

# GASMOBILE

## User Manual



[www.elektropartner.com](http://www.elektropartner.com)

# SUMMARY

- Introduction.....69
- Consultation Guide.....70
- 1 Safety.....71**
  - 1.1 General Safety Standards .....72
  - 1.2 Work environment.....74
  - 1.3 Working on Engines or other Vehicle Parts.....75
  - 1.4 Working on batteries.....76
  - 1.5 Working with Appliances Powered by the Mains.....76
  - 1.6 Environmental Information.....76
- 2 SOFTWARE DESCRIPTION.....77**
  - 2.1 Browsing through Screens and Selecting.....78
  - 2.2 Service Icons.....78
  - 2.3 Service Messages.....79
- 3 MAIN MENU.....80**
  - 3.1 Preliminary Test Procedures.....81
- 4 DIESEL MEASUREMENTS.....82**
  - 4.1 Continuous measurement.....84
  - 4.2 Official Test - ITALY.....89
  - 4.3 Service.....98
    - 4.3.1 Information.....99
    - 4.3.2 Date & time.....100
    - 4.3.3 Calibration.....100
    - 4.3.4 A/D Data.....100
- 5 GAS MEASUREMENTS.....101**
  - 5.1 Continuous measurement.....103
  - 5.2 Official Test - ITALY.....108
  - 5.3 Service.....116
    - 5.3.1 Information.....117
    - 5.3.2 Date & time.....118

5.3.3	Residual HC Test.....	118
5.3.4	Seal Test.....	119
5.3.5	Checks and Adjustments.....	120
<b>6</b>	<b>SERVICE.....</b>	<b>121</b>
6.1	Display.....	123
6.2	Date & time.....	123
6.3	Bluetooth Periferals.....	124
6.3.1	Periferal Search .....	126
6.3.2	IPaddr from SD CARD.....	127
<b>7</b>	<b>Legal information.....</b>	<b>128</b>
7.1	Warnings.....	129

## **Introduction**

Dear Customer,

Thank you for choosing one of our devices for your car repair shop. We are sure that you will be completely satisfied with it and that it will be very useful for your work.

TEXA S.p.A is a company that designs and develops tools for multibrand analysis and emissions tests on cars, motorcycles and industrial vehicles. Today it is one of Europe's most important companies in this field.

TEXA S.p.A. offers a complete and constantly updated range of products and services. We guarantee maximum reliability of our tools and software and ensure maximum benefit from their use in your repair shop.

# Consultation Guide

This manual is divided into the following chapters:

1. **Safety:** *this chapter contains important information for the safety of the user and the safety of his/her work environment. It also includes a legend of all the symbols used in this manual.*
2. **Software description:** *describes the general characteristics of the software.*
3. **Main Menu:** *describes the main menu of the software and preliminary test procedures.*
4. **Diesel Measurements:** *describes the emissions analysis functions for diesel engines.*
5. **Gas Measurements:** *describes the emissions analysis functions for petrol engines.*
6. **Service:** *describes the service functions of the software.*
7. **Legal information:** *gives the user important legal information, legal warnings and copyright information.*

In this document the term "**device**" refers to:

- *GAS MOBILE*

# 1 Safety

This product has been designed and developed to guarantee maximum safety for its user and for his/her work environment.

It is intended for technical personnel, specialized in the automotive field, such as motor vehicle electricians, mechanics, and/or technicians and engineers with a specialization in motorized vehicles.

For your safety it is essential that you always keep in mind several behavioural rules explained in this chapter.

Below you will find the **legend** listing several conventional symbols used within this manual.



Indicates a potentially hazardous condition which, if not avoided, can cause serious or fatal injuries.



Indicates a potentially hazardous condition which, if not avoided, can cause light or limited damages or injuries.



Indicates generic hazardous situations due to dangerous power sources that may cause burns or electric shocks.

 Indicates a particular situation in which you must be careful how you use the tool.

## 1.1 General Safety Standards

What to do:



**DANGER**

Electromagnetic compatibility tests on the product ensure that the device can be adapted to technologies normally used on vehicles (i.e.

1. engine checks, ABS, airbag, air-conditioning, navigator, radio, Hi-Fi system). Nevertheless, if a malfunction occurs you need to contact the retailer.



**WARNING**

2. Position the device making sure it can be properly ventilated.



**WARNING**

3. Keep the tool in a dry environment. This will guarantee that the electronic circuits of the device will remain in perfect working order.

What **NOT** to do:



1. **DO NOT** allow unqualified personnel to use the appliances in order to avoid injuries and/or damage to the tool.



2. **DO NOT** carry out any type of intervention that may damage the tool or compromise its functioning.



3. **DO NOT** drop, hit or shake the device for it may cause irreparable damage to the internal circuits.



4. **KEEP** the tool *AWAY* from heat sources.



5. **DO NOT** use corrosive chemicals, solvents or harsh detergents to clean the device.

## 1.2 Work environment



**DANGER**

The work environment must be dry, sufficiently lit and well-ventilated.

Please note: a car diagnosis which requires turning on and running the engine needs to be done in a place equipped with an exhaust fan system.

Inhalation of carbon monoxide (odourless) can cause unconsciousness and death due to asphyxia.

## 1.3 Working on Engines or other Vehicle Parts



What to do:

- *Wear appropriate clothing (do NOT wear ties, loose clothing, watches, etc).*
- *Protect your face (especially your eyes by using safety glasses), hands and feet to avoid direct contact with hot surfaces such as spark plugs, exhaust pipes, radiators or other dangerous components.*
- *Keep your hands and hair away from the moving parts.*
- *Make sure that the vehicle is in neutral gear (or that it is set in "park" position if you are dealing with an automatic car).*
- *Pull the emergency brake on the car being tested and make sure the wheels are blocked.*
- *Make sure that the electrical connections are all well insulated and firmly in place.*
- *Disconnect the cooling fan cable each time the engine you are working on is still hot. This will avoid the fan from becoming activated unexpectedly even when the engine is off.*
- *Handle the portable lamps with care and use only those with metal protection.*
- *Make sure there are no oil stains, rags, paper or other inflammable materials near the muffler. Bear in mind that it reaches very high temperatures, capable of causing serious burns or causing nearby objects to catch fire.*

What **NOT** to do:

- **DO NOT** *smoke or light flames while working on the vehicle.*
- **DO NOT** *look at the carburator intake manifold directly or look at it from a close distance when the engine is on.*
- **DO NOT** *pour fuel directly into the carburator in order to facilitate the ignition of the engine.*
- **DO NOT** *unscrew the radiator cap until the temperature of the engine has decreased along with the pressure in the cooling system.*
- **DO NOT** *touch the high voltage cables when the engine is on.*

## 1.4 Working on batteries



**DANGER**

Vehicle batteries contain sulfuric acid and produce explosive gases.

Please take the following precautions:

- *Always wear safety glasses.*
- *Never leave tools on the battery; they could cause accidental contacts.*
- *Cover the openings of the batteries with a wet cloth in order to stifle the explosive gases before proceeding in testing or recharging.*
- *Avoid causing sparks when cables are being connected to the battery.*
- *Avoid splashing electrolyte onto the skin, into eyes or on clothes. This substance is corrosive and highly toxic.*

## 1.5 Working with Appliances Powered by the Mains



**DANGER**



**HIGH VOLTAGE**

- *Make sure that the equipment is connected to the ground.*
- *Cut off the power supply voltage before connecting or disconnecting cables.*
- *Avoid contact with wet hands.*
- *While working make sure you are well insulated from the ground.(wear appropriate shoes)*

## 1.6 Environmental Information



**For information regarding the disposal of these products please refer to the pamphlet accompanying your tool.**

## 2 SOFTWARE DESCRIPTION

The **GAS MOBILE** software is designed for workshops that carry out diagnostics and/or official tests; it is for workshops that want a product that is simple and fast, ready to use within seconds.



The **GAS MOBILE** software is contained within an SD CARD, (SD CARD specifically developed for the GAS MOBILE device) so that it may be quickly updated, even via Internet, to keep up with changes in norms or in order to add new functions.

The software allows you to carry out:

- *Continuous measurement*
- *Official Test (\*)*

(\*) According to norms in effect in the country where the software and device have been officially approved.

These tests are carried out on both petrol engines and diesel engines using Bluetooth as an interface for the specific tools for emissions analysis.

Below you will find some general information regarding software use.

The use of this software is closely tied to the correct use of the device that allows you to view the software.

Make sure you have read and understood the technical manuals for both the device and the emissions analysis tools.

Before you start the measurement make sure the batteries of the device and of the emission analysis tools are charged enough to last throughout the entire test that you are about to carry out.

Before you start the test make sure you have correctly configured the communication with the emission analysis tool you wish to use.

## *2.1 Browsing through Screens and Selecting*

All software functions can be selected and started using the keys located on the front panel of the device.

The **UP/DOWN arrows** and **FORWARD/BACK arrows** allow you to select the items desired and allow you to set parameter values.

The **OK** key allows you to confirm the selection made or the value entered.

The **C** key allows you to exit the screen you are currently viewing.

## *2.2 Service Icons*

The charge status of the batteries is indicated by a designated **icon** on the display of the device:



This icon flashes when the batteries are charging.

If the device is being powered by an external power source the following **icon** will appear on the display:



The charge of the batteries of the emissions analysis tools is monitored throughout the entire measurement.

If the tool is communicating via Bluetooth the following **icon** will appear:



## 2.3 Service Messages

Messages provided by the software will inform you of any errors or anomalies.

For example:

- *errors in communication with the emissions analysis tools*
- *ambient conditions do not correspond to those required in order to carry out the tests.*
- *analysis tool calibration expired*
- *etc.*

Messages provided by the software will inform you of preliminary test procedures.

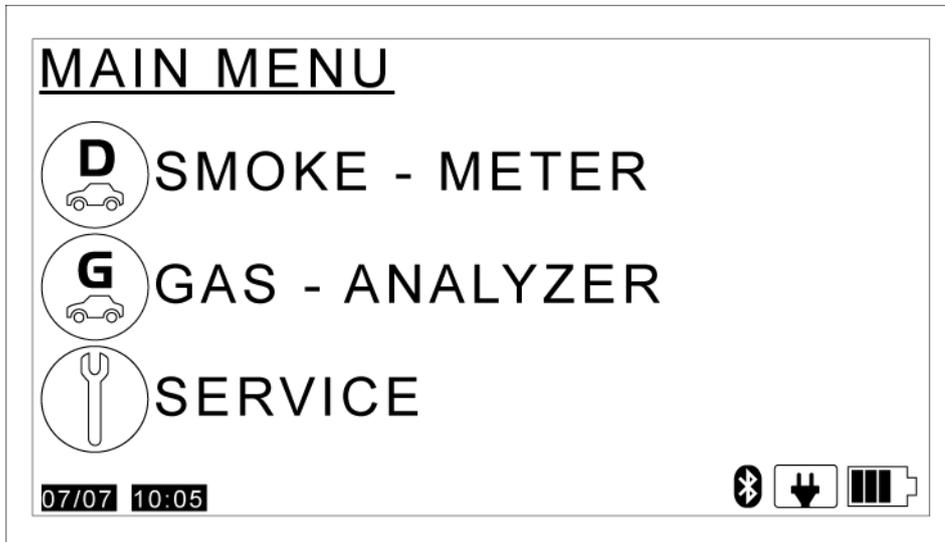
- *autozero*
- *seal test*
- *heating the analysis chamber*

### 3 MAIN MENU

The **MAIN MENU** screen is shown below.

This menu appears once the device is turned on.

#### **MAIN MENU**



The items that appear in this screen are as follows:

- **SMOKE METER:** *allows you to access the tests for diesel engines (DIESEL MEASUREMENTS).*
- **GAS ANALYZER:** *allows you to access the tests for petrol engines (GAS MEASUREMENTS).*
- **SERVICE:** *allows you to access the service functions of the software (SERVICE MENU).*

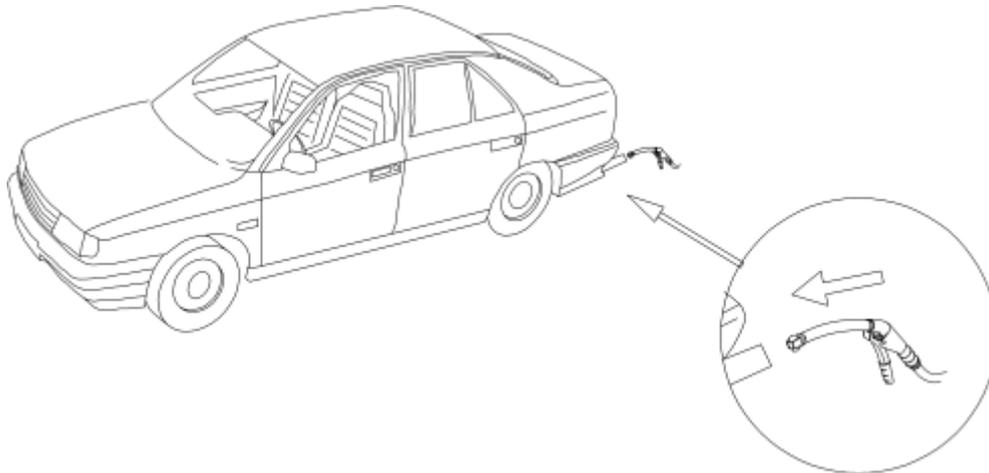
Select the desired item.

Press the **OK** key.

### 3.1 Preliminary Test Procedures

Before testing, check that:

- *the room temperature is between 5° and 40° C.*
- *the exhaust of the vehicle is sealed:*
  - *close the muffler lock while the engine is running at idle: if the exhaust seal is efficient you would not notice any gas leak from the joints.*
- *the engine RPM at idle corresponds to that declared by the Manufacturer;*
- *the temperature of the engine and the oil correspond to those indicated by the Manufacturer (normally about 80°C).*
- *Insert the exhaust gas probe into the exhaust pipe of the vehicle.*



## 4 DIESEL MEASUREMENTS

This chapter describes the functions related to the measurement of exhaust gas for diesel engines.

All the required preliminary checks are performed automatically (the program will prompt you to intervene when and where necessary).

All ambient and physical parameters related to the measurement are constantly monitored.

The program, wherever possible, will restore the optimal conditions for the test and will notify you of any problems that must be solved.

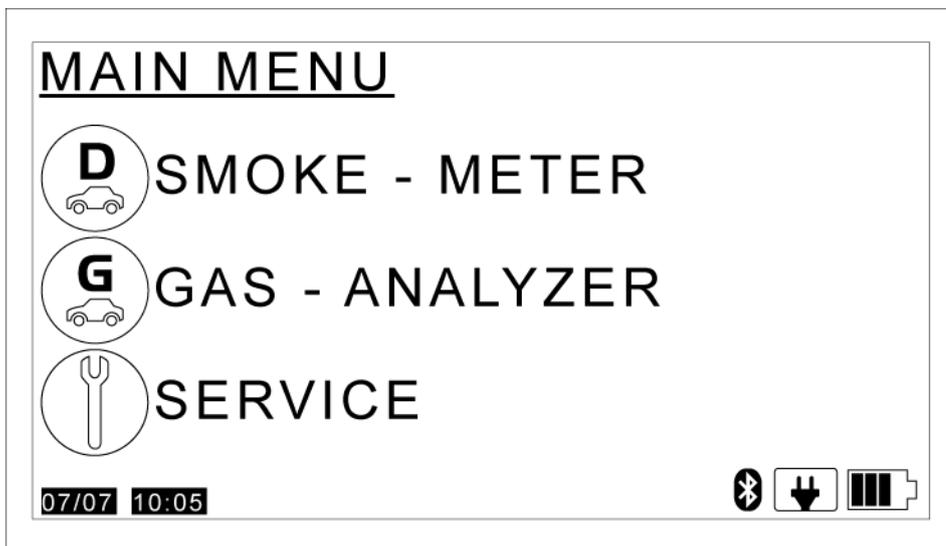
The test is stopped until the optimal measurement conditions are restored.

For the **Official test**:

You will be notified of any anomaly or of any value that differs from those required by the Standard.

Proceed as follows:

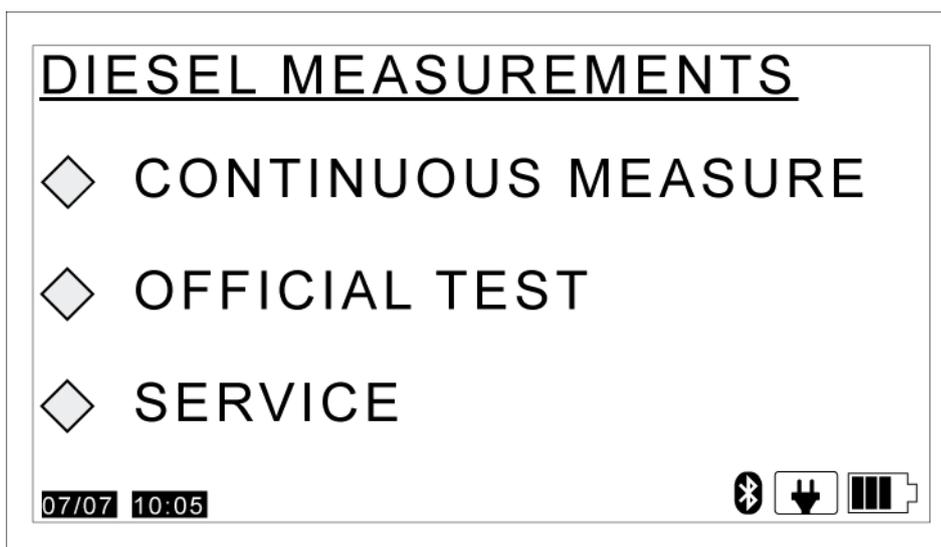
### MAIN MENU



Select **SMOKE METER**.

Press the **OK** key.

Wait for the communication between the device and the emissions analysis tool to start.



The items that appear in this screen are as follows:

- **CONTINUOUS MEASUREMENT:** *allows you to carry out continuous measurement tests.*
- **OFFICIAL TEST:** *allows you to carry out the Official Test.*
- **SERVICE:** *allows you to access the smoke meter service menu.*

The program guides the user through the procedures required.

Select the desired item.

Press the **OK** key.

## 4.1 Continuous measurement

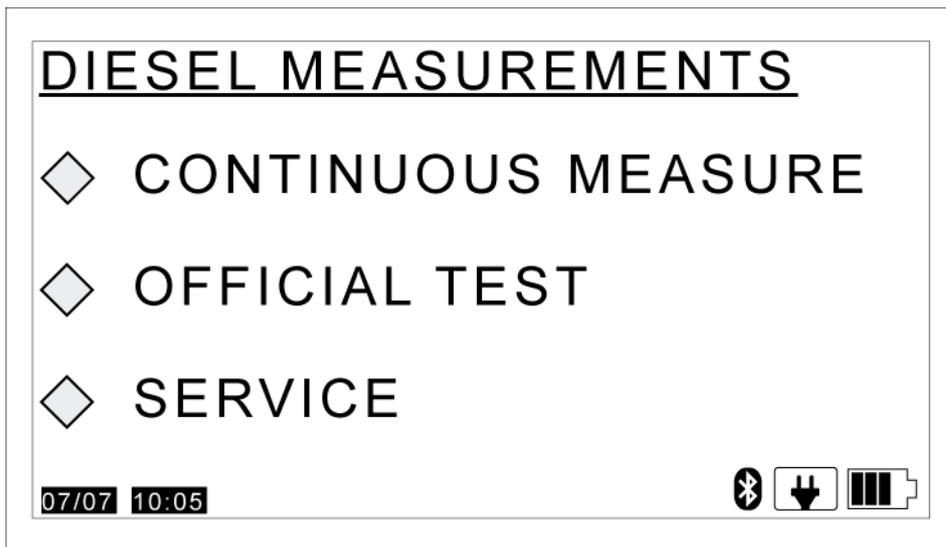
This function allows you to get a free measurement of the opacity value.



**You must have correctly configured the Bluetooth communication with the emissions analysis tool and with the rev counter.**

Proceed as follows:

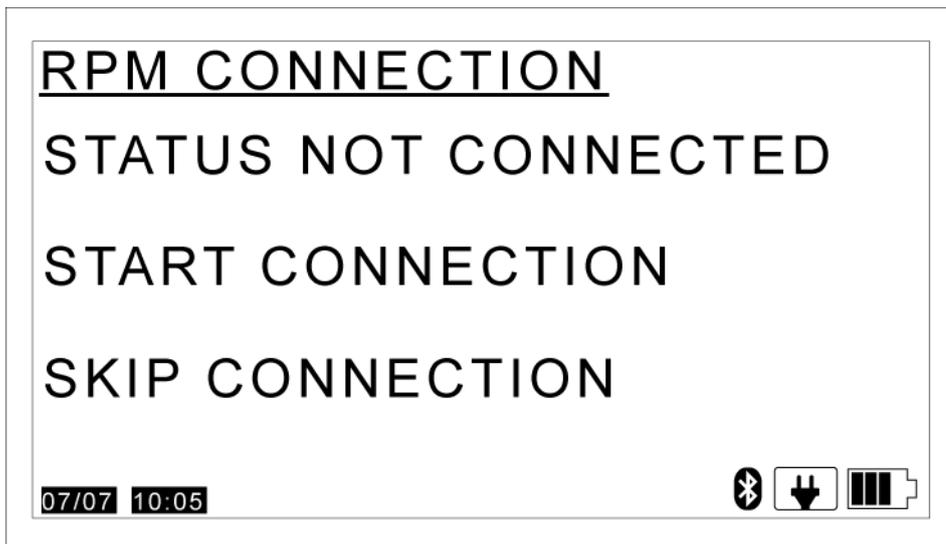
### DIESEL MEASUREMENTS



Select **CONTINUOUS MEASUREMENT**.

Press the **OK** key.

### RPM CONNECTION



This screen indicates the rev counter connection status.

To use an **external rev counter**:

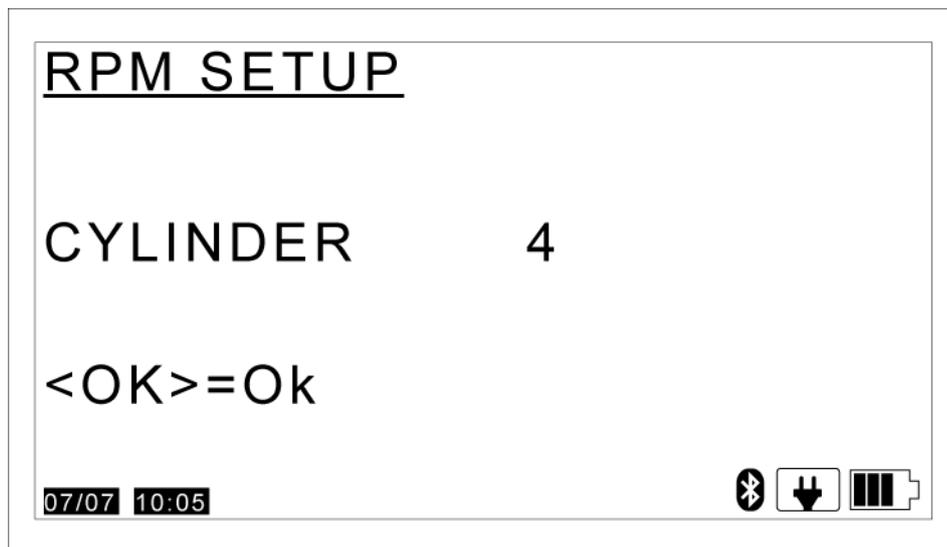
1. Select **START CONNECTION**.
2. Press the **OK** key.

In order to **manually enter the values** for both temperature and RPM:

1. Select **SKIP CONNECTION**.
2. Press the **OK** key.

Selecting this option will take you directly to the screen **CONTINUOUS MEASUREMENT**.

### REV COUNTER SETUP



**This screen appears only if an external rev counter is used.**

Set the number of **CYLINDERS**.

Press the **OK** key.

### REV COUNTER MEASUREMENTS



The value of the following parameters is provided:

Parameter	Unit of measurement	Description
STATUS	-	Rev counter connection status.
TEMP	deg C	Temperature detected
RPM	-	Number of RPM detected.

Press the **OK** key.

The **ambient conditions** are checked.

An **autozero** is carried out on the tool.

**CONTINUOUS MEASUREMENT**

<u>CONTINUOUS MEASURE</u>		
K	m-1:	5.40
N	%:	90.2
Kmax	m-1:	5.41
Nmax	%:	5.93
RPM	:	900
Toilio	°C:	98
AUTOZERO	RESET	
PRINT	EXIT	

The value of the following parameters is provided:

Parameter	Unit of measurement	Description
K	m-1	Opacity
N	%	Opacity (in percentage)
K max	m-1	Maximum opacity value recorded
N max	%	Maximum opacity value recorded (in percentage)
RPM	-	Number of engine rpm
Toil	deg C	Engine oil temperature

The functions of this screen are:

- **AUTOZERO**: allows you to carry out the electrical calibration of the tool.
- **PRINT**: allows you to print the results of a test performed.

- **RESET:** *allows you to reset the measurements that have been carried out up til now.*
- **QUIT:** *allows you to quit the test.*

Select the desired item.

Press the **OK** key.

## 4.2 Official Test - ITALY

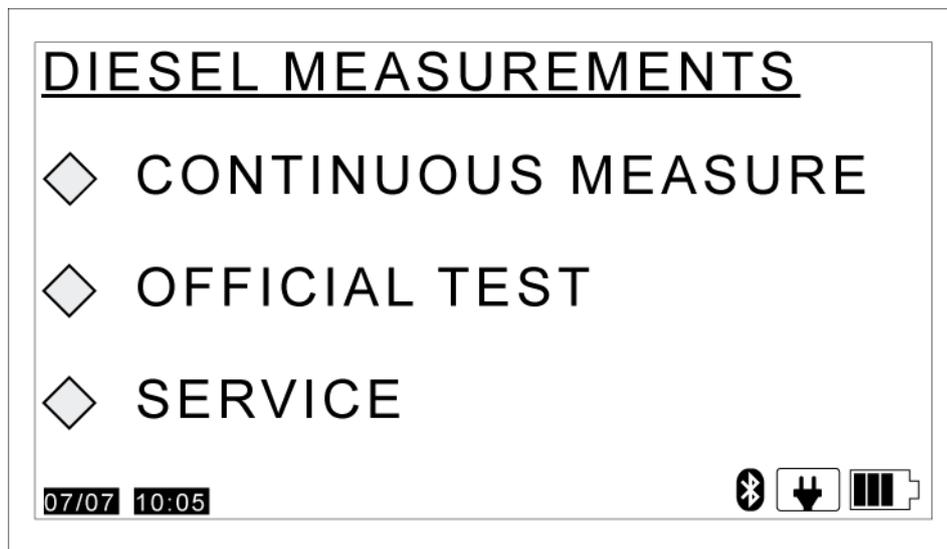
This function allows you to perform the Official Test according to the provisions of the Italian Standard currently in effect.



**You must have correctly configured the Bluetooth communication with the emissions analysis tool and with the rev counter.**

Proceed as follows:

### DIESEL MEASUREMENTS

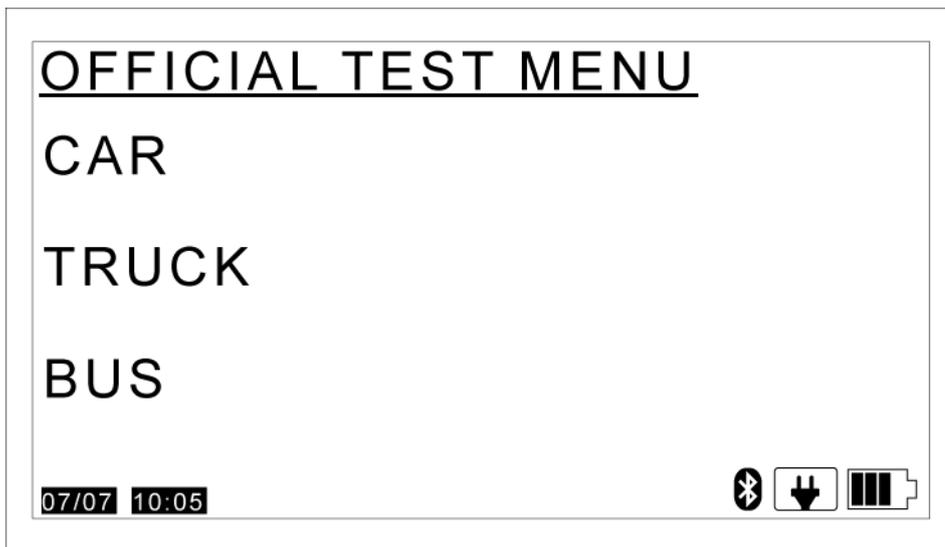


Select **OFFICIAL TEST**

Press the **OK** key.

Wait for the communication between the device and the emissions analysis tool to start.

### OFFICIAL TEST MENU



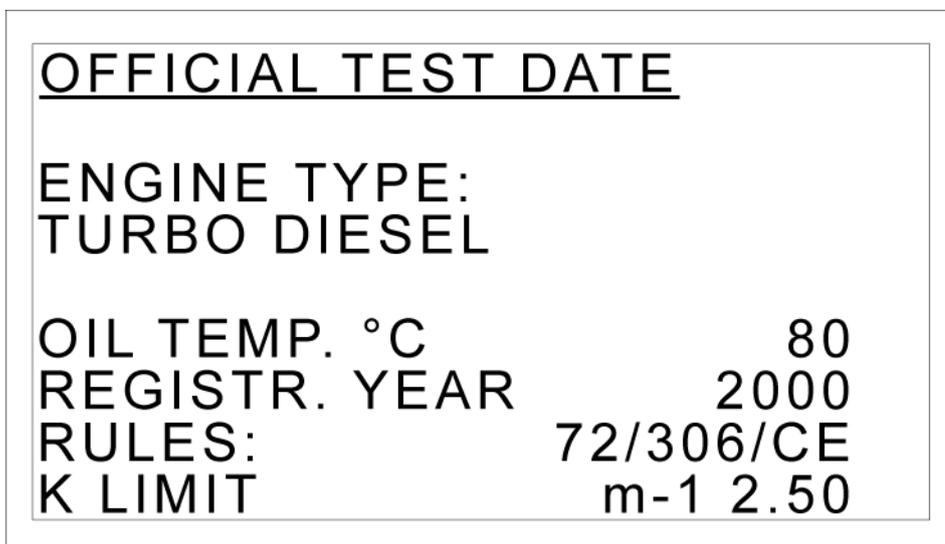
This screen allows you to set the type of vehicle on which you will carry out the test:

- **CAR**
- **TRUCK**
- **BUS**

Select the desired item.

Press the **OK** key.

### OFFICIAL TEST DATA



This screen allows you to set the data required by the official standard:

- **ENGINE TYPE:** *allows you to indicate the engine type of the vehicle on which you will carry out the test.*
- **TEMP.OIL:** *allows you to change the minimum limit for the engine oil temperature.(\*).*

- **REGISTRATION YEAR:** allows you to indicate the year the vehicle was registered.
- **NORM:** allows you to indicate the norm the test uses as a reference.
- **K LIMIT:** allows you to indicate the limit value for the opacity (\*\*).

(\*) The engine oil temperature stated is the minimum value provided for by the norm in effect. You are allowed to carry out the test at less than 80 °C. If the outcome is negative, however, you must repeat the test, this time bringing the vehicle to a temperature over 80 °C.

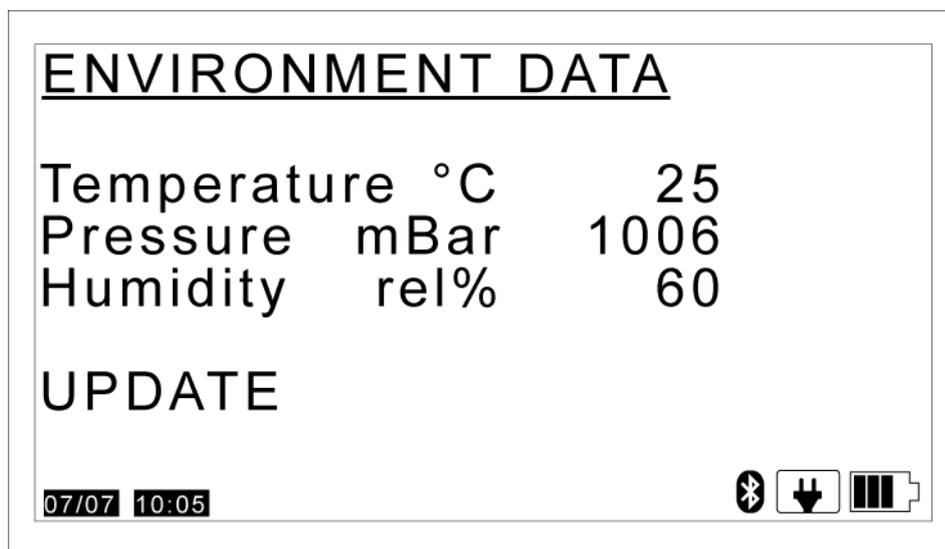
(\*\*) The limit value must be read in the engine approval plate located in the engine compartment and or in the door frame on the driver or passenger side. If you are not able to locate the plate inside the vehicle you can use the limits suggested by the software. In this case the following will appear in the printed report in correspondance to the limit:

"The vehicle plate value has not been entered"

Use the browser keys to set the data required.

Press the **OK** key.

### ENVIRONMENT DATA



This screen contains the ambient data detected by the tool.

The value of the following parameters is provided:

Parameter	Unit of measurement	Description
Temperature	[°C]	Environment temperature detected.
Pressure	mBar	Environment pressure detected.
Relative humidity	%	Environment humidity detected

Select **UPDATE**.

Press the **OK** key.

The ambient data are updated.

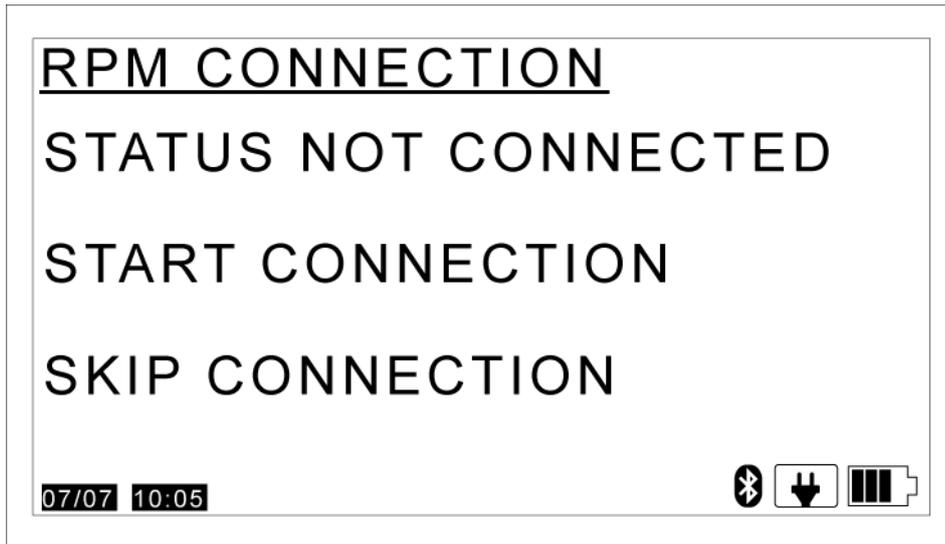
The **ambient data can be entered manually**:

Select the desired item.

Set the value desired

Press the **OK** key.

Press the **OK** key again once you have updated the ambient parameters.



This screen indicates the rev counter connection status.

To use an **external rev counter**:

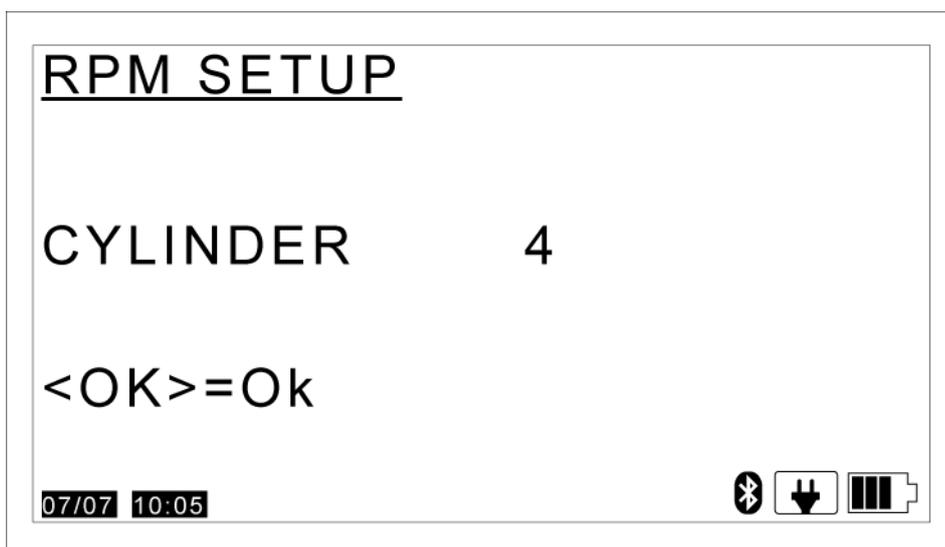
1. Select **START CONNECTION**.
2. Press the **OK** key.

In order to **manually enter the values** for both temperature and RPM:

1. Select **SKIP CONNECTION**.
2. Press the **OK** key.

Selecting this option will take you directly to the screen **ENGINE PARAMETERS**.

## REV COUNTER SETUP



This screen appears only if an external rev counter is used.



**This screen appears only if you decide to manually enter the temperature and engine rpm.**

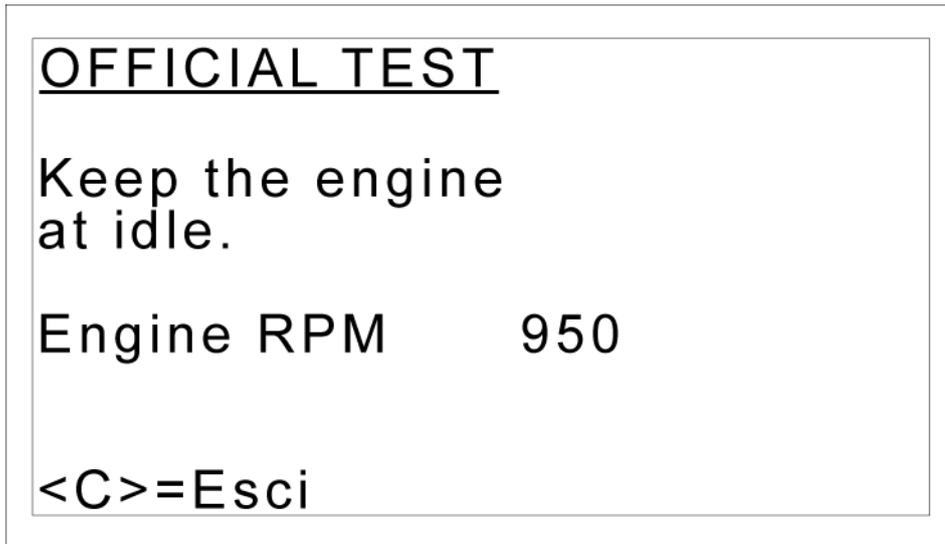
In this screen you can set the threshold for:

<b>Parameter</b>	<b>Unit of measurement</b>	<b>Description</b>
MIN RPM	-	Minimum number of engine rpm.
MAX RPM	-	Maximum number engine rpm.
OIL TEMP.	deg C	Engine oil temperature.

Set the value desired

Press the **OK** key.

## OFFICIAL TEST



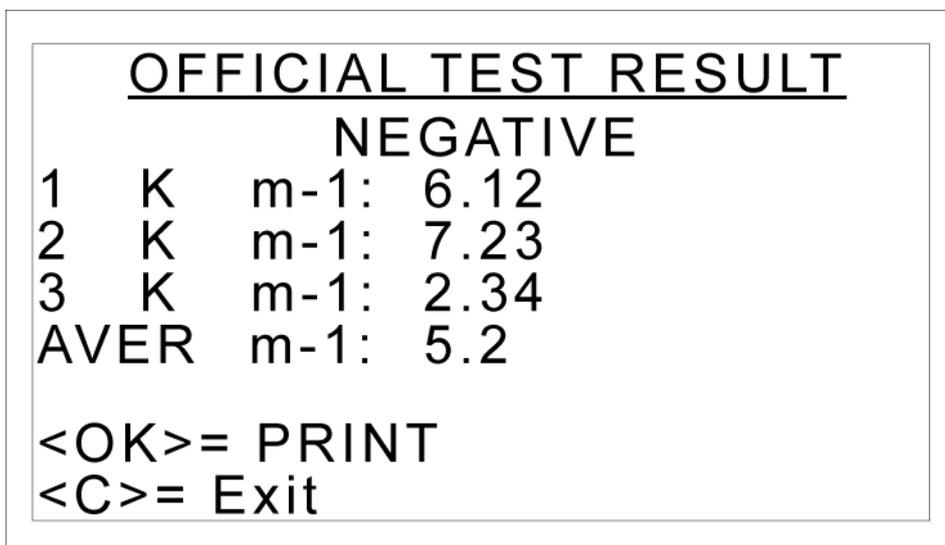
The Official Test begins

Follow the instructions on the screen until you come to the end of the test.



**The accelerations must be carried out when requested by the software and the engine must be kept at the appropriate rpm until the software asks you to bring the rpm to idle.**

## OFFICIAL TEST OUTCOME



The test will end when the procedure described by the norm in effect has been completed.

The screen contains:

- *the outcome of the test.*
- *the number of accelerations and the relative opacity value.*

- *the average opacity measured.*

The result of the test is positive when the average of the values of the last three "valid" accelerations is within the limits defined by the Norm in effect.

Press the **OK** key.

The report of the test carried out is printed.

Press the **C**key to exit.

### 4.3 Service

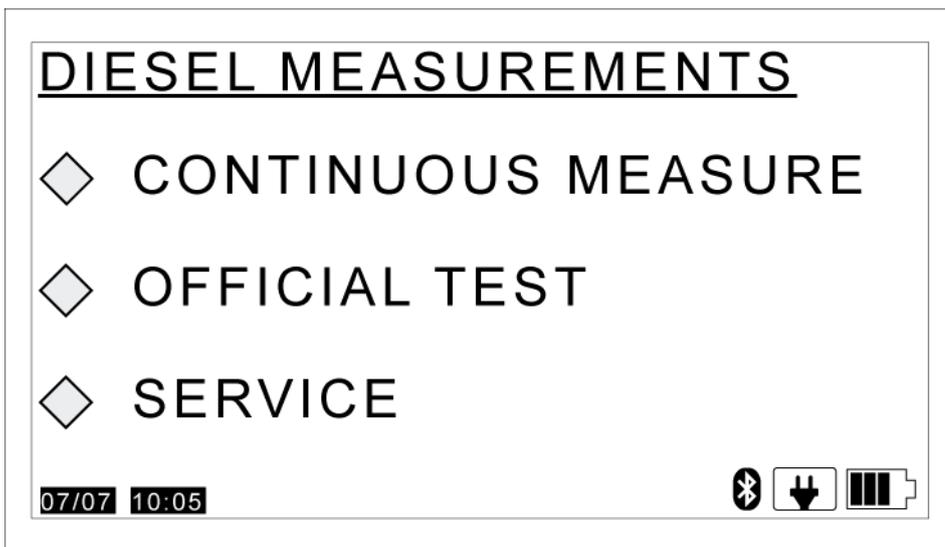
This function allows you to access the different service functions.

Only the functions accessible to the user are dealt with in the next chapters.

The other functions are protected by an assistance password and are for TEXA technical personnel only.

Proceed as follows:

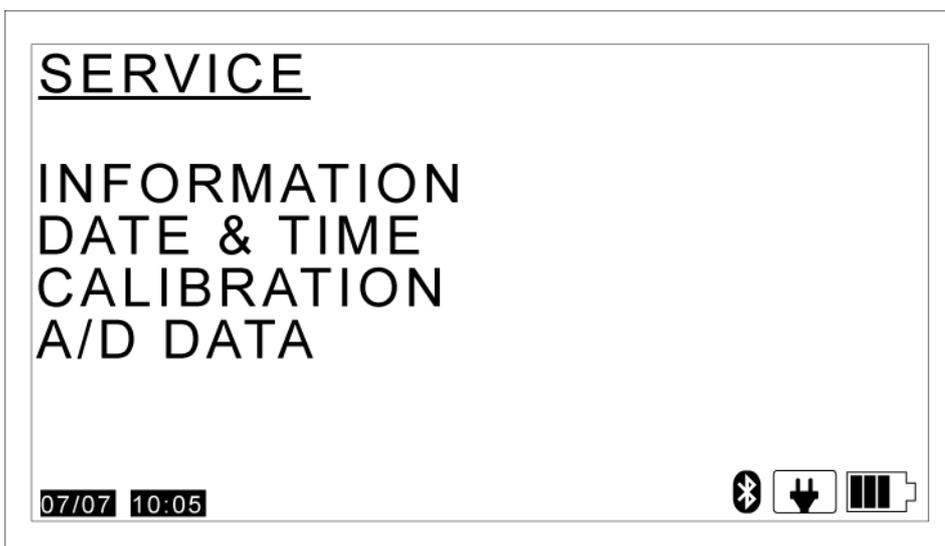
#### DIESEL MEASUREMENTS



Select **SERVICE**.

Press the **OK** key.

#### SERVICE



- **INFORMATION:** allows you to view a summary of the sensitive data of the emissions analysis tool and of the rev counter.

- **DATE & TIME:** allows you to display the date and time of the internal clock of the tool.
- **CALIBRATION:** allows you to carry out a calibration of the emissions analysis tool.
- **A/D DATA:** allows you to verify any anomaly in the tool.

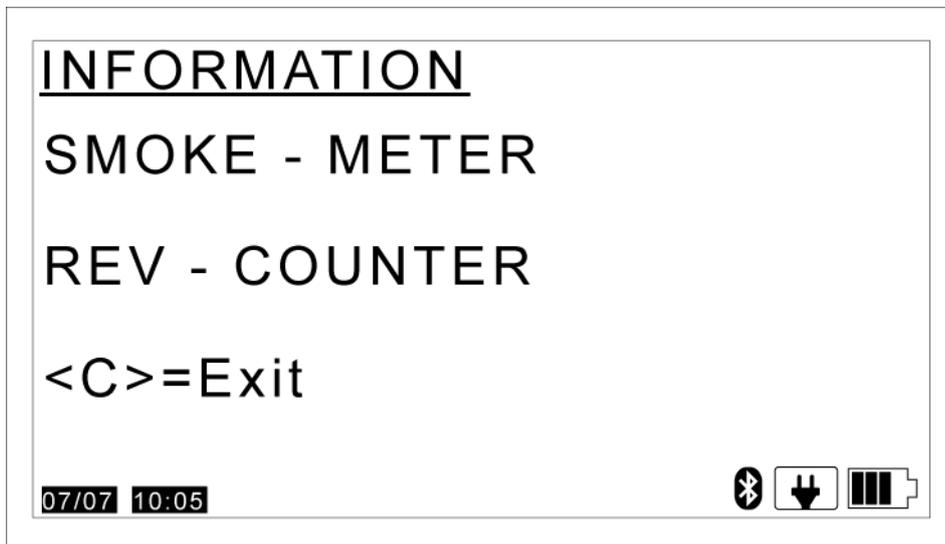
Select the desired item.

Press the **OK** key.

#### 4.3.1 Information

This function allows you to view a summary of the sensitive data of the emissions analysis tool and of the rev counter.

#### INFORMATION



Within this screen you can select:

- **SMOKE METER**
- **REVOLUTION COUNTER**

Select the desired item.

Press the **OK** key.

The screen containing the information relative to the tool selected will appear.

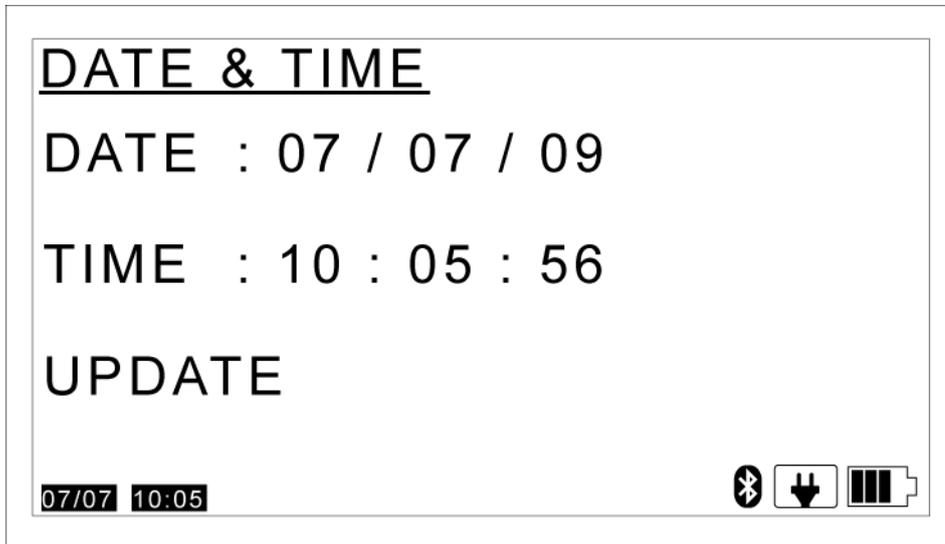
Scroll down the list using the **UP/DOWN ARROWS**.

Press the **C**key to exit.

### 4.3.2 Date & time

This function allows you to display the date and time of the internal clock of the tool.

#### **DATE & TIME**



Select **UPDATE**.

Press the **OK** key.

The date and time are updated.

Press the **C**key to exit.

### 4.3.3 Calibration

This function allows you to perform the calibration of the emissions analysis tool.

This function is protected by a password and is for technical assistance personnel only.

Press the **C**key to exit.

### 4.3.4 A/D Data

This function allows you to identify anomalies within the tool.

This function is protected by a password and is for technical assistance personnel only.

Press the **C**key to exit.

## 5 GAS MEASUREMENTS

This chapter describes the functions related to the measurement of exhaust gas for petrol engines.

The program guides the user through the procedures required.

All the required preliminary checks are performed automatically (the program will prompt you to intervene when and where necessary).

All ambient and physical parameters related to the measurement are constantly monitored.

The program, wherever possible, will restore the optimal conditions for the test and will notify you of any problems that must be solved.

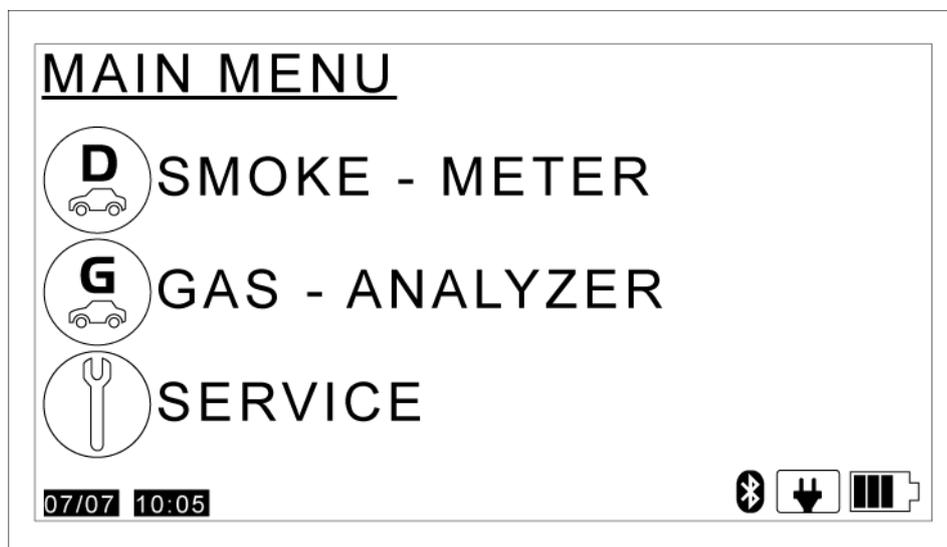
The test is stopped until the optimal measurement conditions are restored.

For the **Official test**:

You will be notified of any anomaly or of any value that differs from those required by the Standard.

Proceed as follows:

### MAIN MENU

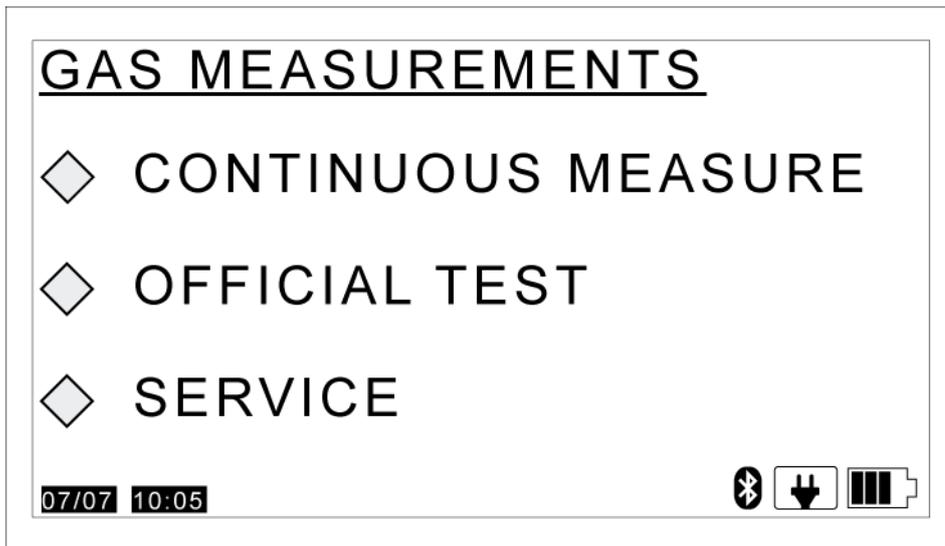


Select **GAS ANALYZER**.

Press the **OK** key.

Wait for the communication between the device and the emissions analysis tool to start.

## GAS MEASUREMENTS



The items that appear in this screen are as follows:

- **CONTINUOUS MEASUREMENT:** *allows you to carry out continuous measurement tests.*
- **OFFICIAL TEST:** *allows you to carry out the Official Test.*
- **SERVICE:** *allows you to access the smoke meter service menu.*

Select the desired item.

Press the **OK** key.

## 5.1 Continuous measurement

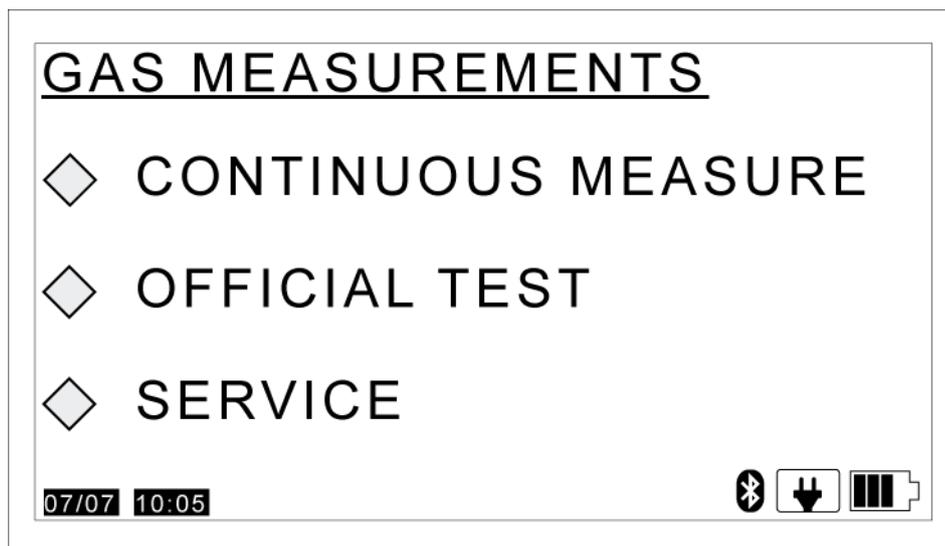
This function allows you to get a free measurement of the opacity value.



**You must have correctly configured the Bluetooth communication with the emissions analysis tool and with the rev counter.**

Proceed as follows:

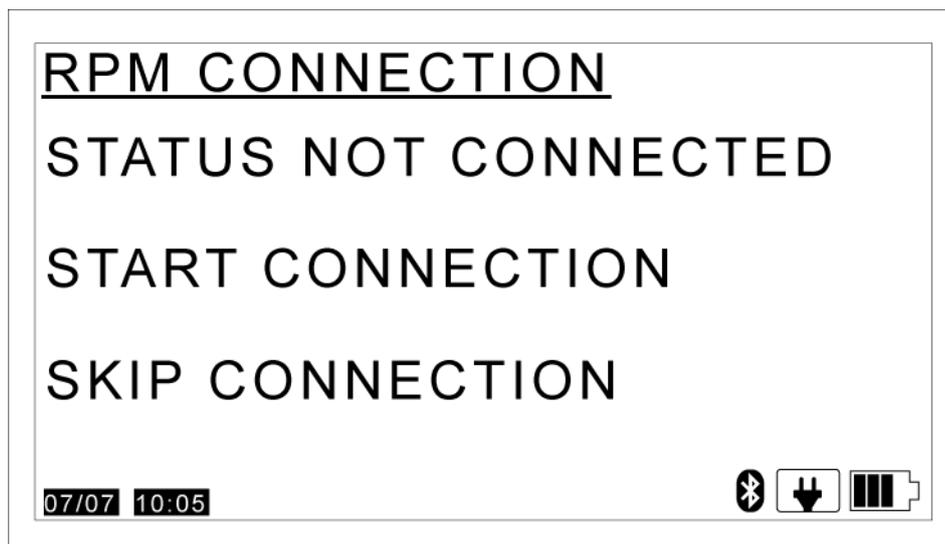
### GAS MEASUREMENTS



Select **CONTINUOUS MEASUREMENT**.

Press the **OK** key.

### RPM CONNECTION



This screen indicates the rev counter connection status.

To use an **external rev counter**:

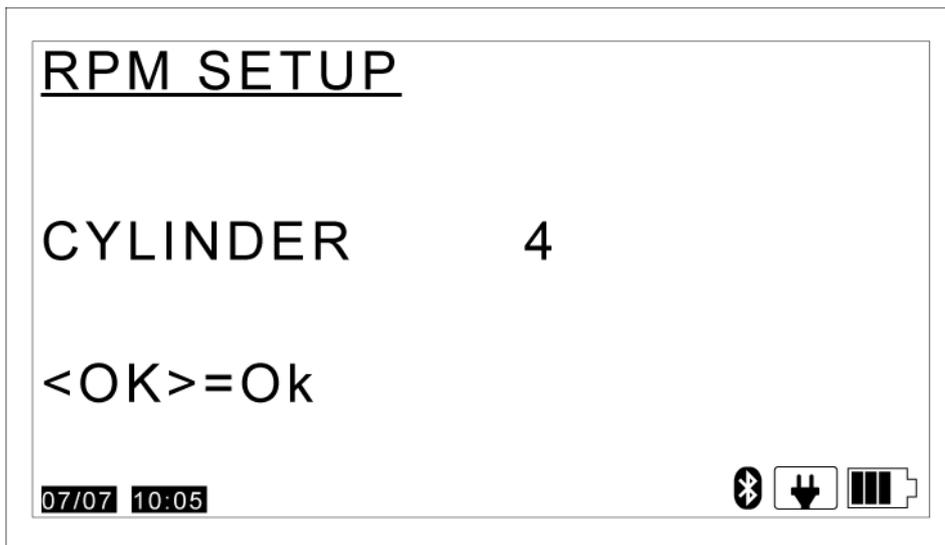
1. Select **START CONNECTION**.
2. Press the **OK** key.

In order to **manually enter the values** for both temperature and RPM:

1. Select **SKIP CONNECTION**.
2. Press the **OK** key.

Selecting this option will take you directly to the screen **ENGINE/FUEL**.

### REV COUNTER SETUP



**This screen appears only if an external rev counter is used.**

Set the number of **STROKES**.

Set the number of **CYLINDERS**.

Press the **OK** key.

### REV COUNTER MEASUREMENTS



Use the browser keys to set the data required.

Press the **OK** key.

The **ambient conditions** are checked.

An **autozero** is carried out on the tool.

## CONTINUOUS MEASUREMENT

en

<u>CONTINUOUS MEASURE</u>			
CO %	2.98	COcor %	3.0
CO2 %	12.6	HC ppm	895
O2 %	4.22	NOx ppm	0
RPM	900	Toil °C	98
$\lambda$		1.0677	
AUTOZERO		PRINT	
<C>=Exit			

The value of the following parameters is provided:

Parameter	Unit of measurement	Description
CO	%	Carbon monoxide
COcor	%	Carbon monoxide "correct"
CO2	%	Carbon dioxide
O2	%	Oxygen
HC	ppm	Hydrocarbons not burned
NOx (*)	ppm	Nitrogen oxide
Toil	deg C	Engine oil temperature.
RPM	-	Number of RPM detected.
$\lambda$	-	Bretschneider-Formula

(\*) This parameter is given only if the appropriate sensor is installed on the tool.

The functions of this screen are:

- **AUTOZERO**: allows you to carry out the electrical calibration of the tool.
- **PRINT**: allows you to print the results of a test performed.

Select the desired item.

Press the **OK** key.

Press the **C**key to exit.

## 5.2 Official Test - ITALY

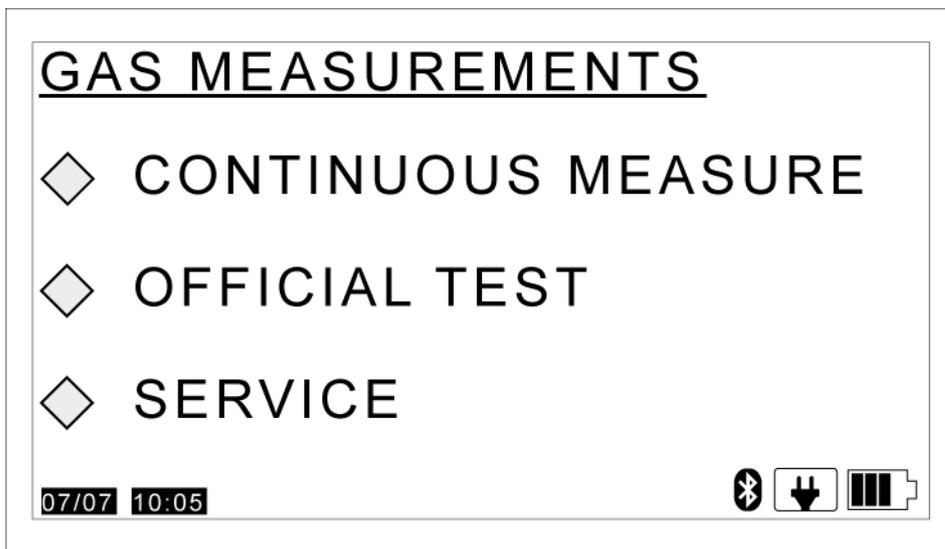
This function allows you to perform the Official Test according to the provisions of the Italian Standard currently in effect.



**You must have correctly configured the Bluetooth communication with the emissions analysis tool and with the rev counter.**

Proceed as follows:

### GAS MEASUREMENTS

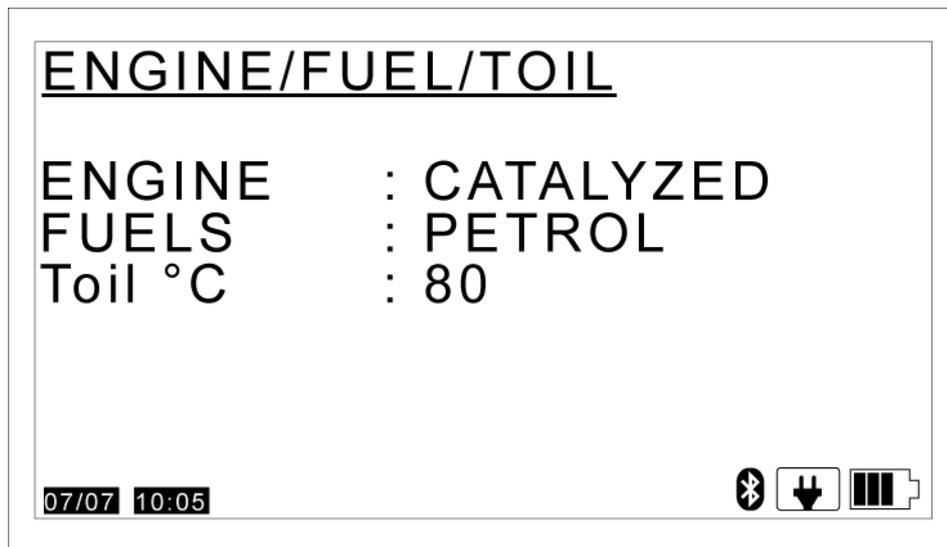


Select **OFFICIAL TEST**

Press the **OK** key.

Wait for the communication between the device and the emissions analysis tool to start.

### ENGINE/FUEL/TOIL



This screen allows you to set the data required to perform the test.

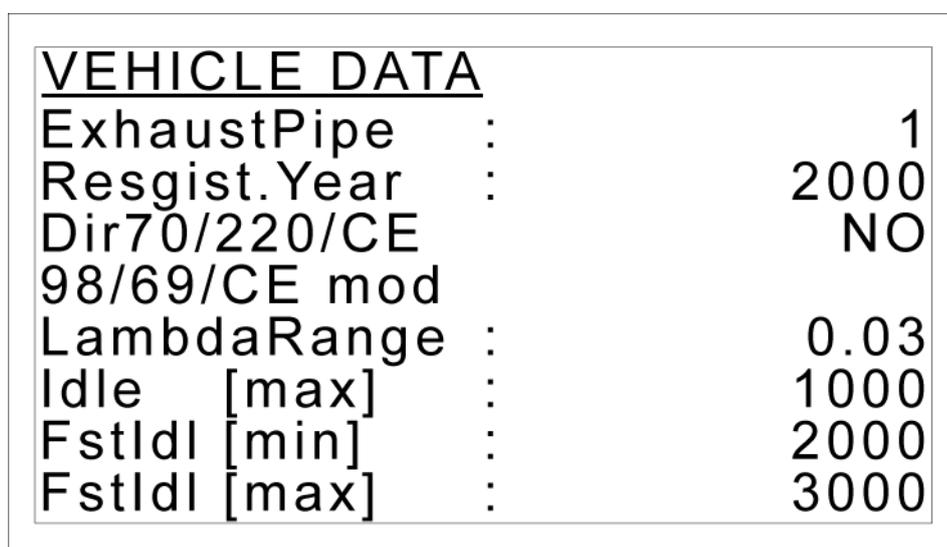
- **ENGINE:** allows you to indicate whether the vehicle is or is not fitted with a catalytic converter.
- **FUEL:** allows you to indicate the type of fuel used by the vehicle.
- **Toil:** allows you to change the minimum limit for the engine oil temperature. (\*)

(\*) The engine oil temperature stated is the minimum value provided for by the norm in effect. You are allowed to carry out the test at less than 80 °C. If the outcome is negative, however, you must repeat the test, this time bringing the vehicle to a temperature over 80 °C.

Use the browser keys to set the data required.

Press the **OK** key.

### VEHICLE DATA



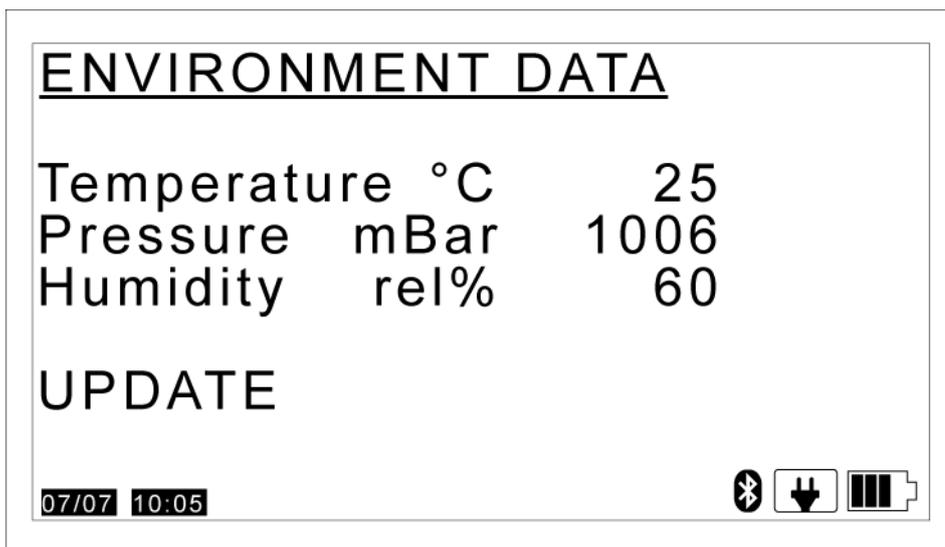
This screen allows you to set the data required by the official standard:

- **Exhaust pipes:** allows you to indicate the number of exhaust pipes on the vehicle.
- **REGISTRATION YEAR:** allows you to indicate the year the vehicle was registered.
- **Dir70/220/CE 98/69/CE:** allows you to indicate the norm the test uses as a reference.
- **RangeLambda:** allows you to indicate the tolerance range for the values derived from the lambda probe.
- **Min[max]:** allows you to indicate the maximum rpm value for the engine at idle.
- **MinAcc[min]:** allows you to indicate the minimum rpm value for the engine at accelerated idle.
- **MinAcc[max]:** allows you to indicate the maximum rpm value for the engine at accelerated idle.

Use the browser keys to set the data required.

Press the **OK** key.

## ENVIRONMENT DATA



This screen contains the ambient data detected by the tool.

The value of the following parameters is provided:

Parameter	Unit of measurement	Description
Temperature	deg C	Environment temperature detected.
Pressure	mBar	Environment pressure detected.
Relative humidity	%	Environment humidity detected

Select **UPDATE**.

Press the **OK** key.

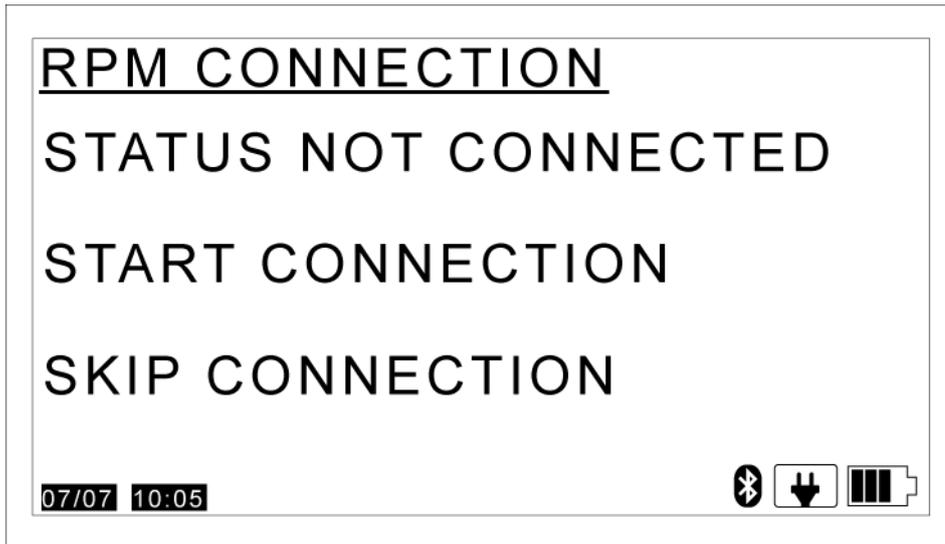
The ambient data are updated.

The **ambient data can be entered manually**:

1. *Select the desired item.*
2. *Set the value desired*
3. *Press the **OK** key.*

Press the **OK** key again once you have updated the ambient parameters.

## RPM CONNECTION



This screen indicates the rev counter connection status.

To use an **external rev counter**:

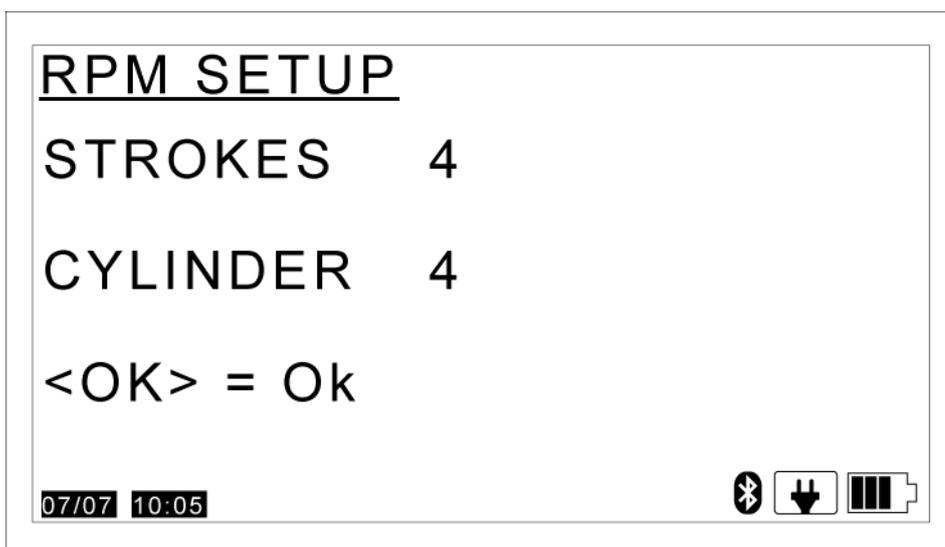
1. Select **START CONNECTION**.
2. Press the **OK** key.

In order to **manually enter the values** for both temperature and RPM:

1. Select **SKIP CONNECTION**.
2. Press the **OK** key.

Selecting this option will take you directly to the screen **THRESHOLD ENTRY**.

## REV COUNTER SETUP



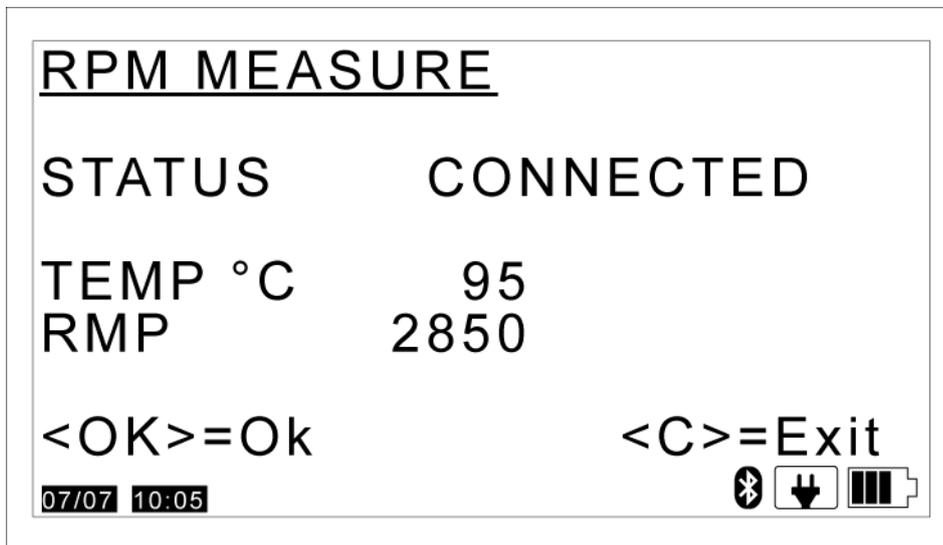
This screen appears only if an external rev counter is used.

Set the number of **STROKES**.

Set the number of **CYLINDERS**.

Press the **OK** key.

**REV COUNTER MEASUREMENTS**



**This screen appears only if an external rev counter is used.**

The value of the following parameters is provided:

Parameter	Unit of measurement	Description
STATUS	-	Rev counter connection status.
TEMP	deg C	Temperature detected
RPM	-	Number of RPM detected.

Press the **OK** key.

**OFFICIAL TEST**

<u>OFFICIAL TEST</u>			
REV ENGINE TO			
RPM 2000 - 3000			
KEEP IT FOR			
		30s	
Timer s:		22	
RPM	2690	Toil °C	97
CO %	3.00	CO2 %	12.9
O2 %	4.15	HC ppm	901
$\lambda$	1.06	COcor %	3.0

The Official Test begins

The test is controlled by the tool.

The timer starts to count only when the engine rpms are in the expected range and when the CO2 exceeds the limit value 5 - 6 % vol.

Follow the instructions that appear on your screen until you come to the end of the test.

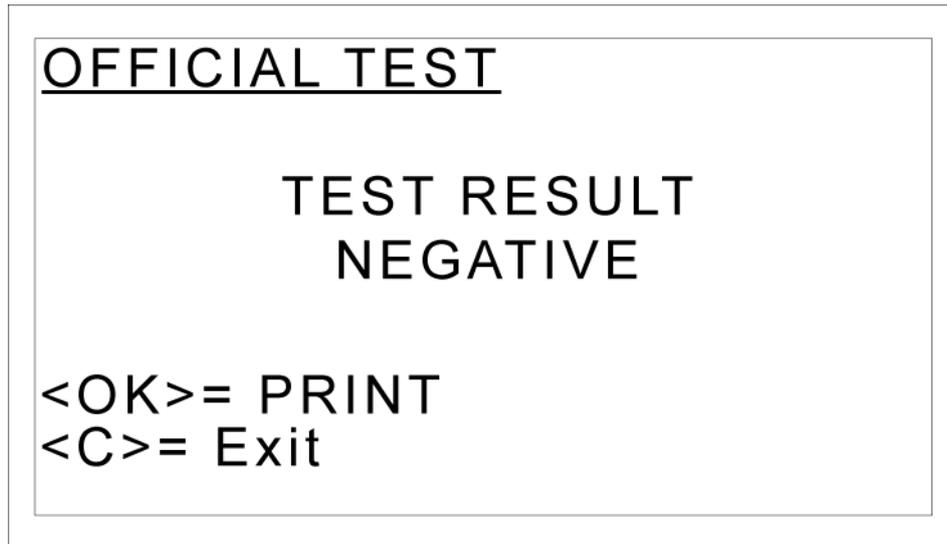
The value of the following parameters is provided:

Parameter	Unit of measurement	Description
CO	%	Carbon monoxide
COcor	%	Carbon monoxide "correct"
CO2	%	Carbon dioxide
O2	%	Oxygen
HC	ppm	Hydrocarbons not burned
NOx (*)	ppm	Nitrogen oxide
Toil	deg C	Engine oil temperature.
RPM	-	Number of RPM detected.
$\lambda$	-	Bretschneider-Formula

(\*) This parameter is given only if the appropriate sensor is installed on the tool.



**The accelerations must be carried out when requested by the software and the engine must be kept at the appropriate rpm until the software asks you to bring the rpm to idle.**



The test will end when the procedure described by the norm in effect has been completed.

The screen contains:

- *the outcome of the test.*

Press the **OK** key.

The report of the test carried out is printed.

Press the **C**key to exit.

### 5.3 Service

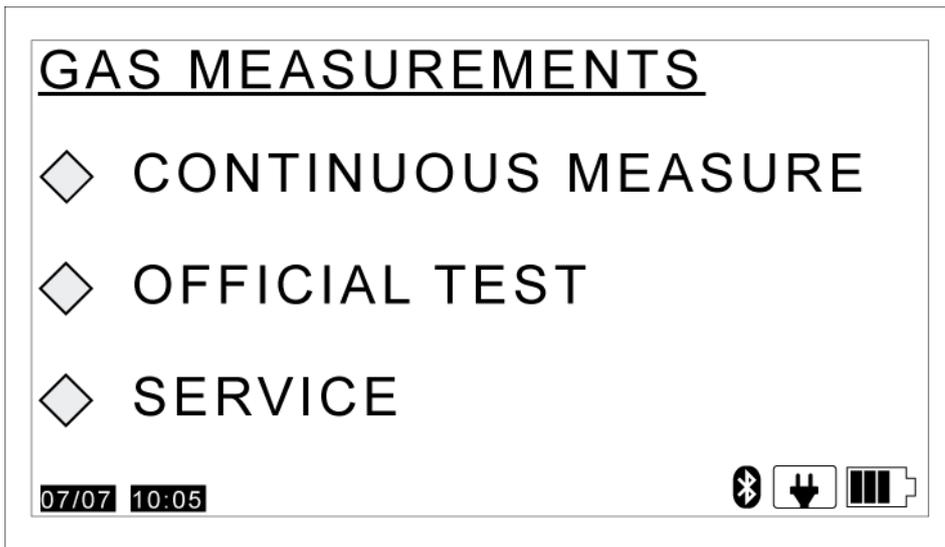
This function allows you to access the different service functions.

Only the functions accessible to the user are dealt with in the next chapters.

The other functions are protected by an assistance password and are for TEXA technical personnel only.

Proceed as follows:

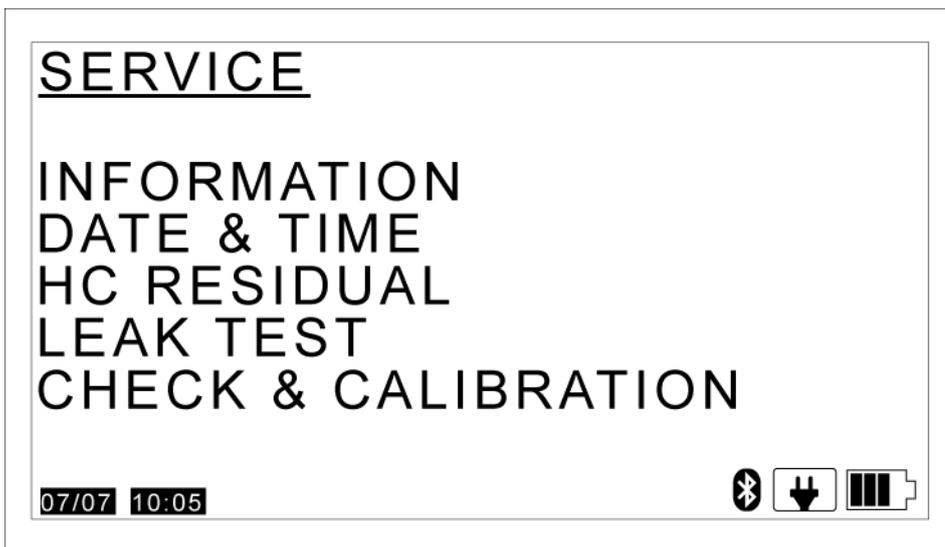
#### GAS MEASUREMENTS



Select **SERVICE**.

Press the **OK** key.

#### SERVICE



- **INFORMATION:** allows you to view a summary of the sensitive data of the emissions analysis tool and of the rev counter.

- **DATE & TIME:** allows you to display the date and time of the internal clock of the tool.
- **RESIDUAL HC TEST:** allows you to check if there are any residual hydrocarbons in the hydraulic circuit of the tool.
- **SEAL TEST:** This function enables you to check the hydraulic seal of the external and internal circuit of the tool.
- **CHECKS AND ADJUSTMENTS:** allows you to carry out a calibration of the emissions analysis tool.

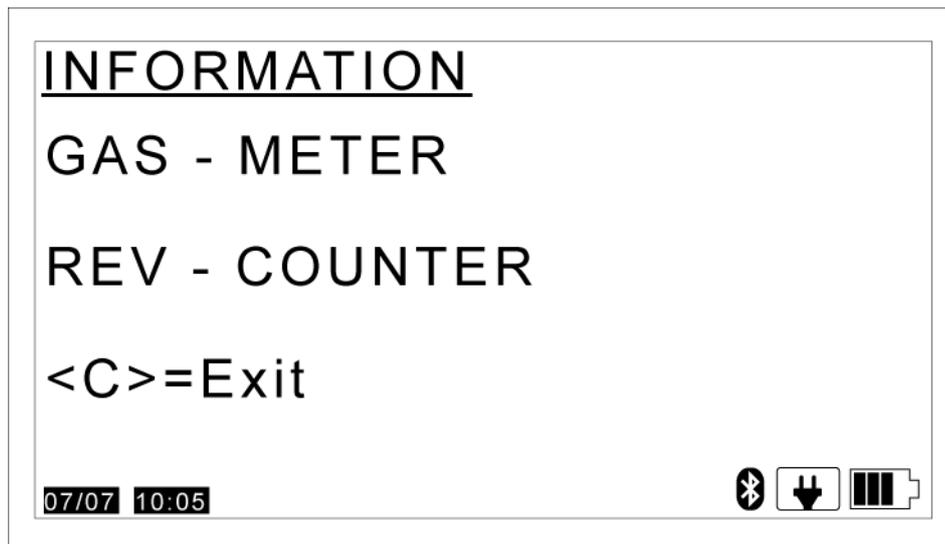
Select the desired item.

Press the **OK** key.

### 5.3.1 Information

This function allows you to view a summary of the sensitive data of the emissions analysis tool and of the rev counter.

#### **INFORMATION**



Within this screen you can select:

- **GAS ANALYZER**
- **REVOLUTION COUNTER**

Select the desired item.

Press the **OK** key.

The screen containing the information relative to the tool selected will appear.

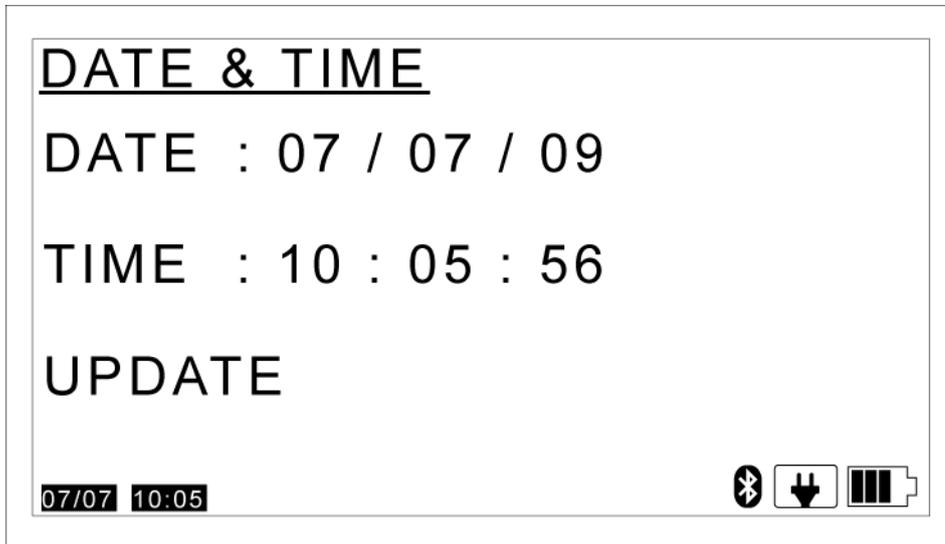
Scroll down the list using the **UP/DOWN ARROWS**.

Press the **C**key to exit.

### 5.3.2 Date & time

This function allows you to display the date and time of the internal clock of the tool.

#### **DATE & TIME**



Select **UPDATE**.

Press the **OK** key.

The date and time are updated.

Press the **C** key to exit.

### 5.3.3 Residual HC Test

This function allows you to check if there are any residual hydrocarbons in the hydraulic circuit of the tool.

These residuals could alter the measurements.



**The gas probe MUST NOT be inside the exhaust pipe of the vehicle while the test is being carried out!**

Follow the instructions that appear on your screen until you come to the end of the test.

## RESIDUAL HC TEST

```
HC RESIDUAL
Extract probe so
that it sucks in
open air
Timer s:      30
HC ppm:

<OK>= start
<C>= Exit
```

Press the **OK** key to start test.

Press the **C**key to exit.

### *5.3.4 Seal Test*

This function enables you to check the hydraulic seal of the external and internal circuit of the tool.

Follow the instructions that appear on your screen until you come to the end of the test.

## SEAL TEST

```
LEAK TEST
Close probe intake
&
wait
Timer s      :
Press.Sens.mBar:

<OK>= start
<C>= Exit
```

Press the **OK** key to start test.

The analyzer creates a vacuum in the hydraulic circuit sucking air for 30 seconds (see timer) then, it checks if the vacuum remains when the pump is turned off for another 30 seconds.

**If the outcome is negative** the program suggests performing a second test.

Press the **C**key to exit.

### *5.3.5 Checks and Adjustments*

This function allows you to access the data relative to the checks and adjustments carried out on the emissions analysis tool.

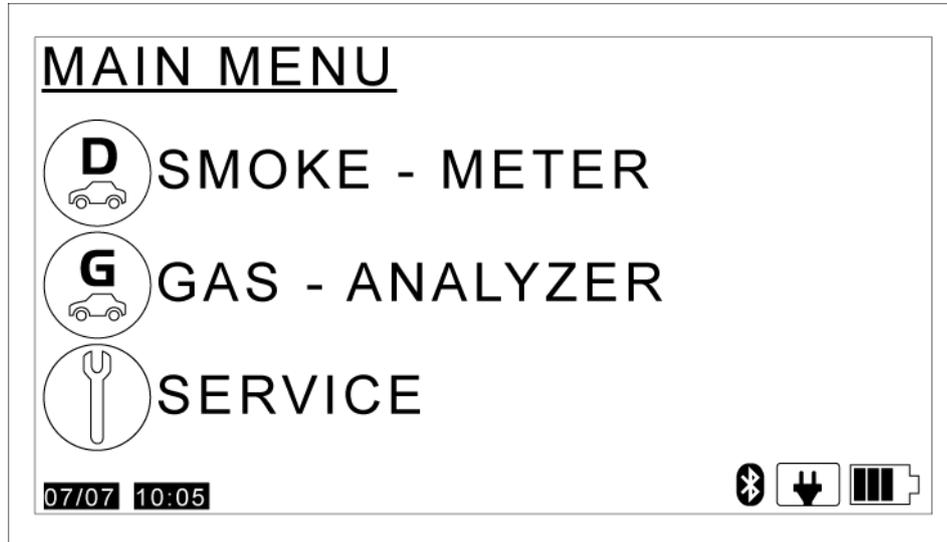
This function is protected by a password and is for technical assistance personnel only.

Press the **C**key to exit.

## 6 SERVICE

This chapter describes software service functions.

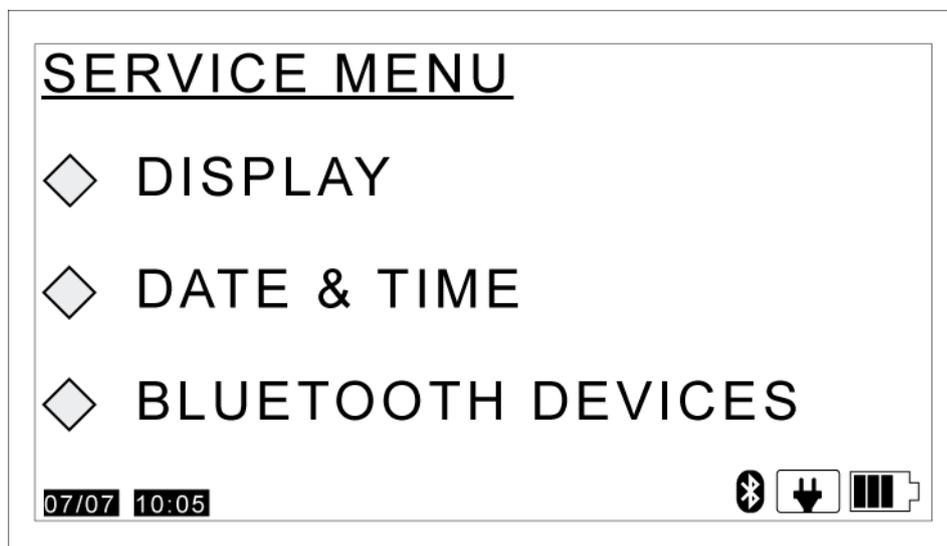
### MAIN MENU



Select **SERVICE**.

Press the **OK** key.

### SERVICE MENU



The items that appear in this screen are as follows:

- **DISPLAY:** *allows you to set the contrast and brightness of the display.*
- **DATE & TIME:** *allows you to set the date and time on the device.*
- **BLUETOOTH PERIFER.:** *allows you to search for and configure the Bluetooth tools.*

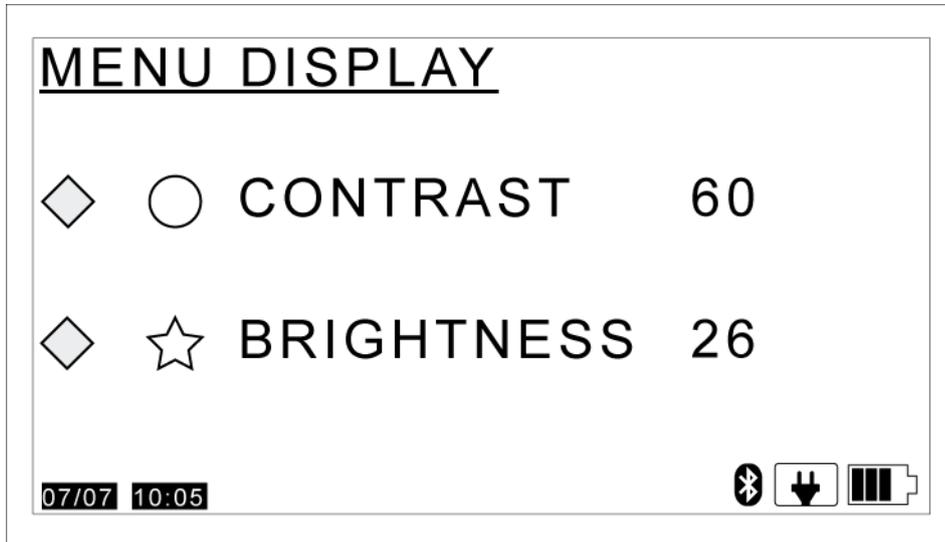
Select the desired item.

Press the **OK** key.

## 6.1 Display

This function allows you to set the contrast and brightness of the display.

### DISPLAY MENU



The items that appear in this screen are as follows:

- **CONTRAST:** *allows you to set the contrast of the display.*
- **BRIGHTNESS:** *allows you to set the brightness of the display.*

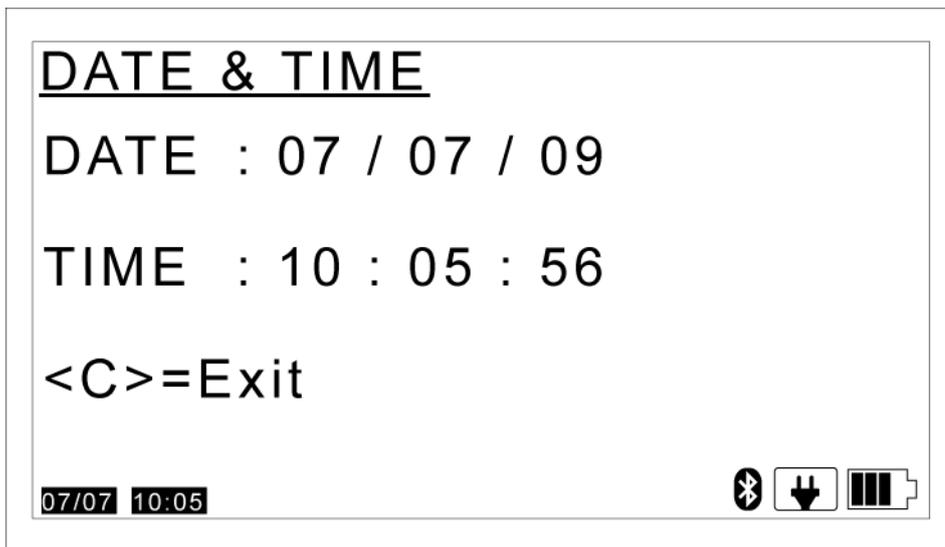
Use the browser keys to set the data required.

Press the **OK** key.

## 6.2 Date & time

This function allows you to set the date and time on the device.

### DATE & TIME



The items that appear in this screen are as follows:

- **DATE:** *allows you to set the date on the device.*
- **TIME:** *allows you to set the time on the device.*

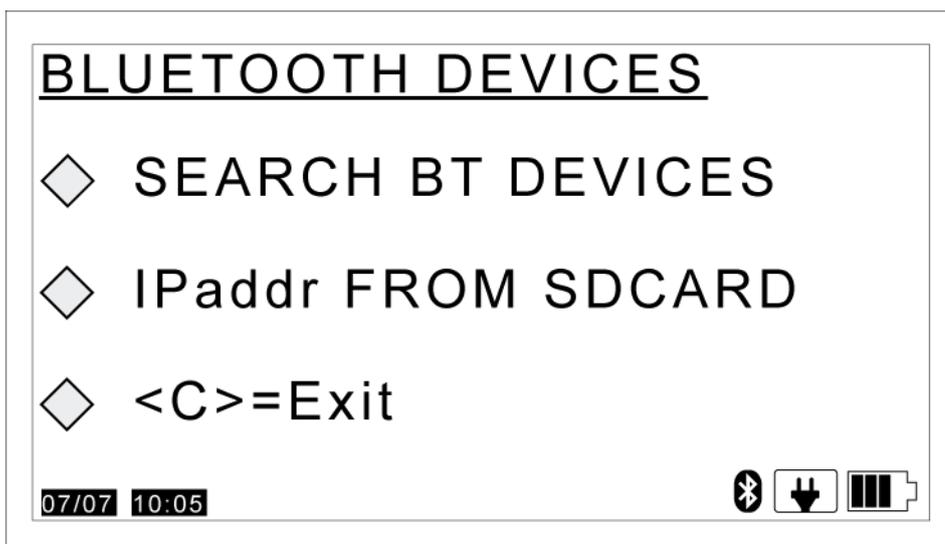
Use the browser keys to set the data required.

Press the **OK** key.

### 6.3 Bluetooth Peripherals

This function allows you to set the communication with the Bluetooth tools.

BLUETOOTH PERIFER.



The items that appear in this screen are as follows:

- **PERIFER. SEARCH:** *allows you to search for and configure the Bluetooth tools.*

- **SD CARD IPaddr:** *allows you to set the IP address of the Bluetooth devices saved on the SD CARD of the tool.*

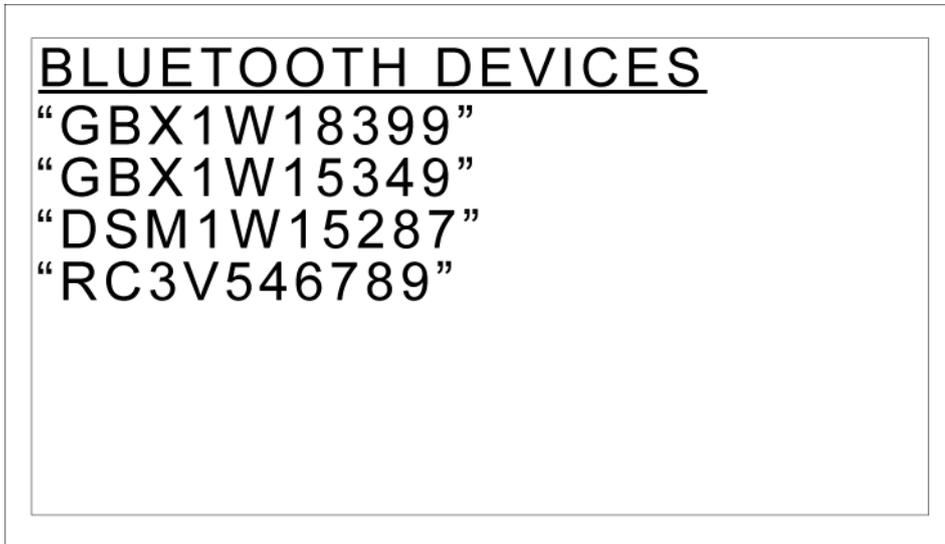
Select the desired item.

Press the **OK** key.

### 6.3.1 Periferal Search

This function allows you to search for and configure the Bluetooth tools.

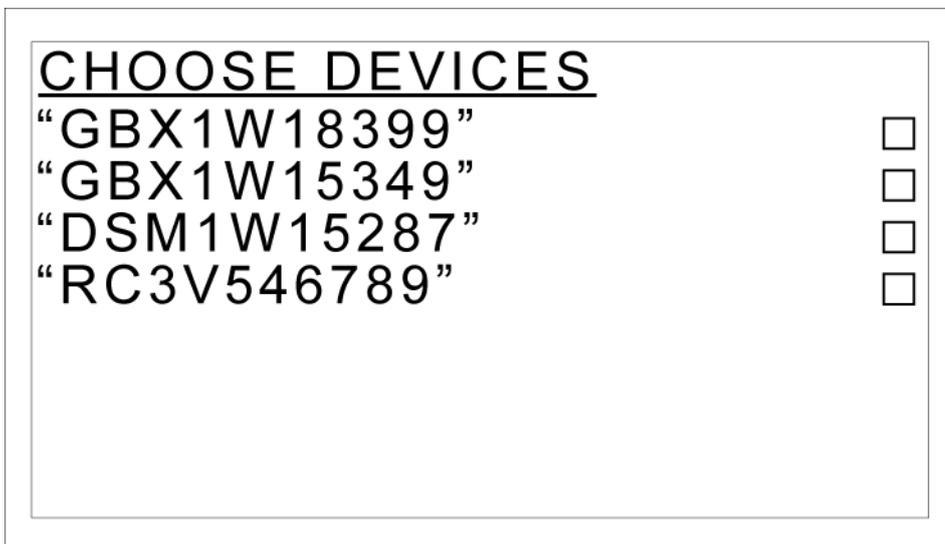
#### **BLUETOOTH PERIFER.**



The device starts to search for Bluetooth tools within the workshop.

The tools can be selected if an empty rectangular box appears next to their serial number.

#### **SELECT PERIFERALS**



The device will list the Bluetooth tools found.

Select the desired item.

Press the **OK** key.

A check mark will appear in the box corresponding to the tool selected.

Repeat the procedure for all the tools you want to configure.

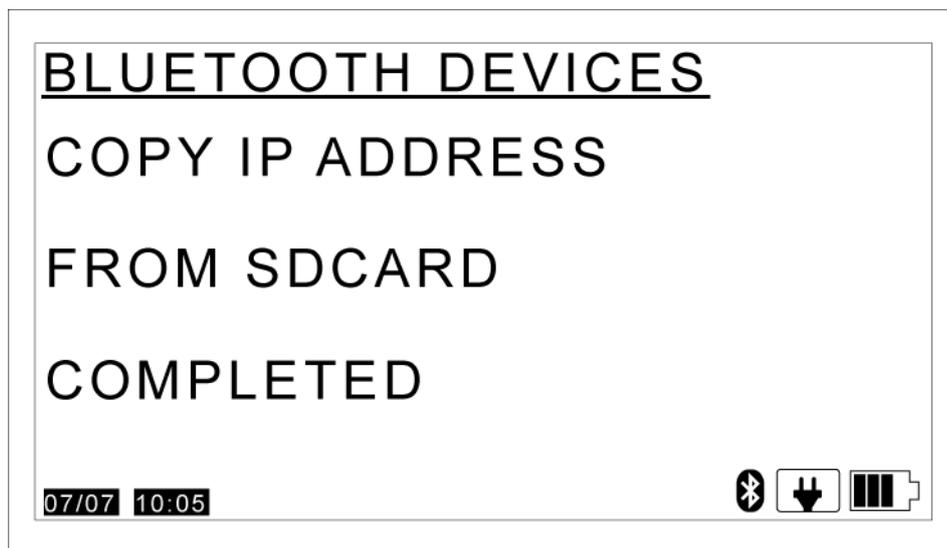
**You can configure only one tool per type, example: one smoke meter only, one gas analyzer only, etc.**

Press the **C**key to exit.

### 6.3.2 *IPaddr from SD CARD*

This function allows you to set the IP address of the Bluetooth devices saved on the SD CARD of the tool.

#### **BLUETOOTH PERIFER.**



The software will inform you to have correctly acquired the IP address and will automatically return to the previous menu.

## 7 Legal information

Please read through the instructions in this operating manual carefully and keep it for future reference.

The data, characteristics and descriptions in this manual are presented only as information with reference to a specific version of software.

It does not oblige the manufacturer in any way who moreover reserves the right to modify, at any time and without notice, the tool when deemed necessary to improve the product or for any other technical or trading requirement.

Any useful descriptions of the new versions of the program and new functions associated with it, may be sent to you through our TEXA technical bulletin service.

This manual shows and describes optional and standard features of the product. The tool you have purchased may not be equipped with certain features or elements described in this document.

This manual should be considered as an integral part of the tool to which it is referred. If the tool is sold, therefore, the manual must also be forwarded to the new owner along with the tool itself.

Reading and understanding this manual can avoid damage to things and injury to people due to an improper use of the tool. They cannot, however, replace or complete the skill of the professionals for whom the tool is intended.

Texa S.p.a. is not responsible for damages to things or persons resulting from changes performed based on any wrong or incomplete instructions contained in this manual.

Total or partial reproduction of this manual in any form, without authorisation by TEXA S.p.A. is forbidden.

## 7.1 Warnings

The use of **GAS MOBILE** is subject to the acceptance of the following conditions:

### 1. Liability

The customer is liable for the use of TEXA S.p.A tools and software programs purchased from the retailer.

The customer agrees to indemnify TEXA S.p.A. and the retailer from any responsibility or damage resulting from improper use of TEXA S.p.A products and software or use of the same without complying with the instructions described in the programs and in the user manuals.

The customer must use all the data and information provided directly by TEXA S.p.A. or by the retailer or through programs and user manuals, knowing that these may be incomplete and that they must always be used as an integration to her/his own professional knowledge. The customer is also aware of the importance of product update in order to ensure immediate adaptation to the requirements of a continuously evolving market.

### 2. Copyright

For information regarding software use refer to the user licence that appears on your screen upon installation of the software itself, or go to [www.TEXA.com](http://www.TEXA.com) and click on "Legal Info".

© **copyright and database rights 2009**. The material contained in this document is protected by copyright and database rights. All rights reserved according to law and international agreements.