

IROAD TR10

Read user manual carefully in order to protect the user's safety and ensure the accurate use of the product.

JAEWONCNC 주식회사 재원씨앤씨 Made in Korea

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1. USER INFORMATION

THANK YOU FOR CHOOSING JAEWONCNC IROAD VEHICLE RECORDER.

User Manual includes the guidelines to manage your product properly. Please read the instructions carefully before using your product. The Manual will guide you through on the instructions for the device.

The Manual is based on IROAD TR10 model. Please be informed that there might be some unintended errors.

Contents of the instructions might be modified without prior notice.

■ GUARANTEE AND SUPPORTING

- Please visit our website at www.iroadkr.com
- Global website address(Global www.iroadkr.com / Singapore www.iroad.sg / HongKong www.iroad.hk / Malaysia www.iroad.my)
- Please download the dedicated viewer, latest firmware and other product information from the IROAD website.
- JAEWONCNC is not responsible for any problem caused by illegal use of the product.
- Though this product records and saves footages in the event of accident, it does not guarantee every single accident scenes are 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.

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2. PRECAUTION

■ VOLTAGE RELATED ISSUES

- Please make sure to use recommended / stable voltage only.

Otherwise, misuisng your product will cause the proudct error, fire accidents, explosion or damage to the vehicle.

- Do not arbitrarily disassemble and modify the product. Otherwise, it might cause damage of the product and electric shock. It should be considered user's fault and void the warranty.
- Make sure that the power cable is not damanged when attaching other electronic gadgets on the vehicle, otherwise it can cause product failure or danger of electric shock, and please use qualified power cable which is produced by JAEWON CNC.
- It is highly recommended not to arbitrarily connect the uninterrupted power cable to vehicle as it can cause malfunction of the product by different conditions of vehicle and surrounding environments. (Please contact professional engineer if you need to install it)

■ INSTALLATION

- Do not mount dash cam on where sight might be disturbed. It may cause an accident.
- Connect all the cables provided into right slots. That may be parts of the problem.

THE RIGHT USE

- Do not use dash cam while driving. Please park your vehicle in safe place for use
- Do not force a product or its lens because it may cause product malfunction.
- Keep the device away from flammable or explosive stuff causing explosion and fire.
- Do not cover the device with fabric or other tools. Malfucntion or fire would cause once it is overheated.
- When the device is used for too long, it may cause skin burns.
- The quality of image could deteriorate while the car is passing through tunnel or at very dark night with no light.
- Recording quality might be reduced by excessive tint.
- Image quality could deteriorate when the temperature of the device exceeds the optimal operating temperature.

MANAGEMENT

- Please turn off the dash cam when exposed to direct sunlight or used for too long. Otherwise, malfunction or breakdown would occur.
- Please check whether the device is working before driving a car.
- Do not remove SD card or turn off the power cable during the firmware update. It may cause malfunction or loss of data.

MEMORY CARD AND PRECAUTION

- There is the lifetime of memory card which is expendable.

Some errors could occur if the lifetime of memory card reached or being stayed in high temperature environment. Periodic maintenance is required.

- The device must be turned off when inserting / removing memory card.
 It may cause to lose data or malfunction of memory card if the memory card is removed or inserted during product.
- Keep memory card in case all the time when not in use.
- Please avoid places where are humid and very hot.
- Genuine IROAD memory card is recommended. Failure to use a genuine one may cause error or malfunction of product.
 Memory card is expandable and the memory card's warranty is 6 month period.
 (It may cause to reduce life cycle of memory card if using with constant power cable)
- Please regularly format the memory card twice a month for stability. (Format function supported by a dedicated viewer is recommended.)
- Record files and TR10 program are only accessible in TR10. Any other files will be deleted to keep stability.
 (Please use the SD card for the product only, otherwise it will be deleted.)
- It takes up to 5 minutes depending on the memory capacity to use SD Card.
 Please do not remove the SD card while the device is running.

4. PRODUCT OVERVIEW



3.5inch Touch LCD 3.5inch Touch Panel Easy to use with GUI



High Definition Vivid FHD Front : Full HD 1920x1080p 30frames Rear : Full HD 1920x1080p 30frames



Hyper Lapse - Long Driving Recording

Compress the video while driving in a constant frame (1FPS), Low capacity, Long Driving Recording



Time Lapse -Long Parking Recording Compressa the video while parking in a constant frame (1FPS) Low capacity, Long Parking Recording



ADAS Advanced Driver Assistance System LDWS, FCWS, FVDW



SAFEGUARD for All Yours Safety

Automatic low voltage cutoff function is embedded in the device for the safety of the car battery. Uninterrupted Power



Night Vision

Record the brightest and the cleanest images even in low light environments.



Various Recording Modes Automatic parking mode and motion detection function, 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 Clearer Voice Guidance by Built in Speaker



External GPS

Driving information through external GPS. Time, Driving Path, Direction with recorded video.



Dedicated PC Viewer Playback recorded data, set various functions on dedicated PC Viewer.

Basic Components

- All pictures shown are for illustration purpose only.
- Actual product may vary due to product enhancement.







Front Camera







Cradle

Uninterrupted Fuse Cable



Micro SD

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Rear Camera Cable

Optional Components

- All pictures shown are for illustration purpose only.
- Actual product may vary due to product enhancement.
- . Users are able to purchase the optional components from IROAD website.



Cigar Jack Power Cable External GPS Antenna

SD Card Reader

6. NAME OF EACH PART





- 1 Front Camera Lens
- Security LED



4 Cradle Screws

5 3.5 inch Touch LCD

- 6 Power LED
- Power Connector
- 8 Rear Camera Cable Slot (V-IN)
- 9 External GPS Connector
- 10 Power Button









- Micro SD Card Slot
- 12 Rear Camera Cable Slot
- B Security LED
- Rear Camera Lens
- 15 Transparent Cradle

Model	IROAD TR10
Image Sensor	2.0 Mega Pixel Image Sensor
Resolution / Frame / Viewing Angle	Front : Full HD 1920x10800p 30fps, Rear : Full HD 1920x10800p 30fps / Front : 140 $^\circ$, Rear : 135 $^\circ$
LCD	3.5 inch Touch Panel
ADAS	LDWS, FCWS, FVDW
Audio Input	Embedded MIC
Video / Audio Compression	H.264 / PCM
Vibration Sensor	3-axis acceleration sensor (Start recording when it senses external impact)
External GPS Sensor	Synched with Google map, Inform the location and travelling speed of the vehicle.
Capacity	Micro SD 32GB~128GB
Recoding Modes	Driving / Event(Impact), Parking / Motion Detection, Time Lapse, Hyper Lapse
Uninterrupted Power	Low voltage cut off, overheating prevention is embedded.
Power Supply	DC 12V / 24V
Operating Temperature	-20 ~ 60°c
LED	Security LED embedded
Viewer	IROAD PC Viewer : Windows 7/8/10 (32bit/64bit support)

8. INSTALLATION



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

The function is able to be changed for firmware upgrade or product enhancement without prior notice, please visit website regularly. Placing Cameras

- Use dry fabric to wipe out the spot where the product will be attached on the windscreen.
- Make sure to install the product on where sight is not disturbed.

Product Installation









- 1. Use soft cloth to wipe out the spot where the product will be attached. (Wipe out with soft cloth or tissue)
- 2. Attach product.

(Remove the protective film from the adhesive tape of front/rear camera)

3. Connect the cable of rear camera (Connect the rear camera cable V-IN slot)

9. INSTALLATION

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Product Installation





- 4. Connect power cable to DC-IN slot.
- 5. Other side of cable connects to vehicle fuse or cigar jack cable. In order to install uninterrupted power cable,
 - Please refer to page 10 or FAQ for connecting fuse power cable
- 6. Make sure that the product is operating normally.
- 7. Clean up the power cable and rear camera wiring with cable holder or using edge part of vehicle.

Connect External GPS.





Connect external GPS to the GPS slot of the top. It provides vehicle speed, location and other additional information if connect external GPS. Please make sure to have some distance between main product and GPS.

Inserting SD Memory Card





. Make sure to insert SD card in the right way,

Insert the SD card into the memory card slot until it clicks into place.

When using the memory card for the first time / When resuing the memory card after formatting, the system goes into standby mode for 3 to 5 minutes to create. system files and checking the memory card.

Recording starts with voice guide saying "Start Recording".

10. UNINTERRUPTED FUSE CABLE

• The function is able to be changed for firmware upgrade or product enhancement without prior notice, please visit website regularly.

Uninterrupted power function?

It prevents battery discharge beforehand while in parking mode. The uninterrupted power function ensures your battery is protected.

The discharge of battery voltage will be prevented in advance for 24 hours if the battery level goes down the minimum preset level.

(There might be able to occur natural battery discharge caused by the long term parking hours or each vehicle status. Please change voltage level up to high especially in winter season, refer to the instruction.)

How to Install Uninterrupted Fuse Cable









- Find the fuse to be installed using electric tester from fuse box of the vehicle.
- [VCC]Line (Yellow Line): Make sure engine is off and connect to a current flowing fuse. [ACC]Line (Red Line): Connect to fuse which should be not electric current.
- Onnect GND line to vehicle itself which has to connect iron part of vehicle itself. Do not connect bolt of dash board where current is not flowing.

Onnect the power cable to confirm the operation of product, and then neatly organize cables to finish installation work.

• The colors of the VCC, ACC, and GND wires may change, so please check and install them. Please do contact professional technician if you required any help on installation. Please perform switching test (Driving mode <->Parking mode) before completing the installation.

11. PRODUCT OPERATION

• The function is able to be changed for firmware upgrade or product enhancement without prior notice, please visit website regularly.

Product Operation

Power ON	- All LED will be turned on when the engine is on. - Start normal recording along with voice guidance.
Power OFF	- All LED will be turned off when the engine is off or the constant cable is disconnected.
External GPS	- GPS LED flickers while external GPS is connected. (GPS LED will be on constantly while connected to satellite) - Please recheck the connection if there is not LED on despite external GPS installed.

12. BUTTON SCENARIO

• The function is able to be changed for firmware upgrade or product enhancement without prior notice, please visit website regularly.

Button Scenario



Power OFF	- Press the 🚯 button for 5 seconds. - The power is turned off along with voice guidance.
Power ON	- Press the 🚯 button for 5 seconds. - Start recording along with voice guidance.
Manual Danadian	- Please press 🐼 button.

Manual Recording	- Start manual recording along with voice guidance.
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Recording Mode

Normal Recording	 Normal recording starts when power is connected. Security LED flashes once every second.
Hyper Lapse	- It compresses and records the video which recorded for 8 minutes (driving mode) at 1 frame per second (1 FPS).
Event Recording	 It will be recorded for event recording mode if it detects any shock. (REC LED flickers) It will return to Normal recording mode after completing event recording.
Parking Recording	 It will switch to parking mode if G sensor does not detect movement for 5 minutes. It is recorded with 10 frames in order to extend recording time. When the ignition is on, it automatically switches to normal recording mode.
Time Lapse	 It compresses and records the video which recorded for 8 minutes (driving mode) at 1 frame per second (1 FPS).
Motion Detection Recording	 It records if there is any movement within a range of 3 meters distance. Security LED will blink quickly.

Voice Guidance

Power ON	Driving mode starts, Safe driving
Normal Recording	Start recording
Menu Entry	Stop recording
Parking Recording	Start parking mode
Motion Detection Recording	Impact occurred during the parking
Manual Recording	Manual recording
GPS Connection	GPS is connected
System Off	Shut down system
Change Settings	Setting is changed, reboot the system
Firmware Update	Program is installing, do not turn off the power
Firmware Completed	Restart the system by completed updating
Firmware Failed	Program file is damaged and cannot be installed
Memory Card Invalid	Memory card is damaged, restart the system
No Memory Card	No memory card
Memory Card Format	Format the memory card. Please wait
LBP ON	Shut down the system to protect the car battery
LBP Booting	Restart the system to protect car battery

15. VIDEO FOLDERS IN SD MEMORY CARD

. The function is able to be changed for firmware upgrade or product enhancement without prior notice, please visit website regularly.

Saving Directory



- event Event (Impact) Recording Folder - Save Event (Impact, Parking, Motion) Recording.
- normal Normal (Driving) Recording Folder - Save Normal (Driving, Hyperlapse, Timelapse) recording.
- log Save the operation status as log file.
- manual Save data of manual recording. (Up to 10 files are saved, and old files are overwritten when the number is full.)

16. FIRMWARE UPDATE

. The function is able to be changed for firmware upgrade or product enhancement without prior notice, please visit website regularly.

Manual Update



Firmware update

- 1. Disconnect the power cable.
- Remove the SD card from the product and connect it to the PC/Laptop. After decompressing the firmware which downloads from IROAD website, please copy the file to the Micro SD card.
- 3. Please turn the ignition on to supply power stably.
- 4. Insert SD card back onto the device.
- 5. Connect the power cable.
- 6. Start the update along with voice guidance.
- 7. The device is rebooted once the update is completed

17. LIVE SCREEN

• The function is able to be changed for firmware upgrade or product enhancement without prior notice, please visit website regularly.

Live Screen



When the dash cam is turned on, the above screen is displayed on the LCD with the voice guidance.

- Status Recording modes, GPS, Voltage Status / Date, Time
- Manual recording Press the manual record button to start the manual recording.
- Audio recording Audio Recording On/Off
- Sound Voice Guidance On/Off
- Parking Mode Turn on/off the recording function while parking.
- Menu Main Menu

18. LIVE SCREEN

• The function is able to be changed for firmware upgrade or product enhancement without prior notice, please visit website regularly.

Live Screen



When the dash cam is turned on, the above screen is displayed on the LCD with the voice guidance.

Tap on the screen, switch to the front, rear recording and PIP.

19.MAIN SCREEN

• The function is able to be changed for firmware upgrade or product enhancement without prior notice, please visit website regularly.

Main Screen



Tap on the main menu button, and then menu screen is shown.

*When entering the main menu, recording is paused to stabilize the product. After moving to the live screen, the recording is restarted.

- Live screen Check live screen.
- Playback Play back the saved recordings.
- Setting Manage various settings.

Playback



Tap on the palyback button, then the recording lists are shown.



My folder Press the 'Tab' button on top to arrange saved files in timely order.

- Press the left/right arrow to move to the previous / next page.
- Top on the file you wish to play, and then the chosen file will be played. (Refer to the right)

Camera



Tap on the settings button on the main screen.

- Press 'Camera' button to adjust the brightness, night vision, security LED, and hyper lapse settings.
- Night vision is configurable only at the front camera and improves the recording definition at night time.
- IROAD TR10 has a fixed resolution of 1080p for front and rear camera.

22. TIME SETTING

• The function is able to be changed for firmware upgrade or product enhancement without prior notice, please visit website regularly.

Time Setting



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

 Date / Time Setting Tap on date / time button to adjust the date / time. Touch the button once, then arrows will appear. Use them to adjust
 Automatic Reboot Activate / deactivate automatic reboot by toggling it and the time for rebooting can be scheduled by keying it in.
 Timezone Setting Touching timezone button and you can set the configuration to adjust the time zone for country or region.

Sound



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

- Volume Setting Choose among Low / Medium / High
- Audio Recording Toggle it to turn On / Off audio guidance
- Voice Guidance Toggle it to turn On / Off voice guidance

Function Setting



It can be controlled touch a setting button to Use or Not Use. [ADAS, FCWS, FVDW, LDWS]

- ADAS Function (Advnaced Drivers Assistant System)
- FCWS Function (Front Collision Warning System)
- FVDW Function (Front Vehicle Departure System)
- LDWS Function (Lane Departure Warning System)

/10/10/050/110/050	
FCWS Use / Not use	
FVDW Use / Not use	
LDWS Use / Not use	

ADAS Lico / Not uso



Detailed Settings



It can set up the speed for LDWS, FCWS. Thereby touch a detailed setting button as above picture.

- Speed for LDWS Select Activation Speed of LDWS
- Speed for FCWS Select Activation Speed of FCWS
- ADAS Volume Choose among Low / Medium / High
- Bonnet Guide Line Please set the blue line on the middle of bonnet and set the red line to the end of bonnet.



Parking



It can set up the Parking Recording, Impact / Motion, Time Lapse and Auto-off Timer.

*Timelapse function is automatically activated if user do not select any of parking recording options.

- Parking Recording Toggle it to turn On / Off parking recording
- Parking Impact Toggle it to turn On / Off impact mode
- Parking Motion Toggle it to turn On / Off motion mode
- Timelapse Toggle it to turn On / Off timelapse during parking
- Auto-off Timer Toggle it to turn On / Off timer function

Sensitivity



It can set up the Impact (Driving/Parking) / Motion Sensitivity.

- Driving Impact Choose among Low / Medium / High
- Parking Impact Choose among Low / Medium / High
- Motion Detection Choose among Low / Medium / High

LBP



It can set up the LBP, Battery Saving Mode setting and Power off voltage.

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

		Vo	oltage(v)		
Power Off	11.3	11.5	11.8	12	12.3
	23.3	23.5	23.8	24	24.3

29. VOLTAGE

• The function is able to be changed for firmware upgrade or product enhancement without prior notice, please visit website regularly.

High Temp Shutdown



It can set up the High Temp Shutdown function.

■ High Temp Shutdown The temperature (75°C) reached in parking mode. The power is cut off to protect.

Memory



It can set up the overwrrite ON / OFF, memory allocation and formating are available.

Event & Normal Adjust 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.

- Format Free Memory overwrite is turned ON/OFF using the format free function.
- Format All the data on SD card will be removed and the system will be rebooted.

Secret Mode : This function will be supported through the firmware update.



It can set up the password setting(secret mode).

Secret Mode

The secret mode protects the recorded video and prevents deletion.

※ After changing this setting, enter the password you set when entering the main menu. You entered the incorrect password 5 times. You cannot enter the menu within 3 minutes.



LCD Timer



It can set up the Always on (Clock / ADAS / Speedmeter / Live) and auto hibernation settings.

Auto hibernation

Always on

Touch what you want and it will be ticked, and press back button to save the configuration.

- After selecting real-time video, clock, ADAS, and speed among Always ON functions, the set functions operate after a period of time.
 - If choosing constant on mode, turning off function on the main menu is disabled and LCD lifespan may be shortened.



LCD



It can set up the LCD Brightness, Touch correction, Reverse Rear View settings.

LCD Brightness Choose among Dark / Normal / Bright

Calibration Run touch correction when tapping on the screen is not smooth and well.

Reverse Rear View
If users select the reverse rear view, rear recording videos are inverted on LCD.
When real-time video (rear recording) is checked on the LCD screen, it is displayed in forward or reverse direction.
Please note that the set value is not applied to the recorded video.



Info



Tap on the info to adjust firmware version and Factory Settings. (default settings)

Factory Setting Touch reset settings to complete the initialization after rebooting the product.

35. DEDICATED PC VIEWER

• The function is able to be changed for firmware upgrade or product enhancement without prior notice, please visit website regularly.

Program Installation

- 1. Please download installation program from IROAD website.
- 2. Please click the installation file and run it.
- 3. Install on the PC according to the installation guide.

4.When installation is completed, "IROAD Viewer" is created on the PC desktop.

Ruining the Program

- 1. Please run IROAD Viewer 2. Open File - Click the icon
- in the viewer to browse folder window as shown in the picture.

Select removable disk and press "OK" button.

Select Drive			
	SDHC (G-)	~	
Data Path			Cancel



36. DEDICATED PC VIEWER

• The function is able to be changed for firmware upgrade or product enhancement without prior notice, please visit website regularly.

List of Recordings & Front / Rear Palyback



- Front Image Playback Screen
- Rear Image Playback Screen
- 3 Recording File List

- 4 Playback, Control
- G-Sensor (Acceleration) Graph
- 6 Playback speed, Birght, Dark control



٥	Setting
8	Backup
	Screen Capture

8 Video Control

▶	Left / Right Reversal
×	Up / Down Reversal
11	Full
ţţ	Channel (Front / Rear) Switching

O Viewer Information

\oplus	Language
()	Viewer Info

Backup



- Clcik the 'Backup' icon 🖬 in main screen menu.
- There is a separate backup of the front and rear images(2CH recording files) for backup.
- AVI files are able to be played using a separate video program installed on the PC.
- To create a GPS information file, select "GPS Information File" and click the "OK" button.

Setting



39. TROUBLE SHOOTING

Product is not working.

- 1. Recheck if power cable is connected.
- 2. Check whether the authentic power cable is connected.
- Make sure constant power cable is connected to fuse properly. (Professional installation is recommended)

Unable to run playback.

- 1. Recordings can be played using a dedicated viewer
- 2. Some video players may not support images.
- 3. If an error occurs on recording consistently, contact to IROAD.

Unable to run rear camera recordings.

- 1. Rear images are shown on the dedicated viewer
- Install a dedicated pc viewer to run playback.
 If error occurs, turn off the power, disconnect the rear camera cable, and then restart the system

The video quality is not good.

- 1. Check if there is any dust or dirt on front and rear camera lenses.
- 2. If windscreen is tinted, it may reduce video quality.
- 3. Tinted windscreen and backlight may degrade quality of video.

- No power when engine is off. (After long term parking)
 - 1. When the voltage drops below certain point, it detects and cuts off voltage automatically.
 - 2 . The voltage may be cut off early because of battery condition or temperature.

Video is not recorded at all.

- 1. Make sure recorder is powered on.
- 2. Make sure SD card is inserted correctly.
- 3. After formatiing the memory card and then try again.

The memory card is not recognized by the PC.

- 1 . Check if the SD card reader is defective.
- 2. Insert the SD card reader onto other USB port on PC.
- In the case of USB or assembly PC, errors may occur because current is not supplied stably.
- When the engine is turned off, the device does not work. The power does not turn on.
 - 1 . If the users use tthe cigar jack cable, the device automatically turns off while the vehicle is turned off.
 - 2 . To use parking mode, please connect to uninterrupted power cable. (Ignition is off)

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