PHOENIX ADAS MOBILE PRODUCT PROFILE

TOPDON®

WHAT IS ADAS?

- The Advanced Driver Assistance System (ADAS) uses image processing cameras, radar, light detection, ranging, and other sensors to monitor vehicle surroundings and detect potentially dangerous situations.

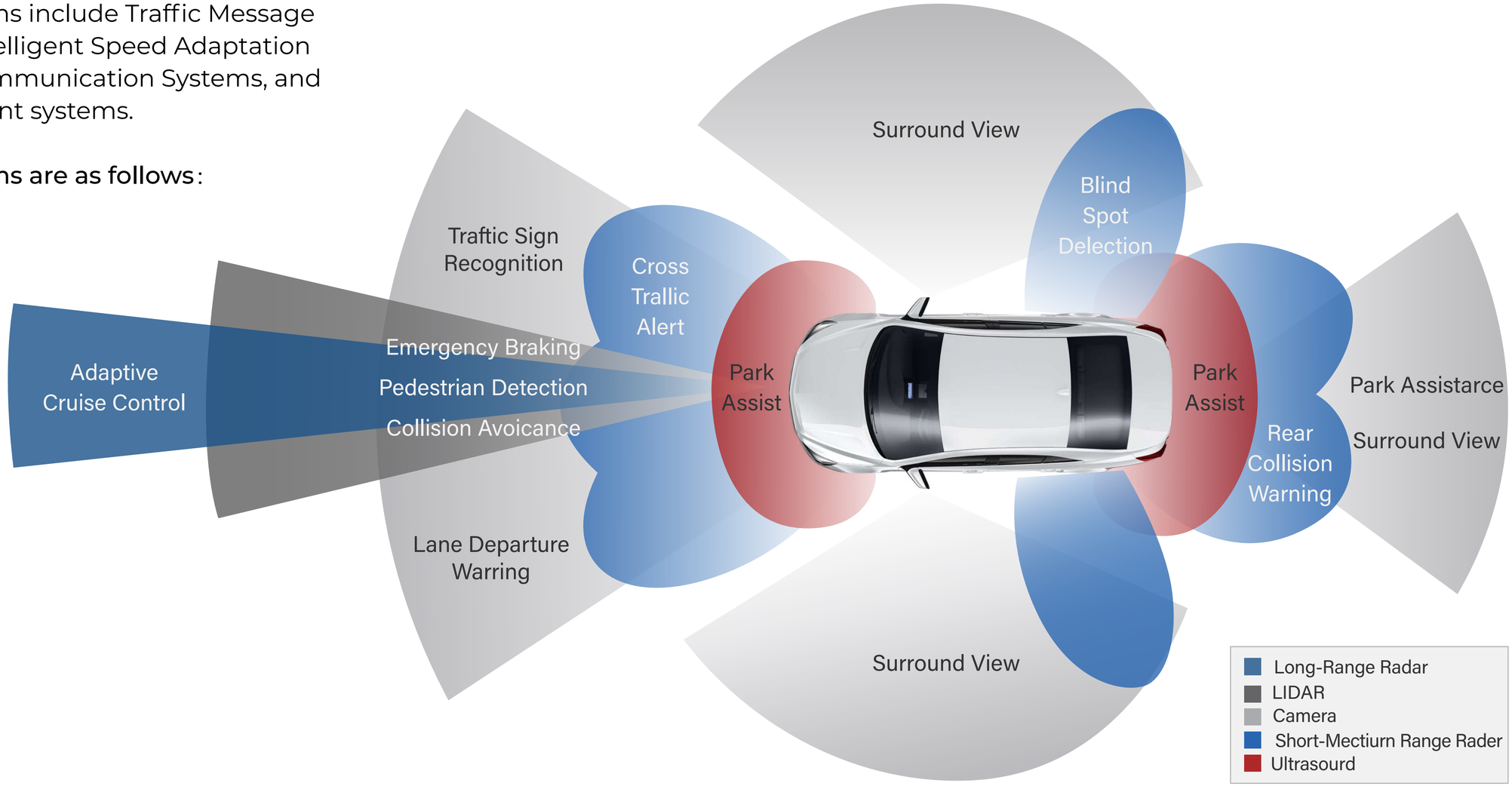
- Its purpose is to increase safety through advanced situational awareness and reduce collision possibilities.

- ADAS Sensors include Cameras, Radar, LiDAR, Night Vision, and Ultrasonic sensors. These sensors work with other vehicle systems to monitor the vehicle's state, motion, and stability. Usually, these sensors are located in the front and rear bumpers, side mirrors, front grille, and windshield glass.

WHAT ARE THE APPLICATIONS OF ADAS?

- Most ADAS systems include Traffic Message Channel (TMC), Intelligent Speed Adaptation (ISA), Vehicular Communication Systems, and other driver assistant systems.

The specific systems are as follows:



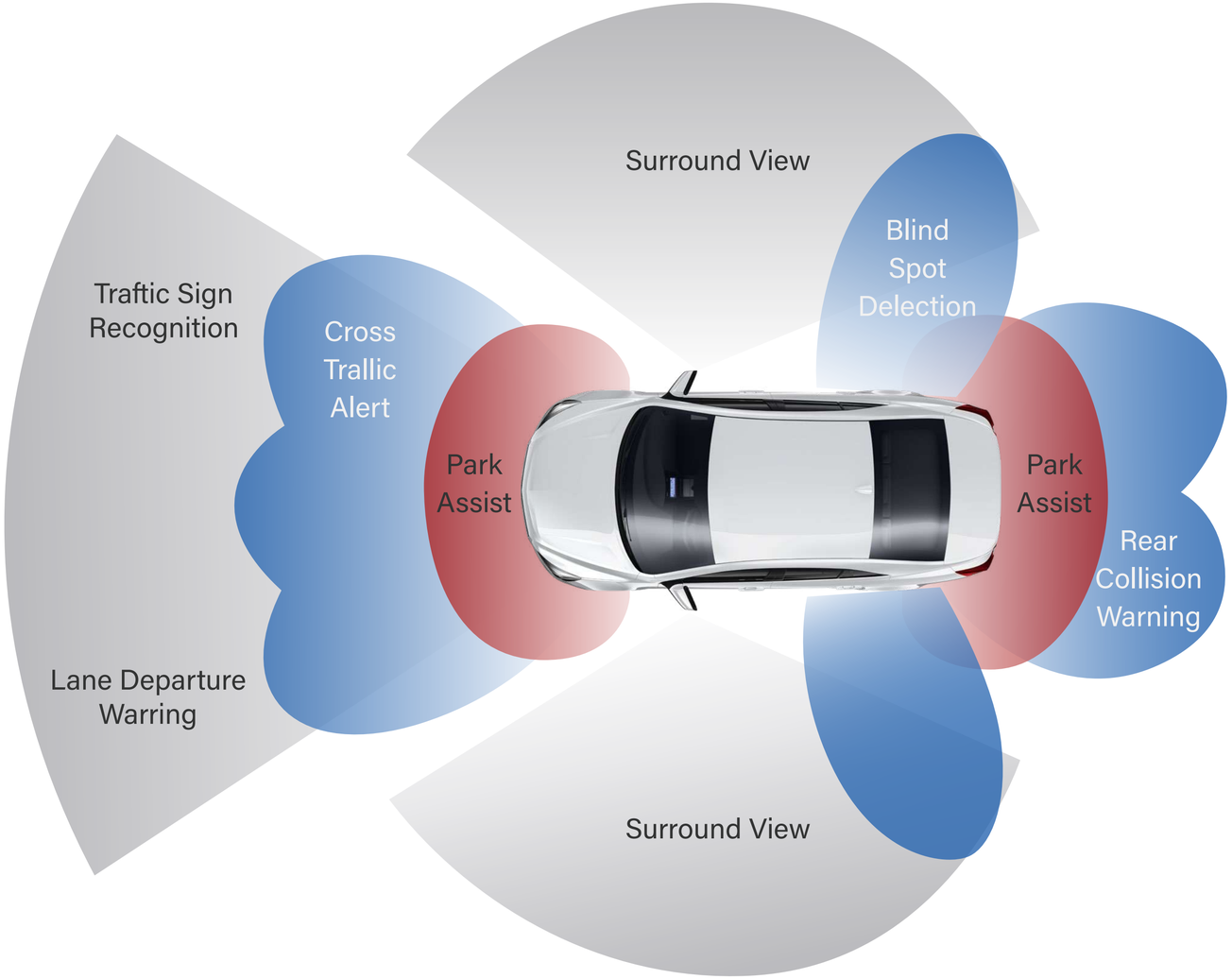
TYPES OF SYSTEMS

Passive Assist Systems

- Passive ADAS systems monitor the environment around the vehicle. These systems warn the driver through lights, message centers, audible beeps and/or deliberately vibrating parts of the car, like the seats, steering wheel, brake pedals, or even the seat belts.

- Passive systems will also use live camera displays or live graphics to assist the driver. These camera displays include:

LDW – Lane Departure Warning
RCW – Rear Collision Warning
AVM – Around View Monitoring
BSD – Blind Spot Detection
FCW – Front Collision Warning
NVS – Night Vision System

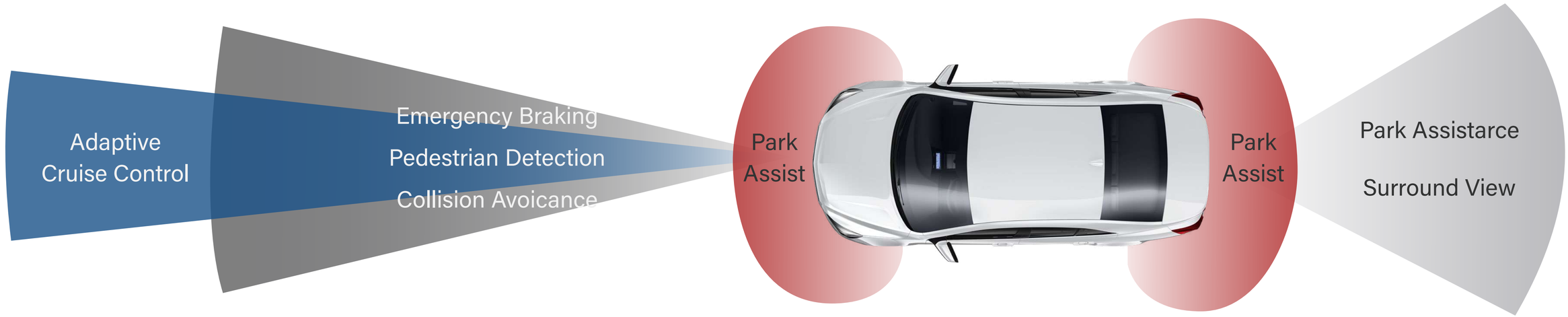


TYPES OF SYSTEMS

Active Assist Systems

- Active ADAS systems will slow, stop or turn the vehicle from an object or situation (like lane departure) using the electronic power steering module, electronic braking, ABS modules, and throttle controls in the Powertrain Control Module (PCM). Active Assist Systems can also use sensors to park a vehicle without the driver or adjust headlights to steering inputs.

AEB – Automatic Emergency Braking
ACC – Adaptive Cruise Control
LKA – Lane Keep Assist
AFL – Adaptive Front Lighting
AP – Assisted or Automatic Parking
FCA – Front Collision Avoidance



WHAT WARRANTS AN ADAS RECALIBRATION?

Collision Repair

Replacing Windows, Hood, or Trunk

Removing a Front or Rear Bumper

Other Common Causes For Recalibration

- Mirror Replacement
- Suspension Work or Suspension Replacements, including Alignments
- “Curbing” or Bumping a Moving Sensor Module
- A Module Replacement or Component Replacement
- Loss of calibration data

PHOENIX ADAS MOBILE

▪ The Phoenix ADAS Mobile is a foldable calibration frame that offers unmatched portability and convenience, making auto shops even more productive and profitable.

▪ Compatible with TOPDON’s Phoenix Series of diagnostic scanners, this device gives professionals the capability to provide needed work on the most modern cars.

▪ This is a must-have tool for professional collision shops, components, and parts specialists, as well as any auto body shop that provides services such as window, trunk, and bumper cover replacement, wheel alignment, suspension, and and more!

SPECS

The Phoenix ADAS Mobile comes safely packaged in a Wooden Case	
Measurements	3.8*3.6*2.0 (inch)
Weight	308lb/140kg
Package includes	The ADAS Mobile, main case, an accessory case, a small targets case, and a modern LAM01-09 target case

Large targets are shipped separately in Carton Packaging	
Measurements	4.5*0.3*3.3(inch)
Weight	39lb/18kg
Package includes	VW LAM01-02 target, Subaru LAM01-15 target, Subaru 2 LAM01-21 target

IT'S BEST FEATURES

- Collapsible Design For Easy Storage
- Highly Precise Five-Axis Laser for Accurate Calibration
- Easy Center-Positioning for Micro-Adjustments
- Covers a Wide Range of Car Makes with Various OE-size targets
- Intuitive User Interface (UI) provides Detailed Steps and Illustrations

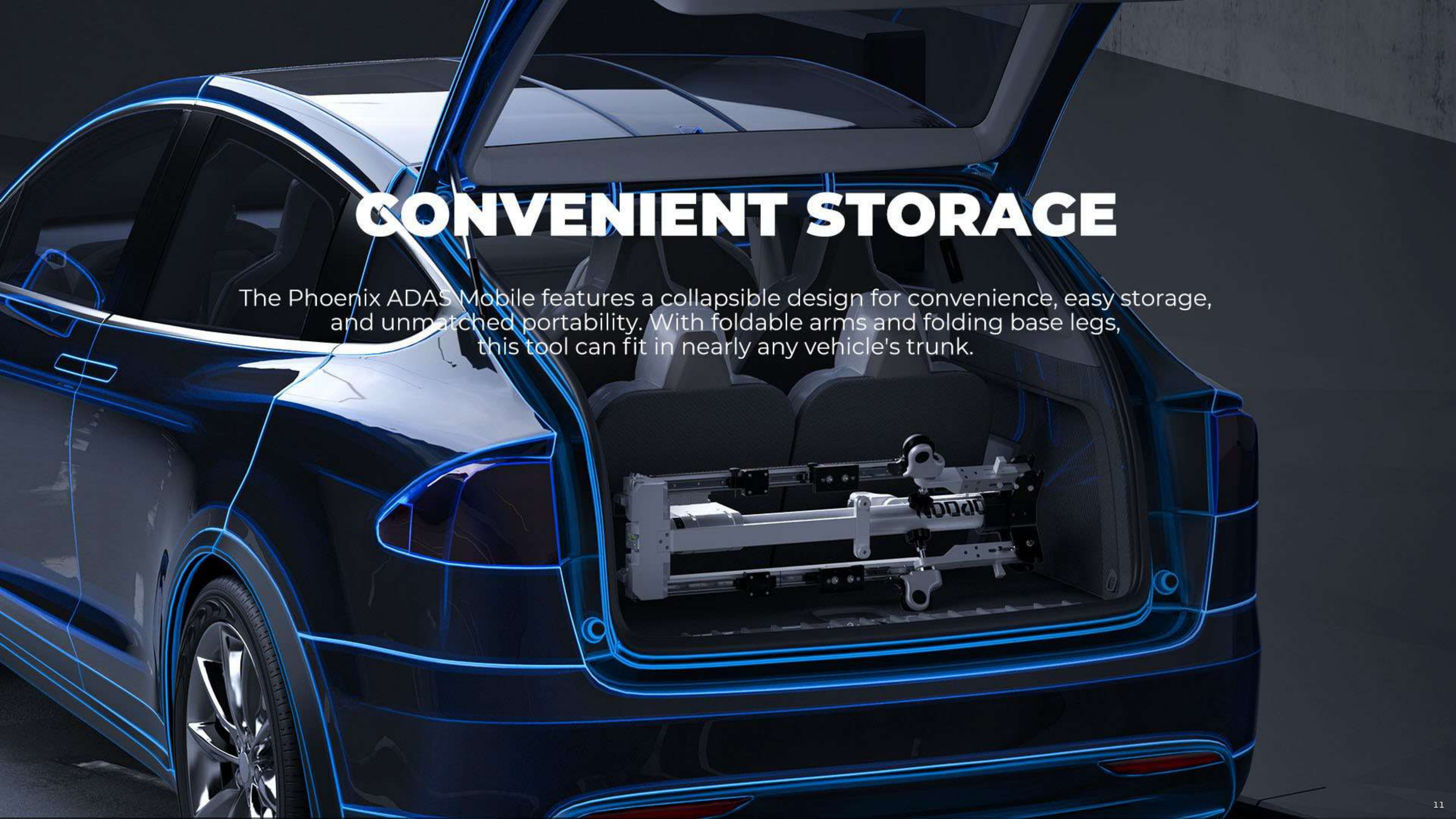
TOTALLY MOBILE

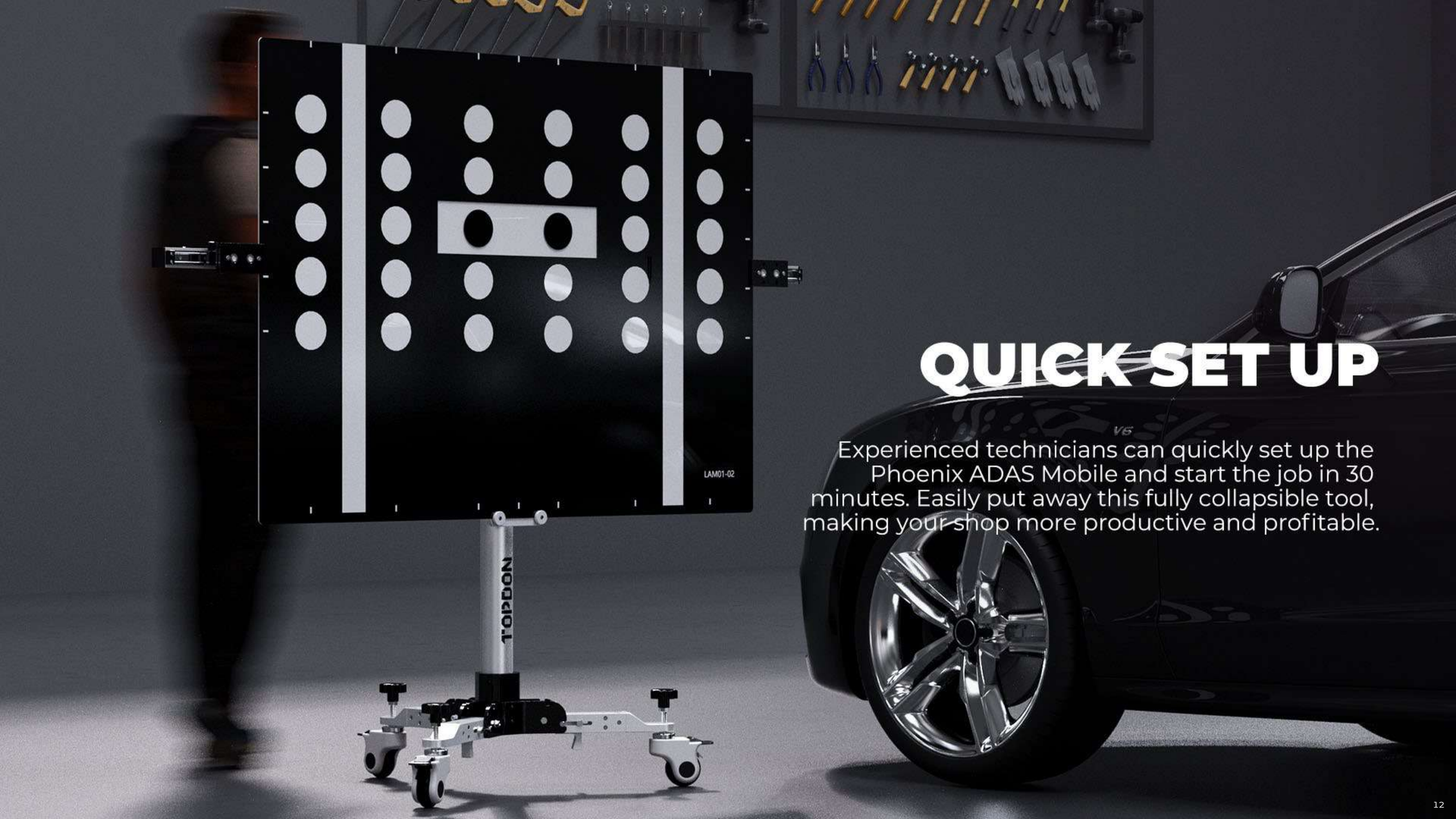
Featuring a multifunctional base with 360-degree swivel wheels, the Phoenix ADAS Mobile allows you to adjust the height and make adaptations to calibrate when working on uneven ground.

Professionals equipped with this device can calibrate ADAS passive and active systems on any flat surface: an auto shop, a parking lot, or even at a client's driveway.

CONVENIENT STORAGE

The Phoenix ADAS Mobile features a collapsible design for convenience, easy storage, and unmatched portability. With foldable arms and folding base legs, this tool can fit in nearly any vehicle's trunk.





QUICK SET UP

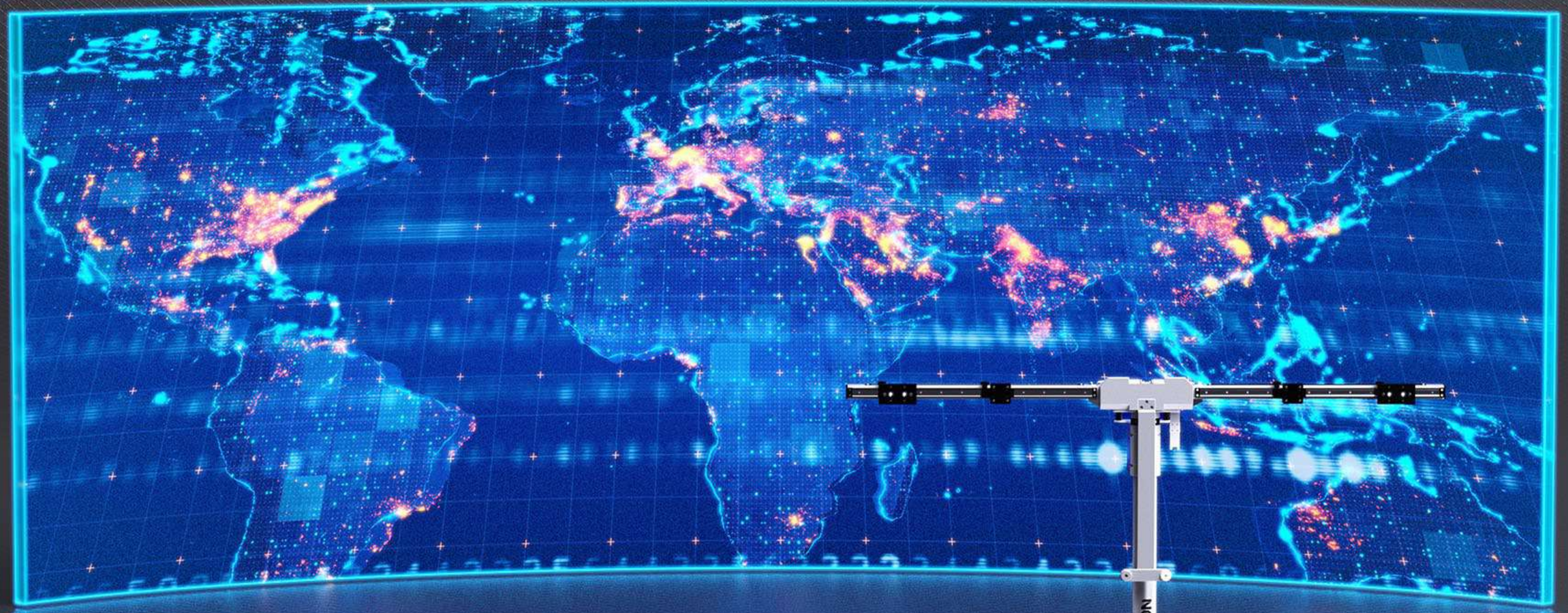
Experienced technicians can quickly set up the Phoenix ADAS Mobile and start the job in 30 minutes. Easily put away this fully collapsible tool, making your shop more productive and profitable.

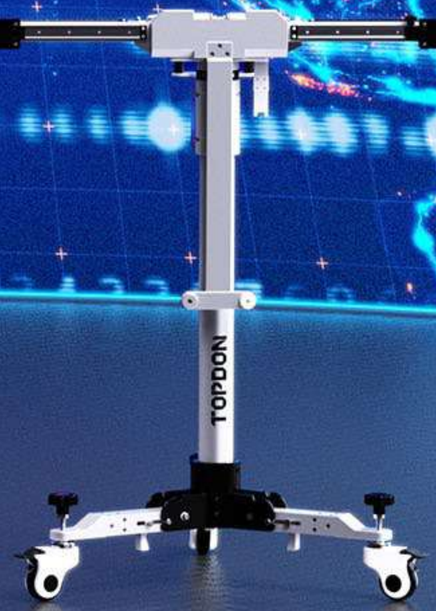
GET UNMATCHED PRECISION

A high-precision 5-lasers device will assist you to position the ADAS calibration tool with exactness.

The easy center-positioning lets you promote micro-adjustments effortlessly for even more accurate calibration services.

EVEN MORE COVERAGE!





The Phoenix ADAS Mobile covers most US, European, and Asian car brands, including a wide variety of targets. As more ADAS-capable vehicles come out, TOPDON consistently updates its inventory to offer targets to match them.

EASY-TO-USE

STEP-BY-STEP PROCEDURES

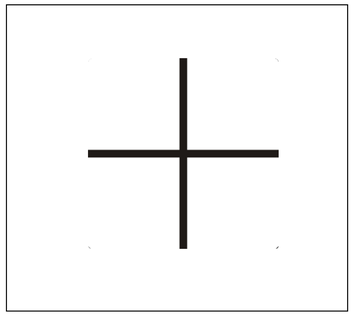
TOPDON's Phoenix ADAS Mobile is compatible with the entire Phoenix Series of Diagnostic Scanners. Featuring an intuitive interface, the software provides its users' detailed steps, illustrations, and real-time guided operation.

WHAT'S IN THE BOX?

PX 1000 Calibration Frame

Unfolding

After folding



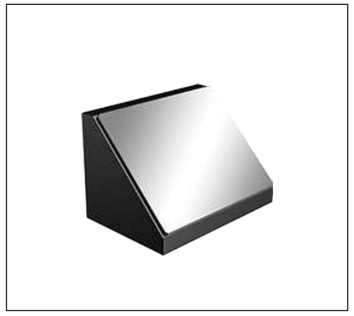
Cross Sticker

Five Line Laser
LAM09-01

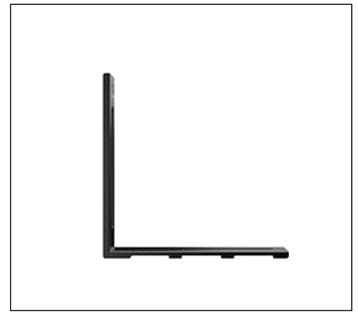
Cross Laser
LAM09-02

Laser Reflector
LAM09-03

Tape

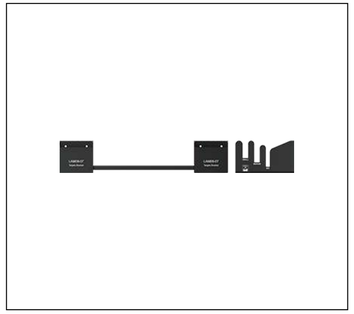


Auxiliary Mirror
LAM09-04

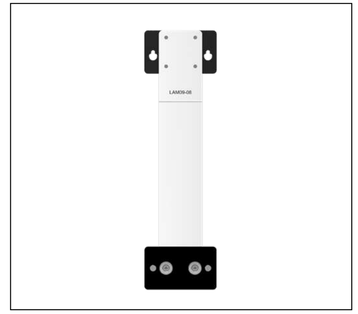


L-Type Positioning Bracket
LAM09-05

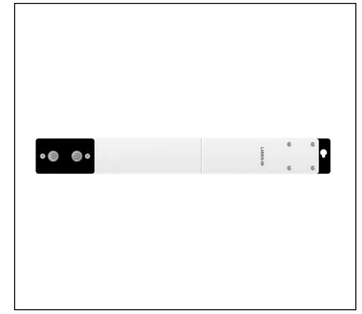
Lead Hammer
LAM09-06



Targets Storage Bracket
LAM09-07

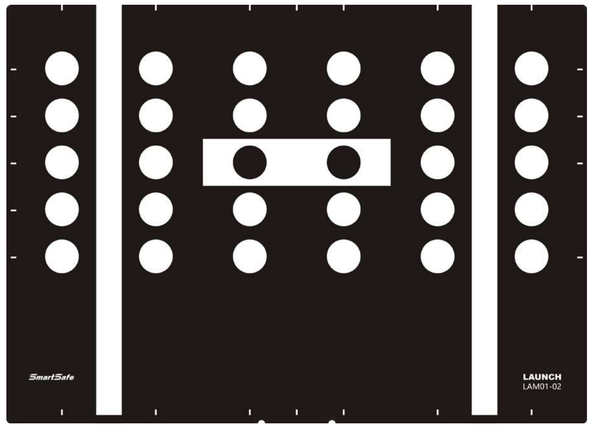


Targets Extension Rod
LAM09-08

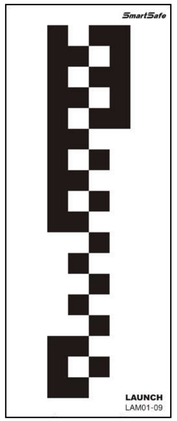


Targets Extension Rod II
LAM09-09

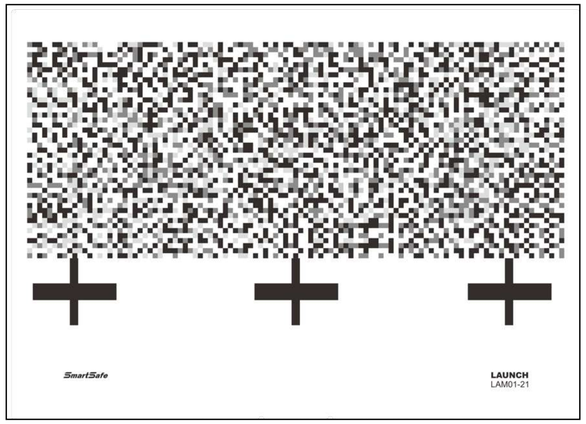
LDW Targets (Large Targets)



- VW/Audi LAM01-02



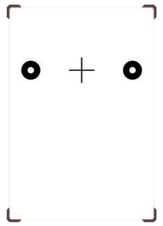
- Hyundai/Kia LAM01-09



- Subaru-LDW LAM01-2

- Subaru LAM01-15

LDW Targets (Small Targets)

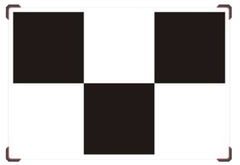


BenzLAM
01-01

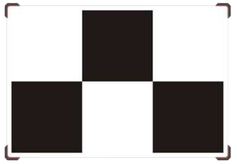
MazdaLAM
01-10

Hyundai/KiaLAC
01-13

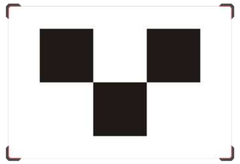
HondaLAM
01-20



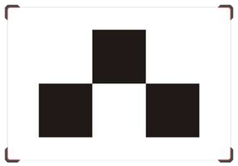
HondaLAM
01-04-L



Honda LAM
01-04-R



NissanLAM
01-07-L



NissanLAM
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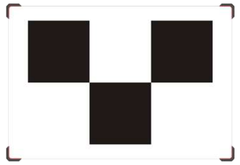
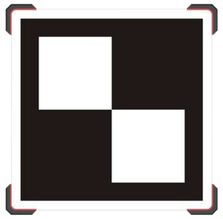
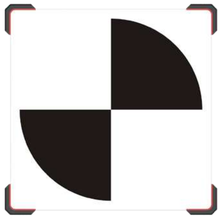


MazdaLAM
01-16-L

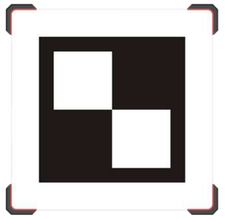
MazdaLAM
01-16-R



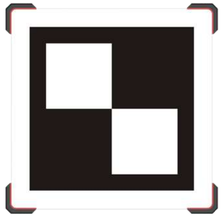
MitsubishiLAM
01-19-R



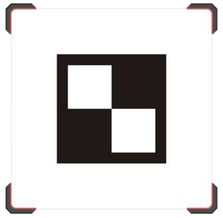
Renault/NissanLAM
01-12-L



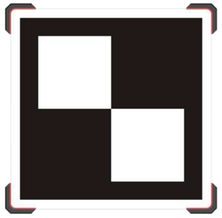
ToyotaLAM
01-06-1



ToyotaLAM
01-06-2

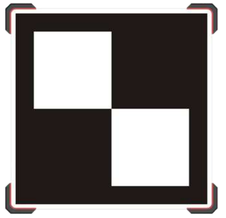


ToyotaLAM
01-06-3

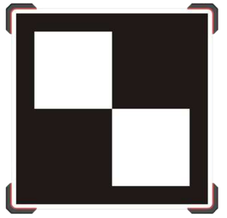


MitsubishiLAM
01-19-L

HondaLAM
01-17



SuzukiLAM
01-18-L



SuzukiLAM
01-18-R

Expand your capabilities

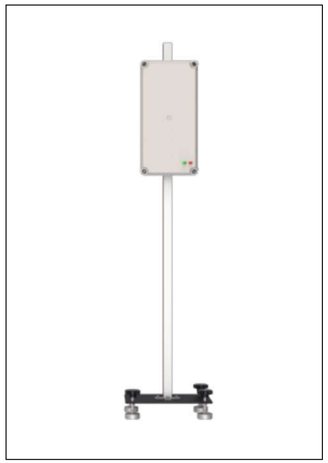
*Additional Target Available for Purchase

(LAC05-03) Corner Reflector, ACC/BSD

Coverage:
Toyota, Honda, Lexus, Mazda, Subaru, Mitsubishi

Package Size:
513*462*328mm (20*18*13 inch)

Weight:
12kg (26 ib)

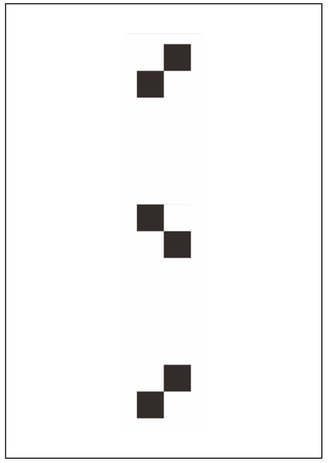


(LAC05-04) Doppler Simulator, BSD

Coverage:
VW, Audi, Skoda

Package Size:
1260*300*170mm (50*12*7 inch)

Weight:
7.8 kg (17 ib)

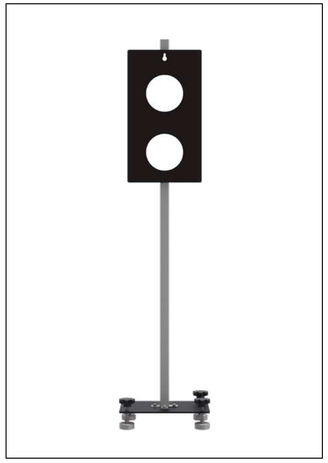


(LAC04-15) Nissan AVM Panels, Nissan-RCW

Coverage:
Nissan, Infiniti

Package Size:
730*80*80mm (29*3*3 inch)

Weight:
1.6 kg (4 ib)



(LAC04-14) VW AVM Panels, VW-AVM

Coverage:
VW, Audi

Package Size:
1260*260*235mm (50*10*9 inch)

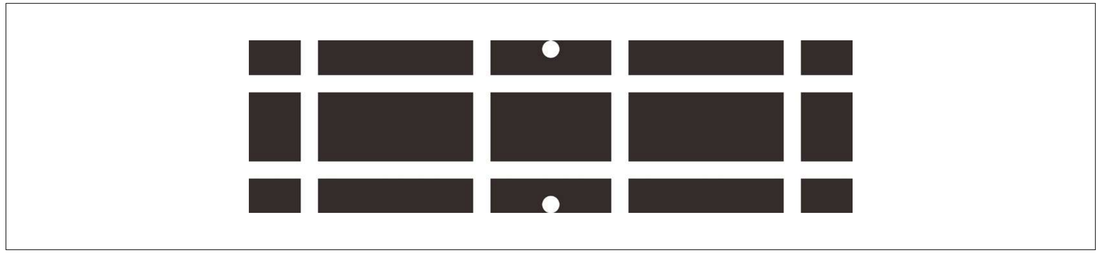
Weight:
14 kg (31 ib)

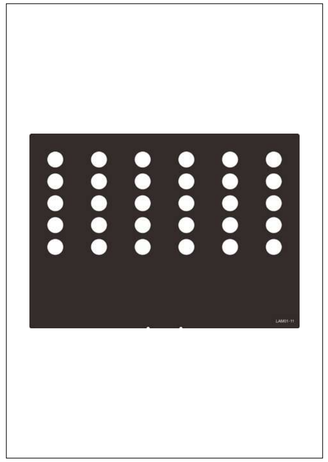
(LAC04-13) Mitsubishi AVM Panels, AVM

Coverage:
Alfa Romeo

Package Size:
1032*146*80mm (55*2*39 inch)

Weight:
4 kg (18 ib)



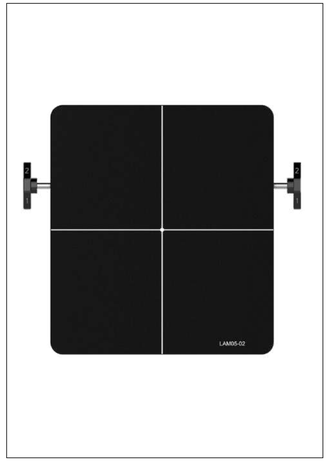


(LAM01-11) Romeo Nissan Single Target, LDW

Coverage:
Alfa Romeo

Package Size:
1390*60*1000mm (55*2*39 inch)

Weight:
8.1 kg (18 ib)

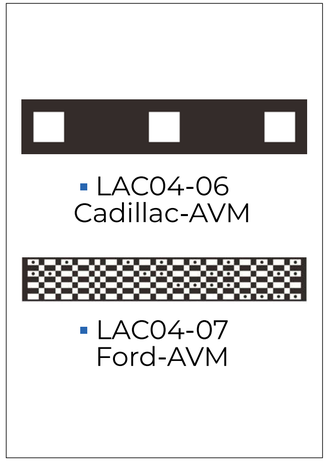


(LAM05-02) ACC Target

Coverage:
VW, Audi, Skoda, Seat, BMW, Rolls Royce, Porsche, Jeep, Romeo, Mini, Hyundai, Kia, Nissan, Infiniti, Mitsubishi, Suzuki.

Package Size:
513*462*328mm (20*18*13 inch)

Weight:
12 kg (26 ib)



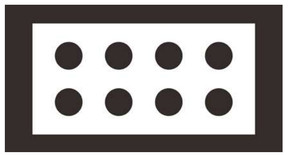
- LAC04-06 Cadillac-AVM
- LAC04-07 Ford-AVM

Rear Camera & AVM Panels (American)

Coverage:
Ford, Cadillac

Package Size:
1706x320x129mm (67*13*5 inch)

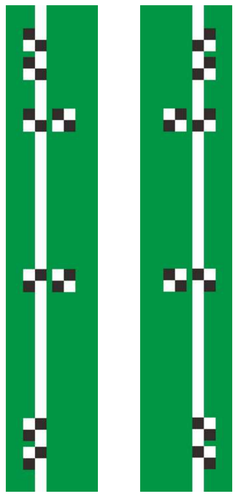
Weight:
24.5kg (54 ib)



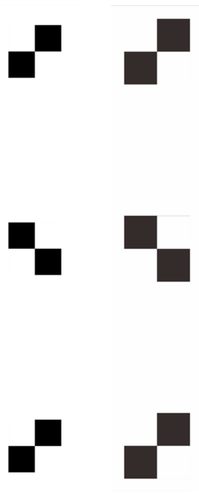
▪ LAC02-02
Mercedes-RCW

▪ LAC04-02
Honda-AVM

▪ LAC04-13
Mitsubishi-AVM



▪ LAC04-12-01 Hyundai-AVM
▪ LAC04-12-02 Hyundai-AVM



▪ LAC04-11 Nissan-RCW
▪ LAC04-15 Nissan-RCW

Rear Camera & AVM Panels (Asian)

Coverage:

Honda, Nissan, Hyundai, Mitsubishi, Nissan

Package Size:

1280x655x255mm (50*26*10 inch)

Weight:

30.6kg (67 ib)

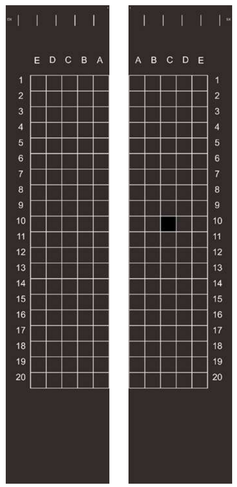
▪ LAC02-02
Mercedes-RCW

▪ LAC02-03
VW-RCW

▪ LAC04-04
VW-AVM

▪ LAC04-08-02
Mercedes-RFK

▪ LAC04-08-02
Mercedes-RFK



▪ AC04-10-01 Renault-AVM
▪ LAC04-10-02 Renault-AVM

▪ LAC04-14
VW AVM2

Rear Camera & AVM Panels (European)

Coverage:

Mercedes, VW, Renault

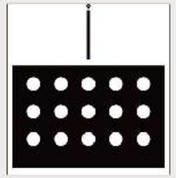
Package Size:

1280x655x255mm (50*26*10 inch)

Weight:

27.3 kg (60 ib)

Night Vision System(NVS)


LAC04-25

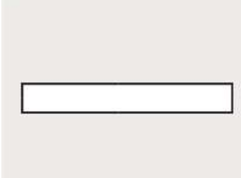
- Audi,GM,VW
  LAC06-01


LAC04-16-4

- Mercedes
  LAC06-02


LAC04-16-3

- Nissan-RCW
  LAC04-24


LAC04-16-2

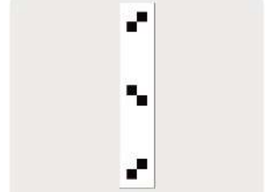
- Toyota-RCW
  LAC04-25


LAC06-01

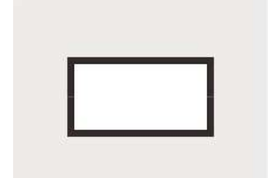
- Toyota-AVM
  LAC04-16-1


LAC06-02

- Toyota-AVM
  LAC04-16-2


LAC04-24

- Toyota-AVM
  LAC04-16-3


LAC04-16-1

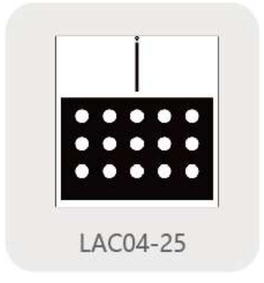
- Toyota-AVM
  LAC04-16-4

Lidar Target


LAC04-25

- Audi,VW
  LAC05-06

Lane Departure Warning (LDW)


LAC04-25

- Sprinter LDW
  LAM01-23-L


LAC04-25

- Sprinter LDW
  LAM01-23-R

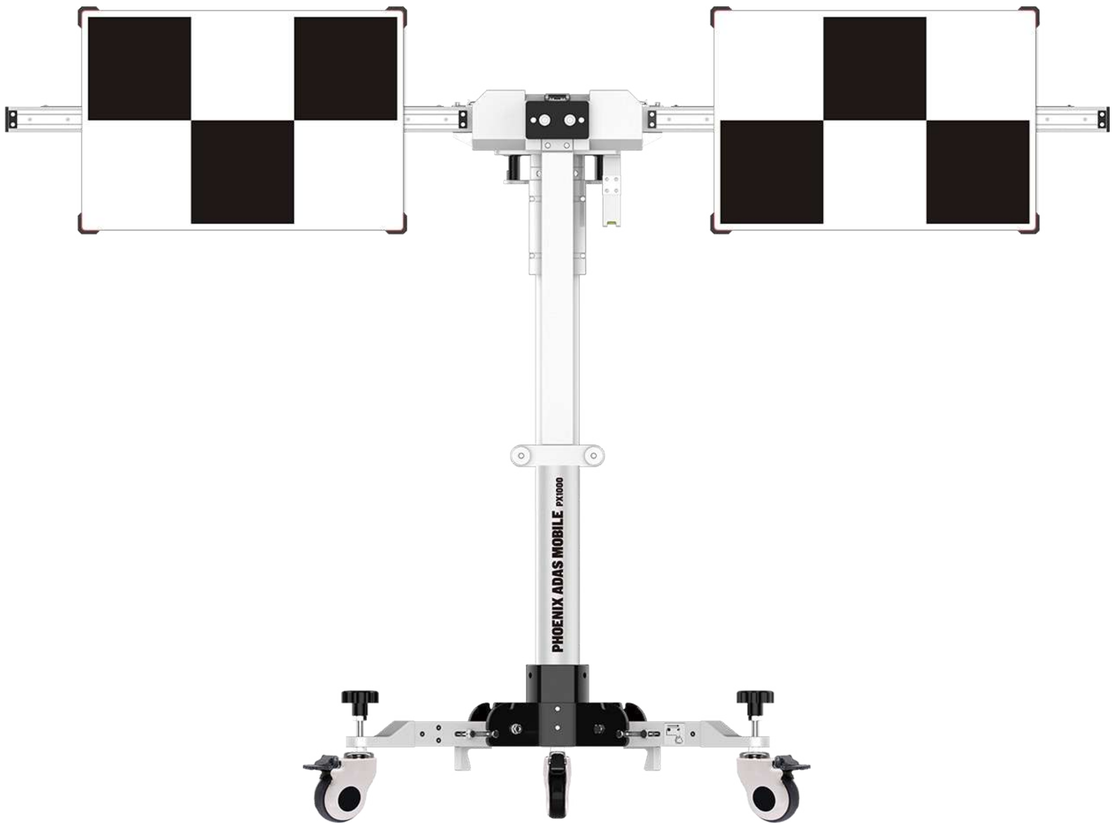
Other Target


LAC04-25

- Honda-Lane Watch
  LAC04-17

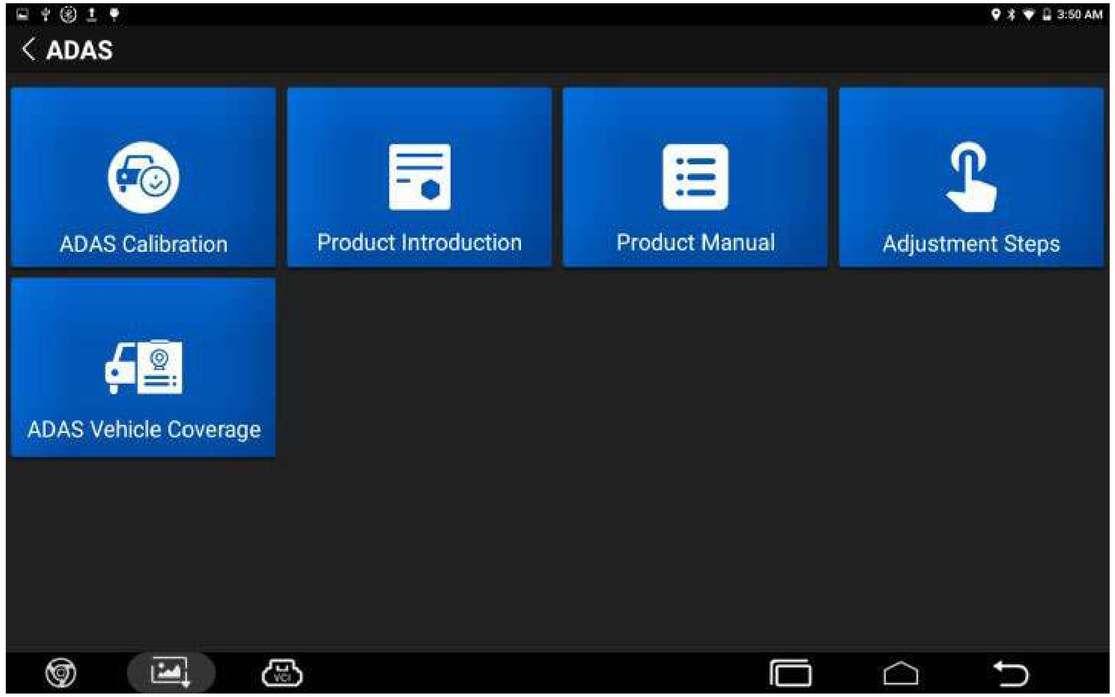
OPERATION STEPS

STEP 1: Set up your TOPDON PHOENIX ADAS Mobile



STEP 2 : Active the ADAS System in your Phoenix Diagnostics Tablet

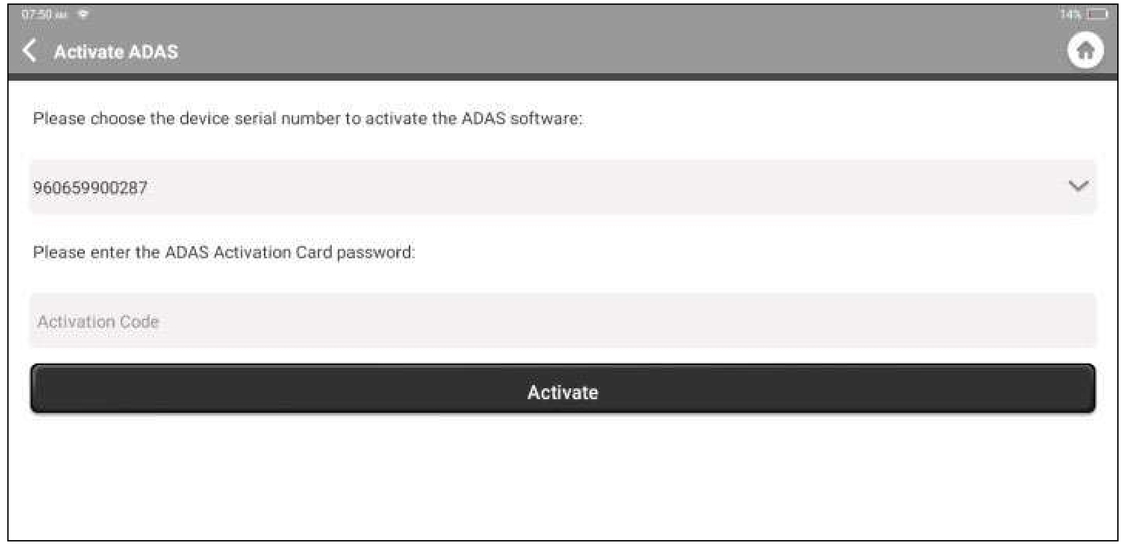
Follow the steps below to activate.
A. Press the POWER button on the diagnostic tool to turn it on.
B. Tap the "ADAS" icon to view the following screen:



*This picture is for reference only.

STEP 2 : Active the ADAS System in your Phoenix Diagnostics Tablet

A. Tap ADAS Calibration to view the ADAS activation screen.



B. Scratch the designated area on the Activation Card included in your Phoenix ADAS Mobile Package to reveal the password. Then input the 24-digit password to activate it.

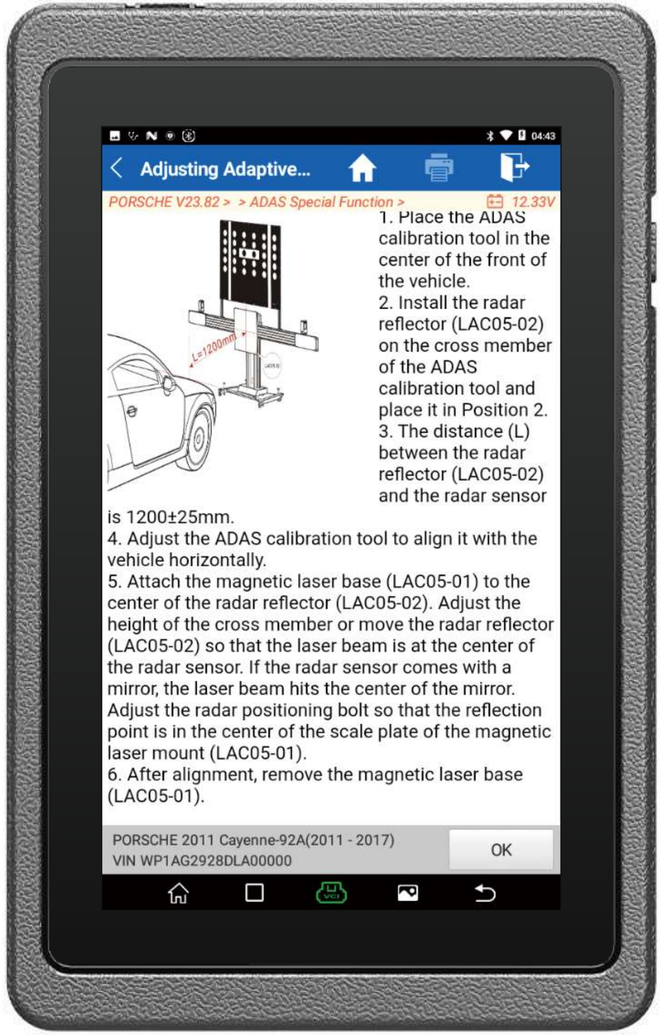
C. After completing all these steps, the ADAS calibration function should be ready for use.

STEP 3 : Perform the pre-calibration preparation

Plug your diagnostic scanner's VCI into the car's DLC port, and use the diagnostic tool to identify the vehicle model.

STEP 4 : Start Calibrating the ADAS System

Choose the ADAS system you want to calibrate, and follow the on-screen instructions until the calibration process it's completed.

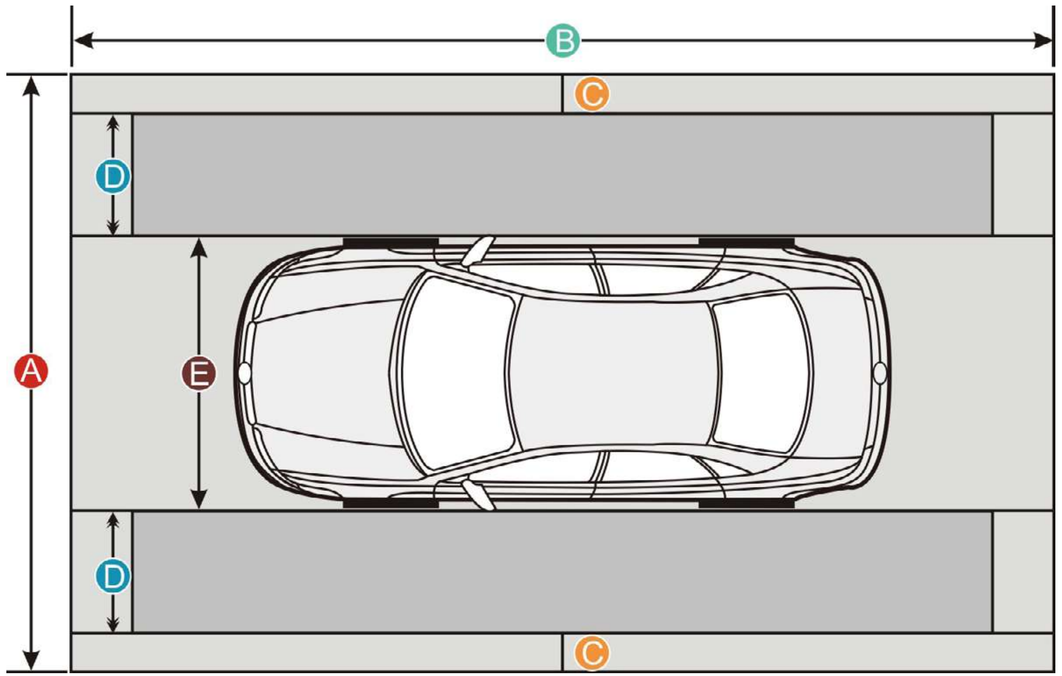


*This procedure varies depending on which diagnostic scanner you are using. The step-by-step access to the ADAS function can differ.
*For more precise details, please refer to the user manual of each individual scanner.

WORKPLACE REQUIREMENTS

Work Station Specifications

- When calibrating the rear & AVM camera, the workstation's ideal size depends on the vehicle's size and calibration reference pattern.
- The image below shows the minimum workstation size for reference only.



	American vehicles	European vehicles	Asian vehicles
Distance A (the width of the whole workstation)	about 7.3m (287.4inch)	about 4.5m (117.2inch)	about 6.1m (240inch)
Distance B (the width of the whole workstation)	about 12m (472inch)	about 7m (275.6inch)	about 9.5m (374inch)
Distance C (a lane for the technician to walk through)	at least 0.5m (19.7inch)	at least 0.5m (19.7inch)	at least 0.5m (19.7inch)
Distance D (the width of the calibration reference pattern varies from vehicle to vehicle)	about 1.7m (67inch)	about 0.8m (31.5inch)	about 1.6m (63inch)
Distance E (the width of the vehicle varies)	about 2.9m (114inch)	about 1.9m (74.8inch)	about 1.9m (74.8inch)

FAQs

Q How Does ADAS Work?

A
- The ADAS (Advanced Driver Assistance System) uses image processing cameras, radar, light detection, and other sensors to monitor the vehicle's surroundings and detect potentially dangerous situations. The purpose is to increase safety through advanced situational awareness and reduce collision possibilities. Sensors used in ADAS include cameras, radars, lasers, and ultrasound. They can detect light, heat, pressure, and other variables used to monitor the vehicle. Usually, they are located in the front and rear bumpers, side mirrors, vehicle cab, and windshield glasses.

Q When to Calibrate an ADAS System?

A
- When repairing a vehicle after an accident, the calibration of the relevant auxiliary systems needs to be performed. When disassembling or reinstalling monitoring components such as cameras, radars, and sensors, replacing the vehicle ECU, or the vehicle height, the auxiliary and other systems will also need to be calibrated.

Q What is the ADAS Front-view Camera?

A
- The front-view camera captures what is in front of the vehicle. It's used in a number of ADAS Systems, including Lane Departure Warning (LDW), Lane Keeping Assist (LKA), and Traffic Sign/Signal Recognition (TSR) - often in conjunction with other sensors, cameras, or sensing systems to provide input data.

Q How Can I Get the ADAS Calibration Software?

A
- To get an ADAS calibration software, you can purchase a Phoenix diagnostics scanner or upgrade your existing Phoenix tablet.

- Upgrade Instructions: The Phoenix ADAS mobile accessories come with an activation card, including a password. Simply tap on the tablet's ADAS menu to activate the calibration function. The ADAS Mobile is compatible with the entire Phoenix Line.

Q Which Vehicle Actions Require ADAS System Diagnostics or ADAS Sensor Calibration?

A

- Anything that affects the calibrated sensors. The most common needs for recalibration include collisions, window, bumper, hood, or trunk damage, mirror replacements, suspension work, module replacement, direct damage to a sensor, sensor replacements, and wheel alignments.

Q What are the Different Types of ADAS Calibrations and Are They Brand Specific?

A

- This depends on each vehicle. For most modern cars, either Stationary or Dynamic calibration procedures are required. Some cars, for instance, might require both.
- Stationary calibrations are performed in a shop environment and require the use of targets or patterns.
- Dynamic calibrations require the vehicle to be driven on roadways for a certain amount of time with well-maintained road markings.
- When paired with a Phoenix scanner, technicians can perform both stationary and dynamic calibrations.

Q If I Want to Add individual Targets later, are They Available for Purchase?

A

- Yes, the specialty fixtures, existing targets, and new vehicle coverage targets are available for individual purchase.

Q Do I Need Someone to Assemble and/or Set Up the Calibration Frame?

A

- No, the complete assembly is simple and it should take about 30 minutes. Visual instructions and standard screws are included in your Phoenix ADAS Mobile Package.

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