

ADAS

Solutions for the diagnosis and calibration of driver assistance systems

90 MANUFACTURERS

UNRIVALLED
COVERAGE



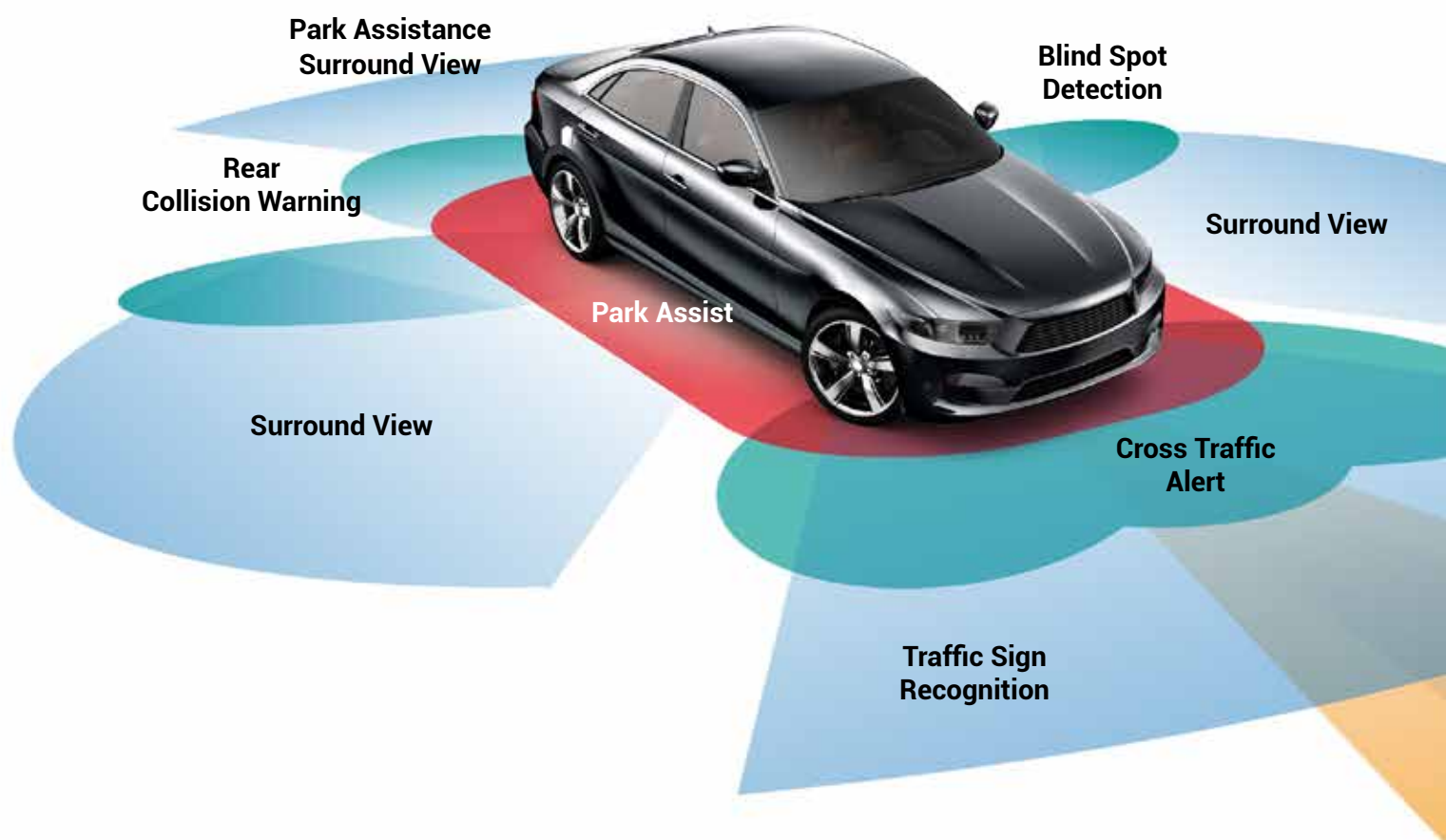
TEXA

Specialists in the control of ADAS

Designed to guarantee safety and comfort while driving, the ADAS (Advanced Driver Assistance Systems) are ever more common in latest-generation vehicles.

Cameras, radars, LIDARs and sensors must be recalibrated when replaced, but even when actions that affect them are required, such as: **replacing the windscreen and bumper, repairing the suspensions, aligning the wheels, changing the tyres, replacing the engine control unit**, etc.

Knowing how to intervene in this field is strategical to keep pace with the times and be able to offer customers first-class assistance.



*TEXA's solutions **meet the specifications required** by vehicle manufacturers and guarantee a **coverage that is unique on the market**:*

ACURA
ALFA ROMEO
ASTON MARTIN
AUDI
BENTLEY
BMW
BUICK
CADILLAC
CHEVROLET
CHRYSLER
CITROEN
CUPRA
DACIA
DAF
DAIHATSU
DODGE
DS
EVO

FIAT
FORD
FREIGHTLINER
GENESIS
GMC
HEULIEZ BUS
HOLDEN
HONDA
HYUNDAI
INDCAR
INFINITI
INTEGRAL
INTERNATIONAL
IRISBUS
IRIZAR
ISUZU
IVECO
JAC MOTORS

JAGUAR
JEEP
KENWORTH
KIA
KING LONG
LAMBORGHINI
LANCIA
LAND ROVER
LEXUS
LINCOLN
MACK
MAN
MARCO POLO
MASERATI
MAZDA
MERCEDES-BENZ
MINI
MITSUBISHI

NEOPLAN
NISSAN
OPEL
PETERBILT
PEUGEOT
PORSCHE
RAVON
RENAULT
RENAULT SAMSUNG
RENAULT TRUCKS
ROLLS-ROYCE
SAAB
SCANIA
SCION
SEAT
SETRA
SKODA
SMART

SSANGYONG
SUBARU
SUZUKI
TATRA
TEMESA
TOYOTA
TROLLER
VAN HOOL
VDL BOVA
VDL BUS & COACH
VDL BUS CHASSIS
VOLKSWAGEN
VOLKSWAGEN
VOLVO
VOLVO BUS
VOLVO TRUCKS
WRIGHT BUS
XEV

A complete 360-degree offer impossible to do without

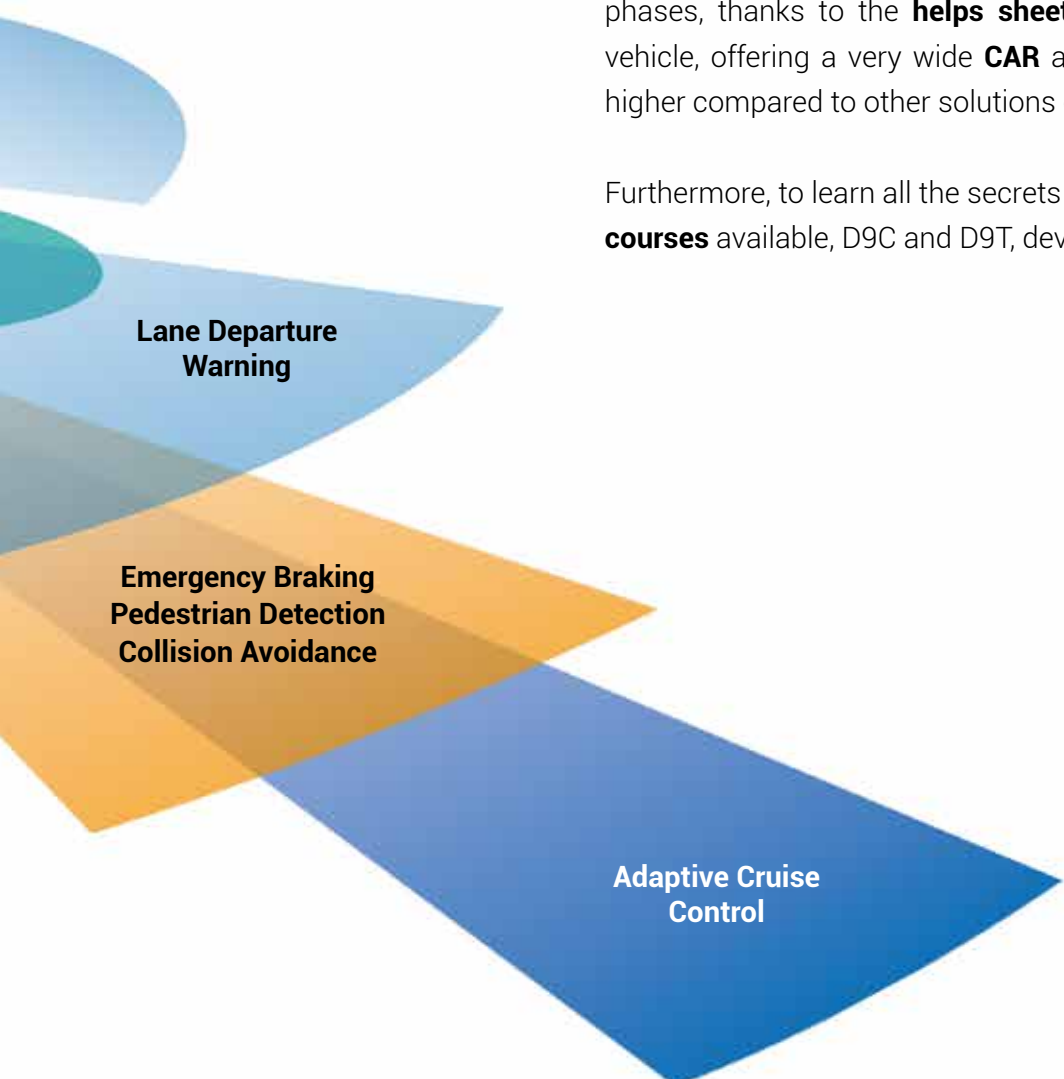
TEXA helps repair professionals operate on these sophisticated active safety devices, with a **complete multi-brand offer** that includes:

- **RCCS 3 (Radar and Camera Calibration System 3) available in two versions**
- **CCS (Camera Calibration System)**
- **A large availability of specific panels and accessories**
- **ADAS TRUCK kit**
- **Specialised training**

TEXA's solutions allow performing **static and dynamic calibrations** and resetting the ADAS correctly, **guaranteeing the safety** of the drivers and of who carries out the diagnosis and calibrations.

The **IDC5 software** guides mechanics step-by-step throughout all the phases, thanks to the **helps sheets** specifically developed for each vehicle, offering a very wide **CAR** and **TRUCK** coverage, at least 30% higher compared to other solutions on the market.

Furthermore, to learn all the secrets of ADAS, there are two **specialised courses** available, D9C and D9T, developed by TEXAEDU.



Lane Departure
Warning

Emergency Braking
Pedestrian Detection
Collision Avoidance

Adaptive Cruise
Control

Long-Range Radar (~250 m)

LIDAR (~150 m)

Camera (~80 m)

Short/Medium Range Radar (~20 m)

Ultrasound (2-4 m)

RCCS 3

two versions for a top-of-the-range solution

The unit, designed and engineered by TEXA, is available in two versions: **RCCS 3 with Monitor** and **RCCS 3 with Panels**.

Both include **maximum constructive technology** and exceptional components.

RCCS 3 with Monitor is the top product in terms of performance and speed as it uses the digital representation of the panels, whereas RCCS 3 with Panels is intended to guest physical targets.

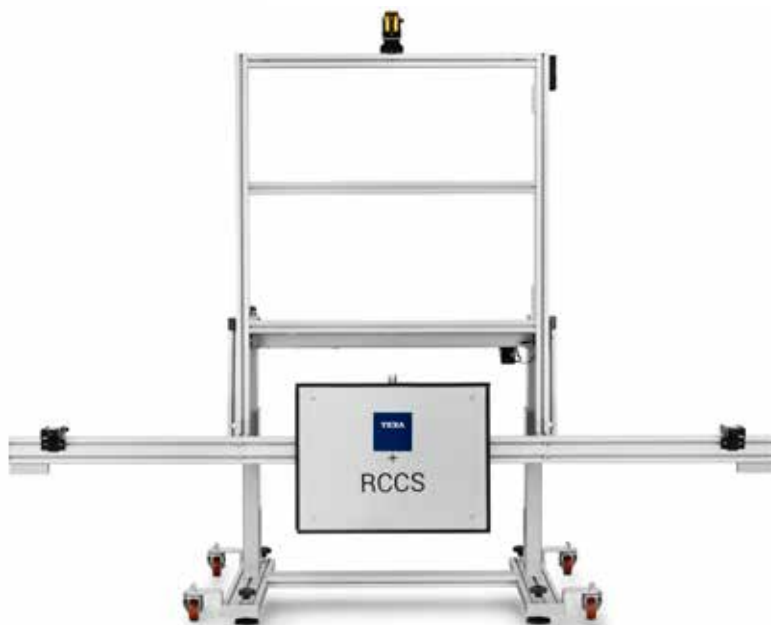
TEXA's solutions guarantee vast handling possibilities through a simple, quick, precise adjustment and can be used both with the **toe and thrust axis check kit** and in the **optical alignment mode**.

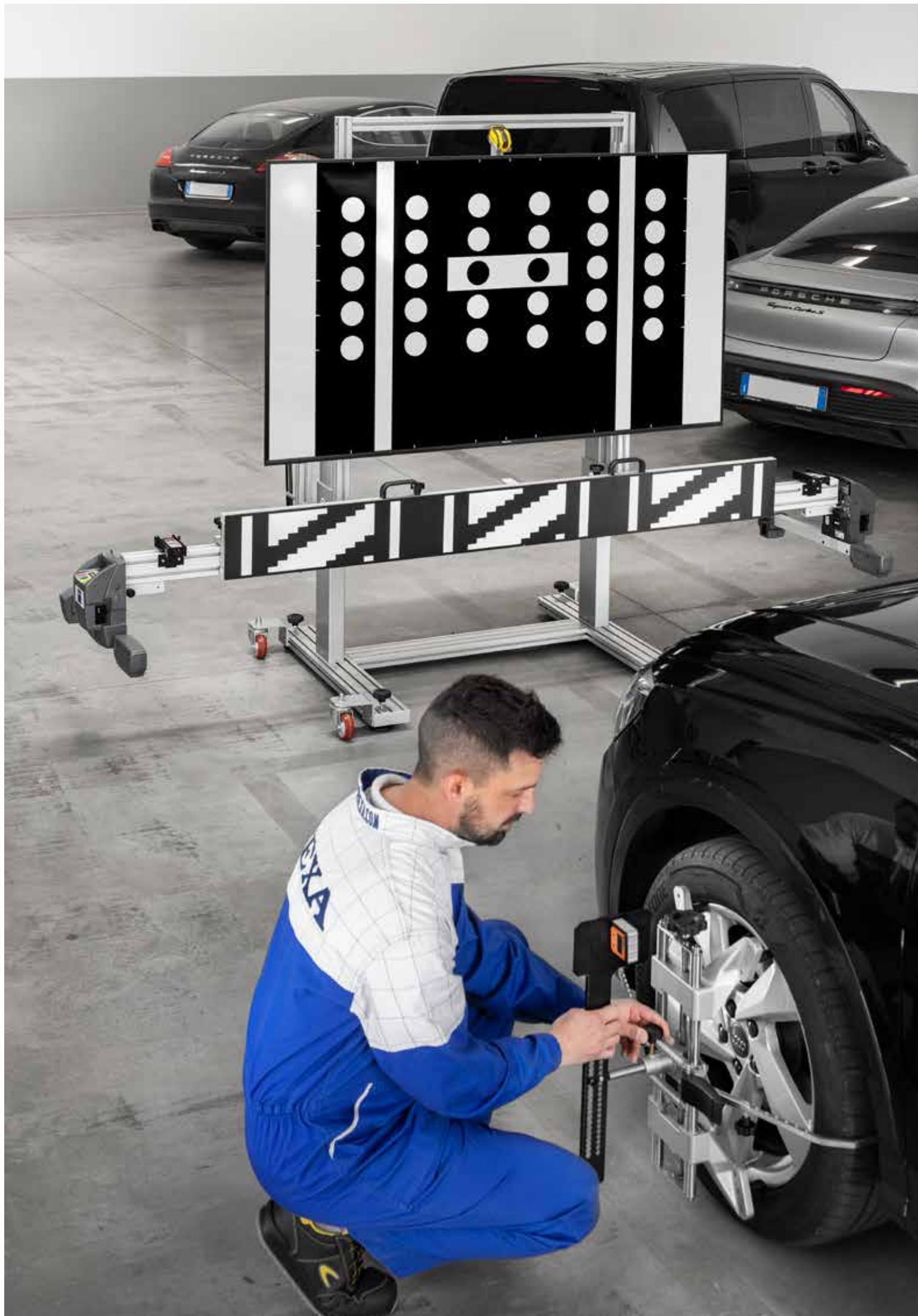
Two versions, two ways to approach work, but a unique result: **maximum safety for drivers and for who performs the calibrations**, made possible by the high practicality and precision of RCCS 3.



***RCCS 3
with Monitor***

***RCCS 3
with Panels***





RCCS 3 with Monitor

the digital innovation for calibrating ADAS

RCCS 3 with Monitor is TEXA's solution for setting radars, LIDARs, cameras and sensors through the digital representation of the panels.

In fact, it is equipped with a **75-inch HD screen, 4K definition**, which always offers an optimal display, meeting the 1:1 proportion ratio in line with the specifications of every manufacturer.

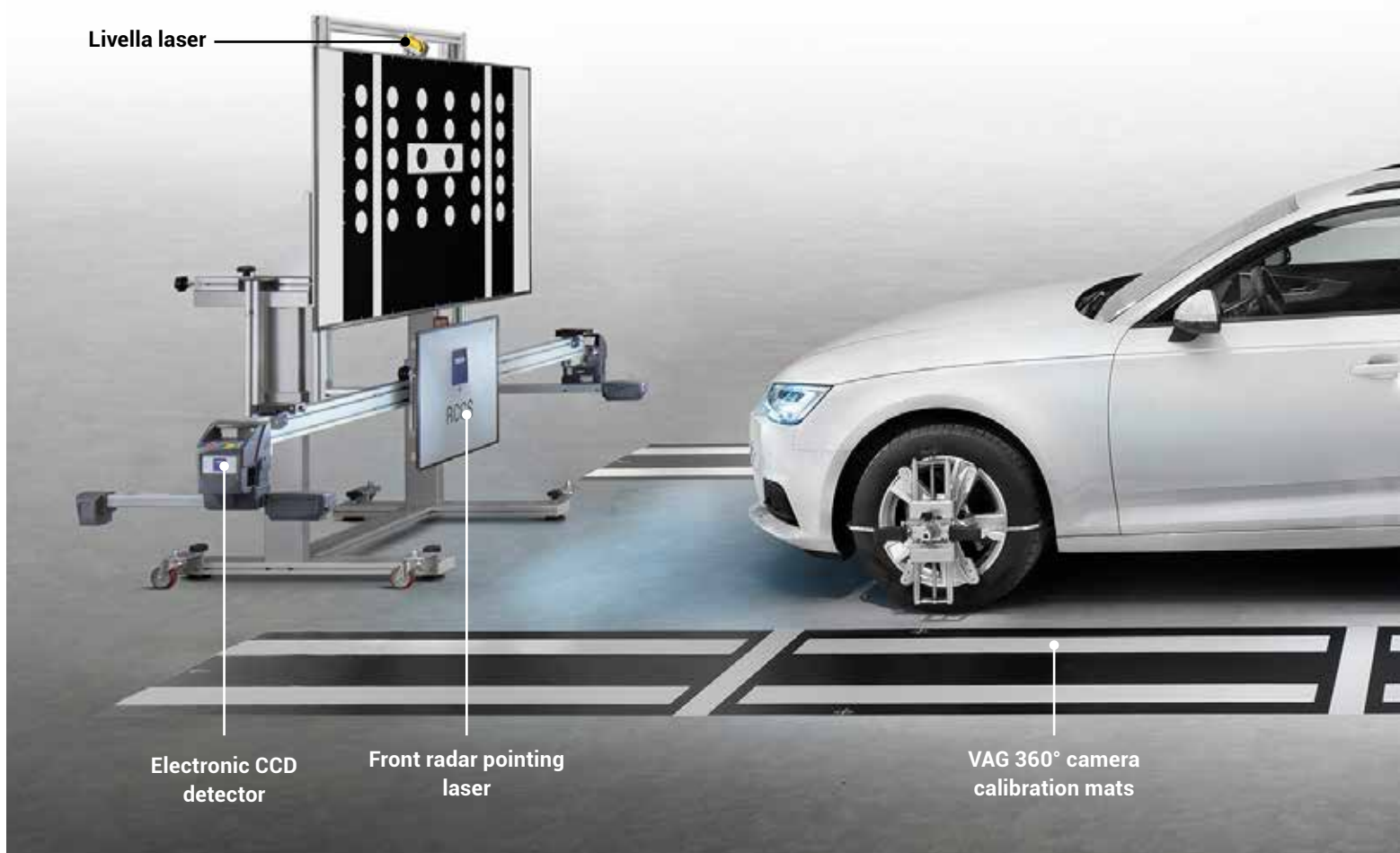
Furthermore, it is important to highlight that it does **not deform nor resize** the images.

This way workshops are sure to operate in the most proper and safe way, without risking to alter the vehicle's behaviour on the road.

RCCS 3 communicates with the IDC5 software and guides the mechanic, step-by-step, to the quick and automatic identification of the vehicle. The panel is selected and set in the monitor, with no possibility of error.

Thanks to continuous **software updates** that each time offer new vehicles and eventually new panels, and to the essential **help sheets** edited per make and model, users are sure to complete any operation with maximum precision and to the highest standards, relying on an extraordinary coverage.

Furthermore, the digitalisation of the panels allows **clearing considerable space in the workshop** that would otherwise be occupied by multiple physical panels.





1:1 proportion ratio
in line with
the specifications
of every manufacturer

**Robust, but easy
to move and adjust**

Easy to use
thanks to the digitalisation
of the panels



Intelligence and safety thanks to the Mini “on-board” PC

An actual **Mini PC** built into the unit, installed in the version RCCS 3 with Monitor, guarantees the use of an intelligent system that **synchronises the ICD5 software and the TEXA unit perfectly**.





The **images** of the panels are transmitted and **positioned automatically**, based on the vehicle selection made. They are displayed through a linear, safe and quick process.



Precise, simple and quick adjustments and movements

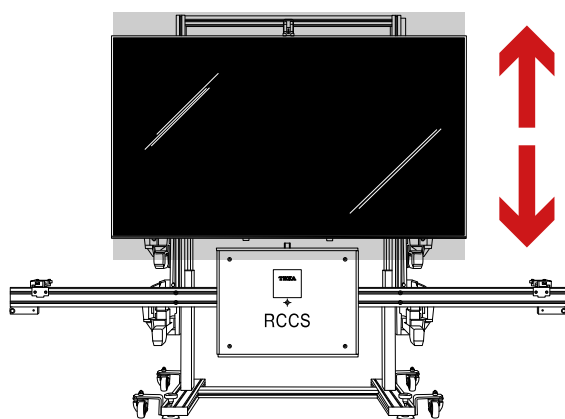
RCCS 3 is made up by a very robust main support, which height can be adjusted thanks to its electrical operation. Using practical knobs, **it can be easily tilted to the side and forward**.

A handwheel and a laser level allow also performing millimetric side movements. On top of the unit there is another laser level, very useful for finding the centre of the vehicle simply pointing it onto the front logo.

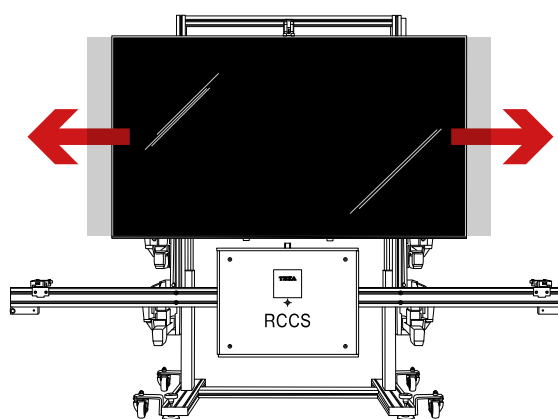
The horizontal adjustment bar is equipped with two distance measurers and a reflecting plate, the latter with a central laser for the front radar's aiming.

RCCS 3 is easy to move within the workshop thanks to its **oversized pivoting wheels**.

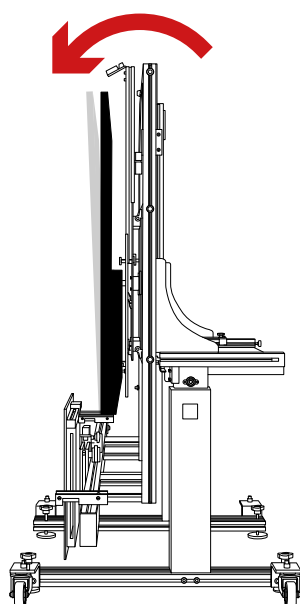
This technological equipment allows positioning RCCS 3 and aligning it correctly with respect to the vehicle and to the ground **easily**, with **absolute precision** and in complete **safety**.



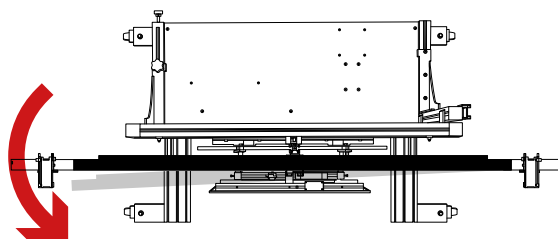
Upward moving



Side shifting
only in the version with Monitor



Forward tilting
only in the version with Monitor



Side tilting

*Side shifting
only in the version with Monitor*



Side tilting

Version with Monitor and with Panels

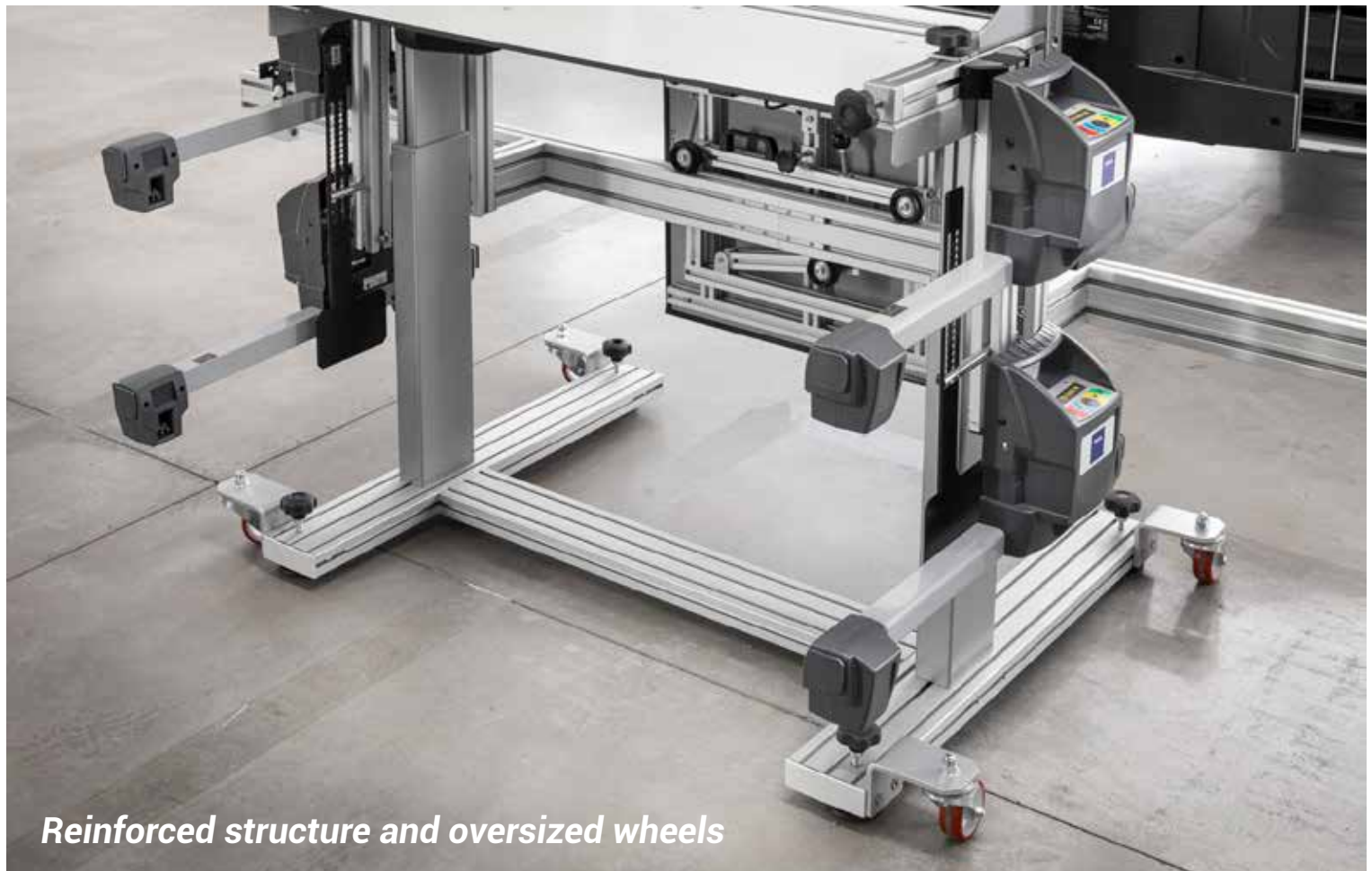




*Forward tilting
only in the version with Monitor*



Centre laser



Reinforced structure and oversized wheels

Absolute accuracy a complete, turnkey job

Before any calibration, other than verifying the alignment of RCCS 3 with respect to the vehicle, it is important to also check the **ride height of the vehicle** you are working on.

To this end, in order to offer an even more complete and professional service, RCCS 3, in both versions, can be equipped with **four CCD electronic detectors** that can be installed either on the wheels, using the rim-clamping system, or on the sides of the horizontal adjustment bar.

The lightness of the detectors and the absence of connection cables between the front and the back, confer maximum practicality and **absolute accuracy** when measuring the vehicle angles.

Truly a **complete, turnkey job**.





An ad-hoc solution for wheel alignment and toe

The high accuracy when checking the vehicle ride height is also guaranteed by the use of the **TOE AND THRUST ANGLE CHECK**, the software application that allows carrying out two types of operations:

- a **quick check of the alignment** of RCCS 3 with respect to the vehicle's thrust angle and to the workshop's floor;
- checking the **wheel toe**.

These procedures are essential for preparing the vehicle for the following camera and/or radar calibration phase.



CCD electronic detector, equipped with infrared sensors.

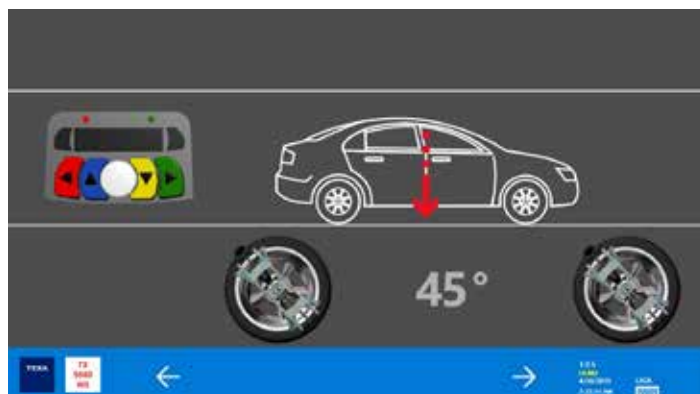
How it works

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 3's adjustment bar to align the structure correctly with respect to the vehicle's thrust line (referred to the back axle).

Below there is a practical example of **unit alignment** and **wheel toe** using the dedicated software:



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



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 forwards to return the clamps to the vertical position.



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".



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 3 structure can now be positioned.



The message "OFFSET" shows how much the RCCS 3 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.



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

Very performing even with the optical alignment

Other than the version with toe and thrust axis check, RCCS 3 is also available in the **highly performing optical alignment** mode. This configuration uses **wheel clamps** and was designed to complete all the operations on radars and cameras in a quick and precise way.

In order to align the vehicle, two practical aiming bands are used, onto which the lasers of the two distance measurers on the unit's main axis are addressed.



Latest generation laser technology

The distance measurers provided by TEXA are the ideal solution to meet the most severe professional and precision criteria requested by workshops worldwide.



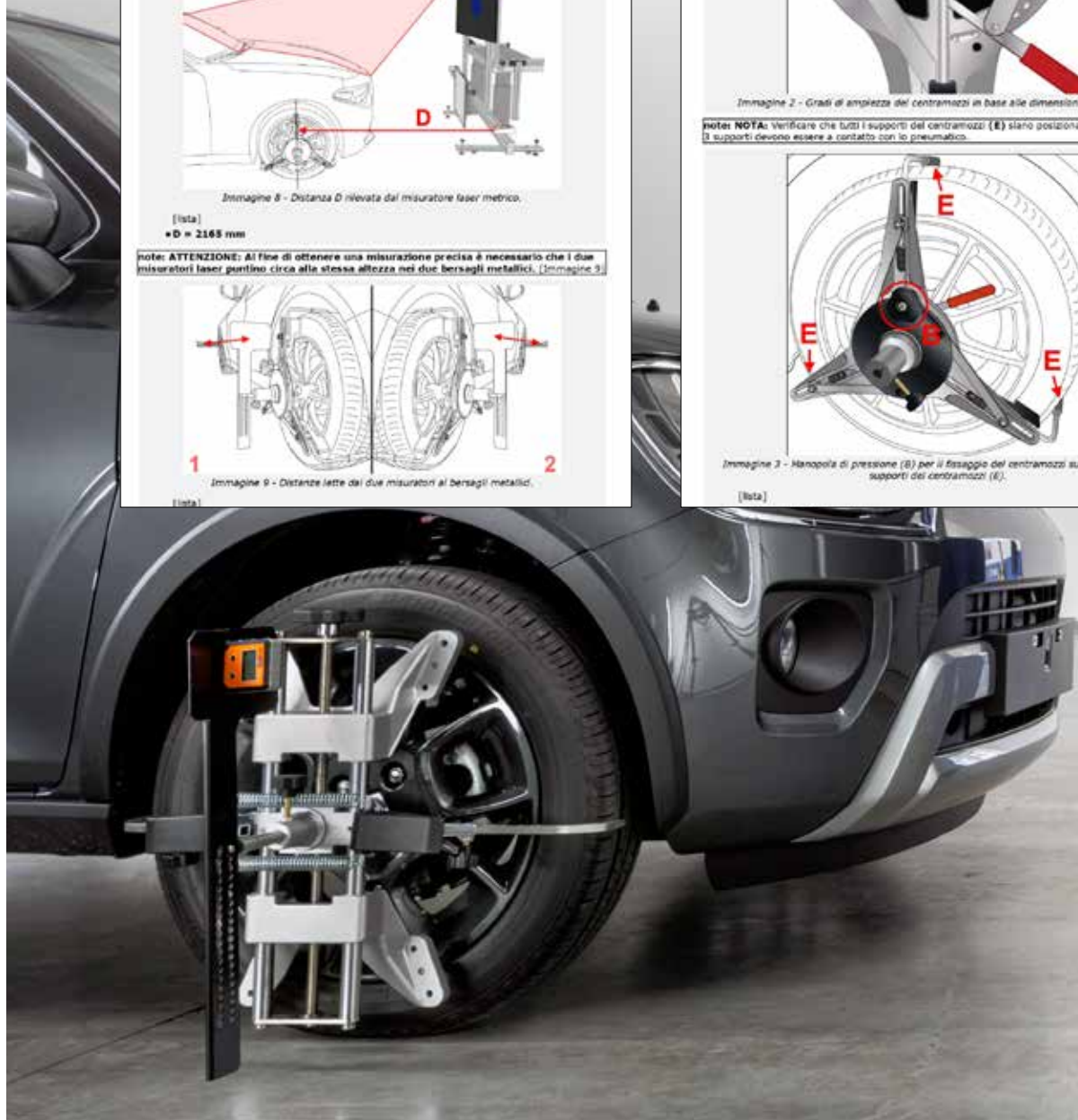
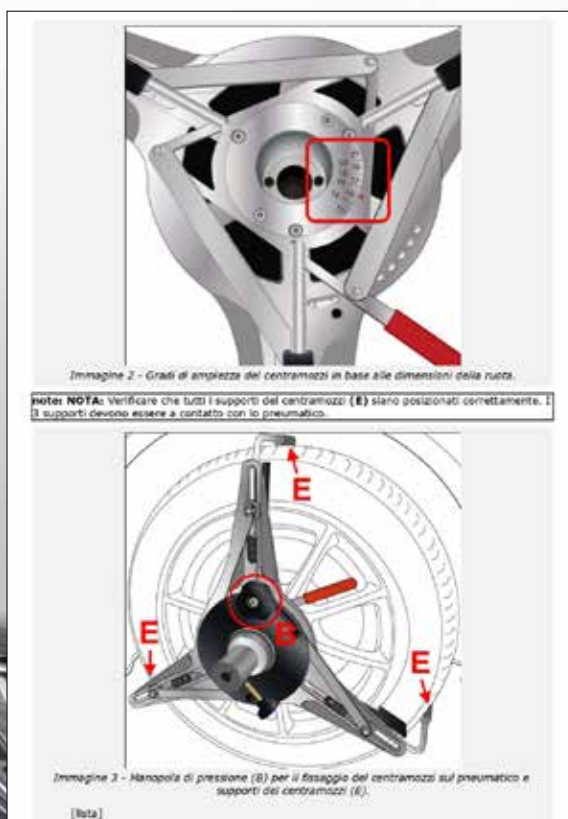
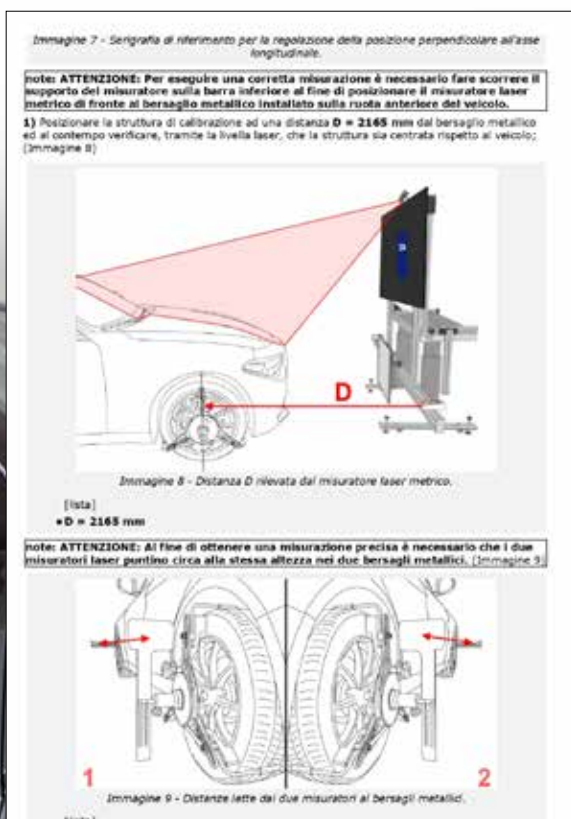


With the IDC5 software all the information to support all operations

TEXA's solutions must be used in combination with the **IDC5 diagnostic software** that allows completing any operation quickly.

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

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





RCCS 3 with Panels

the version with physical targets

As already mentioned, RCCS 3 can also be purchased in an “entry level” configuration that has the same exclusive features of the top-of-the-range version but requires using physical panels in place of the monitor. This allows using the TEXA panels and accessories dedicated to calibration to complete any operation with maximum customer satisfaction.





CCS

the multi-brand kit for the calibration of cameras

CCS (Camera Calibration System) is designed to create the best combination according to your operational needs.

It is made up by a robust support on which the several panels divided by make are to be positioned.

CCS can also be used with a graduated mat and two supports to centre the wheel axle through laser levels.

The manufacturing features of the Kit make it a **basic solution that is extremely easy to use**, handy and easy to carry, even outside the workshop.

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





A large range of accessories for a complete solution

TEXA's ADAS solutions can be used in combination with other optional devices to work in depth on other electronic driver assistance systems, among which:

ACS (All-Around Calibration System)

ACS allows **calibrating 360° cameras and Dopplers*** for **VAG Group** (AUDI, SEAT, SKODA, VOLKSWAGEN, LAMBORGHINI) vehicles.

It is made up by an aluminium structure that has two horizontal panels and two vertical magnetic boards. The base has three housings for three distance measurers dedicated to verifying the correct alignment with respect to the vehicle.

TEXA's solution is featured by a **great practicality** being equipped with wheels that allow moving quickly within the workshop.



* The rear and side radars can be calibrated using the TEXA Doppler Simulator.

IR Calibration Target and Night Vision System

They are two very useful accessories as they allow **calibrating the infrared camera**, in a short time and with maximum precision, for the **Mercedes** and **VAG Group** vehicles in which it is installed. It is an essential device from the point of view of road safety, which helps drivers detect in advance people or animals in the dark. Positioned in front of the vehicle, the IR Calibration Target and Night Vision System **simulate the presence of a warm body**.



Blind spot radar reflector

It is an essential device for calibrating the ultrasonic radars installed in vehicles of the makes **HYUNDAI, HONDA, KIA, LEXUS, MAZDA, MITSUBISHI, SUBARU, TOYOTA**. It is made up by a metal reflector cone, a laser and a goniometer jig to help the technician position the pyramid cone correctly. It can be used both for the **front radars** and for the **side** and **rear** radars.



Doppler Simulator

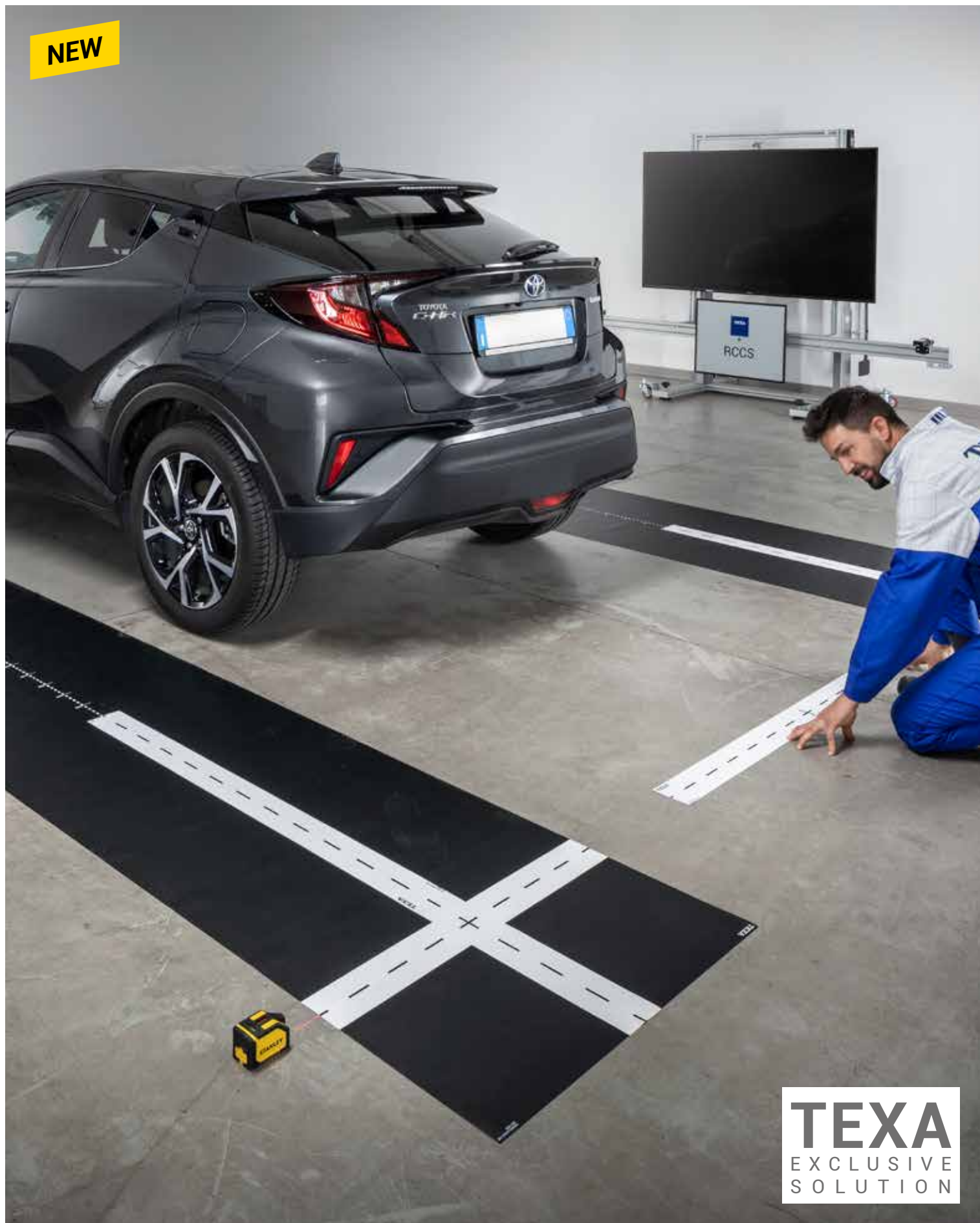
This accessory also is needed to calibrate the blind spot radar. However, in this case it is an active simulator that responds to the frequency generated by the rear radar in **MAZDA** and **VAG Group** vehicles.



360° mats for TOYOTA, LEXUS, SCION and SUZUKI

A modular kit that allows calibrating the 360° vision system in **TOYOTA**, **LEXUS**, **SCION** and **SUZUKI** vehicles equipped with this technology.

NEW



TEXA
EXCLUSIVE
SOLUTION

Calibration targets and accessories

For the calibration of the ADAS, TEXA offers a wide range of targets and specific accessories, which guarantee the most complete coverage in the market worldwide.

CAR calibration targets



**CITROEN/PEUGEOT, KIA/HYUNDAI,
FIAT 500X, FIAT DUCATO X290,
JEEP RENEGADE Type 2**
(front)



MERCEDES
(front)



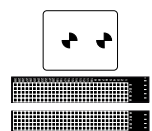
NISSAN/INFINITI
(front)



NISSAN Type 1
(front)



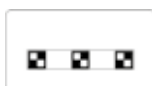
NISSAN Type 2
(front)



RENAULT/SMART
(front)



VAG
(front)



TOYOTA Type 1
(front)



TOYOTA Type 2
(front)



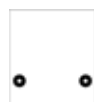
HONDA
(front)



HONDA Type 2
(front)



ALFA ROMEO Type 1
(front)



MAZDA
(front)



MAZDA Type 2
(front)



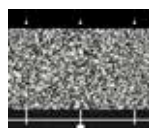
SUBARU with calibration jig
(front)



MITSUBISHI/SUZUKI
(front)



KIA/HYUNDAI
(front)



SUZUKI IGNIS/ISUZU TRUCK
(front)



IVECO DAILY
(front)



DAIHATSU Type 1
(front)



DAIHATSU Type 2
(front)

The targets can be perfectly integrated with the RCCS 3 and CCS.

Check the complete and always up-to-date ADAS coverage: www.texa.com/diagnostic-coverage

CAR Radar calibration devices and additional kits



ACS (All-Around Calibration System)



Doppler Simulator
VAG and MAZDA



Radar Calibration Frame
MAZDA



VAG night vision
(front)

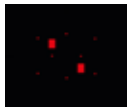
NEW



MERCEDES night vision
(front)



Positioning jig kit
RADAR VOLVO



Radar calibration panel
DAIHATSU



LASER SCANNER (LIDAR) VAG
(front)



Blind spot cone support kit



Blind spot cone
TOYOTA/SUBARU/HONDA



Blind spot cone
KIA/HYUNDAI/MAZDA



Blind spot cone
MITSUBISHI

CAR 360°/rear camera calibration



VAG
(rear)



VAG
(360° cam.)



MERCEDES Type 1
(rear)



MERCEDES Type 2
(rear)



OPEL INSIGNIA



TOYOTA, LEXUS,
SCION, SUZUKI
(360° cam.)

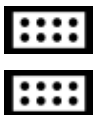
NEW



NISSAN QASHQAI
(rear)



MITSUBISHI
(rear)



MITSUBISHI, NISSAN, MAZDA
(360° cam.)



KIA/HYUNDAI
(rear)



NISSAN X-TRAIL
(rear)



SSANGYONG
(rear)

NEW

An ad-hoc system for the TRUCK environment

The importance of ADAS for the safety of people is even clearer when applied to the world of heavy-duty vehicles. In fact, it is essential that trucks comply with certain behaviours when on the road, such as the distance from the preceding vehicle, the speed, how to overtake and therefore changing lanes, the capability of braking safely, etc.

Therefore, even some truck and commercial vehicle makes need appropriate equipment to properly set the multifunction cameras, radars and sensors that control essential systems such as: the Adaptive Cruise Control, the Lane Departure Warning System, the Forward Collision Warning, the Advanced Emergency Braking System.

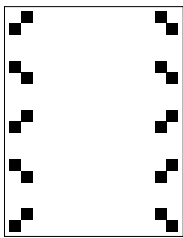
TEXA offers an adjustment system that includes a **measuring bar, panels** divided by make – dedicated to cameras and **laser devices** – that are essential for the correct alignment and calibration of WABCO, TRW and TRW/Knorr radars.

The **TRUCK ADAS Kit** also includes a set of clamps with laser pointers, the laser needed to adjust the Adaptive Cruise Control.

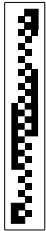
The **TRUCK IDC5 software** remains essential as it guides the operator step-by-step even through operations on vehicles that require a dynamic calibration with the on-road adaptation procedure.



TRUCK calibration targets



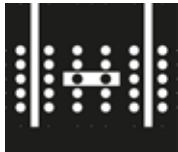
VOLVO/RENAULT
TRUCKS Euro 6



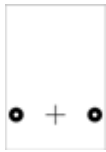
MAN
SCANIA
IVECO DAILY 2014



VOLVO EU6,
RENAULT TRUCKS
EU6 (MAN LCV TGE,
VW Crafter)



VAG
(front)



MERCEDES
(front)



KIA/HYUNDAI, FIAT
500X, FIAT DUCATO
X290 and JEEP
RENEGADE Type 2
(front)



ISUZU



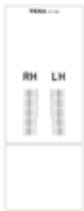
Magnetic graduated
scale for checking
chassis alignment



Laser for Adaptive Cruise
Control



Set of clamps
with laser pointer



MERCEDES TRUCK
MirrorCam
calibration adhesive
templates



Specific training for the world of ADAS

TEXA believes offering customer training to be particularly important. Adequate technical competence and the correct use of diagnostic tools are critical factors for the success of a workshop business.

The teaching methods used in the courses are based on an ideal mix of theory and practical elements.

Practice plays a fundamental part, as it combines testing and simulations with the TEXA diagnostic tools owned by the repairers, stimulating a more active and dynamic participation and effective learning.



D9C: ADVANCED DIAGNOSIS AND CALIBRATION OF DRIVING ASSISTANCE SYSTEMS

AIM: Learn the technical features and the operating modes of the advanced driver assistance systems and the operating modes, position and functions of the RADAR, LIDAR, camera, infrared camera, ultrasonic sensor technologies involved.

Learn the operating principle of the Park Assist, Lane Departure Warning, Adaptive Cruise Control, Forward Collision Warning, Adaptive High Beam Control, Pedestrian Detector, Blind Spot Detection, Park Assist, Night Vision, Drowsiness Detection systems.

Be able to carry out diagnostic and troubleshooting procedures using the diagnostic tool, and to interpret the errors, parameters, statuses, activations and adjustments pages.

DURATION: 8 hours (available also on-line)



D9T: DIAGNOSIS AND CALIBRATION OF THE DRIVER ASSISTANCE SYSTEMS - TRUCK ADAS

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

Furthermore, the teaching module helps learning the position and functions of the technologies involved: radars, multifunction camera, sensors and actuators, infrared camera, ultrasonic sensors. Practical examples of static and dynamic calibration will be introduced, performing diagnostic and troubleshooting procedures using TEXA equipment.

DURATION: 8 hours (available also on-line)



TEXA

Founded in Italy in 1992, TEXA is today a world leader in the design, industrialisation and production of multi-brand diagnostic tools, exhaust gas analysers, air conditioning charging stations and telediagnostic devices, for cars, bikes, trucks, boats, and agricultural vehicles. TEXA is present all over the world with a widespread net of distributors: it commercialises directly in Brazil, France, the UK, Germany, Japan, Spain, the US, Poland and Russia through its subsidiaries. TEXA currently employs more than 700 people around the world, including over 150 engineers and specialists working in Research and Development. Over the years, TEXA has received a large number of prizes and awards for innovation, in many countries worldwide. All TEXA tools are designed, engineered and built in Italy, using extremely modern automated production lines which guarantee maximum precision. TEXA is particularly committed to the quality of its products: it obtained the strictest certifications, such as the TISAX (Trusted Information Security Assessment Exchange), a standard defined by the VDA, the German Association of the Automotive Industry, which guarantees the highest level possible of information and know-how protection against increasingly frequent cyber-attacks. It joins other certifications, such as the IATF 16969, specific for first automotive suppliers; the VDA 6.3, another method by German manufacturers that established itself as an international point of reference; and the ISO/IEC 27001 in the information security field.

WARNING

The trademarks and logos of vehicle manufacturers in this document have been used exclusively for information purposes and are used to clarify the compatibility of TEXA products with the models of vehicles identified by the trademarks and logos. Because TEXA products and software are subject to continuous developments and updates, upon reading this document they may not be able to carry out the DIAGNOSTICS of all the models and electronic systems of each vehicle manufacturer mentioned within this document. References to the makes, models and electronic systems within this document must therefore be considered purely indicative and TEXA recommends to always check the list of the "Systems that can be diagnosed" of the product and/or software at TEXA authorised retailers before any purchase. **The images and the vehicle outlines within this document have been included for the sole purpose of making it easier to identify the vehicle category (car, truck, motorbike, etc.) for which the TEXA product and/or software is intended.** The data, descriptions and illustrations may change compared to those described in this document. TEXA S.p.A. reserves the right to make changes to its products without prior notice.



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:
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