For Automotive Professionals

UNIProbe

For cars, motorbikes and commercial vehicles

TEXA

TEXA products guarantee excellent diagnostic coverage for vehicle makes and models.
In order to view what TEXA has to offer,
simply visit www.texa.com/applicationlist.

The **UNIProbe** is a system for measuring analogue and digital measurements.

A unique solution that includes six different tools, specifically developed for the automotive industry.

A NEW WAY OF WORKING

WIRELESS TECHNOLOGY TO MAKE WORK EASIER

TEXA has always invested in research and development to implement new solutions in its tools, exploiting the best technology that today's market has to offer.

One of the mainstays of this strategy is surely the elimination of power and connection cables on the devices; these, as well as representing a safety hazard in the workshop, are awkward to manage and restrictive in everyday work.

The aim then is to free technicians from the restriction of wires, giving them the freedom to move and work with ease around the vehicles.

This is why TEXA has fitted its tools with advanced remote communication technology, such as *Bluetooth*, to transfer data between the measurement interfaces and the processing and display tools. (AXONE Direct, AXONE Palmtop and AXONE Pad, AXONE 3 Mobile, MULTI PEGASO or any stand-alone PC) via IDC3 and IDC3 Pocket programs.

The **UNIProbe** extends and completes the new range of compact and easy-to-use TEXA interfaces, all featuring a similar sturdy and lightweight aluminium casing, however each with their own innovative specifications for different functions and uses.

The UNIProbe is the evolution of the acquisition and measurement tools that assists the day-to-day experience of repair technicians and TEXA engineers.

AXONE PAD

AXONE PALMTOP

AXONE DIRECT

AXONE 3 MOBILE

MULTI PEGASO

TEXA VISUAL UNIT

STAND-ALONE PCS

Bluetooth®

VARIOUS TASKS, ONE SINGLE TOOL

ONE INTERFACE EQUIPPED WITH SIX DIFFERENT TOOLS

The UNIProbe is a lightweight and handy tool with a vast range of possible applications.
Technicians often waste time changing from one tool to another when having to perform different tests on the same vehicle.
With the TEXA UNIProbe, this is no longer the case, as intuitive and standardised processing software makes it possible to instantly switch from one test to the next, without interruption.
The UNIProbe includes four different tools:

- **OSCILLOSCOPE** with four independent analogue channels;
- **BATTERY PROBE** for testing the battery, as well as analysing and checking the entire starting and charging system.
- **TNET** for electrical testing and analysis of automotive communication networks (CAN, VAN, LIN);
- **MULTIMETER** for voltage, resistance and current measurements;

Moreover, the UNIProbe can also be used as a **SIGNAL GENERATOR** to simulate the pulses generated by the sensors and reproduce the commands generated by the control units.

- **PRESSURE TESTING**: tests fuel and turbo pressure on all vehicles.

TEXA
UNIprobe

OSCILLOSCOPE

POWER, SIMPLICITY AND PRECISION

The increasing complexity of electronic devices and systems on modern vehicles naturally creates a whole new series of problems. These are quite complex, not only as regards to the repair procedures, but above all in terms of analysis and identification.

Indeed, an electrical error or malfunction may at times not always be recognised by the auto-diagnosis system on the vehicle's electronic control unit.

In this case, the only safe way to determine the fault is to use an oscilloscope. This is in fact the most effective method for checking and displaying the electrical signals, which is why TEXA has developed this type of tool specifically for the automotive sector.

Unlike other equipment available on the market, adapted from industrial applications for use in the workshop, the UNIProbe is designed as a specific diagnostic tool for working on all types of vehicles.

This can be seen in the features of the device that, as well as the classic BNC connectors, also has a special 28-pin connector.

The purpose of this is to provide a series of additional wiring and adapters specifically for automotive applications, which are essential when performing detailed analysis on vehicle electrical systems.

The processing software has also been specifically developed for this sector, simplifying all the functions and options that made traditional oscilloscopes less practicable. The UNIProbe is extremely easy to use, yet at the same time powerful and precise as regards to the measurements acquired.

It is equipped with highly technical characteristics and guarantees, for example, a retrieval of 20MS/s with two active channels or 10MS/s with four active channels and a maximum tension of +/-50 inlet volts.

These are currently top within the current market.

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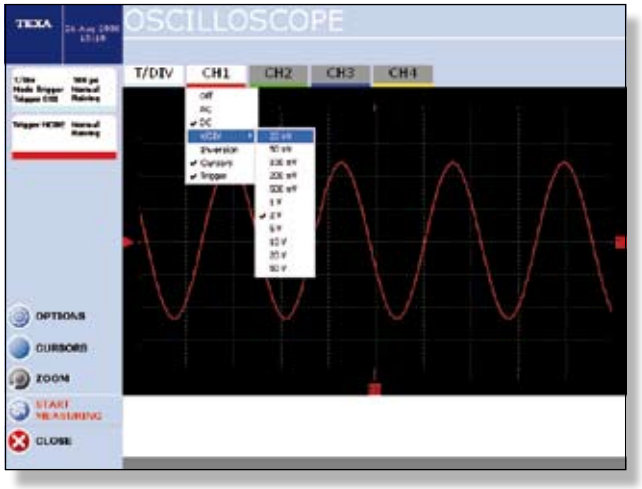
RENAU

THE SOLUTION TO ALL NEEDS

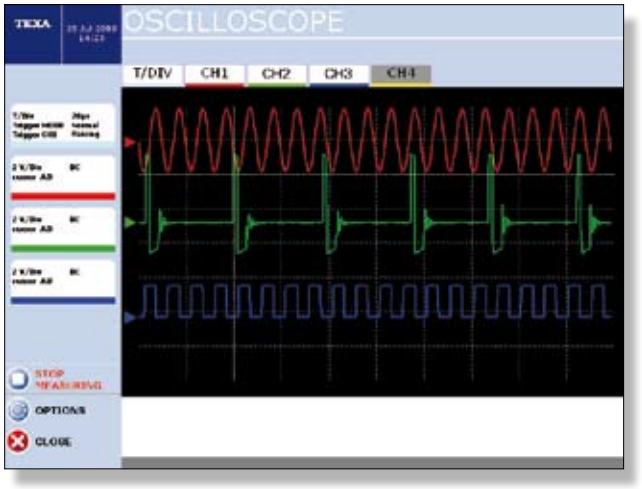
FOR ALL HIGH AND LOW VOLTAGE TESTS

Vehicle electrical problems can be divided into two main categories, based on the voltages for the correct operation of the system.
There is in fact the low voltage lines, which for instance supply the sensors and actuators, and operates up to the vehicles battery voltage,
The other line, the high voltage line, connects all the devices that operate on voltages in the hundereds or thousands of volt range.
The UNIProbe can measure and analyse both categories of signals, and does so much more simply and efficiently than any industrial oscilloscope. The analysis of the high voltage line, for example, is used to test the ignition system for petrol engines, monitoring the electrical impulses sent to the coils or the spark plugs.

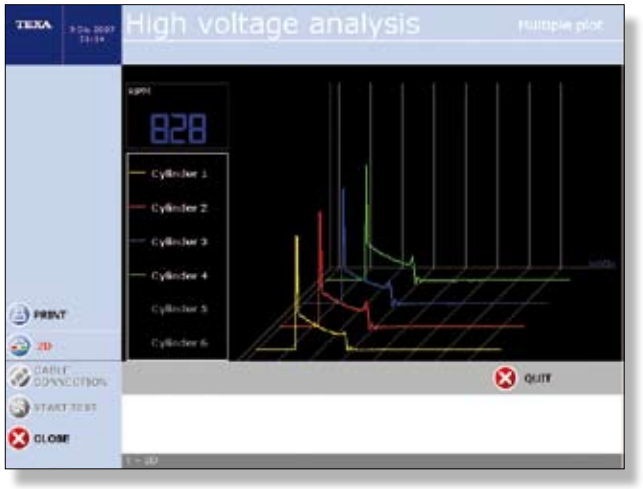
Furthermore, the technological innovations implemented on the latest generation of vehicles require a power supply at a voltage much higher than 12 volts.
This is also the case of hybrid cars that have been available on the market, and are fitted with 200 volt power supply modules.
The measurements made using an oscilloscope, even the most precise and sophisticated models, are nonetheless represented on a graph that the technician must be able to analyse.
The UNIProbe has not just been developed as a measurement device but mainly as a data interpreting tool for specific software.



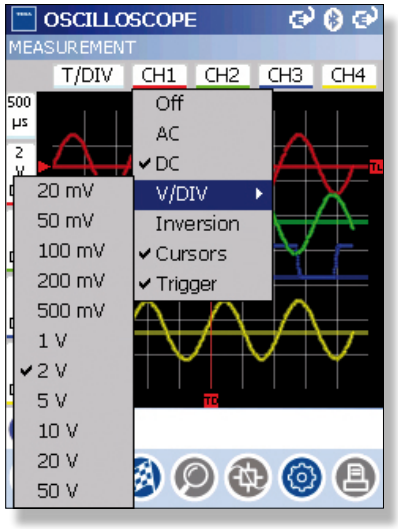
Even when on manual function, the program allows immediate use thanks to its configurations and functioning methods.

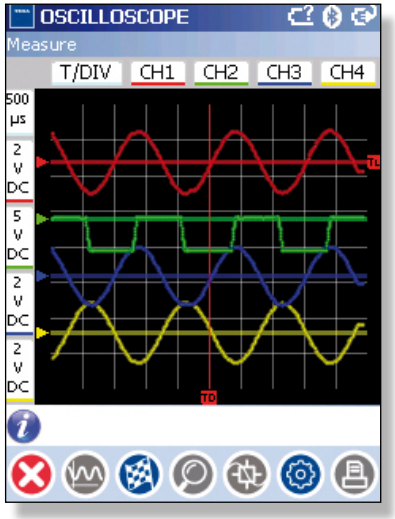


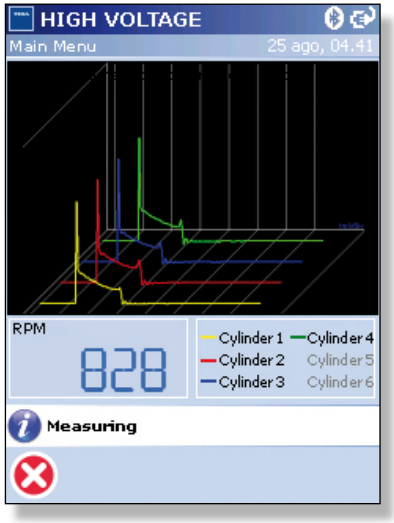
The analysis of the four graphs and the reading of the values are made even simpler by an optimized graph.



The values may be obtained via low or high tension signals. The signal displayed by the four ignition lights may be viewed in the example.







IDC3 SOFTWARE WITH S.I.V. FUNCTION

A HELP WITH THE TESTING AND INTERPRETATION OF THE SIGNAL

The oscilloscope tests performed using the UNIProbe guarantee excellent measurement of the values and precise identification of the readings; what the repair technician most needs, however, is an effective system to help correctly interpret the graphs produced by the tool.

Some faults are clearly visible, and the extent of the problem can be evaluated by simply displaying the data. In other cases, however, the deviations are minimal and are very hard to identify and interpret.

Before being able to decide whether or not the signal being analysed is correct, reference data is required, values that clearly indicate the critical points to be evaluated.

Consequently, TEXA has developed an effective technical support system that guides the technician through all the electrical tests.

The function in question is a software feature called S.I.V. (Signal Information View).

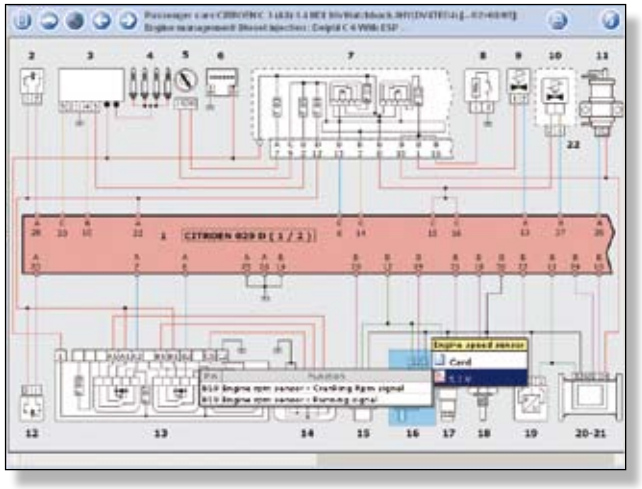
This innovative tool is found in the IDC3 Plus software for AXONE 3 Mobile, MULTI PEGASO and PC. In IDC3 Pocket for the AXONE Palmtop, AXONE Pad and AXONE Direct.

Thanks to this system, UNIProbe does not simply view the signal; whilst acquiring the values and data, it elaborates all the info, analyses it and provides an estimate in real time.

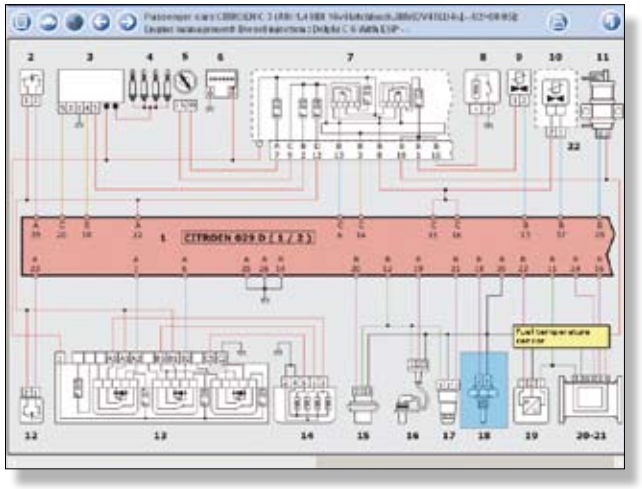
It can process signals from the various sensors and actuators being measured and compare the data acquired against the values stored in the internal database, thus immediately highlighting any differences in the signal.

This function is a simple and fast method of carrying out the task at hand as it provides an electrical diagram of the system to be analyzed as well as a list of its components.

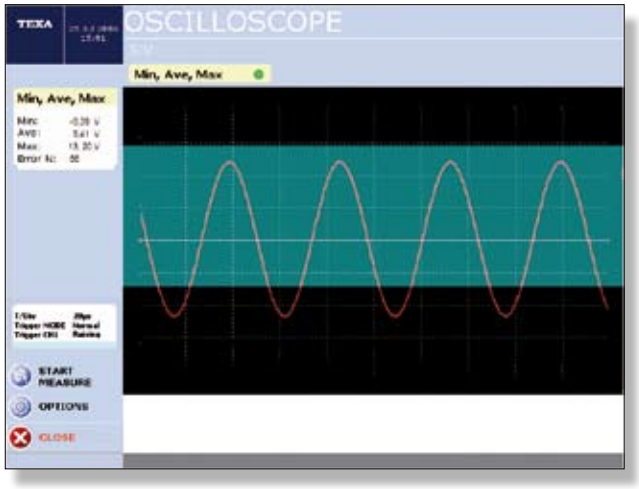
By selecting the device to be tested, the ready configured Oscilloscope will be automatically activated in order to carry out the tests required.



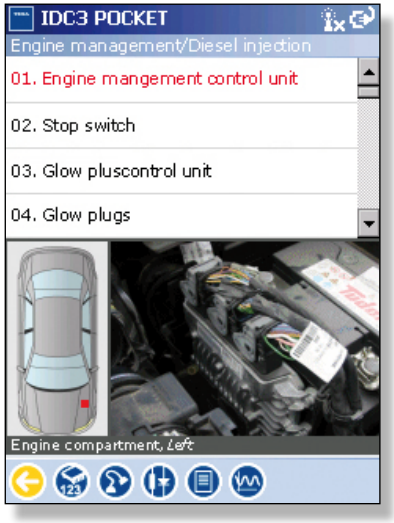
After having selected the vehicle to be tested, the electrical diagram may be used to gain the information regarding the components to be adopted.

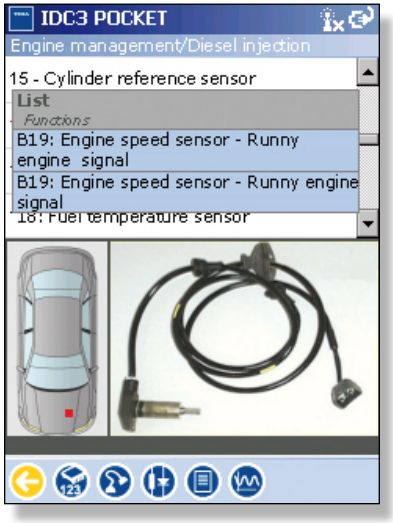


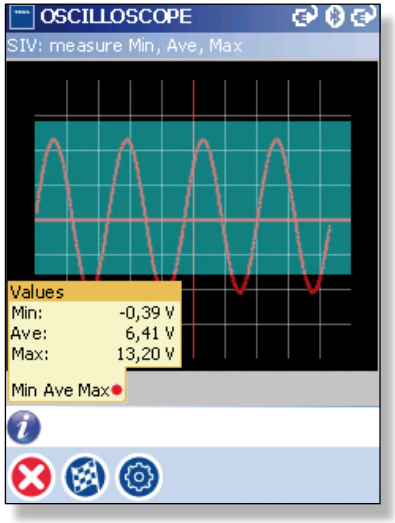
The specific component is selected from the electrical diagram or the list of devices. The example displays a magnetic sensor.



Thanks to the SIV function, at this stage, the signal may be viewed and the possible faults are automatically highlighted and compared to the retrieved values.







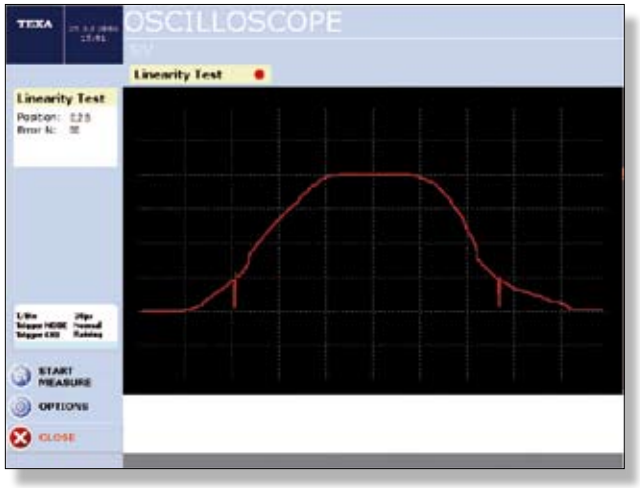
A PROFESSIONAL OSCILLOSCOPE

ONE TOOL, DESIGNED FOR THE AUTOMOTIVE SECTOR

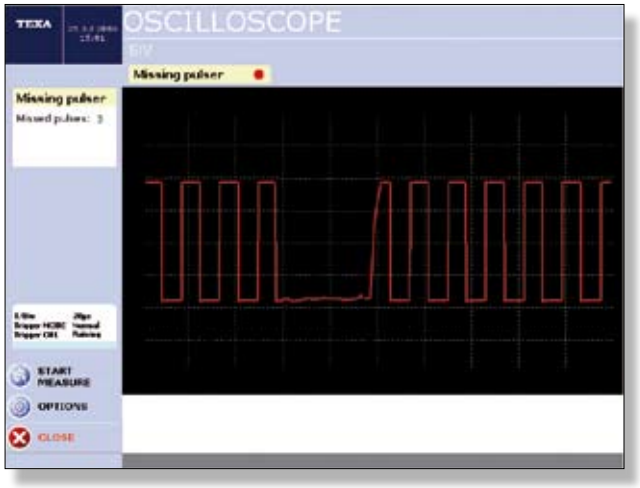
Working on high-tech devices such as those installed in modern vehicles, requires skills that non-specialised technicians often do not fully possess.
The UNIProbe is based on the concept that any operator must be able to complete a measurement and interpret the results, without necessarily having to turn to a specialised technician to perform the repairs.
The simple and user-friendly display interface, plus the software with S.I.V. function that helps the operator identify the faults, are TEXA's response to the most common problems that arise in the workshop.
As already highlighted, the UNIProbe can analyse the measurements acquired and instantly compare them against the standard data for each specific system or device.

For low voltage tests, such as acquiring the signal from a throttle potentiometer, the software displays the typical bell curve of the acceleration and, if it detects any micro-interruptions, freezes the image and highlights the fault on a graph.
Similarly, for high voltage tests, both systems with spark plug cables and those with integrated coils can be analysed; in this case too, the UNIProbe directly highlights which spark plug or coil is the cause of the ignition failure.
Two different methods of acquiring the signal, yet managed by the same software and displayed in a standardised format.
UNIProbe has been specifically developed to a high standard to be used within a workshop.

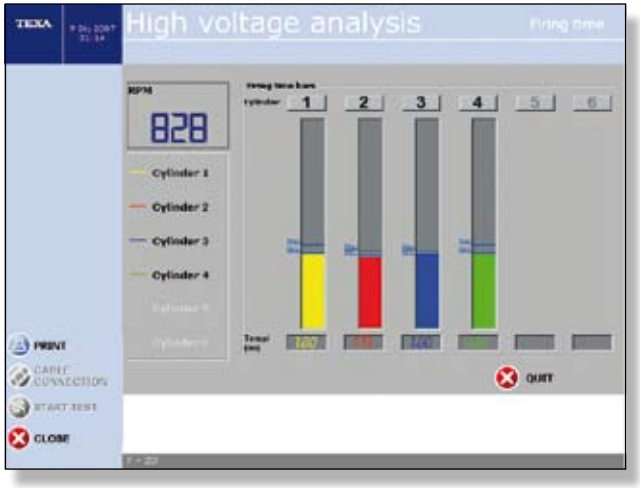
It has an internal battery which allows the tool to be used up to six hours without an electrical supply via wires.
Under a standard configuration, it is directly charged by the vehicle it is testing.



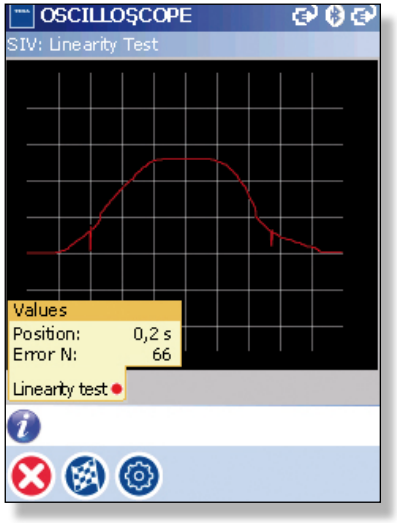
The example displays the automatic analysis carried out on a throttle potentiometer via the electrical signal. The break point which occurs at a precise opening angle may be noted.

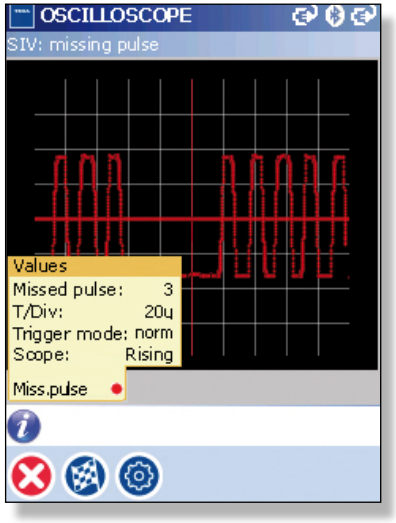


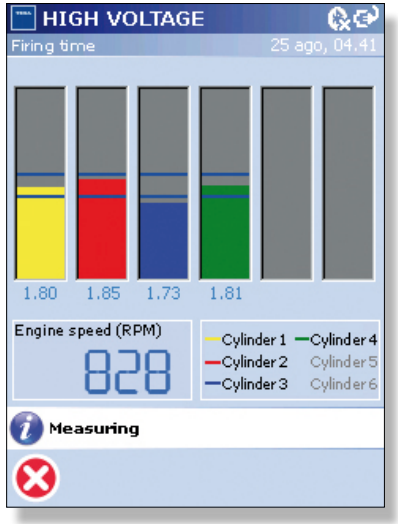
More automatic analysis examples on a square waved signal. In such a case; a signal break caused by a faulty electrical connection with the wiring may be noted.



Even during high tension testing, the program proposes different function methods to view and carry out automatic checks. The example displays a graph which shows the amount of time sparks occur whilst a 4 cylinder engine is being started.

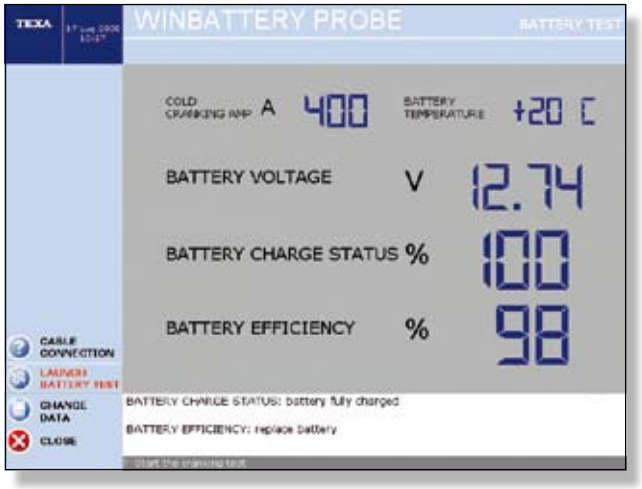




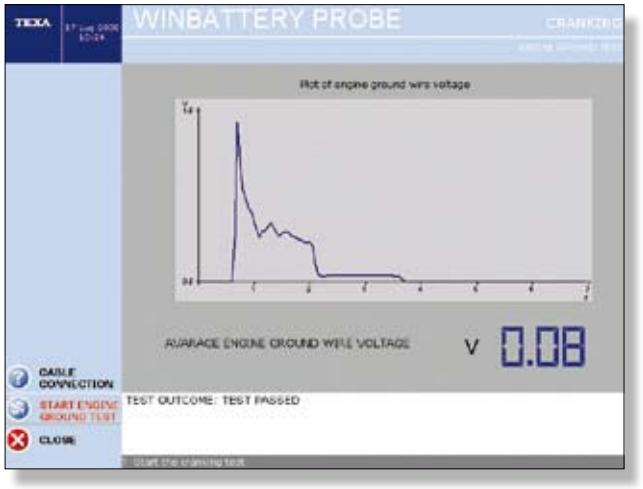


INTEGRATED BATTERY PROBE FUNCTION
FOR THE BATTERY, STARTING AND CHARGING SYSTEM

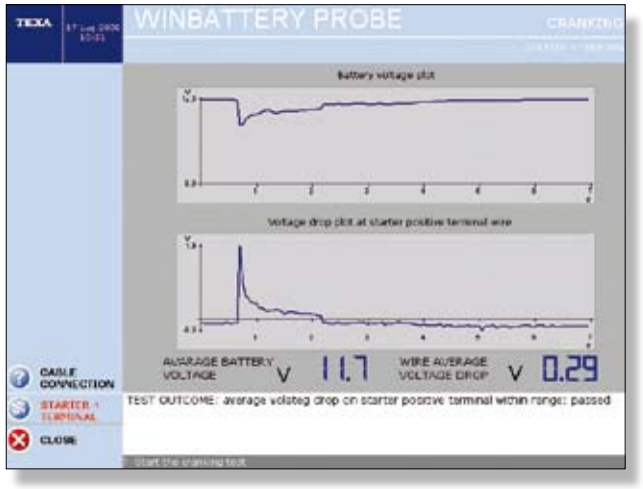
The car won't start? The problem could be a flat battery. One of the most important checks in this case undoubtedly involves measuring the energy levels throughout the system consisting of the starter motor, alternator and battery.
The Battery Probe and BPP kit can be used to simply run a complete check on all the components in the system, giving a certain diagnosis of the problem and allowing the right repair to be made.
The BPP kit features 4 analogue inputs and two connectors for attaching to the current tester probes.
A semi-automatic diagnostics system analyses the starting system as a whole (i.e. all the components and the wiring) to identify the cause of the fault. Based on the measurements acquired, the software generates a possible diagnosis, indicating the most plausible cause of the malfunction.
This is produced in the form of a report that can be printed and given to the customer, describing the details of the measurements made and the checks performed.
The repairs are thus backed by supporting test documents that can be used to explain the reason for the replacement of the alternator or the battery.



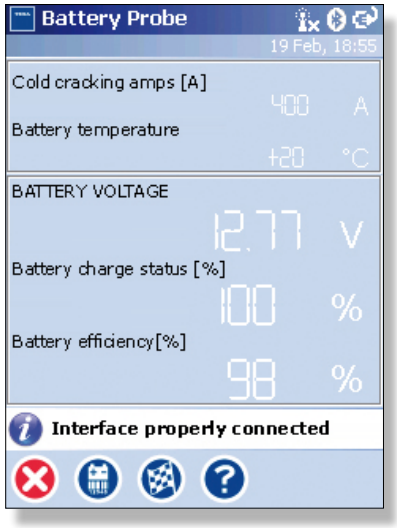
When using the UNIProbe, the program delivers a series of electrical values on the basis of the tool's charge and battery efficiency.

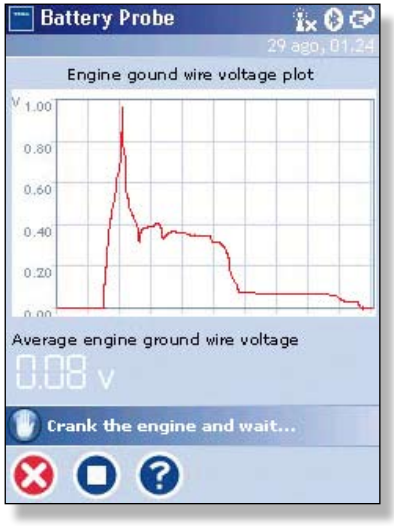


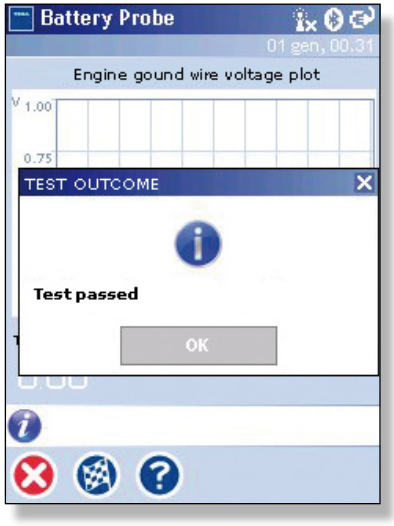
It is also possible to carry out specific tests relative to the starting phase which are able to obtain any errors caused by faulty connection cables.



The software provides numerical values, graphics and conclusive information which determine the test results.





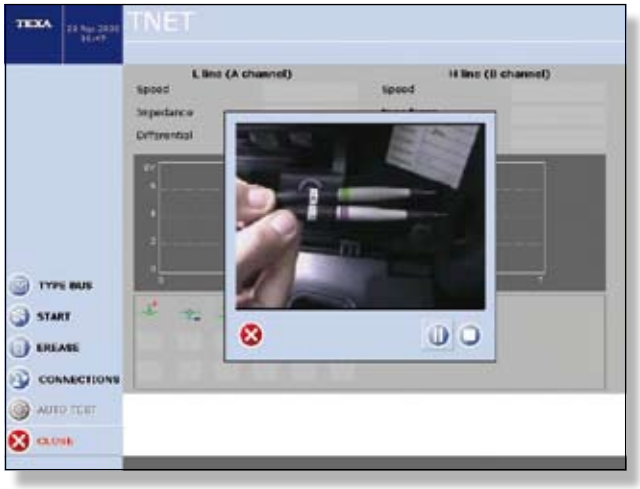


INTEGRATED TNET FUNCTION

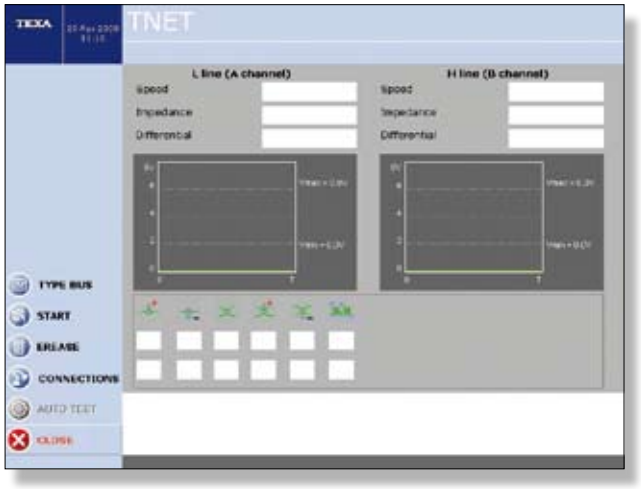
FOR ANALYSING AND CHECKING THE ELECTRICAL OPERATION OF COMMUNICATION NETWORKS

In a network communication BUS (for example CAN, VAN, LIN), electrical and electronics faults may not depend on the systems and the components, but rather on physical damage to the electronic network.
This may occur, for example, following physical damage or deterioration of the wiring.
In other cases it may depend on work performed during repairs or service that interrupted or detached a cable.
Finally, it may be due to auxiliary devices and control units that have not been installed properly. In all these cases, the TNET module integrated in the UNIProbe can be used to directly analyse the electrical wiring in different types of networks.
This doesn't require sophisticated tools or advanced technical knowledge.

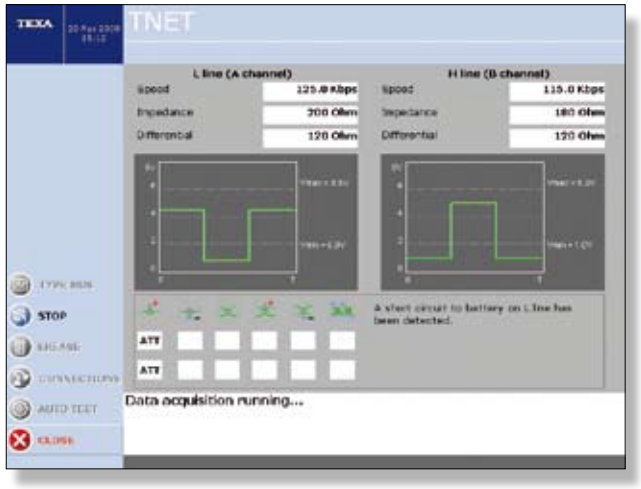
TNET simplifies troubleshooting by clearly and effectively displaying the results of the measurements.
Two test probes are used to take the measurements directly from the network wiring, with the results displayed highlighting whether or not there are electrical faults.
If the test fails (that is, errors are identified), the tool provides details on the fault, specifying the possible causes.
It can also print a report on the specific problem, for example interruptions, short-circuits or abnormal load conditions.



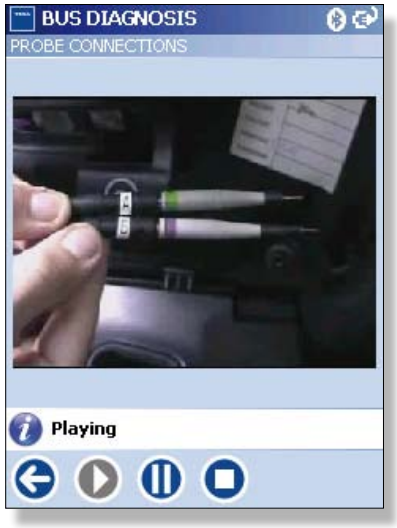
The program is able to gain the electrical values directly via the cable network in a fast and simple manner.

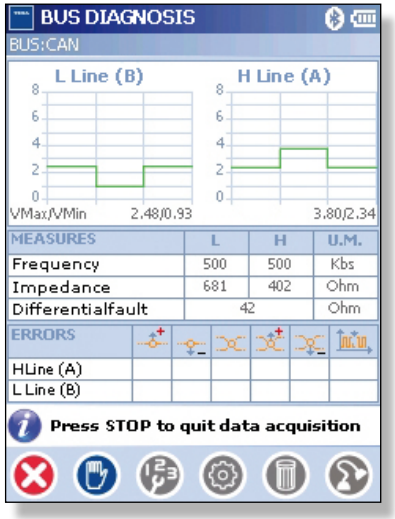


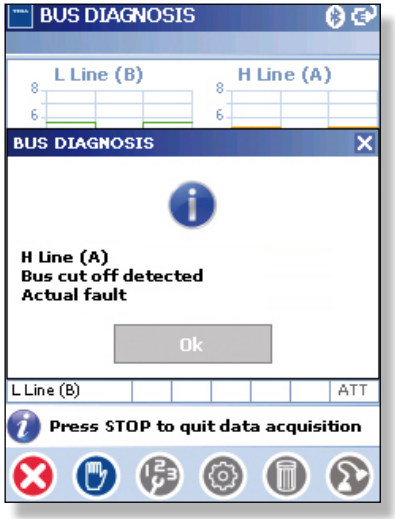
The data is gathered in tables which are simple to interpret and viewed via graphs which highlight the main elements and electrical values.



The program is able to automatically locate and highlight possible problems. A header message will describe the probable error cause.







INTEGRATED MULTIMETER FUNCTION

ALL VOLTAGE, RESISTANCE AND CURRENT MEASUREMENTS

Alongside the BNC connectors, on the front of the UNIProbe, are two jacks, the inputs for the multimeter module.

As well as traditional voltage, resistance and current measurements, this can also carry out functions such as diode tests and continuity tests, plus a special electrical measurement function known as the “data logger”.

- **VOLTAGE measurements**: the maximum measurable voltage is ± 400 VDC, over three ranges (0V-6V; 6V-60V; 60V-400V AC/DC).
- **RESISTANCE measurements**: three ranges of values are available, with automatic or manual scale selection (0Ω-1000Ω; 1kΩ-100kΩ; 100kΩ-10MΩ).
- **CURRENT measurements**: performed using the TEXA current clamps (the BICOR series probes can also be used).
- **DIODE tests**: to determine whether or not a diode is working correctly, as well as the diode bias (if forwards, a buzzer sounds).
- **CONTINUITY test**: to check whether there is a short-circuit between two terminals (if the resistance is less than 50 Ohms a buzzer sounds).
- **DATA LOGGER function**: the tool monitors slow signals as variable voltages or resistances and then records their variations over time.

RENAULT dCi 2.0l
TEXA
UNIProbe
elf
RENAULT
VARTA

DETAILS

Bluetooth antenna, power connector, USB port and earth connector (oscilloscope function)

Multimeter jacks

Operating status LEDs

Oscilloscope inputs

28-pin connector and ON button

Scratchproof feet

WIRING AND CONNECTORS

LF Cable

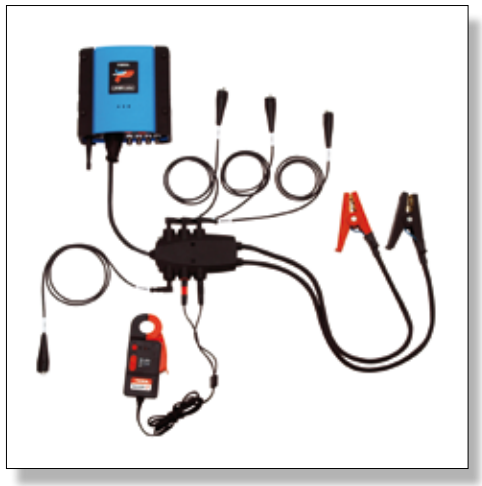
HF Cable

Multimeter Cable

TNET Cable

Battery Cable

Amps Clamp BICOR



Battery Probe Cable

USB Cable & External Power Supply

TECHNICAL SPECIFICATIONS

- Connection to the workshop display unit: *Bluetooth*, USB
- Can be used on cars, motorbikes and commercial vehicles
- Easy to use
- Integration with the database

Power supply voltage: 8 - 32 VDC
Internal battery recharge voltage: 10 - 32 VDC
Internal lithium battery, 7.4 V, 1 A/h
Maximum current drawn: 1.2 A at 12 V
Internal battery autonomy: up to 5 hours
Operating temperature: 0/+45°C
Storage temperature: -20/+60°C
Operating relative humidity: 10%-80% non-condensing
Dimensions: 155x178x55 mm (excluding *Bluetooth* antenna)
Weight: 1.2 kg
Applicable standards: Directive 1999/05/EC
Electromagnetic compatibility: ETSI EN 301 489-17 V1.2.1, EN 61326/1
Safety: EN60950-1, EN61010/1
OSCILLOSCOPE
Channels: 4 independent input channels with 10 MHz analogue bandwidth (-3 dB). Sampling rate 20MSample/sec 10 bit with 1 or 2 channels active, 10MSample/sec 10 bit with 3 or 4 channels active.
Max input voltage: +/- 50 Vmax, AC or DC coupling.
Vertical scale for each channel: 20 mV/Div to 50 V/Div
Horizontal scale: from 500 ns/Div to 5s/Div
Trigger: source CH1, CH2, CH3, CH4, selectable, Trigger delay.
Display mode: Normal, Auto, Single shot
Measurement of the following values: frequency, period, RMS, Vmax, Vmin.
MULTIMETER
Galvanic insulation up to 1 kV for safe measurements.
Voltage measurements
Maximum measurable voltage: ± 400VDC, input impedance 4.7 MΩ, 3 digit resolution. Three ranges of values available, with automatic or manual scale selection:
0-6 V, 6-60 V, 60-400 V AC/DC.
Resistance measurements
Three ranges of values available, with automatic or manual scale selection: 0-1000 Ω, 1-100 kΩ, 100 - 10 MΩ, resolution: 3 digit
Current measurements
Current measurements performed by connecting the TEXA “BICOR” series probes to the jacks on the front of the tool.
Continuity test, Diode test.
TNET FUNCTION
Troubleshooting on CAN ISO11898, ISO11519 networks.
BPP FUNCTION
Troubleshooting on ignition systems.
Voltage measurements: DC up to 50 VDC.

1. Multimeter module jacks
2. Oscilloscope inputs
3. On/off button
4. 28-pin connector
5. USB port
6. Earth connector for oscilloscope module
7. Power connector
8. *Bluetooth* antenna
9. Operating status LEDs
10. Protective sides
11. Scratchproof feet
12. Strap hook

CLEAR AGREEMENTS AND TRANSPARENCY RIGHT FROM THE START

When you purchase a TEXA package you also subscribe to a “PURCHASE ORDER” contract that establishes the purchase conditions and all of your rights. (certain markets only)

Service

The TEXA service network guarantees customers excellent coverage, a vast range and exclusive service.

Product warranty

TEXA guarantees the product against faults and manufacturing defects ascertained and recognised by its service network, for a period of twenty-four months from the date of delivery or activation of the software. All repairs under warranty, unless otherwise agreed on in writing, must be carried out at an authorised service centre or by TEXA.

Software end-user license

TEXA authorises the customer to use the software contained in the PRODUCTS purchased based on a non-exclusive end-user license agreement for the sole purposes described in the PRODUCT user manual. In relation to the end-user license agreement, “software” refers to the program installed on the PRODUCT, and “license” the right to use or access a specific copy of such software.

Products

The products undergo continual development and consequently are subject to change; such changes may involve constructional modifications to the electronics, the mechanics and the cosmetics (including the colour and decorative elements).

The information and data provided in the brochures and advertising in general are purely indicative.

TEXA FINANCIAL SERVICE*

TEXA has for years been offering financial solutions that are unrivalled on the market, allowing DEALERS to offer customers particularly favourable terms of payment for purchasing TEXA tools and equipment.

“SISTEMA” is a simple formula that offers complete freedom in extending payments on your new TEXA tool based on your needs.

Contact your TEXA dealer for further information. They will then provide you an example of a personalised payment plan.

SISTEMA
I SERVIZI FINANZIARI TEXA
AL SERVIZIO DEL CONSUMATORE

CALL CENTRE ASSISTANCE*

AN EXPERT ALWAYS ON HAND TO HELP

Call Centre assistance and the prompt publication of technical bulletins, sent directly to the tool via SMS or via the Internet, are the main services now offered by TEXA to help technicians in their everyday work.

Help from professionals at the TEXA Call Centre is just a phone call away.

TEXA

* Check availability in your country with your dealer.

TEXAEDU*

YOUR PROFESSIONAL DEVELOPMENT

In order to support and promote the professional development of its customers, TEXA has combined its range of tools and services with an exclusive training program: the TEXAEDU centre.

The training courses involve both the theoretical and practical aspects. The use of the tools is demonstrated directly in the classroom, right from the very first minute of the courses, with specific details on strategies for recognising errors in electronic control units or reading and interpreting a signal from an air mass meter.

With its vast range of diagnostics solutions, TEXA fully understands the real problems involved in auto repair work, and this is the basis for its training courses. By enrolling in the courses and obtaining the PROFESSIONAL SPECIALISATION CERTIFICATE, technicians can guarantee their professional future.

* Check availability in your country with your dealer.

UNI EN ISO 9001:2000

TEXA strongly believes and invests in the quality of its organisation, products and services. The TEXA quality project is based on the following principles:

Customer focus

TEXA has always been attentive to the needs of its customers, and is committed to continually satisfying their requirements and even exceeding their expectations;

Personnel involvement

At TEXA, the personnel, at all levels, represent the essence of the organisation; their complete involvement in the processes means their skills can be best used to serve the company;

Process approach

TEXA organises all its activities into a system of interrelated processes that together contribute to the achievement of the company goals, based on principles of effectiveness and efficiency;

Partnership with suppliers for mutual benefit

TEXA aims to establish strategic partnerships with its suppliers, convinced that close cooperation improves the ability of both parties to create value and translates into advantages for the customer;

Continual improvement

For TEXA, continual improvement of its performance is a permanent objective. TEXA is certified in accordance with UNI EN ISO 9001:2000.

* Check availability in your country with your dealer.

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Use your mobile phone to scan this symbol and receive further information on TEXA S.p.A. and its products*.

* Scanning this symbol will create a WAP push link that accesses the http://www.texa.mobi website without having to enter the address manually in your browser. The contents of the TEXA site can be browsed freely, while the connection charges vary based on the rates applied by your service provider. If your phone doesn't have software for reading QR codes, go to one of the numerous websites that offer these for free.

COMPANY WITH QUALITY MANAGEMENT SYSTEM CERTIFIED BY DNV
=ISO 9001 : 2000=

The data, descriptions and illustrations may change compared to those described in this brochure. TEXA S.p.A. reserves the right to make changes to its products without prior notice.

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MADE IN EUROPE

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