

IROAD N9F USER GUIDE

To ensure safety usage, please read this manual carefully before installation and follow the instructions herein.
Store this manual in a secure place for future reference.

IROAD reserves the rights to change or modify the contents of this manual at any time without prior notice.

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THANK YOU FOR CHOOSING JAEWONCNC IROAD VEHICLE RECORDER.

This manual contains how to operate product and guide Ovyou to use correctly, Please read carefully before using product.

Please read carefully and follow the instructions given. This manual will guide you through on the instructions for the device.

■ GUARANTEE AND SUPPORTING

- Available for download from the website at <http://www.iroadkr.com>
Global website address(Global - www.iroadkr.com / Singapore - www.iroad.sg / HongKong - www.iroad.hk / Malaysia - www.iroad.my)
- Dedicated viewer, latest firmware and other product information are available for download from the website.
- JAEWONCNC is not responsible for any problem occur if the product is used for obtained illegally.
- Though this product records and saves footages in the event of accident, it does not guarantee that every single accident scene is fully recorded.
- If the impact on the vehicle is minor, the accident scene may not be recorded as the impact sensor is unable to detect minor ones.
- The recordings obtained from the product might be used as a proof of accident. However, JAEWONCNC will not be responsible for any gain or loss caused by the accident.

■ COPYRIGHTS AND TRADEMARK

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- This manual is the property of JAEWONCNC, no one is allowed to attempt to make an unauthorized copy, edit and/or translate the manual
- IROAD is the trademark of JAEWONCNC. JAEWONCNC has rights to IROAD (Name, Design, Brand image), any unauthorized use of IROAD will result in prosecution.

■ VOLTAGE RELATED ISSUES

- Please make sure to use recommended voltage input.
Otherwise, it may cause the product not functioning well or even overheating which may damage the vehicle or the product itself.
- Do not disassemble or modify the product. Or else, it will be deemed as the user's fault and warranty will be voided.
- Make sure that the fuse cable is not being cut or damaged when attaching other electronic gadgets on the vehicle.
Otherwise, it may cause product failure, damage to the vehicle or user itself.
Recommended to use qualified uninterrupted fuse cable produced by JAEWONCNC.
- Unauthorized installation of the uninterrupted fuse cable may cause malfunctioning on the device. Different types of vehicle will have different kind of installation ways. (Please contact a professional engineer if you required any help regarding installation)

■ INSTALLATION

- Do not mount Vehicle Recorder in such a way that might block your vision while driving as it may cause an accident.
- Connect all the cables provided into the correct ports. Wrong connection or input may cause the product to malfunction.

■ THE RIGHT USE

- Do not connect to the device while driving (Viewing live recording etc), as it may causes serious accident.
(Please connect your device when the vehicle is stationary.)
- Do not apply significant pressure on the product - especially the lens. Otherwise, it may cause product to malfunction.
- Keep the product away from flammable and combustible liquids which may cause fire hazards.
- The quality of the image(s) captured could deteriorate when:
 - a. Driving during night time with bad surrounding area light.
 - b. The vehicle is passing through a tunnel
 - c. Temperature of the device exceeds optimal operating temperature
- The quality of the video recording might be affected due to the tinted, dirt or water stain on the wind screen.

■ MANAGEMENT

- Do not operate the device when being exposed to direct sunlight for a long period of time. Otherwise, it may cause device to malfunction.
- Please check the memory card monthly for the recording image and also reformat the memory card to prolong the lifespan.
- Do take note whether is there any error messages being prompted by the device and make sure to check that the device is working normally before and during driving.
- Do not remove the memory card / power cable during firmware update. As it may cause the device to malfunction or loss of data.

■ MEMORY CARD AND PRECAUTION

- Memory card has limited write cycle as different memory will reach its lifespan differently. Errors will occur when the lifespan of the memory card reached its limited usage such as unable to power up device or error message that cause the device to restart. Memory card lifespan depend on the times it read/write and also if the memory card is usage under high temperature or misuse of memory.
(Remove memory card without shutting down the device, etc)
- The device must be switched off when ejecting the memory card.
Otherwise, the memory card may be corrupted or the data stored might be erased.
- When not in use, store the memory card in the case provided. Avoid keeping under hot or humid environment as it may cause damage to the memory card.
- The use of a Genuine IROAD memory card is recommended as normally 3rd party memory card is for storage and not recommended for running 24/7 overwriting. There will be a 6-month warranty period from the date of purchase. It may cause to reduce life cycle of memory card if using with constant power cable.
- The lifespan of the memory card will be reduced due to constant writing and reading of data.
Therefore, to ensure the functional stability of the memory card, please format it at least twice a month and also check if the device is working normally.
- Product only permits the recording of files on N9F program. Any other files will be deleted or even damage the memory card.
- At first usage, it takes up to 5 minutes for the memory card to format before the device starts operating. (Depending on the memory capacity)
Please do not remove the memory card while the device is running as it will cause damage to the memory card and the device.
(Shut down the device before taking out the memory card)

| 4. PRODUCT OVERVIEW



3.5inch Touch LCD

3.5 inch Touch LCD
Easy to use with GUI



High Definition Vivid Front FHD/Rear HD 2CH

Front : FHD 1920x1080p 30frames
Rear : HD 1280x720p 30frames



Wi-Fi Support

Real Time Image (Live view recording) and playback is supported via Wi-Fi.
Customize settings and automatic updates are supported.



ADAS

Advanced Driver Assistance System
LDWS, FCWS, FVDW



SAFEGUARD for All Your Safety

Automatic LBP cut off voltage function is embedded
in the device to ensure the safety of the car battery.



Remarkable hardware supporting high performance

2.0 Mega Pixel image sensor
ARM Cortex-A7 MP Core Processor V3



Memory Card Automatic Recovery Function

In case any error occurs,
data is automatically recovered.



NIGHT VISION

It specialized for more clear recording at night time.
It can be controlled On/ Off.



Variable Recording Mode

Automatic Parking Mode and Motion Detection function
Impact, 24 hours Recording Mode



High Intensity Security LED

High intensity LED light enable user to check
whether the device is operating during parking or driving mode.



Voice Recording & Voice Guidance

High quality Sound Recording
Clearer Voice Guidance by built-in speaker



External GPS

Driving information through external GPS
Time, driving path, direction with recorded video



Dedicated PC Viewer & Smartphone Playback

Setting & various functions on IROAD PC Viewer and Smartphone.
Playback functions are available for both PC and Smartphone.



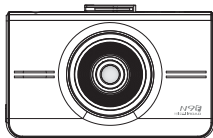
Firmware Update

Continuous improvement and performance maintain
product stability. Easy and simple upgrade through
website www.iroadkr.com or smart directly.

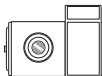
5. PACKAGE COMPONENT

Basic Components

- All pictures shown are only for illustration purposes only.
- The picture of this package may differ from the actual product.



Front Camera



Rear Camera + Cradle



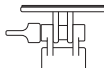
Uninterrupted
Fuse Cable



User Manual



Wi-Fi Dongle



Cradle



IROAD Genuine
Micro SD



Rear Camera Cable

Optional Items

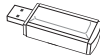
- All pictures shown are only for illustration purposes only.
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Cigar Jack
Power Cable

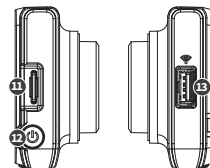
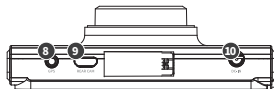
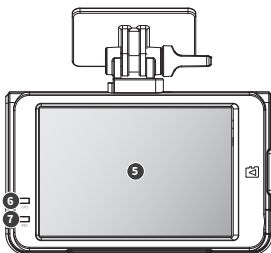
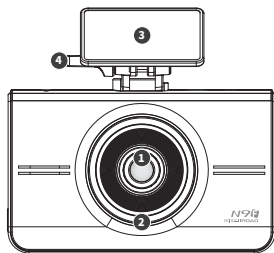


External GPS
Antenna



SD Card
Reader

| 6. NAME OF EACH PART



- | | | | |
|-----------------------------------|---------------------------------------|------------------------------|----------------------------------|
| 1 Camera Lens | 6 GPS LED | 11 Micro SD Card Slot | 14 Rear Camera Cable Slot |
| 2 Security LED | 7 REC LED | 12 Power Button | 15 Security LED |
| 3 Transparent Cradle | 8 ExternalGPS Connector | 13 Wi-Fi USB Slot | 16 Camera Lens |
| 4 Cradle Screws | 9 Rear Camera Cable Slot(V-IN) | | 17 Transparent Cradle |
| 5 3.5inch Touch Screen LCD | 10 Power Connector(DC-IN) | | |

7. SPECIFICATIONS

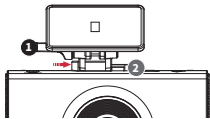
· Menu and function can be changed without prior notice by sudden firmware upgrade or product enhancement.

Model	IROAD N9F
Image Sensor	2.0 Mega Pixel Image Sensor
CPU	ARM Cortex-A7 MP Core Processor V3
Resolution/Frame/Viewing Angle	Front : 1920x1080 30fps, Rear : 1920x1080 30fps / Front : 142° , Rear : 135°
LCD	3.5 inch 480x320 Panel
Wi-Fi	Wi-Fi supported - Smartphone playback/settings, Firmware automatic upgrade
Power Button	Power On/Off, LCD Touch, Wi-Fi On/Off
ADAS	LDWS, FCWS, FVDW
Audio Input	Embedded MIC
Video/Audio Compression	H.264 / ADPCM
Vibration Sensor	3-axis acceleration sensor (Start recording when it senses external impact)
External GPS Sensor	Synched with Google map, inform the location and traveling speed of the vehicle
Storage Medium	Micro SD 16GB ~ 256GB (Class10)
Recording Mode	Driving, Event(Impact), Parking(Motion detection)
Uninterrupted Power	Low voltage cut-off, overheating prevention is embedded
Power Supply / Power Consumption	DC 12V / 24V , 2.0W
Operating Temperature/Humidity	-30 ~ 75°C (Storage temperature : -30 ~ 90°C) / 10 ~ 95%
LED	Security LED
Viewer	IROAD PC Viewer : Window 7/8/10 (32Bit/64Bitsupport), Mac (OS X 10.7 64Bit and higher version)
Application	IROAD App (Android 6.0, iOS 10 or higher version)

8. INSTALLATION

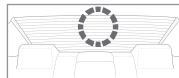
• Menu and function can be changed without prior notice by sudden firmware upgrade or product enhancement.

■ Mounting a Cradle for Front Camera



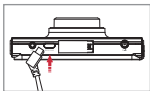
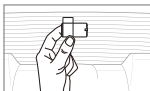
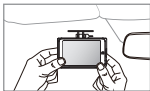
Tuck a transparent cradle(1) into the main body(2) and then push the cradle in.

■ Placement for Dash Camera (Front/Rear)



- Use dry cloth to wipe the area on the windscreen where the device will be installed on it.
- Make sure to install the device where the vision will not be blocked during driving.

■ Product Installation



1. Wipe the windscreen with soft cloth to remove any stains or dust where the product will be attached on.
2. Remove the protective film from the adhesive tape on the front/rear camera before installing it.
3. Connect the rear cable into both front and rear camera port.

Please make sure the rear cable connected to both side of the rear sockets are secured after installation.

9. INSTALLATION

• Menu and function can be changed without prior notice by sudden firmware upgrade or product enhancement.

■ Product Installation



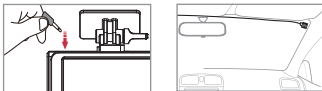
4. Connect power cable to DC-IN slot

5. At the other end of the cable, connect it to the vehicle fuse box or cigar jack power.

**Procedure on installation for uninterrupted fuse cable,
Please refer to page 10 or FAQ for connecting fuse power cable.**

6. Make sure that the product is operating normally

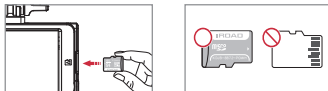
■ Connection External GPS



When connecting External GPS into the GPS port which can be found on the top of the device, user will be able to access the GPS function which provides the vehicle speed, location and other additional information.

Please make sure to have some distance between the device (Front Camera) and the GPS to prevent any interference issue.

■ Inserting Memory Card into the Device



• Make sure to insert the memory card in the correct way.

Once the memory card is being inserted into the memory card slot, user will be able to hear a "click" sound.

At first usage, it takes up to 5 minutes for the memory card to format before the device starts operating. (Depending on the memory capacity)

Recording starts with a voice guidance mentioning "Start recording"

| 10. UNINTERRUPTED FUSE CABLE

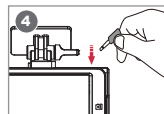
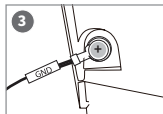
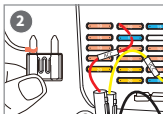
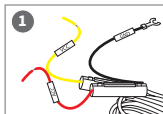
· Menu and function can be changed without prior notice by sudden firmware upgrade or product enhancement.

■ Uninterrupted fuse cable (LBP function)

The LBP function will prevent the car battery from continuously discharging during parking mode when the device detected the voltage dropping below the preset voltage.

(If you park for a long time, battery discharge may occur depending on the vehicle condition.)

■ How to Install Uninterrupted Fuse Cable



- 1 Find the correct fuse terminal using electric tester to locate the fuse box of the vehicle.
- 2 [VCC]Line (Yellow Line): Make sure engine is off and connect to a current flowing fuse.
[ACC]Line (Red Line): Connect to the fuse which the electric current is not present.
- 3 Connect the GND wire to the vehicle ground iron part.
Do not connect the wire on fuse that is not working or having voltage leak.
- 4 Connect the power cable to test whether the product is operating. Once confirmed, organize the wiring cables neatly.

• User is advised to check the wiring before doing any installation.

There might be a switch of (VCC,ACC,GND) wire color. Please do contact professional technician if you required any help on installation.

• Please do switching test (Driving mode <-> Parking mode) before wiring.

| 11. PRODUCT OPERATION

• Menu and function can be changed without prior notice by sudden firmware upgrade or product enhancement.

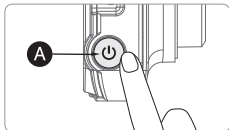
■ Product Operation

Power ON	<ul style="list-style-type: none">- All LED will be turned on when the engine is on.- There will be a voice guidance to assist the user once the device starts recording.- GPS LED light will be off when there's no GPS connection.
Power OFF	<ul style="list-style-type: none">- All LED will be off when the engine is off or the power cable is disconnected.
External GPS	<ul style="list-style-type: none">- While external GPS is being connected, the GPS LED light will flicker. (GPS LED light will be constantly on when connected to the satellite.)- Please check the connection again if the LED light is not on despite having installed with external GPS.
Wi-Fi User Registration	<ul style="list-style-type: none">- Press the Wi-Fi registration button on the device, there will be voice guidance (Standby mode for registration). User will need to select the product on the list that they wish to register.- The "Standby mode registration" will be deactivated after 2minutes.

| 12. BUTTON SCENARIO

· Menu and function can be changed without prior notice by sudden firmware upgrade or product enhancement.

■ Button Scenario 1



Power OFF	<ul style="list-style-type: none">- Press and hold the button A for 5 seconds long.- “Shut down the system.” will be signaled, and the device will be powered off.
Power ON	<ul style="list-style-type: none">- Press and hold the button A for 5 seconds long.- “Start recording.” will be signaled, and the device will be powered on.
Wi-Fi OFF	<ul style="list-style-type: none">- Press the button A for 1.5 seconds long. “Ding” sound will signal.- “Wi-Fi power is off.” will be signaled, and Wi-Fi connection will be unavailable.
Wi-Fi ON	<ul style="list-style-type: none">- Press the button A for 1.5 seconds long. “Ding” sound will signal.- “Wi-Fi power is on.” will be signaled, and Wi-Fi connection will be available.

※ When 'Wi-Fi OFF', the consumption power is reduced by 0.3w and the device operating time is increased by 10%.

※ 'Wi-Fi ON/OFF' function allowing Users to turn Wi-Fi power on/off. Do not confuse it with 'Wi-Fi registration button'.
When connecting to a smartphone, you must press 'Wi-Fi Registration Button'.

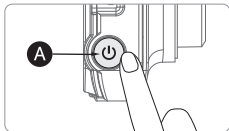
※ Smartphones that have already been registered previously, Users do not have to re-registered even if the Wi-Fi on/off function is used.

※ Default settings - Wi-Fi function is ON.

| 13. BUTTON SCENARIO

• Menu and function can be changed without prior notice by sudden firmware upgrade or product enhancement.

■ Button Scenario 2



Touch Calibration

- Press the button **A** 3 times shortly. "Ding" sound will signal.
- Screen will be switched to recalibration screen.

| 14. RECORDING MODE

• Menu and function can be changed without prior notice by sudden firmware upgrade or product enhancement.

■ Recording Mode

Normal Recording	<ul style="list-style-type: none">- Once the power is connected, the device will boot up and start recording.- Security LED flickers once every 1 seconds.
Event Recording	<ul style="list-style-type: none">- Once the device detects any shock (REC LED light will flickers), it will be recorded under Event recording mode.- It will switch back to Normal recording mode after the Event recording time is finished.
Parking Recording	<ul style="list-style-type: none">- Once the engine is turned off (ACC line), the device will automatically enter parking mode after 5 seconds.- Parking record with 10 frames per second in order to capture more recordings.- Security LED light flickers every 2 second.- Switch to Normal recording mode when the user starts to drive.
Motion Detection	<ul style="list-style-type: none">- Once the device detects any movement within 3 meters range, it will start to record- Security LED light will start to blink faster.- Once there is no movement, it will switch back to parking recording mode.

· Menu and function can be changed without prior notice by sudden firmware upgrade or product enhancement.

■ Voice Guidance 1

Start recording.
Shut down the system.
Stand-by mode for the registration
Complete the registration.
Stand-by mode for the registration is released
No Wi-Fi dongle
Users connected.
User access disabled.
Wifi power is on.
Wifi power is off.
Already registered smart phone.
GPS connected.
Recording does not have enough available. Please check overwriting setting.
User's searching starts so, recording is paused.
Start recording.
Driving mode to start recording. Safe driving.
Video is not being entered.
Records in parking mode.
Impact event has occurred during parking.

| 16. VOICE GUIDANCE

· Menu and function can be changed without prior notice by sudden firmware upgrade or product enhancement.

■ Voice Guidance 2

Shut down the system to protect the battery of car.
Restart the system to protect the battery of car.
Rear camera is connected.
Rear camera is disconnected.
Rear camera is invalid.
Video of the rear view camera is not being entered.
check the rear camera connection.
Switch to standby mode.
Setting changed and reboot.
Press the Wi-Fi button to register a smart phone.
"Reboot because of the damaged memory card. Please replace the memory card if this occurrence continues."
On formatting the memory card. Please wait.
Memory card is damaged and can not be recorded.
No Memory card.
Program file is corrupt and can not be installed.
On installing the program. Do not turn off the power.
Stop recording the voice.
Start recording the voice.

| 17. VIDEO FOLDERS IN SD MEMORY CARD

· Menu and function can be changed without prior notice by sudden firmware upgrade or product enhancement.

■ Memory Card Directory



Config



Data



Event



Update



Viewer

Config System Folder

- Log.txt : Saved device status
- System.cfg : Saved device settings
- Version.ini : Saved version information.

Data Normal(Driving) Recording Folder

- Normal recordings are being saved into this folder. The number of files being saved depends on the capacity of the memory card.
- Parking recording data is saved.

Event Event (Impact) Recording Folder

- Event data (Impact, Motion detection) is saved.

Update Firmware Folder

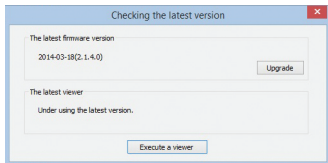
- Allow user to manually update the device firmware using the update file downloaded from our website.

Viewer Viewer Setup Program

| 18. FIRMWARE UPDATE

• Menu and function can be changed without prior notice by sudden firmware upgrade or product enhancement.

■ Automatic Update via PC Viewer Program

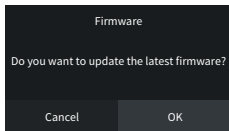


- 1 . Application will prompt an update message when the PC viewer program is being installed for the first time as shown on the picture above.
- 2 . If the user selects the upgrade button, it will automatically download the upgrade file into the memory card.
- 3 . Make sure the power cable is disconnected from the device first before inserting the memory card.
- 4 . Once the memory card is being inserted into the device, connect the power cable and start the engine.
- 5 . The device will format by itself and will prompt a message "Re-installing the program, please do not turn off the power."
- 6 . Once the device is being rebooted, this means that the update is done.

| 19. FIRMWARE UPDATE

· Menu and function can be changed without prior notice by sudden firmware upgrade or product enhancement.

■ Automatic Update [Wi-Fi]



[Message Pop-up]

1. Confirm the device is properly registered
2. Message Pop-up will be appeared when press the "Firmware Update" button on IROAD Application
3. Press "OK", Update will begin automatically
4. Please do not turn off smartphone and product while updating
5. once update completed, the device is rebooted and restart recording

· Menu and function can be changed without prior notice by sudden firmware upgrade or product enhancement.

■ Manual Update



Update

1. Disconnect the power cable.
2. Remove the memory card from the device and insert it into the card reader. Afterwards, insert the card reader into the PC. Once it is done, copy the downloaded firmware file into the memory card under the folder named "Update".
3. Insert the memory card back into the device.
4. Connect the power cable back into the device (DC-IN) port.
5. Turn on the engine. Make sure the engine is on.
6. The device will update and format by itself and the LED light will start to flicker. It will then prompt a message "Re-installing the program, please do not turn off the power."
7. Once the update is done, the device will reboot and starts recording.

| 21. MAIN SCREEN

· Menu and function can be changed without prior notice by sudden firmware upgrade or product enhancement.

■ Main Screen



When the system is booted, the camera starts recording with voice saying "Start Recording" and you will see the above footage on the LCD screen.

- **Live Screen** Check live screen
- **Playback** Play back the saved recordings
- **Setup** Manage various settings
- **LCD OFF** Touch LCD OFF button to turn off the screen. The screen is turned back on by touching the black screen.
- **Wi-Fi** Tap on Wi-Fi button, then you will hear voice guide saying "Standby Registration". The registration is to be done within 2 minutes, or else it will be disconnected automatically.
- **Safe Mode** System needs to be shut down before safely removing SD card.

When rebooting screen appears (refer to the right) after pressing the standby mode button, you can then safely remove the SD card. Reinsert the SD card, then press start button to reboot the system.
※Standby mode does not turn off the power, it only stops the recording.
Therefore, remaining in standby mode for more than an hour may cause battery discharge.

| 22. PLAYBACK

• Menu and function can be changed without prior notice by sudden firmware upgrade or product enhancement.

■ Playback



When the user selects the Playback button, it will show a list of saved recordings as shown on the picture above.

※ While watching the previous recordings, recording will be deactivated for the stability of the device.
Once the user return to the main screen, the device will switch back to recording mode.

- | | | |
|-------|--------|-------|
| Total | Normal | Event |
|-------|--------|-------|

 By selecting individual button (Total, Normal, Event) will bring the user to the folder which recorded files is being saved according to the time frame.
- | | |
|---|---|
| ◀ | ▶ |
|---|---|

 By selecting the left/right arrow, it allows the user to move to the previous/next page.
- Once the user select the saved recording that he/she wish to play, the chosen file will be played.
(Refer to the most right side of the picture above)

| 23. LIVE SCREEN


· Menu and function can be changed without prior notice by sudden firmware upgrade or product enhancement.

■ Live Screen



Tap on the live button on the main screen

※ Live PIP function is not available during ADAS is activating.

- While playing back a front camera recording, touch the screen once to convert to the rear camera view.
- Press return button  to return to main screen

| 24. CAMERA

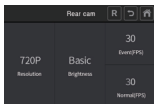
• Menu and function can be changed without prior notice by sudden firmware upgrade or product enhancement.

■ Camera1



Tap on the settings button on the main screen.

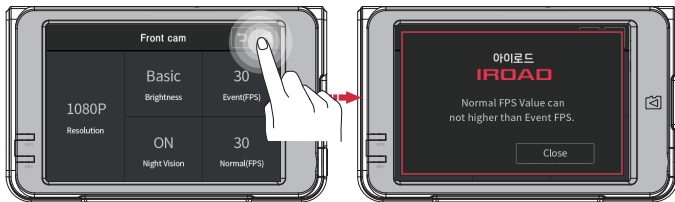
- Press 'Front cam' button to adjust the resolution, brightness of the camera, Night Vision and FPS of event and normal mode.
- Front camera is configurable with night vision to improve the recording definition during night time.
- IROAD N9F has a 'fixed resolution' of 1080P for front , 720P for rear camera.
- Rear images are mirroring recorded when press **R** button from the rear set-up



| 25. CAMERA

· Menu and function can be changed without prior notice by sudden firmware upgrade or product enhancement.


■ Camera2



- The value of Normal FPS(Frame per second) cannot exceed the value of Event FPS.

If you set the Normal(FPS) higher than the Event(FPS), the values will be automatically set according to the Event(FPS) value.

Changes made will be saved when returning to the main screen.

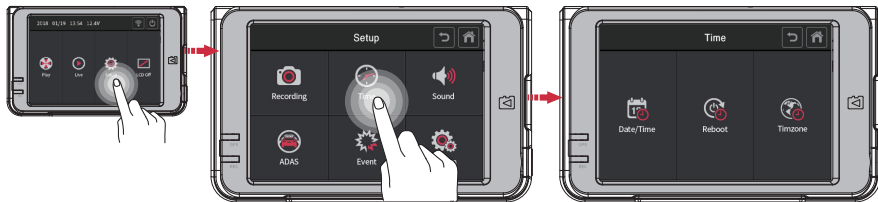
Please press 'home'  button to return to the main screen to save the changes.

Once the changes are made, the system will be rebooted and then the changes will be applied after that.
(Change of LCD hibernation time is applied right away without rebooting.)

| 26. TIME SETTING

· Menu and function can be changed without prior notice by sudden firmware upgrade or product enhancement.

■ Time Setting



Tap on time button on the setup screen to adjust date/time, auto rebooting time and timezone setting.

- **Date/Time setting** By selecting the date/time button, it allow user to adjust the date/time.
- **Automatic reboot** Activate/deactivate automatic reboot by toggling it and the time for rebooting can be scheduled by keying it in.
- **Timezone setting** By selecting the time zone button, it allows the user to adjust and set the configuration to their preferred country / region.

· Menu and function can be changed without prior notice by sudden firmware upgrade or product enhancement.

■ Sound

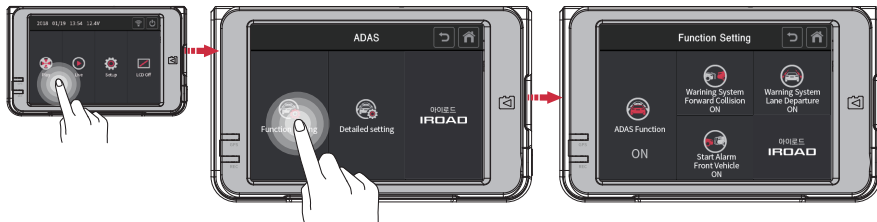


Tap on Sound button on the setup screen to activate/deactivate audio recording and voice guidance

- Volume setting Choose among Low/Basic/High.
- Audio recording Toggle it to turn on/off audio guidance.
- Voice guidance Toggle it to turn on/off voice guidance.

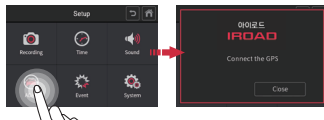
· Menu and function can be changed without prior notice by sudden firmware upgrade or product enhancement.

■ Function Setting



User can adjust the setting whether to on or off the ADAS function. [ADAS, FCWS, FVDW, LDWS]

- ADAS Function (Advanced Drivers Assistant Systems) ADAS Use / Not Use
- FCWS Function (Front Collision Warning Systems) FCWS Use / Not Use
- FVDW Function (Front Vehicle Departure Systems) FVDW Use / Not Use
- LDWS Function (Land Departure Warning Systems) LDWS Use / Not Use

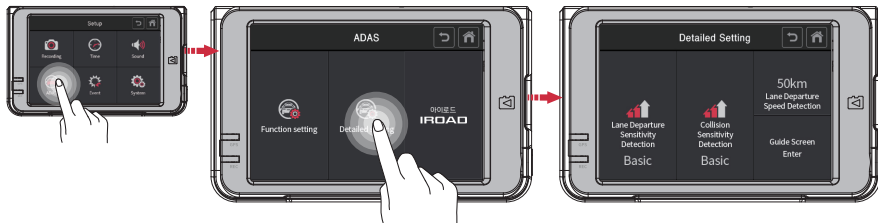


ADAS function is available when connected to GPS.

If you touch ADAS button without connection external GPS you will receive message to connecting GPS.

· Menu and function can be changed without prior notice by sudden firmware upgrade or product enhancement.

■ Detailed Setting



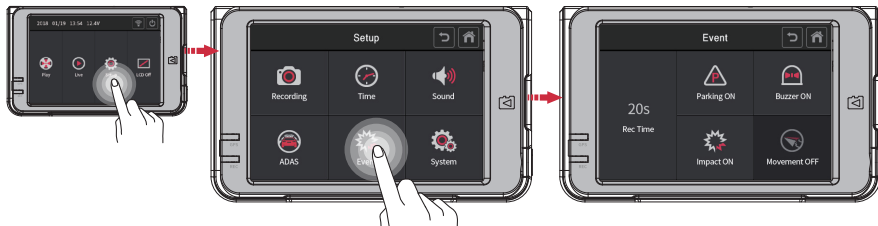
User can adjust the sensitivity of LDWS, FCWS and the speed for LDWS by selecting the “detailed setting button” as shown on the picture above.

- FCWS sensitivity Choose among Low, Basic, High
- LDWS sensitivity Choose among Low, Basic, High
- LDWS sensitivity Choose among 50, 60, 70km/h
- Guide screen setting Set blue and red guide line aligning to the intersection of the edge of bonnet.



· Menu and function can be changed without prior notice by sudden firmware upgrade or product enhancement.

■ Event



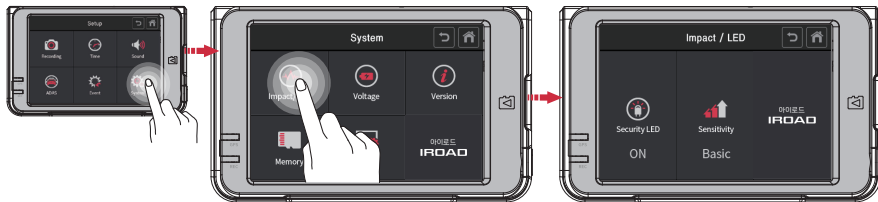
Select the Event button on the setup screen to adjust the parking/impact/motion settings, buzzer and recording time (When there's an event occurred).

- **Recording time** Steer the arrow shown to increase/decrease the recording time.
- **Parking mode** Toggle it to activate/deactivate continuous recording during parking.
- **Impact mode** Toggle it to activate/deactivate impact mode.
- **Motion detection** Toggle it to activate/deactivate motion detection function during parking.
- **Buzzer** Toggle it to turn on/off the buzzer.

| 31. IMPACT / LED

· Menu and function can be changed without prior notice by sudden firmware upgrade or product enhancement.

■ Impact / LED

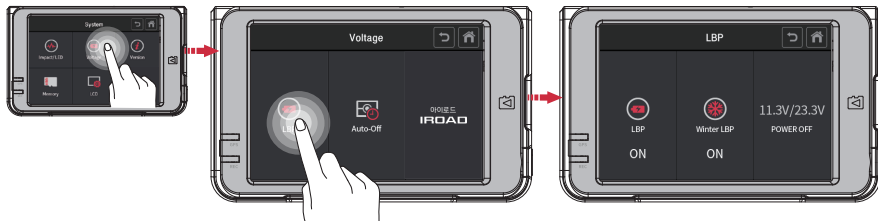


Tap on Impact/LED button on the system screen to adjust security LED and sensitivity while a car is parked.

- **Security LED** Toggle it to activate/deactivate security LED light.
- **Sensitivity** Choose among Low/Basic/High.

• Menu and function can be changed without prior notice by sudden firmware upgrade or product enhancement.

■ LBP



Tap on LBP button to voltage control, LBP on/off and winter LBP setting are available

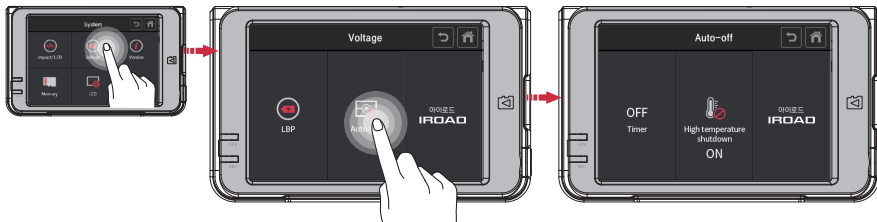
- LBP Toggle it to activate/deactivate LBP function
- Winter LBP Toggle it to activate/deactivate Winter LBP function (The cut-off voltage is fixed on 12.3V from Nov to Mar.)
- POWER OFF Tap on the Power button to adjust the power off voltage value.

	Voltage				
Power Off	11.3 23.3	11.5 23.5	11.8 23.8	12 24	12.3 24.3

| 33. VOLTAGE

• Menu and function can be changed without prior notice by sudden firmware upgrade or product enhancement.

■ Auto-off



Tap on Auto-off button to timer control, High temperature shutdown on/off and OFF Timer setting are available

■ Timer

Toggle it to set Timer function

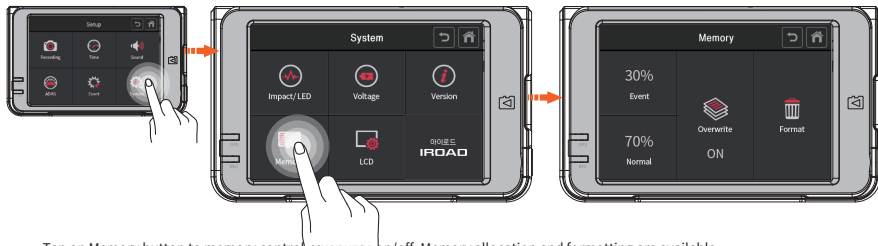
■ High Temperature shutdown

Once the temperature reaches (75°C) after parking mode, the power is being cut off automatically to protect the user's device.

| 34. MEMORY

· Menu and function can be changed without prior notice by sudden firmware upgrade or product enhancement.

■ Memory

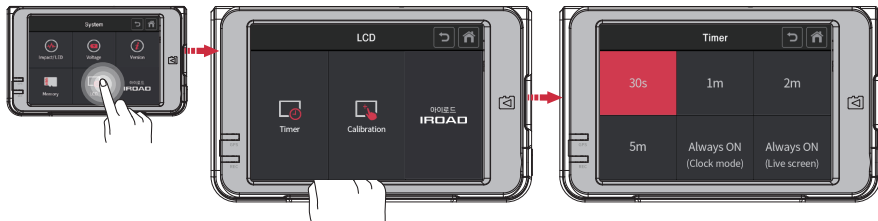


Tap on Memory button to memory control, Overwrite on/off, Memory allocation and formatting are available

- **Event & Normal** Change the percentage of memory space allocated between event folder and normal folder.
※Be aware that all the data will be lost once the setting is changed.
- **Overwriting** Toggle it to activate/deactivate loop recording.
- **Format** All the data on SD card will be removed and the system will be rebooted.

· Menu and function can be changed without prior notice by sudden firmware upgrade or product enhancement.

■ LCD



Tap on Timer button to LCD timer control, Always on (clock / Live), auto hibernation setting are available

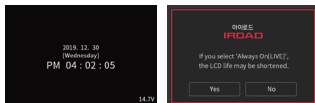
■ Auto hibernation

User can select the timer off timing that they wish to set, press the back button to save the configuration.

If the user select “Always ON (Clock) mode”, it will enable the device screen to project the status of the date, time and voltage instead.

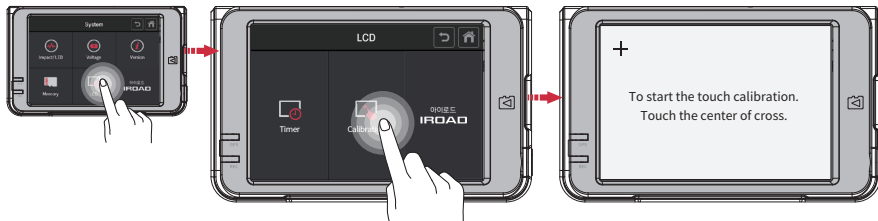
If the user select “Always ON (Live screen) mode, it will enable the device screen to project the live recording instead.

※ If choosing constant on mode, turning off function on the main menu is disabled and LCD lifespan may be shortened.



· Menu and function can be changed without prior notice by sudden firmware upgrade or product enhancement.

■ Calibration

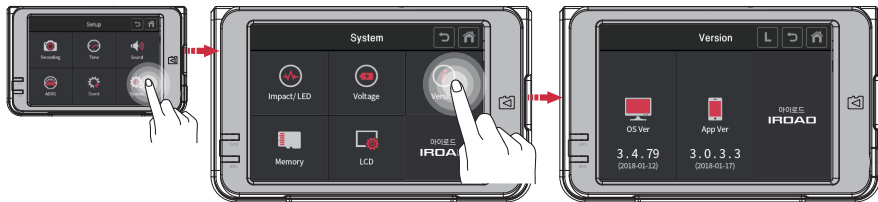


Tap on Calibration button to adjust touch correction

- **Calibration** Run touch correction when select on the screen if the touch screen is not smooth.
Follow the instruction shown on the screen.

· Menu and function can be changed without prior notice by sudden firmware upgrade or product enhancement.

■ Version



Tap on Version button to check installed firmware / application of Dash cam.

Tap on the LOG **L** button to see the history of all the previous events happened when the camera was in use.

| 38. INSTALLATION & RUNNING THE VIEWER

· Menu and function can be changed without prior notice by sudden firmware upgrade or product enhancement.

■ Program Installation

1. The viewer software is not pre-setup in the memory card.
2. Connect power to the product after inserting Micro SD card. Recording time could differ depending on the capacity of SD card.
3. Take 3~5 minutes to initialize and create the file system when first use.

(All LED flicker while initializing, There will be REC on when it starts recording after finishing) Insert the SD card into PC.

4. Run viewer.exe which is saved in the memory card.

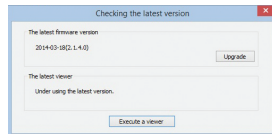


viewer.exe


■ Running the Program

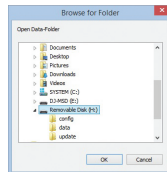
1. Confirmation pop-up window appears if there is internet connection as picture shown.

If there is no internet connection, IROAD VIEWER will run directly.



2. Press "run a viewer" icon to start viewer program.

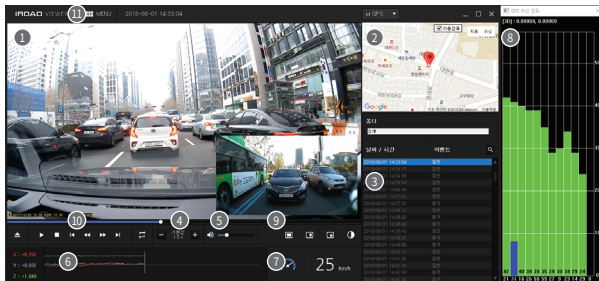
3. Open File - Click the icon  in the viewer to browse folder window as shown in the picture. Select removable disk, press "OK" button.



39. DEDICATED PC VIEWER

• Menu and function can be changed without prior notice by sudden firmware upgrade or product enhancement.

Overview



1 Front/rear image playback screen

2 Google Map
(Only when connected with external GPS)

3 Recording File List

4 Adjust playback speed

5 Volume Control

6 G-Sensor(Acceleration) Graph

7 Speed indicator
(Only when connected with external GPS)

8 GPS signal receiving window
(Only when connected with external GPS)

9 Front/rear image related

	Front/Rear image switch
	Cutting Front/Rear image in half
	Front/rear image PIP
	Color/Black&white mode switch

10 Playback Recording

	Open
	Play, Stop
	Repeat event
	Step Reverse, Step
	Previous/Next event

11 Menu

	Thumbnail		Backup
	Drawing a lane		Setup
	Print		

| 40. DEDICATED PC VIEWER

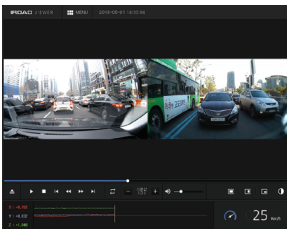
ROAD QUALIFIED VIDEO RECORDER OF VEHICLES **N9E**

• Menu and function can be changed without prior notice by sudden firmware upgrade or product enhancement.

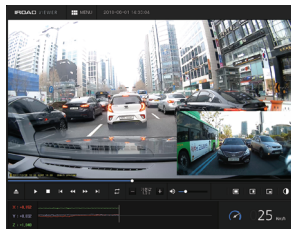
■ Watching Front/Rear Image



Click the icon to watch front/rear image



Click the icon to watch both front/rear in half



Click the icon to watch front/rear PIP

| 41. DEDICATED PC VIEWER

• Menu and function can be changed without prior notice by sudden firmware upgrade or product enhancement.

■ Enlarging a Screen



Double left click (mouse) on the main menu screen to expand to full screen.

Click the left button (mouse) to return to previous screen again.

■ Partial Enlargement of a Screen



Magnifier will appear, when right click (mouse) in playback screen. You can move the enlarged screen by holding the left button (mouse) and drag the screen to view other area of the recording.


The Magnifier will disappear if click the right button (mouse).

| 42. DEDICATED PC VIEWER

· Menu and function can be changed without prior notice by sudden firmware upgrade or product enhancement.

■ Repeating Event Playback

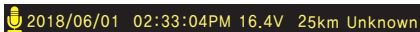


- Click "repeat event" icon  to activate repeat function from the main viewer screen. Section bar is activated.
- Select start and end point to playback repeatedly.
- This function is only available in a playback section.

■ OSD



- The information of speed, date and time are displayed in the lower left section of the viewer during playback.
- The date and time notation is applied to all backup files.





| 43. DEDICATED PC VIEWER

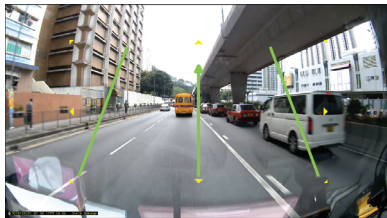
• Menu and function can be changed without prior notice by sudden firmware upgrade or product enhancement.


■ Thumbnail



- Switch to thumbnail function if click the icon  in the main viewer screen.
- This screen is composed of 16 pictures in total and each of the screen shows one scene.
- It show enlarged full screen if double-click the specific each of scene.
- Playback, Play backwards also show 1 to 16 pictures sequentially.
- Return back to normal mode if click the icon  again.

■ Drawing a Lane

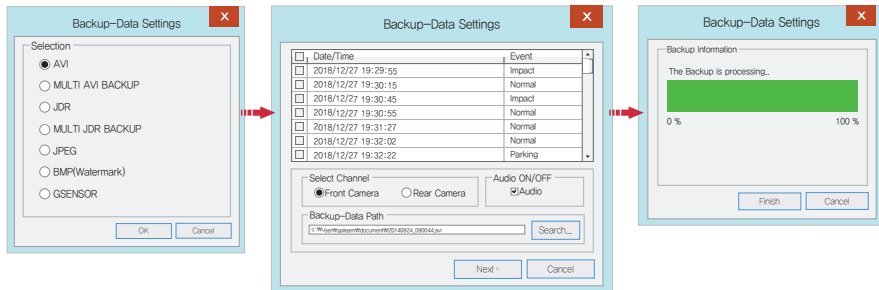



- Click to the icon  to "Drawing a lane" mode.
- User can apply the lane manually.
- Click the icon and choose 'deactivating lane drawing' to deactivate it.

44. DEDICATED PC VIEWER

• Menu and function can be changed without prior notice by sudden firmware upgrade or product enhancement.

■ Backup



- Click the “Backup” icon  in main screen menu.
- Backup settings provides a various type of video recording downloads such as AVI, Multi AVI, JDR, Multi JDR, JPEG, BMP and G sensor formats.
- AVI format file can be played on Windows Media Player or other Third-party Player as long as the player able to support the file format.
- JDR format file can be played back with dedicated IROAD viewer only.
- Images file can be opened with Image viewer or other image application.
- To download multi recording for AVI, selected the recording user wish to download by the time and date.
- Download will begin after selecting a download folder/path follow with the next button.
- AVI backup is available to use tamper-resistant function.
- User will be able to select download with audio or without by checking or unchecking the Audio Save button.

45. DEDICATED PC VIEWER SETTING

• Menu and function can be changed without prior notice by sudden firmware upgrade or product enhancement.

■ System Settings

Setup(H:/config/system.cfg)

System Event ADAS User Settings Removable Disk Version

Camera Settings

Forward-camera

1 Normal(fps) 30

2 Event(fps) 30

3 Brightness Default

Rear-camera

Normal(fps) 30

Event(fps) 30

Brightness Default

Rear camera reverse recording 4

☒ On ☐ Off

Night vision 5

☒ On ☐ Off

Audio Recording 6

☒ On ☐ Off

Auto Reboot 8

AM 03:00

SYSTEM will be rebooted every day for stability of operation.

Buzzer 7

☒ On ☐ Off

Security Led 9

☒ On ☐ Off

High temperature shutdown 10

☒ On ☐ Off

Km/h / Mph 11

☒ Km/h ☐ Mph

Use auto-off timer 12

☒ On ☐ Off

Timer setup 13

Time : 48 Hour

Standard time zone 14

(GMT +09:00) Seoul,Osaka,Sapporo,Tokyo

☐ Automatically adjust dock for daylight saving changes

Load Config Default OK Cancel

- 1 Normal(FPS) – Setting for Frame Per Second for normal recording.
- 2 Event(FPS) - Setting for Frame Per Second during event recording.
- 3 Brightness - Adjust the brightness of recording
There are 3 setting for brightness, Darkness / Default / Bright
- 4 Reverse (Rear) – Save with reversed image
- 5 Night Vision – ON / OFF is available
- 6 Audio Recording - Enable/Disable audio when recording
- 7 Buzzer - Alarm will sound when event have occur (Available to ON/OFF)
- 8 Auto Reboot - Auto Reboot - Reboot the device at the pre-set time
so that the system will do a check on the memory card
and also the device system.
- 9 Security LED - Select on/off (Only for front camera)
- 10 High Temperature Shutdown
- When the temperature limit is reached(75 °C) in parking mode,
the power is cut off to protect the product.
- 11 Speed Meter Display - Change distance notation, KM or Miles
- 12 Use Auto-Off Timer – After entering the parking mode,
the power is cut off by setting timer.
- 13 Timer Setup – Auto-Off timer setting
- 14 Standard Time Zone - Select exact time zone

46. DEDICATED PC VIEWER SETTING

• Menu and function can be changed without prior notice by sudden firmware upgrade or product enhancement.

■ Event Settings

Setup(H:/config/system.cfg)

System Event ADAS User Settings Removable Disk Version

Event

☒ IMPACT

☒ PARKING

☐ MOTION

Event Recording Time

Post-Alarm 1 30 20Seconds

Impact

Sensitivity Normal

Parking

Sensitivity Normal

Storage capacity of the event

Event 0% 100% Normal

CAUTION : If this setting is changed all recorded data is deleted.

Load Config Default OK Cancel

- 1 Event - Activate/Deactivate Impact/Parking/Motion function
- 2 Event Recording Time
 - Recording after an event: Able to set the recording after an event happen. (Available between 1~30 seconds)
- 3 Impact - Set the sensitivity for impact. (G-Sensor)
- 4 Parking - Set the sensitivity during parking mode. (G-Sensor)
- 5 Event Storage Capacity - Set the capacity storage for Event folder and Normal folder.

| 47. DEDICATED PC VIEWER SETTING

• Menu and function can be changed without prior notice by sudden firmware upgrade or product enhancement.

■ ADAS Settings

Setup(H:/config/system.cfg)

System Event **ADAS** User Settings Removable Disk Version

ADAS(Advanced Driver Assistance Systems)

1 ADAS ☒ On ☐ Off

2 Lane Departure Warning System ☒ On ☐ Off

3 Front Vehicle Start Alarm ☒ On ☐ Off

4 Forward Collision Warning System ☒ On ☐ Off

5 Sensitivity : Normal

6 Sensitivity : Normal

7 Speed : 50km/h

Load Config Default OK Cancel

- 1 ADAS : On / Off
- 2 LDWS : On / Off
- 3 FVDW : On / Off
- 4 FCWS : On / Off
- 5 Sensitivity of LDWS : Low / Normal / High
- 6 Sensitivity of FCWS : Low / Normal / High
- 7 Speed of Lane Departure : 50, 60, 70km/h

| 48. DEDICATED PC VIEWER SETTING

• Menu and function can be changed without prior notice by sudden firmware upgrade or product enhancement.

■ User Settings

Setup(H:/config/system.cfg)

System Event ADAS **User Settings** Removable Disk Version

Vehicle Info

Vehicle info 1

Driver Info 2

License plate No 3

User Info 4

User ID admin

Password

LBP 5

Auto Power Off

☐ 11.3V 23.3V ☐ 11.5V 23.5V ☒ 11.8V 23.8V ☐ 12.0V 24.0V ☐ 12.3V 24.3V

Winter LBP ☐ On ☒ Off

Time set 6

2018-09-24 PM 03:18

Load Config Default OK Cancel

1 Vehicle Info - Save vehicle information

2 Driver Info - Save drivers information

3 Serial Info - Enter product serial number

4 User Info

- No one can check the information if set password here.

- User ID - Enter login ID (Default: admin)

- Password - Set password for login (Default-None)

5 LBP (Low Voltage Cut-Off function)

Prevent car battery from discharging.

(Adjust the optimal voltage for the safety of your car)

6 Time setting

Set the exact time if not connected to an external GPS.

Set the time few minutes ahead considering travelling distance between PC and your car.

Allow user to manually set the date and time for the device.

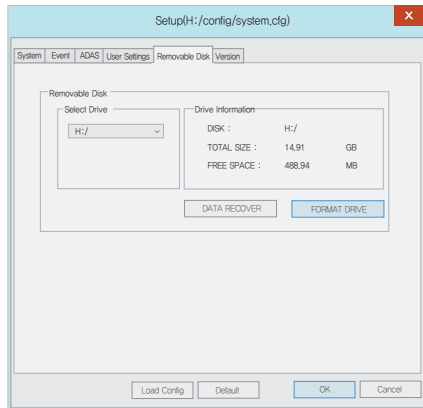
※ This is a personal information tab. Please prevent the information from leaking.

Be aware that user will not be able to view the recording if user fail to login when the password is forgotten. (SD card lock)

49. DEDICATED PC VIEWER SETTING

• Menu and function can be changed without prior notice by sudden firmware upgrade or product enhancement.

■ Portable Disk



This function is for formatting or recovering data from the memory card when there is an error or problem. Please do back up your data. Otherwise, the data will be lost once reformatted.

- Select the right drive for SD memory card
- Select the function
- All of data will be deleted if format the drive

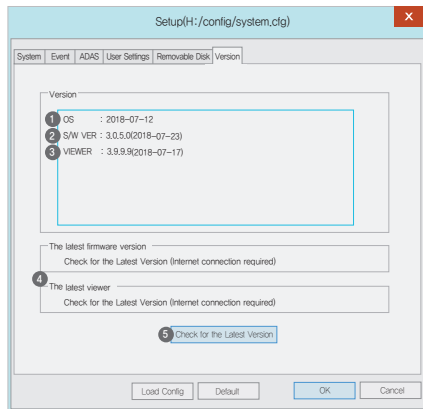
The performance of the memory card could be affected when used for too long. Proper management of memory card is important.

Please format or check the memory card once or twice every month in order to keep the stable recording condition and long usage of memory card.

50. DEDICATED PC VIEWER SETTING

· Menu and function can be changed without prior notice by sudden firmware upgrade or product enhancement.

Version Info



- 1 OS - Display OS information of product
- 2 S/W VER - Display Software information
- 3 VIEWER - Display viewer version information
- 4 Latest Firmware / Viewer
- 5 Click "Check for the latest version" to confirm the latest program version for the product.

- Make sure the internet is connected before firmware upgrade.

- If downloaded the firmware without SD card, Please copy the firmware file to "Update" folder directly.

| 51. SYNCING WITH SMARTPHONE

· Menu and function can be changed without prior notice by sudden firmware upgrade or product enhancement.

■ IROAD Smart Manager

- Available on Android and iOS device
- Please search "IROAD" on Google play store or Apple App store



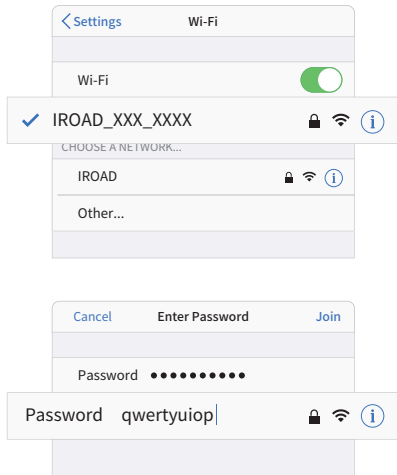
■ Before use

- Live view and playback via Wi-Fi connection will be able to delay depending on smartphone condition or specification
- Do not handle the product while driving, it causes serious accident
- USB Wi-Fi Dongle is optional purchasing and expendable item
- Press Wi-Fi button or icon on the device if there is voice guidance ("Registration standby mode")
Please confirm the Wi-Fi reception signal is strong enough or check Wi-Fi advanced option of smartphone which has to be being connected stably while update. (e.g "smart network switch" has to be off)
- There will be able to Wi-Fi drop out depending on surroundings
- Wi-Fi connect inside of vehicle is recommended for connection stability
- Saving frames of each may differ while Wi-Fi connected, Automatically recover once disconnected

| 52. HOW TO CONNECT

• Menu and function can be changed without prior notice by sudden firmware upgrade or product enhancement.

■ iOS



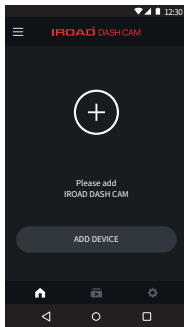
1. Turn on Wi-Fi
2. Select **IROAD_XXX_XXX** in the list
3. Write the password [qwertyuiop] and Join
(Password is all letters of second row of the keyboard)
4. Press the Wi-Fi registration button of the product to activate
"Registration standby mode"



53. HOW TO CONNECT

· Menu and function can be changed without prior notice by sudden firmware upgrade or product enhancement.

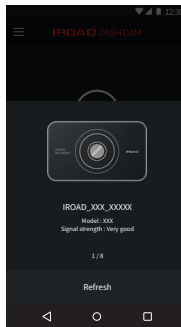
■ ANDROID



STEP 1

Register the product when first run the application

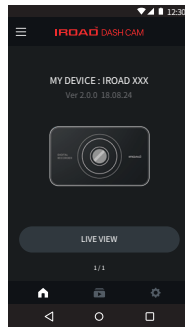
- Press the Wi-Fi registration button of the product to activate "Registration standby mode"



STEP 2

Smartphone is searching close located product with priority

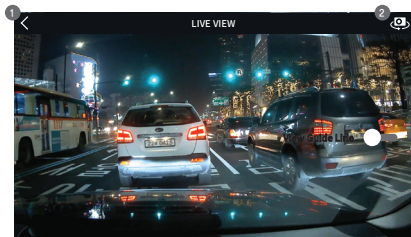
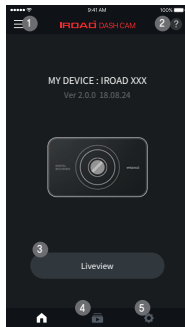
- The image, SSID and model are displayed
- Registration is completed when press the product image



| 54. MAIN MENU / LIVE VIEW

· Menu and function can be changed without prior notice by sudden firmware upgrade or product enhancement.

■ Main Menu and Live View



LIVE VIEW [FRONT, REAR]

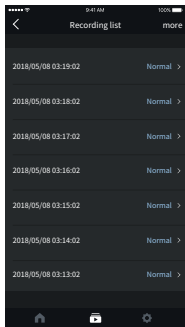
- ① Back button to the Main Menu
- ② Switch to front view and rear view

- ① Menu - Live view recordings, List of playbacks, Setting, Firmware update, Help
- ② Help - Description of smartphone connection
- ③ Live View (horizontal view)
- ④ Shortcut icon for playback
- ⑤ Shortcut icon for product setting
 - Once any changes are detected, setting will be changed and rebooting

55. LIST OF RECORDINGS & PLAYBACK

· Menu and function can be changed without prior notice by sudden firmware upgrade or product enhancement.

■ List of Recordings & Playback

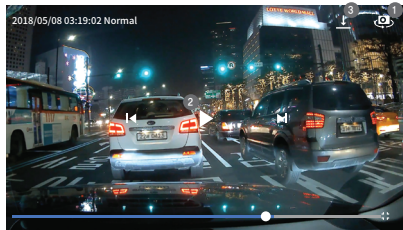


LIST OF RECORDINGS

Playback shortcut, display recording list (Normal, Event)

The latest recording is displayed at the top

Playback recording, press the "more" button to check older recordings

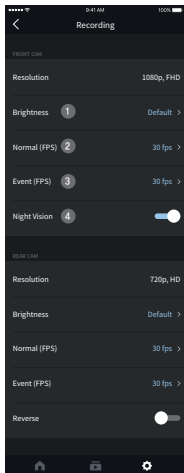


PLAYBACK RECORDING AND BACKUP

- 1 Switches to front or rear view of the footage
- 2 Video control - Previous / Play & Pause / Next
- 3 Backup button, move to backup menu
Choose file type and backup (Image/Video)

· Menu and function can be changed without prior notice by sudden firmware upgrade or product enhancement.

■ Settings - Recording

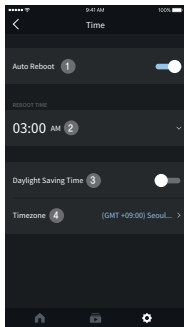


CAMERA SETTINGS

- ① Brightness
- ② Driving mode frame
- ③ Event(Impact,Parking,Movement) recording frame
- ④ Night Vision ON/OFF
- ⑤ Rear Camera Reverse View ON/OFF

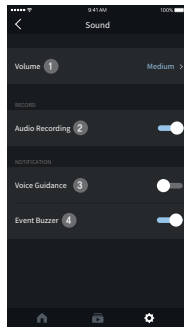
· Menu and function can be changed without prior notice by sudden firmware upgrade or product enhancement.

■ Settings - Time, Sound



TIME SETTINGS

- ① Auto reboot ON/OFF
- ② Auto reboot time
- ③ Daylight saving time ON/OFF
- ④ Timezone setting

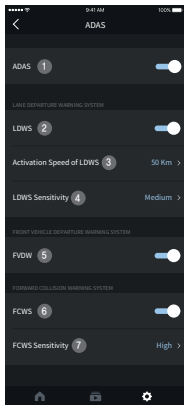


SOUND SETTINGS

- ① Speaker volume [3 Steps]
- ② Audio recording ON/OFF
- ③ Voice guidance ON/OFF
- ④ Event Buzzer ON/OFF

· Menu and function can be changed without prior notice by sudden firmware upgrade or product enhancement.

■ Settings - ADAS



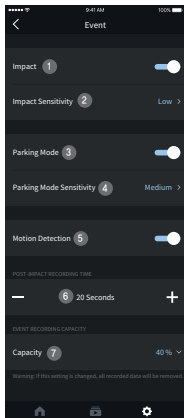
ADAS SETTINGS

- ① ADAS ON/OFF
- ② Lane departure warning ON/OFF
- ③ LDWS activation speed (50-70/km)
- ④ LDWS Sensitivity
- ⑤ Front vehicle departure warning ON/OFF
- ⑥ FCWS ON/OFF
- ⑦ FCWS Sensitivity

※ ADAS configuration change is available only when there is GPS connection, otherwise it won't be applied

· Menu and function can be changed without prior notice by sudden firmware upgrade or product enhancement.

■ Settings - Event

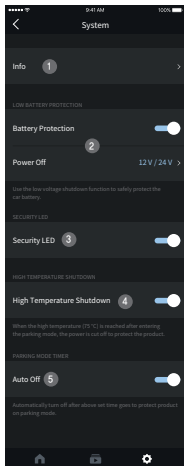


EVENT SETTINGS

- ① Impact detection ON/OFF
- ② Impact sensitivity
- ③ Parking Mode ON/OFF
- ④ Parking Mode Sensitivity
- ⑤ Motion detection ON/OFF
- ⑥ Post-Impact recording time
- ⑦ Memory allocation setting
 - Allocate memory capacity between event and normal recording storage folder.
 - Once the percentage changed, device is rebooted after format

• Menu and function can be changed without prior notice by sudden firmware upgrade or product enhancement.

■ Settings - System



SYSTEM SETTINGS

- ① Info - Product information
(Driver, Car, Firmware version, Model etc..)
- ② Low Battery Protection
 - Product will be shutdown once battery voltage reaches preset level
 - This function is important for using parking mode in order to prevent battery discharge
- ③ Security LED On / Off
- ④ Shutdown in high temperature ON/OFF
 - Cutoff the power automatically once temperature is reached 75°C while parking mode to protect product and vehicle
- ⑤ Parking Mode Timer
 - Product will be shutdown automatically after preset parking time

■ Device unable to power up due to cable issue

1. Check if the fuse cable is connected to the correct fuse.
2. Only use authentic fuse cable for IROAD device.
3. When using cigar jack to power up the device, the device will be turned off when the engine is off.
4. Recommended by connecting fuse cable in order to access parking mode.

■ Device keep restarting due to memory card issue

1. Make sure the device is power off before inserting the memory card into the device.
2. If the device prompts any error message regarding the memory card, try reformatting the memory card and insert back to the device and test again.
3. User is required to insert the memory card into the memory card reader before inserting into the PC.
4. Make sure to check whether the memory card reader is faulty

■ The quality of recorded video is not clear

1. Check if there is any dust or dirt on front and rear camera lenses.
2. If windscreen is tinted, it may affect video quality.
3. Surrounding light may affect the video quality

■ No power after parking. (LBP)

1. Power will be cut-off to safe guard the car battery when the voltage reaches the pre-set voltage.
2. Battery discharging period might get shorten due to the battery condition / the motion recordings recorded.

■ Unable to view playback recording

1. Recording can be playback using IROAD PC viewer and IROAD App on smart phone.
2. 3rd party players may not fully support the recording video format.
3. If error occurs during recording, contact IROAD After-sale Service for further enquiries.

IROADTM