

SNOOPER DVR-4HD

Vehicle Drive Recorder
with Speed Camera Detection



User manual

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About this Guide

The content in this document is for information purpose and is subject to change without prior notice. We made every effort to ensure that this User Guide is accurate and complete.

However, no liability is assumed for any errors and omissions that may have occurred.

The manufacturer reserves the right to change the technical specifications without prior notice.

FCC Statement

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.

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.

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

Contains FCC ID: 2ACFIWM7911B

Prohibition of co-location

This device and its antenna(s) must not be co-located or operated in conjunction with any other antenna or transmitter.

Important note

Radiation Exposure Statement: This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body. To maintain compliance with FCC exposure compliance requirements, please follow the operating instructions as documented in this manual.

WEEE Notice

Disposal of Waste Electrical and Electronic Equipment and/or Battery by users in private households in the European Union



Battery

WEEE

This symbol on the product or on the packaging indicates that this cannot be disposed of as a household waste. You must dispose of your waste equipment and/or battery by handling it over to the applicable take-back scheme for the recycling of electrical and electronic equipment and/or battery. For more information about recycling of this equipment and/or battery, please contact your city office, the shop where you purchased the equipment or your household waste disposal service. The recycling of materials will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and environment.

CE Regulatory Notice

The product herewith complies with the requirements of the Low Voltage Directive 2006/95/EC, the EMC Directive 2004/108/EC, the R&TTE Directive 1999/5/EC and the RoHS Directive 2011/65/EC.

EU Health Protection: This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

This product will meet the Basic Restriction limits of 1999/519/EC.

Battery warning

- Always charge using the provided system. Improper handling of the battery may result in explosion.
- Never dismantle or pierce the battery or allow the battery to short-circuit.
- Keep the battery out of reach of children.
- Batteries may explode if exposed to naked fire. Never dispose of batteries in a fire.
- Dispose of used batteries observing local regulations.
- Never replace the battery on your own; have the dealer do it for you.

Notes on Installation

1. This product shall be installed near the rear view mirror, at the centre and top of windshield for optimal viewing.
2. Make sure that the lens is within the wiping range of the windscreen wiper to ensure a clear view even when it rains.
3. Do not touch the lens with your fingers. Finger grease may be left on the lens and will result in unclear videos or snapshots. Clean the lens on a regular basis.
4. Do not install the device on a tinted window. Doing so may damage the tint film.
5. Make sure that the installation position is not hindered by the tinted window.
6. To use the products of the attached power charger only, please do not use other brand power charger, in order to avoid equipment burn or cause the battery explosion.

Caution

- Due to local laws and vehicles safety considerations, do not operate the device while driving.
- Set up time and date accurately before you use this device.
- Please use Snooper DVR software in condition that Google Map is function normally.
- The firmware function in the device is for reference only, please follow the actual road condition.
- The results of GPS positioning are only for reference, and should not affect the actual driving situation. The system also cannot ensure the positioning accuracy.
- GPS positioning accuracy may differ depending on weather and location such as high buildings, tunnels, undergrounds, or forests.
GPS satellite signals cannot pass through solid materials (except glass). Tinted window will also affect the performance of the GPS satellite reception.
- GPS reception performance on each device may differ. The system cannot determine the accuracy of the positioning results from different devices.
- The values displayed in this system, such as speed, position, and the distance warning to the speed camera set points, may be inaccurate due to the influence of surrounding environment. They are for your reference only.
- The system is used only for non-commercial use, within the maximum limits permitted by applicable law. Our company does not accept any responsibility for any data loss during the operation.
- Wi-Fi Signals are unable to pass through the building. The upper limit of signal transmission is 10m.
- Wi-Fi Operation Channels List: Ch1~Ch11.
- The product employs wireless data communication which may interfere, or be interfered by, a near-by device.
- Never use this device in the vicinity of a microwave oven or at places where there is radio interference.

- Radio wave reception may be worsened in specific environments.
- Please be advised that if another device is also using the same 2.4GHz band as this product, the processing speed of both devices may slow down.
- This product gets warm when in use; this is normal.
- Improper use or operation of the product may result in damage of the product or its accessories and void the warranty.
- The radio frequency (RF) generated by this RF electronic device may cause adverse effects on the operation of other electronic devices and result in malfunctioning. Wireless transmitters and circuitry may also interfere with other electronic devices. Therefore, do observe the following precautions:
- Aircraft: Never use a radio transmitter when you are in an airplane. Please switch off the Wi-Fi function of the device.
- Vehicle: The radio frequency transmitted by this device may affect the electronic system in a motorized vehicle. Please consult the manufacturer or dealer of your vehicle on the possible effect.
- Pacemaker: In order to prevent any potential interference to a pacemaker, anyone who uses a pacemaker should be advised, that, when using this device, a minimum distance of 15cm (6 inch) should be kept between the device and the pacemaker; and never put this device in a chest pocket. In case of any doubt of interference, switch off the device immediately.
- Medical Device: If you use a personal medical device, consult the device manufacturer or your physician to confirm if your device is sufficiently shielded from the RF transmission of this device.
- Medical Facilities: Hospitals and medical institutes may use facilities that are sensitive to an external RF energy. Observe such instructions when the medical care personnel or any posted sign requests you to switch off any device that may interfere the radio frequency.
- Explosion sites or any location with a posted sign: In order to prevent interfering with an explosion activity, observe all the signage and instructions in the Explosion Area or in a zone with a "Switch Off 2-way Radios" sign by switching off devices that may interfere with the radio frequency.

Before you start using the system, it is assumed that you agree to the above statement.

1 Introduction

Thank you for purchasing this advanced DVR-4HD. This device is specifically designed for real time video and audio recording when driving.

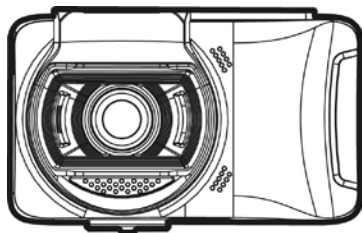
1.1 Features

- Full HD recording videos (1920x1080@30fps or 1280x720@60fps)
- 2.7" LCD color touch screen
- Wide angle lens
- Multifunction traffic safety reminder
- Automatic Emergency recording for collision detection
- Support SDHC Level 6 and above. Supports up to 32GB

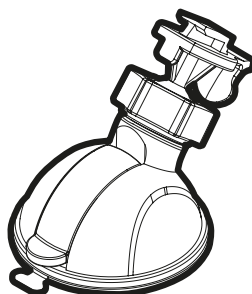
1.2 Package Contents

The package contains the following items. In case there is any missing or damaged item, contact your dealer immediately.

DVR-4HD



Bracket



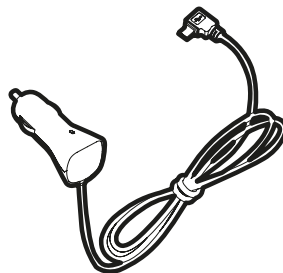
CD-ROM



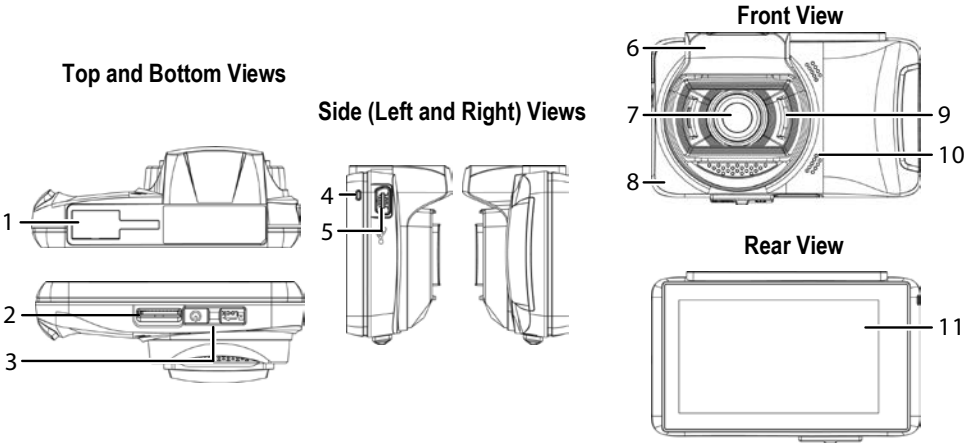
Quick start guide



Car adapter



1.3 Product Overview



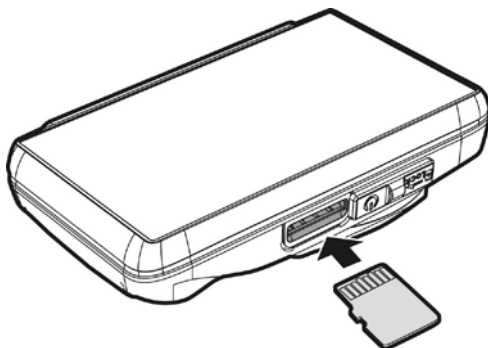
No.	Item
1	Bracket Socket
2	Memory Card Slot
3	Power Switch
4	LED Indicator
5	USB / Power Connector
6	GPS Antenna

No.	Item
7	Wide Angle Lens
8	Wi-Fi Transmission
9	Speaker
10	Microphone
11	LCD Touch Panel

2 Getting Started

2.1 Inserting the Memory Card

Insert memory card with the pins upward and the screen of the device facing upward too, as illustrated. Push the memory card in until a click sound is heard, indicating the card is in position.



To remove the memory card

Push to eject the memory card out of the slot.

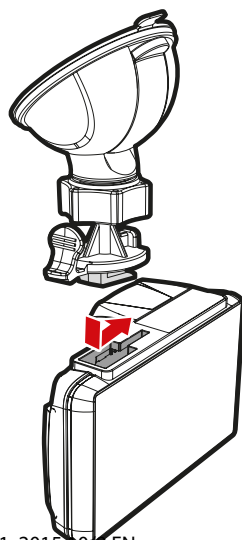
Note:

1. Do not remove or insert the memory card when the device is turned on. This may damage the memory card.
2. Please use a Class 6 or higher rating Micro SD card, max. up to 32GB.
3. Please format the micro SD cards before the initial use.
4. When removing the memory card, be careful that the card may spring out and get lost. The memory slot has this spring-out feature for easy removal of the card.

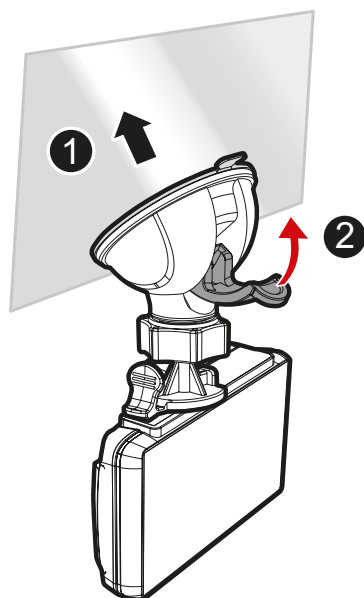
2.2 Installing in Vehicles

2.2.1 Mount to Windshield

1. Push the bracket into bracket slot on top of device, until a click sound is heard.

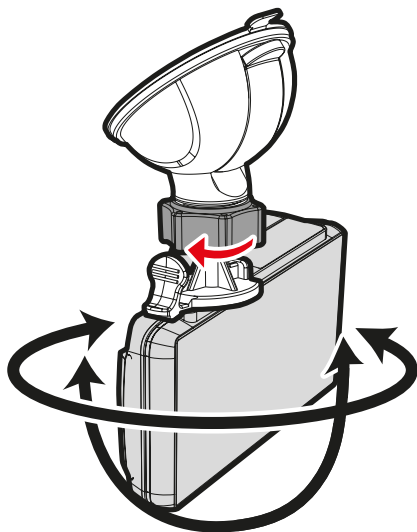


2. With the suction-cup laying flat, position the suction-cup on the windshield.
3. Hold the base firmly on the windshield and press down the clamp to mount the car holder to the windshield. Make sure the base is securely locked in place.



2.2.2 Adjust the device position

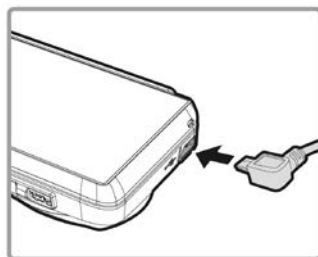
1. Loosen the knob to swivel the device vertically.
2. Loosen the knob to swivel the device horizontally up to 360°.
3. Then tighten the knob to make sure the device is securely locked in place.



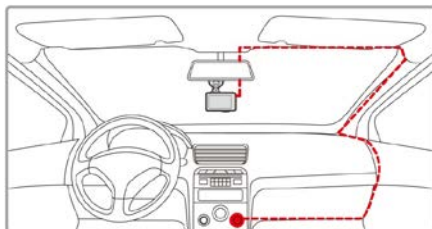
2.3 Connecting to Power

Use only the attached power connector for activating the device and charging the built-in battery.

1. Connect one end of power connector to USB/Power connector port on the device.



2. Plug the other end of the car adapter to the cigarette lighter socket of your vehicle. Once the vehicle engine is started, the device automatically turns on.



Note:

1. This product shall be installed near the rear view mirror, at the center and top of windshield for optimal viewing.
2. This product contains functions such as **LDWS (Lane Departure Warning Systems)** (3.2.1) **FCWS (Forward Collision Warning System)** (3.2.2) and **Front Vehicle Go** (3.2.3). Please refer to the alignment measures given in the individual sections during their installation for improved accuracy.
3. Please connect your product to an external power source for operation, otherwise its LCD touch screen may fail to operate properly. **Battery Status Indicator:**

Battery Status Indicator:

Icon	Description
	Full battery power.
	2/3 battery power.
	1/3 battery power.
	Out of battery power.
	Battery is charging.
	Connect the car adapter to charge the battery, battery is full charged.

Note:

Please take note if the environment temperature reaches 45°C or above, the car adapter still can supply power to device, but it will not charge the Lithium-ion battery. This is the characteristic of Lithium-ion and is not a malfunction.

2.4 LED Indicator

Status Explanation	LED Indicator Color
Power off, battery charging	Red
Power off, battery full charged	LED light off.
Power on, battery charging	Red
Power on, battery full charged	Green
Standby / Standby and screen off	Green
Recording/ Recording and screen off	Flash red

2.5 Powering the Device On / Off

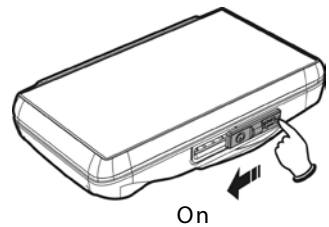
2.5.1 Auto Power On/Off

Once the vehicle engine is started, the device automatically turns on. If the Automatic Record function is enabled, the recording will automatically start right after the device turns on.
Please refer to Set Automatic Record (2.6.1).

2.5.2 Manual Power On/Off and Reset

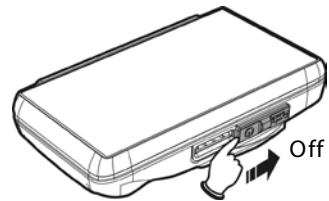
2.5.2.1 Manual Power On

Push the power switch and make sure that the power switch locks on the memory card slot.



2.5.2.2 Power Off

Push the **power switch** and make sure that the memory slot is released and the device starts power off sequence. Do not power on the device when it is in the power-off sequence, or the recorded file may become corrupt.



2.5.2.3 Reset the device







In case the device fails to function normally due to unknown causes, push the power switch and verify the memory card is in the removable state; wait for 7 seconds and push the power switch again to restart the device.

2.6 Initial Settings

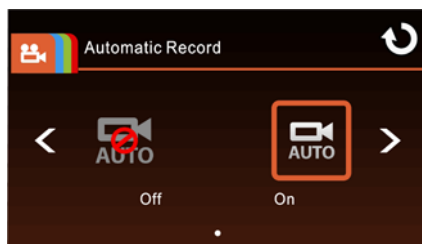
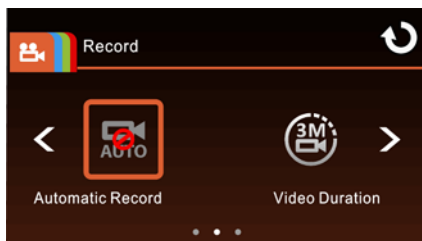
Before using the device, we recommend you to enable the Automatic Record function and set up the correct Date and Time.

2.6.1 Set Automatic Record

Default setting of Automatic Record is Enabled. The device will automatically start recording when powered on. In case Automatic Record is disabled, enable it by the following steps:









1. Touch  to enter Main Menu.
2. Touch  to switchover to **Record** Main Menu.
3. Touch   to select  for entering **Automatic Record** function menu; touch  again to select **ON**.

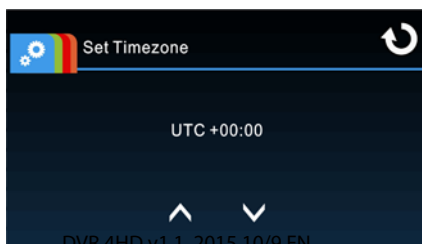
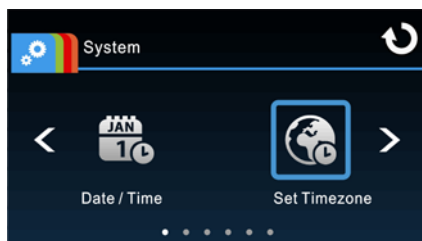
4. Touch  to return to Record screen.



2.6.2 Set the Date / Time







To set the correct date and time, do the following:

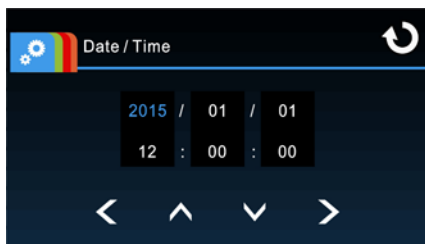
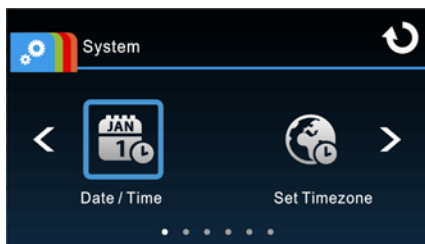
1. Touch  to enter Main Menu.
2. In  System main menu, touch   to select  for Set Timezone menu, touch   to set the current time zone; then touch  again to complete setting.




DVR 4HD v1.1 2015 10/9 EN

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3. Select  to enter Date / Time menu. Touch  /  to select value; touch  /  to select previous or next field; confirm by touching  to complete setting.




Note:

1. If **Time Sync.** is on, device clock will be calibrated via satellite clock signal based on **Set Timezone**. Please refer to **Time Sync.** (4.2)
2. If satellite positioning is not successful, device clock will run based on user defined time.
3. Please be aware that touching  during the recording process will stop the recording process and enter into main menu. Please make sure the recording can be stopped before operating menu selections.

2.7 Application



The camera allows you to connect to the mobile devices via the App. When using for the first time, install the **Drive CAM** App for your mobile device.




2.7.1 Application installation

1. Search from Google Play or App Store for Drive CAM  application.
2. Install the App.

APP Layout and Features may be changed subject to different software versions. Please refer to Google Play or APP Store for update.

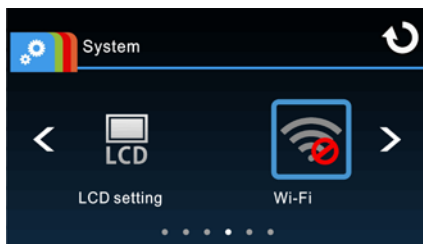
2.7.1 Wi-Fi connecting

1. Touch  to enter Main Menu.
2. Touch  to switch over to **System** Main Menu.

3. Touch   to select  for entering **Wi-Fi** function menu; wait for screen to display device ID and Wi-Fi password.

Note:

Wi-Fi function is dependent on the model purchased.



Device _____
Wi-Fi Password _____



4. Using Wi-Fi function of a mobile device, search for device ID from the list and select and enter Wi-Fi Password.

For iOS / Android Users:

Using the mobile device [Settings] → [Wi-Fi] → [Select device ID no.: DVR4HDXXXXXX] → [Enter the password] → [Connecting]

5. Execute the **Drive CAM**  App.

6. To disconnect Wi-Fi link, just exit **Drive CAM**  Application.

Note:

1. Make sure the Wi-Fi function of the equipment is activated and the mobile device is receiving Wi-Fi signal before executing the Drive CAM App, or the App will be exited.
2. The mobile device shall be within a maximum of a 10m distance from the equipment without any buildings in between.
3. When the Wi-Fi function of the equipment is activated for 3 minutes without connecting with your mobile device, or the connection is disconnected, the equipment will automatically stop the Wi-Fi function and you will need to re-activate the Wi-Fi function.
4. We suggest that you should set the correct date and time for your mobile device before using the equipment, so that the recorded video will be consistent with the date and time settings of the mobile device.
5. When linking up with a mobile device, touch-control of device screen is no longer effective. Perform operations via the Drive CAM Application. For operating the device again, you need to exit the Drive CAM Application first. To operate the device, please quit the Drive CAM program, and restart.
6. The language of the Drive CAM App will be consistent with that of your mobile device, it shall be the default language if it is not the built-in one.


3 Using the DVR-4HD

3.1 Recording Videos

3.1.1 Record videos while driving

When the vehicle engine starts up and the Automatic Record function is enabled, the device automatically turns on and starts recording.

The touch panel function is not ready yet within 2 seconds upon the Auto Recording start.



Recording will automatically stop when the engine is switched off, or touch  to stop recording manually.

Note:

1. On some cars, the recording will continue when the engine is switched off. If this happens, please manually turn off the cigarette lighter or remove the car adapter from the cigarette lighter.
2. It can be configured to save a video file for every 3 or 5 minutes of recording. Please refer to **Video Duration** (4.2).
3. The device saves the recording in the memory card. If the memory card capacity is full, the oldest file in the memory card is overwritten.

3.1.2 Emergency Recording

Start the Emergency Recording, do the following:

1. During video recording, touch  to enter emergency recording mode, the "Emergency" message will be shown immediately on the lower left corner of the screen, and the recorded file will be protected.
2. Touch  again, to halt the recording.



Note:

1. If the Collision Detection function is enabled and a collision is detected, the device will automatically trigger the emergency recording. Please refer to Collision Detection (4.2).
2. The emergency recording file is created as a new file, which will be protected to avoid being overwritten by normal cycling recording. 8G (or above) memory card can save up to 10 emergency video files. The alert message of "Emergency files are full" will pop up on the screen when the emergency recording files are full, and the oldest emergency file will be automatically deleted when a new emergency recording file is created.


3.1.3 The Recording Screen



No.	Icon	Item	Description
1		Recording Icon	Indicates the recording status.
2		Date / Time	Indicates the current recording date and time.
3		Add speed point	Touch to add a speed cam point.
4		Menu	Touch to enter the main menu.
5		Taking Snapshot	While recording, touch to take a photo.
6		Recording Duration	Indicates the video current duration.
7		Satellite positioning icon	The icon appears on the screen when satellite positioning of the device is ready.
8		Battery	Indicates the remaining battery power.
9		Speed camera view	Touch to enter the speed camera view .
10		Reset of date / time Prompt	Remind the user to reset the Date / Time before start to use the device. Please refer to Set the Date / Time (2.6.2)
11		Recording	Touch to start recording, touch again to halt the recording.
12		Emergency Recording	During video recording, touch to enter emergency recording mode. Please refer to Emergency Recording (3.1.2). DVR 4HD v1.1 2015 10/9 EN

3.1.4 Add speed point

You may customize speed cam positions in this product.



1. Press  to add new speed cam position during recording.
2. You can add new custom speed cam positions after GPS positioning. You can add up to 200 of them.
3. This product features a capacity of 200 speed cam positions. In case you are trying to add more than that the system prompts with message “Speed Position is full”.

Note:

You may delete custom speed cam positions by selecting the **Delete speed point** option from the **File / Position** menu. Please note that all of your existing speed cam positions are deleted once the **Delete speed point** option is selected. Make sure you are ready to recreate your custom speed cam positions before running this option.

3.1.5 Taking Snapshot

You can also use this device to take snapshots of the current scene.


1. Press  in recording mode to take a snapshot.
2. A snapshot is taken when this  icon appears at centre of screen.

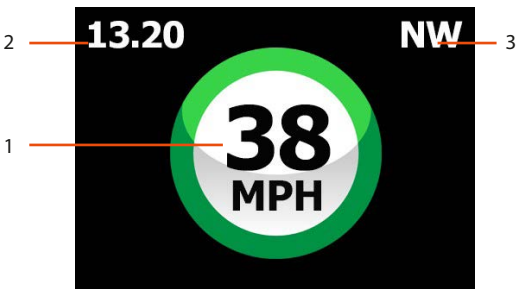


Note:

The definition of photos taken by this product when it is recording and the car is moving is subject to the speed of the target object and changes in ambient lighting. The photograph function is better used for taking still pictures in accident scenes or when the car is stopped to wait for a traffic light.

3.1.6 Display speed cameras

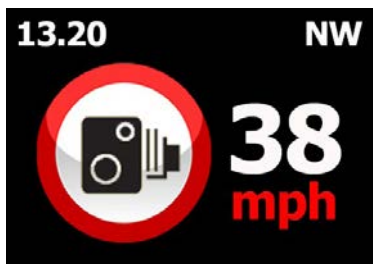
Push icon , when recording, to switch to the speed camera display.



Speed camera mode, standby screen

No.	Item
1	Driving Speed
2	Time
3	Driving direction

When a speed trap is encountered the following screen will be displayed



Note: For speed trap alert to be displayed the DVR4-HD must have been downloaded with the AURA database, refer to section 8.

The DVR 4 must also be in speed trap mode (as shown above) and speed camera alerts must be switched On refer to section 3.25 for menu settings.

3.2 Driving Safety

The following driving safety function is for reference only. Drivers are advised to exercise discretion based on actual road conditions.







Note:

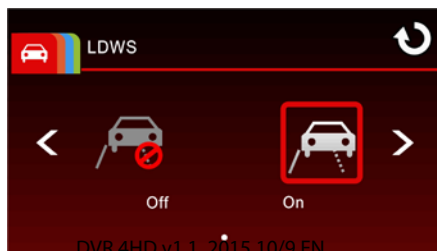
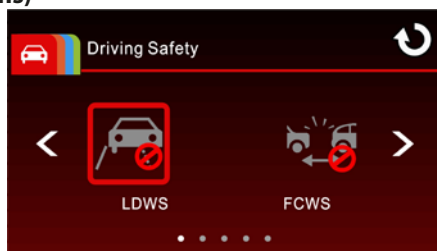
1. The Driving Safety function is limited to triggering no more than two alarms at the same time. If a voice and alert message have been triggered, any other alarm will be ignored until either of the two is settled.
2. The speed cam prompt is disabled if this product is not connected to an external power source. It is automatically enabled once this product is turned on when connected to an external power source.

3.2.1 LDWS (Lane Departure Warning Systems)

Once your car's location is determined by GPS and the **LDWS** function is enabled, this product produces voice and screen message alerts when you drive off of or change lanes at speeds over 50 km/h (31 mile/h).



To set the LDWS (Lane Departure Warning Systems), do the following:

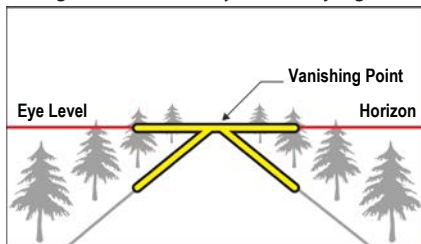
1. Touch  to enter Main Menu.
2. Touch  to switchover to **Driving Safety** Main Menu.
3. Touch  /  to select  for entering **LDWS** function menu, then touch  again to enable the function (**on**).



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4. Touch  to return to record screen.
5. After enabling **LDWS**, the screen will display align icon , please adjust the camcorder so that the horizontal line and the eye level are overlapped and the slash lines are centered in the driving lane. Make sure that align icon will not be obscured (e.g. hood) during installation, it may cause misjudgement if the



endpoint is obscured.

6. Once your car's location is determined by GPS, this product produces voice and screen message alerts when you drive off of or change lanes at speeds over 50 km/h (31 mile/h).









Note:

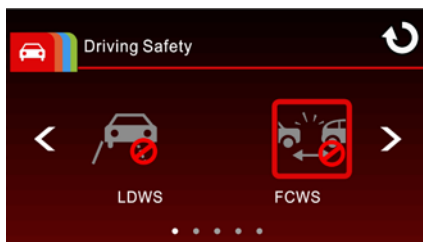
1. **LDWS** is only applicable when satellite positioning is in ready state. Make sure satellite positioning of your device is ready if you want to activate this function. Satellite positioning function is dependent on the model purchased.
2. The **Driving Safety** functions such as LDWS, FCWS, Front Vehicle Go, Headlight warning, Speed Cam Alert, Speed Limit Alert, Driver Fatigue Alert and ACC/DEC Alert will be disabled, if the product doesn't connect with the external power supply.
3. The **LDWS** function may give false alarms in poor conditions, including rainy or cloudy weather, at night, or in poor lighting environments. Drivers are advised to exercise discretion based on actual road conditions.



3.2.2 FCWS (Forward Collision Warning System)

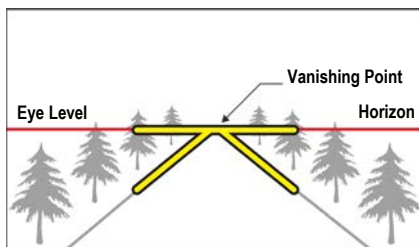
Once your car's location is determined by GPS and the **FCWS** function is enabled, this product produces voice and screen message alerts when you drive at speeds over 60 km/h (37 mile/h) and are less than 20m away from the car in front of you.

To set the FCWS (Forward Collision Warning System), do the following:

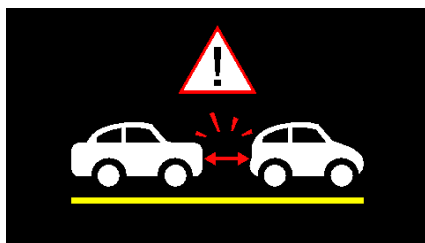
1. Touch  to enter Main Menu.
2. Touch  to switchover to **Driving Safety** Main Menu.
3. Touch  /  to select  for entering **FCWS** function menu, then touch  again to enable the function (**on**).



4. Touch  to return to record screen.
5. After enabling **FCWS**, the screen will display align icon , please adjust the camcorder so that the horizontal line and the eye level are overlapped and the slash lines are centered in the driving lane. Make sure that align icon will not be obscured (e.g. hood) during installation, it may cause misjudgement if the endpoint is obscured.



6. Once your car's location is determined by GPS, this product produces voice and screen message alerts when you drive at speeds over 60 km/h (37 mile/h) and are less than 20m away from the car in front of you.



Note:

1. **FCWS** is only applicable when satellite positioning is in ready state. Make sure satellite positioning of your device is ready if you want to activate this function. Satellite positioning function is dependent on the model purchased.







2. The **Driving Safety** functions such as LDWS, FCWS, Front Vehicle Go, Headlight warning, Speed Cam Alert, Speed Limit Alert, Driver Fatigue Alert and ACC/DEC Alert will be disabled, if the product doesn't connect with the external power supply.

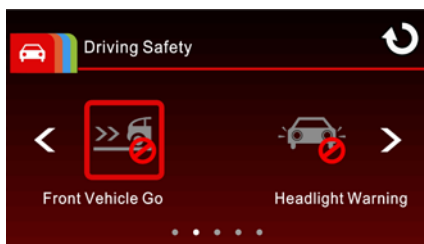
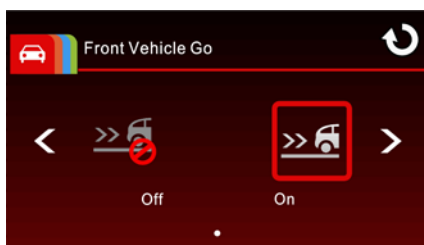
3. The **FCWS** function may give false alarms in poor conditions, including rainy or cloudy weather, at night, or in poor lighting environments. Drivers are advised to exercise discretion based on actual road conditions.



3.2.3 Front Vehicle Go

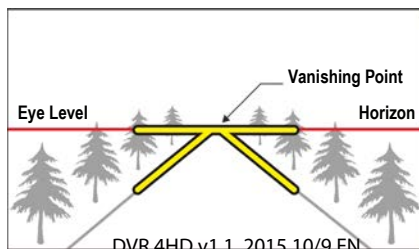
Once your car's location is determined by GPS and the **Front Vehicle Go** function is enabled, this product starts to detect the motion of cars in front of you after your car remains motionless for 20 seconds. It produces voice and screen message alerts when the movement of the car in front of you changes its images in the camera.

To set the front vehicle go, do the following:

1. Touch  to enter Main Menu.
2. Touch  to switchover to **Driving Safety** Main Menu.
3. Touch  /  to select  for entering **Front Vehicle Go** function menu, then touch  again to enable the function (**on**).

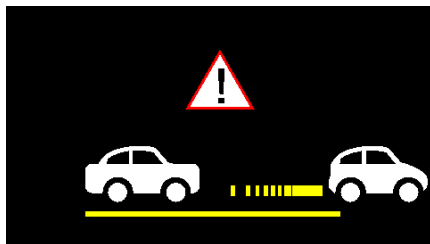


4. Touch  to return to record screen.
5. After enabling **Front Vehicle Go**, the screen will display align icon , please adjust the camcorder so that the horizontal line and the eye level are overlapped and the slash lines are centered in the driving lane. Make sure that align icon will not be obscured (e.g. hood) during installation, it may cause misjudgement if the endpoint is obscured.



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- Once your car's location is determined by GPS, this product starts to detect the motion of car in front of you after your car remains motionless for 20 seconds. It produces voice and screen message alerts when the movement of the car in front of you changes its images in the camera.



Note:

1. **Front Vehicle Go** is only applicable when satellite positioning is in ready state. Make sure satellite positioning of your device is ready if you want to activate this function. Satellite positioning function is dependent on the model purchased.

2. The **Driving Safety functions** such as LDWS, FCWS, Front Vehicle Go, Headlight warning, Speed Cam Alert, Speed Limit Alert, Driver Fatigue Alert and ACC/DEC Alert will be disabled, if the product doesn't connect with the external power supply.







3. The **Front Vehicle Go** function may give false alarms in poor conditions, including rainy or cloudy weather, at night, or in poor lighting environments. Drivers are advised to exercise discretion based on actual road conditions.

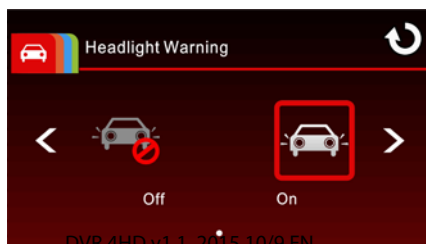
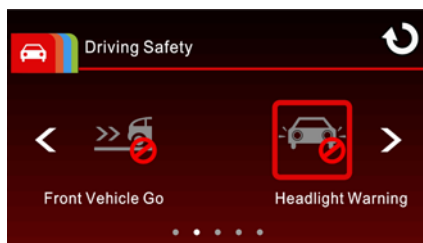
4. The product will recalibrate 30 seconds later after the initial alert if the **Front Vehicle Go** function has been activated. If the vehicle remains in a stationary mode and the product detects image changes in the front lens, the product will once again trigger the voice and screen message alerts.


3.2.4 Headlight Warning

The **Headlight Warning** function produces voice and screen message alerts when it detects poor lighting conditions through the recording displays of this product, including driving in rainy or cloudy weather, at night, and in basements, parking lots, and tunnels.

To set the headlight warning, do the following:

- Touch  to enter Main Menu.
- Touch  to switchover to **Driving Safety** Main Menu.
- Touch   to select  for entering **Headlight Warning** function menu, then touch  again to enable the function (**on**).



- Touch  to return to record screen.

5. This product produces voice and screen message alerts when it detects poor lighting conditions through its recording displays.



Note:

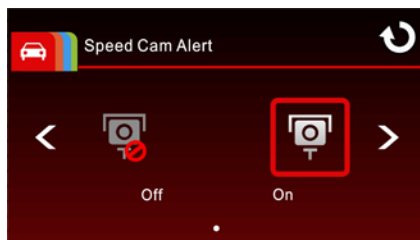
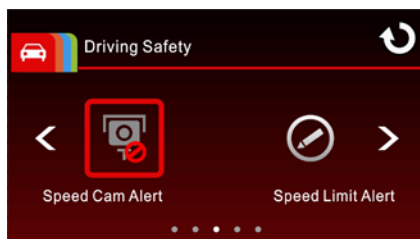
The **Driving Safety** functions such as LDWS, FCWS, Front Vehicle Go, Headlight warning, Speed Cam Alert, Speed Limit Alert, Driver Fatigue Alert and ACC/DEC Alert will be disabled, if the product doesn't connect with the external power supply.

3.2.5 Speed Cam Alert

The **Speed Cam Alert** function is enabled by default. Once your car's location is determined by GPS and approaches a speed camera, this product produces a beep and screen message alerts.

To enable the disabled Speed Cam Alert function:

1. Touch to enter Main Menu.
2. Touch to switchover to **Driving Safety** Main Menu.
3. Touch / to select for entering **Speed Cam Alert** function menu, then touch again to enable the function (**on**).



4. Touch to return to record screen.
5. Once your car's location is determined by GPS and approaches a speed camera, this product produces voice and screen message alerts. The alarm screen turns red to remind you to slow down if you are driving faster than the speed limit.

Note:

1. **Speed Cam Alert** is only applicable when satellite positioning is in ready state. Make sure satellite positioning of your device is ready if you want to activate this function. Satellite positioning function is dependent on the model purchased.








2. The **Driving Safety** functions such as LDWS, FCWS, Front Vehicle Go, Headlight warning, Speed Cam Alert, Speed Limit Alert, Driver Fatigue Alert and ACC/DEC Alert will be disabled, if the product doesn't connect with the external power supply.

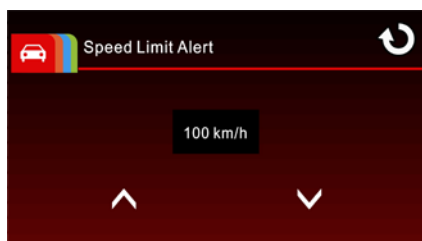
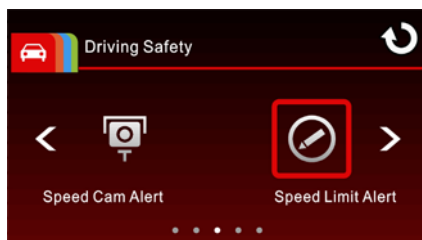
3. The speed cam alert function must have the speed cam datum from the country you use. The function will be void if the product are used in any others countries. Please consult with the shop you purchased if the function is void. The product never guarantee the speed cam datum will be included for the worldwide countries.


3.2.6 Speed Limit Alert

If the **Speed Limit Alert** function is enabled, this product produces voice message alerts once your car's location is determined by GPS and its running speed exceeds the set limit.

To set the Speed Limit Alert, do the following:

1. Touch  to enter Main Menu.
2. Touch  to switchover to **Driving Safety** Main Menu.
3. Touch   to select  for entering **Speed Limit Alert** menu.
4. Tap the   keys to set up a Speed Limit Alert to trigger this product's alarm (Off / 50 km/h ~ 200 km/h).



5. Touch  to return to record screen.
6. If a Speed Limit Alert is set, this product produces a voice message alert once your car's location is determined by GPS and its running speed exceeds the set limit.

Note:







1. **Speed Limit Alert** is only applicable when satellite positioning is in ready state. Make sure satellite positioning of your device is ready if you want to activate this function. Satellite positioning function is dependent on the model purchased.

2. The **Driving Safety** functions such as LDWS, FCWS, Front Vehicle Go, Headlight warning, Speed Cam Alert, Speed Limit Alert, Driver Fatigue Alert and ACC/DEC Alert will be disabled, if the product doesn't connect with the external power supply.

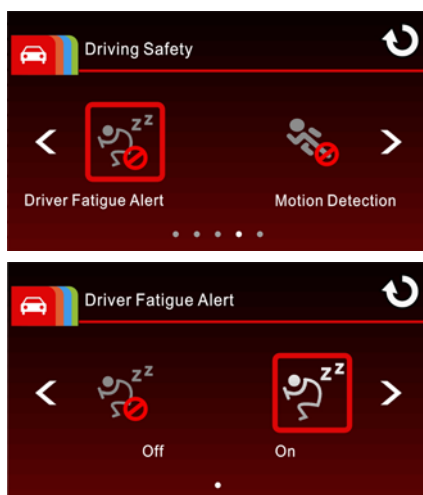
3.2.7 Driver Fatigue Alert

If the **Driver Fatigue Alert** function is enabled, this product produces voice and screen message alerts one hour after it has begun recording and repeats the alerts every half an hour afterwards.

To set the driver fatigue alert, do the following:

1. Touch  to enter main menu.
2. Touch  to switch over to **Driving Safety** Main Menu.
3. Touch   to select  for entering **Driver Fatigue Alert** menu, then touch  again to activate (on).

4. Touch  to return to record screen.









Note:

*The **Driving Safety** functions such as LDWS, FCWS, Front Vehicle Go, Headlight warning, Speed Cam Alert, Speed Limit Alert, Driver Fatigue Alert and ACC/DEC Alert will be disabled, if the product doesn't connect with the external power supply.*

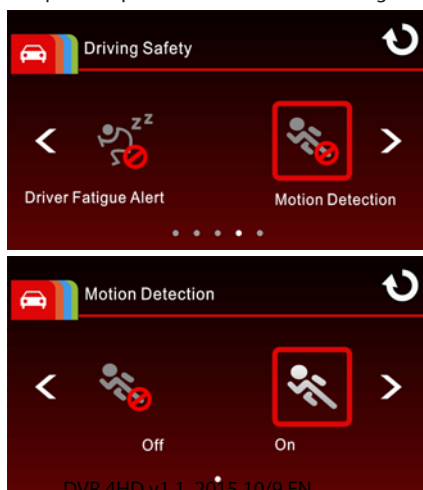
3.2.8 Motion Detection

If **Motion Detection** is activated, turned off the car adapter when the device is powered on, the system alert message "**Wait for 10 seconds to enter Motion Detection, or touch screen to power off.**" will be displayed on the screen. This means the system will enter Motion Detection automatically in 10 seconds, when the device detects any motion in front of lens, Video Record will be activated for a duration the same as the length setting. If the screen is touched anywhere in 10 seconds, then this product powers off instead of entering Motion Detection mode.

To set the motion detection, do the following:

1. Touch  to enter main menu.
2. Touch  to switch over to **Driving Safety** Main Menu.
3. Touch   to select  for entering **Motion Detection** menu, then touch  again to activate (on).

4. Touch  to return to record screen.



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- Once the power connector is turned off, the message **"Wait for 10 seconds to enter Motion Detection, or touch screen to power off."** will appear. The system will automatically enter motion detection mode in 10 seconds, which enables the auto recording function if any object moving in front of the cam is detected by this product.
- The screen automatically turns off 60 seconds after this product enters motion detection mode. Tap anywhere on the screen to turn it on and tap it again to exit this mode. If the power connector is turned off when this product is on, the message **"Wait for 10 seconds to enter Motion Detection, or touch screen to power off."** will appear again. Please operate as instructed.

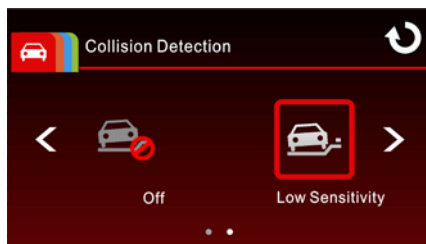
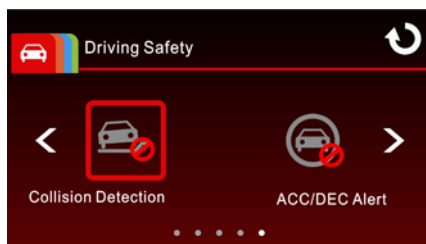
Note:

- When the battery is fully charged and is in good condition, Motion Detection can record continuously for about 30 minutes.
- As the device is used, the battery storage capacity will decrease gradually. This is a normal phenomenon for the battery.

3.2.9 Collision Detection

Sensitivity of the **Collision Detection** function is set to medium by default. This product begins emergency recording once it detects any vibrations caused by a collision. To change the settings of Collision Detection:

- Touch  to enter main menu.
- Touch  to switch over to **Driving Safety** Main Menu.
- Touch  /  to select  for entering **Collision Detection** menu.
- Tap the  /  keys to change the sensitivity of this product's collision detection (Off / Low Sensitivity / Normal Sensitivity / High Sensitivity).
- Touch  to return to record screen.






Note:

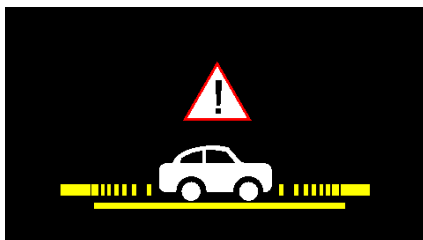
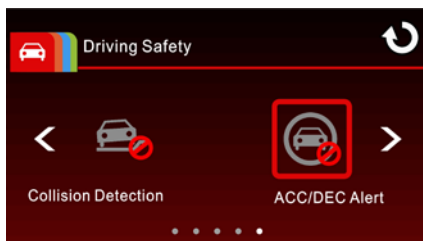
The emergency recording file is created as a new file, which will be protected to avoid being overwritten by normal cycling recording. 8G (or above) memory card can save up to 10 emergency video files. The alert message of "Emergency files are full" will pop up on the screen when the emergency recording files are full, and the oldest emergency file will be automatically deleted when a new emergency recording file is created.

3.2.10 ACC/DEC Alert

This product produces voice and screen message alerts if the **ACC/DEC Alert** function is enabled and the car accelerates 20 km/h (12.4 mile/h) in one second when driving at speeds over 80 km/h (50 mile/h) or decelerates 30 km/h (18.6 mile/h) in one second when driving at speeds under 50 km/h (31 mile/h) after position is determined by GPS.

To set the ACC / DEC alert, do the following:

1. Touch  to enter Main Menu.
2. Touch  to switchover to **Driving Safety** Main Menu.
3. Touch   to select  for entering **ACC/DEC Alert** function menu, then touch  again to enable the function (**on**).
4. Touch  to return to record screen.
5. This product produces voice and screen message alerts once your car's location is determined by GPS and abruptly accelerates or decelerates.



Note:







1. **ACC/DEC Alert** is only applicable when satellite positioning is in ready state. Make sure satellite positioning of your device is ready if you want to activate this function. Satellite positioning function is dependent on the model purchased.

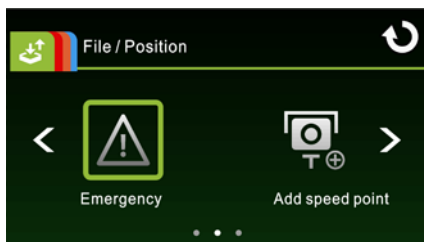
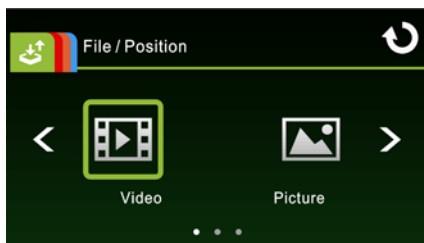
2. The **Driving Safety** functions such as LDWS, FCWS, Front Vehicle Go, Headlight warning, Speed Cam Alert, Speed Limit Alert, Driver Fatigue Alert and ACC/DEC Alert will be disabled, if the product doesn't connect with the external power supply.

3.3 Playing Videos and Viewing Pictures

3.3.1 Playing Videos and Emergency Recording







Playback video record files as follows:

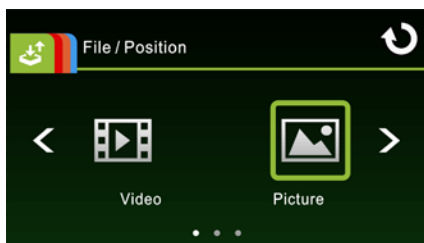
1. Touch  to enter main menu.
2. Touch  to switch over to **File / Position** menu.
3. Touch  to enter **Video/ Emergency** function menu.
4. Touch /  to browse for required video file, touch selected preview of video to enter Playback Mode
5. Touch  repetitively to return to Record Screen.



3.3.2 Viewing Pictures

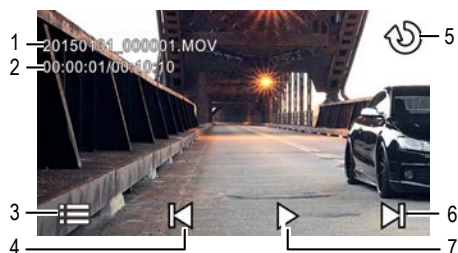
View pictures as follows:

1. Touch  to enter Main Menu.
2. Touch  to switch over to **File / Position** main menu.
3. Touch  to enter **Picture** function menu.
4. Touch /  to browse for required picture files, touch selected preview of picture to enter Picture Playback Mode.
5. Touch  repetitively to return Record Screen.



3.3.3 The Playback Screen

Video Playback Screen













Picture Playback Screen

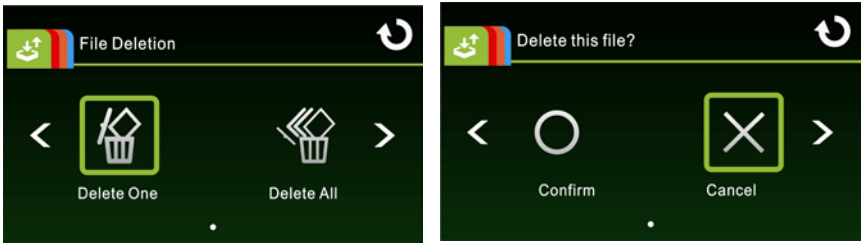


No.	Icon	Item	Description
1	20150101_000001.MOV	File Name	Indicates name of current video or picture file.
2	00:00:01/ 00:00:10	Current Duration / Video Duration	Indicates time code and duration of current video file.
3		Menu	Touch to enter File Deletion menu.
4		Fast Rewind / Previous File	Touch when video or picture is not in playback will switch over to the previous file. Touch in video playback mode will reverse the playback.
5		Return	Touch to return to preview screen of video or picture. Touch repetitively to return to record screen.
6		Fast forward / Next File	Touch when video or picture is not in playback will switch over to the next file. Touch in video playback mode will enable fast forward playing of video.
7		Playback/ Pause	Touch to play or pause the video.


3.3.4 Deleting Files

To delete file(s), do the following:

1. Touch  to enter Main Menu.
2. Touch  to switch over to **File / Position** main menu.
3. Touch  to enter **Video/Picture/Emergency** menu.
4. Touch   to browse for required video or picture file; touch selected preview image to enter **Video/Picture Playback Mode**.
5. Touch  to enter **File Deletion** menu, select   to delete one file or all files; touch   to confirm or cancel the selection.



Item	Description
Delete One	Delete the current file.
Delete All	Delete all files.

6. Touch  repetitively to return to Record Screen.

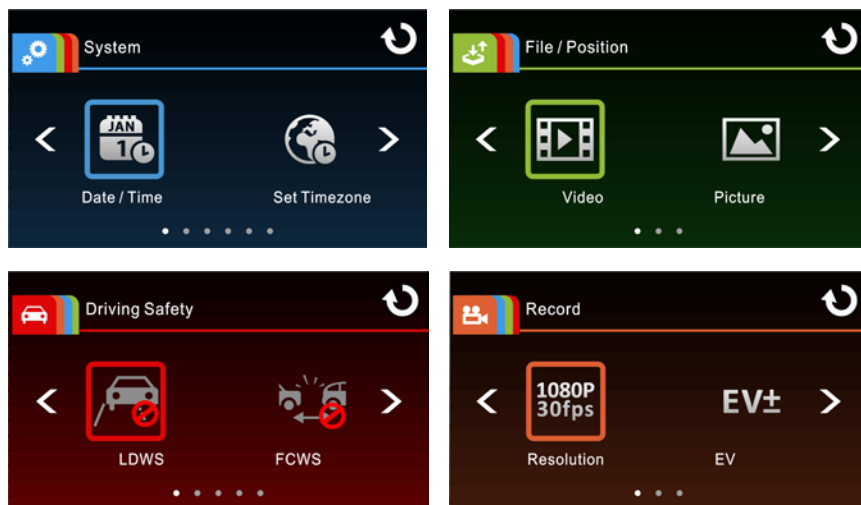
Note:









Deleted files cannot be recovered. Ensure the files have backup before deletion.

4 Adjusting the Settings

4.1 Using the Menu

You can customize the general settings via the on-screen display (OSD) menus.



1. Touch  in the record mode will stop the record and enter into Main Menu.
2. Touch  /  /  /  to switch over main menus.
3. Touch  /  to browse for function items in the respective main menu; touch a function icon to enter setting screen.
4. On completion of setting a required function item, device will return automatically to the main menu of the selected function.
5. Touch  to return to Record Screen.












4.2 Menu Items













Refer to the below table for details of main menu and function list.

Main Menu	Function List	Description	Available Option
 System	 Date / Time	Set the date and time.	
	 Set Time zone	Set the time zone you are in.	UTC -12:00 ~ UTC +12:00
	 Time Sync.	When enabled, device clock will be calibrated automatically based on satellite clock of the set time zone on completion of satellite positioning.	On / Off
	 Beep	Enable/Disable the beep.	Off / Low / Medium / High
	 Language settings	Set the on-screen display menu language.	English / 繁體中文 / 简体中文 / Русский / Español / Deutsch / Français / Português / Italiano / Japanese / Arabic
	 Distance Unit	Select the unit for distance display.	KM / MILE
	 LCD setting	Set LCD off time. Device screen will be off after a set time if no operation is detected during the standby or record mode. Touch any point of the touch screen will switch it on. (Recording is not affected when screen is off).	On / Off After 30 sec. / Off After 3 min.
	 Wi-Fi	Set Wi-Fi linkage of a mobile device.	
	 Satellite System	Select satellite system of the locality.	GPS / GLONASS
	 Recorder Format	Format the memory card inserted in the equipment. All the files in the card will be erased.	Yes / No
	 Default Setting	Resume the equipment to its default setting.	Yes / No
	 Firmware Version	Indicates the current Firmware.	
 File / Position	 Video	Play / Delete a video file.	
	 Picture	Play / delete a picture file.	
	 Emergency	Play / delete an emergency record file.	

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Main Menu	Function List	Description	Available Option
 File / Position	 Add speed point	Manually add speed points after satellite positioning, up to 200 user defined speed points can be added.	
	 Delete speed point	Delete all the user defined speed points from system.	
 Driving Safety	 LDWS	Once your car's location is determined by GPS and the LDWS function is enabled, this product produces voice and screen message alerts when you drive off of or change lanes at speeds over 50 km/h (31 mile/h).	On / Off
	 FCWS	When FCWS is activated after satellite positioning, device will issue a voice alert and an alarm image when vehicle speed is above 60 km/h (37 mile/h) and the distance with the front vehicle is less than 20m.	On / Off
	 Front Vehicle Go	Once your car's location is determined by GPS and the Front Vehicle Go function is enabled, this product starts to detect the motion of cars in front of you after your car remains motionless for 20 seconds. It produces voice and screen message alerts when the movement of the car in front of you changes its images in the camera.	On / Off
	 Headlight Warning	When Headlight is activated, device will issue a voice alert and an alarm screen reminding that insufficient brightness is sensed on the recording face.	On / Off
	 Speed Cam Alert	If the Speed Cam Alert function is enabled, once your car's location is determined by GPS and approaches a speed cam, this product produces voice and screen message alerts.	On / Off
	 Speed Limit Alert	If the Speed Limit Alert function is enabled, this product produces voice message alerts once your car's location is determined by GPS and its running speed exceeds the set limit.	Off / 50 km/h ~ 200 km/h Off/ 13mph ~ 120mph
	 Driver Fatigue Alert	If the Driver Fatigue Alert function is enabled, this product produces voice and screen message alerts one hour after it has begun recording and repeats the alerts every half an hour afterwards.	On / Off

Main Menu	Function List	Description	Available Option
 Driving Safety	 Motion Detection	If Motion Detection is activated, the device will automatically trigger recording when the device detects any motion in front. When the battery is fully charged and is in good condition, Motion Detection can record continuously for about 30 minutes.	On / Off
	 Collision Detection	If Collision Detection is activated, this product begins emergency recording once it detects any vibrations caused by a collision.	Off / Low Sensitivity / Normal Sensitivity / High Sensitivity
	 ACC/DEC Alert	This product produces voice and screen message alerts if the ACC/DEC Alert function is enabled and the car accelerates 20 km/h (12.4 mile/h) in one second when driving at speeds over 80 km/h (50 mile/h) or decelerates 30 km/h (18.6 mile/h) in one second when driving at speeds under 50 km/h (31 mile/h) after position is determined by GPS.	On / Off
 Record	 Resolution	Setting of video resolution.	FHD (1080P/30fps) / HD30 (720P/30fps) / HD60 (720P/60fps)
	 EV	Set the exposure compensation.	+2.0 ~ -2.0
	 Automatic Record	Setting for enabling Automatic Record after device power on.	On / Off
	 Video Duration	Save respective video files in a length of the selected duration.	3 min. / 5 min.
	 Voice Record	Setting for activating audio in the video.	On / Off
	 Time Stamp	Setting for the indication of date and time stamp on the picture or video recorded.	On / Off
	 WDR	The WDR function compensates for and optimizes dim areas in poor external lighting environments.	On / Off

Note:

The **Driving Safety** functions such as LDWS, FCWS, Front Vehicle Go, Headlight warning, Speed Cam Alert, Speed Limit Alert, Driver Fatigue Alert and ACC/DEC Alert will be disabled, if the product doesn't connect with the external power supply.

5 Installing the Software

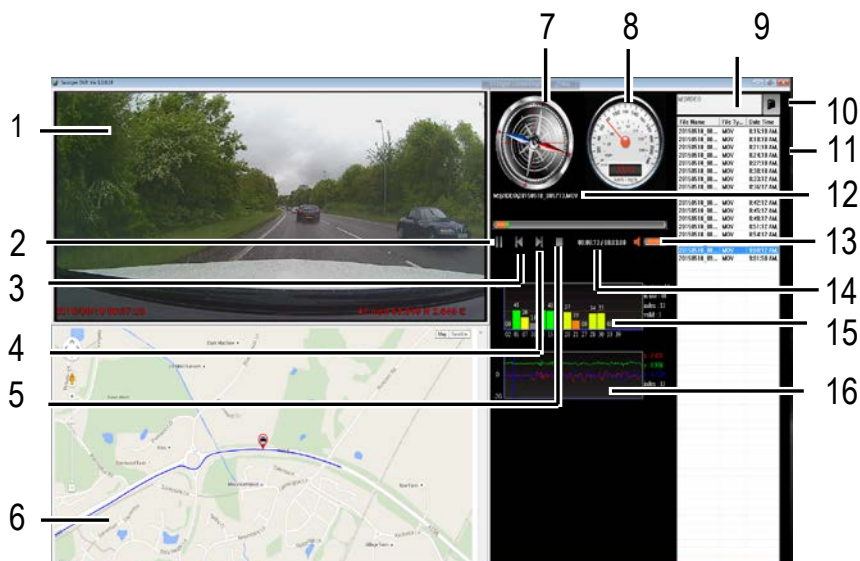
1. Place the attached CD ROM into the CD player.
2. If the CD does not execute automatically, please use Windows File Manager to execute the **Install_CD.exe** file in the CD.

The following screen will be shown up.



3. Press the [Menu] item to start the installation process according to the instructions on-screen.

6 Snooper DVR



No.	Item
1	Video Player
2	Play / Pause
3	Previous
4	Next
5	Stop
6	Google Map
7	Compass
8	Speed Meter

No.	Item
9	File Path
10	Browser File
11	File List
12	File Name
13	Volume
14	Current Duration / Total Duration
15	Signal Noise Ratio (SNR)
16	G-Sensor

Note:

1. To display the route on Google Maps, please make sure the internet is connected before starting the video playback.
2. Video files (MOV / TS) and GPS/G-Sensor files (NMEA) must be stored in the same folder before starting the playback.
3. The Snooper DVR software is only applicable to a Windows operating system.

7 Specifications

Item	Description
Image sensor	1/2.7" CMOS sensor
Effective pixels	1920 (H) x 1080 (V)
Storage media	Support Micro SDHC Class 6, max. up to 32GB
LCD display	2.7" LCD color TFT touch screen
Lens	Wide Angle Fixed Focus lens F2.0, f=3.4mm
Focus range	1.5m~Infinity
Satellite System	GPS / GLONASS (Satellite Positioning feature varies depending on the model)
Wi-Fi	802.11 b/g/n (The wireless network feature varies depending on the model)
Movie Clip	Resolution: FHD (1080P/30fps); HD30 (720P/30fps); HD60 (720P/60fps)
	Format: MOV
Still image (Snapshot)	Resolution: 2M (1920 x 1080)
	Format: JPEG
Shutter	Electronic shutter Auto: 1/2 ~ 1/2000 sec.
G-Sensor	3-Axis G-Force sensor
ISO	Auto
White Balance	Auto
Microphone	Yes
Speaker	Yes
Interface	Mini USB
Battery	Built-in 470mAh Li-polymer rechargeable
Operating Temperature	0° ~ 50° C
Operating Humidity	20 ~ 70% RH
Storage Temperature	-20° ~ 80° C
Dimensions	80 x 30.3 x 51.2 mm
Weight	Approx. 82g (without memory card)

Built-in IEEE 802.11n Wi-Fi module: WN7911B-WM

Frequency range	2412~2462MHz
Channel List	Ch1~Ch11

Contains FCC ID: 2ACFIWM7911B

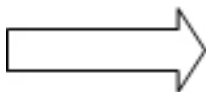
8 Updating speed trap data

Updating the speed trap data is simple.

1. Register your DVR4-HD at <http://www.snooperneo.co.uk> once registered , follow the on screen instructions.

For subsequent downloads please follow the instructions below:

1. Log in to <http://www.snooperneo.co.uk/dvr4.cfm> and enter you serial number.
2. Select the speed trap data you wish to download by clicking the link, when prompted save the file to your PC
3. Remove MicroSD from the DVR-4HD and insert into your PC.
4. Please unzip the firmware of "sp16gw_v3.00.25_r2722.rar" and put "SP16GW.BRN" into the MicroSD card. Insert the updated MicroSD card into the DVR-4HD
5. Power on the DVR-4HD to update.



The process has completed once the progress bar reaches 100%

5. Remove the MicroSD card from the DVR-4HD.
6. Please delete the file of SP16GW.BRN from the MicroSD card, and then put 3 files of "startlogo_cus.jpg" + "umdefest.inf" + "um_update_info.text" into a MicroSD card for updating again.
7. Please remove the 3 files again from the MicroSD card.
8. After the file has been deleted return the MicroSD card to the DVR.

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