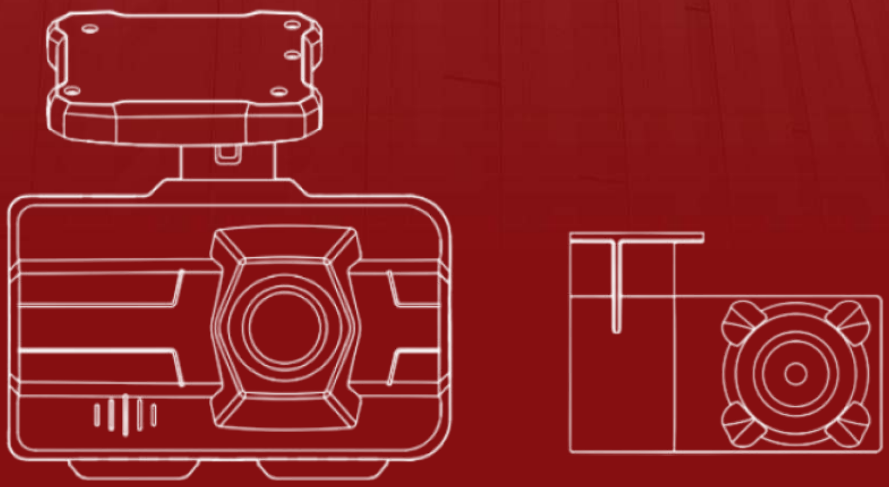
AI Dash Cam

KY181

User Manual



Catalogs

1 Usage Caution

1.1 Warning

(1) The dangerous driving alerts issued by the active safety AI device are only voice alerts, which cannot replace the driver's driving decision and operation;

(2) The dangerous driving alerts issued by the active safety AI device are developed based on computer vision and deep learning technology, which cannot guarantee 100% recognition accuracy. For example, under different road conditions and weather conditions, the accuracy rate of obstacle recognition is different. Besides, the accuracy of facial recognition for different drivers is also different.

(3) This device is intended to enhance the situational awareness when used properly. If used improperly, you could become distracted by the display, which could lead to an accident causing serious personal injury or death. DO NOT seek to access the information stored on the device or change the device settings whilst driving. The device should only be operated when your vehicle is stationary, and you are parked in a safe place in compliance with local laws. Always maintain awareness of your surroundings and do not stare at the display or become distracted by the display. Focusing on the display could cause you to miss obstacles or hazards. Use the device at your own risk.

(4) When installing the device in a vehicle, do not place the device where it obstructs the driver's view of the road or interferes with vehicle operating controls, such as the steering wheel, foot pedals, or transmission levers. Do not place unsecured on the vehicle dashboard. Do not place the device in front of or above any airbag.

(5) Video playback upon devices with display which are visible to the driver, is prohibited or restricted in some countries or States. Please adhere to these laws.

1.2 Maintenance Precautions

(1) Please keep the device dry. Do not let the device and cable stay in humid environment, or operate the device with wet hands, so as to avoid short-circuiting of the device, failures caused by corrosion, and electric shocks to personnel.

(2) Do not subject the device to strong impact or vibration, so as not to cause device failure.

(3) Do not place the device and power supply under too high or too low temperature, otherwise it may cause the device failure;

(4) Do not hit, throw, or needle the device, and avoid dropping or squeezing the device.

(5) Do not use unofficial approved or provided power and data cables.

(6) Do not disassemble the device and accessories without authorization, otherwise the device and accessories will not be covered by the warranty.

2 Product Introduction

2.1 Product Feature

(1) True 4k wide vision, 3840×2160P resolution, high-definition recording, to capture every subtle detail of the driving process.

(2) Wide Dynamic Recognition (WDR): Clearly record details in both highlights and shadows, even in extremely strong light and dark contrasts.

(3) Super Night-Vision Mode: Capture clear image even in the dark night with Sony's STARVIS image sensor.

(4) Advanced Driving Assistance System(ADAS): Sensing the surrounding environment of the vehicle, real-time voice reminding safe driving, reminding the front car collision, front car start, lane departure, pedestrian collision, for safe driving escort.

(5) Lane Change Assistance (LCA): Monitors the driver's blind spot behind the

vehicle; Warns the driver when another vehicle poses a danger to the vehicle's lane change.

(6) Rear Collision Warning(RCW): Real-time monitor the rear of the car, and issue a warning message when the rear collision may occur, always ensure the rear safety for the user.

(7) Equipped with a 3-axis accelerometer to precisely sense vehicle movement or impact. In the case of emergency braking and collisions, the crash video is saved separately.

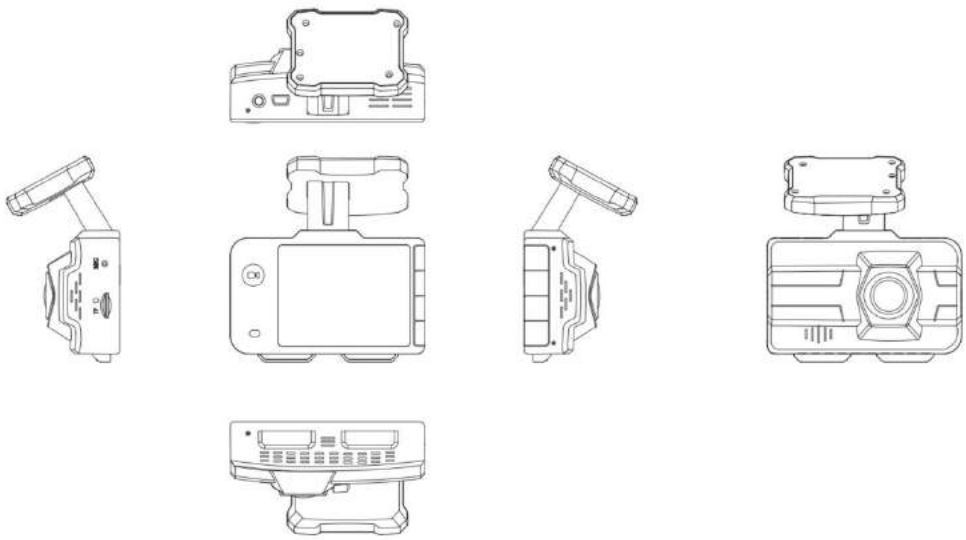
(8) Multi-camera support: Can be connected to front and rear cameras for full security protection.

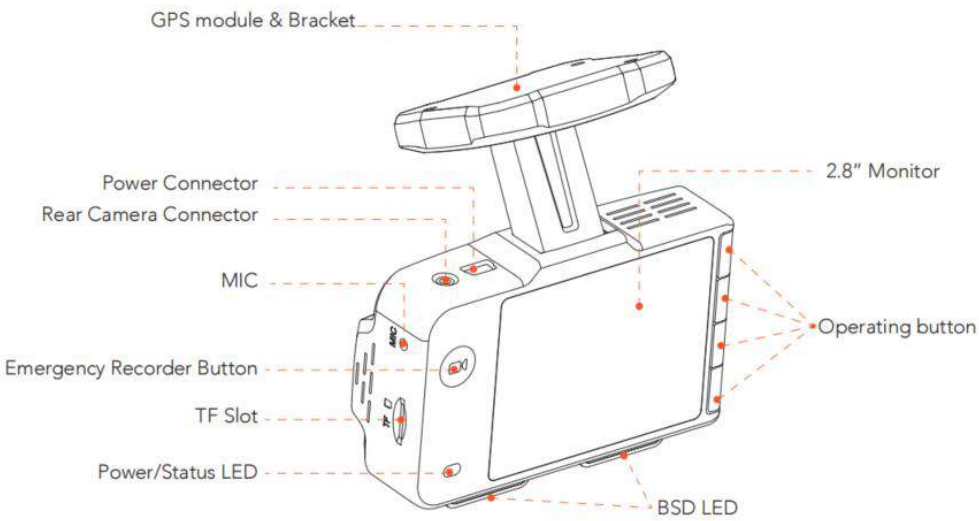
(9) Wide Angle 140°: 140° FOV enables camera to easily capture multiple lanes and reduce shooting blind spots.

(10) Start simultaneously: the camera will automatically start recording after the vehicle is started, and the camera will automatically shut off after the engine is turned off.

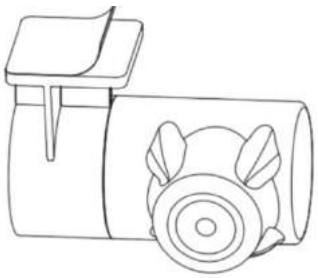
(11) Parking mode recording: Parking mode recording function (optional buck line required), can ensure vehicle safety while parking.

2.2 Product Overview





Front Camera

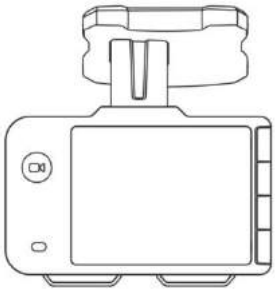


Rear Camera

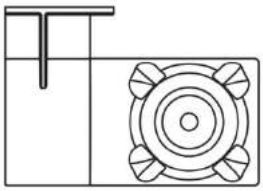
2.3 Product Specification

Item	Description
CPU	1.2GHz, 0.8Tops
RAM	DDR3L×2(Total 1GB)
Flash	128MB
GPS	Dual System(GPS+GLONASS)
Screen	2.8”
Built-in G-sensor	Impact detection
Memory Card	External Memory Card (32 to 256GB Card in FAT32, UHS-III/ A1)
Angle / Aperture	Front Camera: F1.75, FOV 140 Rear Camera: F1.9, FOV 150
Recording Resolution	8MP@30FPS; 2MP@25FPS;
Recording Format	MP4

2.4 Package Contents



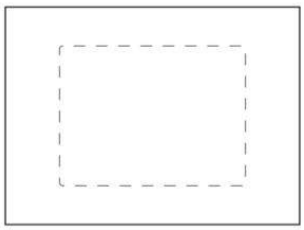
AI Dash Cam



Rear Camera

Car Power Adapter

Rear Camera Cable



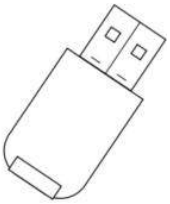
Static Stickers for AI Dash Cam

Quick Start Guide

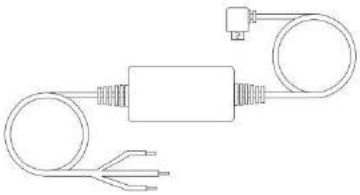
Warranty Card

User Manual
(Online)

Cable Tidy Tool
(Optional)



Memory Card Reader
(Optional)

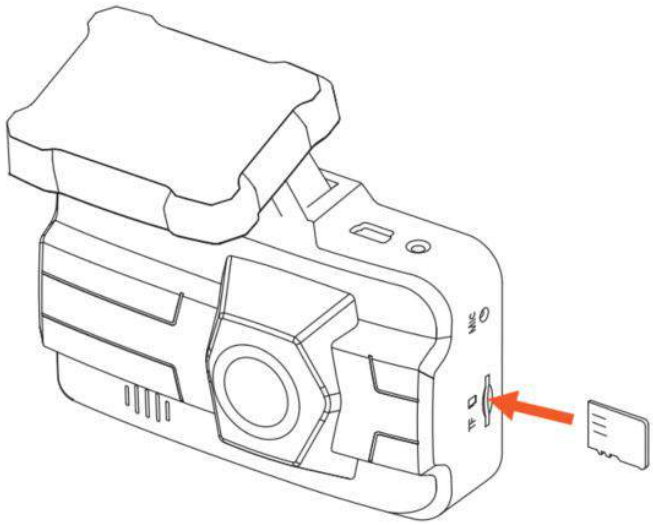


Hardware Kit
(Optional)

3 Installation

3.1 Insert the Memory Card

Insert a suitable Memory card (16G-256G,FAT32 / UHS-30) in to the Dash Cam. Push the memory card until it clicks into place(The text side of the memory card is oriented in the same direction as the screen).



Insert the Memory Card

Note: Do not remove or insert the memory card while the power is on, as this may damage the card or the video content therein.

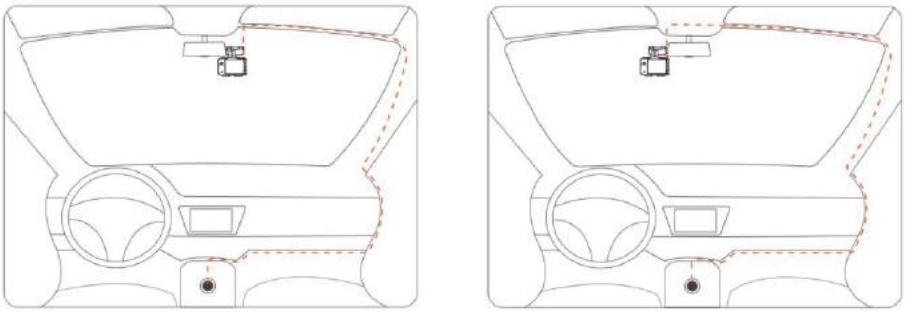
3.2 In Vehicle installation - Front Camera

(1) Select a mounting location

You can mount the device in the left, center, or right of your windshield.

Note: It is recommended that the front camera be mounted behind the rear-view mirror to avoid obstructing the driver's view.

AI Dash cam location(Recommended area, as below):



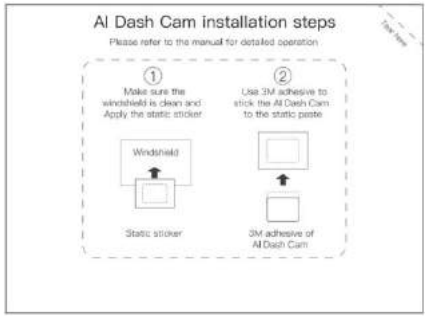
Wire alignment diagram (Left-hand drive cars)

(2) Attach the front camera on Windshield

Select a proper mounting location on windshield, wipe the location area clean with a lint-free cloth. The windshield must be free of dust, wax, oils, or coatings, and then apply the static sticker. Remove the overlay to expose the 3M adhesive side and stick the AI Dash Cam into the dashed box in the middle of the static sticker.

Make sure the front camera is horizontal and facing straight to the windshield to capture the desired view, such as the road in the center. Place the bracket firmly on the mounting position of the static sticker for 30 seconds.

3M adhesive



The Static Sticker

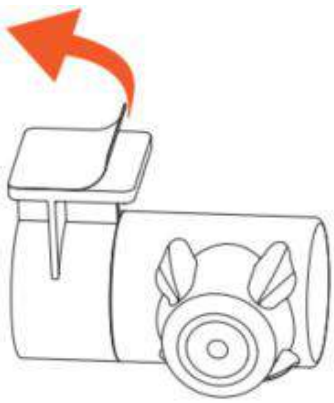
(3) Adjust the Front camera

Note: Recommend to make the camera capture an image with both the sky and the ground **equally** (50% is the sky and 50% is the ground).

3.3 In Vehicle installation - Rear Camera

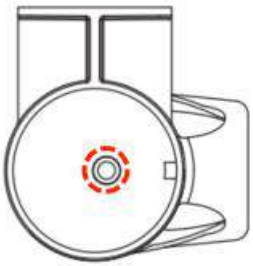
(1) Select a proper mounting location on windshield, wipe the location area clean with a lint-free cloth.The windshield must be free of dust, wax, oils, or coatings.

(2) Remove the cover layer to expose the 3M adhesive surface; Ensure that the cable port of rear camera directs to the right side and the view captured is desired field;Firmly place the mount on the mounting location of windshield for 30 seconds.



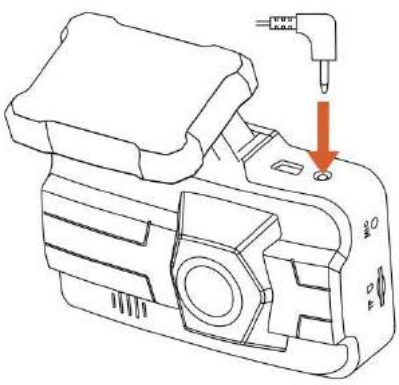
3M adhesive

(3) Plug the rear camera cable into the connector on the rear camera.



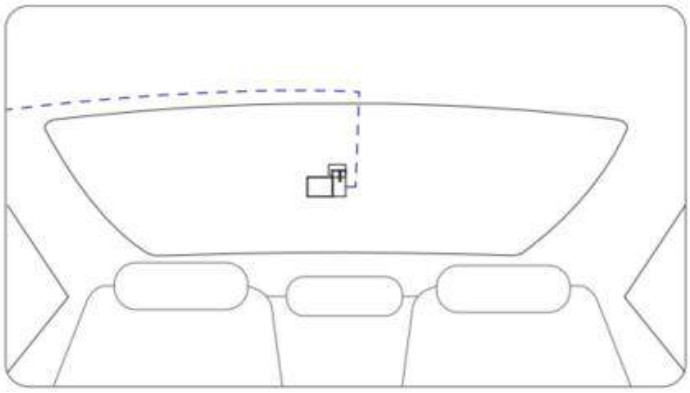
Rear camera connector

(4) Route the rear camera cable and plug another end of cable into the front camera.



Plug into the front camera

The included rear camera cable is designed to be routed out of sight, and it can be hided along or behind the trim or headline, as below picture.

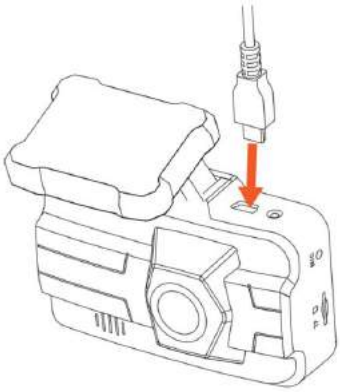


Wire alignment diagram

Note: Rear camera connector should orient to the right.

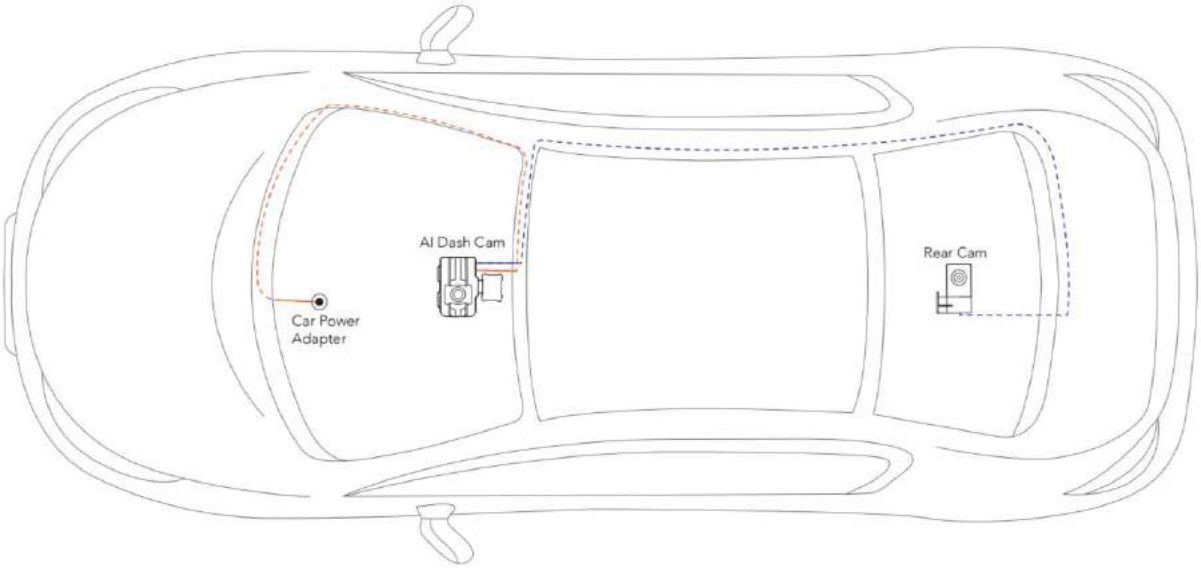
3.4 Connect car power cable

(1) Plug the power cable into the [Power Connector] MINI USB connector of the front camera.



Power cable plugin

(2) Route the power cable and hide the power cable along or behind the trim or headline to make sure the view of driver unobstructed. Plug the car power adapter into the DC-12V outlet of your vehicle, as below pictures



Overall wire alignment diagram

4 AI Functions

4.1 Auto-calibration

When current Vehicle speed ＞ 20km/h and the dash cam detects two clear lane lines at least≥1 minute, the calibration progress(percentage) would display on the screen and disappears after its completion.

Calibration progress

4.2 Lane Departure Warning

When current Vehicle speed＞60km/h and the lane-center-driving vehicle state is changing to across the lane, the AI system will issue related sound alert to driver and display alert icon on the dash cam screen.

Lane Departure Warning

4.3 Forward Collision Warning

When current Vehicle speed＞30km/h and the Time to Collision(TTC) between the vehicle and the vehicle ahead is less than 2.7s, the AI system will issue related sound alert to driver and display alert icon on the dash cam screen.

Forward Collision Warning

4.4 Virtual Bumper

When the distance between the vehicle and the vehicle ahead / Current vehicle speed<0.7S, and 30km/h＞Current vehicle speed＞1km/h, the AI system will issue related sound alert to driver and display alert icon on the dash cam screen.

Virtual Bumper

4.5 Pedestrian Collision Warning

When the distance between the vehicle and the pedestrian ahead / Current vehicle speed<1.2S, and 60km/h＞Current vehicle speed＞1km/h, the AI system will issue related sound alert to driver and display alert icon on the dash cam screen.

Pedestrian Collision Warning

4.6 Stop & Go

When the vehicle stops for more than 5s and the vehicle ahead(within 6-meter distance) continues to driving away for more than 1s, the AI system will issue related sound alert to driver and display alert icon on the dash cam screen.

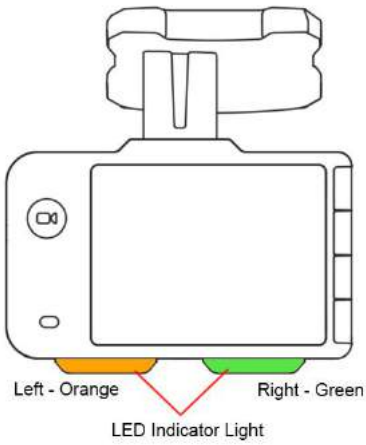
Stop & Go

4.7 Lane Changing Assistance

Level 1 Alert: If the velocity of vehicle > 10km/h, while another vehicle (within 7-meter distance) is approaching from the rear-side lane, the AI alert will be triggered ---

(1) The LED indicator light will be solid on to remind the driver. The faster the speed, the farther the alarm can be triggered, up to 12.5 meters.

(2) When there is a car on your left rear, the orange LED on the left will be on, and when there is a car on your right rear, the green LED on the right will be on.



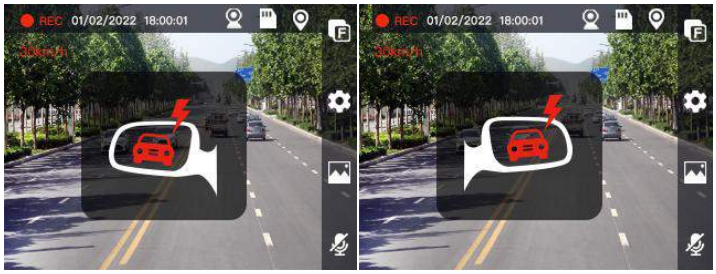
Level 2 Alert: If the velocity of vehicle > 30km/h with its outer edge of wheel less than 10 cm from the lane line, another vehicle (within 7-meter distance)is approaching

from the rear-side lane at the same time, the AI alert will be triggered ---

(1) the related LED indicator light will be solid on;

(2) the sound alert will be issued every 3s;

(3) the alert Icon(side-view mirror) will display on the dash cam screen. The faster the speed, the farther the alarm can be triggered, up to 12.5 meters.



Lane Changing Assistance

4.8 Rear Collision Warning

If the on-driving vehicle＞30km/h, the Time to Collision(TTC) between the vehicle and the vehicle behind is less than 2.7s, the AI system will issue related sound alert to driver and display alert icon on the dash cam screen.

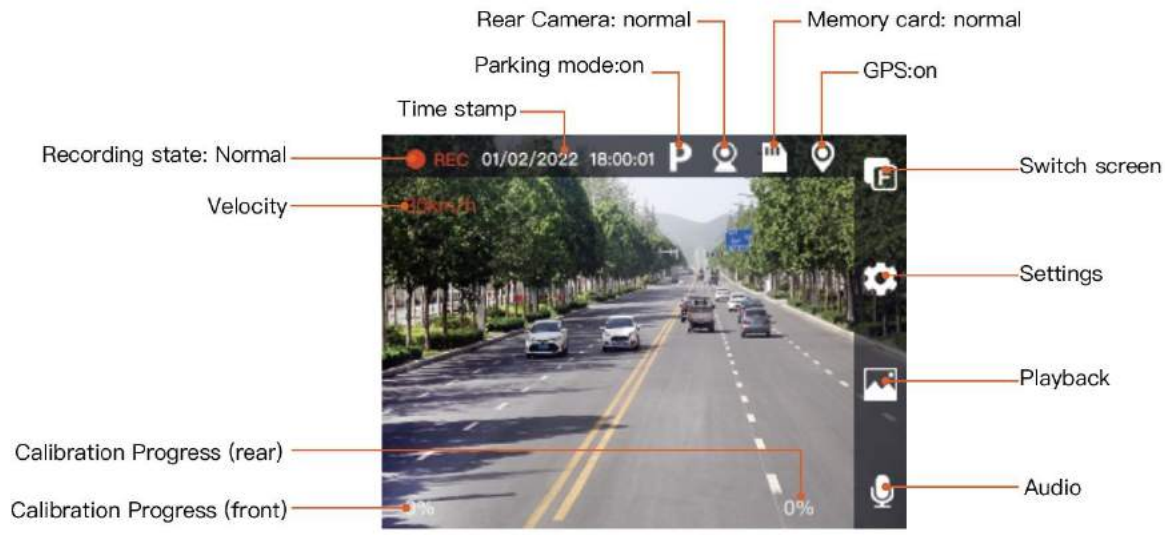
Rear Collision Warning

5 Dash Cam Recording

The screen displays means the Memory card is normal.

The screen displays means the Memory card is in failure.

The screen displays means no Memory card is inserted.



Interface Description

Time stamp is default on, able to turn off from[ ]-[Video Settings]-[Time stamp]

Front camera default as 4K@30fps, able to set as 4K@30fps or 2K@30fps or 1080P@30fps,[ ]-[Video Settings]-[Video resolution], Rear camera default as 1080P.

5.1 Normal recording

After the vehicle is started, the dash cam automatically turns on and starts recording. After the vehicle is turned off, the recording will stop automatically.

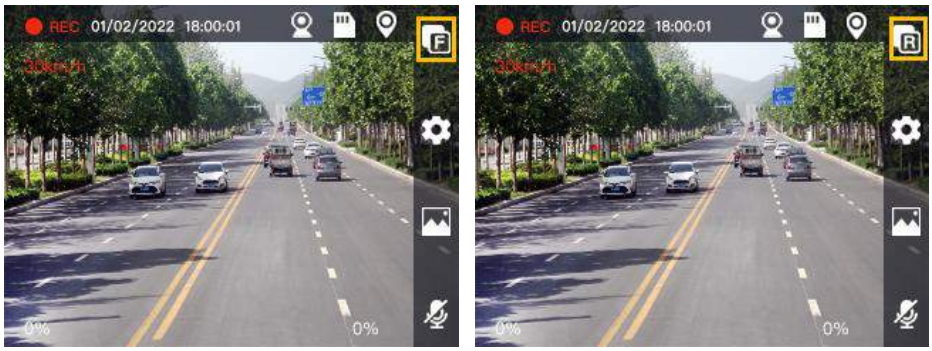
Note: REC red light flashing means the dash cam is recording. REC green light on

means the dash cam isn't recording.

Front / rear camera recording switch

• F for Front camera: Default to display front camera recording.

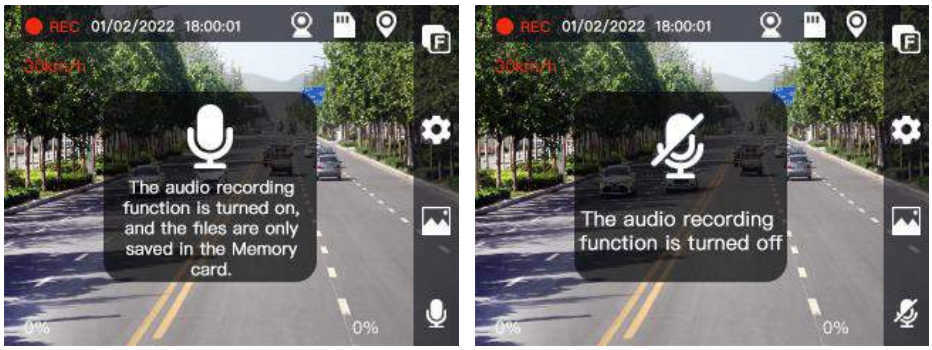
• R for Rear camera: Switch to display Rear camera recording.



Front / rear camera recording switch

Audio recording

System is default off, but able to turn on by switching .



Audio recording switch

5.2 Emergency Recording

Emergency recording starts working under 2 conditions as below:

(1) **Impact motion recording**

• If the dash cam detect an impact whilst normal recording, it will start emergency recording.

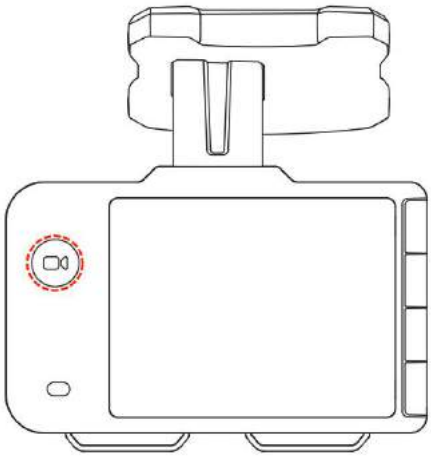
• If impact motion set as [high sensitivity], even slight impact would be detected.

• If impact motion set as [medium sensitivity (default)], only medium impact would be detected.

• If impact motion set as [low sensitivity], only heavy impact would be detected.

(2) **Manual emergency recording**

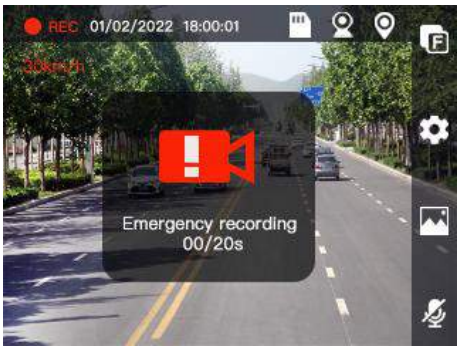
• Pushing the emergency button can start emergency recording whilst under the normal recording mode.



Emergency Recording Button

• Pushing the emergency button can also start emergency recording whilst not under the normal recording mode, like under playback mode.

Note: The screen displays the icon, which is on the process of emergency recording for 15s recording file.



Emergency recording

GPS position:

Positioned: screen displays , Non-positioned: screen display .

5.3 Parking Mode Recording

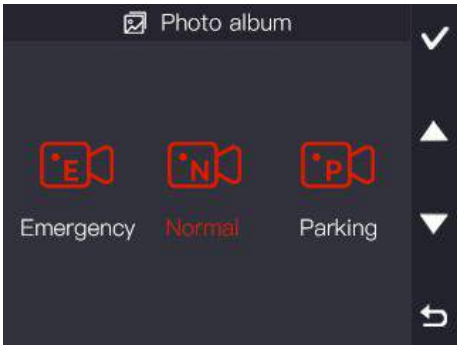
When the parking mode turns on, the screen displays P and start time-lapse recording. When the parking mode turns off, the icon P disappears.

Note: Parking mode is available only when equipped with the Hardware Kit(optional).

6 Playback mode

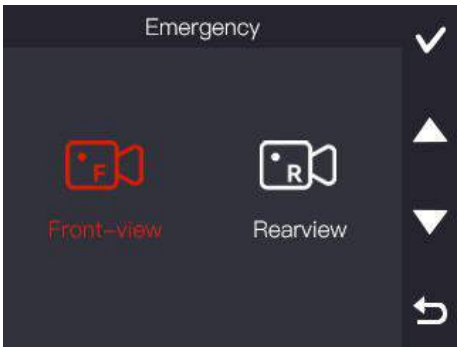
Pushing [ ] can enter the playback mode, and select ▲ or ▼ to choose the file type: Normal / Emergency / Parking, and select ✓ to enter and review.

(1) 3 types of recording file: normal , emergency and parking.



Types of recording file

(2) Each recording type has 2 channel file: Front view and Rear view.

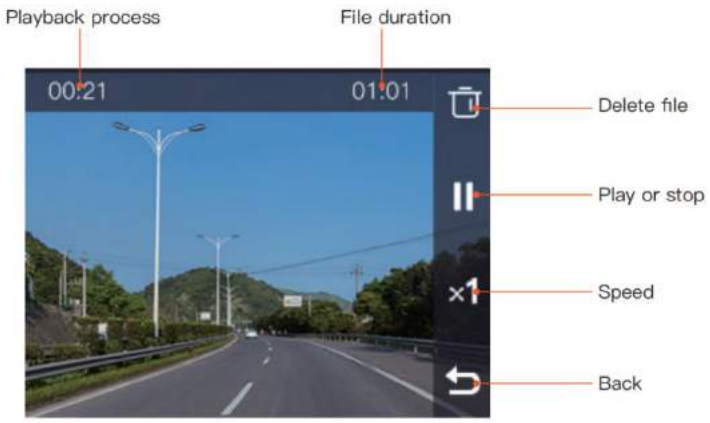


Types of channel file

(3) The dash cam supports loop recording to allow continuous recording by replacing the file in Normal and Emergency with the new content, but the file in Emergency

won’t be replaced or erased.

(4) The playback progress adopts the forward timing method, and the file duration remains unchanged.

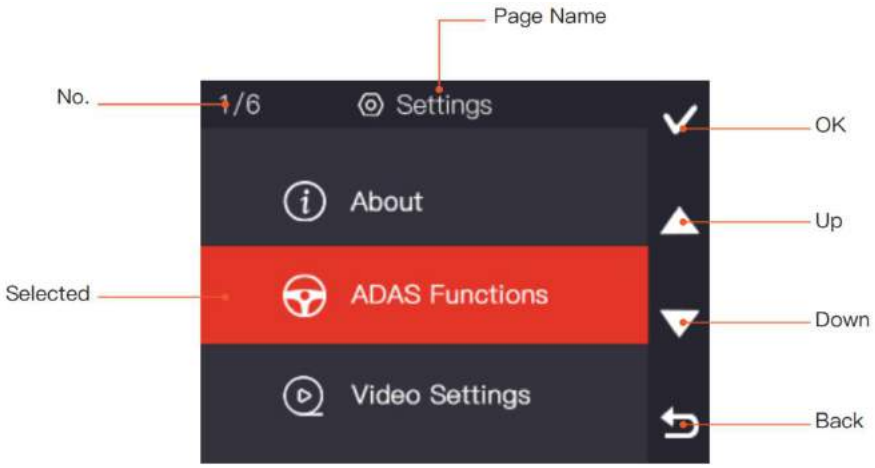


Video playback interface

(5) Push [×1]to change the speed by 1X, 2X, 4X, 8X on a loop.

7 Menu and Settings

7.1 Settings



Operating Instructions

(1) Video Settings

① Recording resolution, recording duration time, Time stamp are settable.

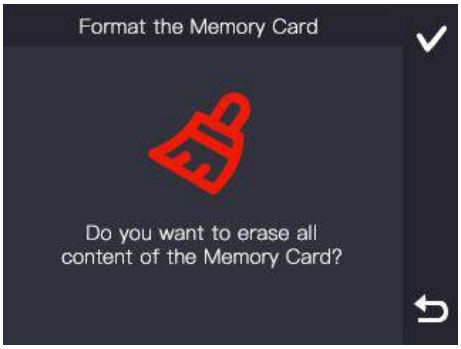
② Collision sensitivity setting: G-sensor support impact motion. When detect a impact, the dash cam can start emergency recording with 2 cameras.

③ Parking Mode: default as turn off. Able to turn on by working with extra hardware kit.

(2) Format the Memory card

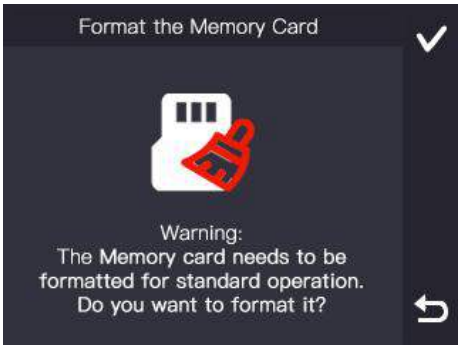
The memory card may need to be formatted in the following situations.

① If the dash cam can’t work properly after changing a new memory card, please select [Format the memory card].



Format Confirmation

② When the Memory card isn’t FAT32, the screen will display as below, please change a new memory card FAT32.



Formatting Requests

(3) Factory Default Settings

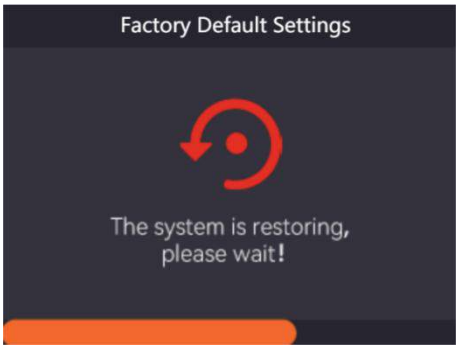
① Factory Default Settings is an option that restores all settings of the AI Dash Cam to factory settings,

② The screen will display as below:

Reset Confirmation

Select [✔], all settings will get back to the factory default, then back to [Setting] Page.

Select [⮌], No change, then back to [Settings] Page.



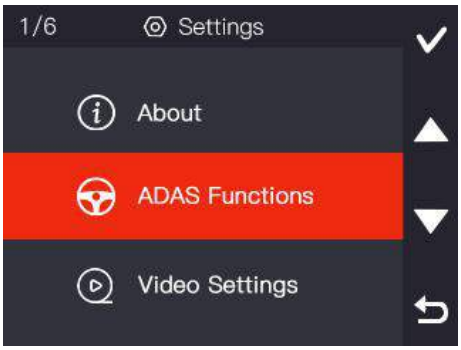
Resetting progress

(4) About

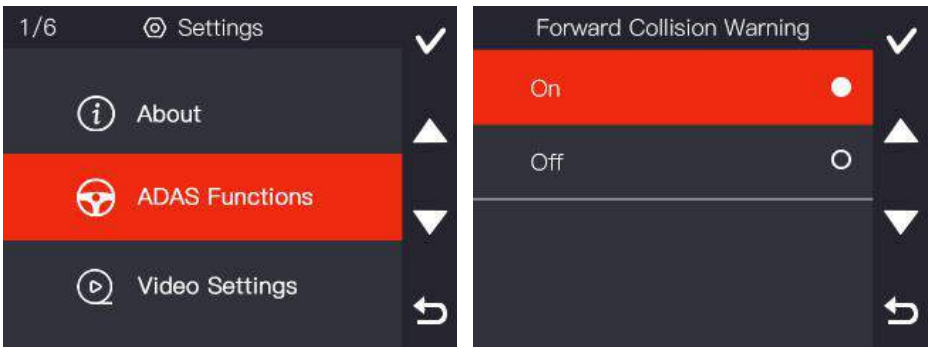
Product information and system version number, the screen displays as below:

7.2 AI Function Settings

7 Functions: Lane Departure warning, Forward Collision warning, Pedestrian Collision Warning, Stop & Go, Virtual Bumper, Rear Collision Warning, Lane Change Assistance. They all default as turn on,and can adjust the warning sensitivity and turn off.



AI Function Setting List



AI Function Selection AI Function Switch

8 Simple troubleshooting

Trouble	Solution
The recording is disabled	Please use a FAT32, read / write speed≥ UHS-3 memory card.
The loop recording is disabled	Please check the space of memory card is enough for recording. Please format the memory card if no enough space.
The recording is blurry	Please tear off the film on camera lens and clean up the lens and windshield.
The recording has no audio	Please make sure you turn on the audio.
The dash cam is over temperature	When the dash cam is working at 4K / 2K / 1080P @30fps, it’s normal to get a little hot around the dash cam and Memory card port.
Recording files on the memory card can’t display on the computer	Please change a new video player to display. If still unworkable, maybe the memory card get damaged, please try to format it or change a new one.
Others	If troubles above still can’t be solved, please restore all settings to the factory settings or contact a local technical to support.