



Instruction Manual

2 Channel AHD Mobile DVR

RVS-2200



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Catalogue

1	Cautions	3
2	Product specification	4
3	Interface, Wiring, Installation	6
3.1	Front panel interface	6
3.2	Back panel interface	7
3.3	Wiring instruction	9
3.3.1	AV input cable	9
3.3.2	Power cable	9
3.4	Device Installation Guide	10
4	Software keyboard input	11
5	Mobile DVR Operation Guide	11
5.1	Users' login	12
5.2	Directly preview interface	13
5.3	System setting	13
5.3.1	General setting	14
5.3.2	Video setting	14
5.3.3	Record setting	15
5.3.4	Alarm control	15
5.3.5	Record setting	16
5.3.6	Monitor display	17
5.4	Advanced options	18
5.4.1	System upgrade	18
5.4.2	Restore default	19
5.4.3	Display settings	19
5.4.4	Username	20
5.4.5	Encode Overview	20
5.5	System Info	21
5.6	File backup	22
5.7	Disk management	22
5.8	Vehicle settings	23
5.8.1	Basic Info	23
5.8.2	G-sensor	24
5.8.3	Power Management	24
5.8.6	Network Settings	25
5.9	Playback	26
6	F.A.Q	27

1 Interface, Wiring, Installation

Please read entire manual before use.

- This product is designed for use in a vehicle. Do not use in a rainy/humid environment.
- Remove from power immediately if any liquid/solid enters the DVR. Contact a qualified technician.
- Do not attempt to repair Mobile DVR yourself.
- Default Password: NULL

► Installation environment

- Working Power Range: DC 9V - DC 30V
- Do not install Mobile DVR in locations with moisture, dust, or near a heat source.
Install in a well ventilated location.
- Working/Storage Temperature: -20°C - +70°C
- Do not disassemble the product at will.

2 Product Specification

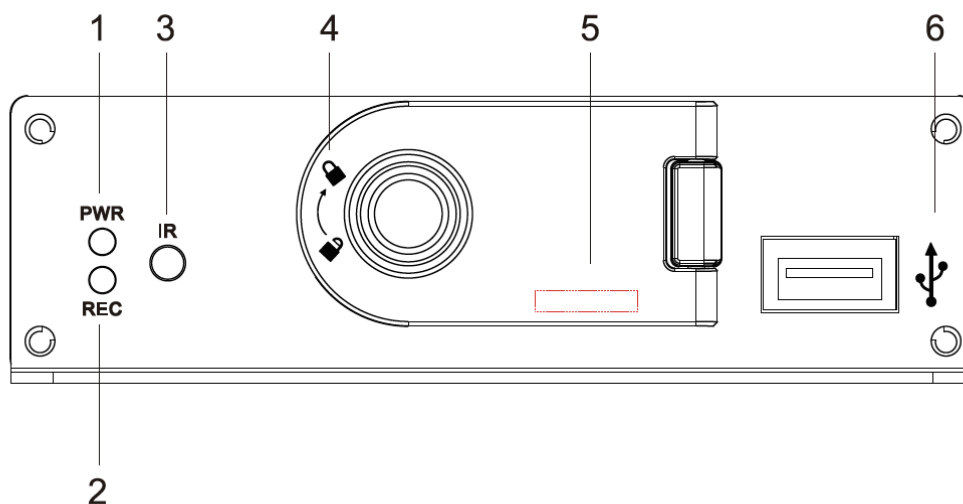
Mobile DVR Specifications

Main processor	Hi3520DV300
Operating System	Embedded Linux OS
Operating Language	Chinese/English
Operating Interface	GUI, support mouse
Password Security	User Password / Admin Password
Video Standard	PAL/NTSC
Video Compression	H.264
Image Resolution	720P/960H/D1/CIF
Playback Quality	720P/960H/D1/CIF
Compound Mode	A variety of ways
Image Display	Single/Split/QUAD display optional
Audio Compression	G.711
Audio Recording	Audio & Video synchronized recording
Video	2-Channel aviation-type VIDEO
Audio	2-Channel aviation-type AUDIO
Video Output	Aircraft
Recording Mode	Manual/Alarm
Recording & Playback Video Bit Rate	Full frame 4096Mbps, 6 classes image quality optional
Recording & Playback Audio Bit Rate	8KB/s

Storage Media	SD card
Video Inquiry	Inquiry by channel/Recording type
Local Playback	Playback by file
Firmware Upgrading Mode	Manual/Automatic/Remote
Firmware Upgrading Method	USB disk/Wireless network/SD card
AV Input	2ch aviation interface
SD Card	1 Micro SD card (up to 512 GB)
USB Interface	1 USB 2.0 (support U disk/mouse/upgrade)
Ignition Input	1 ACC signal
UART	1 LVTTTL Level
LED Indication	PWR/RUN
Disk Lock	1
Debug Port	1
Power Input	Minimum 9.6V DC
Power Output	5V 300mA
Power Consumption	Standby 3mA Maximum consumption 15W @12V1.5A @24V 0.7A
Working Temperature	-25°C ~ +80°C/RH 95Max
Storage	720P: 1G/h/channel 960H: 750Mb/h/channel

3 Interface, Wiring, Installation

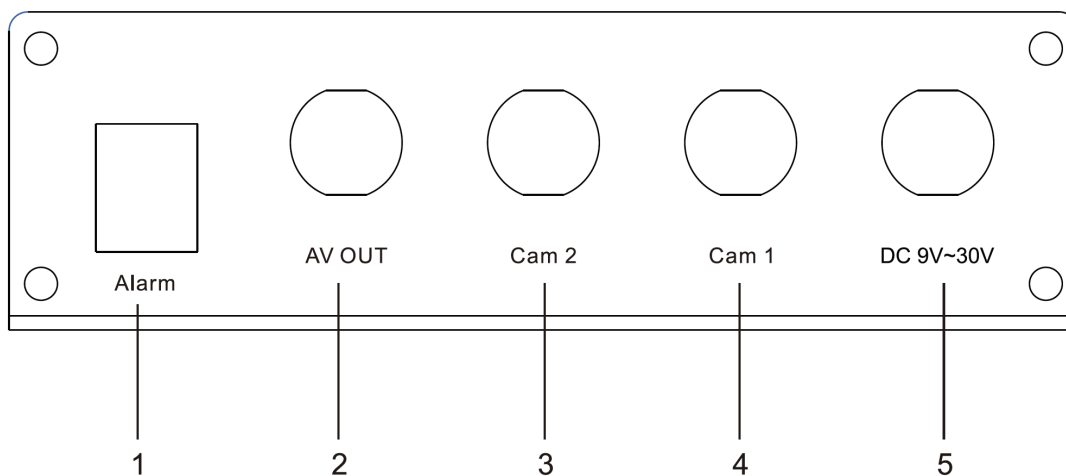
3.1 Front panel interface



Picture 1: Front panel

Interface	Number	Name	Description
Indicator (LED)	1	PWR	Power indicator (LED on when functioning normally)
	2	REC	SD Card indicator (Light on when TF is recording)
	3	IR	Infra-Red receiver (Target for remote control)
	4	LOCK<-> ON	HDD Lock (Remove hard drive when in "on" position)
	5	TF	TF video card
	6	USB	USB port (To plug in mouse)

3.2 Back panel interface



Picture 2 Back panel interface

Serial number	Machine silkprint	Description
1	Alarm	Input alarm interface
2	AV OUT	Connect the monitor
3-4	Cam1	Audio and video interface
	Cam2	
5	DC9V-30V	Power input interface, ocv oc3ov

3.3 Wiring instruction

3.3.1 AV input cable

Connecting camera

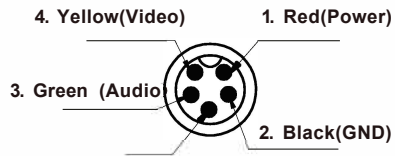


Diagram of back panel connection

Connecting monitor

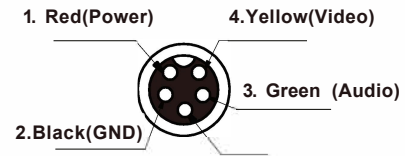


Diagram of camera cable

Picture 3: Diagram of AV input cable

Wire	Serial number	Mark on the cable end
12V power supply for video camera	1	12V
Ground wire	2	GND
Audio pickup input wire	3	A-IN
Video input wire	4	V-IN

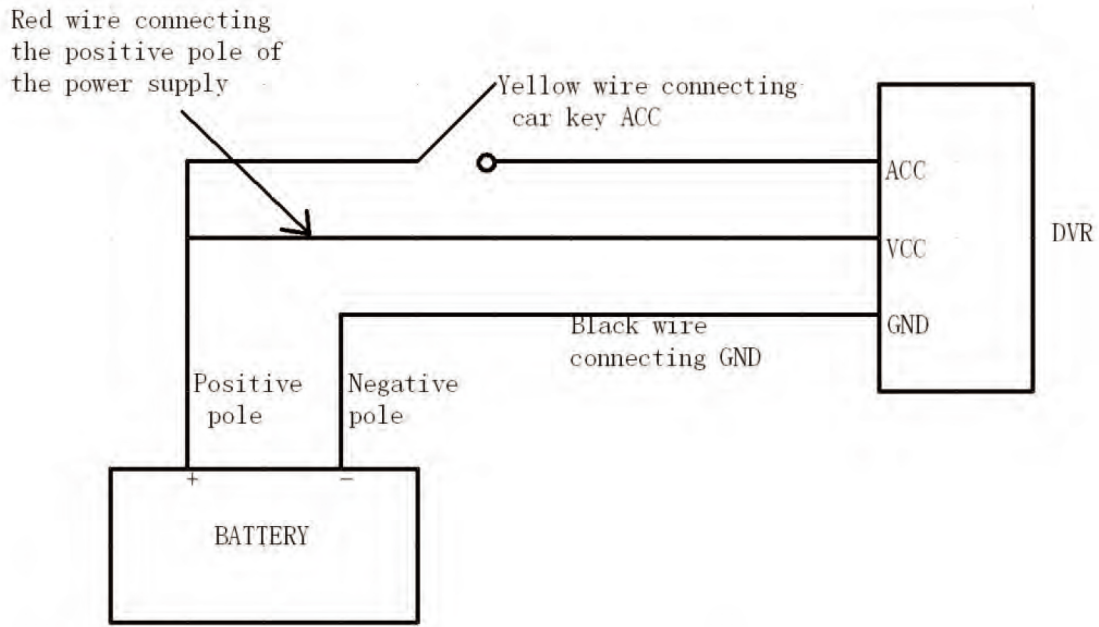
Table 3

3.3.2 Power Cable



Picture 4: Power Cable

Power Cable: 6 pin white plug connects to white input on back of DVR. Red (positive) and black (negative) cables connect to vehicle battery. Yellow connects to ignition cable. DVR starts when key is turned and has a delay shut off when vehicle is turned off.



Picture 5. Installation wiring diagram

Notes:

- 1} Confirm DC 9V-30V voltage range before use
- 2} Confirm power cables are insulated. This prevents short circuits.
- 3} Yellow cable must be connected to vehicle ignition.
- 4} Device must be connected directly to positive and negative parts of battery

3.4 Device Installation Guide

3.4.1 In The Box

Mobile DVR

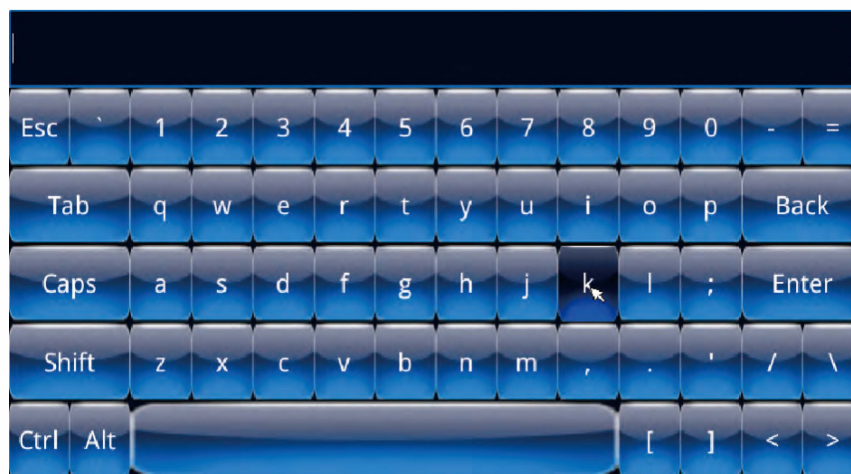
Item	Quantity	Notes
MDVR	1	
Digital LCD monitor	1	optional
CD	1	

Table 4: Packing list

AV Cable: Red is 12V+, black is 12V-, yellow is video cable, green is audio cable.

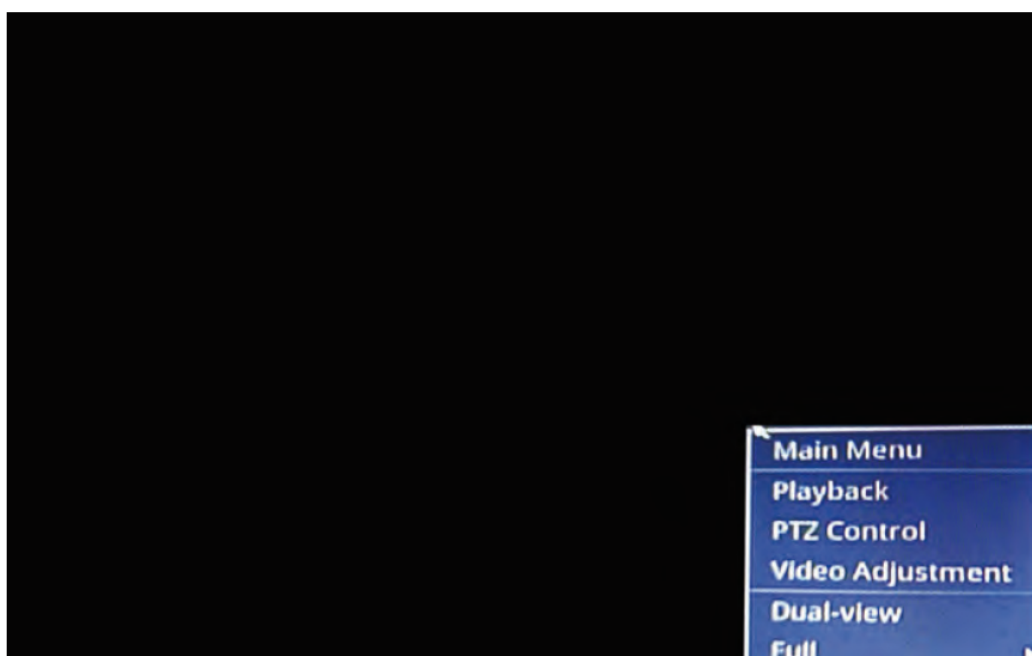
4 Software keyboard input

Character Options: Numbers, English (Uppercase/Lowercase Letters, Chinese Characters, Pinyin Chinese Characters.



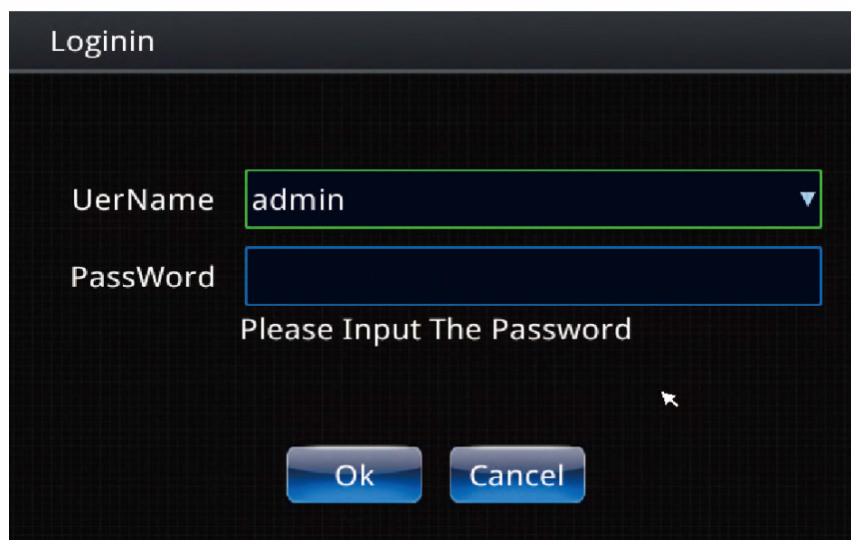
5 Mobile DVR Operation Guide

Right click to open login interface.

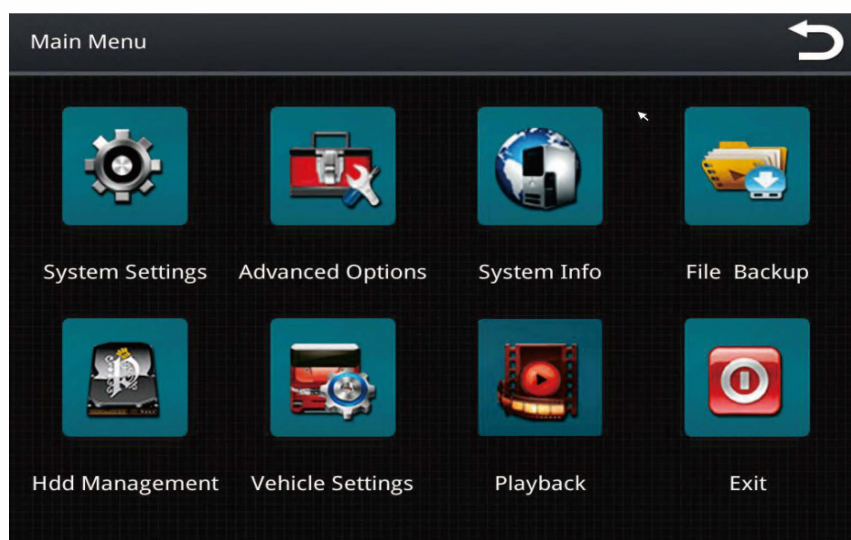


5.1 Users' login

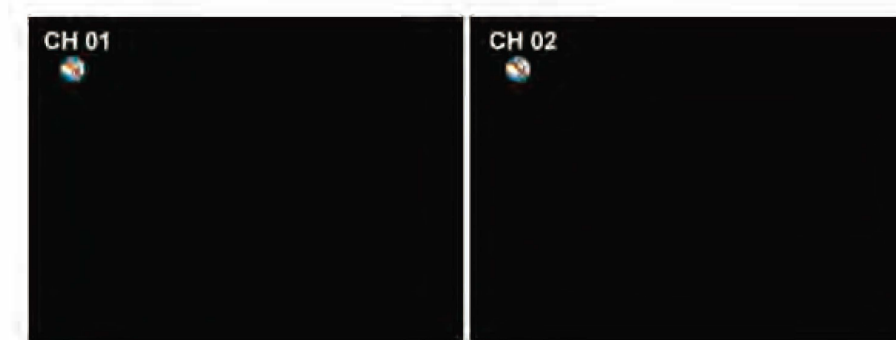
please input your UserName, Password, click "OK" to login the menu. (The default UserName is admin, without Password), see as following:



The image shows a 'Loginin' dialog box with a dark background. It contains two input fields: 'UerName' (note the typo) with a dropdown menu showing 'admin', and 'PassWord' which is currently empty. Below the password field is the text 'Please Input The Password'. At the bottom are two buttons: 'Ok' and 'Cancel'.



5.2 Interface preview



5.3 System setting



5.3.1 General setting

general setting

system time 2020-01-01 00:18:46

date format year month day set time

time format 24 hour

GPS time ☐ adopt

time zone ☐ + 115 - 00:00

language English

save exit

5.3.2 Video setting

Horizontal mirror and vertical flip: This feature can turn over the camera's image horizontally or vertically (for both preview and recording)

Video Settings

channel CH1 encode size D1

horizontal mirror normal vertical flip normal

frame 30 encode quality good

bit stream ctr dynamic bit stre, bit stream 911kbps

time overlay set position chan overlay set position

plate overlay set position gps overlay set position

sub infor save copy exit

5.3.3 Record setting

Record Settings 

channel

loop recording

loop length minutes

video format

scheduled rec ☐ stop rec

☐ manual rec

☒ auto rec

rec plan

to

to

to

to

save

copy

exit

5.3.4 Alarm control

Alarm Control 

enable status ☐ enable/disable

alarm input

dev type

alarm delay sec

rec channel ☐ 1 ☐ 2 ☐ 3 ☐ 4

periods of time

to

to

alarm output ☐ screen display ☐ UOoutput

save

copy

exit

Camera settings

Adjust channel trigger, delay time and distance grid lines.

Camera Settings

Trigger: CH1

Channels to show	Show Distance grid
Channel1 ☒	Channel1 ☐
Channel2 ☐	Channel2 ☐
Channel3 ☐	Channel3 ☐
Channel4 ☐	Channel4 ☐
Channel5 ☐	Channel5 ☐
Channel6 ☐	Channel6 ☐
Channel7 ☐	Channel7 ☐
Channel8 ☐	Channel8 ☐

Off delay: 0 Seconds

save copy exit

5.3.5 Motion Detection

Motion Detection

enable status: ☒ enable/disable

channel: CH1

alarm delay: 5 sec

sensitivity: Medium

region: set

rec channel: ☐ 1 ☐ 2 ☐ 3 ☐ 4

alarm output: ☐ I/O output ☐ screen display prompt

Periods of time: Monday

00:00 to 23:59

00:00 to 23:59

save copy exit

5.3.6 Monitor display

Monitor Display

channel name grid region

☐ rolling display display time 5 sec

full page ☐ 1 ☐ 2 ☐ 3 ☐ 4

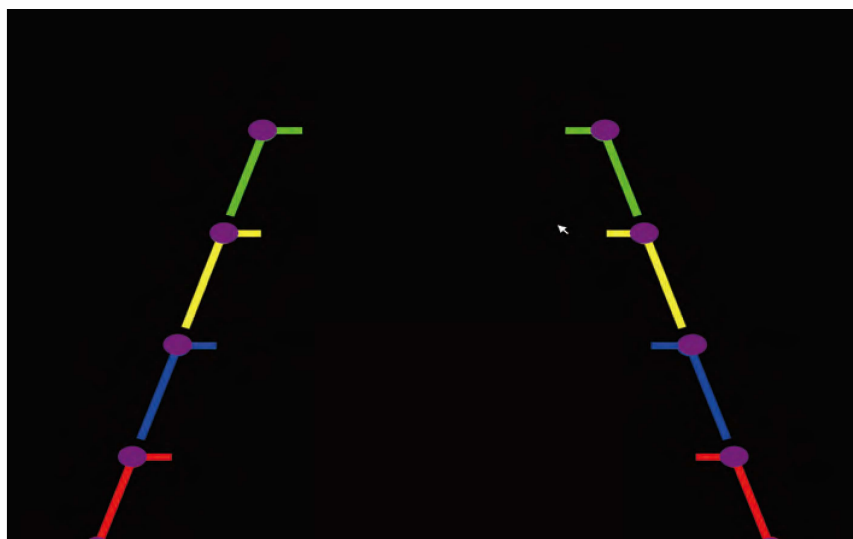
two page ☐ 1 ☐ 2 ☐ 3 ☐ 4

qual page ☐ 1 ☐ 2

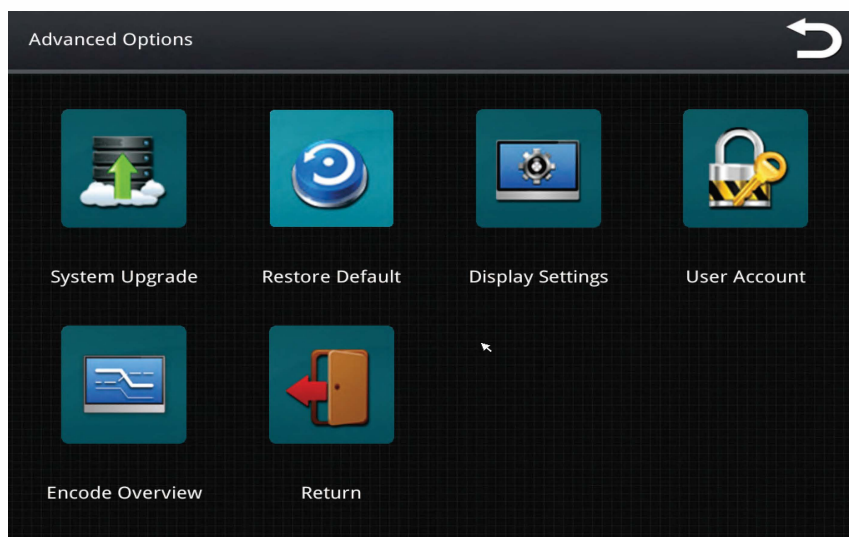
nine page ☐ 1

preview time

Adjust distance grid lines by moving the purple points. Right clicking the mouse will save settings.

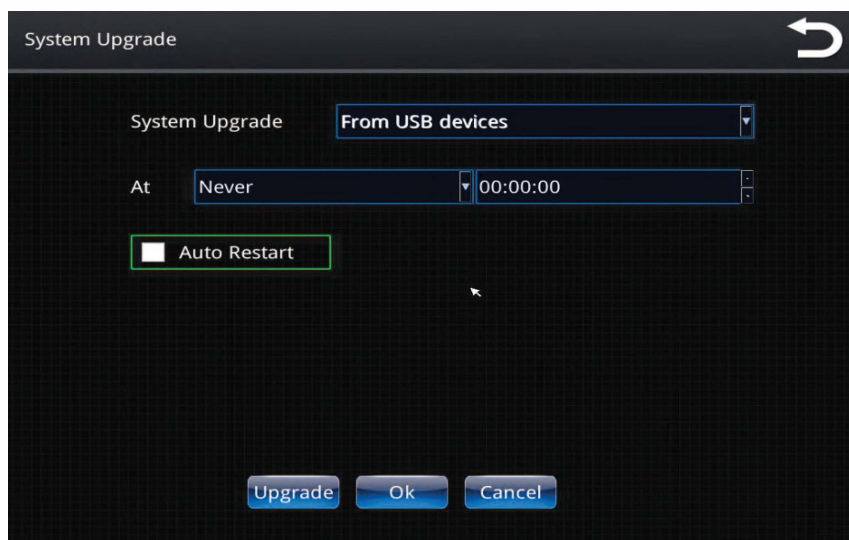


5.4 Advanced options

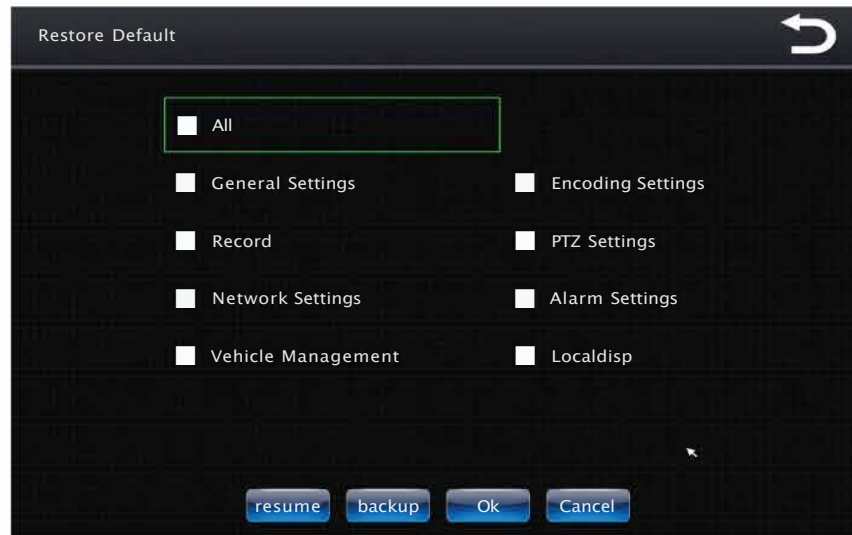


5.4.1 System upgrade

Copy the upgrading file to the root directory of the USB disk. Device will upgrade after a reboot.



5.4.2 Restore default

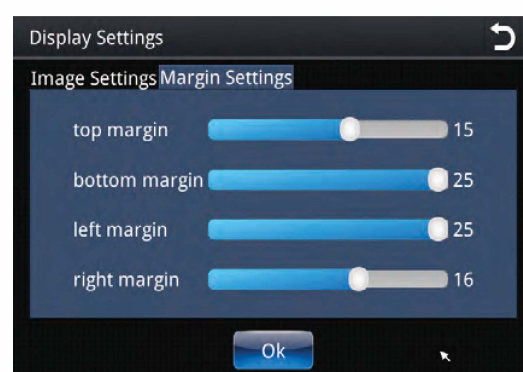
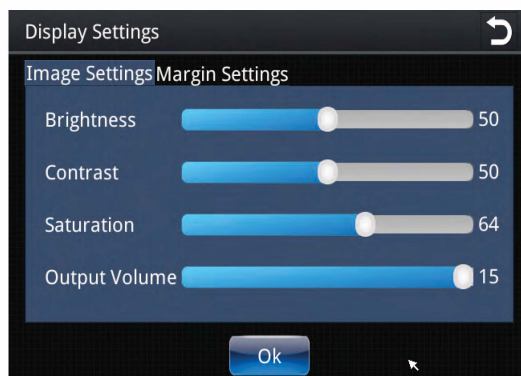


Copy a configuration file and upload it to other vehicles : you can backup the configuration with an USB drive, click"backup" then disconnect the mouse and connect USB memory, it display "Congratulations ,Action Succeeded!"

Upload it to other vehicles: click"resume" then disconnect the mouse and connect the usb memoery to it, then it will display "Congratulations, Action Succeeded!"

5.4.3 Display settings

Margin settings: can adapt to different monitor.



5.4.4 User Account

Username

admin
default

Modify Password
Modify Access
Cancel

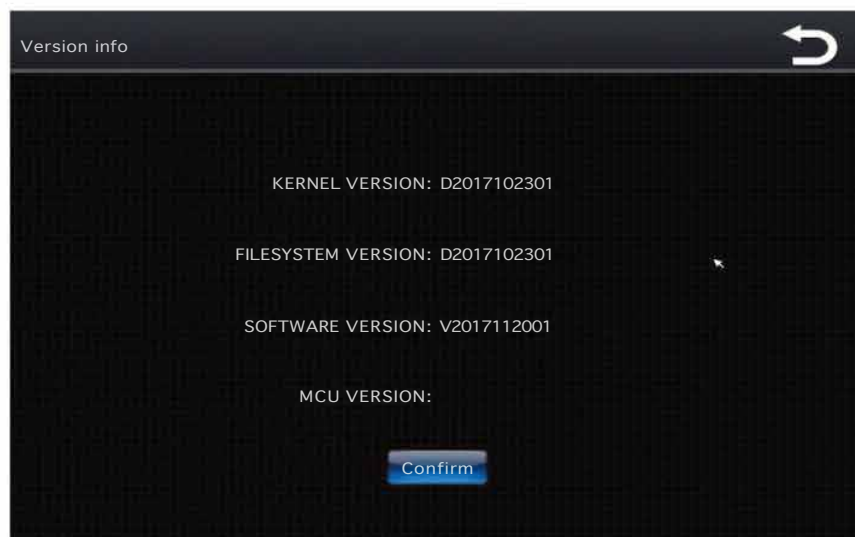
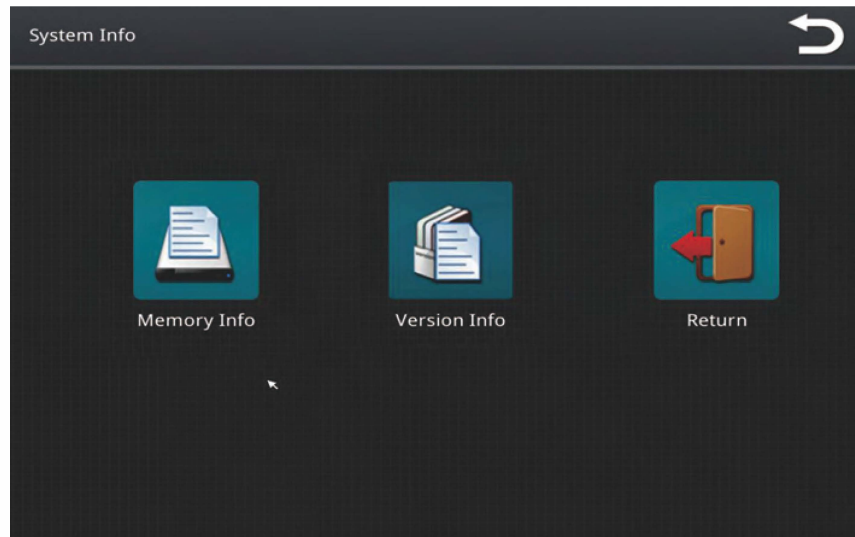
5.4.5 Encode Overview

Encode Overview

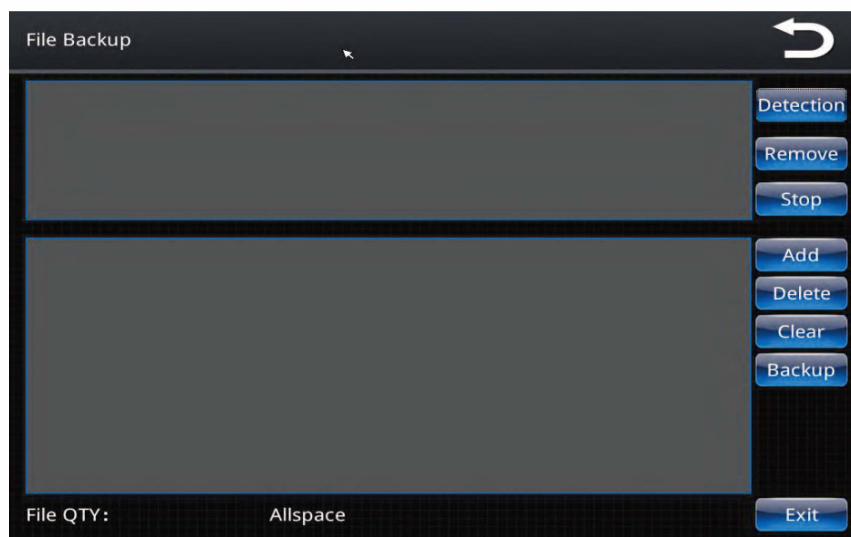
Channel	Camera I	Resolution	Frame fps	Bit kbps	Size GB/h
CH1	connect	D1	30	911	0.38 G B
CH2	connect	960H	30	1214	0.51 G B
CH3	disconnect	D1	30	911	0
CH4	disconnect	D1	30	911	0
CH5	disconnect	D1	25	911	0
CH6	disconnect	D1	25	911	0
CH7	disconnect	D1	25	911	0
CH8	disconnect	D1	25	911	0
Total					0.89 G B

edit
exit

5.5 Server setting

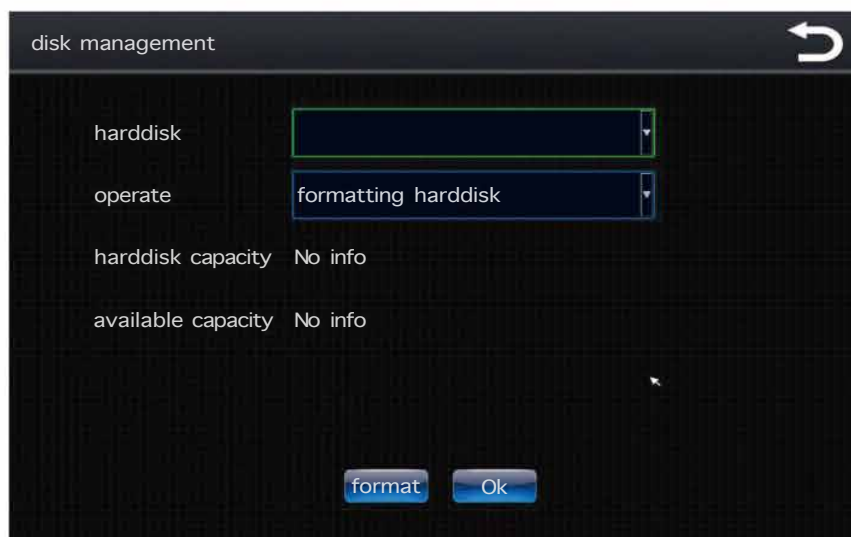


5.6 File backup

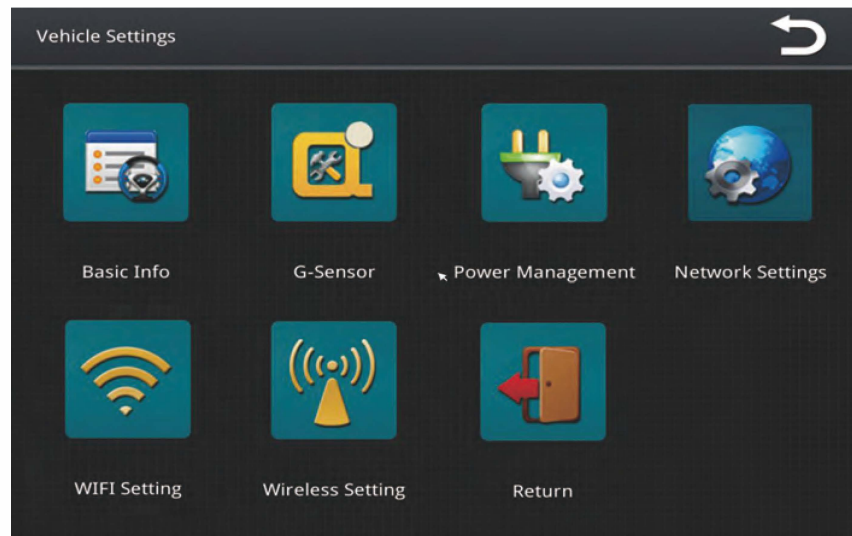


5.7 Disk management

Hard drive must be formatted before use. If hard drive is not detected, confirm device is locked.



5.8 Vehicle settings



5.8.1 Basic Info.

Login with password "szmzkj" to change vehicle ID number.

The screenshot shows the 'Basic Info' form. At the top, there is a title bar with 'Basic Info' and a back arrow. Below the title bar, there are five input fields with labels to their left: 'Vehicle Number' (with value 'vehicle'), 'Company Name' (with value 'companyname'), 'License Number' (with value 'license'), 'Driver's Name' (with value 'drivename'), and 'Line Number' (with value 'lineNu'). At the bottom of the form, there are two buttons: 'Save' and 'Exit'.

5.8.2 G-sensor

G-Sensor

Name	Switch	Threshold	Video
X	OFF	Low	OFF
Y	OFF	Low	OFF
Z	OFF	Low	OFF

status X= 0.00 Y= 0.00 Z= 0.00

calibrate save exit

5.8.3 Power Management

Power Management

power mode ignition mode

delay shutdown ON

delay time 0 (minutes)

default save exit

5.8.4 Network Settings

Default is factory server. Adjust to desired IP (or domain). Port information relates to specific server.

Network Settings

☐ dhcp

ipaddr 192.168.0.106

subnet mask 255.255.255.0

gateway 192.168.0.1

DNS server 8.8.8.8

MAC addr 1a:2e:ba:d3:e9:40

HTTP port 6666

UPNP ☐ enable/disable

ems set save exit

5.9 Playback

playback

start time 2017-11-22 00:00:00

end time 2017-11-22 09:26:59

search type all

search chan ☒ 1 ☒ 2 ☒ 3 ☒ 4 ☒ 5 ☒ 6 ☒ 7 ☒ 8

search play exit

6 FAQ

- 1) Picture is black, but monitor displays time.
 - a) Check connection of video signal cable/camera power cable
 - b) Toggle preview switch (display setting) off
- 2) Device will not record with SD card
 - a) Confirm SD card has been formatted
 - b) Reinsert SD card, start up device
- 3) Video freezes on monitor
Turn off and restart device
- 4) DVR suddenly stops recording and returns to standby status
 - a) Check if SD card is inserted correctly
 - b) Check DVR power source
- 5) Recorded files won't play on computer
Confirm computer has installed video player software
- 6) Choppy video playback on computer
Confirm you are using high speed SD card
- 7) Very short recording time
Format SD card
- 8) Incorrect time on DVR
 - a) Confirm correct time is set
- 9) No audio on video playback
 - a) Confirm microphone is connected
 - b) Audio is set to off
 - c) Playback interface is on mute
- 10) Motion Detection does not work
 - a) Object is not in detection area
 - b) Sensitivity is set too low
- 11) Remote control does not work well
 - a) Remote is too far away or not pointing at DVR
 - b) Low battery on remote
 - c) Remote or front of DVR is damaged
- 12) No Video Output or Signal Distortion Occurs
 - a) Check camera power cable connection
 - b) check video cable connection
 - c) Check video source and display device connection
 - d) Confirm PAL/NTSC selection

13) Alarm I/O doesn't work

- a) Alarm is set incorrectly
- b) Alarm connection is set up incorrectly
- c) Alarm input signal is set up incorrectly

14) Delay shut off is not working

- a) Delay time is not set
- b) DVR was not reset after setting delay time

15) PTZ is out of control

- a) RS-485 connection is incorrect
- b) PTZ type is set incorrectly
- c) PTZ address is set incorrectly



A Safe Fleet Brand

If you have any questions
about this product, contact:

***Rear View Safety, Inc.
1797 Atlantic Avenue
Brooklyn, NY 11233
800.764.1028***

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