



Use 9mm drill to widen the 3mm holes into 9mm



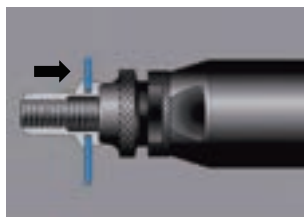
M6x18



Install 4pcs rivet nuts of size M6x18mm into the holes

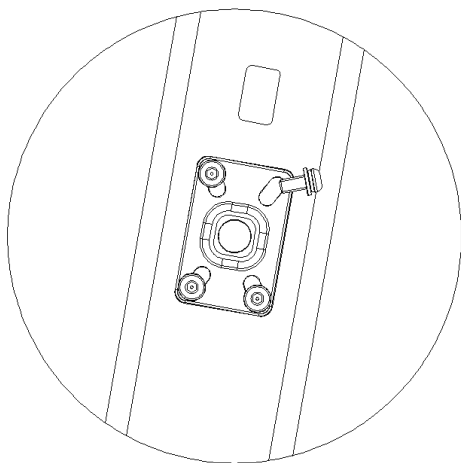


①

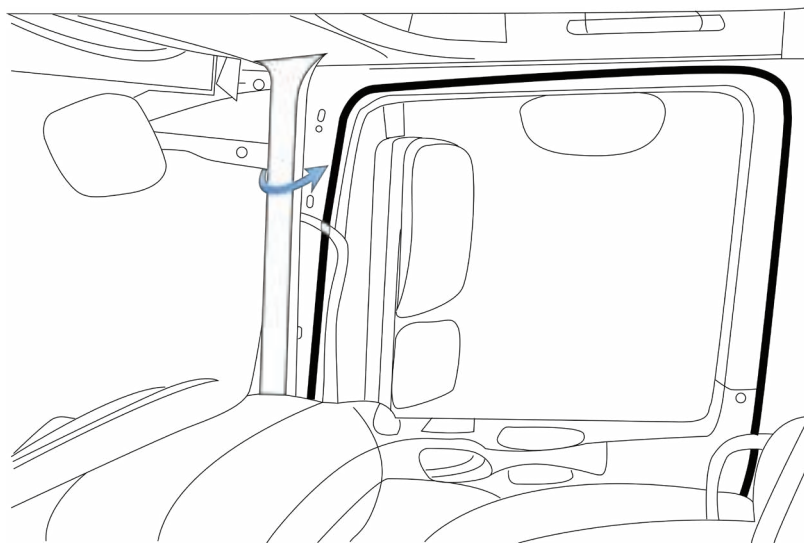


We suggest to use professional tool①, spanner and allen wrench to tighten and fix rivet nuts

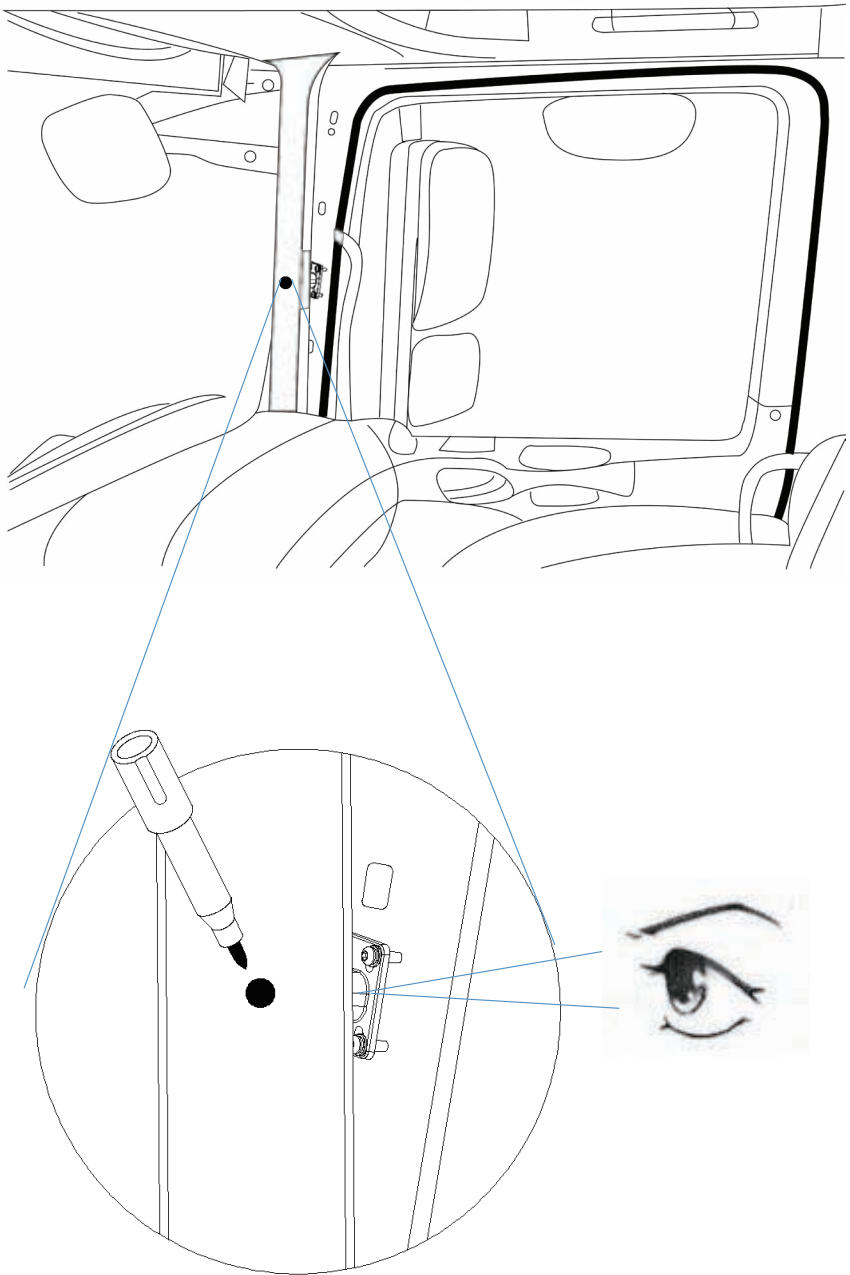
Use screw with M6x30mm to install the base well



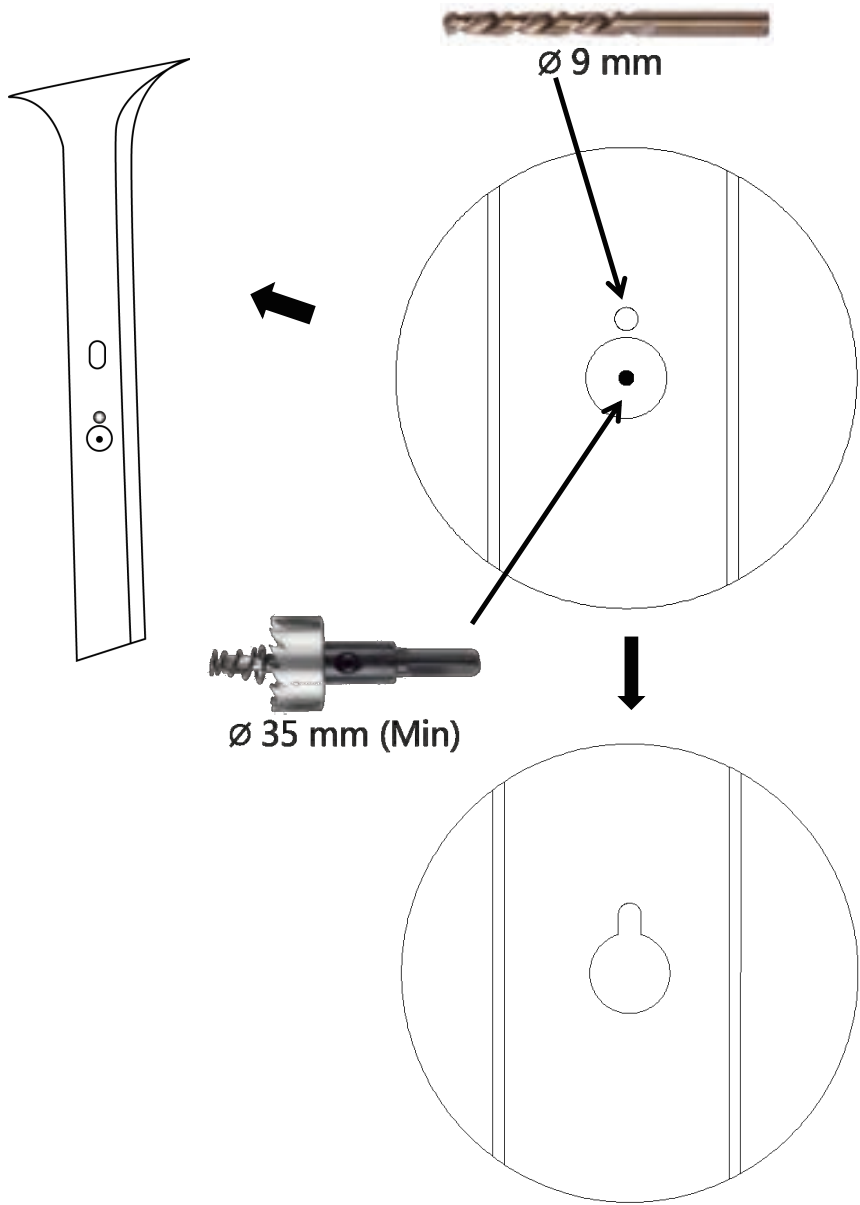
Close the trim panel of A pillar



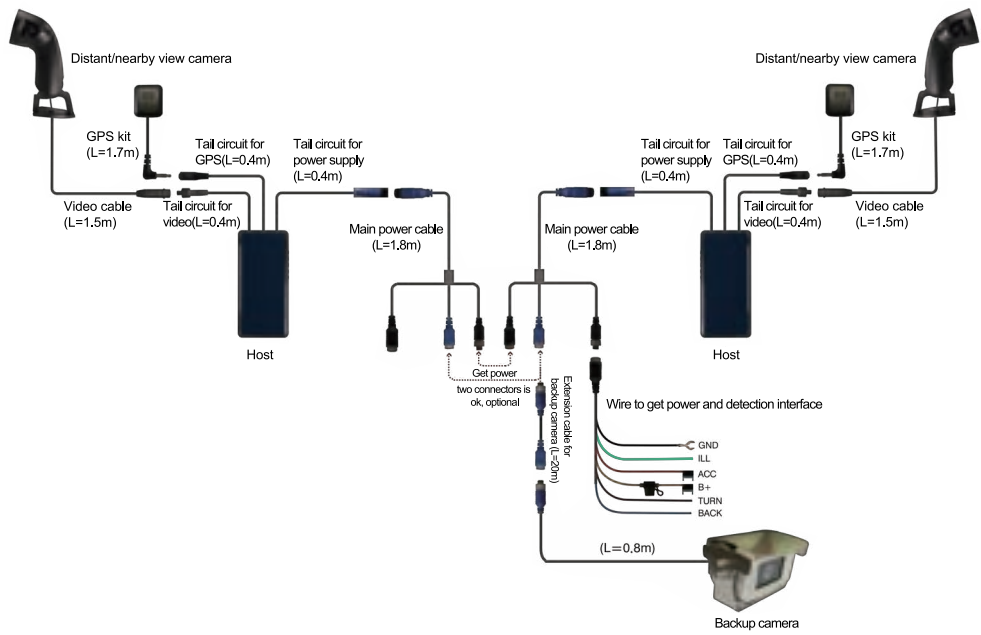
(05) Observe from the side about the base position of A pillar, and mark the center place on A pillar's trim panel



Disassemble the trim panel of A pillar, use 35mm hole saw to drill holes on the marked center place, and use 9mm drill to drill through-holes on the circular hole, use tool to trim the edges of circular hole as above to go through wire. After finished host base installation, do not need to fix the trim panel now and go to the next step.

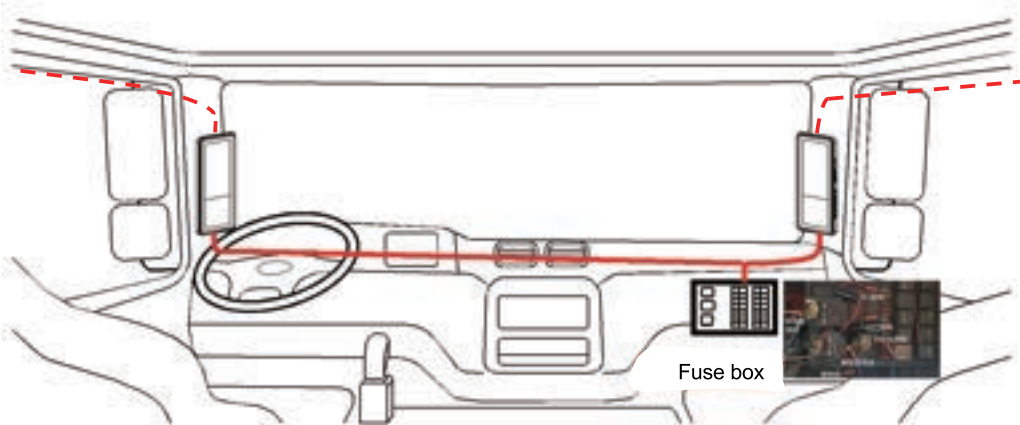


(06) Take out cables and connect the product according to the instruction of harness connection.



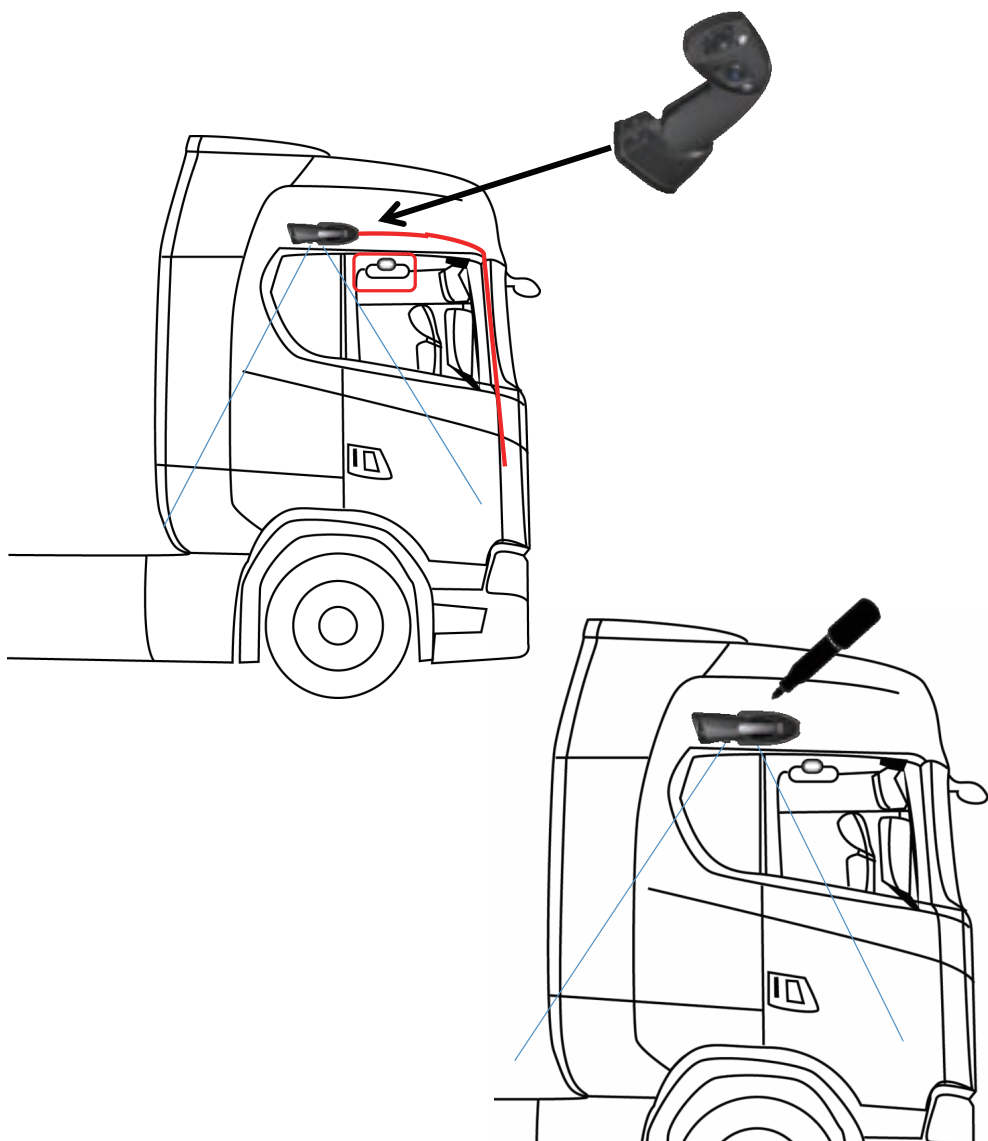
As shown in the figure, go through the wire and get power for two sides host. Take power from ACC and B+ from fuse box of original car, and then use screws to fix GND and car body. At last, connecting other signal detection wire to the corresponding harness of original car.

(Tips: We do not suggest to go through wire for outside camera in this step in order to find a suitable installation place by displaying the image in the host before camera installation.

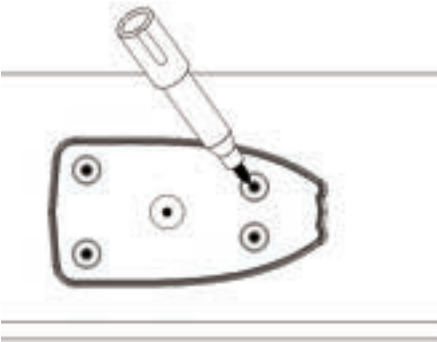


(07) When adjust the installation position for camera, observe the image on the screen, and confirm the most suitable installation place, use the pen to mark it. Do not let the camera image acquisition area be covered by original physical rearview mirror, and do not install the camera right above the original mirror.

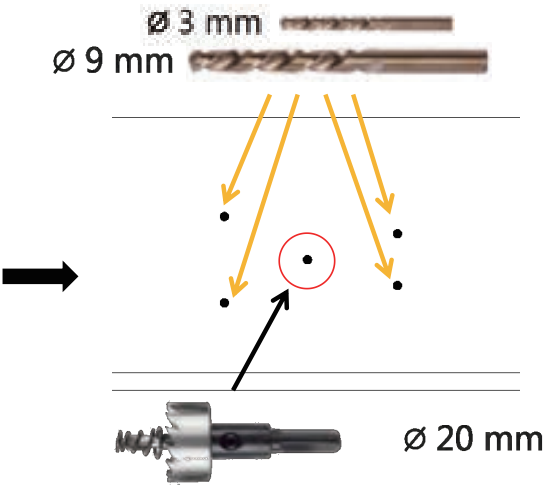
(Tips: Pay attention to protective measures when work high above the ground.)



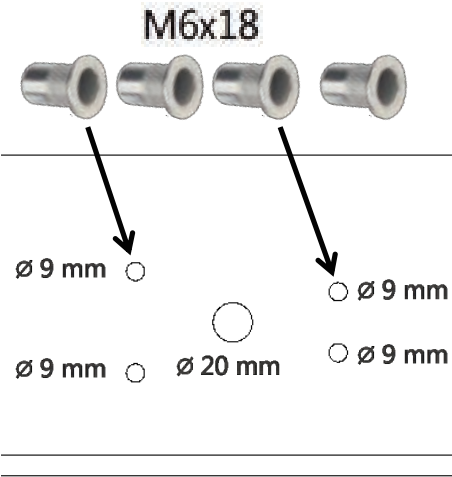
(08) Put the rubber base at the selected position, use the pen to mark the screw holes and the center's hole which is for crossing the wires



Use the 3mm drill to drill holes on the 5 marked places, then use 9mm drill to widen 4 outside holes. Use 20mm hole saw to drill hole on the center's hole



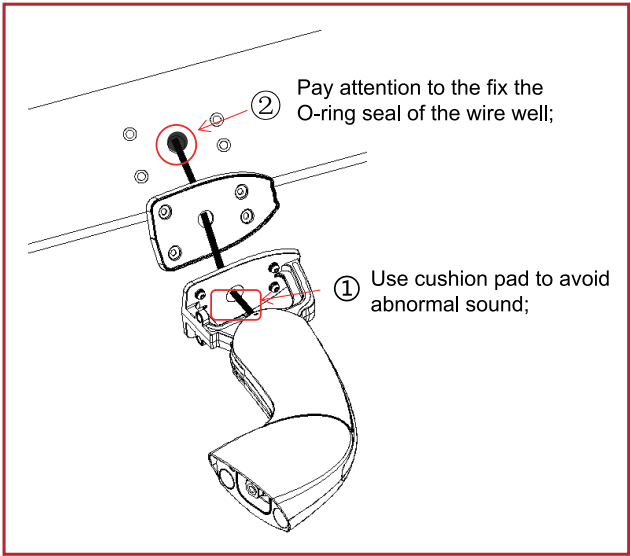
Install 4pcs rivet nuts of side M6x18mm to the inside of the holes



We suggest to use professional tool, spanner and allen wrench to tighten and fix rivet nuts

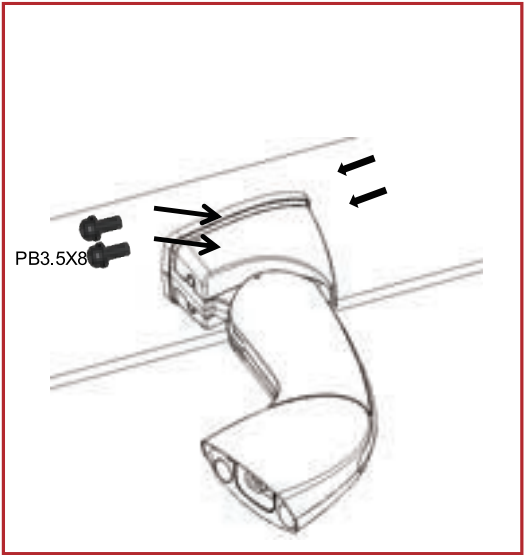
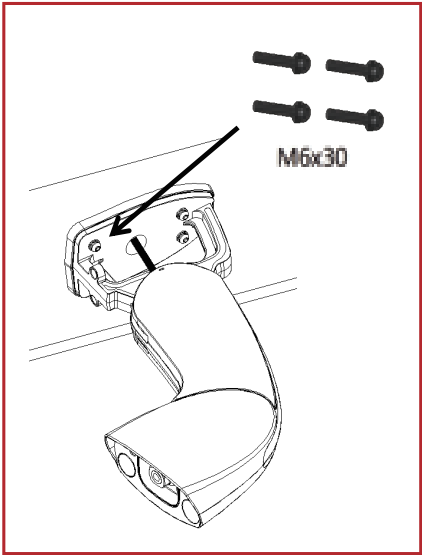


(09) Connect the video cable and camera tail circuit well①, to the through-hole② to the inside A pillar of vehicle's body

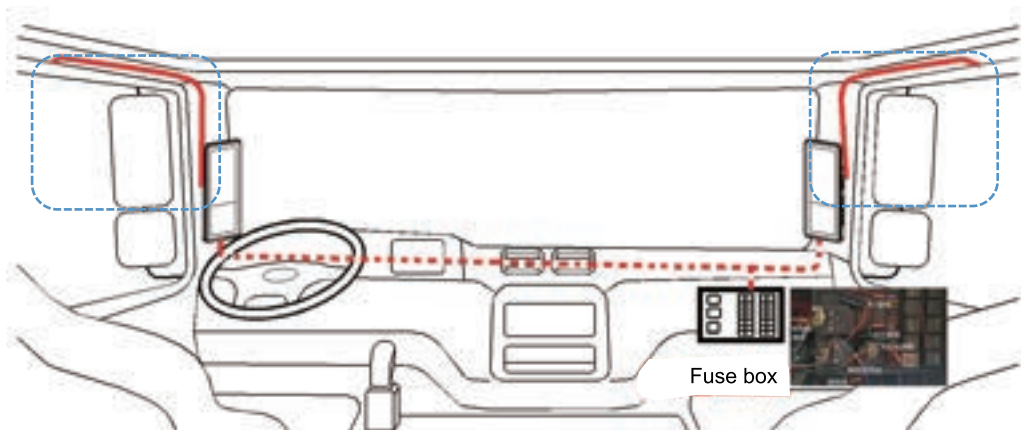


Use 4pcs screws of size M6x30mm to install the camera on the vehicle

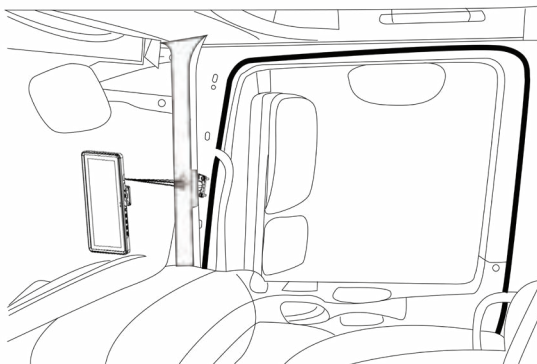
Put the upper and lower cover of the base together, use 2pcs screws PB3.5X8mm to lock them tightly



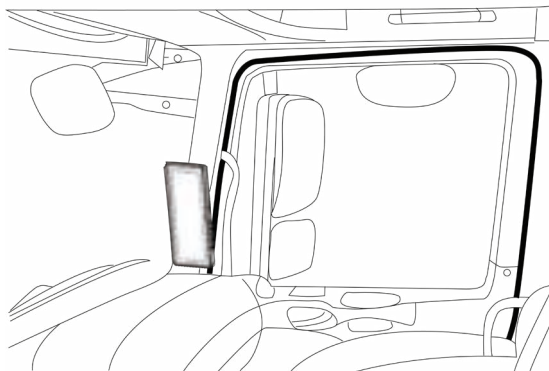
(10) Go wiring the video cable, connect the cable near to the inside host.



(11) Go through the host tail circuit from the hole of A pillar trim panel, and connect all the cables well according to the connection instruction.

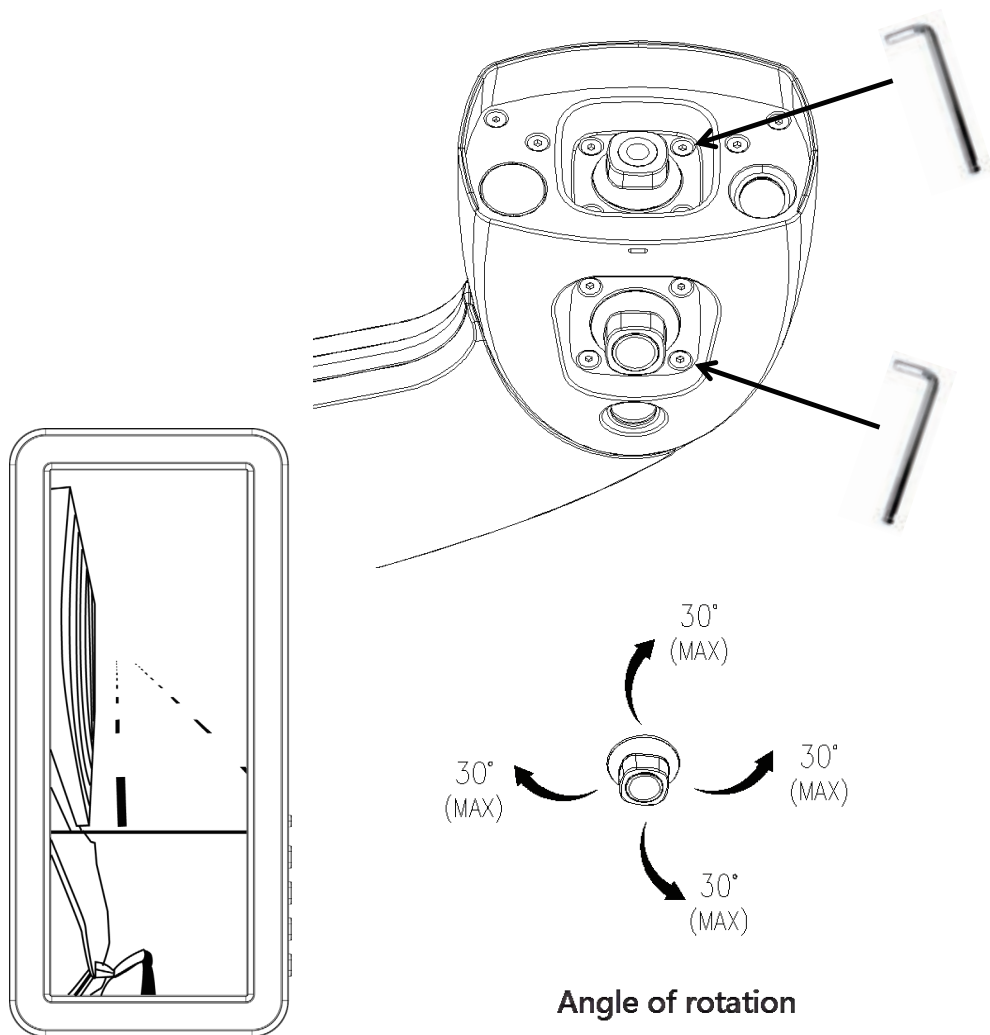


Clear up harness and fix it. And install the host onto the base, fix with screws and install the A pillar trim panel.



(12) Adjust 4 screws to adjust the camera's view angle to needed angle, and tighten these screws to fix the camera and finish all the installation procedures.

(Tips: Clear up after installation.)

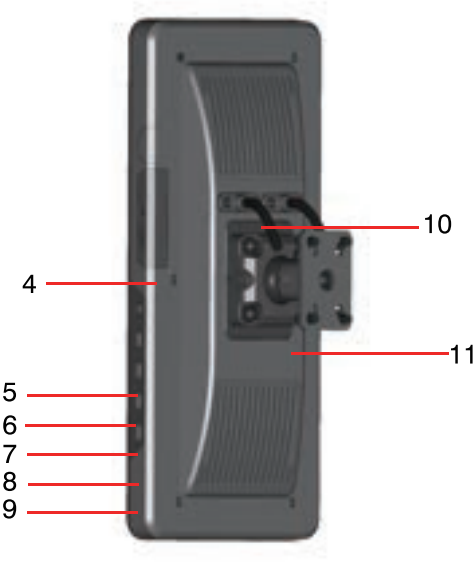


VD1237 Specifications

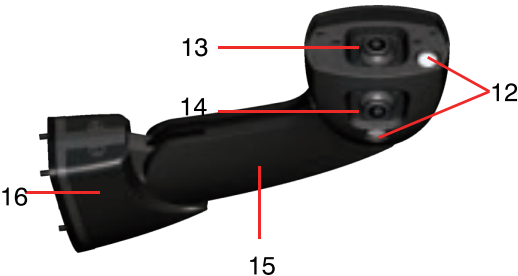
1. Product Image



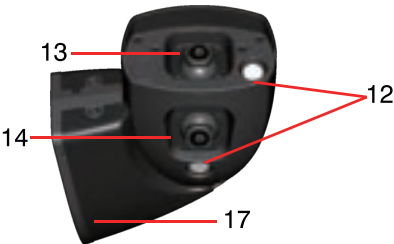
Front view



Back view



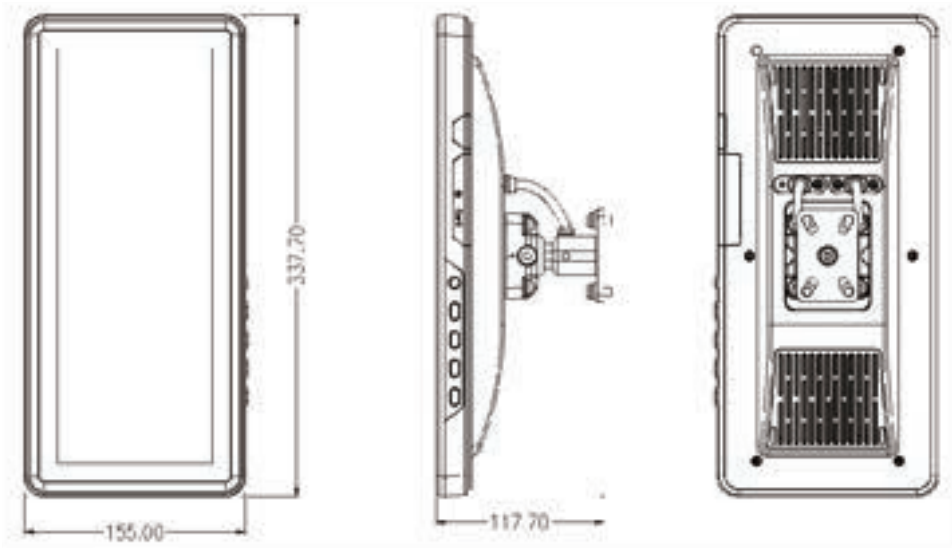
(Truck) Distant/Nearby
view Camera



(For Bus) Distant/Nearby
view Camera

1	Display	2	Light sensor
3	Remote control receiver	4	SD card slot
5	Power key	6	Up
7	Down	8	Ok/lock
9	Menu/Back	10	Speaker
11	Bracket	12	Fill in light for camera
13	Distant view camera	14	Nearby View Camera
15	Connecting part for camera	16	Camera base for truck camera
17	Camera base for bus camera		

2. Drawings



3. Features/Specifications

Items	Specs	Note
System	RTK OS	
Locating	External GPS locating module	
Microphone	1 digital denoising silicon microphone	For DVR
Speaker	2W	Reversing instruction
IR	audion	Remote control receiving
Triggers	3	Back light on when the turn signal light and reversing light has been triggered on, headlight inspection
Screen Size	12.3 inch	LVDS LCD
Product size	337.7(L) * 155(W) * 117.7(H)	mm
Resolution	1920*720	Vertical screen
Screen view angle	Up, down, right, left are all more than 170°	
Material of housing	PC+ABS, plastic injection molding	Anti-flaming UL94
Material of bracket	aluminum alloy -decast, 304 stainless steel- stamping	
The mirror adjustment torque	1.2~1.7(N·m)	Adjust manually
Mirror material	Sio2 glass	
Mirror Type	flat	
Radius of curvature	∞	
Keys	5 Mechanical keys	Still working well after pressing 20000 times
SD card slot	1	Still working well after more than 5000 times of inserting and pulling out.
Power supply	Vehicle battery (fuse box)	Special automotive socket
Working voltage	(B+: +12/24V, ACC: +12/24V, GND: Ground)	Support 11.5~28V
Max. current	<2A (12V) /<1A (24V)	
Stand by current	<5mA	

Overvoltage & overcurrent protection	YES	Wire fuse
Reverse polarity protection	YES	
WIFI	IEEE 802.11	
Nearby view Camera	1920*1080, Horizontal 112°* Diagonal 140°* Vertical 60°	Nearby view
Distant view	1920*1080, Horizontal 124°* diagonal 135°* Vertical 81°	Distant view
FPS	25fps	
Image sensor	CMOS	1/3inch
Resolution	1920(H)* 1080(V)	
ISP	WDR/HDR, support Image distortion correction	
DVR video format	Nearby view1080P, distant view1080P	Mov
Screen auto dimming	Yes	Automatically according to the ambient light
LED auto control	Yes	Automatic adapting according to the vehicle lighting
Camera auto heating	Yes	Controlled by temperature sensor of camera
Reversing response time	<3s	
Operating temperature	-30 ℃ ~+70 ℃	
Storage temperature	-40 ℃ ~+85 ℃	
Storage humidity	0%~90%	

Functions	Description
HD Night Vision	1.Support HD Star Light Color Night vision, automatic exposure , eliminate flicker, low noise, wide dynamic, no distortion 2.Auto dimming night vision technology, clear imaging even getting flashing light from the back 3.Nice image quality, anti-flashing and anti-flare

Blind spot display assistant	1.Elimate the A pillar blind spot area, expand vision, eliminate the blind spot area of the left and right side of the vehicle. 2.Reduce the distraction of blind spot area caused by steering or changing lanes 3.Super good penetrating, anti-rain, anti-fog, waterproof, dustproof, no water drops. 4.Support WDR/HDR imaging technology, enhance image, correct color to restore the real driving environment under flashing etc. 5.Support distant view, nearby view transmitting synchronously, no delay
DVR	1.WDR recording at both day and night 2.Dual recording of nearby view and distant view 3.Loop recording, support video file locking 4.Record automatically when power on 5.Preview of two way videos(nearby view and distant view) 6.Support 27s of time-lapse recording when power off 7.Time-lapse photography 8.SD card capacity can be up to 128G maximum
Video Playback	1.Support file list selecting/locking/unlocking/deleting 2.Nearby view , distant view recording video playback
Screen auto brightness, camera auto filling light.	1.The screen can automatically adapt the back light according to the ambient light, and reduce the power consumption. 2.Camera fill-in light control, can have fill-in light according to the vehicle lightings status. 3.Auto fill-in light and waterproof, dustproof design, working well after longtime expose to the weather, brightness improved, and clearer color image provided.
Buttons and remote control operation	1.Can operate menu by buttons, adjust settings, and check details. 2.Can operate menu by remote control, receive remote signal by infrared, convenient operation
Reversing view 【optional】	1.Support reversing view, big wide angle image without distortion 2.Built in speaker, which can receive the reversing instructions in the cab 3.Support fast reversing display while the machine is powered off, and reversing delay can be chosen.