UNIProbe and TwinProbe analogue and digital measurement acquisition systems represent the best and most complete solutions for conventional diagnostic testing. They allow a complete multi-brand diagnosis, and are equally effective on bikes, scooters, quads, boats and jet skis, in addition to light and heavy commercial vehicles, buses and coaches, special vehicles and agricultural vehicles.

UNIProbe is the most complete and performing solutions comprising 6 different instruments inside the same device:

- **OSCILLOSCOPE** with four independent analogue channels, complete with SIV function for interpreting the measure signal (with IDC4 software).
- **BATTERY PROBE** for testing the battery, and analysing and checking the entire starting and charging system.
- **TNET** for electrical testing and analysis of automotive communication networks (CAN, VAN, LIN).
- **SIGNAL GENERATOR** to simulate the pulses generated by sensors and reproduce the commands generated by control units.
- **MULTIMETER** for voltage, resistance and current measurements.
- **PRESSURE TESTER** for checking fuel and turbocompressor pressure on all vehicles.

TwinProbe is the economic device. It is very handy thanks to wireless connectivity, and it’s as professional as UNIProbe, including an oscilloscope, a signal generator, a voltmeter and amperometer.

- **OSCILLOSCOPE** Two independent analogue channels, with an input range of up to ± 200V, equipped with SIV function for the correct interpretation of the signal plots.
- **SIGNAL GENERATOR** to simulate the pulses generated by sensors and reproduce the commands generated by control units.
- **AMPEROMETER** This function can be accomplished through oscilloscope function in combination with BICOR clamp.
UNIProbe and TwinProbe can dialogue with all TEXA display units and with Windows PC, without the need for cables, thanks to Bluetooth wireless technology. You can, therefore, move freely around the vehicle and within the workshop. The built-in 7.4V lithium battery ensures an exceptional autonomy under continuous use. This solution follows TEXA philosophy about “two-units diagnosis” that aims at the complete deletion of cables from the workshop.
OPERATIVE SOFTWARE IDC4 AND MSS
UNIProbe and TwinProbe, like all TEXA instruments, use the operative environment IDC4, the diagnosis and self-diagnosis software with built-in databank and exceptional coverage of makes and models.
IDC4 is available both in a standard version for PC, MULTI PEGASO and AXONE 4, as well as in a POCKET version for portable viewing units of the AXONE line, but the software potential is the same in all. The wireless Bluetooth connection or connection via USB cable, allows for the transfer of data from the instrument to the viewing unit.

For those not having and not wishing to acquire the complete operative platform IDC4, MSS (Measurement System Software) is available, specific for UNIProbe and TwinProbe, which enables only the functions of oscilloscope, battery probe, TNET, multimeter, pressure test and signal generator in manual mode.

SIV FUNCTION
The oscilloscope test carried out with UNIProbe and TwinProbe guarantees excellent detection of values and a precise identification of the measurement; but what the mechanic most needs is an efficient system to help him correctly identify the graphs processed by the instrument.
In order to declare if the signal analysed is correct or not, it is, however, necessary to have reference data, values that clearly show which are the critical points to be analysed.

This is why TEXA has developed a support that guides the mechanic throughout the test. The function developed is a software algorithm named S.I.V. (Signal Information Viewing).
Thanks to this system, UNIProbe and TwinProbe do not simply view the signal; as they take the measurements and acquire the data, they process all information, analyse it and supply an assessment in real time.
They are, in fact, able to process the signals of the various sensors or actuators concerned by the measurement and compare the data acquired with that present in the internal database, thereby immediately showing any signal anomalies.
This mode can be used simply and quickly, starting from the wiring diagram of the system to be analysed or the list of components.
By selecting the device to be verified, we automatically activate the oscilloscope, which is already configured to correctly test the component.
A PROFESSIONAL OSCILLOSCOPE

UNIProbe and TwinProbe are two instruments offering exceptional performance and extremely high reliability levels. Whilst TwinProbe incorporates a digital oscilloscope with a channel for 40 Msamples/sec or two channels for 20 Msamples/sec with inputs extended up to ± 200 Volts, UNIProbe is able to detect 20 Msamples/sec with two channels active or 10 Msamples/sec with four channels active and a maximum incoming voltage of ± 50 Volts. This performance is distinctly higher than that offered by other solutions available on the market.

HIGH AND LOW VOLTAGE TESTS

UNIProbe, combined with specific cable kits, is able to measure and analyse both high and low voltage signals, with exceptional simplicity and efficiency. The test on the high voltage line (namely that which connects all electronic components operating with voltages of thousands of volts) allows, for example, for the testing of petrol engine ignition systems, monitoring the electrical impulses that reach the coils or spark plugs. With regards to hybrid engines that have been on the market for years, they are also fitted with 200 Volt power modules.

The measurements taken with an oscilloscope, even the most precise, in any case translates into a graph that the mechanic must be able to analyse. This is why UNIProbe has been developed as a support tool in interpreting data, thanks to specific software.

For low voltage tests, for example, acquiring the signal of a butterfly potentiometer, the software shows the typical bell curve of the acceleration and, if micro-interruptions are present, blocks the image, showing the presence of the anomaly on the graph.
BATTERY, IGNITION AND RECHARGE TEST
With the Battery Probe function and the BPP kit, UNIProbe is able to quickly and easily carry out a complete test of the elements and components of the system comprising the starter motor, alternator and battery, thereby reaching a certain diagnosis and reliable repair. The BPP kit is equipped with four analogue inputs and two connectors for connection with the current clamp. A semi-automatic diagnosis system analyses the ignition system as a whole (therefore the individual components and wiring) in order to verify the origin of the fault. On the basis of the measurements obtained, the software therefore provides a possible diagnosis, indicating the most likely cause of malfunction. This translates into a report that can be printed and delivered to the customer and which provides details of the measurements and checks performed.

ELECTRICAL FUNCTION TEST OF NETWORKS
In the network communication BUS (e.g. CAN, VAN, LIN), electrical and electronic anomalies may not depend on the systems and components, but rather be the consequence of physical damages to the electronic network. This may occur, for example, following damage or physical deterioration of wiring. In other cases, on the other hand, it may depend on accidental interruptions of a wire during repair or assistance. It may, finally, derive from auxiliary ECUs and devices that have not been correctly installed. In all cases, thanks to UNIProbe with the integrated TNET module, the electrical analysis can be carried out directly on the wiring of various network types, with the test probes.
MULTI-METER FUNCTION
UNIProbe allows voltage, current and resistance to be measured with the utmost easiness; it also allows diode (to determine whether or not a diode is correctly functioning and how it is being polarised), continuity tests (to determine the presence of short circuit between two terminals) and data logger (to monitor slow signals such as voltage or variable resistances and record changes over time. As for TwinProbe, it is possible to measure current through a BICOR clamp.

SIGNAL GENERATOR
UNIProbe and TwinProbe are able to operate as a PWM signal generator for device testing. Tests can be carried out on mechanical components such as actuators, pressure switches of diesel engines, turbine blades or the EGR valve. Thanks to UNIProbe and TwinProbe, it can be assessed whether the anomaly depends on an electronic malfunction or a mechanical breakage. By using UNIProbe and TwinProbe in combination with the software IDC4, adjustments can be made and the effects observed by comparing them with the parameters proposed by the self-diagnosis.
**TECHNICAL SPECIFICATIONS**

**UNIProbe**

**Power supply:** 8 - 32 VDC

**Internal battery recharge voltage:** 10 - 32 VDC, built-in 7.4 V, 1Ah lithium battery

**Battery autonomy:** up to 5 hours

**Maximum current draw:** 1.2 A at 12 V

**Operating temperature:** 0/+45°C

**Storage temperature:** -20/+60°C

**Operating relative humidity:** 10%-80% non-condensing

**Dimensions and weight:** 155x178x55 mm (excluding Bluetooth antenna), 1.2 Kg

**Applicable standards:** Directive 1999/05/CE

**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 analogue bandwidth of 10 MHz (-3 dB); sampling rate 20MSamples/sec at 10 bit with 1 or 2 channels active, 10 MSamples/sec at 10 bit with 3 or 4 channels active

**Max input voltage:** +/- 50 Vmax, AC or DC coupling

**Vertical scale for each channel:** from 20 mV/Div to 50 V/Div

**Horizontal scale:** from 500 mV/Div to 5s/Div

**Trigger:** source CH1, CH2, CH3, CH4, selectable, trigger delay

**Display mode:** Normal, Auto, Single shot

**Measurement of 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 value ranges, with automatic or manual scale selection: 0-6 V, 6-60 V, 60-400 V AC/DC

**Resistance measurements**

Three value ranges, with automatic or manual scale selection:

- 0-1000 Ω
- 1-100 kΩ
- 100 - 10 MΩ, resolution: 3 digits

**Current measurements**

Current measurements performed by connecting 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 starting systems

**Voltage measurements:** DC up to 50VDC

**TwinProbe**

**Power supply:** 8- 35 VDC

**Internal battery:** 3,7 V, 1 Ah

**Battery autonomy:** 1,45 hours with 2 active channels

**Maximum current draw:** 480 mA at 12 V

**Operating temperature:** 0/+45°C

**Storage temperature:** -20/+60°C

**Dimensions and weight:** 140x140x25 mm, 340 g

**Integrated Bluetooth antenna**

**OSCILLOSCOPE**

**Channels:** 2 independent input channels with analogue bandwidth of 10 MHz (-3 dB); sampling rate 40MSamples/sec at 10 bit with 1 channel active, 20 MSamples/sec at 10 bit with 2 channels active

**Max input voltage:** +/- 200 Vmax, AC or DC coupling

**Vertical scale for each channel:** from 20 mV/Div to 50 V/Div

**Horizontal scale:** from 500 mV/Div to 50 s/Div

**Trigger:** source CH1, CH2

**Current measurements**

Current measurements performed by connecting TEXA “BICOR” series probes

**WARNING**

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**COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV**

ISO 9001

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