

## M10/M10PRO



### Product Instructions



Preface

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Please read this manual first to ensure correct use and normal function of the required functions.



Warning: Situations that may affect the safety of or injure the user of the device



Special attention: There may be situations where data integrity is destroyed and device firmware and hardware are damaged



Notes: additional instructions, definitions of terms, etc.

date	Revision	Change Description	author
2025 / 3 / 31	V0.0.1	Product Instructions	Feng Kaifan

1. Installation and Debugging .....	1
1.1 MOBILE APPS INSTALLATION	1
1.2 Equipment engineering installation error! Bookmark not defined.	
2. Operation .....	1
2.1 Panel Status Light Description	1
2.2 Device Login and Logout	
2.3 General Information View	4
2.4 Real-time Preview	8
2.4.1 Real-time Preview	8
2.4.2 AI Calibration	8
2.5 Video playback	22
2.5.1 Video playback	22
2.5.2 Video Export	24
2.6 Basic Configuration	26
2.6.1 Registration Information	27
2.6.2 Time Settings	27
2.6.3 Power On/Off Settings	30
2.6.4 User Settings	32
2.6.5 Network Settings	33
2.6.6 Network Applications	41
2.6.7 Sound Settings	42
2.6.8 Telephone Management	43
2.6.9 Face Comparison	43
2.7 Video Settings	44
2.7.1 Preview	44
2.7.2 Recording	46
2.7.3 IPC Settings	54
2.7.4 Camera Settings	54

2.8 Data Collection	55
2.8.1 General Settings	55
2.8.2 Snapshot Settings	63
2.9 Alarm Settings	65
2.9.1 Basic alarms	66
2.9.2 Video Alarm	70
2.9.3 Advanced Alarms	73
2.9.4 AI Class Alarm	76
3. Special function operation instructions.....	Error! Bookmark not defined.
3.1 The description of the privacy protection function is incorrect! Bookmark not defined.	
3.1.1 Function description error! Bookmark not defined.	
3.1.2 Related configuration error! Bookmark not defined.	
3.1.3 Incorrect usage ! Bookmark not defined.	
4. Fault Analysis and Troubleshooting.....	86
4.1 The device cannot be turned on	86
4.2 The device cannot connect to the Internet after booting up	86
4.3 The device cannot record after powering on.	
4.4 The device analog channel does not display the image after being plugged into the camera	87
5. Appendix.....	87
5.1 Explanation of Terminology	87

List of abbreviations:

English explanation	of abbreviations	Chinese explanation
1920P	resolution ratio 2560×1920	Resolution 2560×1920
ADAS	Advanced Driving Assistance System	Advanced Driver Assistance Systems
DSC	Driving Safety Cockpit	Safety cockpit
DMS	Driver Monitoring System	Driver Detection System
VBR	Variable Bit Rate	Dynamic bitrate
CBR	Constants Bit Rate	Constant bit rate

## 1. Installation and debugging

### 1.1 Mobile Apps Installation

Android phone users please search "Veyes" in the Google Play Store and download and install it

IOS phone users please search for "Veyes" in the APP store and download and install









Special note: Mobile Apps has restrictions on system versions, requiring Android 5.0 or IOS 11 and above

System version; the following operations take Android as an example, and the installation effect will not be demonstrated separately here.

## 2. Operation

### 2.1 Panel Status Light Description

LED status	
Power status light	<p><b>PWR</b></p>  Light off/blue light
	<p>Off: Indicates that the device is not powered</p> <p>Steady blue: The device is powered normally.</p>
USB signal light	<p><b>USB</b></p>  Off/Flashing/Solid green
	<p>Off: Indicates that there is no USB drive inserted into the device</p> <p>Green light: The device has detected a USB flash drive.</p> <p>Green flashing (frequency 1Hz): Indicates that the device has read and write operations on the USB disk</p>
Alarm indicator light	<p><b>ALM</b></p>  Light off/red light
	<p>Off: Indicates that the device has not generated an alarm</p> <p>The red light flashes three times: Indicates that the device has an alarm</p>

Error status light	 Light off/red light steady on Light off: off in other states The red light is always on: The hard disk and encryption chip are not obtained
Recording status light	 Light off/red light Off: Indicates the camera is recording normally The red light is always on: the camera is recording stopped or is faulty. * Recording enable (main stream, sub stream) is turned on, and it will remind you when it detects that the video is not being recorded. (Main stream, sub stream) Enable or disable to process as normal recording status.
Network status light	 Light off/red light Off: Indicates the device is connected to the server normally The red light is always on: It means the device is connected to the server abnormally Flashing red (once per second): indicates the device has entered airplane mode Airplane mode: When a vehicle enters a gas station, the wireless signal of the device is turned off to ensure safety.

## 2.2 Device Login and Logout

1. Turn on the device's WIFI in AP mode: The device starts up within 3 minutes and the WIFI is in AP mode, or the device starts up and then

Click the front panel button to start AP mode.

2. Turn on the WIFI on your phone, open Veyes and click the [Search] button to enter the WIFI hotspot search interface and select the corresponding

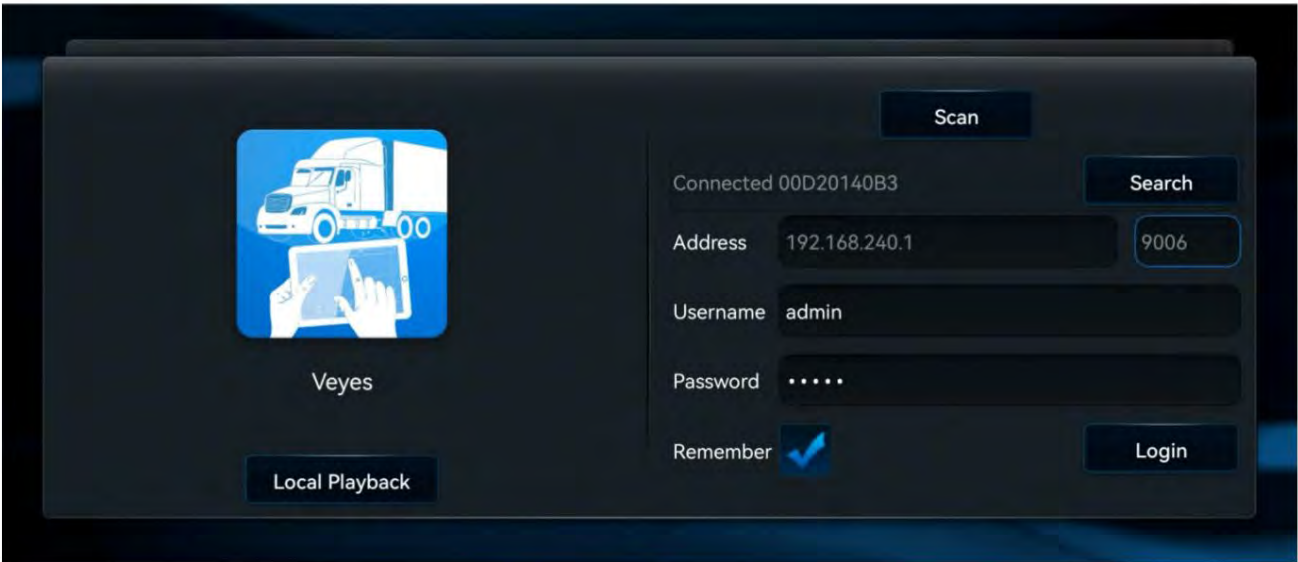
Hotspot. When logging in for the first time, the WIFI hotspot name is named after the device SerialNum number (the device label can be found

SerialNum), if the license plate number is not empty, the hotspot name is the license plate number.

3. On the login interface, enter the corresponding user name and password and click Login to enter the operation interface. Default Username/Password

is: admin/admin.





4. Click the [Login] button to enter the operation interface, as shown below:



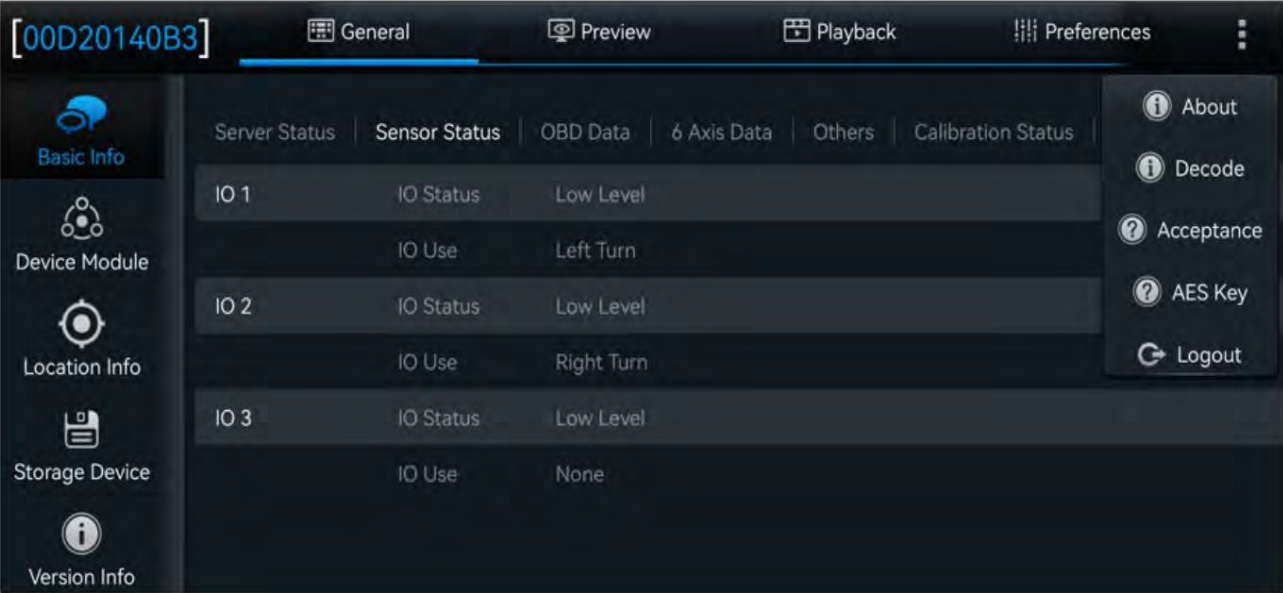
5. Click the upper right corner to view help information, APP version, and log out. Click [Logout] to log out.

Click [Help] to view Veyes help document, click [About] to view manual

Veyes version information

Acceptance: Acceptance mode. When the device has no speed and cannot trigger an alarm, you can choose to enter the acceptance mode.

Preset a speed for the device.



2.3 General Information View

The general interface is mainly used to view the real-time status and version information of the device, import and export parameters and log files, and software

Software upgrades, etc.

• Basic information: mainly used to view the server connection status of the device, IO high and low level status and purpose, OBD data,

G-sensor data, ACC status, pulse status, device status, and algorithm channel calibration status.


[00D20140B3]


General


Preview


Playback


Preferences

Basic Info

Device Module

Location Info

Storage Device

Version Info

Server Status | **Sensor Status** | OBD Data | 6 Axis Data | Others | Calibration Status

IO 1

IO Status

Low Level

IO Use

Left Turn

IO 2

IO Status

Low Level

IO Use

Right Turn

IO 3

IO Status

Low Level

IO Use

None

Device module: used to view the status of the device's WIFI, 3/4G, and positioning modules.

[00D20140B3]

General

Preview

Playback

Preferences

Basic Info

Device Module

Storage Device

Version Info

Other

Communication Module

Module Status

Not Existed

SIM Card Status

Invalid

Dial Status

Unknown

Model

Unknown

Network Type

Unknown

Signal



IPV4

Unknown

Version Info

EC25ECGAR06A05M1G

Positioning information: used to check the satellite positioning signal quality of the device, helping installation and maintenance personnel to evaluate the device positioning capability and

Positioning quality, so as to perform corresponding maintenance actions. In this interface, the top line shows the number of valid satellites and satellite

Total, PRN in the list below indicates the satellite number, and GNSS indicates which global satellite navigation system the satellite belongs to.

(GPS, GLONASS, GALILEO), SNR stands for signal-to-noise ratio, which is a parameter that reflects the quality of satellite positioning signals.

Direction angle indicates the satellite azimuth angle, and Altitude angle indicates the satellite altitude angle.



Note: This interface will only be displayed when the GPS raw data recording command is turned on.

Instructions for use in [Preferences] > [Collection] > [General] > [Location].

[00D20140B3]

General

Preview

Playback

Preferences

Basic Info

Device Module

Location Info

Storage Device

Version Info

Valid number of satellites/number of satellites: 46/53

PRN	GNSS	SNR	Direction angle	Altitude angle
194	GPS	44dB	100°	62°
195	GPS	42dB	50°	62°
14	GPS	44dB	344°	62°
199	GPS	36dB	149°	60°
41	GPS	36dB	237°	46°
30	GPS	40dB	231°	45°
17	GPS	45dB	319°	42°

Storage device: Check the device storage status and format it. Click the format button and a prompt will pop up.

Click OK to execute the formatting.

[00D20140B3]

General

Preview

Playback

Preferences

Basic Info

Device Module

Location Info

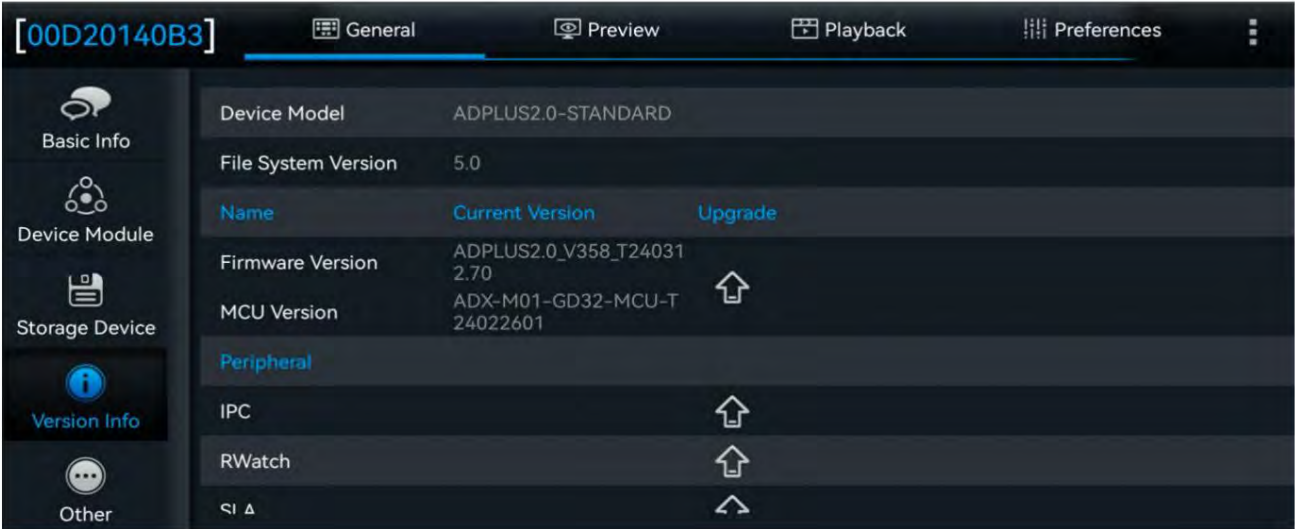
Storage Device

Version Info

Storage Name	Status	Remain/Total	Formatting
Internal SD Card 1	Recording	1.7 GB/250.3 GB	
Internal SD Card 2	Recording	127.0 GB/250.3 GB	


Version Information: You can view the software version information.

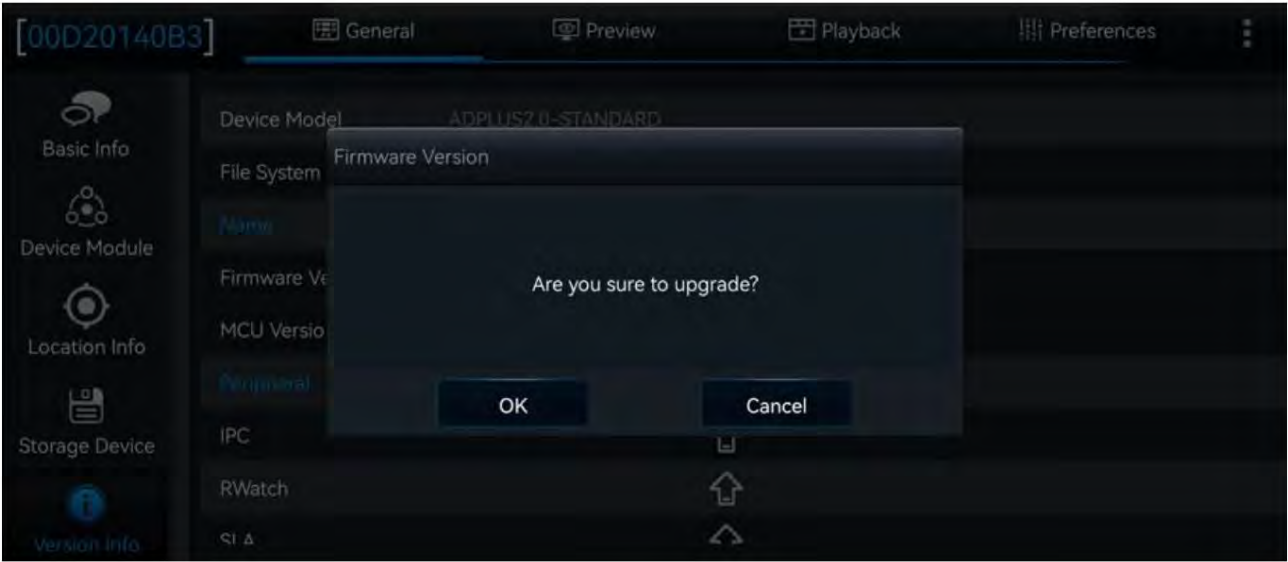




In the version information interface, you can check the host version, IPC version, R-Watch version, sound and light alarm version, communication module,

Local upgrade of GPS or power box version. You need to put the upgrade file in the root directory of U disk upgrade and connect the U disk to

When upgrading, click the button and a firmation dialog box will pop up. Click [OK] to start the upgrade.



Note: In the version information interface, there are ways to locally change the AI alarm voice content.

Please contact your local agent or technical support for relevant operation instructions to avoid importing audio files that do not meet the requirements.

This causes the alarm reminder function to become abnormal.

Others: data and configuration import and export, factory reset, device restart.

Connect an external USB drive to the device.



1. Alarm logs, user logs and black box files can be exported;
2. Export the alarm snapshot pictures at the selected time;
3. Import and export geo-fence information;
4. Can import and export AI configuration files;
5. Can import and export parameter configuration files;
6. You can restore the default settings;
7. Print data within a selectable time period can be exported;
8. You can reboot the device.

## 2.4 Real-time Preview

The preview interface allows you to view real-time images, turn on/off the sound, turn on/off the grid, and perform AI calibration operations.

### 2.4.1 Real-time Preview

In the preview interface, you can view the recording status of each channel of the device in real time. Double-click a channel preview screen to zoom in and view the preview of that channel.

Double-click again to return. If the camera is not connected or the camera channel is damaged, "VIDEO LOSS" will be displayed.

### 2.4.2 AI Calibration

ADAS calibration requires on-site measurement of ADAS lens installation height, left margin, vehicle front width, and vehicle front length.

Preferences>Alarm>AI App>Calibration Parameter. This chapter introduces the general

Guided calibration method, ADAS algorithm calibration method from the preview interface and external DMS lens (optional) calibration method.

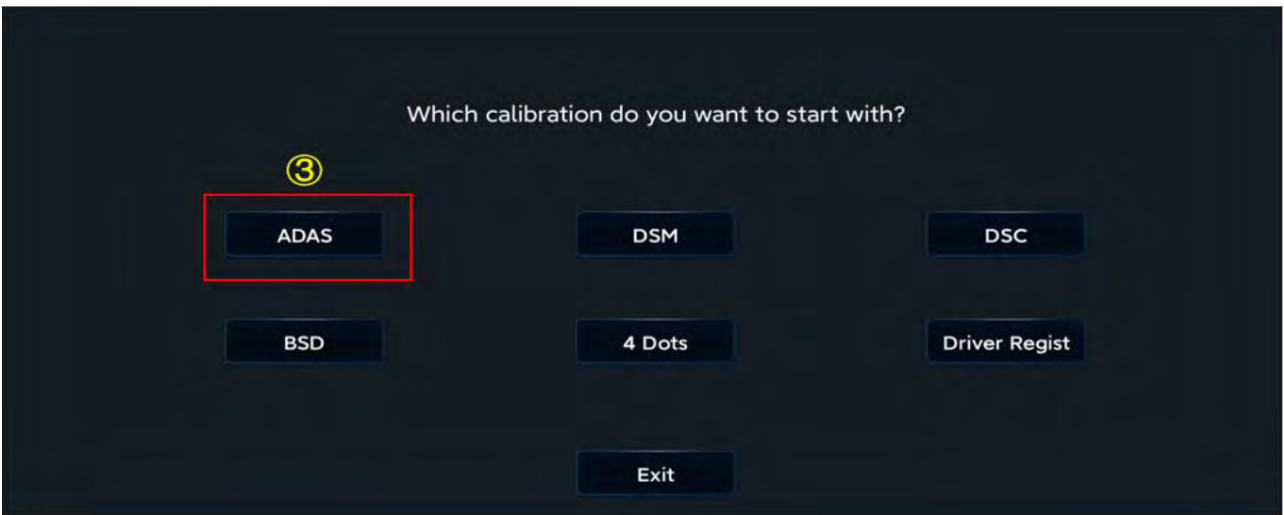
2.4.2.1 ADAS Calibration

Click [Preview] on the homepage to enter the preview interface

Click [AI Calibration] in the lower left corner to enter the calibration selection



Select [ADAS] for calibration



Select channel 1

Click [Calibration] to proceed to the next step



Click [Calibration] to enter the calibration mode.

Click [Next] to proceed to the next step.



Input the vertical height of the front camera from the ground and the horizontal distance from the front camera to the outer edge of the leftmost tire of the vehicle (standing outside the vehicle facing

Left side of the front of the vehicle), front width and front length (units can be selected in centimeters or inches, please refer to the example on the right for size measurement,

In addition, this step adds the lane departure warning sensitivity setting.

During installation, the operator can select the appropriate sensitivity according to the vehicle model to make the alarm more accurate.

Wire alarm (low), wire pressure alarm (medium), and wire pressure warning (high) are optional, and the default sensitivity is medium.

Click [Next] to proceed to the next step.

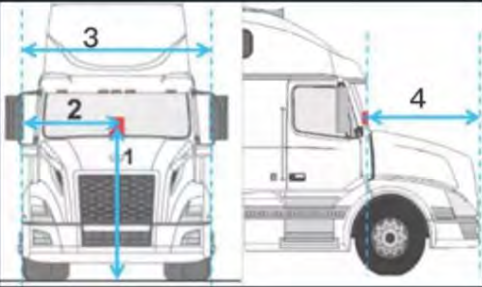


Please input the installation position of ADAS camera :

Unit ☒ cm ☐ inch

ADAS Camera Install Height (1)	153	(50-400)
Left margin(inward facing) (2)	40	(40-170)
Front-end Width (3)	140	(140-350)
Front-end Length (4)	100	(0-250)
LDW Sensitivity	Middle	

Next



Click [Next] to proceed to the next step. (Click [Learn more] to view calibration instructions)

If you don't know how to calibration ADAS, please click button to learn more.

Learn more

If you know how to calibrate, please tap "Next" to start calibration.

Previous

Next

Click [Next] to proceed to the next step



• Prompt to confirm——check

• Select the corresponding speed source

• Left Turn: Select the wiring corresponding to the left turn signal, Right Turn: Select the wiring corresponding to the right turn signal

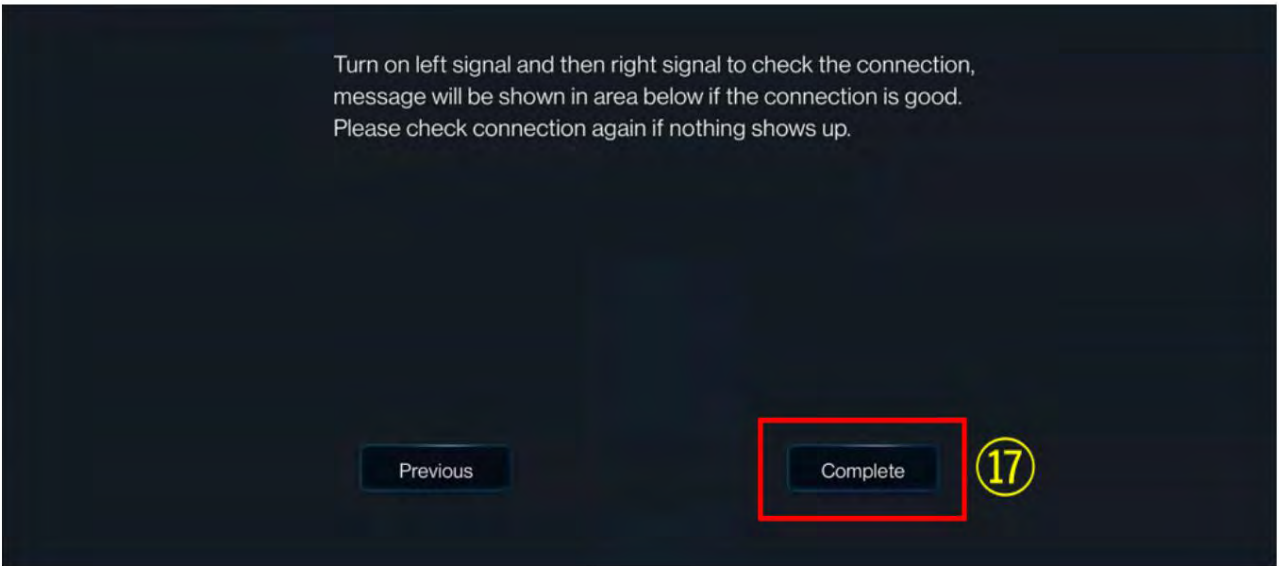
• Select the signal source type: [Source Voltage] level signal, [Source Pulse] pulse signal, usually pulse

Impulse signal source

• Click [Next] to proceed to the next step



• After checking that the left and right turn signals are normal, click [Complete] to complete the ADAS camera calibration.



2.4.2.2 DMS Calibration

The recommended DMS camera model is C29N. C29N is a camera with 0.7T intelligent computing power, which can provide professional-grade DSM functions.

Its built-in face center area exposure function can cope with various complex lighting scenes (slanting sunlight, reflections, etc.)

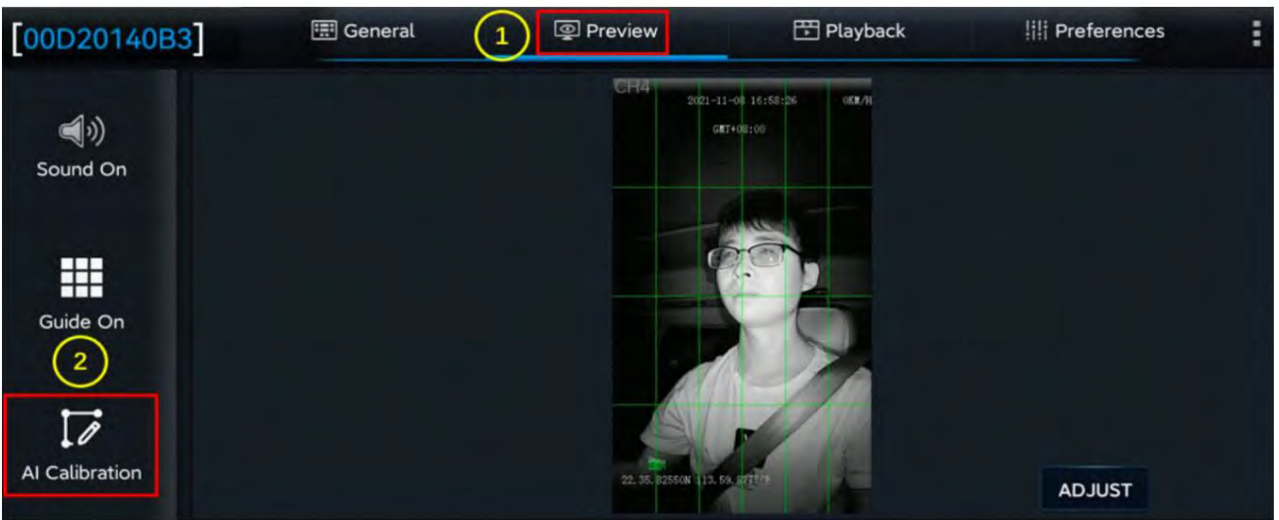
Light-absorbing clothing, black light-absorbing clothing, etc.), with built-in G-Sensor, supports left and right A-pillar installation and table installation, and can automatically and flexibly adjust

The image can be adjusted to suit different installation conditions. It can cover scenes where the camera is 50-100cm away from the face, meeting the installation requirements of various vehicle models.

Select the installation method according to the actual situation, install the C29N correctly according to the specifications, and then perform DMS calibration.

Click [Preview] on the homepage to enter the preview interface

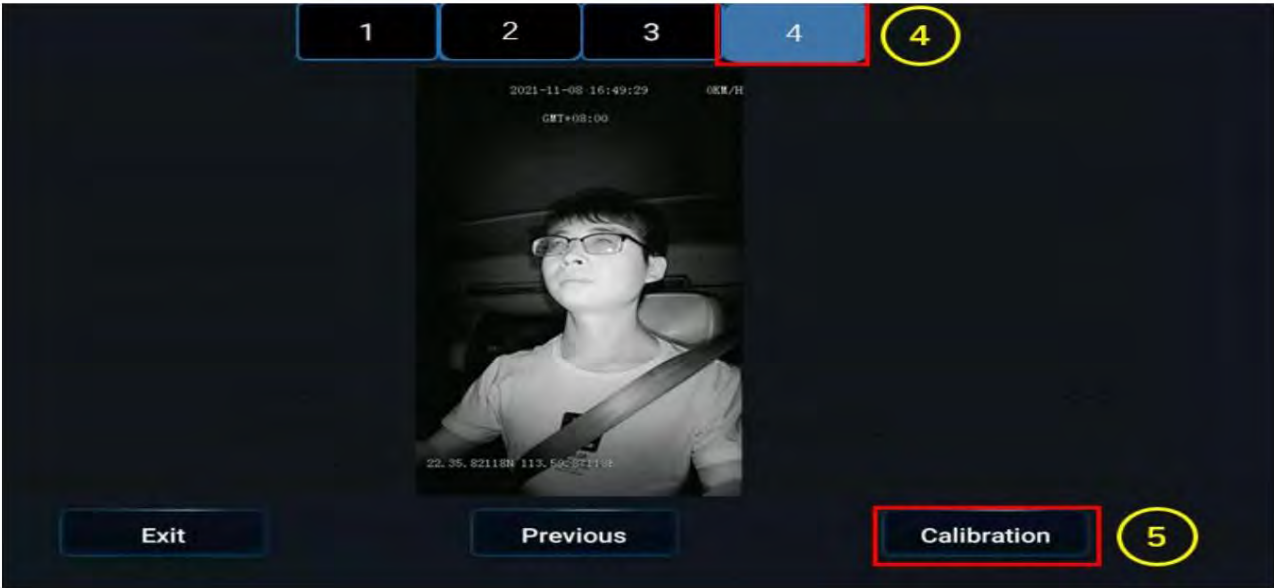
Click [AI Calibration] to enter the calibration selection



Select [DMS] for calibration

Select the channel corresponding to the DMS camera

Click [Calibration] to proceed to the next step



Prompt to confirm—click [Next] to proceed to the next step





7 Select the DMS camera installation position, there are left A-pillar installation, right A-pillar installation, table installation, table side installation,

If you have any questions, please click on each option in turn and refer to the legend and instructions on the right.

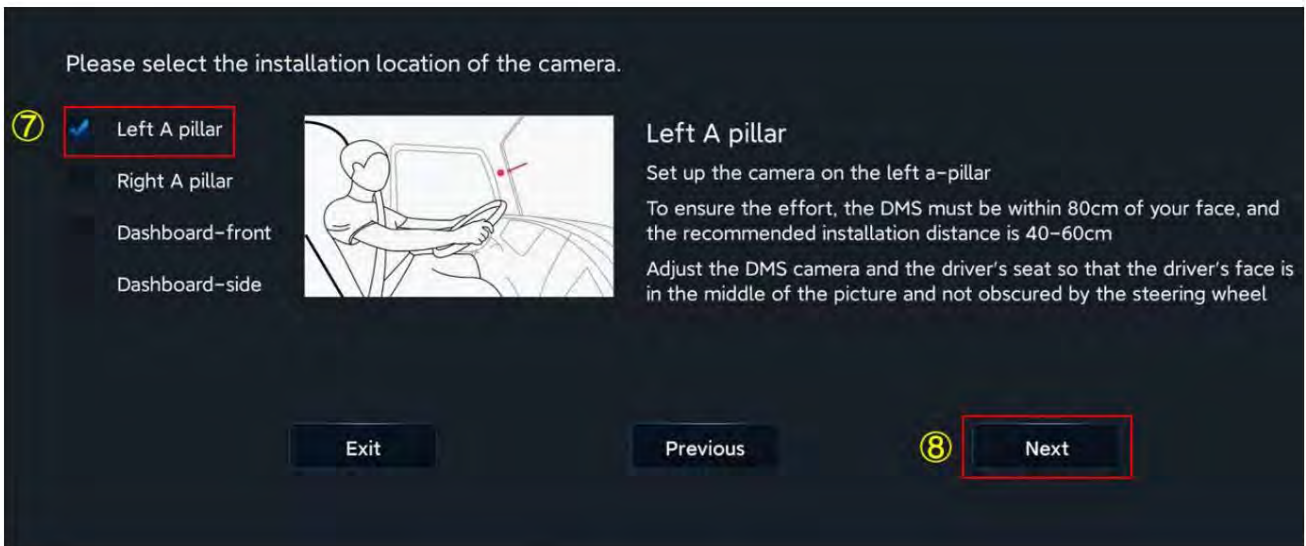
After selecting the corresponding installation method, the software will automatically associate the calibration method with the installation method, without the need to manually select the calibration method.

Methods (left A-pillar installation (glass), right A-pillar installation (glass), table side installation are all side calibration, table

Formal wear is marked on the front).



Special note: This step is very important. The installation method must be consistent with the actual installation method.



Special note: Before clicking [Next] to enter the formal calibration, the driver should sit in the normal driving posture.

And look straight ahead.

Click [Next] to proceed to the next step for automatic face calibration

During the calibration process, please be sure to follow normal driving habits and sitting posture, and keep your eyes straight ahead and keep still.

The intelligent algorithm will automatically learn the driver's facial deflection angle and the location of each facial feature data during the side calibration process.

If the face moves during calibration, calibration will be automatically restarted.



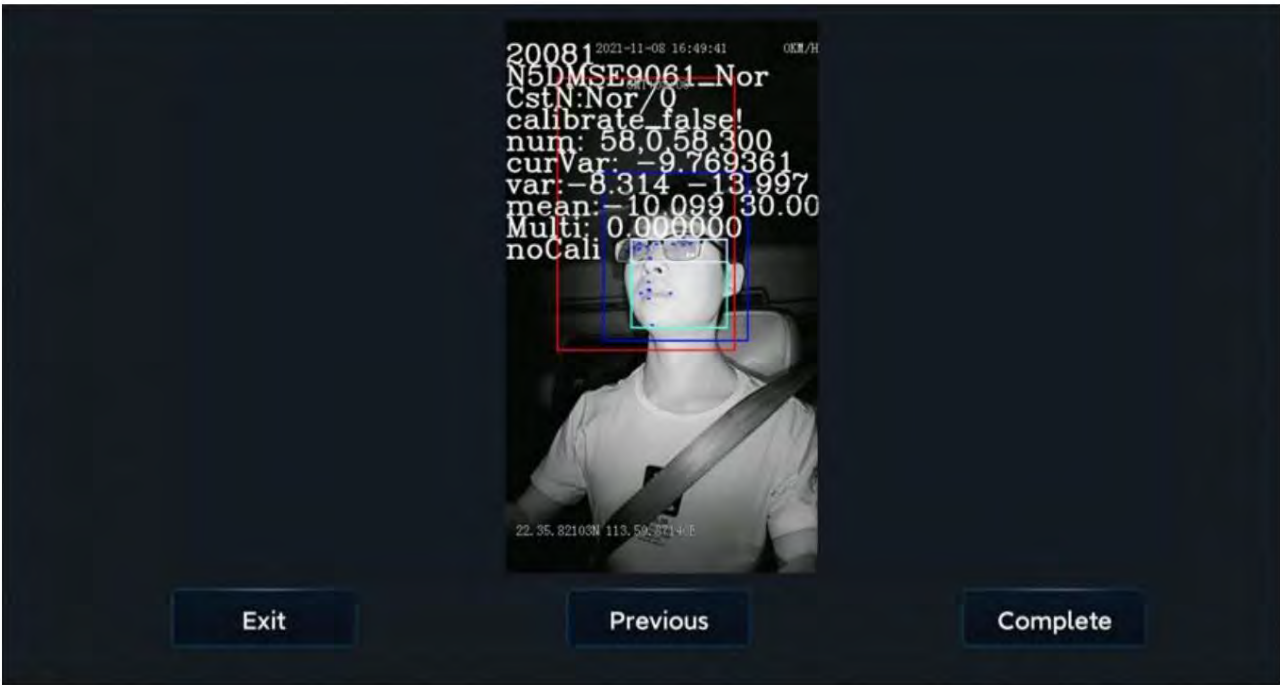
Special attention: When installing on the left A-pillar, right A-pillar, or table side, the face and camera must be

Calibration can only be completed with an angle. In tabletop formal wear, the face must be directly in front of the camera to complete calibration.

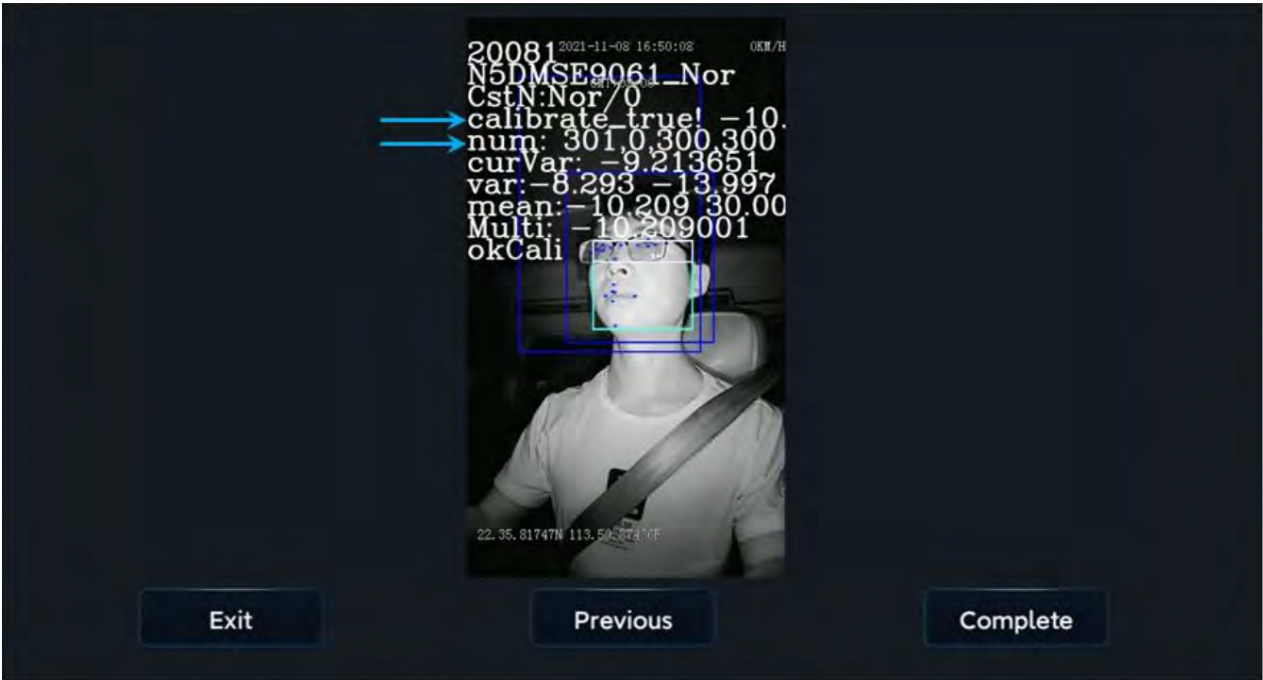
Sit back and wait for the device to automatically calibrate. When the NUM value reaches 301 for side-mounted calibration (when the NUM value reaches 301 for front-mounted calibration),

When the value reaches 51), the calibration frame changes from red to blue, and the automatic calibration is completed.

During calibration:



Calibration completed:



Click the [Finish] button to complete the calibration and exit the calibration mode.

After the actual calibration of each algorithm channel is completed, you can use Veyes to check whether the calibration is successful. Click on the Veyes interface

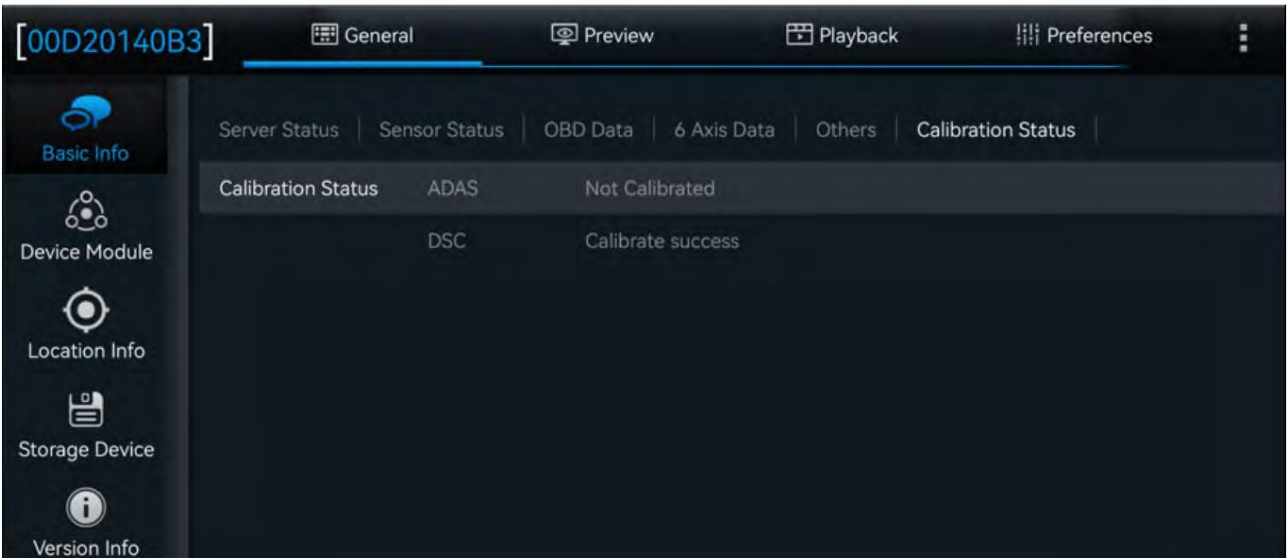
[General]>[Basic info]>[Calibration Status] to check whether each channel has been calibrated successfully.



Special Note:

- 1) Only channels with algorithm enabled will display the calibration status. The calibration status can be uncalibrated or successfully calibrated.
- 2) Since ADAS is automatically calibrated, and the automatic calibration requires the vehicle to be driven for a period of time to complete,

Even after setting the parameters, you cannot immediately see the status prompt that the ADAS calibration is successful.



2.4.2.3 BSD Calibration (Customized Software Support)

2.4.2.3.1 Top-down installation calibration

Overhead installation, namely front overhead installation, right overhead installation and left overhead installation, the principle and steps of left and right overhead installation and calibration

The camera used is miniC24, and the camera installation effect is shown in the figure below.



Installation location

The camera should be installed on the top of the vehicle head, the installation height should be between 240-320cm , the best height is 270-300cm.

When placing the camera, avoid placing it too close to the side blind mirror, which may cause the image to be blocked too much by the side blind mirror.

Imaging adjustment

Rotate the camera's ball head, and the image after installation should cover the pedestrian detection area, and the pedestrian detection area should be as small as possible.

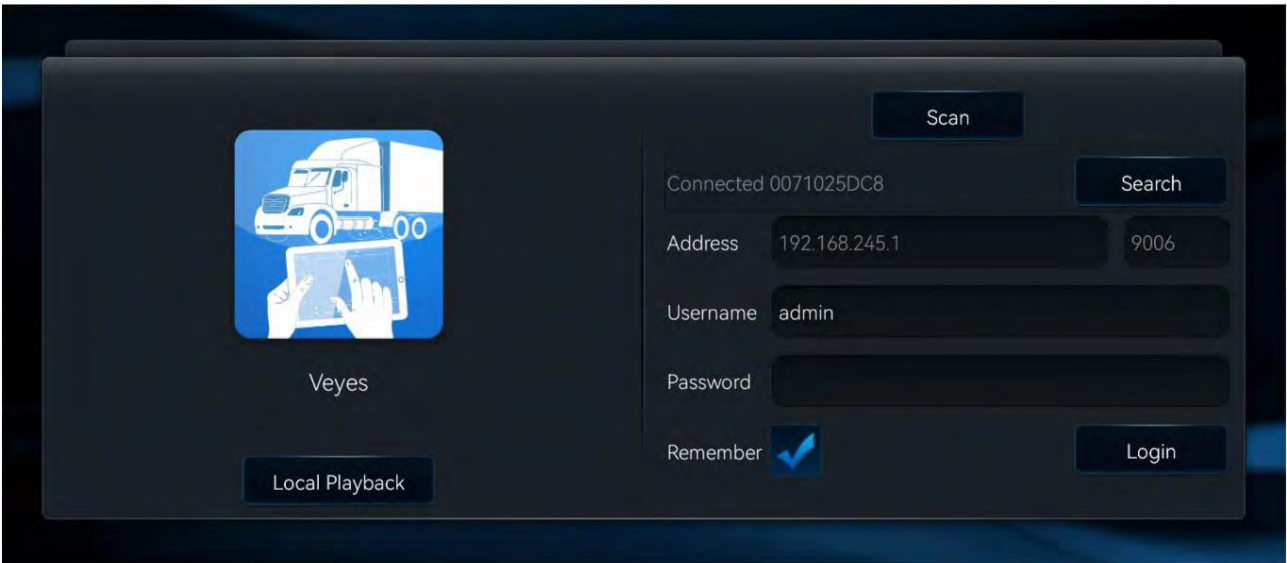
The amount is in the center of the image





[Calibration and debugging]

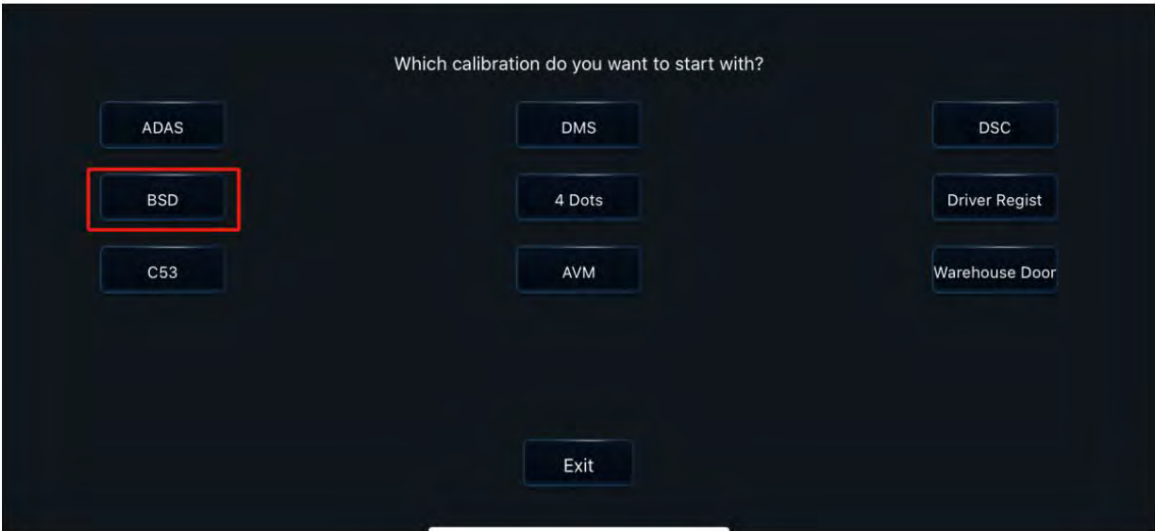
**Step 1:** Connect your phone to the device hotspot, enter Yunweibao, enter your username and password, and click Login



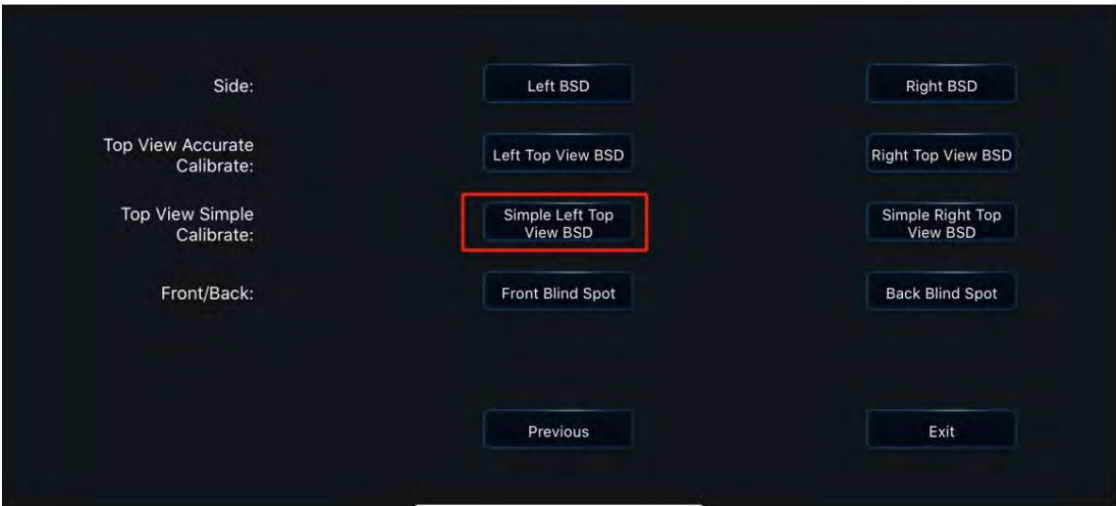
**Step 2:** After logging into Yunweibao, click [Preview Interface] to display the channel screen, then click [AI Calibration]



Step 3: Click [BSD]



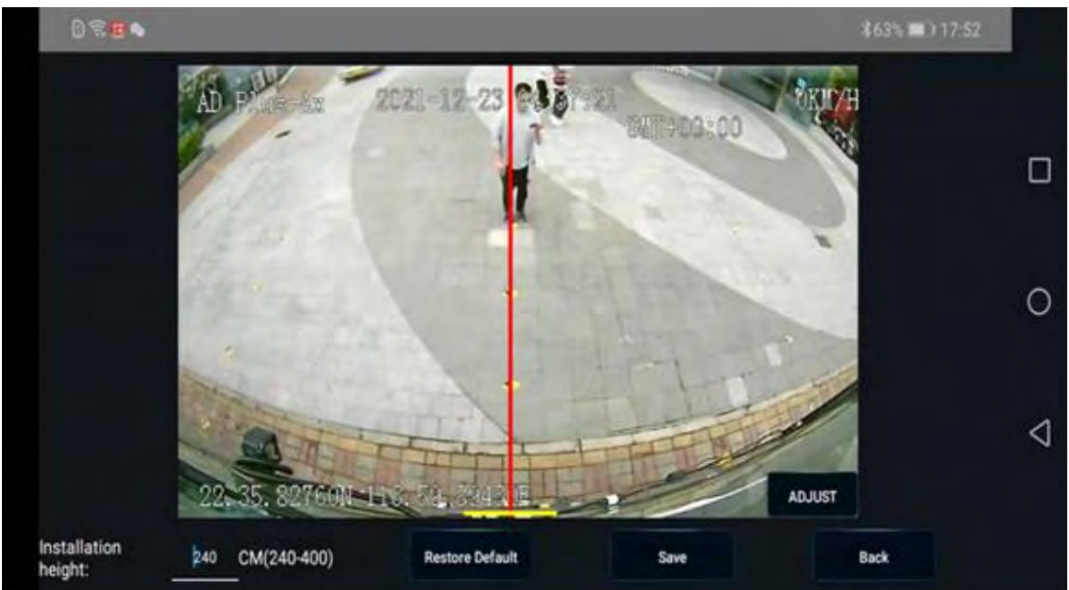
Step 4: Click [Simple Left Top View BSD]



Step 5: Select the channel to which the camera is connected



Step 6: Place the yellow line close to the side edge of the vehicle body and enter the installation height.



Special Note:

When rotating the camera's ball head, the bottom edge of the image should be close to the lower right edge of the vehicle.

Do not make the vehicle body not appear in the picture. This installation method cannot monitor and cover the right blind spot.

Do not allow the vehicle body to appear too much at the bottom of the image. This installation method will reflect infrared light at night and the image will be too dark.

Violence leads to recognition failure.

#### 5.4.2.4 Algorithm Confirmation

After the actual calibration of each algorithm channel is completed, you can use Veyes to check whether the calibration is successful. Click on the Veyes interface

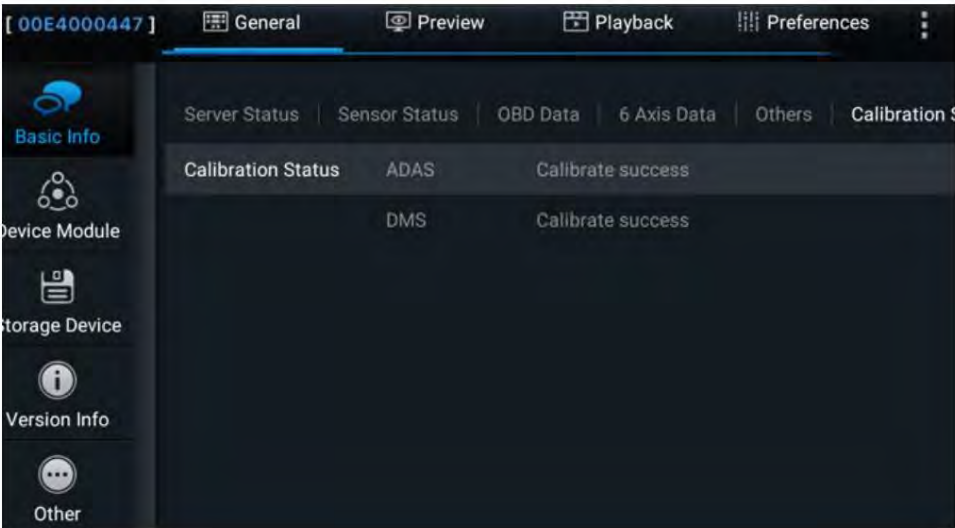
[General]>[Basic info]>[Calibration Status] to check whether each channel has been calibrated successfully.



Special Note:

- 1) Only channels with algorithm enabled will display the calibration status. The calibration status can be uncalibrated or successfully calibrated.
- 2) Since both ADAS and DMS are automatically calibrated, and automatic calibration requires the vehicle to be actually driven for a period of time to complete,

Therefore, even if the parameters are configured, you cannot immediately see the status prompt that the ADAS and DMS calibration is successful.



## 2.5 Video Playback

### 2.5.1 Video Playback

The playback interface can be used to search the main/sub-records in the main/sub-records within a certain date.

SD card, the sub-stream will be stored in the sub-storage, you need to select the sub-storage sub-stream recording to search for the sub-stream

(For details on the usage scenarios of the main and sub-streams, please see the Appendix Glossary).





On the playback interface, select the time you want to view the playback through the calendar. On the left side of the interface, you can select the year and month.



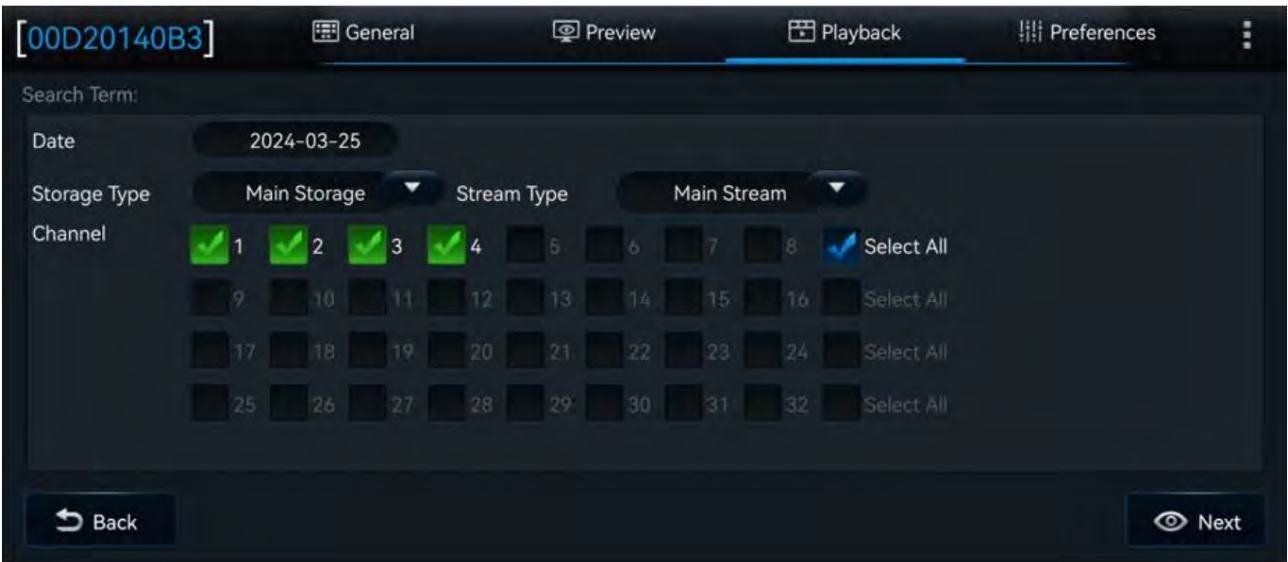
To select different years and months. In the calendar, the color bar at the bottom of the date marks the day with video recording.

middle:

No color bar means there is	no video recording on that day
green	Indicates that there is normal video recording on that day
red	Said there was a video of the alarm that day
yellow	Indicates that there is an alarm recording on that day and a file is automatically locked (locked recording)

Click the date in the calendar where you want to view the video, and enter the following interface. You can select the channel where you want to view the video, or you can repeat it on this interface.

Select the date and type of video to view, and click Next when finished.

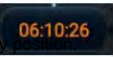




After selecting the channel, you can select the playback time by dragging the time bar and click [Play] to play the video.

Double-click the screen to hide the operation interface and enlarge the playback interface.

• Timeline:

1) The time axis at the top displays time in 1-hour intervals;

2) The timeline below can be dragged to any time point. 


3) Click on the upper left corner of the interface to reduce the time interval unit; click to enlarge the time interval unit.  

Unit. This function is convenient for quickly locating a certain time period for the next step when there are many video segments.

Playback/export operations;

• Channel Number:

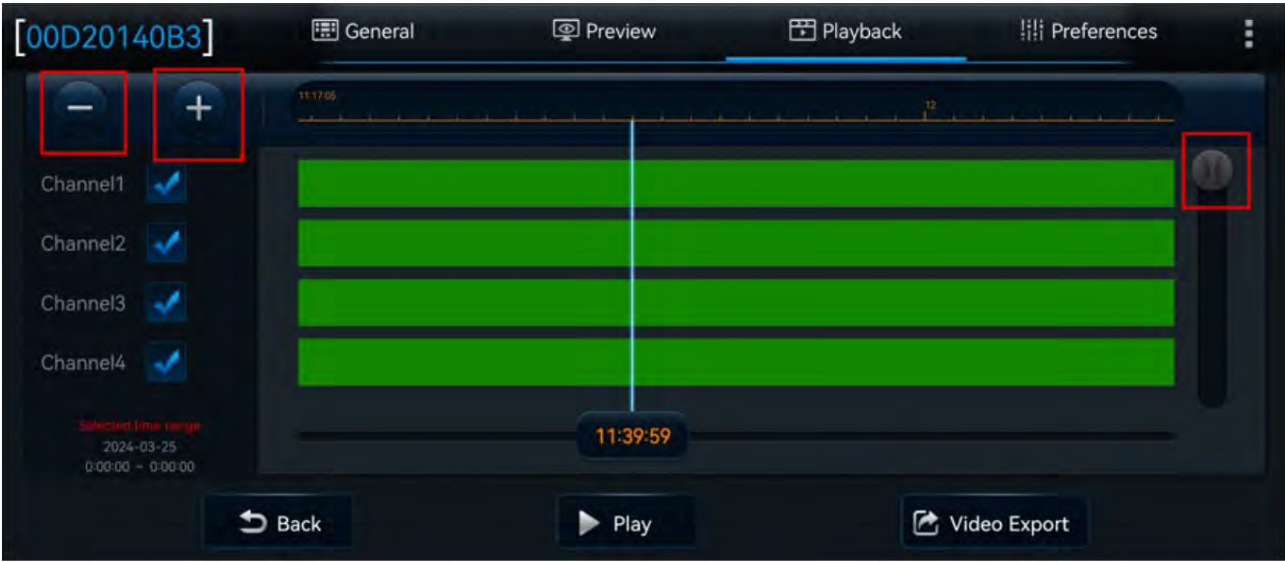
1) The color bar of each channel marks which time period has which type of video file;

2) When there are many recording channels, you can view the recording of each channel by dragging the right side of the interface up and down. 

Like situation;

3) Select a channel (multiple selections are allowed), select the timeline, and then you can playback/export the selected channel within the selected time.

Video recording.

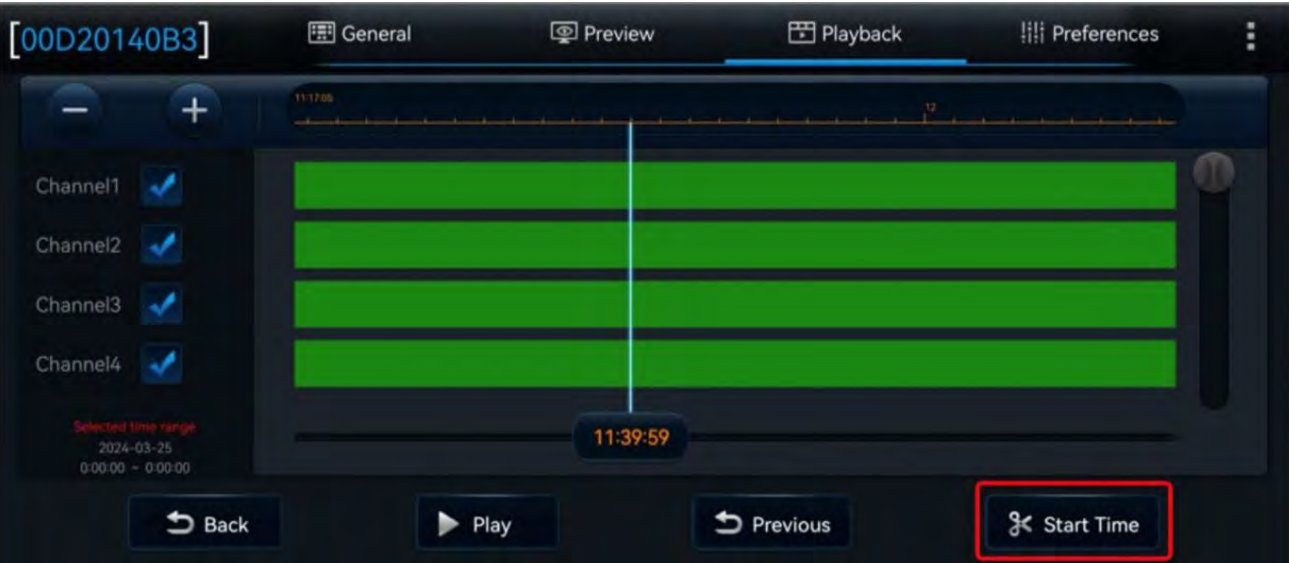
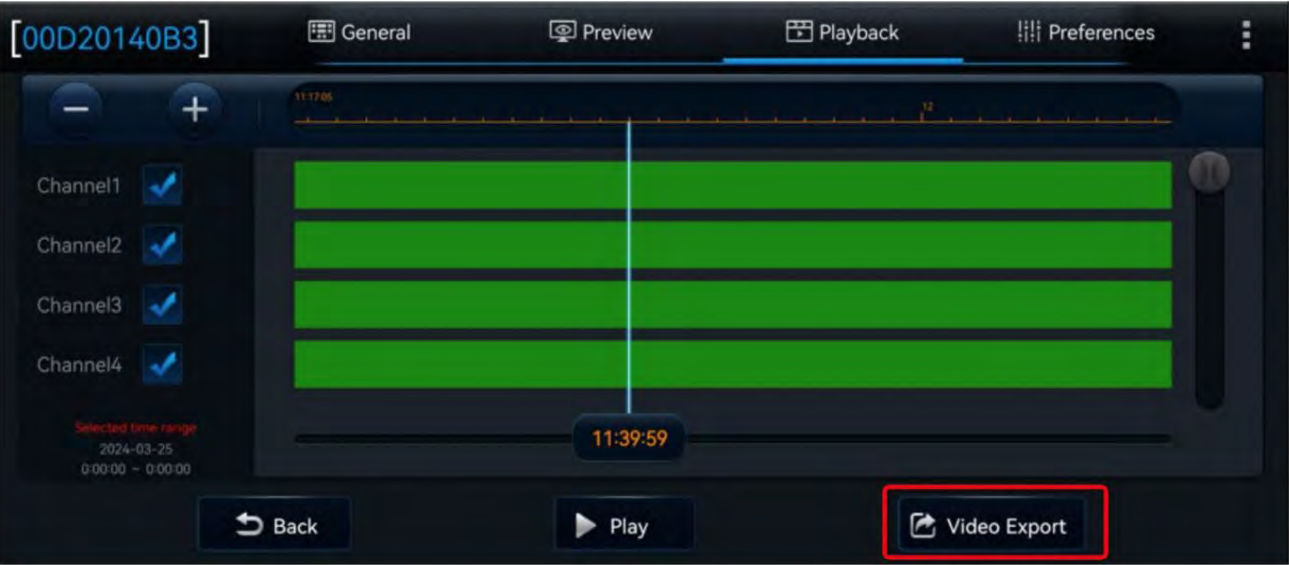


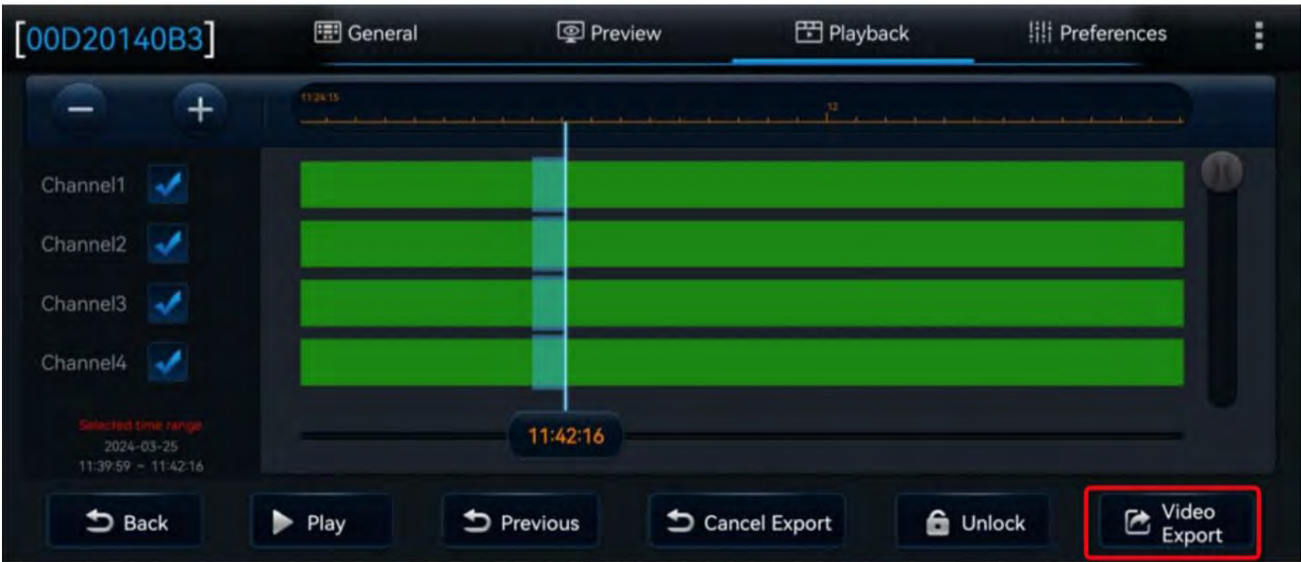
## 2.5.2 Video Export

You can also choose to export the recordings of the selected time period.

Click [Video Export] at the bottom of the playback interface, select the start time and end time, and click [Video Export] All rights reserved. Infringement will be prosecuted. Page 24,

You can export the video, and click [Unlock] to lock and unlock the video of the selected time period.





In the video export option, you can choose to export the cropped video to an external USB flash drive or mobile phone, which is convenient for operation and maintenance personnel to quickly obtain and share it.

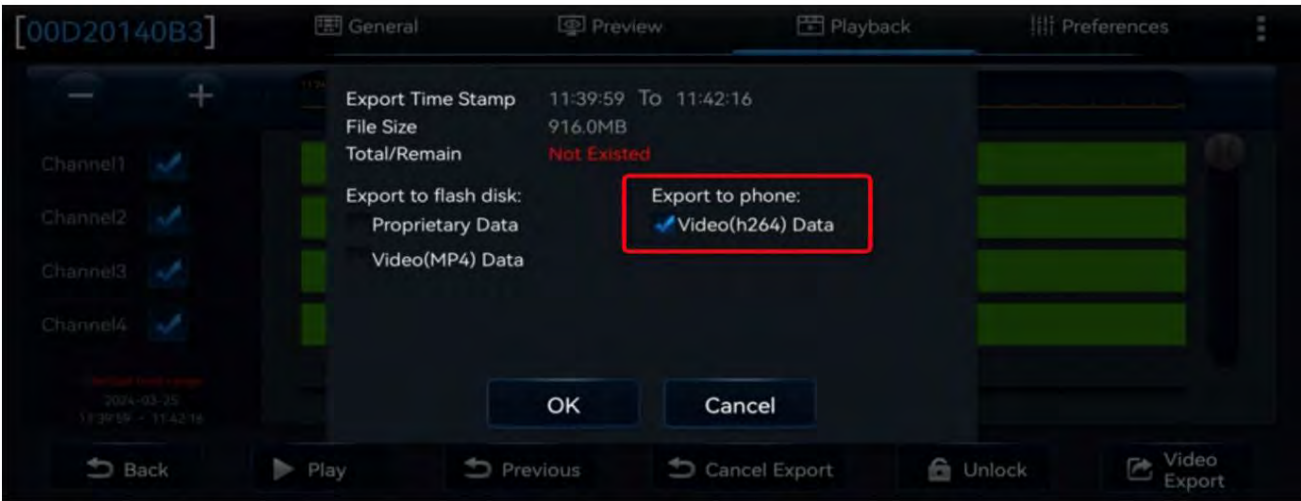
video.



Special note: Exporting to MP4 format can be played with a common player, while exporting to H264 format requires a proprietary player.

The H264 format contains more original data, which is convenient for troubleshooting recording problems.

If a problem occurs and requires after-sales troubleshooting, please choose to export in H264 format.



## 2.6 Basic Configuration



Note: In all configuration parameter interfaces, after modifying the parameters, click the [Save] button to save the parameters;

To restore the default value of a parameter, click [Default] at the bottom of the interface to restore the default parameters on the interface.



2.6.1 Registration Information

In this interface, you can set device information (device ID), vehicle information (license plate number, driver's license number, vehicle VIN number),

Driver information (driver ID, driver name), etc. After setting the license plate number here, when using Veyes to connect to the device hotspot,

The Wi-Fi hotspot will be named after the license plate number.



Note: When the license plate number changes, the WIFI hotspot name changes and you need to reconnect and log in to Veyes



2.6.2 Time Settings

y Date and time format: The time setting column can set the time display format and time zone.

1. Date format: You can choose year/month/day, month/day/year, day/month/year; it is only reflected in the direct and recording OSD.
2. Time format: 24-hour and 12-hour formats are selectable; only reflected in the direct and recording OSD.
3. Cross-time zone enable: Controls whether to use the cross-time zone solution. If your vehicle and platform are not in the same time zone,

In order to maintain normal communication between the device and the platform, you need to enable the cross-time zone solution. After enabling this feature, the time zone parameters will automatically

The automatic time zone is grayed out and cannot be set. Only the local time zone can be set. The local time zone refers to the time zone where the vehicle is located.

After the function is enabled, you can only set the time zone parameter, which should be consistent with the region where the vehicle is located.



Warning: For devices using the CEIBA2 platform, cross-time zone enablement is disabled. Users using the MS platform can enable it as needed.

Cross-time zone functionality

4. Time zone: supports the selection of time zone. This parameter can be set only when the cross time zone function is disabled. Otherwise, the parameter defaults to

The time zone is considered zero and cannot be set.

5. Local time zone: supports selection of local time zone. This parameter will be displayed for setting only when cross time zone is enabled.

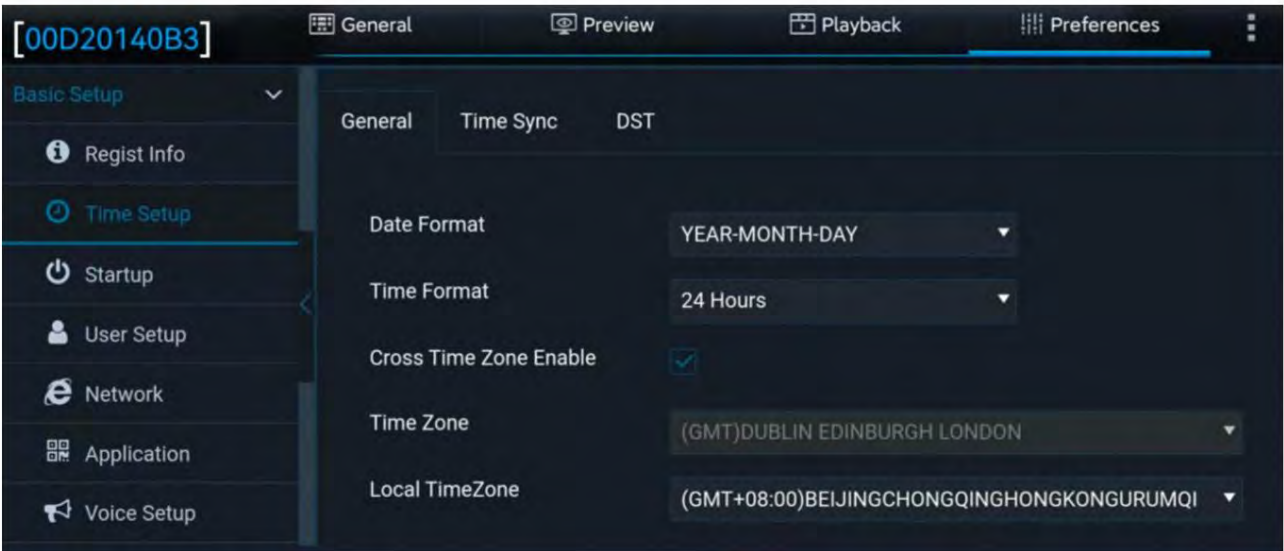
Place.



Special note: When the cross-time zone function is turned on, TimeZone is the non-configurable zero time zone, which means that the device and platform

The data exchange between them all uses the zero time zone, and LocationTimeZone is used as the video overlay time zone; when the cross time zone function is closed

TimeZone can be set to be used as the recording overlay time zone.



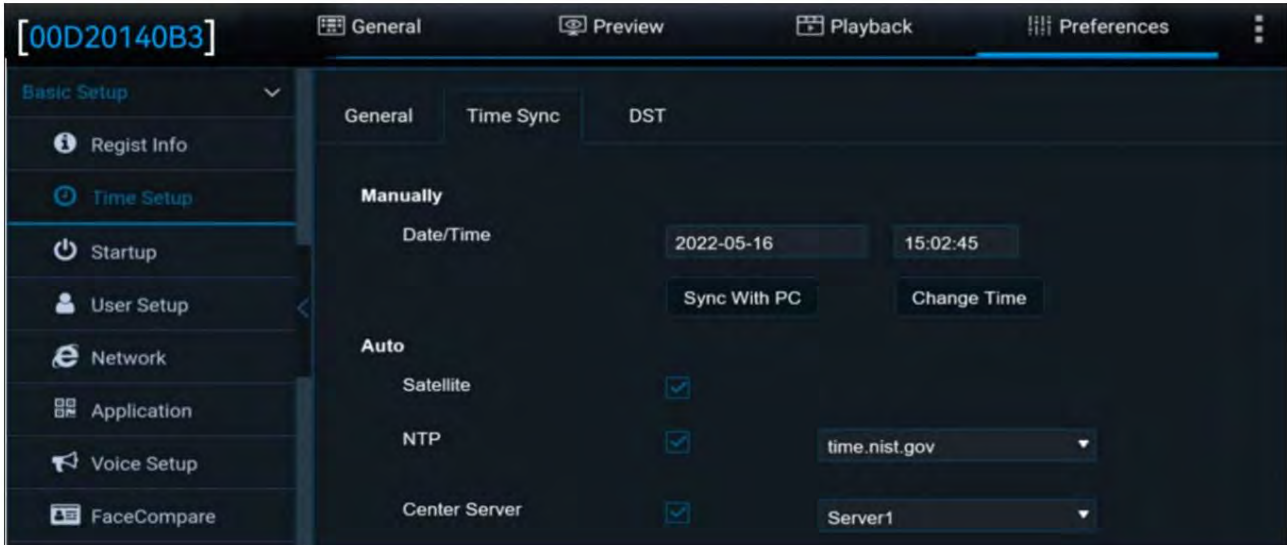
y Time calibration method:

When there is a deviation between the system time and the actual time, the time will be automatically adjusted. The automatic time adjustment setting can manually enter the date and time.

You can also set the time calibration method.

1. You can manually modify the date and time by clicking [Change Time].
2. Satellite time correction: use GPS to correct time;
3. NTP time synchronization: Use WAN network time, and you can select different WAN server time;
4. Central server time calibration: Use the reported platform time. When reporting to multiple platforms, you can select different platforms.
5. If you select multiple time synchronization methods at the same time, the time synchronization will start in the order of satellite, NTP and central server.

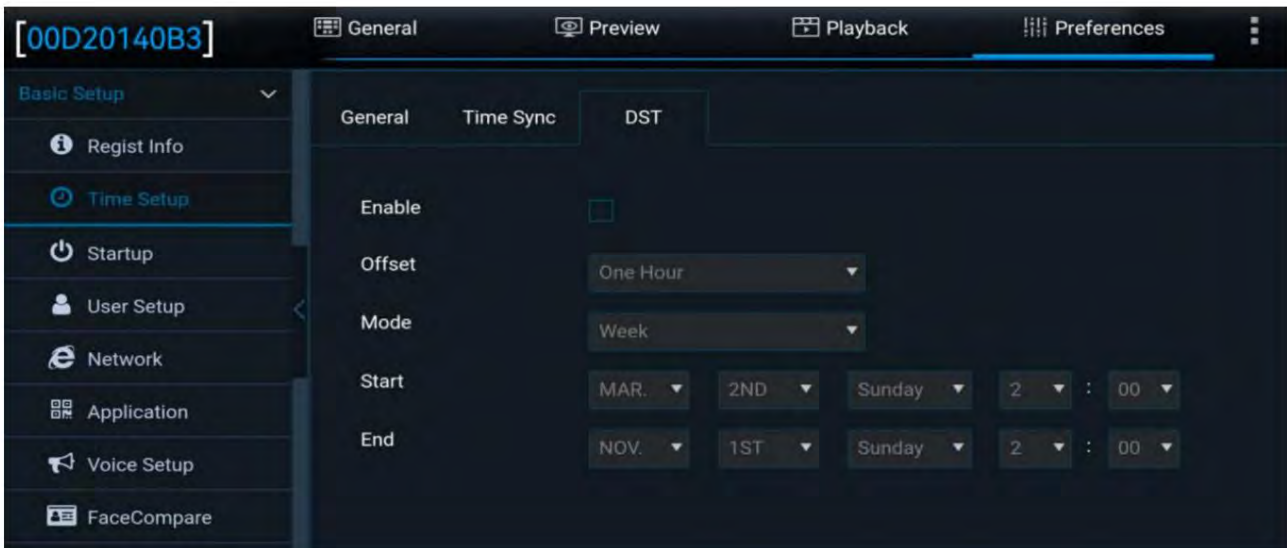
Once the time calibration is successful, stop using the next method to calibrate the time.



Support daylight saving time

Due to time zone reasons in some regions, it is necessary to set daylight saving time. When daylight saving time is turned on, the device will display time faster by 1 hour or 2 hours.

Click [Preferences] > [Basic Setup] > [Time Setup] > [DST], and the interface is as shown below:



1. [Enable]: The daylight saving time function can be enabled or disabled by the user and is disabled by default.
2. [Offset]: Time is accelerated by 1 or 2 hours.
3. [Mode]: Supports week or date mode.
4. Week mode: Set the start and end of daylight saving time according to month, day of the week, hours, minutes and seconds.
5. Date mode: Set the start and end of daylight saving time according to date, hours, minutes and seconds.

2.6.3 Power On/Off Settings

Power on/off settings

Click [Preferences] > [Basic Setup] > [Time Setup] > [ON/OFF]. The interface is as follows:



1. Power on/off mode: You can select [Ignition Mode] to power on/off (i.e., turn on the car key to start the device).
2. Ignition shutdown delay: Set the delay time for shutdown after the car key is turned off. It can be set from 0 to 86399 seconds, and the default is 300 seconds.
3. Video Delay: Set the time for delaying video recording after the ignition is turned off. The video delay time setting range will vary depending on the ignition

The maximum delay time of the video recording depends on the set ignition off delay time, that is, the video recording delay time.

The set ignition off delay time.

4. Scheduled power on time: Select a scheduled power on time period. Scheduled power on and off is currently not available.
5. Backlight off time: When an external display is connected, the screen backlight off time can be configured, with never (never) and custom (Custom), select Custom, 1 to 3600 seconds are available.

Hibernate

Click [Preferences] > [Basic Setup] > [Time Setup] > [Sleep]. The interface is as follows:

Usage scenario: When you need to park and turn off the engine, the platform can also obtain the vehicle positioning information and need to remotely wake up the device.

Select low power standby mode (sleep) when downloading data or playing back videos, otherwise select zero power standby; freight industry remote

It is recommended to wake up by phone or SMS. If the SIM card does not support SMS and phone services, it is recommended to use the mobile phone.

Platform remote wake-up function, platform remote wake-up needs to be used with the platform, currently CEIBA2 and MSCloud both support platform remote wake-up.

Remote wake-up.

1. Sleep mode: can be set to low voltage standby or zero power standby.

• [Zero Power Standby]: After the device is turned off or shut down at a scheduled time, it will not be woken up after being shut down in this sleep mode.

• [Low Power Standby]: After the device is turned off or shut down at a scheduled time, in this sleep mode, the system can be

Wake up with a phone call or SMS and start the host.

2. Sleep time: Set the sleep time, 0~100H, the default is 100H. The sleep time refers to how long the device will be in low power standby mode.

If the device has not been awakened or started, it will enter zero-power standby mode;

3. Low voltage protection: Check to enable low voltage protection.

4. Battery low voltage protection: In order to protect the battery power of the car, when the battery voltage is lower than the set value, the car key is turned on.

It enters sleep mode when the car key is on, and enters shutdown mode when the car key is off.

5. Restore startup voltage value: In sleep mode, when the battery voltage is higher than the set value, the normal startup state is restored.

6. Whether to report low voltage: If checked, the platform will automatically report when low voltage protection is triggered.

7. Active mode: When checked, the GPS data will be uploaded to the platform according to the time interval set below when the device enters sleep mode.

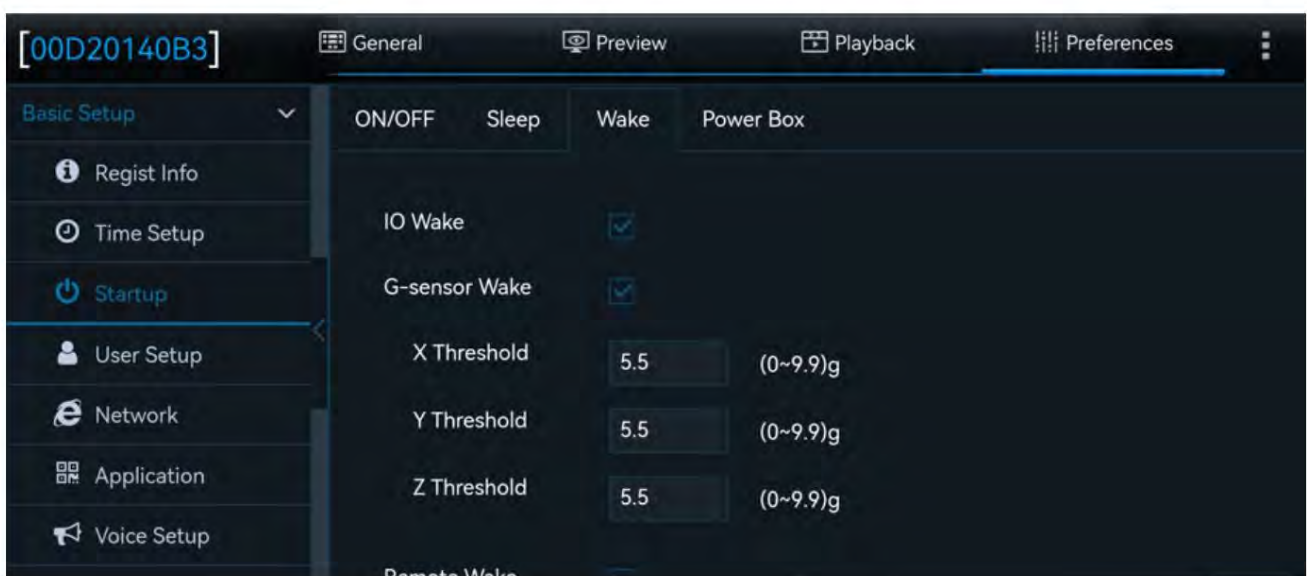
tower.



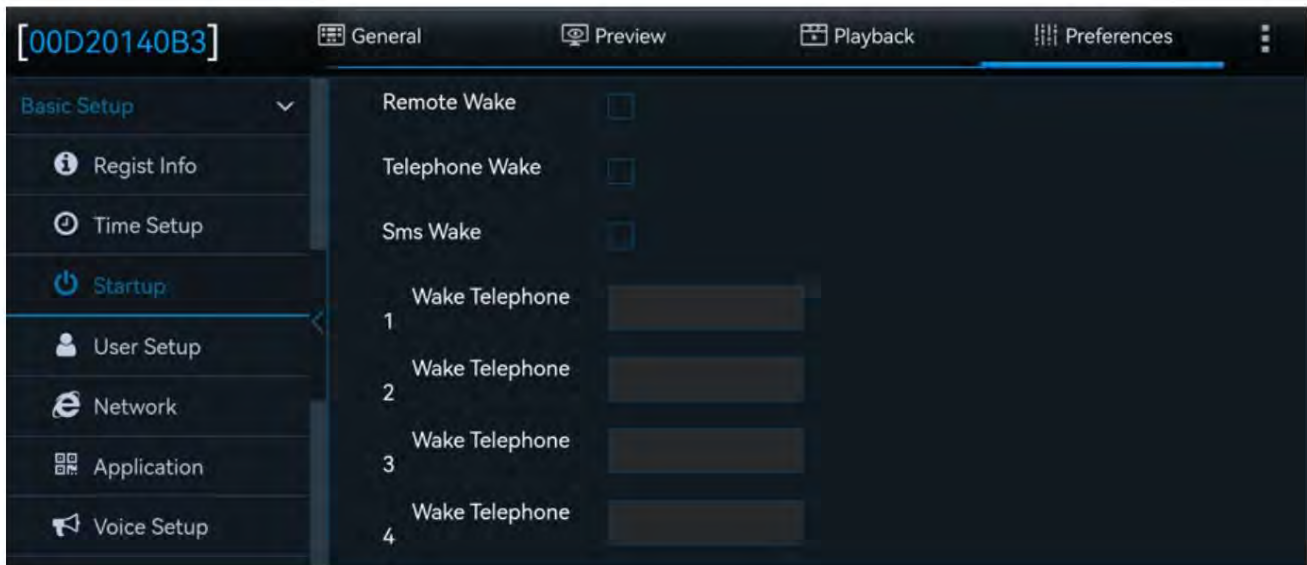
Special note: When the low voltage protection function is not turned on, the default low voltage protection judgment condition is 7V.

• Sleep and wake up

Click [Preferences] > [Basic Setup] > [Time Setup] > [Wake]. The interface is as follows:







You can set the sleep and wake-up mode by checking the enable switch:

1. IO wake-up: wake up the host by triggering IO alarm;
2. G-Sensor wake-up: The device wakes up the host when the shaking in any direction of X/Y/Z reaches the set threshold.

The default wake-up threshold is 5.5g;

3. Remote wake-up: The platform can send commands to remotely wake up the device. When the device is in sleep mode, the platform can send commands to wake up the device.

Wake up the host. Currently, CEIBA2 and MSCloud are supported for remote wakeup. Only the first N9M server is supported.

Cheng wakes up.

4. SMS wake-up: Wake up the host by sending a text message to the device. You need to set the mobile phone number that supports wake-up in advance.

The content of wakeup is "WAKEUP".

5. Phone wake-up: To wake up the host by calling, you need to set the phone number to wake up the device in advance.



Special note: SMS wake-up and phone call wake-up functions require the SIM card in the device to support SMS and phone calls.

business.

#### 2.6.4 User Settings

Click [Preferences] > [Basic Setup] > [User Setup]. The interface is as follows:



In the user settings interface, you can set the language, MP3 voice options and login user account information. If a login password is required,

Complexity, you can check the password complexity requirement below.

1. Operation timeout exit setting: You can set the timeout exit time, which can be selected from 30 seconds, 1 minute, 3 minutes, 5 minutes,

There are 6 types in total, including 10 minutes and never exit.

2. Language and MP3 voice options can be selected from Simplified Chinese, Traditional Chinese, English, Latin American Portuguese, Latin American Spanish, European Spanish,

French, Russian, Japanese, a total of 7 languages and voices, among which Simplified Chinese and Traditional Chinese only have different interface displays.

The voice content is consistent; the Latin American Spanish and European Spanish broadcast voice content is different, but the interface display is consistent. On Veyes,

Users can only set the broadcast voice, and the interface language will automatically switch with the phone system language. The interface entries are not affected by this setting.

After setting and clicking Save on Veyes, this function will take effect.

3. Click the [Add] button to add a common user and set the account and password for the new common user;

4. Click the button in the User Settings column to set user login account and password;

5. Admin (Administrator): comes with an administrator account by default. Has the authority to add/delete ordinary users and set parameters

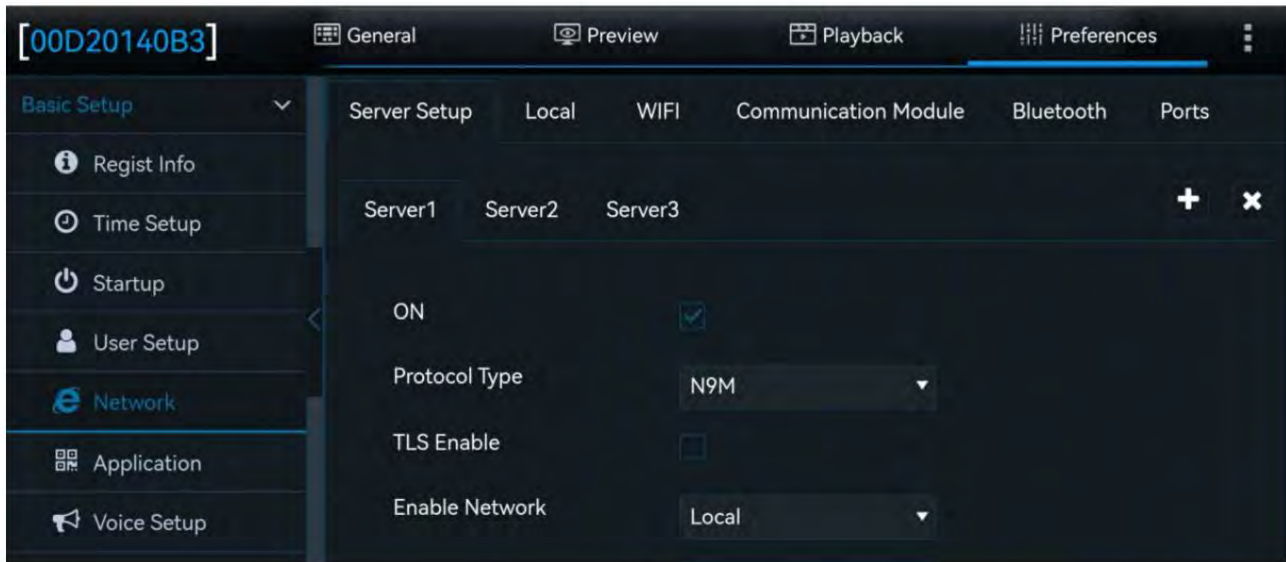
Permission to add up to two ordinary users.

6. User (ordinary user): By default, it comes with an ordinary user account, which only has query and setting permissions.

## 2.6.5 Network Settings

Server Settings:

Click [Preferences] > [Basic Setup] > [Network] > [Server Setup]. The interface is as follows:



1. Click on the right side of the interface to add a server; click to delete the server from the interface, but Server 1

Cannot be deleted;

2. Enable: Check to enable the server. Up to 4 servers can be enabled at the same time. If you uncheck, the device will not report the server.

server, but the server parameters will be saved.

3. Protocol type: N9M or 808.

• [N9M]: The protocol type selected by the device to report the video surveillance platform CEIBA2 or MSCloud;

• [808]: The device reports the protocol type selected by the 808 platform (not used for overseas shipments);

4. Network: Optional wired network, WIFI, communication module, adaptive. Adaptive means that the system automatically selects the network that can be used.

The network used for platform connection, the adaptive priority is WIFI>wired network>communication module;

5. Registration Server Address: Enter the IP address or domain name of the registration server to which the device will be reported to the platform;

6. Registration Server Port: Enter the corresponding device port to which the device will report to the platform.

7. TLS encryption port number: During normal operation of the device, the interactive data between the device and the platform is encrypted via TLS.

Encrypted transmission can ensure the security of data exchanged between devices and platforms. When using, you need to enable TLS and then configure encryption.

Port number. Currently, the MSCloud platform supports TLS encryption.



Warning: TLS encryption is not supported in dormant mode

8. Media Server Address: Enter the IP address of the media server that the device will report to the platform;

9. Media Server Port: Fill in the corresponding device port that the device needs to report to the platform

The default address and port of the registration server and media server are the same. All rights

reserved. Any infringement will be prosecuted.



10. Support SMS to modify server parameters: When the server address changes or is abnormal, the device will communicate with the server.

The device is interrupted. This causes all services of the vehicle remote to stop. To avoid this situation, you can modify the device server in the form of SMS

The IP address and port number.

The content of the SMS consists of the following 8 types, each type is separated by "," and ends with "!". Please select the type according to your actual needs.

Parameters for SMS sending modification. The example is as follows:

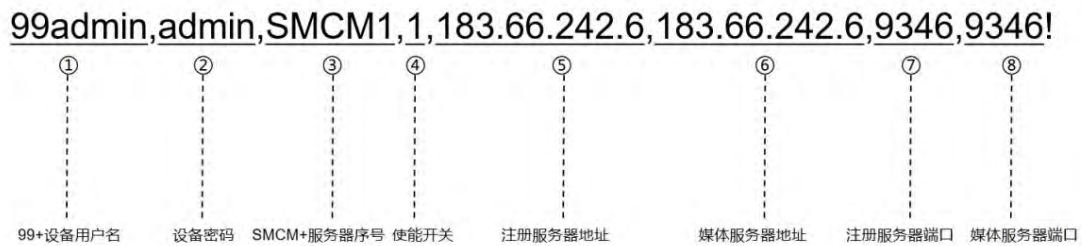
Example: 99admin,admin,SMCM1,1,183.66.242.6,183.66.242.6,9346,9346!

Indicates that you need to modify the server 1 parameters for the device with the username and password both being admin, and register the server/media service.

The server IP address is changed to 183.66.242.6, and the registration server/media server port is changed to 9346.

Special note: After sending the instruction to modify the server parameters via SMS, you will receive a confirmation result returned by the server.

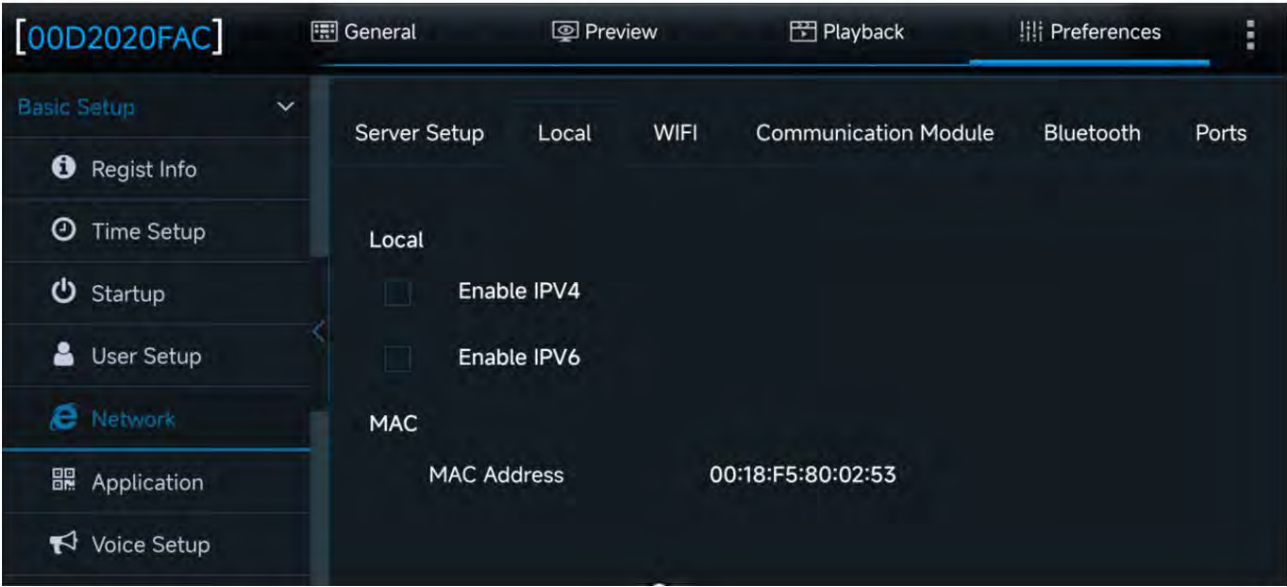
"99SMCM: Setup Succeed!" indicates that the parameters were modified successfully.



Wired Network:

Click [Preferences] > [Basic Setup] > [Network] > [Local]. The interface is as follows:





In the local network settings interface, in order to avoid IP address conflicts and expand the address space, in addition to IPV4, IPV6 network is added

Protocol. IP address, default gateway, preferred DNS server, and alternate DNS server support input of 128 bytes and are recognized as

There is no subnet mask after the IPV6 address, and letters, numbers, and symbols are supported.

1. [Enable IPV4]: After checking the IPV4 enable box, the corresponding parameter setting interface will be displayed;

•DHCP Mode•: Automatically obtain an IP address. After checking, the network automatically assigns a dynamic IP address, and DNS can dynamically

Can also be statically formulated

•Static IP•Static IP address. Use the set static IP address, subnet mask and default network management.

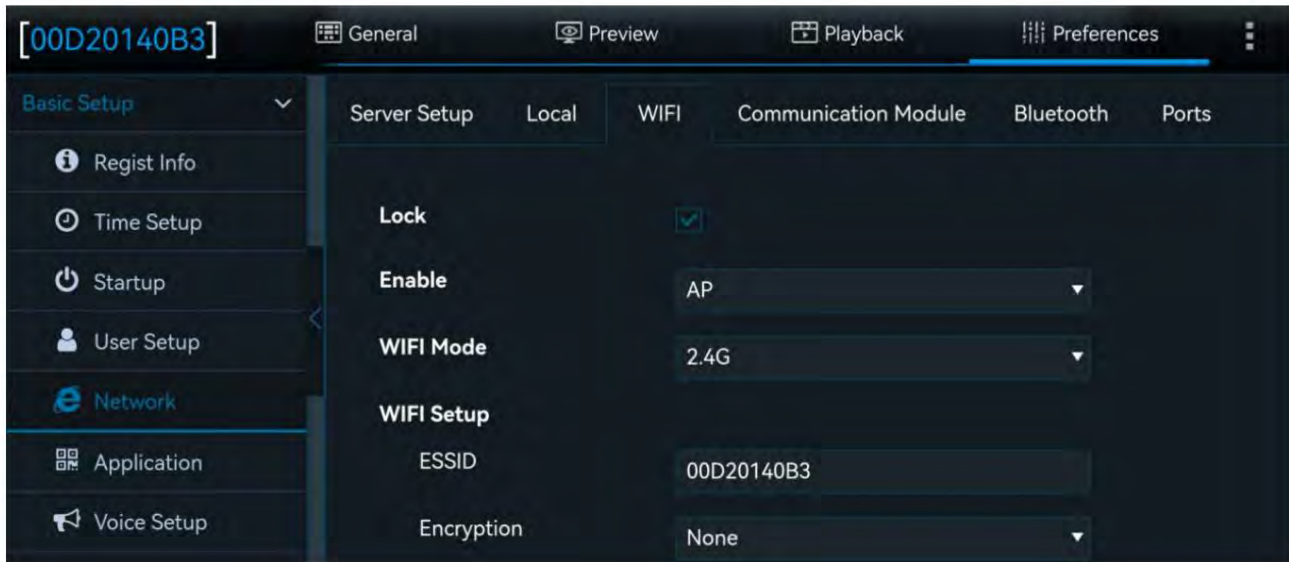
Must be specified statically.

2. [Enable IPV6]: After checking the IPV6 enable button, the corresponding parameter setting interface will be displayed. The parameter description is the same as that of IPV4.

3. [MAC]: MAC address display, default address display.

•WIFI settings:

Click [Preferences] > [Basic Setup] > [Network] > [WIFI]. The interface is as follows:



1. Lock: WIFI hotspot parameter modification enable switch. When turned on, when importing parameters, the relevant parameters of the WIFI hotspot will not be modified.

2. [Enable]: WIFI connection mode, optional AP mode, Client mode, Disable mode, default Disable mode.

AP: When configured as AP mode, the WIFI name is automatically associated with the vehicle license plate information. In this interface, only the Modify, no password setting. And the device always remains in hotspot state after powering on.

Client: When configured as Client mode and the ESSID and password of a nearby valid WIFI are set, the device can automatically Automatically search for nearby valid WIFI hotspots to connect to. After successful connection, you can configure and use the WIFI reporting platform. When the vehicle re-enters this area, it can automatically connect successfully. When configured as Client mode, the default boot mode is When in AP mode and no Veyes is connected, it will automatically switch back to Client mode after 3 minutes (default value, configurable). When using Client mode to report to the platform, in order to make the device report to the platform as soon as possible after powering on, set the AP mode after powering on. The duration of the AP mode display can be set according to the actual usage. If the AP mode duration is set to other values (0~180 seconds optional), then after power on, if there is no Veyes connected to the device, After the duration is reached, the device will exit AP mode and automatically switch to Client mode and report to the platform.

Please note that the AP mode duration setting parameter is only available when the WIFI mode is set to Client mode or Disable mode.

The AP mode entered by the key switch will be displayed.

is constrained by this parameter.

If you want to switch to AP mode during normal use of the device, you can switch to AP mode by pressing the button twice;

After switching to AP mode, if there is no Veyes connection, it will automatically switch back to Client mode after 3 minutes (fixed value).

Disable: When configured as Disable, the WIFI network is not enabled, the Client mode is invalid, and the default setting is 3 minutes after power on.

(This device has an AP mode switch button, which can be used to switch to AP mode; switch to AP

mode, if there is no Veyes connection, it will exit AP mode after 3 minutes and the module will go into sleep mode)

3. [WIFI Mode]: When the WIFI mode is set to AP mode, you can set the WIFI frequency band, which can be 2.4G, 5G or

Adaptive.

4. [ESSID]: When selecting AP mode, enter the hotspot name when the device is used as a hotspot. It is also the name of the mobile terminal connection.

The WIFI name used when connecting to the device (no longer the serial number, after connecting, you can access Veyes, you can also use mobile

Terminal Internet access (need to open hotspot enable)); when selecting Client mode, the input is the device connected to the external WIFI

The WIFI name when

5. [Encryption]: When selecting AP mode, the encryption mode can be None, WEP, WPA/WPA2-PSK; select Client

In mode, the encryption method can be None, WEP, WPA/WPA2-PSK, or WPA2. ENTERPRISE.

6. [Password]: In AP mode, the password refers to the password used to connect to the device hotspot. You need to enter the correct password to connect.

WIFI (If the hotspot name and password are not set, you do not need to enter the password, just click the serial number or license plate number to connect

In Client mode, the password refers to the password used when the device connects to external WIFI.

7. [Hotspot]: If enabled, the device can access the network through the AP hotspot connected to the device; if disabled, the device cannot access the network.

Ask the network, but support Veyes for operation and maintenance operations.

8. [WIFI Whitelist]: If the WIFI whitelist is not checked, the device can access all networks normally when connected to the AP hotspot.

Enable Checking this option will restrict network access to the IP list.

If you enable it, you need to fill in the relevant IP address in the IP list, and a maximum of 5 IP addresses can be configured.

If you fill in the IP address in the table, only the network with the filled in IP address in the list will be allowed to access. If the IP list is empty, no network will be allowed to access.

Unable to access any network normally.



Note: Currently, the whitelist only supports access to the network by restricting IP addresses, and does not support URLs, domain names, etc.

Address restrictions.

Communication module:

Click [Preferences] > [Basic Setup] > [Network] > [Communication Module], the interface is as follows

Below:



1. [Import Lock]: If this option is selected, all parameters on the communication module interface cannot be imported or restored to factory settings.
2. [Service Type]: After the device inserts the SIM card, it will automatically detect and display the communication module type. If there is no module, it will display No.

service.

3. [Network Type]: The default is mixed mode, which means the communication module supports 2G/3G/4G.
4. Dial-up parameters: including access point, user name, password, data service number, authentication method (none, PAP, CHAP or Mixed). Enter the parameters provided by the SIM card manufacturer. The default is empty. If it is empty, dial according to the program's own parameters.
5. [Dial-up Activation Mode]: The network module can be activated by external conditions. The dial-up activation modes are: constant connection mode, Activate mode via phone call or SMS.

- 1) [Always connected mode]: After the device is started, the network module automatically starts dialing and connecting to the server.
- 2) Phone or SMS activation mode: After the device is started, the network module does not work and can only be activated by calling or sending text messages. Give the device a phone number to activate the network module to start dialing and connect to the server. Up to 3 dialable phone number.

- 3) [Switch Activation]: After the device is started, the network module does not work. The network is activated only after the IO sensor is triggered. The module starts dialing and connects to the server.

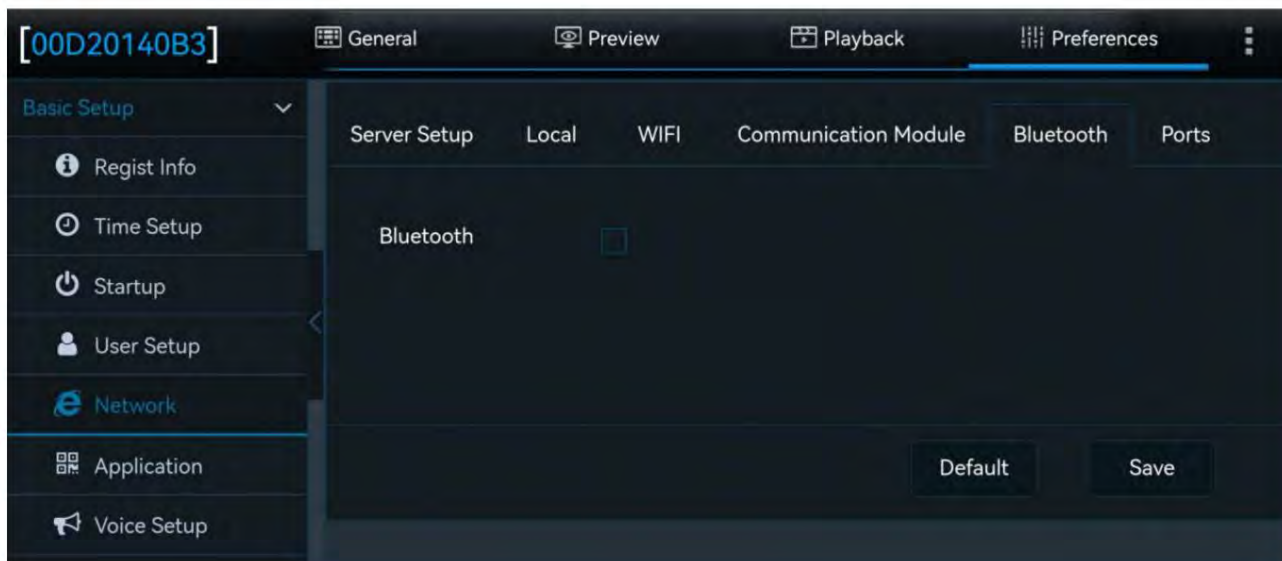
- 4) [SIM card MTU value]: The interface supports the setting of SIM card MTU value, the default value is 1500.

Bluetooth:

Click [Preferences] > [Basic Setup] > [Network] > [Bluetooth]. The interface is as follows:

Enable or disable Bluetooth. The Bluetooth function is currently unavailable.





Port

WEB port: The default is 80, which is used when IE accesses.

RTSP port: The default is 554. After logging in with the correct username and password, the host uses a fixed IP address and transmits data via RTSP.

Real-time video preview and playback.



Warning: Each stream only supports one RTSP request at a time

RTSP stream format:

a. Main streaming video : rtsp://user:pwd@IP:554/mainstreamX

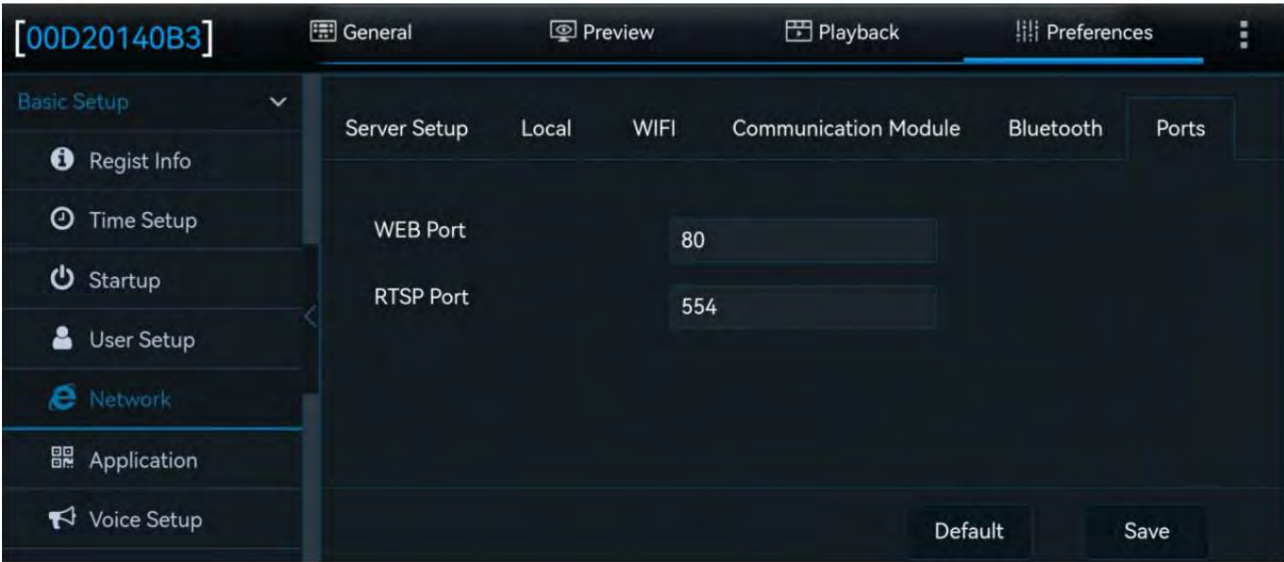
b. Sub streaming video: rtsp:// user:pwd@IP:554/substreamX

X is Channel number Start from zero

For example:

rtsp://admin:admin@10.20.112.17:554/mainstream0

rtsp://admin:admin@10.20.112.17:554/substream1



2.6.6 Network Applications

FTP Server

The device supports connecting to FTP server. Configure the IP, port, user name and password of the established FTP server.

Later, the device can connect to the FTP server to upload pictures or download files. Click [Preferences] >

[Basic Setup]>[Application]>[FTP Server], the interface is as follows:



Automatic download and reconnection: The automatic download function is to be used with the CEIBA2 platform.

Download tasks, the platform manages the download of the device, such as which cars to download and under what network (4G, WIFI)

To download, if it is a WIFI network, each car downloads through which WIFI-AP, each AP can connect

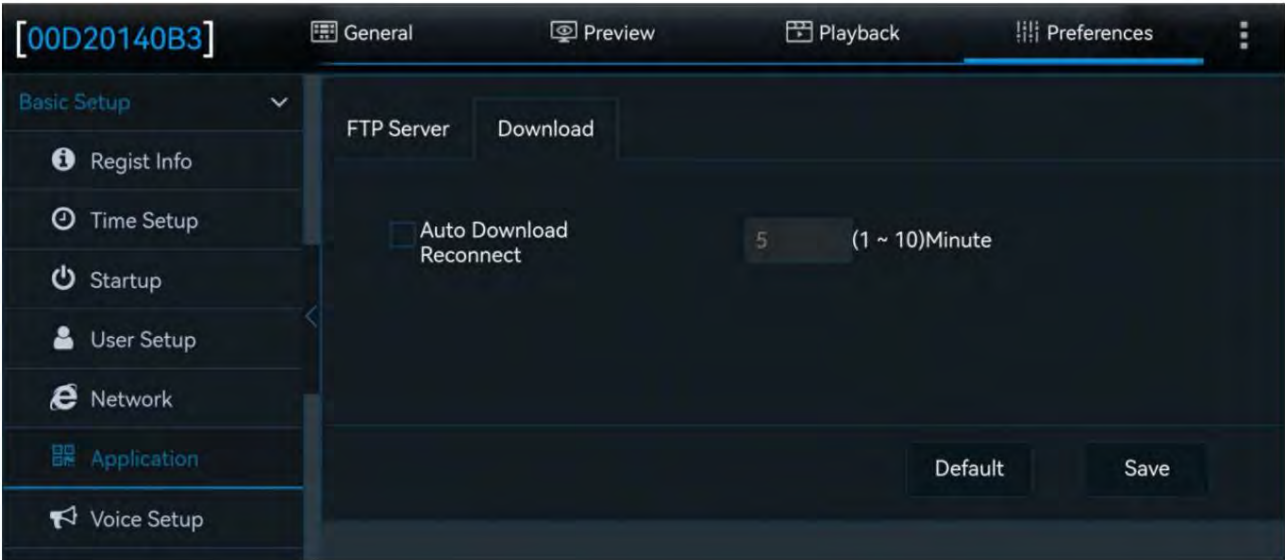
How many cars are downloading at the same time.

Automatic download and reconnection, that is, when the vehicle returns to the station, it cannot connect to the service, enters sleep mode, waits for a certain period of time, and then restarts

And try to download again. When the download task is full, or the set AP reaches the upper limit, the platform will notify the device to

It will enter sleep mode and tell the device how long to sleep before restarting. (That is, when waiting for the upgrade, you can sleep while waiting to avoid waste of resources).

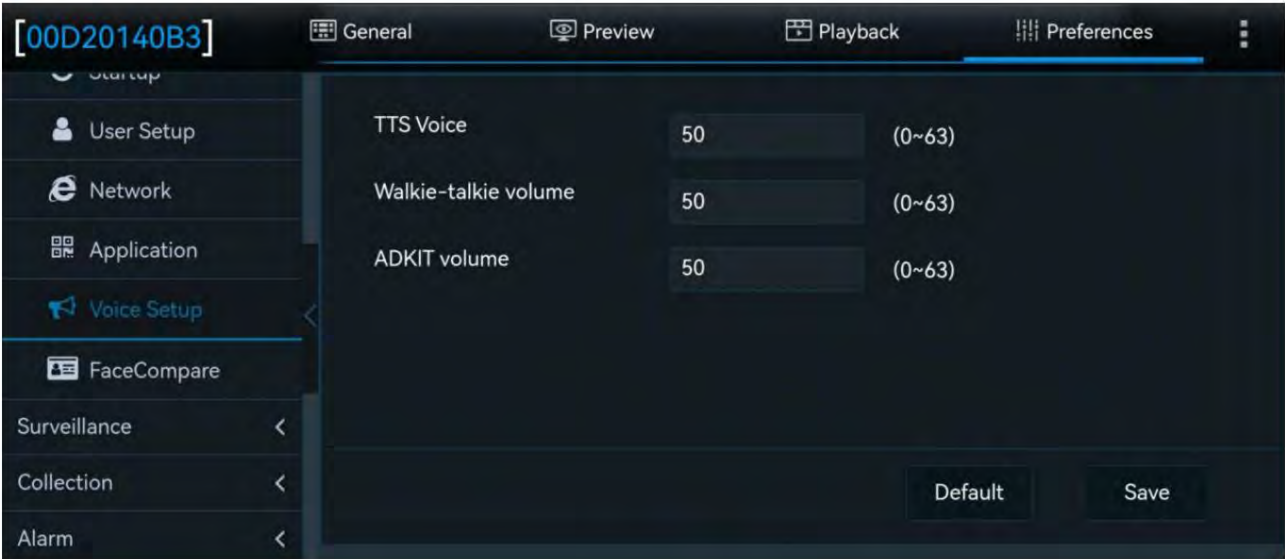
Check to enable automatic download reconnection and set the reconnection time, 1~10 minutes optional, the default is 5 minutes.



2.6.7 Sound Settings

Click [Preferences] > [Basic Setup] > [Voice Setup] to adjust the intercom volume (including MP3 broadcast volume).

Volume) and TTS voice manual setting volume, the optional range is 0~63, the default is 50. The interface is as follows:



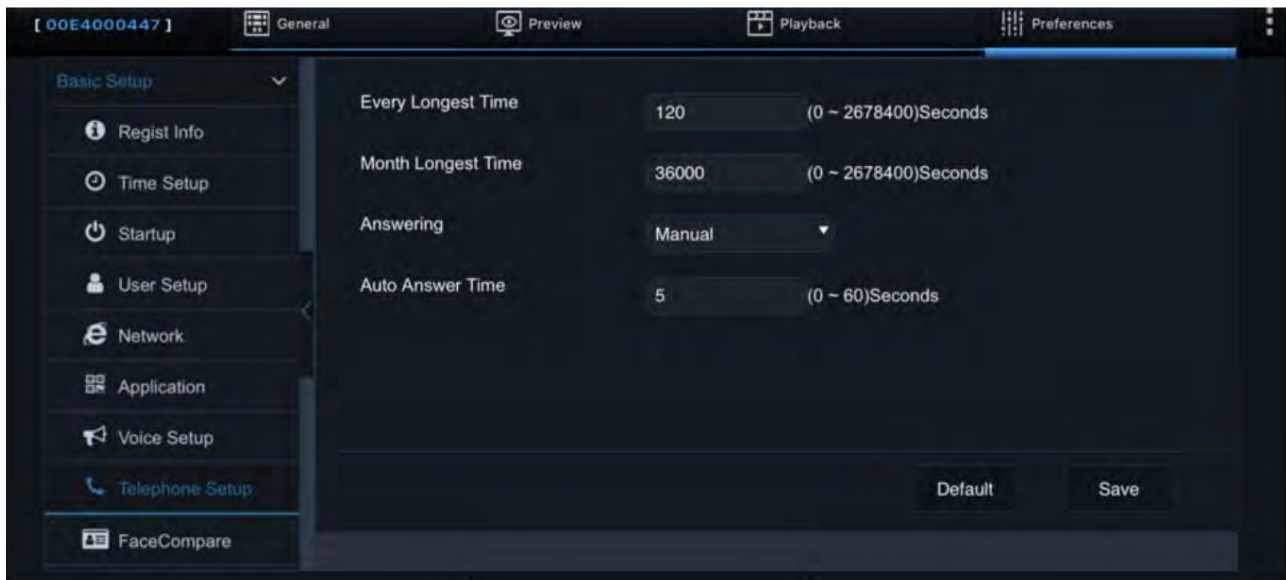


Warning: TTS currently only supports Chinese and English voices

## 2.6.8 Phone Management

Click [Preferences] > [Basic Setup] > [Telephone Setup] to set up management of incoming calls.

parameter.



1. [Maximum call time per call]: 0~2678400 seconds optional, can be edited manually, default is 120 seconds.
2. [Maximum call duration of the month]: 0~2678400 seconds, optional, can be edited manually, default is 36000 seconds.
3. [Call Answering Policy]: This setting cannot be edited. You can choose to answer automatically, answer by ACC, or answer manually.
4. [Auto-answer countdown]: 0~60 seconds optional, can be edited manually, default is 5 seconds.



Note: If you want to use the call and IP intercom functions, you need to connect to the megaphone and other related peripherals to realize the pickup and attack functions.

Put the output.

## 2.6.9 Face Comparison

Click [Preferences] > [Basic Setup] > [FaceCompare] to set the driver face comparison parameters.

This function must be used in conjunction with the MSCloud platform. The interface is as follows:



1. [FaceCaptureEnable]: Face capture enable switch. Check this to enable the face capture function.

2. [Enable Online facial Comparison]: Enable online facial recognition. After checking this option, the platform will automatically

Face comparison function, uncheck it to use offline face comparison function.

3. Face capture method:

γ Card insertion and snapshot: Online face recognition does not support this function yet, so it will not be explained here.

γ Vehicle startup capture: ACC needs to be switched from off to on, and the speed is given at the same time, and the device will capture the vehicle.

γ Face leaving and returning comparison: From no driver to driver, if the trigger conditions of leaving and returning are met, the device will capture the face

γ Timed snapshot: You can set the timer, 60~3600 seconds optional, the default is 300 seconds



Special note: The online face comparison function must be used with the MSCloud platform. If you need to use it, please contact your local agent.

Communicate with the business operator or technical support to activate platform-related business functions.

## 2.7 Recording Settings

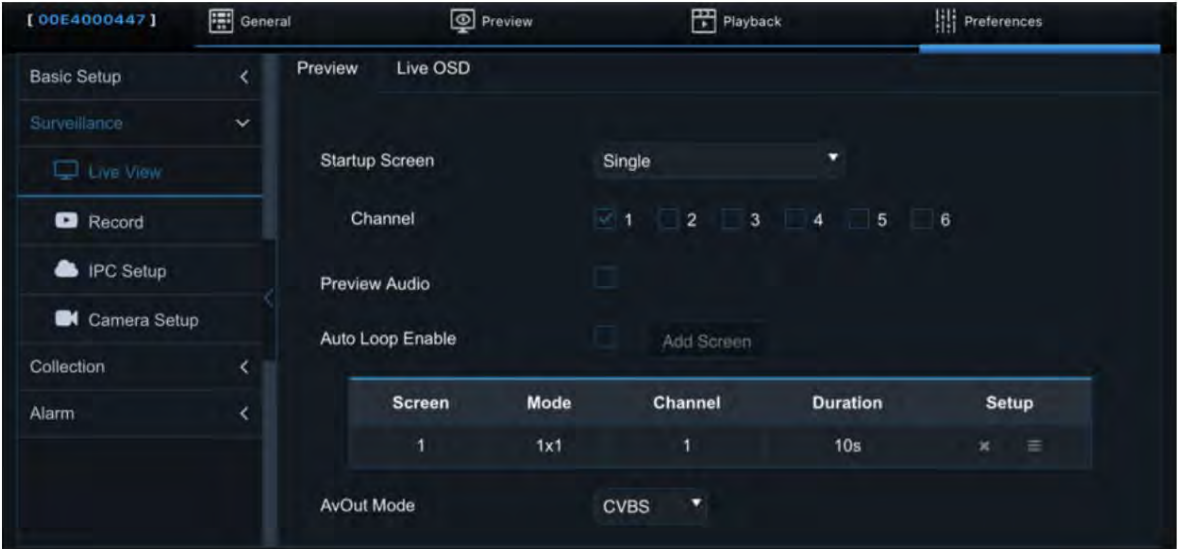
### 2.7.1 Preview

The preview setting interface is mainly used for the display mode of the screen when an external display is connected. It supports single-screen and quad-screen display.

You can choose which channel to display when the screen is displayed. Click [Preferences] > [Surveillance] > [Live View].

The interface is as follows:





Startup Settings: The setting interface is mainly used for the display mode of the startup screen when an external display is connected. Supports single screen and dual screen

You can choose which channel to display when displaying the screen.

[Sound Preview]: Not enabled by default. If checked, the sound of the direct interface will be enabled.

[Auto patrol enable]: It is not enabled by default. After checking it, the automatic screen patrol function will be enabled. You can click [Add screen] to

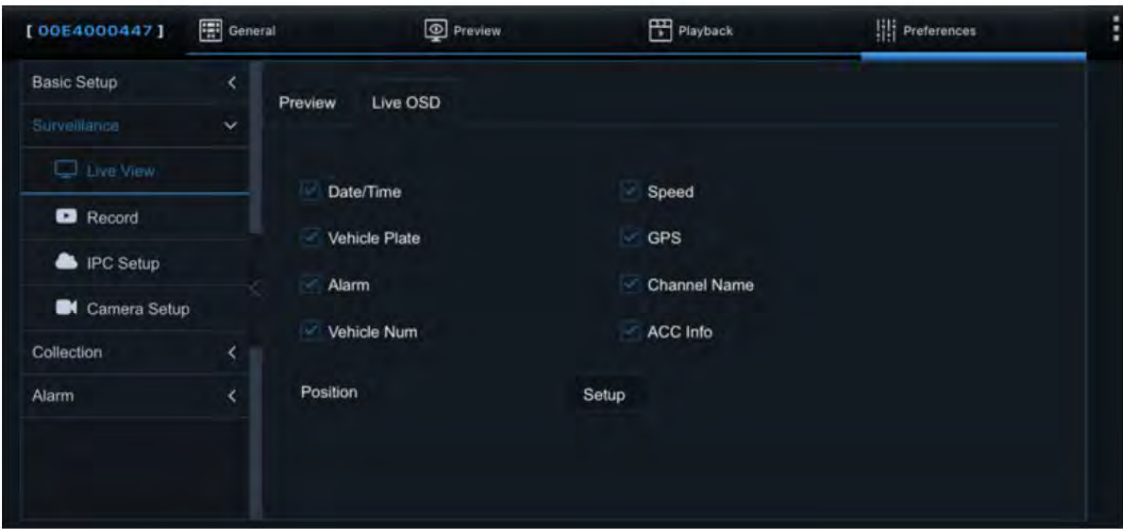
You can also use the [ ] interface to select the channel, mode, and dwell time of the images that need to be patrolled

The configured patrol screen can be used for setting and management.

AvOut Mode: Video output mode, including CVBS and AHD, the default output is AHD

Passthrough OSD

Click [Preferences] > [Surveillance] > [Live View] > [Live OSD]. The interface is as shown below:



The default OSD type is [Date and Time], and users can select [Speed Information], [License Plate Information], [Location Information],

[Information], [Alarm Information], [Channel Name], [Vehicle Number], [ACC Three-Axis Information] Among them, OSD type display

Show.

The user can edit the OSD position at will. Click [Settings] to adjust the position of the OSD type.

## 2.7.2 Video Recording

### 2.7.2.1 General Recording Settings

This function includes selecting system format, automatic overwrite function, video lock days, alarm video pre-recording and SD card recording mode.

Click [Preferences] > [Surveillance] > [Record] > [General]. The interface is as follows:



1. [System Standard]: System standards include PAL and NTSC.



Warning: The system format setting must be consistent with the video source (camera format), otherwise the device cannot recognize the camera.

Camera

2. [Auto Overwrite]: You can choose to overwrite by capacity, overwrite by day, overwrite by minute, or never overwrite.



Special note: Locked videos can only be overwritten and deleted after the protection time is released or manually unlocked

- The default is to override by capacity. When overriding by capacity:

1) Overwriting by capacity means that when the remaining space of the memory is insufficient, the historical recording will be automatically overwritten to store the new recording.

For example, when the remaining capacity is less than 1%, automatic overwriting is started. Overwriting by capacity is done according to the memory blocks.

The block sizes of different memory capacities are different, and users do not need to pay attention to the details. Page 46,

2) For multiple memories, if loop recording is selected, the capacity will be overwritten before the multiple memories.

For example, when memory 1 is full, memory 2 is used for recording. When memory 2 is full, memory 2 will be used for recording.

Device 1 overwrites historical recordings.

3) Overwriting by capacity will give priority to overwriting the oldest recording. When the locked recording is unlocked or unlocked manually,

It will be overwritten later.

- Daily coverage:

1) Overwrite by day means overwrite by the number of days set for storage. The configurable number of days is 1-31 days.

2) If the number of days is set to 1, the video will only be saved for 1 day. If the number of days is set to 31, the video will be saved for 31 days.

Genius begins to cover.

3) The video is saved for 31 days if the storage disk is sufficient. If the setting is 31 days, the actual recording time is

If the video can only be recorded for 7 days, the SD card will start to overwrite when it is full.

- No overwrite: The main stream recording, mirror stream, sub stream, alarm stream are all not overwritten.

Stop recording after that.

- Coverage by minute:

The minute coverage can be set from 1 to 1440 minutes, with a default of 30 minutes. This means that when the recording time reaches the set length, the recording will be overwritten.

The coverage accuracy is about 1 minute, which means that if the setting is 30 minutes, the maximum recording time will not exceed 31 minutes.

### 3. [Video Lock]:

Video lock days: Time protection for locked videos to prevent premature deletion; the default retention period is 7 days.

For video lock, please refer to [Preferences] > [Alarm] for details.

### 4. Alarm video pre-recording

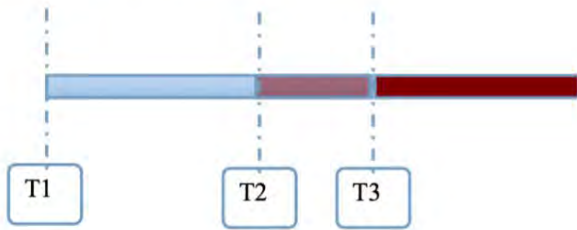
When in alarm recording, the video files of a period before the linkage alarm moment will be extracted to facilitate event analysis. Default 15

Minutes, support 1-60 minutes optional.

1) If it is a regular video, when an alarm occurs, the previous regular video will be recorded according to the pre-recording time in the alarm linkage.

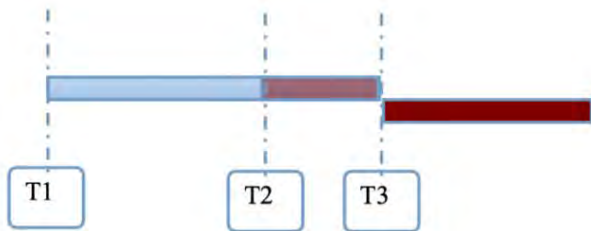
Intercept a section and mark it as alarm recording. T1 to T3 are regular recordings. When an alarm occurs at T3, the regular recordings will be marked as alarm recordings.

T2~T3 in the regular recording are marked as alarm recordings, and T3 onwards are marked as alarm recordings.



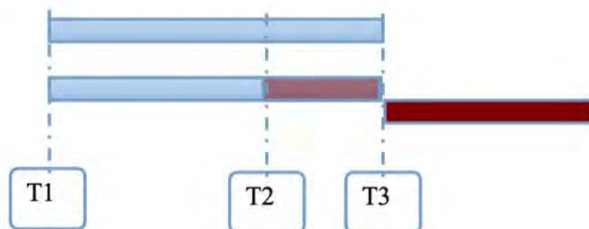
2) When there is no regular recording and the pre-recording switch is on, the device will start to create a pre-recording stream.

When an alarm occurs, T2-T3 in the pre-recorded stream segment will be marked as alarm recording.



3) When non-alarm recording is I-frame recording: after power on, two stream segments are created, one is I-frame stream

One is the pre-recorded stream segment. When an alarm occurs, T2-T3 in the pre-recorded stream segment is marked as alarm recording.



5. [SD card recording mode]: optional sub-stream recording, mirror recording, alarm recording backup, loop recording or None

Mode (This option is only available when a hard drive enclosure is connected).

• [Substream Video]: Store substream video in the SD card.

• [Mirror Recording]: All parameters of mirror recording adopt main stream parameters; and the data of mirror recording includes: video data

If the main stream video channel is closed, the mirror video cannot record on that channel.

picture.

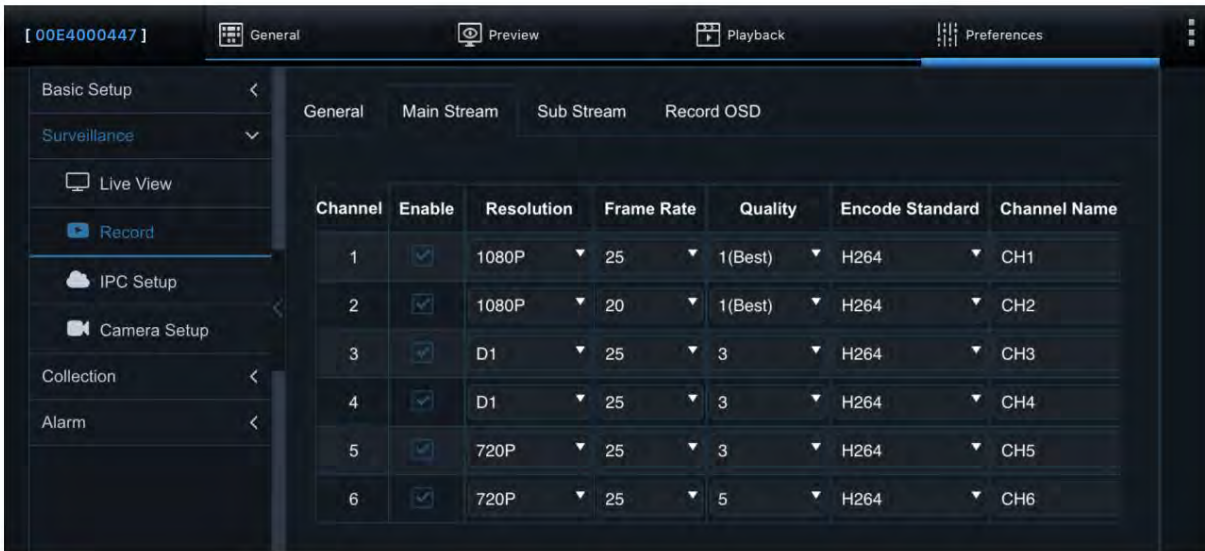
• [Alarm video backup]: The video will be stored only when an alarm occurs.

• [None]: When the hard drive is connected to a hard drive box, select [None] to not write the video to the SD card.

### 2.7.2.2 Main Stream Settings

This interface can set the recording mode, recording parameters and recording parameters of each channel. Click [Preferences]>

[Surveillance] > [Record] > [Main Stream], the interface is as follows:



Note: Each channel can set the recording mode separately

Once the recording mode is selected, it will be applied to both sub-stream and mirror recording modes.

1. [Enable Recording]: Check this box to enable the main stream recording function.
2. [Resolution Setting]: If a digital camera is connected, the default options are 720P and 1080P (the optional resolution is determined by the digital camera).  
  
If an analog camera is connected, you can select  
  
CIF/WCIF/HD1/WHD1/D1/WD1/720P/960P/1080P
3. [Frame rate]: The frame rate of the video, that is, the number of frames played per second. P-mode cameras can choose 1 to 25 frames, and N-mode cameras can choose 1~30 frames.
4. [Quality]: Video quality, selectable from 1 to 8. The smaller the number, the better the quality. Quality 1 is the best.
5. [Encoding Standard]: Optional H264 and H265, default H265;
6. [Channel Name]: You can customize the channel name;
7. [Recording Mode]: Optional: power-on recording, timed recording and alarm recording;

• Startup recording: When there is an SD card and the recording function is enabled, startup recording means that the device is always recording when it is started.

Video recording.

• Alarm recording: Start recording when the device alarms. For details on alarm recording settings, see [Preferences] > [Alarm];

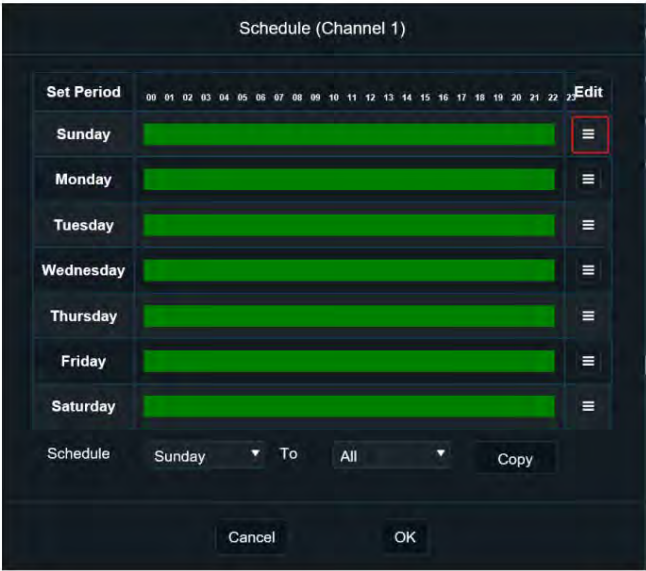
It is also possible to pre-record the video before the alarm.

• Scheduled Recording: Record according to the set time plan. Click on the right of Scheduled Recording to enter the following interface. Copyright All rights


reserved. Infringements will be prosecuted. Page 49,

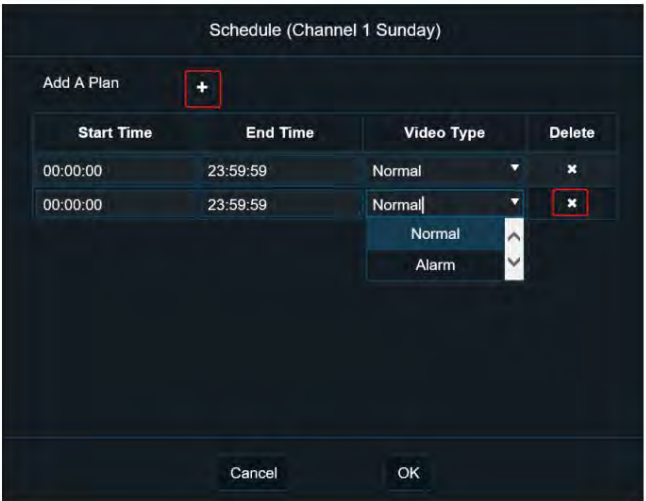


Then click the setting button corresponding to a certain day in the following interface to add a timed recording plan;



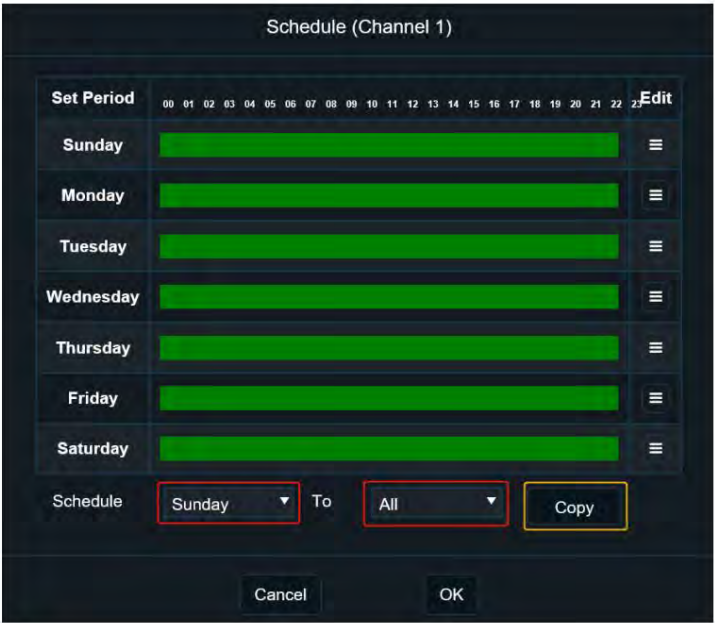
In the following interface, add a time recording plan. Click to add a time plan. Click on the right side of the plan.

 , you can delete the time plan. In this interface, you can specify whether the recording is a regular recording or an alarm recording.



After setting up a certain day's scheduled recording plan, you can click the [OK] button to return to the previous step and click the [Copy] button to copy the settings.

Copy the scheduled recording plan of a certain day to other dates, as shown below:



## 8. Recording

Note: Separate recording function is not supported.

- Recording: Indicates whether to record audio at the same time as video recording; you can choose to record or not, the default is recording.

1) Audio recording: Audio is always recorded during the video recording;

2) No recording: No recording is performed during the video;

9. [Alarm Video Quality]: Configure the quality of the device's alarm video. The smaller the number, the better the quality. The default quality is 3.

10. [Encoding Mode]: Optional VBR and CBR video encoding formats, the default is VBR;

11. [Audio Coding Format]: G711A, G711U, ADPCM and G726 are optional, with ADPCM as the default.

### 2.7.2.3 Substream Settings

This interface can set the sub-stream recording parameters and recording parameters of each channel.

Note: Sub-stream recording is only possible when sub-stream recording is selected as the recording mode and there is an SD card in the SD card slot.

Click [Preferences] > [Surveillance] > [Record] > [Sub Stream]. The interface is as follows:



1. [Enable Recording]: Check this box to enable the sub-stream recording function of the corresponding channel.



Special note: When the main stream is turned off, the entire video input will be turned off. At this time, turning on the sub-stream will not work.

Will record sub-stream.

2. [Resolution Setting]: If connected to an analog camera, you can choose CIF/HD1/D1; if connected to a digital camera, you can choose

QVGA/640\*360

3. [Frame rate]: The frame rate of the video, that is, the number of frames played per second. P-mode cameras can choose 1 to 25 frames, and N-mode cameras can choose

1~30 frames. The sub-stream frame rate defaults to 15 frames.

4. [Quality]: Video quality, selectable from 1 to 8. The smaller the number, the better the quality. Quality 1 is the best.

5. [Encoding Standard]: Optional H264 and H265, default H264;

6. [Record]: Indicates whether to record audio while recording video. You can choose to record or not.

Click the [Copy] button below to copy the sub-stream setting parameters of a channel to other channels. As shown below:

GeneralMain StreamSub StreamRecord OSD

Channel	Enable	Resolution	Frame Rate	Quality	Encode Standard	Audio
1	<input checked="" type="checkbox"/>	CIF	15	3	H265	Always Audio
2	<input checked="" type="checkbox"/>	CIF	15	3	H265	Always Audio
3	<input checked="" type="checkbox"/>	CIF	15	3	H265	Always Audio
4	<input checked="" type="checkbox"/>	640*360	15	8	H264	Always Audio

<

>

Percentage of sub stream45.0%

Copy

Channel 1

To

All

Copy



Special note: There is a code rate calculation tool in the instruction manual package, which can be used to calculate according to the required video specifications.

The capacity calculated by this tool is a theoretical value and is for reference only.

2.7.2.4 Video OSD Overlay

Click [Preferences] > [Surveillance] > [Record] > [Record OSD] to enter the video overlay settings

Interface, the interface is as follows:

[00D20140B3]

GeneralPreviewPlaybackPreferences

Basic Setup<SurveillancevLive ViewRecordIPC SetupCamera SetupCollection<Alarm<

GeneralMain StreamSub StreamRecord OSD

☐ Watermark Mode

☒ Time☒ Speed

☒ Vehicle Plate☒ GPS

☐ Channel Name☐ Vehicle Num

☒ Time Zone☐ Alarm

The OSD overlay here is a recording function that can overlay the selected information on the recording display, which is different from the direct preview OSD overlay information.

The video OSD supports 8 areas of enablement and position setting. In addition, in order to better provide

Provides OSD overlay capabilities and effects for videos, especially for overlaying AI processing information. A video watermark is added to this interface.

Mode function: After checking this option, watermark information can be superimposed on the video of the analog channel.

2.7.3 IPC Settings

Click [Preferences] > [Surveillance] > [IPC Setup] to set the connected IPC as follows

picture:



Search for:

- 1. Onvif: You can enable certain channels to connect to IPCs, search and assign channels to IPCs, and manage the IP addresses of IPCs.

Modify the address.

- 2. N9M: Plug and play when connected to the Ruiming IPC camera, no configuration required.

Settings:

- 1. You can set up cameras that support AI functions:

- 1) Normal mode: normal recording, algorithm recognition.
- 2) Calibration mode: The camera is calibrated during installation. Algorithm recognition and alarm are not available in this mode.

2.7.4 Camera Settings

In the camera setting interface, you can perform operations such as flipping, mirroring, and rotating the camera of each channel. Click

[Preferences]>[Surveillance]>[Camera Setup], the interface is as follows:





Select the channel whose image you want to adjust in the lower left corner of the interface, and set the rotation angle of the channel camera, whether to adjust the image in the upper right corner of the interface.

Mirror image and whether to flip it upside down.



Warning: Generally, the factory default setting of DashCam is normal screen angle. Please do not modify the screen angle at will.

Otherwise, our company will not be responsible for any abnormalities in the picture.

## 2.8 Data Collection

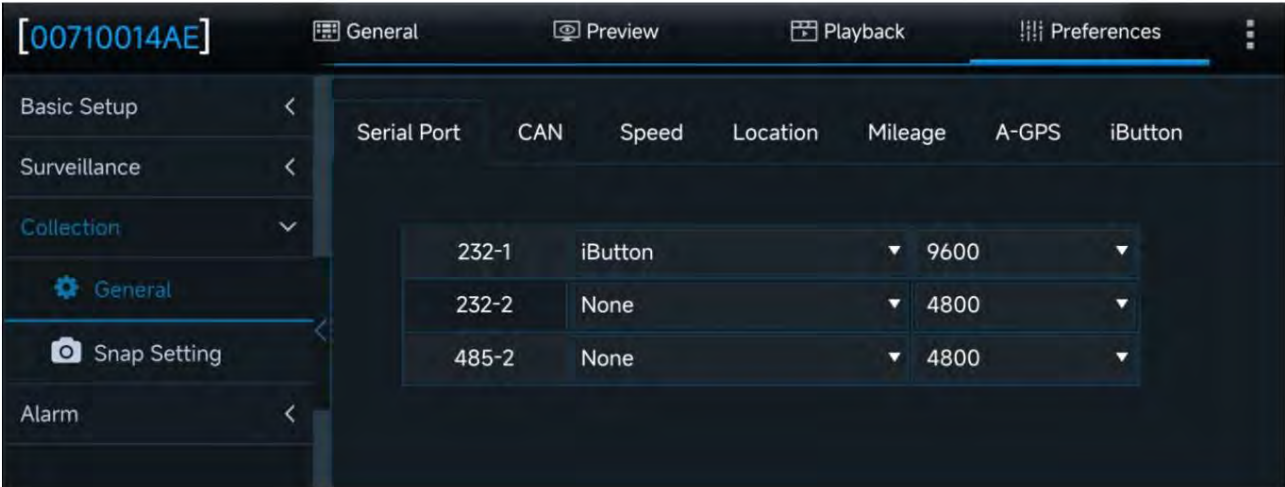
The data acquisition interface can set parameters such as serial port, CAN, speed, positioning, mileage, and snapshot.

### 2.8.1 General Settings

The general settings interface is mainly used to set the serial port, CAN, speed, positioning, mileage parameters, A-GPS, and iButton.

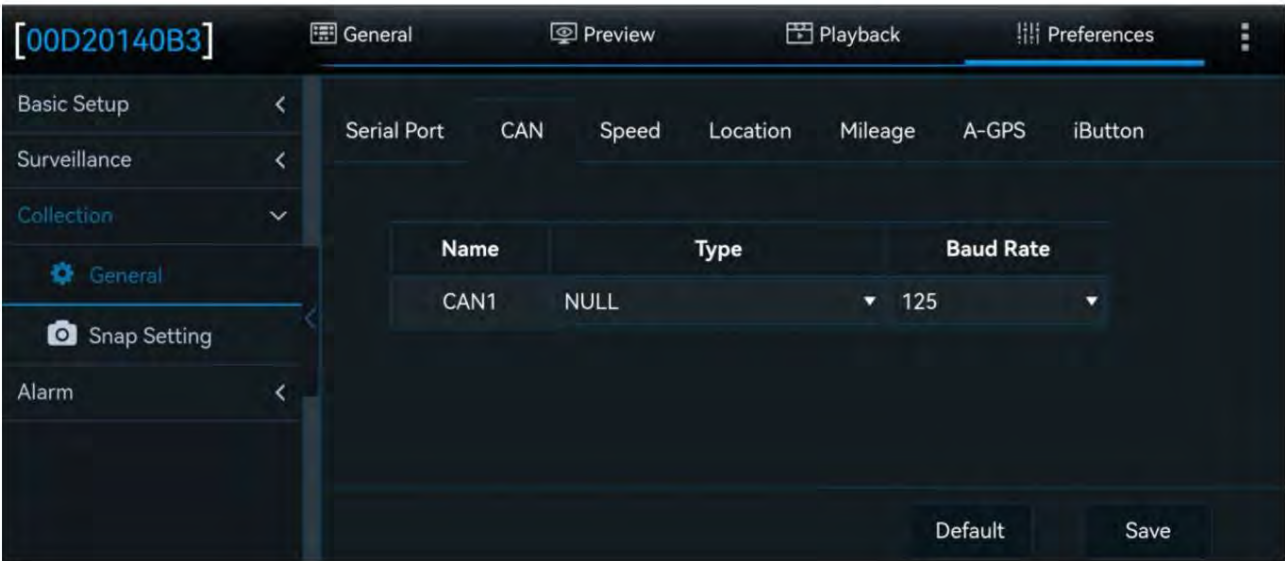
1) Click [Preferences] > [Collection] > [General] > [Serial Port] to enter the serial port settings

interface:



Serial port: You can select the peripheral device to be connected, and the baud rate will automatically jump to the corresponding value. If it is incorrect, you can also adjust it manually.

2) Click [Preferences] > [Collection] > [General] > [CAN] to enter the following interface:



In this interface, you can configure the function type and baud rate of access to CAN.

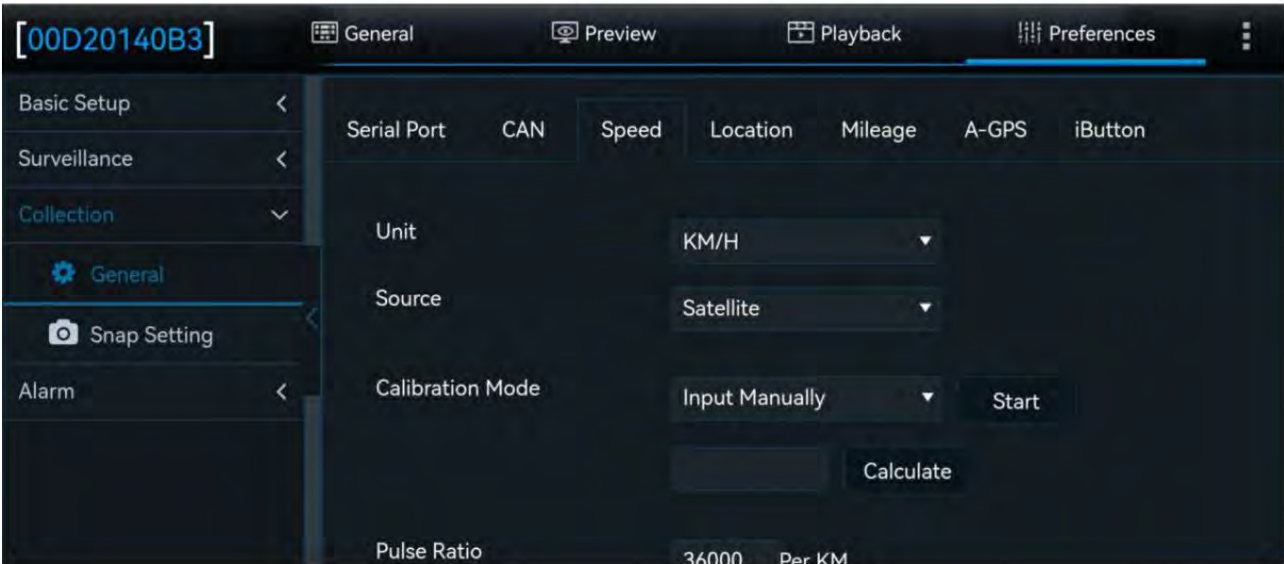


Warning: Support standard J1939 protocol, because vehicle manufacturers will customize some data fields, and ultimately can obtain

The data is subject to actual measurement. If the required data is not supported, a protocol can be provided for integrated development.

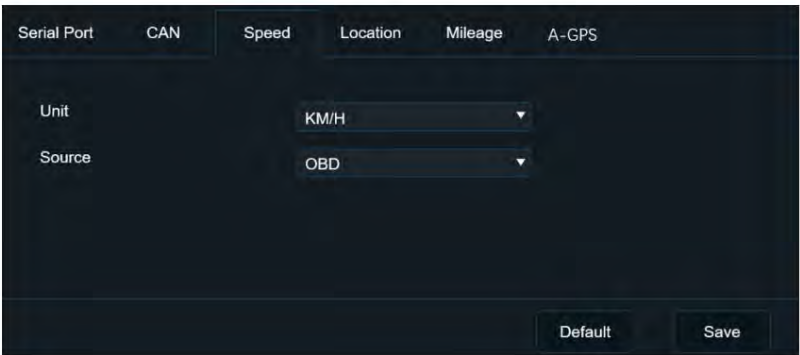
Or if there is a need for data diversity, an OBD power box can be optionally equipped to perform relevant CAN data analysis.

3) Click [Preferences] > [Collection] > [General] > [Speed] to enter the following interface:



1. [Speed Unit]: Set the speed unit: KM/H and MPH;
2. [Speed Source]: You can choose from Satellite, Pulse, Mix, OBD, or CAN.

When the speed source is selected as Satellite, OBD or CAN, the interface is as shown below:



When the speed source is selected as Pulse, the interface is as follows:



Calibration Mode: You can choose manual calibration or automatic calibration.

When automatic calibration is selected, click [Correct] to calibrate the pulse coefficient directly;

When manual calibration is selected:

- You need to manually enter the initial mileage of the odometer, and the system will calculate the initial mileage of the odometer;
- Click to start learning; (the MCU will automatically record the number of pulses);
- At any time, when you click to end learning, record the mileage on the odometer again and calculate the mileage difference;
- Then input the difference mileage, click calculate, and the pulse coefficient will automatically display the calculation result; (the calculation result unit is the same as the speed

(units consistent with degrees)

When the speed source is selected as Mix, you can set the priority of the speed source, with 6 priority sorting methods available. The interface is as follows

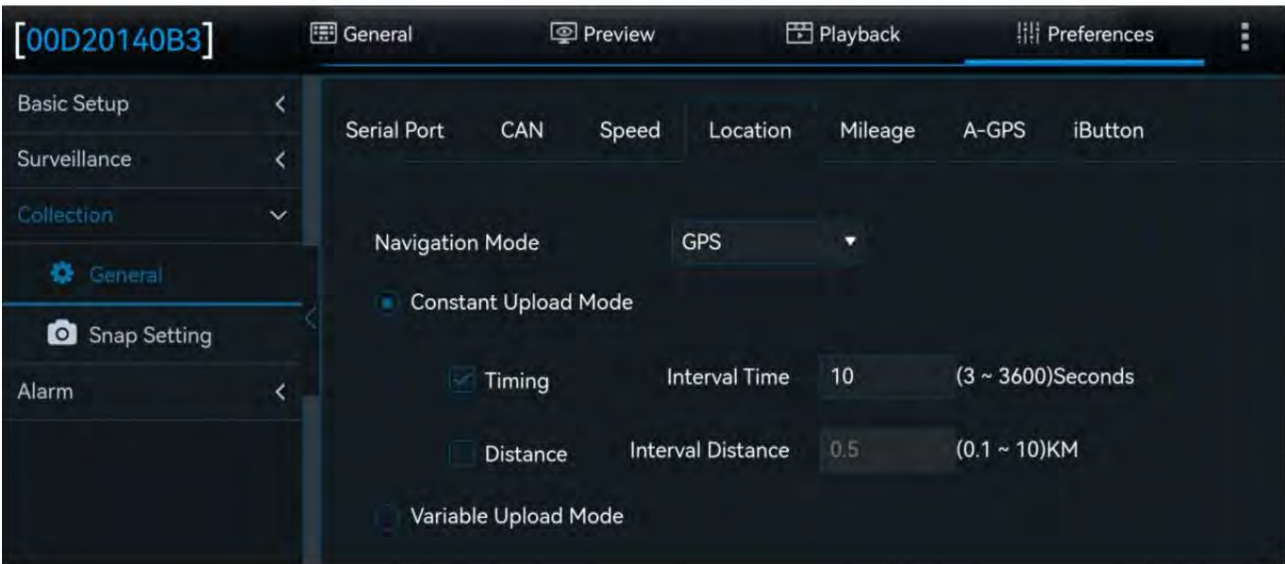
picture:

- 4) Click [Preferences] > [Collection] > [General] > [Location] to enter GPS reporting

Strategy setting interface. You can choose different ways to upload GPS signals according to market needs.



Warning: This interface will only be displayed when the device detects the GPS module and supports setting parameters.



GPS reporting is divided into three states according to the ACC status: fixed reporting, conditional reporting, and dormant reporting:

ACC status fixed reporting	Conditional reporting
<p>ACC ON 1. Timed reporting, time can be modified manually,</p> <p>3~3600 seconds optional, default 10 seconds;</p> <p>2. Report at equal distances, and the intervals can be manually adjusted</p> <p>Modified, 0.1~10km optional;</p> <p>3. Timed reporting and fixed distance reporting can be checked at the same time</p> <p>select</p>	<p>See detailed description, pay attention to fixed reporting and conditional reporting</p> <p>You can only choose one of the two, that is, after checking the fixed report, you cannot</p> <p>Then check the conditional reporting, the default is fixed reporting.</p>
ACC OFF sleep report	

1. Detailed description of condition reporting:

First: define two states, one is moving start and the other is moving stop. Conditional reporting is based on these two

Report a change in status.

Secondly:

• Definition of moving start: When the speed of the vehicle is higher than a certain value and the time lasts for a certain period of time, it is considered

Start the vehicle. The default speed is 30km/h and the default time is 60S.

• Definition of moving stop: When the speed of the vehicle is lower than a certain value and the time lasts for a certain period of time,

The default speed is 20km/h and the default time is 5 minutes.

Reporting method:



When the state changes from moving stop to moving start:

Timed reporting: The time can be modified manually, the default value is 60 seconds;

Equidistant reporting: The interval can be modified manually, the default value is 0.1km;

When the state changes from moving start to moving stop:

Timed reporting: The time can be modified manually, the default value is 60S.

2. Report multiple times when the vehicle's driving angle changes significantly: The angle can be set by the user. The default setting is to report once when the angle is 45°.

GPS data.

3. When GPS information is uploaded, ACC status information is also reported.

4. For details on the sleep reporting function, see the power on/off settings in [Preferences] > [Basic Setup] > [Time Setup].

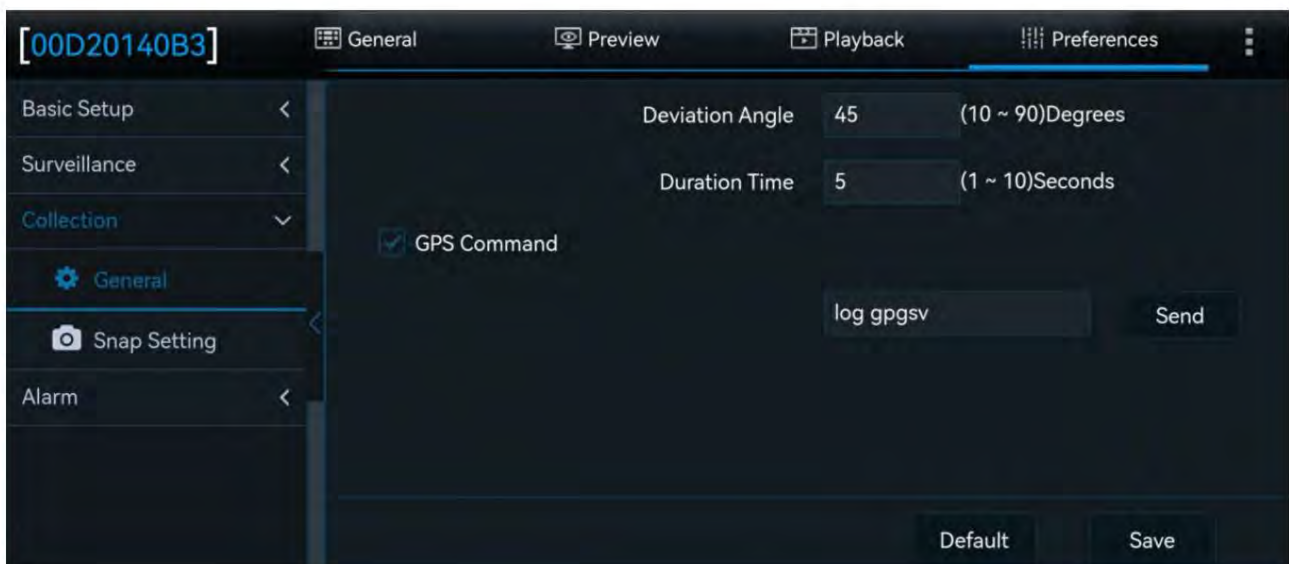
GPS command: To ensure that the original GPS data can be obtained for analysis when problems occur in the inertial GPS, the GPS original data is added.

Start data acquisition instruction. Enter log gpgsv in the command input box of [Position]>[GPS Command] and click Send.

Save, you can start GPS raw data recording. At this time, these data will be recorded in the device black box and can be accessed through the device local

The GPS data recorded in the black box can be obtained by remote acquisition or platform analysis.

Including RMC, GGA, GSA, GSV, GPATT. The interface is as follows:



At the same time, after sending the log gpgsv command, the general information display interface of Veyes will show the satellite positioning signals received by the device.

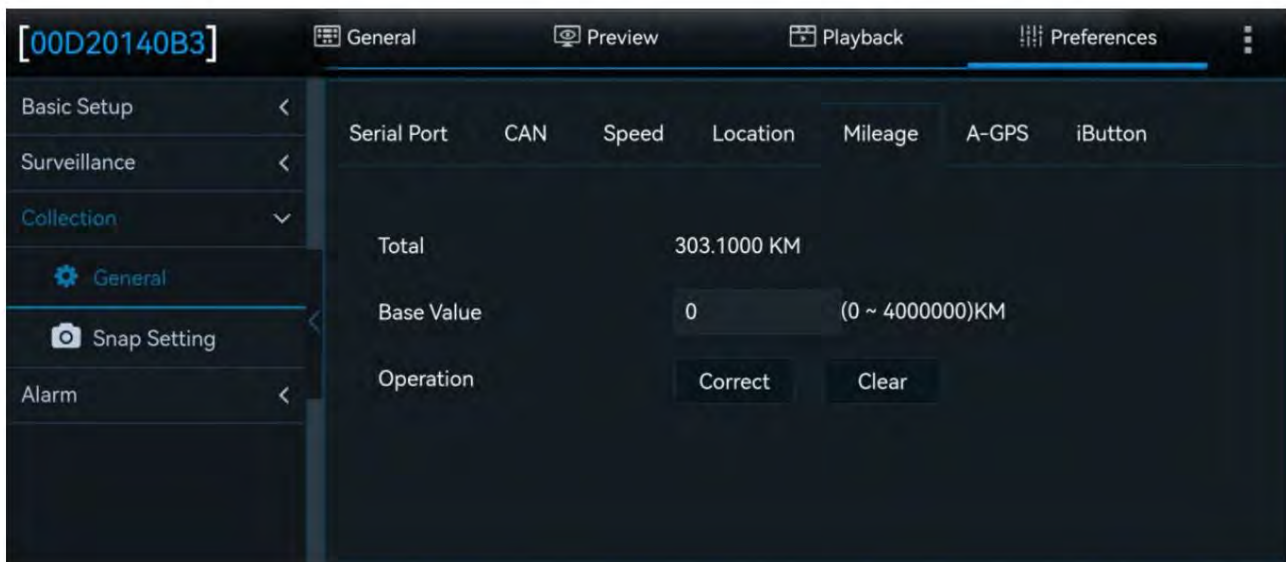
In [General] > [Positioning Information], you can view the number of satellites and the corresponding satellite signal quality.

If you want to manually close the GPS raw data record, you can select the close GPS command enable or enter unlog in the command box.

gpgsv, click send and save, and then stop recording GPS raw data to the black box.

4) Click [Preferences] > [Collection] > [General] > [Mileage] to enter the mileage settings interface.

The mileage base value can be set, and the mileage value can be calibrated and cleared. As shown below:



5) Click [Preferences] > [Collection] > [General] > [A-GPS] to enter the A-GPS settings interface.

In a strong signal environment, the autonomous GNSS receiver can cold start positioning in about 30 seconds; however, in a weak signal environment (such as

Under elevated roads, on tree-lined paths, between urban high-rise buildings, just out of tunnels, just out of underground garages, etc.) without external auxiliary receivers

Satellite acquisition is slow and it is difficult to obtain messages from satellites, so it takes a long time to locate or even be impossible to locate. AGNSS (AGPS)

The service can provide the receiver with the necessary auxiliary information for positioning, such as message, rough position and time.

Even in weak signal environments, this information can significantly shorten the first positioning time and achieve fast startup and fast positioning effects.

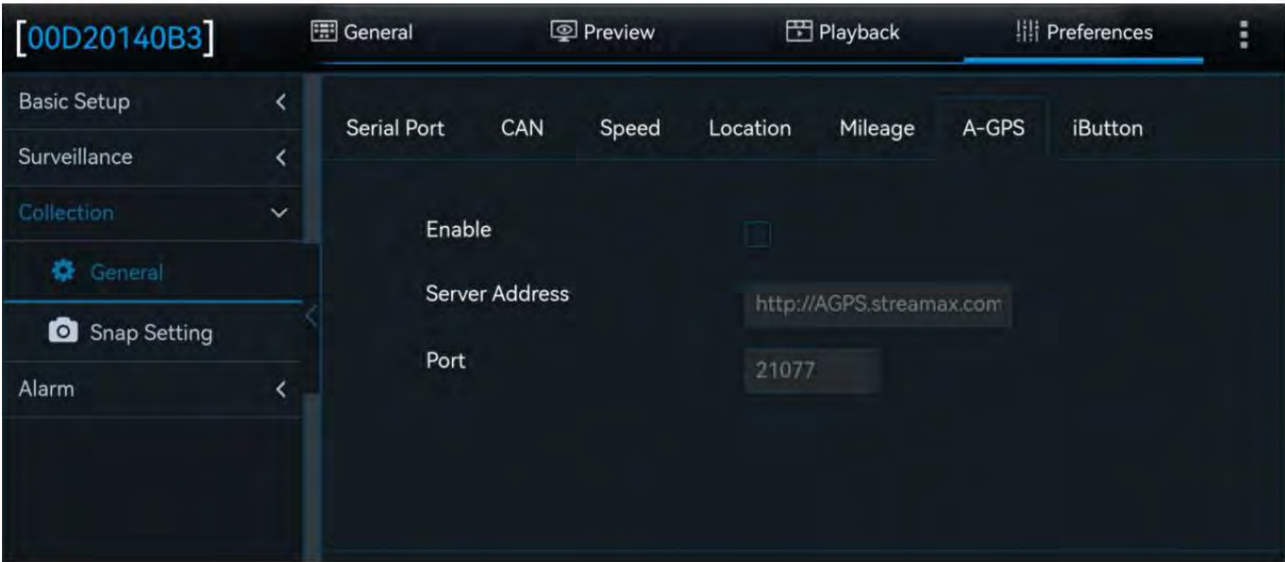
When in use, the AGPS proxy server obtains all the ephemeris data from various chip manufacturers at regular intervals and stores it on the server.

The backup end connects to the proxy server through the default proxy server IP/domain name and port (parameters can be modified manually).

After powering on, check whether the AGPS auxiliary information file is expired (the expiration time of the file varies with different chips). If it is expired,

AGPS proxy server requests to obtain the latest ephemeris data and downloads it to the local computer in an overwrite manner. If it cannot be obtained, it will continue

Get.

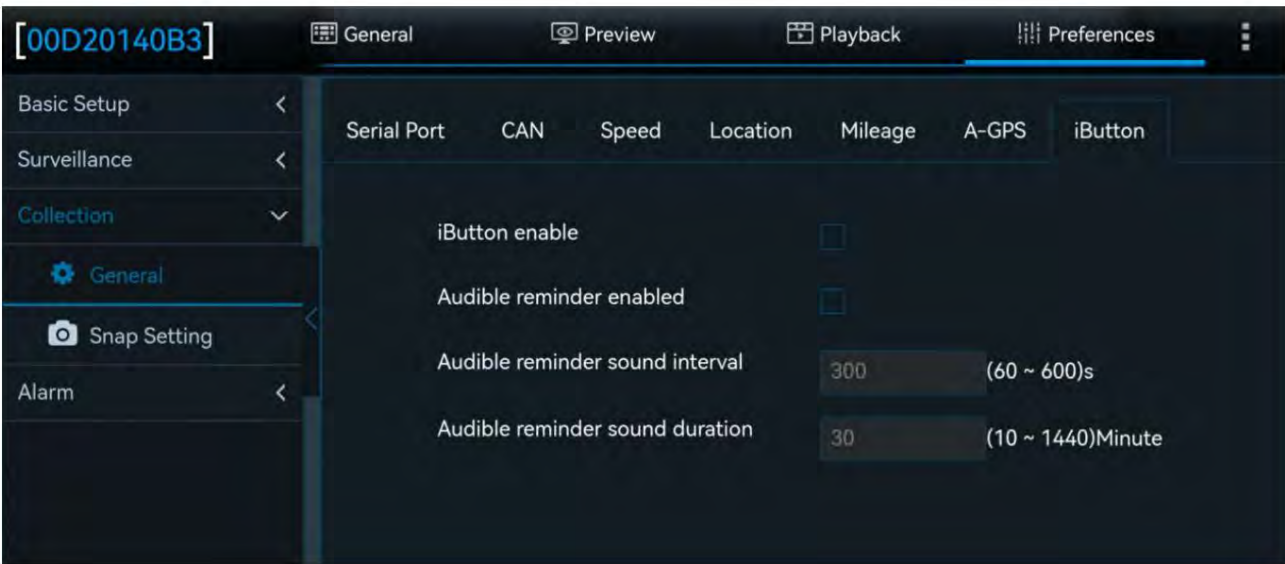


Warning: This feature requires server deployment and is not yet officially open for commercial use. It is expected to be officially deployed in Q4 2024.

The server supports commercial use.

6) Click [Preferences] > [Collection] > [General] > [iButton] to enter the iButton settings

interface.



If Audible reminder enable is checked, after the vehicle starts, the voice message "Please sign in" will be played.

If the driver does not use the iButton to sign in for a long time, a voice reminder will be given according to the set interval.

When the device detects the normal iButton signal (magnetically attached to the base), it will announce the "Sign in

successfully", and upload the ID number to the MS platform.



Note: To use the iButton function, you need to purchase the iButton peripheral and upload the iButton ID to the MS platform.

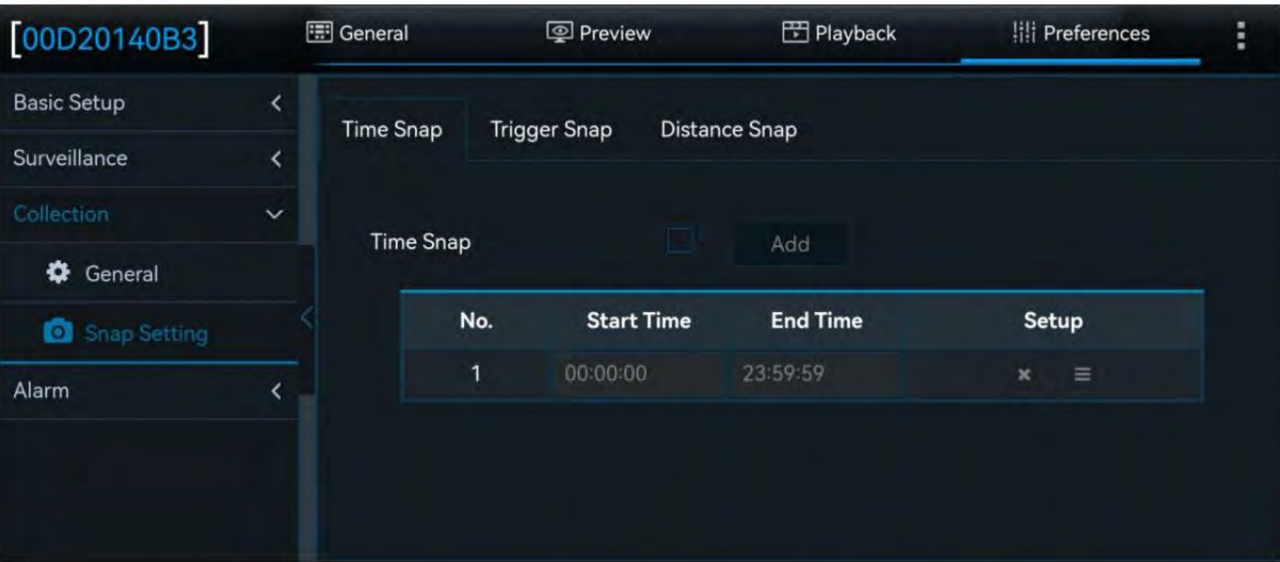
Need to be used with MS platform.

2.8.2 Snapshot Settings

2.8.2.1 Timed snapshot

Support setting time period, automatically capture photos at regular intervals within the time period. Click [Preferences] >

Collection>Snap Setting>Time Snap. The timed snapshot setting interface is as shown below:



- Check the enable switch to turn on scheduled snapshot, and click the [Add] button to add a time period for scheduled snapshot;
- Start/End Time:
  - 1) Set a time period and enable the snapshot function during that time period;
  - 2) The time period for scheduled snapshot is within one day;
  - 3) Supports scheduled snapshots for up to 8 time periods per day;
  - 4) Time periods can be added, deleted, and edited.
- Each time period can set independent snapshot parameters. Click [Operation] to enter the snapshot linkage interface as follows:

Snap Link Set (Time Snap 1)

Channel	Snap Enable	Resolution	Quality	Upload Type	Snap Numbers (1~3)Pcs	Interval (5~7200) Second
1	<input checked="" type="checkbox"/>	D1	1(Best)	Setup	1	5
2	<input type="checkbox"/>	D1	1(Best)	Setup	1	5
3	<input type="checkbox"/>	D1	1(Best)	Setup	1	5
4	<input type="checkbox"/>	720P	1(Best)	Setup	1	5

Copy Channel 1 To All Copy

Cancel
OK

- 1) Channel: Select the camera channel to be captured;
- 2) Enable snapshot: Check to enable the scheduled snapshot function of this channel;
- 3) Resolution: Select the capture resolution;
- 4) Image quality: Select image quality from 1 to 8, with 1 being the best quality;
- 5) Upload method: Support FTP upload and HTTP upload. Automatically upload captured pictures via FTP.

For detailed settings, please refer to [Preferences]> [Basic Setup]> [Application]>

ÿCommunication Moduleÿ>ÿFTP Serverÿ; When HTTP is selected, the captured pictures

It will be uploaded to the designated platform via HTTP. The HTTP parameter is empty by default. The HTTP address is downloaded through the platform.

hair.

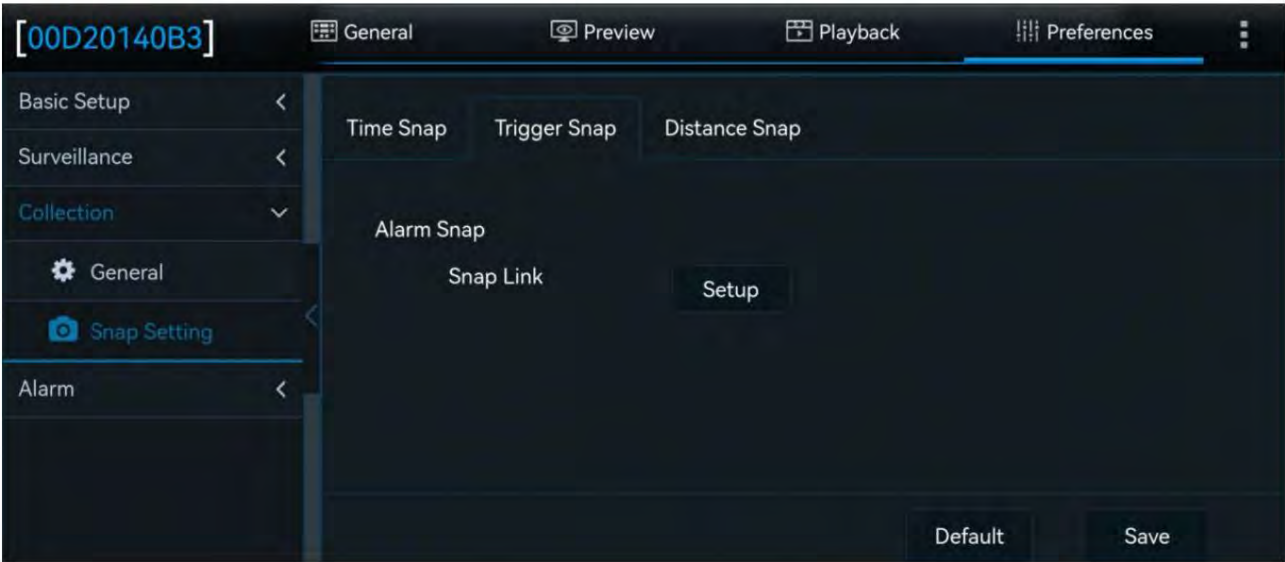
- 6) Number of snapshots per shot: can be set from 1 to 3;
- 7) Snapshot interval: how many seconds should a snapshot be taken during this time period;
- 8) Copy Style: You can copy the settings to other video channels.

#### 2.8.2.2 Alarm snapshot

Supports alarm linkage snapshot, that is, start snapshot after an alarm occurs. Click [Preferences] > [Collection] >

[Snap Setting] > [Trigger Snap], the alarm snapshot setting method is the same as the scheduled snapshot. I will not repeat it here.



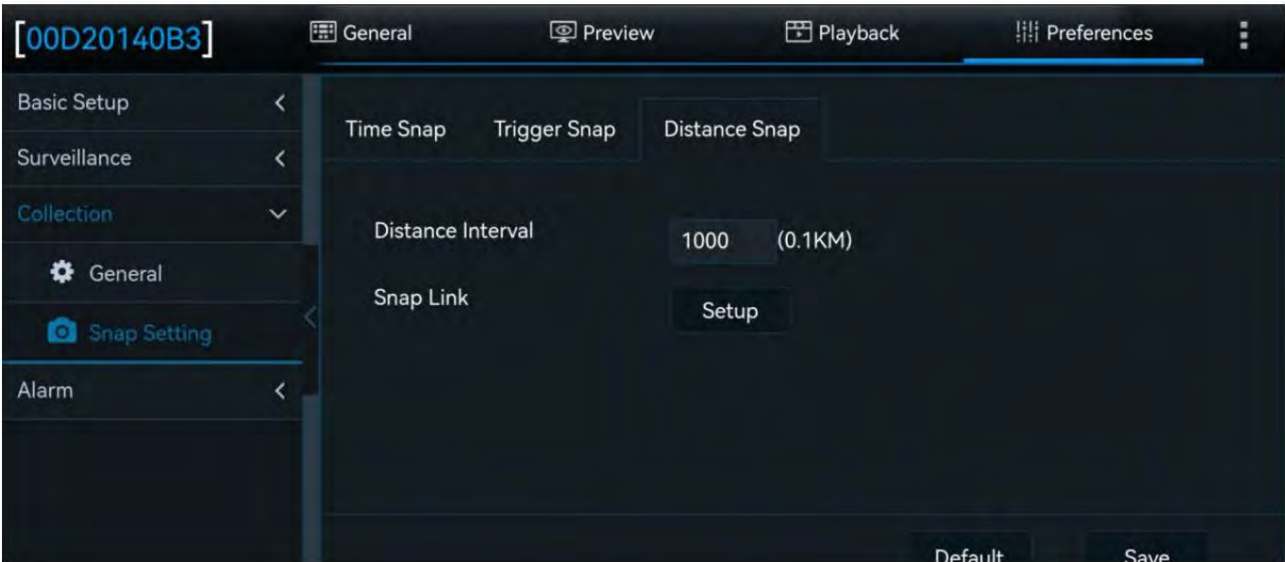


2.8.2.3 Fixed-distance snapshot

Supports fixed-distance snapshots, that is, taking pictures at fixed distances and uploading them to the platform. Click [Preferences] >

Collection>Snap Setting>Distance Snap, fixed distance snap is closed by default, and the distance unit is

The snapshot linkage setting method is the same as the scheduled snapshot, except that there is no snapshot time interval setting in the fixed-distance snapshot setting.



Warning: The snapshot function will consume a certain amount of system resources. The total upper limit of various snapshot settings is: the total of all channels

The average capture frequency is no more than 3 frames per 5 seconds; due to the system resource issues caused by frequent capture settings, the company

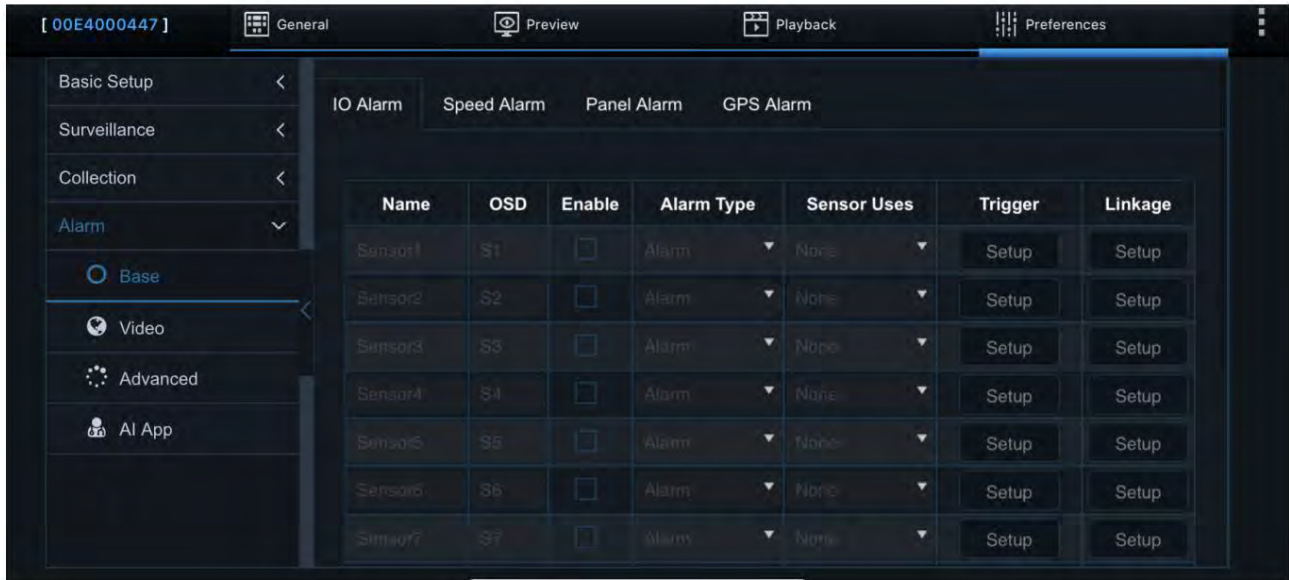
No responsibility.

2.9 Alarm Settings

## 2.9.1 Basic alarms

In the basic alarm setting interface, you can set IO alarm, speed alarm, panel alarm, and GPS alarm.

Click [Preferences] > [Alarm] > [Base] to enter the following interface:



Switch value interface:

1. Switch number: optional Sensor1-Sensor8;
2. Switch name: You can customize the switch name and click to modify it;
3. Name abbreviation: You can customize the abbreviation of the switch value in the OSD overlay information.
4. Alarm type: divided into alarm and event.

When the type is alarm:

- 1) Alarms can be superimposed on the preview interface and recordings via OSD;
- 2) The alarm will be uploaded to the platform;
- 3) Write alarm log;

When the type is event:

- 1) Overlay OSD;
- 2) Will not report to the platform;
- 3) Write alarm log.

5. Switch Usage: You can set the switch usage, such as left turn, right turn, brake, and privacy function.

6. Trigger conditions: Click Settings to enter the following interface: All

rights reserved. All rights reserved.



1) Trigger Condition: High or low level or pulse trigger can be selected. The default is pulse alarm for left and right rotation, and the default is pulse alarm for other purposes.

Recognize the high level alarm.

High level: Normally low level, high level when triggered

Low level: Normally high level, low level when triggered

Pulse signal: Normally low level, high and low level changes when triggered



Warning: The IO port can detect voltage range of 0-36v, below 3.9v is low level, above 3.9v is high level, please

Use within the visible range. Our company is not responsible for any damage to the equipment caused by exceeding the detectable range.

2) Alarm Effective Time: The effective time refers to the period of time after an alarm is released and the same alarm occurs again within a certain period of time.

The alarm time is optional from 0 to 10 seconds, and the default is 5 seconds.

For example: A motion detection alarm is generated at 13:23:30 and is cancelled at 13:23:50. If the effective time is set to

If a motion detection alarm occurs within 10 seconds and another motion detection alarm occurs within 10 seconds, the two motion detection alarms are considered to be the same alarm.

The alarm log records one entry, and the alarm linkage will not stop until the motion detection is canceled.

3) [Do not refresh alarm timer]: Do not refresh alarm timer to enable. When an alarm is released,

If the same alarm is generated again within a certain period of time, it is considered to be the same alarm; if the continuous alarm generation time exceeds the alarm

If the expiration time is exceeded, a new alarm is generated.

For example: When the enable function is not enabled, a motion detection alarm is generated at 13:23:30 and the alarm is canceled at 13:23:50.

If the valid time is set to 10 seconds, and a motion detection alarm is generated and canceled within 10 seconds, it is considered that the two motion detection alarms are

Motion detection alarm is the same alarm, the alarm log records one alarm, and the alarm linkage will not stop until the subsequent motion detection is canceled;

When the enable is on, a motion detection alarm is generated at 13:23:30 and the alarm is canceled at 13:23:50. If it is valid

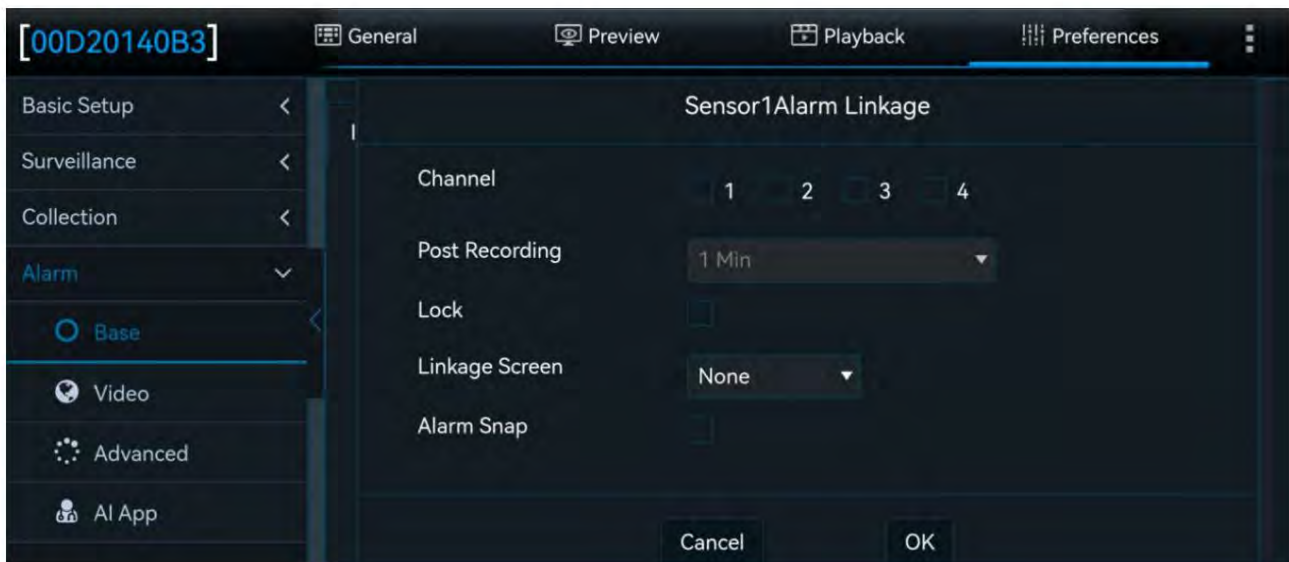
The time is set to 10 seconds, and a motion detection alarm is generated within 10 seconds. The alarm is cancelled until 13:24:02.

Motion detection alarms and motion detection alarms triggered within the valid time will be considered as the same alarm, and the alarm log will record the same alarm.

The alarm linkage will not stop until the subsequent motion detection is canceled. A new alarm will be generated at 13:24:00.

The alarm linkage will not stop until the motion detection is canceled.

7. Linkage content: When an alarm occurs, the business functions that can be linked. Click Settings to enter the following interface:



1) [Channel]: After an alarm is generated, the channels that need to be recorded; the recordings of these channels will be marked as alarms

Video recording.

2) Recording Delay: When the alarm is canceled, the recording time will continue. 1~30min optional, default

1min

3) Video Lock: You can set whether the alarm video is locked. If checked, after the IO alarm is triggered, the

The alarm video will be locked; after the alarm is released, the video lock will end.

4) [Linked switch output]: After triggering the IO alarm, you can set the IO output quantity and the output IO

Duration, 0~255s optional.

5) Linkage Screen: After an alarm is generated, the screen that is required to be displayed directly. It is not displayed by default, but can be

To set single and quad display.

6) [Alarm Snapshot]: whether to snap a picture after an alarm is generated. When setting the FTP address,

After the switch alarm is triggered, the channel snapshot will be turned on and the captured images will be exported via FTP.

When setting alarm evidence reporting parameters, it can also be reported to the platform.

Speed alarm interface: You can enable the overspeed alarm and set the alarm type to alarm or event.

The interface can set the speed warning parameters, that is, when the vehicle's current speed is less than the speed limit value by a certain value, a warning will be generated first.

When the speed exceeds the speed limit, an overspeed alarm is generated. The two alarm voices are different. The rest of the settings are the same as the switch alarm settings.

same.

Overspeed Trigger		
Preload Speed Difference	10	(0 ~ 200)KM/H
Speed	100	(1 ~ 200)KM/H
Duration Time	10	(0 ~ 255)Second
<div> <div>Cancel</div> <div>OK</div> </div>		

Panel alarm interface: Set Panic Button alarm enable and linkage parameters. In the alarm trigger setting interface,

You can set the trigger time of the panel alarm, 1~255 seconds optional, the default is 1 second (cannot be changed).

The switch alarm is the same.

[00D20140B3]

General

Preview

Playback

Preferences

Basic Setup

Surveillance

Collection

Alarm

Base

Video

Advanced

AI App

Panic Trigger

Any key

1

(1 ~ 255)Seconds

Effective Time

10

(0 ~ 10)Seconds

?

Do not refresh the alarm timer

?

Cancel

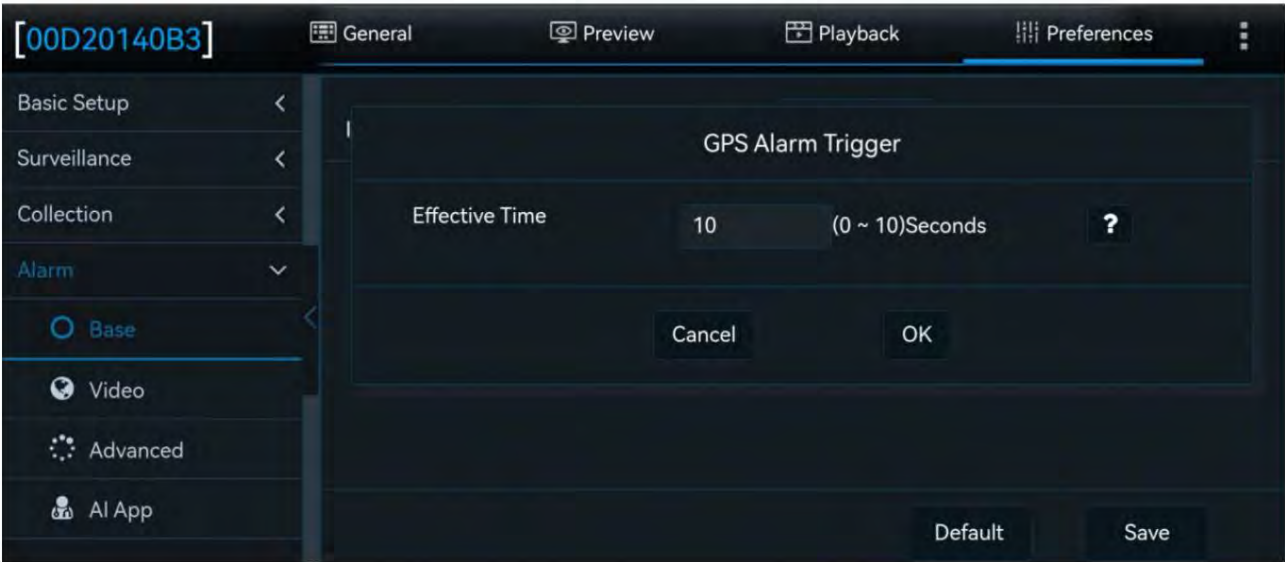
OK

Default

Save

GPS Alarm: This alarm is generated when the GPS signal is lost. The setting method is the same as the switch alarm.





2.9.2 Video Alarm

Video loss

In the video loss interface, you can set the video loss alarm parameters. Click [Preferences] > [Alarm] > [Video] >

Video Loss, then click the alarm trigger setting interface, as shown below. You can set the channel for video loss alarm.

The settings are the same as the switch alarm.



Motion detection

In the motion detection interface, you can set the motion alarm parameters. Click [Preferences] > [Alarm] > [Video] >

Motion, then click on the alarm trigger setting interface, as shown below. You can set the channel for video detection alarm. Linkage setting

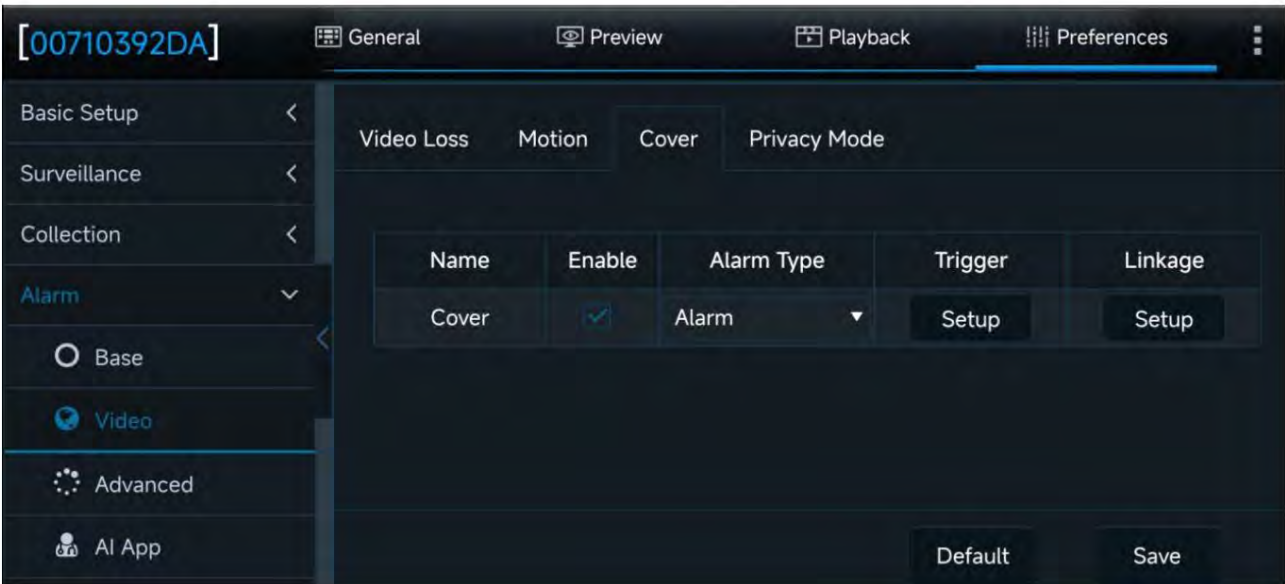
Same as switch alarm.



Camera blocked

Camera occlusion interface, you can set the camera occlusion alarm parameters. Click [Preferences] > [Alarm] >

[Video]>[Cover], enter the following interface:



Click on the alarm trigger setting interface, as shown below. You can set the camera blocking alarm channel as well as the alarm sensitivity and duration.

Time, effective time, speed threshold. AI channel uses algorithm detection. Non-AI channel uses host judgment.

The automatic setting is the same as the switch alarm.

The ADAS channel blockage alarm requires a vehicle speed exceeding 10 km/h and a continuous blockage of 90 seconds to be triggered; the DMS

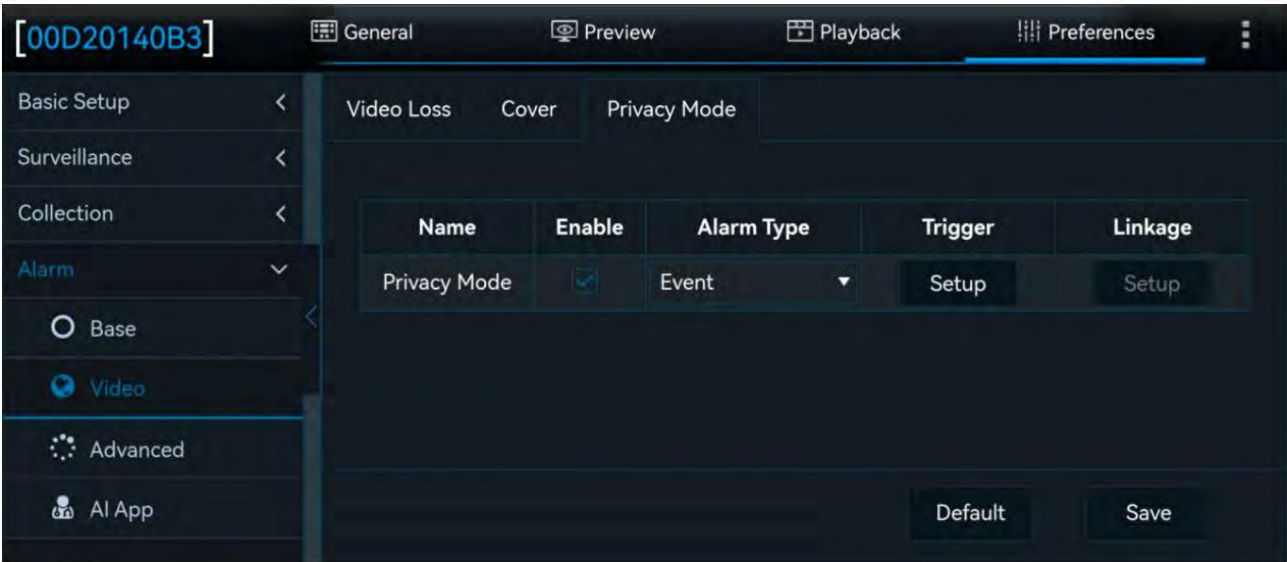
The channel's occlusion alarm duration and speed values use the duration and speed values set on the occlusion alarm interface.



Privacy Mode

Privacy mode setting interface, you can set the privacy mode trigger and release method. Click [Preferences] > [Alarm] >

[Video]>[Privacy Mode], enter the following interface



Click the Settings button to enter the following interface, where you can set the privacy channel, privacy mode trigger method, privacy mode release method,

Privacy mode voice enabled.

Privacy channel: When the privacy mode of a channel is turned on, the video and audio recording of the channel is turned off, and it is enabled after turning on the privacy mode;

Privacy mode triggering method: IO and ACC are optional. After configuring the IO purpose, triggering IO can realize the privacy mode on and off.

IO specific settings are detailed in [Preferences]> [Alarm]> [Base] section. ACC trigger mode refers to ACC closed

After 10 seconds, privacy mode will be turned on (video and audio recording will be stopped).

Privacy mode release method: There are two release methods: speed and IO. You must choose one of the two methods.

The triggering mode is the same as that of the IO. Once the IO is set, it can be used to trigger and release. The speed mode means that when the privacy mode is turned on, the vehicle speed

If the value is greater than a certain value, the privacy mode can be released.

Privacy mode AI alarm enable: In privacy mode, the algorithm detection still needs to be performed normally and there will be voice reminders, so you need to turn it on

This should be enabled.

Privacy mode voice enable: refers to whether to play the voice when triggering or releasing the privacy mode. This enable also controls the privacy mode on and off.

The voice on and off cannot be controlled separately.

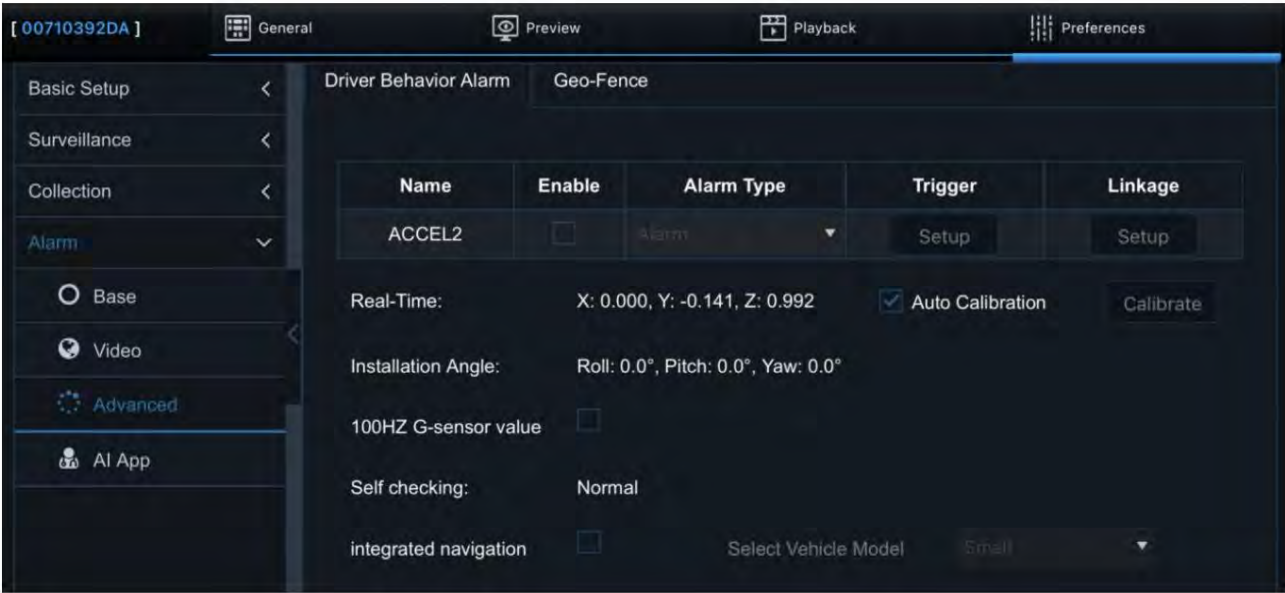


2.9.3 Advanced Alarms

In this interface, you can set G-Sensor alarm and electronic fence alarm. Click [Preferences] > [Alarm] >

Advanced. As shown below:

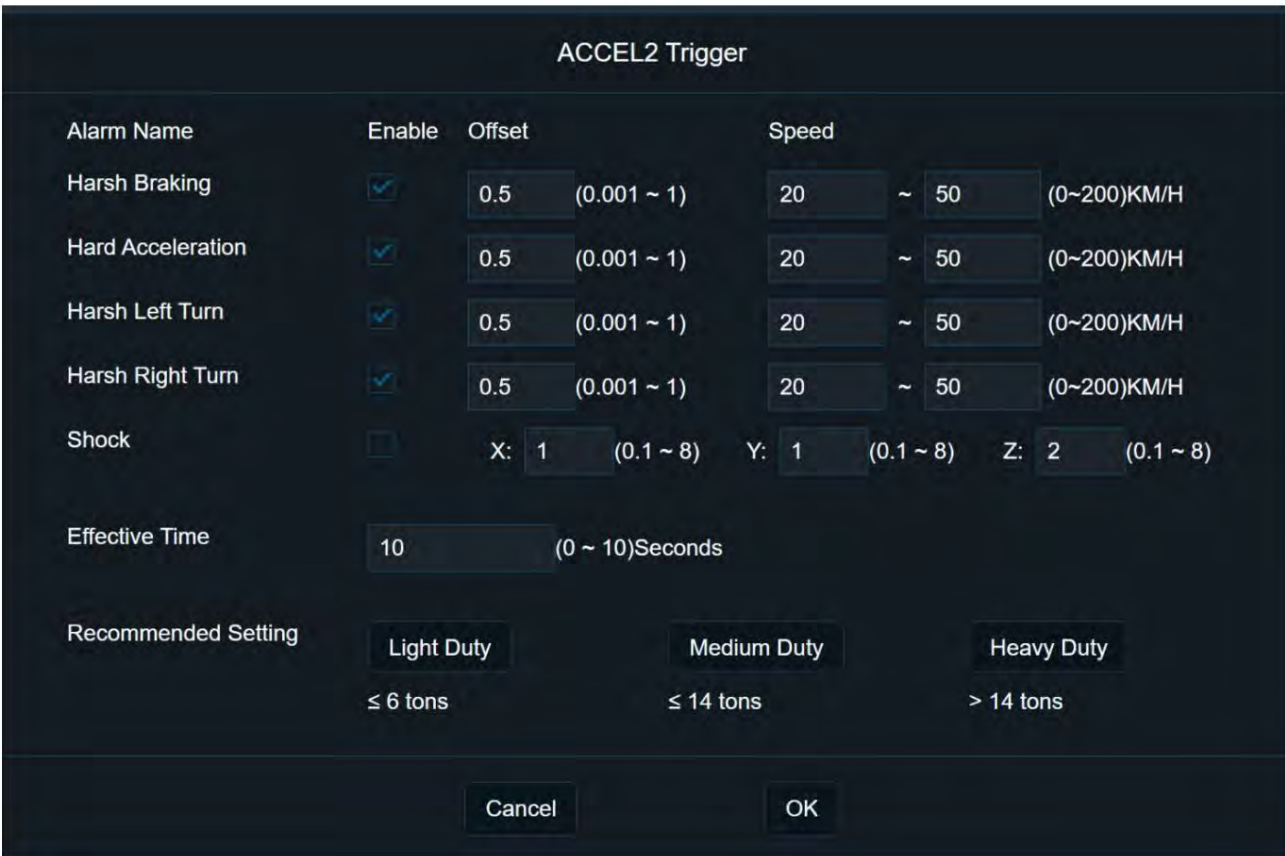




Driving behavior alarm interface: Among them,

1. ACCEL2 indicates the name of the driving behavior alarm algorithm. Checking it means that this algorithm is valid.
2. Alarm Type indicates the type of event triggered by aggressive driving behavior.
3. Trigger indicates the driving behavior alarm triggering conditions: you can set the alarm detection switch for sudden braking, sudden acceleration, and sudden turning

And alarm conditions, as shown below:





Shock: refers to collision detection, using G-Sensor to determine whether the vehicle has collided. Here you can set the collision detection threshold

value.



Note: In ACCEL2 Trigger, Harsh Braking, Hard Acceleration, and Harsh Left Turn

The offset values of the four alarms, Harsh Right Turn, are all determined by complex formulas.

The correct answer is, follow the vehicle tonnage recommendations below. If you find that the alarm is triggered too easily, increase the offset value.

If it is difficult to trigger, adjust the offset value to a smaller value. The offsets of these four types of alarms are not completely linear. The larger the offset value, the smaller the value of the alarm.

The more obvious the machine feels. The XYZ value unit of Shock is gravity acceleration G. This parameter setting directly represents the impact of the collision.

Threshold for acceleration in the XYZ directions.

4. Linkage means that when an alarm is triggered, some alarm services can be linked. The setting method is the same as that of the switch alarm:

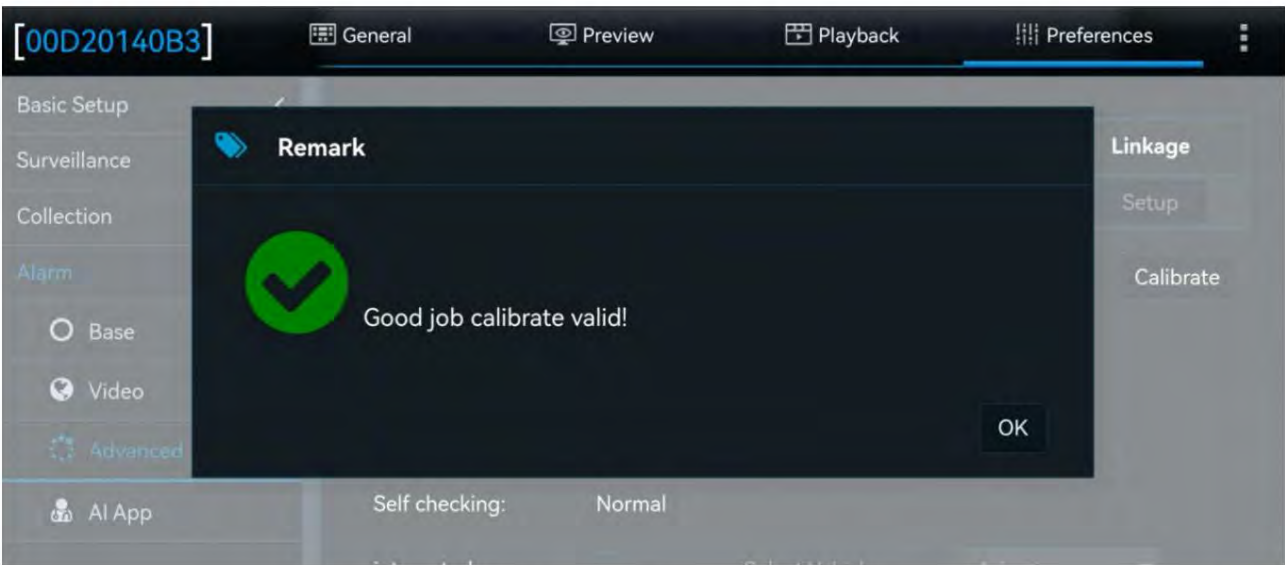
5. Support automatic calibration and manual calibration of G-sensor.

Manual calibration:

After manual calibration is saved, if the XYZ value is detected to be (0,0,1), the calibration is considered successful and the calibration is recorded in the operation log.

Success. The calibration success log records the following information: Gsensor calibration success status, time, real-time XYZ value data.

After the automatic calibration is successful, the page prompts as shown below:



Automatic calibration:

Using the original calibration logic, after the fifth calibration is completed, the deviation values of XYZ values within the non-deviation range (0,0,1) are all

$\pm 0.1$ . The successful calibration log records the following information: Gsensor calibration success status, time, and real-time XYZ value data.

When the device enters the calibration process again and completes the calibration state, it will be recorded again.

• Calibration failure status judgment:

Manual calibration: After manual calibration is saved, it is detected that the XYZ value is not at (0, 0, 1).

The calibration value is set to (0, 0, 1), so the manual calibration failure status is almost 0.

Auto calibration: Since auto calibration is a continuous process, after 5 consecutive calibrations, if the XYZ values are not within the range of

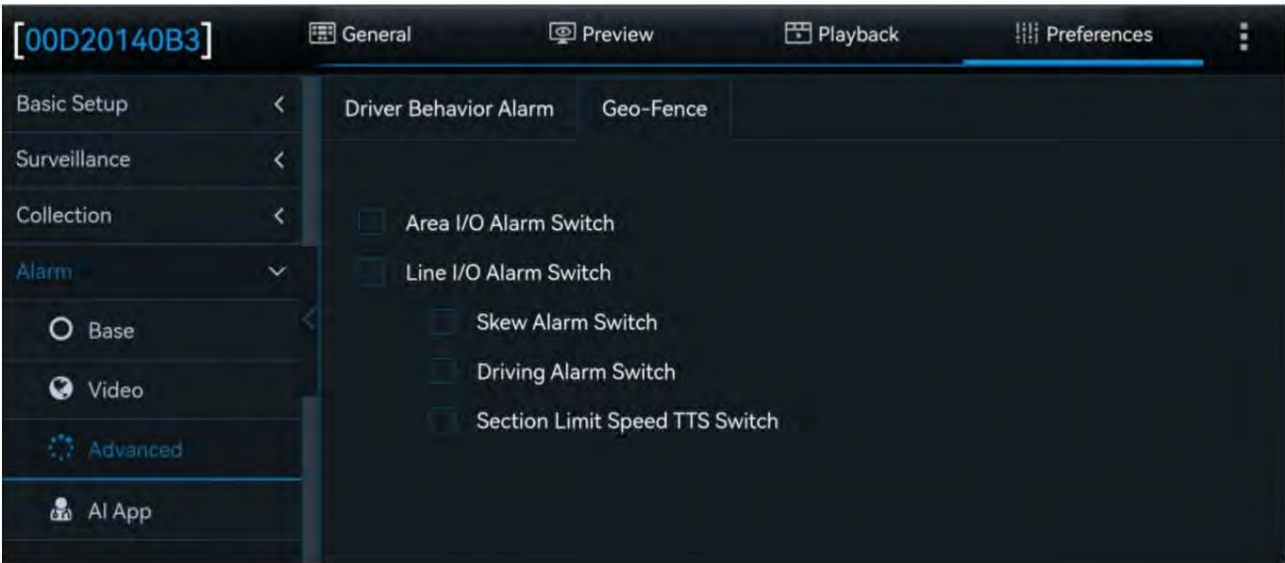
When  $(0, 0, 1) < \pm 0.1$ , the log records the abnormal state of automatic calibration, time, and real-time XYZ value data.

6. Can display the installation angle of the device;

7. Supports 100Hz G-sensor data transparent transmission, which can be enabled or disabled.

• The electronic fence interface can select the processing strategy for entering and exiting the fence/line, which needs to be used with the CEIBA2 platform or MSCloud platform.

use.



#### 2.9.4 AI alarm

Supports AI alarm parameter settings through Veyes. Click [Preferences] > [Alarm] > [AI App].

Enter the AI alarm setting interface, the displayed AI alarms include:

ADAS alarms LDW, FCW, HMW, PCW	
DMS Alarm	Driver Fatigue No driver Handheld Devices Smoking Distraction Yawn Seatbelt No Mask Infrared Block Alarm
BSD alarm right blind spot monitoring, left blind spot monitoring, front blind spot monitoring	

The parameter setting logic of each AI alarm is basically the same. Each alarm can be triggered according to different scenarios. Copyright All Rights Reserved, Infringements will be prosecuted Page 76,

The trigger conditions of each alarm basically include: speed range, sensitivity setting, effective time (within this time range)

If multiple alarms are triggered within the specified range, only one alarm will be recorded), duration (how long the triggered alarm lasts).

There are also slight differences in the configurable parameters for the same alarm, as shown in the following table:

Alarm category	Alarm type	Configurable parameters					
		Level 1 and 2 Speed Zone Point settings	Sensitivity	Duration <small>between</small>	When valid <small>between</small>	Linkage <small>Allow</small>	Snapshot
ADAS	LDW	have	Whether there is or not is the same.				
	FCW	have	Nothing, nothing, everything is the same				
	HMW	have	Yes, Yes, Yes, All the same,	All the same			
	PCW	have	Nothing, nothing, everything is the same				
DMS	Driver Fatigue Yes No No Same						
	No driver	none	Whether there is or not is the same.				
	Handheld Devices	have	Whether there is or not is the same.				
	Smoking	have	Whether there is or not is the same.				
	Distraction		Whether there is or not is the same.				
	Yawn	have	Whether there is or not is the same.				
	Seatbelt	have	Whether there is or not is the same.				
	No Mask	have	Whether there is or not is the same.				
	Infrared Block Alarm	have	Whether there is or not is the same.				
BSD	Right blind spot detection	none	Nothing exists, everything is the same, everything is the same				
	Left blind spot detection	none	Nothing exists, everything is the same, everything is the same				
	Front blind No		Nothing, nothing, everything is the same				

	area						
--	------	--	--	--	--	--	--

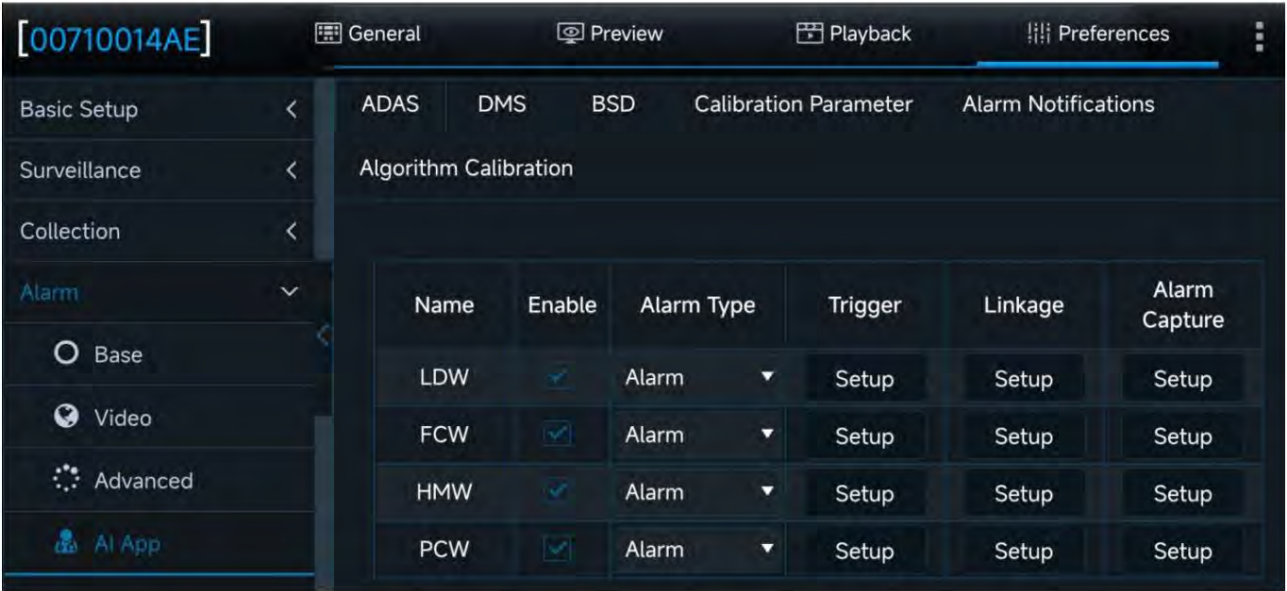
Since the parameter setting logic of each AI alarm is basically the same, the following takes HMW alarm as a general alarm to explain the HMW alarm.

Parameter setting method, and use LDW alarm in ADAS alarm and No Driver alarm in DMS alarm, Distraction

Taking alarms as an example, the differences in parameter settings between these alarms and other general alarms are explained.

HMW

Click [Preferences] > [Alarm] > [AI App] > [ADAS], and check the HMW alarm enable switch, as shown in the figure:



Alarm Type: You can choose alarm or event. When event is selected, the generated alarm will not be reported to the platform. For detailed differences, see 2.9.1

Section Basic Alarm.

[Trigger Settings]: Click the [Setup] button of the trigger condition to set the alarm trigger conditions, as shown below:



• Lvl1 Speed Range: Level 1 alarm speed setting range, default is 20~50km/h. When a level 1 alarm is generated, the host

There are MP3 voice broadcast prompts;

• Lvl2 Speed Range: Level 2 alarm speed setting range. The lower limit of the level 2 alarm is different from the upper limit of the level 1 alarm.

When the upper limit of the first level alarm is modified, the lower limit of the second level alarm will also change.

The beeping sound of the machine prompt.

• Sensitivity: You can set the sensitivity of the alarm trigger, there are 4 options: "Low", "Medium", "High" and "Custom".

If you select "Custom", the default sensitivity is "Medium". If you select "Custom", you can manually enter a custom value.

Among the open alarms, only HMW has a customizable sensitivity setting. The custom value range is 0.6~4.

(This time is the ratio of the relative distance to the vehicle's speed, not natural time), as shown in the figure below.



HMW Trigger			
Lvl1 Speed Range	30	~	50 KM/H
Lvl2 Speed Range	≥		50 KM/H
Sensitivity	User-Defined ▼	0.6	(0.6 ~ 4)Seconds
Duration	2.00		(0.1 ~ 30.00)Seconds
Effective Time	300		(0 ~ 600)Seconds ?
Do not refresh the alarm timer			?

• Duration: The duration of the HMW alarm is the duration of the state after the HMW alarm condition is met.

A certain time will be set, and the alarm will be generated after the time is reached. The duration of the vehicle distance is too close can be set from 0.10 to 10.00.

The default value is 2s.

• Effective time: The effective time refers to the time when an alarm is canceled and the same alarm is generated again within a certain period of time.

Same alarm. 0~600 seconds optional.

[Linkage Content]: Click the [Setup] button in the linkage settings to enter the following interface:



HMW Alarm Linkage

Channel

☐

1

☐

2

☐

3

☐

4

Post Recording

1 Min

Lock

☐

Linkage Screen

None

Cancel

OK

Channel: After an alarm is generated, the channels that need to be recorded; the recordings of these channels will be marked as alarm recordings.

Video Delay: When the alarm is canceled, the duration of the alarm video recording. 1~30min optional, 1min by default.

It is required that at least one channel has alarm recording checked.

Video Lock: You can set whether the alarm video is locked. If checked, after the LDW alarm is triggered, the alarm video will be unlocked.

The video will be locked; after the alarm is released, the video lock ends.

Linked switch output: After triggering the IO alarm, the IO output can be set. This function is only available when using a UPS power box.

The IO output can be set (the conventional power box has no IO output), and the duration of the output IO can be set.

0~255s optional.

Linkage screen: the screen that is required to be displayed directly after an alarm is generated. It is not displayed by default, and you can also set a single screen.

and quad display.

[Snapshot]: Click the [Setup] button under Alarm Snapshot to enter the following interface:

HMW Alarm Capture

Capture Mode

Cycle Capture

Capture PcS

1

Capture Interval

5

(5 ~ 3600)Seconds

Channel	Snap Enable	FTP	Resolution	Quality
1	<input type="checkbox"/>	<input type="checkbox"/>	D1	1(Best)
2	<input type="checkbox"/>	<input type="checkbox"/>	D1	1(Best)
3	<input type="checkbox"/>	<input type="checkbox"/>	D1	1(Best)
4	<input type="checkbox"/>	<input type="checkbox"/>	D1	1(Best)

Cancel

OK

In the past, setting up alarm capture required not only checking the alarm capture enable in AI alarm, but also going to Data Collection > Alarm Capture.

To simplify the operation, the alarm capture parameter settings are unified in each AI

Alarm setting interface.

• Capture mode: Single capture and loop capture are optional. Single capture means only one capture is taken each time.

The snapshot will be taken after an interval. The snapshot interval is determined by the following parameter [Snapshot Interval]. For example: a single snapshot

If the number of pictures is 3 and the snapshot interval is 1s, one picture will be taken every 1s from the moment of alarm.

When capturing, take multiple photos at the same time, and then take another photo after a certain interval. This cycle will continue until the alarm is triggered.

The number of snapshots and the snapshot interval are determined by the following parameters [Number of snapshots] and [Snapshot interval].

For example, if the number of snapshots is set to 3 and the snapshot interval is set to 5s, then 3 snapshots will be taken simultaneously from the moment of the alarm.

Snap 3 pictures every 5 seconds, and stop snapping until the alarm valid time is reached.

• Number of snapshots: The number of snapshots can be 1 to 3, with 1 being the default.

• Snapshot Interval: The time interval for capturing pictures, 5~3600 seconds optional, 5 seconds by default. For a single snapshot, if

If the number of snapshots is set to 3 and the interval is set to 5s, a picture should be captured starting from the time the alarm is triggered.

The second photo is taken after 5 seconds, and the third photo is taken after another 5 seconds.

• Snapshot channel setting: Select the channel to snap pictures when an alarm is generated. You need to check the channel enable and upload method.

mode and resolution parameters of the captured image.

## • LDW

Click [Preferences] > [Alarm] > [AI App] > [ADAS], check the LDW alarm enable switch, and

In the triggered setting interface, click the [Setup] button to configure the alarm parameters and enter the figure below.

LDW has less duration setting interface than HMW alarm, and FCW has less sensitivity and duration setting interface than HMW alarm.

The rest of the configuration parameters are the same as those for HMW and will not be described here.



🚗 No Driver

Click [Preferences] > [Alarm] > [AI App] > [DMS], check the No Driver alarm enable switch,

In the alarm trigger setting interface, click the [Setup] button to enter the following figure:



For the No Driver alarm, there is only a first-level alarm, no second-level alarm.

There will be a voice prompt. The speed value of the alarm can be customized and the default is 20km/h.

The other setting interfaces are the same as HMW and will not be described here.

🚗 Distraction

The triggering conditions of the Distraction alarm are similar to those of other alarms, except that the Distraction alarm has a distraction judgment.

The setting options of mode and distraction angle can be used to more accurately control the Distraction alarm scene.

🚗 Judgment conditions: refers to judging whether the driver is distracted by looking left or right or looking down. According to different distraction judgment conditions,

There are also separate sensitivity threshold settings (need to select Custom for the Sensitivity parameter).

Distraction angle: It is a normal driving operation for the driver to look at the rearview mirror.

By setting the distraction angle parameter, the driver is allowed to deflect his head to a certain extent.

The heart angle parameter is divided into three levels: light, medium, and high.

Slight means that the driver will be distracted if he slightly tilts his head; Severe means that the driver needs to tilt his head to a greater angle

A distraction alarm will be generated.

Distraction Trigger

Lvl1 Speed Range

30

~

50

KM/H

Lvl2 Speed Range

≥

50 KM/H

Sensitivity

User-Defined

Judgement

L+R+Up+Down

lane departure suppression

L+R

5

(0 ~ 60)Seconds

Up+Down

3

(0 ~ 60)Seconds

distraction level

light

Effective Time

0

(0 ~ 600)Seconds

?

Do not refresh the alarm timer

?

Cancel

OK

In the AI function, BSD alarm is supported. Click [Preferences] > [Alarm] > [AI App] > [BSD] to enter

Enter the following interface to set the BSD alarm parameters. BSD alarm does not distinguish between the first and second level alarms based on the speed range, but

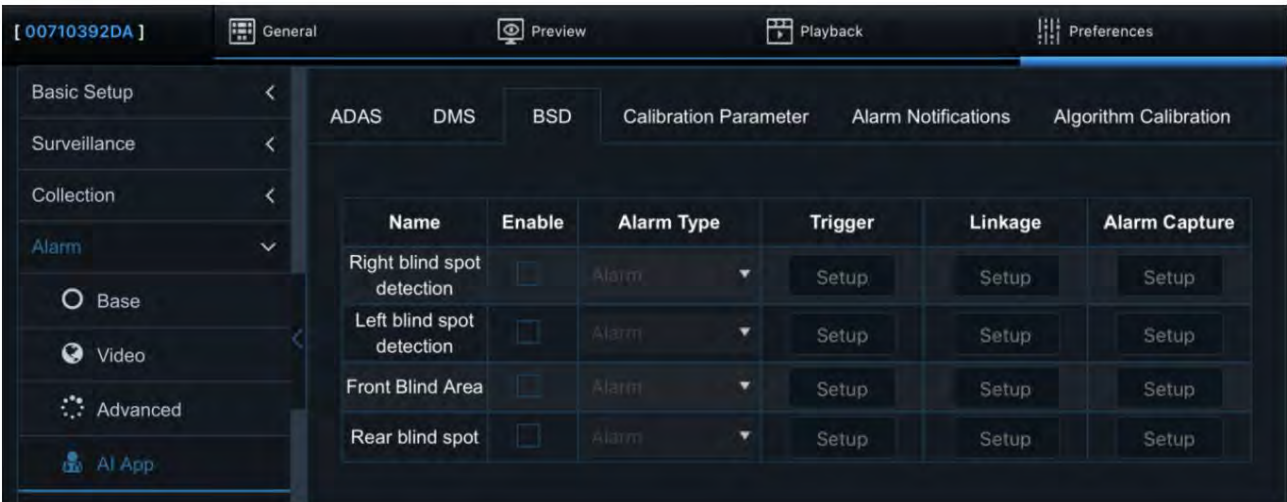
The distance between pedestrians and vehicles is divided into the following categories:

Vehicle side blind zone warning:

- Level 1 alarm: 2-3 meters away from the vehicle
- Second level alarm: 1-2 meters away from the vehicle
- Level 3 alarm: 0-1 meter from the vehicle body

Front/rear blind spot warning:

- Collision warning: 2 meters in front of the vehicle

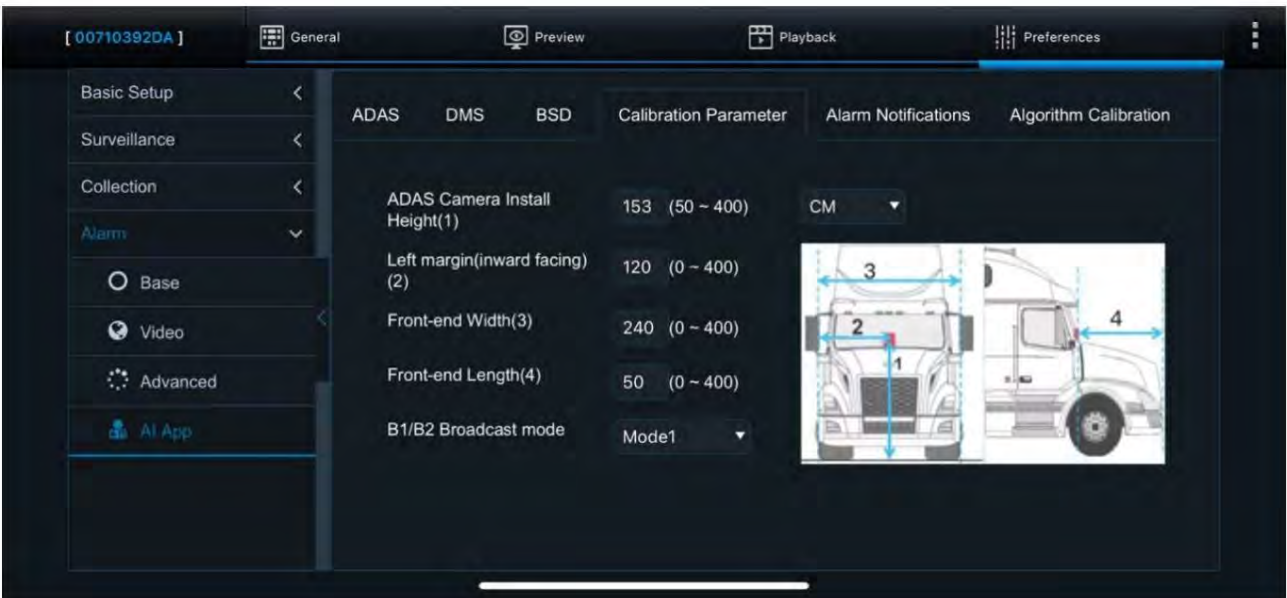


2.9.4.1 Algorithm Parameters

In the AI alarm algorithm parameter setting interface, you can modify the ADAS installation height, left margin, front width, front length, left and right Rudder settings, open or close AI alarm voice enable, open or close R-Watch enable (if R-Watch is connected), open or close sound and light Alarm B1 is enabled (if B1 is connected).

Click [Preferences] > [Alarm] > [AI App] > [Calibration Parameter], as shown below:

The ADAS calibration value unit can be selected in centimeters or inches. After the unit is selected, the value range will change automatically.



2.9.4.2 Alarm reminder

In the alarm reminder interface, you can uniformly control the opening and closing of AI alarm voice, R-Watch voice and sound and light alarm B1/B2 voice.



After the sound control main switch is enabled, each alarm sub-switch must also be turned on (no separate switch for sound and light alarm B1/B2).

If the main sound control switch is turned off, even if each alarm switch is turned on, the sound prompt will not be played.

There will be a sound prompt.

Click [Preferences] > [Alarm] > [AI App] > [Alarm Notifications], as shown below:

ADASDMS/DSCBSDCalibration ParameterAlarm NotificationsAlgorithm Calibration

AI Alarm Voice Enable☒

R-watch Brightness

Manual Mode

8(0 ~ 8)

R-watch Voice Enable☒

B1/B2 Mode Set

Sound&Light

8(0 ~ 8)

B3 Mode Set

Close

Name	R-Watch Voice	MP3 Voice	B1/B2 Sound	B1/B2 Light	B3 Sound	B3 Light
Driver Fatigue	<input type="checkbox"/>	<input type="checkbox"/>				
No Driver	<input type="checkbox"/>	<input type="checkbox"/>				
Handheld Devices	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
Smoking	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
Distraction	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
LDW	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
FCW	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
Speed	<input type="checkbox"/>	<input type="checkbox"/>				

“AI Alarm Voice Enable”: MP3 alarm voice enable switch. After turning on the enable, when the alarm is triggered,

The host will play the MP3 alarm voice. The first-level alarm voice is the alarm prompt sentence, and the second-level alarm is a "beep" sound.

“R-Watch Brightness”: R-watch brightness setting. Manual mode: 8 levels of brightness available for adjustment

“R-Watch Voice Enable”: Enable the R-Watch voice switch. After enabling,

In the peripheral mode, when the alarm is triggered, R-Watch will play an alarm beeping sound and display an icon.

“B1/B2 Mode Set”: B1/B2 sound and light alarm control settings.

After the alarm is triggered, the sound and light alarm will have different linkage performances according to the set reminder mode.

Sound or flash.

“B3 Mode Set”: B3 sound and light alarm control settings. After connecting the BSD camera and the sound and light alarm,

According to the reminder mode set, the sound and light alarm will have different linkage performance when the BSD alarm is triggered, sound or flash

Light.

The MP3 Voice, R-Watch Voice, B1/B2 Sound and B3 Sound control of each alarm below are all copyrighted and any infringement will be prosecuted.

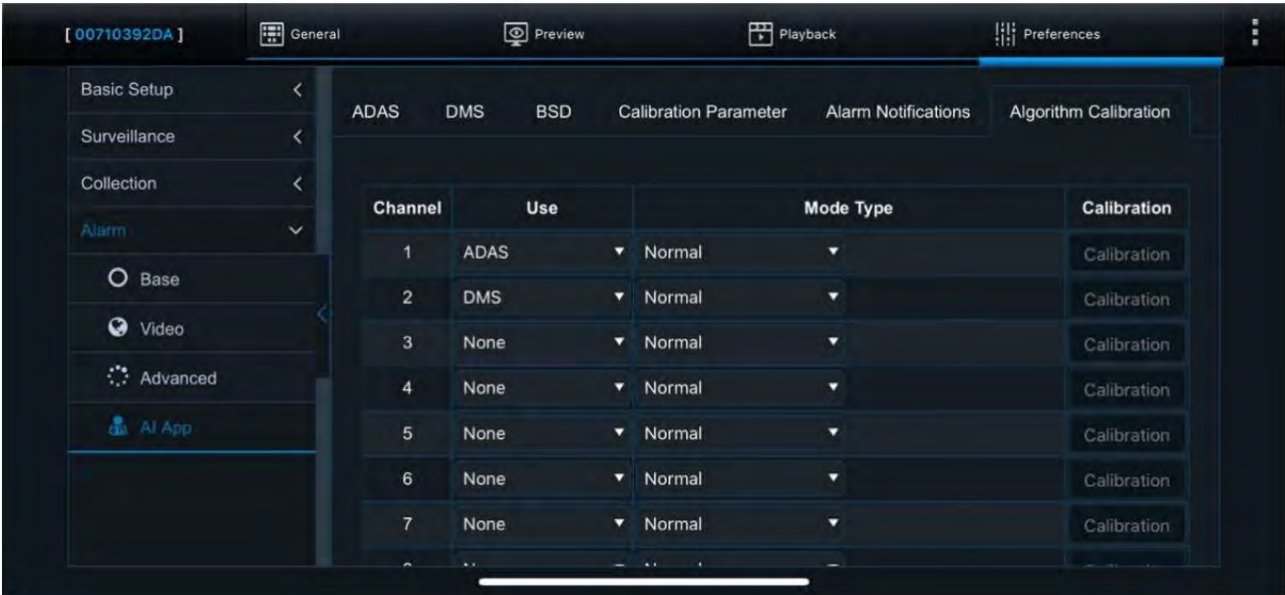
The prompt voice of each alarm can be controlled separately; B1/B2 Light, B3 Light brightness control can be enabled

Individually control the brightness of each alarm reminder.

2.9.4.3 Algorithm Calibration

In the AI alarm algorithm calibration setting interface, you can set the intelligent algorithm used for each camera channel.

Click [Preferences] > [Alarm] > [AI App] > [Algorithm Calibration], as shown below:



3. Fault analysis and troubleshooting

3.1 The device cannot be turned on

- Please check whether the power cord is well connected and the fuse is intact and fully inserted.
- According to the power logic of the system design, when the device is powered by OBD, it needs to be powered when the vehicle is in motion (G-sensor is added).  
Speed variance> 10mg) will be powered. If the vehicle power supply is normal during installation, please shake the power box slightly.

3.2 The device cannot connect to the Internet after powering on

- Please make sure that the SIM card is inserted before the device is turned on. If it is inserted after the device is turned on, please power off and restart the device.
- Please check whether the SIM card is installed correctly
- Please check whether the network signal at your current location is good

• Please confirm whether the SIM card has data

### 3.3 The device cannot record after powering on

• Please make sure that the hard drive or SD card is inserted before the device is turned on. If it is inserted after the device is turned on, please power off and restart the device.

• Please check whether the hard disk or SD card is installed correctly

• After inserting the hard drive or SD card into the device, please format it before using it

### 3.4 The device analog channel does not display the image after being plugged into the camera

• Please check whether the camera format matches the current system format. If not, please change the system format.

• Please check whether the camera cable is connected properly

## 4. Appendix

### 4.1 Explanation of Terminology

Main stream: High-definition stream, mainly used for video storage and subsequent evidence analysis

Sub-stream: SD stream, generally used for remote preview, can also be used for video storage, when the storage capacity is limited and cannot reach

When the storage market requires, you can consider using dual memory to store the main and sub streams. The main stream meets the needs of general video storage and evidence analysis.

Analysis, sub-stream for ultra-long-term storage.

CEIBA2: The previous generation of video service platform based on CS architecture. CEIBA2 client is the client software of this platform, supporting

H264 (raw data, including black box data, etc.) exported by the device is played. If you need the platform software, please contact the technical support department of the region.

Supports docking acquisition.

FCC Caution.

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.

Any Changes or modifications not expressly approved by the party responsible for compliance 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 Radiation Exposure Statement:

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