

R935

2CH DASHCAM Installation Guide ver.1

QVIA Dash Cam

- ※ GUI or functions in the manual may differ depending on the software version.
- ※ Due to the format-free feature the device has, past video clips can be played depending on the file size if played on media players other than the one provided by the manufacturer.
- ※ Due to the format-free feature the device has, some settings of memory card can be restricted.
(e.g. intervals for recordings, image quality and etc.)
- ※ Due to the format-free feature the device has, memory card efficiency may be affected.

Thank you for purchasing QVIA Dash Camera.

This manual is for the users of the R935 model.

There may be some technical & editorial errors and omissions.

You can download the latest and updated manual & firmware at our website www.lukashd.com.

■ Read carefully before using this product ■

- ※ This manual should be reviewed and retained for future reference.
- ※ Qrontech reserves all rights to this manual in accordance with the copyright law.
- ※ Content of this manual is subject to change without notice to ensure quality control.
- ※ Device functionality may differ depending on firmware versions.
- ※ This device was designed as a guide for safe driving. In the event of an accident, the driver must take full responsibility. Please use this device accordingly.

■ Scope of guarantee and responsibility ■

- ※ This device is an equipment for recording videos and sounds to provide visual proof of a vehicular accident, but we do not guarantee that it will record all accident videos and sounds.
- ※ We will not be held responsible for any damages caused by malfunction of this device, data loss, or other damages related to this device.
- ※ In general, the memory card lifespan is about 6 months and there may be data loss due to static electricity or external voltage existing in the surrounding environment. For this reason, it is highly recommended to copy and save important data to other media devices. (hard disk, CD, portable memory etc.)
- ※ **Although this device comes with a format-free feature**, the memory card(s) may obtain corrupted videos (omissions in recording, image cuts, omissions due to changes in frame rates, & other recording defects) due to a decrease in reading/writing speed. For the best results, please use a genuine Qvia SD card and format it on a regular basis (once a month for 8G SD and microSD cards).
- ※ This device is an auxiliary device to record the driving videos. Please use this device for reference purposes only. There may be times when recording is unstable due to various driving conditions.
- ※ We will not be held responsible for any damages related to engine output if the user chooses to record records in parking mode without any extra external battery.

CONTENTS

1. Instructions For Use

1-1. Precautions and Notice	4
1-2. Installation	6
1-3. GPS	6
1-4. Memory Card	7

2. Features

8

3. Components

3-1. Package Guide	10
3-2. Names & Function of Each Part	11

4. Installation

4-1. Precautions	12
4-2. Step-by-Step Installation	12
4-3. How to Hardwire Continuous Power Cable	14
4-4. Camera Angle	15
4-5. Memory Card Usage	16

5. Product Usage

5-1. Basic Operation Guide	17
5-2. Starting the Device	20
5-3. Video Playback	22
5-4. Live View	23
5-5. Setting	24
5-6. Card Format	31
5-7. Time Setting	32
5-8. User Guide	33
5-9. OBD II	34
5-10. Qvia Viewer	35

6. Specifications & Customer Service

6-1. Specifications	39
6-2. Quality assurance	40

1. Instructions For Use

1-1. Precautions and Notices

1. Do not expose the device to direct sunlight or cold weather for extended periods of time.

Direct Exposures to sunlight and extreme temperatures may damage the device. When not in use, storage temperatures should also be controlled. Note that colors of UV filter or exterior of the device may change if exposed to harsh sunlight for a prolonged period of time.

2. Do not attempt to service the product.

Do not attempt to disassemble, modify, or repair the product. Warranty cover will be void if a repair has been attempted by the user or anyone unauthorized.

3. Do not dismantle or alter the device accessories.

Modifying or cutting power cable can lead to damages the device or the vehicle. We are not responsible for any damages caused by such modifications.

4. Do not expose the device to liquids.

Please note this device is not waterproof and exposure to liquids and foreign substances may cause a device malfunction, short circuit, and/or fire. Be cautious when cleaning the device using a soft and dry cloth.

5. Do not expose the device to heavy impacts.

Excessive impacts to this device can cause a malfunction. Handle the product with care.

6. Use only the manufacturer-approved power cable and accessories.

Any damages to the device/vehicle incurred as a result of using accessories incompatible with the device will not be covered under manufactures warranty.

7. Do not operate the device for extended periods of time while the vehicle is not running.

Excessive use of the device while vehicle is off can cause drainage to the vehicle's battery.

8. Extreme changes in lighting conditions can affect video quality.

Video quality can be affected in extreme dark/light areas and conditions. Most notability when entering/exiting a tunnel or parking garage.

9. Data may not be recorded if an impact detected is too subtle.

In extreme cases, the device may not record data during an accident due to possible low impact forces. In addition, a high force impact may disrupt power to the device and data may be lost.

10. Do not disconnect the power source while the device is turned-on.
Disconnecting the power source may cause the device to malfunction. Please use only the recommended voltage for power connection.
11. Do not pull out the power cable while using the product or use it at a voltage other than the specified voltage.
12. Some PCs may not support Qvia Viewer or there may be some disconnections in voice/image depending on the PC's specifications.
13. AE operations at night may vary depending on the color of the vehicle(black, red) reflecting less light.
14. There may be frame omissions due to rapid AE operational changes in low light areas. Please adjust the angle of the camera lens if AE operation malfunction.
15. Videos may contain noises if recorded in poor lighting environments.
16. In the event of a sudden frame change or switching between parking & driving modes, there may be a loss of data.
Please reset the installation angle of the dash camera if AE operation malfunctions.
17. Motion detectors may malfunction in the event of an extreme changes in lighting conditions surrounding the vehicle.
18. The motion detection function may not operate properly in environments with poor lighting conditions due to noise and vehicle security LED(s).
19. The left and right side of video footage may differ in quality due to characteristics of the wide-angle lens.
20. Traffic lights may appear to be flickering due to its location or signal frequency.
21. This product supports OBD II, but users are recommended to inquire distributor or customer center about applicable vehicle, model and more detailed information before use. (Software/hardware modification).
22. Please ensure all accessories are connected to the front and rear cameras to avoid data loss.
23. We will not be held responsible for any damages related to engine output if user records in parking mode without a portable auxiliary battery.
24. If you suspect any malfunction, stop using the product and contact our C/S center or your local distributor.

■ 1–2. Installation ■

1. Keep the surrounding of the device clear.

Please ensure the surrounding area is clutter-free, specially on the dashboard to avoid reflections in the windshield. That may reduce the video/audio quality.

2. Ensure camera lens are clean at all times.

3. Do not attempt to operate or install the device while driving.

For your safety, do not attempt to operate or install the device while driving to avoid possible accidents.

4. Please keep the device securely mounted at all times.

Improper installation of dash cam can result in a fall or malfunction, which can lead to breakdown or driving interruption.

5. Video footage can be blurry or distorted in a vehicle excessively tinted windshield glass.

6. Install this device at the point as furthest away from other devices antenna or receiver as possible.

The electromagnetic waves produced by other devices may interfere with receiving GPS signals.

7. Videos may appear dark when using a CPL filter.

We don't recommend using a CPL filter at night or with vehicles with excessive window tints.

Depending on tinting, conditions, a 'rainbow effect' may appear on recorded data.

8. Please remove the UV filter when using a CPL filter.

■ 1–3. GPS ■

1. The typical GPS receiver achieves an accuracy of 15 meters. There may be times when GPS signals cannot be received depending on the driving environments such as tunnels, underpasses,skyscrapers,and street lights which affect the accuracy level.
2. It may take some time to receive GPS signal for the first time after power is turned on depending on the weather or other factors.
3. External devices (electronic, toll device) and window tinting may affect GPS reception.
4. Driving speed may vary (range of 1–30 km/h) depending on where the vehicle is parked.
5. GPS information may be lost if the device is turned off.
6. Time errors can occur with a dash cam without GPS.

■ 1-4. Memory Card ■

1. Do not remove the memory cards by force while the device is in recording mode.
Be sure to turn off the device before removing the memory cards. Removing the cards with the device running may damage the video file or cause an operational error or the memory cards.
2. Formatting SD card and microSD once a month at minimum (8G) is recommended.
Repetitive writing and deleting of memory cards can cause damage to stored files and the cards themselves. Therefore, periodic formatting can prevent the cards or files from such damages. In addition, the longest lifespan of a memory card is 6 months and the manufacturer is not responsible for recording problems that take place due to prolonged use of a memory card past the lifespan.
3. Use memory cards supplied by the manufacturer.
We shall not be responsible for any problems caused by using memory cards not provided by the manufacturer.
4. Handle with care ering and removing memory cards to avoid burns.
The memory card operates at very high temperatures, so you must be careful of handling the cards.
5. Operating temperatures may vary depending on the performance of memory cards.
6. Be sure to backup your recorded videos using an extra storage device. (PC, external HDD, etc.).
A backup of the memory card data using an external storage device can prevent the loss of important data.
7. Be sure to format the SD card when changing mode setting on Qvia viewer.
8. After formatting memory card, the latest settings will be automatically applied to the dash cam. No firmware or configuration file is required.
As the latest set value is saved on dash cam, it is automatically applied to the formatted memory card.
9. Please format memory card without removing it from the device. You can format the memory cards on the formatting menu right from the device.
10. Be sure to insert microSD card into the device.
Without microSD card, event recordings cannot be saved.
11. Do not insert the microSD card into the SD card slot using a microSD card adaptor. It may cause malfunction or damages.
12. This model has a format-free feature. Malfunctions may occur if unsupported files are copied to, moved or deleted from the memory card(s).
13. When formatting on a PC, we recommend that users opt for a full format option rather than quick format option.

2. Features

- ▶ Supports a variety of recording functions

 - Front view dash cam : CMOS **Sony Exmor R IMX291 Full HD** dedicated sensor

 - Rear view dash cam : CMOS **Sony Exmor IMX322 Full HD** dedicated sensor

- ▶ Distortion-free recording with wide angle lens

 - Front view : 1920x1080p Full HD recording, at max. 30fps

 - Rear view : 1920x1080p Full HD recording at max. 24fps

- ▶ **3.5inch LCD(800x480) + Full Touch, IPS Panel**

- ▶ Supports 'Format-free' feature

- ▶ Equipped with car battery discharge prevention function

 - Multi-booting support (ON – ACC – OFF)

 - Leakage current 100uA or less

- ▶ Supports a variety of recording functions

 - Continuous recording : continuously records 3-minute videos

 - Event recording : records before/after impact occurs for 30 seconds in total

 - **Dual Slot (SD + microSD). Dual Save (Always+Event/ Motion+Event)**

- ▶ Supports maximum memory capacity of **1,024G**

- ▶ Supports voice guidance in 21 languages (English, Korean, Russian, Chinese, French, European Spanish, Latin America Spanish, Arabic, Japanese, Thai, Vietnamese, German, Mongolian, Turkish, Italian, Hindi, Czech, Cantonese, Portuguese, Bahasa Indonesia, Bahasa Melayu)

- ▶ **Supports Dual Security LED**

- ▶ Supports Integrated GPS (optional)

- ▶ Operating temperature: $-20^{\circ}\text{C} \sim 70^{\circ}\text{C}$ (highest temp. in LCD type)

- ▶ Stores **2 million driving information data**

- ▶ Detachable fixed/rotating mounts

- ▶ No electric curtain interruption by minimizing height of rear view camera

- ▶ Supports OBD II (optional)

▶ **UV filter(included) , CPL Filter(optional)**

▶ **Parking alert function**

Catalogues the number of motions and events detected during parking mode recording (optional in configuration setting)

▶ **Built-in microphone**

Records audio simultaneously

▶ **Direct memory card format**

Able to format the memory card(s) directly from the device (refer to 31 page)

▶ **Built-in super capacitor**

An internal battery replacement is not necessary due to a built-in semi-permanent super capacitor which will write all files onto the SD card(s) before the device turns off

▶ **Video playback**

Videos can be viewed from the PC & Mac dedicated Viewers or on the LCD screen of the cameratyttyt

▶ **Firmware upgrade support**

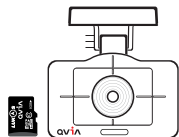
Firmware will be upgraded for improvement of performance and fixing errors

▶ **Configuration setting available**

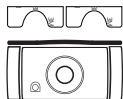
Users are able to customize the device settings and a variety of functions including customized situation-specific recording, and the weekly car day alarm directly from the dedicated viewer or by using the device setting menu

3. Components

▣ 3-1. Package Guide ▣



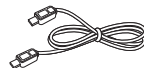
Front Camera
(microSD card 8GB)



Rear view camera
adhesive tape



Hard wire power cable



Front/rear connection cable



Fixed type bracket set



User's Guide



SD Card



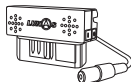
microSD Card adapter



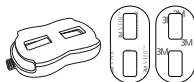
UV Filter



Cigar cable (optional)



OBD II (optional)



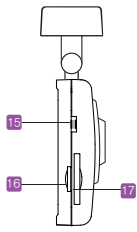
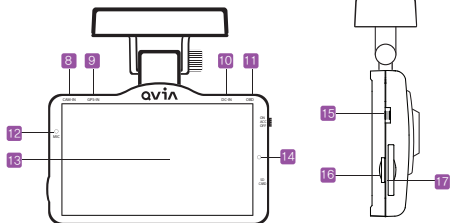
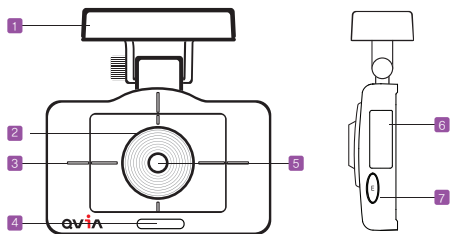
Rotating type bracket set
(optional)



CPL Filter (Optional)

- Please handle the components with care.
- **Product package is subject to change depending on models and types (Hard wire power cable is not included in type D model).**
- Be sure to use genuine components provided by the manufacturer.
- Do not use microSD card adaptor in the dash cam or it may malfunction.

3-2. Names & Functions of Each Part



	Name	Function
1	Stand & GPS(Built-In)	Installed into vehicle & receives GPS info(only applies to device with GPS stand)
2	37mm UV Filter	Protect lens from sunlight and lengthen life of camera sensor
3	Speaker	Audio signal output
4	Security LED	Displays dash cam operating status, gives warning
5	Camera Lens	Video signal input (CMOS Digital Sensor)
6	S/N Label	Product name & product serial number
7	Emergency Recording (E) Button	Manual recording when necessary (generate 30 second file in event folder)
8	CAM-IN	Rear camera input connection
9	GPS-IN	GPS connection
10	DC-IN	Supply power to dash cam through power connection
11	OBD	OBD connection (Only for type D model)
12	MIC	Voice signal input
13	LCD & Touch	Displays driving video and video being recorded, Set configuration settings
14	Operation status LED	Display dash cam operation status etc
15	Power switch	Dash cam power supply switch
16	microSD slot	Used to insert/remove microSD card
17	SD slot	Used to insert/remove SD card

	Name	Function
1	Rear Stand	Allows rear view camera to be mounted on vehicle
2	Security LED	Displays dash cam operation status, gives warning
3	Camera Lens	Video signal input
4	Cable Connection	Rear view cable connection terminal

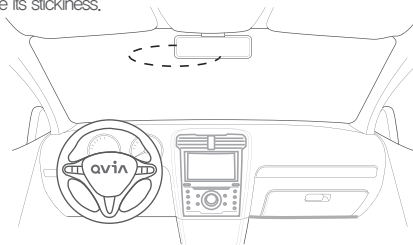
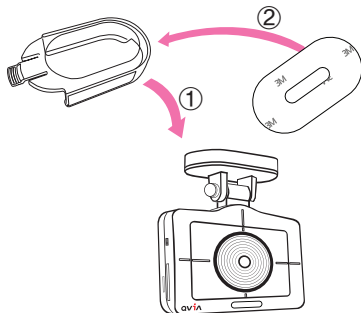
4. Installation

4-1. Precautions

- ※ Before installation, park your vehicle on flat ground where there is some light.
Turn off the engine and remove the key from the ignition. (Be sure parking brake is ON)
- ※ Pick a spot for the device on the rear view mirror not blocking the driver's vision.
- ※ Do not install the device with the lens facing upwards or it may cause GPS malfunction and/or continuous recording in event mode. (With no GPS detection, keeps recording in event mode).
- ※ Clean the windshield area where the device will be installed.
- ※ Adjust camera lens angle, so that it shows approximately 40% of the car bonnet on the bottom of the LCD screen.
 - If the lens is installed excessively facing downwards, traffic signs will not be recorded, keeping you from retrieving exact information.
 - When the lens is installed facing too high, the screen looks dark overall due to the bright sky.

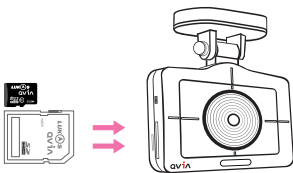
4-2. Step-by-Step Installation

- 1 Apply double-sided adhesive tape on front/rear stand of the device.
- 2 Select a spot not blocking the driver's vision. Then, attach front camera to the windshield glass around the rear view mirror.
Do the same with the rear camera onto the rear windshield.
※ Detaching and reattaching the adhesive tape causes the tape to lose its stickiness.



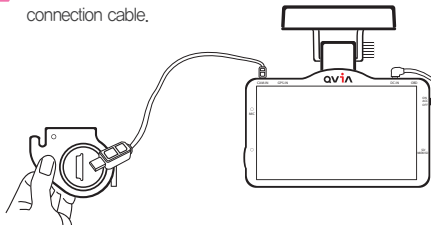
4-2. Step-by-Step Installation

- 3 Insert SD card and microSD card into front camera.



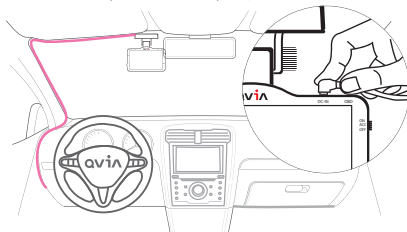
- ※ If you do not insert microSD, event files are not saved.
- ※ Do not insert the microSD card into the SD card slot using the microSD card adaptor. It may cause malfunction or be damaged.

- 5 Connect front camera and rear camera with front/rear connection cable.

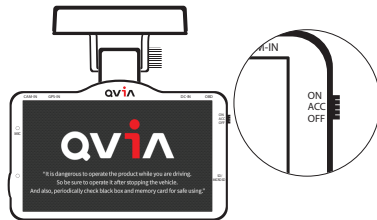


- ※ If there is no SD card, the device will not work.
- ※ The device is rebooted when the rear camera connection cable gets plugged or unplugged in the main body.
- ※ Dash cam does not work properly when the rear camera connection cable gets plugged or unplugged in the rear camera.

- 4 After connecting power cable to the front camera, run the power cable along the windshield headliner all the way to the driver side A-pillar trim, (as shown in the picture colored pink.)



- 6 After installation, turn on the engine first followed by switching on the power button(ACC or ON) of the device. Check if the device turns on and works properly by examining the LCD screen.



- ※ Make sure the device is turned OFF when connecting/disconnecting the power cable of the rear camera. Otherwise, damage may be done to the device.

4-3. How to Hardwire Continuous Power Cable

1

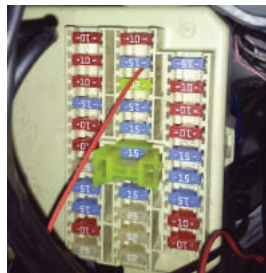


Before you open or work on a fuse box, be sure that your vehicle's ignition is turned off. Then, locate the fuse box and the chart that shows you what each fuse is for. Choose where to wire the continuous power cord and the ACC wire.

※ Use fuse tongs to easily insert and remove individual fuses.



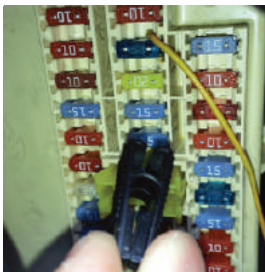
2



Identify a fuse that has no power (e.g. cigarette lighter, audio etc.) to connect with the red ACC wire and insert it back to fuse box.

※ Location of ACC power supply may differ depending on the vehicle.
 ※ Please connect the ACC wire to the output terminal. If wired the other way around, there is a risk of fire.

3



Identify a fuse that has power (e.g. emergency lamp, indoor lamp, tail lamp etc.) to connect with the yellow B+ wire and insert it back to fuse box.

※ Location of B+ may differ depending on the vehicle.
 ※ Please connect the ACC wire to the output terminal. If wired the other way around, there is a risk of fire.

4



Connect the black GND terminal to a grounding source (e.g. metal component)

※



If the power cable is improperly hard-wired, the device will not function properly.

We recommend that users use a dual fuse holder as seen in the adjacent photo to make the process easier.

4-4. Camera Angle

- ▶ Users can adjust preferred viewing angle easily while viewing the LCD screen.
- ▶ Adjust camera lens angle to display approximately 40% of the vehicle hood(bonnet) on the LCD screen as shown below.
 - ※ If the lens are facing too low, it may not record traffic lights. On the contrary, lens facing high up may darken video footage.



4-5. Memory Card Usage

- Video is recorded at 3-minute interval for continuous recording, 30-second interval for motion and event recording.
- The below table is based on the SD Card setting which is set to the following proportional storage assignment for different recording modes: continuous 70% and motion detection 30%

1. SD card usage time

	Continuous recording			Motion detection recording	
	No. of files for front view	No. of files for rear view	Total usage time	Total no. of files	Total usage time
8G	14 / 42min	14 / 42min	1h 24min	53	26min 30sec
16G	30 / 1h 30min	30 / 1h 30min	3h	110	55min
32G	60 / 3h	60 / 3h	6h	224	1h 52min
64G	120 / 6h	120 / 6h	12h	448	3h 44min
128G	249 / 12h 27min	249 / 12h 27min	24h 54min	911	7h 35min 30sec

2. microSD card usage time (event recording)

	8G	16G	32G	64G	128G
No. of files for front view	107	214	450	900	1,800
No. of files for rear view	107	214	450	900	1,800
Total usage time	54min	1h 47min	3h 45min	7h 30min	15h

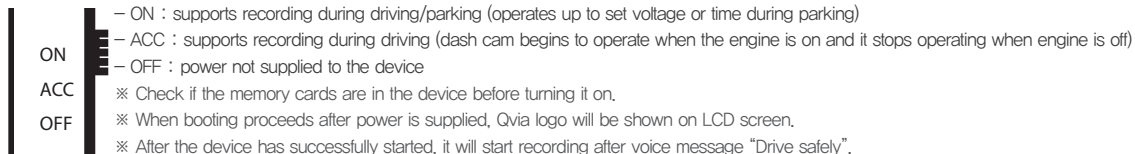
- ※ Front and rear motion detection files are stored separately.
- ※ The total usage time above is an approximation. There may be some variation with actual recording time and the number of files stored depending on the user's environment.
- ※ The above 'Total usage time' is calculated by adding the recording times of front/rear videos. Videos for the front and rear cameras are saved separately.

5. Product Usage

5-1. Basic Operation Guide

1. How to start and stop recording

You can easily set 'power safety function' by manipulating power switches on the device.



2. Standard Recording Mode

	Continuous Recording	Motion Detection Recording	Event Recording	Emergency Recording
Storage Medium	SD card	SD card	SD card/microSD card	microSD card
Folder	AlwaysMovie	MotionMovie	AlwaysMovie / EventMovie	EventMovie
Storage Duration	3min	30sec	30sec	30sec
Video	always	parking	always + event / event	event
Characteristics	Records continuously while driving	<ul style="list-style-type: none">- Records when motion is detected if motion detection function is enabled.- Able to set the level of motion detection sensitivity	<ul style="list-style-type: none">- Records when impact is detected during driving or parking- Able to set the level of motion detection sensitivity	Records whenever you need to by pressing emergency recording button

※ With a microSD card inserted, videos from event recordings are saved onto the microSD card in the EventMovie folder.

Continuous recordings will be saved in the AlwaysMovie folder of the SD card.

※ If there is no microSD card inserted, video from event recordings will not be saved. Only videos from continuous recording will be saved onto the SD card.

3. Video Playback

- Check real-time video : you can see the video now playing in real time after you start the device.
When you touch real-time video button on main menu, you can check video being recorded.
- Check recorded video : when you touch video playback button on main menu, you can watch recorded video.
You can watch recorded videos on Qvia viewer or other mediaplayers by inserting SD card/microSD card to PC.

4. Security LED operation

	During Continuous Recording	During Recording while Parking	Event/Motion taking Place
Front LED Status	Blue LED stays on continuously	Blue LED blinks slowly	Red LED blinks fast
Rear LED Status	Blue LED stays on continuously	Blue LED blinks slowly	Blue LED blinks fast

※ You can turn on and off the LED lights on Configuration setting > additional function. When LED is off, security LED does not operate.

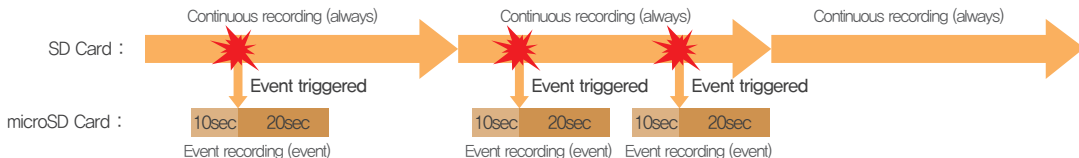
5. Operating status LED operation

During Continuous Recording	During Recording while Parking	Event/Motion taking Place	ACC OFF	Entering power safety mode
Blue LED stays on continuously	Red LED blinks slowly	Red LED blinks fast	Blue LED blinks slowly	Blue LED blinks fast

※ The device will be turned off blue LED lights blink fast as the device enters 'Power safety mode' by setting a specific voltage level or time span.

6. Recording during driving

- Continuous recording : records and saves videos during driving at 3-minute interval in AlwaysMovie folder
※ "Always" is displayed on the bottom part of the screen when the playing back the videos recorded in continuous mode.
- Event recording : recorded for 30 seconds in total – 10 seconds before/20 seconds after impact occurs – and saved in EventMovie folder.
- Emergency recording : when pressing emergency recording button for approx. 1 second, recording starts immediately with a sound, and a 30-second video is saved in EventMovie folder.
※ Emergency recording cannot operate during event recording and vice versa.



6. Recording During Parking

- Parking mode is activated when the device power is ON.
 - ※ Note that recording and the device itself will be turned off if the vehicles' battery drops below the voltage level set by the user.
- How to change to parking mode : The device can be programmed with a set time to activate the 'auto-conversion to parking mode' function. When the device converts to parking mode, a voice guide("Switched to parking mode") is announced.
 - ※ Automatic conversion to parking mode can be set up in the "Configuration Setting > Basic Functions" of the Qvia viewer
 - ※ As recording stops and converts to parking or driving mode, less than 5 seconds of video may be lost.
- Recording in parking mode : When playing back the recorded videos in parking mode, it will say "Motion" on the bottom of LCD screen.
 - ※ When converting from continuous, event, or manual recording mode to parking mode, any recording under progress regardless of its mode will be stopped and converted to parking mode. For this reason, video loss can occur.
- When selecting 'Use motion detection' in the configuration settings, video will be recorded for 30 seconds in total, consisting of 10 seconds of video before the impact and another 20 seconds following the impact. Files will be saved in the Motion Movie folder.
 - ※ For efficient memory management only the camera(either front or rear) that detects the motion will be activated.
 - ※ You can set the motion detection function on the Qvia Viewer : "Configuration Setting > Motion Detection".
 - ※ RED LED will blink while motion recording is activated.
 - ※ Motion detection may fail when the surrounding of the vehicle is too dark.
 - ※ Recording time during parking mode may vary depending on the vehicles' battery status.
 - ※ Motion detection or frame omission may occur depending on surrounding environment.
 - ※ Motions may continue to be detected and recorded according to changes in the environment. Therefore, the level of sensitivity must be set to in accordance with your parking environment.
(E.g. When parking in an alley or underground, frequent movements may interfere with motion recording if the level of sensitivity is too high.)

7. Driving Information Check

- Qvia dash cam can record up to approximately 2 million driving information data onto the SD card. After you have set the time interval for saving the driving information on the configurations settings, the device will automatically save the data on a regular basis.

5-2. Starting the Device

※ After starting the car engine and turning on the power button on the right side of the camera, the power will be turned on. When the device has successfully started, it will automatically start recording and real-time video will be shown on the LCD screen.

1. Live View : video being recorded by the device is displayed on the LCD screen.
 - Screen conversion : by touching the screen when rear view camera is connected, it will be converted from the front view in the order of the following. ▶ rear view ▶ Reverse rear L/R ▶ front/rear view left & right ▶ front/rear view up & down ▶ front/rear view PIP screen ▶ rear/front PIP.
When rear view camera is not connected, only front view screen is displayed. (the device will be re-booted when rear view camera connection cable is separated/connected during recording.)
2. Home (main menu) : touching the home button on the upper left-hand side of the screen, main menu appears.

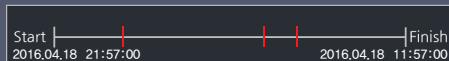
3. Parking surveillance notice :
Display the number of motion detections and events that take place during parking.
 - ※ number of motion detections is displayed separately for front and rear cameras.
 - ※ as event detection is recorded simultaneously for front and rear cameras, the number of event detections for front and rear cameras is displayed together as one.



Parking Surveillance Notice

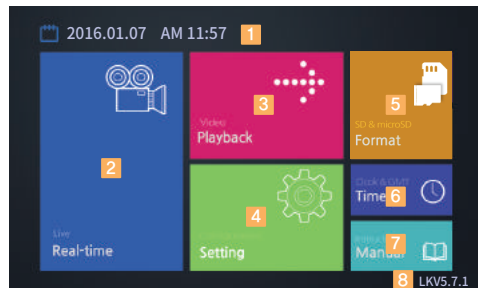
Start time	2016.04.17 21:57:00
Motion detection	37
Event detection	3
Finish time	2016.04.18 11:57:00

Event(shock) Detection Details

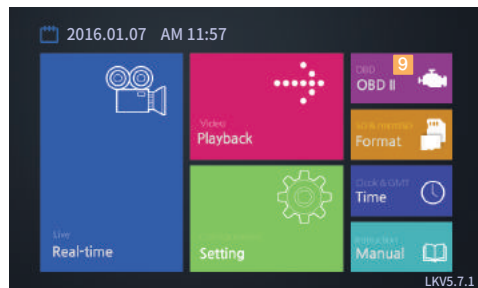


※ When you touch the home button on live view video screen, the following menu will appear.

1. Current Date & Time Display
2. Live View : front/rear view video being recorded is displayed.
3. Video Playback : able to check videos recorded in continuous, event, and motion detection modes.
4. Configuration Setting : set video, basic functions, LCD, additional functions, audio and OBD II function.
5. Card Format : format SD card and microSD card.
6. Time Setting : set date & time of dash cam.
When time is changed, memory card format is necessary.
Time can be set manually when there is no GPS.
7. User Guide: able to check user guide.
8. Display Front / Rear View Device Firmware Version
9. OBD II : display OBD II information (OBD II is optional).



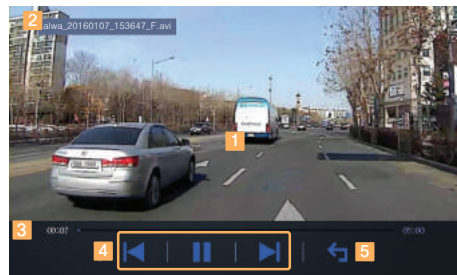
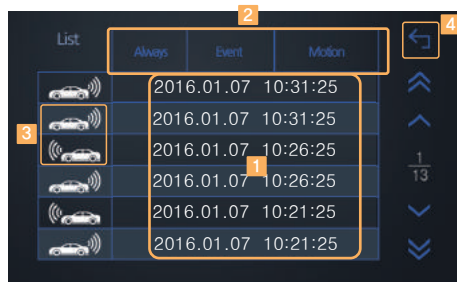
Normal (Type B)



OBD II Firmware (Type D)

5-3. Video Playback

- ※ When you touch video playback button on main menu, the list of saved videos will appear.
- ※ As front/rear view videos are not recorded during video playback, stop the car in a safe place before use.
- ※ Video recording starts automatically when video playback screen returns to menu screen.
- ※ Video files are automatically generated with the name in "Year/Month/Day/Time" format.
 1. Video Play List : display play list in sequential order
When you touch the video name, the video will play immediately.
 - ▲, ▼ : sorting in ascending/descending order
 2. Mode Selection Button : divided into always/event/motion detection recording modes.
 3. Front/Rear View Icon : icons to distinguish front/rear view video.
 4. Move to Previous Screen : move to the previous screen.
- ※ When you touch video name in playlist, the video will play on screen.
- ※ After the video starts playing, status bar will disappear automatically.
If you re-touch the screen, the status bar will appear again.
 1. Video playback screen : recorded video will be played on LCD screen.
When the currently playing video ends, the next video will be played.
 2. File name display : file name of the video being played is displayed.
 3. Playback progress bar : display progress time of the video currently playing and the duration of the video.
 4. Player button : able to play/pause the video being played and move to previous/next video.
 5. Previous menu button : move to the previous menu(video play list)



Note) video recording will be stopped when recorded video is being played.

5-4. Live View

- ※ Video being recorded by the device is displayed on LCD screen.
- ※ When you touch other parts than the home button, the screen switches in the following order, front view ▶ rear view ▶ front/rear view left & right ▶ front/rear view up & down ▶ front/rear view PIP screen ▶ rear/front PIP screen.

1. Front / Rear view video screen
2. PIP screen
3. Driving date & time
4. Voice recording
5. GPS reception info : A : GPS received
V : no GPS reception
F : GPS power is not connected
6. Driving speed
7. Mileage display
8. Vehicle voltage display(voltage supplied to dash cam)
 - ※ Vehicle voltage display indicates voltage supplied to the device and it can be different from the voltage supplied from vehicle (battery) due to various reasons including the loss of dash cam power cable.



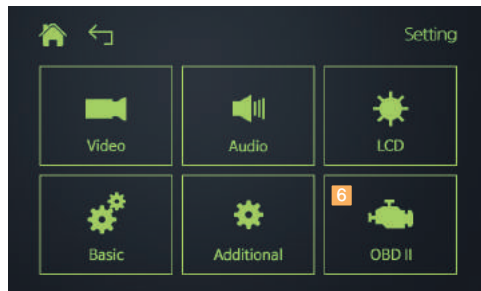
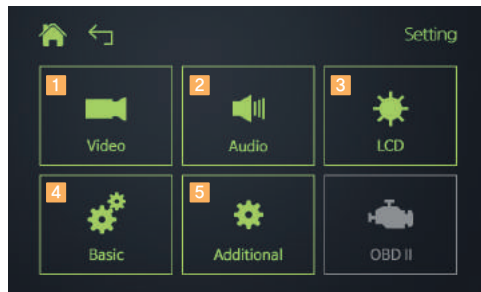
5-5. Setting

※ When you select the Settings button on menu screen, the following screen will be displayed.

1. Video : set front and rear camera brightness mirror images setting for the rear camera
2. Audio : set recording, speaker, hourly alarm and voice guidance.
3. LCD : set screen stand-by time, screen brightness, screen protector and LCD touch sensitivity
4. Basic : set G-sensor, auto-conversion to parking mode, front view motion detection and rear view motion detection, set PIP position.
5. Additional : set power safety, LED and initialize configuration setting.
6. OBD : set functions related to OBD II module.

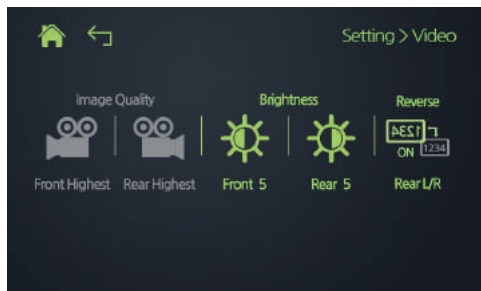
※ OBD II module can be purchased optionally

※ New settings are applied when you exit the configuration setting screen.



■ 5-5-1. Setting – Video ■

- ※ When you select the Video button on the settings screen, the following screen will be displayed.
 - ※ You can change settings by selecting the icons on each screen.
1. Front Camera brightness : set front view camera brightness from 1–5 stages.
 2. Rear Camera brightness : set rear view camera brightness from 1–5 stages.
 3. Reverse : Reverse L/R for Rear Camera

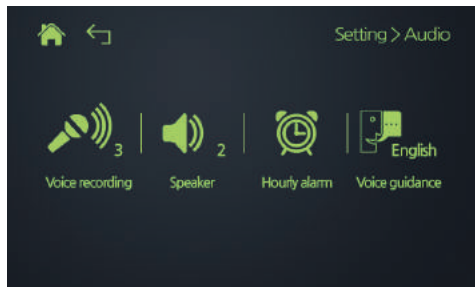


■ 5-5-2. Setting – Audio ■

※ When you touch the audio button on configuration setting screen, the right screen will be displayed.

1. Voice Recording : adjust sound volume of voice recording.
2. Speaker Setting : adjust sound and voice volume for speaker etc.
3. Hourly Alarm : set function that tells time at every hour.
4. Voice Guidance Language : able to choose language for guidance.
(Korean, English, Russian, Chinese, Arabic, French, European Spanish, Latin America Spanish, Japanese, Thai, Vietnamese, German, Mogolian, Turkish, Italian, Hindi, Czech, Cantonese, Portuguese, Bahasa Indonesia and Bahasa Melayu)

※ Foreign language support(Voice guidance, GUI language) is not supported for products sold in Korea.



■ 5-5-3. Setting – LCD Config. ■

※ When you select the LCD configuration button on the settings screen, the following screen will be displayed.

1. Screen Stand-by Time : set time during which LCD is turned on (screen saver : converted only when the function is activated) Set it to always, 15sec, 30sec, 60sec. When set to always, the screen will not be turned off. (However, it will still be turned off automatically in parking mode.)

2. Screen Saver : turn on/off screen saver

The image appearing when converted to screen saver can be chosen by the user

→ 1. Edit the image you want in 800x480 size

2. Set the edited image file name and its extension as screen.png
(If file name and its extension are not as above, it will not be recognized as screen saver image. Be sure to save it as screen.png)

3. Save it in the top most folder of SD card.

(If you save it in other folders, it will not be applied to screen saver.)

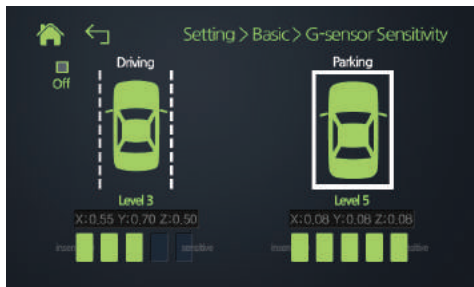
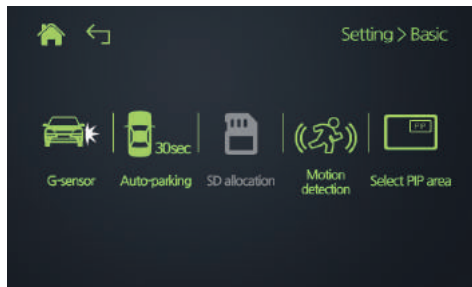
3. Screen Brightness : set LCD brightness from 1~3 stages.
4. Night Brightness : when you activate it, it changes LCD brightness automatically during 8:00 PM and 6 AM.
5. Touch Sensitivity : adjust LCD touch sensitivity



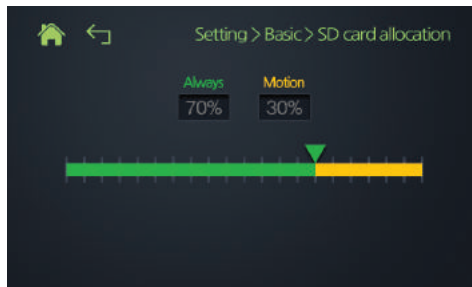
5-5-4. Setting – Basic

※ When you touch basic button on configuration setting screen, the following screen will be displayed.

1. G-sensor : able to set the level of G-sensor sensitivity(impact) according to user environment for driving and parking modes from 1-5 stages.
2. Auto parking : set to do not use Auto-conversion to parking mode, 10sec, 30sec, 1min, 2min, 3min, 5min, 7min and 10min.
3. Motion detection : able to set sensitivity of motion detection in parking mode.
4. Select PIP area : able to change the position of PIP(Picture-in Picture) on the LCD screen in Live View.



<G-sensor sensitivity setting>



<SD card capacity setting>

5-5-5. Setting – Additional

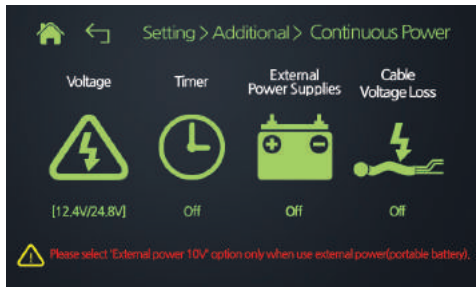
※ When you select the Additional button on the settings screen, the following screen will be displayed.

1. Continuous Power supply : set cut-off voltage or cut-off time to prevent battery discharge during parking mode (low voltage cut-off function)

※ When using external power other than your vehicle battery, adjust the setting to using external power.

※ When using external power(external battery), cut-off voltage and cut-off time will not be activated, and it needs to be re-activated after connecting the external power.

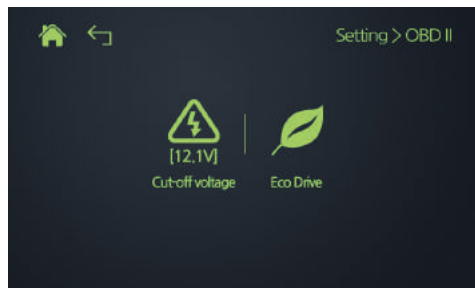
2. Security LED : turn on/off front and rear Security LEDs
3. Use rear cam in parking mode : turn on/off rear cam recording in parking mode
4. Initialize configuration setting : initialize configuration settings.



5-5-6. Setting – OBD II

※ When you select the OBD II button on the settings screen, the following screen will be displayed.

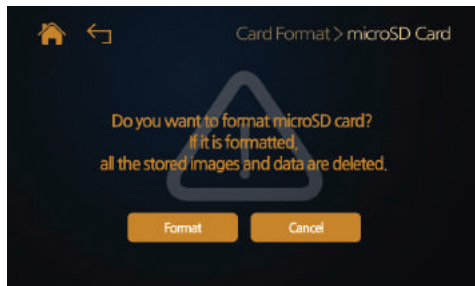
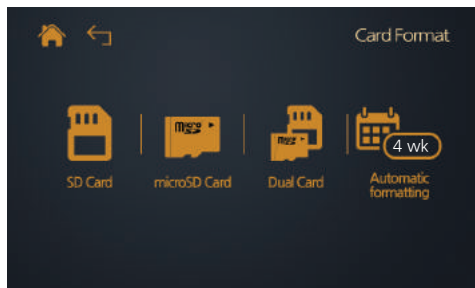
1. Cut-off Voltage : set cut-off voltage.
 - ※ Cut-off voltage may have errors in the cut-off level depending on vehicle model.
 - ※ Be sure to use OBD II power supply when connecting OBD II.
 - ※ Duplicated power supply using both LK-750 OBD II module and hardwire power cable can cause problems.
 - ※ Contact seller or manufacturer for a proper use of LK-750 OBD II module and hardwire power cable before installation.
2. Eco Drive Setting : set Eco Drive according to the user environment.



5-6. Card Format

- ※ When you select the Card Format button on the menu screen, the following screen will be displayed.
- ※ Formatting SD and microSD card once a month (8G) is recommended.
- ※ Be sure to save important data in other storage devices before you format the memory cards.

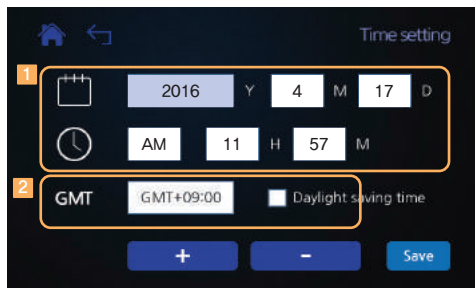
1. SD Card : Formatting SD Card.
2. microSD Card: Formatting microSD Card.
3. Dual Card : Formatting both of SD and microSD Card at the same time.
4. Automatic formatting : Setting an automatic formatting cycle for SD Card and microSD Card as every 4 week, 8 weeks, 16 weeks, 32 weeks or off.



5-7. Time Setting

- ※ When you select the Time Settings button on the menu screen, the following screen will be displayed.
- ※ Configuring the time setting is only necessary when the device has no GPS module. Time setting will be automatically set when GPS module is installed.
- ※ When you change time, the memory card should be formatted.

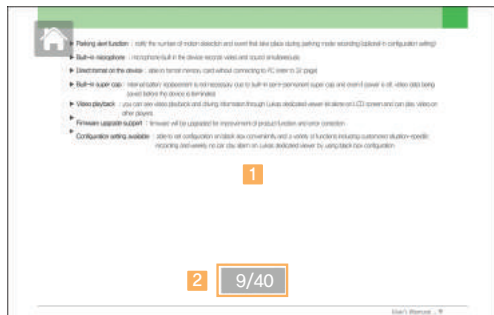
1. Time Setting : manually set time on the device
2. GMT Setting : set GPS standard time.



5-8. User Guide

※ Touching the Manual button will display the picture on the right.

1. To look up the Manual on the screen,
 - For the next page, touch right side of the screen.
 - For the previous page, touch left side of the screen.
2. The current page number



5-8. OBD II

※ When you select the OBD II button on the menu screen, the following screen will be displayed.

1. RPM info
2. Accelerator (displays intensity in the range of 0~99%)
3. Gear position
4. Current speed
5. Mileage
6. Left turn light
7. Brake status
8. Steering wheel turning angle - steering wheel turning angle displayed with numbers
9. Eco Drive info
10. Right turn light
11. Voltage supplied to OBD II
 - ※ Voltage supplied to OBD II may differ from voltage supplied to vehicle (battery voltage).
12. OBD II version info



5-10. Qvia Viewer

1. Program Installation



※ Qvia Viewer can be download the Qvia Viewer at any time from our website (www.qvia1.com).

※ Name of viewer icon may vary depending on OBDII compatibility.

Recommended PC specifications for using Qvia viewer

OS: Windows XP SP3, Vista (32Bit), WIN 8 (32/64bit)

H/W: Quad core 2.8Ghz/ 4G RAM

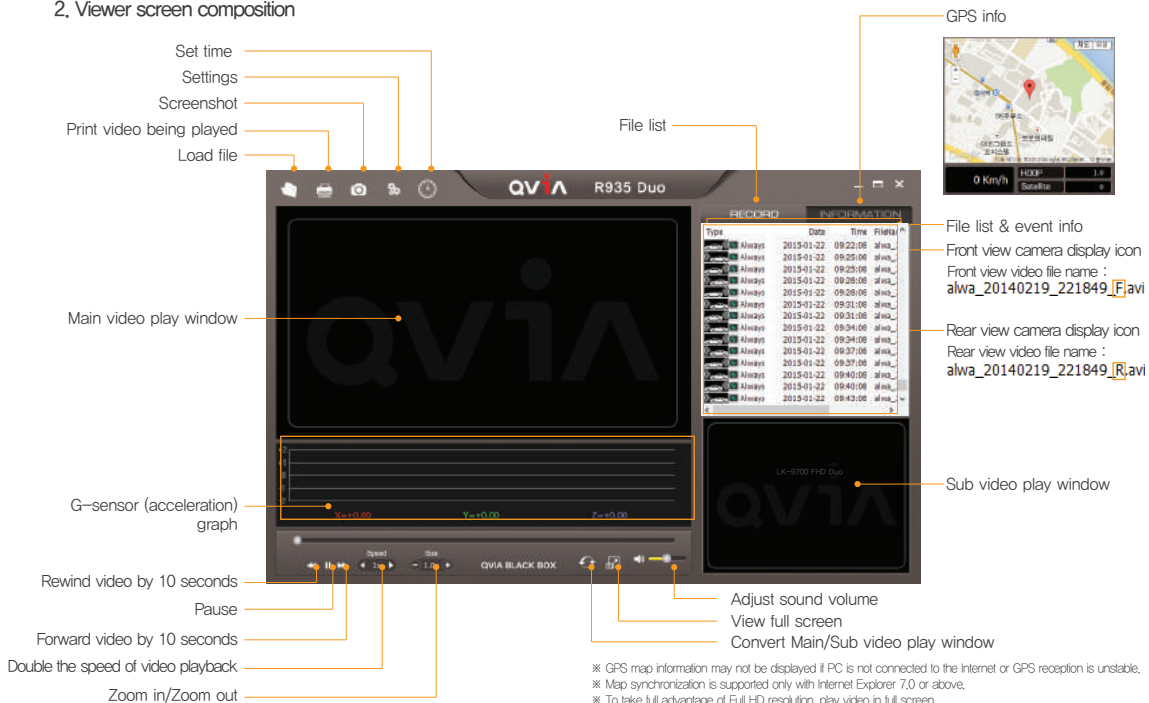
Web browser: Microsoft internet explorer 7.0

Direct X version: Direct X9.0 (JUNE2010)

Others: Windows.NET Framework 4

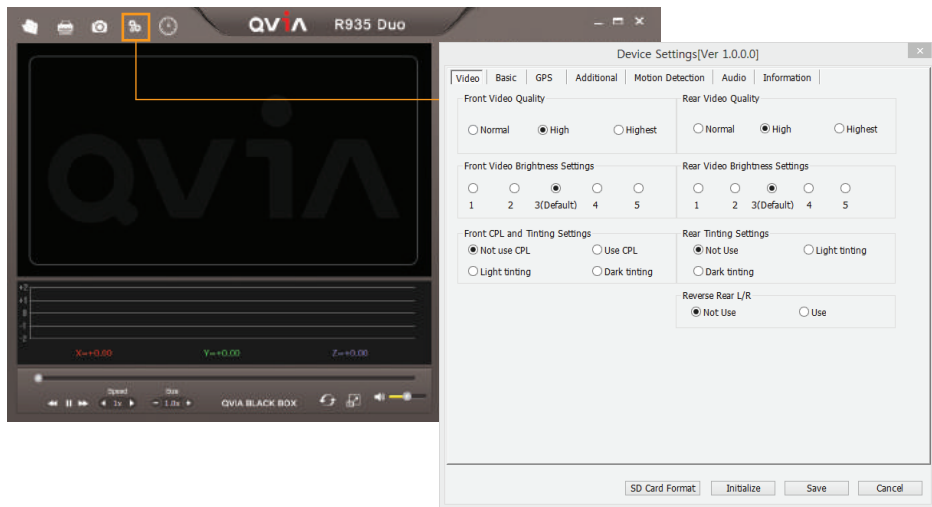
※ For best results, please use the Qvia viewer distributed for your device.
There may be occasional display and sound cuts, as well as changes in play speed and other errors depending on computer specifications.

2. Viewer screen composition



3. Settings

- Users can change device settings (i.e. recording configuration, system configuration, additional functions, and time, etc.) to their preferences by altering 'Device Settings' on the Viewer program menu.



4. Video Playback Screen



1 2 3 4 5 6 7 8 9

- 1 Date & Time
- 2 Driving Speed
※ Only with GPS or OBD II
- 3 GPS Reception Status
-A: GPS connected
-V: GPS NOT connected
-F: GPS Power NOT supplied
- 4 Mileage
※ Only with GPS or OBD II
- 5 Dash Cam Voltage level
- 6 Recording Mode
- 7 Vehicle Plate Number (enter up to 8digits.)
- 8 Device Model
- 9 Image Quality (video saving data speed/sec)
※ S : Best quality

6. Specifications & Customer Service

6-1. Specifications

*Specifications are subject to change without notice for improvement.

Item	Specification	Remark
Camera	Front : Full HD dedicated SONY Exmor R CMOS Sensor, 1/2.8(inch) Rear : Full HD dedicated SONY Exmor CMOS Sensor, 1/2.9(inch)	
Viewing Angle	Front : Diagonal(approx. 135°) Effective angle: Horizontal (approx. 107°), Vertical (approx. 55°) Rear : Diagonal(approx. 130°) Effective angle: Horizontal (approx. 104°), Vertical (approx. 54°)	
Recording resolution & Frame	Front : 1920×1080p(Full HD), 30fps Rear : 1920×1080p(Full HD), 24fps	
LCD resolution & Size	Resolution(800x480) / Size : 3.5"(inch), Built-in Touch	
Video Compression	H,264(AVI format) / Codec profile : HIP(High profile)	
Gravity Sensor	Built-in 3-axis Impact sensor(impact, sudden brake, sudden start)	
GPS	Ublox 7 / Ublox 8	
Storage Media	SD card : SDHC / SDXC memory card (standard 8G, max. 512G) microSD : microSDHC / microSDXC (standard 8G, max. 512G)	
Player Program	General media player / Lukas viewer	
Audio	Built-in speaker, Microphone	
Power & Current consumption	Power: DC 9V~24V, Power consumption: 340mA (13.4V) , approx. 4.5W	Type A, Brightness 2
Low Voltage Cut-off	Able to set time & voltage, supports multi-booting	
Operating & Storage Temperature	Operating: -20°C~70°C (-4°F ~158°F) Storage: -30°C~80°C (-22°F ~176°F)	
Size/Weight	Front : 100 X 101 X 33.3 (mm) , 151g / Rear : 50 x 26 x31 (mm), 25g	Including GPS



Quality Assurance

Model Name		Product S/N	
Customer Name		Date of Purchase	MM / DD / YY
Customer Phone No.		Place of Purchase	

1. A standard 1-year warranty is provided from the date of purchase.
However, a six-month warranty is provided for accessories, including memory card.
2. This product has undergone strict quality control and inspection procedures.
3. Be sure to bring this manual with you when you request repair service.
4. This user manual is a proof of purchase and warranty and will not be re-issued. Take extra care keeping the manual safe.
5. We are not responsible for any costs incurred to install or uninstall the product, as it is not covered by warranty.

■ Certified company info. ■



1. Certified company : Qrontech Co., Ltd.
2. Device name (model name) : QVIA Dash Camera(Dash Cam)
(R935, R935G, R935D, R935GD)
3. Certificate No. : MSIP-REM-QRN-RFHD
4. Manufacturer/Manufacturing country : Qrontech Co., Ltd. /
Korea

Seller and user must note that this device is electromagnetic wave compatible only for business use, not domestic.



Conformity European Marking
EU Joint Specification Certificate



U.S. Federal Communications
Commission /
Electromagnetic Wave
Compatibility Certificate

