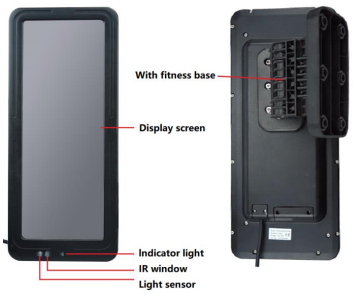
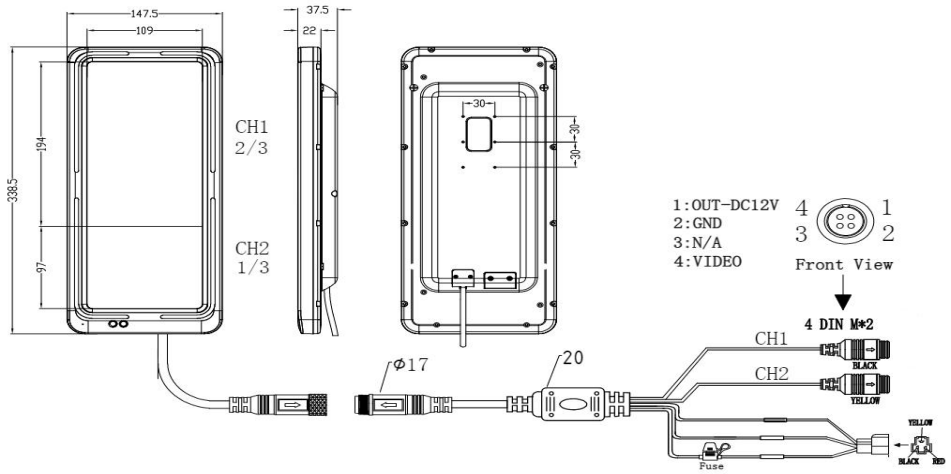
Vehicle Mirror Camera
12.3" TFT LCD
OVCAM-123-1080P-AHD



1. Specification

Parameter	Model	OVCAM-123-1080P-AHD
	Screen Type	TFT-LCD
	Screen Size	12.3 inch （8 : 3） IPS
	Resolution	1920X3（RGB）X 720 Pixel
	Screen Backlight	LED
	Brightness	750cd/m2
	Contrast	1000:1
	Active Area	292.32 (H) X 109.62 (V) [mm]
	View Angle	U/D/L/R 85/85/85/85
	Auto Dimming	CDS: Automatic backlighting for screen, automatic adjust to the brightness of environment
	Signal Interface	4pin din aviation connector (1. +12V; 2. GND; 3. NC; 4.VIDEO)
	TV System	AHD 720P/1080P, PAL&NTSC/AUTO
	Language Menus	Chinese/English
	Operation Method	Remote Controller
	Operation Temperature	- 30 ~ 70 ℃
	Storage Temperature	- 40 ~ 80 ℃
	Outline Dimension	343mm*160mm*31.5mm /343mm*160mm*67.5mm (with bracket)
Interface	AHD1（CAM1）	AHD 720P /1080P /CVBS
	AHD2（CAM2）	AHD 720P /1080P/CVBS
	Power	DC +12~32V
	Power Consumption	MAX: 25W

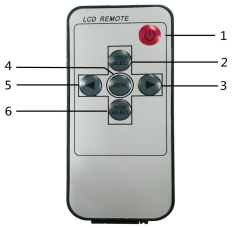
2. Interface Instructions



3. OSD Menu Display

(1) Press 4-MENU once to enter menu, press it again to enter the next option. Go to the last option, press it to exit menu

(2) Press 3-INCREASE to set up the current option, and save automatically. It will exit the menu automatically with no operation for 10s.



1、POWER
2、NC
3、INCREASE (Press it to flip 1/3image separately in the fifth function of the menu.)
4、MENU
5、Decrease (Press it to flip 2/3image separately in the fifth function of the menu.)
6、Mirror (1/3 and 2/3 image, flip simultaneously)

Menu
1 Brightness
2 Saterability
3 Contrast
4 Hue
5 Mirror LD
6 Language: English
7 Sound: ON
8 View: Normal

Vehicle Mirror Camera
12.3" TFT LCD
OVCAM-123-1080P-AHD

High resolution, 2.0Mega Pixel, 12V DC

Cable Connection:

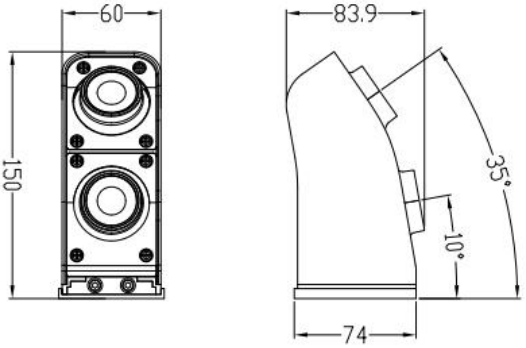
Important Notes

If the cable wire of the product cannot be hidden in the car, it needs to be exposed to the outside. In order to better meet the requirements of IP69K, We recommend to add a sheath for protection of the exposed cable. Avoid damaging the shuck of wire due to long-term high pressure water washing.

Packing list:

Camera	1
Instruction manual	1
Hex-key	1
Mounting screw	4

Dimensions:



Specifications:

Model	MSV18B-20EM-25-M&20EM-12-M	
Image Sensor	1/2.8” IMX 307	1/2.8” IMX 307
TV System	PAL/NTSC (optional)	PAL/NTSC (optional)
Picture Elements	1920 (H) x 1080 (V)	1920 (H) x 1080 (V)
Sensitivity	0.01 Lux/F1.2	0.01 Lux/F1.2
Scanning System	Progressive scan RGB CMOS	Progressive scan RGB CMOS
Synchronization	Internal	Internal
Auto Gain Control (AGC)	Auto	Auto
Electronic Shutter	Auto	Auto
BLC	Auto	Auto
Infrared Spectrum	N/A	N/A
Infrared LED	N/A	N/A
Video Output	1 Vp-p, 75Ω,AHD	1 Vp-p, 75Ω,AHD
Audio	N/A	N/A
Mirror	Available	Available
ICR	N/A	N/A
Noise Reduction	3D	3D
Lens	f2.5mm Megapixel	f12.0mm Megapixel
Power Supply	12V DC±10%	12V DC±10%
Power Consumption	130mA(Max)	130mA(Max)
Dimensions	150 x 60 x 83.9 mm	
Weatherproof/Water Proof	IP69K	
Operating Temperature	-30° C ~ +70 ° C	

**Specifications are subject to change without prior notice.*

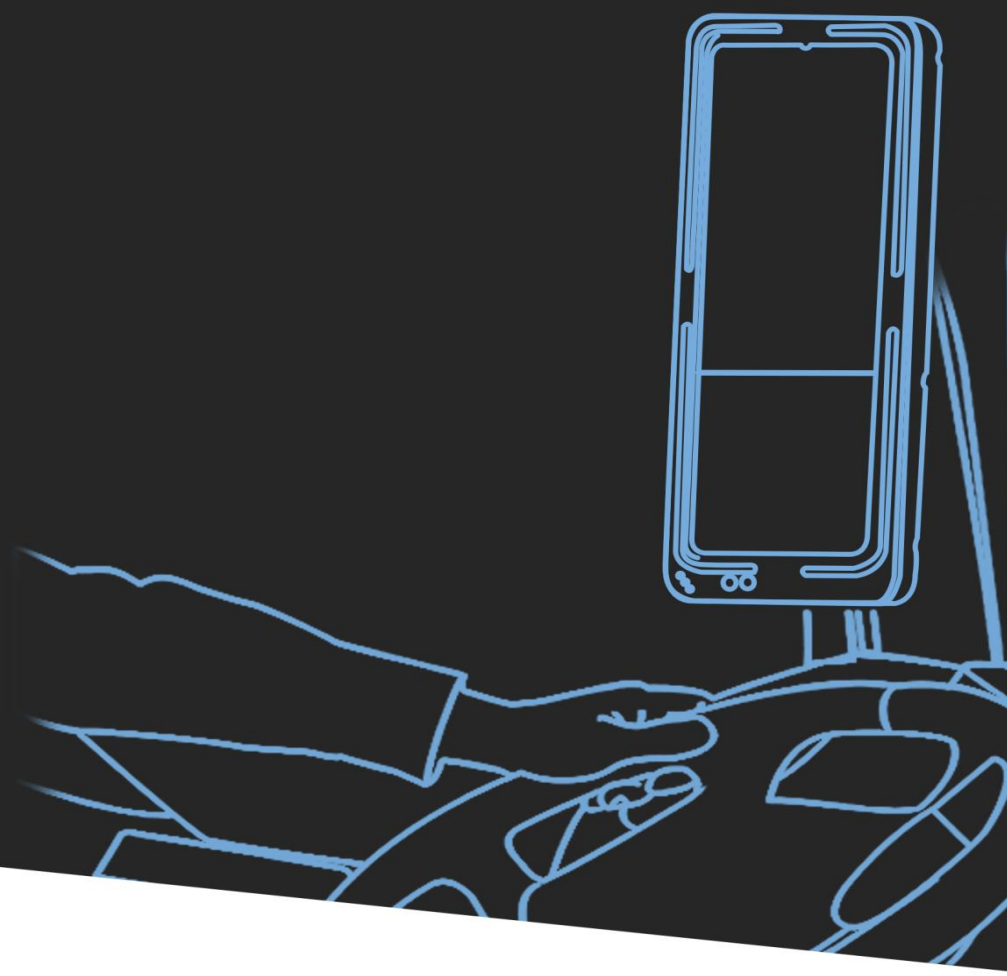
Vehicle Mirror Camera

12.3" TFT LCD

OVCAM-123-1080P-AHD

USER MANUAL

OVCAM-123-1080P-AHD



1. Overview

12.3inch e-side mirror system could provide drivers a Class II and Class IV filed of vision, is wider than traditional rear view mirror. Furthermore, the system provides a high definition clear image, even in extreme conditions such as heavy rain, fog, snow, strong lighting at day or poor lighting at night, greatly improve driver visibility and decrease the risk of getting into an accident.

Thank you very much for choosing our product. In order to use this product better, please read the instructions carefully before using it, and learn about its main features and applications in detail.

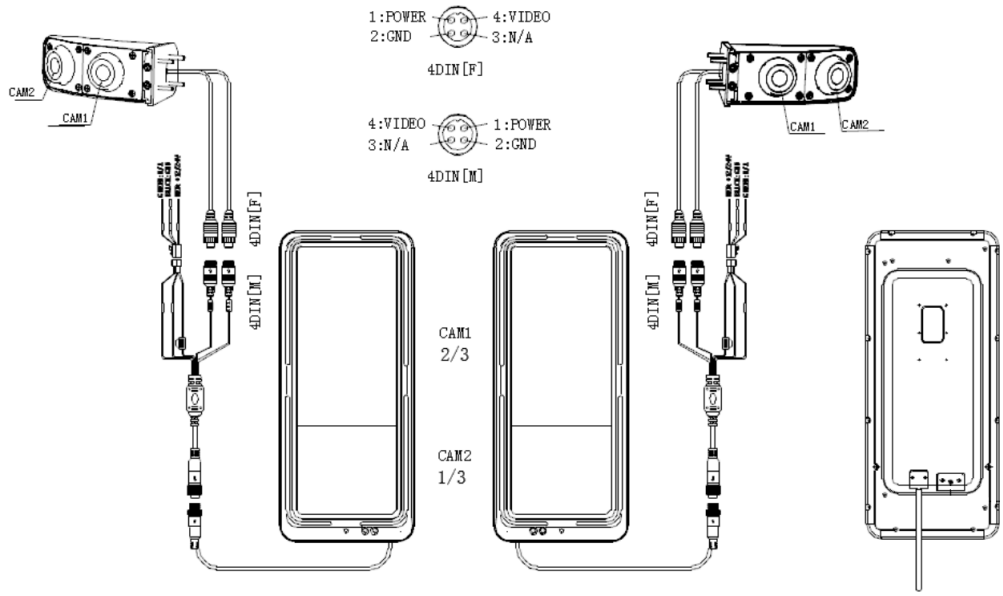
2. Screen Parameters

Product Model	OVCAM-123-1080P-AHD
Screen Size	12.3 inch (8 : 3) IPS
Resolution	1920*3 (RGB) *720 Pixel
Viewing Angle	L: 85°; R: 85°; U: 85°; D: 85°
Active Display Area	292.32 (H) X 109.62 (V) [mm]
System	PAL&NTSC/Auto
Brightness	850cd/m^2
Contrast	1000:1
Operation Method	Remote control
Language Menus	Chinese/English
Power Supply	DC12V-32V
Power Consumption	MAX 24W
Operation Temperature	-30℃～70℃
Storage Temperature	-40℃～80℃

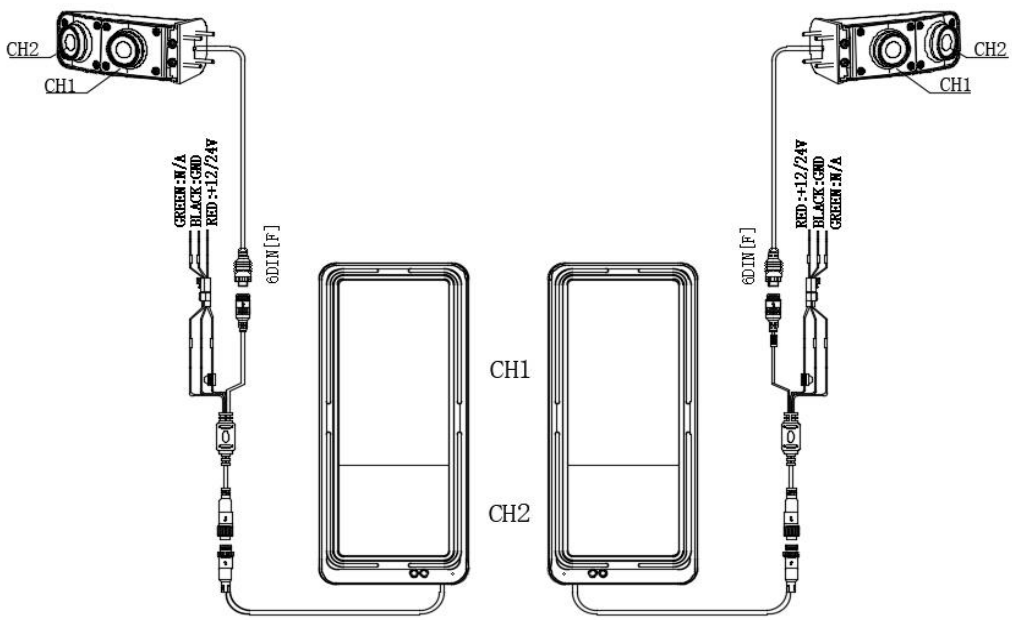
Signal Interface(s)	4Pin din aviation connector
Outline Dimension	338.5mm*147.50mm*37.5m (L*W*H)
Net Weight	1035g

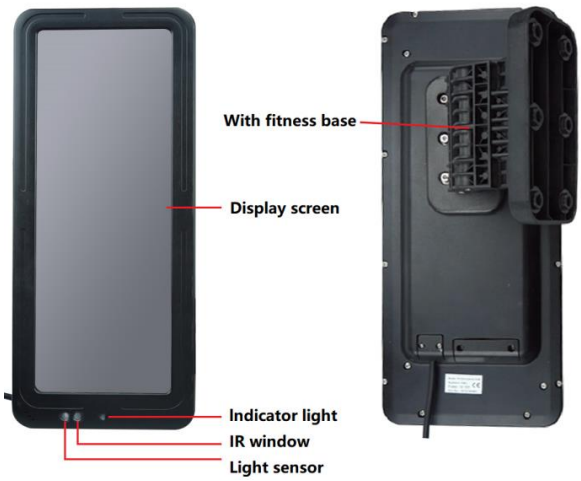
3. System Connection Diagram

Connection 1:



Connection 2:





12.3inch Screen

Dual Lens Camera

4. Screen Installation

Installation Host:

Left Side (Driver side) The angle between the viewing axis and the screen normal, Max30°;

Right Side (Passenger side) The angle between the viewing axis and the screen normal, Max30°;

Left Side (Driver side) Distance from eye point to screen center, Max 1.2m;

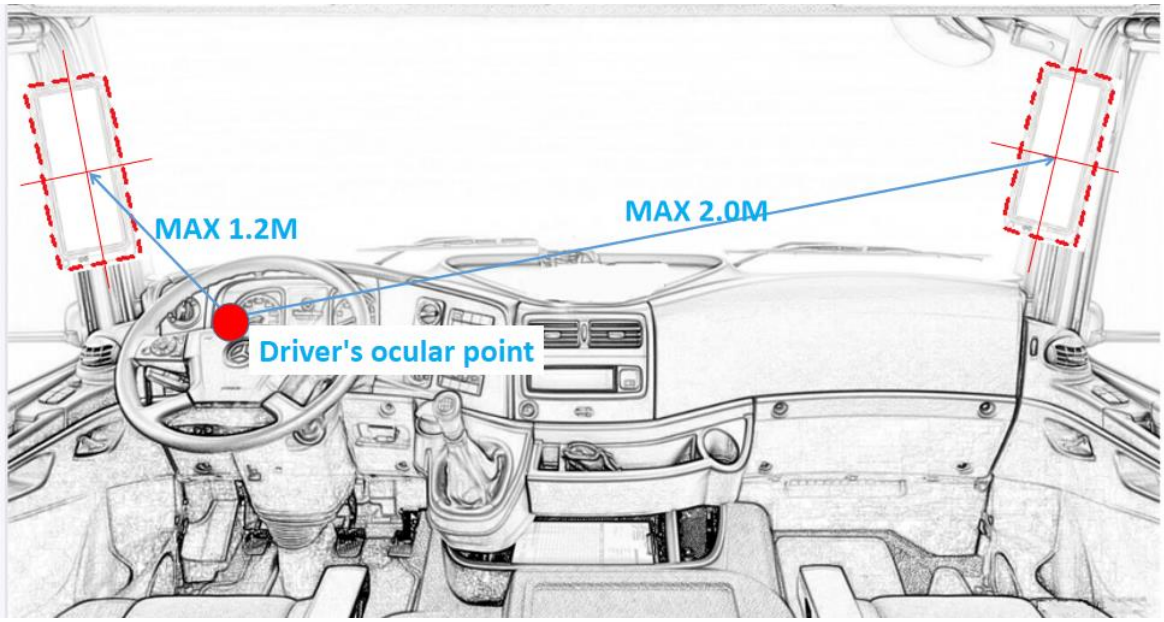
Right Side (Passenger side) Distance from eye point to screen center, Max 2m;

Left Side (Driver side) Azimuth angle Max30°;

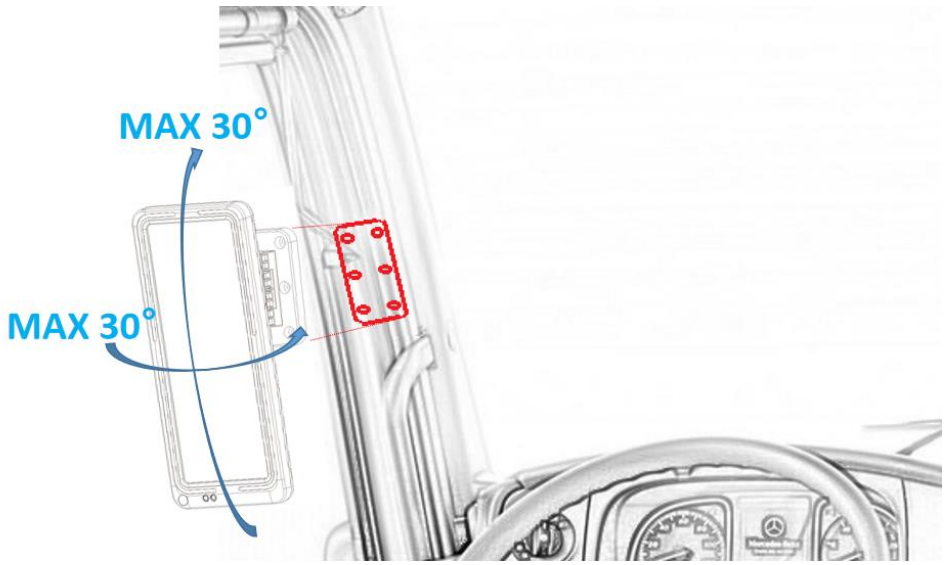
Right Side (Driver side) Azimuth angle Max30°;

Installation Steps:

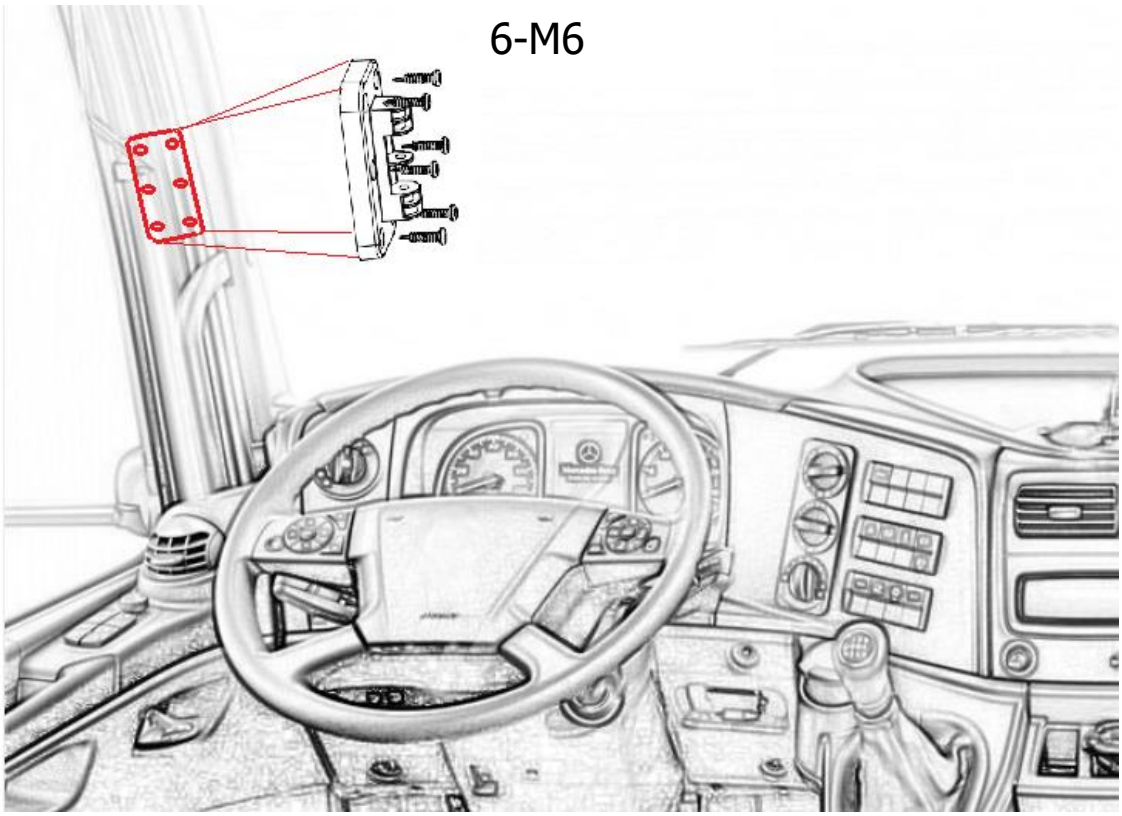
(1) Installation position is at A pillar of the vehicle, the distance from the Driver's ocular point to the center of the screen is MAX 1.2m.



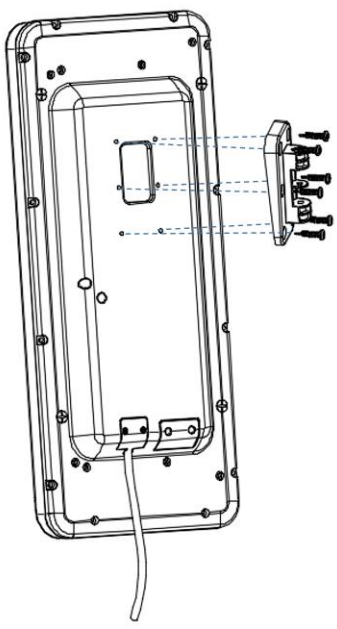
(2) Observe from the driver’s place to adjust the suitable installation position on A pillar. (According to experience, make the host installation position close to the instrument panel is more appropriate)

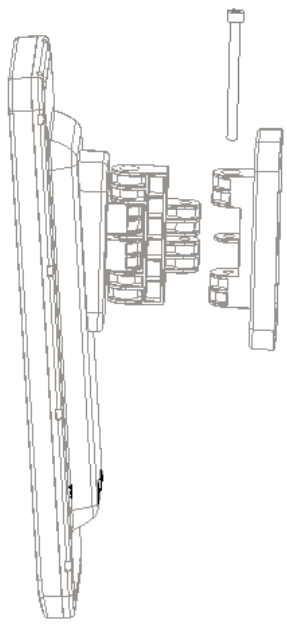


(3) Align base to the marked place on A pillar's surface. Lock the 6pcs M6 self-tapping screws in the position marked on pillar A. Noted that the head is up.



(4) Use 6pcs screws of size M4X10mm to lock the base on the Screen, then connect the screen with the installed mounting seat, use screws of M6X80mm to lock them tightly.





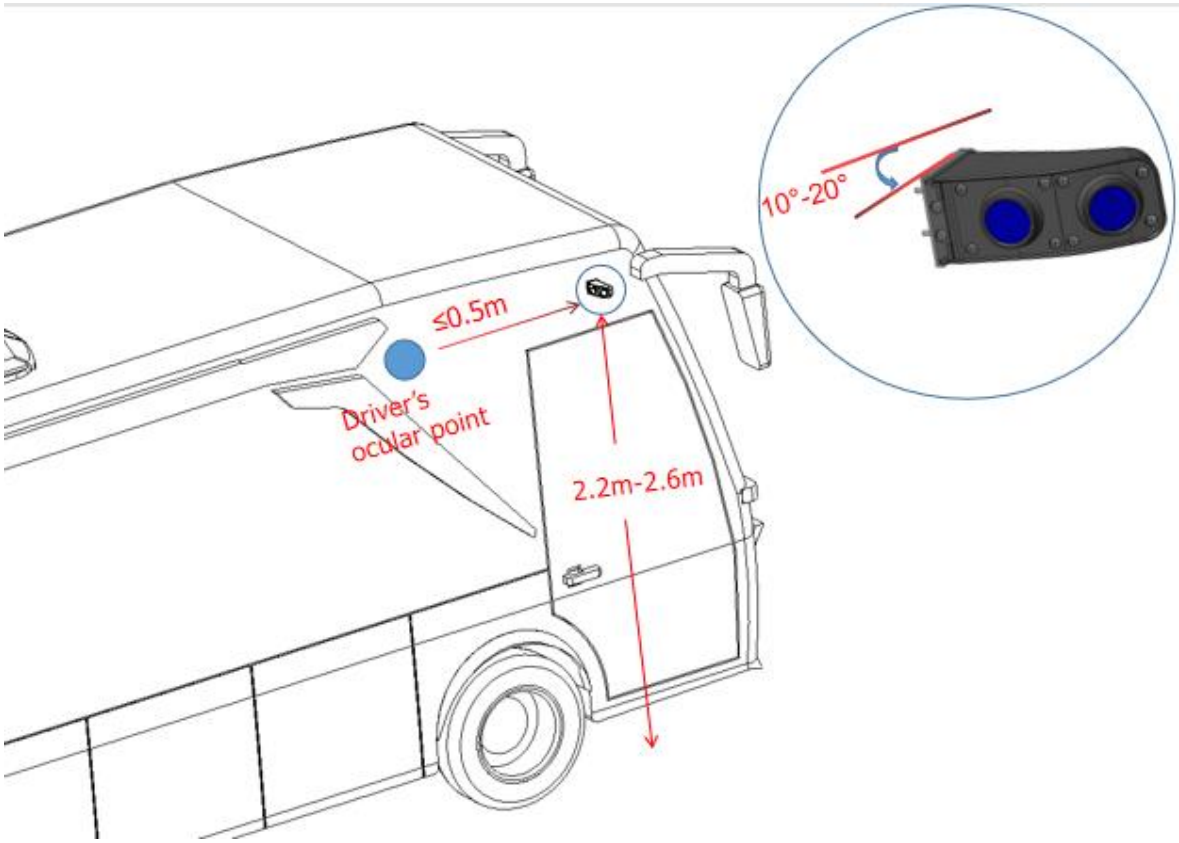
Notice：

1) Since the display wire harness needs to pass through the A-pillar, please pay attention to the limit of the wire harness when designing to prevent damage to the wire harness during drilling;
2) When installing the right screen, avoid the position of the door shaft, avoid interference with the door axis during the rotation of the screen body;
3) Please pay attention to design the installation position, avoid the screen blocking the outside glass rearview mirror and the driver's view;
4) The installation direction of the screen: there is a photosensitive hole under the screen (the screen can automatically adjust the brightness according to the environment changing light), it is necessary to ensure that this hole is located under the screen.

5. Camera Installation

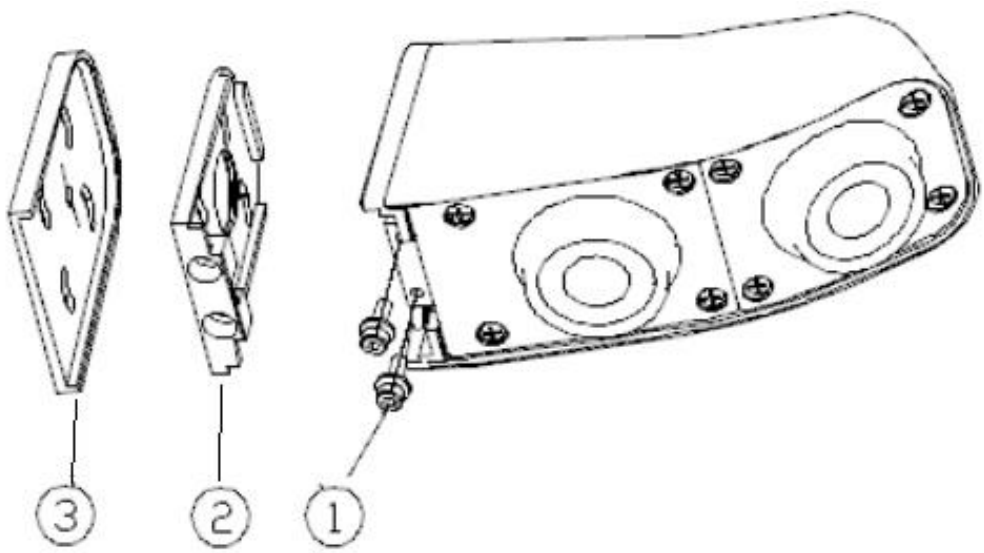
Camera Install Position:

Left Side (Driver side) The camera is 2.2m-2.6m from the ground;
Right Side (Passenger side) The camera is 2.2m-2.6m from the ground;
Left Side (Driver side) The distance from the Driver’s ocular point to camera is MAX 0.5m;
Right Side (Passenger side) The distance from the Driver’s ocular point to camera is MAX 0.5m;
Left Side (Driver side) Distance between axle and camera is MAX 0.50m;
Right Side (Passenger side) Distance between axle and camera is MAX 0.50m;
The Angle between the bottom of the camera and the vehicle body is 10°-20°

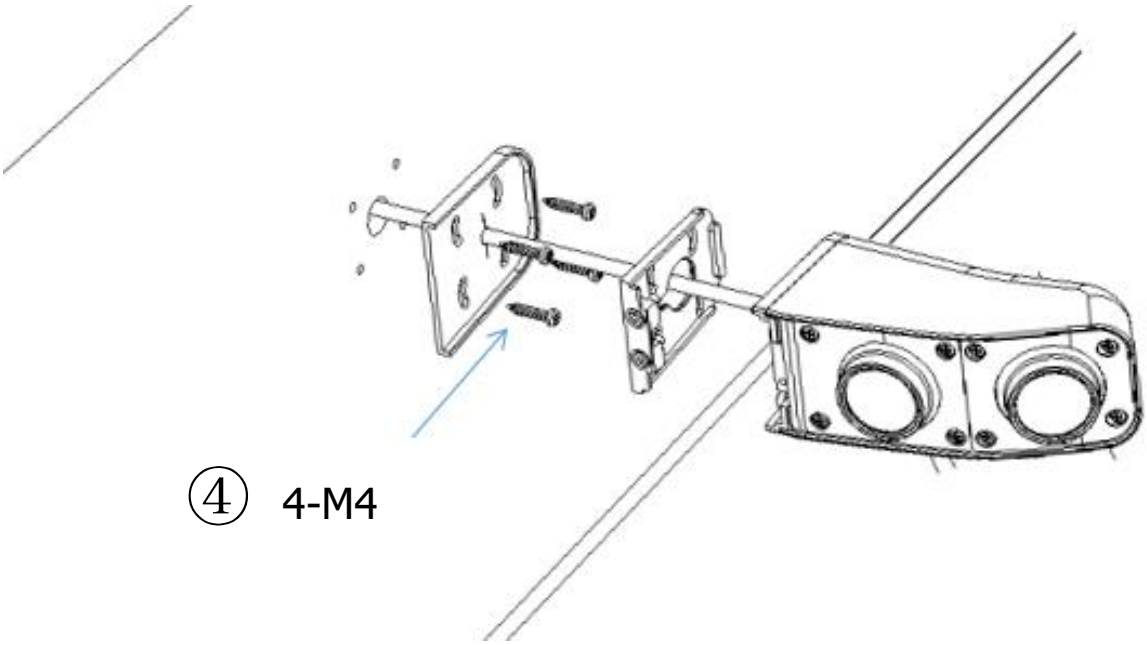


Installation Steps:

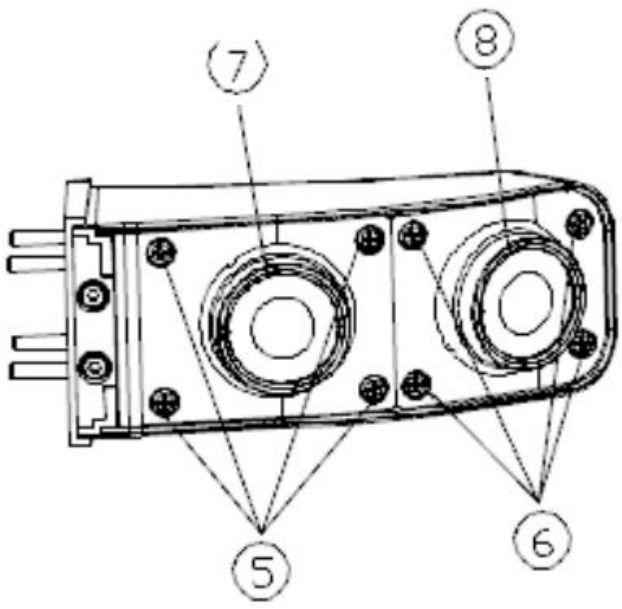
(1) Loosen the screws with the hex wrench ① Loosen the hex screw, remove the base ② And remove the Silicone pad ③



(2) Drill holes and route cables according to the installation positions in Step 1, use 4 pieces screws of M4 stable ④ Base and ② Silicone pad ③ on the vehicle, re-install the camera and lock it with M4*10 socket head screw ①



(3) According to the system connection to lock the cable butt firmly, turn on the power, and adjust the camera angle after the screen is displayed. Separately loosen the screws⑤⑥with Phillips screwdriver. Adjust the ball⑦⑧to the appropriate position respectively and tighten the⑤⑥Screw.

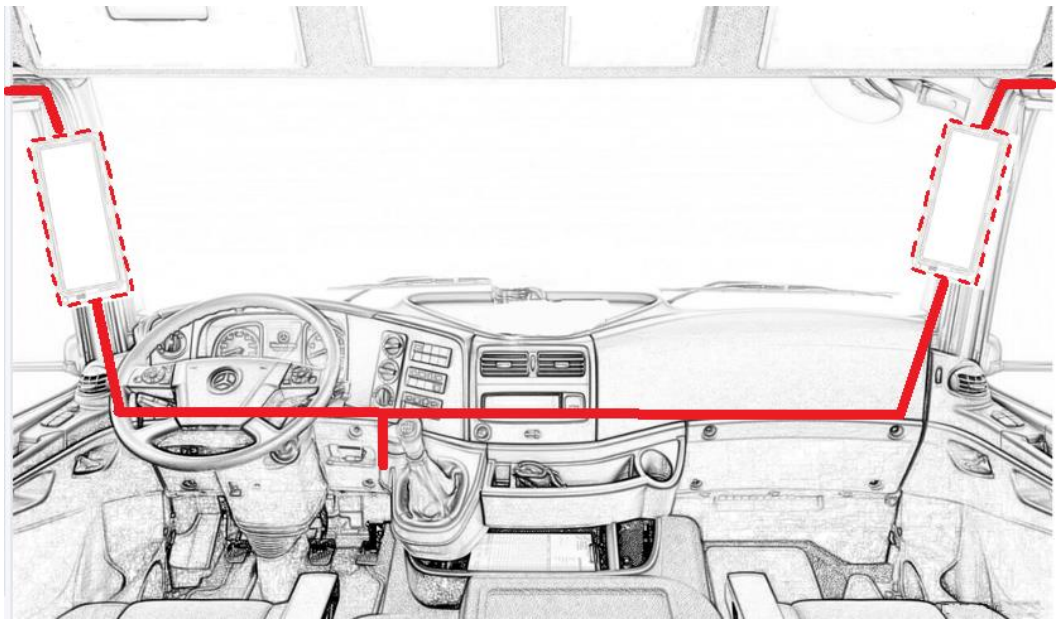


Notice：

1) The size of the drilled hole should be larger than the maximum diameter of the tail cable

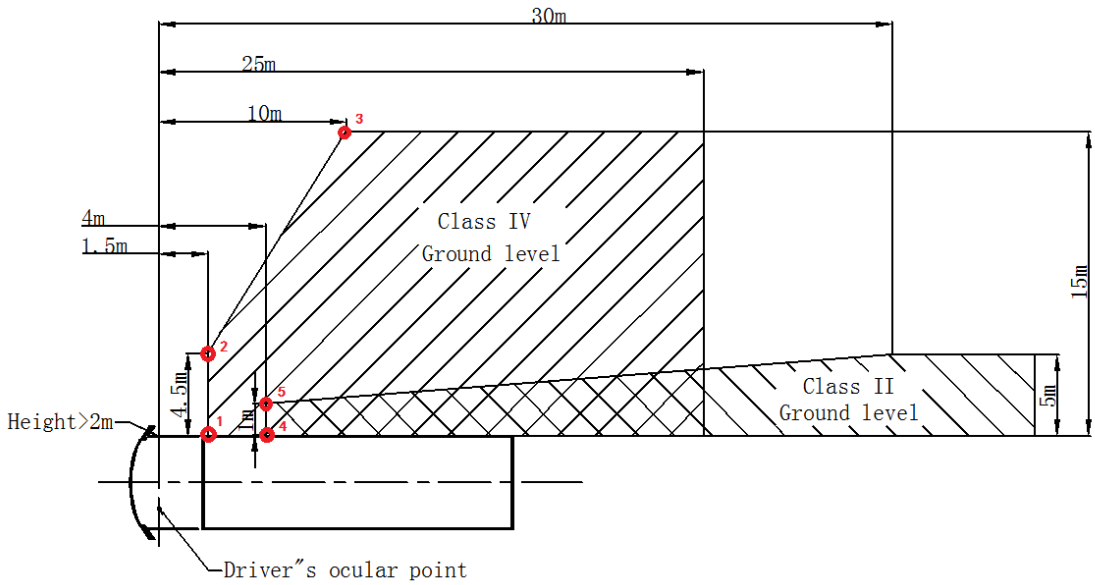
2) If the installation position is glass and other materials that cannot be drilled, you should re-select the position for installation or change the installation method.

(4) As below picture, go through the wire and get power for two sides host. Take power from by ACC and GND of the original vehicle，CH1/CH2 aviation connector to connect with camera， hide all camera cables inside the vehicle.



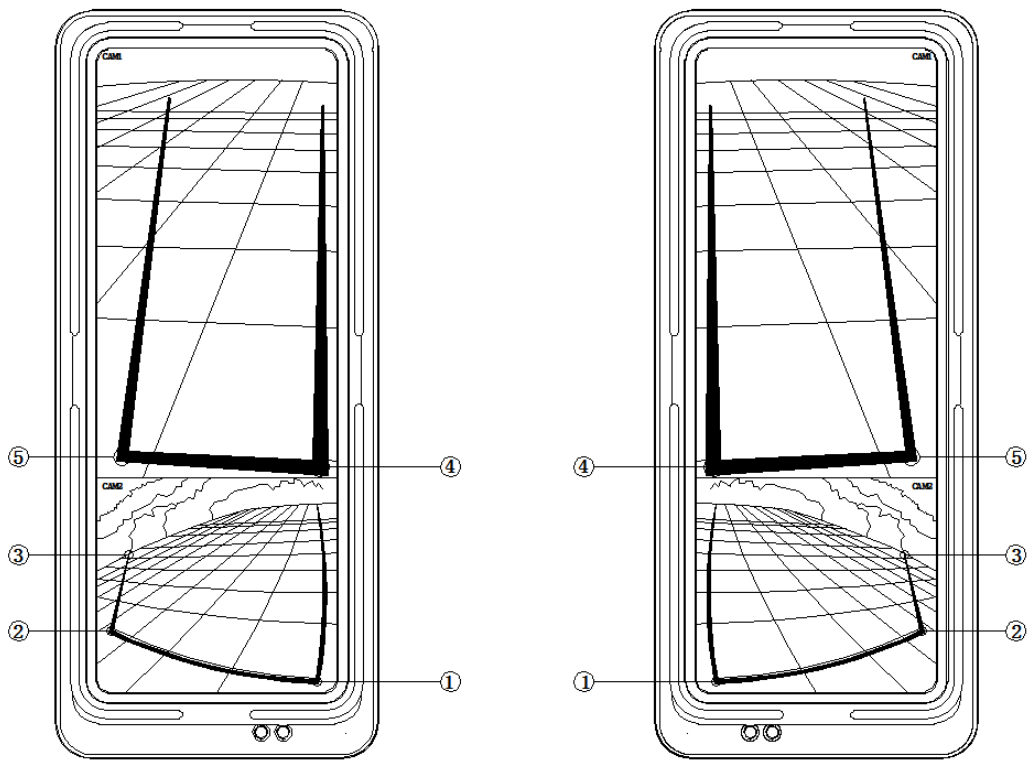
6. FOV Adjust

As below image, Place reference point 1、2、3、4、5 by distance on the side of the vehicle (The point 3 can be omitted when the site is not large enough)

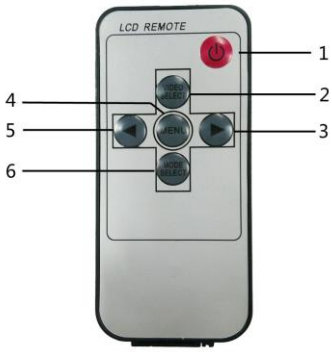


Class II: Rotate CAM1 ball, adjust the vehicle body parallel to the edge of the Screen. In addition, reference points 1, 2 and 3 all appear at the bottom of CAM1 screen, as shown in the image below;

Class IV: Rotate CAM2 ball, adjust the vehicle body parallel to the edge of the Screen, reference points 4 and 5 appear at the bottom of CAM2 screen, as shown in the image below;



7. Remote Control



1. POWER
2. (N/A)
3. INCREASE
4. MENU
5. DECREASE
6. ROTATION（4MODE: RD/RU/LU/LD）

(1) Connect the system following the connect diagram above and power on it.

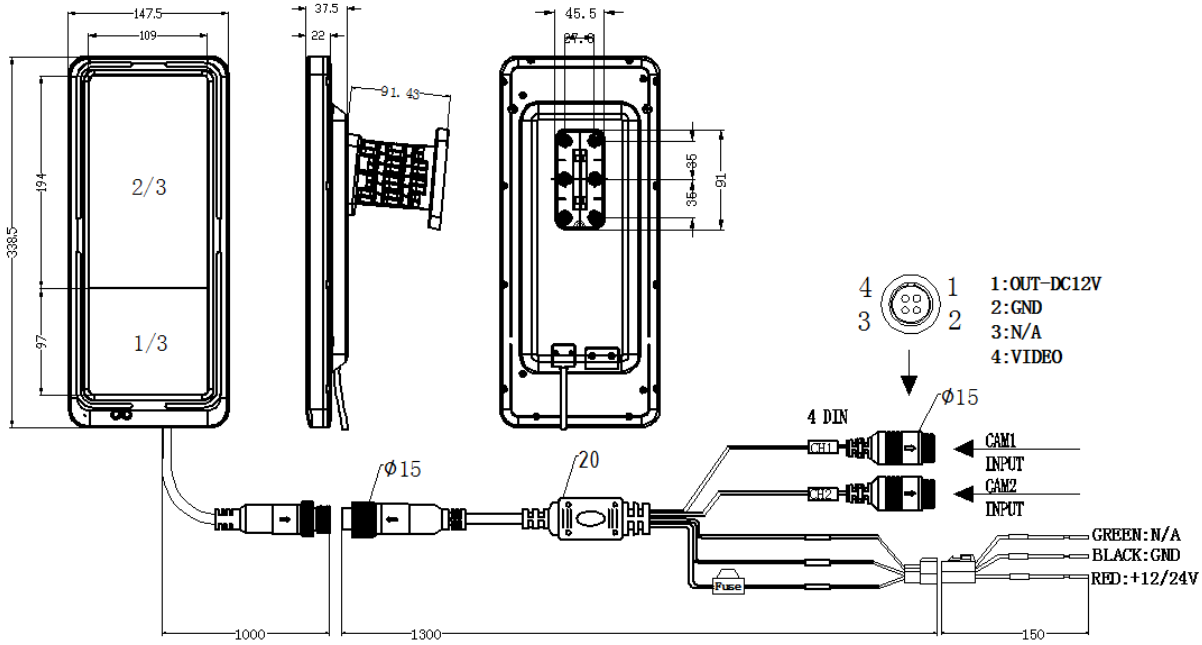
(2) Press MENU on the remote control at the IR receiver position of the monitor to enter menu interface. Each time you press MENU, it will skip to next option one by one. When come to Reset, press Menu to exit. Menu interface is shown at the bottom of the screen.

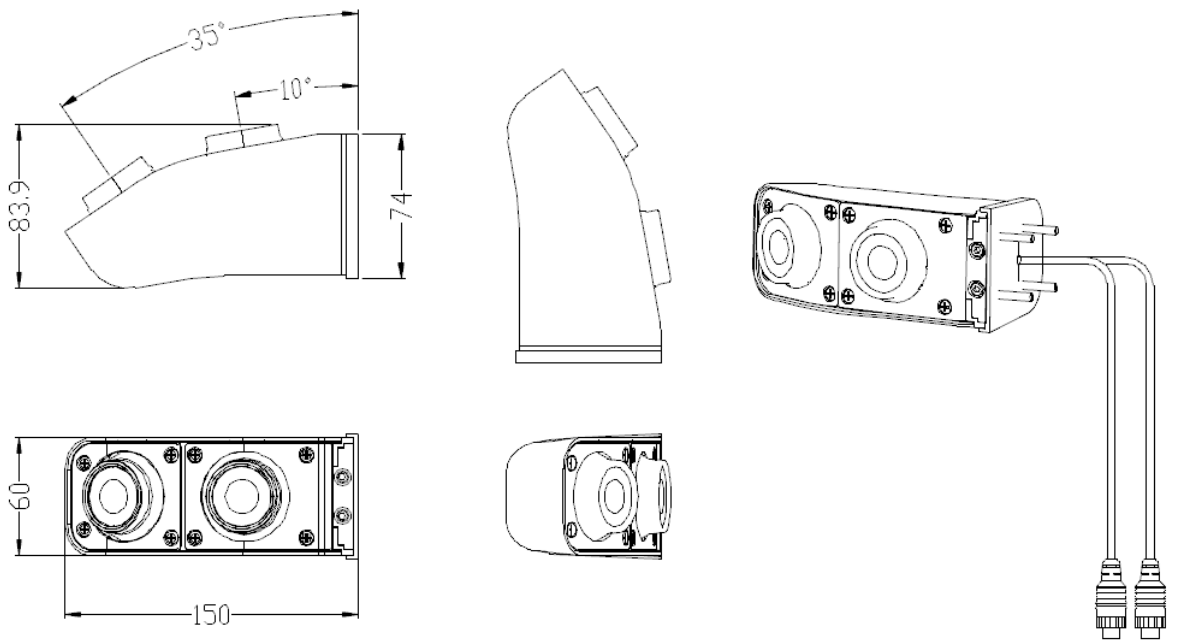
(3) Press Increase/Decrease to set value of the specific option, and the value will be automatically saved. If no operation for 10s, it will automatically exit the menu.

8. Menu Function

Menu	Description
Brightness	Default Value: 50 (Range: 0~100)
Contrast	Default Value: 50 (Range: 0~100)
Saturation	Default Value: 50 (Range: 0~100)
Color	Default Value: 50 (Range: 0~100)
Rotation	Four Display Modes: RD/RU/LU/LD
Language	Simplified Chinese/English (Optional)
Sound ON/OFF	Sound ON/OFF (Function for Monitor with Buzzer)
View	Normal/ Moderate/High (adjust the view angle of CH2 image)
Reset	Restore Factory Defaults

9. Product Dimension





10.User Notice

For more information, please refer to the following notices.

(1) This system is only applicable to CMS of CLASS II and CLASS IV FOV; You could check details in above instruction. The corresponding viewing angle camera is required when refers to other blind view areas, such as CLASS I/III/V/VI. Please contact the supplier if you need different viewing angle cameras.

(2) When blue screen appears on one of the image, the reason is the camera which corresponds to the image is faulty, or the camera connection is faulty. When blue screen appears on both image, please check the the cable connection or repair and maintenance the camera.

(3) When the screen is blank and the power indicator on the screen is off at the same time , need to check the power supply. If the indicator is on but still blank screen, then the screen is faulty and needs repair or maintenance.

(4) The CMS screen automatically adjusts the brightness and contrast according to the brightness of the external environment. Under strong light or sunlight, the brightness and contrast of the screen are automatically adjusted to brighten the screen. In the nighttime, the brightness and contrast of the screen are reduced accordingly, making the screen darker. Without this feature, the screen is faulty and needs to be checked or repaired.

(5) The CMS camera supports WDR, strong light suppression functions and has a good light receiving effect. However, when the rear vehicle approaches the vehicle or the high beam shines directly, the driver still needs to pay attention to the rear vehicle to avoid accidents.

(6) The latency time of CMS complies with the requirements of R46, but if speed above 100KM/1H, the image may have a distance error of 3~4 meters, please noted.

(7) When starting the vehicle, it will take 4-6 seconds for images appear on monitor screen.

11. Simple Troubleshooting

If there is any problem with the display, please check the following:

Fault phenomenon	Possible reasons	Solution
Unable to boot	1)Poor cable contact 2)Overheating in strong	1)Reconnect the cable 2)Reboot after cooling

	sunlight 3)Broken fuse	down 3)Replacement
Blank Screen	1)Screen overheating 2)System disturbed	Power off and reboot
Blue Screen	Poor Cable Contact	Reconnect the cable
Blurring image	Dirty Lens	Clean the lens with soft cloth
Wrong image orientation	Wrong settings	Check the menu

12.Maintenance

（1）Dust Maintenance

To avoid the dust accumulate on the screen affecting the driver's view, please wipe up gently with semi-dry wet cloth regularly. Please do not wipe vigorously with dry cloth to avoid leave scratches on the screen.

（2）View angle Maintenance

After using for a long time, the view angle of the monitor may change because the screws on the bracket may be loose. Please adjust and fix the monitor by re-tightening the screws with L type hexagon wrench.

We will provide the following services: 1) Free technical guidance; 2) 36 months free warranty. Within the warranty period, if the following failures occur, a maintenance fee will be charged: a. Failure caused by not strictly following the user manual or exceeding the standard requirements; b. Device aging or failure caused by use in an environment that does not meet the requirements of this manual; c. Failures caused by self-repair and modification without permission; d. Failure due to poor storage.

Vehicle Mirror Camera
12.3" TFT LCD
OVCAM-123-1080P-AHD