

PREFACE

Thanking you for preference, **TECNOELETTRA SRL** hopes that the use of this equipment will satisfy your needs.

This manual is made to help and assist the technician to program the unit correctly for different installations and connections.

In order to ensure efficient operation and durability, it is recommended the strict observance of the rules described here.

Thanks in advance for your suggestions that will contribute to possible further improvements of the equipment.

For any question always consult the **TECNOELETTRA** Technical Department.

TECNOELETTRA S.r.l.

Note:

The manufacturer reserves the right to modify the equipment for any manufacturing or commercial needs, without the obligation to promptly update this installation and using manual.

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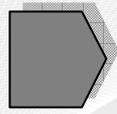
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TE808 VWF



Section 1 – General requirements and installation



1- 1 Introduction

- TECNOELETTRA SRL thanks you for your confidence and remind you that this unit is the result of continuous research on improving the product that our engineers are constantly pursuing, thanks to the proven expertise and huge experience in this area.
- The purpose of this manual is to aid the proper installation and right use of the device.
- Reading this publication and understanding the commands and programming the parameters before operations start-up and use.
- TECNOELETTRA SRL can not guarantee that the translations are fully in accordance with the direction of the Italian text, so for any inconsistency prevail manual written in Italian.
- In order to provide a more accurate and appropriate support, users are invited to notify the Customer Service Office of TECNOELETTRA any suggestions, note or comment on this manual.
- The Customer Service is available to help resolve concerns or situations whose solution is not clear in this publication.
- This publication is part of the equipment and must be kept in an easily accessible location away from agents that may deteriorate the state, in a perfect state of maintenance and disposal of those who expressly requests it, provided that the applicant is in some way related to the operation of the equipment.

In case some parts of it were no longer legible, if you need a new copy of our documentation please contact our Customer Service Office.

The controller TE808 was designed for easy installation and use by the installer and the operator of the generator, thus avoiding the recourse of a continuous and tedious consultation of the operating manual . In many situations, such as setting parameters set-up, data display, alarm conditions, etc., an indication in the Help display indicates to press the HELP button for a help message. This manual thus contains only the information necessary to introduce the operator at the use of TE808 controller.

1- 1.1 General rules

WARNING!



The equipment can not be used for other purposes without the express authorization or any changes made by TECNOELETTRA SRL.

For best results, TECNOELETTRA SRL recommends that all operations carried out at regular cleaning to keep the switchgear at its best.

1- 1.1.1 Responsibility

- **TECNOELETTRA SRL** disclaims any liability for damage or injury resulting from use not covered in this manual, improper use of equipment, as well as the use of unqualified personnel or the use of non-original spare parts.

- **User**

User is responsible for damage to people or property resulting from:

- improper or different use from those indicated in this manual;
- compliance with the requirements of safe use and safety norms;
- modifications to the equipment;
- use of non-original of unfit spare parts.

- **Manufacturer**

The manufacturer is the company that physically performs the assembly, testing directly or by his authorized representative of the equipment and is ultimately responsible.

The manufacturer is responsible for the efficiency of the equipment.

In particular the manufacture is responsible for :

- parts used for assembly;
- compliance with legislation in the country of use of equipment, if the buyer had informed the manufacturer of the equipment on the laws in force.

1-2 General norms of security



WARNING!

Do not install or operate your TECNOELETTRA equipment, until you have read these safety norms.

1- 2.1 User responsibility

The basic safety rules established in this chapter is a guide for the installation and safe operation of TECNOELETTRA equipment.

These general safety rules, with other chapters on installation, operation and cleaning up constitute the complete instruction manual.

All staff involved with this equipment for any reason, must be familiar with this information before you start.

It is responsibility of the Buyer be sure that the procedures are followed, and if required any change in use, appropriate procedures should be set to continue with the activities of security equipment.

It is strongly advised to contact TECNOELETTRA to be sure that the equipment can be converted to new use and to continue to operate safely.

If the equipment is not purchased directly from Tecnoelettrica or its representatives, is Buyer's responsibility to ensure that equipment conforms to current safety standards. Buyer is strongly advised to contact TECNOELETTRA to ensure that the equipment operates safely.

1- 2.2 Safety first of all

TECNOELETTRA equipment is designed and produced with due consideration and attention to safety rules.

In any case, the presence of security systems does not exempt operators from acting with caution: the non-compliance can lead to accidents and damage the components of equipment. For your protection and protection of others, learn and always follow safety rules set forth in this chapter.

Develop safe work habits by reading the rules and stick to them. Keep this paper handy and look through from time to time to refresh your understanding of the norms.

1- 2.3 Importance of the Manual

• Information about the manual

We hope that the information contained in this manual will be of help.

They will give an explanation of the correct and secure use of your equipment and are based on data and our current and best knowledge.

Carefully read the manual, including recommendations and suggestions, and the conditions of sale and warranty.

• **TECNOELETTRA** wrote this book with the greatest care, trying to make it as complete and clear as possible. However, if some point proves to be incomplete or unclear, contact us without hesitation.

• Importance of the manual

This instruction manual was born to help you in the correct installation, starting-up, use and cleaning of your equipment.

This manual is integral part of equipment in order to obtain the best performance and it should be kept for the duration of the product.

Therefore, please do not remove, tear, or write to parts of the manual, taking care to integrate with any updates provided by TECNOELETTRA.

Please keep this manual in a place protected from moisture and heat, accessible and known to all operators (photocopy any parts of interest to the consultation of the various operators).

In case of sale or transfer of the machine (on which the equipment is installed) to another user, these instructions must be delivered to the new user.

• This manual is to explain:

- the use of equipment, according to software and project;
- technical features;
- composition of the different parts;
- operations for installation and assembly;
- operations of starting-up and programming, etc..;
- the risks related to hazardous waste, measures to eliminate it and instructions to operate safely;
- cleaning;
- Recommended spare parts for the stock.



Any person appointed by customer to carry out the installation, start-up and repair of this equipment must be aware of the contents of this Manual, with particular reference to safety standards. If the involved person does not understand the language of the manual, the client must properly educate him.

This manual provides guidance and instructions on equipment that will be installed, but it is not intended to replace, supplement or modify any general or specific NORM, RULE, DECRETE or LAW, in the place where the installation takes place and concerning the safety and use of electrical equipment.

TECNOELETTRA, unless otherwise specified, can provide a copy of this manual equipment in the original language of the country of use.

The copy of the manual is included on the CDrom inside the packaging of the equipment and should be used for the installation, assembly, calibration, setup, startup, etc...

After installing this copy must be retained for all future interventions.

TECNOELETTRA can provide duplicates of the manuals supplied with the equipment if customer request.

Requests must be submitted to our Technical Department together with the equipment information found on the CE label applied on the top of plastic enclosure of the equipment.

The manual, technical documentation and drawings delivered together with the tools are proprietary of TECNOELETTRA, who reserves all the rights, and it can not be made available to third party without authorization.

TECNOELETTRA will be glad to consider and possibly accept suggestions for improvement of this manual.

Suggestions should be submitted to our Technical Department.

Upon handover the equipment to other, the user also agrees to deliver copies of the manual in his possession and at the same time to report the fact to **TECNOELETTRA**.

1- 2.4 Legend of the note

The text should draw attention, will be highlighted along these graphics settings:



DANGER!
Follow text describing danger situation



NOTE!
Follow text describing note for the reader.



NOTICE!
Follow text describing the notice.



WARNING!
Follow texts needed attention.

These simple graphical labels are used to indicate the operator situations, actions, informations, special operations that may cause damage to people and to equipment, or suggest a correct operating procedure.

1- 2.5 Protections of the electrical system

The electrical system of the equipment was designed and constructed to protect operators from electrical shock and possible overheating or other abnormal dangerous conditions . All electrical parts which could be in contact with operators, should be waterproof to penetration of liquids or vapors that could cause short circuits or deterioration of insulation. Then there must be used an overcurrent protection to prevent overheating or malfunctions that may cause hazardous conditions.

1- 2.6 Controls

• Before start-up

- Ensure that all security systems and protections are installed and operative.

• During operation

- Do not start this equipment until you have read and understood the operating instructions and after you have got used to the equipment and its controls.

- Be careful and observe lights and warning signs displayed on the equipment.

- Do not operate damaged or defective equipment.

• After the power off

- Make sure the power sources are off.

1- 2.7 Staff training

All staff using the equipment must have undergone a training operation course that includes:

- reading and comprehension of this Instruction Manual
- a practical instruction by **TECNOELETTRA** staff to start-up the equipment is available under request, TECNOELETTRA can give a training course of product's operation to customer staff. The training course is not free.

1- 2.8 Cleaning

• Procedure manual cleaning

- Do not use toxic solvents and / or flammable to clean the equipment.

- Turn off the electricity (close) before cleaning the equipment.

- Keep closed electrical panel protections when you are cleaning the equipment.

- Always clean the seals around the equipment as soon as possible.

- Never attempt to clean the equipment while it is running.

1- 2.9 Operators

The equipment described here requires only one operator to start and control the functioning. For special settings and use may be also required the intervention of a second operator.

1- 2.10 Residual risks

• Risks linked to electrical energy

All electric units are supplied with electricity and therefore are dangerous.

All panels and electrical panels and junction boxes must be properly closed.

Cables must not be damaged or left hanging, but must be properly trimmed and tied.

Operations on the electrical system should only be performed by qualified personnel, with power disconnected. To avoid unwanted connections, the main switch must be disconnected and properly locked.

1- 3 Homologations/certifications

The equipment described in this manual complies with homologations / certifications below:

- **EMC: 2004/108/CE**
- **EN61000-6-3 (2007)**
- **EN61000-6-2 (2005)**

Halt test Accelerated Reliability Test Centers □

1- 4 Waste and residual management

General information on how to manage waste.

Identify and classify wastes according to specifications provided by law in the country of use. Do not leave or collect waste in an uncontrolled way. Do not enter into surface water or groundwater.

Do not mix different types of waste.

Deliver the waste to authorized people by the competent authorities in the country for collecting, transporting and processing of waste.

Prepare documentation required by administrative regulations in force in the country of use (production register, storage and disposal, documents of transport).

Administrative duties (record keeping, preparation of documents etc...).

1) Waste separation by homogeneous types.

The waste must be collected and stored for "homogenous types", since this is the only system through which you can:

- avoid any risk of incompatibility in terms of chemical and physical characteristics of waste products.
- ensure final proper treatment turning into a more useful and less dangerous, allowing their eventual recovery.

It is therefore important not to mix different types of wastes.

2) Use appropriate containers for handling and storage.

Vessels designed to contain wastes must have adequate strength requirements in relation to chemical and physical properties and characteristics of the hazardous waste contained.

3) Vessels label

In order to disclose, during storage in the company, the nature and hazardous of the waste, the containers must be appropriately marked with labels or labels affixed on the containers themselves or placed in storage areas. In particular it is important that waste containers are identified with a description of the type of waste and hazardous to humans and the environment.

4) Waste handling in the company.

During handling, ensure that containers are closed properly. Avoid locations where there are wells of water stored to avoid accidental spills into public sewer and white water .

5) Storage of solid waste heaps.

- In order to avoid possible pollution of soil, if storage takes place in piles, they should not be made on open ground but on strong bases (such land paved)
- The waste stored in piles must be protected from the rain water where their runoff could lead to pollution of the water itself.

1- 5 Disposal/Scrapping

1- 5.1 Machine disposal

Dismantling operations must be performed by qualified personnel and in compliance with all applicable laws.

At the end of real life, the user company should proceed to the alienation equipment in accordance with the in force regulations by providing the first general cleaning of various elements and after the separation of the parts making up the equipment. After removing the equipment is necessary to separate the various materials in accordance with the law requires the country where the equipment should be discarded. The device contains no hazardous substances or requiring special removal procedures.

1- 5.2 Materials used on the equipment

Regarding the elimination should be noted that the materials used on the equipment are not of hazardous nature, and are essentially:

- polyethylene plastic;
- electric cables with relative sheaths;
- monitoring and implementing electronic devices.

During the disposal process will need to comply to the regulations in the country of use.

1- 5.3 Consumer products

Regarding the disposal of consumer products, observe the following rules:

- **Batteries**

The battery of the equipment must be replaced by a maintenance electrician.

Used batteries should not be disposed as common waste, but it shall be delivered to designated disposal sites.

1- 5.4 Separate collection and recovery start

The unit consists of material that can easily be recycled and used as raw material for other production processes. Through proper recycling can recover a wide range of waste with ecological and economic advantages.

- **Plastic materials**

Plastic parts can be retrieved for the production of new resources both by recycling in the origin area and the heat and energy production through their incineration, thus avoiding, at the end of the life cycle, they become a burden on the environment under form of waste to be disposed of in landfills. To make a better recovery of such material is necessary to collect differentiating types.

1- 5.5 About dismantling the equipment

Before starting the decommissioning of the equipment, verify the current legislation in force specially:

- registration requirements and / or communication to control organisms;
- arrangements for environmental protection;
- requirements for the scrapping;
- requirements about health and safety safeguard of workers

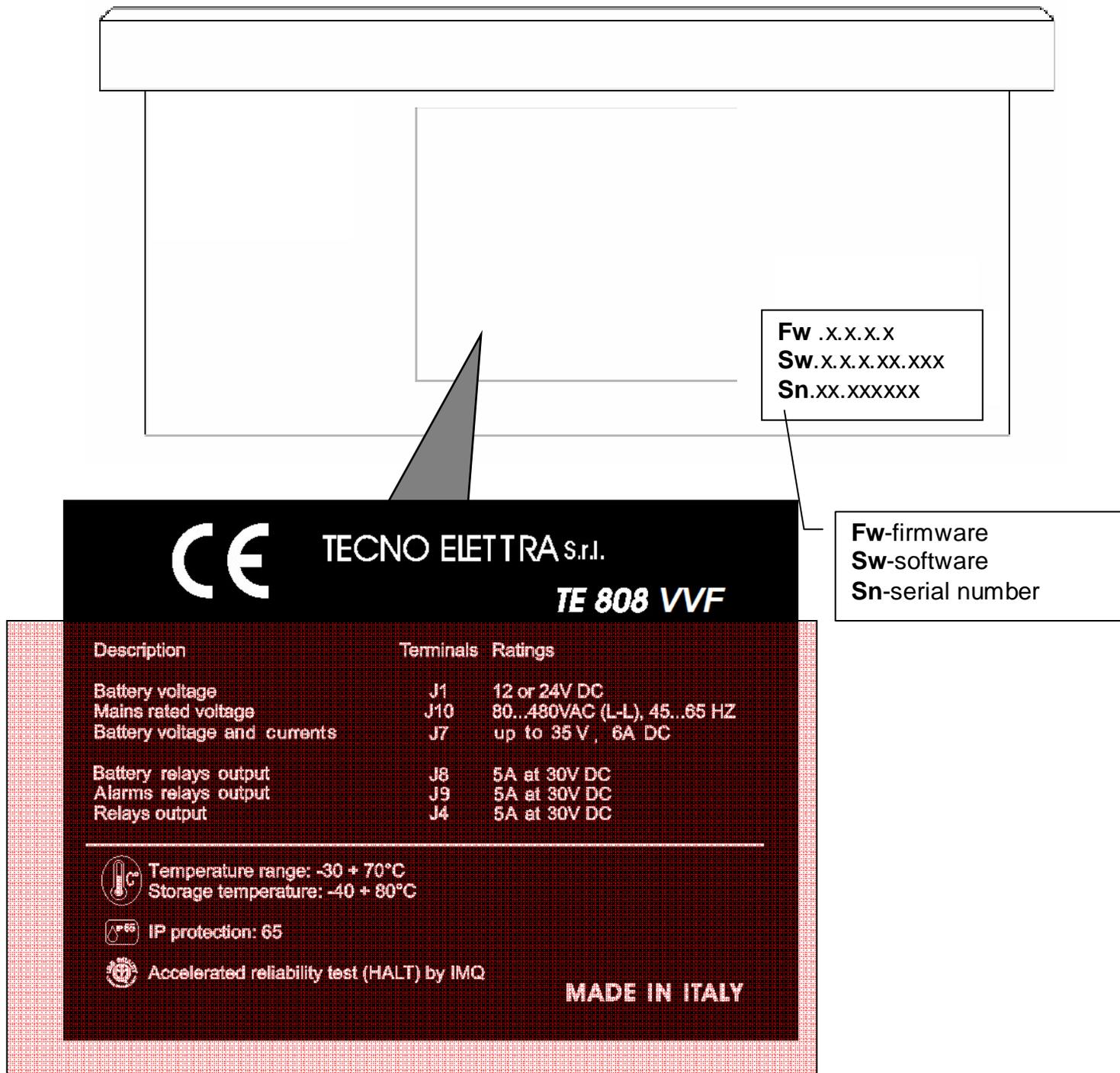
About disposal of the equipment, follow this procedure:

- 1) disconnect the equipment from the mains;
- 2) disassemble the apparatus collecting separately the different components in relation to their nature as indicated in the paragraph "Separate collection and start recovery";
- 3) proceed to the storage and disposal of waste and materials for reuse as indicated in this paragraph and the regulatory requirements set out in the country of use.

1- 6 Product label and rating plate

1- 6.1 Equipment identification

General identifications of each unit are traced on the plate below and placed on the controller.



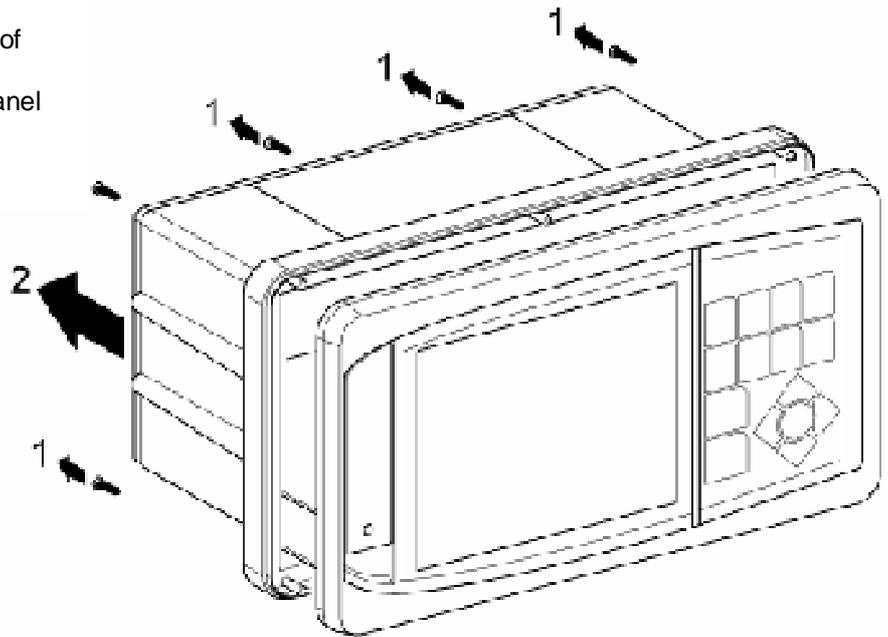
NOTE!

Inform the manufacturer the general identification data reported on the label, before asking for technical specifications or information about the equipment.

1- 7 Maintenance

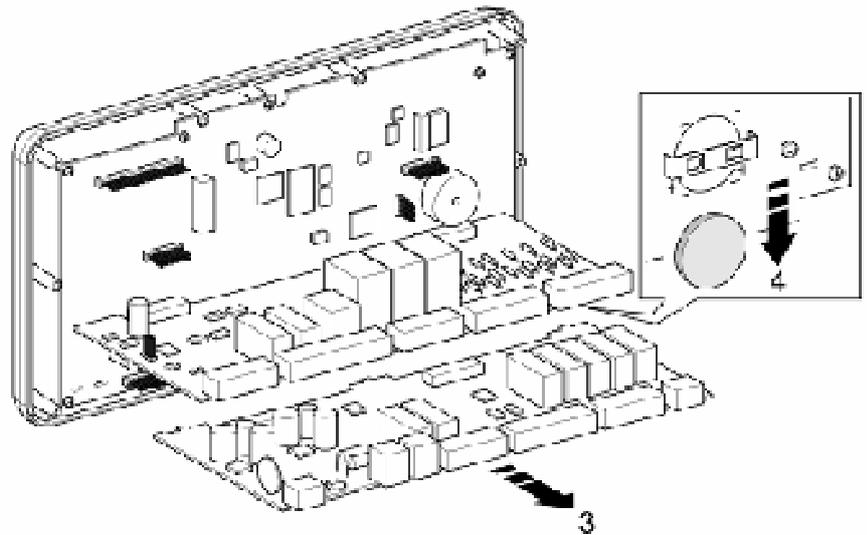
1- 7.1 Internal battery replacement

- 1) Remove the screws (item 1) on the back of enclosure;
- 2) Separate the back cover from the front panel (Item 2);



Battery type	Voltage
CR2032	3 V

- 3) Remove lower board from its slot (pos. 3);
- 4) Remove and replace internal battery (pos. 4) with an equal one.



1- 7.2 Cleaning

If necessary, clean with soft cloth.
Do not use any cleaner



Display Cleaning

IT - Se necessario, pulire con panno morbido inumidito non usare detersivi!

GB - If necessary, clean with soft moist cloth don't use any cleaner!

DE - Wenn notwendig sollte die Reinigung mit eine weiche feuchtige Tuch ausgeführt werden Auf jeden Fall kein Reinigungsmittel verwenden.

FR - Si nécessaire, nettoyer avec un chiffon doux et humide. Ne pas utiliser de détergents!

ES - Si necesario, limpiar con un pano blando y humedo no usar ningun limpiador!

3/3

1- 8 Technical data

GENERAL DATA	In parenthesis values at 24V
Battery rated voltage	12Vdc or 24Vdc
Voltage range	from 7Vdc to 33Vdc
BOARD display LGC-2107TE808D	
Fixed consumption 12Vdc (24Vdc)	150 mA (75 mA)
Relay consumption 12Vdc (24Vdc)	210 mA (95 mA)
Backlight consumption 12Vdc (24Vdc)	100 mA (50 mA)
Pre-excitation consumption 12Vdc (24Vdc)	130 mA (170 mA)
Heater consumption	-
Digital input closed to negative consumption 12Vdc (24Vdc)	40 mA (20 mA)
Maximum consumption 12Vdc (24Vdc)	630 mA (410 mA)
CAMPO DI TEMPERATURA	-40 °C + 70 °C (electronic)
	-20 °C + 70 °C (display)
	-30 °C + 70 °C (with heater)
	-40 °C + 80 °C (stocking)
DISPLAY LGC-2107TE808D	LCD monocromatic 5,7" , 320x240 pixel, transfective, white LEDs backlight
USB PORT	"Device" type, full-speed for upload firmware and projects, connector "A" female
DIGITAL INPUTS	
Input type	Active at low level with pull-up
Input current	< 10 mA
Low voltage level	< 3,5 V
High voltage level	> 8,0 V
Input latency interruption	< 30 ms
SPEED INPUT "W"	
Input type	In AC, frequency and voltage measures
Range of voltage	From 6 to 100 Vpp (precision 10%)
Range of frequency	From 40 Hz to 2000 Hz (precision 2%)
ALTERNATOR PRE-EXCITATION INPUT/OUTPUT (D+)	
Input type	Voltage measure + pre-excitation current generation
Range of voltage	From 0 to 40 Vdc
Input current	< 15 mA
Pre-excitation current	130 mA a 24 V - 170 mA a 12 V
RELAYS OUTPUT	
Type of contact	N.O. contacts with one common pole
Rated current	5 A / 30 VDC - 5 A / 250 VAC
SENSORS INPUTS	
Input type	3 inputs for resistance measures referred to the board negative
<i>Range of measure</i>	
- fuel level	from 0 to 850 ohm
- engine temperature	from 0 to 1300 ohm
- oil pressure	from 0 to 400 ohm
<i>Measure current</i>	
- fuel level	< 10 mA
- engine temperature	< 6 mA
- oil pressure	< 20 mA
Precision	< 5 %
SERIAL PORTS	
Type	Serial RS -232 without handshake signals
Cable lenght	< 3 m
Speed	Up to 115200 bps
ANALOG OUTPUTS	
Type	Insulated voltage referred to the board negative
Output current	1 mA max
Regulation range	from 0 to 5 V
INGRESSI DI CORRENTE DI CARICO	
Range of measure	0,05 ÷ 6A
Maximum overcurrent	30 A
Type of measure	RMS calculated value at 2 KHz and a 12 bit converter
Precision	< 0,5 % end of scale.
VOLTAGE INPUTS	
Type of input	Voltmetric transformers
Rated voltage	230 Vac (L-N) - 400 Vac (L-L)
Range of measure	from 0 to 350 Vac (L-N) - from 0 to 600 Vac (L-L)
Range of frequency	from 25 Hz to 80 Hz
Precision	< 0,2% F.S.
Type of measure	RMS calculated value at 2 KHz and a 12 bit converter

1- 9 Storage

In the case of prolonged storage leave your device away from rain and wind and possibly dry ambient. It is not advisable to cover the equipment with waterproof film that will prevent the evaporation of any moisture. The moisture can cause corrosion on the metal parts and damage the electronic components.

The characteristics of storage must be within the limits prescribed below:

Temperature..... -40 ÷ 80 °C
Relative Humidity..... 30 - 95%
Atmospheric pressure..... 860 - 1060 hPa (mbar)

1- 11 Installation

Drill a hole for the rectangular box TE808 and No. 6 holes Ø3 mm on the mounting surface, as indicated on the template (A). Use the screws (1) supplied. If needed buy only screws with the same characteristics.
Make sure the gasket (2) is mounted correctly and perfectly fits the perimeter of the box TE808 (3).

1- 10 Unpacking

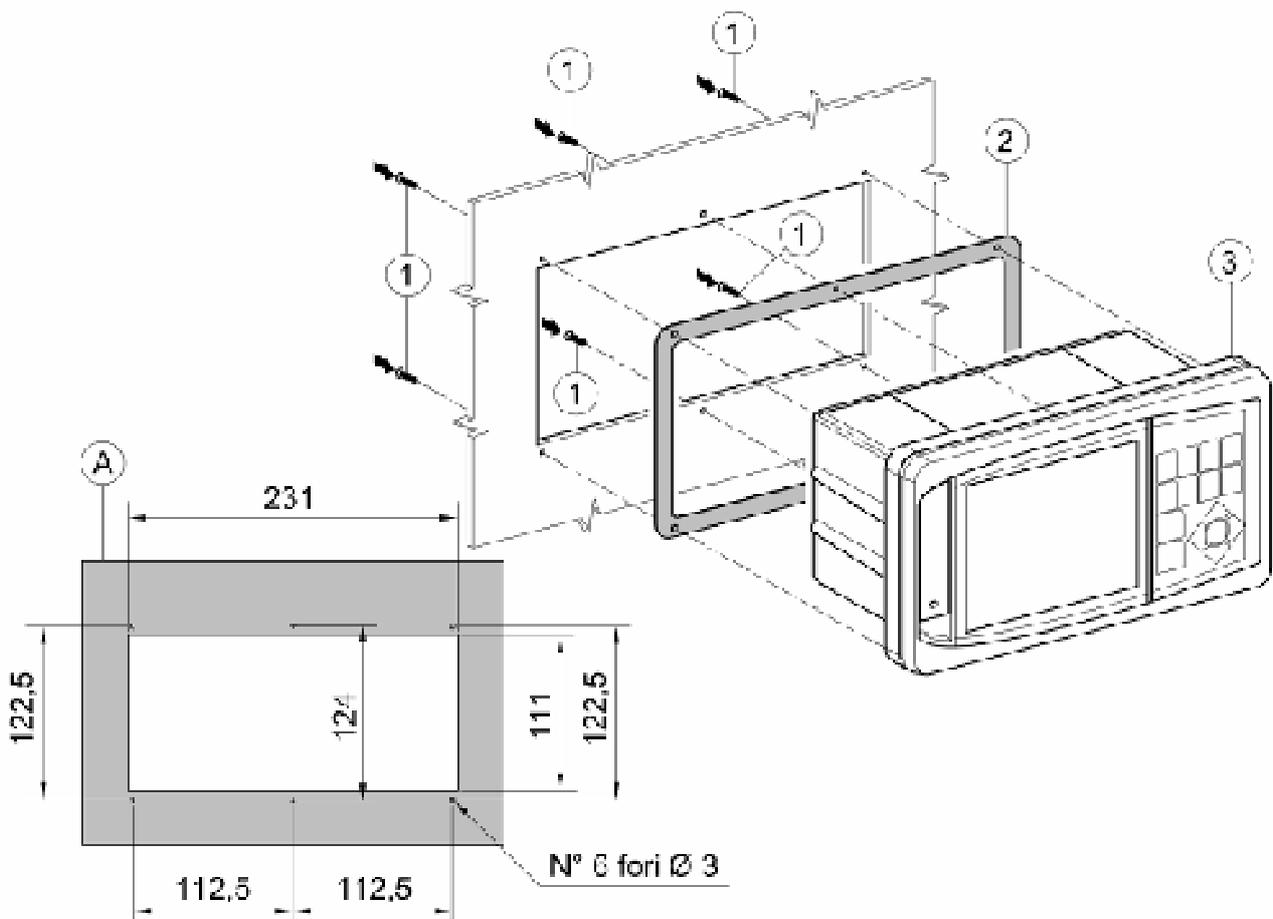
The equipment comes in a cardboard box.

Check the package contents to be submitted:

- TE808;
- CD - ROM;
- Instruction Manual;
- Terminals;
- Gasket;
- Warranty;

If even one of the objects described above are missing, please contact Tecnoelettrica Srl

After unpacking, check that the equipment and check that there are no damaged parts. If in doubt, do not install the equipment and contact immediately Tecnoelettra Srl
Packaging materials (plastic bags, cardboard, etc. ...) should be kept away or send to disposal area to be eliminated, see. par.1.6.

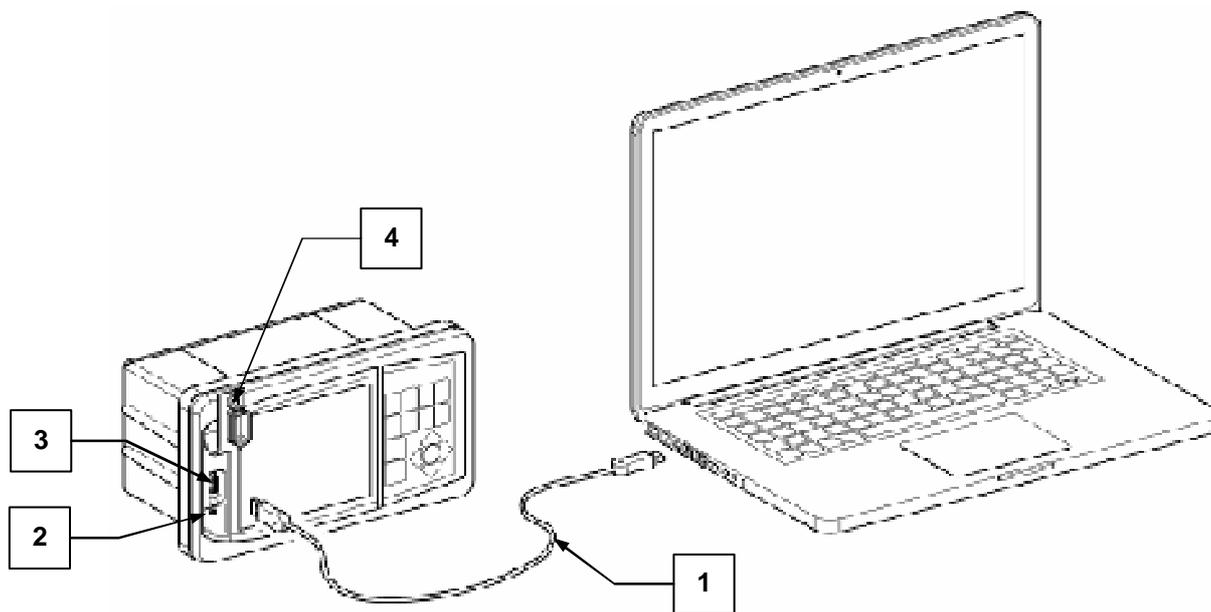


1- 12 USB connection description

Via PC connection is possible:

- Transferring the new firmware or software updated to the controller;
- Download data from the controller to analyze them in charts and/or tables or print them directly.

The USB cable (1) used is of type double AA male: Cable code 1571807F.



1. USB cable (type "A-male / A-male");
2. Mounting hole to close the rubber cap using a screw;
3. USB port: normally closed to prevent the weather can be enabled from the keyboard;
4. Closure and rubber protection, IP65.

1- 13 Warranty

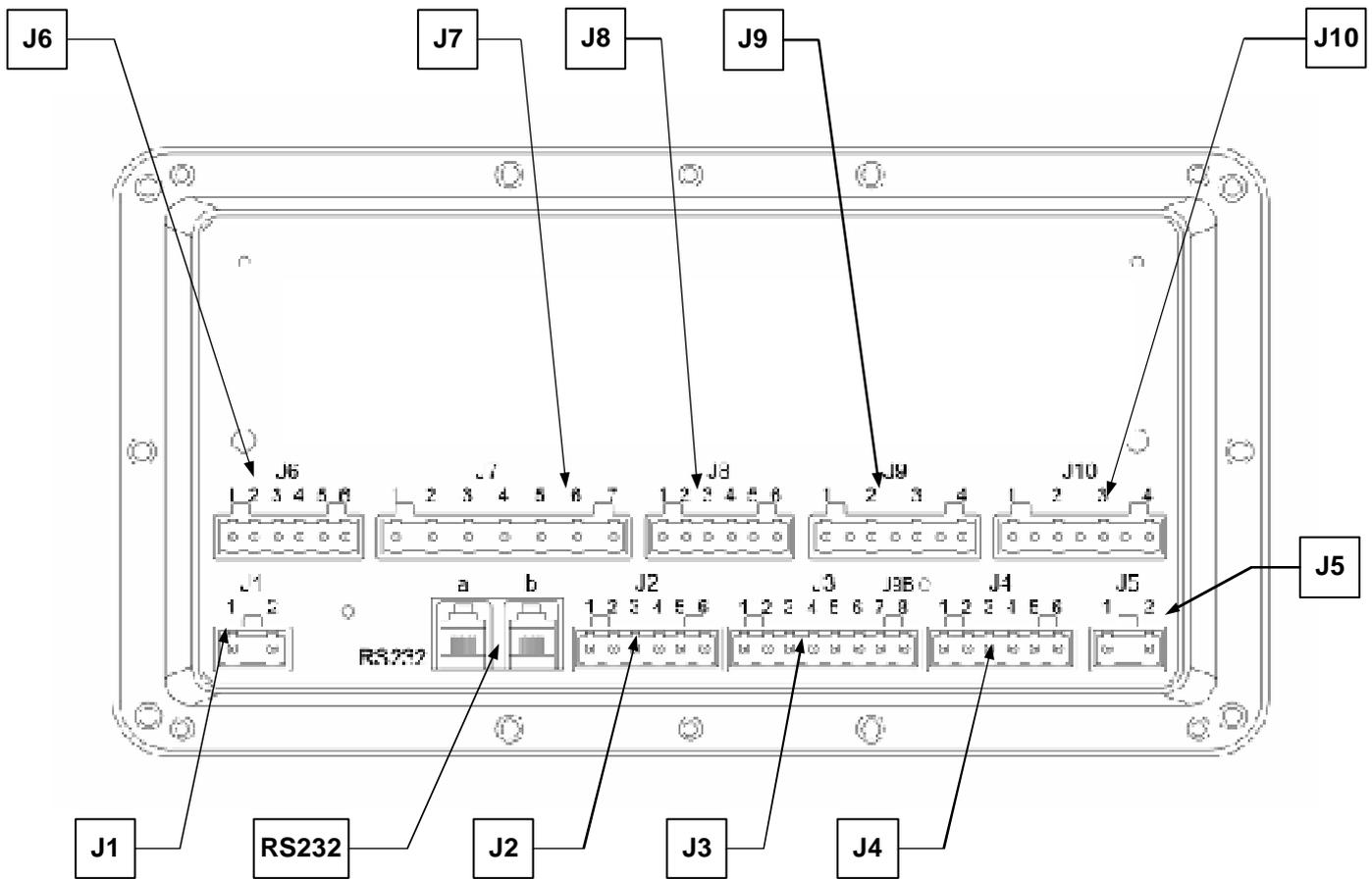
TECHNICAL SUPPORT

- For more informations and technical support, please send an e-mail to: te808@tecnoelettra.it

WARRANTY

- 2 years warranty from the real installation date.

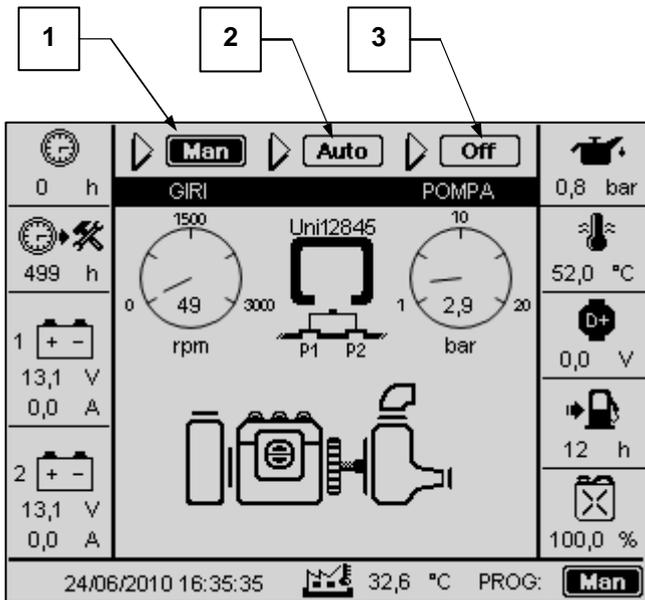
1- 14 Electrical connections



<p>J1- Vdc supply 1-battery positive 2-battery negative</p>	<p>J5- Mains presence input</p>	<p>RS232- communication ports RS232a- default setting for PC communication RS232b- default setting for GSM modem connection</p>
<p>J2- Analog inputs 1-D+ battery charger alternator 2-Tachometric signal (W; Pickup) 3-not used 4-engine temperature instrument 5-fuel instrument 6-oil pressure instrument</p>	<p>J6- Analog and digital inputs 1-Water pressure transducer 2-Oil temperature instrument 3-gnd 4-Battery charger n.1 alarm 5-Battery charger n.2 alarm 6-gnd</p>	<p>J9- Relay outputs 5A 1-Global alarm 2-Pump working 3-Start failed 4-Not automatic 5-Not used 6-Relay common 7-Not used</p>
<p>J3- Digital inputs 1-Reset buzzer 2-External lamp test 3-Remote start 4-Auxiliary starting button 5-Start pressure switches 6-Low fuel level 7-Low oil pressure 8-High engine temperature</p>	<p>J7- DC measures inputs 1-gnd 2-Battery voltage 2 3-Battery current 2 (out) 4-Battery current 2 (in) 5-Battery voltage 1 6-Battery current 2 (out) 7-Battery current 2 (in)</p>	<p>J10-Vac mains voltages 1-neutral 2-L3 3-L2 4-L1</p>
<p>J4-Relay outputs 5A 1-Preheating 2-EV/EM 3-Acoustic buzzer 4-Global alarm 5-Auxiliary starting output 6-Relays common</p>	<p>J8-Dry contact outputs 1-Start battery 1 2-Start battery 1 3-Not used 4-Start battery 2 5-Start battery 2 6-Not used</p>	

1- 15 Functioning modes

To scroll the operative modes (1, 2 and 3) use the arrows (4, 5) of the drive and confirm the selected modality pressing the "i" button (6).



1- 15.1 Off

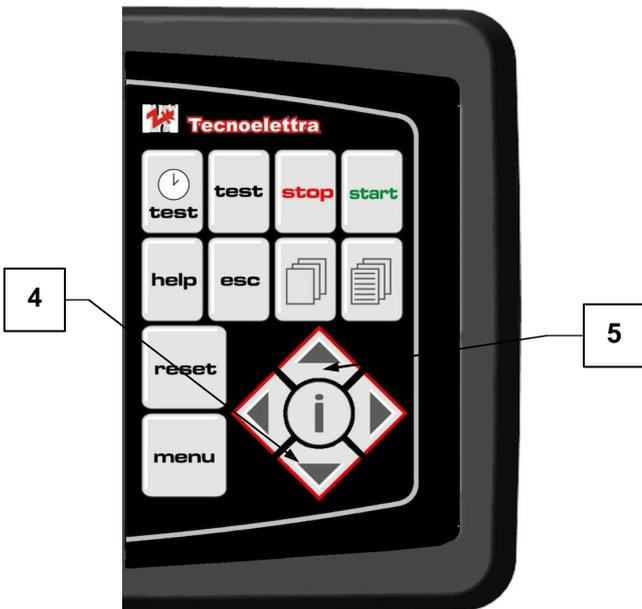
Mode OFF/RESET- The engine cannot be started. Selecting this modality, the engine is immediately stopped and eventual alarms are reset. The alarm is not reset if the cause of the alarm is still present.

1- 15.2 Automatic

Mode AUT – The engine starts automatically if the pressure switches are open because a fire is detected. The START button is inhibited in this modality.

1- 15.3 Manual

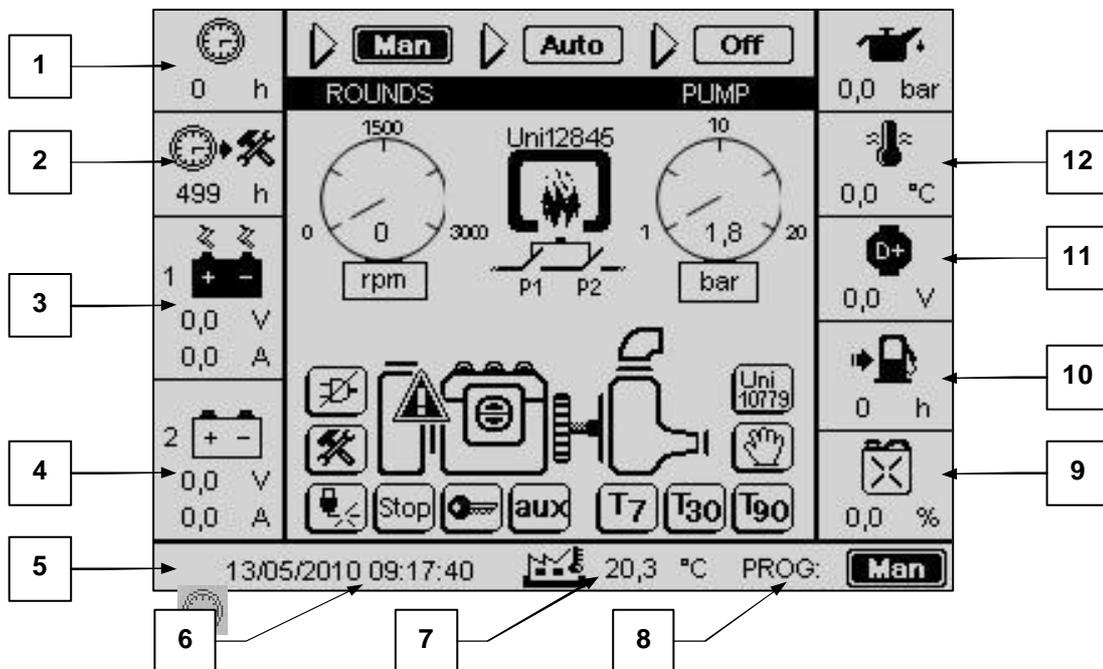
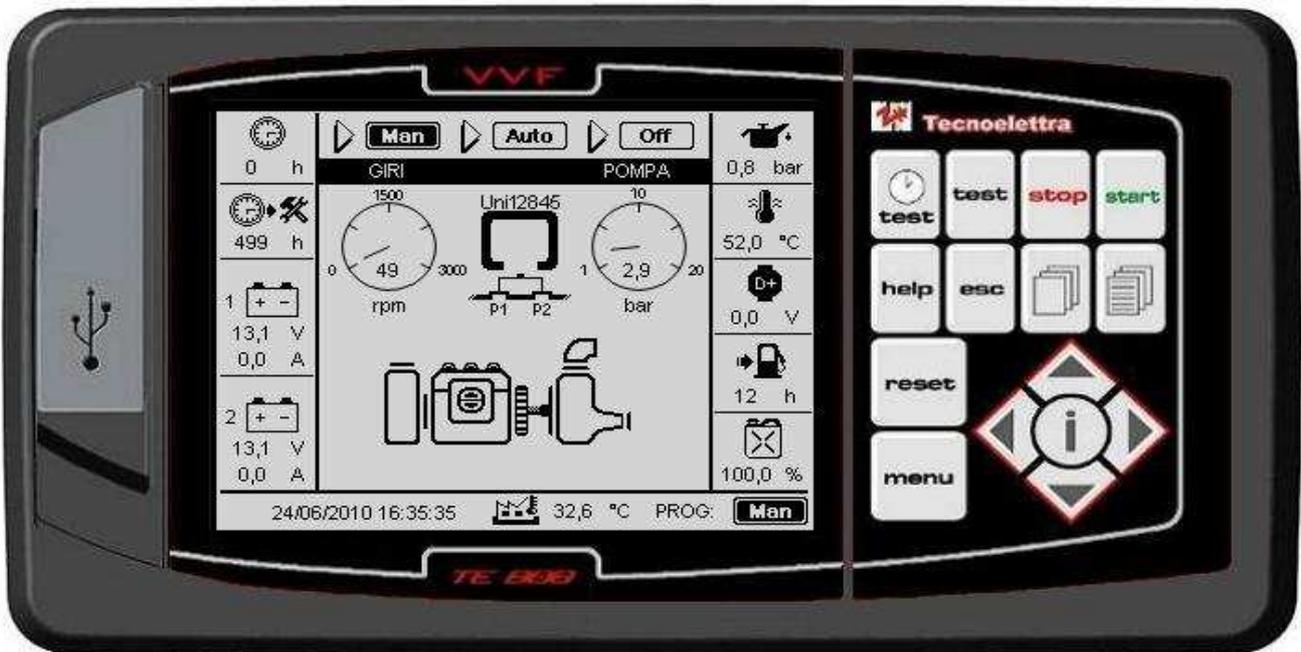
Mode MAN – The engine can be started or stopped manually with the START and STOP buttons.



1- 15.4 Alarms

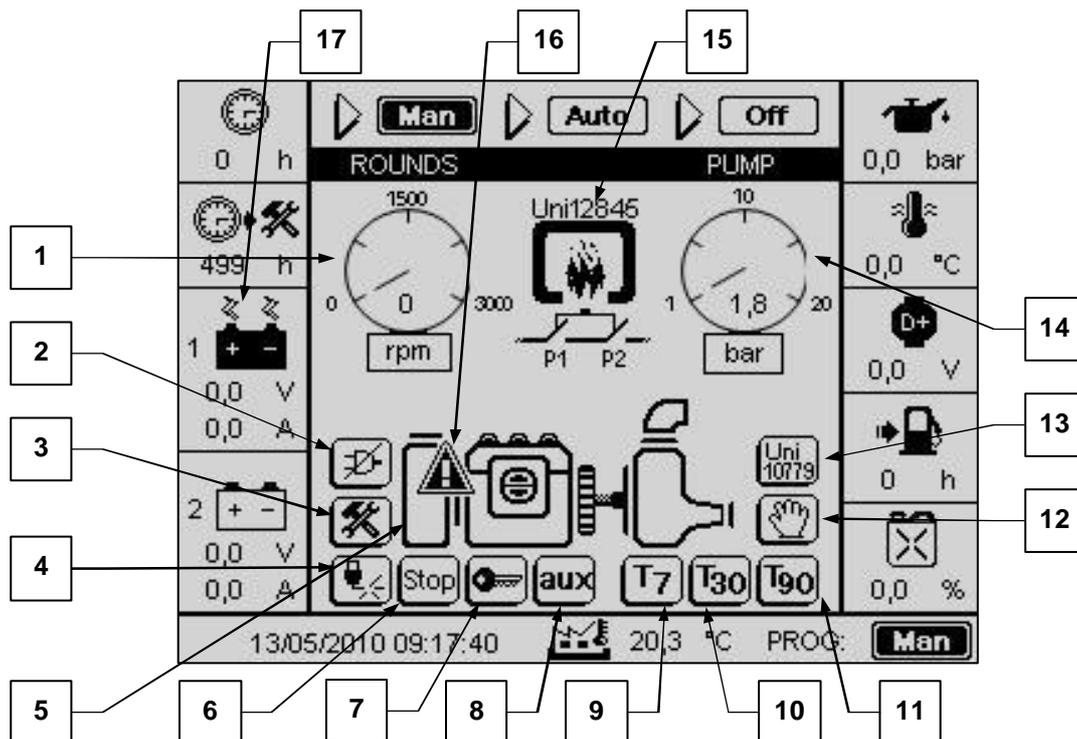
When an alarm appears, the display shows its description. In case of multiple alarms, they are shown individually in sequence. For every alarm it's available a help message to detect the possible cause of the problem. The reset of the alarms can be made pressing the RESET button. If the alarm is not reset and remains on display, it means that the cause of the alarm has not been removed.

1- 16 Display pages



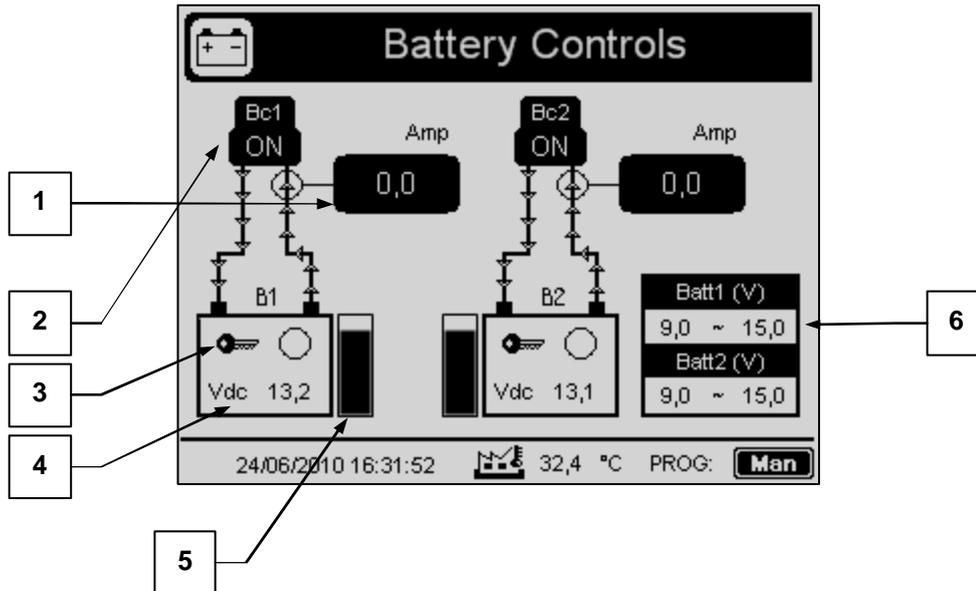
POS.	NAME	DESCRIPTION
1	Work hours	It shows the total working hours of the engine
2	Hours left to service	It indicates the number of hours left to the next service
3	State of battery 1	Voltage and current of the battery 1
4	State of battery 2	Voltage and current of the battery 2
5	Automatic test clock	Symbol that appears if an automatic test is programmed
6	Date and time	Actual date and time
7	Environmental temperature	Value of the environmental temperature
8	Functioning mode	It shows the selected functioning mode
9	Fuel level	Level of the remaining fuel in %.
10	Autonomy	It shows the hours of autonomy. It depends by the actual fuel level and the set consumption
11	D+	It shows the D+ voltage
12	Engine temperature	It indicates the engine temperature
13	Oil pressure	It shows the oil pressure value

1- 16.1 Main page description



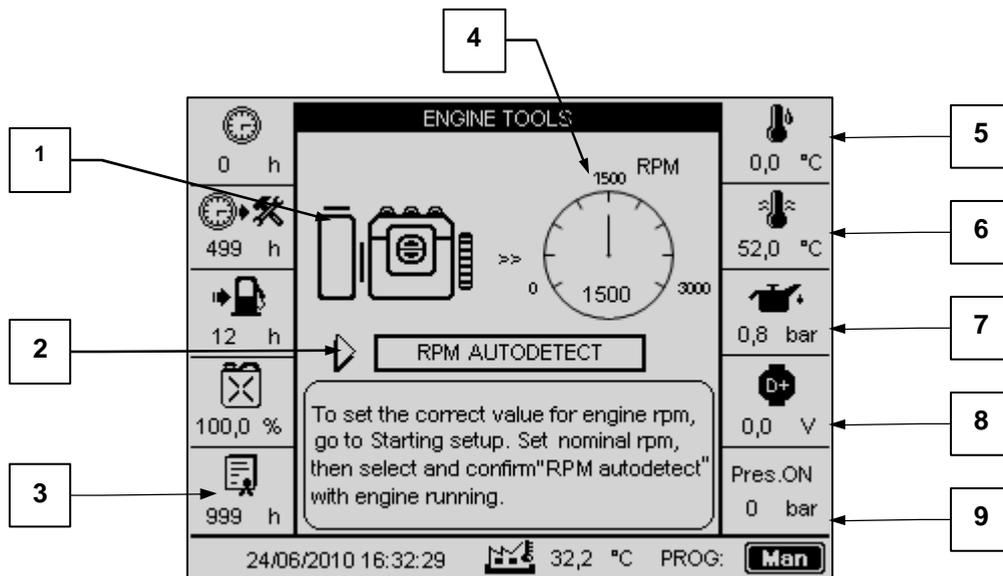
POS.	NAME	DESCRIPTION
1	RPM	It shows the RPM value. To calibrate it, start the motorpump at the nominal RPM value, and select this instrument with the arrows of the navigation drive. Then confirm with "i". The actual value will be updated to the nominal RPM value.
2	"Mains lacking" icon	It appears if the input J5 doesn't detect the mains presence
3	"Service" icon	It appears when the service hours are expired
4	"Preheat" icon	It appears during the preheating at the starting
5	Engine animation	Animation to show if the engine is running
6	"Stop" icon	It appears during the stopping of the engine
7	"Start" icon	It appears during the starting phase of the engine
8	"Aux" icon	It appears when the auxiliary start output is activated
9	"Weekly test" icon	It appears if a weekly test is programmed
10	"Monthly test" icon	It appears if a monthly test is programmed
11	"Quarterly test"	It appears if a quarterly test is programmed
12	"Hand" icon	It appears if it is enabled the function of start and stop by programmable levels of the water pressure.
13	"UNI10779" icon	It appears if the stop by the norm 10779 is enabled
14	Water pressure of the system	It shows the water pressure measured by the controller
15	Indicatore start remoto	When at least one of the pressure switches is open, a flame is shown to indicate that a start request has been detected
16	Generic alarm message	It's shown if an alarm is present
17	Battery charger state	The battery icon becomes black if an alarm about the battery charger is present

1- 16.2 Batteries control



POS.	NAME	DESCRIPTION
1	Charge current	Charge current of the battery
2	State of the batterychargers	ON if the battery charger is working correctly, OFF if the battery charger is in alarm
3	Start indication on the battery	It indicates if the battery is used at the starting. The 2 batteries are used alternatively at every starting
4	Battery voltage	It indicates the actual battery voltage
5	Level indicator of the battery charge	Bar graph to indicate the charge level of the battery
6	Minimum and maximum voltage alarm thresholds	It shows the minimum and maximum levels of the battery. Over these limits, an alarm is shown

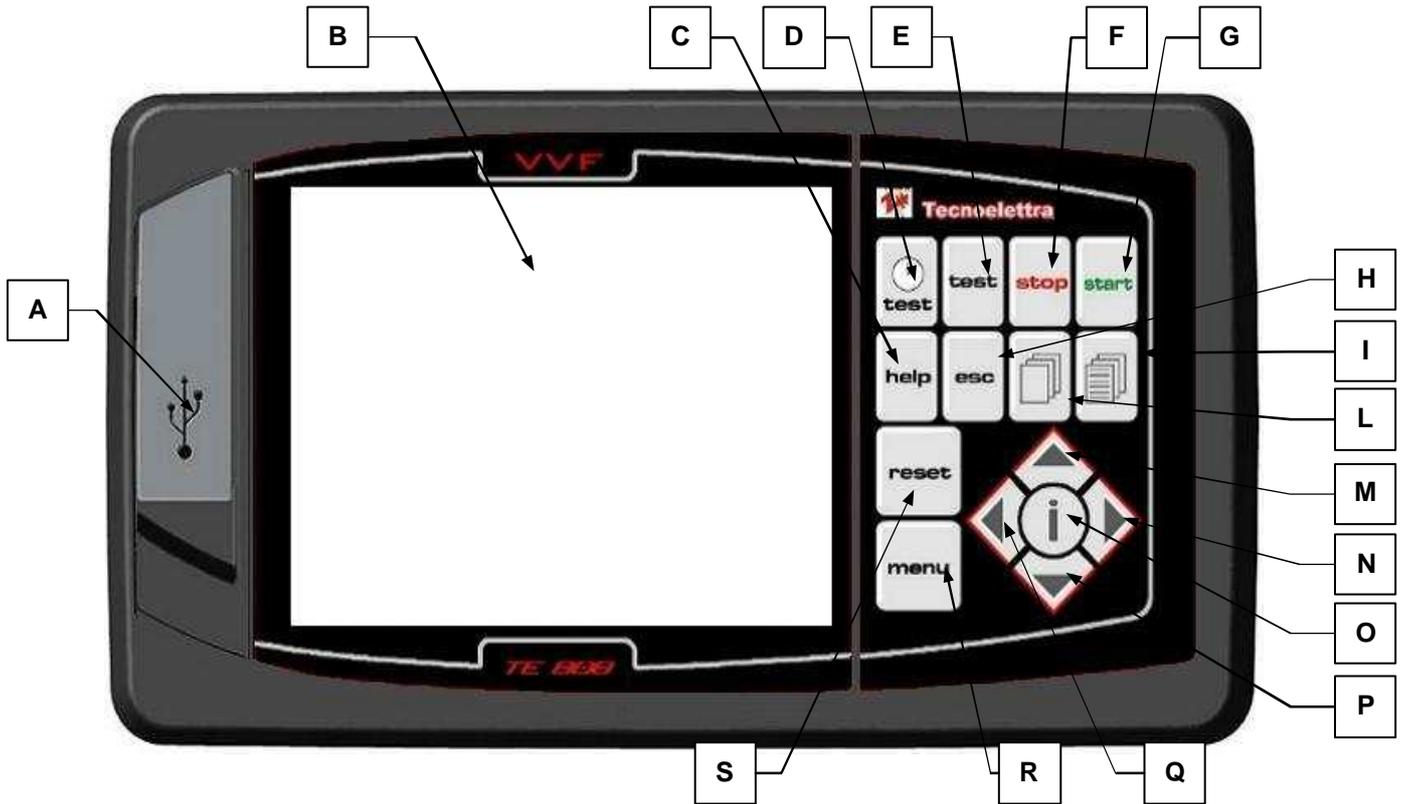
1- 16.3 Engine instruments



POS.	NAME	DESCRIPTION
1	Engine animation	Animation to show if the engine is running or not
2	RPM calibration	Button that has to be pressed (with "i" button) to set the actual RPM value to the nominal value
3	Warranty hours	It indicates the hours left to the warranty expiry
4	RPM	Graph to show the RPM value
5	Oil temperature	It indicates the oil temperature
6	Engine temperature	It indicates the engine temperature
7	Oil pressure	It indicates the oil pressure
8	Battery charger alternator voltage	It shows the D+ voltage
9	Test pressure	It indicates the pressure detected during the test

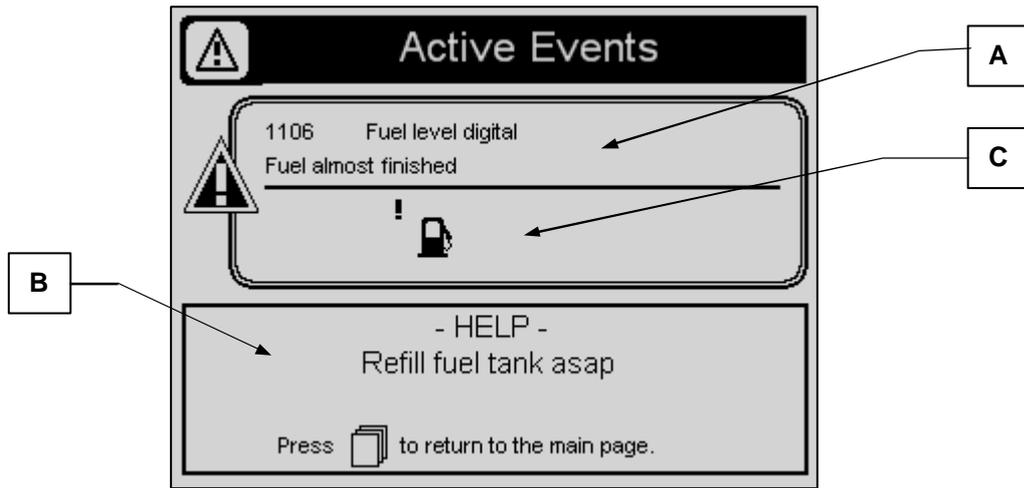
1- 17 General description of the equipment

Here are presented the main functions of the controller.



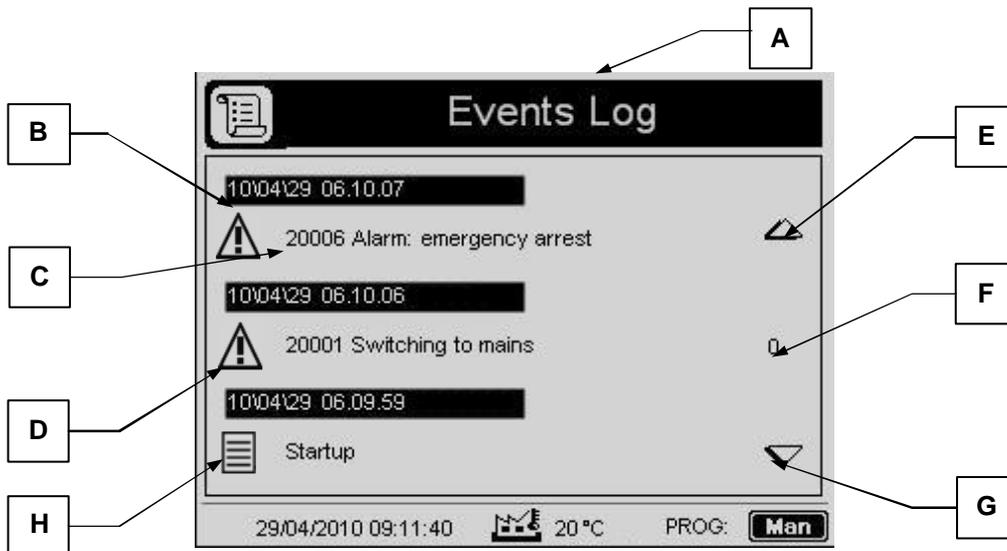
POS.	NAME	DESCRIPTION
A	USB port	It's used to update the firmware and project of your TE808 VVF via PC
B	Display	With backlight, it shows all the measures, the status and the settings of the board. To save energy, it turns off automatically if any button is not pressed after the delay time programmed
C	Help	To have access to dedicated help page, with description about functions, screen, settings, etc
D	Test☉	It's used to program and verify the weekly, monthly and quarterly tests
E	Test	It's used to test the lamps on the panel and eventually also on a remote alarms panel
F	Stop	Stop button to stop the engine. Active only in manual mode.
G	Start	Start button to start the engine. Active only in manual mode.
H	Esc	Button to exit from the menus/programmations
I	Page forward	Press this button to go to the next screen
L	Page backward	Press this button to go to the previous screen
M	Arrow up	In the navigation it's used to return to the previous option
N	Arrow right	In the navigation it's used to go to the next option; in the programming it permits to increase the value of the parameter.
O	i	It's used in the navigation to confirm the selection or edit a parameter and confirm the new value
P	Arrow down	In the navigation it's used to go to the next option
Q	Arrow left	In the navigation it's used to return to the previous option; in the programming it permits to decrease the value of the parameter.
R	Menù	It's used to enter in the programming menus
S	Reset	Button to activate the reset/OFF mode. In this operative mode, the engine is stopped without cooling and the alarms are reset. If the cause of the alarm remains, the alarm will appear again.

1.17.1 Alarms informations page



POS.	NAME	DESCRIPTION
A	Code and message	It shows the code of the alarm and a description message
B	Help	Eventual message to help to solve the problem
C	Alarm icon	Icon to identify graphically the appeared alarm

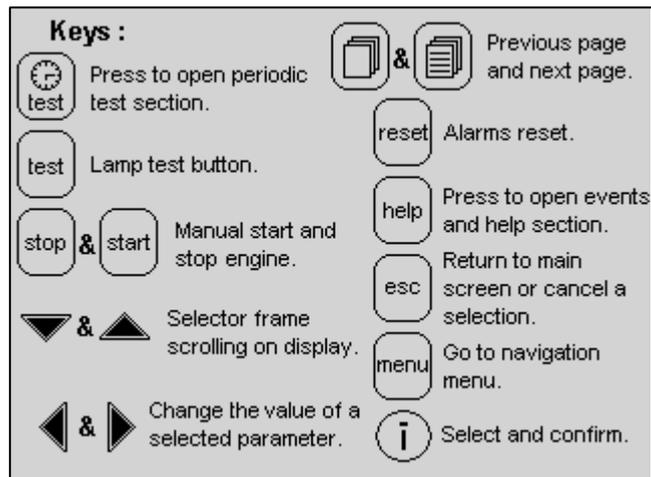
1.17.2 Events list



POS.	NAME	DESCRIPTION
A	Events list	Indicates that the page refers to the list of events stored, that remain in memory regardless of power supply to controller. When this number is exceeded, the older event is automatically deleted and the list incorporates the new event
B	Date and Time	Shows the date and time that the event was registered
C	Description	Shows the code and event description
D	Icon	Symbol that identifies an event as a priority (eg alarm) or secondary (eg warning)
E	Up Arrow Drive	Indicates to press the up arrow on the drive to scroll up
F	Number of pages	Indicates the actual number of the page
G	Down Arrow Drive	Indicates to press the down arrow on the drive to scroll down
H	Icon	Symbol that identifies a notice

1.17.3 Keyboard description page

This page describes the functions of the buttons of the keyboard, to help the user to better understand the meaning of every button without reading the instructions manual.



1.17.4 Controller informations page



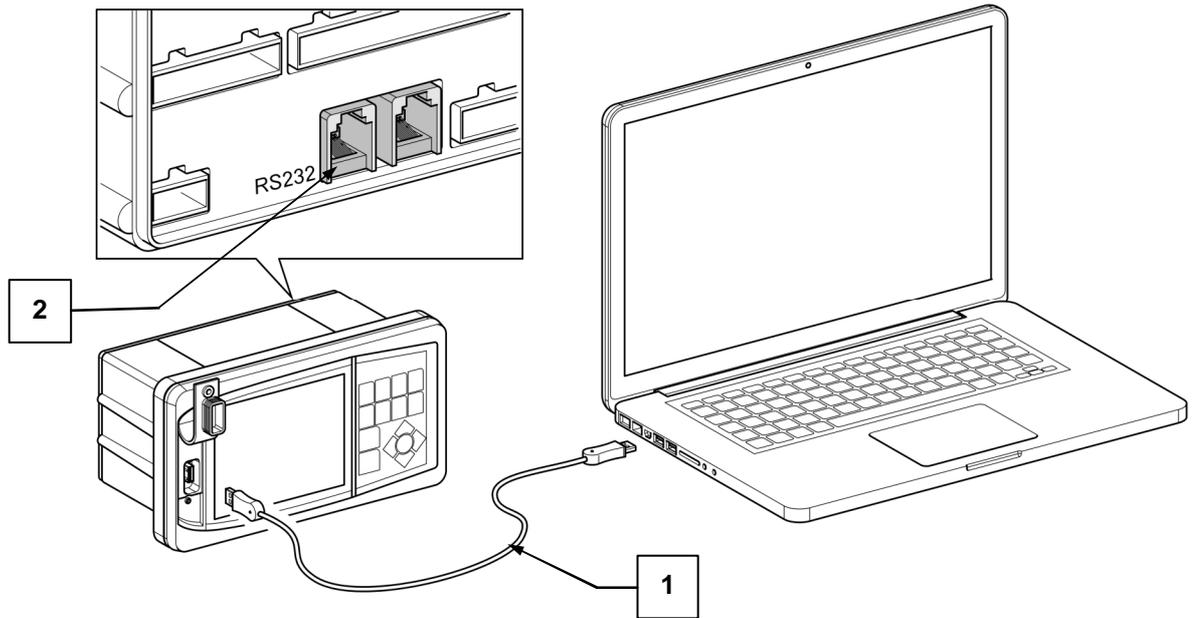
POS.	NAME	DESCRIPTION
A	General Informations	Provides general information about the controller and Tecnoelettrica srl.

1.17.5 Technical informations page

The image shows a technical information page layout. On the left is the Tecnoelettra logo, which consists of a stylized 'T' and 'E' with a star-like shape. Below the logo is the word 'TECNOELETTRA'. To the right of the logo is a text box containing the following text: 'Thank you for purchasing a product by Tecnoelettra, please contact us if you have any request. Your advices are helpful tools for our improvement.' Below this is another text box titled 'Technical Informations:' containing a list of specifications: '- Working temperature: -30°C +70°C', '- Storage temperature: -40°C +80°C', '- Vdc supply: 12 or 24V', '- Vac: 80~480V, f: 45~65Hz', '- Protection IP65', and '- ULcs, CE, Imq, HALT omologations'. A small box with the letter 'A' and an arrow points to the 'Technical Informations:' section.

POS.	NAME	DESCRIPTION
A	Technical Information	Provides information about the limits of operation of the controller

1- 18 Accessories

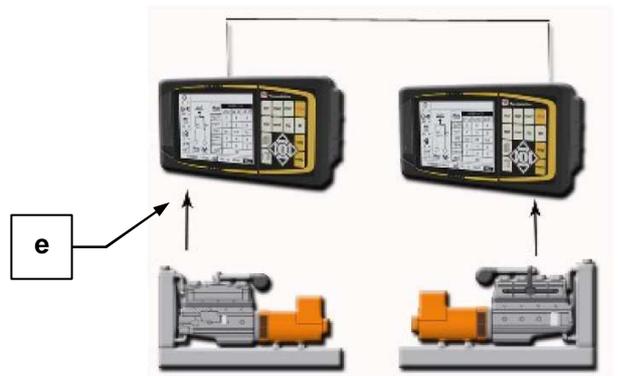
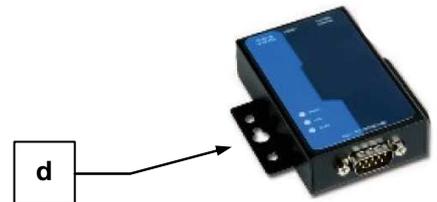
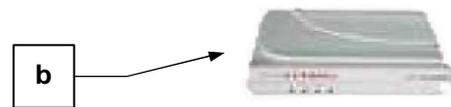
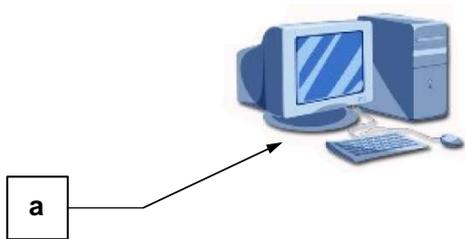


1) Cable code 1571807F;

2) n.2 RS232 ports allow direct connection to multiple devices;

- a. Others Cable for direct PC connection to upload and download data and info. Cable code 1571807.
- b. Analog modem connection for remote control via PC dial telephone. Optional code 1571806.

- c. GSM modem for remote control via PC with modem or via SMS messages to / from mobile phones. Accessory code 1571806B.
- d. Converter wired TCP / IP for remote control from PC via LAN / Ethernet. Code 1571806G accessory.
- e. Connection between No.2 TE808, for communication between generators. Used, for example, in systems with generator master and slave. Cable code 1571807E.

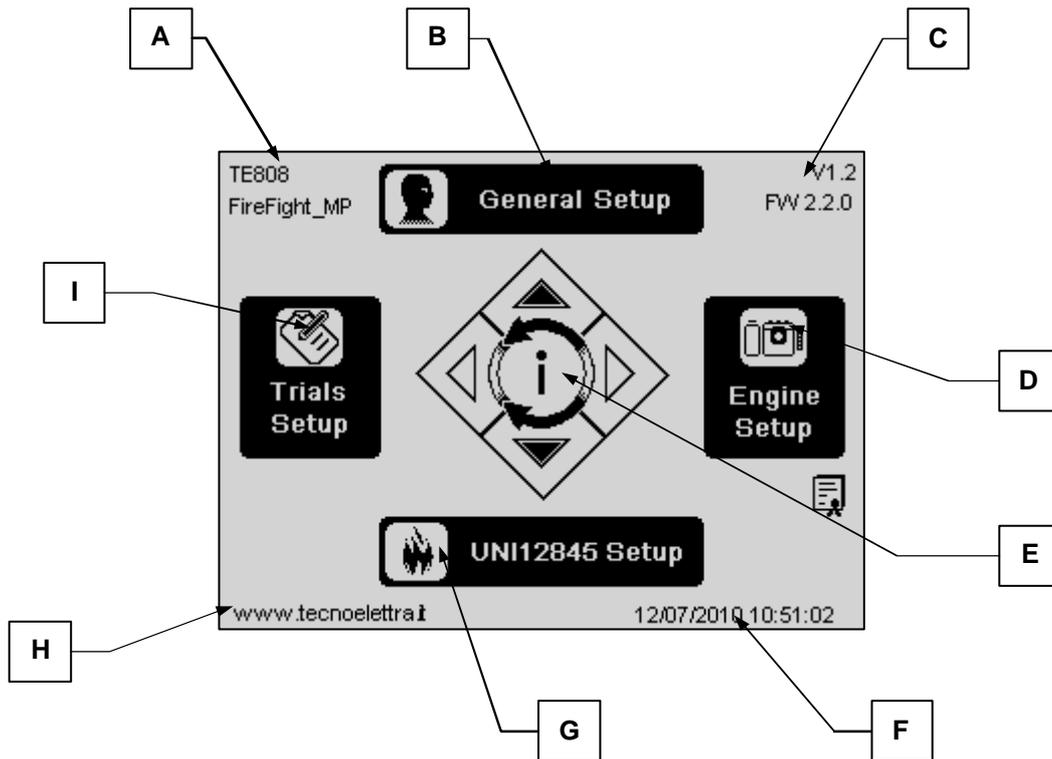


TE808 VVF

Section 2 – Navigation

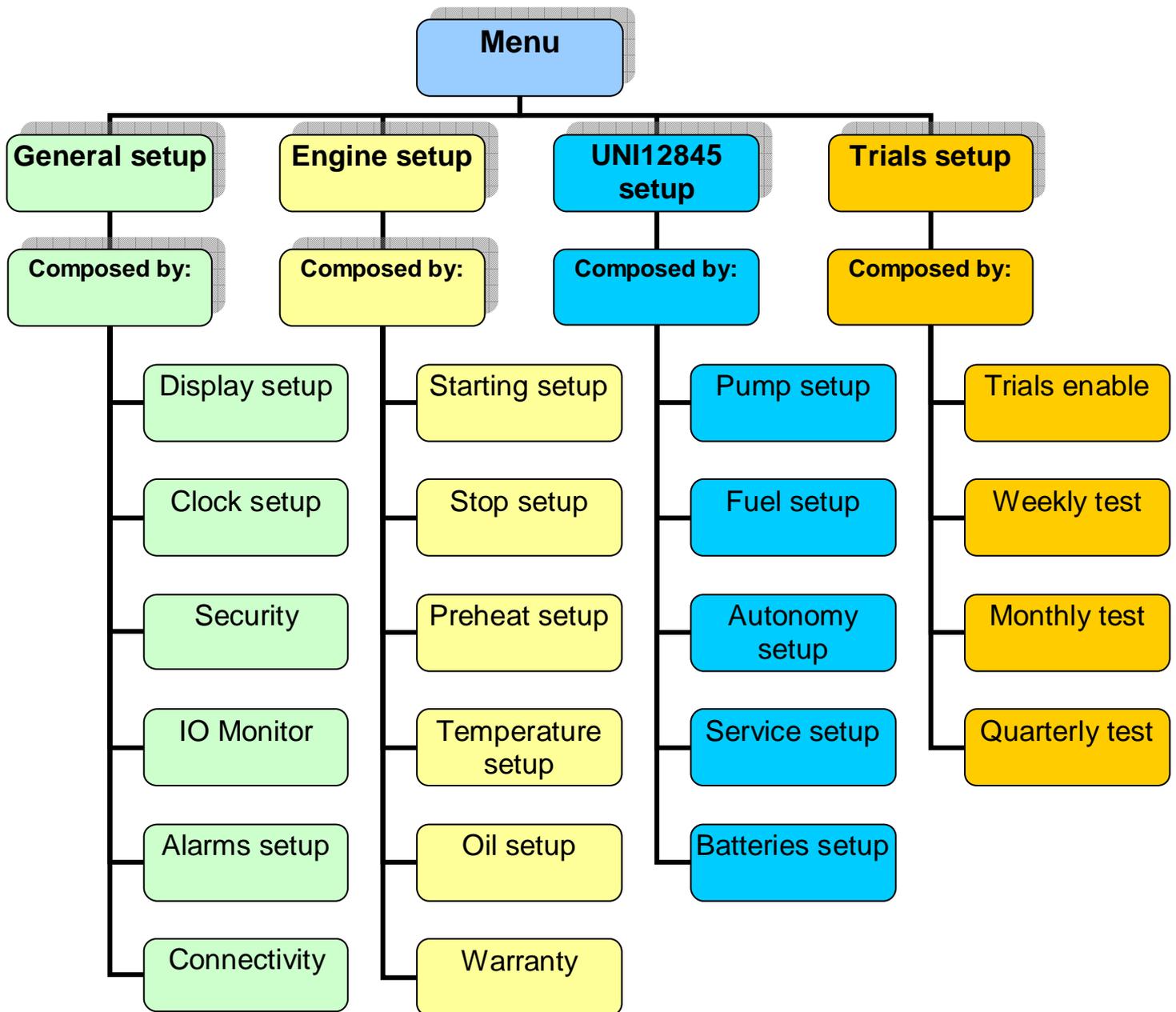


2- 1 Navigation menu



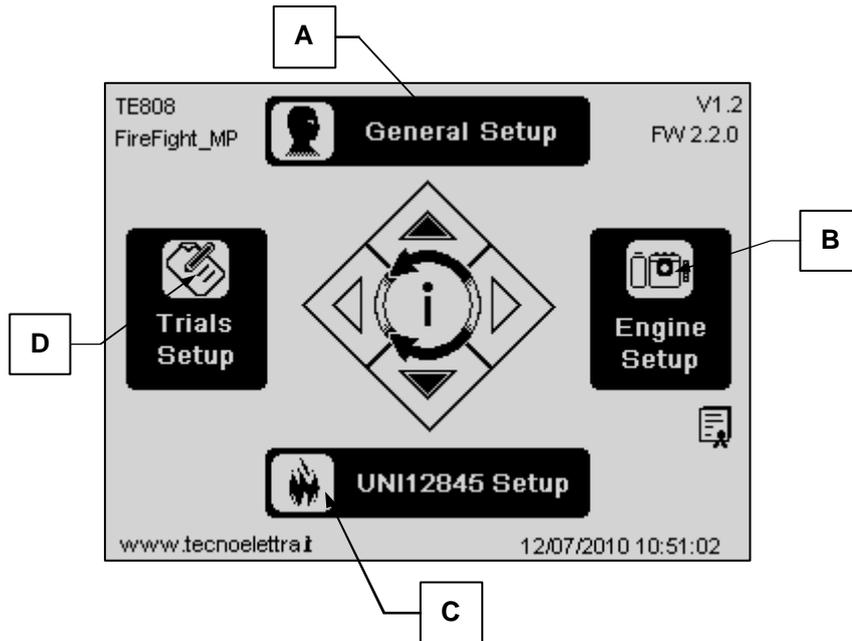
POS.	NAME	DESCRIPTION
A	TE808	Version of the controller
B	General setup	Select this button to enter the General setup
C	Firmware	Firmware version of the controller
D	Engine setup	Select this button to enter the Engine setup
E	Drive	Navigation drive that indicates to use the arrows to select the buttons and confirm the selection with the "i" button
F	Date and time	Indication of date and time
G	UNI12845 setup	Select this button to enter the UNI12845 setup
H	Web site	Indication of the Tecnoelettra website
I	Trials setup	Select this button to enter the Trials setup

2- 2 Navigation diagram



2- 3 Navigation instructions

When you press the menu button (1) you see the navigation screen:



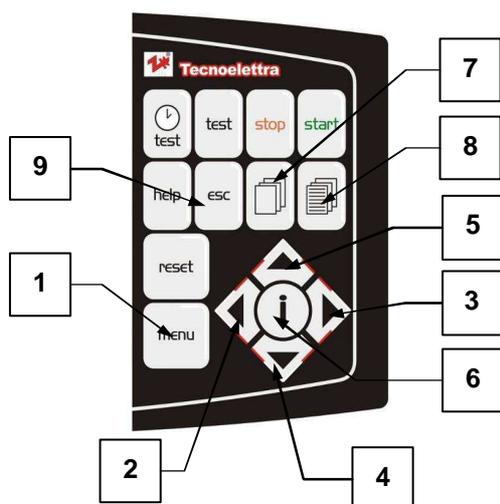
Using one of the directional arrows (2, 3, 4 or 5) you can select cyclically the submenu (A, B, C or D) shown in the screen above; highlighted the preferred one, press the central drive "i" button to confirm (6) the access and the navigation inside it.

From the various screens inside the submenu, you can select the parameter values moving vertically pressing up and down drive keys (4 or 5), confirmation to the selection is always by "i" button (6), then changing the value using the left and right drive keys (2 or 3). Then, to confirm the changed value, press again "i" key (6).

The scroll keys (7 and 8), are respectively used to navigate between the previous and the next page of the currently one showed on the screen.

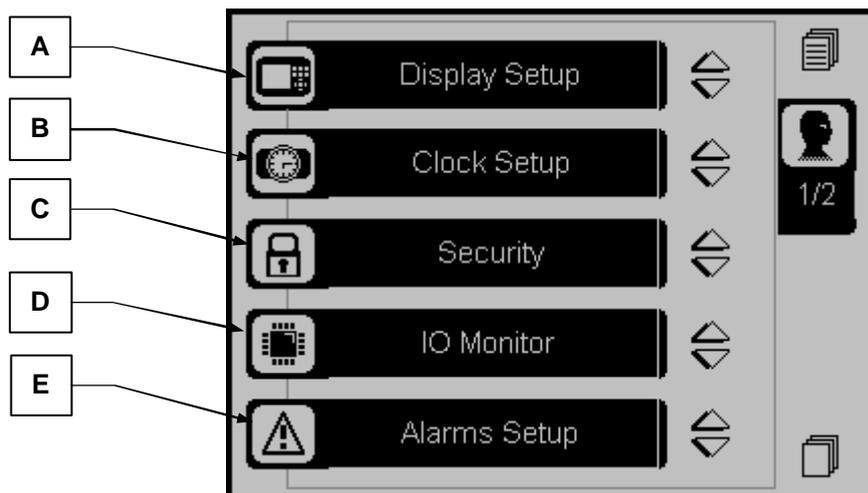
I tasti di scorrimento (7 e 8), permettono di navigare rispettivamente tra la pagina precedente e quella successiva rispetto a quella attualmente presente a video.

Il tasto esc (9) permette di uscire dalle videate di navigazione.

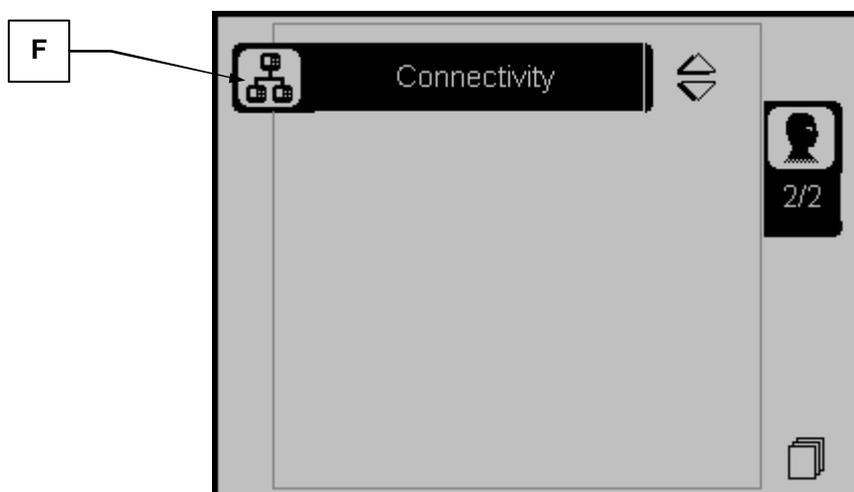


- 1 – Access to the menu;
- 2 – Change the parameters;
- 3 – Change the parameters;
- 4 – Scroll the options;
- 5 – Scroll the options;
- 6 – Confirm the selection;
- 7 – Return to the previous screen;
- 8 – Go to the next screen;
- 9 – Exit button.

2- 4 General setup description

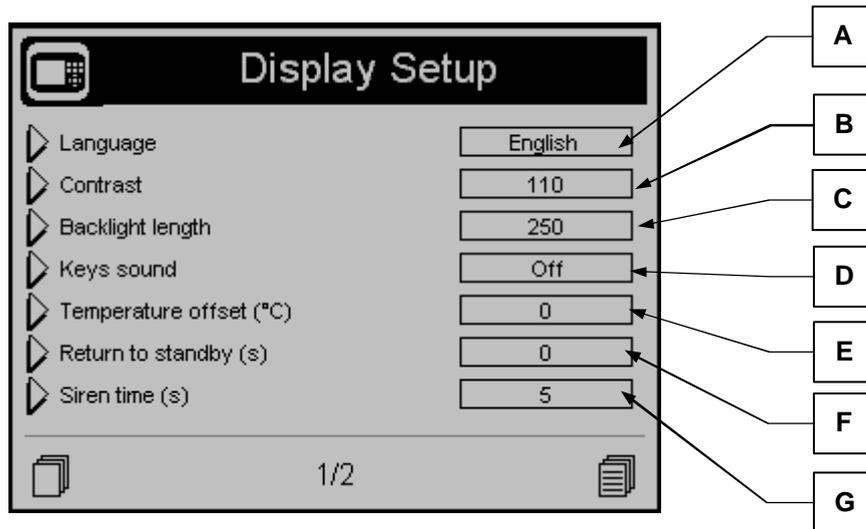


POS.	NAME	DESCRIPTION
A	Display Setup	Submenu that contains all the parameters settings of the screen: language type, contrast, offset thermostat, etc.
B	Clock Setup	Submenu for setting the Time and Date
C	Security Setup	Submenu to setting passwords for various menus
D	Monitoring IO	Submenu where you can check the operating status of all inputs and all outputs
E	Alarms setup	Submenu to change the status of operation and intervention of various alarms available

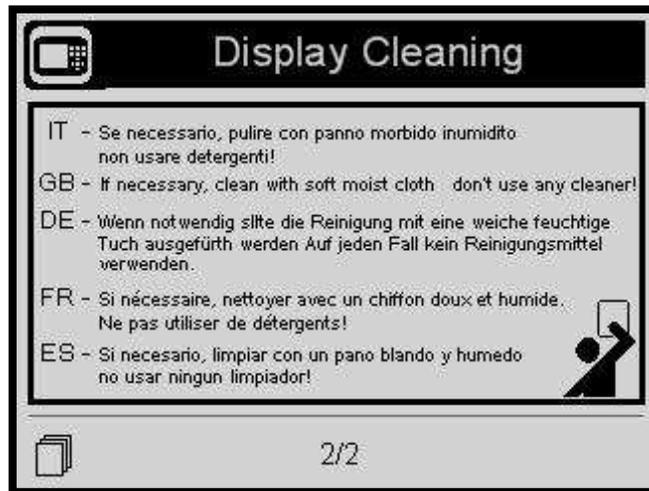


POS.	NAME	DESCRIPTION
F	Connectivity	Submenu that allows the setting of communication parameters of the RS232 ports available

2.4.1 Display setup

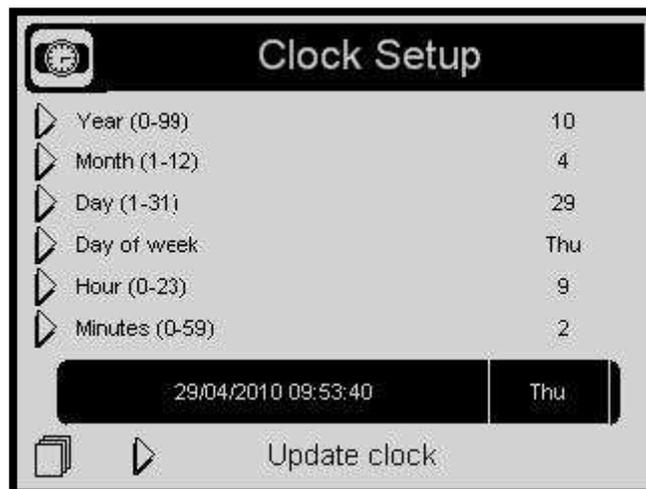


POS.	NAME	DESCRIPTION	RANGE OF VALUES	DEFAULT SETTINGS
A	Language	You select the language in which you must operate the controller. On board are available the following languages: English, Italian, French, Spanish, Portuguese. It's possible, by request, install any language with any type of character.	Italian English French Spanish Portuguese	
B	Contrast	To set the display contrast preferred, which is then be controlled and manteined automatically by the TE808.	20-240	110
C	Backlight length	If no operations are done, after this time the display backlight turns off. It returns on automatically when an events occurs.	0-255	250
D	Keys sound	To set a beep sound when a key is pressed.	On/Off	Off
E	Temperature offset	Used to set a thermostat correction coefficient, about the ambient temperature value shown on the display.	-127 a 128	0
F	Return to standby	It is the time after which the controller automatically returns to the standby page.	0-255	0
G	Siren time	Duration of the acoustic alarm in case of alarm. If the digital input for the buzzer reset is closed to negative, the acoustic alarm stops.	0-255	0



POS.	NAME	DESCRIPTION
A	Clean screen	See instructions for proper cleaning of the TE808 screen

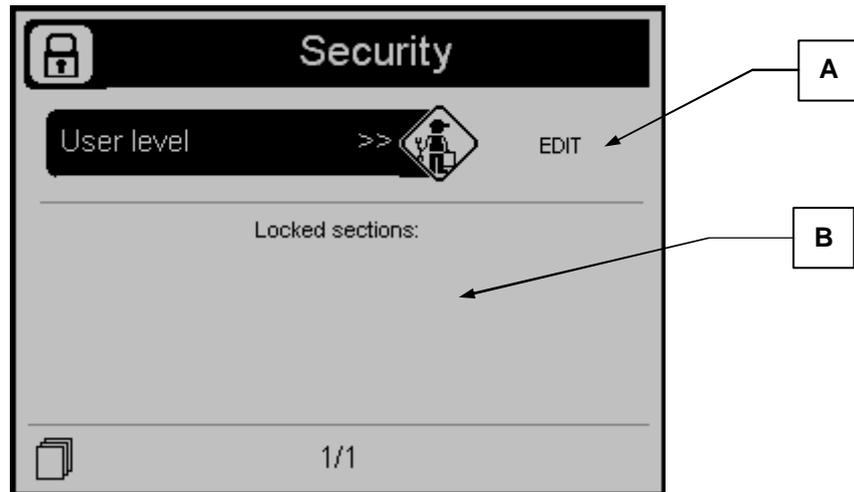
2-4.2 Clock setup



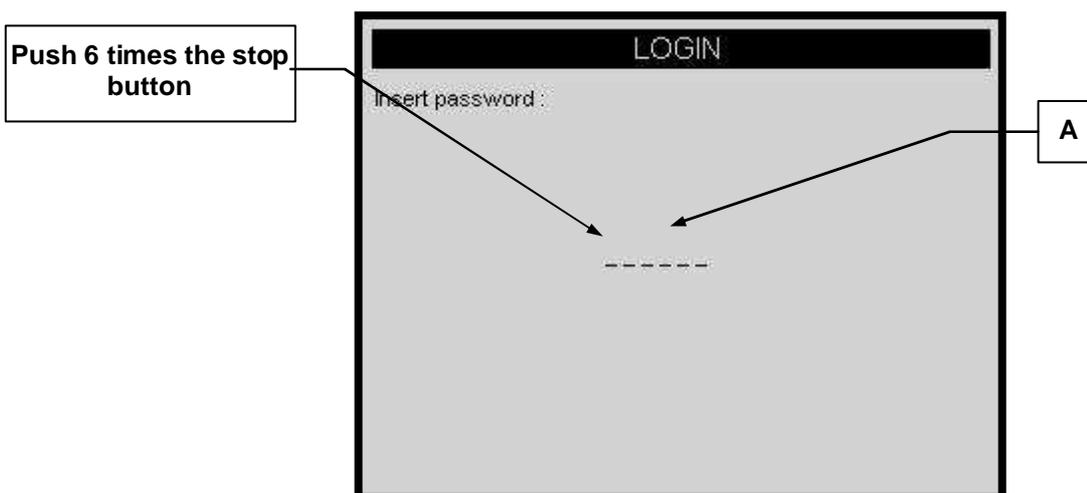
POS.	NAME	DESCRIPTION	RANGE OF VALUES	DEFAULT SETTINGS
A	Year	To set the year	0-99	-
B	Month	To set the month	0-12	-
C	Day	To set the day	0-31	-
D	Day	To set the day of the week, from Monday to Sunday	Mon...Sun	-
E	Hours	To set the current hours	0-23	-
F	Minutes	To set the current minute	0-59	-
G	Update clock	Used to confirm the adjusted date/clock, it updates the current time. To do it, you must select the area using the drive arrows and then confirm by the "i" drive button	-	-
H	Current setting	Shows the current date and clock set	-	-

2-4.3 Security

This menu permits to enable and disable the access to the main 4 areas of the menu. In fact, changing the password, the relative section is automatically locked. In this way you can give access to the different areas only to who has the competences.



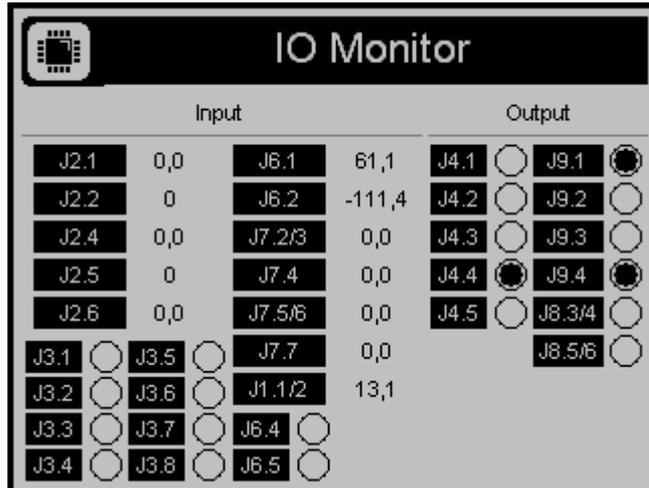
POS.	NAME	DESCRIPTION
A	EDIT	Provides access to the login security. Use arrows drive to highlight the box, then the "i" button to access.
B	Locked Sections	Shows the menu that are locked by password. When "General Setup" is locked, only the following sections are available: <ul style="list-style-type: none"> - Alarm setup - Security setup - I/O Monitor - Help For the other menu, when locked, the access is forbidden. To lock/unlock the sections, the following <u>password</u> levels are used: <ul style="list-style-type: none"> 100 User Code LV1: to lock or unlock General Setup 200 User Code LV2: to lock or unlock Engine Setup 300 User Code LV3: to lock or unlock Alternator Setup 400 User Code LV4: to lock or unlock Mains Setup



POS.	NAME	DESCRIPTION
A	Login	Enter the Login to have access to the list of all the alarms and their various settings. To set the Login, press the STOP button 6 times.

2-4.4 IO Monitor

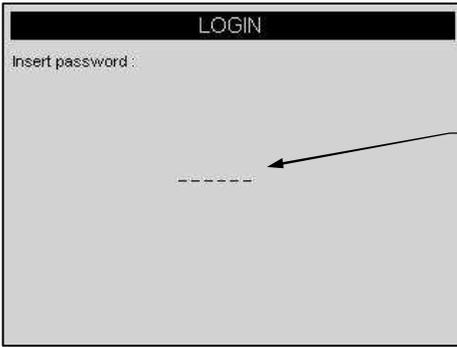
Page to control the status of all the important inputs and outputs:



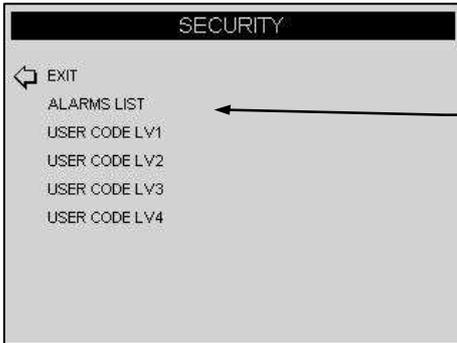
POS.	I/O description in accordance to factory terminals setting
J2.1	It shows the value of this analog input
J2.2	It shows the value of tachometer sensor signal (W, Pickup, Saprisa)
J2.4	It shows the value of this analog input
J2.5	It shows the value of this analog input
J2.6	It shows the value of this analog input
J3.1	It shows the status of this digital input
J3.2	It shows the status of this digital input
J3.3	It shows the status of this digital input
J3.4	It shows the status of this digital input
J3.5	It shows the status of this digital input
J3.6	It shows the status of this digital input
J3.7	It shows the status of this digital input
J3.8	It shows the status of this digital input
J6.1	It shows the status of this analog input
J6.2	It shows the status of this analog input
J7.2/3	It shows the status of DC input
J7.4	It shows the status of DC input
J7.5/6	It shows the status of DC input
J7.7	It shows the status of DC input
J1.1/2	It shows the battery voltage
J6.4	It shows the status of this digital input
J6.5	It shows the status of this digital input
J4.1	It shows the status of this relay output
J4.2	It shows the status of this relay output
J4.3	It shows the status of this relay output
J4.4	It shows the status of this relay output
J4.5	It shows the status of this relay output
J9.1	It shows the status of this relay output
J9.2	It shows the status of this relay output
J9.3	It shows the status of this relay output
J9.4	It shows the status of this relay output
J8.3/4	It shows the status of this dry contact output
J8.5/6	It shows the status of this dry contact output

2- 4.5 Alarms setup

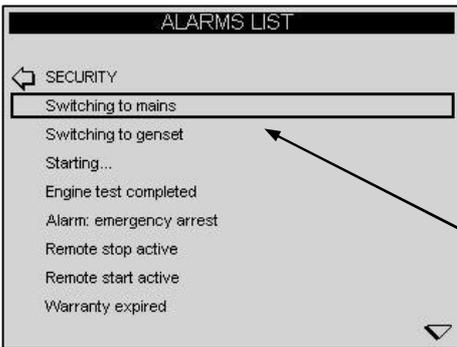
This menu permits the setting of the alarms. To enter in this menu, see the following procedure:



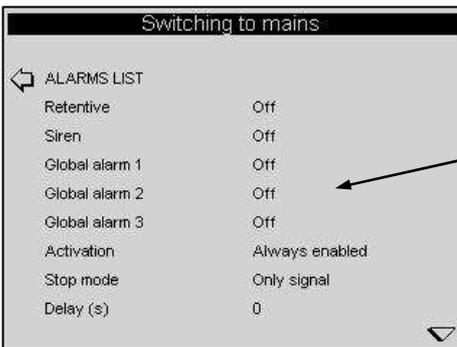
- 1) Enter the Login to access the list of all the alarms and their settings.
To set the Login, press the STOP button 6 times.



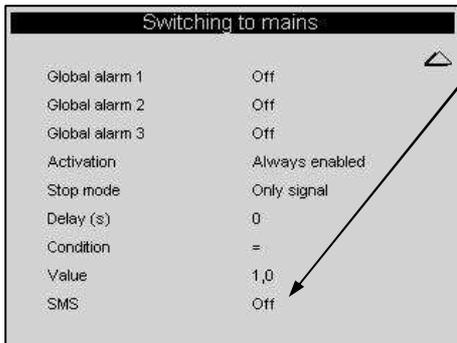
- 2) Using the arrows of the drive select "ALARM LIST" and press "I" to enter;
The informations about "user code LV" are located in Security Setup Menu.



- 3) Using the arrows of the drive, select the alarm that you want to change. Press "I" to enter;



- 4) List of properties that can be modified;



- 5) If "sms" parameter is ON, everytime the alarm occurs an sms message will be send to the programmed call numbers.

Setup												
Delay	Retentive	siren	Alarm relay			activation		Type of stop		value		SMS
			Global alarm 1	Global alarm 2	Global alarm 3	Always enables	disabled	Enabled when running	Stop with cooling	Stop engine	Only indication signal	

IMPORTANT: to confirm and save the new configuration of the alarm, use arrow keys to return on "ALARMS LIST" and push "I" button. Otherwise the configuration for the alarm will not be saved.

List of the alarms:

Start attempts: It indicates that the number of starting attempts has been ended and the engine is still not running
ID 1001

Control mode Always enabled
Stop action Alarm only signal
Siren relays True
Global alarm #1 True
Global alarm #2 False
Global alarm #3 False
Retentive True
Value 0
Activation delay 0
Send SMS False

No start: it indicates that the starting attempts are not commanded because both batteries are too low
ID 1002

Control mode Always enabled
Stop action Alarm only signal
Siren relays True
Global alarm #1 True
Global alarm #2 False
Global alarm #3 False
Retentive True
Value 1
Activation delay 0
Send SMS False

Mechanical fault: It indicates that all the signals of engine running disappeared without a commanded stop
ID 1003

Control mode Enabled when running
Stop action Alarm only signal
Siren relays True
Global alarm #1 True
Global alarm #2 False
Global alarm #3 False
Retentive True
Value 1
Activation delay 10
Send SMS False

High battery 1 voltage: the battery voltage of the battery 1 is too high
ID 2001

Control mode Always enabled
Stop action Alarm only signal
Siren relays True
Global alarm #1 True
Global alarm #2 False
Global alarm #3 False
Retentive False
Value 0
Activation delay 3
Send SMS False

Low battery 1 voltage: the battery voltage of the battery 1 is too low

ID 2002
Control mode Always enabled
Stop action Alarm only signal
Siren relays True
Global alarm #1 True
Global alarm #2 False
Global alarm #3 False
Retentive False
Value 0
Activation delay 3
Send SMS False

High battery 2 voltage: the battery voltage of the battery 2 is too high
ID 2003

Control mode Always enabled
Stop action Alarm only signal
Siren relays True
Global alarm #1 True
Global alarm #2 False
Global alarm #3 False
Retentive False
Value 0
Activation delay 3
Send SMS False

Low battery 2 voltage: the battery voltage of the battery 2 is too low
ID 2004

Control mode Always enabled
Stop action Alarm only signal
Siren relays True
Global alarm #1 True
Global alarm #2 False
Global alarm #3 False
Retentive False
Value 0
Activation delay 3
Send SMS False

Temperature pre alarm: the measured temperature has overcome the prealarm threshold set in the temperature setup
ID 1101

Control mode Disabled
Stop action Alarm only signal
Siren relays True
Global alarm #1 True
Global alarm #2 False
Global alarm #3 False
Retentive False
Value 0
Activation delay 3
Send SMS False

Engine temp: the measured temperature has overcome the alarm threshold set in the temperature setup
ID 1102

Control mode Enabled when running
Stop action Alarm only signal
Siren relays True
Global alarm #1 True
Global alarm #2 False
Global alarm #3 False
Retentive False
Value 0
Activation delay 6
Send SMS False

Engine temp digital: the digital contact for engine temperature is closed to negative

ID 1103
Control mode Enabled when running
Stop action Alarm only signal
Siren relays True
Global alarm #1 True
Global alarm #2 False
Global alarm #3 False
Retentive True
Value 1
Activation delay 3
Send SMS False

Fuel pre alarm: the measured fuel level is under the prealarm threshold set in the fuel setup
ID 1104
Control mode Disabled
Stop action Alarm only signal
Siren relays True
Global alarm #1 True
Global alarm #2 False
Global alarm #3 False
Retentive False
Value 0
Activation delay 3
Send SMS False

Fuel level: the measured fuel level is under the alarm threshold set in the fuel setup
ID 1105
Control mode Always enabled
Stop action Alarm only signal
Siren relays True
Global alarm #1 True
Global alarm #2 False
Global alarm #3 False
Retentive False
Value 0
Activation delay 6
Send SMS False

Fuel level digital: the digital contact for fuel level is closed to negative
ID 1106
Control mode Always enabled
Stop action Alarm only signal
Siren relays True
Global alarm #1 True
Global alarm #2 False
Global alarm #3 False
Retentive True
Value 1
Activation delay 3
Send SMS False

Oil pressure prealarm: the measured oil pressure is under the prealarm threshold set in the oil setup
ID 1107
Control mode Disabled
Stop action Alarm only signal
Siren relays True
Global alarm #1 True
Global alarm #2 False
Global alarm #3 False
Retentive False
Value 0
Activation delay 3
Send SMS False

Oil pressure: the measured oil pressure is under the alarm threshold set in the oil setup
ID 1108
Control mode Enabled when running
Stop action Alarm only signal
Siren relays True
Global alarm #1 True
Global alarm #2 False
Global alarm #3 False
Retentive False
Value 0
Activation delay 6
Send SMS False

Oil press digital: the digital contact for oil pressure is closed to negative
ID 1109
Control mode Enabled when running
Stop action Alarm only signal
Siren relays True
Global alarm #1 True
Global alarm #2 False
Global alarm #3 False
Retentive True
Value 1
Activation delay 8
Send SMS False

RPM alarm (too fast): the RPM of the engine are too high
ID 1112
Control mode Enabled when running
Stop action Alarm only signal
Siren relays True
Global alarm #1 True
Global alarm #2 False
Global alarm #3 False
Retentive False
Value 0
Activation delay 5
Send SMS False

RPM alarm (too slow): the RPM of the engine are too low
ID 1113
Control mode Enabled when running
Stop action Alarm only signal
Siren relays True
Global alarm #1 True
Global alarm #2 False
Global alarm #3 False
Retentive False
Value 0
Activation delay 7
Send SMS False

Autonomy low: the autonomy level, calculated from the engine consumption and the actual value of the fuel, is too low
ID 1114
Control mode Always enabled
Stop action Alarm only signal
Siren relays True
Global alarm #1 True
Global alarm #2 False
Global alarm #3 False
Retentive False
Value 0
Activation delay 5
Send SMS False

Start phase: A start phase is running
ID 20001
Control mode Always enabled
Stop action Alarm only signal
Siren relays False
Global alarm #1 False
Global alarm #2 False
Global alarm #3 False
Retentive False
Value 1
Activation delay 0
Send SMS False

Battery charger 1: the battery charger n.1 is in alarm

ID 20003
Control mode Always enabled
Stop action Alarm only signal
Siren relays True
Global alarm #1 True
Global alarm #2 False
Global alarm #3 False
Retentive False
Value 0
Activation delay 5
Send SMS False

Battery charger 2: the battery charger n.2 is in alarm

ID 20004
Control mode Always enabled
Stop action Alarm only signal
Siren relays True
Global alarm #1 True
Global alarm #2 False
Global alarm #3 False
Retentive False
Value 0
Activation delay 5
Send SMS False

Service: the service hours are expired

ID 20010
Control mode Always enabled
Stop action Alarm only signal
Siren relays False
Global alarm #1 True
Global alarm #2 False
Global alarm #3 False
Retentive True
Value 1
Activation delay 0
Send SMS False

Remote start: the remote start digital input is closed to negative

ID 20013
Control mode Always enabled
Stop action Alarm only signal
Siren relays False
Global alarm #1 False
Global alarm #2 False
Global alarm #3 False
Retentive False
Value 0
Activation delay 1
Send SMS False

Environmental temperature: the environmental temperature is under the set threshold in the temperature setup

ID 20005
Control mode Always enabled
Stop action Alarm only signal
Siren relays True
Global alarm #1 True
Global alarm #2 False
Global alarm #3 False
Retentive False
Value 1
Activation delay 6
Send SMS False

Aux supply: this alarm appears if J5 input is disconnected

ID 20006
Control mode Always enabled
Stop action Alarm only signal
Siren relays True
Global alarm #1 True

Global alarm #2 False
Global alarm #3 False
Retentive False
Value 0
Activation delay 4
Send SMS False

Weekly trials: Indication that a weekly trial must be made

ID 20007
Control mode Always enabled
Stop action Alarm only signal
Siren relays False
Global alarm #1 False
Global alarm #2 False
Global alarm #3 False
Retentive True
Value 1
Activation delay 0
Send SMS False

Monthly trials: Indication that a monthly trial must be made

ID 20009
Control mode Always enabled
Stop action Alarm only signal
Siren relays False
Global alarm #1 False
Global alarm #2 False
Global alarm #3 False
Retentive True
Value 1
Activation delay 0
Send SMS False

Quarterly trials: Indication that a quarterly trial must be made

ID 20014
Control mode Always enabled
Stop action Alarm only signal
Siren relays False
Global alarm #1 False
Global alarm #2 False
Global alarm #3 False
Retentive True
Value 1
Activation delay 0
Send SMS False

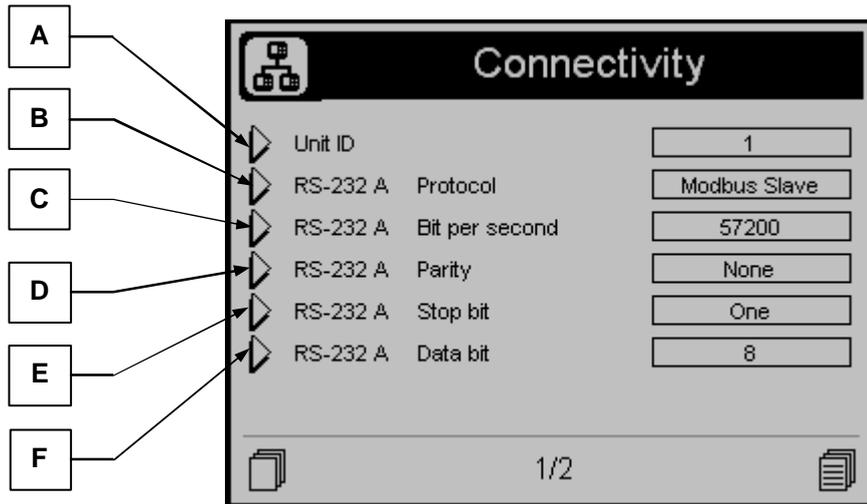
Service ok: indication that the service has been correctly completed

ID 20016
Control mode Always enabled
Stop action Alarm only signal
Siren relays False
Global alarm #1 False
Global alarm #2 False
Global alarm #3 False
Retentive True
Value 1
Activation delay 0
Send SMS False

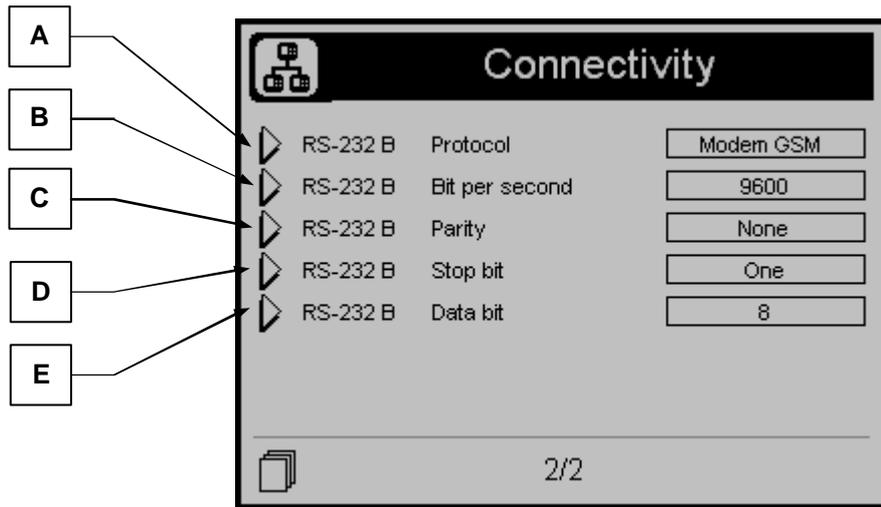
UNI10779 stop: indication that the engine has been stopped after the set time after the closure of the pressure switches

ID 20018
Control mode Always enabled
Stop action Alarm only signal
Siren relays False
Global alarm #1 False
Global alarm #2 False
Global alarm #3 False
Retentive False
Value 1
Activation delay 0
Send SMS False

2-4.6 Connectivity

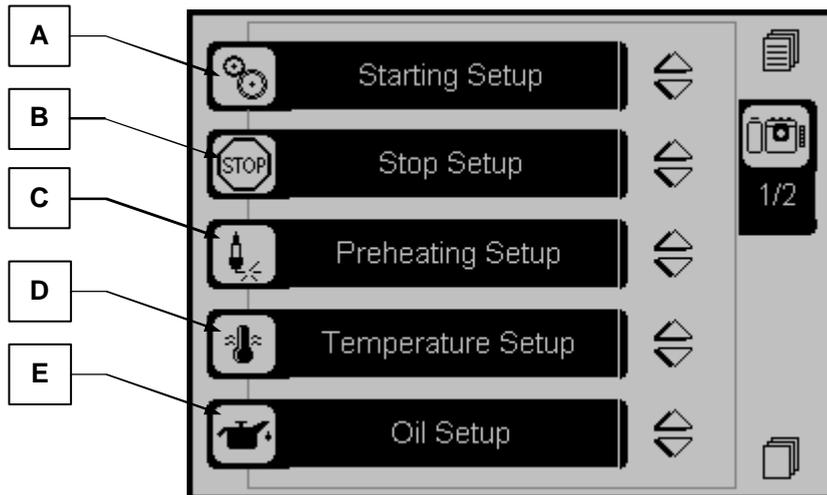


POS.	NAME	DESCRIPTION	RANGE OF VALUES	DEFAULT SETTINGS
A	Unit ID	Unit Identification Number	0-255	1
B	Protocol	Protocol type. Selectable: None: Serial port disabled Modbus Master: when two boards are connected, this one is the priority Modbus slave: when two boards are connected, this one is the secondary. TE808 must be setted as Slave also for connection between controller and PC. GSM modem: connect this port to an analog modem or GSM modem	None Modbus Master Modbus Slave Gsm modem	Modbus slave
C	Bits per second	Baud rate: for connections between boards or to your PC, you may select speed of 57600. For modem connections, it is recommended speed of 9600	9600-19200-38400-57600-115200	115200
D	Equality	Set always to "none"	None Odd Even Mark Space	None
E	Stop bit	Set always to "one"	One / two / none	One
F	Data bits	Set always to "8"	6-7-8	8



POS.	NAME	DESCRIPTION	RANGE OF VALUES	DEFAULT SETTINGS
A	Protocol	Protocol type. Selectable: None: Serial port disabled Modbus Master: when two boards are connected, this one is the priority Modbus slave: when two boards are connected, this one is the secondary. TE808 must be setted as Slave also for connection between controller and PC. GSM modem: connect this port to an analog modem or GSM modem	None Modbus Master Modbus Slave Gsm modem	Gsm modem
B	Bits per second	Communication Rate: <ul style="list-style-type: none"> - For connections between boards or to your PC, you may select speed of 57600. - For modem connections, it is recommended speed of 9600 	9600-19200-38400-57600-115200	9600
C	Equality	Set always to "none"	None Odd Even Mark Space	None
D	Stop bit	Set always to "one"	One / two / none	One
E	Data bits	Set always to "8"	6-7-8	8

2- 5 Engine setup description

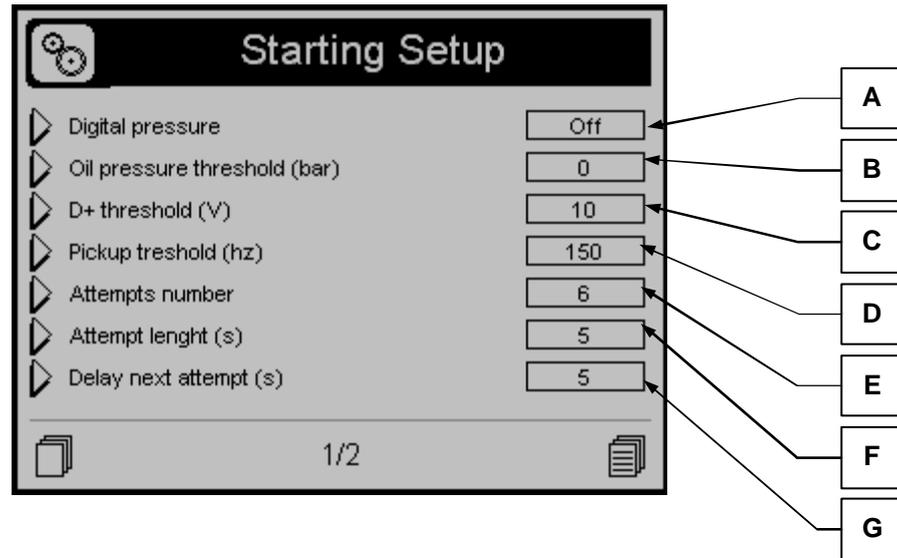


POS.	NAME	DESCRIPTION
A	Starting Setup	It contains all the parameters about starter setting for the motor and the engine running detection signals
B	Stop Setup	It contains all the parameters about the type of engine stop and its timers
C	Preheat Setup	It contains all the parameters about the engine glow plugs type and its timers
D	Temperature Setup	It contains all the parameters about the engine temperature instrument type and its related alarms limits
E	Oil Setup	It contains all the parameters about the oil pressure instrument type and its related alarms limits

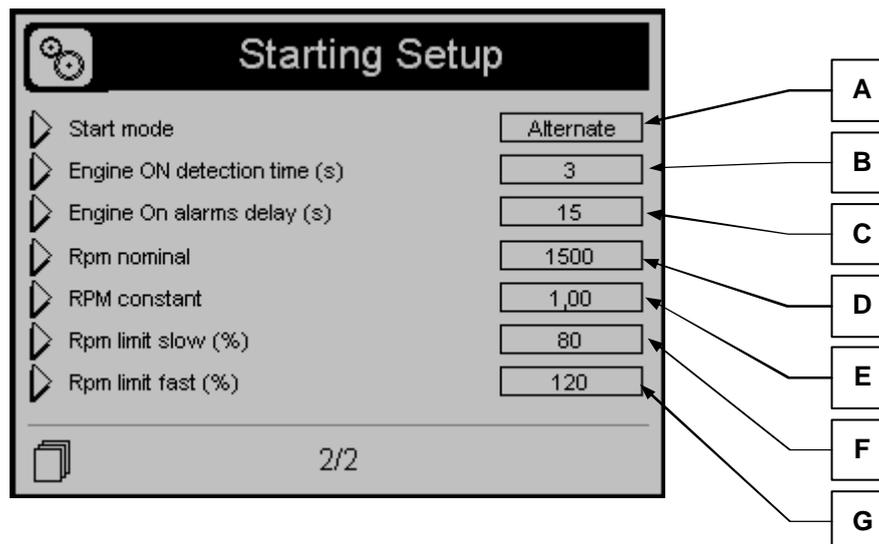


POS.	NAME	DESCRIPTION
F	Warranty	It contains parameters to set the warranty period of the generator

2-5.1 Starting setup

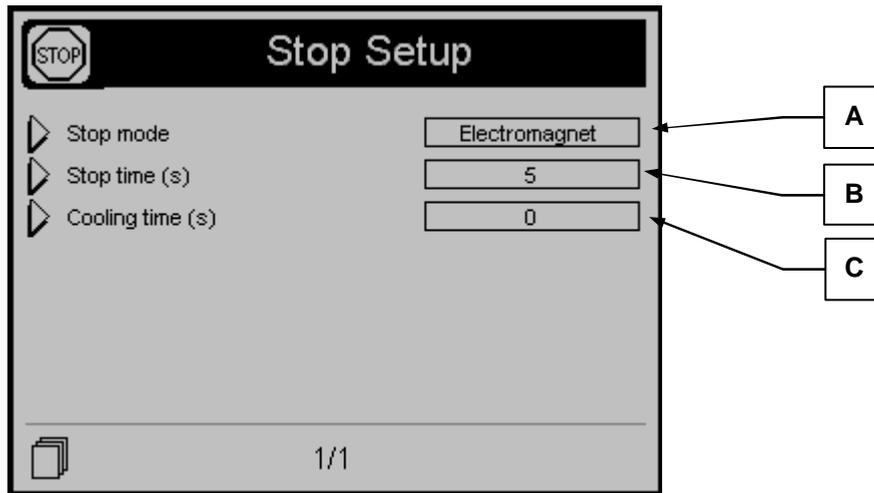


POS.	NAME	DESCRIPTION	RANGE OF VALUES	DEFAULT SETTINGS
A	Digital pressure	Permits to detect engine running status by the digital oil pressure sensor	On/Off	Off
B	Oil pressure threshold	Permits to detect engine running status by the analog oil pressure value	0-9999	0
C	D+ threshold	Permits to set the voltage of D+ of a batterycharger alternator, over which the engine is considered started	0-9999	10
D	W Threshold signal / pickup / Saprisa	You set the frequency value measured on a permanent magnet alternator type Saprisa, or a pickup or a "W" tachometric sensor, over which the engine is considered started	0-9999	0
E	Attempts number	You set the number of start attempts; when expired, the "starting failure" alarm is activated	1-10	5
F	Attempt length	It is the maximum duration time of each starting attempt. When the engine is detected running, the cranking output is de-activated	1-10	5
G	Delay next attempt	It is the time between a failed starting attempt and the next one	1-10	5



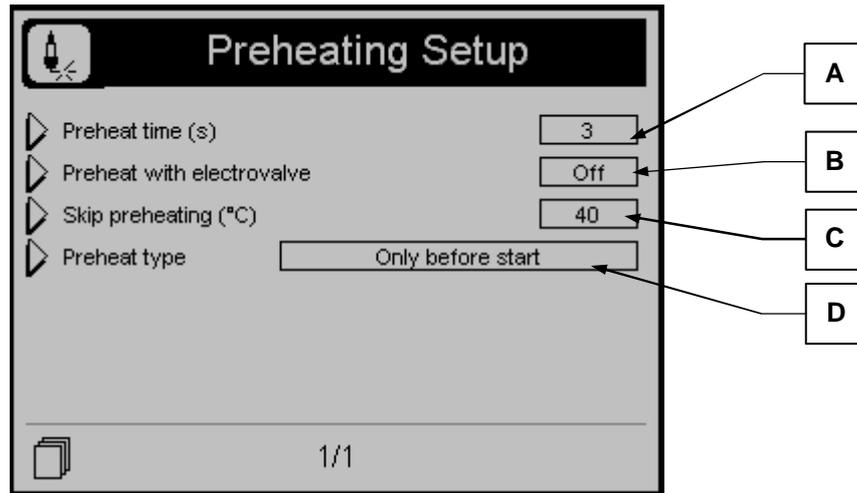
POS.	NAME	DESCRIPTION	RANGE OF VALUES	DEFAULT SETTINGS
A	Start mode	Select the modality of use of the 2 batteries at the starting: alternate (every attempt the battery used is the one not used in the previous attempt); mirrored (the 2 batteries are used together in every attempt); Sequential (every starting, half of the attempts are made with battery 1; then, if the engine is not started, the battery 2 is used).	Alternate – Mirrored – Sequential	Alternate
B	Engine ON detection time (s)	Time at the starting during which the engine running signal are controlled.	0-20	3
C	Engine On alarms delay (s)	It is the time delay from the engine running detection to the enable of the alarms; this time allows the generator to reach the nominal operating conditions.	0-1000	8
D	RPM Nominal	It is the nominal speed of the engine, used also as reference to set the limits on points B and C	0-10000	1500
E	RPM constant	Constant that is detected during the RPM calibration. This value, multiplied for the frequency, gives the RPM value.	0,0-100,0	1,0
F	Rpm limit slow	You set the minimum value beyond which the alarm for low engine rpm	0-10000	80
G	Rpm limit fast	You set the minimum value beyond which the alarm for low engine rpm	0-20000	120

2-5.2 Stop setup



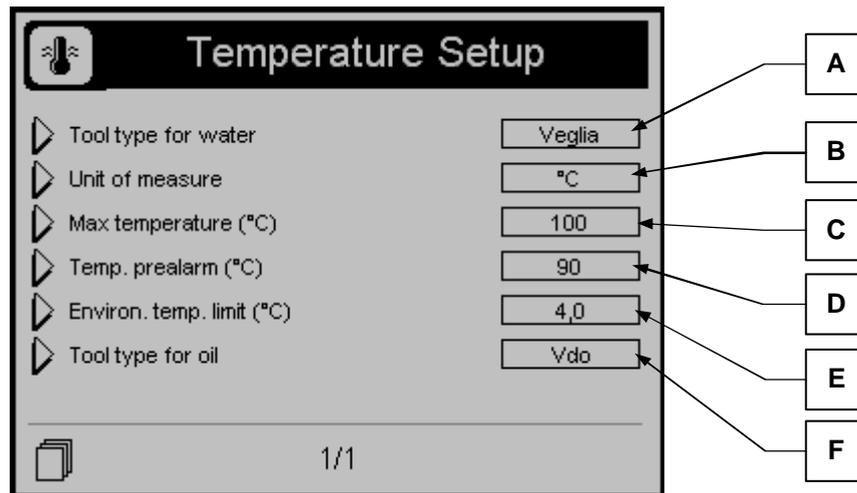
POS.	NAME	DESCRIPTION	RANGE OF VALUES	DEFAULT SETTINGS
A	Stop mode	Electrovalve: type of stop called “energize to run”, normally used with electric fuel valve connection. (terminal J4.2) Electromagnet: type of stop called “energize to stop”, normally used with electrosolenoid connection. (terminal J4.2)	Electrovalve Electromagnet	Electrovalve
B	Stop phase time (s)	You set the maximum time of the stop phase, after which the engine must be completely stopped. It also coincides with the maximum time of supplying power to the stop electromagnet, to avoid problems due to permanent power supply.	0-99	5
C	Cooling time (s)	It sets the cooling time after which the engine is stopped: after the generator contactor opening, the engine continues to run for the set time, to cool down without load	0-255	0

2-5.3 Preheat setup



POS.	NAME	DESCRIPTION	RANGE OF VALUES	DEFAULT SETTINGS
A	Preheating time (s)	You set the maximum glow plugs time before starting.	0-99	5
B	Preheating with electrovalve	If ON, during preheating is also supplied the fuel electrovalve output. If OFF, during the preheating the fuel electrovalve output is not supplied.	On/Off	Off
C	Skip preheating (°C)	You can set the value of the engine temperature above which are not supplied the glow-plugs before the starting, because the engine is already considered "warm"	-999 a 999	70
D	Preheat type	You can select the type of glow plogs: Only Before start: the glow plug output is active only before each starting attempt. Also during the start: the glow plugs output is active before and during each starting attempt. Also during attempts: the glow plugs output is active before starting, during the starting and also during the pause between attempts.	Only before start Also during the start Also during attempts	Only before start

2-5.4 Temperature setup

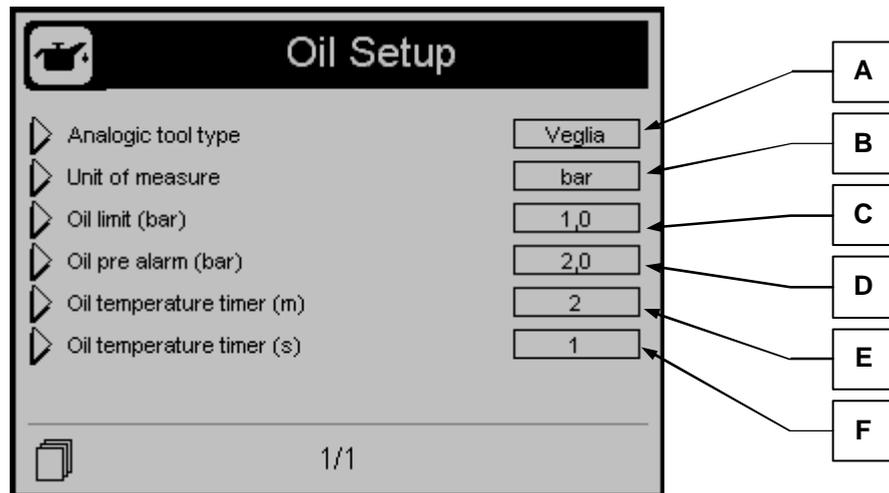


POS.	NAME	DESCRIPTION	RANGE OF VALUES	DEFAULT SETTINGS
A	Tool type for water	You select the brand of transmitter used. A different curve is associated to every type.	Vdo Veglia Datcon	Veglia
B	Unit of measure	You select the measure unit Warning! Putting the measurement unit in °F degrees, you must modify the alarm range "Low environmental temperature" and "High environmental temperature" into Alarms List.	°C / °F	°C
C	Max temperature (°C)	Value over which the display shows an alarm message that normally shuts down the generator.	40-999	100
D	Temperature prealarm (°C)	Value over which the display shows a warning message that normally does not stop the generator.	40-999	90
E	Environmental temperature limit (°C).	Value under which the display shows an alarm message of high environmental temperature.	0-99999	4
F	Tool type for oil	You select the brand of transmitter used. A different curve is associated to every type.	Raw Vdo Ruggerini	Ruggerini

Temperature curves

Engine temperature	VDO-ohm	VEGLIA-ohm	DATACON-ohm
24	605	1050	650
28	530	1050	650
32	455	1050	650
36	380	1050	650
40	325	1050	650
44	277	935	586
48	237	815	520
52	200	695	455
56	170	585	398
60	145	495	345
64	123	425	300
68	104	365	262
72	90	320	229
76	75	280	200
80	65	245	172
84	57	210	147
88	50	185	126
92	44	160	109
96	38	140	93
100	35	125	80
104	31	110	70
108	28	100	63
112	26	93	58
116	24	87	54
120	22	80	49
124	20	73	45
128	18	67	41
132	17	60	38
136	16	55	34
140	15	50	30

2-5.5 Oil setup

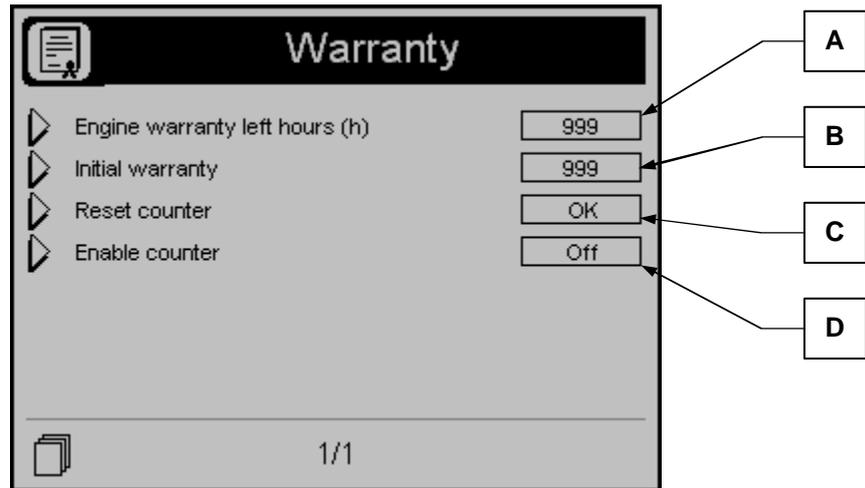


POS.	NAME	DESCRIPTION	RANGE OF VALUES	DEFAULT SETTINGS
A	Analog tool type	You select the brand of transmitter that are referred to the relevant tables which was included on the operating curve	Vdo Veglia Datcon	Vdo
B	Unit of measure	You select the measure unit	Bar-Psi	Bar
C	Oil pressure limit (bar)	Value under which the display shows an alarm message that normally shuts down the generator.	1-400	2.0
D	Oil pressure prealarm (bar)	Value under which the display shows a warning message that normally does not stop the generator.	1-400	3.0
E	Oil temperature timer (m)	After this time after the starting, the oil temperature is shown.	0-60	2
F	Oil temperature timer (s)	After this time after the starting, the oil temperature is shown.	0-60	1

Oil curves

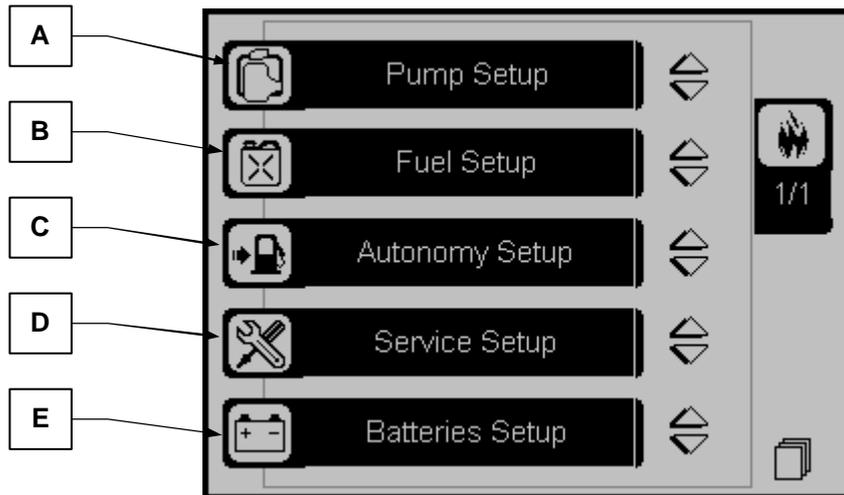
Oil pressure value	VDO-ohm	VEGLIA-ohm	DATACON-ohm
0	10	305	240
0,100	18	285	227
1	27	264	213
1,200	35	243	199
1,799	47	214	180
2	51	204	174
2,200	55	196	168
2,799	66	166	152
3	70	157	146
3,200	73	148	141
3,799	84	122	127
4	87	114	123
4,199	91	107	119
4,800	101	87	107
5	105	81	103
5,199	108	75	100
5,800	119	58	91
6	122	53	88
6,199	126	48	85
6,800	135	35	77
7	138	31	75
7,199	141	28	72
7,800	150	16	64
8	153	12	62
8,199	156	12	60
8,800	164	12	52
6	122	53	88
6,199	126	48	85
6,800	135	35	77
7	138	31	75
7,199	141	28	72
7,800	150	16	64
8	153	12	62
8,199	156	12	60
8,800	164	12	52
9	167	12	50
9,199	170	12	47
9,800	178	12	40
10	181	12	37

2-5.6 Warranty



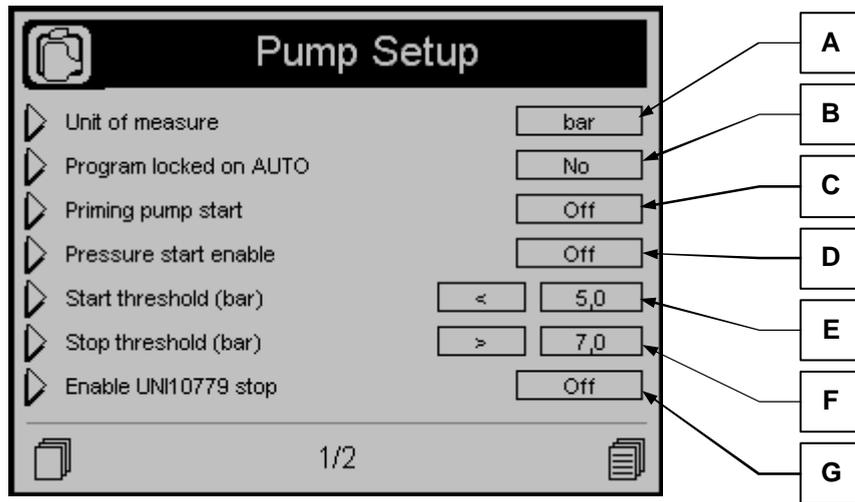
POS.	NAME	DESCRIPTION	RANGE OF VALUES	DEFAULT SETTINGS
A	Engine warranty left hours	It shows you the hours left to warranty expiration. If you select and confirm by the drive this box, the counter restarts from the value set at point C	0-65535	8760
B	Initial warranty	Is the limit time about the warranty expiration	0-65535	8760
C	Reset counter	If confirmed, it permits to reset the warranty counter to the initial value	-	Ok
D	Enable counter	If, ON, it enables the warranty counter	On-Off	Off

2-6 Setup UNI12845

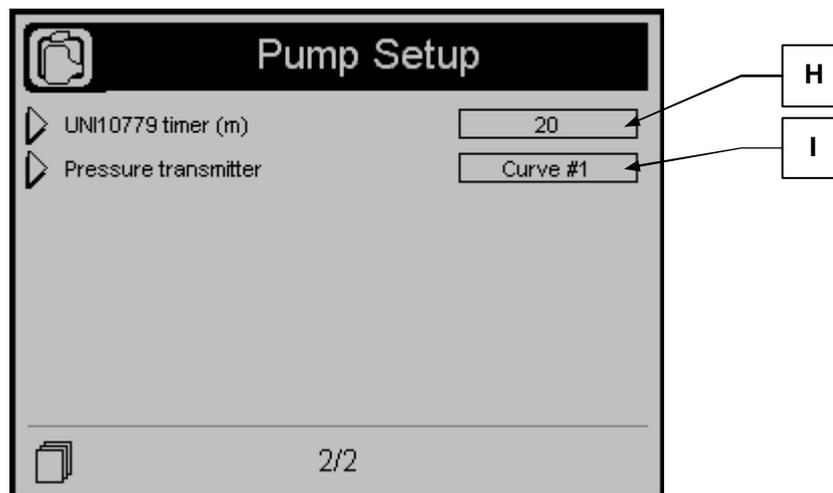


POS.	NAME	DESCRIPTION
A	Pump setup	It contains all the parameters about the functioning of the pump
B	Fuel setup	It contains all the parameters about the fuel
C	Autonomy setup	It contains the parameters about the autonomy
D	Service setup	It contains the parameters about the service and maintenance
E	Batteries setup	It contains all the parameters about the two batteries

2-6.1 Pump setup

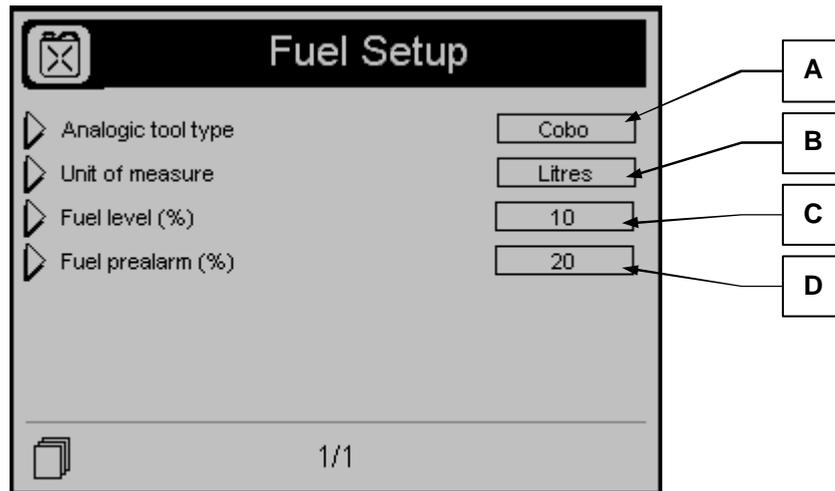


POS.	NAME	DESCRIPTION	RANGE OF VALUES	DEFAULT SETTINGS
A	Unite of measure	It's a non-settable parameter that shows the unite of measure of the water pressure.	-	bar
B	Programma locked on AUTO	If set to yes, if you set the modality to AUTO, on display it will not be possible to change it to MAN or OFF.	No-Yes	No
C	Priming pump start	If On, it enables the start by the "auxiliary start input" J3.4. If that input is closed to negative, a starting procedure is comanded.	On-Off	Off
D	Pressure start enable	If On, it enables the start by a pressure threshold (parameter E).	On-Off	Off
E	Start threshold (bar)	It's the pressure under which a start procedure is commanded, if parameter D is set to On.	0-1000	5,0
F	Stop threshold (bar)	It's the pressure over which a stop procedure is commanded, if parameter D is set to On.	0-1000	7,0
G	Enable UNI10779 Stop	If On, a stop procedure is commanded if the controller is in AUTO mode and the pressure switches are closed, after the time at parameter H.	On-Off	Off



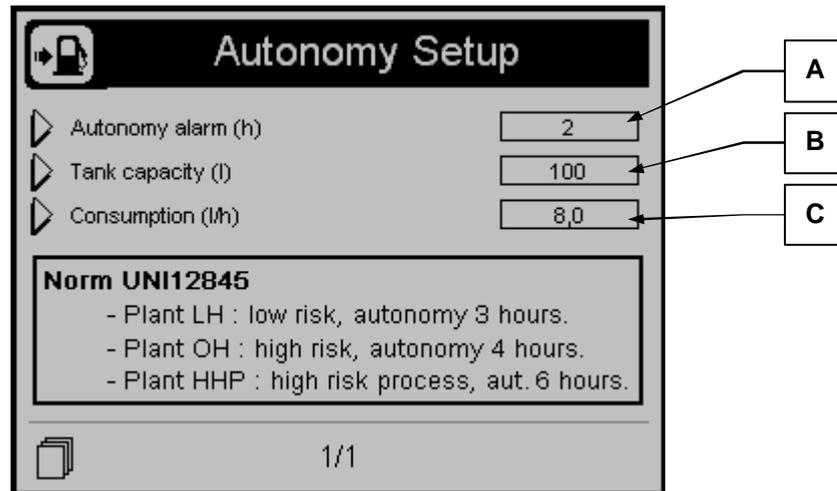
POS.	NAME	DESCRIPTION	RANGE OF VALUES	DEFAULT SETTINGS
H	UNI10779 timer (m)	It's the time after which a stop procedure is commanded, if the mode is AUTO and the pressure switches are closed and parameter G is set to On.	0-59	20
I	Pressure transmitter	It's possible to set the curve of the pressure transducer. Curve 1: 0-16 bar Curve 2: sensor disconnected – always 1 bar Raw: resistance value x10	Raw – Curve1 – Curve 2	Curve 1

2-6.2 Fuel setup



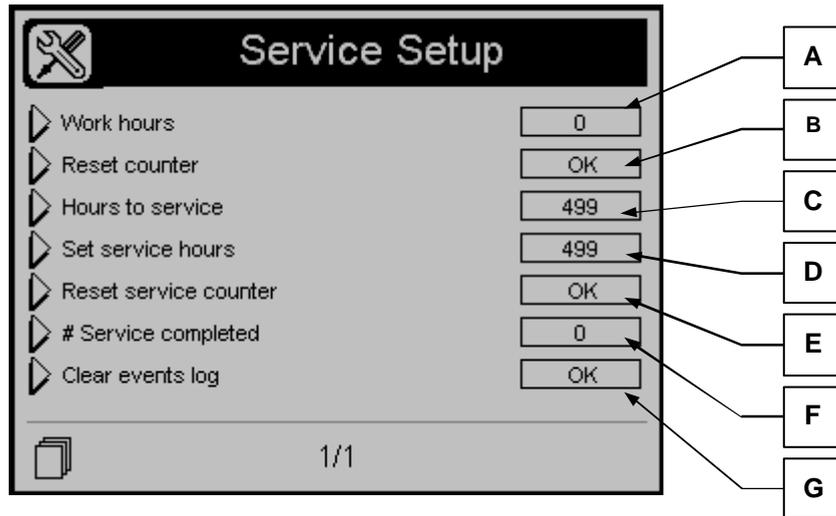
POS.	NAME	DESCRIPTION	RANGE OF VALUES	DEFAULT SETTINGS
A	Analog tool type	You select the brand of transmitter that are referred to the relevant tables which was included on the operating curve.	Vdo Veglia Cobo Datcon	Cobo
B	Unit of measure	You select the measure unit.	Litres-Gallons	Litres
C	Fuel Level (%)	Value under which the display shows the alarm "fuel level" to indicate that the fuel level is very low.	0-100	10
D	Fuel Pre-alarm (%)	Value under which the display shows a warning alarm "fuel pre alarm".	0-100	20

2-6.3 Autonomy setup



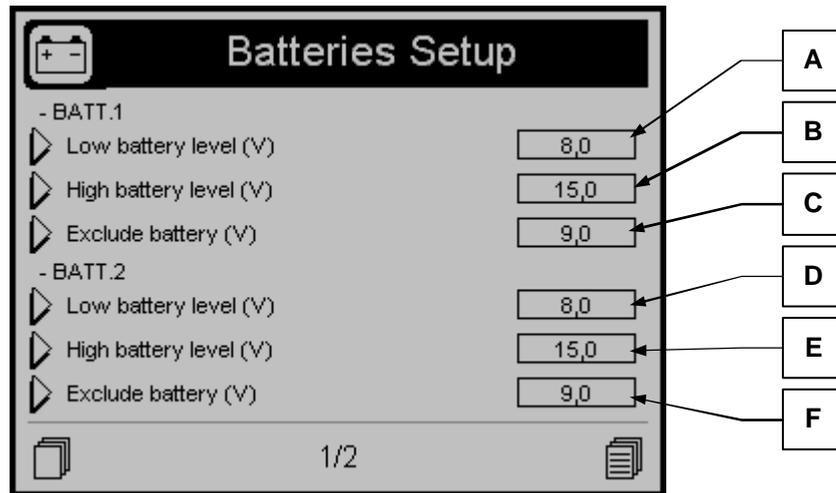
POS.	NAME	DESCRIPTION	RANGE OF VALUES	DEFAULT SETTINGS
A	Autonomy alarm (h)	Value under which the controller shows the alarm about the autonomy level.	0-100	2
B	Tank capacity (l)	It's the capacity of the tank. It's used for the calculation of the autonomy level and alarm.	0-2000	100
C	Consumption (l/h)	It's the declared average consumption of your engine. It's used for the calculation of the autonomy level and alarm.	0.1-1000.0	8.0

2-6.4 Service setup



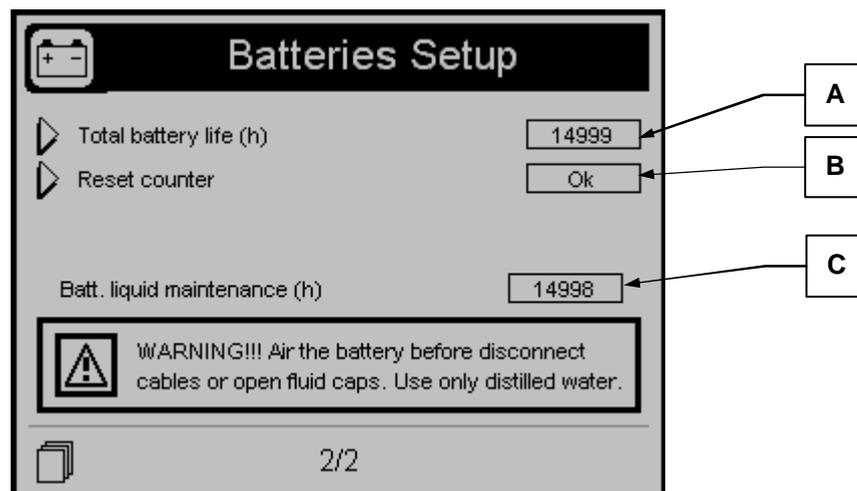
POS.	NAME	DESCRIPTION	RANGE OF VALUES	DEFAULT SETTINGS
A	Work hours	Is the starting value of generator working hours. Normally you can change this value when the controller is mounted on a generator that has already worked.	0-65535	0
B	Reset counter	By drive, you can confirm it to reset the working hours to the initial value on point A.	-	Ok
C	Hours to service	Visualization of the actual hours left to service.	-	-
D	Set service hours	Initial value of the service hours. When the service is reset, the hours will restart to this value.	0-65535	499
E	Reset service counter	By drive, you can confirm it to reset the service hours to the initial value on point D.	-	Ok
F	# Service completed	When a service is completed and the hours reset (parameter E), this parameter is increased by 1.	0-65535	0
G	Clear events log	If you confirm with "i" this option, the event list is deleted.	-	Ok

2-6.5 Batteries setup



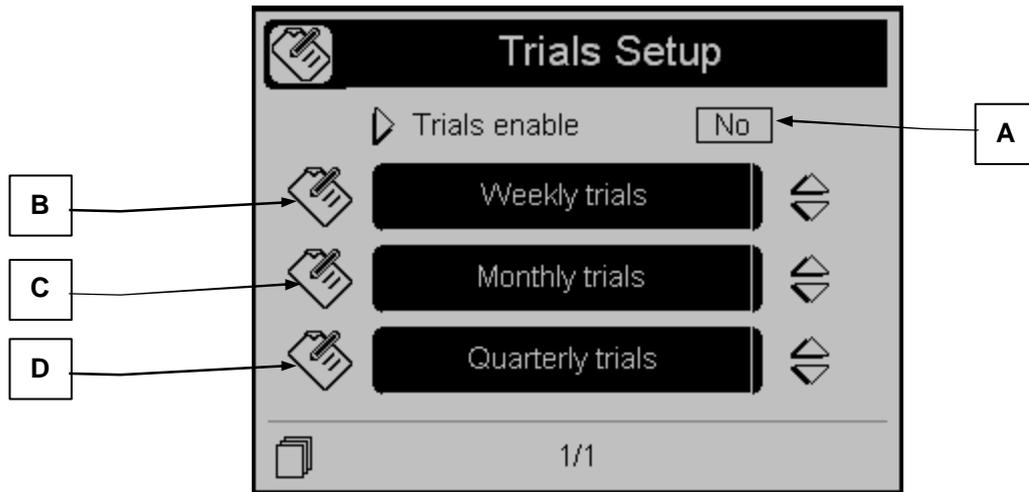
POS.	NAME	DESCRIPTION	RANGE OF VALUES	DEFAULT SETTINGS
A	Low battery level 1	It sets the minimum battery voltage; if the battery value measured is less than this value, the "low battery alarm 1" is shown.	0-500	8,0
B	High battery level 1	It sets the maximum battery voltage; if the battery value measured is higher than this value, the "High battery alarm 1" is shown.	0-500	15,0
C	Exclude battery 1	The battery 1 is not used at the starting if the voltage is lower than this value.	0-50	9,0
D	Low battery level 2	It sets the minimum battery voltage; if the battery value measured is less than this value, the "low battery alarm 2" is shown.	0-500	8,0
E	High battery level 2	It sets the maximum battery voltage; if the battery value measured is higher than this value, the "High battery alarm 2" is shown.	0-500	15,0
F	Exclude battery 2	The battery 2 is not used at the starting if the voltage is lower than this value.	0-50	9,0

Note: If both batteries are excluded because their voltages are too low, you will see the "No start" alarm, and no starting procedure will be commanded.



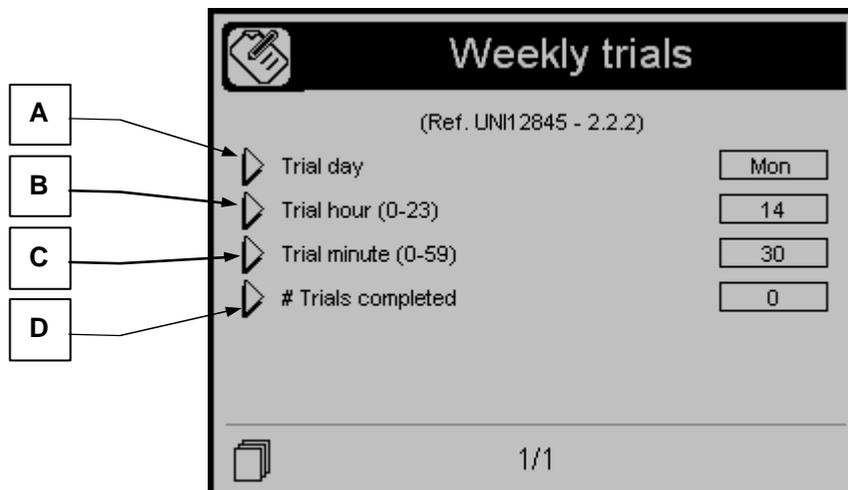
POS.	NAME	DESCRIPTION	RANGE OF VALUES	DEFAULT SETTINGS
A	Total battery life (h)	Set the total average battery life.	0-65535	14999
B	Reset counter	With the "i" button, confirm this value to reset the value at parameter C to the value at parameter A.	-	Ok
C	Batt. Liquid maintenance	Hours left to battery life expiration.	0-65535	-

2-7 Trials setup



POS.	NAME	DESCRIPTION
A	Trials enable	If, Yes, all the trials (weekly, monthly and quarterly) are enabled if they are set in the relative setup (points B, C and D).
B	Weekly trials	Menu for the settings about the weekly trials
C	Monthly trials	Menu for the settings about the monthly trials
D	Quarterly trials	Menu for the settings about the quarterly trials

2.7.1 Weekly trials setup



POS.	NAME	DESCRIPTION	RANGE OF VALUES	DEFAULT SETTINGS
A	Trial day	It's the day of the week when the trial is executed.	Mon-.....-Sun	Mon
B	Trial hour	Hour when the weekly trial will start.	0-59	14
C	Trial minute	Minute when the weekly trial will start.	0-59	30
D	Trials completed	Number of trials that have been completed	-	-

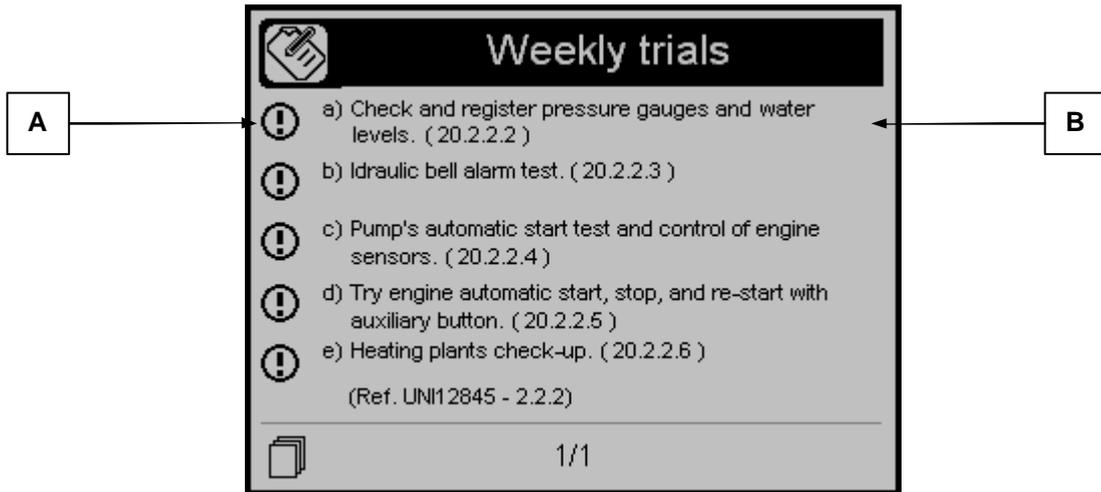
2.7.2 Monthly trials setup

POS.	NAME	DESCRIPTION	RANGE OF VALUES	DEFAULT SETTINGS
A	Day of trial	It's the day of the month when the trial is executed.	1-31	1
B	Trial hour	Hour when the monthly trial will start.	0-59	14
C	Trial minute	Minute when the monthly trial will start.	0-59	30
D	Trials completed	Number of trials that have been completed	-	-

2.7.3 Quarterly trials setup

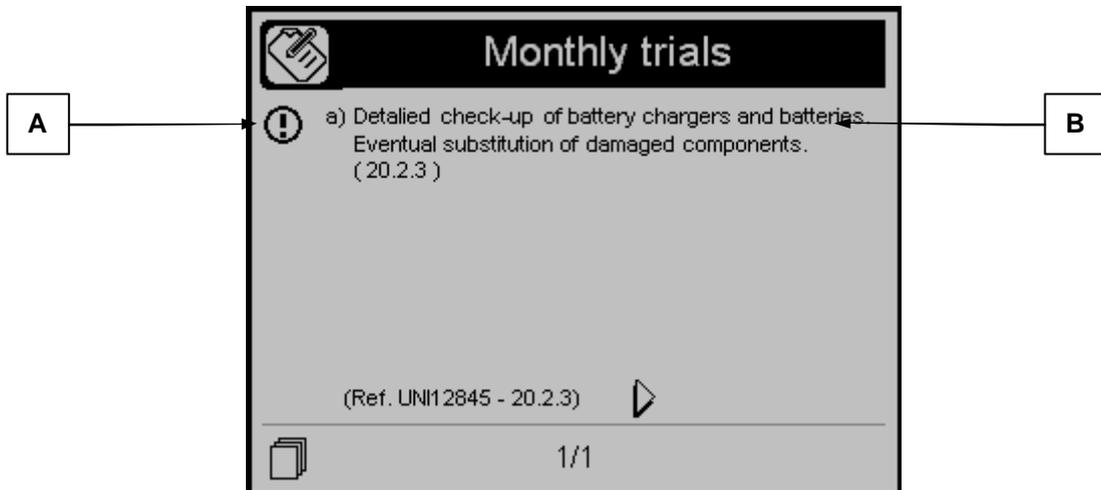
POS.	NAME	DESCRIPTION	RANGE OF VALUES	DEFAULT SETTINGS
A	Hours before trial	Number of work hours left to the next quarterly trial.	0-65535	2159
B	Trials completed	Number of quarterly trials that have been completed	-	-

2.7.4 Weekly trial description page



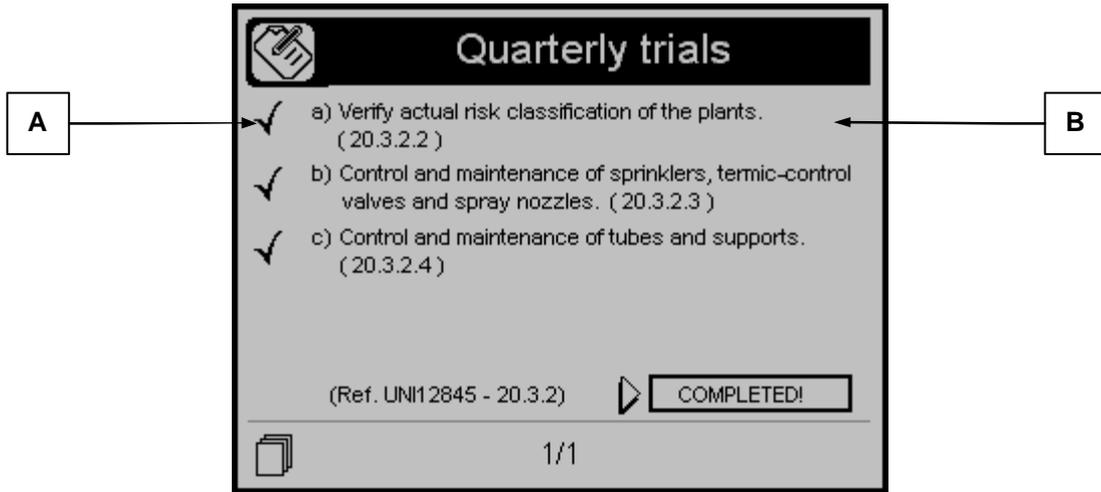
POS.	NAME	DESCRIPTION
A	Confirm icon	Press the down arrow to select the icon and confirm it with the "i" button if the corresponding test has been made. When all the test have been made, a COMPLETED button will appear. Select that button and confirm with the "i" button to complete the trial.
B	Trial description	Description of the test that must be made.

2.7.5 Monthly trial description page



POS.	NAME	DESCRIPTION
A	Confirm icon	Press the down arrow to select the icon and confirm it with the "i" button if the corresponding test has been made. When all the test have been made, a COMPLETED button will appear. Select that button and confirm with the "i" button to complete the trial.
B	Trial description	Description of the test that must be made.

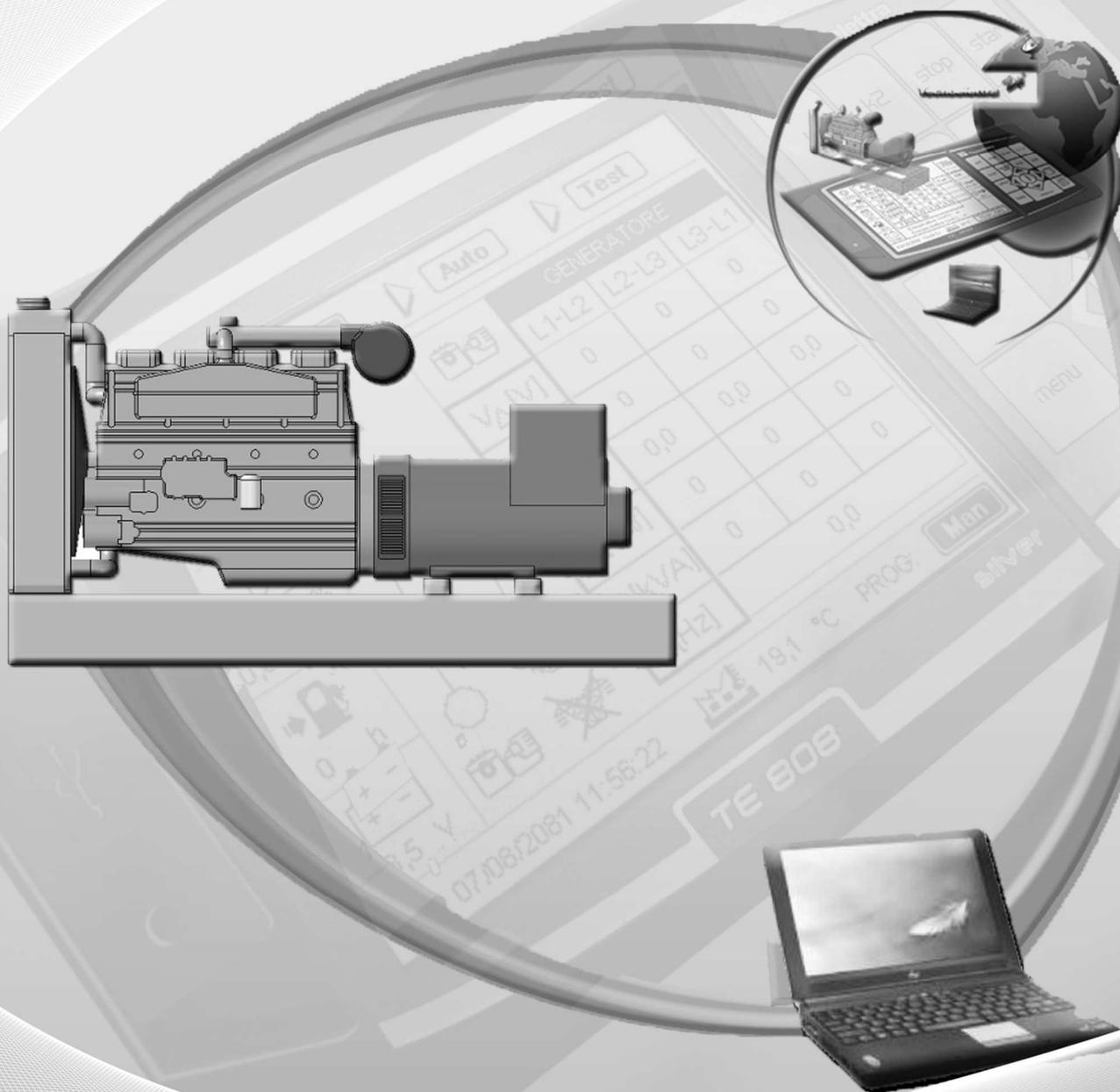
2.7.6 Quarterly trial description page



POS.	NAME	DESCRIPTION
A	Confirm icon	Press the down arrow to select the icon and confirm it with the "i" button if the corresponding test has been made. When all the test have been made, a COMPLETED button will appear. Select that button and confirm with the "i" button to complete the trial.
B	Trial description	Description of the test that must be made.

TE808 VVF

Section 3 – Remote control



3- 1 GSM Preliminary connection instructions

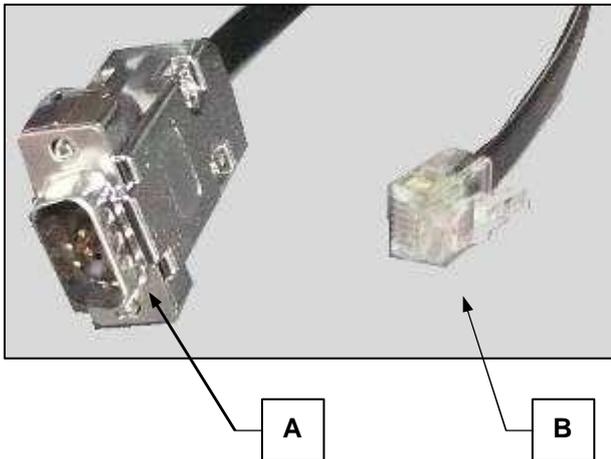
The controller is equipped with a TE808 GSM system easy to use.

3- 1.1 Serial cable connection

You can easily connect the GSM modem through the serial cable 51C7

This cable consists of two connectors:

- a) the male connector for the GSM modem
- b) the connector at TE808 side

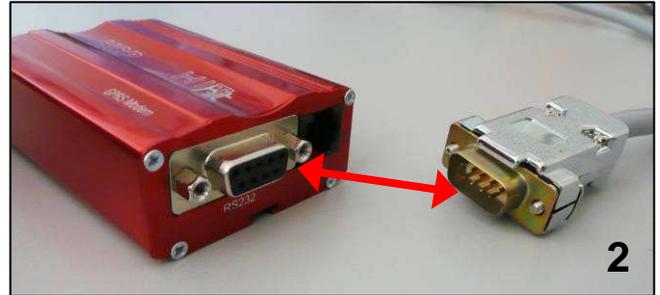


Connect the cable as shown in the pictures 1 and 2: in figure 1 you can see the connection to the TE808.



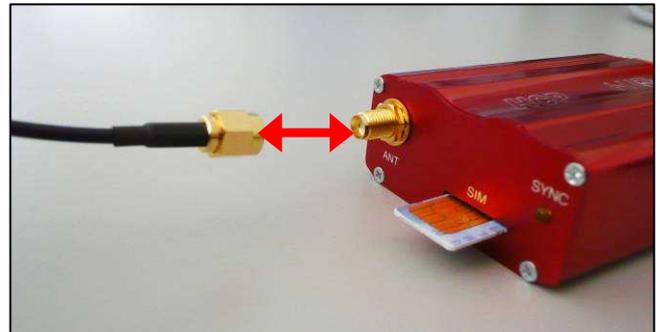
Our advice is to connect the modem to the RS232-B port, that is already set for GSM communication.

In figure 2 you can see the connection with the GSM modem.



3- 1.2 Antenna connection

Connect the antenna to the GSM modem as shown in the figure. When the antenna connector is fixed to the antenna and free from barriers you should have a good signal quality. This antenna has a magnetic base that allows it to be attached to metal supports without tools.

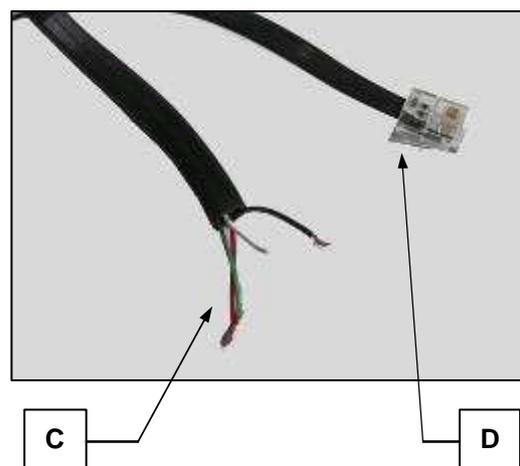


3- 1.3 Power connection

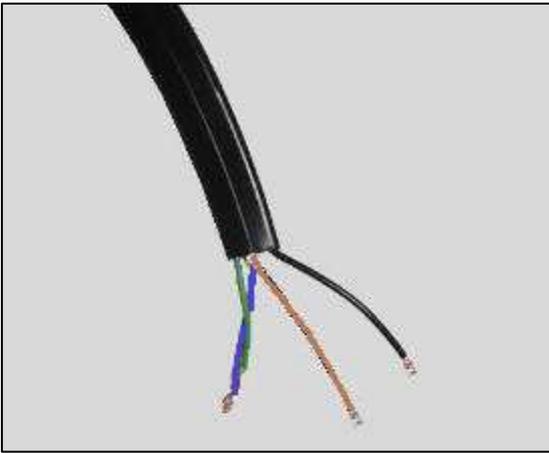
(8-32Vdc power supply)

Use the included power cord. These are the terminals of the power cord:

- c) free wires for power-on
- d) connector on the GSM side



Connect the cables (figure below) to the power supply:



You have to connect the black and the brown together to the battery negative, and the green and the blue together to the battery positive.

Then, connect the other side of the connector to the GSM modem:



3- 1.4 SIM card settings

When the system is connected, you must insert the SIM card in the GSM modem. **Before doing this, you should follow these steps to make sure the SIM settings are correct:**

- Insert the SIM card inside a mobile phone
- Turn on the phone and if asked the PIN code:
 - Enter parameters in the "security" of the phone, then disable the option to request a PIN.
 - Turn off your phone then turn on again, should not require a PIN. Otherwise, go back into security menu and try again.
 - VERY IMPORTANT! The PIN code request must be disabled. Try sending an SMS message to another phone, and reply with the receiver to the message of the phone. If it doesn't work, check in the configuration of SMS if the phone "SMS Service Number" is set correctly and then try again.
 - When the system works, remove the SIM card from the phone and put it into the GSM modem.

3- 1.5 LED diagnosis

When you power up the GSM modem, the LED flashes to show that it is running. Also, after switching on:

- For a few seconds, it blinks slowly every 1 second: normal condition of pre-operation
- After a few seconds after supply, it starts flashing every 2-3 seconds: normal condition, operation enabled
- if it continues to blink slowly, something may be wrong. Possible causes:
 - SIM card not included
 - PIN is not disabled
 - GSM signal absent or very low, try to change the place where the antenna is located

3- 1.6 On-board settings

It's necessary to configure the serial port of the TE808 for the GSM communication (see Connectivity setup) if you want to use the RS232-A port. It must be set to "GSM Modem" and baud rate "9600".

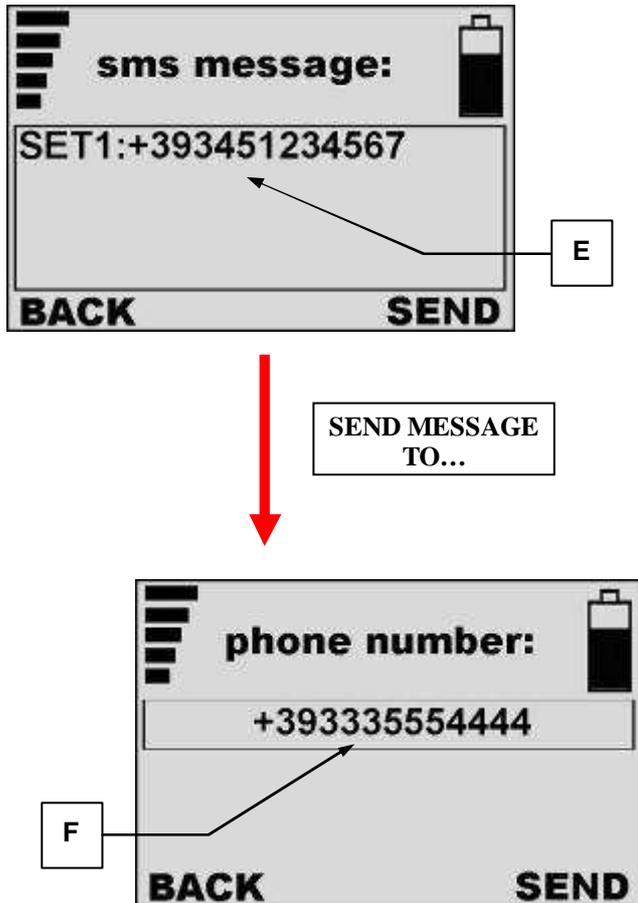
3- 2 SMS command and control

Automatically when the GSM modem and the controller TE808 are connected together, the TE808 sets the GSM modem for all parameters. You only need to set the parameters for automatic call (if different from the preset from the factory) and mobile phone numbers.

WARNING:

Text messages must be wrote exactly following uppercase or lowercase characters.

Example of the phone display:



To set up mobile phone numbers to which the board must send the messages, the TE808 should receive a message (eg the first mobile phone number):

SET1:+393451234567

E) number of the first mobile phone enabled to receive SMS messages from the controller TE808.

F) the number of the SIM card in the GSM modem. For information about these settings, the TE808 answers the phone with the following message:

"SMS number +393451234567 set in place: 1".

If you wish, you can send (via your phone) other messages to the GSM modem to set up additional numbers (up to 3); for example "SET2:394441112223" sets the second mobile phone number to which SMS will be sent.

If you have already established a mobile number as Set 2, and you want to change it, you can do so by sending another message with the new number, eg:

"SET2:+11999999999; the former is automatically deleted and replaced.

If you want to permanently delete a phone number in the heading of TE808, you can send a message with an "empty number", for example "SET3:". TE808 receives the message and sets the third mobile number as empty, ie delete it.

3- 2.1 SMS commands

If you wish, you can also send commands to the TE808 which will then be automatically executed. This is the list of commands:

Man: It selects the manual mode on the TE808

Aut: It selects the automatic mode on the TE808

Test: TE808 passes to test mode

Off: It selects the Off mode on the TE808

Reset: It permits to reset the alarms of the TE808

Start: TE808 starts the generator in manual mode

Stop: TE808 stops the generator in manual mode

Info: TE808 responds with an SMS with all the important informations and measures about the system

Kr: TE808 closes the mains contactor

Kg: TE808 closes the generator contactor

Lock: TE808 shows the alarm "system block" (set for engine stop and doesn't permit to start). To make the alarm disappear, send again the message "Lock".

Info= sample message:

VGen:400; 403; 400; FG:50; Vbat:12,3; h:100; Eng:1;

Fuel%:100; KG:1; kW:23;

You can also send several commands in the same message to the TE808 as:

Man;Start;Info

In this case, the TE808 will go into manual mode, starts the generator will then sends a message like "Info" to read the measurement.

The measures available in message "Info" are:

MODE: 0=Man, 1=Auto, 2=Reset/Off

VM: Mains voltages

VG: Generator voltages

FG: Generator frequency

Vb: Battery voltage

H: Work hours

KG: Generator contactor status (0 = open, 1 = closed)

En: State of the motor (0 = Stop, 1 = started)

KR: Mains contactor status (1 = open, 0 = closed)

Fuel: Amount of fuel in the tank (in percentage)

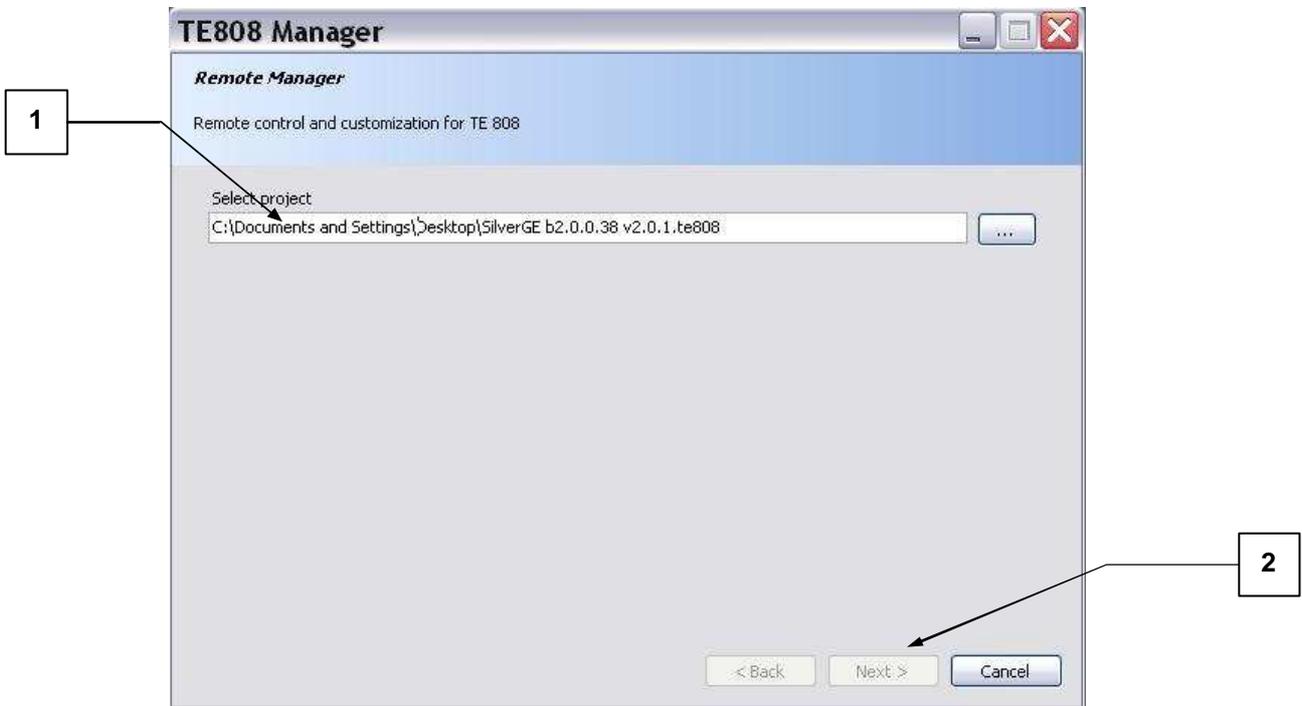
kW: Active power

3- 3 Remote Control software

To install the TE808 remote control software (called "TE808 Monitor"), you must install the "TE808 Utilities" pack. When installed, launch "Tecnoelettra - TE Utilities" software from your softwares list. Then follow instructions by "TE808 Manager" tool that permits to access to the "TE808 monitor".

1. The software ask you the type of project installed on the TE808; find that file
2. When selected, press "next" to go ahead.

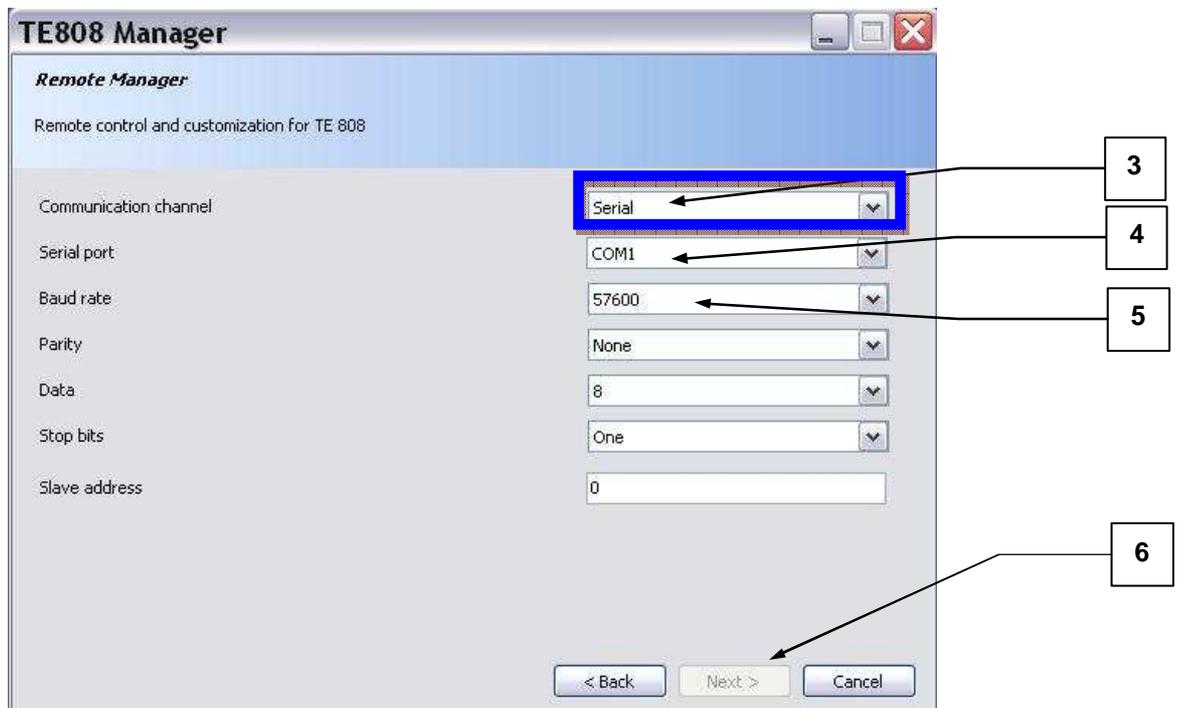
For each type of TE808 controller, is available this file for the remote control (Silver, Gold, Titanium or special project)



Procedure for standard TE808 via serial cable connected to a PC

You must use cable code 51C2.

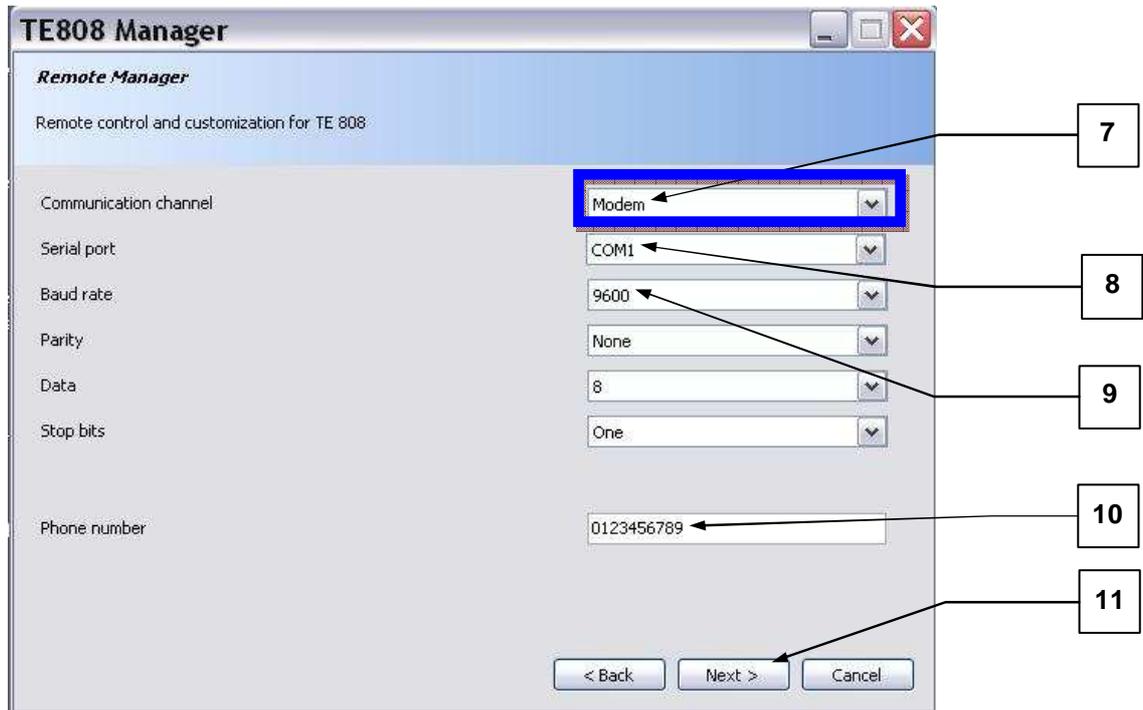
It is suggested the connection to port RS232a of the T808, because it is already setted by factory for PC connection



3. Select "Serial" as type of connection
4. Select the COM port number
5. Select the speed (by its setting in "Connectivity Setup"), factory set to 115200
6. Confirm "Next" to move forward

Procedure for communication via Modem

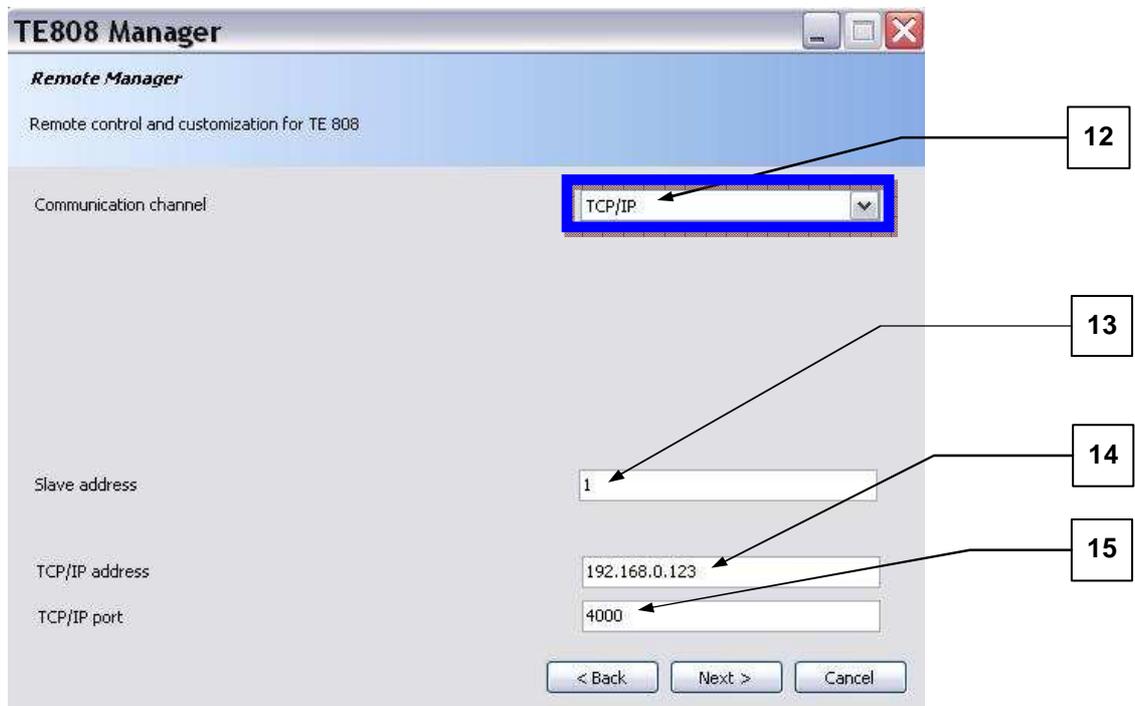
It is suggested the modem connection to port RS232b, because it is already setted by factory for GSM connection



7. Select Modem as type of connection
8. Select the COM port number connected to the modem;
9. Select the speed (by its setting in "Connectivity Setup" on serial port RS232b), factory set to 9600
10. Digit the number you want to call (the phone number of the modem connected to the TE808);
11. Conferma "Next"

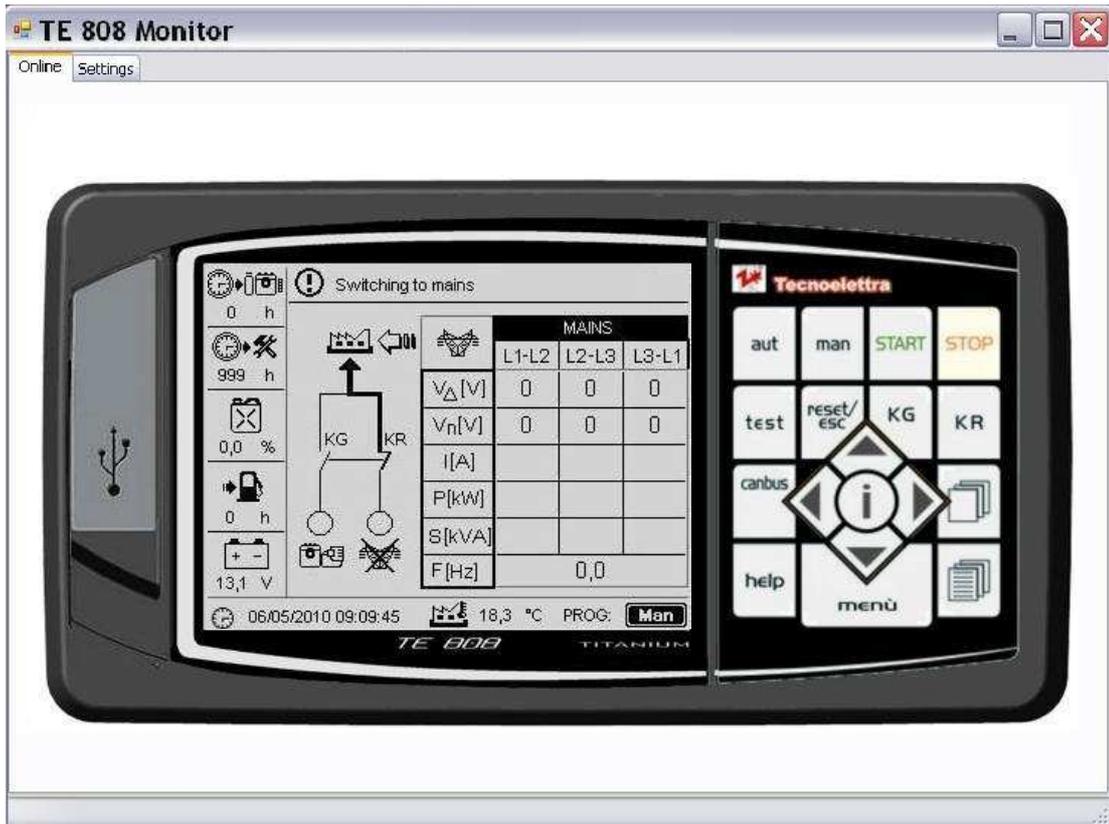
Procedure for TE808 connection via TCP/IP converter (communication networks LAN / Ethernet)

It is suggested the converter connection to port RS232a, because it is already setted by factory for PC connection

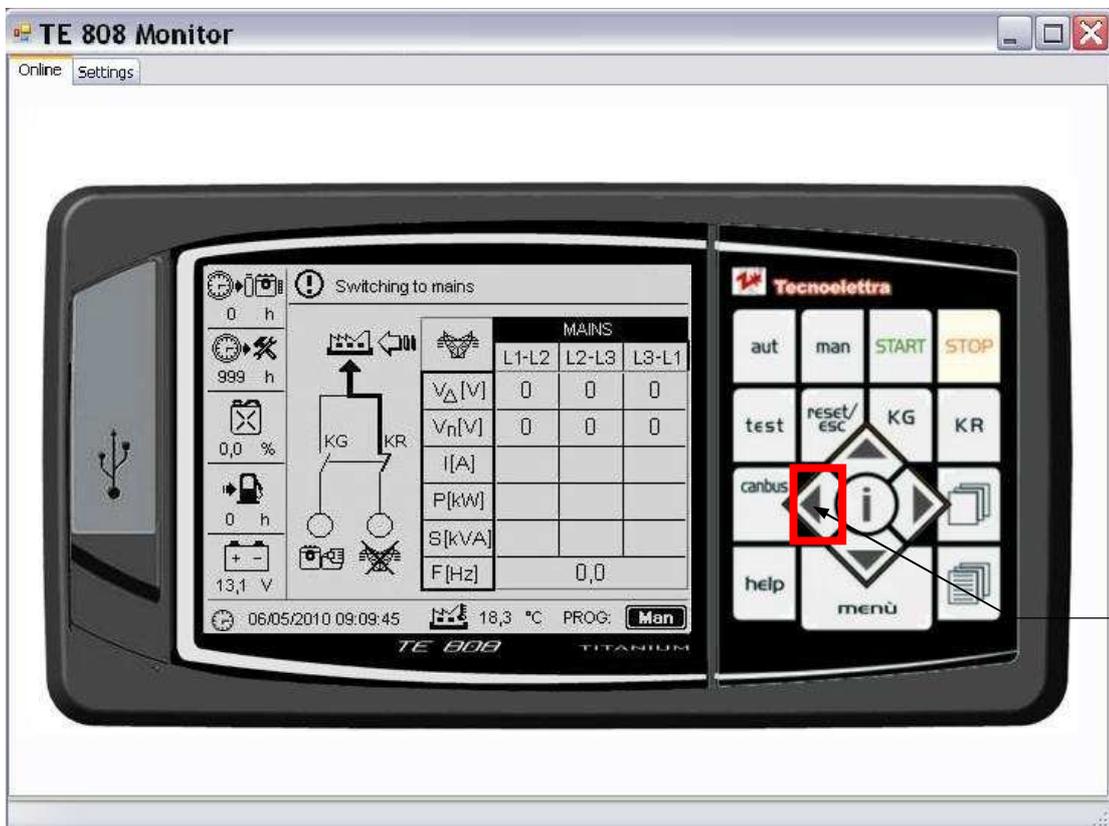


12. Select TCP/IP
13. TE808 identification number (usually "1");
14. IP address assigned to the network cable connected to the converter;
15. Enter serial port number of the serial port on converter (always "4000");

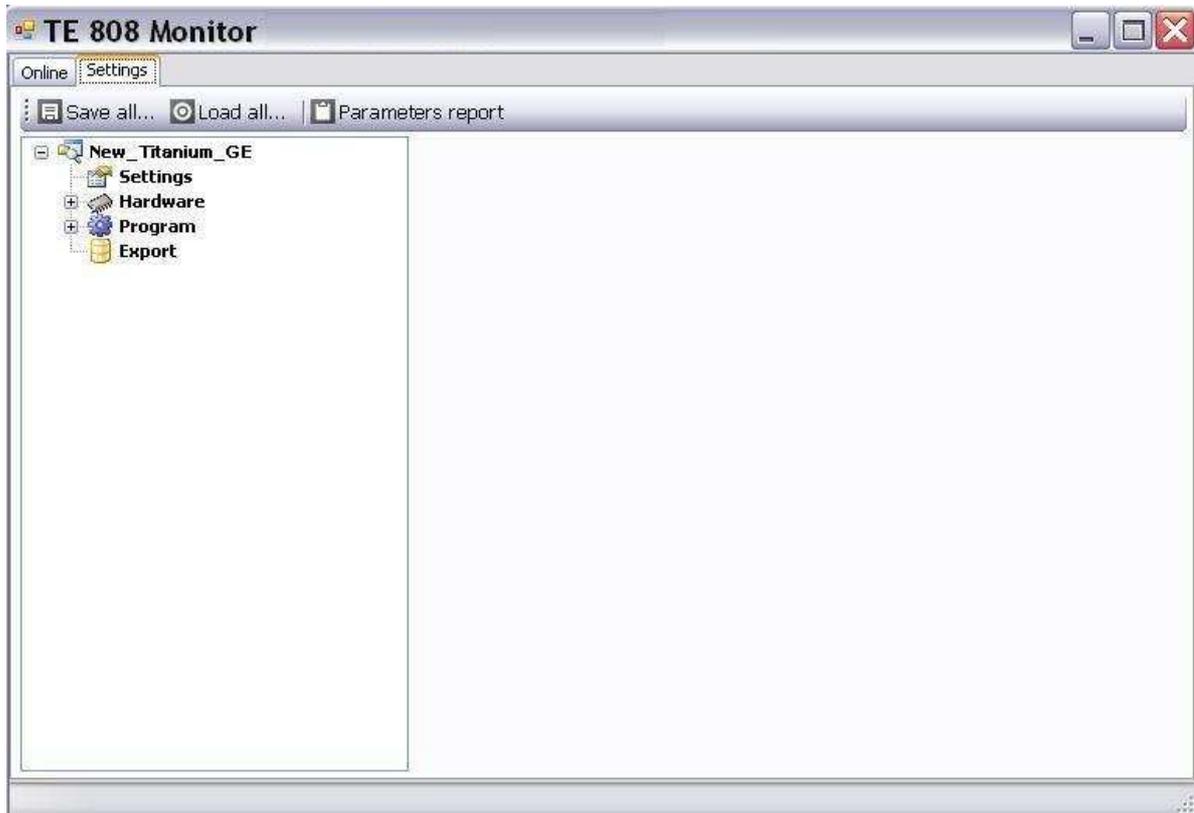
When you are Online, you can use the Remote Control Software with the same procedure normally used when you are in front of the controller TE808; you should use the mouse to act on the buttons. A red box will help you locate the button you are selecting



16. When you have your mouse cursor on buttons active, these are highlighted by a red square. Click the left mouse button to activate



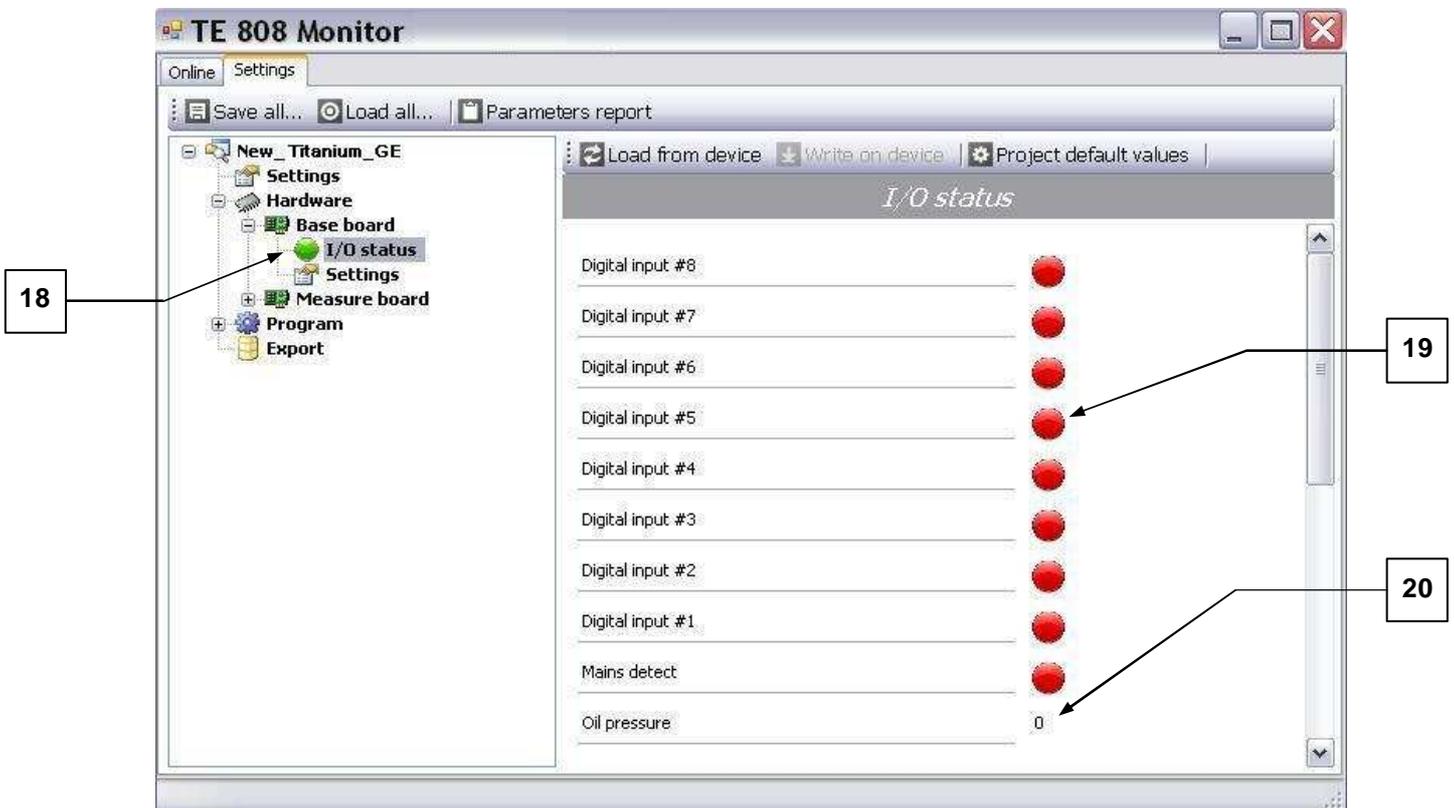
17. When you change the mode to "Settings, you can check all the measurements, all the states of input / output settings and the list log



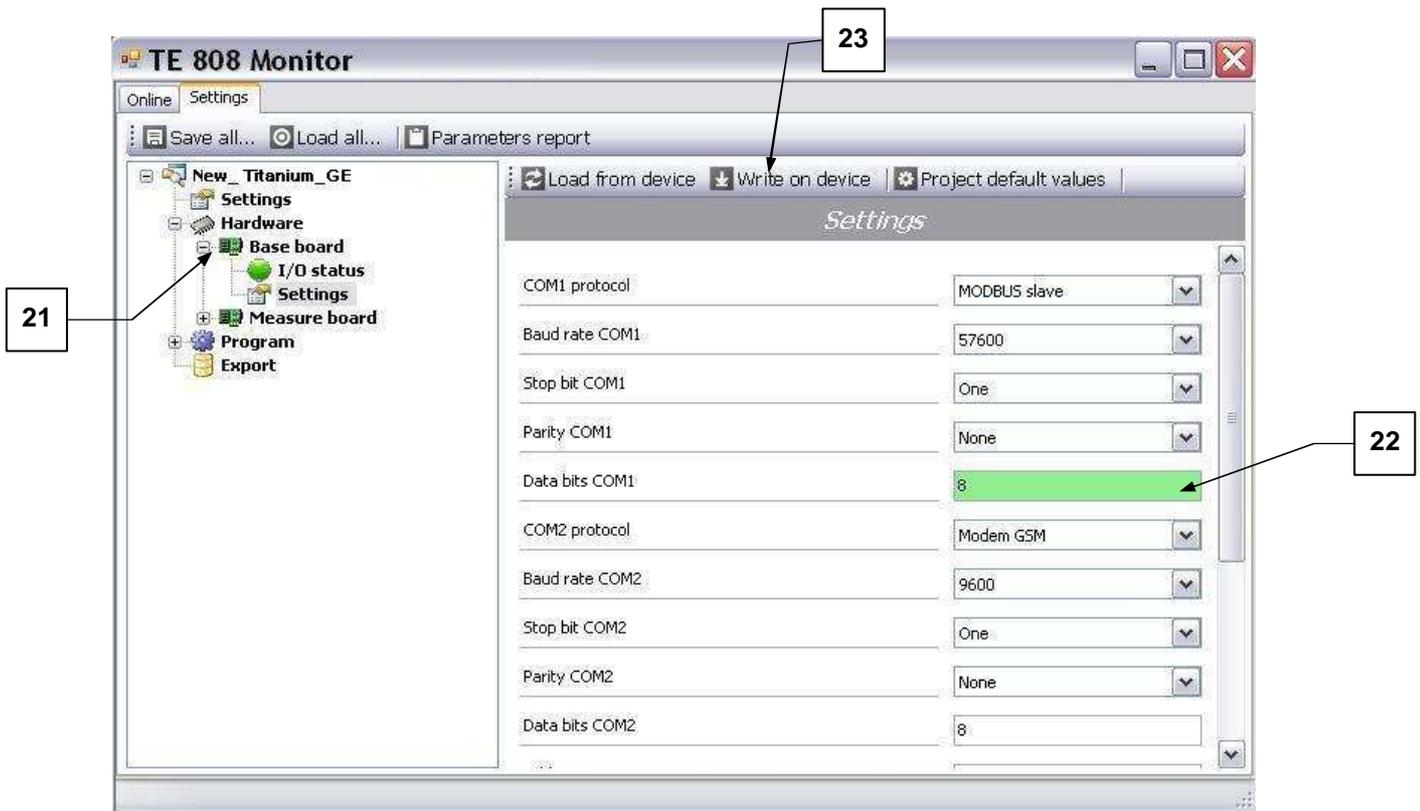
18. When you select, for example, the "Basic Card" to verify the state of I / O, you can see all inputs and outputs of the status of engine sensors and controls;

19. Virtual lamps show the status, red for input / output open, green for input / output closed;

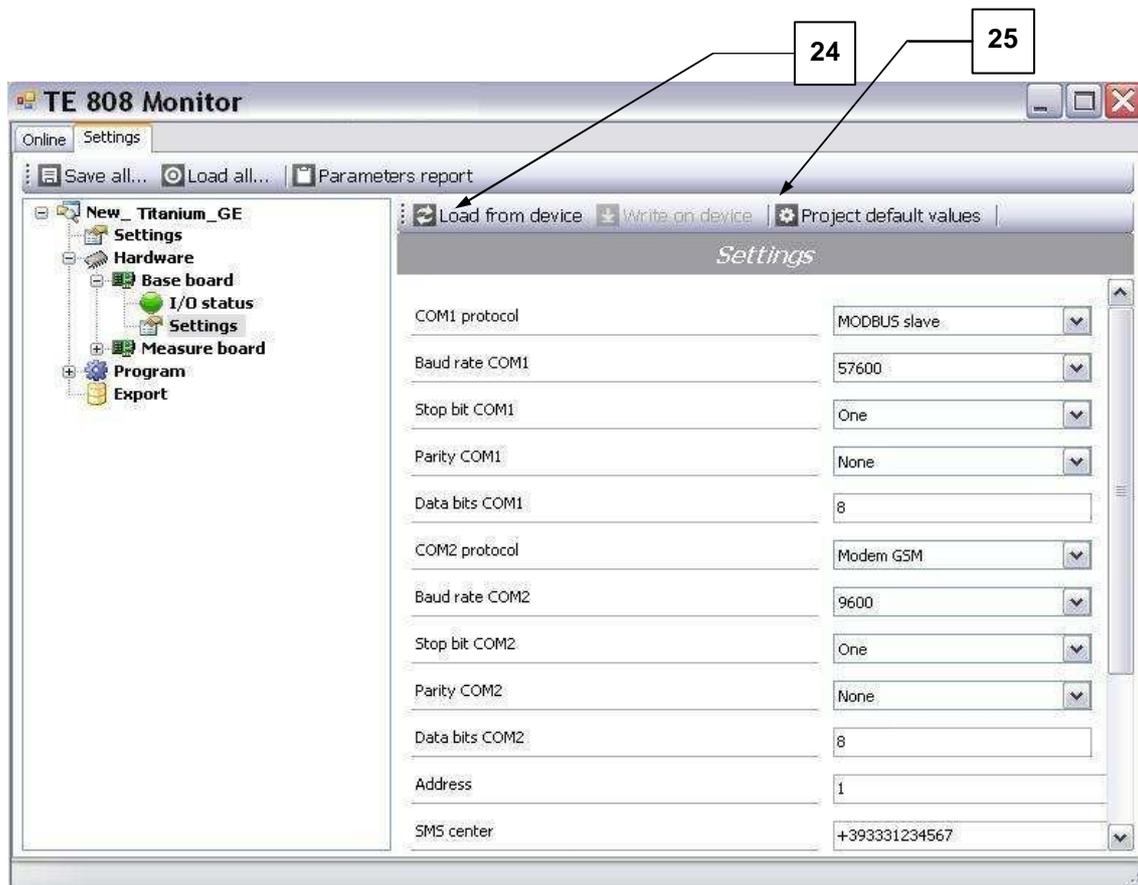
20. Numbers are shown by the values of measurement;



21. When you select, for example, on "Basic Card" to check the "Settings", you can see all parameters that can be set. In this case you can change the settings for serial communication and modem parameters;
22. When you change a parameter and confirm the change by the Enter key, the box turns green and activate the feature to set the text in TE808 (see paragraph 23);
23. Press "Write in your device" to write and store the modified parameter in TE808;



24. It is also possible press "Load from device" to read parameters actually set in the T808 controller
25. If you press "Project Default values" all the parameters that differ from the default value become orange and return to default: now you can upgrade the parameters on the controller as described on point 22/23



26. If you select "Log Messages" you have access to events list stored on the card.

All events are stored with date and time, with the message of explanation and a symbol that identifies if the message is a warning or an information;

27. Date and time;

28. Messages;

29. Warning symbol;

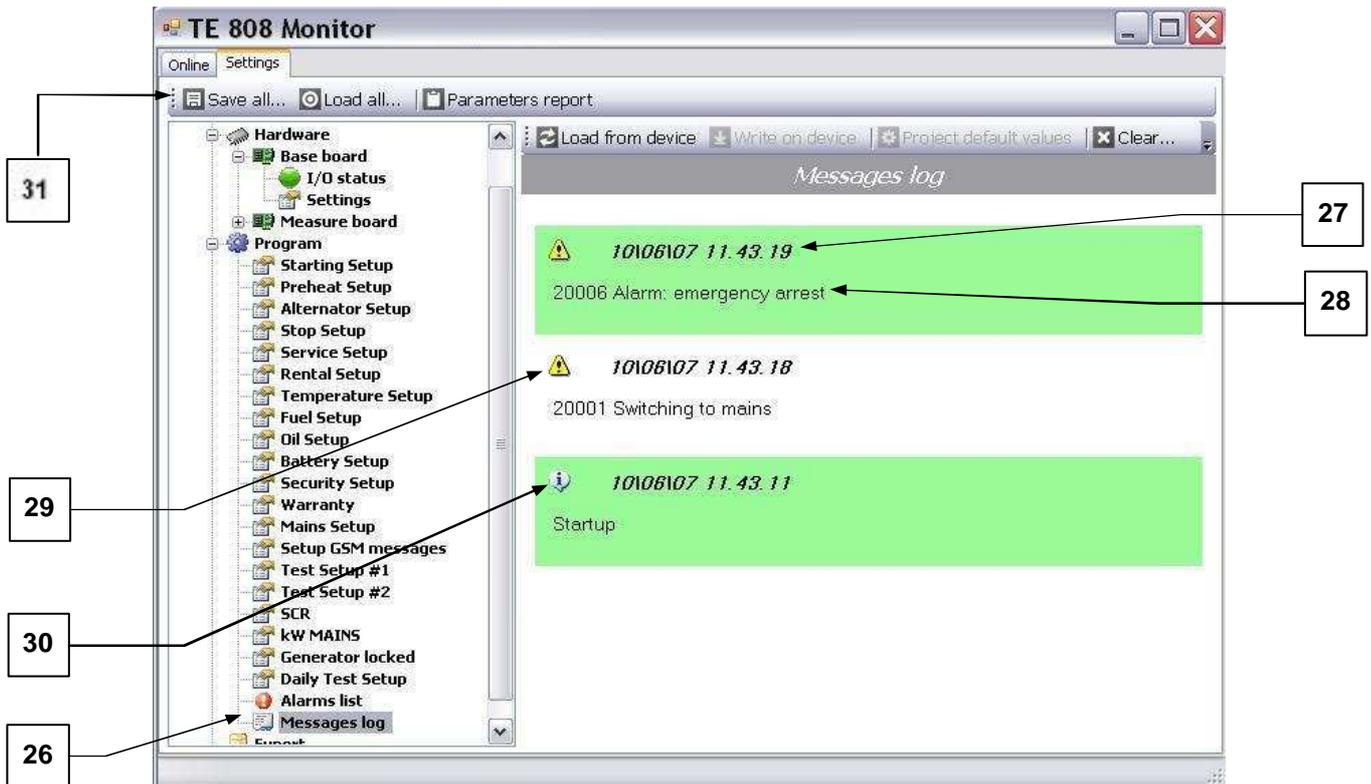
30. info symbol

31. Function of Settings menu:

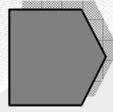
-Save all: you can use this function to export all the parameters' values into a .ters file.

-Load all: you can use this button to import the settings stored in .ters files into the controller. WARNING: use this function only if .ters file was created with the same project version.

-Parameters report: you can use this function to create a printable list of all the parameters and alarms.



TE808 VVF



Section 4 – Download



4- 1 Firmware and project installation instructions

4- 1.1 Firmware Update

Install DfuSeDemo following on-screen instructions (double click on "Setup.exe" icon located into Dfuse folder. Read **GettingStarted_DFU.pdf** for further informations).

- When the installation is complete, start the program DfuSeDemo v1.0.

START -> Programs -> STmicroelectronics -> DfuSe Demonstration (default path)

Now you must enable the USB port to download the TE808.

- With TE808 off, hold the "pages back" button* and energize the controller
*(the firmware button is START for Silver, Firefight and Motorpump version, STOP for Gold and Platinum version, PREV PAGE for Titanium version)
- A trill warns that your download firmware via USB is ok.
- Now you must connect the USB cable (type "A-male / A-male") from the PC to TE808. If we need to install the USB driver, this is located in the installation folder of the program DfuSe (the USB driver file is "STDFU.INF"). If the connection is successful, the program will appear as in Figure 1.

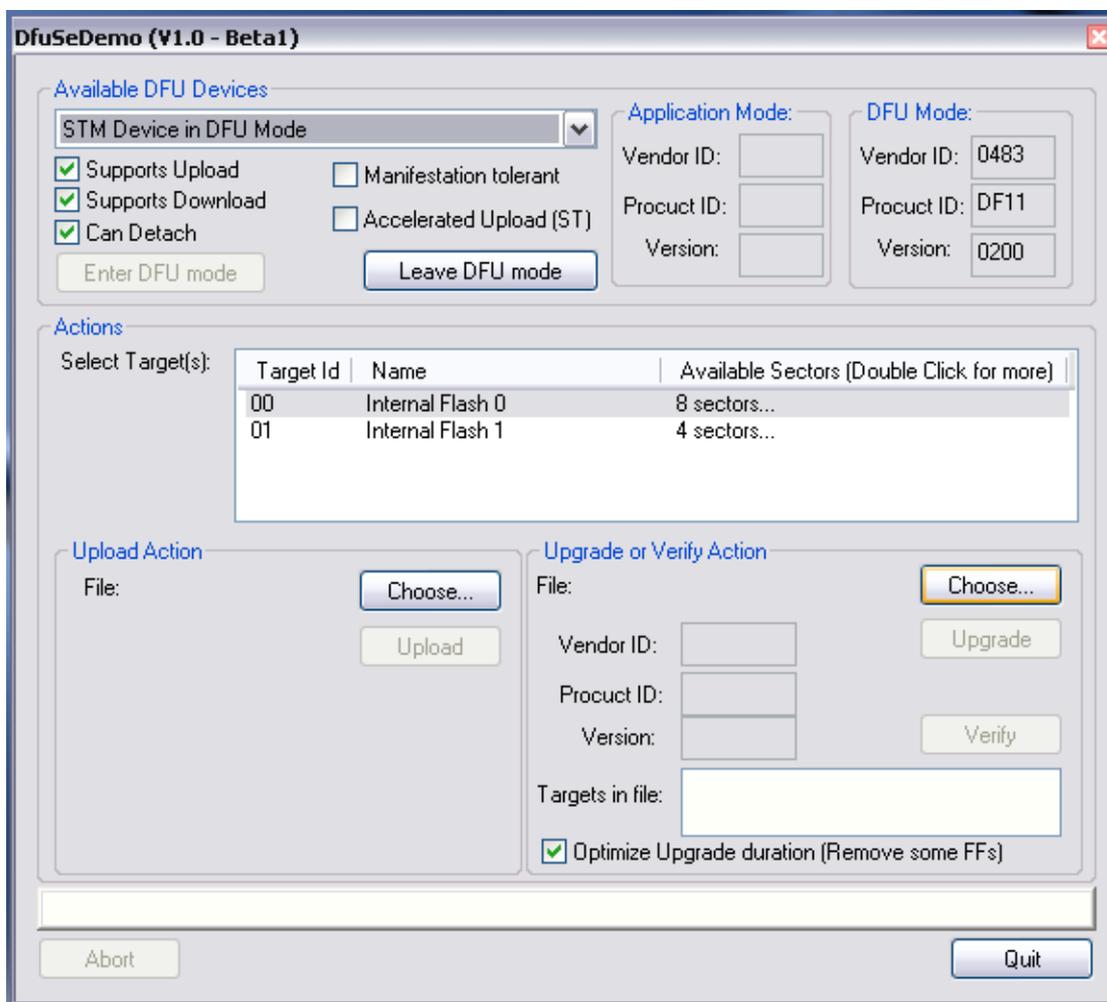


fig.1

Now you can start to install the firmware:

- Press the "Choose" and select the latest firmware from folder **FW**.

As can be seen in Figure 2, the file will have extension "dfu".

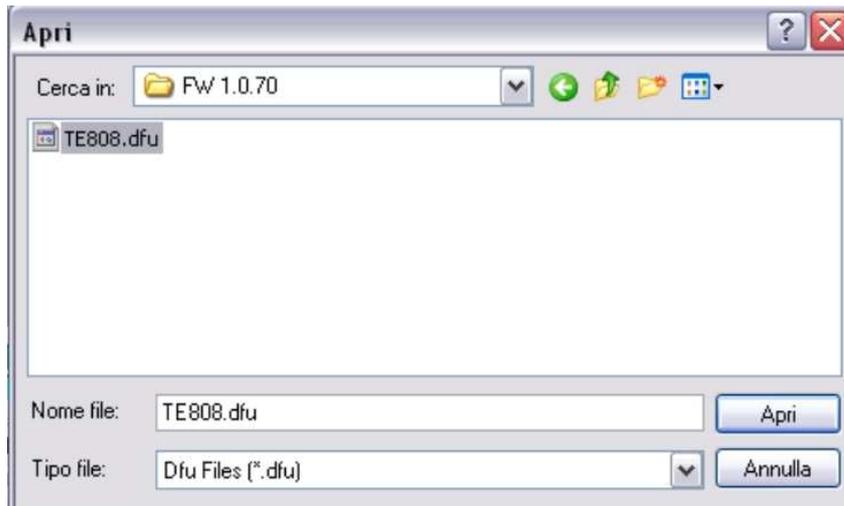


fig.2

To upload the file, press the "Upgrade" button (point A) to start the download.

When the warning message appears (fig. 3a), confirm it .



fig.3a

The green bar below (point B) shows the progress of the download.

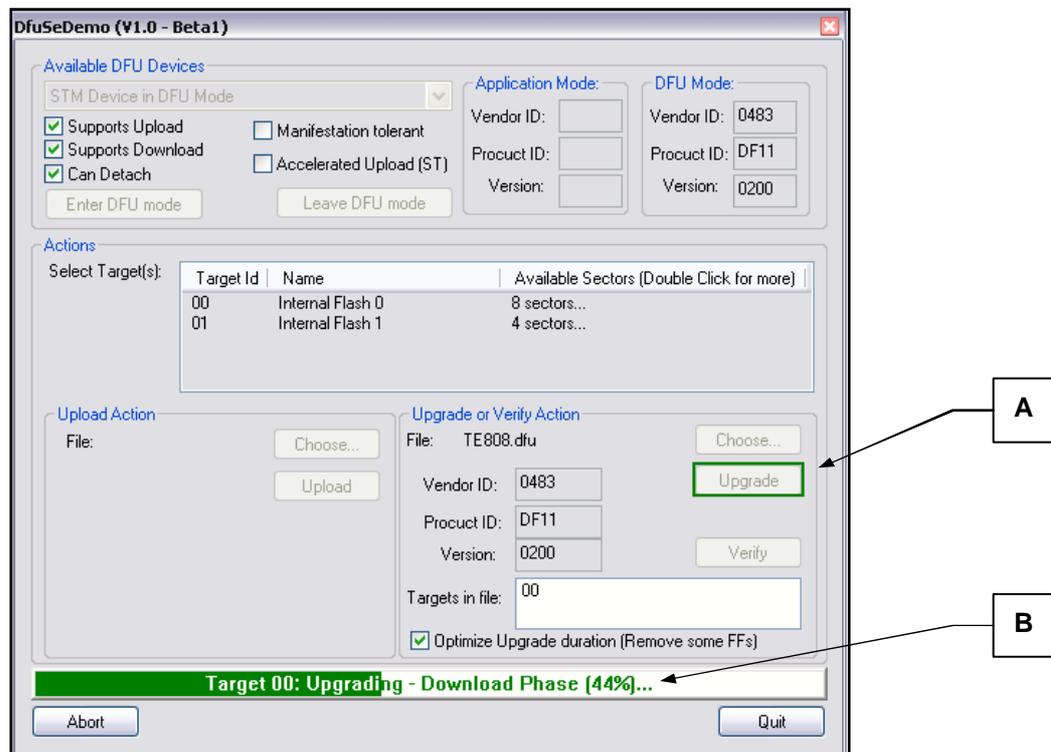


fig.3b

At the end of the process, to restart the card, un-supply J1 from battery the re-supply it again.

4- 1.2 Project update

TE Utilities Install the program by clicking on the **Setup.exe icon** and follows the screen instructions.

- **Completed installation launch the TE Downloader:**

- START -> Programs -> Tecnoelettrica -> Utilities TE -> TE Downloader (Default path)

Now you must enable the project download the USB port of TE808.

- With TE808 off, hold the first button at the top left of the keyboard (AUT for TE 808 titanium version).
- Apply power while continuing to hold the button for about 10 seconds.
- After this time appear on the display "User FLASH erase Force. Please wait ...".
- At the end of the deletion show "UPGRADE PROJECT. The internal memory has been erased and the USB port is enabled to receive a new project.
- Now you must connect the USB cable (A-male / A-male) from the PC to TE808.

If we need to install the USB driver, this is located in the installation folder of the program TE Utilities (USB driver file is "te808.inf).

- Press "Next" and select the project for download from the folder **Project**. As you can see in Figure 4, the file will have extension "te808.

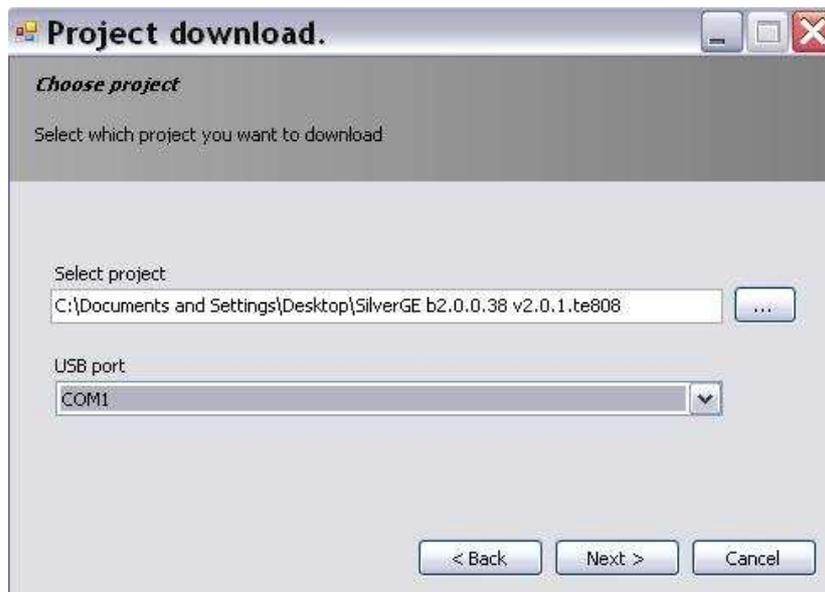


fig. 4

- To choose the correct USB communication port.

To find the port to use, follow these steps on Windows :

- START -> Settings -> Control Panel -> System -> Hardware -> Device Manager
- Under "Ports COM & LPT" you can see the ports connected, located the serial com port "TE808 Communication Port" (see Figure 5).

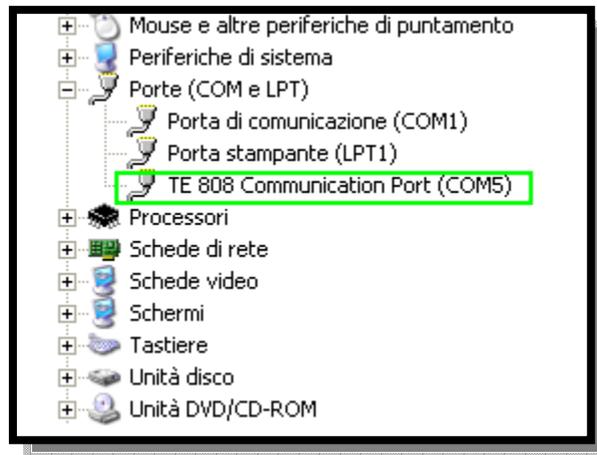


fig. 5

- Press the button "Next" select all functions (Figure 6). Download the project will start after a few seconds.

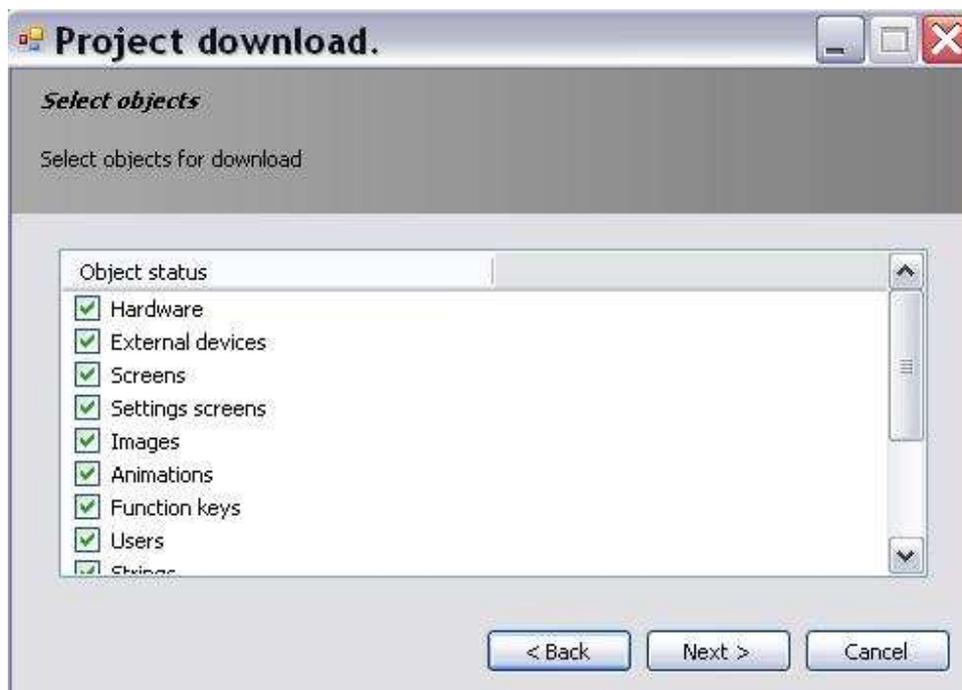
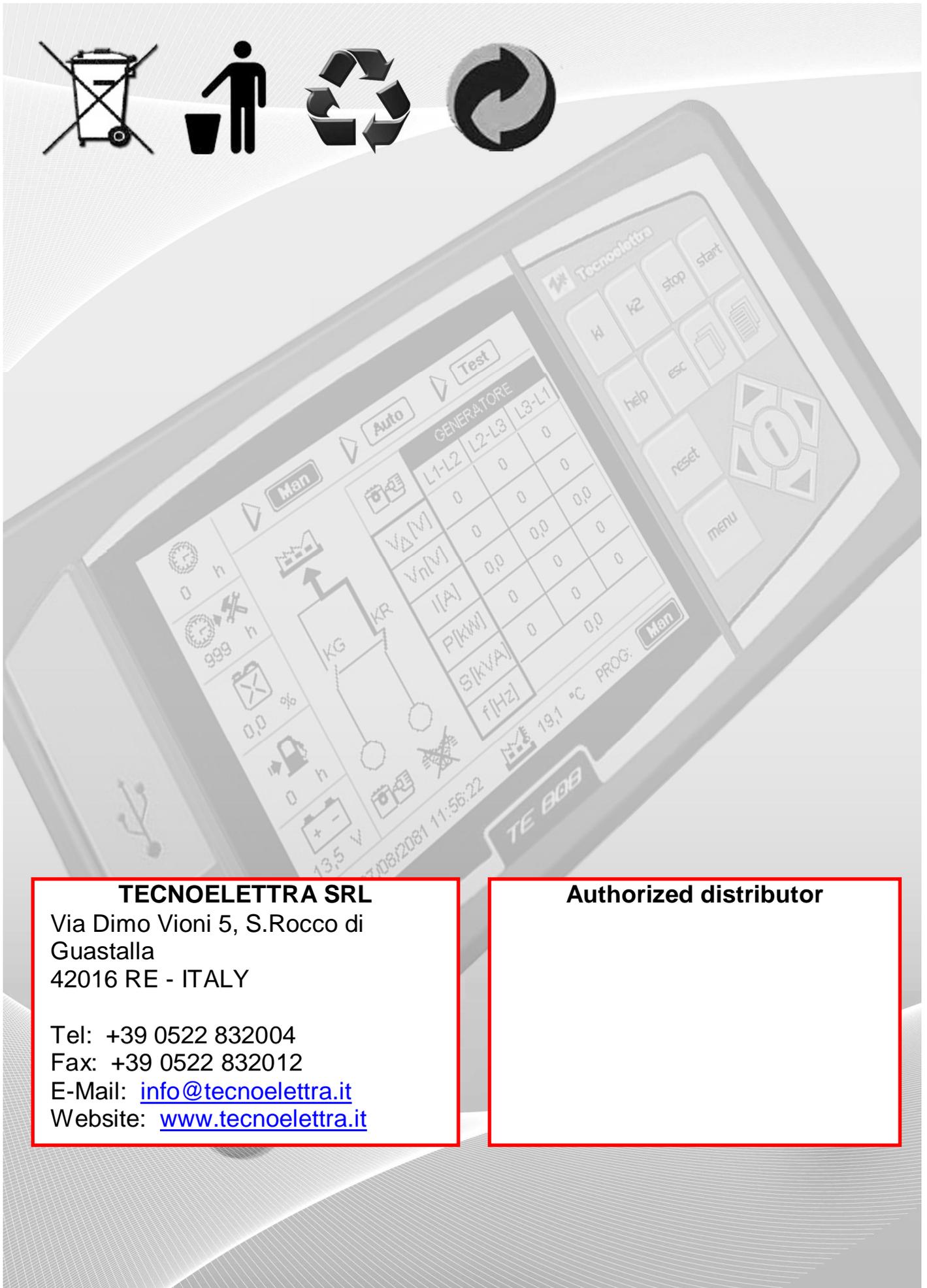


fig. 6



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