

GASMOBILE

Technical Manual



www.elektropartner.com

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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 user's safety and safety of his/her work environment. It also includes a legend of all the symbols used in this manual.*
2. **Description of the device:** *describes the device, its technical characteristics, equipment, types of communication, etc.*
3. **How to use the device:** *explains how to use the device, describing all of its functions.*
4. **Maintenance:** *explains how to keep your device clean and working properly.*
5. **Solutions to problems:** *suggests "what to do when..." and gives information on our client help service.*
6. **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 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.



It 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

Things you must 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 be in perfect working order.

You **MUSTN'T** do the following:



DANGER

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



WARNING

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



WARNING

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



WARNING

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



WARNING

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

1.2 Work environment



DANGER

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

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

We remind you that the inhalation of carbon monoxide (odourless) can cause serious injury to the organism.

1.3 When working on engines or other vehicle parts



Things you must 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 with care the portable lamps 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.*

You **MUSTN'T** do the following:

- **DO NOT** *smoke or light flames while working on the vehicle.*
- **DO NOT** *look directly at or from a close distance the induction pipe of the carburator 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.

1.7 Handling the Tool

Be careful when moving the tool:

- *Make sure to disconnect and put away cables and probes.*
- *Make sure the tools are fastened appropriately to their supports and are stable.*

2 DESCRIPTION OF THE DEVICE

GAS MOBILE was designed in order for workshops to carry out diagnosis and exhaust and emissions tests (Bollino Blu) without having to be equipped with other computers or bulky objects. The Gas Mobile is a fast and simple product, ready to be used within seconds.



GAS MOBILE is a light and compact "stand-alone" viewing device. It is equipped with a high visibility LCD graphic display, with seven control keys on its front panel and a low consumption thermal printer used to print reports.

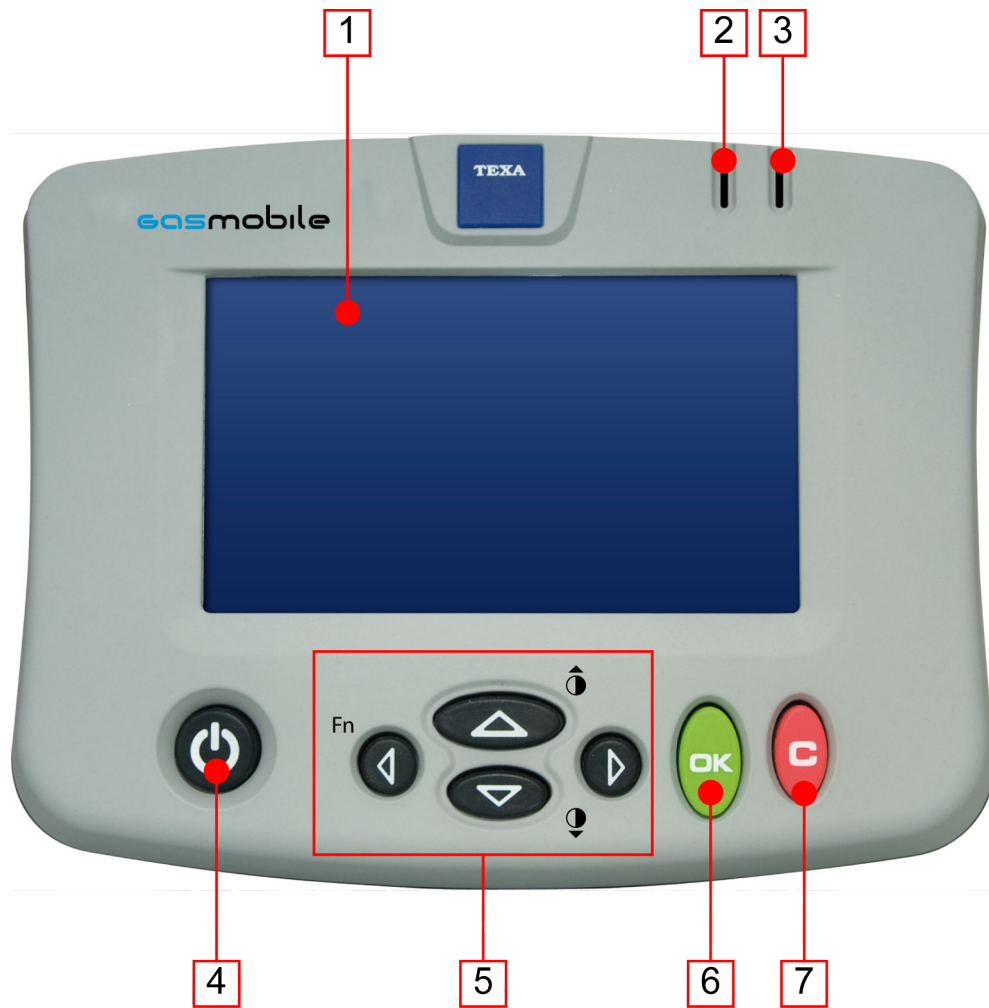
GAS MOBILE is powered by long life lithium batteries. They can be recharged using the appropriate power adapter or analyzing modules.

Via Bluetooth **GAS MOBILE** can interface with the analyzing modules **GASBOX Autopower** and **OPABOX Autopower** and with temperature sensors and rev counters **RC2** and **RC3**.

All the **GAS MOBILE** software is contained within an SD CARD so that it may be quickly updated, even via Internet, to keep up with changes in norms or to add new functions.

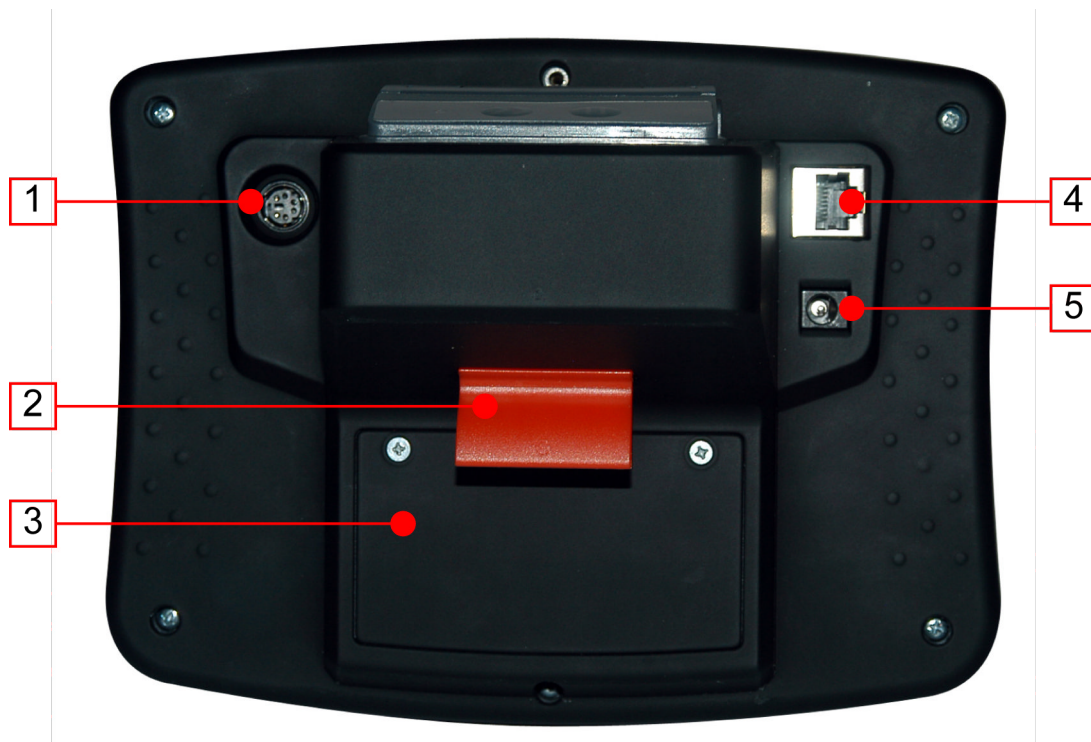
It is small and light and the use of Bluetooth to connect to analyzing modules, eliminating bulky cables, make it very practical and portable, easy to use even inside the vehicle. Its designated fastener allows you to keep it steady on the steering wheel while you are using it.

2.1 Front view



1. **High visibility LCD graphic display.**
2. **Green/red LED:** *indicates the charge status of the internal batteries.*
3. **Blue LED:** *indicates the Bluetooth communication status.*
4. **POWER button:** *allows you to turn the tool on and off.*
5. **Browsing buttons:** *allow you to browse from one software screen to the next, to make the selections you desire, to enter any data and adjust the contrast of the display.*
6. **OK button:** *allows you to confirm the selection made.*
7. **C key:** *allows you to cancel the selection made.*

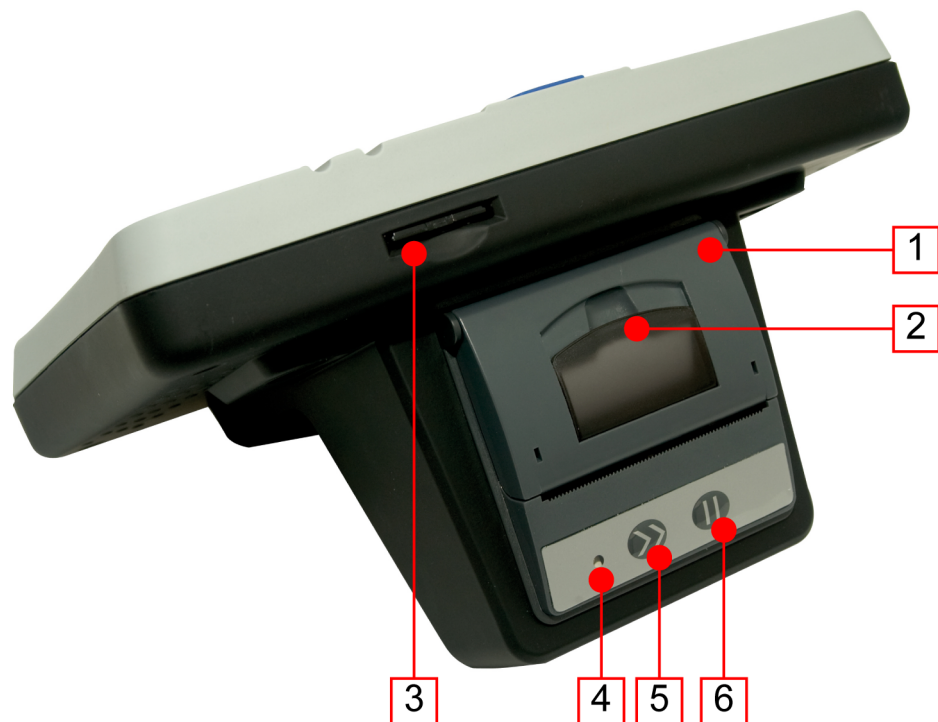
2.2 Back View



1. **PS2 connector:** *allows you to connect the keyboard (optional) in order to enter data related to the test.*
2. **Fastener:** *allows you to fasten the tool to the steering wheel of the vehicle being tested.*
3. **Battery compartment.**
4. **Serial connector:** *used to carry out technical assistance.*
5. **Power supply connector:** *allows you to connect the power adapter to the tool.*



The serial connector may be used in order to carry out technical assistance by authorized technical personnel only.



1. **Printer**
2. **Roll paper cover:** allows you to access the paper compartment in order to replace the printer paper roll.
3. **SD Slot:** where the SD CARD containing the emissions analysis program is entered into the tool.
4. **Green LED:** indicates printer status.
5. **>> button:** allows you to move the paper forward.
6. **|| button:** allows you to put the printer on-line/off-line.

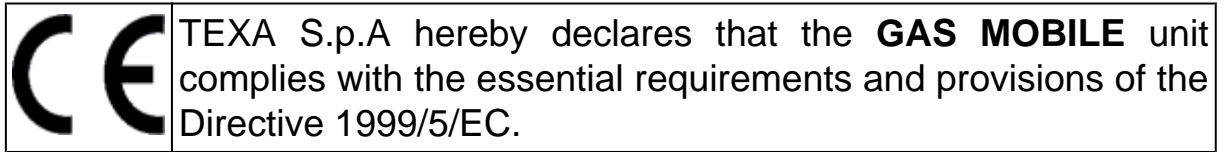
2.3 Technical Characteristics

MicroController	Cortex STM32F103VX - 72MHz max freq.
Memory	512 MBytes Flash 64 KBytes SRAM
Display	STN LCD graphic display (Blue&W) 240x128 dots, dimensions 170(W)x103.5(H)mm
Bluetooth	WT11 radio module by Bluegiga Technologies®
LED	Blue: Bluetooth communication Green/Red: on and battery recharging
Connectors/ Slot	Slot for SD Card PS2 (keyboard) RJ45 serial (assistance) Power jack for wall adapter
Power Supply	Wall adapter 12-18 VDC, 1,5 A Battery pack: lithium 3.7VDC, 5000 mAh, typically 480 minutes of life (varies according to use).
Operating system	EmbOS
Printer	Built-in low consumption thermal printer
Operating conditions	Temperature: 0 °C / 50 °C Temperature while recharging: 0 °C / 45°C Humidity: 10 % - 80 % (without condensation)
Storing conditions	Temperature: -20 °C / 60 °C Humidity: 10 % - 80 %
Weight	0,93 Kg
Dimensions	212x162x120 mm

External power adapter provided	Power jack 100-240 VAC, 50/60 Hz - 12 V, 18 W
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2.4 Declaration of conformity

Declaration of conformity



A complete copy of the Declaration of Conformity can be obtained at
TEXA S.p.A., Via 1 Maggio 9, 31050 Monastier di Treviso (TV), Italy

2.5 Bluetooth communication

Wireless connection eliminates the communication cable with the analyzing unit, making the device more practical and easier to use.



The configuration procedure is indicated in the software manual.

2.6 How the Tool's Radio Devices work



Wireless connection with Bluetooth, WiFi and GPRS technology

Wireless connection with Bluetooth, WiFi and GPRS is a technology that supplies a standard, reliable method to exchange information between different devices, using radio waves. Not only do TEXA products use this type of technology, but many other products do as well. Products such as cellular phones, portable devices, computers, printers, cameras, Pocket PCs etc. all use this type of connection.

Bluetooth, Wi-Fi and GPRS interfaces look for compatible electronic devices based on the radio signal they emit and establish a connection between them. TEXA tools select and suggest only the devices compatible with TEXA. This does not exclude the presence of any other sources of communication or disturbance.

THE EFFICIENCY AND THE QUALITY OF BLUETOOTH, WiFi AND GPRS COMMUNICATION MAY BE INFLUENCED BY THE PRESENCE OF RADIO DISTURBANCE SOURCES. THE COMMUNICATION PROTOCOL HAS BEEN DEVELOPED TO MANAGE THESE TYPES OF ERRORS; HOWEVER, IN THESE CASES COMMUNICATION MAY BECOME DIFFICULT AND CONNECTION MAY REQUIRE SEVERAL ATTEMPTS.

SHOULD THE WIRELESS CONNECTION BE CRITICAL AND COMPROMISE A REGULAR COMMUNICATION, THE SOURCE OF THE ENVIRONMENTAL ELECTROMAGNETIC DISTURBANCE MUST BE IDENTIFIED AND ITS INTENSITY MUST BE REDUCED.

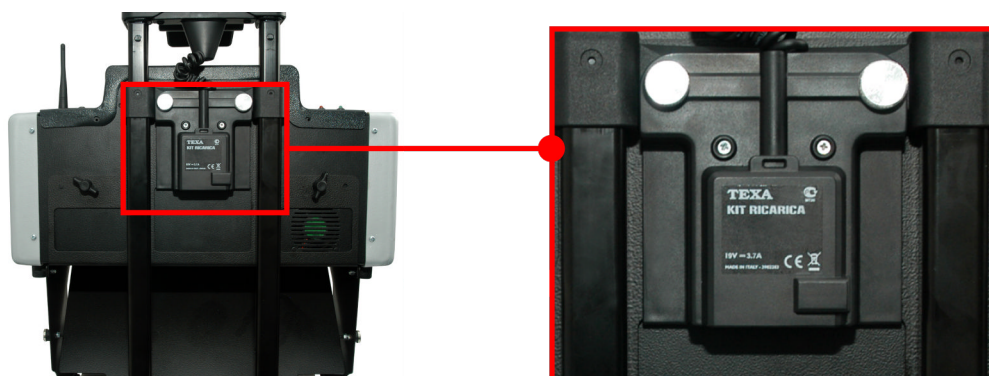
Position the tool in order to ensure that the radio devices it is equipped with work properly. In particular, do not cover it with any shielding material or, in general, with any metallic material; do not put the tool into the vehicle boot, into the engine compartment or into the glove compartment; if positioned inside the vehicle, make sure that the windows are not screened.

2.7 Recharging and fastening kit

GAS MOBILE can be fastened to the tool trolley **Autopower** by using an appropriate kit.



Not only does the kit have a holder for **GAS MOBILE** but it also includes a power supply unit connected to the charging terminals of the **Autopower**.



Thanks to this power supply unit the holder also acts as a **recharging station for the device**.

For more information regarding the mounting and use of the device refer to the instructions provided with the kit.

3 HOW TO USE THE DEVICE

GAS MOBILE must be used by qualified personnel.

Texa offers its clients professional training courses.

In these training courses the technicians are followed step by step by specialized personnel. Their goal is to give these technicians as much familiarity with the tools and their software as possible. This way the technicians will learn how to make the best use of the tool's functions.

For more information regarding training courses offered by TEXA go to our website www.texa.it

3.1 For proper use

The following are the standard procedures that will allow you to use and keep the tool you have purchased in perfect working condition:

- *The tool must be kept in a dry place, avoiding exposure to heat sources or working anywhere close to a heat source.*
- *be careful not to accidentally bump or drop the tool.*
- *Do not wet with water or other liquids;*
- *Do NOT place any objects on the cables and never bend the cables at right angles.*
- *When powering the tool never use external batteries, but always use the battery system of the vehicle being tested.*
- *Pay particular attention to battery terminals and cables when setting up a connection to the vehicle. This will avoid false contacts and/or avoid accidentally connecting the cables to metallic parts of the vehicle being tested.*
- *Unused battery terminals must be covered and protected by the appropriate rubber plugs.*
- *Follow the instructions in the program closely and carefully.*

3.2 Power supply

GAS MOBILE is equipped with internal rechargeable batteries that allow the tool to work without power from the mains.

The batteries provide continuous use throughout an entire working day.

3.2.1 Internal Battery Charge Status

The device is equipped with long lasting lithium batteries.

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



The charge status is also indicated by the **green/red LED**:

- **Green LED**
 - **on:** charge between 75 % and 100 %
 - **flashing:** charge between 30 % and 75 %
- **red LED**
 - **flashing:** charge between 10 % and 30 %
 - **on:** charge less than 10 %



3.3 Internal battery recharging

You can recharge the internal battery of the device in two ways:

- *via an external power adapter*
- *via the recharge and fastening kit*

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




The recharge is indicated by:

- *the slow flashing (approx. every 2 seconds) of the **green LED**.*
- *the flashing icon:*



The device is able to work normally while being recharged.

The **green LED** will remain steadily on once the device is finished recharging.

 **The device must be recharged for at least three hours for its battery life to be fully restored.**

 **Make sure the green LED is flashing (recharge in progress) once the device is connected to the power source.**

 **Make sure not to turn off the power supply in the workshop while the device is recharging.**

RECHARGING VIA AN EXTERNAL POWER ADAPTER

The internal batteries can be recharged by connecting the tool to the mains via the specific power adapter provided with the tool.



Proceed as follows:

1. Connect the **power jack** to the **power connector on the device**.
2. Connect the **power jack** to the mains.

RECHARGING VIA THE RECHARGING AND FASTENING KIT

The batteries of the device can be recharged via the tool **Autopower**.



Make sure the kit has been installed correctly.

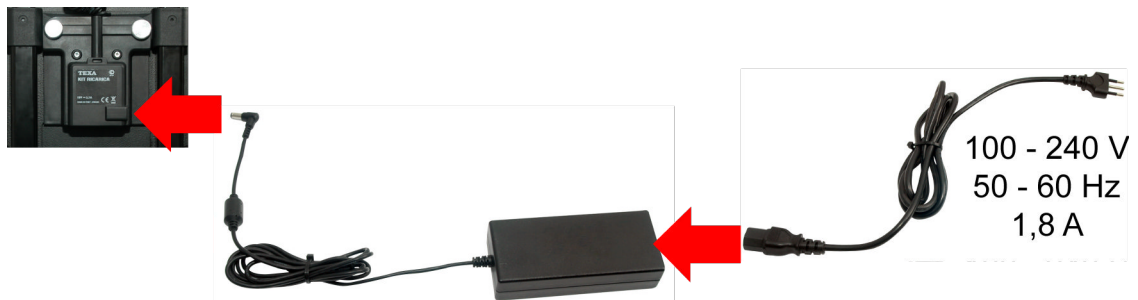
The fastening kit of the device is equipped with a connector specific for the power adapter **Autopower**.

Using this connector you can recharge both **GAS MOBILE** and the **Autopower** tool at the same time.



To recharge in this way use ONLY the power adapter provided with the tool Autopower.

Proceed as follows:



1. Place the **Autopower** tool back on the trolley.
2. Place the device back on the kit holder.
3. Connect the **Autopower** power jack to the power connector in the kit.
4. Connect the power cable to the **Autopower** power adapter.
5. Connect the power cable to the mains.

3.4 ON/OFF

The device can be turned on and off by pressing the **POWER button** on the front panel.



Turning the device ON



Make sure that the SD CARD is correctly placed inside the tool.

Proceed as follows:

1. Press and hold the **POWER button** for approximately 1 second.
2. You will hear a "beep".
3. The display and the **green LED** will turn on.
4. The main menu of the program will appear on the display.



DO NOT remove the SD CARD while the tool is on.

Turning off the device

Proceed as follows:



1. Press and hold the **POWER button** for approximately 1 second.
2. The display and the **green LED** will turn off.

3.5 Adjusting the Contrast

You can adjust the contrast of the display by using the browse buttons.



Proceed as follows:

1. Press and hold the **"left arrow"**, marked with **"Fn"**.
2. Press the **"up arrow"** button  or **"down arrow"** button  to increase or decrease the contrast of the display.
3. Release the buttons when you have obtained the right contrast.

You can adjust the contrast and brightness of the display through the software.

For further information refer to the software operative manual.

3.6 Connecting to the Tools

The device connects to the emissions analyzing tools and rev counters via Bluetooth.

The configuration procedure is indicated in the software manual.



In order to configure properly we suggest you to turn on the device BEFORE turning on the display unit and only after proceed with the configuration..

Blue LED will turn on to indicate that Bluetooth is working.



- **Flashing:** *the device is communicating.*
- **Off:** *no Bluetooth communication.*

The Bluetooth icon will appear on the display:

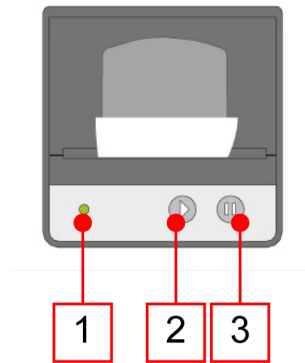


In order for Bluetooth communication to work properly keep the device and other tools within the Bluetooth module range: approximately 10 m.

3.7 Printer

The device has been equipped with a low consumption thermal printer to allow you to print reports.

Printing functions are managed via the software within the device.



1. **Green LED:** *indicates printer status.*
 - **On:** *the printer is on.*
 - **Flashing:** *the printer is off-line or there is no paper in the printer.*
 - **Off:** *the printer is off.*
2. **>> button:** *allows you to move the paper forward.*
3. **|| button:** *allows you to put the printer on-line/off-line.*

To interrupt the printing of a report press the **|| button**.

Press the **|| button** again in order to restart printing from where it left off.

4 MAINTENANCE

4.1 Replacing the Paper in the Printer



Use the following paper format only:

- **Width:** 58 mm
- **Maximum thickness (μ):** 80

To ensure printer reliability, do not use paper rolls with glue between the end part of the paper and the roll support.

Proceed as follows:

1. Unlock the paper compartment cover by lifting the appropriate lever.



2. Open the cover

en



3. Remove the empty paper roll.

4. Place a new paper roll allowing a few centimeters of paper to hang out over the jagged edge of the compartment.



5. Lower the compartment cover until you hear a "click" indicating that the cover is locked.



5 SOLUTIONS TO PROBLEMS

For any technical problem contact your retailer/distributor.

Below you will find a list of simple instructions to follow without the need for technical assistance.

PROBLEM	POSSIBLE SOLUTIONS
Having turned on the device using the POWER button no LED indicating the battery status turns on.	Make sure the batteries have been connected properly.
	Recharge the batteries completely (approximately 3 hours).
Cannot communicate via Bluetooth.	Check the distance between the tool and the display unit.
	Keep the area between the tool and display unit clear of any objects.
	Check Bluetooth configuration between the tool and the display unit.
The batteries run flat very quickly.	Recharge the batteries completely (approximately 3 hours).
	Do not let the batteries in the device run completely flat.
	Charge the batteries all night if you have used the device the entire working day.
	Test what happens when the device contacts and the recharging kit contacts are put together.

6 Legal information

Please read through the instructions in this operative 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 to 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 some features or elements described in this document.

This manual should be considered as an integral part of the tool to which it is referred. Therefore, if the tool is sold the manual must 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.

Integral or partial reproduction of this manual in any form whatsoever without written authorization from the producer is strictly forbidden.

6.1 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 and click on "Legal Info".

3. Warranty

HARDWARE: The retailer guarantees its product against manufacture faults and defects verified and recognised by the TEXA S.P.A's assistance network for a 24 month period from the date of delivery or date of activation of the software. This guarantee consists in the obligation of the retailer and/or of the service centre, to reset the functions of the products by replacing or repairing the faulty components for free.

This guarantee does not cover any faults or malfunctions due to a) inadequate calibrations, insufficient/improper maintenance, wrong wiring installations, transformation, changes, tampering, improper mounting or dismounting, bad storage, non conforming use, accidents caused by third parties ; b) the use of software or interfaces, parts or consumable materials that were not provided by the TEXA network assistance or TEXA S.P.A. official sales; c) use of the products in an environment that do not respect

the parameters specified for the product; d) wrong preparation or maintenance of the operating environment where the products are used.

SOFTWARE: Although TEXA S.p.A. has taken all possible precautions to guarantee the accuracy of the information contained in or viewed from the software, they cannot guarantee that the software can always fulfil the customer's needs or that its functioning is unlimited. Furthermore, taking into consideration that the data (in various forms) contained in the programs or in the database that they access, may come from different sources, such as manufacturing companies, or software houses, TEXA S.p.A. cannot guarantee that the software is free of inaccuracies. TEXA does however guarantee that the material has been compiled for publishing in Europe and was designed for use of vehicles manufactured according to European standards.

Users should be aware that in non-European countries the names and the descriptions of the models and the specifications related to them may differ from those listed and presented in the programs and in the tools this manual refers to.

The warranty does not cover software conflict problems, when the software is installed on hardware platforms different from those produced by Texa S.p.A. (i.e. commercial personal computers, pocket PC's, tablet PC's). Several of the problems this warranty does not cover are, for example, those caused by: Incompatibility between Texa S.p.A. programs and software environments with inadequate requirements or protected by anti-virus systems which prevent correct installation and operation; Environments which are damaged by viruses, environments which are supported by inadequate hardware resources, etc.

WHERE REPAIRS COVERED BY WARRANTY ARE CARRIED OUT: All repairs covered by warranty, if not otherwise established through written agreement, must be done at TEXA S.p.A.'s main office or at the service centre authorized by TEXA S.p.A. The customer is required to pay for the transport of the product to be repaired from the customer's workshop to the service centre. The customer is also expected to pay the intervention of TEXA S.p.A.'s service personnel or service centre personnel in the case they are required to come the customer's workshop.

TRANSPORT: TEXA S.P.A. warranty does not cover damage due to transport or breaking caused by careless or improper packaging carried out by the customer when sending goods to be repaired.

MAINTENANCE: Before being delivered to the customer, the products are carefully tested by TEXA S.P.A and by the retailer (if so established). However, products always require regular maintenance. (In the "gas analyzer" product, for instance, a systematic check must be done on the condensation and fume filters to ensure they are in good condition; in the "opacimeter" product the smoke chamber must be checked and kept clean, etc.) The right to repair service under warranty can be lost if not all of the minimum maintenance interventions described in the user manual provided with the product have been performed.

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