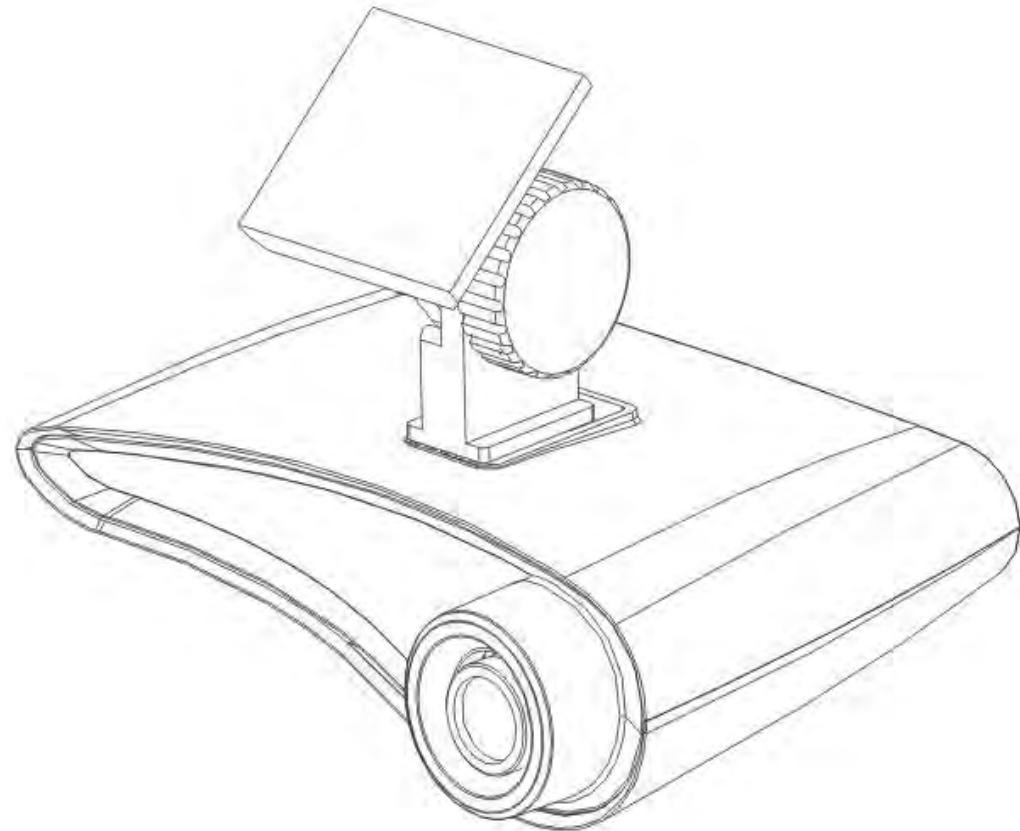


CHRNUN2 WiFi
Car Drive Video Recorder



<Guarantee of video recording and range of responsibility>

1. This product is a ancillary product for safe driving made to arouse driver's attention to safe driving, prevent accident and to be used as an important reference to the moment of the accident.
2. This product does not guarantee recording of every accident, please be aware that if the impact was so minor that the impact sensor cannot detect it may not be saved as event record.
3. "SEMISOLUTION" is not responsible for loss of video record or driving information as a result of product breakdown from accident or any other causes.

This "Safety warning" is to keep you safe from accident and prevent you from property damage. Please read carefully and keep this manual where you can find anytime.

1. Usage of constant power cable for record during parking

Our car DVR, "CHANUN" series were developed for DC12V and DC24V power supplies.

In case of Using constant power cable for record during parking, below problems are expected. If below problems are occurred, user can't get free warranty service and especially that the damages occurred on the vehicle, we have no liabilities for such damages and user should bear all such liabilities. So, users should pay attention to use constant power cable.

[expected problems to use constant power cable]

1. Car-DVR system life-shortening or serious damages
2. Product deforming under the High temperature at summer season or vehicle fire
3. Vehicle battery performance degradation
4. vehicle electric system damages due to the battery performance degradation
5. Vehicle generator over operation and life-shortening due to the battery output voltage decreasing.
6. Vehicle gas mileage degradation



Warning

Possibility of causing injury or death if these instructions were ignored.

2. Do not manipulate or stare at the product while driving.

Do not manipulate or stare at the product while driving. It may cause accident. When you need to manipulate the product please park your car.

This "Safety warning" is to keep you safe from accident and prevent you from property damage. Please read carefully and keep this manual where you can find anytime.



Warning

Possibility of
causing injury or
death if these
instructions were
ignored.

3. Do not disassemble or repair the product.

It may cause electric shock, product failure or malfunction.

4. If the product is wet, Do not try to dry it with heat. (Do not use heater, hair dryer, micro wave)

It may explode or cause malfunction. Please contact "SEMISOLUTION" customer service center. Do not use liquid or volatile substances.

5. Please only use components provided with the product.

If not it may cause malfunction or accident. "SEMISOLUTION" does not guarantee compatibility regarding any devices or accessories which are not provided by the company. "SEMISOLUTION" is not responsible for any product failure caused by the use of the components or accessory made by other than "SEMISOLUTION".

6. If you do not use for long time with constant power supply.

Do not operate the product if engine is not running. The engine start may fail if battery is discharged. Also when you are installing constant power supply please have it installed by expert, otherwise it may cause malfunction.

This "Safety warning" is to keep you safe from accident and prevent you from property damage. Please read carefully and keep this manual where you can find anytime.

7. Do not use other than the rated voltage.

Do not separate the power cable during the operation. It may cause damage to the product.
Do not use other than the rated voltage(12~24V). It may cause damage to the product or fire.
Please comply with the instructions on this manual when installing the product.



Warning

Possibility of causing injury or death if these instructions were ignored.

8. Please keep black box separate from your car when you are not using it in the mid of summer and winter.

Do not leave the product under high or low temperature for long time. If the product is exposed to the sun light for long time in summer or left in cold in the winter it may cause malfunctioning of the product. Please keep the black box separately if you are not using it or parking your car for a long time.

Caution for your safety

CHANUN

This ""Caution for your safety" and is to keep you safe from accident and prevent you from property damage. Please read carefully and keep this manual where you can find anytime.



Caution

If not complied with,
there's possibility of
minor damage,
service disturbance,
minor damage to the
product

1. Do not install black box where windshields is tinted or area where other foreign substance(sticker etc.) might interfere recording.

In a car with excessively tinted wind shield, the video image of the product may be recorded in dim or distorted quality. Install it in a place of clear view.

2. Keep camera lens clean.

If camera lens is dirty it may degrade quality of image recorded. Please keep it clean with dry and soft cloth. Since the product is not water proof, do not use liquid.

3. If the product is destroyed by huge accident or power supply is disconnected, check to see if the product is working before use it.

If used without checking the product may not work properly and the video may not be recorded.

4. Check the product's location and the camera angle.

Please check the product's location and the camera angle frequently in a rough driving environment like bumpy road condition.

Caution for your safety (Continued)

CHANUN

This ""Caution for your safety" and is to keep you safe from accident and prevent you from property damage. Please read carefully and keep this manual where you can find anytime.



Caution

If not complied with,
there's possibility of
minor damage,
service disturbance,
minor damage to the
product

5. Quality of recording may differ depending on condition of light.

Please be aware that the recorded video quality may degraded in extreme light conditions including the rapid surrounding light change such as in entering a tunnel, excessive strong backlight or the night without any light source.

6. If the impact of the accident was minor, it may not be recognized and may not be automatically saved as event record.

For an accident with the impact lower than certain degree, please be aware that the event data may not be recorded in the product. In this case you may mildly impact the product.

7. Please check the recorded video regularly.

Please check the recorded video regularly to be sure that SD card and the product is working properly. If any abnormal operation is found please contact "SEMISOLUTION" customer service center.

1. SD card is a consumable product. Please check it regularly, and if it is not working replace it.

When you are recording SD card is wearing out. therefore please check it regularly, and if it is not writing or reading you have to replace it.

But if you format it regularly you can extend its life cycle. (once in 2 weeks recommended. if you use it 24 hours a day, once a week)

2. Using SD card provided by ""SEMISOLUTION"" is recommended.

When replacing SD card we recommend you to buy from us. If not there can be trouble with compatibility with the product and recorded video can be damaged.

3. When taking out SD card from the product, please turn the product off first.

If SD card is took out while power is on, recordings in the card can be damaged and it can be the cause of malfunctioning of the product.

4. Do not disassemble or repair SD card.

SD card can be damaged and it can cause malfunctioning of the product.

5. When keeping SD card separately, keep it away from humidity, dust and heat.

If exposed to the humid, dust and heat SD card can be damaged.

6. For important data please back up the data else where.

If you want to keep the data for long time please save it in other device such as hard disk or CD.

What is GPS? The Global Positioning System (GPS) is a space-based satellite navigation system that provides location and time information in all weather, anywhere on or near the Earth, where there is an unobstructed line of sight to 3 or more GPS satellites. Using GPS technology the product saves location, speed and other circumstances of the moment you drive and your car's trajectory.

1. GPS is affected by whether, status of satellite, and surrounding geographical features.

A GPS receiver calculates its position by precisely timing the signals sent by GPS satellites high above the Earth. Each satellite continually transmits messages including the time the message was transmitted and satellite position at time of message transmission. Depending on the weather or other environment, it may take a long time to receive GPS signals right after the power is turned on. In case of the influence from buildings, underground, tunnels, street trees, the error range of receiving GPS is expanded. And in certain circumstances it may not be possible to receive GPS signal.

2. The product's function is not affected whether GPS is received or not.

Even if receipt of GPS is stopped, products' video recording function is working. But location, position indicator and speed of driving will not be recorded.

3. After purchasing the product, when you use it for the first time or did not use it for long period of time, GPS connection may take long time.

It may take from 5 to 30 minutes. It is time taken to verify location of satellite and receiving signals.

4. Optimal temperature for GPS operation is 0~50°C(32°F~122°F).

GPS receipt might take long time in the middle of summer or winter. Please keep the internal temperature at the optimal level.

5. If windshield is tinted or coated with metal components, GPS receipt can be disturbed and fail.

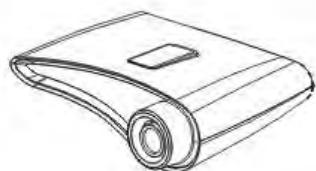
Please avoid installing the product around those area.

6. If there's any device that produces electromagnetic waves, GPS receipt can be disturbed and fail.

Some of wireless car start alarm, MP3 player, CD player, safety alarm using GPS or other kind of devices that receives GPS can cause electronic jamming signals and fail GPS receipt

Unpacking

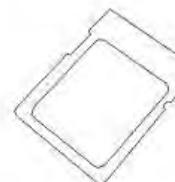
CHANUN



CHANUN



Cradle



SD Memory Card



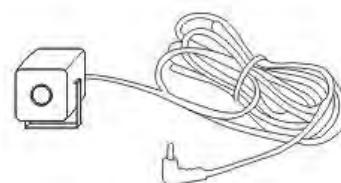
Power code



SD Memory Card Reader

To download,
visit www.camsolution.co.kr
and navigate to Downloads.

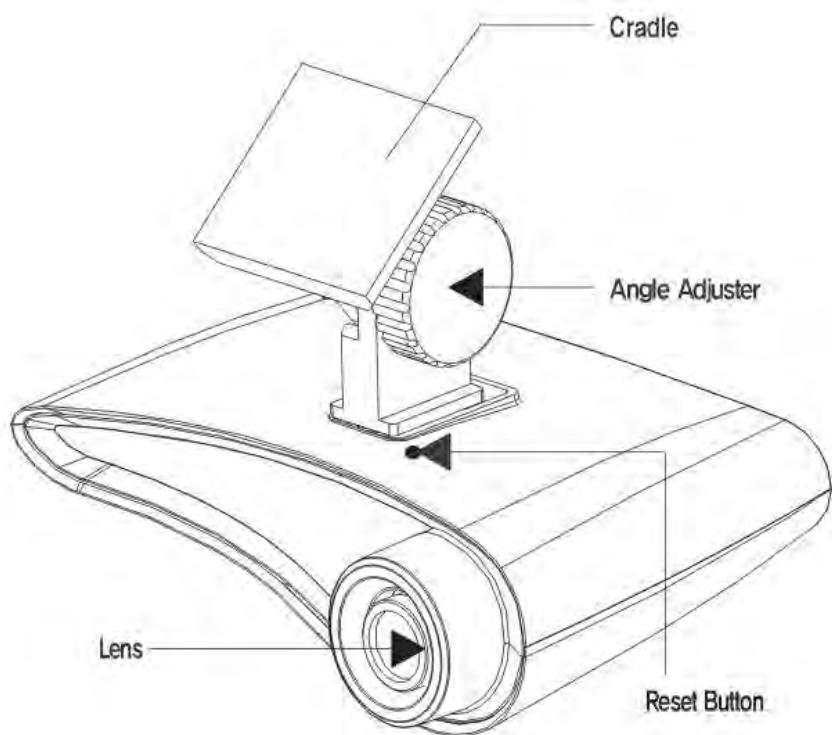
Software & User Manual



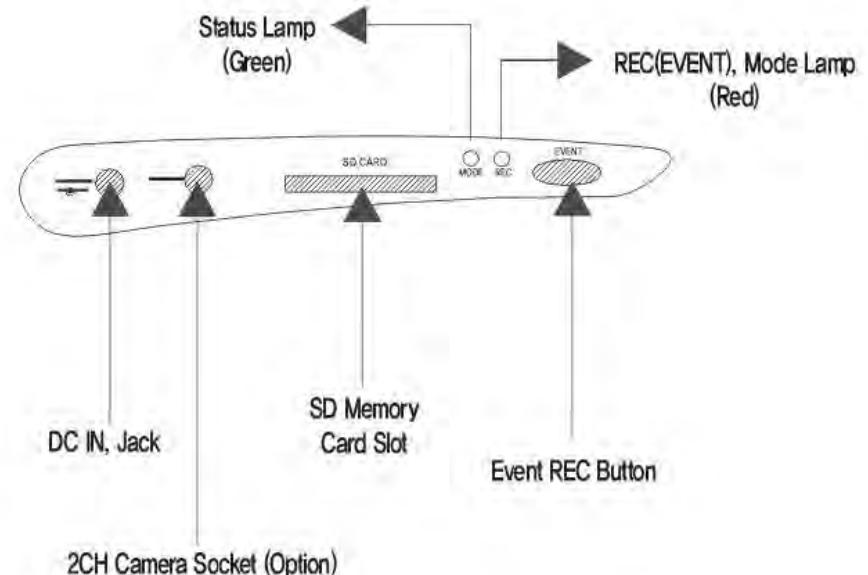
2CH Camera (Option)

CHANUN

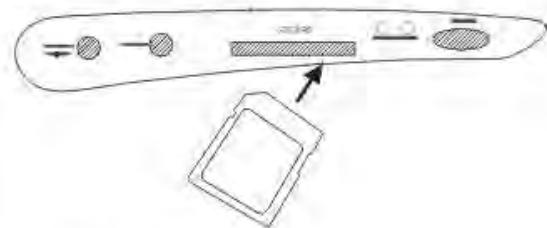
※ This product composition can change without prior notice to improve the function of product. You can purchase each items in addition to the product composition.



[CHANUN Side View]

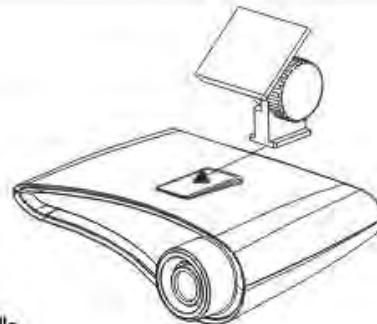


[CHANUN Rear View]



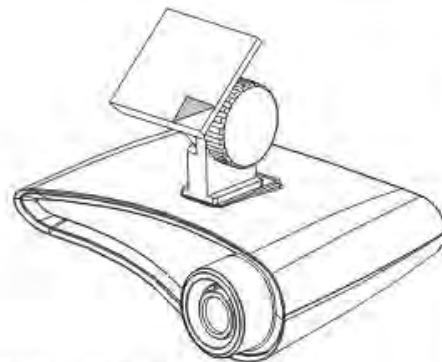
Inserting SD-Card

Insert SD-Card into memory card slot like picture,
※ Caution: Use the SD-Card recommended by semisolution Inc.



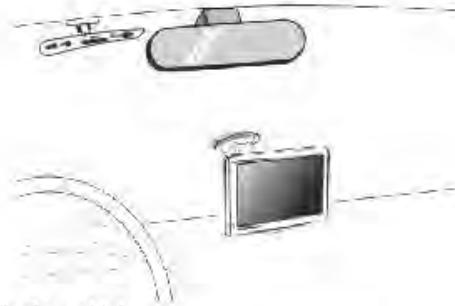
Attaching Cradle

Connect the Body and Cradle
※ Caution: Dont potentiate too hard



Removing Tape

Remove Double-sided tape from cradle like picture

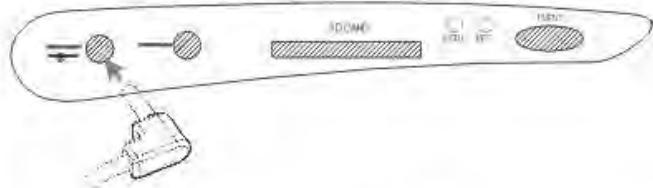


Installing in the vehicle

Install the product in the left side of the room mirror.
Lens should face forward

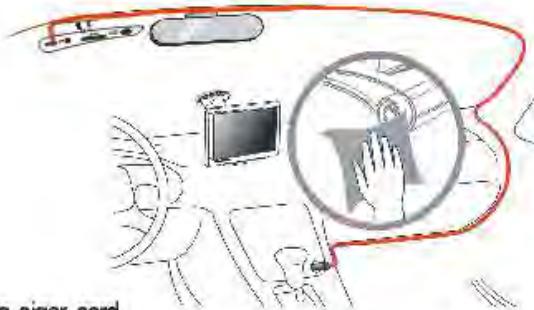
Product Installation (Continued)

CHANUN



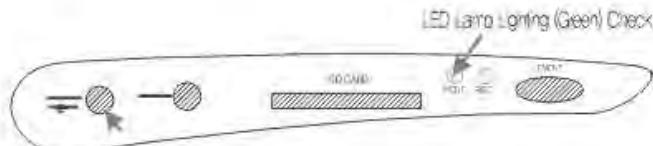
Connecting the body and cigar-Jack connector

Insert Cigar connector to the cigar jack socket in the back side of the product.
※ Caution: Must use the cigar jack provided by Semisolution Inc.



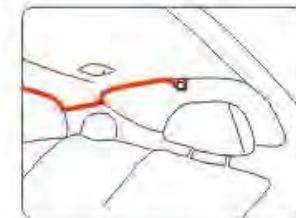
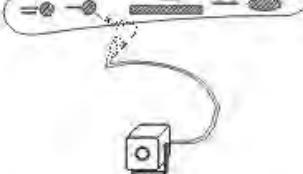
Connecting cigar cord.

Arrange the cable to the side so that the cigar code would not disturb driver's sight.



Operation Check.

After power on, Check the light state of "MODE/REC" when starts the recording after turn the "Green" lamp off, then Green lamp will be flicker, then your product is O.K

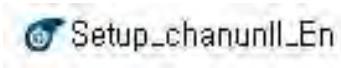


Installing rear camera (Optional)

Insert rear camera terminal to the rear camera socket like you can see in the picture. Attach rear camera in the back of the car. The lens should face outside of the car. Arrange the lines so that it would not bother driver and people in the back seat.

This product saves recorded video in AVI file and it can be played in general video player. But with the CHANUN PC player set up, besides from playing video you can also enjoy various additional functionalities, manage files and set configuration.

1. Start Setup



Insert provided CD into CD-ROM drive and double click Setup_SimpleCam.exe(Setup_SimpleCam_wireless.exe)

※ You can also download it from (www.camsloution.co.kr).



2. Setup

Start Setup by clicking "Next" button.



3. Assign Setup folder

Assign "Setup folder" and click "Next" button to continue setup process.

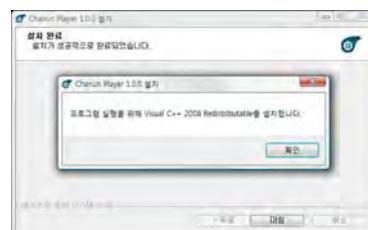
PC exclusive player Setup (Continued)

CHANUN



4. Setup completed

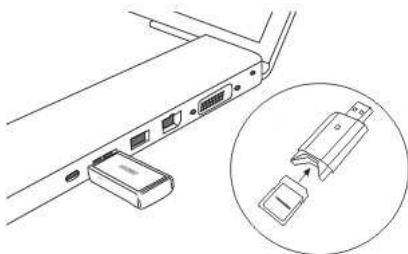
If setup is completed, click "Finish" button and the setup is completed.



※ Microsoft Visual C++ 2008 Redistributable setup

1. After completing SimpleCam setup, automatically Microsoft Visual C++ 2008 Redistributable will be installed.
Click "Next" button and start the process.
2. Click "Finish" to complete Microsoft Visual C++ 2008 Redistributable setup.





1. Connect to PC

Separate SD card from the product, insert SD card into the reader like shown in the picture.

※ Please check front and back side of the SD card and make sure you insert SD card in the direction that the arrow is pointing at.



CHANUN PLAYER



2. Click the icon

Double click CHANUN Player icon to start player.

3. Start the player

You will see the player.

※ This plays high resolution video. Therefore if you play it in a PC with low specification it may fail to play it properly. If the viewer is not working please try it from other PC or upgrade your PC.



1. Program menu

: Bring file, setup, help, Adjust, Capture

2. Image Window

: Replayed image display window

3. Rear Camera image window

: Plays video from rear camera recordings

4. G-sensor graph

: G-sensor variation value display

5. Speed graph

: Speed value display

6. Video play

: Shows time of the recording

7. Video control buttons

: Play, Forward, Stop, Next

8. Volume

: Adjusts volume of the sound being played

9. Video list

: Shows files recorded in the SD card.

10. Map

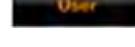
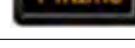
: Shows car's location using GPS.

11. Recorded file arrange

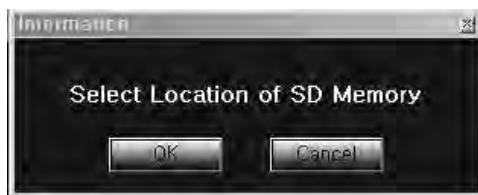
: Arrange file based on file's status, Always, Event and User recording.

Using PC exclusive player (Continued)

CHANUN

Icon	Name	Function	Icon	Name	Function
	Load	Load a storage file from the SD card		List	Records list
	Setting	Set the product's use environment		Map	Map windows display
	Help	Player and company information		Always	Always records list
	Image Adjust	Screen Adjust		Event	Event (In case of impact) records list
	Image Capture	Screen Capture		User	user records file list
	Forward	Rewind play		0.5x speed	0.5x speed play
	Play next video	Play next video		2x speed	2x speed play
	Play	Start playing		Play 1 frame	Forward a replayed image at a 1 sec interval
	Stop	Stop playing			

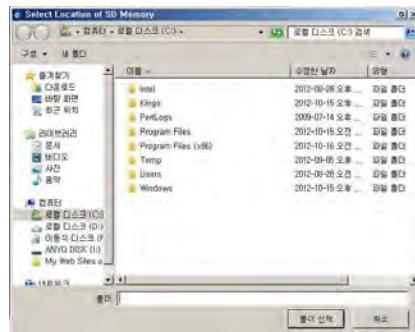
Using PC exclusive player (Continued)



4. Select location of SD card drive

Check if SD card is inserted into PC and click "OK" button.

※ If you clicked "Cancel" you can bring video files by clicking "File".
(Order : File -> assign SD card drive -> click recording folder)



5. Select SD Card drive

Select SD card drive and click "Select folder"

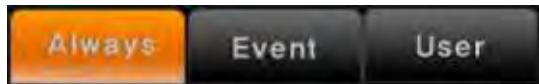


6. File list check

Double click the file you want to play.

※ If you double click another file, it will be played.

※ You can organize your recording files if you click on the menu in the picture, and in the viewer you will see it in the right side of the list.



- Based on recording status arranged in to 3 categories.

(Status : Always, Event(Shock), User)

- Ascending order based on date and time.

7. 3 axis G-sensor guide graph



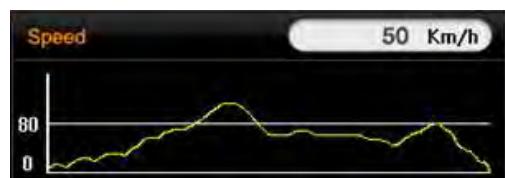
Graph shows sensitivity measured from impact on front/back, upper/lower and right/left side of the event happened.

※ 3axis G-sensor is used to detect impact, small vibration or small impact may not be detected and may not be able to be used to understand the moment of accident.

8. Speed (GPS model only)

Shows speed of driving recorded by GPS and graph that shows change of speed.

※ A model not containing GPS cannot support a speed.





9. Map view (GPS model only)

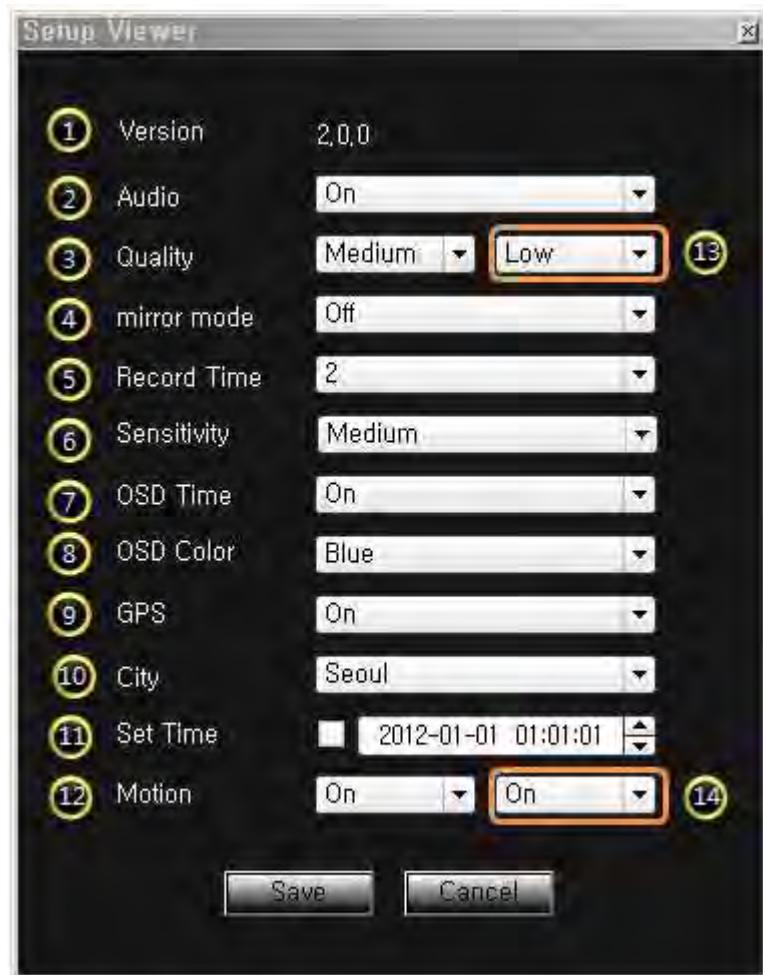
- You can check real-time live record of location of your car from google map.
Provided that GPS is being received and internet is connected to the PC that is playing the exclusive viewer.
(GPS receiving might be difficult in tunnel or big city with many buildings.)

※ If you click LIST the map will be closed.

A model not containing GPS cannot support a map view.

Meaning of the Buzzer

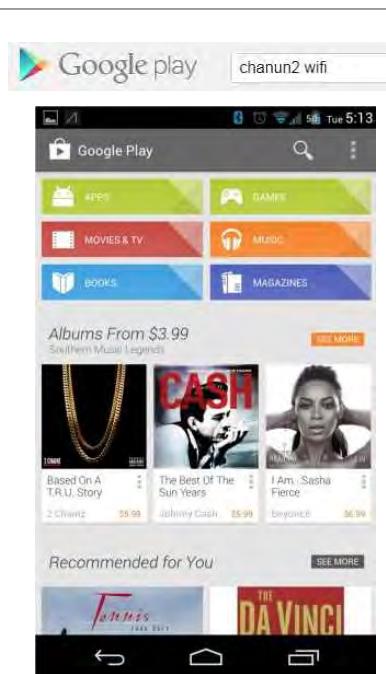
- 1. Beep (Once)** : Booting is completed and recording start (Product is ready to record)
- 2. Beep Beep (Twice)** : GPS Start (If power is supplied to the product and it is started : GPS model only)
- 3. Beep Beep (Twice)** : EVENT Recording is started (While the product is operating: If impact is done or you push Event recording button.)
- 4. Beep Beep Beep (Third times)** : SD card failure (Please replace SD card.)
- 5. Beep Beep Beep (Third times) Repeated 4 times** : If SD card is not inserted or SD card is damaged (Please check if SD card is inserted)
- 5. Beep~~~~Beep~~~~(Twice)** : Power turned OFF or restarted after upgrading.



1. **Version** : Shows version of CHANUN player.
2. **Audio** : If you want to save sound (ON / OFF)
3. **Quality** : Set quality of video recording (High / Medium / Low)
4. **mirror mode** : Vertically flips over the video image against the horizontal axis.
5. **Record Time** : Set storage time per file(minute) (1 minute / 2 minute)
6. **Sensitivity** : G-Sensor sensitivity Setting (High / Medium / Low)
7. **OSD Time** : If you want to save time of the recording. (On/Off)
8. **OSD Color** : Set information of color saved in the video.
9. **GPS** : Saves recording of location, speed and video. (On/Off)
(Please refer to page 8)
10. **City** : Select city to set time. (Must set if you have GPS model)
11. **Set Time** : Set present time "Year / Month / Date / Time"
(If it is GPS model it will be automatically applied and you don't have to enter.)
※ When setting time please consider time you insert SD card.
12. **Motion** : Set Motion sensor function
(In Parking mode, records only when there's a movement. Effective use of memory saving.)
※ This function is available only if constant power supply cable is connected.
13. **2CH Camera's image quality, Frame Rate setting.**
(High / Medium / Low)
14. **Set up Motion sensor detect function for 2CH camera.** (On/Off)

How to use Android APP (1)

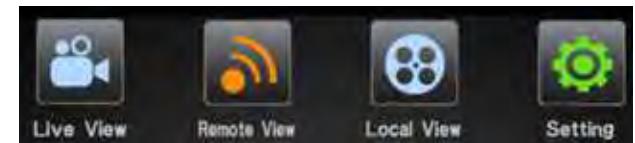
CHANUN



1. Search Chanun2 WiFi in google play store then download APP.



2. Execute App
Automatically connect to Car DVR

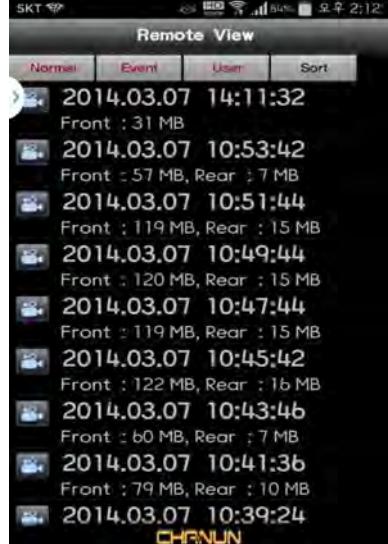
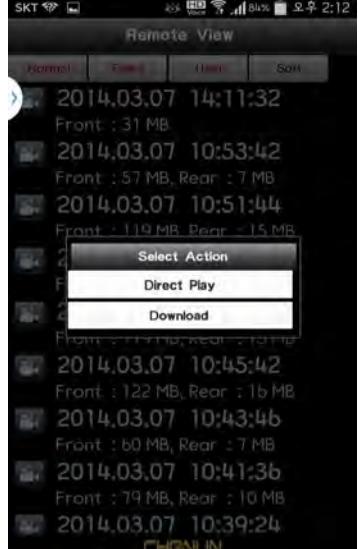


- ① Live View : Play video in a real time.
- ② Remote View : Play the vide record in Car DVR and download to Smart phone.
- ③ Local View : Play and Erase the video downloaded to Smart Phone.
- ④ Setting : Change settings.

3. Explanation of the functions on App

How to use Android APP (2)

CHANUN

[LIVE VIEW]	[Remote VIEW]	
 <p>Live view means Smart phone show the video in a real time.</p> <ul style="list-style-type: none">■ Front Camera : Play video in a real time.■ Rear Camera : Play video in a real time.	 <ul style="list-style-type: none">■ Video you want to watch or download as click "direct play" or "download"	 <ul style="list-style-type: none">■ Direct Play : Watch Video recorded in Car DVR without download.■ Download : Download Video recorded in Car DVR to smart phone.

How to use Android APP (3)

CHANUN

[Local View]		[Setting]																		
<p>Local View</p> <p>2014.03.07 14:11:32 Front : 31 MB</p> <p>2014.03.07 10:51:44 Front : 119 MB, Rear : 15 MB</p> <p>Select Action Play Delete</p>	<p>Setting</p> <p>Reset WiFi Factory Default SD Format</p> <p>Version: 1.0.4 Audio: On Quality: High Mirror Mode: Off Record Time: 2 Min Sensitivity: Medium Motion: On SD Format: Auto</p> <p>Set Time: 2014-03-06 17:01:16</p> <p>Apply Cancel</p>	<p>Reset WiFi : Delete WiFi information set up previously.</p> <p>Factory Default : Initialize setting information on Car DVR.</p> <p>SD Format : Format SD card.</p> <p>Apply : Apply setting information you want to change.</p> <p>Cancel : Cancel setting information you want to change</p> <table border="1"> <tr> <td>Version</td> <td>Version information</td> </tr> <tr> <td>Audio</td> <td>Record voice or not.</td> </tr> <tr> <td>Quality</td> <td>Video resolution.</td> </tr> <tr> <td>Mirror Mode</td> <td>Video shown upside down.</td> </tr> <tr> <td>Record Time</td> <td>Recording time.</td> </tr> <tr> <td>Sensitivity</td> <td>Sensitivity of shocking sensor</td> </tr> <tr> <td>Motion</td> <td>Motion detection or not</td> </tr> <tr> <td>SD Format</td> <td>Format the cycle of SD card</td> </tr> <tr> <td>Date & Time</td> <td>Fill in date & time based on local</td> </tr> </table>	Version	Version information	Audio	Record voice or not.	Quality	Video resolution.	Mirror Mode	Video shown upside down.	Record Time	Recording time.	Sensitivity	Sensitivity of shocking sensor	Motion	Motion detection or not	SD Format	Format the cycle of SD card	Date & Time	Fill in date & time based on local
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Record Time	Recording time.																			
Sensitivity	Sensitivity of shocking sensor																			
Motion	Motion detection or not																			
SD Format	Format the cycle of SD card																			
Date & Time	Fill in date & time based on local																			
<p>Play or delete video downloaded.</p> <p>Play : Play the video chosen. Delete : Erase the video chosen</p>	<p>Front Camera : Play video. Rear Camera : Play video.</p>																			

Please Check before you ask for After sales service

CHANUN

Product is not working at all.

1. Check if the power adaptor is connected.
2. Make sure to use the cable provided with the product. If used with unidentified cable, it may damage the product.

Quality of recorded video is bad

1. Check if the lens is dirty.
2. The video from the camera will be affected by the environment (tinted windshield and etc.) of the installation site of the camera.
3. Quality of the video may differ depending on the environment of the time the video is recorded.

There is no video recorded on SD card.

- 1.. remove the SD card being used, and reinsert it.
2. Check if SD card is LOCKED.
3. Format the SD card being used and try it again.
4. If you used SD card for too long replace it with new SD card.

There is time difference between actual time of the recording and the time marked on the recorded video.

- 1.. Please check the time setting from CHANUN PC exclusive player.

**GPS is not received
(GPS model only)**

- 1.. Tinted or metal coated windshields in the car may influence GPS reception.
2. If you did not use this product for long time or if it is first time to receive GPS it may take about 5~30 minutes.
3. Depending on the weather or other environment, it may take a long time receive GPS.

Where can I download CHANUN exclusive Player?

You can find CD-ROM in the package.

Also you can always download it from CAMSOLUTION homepage (www.camsolution.co.kr)

Can I play it from other general player?

This product saves recorded video in AVI file and it can be played in general video player.

What happens when SD card capacity is full?

Recording is possible even if SD card capacity is exceeded. The oldest recordings will be first to be removed and new video will be recorded.

Can I use any SD card?

Using authorized SD card is recommended. If not available, use SDHC product above Class10.

LED light from recorded video is blinking when I play it.

In the eye of the human LED light seems like it is on continuously but it keeps blinking thousands times a second. Therefore if recorded in certain frame, it may appear to be blinking.

Product Specification

CHANUN

Product	CHANUN2 WiFi
Video Codec	H.264
Audio Codec	RAW WAVE
Image storage Hours	Max 16H(16G Base)~32G
Image Sensor	Front HD CMOS Sensor , Rear VGA CMOS Sensor
Max. Illumination	1.8V/Lux.sec
Lens Angle	121°
Max. Pixels	Front : 1Mega, Rear : 0.3 Mega
Data Storage	Max 32G(SDHC)
Resolution	Front (1280 X 720), Rear (720 X 480)
Frame	30 Fps
G-Sensor	BOSCH G-Sensor
GPS	Optional
Display	3LED
operating temp	-10 °C ~ 60 °C
Power/Consumption	12V~24V/2W
Battery	Lithium Polymer Type
Size	119X86X39mm
Weight	119.8g (Full Package : 372.82g)

Semisolution Inc warrants that Semisolution's CAR DVR(Digital Video Recoder) and accessories ("Products") are free from defects in material and workmanship under normal use and service for the period commencing upon the date of purchase by the first consumer purchaser and continuing for the following specified period of time after that date:

Car DVR	2 YR
SD CARD	6 Month

What is not covered?

This Limited Warranty is conditioned upon proper use of the Product.

This Limited Warranty does not cover: (a) defects or damage resulting from accident, misuse, abnormal use, abnormal conditions, improper storage, exposure to liquid, moisture, dampness, sand or dirt, neglect, or unusual physical, electrical or electromechanical stress; (b) scratches, dents and cosmetic damage, unless caused by Semisolution Inc. (c) defects or damage resulting from excessive force or use of a metallic object when pressing on a touch screen; (d) equipment that has the serial number or the enhancement data code removed, defaced, damaged, altered or made illegible; (e) ordinary wear and tear; (f) defects or damage resulting from the use of Product in conjunction or connection with accessories, products, or ancillary/peripheral equipment not furnished or approved by Semisolution Inc; (g) defects or damage resulting from improper testing, operation, maintenance, installation, service, or adjustment not furnished or approved by Semisolution; (h) defects or damage resulting from external causes such as collision with an object, fire, flooding, dirt, windstorm, lightning, earthquake, exposure to weather conditions, theft, blown fuse, or improper use of any electrical source.

What must you do to obtain warranty service?

To obtain service under this Limited Warranty, you must return the Product to an authorized service facility in an adequate container for shipping, accompanied by the sales receipt or comparable proof of sale showing the original date of purchase, the serial number of the Product and the seller's name and address. To obtain assistance on where to deliver the Product, please call Semisolution Inc Customer care at 82+31-627-5300.

If Semisolution Inc determines that any Product is not covered by this Limited Warranty, you must pay all parts, shipping, and labor charges for the repair or return of such Product.

You should keep a separate backup copy of any contents of the Product before delivering the Product to Semisolution Inc for warranty service, as some or all of the contents may be deleted or reformatted during the course of warranty service.

CHANUN2 WiFi

Car black box(Video recording device for cars)

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 to the equipment not expressly approved by the party
responsible for compliance could void user's authority to operate the equipment.

This appliance and its antenna must not be co-located or operation in conjunction with any other
antenna or transmitter. A minimum separation distance of 20 cm must be maintained between the
antenna and the person for this appliance to satisfy the RF exposure requirements

Semisolution Inc.,

Customer service center: +82-31-627-5300 Fax. +82-31-627-5303

Homepage: www.camsolution.co.kr / www.semisolution.com

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