



SharpAi 3-Camera Installation Guide

SharpAi-ADAS



SharpAi-DSM (DSM-2)

Download the Veyes app before installation.



Apple Store:

<https://apps.apple.com/za/app/veyes/id1444251371>



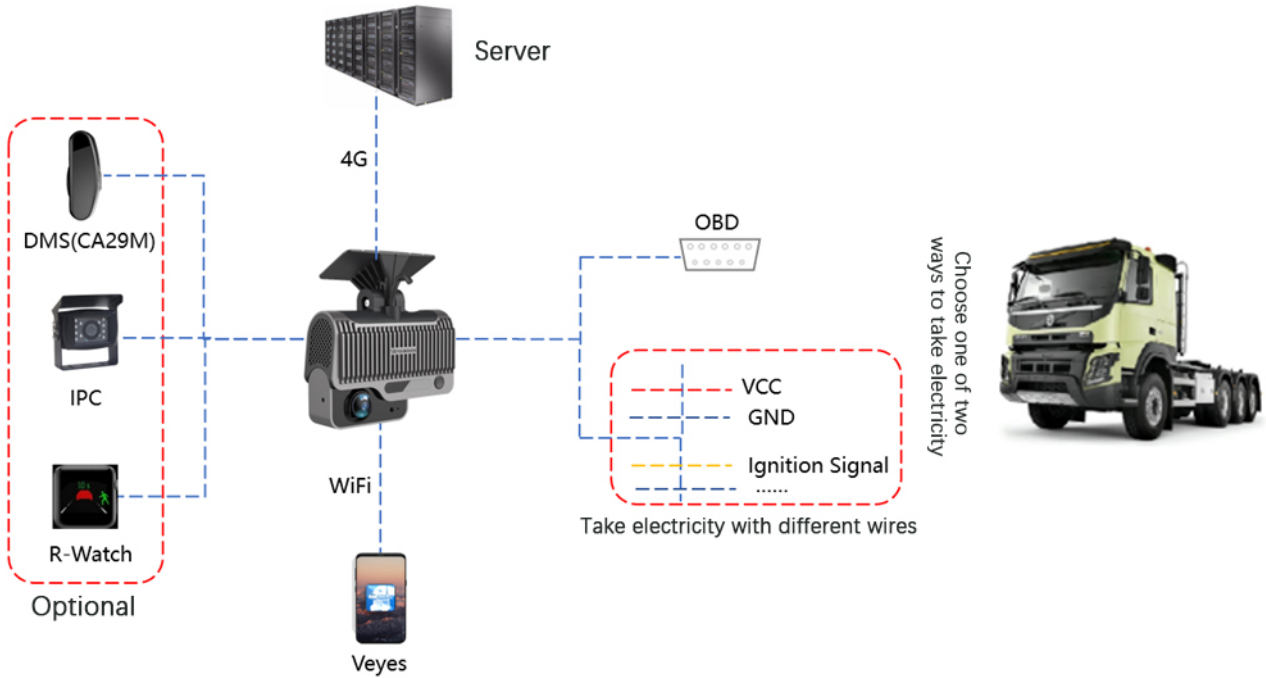
Google Play Store:

https://play.google.com/store/apps/details?id=com.streamaxtech.mdvr.smartpad&hl=en_AU&gl=US

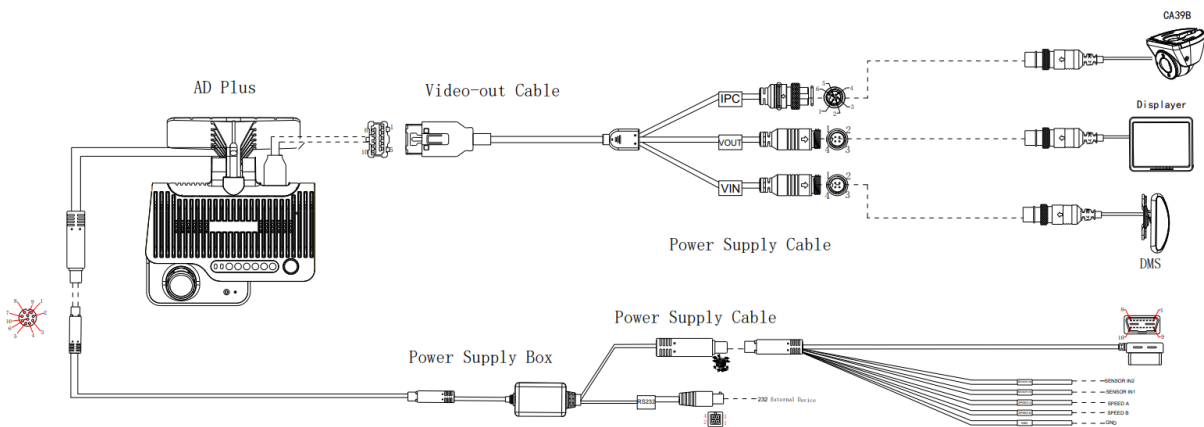


USERNAME: admin
PASSWORD: admin

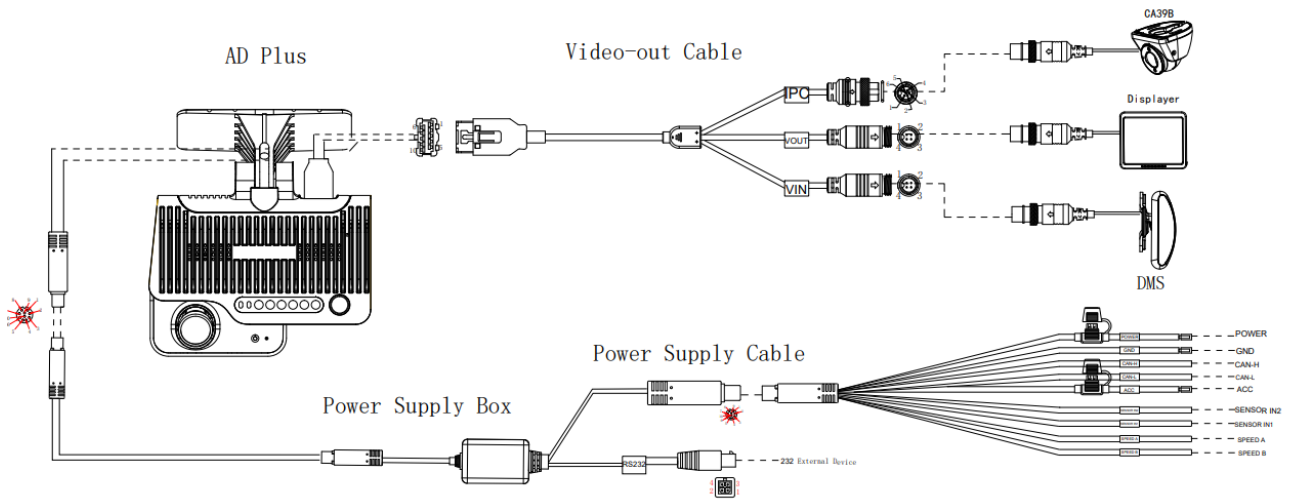
Overview



Schematic Diagram of System Connection - Power Supply through OBD



Schematic Diagram of System Connection - Power Supply through Wire



What's in the box



1 AD Plus main unit*1



2 Bracket*1



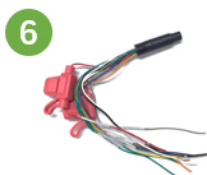
3 Bracket bolt*2



4 Socket head wrench*1



5 Power supply box*1



6 Power discrete wire*1 (with fuse)



7 USB patch cord*1



8 Level*1



9 Desiccant*1



10 Alcohol cotton*1

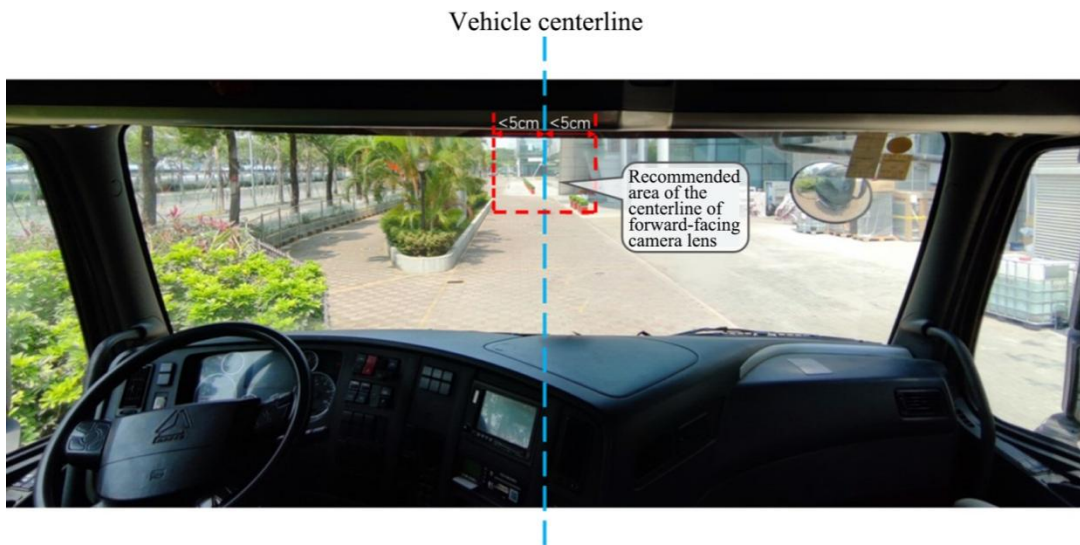


11 Crow plate*1

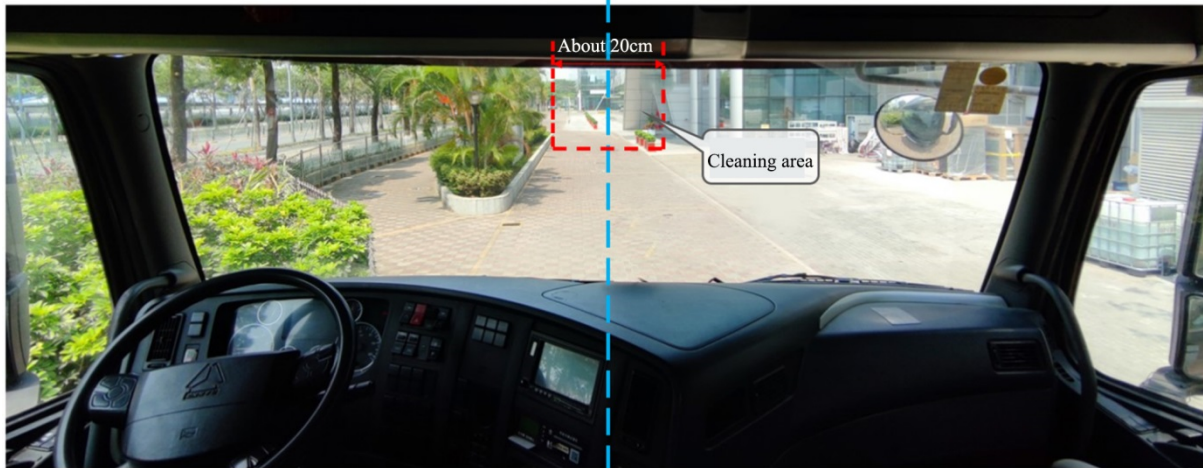


12 Product manual*1

Installation Overview



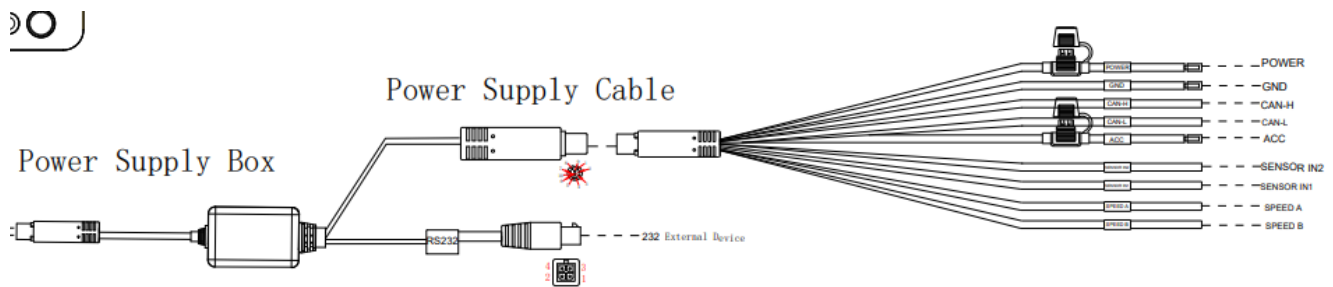
Vehicle centerline



A recent installation example:



Power supply, ignition, and IO signal



The power supply should come from batteries or direct current.

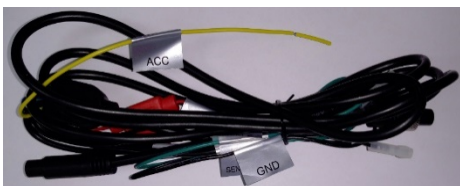
1. When in a vehicle, power supply can come from the vehicle batteries through the fuse box.
2. When using a battery or DC power supply, the output voltage range should be within 9-36V.
3. ACC should connect to vehicle ignition controller.

Speed signal and Serial ports

The vehicle speed can be read from an CAN port or GPS.

Connect power supply and ignition signal wire

1. Connect the ACC line on the 10PIN power cord with the vehicle ignition signal line.



Important hint:

1. Before connecting the ACC cable to the ignition wire of the vehicle, make sure that the vehicle is turned off.
2. The power cord should be directly connected to the vehicle battery. The power cord is still 9-36V after the ACC is turned off.

Indicator and Sensor connection

IMPORTANT

The following orientation is important when connecting the Sensors to the Indicators.

SENSOR IN1 = Right indicator

SENSOR IN2 = Left indicator

SharpAi LED indications

After installing all hardware, turn on the ignition to start the vehicle and power on the SharpAi-ADAS. During the boot up process wait for the recording status indicator icon and the communication status indicator icon on the ADAS to light up. When the two indicator icons turn green and are always on, it indicates that the ADAS is operating correctly.

If there is no Wi-Fi connection request after a 2-min period, the Wi-Fi will be automatically turned off to reduce power consumption.

After turning off ACC, the device will enter a shutdown countdown instead of immediately shutting down.

IMPORTANT: PLEASE RECORD THE VEHICLE REGISTRATION DETAILS AGAINST THE SERIAL NUMBER (S/N) FOR EACH INSTALL AND PROVIDE THIS DOCUMENT TO YOUR CLIENT SUPPORT PERSON.

BY PROVIDING THIS INFORMATION YOUR WEB PLATFORM WILL BE UPDATED AND CURRENT.

ADAS (forward looking road-scanning camera)

- Glass temperature between 10°C - 28°C

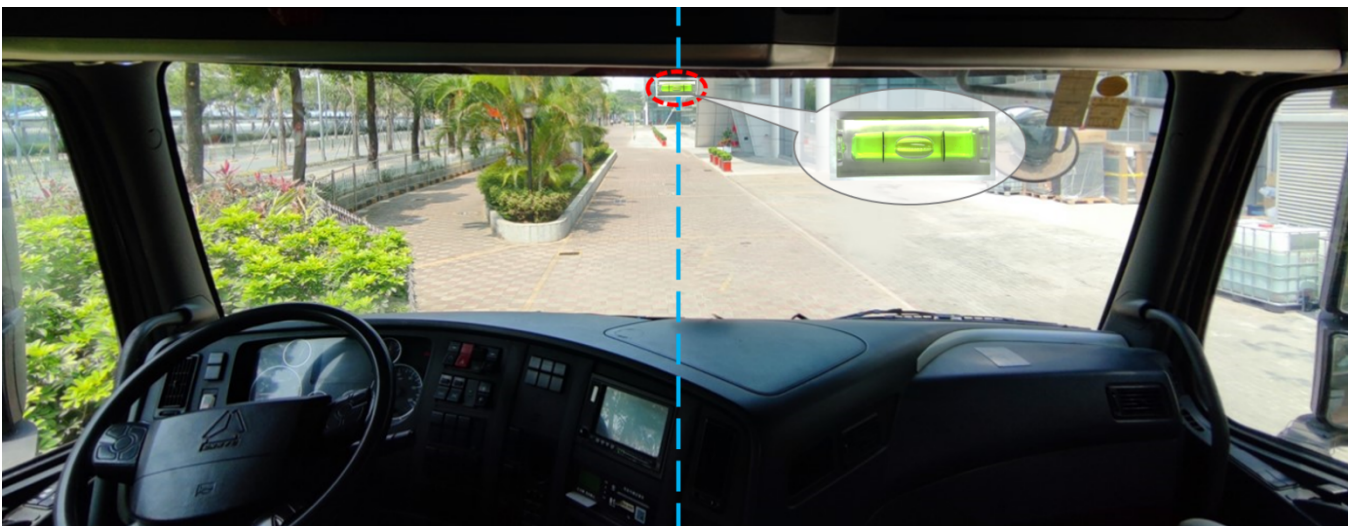
LOCATION

- Top centre of the windscreen
- Camera lens **no more than 5cm** from the centre
- Lens area covered by the wiper range
 - This ensures the vision is clear of dirt and bugs
 - On some vehicles this is not possible



BEFORE FINAL ATTACHMENT

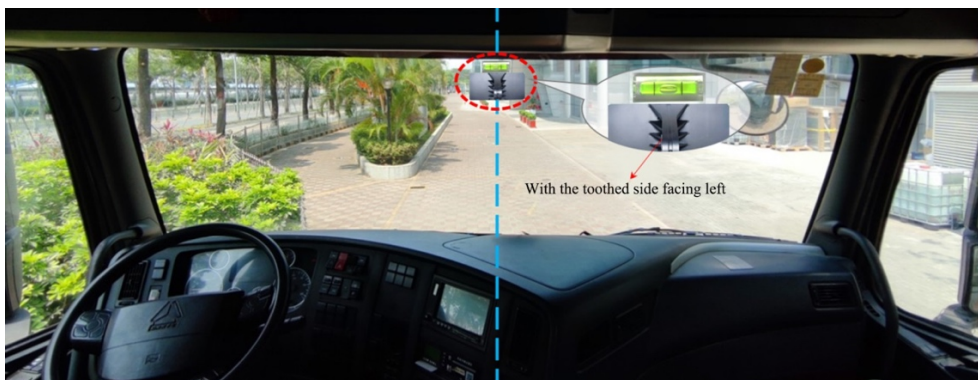
- Check the live view image on the Veyes app – Follow the procedure outlined below
- Make sure there is no obstruction
- Mark the location on the glass with a pen
- Make sure the ADAS camera is
 - Horizontal and
 - Parallel and square to the ground



IMPORTANT - Clean the glass with the alcohol wipes provided

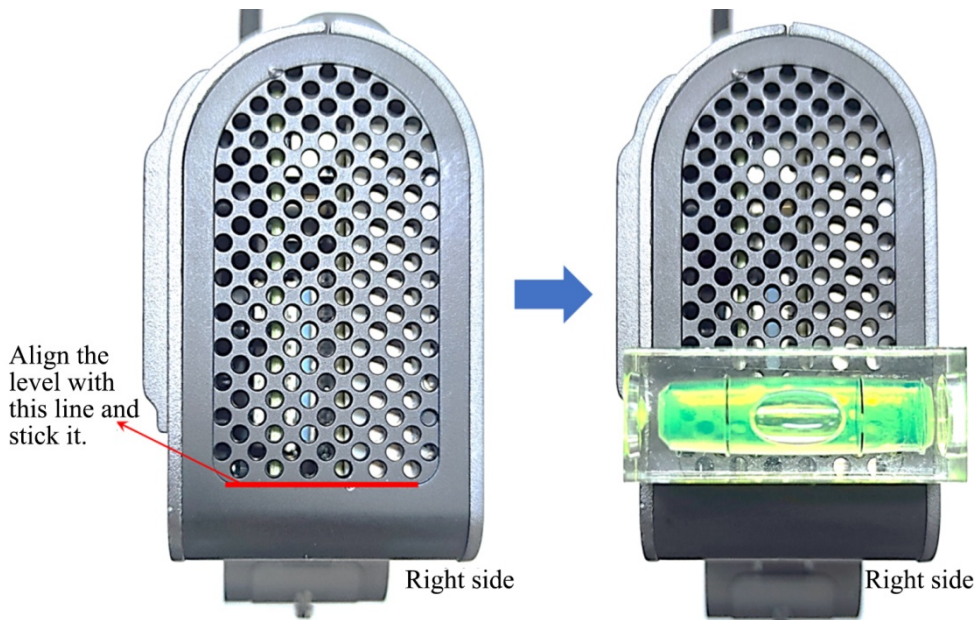
Park the vehicle on horizontal ground, and then attach the level horizontally above the target area (adjust the inclination angle of the level to center the bubble).

Attach the bracket with the connection to the camera unit (with the toothed side facing left).



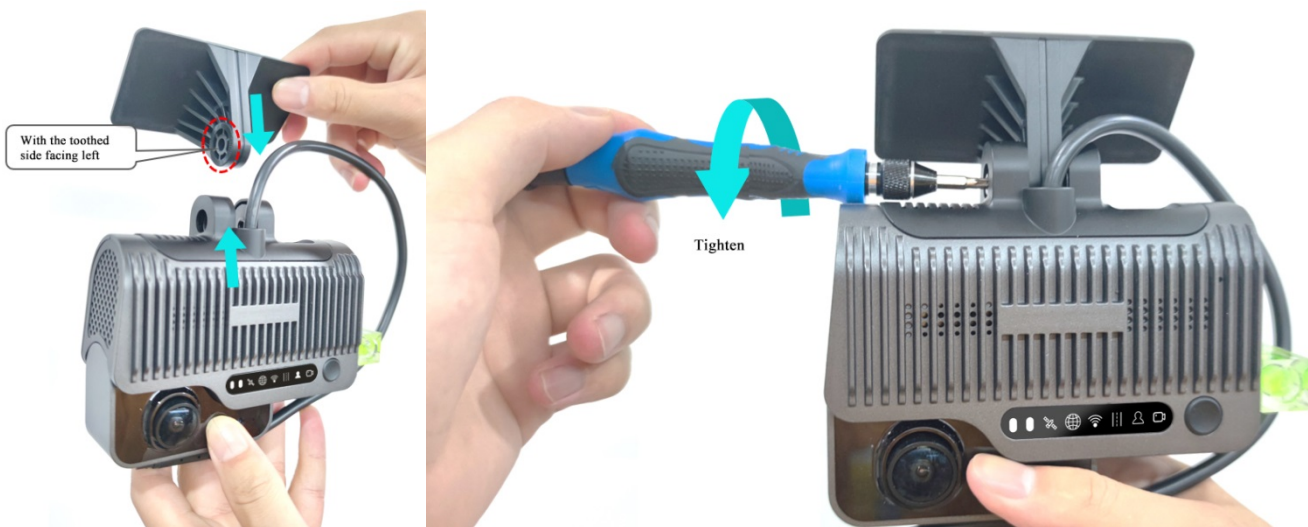
Tear off the 3M adhesive film on the bracket to attach the bracket horizontally on the front windshield with the level as reference, and then press the bracket for 10s to ensure there are no bubbles between the bracket and the glass.

After fixing the bracket horizontally, remove the level and attach it to the right side of the main unit as shown in the figure below:



Connect the ADAS camera to the bracket with the front side facing inward (with the teeth on the left side of the bracket engaged with those on the left inner side of the ADAS camera).

Tighten the bracket stud clockwise with a PH2 cross screwdriver (before tightening, first adjust the ADAS camera to be vertical).

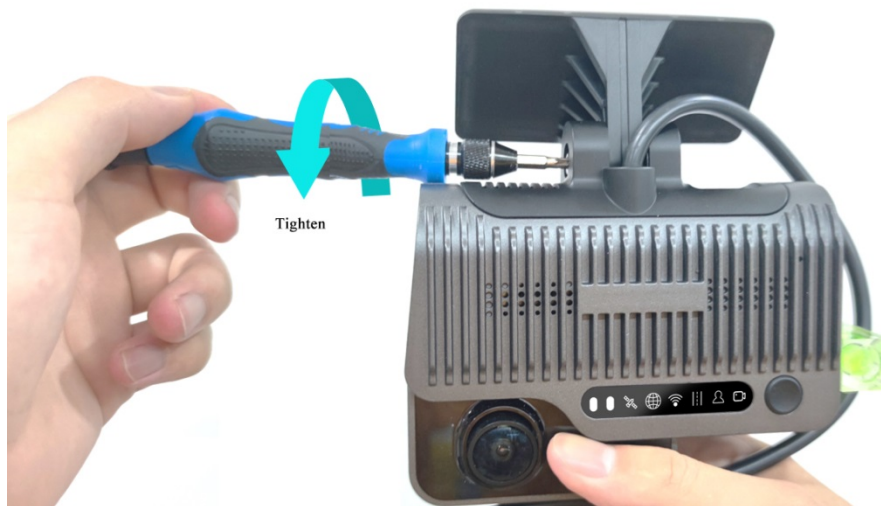


Adjust the ADAS camera back and forth to center the bubble in the level (indicating that the ADAS camera is vertical).



Fasten the bracket stud to ensure that the angle of the ADAS camera will not move easily.

Remove the level and fix the ADAS camera in place.



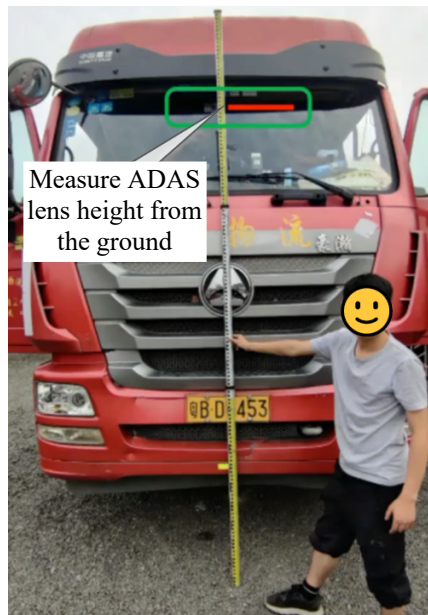
ADAS CALIBRATION

1. Connect smart phone/tablet via Wi-Fi to the ADAS camera

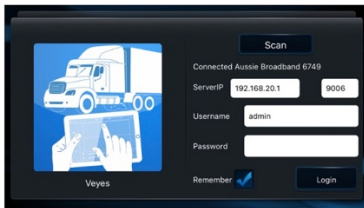
The Wi-Fi network is the Serial Number (s/n) found on the side of the unit.

Example: ST-002B014F94

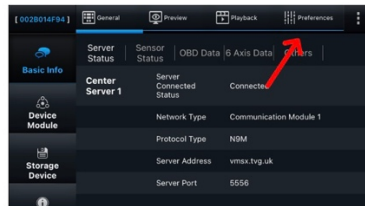
2. Enter the ADAS Camera Install Height (AC) – Height off the ground



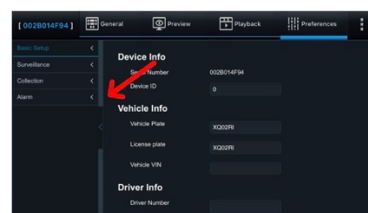
1. Log into VEYES.



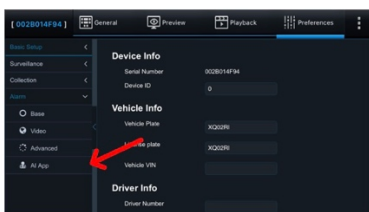
2. Select Preferences



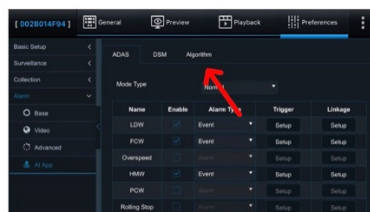
3. Select Alarm



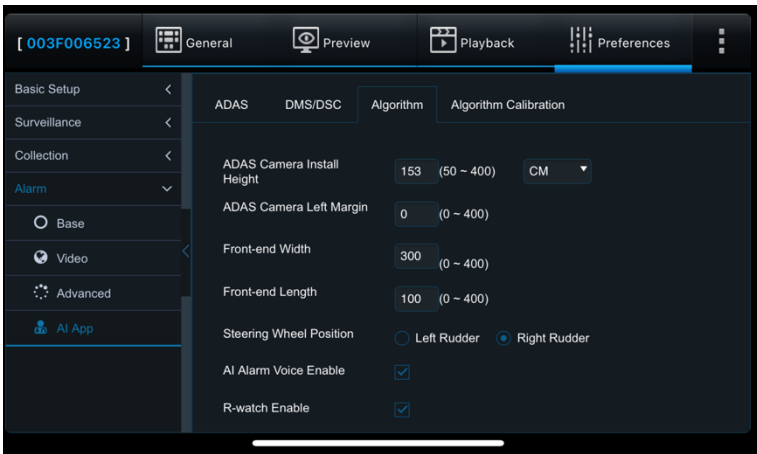
4. Select AI App



5. Select Algorithm



6. Input the ADAS Camera Install Height and Front-end Width (this is the internal cabin width of the vehicle), leave all other fields as is, then press OK to save.



3. Adjust the SharpAi-ADAS in-cabin camera lens angle

Click [Preview] on the operation interface of the Veyes app to enter the preview interface and double-click channel 2 to enlarge the cockpit screen.



Open the card slot panel at the bottom of the ADAS. Insert the L-shaped socket head wrench into the cabin camera angle adjustment hole to adjust the angle of the cabin camera lens.

Adjust the cabin camera lens to meet the following conditions:

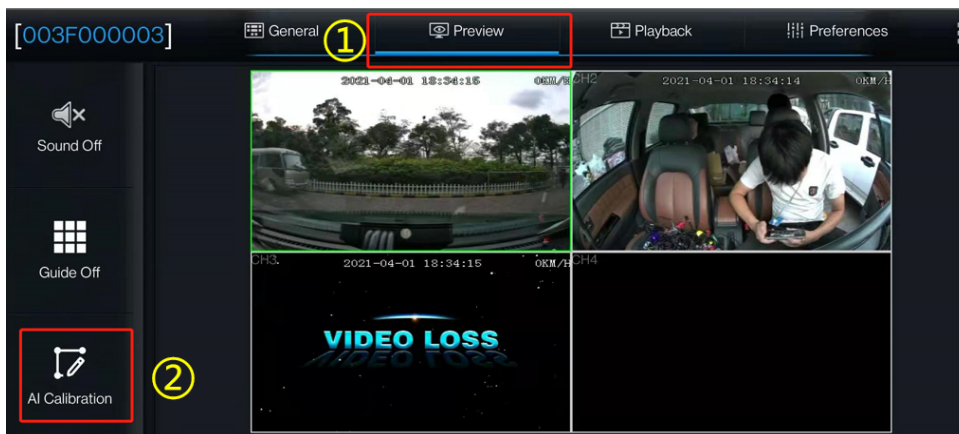


- 1) The centre console in the cabin is in the center of the screen

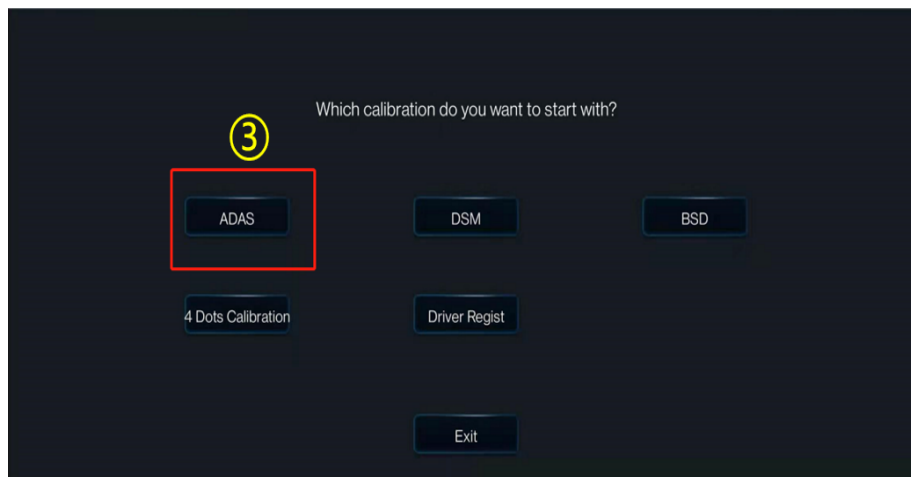
- 2) The image of the cabin is horizontal
- 3) The steering wheel of the vehicle is displayed at the left/right lower corner of the screen.

4. ADAS Calibration Left/Right Indicators Setup & Vehicle Height Confirmation

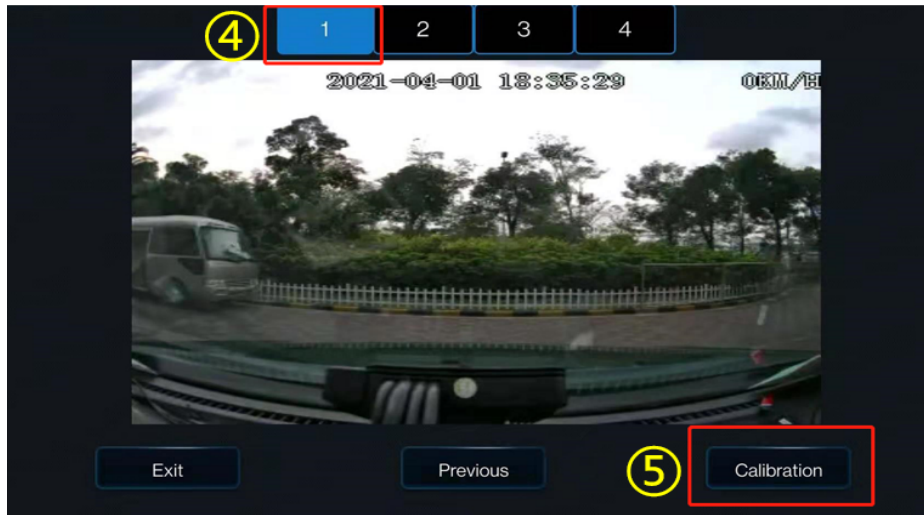
1. On the home screen, tap **Preview**. The **Preview** screen is displayed.
2. Tap **AI Calibration** on the lower left corner.



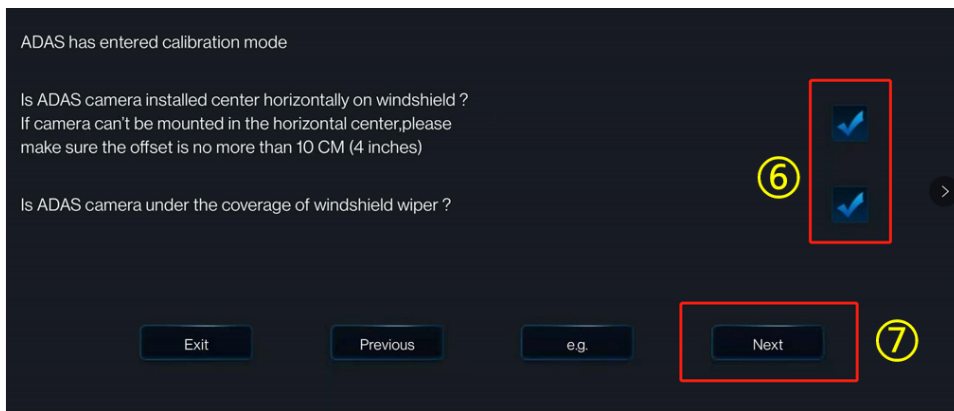
3. Tap **ADAS** for calibration.



4. Tap channel 1.
5. Tap **Calibration**.



6. Confirm ADAS camera is center & horizontal and camera lens is under the windshield wiper coverage
7. Tap **Next**.



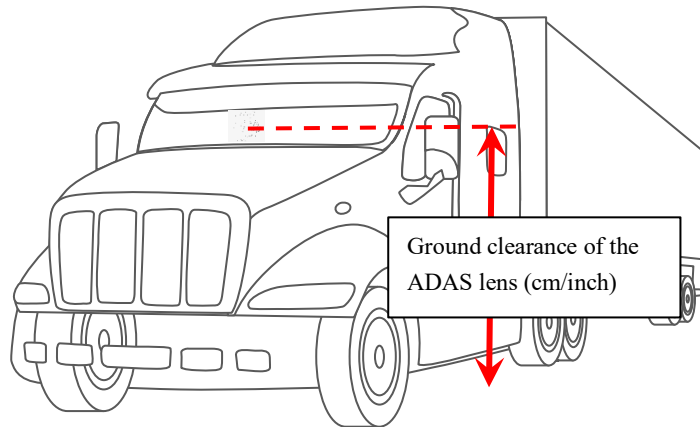
8. Enter the horizontal ground clearance of the front lens (unit: cm or inch; the height is measured as shown in the figure below)

Please input the height of ADAS camera :
(from camera lens to the ground)

Metric system: (100 - 400) CM

or

British system: (39 - 157) inches

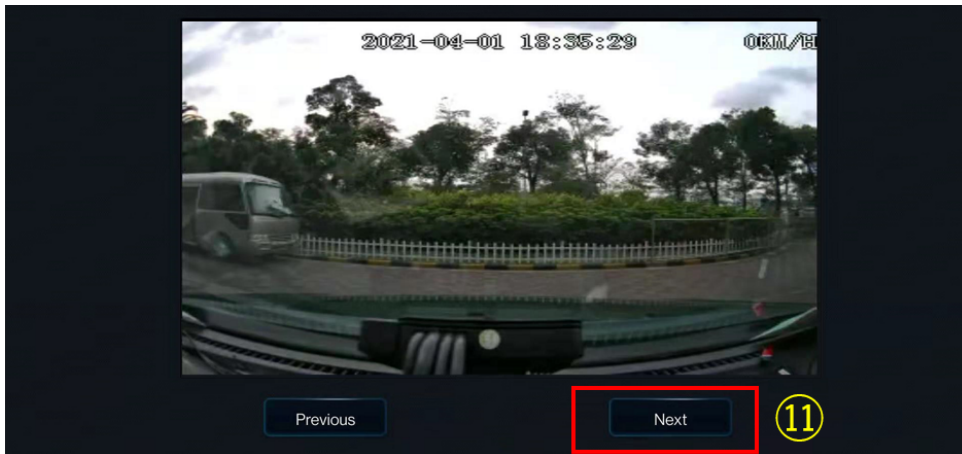


9. Tap **Next**.
10. Tap **Next** (tap **Learn more** to learn how to calibrate the ADAS camera).

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

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

11. Tap **Next**.



12. Select the check box.

13. Tap the required source of speed from **Satellite**, **Pulse**, **OBD**, and **ATrack**.

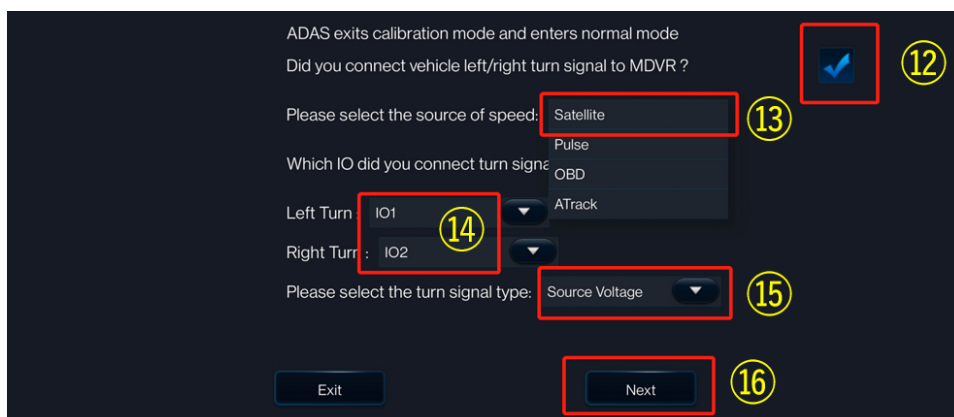
14. Select the required IO for the left/right turn signal in **Left Turn/Right Turn** respectively.

Left Turn = IO2

Right Turn = IO1

15. Tap the required signal source type from **Source Voltage** and **Source Pulse**.

16. Tap **Next**.



17. After checking that the left and right signal cables are connected correctly, tap **Complete**.

Congratulations, ADAS calibration now completed.

DSM (driver facing A-pillar camera)



Right A-Pillar installation : The arc faces the cab and the cable is on the top.

LOCATION

- On the right A-pillar
- The arc faces the cabin, and the rear cable is on the top (as indicated in the picture)
- Distance from drivers face to DSM 80-110cm
 - To achieve this, ensure the DSM is
 - No higher than the drivers chin
 - Not too low, to prevent the steering wheel obstructing the vision

DSM ALIGNMENT BEFORE FINAL ATTACHMENT

- Check the live view image on the Veyes app – Follow the procedure outlined below
- When in “Preview” mode adjust the angle of the DSM to ensure:
 - Drivers face is in the middle
 - Bottom edge of the picture needs to be below drivers chest
 - No object blocks the vision (steering wheel, levers, hand, arm, handle)
 - The fill light of the DSM is on the drivers face, not the seatbelt

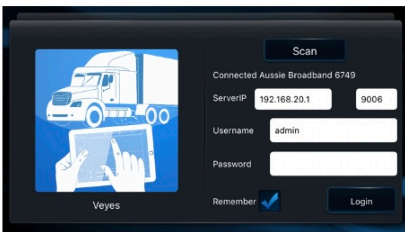
When in position remove the protective film off the DSM lens.

FYI: The numbered base plate adjustment screw is on the bottom of the DSM and cannot be changed after final attachment.

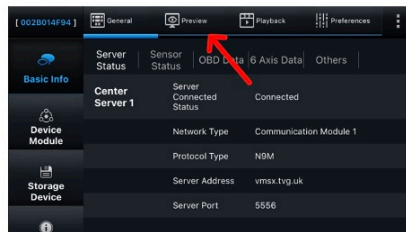


To Preview the image

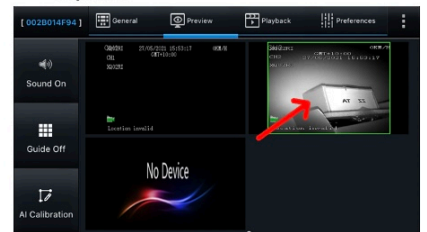
1. Log into the Veyes app



2. Select "Preview"



3. Double tap the picture to expand

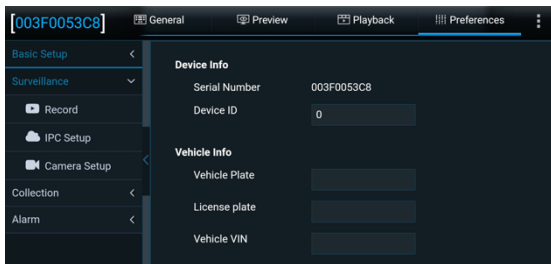


An example of correct alignment



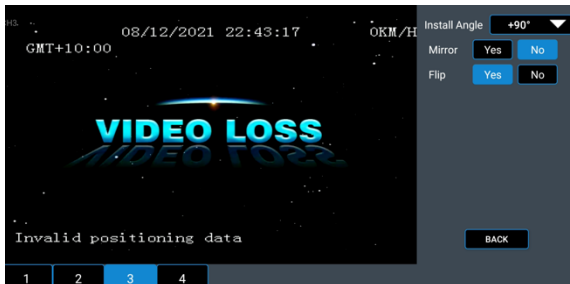
- Drivers face is in the middle
- Bottom edge of the picture needs to be below drivers chest
- No object blocks the vision (steering wheel, levers, hand, arm)
- The fill light of the DSM is on the drivers face, not the seatbelt

If the image is showing the wrong angle, please follow the next steps to correct:



Step 1. Select 'Preferences' (top right corner)

Step 2. Select 'Camera Setup'



Step 3. Select channel 3 (bottom left) and then edit 'Install Angle', 'Mirror', or 'Flip' to achieve the correct setup

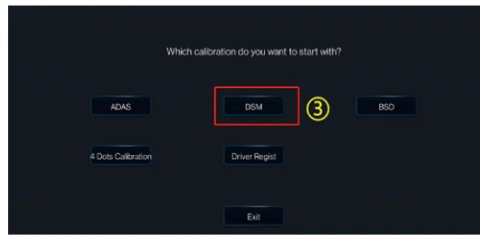
DSM CALIBRATION

To put the DSM into Calibration Mode, follow these steps

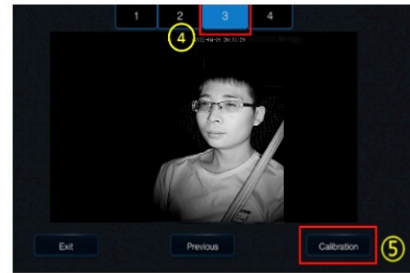
1. Select "Preview"
2. Select "AI Calibration"



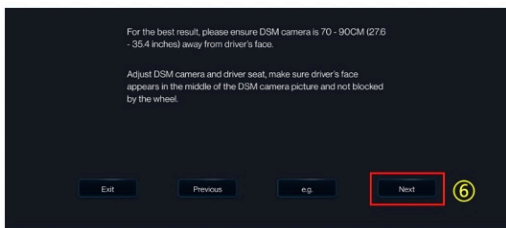
3. Select "DSM"



4. Select channel "2"
5. Select "Calibration"



6. Select "Next"

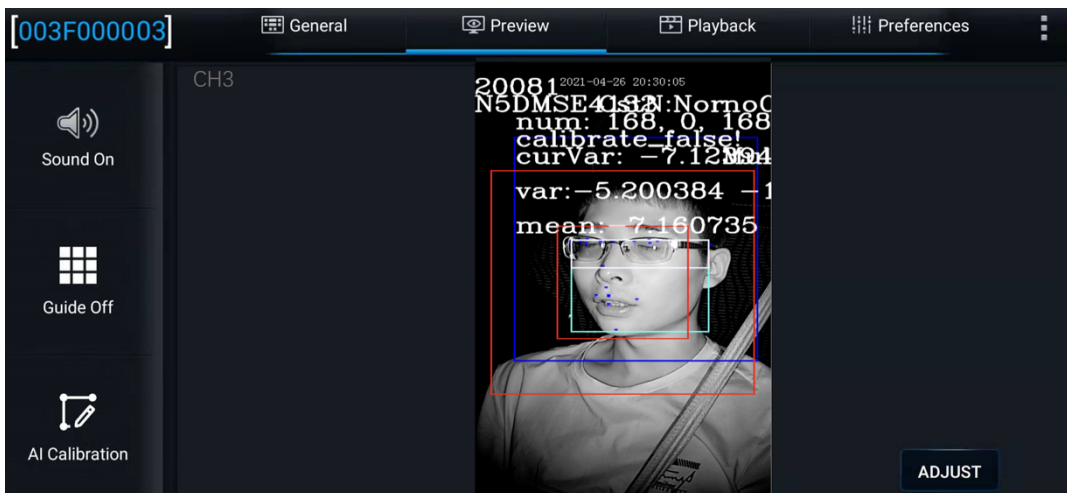


7. Select "Side" IMPORTANT TO MAKE THIS SELECTION
8. Select "Next" This enters calibration, ensure that a person is sitting in the seat



During Calibration

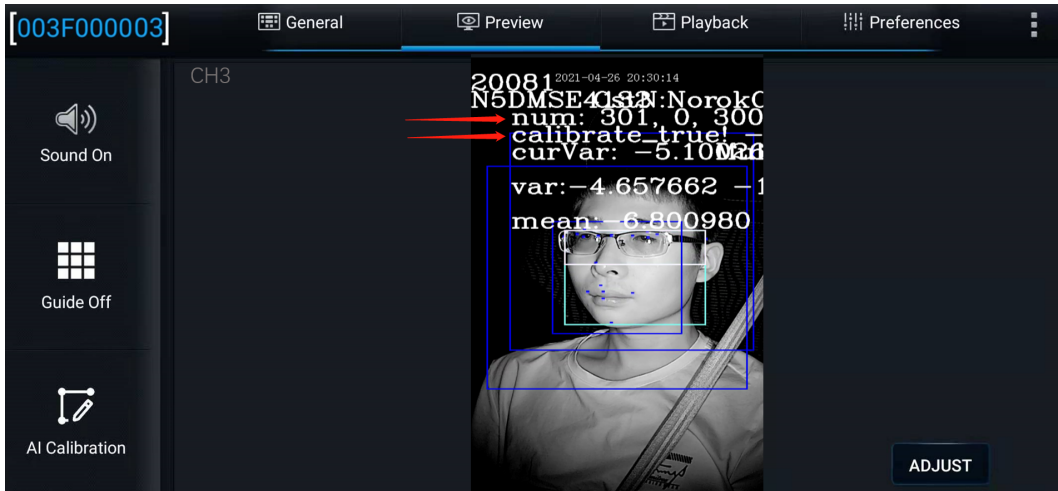
- Calibration frame is Red
- num < 301
- calibrate = false!



Calibration Completed

- Calibration frame is Blue
- num = 301

- calibrate = true!



FINAL ATTACHMENT

- IMPORTANT: Ensure the mounting screws are drilled into the A-pillar truck frame
 - If attached to the trim only, the DSM will not stay in position
- The screws do not need to be vertical to each other

REVIEW THE LIVE VISION AGAIN TO CHECK THE CORRECT ALIGNMENT

=====
 +++ **DOUBLE CHECK THAT BOTH THE** +++

- **ADAS and**
- **DSM**

+++ **ARE OUT OF CALIBRATION MODE (NORMAL MODE)** +++
 =====

Some recent installation photos









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