A partner in safe driving G-NET SYSTEM   **MARVEL**

IRON MAN
2CH FULL HD HDR BLACK BOX

Quick Guide (rev01)

This manual only covers the most basic contents for using IRON MAN. For details about IRON MAN, please check the contents on the web site (http://www.gnetsystem.com).

Equipment name : Car accident video recorder (IRON MAN) / Year of manufacture : listed in product box
Manufacturer / Country of Origin : GNET SYSTEM CO., LTD / Korea / Certification Number : R-R-TLP-IRONMAN

Scope of warranty and liability
1. Typical memory storage devices have a usable life, and data may be lost due to storage life and data or external voltage shocks. Be sure to copy important storage data to another storage device.
2. Except for damage caused by the failure of this product or loss of stored data, our company shall not be liable for any damages.

Manuals and specifications are subject to change without notice to improve quality.

Micro SD Memory Precautions

- Micro SD memory is a consumable product with a read/write life due to its nature. Regular management is required as the recording may not be possible during prolonged use.
(Please note that we will not be liable for recording errors due to out-of-lifespan memory.)

- Third-party Micro SD memory purchases may cause compatibility issues with the product, so please purchase our memory. Memory not provided by us will be excluded from A/S.

- In the event of a car accident, take out the Micro SD memory and store the recorded video on your computer. The recorded images will be overwritten sequentially by regular recording, etc, and the accident images will be erased.

- Turn off the product and make sure the REC LED is off before removing the Micro SD memory. The recorded video may be damaged, or the Micro SD memory may be damaged or its life may be shortened.

- If there is any data other than IRON MAN-only program and a recorded video provided in Micro SD memory, it is automatically deleted to improve stability. (Do not use the memory card you are using in the dash cam for any other purpose. It will be automatically deleted when inserted to the product.)

- Our dash cam can be used without formatting with its own JDR file system. However, it is recommended to format memory more than once a month because there may be hardware errors. Download the SD Formatter program from http://www.sdcard.org and check the Micro SD memory.

- For the Micro SD memory card used in this product, we recommend the GNET SYSTEM memory card. Other memory cards may not work properly, Micro SD memory can support minimum: 4GB and maximum: 256GB.

- If you install Micro SD memory card for the first time or after formatting, it takes about 3 ~ 5 minutes for Micro SD memory check and data generation depending on the capacity of Micro SD memory. Do not turn off the power or remove Micro SD memory during operation. — If Micro SD memory is removed during data generation, it may not be recorded.

Product Specifications

Image sensor	Full HD CMOS sensor
Audio input	Built-in microphone
Video compression	H.264
Audio compression	ADPCM
Recording resolution	Front Cam 1080P(1920X1080P) / Rear Cam1080P(1920X1080P)
Frame per second	Front, Rear Max 30fps
Vibration sensor	Event recording by impact
Voice Support(Speaker)	An audible alarm and voice guidance for operational status.
External GPS sensor	Location & speed recording, based on Google map (Optional)
Lens	Front : about 150 degree wide-angle lens Rear : about 140 degree wide-angle lens
Viewer	– Windows XP /VISTA / 7 / 8 / 10, 32Bit / 64Bit supported – Google maps is supported from Windows 7 under Google policy – Internet Explorer 10 or higher required
Power	DC 12V ~ 24V
Acceptable current value of the supplied fuse	3A
Operation Temperature	–20℃ ~ 80℃ (Storage : –20℃ ~ 90℃)
Humidity	10 ~ 95%
LCD(Touch)	480X320 Capacitive LCD touch screen

※ Some specifications of this product are subject to change without prior notice for quality improvement.

Estimated recording time by SD card capacity

16GB(About 2 hours), 32GB(About 4 hours), 64GB(About 8 hours), 128GB(About 16 hours), 256GB(About 32 hours)

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4 Depending on the vehicle, the front angle may be different. It is recommend to hold a dash cam vertically based on a regular passenger car.

5 Connect a direct power cable to the fuse box terminal inside the vehicle. [Connect a direct power cable to fuse box terminal which is always power-supplied, even if the ACC is cut off to trunk, emergency light and door lock.] Connect the DC power jack and the USB cable for a rear camera to the connection terminal on top of a dash cam.

■ When using power cable with 2 wires, tie and connect ACC and VCC lines to the terminal, and then change the setting to 2 wire mode. Configuration path : Setup → System → Voltage management → LBP → 2 wires / 3 wires

6 Remove the tape-cover attached to the rear camera cradle and attach it to the appropriate position on the windshield of vehicle. Connect the rear camera cable connected to the main unit to the rear camera.

■ When working with a rear camera cable, if the line is bent as shown in the picture, the data flow may be interrupted and a recording error may occur. Please be careful.

Precautions for safe use

All rights to the product are in GNET and are protected under copyright law. Unauthorized copying, modification and distribution without prior consent of GNET may be subject to criminal penalties.

- Do not expose the unit to excessive shocks or debris.
(This may damage the product or cause fire and electric shock.)

- Avoid excessive fanning or special glass as much as possible.
(The images could be blurry or distorted and it may cause a problem to GPS reception rate.)

- Do not disconnect or modify the product at your discretion.
(We are not responsible for any damage caused by user tampering)

- While driving, please refrain from checking or operating the product for safety.

- When cleaning the inside of vehicle, do not use water or volatile chemicals to clean the product.
(They may damage the product or cause fire and electric shock.)

- If it is not used for a long period of time, the time of the product may be reset. Please always check the time. (Excluded when connecting external GPS)

- When exposed to direct sunlight for a long period of time, recognition error of SD card and camera image distortion may occur due to temperature increase inside vehicle. If outdoor parking is required for a long period of time, disconnecting power may help to use your dash cam without any problems

- Avoid high temperature or high humidity environment for normal operation of the product.

- Please periodically check if the equipment operates normally.

- Check the rear camera operation on the LCD live screen periodically before driving. If the rear camera is not working, the rear image will not be output and only the front image will be recorded.

- Beam operation while parked affects vehicle battery consumption.

- When an impact event occurs, the beam may be reflected on the windshield depending on the angle.

Product Components

Basic Components

Front / rear camera (Including a bracket) | Rear camera connection cable | Power cable | Memory | Quick guide

Components – Optional

External GPS | Cigar Jack | Wi-Fi dongle | OBD scanner

❗ Please make sure that all the above components are included.
(External GPS, cigar jack, and Wi-Fi dongle are sold separately)

※ The image of the component may differ from the real.
※SD MEMORY is recommended for the dedicated SD card of GNET.
※The contents of this product are subject to change without prior notice for improvement of product performance.

HDR function features

HDR OFF	HDR ON

As shown in the picture above, it shows clear recording quality under various lighting conditions such as light shake, tunnel, and backlight when driving at night.

Product installing

Inserting a memory card

❗ Be sure to read the precautions before using Micro SD memory.

Connecting a dash cam to a vehicle

1 Insert the Micro SD memory and slide the cradle from the left side to the right side to fit with the top part of the camera as shown in the figure. ② Push the cradle until the "click" sound as shown in the picture

2 Remove the tape-cover attached to the cradle.

3 Select and attach the attachment location and then turn a knob to adjust an angle of recording of a dash cam. At this time, be careful not to obstruct the front of the lens. ※Please be careful for a dash cam not to obstruct the view of a driver.   20%

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7 Arrange power cables inside the vehicle using the cable living holder.
■ It is recommended to install the power cable to the driver's seat side and to install the rear cable to the passenger's seat side when arranging the cables, as it may cause a problem in GPS reception of navigation.

Setting the beam

Tap setup→System→S–LED/Beam to go to beam settings.

There are beam on / OFF setting to decide whether to use the beam & beam setting in parking mode.
■ While beam on/off setting is off, parking mode beam setting is not available.

Beam on/off can be set and you can set the time interval in case that beam on is set (Time interval: 10 min (30 min /1 hour /3 hour)
※ The beam turns on for 20 seconds at each set time interval.

Product usage explanation

How to operate a product – Main screen.

When the product is turned on, the following screen is displayed on the LCD along with the message "Start recording"

① Play - Play a recorded video back.
② LCD off - Touch to turn off the LCD screen. After the screen goes off, touch LCD to turn it on again.
③ Live - You can check the current image.
④ Setup - You can change various settings.
⑤ Wi-Fi - When you touch the Wi-Fi button, you will hear the voice "standby mode for the registration". If there is no connection for 2 minutes, it is automatically disconnected. If you touch the button again, the announcement voice comes out.
► ◄ = Wi-Fi module is not inserted in the equipment ► ◄ = Wi-Fi module is inserted in the equipment
⑥ Power Off - The system will shut down. ※ If you shut down the dash cam by pressing the power button, you must press the power button again to restart the dash cam.
⑦ BEAM - Beam LED turns on for 20 seconds when arc atom mark is tapped. It touched once again within 20 seconds, lighting time is extended for 20 seconds.

Touch calibration

If LCD touch doesn't work well, you can adjust the touch. Follow the instructions on the screen and touch the center of the cross in order.

Touch the center of the cross in each calibration.

※ Press the power button three times more than 0.5 seconds on the main screen. Calibration screen will come out.

ADAS Feature Description

❗ Lane detection, front car departure and collision alarm icons can be only viewed when LCD in live screen.

※ To increase ADAS recognition rate, it is recommended to install a dash cam at the center.
※ At night, ADAS recognition rates may be reduced.

① Lane departure detection : a function that notifies you when you are out of lane
As shown in the picture, if the lane is detected while driving, the green dot is displayed. When you are being out of lane, the red dot is displayed as shown in the above picture and a notification sounds. Please be noted that Lane Departure Detection alerts only work at or above the set speed.

② Front car start : A function that informs the driver that the front vehicle has departed as shown in the picture
If the distance from the front car is more than 2 meters during the stop, the front car start icon is displayed on the LCD screen with a notification sound.

③ Collision alarm : A function that notifies you when there is a risk of collision with the car ahead
When the distance from the front car is short and the vehicle speed is fast. When the distance from the front car suddenly decreases in a short time, the Collision Alarm icon will be displayed with a warning sound.

Smartphone connection

How to connect a smartphone – Android

1 After installing Gnet app, run it on the smartphone screen

2 Tap Wi-Fi button of the dash cam, You can hear a voice message "standby mode for registration".
The registration standby mode keeps for 2 minutes. When the time elapsed, the voice guidance "standby mode for registration is released" will come out.

3 Tap "Device registration" button in the center of the mobile APP screen.
When Wi-Fi search is complete, select any dash cam that you want by using the left and right arrows and then click the button "Connecting Device".

4 The registration of the dash cam is completed. Press tap "Save" button. Information input is to distinguish when using multiple dash cams.

If the connection fails

Please go to "Customer Support" at the bottom of the mobile app screen for help with connection. If you still have difficulty connecting, you can contact our customer center for help.

APP Main Screen Description

① This function allows you to connect other dash cams or delete the registered devices.
※ This function is supported only on Android mobile.

② Real–Time Video - You can watch a real–time video.

③ Settings - You can easily change settings via your smartphone. After changing the settings, tap "Save" button. The dash cam will be rebooted.

④ Recorded Video - You can see a recorded video of the dash cam. The video that you need can be saved to the mobile device via download.

⑤ Customer Support - You can get help with connection via customer support on app or you can call get help by calling our customer support center.

Description for a recorded video screen [APP]

Real–time video and recorded video screens are provided in both portrait and landscape modes, so you can view the footages on a wider screen depending on the situation.

❗ While playback, your footage is not recorded to stabilize the product. Recording automatically starts when modes switched from a playback mode to a live mode.

Capacitive Touch LCD Operation method.

When dragging from the main screen to the left, the screen appears in the order [Main→) Setup→) System→) Main].

When dragging from the main screen to the right, the live screen appears.
* In the real-time screen, drag left or right to move to the main screen.

live screen

You can zoom in and out with two fingers on the live screen or on the recorded video playback screen
* If you want to view the image in its original size, press the LCD for about one second with one finger to return the image to its original size.

Player menu name

① Upper button - Save / Folder Open / Print / Settings
② Google Map - when GPS and internet are connected, it will work normally.
③ Playlists and Information Display
④ GPS reception window - It can be used only when an external GPS is connected.
⑤ Video control popup

⑥ G-sensor (acceleration) graph
⑦ speedometer - It can be used only when an external GPS is connected.
⑧ Play a recorded video

Thumbnail | Reverse and forward play
Lane drawing | Pause
View a video | Repeat event video
Split Views | Previous, Next Event
PIP Views | Play one frame
Switch to Color or Black Mode | Sound control

⑨ Adjust playback speed   ⑩ Sound control

How to check G-sensor data

(Magnification of G-sensor data)

① The location of the image currently being played
② Numerical values and graphs of three-dimensional coordinate system information (G-sensor data)

• When you play the video, three-dimensional coordinate system information (G-sensor data) on the X-axis (progress direction), Y-axis (left–right), and Z-axis (height) of the image currently being played at the G-sensor data location is output.

How to connect your smartphone – iOS

1 After installing Gnet app, run it on the smartphone screen

2 Tap Wi-Fi button of the dash cam, You can hear a voice message "standby mode for registration".
The registration standby mode keeps for 2 minutes. When the time elapsed, the voice guidance "standby mode for registration is released" will come out.

3 Turn on Wi-Fi in the Settings menu on your smartphone.

Settings	
Airplane Mode	
Wi-Fi	On

4 In the Wi-Fi tap, select a name that starts with GNET_BB_.
GNET_BB_XXXXX

5 Enter [qwertyuiop] in the password field and tap "Connecting" button.
Cancel   Enter Password   Join
Password   qwertyuiop

6 The connection to the dash cam is complete and Gnet app is available.

If the connection fails

Please go to "Customer Support" at the bottom of the mobile app screen for help with connection. If you still have difficulty connecting, you can contact our customer center for help.

G.NET SYSTEM
DASH CAM SOLUTION

IRON MAN

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