**User Manual** 

Ver. VD-8000HDS 1.0 E



**VISIONDRIVE®** 

CAR BLACK BOX

# PDBLACK BOX VD-8000HD 5





External Camera

### INDEX

1.	Before Use	2
2.	Caution	3
3.	Components	6
4.	Part Names	7
5.	Product Specification	8
6.	Installation Precautions	9
7.	Installation Sequence	10
8.	Installation Procedure	11
9.	Product Use	16
10.	PC Analysis Program Use	20
11.	Warranty	32

### **Before Use**

Thank you for choosing VisionDrive®.

The following contents describe the scope of the warranty service covered by us and product cautions.

### ■ Warranty Service and Responsibility

We shall not be held responsible for damage caused by errors or data loss of this product, as well as any damages or losses derived from the device not operating normally. The product is designed to record, store, play and analyze videos caused by impacts and car accidents or as recorded by user's discretion. However, it is not assured that the product will record video in every instance.

Furthermore, under circumstances where the impact is too weak, the vibration sensor may not be able to detect the impact, which induces that the system will be unable to automatically start recording the [Event] file. In such a situation, the urgent save button (SHOT) on the product should be pressed to start recording a video to the [Event] folder.

The information in this manual may change without prior notice due to technical changes or upgrades. Check for updates periodically to ensure full knowledge of both the warranty service and responsibility scope.

www.visiondrive.co.kr

### **Caution**

- The SD card is the only usable SD card for this product.
- In case of a lost SD card, please contact your local retail shop to purchase a replacement.
- If a damaged or a non-authentic SD card is used, the recorded data maybe damaged or will not record and/or replay due to difference in quality.

#### Caution

- Do not disassemble or remodel this product as it can cause an electric shock.
   Any malfunctioning after such action will result in the product being unfit for use and void all warranty/service provisions.
- Consult the retailer for product maintenance and repairs if necessary.
- Only use adaptors with the appropriate specifications. The use of other adaptors will defect the product and or cause fire.
- All wiring should be carefully implemented so the cable may not be damaged.
- When installing the device to your vehicle, follow all the procedures and make sure the mount is secure. Unclean surfaces will weaken the adhesive strength and can damage the product if it drops due to weak adhesion.
- This product is not waterproof. Do not allow liquids and impurities to enter the product.
- Where the product is wired to the power supply of the vehicle directly or if the cigar jack is connected to the power supply while the engine is off, make sure to disconnect the device to prevent battery drain on your vehicle.
- Do not use chemicals or detergents to clean the device. This can result in malfunctioning of the product.

### Caution

- Accumulation of impurities on the camera lens or the window surface near the camera may result in video distortion and reduced clarity of recorded data.
   These areas of the product should always be kept clean.
- These areas of the product should always be kept clean.
- Note: Recording can be distorted under the condition where brightness suddenly changes like passing through a tunnel, direct sunlight reflection during day time or where only low light is available at night time.
- If not enough light is available, using additional external lighting may help record better images.
- In case of slight impact, the product may not be able to create an event file automatically (it is however recorded as a Normal file). In such a case, please use the (SHOT) button to create an event file manually.
- If you eject the SD card while the product is operational, the recorded data may be damaged.
- Ensure the main power is completely off and the device is fully powered off (no indicator lights are on) before removing the SD card from the product.
- Interacting with the product while driving is risky and may cause an accident. This should only be performed when the vehicles is stationary and parked in a safe place.
- Dropping or causing an impact on the product during operation can cause defects or fire
- Do not keep the product in extreme temperatures or in humid areas.
- Being under extreme heat in summer days or freezing cold in winter days may result in defection of the product. Also, do not expose the product to direct fire or water.
- Do not disassemble the product.
   Disassembly without caution may result in product defect.

### **Caution**

- Keep the SD card in its case when not in use in the product.
- Static electricity or other environmental elements can damage the recorded data.
- SD cards are an expendable supply. After normal periods of use, partial memory sectors maybe damaged and will disable the recording of data.
- The system installed on the SD card provides an automated checking function. If use of the automatic checking function identifies problems with the SD card then we recommend purchasing a new SD card for recording data.
- If the SD card is ejected or the system is turned off while recording, copying or deleting data, stored data may be lost or damaged.
- In a worst case scenario, the SD card may become defective.
- We, the company, are not responsible for loss or destruction of stored data.
- Copy and keep important data on other data storages such as hard disk, CD and portable flash memory.

### Components

!! Components are subject to change without prior notice.





Main Unit

Optional Infra- Red second camera and an extension cable (4.5M)



Attachment Bracket (Glass Plate Mount)



SD card



Wire holders



Cigar Power Adaptor and Cable

### **Part Names**





### **Product Specification**

Model	VISIONDRIVE VD-8000HDS		
Camera	2 Cameras HD Color CMOS digital camera + Optional Camera (VGA+ Infra - Red)		
Resolution	1280 x 720(HD) 30fps (1ch) / 1280 x 960(HD) 20fps (1ch) / 640x480(VGA) 20fps (2ch)		
Recording	24Hr Loop Recording / Manual & Emergency Recording button		
Lighting Environment	Min. 0.1 Lux		
Camera Angle	138°		
Camera Rotation	Vertical 65°		
Display	2.4" TFT Color LCD		
GPS	Built-in GPS Module (Sirf III)		
G-sensor	Built-in 3-Axis Sensor(x-y-z)		
Storage	SD memory card (SDHC compatible 1G ~ 32G)		
Audio Recording	Built-in MIC (One-touch recording)		
Voice Announcement	Built-in Speaker		
Event Recording	Before impact 10 sec./ After impact 15/30/45/60 sec.		
Power Supply	DC 12V ~ 24V Cigar Power		
Internal Battery	EDLC for Emergency backup		
Operation Temperature	−20 °C ~ 60 °C		
Car Battery Monitoring	Low Voltage detection / Control		
Size	111mm * 75mm * 27mm		
PC OS	Windows XP/ VISTA / Windows 7		
File Protection	Password setting / access		
Analyzer Program	Dedicated Analyzer (AVI file transformation support)		
Optional Item	0.3M pixel Infra - Red second camera		
Others	LCD zoom playback (x2, x4) Automatic Parking Mode Function Motion Detection Date/Time Display Video Quality Enhencement		

### Product Specification

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

**DO NOT** disconnect the power supply while the system is booting up. Be aware of engine ignition switching for they may disconnect power for short periods of time.

It is recommended to only use authorized SD cards with the VisionDrive® products. Install the product after parking your vehicle in a bright and safe area.

Install the system when ignition is off, especially after the power source has been turned off completely.

Use the power cable provided with the product for the cigarette lighter power connection for power 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 while the product is in operation.

### Installation Sequence

- 1. Connect the bracket and the main unit
- 2. Connect the external optional camera and the main unit
- 3. Insert SD card into the unit
- 4. Connect cable and attach on windshield
- 5. Connect to power source and turn on the unit
- 6. Adjust the camera angle
- 7. Check LED lamps
- 8. Arrange wires using wire holders

#### 1. Connect the bracket and the main unit



 Connect the attachment bracket with the main unit and push it to the direction 1 to secure the locking mechanism 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. Connect the external optional camera and the main unit



• Connect the jack of optional camera to the "CAM IN" port on the main unit. (When connected to the main unit while the main unit is powered on, the system will reboot to register the optional camera and initialize 2 channel recording mode.)

#### 3. Insert 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 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.

#### 4. 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 side of the back mirror, make sure there is room to detach the unit if needed. Also be aware of window tinting or other window coatings/shielding which may affect camera visibility.
- The adhesive on the bracket is very strong.
   Partially remove the cover of the adhesive, and then use the full adhesive surface area for final installation.

#### 5. Connect to power source and turn on the unit



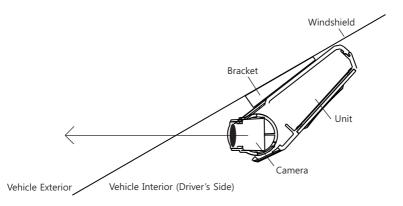
- Insert the cigarette jack into an appropriate outlet then turn on the engine.
- When the power is on, the LEDs and the LCD will turn on and a voice notification will be appounced
- Blinking of LED lamps notifies that the system booting has succeeded.
   DO NOT turn off the power source while the system boot is in progress. This may damage the product.

#### 6. Adjust the camera angle

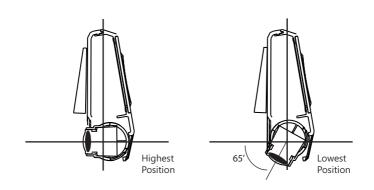




- Move the camera top to bottom to fix it to a recordable position while checking the LCD.
- For better images and operation of the analysis program, ensure that the horizon meets ½ of the screen in the recorded data.



• When the unit is attached, set the camera to face the front direction of the vehicle.



• Camera is adjustable and can be rotated 65 degrees to cover desired recording areas.

#### 7. Check LED lamps



- The GPS lamp is red when the GPS signal is not received and blue when it is received.
- The GPS connection may take a couple of seconds to several minutes, depending on the location of your vehicle.
- The REC lamp is blue when it is recording. It is blue when it is recording a (NORMAL) file and red when recording an (EVENT) file after an impact or if the SHOT button has been pressed.

#### 8. Arrange wires using wire holders



 Use the included wire holders to organize the cables.

#### ■ Start up

- Turn off the engine and remove the key from ignition.
- Check to see if the SD card is inserted into the unit.
- Turn on the engine.
- When the engine is turned on, the system boot starts with the program installed in the SD card and a voice notification will be announced.
- Then the REC and GPS lamps will turn on.
- The REC lamp will turn blue while blinking.
- The GPS lamp will turn red if no signal and blue if receiving signal.
- The GPS connection may take a couple of seconds to several minutes, depending on the location of the vehicle.
- 3 minutes after start up, LCD will be turned off automatically according to "Auto LCD OFF" mode default setting this is a configurable item.
- Connection or disconnection of the optional camera to or from the main unit will reboot the system automatically to initialize 1ch or 2ch recording modes.

#### ■ Normal Recording and Event Recording

- While the power is on, the normal recording is on as well. The REC lamp will be blinking blue.
- In normal recording mode, recordings are five minutes in duration and are stored in the (NORMAL) folder. If the memory is full while in normal or event recording mode, the program will erase the oldest recorded data then record a new file.
  - The management is based on First-In First-Out (FIFO).
- In the case of an impact, the sensors will trigger the event mode. An alarm will sound to notify the user. The REC lamp will be red and the recorded data will be saved in the (EVENT) folder.
- When an impact is registered and the event file is stored, the program records 10 seconds prior to the impact and 15~60 seconds after the impact (adjustable in the configuration).
- Memory size allocation between (EVENT) folder and the (NORMAL) folder can be adjusted in the configuration settings.

### ■ Manual (event) Recording

- When the [SHOT] button is pressed, the alarm will sound and the recorded data will be saved in the (EVENT) folder.
- Even though impacts cause the system to automatically record event files, the [SHOT] button
  can also be used to record scenes of other accidents or to record great scenery you may
  want to save while driving.

### ■ Viewing

- 1) Viewing recording videos on the LCD (2ch mode)
  - 1. Main camera image shows when system boots.
  - 2. Rear camera image shows on the screen at the first click on the "V" button.
  - 3. LCD turns off at the 2nd click on the "V" button.
  - 4. Another click on the "V" button starts the sequence from 1~3 again. (1ch mode does not have sequence no.2.)

!! Note: Operate the system while the car is securely stopped for your safety.

#### ■ Playback of the recorded videos on the LCD

- [PLAY] button starts the playback of the latest video file.
- [VIEW] button changes the video according to time sequence.
- Date and time data are displayed on the bottom of the LCD. (# there is no time sign on LCD when no GPS data is registered.)
- You can enlarge the video on the LCD whilst the video is being played by clicking the [PLAY] button. It can enlarge x2 and x4 times and return to original size.
- Pressing the [PLAY] button for more than 3 seconds will make the system return to recording mode followed by an announcement of current audio recording status.



#### ■ Parking Surveillance Mode

- "Auto Parking" option is selected as a default setting and it automatically places the unit in the "Parking Mode" once the car does not move for longer than 10 minutes after the last driving mode recording.
- The unit will automatically turn back to "Driving Mode" once the unit registers movement.
- If "Auto Parking" mode is not selected, "Parking Mode" recording can be activated when you press and hold the [PLAY] button for more than 3 seconds. When the system commences parking mode, a voice notification will be announced that the parking mode has been initiated.
- When the "Auto Parking" option" is selected, "Parking Mode" control by pressing the [PLAY] button will not work.
- Once in Parking Mode, the system automatically rearranges its impact sensing sensitivity to the most sensitive in order to register the slightest impact.
- Whilst there is no impact, the system records 4 frames/second to save the SD card space and returns to normal full frame recording mode making an EVENT file when it detects an impact to the car.
  - After making an EVENT file, it returns to 4 frame recording mode again.
- No audio is recorded while parking mode is on.
- In parking mode, the system repeats the announcement of "Parking Mode is on" every 2 minutes
- To return to normal (driving) recording mode, press and hold the [PLAY] button for more than 3 seconds to hear the "Driving Mode on" announcement or allow the unit to self detect movement and return to normal mode.
- To use the parking mode, the product has to be connected to the power source directly.

  In regards to direct wiring to the vehicle's power source, we recommend using professional help.
- 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 use of 2~3 days to maintain the product for longer use.

#### ■ Voice Recording

- When the [SHOT] button is pressed and held for more than 3 seconds, the voice notification
  will announce that the voice recording has been enabled/disabled and the voice recording will
  either start or stop depending on the previous audio recording state.
- The initial audio recording setting can be changed in the analysis program.

#### ■ SD Card Use

- Users are recommended to use the SD card issued from the manufacturer.

  The SD cards contain programs necessary to operate the product.

  Also, the provided SD card is tested and certified by the manufacturer while other SD cards
  - Also, the provided SD card is tested and certified by the manufacturer while other SD cards may not match the performance and specifications that authentic VisionDrive® SD cards can offer.
- To eject the SD card from the product, the engine has to be turned off and the key should be removed from the ignition. A few seconds after the key has been removed, the product will turn off automatically and the LED lamps will be turned off as well. The built-in back up battery allows the last images to be stored into proper folders before the product is completely turned off.
  - Wait until the LED lamps are turned off, then remove the SD card.
- When the SD card is removed, it needs to be reinserted before you drive your car again. Without the SD card, the product will not function properly.
- Use only SDHC supporting SD card readers to read the SD(HC) card.
- If a voice notification repeatedly announces to insert a correct SD card, it means the SD card is defective or damaged. Purchase a replacement.
- SD card readers can be purchased at computer accessory stores.

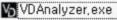
### ■ Automatic System Check and Safe Rebooting Function

- 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 notifes the user that such action is taking place.
- By safeguarding the system in this manner, the stability of the system is reinforced.
   If the system keeps rebooting repeatedly, the program installed in the SD card may have been damaged or altered.

\*\*\* The skin used for the analysis program may differ by the version \*\*\*

### ■ Program Start Up

- After the SD card is connected to the PC, open up the VDAnalyzer.exe file in the SD.
- Open the VDAnalyzer.exe program and a password window will be displayed.
- Type in the default password "12345678" (you can define your own password in configuration settings.)







### ■ How to play the files

- To play a certain file, select a file from the list located on the right-hand side and double click on it.
- The most recent data will be listed on the top.
- The (EVENT) folder will be the default folder to show up when you first open the program.
- The (NORMAL) folder will have normal recording files and you may view them by clicking "open" on the analyzer.
- The names of the files are shown as below :

Item	Real Filename (Windows)	File list in the analyzer	
GPS Registered	number-date-time-type.vd (eg) 124537834-20110802-120102-1.vd	date-time-type.vd (eg) 20110802-120102-1.vd	
No-GPS Registered number-date-time-type.vd (eg) 124537834-20110802-120102-1		NOGPS-number-type.vd (eg) NOGPS-12345678-1.vd	

### ■ File searching by preview function



- When a file is selected from the list, the screen shows the first frame of the file for your easier choice of reference.
- A double-click on the selected file in the list plays the video on the screen.

#### ■ Auto-play Function

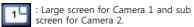
 After you double-click a file, the later recordings will automatically and continuously play one after another.

However, the (EVENT) and (NORMAL) folders are not continuously connected with each other. Each folder has to be opened separately.

### **■** Display mode

: Front view (Camera1) and Rear view (Camera2).











### **■** Display mode

: One large screen for Camera 1 only and partial enlargement function



is enabled.



: One large screen for Camera 2 only.



: Screen upside down function: Camera 2 screen can be switched upside down by clicking the button.





#### **■** Positioning on the map



- With the GPS data, the map shows the location of the vehicle while playing the recorded data.
- The Google map is viewable only whilst your PC is connected to the Internet and only when the recorded video has GPS data associated with it.

#### ■ Shock Sensor Graph

- The graph below shows impacts on the x-y-z axes of the vehicle.

X-axis: measures and records impacts from the front and back of the vehicle

( 0G ~ +/-3G is registered)

Y-axis: measures and records impacts from the left and right sides of the vehicle (  $0G \sim +/-3G$  is registered)

Z-axis: measures and records impacts from the top and lower part of the vehicle (up and down) (  $0G \sim +/-3G$  is registered)

- The bottom and left displays a progress bar showing the time line of the video.
- The red line is before the impact (that triggered the event) and the blue line is the time after impact.



#### ■ PLAY / PAUSE / PREVIOUS FRAME / LATER FRAME

- When the play button is pressed, it will replay the video file listed on the screen. After selecting a file from the list, double click it to play the file.
- When you press the pause button, the viewing video will be paused.
- When the previous frame or the later frame button is pressed, it will move backward or forward between frames within the file.



#### ■ BRIGHTNESS CONTROL

- Brightness bar can give you better video analysis by changing the brightness while playing on a PC.



#### SHARPNESS CONTROL

- Sharpness bar can give you better video analysis by changing the video sharpness while playing on a PC.
- This function may cause delayed video playback.



#### ■ SPEED METER

- While the file is being played, the speed meter will show the vehicle's speed that was collected by the GPS .





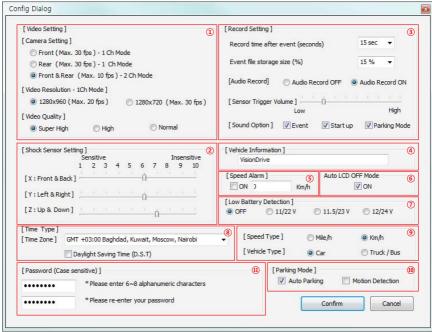
### ■ AVI conversion



- The data files in the SD card are product files and will only work within the Viewer Analyzer program.
- To view the data on a regular PC without having the Viewer Analyzer program within the SD card, the recorded file has to be converted to an AVI file.
- Pause the file where you want the conversion to take place on the previewing file display.
- Press the AVI conversion button on the bottom right side, and then a window will pop up to have the file renamed.
- When making an AVI conversion, you can select your options of Audio / GPS / Date&Time
   / Vehicle Information, Speed to be included in the .avi file as overlays to the video.
- You may use any name you like for the converted file output and there is no need to put .avi on the end.
- Press the play button again, and then the data being previewed will be converted from the point you specified/previously paused at.
- Pressing the pause button while the conversion is in progress, will stop the conversion at that time.
- If the necessary codec is not available to convert the data into an AVI format file, it may not work on your PC or a notification will pop up saying you may need to download a specific codec to proceed. In such cases, use the supplied Xvid-1.2.1-0412008.exe (on the SD card) to install the needed codec, then restart the Viewer Analyzer program to proceed again. If the codec is already installed on the PC, there may be some difficulties if the codec is installed twice. So unless there is a notification for installing a codec, do not install it.

### **■** Configuration





- ① Video Setting
- ② Shock Sensor Setting
- 3 Record Setting
- 4 Vehicle Information
- Speed Alarm
- 6 Auto LCD Off

- ② Low Battery Detection
- Time Zone setting
- Type Setting
- Parking mode
- (ii) Password setting

### **■** Configuration

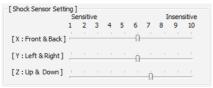


#### 1 Video Setting



- You can record forward and rear view videos at the same time if you use the optional second camera.
- The video resolution and quality settings can be modified.
- If the resolution is high, the file size also becomes large and will use more memory on the SD card.

#### ② Shock Sensor Setting



- The sensor can be configured.
- If the number is larger on the sensor, the sensor becomes less sensitive.
- A setting of 10 will disable the Shock Sensor Event recording feature.

### **■** Configuration

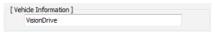


#### ③ Record Setting



- You can set the recording time after an impact.
  - (10 seconds prior to the impact is always recorded and stored.)
- Impact files are stored in the EVENT Folder and the size of the EVENT Folder is defined here.
   The remaining % of the SD card space is for the NORMAL Folder.
- Audio recording is selectable here but regardless of this setting, you can immediately change the audio recording status by pushing the SHOT button on the main unit as described earlier in this manual.
- Impact sound volume can be modified.
- Each of the Sound Options can be configured: Event (Alarm) / Start up (Greeting) / Parking Mode (Notice) to either enable or disable the sound. The volume of these announcements is also configurable.

#### 4 Vehicle Information

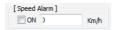


- You can type in your car or other information, which will be shown in the video during playback and can be included with the exported AVI video (if selected during export).

### **■** Configuration



#### Speed Alarm



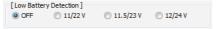
- When set to a defined number, the system will alert you to over speeding when that speed is exceeded.

#### 6 Auto LCD Off



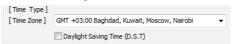
- If "Auto LCD Off" option is selected, the LCD of the unit turns off automatically 3 minutes after your unit has started.

#### ① Low Battery Detection



You and can select whether to use the car battery drain monitoring function and also what
the supply voltage is as part of that monitoring process. The recorder will shutdown when
it detects that the supply voltage is lower than the setting selected here to save vehicle
battery power.

#### 8 Time Zone setting



 You can select your location and time zone and the GPS will register your local time with your video.

### **■** Configuration



#### Type Setting



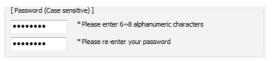
- You can select your local speed type as Km/h or Mile/h.
- You can also select your vehicle type as Car or Truck/Bus and this assists in calibrating the 3 axes shock sensors for angled or vertical windscreen installation.

#### ① Parking mode



- If "Auto Parking" option is selected, the unit will automatically turn into "Parking Mode" recording where it records 4 frames/second once the units registers no movement for longer than 10 minutes after your unit records the last driving mode file.
- If "Motion Detection" option is selected, the unit will detect a motion outside the car and will register it as an "impact" and record it as an "Impact" file in the Event folder.
- "Motion Detection" mode is available only whilst the "Parking Mode" is running (not applicable during driving record mode) and the Motion Detection feature only uses the main unit camera for motion detection and not the optional second camera.

#### ① Password setting



 Your own password can be modified here. Note password length is limited to eight alphanumeric characters and is limited to eight if more than eight are entered here.

### Warrantv

The warranty is 1 year from date of purchase.

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

To apply for warranty, register your product serial number with your local reseller.

Only registered products will be accepted for repair or service.

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 expense payment by the customer.

- If the product has been reassembled or disassembled 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.
- Product has been exposed to extremes in temperature, humidity or water.

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

### Warranty Certificate

Warranty Certificate						
Product Name	VISIONDRIVE	Model Name	VD-8000HDS			
Purchase Date		Serial Number				
Retail Shop		Warranty Period				

If the product malfunctions after the 1 year warranty period expires, no service is provided under warranty. If the certificate does not have the date of purchase, the 1 year warranty is calculated by the serial number's production date plus an additional 1 month to calculate the 1 year warranty period. If no serial number then no warranty is available.

- The manufacturer will follow Consumer Protection Act (1006-36) 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.

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

! Caution : Any changes or modifications in construction of this device which are not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause

harmful interference in which case the user will be required to correct the interference at their own expense.

All hardware, software, designs and logo of the product is copyrighted by the manufacturer of the product.

Copy, disassembly, remake and distribution without the manufacturer's written consent is strictly prohibited and will be enforced by all legal rights held by the manufacturer.



## VISIONDRIVE® CAR BLACK BOX

