

IROAD X228

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 IROAD VEHICLE RECORDER

This manual contains how to operate product and guide you 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(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.
- IROAD Mobility is not responsible for any problem that occurs if the device is used or 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, IROAD Mobility 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 IROAD Mobility, no one is allowed to attempt to make an unauthorized copy, edit and/or translate the manual
- IROAD is the trademark of IROAD Mobility. IROAD Mobility 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 IROAD Mobility.
- 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.

3. PRECAUTION

■ 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 X228 program. Any other files will be deleted or even damage the memory card.
(Please use the SD card for the product only, otherwise it will be deleted.)
- 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

IROAD X228
QUALIFIED VIDEO RECORDER OF VEHICLES



2CH High Definition

Front : 4K/UHD 3840x2160p 30 frames per second
Rear : Full HD 1920x1080p 30 frames per second



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 User's Car Battery

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



Remarkable hardware supporting high performance

Front 8.3M pixels, Rear SONY Exmor Image Sensor



Memory Card Automatic Recovery Function

In case any error occurs, data is automatically recovered.



X-VISION

Better recording with brighter and clearer images even in low light environments.



Variable Recording Mode

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



High Intensity Security LED

High intensity LED makes it possible to check outside whether product is working.



Voice Recording & Voice Guidance

High Quality Sound Recording
Built-in Speaker with Clear Voice Guidance



External GPS

Driving speed will be display on the recording playback. Location of the recording will be able to view via IROAD PC Viewer.



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

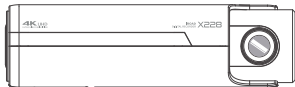
Continuously improving the software and maintaining stability of the products.
Easy & simple when updating firmware through Smartphone directly or from our website www.iroadkr.com

5. PACKAGE COMPONENT

IROAD X228
QUALIFIED VIDEO RECORDER OF VEHICLES

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



Cradle



Uninterrupted
Fuse Cable



IROAD Genuine
Micro SD



User Manual



Rear Camera Cable

Optional Items

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



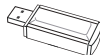
Wi-Fi Dongle



Cigar Jack Power Cable



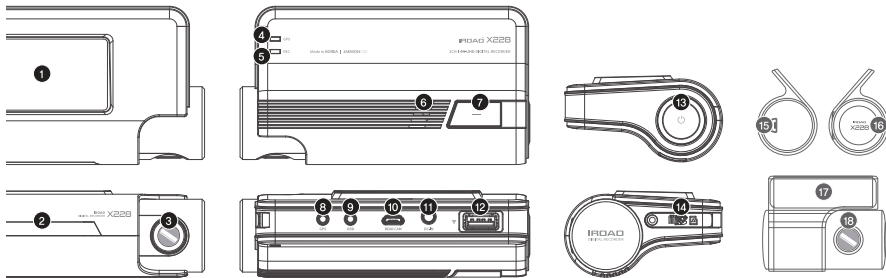
External GPS Antenna



SD Card Reader

| 6. NAME OF EACH PART

IROAD X228
QUALIFIED VIDEO RECORDER OF VEHICLES



1 Cradle

2 Security LED

3 Camera lens

4 GPS LED

5 REC LED

6 Speaker hole

7 Wi-Fi control button

8 External GPS Connector

9 OBD Connector

10 Rear Camera Cable Slot (V-IN)

11 Power Connector (DC-IN)

12 Wi-Fi USB Slot

13 Power button

14 Micro SD Card Slot

15 Rear camera cable slot

16 Security LED

17 Transparent cradle

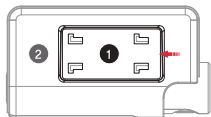
18 Camera lens

7. SPECIFICATION

Model	IROAD X228
Image Sensor	Front:8.3M Pixels Image Sensor, Rear:SONY Exmor(IMX323) Image Sensor
Resolution/Frame/Viewing Angle	Front:3840x2160 30fps, Rear:1920x1080 30fps / Front:165°,Rear:145°
Wi-Fi	Wi-Fi supported - Smartphone playback/settings, Firmware automatic upgrade
Wi-Fi Button	Enable connection via Wi-Fi "Standby mode for registration" for new users.
ADAS	LDWS, FCWS, FVDW
Audio Input	Embedded MIC
Video/Audio Compression	H.265 / ADPCM
Vibration Sensor	3-axis acceleration sensor (Start recording when it senses external impact)
External GPS Sensor	Google map sync, inform the location and travelling speed of the vehicle.
Storage Medium	Micro SD 16GB ~ 256GB (MLC Class10)
Recording Mode	Driving, Event(Impact), Parking(Timelapse, Motion detection)
Uninterrupted Power	Low voltage cut-off, overheating prevention is embedded
Power Supply / Power Consumption	DC 12V ~ 24V / 3.0W
Operating Temperature/Humidity	-20 ~ 70°C (Storage temperature : -30 ~ 90°C) / 10 ~ 95%
LED	Security LED
Viewer	Win7, Win8, Win10 (64Bit), Mac (OS X 10.7 64Bit or higher) (Latest update, 4K resolution and HDCP 2.2 display support, Intel 7 Core Processor and above or 4K support graphic card)
Application	IROAD App (Android 6.0, iOS 10.0 or higher version)

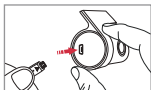
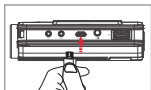
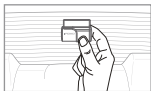
8. INSTALLATION

■ Mounting a cradle for front camera

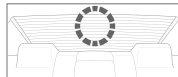


- Align the mounting slot (2) with the cradle (1) and slide to the side to lock the device.

■ Product Installation



■ 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.

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.

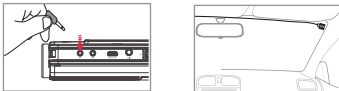
9. INSTALLATION

■ Product Installation



4. Connect power cable to DC-IN slot
5. At the other end of the cable, do connect it to the vehicle fuse box or cigar jack power.
Procedure on installation for uninterrupted fuse cable, please refer to the website www.iroadkr.com or follow the instructions stated on page 10
6. Make sure that the product is operating normally

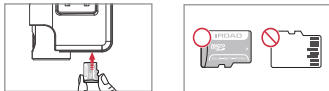
■ Connect External GPS



When Connect 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"

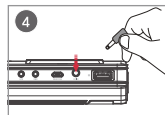
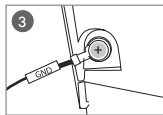
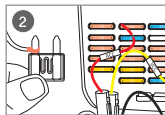
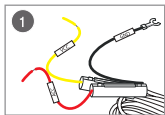
| 10. UNINTERRUPTED FUSE CABLE

■ 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.

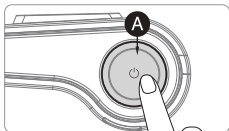
■ Product Operation

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'.

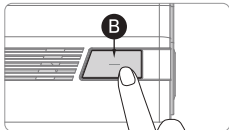
※ Smartphones that have already been registered previously, Users do not have to re-registered even if the Wi-Fi on/off function is used.

※ 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



Wi-Fi Stand-by Mode ON	<ul style="list-style-type: none">- Press the button B shortly. "Ding-dong" sound will signal.- "Stand-by mode for the registration." will be signaled, and Wi-Fi connection can be initiated.
Wi-Fi Stand-by Mode OFF	<ul style="list-style-type: none">- Press the button B shortly. "Ding-dong" sound will signal.- "Stand-by mode for the registration is released." will be signaled, and Wi-Fi connection cannot be initiated.
Audio Recording OFF	<ul style="list-style-type: none">- Press the button B for 3 seconds long. "Ding-dong" sound will signal.- "Stop recording the voice." will be signaled, and will be recorded without audio.
Audio Recording ON	<ul style="list-style-type: none">- Press the button B for 3 seconds long. "Ding-dong" sound will signal.- "Start recording the voice." will be signaled, and will be recorded with audio.

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 2 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 flickers every 1 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.

| 15. VOICE GUIDANCE

· 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.

· 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.

Event Event(Impact) Recording Folder

- Recorded data of events (Impact, Parking, Motion) recording will be saved into this folder.

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

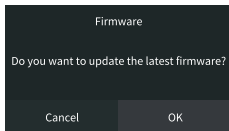


- 1 . Application will prompt an update message when the PC viewer program is being installed for the first time as shown on the picture above.
- 2 . If the user selects the upgrade button, it will automatically download the upgrade file into the memory card.
- 3 . Make sure the power cable is disconnected 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. 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.




■ Running the Program

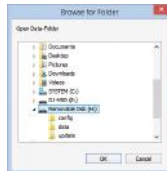
1. Confirmation pop-up window appears if there is internet connection as picture shown.

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.



| 22. DEDICATED PC VIEWER

IROAD X228
QUALIFIED VIDEO RECORDER OF VEHICLES

· 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 external GPS is connected)
- 3 Recording file list
- 4 Adjust playback speed
- 5 Volume control
- 6 G-sensor (Acceleration) Graph
- 7 Speed indicator (only when GPS/OBD2 is connected)
- 8 GPS signal receiving tab (only when external GPS is connected)

9 Front / Rear images

	Front / Rear image switch
	Split screen - Front & Rear
	Front / Rear image PIP
	Black & White mode switch

10 Playback Recording.

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

11 Menu

	Thumbnail		Backup
	Drawing a lane		Setup
	Print		

| 23. DEDICATED PC VIEWER

IROAD X228
QUALIFIED VIDEO RECORDER OF VEHICLES

· 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

| 24. DEDICATED PC VIEWER

IROAD X228
QUALIFIED VIDEO RECORDER OF VEHICLES

· 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).

| 25. 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.



 2018/06/01 02:33:04PM 16.4V 25km Unknown

| 26. 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

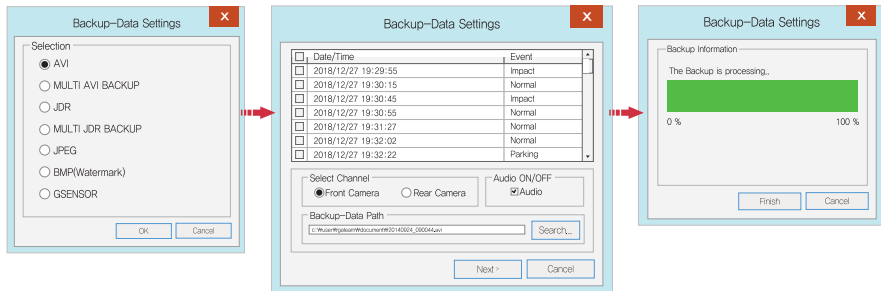



- Click to the icon  to "Drawing a lane" mode.
- User can apply the lane manually.
- Click the icon and choose 'deactivating lane drawing to deactivate it.

27. 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.

28. 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.ctg)

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

Buzzer 7

On Off

Auto Reboot 8

AM 03:00

SYSTEM will be rebooted every day for stability of operation.

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

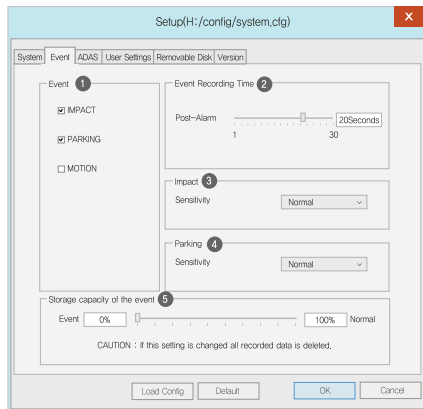
Load Config | Default | OK | Cancel

- 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

| 29. DEDICATED PC VIEWER SETTING

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

■ Event Settings



- 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.

| 30. 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.ctg)

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 Lane Departure Sensitivity Detection Sensitivity : Normal

6 Collision Sensitivity Detection Sensitivity : Normal

7 Lane departure Speed Detection 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 Land Departure : 50, 60, 70km/h

31. 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.ctg)

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.

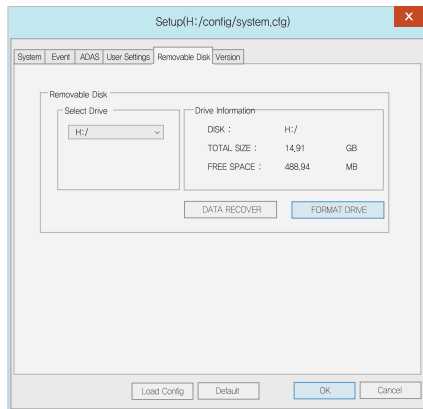
※ This is a personal information tab. Please prevent the information from leaking.

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)

| 32. 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

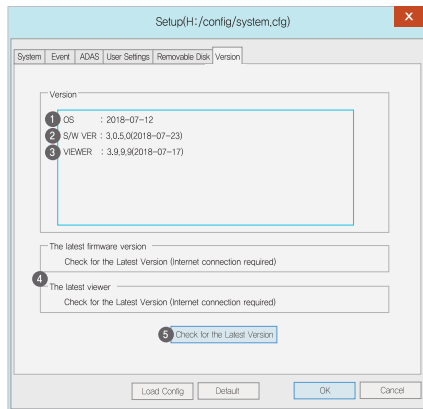
The performance of the memory card could be affected when used for too long. Proper management of memory card is important.

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.

33. 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.

| 34. 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



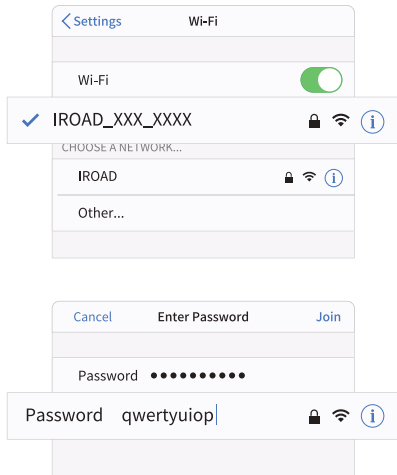
■ Before use

- 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

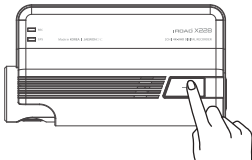
| 35. HOW TO CONNECT

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

■ iOS



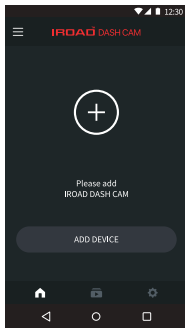
1. Turn on Wi-Fi
2. Select **IROAD_XXX_XXX** in the list
3. Write the password [**qwertyuiop**] and Join
(Password is all letters of second row of the keyboard)
4. Press the Wi-Fi registration button of the product to activate "Registration standby mode"



36. 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

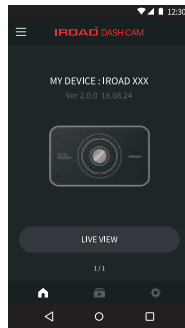
- Press the Wi-Fi registration button of the product to activate "Registration standby mode"



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



| 37. MAIN SCREEN / LIVE VIEW

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

■ Main Screen and Live View



- 1 Menu - Live View, Recording files, Setting, Firmware Update, OBD, 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



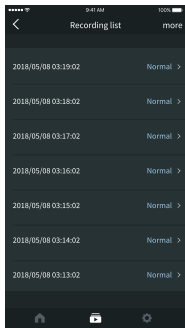
LIVE VIEW [FRONT, REAR]

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

| 38. LIST OF RECORDINGS & PLAYBACK

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

■ Recording List, Playback and Backup

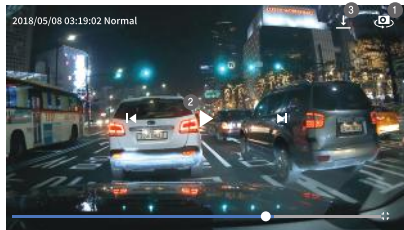


RECORDING LIST

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

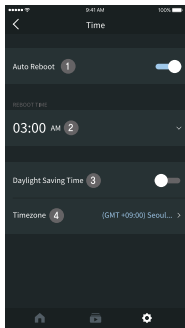


CAMERA SETTINGS

- 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

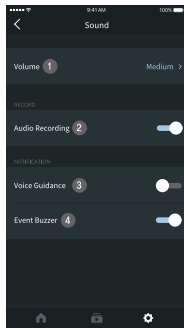
· Menu and function can be changed without prior notice by sudden firmware upgrade or product enhancement.

■ 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



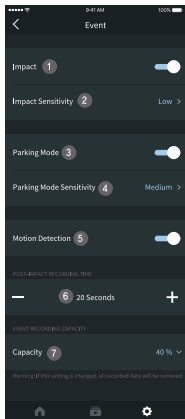
ADAS SETTINGS

- 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

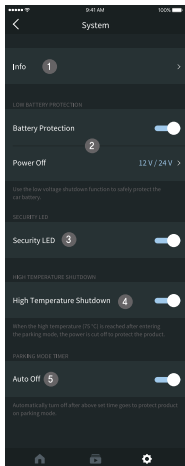


EVENT SETTINGS

- 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
 - Allocate memory capacity between event and normal recording storage folder.
 - Once the percentage changed, device is rebooted after format
- 7 Memory allocation setting

· 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.

IROAD™