NanoService

for tyre specialists and service areas

TEXA

THE SPECIFIC SOLUTION FOR TYRE

The work of the tyre fitter has changed radically over the last few years. Not than many years ago, tyre fitters only needed to repair punctures, fit new tyres and, occasionally, perform wheel alignment. Now electronic control systems have been introduced on so many vehicles that the tyre fitter's role is completely different: he has had to become an expert in diagnostics as well.
On the latest models with electric power steering, for example, the incorrect calibration of the steering angle sensor can lead to the entire system malfunctioning, and cause the steering system warning light on the instrument panel to come on.

Vehicles with electronically controlled wheel alignment present today's tyre fitters another problem: on these vehicles, ride height has to be adjusted to suit the type of tyre fitted. Last but not least, on vehicles with all-wheel steering systems, diagnostic software has to be used to lock the rear wheels before the wheels can be aligned.
NanoService is designed to perform precisely these jobs. And more besides!

NanoService is also an ideal aid for mechanics who perform quick, simple jobs on a regular basis, and who need a portable and efficient tool.
For example, NanoService is ideal for tyre centres and service areas that perform additional jobs like oil changes and brake pad replacements, rather than the more complex diagnostics involved with resetting warning lights and on board computer counters.

SPECIALISTS AND SERVICE AREAS

NanoService, with its IDC4 Service operating system, is the ideal diagnostic tool for the tyre fitter of the future.

NanoService is a diagnostic interface specially designed for use by fast-fit centres, tyre fitters and service areas, and allows scheduled services to be performed on vehicles with an OBD socket.

NanoService is small in size but big on performance, and is designed for use with a PC running Windows.
A practical, ergonomic shell hides the advanced technology needed to run diagnostics on the electronic systems of cars and light commercials without having to use cables or adaptors for different makes. A Bluetooth module even lets you walk around the vehicle within a range of 30 metres, without being restricted by trailing cables.

wireless technology
Bluetooth®

ONE UNIQUE SOLUTION FO

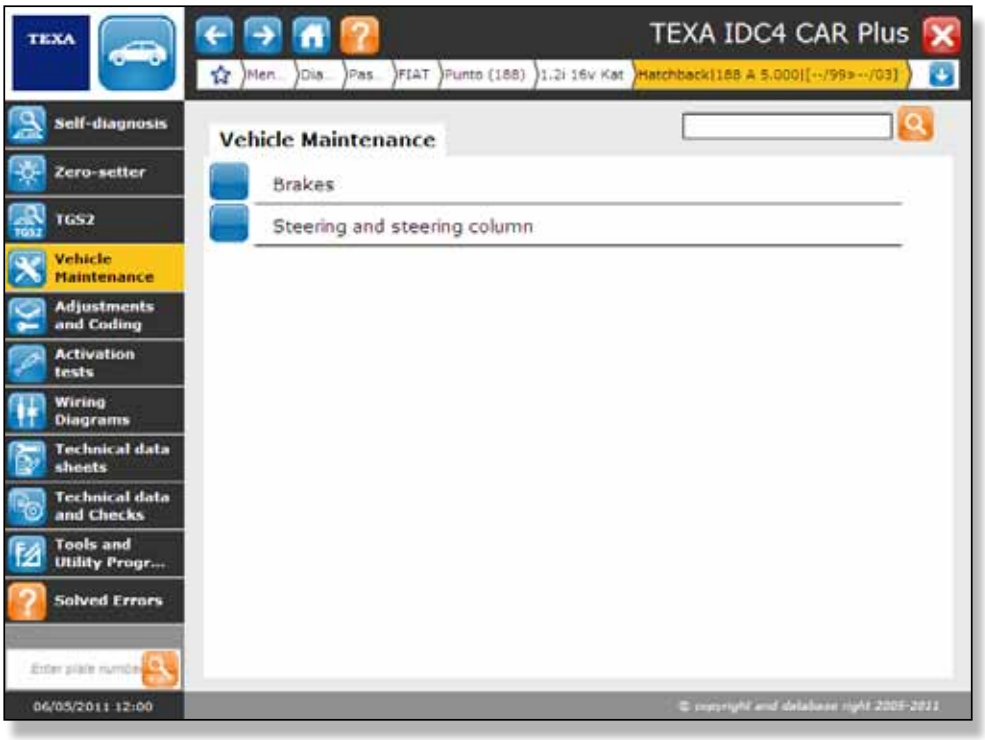
NanoService uses TEXA's advanced IDC4 Service operating system which combines practical and easy use with advanced diagnostic functionality. IDC4 Service uses the same diagnostic database as TEXA's other diagnostic tools, thus guaranteeing the widest possible coverage of current makes and models.
Simply select the make and model of the vehicle you are working on, and the software automatically lists what functions are available for it. You don't need expert knowledge of the vehicle's electronic systems, and you don't need to search through endless systems to find the function you are looking for.

IDC4 lists all available options so clearly that you can't go wrong.

Need to open the brake calipers?
Just select "Brakes" from the list!

Need to switch off the Airbag warning light? Just select "Airbag" from the list!

The software automatically searches through the vehicle's electronic systems, saving you no end of time.



The new electronic systems and technologies on modern vehicles have made the average mechanic's job more difficult in many ways.
In particular, mechanics who are not specialists in electronic diagnostics simply cannot do without a diagnostic tool that provides complete and utterly reliable support.

R ALL NEW REQUIREMENTS

NanoService is an advanced diagnostic tool that lets you work on the complex electronic systems of modern vehicles. Thanks to its fully automatic functions, NanoService provides real and practical assistance to the less expert mechanic. NanoService lets you perform a large number of jobs that require electronic diagnostics. These include: suspension adjustments on Citroen cars; wheel alignment on Renault cars with Active Drive chassis; xenon headlight adjustments; steering angle sensor calibration; brake pad replacements; and Automatic Hold system activation on BMWs.

Replacing brake pads

A growing number of vehicle manufacturers require the use of a diagnostic tool to replace brake pads (front or rear). These include BMW, Mercedes, Mini and Volkswagen.
What used to be a purely mechanical job has now become mechanical and electronic.
NanoService lets you to perform this essential operation without having to invest in complicated diagnostic equipment. IDC4 Service software allows you to open brake calipers quickly and easily in order to replace brake pads in total safety.

Programming TPMS systems

TPMS sensors on the latest generation of vehicles monitor temperature and pressure inside tyres to ensure safety and control. When tyres are rotated to ensure even wear, at the recommended intervals, the TPMS system has to be reprogrammed accordingly.
The TPMS system requires the position of each wheel to be entered in the control unit's memory so that a tyre losing pressure can be identified rapidly and correctly. IDC4 Service can complete the necessary tasks automatically, simply by reading the TPMS codes and reprogramming the controlling unit.

Adjusting xenon headlights

Headlight adjustment is a job that is no longer done only by specialist garages: more and more frequently it is being demanded of tyre fitters, fast-fit centres and service areas.
Many vehicles today are equipped with headlights that modify their angle to suit the load. These systems require frequent re-calibration. In these systems, each headlight is equipped with a position sensor that has to be correctly calibrated.
Impressive diagnostic resources allow IDC4 Service software to adjust and test the alignment of xenon headlights effortlessly.

Adjusting Citroen suspension systems

On Citroen cars, the suspension service procedure requires the calibration of ride height using a diagnostic tool.
IDC4 Service software lets you perform this task simply and safely, and even provides clearly illustrated instructions on how to proceed, describing each step in the process to ensure that work is completed correctly and efficiently.

28/08/2007 REFERENCE HEIGHT ADJUSTMENT - Description

REFERENCE HEIGHT (Parameters) READING

In the parameter reading, the **initial reference height values** of the vehicle (front and rear) are stored in a definitive way in the control unit; such height values do not vary and cannot be modified. These height values equal 128 steps in the front and 120 steps at the rear (115 and 110 steps respectively in the C5 Carlsson). The control unit uses them as references before the height values are stored through the setting.

Therefore, the **programmed reference height values** (fr
vehicle reference height values are set. The values displa
These values are used as a reference in calculating the v

REFERENCE HEIGHT ADJUSTMENT

In order to carry out this setting, the vehicle **MUST NOT**
vehicle is equipped with variable absorbers, check if on t

FOREWORD: Before performing the setting through diag
setting when the measured height values exceed the tole

The calculated height values can be found

- H1C = R1 - 140 mm (Front calculated height)
- H2C = R2 + 73 mm (Rear calculated height)

R1 and R2 stand for the radius of the front and rear whee

The measured heights (H1 and H2) need to be calculated
therefore, summing up, H1 and H2 need to be equal to H
the mechanical setting following the instructions included

FRONT REFERENCE HEIGHT WRITING

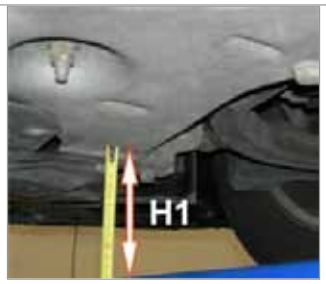
In the diagnostic instrument input the value calculated as
The measurements need to be indicated in millimetres.

R1 and R2 stand for the radius of the front and rear wheels

The measured heights (H1 and H2) need to be calculated according to the descriptions in the illustration below; therefore, summing up, H1 and H2 need to be equal to H1C and H2C with a 10 mm tolerance, otherwise please perform the mechanical setting following the instructions included in the related technical bulletin.

FRONT REFERENCE HEIGHT WRITING

In the diagnostic instrument input the value calculated as follows: (*R1, Front wheel radius*) - (*H1, Front measured height*). The measurements need to be indicated in millimetres.



The front height (H1 [mm]) is measured between the ground and the arch formed by the front and rear posts, at the rear of the front fixing brackets of the suspension triangle.

REAR REFERENCE HEIGHT WRITING

In the diagnostic instrument input the value calculated as follows: (*H2, Height measured at the rear*) - (*R2,Rear wheel radius*).

Adjusting wheel alignment on Renault vehicles with an Active Drive chassis

Some Renault models are equipped with an Active Drive chassis that incorporates an advanced electronic system controlling the steering angle of all four wheels. The Active Drive system improves the vehicle performance under certain conditions. Before you can adjust wheel alignment on these vehicles, you have to lock the steering rear wheels. This procedure too is handled quickly and easily by IDC4 Service software. The rear wheels are locked, and then, when alignment has been adjusted, they are released again to return the vehicle to its ideal operating conditions.

R ALL NEW REQUIREMENTS

Calibrating steering angle sensors

Calibrating steering angle sensors has become an extremely frequent task. If it is not performed correctly, however, it can lead to annoying delays and repairs. This is why you must rely on a complete and dependable tool like NanoService. In addition to performing the necessary calibrations NanoService manages the entire procedure in complete safety, providing you with all the information you need to complete the job, and guaranteeing that the sensor is calibrated according to manufacturer specifications.

Offset reset of the steering angle sensor

Before adjusting respect following conditions:

- Perform the adjustment only in case of steering wheel angle replacement
- Perform adjustment when the vehicle is not running the engine is on and the brake pedal is released
- No actual errors should be present
- After adjustment you must quit diagnosis correctly, turn off the instrument panel and disconnect the diagnosis tool

ATTENTION:any possible errors of the steering angle sensor due to the disconnection of the battery can be solved no performing this function, but just applying the following easy manual procedure:

- Start the engine
- Turn the steering wheel to the left up to the end
- Turn the steering wheel to the right up to the end
- Start a straight path at low speed
- The warning lights turn off

The AUTOMATIC HOLD function

The new BMW 7 Series is equipped with a special brake control system called Automatic Hold. This system applies the parking brake when the vehicle stops and automatically releases it as soon as the driver presses the accelerator pedal. NanoService and IDC4 Service software allow you to access the control unit functions that activate and deactivate Automatic Hold.

Configuring tyre type

Different tyres give a car very different handling characteristics, and can have a significant effect on safety. If tyres have to be changed to match the season (for example, if Winter tyres are switched for Summer tyres or vice versa on makes like Mercedes and Porsche) a new top speed has to be programmed as well as a new tyre pressure setting.
IDC4 Service makes this task quick and easy too. Just click on “Tyres” and the software automatically lists what functions are available so that you can rapidly configure or reprogram the control unit that stores this data.

TECHNICAL DATA

Microcontroller: STM32F103G CORTEX 72MHz, FLASH 1024KBytes, SRAM 96 KBytes
Memory: SRAM 8MBit, NAND FLASH 256Mbit with file system HCC SafeFat
Operating system: EmbOS
External power source: 8 ÷ 16 Volt
12V consumption: 0.2A max
Wireless connection: Bluetooth (30m)
Electronic switch: 2-way, 13 independent positions
Diagnostic connector: OBD ISO 15031-3
Operating temperature: 0° / +50°
Storage temperature: -20° / +60°
Operating humidity: 10% ÷ 80% without condensation
Dimensions: 70x48x24 mm
Weight: 32g

Self-diagnosis protocols
Blink codes
K, L (with current protection 60mA) ISO9141-2, ISO14230
CAN ISO11898, ISO11519-2,
SAE J1850 PWM,
SAE J1850 VPW,
EOBD (all protocols) ISO15031-5, ISO15765-4

Standards
ETSI EN 301 489, ETSI EN 300 328,
IEC EN 60950-1, EUROPEAN DIRECTIVE 1999/5/EC

2 YEARS WARRANTY

ALL TEXA PRODUCTS ARE GUARANTEED FOR 24 MONTHS

To check out the extensive coverage of TEXA products visit **www.texa.com/applicationlist**

To view demos showing TEXA instruments in operation visit **www.texa.com/demo**

For information on IDC4 compatibility and minimum system requirements go to **www.texa.com/system**

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