



AR-212

Product Operation Manual

Please read this manual carefully before use

Use reminder

1. Please read this instruction manual carefully before using the camera. It contains important information for your safety as well as operating and maintenance instructions.
2. Follow all safety precautions in order to prevent damage due to improper use of the camera.
3. In the event of improper use or erroneous handling, no liability can be assumed for any possible damage which may occur.
4. You should not install this dash camera at a place that would obstruct or reduce a driver's view. Make sure your usage complies with pertinent vehicle codes of your state, province, territory or country.
5. You should post the required notices of recordation to occupants inside the vehicle, if voices or other information/signal pertaining to in-vehicle activities will be recorded.
6. You should avoid extended exposure of the dash cam to direct sunlight or extreme temperatures (either high or low temperature) which tend to degrade or damage the unit and its normal functionality.
7. You should examine, check and verify the dash cam at least every 6 months, including the memory card, to ensure the video reception and recording are working properly. For each use, you should verify that the dash cam unit, the visible lights and the audible sounds are working normally.
8. Do not try to open the cover or try to repair it yourself. If the accessories for this device have any problem, please contact the seller for assistance.
9. Pay careful attention when cleaning the lens surface. Use a soft, moist cloth to clean the lens to avoid compromising video quality.
10. You should use the dash cam unit in the way it is intended. You should not use the dash cam unit in a way that would be illegal or that tends to physically damage the unit, or tend to cause danger to the safe operation of the vehicle or the occupants.
11. This device is intended to be used inside the vehicle only.

Catalog

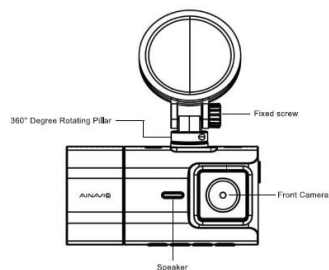
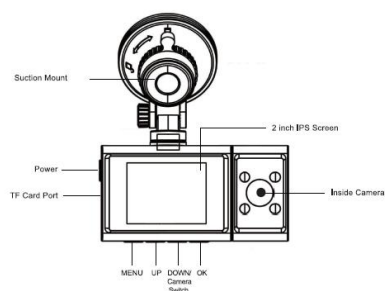
Use reminder	1
Getting Started	2
Product Overview	3
Installation and cabling	4
Special reminder for suction cup fixation	5
Operation and Settings	6
Recording Settings	7
System Settings.....	9
Time Zone Settings.....	12
24-hour Parking Monitoring.....	13
Mobile phone connection APP.....	15
1. Download APP	15
2. Allow app permissions	16
3. Turn on dash camera's Wi-Fi	17
4. Add Camera	19
5. View and download videos in Roadcam	20
GPSPlayer video playback	21
1. Download APP	21
2. Video folder	21
3. Use GPSPlayer	22
4. Reasons for different speeds	22
FQA	23
Specifications.....	25

12. Do not expose this product to rain, moisture or water under any circumstances or it will result in external or internal damage.
13. Do not operate or install the camera while driving, or attempt to change any setting etc.
14. If any damage is caused by failure to follow the instructions, the warranty will be voided.

Getting Started

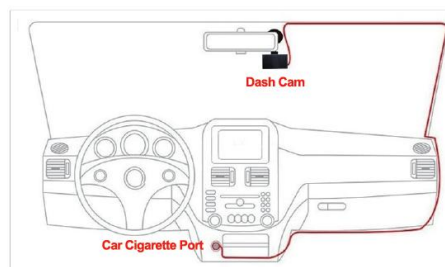
- ① Before installation, please check the accessories carefully to ensure that the product and accessories are correct and complete.
- ② In order to ensure that the device is running well, please format the micro SD card first before use.
- ③ During installation, be sure not to insert the car key into the power supply, and do not insert or remove any machine accessories like microSD card or rear camera when the dash cam is powered on. These actions should be completed when power is turned off.
- ④ When the car key is plugged into the vehicle, the dash cam will automatically turn on. Please check whether the function of power on/off, the front and rear cameras display is normal.
- ⑤ If you need to download the recording videos and images, please turn off the camera first before removing the microSD card.
- ⑥ You must use U3 high-speed card (recommended capacity 8GB-256GB), lower than U3 will cause problems like video stutter, black screen, and video cannot be recorded or cannot be played.
- ⑦ Do not remove the Micro-SD card while it is saving or reading data.
- ⑧ Make sure to remove the plastic screen protector on the lens and on the screen before

Product Overview



- 3 -

Installation and cabling



▲ The installation location of the dash cam ▲

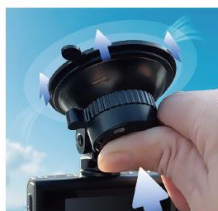


▲ Rear camera installation position ▲

- 4 -

Special reminder for suction cup fixation (important)

(1) Wipe the front windshield clean, and press the suction cup firmly against the glass to exhaust the air between the suction cup and the glass (Picture①).



Picture①

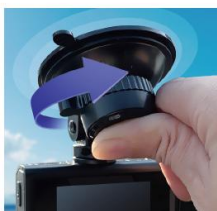


If there are air bubbles on the edge of the suction cup, it will cause the suction cup to be unstable and easy to fall. Please ensure that the pressing effect is as shown in the picture ②.

(2) After pressing the suction cup in place (Picture②), push the suction cup lock to the right to lock and fix the dash cam (Picture③).



Picture②



Picture③

- 5 -

Operation and Settings

Boot UP

The Dash cam will power on automatically when connected to power and can also by pressing the power button.

Turn OFF

When the car is turned off or the power is disconnected, the device will save the last video file and shut down.

Video Recording

After the car engine is switched on, the camera will automatically turn on and start recording. (When recording, the red circle in the upper left corner and the LED light in the lower right corner of the screen will keep flashing.)

Setup Menu

Press **OK button** first to stop recording and then press **MENU** button to enter menu setting.



- 6 -

Recording settings



Resolution

This setting allows you to set the video recording resolution. You can choose to switch between 3 modes:
(1) 4K (front) + 2.5K(rear)
(2) 4K (front) + 1080P (cabin)
(3) 2.5K (front) +1080P (cabin) + 2.5K (rear)



Loop recording

This setting allows you to control the duration of each recorded video. It will delete the oldest files and record new video files over and over again when the memory card is full. The recording time can set 1 minute, 3 minutes, 5 minutes or off duration.



Dual Cam Display

You can choose which camera to display on the Dash cam screen. can be set to Front, Inside, Rear, Or display all cameras.



WDR

Wide dynamic range (WDR) processes images to ensure bright and The recorder can show excellent images in low light environments. It is recommended to keep it ON.

- 7 -



AUDIO

The recording function turns on and off the setting button. It is turned on by default. If you don't need to record, please turn it off.



DATE STAMP

Video time watermark turn on or turn off the setting button. Recommended to keep it ON.



G-SENSOR

when the car is turned off, Dash cam detects the car is shaking, it will automatically use the device's own battery to start recording for 30 seconds, the current video file will be locked as an emergency file to avoid being overwritten. Off / Low / Medium / High are selectable, the default is Low.



IR Cut

This function is set for the cabin camera. If it is turned on, it will automatically switch between the color and black & white of the cabin camera screen according to the brightness of the environment. It is colored during the day and black & white at night to increase the brightness of the screen. If turned off, the cabin camera will always be in color.



Codec

Default is H.264. Video Encode is used to store and transmit videos, and supports mainstream video encode standard-H.265.

- 8 -

System Settings



SCREEN SAVER

Turns the screen off after a set time of no activity to prevent driver distraction. The camera will continue recording and the screen can be woken up by pressing any button.



Time Display

The recording time is ON/OFF, it is recommended to keep it ON.



WIFI

When you want to preview or download the video recorded by dash cam on your phone in real time, you need to open the WiFi hotspot of Dash Cam (Please see page 15-20 for operation method), It is off by default.



Date/Time

Set system date, time and date.

- 9 -



Time system

You can choose 12-hour system or 24-hour system. It is recommended to set 24 hours.



Beep Sound

Dash cam button tone, you can choose to turn on or off.



Language

Sets the on-screen display language to English, French, Spanish, Deutsch, Russian, Italian, Japanese, Korean, Arabic, Chinese etc.



Parking Monitor

When the car is turned off, the ACC enters the 1 second 1 frame time-lapse recording state after 5 seconds of power failure. Until the car starts again, Dash cam enters the normal recording state.



Frame Rate

Frequency setting, 50Hz or 60Hz

- 10 -



Fatigue Driving Reminder

You can set 1 hour, 2 hours, 4 hours, when your driving time reaches the time you set, Dash Cam will sound a reminder, you can also choose to turn off.



GPS information

Display GPS signal, vehicle speed, and number of satellites.



FORMAT

Formats the MicroSD card ready for use with the camera.



Default Setting

Restore system factory default settings



VERSION

To check the dash camera system version.

- 11 -

Time Zone Settings



Time Zone

The system defaults to West 5th district. You can also set other GMT time zone values. The camera automatically refreshes the date and time according to the GMT value when receiving GPS signals.

If you find that the camera time is different from the real time, please set the correct time zone. Recording settings__TIME ZONE__set the correct GMT value__OK confirmation.



Time zone Settings Reminder:

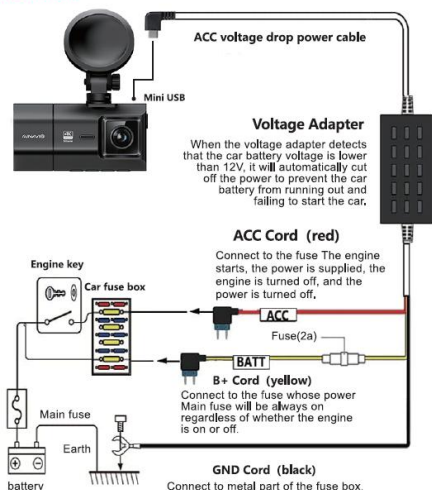
For example, GTM-5:00, "-" sign means west, "+" sign means east, then GTM-5:00 means West 5th district; GTM+8:00 means East 8th district.

- 12 -

24-hour Parking Monitoring

(1) This function must be purchased hardwire kit (Asin: B09PBNH1FM) to use, please make sure you have purchased the hardwire kit. Then connect the wiring harness according to the following picture.

connecting the hardwire kit, please make sure that the car engine is off. And then disconnect the negative terminal of the to prevent a short circuit accident.



- 13 -

(2) In the system settings, find the parking monitor and set it on.



(3) When the voltage drop cable is powered, When the car is turned off, the ACC enters the 1 second 1 frame time-lapse recording state after 5 seconds of power failure(The screen is off in parking monitoring mode, and Dash cam cannot be operated). Until the car starts again, Dash cam enters the normal recording



- 14 -

Mobile phone connection APP

This Dash Cam works with the **RoadCam** application. When the camera's WiFi hotspot is turned on, you can connect your phone to Dash Cam, and you can preview or download the video/photo in the recorder.

1. Download APP

Search for "RoadCam" on App Store or Google Play Store :

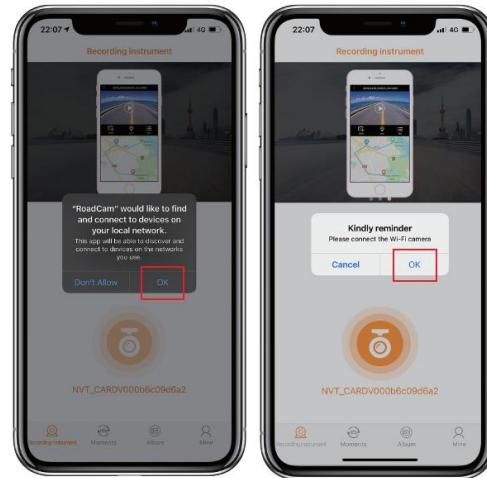


RoadCam



- 15 -

2. Allow app permissions.



- 16 -

3. Turn on dash camera's Wi-Fi

(1) Press the OK button to stop recording. Long press the menu button for 5 seconds or Press the Menu ___ System Settings ___ WiFi ___ ON

Step①:



Step②:

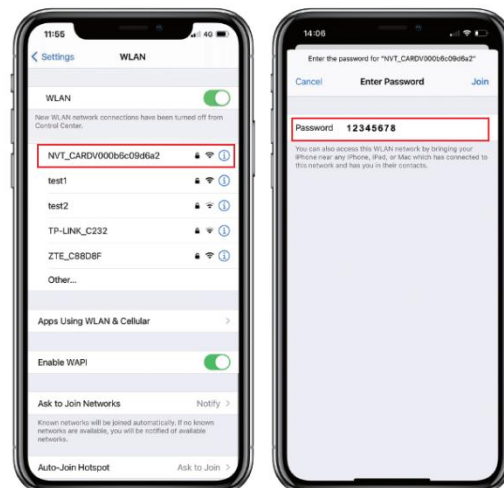


Step③:



- 17 -

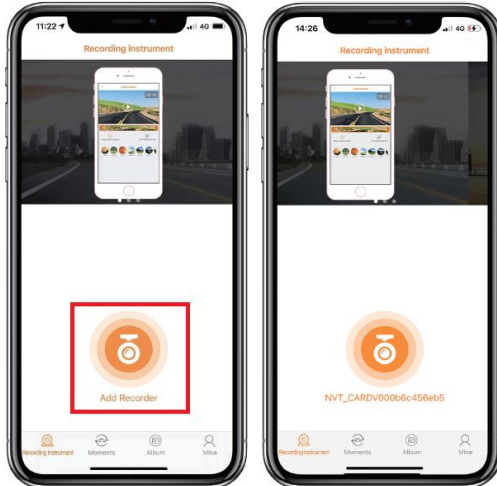
(2) Search for the WiFi hotspot with the name SSID : NVT_CARDV xxxx on the phone. Enter the password: 12345678 to connect.



- 18 -

4. Add Camera

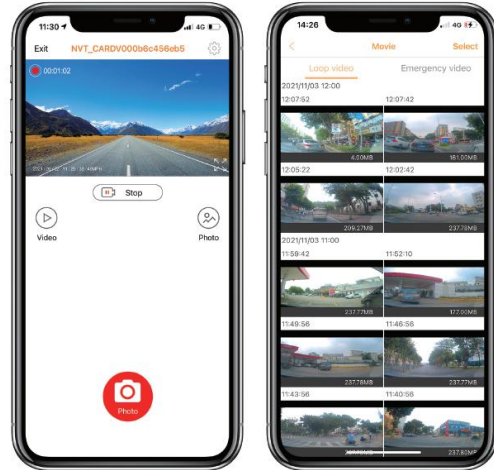
Open the App Roadcam on the phone, Click the "Add Camera" icon to connect the dash camera to the App. When you see the Camera SSID it means you have connected successfully.



- 19 -

5. View and download videos in Roadcam

Tap the video icon from the application home screen to access all recorded videos saved in the microSD card. You can download, delete or play videos from the app (Download videos or pictures to your phone via WiFi without consuming data) .



- 20 -

GPSPlayer video playback

(1) PC download GPSPlayer

To download GPS Player visit <http://www.gpsplayer.net/setup.html>



GPSPlayer

Compatible with **Windows** (Win7, Win8, Win10)
Compatible with **Mac** (Mac 10.11, Mac 10.11 above)

(2) Video folder

Take out the Micro SD card from the camera and connect it to your PC via USB. Find the **NOVATEK** folder and click open it. Select one of the recorded videos and drag them directly to the File column in the lower right corner of the GPSPlayer interface.



Novatek

- 21 -

(3) Use GPSPlayer

In GPSPlayer, you can view the GPS information, driving route, recording time, vehicle speed, and map trajectory of the recorded video.



(4) Reasons for different speeds

Why is the speed displayed by the Dash Cam slower than the speed displayed by the car dashboard?

This is normal, because the factory setting speed of the car is about 3% slower than the actual speed. The actual speed of the vehicle is actually lower than the speed of the odometer. This is to improve safety and reduce the possibility of fines. This setting is applicable to vehicles and recorders all over the world. The speed calculation of the driving recorder comes from GPS, so it is an accurate driving speed.

- 22 -

FAQ

The video is blurred?

- (1) Please make sure that the camera lens is clean and there is no dirt on the windshield.
- (2) Remove the plastic screen protective film from the lens and the screen monitor.

The camera shows a memory error?

- (1) Please make sure that the memory card is a U3 high-speed micro SD card 8-256GB before use.
- (2) Please format the micro SD card once before use.

The menu buttons do not work.

Press the OK button to stop recording, and then press the MENU button.

Why is WiFi turned off by default, can it be set to always be on?

Keeping the WiFi on all the time will cause the camera chip to be overloaded and heat up, which may affect normal recording. In order to keep the camera working stably, WiFi is turned off by default. Please turn on WiFi before you need to use the mobile APP to connect.

Will the camera automatically lock a lot of videos?

Please make sure you manage the G-sensor setting. This setting depends on the level of vibration generated by the car/truck you are driving, suspension and road conditions (medium sensitivity is recommended).

- 23 -

Why does Suction Mount fall easily?

If there are bubbles on the edge of the suction cup, it will cause the suction cup to be unstable and easy to fall. Please firmly press the suction cup to discharge the air, and then lock the lock.

Is the camera getting hot?

It is normal for your camera to become slightly warm. Our products have undergone rigorous high and low temperature tests, so you don't have to worry about it.

The camera often turns on/off automatically?

Please make sure that the motion detection is set to off and the parking mode is also set closure.

The Micro SD card cannot be inserted.

Please make sure that the microSD card is aligned correctly, with the gold contacts facing Towards the screen.

The date and time are not the same.

Please go to the camera's recording settings __TIME ZONE__ set the correct GMT value __OK__ confirmation. Every time there is a GPS signal, you will always have the correct date and time.

(Time zone distinction reminder: For example, GTM-5:00, "-" sign represents west, "+" sign represents east, then GTM-5:00 means West 5th district; GTM+8:00 means East 8th district.)

- 24 -

Specifications

Model	AR-212
Processor	Novatek 96670
Sensor	SONY Starvis IMX335 (Front)
	SONY Starvis IMX307 (Rear)
	Galaxy Core GC2053(Inside)
Front camera video resolution	4K (3840×2160) @ 30FPS (interpolated)
	2.5K (2560×1440) @ 30FPS
Cabin camera video resolution	FullHD (1920×1080P) @ 30FPS
Rear camera video resolution	2.5K (2560×1440) @ 30FPS
Field of view	Front 170° Rear 140° Inside 120°
Video Codec	H.265 / H.264
Audio	Built-in microphone
Screen size	2" IPS
WiFi	WLAN 802.11b/g/n 2.4GHz
APP	RoadCam
Memory	MicroSD up to 256 GB
Auto Turn On/Off	Yes
Battery	Built-in 300mAh Battery
Working Temperature	-4F° - 158F°
Dimensions	97×50×30.8 mm
Menu languages	English, French, Spanish, Deutsch, Russian, Italian, Japanese, Korean, Arabic, Chinese etc
Power supply	Car charger input: 12-24V, output: 5V/2A DC

- 25 -

FCC Warning Statement

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

FCC Radiation Exposure Statement

The antennas used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located for operating in conjunction with any other antenna or transmitter.

AINAVIG