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FEATURES:

- Built-in high performance Hisilicon chipsets, coded with H.264 standard, high compression rate and image quality
- 4CH AV Inputs with AHD 1080p/720P/960H/D1/CIF optional, 1CH synchronized AV output, 1CH VGA output
- 4CH local recording with 1080p (1080N) resolution in real time

Power:

- Professional In-Vehicle power design, 8-36V DC Wide Voltage Range
- Multi protection circuits like under-voltage, short, reversed plug-in
- Smart power management system, shutdown under low voltage, low consumption

Data Storage:

- Special file management system to encrypt and protect the data
- Proprietary technology to detect the bad track of the hard drive which can make sure the continuity of video and long service life of the hard drive
- Built-in ultracapacitor, avoid data loss and sd card damage caused by sudden outage
- Support 2.5 inch HDD/SSD, maximum 2TB
- Support SD card storage, maximum 256GB

Transmission Interface:

- Support 4G transmission, LTE/HSUPA/HSDPA/WCDMA/EVDO/TD-SCDMA
- Support GPS/BD optional, high sensitivity, fast positioning
- Support wireless download by WiFi, 802.11b/g/n, 2.4GHz

MDVR Specification:

Technical parameter:		
Item	Device parameter	Performance
System	Main processor	Hi3520DV300
	Operating system	Embedded Linux OS
	Operating language	Chinese/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
	Decoding ability	1ch 1080p real time
	Recording quality	Class 1-6 optional
	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/Automatic/Remote/Emergency Recovery
	Upgrading method	USB disk/Wireless network/SD card
Interface	AV input	4ch 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 256GB)
	USB interface	1 USB 2.0 (support U disk/mouse)
	Ignition input	1 ACC signal
	UART	1 LVTTL Level
	LED Indication	PWR/RUN
	Disk /SD card lock	1
	Debug port	1
Function extension	GPS/BD	Support detecting antenna Plug in/Unplug/Short circuit
	3G/4G	Supports CDMA/EVDO/GPRS/WCDMA/FDD LTE/TDD LTE
	WIFI	802.11b/g/n, 2.4GHz
Others	Power input	8~36V DC
	Power consumption	Standby 3mA Maximum consumption 30W @12V 2.5A @24V 1.25A
	Working temperature	-30 --- 70℃
	Storage	1080P 1.5G/h/channel 1080N 1.2G/h/channel 720P 1G/h/channel 960H 750M/h/channel
	Dimension	148mm*188mm*60mm

Project	Spe.	Feature
Power Input	8—36V	DC+8V~+36V, if lower than 8V, or higher than 36V, the MDVR will be shutdown, into protect status
Power Output	12V	Output :12V (+/-0.2V), max 2A.
Key Signal	$\leq 4V$	Key off.
	$\geq 5V$	Key on.
Video Input(Ω)	75 Ω	75 Ω /CH.
Video Output	2Vp-p	One 2Vp-p CVBS One 75 Ω
I/O	0—4V	Low voltage alarm
	>4V	High voltage alarm
SD Card Slot	SD Card	<ol style="list-style-type: none"> 1、 Support SD Card up to 128G, Support two SD Cards 2. Support upgrade.
Temperature	-30°C - 70°C	-30°C-70°C with good environment

2.Feature

2.1 Remote control application



Picture.3 Remote control

Key Function:

1."Info": view network status

2."Menu": main menu

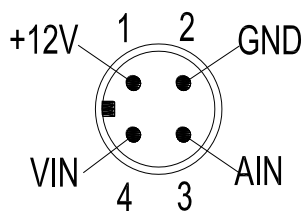
3.Number:

【 0 — 9 】 :Under the configuration mode, 0~9 stand for numbers; under the playback mode, 1, 2, 3 and 4 are for switching between related single channel,

4. “ ↑ ↓ ” : up,down;

“ ← → ” : left,right;

2.2 MDVR interface

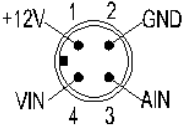


1、 12V: For camera and voice record, 2、 Negative, 3、 AIN: For Audio; 4、 VIN: For Video;

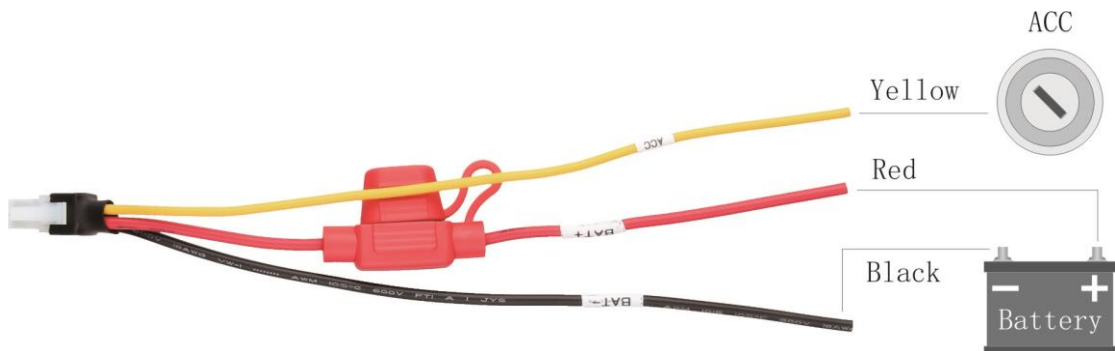
Picture.4 MDVR interface

Back Panel

Back Panel

Interface	item	Feature
Power	DC8-36V	Power inpute (red for positive , black is for negative, yellow is connect to ignition cable, when switch mode set up in ignition mode)
Video/Audio input	CAM1-4 (AV1-AV4)	 Video/Audio Input interface
Video output	VOUT	Video output
Audio output	AOUT	Audio output
IO/ALARM	IO/ALARM	IO/ALARM
USB	USB	Mouse

3. Power



Picture.5 Power

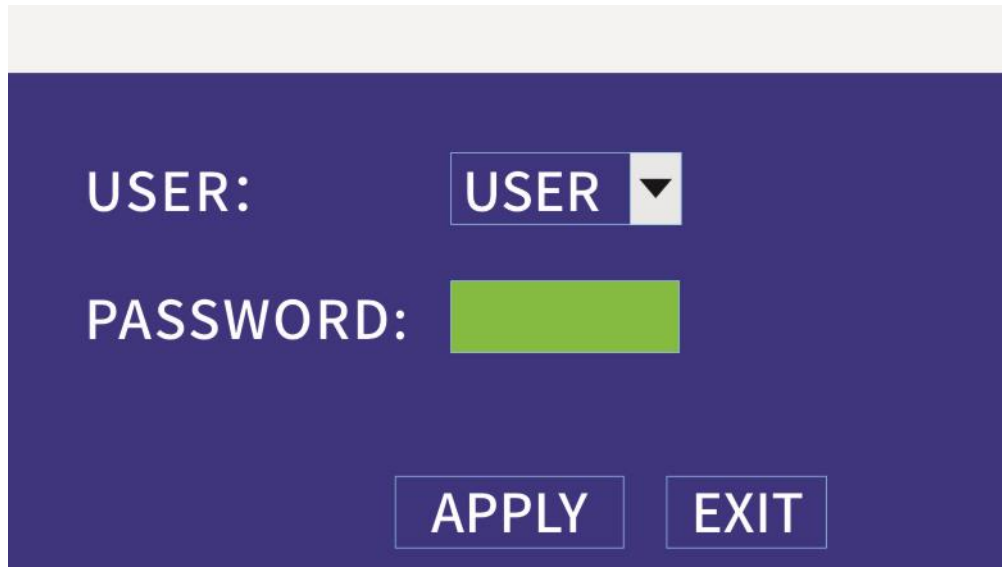
1) Make sure the volt is 8-36V before you connect with the battery , or the MDVR will be burn up

2) Yellow cable must to connect with the ACC , or the DMVR can

not be delay shutdown,the video will be lose.

4 System User login

After connect the power, press “Login” to login without password. **(There is no password before you setup)**

The image shows a login interface with a dark blue background. At the top, there is a light grey header bar. Below it, the text "USER:" is followed by a text input field containing "USER" and a dropdown arrow. Below that, the text "PASSWORD:" is followed by a solid green rectangular box. At the bottom, there are two buttons: "APPLY" and "EXIT".

USER: USER ▼

PASSWORD: [Green Box]

APPLY EXIT

Picture.6 Login

5 Main Menu



Picture 7 Mail Menu

< SEARCH>: Search for video files stored in the hard disk/SD card and perform playback operations;

<RECORD>: Set the audio and video parameters, working mode, etc.;

<BASIC>: Set alarms, ptz, time, network, disk, system, etc.;

<INFO>: Display device serial number, version number, SIM card, GPS module, WIFI, MAC address, etc.;

<VEHICLE>: Set vehicle number, switch settings, wireless settings, WIFI settings, etc.;

<DISPLAY>: Set monitor screen and video data content, channel name, time overlay, boot preview screen, etc.;

<PASSWORD>: Set menu password.

5.1 Record Search

MAIN MENU-RECORD SEARCH

CHN ALL ▾ PLAY BACK

DATE 2018-02-28 09:32 SEARCH

	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
FEB.	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
	00	01	02	03	04	05	06	07								
28th	08	09	10	11	12	13	14	15								
	16	17	18	19	20	21	22	23								

FILE LIST EXIT

Picture.8 Record Search

Record Search: Search, playback, and backup of video files on disk

5.2 Record Setup

MAIN MENU-RECORD SETUP

CHANNEL ALL ▾

RECORD

RESOLUTION 720P ▾ BITRATE L ▾

FRAMERATE 25 QUALITY 1 ▾

AUDIO REC. SIZE 15 MIN ▾

REC. ALL REC. MODE POWER UP ▾

SNAP RES D1 ▾

LOW STREAM CONFIG DEFAULT APPLY EXIT

Picture.9 Record Setup

<RECORD>: You can select on/off to select whether the channel is recording;
<RESOLUTION>: D1 / HD1 / CIF / 720P / 1080N / 1080P resolution optional;
<BITRATE>: High / medium / low optional;
<FRAMERATE>: 1 to 25 (or 30) optional;
<QUALITY>: 1 to 6 optional; the smaller the value, the better the image quality;
<AUDIO>: Optional on/off;
<REC. SIZE>: 15 minutes / 30 minutes / 45 minutes / 60 minutes optional;
<REC.MODE>: Optional boot recording / timer recording;
<SNAP RES>: D1/CIF/HD1/960H/720P/1080P optional.

5.3 Basic Setup



Picture.10 Basic Setup

<Alarm>: Set the switches and parameters of various alarm inputs;
<PTZ>: Set the PTZ parameters;
<Date/Time>: Set system time, daylight saving time;
<Disk>: Display disk status, provide hard disk, SD card, U disk formatting function;
<Maintain>: Set automatic restart, system upgrade, factory reset;
<Network>: Set network, server IP;
<System>: Set system language, camera format, output resolution, camera type.

5.3.1 Alarm Setup

MAIN MENU—BASIC—ALARM SETUP

IO ALL ▼

TRIGGER HIGH ▼ CHN Switch NO ▼ RECORD

DISK FAILURE DISK SPACE

VIDEO LOSS

ALARM SET OUTPUT 010 ▼ BUZZER 000 ▼

DELAY 060 ▼ ADVANCE 000 ▼

EMAIL

DEFAULT APPLY EXIT

Picture.11 Alarm Setup

<IO>: Select interface;

<Trigger>: High and low optional;

<CHN Switch>: “YES/NO”: switch or not when level is triggered;

<Disk Failure>: Alarm when there is no disk or the device does not recognize the disk;

<Disk Space>: Alarm when the disk is out of memory;

<Video Loss>: Alarm when there is no video input.

5.3.2 PTZ Setup

The screenshot shows a terminal window titled "MAIN MENU-BASIC SETUP-PTZ SETUP". It contains a list of configuration options, each with a label and a value in a dropdown menu. The "PROTOCOL" option is highlighted in green. At the bottom, there are three buttons: "DEFAULT", "APPLY", and "EXIT".

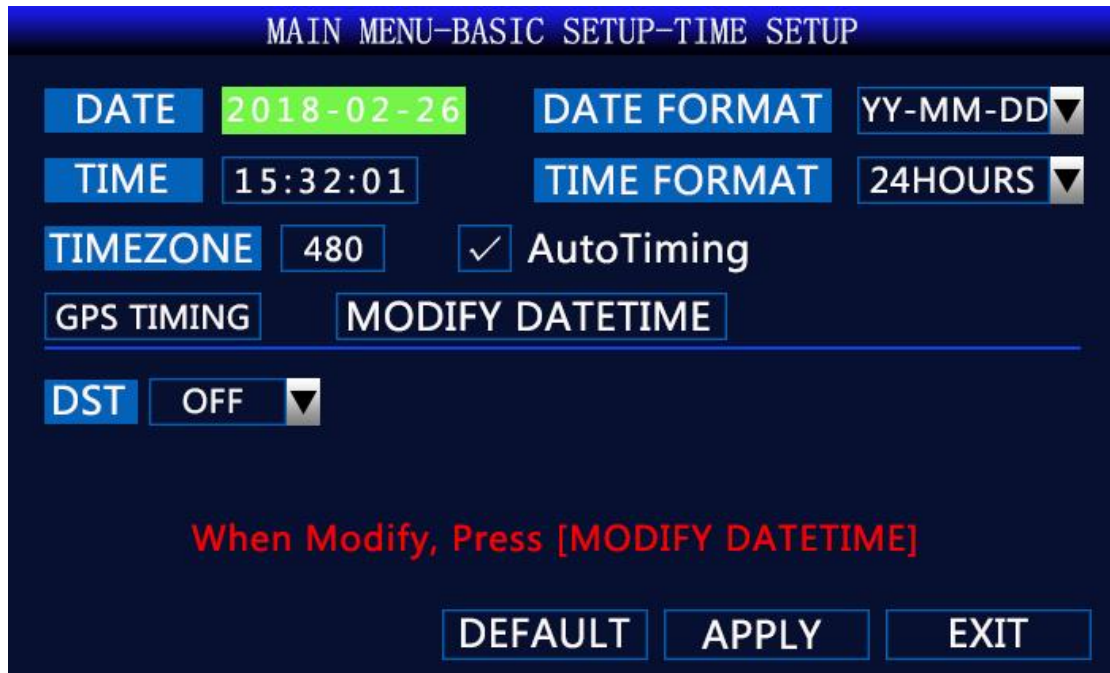
Label	Value
CHANNEL	ALL
PROTOCOL	Pelco-D
BAUD RATE	9600
DATA BIT	8
VERIFY	ODD
STOP BIT	1
ADDRESS	001

Buttons: DEFAULT, APPLY, EXIT

Picture.12 PTZ Setup

- <Protocol>: Support PELCO-D and PELCO-P;
- <Baud Rate>: 1200、2400、4800、9600 bps optional;
- <Data Bit>: 5,6,7,8 optional;
- <Verify>: Odd、Even、Mark、Space、None optional;
- <Stop Bit>: 1、1.5、2 optional;
- <Address>: 001~255.

5.3.3 Time Setup



Picture.13 Time Setup

<Date>: Set year, month, day;

<Time>: Set hour, minute, second;

<Date Format>: MM/DD/YY or YY-MM-DD;

<Time Format>: 12-hour system or 24-hour system;

<Auto Timing>: Automatically synchronize with GPS satellite time;

<Modify Datetime>: After modifying the time, select "Modify Datetime" to take effect.

5.3.4 HDManagement



Picture.14 HDManagement

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

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

5.3.5 System Maintain



Pictures.15 System Maintain

<System Update>:

- 1.Copy the files to be upgraded to the updatedvr directory of the SD card.
- 2.Insert the SD card into the device.
- 3.Click the <System Upgrade> button.

5.3.6 Network Setup

MAIN MENU-BASIC SETUP-NETWORK SETUP		
TYPE	DHCP	DDNS SETTINGS
MEDIA PORT	09000	CMS SETUP
WEB PORT	00080	
IP	192.168.003.077	
AUTO DHCP	0.0.0.0	
DNS	202.096.134.133	
DEFAULT APPLY EXIT		

Picture.16 Network Setup

<Media Port>: Generally not modified

<WEB Port>: Generally not modified

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

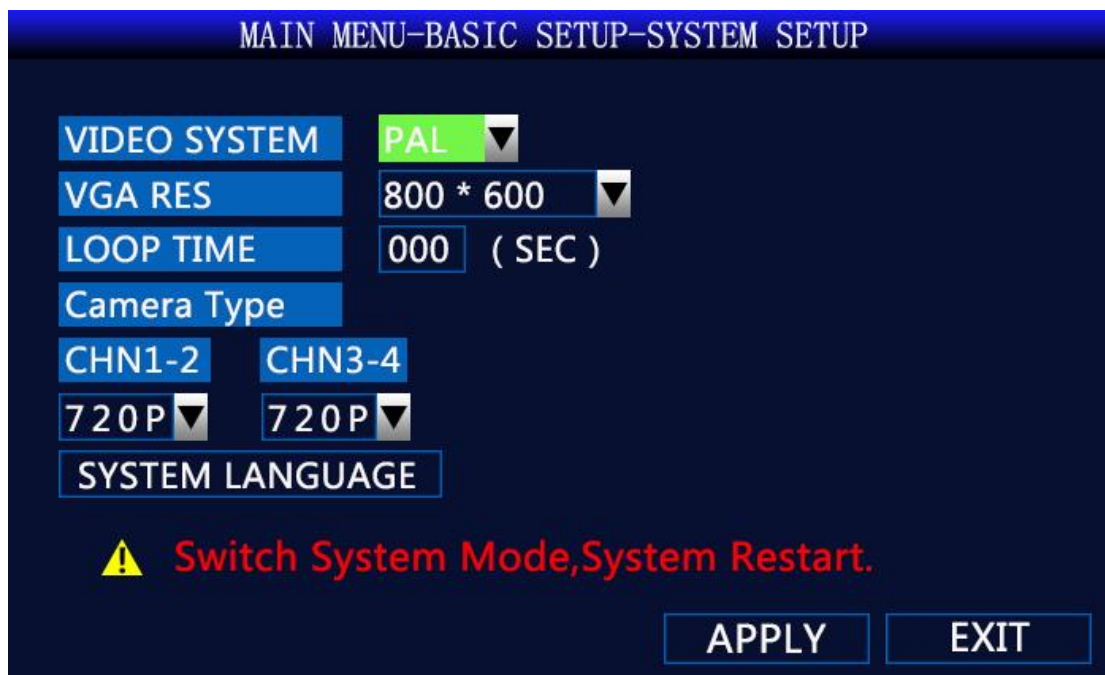
MAIN MENU-BASIC SETUP-NETWORK SETUP-CMS SETUP	
ACCESS TYPE	IP Address
SERVER IP	113.096.131.200
SERVER DOMAIN	
SERVER PORT	06608
Default APPLY EXIT	

Picture.17 CMS Setup

<Access Type>: select "IP Address"

<Server IP>: 113.096.131.200 (Configure according to your own server IP)

5.3.7 System Setup



Picture.18 System Setup

<Video System>: PAL(Default)/NTSC

<VGA RES>: VGA output display resolution

<Camera Type>: “SD” stands for analog camera, “720P” stands for AHD 720P camera, “1080N/1080P” stands for AHD 2 megapixel camera, Select the corresponding camera type to display properly

<System Language>: Set system language, including Chinese, English, and Traditional Chinese

Note: Switch system mode, system restart

5.4 System Info



The screenshot shows a dark blue interface with white text. At the top, it says 'MAIN MENU-SYSTEM INFO'. Below this, there is a list of system information items, each with a blue highlight on the left side. The items are: SERIAL NO. (20300613408), SOFTWARE VERSION (D2018012482), Mac ADDRESS (00:77:77:77:77:77), SIM CARD (NO), GPS MODULE (YES), GPS SIGNAL (INVALID), WIFI MODULE (NO), WIFI CONNECT (NO), WIRELESS MODULE (YES), and WIRELESS CONNECT (NO). In the bottom right corner, there is a green button labeled 'EXIT'.

MAIN MENU-SYSTEM INFO	
SERIAL NO.	20300613408
SOFTWARE VERSION	D2018012482
Mac ADDRESS	00:77:77:77:77:77
SIM CARD	NO
GPS MODULE	YES
GPS SIGNAL	INVALID
WIFI MODULE	NO
WIFI CONNECT	NO
WIRELESS MODULE	YES
WIRELESS CONNECT	NO

EXIT

Picture.19 System Info

<SIM Card>: “Yes” means the SIM card is recognized, “NO” means not

<GPS Module>: “Yes” means the GPS module is recognized, “NO” means not

<GPS Signal>: “INVADLID” indicates that there is a signal

<WiFi Module>: “Yes” means the WiFi module is recognized, “NO” means not

<WiFi Connect>: “Yes” means successful networking, “NO” means not

<Wireless Module>: “Yes” means the 3G/4G module is recognized, “NO” means not

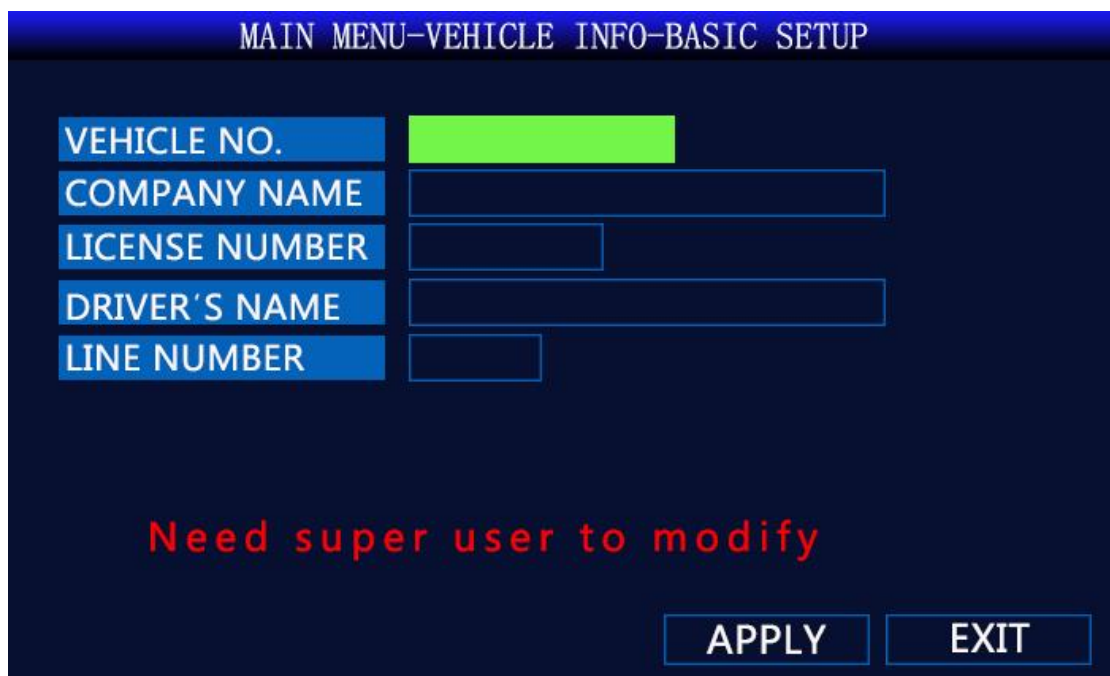
<Wireless Connect>: “Yes” means successful networking, “NO” means not

5.5 Vehicle Info



Picture .20 Vehicle Info

5.5.1 Basic Setup



Picture.21 Basic Setup

<Vehicle NO.>: Set the number of the machine (3G\4G function device requires super administrator setting)

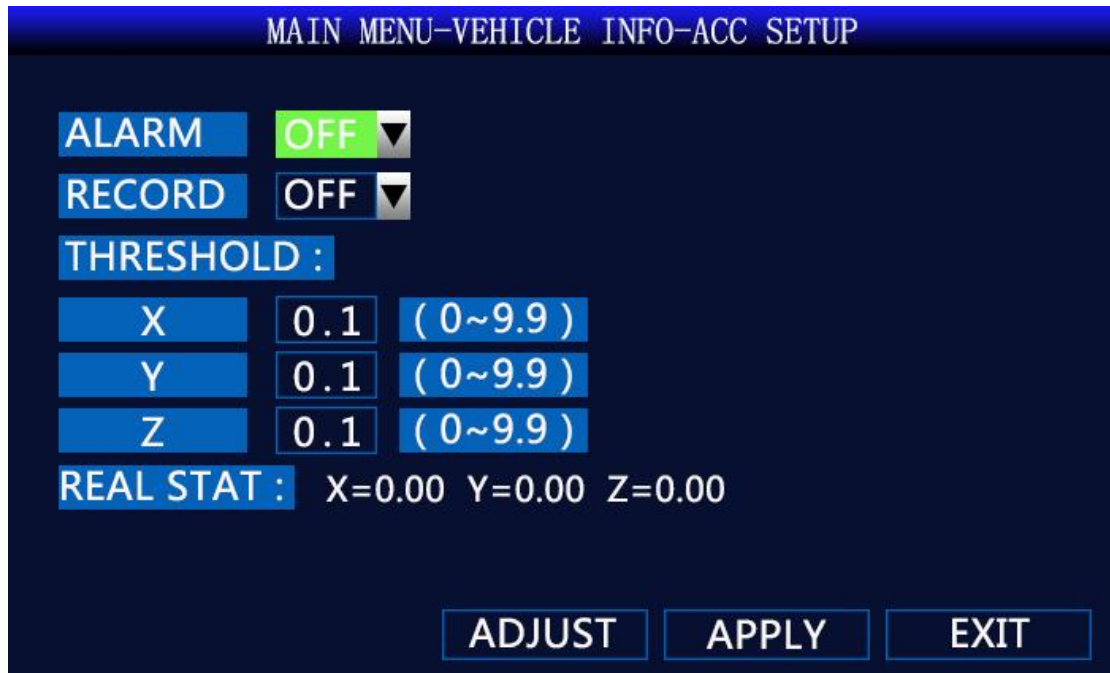
<Company Name>: Enter your company's name;
<License Number>:Enter license number of the car;
<Driver's Name>:Enter driver's name;
<Line Number>:Enter line number.

5.5.2 Speed Setup



Picture.22 Speed Setup

5.5.3 ACC Setup



Picture.23 ACC Setup

5.5.4 Temperature Setup



Picture.24 Temperature Setup

5.5.5 ON/OFF Setup

MAIN MENU-VEHICLE INFO-ON/OFF SETUP

ON/OFF MODEL	Ignition Mode ▼
DELAY SHUTDOWN	OFF ▼
DELAY OFF TIME	0000 (Minutes)
DELAY REC TIME	00 (Minutes)
POWER OFF DELAY	03 (Sec)

DEFAULT APPLY EXIT

Pictures.25 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.)

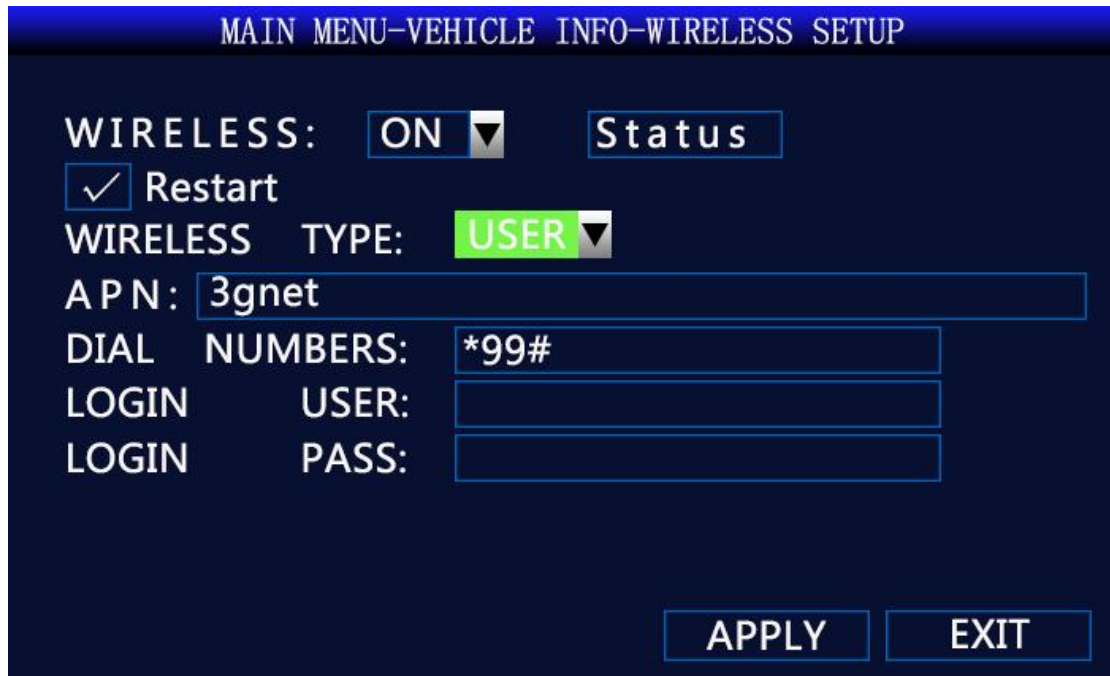
<Delay Off Time>: 1~300 minutes (Effective after restarting)

MAIN MENU-VEHICLE INFO-ON/OFF SETUP

ON/OFF MODEL	Timing Mode ▼
BOOT TIME	00:00:00
SHUTDOWN TIME	23:59:59

DEFAULT APPLY EXIT

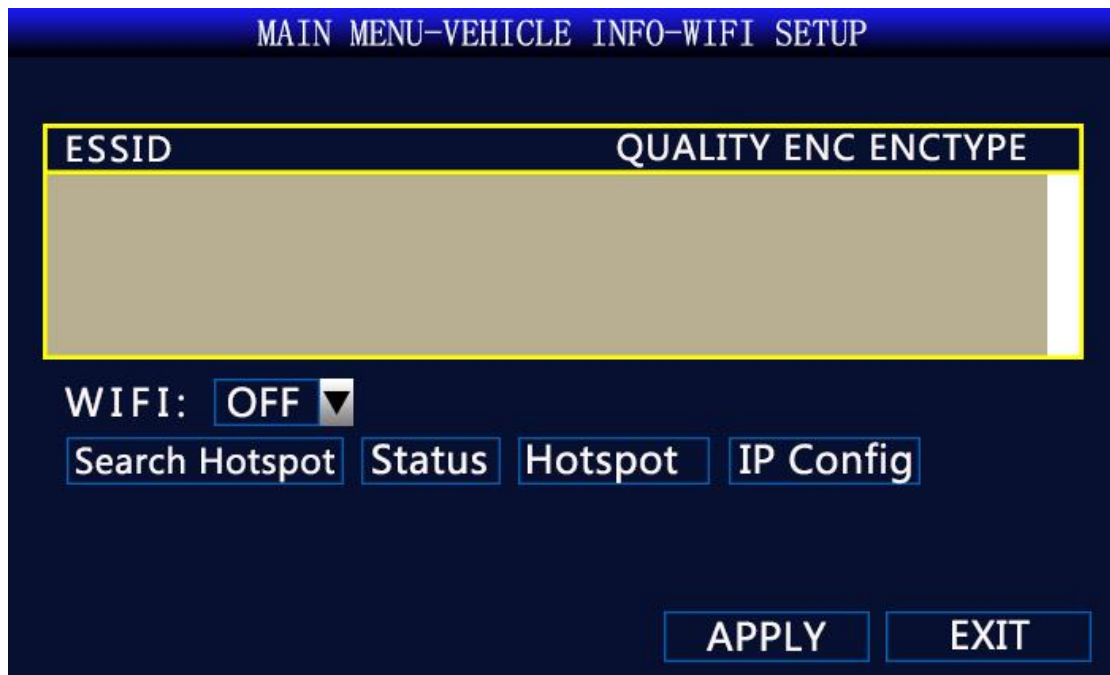
5.5.6 Wireless Setup



Picture.27 Wireless Setup

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

5.5.7 WiFi Setup



Picture.28 WiFi Setup

<Search Hotspot>: Search for nearby WiFi hotspots

< Status>: View WiFi connection status, IP address and other information

<Hotspot>:It can configure 5 WiFi hotspots

<IP Config>: Get IP address, DNS, etc.

5.5.8 GPS Setup

MAIN MENU-VEHICLE INFO-GPS SETUP

GPS BAUDRATE	9600 ▼
GPS SEND INTERVAL	0010
SEND ALARM SWITCH	ON ▼
ALARM INTERVAL	02
PARKING TIMEOUT	000
OVERSPEED VALUE	060
LOWSPEED VALUE	000
SPEED UNIT	KMH ▼

DEFAULT APPLY EXIT

Picture.29 GPS Setup

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

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

5.6 Display Setup

MAIN MENU-DISPLAY SETUP

CHN	CH1 ▼		
NAME	CH1	POSITION	BOTTOMRIGHT ▼
PREVIEW	<input checked="" type="checkbox"/>	COLOR SETUP	
Hor. Flip	<input type="checkbox"/>	Ver. Flip	<input type="checkbox"/>
PREVIEW TIME	TOP ▼	RECORD TIME	DOWN ▼
PREVIEW GPS	OFF ▼	RECORD GPS	OFF ▼
Startup Preview	QUAD ▼	00	
MASK FIELD SETUP	VOLUME SETUP		

DEFAULT APPLY EXIT

Picture.30 Display Setup

<Hor. Flip>: Flip the video image horizontally
<Ver. Flip>: Flip the video image vertically

5.7 Password Setup

MAIN MENU-PASSWORD SETUP

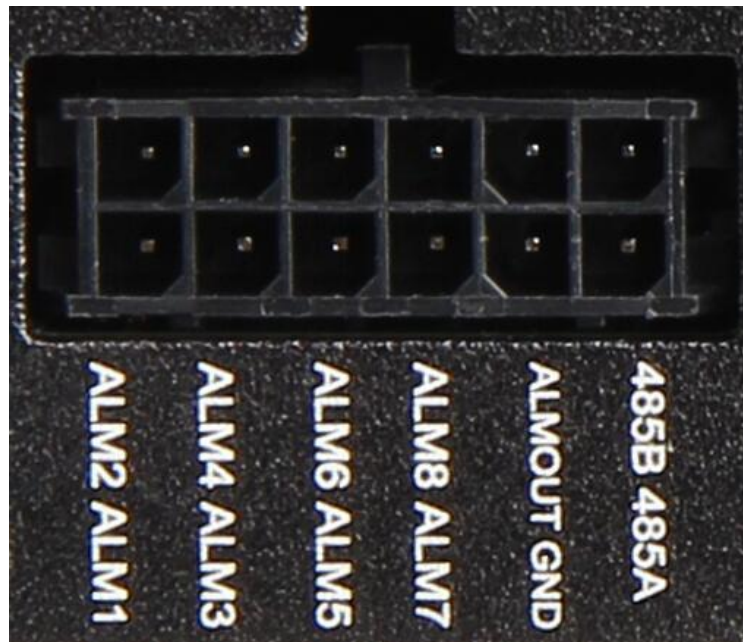
DEVICE ID	000000		
USE PASSWORD	ON		
ADMIN PASSWORD		INPUT AGAIN	
USER PASSWORD		INPUT AGAIN	

APPLY EXIT

Picture.31 Password Setup

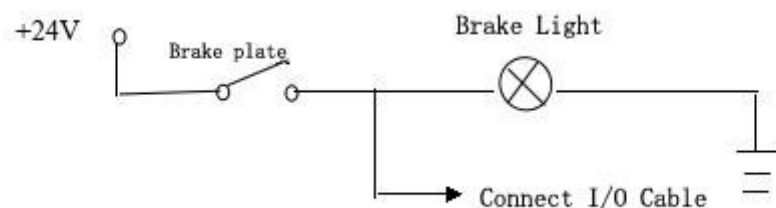
Only “Admin” can set “Admin Password” and “User Password”

6 I/O Interface



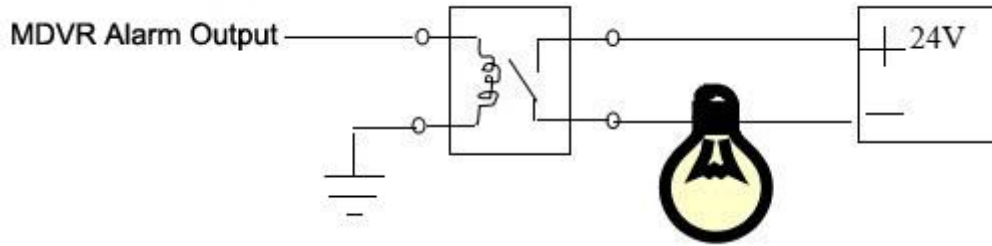
Picture.32 IO Interface

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.



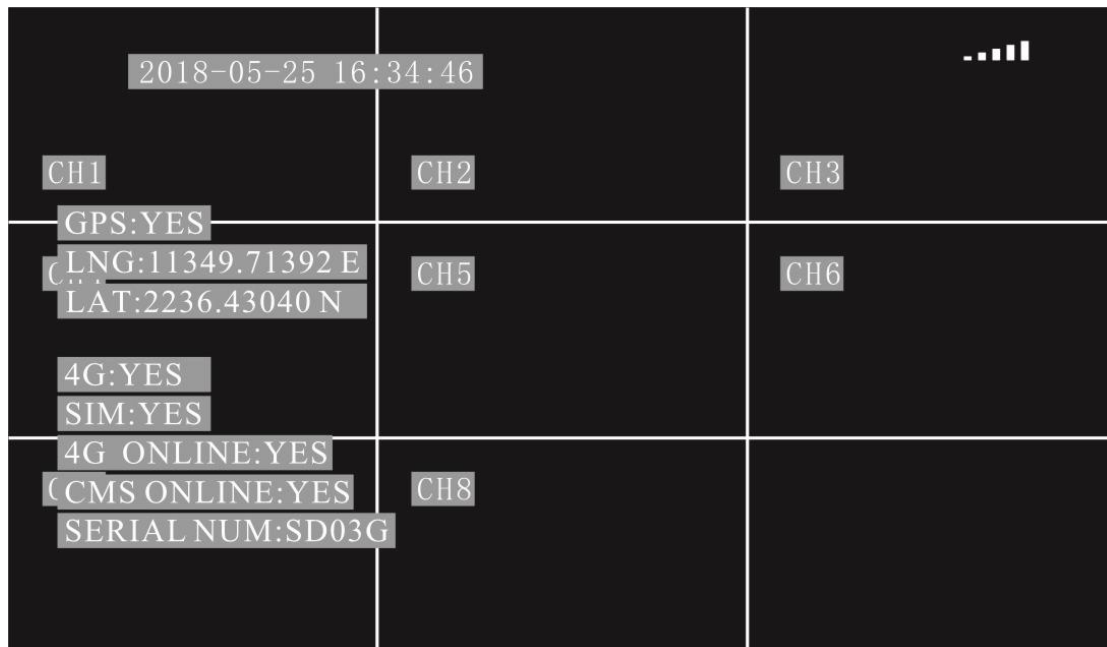
Picture.33 Brake testing schematic

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.



Picture.34 Alarm Schematic

7 Check Networking(Online) Status



Picture.35 Check Networking(Online) Status

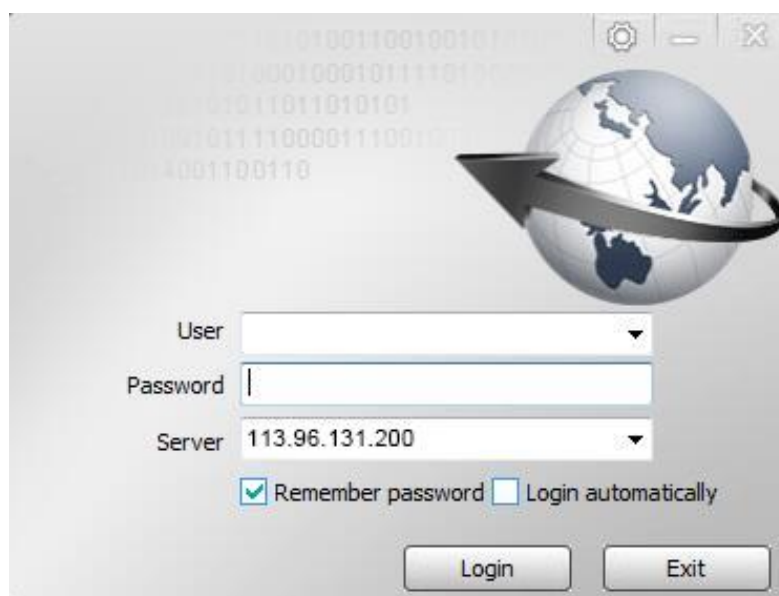
Press the button “Info” on remote control, will be showed the online information.
GPS:YES means recognize the GPS module; **GPS:NO** means not recognize GPS module
LNG:11349.71392 E Display longitude, **0.0** means GPS not working
LAT:2236.43040 N Display latitude, **0.0** means GPS not working
4G:YES means recognize module, **4G:NO** means not recognize module
SIM:YES means recognize the SIM card, **SIM:NO** means not recognize the SIM card
4G ONLINE:YES means networked, **4G ONLINE:NO** means no connecting network
CMS ONLINE:YES means connected the server, **CMS ONLINE:NO** means not connect the server

8 CMSV6 Installation Instruction

1.For PC download from <http://113.96.131.200/>



Picture.36 CMSV6 download



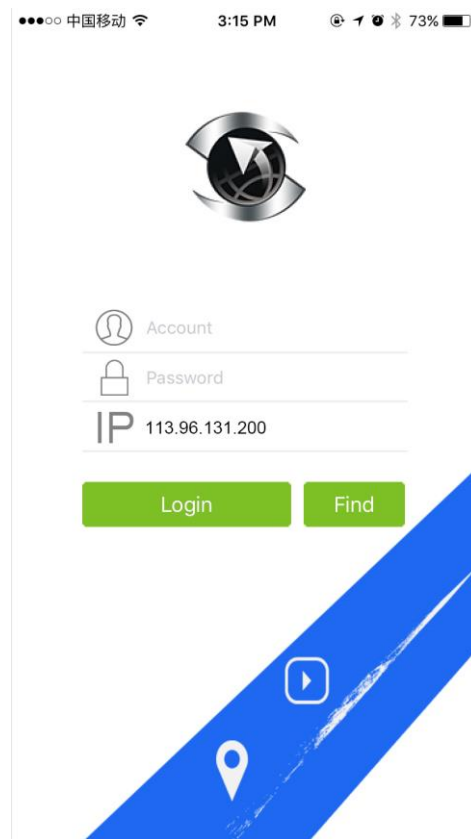
Picture.37 login interface on PC

User: Mark on the device label

Password: Default 000000

Server: Enter IP 113.96.131.200(if you do not built your own server)

2.For smart phone, search “CMSV6” in the app store and download.



Picture.38 login interface on phone

Account(User): Mark on the device label

Password: Default 000000

Server(IP): Enter IP 113.96.131.200 (if you do not built your own server)