

URIVE i-Shotgun

User Manual



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0. Before using Urive i-Shotgun

Urive i-Shotgun is a trademark of Midong E&T.

- ▶ All the manual's contents are protected according to copyright law.
- ▶ The products and services described in this manual are the trademarks of the relevant right holder.
- ▶ All the program rights used in the product belong to Midong E&T and are protected according to copyright law. Any act of illegal copying, modification, production, and distribution of the product without a prior written consent from the company will be subjected to criminal punishment, such as up to five-year imprisonment or KRW 50 million-penalty according to the software protection law.
- ▶ The manual is based on current conditions and may have technical or editorial errors and omissions.
- ▶ Some changes can be made in the product to improve the URIVE i-Shotgun's performance even without notifying the customers in advance.
- ▶ The images used in the manual may look different from the actual screens depending on the printing conditions.
- ▶ It is recommended that users should read the manual carefully before using the product to apply it properly and safely.

The user manual can be changed without a prior notice to users for the purpose of improving the performance of the functions of the product.

1. Product Information

The product is designed to store video and audio information coming from the front and rear cameras. It is a product made to assist people in driving safely by recording the front and rear videos as well as by recording the audio, when an accident or a shock occurs. This will provide relevant circumstantial reference data.

- ▶ Install and use the product properly according to the user manual.
- ▶ The company will not be held responsible for failures or accidents that might occur because of the improper use, installation, or modification of the product.
- ▶ Users need to understand that the product's specific PC viewer program can run on a PC in which **Window XP/Vista/Windows 7** is installed. For the program to operate smoothly, it is recommended to **use a PC with at least CPU- Intel Core2 Quad Q6600 @ 2.40GHz, RAM – 2GB.**
- ▶ The product and the user manual can be changed without prior notification for the purpose of improving them.
- ▶ The company holds the rights to all of the product's software and hardware. Any act of illegal copying, processing, or distribution of these products will be subjected to pay compensation for loss in civil procedure and may be subjected to criminal punishment according to the intellectual property protection law.
- ▶ For safety reasons, avoid manipulating the black box while driving.

This product is designed to assist people in driving safely.

Users are required to use the product properly because they will be responsible for all the accidents that may occur.

This product is for assisting people in driving safely.

Users are required to use the product properly considering that they will be responsible for all the accidents if they should occur.

2. Precautions before using the product

◆ Scope of warranty and responsibilities

- This product is for assisting people in driving safely. The company will not be responsible for the loss that could occur due to failures, data loss, or while using the product itself.
- This product is an ancillary device designed for recording and storing external videos. Some functions may not be supported depending on the driving conditions and the conditions of a vehicle itself. When it comes to the level of support for performance that is to be provided through the updating of firmware for improving quality and securing stability, it may vary depending on types of products. **Depending on situations, recording may not take place. Considering that, users need to use the product only for getting information for checking driving-related videos. Recording may not take place also depending on the conditions of the SD card.**
- This product is designed for recording the video related to an accident involving a user's vehicle. However, it is not guaranteed that a whole length of a video related to an accident is to be recorded. In case of an accident in which a minor shock occurs, the detection sensor will not be activated, and, consequently, the video related to the event may not be recorded.

◆ Precautions for using the memory card

- Check the data once a week at least for confirming that the product works normally.
- Format the micro SD memory card twice a month at least for using the product stably.
- Recommended to use a micro SD card that is exclusively designed for the product.

Generally, the memory card has a lifetime during which it can be used (6 months are guaranteed). If it has been used for a long period of time, it would be impossible to store new data. In that case, users need to buy a new memory card for using the product. It should be understood in advance that the company will not be held responsible, at all, for data loss due to long-time use. Removing the memory card or turning its power off while the recording is in progress may cause stored data at the last stage to be deleted. The company will not be held responsible for it at all. It is recommended to copy and store important data into other recording units.

3. Precautions when using the product

Safety precautions must be followed to prevent possible accidents and risks by using the product in a safe and proper manner. The company will not take any responsibilities for the problems that could occur when instructions in using the product is violated.

Warning: Serious injuries or death could be caused if violating the instructions.

Do not place the product in heating equipment (such as heaters and microwave ovens) for heating it up when it gets wet.

Otherwise, explosion, transformation, or failure could be caused. In that case, the warranty service will not be provided .

Do not use chemical detergents (such as benzene, thinner, or alcohol) for cleaning the product.

Otherwise, fires could be caused.

Do not disassemble or apply shock on it arbitrarily.

The warranty service will not be provided if the user has caused the product to be damaged by disassembling it or applying shock onto it.

Refrain from installing or manipulating the product while driving.

Operating the system while driving could cause accidents. When needed to operate, it is required to park the vehicle at a safe place first before manipulating it.

Precaution. Minor injuries or insignificant damage to the product could be caused if violating the instructions

Do not use the product for a long period of time while connected to the electrical power of the vehicle directly.

Otherwise, the battery could be discharged.

Be careful about a reflective device, such as a navigation device or a hi-pass terminal.

The screen will be reflected on the windshield, causing the input of video to be interfered with. In that case, the quality of video may be degraded..

Apply the dual-side tape firmly when installing the product.

Its position can be changed when used for a long period of time or due to the vibration from the vehicle, possibly causing the performance to be degraded.

Take precautions when installing the external camera.

When installing it on the rear window, the quality of video will vary depending on the density of the tinted film.

Keep the windshield clean in front of the front camera lens always.

If the video that is improperly recorded due to impurities is fed, the recording of the video while driving will not take place normally.

Users should pay attention to it.

Recording may not take place normally when using a non-certified micro SD card.

The memory card **must be inserted or removed while the power cable is disconnected.**

Back up the stored file periodically.

When the memory usage exceeds a certain level, files will be deleted starting with the oldest ones while new ones are saved. Considering that, it is required to back up the stored files periodically to prevent necessary ones from being removed.

Keep the memory card separately when a car accident occurs or when the card is checked for any damage .

When the black box is used continuously and the memory usage level exceeds a certain level, files will be deleted starting with the oldest ones in individual folders while new ones are stored, which could cause necessary files to be deleted.

4. Features

High-quality video recording with clear images and an optimal viewing angle

In order to clearly record the videos including those taken from the accident site or taken while the vehicle is parked, the product provides not only clear resolution (Front: 1920x1080 / Rear: 1280x720) both for day and night but also an optimal viewing angle (Front: 120 degrees / Rear: 110 degrees).

► Wi-Fi

Through a specific app installed on a smartphone, it is possible to check real-time and recorded videos and to remotely set functions and an emergency alarm. It is also possible to set a function that will send text messages and audio information when an emergency situation occurs, such as the turning over of a vehicle.
(however, the distance for sending and receiving signals may vary depending on the state of the environment and communication)

► Continuous recording

The product supports a continuous recording function that will record videos taken continuously while driving.

► Event (shock) recording

When an external shock occurs in the continuous recording mode, it will be detected by a three-axis acceleration sensor, allowing the video that runs 1–2 minutes, including the part taken for 30 seconds starting from 10 seconds before the incident to the 20 seconds after it, to be stored

► Manual (forced) recording

When the “R” (REC) button is pushed in the continuous mode, it will be recognized to be the same as the case of an event (a shock), allowing the video that runs 1–2 minutes, including the part taken for 30 seconds starting from the 10 seconds before the incident to the 20 seconds after it, to be stored.

► Recording while parked, which is like the function of a CCTV to protect a user's car

The product supports a recording function while parked, making it possible to record the motion videos detected or the damage done to a car that may often take place because of a shock

4. Features

- ▶ **Memory auto management**

The product supports a memory auto management, which will delete files starting from the oldest ones stored in individual folders in order to keep recording the recent driving videos even when the memory card is out of storage space.

- ▶ **Backup recording:** even when the power is cut off, the last file will be stored because of the internal backup function.

- ▶ **Formatting**

The product supports a direct formatting function, which will allow users to format the memory card directly from the product without connecting it to a PC.

- ▶ **Digital zooming**

While full HD and HD videos are played back through the specific PC viewer, they can be enlarged using the digital zooming function to look at the situation closer.

- ▶ **Checking the recorded data through the specific PC viewer**

The videos, stored by the black box after taken through two channels, the front and the rear ones, can be checked and used to analyze, for example, the level of shock and the location at the time when an accident occurs. When it comes to the location analysis function, it can be supported only when the GPS module, an optional item, is installed.

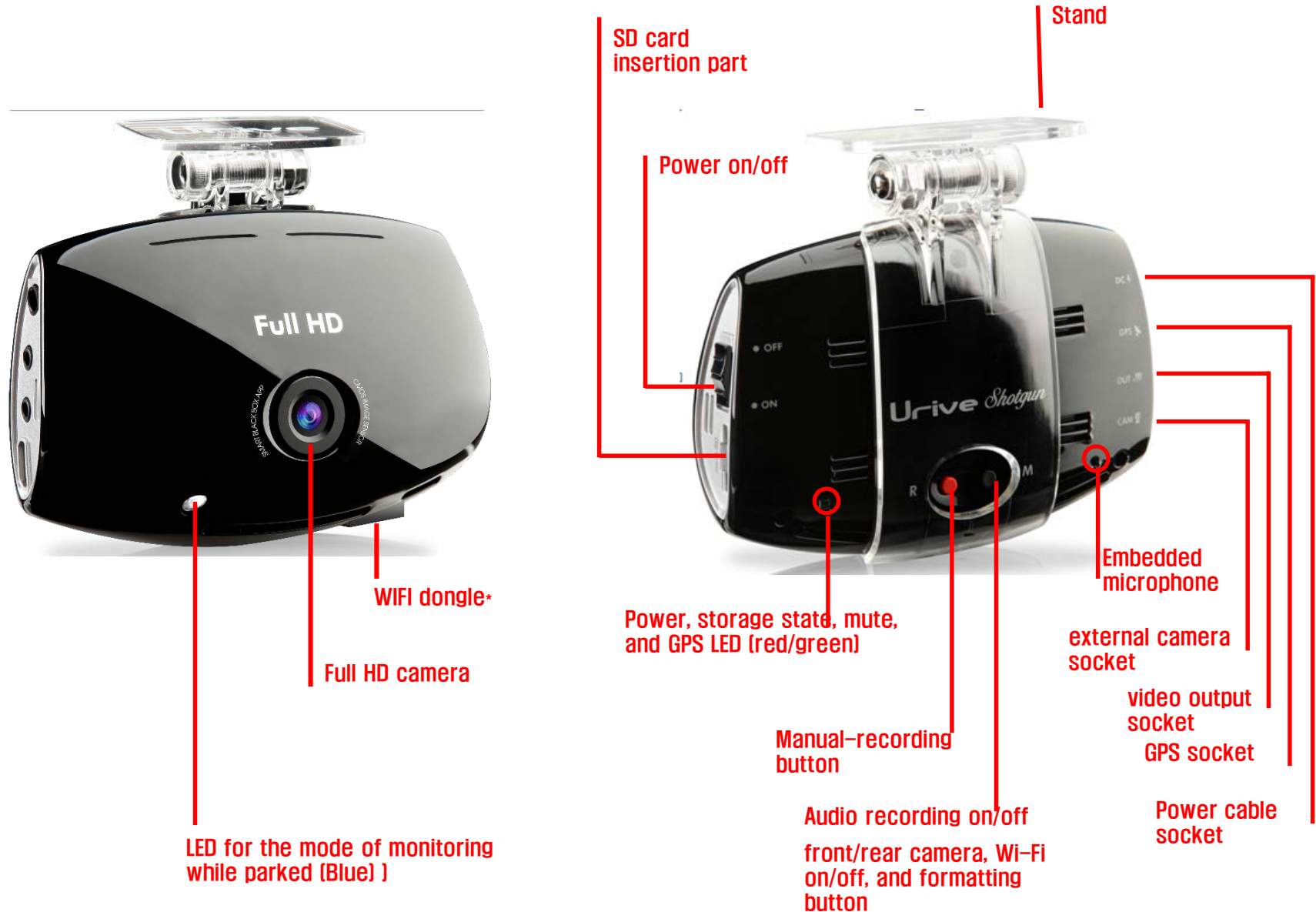
- ▶ **Checking the front and rear videos in real time**

When the system is installed and operated, the navigation screen will help to check the front and the rear videos in real time using the video out function (however, the pin arrangement between the AV-IN or CAM socket of the navigation unit and the video cable should be matched).

- ▶ **A two-channel black box that can monitor the front and the rear sides simultaneously**

The product is a two-channel black box that records the videos from the front camera through the product's main body while recording the videos from the rear side through the external camera installed inside.

5. Names of individual components and their functions



※ The wi-fi dongle is not detachable from the main device

6. Functions and buttons (1)

Buttons	Operation	State	LED Indication	Buzzer
-	Turning it on	System preparation	The blue and red LEDs are turned on after waiting for about 20 seconds during the booting process. They will be turned off when the booting process ends.	Long beep-
-	Turning it off	The file that is being recorded ends safely after the power is turned off.	The blue and red LEDs will stay turned on until they are turned off at the time of ending.	-
-	Entering the GPS data	GPS operation	The green LED will blink.	-
REC button ("R" button)	Pushing it once shortly	An event will be generated manually and the relevant video, taken from 10 seconds before the incident to 20 seconds after it, will be stored in the event folder.	The red LED will blink fast during the saving process (the green LED will blink when the GPS module is connected).	Short beep, beep when the saving process starts. Short beep (once) after the saving process ends
MODE button ("M" button)	Pushing it long (longer than 10 seconds)	Formatting the micro SD card (only possible in the continuous mode).	The green and blue LEDs will blink. After the formatting process ends, the system will restart.	Formatting starts: long beep thrice Formatting ends: long beep thrice
	Pushing it long (longer than 5 seconds) in the parking mode and releasing it	Turning on Wi-Fi	The green LED for the mini USB Wi-Fi dongle will blink.	Short beep, beep
		Turning off Wi-Fi	The green LED for the mini USB Wi-Fi dongle will be turned off.	Short beep, beep
	Pushing it for 3–5 seconds and releasing it.	Turning on the audio recording	The red LED will blink slowly (every second).	Short beep, beep when shifting
		Turning off the audio recording	The red LED will blink normally (every 3 seconds).	
	Pushing it thrice consecutively	Shifting the front and rear cameras to the video-out mode	No change in the state.	Short beep, beep when shifting.
	Updating	When successfully updating through the micro SD card	The blue and red LEDs will blink alternately. When the updating process ends, the system will be rebooted for operation.	Short beep, beep when starting Short beep, beep when ending
		When failing to update through the micro SD card	The blue and red LEDs will be turned off after waiting while staying turned on. The system will be rebooted for operation.	Short beep, beep, beep, beep when failing, which will be repeated thrice every two seconds

6. Functions and buttons (2)

Buttons	Operation	State	LED Indication	Buzzer
Continuous recording	The ACC power is turned on while the battery power is on.	1-minute video files will be stored as MDxx in the * folder	The red LED will blink every second (the blue LED is turned off).	Long beep—when the saving process starts
Manual and event recordings	Pushing the REC button or when shock is applied.	A video, taken from 10 seconds before the incident to 20 seconds after it, will be stored as EDxx_ in the * folder.	The red LED will blink fast (the blue LED is turned off).	Short beep, beep when the saving process starts. Short beep (one) only when the process ends for the manual recording operation
Recording of the motions monitored while parked	The ACC power is turned off while the battery power is on.	A file, with the length of up to 30 seconds, will be stored in the * folder. Motion while parked PDxx_, Shock while parked. (impossible to apply when using the cigar cable)	Monitoring: the blue LED will blink every second Recording: the blue LED will blink fast (the red LED is turned off)	Enters the parking mode: Long beep—

* folder – Blackbox/year/month/date/time


Precaution:

When GPS connection (reception) occurs, the green LED will blink during the operation instead of the red LED.

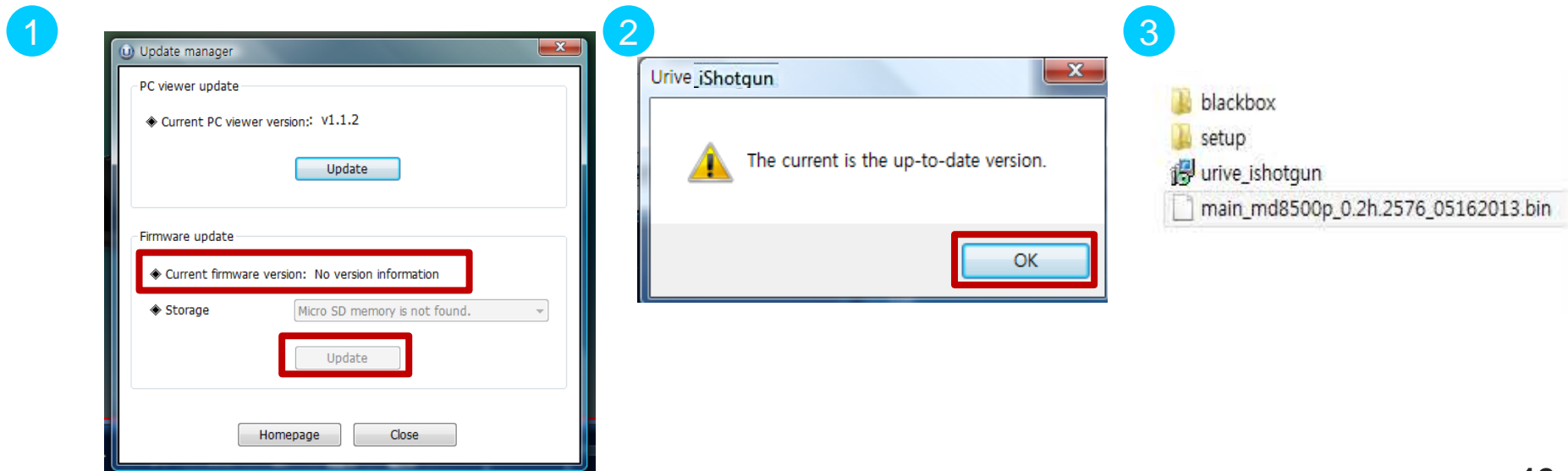
When the GPS disconnection occurs, the red LED will blink during the operation instead of the green LED.

7. Updating (1)

[Automatic updating]

1. Through the specific viewer installed in a PC, the update file can be installed automatically in the memory card. After connecting the micro SD card to the PC, it is required to push the  button on the upper left side of the viewer's main screen.
2. The current firmware version for the firmware updating can be checked through the Urive i-Shotgun update manager window.
3. It is required to check whether the firmware update file location is the drive to which the memory card is connected.
4. Pushing the "Update" button will allow the upgrade file (main_md8500p_x.xx.xxxx_xxxxxx.bin) to be copied automatically to the memory card.

[Precaution] If the Windows security warning message is displayed after the update button is pushed, the "Unblock" button must be pushed. If the "Continuous Block" is pushed, it will be impossible to perform updating afterward because of security issues related to Windows. Users need to pay attention to this.



8. Updating (2)

[Automatic updating]

5. After the power for the black box is turned off, the micro SD card needs to be inserted into the main body of the black box.
6. Supply power to the black box.
7. Wait for about 10–20 seconds.
8. As the updating starts, the red and blue LEDs will blink and a short beeping sound will be generated.
9. When the updating process ends, the red and blue LEDs will be turned off and at the same time, a short beep buzzer sound will be generated. After a short while, the black box will restart.

[Method for remote updating through Wi-Fi]

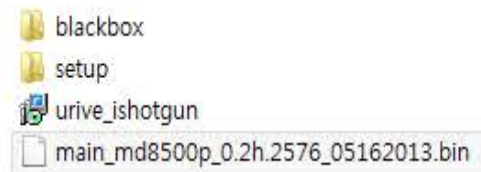
1. Launch the Urive app from the smartphone.
2. Touch the remote search menu on the home menu.
3. Touch the remote firmware update menu after adding and check the terminal.
4. Check whether it is possible to carry out updating after checking the current firmware version and the newest firmware version.
5. Then, touch the firmware update button when the result says that it is possible to carry out updating.
6. As the updating starts, the red and blue LEDs will blink and a short beeping sound will be generated.
7. When the updating process ends, the red and blue LEDs will be turned off and at the same time, a short beep buzzer sound will be generated. After a short while, the black box will restart.

Precaution: take precautions to make sure that the power is not turned off while firmware updating is progressed. After the firmware updating, the environment setting values previously set will be maintained. When it comes to the remote firmware updating, it can take place only when the mini USB Wi-Fi dongle is turned on.

7. Updating (3)

[Manual updating]

1. The firmware update file needs to be copied into the micro SD card (URIVE download center at www.urive.co.kr).
The micro SD card must be formatted first through the specific PC viewer or through the main body of the black box, before copying the update file (main_md8500p_x.xx.xxxx_xxxxxx.bin) into the formatted memory card.



2. It is required to insert the micro SD card into the main body of the black box after powering off the black box.
3. Supply power to the black box.
4. Wait for about 10–20 seconds.
5. As the updating starts, the red and blue LEDs will blink and a short beeping sound will be generated.
6. When the updating process ends, the red and blue LEDs will be turned off and at the same time, a short beep buzzer sound will be generated. After a short while, the black box will restart.

Precaution: take precautions to make sure that the power is not turned off while the firmware updating is in progress.

After the firmware updating, the values of the environment setting previously set will be maintained.

8. Components

After purchasing the product, it is required to check whether all the components are included in the package. If a component is damaged or has a problem, it is required to contact the selling shop immediately for queries.

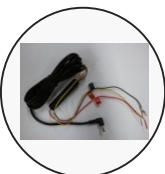
Basic Specification



Main body stand



External camera



Continuous power cable



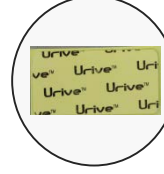
Video cable
(Standard 3-pole cable)



Micro SD card for URIVE (16 GB)



SD card reader



Dual side tape



Hexagon wrench



Manual

Option (To be sold separately)



GPS module



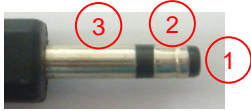

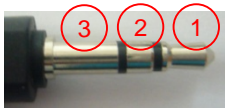

Cigar power cable



3-pole-4-pole gender conversion adapter

The components may change in their specifications arbitrarily depending on the situation on the supply of parts (the images shown above are for the users' information so they may look different from actual components).

10. Socket pin arrangement

Sockets	Images of sockets	Pin arrangement
Power socket (DC socket)		① GND ② ACC ③ BAT(B+)
GPS socket (2.5 pie)		① VCC(3.6~6V DC) ② Rx ③ GND ④ Tx(GPS Signal Output)
Video socket (3.5 pie)		① Video Out ② No use ③ GND
CAM socket (Micro USB 5 P)		① VCC(5.0V DC) ② Video signal – ③ Video Signal + ④ No use ⑤ GND

11. Precautions for installation

- ▶ It is recommended to install the device in an area with a flat surface. The ignition must be turned off while installing.
- ▶ As the product needs to be built inside a car, it is required to supply the power and check first whether the front and rear videos are stored normally before completing the process of building and installing it.
- ▶ When it is required to install the external camera, the camera must be connected while the power cable is not connected to the black box.
- ▶ All the components necessary for the installation are packaged inside the product box. It is required to know the installation method well and follow the procedures set while installing the system.
- ▶ Check first whether the micro SD card is inserted correctly before supplying the power.
- ▶ Take precautions not to install the product on a location that will disturb the user's view.
- ▶ It will look cleaner and it will also enhance safety features if the cables are hidden as much as possible.
- ▶ The windshield on which the product is installed needs to be kept clean.
- ▶ Installation should be performed in a safe and bright place.
- ▶ When a rear camera is attached onto the rear window, it would be impossible to record videos with the desired quality because the window is tinted or lined with heat wires. Users need to pay attention to this when installing the black box.
- ▶ Once the system is installed, users need to remove the protective vinyl covers on the front and rear camera lens before using the system.

11. Installation (main body)

Caution: It is recommended that the installation of the black box and the wiring of the continuous power cable should be carried out at a shop that specializes in installing black boxes.

1



Select the installation location and clean the windshield as much as possible.

2



Remove the outer layer of the dual-side tape of the stand.

3



Attach it on a desired location.

4



Connect the external camera, the external GPS module (optional) and the video cable when necessary.

5



The cables for the continuous power are shown below.

- Black wire: GND (Ground), (ex.) Car body – Yellow wire: ACC, (ex.) Cigar jack fuse
- Red wire: BAT (B+), (ex.) Emergency light

6



Connect the power cable socket to the DC port and turn on the power switch. (Remove the lens protective film.)

7



Check whether the system works normally by checking the LEDs and the buzzer sound. It would be more convenient to install the product while looking at the screen of the navigation device.

※ It will take about 1 minute to 1 minute and 20 seconds for the system to be booted up after the SD card is inserted and the power is turned on.

11. Installation (external camera)

Caution: After the rear camera is installed, the video from it must be checked before building it completely

1



Select the installation location and clean the rear window as much as possible.

2



Remove the outer layer of the dual-side tape of the stand.

3



Attach it on a desired location.

4



Connect the socket of the external camera at the port of the black box.

5



Connect the power cable socket to the DC port, and turn on the power switch. (Remove the lens protective film.)

6

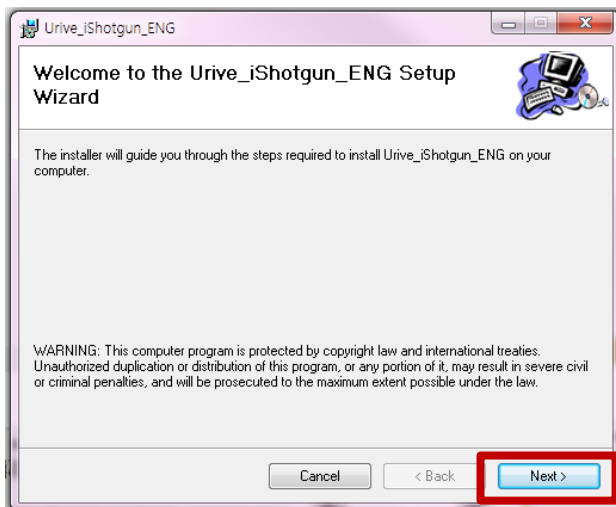


Check whether the system works normally by checking the LEDs and the buzzer sound. It would be more convenient to install the product while looking at the screen of the navigation device.

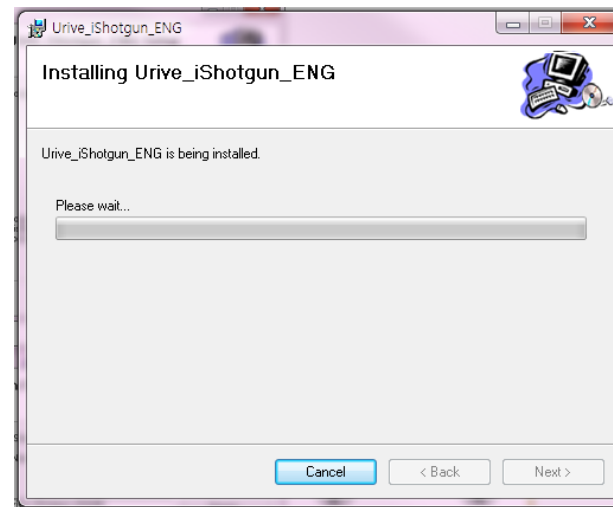
※ Before building in the system completely, users must check whether the front and rear videos are stored normally.

14. Installation of the viewer

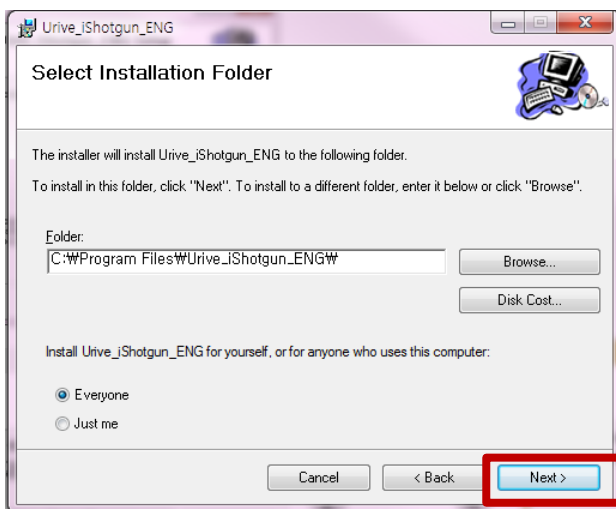
1. Execute the setup file for the specific viewer (Urive i-Shotgun.msi) for the black box, which is stored in the micro SD card (or the one that is downloaded from the URIVE home page) and then follow the procedures as shown below on installing the viewer.



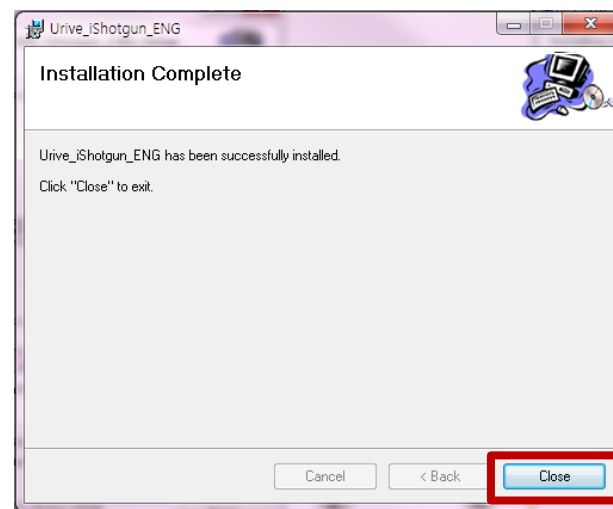
1



3



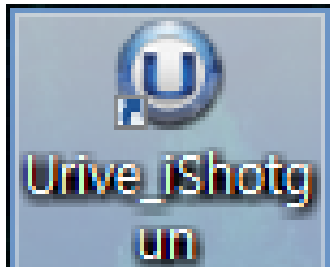
2



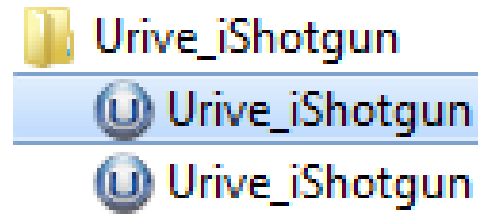
4

14. Execution and deletion of the viewer

1. Select the icon on the Windows' wallpaper or the start menu and check whether "Urive i-Shotgun" is installed as shown below.
2. Execute "Urive i-Shotgun".
3. The viewer can be deleted by selecting "Delete Urive i-Shotgun" on the start program.



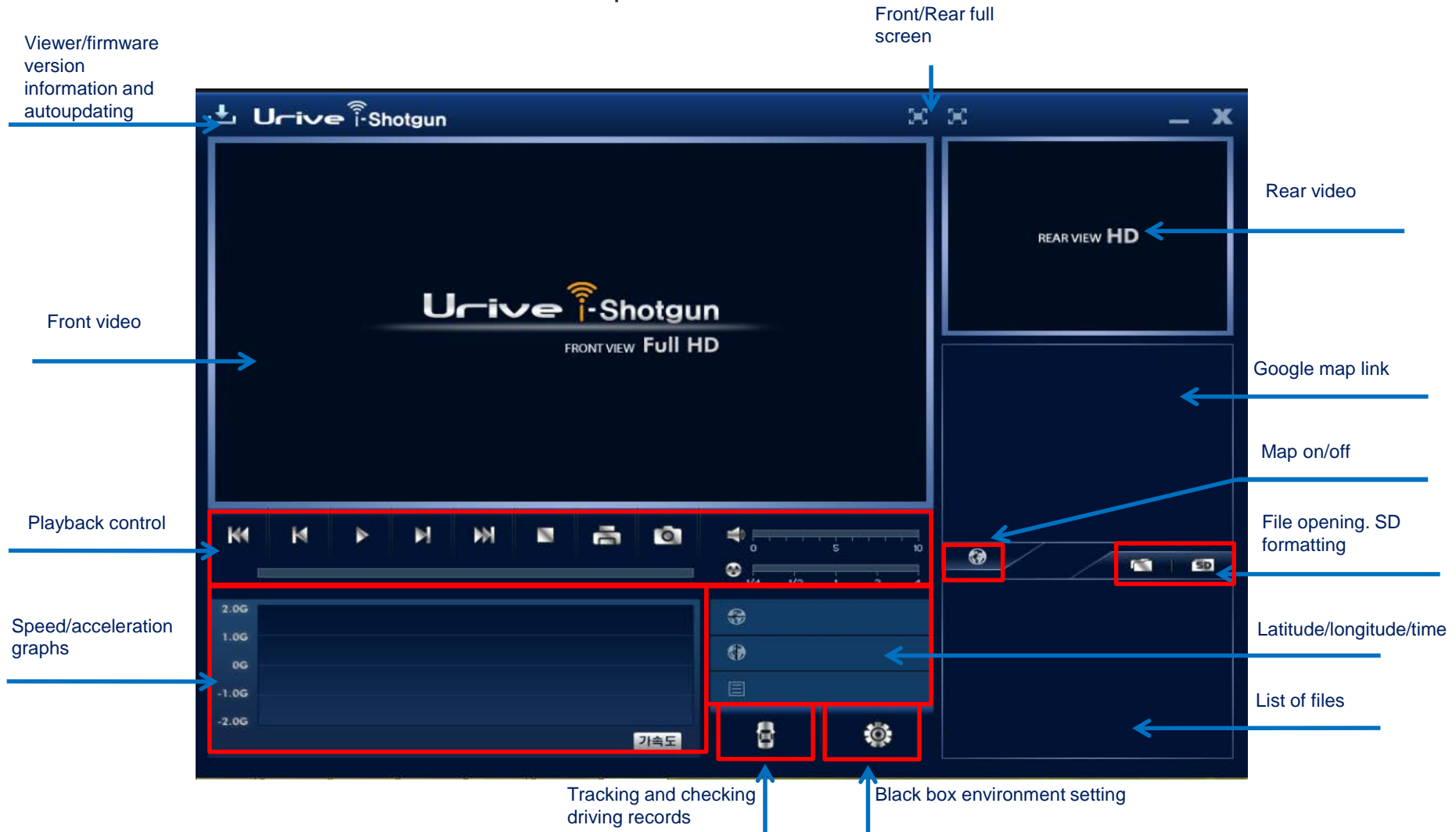
[Icon on the wallpaper]



[Start program registration screen]

15. Main screen of the viewer

Individual sectors of the main screen are explained below.



- The information of latitude, longitude, speed and map will be displayed only when the GPS module, an optional item, is connected.
- The function for enlarging and minimizing the screen can be used by clicking the target screen, and then moving the mouse wheel button.
- **Warning:** While the specific viewer is being downloaded and executed, if the "Windows Security Warning" is displayed, users must select the "Unblock" and "Allow" buttons.

16. Buttons of the viewer (1)

1. Program version information

This provides the version information of the specific viewer and the firmware of the black box and supports the direct link to the home page's download center. The version information can be checked when the micro SD card is connected to a PC. In addition, the specific viewer and the firmware can be updated automatically.

Warning: While the specific viewer is being downloaded, if the “Windows Security Warning” is displayed, users must select the “Unblock” button.

2. Full screen

For shifting the front video or the rear video to the full screen.

3. Minimize

For minimizing the specific PC viewer to the windows task bar.

4. End the PC viewer

For ending the specific PC viewer.

5. Previous/next file playback

While a video is being played back, this will help change to the previous file or the next file and play it back.

16. Buttons of the viewer (2)

6. **Move to the previous/next frame**



For moving to a video taken in the unit of every 10 seconds before or after an incident.

7. **Start playback**



For starting to play the selected file back from the list. Play the temporarily recorded video back again.

8. **Stop playback temporarily**



For temporarily stopping the file that is being played back currently.

9. **Stop playback**



For stopping the file that is being played back currently.

10. **Screen print**



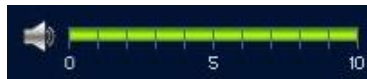
For printing out the selected video (Front or rear) in full scale through a printer.

11. **Screen capture**



For saving the selected video (Front or rear) as a JPG file in full scale.

12. **Control volume**



For controlling the volume ranging from 0 to 10.

13. **Playback speed control**



The video can be played back at the speed of the 1/4, 1/2, 1, 2 or 4-times playback rate.

TIP: As the viewer can play back the front full HD video and the rear HD video at the same time, videos may not be played back well depending on the performance of the user's PC. As a result, while the video from the front camera can be played back normally, the videos from the rear camera will be played back slowly sometimes. However, the video from the rear camera can be also played back normally according to the specification if the video from the rear camera is enlarged to a full-scale video.

16. Buttons of the viewer [3]

14. Acceleration/Speed graphs



The toggle buttons individually show the acceleration and speed graphs. The speed graph can be displayed only when the GPS module, an optional item, is installed.

15. Driving record tracking



For showing the driving record. This function can be supported only when the GPS, an optional item, is installed.

16. Black box environment setting



For storing the set environment of the black box in the micro SD card. The setting can be performed after the micro SD card is connected to a computer.

17. Map on/off



For displaying the driving location information on a map while a video is being played back. This function can be supported only when the GPS, an optional item, is installed.

18. Playback list generation and SD card formatting




For retrieving all files or a list of files that are sorted out according to their types, in order to play the data back that are stored in the micro SD card. This function supports the correction of errors that the micro SD card has. and also supports the recovery of faulty sectors. This function also supports the formatting of the micro SD card. Formatting can be performed before playing back a video. Once a video is played back, formatting can be performed only after the viewer is restarted.

19. Open file

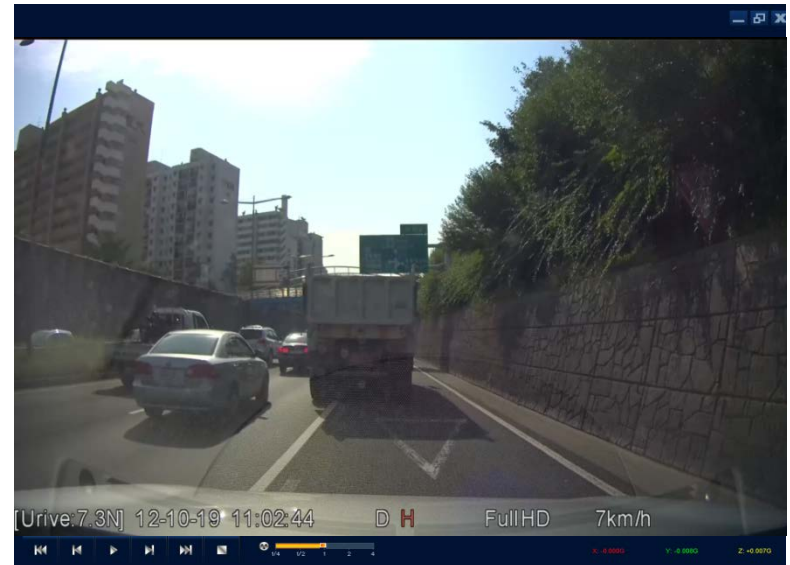
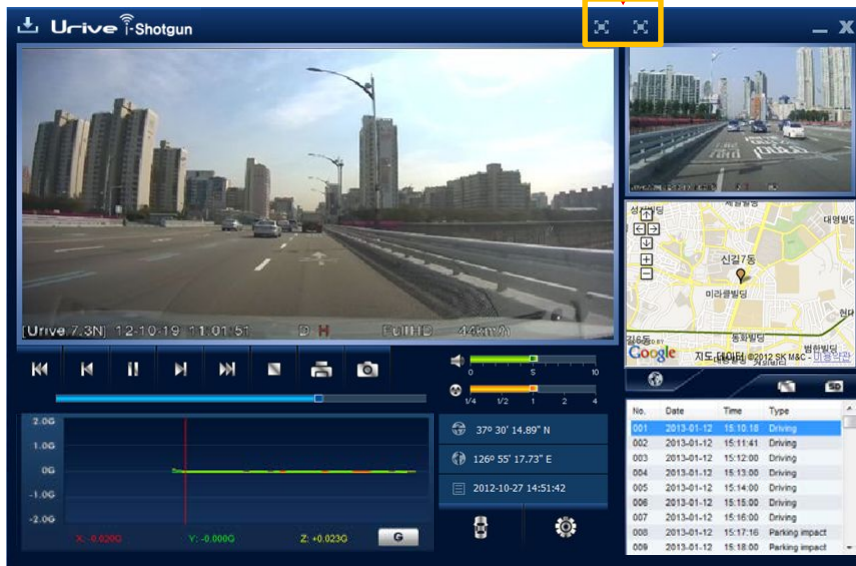




Search a recording file to play.

18. Full screen view

- ◆ To view a video in full screen while it is being played back, it is required to click the full screen button  on the top of the screen.

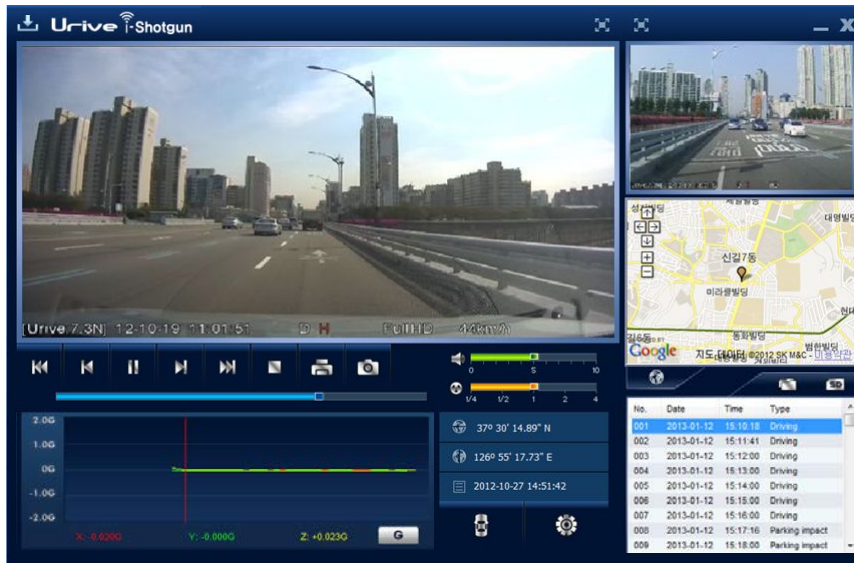
For shifting between the front/rear full screens



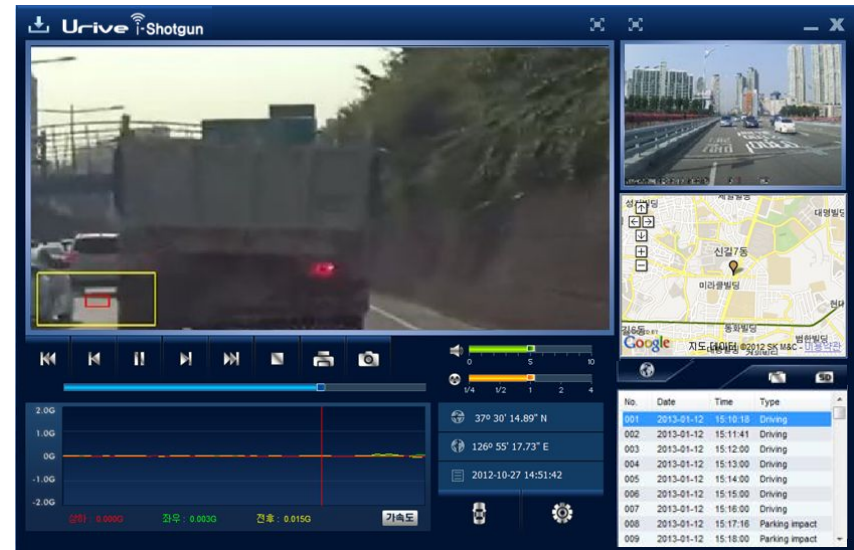
1. Front camera in full screen: pushing the  button on the top of the viewer will shift the front camera video to a full screen video.
2. Rear camera in full screen: pushing the  button on the top of the viewer will shift the rear camera video to a full screen video.
3. Back to the previous screen: while in the full screen mode, pushing the ESC key or double-clicking the mouse will bring the screen back to the previous screen.

19. Digital zooming

- Clicking the front screen or the rear screen while a video is being played back will bring up a red-colored digital zooming box at the bottom left of the screen



[Before digitally zoomed]

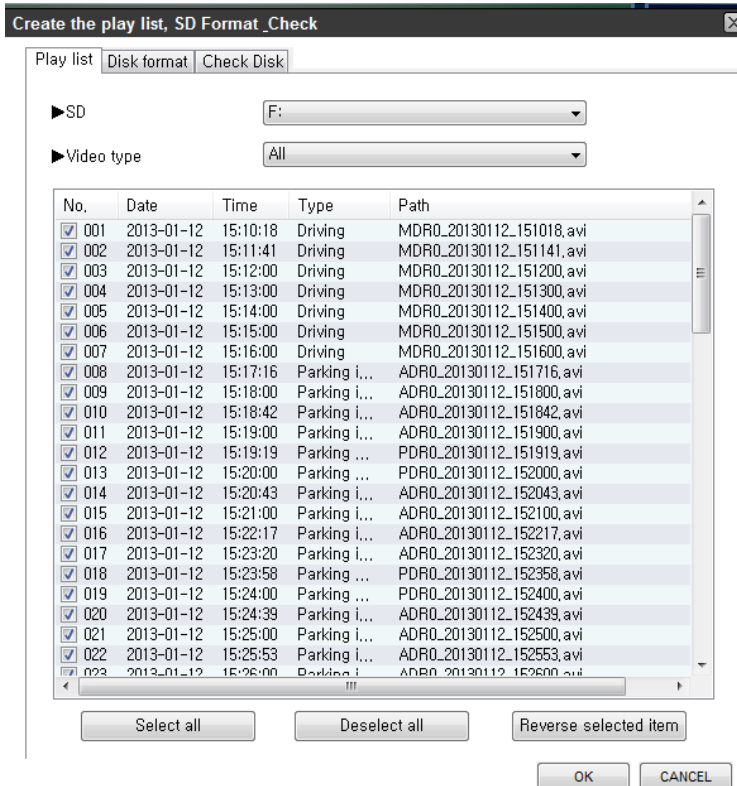



[When digitally zoomed]

- Clicking the front or rear screen will bring up a red digital zooming box.
- Scrolling the mouse wheel forward or backward will enlarge or reduce the screen.
- Moving the mouse while clicking it on the screen will move the box onto the target part of the screen.

19. Playback of the recorded data

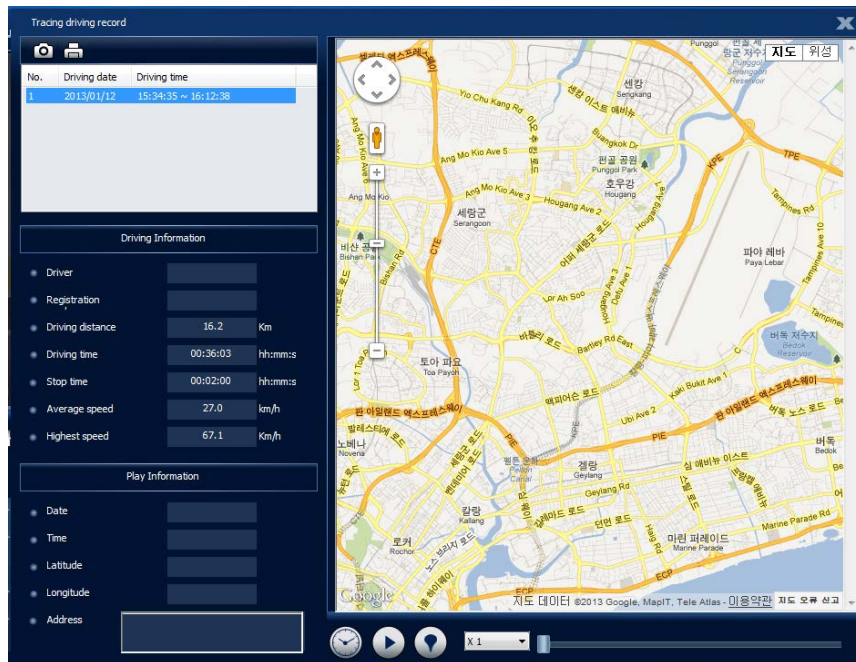
- ◆ When it comes to the video data that are stored in the micro SD card of the black box, all of the data or the data that are sorted out based on types can be selected and played back. It is also possible to format, recover, and test the micro SD card.





1. Take out the micro SD card that is inserted in the black box, and connect it to a computer.
2. Select the  button on the viewer's main screen. Then, as shown in the figure on the left, all the black box data included in the micro SD card will be searched before they are displayed through the playback list tab
3. Playback list: for selecting the location and type of a video.
4. SD location: for changing the location of the micro SD card that stores videos.
5. Video type: for selecting the type of a video that the user wants to play back and for playing back the selected video.
6. Check all, Uncheck all, and Reverse checked items: for checking and unchecking the files from the list and also for reversing the state of the checked items
7. Confirm: for playing back after bringing the selected data on the list to the file list window of the main screen.
8. Cancel: for ending the playback list generation window and the SD formatting window.

20. Driving record tracking (1)

- ◆ The driving records will not be stored in parking mode. The driving record will be stored every second during the driving and the 10-second interval will be marked. Up to one month of driving data can be recorded in the log.txt format. The records will be sorted out by date and stored in the driving record list automatically. This function can be supported only when the GPS module, an optional item, is installed.










1. Take out the micro SD card that is inserted in the black box and connect it to a computer.
2. Pushing the  button on the viewer's main screen will bring up the driving record window (figure on the left).
3. As shown in the figure on the left, the driving records will be listed up by date.
4. Double-clicking the targeted item will show the driving path on the map on the right.
5. Pushing the  button will make it possible to play back and see the driving record.

Information: as shown on the figure above, the driving time does not include the stoppage time and the stoppage time does not include the parked time.

20. Driving record tracking (2)

- ♦ The following table explains about the icons that are supported by the driving record tracking system.

Buttons	Explanation
	Saves the map screen in .jpg file.
	Prints out the map screen.
	Shows the date and time of a driving record when the travelling path is being played back.
	Plays back the items selected from the list in the order of the travelling path.
	Displays a marker on the travelled path while the travelling path is being played back.
	Plays back the travelling path at the 1/2-, 1-, 2-, and 4-time playback rate.
	Ends the driving record tracking window.

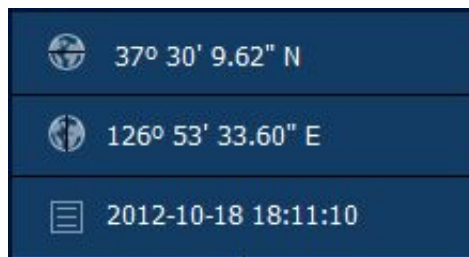
21. Viewing of the information of the recorded file



[Gravitational acceleration graphs]




[Speed graph]

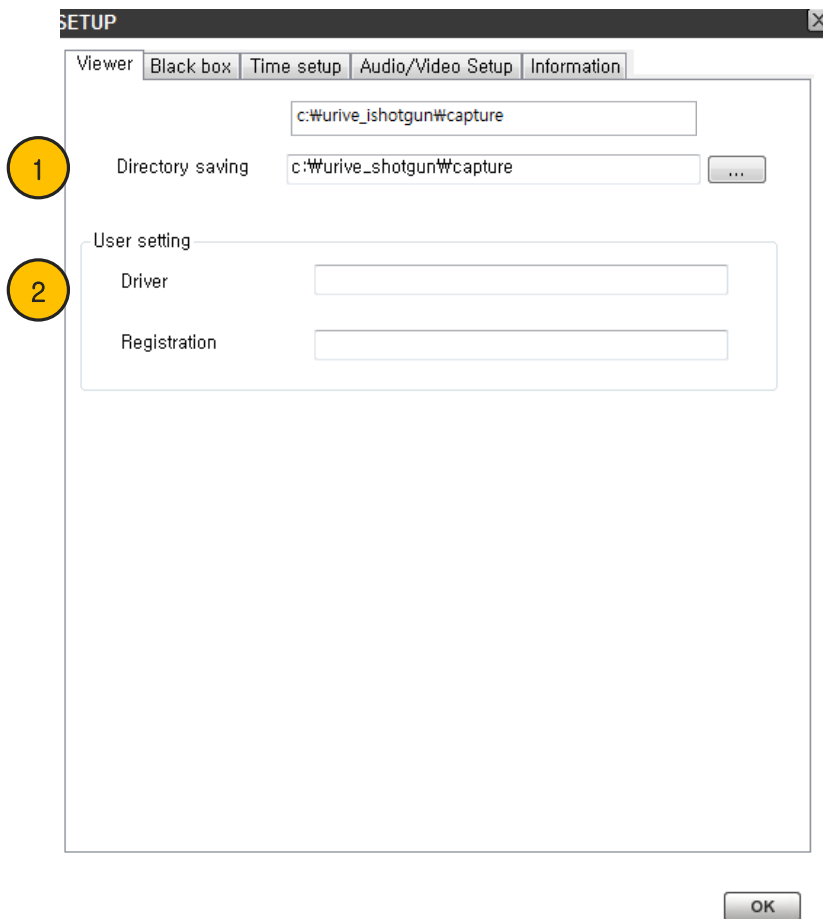


[Latitude/Longitude/Playback time]

- While a video is being played back, it is possible to see the three-axis gravitational acceleration graphs as shown in the figure on the left. The three-axial directions include the front-rear direction, the left-right direction and the up-down direction.
- While a video is being played back, it is possible to see the driving speed graph or the speed. This can be displayed only when the GPS module, an optional item, is installed.
- While a video is being played back, it is possible to see the information related to the latitude, the longitude and the playback time as shown in the figure on the left. This can be displayed only when the GPS module, an optional item, is installed.

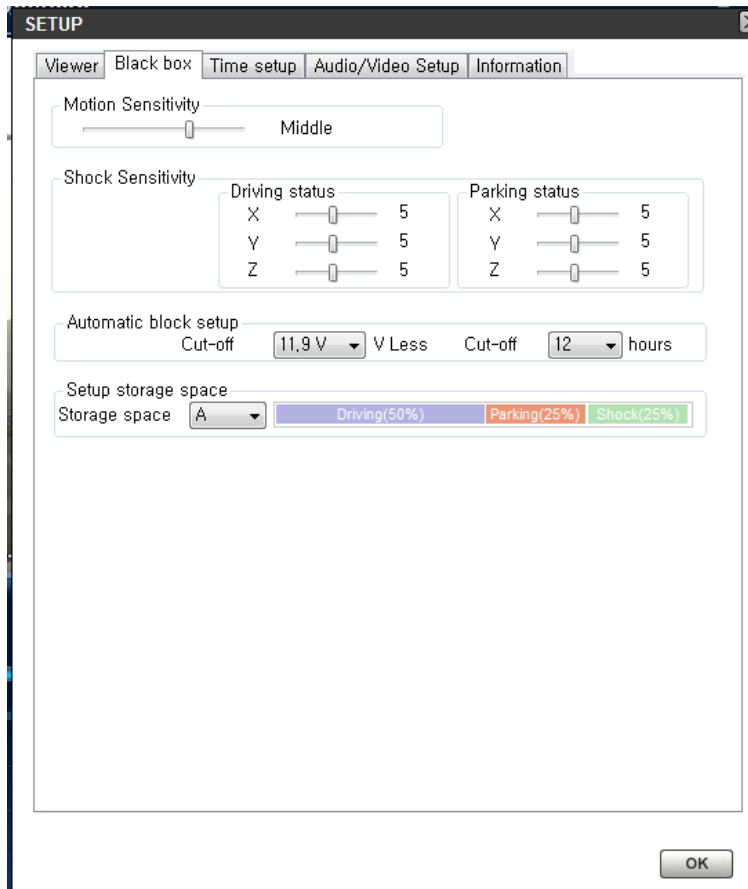
22. Black box environment setting (1)

- ♦ **Black box environment setting:** Pushing the  button on the specific viewer's main screen will open up the black box environment setting window as shown below. The window shows the tabs for Urive i-Shotgun viewer setting / Environment setting / Time setting / Audio and video setting / Urive i-Shotgun version information. It is required to connect the SD card to a computer before running this function.



1. Screen saving path: for designating the saving path for the front and rear videos.
2. User setting: for entering the driver's information and the car number. It would be helpful if individual drivers use their own memory cards separately.
3. Wi-Fi setting: for setting the password for the black box system.
Enter the password and then push the save button to save it. Then, the password will be applied for the system.

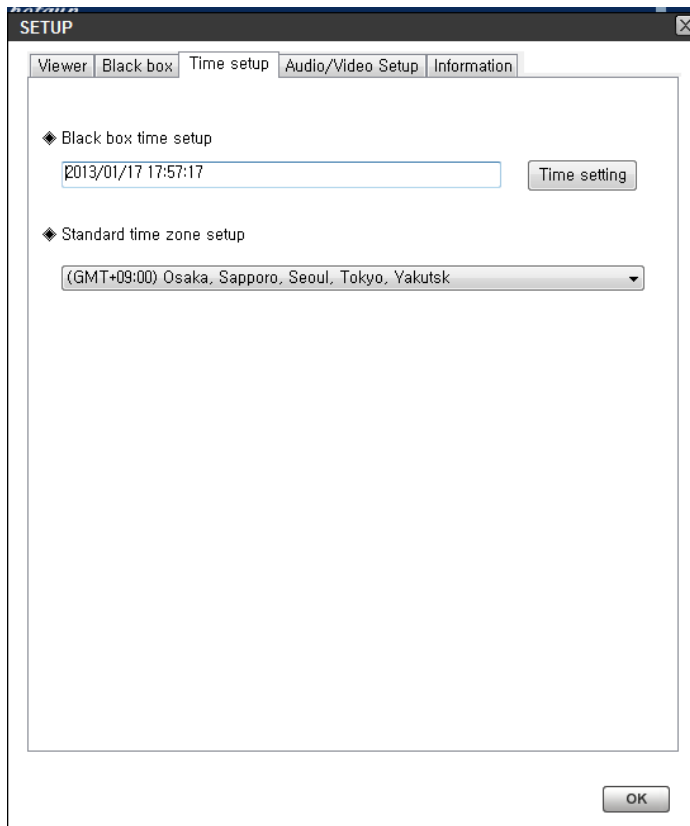
22. Black box environment setting (2)



[Environment setting]

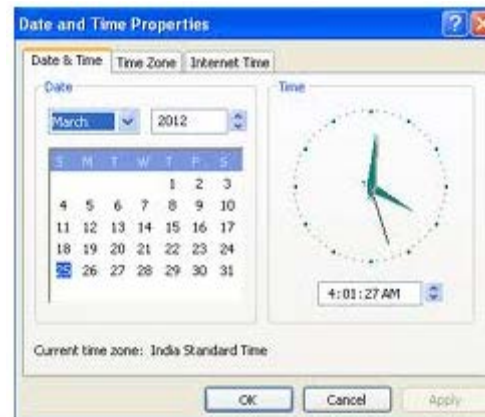
1. Parking mode motion sensitivity: for adjusting the sensitivity of the sensor that detects a motion (while parked). It is possible to choose among four levels: high, medium, low, and no use.
2. Shock detection sensitivity: for adjusting the sensitivity of the sensor that detects a shock. The higher the value becomes, the lower the sensitivity gets, and vice versa (Select: Stage 1 – Stage 10)
3. Auto cutoff voltage setting: for setting the cutoff voltage and the cutoff time. The cutoff will take place when one of the two conditions is met. There are 4 stages of the cutoff reference voltage that can be selected: 11.5 V, 11.7 V, 11.9 V, and 12.1 V. There are 5 stages of the cutoff time that can be selected: None, 6 hours, 12 hours, 24 hours, and 48 hours. It is required to set one of the setting conditions for each operation.
4. Disk storage space setting: for deciding the disk space usage.
A: 50% for driving, 25% for parking, and 25% for events (Default)
B: 25% for driving, 50% for parking, and 25% for events
C: 75% for driving and 25% for events

22. Black box environment setting (3)



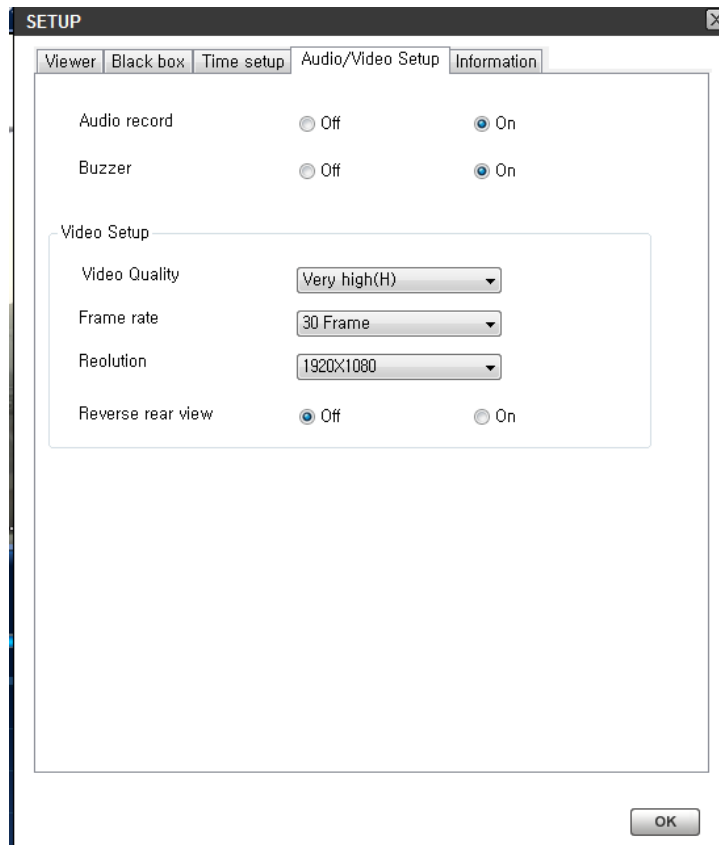
[Time setting]

1. It is possible to set the black box time and the standard time by selecting the time setting tab.
2. Black box time setting: if there is no GPS module in the product, it is possible to set the time inside the black box system. It is required to insert the micro SD card into the black box immediately and supply power to it after setting the time in order to minimize the difference between the set time and the current time.
3. Standard time setting: for setting the GMT time for individual countries. The default will be set as the time read from the PC (Korea standard time — GMT +09:00 Seoul)
4. Pushing the OK button when completing the selection process will complete the environment setting process.



Tip: it will help reduce the difference between the black box time and the current time if the user changes the time through the [Date and Time Information] menu in a PC and then insert the SD card into the black box for the purpose of time setting.

22. Black box environment setting (4)




[Audio/video setting]

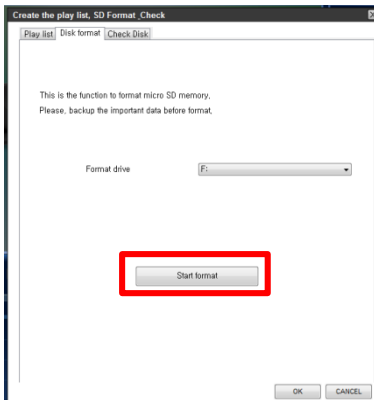
Tip: 1280x720 and 30 frames are fixed for the rear video. It is possible to perform the setting only for the front video.

1. Selecting the audio/video tab will help perform the setting related to audio recording, buzzer sound, and video quality.
2. Audio recording: the black box is designed to record video and audio simultaneously. When no use (mute) is selected, only the video will be recorded.
3. Buzzer sound: when no use is selected, there will be no buzzer sound when shock is applied while in the continuous recording mode. However, in case of the start buzzer sound following the booting up and the buzzer sound that notifies about errors, they will be activated always.
4. Video quality: the quality of the videos, which are to be recorded in the continuous (driving) mode as well as in the parking mode, can be selected among the very high, high, and medium levels. The higher the level becomes, the better the video quality gets, significantly reducing the mosaic pattern accordingly. Here, the storage space and time can be reduced.
5. The frame rate: for setting the number of frames of a video that can be recorded every second. The higher the number becomes, the more identical the recorded video gets to the actual motion. Here, the storage space and time can be reduced.
6. Resolution: for showing the size of a video that is to be recorded. Full HD (1920x1080) and HD (1280x720) are provided. Higher resolution provides a video of better quality. Here, the storage space and time can be reduced.
7. Rear video shift: for shifting the rear video between the left and right sides. Using the function will help shift the stored video and the AV Out mode video between the left and right sides.
8. Pushing the OK button when completing the selection process will complete the environment setting process.

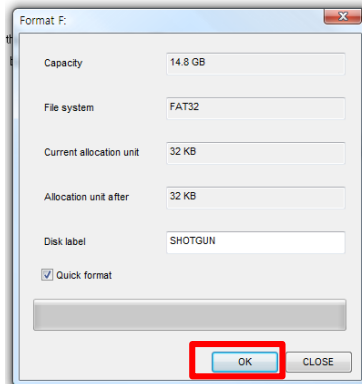
23. SD card formatting (1)

1. Take out the micro SD card that is inserted in the black box and connect it to a computer.
2. Selecting the  button on the viewer's main screen will bring up the SD card formatting tab, which will help format the SD card as shown in the figure (1).
3. Format drive: shows the location of the drive where the micro SD card is inserted.
4. Pushing the format start button will bring up a window that will help confirm or cancel the formatting process.
5. Pushing the confirm button will display a window for formatting the SD card. The window will show the micro SD card's memory, file system type, current assignment unit, and post formatting assignment unit. Pushing the start button will initiate the formatting process. "Quick formatting" is also supported. "General formatting" may take longer hours depending on the specifications of the PCs.
6. When the formatting process is completed, there will be a window coming up to notify that the formatting is completed. Pushing the confirm button and then the close button will finish the SD card formatting process.

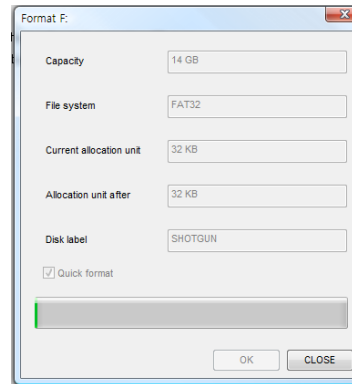
1



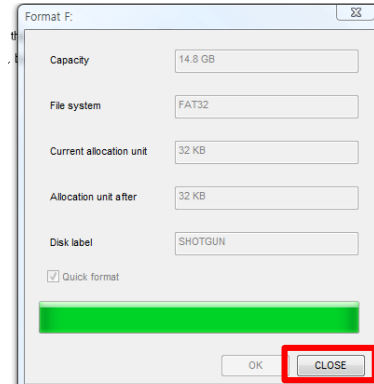
2



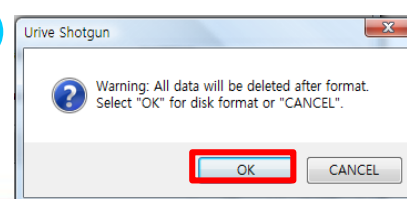
4



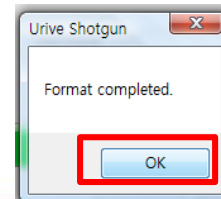
6



3



5



24. Checking and recovery of the SD card (1)

25. Preparations for using the i-Shotgun Wi-Fi function

The Wi-Fi function will be automatically turned on when the i-Shotgun black box is booted up.

The wi-fi dongle is not detachable from the main device

* When the Wi-Fi dongle's green LED blinks, it means that the system is operating normally.

[Parking mode]

1. When driving mode is set to parking mode, the mini USB Wi-Fi dongle connection will be turned off.
2. The mini USB Wi-Fi dongle connection will also be turned off when booted up in parking mode.
3. In order to turn on the mini USB Wi-Fi dongle connection in parking mode, operate the system by using the mode button according to the following steps .
 - Push it for 3 seconds initially and the first “beep beep” buzzer sound will be generated.
 - There will be a second “beep beep” buzzer sound at the time of 5 seconds when pushing the button continuously.
 - Release the button, then the USB power will be turned on (be careful because pushing the button for 10 seconds continuously will lead to the formatting of the SD card)

Precaution: In driving mode, the USB Wi-Fi dongle on/off function will not be provided.

26. i-Shotgun app downloading and installation

[For Android phones]

1. Execute “Play Store” icon from the smartphone.
2. Search “Urive” or “i-Shotgun” through the search window.
3. Or take a picture of the QR code on the right to download the i-Shotgun app.

[For iPhones]

1. Support will be available later

※ Check the Urive home page for more details about i-Shotgun app manual.

(www.urive.co.kr Urive download center >> i-Shotgun)

Precautions:

- Downloading can take place only for smartphones based on the Android OS.
- Impossible to have simultaneous accesses for the link with the black box.
- While the black box is linked, the use of Internet is restricted.
- Video playback or some functions may not work well in some types of smartphones. .
- The connection distance may vary depending on the environment and communication related to using the system.

27. Stored data

1. **Black box folder:** for storing data. Individual video files will be stored every minute continuously.

- Continuous file:

Ex.) Blackbox\12\07\30\09\ MDR1_20120730_093000: A video generated from the channel 2 (Rear) at 09:30 on Jul. 30th in 2012

- Event file: while in the continuous recording mode, if there is shock applied or an event is needed to be recorded manually, a video file of the incident, taken for 30 seconds starting from 10 seconds before the incident to 20 seconds after it, will be stored.

When the usable memory is exceeded, the oldest file will be deleted before the storing process continues.

File generation Ex.) Blackbox\12\07\30\09\ EDR0_20120730_093300: A video generated from the channel 1 (Front) at 09:33:00–09:33:59 on Jul. 30th in 2012.

- Parking file: while in parking mode, if there is a motion or shock monitored while parked, a video file of the incident, taken for 30 seconds starting from 10 seconds before the incident to 20 seconds after it, will be stored. When the usable memory is exceeded, the oldest file will be deleted before the storing process continues.

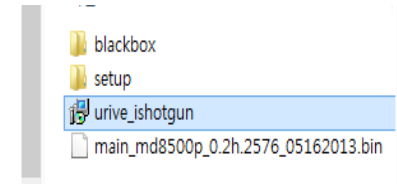
File generation Ex.) Blackbox\12\07\30\12\ PDR1_20120730_120500: A video generated because of a motion monitored while parked from the channel 2 (Rear) at 12:05:00–12:05:59 on Jul. 30th in 2012.

- Log file: for storing various system logs, shock levels, events, and hourly GPS-based positions. When the usable memory is exceeded, the oldest file will be deleted before the storing process continues.

File generation Ex.) Blackbox\12\07\30\12\ log.txt: A system information file generated at 12:00:00–12:59:59 on Jul. 30th in 2012.

2. **Setup folder:** for the user setting.

3. **Urive i-Shotgun.msi:** a file for installing the specific PC viewer. It is possible to download it from the home page of the Urive homepage.



28. Storage ratio of the memory card by memory

[Table 1] Storage assignment for each recording mode by type and memory

				Unit: MB
Type	Memory	Continuous	Parking	Driving event
A	16	7,780	3,890	3,890
	32	15,565	7,782	7,782
B	16	3,890	7,780	3,890
	32	7,782	15,565	7,782
C	16	11,670	0	3,890
	32	23,347	0	7,782

[Table 2] Storage assignment ratio for each recording mode by type

				Unit: %
	Type	Continuous	Parking	Driving event
	A	50%	25%	25%
	B	25%	50%	25%
	C	75%	0%	25%

29. Product standards

- Name: Urive i-Shotgun
- Size: 92 x 61 x 32 mm (Main body) 53.6 x 27 x 24.5 mm (Rear camera)
- Memory: 16 GB micro SDHC card class 10 exclusively for Urive -iShotgun (Up to 32 GB can be supported)
- Recording: continuous recording, event recording, and recording of monitored events and shocks while parked
- Front camera: Full HD (1920x1080) / 120 degrees
- Rear camera: HD (1280x720) / 110 degrees
- Frames that can be stored: Driving mode — Max. 30 fps / Parking mode — Max. 20 fps
- Resolution of stored videos: Driving mode — Front 1920 x 1080 / Rear 1280 x 720
Parking mode — Front 1280 x 720 / Rear 1280 x 720
- Audio: Embedded microphone
- Wi-Fi standard: 802.11 b/g/n (link to a smartphone)
- Video output: Stereo jack (3-pole)
- Acceleration sensor: 3-axis acceleration sensor
- GPS: SIRF-IV class (optional)
- Working voltage: DC 12 V / 24 V will be supported.
- Power consumption: Max. 4.3 W (when the monitor, the GPS module, and rear camera are all connected).
- Working temperature: -20°C to 70°C
- Keeping temperature: -40°C to 85°C
- OS that can support the viewer: Windows XP or a higher version

※ The exterior and specification of the product may change without any notice in advance for the purpose of improving the product.

30. Warranty

The product **warranty period** is **1 year**.

Except for the main body, separate warranty periods will be applied for ancillary components and expendable items.

- ◆ The warranty service will be provided based on what is described in the warranty.
- ◆ The warranty period will be calculated from the purchased date, so, users must get the purchased date filled.
- ◆ Refer to the 'consumer compensation regulations' for more details of the warranty service.
- ◆ If replacement is required, all the replacement parts will be new ones or similar ones as long as their functions are similar to those of new ones.
- ◆ Midong E&T is not responsible for repairing, replacing, or refunding until a faulty product is returned.
- ◆ Users are required to keep the warranty and the product number well as they are not to be reissued.
- ◆ Be careful about copy products as the company does not provide services for the products that are not authentic.

[Contact for the customer center]

Customer center: 1599-0141. Home page: <http://www.urive.co.kr>

Product warranty		
Product name	Urive i-Shotgun	
Manufacturing No.		
Warranty period	1 year from the purchased date of	
Customer	Name	Contact
	Address	
Sold by	Name of the shop	Contact
	Address	

31. Consumer compensation regulations

Failures of the performance or the functions occurs naturally while using the product in normal conditions.	Cases that require consumer compensation		A/S service within the warranty period	A/S service after the warranty period
	When a major repair work is required within 10 days after purchasing the product		Replacement	None
	When an important part needs to be repaired within 1 month after purchasing the product.		Replacement	
	When a major repair work is required within 1 month after the product is replaced.		Replacement	
	When impossible to replace the product		Refunding	
	When possible to repair	When a defect is found	Free-of-charge repair	Paid repair or paid replacement
		When failure occurs (4 th occurrence) again even after the product was repaired 3 times already for the same defect.	Replacement	
		When failure occurs (5 th occurrence) again even after the product was repaired 4 times already for problems with various parts.		
	When impossible to repair	If the company lost the product for which a customer requested a repair work.		Paid repair or paid replacement
		When impossible to repair the product as there is no part available for the repair work within the period in which the parts should be kept in storage by the company.		
		When impossible to repair even when repair parts are available.	Paid repair or paid replacement	
1) Cases in which failures occur due to the user's mistakes. - When a user is careless in handling the product (When the product fails or gets damaged due to dropping, shocks, breaking, excessive operation or mistakes in using the product) - When the user makes the product fail or get damaged on purpose or by mistakes. - When the product fails or gets damaged as users themselves or a third-party person repaired or modified the product. - When the product fails or gets damaged as the parts, expendable items and optional items that are not designated by the company were used. 2) Other cases - When the product gets damaged due to natural disasters (Including fires, flooding and earthquakes) - The lifetime of expendable items runs out - Due to external causes			Paid repair	Paid repair
* Except for the main body, separate warranty periods will be applied for ancillary components and expendable items				

32. Before requesting A/S services

Users should back up (Separate saving) periodically important data saved in a product that provides storage function. It would be necessary to delete the data in the storage unit inevitably depending on cases. In relation to that, all the data stored in the storage device may be deleted while providing A/S services. Considering that, users must back up all the important data before requesting A/S services.

When it comes to the products that are submitted to the customer center for A/S services, the company will think that their data are backed up by the users themselves, and will not back up any data separately. Considering that, users should understand that the company will not be held responsible for any loss of data accordingly.

When users use a package delivery service, there is a risk of shock or damage. Considering that, users should package the product in a way that will not expose it to impact. Users are recommended to write down their names, addresses, contacts and contents of failures, which will help us facilitate the repairing process.

* Refer to the [Customer Support]-[Service Center] of the Urive home page.

33. Problem analysis before A/S services

Symptoms	Measures
The time of the black box not correct.	When there is no GPS module, it is required to select the black box setting menu on the specific viewer in order to set the time through the time setting menu.
Power not turned on	Check the power on/off switch.
	Check whether the continuous power cable is connected correctly. (Black: Ground/Red: B+/Yellow: ACC power)
No GPS information received	Check the connection between the black box and the GPS socket.
No buzzer sound heard	Check whether the buzzer sound is applied or not by selecting the audio/video setting menu on the black box setting menu of the specific viewer.
No audio recorded	Check whether the audio recording is applied or not by selecting the audio/video setting menu on the black box setting menu of the specific viewer.