# VISIONDRIVE®
CAR BLACK BOX

# Full Touch LCD
## BLACK BOX

VISIONDRIVE
BLACK BOX
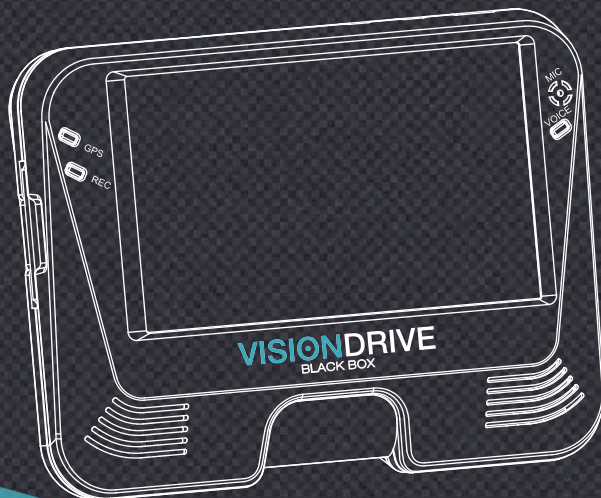
VISIONDRIVE
**Technology and Life**

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# General Info._ 1. Before Use

Thank you for purchasing the VISIONDRIVE proudly designed and manufactured by VisionDrive Co., Ltd in Korea.
Please read the product manual carefully before use so you can be informed of all the features of this advanced product.

## ■ Scope of Warranty and Liability

- This product is a secondary device for safe driving as such the manufacturer and their approved agents cannot be held liable or responsible for any loss of data experienced through the operation of the unit.

- This product is designed to record / save / play and analyze videos related to impacts / accidents or videos recorded at your own discretion while driving. Product features can be different according to driving conditions, the status of the car as well as firmware version on the unit. (Firmware updates are supplied by the manufacturer as required to improve product quality and stability)
  Note that the operating environment and SD memory card status may affect video recording so please take this into consideration.

- This product records and saves videos related accidents which are triggered by an internal Shock Sensor. In instances where the shock is not sufficient to activate the event mode you are recommended to press SHOT button to store the data into the separate event folder.

- Updates to this manual (which are subject to change without notice to improve understanding and any new features will be posted on VISIONDRIVE website.

- Please refer to www.visiondrive.co.kr/eng

# General Info._ 1. Before Use

## ■ SD memory card use and precautions

● This product is recommended to work with only the SD card dedicated to VISIONDRIVE. Please contact the dealer/agent or distributor to purchase a new one when the SD card is lost or damaged.

● Please make sure to use dedicated SD card as the use of non authentic, defective or faulty SD cards might result in loss of recorded video content.

● Failure to completely power down the recorder before removing the SD card will damage the card and any current recording in progress. Please always power down the recorder so that no lights are illuminated before removing the SD card. Also please follow Windows based procedures to Safely Eject Removable Media on your computer as failure to do so will also damage the SD card. SD card damage through failure to power down the recorder or safely eject the media is not covered under support or warranty.

● Also store the SD card in its carry case when not in use to protect it from static discharge and other external elements.

● SD cards are a consumable item so please note that SD cards are only guaranteed with us for six months as some sector loss is expected and could result in data loss in which case a replacement SD card should be sourced and used in your recorder.

● To pull out the SD card while writing, copying or deleting data in SD card may cause data loss, damage of data or SD card itself.

● We are not responsible for any recorded data destruction or loss.

● Please copy and archive important recorded data/files on other media. (hard disk, CD, portable memory, etc.)

# General Info._ 2. Operational Precautions

- Please keep these instructions in mind for safe and proper use of the product by preventing unexpected accident or risks in advance. We will not be responsible for the problems arising from failure to follow the instructions contained within this manual.

- You are required to deal with the product safely. If you need to do something with it we ask that you stop and park the vehicle in a safe place before engaging with the recorder via the touch screen. Never interact the device whilst the vehicle is in motion.

- Do not disassemble or modify this product. This prohibited action may cause accidents such as an electric shock and the product is not guaranteed for further after service or support. Any products requiring inspection or repair should be returned to the agent/dealer in the first instance.

- DC12V ~ DC24V is the allowed voltage range for proper operation of the device without malfunction or fire.

- Cables other than the supplied units or by connecting the cable to a different power source, may result in recorder malfunction or fire. In addition, please carefully manage wires and cable routing to prevent damage to the cable.

- If the vehicle is not used for a long time, disconnect the power cable from the recorder as continued long term use could discharge the vehicles primary battery.

- When mounting the product in the vehicle, follow the procedure to attach it securely to the inside of the vehicle glass. Impurities on the vehicle windshield mounting surface may weaken the adhesive strength. If the product falls from its mount it may be damaged.

- This product and its accessories are not waterproof. Under no circumstances should you expose the product to liquids or impurities.

- Do not use chemicals or detergents to clean the device. This can result in malfunctioning of the product.

- Accumulation of impurities on the camera lens or the window surface near the camera may result in diffused or abnormal refraction phenomena. You may not get a clean image from this so please ensure that the area surrounding the product, camera lens is kept clean.

# General Info._ 2. Operational Precautions

● Excessive tinting on the window may also distort or reduce the clarity of recorded data.

● Recording can be distorted under the condition where brightness suddenly changes like passing through a tunnel, direct sunlight reflection during daytime or where only low light is available at night time.

● If not enough light is available, the use of additional external lighting may improve the performance of the recorder.

● In case of slight impact, the product may not be able to classify it as an event file automatically (it is however recorded as a Normal file). In such cases, please use the SHOT button to force the creation an event file manually.

● Dropping or strong shocks applied to this product will cause malfunctions.

● Please try to keep the product away from water, fire, hot, cold or humid environments. If long-term exposure to the summer sun light or too low temperatures, deformation or malfunction may occur.

# **General Info._ 3. Contents**

Please make sure that all of contents are included in good condition, if not then please contact your dealer to correct any detected issues.
( Specifications and contents are subject to change without notice and this manual can also be provided in soft copy format. This product image can vary depending on the model. )

Recorder Main Body

External GPS Module
(Optional – required for
GPS information embedding)

Second Camera and Connecting Cable

Mounting Bracket

SD card
(8~128GB
varies as per order)

Cable Holders

Cigarette Lighter
Power Adapter

# General Info._ 4. Part Names



GPS LED
REC LED

MIC
VOICE LED
(Audio REC LED)

LCD Screen

2013/08/01 12:00:00

**VISIONDRIVE**
BLACK BOX

POWER LED

CAMERA

BRACKET
ASSEMBLED

IMAGE SENSOR LED

CONNECTING
CABLE PORT

SD CARD SLOT

POWER PORT

EXT PORT
(TECH SUPPORT PORT)

GPS PORT

OPTIONAL SECOND
CAMERA PORT
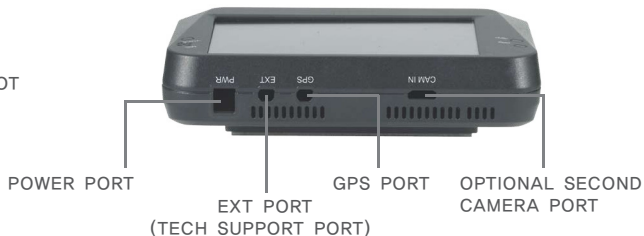
| Model | VD-9500H | VD-9600WHG/B |
|---|---|---|
| Camera(s) | 2 Cameras | |
| | Main : HD Color CMOS Digital cameras | Main : HD WDR Color CMOS Digital Camera |
| | Second : HD Color CMOS digital cameras | |
| Resolution | 1280 x 720(HD) 30fps + 1280 x 720(HD) 30fps (2ch Mode) | |
| Display | 3.2" TFT Color Touch LCD | |
| Recording | Normal/Event/Emergency/Parking Mode based on All-time recording | |
| Lighting Environment | Min. 0.1 Lux | |
| Camera Angle | Diagonal 126° (Front) / Diagonal 132° (Rear) | Diagonal 110° (Front) / Diagonal 132° (Rear) |
| Camera Rotation | Vertical 65° (Front) | |
| GPS | External GPS Module (Sirf IV) (Optional) | |
| G-Sensor | Built-in 3-Axis Shock Sensor (x-y-z) | |
| Storage | SD(HC) memory card 8G ~ 128G compatible (*Over 64GB supportive to FAT 32 format, cluster size 64KB) | |
| Audio Recording | Built-in MIC | |
| Voice Announcement | Built-in Speaker | |
| Event Recording | 10 sec. before impact ~ 15/25/35/45 sec. after impact | |
| Power Supply | DC 12V ~ 24V Cigarette Lighter Power Adapter | |
| Emergency Power | EDLC for Emergency Power Backup (Capacitor) | |
| Operating Temperature Range | -20 ℃ ~ 65 ℃ | |
| Car Battery Monitoring | Low Voltage Detection / Control | |
| Dimensions | 100mm * 77mm * 30mm | |
| Operating System Support | Windows XP / VISTA / Windows 7 / Windows 8 | |
| Image Analysis | Dedicated PC viewer (Based on AVI format) | |
| Security | Security LED | |

* Over 64GB SD (exFAT) is compatible by formatting it as FAT 32, cluster size 64KB format with a formatter.
* 8GB ~ 128GB SD card can be properly formatted through Menu > System Settings > Additional Settings > format

# General Info._ 6. Installation Precautions

For safe installation and operation, carefully read all the information stated below.

DO NOT disconnect the power supply while the system is booting up for start or update. Please keep it in mine that the product can be off for a short period of time during start-up.

- It is recommended to use only authorized SD cards provided with the VisionDrive® product.

- Only install the product after parking the vehicle in a bright and safe area.

- Make sure that you start installation with the power source completely turned off. The power connection should be the last step of the installation.

- Use the power cable provided with the product for the cigarette lighter power connection in the range of DC12V to DC24V. If power wiring is involved, we recommend a professional service for the installation.

- Prior to the installation, clean the area of the installation where the camera will be positioned.

- **DO NOT eject the SD card when the product is in operation or when starting / booting up.**

- **DO NOT attempt to disassemble, modify or repair the product yourself in any way.**

# General Info._ 7. Installation Procedure

1) **Assemble the bracket with the main body**

2) **Insert the SD card into the unit**

3) **Connect the cable and attach on windshield**

4) **Connect to power source to turn on the product**

5) **Adjust the camera angle**

6) **Check LED lamps**

7) **Arrange wires using wire holders**

   **\*Connect the optional rear camera.**

# General Info._ 7. Installation Procedure

## 1) Assemble the bracket with the main body



- Assemble the mounting bracket with the main unit and push it to the direction 1 to secure the lock. You will hear a solid click sound when the main unit is locked to the attachment bracket.

- Move the bracket to direction 2 to release the bracket.

## 2) Insert the SD card into the unit



- Insert the SD card as shown in the picture.

- When ejecting the SD card from the unit, turn off the main power completely and wait for all indicator lights to go out and then push in the SD card. The SD card will pop out when pushed in.
  Use of force or other methods to eject the SD card may defect the SD card or damage the recorder.

# General Info._ 7. Installation Procedure

## 3) Connect cable and attach on windshield



- Clean the area on the windshield where the unit will be installed.

- For the placement of the unit, it is better to place the unit closer to the center of the vehicle. If the unit is installed on the right or left side of the rear view mirror, ensure there is room to detach the unit if needed via the sliding action. Also check that the installation does not affect normal viewing angle adjustment for the rear view mirror.

- The adhesive on the bracket is very strong. Partially remove the cover of the adhesive area and then use the full adhesive surface area for final installation.

- When you are comfortable with the installation position, fully attach the recorder bracket to the screen.

- Connect cigarette lighter power adapter as the last stage of installation.

## 4) Connect to power source to turn on the product



- Insert the cigarette lighter power adapter into an appropriate outlet.
  If you start up the car or place the car key to ACC, the product will commence booting up with voice announcement.

- Blinking of LED lamps notifies that the system booting has succeeded.

- **DO NOT turn off the power source while the system start-up is in progress as this may cause damage to the product.**

## **5) Adjust the camera angle**



- Move the camera top to bottom to fix it to the best position.

- The recording view can be checked on LCD screen.
  (Please touch the LCD screen in order to switch between front and rear camera in installations where the second optional camera is present).



- For better images and operation of the analysis program, ensure that over 1/2 of the vehicle hood/bonnet area is included in the recorded data.

# General Info._ 7. Installation Procedure

Windshield

Bracket

Unit

Vehicle Exterior  Vehicle Interior (Driver's Side)
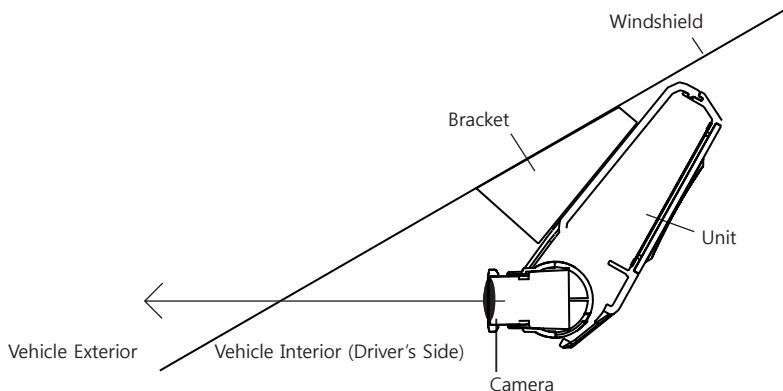
Camera

● When the unit is installed, set the camera lens to face the front direction of the vehicle.

65°

Highest
Position

Lowest
Position
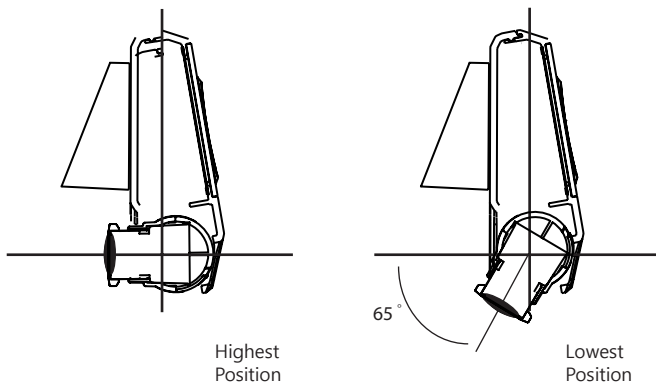
● Camera lens is movable up and down to adjust the angle.
The camera is tightly fixed to prevent random movement by slight vibration so apply
enough force to adjust the angle of the camera.

# General Info._ 7. Installation Procedure

## 6) Check LED lamps



- The REC lamp is blue when the unit is recording (NORMAL) files and red when recording an (EVENT) file after an impact or if the SHOT button has been activated.

- The status of voice recording can be changed Menu> System Settings> Voice Recording ON / OFF.  If Voice Recording is disabled then the VOICE lamp will turn off from the normal blue state.

- The GPS lamp is red before receiving GPS signal and stays blue when it is received okay.

- It may take a couple of seconds to several minutes to get the GPS signal depending on the location of your vehicle and movement of the recorder in an unpowered state.

## 7) Arrange wires using wire holders



- Use the enclosed cable holders to organize cables.

# General Info._ 7. Installation Procedure

**\* Connect the optional second camera**



● The optional camera can be used by being connected to CAM IN port. We recommend to power off the main unit before connecting the second camera to the CAM IN port.

# Basic Info._ 1. How to Use

## ■ Power ON/OFF
- Check if the SD card is inserted into the unit.
- This product operates when vehicle starts or ACC is on.
- It starts recording while voice announcement reporting current status of voice recording as well after checking the SD card once the product starts.
- The REC and GPS lamps turn on following the above stages.
- The REC lamp blinks in blue.
- GPS lamp is red before receiving GPS signal and it is blue while receiving GPS signal.
- Depending on the environment, it may take a couple of seconds to several minutes to receive GPS signal blue status.
- The LCD screen automatically turns off one minute after recording commences. You can turn the screen on again by touching it.
- The recorder will beep and reboot to apply 1channel mode recording if the connecting cable for the rear camera is disconnected during operation.
- When reconnected, the unit will reboot to reactive twin channel recording mode.
  (To turn off before reconnection is recommendation.)

## ■ Normal Recording and Event Recording
- The normal recording commenced with vehicle start-up and the REC lamp blinks blue in color.
- In normal recording mode, recordings are 1 minute in duration and are stored in the NORMAL folder. If the allocated memory area is full while in normal or event recording mode, the program will erase the oldest recorded data in those folders to allow the saving of new files. The management is based on First-In First-Out (FIFO).
- In the case of an impact, the sensors will trigger the event mode with an alarm. The REC lamp blinks in red and the recorded data with the alarm by the impact will be saved in the EVENT folder.
- An event file contains images of 60 seconds duration in total, 10 seconds before the point of impact and afterwards a maximum of 45 seconds according to your settings.
- Recording time after an impact can be changed at MENU > System Setting > Shock Sensor • Recording or via the PC based dedicated PC viewer program.
- Sensitivity of shock sensor settings should be set differently according to vehicle type in order to support correct event folder video storage.
  (Go to MENU > System Settings > Shock Sensor • Recording Settings to change the sensitivity value.)
- EVENT folder content is overwritten when it is full.
- Sensitivity of Shock sensor, storage ratio of each folder or recording time for an event file after an impact can also be set in Menu> System Settings> Shock sensor and recording settings on the LCD screen.

# Basic Info._ 1. How to Use

## ■ Manual EVENT Recording
- The data is saved in the EVENT folder with alarm like as event files when you press SHOT button.
- Please use SHOT button when you would like to save scenes or accident as a witness to keep them separately in the Emergency folder.
- **MENU mode is not available while EVENT or EMERGENCY recording is going on.**

## ■ Real-time video check on the LCD
- Each time you touch the LCD, Front > Rear screen is displayed on the LCD.
  (In one channel mode, only the front camera view is displayed.)
  Please always stop the vehicle before operating the LCD touch screen of the device using.

## ■ Parking Surveillance Mode
- "Auto switching to Parking mode" option is selected as a default setting and it automatically places the unit in the "Parking Mode" once the vehicle does not move for longer than 10minutes after the last driving mode recording. The unit will automatically return to "Driving Mode" once the unit registers successive movement like as starting up vehicle.
- \* **You are notified the number of impact occurrences when it is in Parking mode to enhance safety during Parking. The notice will disappear when you go to MENU to play that impact related file.**
- In parking mode and whilst there is no impact, the system records 10 frames/second per channel to save the SD card space and returns to normal full frame recording mode making an EVENT file when it detects an impact or movement around the vehicle and then returns to parking mode again.
- The REC lamp flashes in purple whilst the recorder is in Parking mode.
- The number of impact occurrence in Parking mode is shown on the LCD screen when you start the vehicle. It helps you not to miss the files to check.
- Impact based data files while parking are stored separately in the EVENT folder.
- If you do not require Auto switching to parking mode, please disable this in the configuration.
- Once in Parking Mode, the system automatically rearranges its impact sensing sensitivity to the most sensitive in order to register even the slightest impact/bump.
- No audio is recorded in parking mode.
- To use the parking mode, the product has to be connected directly to the power source as there are no internal batteries in the recorder other than the EDLC which is a capacitor providing a short power supply to ensure that the latest video is correctly stored to the SD card on the recorder being shutting down.
- \* **When connecting the unit to permanent power we recommend the use of a professional auto electrician to assist with the wiring.**
- Extensive and continuous use of the vehicle's power source may exhaust the performance of the product. The company is not liable for the damages from continuous use of the product more than 24 hours. We recommend the full power to be off after continuous use of 2~3 days for maintenance purpose.

# Basic Info._ 1. How to Use

## ■ Use of SD Card
- Users are recommended to use the SD card issued by the manufacturer. VISIONDRIVE® untested SD cards may not be recognized nor may they save video data correctly.
- To eject the SD card from the product, the engine has to be turned off and the key should be removed from the ignition (all power should be removed from the device). A few seconds after the key has been removed, the product automatically turns off with LED lamps all extinguished. Remove the SD card when all signals are off (The built-in back up capacitor helps the last file to be stored into proper folders before the product is completely turned off.)
- If there is no SD card in the product, it needs to be inserted before you drive your vehicle for proper recording. There is no internal storage in the product other than the SD card.
- Use only SDHC compatible SD card readers to read the SD(HC) card in your PC.
- You need to insert the SD card or replace the inserted SD card when "Please insert an SD card" is heard due to absence of SD cards or unusable SD cards.
- SD card readers can be purchased at computer accessory stores or from your VISIONDRIVE agent/dealer/distributor.
- Regular software upgrades applied to your SD cards help to prevent or resolve bad sectors and malfunctions. Execute SD card defrag, or error checking for stable and effective usage of the SD card.
- **Please format the SD card based on FAT32 Cluster size (Allocation unit size) 64KB.**
- **If you want to format SD cards larger than 32GB in your windows bases computer, please use a program which makes them FAT 32 format supportive.**

## ■ Automatic System Check and Safe Rebooting Function
- This product is programmed to automatically check and reboot the system, if the product is in a non-functional status. By rebooting the system, the product notifies the user that such action is taking place.
- By safeguarding the system in this manner, the stability of the system is reinforced. The system might keep rebooting repeatedly when the program installed in the SD card has been damaged or altered. In this case, please stop the system and format the SD card then install the latest Software to use the SD card like it is supplied for the first time.

## ■ Voice Recording
- "Voice recording is on." is heard when voice recording starts while the product boots and VOICE LED stays in the blue state.
- The status of voice recording can be set in Menu> Voice Recording · guidance > Voice Recording ON / OFF on the LCD screen. If Voice recording is set to OFF then the VOICE LED will be OFF.

# Using the Menus _ 1. Touch LCD

## Basic screen construction

① Disk Checking > Main View > Front and Rear view is displayed on the LCD in order by simply touching anywhere on the display.



② MENU > Playback > Emergency, Event, Normal, Parking
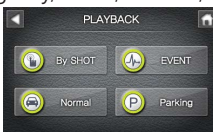


③ MENU > Voice Recording · Guidance



④ MENU > System Setting > Shock Sensor·Recording, time, Additional, touch calibration

# Using the Menus _ 1. Touch LCD

## 1) Screen display during normal driving



### ■ Screen display once the recorder starts
- Front view is shown on the LCD after the system starts.
- Front and Rear view are displayed on the LCD in order by touch. In case of no rear camera connected, only Front view is available.

### ■ SHOT
- Videos can be saved urgently when you press SHOT button.
- The videos stored by SHOT with alarm just like those due to impact but are stored separately in the EMERGENCY folder.
- Please use SHOT button when you would like to save scenes or accident as a witness to keep them in the EVENT folder.
- An EMERGEYCY file is made for a maximum duration of one minute, 10 sec. before the SHOT button till 15/25/35/45 sec. after the SHOT.

### ■ Menu
- Touch to go to the Main Menu Area.
  (Current date and time are displayed.)

# Using the Menus _ 1. Touch LCD

## 2) Screen in usual driving > Menu



## Menu 🏠

- Touch to go for the screen in usual driving mode again.

## Voice Recording · Guidance

- Can be turned On / Off, Up / Down.

## Playback

- Stored files can be selected and viewed.

## System Settings

- Voice recording ON/OFF, Sensitivity of Shock sensor, recording time for an event file after an impact and storage ratio of each folder can be set.
- Whilst in Menu for playback mode and system settings the whole recording is OFF as well as REC LED.
  It automatically returns to recording mode when there is no touch on the screen for more than 30 seconds.

# Using the Menus _ 1. **Touch LCD**

### 3) Screen in normal driving > MENU > Playback



## ■ EMERGENCY(SHOT Button)
- The videos stored by SHOT with alarm like as an impact occurs are stored separately in the EMERGENCY folder although there is no external shock.

## ■ EVENT
- It stores data with shocks in EVENT folder with alarm. Data due to shock while parking is also stored in this folder.

## ■ NORMAL
- Usual driving data is in this folder.

## ■ PARKING
- Videos recorded while parking except the videos by motion detection or impacts are stored here.

# Using the Menus _ 1. **Touch LCD**

### 4) Playback > List of file > Playback videos



| NORMAL | | |
|---|---|---|
| N [ 50] 2013/07/23 | 14:37:26 | |
| N [ 51] 2013/07/23 | 14:38:25 | |
| N [ 52] 2013/07/23 | 14:39:25 | |
| N [ 53] 2013/07/23 | 14:40:24 | 7/11 |
| N [ 54] 2013/07/23 | 14:41:23 | |
| N [ 55] 2013/07/23 | 14:42:22 | |
| N [ 56] 2013/07/23 | 14:43:21 | |

2013/07/23 08:25:07
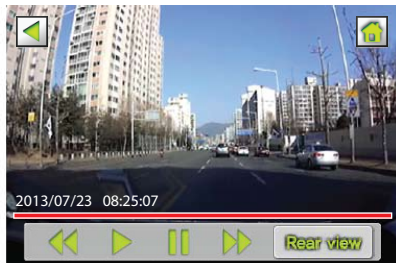
- Please use the controller at the right side of the screen display to navigate the list.
  i.g. (7/11 Figure) = Current page/ Last page.
- Progress bar is under the being played video. Date and time are displayed as well.

■ **Go to previous file. Go to next file**  ▲ ▼

■ **Go to previous page. Go to next page**  ▲ ▼

■ **Replay previous file, Play, Pause, Replay next file**

◀◀   ▶   ❚❚   ▶▶
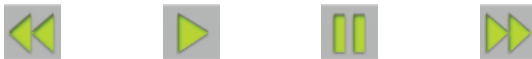
■ **Transitions**  Rear view
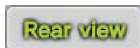
- The front screen and rear screen are switchable with the icon for transition.
- Transition to rear video can be limited when it is paused. Please try this when a video is being played. No rear videos are available in case of no optional camera for recording.

# Using the Menus _ 1. **Touch LCD**

**5) Screen in usual driving > Menu > Voice Recording · Guidance**



## ■ **Master volume**
- The higher the number is, the louder the volume is.

## ■ **Event alarm**
- The alarm sound going off when shocks are registered or system checking is required can be On / Off.

## ■ **Voice recording**
- Voice recording can be ON / OFF.

## ■ **Notification of Parking Mode**
- Voice guidance for Parking Mode can be On / Off.

## ■ **Greeting**
- Can be On / Off.

# Using the Menus _ 1. Touch LCD

**6) Screen in usual driving > Menu > System Settings > Shock Sensor·Recording Settings**
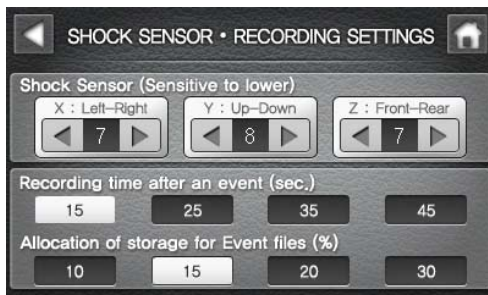


## ■ Shock Sensor Settings

- Shock sensor (G sensor setting): the impact of the sensitivity of the vehicle can be set to the desired value. X: left-right Y: up-down Z: front-back
- According to vehicle type and driving conditions the shock sensor is required to be set. The lower the number is the more sensitive it detects.
- If the value is too high the system is not sensitive enough to detect slight impacts. In other words, if alarms occur frequently it could mean that the value is too low meaning that too sensitive. A setting of 10 for any of the sensors will disable that sensor.

## ■ Recording time after an impact

- Recording time after an impact for an EVENT file is selective. Event recording starts 10 sec. before an impact.

## ■ Allocation of storage space

- Allocation of storage space for EVENT related files is adjustable. Normal, Parking, Emergency files are automatically allocated following the setting of EVENT folder.

# Using the Menus _ 1. Touch LCD

**7) Screen in usual driving > Menu > System Settings > Time Settings**



## ■ Time Setting
- Displayed time on the LCD screen can be adjusted. Please touch ◄ or 🏠 to save the changes. (Year, Month, Day, Hour, Minute, Second)



## ■ Time Zone Setting
- Time Zone should be tuned in to your location to have the exact time. (GPS signal is required.)

# Using the Menus _ 1. Touch LCD

### 8) Screen in usual driving > Menu > System Settings > Additional Settings



## ■ Low battery detection
- Vehicle voltage can be set. 12/24V is recommended when connected to permanent power to prevent the recorder from fully discharging the vehicle battery.

## ■ Auto Parking Mode
- Record will go into Parking mode after 10 minutes since the last movement of vehicle when the automatic parking mode is enabled.

## ■ Motion Detection
- The feature of Motion detection can be enabled within automatic parking mode through the main camera.

## ■ Security LED
- It indicates that the VISIONDRIVE black box is operational by blinking. It can be ON / OFF.

## ■ SD card format
- All of data in the SD card can be erased. Once it is done, those data cannot be restored.

# Using the Menus _ 1. Touch LCD

### 9) Screen in usual driving > Menu > System Settings > Touch Calibration



- Touch calibration can be done to improve the accuracy of the touch-sensitive LCD.
- Touch all five points following this order, the top left corner > top right> bottom right>bottom left > the center, to complete touch calibration properly. This can be used repeatedly to recognize the points better.
- System reboots to apply the settings.

# Using the Menus _ 2. PC viewer_VD Analyzer

## 1) Installation of the PC viewer

- VD PC viewer can be downloaded to watch and analyze the recorded videos through VISIONDRIVE. The SD card in the new package has Setup.msi (Setup.msi in brief)
- Double click on Setup.msi to execute the program for installation on your computer.
- Please remove any existing PC viewer prior to installation of Setup.msi
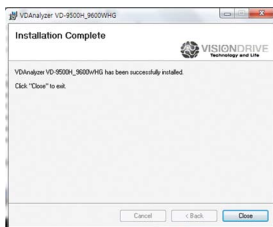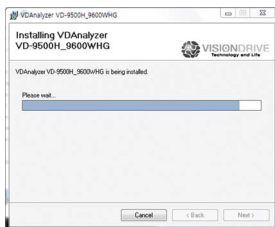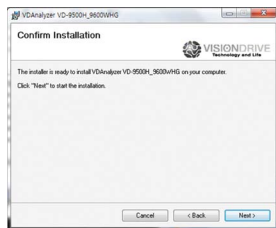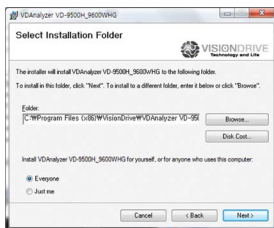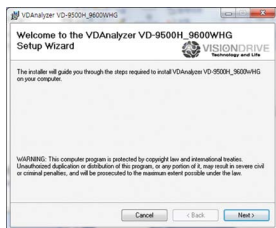


- The installation varies depending on the performance of your PC, but within one minute, the installation should be completed.

- Make sure that a shortcut of PC viewer  has been shown on the desktop when the installation is completed.
- Double-click the shortcut icon or go to the Start menu> All Programs> VisionDrive > VD Analyzer to run the program.

## 2) How to use PC viewer

### Program Start Up *** The skin used for the VD Analyzer may differ according to the version ***

- Open up the downloaded VD Analyzer.



### OPEN

- Please click on OPEN to fetch the video files recorded by VisionDrive from SD card drive or any folder.

### Playback

- Select a file from the list located on the right-hand side.
- The most recent data goes to the top and the list of files can be lined up ascending / descending order by clicking on the line, file/size/mode at the top.
- The list is not displayed up when you open the program for the first time. The list can be displayed when you OPEN and designate a folder with valid videos to read.
- Usual driving videos are stored in the Normal folder. When you click [OPEN], you can select the folder where saved videos are to play them.
- The names of the files are shown as below [E: Event, N: Normal, S: Emergency, P: Parking]

| Real Filename (in Windows) | File list of the PC viewer | | |
|---|---|---|---|
| Channel _ Serial Number _ Date _ Time _ separator _ recording _ recording type separator. Avi | Start Time | End Time | Event |
| i.g. ch1_0001_20130731_211713_070_36562_N.avi | 2013-10-11 13:41:57 | 13:42:56 | Normal |
| ch1_0001_20130805_082302_066_60903_N.avi | 2013-10-11 13:40:57 | 13:41:57 | Normal |
| | 2013-10-11 13:40:40 | 13:40:57 | Event |
| ch1_0002_20130731_220819_502_59904_N.avi | 2013-10-11 13:40:25 | 13:40:38 | Event |
| | 2013-10-11 13:40:16 | 13:40:25 | Parking |
| ch1_0002_20130805_082402_004_60903_N.avi | 2013-10-11 13:39:50 | 13:40:16 | Event |
| | 2013-10-11 13:39:18 | 13:39:50 | Parking |
| ch1_0003_20130731_220918_440_22976_N.avi | 2013-10-11 13:38:17 | 13:39:17 | Parking |
| | 2013-10-11 13:37:51 | 13:38:16 | Event |

# Using the Menus _ 2. PC viewer_VD Analyzer

## Google map



- The location of the vehicle is shown on a map based on GPS data.
- The Google map is viewable only when you have the external GPS module in operation and your PC is also connected to the internet.

## Shock Sensor Graph



Z: -0.3000
Y: -0.3820
X: +0.1250
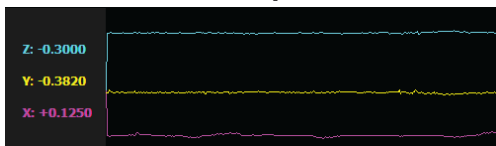
- The graph above shows impacts on the x-y-z axis of the vehicle.
  Z-axis: Detect impacts from front - rear (0G ~ 3G is registered)
  Y-axis: Detect impacts from up - down (0G ~ 3G is registered)
  X-axis: Detect impacts from left - right (0G ~ 3G is registered)

## Speed meter



SPEED 008 [Km/h]
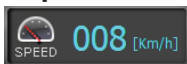
- The speed of the vehicle determined by the GPS is shown on videos in playback. (Required use of external GPS module for this)

# Using the Menus _ 2. PC viewer_VD Analyzer

## ■ Volume Control



- Please move the scroll bar from the left to the right to control the volume of recorded sound in playback mode.

## ■ Controller in playback



① ② ③ ④ ⑤ ⑥

Previous frame / Reverse / Pause / Stop / Play / Next frame

① Go back to previous frame for more accurate analysis when the video has been paused
② Reverse playback
③ Pause video
④ Stop playback
⑤ Play
⑥ Go back to next frame for more accurate analysis when the video has been paused.

## ■ Playback by multiple speed



- Videos can be played forwards and backwards at five different speeds based on 1X (normal), 2X  4X and -2X and -4X (- for backwards).
- In this case, voice recorded with the video is not available.

## Color Control

- Brightness / contrast / color / sharpness of played video can be adjusted.

## Zoom in / out

- Zoom in / out / can be done by mouse scrolling in the imaging area.

## Print out image information

- The information of the image which is currently paused on the PC viewer while playback can be printed out.
- Short memos/notes regarding the incident or other information can be entered and printed out together with the image.

## Settings

- The product configuration can be changed.

## Version Information

About VDAnalyzer

VD-9500H_9600WHG Version 1.0.21EN

Copyright (C) 2014 VisionDrive

OK

- Version of the currently in use software can be confirmed.
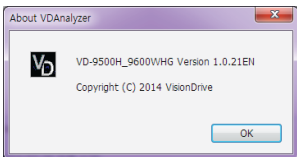
# Using the Menus _ 2. PC viewer_VD Analyzer

## ■ Auto-play
- After you double-click a file, the next file on the list is played automatically and continuously played according to time sequence.
- Files play continuously from the bottom to top on the list in each folder of EVENT, NORMAL, etc.

## ■ Display Mode

① Switchable front-rear view area



- The rear view video is located at bottom left when there are both cameras for front view and second camera for rear view.
- You can change the play area of video from front camera to rear camera if you drag and place the video from one to the other area.
- Playing area can be switched by the same way above.

② Full screen



- This area can be larger if you double-click on it or click this ▦ at the top right.

- This ▦ is for going back to default mode.
- Controller can be seen if you make some movement with mouse cursor.
- Double-click on the playing area can make it full screen.

## Pop-up menu

- Pop-up menu appears as shown below when you right-click on the image of both front and rear.

① Switching front/rear

| |
|---|
| Swap Display Views |
| Aspect Ratio ▶ |
| Zoom in / out ▶ |
| Rear Video ▶ |
| One Channel View |
| Color Setting |
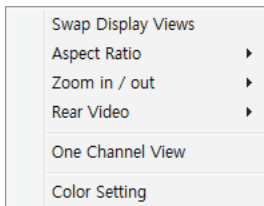
- Front to rear / rear to front view can be switched in Full screen.
- In 2CH playback mode, the image is played on the main area if you drag and place the image from the sub area.

② Aspect Ratio

| | | |
|---|---|---|
| Swap Display Views | | |
| Aspect Ratio ▶ | ✓ Keep the Ratio | |
| Zoom in / out ▶ | ✓ Default | |
| Rear Video ▶ | Original | |
| One Channel View | 16:9 | |
| Color Setting | 4:3 | |
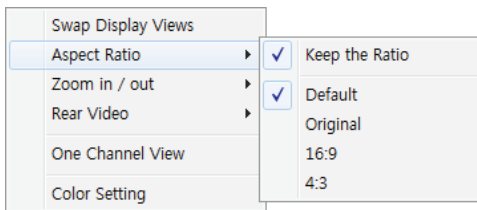
- Aspect ratio can be original / 16:9 / 4:3.

③ Zoom in / out



- Zoom in / out / can be done by mouse scrolling in the imaging area.
- The original image at bottom right indicates which part of the full image is zoomed in.
- The current zoom ratio or original ratio can be set in the pop-up menu.

④ Images

| Swap Display Views | | |
| --- | --- | --- |
| Aspect Ratio | ▶ | |
| Zoom in / out | ▶ | |
| Rear Video | ▶ | Flip Up/Down |
| | | Flip Left/Right |
| One Channel View | | |
| Color Setting | | |
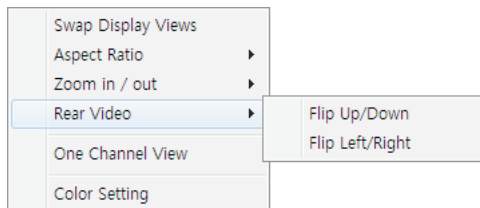
- Current playback image can be upside down or left and right reversible.

⑤ 1 channel image only
- It works like as you double-click on the image to play the image in full screen.

⑥ Color Control

| Color | | |
| --- | --- | --- |
| | | Default |
| ☐ Apply to all channels | | |
| Brightness : | ──────▯────── | 50 |
| Contrast : | ──────▯────── | 50 |
| Saturation : | ─────▯─────── | 50 |
| Sharpeness : | ──▯───────── | 5 |
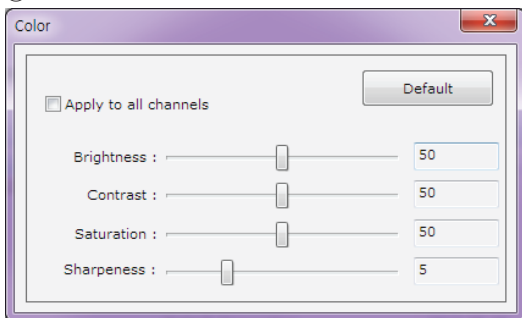
- Brightness / contrast / color / sharpness of played video can be adjusted.

# Using the Menus _ 2. PC viewer_VD Analyzer

## Configuration



| | |
|---|---|
| ① Video Setting | ⑥ Low Battery Detection |
| ② Shock Sensor Setting | ⑦ Parking Mode |
| ③ Vehicle Information | ⑧ Speed Alarm |
| ④ Time Zone | ⑨ Type |
| ⑤ Record Setting | ⑩ RTC |

## **Video Setting**

[ Video Setting ]

< Camera Setting >

○ 1ch mode (front : 1280 x 720, 30fps)
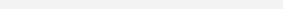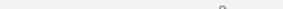
● 2ch mode (front rear : 1280 x 720, 30fps)
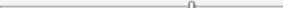
< Video Quality >

● Super High       ○ High       ○ Normal

- Resolution and Quality of videos can be modified.
- The image recorded in high quality requires more room to be stored due to the size of the file that corresponds to the resolution.

## **Shock Sensor Setting**

[ Shock Sensor Setting ]

| Sensitive | | | | | | | | Insensitive |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

[ Z : Front & Back ]

[ Y : Up & Down ]

[ X : Left & Right ]

- Level of sensitivity can be modified according to vehicle type and driving condition. A lower value makes the sensor more sensitive, large numbers makes it insensitive. (10: disables)

## **Vehicle Information**

[ Vehicle Information ]

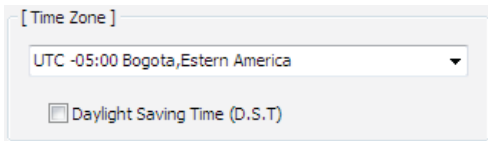\* You can enter letters and numbers only for vehicle information.

VisionDrive

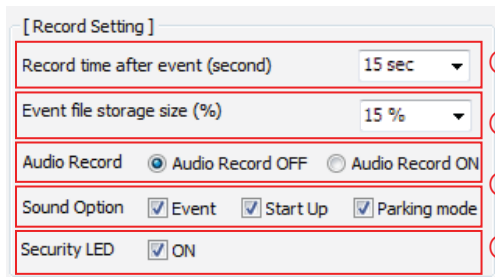- Information of the vehicle will be shown up on the video in playback.

## ■ Time Zone

[ Time Zone ]

UTC -05:00 Bogota,Estern America ▼

☐ Daylight Saving Time (D.S.T)

- You can select your location to get correct time information. When GPS module is connected local time will be automatically collected.

## ■ Recording Settings

[ Record Setting ]

| | |
|---|---|
| Record time after event (second) | 15 sec ▼ ① |
| Event file storage size (%) | 15 % ▼ ② |
| Audio Record ◉ Audio Record OFF ○ Audio Record ON | ③ |
| Sound Option ☑ Event ☑ Start Up ☑ Parking mode | |
| Security LED ☑ ON | ④ |

① Record time after event
- Recording time after an impact for an EVENT file is adjustable. Event recording starts 10 sec. before an impact.

② Event file storage size
- Allocation of storage space for EVENT related files is adjustable. Normal, Parking, Emergency files are automatically allocated following the setting of EVENT folder.

- **Files with shock or motion detection in parking mode are stored in the EVENT folder.**

③ Audio Record
- Audio recording can be ON / OFF.

④ Sound
- Voice guidance can be quiet or can be selected to hear in case of Event (Alarm) / Start up (Greeting) / Switching to parking mode.

⑤ Security LED
- It blinks regularly once in 2seconds while VisionDrive is working. During EVENT related recording, it blinks faster than usual.

⑥ Auto LCD Off
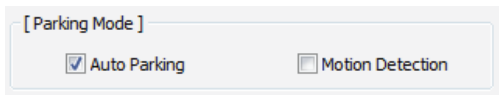- LCD automatically turns off after 30sec after starting.

## Low Battery Detection

[ Low Battery Detection ]

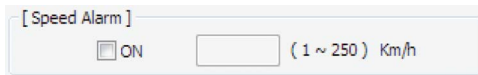◎ OFF   ◎ 11.8/23.5V   ◉ 12/24V   ◎ 12.2/24.5V

- Vehicle voltage can be set. 12V is recommended for sedan when connected to permanent power to prevent the recorder from fully discharging the vehicle battery.
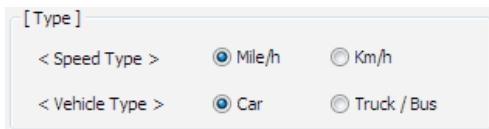
## Parking Mode

[ Parking Mode ]

☑ Auto Parking        ☐ Motion Detection

- Record will go into Parking mode after 10 minutes since the last movement of vehicle when the automatic parking mode is enabled.
- The feature of Motion detection can be enabled within automatic parking mode.

## Speed Alarm

[ Speed Alarm ]

☐ ON        [        ]   ( 1 ~ 250 )  Km/h

- The system alerts over speed when the current speed exceeds the speed you set.

## Type

[ Type ]

< Speed Type >        ◉ Mile/h      ◎ Km/h

< Vehicle Type >      ◉ Car         ◎ Truck / Bus

- You can select your local speed type as Km/h or Mile/h also, vehicle type as Car or Truck/Bus.

## Time Setting (RTC: Real Time Clock)

    RTC

- The time on the device can be adjusted.
- In case of GPS module connected, the time received by GPS module is precedence to apply.
- When press RTC, the time of the computer is automatically set to the SD card. Insert SD card to recorder in order to apply the time from PC.
- * Insert SD card right away to avoid time difference after setting.

# Additional Info. _ 1. Warranty

- The warranty is one year from the date of purchase.

- If the product malfunctions under normal use within the warranty period, you can claim repair of the product.

- To apply for warranty, register your product serial number with your local reseller where required.
  Only registered products will be accepted for repair or service and is country specific.

- If the warranty period expires, repairs and services can be provided only if expenses are paid by the customer.

- In cases below, repairs may require payment by the customer.

  ● If the product has been disassembled or reassembled or has been damaged by the customer.

  ● Damages due to force majeure such as earthquakes, thunderstorms, etc.

  ● Using power cables other than that which were provided by the manufacturer.

  ● Dropping or damaging the product through any means – accidental or on purpose.

- Warranty repairs are available only in the country where the product is purchased.

# **Additional Info. _ 2. Warranty**

| Warranty Certificate | | | |
|---|---|---|---|
| Product Name | VISIONDRIVE | Model Name | |
| Product Name | | Serial Number | |
| Retail Shop | | Warranty Period | |

The certificate does not have the date of purchase as the one year warranty is calculated by the serial number's production date plus an additional one month to calculate the one year warranty period. If no serial number, then no warranty is available.

- The manufacturer will follow Consumer Protection Act (2006-36) to give warranty to all the products sold to consumers in the available regions.
- After sales services are provided by either the manufacturer or the designated service center under an agreement with the manufacturer.
- A decline of the warranty coverage will be notified to the customer within 14 working days of the application. If the application is accepted, the coverage will be in full effect within 30 days.

### Guarantee of memory card

This is a dedicated SDHC memory card for this product.
It can be treated with/without cost or exchange upon investigation when it meets a problem when the problem is not caused by negligence of customers.

### The term of guarantee

Up to 6 months since the date of purchase.

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