Installation and debug manual
Model:JAB-G-A

version：V1.1

2020-1-7

catalog

1. Overview

The following installation instructions in this document detail the installation steps for JAB-G-A products. If the installation instructions are inconsistent with the operation of the installation assistant, please refer to the instructions of the installation assistant.

2. Preparation before installation

2.1 Product main equipment

MDVR, vehicle surveillance camera, JAB-G-A such as (Figure 1).

MDVR

vehicle surveillance camera   AIBOX

(Figure 1)

2.2 Tools required for installation
  a. Basic tools
    Allen wrench (standard tool)
    Phillips screwdriver (non-standard tool)
  b. Special tools
    Multimeter or electric pen, tape measure, square ruler, insulating
    tape, alcohol cotton, Android phone, debugging software.
2.3 Site required for installation
    Make sure that the vehicle is parked stably on flat ground, and it
is better to have a road near the installation site to facilitate testing.

3. installation steps

3.1 wiring

a. Wiring topology diagram, such as (Figure 2, Figure 3).
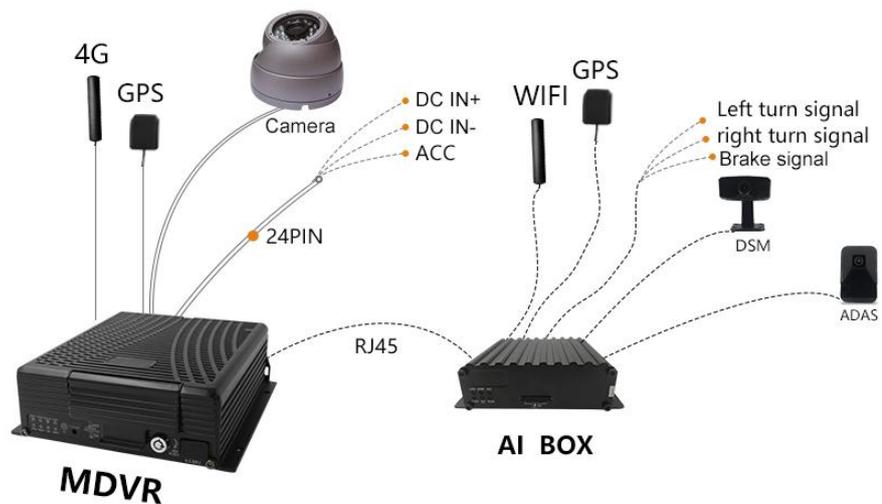
（Figure 2）
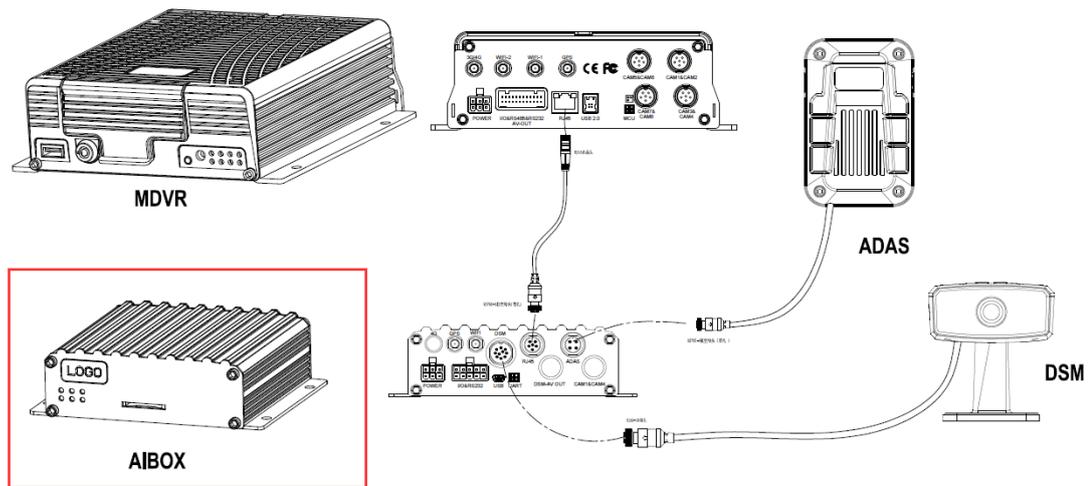
（Figure 3）

b. Wiring method

JAB-G-A：Left turn signal, right turn signal, brake signal (optional).

Method: Connect the body electrical signals to open the panel of the car, and use a multimeter or an electric pen to find the power source VCC, ignition signal ACC, GND and left and right turn signal lines, brake signals and wiring.

DSM and ADAS cameras are directly connected to the corresponding interface on the rear panel of JAB-G-A. JAB-G-A is connected to the host computer for data communication via RJ45 network cable.

2.2 ADAS camera installation

a. Installation position

 For medium and large vehicles, the front-view camera should be installed near the bottom of the middle of the windshield, and the left and right sides of the vehicle's axis can be within 20cm, as shown in Figure 4:

(Note: Don't be blocked by the wiper)

Figure 4. ADAS camera installed in the windshield of a medium or large car

For small cars, the front-view camera should be installed in the upper and middle of the windshield, and the position below the rear-view mirror can be within 20cm from the left and right of the vehicle's center axis, as shown in Figure 5:

Figure 5. ADAS camera installed in the windshield of a small car

b. installation method

 * Use alcohol swabs to clean the pre-installed area of the windshield.

 * Remove ADAS camera 3M glue and lens protective film.

 * Before the fixation, adjust the camera angle. If the front windshield is perpendicular to the ground, use coarse adjustment. If the angle between the front windshield and the ground is less than 90 ° , adjust the tilt angle as appropriate, and attach the front camera horizontally. Windshield (can be mounted with a square or spirit level).

Angle adjustment:

    After the camera is installed on the glass surface of the car, the angle of the camera can be adjusted by adjusting the internal screws of the ADAS camera with the Allen tool, as shown below:

2.3 DSM camera installation

a. Installation position

* Installed and fixed on the center console of the vehicle directly in front of the driver's main driving position or within 20cm from the left or right or fixed to the right (or left) (10 ~ 30 °) position in front of the driver. According to the distance between the installation location and the driver, the lens can be adjusted to ensure the best working condition of the device.

* The angle should be as far as possible from the door of the compartment. When monitoring the driver, the image should be as far away from the window as possible, otherwise the image will be darkened.

* DSM camera installation angle The steering wheel cannot be displayed in the image, which will cause the infrared to focus on the steering wheel under the environment of forward and back light, which will cause the image to be darkened poorly.

* DSM camera is the best distance from the driver's face 70-100CM.

As shown：

b. installation method

Fix directly to the center console with screws or use 3M adhesive to stick to the center console.

c. DSM screen display

The face is centered, and the picture of the head above the neck is the best picture.
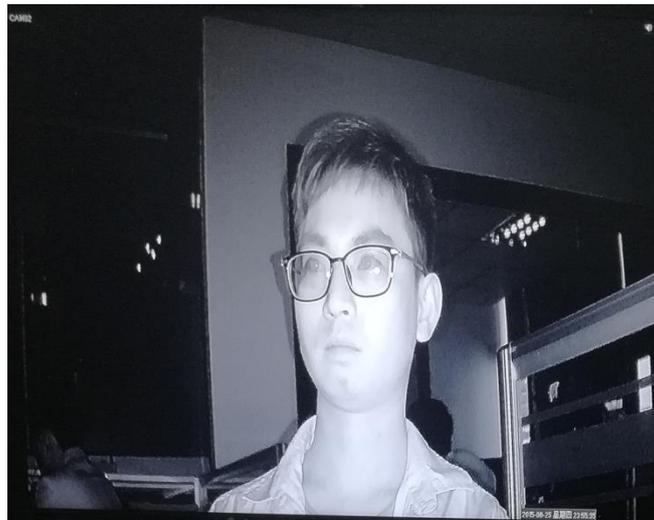
4. Debug software calibration page

4.1 Connected device Wi-Fi

 * Enable WiFi：

   1. Long press the "Volume +" key on the DSM camera of the device for
   more than 5S.

   2. Press "Volume +" for more than 5S and press the "Volume-" key at
   the same time. 3 times will be voice reminder to start the test or the
   Wi-Fi hotspot of the WiFi mode device is turned on and enter the
   calibration mode.

  After enabling WIFI, it enters the test mode, and the voice broadcasts:
entering the testing mode, the Wi-Fi hotspot is enabled, please connect
it with phone for testing.

 * Login Calibration Software:

  Enter the user name and password IP to complete the login, the account
password contact our technical staff to assign an account.

  server IP:39.106.1.200:8089
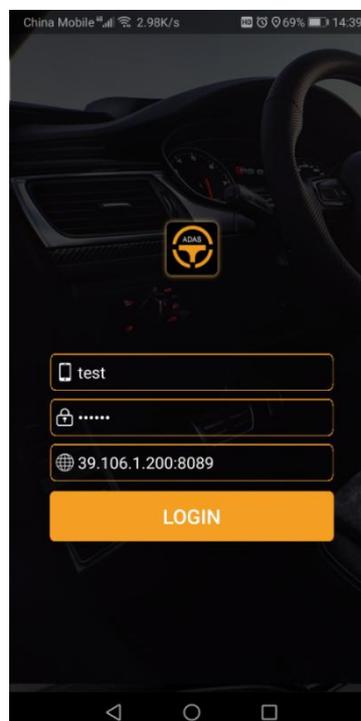
After login interface:
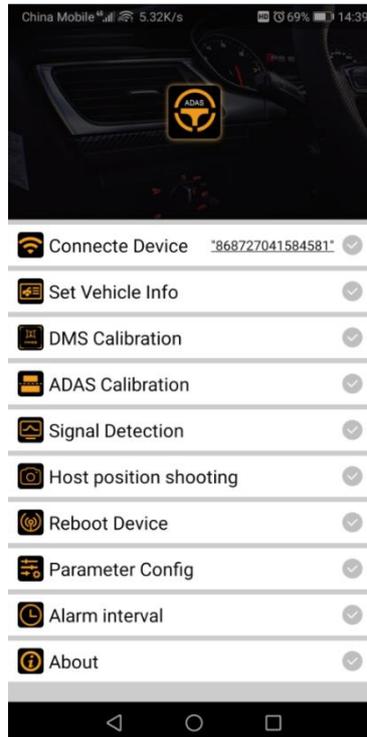
Then switch the WIFI connection on the device:

Wi-Fi name: device IMEI (15-digit IMEI number can be viewed through the INFO-AIBOX interface JAB-G-A)

Wi-Fi password: 12345678

4.2 Set vehicle information

After entering the calibration app, click [Set Vehicle Information] to set the vehicle license plate number information;
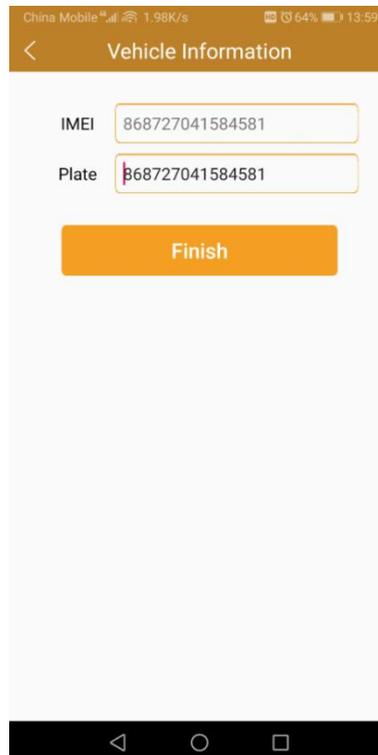
4.3 DSM camera calibration

After entering the calibration app, click [DSM Calibration] to calibrate the DSM camera.

4.3.1 Step1- Calibrating the camera position

4.3.1.1 Demand scenario

- After entering the calibration interface, the first step of calibration is started. At this time, the voice broadcast：【please adjust your camera position and mount it on dash board, make sure it seating at your front right 30 degrees.】

- Click [Cancel] to cancel the calibration and return to the DSM initial interface;

- Click [Next] to enter the next step, that is, step 2 starts the calibration interface;

- Click [Help] in the upper right corner, a pop-up window will pop up【please adjust your camera position and mount it on dash board, make sure it seating at your front right 30 degrees. 】Follow the prompts to complete the calibration. After finishing, click the [Close] button to return to the calibration interface.

4.3.1.2 Frame drawing
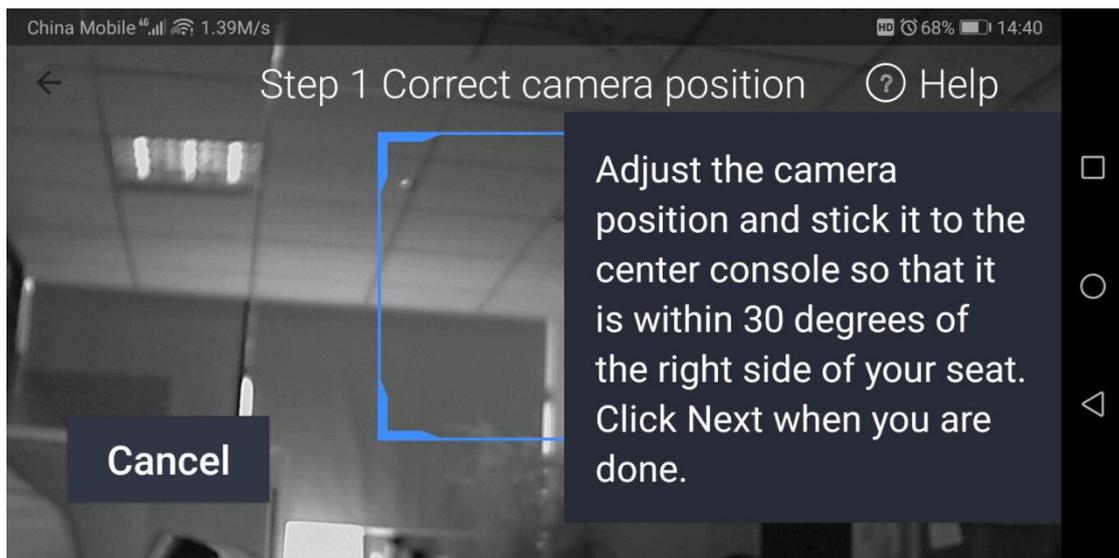
4.3.2 Step2- Start calibration

4.3.2.1 Demand scenario

- After entering the second step calibration interface, the voice broadcast:【please facing forward and keep still, while make sure your face is in center of windows.】; The server returns

[Calibration Start], and the voice broadcasts:【During calibration, please wait patiently】;

- If the calibration successful., Play toast [calibration successful.] And broadcast the announcement [calibration successful.]

- Click [Back] to return to the previous step, which is the step1 interface for correcting camera position;

- Click the [Help] floating window on the upper right, a prompt box will pop up:【please facing forward and keep still, while make sure your face is in center of windows.】Follow the prompts to complete the calibration. After finishing, click the [Close] button to return to the calibration interface.

- If the calibration fails, the user needs to calibrate again.

- According to the failure reason returned by the server, prompt the user and restart the calibration:
  - ► The server returns【Calibration failed, face is facing abnormally】: Voice broadcast【calibration failed, please adjust camera angle and recalibrate】, toast prompt [The calibration fails, the camera angle is too large];
  - ► The server returns【Calibration failure, calibration does not face framing】: Voice broadcast【calibration failed, please place your face in center of frame and re-calibrate.】, toast prompt【calibration failed, please place your face in center of frame and re-calibrate.】;
  - ► Failure for unknown reason: voice announcement【calibration failed, please recalibrate.】, toast broadcast【calibration failed, please recalibrate.】。

4.3.2.2 Frame drawing
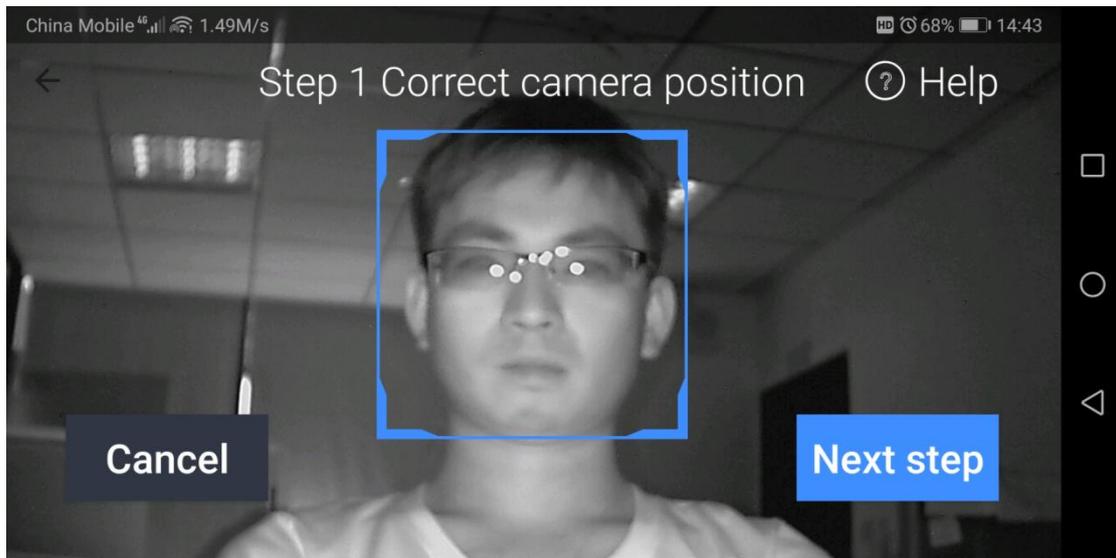
After the calibration is completed, a pop-up window will pop up, and then the DSM installation position will be taken.

Return to the main interface and proceed to the next step.

4.4 ADAS camera calibration

After entering the calibration app, click [ADAS Calibration] to perform the calibration of the ADAS camera;

4.4.1 step1- Calibrating the camera position

4.4.1.1 Demand scenario

- After entering the calibration interface, the first step of calibration is started. At this time, the voice broadcast【park your vehicle at middle row on straight road, adjust rearview mirrow and camera, make sure the vanish point is between two white guide lines and merge it with green guide line; click next when completed.】

- Click the [Next] button to enter the next step, Step2 calibrate the position of the vanishing point of heaven and earth;

- Click [Cancel] to end the calibration process and return to the initial calibration interface.

- Click the [Help] button, a prompt box will pop up【park your vehicle at middle row on straight road, adjust rearview mirrow and camera, make sure the vanish point is between two white guide lines and merge it with green guide line;】Follow the prompts to complete the calibration. After finishing, click the [Cancel] button to return to the calibration interface.

4.4.1.2 Frame drawing
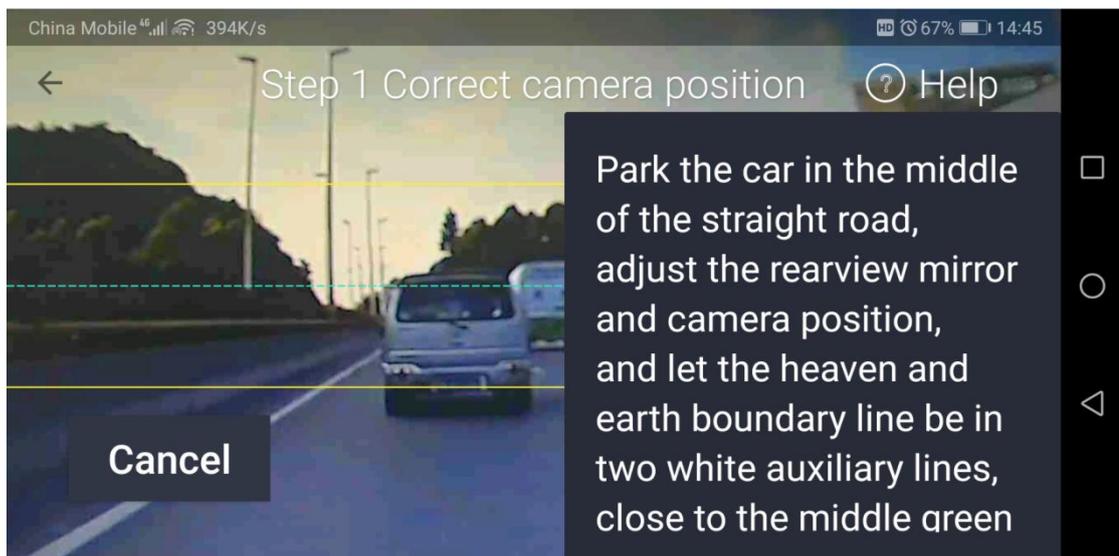
4.4.2 Step2 Calibration of vanishing point position

4.4.2.1 Demand scenario

- After entering the second step calibration page, the voice broadcast【move the yellow cross to make sure the center is located

at vanish point, you can adjust it by arrow keys, click next when completed.】

- Click [Back] to return to the previous calibration interface and step1 to correct the camera position;

- Click [Next] to enter the next step, step3 enter vehicle parameter information;

- Click the [Help] button, a prompt box will pop up【move the yellow cross to make sure the center is located at vanish point, you can adjust it by arrow keys】Follow the prompts to complete the calibration. After finishing, click the [Close] button to return to the calibration interface.

4.4.2.2 Frame drawing
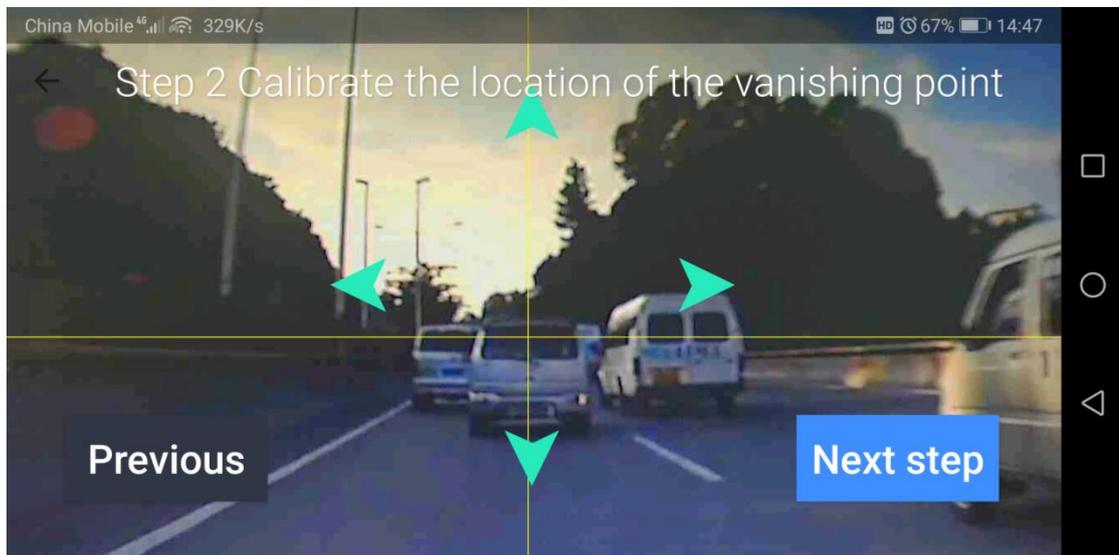
4.4.3 step3- Enter vehicle parameter information

4.4.3.1 Demand scenario

● Enter the third step calibration interface, you need to enter the following parameter names, and there will be vehicle parameter information verification, after a single parameter is entered to verify, toast prompt when error;

▶ Camera installation height, unit cm (Note: take the vertical height of the camera installation position from the ground), if input is incorrect, toast prompts [the value should be between [* 80, 400];

▶ Camera horizontal distance, unit cm (Note: take the horizontal distance from the camera installation position to the front bumper of the vehicle), if you make a mistake, toast prompts [this value should be between (* 0, 500]; *]

▶ Vehicle width in cm (Note: Take the distance from the outside of the left front wheel of the vehicle to the outside of the right front wheel of the vehicle). If you make a mistake, toast prompts [The value should be between (* 0,500]; *]

▶ The distance from the rear axle of the vehicle to the front of the vehicle, in cm (Note: Take the distance from the front bumper to the rear axle of the vehicle). If you make a mistake, the toast prompts [the value should be between (* 0, 1000]; *]

▶ Vehicle wheelbase in cm (Note: Take the distance from the front axle to the rear axle of the vehicle). If you make a mistake, toast will prompt [the value should be between (* 0, 1000]]. Position, * note: [this value should be less than [distance from the rear axle of the vehicle to the front of the vehicle];]

► The distance from the camera to the left. If the distance from the camera to the left is greater than the width of the vehicle, the unit is cm (Note: Take the distance from the camera to the left front wheel of the left vehicle). ; *]

► Click [Back] to return to the previous calibration interface, that is, to calibrate the vanishing point position of step 2 in step 2;

● Click the [Finish] button: prompt the user [Calibration]. After the calibration is successful, prompt the user [Calibration successful], enter the ADAS homepage, and start working.

● The vehicle information is empty when inputting for the first time. After the user enters a click and finishes it, the user will enter the next time. The default is to fill in the user, and the user does not need to enter it again, and allows the user to modify it.

4.4.3.2 Frame drawing
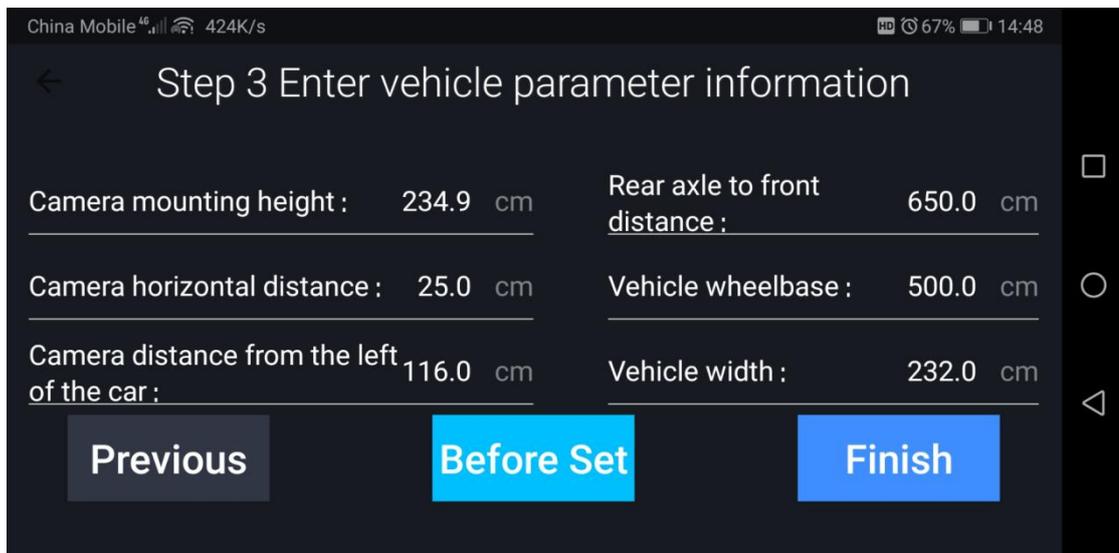
After the calibration is completed, a photo window pops up, and then the ADAS installation position is taken to complete the calibration.

5. JAB-G-A Language broadcast settings

The calibration APP can be used to set the JAB-G-A language of the active safety device (Chinese broadcast, English broadcast)
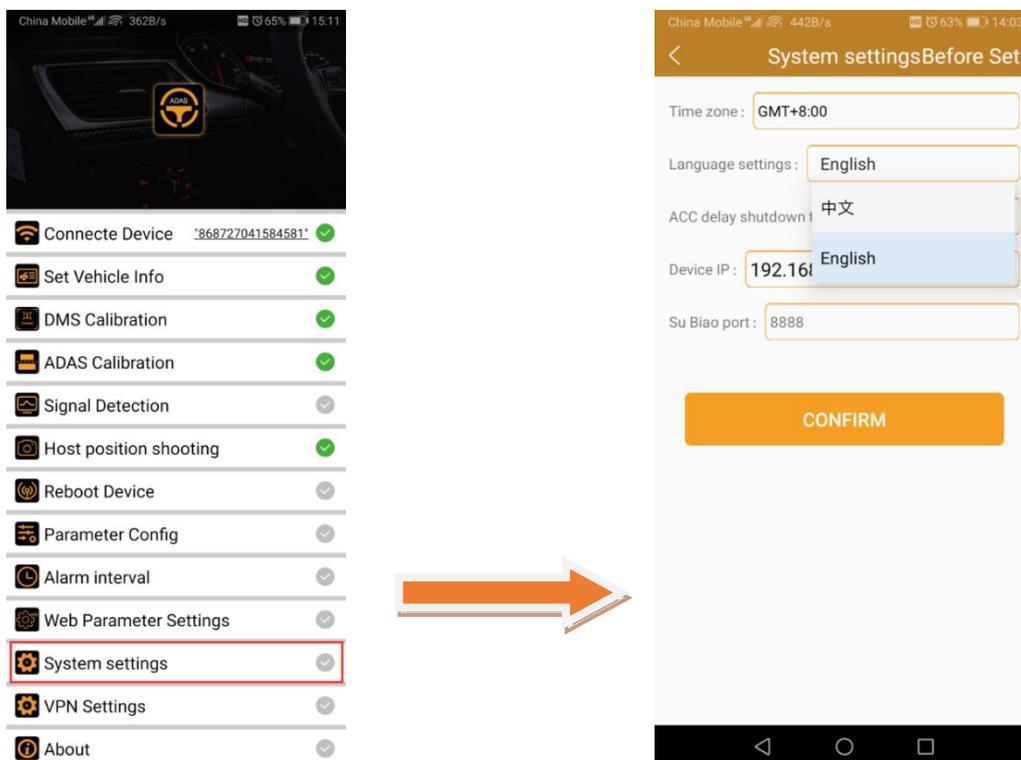
6. debugging

6.1 Basic online parameter debugging

6.1.1 General Settings—Vehicle Information

Set device number, vehicle number, company information, driver information, etc.

6.1.2 General Settings—Network Settings

Set server IP, IP port (vehicle goes online, data upload)

6.2 SIM card installation (size card must use standard card tray)
Since most of the SIM cards on the market are large and small, you must
use the SIM card holder that comes with our standard when installing to
prevent poor contact problems during vibration.

6.3 Hard disk format
The host needs to format the hard disk after the installation is completed.
The first time the hard disk is not formatted, it cannot be used for about

5-10 minutes during the formatting process, and the power cannot be turned off during the formatting

MEMU-TOOLE-FORMART:
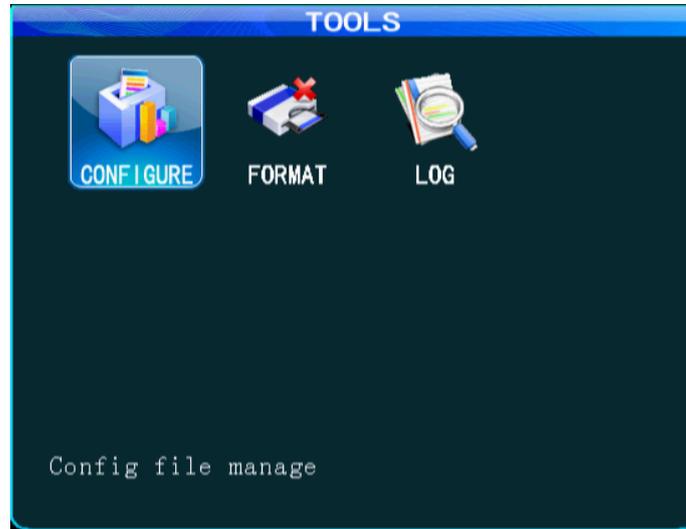
6.4 Status query

In the field monitoring state, press the "INFO" key on the remote control to directly display the system information, or select the system information option under the system menu, or display the system information.

The system checks the GPS status and goes online.
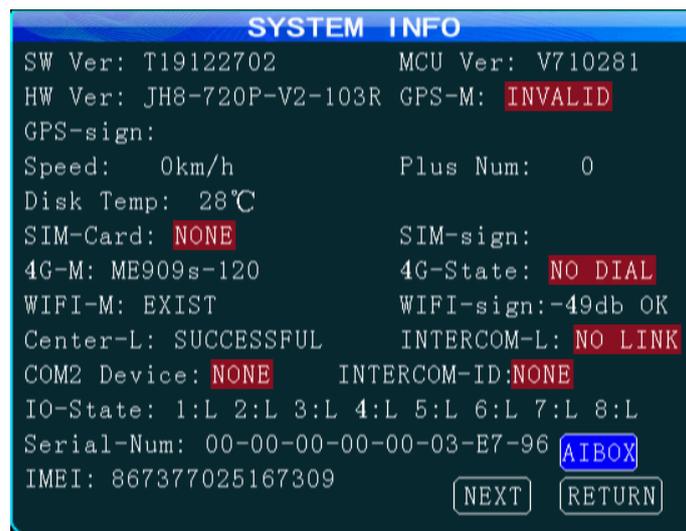
NEXT：

Check the storage status, the serial device MCU needs to be connected to the peripheral to display the existence

JAB-G-A(AIBOX) connection status.
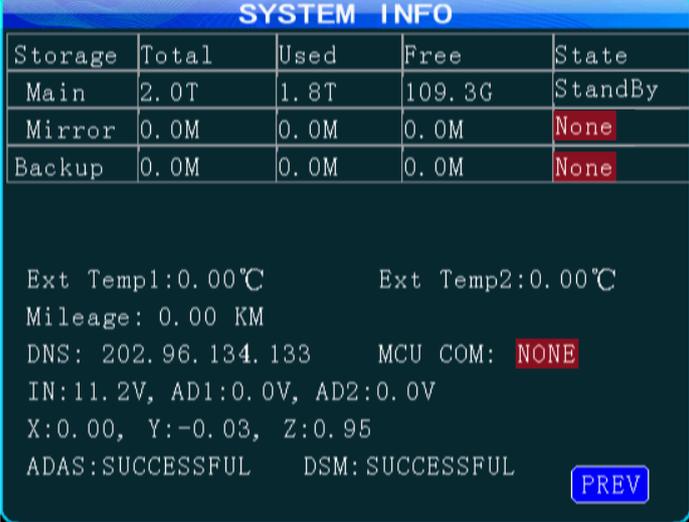
SYSTEM INFO

Storage	Total	Used	Free	State
Main	2.0T	1.8T	109.3G	StandBy
Mirror	0.0M	0.0M	0.0M	None
Backup	0.0M	0.0M	0.0M	None

Ext Temp1:0.00℃   Ext Temp2:0.00℃
Mileage: 0.00 KM
DNS: 202.96.134.133   MCU COM: NONE
IN:11.2V, AD1:0.0V, AD2:0.0V
X:0.00, Y:-0.03, Z:0.95
ADAS:SUCCESSFUL   DSM:SUCCESSFUL
PREV

AIBOX:

View JAB-G-A software information, IMEI number, DSM camera status, ADAS camera connection status, etc.

Check the version status, the absence of SIM / SD card does not affect the use (reserved)
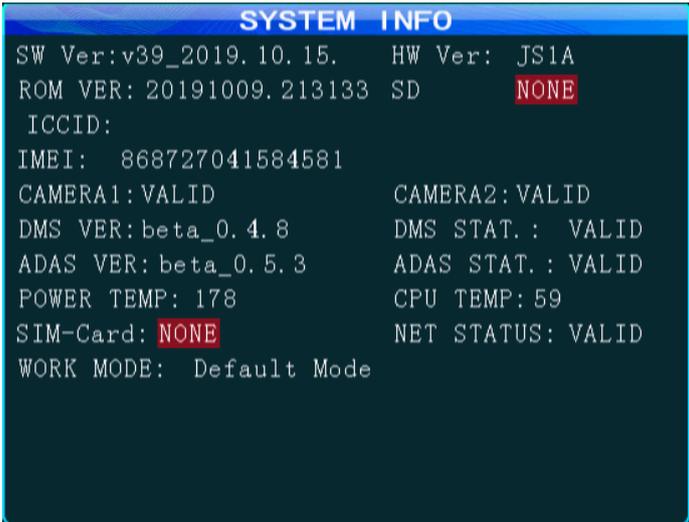
SYSTEM INFO

SW Ver:v39_2019.10.15.   HW Ver: JS1A
ROM VER:20191009.213133 SD   NONE
 ICCID:
IMEI: 868727041584581
CAMERA1:VALID   CAMERA2:VALID
DMS VER:beta_0.4.8   DMS STAT.: VALID
ADAS VER:beta_0.5.3   ADAS STAT.: VALID
POWER TEMP:178   CPU TEMP:59
SIM-Card:NONE   NET STATUS: VALID
WORK MODE: Default Mode

6.5 Set simulation speed

Setting the simulation test speed is convenient for testing the active safety equipment (JAB-G-A) alarm data upload in a static environment such as an office. Actual installation is not required.

1、Set the speed source and select the vehicle.

Source:Vehicle

coefficient(X100):3600

Source:Vehicle

coefficient(X100):3600

2、Use the remote control to quickly press 8 + F3 + F1 + 6

The simulation speed is set successfully. Plus Num displays 60 on the INFO interface.

6.6 DSM / ADAS alarm linkage

Can set active safety alarm (DSM / ADAS) linkage video channel to capture and record video. Customers can set CH1-CH8 according to their needs. For example, when the lane departure alarm is generated by the ADAS camera, the current channel image is captured and recorded.
It is recommended to set the corresponding DSM / ADAS channel.

Common troubleshooting methods

Q: What should I do when the product has a problem that it cannot handle?

Answer: Record the product model and software version number, and submit a detailed problem description to our technical support engineers for analysis. The more detailed you describe, the easier it is for us to analyze and process.

Q: What to do when the vehicle host device does not have video output?

Answer: 1. Check the power-on status of the host. If only one blue indicator light is on, it means that the host is still in the standby state and not turned on. At the same time, check whether the red and yellow wires of the host's power supply are normal. If there is only one line of power, the host cannot be started.

2. Check whether the display is powered and whether the monitor video is switched to the AV state.

3. Check the connection status of the host video output cable and the monitor.

4. Check the lock status of the host lock to ensure that the lock can turn on normally.

Q: What should I do if the necessary parameters for linking the 3G / 4G platform are set and the system information interface shows that the center platform is "linked successfully", but the vehicle on the client is not online?

Answer: 1. Check whether the parameters required in section 5.1 are set correctly.

2. If the parameters are set according to the requirements in section 5.1, the terminal number on the client is still not online, log in to the web client background with the admin account and check whether the terminal number is successfully registered on the server (see: "Online Status -Unregistered terminal).

Q: What to do when the video input interface of the host and the camera input interface are different?

Answer: The vehicle host uses a 4-pin interface, and the camera is a BNC interface or an aerial head type. If they are not the same, please use the adapter to connect, or use the standard connection with the vehicle host to define the line connection.

Q: The device is turned on and the hard disk is installed, but what should I do if I do not record?

Answer: 1. Check if the hard disk has been formatted after installation. The unformatted hard disk cannot be used. Enter the main menu-management tools-format, format the newly installed hard disk once.

2. Whether the recording channel is closed, and whether timing recording is set, it will not be recorded during the period of no longer recording.

3. Check whether the hard disk is in good contact and whether the HDD logo on the front panel is flashing.

Q: The video file is lost or there is no video file for a certain period of time?

Answer: 1. By analyzing the time period determined in the first video file that was lost before and after the final video file was recovered.

2. Confirm whether the host computer has not been turned on during that period of time, such as stopping the machine in the middle of a crash, loading or unloading, etc. The host computer is not set for delayed recording.

GPS related issues

Q; GPS module exists but no coordinate information?

Answer: 1. Check whether the GPS module exists. If the GPS dual-mode module does not exist, check whether the module is installed or in good contact.

2. Confirm that the GPS antenna is in good contact and the antenna is disconnected. It is recommended to place it in a place with a strong signal. Note that some window shielding films will block GPS dual-mode signals.

3. If it is tested in a room, the GPS antenna is in the room, and the signal is shielded. It is recommended that the GPS antenna be placed outdoors.

Q: Is the GPS geographical position displayed in Map Mountain wrong?

Answer: If the GPS module has been positioned, it means that the signal is valid. There are many reasons for deviations, such as government restrictions, error tolerance, GPS signal interruption, etc. Actual satellite maps will have deviations due to security considerations. Generally, GPS corrections can be used for maps. problem.

3G / 4G wireless module related issues

Q: If I use a 3G / 4G wireless module to dial, what do I need to pay attention to?

Answer: 1. Select the built-in wireless module WCDMA or EVDO, the corresponding module settings are different, and different machine models support different modules, so please make sure your module and SIM correspond. Never use a WCDMA machine with a telecommunications SIM card.

2. Whether the server IP and port settings are correct, whether the 3G / 4G signal strength is sufficient for dialing, and whether the 3G / 4G dial is successful.

3. When dialing is unsuccessful, please check if the 3G / 4G antenna

is in good contact. If the signal is very weak, you may not be able to dial the number. In addition, check if there is enough traffic on the SIM card.

Q: In general, if there is no report or video in 3G / 4G, what should I do first?

Answer: Press the INFO button to enter the system information page, check whether the SIM card exists, the signal is strong or weak, the dialing status, and the antenna is in good contact. Then check whether the SIM card has no traffic, and replace it with a SIM card to determine. This is the most basic judgment. If there is a signal but the number cannot be dialed, check whether the center number and port are set correctly. Then see if the device number of the product is already occupied.

Q: The 3G / 4G signal is intermittent, and the video is stuck?

Answer: At present, the signal coverage of WCDMA and EVDO is relatively extensive (4G coverage is not comprehensive). In some mountain areas, there is no signal coverage, and in some suburban areas, there are weak signals due to network constraints in various places. At this time, video cards or video cannot be seen. This situation is greatly affected by the local network. ; Secondly, check whether the frame rate set by the sub-stream is too high. This may also happen to the video when the network status is poor and the frame rate is set high.

Central platform related issues

Q: The device has been started, but the vehicle and video cannot be seen on the central platform client?

Answer: First, check whether the registration server of the center is turned on and online, and check whether the host device number has been

occupied to cause conflicts; second, check whether the server center IP and port are set correctly; whether the device is through the built-in 3G / 4G module or via WIFI Reporting center, if you choose to look at the built-in 3G / 4G, please check whether the type of 3G / 4G module is selected correctly. For example, WCDMA and EVDO modules should be supported by the corresponding SIM card. Check whether the antenna has poor contact, data access point, center number. Whether the settings are correct or not in the end, please collect as much information as possible and submit it to the technical support staff for analysis. The more data you submit, the easier it will be for the technical staff to solve the problem.

Q: The device is online but I cannot see the video image?

Answer: Please set a lower sub-stream to transmit images. When the sub-stream bit rate is set to a high value, it may be blocked by the upload limit of the network or the transmission speed may be slowed down. Will seriously affect video transmission.

Q: The device reports normally on the central platform. I can't see the video after using it for a while?

Answer: First check whether the information on the host shows dialing. If you keep dialing, it may be that the SIM card's traffic has been used up. Replace the SIM card for testing. Second, check whether the device number of the host has been tampered with by the host. The vehicle information needs to be reported again; again, if the card replacement is not working, you need to check whether the host's 3G / 4G module is faulty.

Q: How does the device and ADAS check that the communication is normal?

Answer: Check the serial port on the next page of system information. If it exists, the communication is normal; if not, it is abnormal