

DQTCAM ADPLUS 2.0 INSTALLATION GUIDE

DQTCAM CUSTOMERS



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DQ TECHNOLOGIES

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Introduction

1. Before installation, please park the vehicle on a flat surface and turn off the engine (do not park the vehicle on a ramp or an inclined road).
2. Review the packing list section of this document and check carefully while unpacking.
3. Read the tool list section of this document before product installation.
4. Before installation, please observe the vehicle environment and follow the recommendations below:
 - The installation position and cabling of the camera should not affect the driver's view or affect the adjustment of the rearview mirror and sun visor.
 - The lens for monitoring the road condition ahead of the vehicle must be within the working range of the windshield wiper.
 - The installation position should comply with any local regulations.
 - The installation location should be convenient for access to Micro SD card and SIM card.
5. The appropriate installation position shall be selected according to the vehicle environment, and this document is for reference only.
6. The appropriate power supply connection method should be selected according to the vehicle environment. **When using the hard/loose wire connectors, connection to the power supply is required, and should be carried out by specialized personnel.** *This document is for reference only.*
7. In case of any problem in the installation for special vehicles, please contact DQ Technologies at: 512-248-8324 option 3 or email support@dqtech.com for support.

8. The Veyes App is required to debug and configure AD Plus2.0 during installation.

Scan the QR code below, or search and download the **Veyes** app in the App Store. After download, you can connect the app with AD Plus2.0 to perform operations as needed following the instructions of the app.



Apple iOs (App Store)



Android (Google Play Store)

System Overview

Product Overview

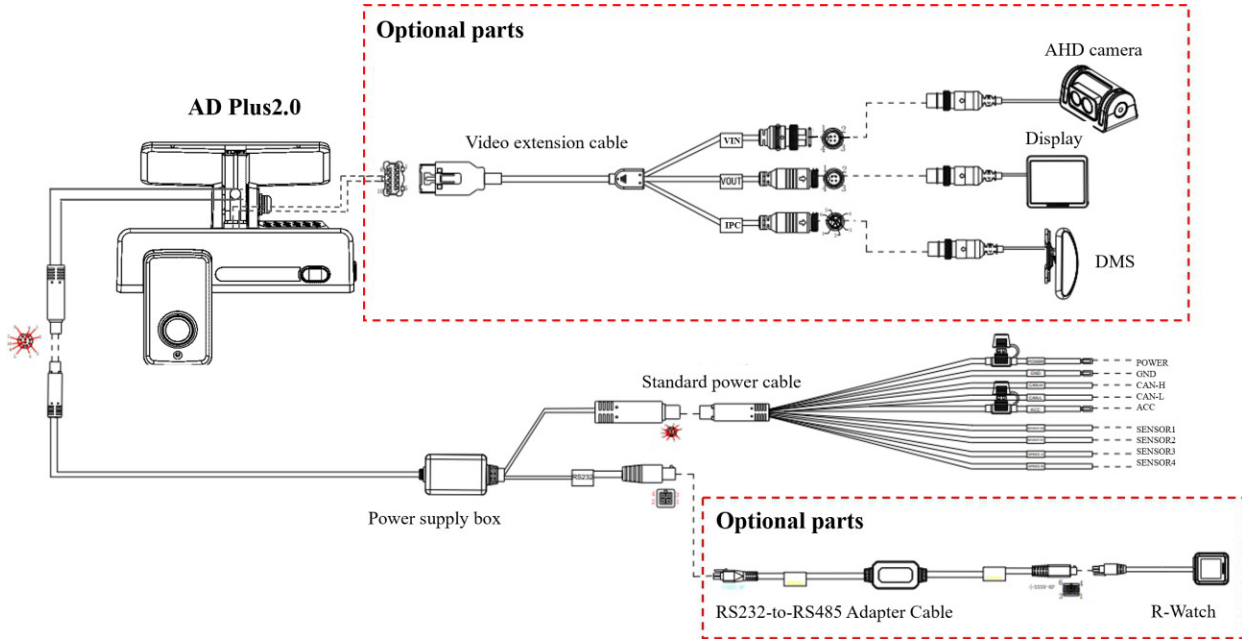
The AD Plus2.0 is an AI-powered dashcam that helps drivers reduce traffic accidents and enables fleets to improve management efficiency. Using AI technology, it actively detects risky driving events and unsafe behaviors, providing real-time local reminders to drivers to avoid risks and uploading events to the fleet management platform for driver training. It transmits real-time, accurate vehicle location information and operational data to the fleet management platform. The AD Plus2.0 also offers live video playback to make fleet management easier and more efficient.

There are two models for AD Plus2.0, the dual-lens model and single-lens model. For the single-lens one, the lens for cockpit monitoring is removed, while the rest of the structure remains identical.

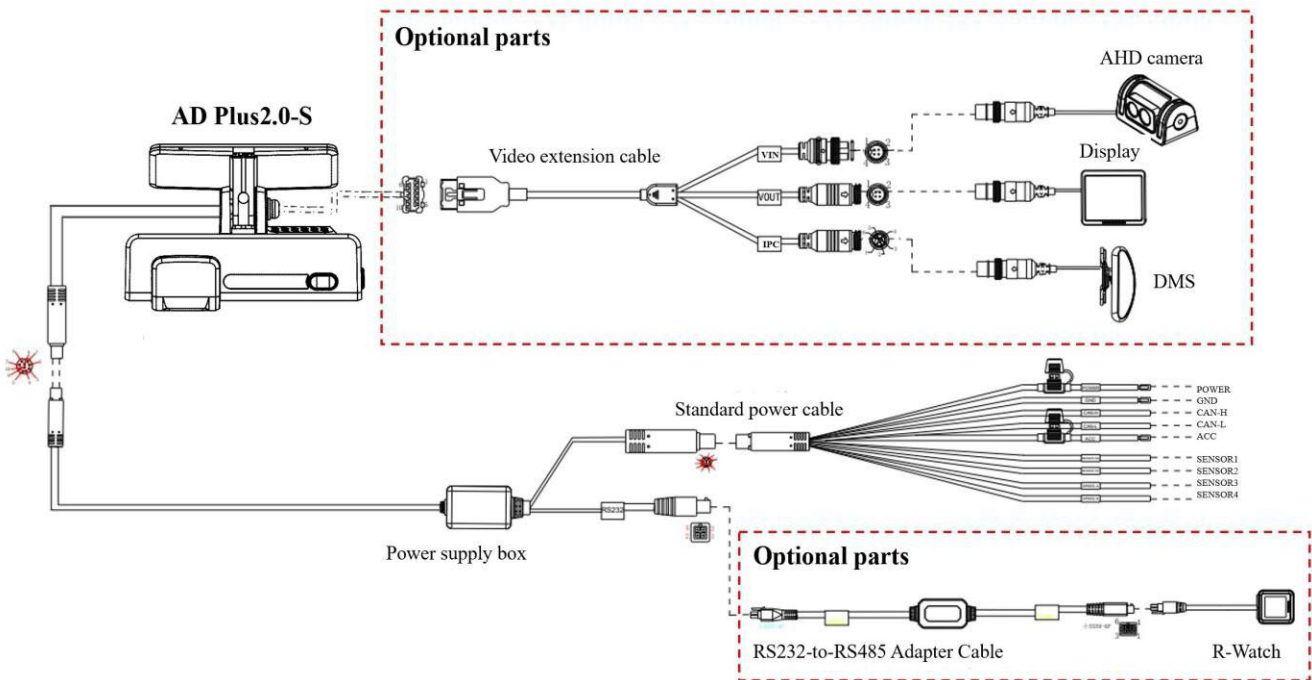
The product is suitable for most weather conditions such as day and night, sunny and rain, and can be installed on buses, taxis, ordinary passenger cars, passenger vehicles, freight vehicles, dangerous goods transport vehicles, school buses, dump trucks, sanitation vehicles, and other vehicles.

Schematic Diagram of System Connection-Power Supply through Standard Power Cable

● Dual-lens model



● Single-lens model



Preparation for Installation

Technical Requirements for Installation

- Be familiar with the functions, applications, and overall compositions of the product.
- Understand the electrical circuits and structure of motor vehicles and common installation methods of in-vehicle devices.

Understanding of Installation Environment.

- Before device installation, installers should have a clear understanding of the vehicle, the installation positions of the Dashcam and auxiliary cameras, the type and length of cables required for each vehicle model, and the list of common auxiliary materials, to ensure successful completion of device installation.

Check Vehicle Conditions and Vehicle-related Electrical Information

- Confirming vehicle information is essential for successful installation and ensures clear responsibility to prevent any damage to the vehicle. For each component, proceeding to the next step is only permitted after explicit confirmation. Each operation must be verified by both the person in charge of the vehicle and the installation personnel.

(1) Check the appearance and interior trims of the vehicle for any damage.

(2) Verify the vehicle starts normally

(3) Confirm the vehicle power supply system is in good condition.

Power Supply Connection of Vehicle

Power supply connection through the loose wire:

This mode requires installation by professional installer:

- Required tool: multimeter
- Selection of power supply connection position

1. When the vehicle is shut down, use a test to see whether the circuit is live. If it is, this indicates a constant power supply, after which you should measure the voltage.
2. When the vehicle is shut down but in the ACC position or ignition state, test to detect if the circuit is live. If the circuit is electrically neutral when the vehicle is shut down and live in the ACC position or ignition state, this indicates an ACC power cable, and the voltage should then be measured.
 - a. Voltage Measurement of Power Supply Connection
 - i. **Constant Power Supply:** When the vehicle is shut down, use a multimeter to measure whether the voltage of the constant power supply cable is around 24V or 12V. If

multiple cables have voltage within this range, select the one with the highest current as the constant power supply connection cable.

- ii. **ACC Power:** When the vehicle is in the ACC position or ignition state, use a multimeter to confirm that the voltage is around 24V or 12V. If the voltage is 0 when the vehicle is shut down and 24V or 12V in the ACC or ignition state, select this cable as the ACC power supply connection cable.

Note: *When connecting the power supply, first measure the voltage at the positive and negative terminals with a multimeter to avoid incorrect connections.*

Installation Material and Tool List

Packing List

After unpacking the product, please confirm whether the Dashcam is intact and whether the accessories are complete.

1



AD Plus2.0 × 1

2



Power supply box × 1

3



Standard power cable × 1
(with the fuse)

4



Allen key × 1

5



Mounting bracket × 1

6



Bracket bolt × 1

7



Crowbar × 1

8



Desiccant × 1










9






Alcohol cotton × 1

Tool List

The following installation accessories and tools will be needed

S/N	Picture	Tool Name	Application	Quantity
1		Common screwdriver kit	Tighten screws, optional	1pcs
2		Crowbar	Pry up the vehicle panel	1pcs
3		Zip Ties	Bundle cables	Prepare as needed
4		Dry cleaning cloth	Clean the dashboard	1pcs
5		Mobile phone/Tablet	Install the Veyes App for video preview and parameter configuration	1pcs
6		Measuring tape	Measure the installation height of the forward-facing ADAS lens and assist the installation in other scenarios	1pcs
7		Marker	Mark lines for Dashcam installation	1pcs
8		Cutting nippers	Cut and strip wires	1pcs
9		Insulated rubber tape	Wrap wire ends	1pcs

10		Scissors	Cut insulated rubber tape or wire clip	1pcs
11		USB flash disk	For future use	1pcs
12		Multimeter	Locate vehicle power supply	1pcs
			Measure the conduction of harness	

AD Plus2.0 Installation

Remove the lens protection stickers on the front and rear lenses of the Dashcam and tear off the protective film on the LED light on the front panel, as shown in the figure below.

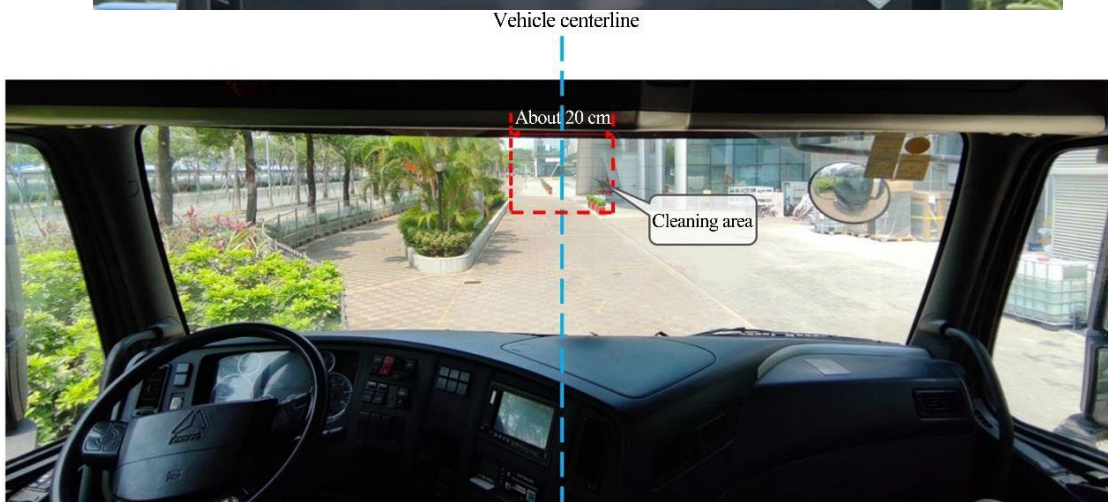
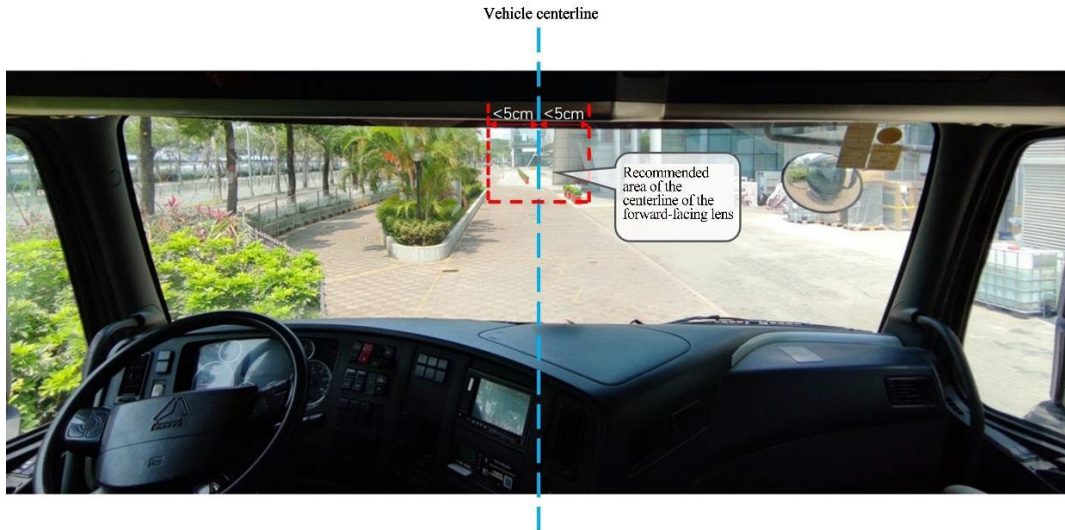


Selection of Dashcam Installation Area

Requirements for installation area of AD Plus2.0:

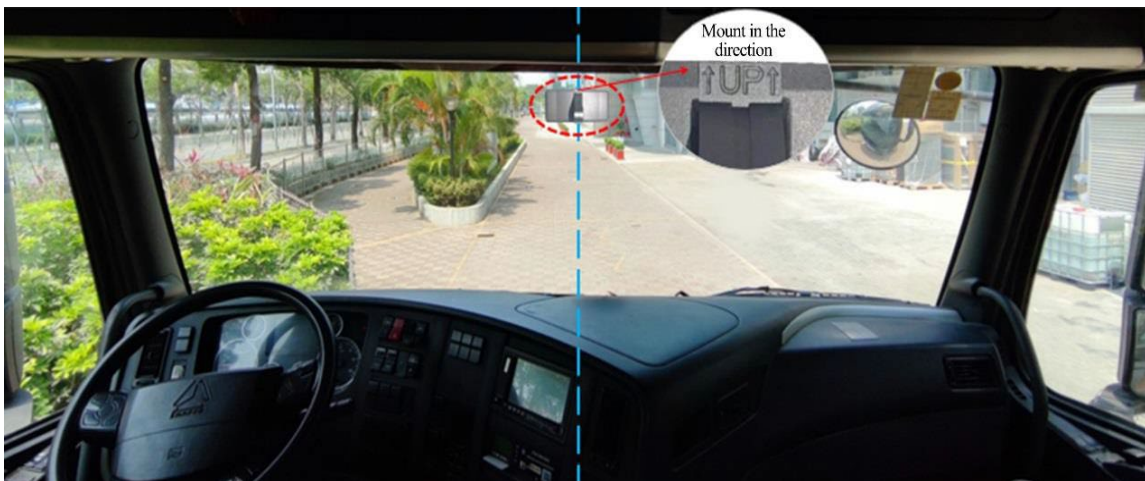
- The Dashcam must be installed in the middle of the front windshield. It is generally installed in the rearview mirror area above the centerline of the front windshield. A deviation less than 2" on the left and right sides is allowed for the installation position if it is not feasible to install the device in the middle as required (The deviation of the Dashcam relative to the centerline of the front windshield shall be calculated with the centerline of the forward-facing lens).
- When conditions permit, the height of the DSC lens shall not exceed the height of the driver's eyes, and the installation position shall be as low as possible provided that the driver's view is not obstructed. The linear distance from the position of the DSC lens to the driver's face shall not be more than 45".
- The lens for road condition monitoring of the Dashcam must be within the working range of the left and right wipers (to ensure that the screen of the lens for road condition monitoring is clean and free from stains).
- The preferred vertical distance from the lens for road condition monitoring of the Dashcam to the ground is in the range of 51"-94".
- Avoid installing other electronic devices around the Dashcam, including ETC, intelligent rearview mirrors, and electronic tags. They may affect the positioning signal of the device.
- The installation position should not obstruct the driver's view of the front blind spot reflector, and the field of view around the lens must remain clear of any obstructions (e.g., rearview mirror or glass coating) for both cockpit and road monitoring.

- The installation area is generally selected as shown in the figure below:



Installation of Dashcam Bracket

- Park the vehicle on flat surface, clean the interior and exterior of the glass in the Installation area with alcohol wipe to ensure there is no dirt on the glass and ensure the glass is dry.
- Tear off the 3M adhesive tape, install the bracket horizontally on the target installation area of the front windshield (the upper edge of the bracket should be parallel to the upper edge of the windshield) according to the direction indicated by the arrow on the bracket, and press the bracket for 10s to ensure that no air bubbles remain between the bracket and the glass.
- Note: When installing the bracket, install the bracket according to the direction indicated on the bracket, so that the toothed side faces to the right.





Installation of Dashcam

- Connect the Dashcam to the bracket with the front side facing inward (with the teeth on the right side of the bracket engaged with those on the right inner side of the Dashcam) and tighten the bracket clockwise with a PH2 cross screwdriver (before tightening, first adjust the Dashcam to be vertical).



Angle Adjustment and Fixation of Dashcam

- Adjust the Dashcam back and forth so that it is vertical.
- Fasten the bracket stud to ensure that the angle of the Dashcam will not be changed easily and fix the Dashcam.
- When fixing, ensure that the cab camera screen meets the following conditions:

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- 1) The center of the cab will be in the middle of the screen.
- 2) The cab screen shall be horizontal.
- 3) The vehicle steering wheel shall be shown at the lower right corner of the screen.

The cab rendering after the lens for cab monitoring is properly adjusted as follows:



Use a screwdriver to fasten the bracket studs clockwise so that the Dashcam will not shake easily.

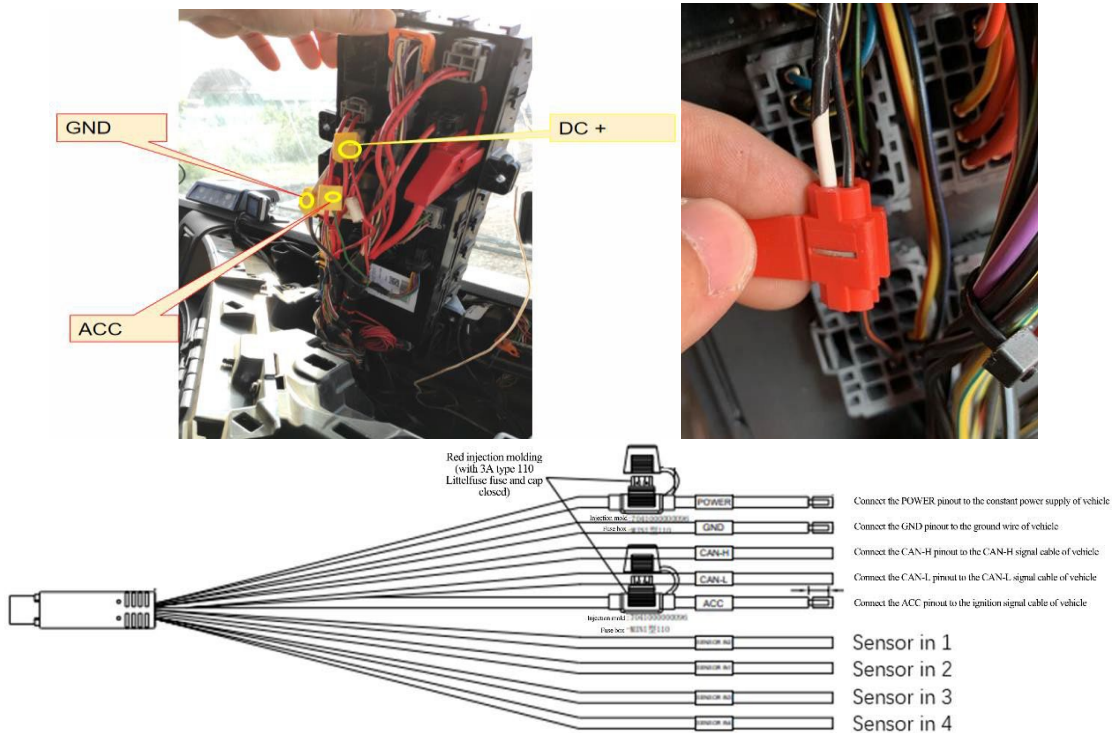


***Note:**

- Make sure that the connection between the bracket and the Dashcam is fastened, so that the Dashcam will not shake easily. Otherwise, the GPS positioning will be inaccurate.
- **Don't power up the device until it has been firmly secured**
- If the device is fixed and installed after power-on, it shall be powered on again before being tested or used.

Power Supply Connection

- For hard/ loose wire installation: connect POWER/ACC/GND with the power cable of the vehicle, respectively.



***Note:**

The power line shall be connected using a "special stripping-free connection terminal" where possible (no stripping is required, to avoid the risk of electric leakage), and the connection shall be wrapped with insulated rubber tape to avoid electric leakage/short circuit.

If there is no special stripping-free connection terminal, stripped wires can also be used for connection. In this case, the connection process must conform to the standard specifications. After the connection is completed, the connection shall be wrapped with insulated rubber tape to avoid electric leakage/short circuit.

Cabling

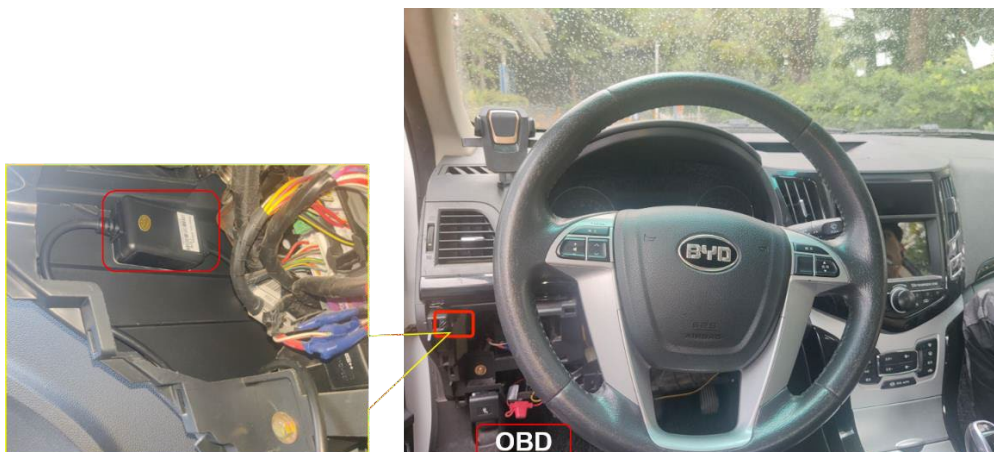
- Upon the connection of the main cables according to the schematic diagram of system connection, as well as power supply connection, secure these cables using a crowbar according to the diagram below and conceal them in the interior trim panel or the dashboard (i.e. concealed cabling).
- Since AD Plus2.0 has a power supply box with a built-in turning-on/off control strategy, it is necessary to fix the power supply box at a certain position on the vehicle. Attention should be paid to the following items when the fixing position is selected:
 - ① It should be close to the vehicle loose wire power outlet.
 - ② The mounting position should be flat.
 - ③ It does not interfere with other components of the vehicle.
 - ④ It keeps away from loudspeakers, engines, and other positions with excessive shake or vibration.
 - ⑤ It should be as secluded as possible.

Due to varying port positions across different vehicles, the cabling methods and power supply box mounting locations will also vary accordingly.

Here are two recommended installation positions for the power supply box. You can also fix it in other positions according to the actual vehicle.

Fixing position 1 of the power supply box:

Remove the side baffle of the driving seat, tear off the 3M tape on the power supply box, and fix it to the left or right baffle, as shown below:



Fixing position 2 of the power supply box:

Attach the power supply box to the right-side panel of the driver's seat, ensuring the cabling is exposed. Installing it on the left side panel is not recommended, as it may interfere with the door. Once you have chosen the mounting position, remove the backing from the 3M tape on the power supply box and secure it to the right-side panel of the driver's seat, as shown below:



AD Plus2.0 Calibration

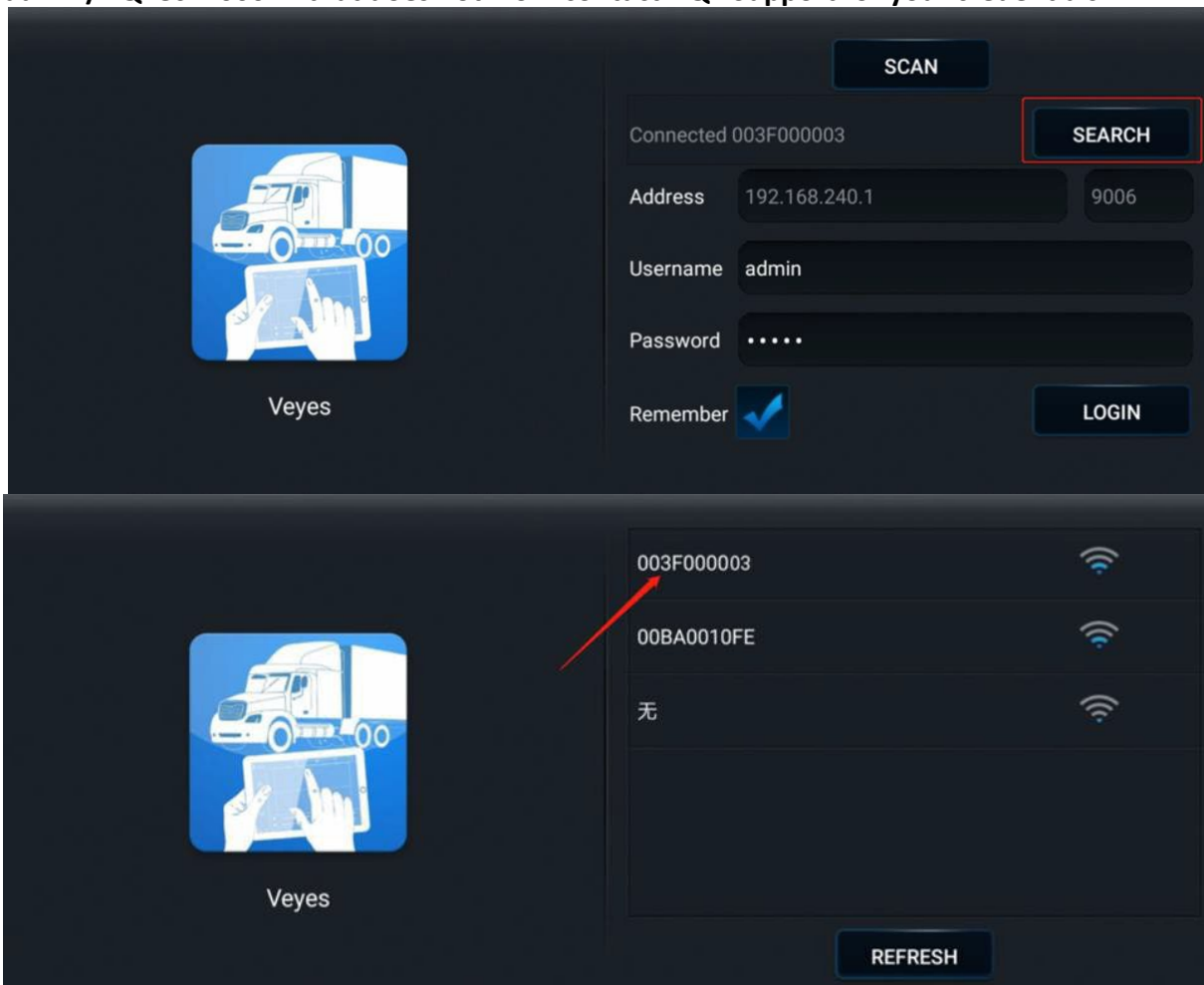
ADAS Calibration

Connection with App

- Start the vehicle and wait for the power status light of the Dashcam to turn on. The Dashcam is working normally, and the Wi-Fi is in AP mode if the power status light is green and normally on and the Wi-Fi status light is green.
- Log in to the Veyes app with your mobile phone/tablet within 3 minutes of the Dashcam being turned on.
- Enable Wi-Fi and GPS on your mobile phone before connecting the device with the truck Veyes App.
- Launch the truck Veyes app on your mobile phone and tap **Search**.
- The screen listing the Wi-Fi hotspots found is displayed.
- For the first logging, the name of the Wi-Fi hotspot is named after the cipher chip ID of the AD Plus2.0 (usually the default is ST-xxxxxxxxxx).
- Search for a Wi-Fi hotspot named after the cipher chip ID of the AD Plus2.0 or the license plate number you have entered. The login screen is displayed.

***Note:**

- Within 3 min after startup, the Dashcam will automatically enable the WiFi transmission mode for debugging and connection with the app. If no connection is established with any app within 3 min, the Wi-Fi hotspot of the Dashcam will be OFF.
- On the login screen, enter the corresponding username and password. **Default username/password: admin/DQTech2000. If that does not work contact DQT Support for your credentials.**

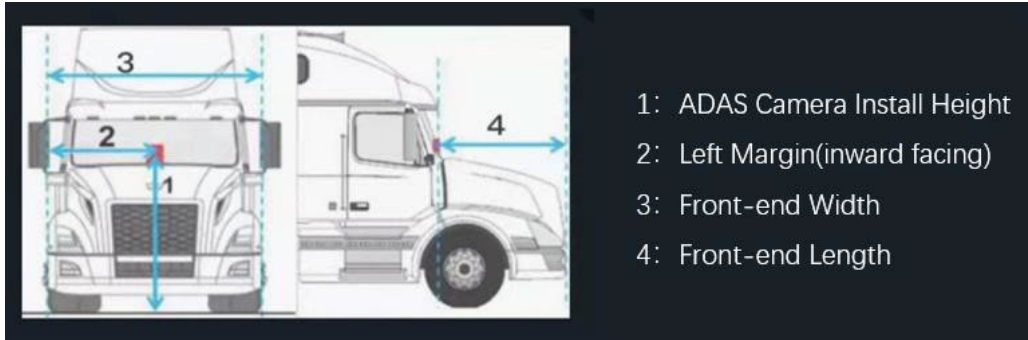


Tap **LOGIN**. The operation screen is displayed.

Installation Parameters Measurement of the ADAS Lens

- Use a tape measure to measure the vertical height (to the nearest cm/inch) from the ground to the lens for road condition monitoring on the AD Plus2.0. This will be recorded as the *ADAS lens installation height*.
- Next, measure the horizontal distance from the AD Plus2.0 lens to the outer edge of the left tire while standing outside the vehicle and facing the left front. This measurement will be *the left margin of the ADAS lens*.

- Then, measure the front width (the distance between the outermost edges of both tires) and the front length (the horizontal distance from the ADAS lens to the license plate). Refer to the figure below for an example of how to measure these distances.

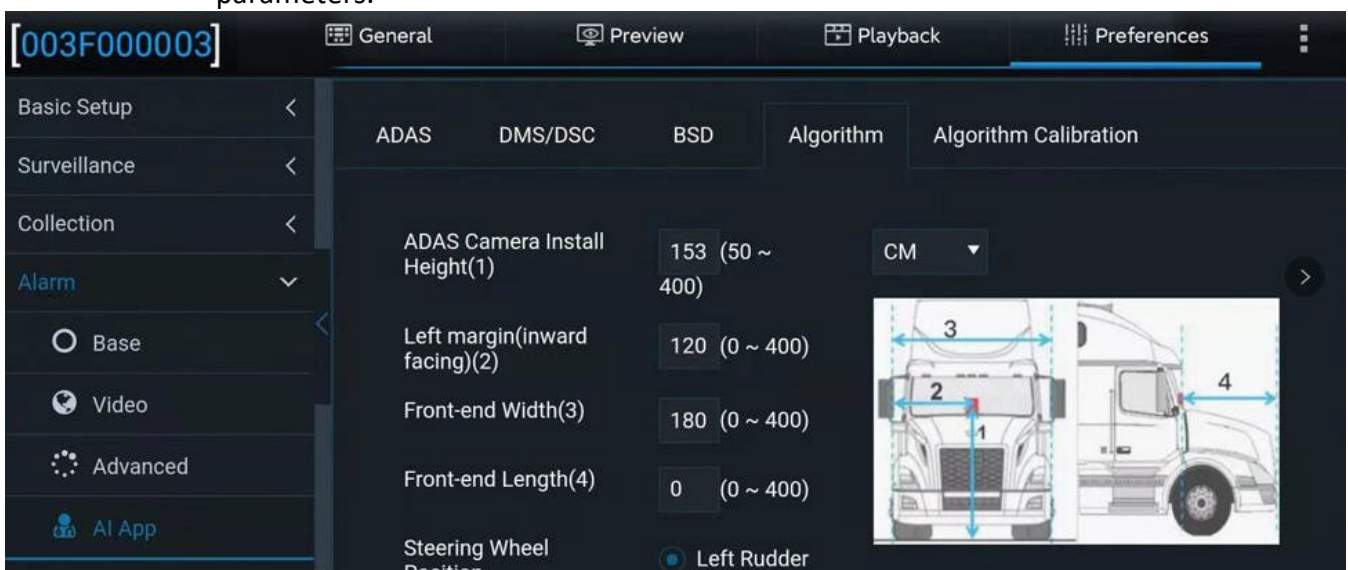


Note: When the vertical height from the ground to the lens for road condition monitoring of AD Plus2.0 is measured, read the height value after making sure that the tower ruler or tape is perpendicular to the ground.

ADAS Lens Calibration

Calibration parameter setting

- After entering the operation screen of the Veyes app, tap **Preferences > Alarm > AI App > Algorithm**, as shown in the figure below:
 - The ADAS calibration height can be in cm or in inch. In the parameter input boxes, fill in the ADAS lens installation height, the left margin of the ADAS lens, and the front end width and front end length taken in the previous step. Tap **Save** after filling in the parameters.

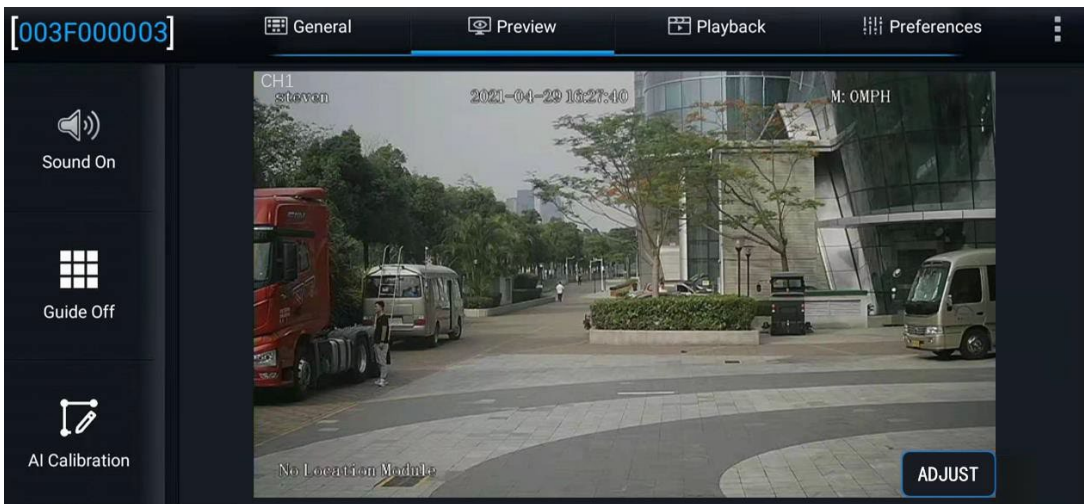


Automatic calibration

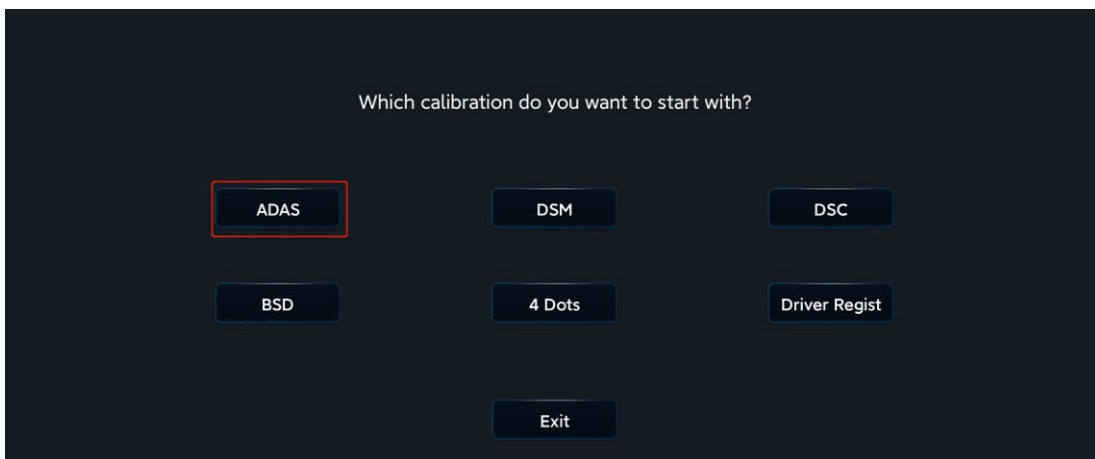
For manual calibration, there are two methods available, namely, the long-distance calibration method and the short-distance calibration method. However, since AD Plus2.0 is capable of automatic calibration, it is only required to enter the relevant parameters manually in the manual calibration process, and it is not necessary to perform the long-distance and short-distance calibration procedures completely.

The operation steps are as follows:

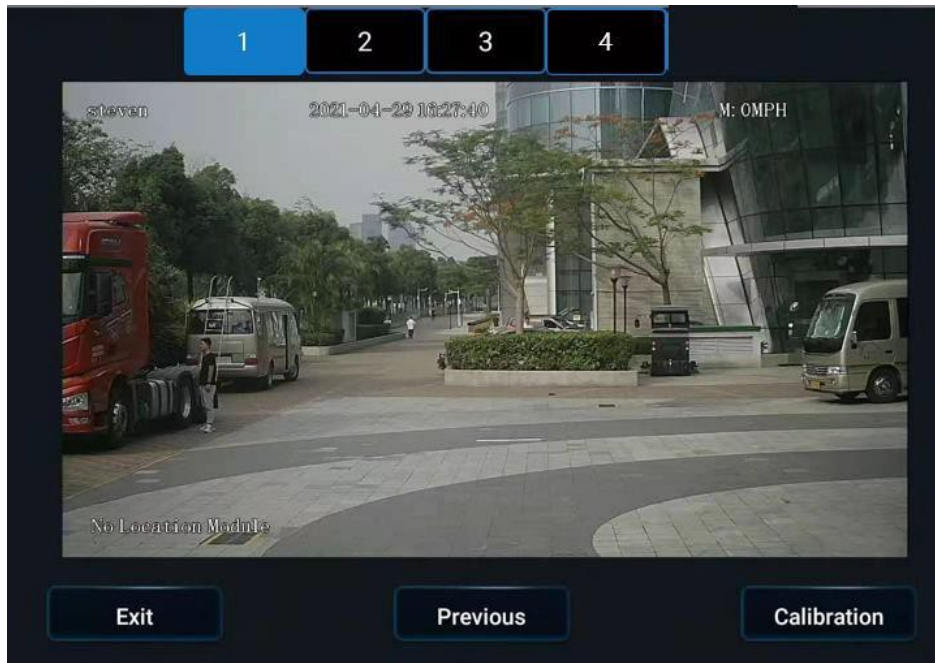
- On the homepage, tap **Preview** to enter the preview screen and tap **AI Calibration** at the lower-left corner of the screen to enter the calibration selection screen.



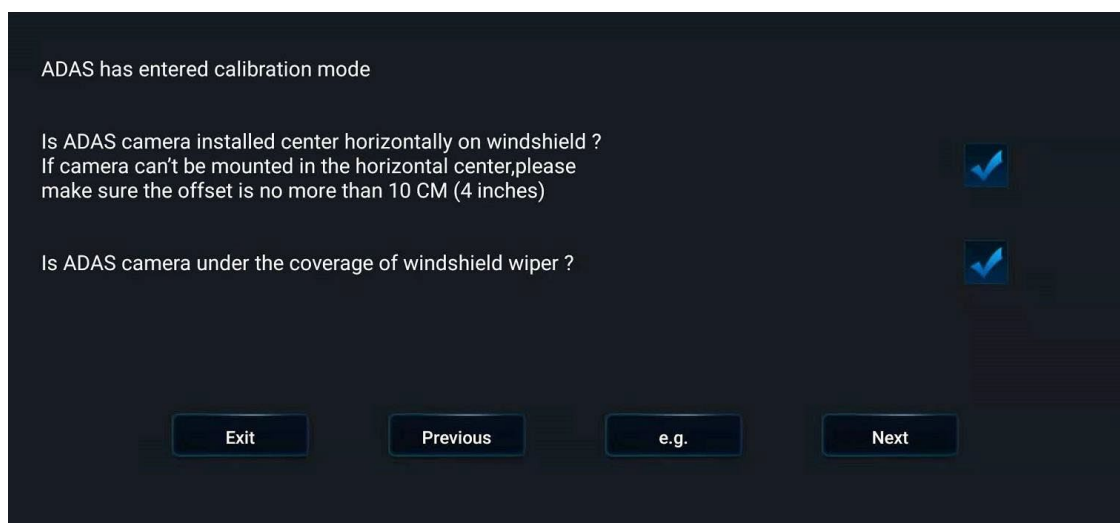
- Enter the real-time preview screen, double-tap the ADAS channel screen to enter the mainstream screen; tap the **AI Calibration** button at the lower-left corner of the screen to enter the AI calibration selection screen to perform ADAS calibration



- Select the calibration channel. ADAS cameras are all installed on Channel 1, so select Channel 1. Then, tap **Calibration** at the lower-right corner of the screen to enter the calibration process



- Confirm that the ADAS is installed at a proper position of the front windshield and within the working range of the wipers, and then tap **Next**

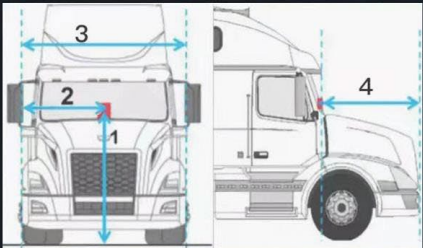


- In the parameter input boxes, fill in the installation height of ADAS lens, the left margin of the ADAS lens, and the front-end width and front end length read in 5.1.2 respectively. Refer to the example on the right for the size measurement, with each parameter No. corresponding to each legend No., as shown in the following figure:

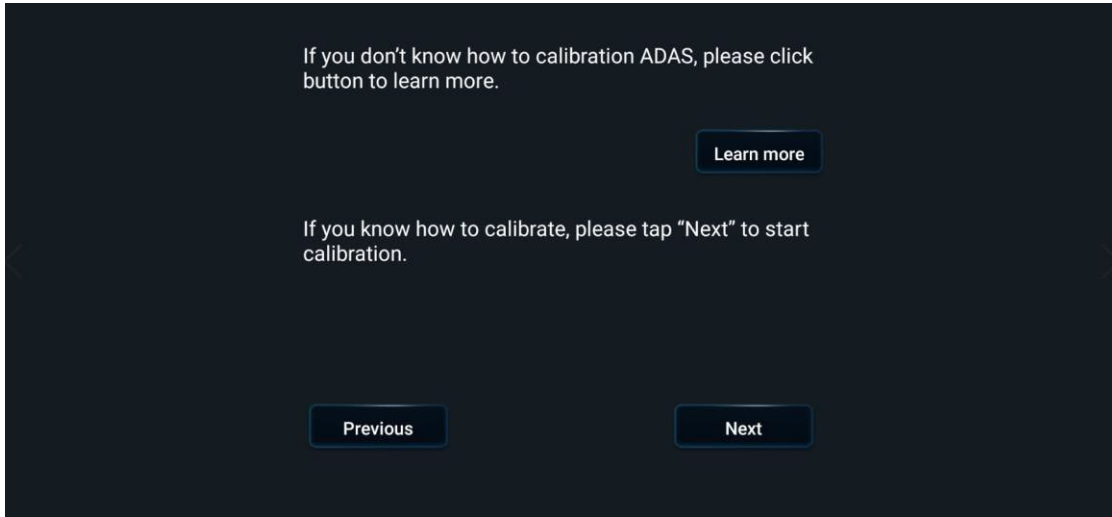
Please input the installation position of ADAS camera :

Unit cm inch

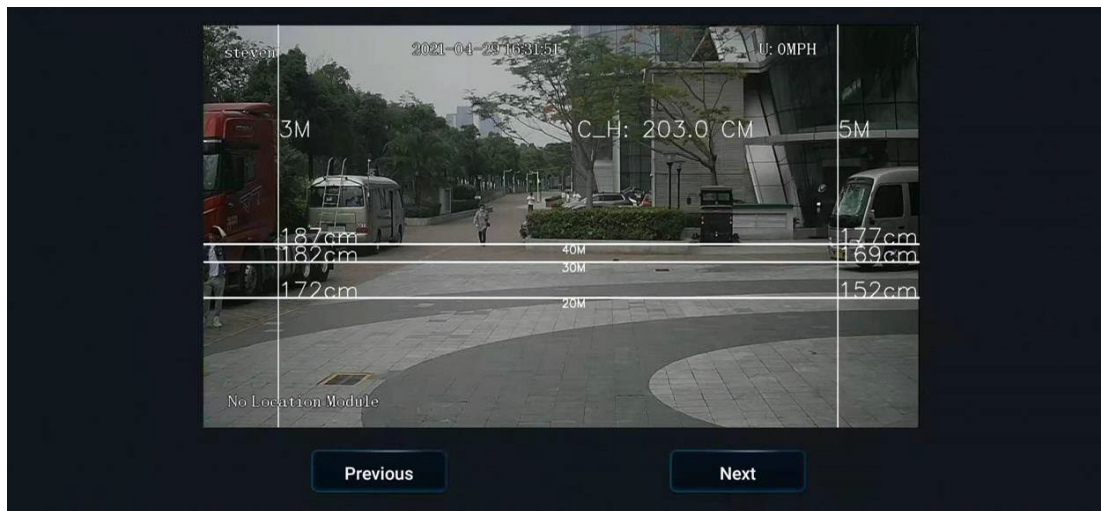
ADAS Camera Install Height (1)	<input type="text" value="153"/>	(50-400)
Left margin(inward facing) (2)	<input type="text" value="120"/>	(0-400)
Front-end Width (3)	<input type="text" value="180"/>	(0-400)
Front-end Length (4)	<input type="text" value="0"/>	(0-400)
LDW Sensitivity	<input type="text" value="Middle"/>	<input type="button" value="v"/>



- Tap **Next** to enter the screen as shown below.

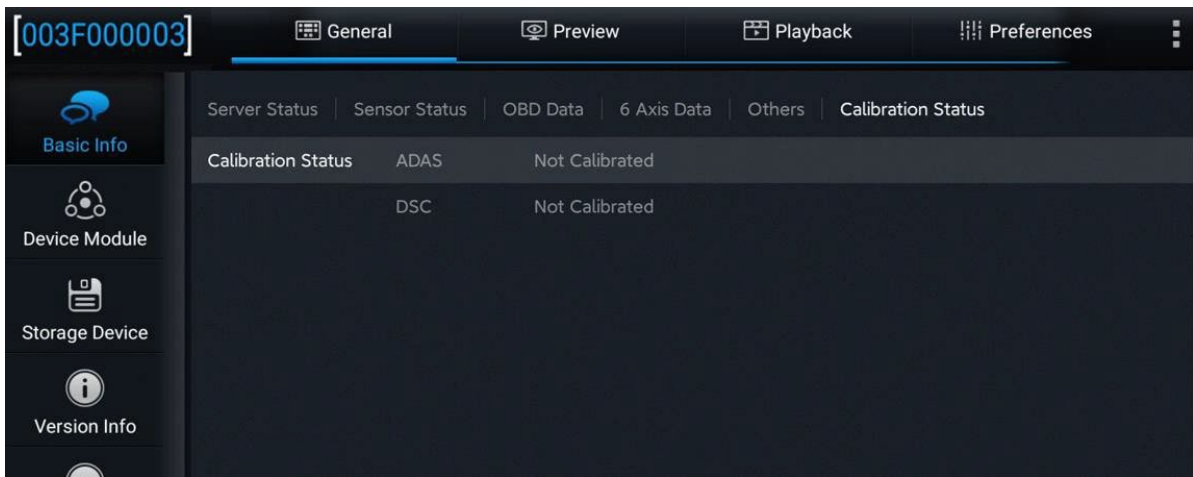


- Tap **Next** to enter the screen as shown below. Since AD Plus2.0 is capable of automatic calibration, it is only required to tap **Next** directly without adjusting the device on this screen.



- Return to the real-time preview screen of the ADAS channel (by double-tapping the ADAS channel to enter the mainstream screen), and check and confirm that there is no calibration line superimposed on the screen at this time, which means that the ADAS channel has returned to normal mode.

At this point, the calibration operations of the AD Plus2.0 from the preview screen are completed.



Cleaning

Clean up the installation site, collect and take away tools and waste separately, and put the original articles in the vehicle to their original place, and then the installation work ends.



Other documents available

The following documents are also available for use. Contact support@dqtech.com for a copy

- DQT Cam ADPlus Troubleshooting
- DQTCam – Video Review Reference Guide