

TEXA radar and camera calibration solutions

ADAS systems (Advanced Driver Assistance Systems) are designed to ensure driving safety and comfort and are becoming increasingly common in latest-generation vehicles, even in the utility segment. Functions include autonomous emergency braking, assisted speed control, lane keep assist, pedestrian and traffic sign recognition, to name just a few.

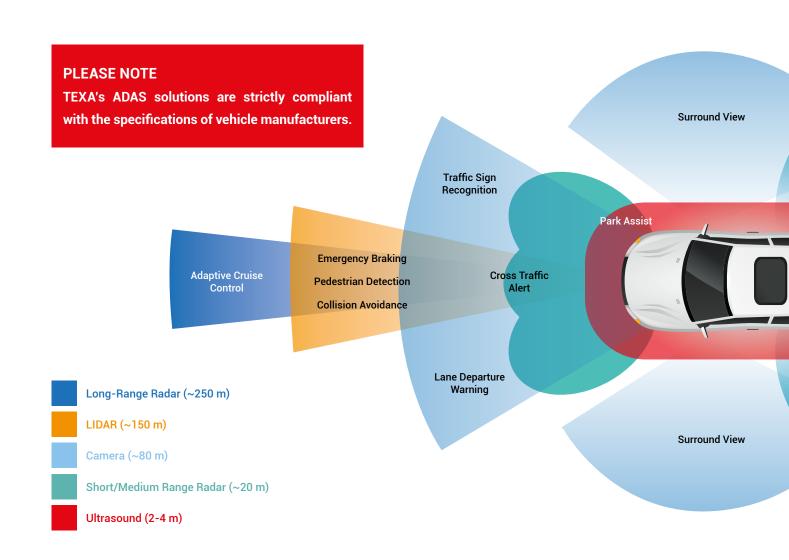
The ability to provide professional services for these systems is no longer an option but a practical necessity if you want to keep pace with the times and offer your customers a top class assistance. To help vehicle repair professionals work on these sophisticated active safety systems, TEXA has developed a complete range of modular, multi-brand tools that satisfy the needs of glass replacement specialists, body shops, multi-brand garages and tyre fitters.

The range includes:

- RCCS 2 (Radar and Camera Calibration System), available in three versions
- CCS (Camera Calibration System)
- ACS (All Around Calibration System)
- Radar blind spot calibration reflector
- ADAS TRUCK kit

These TEXA solutions help you restore ADAS functions with maximum precision **according to the vehicle manufacturer's own standards**, perform static and dynamic calibration, and enjoy at least **30%** better **CAR** and **TRUCK** coverage than other market solutions.

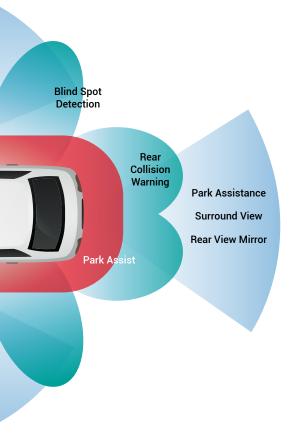
The **IDC5 software** guides the technician step by step throughout the procedures, thanks to **dedicated help** data sheets specifically developed for each vehicle.



Additionally, to help understand the ADAS technology, TEXAEDU has developed **D9C** and **D9T**, two dedicated **specialised training courses** to learn how to carry out operations in compliance with the standards requested by the various manufacturers.

Direct line to an expert

If you have any doubts or questions regarding a calibration procedure, you can call TEXA's dedicated ADAS Call Centre to get a quick, competent and accurate answer that responds exactly to your needs.



ADAS COVERAGE: CONSTANT COMMITMENT AND DEVELOPMENT

ACURA

ALFA ROMEO

AUDI

BENTLEY

BMW

CHEVROLET

CHRYSLER

CITROEN

FIAT

FORD

HOLDEN

HONDA

HYUNDAI

INFINITI

JAGUAR

JEEP

KIA

LAMBORGHINI

LAND ROVER

LEXUS

LINCOLN

MAZDA

MERCEDES-BENZ

MINI

MITSUBISHI

NISSAN

OPEL

PEUGEOT

PORSCHE

RAVON

RENAULT

ROLLS-ROYCE

SEAT

SKODA

SMART

SSANGYONG

SUBARU

SUZUKI

TOYOTA

TROLLER

VOLKSWAGEN

VOLVO

RCCS 2: TEXA's radar and camera calibration system (three versions)

RCCS 2 allows you to work independently in all phases of repair and even check height on cars and light commercials to offer your customers a simple, safe and highly professional service.

RCCS 2 comes in three versions:

- 1) with wheel clamps
- 2) with tyre clamps
- 3) with **height control kit**, CCD sensors and wheel clamps

The RCCS is **versatile**, as it can be used in combination with the other specific solutions for the calibration of radars and rear cameras, therefore creating a complete solution that allows you to operate on electronic driver assistance systems, such as:

- Rear collision warning
- Lane departure warning
- Adaptive cruise control
- Park assist
- Traffic sign recognition
- Blind spot detection
- Night vision system
- 360° camera



The RCCS 2 system used in combination with side mats for 360° cameras, rear camera calibration panel, device for blind spot radar.

RCCS 2: a simple, safe, professional, multifunctional and multi-brand structure

RCCS 2 is a complete, professional solution for all kinds of radar and camera calibration.

The system comprises a robust main support with **electrically powered** height adjustment and an adjustment bar at the rear for the manual adjustment towards the vehicle.

An additional laser level at the top of the structure locates the centre of the vehicle simply by pointing at its front badge.

This advanced technology allows the system to be aligned **easily**, **accurately** and **safely**.

The RCCS 2 system is mounted on the wheel castors for easy movement around the workshop.

A great opportunity for body shops, tyre fitters, mechanics and glass replacement specialists.



RCCS 2 (Radar and Camera Calibration System)

RCCS 2's high-performance optical alignment lets you perform all kinds of calibration work on radar and camera systems quickly and accurately.

The system comes in two versions:

- 1) with wheel clamps
- 2) with tyre clamps

The vehicle is aligned by the lasers of two **distance meters** mounted on the structure's cross-beam aimed at two practical **pointing bands**.

It is important to remember that **correct vehicle alignment must be checked** before all calibration
work to avoid the risk of inaccurate settings.
To solve this problem, garages are committed
to offering customers a complete and highly
professional service, **the RCCS 2 system with wheel clamps can be expanded** and electronic
CCD detectors added to check the height
and digital alignment.





Wheel clamps



Tyre clamps







Latest generation laser technology

These new distance meters are TEXA's latest solution for guaranteeing the high level of professionalism and precision that is now in demand.



RCCS 2 with integrated height control

By choosing an RCCS 2 with the height control kit, you can offer customers a **rapid and professional** service.

The kit features **four electronic CCD detectors** with infrared sensors for installation on the RCCS 2 structure and on the wheels, using **four-point wheel** clamps. Thanks to the light weight of the detectors the system is **extremely practical** and ensures absolute precision in measuring the positions of the vehicle's corners.

The **ALIGNMENT CHECK** function is a software application that lets you perform two types of checks in a few simple steps: a quick check on the **alignment** of the RCCS 2 system **with respect to the vehicle's thrust angle and the garage floor**, and a check on **wheel alignment**. These checks must be completed in preparation for the next phase of radar and/or camera calibration.



Dedicated software for aligning the RCCS 2 structure with the vehicle and checking height

The operator first fits the four CCD detectors to the wheels and checks wheel alignment. He then removes the CCD sensors from the front wheels and mounts them on the RCCS 2's adjustment bar to align the structure correctly with respect to the vehicle's thrust line (referred to the back axle). Let's look at a practical example of how to **align the structure** and check **wheel alignment** using this dedicated software.



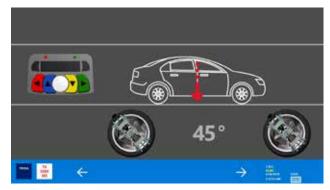
During the wheel alignment check, the software lets you enter the diameter of the tyres, then displays the nominal ranges for toe, semi-toe and thrust angle.



The 4 CCD detectors must be parallel to the work surface and the steering must be centralised. When these conditions are achieved, the display reads out "STOP".



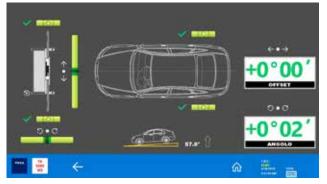
The message "OFFSET" shows how much the RCCS 2 structure is misaligned with respect to the vehicle's centreline. "ANGLE" shows the structure's angle of yaw with respect to the vehicle's centreline.



Mount the 4 sensors on the clamps and check run out. Push the vehicle back until the clamps are at an angle of 45°. Now push the vehicle forward to return the clamps to the vertical position.



This is the summary screen showing data measured by the four CCD sensors compared to the manufacturer's nominal figures. Provided the measured values fall within the range of tolerance, the RCCS 2 structure can now be positioned.



The structure is correctly aligned with the vehicle and the radar or camera system can now be calibrated.



Electronic CCD detector with infrared sensors. Thanks to the light weight of the detectors, the system is extremely practical and ensures absolute precision in measuring the positions of the vehicle's corners.



Self-centring wheel clamps

TEXA's winning solution for perfect vehicle alignment is based on new self-centring, **quick-fit wheel clamps** that can be fitted with pointing bands or the innovative CCD detector system (RCCS 2 with digital calibration kit).



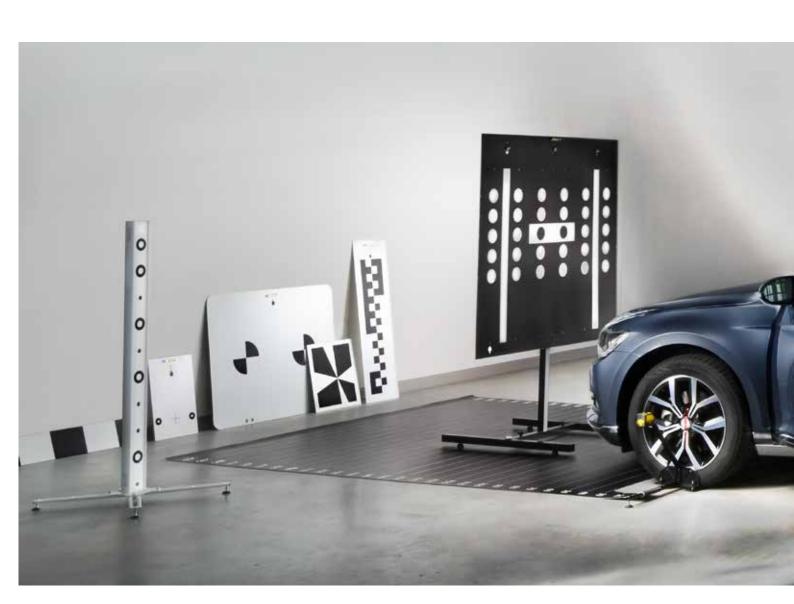
The CCS, a multi-brand kit for Camera Calibration

While in the past, if the windscreen was damaged or broken, all you had to do was replace it, now it is necessary to restore the proper operation of the cameras dedicated to driver assistance.

The CCS (Camera Calibration System) has been designed to create the best combination according to the technician's operational needs. It is composed of a robust support on which the several panels divided by make are to be positioned.

The CCS can also be used with a graduated mat and two supports to centre the axle on the wheels through laser levels (optional). The manufacturing features of the Kit make it a solution that is extremely **easy to use, handy and easy to carry**, even for use outside of the workshop.

The CCS is perfect for those who cannot permanently dedicate an area of their workshop to the calibration of cameras: in fact, once the operations on one or several vehicles is complete, all the equipment can be disassembled and easily stored away.







IR Calibration Target

This extremely useful accessory permits rapid and extremely accurate calibration of the vehicle's **infrared camera**, a device that is essential to road safety as it helps drivers identify persons or animals ahead in the dark. Positioned in front of the vehicle, the IR Calibration Target **simulates the presence of a warm body**.

Reflector for blind spot radar calibration

It is an essential device to calibrate the ultrasonic radars installed in vehicles such as **HYUNDAI**, **HONDA**, **KIA**, **LEXUS**, **MAZDA**, **MITSUBISHI**, **SUBARU**, **TOYOTA**. It is composed of a metal reflector cone, a laser and a goniometer jig to help the operator position the pyramid cone correctly. The **reflector** developed by TEXA is flexible as it can be used for the **front**, **side** and **rear** radars.

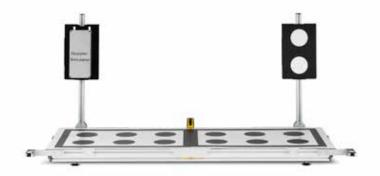


ACS (All Around Calibration System)

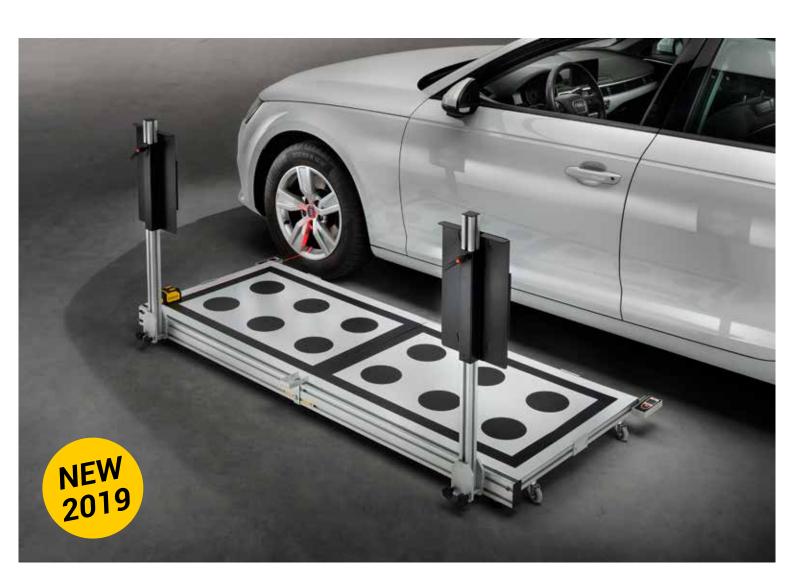
The ACS system is particularly useful as it permits the **calibration of 360° cameras and Doppler devices*** on vehicles of the VAG Group (AUDI, SEAT, SKODA, VOLKSWAGEN AND LAMBORGHINI).

The ACS system comprises an aluminium structure that holds two horizontal panels and practical, vertical supports for two additional magnetic plates. The base incorporates three holders for the laser distance meters needed to verify the correct alignment of the structure with respect to the vehicle.

This TEXA solution is extremely practical and comes with wheels for rapid, easy movement. This is an important characteristic as it **allows a single operator to perform all operations** quickly and easily, saving resources and time for other jobs.



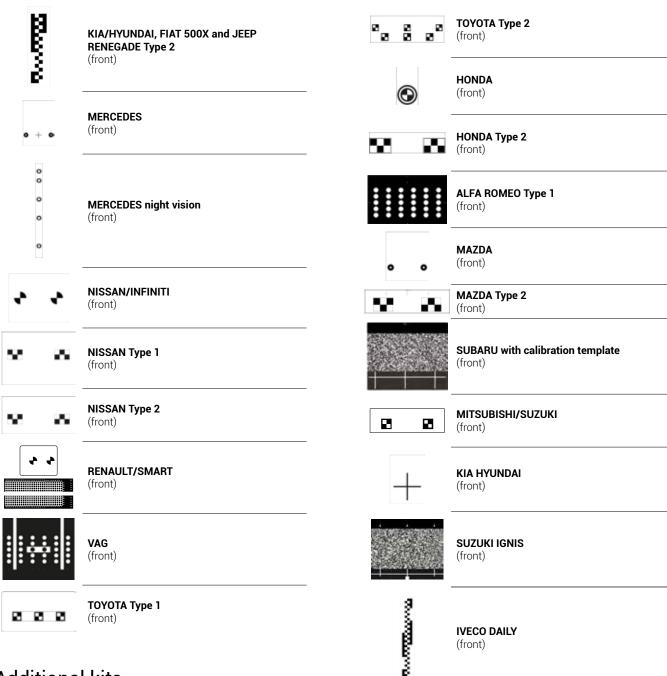
*Rear and side radar can be calibrated using TEXA's Doppler Simulator



Calibration panels and accessories

To calibrate different ADAS components, RCCS 2 uses **30 special panels and accessories** covering the models of **42 manufacturers**.

CAR calibration panels



Additional kits





CAR rear / 360° camera calibration



VAG (rear)



VAG (cam 360°)



MERCEDES Type 1 (rear)



MERCEDES Type 2 (rear)



NISSAN QASHQAI (rear)



MITSUBISHI (rear)



KIA HYUNDAI
(rear)



NISSAN X-TRAIL (rear)

CAR radar calibration



Template kit for **VOLVO RADAR** positioning



Blind spot cone support kit



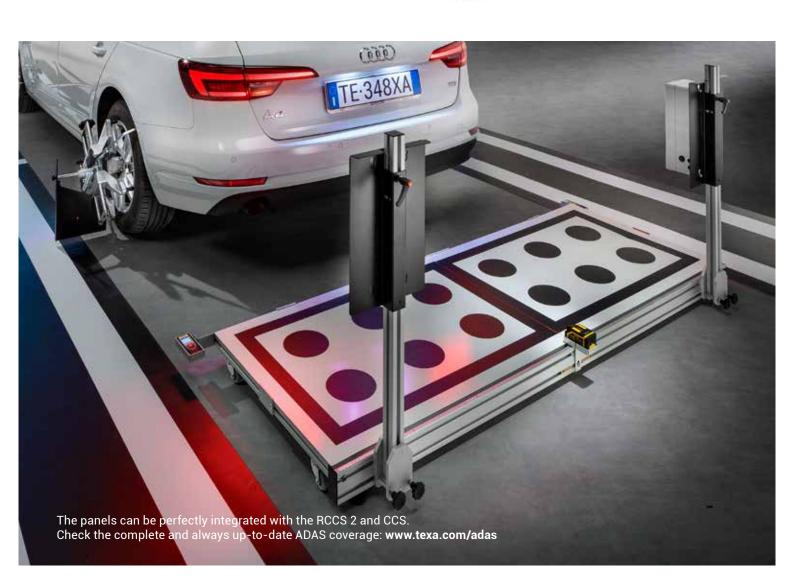
Blind spot cone TOYOTA/SUBARU/HONDA



Blind spot cone **KIA/HYUNDAI/MAZDA**



Blind spot cone **MITSUBISHI**



ADAS TRUCK Kit

Some truck and commercial vehicle manufacturers require specific equipment for the proper calibration of driver assistance systems, which include cameras, radars and sensors that govern the Adaptive Cruise Control.

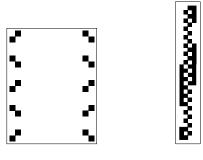
TEXA offers an adjustment system that includes a **measuring bar**, **panels** divided by make - dedicated to cameras and **laser devices** - that are essential for the correct alignment and calibration of WABCO, TRW and TRW/Knorr radars.

The ADAS TRUCK Kit also includes a set of clamps with laser pointer, a laser to adjust the Adaptive Cruise Control and the mirror adapter for WABCO radars.

Furthermore, the IDC5 software guides the operator step by step in the case of vehicles that carry out the self-calibration through on-road adaptation procedures.



TRUCK calibration panels and accessories



VOLVO/RENAULT TRUCK Euro 6

MAN SCANIA IVECO DAILY 2014



Laser for Adaptive Cruise Control



WABCO radar mirror adapter (optional)



Set of clamps with laser pointer



A perfect match with the IDC5 software

TEXA's solutions are to be used in combination with the **IDC5 diagnostic software**, which allows quick calibrations.

In fact, the application provides specific diagnostic help sheets for each make/model, with the instructions for the correct positioning of the unit (such as panel height from the ground, distance from the vehicle, alignment, etc.), guiding you step by step throughout the procedures.

At the end of the calibration, you can also print a report to hand over to the customer, with the evidence of the operations carried out.



TEXA devices are an ideal solution for operators, allowing them to:



Expand the business;



Operate easily, safely and professionally;



Recalibrate all ADAS installed in vehicles;



Build up the most suitable combination based on your own professional needs;



Invest in an innovative system with a secure economic return;



Count on highly qualified training, with the dedicated TEXAEDU courses.

TEXAEDU Courses*



D9C: Diagnosis and calibration of Advanced Driver Assistance Systems

The D9C course is focused on the technical features and operating modes of the advanced driver assistance systems and devices involved: radar, lidar, cameras, infrared cameras and ultrasonic sensors. The course also provides an overview on the operation of the Park Assist, Lane Departure Warning, Adaptive Cruise Control, Forward Collision Warning, Adaptive High Beam Control, Pedestrian Detector, Blind Spot Detection, Night Vision and Drowsiness Detection System.

Practical examples of static and dynamic calibrations with TEXA's technical tools will be provided during the courses, querying and interpreting IDC5 software's pages about Errors, Parameters, Statuses, Activations and Adjustments.



D9T: Diagnosis and calibration of Advanced Driver Assistance Systems - TRUCK

By attending the D9T course, you will be able to study the technical features and operating modes of the advanced driver assistance systems on heavy-duty vehicles, such as lane departure warning, adaptive cruise control and blind spot detection.

The training module also allows you to learn the position and functionality of the technologies involved: radar, multifunction camera, sensors and actuators, infrared camera, ultrasonic sensors.

Practical examples of static and dynamic calibrations will also be provided, carrying out diagnostic and troubleshooting procedures using TEXA tools.

TEXA

TEXA was founded in 1992 in Italy and is today among the world leaders in the design and production of multi-brand diagnostic and telediagnostic tools, exhaust gas analysers and air conditioning service stations. TEXA is worldwide with an extensive distribution network; through its subsidiaries, it sells in Brazil, France, Germany, Japan, Great Britain, Poland, Russia, Spain and the United States. Currently there are approximately 650 TEXA employees in the world, among which 150 engineers and specialists dedicated to Research and Development. Over the years, TEXA has received many awards and international recognitions, among which the Automechanika Frankfurt Innovation Award (2010 and 2014), the National Innovation Award as the most innovative company in Italy, received by the then President of the Republic Giorgio Napolitano (2011), the Irish Automotive Innovation Award (2014), and the Golden Wrench award in Moscow (2015 and 2017). In 2015, the Mit Technology Review awarded TEXA among the ten most "disruptive" companies in Italy. In 2016, TEXA received the Frost & Sullivan award for "European Commercial" Vehicle Diagnostics Customer Value Leadership". All TEXA tools are designed, engineered and built in Italy on modern, automated production lines that guarantee the utmost precision. TEXA pays particular attention to the quality of its products, and obtained the strict certification ISO TS 16949 specially written for original equipment suppliers to the automotive industry.



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To check out the extensive coverage of TEXA products, go to: www.texa.com/coverage

To check on IDC5 compatibility and minimum system requirements, go to: **www.texa.com/system**

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