



User manual of

PEKSUNNY DVR IV Dash Camera

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Name definition

DVR IV: the abbreviation of Peksunny dash camera DVR IV, in which the front camera will power on and drive the rear one. And when it is used to correspond to the client, it means the front camera.

Dash camera: the name of product category that DVR IV belongs to.

Client: refers to the smart device used to connect with the traffic recorder via Wi-Fi, including smart phones and tablets. Because of the different operating systems, they are divided into iOS, Android and Harmony ones.

Peksunny On Road: the APP used as UI of DVR. The APP Peksunny On Road of DVR IV will automatically be compatible with DVR II and DVR III.

Micro SD card: also named as TF card generally. In the audio announcements, TF card is used.

Symbols used



Denotes warnings that you absolutely must heed.



Denotes instructions that draws your attention to special features.

Cleaning

Do not use irritant chemical liquids to clean the surface of DVR. And wet napkin or soft cloth is recommended.

General information

This dash camera is a product selected by Volvo Cars.

Peksunny reserves the right to change or modify the content of this User Manual and has no liability to notify the change if any.

Before using the product, please read this user manual and understand all knowledge about operations and safety.

Please use the product properly within the scope defined by this document.

If there is complaint about the product or any question about how to use the product, please contact local dealers of Volvo Cars.

To improve user experience, we will keep updating software of APP and DVR, please pay attention to version status of software of APP and DVR from time to time.

For more information about how to use this product, like FAQ, please refer to User Manual for APP Peksunny On Road.

Safety information

DVR IV may only be installed by a Volvo Cars workshop.

The Peksunny On Road app must not

be used by driver during driving.

The working temperature range of DVR IV is -30°C-85°C. When the ambient temperature reaches 85°C, DVR IV will play prompt audio "Shutting down due to high temperature" and then powers off.

Give all the documents to the next owner if you sell or pass on the device and please ensure that the internal storage and TF card if inserted have been formatted and restore the device to factory settings before you hand over the device.

Legal information

You as the user bears the sole responsibility for familiarizing himself with the local legal regulations for using DVR IV and the Peksunny On Road app. You must familiarize yourself with the current law in the country he intends to use DVR IV. You must find out whether and how its use is permitted or not and comply with the local regulations by checking at regular intervals.

Video or picture, using DVR IV, of public places, or containing information taken without consent, sensitive to personal privacy, like human face or vehicle number plate of other party irrelevant to the safety of your car, must not be published on the internet or other sources.



The legal regulations must be always observed and are subject to change. Please check at regular intervals whether the use of DVR IV and the Peksunny On Road app is permitted in the country where you are in. The cameras can be switched to non-continuous recording mode or removed if it is banned in a special location.

Warranty information

The warranty period is 24 months, starting from the day of purchasing this product, which is determined by time information recorded in the invoice by the dealer of Volvo Cars.

If DVR IV is purchased from the dealer of Volvo Cars, within 1 month after new car starting usage or less than 1,500 km mileage (the earlier one matters), the product will enjoy the same warranty with the vehicle.

The new part to change the old one due to warranty during warranty period will continue consume the rest of the warranty period of the old part till the end.

Please do not try to open the product or fix it by yourself, or it will influence the warranty terms of the product.

APP update

When there is new update for the APP available, Peksunny On Road will appear in the updates list in app store on your smart device. You can choose to make the update.

Firmware updates

DVR IV supports firmware updates by OTA via Peksunny On Road.

Peksunny On Road will keep detecting and recording the version status of software for DVR available on the cloud. And in every connection with DVR, Peksunny On Road will automatically detect the version status of software in DVR and compare it with that from the cloud. If the version of software in DVR is older, a reminding with "New version of firmware available" will show up in the relevant page of Peksunny On Road. And the user can follow the steps to update the software in DVR.

Please connect the DVR with Peksunny On Road in the smartphone from time to time for the latter to detect the version status of software in DVR and keep update the software of DVR.

During updating the software of DVR according to the steps reminded by Peksunny On Road, please ensure sufficiency of battery level, >50% as suggested, and connectivity of network of the smart phone.



During updating of DVR software, please ensure DVR powered on continuously, or DVR could be damaged by power-off to break the warranty terms of the product. Please keep power-on till "Updating successfully" prompt heard.

Recording mode

Continuous recording mode: once power on, DVR IV will start to record continuously and save files into storage automatically.

Non-continuous recording mode: to meet requirements of local law where DVR IV works, DVR IV will only start to record when G-sensor built-in detects acceleration due to emergent braking or impact of vehicle and save the files into storage automatically.

When DVR IV detects the language used by the smartphone in Wi-Fi connection is Germany, DVR IV will switch into non-continuous recording mode automatically. And when other languages detected, DVR IV will shift to continuously automatically.

Long pressing PHOTO and POWER

buttons at the same time for 1 second can make the switch between the above two recording modes, and with prompt audio playing.

Parking mode

When engine is off, in parking mode, in case of being impacted by other objects and sensed by G-sensor built in DVR, DVR will automatically power on and start recording with the front and rear camera at the same time. After recording for 30 seconds, DVR will power off automatically till next arousing.

Automatically audio prompt: If there is video recorded in parking mode, when DVR power on for the next time, DVR will automatically prompt with audio announcement as "There may be collision, please check the body and video".

The sensibility of G-sensor in parking mode is set as "Middle" as default setting. And the sensibility can be adjusted in the setting interface of APP.

To take good use of the storage volume, the number of video files locked and marked with "Event",



Please check at regular intervals whether camera in vehicle is permitted to be on in parking mode where you use the vehicle.

recorded in parking mode or in emergency is 30 totally. The previous video files older than 30 will be covered automatically.

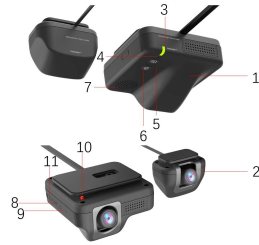


Not every incidence about the vehicle will trigger the G-sensor built in DVR and not every recording in parking mode is related to incidence.

Parking mode is off as factory default, therefore if the user wants to use this function, he needs to turn it on in the APP.

Parking mode could cause current consumption increasing to in-vehicle battery, which will be notified to and confirmed by the user when it is being turning on in the APP.

Product and button operations



1. Front camera
2. Rear camera
3. LED 1
4. MIC
5. POWER
6. PHOTO
7. Speaker
8. Micro SD socket
9. RESET
10. LED 2
11. Micro USB

Mount/dismount the front camera



Mount: put the front camera in position of the slot and then push the camera to the left direction when click sound heard, meaning in good position of installation.

Dismount: pull the right side of the front camera away from the windshield a little with the fingers of the right hand and at the same time push the camera to the right direction with the other hand, the front camera can be easily dismounted from the tape.

Mount/dismount the front camera



Mount: put the rear camera in position of the slot and push it the left direction to the end.

Dismount: push the rear camera to the right to dismount the camera from the tape.

Operations of DVR IV

1. Front camera

The front camera is to be installed on the inner surface of the front windshield of the vehicle with tape pre-assembled on the front camera. The area to the right side of City Safety is recommended. The front camera will be connected to the junction box of vehicle and powered on and supply power to the rear camera.

2. Rear camera

The rear camera is to be installed on the inner surface of the rear windshield of the vehicle with tape pre-assembled on the rear camera. The rear camera will be connected to the front camera via the rear camera connection harness.

3. LED 1: status indicator

Boot status: green light on, accompanied by a boot prompt playing (which can be turned off or on in the APP settings) when DVR is in boot status.

Recording status: The indicator flashes with green light in 0.7-second cycle when DVR is in video recording status.

Software updating Status: (Software updating of DVR): Green light flashed rapidly till boot prompt tone playing

and upgrading finishing.

USB mode: when connected with computer via Micro USB data cable, DVR plays "switch to USB mode and stop video recording" (when DVR power on) , and then switch to USB mode. When the USB connection is successful, "removable disk" will appear on computer and the indicator light will be changed to always red light on.

APP connection status: when APP in client connects with DVR, the indicator flashes with yellow light in 0.7-second cycle.

4. MIC

Audio recording: Audio will be recorded at the same time with video recording, which can be turned on or off optionally in the dash camera settings by user.

Voice Control: DVR IV has voice control function. When "Take Photo" as a voice control instruction spoken by passenger with normal speed and heard by DVR, both cameras will take a photo automatically and record a video like with 5 seconds before and 5 seconds after, totally 10 seconds. The lengths of video can be adjusted in APP settings. And if Auto download is turned on, the pictures and associated video will be downloaded into album of APP automatically.

5. POWER

Power on/off: User can use this button and choose to turn on or off DVR in case of engine on.

Long press for 3 seconds to power off.



When first connection to APP and DVR IV detects the language used by the smart phone being Germany, DVR IV will automatically shift into non continuous recording mode.

When other languages detected, DVR IV will work in continuous recording mode, the default one.

The user can make the shift between continuous recoding and non-continuous recording modes in APP settings or by long pressing both PHOTO and POWER buttons at the same time for 1 second.

6. PHOTO

Photo-taking: when lightly one press the Photo button, both front and rear camera will take a picture simultaneously and record a video with 5 seconds before and 5 seconds after, totally 10 seconds. The lengths of video can be adjusted in APP settings. And if Auto download is turned on, the pictures and associated video will be downloaded into album of APP automatically.

Wi-Fi frequency shifting: the photo

button can be used for Wi-Fi frequency shifting as well. When long press for 2 seconds on the Photo button, Wi-Fi frequency can be shifted between 2.4GHz and 5.8GHz with audio prompt playing. The Wi-Fi frequency in factory setting is 2.4GHz. When 5.8GHz used, the download speed from DVR to client will be much higher than that at 2.4GHz.



For the sake of safety, drivers are not advised to take photos through the Photo button during driving. But speech control can be used to order DVR to take picture.

7. SPEAKER

Speaker of DVR IV, used for kinds of audio prompt or announcements output.

8. Micro SD socket

The front dash camera reserves a Micro SD socket for user to insert a Micro SD card to extend the storage and duration of recording.

When a class 10 Micro SD card is inserted, DVR will automatically reformat it after power on.

After re-formatting finishes, the Micro SD card can be used normally.

Automatically copy and paste: when the internal storage is full, DVR will automatically do “copy-and-paste” to

move the files from the internal storage to Micro SD card, the external one and then delete them in the internal storage. But the "copy-and-paste-and-delete" operation does not relate to files locked by "Event" mark in the internal storage. During working of DVR, the above "copy-and-paste-and delete" operation will be repeated for every loop of internal storage.

When DVR connects with APP in client, all the files in both internal storage and Micro SD card can be viewed and replayed.

When Micro SD card is picked out of DVR and insert into computer, the files can be viewed as following:

- "200Video\front": the video files recorded by the front camera
- "200Video\rear" : the video files recorded by the rear camera

Batch copy files to Micro SD card: if it is needed to batch copy files from the internal storage to Micro SD card, an empty Micro SD card can be inserted into DVR in power-off status and after power-on, enter "Setting"->"Copy files to TF card", and choose the files to finish batch copy.

9. RESET

Restore to the factory settings, long press for 2 seconds with a small

thimble to restore to the factory settings.

10. LED 2: indicator to outsiders

Towards outside and red light on when DVR IV powers on and flashes when recording, to remind the outsiders that dash camera in vehicle is recoding.

11. Micro USB output

When DVR connects with computer via USB data cable, "removable disk" will appear on computer.

The files recorded will be found in directory "computer\removable disk\DICM", in which,

- "200Video\front": the video files recorded by the front camera
- "200Video\rear" : the video files recorded by the rear camera
- "201Photo\front": the photos taken by the front camera
- "201Photo\rear": the photos taken by the rear camera



To avoid failure of Micro SD card, the user would be suggested to buy genuine Micro SD card with high-quality brand, Class 10, 128GB or below.

The Micro SD card needs to be reformatted every 6 months to ensure the full function.

As every Micro SD card has life limit, please keep checking its working status regularly.

Please do inserting and picking out Micro SD card when DVR power off to avoid data losing and mistakes.

APP: Peksunny On Road

APP download and installation

Android device

Search and install Peksunny On Road in Google Play, download and install Peksunny On Road.

iOS device

iOS users can search for "Peksunny On Road" in App Store and download.

Harmony device

Search and install Peksunny On Road in App Gallery, download and install Peksunny On Road.

Connect the client to DVR

Android/Harmony device

"Setting"->"WLAN"->"PS_DVRIV_XXXX", (the last four digitals in name of Wi-Fi hotspot of DVR are dynamic according to serial number of Wi-Fi module used in DVR) and use the initial pin code as "1234567890", which can be changed by user in the APP.

Enter homepage of Peksunny On Road and press "+" in the right upper corner to add "PS_DVR IV_XXXX" and then make the connection with the client.

If shifting to 5.8GHz Wi-Fi, the name of WLAN will change to be PS_DVR IV_XXXX_5G.



To ensure smooth connection with Wi-Fi, please turn on Location Services and open all accesses as shown in the pop-up windows during installing the APP.

iOS device

"Setting"->"Wlan"->"NETWORKS"->"PS_DVRIV_XXXX", (the last four digitals in name of Wi-Fi hotspot of DVR are dynamic according to serial number of Wi-Fi module used in DVR) and use the initial pin code as "1234567890", which can be changed by user in the APP.

Enter homepage of Peksunny On Road and press "+" in the right upper corner to add "DVR IV_XXXX" and then make the connection with the client.

Connection to client

Every DVR has pin code to access to Wi-Fi connection and Peksunny On Road will verify the pin code to approve the connection.

To protect the privacy of files in DVR, the user is strongly suggested to change the pin code after Wi-Fi connection is made.



If the pin code is forgotten, long pressing “Reset” with a pin for 2 seconds can restore DVR IV to factory setting with the initial pin code as “1234567890”.

Realtime viewing, replay and download

Realtime-viewing: choose “Play” button to do real-time viewing after successful connecting and shift to full display when choosing Full display or Landscape mode.

Shift between front/rear cameras: press shift button , you can choose to watch real-time viewing from the front camera or then rear one.

Replay: in the Full display interface, drag the progress bar to the left, or slip the finger to the left or right in the middle of screen, we can enter Replay mode and choose the thumbnails or timing points to replay the video you would like to watch.

Picture download: In Realtime viewing interface, press button, then enter a list of files for photo and video ready for download. Touch the files you’d like to download, then download will be done.

Video download: In Realtime viewing interface, press button, then enter thumbnail interface, drag progress bar with a finger, you can choose any video as long as up to 3 minutes and touch to start the download and touch to finish the download.

Photo-taking, short video recording and automatically download

Photo taking and short video recording: press Photo taking button on DVR, or speak “take photo”, the voice instruction, DVR will take photo for both front and rear camera. If “Photo taking associated with recording” is turned on in Settings of APP, DVR can record a 10-second video, 5 seconds before and 5 seconds after button is pressed. The length of video can be set as 10 seconds, 20 seconds or 30 seconds.

Automatically download: Turn on “Automatically download files in photo taking” function in Settings interface of APP, the relevant files will be download to the album of APP automatically. If turn off this function, we can choose to download these files manually.

Album management and sharing

In the Album interface of APP, choose photos or videos (long pressing can choose many files at one time) and add them to My favorite or do beautifying, or share them to the social media like Twitter, Facebook, Instagram, WeChat, and QQ etc., or choose to delete then directly.



The files you selected may include information taken without consent, sensitive to personal privacy, like human face or vehicle number plate of other party irrelevant to the safety of your car. We are seriously reminding you that please avoid sharing this kind of files. And you are supposed to take all the responsibilities and consequences of the tort caused to the 3rd party because of your conscious or unconscious behavior.

Manually copy files to Micro SD card

When a Micro SD card is used and re-formatting finishes, in Settings of DVR, choose “Copy files to TF card”, then you can choose the files you’d like to copy and copy them to Micro SD card.

When copy finishes, an audio prompt as “Files copy has been finished”.

Other operations and settings

Storage management: enter into

“Setting”-“APP Storage management”, we can set the limit of the “Reserved Storage Volume available”. When the storage available is below this limit, the loading will stop automatically.

DVR settings: when client connects DVR, entering “Settings-DVR settings” interface, we can set lots of parameters for camera, including recording definition, ratio of height to width, whether recording audio or not, storage management and other advanced settings like parking mode on/off, adjustment for sensitivity of G-sensor in parking mode, warning for rear camera failure, and changing the imaging direction horizontally etc.

Software version detecting: enter into “Settings”-“About”, tap “**Firmware updates available**” and update the software of DVR if any according to steps.

Regarding detailed information about usage of APP, enter into “Setting”-“Help”, then User Manual of APP can be accessed automatically.

Technical specifications

Processor

H.264, 4K@30fps HD video coding.

Front Camera

1600P@30fps, 1/2.7" CMOS image sensor, 5 million pixels, 6G+IR, FOV 147°

Rear camera

1080P@30fps, 1/2.8", CMOS sensor, , 4M pixels, 6-set glass, FOV142

Format of video and picture

Video format of front camera: MP4, 1600P@30fps, 1440P@30fps, and 1080P@30fps, optional and default as 1440P@30fps.

Picture format of front camera: JPG, 2560*1600

Video format of rear camera: MP4, 1080P@30fps

Picture format of rear camera: JEG, 1920*1080

Wi-Fi module

Built-in Wi-Fi, 2.4/5.8 GHz.

Storage

Internal: 4GB DDR/32GB eMMC, retro-loop automatically.

If only eMMC is used and front camera at 1600P and rear at 1080P, the time duration of continuous recording is 2.5 to 3.5 hours, and the exact duration depends on complexity of image recorded.

Micro SD socket for storage extension, up to 128G, Class 10

Video output

Wireless video output, support connection to Android, iOS or Harmony device.

G-Sensor

Built-in 3-axe acceleration sensor with file locking function when emergent clash and sensitivity adjustable.

Voice control

Voice control instruction as "Take photo", just support English and Chinese mandarin.

FCC WARNING

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

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

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna

- Increase the separation between the equipment and receiver.

- Connect the equipment into an outlet on a circuit different

from that to which the receiver is connected.

- Consult the dealer or an experienced radio/TV technician for help.

To maintain compliance with FCC's RF Exposure guidelines, This equipment should be installed and operated with minimum distance between 20cm the radiator your body: Use only the supplied antenna.

IC Caution

This device contains license-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's license-exempt RSS(s). Operation is subject to the following two conditions:

This device may not cause interference.

This device must accept any interference, including interference that may cause undesired operation of the device.

Package

Front camera of DVR IV: * 1

Front camera cable: * 1

Rear camera of DVR IV: *1

Rear camera cable: *1

User manual of DVR IV: * 1

Disposal of electronical devices

Under European Directive 2012/19/EC on Waste Electrical and Electronics and its similar national law in your country, waste electrical and electronic equipment must be collected separately and sent for environmentally friendly recycling. The product must be disposed of separately from household waste at the end of these useful life. Please take these products to local authority collection points or recycling points for treatment raw material recovery or ask your authorized dealer or local waste disposal service about how to dispose of them correctly and available collection points in your area.