

# Mobile DVR

## Instructions

V1.3

Please read this quick manual before using this product  
and keep it for future reference.

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## 1. Important Security Rules and Prompt

Please read warnings before setting up and using this product:

- Do not flush water directly to MDVR while cleaning vehicle.
- Do not put heavy things on top of MDVR.
- Do not connect irrelevant device via power output of MDVR.
- Do not open or disassemble without professional guide.
- Do not change any modules while device is powered.

## 2. Typical System Topology

Topological graph of the MDVR system:



### 3. MDVR Specification

Item	Device parameter	Performance
System	Main processor	Hi3520DV300
	Operating system	Embedded Linux OS
	Operating language	Spanish/English
	Operating interface	GUI, support mouse
	Password security	User password/Admin password
Audio & Video	Video standard	PAL/NTSC
	Video compression	H.264
	Image resolution	1080P/1080N/720P/960H/D1/CIF
	Playback quality	1080P/1080N/720P/960H/D1/CIF
	Compound mode	A variety of ways
	Image display	Single/QUAD display optional
	Audio Compression	G.726
	Audio recording	Audio & Video synchronized recording
Recording & Playback	Recording mode	Manual/Alarm
	Video bit rate	Full frame 4096Mbps, 6 classes image quality optional
	Audio bit rate	8KB/s
	Storage media	SD card + HDD/SSD storage
	Video inquiry	Inquiry by channel/Recording type
	Local playback	Playback by file
Firmware upgrading	Upgrading mode	Manual/Automatically/Remote /Emergency Recovery
	Upgrading method	USB disk/Wireless network/SD card
Interface	AV input	4ch (or 8ch) aviation interface

	AV output	1ch VGA video output 1ch aviation AV output
	Alarm input	4 digital inputs (4 Positive/Negative trigger)
	HDD/SSD	1 HDD/SSD (up to 2TB, support hot plug/unplug)
	SD card	2 SDXC High speed card (up to 512GB)
	USB interface	1 USB 2.0 (support U disk/mouse)
	Ignition input	1 ACC signal
	UART	1 LVTTTL Level
	LED Indication	PWR/RUN
	Disk /SD card lock	1
	Debug port	1
Function extention	GPS/BD(Optional)	Support
	3G/4G(Optional)	Supports
	WIFI(Optional)	802.11b/g/n, 2.4GHz
Others	Power input	8~32V DC
	Power consumption	Standby 3mA Maximum consumption 30W @12V 2.5A @24V 1.25A
	Working temperature	-30 --- 65℃
	Storage	1080P 1.5G/h/channel 1080N 1.2G/h/channel 720P 1G/h/channel 960H 750M/h/channel D1 300M/h/channal

## **4. Installation Precautions**

To ensure the MDVR to run smoothly within the product warranty, please adhere to all requirements and follow the instructions:

### **4.1 Location**

- Do not install MDVR on a recessed surface where liquids may accumulate or drip down.
- Do not install on where is vulnerable to excessive vibration.
- Keep away from excessive humidity and moisture, rain and other sources of liquid.
- Keep away from direct sunlight and other sources of heat.
- Keep away from strong electromagnetic interference.

### **4.2 Power**

- MDVR supports power supply ranges from DC 9V ~36V. We recommend DV 12V or DC 24V.
- Turn off the power before connecting/disconnecting MDVR.
- Correctly attach the MDVR ground cable to the vehicle.
- Disconnect MDVR from the power supply when it is not in use for an extended period of time.

### **4.3 Humidity and Temperature**

- The working humidity for MDVR is between 10-95%.
- The working temperature is between -30°C (-22°F) and 60°C (140°F)
- Do not handle MDVR with wet hands, while standing in water, or while in contact with other sources of liquid, as these can potentially result in an electric shock.

### **4.4 Accessories**

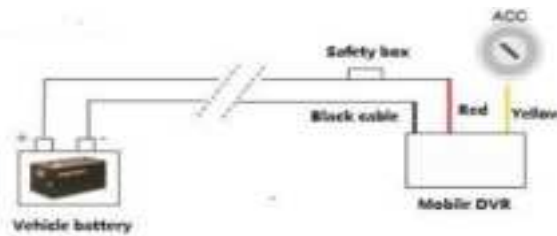
- MDVR, cameras, wires and other accessories need to be placed at secure spots so that they won't be misused and/or destroyed by passengers and/or driver. Also, do not install the devices at places that would restrict normal functioning of the vehicle.
- MDVR, cameras, wires and other accessories need to be properly installed to prevent damages; and all transportation regulations should be followed to avoid passenger injury.

### **4.5 Maintenance**

- To clean surface(s) of MDVR, only use cleansers that are approved for electrical device. Do not use unspecified chemicals or household cleansers.

## **5. Power Connections**

### **5.1 ACC/Timer Mode (Recommend,Default)**



**ACC Mode:**

Power on the MDVR when the vehicle is powered.

**Timer Mode:**

Power on the MDVR constantly and control it by MDVR software.

**Delayed Mode:**

Set delayed time after engine is off. control it by MDVR software.

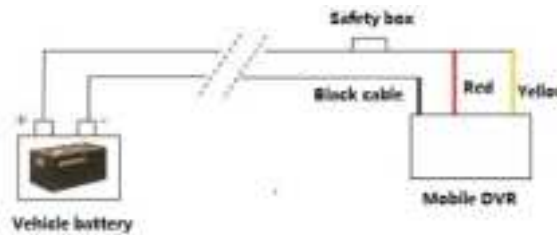
**Connection:**

Connect the ACC Yellow wire to Vehicle ACC Line;

Connect the PWR+ Red wire to Vehicle Battery PWR+

Connect the GND Black wire to Vehicle Battery GND

## 5.2 Keep Power ON Mode



**Connection:**




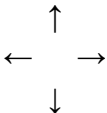
Connect both the ACC Yellow wire and the PWR+ Red wire to Vehicle Battery PWR+

Connect the GND Black wire to Vehicle Battery GND

**Note:**

- ✧ MDVR is connected to both the ignition and the battery. it is powered by the battery when the vehicle starts up, and can drain any battery if the ignition is not turned off.
- ✧ Make sure the volt is 8-24V, High voltage will damage the MDVR.
- ✧ The Yellow wire ACC must be connected to power on the MDVR.
- ✧ There is a fuse in case of short-circuit, Replace it when it has blown

## 6. Remote Controller

Key	Function	Image
	Reserved,Useless now.	
Login	Enter main menu	
0-9	The keys are for number selection or switching window. key 0 is for switching to synchronous 4 channels.	
Info	View network status and basic info	
	Switch to four screen	
Esc	Exit to the preview menu or return to the parent menu.	
OK	Confirms parameter selection and settings.	
	Move the cursor.	

### Note:

- ✧ Battery Model: CR2025
- ✧ If you have the monitor,there is another remote control,There are different.
- ✧ Press **【ENTER】** key to enter sub menu.
- ✧ Press **【abc】** on the screen keyboard to switch number\character\letters.

## 7. MDVR setup

When Power on,The VGA Monitor will display,You can use remote control to set the MDVR.

### Note:

- ✧ Click "APPLY" button to save settings.



## 7.1 Login and Password

There is no Password for USER:ADMIN .PASSWORD: BLANK. You can Press 【Login】 and Click 【Apply】 to enter the OSD menu.



After login, enter the main menu. It includes 8 items: SEARCH, RECORD, BASIC, INFO, VEHICLE, DISPLAY, PASSWORD, EXIT.



Enter 【PASSWORD】 to SET the PASSWORD for ADMIN and USER.If you need the PASSWORD for SUPER,please contact the seller.

### Note:

- ✧ Only “Admin” can set “Admin Password” and “User Password”.
- ✧ NO password for admin user in default. Password: blank.

## 7.2 Basic Settings

Basic Settings menu is used to set items about mdvr system configuration, such as Alarm,Date/Time.Disk,Maintain,Network,System.



### 7.2.1 Alarm Settings

- <IO> : Select interface;
- <Trigger> : High and low optional; 4~30V volt input is HIGH
- <CHN Switch> : Switch or not when level is triggered;
- <Disk Failure> : Alarm when no disk or does not recognize the disk;
- <Disk Space> : Alarm when the disk is out of memory;
- <Video Loss> : Alarm when there is no video input.
- <Motion Detection>: Alarm when there is motion detection.

### 7.2.2 PTZ Settings(Optional)

If you have PTZ Cameras, check the settings if it does not work.

### 7.2.3 Date and Time Settings

The MDVR have Rechargeable Battery for RTC. But if the MDVR has powered off for too long time, the date&time may restore factory settings. When the date and time is incorrect, please set manually.



### Note:

- ✧ After modifying the time, click "Modify Datetime" to take effect.

## 7.2.4 Disk Settings



<Auto Format>: Automatically formatted when a new hard disk or SD card is inserted;

<Overwritten>: Automatically overwrite the oldest video file when it is full.

### Note:

- ✧ When device shows "HDD ERR", please enter menu, check the SD/HDD/SSD, and click "STORAGE FORMAT".

## 7.2.5 System Maintain



<Default Settings> :Click to reset to factory reset all the settings

<Restart> :Restart the MDVR

<Standby> :Reserved

### 7.2.6 Network Setup(Optional)

<CMS Setup> : Set the server IP address, port



#### Note:

✧ 47.88.8.31 is IP of our free server. When you setup your own server, change the IP to your own server.

### 7.2.7 System Setup



<Video System> : PAL/NTSC Camera input

<VGA RES> : VGA output display resolution

<Camera Type> : Select the corresponding camera type

“SD” stands for analog camera,

“720P” stands for AHD 720P camera,

“1080P” stands for AHD 1080P camera,

<Language> : English and Spanish,Others can be customized.

### Note:

- ✧ Default setting is for NTSC 1080P AHD camera. Please setup according to the specification of your own cameras.

## 7.3 Vehicle Info Settings

Vehicle Settings is used to set items about mdvr function, such as ACC(G-sensor),WiFi,4G,GPS.



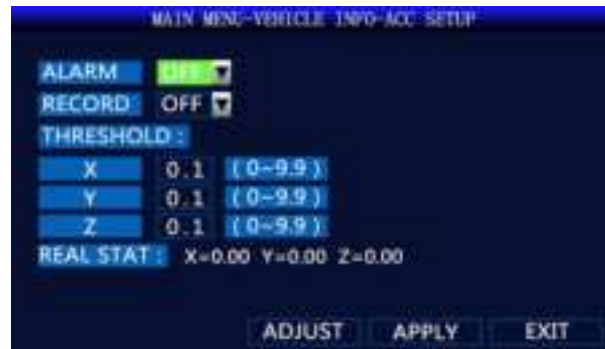
### 7.3.1 Basic Setup

<Vehicle NO.>: Set the number of the machine.

### Note:

- ✧ Vehicle No. Is important for remote access,PLEASE DO NOT CHANGE UNLESS USE YOUR OWN SERVER.

### 7.3.2 ACC Setup



Mdvr has built-in G-sensor. If you turn on the alarm. It will save G-sensor alarm.

After install the MDVR, Click"ADJUST" to Calibration bench mark.

### 7.3.3 ON/OFF Setup



<ON/OFF Model>: Ignition Mode / Timing Mode ( In the ignition mode, the MDVR will automatically turn on after the car is started, and in the timing mode, the MDVR will be turned on at the time set by the user.)

<Delay Shutdown>: OFF/ON. If set to ON, red power wire to battery, yellow power wire to ACC

<Delay OFF Time>: 1~1440 minutes (Effective after restarting)

<Delay REC Time>: 1~1440 minutes (Effective after restarting)

### 7.3.4 4G Wireless Setup(Optional)



<Restart>: When the module cannot be reconnected after disconnection, the module will automatically power off and reset.

APN: Please input according to the 4G SIM card you use.

### Note:

- ✧ APN of T-mobile in UNITED STATES:fast.t-mobile.com
- ✧ APN of AT&T in UNITED STATES:BROADBAND
- ✧ APN of VERIZON in UNITED STATES: vzinternet
- ✧ Please refer to 7.6 if need IMEI number. Please active the sim card before using.

#### 7.3.5 Wi-Fi Setup(Optional)



- WiFi : Set to STA,not OFF.  
<Search> : Search for nearby WiFi hotspots.  
< Status> : View WiFi connection status  
<Hotspot> : It can save 5 WiFi hotspots  
<IP Config> : Set to AUTO

### Note:

- ✧ WiFi should be STA Mode,not OFF.
- ✧ The MDVR will automatically connect to the hotspot you saved.
- ✧ Work with 2.4G wifi ONLY.
- ✧ Turn off the firewall in the wifi router.
- ✧ No special character in the SSID and password of the wifi hotspot.

#### 7.3.6 GPS Setup(Optional)

- <Overspeed Value> : Above the set speed, the device will alarm  
<Lowspeed Value> : Below the set speed, the device will alarm

## 7.4 Display Setup



<Hor. Flip>: Flip the video image horizontally. Restart mdvr to work.

<Ver. Flip>: Flip the video image vertically. Restart mdvr to work.

## 7.5 Record and Playback

### 7.5.1 Record Settings



<RECORD> : select whether the channel is recording.

<AUDIO> : select whether the audio is recording.

<REC.MODE> : Optional boot recording / timer recording; when setup to timer, you can schedule the time that start and stop the recording. Also you can set to only record on alarm videos.

### Note:



✧ Low Stream Config is to set the parameter of remote sub stream

## 7.5.2 Playback



Record Search: Search, playback, and backup of video files on disk. It can Fast forward and rewind when playback on MDVR.



### Note:

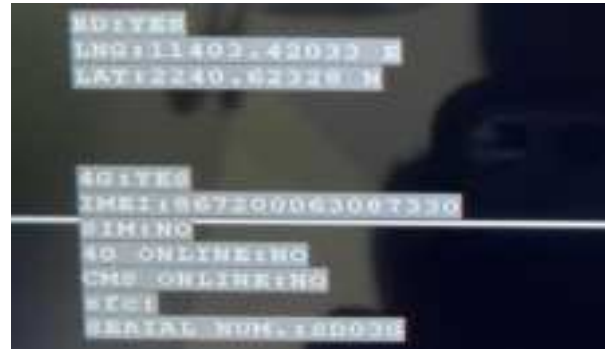
Enter File List, Select the files, You can play it on the monitor, or backup to U-Disk,

## 7.6 System Info

Check the system info, If you need help, please offer the info to service.



Press the button "Info" on remote control, will be showed the online information.



**GPS:**YES means recognize the GPS module;

**LNG:**11349.71392 E Display longitude, 0.0 means GPS not working

**LAT:**2236.43040 N Display latitude, 0.0 means GPS not working

**4G:**YES means recognize module, 4G:NO means not recognize module

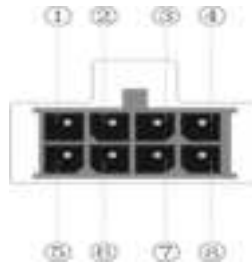
**IMEI:** to active 4G sim card.

**SIM:**YES means recognize the SIM card, SIM:NO means not recognize the SIM card

**4G ONLINE:**YES means networked, 4G ONLINE:NO means not connecting

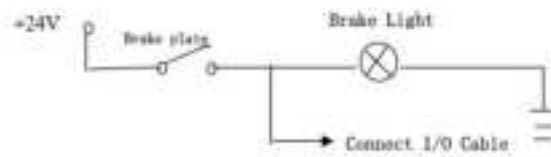
**CMS ONLINE:**YES means connected the server, CMS ONLINE:NO means not connect the server.

## 8. I/O Interface

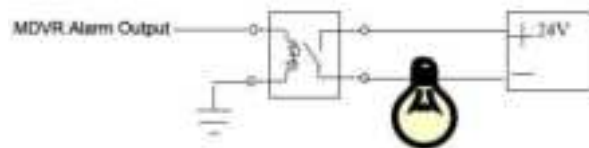


- ① Alarm-2    ② Alarm-4    ③ Alarm Output    ④ 485B  
 ⑤ Alarm-1    ⑥ Alarm-3    ⑦ GND    ⑧ 485A

There is 4 alarm input, 2 alarm output. Alarm input detection are voltage; can be accessed by variety of vehicles driving status, such as brakes, steering, horn and so on. Brake testing schematic shown below, when the brake pedal is depressed, MDVR able to detect high or low voltage.



Alarm outputs are voltage output. Drive capability of 200mA, if you want large power devices, must be externally relays. Alarm output photoelectric schematic shown below.



## 9. Web Client on PC or Mobile(Optional)

If your MDVR is a network model, and have set a valid wifi or 4G network, you can visit the MDVR system via Webpage, PC client or mobile App. For webpage, you can visit the below url and login in .

<http://47.88.8.31/808gps/login.html>



In this webpage, you can also download Windows Client or Mobile App.



CMS Pc client software

### Note:

Find Account on the label of MDVR

Password: 000000 (can change on CMSV7 web/APP)

Server: 47.88.8.31

## Live view videos on CMSV7 APP(for wifi or 4G MDVR)



Step 1:  
• Download CMSV7 APP  
• The account information is on the label of mdvr



Step 2:  
Click the 'Monitor'



Step 3:  
Click the vehicle icon



Step 4:  
Select the mdvr that you want to view video



Step 5:  
Click the 'Preview' button.  
Then you can view the video and gps tracking.



Note:  
When mdvr and phone connects with the same wifi hotspot, you can click the 'Find' button to select mdvr. Then you can live view/playback/download video in local network, speed will be faster.

IOS CMSV7



ANDROID CMSV7



WEB CMS



## 10. FAQ

### Q:Why the MDVR do not power on?

- Please make sure the SD card door is locked.
- Please make sure the YELLOW ACC wire gets power too.
- The fuse on the power input wire is burnt out;

### Q:Why the MDVR do not power on?

- Enter OSD menu via Admin account.
- Operation->Display-> Check Horizontal Flip

### Q: System shows “HDD ERR” after insert a SD card?

- It needs to format the SD card when use the SD card first time. Please check the video. If it still shows “HDD ERR” after formatting the SD card, please change to use another SD card.
- Enter OSD menu via Admin account.
- Main->Basic-> Disk. Select the SD and Click “Format”.

### Q: MDVR turns on and off automatically all the time?

- Please remove the SD card or change another SD card. Bad SD card will lead to this issue.

### Q: How to set up recording resolution?

- Please enter menu via Admin account, default password is empty.
- Main->Record->Resolution (it can set CIF/HD1/D1/960H/720P).

### Q: How to connect and use the IO cable?

- It supports 4 channel alarm input.
- Please refer to section 7 I/O interface in this manual.

### Q: Where to download the APP, CMSV6 software and PC playback software?

- Please check below link to download the software.  
<http://47.88.8.31/808gps/login.html>

### Q:There are Blank screen of some channels?

- This channel is not connected to the video;
- The camera connected to this channel is damaged or abnormal;
- Poor contact or damage of the cable connecting this channel;

### Q:There is no GPS signal?

- GPS antenna is not connected or placed indoor;
- GPS module is damaged;

### Q:Screen shows display but no video at all channels.

- Please connect only one channel and test all 4 channels. Short circuit in one channel will lead to this issue.

## FCC statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions :

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

Reorient or relocate the receiving antenna.

Increase the separation between the equipment and receiver.

Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

WARNING: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

The device must not be co-located or operating in conjunction with any other antenna or transmitter.

## CE statement

This product bears the selective sorting symbol for Waste electrical and electronic equipment (WEEE). This means that this product must be handled pursuant to European directive 2012/19/EU in order to be recycled or dismantled to minimize its impact on the environment.

User has the choice to give his product to a competent recycling organization or to the retailer when he buys a new electrical or electronic equipment.



The symbol indicates DC voltage



RECYCLING

**Scan the QR Code for more information.**

**Wiring Video**



**PC Playback Player**



**Menu Operation**



**Shenzhen JOINLGO Technology Co., Ltd.**



**Tel/Whatsapp : 0086 18124010269**



**Email: [sale@joinlgo.com](mailto:sale@joinlgo.com) / [service@joinlgo.com](mailto:service@joinlgo.com)**



**Website: [www.joinlgo.com](http://www.joinlgo.com)**