

How to Use the DASH CAM

1. Real time video

When the product is properly booted, you will see real time video on the LCD monitor with date, time and information.

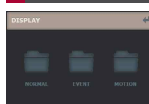


2. Menu

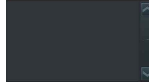
Press the button located bottom left side of LCD monitor. You can enable setting for ease of use.



3. View recorded video and forgery



You can review the recorded file by pressing the event button from the menu.

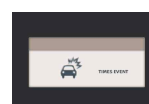


Press view button from the menu screen. Then choice desired features. The name of the file is as follows:
Recording mode, Year, Month, Day, Hour, Minute, Camera channel.



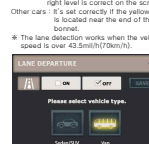
4. Parking accident guidance feature

This feature senses and record the impacts during parking and it's activated when the parking mode is off.



You can choose whether to use the lane departure detection function and the type of vehicle.

Precautions for lane departure detection
1. If there is influence on front lane recognition due to foggy weather, snow or rain on the front of the vehicle.
2. If the lane paint on roads and roads is not clear.
3. If the dash cam's front lens is dirty.
4. If installation is not accurate according to the type of vehicle.
5. If the recorded image is not clear due to snow, rain, and dust, and affects lane recognition on the road.

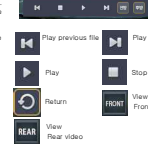


5. Settings

Setting the voice guidance and voice recording.
Voice Guidance: ON/OFF
Voice Recording: ON/OFF
Recording mode: ON/OFF

Setting voice guidance: You will not hear anything if voice guidance option is OFF. Voice recording: You will not be able to record the voice if the option is OFF.

Other Setting: LCD Off, Low Voltage / Parking Lamp, Touch calibration

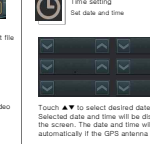


6. Playback recorded video

Press button on the menu to select desired features.

How to set up:
1. Adjust and position the blue line in the center of the vehicle.
2. Adjust and position the red line on the horizon.

[Confirm Settings]
If it's set correctly if the left and right level is correct on the screen. Other cars: It's set correctly if the yellow line choice desired features. The name of the file is as follows:
Recording mode, Year, Month, Day, Hour, Minute, Camera channel.



7. Select sensor

Select G sensor: Change the level of G sensor.
Set LCD brightness: Setting the brightness of LCD screen.

Time setting: Set date and time.
Setting LCD Off: You can choose from 30 sec, 1 min, 5 min with ▲/▶ button.

Low voltage setting: You can set the desired voltage from 11.5V / 12.2V / 12.5V / 23.8V / 24.0V / 24.2V / 24.5V with ▲/▶ button.



8. Format

You can format the memory card in device.

Version Information: You can check feature version.

Web info: Shows firmware version.

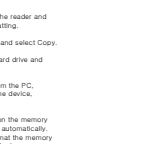
Firmware update: Download the firmware from the homepage (www.sawv.com) and unzip it.

Insert the memory card into the reader and connect to the PC for formatting.
Right-click the extracted file and select Copy.
Right-click on the memory card drive and select Paste.
Remove the memory card from the PC, insert the memory card into the device, and turn on the power.
If firmware data is detected on the memory card, the update will proceed automatically. If the update fails, please format the memory card and restart from the beginning.

SPECIFICATION

Physical specifications	
Model	DASHY Event / Parking record
Sensor	HD (1080P) CMOS
Lens	2M Viewing angle (85°)
Output	3.5" Wide TFT LCD (480 X 320)
Ch 1	Front 180° X 720 30fps
Ch 2	Front 180° X 720 30fps / Rear 120 X 480 20fps
Resolution	12.28V / 20mAh
Input	Touch
Audio	Internal Microphone
Operation	3 sensor/3 axis
Voltage	DC 12V / DC 24V
Size	102.8 X 61.2 X 13.5mm

1. Installation
1. Download the program from "http://www.sawv.com".
2. Right-click it and select Extract.
3. If they are installed in the selected path, file is created and run by double-clicking.
4. Confirm the installation path follow the installation wizard instructions and click "Next" to complete the installation.
[Please select "All modes" for user selection in the installation path.]
5. When the installation is complete, run the Viewer Icon.



PC Viewer

1. Worker Info: 2. Hide: 3. End: 4. Mirror Image from left to right: 5. Mirror Image from upside down: 6. Full screen/Normal screen: 7. Images are exchange: 8. Max/Full FPS: 9. Front video screen: 10. Rear video screen/map: 11. File location: 12. Set brightness: 13. Set volume: 14. Set playing speed: 15. Play the file list: 16. Play file: 17. End: 18. Move to previous frame: 19. Move to next frame: 20. Play previous file: 21. Play next file: 22. Open file: 23. Set color display: 24. Click to enlarge: 25. Screen capture: 26. SD speed/format: 27. Show file: 28. Setting

3. Installation Specification: 4. Memory Size saving time

GPU	Intel Pentium 4 / Core 2 / E5	Space	More SD / Class 10 (VLC)
OS	Windows XP / Windows 7		
RAM	1GB / 2GB	Minimum FPS	Setting: 15 / 15min/15
HDD	4GB or more of free space	Display FPS	about 6 FPS
Web	Internet Explorer 7.0	Play FPS	about 15 FPS
		Screen FPS	about 3.1 FPS

Lamp & Voice guidance

Operating Status	Front	Rear
Constant Rec.	Blink red color(0.5sec period)	Blink blue
Event Rec.	Blink red color(0.5sec period)	Blink red color(1sec period)
Parking	Non Detect	Blink blue color(0.5sec period)
	Event Detect	Blink red color(0.5sec period)
	Motion Detect	Blink blue color(1sec period)
Low voltage lock out	No change(Keeping the situation)	Red flashing (1sec ON, 2sec OFF)
High temp. off	No change(Keeping the situation)	sec pink lights, 2 sec off repeated

Product status	Front	Rear
Stop recording	LED OFF	Blue light
Firmware update	Blue light	Red light (1sec ON, 2sec OFF)
SD card format	Blue light	Red flashing (1sec ON, 2sec OFF)
Remove SD card / Insert SD card	No change (Maintain situation)	No change (Maintain situation)
Connect rear camera / Disconnect rear camera	No change (Maintain situation)	No change (Maintain situation)
Connect GPS / Disconnect GPS	No change (Maintain situation)	No change (Maintain situation)

WARRANTY CARD

Model No. _____
Serial No. _____
Purchased from _____
Purchase date _____
Customer name _____
Contact number _____

1. Please fill out the warranty card when you purchase the product.
2. Refund and exchange of goods is only possible point of purchase.
3. Customer can receive the warranty from authorized dealer when the product is properly used.
4. There will be a service charge within or without the warranty period, if it's determined as a paid service by our regulations.
5. The warranty will be voided in case of misuse, natural disaster, overvoltage and more.
6. And will be charged for service.
7. Please present the warranty card to receive the service.
8. This warranty card will not be re-issued.
9. This warranty card is valid within the country.

[Free warranty]
• The warranty period is within 1 year from purchased date. (If you can't verify the date of purchase, the date will be elapsed from the first month of manufacture year. Make sure to include the purchase date on the warranty card.)
• There is a problem with the product under the normal usage, you can return or exchange within 14 days. (Labor cost maybe added in case of simple change of heat by the customer.)
• The warranty period is six months for the SD card.
[Charged warranty]
• When free warranty period is passed.
• Caused by a customer's negligence or carelessness
• Caused by natural disaster, accident and etc
• Caused by other external matters
• Purchase of accessories and parts

PRODUCT PRECAUTIONS

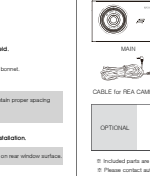
- **Caution read the following to prevent the property damage and for safety.**
• The warranty will be voided on self-installation product. Make sure to visit on authorized dealer with professional installation. The warranty will be voided on an installation by non-authorized dealer. We are not liable for any related damages from an "authorized installation".
- 1. **Caution with the dash cam**
 - The camera angle can be changed if you change the mounting position of the camera. Make sure to adjust the angle of camera and review the recorded file. If the camera is installed in wrong position, normal recording can't be made.
 - The camera angle can be changed if you change the mounting bracket. If you don't make sure to adjust the camera angle and check recorded video, normal recording can't be made. If the camera is installed in wrong position.
 - The camera angle can be changed if you change the camera angle and check recorded video, normal recording can't be made. If the camera is installed in wrong position.
- 2. **Precaution while driving**
 - Do not use or control the dash cam while driving.
 - Do not use an accident.
 - Make sure the dash cam is installed in a location that does not interfere with the driver's vision.
 - Do not touch with wet hands when plugging in or unplugging the power cable. There is a risk of fire or electric shock.
 - Do not use unshielded power cable: It may cause the fire or electric shock.
 - Do not pull, bend or press the power cable with heavy object. The cable can be damaged and cause the fire or electric shock.
 - Do not modify or cut the power cable. It can damage the dash cam and the vehicle. We are not responsible for modified parts.
 - Please disconnect the power cable from the dash cam if you are not going to use the vehicle for long time. (Labor cost maybe added in case of simple change of heat by the customer.)
 - Do not wipe the product with chemicals, detergents, etc. Gently wipe with a soft cloth.
- 3. **Precautions with power**
 - Do not touch with wet hands when plugging in or unplugging the power cable. There is a risk of fire or electric shock.
 - Do not use unshielded power cable: It may cause the fire or electric shock.
 - Do not pull, bend or press the power cable with heavy object. The cable can be damaged and cause the fire or electric shock.
 - Do not modify or cut the power cable. It can damage the dash cam and the vehicle. We are not responsible for modified parts.
 - Please disconnect the power cable from the dash cam if you are not going to use the vehicle for long time. (Labor cost maybe added in case of simple change of heat by the customer.)
 - Do not wipe the product with chemicals, detergents, etc. Gently wipe with a soft cloth.

- If the dash cam's power is consistently connected to the battery, it may be discharged and we are not responsible for discharged battery.
- 4. **Product Replacement and outdoor usage**
 - We don't guarantee the compatibility with other parts, except the ones we provide. We are not responsible for damages caused by modified parts.
 - Periodically check the dots showed on the SD card to see if the dash cam is operation properly.
 - Please store important data separately. Make sure to store it on another storage device (HDD, CD, removable memory).
 - Do not modify or cut the power cable. It can damage the dash cam and the vehicle. We are not responsible for any damages caused by modified parts.
 - Depending on the section, the temperature inside the vehicle rises due to direct sunlight. Please move the temperature of SD card may rise. Please move your vehicle to a cool place.
- 5. **SD card management and Precautions**
 - The power of the dash cam turns OFF when the ignition is OFF or the power connector is disconnected from the main body. Make sure to turn the power OFF before removing the SD card as below.
 - [When removing the SD card]
 - Turn OFF the ignition of your vehicle.
 - Disconnect the power connector from the dash cam.
 - Make sure to check the LED status light then remove the SD card.
 - [When inserting the SD card]
 - Insert the SD card to the slot after disconnecting the power cable to the main body unit, then start the vehicle.
 - Connect the power cable to the main body unit.
 - The SD card may be damaged if you insert the card to the opposite direction.
 - We recommend the use of ON/OFF switch when Rear sensor or error on the Dash Cam. To be without the dash cam.
 - We recommend the use of authorized SD card and we are not responsible for any damage caused by using unauthorized card.

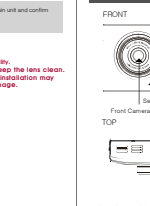
INSTALLATION INSTRUCTION

- Make sure to combine well the cable connector to the main body. Start connecting the cable from A to B until you hear the click sound to secure the connection.
- Remove the lens protection film.
- Remove the double sided tape from the mounting bracket and attach to desired location.
- Remove the main body unit from the bracket and securely press the bracket to the windshield.
- Adjust the dash cam to desired angle and secure the screw of the bracket. The recommended viewing angle of the camera is to be placed in the bottom 1/5 parts of the windshield.
- Connect the power cable to DC-IN.
 - If you install the navigation, make sure the power cable is not in the same vertical position and maintain proper spacing to electrical connector.
 - The navigation of CAN & GPS may be broken in area with weak signal.
- Remove the lens protection film and double sided tape from the rear camera before the installation.
 - When you install the rear camera, make sure the lens of the camera doesn't touch the heating wire on rear window surface.
- Adjust the rear camera to adjust the viewing angle.
 - Secure connect the cable for the rear camera to main unit. A+B-IN connector.
 - To prevent the screen displaying upside down, make sure to connect the rear camera to the main unit and confirm the image.
 - The rear camera will work when it's connected to the main unit with power ON.
- Please keep your windows clean before recording to ensure the best picture quality.
 - The dots in the lens may cause a negative effect on recording. Always keep the lens clean.
 - Removing the double sided tape of the bracket to change the location of installation may cause a damage to the vehicles listed film, we are not liable for such damage.

PRODUCT CONFIGURATION



PARTS DESCRIPTION



USER MANUAL

SAVV REAL HD FDC-30HH/FDC-35HH

