

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.

V1.0

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1 Introduction

1.1 Purpose of Preparation

This document mainly focuses on the detailed instruction to the WEB UI user interface software operation process for the DVR device, providing reference for DVR device users.

1.2 Terms and Abbreviations

Term and Abbr.	Description
WEB UI	Web User Interface
MDVR	Mobile Digital Video Recorder

2 Specifications

HD 1080P 4CH MDVR		
System	Operating System	Linux
	Operating Interface	Graphical User Interface/OSD
	Operation Permission	Administrator & user setting
Video	Video Input	4 x 1080P AHD
	Video Standard	PAL: 25fps, NTSC: 30fps
	Compression	H.264 / H. 265 main profile
Audio	Audio Input	4 channels
	Recording Format	Synchronized video & audio recording
	Audio Compression	ADPCM
Digital Processing & Storage	Image Resolution	Max 4 x 1080P (1920 x 1080)
	Video Bitrate	64kbps~8Mbps/channel
	Storage	56~3600MB/ (channel /hour)
	Audi Bitrate	32kbps

	Storage	Micro SD card x 2, Maximum 256GB each
Alarm	Alarm Output	1 buzzer
	Motion Detection	High/Low/Off sensitivity adjustable
Communication Interface	CAN	1 Channel
Wireless	Wi-Fi	Standard
	Wi-Fi hotspot/AP	Supported
Software	Windows Client	Supported
	iOS Client	Supported
	Web UI	Supported
Power	Input Voltage	9~32V
	Maximum Boot-up Power	12W
	Wi-Fi Power	< 0.75W
	Rated Working Power	≤6W (no cameras)
	Maximum Output	12V@5A
	Maximum Power	60W
	Standby Power	≤50mW
Others	Operating Temp. / Humidity	-30℃ ~ + 70℃ / <80%
	Super Capacitor	Supported
	Waterproof Rating	IP65
	AI	DMS/ADAS/BSD

3 Client Software Introduction

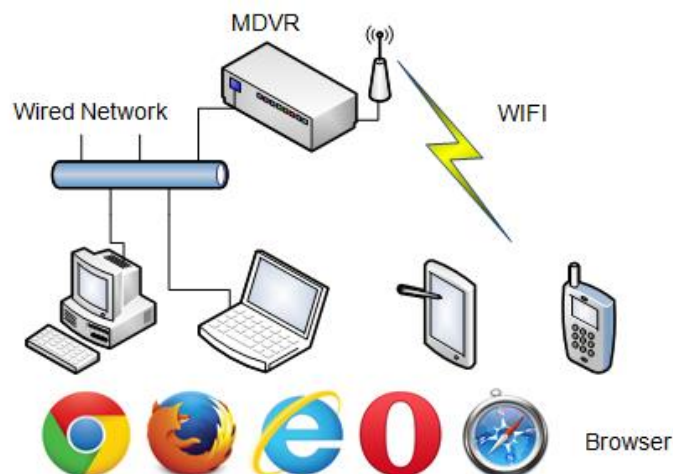
3.1 Software Usage

This software is an operator interface software, designed for MDVR device that operates independently without equipping with on-screen menus. The client communicates with the device via Internet (wired or Wi-Fi), which allows users to access easily and control the MDVR device in either an office environment or in a vehicle.

3.2 Operating Environment

Operating System	Windows, Android, IOS
CPU	AMD/Intel/Snapdragon/SAMSUNG/HUAWEI/Apple
Memory	512MB or above
Internet	Ethernet (wired network) or Wi-Fi wireless network
Software Platform	Support HTML5 browsers e.g.: Google Chrome, Mozilla Firefox, Opera, Safari, etc.

3.3 Physical Structure



The above picture shows the physical structure of the device connection. The client device can be a PC, mobile phone, or tablet. These devices are connected to the MDVR device via wired network or Wi-Fi wireless network, and then the MDVR device is accessed and operated by running the WEB UI software related resources of client browser.

3.4 Basic Functions

The main functions are as follows:

- (1) Display the preview screen of the device channel.
- (2) Configure IP camera.
- (3) Display and format storage media.
- (4) Configure the working parameters of device.
- (5) Configure the split mode of the preview interface.

4 Software Usage

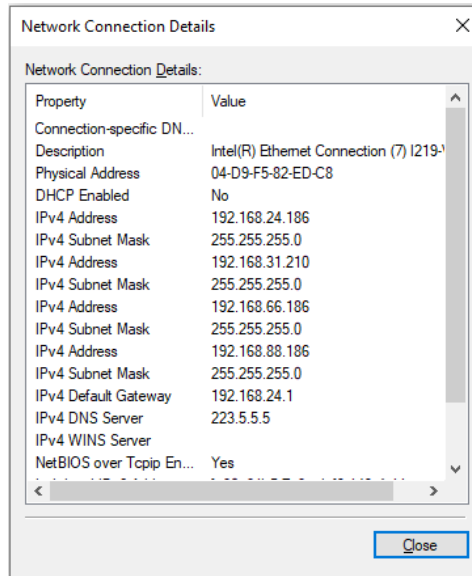
4.1 Device Docking

Client device and MDVR can be connected by wired network or Wi-Fi wireless network. The introduction to each of them is as follows.

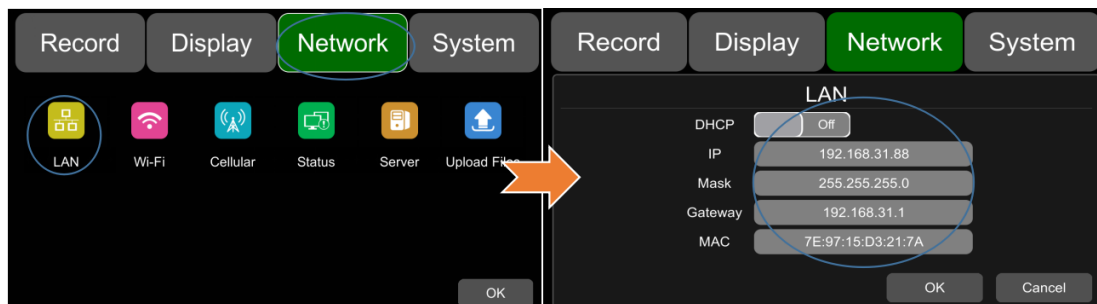
4.1.1 Method 1: Wired Docking

Client devices for docking using wired network are: office computer or laptop. Docking steps are as follows:

- (1) Connect with network cable: connect the MDVR and PC to the same network via network cable (connect them to the same switch or router, or connect the PC network port directly to the MDVR network port).
- (2) Configure the IP address: ensure both IP addresses of PC and MDVR are in the same network segment. For example: if the IP address of MDVR is 192.168.31.244, then the PC should set up an IP address using the network segment 192.168.31.xx as shown below.



Method to set up the static IP of DVR:



(3) Ping test: using ping command in PC cmd window to test whether the PC and MDVR are connected.

```

Administrator: C:\Windows\system32\cmd.exe
Microsoft Windows [Version 10.0.16299.2166]
(c) 2017 Microsoft Corporation. All rights reserved.

C:\Users\Administrator>ping 192.168.31.244

Pinging 192.168.31.244 with 32 bytes of data:
Reply from 192.168.31.244: bytes=32 time=28ms TTL=62
Reply from 192.168.31.244: bytes=32 time=48ms TTL=62
Reply from 192.168.31.244: bytes=32 time=146ms TTL=62
Reply from 192.168.31.244: bytes=32 time=8ms TTL=62

Ping statistics for 192.168.31.244:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 8ms, Maximum = 146ms, Average = 57ms

C:\Users\Administrator>^A

```

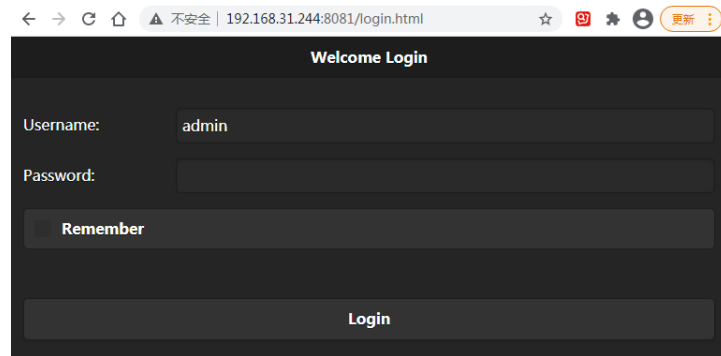
(4) Open the Login interface: run the PC browser (Google or Firefox browser is recommended) and input the MDVR address. (Input the static IP address directly to the address bar, e.g. input

“192.168.31.244:8081”, press “Enter” button, then the rest will be filled in automatically).

User name and password (default):

Username: admin

Password: 123



4.1.2 Method 2: Wi-Fi Wireless Docking

Client device with Wi-Fi function can be connected by Wi-Fi. Common devices include: laptop, PC and cell phone. Docking steps are as follows:

(1) Set AP Internet: ensure the AP Internet is on. More detailed settings are as follows:



(2) Search and connect to the MDVR Wi-Fi hotspot: The SSID name of MDVR hotspot is prefixed with "WFD-", followed by the serial number of the device (the password is: ap12345678), as shown below:

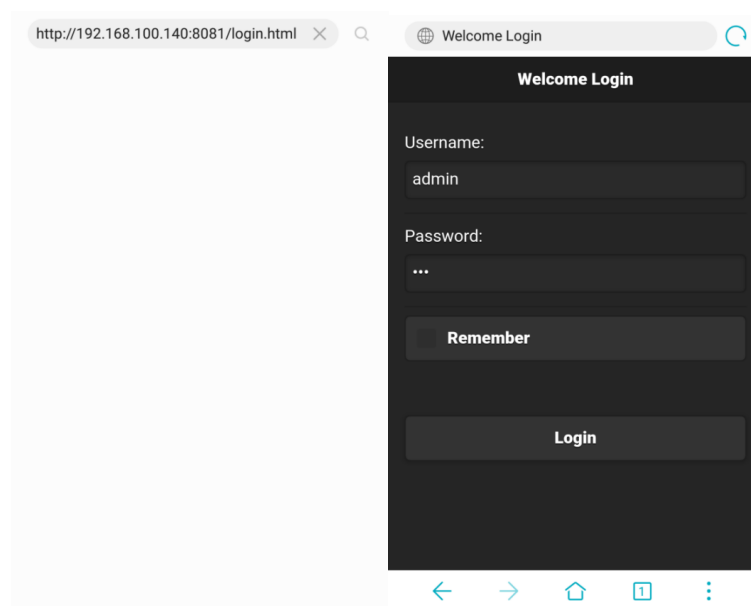


(3) Open the login interface: run the browser (embedded web browser or UC browser is recommended for mobile phone client) and input the MDVR address. (Input the static IP address directly to the address bar, e.g, 192.168.100.140:8081, then the rest will be filled in automatically), as shown below:

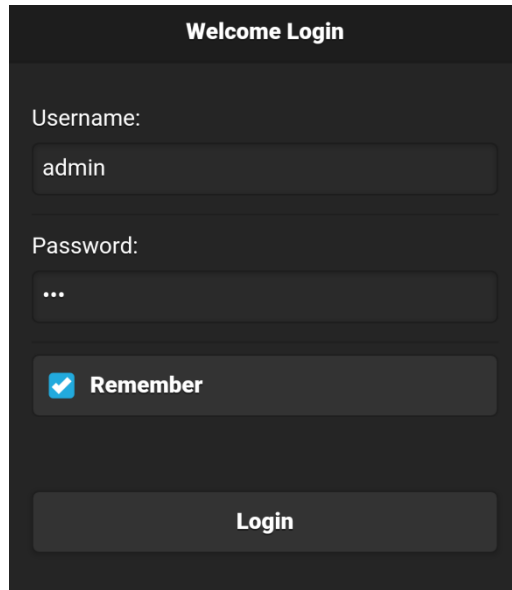
User name and password (default):

Username: admin

Password: 123



4.2 Login System



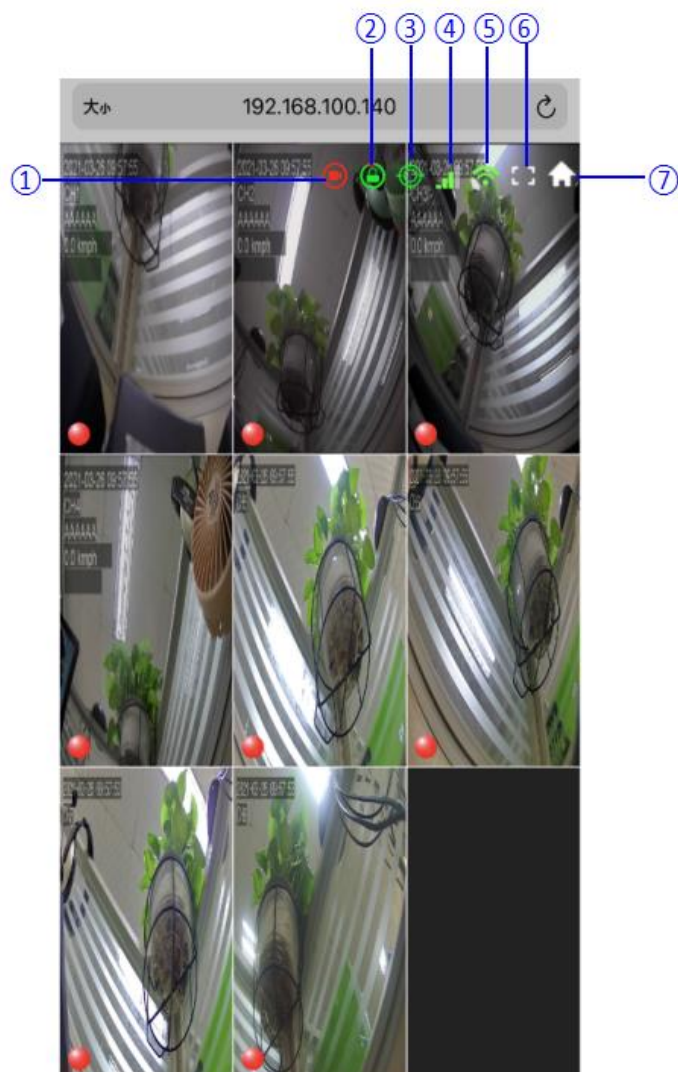
Web browser will show the login interface (see the picture above) after successfully docking with the device. Enter the user name, password and click “Login” to enter the interface system. Check "Remember", the browser will record the password corresponding to the IP address, then the password will be automatically filled in the next time you log in.

Note: After logging in, if there is no operation within 30 minutes, the system will log out by default. Click any operation after log out will return to the login interface for logging in again.

4.3 Main Interface Display

After logging in the WEB UI system, it will jump to the main interface, as shown below:

The following picture displays the interface of 4CH HD waterproof network MDVR:

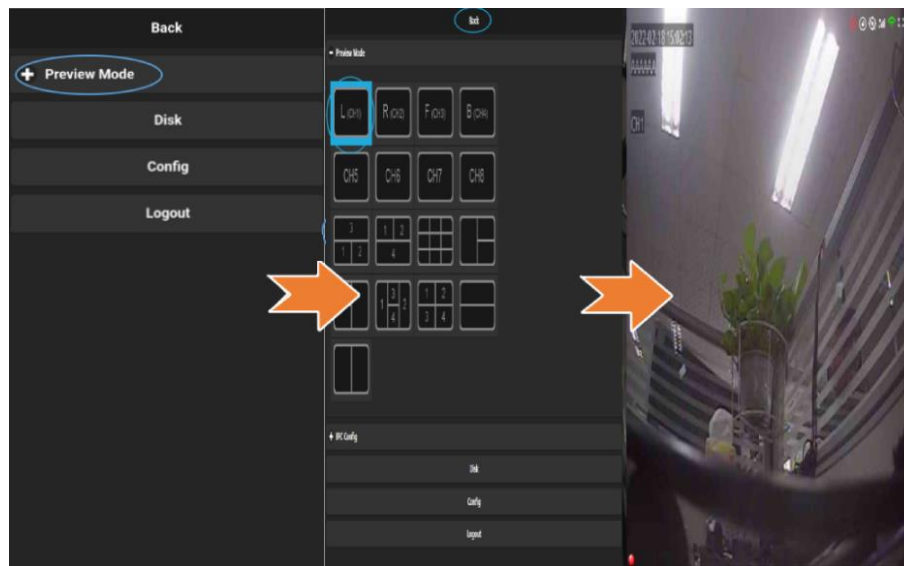


- ① **Recording status:** the icon will display in red when recording, and in white with diagonal when not recording.
- ② **Electronic lock status:** the icon will display in green when the electronic lock is closed, and in white when the electronic lock is open.
- ③ **GPS status:** the GPS icon is always green after successful positioning. Alternating green and white when in the positioning state. The disconnected positioning is marked in white with diagonal.
- ④ **4G signal:** the icon will turn green when 4G signal is available, otherwise, it will be displayed in white upper left with a cross.
- ⑤ **Wi-Fi signal:** the icon will turn green when Wi-Fi signal is available, otherwise, white bottom right with a cross will be shown.
- ⑥ **Full screen display:** click this icon to enlarge the window to full screen.

⑦ **Home menu:** click this icon to enter the parameters setting interface.

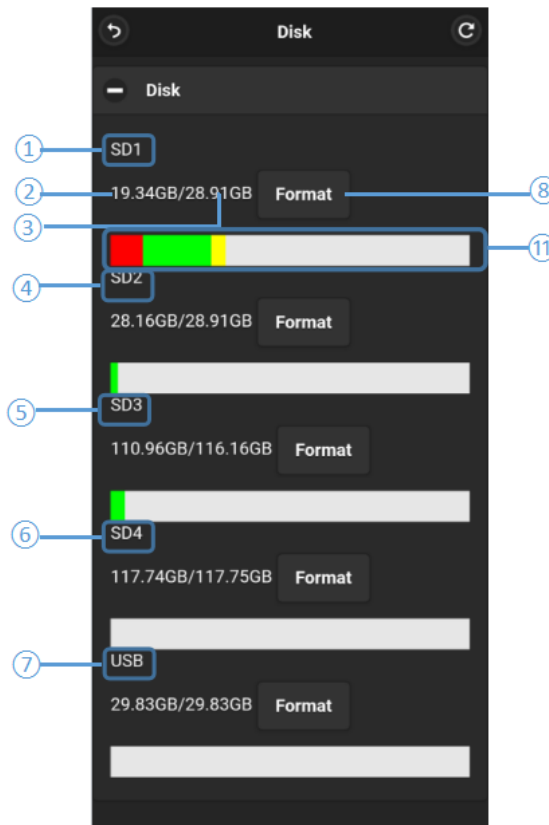
4.4 Preview Interface

Click “Home” menu to enter the WEB UI setting interface. Click “Preview Mode” to enter the preview interface setting. Click to select the interface display split mode, and click “Back” to return after the selection. Then, the selected split mode will be displayed as shown in the following picture:



4.5 Disk Management

This interface shows the total capacity and current availability of the micro SD cards. Micro SD card can be formatted on Web UI.



① ④⑤⑥⑦ shows storage type.

② The remaining available capacity of the micro SD card.

③ The total capacity of the micro SD card.

⑧ **Format**: Format the micro SD card.

⑪ **Micro SD card capacity bar**:

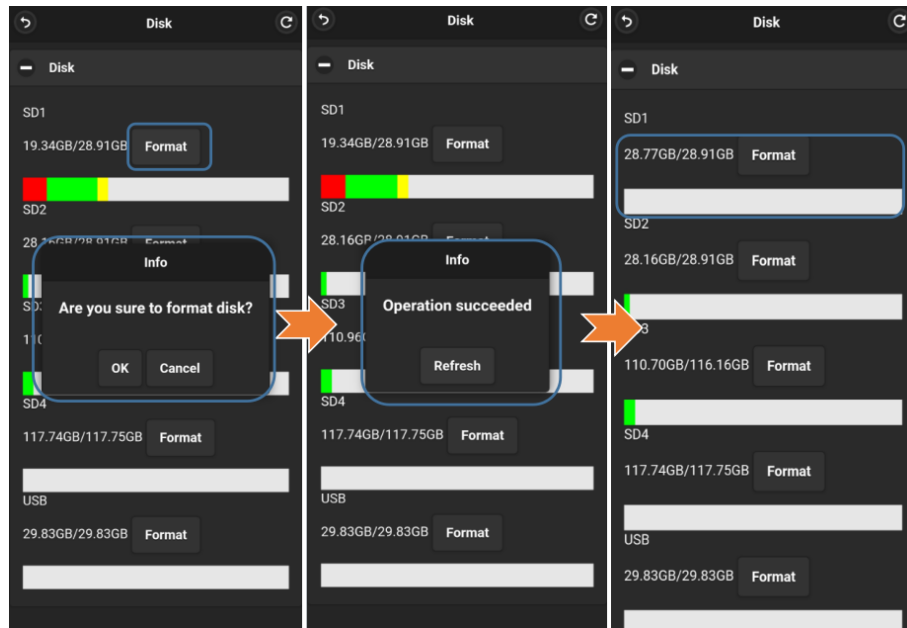
Green shows the size of all video files in the "Normal" list.

Red shows the size of all video files in the "Event" list.

Blue shows the size of all video files in the "Capture" list.

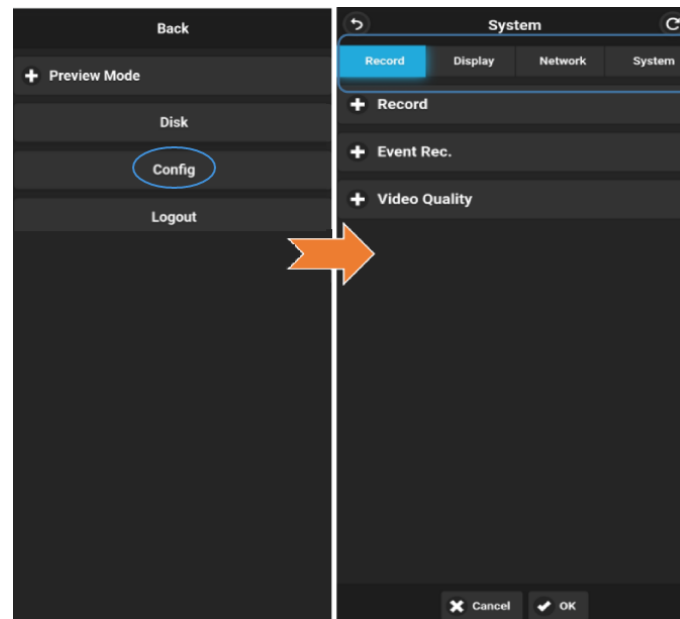
Yellow shows the size of all other files except those mentioned above.

Click "Format" to format the micro SD card, and a pop-up box will prompt "Are you sure to format disk?" Click "Cancel" to cancel formatting; click "OK" to confirm formatting. After the formatting is completed, a pop-up window will prompt "Operation Succeeded". Click "Refresh" to refresh, and the available capacity of the SD card will be refreshed. The specific operation is shown in the figures below:



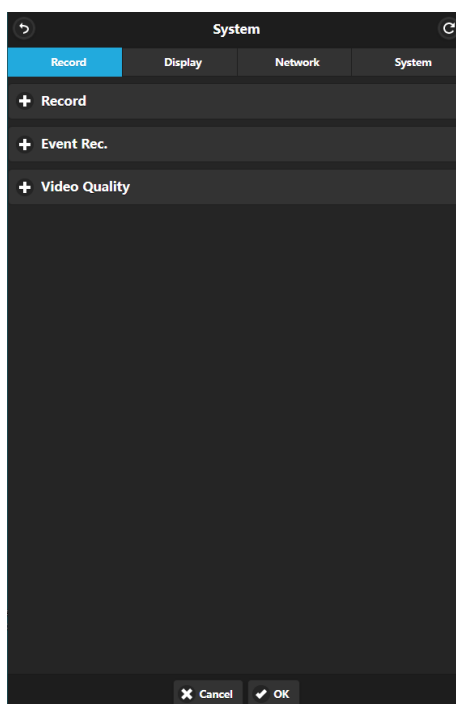
4.6 Parameter Configuration

The main functions of parameter configuration include: Record, Display, Network and System.



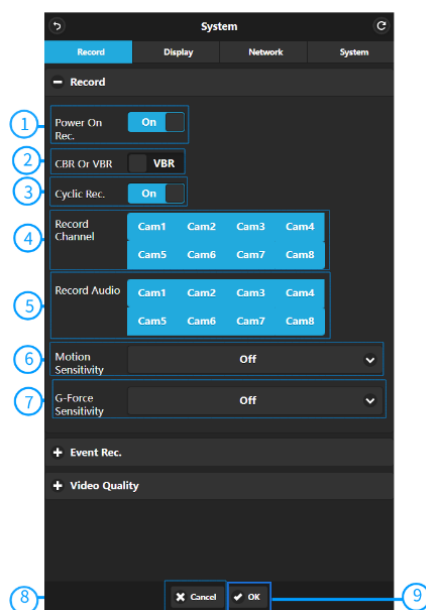
4.7 Record

Record consists of three modules: Record, Event Rec., Video Quality



4.7.1 Record Setting

This page is mainly for DVR recording related settings, the 4 CH HD waterproof MDVR recording settings are as follows:

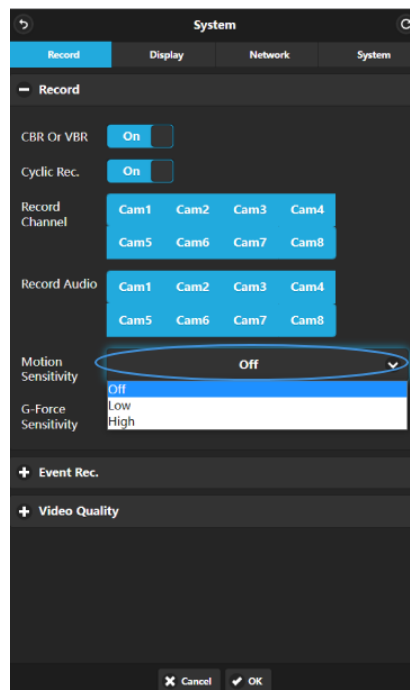


- ① **Power On Rec:** When it is set to ON, the DVR will automatically record after restarting. When it is set to OFF, the DVR will not automatically start recording after it is turned on.
- ② **CBR Or VBR:** CBR is for constant bitrate, VBR is for viable bitrate
- ③ **Cyclic Rec.:** When Cyclic Rec. is set to ON, when the disk is full, the new video file will overwrite the previous video file. Otherwise, recording will stop when the disk is full.

- ④ **Record Channel**: Select the recording channels. When recording is turned on, the corresponding selected channels will record, and those that are not selected will not record.

Note: This configuration is only valid for normal recording, not for event recording. For trigger event recording, all channels will start recording.

- ⑤ **Record Audio**: Select which channels to record audio. When the recording channel is selected, the audio of this channel will be recorded in the recording file. If this channel is not selected, the video of this channel has no audio.
- ⑥ **Motion Sensitivity**: Motion detection recording and sensitivity level are set to trigger motion detection recording when an object moves and its movement range exceeds the preset motion detection sensitivity level. For this kind of alarm recording, the pre-recording time will be fixed at 10 seconds, and the file length is configured by the Event Duration above. Total length of recording file= Pre-recorded file length + file length (configured by Event Duration). If Motion Sensitivity is set to off, it will not trigger motion detection alarm recording. Motion detection sensitivity can be set to two levels, low or high. When selecting low or high, it will trigger motion detection. When selecting off, motion detection recording is closed. The operation diagram is shown below:

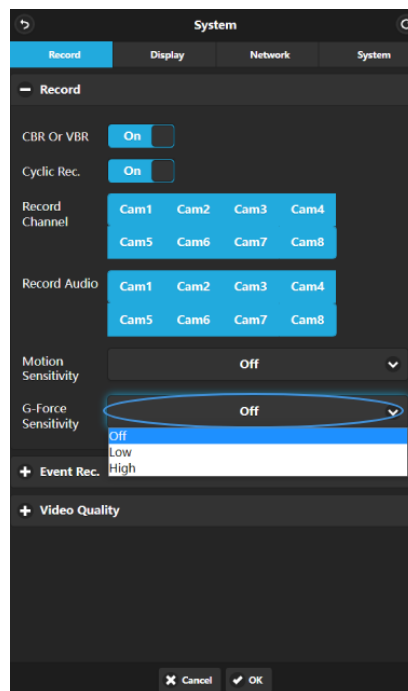


- ⑦ **G-sensor Sensitivity**: G-Sensor sensitivity level setting: When the G-Sensor acceleration or gyroscope reaches the preset sensitivity value, the G-Sensor video will be triggered. For this kind of alarm recording, the pre-recording time will be fixed at 15 seconds,

and the file length is configured by the Event Duration above.

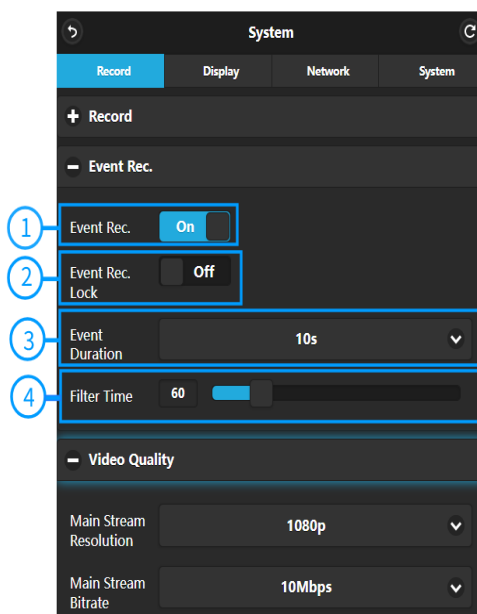
Total video file length = pre-recorded file length (fixed at 15 seconds) + file length (configured by Event Duration).

If the G-Sensor triggers the recording to be off, it will not trigger the event recording. G-Sensor sensitivity can be set to low/high two levels. When Low/High is selected, the G-Sensor triggers the recording to be turned on. When Off is selected, the G-Sensor triggers the recording to be turned off. The operation diagram is as follows:



- ⑧ **Cancel**: Click Cancel to cancel the current setting, and the DVR parameters will not be modified.
- ⑨ **OK**: Click OK to save the current settings, and the DVR corresponding items will be modified.

4.7.2 Event Rec.



- ① **Event Rec.:** Event recording types include motion detection alarm recording, G-Sensor alarm recording, overspeed alarm recording, ADAS/DMS detection alarm recording, etc. If Event Rec. is set to ON and the corresponding alarm parameters are set, the event recording will be triggered when the above event is triggered. If Event Rec. is OFF, event recording will not be triggered even if an event is triggered. This feature is on by default.
- ② **Event Rec. Lock:** When "Event Rec. Lock" is turned off, but "Cyclic Rec." is turned on, when all disks are full, new video files will overwrite the previous recording files, including event recording files.

If both "Event Rec. Lock" and "Cyclic Rec." are turned on, when all disks are full, the new recording files will only overwrite the normal recording files, not the event recording ones.
- ④ **Event Duration:** When event recording is on, the file length of event recording can be set to 5s, 10s and 15s. The continuous trigger will generate a file with a maximum length of 5min.
- ⑤ **Filter Time:** Time filter. As shown in the figure, the event filtering configuration is 60s. If the same event is triggered continuously, the DVR generates an event message every 60s and detects whether a new event record is generated every 60s. After the DVR is connected to the server, the event information will be sent to the server. The minimum setting of "filtering time" is 1s, and the maximum setting is 300s.

4.7.3 Video Quality

Video Quality

Main Stream Resolution: AUTO

Main Stream Bitrate: AUTO

Main Stream Framerate: 25fps

Sub Stream Resolution: CIF_NTSC

Sub Stream Bitrate: 64Kbps

Sub Stream Framerate: 25fps

JPG Framerate: Low

File Length: 5min

File Type: AVI

Cancel OK

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

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

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

① Resolution

There are 5 optional resolutions in the main stream menu, 1080P, 720P, D1 (PAL), D1 (NTSC) and AUTO. CIF is the default value of sub-stream menu and is not selectable. The higher the resolution, the better the quality of the video and the larger the video record file. Therefore, the file size should be considered during configuration.

In the Resolution option, AUTO is defined as follows:

	Main stream
AUTO	The DVR will obtain the camera standard and record the video of that standard

② Bit rate

There are 8 optional levels of bit rate in the main stream menu, 4Mbps, 2Mbps, 1Mbps, 512Kbps, 256Kbps, 128Kbps, 64Kbps and AUTO, while only 6 optional levels of bit rate in the sub stream menu, 1Mbps, 512Kbps, 256Kbps, 128Kbps, 64Kbps and AUTO. The higher the bit rate, the clearer the image and the larger the video record file. Therefore, all factors should be taken into consideration.

In the Bit rate option, AUTO is defined as follows:

Bitrate		
	Main stream	Sub stream
AUTO	The bit rate is 4Mbps for 1080p camera, 2Mbps for 720p camera, and 1Mbps for D1 camera.	No matter what camera is connected, the bit rate will always be 64kbps.

③ Frame rate

There are 8 optional levels of frame rate in the main stream and sub stream menu: 30fps (NTSC), 28fps (NTSC), 25fps, 20fps, 15fps, 14fps, 10fps and 5fps. The higher the frame rate, the smoother the recording and the larger the video record file.

SD capacity	Video Quality	File length
4 x 128GB	4 x 1080P、4Mbps	≈76h
	4 x 720P、2Mbps	≈152h
	4 x D1、1Mbps	≈304h
	1 x 1080P、4Mbps	≈304h
	1 x 720P、2Mbps	≈608h
	1 x D1、1Mbps	≈1216h

④ JPG

The frame rate of JPG can be Excellent, High, Mid and Low. The meaning of these four values is as follows:

Excellent	The upload rate of picture to the client is unlimited (the fastest) and
-----------	---

	smoothest.
High	The upload rate to the client is 1s per picture.
Mid	The upload rate to the client is 3s per picture.
Low	The upload rate to the client is 5s per picture.

⑤ File Length:

The default video file length for both AVI and MSV formats is 5min.

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

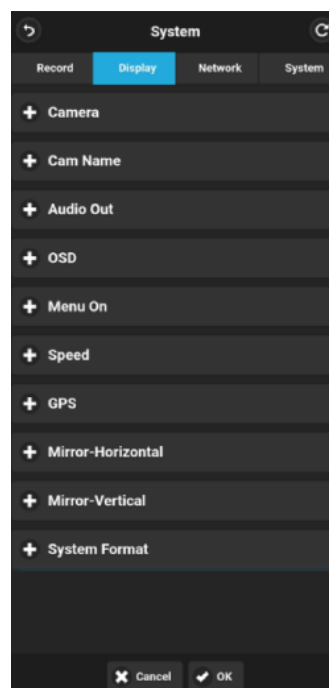
And that in MSV format can be set to 2 minutes, 3 minutes, and 5 minutes.

File Type	File Length
AVI	5min,10min,15min.
MSV	2min,3min,5min.

⑥ File Type: there are two optional video file formats: AVI and MSV.

4.8 Display

The Display section contains 10 modules, the WEB UI interfaces are as follows:

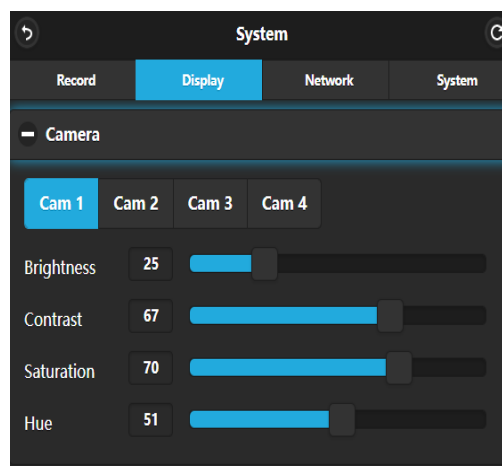


4.8.1 Camera settings

Each channel of Camera corresponds to the parameter settings of the camera, and the default configuration is shown in the table below. Press and hold the number circle to move left or right to decrease or increase the corresponding value.

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

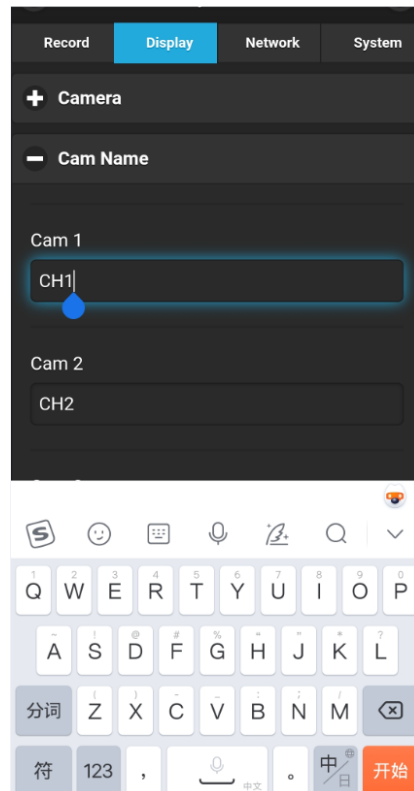
The operation interface is shown in the picture below:



4.8.2 Channel Name Settings

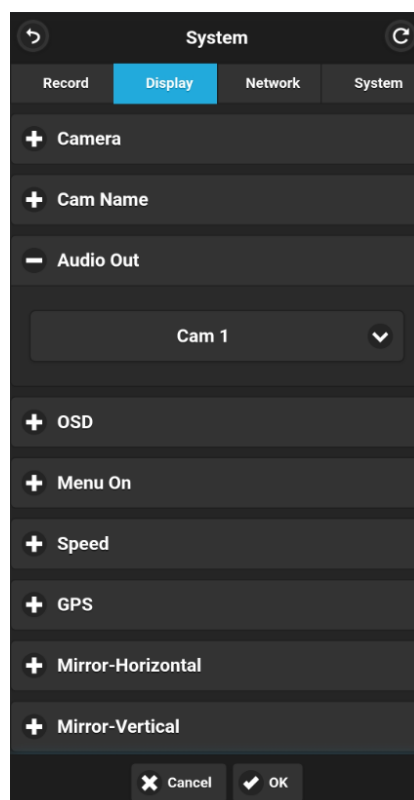
Set the channel name. The corresponding name will be displayed at the bottom of the screen of each channel. Click the button corresponding to the name of each channel on the menu, the input keyboard menu will pop up, a new name can be entered.

Note: Up to 8 characters can be input for each channel. The channel name cannot be empty.



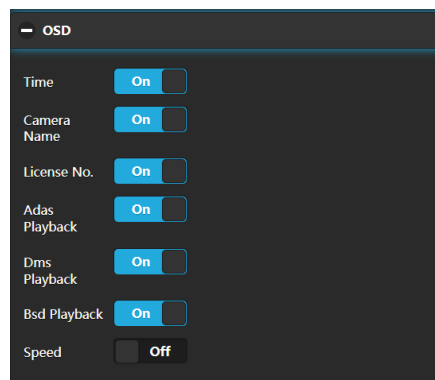
4.8.3 Audio Out

Audio Out is used to set the channel for audio output.

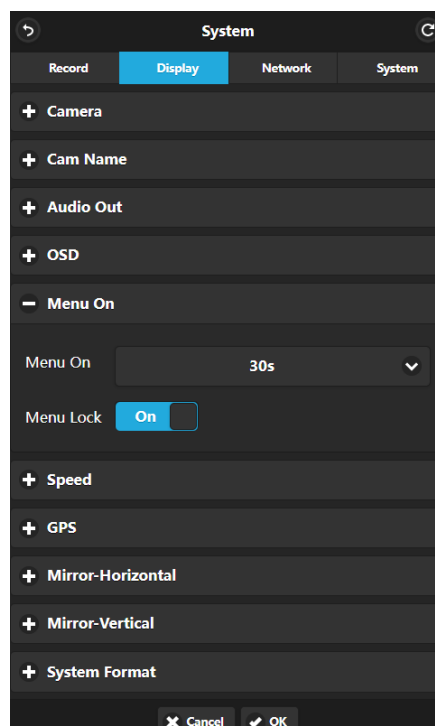


4.8.4 OSD Settings

Set the OSD to configure whether the Time, Camera Name, License No. and Speed are embedded in the video recording. After embedding, this information can be seen during video playback



4.8.5 Menu On Delay Settings



① **Menu On:** the duration of the menu can be set to 30s, 60s, 120s and Always. When it is set to 30s, 60s or 120s, that is, after opening the menu, if there is no operation for 30s, 60s or 120s, the menu will be hidden. When it is set to Always, the menu will always be present.

Note: If you enter the menu, the recording will stop. In order not to affect the recording, it is not recommended to set the Menu On to Always.

② **Menu Lock:** "On" means the account and password information is required to enter the menu. "Off" means no permission is required to enter the menu.

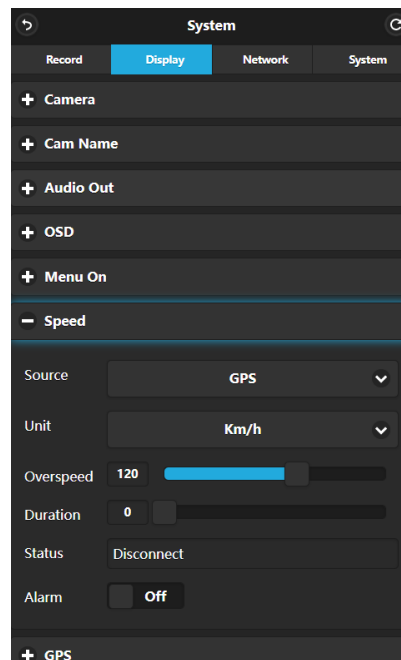
If you want to change the status of the menu lock, you need use the user name "admin" and its

corresponding password.

4.8.6 Speed Source Settings

Speed setting: the speed data of overspeed alarm comes from GPS; Unit: Km/h and Mile/h.

Overspeed is the overspeed threshold, which can be set by the customer. Speed shows the current vehicle speed. If the Speed value exceeds the Overspeed value, the DVR will trigger an overspeed alarm recording. The Alarm button in the picture below is the switch to set the speeding alarm recording. When Alarm is set to On, vehicle speeding will trigger alarm recording. When it is set to Off, it will not trigger alarm recording.



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

4.8.7 GPS Settings

After installing the GPS antenna, the latitude, longitude, and speed will be recorded into the video recording file. The menu provides GPS information such as latitude, longitude, detection

satellite, reachable satellite, etc.

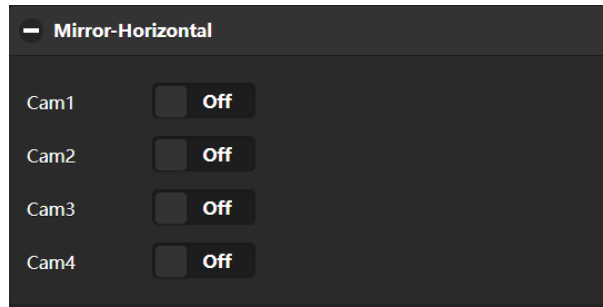


- ① **Mode:** indicates the GPS connection status.
- ② **Used:** the number of available satellites.
- ③ **Visible:** the number of satellites that can be searched.
- ④ **Lat:** displays the latitude.
- ⑤ **Lon:** displays the longitude.
- ⑥ **Alt:** displays the altitude.
- ⑦ **Speed(km/s):** displays the current speed.
- ⑧ **UTC:** displays the UTC time.
- ⑨ **GPS Histogram:** histogram of GPS satellite number.

4.8.8 Mirror-Horizontal Settings

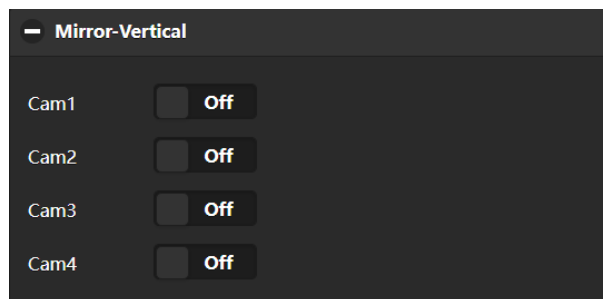
Set to ON, the corresponding record channel will flip horizontally. Set to OFF, the corresponding channel will display normally without flipping.

The setting steps are shown in the following picture:

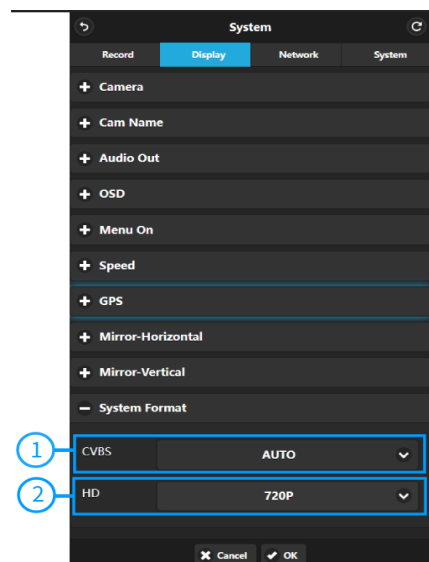


4.8.9 Mirror-Vertical Settings

Set to ON, the corresponding record channel will flip vertically. Set to OFF, the corresponding channel will display normally without flipping.



4.8.10 System Format Settings



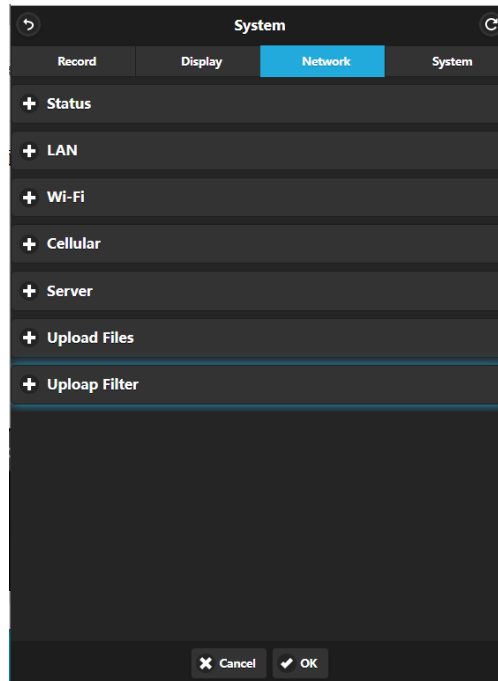
① **CVBS**: switch the display format of MDVR SD screen. The available formats are: AUTO, NTSC and PAL. DVR will restart after changing the format.

② **HD**: switch the display format of MDVR HD screen. The available formats are: AUTO, 720P and 1080P (Intelligent HD waterproof network MDVR doesn't have AUTO model) DVR will restart

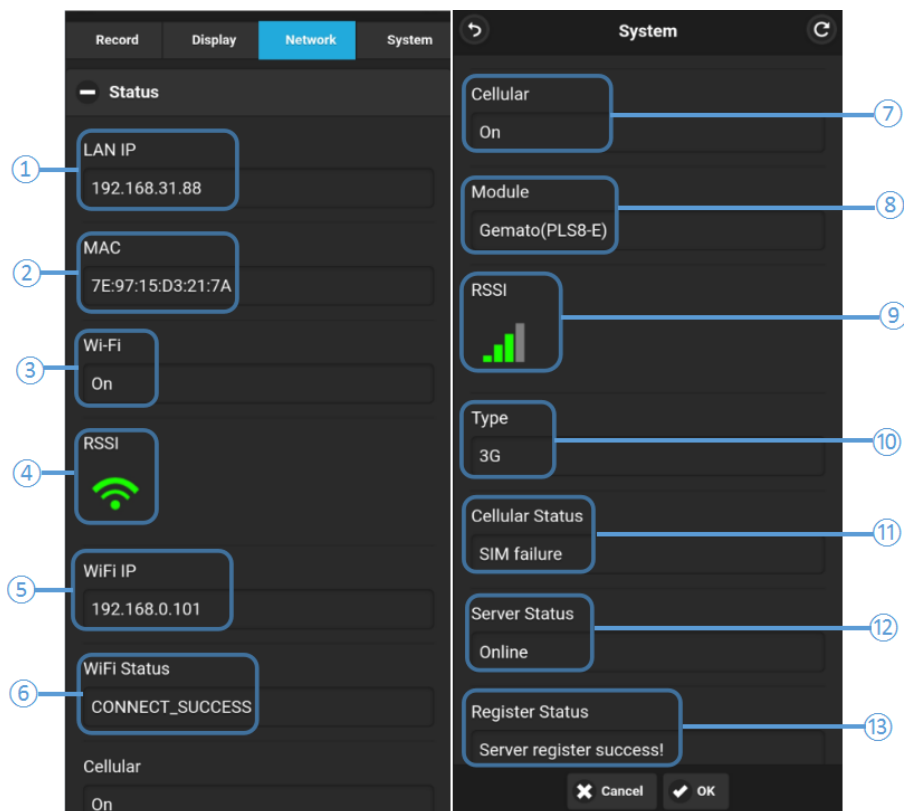
after changing the format.

4.9 Network

Network consists of 7 modules, WEB UIpage is as follows:



4.9.1 Status Settings



- ① **LAN IP:** refers to the static IP set on the NetWork-LAN page or the dynamic IP obtained automatically.
- ② **MAC:** refers to the static physical address set on the NetWork-LAN page or the dynamic physical address obtained automatically.
- ③ **Wi-Fi:** Wi-Fi ON/OFF status obtained from the network Wi-Fi page.
- ④ **Wi-Fi RSSI:** displays Wi-Fi signal strength.
- ⑤ **Wi-Fi IP:** static IP or dynamic IP obtained from NetWork—Wi-Fi page.
- ⑥ **Wi-Fi status:** displays the Wi-Fi status.
- ⑦ **Cellular:** On/Off status of Cellular obtained from the Network-Cellular page.
- ⑧ **Module:** displays the type of 2G/3G/4G module.
- ⑨ **Cellular RSSI:** icon of 2G/3G/4G signal strength.
- ⑩ **Cellular Type:** displays the type of 2G/3G/4G module.
- ⑪ **Cellular status:** the corresponding meaning is as follows:

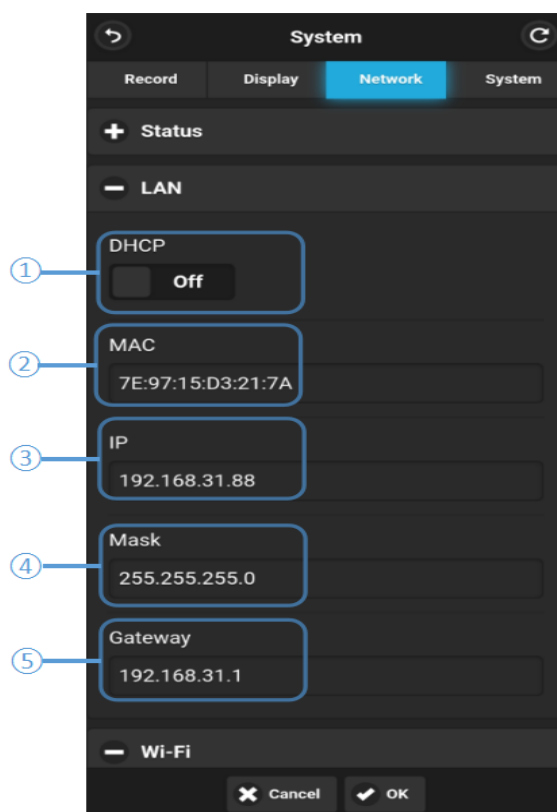
Content	Meaning
Module initialization	Module initialization
Module exception	Module exception

No SIM card	No SIM card
Cpin locked	Cpin is locked
Signal abnormal	Signal abnormal
Networking failure	Network connection is failed
SUCCESS	Network connection is successful

⑪ **Server Status**: server status, Online / Offline

⑬ **Register status**: the reason for server connection failure.

4.9.2 LAN Settings



① **DHCP**: dynamic IP switch. When the switch is set to on, then it is a dynamic IP. When the switch is set to off, it is a static IP, then you need to manually input the IP address, subnet mask and gateway. The MAC address can be assigned automatically or modified.

② **MAC**: set the physical address of DVR.

④ **IP**: set the IP address of DVR.

⑤ **MASK**: set the subnet mask of DVR.

⑥ **GATEWAY**: set the gateway of DVR.

⑥ 4.9.3 Wi-Fi Settings



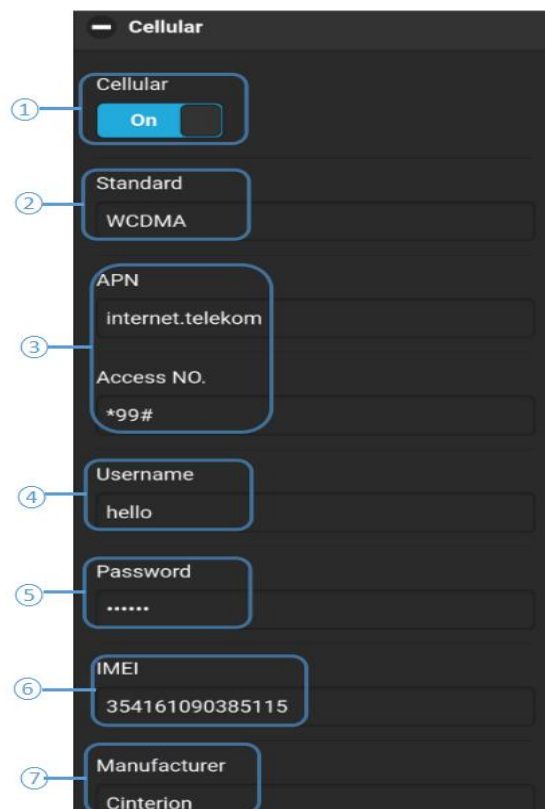
① **Wi-Fi:** ON/OFF

② **DHCP:** dynamic IP switch. When the switch is set to on, then it is a dynamic IP. When the switch state is off, it is a static IP, you need to manually input the IP address, subnet mask and gateway. The MAC address can be assigned automatically or modified.

③ **SSID:** list of Wi-Fi hotspots that can be searched by DVR. If there is no list, input manually the Wi-Fi name.

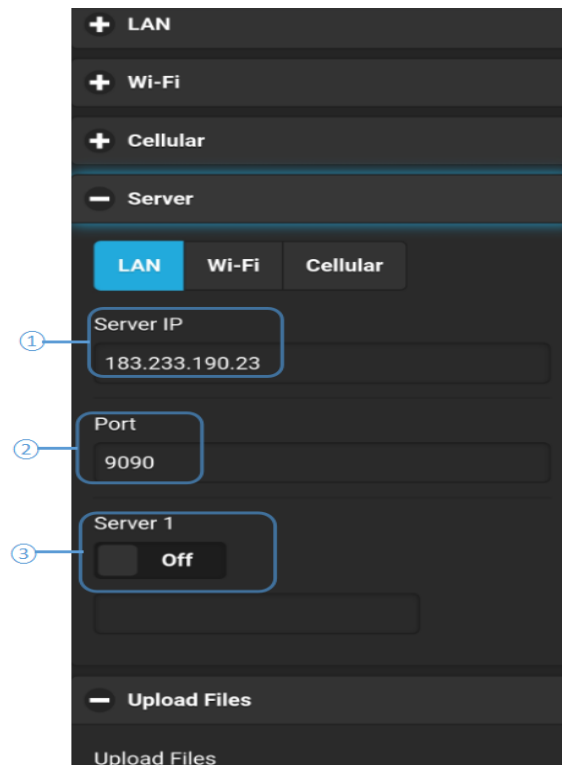
④ **Password:** Wi-Fi password.

4.9.4 2G/3G/4G Settings



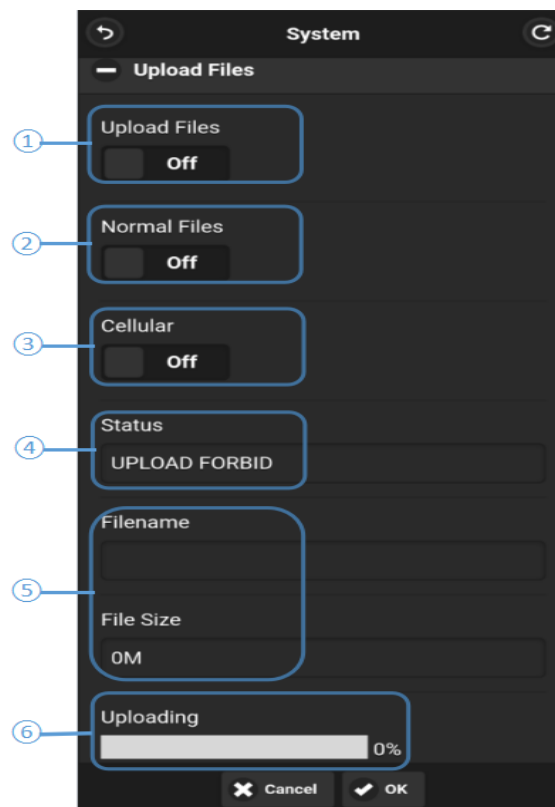
- ① **Cellular:** 2G/3G/4G switch, turn it on to allow cellular working.
- ② **Standard:** the default is WCDMA.
- ③ **APN & Access No.:** usually, the Access Point Name (APN) and Access Number (Access Number) are set by default, no need to fill in. If it doesn't work, please consult the local operator.
- ④ **Username:** user name setting, provided by the operator, please consult the operator.
- ⑤ **Password:** user password setting, provided by the operator, please consult the operator.
- ⑥ **IMEI.**
- ⑦ **Manufacturer.**

4.9.5 Server Settings



- ① **Server IP:** IP address of the server. The default server IP of LAN, Wi-Fi, and Cellular is 183.233.190.23.
- ② **Port:** server port number.
- ③ **Server 1:** domain name setting. You can manually input the domain name when it is set to ON.

4.9.6 Upload Files Settings



① **Upload Files:** ON/OFF

② **Normal File:** two states, OFF and ON.

- OFF: Upload such videos as alarm recording files and scheduled recording files except the normal videos.

- ON: Upload all video recording files (including the normal recording ones).

③ **Cellular:** two states, OFF and ON

- OFF: The video files will only be uploaded when wired network or Wi-Fi is connected.

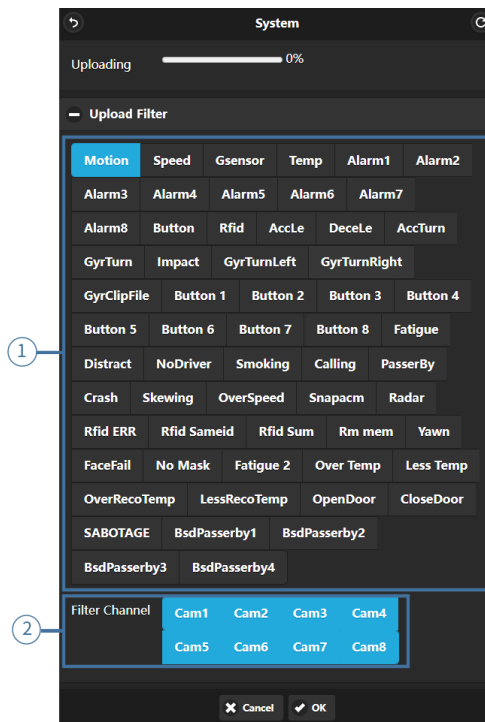
- ON: When Cellular is connected, uploading files is allowed. When the switch is turned on, there will be a pop-up box prompting "Network flow consuming, continue?". Click "OK" to confirm. However, after turning it on, it will consume a lot of traffic once Cellular is connected. Thus, it is recommended to set it to OFF.

④ **Status:** displays the working status of "Upload Files". The successfully uploaded video files can be found in the client interface below:

Plate No	Begin Time	End Time	Status	Percent	Download	File Size	File Type	File Name	File Posit
c2-426-00...	2020-11-0...	2020-11-0...	Not Downl...	0%	0	0	snap cam...	20201101180942_*.03.jpg	Media Ser...
c2-426-00...	2020-11-0...	2020-11-0...	Not Downl...	0%	0	0	snap cam...	20201101180942_*.01.jpg	Media Ser...
c2-426-00...	2020-11-0...	2020-11-0...	Not Downl...	0%	0	0	snap cam...	20201101180942_*.04.jpg	Media Ser...
c2-426-00...	2020-11-0...	2020-11-0...	Not Downl...	0%	0	0	snap cam...	20201101180942_*.02.jpg	Media Ser...
c2-426-00...	2020-11-0...	2020-11-0...	Not Downl...	0%	3	3	gsensor	20201102084315_*.03.m...	Media Ser...
c2-426-00...	2020-11-0...	2020-11-0...	Not Downl...	0%	3	3	gsensor	20201102084315_*.04.m...	Media Ser...
c2-426-00...	2020-11-0...	2020-11-0...	Not Downl...	0%	3	3	gsensor	20201102084315_*.02.m...	Media Ser...
c2-426-00...	2020-11-0...	2020-11-0...	Not Downl...	0%	3	3	gsensor	20201102084402_*.02.m...	Media Ser...
c2-426-00...	2020-11-0...	2020-11-0...	Not Downl...	0%	3	3	gsensor	20201102084402_*.04.m...	Media Ser...
c2-426-00...	2020-11-0...	2020-11-0...	Not Downl...	0%	3	3	gsensor	20201102084402_*.03.m...	Media Ser...
c2-426-00...	2020-11-0...	2020-11-0...	Not Downl...	0%	3	3	gsensor	20201102132958_*.04.m...	Media Ser...
c2-426-00...	2020-11-0...	2020-11-0...	Not Downl...	0%	3	3	gsensor	20201102132958_*.03.m...	Media Ser...
c2-426-00...	2020-11-0...	2020-11-0...	Not Downl...	0%	3	3	gsensor	20201102132958_*.02.m...	Media Ser...
c2-426-00...	2020-11-0...	2020-11-0...	Not Downl...	0%	3	3	gsensor	20201102133833_*.04.m...	Media Ser...
c2-426-00...	2020-11-0...	2020-11-0...	Not Downl...	0%	3	3	gsensor	20201102133833_*.02.m...	Media Ser...
c2-426-00...	2020-11-0...	2020-11-0...	Not Downl...	0%	3	3	gsensor	20201102133833_*.03.m...	Media Ser...

- ⑤ **Filename&File Size:** displays the filename and the size of the uploaded video file.
- ⑥ **Uploading:** displays the progress bar of video file uploading.

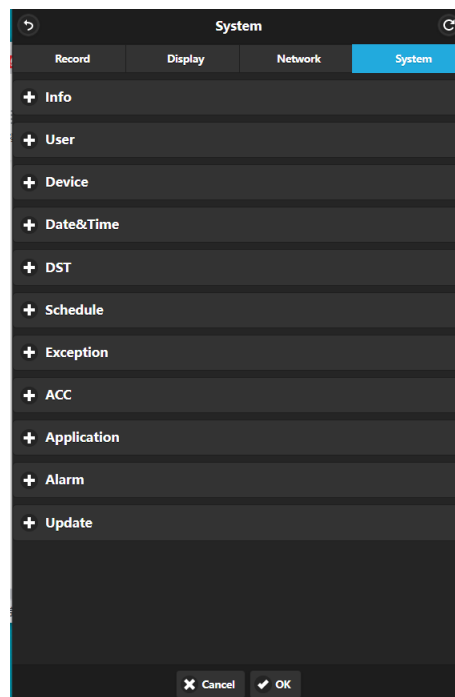
4.9.7 Upload Filter Settings



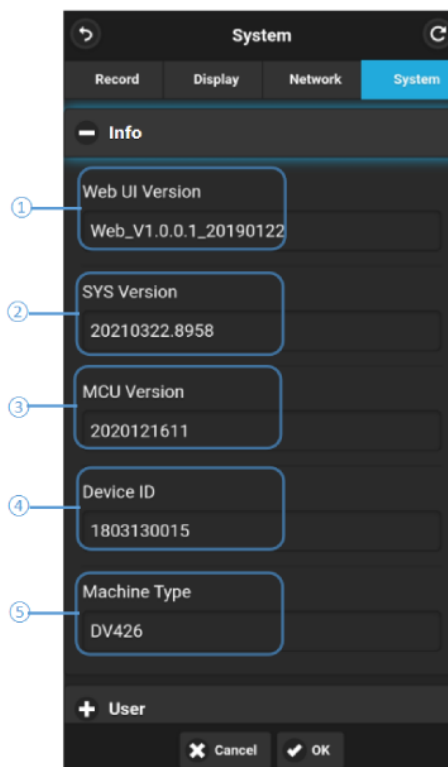
- ① **Upload Filter:** filter type selection.
- ② **Filter Channel:** filter channel selection.

4.10 System

System consists of 11 modules , WEB UI page is show as follows :



4.10.1 Info



- ① **Web UI Version:** version number of the current version of WEB UI.
- ② **SYS Version:** version number of DVR system.
- ③ **MCU Version:** version number of DVR MCU.

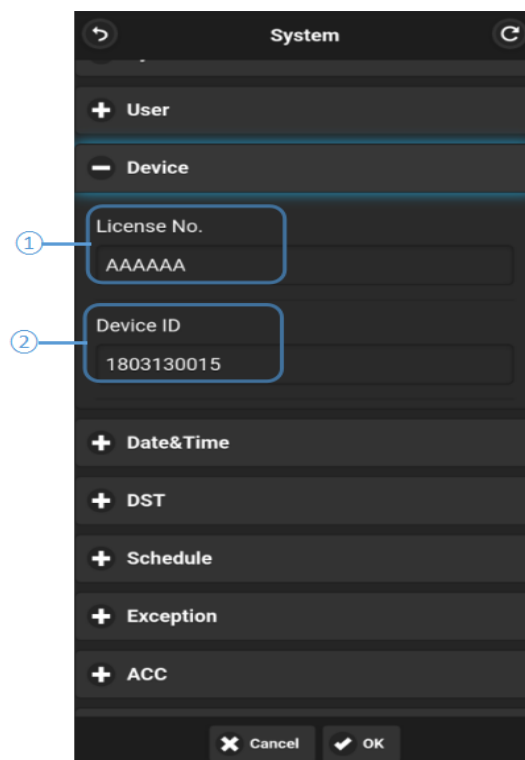
- ④ **Device ID:** device server ID number.
- ⑤ **Machine Type:** DVR type.

4.10.2 User Settings

The screenshot shows a mobile application interface for 'System' settings. Under the 'User' section, there are six input fields. Blue circles with numbers 1 through 6 are placed to the left of each field, with lines pointing to them. The fields are: 'Username' (containing 'admin'), 'Password' (empty), 'Confirm Password' (empty), 'Guest Name' (containing 'guest'), 'Guest Password' (empty), and 'Confirm Password' (empty). At the bottom of the screen, there are two buttons: 'Cancel' with a close icon and 'OK' with a checkmark icon.

- ① **Username:** display the admin user name.
- ② **Password:** set the admin user password.
- ③ **Confirm Password:** confirm the password of admin user.
- ④ **Guest:** display the guest user name.
- ⑤ **Password:** set the guest user password.
- ⑥ **Confirm Password:** confirm the password of guest user.

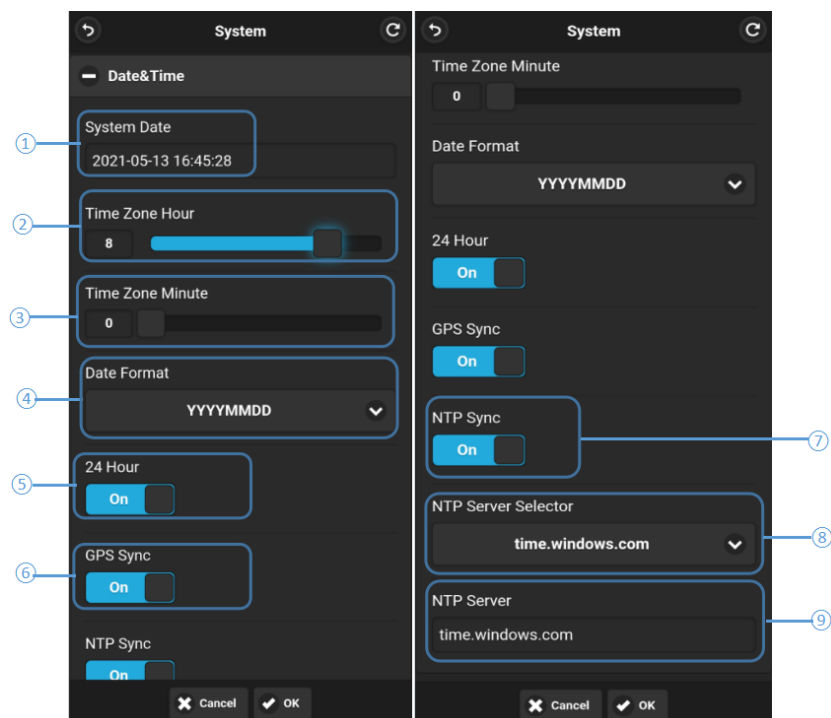
4.10.3 License No. Setting



① **License NO.:** license number setting.

② **Device ID:** ID number of the device. This ID number does not support user-defined.

4.10.4 Date & Time Settings



① **System Date:** DVR system time setting.

② & ③ **Hour & Minute:** time zone setting should be accurate to the minute.

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

④ **Date Format:** date mode display, "YYYYMMDD" is displayed in the form of "year-month-date", and "MMDDYYYY" is displayed in the form of "month-date-year".

⑤ **24 Hour:** if it is turned on, the time format will be displayed in 24-hour system format. Otherwise, the display will be in 12-hour system format.

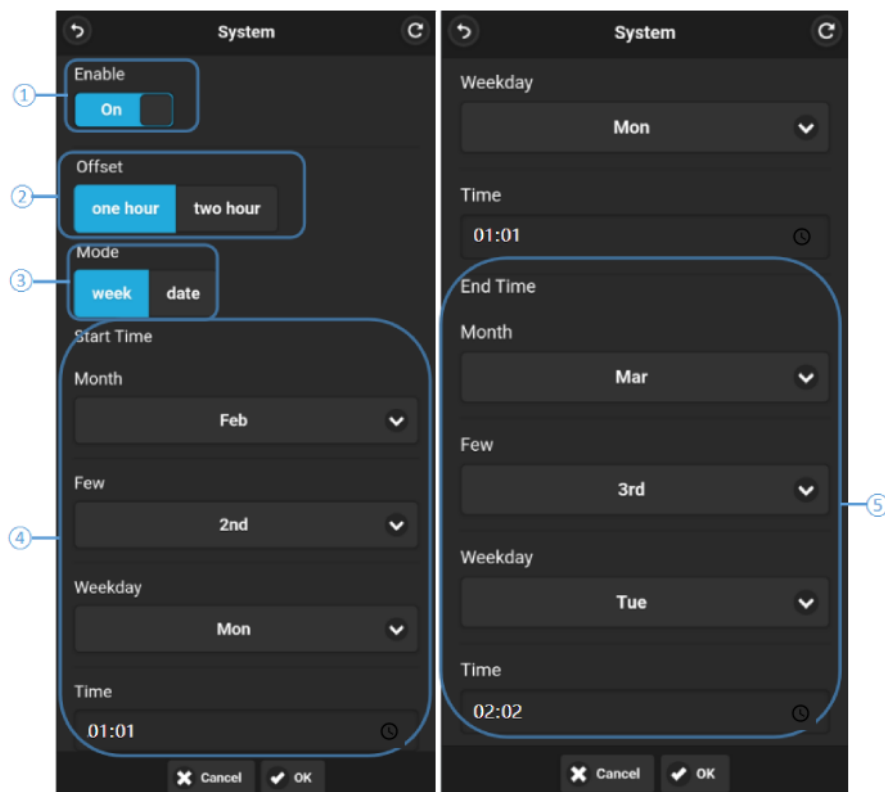
⑥ **GPS Sync:** turn on or off the GPS time calibration.

⑦ **NTP Sync:** turn on or off the NTP time calibration.

Usage Scenarios	Usage Instructions
GPS: Off and NTP: Off	Set the time zone and daylight saving time firstly, then set the date and time
GPS: On or NTP: On	Must set time zone and daylight saving time, no need to set the date and time

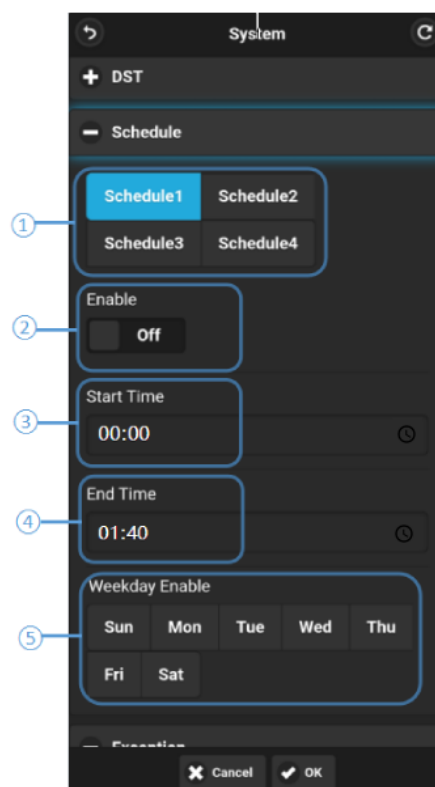
Note: When "Time Sync" -> "GPS" or "Time Sync" -> "NTP" is set to On, the time zone and daylight saving time must be set. If the time zone is not set, GPS and NTP will change the system time to the default ET-8, resulting in abnormal device time.

4.10.5 Offset Settings



- ① **Enable:** set DST to On or Off.
- ② **Offset:** adjust the offset by 1 hour or 2 hours after enabling DST.
- ③ **Mode:** select DST mode (set DST by week or date).
- ④ **Start Time:** set the start time of DST.
- ⑤ **End Time:** set the end time of DST.

4.10.6 Schedule Settings



① **Schedule:**

- Support up to four scheduled recordings. The minimum unit of recording time is minute.
- The recording time can be overlapped.
- The end time of scheduled recording must be later than the start time.

② **Enable:** ON/OFF of scheduled recording.

③ **Start Time:** set the start time of scheduled recording.

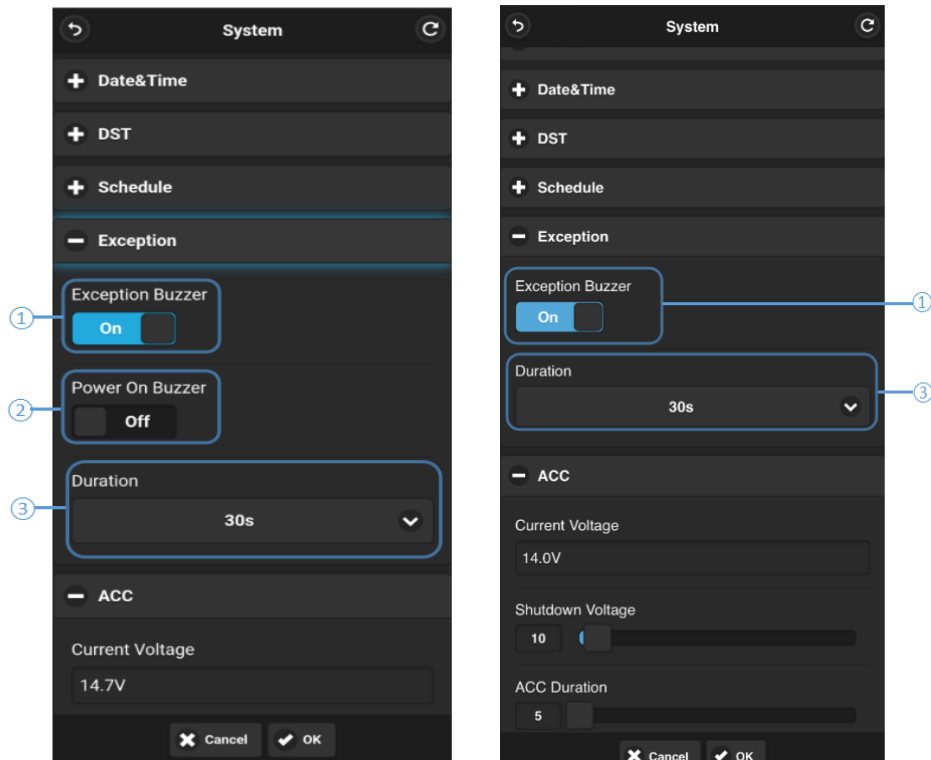
④ **End Time:** set the end time of scheduled recording.

⑤ **Weekday Enable:** select the days for scheduled recording.

4.10.7 Exception Buzzer Settings

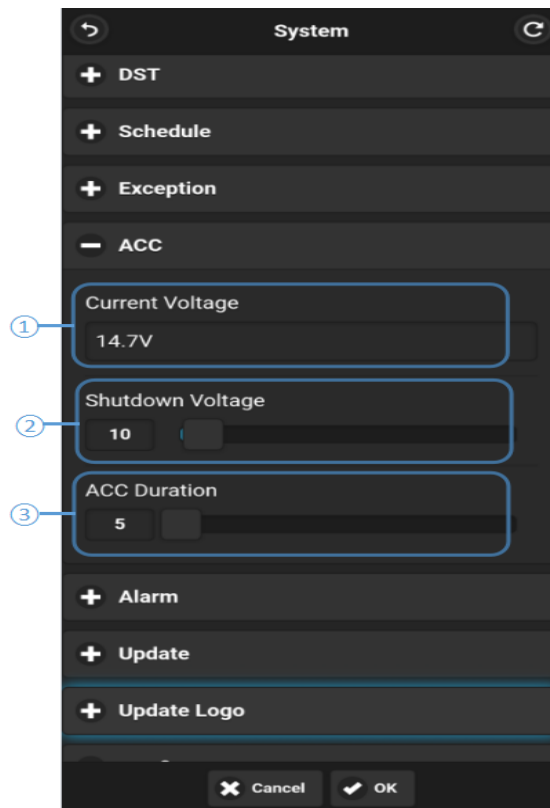
The following left picture is the Exception setting interface of intelligent HD waterproof network MDVR and the right picture is the Exception setting interface of intelligent HD network MDVR.

Compare to the former, the latter doesn't have Power on Buzzer choice.



- ① **Exception Buzzer:** the alarm buzzer can be set to ON/OFF.
- ② **Power On Buzzer:** the power on buzzer can be set to ON/OFF.
- ③ **Duration:** set the interval of the buzzer, 30s, 60s or 90s optional.

4.10.8 ACC Settings



① **Current Voltage:** the current working voltage of the DVR.

② **Shutdown Voltage:** when the current and voltage are lower than the Shutdown Voltage, the DVR will automatically shut down. In this case, the DVR will work for about 1min after cutting the power and power it up again, then we can modify the value of the Shutdown Voltage. However, when the voltage is higher than the Shutdown Voltage, the DVR will not restart and will work normally.

③ **ACC Duration:** DVR will continue to record for a period of time after ACC is disconnected. The ACC delay time can be set from 5s to 3600s.

ACC	Minimum	Maximum	Default
Shutdown Voltage(V)	9	24	10
ACC Duration(s)	5	3600	5

8.4.9 Alarm Settings



intelligent HD waterproof network MDVR/HD waterproof network MDVR

① **Alarm1-Alarm4**: customised alarm recording.

Reverse: reversing alarm recording.

Brake: brake alarm recording.

Left: left turn alarm recording.

Right: right turn alarm recording.

Note: Left: left turn alarm recording; Right: right turn alarm recording are unused temporarily.

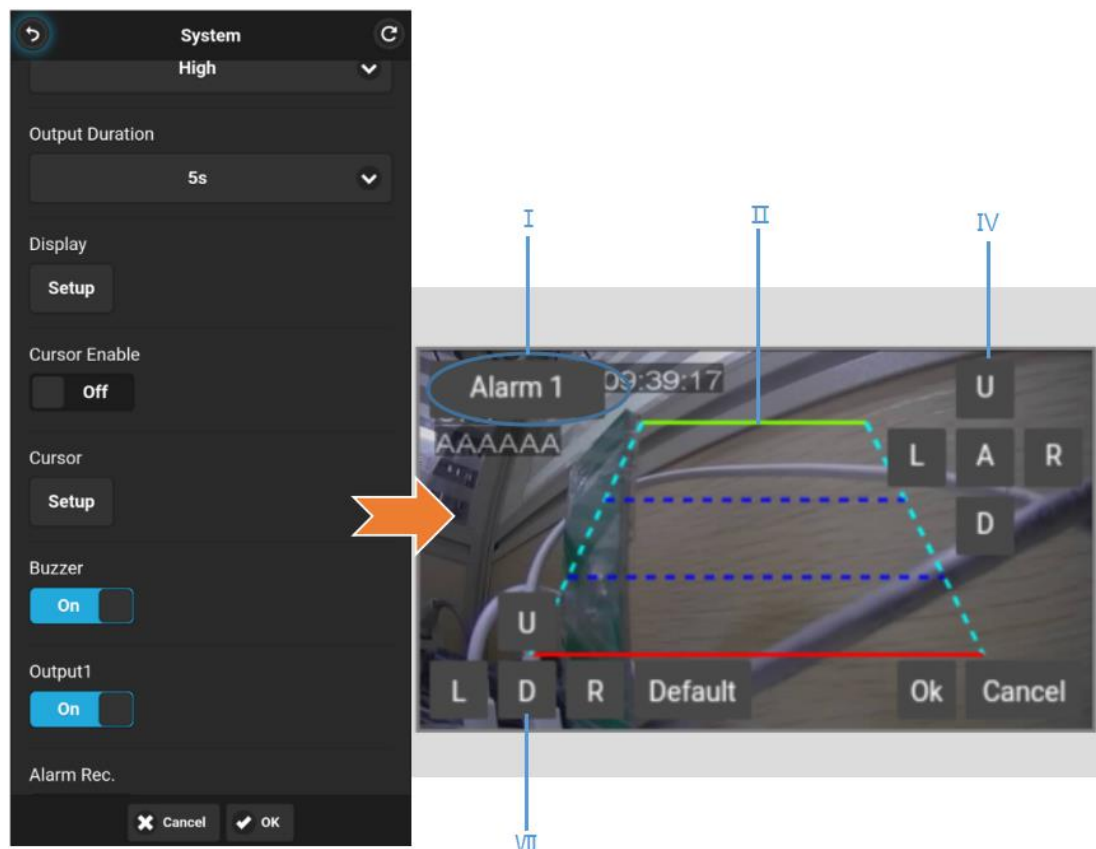
② **Trigger Level**: there are 3 trigger levels. The "Low" and "High" options are used to turn on the alarm function. "Low" means a low electrical level trigger, generally used for debugging. "High" means a high electrical level trigger, used to turn on the alarm function. "Off" refers to turn off the alarm trigger function.

③ **Output Duration**: the displaying duration of "Display", "Cursor" and "Alarm Out". Output

Duration can be selected from 0sec, 5sec, 10sec, 30sec, 60sec, 5min, 10min, 30min, 60min and Always.

④ **Display:** once the alarm is triggered, the selected single channel (Cam1-8), dual channel (CamLR and CamFB) or triple channel (CamLRB) will be in full screen mode. Detailed operation is shown below:

⑤&⑥ are the reversing cursor switch and the button to enter the configuration interface. The operation is shown in the following picture:



I Alarm type

II Cursor line: The selected line will be bolded three times, while the middle two lines will not change.

IV Line selection button: Up (U), Down (D), Left (L), Right (R), All selected (ALL)

VII Click Up (U), Down (D), Left (L) and Right (R) to move the selected line.

(1)When click “U”, the green line can be moved to up, down, left and right.

(2)Click “L” and press the up and down direction keys to move the vertex of the blue line on the left to the right or left. Press the left and right direction keys to move the bottom point of the

mentioned blue line to the left or right.

(3) Click “R” and press the up and down direction keys to move the vertex of the blue line on the right to the right or left. Press the left and right keys to move the bottom point of the mentioned blue line on the right to the left or right.

(4) When click “D”, the red line can be moved to up, down, left and right.

⑦ **Buzzer:** set the buzzer. By default, the buzzer sounds will last for 5 seconds when alarming.

⑧ **Output1:** set to ON, the output of 12V electrical level comes from the alarm wire of Output 1

⑨ **Alarm Rec:** alarm recording switch of the corresponding channel

⑩ **Priority:**

(1) Alarms with higher priority will be triggered first.

(2) 1 represents the highest priority, and 8 represents the lowest priority.

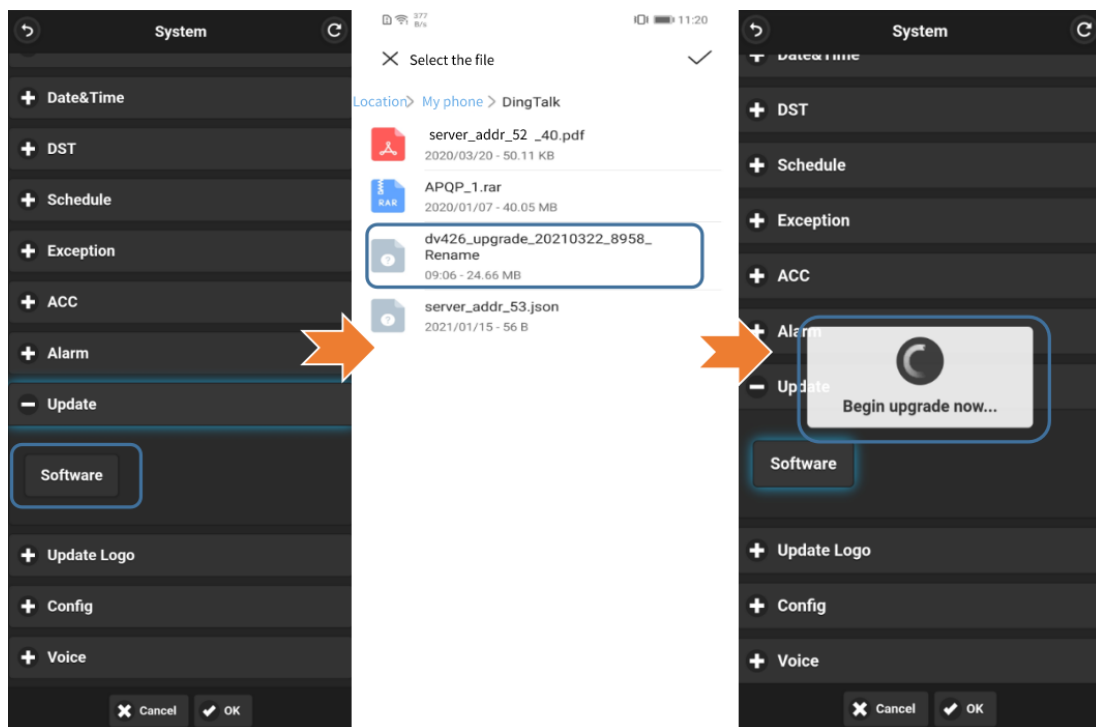
(3) If both A and B alarms are triggered at the same time, A will start recording first if A has a higher priority than B. After A finishes recording, if B is still triggered, B will start recording. If B is not triggered any more, will not start recording.

(4) If alarm B is triggered and is recording, then alarm A is triggered, B will not stop recording even if A has a higher priority.

8.4.10 Update

(1) Download the upgrade package to the mobile phone, make sure its name is correct, if not, rename it.

(2) After selecting the upgrade package, there will be a pop-up box prompting to start the upgrade. The detailed operation is shown in the picture below:

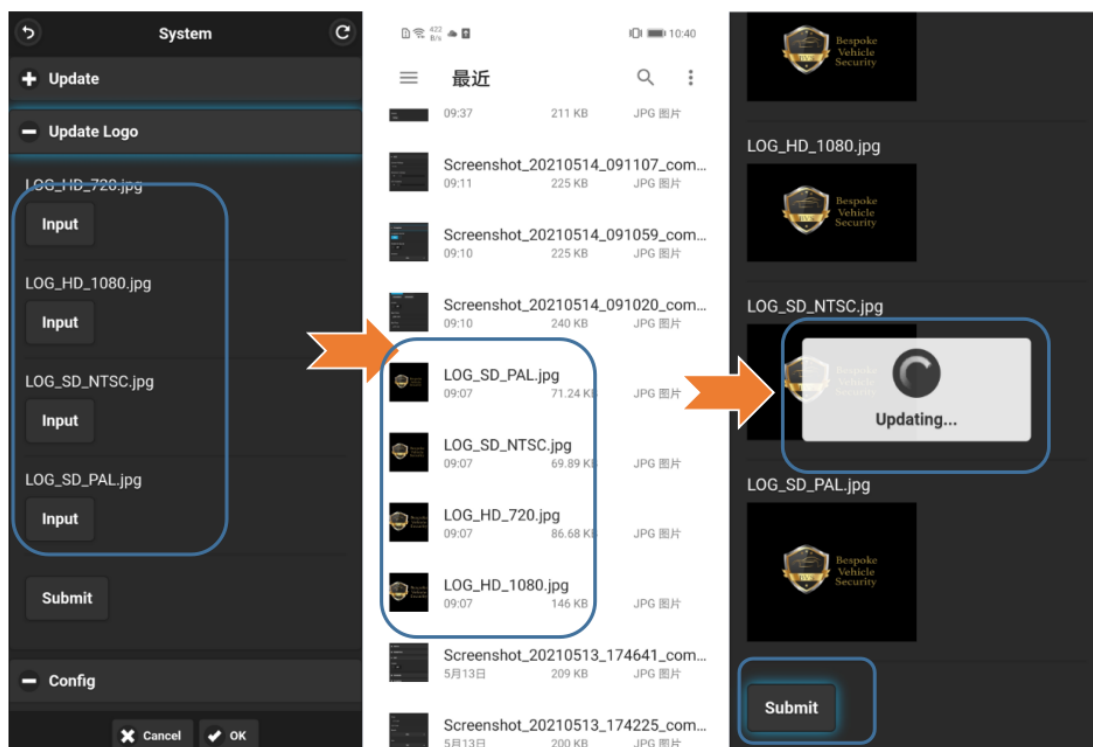


8.4.11 Logo Updating

(1)Download 4 logo images to your mobile phone.

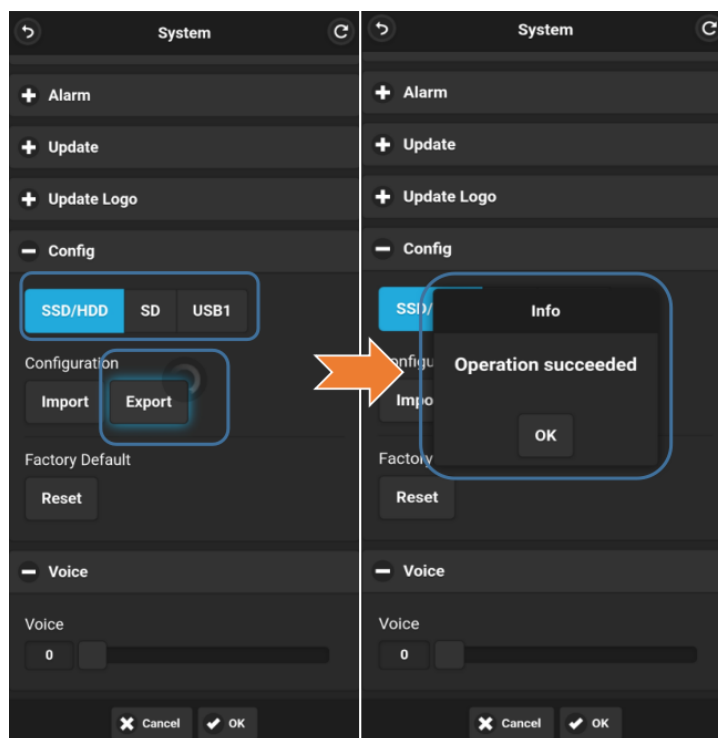
(2)Select the logo of the corresponding format, click “Submit”, a pop-up box will appear

"Updating...". Restart the device, and the new logo will take effect. The detailed operation is shown in the following picture:

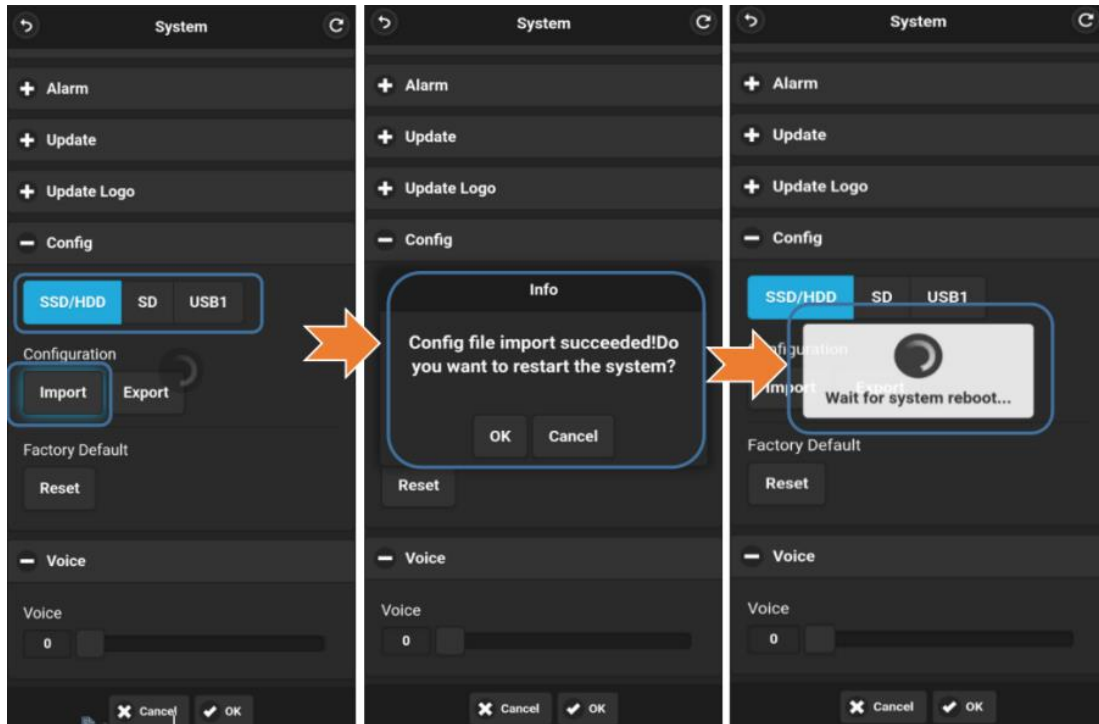


8.4.12 Configuration Information Settings

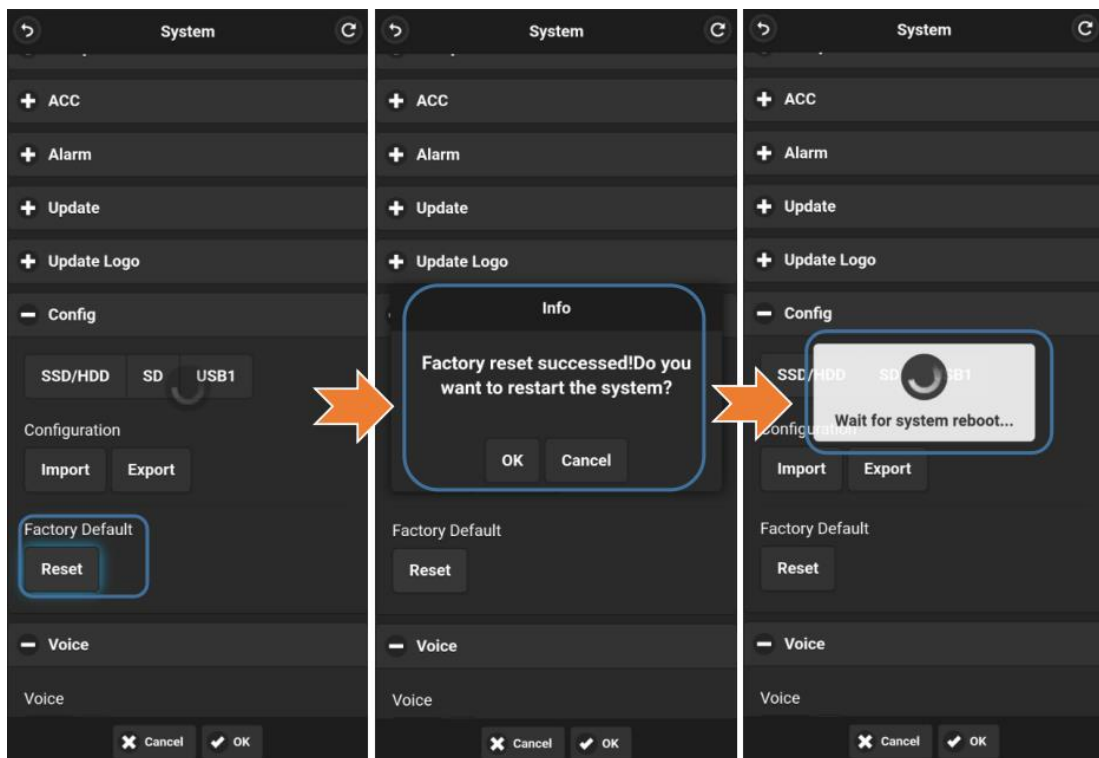
Configuration Export: export configuration information to SD, USB or SSD devices.



Configuration Import: import configuration information from SD, USB or SSD devices.

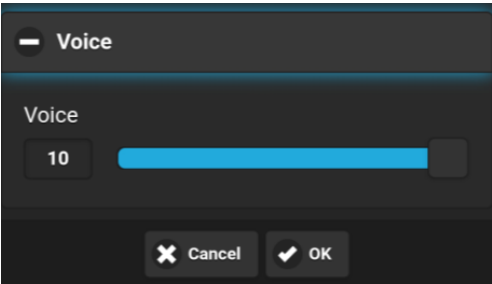


Factory Default: press the “Reset” button to reset the parameters.



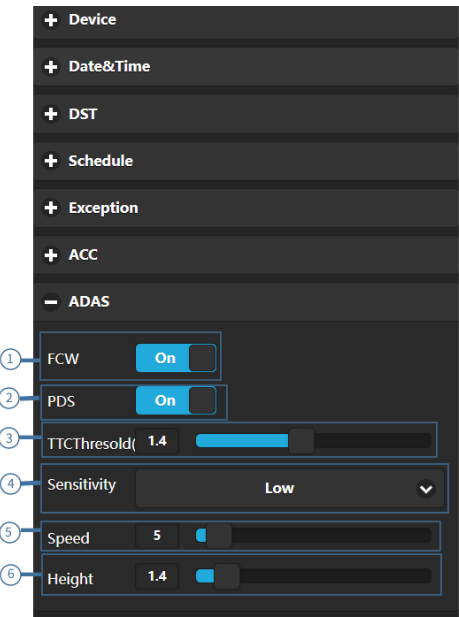
8.4.13 Volume

Volume adjustment: the minimum volume is 0, the maximum is 10. The default is 10.



Function	Minimum	Maximum	Default
Volume	0	10	10

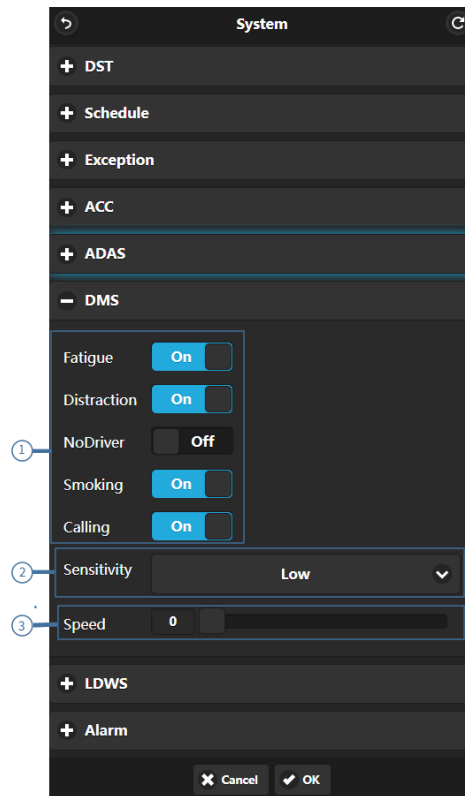
8.4.14 ADAS



- ① **FCW**: forward collision warning algorithm.
- ② **PDS**: pedestrian detection system algorithm.
- ③ **TTC Threshold(s)**: estimated collision time, default is set to 1.4s.
- ④ **Sensitivity**: three sensitivity levels in total, Low/Medium/High, default is set to low.
- ⑤ **Speed**: set the FCW speed. When FCW speed is set to 5, the FCW algorithm can start working only when the speed is greater than or equal to 5km/h. The default value is 5.

- ⑥ **FCW installation:** installed in front of the windshield, the installation height is about 1.4h.

8.4.15 DMS

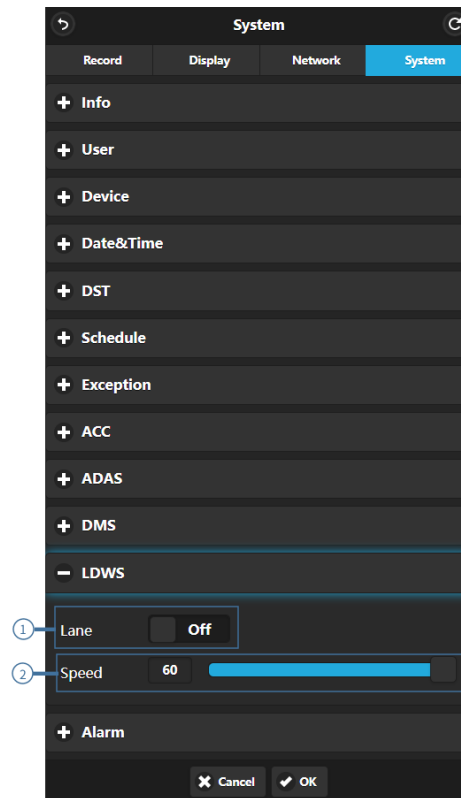


- ① **Alarm Type.**

- ② **Sensitivity:** three sensitivity levels in total, Low/Medium/High, default is set to low.

- ③ **Speed:** set the DMS speed. When DMS speed is set to 60, the DMS algorithm can start working only when the speed is greater than or equal to 60km/h. The default value is 0.

8.4.16 LDWS

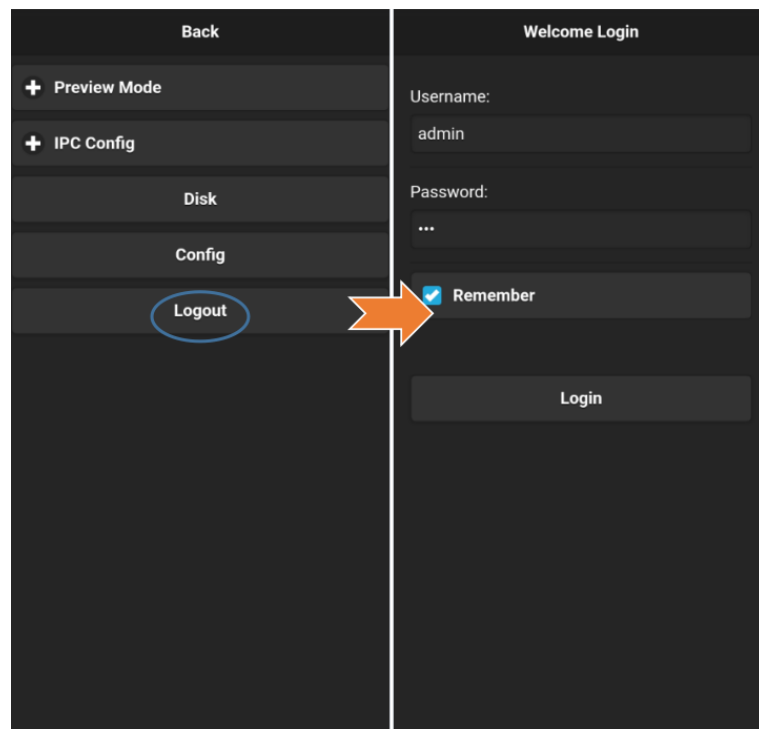


① **LANE:** the lane departs, and the default is set to off.

② **Speed:** set the lane departure algorithm speed. When set to 60, the lane departure algorithm can start working only when the speed is greater than or equal to 60km/h. The default value is 60.

8.5 Exit

Click “Logout” to exit the WEB UI interface and return to the login interface, as shown below:



Federal Communication Commission (FCC) Radiation Exposure Statement

When using the product, maintain a distance of 20cm from the body to ensure compliance with RF exposure requirements.

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications or changes to this equipment. Such modifications or changes could void the user's authority to operate the equipment.

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

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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

IC Statement:

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions:

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

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

- (1) l'appareil ne doit pas produire de brouillage, et
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radio électrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Radiation Exposure Statement:

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Déclaration d'exposition aux radiations:

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.

FCC ID:2ASYXIIVS2, IC:24938-IIVS2