

User Manual

VG-903S





This Dashcamera (dashcam) is a specialized onboard device that continuously records video while the vehicle is in use. Some features may not be available depending on installation, driving conditions, and vehicle type. The video quality might vary for each device as a result of installed firmware.

Before Use

This product records videos while the vehicle is operating. Read and follow the instructions in this guide to properly use and maintain the product.

- Under the copyright laws, this manual may not be copied, in whole or in part, without the written consent of VUGERA.
- Every effort has been made to ensure this Guide's accuracy. However, we cannot guarantee the accuracy of the contents in this document as there may be technical errors, omissions, and/or future changes.
- VUGERA reserves the right to change or modify the product and the content of this manual at any time without prior notice for product improvements.
- Images contained in this user guide are illustrations for instructional purposes only and may differ from the actual product.
- Users do not reserve the right to use the product for purposes other than as specified in this user quide.
- According to the Personal Information Protection Act and other related regulations, the user/owner maybe held liable if the video and/or conversation recorded by the device are distributed without their consent. Thus, special attention should be paid in using this product.

Scope of Product Liability

- · Please read this manual carefully before using the product.
- This product records videos while the vehicle is operating. Use this
 product only for reference when investigating incidents or road
 accidents. This product is not guaranteed to record for all events. The
 product may not record accidents with impacts that are too minor to
 activate the impact G-sensor or accidents with massive impacts that
 cause the vehicle's battery voltage to deviate.
- Video recording does not begin until the product is completely turned on (booted up). To ensure that all vehicle events are recorded, wait until the product is completely booted up after turning it on, and then begin operating the vehicle.
- VUGERA is not responsible for any loss caused by an accident, nor is it responsible for providing any support regarding the outcome of an accident.
- Depending on the vehicle's configuration or operating conditions, some product features may not be supported, and different firmware versions may influence the product's performance or features.

Caution

- Depending on the make and model of your car, the power maybe constantly supplied to the dashcam even with the ignition turned off. Installation of the device to a continuously powered 12V outlet could result in vehicle battery drainage.
- This device is designed to record video while the vehicle is in operation. The
 quality of the video might be affected by weather conditions and the road
 environment such as day or night, presence of street lighting, entering/exiting
 tunnels, and the surrounding temperature.
- VUGERA is NOT responsible for the loss of any recorded video during operation.
 Although designed to withstand high impact of car collision, VUGERA does
 NOT guarantee recording of accidents where the impact may cause the device to be damaged.
- Keep the windshield and camera lens clean for optimal video quality. Particles
 and substances on the camera lens or windshield may reduce the quality of
 the recorded videos.
- The specified operating temperature of this product is -4°F to 140°F (-20°C to 60°C)
- Ensure that the device is kept within these temperature ranges; otherwise, the
 device may not function as designed and at extreme temperatures, permanent
 physical damage can result which is not covered by warranty.
- Avoid placing the device under direct sunlight. Avoid using the device in extreme conditions where the Product is exposed to high temperature and/ or humidity.
- Only use genuine accessories and peripherals from VUGERA or authorized VUGERA dealer. VUGERA does not warrant the safety and compatibility from use of peripherals from other manufacturers. Use genuine parts supplied by VUGERA.
- Do not apply excessive force when pushing the buttons on the device. Do not clean the Product using chemical cleaner or solvents as it may damage plastic components. Use soft, clean, dry fabric to gently wipe the Product. Do not place or store the device where it can be accessible by children and pets.
- Do not disassemble the Product as it will void product warranty and may also damage the product. Handle with care. Drop, shock, and mishandling the Product may result in malfunction and/or damage to the device. Do not operate this device while driving.
- Install this device in a location where it has unobstructed view of the road but does not interfere with the driver's view. Check with your State and Municipal laws before mounting to the windshield.
- The device and/or installation parts have moving parts and may shift in extreme road conditions such as unpaved road. Check frequently to ensure the device is positioned as instructed in this guide. Do not operate or handle power cable with wet hands.
- Do not use a damaged power cable. Keep the power cable away from heaters or other hot objects. Check that power cable with correct connector is used and the connections are secure and firmly in place.
- Do not pull, insert, or bend the power cable using excessive force. Do not place heavy objects on the device and the power cable.
- Do not modify or cut the power cable. VUGERA does not guarantee that devices
 or peripherals not authorized by VUGERA will be compatible with its Product.
 Do not attempt to insert foreign objects into the device or power cable. Do not
 spill or spray liquid into the device as it may cause malfunction, fire, or electric
 shock.

■ FCC Statement

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.

User's Caution Statement

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

FCC Compliance 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.

■ Information to user: RSS-247

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe (B) est conforme à la norme NMB-003 du Canada.

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01 Cautions

When using the product

This section helps ensure user safety and prevent property damage. Please read carefully.



Do not operate the product while driving a vehicle. Distraction while driving may cause accidents and result in injury or death.



Install the product in places where the driver's view is not obstructed. Obstruction of the driver's vision may cause accidents and result in injury or death.



Check with your state and municipal laws before mounting the product to the windshield.



Unauthorized disassembly of the product voids the product warranty. Handle with care. If you drop, mishandle, or expose the product to external shocks, it may cause damage and/or result in the malfunction of the product.



Even if the low voltage blocking function is supported, there is a risk of your vehicle battery discharging during long-term parking due to dark current from the device.



Please park your car out of direct sunlight. If the temperature inside the vehicle rises too much while parking outdoors in summer or in direct sunlight, the device may not record video properly.



Caution

Circumstances when the function or the set optional functions may not work



Tips

Helpful information on use of the functions



This device records video with a camera while you drive. In some unusual cases, such as when the brightness changes suddenly when you enter or exit a tunnel, when the backlight is very strong, at night or when there is no light source at all, the video quality may deteriorate.

We recommend that you do not modify, disassemble or repair the product by yourself.

- Do not operate or handle the power cable with wet hands. Doing so may result in electrocution.
- Do not use damaged power cables. Doing so may result in electrical fire or electrocution.
- Keep the power cable away from all heat sources. Failure to do so may cause the power cord insulation tomelt, resulting in electrical fire or electrocution.
 - Use the power cable with the correct connector and make sure the power cable is connected securely and is firmly in place. Failure to do so may result in electrical fire or electrocution.
 - Do not modify or cut the power cable. Also, do not place heavy objects on the power cable or pull, insert, or bend the power cable using excessive force. Doing so may result in electrical fire or electrocution.



Excessive tinting on the windshield of the vehicle may result in slight deterioration of video quality.



Do not expose the product sunlight or intense light.

The lens or internal circuitry may fail otherwise. Use the product at a temperature between -4°F and 140°F (-20°C to 60°C). The product may not function as designed and some permanent physical damages may result if it is operated or stored out of the specified temperature ranges. Such damages are not covered by the warranty.



Do not use liquid cleaner or wet cloths to clean your device. Use a dry cloth.

Liquids contacting your device's internals may cause it to malfunction.



Do not adjust or otherwise handle the device while you drive.

Distraction increases the risk of traffic accidents. Instead, move your vehicle to a safe place and stop it before adjusting or otherwise



handling your device.

The Advanced Driver Assistance System (ADAS) is an auxiliary feature to assist with protecting driver safety. This function may not be supported in all driver environments.



Install the device in a location where it will not interfere with the driver's vision to reduce the risk of traffic accidents.



Avoid impact with the device, and keep free of foreign substances as this may damage it or cause it to malfunction.

Ensure from time to time that the main body remains properly installed.



Constant vibration may cause the device to fall off, resulting in personal injury or product damage.

When connecting the power cable to the product, ensure that the connection between the cable plug and the power cable connector on the product is secure. If the connection is loose, the power cable may become disconnected due to vehicle vibration. Video recording is not available if the power connector is disconnected.



Unauthorized disassembly of the product voids the product warranty. Handle with care.

If you drop, mishandle, or expose the product to external shocks, it may cause damage and/or result in the malfunction of the product.



The ADAS function requires a different setting for each type of vehicle with which it is equipped (Car/Van/Pick-up truck). It is recommended that you attach the device at the center top of your windshield to enable its proper operation.

When using the Micro SD card



Please insert or remove the Micro SD card while VUGERA is powered off.



Ensure you insert the Micro SD card the proper way to avoid damaging it.



If you remove the Micro SD card while the device is saving or reading data, that data may be lost and the Micro SD card damaged.



It is recommended that you format the Micro SD card at least once a month to maintain its reliability.



Check the data stored in the Micro SD card regularly to make sure the device is working properly.



The factory-supplied Micro SD card is covered by a standard 12-month warranty.

The Micro SD card is a consumable item, so it may not be able to store new data with the passage of time. For best performance, we recommend that you replace the card every 6 months.



We recommend using the Micro SD card provided by VUGERA. Using a Micro SD card sold by others may result in data loss or device issues.



Since this card is exclusive to the VUGERA dashcam, using it in a mobile phone or other external device may damage the card and/or other device.

02 Introduction

2-1 Specifications

Product	VG-903S Front	VG-903S Rear	
Camera	2 million pixels	2 million pixels	
Resolution	Full HD 1920x1080	Full HD 1920x1080	
Compression method	Video: H.264 High Profile, Audio: PCM		
Recording	Driving recording, Parking recording, Event recording, Forced recording		
Low voltage blocking function	Supported		
Audio	Built-in microphone supported		
Angle of view	Opposite angle:150°	Opposite angle:130°	
Memory	32GB		
Video output	3.5"(800X480) IPS LCD with touch		
Size/weight	104mm X 63mm / 94.7g	52mm x 31mm / 23.5g	
Power	12V ~ 24V DC	5.0V	
Power consumption	Min 2.0W ~ Max 3.3W		
Working temperature	-20°C ~ 60°C(-4°F~140°F)		

Important

- We recommend to use 12V for this product.
- Our warranty covers Micro SD cards supplied by VUGERA only.

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 - All unauthorized duplication, revision, publication, or distribution of this guide without written consent from VUGERA is prohibited and is eligible for criminal charges.

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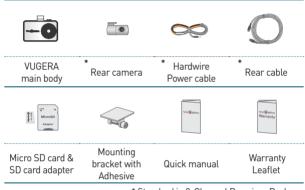
- VUGERA is a registered trademark of CARNAVICOM.
- Other product logos and service names in this guide are trademarks of the relevant companies.

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2-2. Device components and optional items

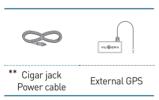
The following components are available as standard or optional depending on the package that you have purchased. Should you encounter an issue with the package, please kindly contact your seller that you purchased the item from. The list of components are subject to change without notice as we may change during the product life-cycle stages.

Device components



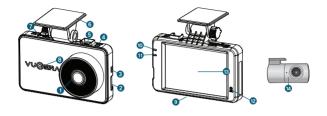
* Standard in 2-Channel Premium Package ** Standard in 1-Channel Package

Optional items



2-3. Components

Each part of the VUGERA exterior.



1	Front camera	Full HD 1920 X 1080
2	Micro SD card slot	Insert the Micro SD card
3	Power button	Press : Manual recording Press and hold : ON/OFF
4	DC JACK (3-pole)	12-24V power connector
5	Rear camera port	Rear camera cable connector
6	Mounting bracket	Cradle on which to mount the main body
7	External GPS	External GPS connector
8	Security LED	Check product operation status
9	Speaker	Voice guidance
10	Status (Green)	See LED operation specifications
11	Event (Red)	See LED operation specifications
12	MIC	Voice recording
13	Touch LCD	3.5" IPS LCD (touch screen embedded)
14	Rear camera	Full HD 1920 X 1080

2-4. Key features

Main features

REC

Auto delete recording function

If the card memory is full of recorded files, video will be deleted sequentially from the oldest and the [Auto delete recording function] kicks in to keep the device continuously recording video while driving.

Automatically deleted images cannot be recovered.



Advanced Driver Assistance System (ADAS) Function

This includes Front Vehicle Departure Warning (FVDW), Lane Departure Warning System (LDWS) and Forward Collision Warning System (FCWS).

*FCWS is supported when GPS device is installed.

Before using the product's features, you need to select your vehicle type (car, Van or Pick-up truck) to optimize the product for your vehicle.





With the Auto Night Vision feature, you can add brightness to the recording. This feature is enabled by real-time image signal processing (ISP) to improve the brightness of videos recorded while parking at night (operates in Parking Mode only)

This function automatically operates in low light environments when in parking video mode.

Storage settings



You can choose from Default Setting, Prioritize Driving and Prioritize Parking. Changing your storage settings will also reformat your SD card.

 The storage settings will not change when they are initialized. (default: Default Setting)



High resolution image

High-quality lenses and 2-megapixel image sensors deliver crisp, clear images. Front Full HD 1920 X 1080 30 fps, rear Full HD 1920 X 1080 30 fps

Low voltage blocking function



The low voltage blocking function prevents your vehicle battery from discharging when the vehicle is parked for a long time.

Three different voltages and durations can be selected in the dedicated viewer (runs during parking recording).

The Parking Mode Recording function does not run if the Low Voltage Cut-off Setting function turns the power off.

Recording mode	Descryptions
Driving	The dashcam saves the driving recording constantly by default.
Parking (Default : off)	The dashcam continues recording after the vehicle is parked if it is connected to constant power. Ten seconds after you turn off the engine, the dashcam enters the parking mode and saves the parking recording when it detects any impacts or motions. The low voltage blocking function and auto temperature blocking function will only operate in the parking mode. Low voltage option can be adjusted in the dedicated viewer software.
Event	The dashcam saves the event recording in driving mode when it detects an impact that exceeds a certain level of sensitivity set by the G-sensor. You can set and change the level of sensitivity in G-Sensor Sensitivity menu in the preferences of the dedicated viewer software [See page 57]
Manual	The dashcam saves the manual recording at the time you push the power button shortly in driving mode.

03 How to use the GUI

3-1. Main menu





Touch "Menu on the upper left of the dashcam LCD to enter the Main Menu.

Touch screen TIP

If you find the screen too small to touch accurately, use a pointer or medium-tip ballpoint pen to press it lightly.

- The main menu consists of [Display / Playback / Convenience / Menu].
 - If you wish to go back to the previous screen, press the on the screen. Remember this since it is a feature that you will use a lot.
 - If you touch the home button on the main menu, the screen will change to the video output.

3-2. Outputting video







Display

While driving, view the video displayed in real time on the screen in 3 modes $\frac{1}{2}$

Front Only

Real-time video currently recording through the front camera is displayed on the LCD screen.

Front & Rear

Simultaneously displays on the LCD screen real-time video currently recording through front and rear cameras.

(Real-time video recorded by the rear camera is displayed on the upper right of the LCD screen.

Rear Only

The real-time video currently recording through the rear camera is displayed on the LCD screen.

3-3. Accessing your video recordings







Playback

Check the video function consists of [Driving / Parked / Event / Manual] and allows you to view the recorded images on the LCD screen.

Driving

Access storage area for front / rear image files recorded while driving.

Parked

Access storage area for files recorded when the sensors detected moving vehicles or people while parked.

* The sensor will detect and record objects only when there is sufficient light in the area.

Event

Access storage area for files recorded when an impact was detected while driving or parked.

* Minor impacts may not be detected.

Manual

Access storage area for files recorded while driving by pressing the power button.

3-3. ACCESSING YOUR VIDEO RECORDINGS







Front & Rear

Choose between [Front Video / Rear Video].

Front Video

Play a [Front Video].

Rear Video

Play a [Rear Video].

3-3. ACCESSING YOUR VIDEO RECORDINGS







Play List

Select the desired View Video mode to display the Play List.

Play List is the area where the recorded videos are saved. Clicking a file will display it on the LCD screen.

Recorded files

Recorded files are titled "recording method (REC, EVT, IMP, MOT) _date [20180320] _hour, minute, second (ex: 192022)" and are divided into separate 45-second files for driving recording and about 20 seconds for event recording.

Recording methods

- REC ("Driving" video)
- EVT("Event during driving" video)
- IMP("Event during parking" video)
- MOT("Motion detection while parked" video)
- MAN("Manual recording during driving" video)

Play buttons



3-4. Convenience



Convenience

The Convenient Functions are [ADAS / Front LED Settings].







ADAS

Choose from Front Vehicle Departure Warning (FVDW) / Lane Departure Warning System (LDWS) / Forward Collision Warning System (FCWS) / Select Vehicle Type.

Lane Departure Warning System (LDWS)

Detects the lane edges while driving and informs the driver with a warning sound and image if the car touches the lane edge.

Forward Collision Warning System (FCWS)

This is a function that notifies the driver through warning sounds and images when a danger of collision with a vehicle ahead is detected during driving.

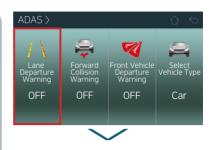
Front Vehicle Departure Warning (FVDW)

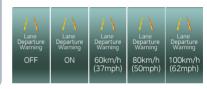
Uses an alarm sound and image to notify the driver when he/she is waiting at a traffic signal that the vehicle ahead has begun to move.

Select Vehicle Type

Allows calibration of the ADAS function to reflect the height of the dashcam to the ground.







Lane Departure Warning System

Lane Departure Warning System settings: Choose from "ON / OFF / 60km/h (37mph) / 80km/h (50mph) / 100km/h (62mph)".

ΩN

Runs regardless of speed, even without a GPS device.

OFF

Turns off the Lane Departure Warning System.

60km/h (37mph)

If the car leaves the lane while driving at a speed higher than 60km/h (37mph), a warning will sound and image appear.

80km/h (50mph)

If the car leaves the lane while driving at a speed higher than 80km/h (50mph), a warning will sound and image appear.

100km/h (62mph)

If the car leaves the lane while driving at a speed higher than 100km/h (62mph), a warning will sound and image appear.

Speed (km/h or mph) is a function that can be used only with a GPS device installed.





Forward Collision Warning System

Forward Collision Warning System setting: Choose from "OFF / 60km/h (37mph) / 80km/h (50mph) / 100km/h (62mph)".

0FF

Turns off the Forward Collision Warning System.

60km/h (37mph)

If a vehicle is detected while driving at 60km/h (37mph) or more then a warning will sound and image will appear.

80km/h (50mph)

If a vehicle is detected while driving at $80\,\text{km/h}$ (50mph) or more then a warning will sound and image will appear.

100km/h (62mph)

If a vehicle is detected while driving at $100 \, \text{km/h}$ ($62 \, \text{mph}$) or more then a warning will sound and image will appear.

Without a GPS device installed, this function is unavailable.

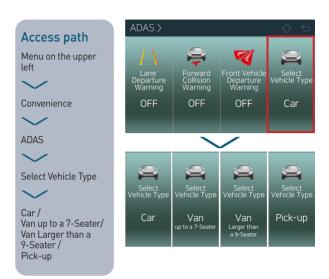


Front Vehicle Departure Warning

Front Vehicle Departure Warning setting: You can choose between "ON / OFF" and the default setting is "OFF".

* This function is available even when GPS is not installed.

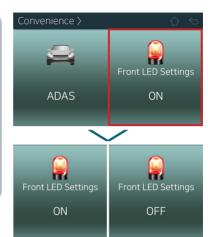
3-4. CONVENIENCE



Select Vehicle Type

Type of Vehicle includes [Car / Van up to a 7-Seater / Van Larger than a 9-Seater / Pick-up].





Front LED Settings

Choose between [ON / OFF].

0N

Turn on the front LED screen (Security LED).

OFF

Turn off the front LED screen (Security LED).

* The factory default setting is "OFF".

3-5. Menu







Menu

Menu includes [System Settings / Record Settings / Parking Mode / Firmware Version].

3-6. System settings

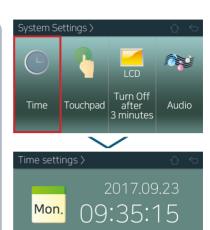


System Settings

System Settings include [Time / Touchpad / LCD / Audio].

3-5. MENU





Time

Allows you to manually set the time if desired.

Click "+ / - " for Year, Month, Date, Hour, Minute, Second, GMT.

When GPS is attached

The current time and date will be set automatically through satellite reception.

Audio



Touchpad

Allows you to recalibrate the touch sensitivity to avoid LCD touch error. When you enter Touch Calibration, a plus sign (+) will appear as shown in the image above.

If you touch (+) five times, this will apply the newly calibrated touch value

Urgent calibration (hidden function)

- Touch the LCD area 15 times in Live View
- The interval between touches must be less than 0.4 seconds to be recognized as a continuous touches.
- The touch count will be initialized when 0.4 seconds have passed since the last touch or when you enter the user menu.
- Do not touch the screen for 2 seconds immediately after entering the Touch Calibration menu.

3-5. MENU



LCD

LCD include [OFF / Turn Off after 30 Seconds / Turn Off after 1 minutes / Turn Off after 3 minutes].

Turn Off after 30 Seconds / Turn Off after 1 minutes / Turn Off after 3 minutes

After the Menu setting, the LCD screen will turn off according to the time set from the moment when the "VUGERA record start" appropriement is made.

OFF

LCD screen will remain OFF until you turn it on. (when in LCD mode)

Recording will continue even if the LCD screen is off.

The default setting is "Turn Off after 3 minutes" which will turn off the LCD screen in 3 minutes after booting.



Audio

Allows you to change the volume and speaker settings.

Audio Settings include [Voice Recording / Volume Control / Sound Effects / Audio Guidance].

3-5. MENU



Voice Recording

Allows recording of audio with video through the internal microphone. Choose between ION / OFFI.

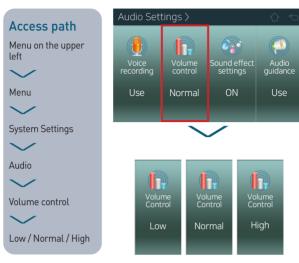
0N

Record audio with video.

0FF

Video recording only.

* "ON" is the factory default setting.



Volume control

Set the volume to Low, Normal, or High.

* The factory default setting is "Normal".

3-5. MENU



Sound Effects

Choose between ON/OFF.

ΩN

Touching the LCD screen will cause sound effects.

0FF

Touching the LCD screen will cause no sound effects, and there won't be an alarm for the event occured.

* The factory default setting is "ON".







Audio Guidance

Choose between ON / OFF.

0N

Audio guidance will be heard according to dashcam operations.

0FF

No audio guidance will be heard except "Have a safe drive." which signals that recording is beginning.

* The factory default setting is "ON".

When GPS is attached

A sound signaling GPS connection will be heard in the order of "Have a safe drive." – "VUGERA record start. VUGERA in drive mode" – "GPS connected". If "Audio Guidance OFF" has been selected in the Audio Guidance settings, no sound will be heard, except for "Have a safe drive".

3-7. Record Settings







Record Settings

Choose from [Impact Sensitivity / Video Settings / Memory Settings / Factory Reset].





Impact Sensitivity

A "ding-dong" will sound and video recording will begin automatically upon detection of an impact to the vehicle.

Impact Sensitivity settings

- In the Impact Sensitivity, choose from "Low / Normal / High".
- The factory default setting is "Normal." If you want detection to be more sensitive, choose "High." Choose "Low" for detection only of significant impacts.

3-7. RECORD SETTINGS

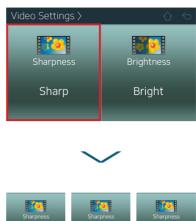


Video Settings

Allows setting of video sharpness and contrast according to the current environment.

Recording image settings include [Sharpness / Brightness].





Sharpness

This function blurs or sharpens image outlines.

In "Sharpness," choose from Blur / Optimal / Sharp. The factory default setting is "Optimal".

Blur

Decreases video image sharpness.

Sharp

Increases video image sharpness.

3-7. RECORD SETTINGS



Brightness

Allows you to set the image brightness depending on the current environment.

In "Brightness" choose from Dark / Optimal / Bright. The factory default setting is "Optimal".

Dark

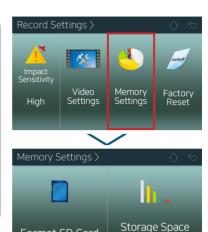
Decreases video image brightness.

Bright

Increases video image brightness.

Settings





Memory Settings

You can change the settings of the SD card.

Memory Settings include "Format SD card and Storage Space Settings".

Format SD Card

3-7 RECORD SETTINGS





pace

Nο

Format SD Card

Allows you to delete all saved video files and initialize SD card with no files saved. Settings applied to the device will not be formatted.

Yes

Touching Format SD Card will cause a pop-up to appear, asking if you wish to proceed with formatting.

If you choose "YES", all video data stored on the SD card will be deleted. If you choose "NO", the SD card will not be formatted and you will be returned to the System Settings menu.

Caution

Upload important videos or other files to your computer or other storage device before formatting the SD card.





Storage Space Settings

Storage Space Settings allows you to select and save the area (Default Setting / Prioritize Driving / Prioritize Parking) where you wish to record more on the SD card (storage space priority).

Default Setting

Driving 40% / Event 30% / Parking 20% / Manual 5% / System 5%

Prioritize Driving

Driving 60% / Event 15% / Parking 15% / Manual 5% / System 5%

Prioritize Parking

Driving 30% / Event 10% / Parking 50% / Manual 5% / System 5%

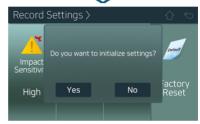
Caution

- A "Yes / No" popup window will appear asking you to confirm the change you wish to make.
- Choosing "YES" will delete all recorded files stored on the SD card.
 Be sure to back up any important video files before you click "YES".
- Choosing "NO" will send you back to the System Settings menu.

3-7 RECORD SETTINGS







Factory Reset

This resets all functions and settings of the device to factory defaults. If you select the Reset Settings menu, a pop-up window will appear asking you to confirm you wish to reset the settings

YES

"System will restart." will sound and the system will reboot. All settings will return to factory defaults.

N0

Returns you to the Record Settings.

* Recorded video files saved on the SD card will not be deleted.

3-8. Parking Mode



Parking Mode

Parking Mode: Choose from [Parking Mode / Motion Sensitivity / Low Voltage Cut-off].

3-8. PARKING MODE





OFF

Parking Mode

Records video when the vehicle is parked

Parking mode works only when the constant power cable (dedicated to the VUGERA dashcam) is connected to the vehicle battery.

Parking Mode

ON

Parking mode is not available if you use the cigar jack cable or when the dashcam wiring is installed only for recording driving.

0N

When the engine is turned off, "VUGERA in parking Mode." will sound and video recording will begin when parked.

0FF

When the engine is turned off, "VUGERA record stop." will sound and the dashcam will shut off. No video will be recorded while parked.

- If Audio Guidance is set to "Audio Guidance OFF", no announcement will sound
- * The factory default setting is "OFF".





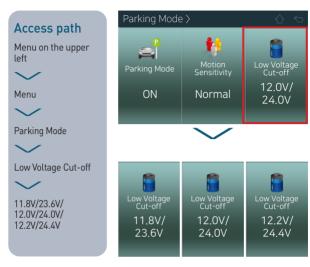
Motion Sensitivity

This function works only in the parking mode. When motion is detected while parked, the device automatically begins recording and saves it as a file.

Motion Sensitivity settings

- In the Motion Sensitivity settings, choose from "Low / Normal / High".
- The factory default setting is "Normal" If you want detection to be more sensitive, choose "High" Choose "Low" for detection only of significant motion.

3-8. PARKING MODE



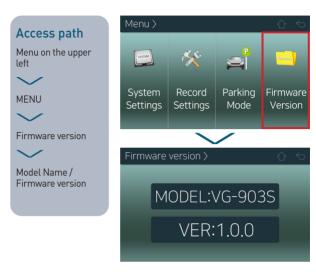
Low Voltage Cut-off

You cannot start the vehicle if its battery voltage drops below 11.5V [23V for large vehicles]. To prevent such battery runout, this function turns off the dashcam automatically when the vehicle battery voltage falls below the set value.

Low Voltage Cut-off settings

We recommend the factory default setting "12.0V/24.0V".

3-9. F/W Version



Firmware Version

Touching Firmware Version allows you to check the model name and Firmware Version of your device.

3-10. Other functions

Access path

Appears when device is turned on after setting the parking mode



Pop-up notifying motions and events during parking

Informs the user of the number of motion and event files recorded while parked.

When the device is turned on, the VUGERA logo and caution pop-up will appear for 2 seconds after audio plays ("Event occurred. Please check your recorded playlist").

- * This function works when the parking mode is used.
- Parking mode is not available if you use the cigar jack cable or when the dashcam wiring is installed only for recording driving.
- * Audio guidance will sound only when "Audio Guidance" is on and an event video was recorded

N4 Recorded files

Files recorded by VUGERA can be viewed in any common video player without conversion.



After connecting the Micro SD card to your PC, select the removable drive to view the recorded videos.

Name	Date Modified	Туре	Size
REC1_20190319_190708.avi	2019-03-22 9:33 PM	Video Cilp	80,960KB
■ IMP2_201900319_180328.avi	2019-03-22 9:32 PM	Video Cilp	40,960KB
EVT1_20190319_183027_KEP.avi	2019-03-22 9:30 PM	Video Cilp	40,960KB
setup.ini	2019-03-22 9:27 PM	Konguration	

Recorded file creation rule



File name	Meaning	Size
REC	Constant recording while driving	80 MB
EVT	Event recording while driving	
MOT	Motion recording while parked	/O.MD
IMP	Event recording while parked 40 MB	
MAN	Permanent recording while driving	



Refer to the table [Recording mode] in [2-4 Key features]

[VG-903S model recording timetable(Default Setting)]

Memory capacity	Chanal	Driving(40%)	Event(30%)	Parking(20%)	Manual(5%)
32G	1Ch	3hour 18min	2hour 28min	1hour 39min	24min
326	2Ch	1hour 53min	1hour 25min	57min	14min



Recording times may differ due to the recording resolution and size. The recording time for the default setting may also change due to the surrounding environment such as light color and shading.

05. Device and LED operations

	01100	diid EE	operations		
Button	Status	ltem	Operation status	Sound effect	
		Booting	Booting progress SD card with different format method		
			(Unformatted) Format progress (Rebooting)		
			Read-only SD Card (Repeat rebooting)	R-r-ring~	
			SD card cannot be recognized (Repeat rebooting)		
	ACC ON		SD card not inserted		
		SD card	When SD card is inserted		
		(after booting)	When SD card is removed (rebooting)	Not supported	
			GPS connected		
		GPS	GPS disconnected		
		Constant power	Constant recording	Not supported	
			Event Recording		
Power			Forced recording	Ding-dong	
			Enter the menu (when the recording stops)		
			Power off		
	ACC OFF	Parking status	ACC off (enter Parking Mode)		
			ACC ON after occurrence of event (rebooting)	Not supported	
	011		Low voltage blocking		
			Impact detection recording		
			Motion detection recording		
		SD format (Menu function)	Formatting		
	ACC ON	F/W update	F/W updating		
		LCD protection mode	Product temperature remains to be above 65 °C continues for over 5 mins	Not supported	
			Device temperature remains above 65 °C LCD touch		
			Product temperature remains below 60 °C for over 1 min		

Audio output	LED motion		SECURITY LED (Front LED in operation only when the Front LED Settings is used)	
	Power LED (Green)	Event LED (Red)	Front-LED White(6)	Rear-LED Blue(1)
Have a safe drive. VUGERA record start. VUGERA in drive mode.		ON		OFF
Have a safe drive.	OFF after booting	Flashing twice after booting and ON		Flashing after booting (1 sec interval)
SD format start. System will restart.	OFF	ON		
Have a safe drive. VUGERA record start. VUGERA in drive mode. Check SD card. System will restart.	ON	OFF after booting		
Have a safe drive. Check SD card. System will restart.	OFF after booting	Flashing after booting (1.0 sec interval)	OFF	
SD Card.	_			
VUGERA record start.				Flashing (1 sec interval)
System will restart.	ON	OFF		
GPS connected.				
GPS disconnected.				
Not supported	ON	OFF		
Not supported	ON	Flashing (0.5 sec interval) OFF after operation for 15 sec	OFF	Flashing (1 sec interval)
VUGERA record stop.	ON	OFF	'	
VUGERA record stop.	OFF	OFF		0FF
VUGERA in parking Mode.			Flashing from left to right (1 sec interval)	Flashing
Event occurred. Please check your recorded playlist.	OFF	OFF	ON	(1 sec interval)
your recorded playtist.	UFF	UFF	OFF	OFF
Not supported			Flashing (0.5 sec interval)	Flashing (1 sec interval)
SD format start. VUGERA record start.		OFF	OFF	Flashing (1 sec interval)
VUGERA Firmware update is complete. System will restart.		ON	ON	OFF
Not supported	ON	OFF	OFF	Flashing (1 sec interval)

06. Formatting your Micro SD card on PC

Before formatting, save important data on other storage media. Format the card once a month and replace it with a new one every 6 months.

If you take out the Micro SD card from the PC while it is formatting, you may damage the card.

Insert the SD card into your PC Select the SD card Right click Format

- Remove the Micro SD card from VUGERA and connect it to your PC to find the drive location where the SD card is inserted.
- Right-click and select Format to open the Removable Disk Format window.
- If you press the [Start] button, the following warning window will appear. If you press [OK], it will be formatted. If you press [Cancel], it will not be formatted.



07. VUGERA software

7-1. Using the PC viewer



1		Set up	8	▶ 4	Flip Left to Right
2		Back up	9	<u>▼</u>	Flip Top to Bottom
3	Ō	Snapshot	10	#	Select a language
4	▶ ∢	Flip Left to Right	11	ń	Homepage
5	×	Flip Top to Bottom	12	(i)	Information
6	×	Full Screen	13		Open Drive (Files)
7	#	Switch Channels			

Press the Open button to select the drive which contains the file.



Select the file you wish to view from the file list.

Double-click the video to view, or press the Play button or use a shortcut.

Map View can be printed only if the files were saved with the external GPS installed and in use at the time of recording.

Map View also requires an Internet connection to play.

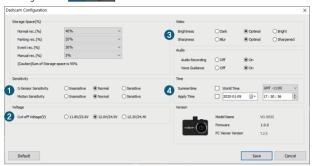
You can see rear camera video only if the rear camera is installed.

Change the size of front/rear images by pushing the button.

Press the MAP button to see the vehicle's route.

7-2. PC Viewer Preferences

Below settings are available on VUGERA Viewer by clicking preference setting button.



- 1 Sensitivity setting: ① Impacy sensitivity Vehicle's impact sensitivity can be adjusted between 3 levels.
 - ② Motion sensitivity Sensitiveness of motion detection system can be adjusted into 3 levels when in parking recording mode (Low, Normal, High).
- 2 Low Voltage Cut-off Setting: Set the voltage level at which the device will disconnect from the power supply to prevent discharging of your vehicle battery during parking recording mode.
- 3 Video Setting: Adjust the Brightness and Sharpness according to the vehicle's window tinting and your preference.
- Time setting: Set the date and time in Preferences. Using the dashcam without GPS can result in date and time errors, so you should set the time periodically. (Local time zone: GMT by country / Daylight savings: summer
- If you change the time, the memory will be formatted. Please back up important video files in advance.
- To ensure proper operation and functioning of your VUGERA device, we recommend the following specifications for your PC when using the PC Viewer.

0S	System Memory	Video Card	HDD	CPU	Internet Explorer Version
200	2 CB	Graphic Card Memory 512 MB or more	100 MB or more free space	Dual Core 3.4GHz or	Internet Explorer 11.0 or newer ** Google Map
Windows10 or higher	Vindows10 or Dire or higher more highe 9	DirectX 9.0 or higher, Direct3D 9 graphic acceleration support			malfunctions may occur. (Drag and Street view malfunction)

08. Installing the device onto your vehicle

8-1. How to install to your vehicle

1		Insert the Micro SD card into VUGERA. Press again to remove the Micro SD card easily. When inserting the SD card, insert it as shown in the image so that the logo part can be seen.
2	wan a	Remove the double-sided tape of the mounting bracket and attach it to the desired position. Fix the VUGERA main body to the bracket fixed at the front.
3		Remove the film from the rear camera cradle and attach it so that it does not touch the heat wire of the rear windshield of the vehicle. Connect the Dashcam terminal and the rear camera connector.
4		Connect cigar cable to the VUGERA's power port (DC-IN). Plug the cigar jack into your vehicle's power socket. (Optional in 2-Channel Package)
5	OFF OF	After connecting the power cable, turn on the engine and the VUGERA product will work.
6	Volume (Adjust the bracket angle after checking the image on the LCD screen.

8-2. How to connect Hardwire Power cable

Hardwire Power Cable



When you intend to conduct a direct connection from the car fuse box, this is the connection terminal description by the wire color.

ACC (cigar jack signal)

B+ (emergency lights, electric seat lights)

GND (ground to the vehicle)

Please use the Parking Mode Recording function by connecting the Hardwire Power Cable.

ACC: A terminal that checks 12V at the 1st and 2nd keys when you turn on the car key

B+: A terminal which always has 12V (directly connected to the battery) regardless of vehicle ON/OFF

GND: Vehicle grounding Connect the power cable to the fuse box of the vehicle.

8-3. How to connect VUGERA and GPS



Connect the dedicated GPS (sold separately) to VUGERA.

8-4. Precautions when installing



When installing VUGERA with the navigation system, please maintain a 20 cm distance between the two products diagonally. (receiving rate may decrease in some areas with weak DMB and GPS signals)

09. Product warranty

General Information

As a rule, VUGERA dashcams and add-on products (e.g. rear camera) bear a standard 1-year warranty period. Memory cards are also covered by a 12-month warranty.

All consumables such as tapes, cable clips, etc. are NOT covered by a warranty. If, within the warranty period, the malfunction is due to user's negligence, repairs may be handled for a fee which will be informed to the customer in advance.

Warranty Registration

If you bought a new product from an authorized reseller, you may be eligible to extend your product (dashcam main body) and micro SD card warranty from 12 months to 24 months on this product.

For product and extended warranty registration, a receipt or any proof of purchase will be required to determine the product warranty period. You must retain your purchase receipt or other proofs of purchase to receive warranty service by your authorized reseller. In order to qualify for the extended coverage, you must register your warranty details online within 90-days of purchase.

To register your product, please kindly visit the official website @www.vugera.com.au

For more information on Product Warranty, please kindly refer to the Warranty leaflet included in the package.

Other important information:

- Depending on the make and model of your car, the power may be constantly supplied to the dashcam even when the ignition is turned off. Installation of the product to a continuously powered 12V outlet could result in vehicle battery drainage.
- This product is designed to record video while the vehicle is in operation.
 The quality of the video might be affected by weather conditions and the road environment, such as whether it is day or night, presence of street lighting, entering/exiting tunnels, and the surrounding temperature.
- VUGERA is NOT responsible for the loss of any recorded video during operation.
- Although the product was designed to withstand high-impact car collisions, VUGERA does not guarantee the recording of accidents when the product is damaged as a result of the accident.
- Keep the windshield and camera lens clean for optimal video quality.
 Particles and substances on the camera lens or windshield may reduce the quality of the recorded videos.
- This product is intended to be used inside the vehicle only

MEMO

