

# Android GPS FHD Smart Mirror Camera

## English Quick Start Guide



## [To Customer]

Dear Customer,

Thanks for buying our car camera, it is our honor and pleasure to serve you to using our product.

Before using this product, please read this manual very carefully and keep it properly. As production date and batch difference, the instruction maybe have difference with the actual object. If any discrepancy in future, please adhere to the actual product instead.

Hope you will like this product and then we can build long term business relationship in near future. Your kindly feedback and support will prompt us to do the better. Thank you.

### **Precautions:**

**Please observe all precautions before using our this car camera. Please follow all procedures outlined in this manual to correctly operate the device.**

1. Do not attempt to disassemble or alter any part of the device that is not described in this guide.
2. For your safe driving, please don't operate this car dvr when you are driving, and avoid any traffic accident by illegal operation.
3. Please don't operate this car dvr when your car parking at gas station. Thank you.
4. Please test the GPS navigation outdoor. Power on dvr to start test it at spacious space , usually it will take around 1 minute to search the satellites and make the gps location until the car dvr receive more than 4 satellites .
5. When this car camera locates at following surroundings: Indoor testing/ In the tunnel/ high building block/ bad weather/ dense of obstacles (trees or buildings) , etc. It maybe affect the GPS satellites signal and mobile communication reception.
6. Do not use other factory's power cable to power supply our device. Please do not bend or press the power cable , so as to avoid machine failure or even fire caused by device short-circuit and other accidents.
7. Due to the continuous improvement of the products, such as the user interface ,functions and technical parameters in this manual are modified without prior notice.
8. This manual has been carefully checked, but has not ruled out the possibility of a small mistakes. If found, please kindly contact our company customer service center.
9. All photos here are for reference only, specifications are subject to the actual product.

## [Product Overview]

This device is with quad core processor, 16G EMMC + 1G DDR , and built in wifi, 4G, Bluetooth, dual channels video recording , as well as with Android 5.1 system.

### Part one: basic functions

#### 1. **Dual Cams Recording & Parking view with line**

It's video quality is FHD1080P in front camera, back is 640\*480 resolution. It supports dual cams recording simultaneously, G-sensor, loop recording function.

#### 2. **4G internet Surfing**

This device support internet surfing via 4G/3G/2G micro sim card. It supports online GPS navigation/Listen to Music/Webpage browse and remotely video monitor . 4G internet surfing : GSM: 900(B8)/1800(B3); WCDMA:2100(B1)/900(B8); LTE:FDD,2100(B1)/1800(B3)

#### 3. **GPS Navigation**

With external GPS+BD high sensor GPS antenna, you could install GPS Map as your prefer, and allows you to choose the optimal route and reach your destination without unnecessary trouble.

#### 4. **Bluetooth Handsfree**

After pairing the bluetooth between dvr and smart phone, you could make and receive calls directly from the mirror dvr itself with the built-in MIC and speaker.

#### 5. **ADAS Plus**

ADAS Plus function helps your driving safely and conveniently.

- LDWS (Lane Departure Warning Systems)

A warning is triggered when lane departure is detected based on real time video recorded.

- FCWS (Forward Collision Warning System)

A warning is triggered when a possible forward collision is detected based on real time video recorded.

➤ **FVMA (Forward Vehicle Moving Alarm)**

An alert is triggered when the vehicle ahead of you moves based on the real-time video recorder.

**6. Car Assist App Mobile Remote Monitor**

With our unique remote monitor mobile app “Car Assist” and internet connection, it allows you to remote monitor your car driving path, and what happened around your car. It supports live time preview, video playback and remote parking monitor in car assist app. Also, you could make some settings up of the car dvr of brightness, video volume and etc.

**7. WiFi hotspot**

This device built in wifi hotspot,

**8. FM transmitter function**

Thanks to the FM transmission function, you could synchronize the mirror dvr music to your car audio with ease.

Remarks: This is not FM radio function

**9. Multimedia entertainment**

It built in speaker, you could listen to music, watch movie for fun.

**10. Systems update**

We can update the system online via OTA, or via the TF card.

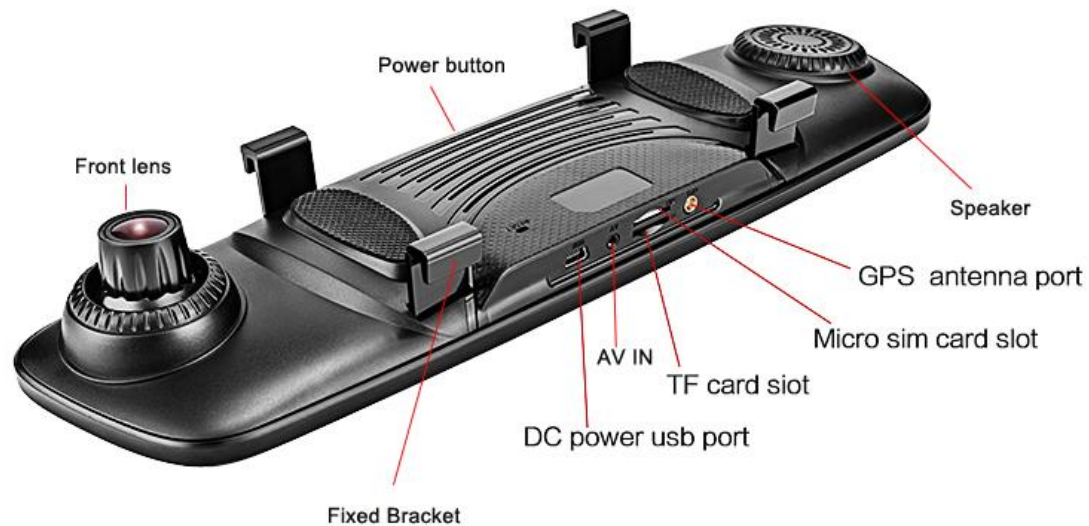
**Part two: E06 product structure.**



**Image 1: car dvr touch screen panel**

**1. 7.84 inch Touch Screen**

You could touch operate here about the applications, and playback the video files directly on car dvr.



**Image 2: car dvr interface and button**

## **2. Power button**

### **➤ Power ON/OFF**

- ◆ When car dvr at OFF status, keep pressing Power button for 2-3 seconds, will turn on the car dvr;

Remarks: when you power on the device, please connect with our standard car charger into cigar lighter to power supply this device, do not use other DC power cable or test it at home (Home's power is not enough power for this device)

- ◆ When car dvr at ON status, press again it for 2-3 seconds, you could shutdown the car dvr.

Remarks: when you car engineer is off, this car dvr will automatically enter sleep mode after 5 seconds. If you also want the car dvr power off, please manually press

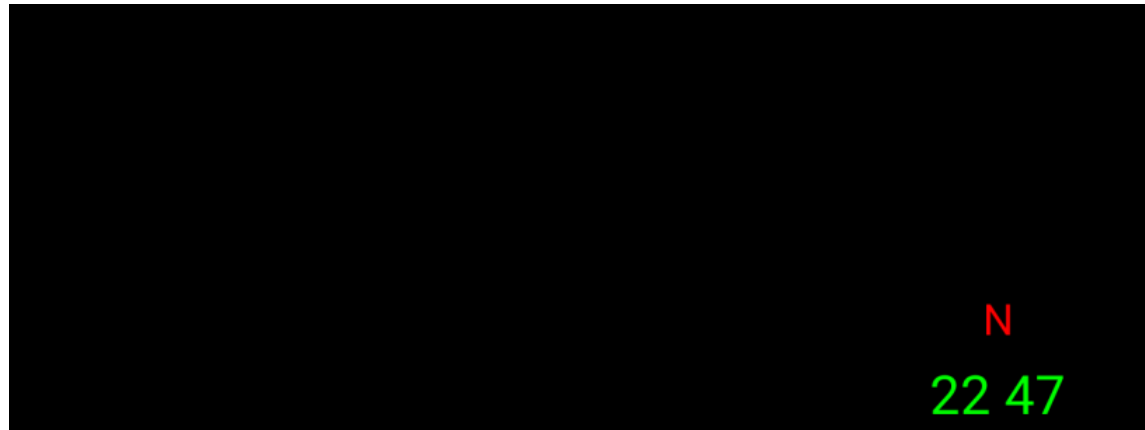
the power button to turn off the car dvr.

➤ **Screen Sleep Mode**

---When dvr at ON status, press the Power button, it will enter the screen sleep mode marked with position and time.

---Press again the Power button, it will get the screen background light totally off, the device just like the normal rearview mirror. Even if under screen sleep mode, other functions: video recording/GPS navigation/ FM transmitter ect function still is working simultaneously.

---Press again, it will light up the screen display.



**Image 3: Screen Sleep Mode marked with position and time**

**3. Front Lens**

It could be adjustable and shoots in 1080p video.

**4. Fixed Bucklet**

The car dvr 's Fixed bucklet will be used the rubber rings to be attached on the car rearview mirror.

**5. DC power Mini USB Port**

It is for car charger connecting to power supply the car dvr.

**6. AV IN Port**

Before turn on the dvr, please plug the rear camera into the AV IN port for dual camera recording and auto reverse parking functions.

### 7. TF card slot

Before turn on the car dvr, please insert the Class 10 High speed SDHC micro sd card into TF card slot for video recording. TF card maximum capacity support 32GB.

### 8. 4G/3G/2G Micro-SIM card slot

Insert the micro-sim card into this slot for internet surfing.

### 9. GPS antenna port

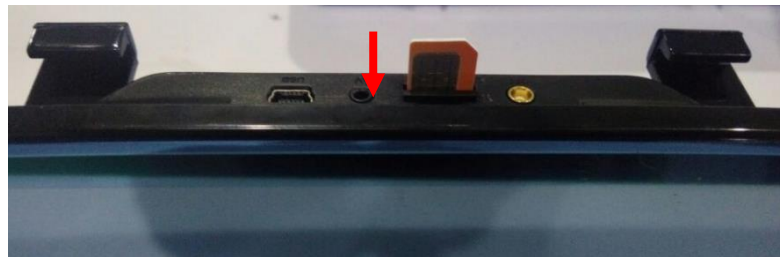
Before turn on the car dvr, please connect the GPS antenna for GPS satellites searching and location.

### 10. Speaker

Build in speaker, you could play the video with sound and music files at this device.

**Please note that correct direction when we plug in the TF and SIM card into the dash camera, otherwise the camera can not find the SD card and SIM card.**

- SIM card plug direction: the chip side face to the dvr screen panel surface, the notch is upward, and then press and insert it (Image 4):



**Image 4: SIM card insert way**

- TF card plug direction: the chip side face to the dvr backside surface, the notch is downward, and then press and insert it (image 5):



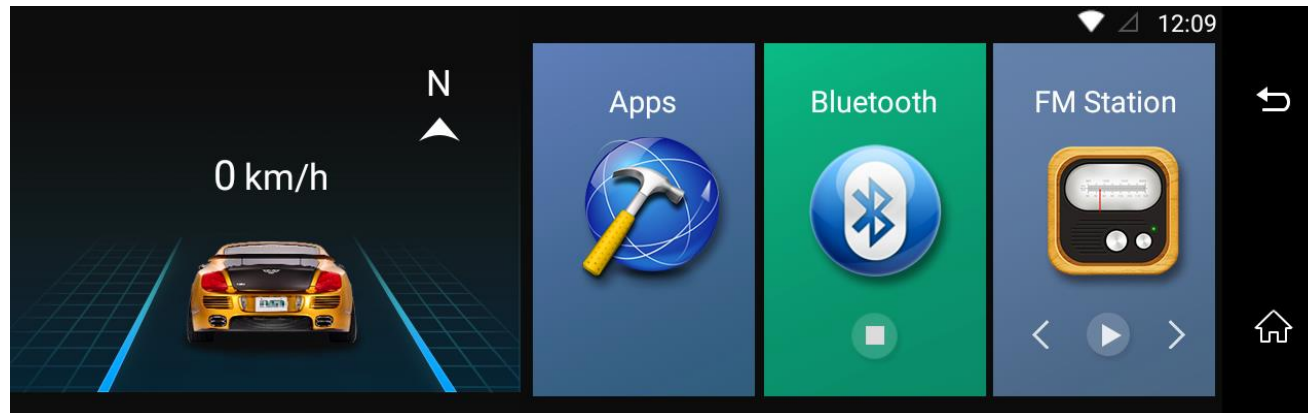
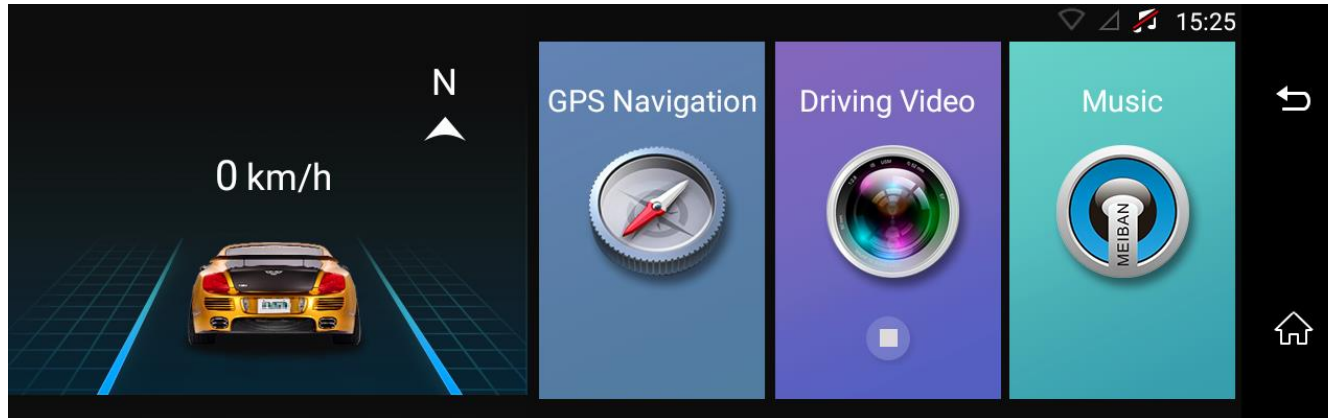
**Image 5: TF card insert way**



### Part three: menu interface

After the car dvr switch on, it will enter the dvr's main user interface as below:

Slide from right to left the menu, you will find "GPS navigation/ Driving Video/Music/ Apps/ Bluetooth/FM station/Settings"



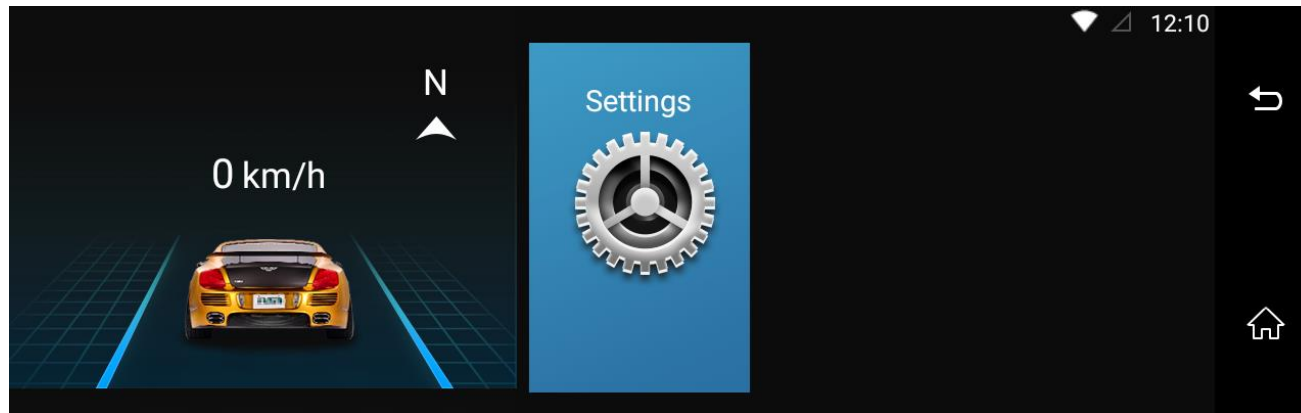






Image 6: Main Menu Interface

-  it will display the driving speed and direction.  
Remarks: If GPS signal is weak, it will influence the speed accuracy)
-  GPS Navigation: click it will enter the default GPS navigation
-  Driving Video: click it will enter car video recording menu and settings
-  Music: click it will play the local music files from device or memory card.



5. Apps: click it will enter the systems default application and other app you downloaded into this car dvr as below image:

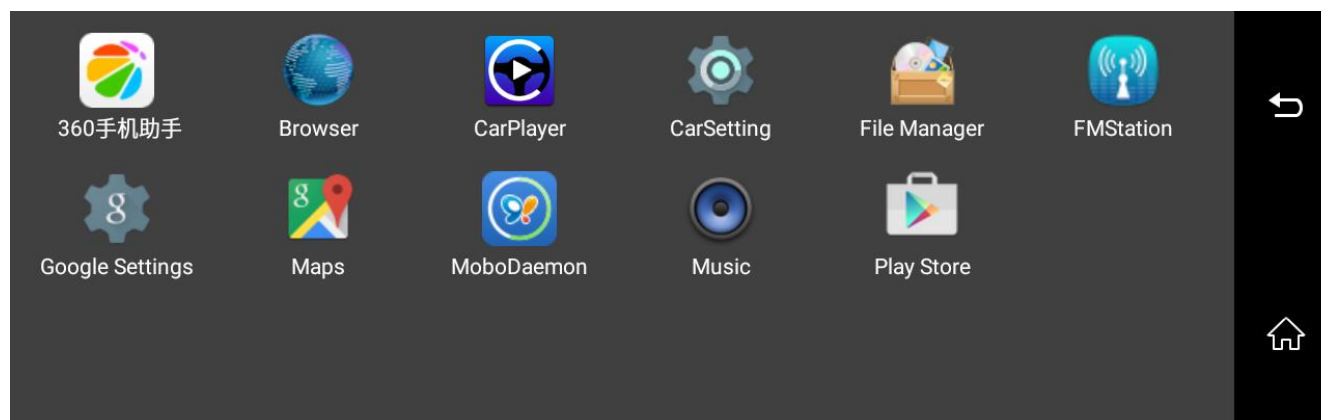







Image 7: App List

**Here are some pre-installed applications for refer:**

- Browser: default Browser
- CarPlayer: playback the video files from car dvr
- CarSettings: setting of the car dvr
- File Manager: include the internal dvr storage files and external sd card folder
- FMStation: FM transmitter function entrance
- Google Settings: setting of google
- Google Map: pre-install google map, you also could download and install other map
- Music: listen to music files from device or memory card
- Google Store: support download other application into this device

6.  Bluetooth shortcut: click it will quickly enter Bluetooth hands-free settings menu
7.  FM station: click it will enter FM transmitter function menu
8.  Settings: you could set up car dvr settings and android settings.
9.  Back to previous menu
10.  Back to main menu

## [Main Functions Introduction]

### Part one: function of video recording

Start video recording:

- Insert the TF card into car dvr, and then turn on dvr, it will automatically start the front and rear camera video recording.
- You could click the “Driving video” on main interface or click the dvr float mini window (If you choose “show Float button”) as image 6 to enter the driving

video recording menu as below (Image 7):

- This device support Picture in Picture function

Dvr Float Mini window

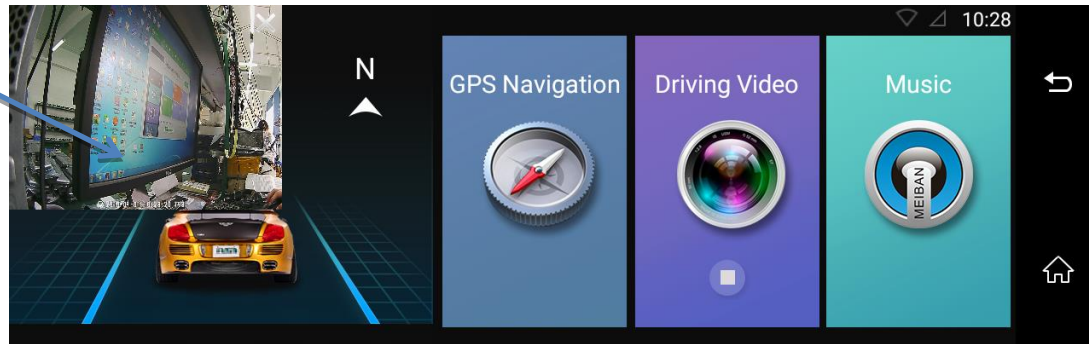
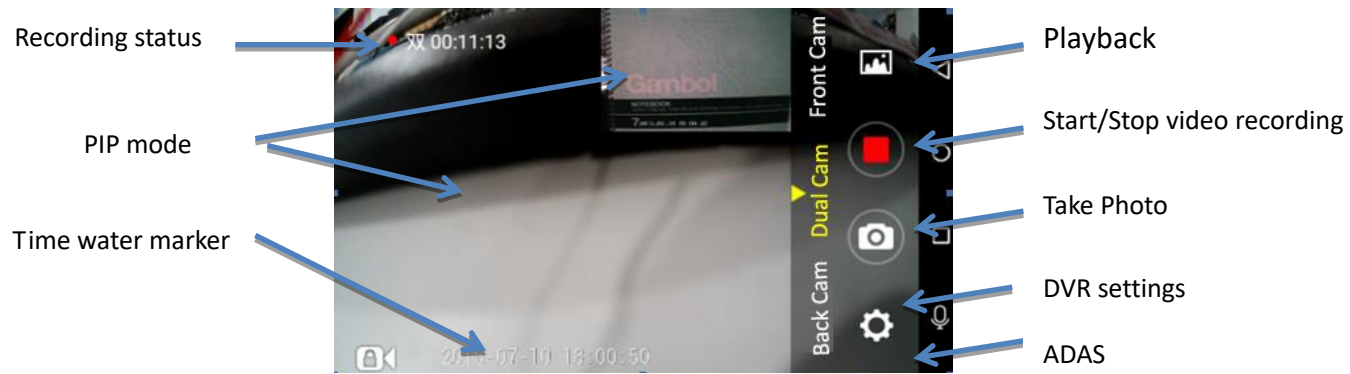



Image 8: Main menu with dvr float mini window





**Image 9: Driving video recording menu**

**Function keys for video recording:**

- 
 Switchover of front/PIP/ rear camera display

This car dvr support Auto Reverse Parking:

when get the car in reverse gear, the car dvr will automatically switch to the rear camera image with parking line preview (Image 8). After parking signal disappear, the rear camera preview will automatically exit and back to previous preview mode.



**Image 10: Auto Reverse Parking**

2. Video and photo files playback:

there are 2 ways to check and playback the current video files:

a) Enter "Driving Video" menu, and then click this button  will enter the video files list as below (Image 8):

you could select the video files by time or by camera to playback it, also you could delete the video files you want.

- **Click one video file to playback, even if it will show dvr whole record duration, but it just will start the video to play by specified time you selected.**

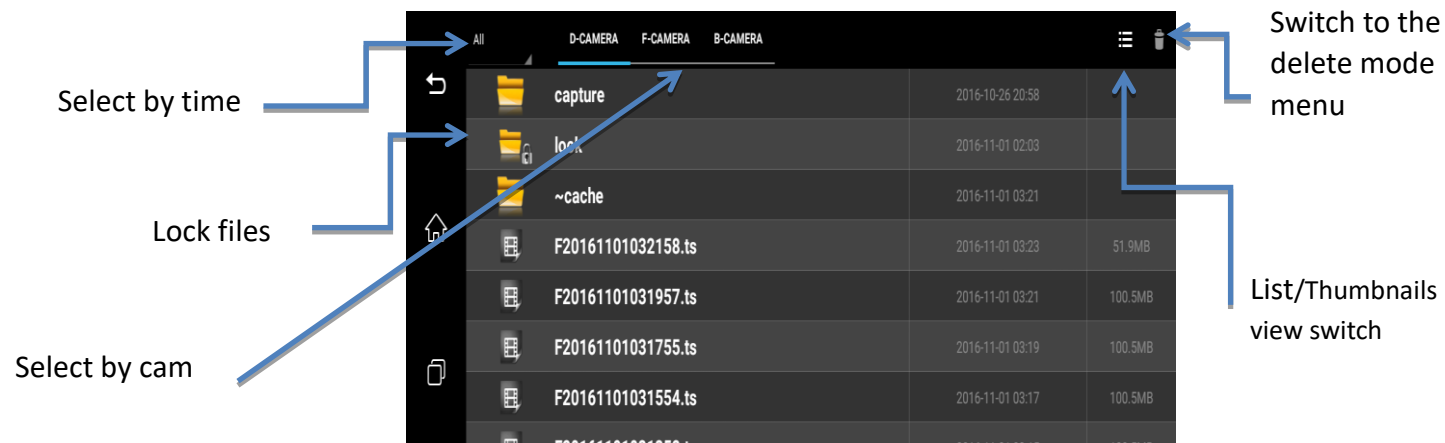



Image 11: Playback View List


b) Click the  apps button to enter the Apps list menu, and then click  car player button to play the video you want. Here you could choose Front camera or Back Camera video to playback as below (Image 7):

Plus, you could slide touch the specific area to adjust the brightness/volume, or fast-forward/rewound the video files (as orange color arrow):

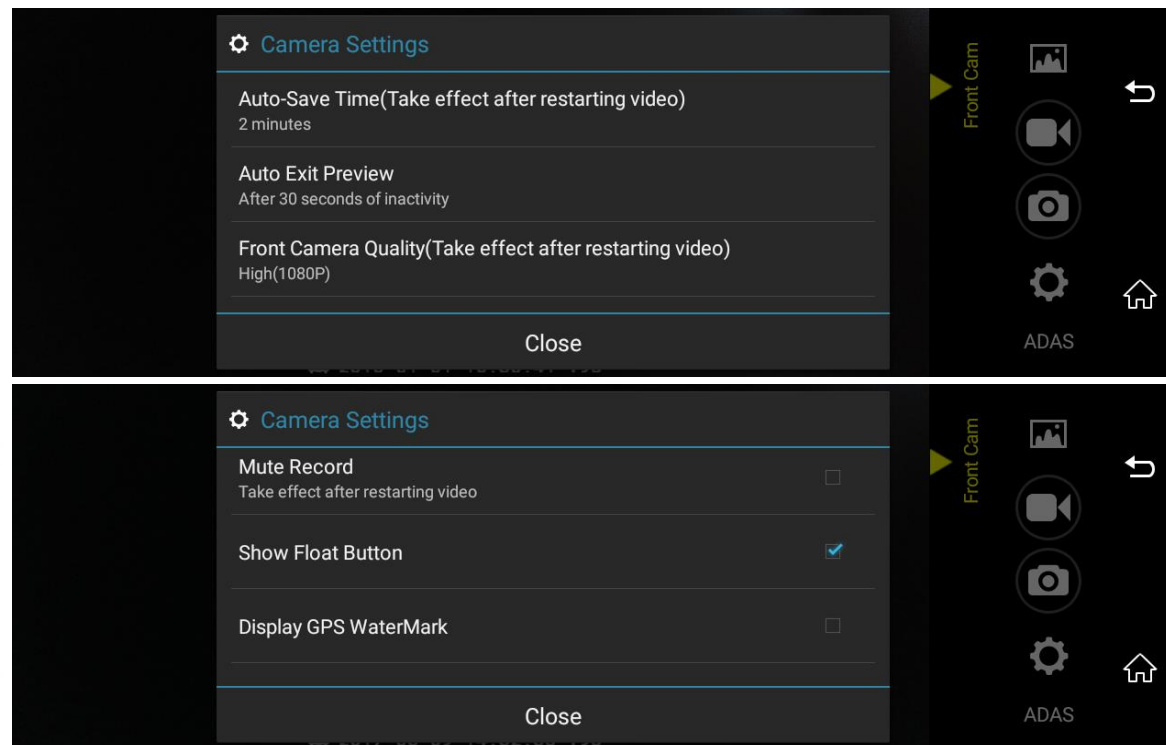


**Image 12: DVR car player**

The area can be fast-forwarded / rewound by sliding left and right

3.   Start/Stop video recording
4.  Take one photo
5.  Click it will enter car dvr settings :






**Image 13: car dvr settings**

- Auto-Save Time (Take effect after restarting video): set up the video loop recording time to 1min/2mins/3mins
- Auto Exit Preview: set up the time of automatically exit from video recording preview to the main menu when dvr no any operation to save the power
- Front Camera Quality (Take effect after restarting video): High (1080p) / Normal (720p)
- Mute Record :ON/OFF of mute function for video recording
- Show Float Button: ON/OFF of dvr mini float window to exit the video recording .If choose turn on Float window , you could see the dvr video recording preview and other application (eg, GPS navigation ) at the same time.

- Display GPS Water Mark : ON/OFF of gps speed water mark
- Current Version : check the dvr software version

6.  Click it will enter ADAS settings (Image12):

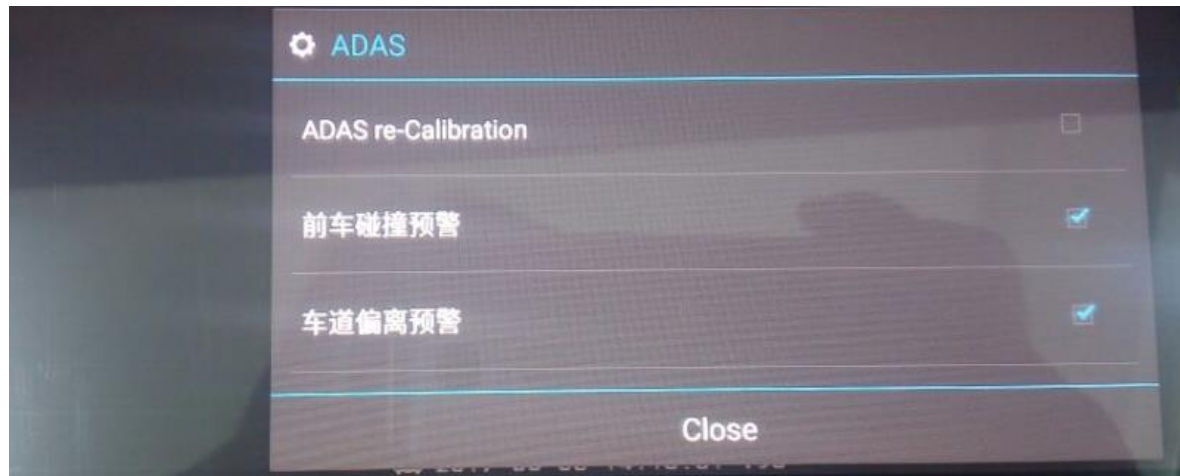


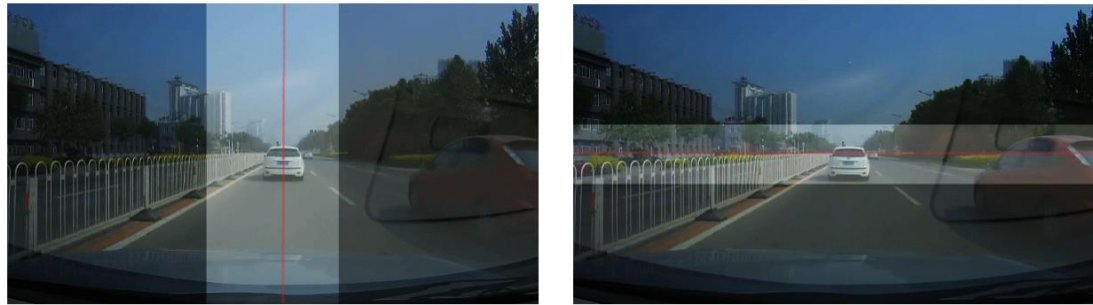
Image 14: ADAS settings

### ➤ How to use the ADAS function?

#### A-Installation and Adjustment

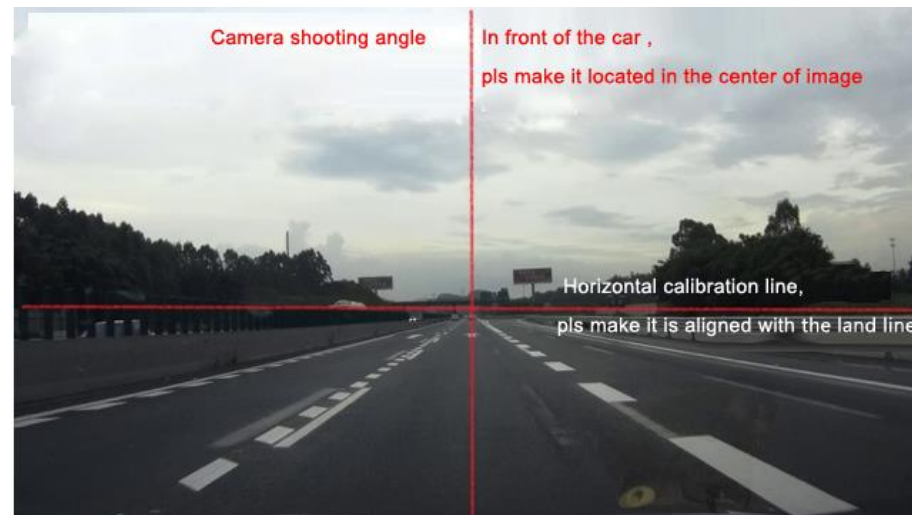
##### A.1. Installation

Finish the installation, we need to adjust the camera location according the image taken by the camera. We suggest the right ahead is in the area  $\frac{1}{4}$  of the image, ground level is in the middle of  $\frac{1}{5}$  area of the image.



**Image 15: ADAS adjustment**

ADAS can run correctly if we meet the above requirement. If the installation deviation is large, the experience may be bad. Also please refer to the below pictures:



**Image 16: ADAS adjustment**

## **A.2. Manual Adjustment**

User can adjust the camera position manually, that will be good to finish the installation quickly.

- Slide the horizontal calibration line, make it is aligned with the land line. Land line means the intersection line of sky and ground.
- Slide the vertical calibration line, make it aligned with the right ahead of the car. Right ahead of the car means vertical connect line of meeting point of the two lane and the middle point of the car engine cover.

## **A.3. Automatic calibration**

First time to use the camera, it need automatic calibration to activate the function.

And we need the follow terms to make the automatic calibration entry into condition.

- Meet the suggested requirement ( large deviation on left-or-right will lead to non-calibrated, vertical or horizontal deviation will lead to non-calibrated or delayed the calibration)
- Driving on the road with the speed more than 20KM/h
- If we all meet the above requirements, the driving time need to be more than 1 minute.

After calibration, ADAS function will enter into use, and the estimated distance will be display above the frame of the ahead car

## **B- LDWS (lane departure warning system)**

### **B.1. Trigger conditions**

- Auto calibration is finished
- Driving speed is more than 50KM/h, and the GPS signal is normal (GPS speed is lower than car dashboard speed)
- The left or right wheel of the car press to the clear driving lane
- The driving turning radius is more than 250m

### **B.2. Warning status output**

Left wheel press to the lane: lane area will turn red with prompt tone

Right wheel press to the lane: lane area will turn red with prompt tone

### **C-FCWS (front collision warning system)**

#### **C.1. Trigger condition**

- Auto calibration is finished
- Driving GPS speed is more than 30KM/h, and the GPS signal is normal (GPS speed is lower than car dashboard speed)
- Car in front is in your car driving path
- The distance between your car and the car in front is less than the safe interval

#### **C.2. Warning status output**

- Primary warning: the distance between you and front car is less than the primary safe interval, car rims will become red
- Secondary warning: the distance between you and front car is less than the secondary safe interval, car rims will become red with prompt tone

#### **C.3. Safe interval**

The weight of the calculation of the safe interval includes the following features:

- Driving speed
- Relative speed compare to the car in front
- Reaction time of driver (default is 1s)

The safe interval calculation system will be based on the above 3 parameters , considering sudden brake from the car in front, and will have enough time for driver for reaction to calculate the safe interval. Safe interval is in proportion to the your driving speed and the relative driving speed from the car in front.

### **D- FVMA (forward vehicle moving alarm)**

#### **D.1 Trigger condition**

- Auto calibration is finished

- Camera installation meet the suggested angle
- GPS speed is 0 and can keep it more than 4s
- The ahead car start to move on from the parking status


#### D.2. Warning status output

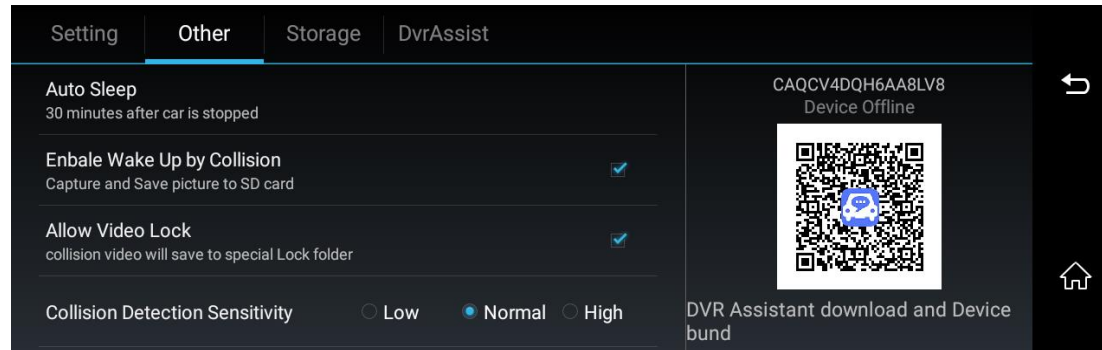
Forward vehicle moving: warning tone

The normal status is as below:



Image 17: FVMA adjustment

7. Other dvr settings, please click  and find “Other”, you will check more dvr settings as below (image 16):



**Image 18: car dvr other settings**

- **Auto Sleep:** set up the dvr automatically sleep time after the car engine is off  
Enable Wake UP by Collision: if enable this function, the camera will automatically wake up and send the alarm photo to your smart phone “CarAssist” app if car collision occurred.  
Remarks: This function need to work with the car assist app.
- **Allow Video Lock:** if enable this function, it will automatically lock the video file when car collision occurred.
- **Collision Detection Sensitivity:** set up the G-Sensor sensitivity to low/normal/high. It will automatically lock the 10 seconds video files before and after the car collision happened during video recording. These locked video files will not be automatically overwritten by Loop recording function in certain time. But if the memory card is almost full, the systems will also start to overwrite the first locked video files and then keep video record. (If no TF card inside, this function don't work)  
Remarks: Please backup the important video/image files in time to prevent it from files accidental damage or to be automatically overwritten by systems.

## Part two: GPS Navigation

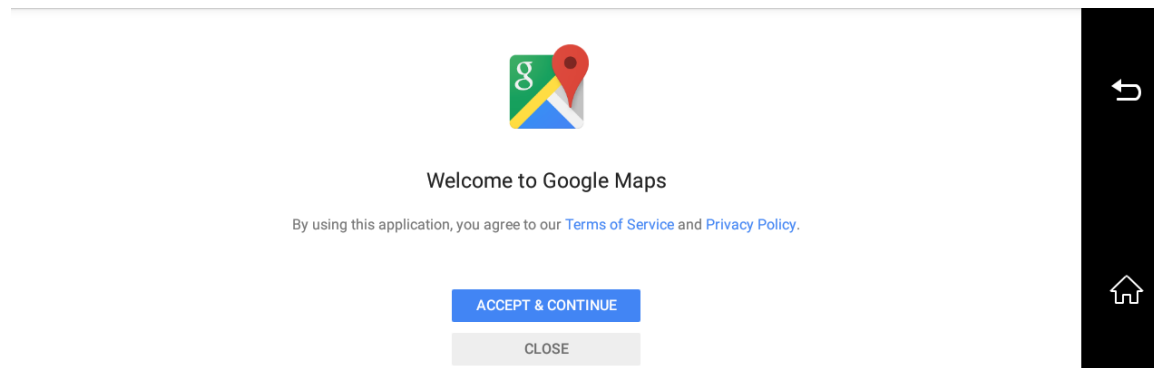


Click the  gps navigation button will enter the default GPS Navigation Map (current default Navigation is Google Maps as like below image 8):

Of course, you could set up other GPS Map as the default navigation from the list. For example “Navitel”, “Waze” and so on.

How to set-up the other default GPS Map as you like? (image 9)

- Firstly, press the “GPS” button for 2-3 seconds, dvr will popup the choice option for GPS default settings.
- And then click the Map option you want, it will set up the default GPS Navigation Map for this dvr. When you enter again the GPS menu, it will be GPS Map you required.



**Image 19: Google Maps**



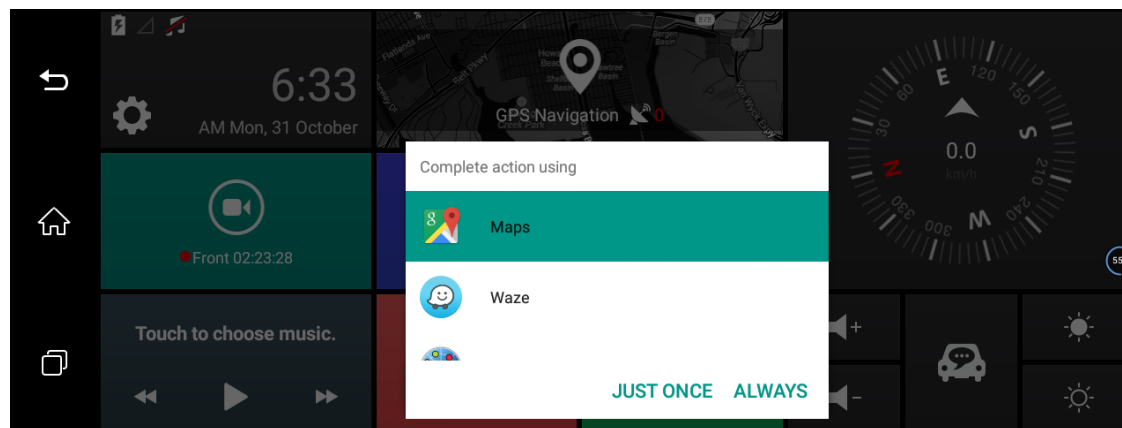



Image 20: GPS navigation list for choice

### Part three: Bluetooth Handsfree function



Click  Bluetooth to enter the following interface: (Image: 21 )

- Click Start Bluetooth: Start the bluetooth function of mobile phone and bind the function after finding “PiBT”, and the pair them. Also you could customize the dvr’s Bluetooth name.
- Then your phone contact list will be synchronized into this dvr automatically.
- You could receive the phone call or make the phone call on the car dvr after bluetooth binding

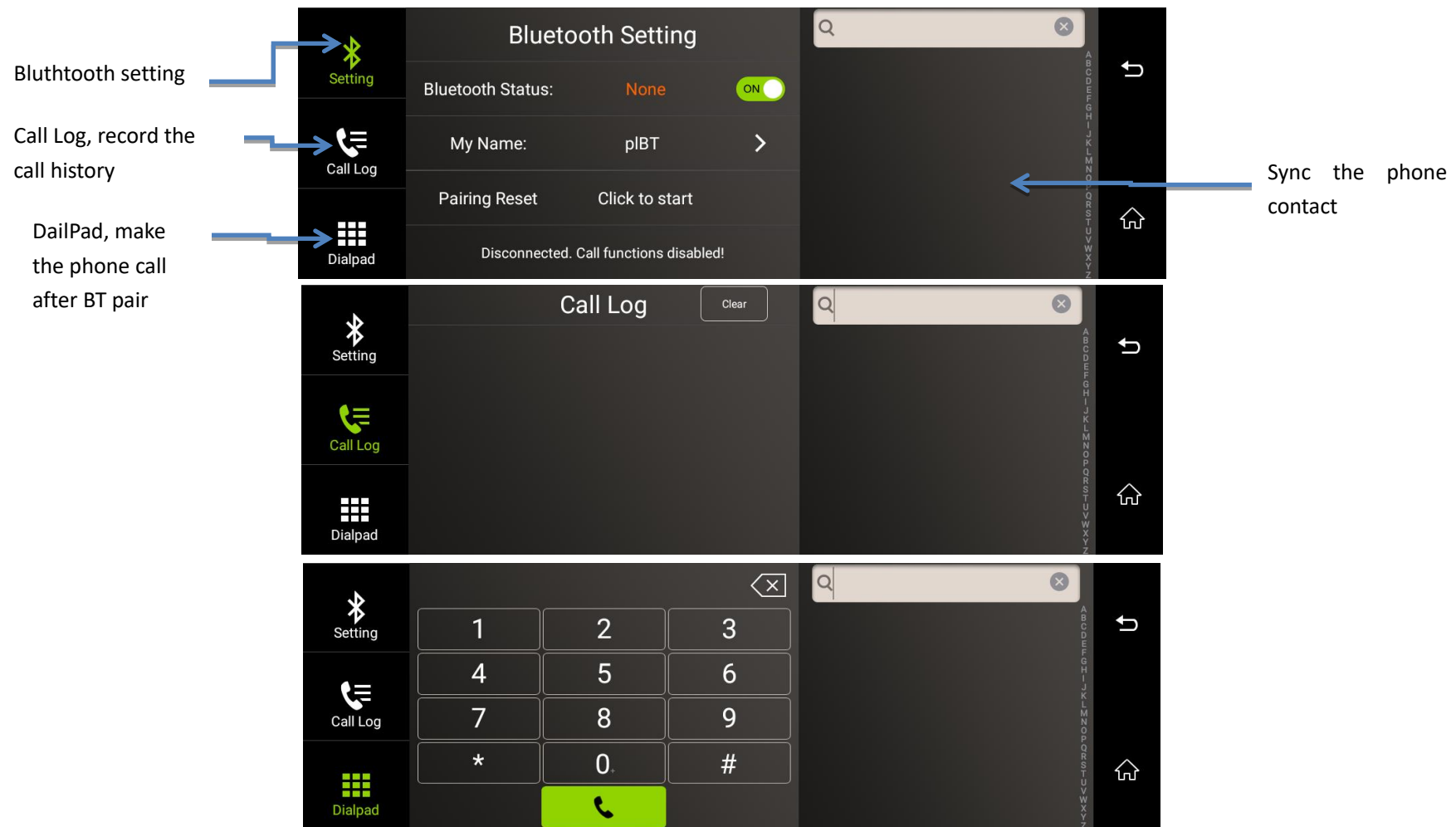




Image 21: Bluetooth Hands-free Menu

## Part four: FM Transmitter function

Click “FM station” button will enter FM transmitter menu (Image 22):

- Firstly select transmitting frequency of FM (eg. FM 100MHZ ) and then click  the FM transmitting has been started.
  - Open a video or play a piece of music and set the radio to corresponding frequency (eg. FM 100MHZ ) for receiving the test.
  - You could adjust the FM frequency only after you turn on the DVR 's FM
  - Click  to close the FM transmitter function , and the DVR speaker will be turn on, you will hear the voice again from the dvr.
- **As the FM transmitter power is limited, and the car radio antenna installation method are different, so that the car original radio sound effect will be different.**

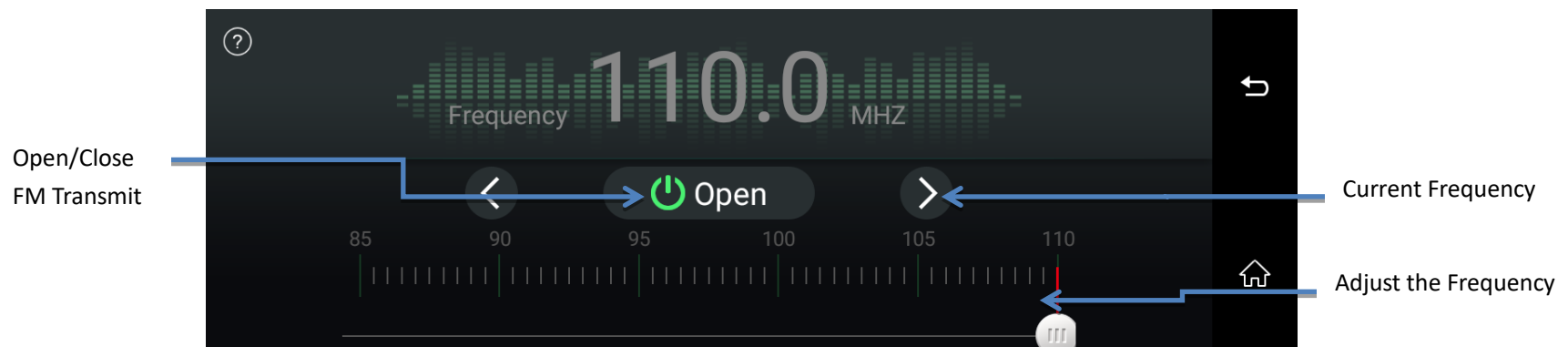






Image 22: FM transmitter menu

## Part five: Multimedia Entertainment function

- Click  music player button will enter Music player interface, you will play your favorite songs.
- If you want to play the video ,please click  car player to play the video files; if you want to check the photo, please enter  gallery button.
- Or, you could check all the files from  “File manager” , include internal storage and external micro sd card files.

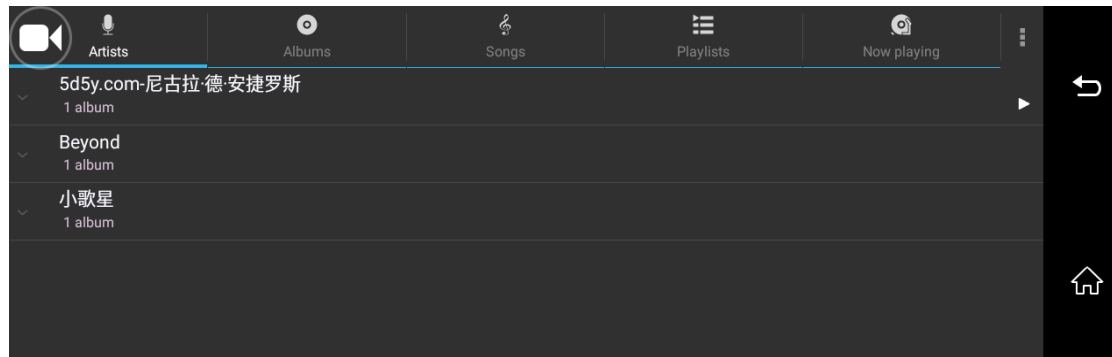


Image 23: Music play menu

- **For safe driving, please don't check the video or photo when you are driving. Thank you.**

## Part five: Android Settings

### 1, Setting include (Image 24) :

- Adjust Volume
- Adjust Brightness
- Online previewing enabled (Only works in 4G mobile network: ON/OFF)
- Auto Scan BT keyboard: ON/OFF
- 4G Mobile Network Statue: ON/OFF
- SoftAP: ON/OFF
- WLAN

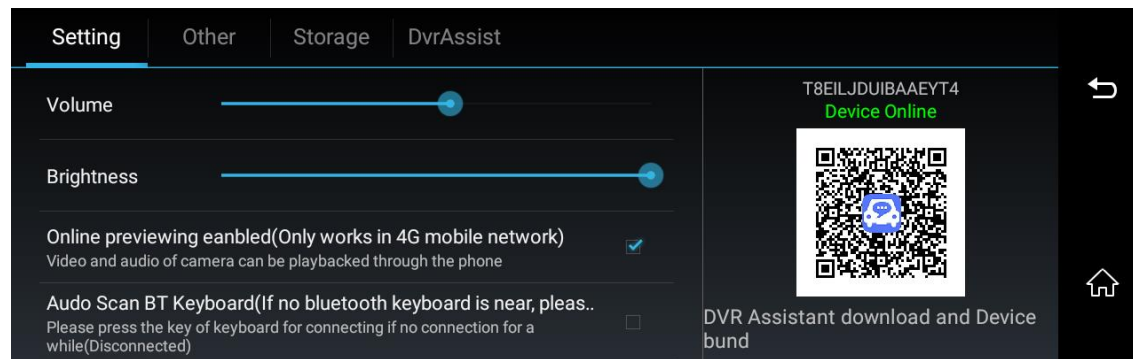


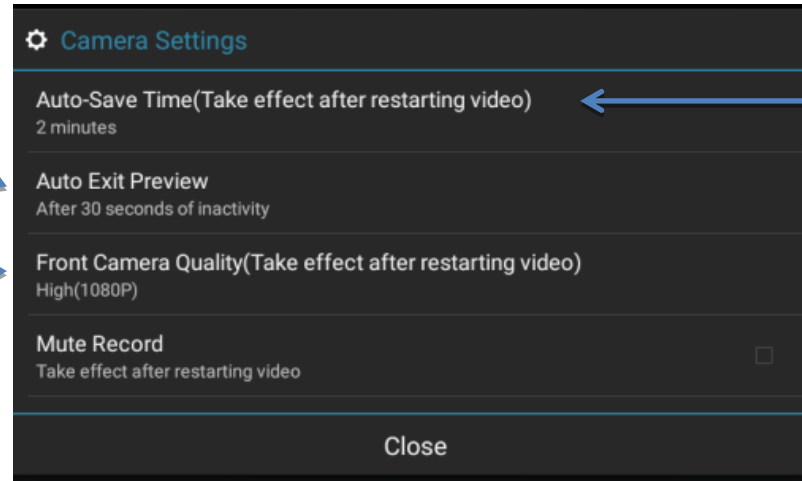
Image 24: Music play menu

➤ Camera Settings(Image 25):

Choose the auto exit Preview time to ensure dvr will not influence driving

Front Cam Video resolution

Voice record or not when dvr recording



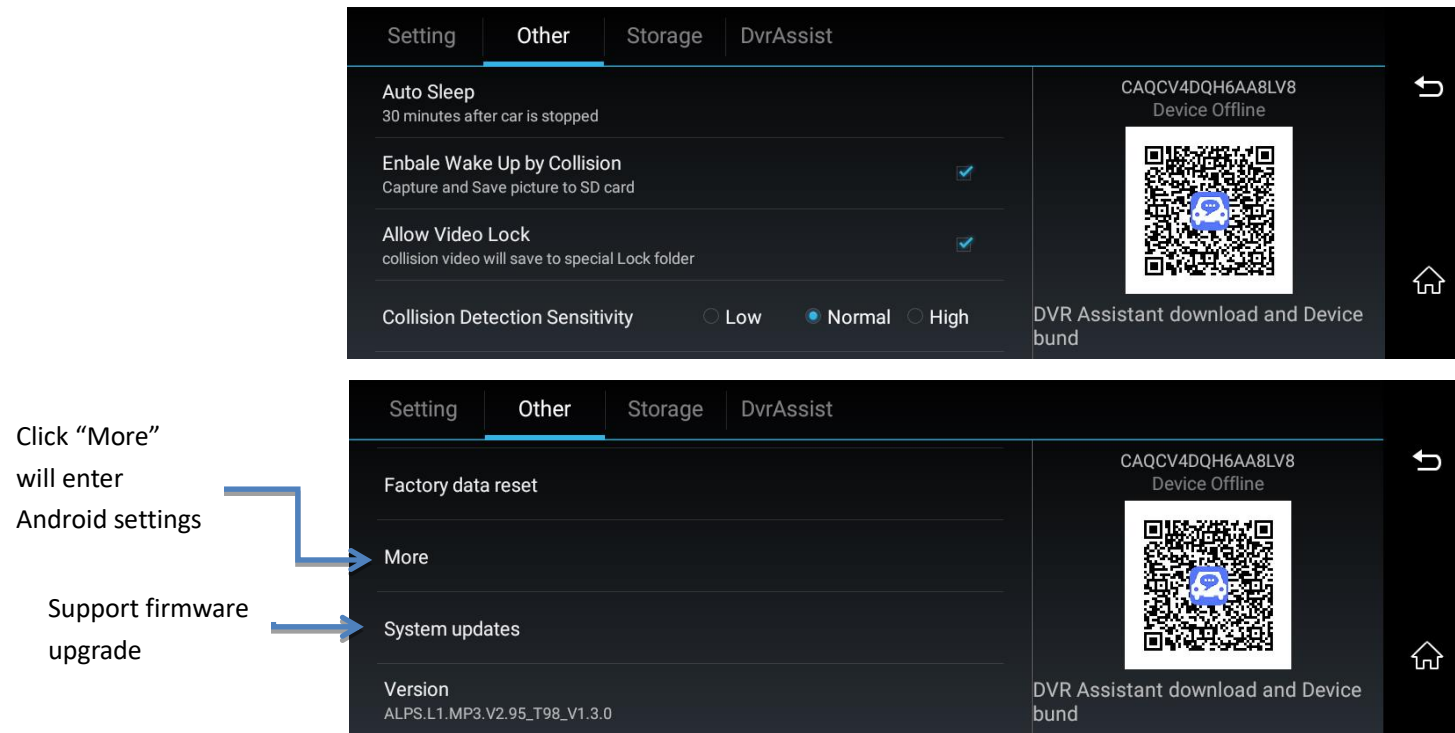
Set up the loop recording video clip time

Image 25: camera settings

**2, Other settings include (Image 26) :**

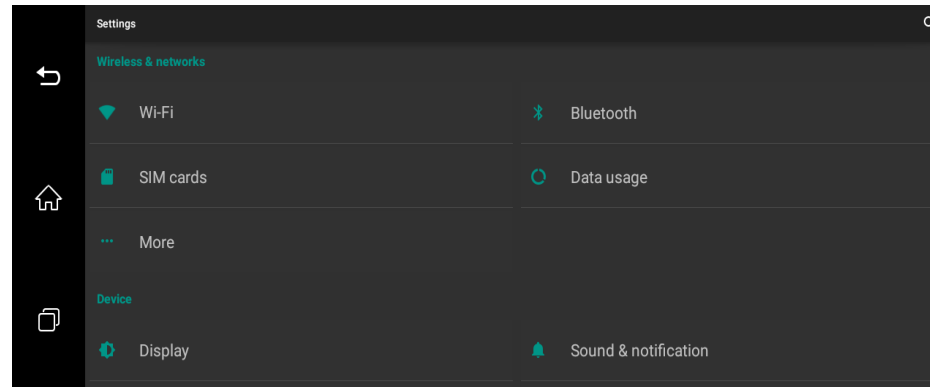
- Auto Sleep: you could set up the dvr automatically enter standby status time after the car stop: 15 mins/ 30 mins/ 60 mins/ Never auto sleep. Suggest to choose 15 mins as the auto sleep time after car engine off, to ensure the car battery will not run out of electricity if when the dvr does not enter sleep mode.
- Enable Wake Up by Collision: when the car collision happened, the car dvr will automatically wake up and start to record 30 seconds video files.
- Allow Video Lock: this is based on dvr G-Sensor function. If choose turn on this function, the collision video will save to special Lock folder.
- Collision Detection Sensitivity: Low/Normal/High. Usually normal is good choice.
- Factory data reset: it will erase all the data you set up and download, will recover to the factory default settings.

- More: click it will enter the android normal settings, include WIF/SIM Cards/Display/Storage/Apps/Language&Input/Date&Time/AboutDevice/Bluetooth/Data usage and etc settings up.
- Systems updates: it support online upgrade to latest version or upgrade systems by local files via TF card .
- Version: DVR current version information.



**Image 26: Other settings**

Click "More" button will enter the android settings as our normal android device, please check below ( image 27):



**Image 27: Android normal settings**

**3, Storage settings include (Image 28) :**

it will display the external sd card/DVR internal storage information;

Also, you could enter Files Management menu list or Format SD card here.



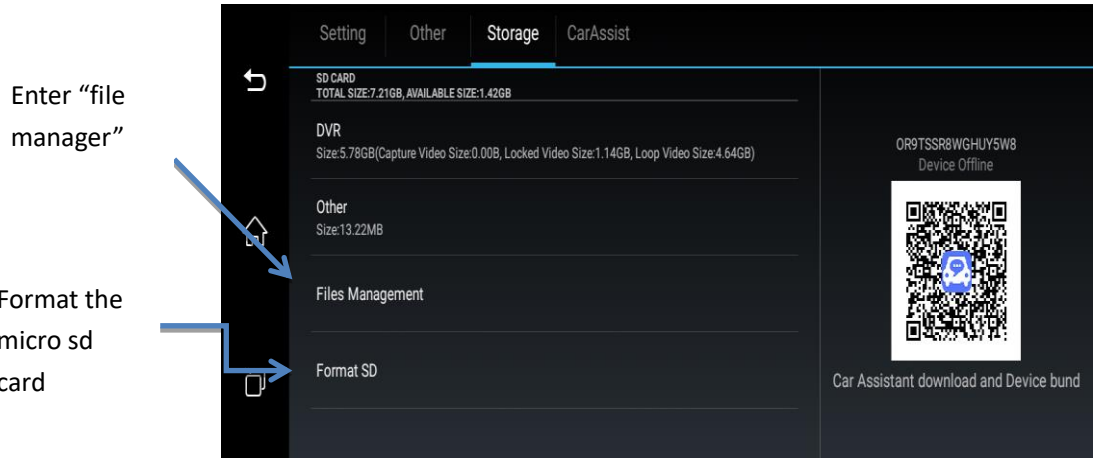


Image 28: Storage settings

- For safe driving, please don't check the video or photo when you are driving. Thank you.
- When dvr recording become slow or bad effect, please try the format SD card.

4, DvrAssist app download QR code and binding (Image 29) :

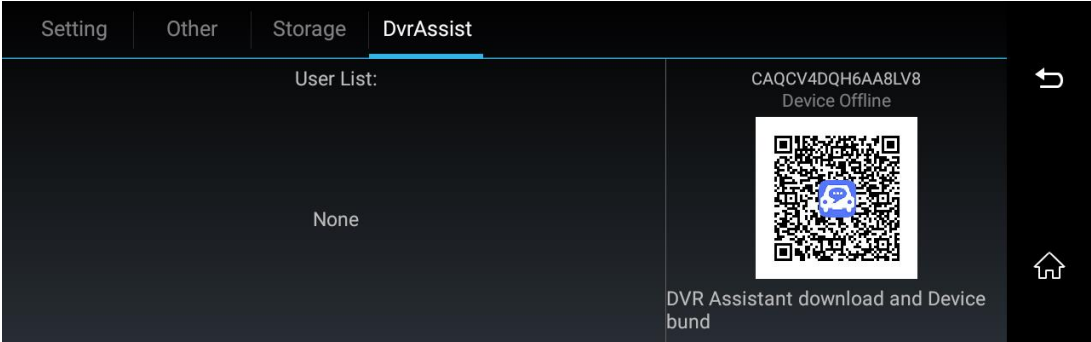


Image 29: car assist app download and device bind

## [How to use the CarAssist app?]

### Part 1: Download “CarAssist” App




Image 30: CarAssist App QRcode

CarAssist app support live time video preview and remote monitor from the car dvr.

CarAssist app works for Android / iOS device. There are 3 ways to download the “CarAssist” app:

➤ **Method 1:**



Click  setting menu to find “DvrAssist” to scan the QR code (image 29 ) by phone to download the app as like image 31:



**Image 31: Scan the car assist app QR code to download the app**

➤ **Method 2:**

Open your smart phone browser directly, input this website: [www.carassist.cn](http://www.carassist.cn) (Now it is one Chinese website page) to download the CarAssist (车车助手)App. And then install this app into your smart phone.



**Image 32: Use the browser to download the car assist app**

➤ **Method 3:**

We also could download the “CarAssist” app from iOS market iTunes app, too

**Part 2: Bind your smart phone with car dvr via “CarAssist” App**

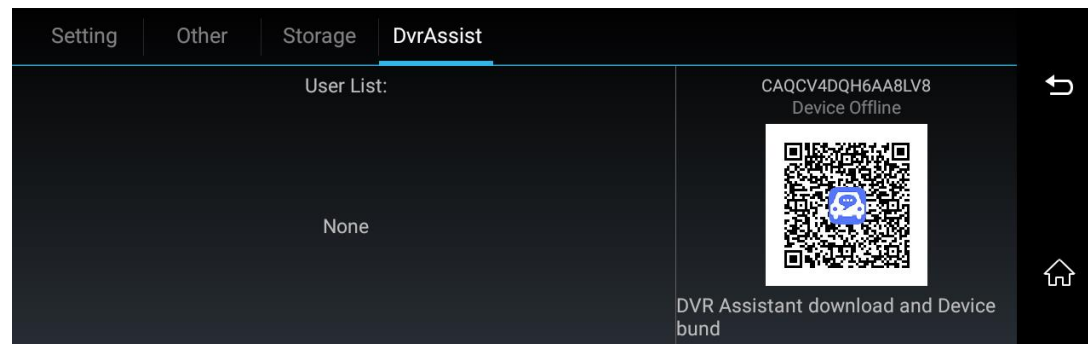
- Turn on car dvr’s WiFi internet or 4G data internet if it is available (if you want to use the 4G data , please insert the SIM card firstly);
- Please enter “CarAssist” app and log in with your WeChat / Facebook account (as like image 33);



**Image 33: Use the browser to download the car assist app**

- Back to “Device Management” on app, and then choose “Scan Device”, and then scan the dvr assist app QR code (image 29);

Also, you could input the device number (eg “`CAQCV4DQH6AA8LV8`”) to bind with dvr.



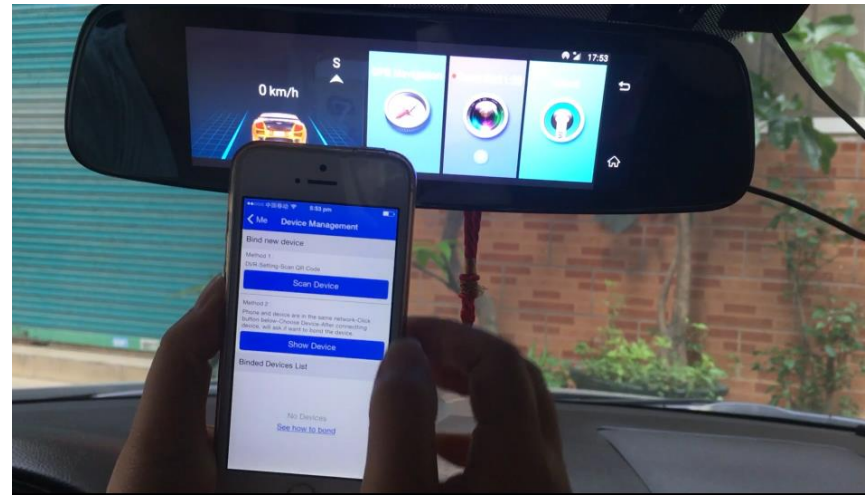


Image 34 : Scan Device

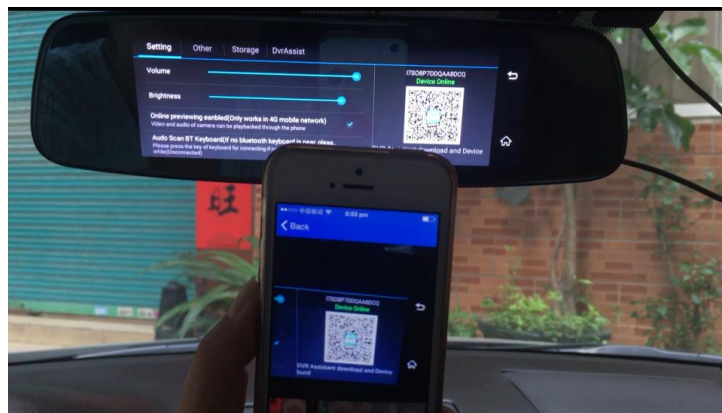
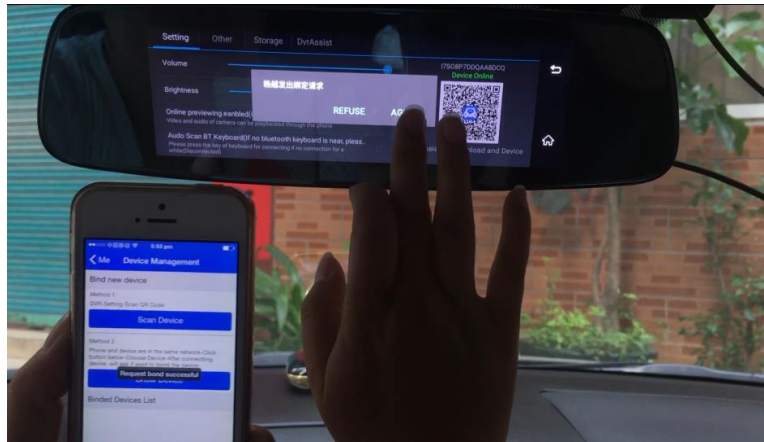


Image 35 : Scan the dvr 's Dvr assist app QR code to bind with phone

- And then the app will send the binding request to the dvr, click “Agree” on dvr will finally bind the phone and camera.



**Image 36 : Accept the binding request on dvr**

After confirmation, your smart phone will be binding with this car dvr. You could start to capture the live time video from the camera via Wifi hotspot connection, or remotely capture the image / video from this camera via 4G/3G internet connection.

### **Part 3: CarAssist App operation interface**

All photos here are for reference only, details are subject to the actual app you downloaded.

Ps: Android OS and iOS version will have a bit difference.

Enter CarAssist app (Android version), it's operation interface as below:

- One-Key 10s Video Capture: please ensure your smart phone already connect with this car dvr's WiFi hotspot. And then you could click “10s video capture” to see the live time video streaming from the camera.
  - Step1: please turn on the car dvr's WiFi hotspot
  - Step2: please click “+” button on car assist app to find the car dvr's wifi hotspot and connect it

- Step3: Click 10s Video capture button, you will see the live steaming video from car camera via wifi connection

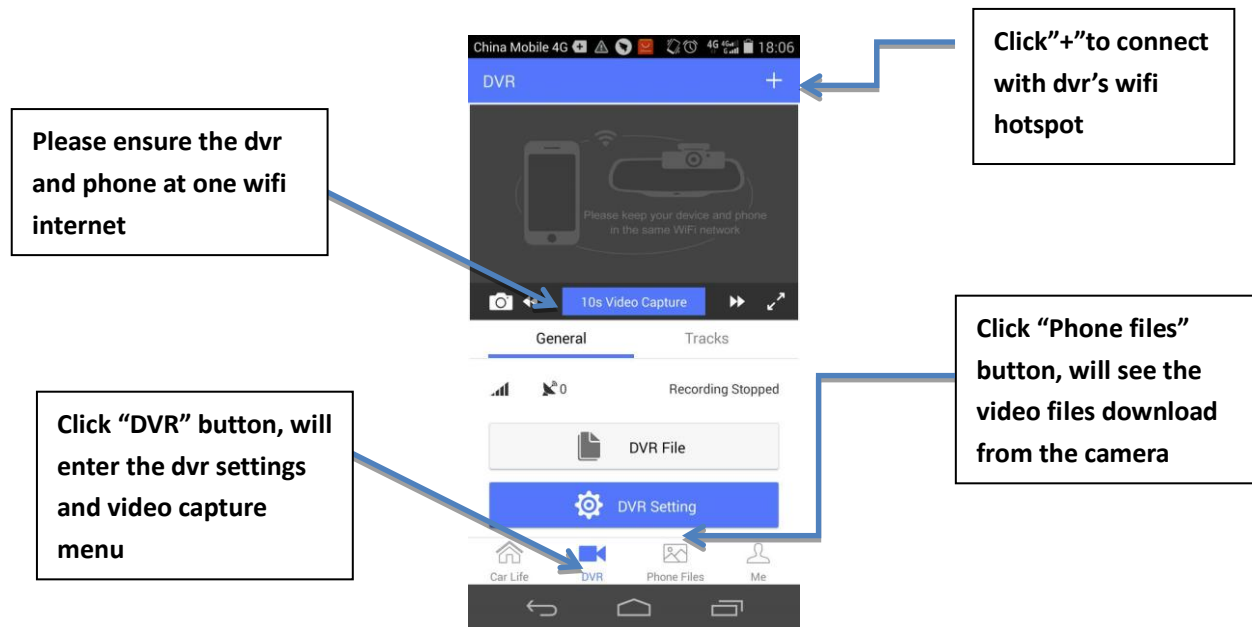
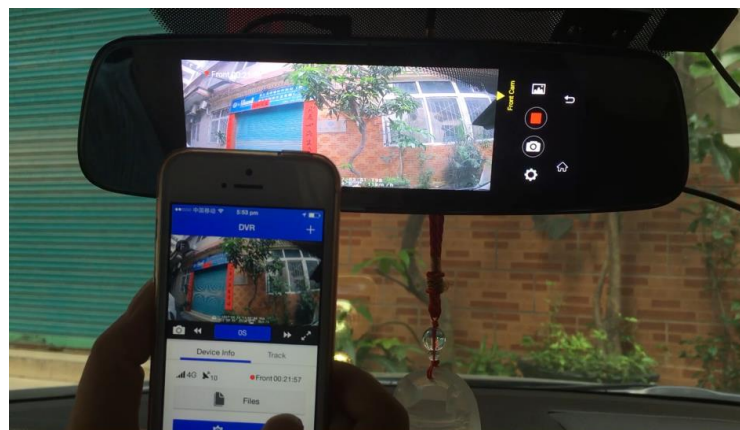


Image 37 : DVR menu





**Image 38 : 10s video capture from the dvr**

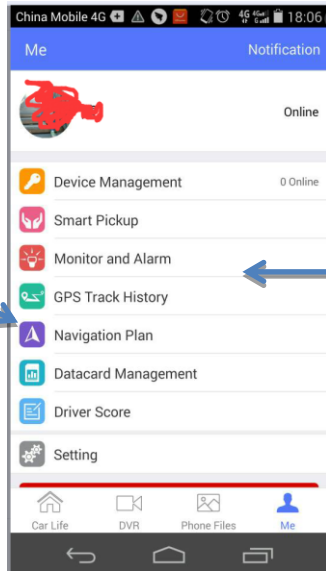
➤ Click “Me” button will enter below interface to run more functions:

Here list the CarAssist app functions:

Ps: as this CarAssist App some functions is based on WeChat , so some functions maybe will not available temporarily. “Null” means it is unavailable for now, but we will update and keep developing it.

- Device Management: after binding with dash camera, you will see the camera device online
- Smart Pickup: Null

Click "GPS Track history", you could track your car driving path history.



"Monitor and Alarm" function is very important for remote monitor

Image 39 : Me menu interface

- Monitor and Alarm: When your car is parking, if car accident or collision occurred, and the camera is under internet connection (4G/ wifi internet available), it will send alarm message and photo to your smart phone, no matter where you are. Plus, you could manually click "Photo capture"/ "Video capture" to see what happened in front of your car in long distance.

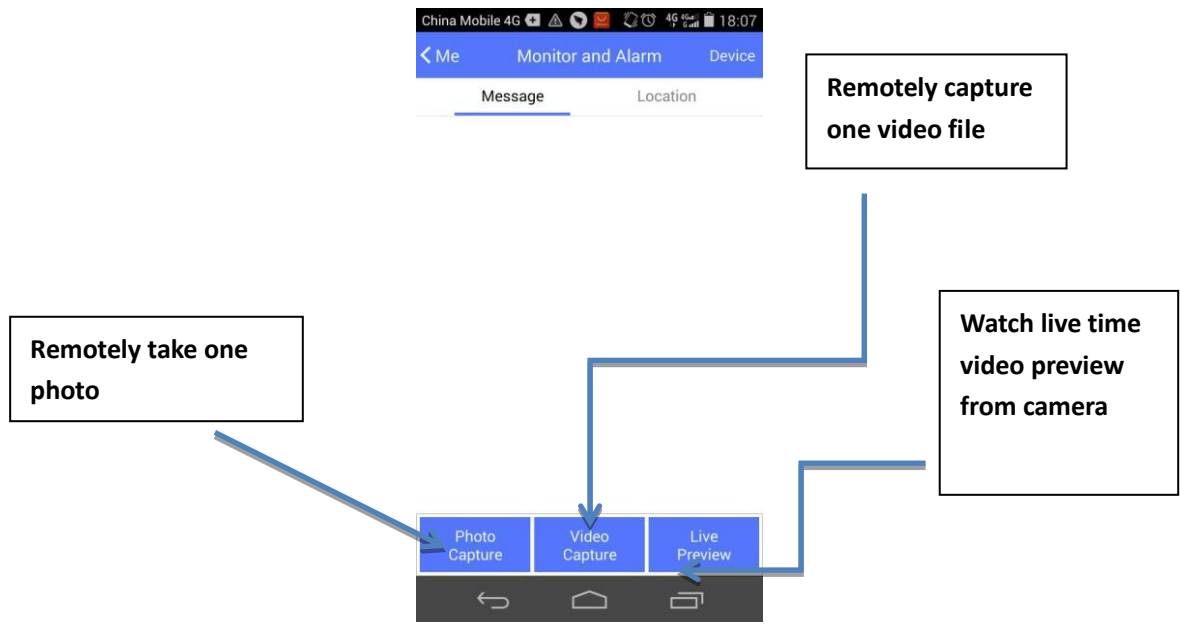


Image 40 : Me menu interface

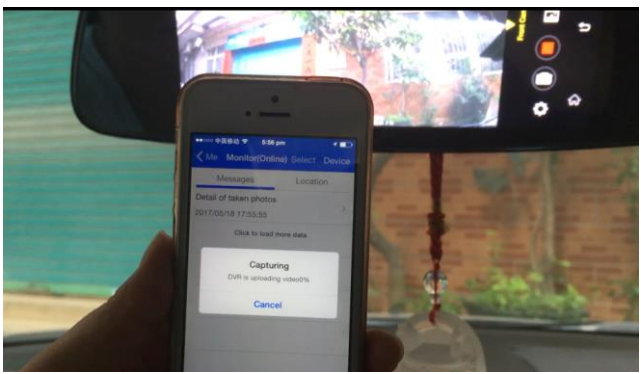


Image 40: Monitor and Alarm video is capturing

- GPS Track history:

Click it, you could track your car driving path history by date.

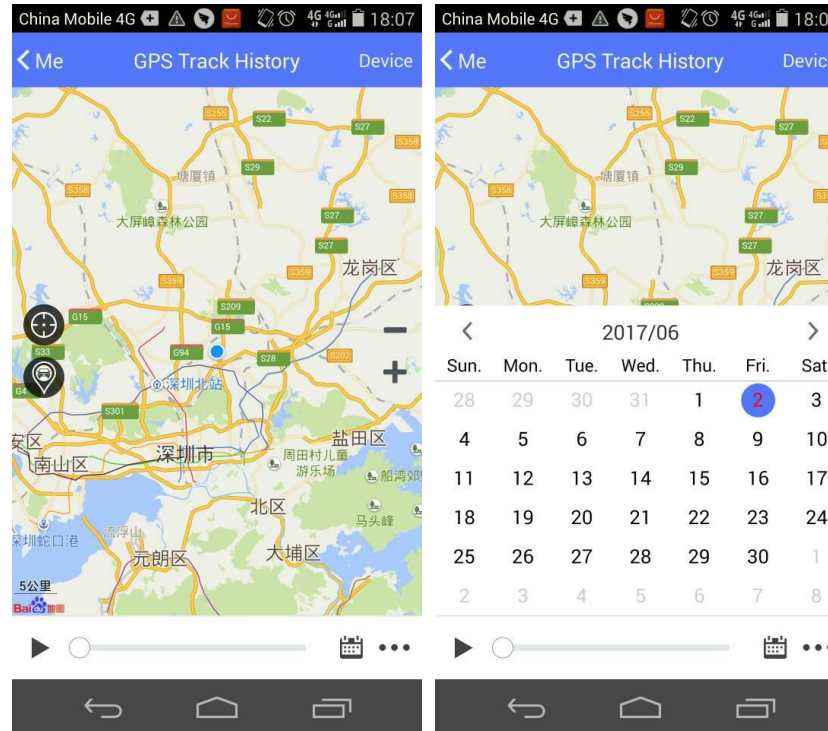


Image 41 : GPS logger track history interface

- Navigation Plan: Null
- Datacard Management: memory card files management
- Driver Score: Null

- Setting: set up the app settings.

## **[Installation Instructions]**

1. Close automobile engine:

2. Insert the Micro SD card into TF card slot

【Notice】 Please use high speed memory card (Class 10), capacity could not less than 512MB, micro sd card maximum support 32GB.

3. Fix the car camera onto the car's original rearview mirror with rubber rings.

4. Plug the car charger into car cigarette lighter.

Connect the car charger with car camera USB port.

【Notice】 Arrange the car charger cable to be laid along the edge of windshield.

6. Install the rear camera on the backside of car, please notice the install direction. Arrange the rear camera cable to be laid along the vehicle roof. After rear camera cable arrangement, please plug into the car camera's AV-IN port.

7. Adjust the camera lens position, ensure the lens level with ground.

8. Start automobile engine, check whether the car camera installation is correct.

【Notice】 If install correctly, system working indicator lights; car camera will enter recording status, video recording indicator flash. Please check whether the screen display image is normal, if it is inverted image, please don't hesitate to contact us.

**This is the car mirror dvr wiring diagram:**

## Mirror DVR Installation

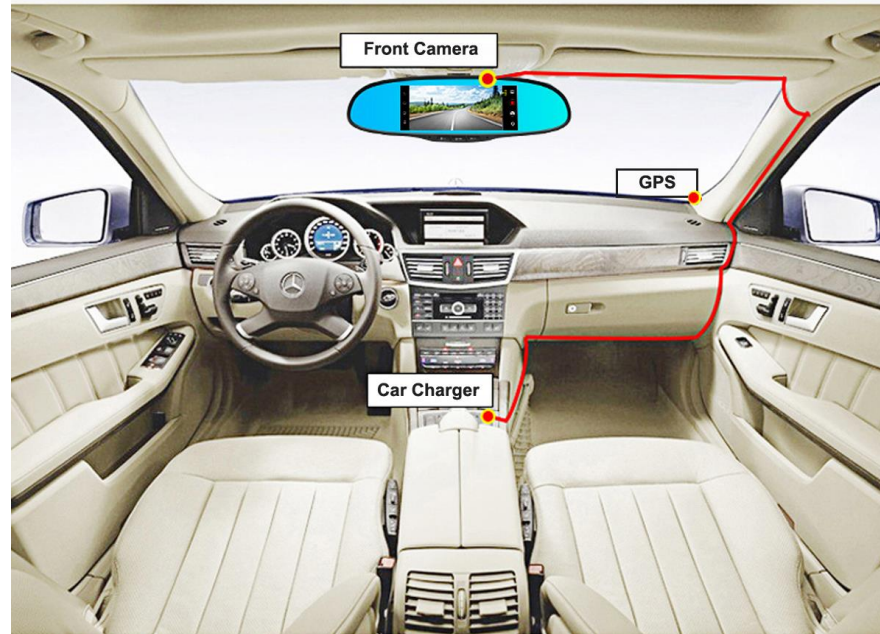


Image 42: Mirror dvr installation wire diagram

## Rear Camera Installation

① Fix it on backside winshield



② Or, install it on car license plate



Image 43: Rear camera installation wire diagram

## [Product Specification]

Product Parameter		
CPU		MT6735, 1.3Ghz, Quad Core A53
OS		Android 5.1
Screen	Display	7.84 inch, MIPI port
	Resolution	7.84inch, 1280*400
Storage	Flash ROM	16GB EMMC
	RAM	1GB LPDDR3
Front Camera		GC2023; 1080P; F=2.0; 6 layers glass; H.264 code; 140 Degree angle view; Support Dual Channels Video Recording
Rear Camera		OV9726; 480P; 4 layer glass; H.264 code; Digital signal rear camera
GPS		GPS+BD high sensor GPS antenna
Network Bands		GSM:900(B8)/1800(B3); WCDMA:2100(B1)/900(B8); LTE: FDD,2100(B1)/1800(B3)
Bluetooth		BT4.0; Receive/make phone call; upload phone book
Multimedia		Audio decoding (MP3, WAV); Video decoding (WMV, AVI, ASF, MOV, MPG, 3GP, FLV,MP4, H263,H264); Photo (JPG, TIFF, PNG)
ADAS plus		Support LDWS: Lane Departure Warning Systems
		Support FCWS: Forward Collision Warning System
		Support FVMA: Forward Vehicle Moving Alarm
WiFi		802.11 b/g/n
Hotspot		Support WIFI hotspot
FM transmitter		Yes
G-Sensor		3-axis G-Sensor
Loop Recording		Support
Parking Monitor		Support



Standby power consumption		7MAH
	Touch screen	Capacitive 5-point Touch
Input/Output	Speaker	Built in Speaker ( power:8Ω/2W )
	MIC	Built in MIC-phone noise reduction
	TF card	Support TF card, maximum 32GB
	USB	Mini USB 2.0 for power supply
Key button		Power button
RESET		Support
powered by	External power	Cigarette lighter power supply, DC 12-24V, the car charger output 5V 3A
	Built -in battery	Lithium battery power
Temperature and humidity range	Temperature	Usage: -30~+70°C
		Storage: -35~+85°C
	humidity	Usage: 4%~90%RH
		Storage: 40%RH
Product Size		290mm x 85mm x 20mm
Package		1x mirror dvr; 1x car charger; 1x rear camera kits , 1x GPS antenna, 1x user manual
<b>Car Assist App for Android/ iOS</b>		
Parking Monitor		Support capture front and rear camera video and image
Real-time preview		Support 1080p video live preview
GPS track history		Support GPS logger path and video synchronous playback
Monitor and Alarm		Support Message / photo alarm if collision happened when car parking
Video download		Support Point-to-point video download to the phone, don't consume internet data

## [Product FAQ]

If the device could not work normally, please check below reason and solutions firstly. If still could not solve, please contact us for warranty. Thank you.

Problem	Reason	Solutions
Could not power on the dvr?	1, After long time shipping, car dvr's battery power used up; 2, Do not connect with power supply 3, Test dvr at home and use other power cable to charge our device, the power is not enough.	1, Please click the RESET button to recover the dvr. 2, After long time shipping, the build in battery power already used up, so please use our standard car charger to plug into the cigar lighter to power supply the car dvr about 3 hours firstly. 3, Please DON'T use the USB cable/phone power cable/Other factory dvr's power cable (which less than 2A current) to power charge our device, because other power cable's current is not enough. 4, If above solutions still don't work, please contact us for the firmware upgrading. Thank you.
Why the dvr always automatically sleep?	The car dvr will automatically go to sleep mode within 5seconds if disconnect with power.	Why this car dvr set up the function of auto sleep within 5 seconds if disconnect with power? Because it could protect your car battery and save the power for remote monitor function via car assist app , after dvr disconnect with power supply. So, If you want check the car dvr working, please connect with our standard car charger to power supply the car dvr firstly.
The screen could not be touch operating or white screen or flick screen, jump screen?	1, The dvr battery has no enough power 2, Firmware problem	1, Click the RESET button to reboot the dvr. 2, Do not use other power cable to power supply our device instead of our standard car charger 3, If above solution still don't work, please contact us for firmware flashing.

Problem	Reason	Solutions
DVR is always hangs on the android	Firmware problem	After charging, if it is still the same, then that's the firmware reason, please contact us for free firmware flash.
FM radio don't work?	This car dvr support FM transmitter function, not FM Radio.	<p>How does the FM transmitter work?</p> <ol style="list-style-type: none"> <li>1, Please power on the FM transmit.</li> <li>2, Choose one FM frequency , eg: set up the FM 98.7 or other frequency which will not receive any your local Radio signal. A</li> <li>3, Set up the same FM frequency 98.7 on your car Radio.</li> </ol> <p>When you play the music or video , the car dvr's sound will be Synced to your Car Radio to play out.</p> <p>Meanwhile, the car dvr 's speaker will be automatically turn off, too.</p>
Video Playback no sound?	<ol style="list-style-type: none"> <li>1, Turn on Mute Record</li> <li>2, Power on the FM transmitter function (the dvr 's speaker will be turn off)</li> <li>3, Adjust the volume to the minimum Zero</li> </ol>	<ol style="list-style-type: none"> <li>1, Turn off the Mute Record function</li> <li>2, Power off the FM transmitter function</li> <li>3, Adjust up the volume</li> </ol>
Unable to make video recording?	<ol style="list-style-type: none"> <li>1, Have not inserted the TF card or incorrect card insert way .</li> <li>2, Bad quality memory card or card is damaged</li> <li>3, Too many locked video files lead to the card is full.</li> </ol>	<ol style="list-style-type: none"> <li>1, Please format one new memory card before using it, and then follow the card insert direction into the TF card slot. When insert the card, please turn off the car dvr firstly.</li> <li>2, Please use high speed C10 good quality card or change to one new card to test.</li> <li>3, Please format the memory card if the card storage is full. And set up the G-Sensor sensitive to low.</li> </ol>

Problem	Reason	Solutions
Video quality is not clear?	1, Camera lens or the window front windshield is not clean 2, Did not tear off the camera lens 's protective film 3, Camera lens 's shooting direction is not suitable	1, Clean up the front lens and front windshield 2, Tear off the camera lens protective film 3, Adjust the camera lens shooting direction
Play back the video is slowly?	1, TF card speed is too low 2, Bad quality memory card	1, Please use the Class10 high speed micro sd card 2, Format the card or change to one new card
Screen light is off, but there is sound from dvr?	Turn off the screen light or dvr enter the sleep mode	Press power button, light up the screen's background light.
Mirror dvr operation is slow	1, Too many running application 2, Install too many application	1, Please close some application which temporarily is not used 2, Please uninstall some applications 3, Please contact us for firmware flashing
No image from rear camera?	Rear camera connection problem	Please check the connection between back camera with the cable; and check the AV in port connection stable. Also, please insert the rear camera firstly before powering on the dvr
Auto reverse function don't work	Did not connect with the car reverse lamp power's positive pole	1, Please connect the rear camera's Red wire with your car reverse lamp power 's Positive pole(+). 2, Plug the car charger into the cigar lighter to power supply the car dvr. When you get your car in Reverse Gear, the car dvr will automatically switch to the rear camera with parking line. Then the auto reversing function will work.

Problem	Reason	Solutions
DVR crash?	Caused by Abnormal operation	1, Click the Reset button 2, Keep pressing 3 seconds power button to restart the dvr 3, Click android settings—More—enter android settings to recover to the default settings.
Loop recording don't work?	1, Playback the video files on the dvr 2, Too many locked video files	1, If you playback the video files on dvr, yes, it will display with one whole video file. It seems like record one big video , but actually it include one and one video clip by 1 min/ 2mins/ 3mins. 2, Please format the memory card and set up the G-Sensor to low sense.
GPS navigation could not work ?	1, Did not install the GPS Map or the Map is corrupted 2, Test the GPS indoor so that could not search the GPS satellites signal 3, GPS antenna installation way	1, Please install the Map into the dvr firstly (If factory already pre-install the map, then no need to install it again) 2, Please test the GPS outdoor to search the satellites. 3, Please install the GPS antenna as far as it could from the dvr , and the GPS's side face to sky
The SIM card could not be recognized?	1, Did not insert the SIM card 2, Insert the SIM card by wrong direction 3, SIM card network band don't work for our device 4, Insert the SIM card under dvr sleep mode	1, Please check whether your micro SIM card network band works for our device. The network band support: <b>GSM900(B8)/1800(B3);WCDMA:2100(B1)/900(B8);LTE:FDD,2100(B1)/1800(B3)</b> 2, If insert the SIM card when dvr under sleep mode, dvr could not recognize the SIM card. So, Please turn off the car dvr firstly, and then click RESET button to restart dvr, and then insert the micro SIM card again. 3, Make sure the car is power off, and then insert the SIM card by correct direction marked on the device (More Details , please check the user manual again)

<p>Could not bind the dvr with smart phone via CarAssist app?</p>	<p>1, The car dvr has no internet available 2, Smart phone has no internet , too</p>	<p>1, Please turn on the DVR's wifi or insert the SIM card make the internet available 2, Make sure your smartphone also has internet available , no matter wifi or 4G/3G data internet</p>
<p>Could not capture 10s video on the CarAssist App?</p>	<p>The DVR and your smart phone is not in the same internet</p>	<p>1, Please turn on the dvr's WIFI hotspot 2, Switch on your smart phone's WIFI 3, Log in the car assist app , click "+" button on the app , will find the DVR's wifi hotspot and then connect it, and then click 10s video capture button to take the video</p>

