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## CAUTION FOR SAFE USE

All copyrights reserved to GNET SYSTEM.

G-NET is the trademark of G-NET SYSTEM Co., Ltd, G-NET SYSTEM Co., Ltd, has rights to G-NET (Name, Design, Brand image)

- · Do not shock and insert foreign material,
- Video quality and GPS signal reception may be affected by dark tint or special windshield. Refrain from dark tint or special windshield.
- · Do not control Dash cam while driving for safety,
- Please check device time, If user don't use Dash cam for long time, Dash cam would be initialized except for connecting with External GPS,
- If camera is exposed by direct sunlight, temperature in car would be high. So Memory card error and camera image
  distortion are likely happened. In case that parking car outside for long time, we highly recommend that pulling out the
  power cable from power terminal of device.
- · Avoid high temperature and high humidity which exceed Dash cam specification.
- · Periodically check Dash cam operation.

- The memory card is a consumable item, so it should be replaced periodically,
- Please purchase genuine Gnet memory card for preventing incompatibility problem, only genuine SD card which is designated and supplied by GNET SYSTEM is under warranty. Other brands SD card is not covered by warranty.
- When a car accident occurs, it is recommended to remove the memory card from the dash camera. After then, save video data to
  your computer, Because if the memory card capacity is full, the video data will be overwitten and the accident data will be erased.
- Please make sure to remove memory card after the recording LED off.
   Because Video data is possible to be damaged, And It causes defective memory card or shorten lifetime of memory card.
- If the memory card has inappropriate data which isn't related data for Dash camera, it automatically erases inappropriate data for keeping video data stable, Therefore do not use the memory card for other purposes,
- Don't need to format Memory card periodically. However, We recommend format memory card more than once a month through SD formatter program (www.sdcard.org).
- GNET SYSTEM camera can support from Min 4GB upto Max, 256GB memory card
- In case that use the memory card for the first time or format it, it will go into stand-by mode for 3 to 5 minutes, During in stand-by
  mode and formatting, do not remove the memory card,

01





FLILL HD 1080P Resolution



ADAS Advanced Driver Assistance Systems



Super Night Vision



Block physical access to the microSD card slot by lock



Detect the tamper recording file



G-syncloud service (3G/LTE) For Fleet Management System (Optional)



Automatic Low Voltage Cut-off Power Off-12.0(24.0)V



External GPS (Optional)



Connect with GNET Appliaction by Wi-Fi donale (Optional)



JDR file system: Memory Format Free

## PACKAGE COMPONENT

### BASIC COMPONENTS



Front Camera & Rear Camera (Including bracket)



Rear Camera connection cable



Direct power cable



USB Reader. Micro SD Memory card



Lock screw. Wrench



User Manual

\*The image of components may be different from the real components. \*\*Specifications and Components may be change without notice for improving quality, \*We are highly recommend to use Genuine Memory card from Gnetsystem,

### OPTIONAL PRODUCTS







External GPS

Cigar jack power Cable

Wi-Fi dongle

External GPS, Cigar jack cable, Wi-Fi dongle are sold separately with extra cost,

### OPTIONAL PRODUCTS IN LOCAL PURCHASE (3G G-SYNCLOUD SERVER)







01

## NAME OF EACH PART

### FRONT CAMERA

- 1 Front Camera Lens
- (2) Security LED
- (3) Front camera bracket
- (4) Bracket angle adjustment screw
- (5) GPS LED
- (6) REC LED
- Wi-Fi registration button
- (8) Power Button
- Power connector (DC-IN)
- (1) Rear Camera Slot
- (1) Extermal GPS Connector (Optional)
- (2) Wi-Fi USB dongle Slot (Optional) / 3G USB Stick Slot (Optional)
- (3) Micro SD memory card slot
  - \* LOCK: Block the physical access to the micro SD card slot









### REAR CAMERA

- (14) Rear Camera Lens
- (5) Security LED
- (6) Rear Camera Bracket
- (7) Rear camera connection cable port





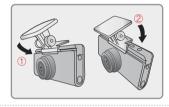
## **SPECIFICATION**

Image Sensor	Full HD CMOS Sensor	
Audio input	Built-in Microphone	
Video Compression / Audio Compression	H,264 / ADPCM	
Resolution / FPS	Front cam & Rear cam Full HD 1080P(1920x1080) / 30fps	
3G (Optional)	Connect to G -Syncloud FMS server via 3G telecommunication	
Wi-Fi (Optional)	Connect to GNET Smart phone application via Wi–fi dongle	
G-Sensor	Event recording by External Shock	
Speaker	Operation Status alarm / Voice guidance	
External GPS (Optional)	Synched with Google map, Keep track of location and Speed	
Lens	140 degrees	
Viewer	Windows XP/7/8/10, Support 32Bit / 64Bit, Supported over OSX 10,7 64Bit	
	Synchronizing Google map with PC viewer is supported over Windows7	
	and explorer 10 as per Google's policy.	
Power	DC12V~24V	
Allowable current of providing fuse	3A	
Operation Temperature / Humidity	-20°C ~ 80°C / 10~95%	
Dimension	97 × 45 × 33MM	

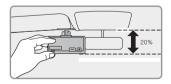
<sup>\*</sup>Specifications and Components may be changed without notice of improvement in advance,

### HOW TO INSTALL DASHCAM

1 Assemble the Front cam with a bracket, Until the hook is located on right place with coming sound according to the order (①,②).



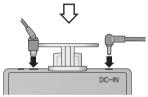
- 2 Insert the memory card into memory card slot, and then detach the cover from the adhesive double side tape on the bracket,
- 3 Install the front camera at the windshield by adjusting the angle,



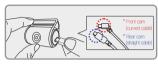
4 Connect direct power cable to fuse box terminal in the car. The connection terminal should be connected to the fuse that the current flows even if the ACC is shut off.



5 Connect power cable to DC-IN slot



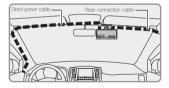
- Detach the adhesive tape on the rear camera and place it on the rear windshields of the car.
  - \* When installing the rear camera connection cable be careful to not break the wire as showed picture





- Tuck Power cable and Rear cam connection cable to roofline and pillar.
  - \* Caution: Some car navigations may face GPS reception of interruption.
    - When installing Power cable and Rear cam connection cable, it is recommended to install the each cable in the opposite direction,

For instance. Power cable is toward driver seat and rear cam connection cable is toward passenger seat.

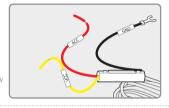


#### HOW TO INSTALL FUSE CABLE

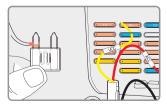
Please refer to the car manual because the fuse box is differ depending on car model,

It is recommended that install the power from the automobile shop. We are not responsible for any damage caused by self-installation.

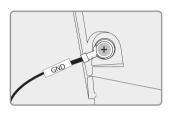
- 1 Find the Fuse box using electric tester from fuse box of the vehicle,
  - \*\* [VCC] (Yellow line):
    When the car is off, it connects with fuse that current is flowing
  - \*\* [ACC] (Red line):
    When the car is off, it connects with fuse that current does not flow



2 After connecting [VCC], [ACC] on vehicle fuse, put them into the Fuse box



Connect [GND] line to vehicle (Do not connect the volt which is connected to dash board Current is not flowing)

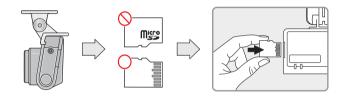


Connect the power cable to confirm the operation of product, And organize cables to finish installation work



#### INSERT THE MICRO SD MEMORY CARD

Please be fully aware before using Micro SD Memory.



- Push the Micro SD Memory card into the memory card slot until you hear 'clack' sound.
- . When using memory card for the first time or when the memory card is reused after format, the system will be in stand-by mode for 3~5 minutes to create system files and checking the memory card.
- · Recording starts with voice guidance saying "Start recording"

# HOW TO USE

### PRODUCT OPERATION

POWER ON	All LED will be turned on when the engine is on or power is on, "Start recording" starts along with voice guidance and REC LED is turned on, External GPS LED will be turned off if it is not connected by external GPS
POWER OFF	All LED will be turned off when press the power button or constant cable is disconnected,
EXTERNAL GPS	GPS LED will flicker during GPS connection. When GPS connection is completed, GPS LED will be on, Please check the connection again if GPS LED does not turn on while external GPS is connected.
VOICE RECORDING ON/OFF	If press the Wi-Fi button during over 2 seconds, the voice recording will be stopped. If press the Wi-Fi button again, the voice recording will start,
Wi-Fi USER REGISTRATION	If press the Wi – Fi button, the stand-by mode voice guidance will be displayed. If there is no connection for 2 minutes, it will be automatically discontinued. If press the Wi-Fi button again, the voice guidance will be displayed.

02

#### ADAS FUNCTION - Android

Set the ADAS function at the GNFT application.

1 ADAS ON/OFF:

Turn on/off the ADAS as touching ADAS ON/OFF button.

2 LDWS(Lane Departure Warning System) :

When the car leaves the lane, detection alarm will be ringing However, the LDWS will only work if it is above the set speed.

3 FVSA (Front Vehicle Start Alarm) :

Alarm will activate when the stopped front vehicle departs away over 2 meters

4 FCWS (Forward Collision Warning System):

When the driver approaches very close to front vehicle, the alarm will be ringing

5 Lane departure detection speed :

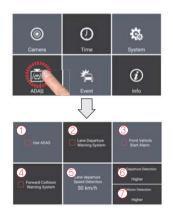
Set the lowest lane detection speed (50km/h, 60km/h, 70km/h)

6 Lane departure detection sensitivity:

Set the detection sensitivity as 3 steps (Lower, Medium, Higher)

(7) Collision detection sensitivity:

Set the collision detection sensitivity as 3 steps ( Lower, Medium, Higher )



#### ADAS LANE CORRECTION - Android



1 To improve the ADAS recognition rate, it is recommended to adjust the dash camera position by matching the end of the vehicle bonnet line on condition that "the lane correction button" is turned on in the real time screen.

#### ADAS FUNCTION - iOS

Set the ADAS function at the GNET application

① ADAS ON/OFF:
Turn on/off the ADAS as touching ADAS ON/OFF button

- ② LDWS(Lane Departure Warning System):
  When the car is leaves the lane, detection alarm will be ringing.
  However, the LDWS will only work if it is above the set speed.
- ③ FVSA (Front Vehicle Start Alarm):
  Alarm will activate when the stopped front vehicle departs away over 2 meters,
- 4 FCWS (Forward Collision Warning System):
  When the driver approaches very close to front vehicle, the alarm will be rinding.
- (5) Lane departure detection sensitivity: Set the detection sensitivity as 3 steps, (Low, Medium, High)
- ⑥ Collision detection sensitivity: Set the collision detection sensitivity as 3 steps, (Low, Medium, High)
- Lane departure detection speed:
  Set the lowest lane detection speed (50km/h, 60km/h, 70km/h)

ADAS
g O
m ()
ng 🔘
g High
tection High
Detection 50 km/h

### ADAS LANE CORRECTION - iOS



To improve the ADAS recognition rate, it is recommended to adjust the dash camera position by matching the end of the vehicle bonnet line on condition that "the lane guide button" is turned on in the real time screen.

#### TAMPER DETECTION FEATURE



- By pressing user registration button for 5 seconds or more, the tamper check will be started with voice guidance,
- 2 All of recording files in SD card will be verified though inspection, there will be buzzer sound every time each file is completed.
- When it detects tampered recording file, the record will be saved as designated directory (sdroot/config/tamper.txt)
- The result of tamper check will be notified to user with Voice guidance.
  - \* No tamper detection: "Data verification passed."
  - \* Tamper detection: "Data verification failed."
- If user press button again, Camera will get restart to activate normal recording.

#### HOW TO CHECK THE RESULT OF TAMPER CHECK

1 Put Memory card Reader into PC after removing Memory card from Device, And, open the "Config" folder.



2 Open the "Tamper,txt" file in the "Config" folder.



3 You can check the log record when the file is opened,

[File name] = [Tamper check status]

[Tamper check status] → Record for Tampered file



- · With successful cases from tamper check, the tamper.txt file will be made even if there is no statement in that file.
- If the tamper test is with the copied date from origin Memory card, the test is not correctly working as the date in original Memory card is deleted, So, checking the videos in the Memory card first and then, able to test the tamper Check,

### RECORDING MODE

NORMAL RECO	RECORDING  - When the power is connected, the normal recording will start, - Security LED flickers left and right every 2 seconds.	
EVENT RECORDING	IMPACT RECORDING	If there is impact or shock, the record LED will flicker and record in event recording mode     After event recording is finished, it will be automatically changed to normal recording mode
PARKING RECORDING		- After the parking mode is entered when the ACC voltage is released, the parking mode automatically operates in 10 seconds (3 Wired) - It is recorded in 10 frames, so the recording time can be extended, - Security LED flickers left and right every 4 seconds - If it connects with ACC voltage, it switchs to normal recording mode (3 Wired)
	MOTION DETECTION RECORDING	- Under parking mode, the device will record any movement happen around 3M, - Security LED will quickly flicker - After motion detection recording is finished, the motion recording will be automatically changed to parking mode

### **VOICE GUIDANCE**

CONTENTS	VOICE GUIDANCE	
Normal recording	Start recording	
System Off	Shut down the system	
Overwriting	Recording does not have enough available, Please check overwriting setting,	
GPS connection	GPS connected.	
Abnormal recording	Video is not being entered,	
Enable registration	Stand-by mode for the registration,	
Disable registration	Stand-by mode for the registration is released,	
Not supported Wi-Fi module	This Wi-Fi module is not supported	
No Wi-Fi Dongle	No Wi–Fi Dongle	
Complete the smartpphone registration	Complete the registration	
Already registered smart phone	Already registered smart phone	
Connect the Wi-Fi	Users connected,	
Disconnect the Wi-Fi	User access disabled.	
Connect the playback mode	User's searching starts so, recording is paused.	
Disconnect the playback mode	Restart recording,	

## **VOICE GUIDANCE**

CONTENTS	VOICE GUIDANCE	
Change the Smartphone setting	Setting changed and reboot	
Change parking mode to normal recording	Driving mode to start recording, Safe driving	
Format the Micro SD memory card	On- formatting the memory card, Please wait	
No Mirco SD memory card	No Memory card	
Micro SD memory card damage	Memory card is damaged and can not be recorded	
Micro SD memory file system recover	Reboot becasue of the damaged memory card, Please repace the memory card if this continues	
Update the firmware	On installing the program, Do not turn off the power	
Fail to firmware update	Program file is corrupt and can not be installed,	
Event recording alarm	Impact event has occurred during parking	
LBP ON	Shut down the system to protect the battery of car	
LBP OFF	Restart the system to protect the battery of car	

- 1 Removing memory card after the device turn off
- 2 Insert the removed memory card into the memory reader and connect it to the USB port of PC
- 3 Select removable disk in explorer folder
  - Folders in the removable disk are displayed as shown in the following page
  - "Event" folder is created if the event save capacity is setting over 10%,

Do not randomly delete or format files in memory card,
 Backup the impoartant file to PC,

02



#### \* Recording time (Default: Front/Rear 30fps):

8GB(1hrs), 16GB(2hrs), 32GB(4hrs), 64GB(8hrs), 128GB(16hrs), 256GB(32hrs)

Config (Manage system)	- Log.txt: It records device's statement as log file - Version,ini: Saving version information of device	
② Date (Normal recording)	<ul> <li>Recording files are located. File list numbers are different depend on Micro SD memory card's capacity</li> </ul>	
③ Event (Event recording)	- Event data (Impact, Parking, Movement) are located	
Update (Firmware update)	- Locating update file in this folder, the updating will start automatically	

## BEFORE 3G/LTE CONNECTION

#### 3G/LTE USB MODEM (OPTIONAL)

The dash camera is able to use 3G/LTE modem for network communication. It supports below 3G USB STICK MODEL.

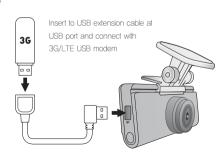


SUPPORT 3G USB STICK MODEL: HUAWEI E8372

#### HOW TO SET THE APN

#### It is necessary to verify 3G/LTE module modem only first time

- Insert the LTF module into the PC. If so APN setting page will pop up automatically
- Put the log in ID is 'admin' and password is also 'admin' (It is default)
- 3 After log in click the [Profile Management] at the menu
- Click the [New Profile] button and enter your APN information
- 5 Complete the APN setting.



## HOW TO USE G-SYNCLOUD

#### BENEFIT OF G-SYNCLOUD

- · Unlimited storage capacity beyond the limitation of dash camera storage
- · Effective Fleet Managment System
- · Main feature: Live view streaming, Live GPS tracking, Geo-fences, Driving reports,

#### PRECAUTIONS WHEN USING THE G-SYNCLOUD

- After join the G-syncloud member, you must enroll the vehicle information at G-syncloud server.
   Otherwise the dash camera data will not be stored in the G-syncloud server.
- · After checking the 3G/LTE internet module, connect with the dash camera

1) join the G-syncloud member and 2) enroll your vehicle information.

#### JOIN THE G-SYNCLOUD MEMBER

1 Please access the http://www.gsyncloud.com and click the "Sign up" button,



2 Put your information and click the "Sign up" button,



#### ENROLL THE VEHICLE INFORMATION

Settino

When you log in the G-Syncloud server at first time, click setting icon from the top menu.



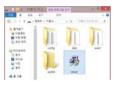
- 2 Click the green + button and enroll the vehicle information
- 3 After you put the detail information and insert the serial number of vour dash camera.
  - Once the vehicle registration is completed, the data of the dash camera will be stored in the G-Syncloud server automatically.



## PC VIEWER INSTALL ATION

- 1 The PC specification should be over "CPU is 3.0 GHz, Memory 4GB" to play the Full HD If the PC specification is lower than standard, it is possible to happen "No-play back" or disconnect
- 1 PC viewer program is not installed in case of first use or when format the memory card.
- 2 Insert the Micro SD memory card and turn on the device,
- 3 Depends on the capacity, the recording time will be different, At first use, take 3~5 minutes to initialize and create the file system (All LED flicker while initializing, After it starts recording, REC LED will turn on) Therefore do not turn off the power
- 4 Insert the Micro SD memory card to PC

Install the [Viewer,exe] file in the Micro SD memory card as picture shown



Click the [YES] button on the user control menu



Click the [Next] button and click the [Installation] button



Confirmation the latest version pop-up will appears as picture shown if network is connected

If there is no internet connection PC Viewer program will be executed directly



- 9 Click the [Execute a viewer] button to start viewer program
- 10 When the installation is completed, the PC Viewer program runs automatically and Gnet icon and will be created on the computer.



11 [Open the file] - When click the button, the browse folder will appear like picture, And select removable disk, Press [OK] button,



## PC VIEWER MENU



- (1) Recording File list
- Q GPS reception Available only when installed GPS.
- Google MAP
   Only available when there is GPS connection.
- Screen Switch, Switch Color / Black &White Mode
- (5) G-Sensor(Acceleration) Graph
- 6 Playback speed
- 7 Volume

### (8) Playback Recording

_	
<b>①•</b>	Reverse Play, Normal Play
(1)	Pause
Q	Repeat event
	Step Reverse, Step
M M	1 Frame Play

Speed meter
 Available only when installed GPS.

### 10 Video Control

	Thumbnail
	Drawing a lane
	Print
<b>(a)</b>	Backup
	Setup
<b>(</b>	Open file

#### HOW TO CHECK THE G-SENSOR DATA



 When play the video, you can check the G-sensor data of X-axis (direction), Y-axis (left and right), Z-axis (height).



(Enlarge G-sensor Data)



- 1 Locating where recording is playing
- 2 Data and graph (G-sensor data)

## BEFORE WI-FI CONNECTION

#### PRECAUTION BEFORE CONNECT THE SMART PHONE

We provides Android and iOS platform. Please search "GNET" on Google play or App store. Or use the QR code









- Real time video and playback can be delayed depending on Smart phone specification.
- Do not handle the device while driving, it causes serious accident,
   Please handle the device after parking/stopping,

### Wi-Fi USB dongle sell seperately as optional product

- Wi-Fi USB module information: Compatible with only "RealTek 8188CUS(RTL 8188CUS, RTL 8188EU)" chip
- Wi-Fi USB module connection: Connect the Wi-Fi USB module when power is off. Otherwise it might cause the damage of Wi-Fi module.

## SMART PHONE CONNECTION

#### HOW TO CONNECT - ANDROID

Execute GNET app icon after installation to smart phone device.



2 The screen of GNET app is horizontal fixed type. The message to guide registration when first use, If select "No" to terminate the application or select "Yes" to go product registration page.



3 It is searching and displaying registered dash cams with image, SSID and model.

Before select the registered products, please keep the standby mode by pressing the Wi-Fi registration button of front camera,



When you press the Wi-Fi registration button of product, there will be voice quidance "Stand- by mode for the registration" and select the product in the list to register. If you want to research dash cam. Press "Search" button.

2 minutes for registration stand-by mode.

If there is no Wi-Fi connection or time over, the voice guidance will come out "Stand-by mode for the registration is released."



Dash cam maintain devices information which were connected once, user does not need to do registration again.

6 Registration process is finished as right picture shown, User can modify dash cam name as what user want







05





- 1 "Setting" icon: Setup the dash camera easily by smart phone Dash camera will reboot after save the new setup
- 2 "Add" icon: Move to registration page
- (3) "Connect" icon: Check the real time recording video after registration.
- 4 "Delete" icon: Delete the registered dash camera

\* The menu bar will appear at the bottom of screen if touch the screen during real time streaming.

#### HOW TO CONNECT - iOS

1 Execute GNET app icon after installation to Smart phone,



- 2 Turn on Wi-Fi function of Smart phone,
- 3 Select "GNET\_BB\_N2\_XXXXX" in Wi-Fi list,
- 4 Put [qwertyuiop] in the password window and touch the "Join" button



5 Press the Wi-Fi registration button of front camera to activate register stand-by mode, (Voice guidance: "Stand-by mode for the registration")

Registration stand-by mode will take 2 minutes,

If there is no Wi-Fi connection or time over, the voice guidance
will come out "Stand-by mode for the registration is released."



6 If press current playing video at bottom menu, user can check real time video,



7 If register standby mode is not activated or released, a message will show up like right picture, if so, try to press Wi-Fi button to activate Wi-Fi standby mode for registration,





- (1) "Connect" icon: Check the real time recording
- (2) "Search" icon: Play the recording files
- (3) "Settings" icon: Setup the dash camera easily by smart phone Dash camera will reboot after save the new set up
- (4) "Help" icon: Check the Wi-Fi setting help page

When it is playing video, Dash cam will not be recorded for stabilization. After it is changed to "live mode", the recording will be started automatically.

### Warranty Card

Product	GNET Dash cam		Model	N2
Serial Number			Purchasing date	
Consumer	Name		Tel	
Consumer	Address			
Vendor			Tel	
Period of free guarantee	Dash Camera Micro SD card			

\* If you would like to repair the product, please contact by e-mail address info@gnetsystem.com



www.gnetsystem.com/en 6F Lotte IT Castle II Gasan Digital 2ro 98, Geumcheon-gu, Seoul, Korea info@gnetsystem.com

