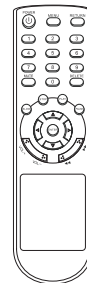
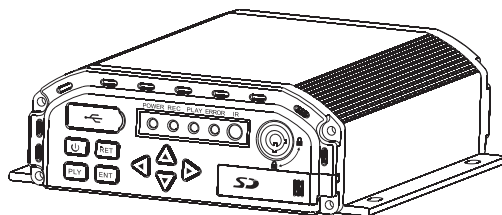


Mobile Digital Video Recorder *4CH*



Assemble

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Caution and Function Brief



Power

1. Supply DC12V to DC24V. Please confirm local power voltage before using.
2. No using for a long period, please plug out from the socket.



Safety

1. This machine is design for indoor Usage. To prevent from short-circuit or being shocked, please keep machine from humid environment.
2. If any liquid or solid materials enter machine, cut off the power immediately. Please ask professional technicians to examine then can use again.
3. If any fault happens, please ask technicians to examine or contact local distributors. Do not fix by yourself.



Assemble location

1. Please assemble at ventilative location to prevent machine from overheat.
2. Keep machine from radiators and exhausts area or downpour, over dust, over humid, strong magnetic fields and places that will cause vibration or shock to the machine.



Copyrighted

1. While recording or surveillance, please do not invade the patent as well as other authority.
2. Without approval by our company or delegations, any refit or adjust could possible damage machine.

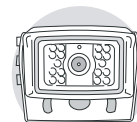
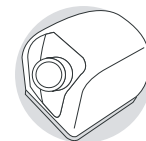
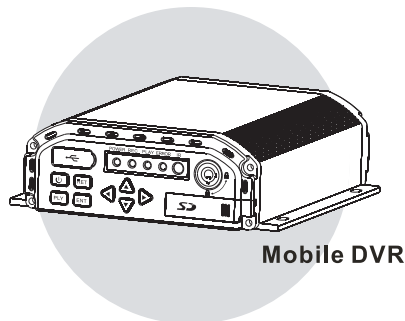
Main Functions

1. Whole day recording function, recycling recording automatically.
2. Portable miniature size for easy installation, suitable for various vehicles, e.g. police car, taxi, minibus etc.
3. Monitoring function: have an overall control of the interior and exterior vehicle status with the help of the cameras.
4. Black box function: recording driving information, such as speed, left/right turning, braking etc.
5. Night vision function: record night time driving clearly with the IR LED camera.
6. ID and Password protection.
7. SD Card storage, free from the potential risk of vibration and shock failure.
8. Extra USB plug for USB storage or file download from the SD card
9. Alarm trigger function: start recording under emergency trigger.
10. Play the recorded files: The video files can be played on the monitor or on PC through the USB adaptor. (Remark: User needs to install the specified play software for PC playing.)
11. Malfunction reminder: In case of camera or HDD failure or full HDD, the indication LED light on the DVR panel will flash to remind you to check the device.
12. Remote controller function optional.

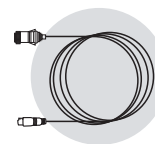
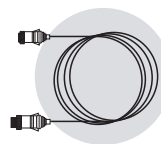
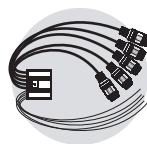
System Installation

1. Unpacking

Please unpack the package and check whether you have received the following items.



(Option kit)

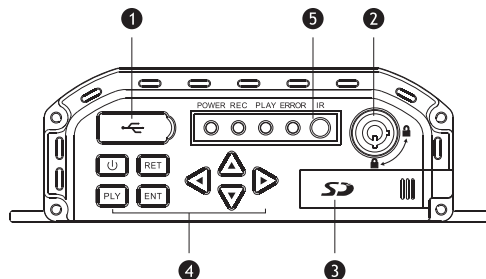


(Option kit)



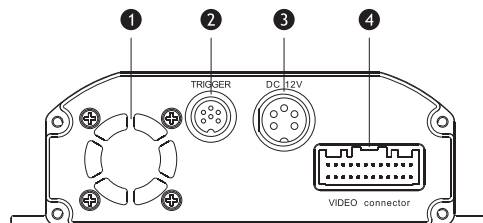
After checking that you have received all the above items, connect the DVR with peripheral equipment following the instructions below:

2. Front panel & real panel



- ① .USB socket
- ② .SD card lock
- ③ .SD card socket
- ④ .Control buttons (up/down/left/right)
Power/Record/Play/Enter
(see the detailed button functions on the remote controller introduction)
- ⑤ .POWER: Power indicator light (red for power on in standby mode; green for working.)
REC: Recording indicator light (Red for recording)
PLAY: Play indicator light (red for video palying)
ERROR: Warning for full HDD, video lost, HDD failure (red for warning)
IR: Remote controller signal receiver

- ① .Cooling fan
- ② .Triggers: speed, brake, left turning, right turning
- ③ .Power input: DC 12/24V power supply
- ④ .Video input/out put



3. Cable Instruction

3. 1 Power cable connection

Connect the power cable with car battery and the DVR.

3. 2 Trigger cable

GND(black) ----- to the negative terminal on the power

Right(green) ----- trigger wire to connect the light for right turn

Left(brown) ----- trigger wire to connect the light for left turn

Brake(orange) ----- trigger wire to connect the brake light

Speed - (blue) ----- trigger wire to connect the speed sensor negative polarity on the vehicle

Speed + (yellow) ----- trigger wire to connect the speed sensor positive polarity on the vehicle

The function of speed trigger is not available at the moment.

3. 3 Video input/output cable

5pcs 5pin cables(4pcs for 4 camera inputs, 1pc for connecting the monitor).

4pcs alarm recording trigger cables(green for A1, blue for A2, yellow for A3, white for A4).

1pc red cable (The 4pcs trigger cable needs to contact the red cable to activate the alarm recording. User needs to install alarm switches at desired locations. By pressing the alarm button, the red cable will be connected with the trigger cable and machine starts recording. Recording time can be set in the OSD menu).

4. Start up and shut down

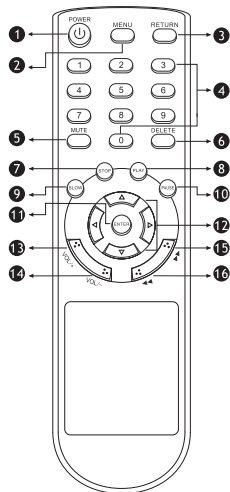
4.1 Start up the system

1. Make sure all the "Precautions" described above are carefully observed.
2. Make sure the connection between DVR and other external equipments are properly done.
3. If the above 2 steps are ready, turn on DC power, the DVR welcome image will be displayed on the monitor and the system starts recording simultaneously.

4.2 Shut down the system

1. Press "STOP" to halt recording or other processing, then press "POWER" on the remote controller to shut down the DVR, finally cut off all the power connections.
2. Do not cut the power when playing disc or recording program.

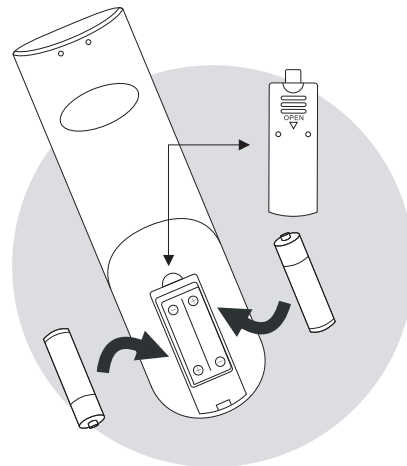
5. Remote Controller



- ①. POWER: To power on or off the DVR
- ②. MENU: To set menu
- ③. RETURN: To return
- ④. Number: Number input
- ⑤. MUTE: Mute
- ⑥. DELETE: Delete the wrong input
- ⑦. STOP: Stop motion
- ⑧. PLAY: Play recorded files
- ⑨. SLOW: Slow down the playback
- ⑩. PAUSE: Pause motion
- ⑪. ENTER: To confirm the setting/To enter the menu
- ⑫. ▲▼◀▶ : Buttons to move light bar
- ⑬⑭. VOL+/VOL-: To turn up or turn down volume.
- ⑮⑯. ◀▶ : Fast forward/backward

Installing Batteries into the Remote

This DVR is mainly operated via remote controller. Before operating it, open the rear cover of the remote controller and insert the batteries following the instructions below, then close the rear cover.



Operation

Press “Menu” to enter the OSD display . The following image will not appear unless the user has inputted the password and set it at ON position in SYSTEM SETUP(see page 8). Input the device name, user name and the password, press “ENTER” to enter main menu. If user choose password OFF(see page 8), press “ENTER” will enter main menu directly.

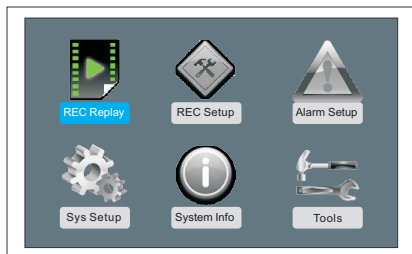
LOGIN

DEVICE NO. : 00000 (00000)

USER NAME: admin

PASSWORD:

LOGIN



■ REC Replay(Video Playback)

User can search the desired video files easily. Choose “REC Replay”, input the date/starting time/ending time/recording channel/video type, and press “Search” to start searching.

VIDEO SEARCH

DATE: 2000-01-01 CH SELECT: ALL

START: 00:00 VIDEO TYPE: ALL

END: 20:59

Search

The video list will be displayed as follows. Press “First”/“Up”/“Down”/“Last” to shift between different pages. The “◀/▶” button on the remote controller can also be used to page up and page down. Move the light bar to the desired item, press “ENTER” to start playing. Press “All” to choose all files, press “Other” to choose the unselected files, press “Backup” to copy the selected files to portable USB. Press “PLAY” to play the selected file.

RESULT

DATE: 2000-01-01

REC	TIME	CHL	TYPE	SIZE	BACKUP
00:00-01:00	1	NORMAL	4M		
00:00-01:00	2	NORMAL	4M		
00:00-01:00	3	NORMAL	548K		
00:00-01:00	4	NORMAL	545K		
01:00-02:00	1	NORMAL	270M		
01:00-02:00	2	NORMAL	18M		
01:00-02:00	3	NORMAL	221K		
01:00-02:00	4	NORMAL	337K		

First Up Down Last

All Other Backup

■ REC Setup

Select “REC Setup” to set Video format/Audio input/Rec mode /Packet time/Resolution/Auto overlap. The image quality, FPS, Record on/off of each channel can be set independently. Choose “OK” to save your settings.

REC SETUP

VIDEO FORMAT: **NTSC** AUDIO INPUT: **LINE1**

REC MODE: **BOOT** PACKET TIME: **60**

RESOLUTION: **HD1** AUTO OVERLAP: **ON**

CHANNEL	QUALITY	FPS	RECORD
CH1	1	25	ON
CH2	1	25	ON
CH3	1	25	ON
CH4	1	25	ON

Schedule OK

Video format: PAL/NTSC

Audio input: Line 1(for camera 1)/Line 2(for camera 2)/OFF (non-audio), only 1 audio available. Camera 3 and 4 are non-audio.

Rec mode: Boot (start recording when power on)/Timed(time recording).

Packet time: 15 /30 /45 /60 minutes selectable for the file recording time.

Resolution: HD1/CIF

Auto overlap: ON/OFF. The DVR will auto overlap the initial files when the HDD is full.

Quality: 1~4, image quality, 1 for high, 2 for middle high, 3 for middle, 4 for low.

FPS: 1, 3, 6, 12, 25 selectable.

Record: ON/OFF, to choose recording or not for the channel.

If the Rec mode is set to TIMED, user needs to set the time list. Press "Schedule" to set the desired time schedule, choose "OK" to save the setting.

TIME LIST

DATE	TIME1	TIME2
EVERYDAY	00:00--00:00	00:00--00:00
MONDAY	00:00--00:00	00:00--00:00
TUESDAY	00:00--00:00	00:00--00:00
WEDNESDAY	11:11--13:11	00:00--00:00
THURSDAY	10:00--12:00	00:00--00:00
FRIDAY	00:00--00:11	00:00--00:00
SATURDAY	00:00--00:00	00:00--00:00
SUNDAY	00:00--00:00	00:00--00:00

OK

■ Alarm Setup

Input 1~4 for 4 alarm inputs. (See page 4, video input/output cable) Once the alarm switch is pressed, the "REC" symbol on the top right corner will flash once to indicate alarm recording begins. User can enable or disable the alarm recording by set the ENABLE or RECORD to OFF.

The warning for disc lost, video lost, no HDD space can be set. The red Error light on the DVR panel will flash when these errors are detected.

Power off delay: 3~120 minutes selectable for system power off delay.

Alarm output: 10~600 seconds selectable for Error light flashing time.

Rec delay: 1~30 minutes selectable for alarm recording time.

Reset default: go back to factory setting of Alarm setup. Choose "OK" to save your setting.

ALARM SETUP

INPUT	ENABLE	VOLTAGE	RECORD
input1	OFF	HIGH	ON
input2	OFF	HIGH	ON
input3	OFF	HIGH	ON
input4	OFF	HIGH	ON

DISK LOST **ON** NO SPACE **ON**

VIDEO LOST **ON** POWER OFF DELAY(MIN): **5**

ALARM HANDLE ALM OUTPUT(S): **10**

REC DELAY(MIN): **5**

Reset Default OK

■ System Setup

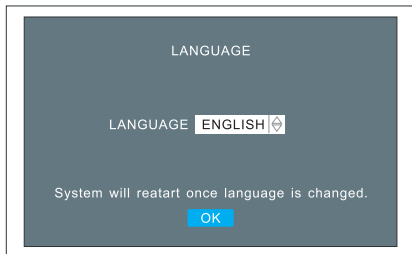
Language: Chinese and English selectable.

SYSTEM SETUP

Language DateTime Password

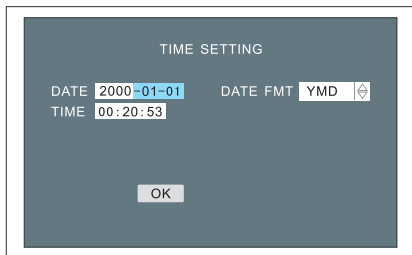
Display Setup Net Setup

The system will reboot after saving the language setting.



1. Time Setting

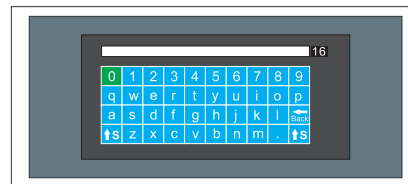
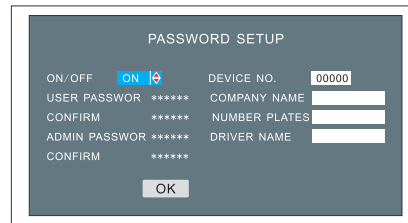
The date/Time/Date format can be set.



2. Password Setup

Set the user and admin password by inputting 6 digits and confirm it by the same digits. User can choose password on or off. When password is set "OFF", press "MENU" and you'll enter the OSD main menu directly. If password is set "ON", user will see the LOGIN page as shown on page 6. User can use 123321 to enter it when he forgets the password.

If necessary, user can set the device no., company name, number plates and driver's name for better management.



3. Display Setup

Channel: to name different cameras

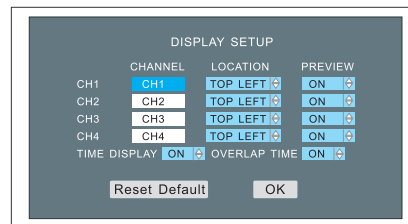
Location: to show the position of the camera name when play back.

Preview: when set to OFF, the screen will be black but recording is proceeding.

Time display: to show the date and time on the recording image when preview.

Overlap time: to show the date and time on the recording image when play back.

Reset default: go back to factory setting of Display setup.



4. Network Setup

This function is not available yet.

NETWORK SETUP

LOCAL NETWORK

IP ADDR: 192.168.000.250

NETMASK:

GATEWAY:

MAC ADDR: 20:10:85:18:01:84

CENTER SETUP:

SERVER IP:

CONTROL PORT: 5678

MEDIA PORT: 5678

OK

■ System Information Setup

The software and hardware versions are displayed.

Return the whole system settings to factory setting by select "Factory Reset".

SYSTEM INFO

SOFTWARE VER: D091028

HARDWARE VER: V0001

Factory Reset

Message

Renew factory settings?

YES NO

■ Tools

1. Tool Management

TOOLS

Log Disk

This is a shortcut to find out the working status of the vehicle at any specified time. Input the start and end time, select "Search" to start searching. The result will be listed. The factory default shows the log of today.

LOG MANAGEMENT

START TIME: 2000-01-30 00:00:00

END TIME: 2000-01-30 23:59:59 Search

DATE	TIME	NAME
00/01/01	00:00:23	power on
00/01/01	00:00:24	video lost 3
00/01/01	00:00:24	video lost 4
00/01/01	00:00:23	power on
00/01/01	00:00:24	video lost 1
00/01/01	00:00:24	video lost 2
00/01/01	00:00:24	video lost 4

First Up Down Last

2. Disk Management

Choose the storage interface, SD card or USB. The factory setting is SD card storage.

It will remind the user of the status of the storage interface. The storage interfaces can be formatted by the administrator. Once formatted, all data will be deleted.

Select the Reset Default will go back to the factory setting of video record storage interface, that is SD card.

DISK MANAGE

VIDEO RECORD TO SD CARD

	STATUS	TOTAL	USED	LEFT	
SD	CONNECTED	15286MB	14717MB	558MB	Format
U DISK	NOT CONNECT	0KB	0KB	0KB	Format

Reset Default OK

WARNING: ALL DATA WILL BE DELETED

Trouble Shooting

Description of trouble	Possible reasons	Solutions
No power	After starting the DVR, the system doesn't work, indication LED doesn't turn on	Check if there is power supply through the power cord. Check if the fuse is burnt
System doesn't start	After starting the DVR, indication LEDs on monitor and DVR work properly, but monitor can't start or standby mode turns to black.	Check if the power supplied is 12/24V DC. Make sure the voltage is within 10~30V
No recording	No recording after system start up	1.Timing recording is set(cancel timing recording) 2.Use default setting to reset it. 3.Hard disc damaged
With image but no sound	While recording, there is image on the screen but no sound	1.Check if the sound is selected on monitor and DVR 2.Check if the camera is with audio
With sound but no image	While recording, there is sound but no image on the screen	Make sure the monitor and the camera is well connected.
Discontinuous recording image	When playing the stored program, there is time discontinuity, interval or a long blank record.	1.Make sure power supply is stable 2.Check if timing setting is done. Cancel it if not necessary 3.Check if the power cable and data cable on HDD frame is loosen due to long time vibration on car 4.Hard disc damaged
Bad image	During the standby mode, image flickers, poor color, or image in B/W	Check if you're using the correct NTSC or PAL format
Poor quality while playing	The image is OK when standby, but it becomes rather poor while playing	Check if the record quality is set at LP or higher. The low quality recording will result in poor playing quality
Short circuit of accessories	The device is operating properly, however, it shuts down after adding the accessories	Check the accessories. Such problem can be caused by the short circuit of the accessories
Short circuit upon power up	After power up, the device doesn't start, at the same time, there is burning sound, smell or smog	Unplug the power, check if there is a short circuit. If the problem still exists, contact the dealer immediately.
Remote controller failure	Run out of battery	Change a new battery



If problem still exists after solving following above instructions and you identify something is wrong with this DVR, please have local service center or dealer repair it.

Specification

Item	Specification
Display mode	Quad view in CIF(single image in HD1)
Recording quality	Half D1/channel, DVD quality (single view)
	CIF/channel, DVD quality (quad view)
Video input	4 video inputs(1. 0Vp-p/75Ω) B/W camera and color camera compatible
Audio input	2 audio inputs(1. 0-2, 2Vp-p, 600Ω)
Video output	1 video output(1. 0Vp-p/75Ω)
Audio output	1 compound audio output (1. 0-2, 2Vp-p, 600Ω)
Video compact format	H, 264 VBR/CBR
Monitoring/Recording	25 frame/second/channel(PAL)
	30 frame/second/channel(NTSC)
Recording resolution	Image quality in 4 levels, max 720*576, min 352*288pixels
Recording compact ratio	HQ(1030K/SEC), High(624K/SEG), Mid high(416K/SEG),
	Middle(312K/SEG), Low(208K/SEG)
Recording mode	Cycling recording, time recording, alarm recording
Control	Remote control / ACC control / Button control
Alarm recording	4 channel alarm recording
Software upgrde	On-line upgrade (TFTP) , SD, USB
Reserved functions	RS232 GPS module interface reserved.
	RJ45 10M/100M ethernet interface reserved.
	WEFI interface reserved.
Storage	SD Card
Power requirement	12/24 V DC
Power consumption	6W(w/o camera & monitor)
Operation temperature	-20℃~+80℃, humidity:<90%
Dimension	(L)*(W)*(D)mm
Weight	Kgs



Remark:
Design and specification are subject to change without notice.