Operating Instructions

4CH 1080P MDVR

Thank you for using our Mobile DVR. Please read this User's Manual carefully to ensure that you can use the device correctly and safely.

The contents of this manual are subject to change without notice.

V1.1

Contents

1 Specifications

4CH HD DVR		
System	Operating system	Linux
	Operating interface	Graphical menu operation interface (OSD)
	Operating permission	Administrator & user setting
Video	Video input	4 x 1080P analog high definition
	Video output	AHD(720P/1080P)
	Image Display	Single/Split/Triple/Quad/Black Screen display
	Video standard	PAL:25fps, NTSC:30fps
	Compression	H.264 or H.265 main profile
Audio	Audio input	4 channels
	Audio output	1 channels
	Record format	Synchronized video & audio recording
	Audio compression	ADPCM
Digital processing & storage	Image resolution	Max 4 x1080P(1920x1080)
	Video bit rate	64kbps~4Mbps/channel
	Storage	56~1800MB/(channel/hour)
	Audio bit rate	32kbps
	Storage	SD card x 2, max 512GB
Alarm	Alarm input	4 channels
	Alarm output	1 channels, 1 buzzer
	Motion detection	High/Low/Off sensitivity adjustable
Communication Interface		1xRS232（Optional）, 1xRS485, 1xCAN, 1xRS45, 1xUSB
Wireless	2G/3G/4G	Optional
	Wi-Fi	Optional
	Wi-Fi hotspot / AP	Available
GPS		Internal / External module
G-Sensor/Gyroscope		3 axis sensor
Software	Windows client	Available

	iOS client	Available
	WebUI	Available
Power	Power supply	10 ~ 32V
	Max input current	4A@12V
	Max output current (half at 70°C)	Camera 1.1A/CH @25°C
		Trigger output 0.5A/CH @25°C
	Standby Power Consumption	<100mW
	Super capacitor	Available
Working Environment	Operating temperature and humidity	-20℃~ +70℃, humidity less than 80%
Mechanical Parameters	Dimension	140x103.6x40mm
	Weight	589g
others	IP rating	Not waterproof

2 Precautions

(1) Please perform formatting operations before inserting a new SD card.

(2) Please power off the DVR before removing SD card to avoid damaging.

(3) After inserting a SIM card, it can be connected to internet with configuring corresponding APN.

(4) GPS antenna，2G/3G/4G antenna，and Wi-Fi antenna should be connected correctly and tightly.

(5) Motion detection function is set to OFF by default. Alarm files will be created when the motion detection is set ON.

(6) G-Sensor recording is recommended to set ON during driving for emergency recording use. G-Sensor level is optional.

(7) Should: ACC wire should be connected to the ignition wire, two VCC wires to the positive pole of the battery and two ground wires to the negative pole. Shouldn't: ACC and two VCC wires should not be connected to the ignition wire and two ground wires should not be connected to the negative pole of the battery, otherwise it may lead to the damage of the disk and the recording files. Prohibit: ACC and two VCC wires are prohibited to be connected to the positive pole of the battery and two ground wires to the negative pole. In this case, the battery would be run out quickly.

(8) The users' name could not be changed, while the password is editable.

(9) All types of video files including event recording files are overwritten by default.

(10) The corresponding types of SENSOR-IN1~4 on the trigger line are as follows:

SENSOR-IN1	SENSOR-IN2	SENSOR-IN3	SENSOR-IN4
ALARM INPUT 1~4			

(11) Without GPS, Wi-Fi or 4G, DVR cannot calibrate time automatically, for which DVR's time will have 10 minutes difference from the actual time.

(12) Users need to calibrate time manually if accurate time is required.

3 Main Features

Controlled by touch screen

- All settings and operations could be done through a touch-control monitor.

Video and Audio

- 4 x 1080P video inputs.
- 4 x audio inputs.
- 1 x audio outputs.
- 1 video outputs (1x AHD - 6PIN).

Recording

- 4CH Video & Audio Recorder with image resolution up to 1920 x 1080, G-Sensor data and GPS data.
- Multiple recording modes: power on recording, normal recording, schedule recording and event recording (i.e., G-Sensor recording, overspeed recording, Motion detection recording, Alarm recording 1~4 and Panic button recording, radar detection alarm recording, inappropriate drivers' action warning recording, driving safety risk recording(FCW alarm, DMS alarm, Lane departure warning), Cyclic recording and 15 seconds pre-recording are also supported.
- Recording files are stored in the SD card.
- Real-time recording of license plate numbers, driving speed, G-Sensor, longitude and latitude, and GPS tracking.

Preview and Playback

- Support single channel or 4 channels audio and video playing back simultaneously.
- Support searching recording files by dates and recording types.
- Support to control the time during playing back.
- Indicating recording status, alarm status and etc.

Storage Types

- Support 2 pcs SD cards (256GB at maximum).
- Take out SD cards from DVR easily.

Backup

- Support USB disk or USB hard disk to backup the recording files.

Network

- Support LAN, Wi-Fi and 2G / 3G / 4G.
- LAN, Wi-Fi and 2G / 3G / 4G have the sequence priority of connections. They are automatically switched to save the data once LAN, Wi-Fi or 2G/3G/4G is connected.
- Recording files could be uploaded to the server. Files are able to be searched/downloaded by CMS Client.
- Wi-Fi supports STATION and AP mode. Wi-Fi AP mode enables mobile devices to be connected, and users could use mobile devices to preview and configure conveniently.
- Support remote real-time video streaming and previewing.
- Support automatic uploading of alarm recording files, alarm information, log information and GPS trajectory, which is convenient to analyze any abnormal conditions of vehicles and track the vehicle.
- Support remote configuration and remote upgrading.
- Support PC Windows Client, mobile iOS and Android app. Users could remotely monitor vehicles by computers or mobile phones.

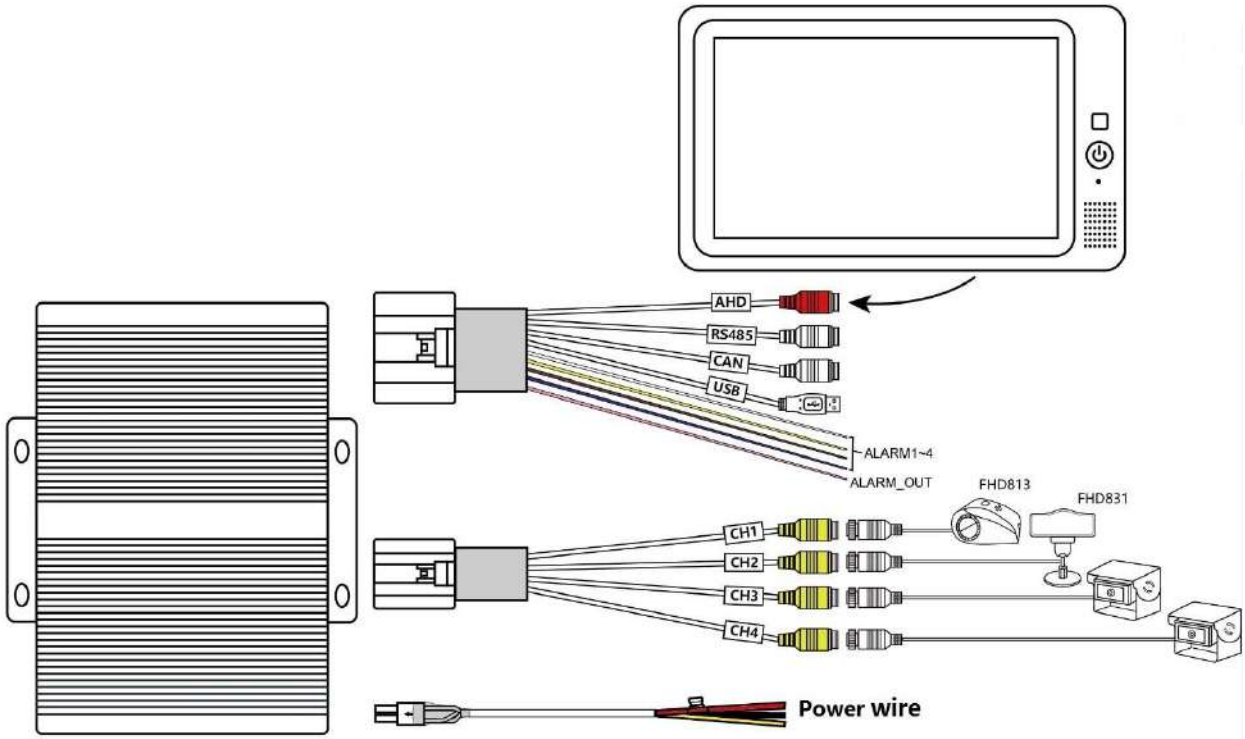
Alarm

- 4 channels of alarm inputs, and 1 channels of alarm outputs.
- Overspeed alarm.
- Motion detection alarm.
- G-Sensor alarm.
- Panic button alarm.
- DMS detection alarms (no driver, fatigue, distraction, making phone call, smoking).
- ADAS detection alarms (pedestrian detection, forward collision, lane departure warning).

Security

- Users’ password protection. The device could not be accessed without password.
- Support account management.

4 Wiring Diagram



5 Connection-Front Panel

PWR: Solid red when DVR is powered on;

RUN: Solid greed when the DVR is running;

GPS: solid greed when positioning successfully;

4G: Solid greed when running and flashes in networking; off when cellular is abnormal;

WIFI: Solid on when Wi-Fi is available to uses and flashes in networking status; Off when Wi-Fi in abnormal status;

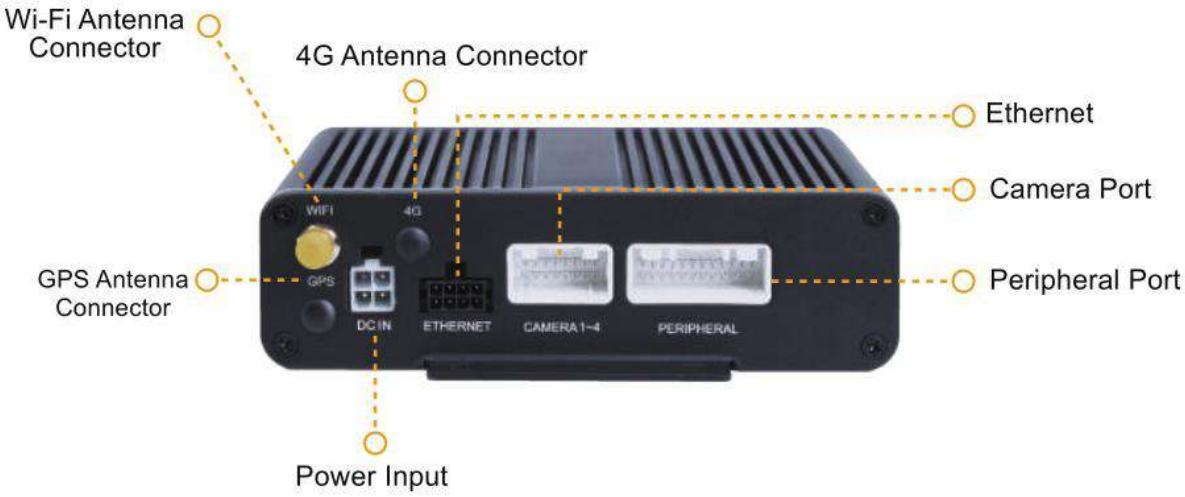
SD: Solid green when available for using and flashes when recording; Off when there is no SD card (or abnormal status).

5.1 Remote Controller

Use the remote controller closer enough to the IR Receiver, otherwise it may not work.

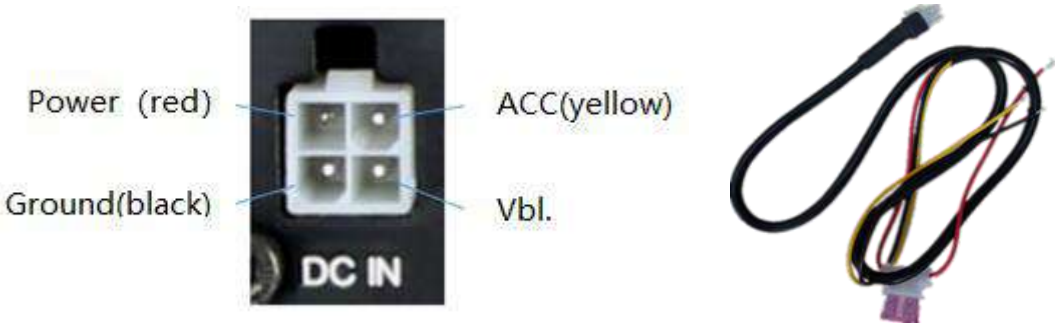
Description	Buttons
Useless -reserved	POWER
Switch to ch1~4 for single channel display	1~4
Switch to eight-segment display	0
Enter menu	MENU
Move up	Up
Move to left	Left
Enter submenu to set and confirm	ENTER
Useless -reserved	REC
Move down	Down
Exit	ESC
Move to right	Right
Useless -reserved	MULTI
Clear input	CLEAR

6 Connection - Back Panel

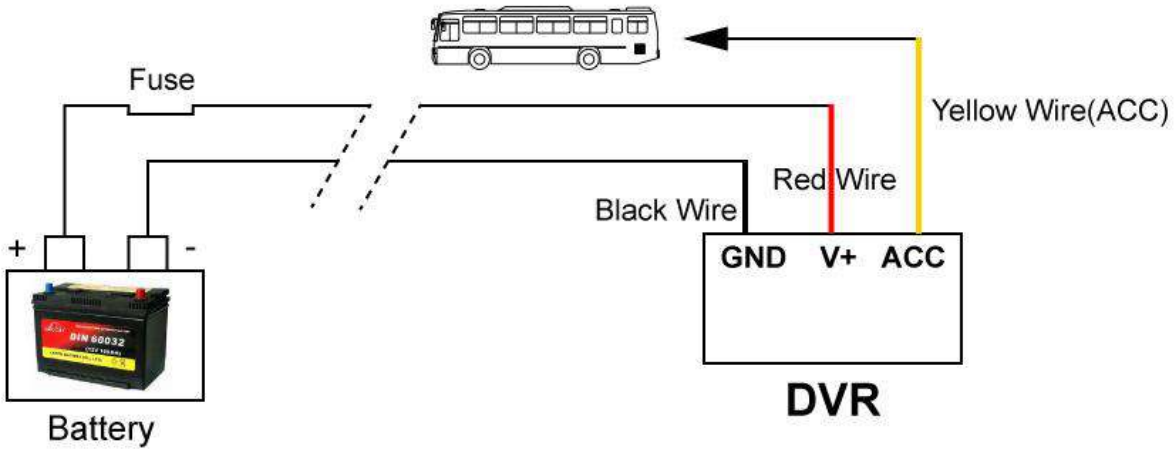


6.1 Power

● Power cord definition:

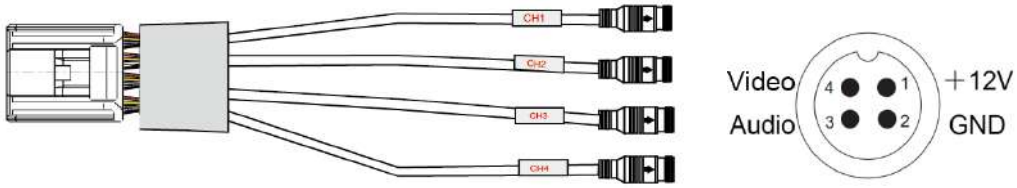


● Connection method：



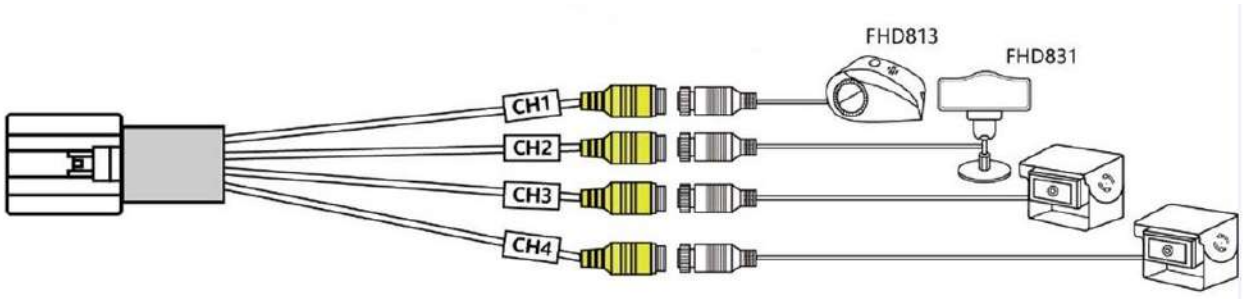
6.2 Cameras (AVIN 1~4)

- Below is the definition of camera input (male).



- How to connect cameras

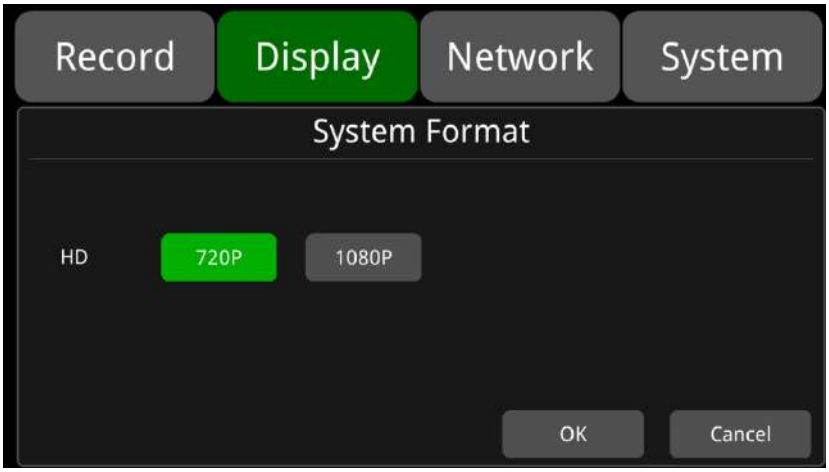
Connect 4 cameras on below cable which connects to back plate of DVR.



6.3 LCD Monitor

- High definition monitors are recommended to work with the device as below:

- Output resolution of the LCD monitor can be selected. Settings are as follows:



6.4 Buzzer

If the device is not connected to a monitor, please check the recording status by the buzzer.

The buzzer would alarm if the device is not recording under Normal Mode which is set by default. To stop the buzzer from alarming, please make sure the device is working properly.

The buzzer warning function is as follows:

The buzzer will keep beeping for a while for all types of alarm event recording.

If the buzzer alarm is not needed, users can go to “System - Exception” page, and set Buzzer from on to OFF. And please note that if the Buzzer is set to be OFF, there would be no alarm even if any event is triggered.

If the buzzer beeps intermittently, it means that the device is unable to record.

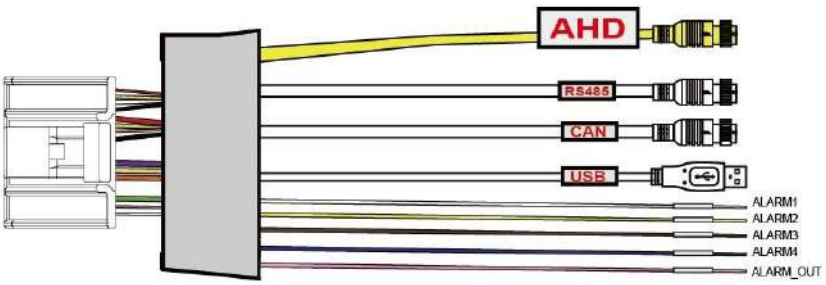
Different beeping modes stand for different working status as below:

1) The front cover is open: one long beep and one short beep.
2) No disk: one long beep and two short beeps.
3) Abnormal disk system: one long beep and three short beeps.
4) If the disk is operating normally, the video file is full, and the Cyclic Rec. is off: two short beeps and one short beep.
5) No camera input: two short beeps , and two short beeps after a second.
6) If the disk is well connected but the device is not in recording: two short beeps and three short beeps.

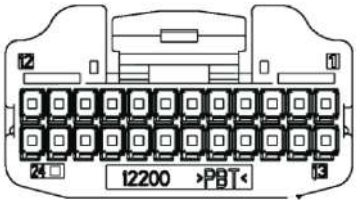
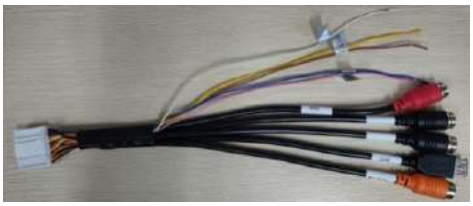
6.5 Alarm/Speed Interface/485/USB/CAN/AHD Interface

● Alarm, speed interface cable

See the picture below.



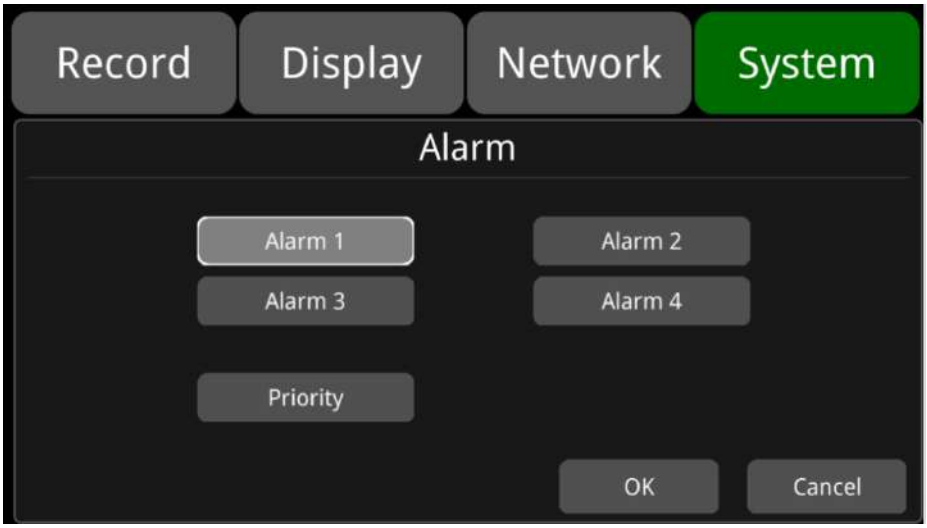
Pin definition：

1318917-1				
1318917-1 PIN	Color	definition	Connection PIN / Trigger line	
1	Black / Shielded wire	GND	5PIN Connection	3/shell
7	Yellow	CANL	5PIN Connection	1
8	White	CANH	5PIN Connection	2
2	Blue	TRIG_4		Trigger line
3	Brown	TRIG_3		Trigger line
4	Yellow	TRIG_2		Trigger line
5	White	TRIG_1		Trigger line
15	Pink	ALARM_OUT		Trigger line
6	Red	12V	6PIN Connection	1
13	Pink	RX	6PIN Connection	2
14	Brown	TX	6PIN Connection	6
16	Yellow	AHD	6PIN Connection	4
17	Black/ Shielded wire	GND	6PIN Connection	5/shell
19	White	AOUT	6PIN Connection	3
6	Red	VCC	4PIN Connection	4
18	Black / Shielded wire	GND	4PIN Connection	1
23	White	RS485_B	4PIN Connection	3
24	Greed	RS485_A	4PIN Connection	2
11	Yellow	DM	USB2.0	3
12	Black	DP	USB2.0	2
21	Shielded wire	GND	USB2.0	1
22	Red	5V	USB2.0	4

Optional RS232 and walkie-talkie.

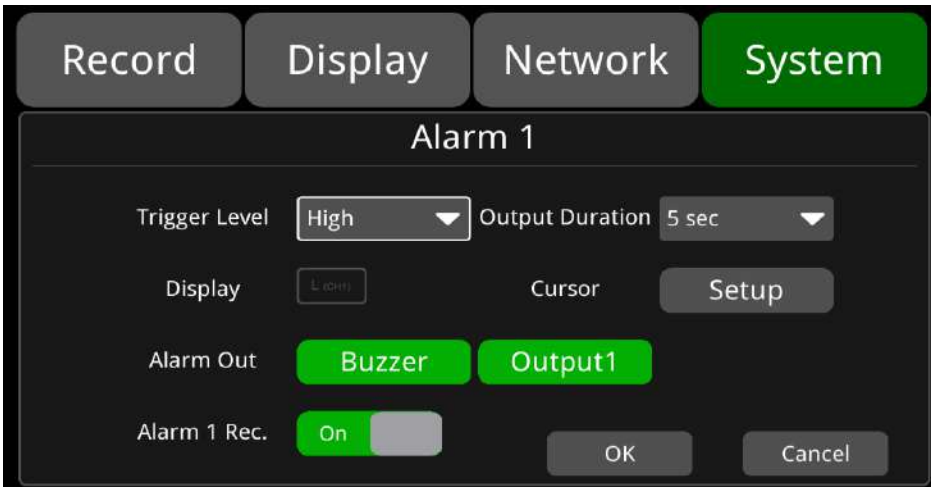
● Pin Definition:

1) There are 6 alarm inputs including alarm inputs 1 ~ 4, reversal input, brake input, which can trigger the alarm recording. Cursor will be displayed when the alarm input channel is working. The first 4 ones can be self-defined by user.



2) Alarm output 1 are 12V by default, which can be used as a trigger and working together with alarm inputs. You can also set up the BUZZER as one output.

3) If Alarm input 1 is active and combined with Alarm output 1, the Alarm output 1 will output a high-level voltage to trigger other device.



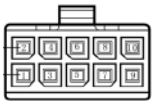
6.6 Panic Button and Its Conversion Cable (Optional)

● Overview

The LEDs are used to show the working status of the device. But when the device is installed in the vehicle, it is not easy to check the LED on the front panel. Each LED indicates the corresponding status of the device. Furthermore, the panic button makes it easier to trigger alarm and recording for emergency by pushing a single button.

The panic button has four main features including LED indicators, emergency button, buzzer alarm and infrared function.

- Pin Definition



2 x 5 PIN/3.0 interface connecting with panic button's connector.

- LED

LED	Color	ON	OFF
VLoss	Yellow	Go to [Setting]-[Record]-[Record Channel] to see if any camera is missing. In case any camera is chosen but not connected, LED would show yellow	Normal operation
Rec	Green	Starts to record	No recording
GPS	Yellow	GPS signal is lost	Normal operation
Mem	Red	Storage damage or NO storage	Normal operation
Comm	Yellow	Device is not connected to the server	Normal operation or device is not connected to the server if this feature is disabled
Power	Green	Power is connected	NO power
Error	Red	Error with device	Normal operation
Event	Not in use	Not in use	Not in use

- Panic Button

Panic Button is labeled as "Bookmark".

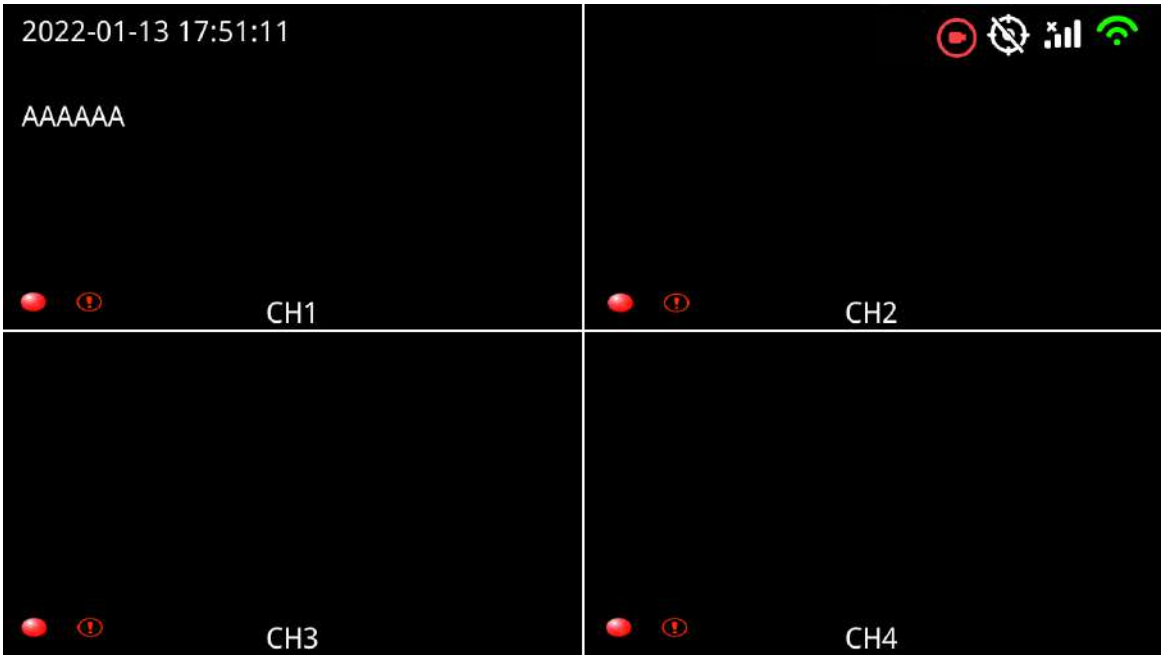
1) When the bookmark button is pressed, an emergency event recording will be triggered.

2) When the bookmark button is pressed, the Event LED light will work temporarily.

If the panic button alarm recording cannot be triggered, please check if the Event Rec. is set ON as shown below:

If the alarm recording was triggered, there will be an alarm sign on the screen, as shown below:

- IR receiver



When the remote control aims to the IR on panic button, it has the same effect of aiming to that on the device. Sometimes the recorder will be installed in a relatively hidden place in the vehicle, which is not possible for users to directly control the device by remote control. So it will be more convenient for users to operate with the panic button.

- The Buzzer

The alarm from the buzzer in panic button is convenient for checking the status of the device.

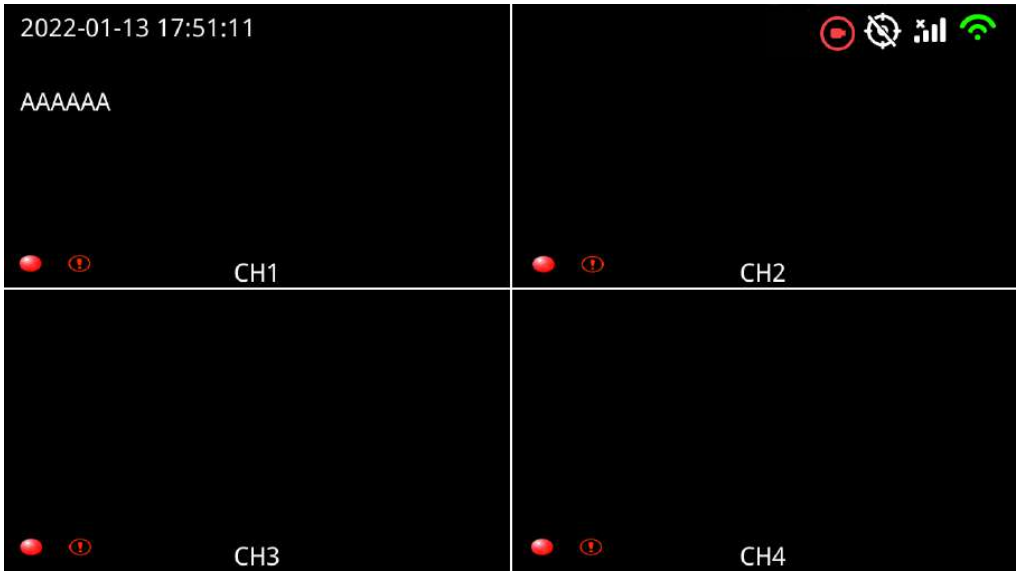
If Power On Buzzer is set On in menu System->Exception, panic button's buzzer will beep for 15 times continuously when DVR is powering on. When it is set Off, there will be no beeps instead.
If Exception Buzzer is set On in menu System->Exception, panic button's buzzer will beep continuously when alarm is triggered.
If Exception Buzzer is set Off in menu System->Exception, panic button's buzzer will not beep when alarm is triggered.

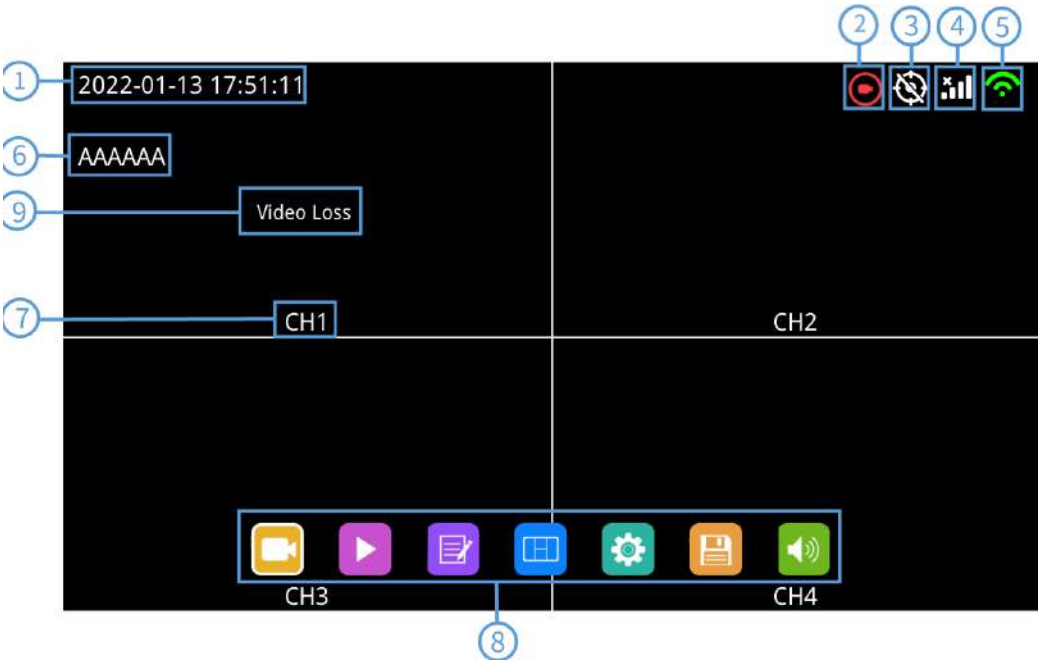
6.7 Three-in-one Antenna (GPS, 2G/3G/4G, Wi-Fi)

7 The Menu

7.1 Menu Introduction

Press [MENU] on the remote control or touch the bottom area on a connected LCD screen, the Menu will be shown as below. Please log in before entering the menu.





① System time display ② Recording status

③ GPS icon

- The GPS icon will be flashing when connecting. It will be always ON if it is successfully connected.

④ 2G/3G/4G icon

⑤ Wi-Fi icon

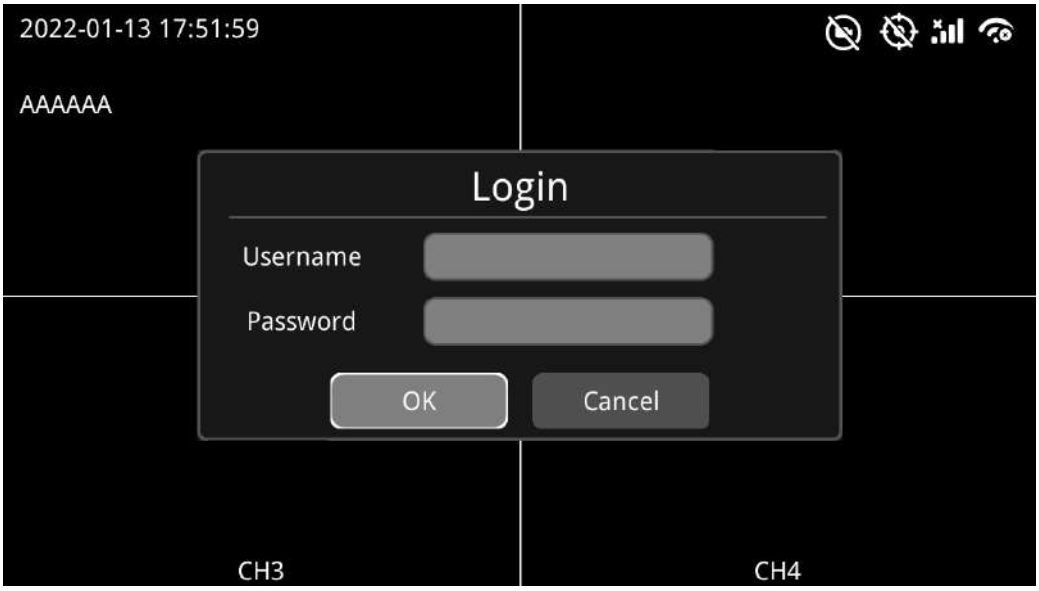
⑥ License plate number display

⑦ Channel name

⑧ Menu

- Press [Area 9] to display MENU options.

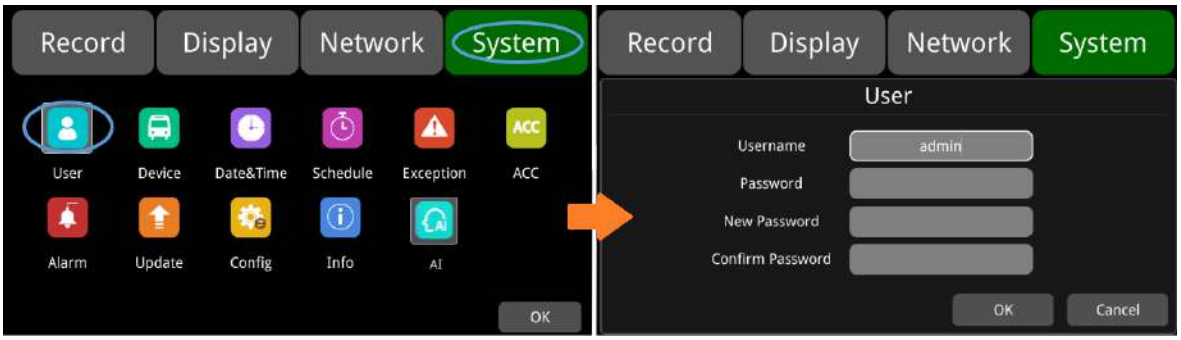
7.2 Menu Lock



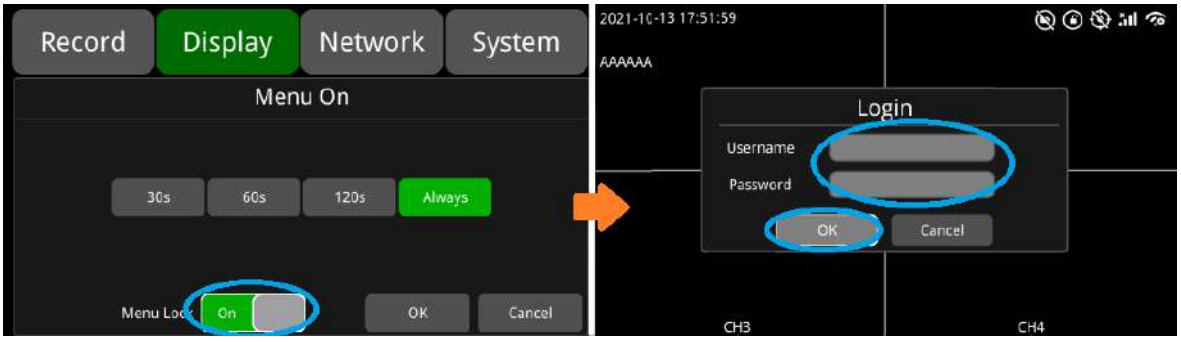
- The device/recorder supports two kinds of permissions: admin permission and guest permission.
- Users' account list.

	Admin Permission	Guest Permission
User Name	admin	guest
Password Modification	yes	no
Initial Password	123	321
Permission	Enter all menus	Enter the menu of Playback, Display mode switching and Volume
		

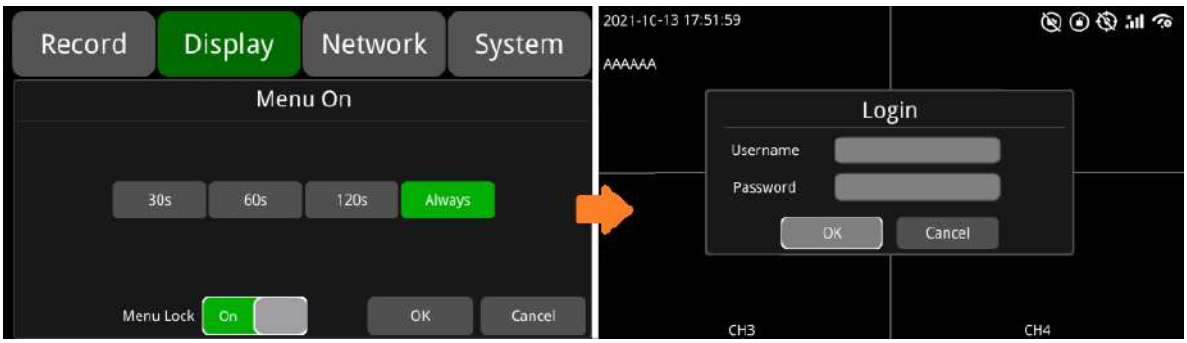
- Users' name could not be changed, but users' password is changeable Guest does not have permission to enter the setup menu, so the password cannot be changed. (See the following instructions to change the password.)



- Only the administrator could change the status of Menu lock. The following picture shows how to change the Menu Lock status from ON to OFF.



- When the menu lock status is "ON", you need to enter the user name "admin" and password to enter the "recording", "play", "log", "settings", "disk" "layer switching" and "volume adjustment" and other menus. If you use the user name "guest" and password, you can only enter the "play", "layer switching" and "volume adjustment" menu. When the menu lock status is "Off", you do not need to enter the user name and password to enter the menu.



7.3 Keyboard Operation Instruction

: Switch letter case

Cancel : Exit without saving setting

Go : Exit with saving setting

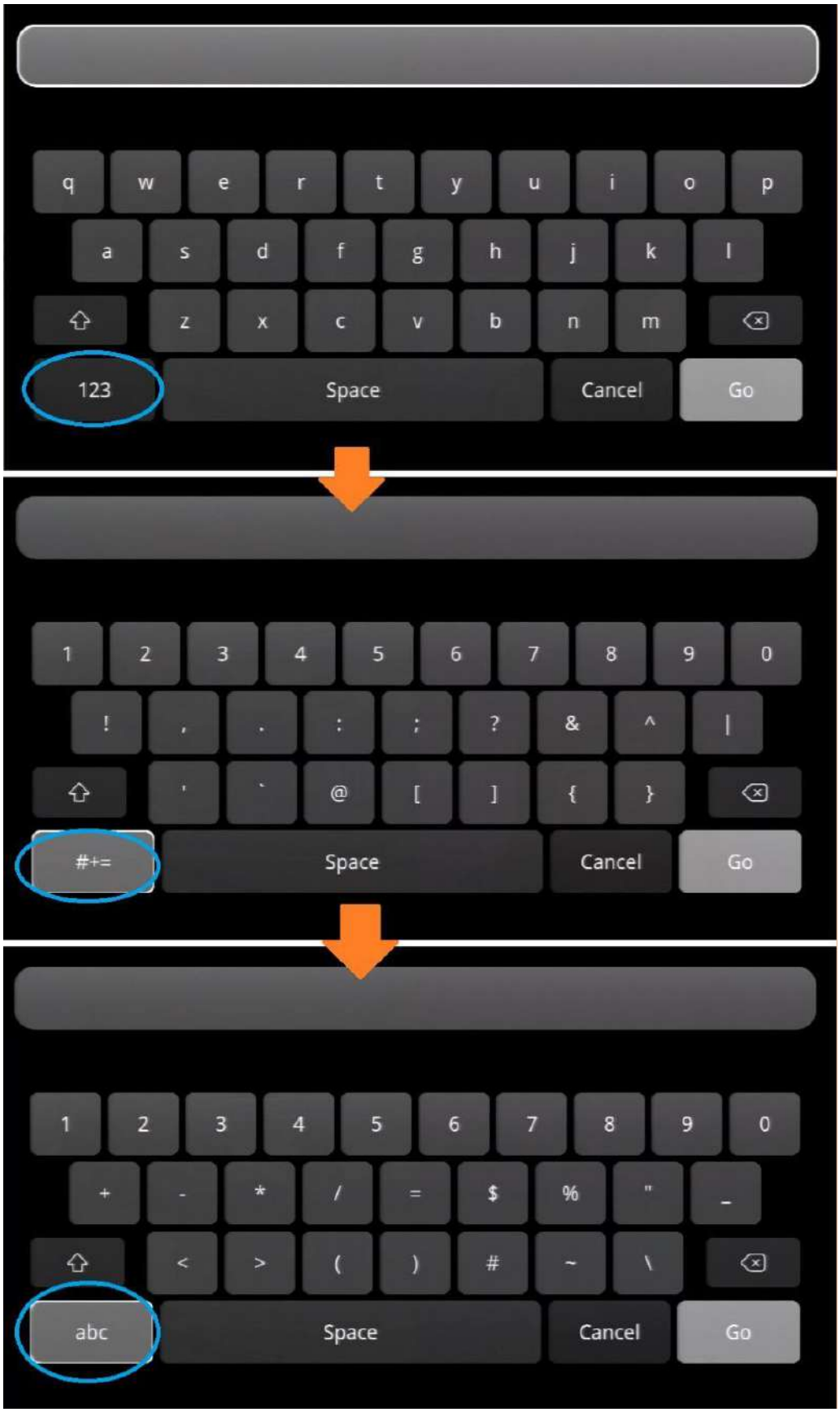
: Delete letter

123 : Switch to the numeric interface

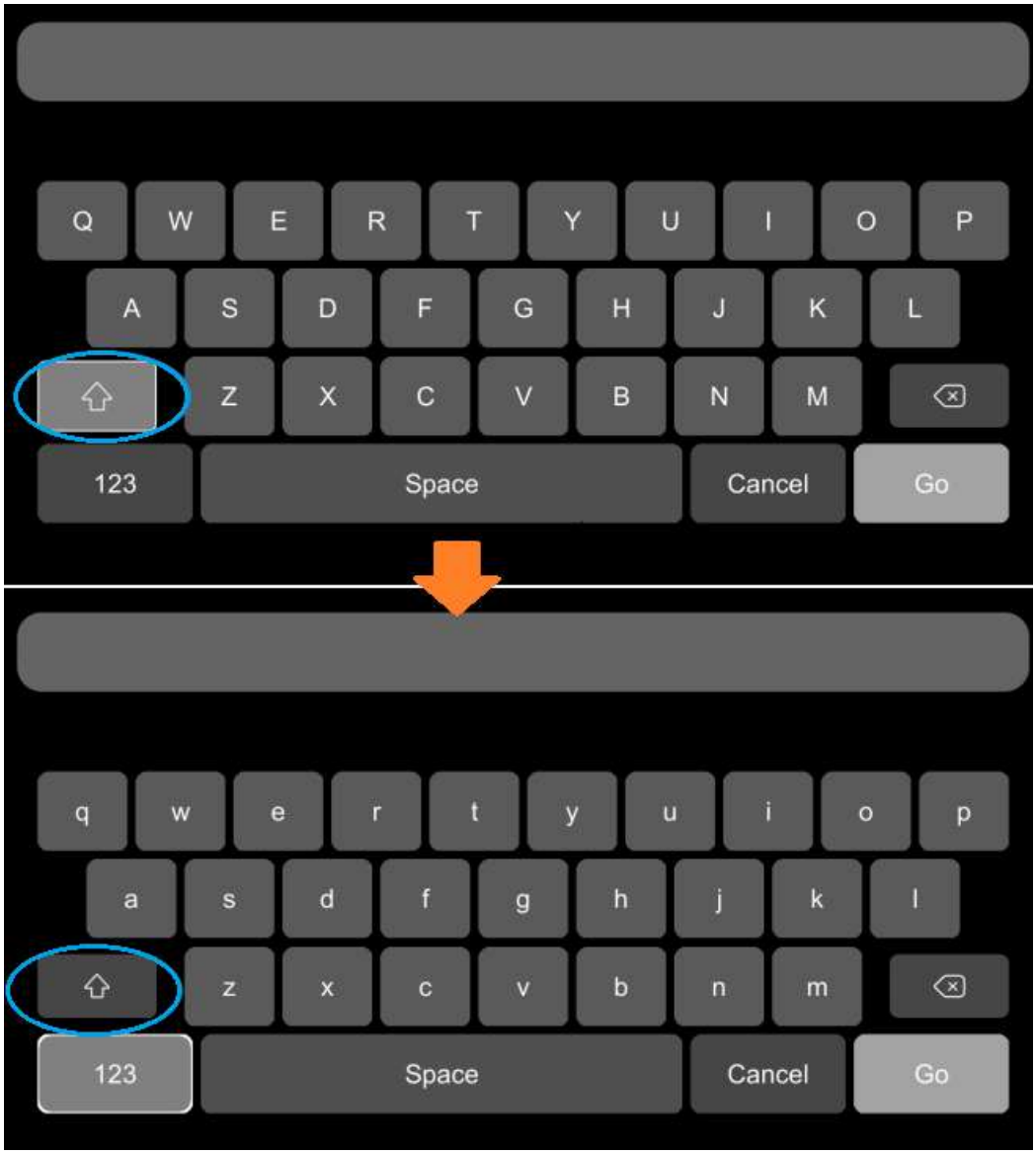
abc : Switch to the English alphabet interface

#+= : Switch to the special character interface

Character Switching Introduction



Letter Case Switching Introduction



7.4 Manual Recording

Recording button: Recording is compulsory in this version so touching this icon couldn't stop or start recording.

7.5 Playback

Video Playback button: Touch this icon to enter the calendar menu.

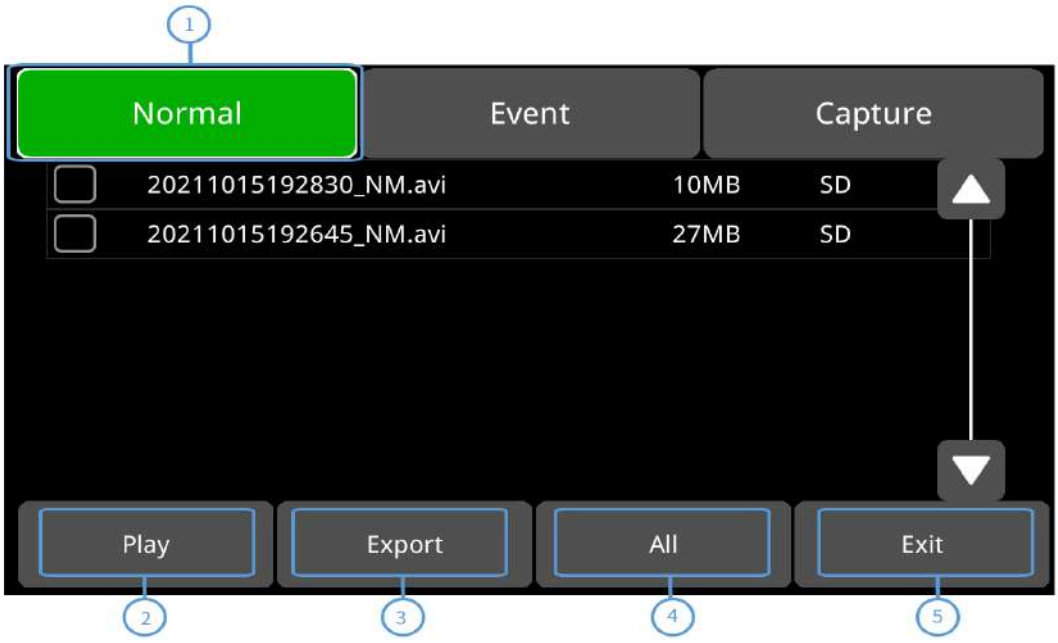
Green marked date means it has recording files saved on that day. Select the date to enter the video file list, then select the file and touch Play icon to play video. You can select single or multiple videos at a time. Multiple videos can be played in sequence and can be shifted to the next or the previous one. Specific operation as below.

- Calendar Interface

 : Search by month

 : Search by year

- Record List Interface (1)



① **Normal**: Normal recording list, including Normal Recording, Power on Recording and Schedule Recording. Event: Alarm recording list, including alarm recording 1~4, Motion detection recording, G-Force recording, over speed recording, Panic button recording, Lane Departure Warning recording, DMS alarm recording, Pedestrian detection alarm recording and FCW recording.

Type	Recording Time Control Mode	View Position
Normal recording	Manual control	Normal list
Power on recording	Manual control	Normal list
Schedule recording	Pre-setup time	Normal list

Alarm recording 1~4	Event recording setup time	Normal list
Motion detection recording	Event recording setup time	Normal list
G-Force recording	Event recording setup time	Normal list
Overspeed recording	Event recording setup time	Normal list
Panic button recording	Event recording setup time	Normal list
Lane Departure Warning recording	Event recording setup time	Normal list
DMS alarm recording	Event recording setup time	Normal list
FCW recording	Event recording setup time	Normal list
Pedestrian Detection alarm recording	Event recording setup time	Normal list

② **Play:** Play the selected video files

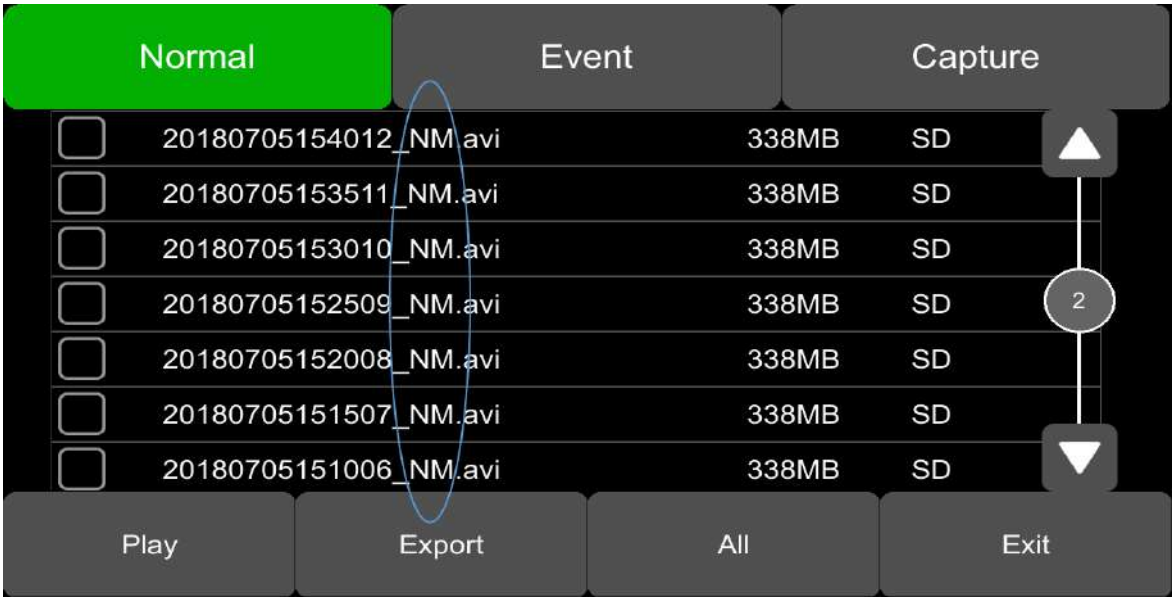
③ **Export:** Export selected video files to external USB devices

④ **All:** Select all seven files on current page

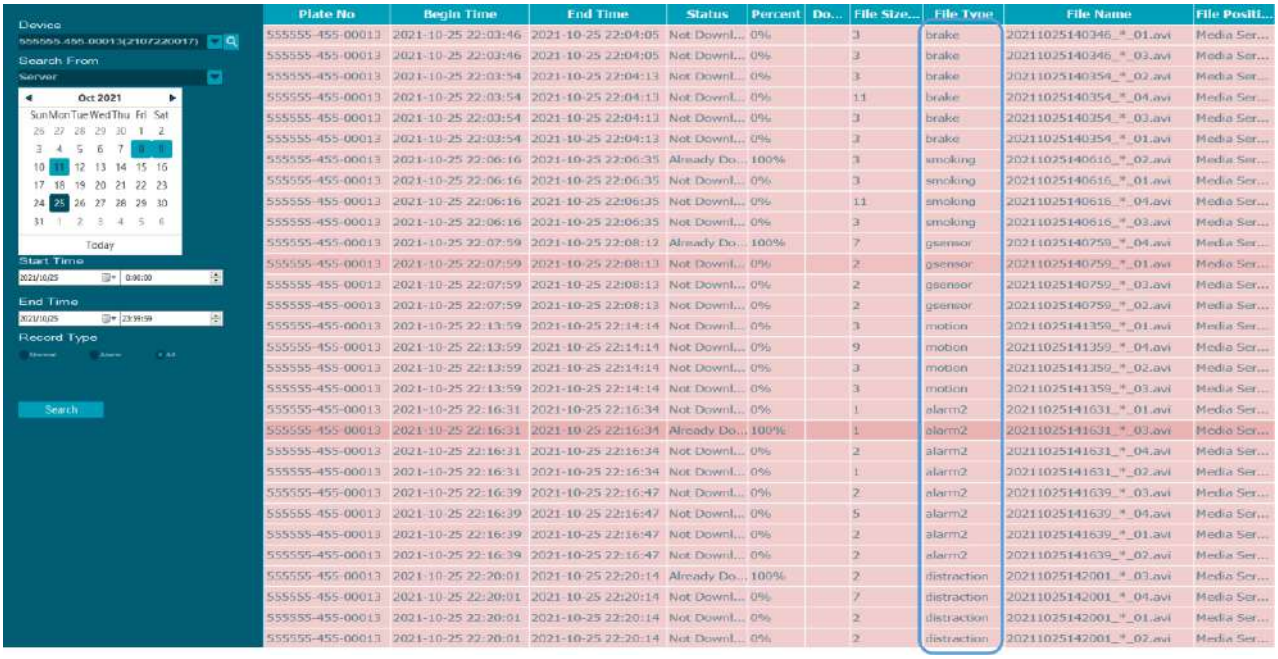
⑤ **Exit:** Exit

- Record List Interface (2)

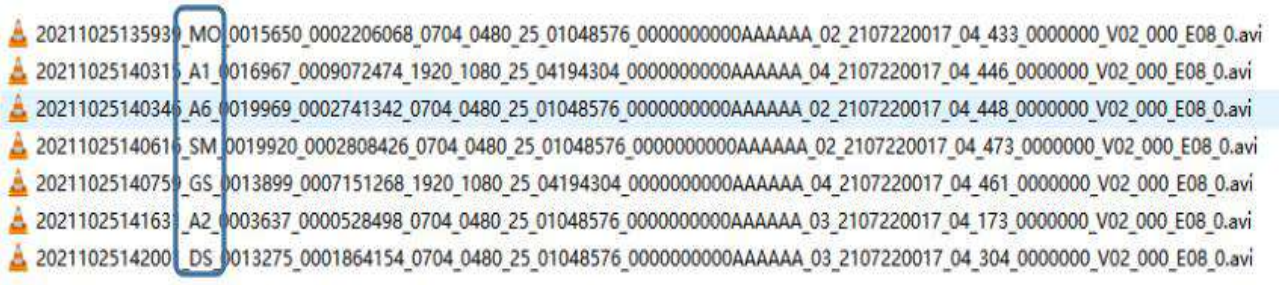
There is an abbreviation of record type in the file name, from which you can get the record type of this file. Only NM video files will be generated in local playback files while other record types with different abbreviations can be checked in CMS Client.



Alarm video files uploaded to CMS Client are shown as below:



Alarm video files downloaded from CMS Client are shown as below:

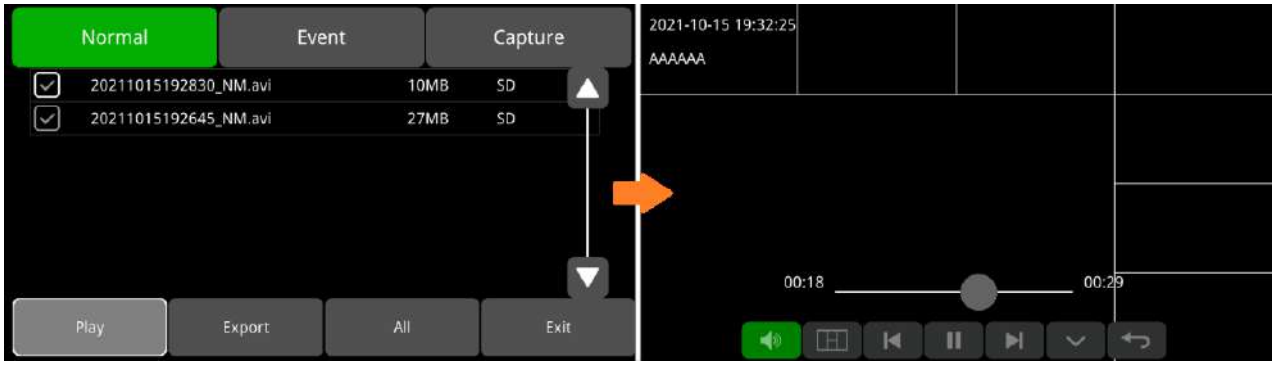


Abbreviations of different record types are listed as followings:

NM	Normal recording	TI	Scheduled recording
MO	Motion detection recording	SP	Speed recording
TP	Temperature recording	BT	Panic button recording
A1	Alarm 1 recording	A2	Alarm 2 recording
A3	Alarm 3 recording	A4	Alarm 4 recording
A5	Reverse recording	A6	Brake recording
PB	Pedestrian detection recording	CR	Collision alarm recording
SK	Lane deviation alarm recording	OS	Over speed recording (the speed source is ADAS)
GS	G-Sensor recording (easy mode)	ND	No driver alarm recording
FT	Fatigue alarm recording	DS	Distraction alarm recording
CA	Phone using alarm recording	SM	Smoking alarm recording

- Play Interface

After selecting files, press ”Play” button to play the files:



: Volume control

: Select the playback view modes

: Play the previous/next video file

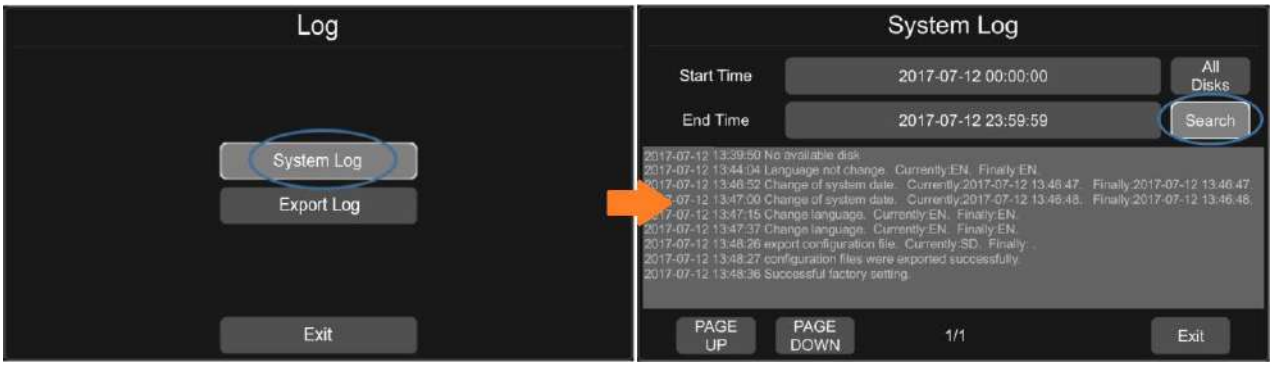
: Pause/Resume playing

: Hide the menu. Press [Area 1] to display.

: Exit playing

7.6 Log

System Log checking, Log export.



7.7 Display Mode Switching

Display mode switch: Press the icon to display 20 types of mode. The default mode is eight view.

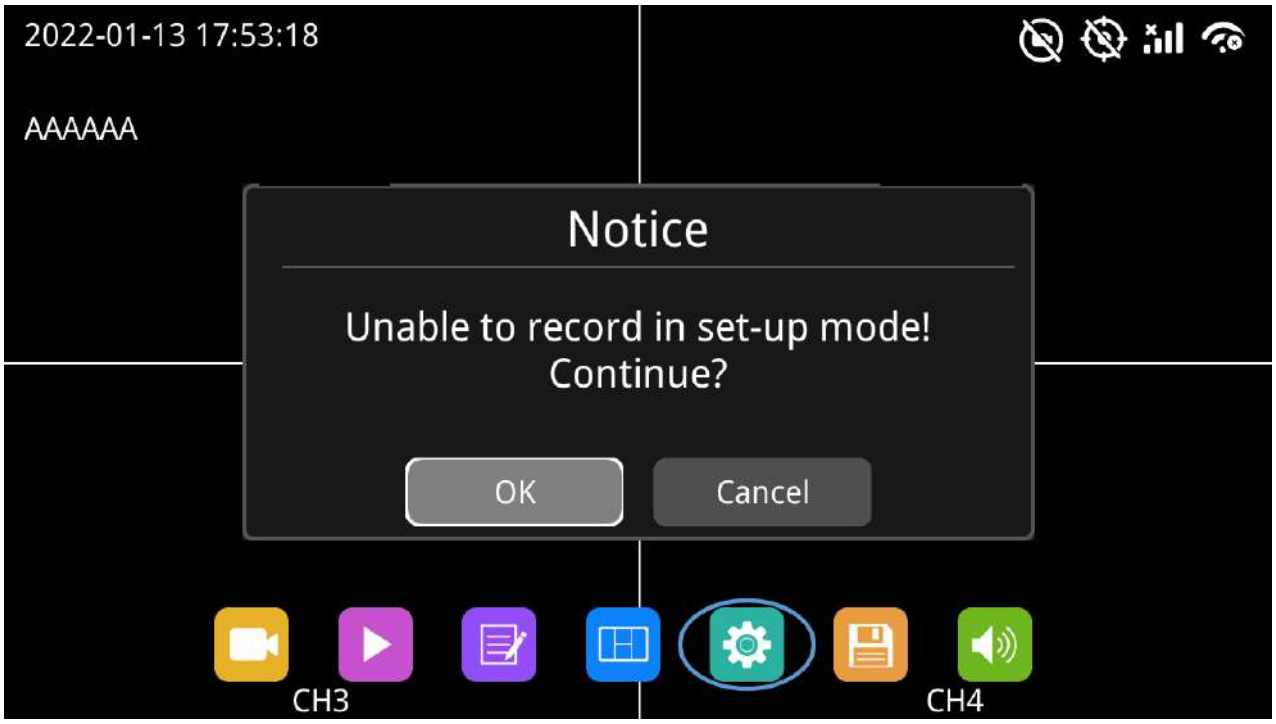
① Display mode selection.

② Touch the icon to set up the default.

③ Exit.

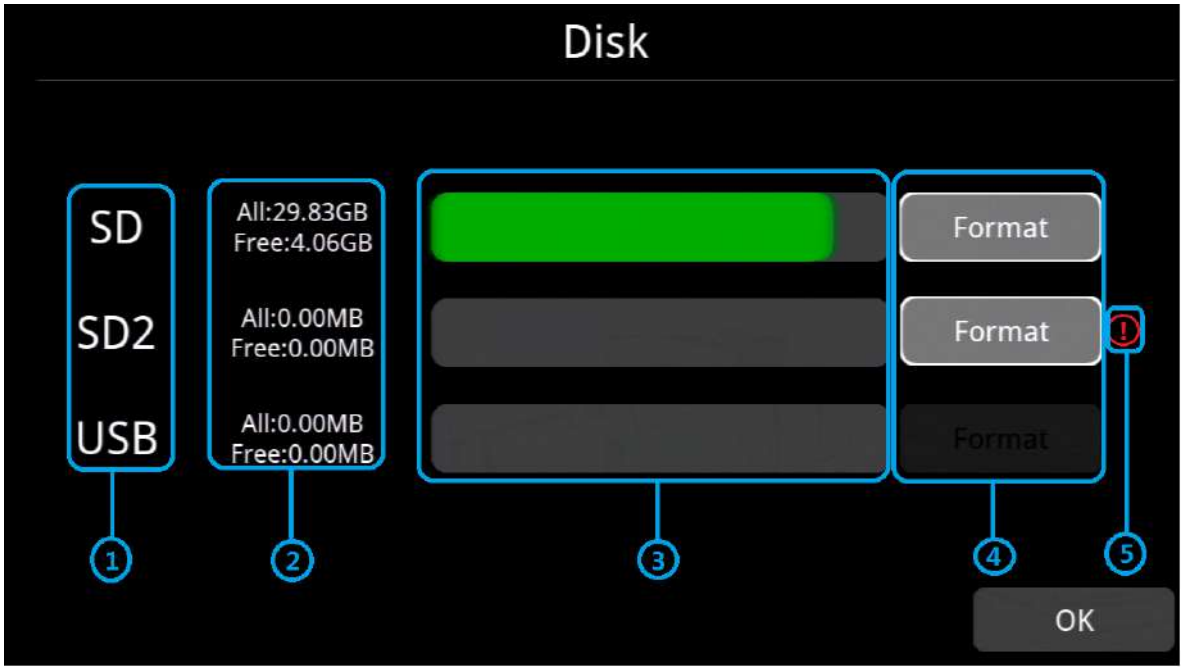
7.8 System

System settings: Touch the icon to enter the setup menu. A window warning of "Unable to record in set-up mode! Continue?" will be popped up, and touch OK to enter.



7.9 Disk

Disk management: Touch the icon to check status of SD card and USB storage.



① Disk types.

② Disk capacity display

ALL: The total capacity of individual disk

Free: The remaining capacity of disk

If ALL shows 0.00MB, it means that DVR does not have access to this type of disk.

③ Disk capacity bar

Green shows the capacity of all the recording files in Normal list.

Yellow shows the capacity of the rest of recording files.

④ Touch to format the disk.

A window text of “Disk data will be deleted! Continue?” will pop up. Press OK to start formatting the disk.

The following picture is an example of formatting SD2.

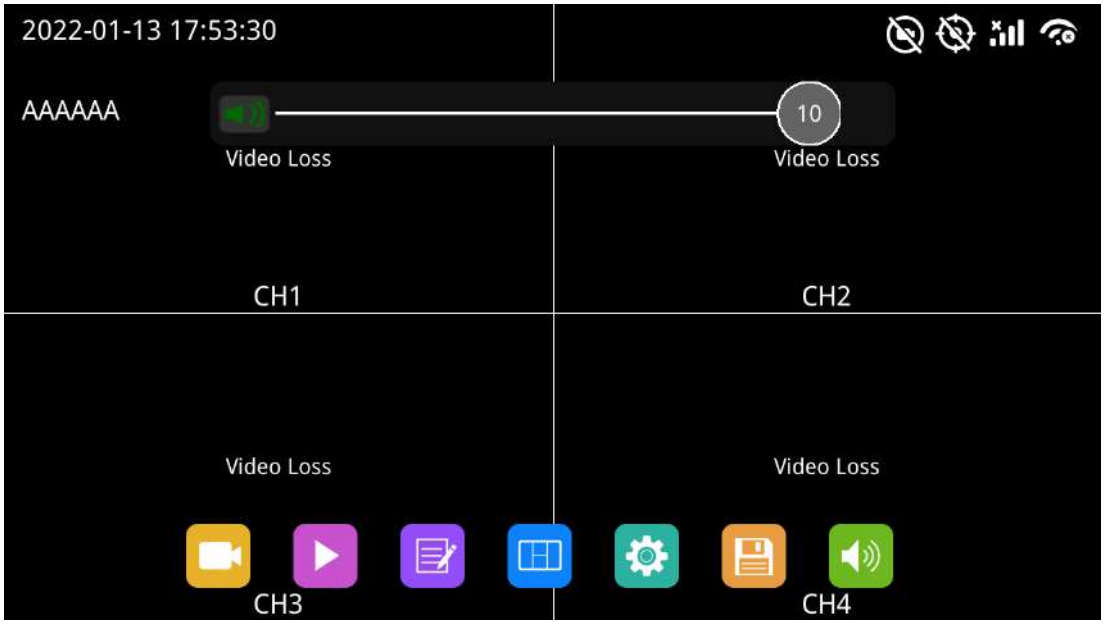
If the disk could not be formatted, please check if there is one in the slot.

⑤ It shows that the disk needs to be formatted before application.

All new disks must be formatted before application.

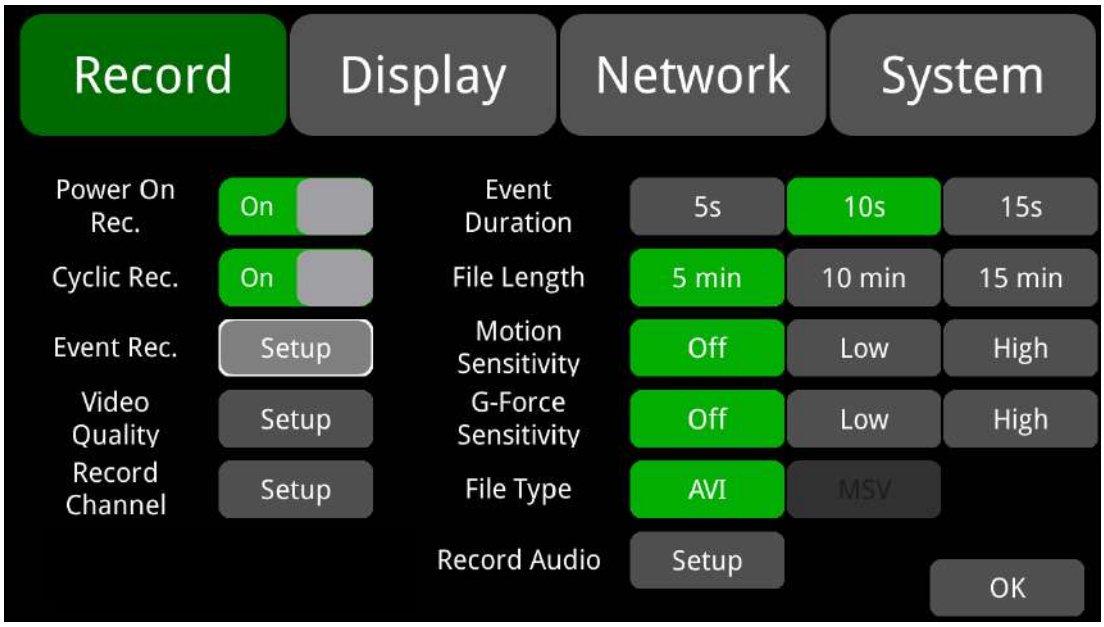
7.10 Volume

Volume : value 0~10, default value is 10.



Function	Minimum Value	Maximum Value	Default Value
Volume	0	10	10

8 Record Setup



8.1 Power On Rec

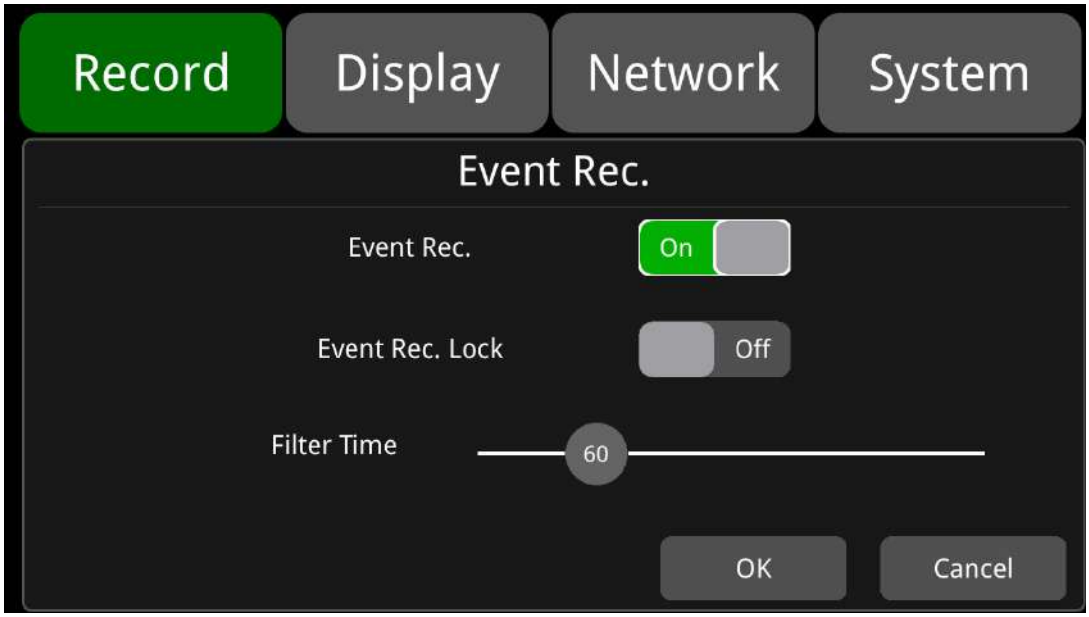
When “Power On Rec” is set to ON, the device will start recording once it’s powered on. Default setting is ON.

8.2 Cyclic Rec

When “Cyclic Rec” is set to ON, new recording files will overwrite the previous ones when the disk is full. Otherwise, it will stop recording when the disk is full.

This function is “ON” by default, and will overwrite all video files, including event video files.

8.3 Event Rec



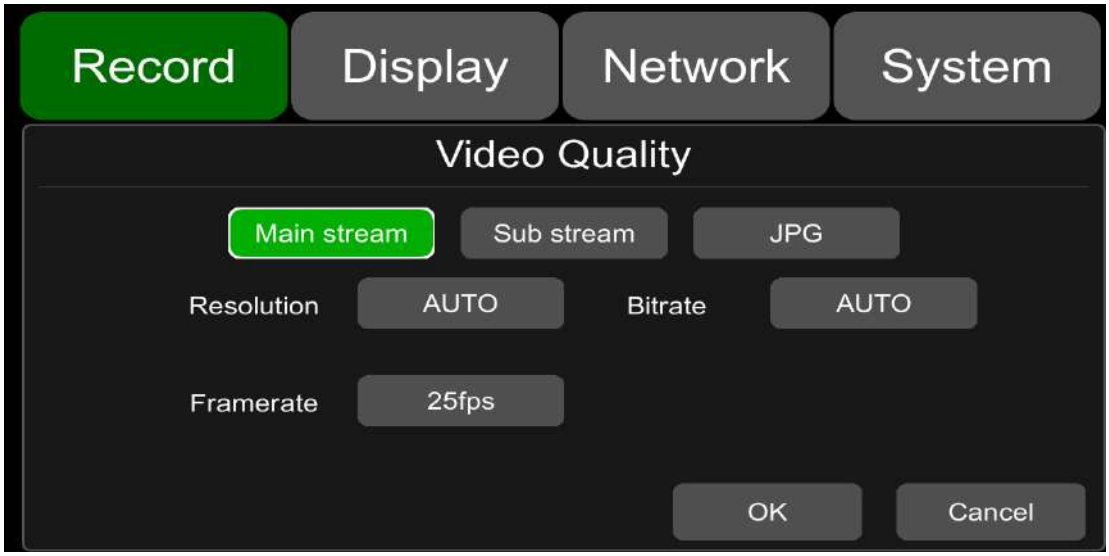
Event Rec.: Event recording refers to the alarm recording triggered by events including motion detection, G-Sensor, alarm 1~4, panic button and over speed, DMS alarm and ADAS alarm. If the Event Rec is set to ON and corresponding alarm parameters are set, event recording will be activated when the events above are triggered. If the Event Rec is set to OFF, event recording will not be activated even if an alarm is triggered. This function is “ON” by default.

Event Rec. Lock: Not in use.

Filter Time： If the same alarm is triggered continuously, DVR will generate one alarm message every

60 seconds and check whether a new alarm video should be generated every 60 seconds. Alarm information will be sent to server after DVR connects with the Internet. The minimum value of Filter time is 1s, the maximum value is 300s and the default value is 60s.

8.4 Video Quality



The main stream is used for video storage. The sub stream is used for network transmission.

The default configuration of main stream, sub stream and JPG are as follows:

	Main stream	Sub stream	JPG
Resolution	AUTO	CIF	none
Bitrate	AUTO	64Kbps	none
Framerate	25fps	25fps	Low

1) Resolution

5 types of resolution are optional in Main stream menu, including 1080P, 720P, D1 (PAL), D1 (NTSC) and AUTO. The default setting of Sub stream is CIF and it cannot be changed. The higher the resolution you set, the better video quality and larger video files you will get. Therefore, file size should be taken into consideration during configuration.

In the options of Resolution, AUTO is defined as follows.

	Main stream
AUTO	DVR can identify camera's television mode automatically and record videos in this mode.

2) Bitrate

8 types of bitrates are optional in Main stream menu, including 4Mbps, 2Mbps, 1Mbps, 512Kbps, 256Kbps, 128Kbps, 64Kbps and AUTO while 6 types can be chosen in Sub stream menu, including

1Mbps, 512Kbps, 256Kbps, 128Kbps, 64Kbps and AUTO. The higher the bitrate you set, the clear image and larger video files you get. Therefore, all factors should be taken into account during configuration. In the options of Bit rate, AUTO is defined as follows.

Bitrate		
	Main stream	Sub stream
AUTO	If a 1080P camera is connected, the bitrate will be 4Mbps. For a 720P camera, it'll be 2Mbps. And for a D1 camera, it'll be 1Mbps.	Whatever cameras are connected, the bitrate will always be 64Kbps.

3) Framerate

There are 8 kinds of optional framerates in Main stream and Sub stream menu: 30fps(NTSC), 28fps(NTSC), 25fps, 20fps, 15fps, 14fps, 10fps and 5fps. The higher the framerate is and the smoother the picture is, the larger the video file will be. (Note: mixed connection of camera with different framerates is not allowed.)

SD capacity	Video Quality	File length
2TB	4 x 1080P / 4Mbps	≈298h
	4 x 720P / 2Mbps	≈596h
	4 x D1 / 1Mbps	≈1193h
	1 x 1080P / 4Mbps	≈1193h
	1 x 720P / 2Mbps	≈2387h
	1 x D1 / 1Mbps	≈4772h
512GB	4 x 1080P / 4Mbps	≈75h
	4 x 720P / 2Mbps	≈149h
	4 x D1 / 1Mbps	≈298h
	1 x 1080P / 4Mbps	≈298h
	1 x 720P / 2Mbps	≈596h
	1 x D1 / 1Mbps	≈1193h

4) JPG

JPG frame rate can be set as Excellent, High, Mid or Low. Their definitions are listed as below:

Excellent	The speed of uploading pictures to CMS Client is unlimited (the fastest) and the effect is the best.
High	The speed of uploading pictures to CMS Client is one picture per second.
Mid	The speed of uploading pictures to CMS Client is one picture per 3 seconds.
Low	The speed of uploading pictures to CMS Client is one picture per 5 seconds.

8.5 Record Channel

The default configuration is shown above.

All channels and all types of videos will be recorded when recording is on. This function is compulsory in this version so all channels will be recorded no matter they are turned on or off.

8.6 Event Duration

The default configuration is shown above.

When the “Event Rec” is set to ON, the video file length of event recordings can be set as 5s, 10s or 15s. The video file length will be maximally 5 minutes if an alarm is continuously triggered.

8.7 File Length

The default video file length in AVI and MSV format is 5 min.

AVI format video file length can be set to 5 minutes, 10 minutes, 15 minutes. The length of the video file in MSV format can be set to 2 minutes, 3 minutes, 5 minutes.

File Format	File Length
AVI	5min,10min,15min

8.8 Motion Sensitivity

The default configuration is shown above.

- Motion detection recording and sensitivity level setting: When there is an object moving and its movement amplitude exceeds the preset motion detection sensitivity level, then motion detection recording will be triggered. For such kind of event recording, the pre-recording time is set as 10s and the post-recording time is set according to the configuration in Event Duration above.
- Total video file length equals to the pre-recording file length (default time 10s) plus the file length configured in Event Duration.
- If motion detection is set to OFF, event recording will not be triggered. Motion detection sensitivity can be set to two levels, low or high. Motion detection recording will be on when Low / High is selected. And it will be off when OFF is selected.

8.9 G-Sensor Sensitivity

The default configuration is shown above.

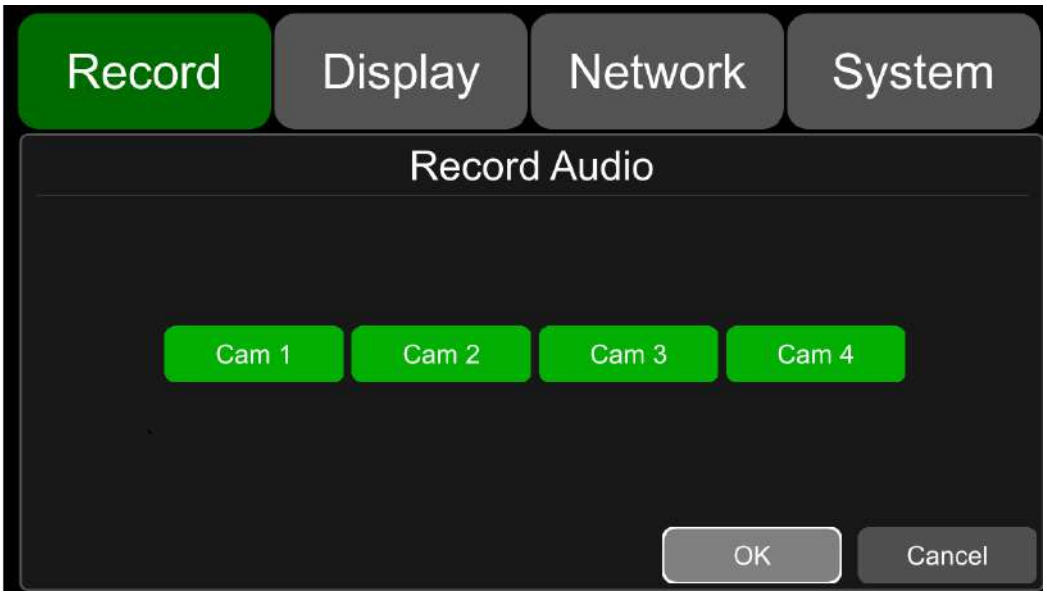
- G-Sensor recording and the setting of sensitivity level: When the acceleration or gyroscope of the G-Sensor reaches the preset sensitivity value, G-Sensor recording will be triggered. For this kind of event recording, the pre-record time will be set as 10s and the post-event time is configured by Event Duration above.
- Total video file length equals to the pre-recording file length (default time 10s) plus the file length configured in Event Duration.
- If G-Sensor triggered recording is off, event recording will not be triggered. G-Sensor sensitivity can be set to two levels, low / high. G-Sensor triggered recording is on when low / high is selected. G-Sensor triggered recording is off when OFF is selected.

8.10 File Type

Set video format. Record video files in AVI format by default.

8.11 Record Audio

Set the recording audio of the channel. When the recording channel is selected, the audio of the channel will be recorded in the recording file. If this channel is not selected, there is no audio in the recording of this channel. The default configuration is shown below.

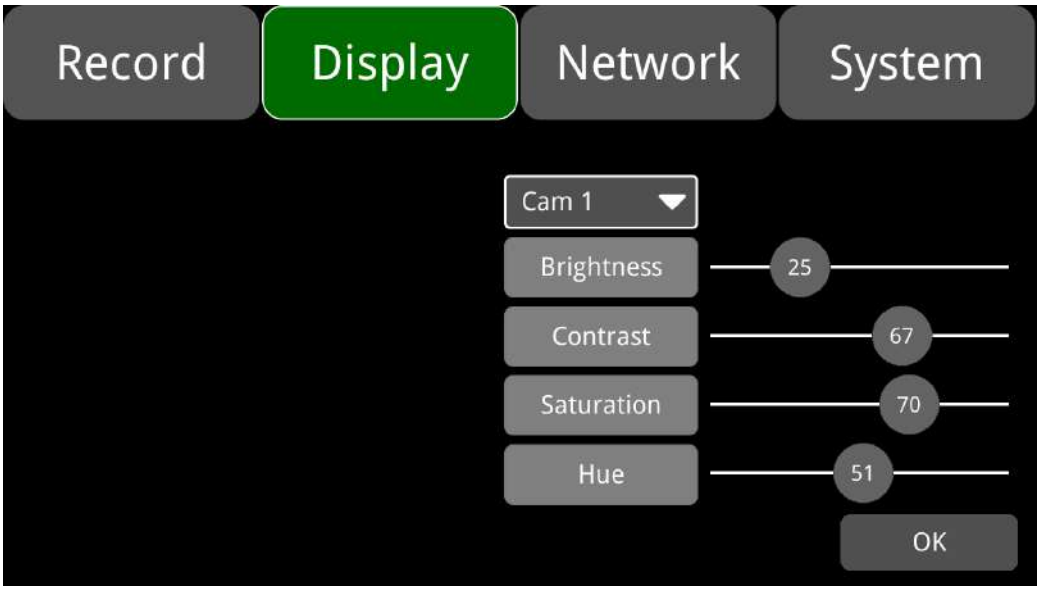


9 Display

9.1 Camera Display Setting

Camera parameter setting for each corresponding channel includes brightness, contrast, saturation and hue. Picture below shows default setting of all channels' brightness, contrast, saturation and hue.

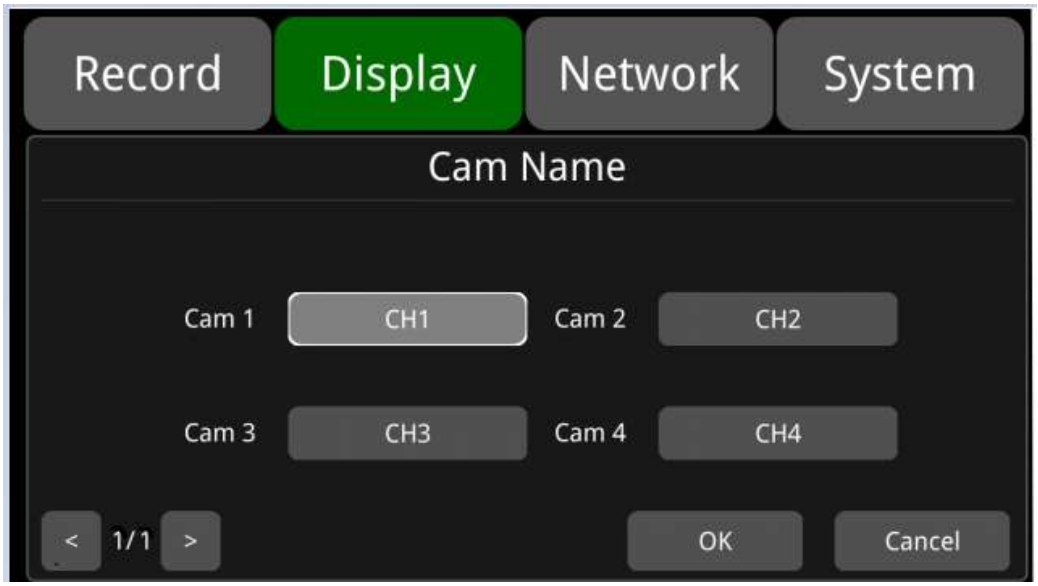
To change the value, drag the bar to left or right to decrease or increase.



Camera Display	Minimum value	Maximum value	Default value
Brightness	0	99	25
Contrast	0	99	67
Saturation	0	99	70
Hue	0	99	51

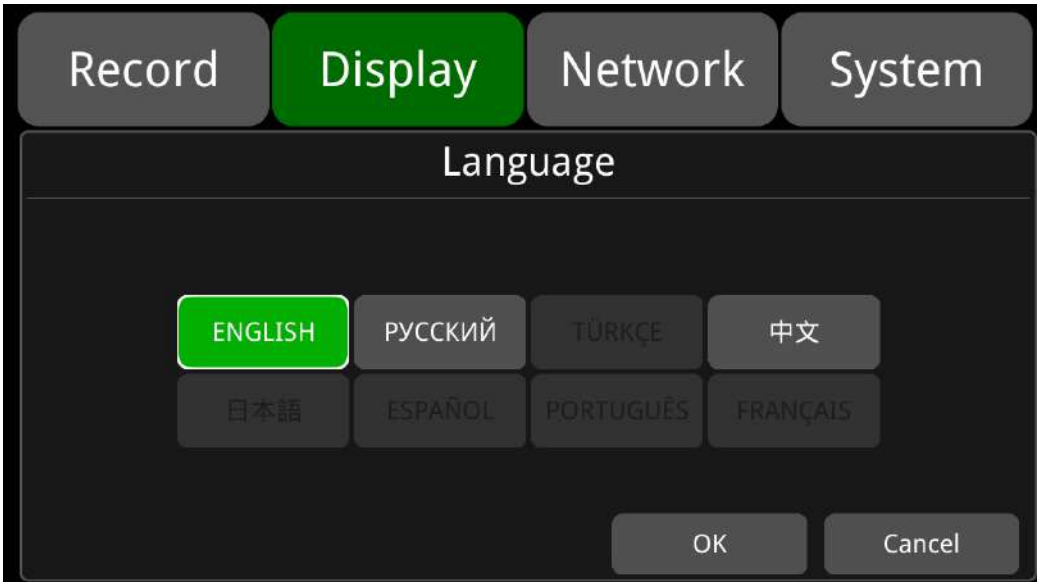
9.2 Camera Name Setting

Camera names are displayed at the bottom of each channel. Touch the “Display->Camera Name->Cam* ” on the menu, a keyboard will pop up to input a new camera name. Maximum 8 characters can be entered and the camera name must NOT be blank. The default configuration is shown below.



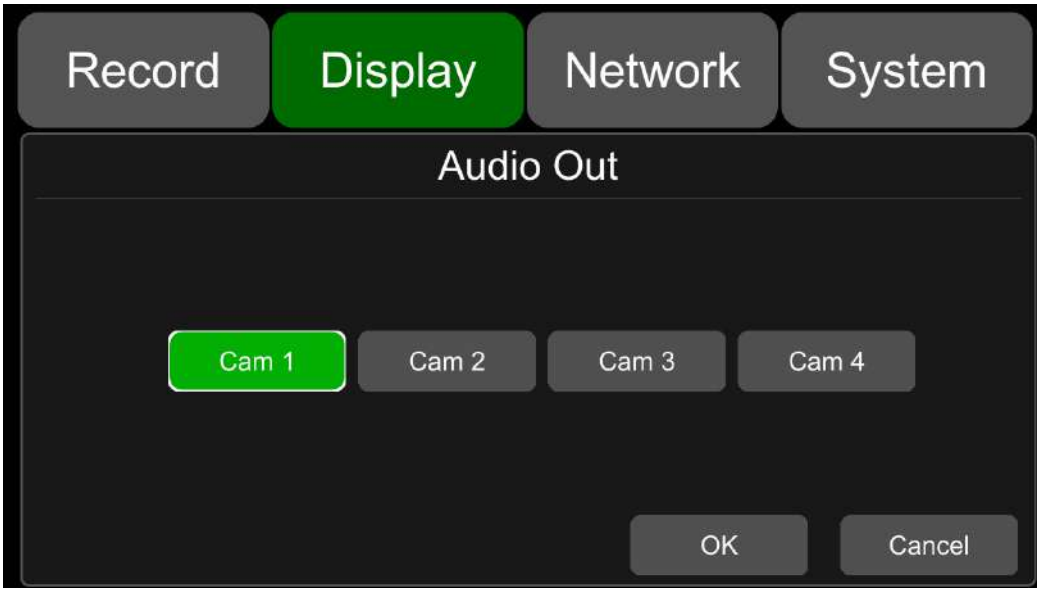
9.3 System Language Setting

English, Russian and Chinese are available in the menu for your options. The default language is English.



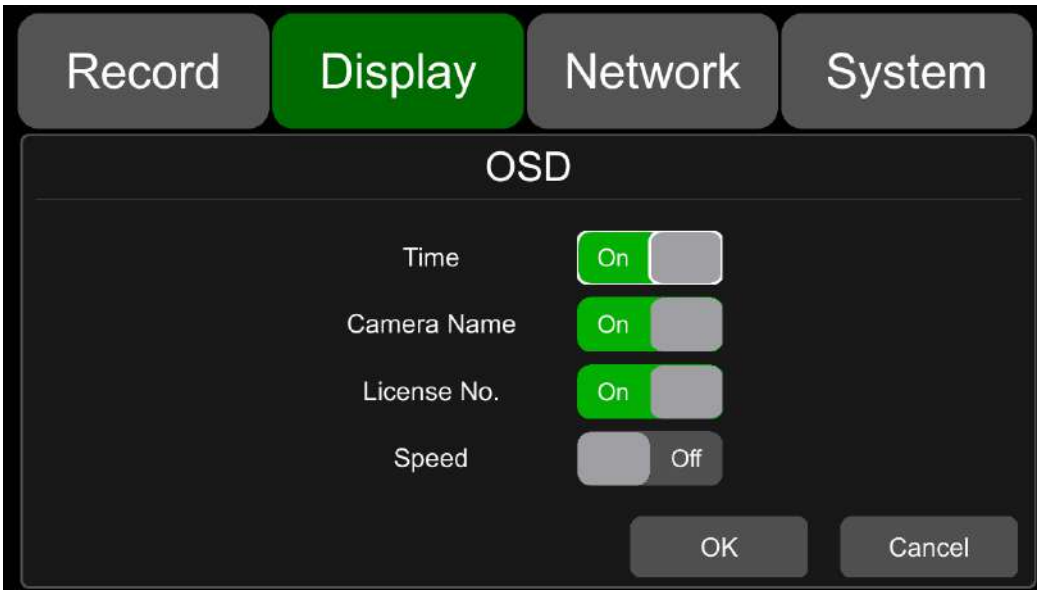
9.4 Audio Out

Select the audio output channel in multi-display mode. The default configuration is shown below.



9.5 OSD Display Setting

Time, Camera name, License number and Speed can be selected whether to display or not. If it is on, the information will be shown in the live and the playback video. The default configuration is shown below.



9.6 Menu on

Set the menu display duration. The default configuration is shown below.

Menu on:

Duration can be set to 30s, 60s, 120s and Always. When it is set to 30s, 60s, 120s, it means that the menu will disappear if there is no operation in 30s, 60s or 120s. When it is set to Always, the menu will always be there. Please be noted that the recording will stop when menu is on. It is not suggested to set the duration to Always in order not to affect the recording.

Menu lock:

When it is On, permission is required to enter the menu.

When is it Off, no permission is required to enter the menu.

Username and password are required if to change the status of the menu lock.

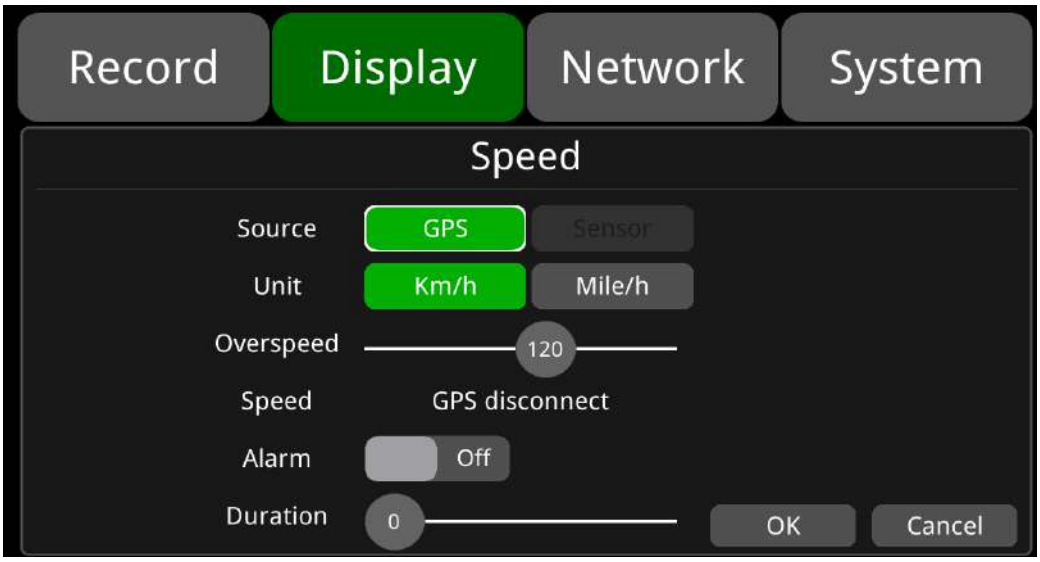
9.7 Speed

Speed setting:

The data source of overspeed comes from GPS. Speed unit is optional: Km/h or Mile/h. Overspeed threshold can be set by user. Duration is the overspeed alarm time setting. Speed means the current vehicle speed. If the Speed value continues to exceed the overspeed value for a time longer than Duration, the DVR will trigger an overspeed alarm recording.

The alarm switch is to set the over-speed alarm recording ON and OFF. If it is ON, the overspeed alarm recording will be triggered when the vehicle is speeding. If it is OFF, the overspeed alarm recording will not be triggered.

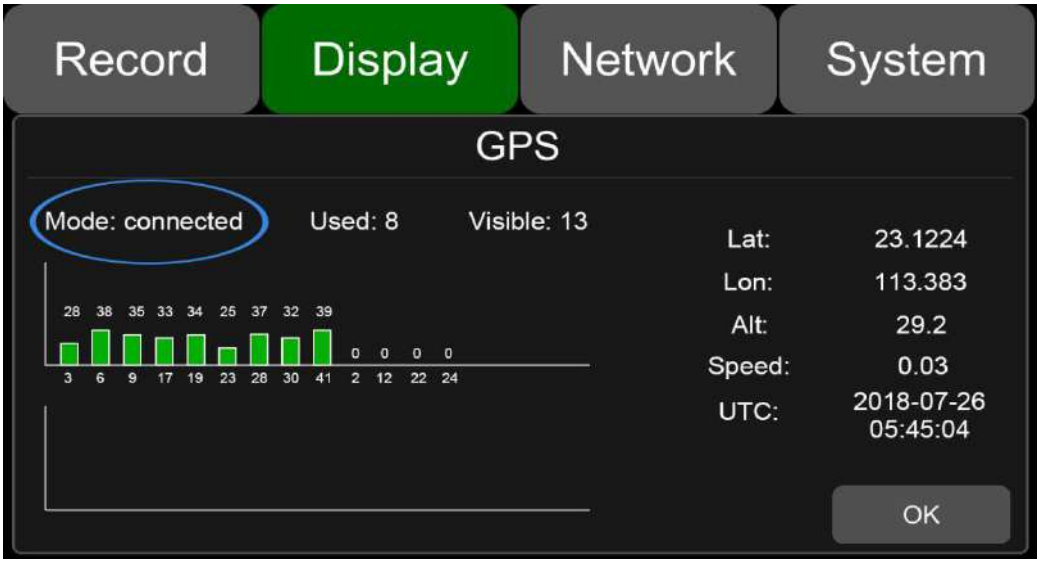
The default configuration of each item is as follows.



Overspeed	Minimum value	Maximum value	Default value
Km/h	0	200	120
Mile/h	0	125	75

9.8 GPS

When the GPS antenna is properly installed, the latitude, longitude and speed will be recorded. The menu provides the GPS information including latitude, longitude, detectable satellites, and accessible satellites etc.



Mode: indicates the GPS connection status.

Used: indicates the number of available satellites.

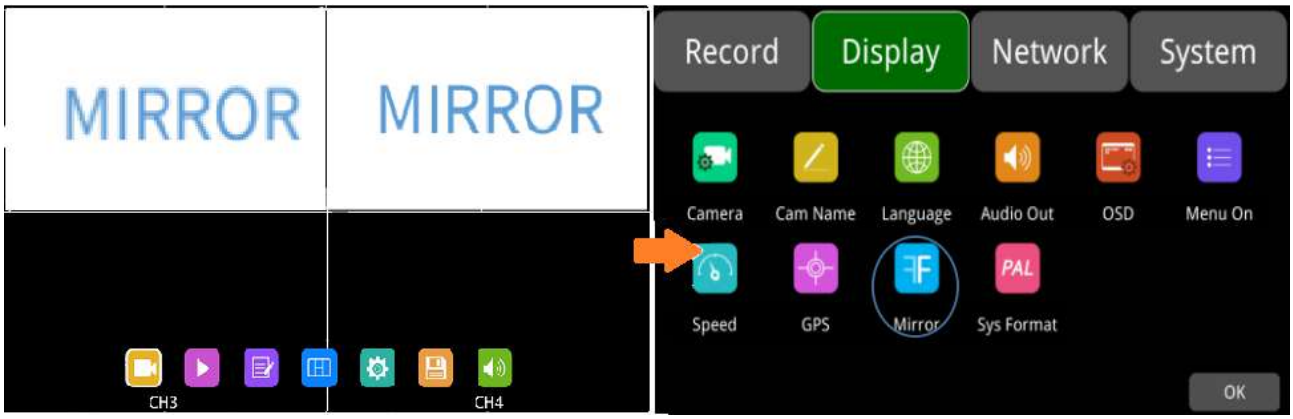
Visible: indicates the number of searchable satellites.

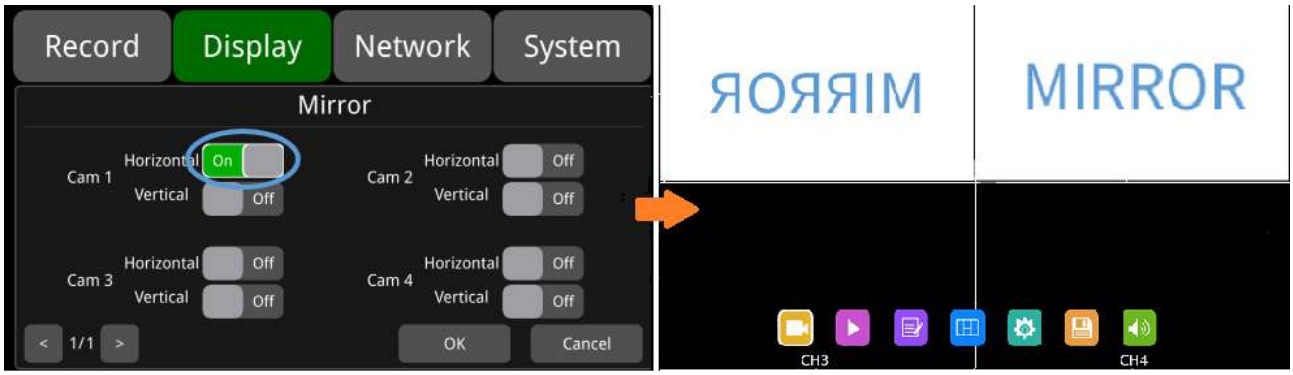
9.9 Mirror

Horizontal and vertical flips of all channels are turned off by default.

Horizontal: when it is set to ON, the corresponding recording channel will flip horizontally; when it is set to OFF, no flip will be done.

The setting steps are show as follows:



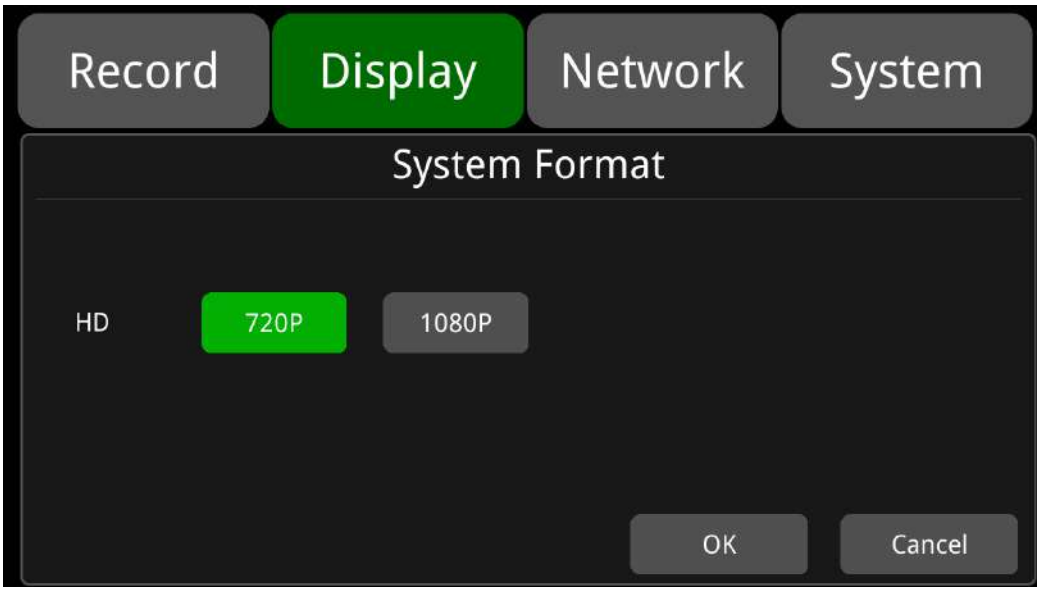


Vertical: when it is set to ON, the corresponding recording channel will flip vertically; when it is set to OFF, no vertical flip will be done.

The setting steps are show as follows:

9.10 System Format Setting

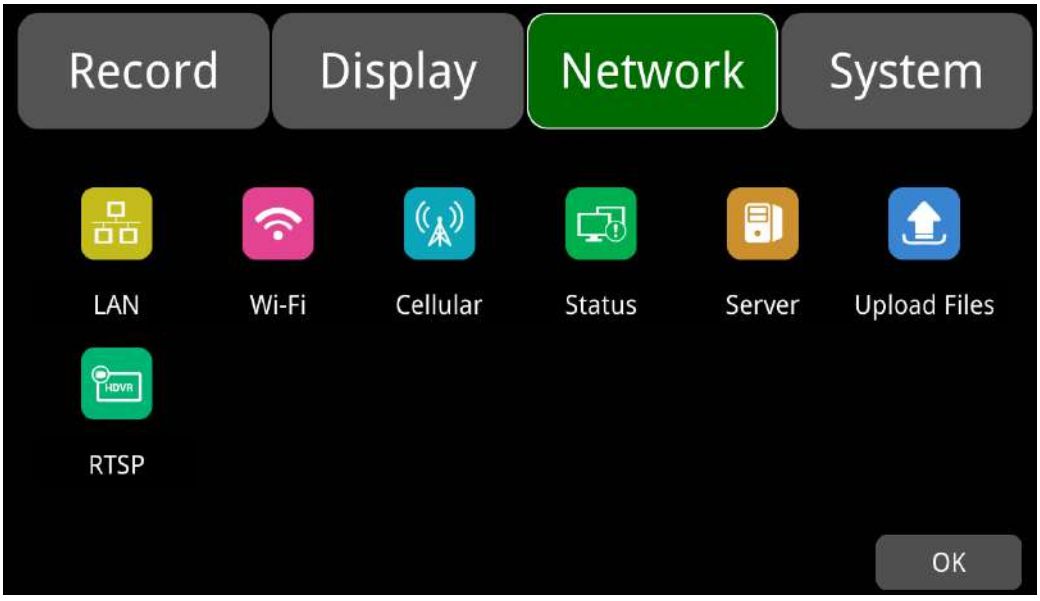
System format



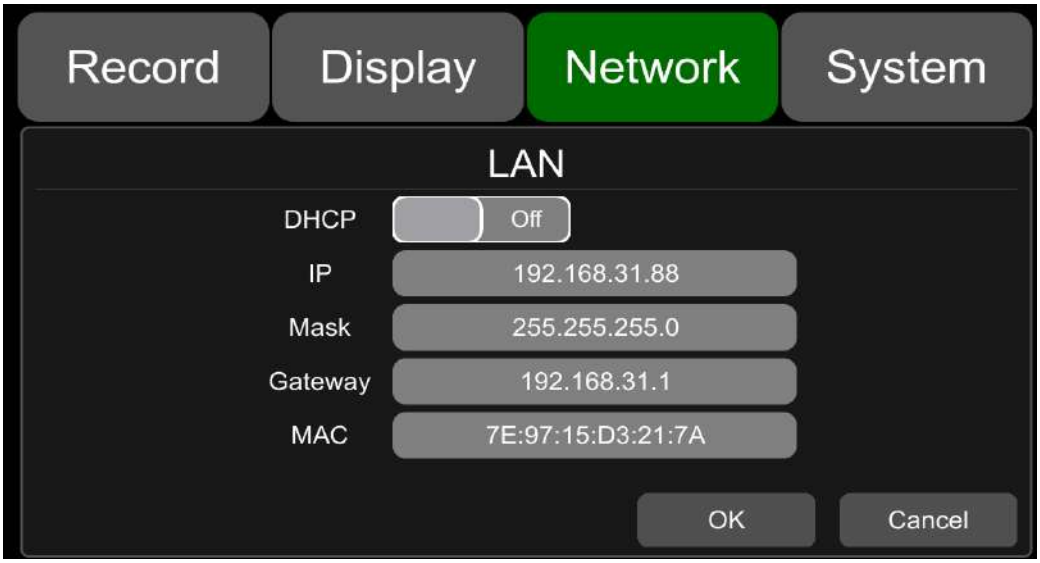
The default configuration is shown above.

HD: HD display

10 Network



10.1 LAN and Server Setting



The default configuration is shown above.

● **DHCP**: Dynamic Host Configuration Protocol. Set On for dynamic IP and Off for static IP. Static IP must be manually input with IP address, mask and gateway. MAC address can be automatically assigned or revised.

● LAN connection

Step 1: Connect the LAN cable to the DVR.

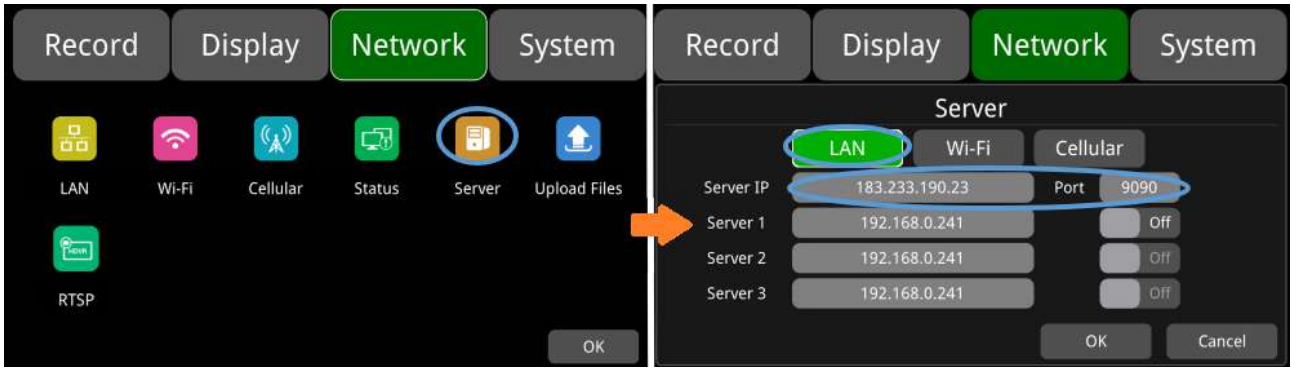
Step 2: Go to “Network - >LAN” page.

Step 3: If DHCP is set to ON, a dynamic IP will be automatically matched. If DHCP is set to Off, input the IP, mask, gateway and MAC manually.

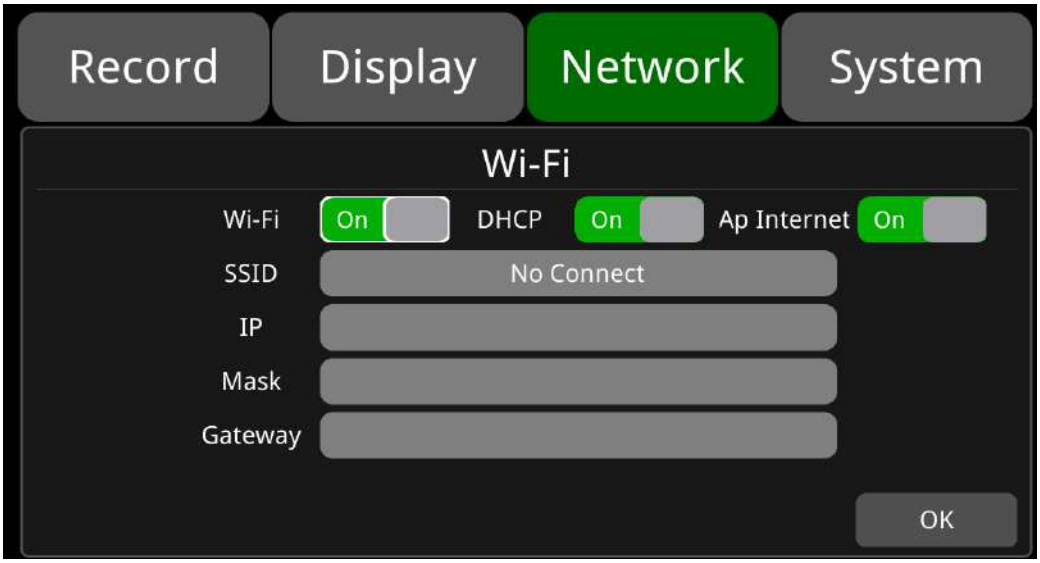
Step 4: Touch OK to exit.

Step 5: Go to “Network - Server” page and touch the LAN icon.

Step 6: Input LAN Server IP and Port. Touch OK to save the settings.



10.2 Wi-Fi Network Setup and Server Setup



The default configuration is shown above.

Wi-Fi: ON/OFF

DHCP: Dynamic Host Configuration Protocol. Set On for dynamic IP and Off for static IP. Static IP must be manually input with IP address, mask and gateway.

SSID: Wi-Fi hotspot list.

AP Internet: The hotspot of the device can be found on mobile phones when it is On.

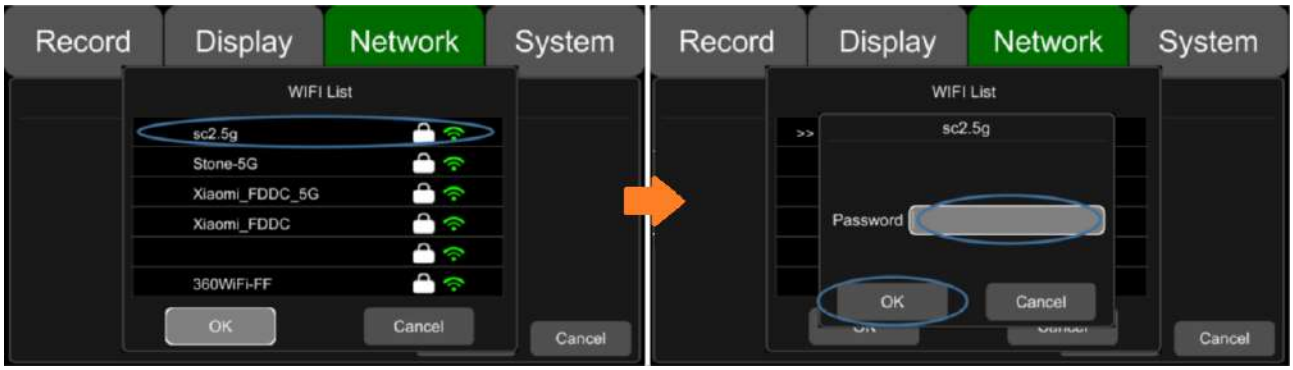
● Wi-Fi connection

Step 1: Make sure Wi-Fi hotspot is available.

Step 2: Connect the Wi-Fi antenna to connector ③ of the device rear panel.

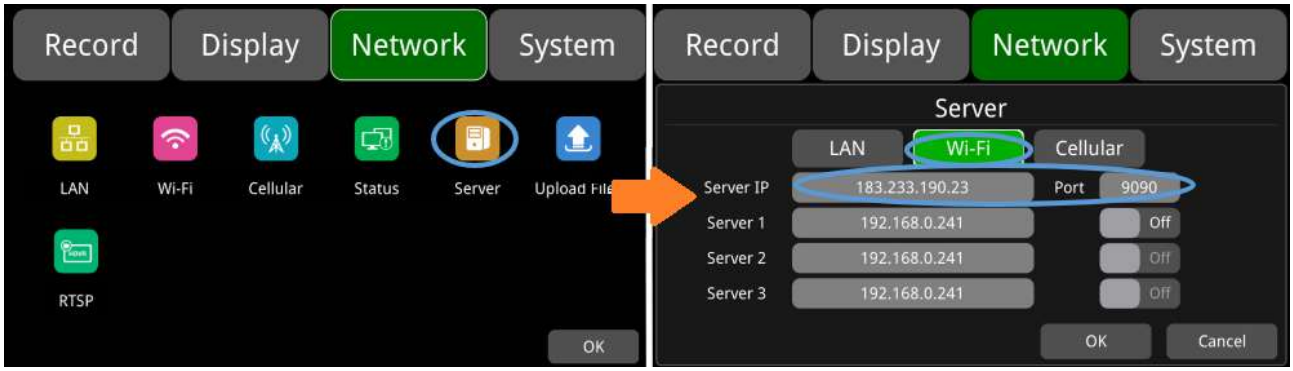
Step 3: Go to Wi-Fi setup interface, set Wi-Fi to ON and DHCP to ON.

Step 4: Touch SSID sub-menu to select the hotspot and input the password.

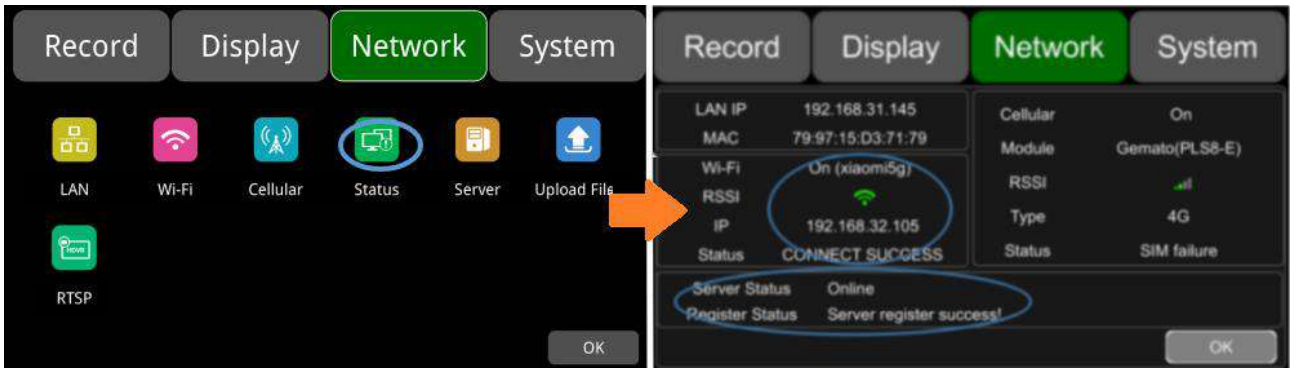


Step 5: Touch OK to exit.

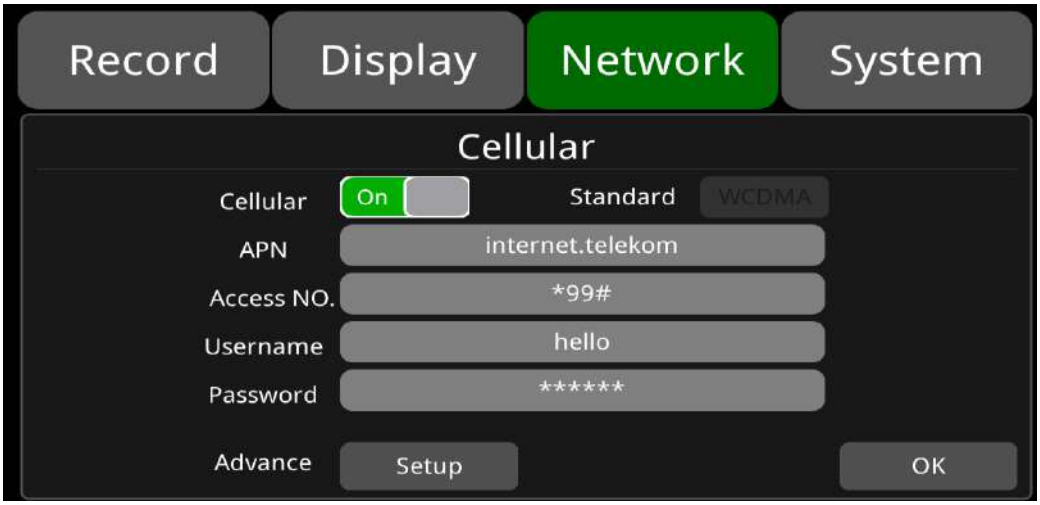
Step 6: Go to “Network -> Server” page to input Wi-Fi Server IP and Port. Touch OK to save the settings.



Step 7: Wi-Fi network status and server status can be checked on “Network - >Status”.



10.3 2G/3G/4G Control and Setup



The default configuration is shown above.

Cellular: Cellular is on, meaning that 2G/3G/4G is on.

APN & Access No.: Normally, the user doesn't need to input user name and password for APN and Access number, the default setting is available. If connection is not successful under the default settings, please consult your local network carrier.

OK: Save the settings and exit.

Cancel: Cancel the settings and exit.

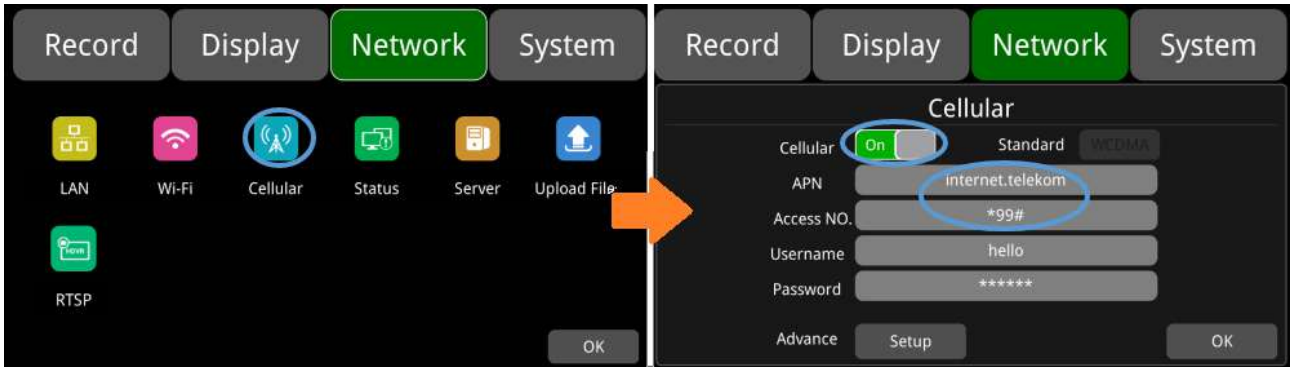
● 2G/3G/4G connection

Step 1: DVR can search 2G/3G/4G signals locally.

Step 2: Connect the 2G/3G/4G antenna to connector ④&⑥ of the device rear panel.

Step 3: Open the device front panel and insert the SIM card.

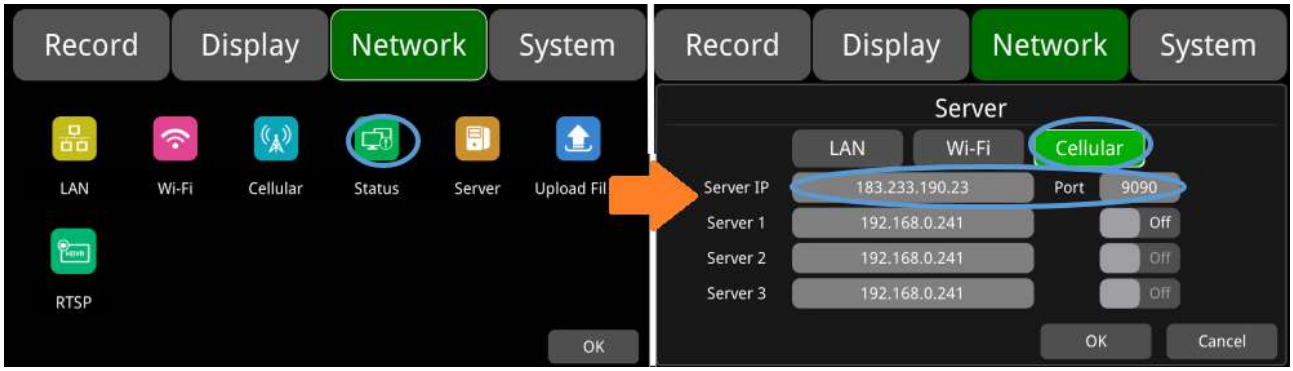
Step 4: Go to Cellular setup interface and set Cellular to ON.



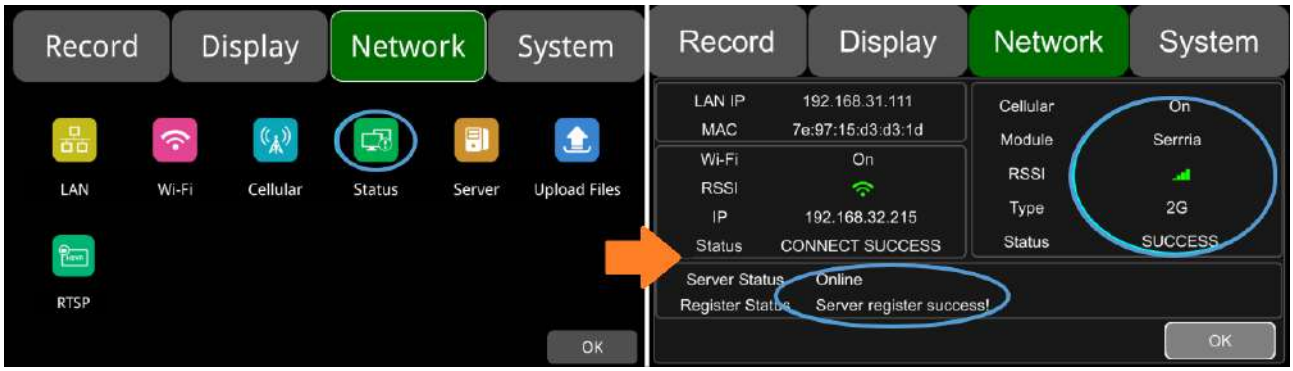
Step 5: Enter the correct APN.

Step 6: Touch OK to exit.

Step 7: Input the 2G/3G/4G Server IP and Port on "Network->Server".



Step 8: Cellular network status and server status can be checked on “Network - >Status”.



10.4 AP Internet Setup

● Steps to connect AP Internet

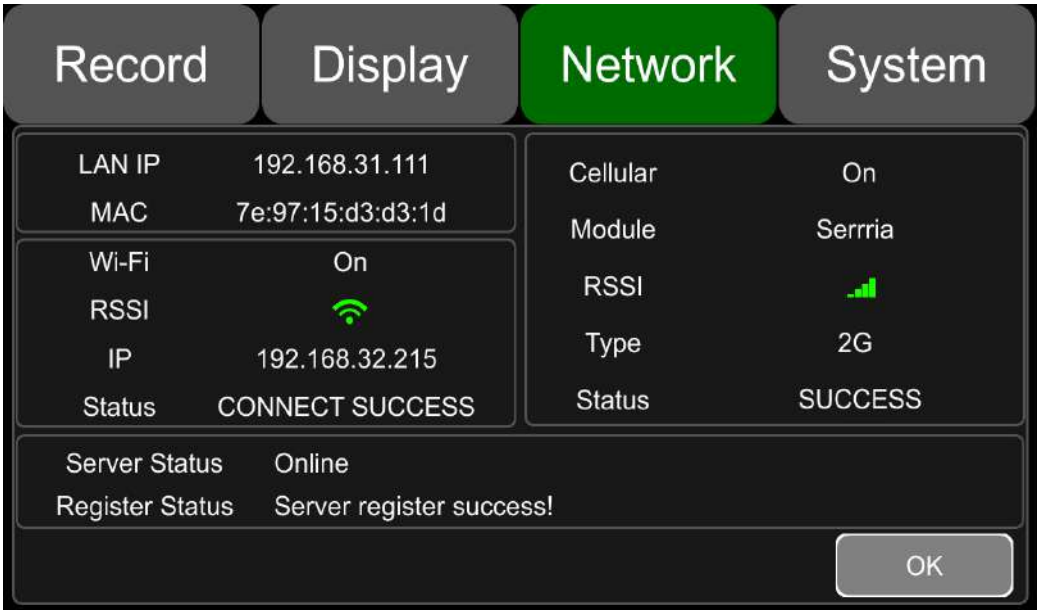
Step 1: Connect the DVR to the internet through Wi-Fi or 2G/3G/4G. Please refer to Chapter 10.2 and 10.3 for connection.

Step 2: Set the “AP Internet” to ON.

Step 3: Search and connect to the Wi-Fi hotspot of the DVR with other mobile devices. The SSID name of the hotspot is prefixed with “WFD-” and followed by the serial number of the device. “WFD-” default password is “ap12345678”.

10.5 Network Status

Network Status: LAN IP address, MAC address, Wi-Fi network status, Wi-Fi IP address, Wi-Fi signal strength, cellular network status, cellular signal strength and server status etc. can be checked.



LAN IP: The static IP set on “Network->LAN” page or the dynamic IP obtained automatically.

MAC: The static physical address set on Network-LAN page or the dynamic physical address obtained automatically.

Wi-Fi: Status indication.

Wi-Fi RSSI: Wi-Fi signal strength indication.

Wi-Fi IP: Static IP obtained from Network-Wi-Fi page or dynamic IP address.

Wi-Fi status: CONNECT SUCCESS or GET IP ERROR.

Cellular: Status indication.

Module: The Cellular module brand.

Cellular RSSI: 2G/3G/4G signal strength indication.

Cellular Type: 2G, 3G or 4G, indicating the actual signal received.

Cellular Status: please refer to the descriptions and indications below.

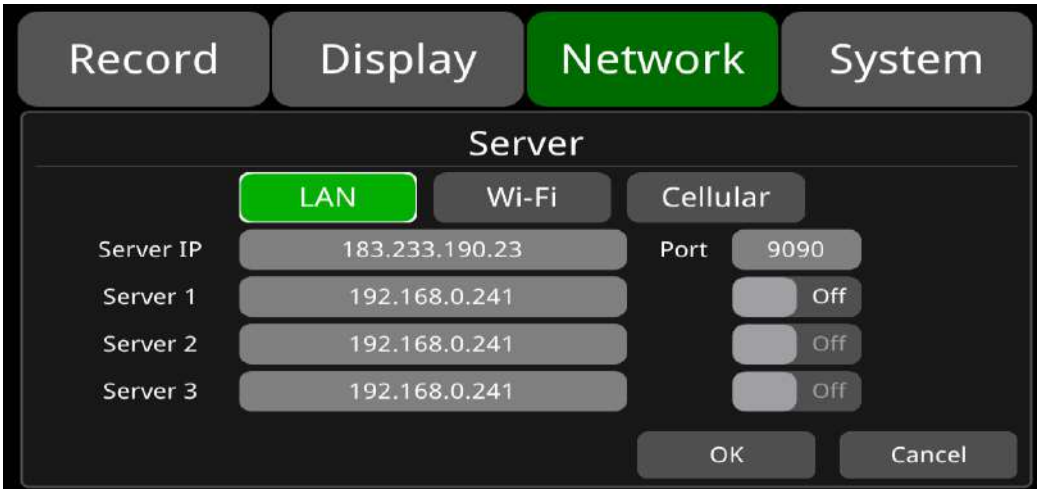
Description	Indication
Module initialization	Cellular module is initializing.
Module exception	Cellular module is in exception.
No SIM card	No SIM card is found in the DVR.
Cpin locked	Cpin is locked.
Signal abnormal	Signal is abnormal.
Networking failure	Network connection is failed.
SUCCESS	Network connection is successful.

Server Status: Online / Offline.

Register status: Reasons for failed server connection.

10.6 Server

The function of server setting is mentioned in Chapter 10.1, 10.2 and 10.3.LAN, the default server IP of LAN, Wi-Fi and Cellular are “183.233.190.23”, and the default port number is “9090”.



10.7 File Upload

“Upload Files” default configuration as shown above.

Upload Files: ON/OFF, when set to ON, as long as DVR triggers the alarm video file, the alarm video file will be uploaded to the server. When the value is set to OFF, DVR triggers the alarm video file and does not upload the alarm video file to the server.

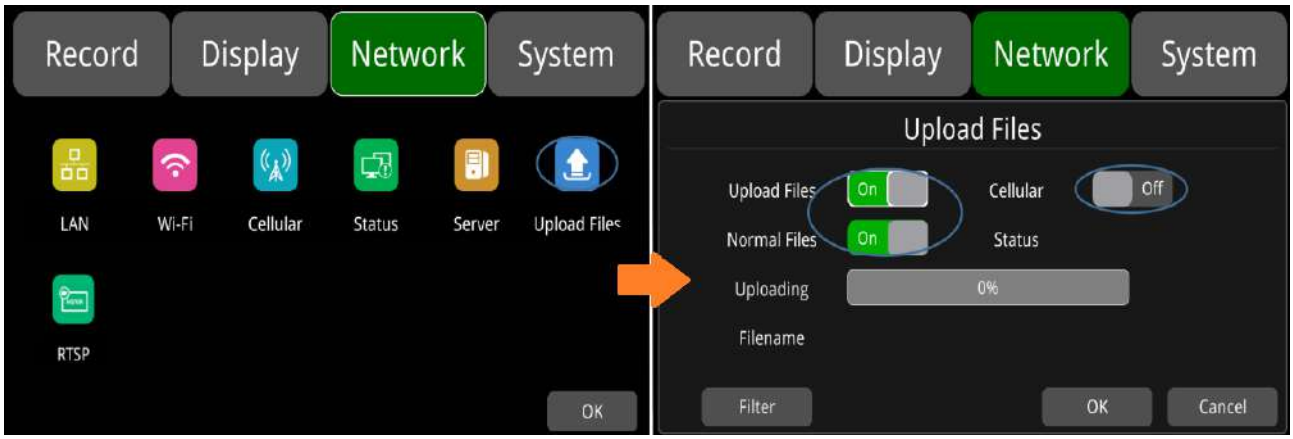
Normal File: Two states, “OFF” and “ON”.

● OFF: Not upload normal video files.

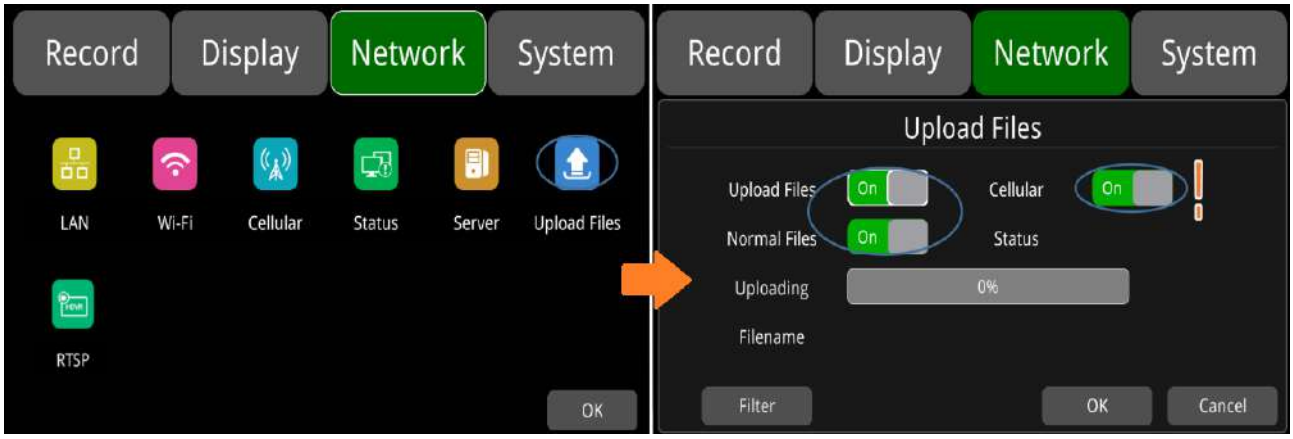
● ON: Upload normal video files

Cellular：Two states: “OFF” and “ON”.

● OFF: Normal video files are not allowed to be uploaded when DVR connects to server by cellular. As picture below shows, normal video files will be uploaded to server only when DVR connect it by LAN or Wi-Fi, not by cellular.



● ON: When using Cellular to connect to the server, uploading files is allowed. When the switch is turned on, a pop-up box will prompt "Network flow consuming, continue?" Click “OK” to confirm the opening, but after this feature is turned on, once Cellular connects to the server, it will upload the video file, which will consume a lot of cellular flow. So in order to save cellular flow, please set to “OFF”.

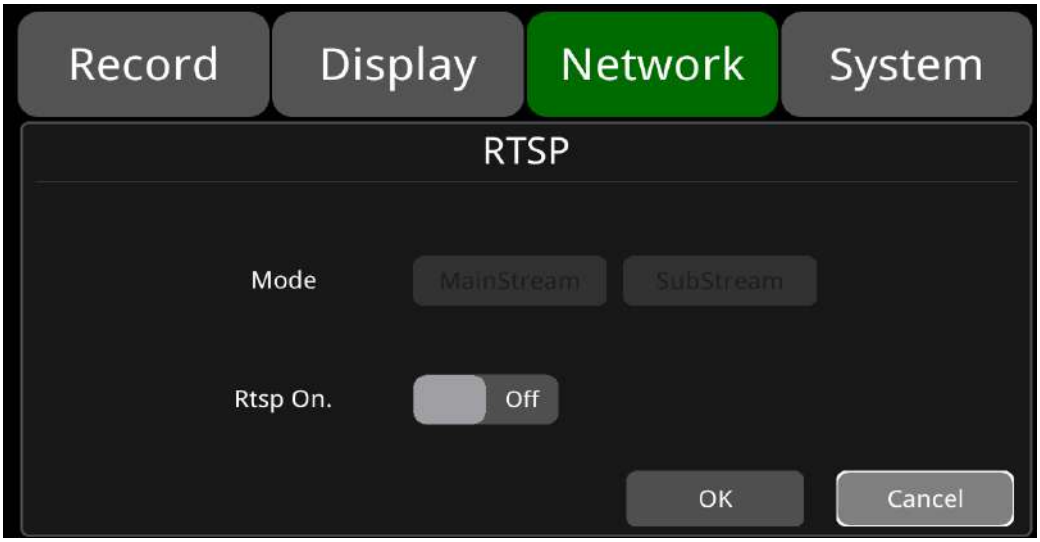


Uploading：Show progress bar of uploaded video file.

Filename：Display the file name of the uploaded video file.

Status：Display the working status of FTP. Successfully uploaded video files can be found in the client interface below.

10.8 RTSP Streaming



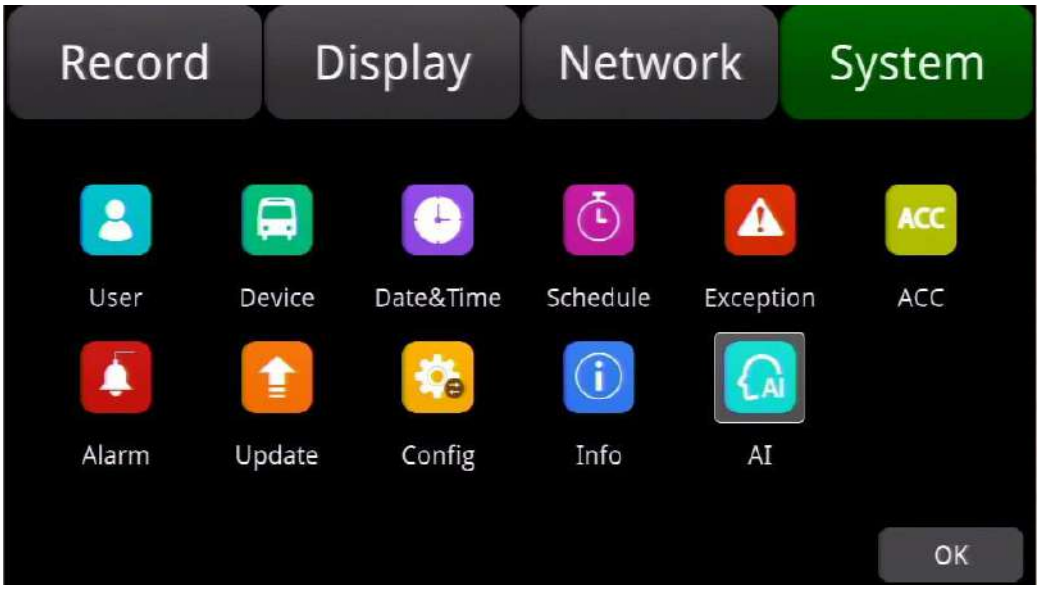
The default configuration is shown above.

- **RTSP On**: Set RTSP on /off
- **Mode**: Set MainStream & SubStream on/off.
- **mode on/off Instructions**: Set RTSP On, make sure the streaming device and DVR are under the same local area network, images can be displayed by using DVR's own hotspot AP. Or turn on RTSP On, connect the DVR and the device to the same route (Note: 192.168.100.140 is the fixed IP address of DVR's AP hotspot), open the network stream of the pull-streaming device, enter the streaming address under the network URL, 4 main-streams + 4 sub-streams, a total of 8 push-streams the formats are as follows:

main-stream: rtsp://Ip Address/cam1/mainstream

sub-stream: rtsp://Ip Address/cam1/substream

11 System



11.1 Log in Setup

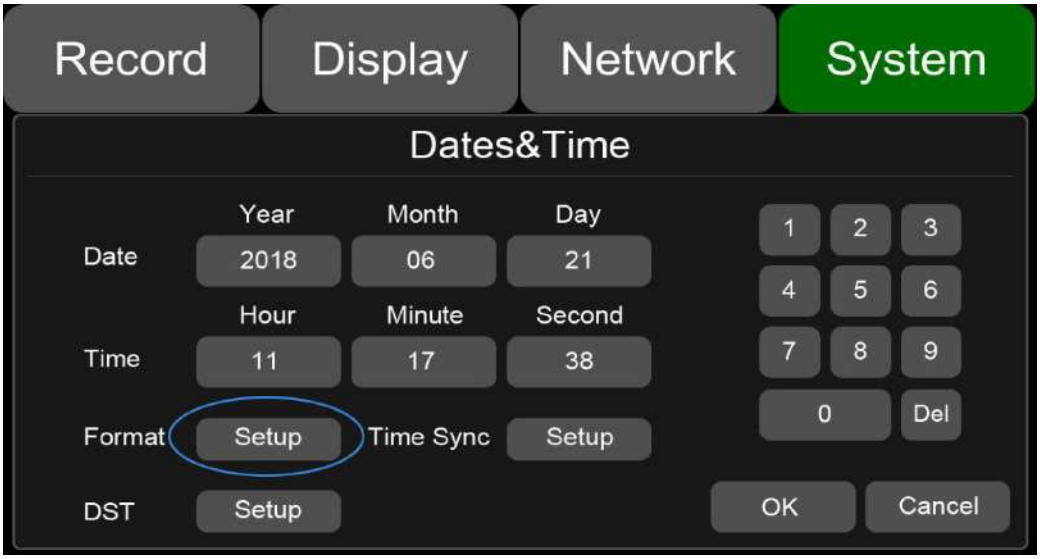
Set user name and password for booting up. The initial password is 123.

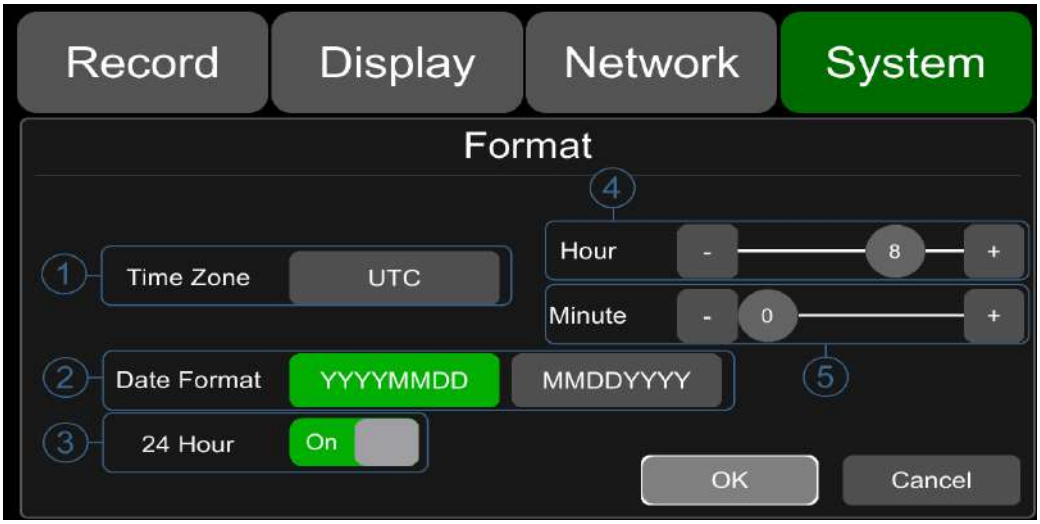
11.2 License Plate Number Setup

Input license plate number. The default configuration is shown below.

11.3 System Time Setup

Format Setup: System time format setting.





"Format" default configuration as shown above.

Go to “System – >Date &Time - >Format->Setup” page.

① **Time Zone**: Time zone setting.

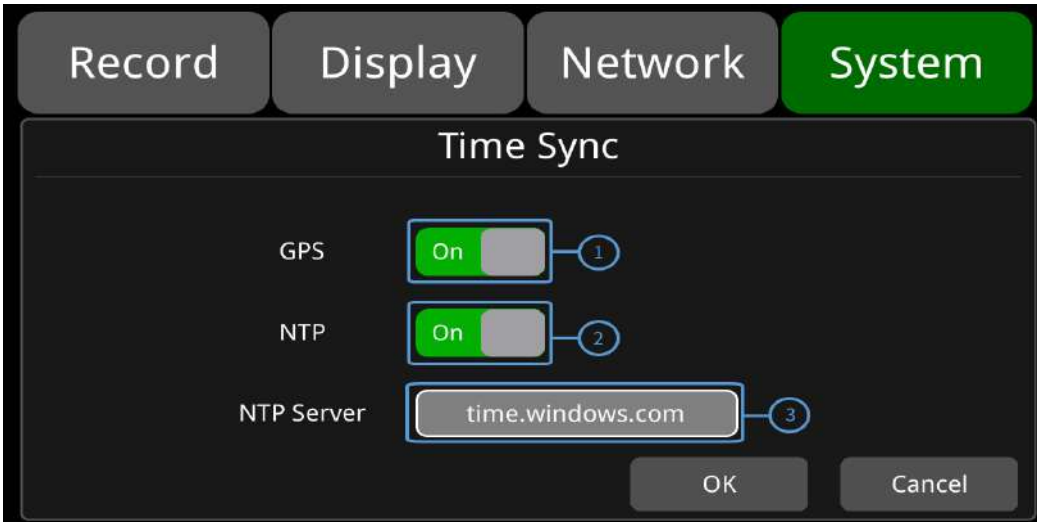
② **Date Format**: Set the date of format.

③ **24 Hour**: If it is ON, time format will be displayed in 24-hour system. If OFF, time format will be displayed in 12-hour system.

④&⑤ **Hour & Minute**: Time zone setting accurate to minute.

Hour & Minute	Minimum value	Maximum value	Default value
Hour	-12	14	8
Minute	0	59	0

● Time Sync Setup:



"Time Sync" default configuration as shown above.

Go to “System -> Date &Time ->Time Sync->Setup” page.

① **GPS**: Set GPS to ON/OFF.

② **NTP**: Set NTP to ON/OFF.

③ **NTP Server**: Show the URL of the NTP Server.

Application	Note
GPS: Off and NTP: Off	Set time zone and summer time before setting date and time
GPS: On or NTP: On	Set time zone and summer time without setting date or time

Note: When “Time Sync”->“GPS” or “Time Sync”->“NTP” is On, time zone and summer time have to be set. Otherwise, GPS and NTP will change system time to default East 8 zone time, resulting in abnormality.

● DST Setup:

“DST” default configuration as shown above.

Go to “System -> Date &Time -> DST-Setup” page.

① **Enable**: Set DST setting to ON/OFF.

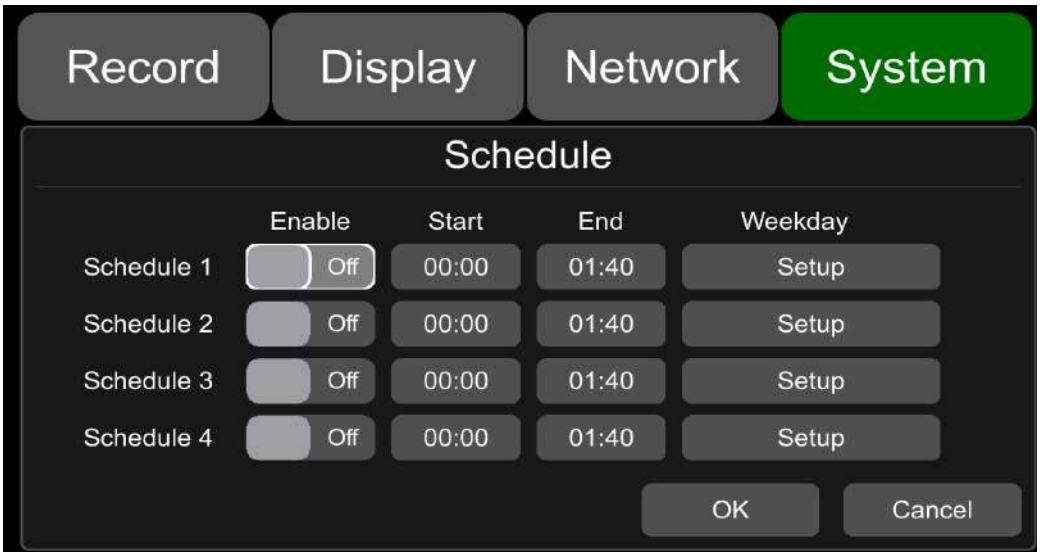
② **Offset**: Adjust the offset after enabling DST.

③ **Mode**: Select the mode of DST (setup DST according to week or date).

④ **Start**: Set start time of DST.

⑤ **End**: Set end time of DST.

11.4 Scheduled Recording



The default configuration is shown above.

Enable: Set scheduled recording ON/OFF.

Start: Set start time of scheduled recording.

End: Set end time of scheduled recording.

Weekday: Set scheduled recording by weekdays. Select the weekdays to set preset.

Scheduled Recording:

- Support up to four appointed tasks. The recording duration is counted in minutes.
- Recording time can overlap.
- The start time of scheduled recording must be set ahead of the end time.

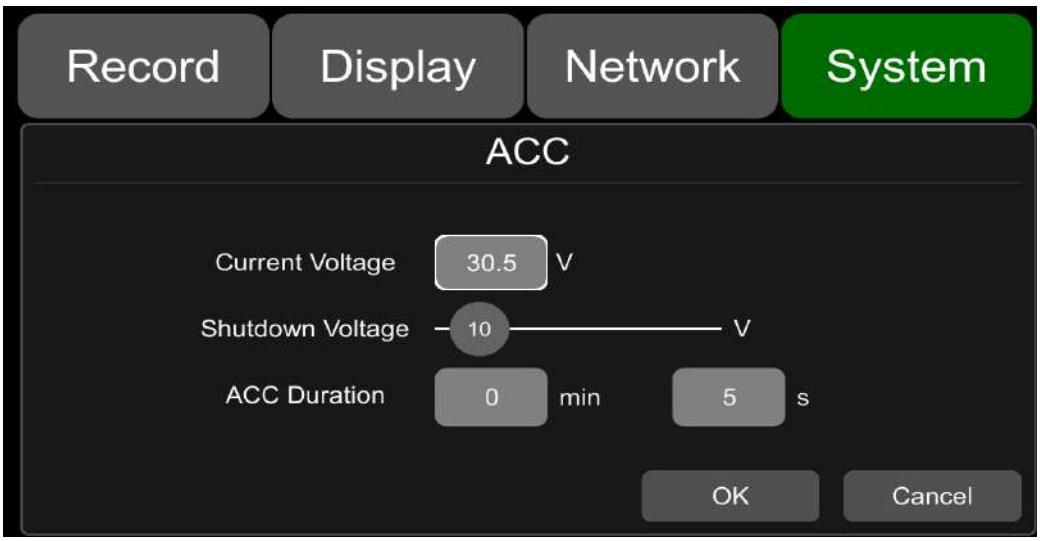
11.5 Exception

The default configuration is shown above.

Exception Buzzer: Set the exception buzzer to ON/OFF.

Duration: Set the duration time of the buzzer.

11.6 ACC Settings



The default configuration of "Shutdown Voltage" and "ACC Duration" is shown above.

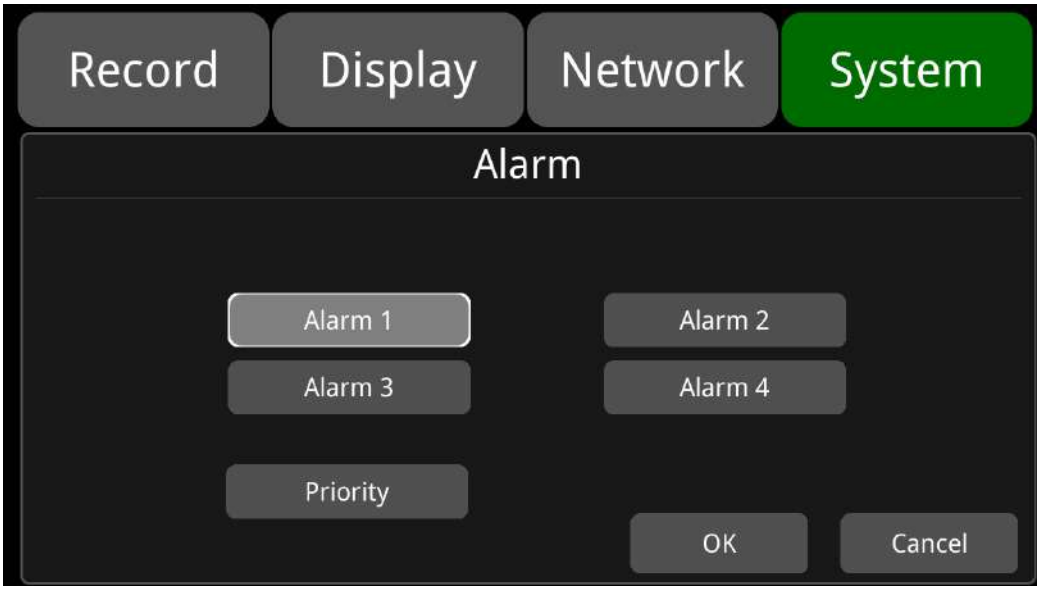
Current voltage: Voltage of the working DVR.

Shutdown voltage: When the current or voltage is lower than the shutdown voltage, the device will shut down automatically. When the current or voltage is higher than the shutdown voltage, the device would work properly. When the current or voltage is lower than shutdown voltage and the device is shut down, users could disconnect the VCC of the device for one minute, then the device will come back to work for one minute. During this time users can change the value of shutdown voltage.

ACC Duration: The device will continue recording for a few seconds after ACC is disconnected. ACC delay time can be set to be 5s to 60min.

ACC	Minimum value	Maximum value	Default value
Shutdown Voltage(V)	9	24	10
ACC Duration(s)	5	360	5

11.7 Alarm Information Setting



Alarm 1~Alarm 4: Customized alarm recording.

Reverse: Reversing alarm recording. .

Brake: Brake alarm recording.

Priority: Set priorities for Alarm1~Alarm4, Reverse, Brake.

When different types of alarm are triggered at the same time, alarms with the highest priority will work first.

“Alarm 1” default configuration as shown above.

Trigger Level: There are 3 options of Trigger Level. The options “Low” and “High” are used for turning on alarm function. “Low” is generally used for debugging while “High” will be selected to turn on alarm function for on-road use. “Off” means turning off alarm trigger function.

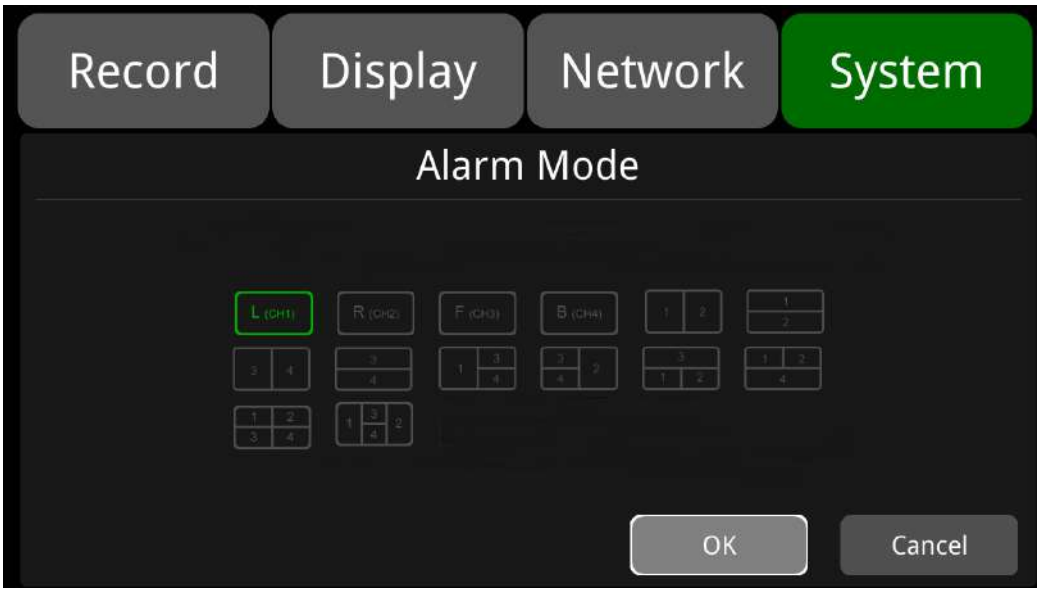
Output Duration: "Display", "Curser", "Alarm Out" effect duration. Output Duration can choose 0sec, 5sec, 10sec, 30sec, 60sec, 5min, 10min, 30min, 60min, Always.

Alarm Out-Buzzer: Switch ON or OFF of the Alarm Out-Buzzer. The default buzzer sounds for 5 seconds.

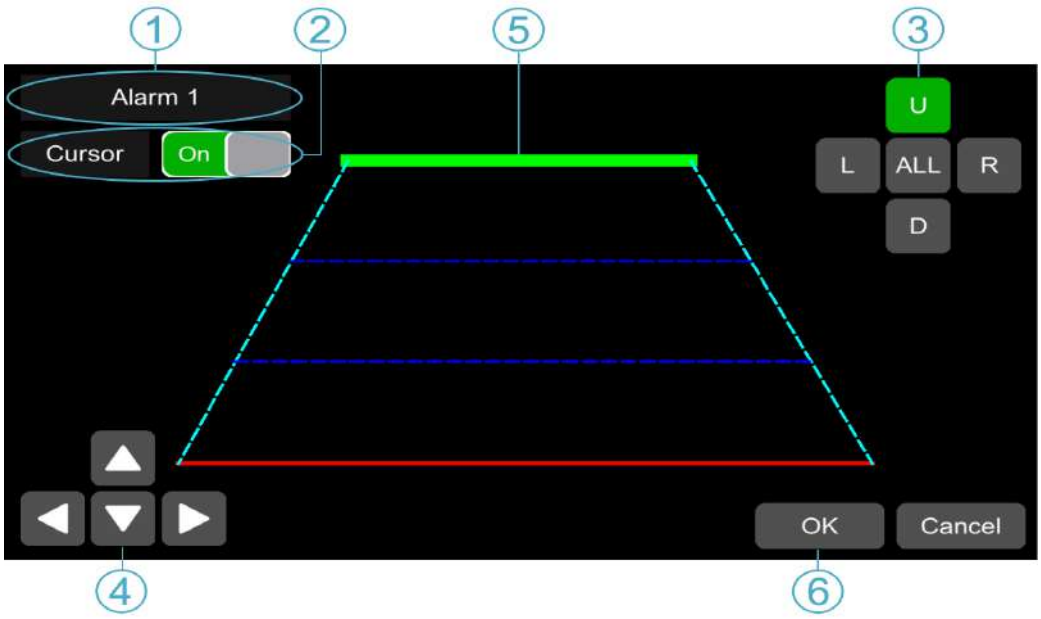
Alarm Out-Output1: Set it ON, then 12V level output would come from the alarm wire of Output 1.

Alarm 1 Rec.: Alarm 1 event recording switch, the recording duration is set in [System]-> [Record]-> [Event Duration].

Display: When the alarm is triggered, screen will display in the chosen display mode. Picture below shows available display modes.



Cursor：It is “OFF” by default. The picture below shows the open state.



① Camera name of the alarm-triggered channel.

② Touch this button to turn on/off cursor.

③ Line selecting: There are five lines to be selected. Line U (up), Line D (down), Line L (left), Line R (right) and ALL. The button turns green if selected. You can use remote control to operate.

④ There are four directions to adjust the shape of the cursor, Up, Down, Left and Right.

If Line U (the green one) or Line D (the red one) is selected, the selected line can be moved with these directions.

If Line L or Line R is selected, the top point of the selected line can be moved to left or right with Direction Up and Direction Down, and the bottom point of the selected line can be moved to left or right with Direction Left and Direction Right.

⑤ Lines of cursor. The selected one will be thickened for three times. The two lines in the middle will not be processed.

⑥ Touch OK to save the settings and exit. Cancel to exit without saving any settings.

Priority: The default configuration is shown below.

+ : Press this button, then the priority value of the selected alarm will be added by 1. The bigger the value is, the lower the priority will be.

- : Press this button, then the priority value of the selected alarm will be reduced by 1. The smaller the value is, the higher the priority will be.

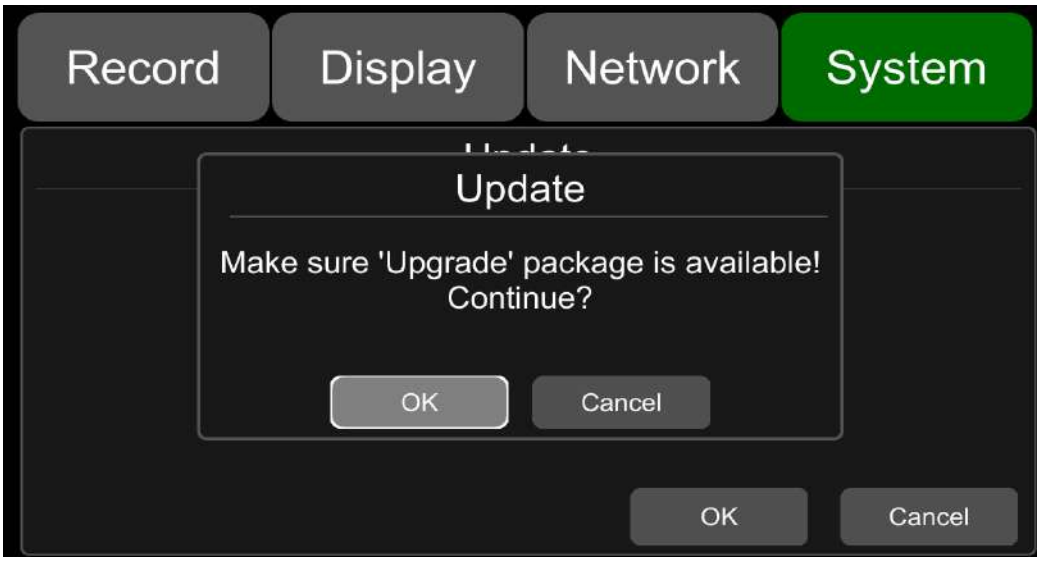
- Alarms with higher priority will be triggered first.
- 1 is the highest priority, and 6 is the lowest.
- If two alarms A and B are triggered at the same time, and A's priority is higher than B's, then A will record first. After A finishes the recording, if B is still being triggered, B will then record. However, if B is no longer being triggered, it will not record.
- If alarm B is triggered while recording, if alarm A, whose priority is higher than B, is triggered then, B will not stop recording.

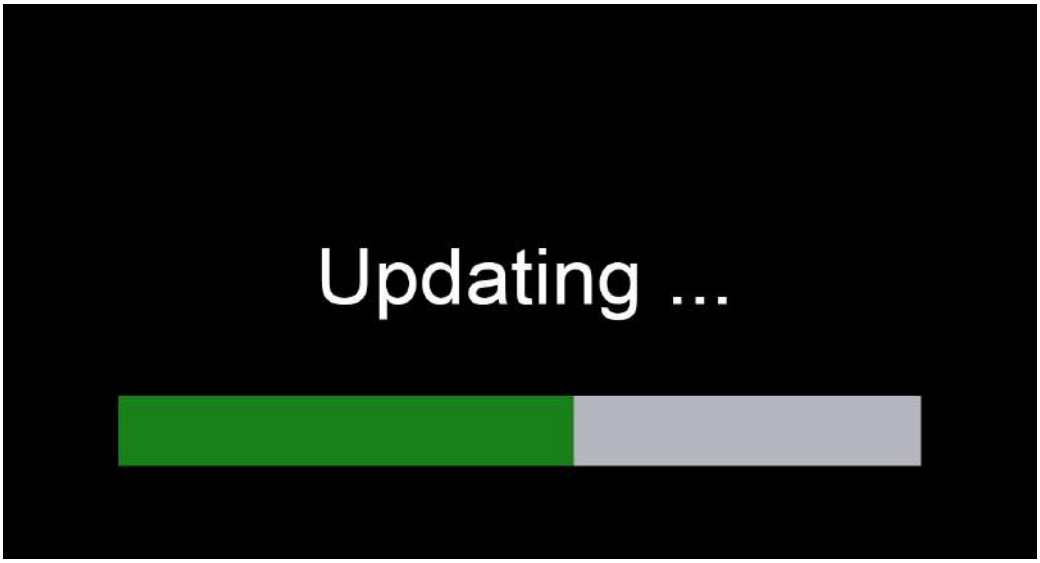
11.8 Update

- For single device

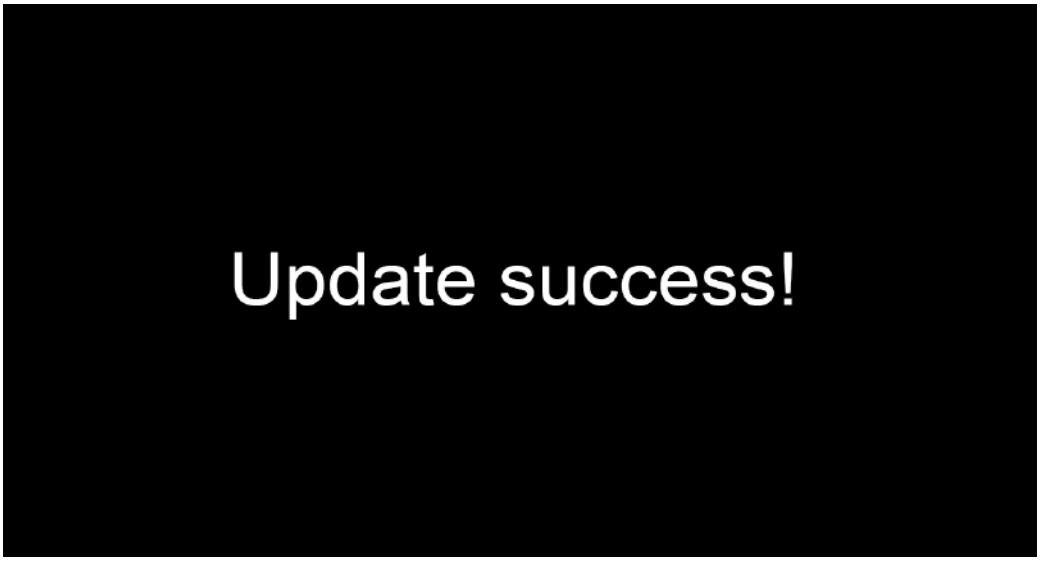
Step 1: Copy the folder to USB disk or SD card (upgrade/packet/local) and then insert the USB disk or SD card into DVR.

Step 2: Power off the DVR and reboot it, then it will upgrade automatically. Or go to Menu -> System -> Update->Software, touch OK to confirm the upgrading. Both methods can start the upgrade process.





Step 3: When “Update success!” is shown on the display, the device will reboot automatically.



Step 4: After rebooting, please check if the version is the same as the one you copy into “upgrade” folder. Please go to Menu -> System -> Info to check it.

Note: After upgrade is completed, “dvxxx_upgrade_202xxxxxxxx_Rename” upgrade package in USB disk or SD card (upgrade/packet/local) will be deleted.

- Remote upgrade

Step 1: The device connects to server.

Step 2: Open the Windows client and log in.

Step 3: Find the license number of the target device in the device list of the client, right click and select “Update” to open the Batch Upgrades interface. If you need to upgrade more than one device, you can click the Add button to select other devices. The selected ones will be displayed on the device list to upgrade. If you want to remove devices from the list, please select them and click the Del button.

Step 4: Select the device to upgrade, and then click the Browser button to select the upgrade package “dvxxx_upgrade_201xxxxxxxx_Rename”.

Step 5: Click the Start button to upload the upgrade package. When uploading is finished, the device will start upgrading automatically. If it failed to upload, the reason of failure will be displayed in the Remark column in the list.

- Logo upgrade

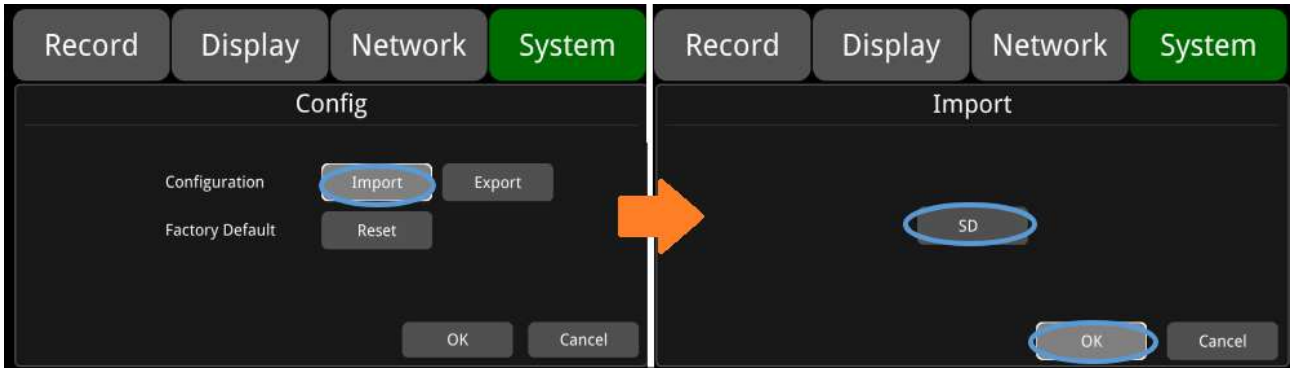
1） As picture below shows, make three logo pictures and name the format 720x576 one as LOG_SD_PAL.jpg, the 720x480 one as LOG_SD_NTSC.jpg and the 1280x720 one as LOG_HD_720.jpg.

2 ） Put three logo pictures into SD1 card or USB disk’s root directory.

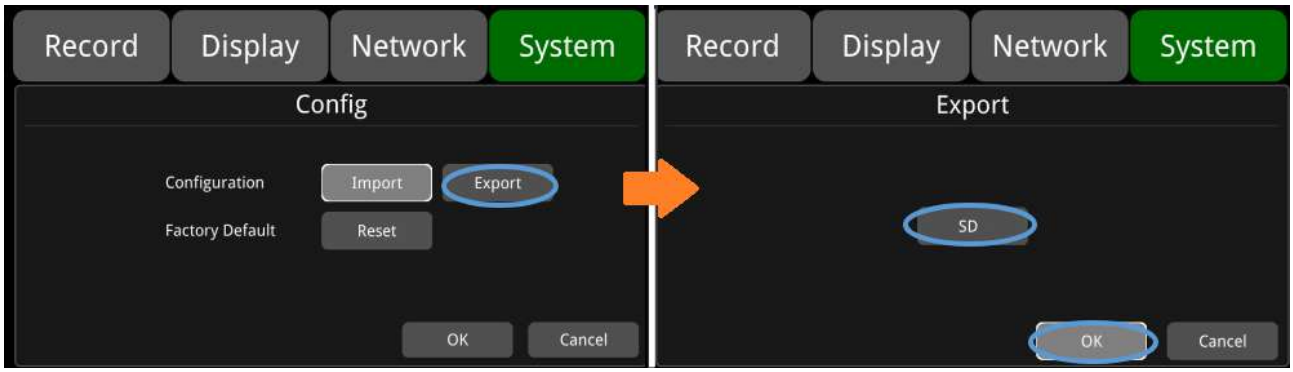
3 ） Insert SD card or USB disk into DVR, click System->Update->Logo and click OK. Then you will see message “Start to update the Logo, please wait...” on the screen. When update is finished successfully, you will see message “Logo update successfully, restart DVR now?” Click OK to restart the device to refresh logo.

11.9 Configuration

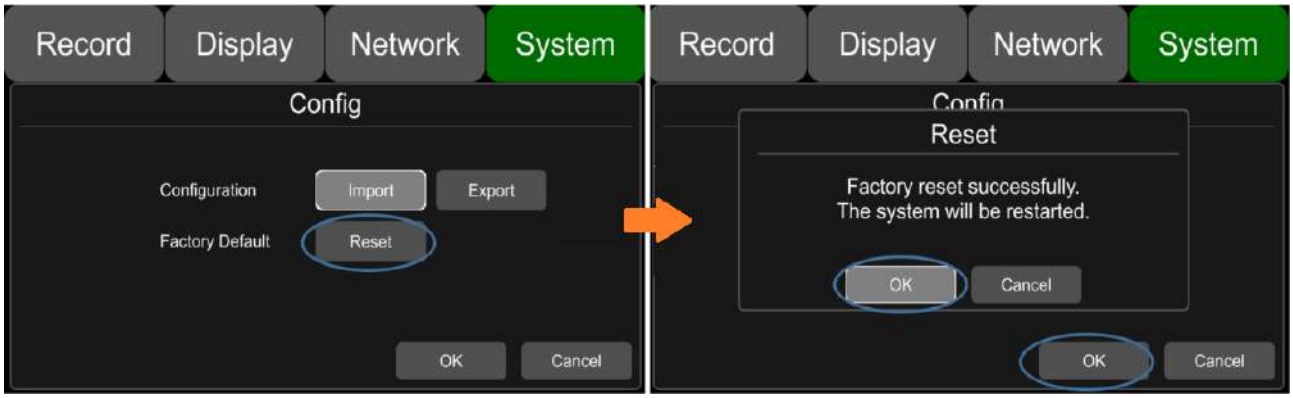
Import configuration information from SD card or USB disk. Configuration files are in directory sd/export_file/config.



Configuration Export : Export Log to SSD/HDD,SD card or USB memory flash devices.

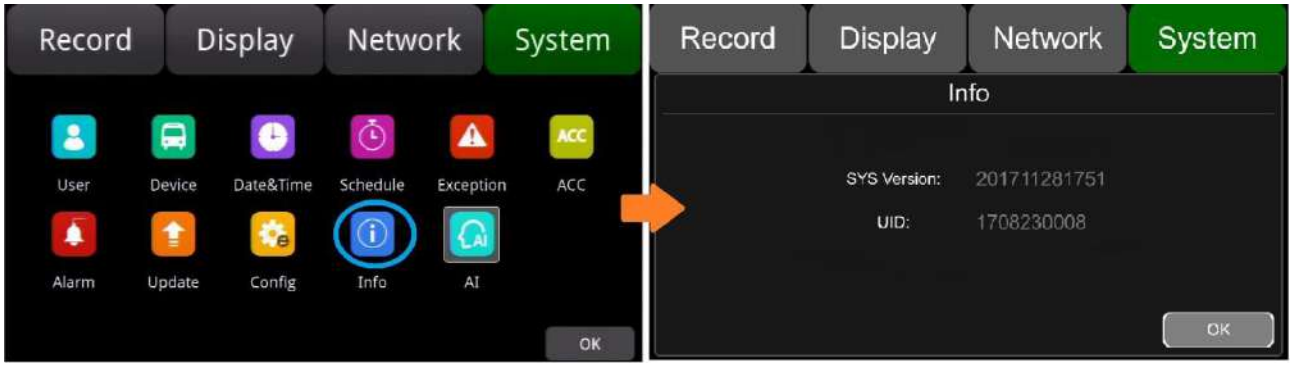


Factory Default : Press Reset to restore factory settings.



11.10 System Info

System Info：Software version number.

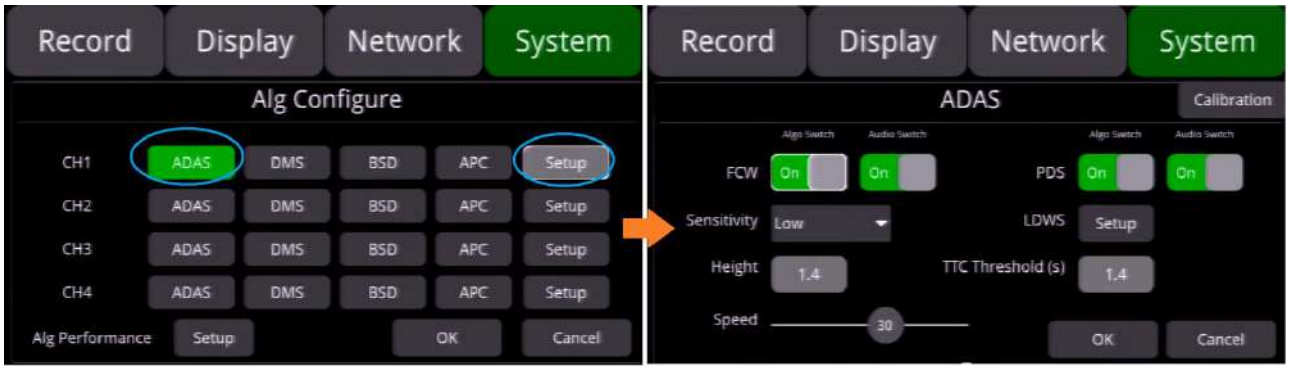


11.11 AI configuration

AI: Algorithm function is composed of ADAS, DMS, BSD and APC. After selecting the function, the device will automatically restart, and the corresponding functions can be configured then.

11.11.1 ADAS

ADAS algorithm function: including FCW: forward collision warning algorithm, is displayed in the first channel; PDS: pedestrian detection, is displayed in the first channel. The following picture shows the default configuration interface:



Sensitivity: Sensitivity level, there are three levels Low, Medium, High, the default is low.

Height: Installation height of the camera, distance from the ground.

Speed: Set the FCW working speed value. When it is set to 5, it indicates that the FCW can only start when the vehicle speed is larger than or equal to 5km/h. The default value is 5.

PDS: Pedestrian collision detection in front.

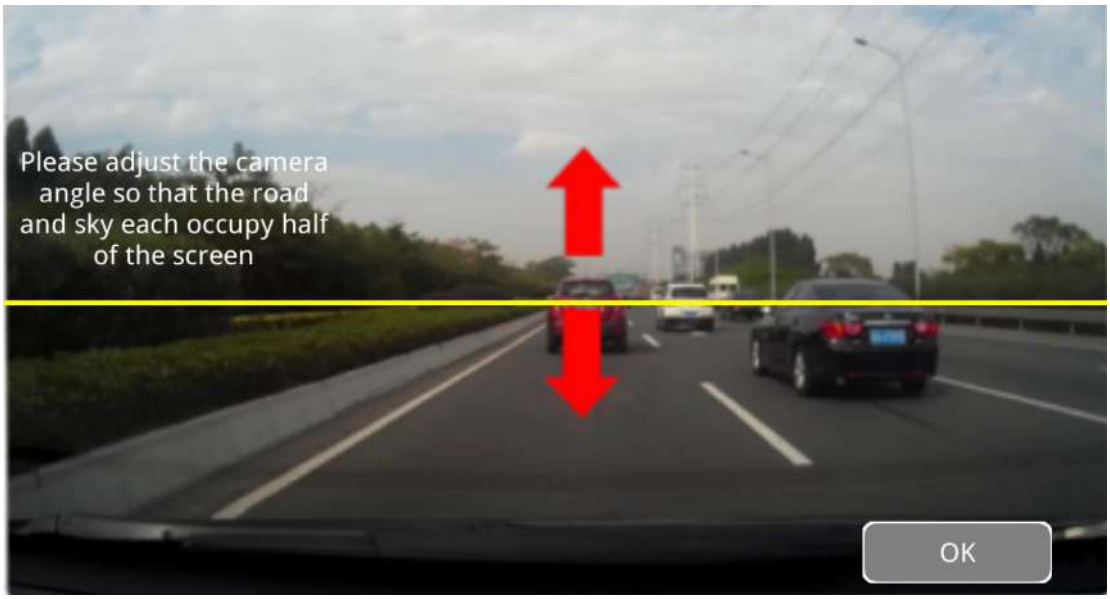
TTC Threshold(s): Time-to-collision, the default configuration is 1.4s.

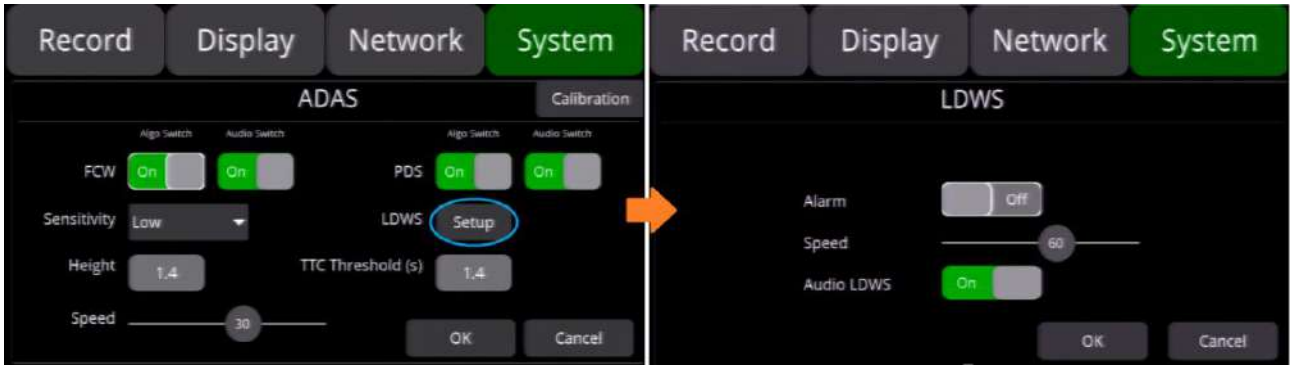
FCW installation: installed in front of the windshield, the installation height is about 1.4h.

FCW Installation Diagram:

Referring to the following models, select the glass near the red dot as the installation location, and clean it with a duster. Then install the camera horizontally. If the mounting location needs to be elsewhere, please make sure the windshield wipers can reach the glass facing the camera, so the part that camera sees through can remain clean.

Calibration: parameter calibration. Adjust the camera position to the point that the road and the sky mainly occupy half of the screen, fix the camera position, as shown in the following picture:



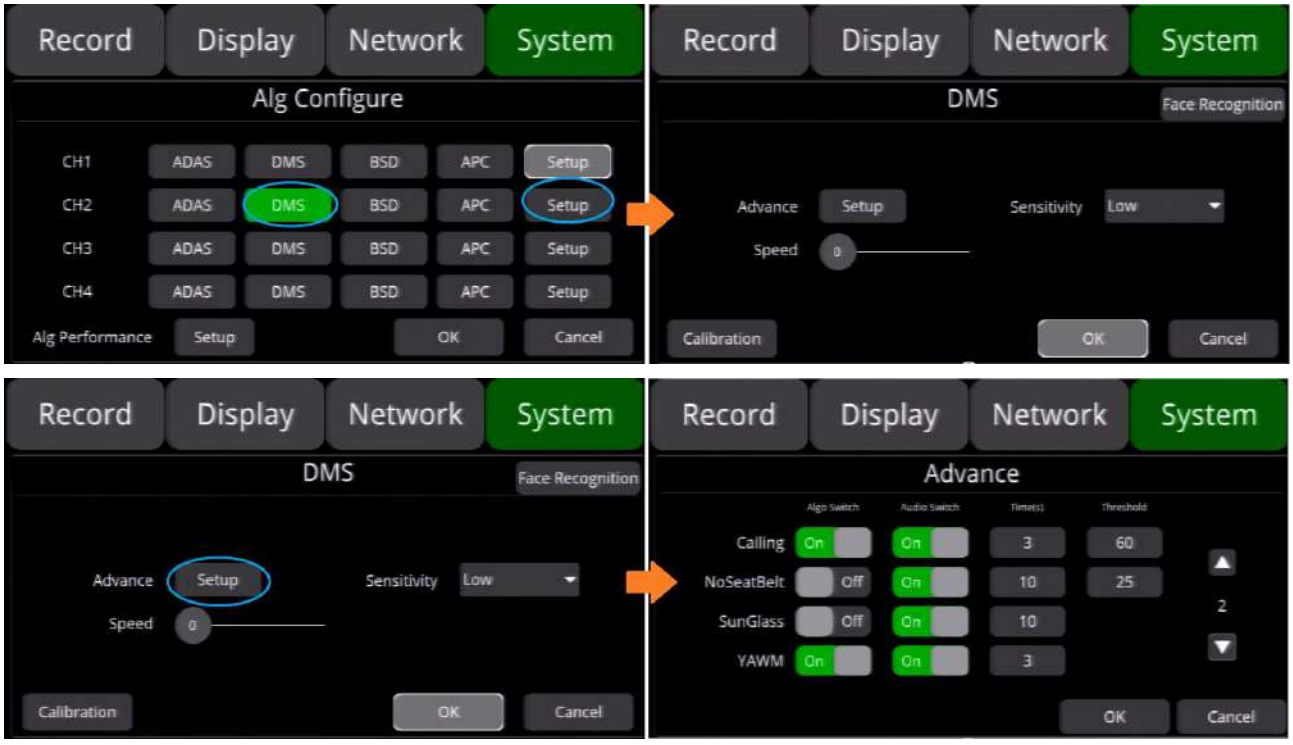


Alarm：If it is On, LANE warning will be triggered when vehicle speed is over the setting value and there is lane departure. If it is Off, LANE warning will not be triggered even when vehicle speed is over the setting value and there is lane departure.

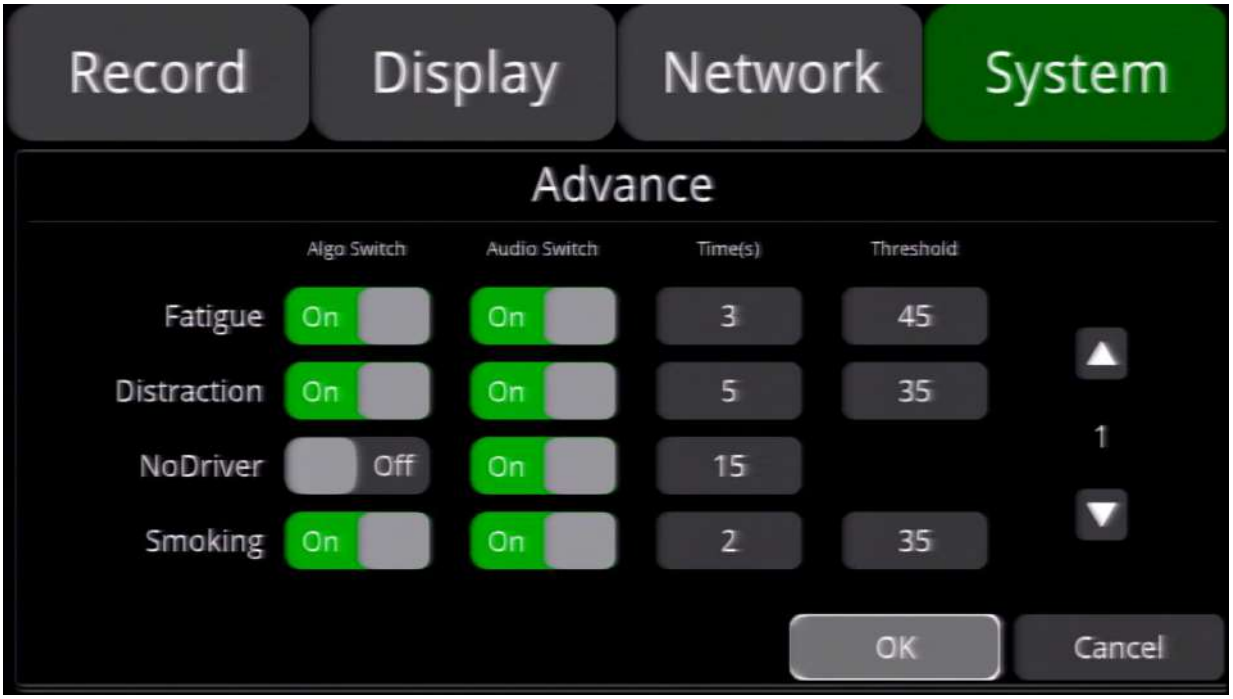
Speed：Set LANE function working speed. If it is set as 60, LANE function will work only when vehicle speed is over 60km/h. The default value is 60.

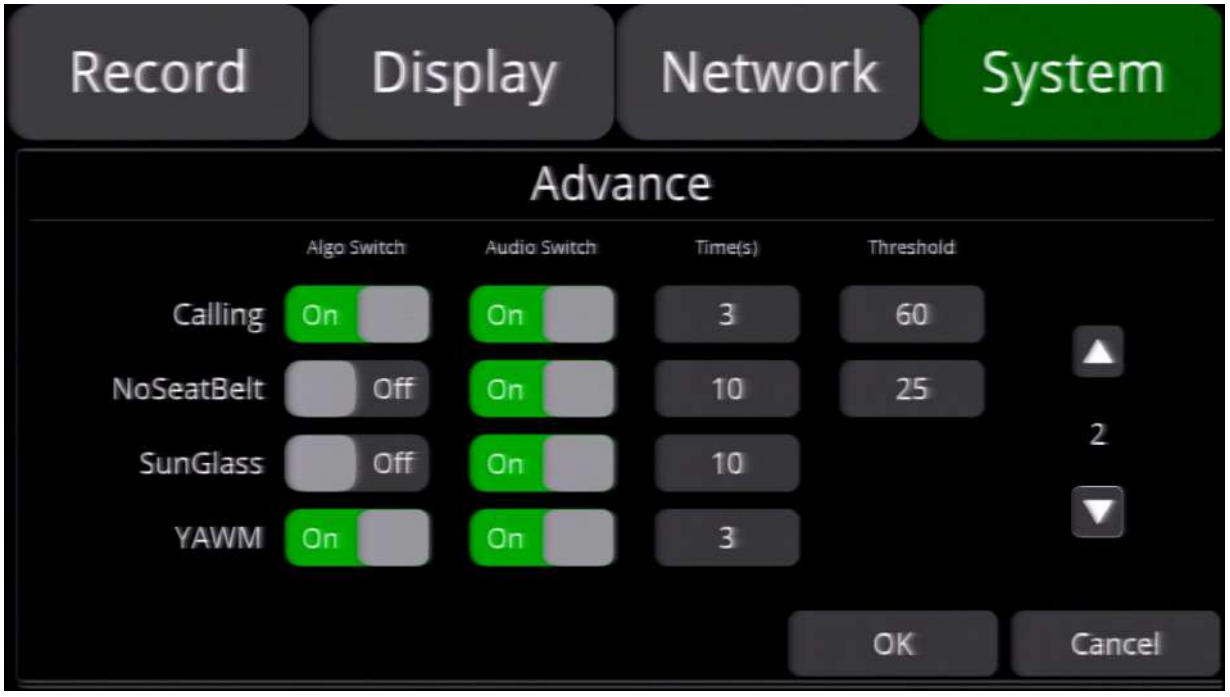
11.11.2 DMS

DMS: driver fatigue monitoring, the second channel is displayed, the following figure is the default configuration interface.



: DMS alarm duration precision. The default value is as follows.





Alarm types	Function description	Function description
DMS_Fatigue	If DMS_Fatigue is On, alarm video and sound alert will be triggered when fatigue is detected.	Fatigue alarm will not be triggered if DMS_Fatigue is Off.
DMS_Distraction	If DMS_Distraction is On, alarm video and sound alert will be triggered when distraction is detected.	Distraction alarm will not be triggered if DMS_Distraction is Off.

DMS_NoDriver	If DMS_NoDriver is On, alarm video and sound alert will be triggered when no driver is detected.	No driver alarm will not be triggered if DMS_NoDriver is Off.
DMS_Smoking	If DMS_Smoking is On, alarm video and sound alert will be triggered when smoking is detected.	Smoking alarm will not be triggered if DMS_Smoking is Off.
DMS_Calling	If DMS_Calling is On, alarm video and sound alert will be triggered when making phone call is detected.	Making phone call alarm will not be triggered if DMS_Calling is Off.
DMS_NoSeatBelt	If it is set On, voice broadcast will be triggered when the driver is detected not wearing seat belt.	If it is set Off, no voice broadcast will be triggered when the driver is detected not wearing seat belt.
DMS_SunGlass	If it is set On, the alarm will be triggered when the driver is detected wearing sunglasses.	If it is set Off, no alarm will be triggered when the driver is detected wearing sunglasses.
DMS_YAWM	If DMS_YAWM is On, alarm video and sound alert will be triggered when yawning behavior is detected	Yawning alarm will not be triggered if DMS_YAWM is Off.
Sensitivity	Sensitivity level can be set as Low, Medium or High. The default setting is Low.	
Speed(km/h)	If DMS working speed is 60km/h, DMS function will work only when vehicle speed is over 60km/h. The default value is 0.	

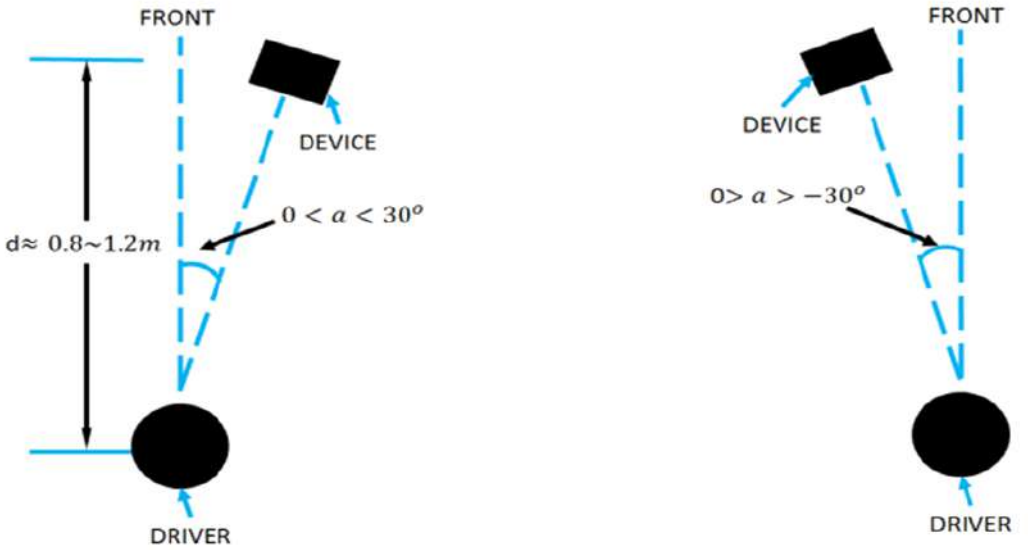
The default setting of DMS function is shown as below:

Alarm type	Default value
DMS_Fatigue	On
DMS_Distraction	On
DMS_NoDriver	Off
DMS_Smoking	On

DMS_Calling	On
Sensitivity	Low
DMS Work Speed(km/h)	0

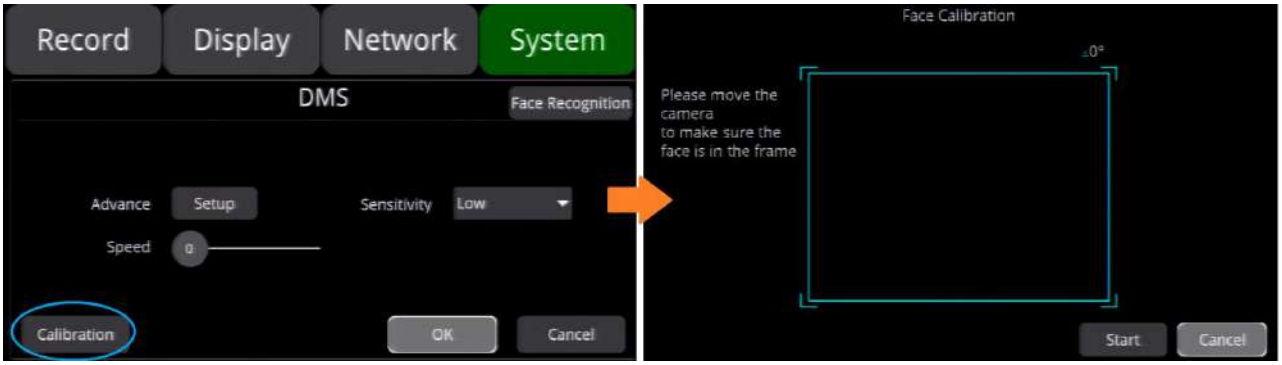
DMS installation diagram

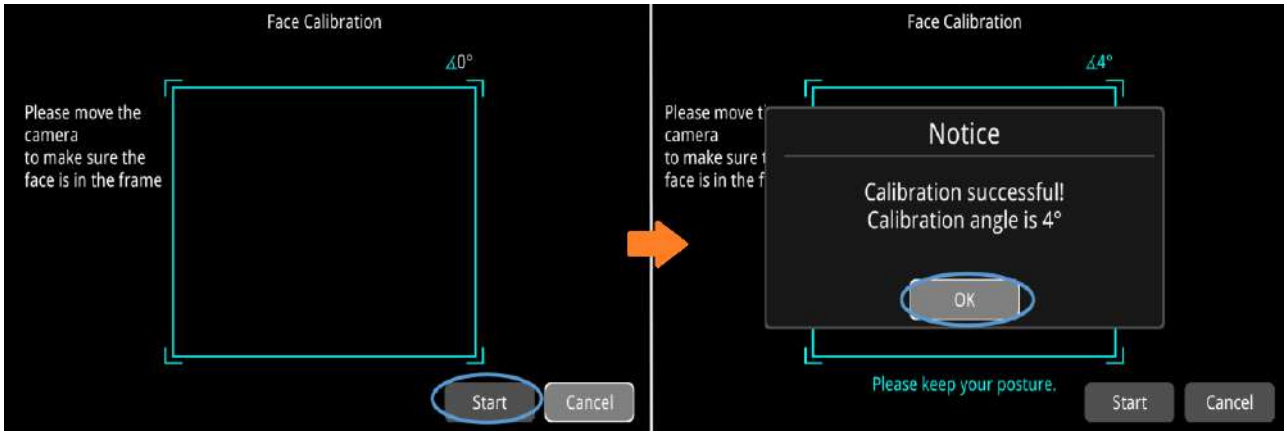
The DMS camera should be placed in the position where its distance to the driver is 0.8~1.2 m and its angle to the driver's front view is about +/- 30 degrees, as diagram below shows. To choose a proper position for fixing the device on dashboard, installation and calibration should be operated synchronously. Thus, an assistant is needed in this process to adjust and configure the device and also guide the driver.



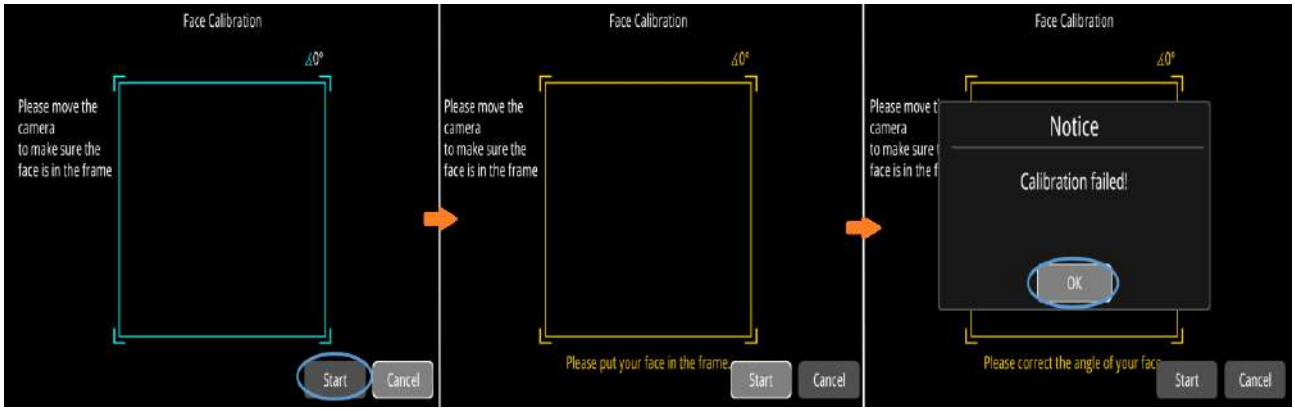
Calibration: parameter calibration. Align the face with the calibration frame to conduct calibration. The detection frame is square and blue by default. After the face is aligned with the calibration frame, a green frame will appear on the face. Click the Start button, and pop out a message after 2-3s indicating successful calibration and accompanied by a voice message, click ok to exit the calibration interface.

As shown in the below pictures:

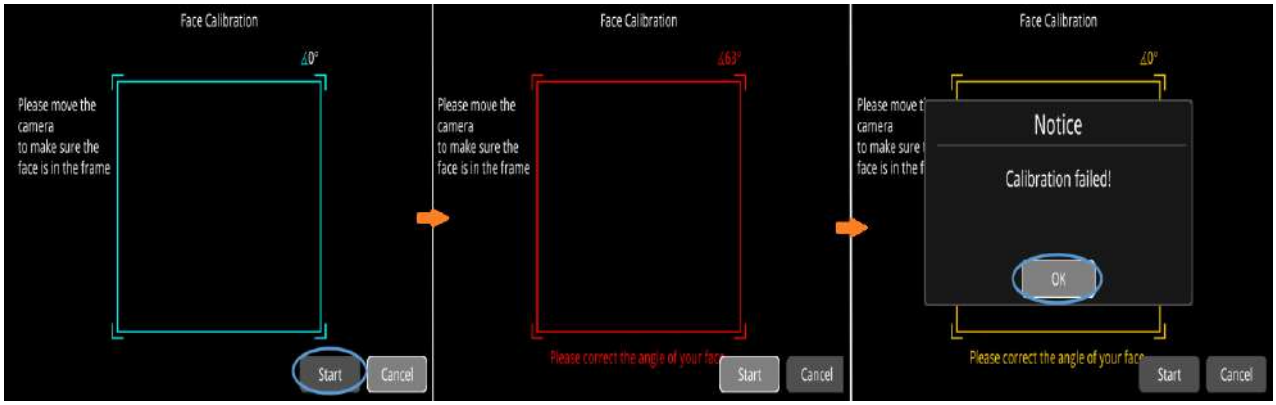




As shown in the following pictures: Hold the face to the calibration frame, click the Start button to begin calibration. If the face is moved out from the calibration frame during the process, the calibration frame will turn yellow, and after 2-3s a message will pop out indicating that the calibration is failed. Click ok to conduct the calibration again.

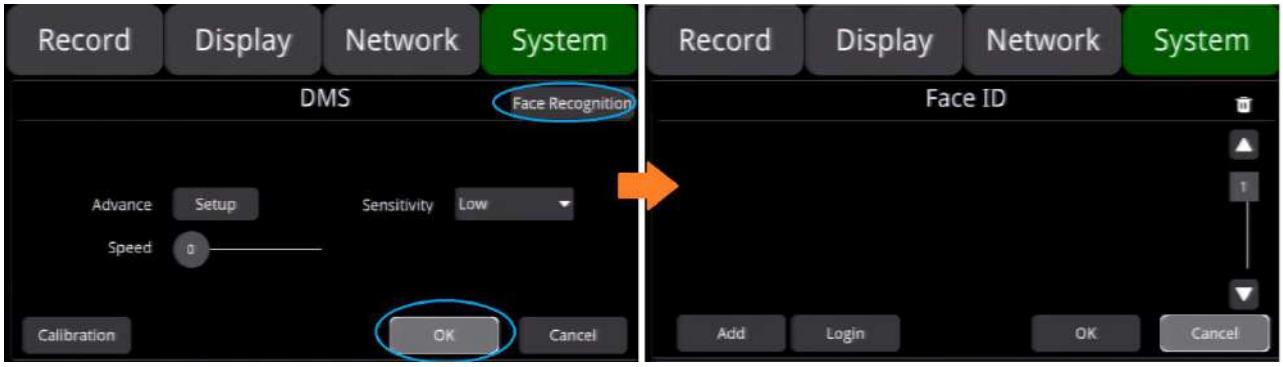


Align the face with the calibration frame, click the Start button to begin calibration. During the process, the face is required to turn left and right, when the angle exceeds the range of [-30, 30], the calibration frame turns red, and the voice indicating too left or too right, after 2-3s a message pop out indicating that the calibration is failed. Click ok to calibrate again. As shown below:

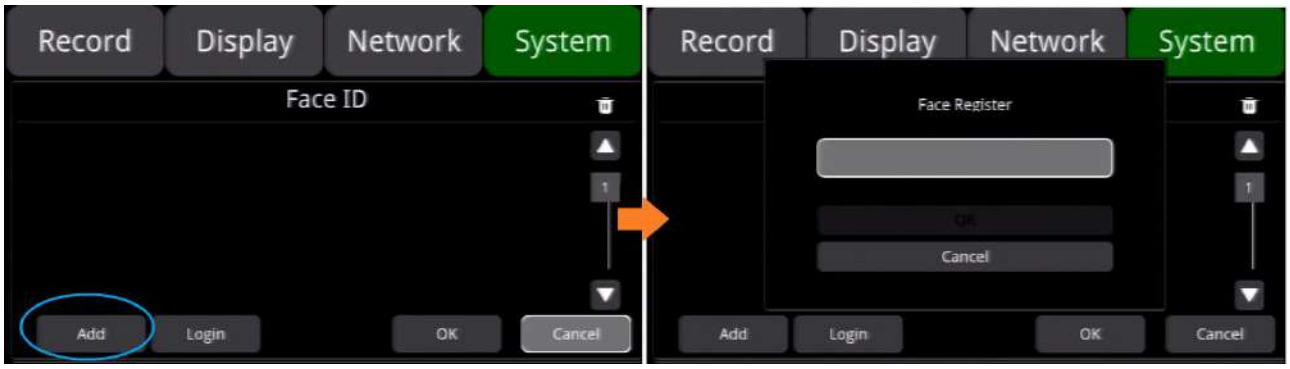


When the calibration fails, click start again to begin calibration

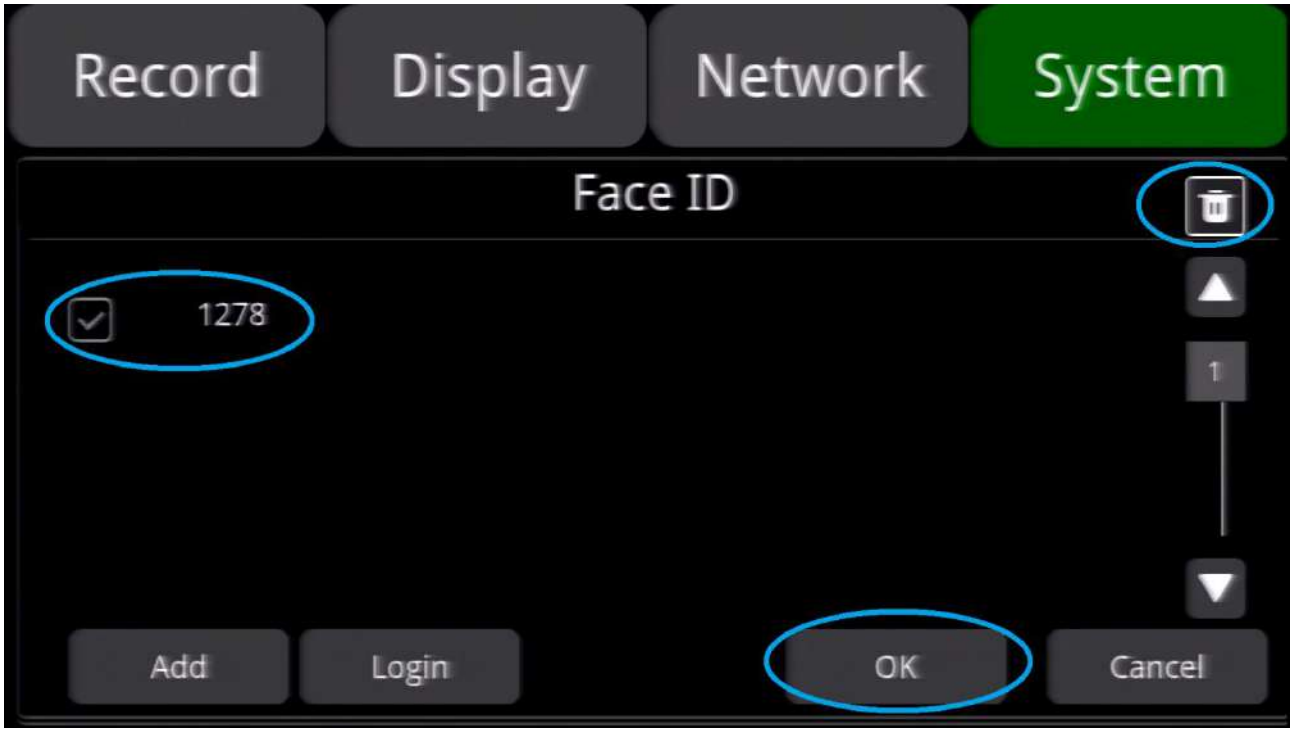
Face Recogniton : Face recognition



Add a human face, as shown in the picture below. Click OK after entering the name, and aim your face at the camera. Click the Start button, move your face up, down, left and right to input the data, a window will pop up to notify the succeed or failed input with a voice message.



: Delete function, as shown in the following figure, check the imported face photos, click , can delete the selected photos.

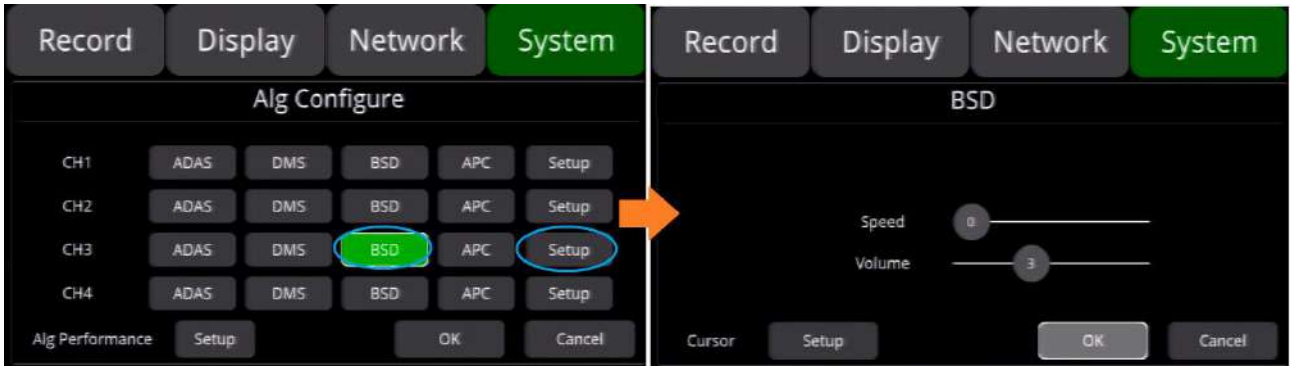


Login: Click to log in through face recognition.

Login Check: If it is set on, face recognition will be triggered upon each startup with a voice message of "again to login". A voice message will be sent to notify the login success when the face is successfully recognized. When no human face or inconsistent human face is detected, the message "login fail" will be sent. If it is set off, face recognition will not be enabled. It is set off by default.

11.11.3 BSD

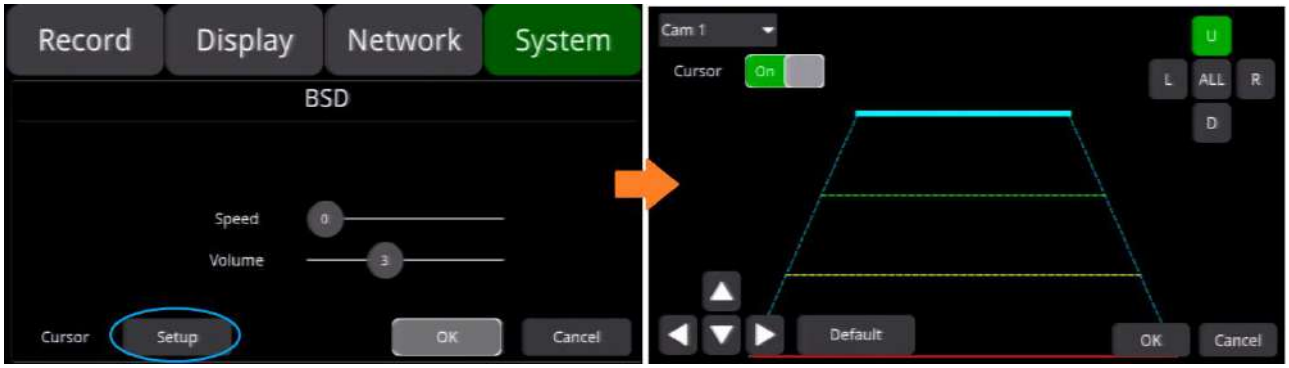
BSD settings are as shown in the figure below when it is chose.



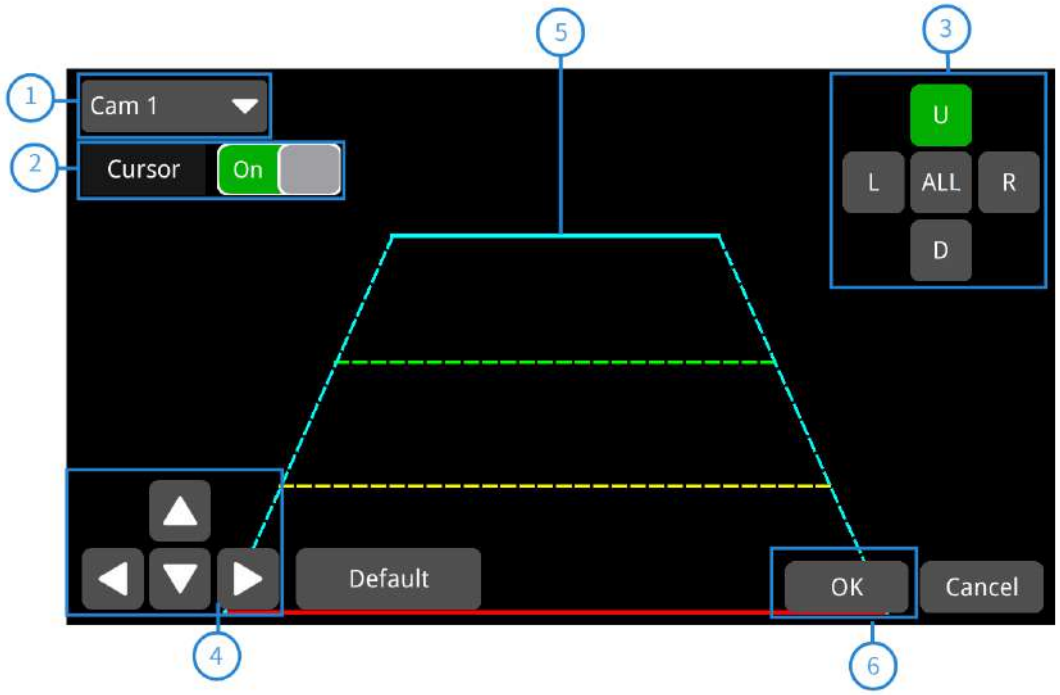
Speed: Set the speed threshold for BSD function. When set to 5, the BSD algorithm can be enabled only when pedestrians are walking at 5km/h or above. The default value is 0.

Volume: Adjust the volume of the audible and visual alarm. The default value is 3.

	Min.	Max.	Default
Speed	0	100	0
Volume	0	8	3



Cursor: It is “OFF” by default. The picture below shows the open state.



① Camera name of the alarm-triggered channel.

② Touch this button to turn on/off cursor.

③ Line selecting: There are 5 lines to be selected. Line U (up), Line D(down), Line L(left), Line R (right)and ALL. The button turns green if selected. You can use remote control to operate.

④ There are 4 directions to adjust the shape of the cursor, Up, Down, Left and Right.

If Line U (the green one) or Line D (the red one) is selected, the selected line can be moved with these directions.

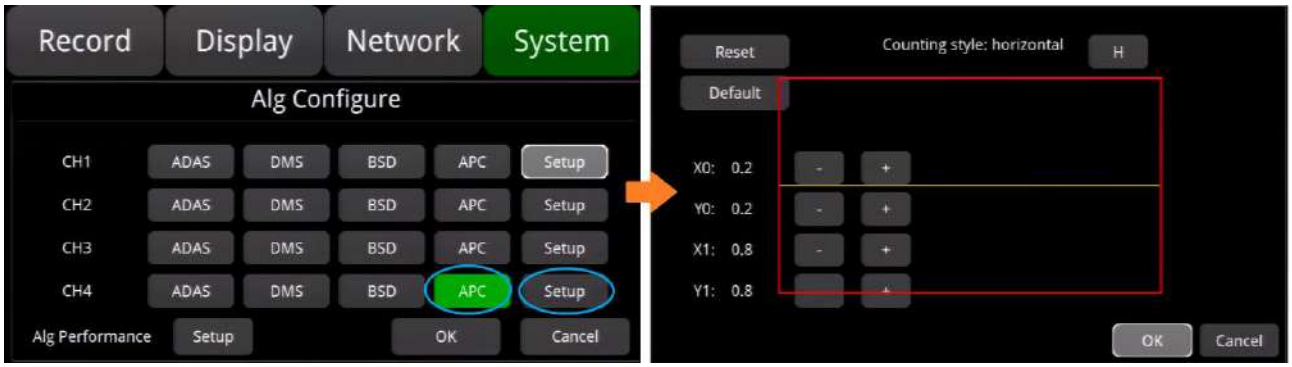
If Line L or Line R is selected, the top point of the selected line can be moved to left or right with Direction Up and Direction Down, and the bottom point of the selected line can be moved to left or right with Direction Left and Direction Right.

⑤ Lines of cursor: The selected one will be thickened for three times. The two lines in the middle will not be processed.

⑥ Touch OK to save the settings and exit. Cancel to exit without saving any settings.

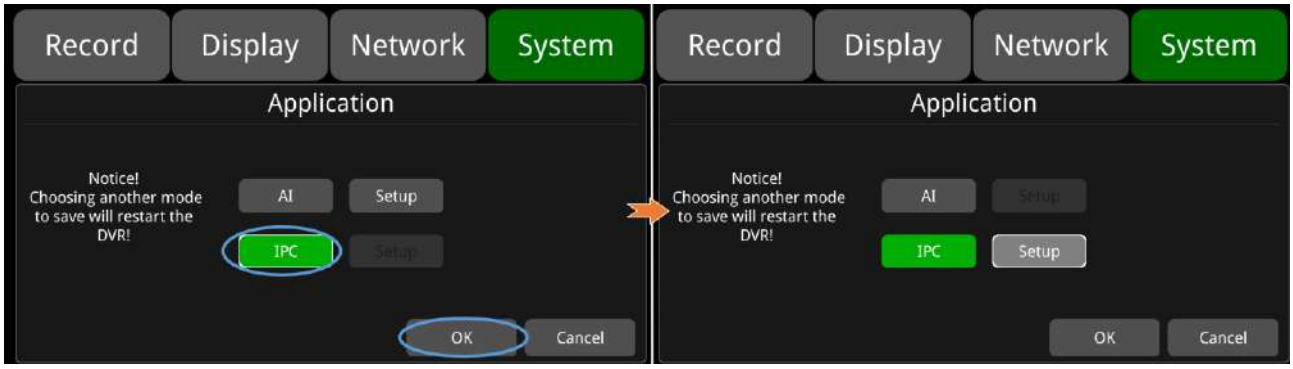
11.11.4 APC

APC: Statistics: calculate the number of passengers on board, the number of passengers getting off, and the total number of passengers on board. The following picture shows the default configuration interface:

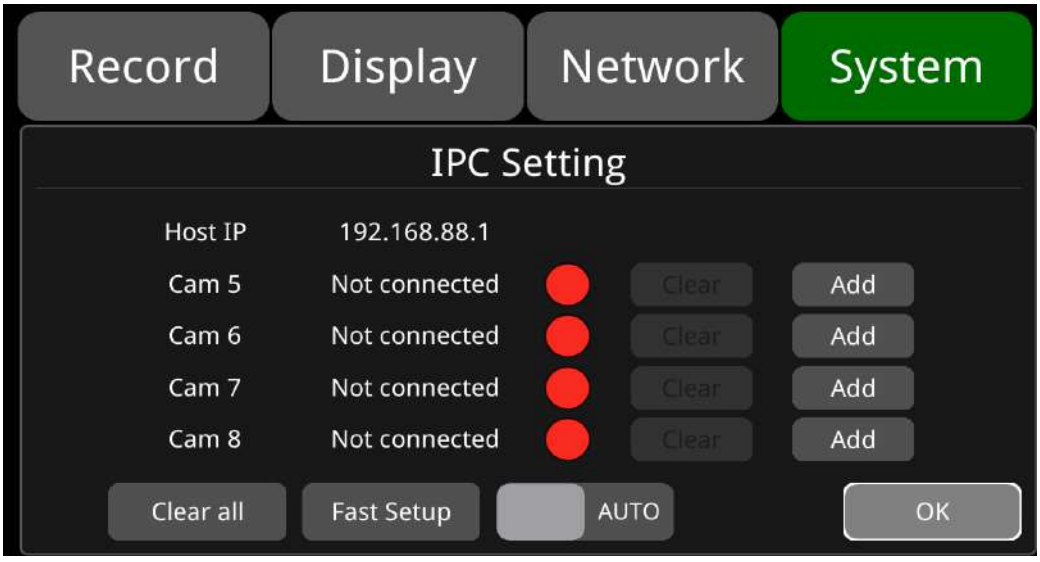


11.12 IPC configuration

IPC: Configure the IPC function interface. After selecting OK, the device will automatically restart and switch to the IPC function interface, as shown in the figure picture:



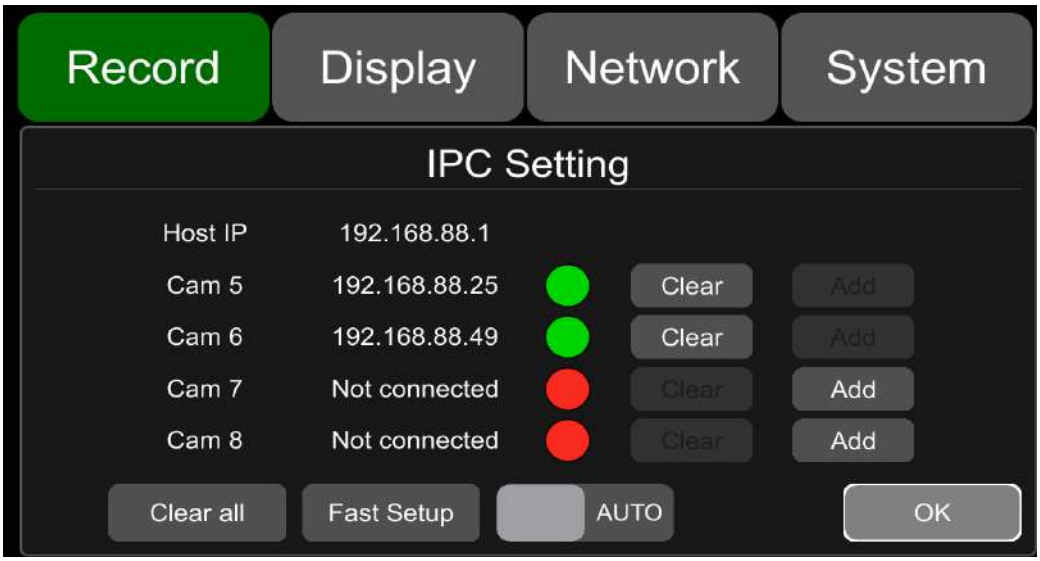
The default configuration is shown in the picture:



The default Host IP of the DVR is 192.168.88.1. The IPC can be applied when it is connected to the same network as the DVR. One DVR can connect up to 4 IPC channels.

AUTO: AUTO is closed by default. When it turns on, the detected IPC is automatically connected.

When AUTO is set to ON, Clear, Add, Clear All, and Fast Setup settings all cannot be operated.



: Indicates that the IPC has been connected successfully.

: Indicates that no IPC is connected.

Clear: Press the button, the DVR will disconnect the IPC that has been successfully connected to the corresponding channel.

Add: Button for entering the IPC-adding interface.

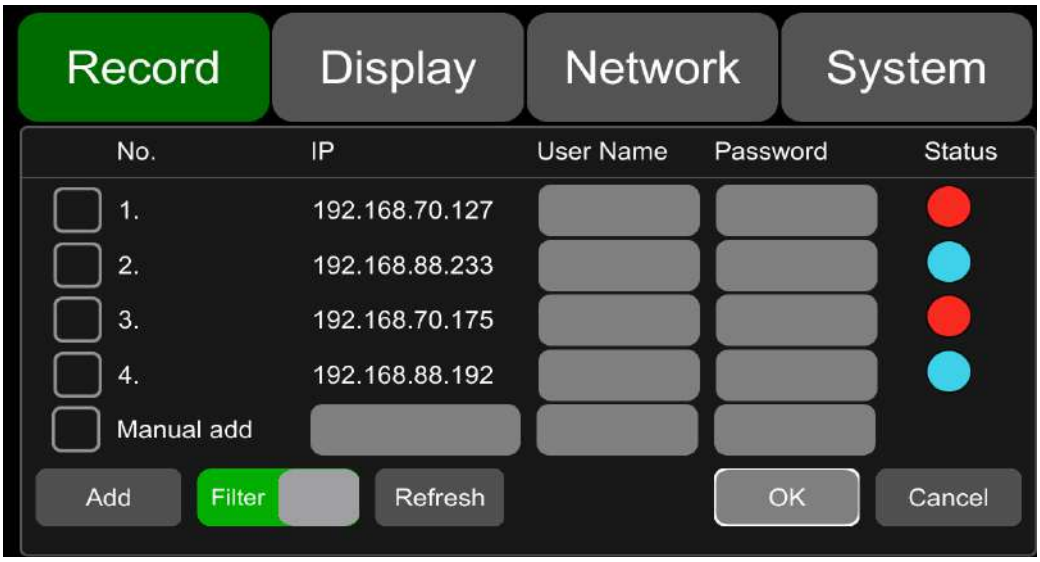
Clear All: Press the button, the DVR will disconnect all IPC channels that have been connected successfully.

Fast Setup: Press the button, all IPCs are connected quickly.

AUTO: When AUTO is set to on, Clear, Add, Clear All, and Fast Setup settings cannot be operated on automatically connected IPC. AUTO is turned on by default.

OK: Save the interface and exit.

Add: IPC-adding interface.



IP: Indicates the IP of the relevant IPC searched by the DVR.

User Name: IPC user name

Password: IPC password

Status: The searched IPC connection status; the relevant status is explained as follows:

: Indicates that the IP network segment of the IPC is inconsistent with that of the DVR, the network segment is incorrect.

: Indicates that the IPC is normal and can be connected to the DVR.

: Indicates that the IPC has been connected successfully.

: Indicates that the IP format of the IPC is malformed.

Manual add: If the IP connected to the IPC is not found, you can add the IPC by manually entering the IP, User Name and Password of the IPC. If the IPC does not have a user name and password, you only need to enter the IP of the IPC.

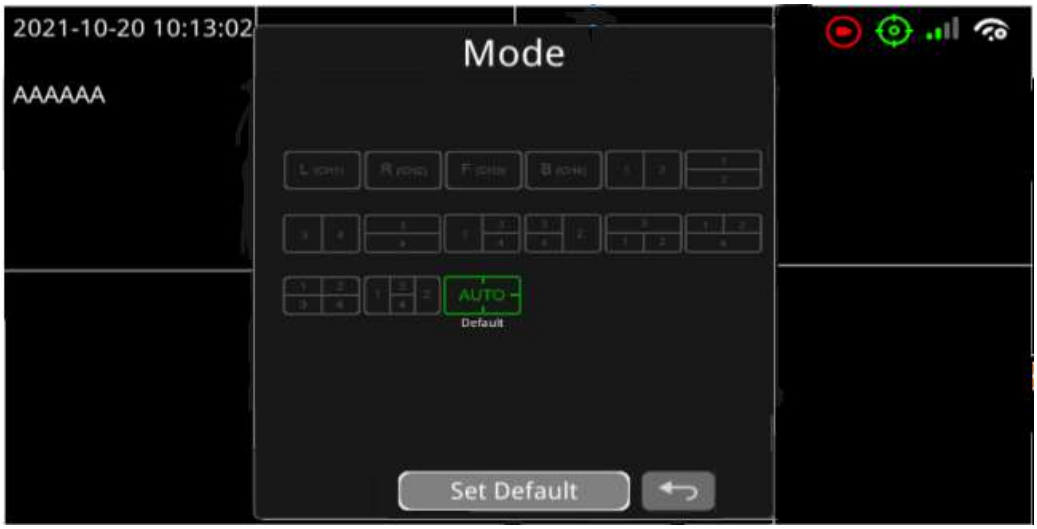
Add: IPC- adding button, after pressing the Add button, the IP of the selected IPC will show that the connection is successful.

Filter: Turn on the filter, the screen does not display the IPC that the DVR has successfully connected to in this interface; turn off the filter, the screen displays all searched IPCs in this interface.

Refresh: If the IP connected to the IPC is not found in the interface shortly after booting, you can click this button to refresh the interface.

OK: Save the configuration and exit the interface.

Cancel: Do not save the configuration and exit the interface After the IPC connection is successful, you can view the IPC channel recording via the following interface.



When IPC AUTO is the default setting, the restarted DVR automatically switches to the main and sub-screen eight-split display after 1min once it connected to the IPC channel. If the IPC channel is not connected, the DVR automatically switches to CH1~CH4 four-division display after 1min; if you choose other split mode other than AUTO as the Default setting, other split mode will be displayed after restarting the DVR.

12 FAQ

1. The System Can't Start up?

Check the power connection. Please follow the steps below to check the power connection:

1) Check the input power: if the power wire is connected correctly, if the ground wire is connected to the battery, and if the fuse on the power wire is in good condition.
2) Check if the voltage of the ACC signal wire is higher than 6 V.
3) Check if the input voltage of the device is higher than the shutdown voltage set on the screen of the device.

2. The Device Keeps Restarting?

Please follow the steps below to check:

1) Check if the supply voltage of DVR is insufficient. If it is lower than the start-up voltage, the device would restart repeatedly.
2) Restart the device to see if it will work properly.

3. Unable to Recognize Disks ?

1)Check if the disk is in good condition and make sure that it is installed with good contact.

2)The disk has been formatted by DVR.

3)Restart the device to see if it will work properly.

4. Unable to Recognize Cameras ?

1) Make sure the camera is good and the connection is correct.

2) Reconnect all wires (e.g. extended wires) between cameras and the device.

3) Restart the device to see if it will work properly.

5. GPS Abnormal ?

1) Check if the GPS antenna is properly installed.

13 APPENDIX

APPENDIX Ⅰ: Abbreviation & Description

Rec.	Record	LED	Light Emitting Diode
G-Sensor	Accelerometer Sensor	SD	Secure Digital Memory Card
GPS	Global Positioning System	USB	Universal Serial Bus
Wi-Fi	Wireless-Fidelity	ALM	Alarm
Cam	Camera	VLOSS	Video Loss
AVI	Audio Video Interleaved	COMM	Communication
OSD	On-Screen Display	ERR	Error
APN	Access Point Name	MEM	Memory
DHCP	Dynamic Host Configuration Protocol	MMSHOW	Media Player
SSID	Service Set Identifier	FTP	File Transfer Protocol
IP	Internet Protocol	DVR	Digital Video Recorder
MAC	Media Address Control	IR	Infrared Radiation
RSSI	Received Signal Strength Indication	SYS	System
DST	Daylight Saving Time		

APPENDIX Ⅱ: Accessories

Standard Table:

Power Cable

3-in-1 Antenna

Camera Input Cable

Peripheral Cable

Remote Control

Monitor

(Optional)

Panic Button

Control(Optional)

Ethernet Connector Cable

(Optional)

APPENDIX Ⅲ: Compatibility Storage List

SD Card:

Name	Description
32GB SD Card	32G, MLC,NCSXDAB-032G,Longsys,-25˚C~85˚C
64GB SD Card	64G, MLC,NCSXJAB-064G,Longsys,-25˚C~85˚C
128GB SD Card	128G, MLC,NCSXJAB-128G,Longsys,-25˚C~85˚C
64GB micro SD Card	64G,MLC,NCIXJBB-064G