

Road-View Dash Cam

User's Guide



What's Inside

Camera

Cables

Accessories

Installation Kit



Product Interface



LED	Description
White	The device is powered on, but it's within the first minute of startup.
Green	The device is connecting to the platform.
Blue	The device is actively recording.
Purple	The GPS function is working.
Red	The panic button has been activated.

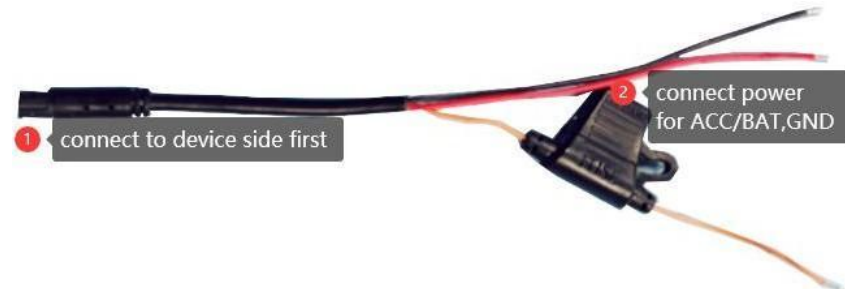
Getting Started

Your VizTrack dash cam comes pre-installed with an industrial-grade SIM card and its microSD storage card.

Step 1: Connecting the Dash Cam to the Power

Option 1: 3-Wire Power Cable Method

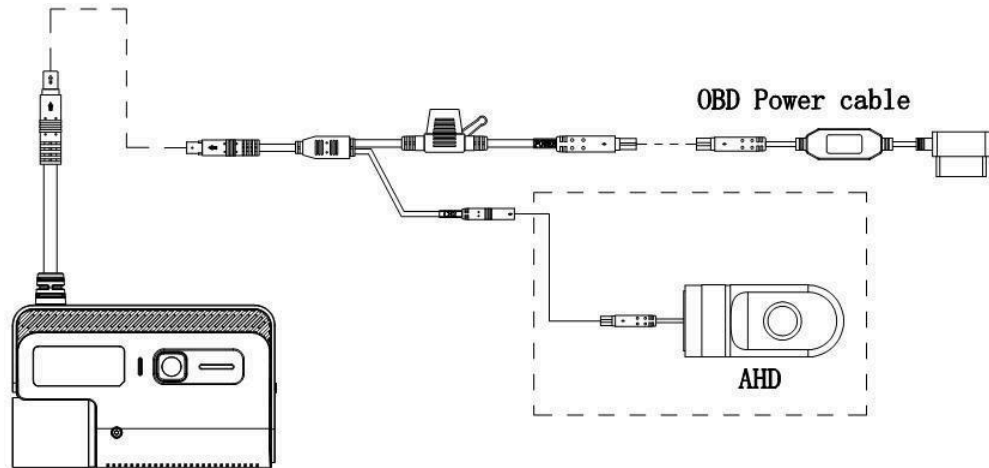
1. Connect the Power Cable:
 - Plug the 3-wire power cable into the dash cam using the provided connectors.
2. Wire the Cables:
 - Black Wire: Connect this to the ground (GND).
 - Red Wire: Connect this to 12V power (ACC/BAT).



This will ensure your dash cam receives power from the car's electrical system.

Option 2: (Optional) OBD Power Cable Method

1. Connect the OBD Power Cable:
 - Plug the OBD power cable into the dash cam using the provided connectors.
2. Connect to the OBD-II Interface:
 - Insert the 16-pin OBD plug into your vehicle's OBD-II interface to provide power.



This method simplifies the installation by using the vehicle's OBD-II port for power.

Step 2: Mounting the Dash Cam to the Windshield

1. Choose the Ideal Position:

- Find the best spot on your windshield for the dash cam. Ensure it provides a clear view and does not obstruct your view while driving.

2. Clean the Area:

- Clean the chosen area on the windshield to ensure proper adhesion of the bracket.

3. Attach the Bracket:

- Remove the plastic liner from the bracket.
- Attach the adhesive side of the bracket to the windshield.
- Ensure the bracket is securely fastened and the "UP" arrow on the non-adhesive side is pointing upward.

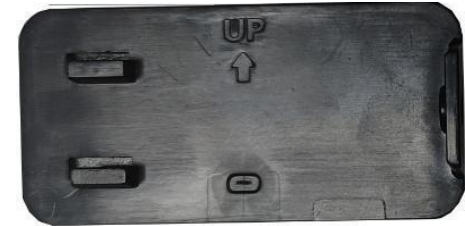
4. Install the Dash Cam:

- Slide the dash cam onto the windshield bracket.
- Make sure it locks securely in place.

5. Secure the Bracket Cover:

- Attach the bracket cover to the windshield bracket using the short screw.

Caution: Do NOT use the long screw as it may damage the device.



Step 3: Powering on the Dash Cam

1. Turn on the Vehicle:
 - Turn the vehicle ignition switch to the ON position to power up the dash cam.
2. Connect to the Dash Cam's Wi-Fi:
 - Open the Wi-Fi settings on your smartphone and connect to the dash cam's Wi-Fi access point.
3. Download and Open the Howen iTool App:
 - On your smartphone, search for and download the Howen iTool app.



Howen iTool

Howen iTool

4. Verify Information:
 - In the app, check and verify that the following information is displayed correctly and up to date:
 - Info
 - Network
 - Disk
 - Satellite

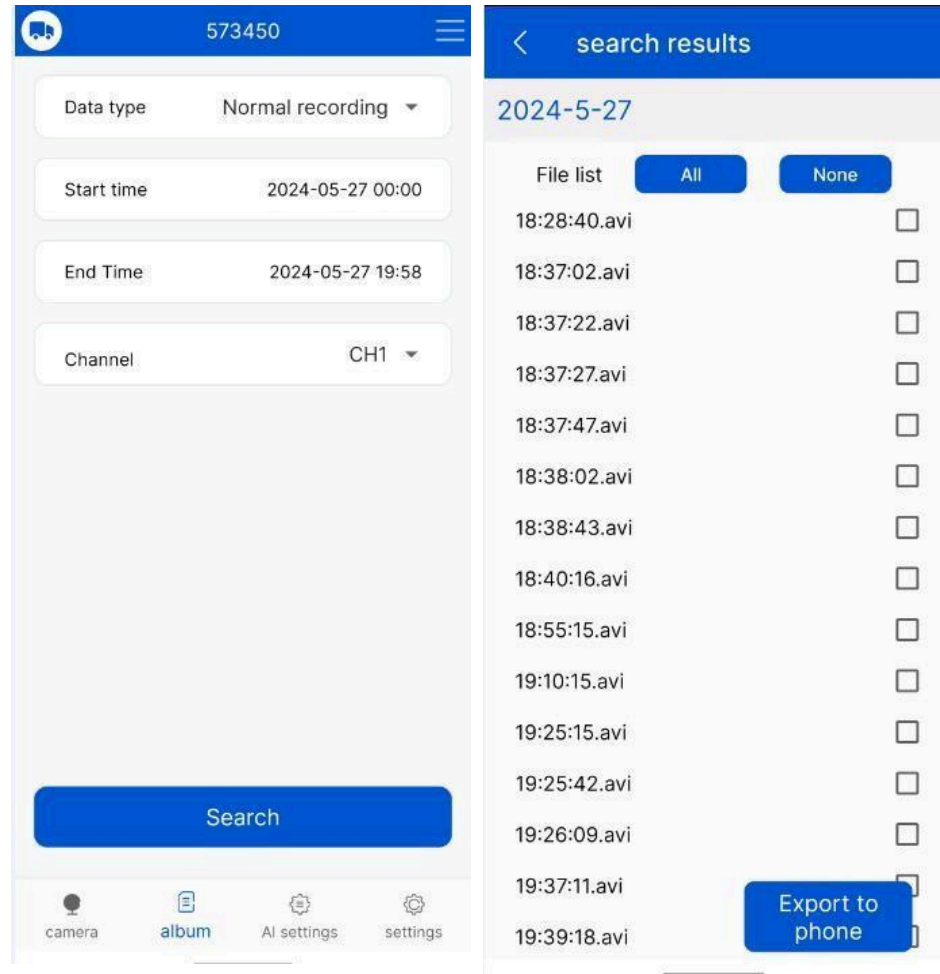
This ensures that the dash cam is properly connected and functioning as expected.

Main Menu

Search

1. Verify that the SD card is properly inserted and the recording function is working correctly.
2. Go to the homepage of the **Howen iTool** app.
3. Tap on the search option to begin searching for recorded footage.
4. Set the Search Criteria:
 - a. Data Type: Choose from the following options:
 - i. Normal recording
 - ii. Alarm recording
 - iii. Image
 - iv. Log file
 - v. Black box file
 - b. Start Time: Select the start time for the video search.
 - c. End Time: Set the end time for the search (default is the current time).
 - d. Select Channel: Choose the channel you wish to search for.

Once the video is available, you can export it to your mobile device for further viewing or sharing.



System Menu

Device

Device ID:

Set up a unique Device ID for your dash cam. This ID can be up to 16 digits long.

Important: Ensure that the Device ID is unique to avoid any conflicts with other devices.

Plate Number (Plate NO.):

This will be displayed on the On-Screen Display (OSD) during live streaming.

It's recommended to set the Plate Number to match your vehicle's actual plate number for easy identification.

Position Mode:

Choose the appropriate positioning mode for GPS data:

- GPS: Standard GPS.
- GPS+BD: GPS combined with BeiDou (Chinese satellite system).
- GPS+GL: GPS combined with GLONASS (Russian satellite system)
- The default setting is GPS+BD

User

Default Admin Password:

The default admin password for the dash cam is 111111.

Use this password to access the device's settings.

Password Enable (ON/OFF):

ON (Recommended): This option enables password protection. The administrator must log in with the password to set or change parameters. This provides security and control over settings.

OFF: When the password is disabled, you can directly access the menu without needing to log in.

Tip: It's recommended to leave the password ON for security purposes and to protect device settings.

Clock

Date Type: Choose the format for displaying the date:

- Year - Month - Day
- Day - Month - Year
- Month - Day - Year

Time Sync: Select the method for synchronizing the time:

- Off: No automatic time sync.
- GPS: Sync time via GPS (default setting).
- NTP: Sync time using Network Time Protocol.

Time Zone: Set the time zone based on your location. The default is GMT +08, but you should adjust it to match your local time zone.

DST Mode (Daylight Saving Time): Enable DST to adjust the clock for daylight saving time:

In spring, clocks move forward by one hour ("spring forward").

In the fall, clocks move back by one hour ("fall back").

Set the Offset: Adjust the clock to account for the daylight saving time shift, typically by 60 minutes.

Example for DST setup:

Set the DST start and end based on your local country's rules.

For example, in this case, DST starts on the first Sunday of April at 00:00 and ends on the last Sunday of October at 00:00, with a 1-hour forward shift.

The figure below illustrates how to configure these settings.

DST time	Enable ▾			
Starting time	April ▾	First ▾	Sunday ▾	0
End Time	October ▾	Last one ▾	Sunday ▾	0
Offset time	60 minute ▾			

Clock

Date Type YY/MM/DD >

Date 2020 / 4 / 3

Time 04 : 56 : 45

Time Sync GPS >

Timeout 60s >

Timezone GMT+8 >

+ 00 >

NTP Addr www.ntp.com >

NTP Port 123

DST Mode Off >

Save

camera album AI settings settings

Clock

DST Mode On >

Start time

Month 1 >

Week 1 >

Date Sunday >

Hour 0 >

End time

Month 1 >

Week 1 >

Date Sunday >

Hour 0 >

camera album AI settings settings

Power

Auto Reboot:

ON: Enables the device to automatically restart for maintenance at the specified Reboot Time.

OFF: Disables auto-reboot.

Recommendation: If the device runs 24/7, it is recommended to set Auto Reboot to ON and set a Reboot Time to maintain the device's performance.

Power Off (Voltage Limit):

Set a voltage limit to prevent draining your vehicle's battery.

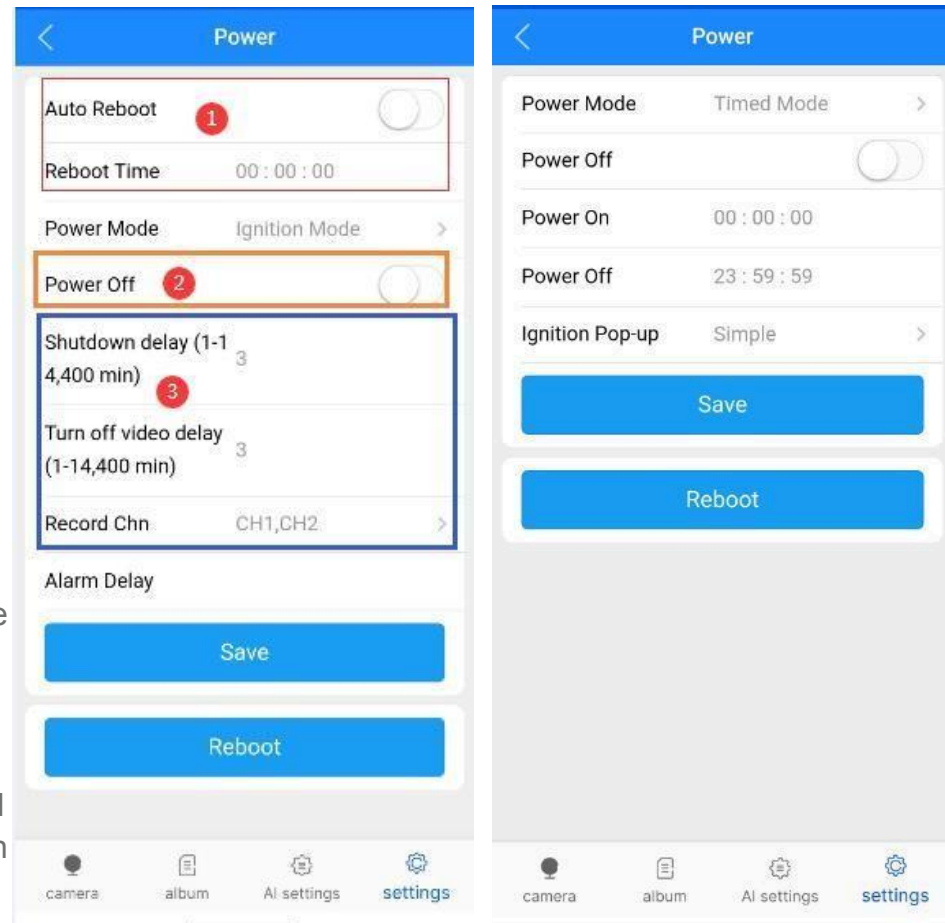
The dash cam will automatically power off when the vehicle's voltage drops below the set limit, ensuring the battery is not drained.

Power Mode:

- **ACC Mode:** The dash cam powers on/off based on the vehicle's ignition status (when the ignition is turned on or off).
- **Timing Mode:**

ON: The dash cam turns on/off according to the set time.

OFF: The timing mode is disabled, and the device will not turn on/off based on time settings.



Timing Mode Settings (see the image for reference):

Power On: Set the time for the dash cam to automatically power on.

Power Off: Set the time for the dash cam to automatically power off.

ACC Mode Settings:

Shutdown Delay:

After the vehicle's ignition is turned off, the dash cam will continue operating for the set shutdown delay time.

For example, 14400 minutes means the dash cam will continue to work for 10 days. Set this time based on your needs, but ensure it's a reasonable duration to avoid excessive power usage.

Turn Off Video Delay:

When the ignition is turned off, this setting defines a recording delay time. The dash cam will continue to record for the set duration even after the ignition is off.

The recording delay time cannot exceed the shutdown delay time.

Record Channel:

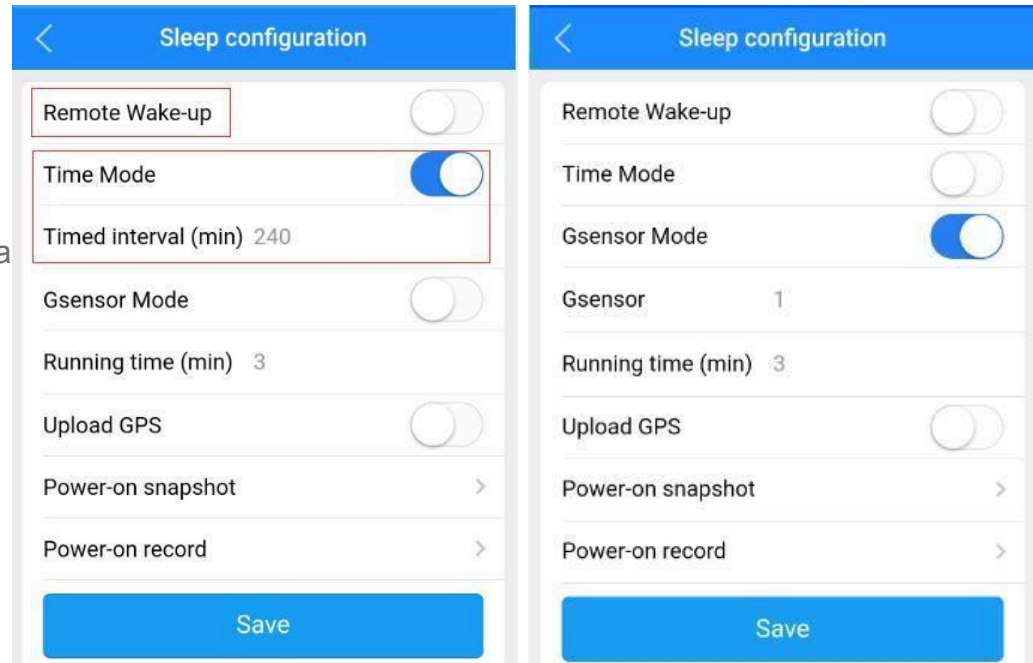
Choose which channels will continue to record during the video delay period after the ignition is turned off.

Sleep Configuration

Wake-up Methods:

You can set how the device will wake up from sleep mode, based on one of the following options:

- **Remote Wake-up:** Wake up the device via a phone call or SMS (any message will trigger the wake-up).
- **Time Mode & Timed Interval:** Set an interval for the device to wake up at specific times. The device will turn on based on the interval you set.
- **G-sensor Mode:** The device will wake up when the G-sensor detects an impact or hits above a specific threshold.



Running Time:

This defines how long the device will remain active after waking up. The minimum running time is 1 minute.

Tip: The total running time is the sum of the running time plus the Shutdown Delay time set in the Power menu.

Upload GPS:

4G Module Switch: Enable this setting to upload GPS information when the device wakes up.

Power-on Snapshot:

Select which channels will take snapshots when the device powers on.

Power-on Record:

Choose which channels will begin recording when the device powers on.

Disk

Encrypt Key:

For added security, you can set a password (Key) to encrypt the footage on dedicated channels.

When viewing the footage using the Howen video player, users will be prompted to enter the password to access the encrypted content.

Encryption Channel:

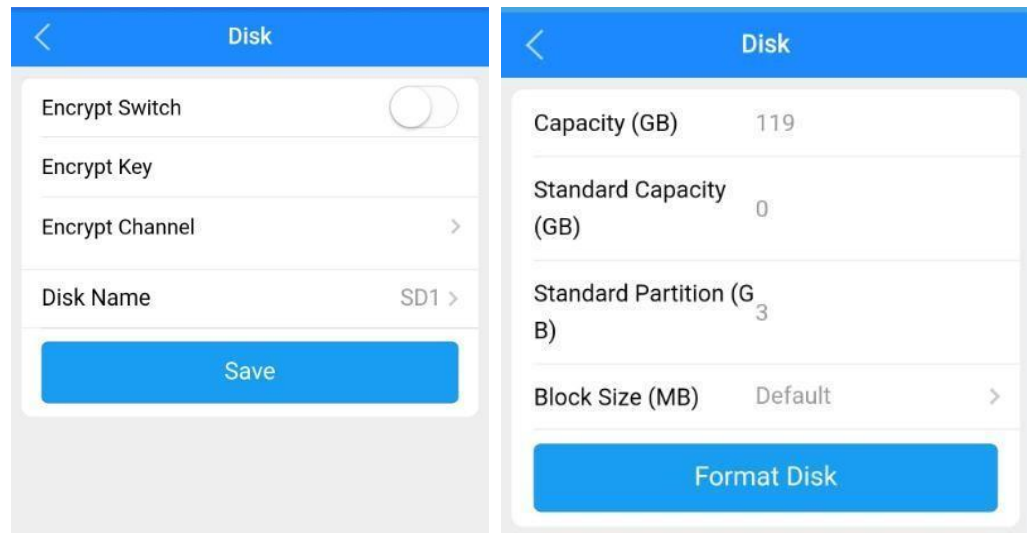
Select the channel(s) you want to encrypt. This allows you to protect sensitive video files from unauthorized access.

Disk Settings:

Once the memory card is inserted, the Disk Name will appear in the settings. Click on the disk name to access the storage settings. The available storage capacity of the memory card will be displayed in GB.

Standard Partition:

You can configure the storage as Standard Partition to organize and manage data. It is recommended to set this to the default Standard Partition setting for optimal performance.



Audio

Speaker Volume:

Set the speaker volume on a scale from 0 to 5, where 5 is the maximum volume and 0 is silent.

Power-on Sound:

Enable or disable the chime sound that plays when the device starts up.

Import Customized Alert Voice:

You can import a customized alert voice file to the device, allowing you to change the sound notifications according to your preferences.

Parameter

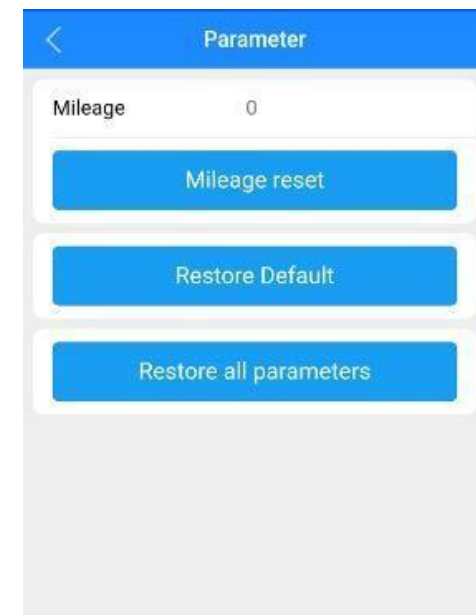
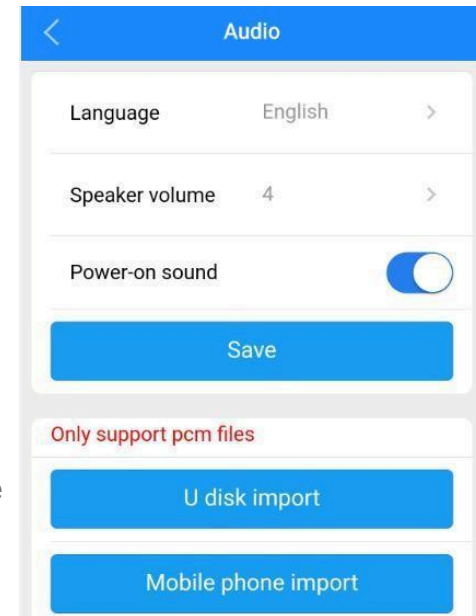
Mileage:

You can set an initial mileage value for the device or choose to restore it to the original setup.

Restore Default:

This option restores most of the settings to their default values, except for critical items like:

- Device ID
- 4G settings
- Server settings



Restore All Parameters:

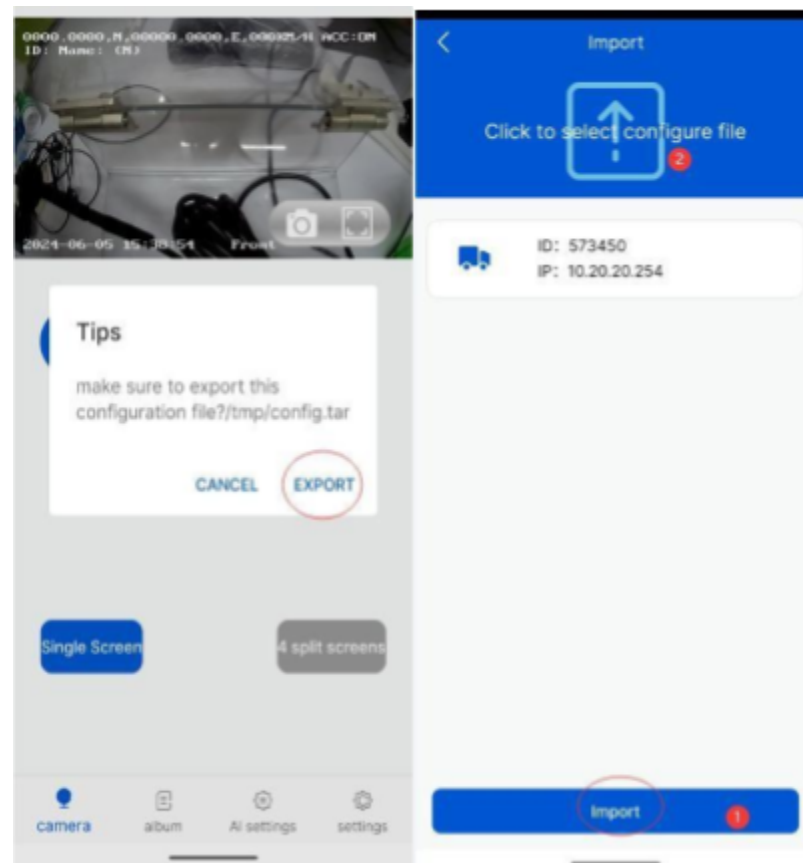
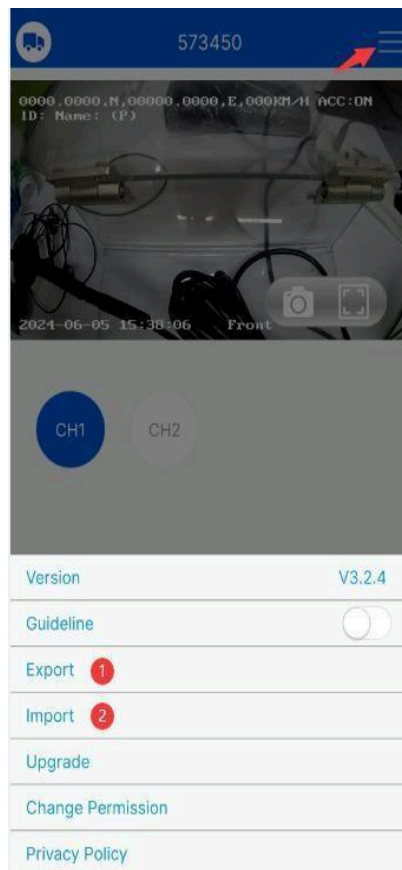
This option restores all settings to their factory defaults, clearing all custom configurations.

Export Parameters:

You can export the current Dashcam settings to your smartphone. This allows you to save your configurations and apply them to other devices.

Import Parameters:

You can import configuration settings from your smartphone to another device, transferring the same setup to multiple dash cams.



Tip: After exporting the parameters from one device, you can easily import them into other devices. Once the import is complete, the device will automatically restart to apply the new settings.

Video

General Settings

TV System: Select the TV system based on your region:

- PAL (default setting)
- NTSC
- The device will automatically detect the appropriate system, so manual selection is typically not required.

Record Mode: Choose the type of recording you want the device to use:

- Auto (default): The device will record continuously all the time.
- Time Recording: Set specific time intervals for recording by configuring the [Timed Record] setting.
- Alarm Recording: The device will only record when an alarm is triggered.

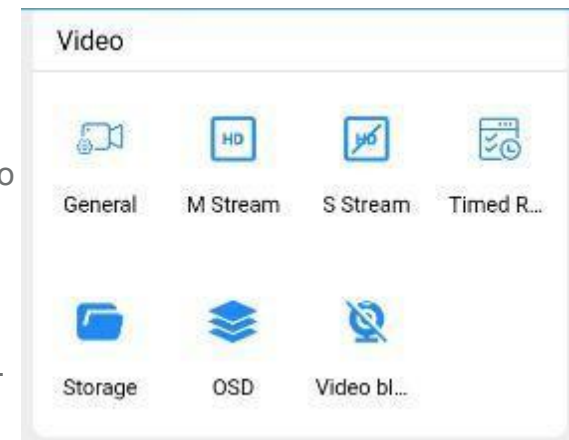
Camera Type:

The device will automatically detect the connected camera type, so there is no need to manually adjust this setting.

Encoding Format:

Choose between two video formats supported by the device:

- H.264: Older, widely supported format with good compression.



- H.265: Newer format offering better compression and video quality at lower bitrates.

M-Stream (Main Stream):

Enable:

- On: Enables main-stream recording.
- Off: Disables main-stream recording. You can turn off unused channels to save resources.

Resolution: Select the recording resolution for the mainstream:

- CIF: 352x288
- HD1: 352x576
- D1: 704x576
- 720P: 1280x720
- 1080P: 1920x1080

Frame Rate: Select the frames per second (FPS) for recording:

- NTSC: 30 FPS
- PAL: 25 FPS

This determines how smoothly the video will appear. Higher FPS offers smoother video but can consume more storage.

Quality: Set the video quality on a scale from 1 to 8.

- 1 refers to the best video quality but uses more storage.
- Higher numbers will lower video quality to save space.

Audio:

- ON: Audio will be recorded along with the video. The device has a built-in microphone for sound capture.
- OFF: Disables audio recording.
- If 2-way audio (intercom) is needed, make sure the audio is ON.

Time-lapse Recording: The device will capture only 1 frame at set intervals to save storage.

- Max interval: 2 seconds.
- Min interval: 0.2 seconds.
- Time-lapse recording allows for efficient storage of long periods of footage without consuming too much space.

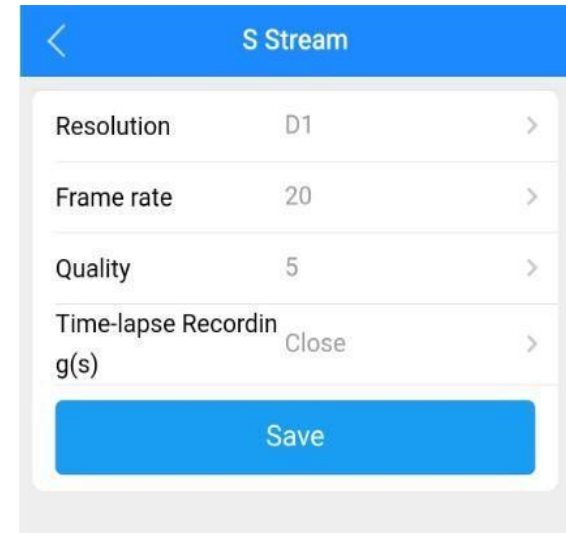
By adjusting these settings, you can tailor the main-stream recording quality, resolution, and audio settings to suit your needs while considering storage requirements.

S-Stream (Sub Stream):

Purpose: The sub-stream is primarily used for live streaming (default setting).

This stream provides a lower resolution and bitrate compared to the mainstream, which helps reduce data usage.

Resolution: Set the resolution for the sub-stream. Higher resolution will provide clearer images but will use more data. Choose an appropriate balance between image clarity and data consumption.



The screenshot shows a mobile application interface for 'S Stream' settings. At the top is a blue header with a back arrow and the title 'S Stream'. Below the header is a list of settings, each with a label, a value, and a chevron icon: 'Resolution' with value 'D1', 'Frame rate' with value '20', 'Quality' with value '5', and 'Time-lapse Recording(s)' with value 'Close'. At the bottom of the settings list is a large blue button labeled 'Save'.

Setting	Value
Resolution	D1
Frame rate	20
Quality	5
Time-lapse Recording(s)	Close

Save

Frame Rate: Set the frame rate for the sub-stream. A higher frame rate provides smoother video but increases data usage. Choose a lower frame rate if data consumption is a concern.

Quality (QUA):

1: Best video quality, but uses more SIM card data.

For lower data usage, it's recommended to set the quality to 5 or 6 to strike a balance between acceptable video quality and minimal data consumption.

Notice: To save cellular data while live streaming, it's advisable to use quality settings of 5 or 6 rather than the highest setting (1), which would consume excessive data.

Time Recording:

Set Start and End Time: Define the start time and end time for the recording. The dash cam will automatically start recording at the specified start time and stop at the end time.

Important Notes:

Turn on Time Mode:

Ensure that Time mode is enabled.

Go to Video > General > Record Mode > Timed Mode and turn it ON for timed recording to function properly.

Set ALL to 00:00:00 - 00:00:00:

If you want the dash cam to continuously record at all times, set the start time and end time to 00:00:00 to 00:00:00.

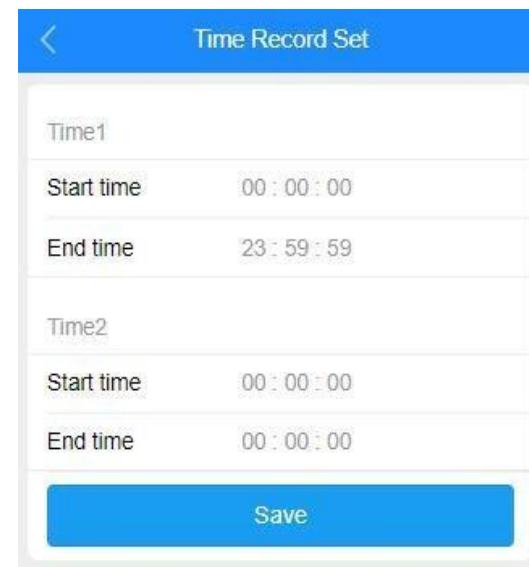
Set Recording Plan for Each Day:

You can set a specific recording plan for each day, allowing you to customize the recording schedule based on your needs.

Tip: By setting a timed recording schedule, you can ensure that the dash cam automatically records at specific times each day without manual intervention.



The screenshot shows a mobile application interface titled "Timed Record". It features a list of days of the week: Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, and Everyday. Each day entry has a right-pointing arrow, indicating that it can be selected or expanded for further configuration.



The screenshot shows a mobile application interface titled "Time Record Set". It displays two time slots for recording: "Time1" and "Time2". Each slot has a "Start time" and an "End time" field. For "Time1", the start time is 00 : 00 : 00 and the end time is 23 : 59 : 59. For "Time2", both the start and end times are 00 : 00 : 00. A blue "Save" button is located at the bottom of the screen.

Storage:

Alarm Previous Recording (Pre-Alarm Recording):

- Set the pre-recording time before the alarm triggers.
- You can select a time from 0 to 60 seconds. This allows the device to capture video from a few seconds before the alarm event.

Alarm Delay Recording:

- Set the post-alarm delay recording time.
- You can select a delay from 0 to 3600 seconds (1 hour). This allows the dash cam to continue recording for a specified amount of time after the alarm occurs.

Alarm File Upload to Server:

Choose where the alarm-triggered files will be uploaded:

- FTP: Upload to an FTP server.
- HFTP: Upload to a secure HFTP server.
- NO: Do not upload alarm files to any server.

Alarm File Protection:

- Set the alarm file protection period, which determines how many days the alarm-triggered files will be protected and not deleted.
- Choose a reasonable value based on how long you want to keep the alarm footage safe from automatic deletion.

The screenshot shows a mobile application interface for 'Storage' settings. At the top is a blue header with a back arrow and the title 'Storage'. Below the header, the settings are organized into two sections: 'Storage' and 'Usage'. The 'Storage' section includes: 'Alarm Pre Rec (0-60s)' with a value of 10; 'Alarm Post Rec (0-3600s)' with a value of 10; 'Alarm file upload' set to 'HFTP' with a right arrow; 'Alarm file protection (Days)' set to 7; and 'File protection Space Limit (%)' set to 50 with a right arrow. The 'Usage' section includes: 'SD1' with 'Record' and a right arrow.

Storage	
Alarm Pre Rec (0-60s)	10
Alarm Post Rec (0-3600s)	10
Alarm file upload	HFTP >
Alarm file protection (Days)	7
File protection Space Limit (%)	50 >

Usage	
SD1	Record >

Attention:

- To upload files to the FTP server, you must set the alarm file protection days.
- Also, ensure that a reasonable amount of space is allocated for the Standard Partition (as mentioned in section 5.2.6 Disk) to ensure smooth operation.

Usage:

- No: No recording will occur for the selected disk.
- Record: The disk will record files, including alarm-triggered footage.

By setting these parameters, you can control the recording behavior around alarm events and ensure that important footage is safely stored and, if necessary, uploaded to a server for further review.

OSD (On-Screen Display) Settings:

Date: Enable or disable the time display on the video feed.

This will display the current date and time on the video, which is helpful for timestamping footage.

Channel (Ch): Enable or disable the channel name and plate number display.

This will show the name of the camera channel (e.g., Front, Rear) and the vehicle's plate number on the video feed.

< Storage

Alarm file protection (Days) 7

File protection Space Limit (%) 50 >

Usage

SD1 Record >

Black box

Enable ☐

Interval (s) 3

Save

< OSD

Date >

Ch >

GPS >

Driver ID >

USER TXT

Front Face

Save


GPS: Enable or disable the GPS information display.

This will show the location coordinates (latitude and longitude), speed, and other GPS-related details on the video.

Driver ID: Display the user information (Driver ID).

This can be used to show the driver's identification or any user-specific details directly on the footage.

By configuring these settings, you can customize the On-Screen Display (OSD) to show key information like date, channel, GPS location, and user ID, providing important context and details directly on the recorded video.

A screenshot of a mobile application interface titled "OSD Set". The interface has a blue header bar with a back arrow on the left and the title "OSD Set" on the right. Below the header, there is a section with a white background and a light gray border. Inside this section, there is a toggle switch labeled "Enable" which is currently turned on (blue). Below the toggle, there are two input fields: "X" with the value "20" and "Y" with the value "900". At the bottom of this section is a blue button labeled "Save". The rest of the screen below the white section is a solid light gray color.

Video Block

Enable Video Block:

Turn ON the Video Block feature to apply a mosaic effect to a selected area of the camera view. This can be used to obscure sensitive areas in the video feed.

Region Name:

Choose a region name for the video block. This will allow you to label or identify different blocked areas (e.g., front, rear).

Color: Select the color of the mosaic effect for the video block. This will determine how the blocked area appears on the screen.

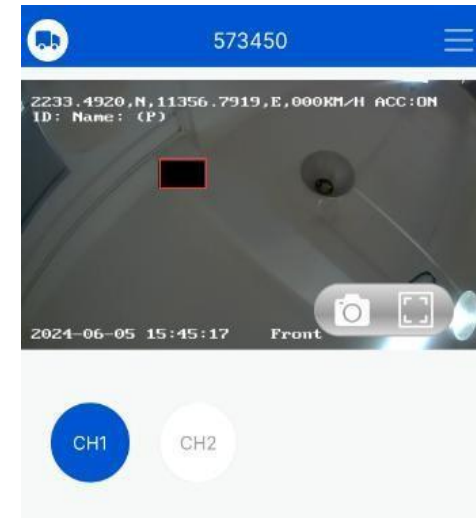
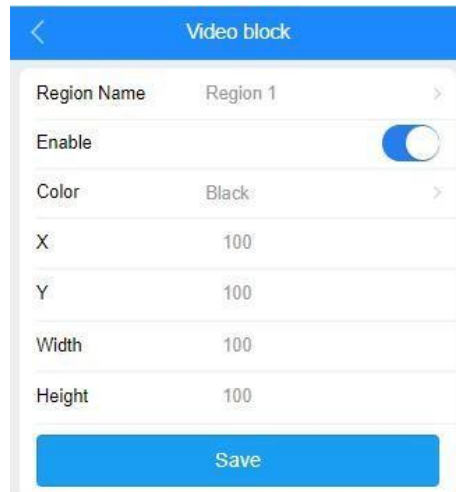
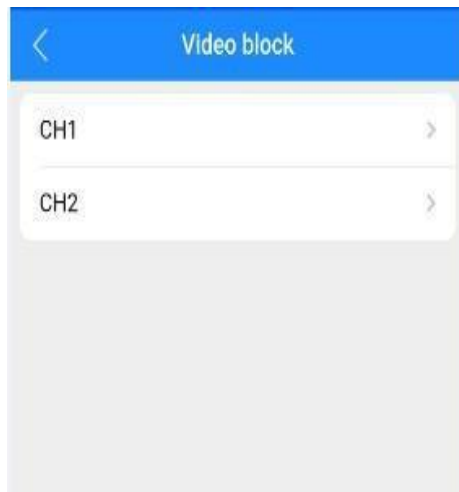
X & Y Coordinates:

Input the X (horizontal) and Y (vertical) coordinates to position the video block on the screen. This defines the location of the block within the camera view.

Width & Height:

Set the width and height of the video block to define the size of the area that will be obscured with the mosaic effect.

By using the Video Block settings, you can effectively obscure certain areas of the video feed for privacy or security reasons, while still capturing the rest of the scene clearly.



Alarm

The Alarm Menu includes multiple options to configure various types of alarms for your dash cam. Here's a breakdown of the settings:

I/O (Panic Button):

Enable:

- Off: Disables the Panic Button feature.
- Panic: Activates the Panic Button alarm.
- Reverse: Triggers an alarm when the vehicle is in reverse.

Level:

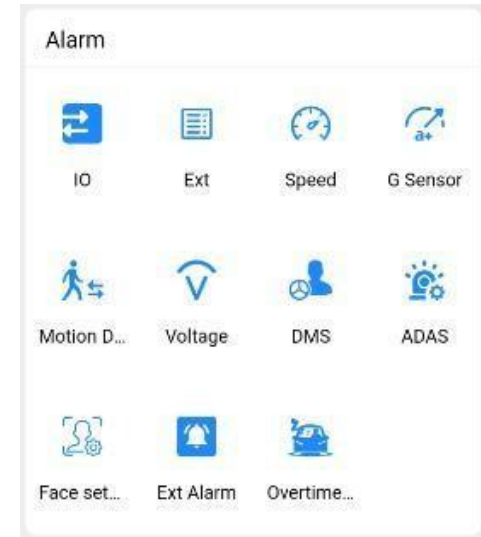
- Set the alarm trigger level. High means the sensor will trigger the alarm when the voltage input changes from 0 to a high voltage (DC 4V - 12V).

Delay:

- Set the alarm delay time after the trigger source is removed. This defines how long the alarm will continue to sound after the triggering event is over.
- The delay period ensures that a continuous alarm trigger won't result in repeated alarms during the set duration.

Wait:

- This setting helps prevent accidental alarm triggers. It introduces a delay before the alarm is activated after the trigger event. This ensures that the alarm won't be triggered by a simple touch or mistake.



Record:

- Enable this option to record video when an alarm is triggered. This video will capture the incident related to the alarm.

Buzzer & Pre-mode:

- Buzzer: Turn on the buzzer to sound an alert when the alarm is triggered.
- Pre-mode: Enable Reserve to prepare the system for alarm-triggered events. When Reserve is turned on, the buzzer will sound during the alarm.

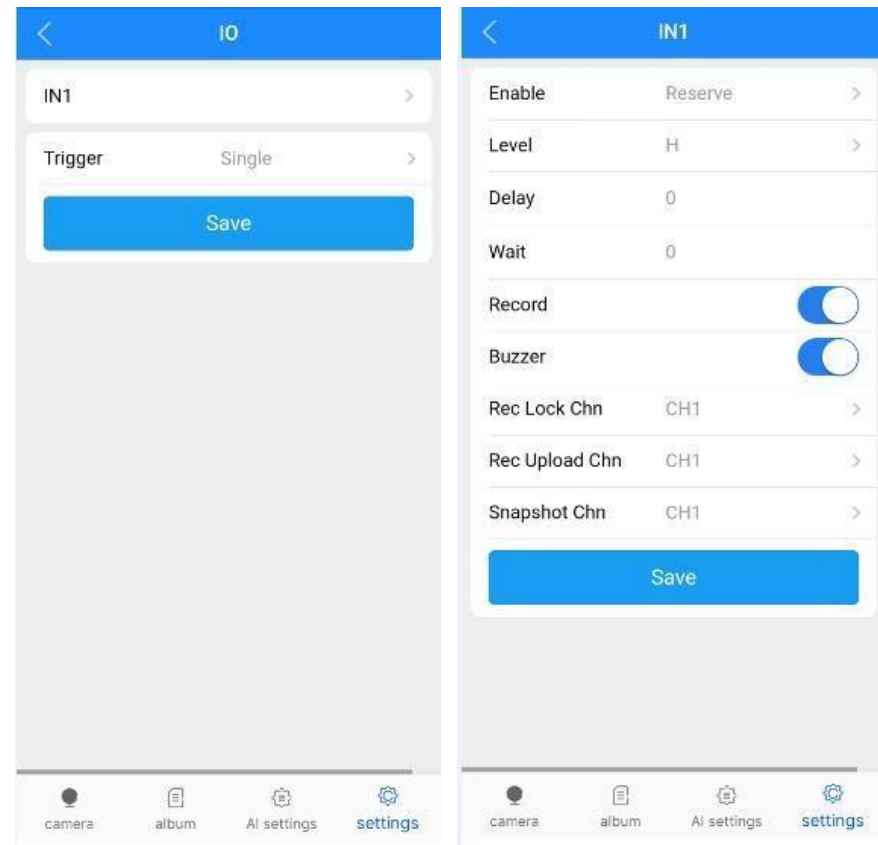
RecLockChn (Recording Lock Channel):

- This option allows you to lock alarm-related files in the TF card under the REC-Alarm folder for protection and easy retrieval. Select the channel to lock the alarm video to.

RecUploadChn (Recording Upload Channel):

- This setting determines where the alarm videos will be uploaded after being recorded.
- Choose to upload the alarm footage to Howen VSS (HFTP) or an FTP server.

Attention: For non-AI alarm videos, the channel needs to match between RecLockChn and RecUploadChn. For example, if you need to upload CH1, both RecLockChn and RecUploadChn must be set to CH1. Otherwise, the footage will not upload.



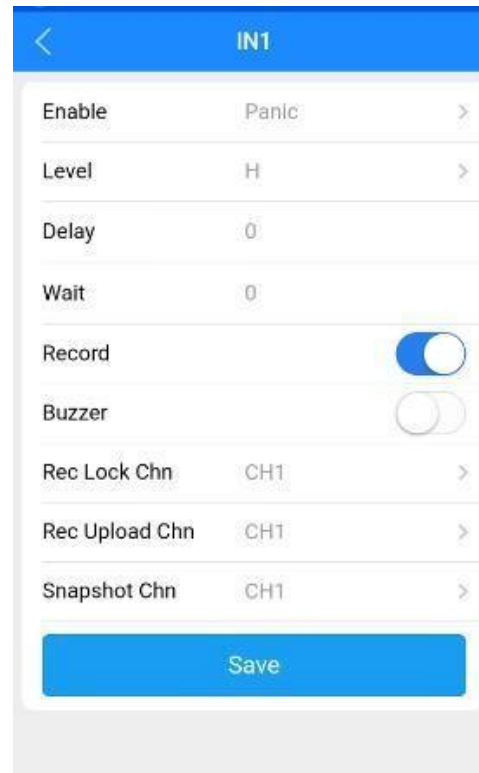
AlarmOutput:

- This setting is N/A (not applicable) for some systems or configurations.

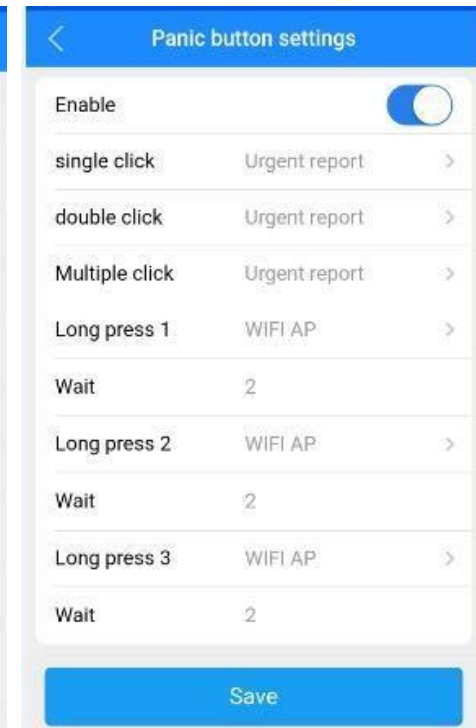
SnapPicChn (Snapshot Channel):

- Select the channel that should capture snapshots when an alarm is triggered. The snapshots will be saved to the TF card and can be uploaded to an FTP server.

Tips: To avoid receiving repeat alerts when the I/O alarm is triggered multiple times, select Single mode. This will prevent the system from continuously sending alerts for the same event.



The screenshot shows the 'IN1' configuration screen. It has a blue header with a back arrow and the title 'IN1'. Below the header is a list of settings: 'Enable' (set to 'Panic'), 'Level' (set to 'H'), 'Delay' (set to '0'), 'Wait' (set to '0'), 'Record' (toggle switch is on), 'Buzzer' (toggle switch is off), 'Rec Lock Chn' (set to 'CH1'), 'Rec Upload Chn' (set to 'CH1'), and 'Snapshot Chn' (set to 'CH1'). Each setting has a right arrow indicating it can be edited. At the bottom is a blue 'Save' button.



The screenshot shows the 'Panic button settings' screen. It has a blue header with a back arrow and the title 'Panic button settings'. Below the header is a list of settings: 'Enable' (toggle switch is on), 'single click' (set to 'Urgent report'), 'double click' (set to 'Urgent report'), 'Multiple click' (set to 'Urgent report'), 'Long press 1' (set to 'WIFI AP'), 'Wait' (set to '2'), 'Long press 2' (set to 'WIFI AP'), 'Wait' (set to '2'), 'Long press 3' (set to 'WIFI AP'), and 'Wait' (set to '2'). Each setting has a right arrow indicating it can be edited. At the bottom is a blue 'Save' button.

The Panic Button settings are available only when the alarm type is set to Panic. Here's how to configure it:

Urgent Report:

- Enable this option if you want a panic alert to be uploaded to the platform whenever the panic button is triggered.
- This feature sends an urgent alert to the monitoring platform, notifying the concerned parties about the emergency.

WIFI AP:

- Reboot the AP: This option allows you to reboot the Access Point (AP) used for the dash cam's Wi-Fi connection. This might be necessary for troubleshooting or reconfiguring the network settings after triggering the panic button.
- By setting the Panic Button to Panic, you can ensure that the dash cam immediately responds to an emergency by uploading critical alerts to the platform and enabling Wi-Fi access for further configuration if needed.

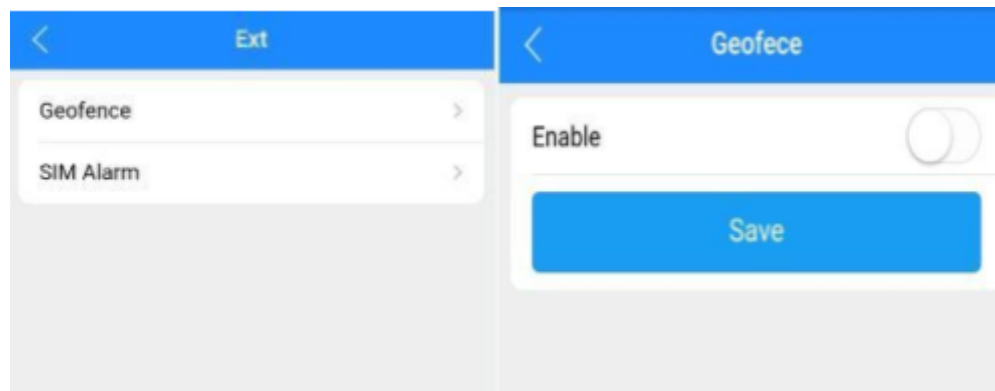
External Alarm:

The External Alarm feature is specifically for Geo-fence functionality. Here's how to set it up:

Enable this option if you have set up a Geo-fence on the device through the VSS platform (Vehicle Surveillance System platform).

When enabled, the dash cam will trigger an external alarm if the vehicle enters or exits the predefined geographical boundary (Geo-fence).

By enabling this feature, the device can alert you whenever the vehicle leaves or enters a specific area defined by the Geo-fence you configured through the VSS platform, providing an additional layer of security.



Speed Alarm

This section outlines how to set up various speed and parking-related alarms for the dash cam, including Parking, Low-Speed Warning, High-Speed Warning, Speeding Up/Down, and Idle Status.

Enable: On/Off: Turn each specific alarm function on or off as needed.

Limit: Set a limit for each alarm type:

- Parking: Set the time limit in seconds for how long the vehicle can remain parked before the system triggers an alarm.
- Other alarms (Low-speed, High-speed, etc.): Set the speed limit at which the alarm should be triggered.

Delay: The linkage's duration time after the alarm is triggered. This is the waiting period before the system will respond to a repeated alarm, helping to avoid false alerts.

Wait: Set a waiting period to prevent false alarms from triggering. This is especially useful for situations where the system might register a false alarm (e.g., a brief change in speed).

Record: Enable or disable the recording function for when the specific alarm is triggered.

Buzzer & Pre-mode: This setting is N/A (not applicable) for these alarms.

RecLockChn: Enable this option to copy alarm-related videos to the REC-Alarm folder on the TF card for easy access and protection.

RecUploadChn: Enable this option to upload alarm videos to the Howen VSS (HFTP) or FTP server. Choose the appropriate channel for uploading.

AlarmOutput: This setting is N/A (not applicable) for these alarms.

SnapPicChn: Select the channel for snapshot capture. Snapshots will be saved on the TF card and uploaded to the server.

Types of Alerts You Can Configure:

Parking Alert:

- Ignition off status: When the vehicle has been parked for longer than the parking limit you set, an alarm will trigger. After the initial alarm, subsequent alarms will be triggered based on the Delay time you set.
- No need to set Wait for parking alarms.

Low-Speed Warning (L-Warn):

- Triggered when the vehicle's speed is below the set low-speed limit for a certain duration.

Low-Speed Alarm (L-ALM):

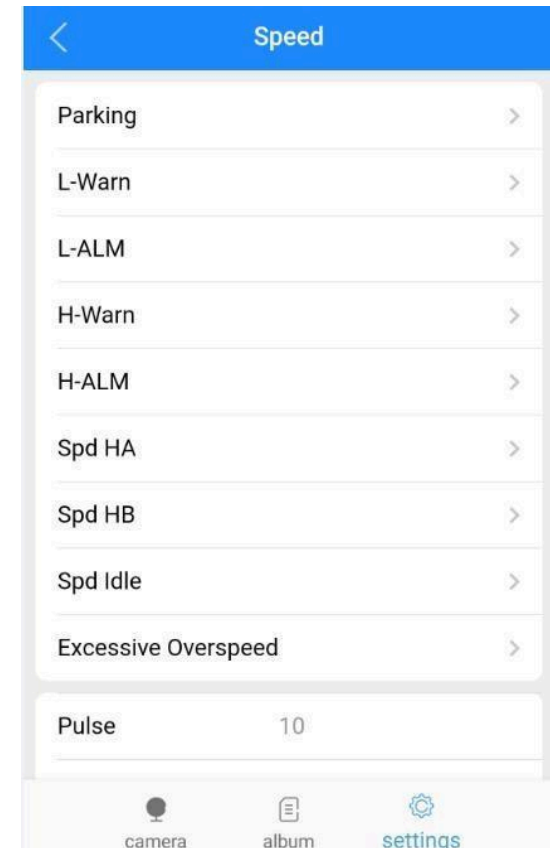
- This alarm is triggered when the vehicle's speed drops below a defined low-speed limit, signaling potential concerns like idling.

High-Speed Warning (H-Warn):

- Triggered when the vehicle exceeds the high-speed limit that you set.

High-Speed Alarm (H-ALM):

- An alarm will trigger if the vehicle's speed exceeds the high-speed limit you set.



Speed Up (Spd Up):

- Alarm triggered by harsh acceleration (HA). The system will compare the acceleration rate to the set threshold and issue an alarm.

Speed Down (Spd Down):

- Alarm triggered by harsh braking (HB). This helps to identify sudden and aggressive deceleration.

Idle Status (Spd Idle):

- Triggered when the vehicle's speed is below the set idle speed limit (indicating the vehicle is idling). An alarm will be issued after the Wait time you set.

Speed Settings:

Speed Source: GPS [Default] / Vehicle / Mix: Choose the source for speed data. GPS is the default setting.

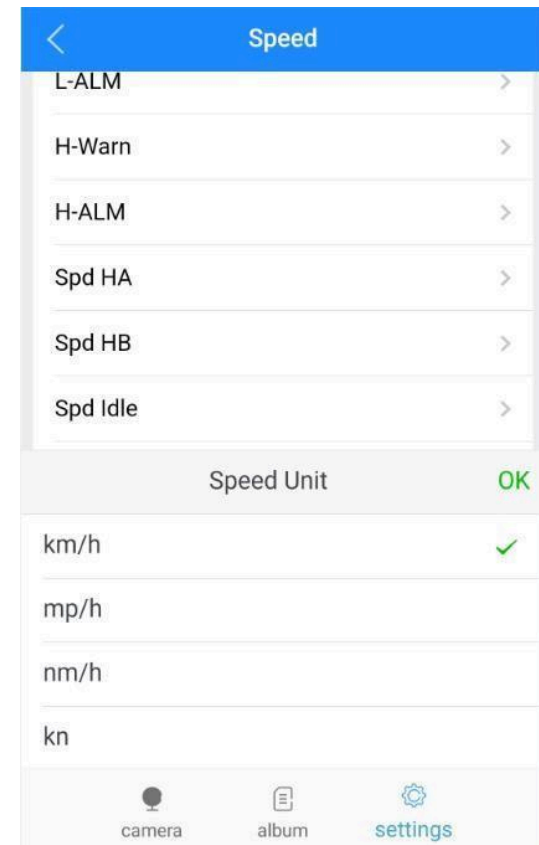
Speed Unit: You can select the speed unit to be KM/H, Mile/H, or NM/H. Keep in mind that all speed-related settings in the manual are in KM/H, and you may need to convert MPH into KM/H.

Additional Notes:

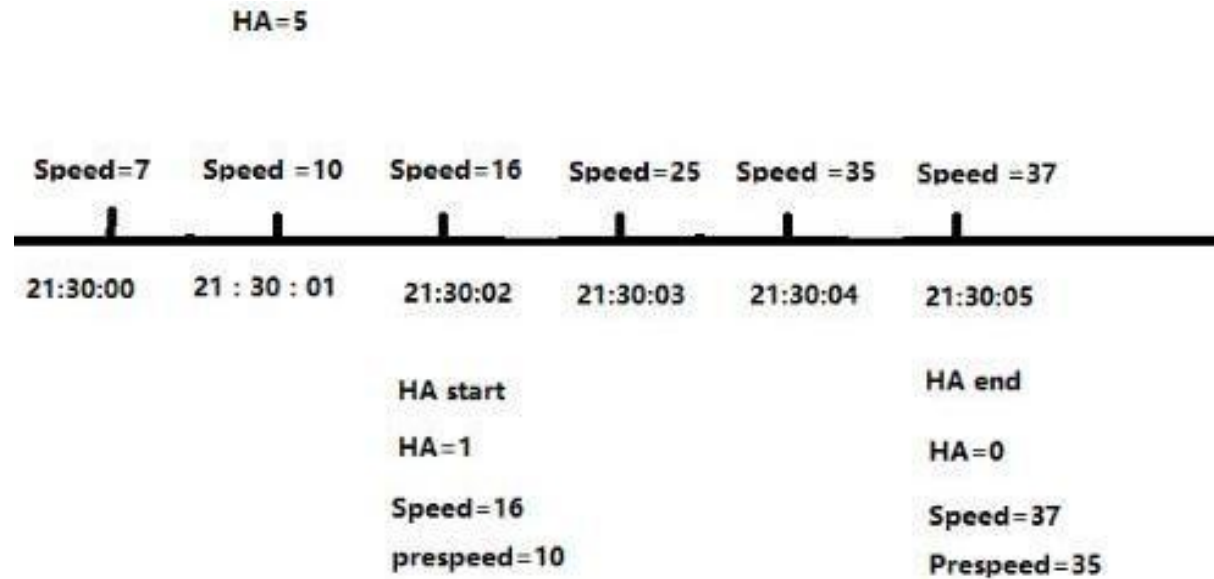
Parking Alert: The system will trigger the first alarm after the vehicle has been parked for the time defined in the Limit. Subsequent alarms will follow based on the Delay setting.

Idle Status: When the vehicle's speed is below the set limit (idle), an alarm will be triggered after the Wait period.

Speed Up/Down: These alarms track harsh acceleration and harsh braking based on the set speed thresholds.



Clarification on Speed Up and Speed Down Alerts



Speed Up (Harsh Acceleration - HA) Alert:

- **Limit Setting:** You can set a limit for harsh acceleration, typically in km/h per second. For instance, a limit of 8 km/h would mean that if the vehicle's speed increases by less than 8 km/h within a second, no alert will be triggered. However, if the speed increases by more than 8 km/h within the next second, a Harsh Acceleration (HA) alert will be triggered.

Example:

- The driver is traveling at 50 km/h and the speed increases to 55 km/h in the next second. Since the speed change is 5 km/h, which is less than the set limit of 8 km/h, no HA alert will be triggered.

- If the driver is traveling at 50 km/h and the speed increases to 60 km/h in the next second, this is a 10 km/h increase, which exceeds the 8 km/h limit, so an HA alert will be triggered.

Speed Down (Harsh Braking - HB) Alert:

- Limit Setting: You can set a limit for harsh braking, similar to the acceleration limit. If the vehicle's speed decreases by less than the set limit within a second, there will be no Harsh Braking (HB) alert. However, if the speed decreases by more than the limit, the HB alert will be triggered.

Example:

- The driver is traveling at 50 km/h and the speed decreases to 45 km/h in the next second. Since the speed change is 5 km/h, which is less than the set limit of 8 km/h, no HB alert will be triggered.
- If the driver is traveling at 50 km/h and the speed decreases to 40 km/h in the next second, this is a 10 km/h decrease, which exceeds the 8 km/h limit, so an HB alert will be triggered.

Key Takeaways:

Speed Up (HA Alert): Triggered when the speed increases by more than the set limit (e.g., 8 km/h) within a second.

Speed Down (HB Alert): Triggered when the speed decreases by more than the set limit (e.g., 8 km/h) within a second.

This system ensures that only significant speed changes, whether acceleration or braking, are flagged as alerts, helping prevent false alarms from small speed changes.

G-Sensor Alarm

The G-Sensor acceleration alarm features a variety of settings that help detect specific movements and forces that may indicate aggressive or abnormal driving behavior. Here's a breakdown of each setting:

Enable: ON/OFF: This allows you to enable or disable different acceleration alarms such as Harsh Cornering (HC), Harsh Acceleration (HA), Harsh Braking (HB), and others. Turning the setting ON activates the alarm, and OFF deactivates it.

Limit:

- **Threshold:** This sets the intensity level for triggering the alarm.
- For Tilt alarms, the unit is angle (measured in degrees). This detects the tilt of the vehicle.
- For the other alarms (X, Y, Z axes, Impact, HC, HA, HB), the unit is G-force (measured in m/s^2). These alarms detect forces like acceleration, deceleration, or impact.

Example:

If X-axis acceleration is set to 2G, the alarm will trigger if the vehicle experiences an acceleration force exceeding 2G on the forward-backward axis.

If the Tilt alarm is set to 30°, the alarm will trigger if the vehicle's tilt exceeds 30° from the horizontal.

Wait:

This setting is used to prevent false alarms or misjudgments. It sets a delayed response time, allowing the system to ignore continuous triggering from the same event, ensuring that only significant changes trigger a new alarm.

Example:

If the device detects Harsh Acceleration continuously, the Wait period ensures that the system doesn't trigger multiple alarms for the same event but instead waits until the threshold is exceeded again after the delay.

Delay:

This defines how long the system waits before responding to a new alarm. If the sensor continuously triggers the alarm threshold, the Delay time ensures the system doesn't respond immediately to every event. It essentially "pauses" the system from triggering a new alarm during the delay time.

Example:

If the Delay is set to 10 seconds, even if a continuous G-force threshold (like harsh braking) is detected, the system will wait 10 seconds before it will allow another alarm to be triggered.

Record:

ON/OFF: Determines whether video footage is recorded when the alarm is triggered. If ON, the dash cam will record the video during an event that exceeds the set threshold for the alarm.

Example:

If a Harsh Braking (HB) event is detected, and Record is set to ON, the device will save the video footage of the incident.

Install:

No Setup Required: This indicates that no special configuration or setup is necessary when installing the G-sensor acceleration alarms. The system works immediately after installation.

Adjust:

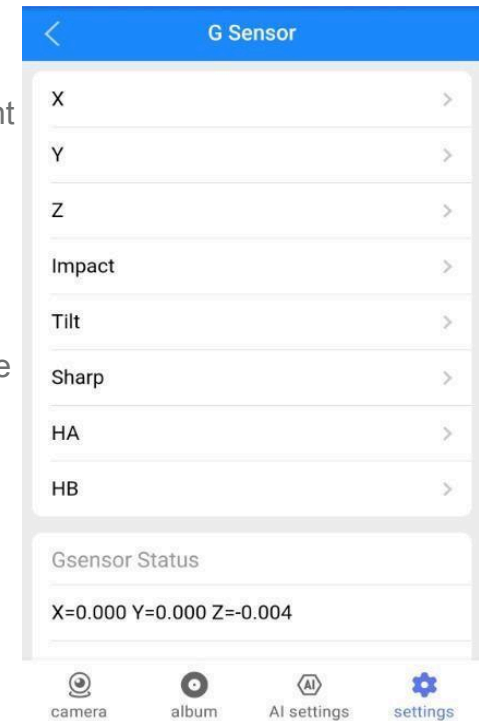
Zero Calibration: After installation, you can press this button to restore the X, Y, Z values of the G-sensor to zero. This step helps calibrate the system to the vehicle's current position, ensuring accurate detection of movements like acceleration, impact, and tilt.

Example:

If the vehicle is parked on an incline, pressing Adjust will reset the G-sensor, ensuring the tilt measurements are based on the actual angle of the vehicle.

Types of Alarms:

- **X, Y, Z (Axes):** These detect movements along the forward/backward (X), left/right (Y), and up/down (Z) axes. They measure G-forces in each direction.
- **Impact:** Detects sudden and significant impacts or collisions. This alarm is triggered when the force exceeds the set threshold.
- **Tilt:** Measures the tilt angle of the vehicle. This alarm triggers when the vehicle exceeds a certain tilt threshold.
- **HC (Harsh Cornering):** Detects sharp turns or sudden cornering that exceeds the set G-force threshold.
- **HA (Harsh Acceleration - G-sensor):** This alarm detects when the vehicle experiences rapid acceleration, exceeding the set threshold of G-force.
- **HB (Harsh Braking - G-sensor):** Detects harsh braking when the vehicle decelerates rapidly beyond the set G-force threshold.



Voltage Alarm

The Voltage Alarm feature is designed to alert the user when the vehicle's operating voltage falls below a set threshold. This is important for preventing the device from losing power and ensuring that the Dashcam continues functioning properly.

The recommended voltage input range for the Dashcam is 12V/24V, with operational voltage ranging from 8V to 36V.

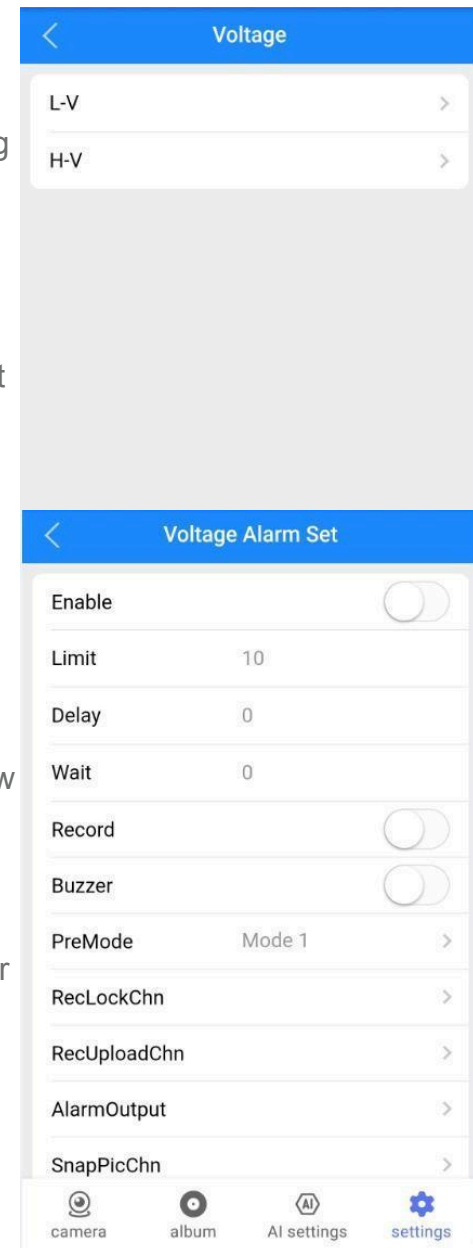
Enable: On/Off: This setting allows you to enable or disable the voltage alarm. When set to On, the system will monitor the voltage levels and trigger an alarm if they drop below the threshold you set.

Limit:

- Voltage Threshold: This setting allows you to specify a voltage limit at which the alarm will be triggered.
- If the vehicle's voltage drops below the threshold, an alarm will be triggered to notify the user.
- Example: If the Limit is set to 10V, the alarm will activate if the voltage drops below 10V.

Delay:

- Duration of Alarm: This setting defines how long the system will continue to trigger the alarm after the voltage falls below the threshold.
- The Delay helps ensure that the system doesn't respond immediately to minor voltage fluctuations.
- Example: If the Delay is set to 30 seconds, the alarm will stay on for 30 seconds even after the voltage returns above the threshold. This helps avoid false alarms caused by brief voltage dips.



Wait:

- False Alarm Prevention: This setting introduces a delayed response time to prevent false alarms caused by minor fluctuations in voltage.
- By setting a wait time, the system ignores brief changes in voltage that may not necessarily be a cause for concern, thus reducing the chance of incorrect alarm triggers.
- Example: If you set the Wait time to 60 seconds, the system will ignore any voltage fluctuations within that time frame before re-triggering the alarm.

Record:

- Not Available: Unlike other alarm types that allow video recording, the Voltage Alarm does not have the option to record video footage. The focus is on alerting the user to low-voltage situations.

Face Setting

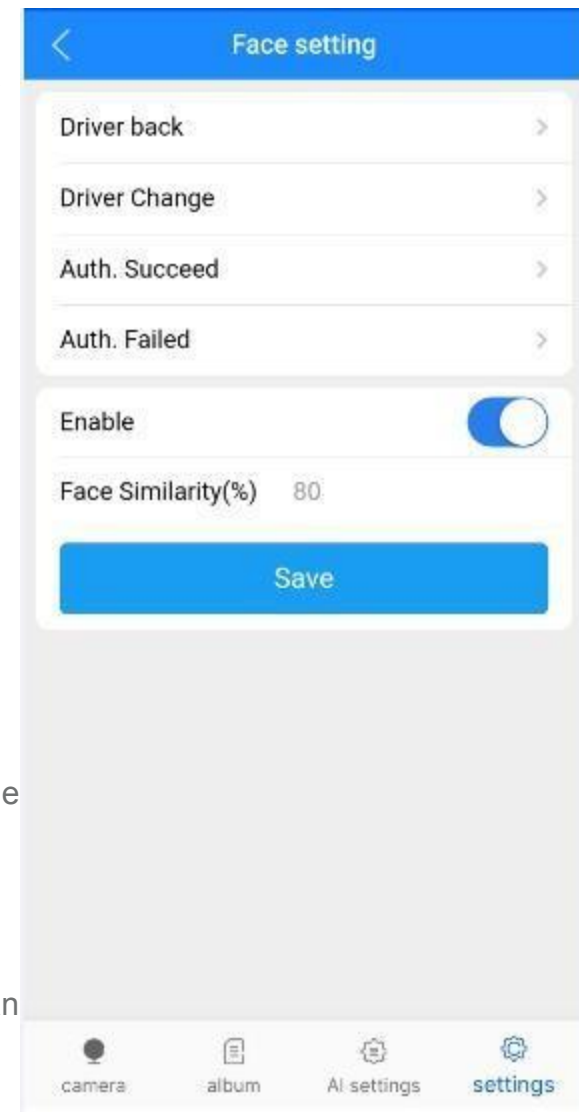
The Face Setting feature is designed to enhance security by detecting and verifying the identity of the driver using facial recognition technology. This feature helps ensure that only authorized personnel are operating the vehicle, and it can send alerts if an unauthorized driver is detected. Here's how the system works:

Driver Back / Change:

- **Function:** This feature detects if there is a change in the driver. The system will analyze the driver's face when they sit in the vehicle.
- **Purpose:** If the system detects a different individual (e.g., a new driver), it will trigger an event to indicate that a driver change has occurred.
- **Usage:** This is useful for fleet management or ensuring that only authorized drivers are operating the vehicle.

Auth Successful / Failed:

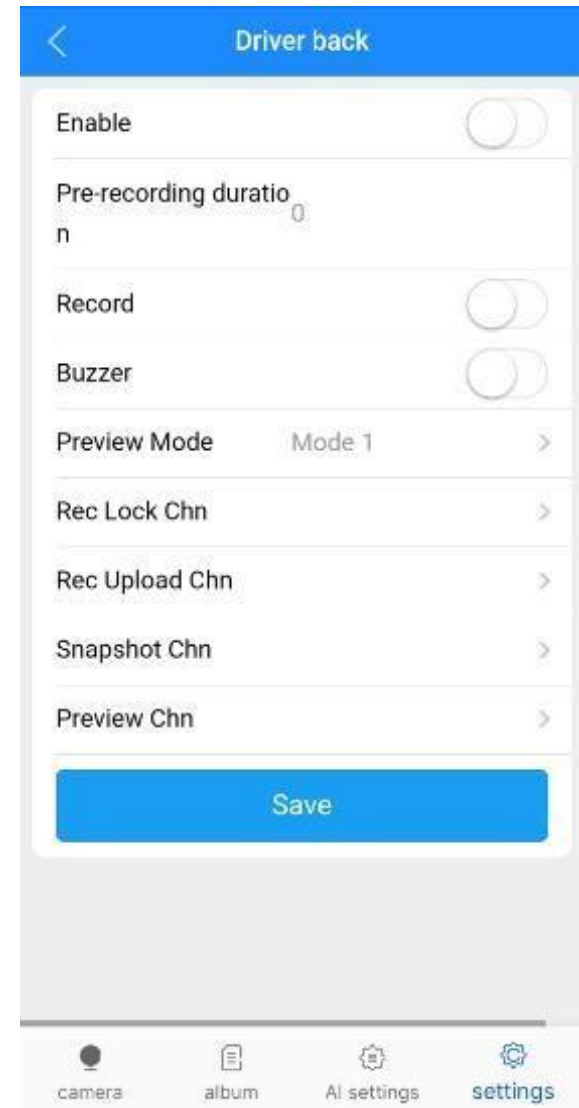
- **Function:** The system will attempt to authenticate the driver based on facial recognition. If the driver is recognized as an authorized individual, the authentication will be marked as successful.
- **Purpose:** To ensure that only authorized personnel can operate the vehicle, the system compares the detected face to a pre-registered database of authorized drivers.
 - **Auth Successful:** Indicates the driver has been authenticated as an authorized individual.
 - **Auth Failed:** Indicates that the detected driver is not authorized.



- **Alert Notification:** If an unauthorized driver is detected, the system will send an alert to the platform (e.g., fleet management system) or trigger a notification to the administrator.
 - Alert example: “Unauthorized driver detected. Please review.”

How It Works:

1. **Driver Detection:** When the driver enters the vehicle, the system uses its camera to scan the driver’s face.
2. **Facial Recognition:** The system compares the detected face with stored data in its database to check if the driver is authorized.
3. **Authentication Result:**
 - If the driver is recognized and authorized, the system will allow the vehicle to be driven.
 - If the driver is not authorized, the system will not permit operation and will send an alert to the designated platform.



Other Features Overview

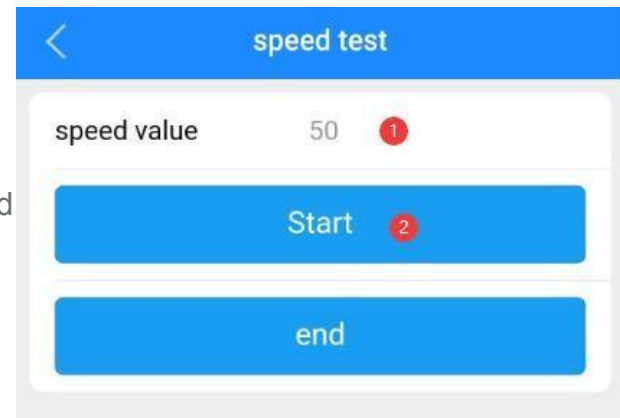
1. Face Info

- Purpose: This feature allows you to search for and view the driver information that has been saved in the device. It works in conjunction with the VSS (Vehicle Surveillance System) platform, which is used to manage and release facial data.
- How it works:
 - Driver Data Storage: The system stores the facial data of authorized drivers. This data can be searched and accessed from the device or platform for verification and tracking purposes.
 - VSS Platform Integration: For full functionality, the system requires integration with the VSS platform, which helps in managing driver faces, settings, and alerts related to unauthorized drivers.



2. Speed Test

- Purpose: The Speed Test feature is used for office or demo testing. It allows you to input a speed value for testing purposes.
- How it works:
 - Input Speed Value: You need to input a demo speed value that is higher than the ADAS (Advanced Driver Assistance Systems) and DMS (Driver Monitoring System) threshold speeds.
 - Speed Unit: The unit of speed follows the settings defined in the Speed Menu (usually km/h).
 - Test Range: It is recommended to use a speed range of 30-55 km/h, as facial recognition may not work well above 60 km/h.
 - Start and End Test: After entering a demo speed, click Start to begin the test, and click End to stop it once testing is completed.



Overtime Driving

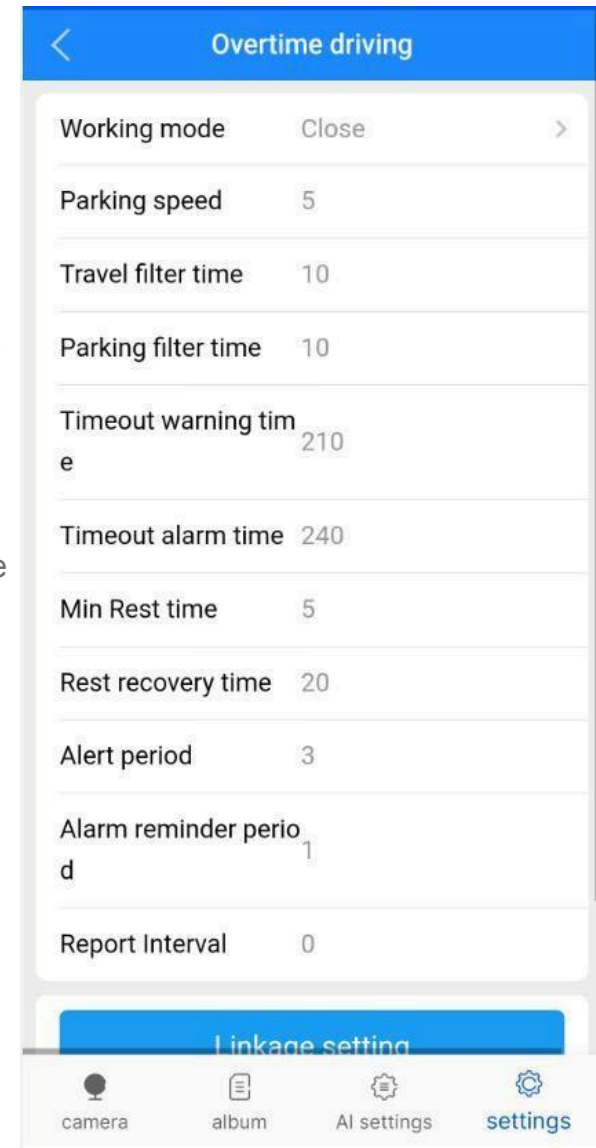
The Overtime Driving feature is designed to monitor the driver's accumulated driving time and remind them to rest when they exceed a set driving duration. This feature is particularly useful for promoting safe driving habits and preventing driver fatigue.

1. General Settings:

- **Parking Speed:** This setting determines the speed threshold to distinguish between parking and driving states. GPS drift issues are considered, and the default value is 5 km/h. If the vehicle's speed is greater than this threshold, it is considered driving.
- **Travel Filter Time:** This is the waiting time to prevent false statuses (e.g., when the system misjudges whether the vehicle is moving or parked). The default is 10 seconds.
- **Parking Filter Time:** Similar to travel filter time, but it applies when determining if the vehicle is parked. The default is also 10 seconds.

2. Overtime Driving Alerts:

- **Timeout Warning Time:** The warning for accumulated overtime driving will be triggered after 3 hours and 50 minutes of continuous driving (default setting).
- **Timeout Alarm Time:** The alarm for accumulated overtime driving will be triggered after 4 hours of continuous driving (default setting).



3. Rest Time Settings:

- **Min. Rest Time:** This is the minimum required rest time after a period of overtime driving. The default is 5 minutes. If the driver does not rest for at least this time, the system will not count it as a valid rest period.
- **Rest Recovery Time:** This setting defines the total time required for the driver to fully rest. The default is 20 minutes, and it can accumulate over multiple rest periods if needed.

4. Warning and Alarm Settings:

- **Alert Period:** Once the driver has exceeded the warning time (3 hours 50 minutes), the device will start periodically reminding them to take a rest. The reminder is issued every 5 minutes. This warning is local and not reported to the platform.
- **Alarm Reminder Period:** When the driver exceeds the alarm time (4 hours), the device will start periodically reminding them, with reminders every 1 minute. The alarm will also be reported to the platform.
- **Report Interval:** If the driver continues driving beyond the overtime limits, the system will periodically report the alarm to the platform, with a default interval of 1 minute.

5. Linkage Settings:

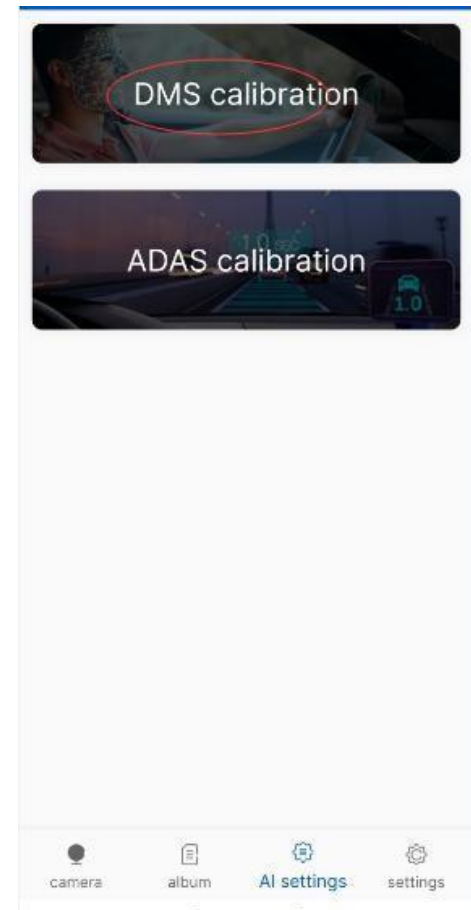
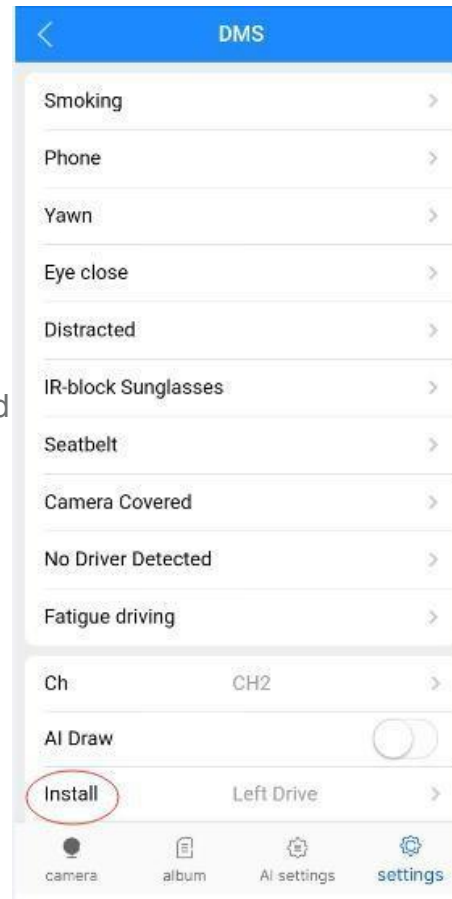
- **Buzzer:** This setting controls whether a local voice alert or buzzer will sound when overtime driving occurs. It can be switched On or Off.

Appendix: Calibration

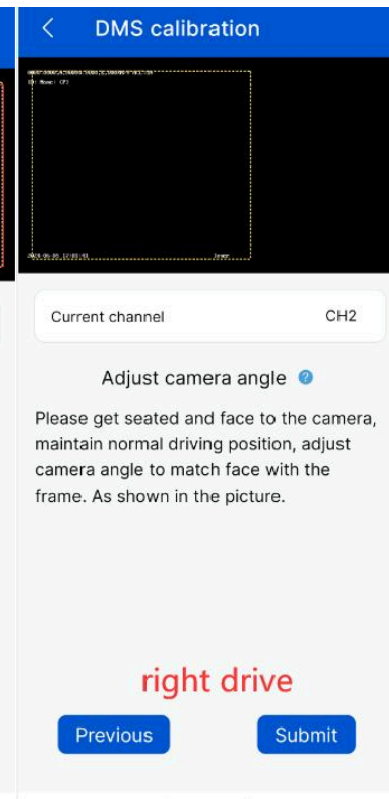
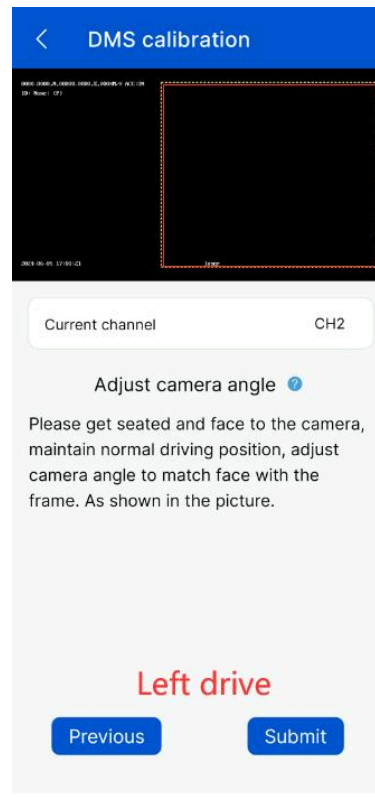
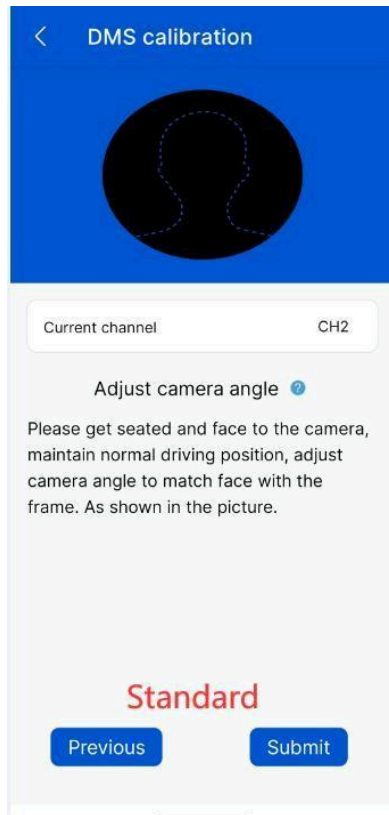
DMS Calibration Guide

If your device has the DMS (Driver Monitoring System) feature, follow these steps to calibrate it:

1. Connect the Camera: Connect the DMS camera to the extension cable and select CH2 on the device.
- This model supports both a wide-angle camera (for either left or right-hand drive) and a standard DMS camera.
2. Go to Alarm > DMS in the menu.
3. Set the Camera Type:
 - Choose the camera type based on your vehicle configuration:
 - **Default:** For a standard camera installed on the dashboard.
 - **Left Drive:** For vehicles with the driver on the left side (common in countries where people drive on the right side of the road).
 - **Right Drive:** For vehicles with the driver on the right side (common in countries where people drive on the left side of the road).



After selecting the correct option, the system will display the appropriate calibration method.



Camera Installation and Calibration Steps

1. Install the Camera: After installing the DMS camera, sit directly in front of it, facing the camera lens.
2. Check the Valid Area:
 - The app will display a valid area on the screen. Make sure your face is within this area.
 - If your face isn't in the correct position, adjust the camera's location or angle accordingly.

3. Enter AI Settings:

- Go to AI Settings > DMS in the menu.
- Click Submit to proceed.

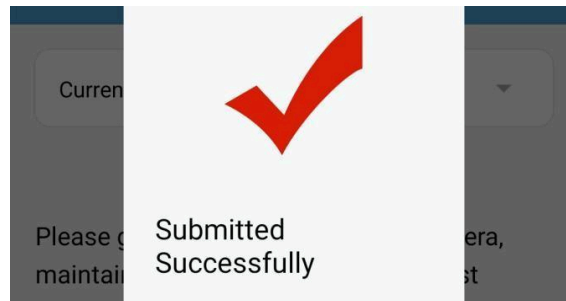
4. Calibration:

- Wait for a few seconds. The system will enter the calibration interface automatically. Please be patient during this process.

Calibration Result

Once the calibration is successful, you will see the message "DMS Calibration successful" on the screen.

If the calibration fails, make sure your face is directly facing the center of the lens. Adjust the camera angle, then try the calibration process again.



ADAS Calibration Guide

1. Install the ADAS Camera: Install the ADAS camera in place, then park the vehicle in a flat, open area.

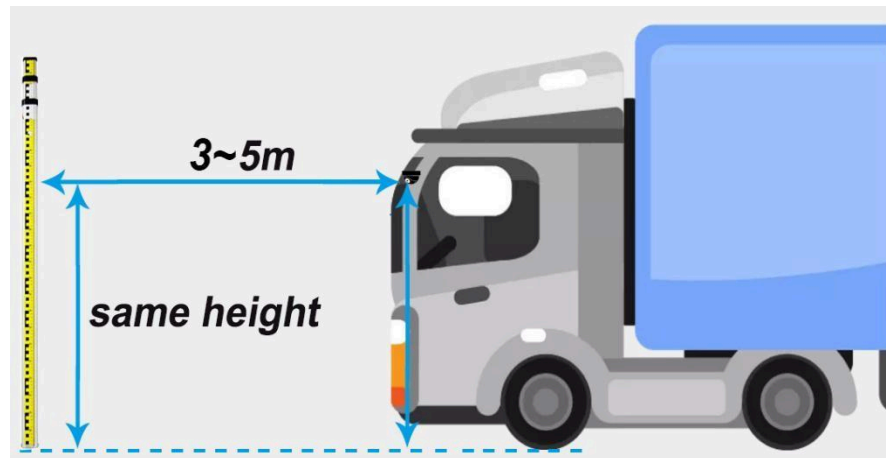


2. Select the Correct Channel:

- Go to the ADAS settings menu and set the ADAS channel to CH2.

3. Calibrate Horizon & Car Center:

- Place a pole or ruler in front of the vehicle at a distance of 3-5 meters. Ensure that the pole or ruler is aligned vertically with the center of the camera.
- Use a ruler to mark a line at the same height as the ADAS camera's center. (You will need to measure the camera height as shown below).

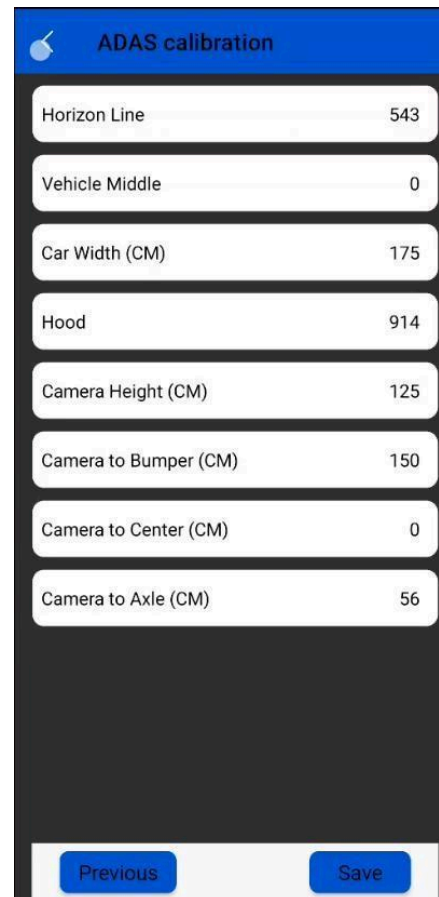
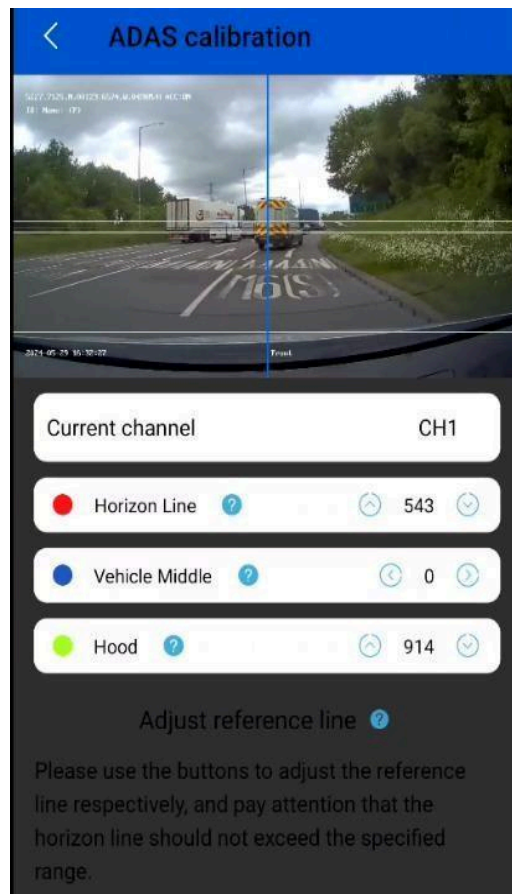


- Move the Horizon Blue line up or down until it overlaps with the marked line on the ruler. Move the vehicle's middle white line until it overlaps with the ruler, aligning it vertically.

Important: Ensure that the ruler or pole is perfectly aligned with the ADAS center line.

4. Complete Calibration:

- After adjusting the Horizon and Vehicle middle lines, click "OK" to finish the calibration.



Horizon: The Horizon is the horizontal level obtained from Step 3 of the calibration process. This value is automatically set and does not need to be entered manually.

Unit: Pixel.

Vehicle Middle: The Vehicle Middle represents the offset (distance) from the camera center, which was calibrated in Step 3. Unit: Pixel.

For small vehicles, move the Green line down as much as possible to the bottom.

Then, manually input 1079 in the appropriate field for the hood setting.

This should complete the necessary adjustments for calibration.



Car Width: The Car Width is the distance between the outer edges of the tires.

Unit: cm.

Camera Height: The Camera Height is the distance from the ground to the center of the camera.

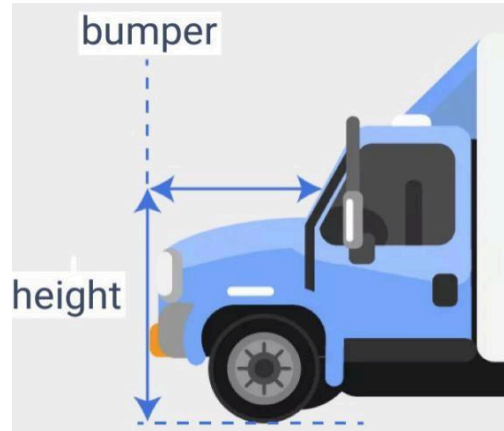
Unit: cm.

Camera to Bumper: The Camera to Bumper is the distance from the camera to the front bumper.

Unit: cm.

If your vehicle has a flat cabin, input 0 in this field.

Once you've entered these values, you will have completed the necessary calibration measurements.



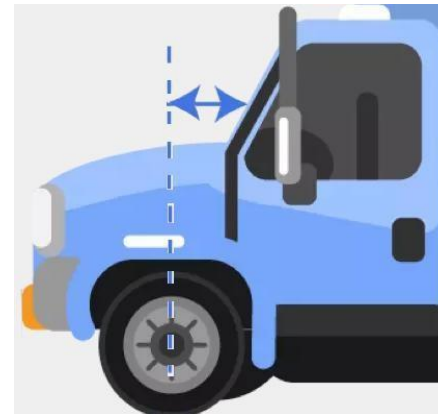
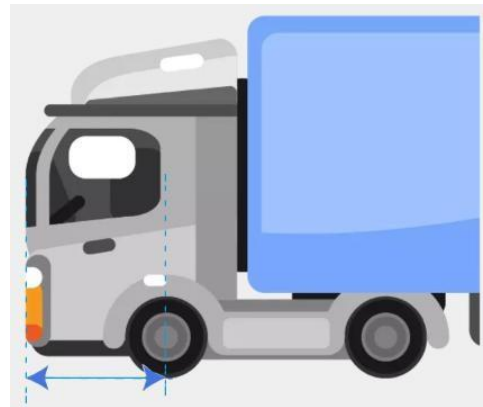
Camera to Center: Set the Camera to Center value to 0 directly.

Unit: cm.

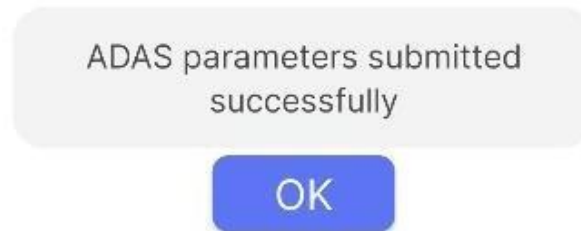
Camera to Axle: The Camera to Axle is the distance from the camera to the front wheel axle.

Unit: cm.

Important: Enter this as an absolute value, meaning no negative values.



After you input all the parameters, click "Submit" to save your settings.



If the calibration fails, carefully double-check each step and re-enter the parameters to ensure everything is correct. Then, try the calibration process again.

Main Menu DMS Settings

Camera Channel: Set Camera Chn to CH2.

Enable/Disable Alerts: Enable: Turn the alert on or off.

Speed: Set the speed at which the alert is triggered. Unit: KM/H. If your local speed unit is in miles, convert it to kilometers first.

Pre-Recording: Set the pre-recording time before the alert triggers (in seconds). You can set it to 3 to 5 seconds.

Duty Ratio:

- Duty ratio is the ratio of frames used for algorithm analysis versus the total frames sampled.
- DMS Frame Rate: 8 frames per second are sent to the NPU (Neural Processing Unit).
- For example, if the duty ratio is set to 70% and the trigger hold time is set to 3 seconds, the system will analyze 17 frames ($3 * 8 * 70\%$).

Adjusting Duty Ratio:

- 70% is recommended for balanced performance.
- If set to a higher value, like 85%, the alarm will be more accurate but may miss some alerts.
- If set to a lower value, like 60%, the system will be more sensitive but could trigger false alarms.
- This way, you can fine-tune the DMS system according to your preferences for accuracy and sensitivity.

Function	Item	High sensitivity	Middle sensitivity	Low sensitivity
DMS	Smoking	TriggerHold:2s,Duty ratio:0.7	TriggerHold:3s,Duty ratio:0.7	TriggerHold:4s,Duty ratio:0.7
	Phone call	TriggerHold:2s,Duty ratio:0.7	TriggerHold:3s,Duty ratio:0.7	TriggerHold:4s,Duty ratio:0.7
	Eye closing	TriggerHold:2s,Duty ratio:0.7	TriggerHold:3s,Duty ratio:0.7	TriggerHold:4s,Duty ratio:0.7
	Yawning	TriggerHold:1.5s,Duty ratio:0.7	TriggerHold:2s,Duty ratio:0.7	TriggerHold:3s,Duty ratio:0.7
	Distraction	TriggerHold:2s,Duty ratio:0.7	TriggerHold:3s,Duty ratio:0.7	TriggerHold:4s,Duty ratio:0.7
	Sunglasses	TriggerHold:2s,Duty ratio:0.5	TriggerHold:4s,Duty ratio:0.5	TriggerHold:6s,Duty ratio:0.5
	Camera covered	TriggerHold:5s,Duty ratio:0.7	TriggerHold:10s,Duty ratio:0.7	TriggerHold:15s,Duty ratio:0.7
	Seatbelt	TriggerHold:2s,Duty ratio:0.7	TriggerHold:5s,Duty ratio:0.7	TriggerHold:8s,Duty ratio:0.7
	Driver absent	TriggerHold:2s,Duty ratio:0.7	TriggerHold:5s,Duty ratio:0.7	TriggerHold:8s,Duty ratio:0.7

Trigger Hold: Trigger Hold refers to the wait or hold time after an alert is triggered before the system reacts or resets.
Interval: This is the trigger interval (in seconds) for the same alert type. It defines the time gap before the same alert can be triggered again.

Alarm Linkage Items

Record: Enable or disable video recording for the specific alert.

Buzzer: Turn the alert voice broadcast on or off, so you'll hear a sound when an alert is triggered.

RecLockChn: No setup is required for this option.

RecUploadChn: You can turn the uploaded DMS channel on or off. Only the selected channel can upload AI videos.

The AI video is saved first on the TF card and then uploaded to the server.

SnapPicChn: Select the DMS channel for snapshots. The pictures will be saved first on the TF card and then uploaded to the server.

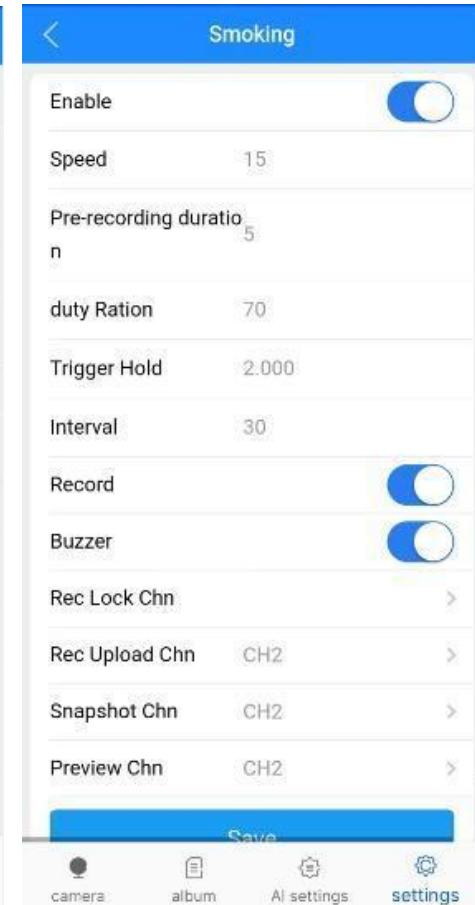
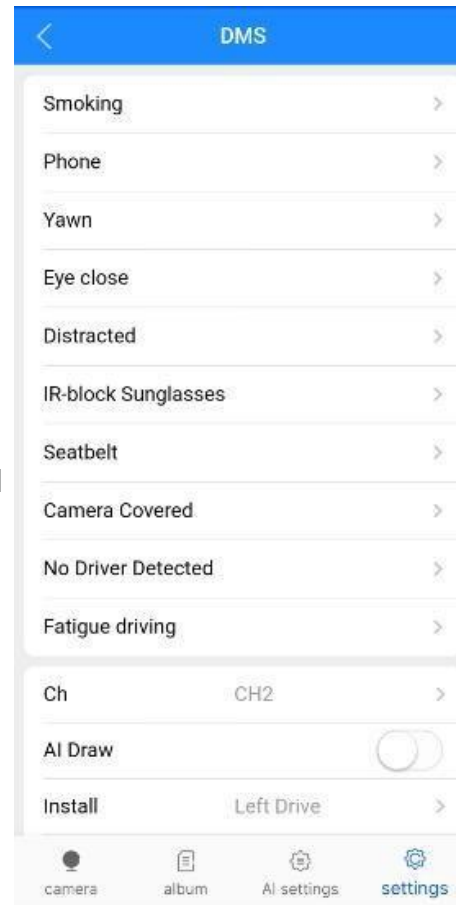
This setup allows for customization of how alerts are managed and how data (video or images) is recorded and uploaded for further analysis.

RecUploadChn:

Tick the specific channel if you want the AI video to be uploaded to the VSS (Video Surveillance System).
If you do not need to upload the video, simply uncheck this option.

SnapPicChn:

Similarly, tick the specific channel if you want snapshots to be uploaded to the VSS.
If you don't need the pictures to be uploaded, uncheck this option.
By selecting or unselecting these channels, you control whether or not the AI video or snapshots are uploaded to the system.



ADAS Settings Overview

Camera Channel: Set Camera Chn to CH1 for ADAS.

Enable/Disable Alerts: Enable: Turn the alert on or off.

Speed: Set the speed threshold at which the alert will be triggered. Unit: KM/H. If your local speed unit is in miles, convert the value to kilometers first.

Pre-Recording: Set the pre-recording time (in seconds) before the alert is triggered. You can set this to 3 to 5 seconds.

Interval: This is the trigger interval (in seconds) for the same alert. It determines how much time must pass before the same alert can be triggered again.

Sensitivity: This setting adjusts the threshold time for triggering an alert. A lower sensitivity might trigger alerts more quickly, while a higher sensitivity might delay alerts until the conditions are more obvious.

This configuration allows you to customize how ADAS alerts are triggered based on speed, sensitivity, and other parameters.

Function	Item	High sensitivity	Middle sensitivity	Low sensitivity
ADAS	FCW	TTC=4.6s	TTC=3.6s	TTC=2.7s
	HMW	TTD=2.0s	TTD=1.6s	TTD=1.2s
	PCW	TTD=3.0s	TTD=2.5s	TTD=2.0s

Alarm Linkage Settings for ADAS

Record: Enable or disable video recording for the alarm when triggered.

Buzzer: Turn the alert voice broadcast on or off, so you'll hear a sound when the alert is triggered.

RecLockChn: No setup is required for this option.

RecUploadChn: Select the specific ADAS channel to upload AI video.

Once selected, the AI video will be saved to the TF card first and then uploaded to the server.

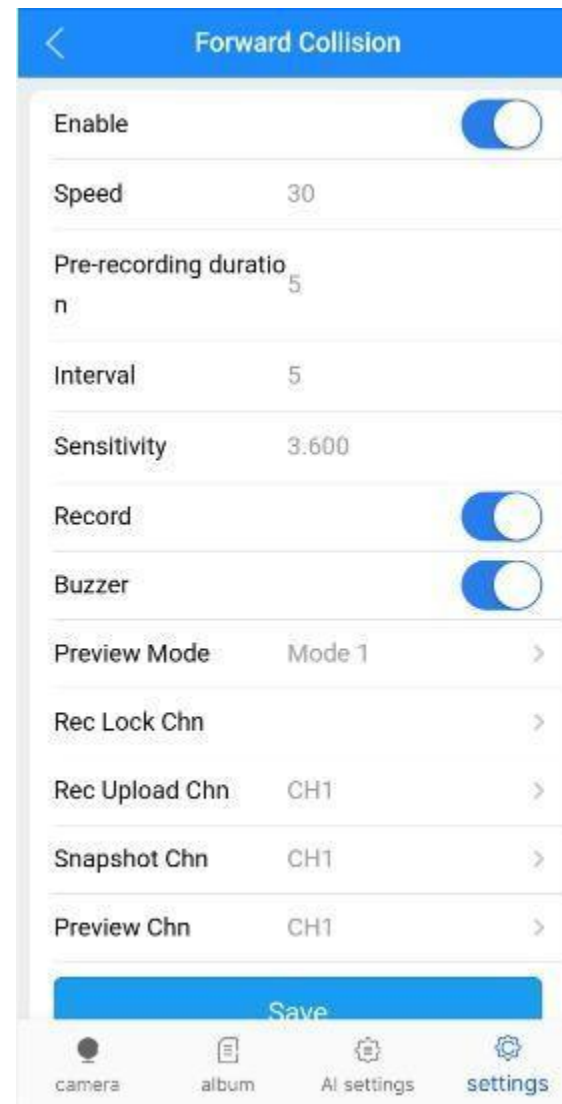
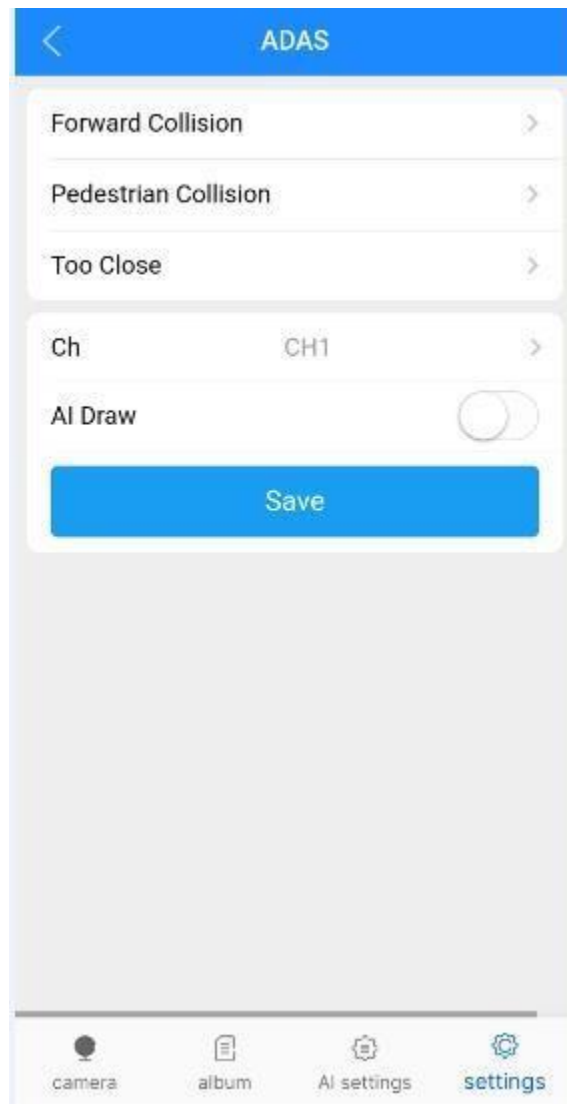
If you don't want the video to be uploaded, simply uncheck the option.

SnapPicChn: Select the specific ADAS channel for snapshots.

The pictures will be saved to the TF card first and then uploaded to the server.

If you don't need the snapshots uploaded, uncheck this option.

By ticking the specific channels for RecUploadChn and SnapPicChn, you can control whether AI video and snapshots are uploaded to the VSS (Video Surveillance System). Uncheck these options if you do not want them uploaded.



Appendix: Accessing the microSD Card and SIM Card

The device comes pre-installed with an industrial-grade SIM card and its microSD storage card. You do not need to access these; however, steps to access these are provided below for technical reference.

Note: Only use the provided SIM card in the dash cam. Do not replace it with any other SIM card.

To access the SIM card and microSD card slots, use a 1.5mm hex screwdriver (not included) to remove the short screw securing the cover.

Place the microSD (TF) card into the designated slot on the dash cam. Insert the SIM card into the SIM card slot. For guidance on correctly placing the cards, refer to the image below.

After inserting the SIM card, attach the SIM card cover securely. Use the included short screw to fasten the cover in place.

