

# LAUNCH

Stock Code: HK02488

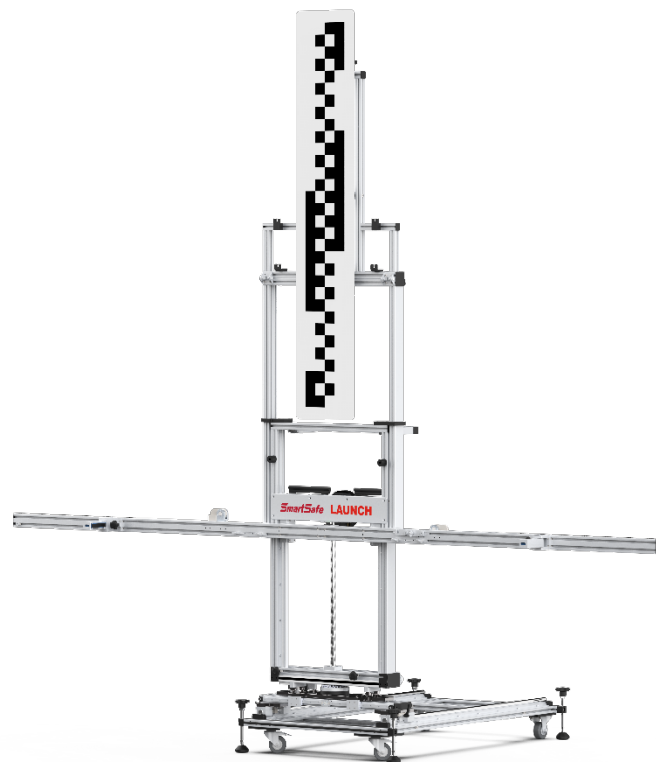
## X-431 ADAS HD



## X-431 ADAS HD

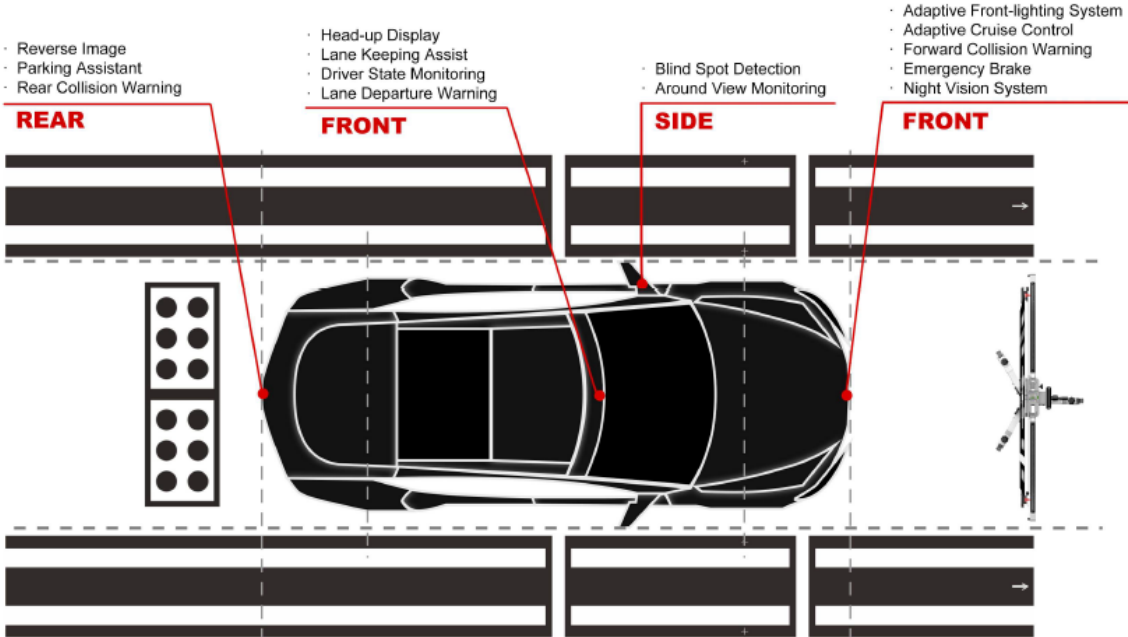
- **Multi-system Calibration**
- **Completely Foldable Frame**
- **Movable & High Precision**
- **Professional ADAS Calibration Tool for HD**

# X-431 ADAS HD



# ADAS - Advanced Driving Assistance System

It uses the sensors(Millimeter radar, Lidar, Single\binocular camera and other sensors) installed in the vehicle to induce the surroundings, collect data, identify, detect and track static and dynamic objects during driving. And combines with navigation map data to perform system calculations and analysis, so that drivers can be aware of potential dangers in advance, and effectively increase the comfort and safety of driving.



# ADAS Systems

## Camera Sensor

LKA — Lane Keeping Assist System

LDW — Lane Departure Warning System

AVM — Around View Monitor System

NV — Night Vision System

VCW — Vehicle Collision warning System

## Radar Sensor

ACC — Adaptive Cruise Control

BSD — Blind Spot Detection

AEB — Autonomous Emergency Braking

.....

# Supported ADAS Systems



LDW



ACC



BSD



RCW



NVS



AVM



LKA



AFS



APA



AEB



FCW



TSR



PPS

# Features

## Completely Foldable Design

Both the beam and main  
frame can be folded

## High Precision

Millimeter calibration  
accuracy

## Easy to use

Laser ranging and  
positioning  
Support fine-tuning



# Features

- Innovative structure design (fully folded, half folded, fully expanded) to meet the demands of storage, movement and calibrate.
- Supports multi-directional fine-tuning, including level, front and back, right and left adjustment. No need to move the device tediously, centering and paralleling in 1 minute.
- Equip with the millimeter precision laser range finder to measure distance without mechanical measurement.
- The lifting height of X-431 ADAS HD can reach 3 meters, suitable for calibrate heavy duty vehicles.
- The target adopts a multi-point hanging way, which is safe, firm and not easy to fall off.
- New upgraded Aluminum Alloy material for durable use.

# Features



**Fully Folded**



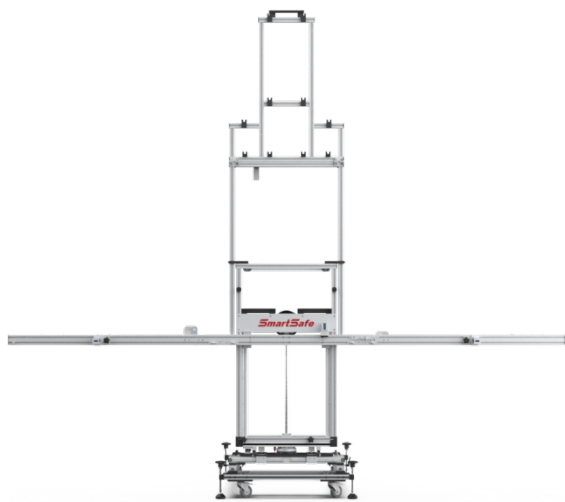
**Half Folded**



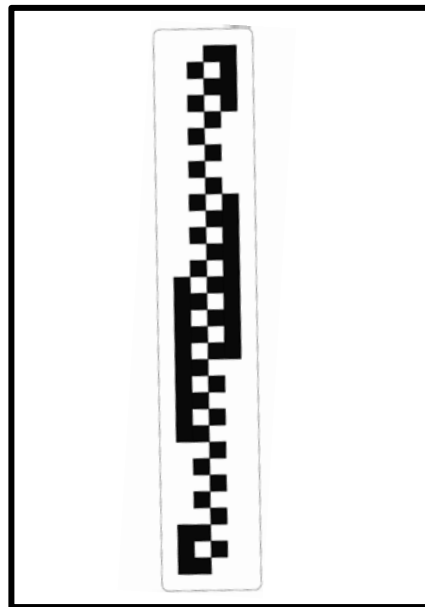
**Fully Expanded**

# Components and Configuration

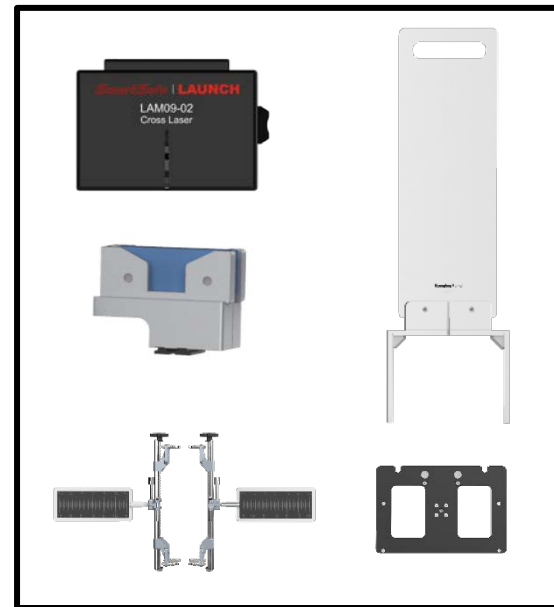
# Components



**Main Frame**



**Targets**



**Accessories**

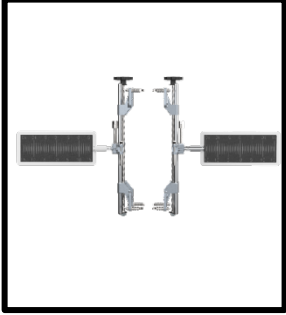
# Components



Laser Placement  
Seat



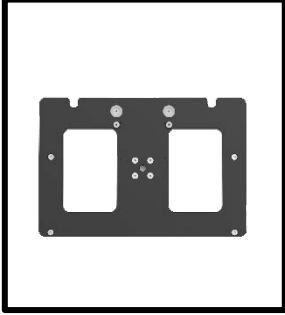
Center Laser  
LAC09-02



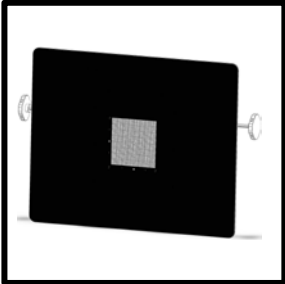
Wheel Clamp



Ranging Panel  
LAC09-01



Mounting Plate  
LAC09-03



# Functions & Usage

# When do you need ADAS calibration?

1. The sensor control unit has been repaired or replaced. (The ACC radar/front camera has been replaced)
2. The sensor installation is incorrect.
3. The sensor position has been changed.
4. The windshield/bumper has been removed, repaired or replaced.
5. Chassis structure has been changed/adjusted.

# Dynamic Calibration

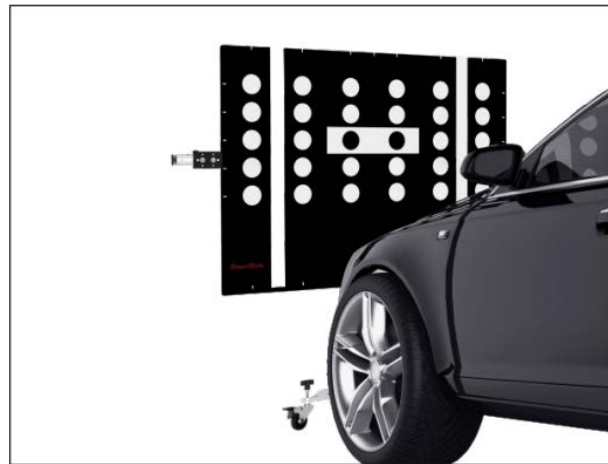
It doesn't require an ADAS calibration tool, but requires a test drive at a prescribed steady speed in a clear lane markings road with straight lines under favorable weather conditions. It requires professional diagnostic software with a scan tool to initiate the learning process and fulfill the calibration procedures.





# Static Calibration

It is performed by an ADAS calibration tool frame and targets. A static calibration requires professional diagnostic software with a scan tool to fulfill the calibration procedures. Before a static calibration, the work station should prepare a standardized area to get started. If not a qualified work area in normal conditions, it will affect the accuracy of the calibration.



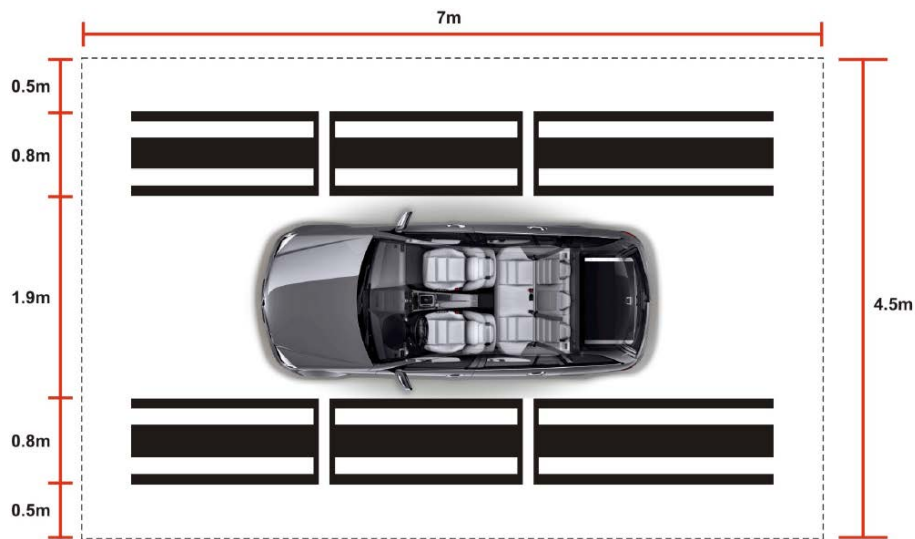
# Preparation



## Preparation for ADAS calibration

1. No damage of vehicle sensors.
2. No deformation of sensor frame.
3. Ensure the tire are properly inflated.
4. Apply the parking brake and keep the doors closed.
5. Ensure that the coolant and oil of the vehicle within the recommended range, and fill up the fuel tank. Make sure no passengers or goods in the vehicle.
6. Connect the scan tool to vehicle, make sure no DTCs exist except ADAS related fault codes.
7. Please use the correct targets and distance parameters according to the operation guide.
8. Please do not lean on the vehicle during the calibration process.

# Preparation



## Preparation for calibration area:

1. Enough space around the vehicle and level work area are required to complete the calibration procedures. (Suggest calibration area 5m\*9m).
2. No large obstacles in the work area.
3. No light intrusion to the targets
4. No light intrusion to the front camera area.
5. No wind intrusion to sway or move the targets.

# Vehicle Coverage

## **DYNAMIC CALIBRATION**

VOLVO, RENAULT, MAN, IVECO, DUFF, ISUZU, BENZ, SCANIA

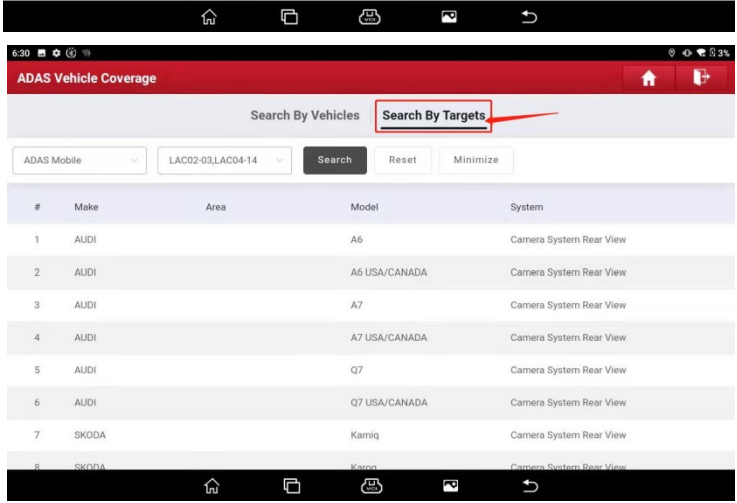
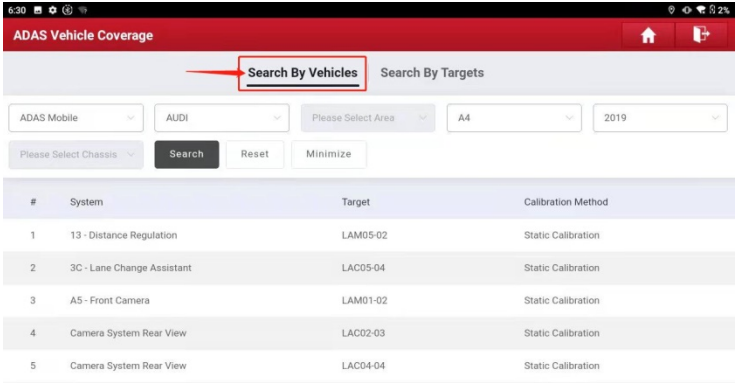
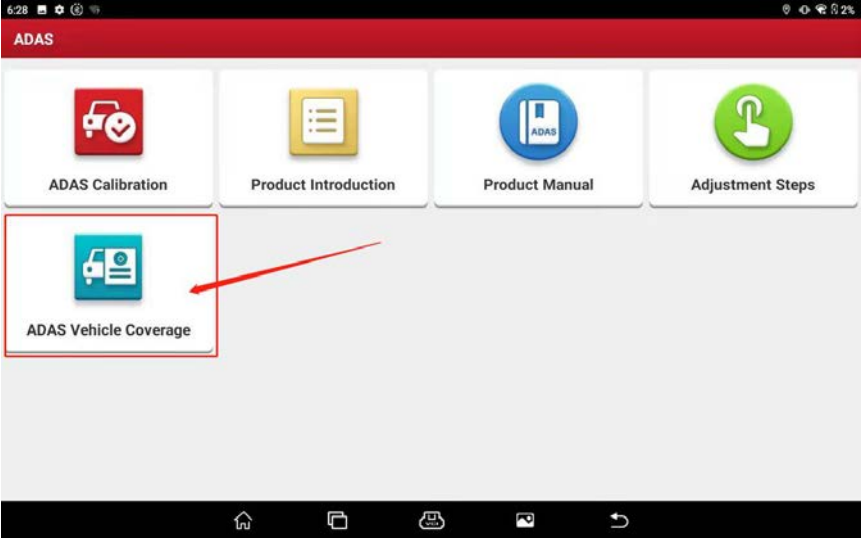
(To be continued...)

## **STATIC CALIBRATION (Coming soon)**

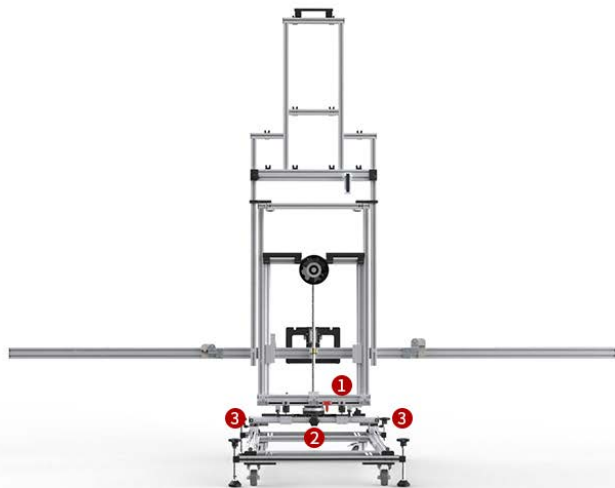
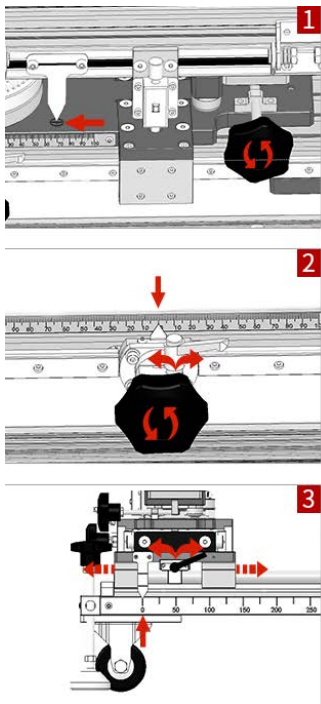
MAN, IVECO, VOLVO, NISSAN, ISUZU, BENZ, RENAULT, SCANIA

(To be continued...)

# Vehicle Coverage Inquiry



# Operation Steps



## Step 1 -- Reset the device

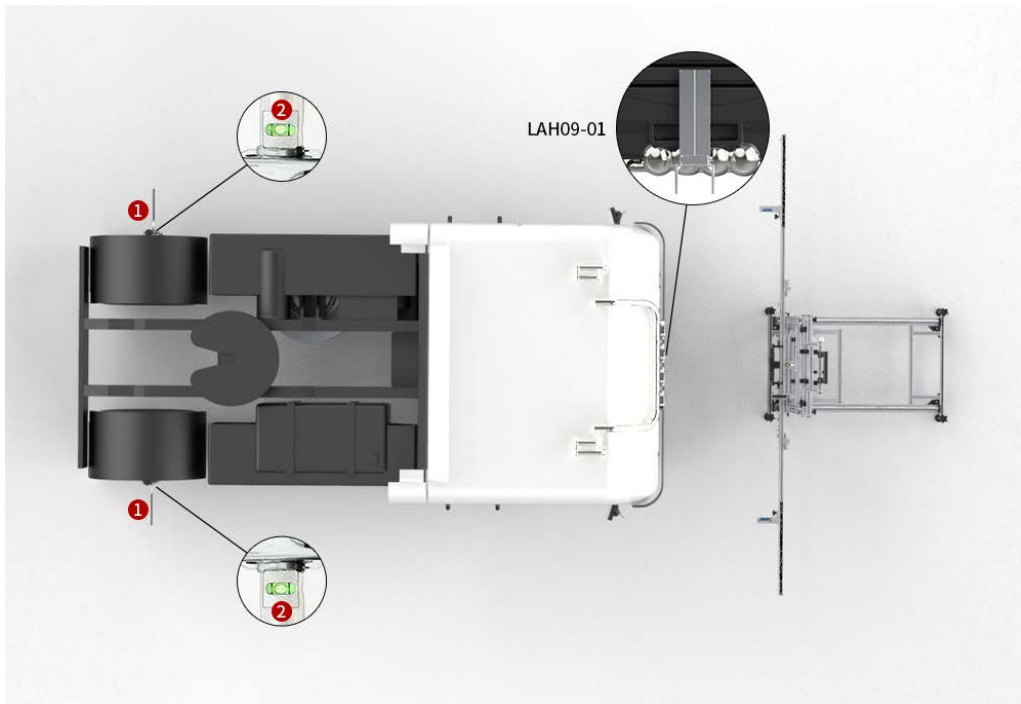
Check the following positions and reset.

- ① Parallel fine-tuning position
- ② Left and right fine-tuning position
- ③ Front and rear fine-tuning position

# Operation Steps

## Step 2 -- Condition 1

The method of measuring from vehicle head to target



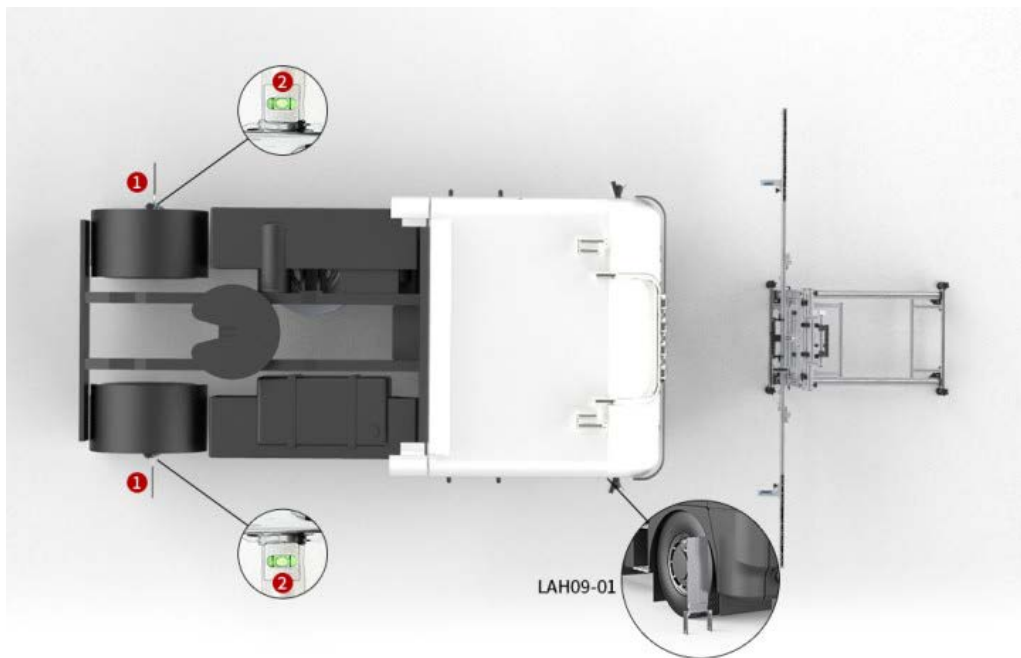
### Install the wheel clamp and ranging panel

1. Install the wheel clamp ① on vehicle left and right coaxial rear wheels, and ensure that the spirit level ② is centered.
2. Place **Ranging panel LAC09-01** in front of vehicle and make sure it is close to the bumper and parallel to vehicle.

# Operation Steps

## Step 2 -- Condition 2

The method of measuring from camera to target



### Install the wheel clamp and ranging panel

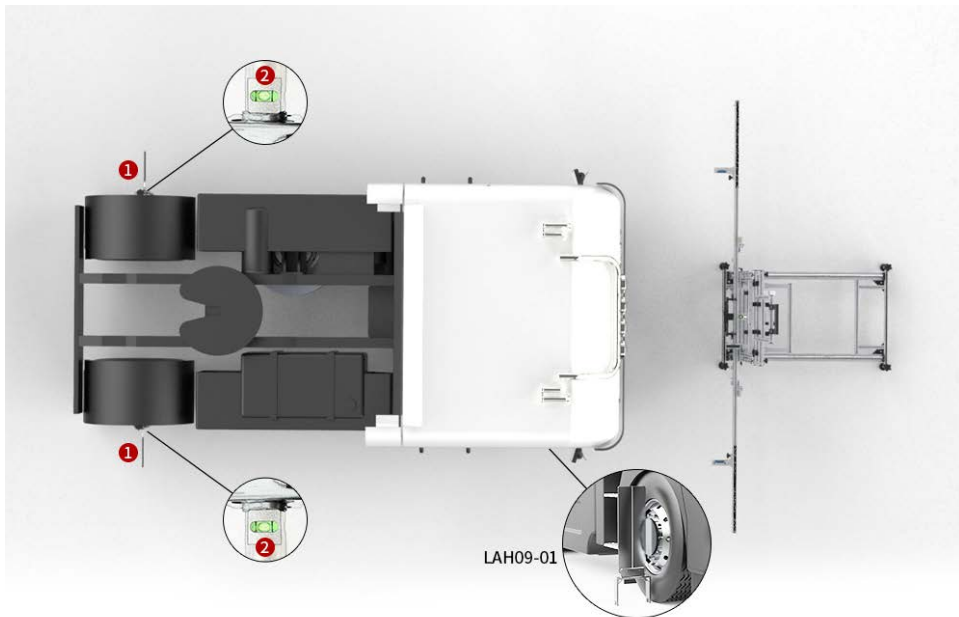
1. Install the wheel clamp ① on vehicle left and right coaxial rear wheels, and ensure the spirit level ②.
2. Place **Ranging panel LAC09-01** on the side of the front camera and make sure it is perpendicular to the vehicle body.



# Operation Steps

## Step 2 -- Condition 3

The method of measuring from the front wheel to target

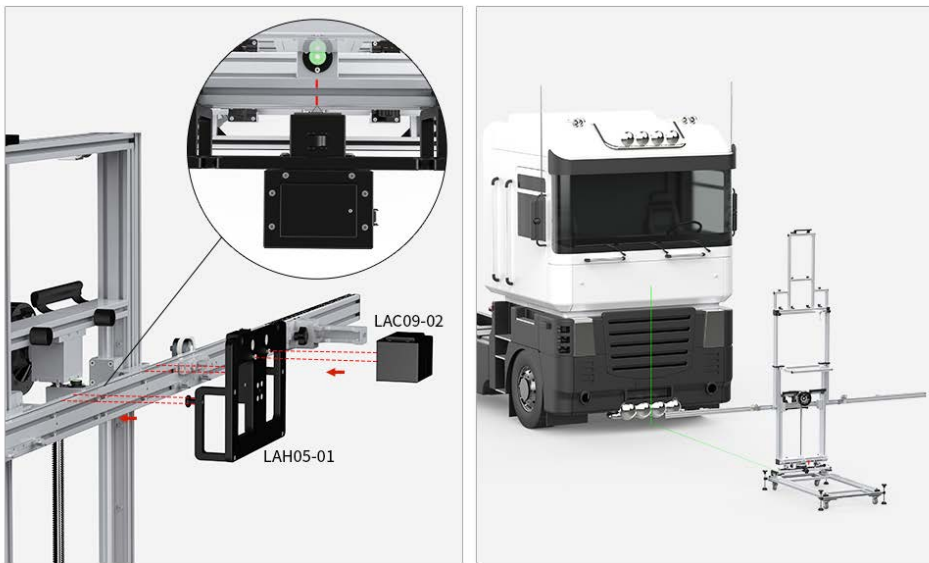


### Install the wheel clamp and ranging panel

1. Install the wheel clamp ① on vehicle left and right coaxial rear wheels, and ensure the spirit level ②.
2. Place **Ranging panel LAC09-01** at the center of the vehicle front wheels and make sure it is perpendicular to the front wheels.

# Operation Steps

## Step 3 -- Determine the distance of device placement



1. Hang the **Mounting plate LAH05-01** to make its centering mark is aligned with the center of beam.
2. Install and turn on the **Central laser LAC09-02**, place the device to the front of vehicle, so that the laser line irradiates on the center of vehicle.

# Operation Steps

## Step 3 -- Determine the distance of device placement



3. Install the range-finder ① on the beam, the range-finder ① is on the same side of **Ranging panel LAC09-01**. Turn on the rangefinder so that the laser spot irradiates on the **Ranging panel LAC09-01**.
4. Move the device back and forth to make the value of range-finder ① is L, L=\_\_\_\_\_.

# Operation Steps

## Step 3 -- Determine the distance of device placement

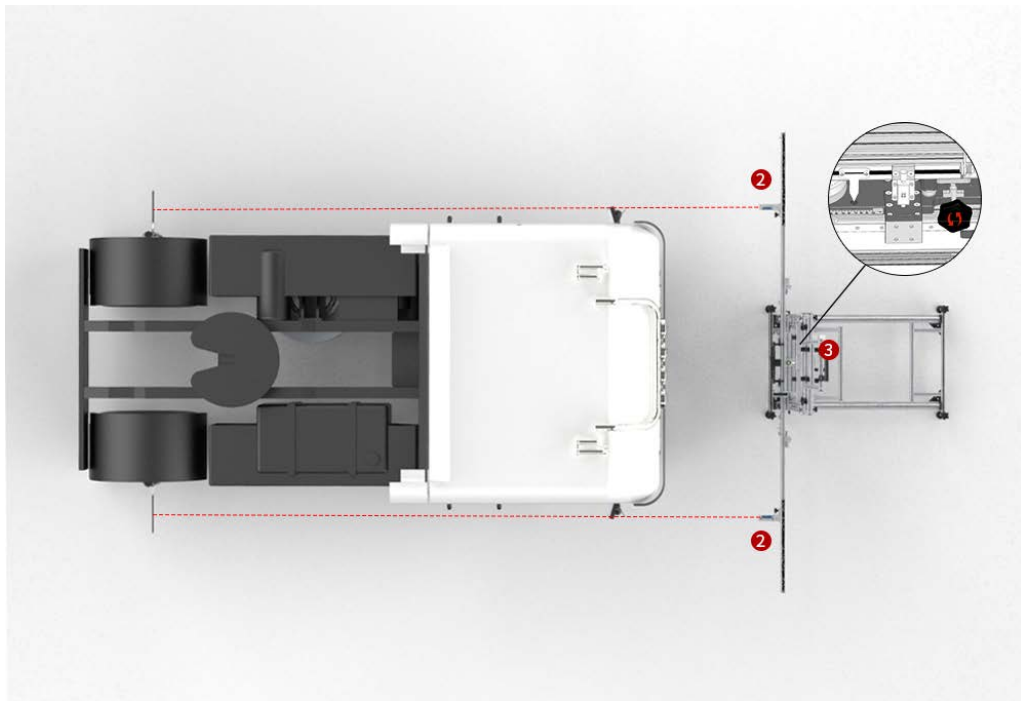


5. Observe the spirit level ②, rotate the base adjustment knob ③, and lock the moving wheels after the device is leveled.

*Note: If the laser spot cannot be irradiated on the ranging panel, adjust the device height.*

# Operation Steps

## Step 4 -- Adjust the device to be parallel to the vehicle and centered



1. Turn on and move the range-finder ② on both sides of the beam so that the laser spot irradiates on the wheel clamp panel.
2. Adjust the parallel fine-tuning knob ③ to make the values of range-finder ② on both sides consistent (allowed tolerance:  $\pm 1\text{mm}$ ).

# Operation Steps

## Step 5 -- Adjust the device to be parallel to the vehicle and centered



1. Adjust the left and right fine-tuning knob ① to make the Center laser LAC09-02 irradiate the center of vehicle.
2. Turn off and remove the Center laser LAC09-02.

# Operation Steps

## Step 6 -- Install the target



### Big Target

1. Use the target LAH01-\_\_\_\_\_, align the target with the slot, and hang the target as shown in the figure.

*Note: The specific target is adjusted according to the vehicle type software*

# Operation Steps

## Step 7 -- Adjust the height



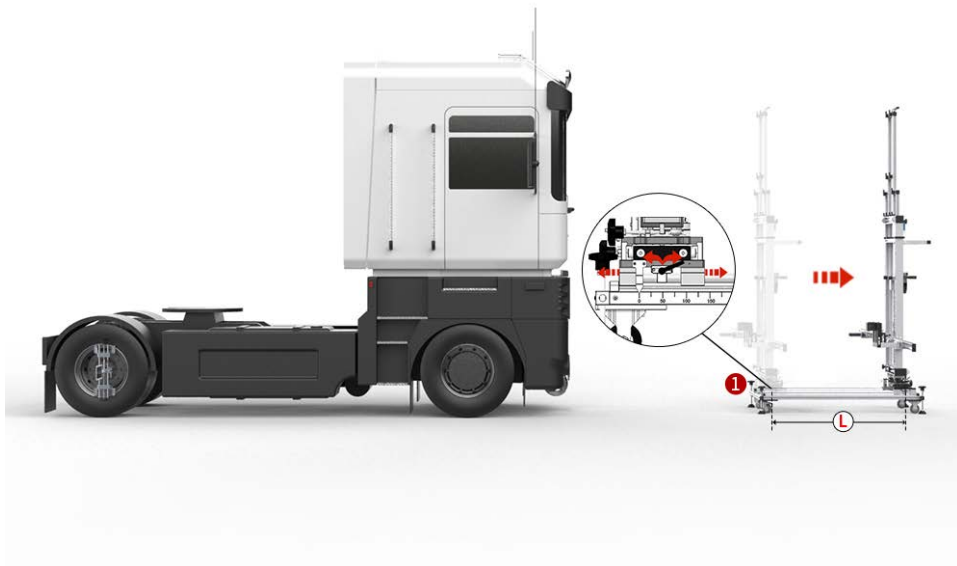
1. Turn on the altitude range-finder① and adjust the device height to make the value of altitude rangefinder① is H,  $H = \underline{\hspace{2cm}}$ .

*Note: Please make sure that the laser irradiation area is free of water stains and other reflective objects that affect the measurement results.*



# Operation Steps

## Step 8 – Start calibrating

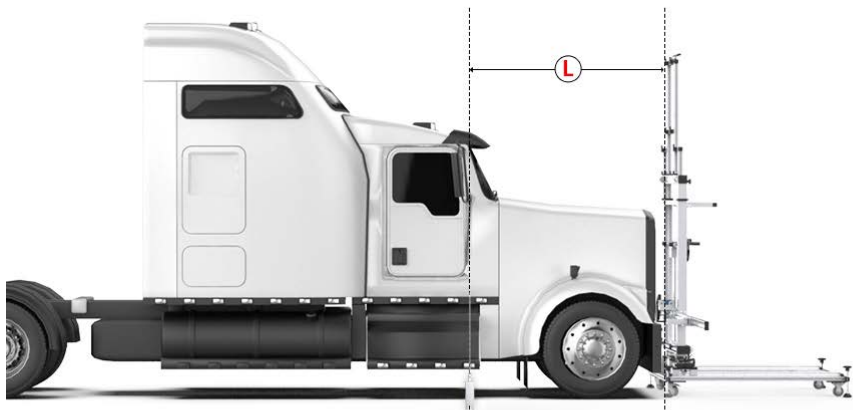


### Situation 1: Identify the second position

1. Adjust the front and rear fine-tuning knob ①, move the position back by the distance  $L$ ,  $L = \underline{\hspace{2cm}}$ .

# Operation Steps

## Step 8 – Start calibrating

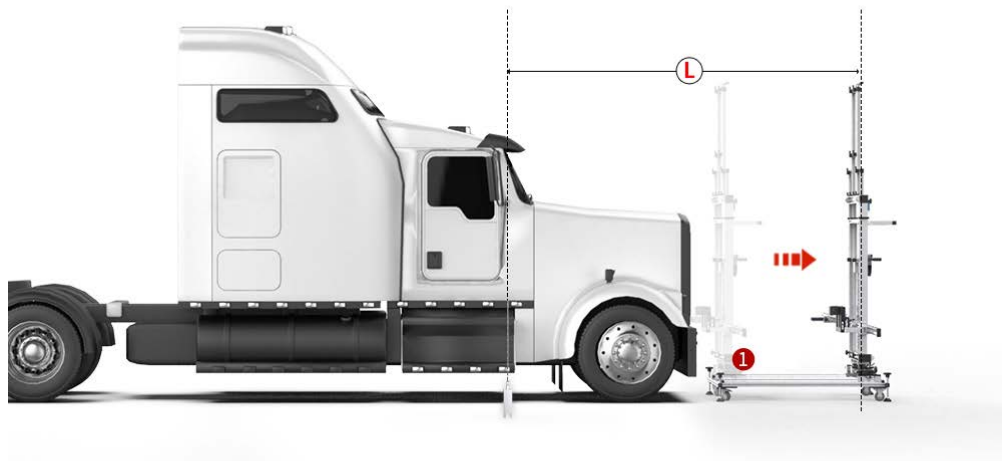


### Situation 2: Identify the first position

1. Move the device forward to the front of the bumper to make the distance between the center of the front camera and the target is  $L =$  .

# Operation Steps

## Step 8 – Start calibrating



### Situation 2: Identify the second position

1. Adjust the front and rear fine-tuning knob ①, move the position back by the distance L,  $L = \underline{\hspace{2cm}}$ .

# Q & A

# THANK YOU



## LAUNCH TECH CO., LTD

HKSE: 2488(HK)  
Launch Industrial Park, North Wuhe Road, Banxuegang,  
Longgang District, Shenzhen, P.R. China  
<https://www.cnlaunch.com>

 @Launch TechHQ

 @LaunchHQ\_

