CE

Telair

GENERATORS

ENERGY 4010G

MANUAL FOR INSTALLATION
AND USER MANUAL

GB ENGLISH

v. 001 – February 2011

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When using the generator in cold environments, please remember that the lower the temperature (down to a temperature limit of – 15°C), the higher the percentage of propane gas which is recommended

Via E. Majorana , 49 48022 Lugo (RA) ITALY

"CE" COMPLIANCE STATEMENT

Under Machine Directive 89/392/ EEC, attachment II A

We hereby represent that the generating set - the data concerning which are specified below - has been designed and built to correspond to the essential safety and health requirements laid down by the European Directive on Machine Safety.

This statement shall no longer be valid if any changes are introduced in the machine without our written approval.

Machine: GENERATOR-SET

Model: ENERGY 4010 G

Serial number: ……..

Reference Directive:

Machine Directive (89/392/ EEC) version 91/31/ EEC

Low Voltage Directive (73/23/ EEC)

Electro-magnetic Compatibility 2004/108/EC

Harmonised standards applied, in particular: EN 292-1; EN 292-2; EN 60204-1

DATE .....07/12/2010.....

THE PRESIDENT

1 FOREWORD

Refer carefully to this manual before performing any operation on the power generator set.

1.1 Purpose and scope of this manual

This manual has been drawn up by the Manufacturer in order to provide basic information and instructions for performing every operation for servicing and using the generating set in a proper and safe manner.
It is an integral part of the generating set equipment, must be kept with care throughout the life of the same, and must be protected against any agent which could damage it.
It must follow the generating set if this is installed on a new vehicle, or if its ownership changes hands.
The information in this manual is addressed to the personnel in charge of installing the generating set, and to all those involved in its maintenance and use.
This manual sets out the purpose the machine was designed for, and contains all the information required to guarantee that it is used in a safe and proper manner.
Constant compliance with the instructions laid down here will guarantee the safety of the user, operating economy and longer life of the machine.
To facilitate reference, this manual has been subdivided into chapters specifying the main notions contained therein; for quick consultation, refer to the table of contents.
The most important parts of the text are in bold letters and preceded by symbols described here below.
It is strongly recommended that you read the contents of this manual and the reference documents carefully; doing so is essential to the correct long-term performance and reliability of the generator set and the prevention of injury and/or damage.

Note: *The information contained in this publication was correct at the time it went to print, but may be modified without advance notice.*

1.2 Symbols and Definitions

"Graphic safety symbols" have been employed in this booklet to identify different levels of danger or important information.

This means that you must pay attention to avoid serious consequences which might lead to serious accidents or damage the health of the operators.

This means a potentially hazardous situation which could lead to accidents or damage to property.

This calls the user's attention to a potentially dangerous situation which could cause malfunction or damage the machine.

The drawings are only provided by way of example.
Even though the machine you actually have may differ from the illustrations contained in this manual, safety and information about the same are guaranteed.
The manufacturer, as part of his policy of constant product development and updating, may introduce changes without giving any notice.

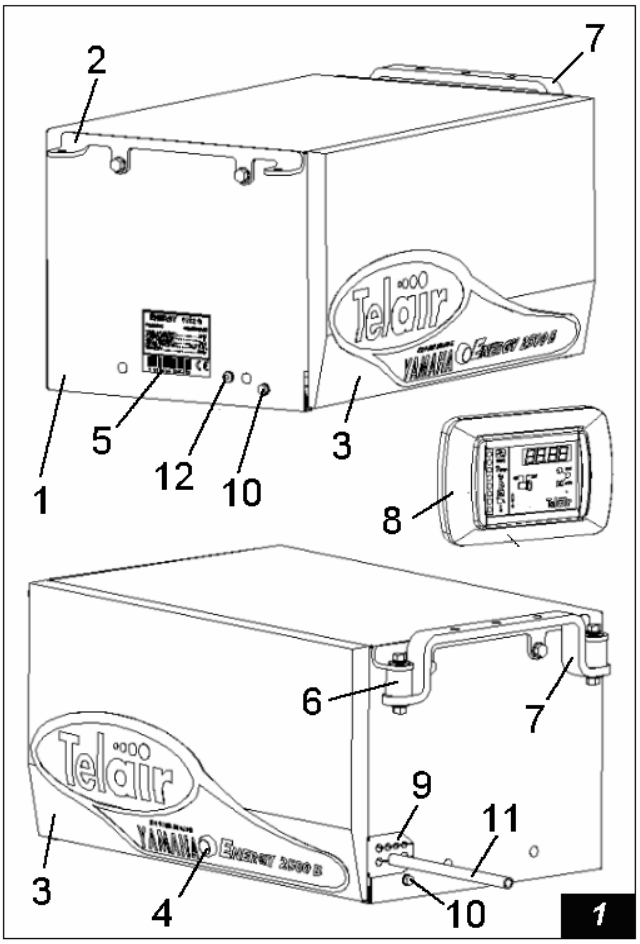
1.3 General Information

The ***ENERGY*** generating set has been designed for installation on vehicles. It can deliver power at a voltage of 230 VAC 50 Hz.
The ***ENERGY 4010 G*** model must be fed with LPG.
In order to achieve a low noise level, the ***ENERGY*** series generating sets are provided with internally insulated sound-proofing cases.
They can be accessed easily in order to perform maintenance work, and are provided with a remote control panel which can be installed inside the vehicle.
The generating sets can be connected to the tank of the vehicle as long as the fuel type is compatible. Otherwise, install a special tank which can be supplied as an option.

2 GENERATING SET IDENTIFICATION DATA

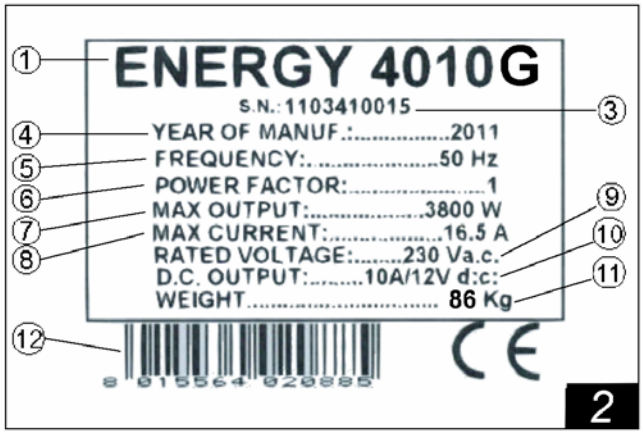
2.1 Components (Fig. 1)

1 Sound-proofing casing
2 Supporting brackets
3 Access door
4 Access door closure
5 Technical features sticker
6 Anti-vibration support
7 Anchoring bracket
8 Electronic control panel
9 Gas pipe and cable outlet block
10 Sliding surface locking screw
11 Fuel pipe
12 Sliding surface all out locking screw



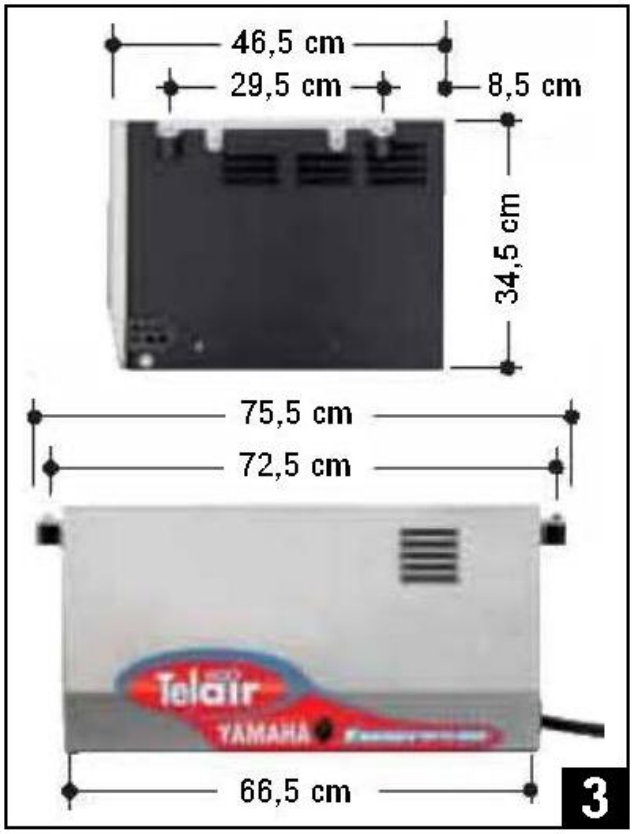
2.2 Identification plate (Fig. 2)

1 Generating set model
2 Model code number
3 Serial number
4 Date of manufacture
5 Power factor
6 Frequency
7 Maximum electric power
8 Maximum current
9 Rated voltage 230V AC
10 Current delivered at 12V/DC
11 Weight
12 Bar code



2.3 Overall dimensions

Figure 3 shows the dimensions of the generating sets.



2.4 Technical specifications

		ENERGY
ENGINE		**4010 G**
Type		Single cylinder, 4 stroke LPG, overhead valves, air cooling
Engine		Yamaha MZ 250 GAS
Displacement	cm^3	251
Bore x Stroke	mm	70 x 57
Max Fuel Consumption	kg/h	1,5
Fuel supply		LPG or Propane pure when it is cold
Ignition system		Electronic
Spark plug		BPR4ES
Oil sump capacity	litres	1,0
Speed governor		Automatic with centrifugal weights
ALTERNATOR		**4010 G**
Type		Synchronous, single phase, self-adjusting, two poles, brushless
Max power	kW	3,8
Continuous power	kW	3,3
Voltage/ Frequency	V/Hz	230 / 50
Continuous current output	A / Vdc	10 / 12
Rotor insulation class		H
Stator insulation class		F
Cooling		Centrifugal fan
GENERATOR		**4010 G**
Overall weight	kg	86
Dimensions (L X W X H)	mm	665 x 465 x 345
Starting		Electrical / Manual
Fuel pump		Pressure reducer
Noise level		60 dBA 7 mt
Operation Hours	h	7

3 SHIPPING, HANDLING, STORAGE

3.1 Storage

The generating set is protected during transport by suitable carton packaging and a wooden base. It must be stored horizontally, in a covered, dry and ventilated area.

INFORMATION ***Do not turn the package upside down. The correct position is the one shown by the symbol printed on the package (↑).***

3.2 Weight

Total weight including packing:
ENERGY 4010 G: 86 kg

3.3 Handling

The generating sets, complete with their packaging, can be handled using common lifting and transport vehicles.
The boxes are provided with spacers in order to allow for the introduction of pallet truck forks.

DANGER ***During lifting and transport, comply with accident prevention and safety regulations. Use lifting and transport equipment with a capacity greater than the load to be lifted.***

4 INSTALLATION

4.1 Preliminary information

MANUAL ***Before installing the generator set, it is absolutely necessary to read these instructions to prevent any installation errors.***

WARNING ***The generator must be installed so as to prevent water seeping directly into the alternator through the air inlets; it must therefore be protected.***
Incorrect installation of generating sets can cause irreparable damage to the equipment and endanger the safety of users.

Should the generating sets be installed not in compliance with the instructions in this manual, the Manufacturer shall not be held responsible for malfunctioning or for the safety of the generating set, by the terms of the Italian Law Decree D.M. 89/392/EEC. The Manufacturer shall also not be liable for any injury or damage to people or property.

DANGER ***Installation must be performed by qualified and adequately trained personnel only.***

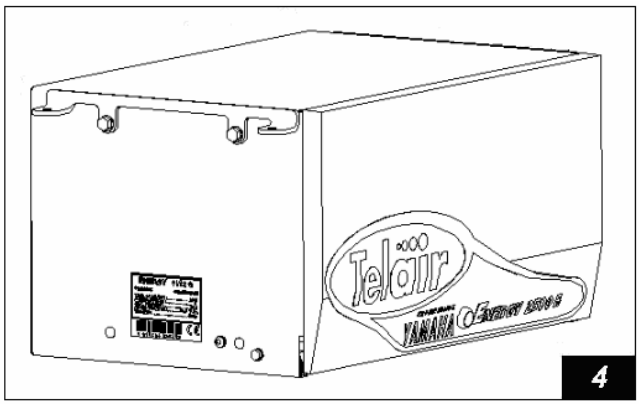
4.2 Instructions for fastening the generating set

The **ENERGY 4010 G** generating sets are provided with anchoring brackets with extra vibration dampers **(Fig. 4, Ref. 1)** and a fuel filter to be fitted along the generator feeding pipe. The brackets allow for hanging and floor assembly.
This kind of assembly provides the following advantages: less room taken up, quick installation, easy access for routine and unscheduled maintenance.
Make sure that there is enough room around the hood of the generating set to let cooling air through; also leave 10 cm free room between the hood and the surrounding parts.
Should the generating set air intake be behind a wheel of the vehicle, **care should be taken to prevent water from being sprayed into the generating set by the wheel when raining**.

WARNING ***Ensure that, when the door is open, the engine sliding surface can be taken out (Fig. 6).***

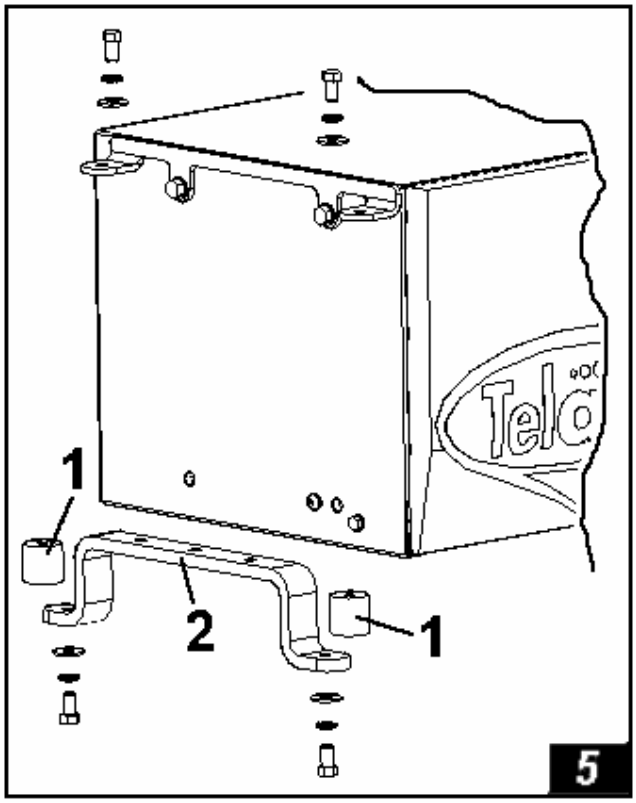
4.2.1 Hanging assembly

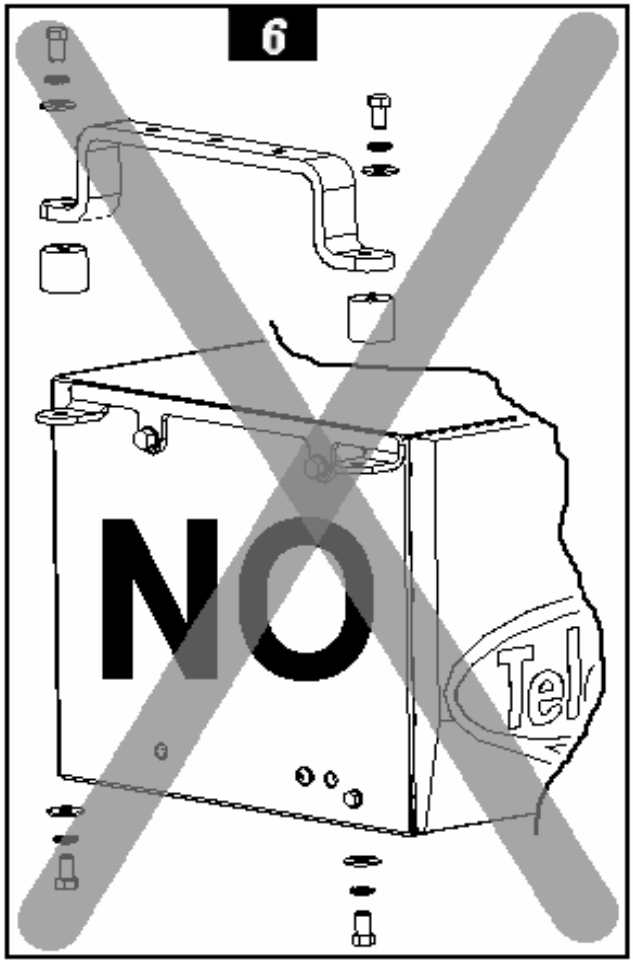
The generator, when sticking out of the package, is preset for hanging assembly, as shown in fig. 12.



The package also contains 4 vibration-damping cylinders (fig. 5 ref.1) and 2 brackets for hanging assembly (fig. 5 ref. 2).

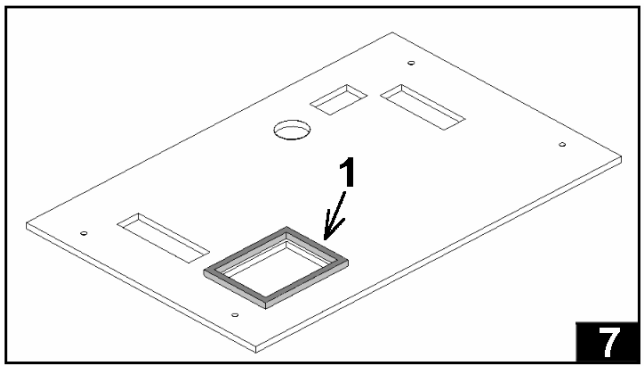
DANGER ***The vibration-damping cylinders must imperatively be fitted as shown in fig. 5. They must be pressed, and NOT extended (as shown in fig. 6) by the generator weight.***





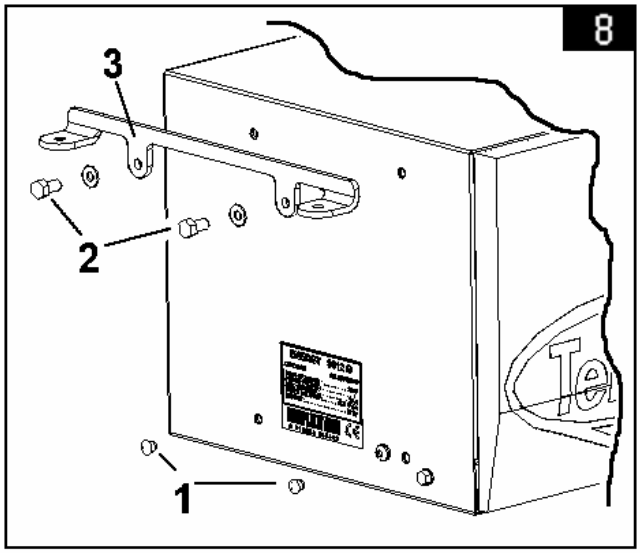
4.2.2 Floor fastening

The package contains a drilling jig, which allows the generator bearing surface to be prepared quickly, fig. 7.

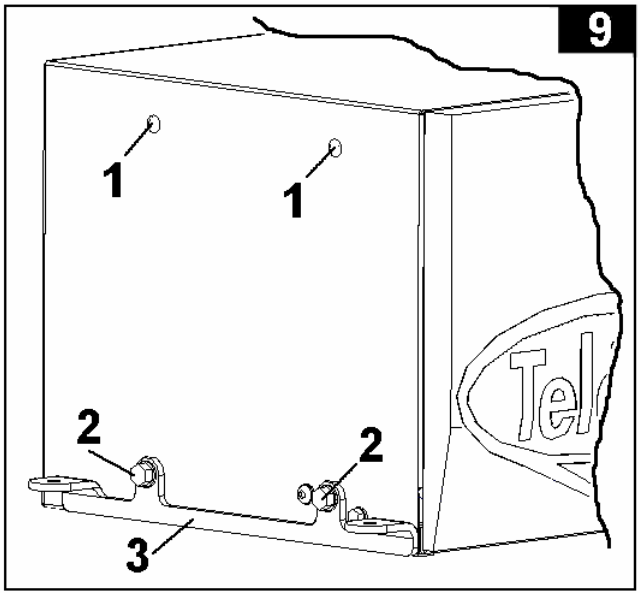


INFORMATION ***Place a spongy, heat-resistant gasket around the outlet opening of the exhaust pipe. The gasket height must reach the bottom of the generator and has the purpose of preventing hot air from spreading inside the generator compartment.***

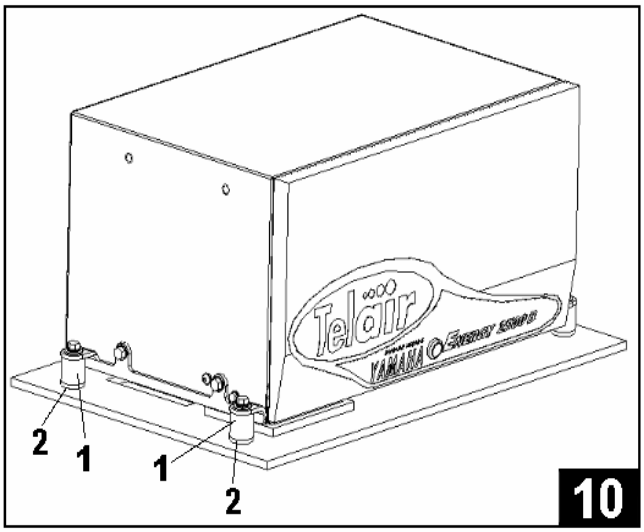
The brackets of the generator must be moved in order to fasten the ***Energy 4010 G*** on the bearing surface.
On both sides, remove the hole plugs (fig. 8 ref. 1) and screw out the screws (fig. 8 ref. 2) in order to remove the bracket (fig. 8 ref. 3).



Place the bracket (fig. 9 ref. 3) on the 4 holes which were previously covered by the plugs using the same screws (fig. 9 ref. 2) and apply the hole plugs (fig. 9 ref. 1) in the seats which previously housed the screws.

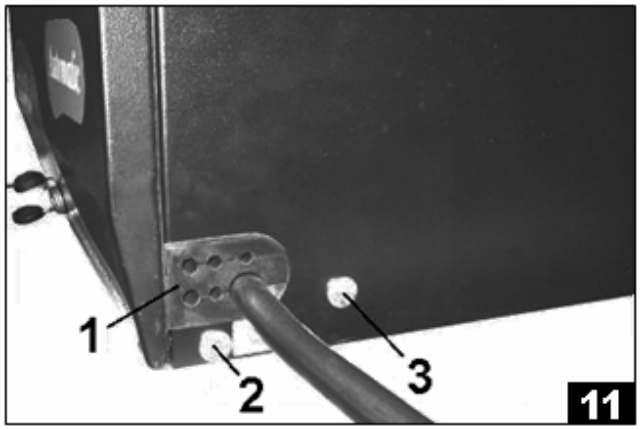


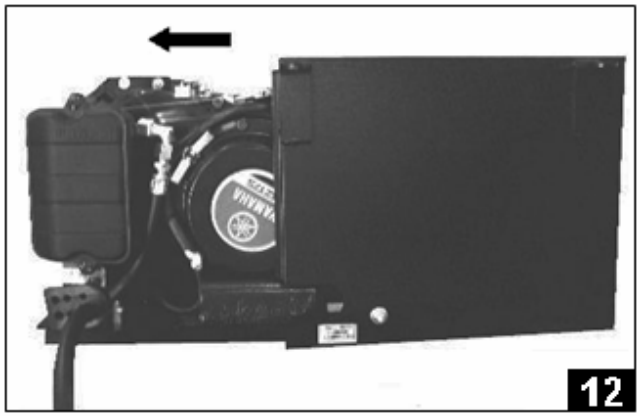
The generator can now be located on the previously drilled surface (fig.7) using the suitable vibration-damping cylinders (fig. 10 ref. 1) and spacers (fig. 10 rif.2)



4.3 Wiring connection instructions

By using the special key to open the lock, remove the front door.
Then remove the bottom surface locking screws (Fig. 11 Ref. 2) on both sides.
Take out the bottom surface with the engine all the way to the mechanical stop (Fig. 12).
If you wish to completely remove the engine surface, screw out the locking screws (Fig. 11 Ref. 3), too.





4.4 Battery connection

To start up the generating set, connection to the battery of the vehicle must be provided using a sheathed power cable up to current standards, with the cross-section shown in Table 1.
To this end, the generating set is provided with two special terminals (Fig.13 Ref.2) used to connect the positive and negative poles of the battery.
Connect the cable of the positive pole (red cable) to the terminal already having a red cable and the cable of the negative pole (black pole) to the terminal already having a black cable. The cable of the negative pole must be of the same cross-section as the positive cable, and must be connected both to the negative pole of the battery and to the vehicle chassis.
Make sure there is good contact; remove any paint or rust from the contact surface, and protect the connection by applying grease.
The capacity of the battery to be used for starting up must not be less than **100 A/h**.
The soundproofing box is equipped with two cable outlets used to let through the battery connection cables (Fig. 11 Ref. 1).
The cable presser block is used to prevent water seeping into the power generating set.

INFORMATION ***Always fit a 100 A fuse onto the positive cable connecting the generating set to the positive pole of the battery.***

4.5 Electric Load connection

To connect loads to the power generating set, use a three-pole cable up to the applicable standards in force. The correct cross section is shown in Table 1.

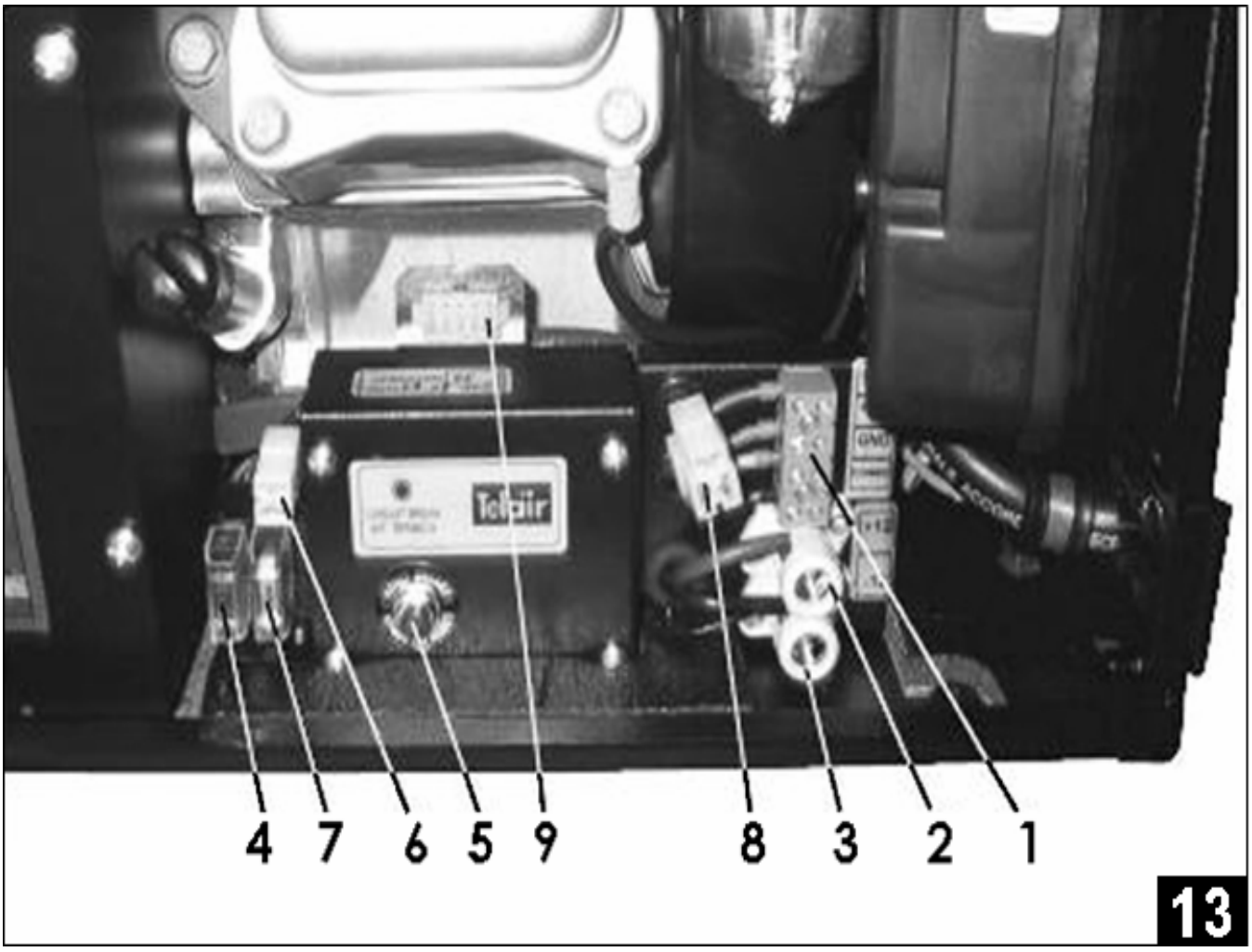
Table 1

Model	Sect. mm^2 line 230 V	Cable leng. Lgth < 6 m	Cable leng Lgth. > 6 m
4010G	4	10	16
LINE CONNECTION 230 V		**BATTERY CONNECTION**	

For connection to the 230V input line, the generating set is equipped with a special terminal strip (Fig.13 Ref.1) to which the cables must be connected.

Use the special cable outlet (Fig.11 Ref.1) to prevent water seeping into the generating set.
Although the generating set is equipped with a special internal thermal cut-out to cut power delivery in the event of overload or short circuits (Fig.13 Ref.5), it is advisable to install (in the vehicle control panel) a thermomagnetic cut-out switch, suitably set to stop power delivery to the various users when current absorption exceeds **16.5** Amp for ***ENERGY 4010 G***
If the generating set thermal cut-out switch has been operated, press the button (Fig. 7 Ref. 5) to restore closed circuit and power delivery conditions.

DANGER ***Carefully check the position of the line connection for picking up 230 Volt current. Wrong connection could damage the generating set irreparably or create dangerous short circuits*.**



4.6 Auxiliary electric cable connection

All 3 auxiliary cables to connect are equipped with a polarized connector.
One cable is necessary for generator operation, while the other 2 are optional cables.

- Cable from the generating set to the control panel (mandatory). It is included in the standard supply and is 5 metres long. Check that its length is sufficient to cover the chosen rout between the generating set and the control panel. Optional cables in longer sizes are also available.
  After leading the cable through the cable outlet block (Fig.11 Ref.1) connect the white connector to the fixed connector (Fig.13 Ref. 9) provided inside the generating set, checking that the plugging direction is correct.
- Cable from the generating set to the auxiliary fuel pump and fuel tank reserve (optional). From the three-pole connector (Fig.13 Ref.8) it is possible to take two cables to supply electric input to an auxiliary fuel pump; **also see paragraph 4.8.**
  From the same connector (Fig.13 Ref.8) it is also possible to take the signal for tank fuel warning; **also see paragraph 4.10**.
- Cable from the generating set to the auxiliary battery charger (optional). From the bipolar connector (Fig.13 Ref.6) it is possible to derive supply for an RCB battery charge regulator via two 4 mm^2 cables; **also see paragraph 4.11.1**.

4.7 Electronic control panel connection

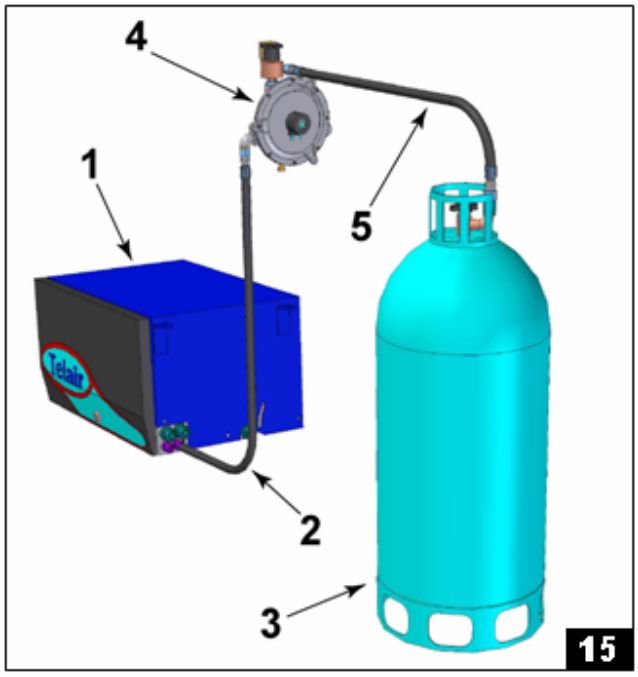
Choose your required position for the control panel inside the vehicle and drill a 30 x 32 mm rectangular hole. After letting out of the hole the connecting cable coming from the generating set (paragraph 4.6) connect the cable black connector on the back of the electronic control panel. Fix the electronic control panel (Fig.14) by using 3 x 20 mm self-tapping screws, making sure that the rear part does not interfere with other surfaces. Apply light pressure to fix the plastic frame, until the anchoring tabs click in.

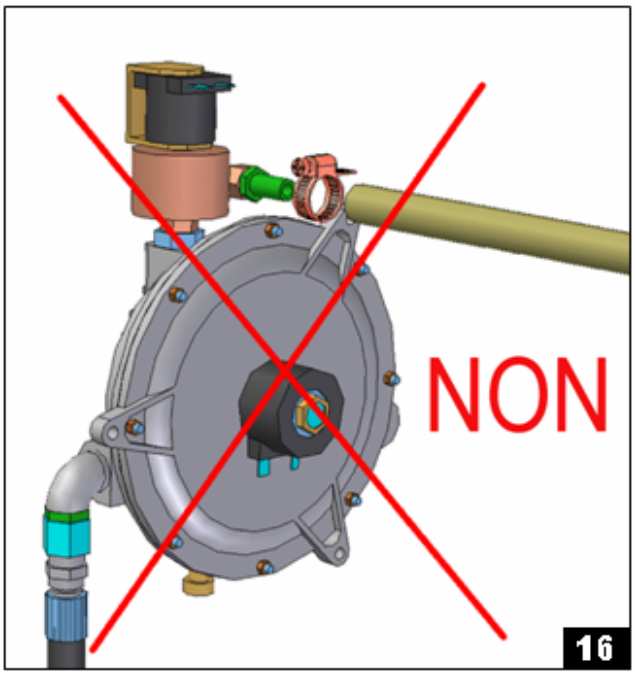
4.8 Electric System fuses

The unit is provided with two protection fuses.
A 15-Ampere fuse (Fig. 13 Ref. 7) protects the auxiliary battery charger output.
A 4-Ampere fuse (Fig. 13 Ref. 4) protects the pressure reducer output.

4.9 FASTENING the pressure reducer

The generating set comes standard with the suitable pressure reducer (Fig. 15 Ref. 4) already set, and 1 metre long gas hose (Fig. 15 Ref. 2) which is already connected to both the generating set (Fig. 15 Ref. 1) and the pressure reducer.
The reducer should be fastened using the suitable holes located on the 3 wings (Fig. 17 Ref.1).





DANGER ***Remember that the pressure reducer must NOT be installed in the body interior. Moreover, it should be located in a well-ventilated area*.**

It is recommended to check the vehicle low pressure gas pipe flow rate.
Insufficient flow rate would activate the safety valve (Secumotion type), when the generator is being started or while it is functioning.
Please note that the flow rate indicates the quantity of gas delivered over a period of time (Kg/h) whereas the pressure is the gas force (Bar). The gas hose (Fig. 15 Ref. 5) which directly connects the pressure reducer and the gas bottle (Fig. 15 Ref. 3) is not supplied.
For this connection, the installer will use a suitable type-approved hose which is equipped with the suitable fittings.

DANGER ***Connections as shown in Fig. 16 are FORBIDDEN on both the reducer and the gas bottle*.**

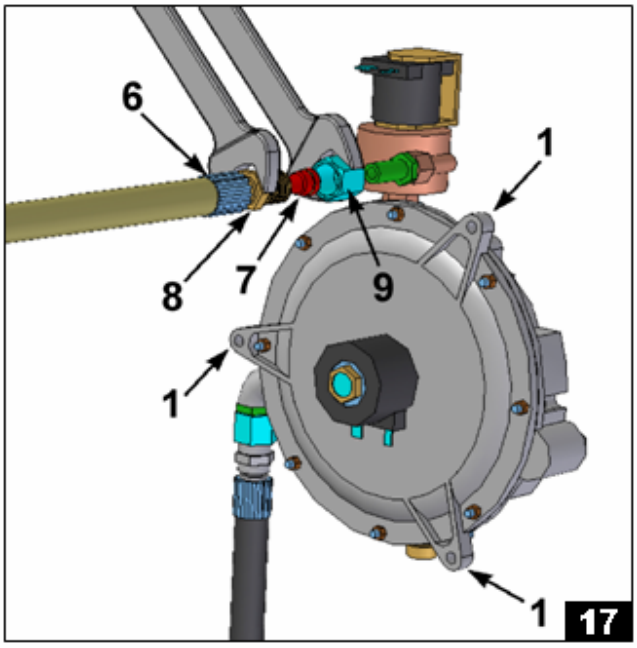


Fig. 17 shows proper connection, with a suitable hose on which the fitting (6) is tightened.
Fit the ogive (7), hold the fixed hexagon ring (8) by means of a wrench and tighten the ring nut (9).

INFORMATION **When using the generator in cold environments, please remember that the lower the temperature (down to a temperature limit of – 15°C), the higher the percentage of propane gas which is recommended**

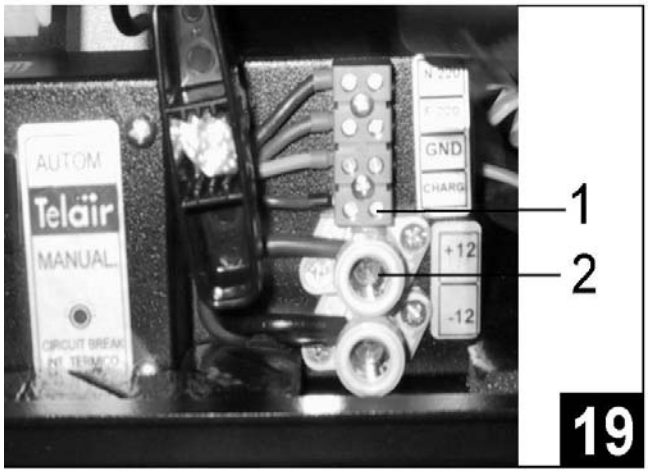
4.10 Battery charger

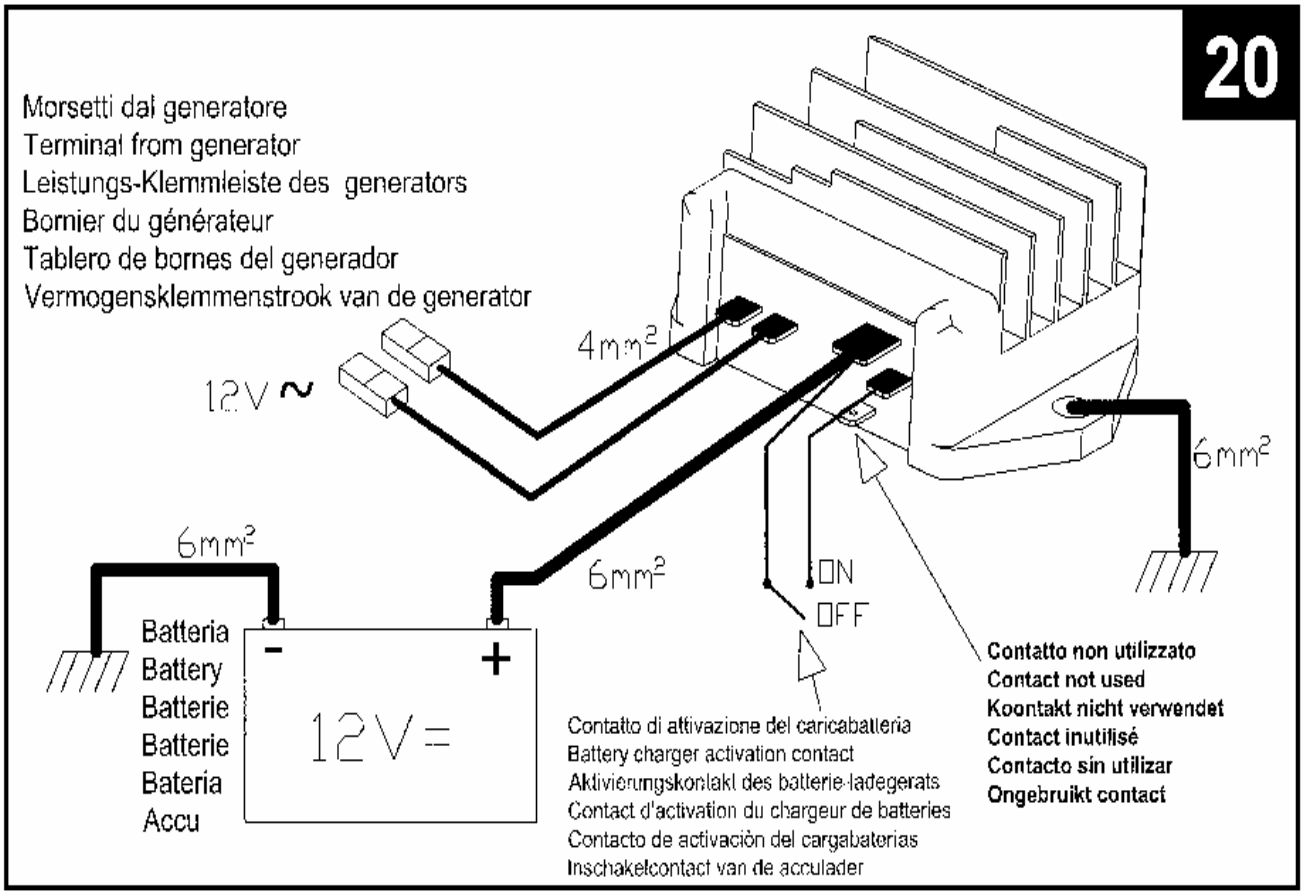
ENERGY 4010 G generating sets are equipped with a battery charger which can deliver current of approximately 10 Amp at 12 V. It can be used to recharge the generating set start-up battery.
To obtain this function, use a 2,5 mm^2 cross-section cable to connect the terminal identified by CHARG (Fig.19 Ref. 1) to the positive pole (red cable) of the generating set (Fig. 19 Ref. 2)
possible to use the 12 Volt alternating current output provided on the bipolar connector shown in Fig. 13 Ref. 6 .

4.11 Auxiliary Battery Charger

If you wish to recharge a different battery or do not wish to use the CHARG terminal, it is To these two Faston terminals, 4 sq.mm cross-section cables should be connected to obtain interfacing to an optional RCB regulator (code 05424) as shown in Fig. 20.

INFORMATION ***The generating set will not autonomously recharge the battery used for starting-up unless this is connected to a battery charger.***



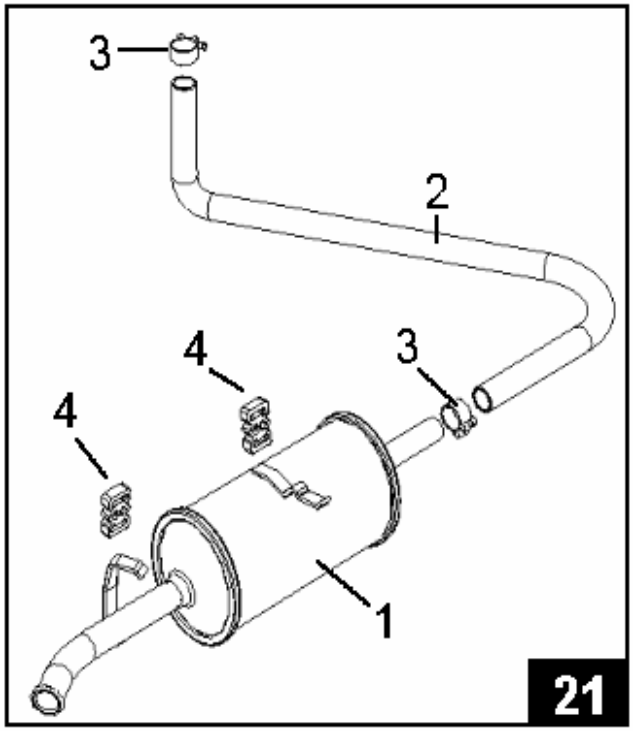


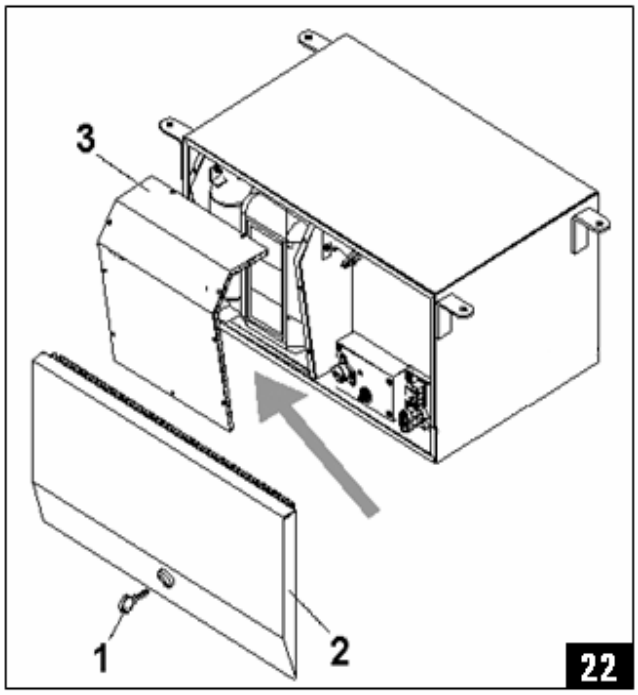
4.12 Connecting an additional silencer

To further reduce the generating set operating noise, an (optional) additional silencer can be installed externally.
The additional silencer kit code 03991 consists of:

- A silencer code 01761 (Fig.21 Ref.1).
- Two metre long section of flexible steel tubing code 00705 (Fig.21 Ref.2).
- Two connection fastening clamps code 01655 (Fig.21 Ref.3).
- Two rubber suspenders cod. 02,440 (Fig. 21 Ref 4).

To connect the silencer to the generating set, first of all remove the door (Fig.22 Ref.2) by using the special key (Fig.22 Ref.1) and the muffler guard (Fig.22 Ref.3).





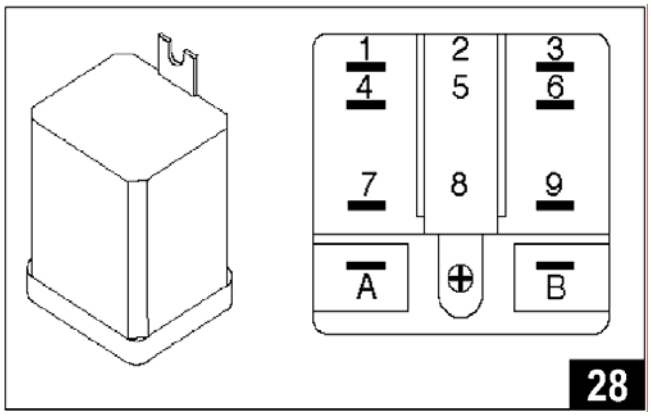
Then put the hose code. 00,705 (Fig. 21 Ref 2) Lock the output of the exhaust pipe with clamp code. 01,655 (Fig. 21 Ref 3). Attach the hose (Fig. 21 Ref 2) to the terminal input side of the muffler (Fig. 21 Ref 1) using the other band that came on (Fig. 21 Ref 3). Install the muffler 01761 using the appropriate rubber suspenders.

WARNING ***Do not use silencers not supplied by TELAIR Silencers that have not been specially sized may damage the motor.***

4.13 Connecting an External Network Relay

An (optional) relay or change-over switch code 05423 (Fig.28) should be fitted to the vehicle wiring system. Its purpose is to insulate the generating set when the vehicle is connected to an external electric input network.
Connect the relay (Fig.29) according to the following instructions:

- Connect the two wires of the 230 V line of the generating set to the PINS 1 - 3.
- Connect the user line to the PINS 7 - 9.
- Connect the outside line to the PINS 6 – 4.
- Jumper the PINS 4 – A.
- Jumper the PINS 6 – B.
- Connect all the grounding cables together

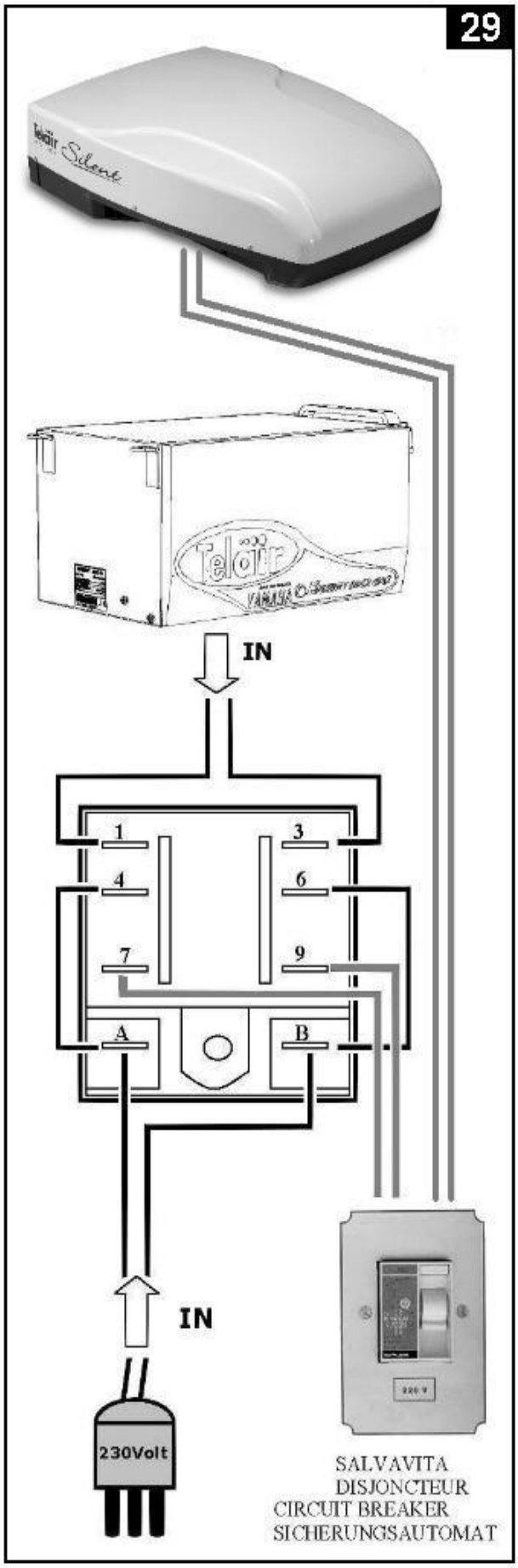


DANGER ***Electric connections to the generating set should be carried out by skilled electricians only.***

5 OPERATING INSTRUCTIONS

WARNING ***The generating set is delivered without engine oil.***
Use detergent oil for multigrade 4-stroke petrol engines, having SAE viscosity suitable for the operating climate (see table and detailed indications on the user and maintenance manual of the engine).

ENERGY series generators consist of petrol internal combustion engines connected to an alternator that can produce both alternating and direct electrical current. The generating sets are assembled inside a steel plate casing, insulated and sound-proofed using special sound absorbing materials.
Fuel is fed to the internal combustion engine via a pump fitted to the generating set as part of the standard supply.



5.1 Machine safety

The generating sets come with perfectly sealed casings, so there is no danger of contact with any moving or high temperature parts or with live cables.
The doors open with a lock and key. The keys must not be left within the reach of children or inexperienced persons.

DANGER ***The generating sets must only and exclusively be used with their doors shut.***
Remove any flammable substance (for example: petrol, paints, solvents, etc.) from near the generating sets.
Make sure that any hot parts of the generating sets are not in contact with any flammable material.
Never fill up the fuel tank while the engine is running.
Never touch the generating sets or the wiring connections with wet hands.
Never replace the fuses or the cut-out switches with others having higher amperage.
Should any electrical part need checking, this must only be done with the engine turned off and by specialised personnel.

The generating sets have been built in compliance with the safety standards listed in the EEC statement of compliance.

6 USING THE GENERATING SET

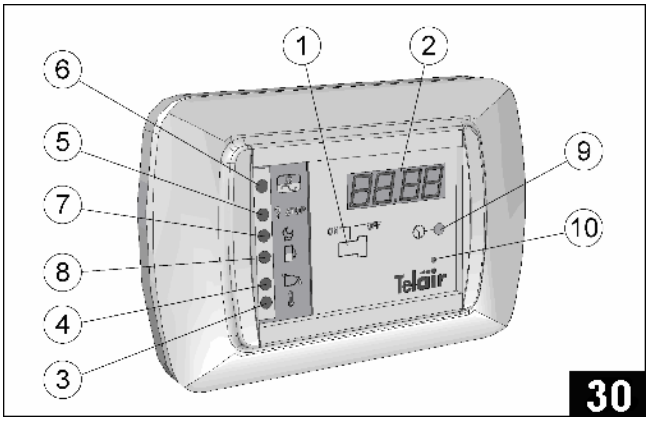
6.1 Starting up the generating set

The generating sets are provided with an electronic remote control panel which allows you to perform starting up / turning off operations and to check their running conditions.
The panel controls are:

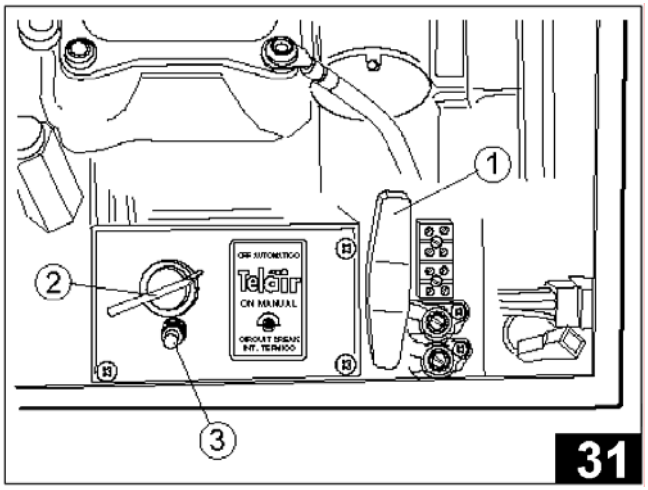
1 ON/OFF switch
2 Display unit
3 High temperature indicator
4 Engine minimum oil level indicator
5 Startup failed
6 Generator running (flashing)
7 Engine oil change indicator

8 Fuel warning light
9 Display time changeover switch
10 Reset

Set the startup switch (Fig.30 Ref.1) to its "**ON**" position. The message "WAIT" will be displayed for 8 seconds. After this time, the electronic control panel will start the first automatic procedure for starting up the generating set. If the engine starts up at the end of this phase, the "generator running" indicator light (Fig.30 Ref.6) will start to flash.
Should the engine not start up, this automatic procedure will be repeated up to 4 times.
If, at the end of a complete cycle, the engine has not yet started up, the "startup failed" indicator (Fig.30 Ref.5) will light up to signify that the generating set has failed to start up.
If the "startup failed" indicator (Fig.30 Ref.5) light only stays lit, you can repeat the procedure several times.



If the generating set has not started up after several attempts, contact the manufacturer's After-sales service.
The start-up battery should never be disconnected, as there would be no input to the electronic control panel which would prevent the generating set from working.



DANGER ***The generating set is provided with an internal combustion engine, therefore, the fuel used is highly flammable.***
The exhaust gases are conveyed under the casing; their temperature, inevitably, is quite high, even though they are mixed with cooling air.
Do not touch the casing areas near the exhaust, and do not put your hands or any objects inside the casing.

6.3 Information on not recommended uses

DANGER ***These generating sets must be installed and used by qualified and authorised personnel only, according to the manufacturer's instructions. These generating sets must only and exclusively be used to produce electrical power on vehicles provided with an electrical system built to standards and according to the quantity of power delivered.***

6.4 Useful tips

To make the best use of the generating sets, remember that even minor overloads - if they last long enough - will operate the thermal cut-out switches (Fig.31 Ref.3).
During the running-in period, do not subject the new engine to loads exceeding 70% of the rated load, at least for the first 50 running hours.

6.5 Control and alarm functions (Fig. 30)

2 Display: when the generating set has started up, the total running hours will be displayed. Press the key provided below the control panel display unit (Fig.30 Ref.9) to display the number of generating set operation hours since the latest engine oil change.
3 High temperature indicator: this warning light will light up when the temperature of the generating set goes over its safety value; the engine will stop at the same time.
4 Engine oil minimum level indicator: this warning light will light up to indicate that oil in the engine has gone below the minimum level. A safety system will kill the engine automatically to prevent failures.
5 Engine startup failed: this warning light will light up to indicate that the generating set has not started up, after all four start-up attempts.
7 Change oil: this warning light will light up when the engine has reached 100 running hours since the latest oil change. Every time the oil is changed, the After-sales service staff must reset the timer to zero.
8 Fuel warning: this warning light will light up when the fuel level inside the extra tank has gone below its reserve level (about 4 litres)
9 Display time changeover switch: press this switch to display the running hours since the latest engine oil change.
10 Reset: When the display shows characters without any apparent logic, the panel needs to be reinitialised. Press the Reset key (Fig.30 Ref. 10) and, holding it down, switch on the panel. When 4 zeroes (0000) are displayed, the panel has been reinitialised.

6.6 Control panel alarm causes and resetting

During generating set use, alarm signals may be displayed referring to engine oil checks. After checking the engine oil, the control panel must be reset in the following way:

Alarm: *the red 'service' light is flashing.*
Cause: *50 hours have elapsed since the latest engine oil change and oil level should be checked.*
How to reset the alarm: *press the partial counter key (Fig.30 Ref.9) and while holding it down, turn the panel on and release the push-button when the unit has started up*

Alarm: *the red 'service' light is lit.*
Cause: *100 hours have elapsed since the latest engine oil change and engine oil should be changed.*
How to reset the alarm: *turn on the panel and wait for the generating set to start. Now press the button hidden under the small hole in the bottom left corner (Fig.30 Ref.10) and release it immediately thereafter.*
Wait a couple of minutes before turning the generating set off.
In certain situations, the data contained in the microprocessor inside the panel may be altered. This may be because the battery is very low, or because the cables used to connect the battery to the set have too small cross-sections. Altered processor data may prevent the generating set from running. In order to restore the generating set operating efficiency, proceed as follows:

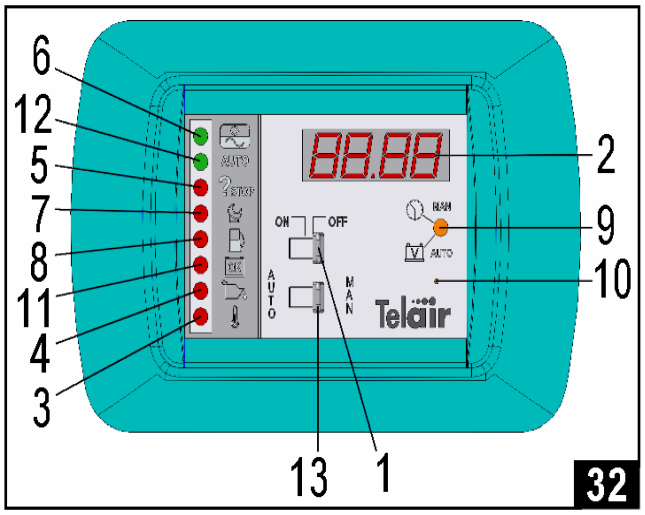
Alarm: *the display unit shows random characters.*
Cause: *malfunctioning due to low voltage during start-up (low battery, cable cross-section too small). Reinitialise the panel.*
How to reset the control panel: *press the button (Fig.30 Ref. 10) and while holding it down, turn on the control panel. Only release the push-button when 4 zeros (0000) are displayed. The panel has been reinitialised.*

6.7 Automatic Version (optional)

If you wish the start-up batteries to be recharged automatically in the ***En 4010 G*** generating sets, it is possible to install the **ASP** (optional) automatic control panel (fig.32) instead of the manual control panel.

The elements making it up are:

1 ON/OFF switch for the start-up and switch-off function
2 Display
3 High temperature indicator
4 Minimum oil level indicator
5 Start-up failed indicator
6 Generator running indicator (flashing)
7 Maintenance request indicator
8 Fuel reserve indicator



9 Hour or voltmetric changeover switch button
10 Reset
11 Battery charged indicator
12 Automatic function indicator
13 AUTO/MAN switch for the automatic or manual function

6.8 MANUAL operation

See section 7.3

6.9 AUTOMATIC operation

Turn the AUTO/MAN switch (Fig.32 Ref.13) to the AUTO position and set the start-up switch (Fig. 25 Ref. 1) to ON position.
The automatic function indicator (Fig.32 Ref.12) will light up. If the battery which supplies the generating set has a voltage of more than 11.5 Volts, the battery charged indicator (Fig.32 Ref. 11) will light up.
When the voltage at the ends of the 12V DC terminals of the generating set is lower than 11.5 Volts, the battery charged light indicator (Fig.32 Ref.11) will go off and the generating set will begin the start-up procedure (similar to that of the manual operation).
During the operation in automatic mode, the display (Fig.32 Ref.2) will show the total running hours of the generating set. Press the hour or voltmetric changeover switch button (Fig.32 Ref.9) to display the voltage at the ends of the 12V DC terminals, i.e. at the ends of the battery.
When the battery is charged, and anyway after at least 15 minutes' running, the battery charged hours indicator (Fig.32 Ref.11) will light up and the electronic control panel will turn off the generating set.

INFORMATION Setting the switch to the automatic position after turning the control panel on sets the generating set in stand-by mode and does NOT activate the automatic function.

Remember that the time which is taken by the generating set in automatic mode to recharge the battery may vary according to the battery status, the amount of connected batteries and the season temperature.
Generally, the lower the temperature the less the time required to charge the battery.

WARNING **Applying any load higher than the energy just then available in the battery will prevent the generating set from turning on due to insufficient voltage**.

7 MAINTENANCE INSTRUCTIONS

INFORMATION ***Only use original spare parts. Using poorer quality spare parts may damage your generating set.***
Routine checks and adjustments are of the essence in preserving a high level of performance. Routine maintenance also ensures long generating set life.

DANGER ***Before performing any check or maintenance operation on the generating set, turn the selector switch (Fig. 31 Ref.2) to the position 1 "manual" in order to avoid accidentally starting up the generating set.***

7.1 Service check list

See table at the bottom of page 25.

7.2 Maintenance not requiring specialised personnel

To perform this kind of service, it will be necessary to open the generating set door. The following precautions must therefore be taken:

1 The generating set must not be in operation, and all its parts must be cold
2 Let the generating set cool off.
3 Turn the selector switch to the position "ON" (manual) (Fig.31 Ref.2)

N.B. Remember to switch the selector switch to "OFF" (automatic) after completing the required checks.

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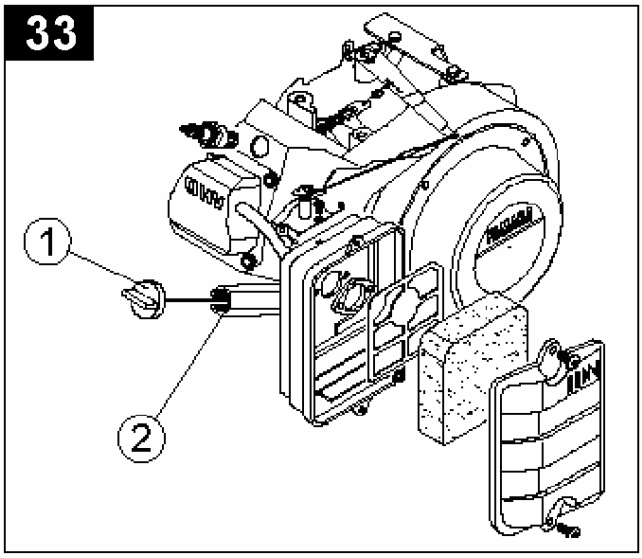


7.3 Checking the engine oil level

- Unscrew the engine oil filler cap and clean the dipstick (Fig.33 Ref.1).
- Put the dipstick back in without screwing.
- Take the dipstick out again, and make sure that the engine oil level is between the two (min and max) notches. Should the oil level be below the minimum notch, restore the oil level using the recommended type of engine oil (refer to the engine user and maintenance manual).
- Put the dipstick and filler cap back on and screw tightly.

WARNING ***Do not fill to exceed the maximum level, as this could cause malfunctioning of the fuel pump and hence of the generating set.***

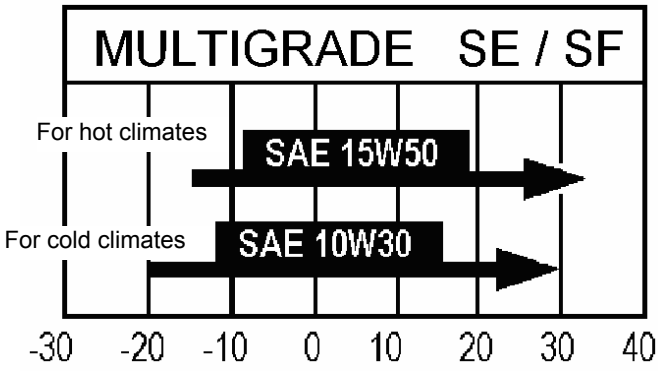
INFORMATION ***All engine oil level checking operations must be performed with the generating set in a perfectly horizontal position.***

7.4 Maintenance operations to be carried out by qualified personnel

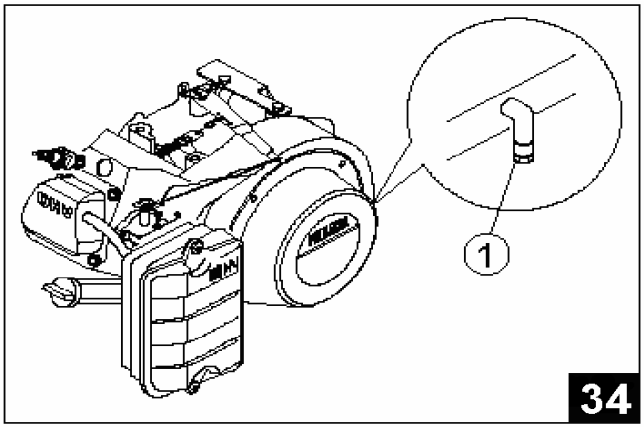
To carry out certain servicing operations, it is possible to extract the engine-alternator assembly from the front. (See paragraph 4.3.). This will make it easier to obtain access to all the inside parts of the generating set for unscheduled maintenance or repair operations.

7.4.1 Engine oil replacement

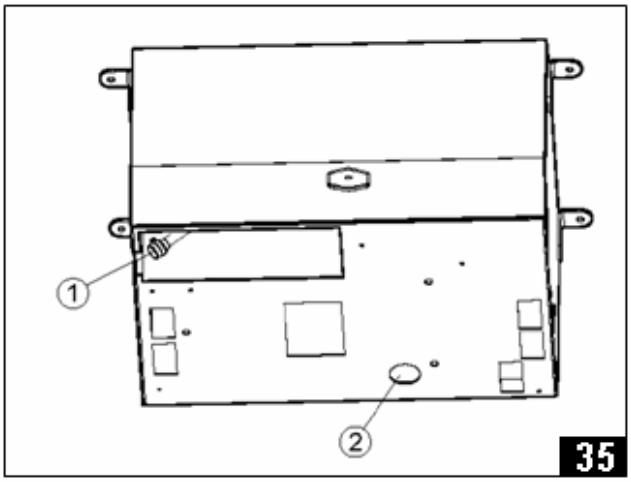
Use multigrade detergent oil for four-stroke petrol engines having a SAE viscosity degree suited to the climate the generating set is working in (see table and detailed instructions in the engine use and maintenance manual).



To make it easier to drain the spent engine oil, it is advisable to let the engine run for 3 - 5 minutes; in this way, the oil will be more fluid and emptying will be quicker and more thorough.



Undo the special cap on the soil sump (Fig.34 Ref.1) which can be reached through a special hole under the sound-proofing case (Fig.35 Ref. 2) and allow all the contained oil to be drained to a collecting tank.



After doing this, screw the cap back on and restore the oil level inside the oil sump, using the filler hole (Fig.33 Ref. 2).
Check the following table for the right amount of oil to pour in the sump (Table 2).

Table 2

MODEL	Oil quantity (litres)
Energy 4010 G	1,0

DANGER

- ***Hot oil can scald.***
- ***Causing the engine to run when the oil level is too low can seriously damage it.***
- ***Check the oil level when the engine has been turned off***.

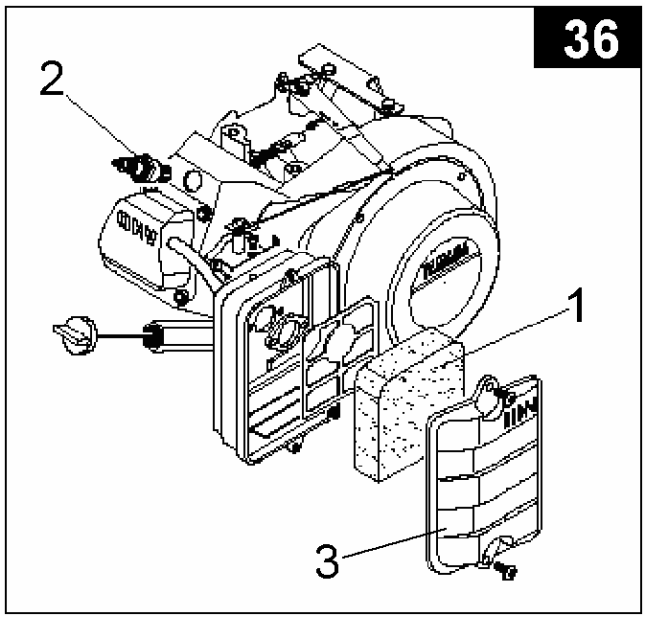
INFORMATION ***Spent oil should not be disposed freely in the environment but taken to special disposal centres carrying out disposal and/or recycling in compliance with the applicable law provisions in force in the country of use.***

7.4.2 Air filter maintenance

INFORMATION ***A clogged air filter will reduce air flow to the carburettor. To prevent carburettor malfunction, check the air filter regularly. If the engine is used in a heavily dusty environment, we suggest checking the air filter every time before starting up the engine.***

DANGER ***Never use Diesel oil or solvents with a low evaporation point for cleaning the air filter cartridge, as this could cause fires or explosions.***

Never operate the engine without an air filter; the engine would wear down quickly due to air-borne dust.
To access the filter cartridge, remove the air filter closing lid (Fig.36 Ref.3) after having unscrewed both screws that fix it to the air filter box.



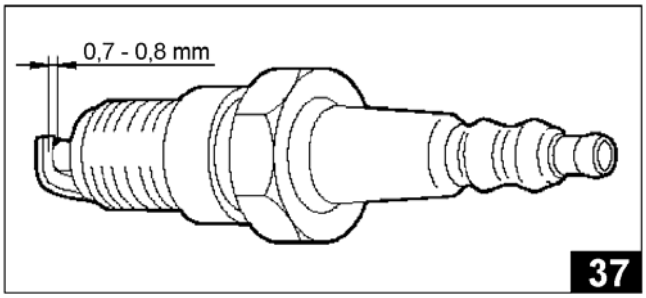
Take out the cartridge (Fig.36 Ref.1) and wash it in mild detergent and water then rinse

thoroughly. Let the filter cartridge dry out completely, then dip it in clean engine oil. Squeeze out carefully any excess oil.
Replace the cartridge only if visibly worn out.

7.4.3 Spark plug maintenance

For both models of generating sets, use spark plug models BP6ES, BPR6ES (NGK), W20EP-U, W20EPR-U (ND) or else spark plugs made by other manufacturers but compatible with the above.
Never use spark plugs with a different temperature degree from those listed above.

- Take the cap off the spark plug (Fig.36 Ref.2) and using the special wrench take out the plug.
- Perform a visual inspection. Replace in case of obvious wear or if the insulator is broken or cracked.
- Use a steel brush to clean the spark plug, if it can be used again.
- Use a thickness gauge to measure the distance between the electrodes. The right distance should be between 0.7 and 0.8 mm (Fig. 37).



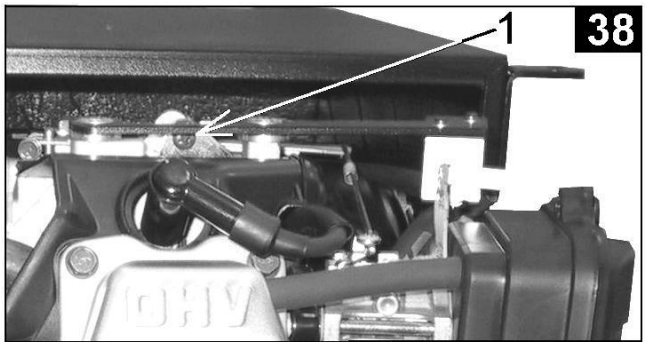
- Correct the distance if necessary, bending the side electrode.
- Make sure that the spark plug washer is in good condition and then screw back on by hand to make sure that it is correctly put back in place. Finally, tighten to the right torque using the special wrench (see instructions in the engine user and maintenance manual).

INFORMATION ***When assembling a new spark plug, tighten by 1/2 turn after the spark plug has compressed the sealing washer.***
If you put back the old plug after having removed it, tighten it by 1/4 turn after it has compressed the sealing washer.

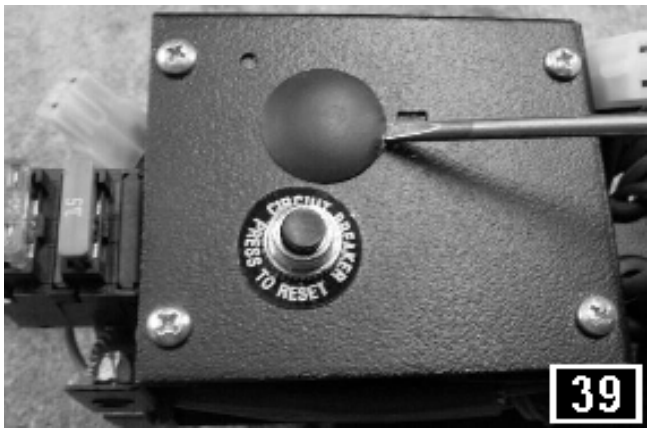
WARNING ***The spark plug must be tightened firmly. A badly positioned spark plug may become very hot and damage the engine.***

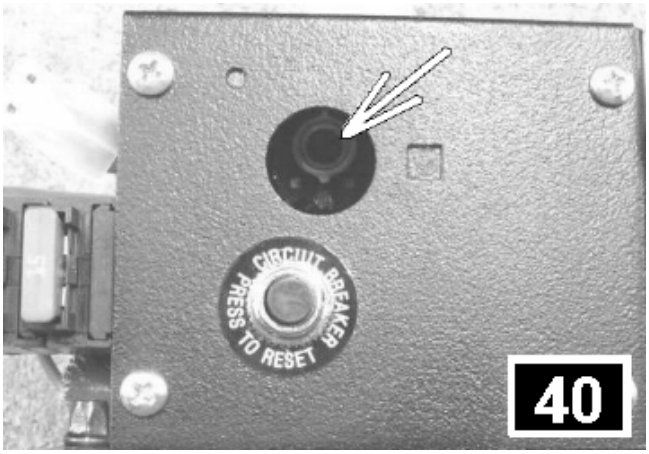
7.4.4 Voltage adjustment

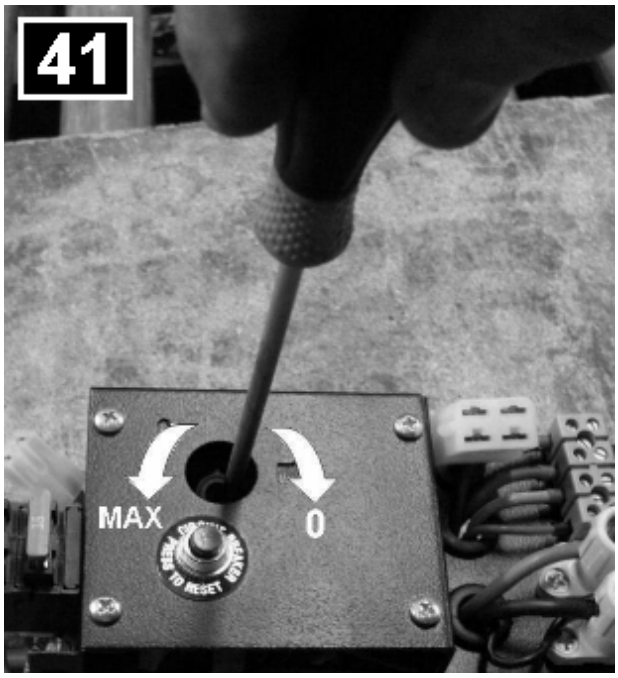
Adjust the voltage when the engine is hot without any applied load and the generating set is running.
Check the voltage of the generating set using a voltmeter via a 230 V vehicle socket. The voltage must be between 230 V and 245 V without any connected user.
If different values are measured, it will be necessary to set the right values by working on the engine rpm adjustment screw (Fig.38 Ref.1).
Turn the screw clockwise to increase the engine rpm and consequently, the voltage.
Turn the screw counter-clockwise to decrease the engine rpm and consequently, the voltage.



7.4.5 Adjusting the choke







The choke operates at 1 and the 3 rd attempt to start and has a response time of 2 sec.
If you want to vary the operating time of action as in Fig. 39 - 40 - 41.
The adjustment can vary from 1 to 3 seconds

8 ROUTINE MAINTENANCE SCHEDULE

ROUTINE MAINTENANCE SCHEDULE To be performed after the period of time or the number of running hours listed here, whichever the earlier.		Every use	First Month or 20 hours	Every 3 Months or 50 hours	Every 6 Months or 100 hrs	Every 12 Mths or 300 hrs
Engine Oil	Level check	■				
	Replacement		■ (2)	■ (2)		
Air Filter	Clean and replace if necessary		(1)■(2)			
Fuel Filter and Tank	Clean and replace if necessary					■ (2)
Spark plug	Clean and replace if necessary			■ (2)		
Valve Adjustment	Check - Adjust					■ (2)
Fuel Pipe	Check for leaks or cracks					■ (2)
Muffler	Check for leaks or cracks					■ (2)
	Clean and replace spark screen if necessary		■ (2)		■ (2)	
Air Choke Valve	Check correct operation				■ (2)	
Engine rpm or Frequency	Check - Adjust				■ (2)	
Vibration Damper Suspension Points	Check – Replace if necessary					■ (2)

NOTES: (1) Clean more frequently if you use it in a very dusty environment.
(2) These operations must be performed by specialised personnel only.

9 PROLONGED INACTIVITY

WARNING

INFORMATION

When the generator remains idle for at least three weeks, old unleaded petrol sediments could build up inside the carburettor. These sediments can seriously damage the engine and it is therefore COMPULSORY that the carburettor be completely emptied prior to a long period of non-use: do this by turning off the fuel tap and running the generator set until it stops.
It is also essential that you never use old unleaded petrol, as it can undergo chemical modifications and seriously damage the engine.
Failure to observe these instructions automatically renders the WARRANTY NULL AND VOID.

10 DISMANTLING

Should you have to dismantle the generating set, contact specialised companies.

11 RECOMMENDED FIRE-FIGHTING EQUIPMENT

In case of fire, never open the generating set casing and use only approved type fire extinguishers.

DANGER ***Never use water to put out flames in the generating set.***

GENERAL WARRANTY TERMS

TELAIR guarantees its products against any construction material and/or manufacturing faults and defects.

The right to warranty cover for new engines is valid for a period of 24 months from the time of handing over to the end user, or for a maximum of 1000 operating hours, whichever limit is reached first. In all cases the warranty period shall end no later than 26 months (28 months if delivered outside of Europe) after ex factory delivery.

For electric and hydraulic components, pipes, belts, sealing elements, injection nozzles, clutches, drives, the warranty term is 12 months from the time of handing over to the end user, or a maximum of 1000 operating hours, whichever limit is reached first. In all cases the warranty period shall end no later than 14 months (16 months if delivered outside of Europe) after ex factory delivery.

In any case, the costs of lubricants and consumables shall be charged.
Any transport expenses shall have to be covered by the purchaser; the same applies to any expenses connected with inspections requested by the customer and accepted by ***TELAIR***.

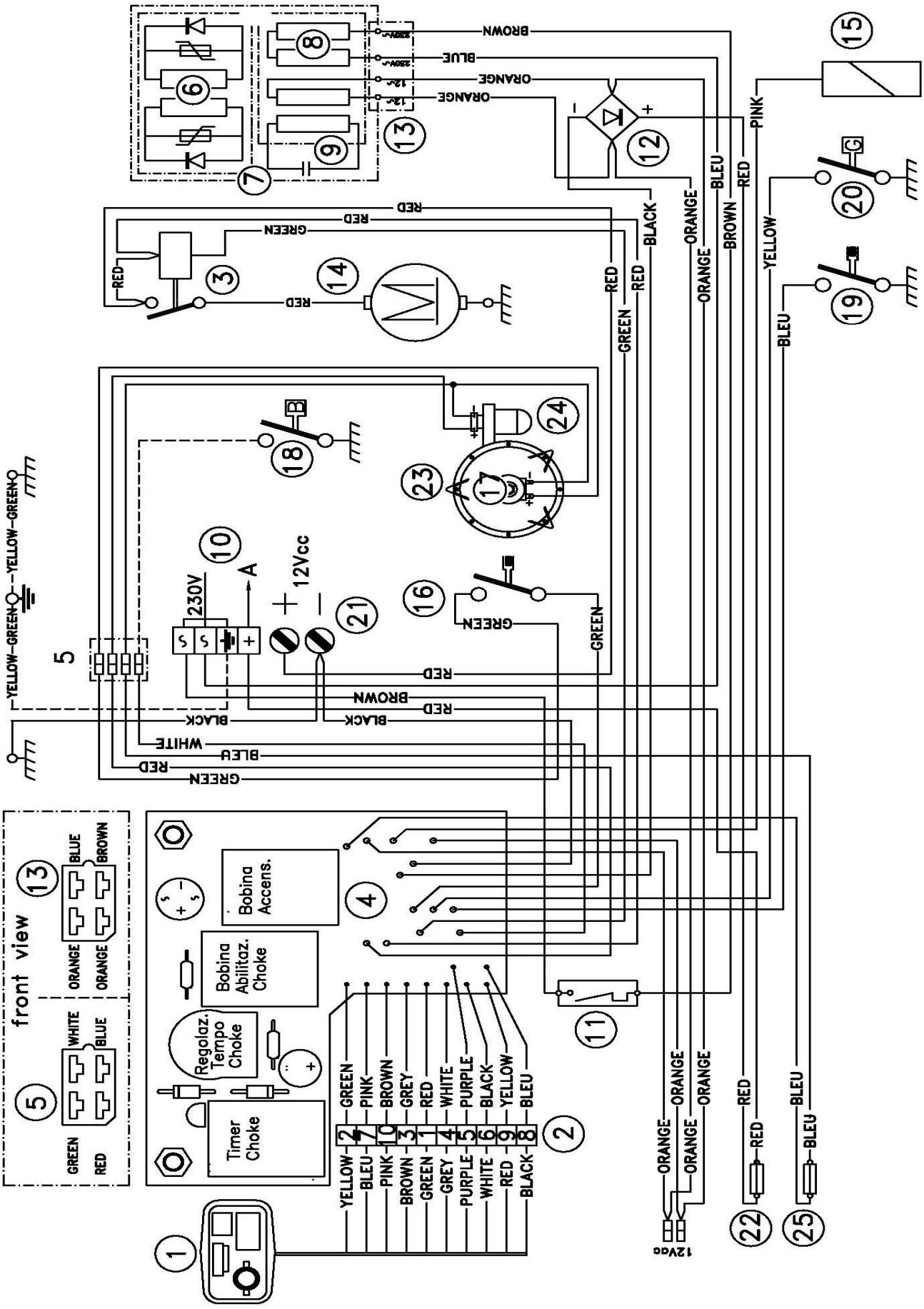
The manufacturer's warranty shall only be valid if:

- the customer has carried out all routine maintenance according to the recommended schedule and has promptly visited the nearest after-sale centre if required.
- the customer can produce a document showing the date of sale (invoice or receipt).
  Such document will have to be kept with care and be intact when produced to the ***TELAIR*** After-Sales centre on requesting service.

In any case, the purchaser shall not be entitled to:

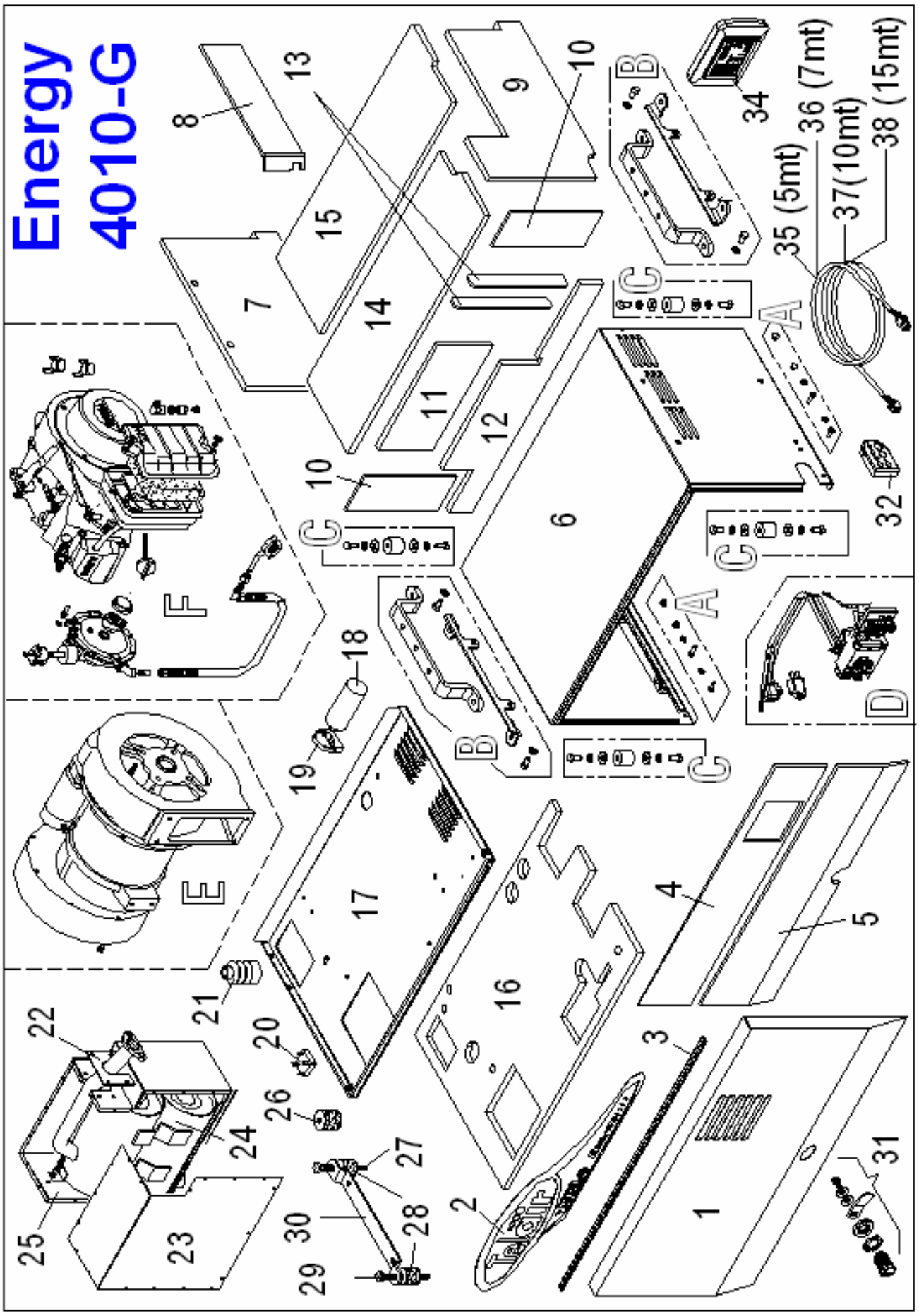
- terminate the contract;
- claim damages to persons or property;
- ask that the warranty be extended in the event of product defects or malfunctioning.

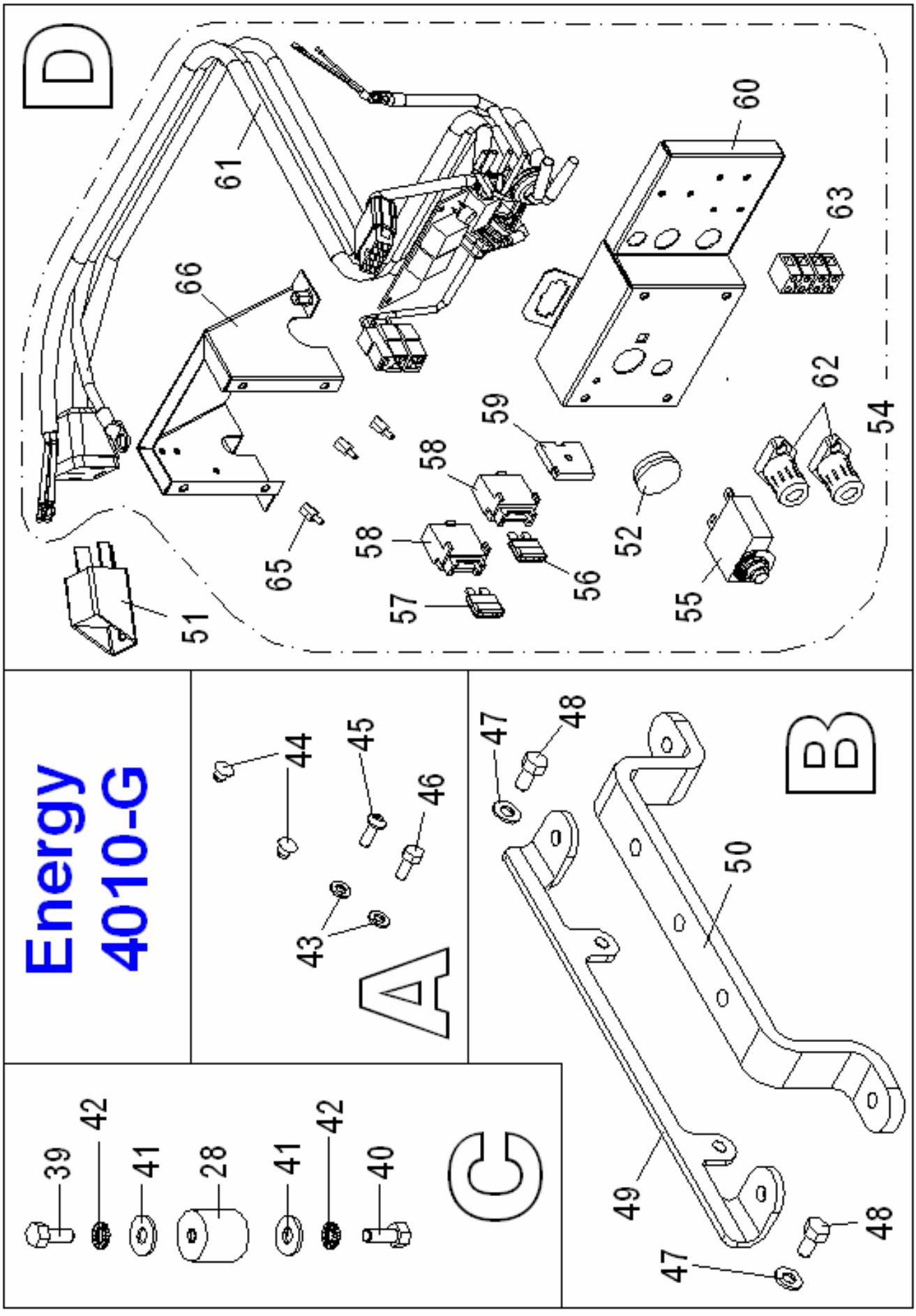
WIRING DIAGRAM ENERGY 4010 G



Pos.	Description	Pos.	Description
1	Electronic control panel	14	Starter
2	Electronic control panel connector	15	Ignition coil
3	Startup relay	16	Choke Enabling Thermostat
4	Electronic control board	17	Automatic air electromagnet
5	Gas wiring connector	18	Fuel reserve
6	Rotor	19	Engine temperature thermostat
7	Alternator	20	Low oil level float
8	Stator	21	Startup battery connection terminals
9	Condenser	22	Diode bridge protection fuse
10	Power connection terminal board	23	Pressure reducer
11	Thermal switch	24	GAS solenoid valve
12	Diode bridge	25	GAS Wiring Protection Fuse
13	Alternator Connector	A	Battery charger terminal

DRAWING FOR SPARE PARTS LIST ENERGY 4010 G

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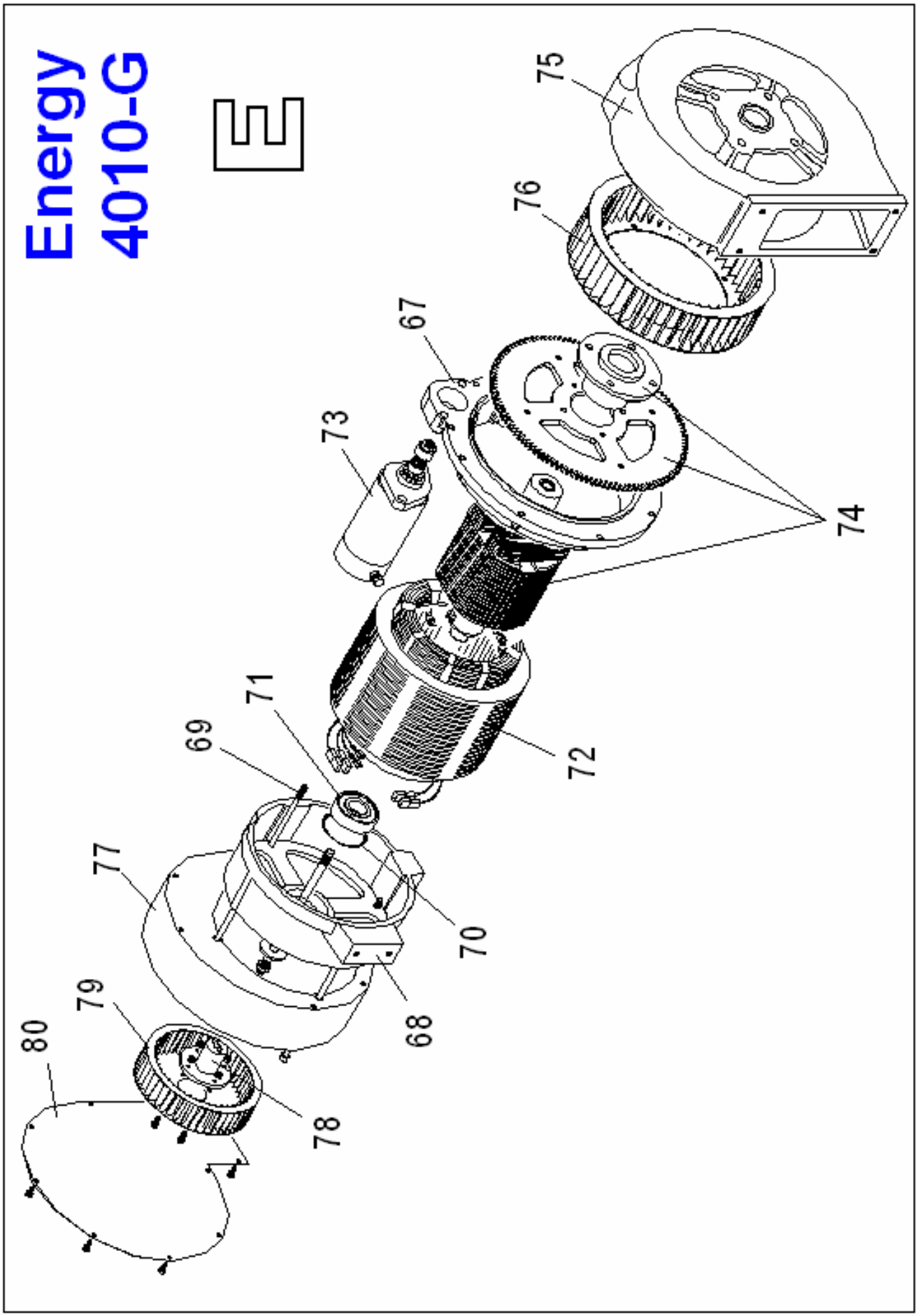
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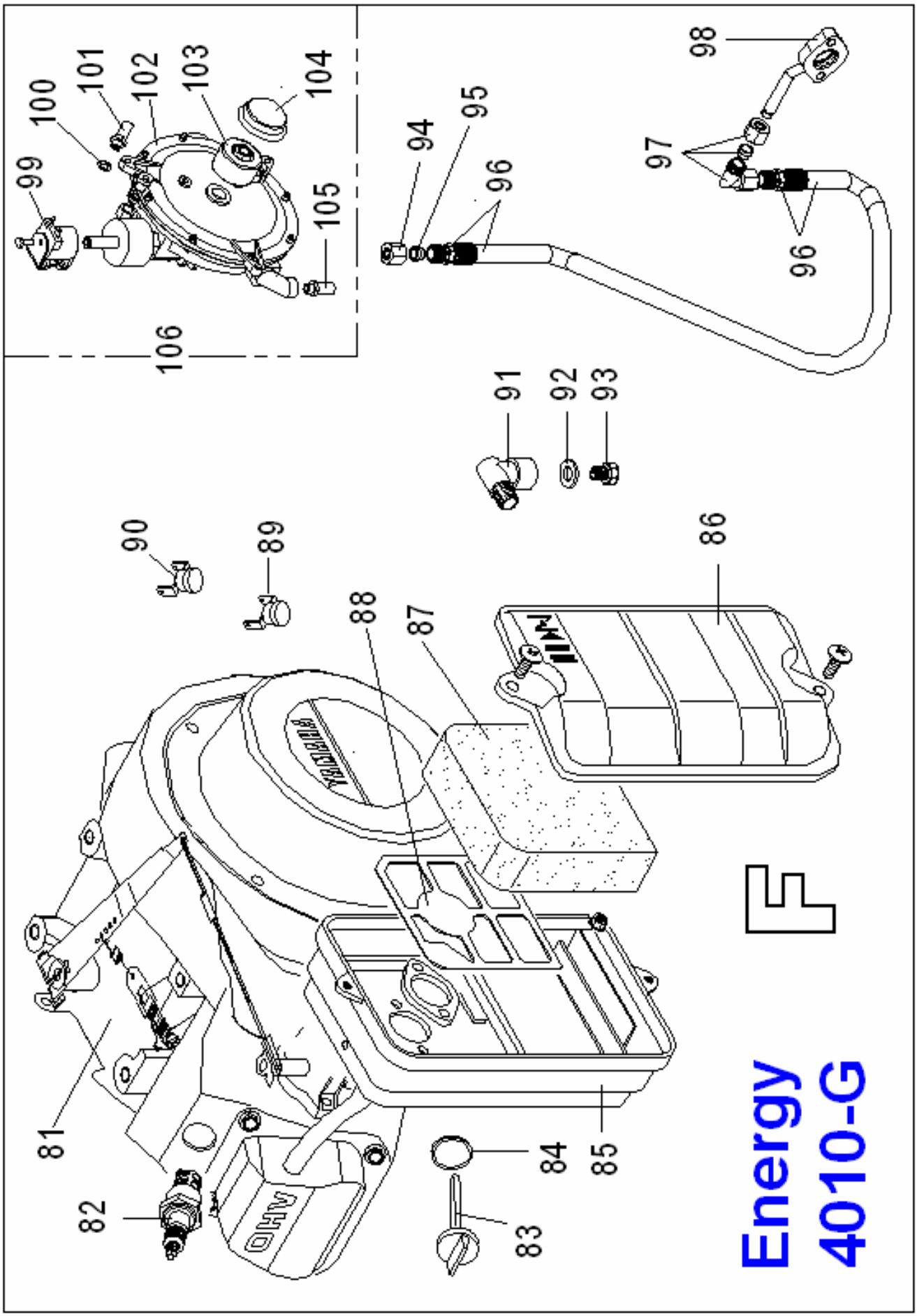
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Pos.	Code	Q.tà	Descrizione	Dèsignation	Denomination
			Description	Bezeichnung	Descripcion
1	04698	N. 1	Sportello	Tôle de fermeture de porte	Afdekplaat deurtje
			Door closing plate	Türblech	Chapa cierre puerta
2	04763	N. 1	Adesivo Sportello	Image adhésive de porte du boî-tier	Zelfklevend beeld van gevaldeur
			Adhesive image of case door	Anhaftendes Bild der Falltür	Imagen adhesiva de la puerta
3	01258	1 mt	Guarnizione Sportello	Joint de porte du boîtier	Afdichting van deur van
			Gasket of case door	Dichtung der Tür	Junta de puerta
4	02680	N. 1	Isolante alto Sportello	Isulation de porte du boîtier	Isulation van deur van
			Isulation of case door	Isulation der Tür	Isulation de puerta
5	02676	N. 1	Isolante Basso Sportello	Le bas d'Isulation de porte du boîtier	Isulation laag van gevaldeur
			Isulation low of case door	Isulation Tief der Falltür	Bajo de Isulation de la puerta
6	04555	N. 1	Cofano superiore	Capot supérieur	Bovenste kap
			Upper cowling	Obere Haube	Capo superior
7	04586	N. 1	Isolante Sinistro Cofano	Isolation Gauche Capot	Isolatie links voor kap
			Left hood insulation	Isolierung links für Haube	Aislante Izquierdo Capó
8	04589	N. 1	Isolante Aletta DX	Isolation DX Capot	Isolatie links DX voor kap
			hood DX insulation	Isolierung links DX für Haube	DX Izquierdo Capó
9	04585	N. 1	Isolante Destro Cofano	Isolation Droite Capot	Isolatie rechts voor kap
			Right hood insulation	Isolierung rechts für Haube	Aislante Derecho Capó
10	02666	N. 2	Isolante posteriore Alette	Isolante ailerons arrière	Isolerende achter vinnen
			Insulating rear fins	Isolier Heckflossen	Aislante aletas traseras
11	02667	N. 1	Isolante Posteriore Alto	Toit postérieur d'isulation	Later isulationdak
			Posterior isulation roof	Hinteres isulation Dach	Azotea posterior del isulation
12	04584	N. 1	Isolante Posteriore Basso	Toit postérieur d'isulation	Later isulationdak
			Posterior isulation roof	Hinteres isulation Dach	Azotea posterior del isulation
13	02664	N. 2	Isolante Rompiflusso	Grange portes isolation	staldeuren isolatie
			Posterior isulation roof	Stalltüren Isolierung	Granero aislamiento puertas
14	04216	N. 1	Isolante Anteriore Tetto	Toit avant d'isulation	Voor isulationdak
			Front isulation roof	Vorderes isulation Dach	Azotea delantera del isulation
15	04588	N. 1	Isolante Posteriore Cofano	Isolation Arrière Capot	Isolatie achter voor kap
			Rear isulation roof	Isolierung hinten für Haube	Aislante Trasero Capó

Pos.	Code	Q.tà	Descrizione Description	Dèsignation Bezeichnung	Denomination Descripcion
16	04212	N. 1	Isolante Basamento Base insulation	Isolation Base Isolierung für Grundrahmen	Isolatie voor onderstel Aislante Base
17	04554	N. 1	Basamento cassa Case base	Base de la caisse Kasten-Grundrahmen	Onderstel kast Base caja
18	01997	N. 1	Condensatore 18 µF Condenser 18 µF	Condensateur 18 µF Kondensator 18 µF	Condensator 18 µF Condensador 18 µF
19	00653	N. 1	Collare per tubo 25/60 Collar for pipe 25/60	Collier pour tuyau 25/60 Schelle für 25/60 Rohr	Kraagring voor pijp 25/60 Collar para tubo 25/60
20	01251	N. 1	Diodo ponte raddrizzatore Bridge rectifier diode	Diode redresseur en pont Gleichrichterbrückendiode	Diode gelijkrichterbrug Diodo puente rectificador
21	02046	N. 1	Gommino protezione ponte di Diodi Diode bridge protection grommet	Protection en caoutchouc du pont de diodes Gummiteil zum Schutz der Dio-denbrücke	Beschermrubbertje gelijkrichter-brug Proteccion de caucho puente de diodos
22	02186	N. 1	Piastrina di scarico Exhaust plate	Plaquette d'échappement Auslassplatte	Uitlaatplaatje Chapa de descarga
23	02185	N. 1	Chiusura scatola marmitta Muffler box closure	Fermeture du boitier du pot d'èchappement Verschluss Schalldampferge-hause	Afdekking knaldemperkast Cierre caja silenciador
24	02408	N. 1	Marmitta Muffler	Pot d'échappement Auspufftopf	Knaldemper Silenciador de escape
25	04065	N. 1	Scatola marmitta Muffler box	Boitier du pot d'échappement Schalldampfergehause	Knaldemperkast Caja silenciador
26	01443	N. 1	Antivibrante Vibration damper	Anti-vibrations Schwingungsdämpfer	Trillingsdemper Silenciador
27	03584	N. 2	Vite M8x20 STCE Screw M8x20 STCE	Vis M8x20 STCE Schraube M8x20 STCE	Schroef M8x20 STCE Tornillo M8x20 STCE
28	00632	N. 6	Antivibrante Vib.damper ANTIOIL	Anti-vibr. 30x30 I 8MA FF SH 45 ANTIHUILE Schwing.bdämpf. 30x30 I 8MA FF SH 45 ÖLABW.	Trillingsdemp. 30x30 I 8MA FF SH 45 OLIEWEREND Silenc. 30x30 I 8MA FF SH 45 ANTIACEITE
29	03103	N. 2	Vite M8x14 TE Screw M8 x 14 TE	Vis M8 x 14 TE Schraube M8 x 14 TE	Schroef M8 x 14 TE Tornillo M8 x 14 TE

Pos.	Code	Q.tà	Descrizione Description	Dèsignation Bezeichnung	Denomination Descripcion
30	02184	N. 1	Staffa fissaggio motore Engine fastening bracket	Bride de fixation du moteur Motor-Befestigungsbugel	Bevestigingsbeugel motor Abrazadera sujeciòn motor
31	01224	N. 1	Serratura Lock	Serrure Schloss	Slot Cerradura
32	03805	N. 1	Tassello Portacavi Carburante Fuel Cable Holder	Serre-câbles Carburant Kabelschelle Kraftstoff	Kabeldoorvoer Brandstof Taco Portacables Carburante
33	00163	N. 1	Filtro benzina Fuel filter	Filtre essence Filter	Benzinefilter Filtro
34	03789	N. 1	Pannello di controllo ENERGY ENERGY control panel	Tableau/contrôle ENERGY Bedienpanel ENERGY	Schakelpaneel ENERGY Panel de control ENERGY
35	03796	N. 1	Cavo 5 mt da generatore a Pannello di controllo 5 m cable from generating set to control panel	Câble 5 m du Générateur au Panneau de Contrôle 5 m Kabel von Generator zu Bedienpanel	5 m kabel van generator naar bedieningspaneel Cable 5 m. de generador a panel de control
36	03797	optional	Cavo 7 mt da generatore a Pannello di controllo 7 m cable from generating set to control panel	Câble 7 m du générateur au Panneau de Contrôle 7 m Kabel vom Generator zum Bedienpanel	7 m kabel van generator naar bedieningspaneel Cable 7 m. de generador a panel de control
37	03798	optional	Cavo 10 mt da generatore a Pannello di controllo 10 m cable from generating set to control panel	Câble 10 m du générateur au Panneau de Contrôle 10 m Kabel vom Generator zum Bedienpanel	10 m kabel van generator naar bedieningspaneel Cable 10 m. de generador a panel de control
38	03799	optional	Cavo 15 mt da generatore a Pannello di controllo 15 m cable from generating set to control panel	Câble 15 m du générateur au Panneau de contrôle 15 m Kabel vom Generator zum Bedienpanel	15 m kabel van generator naar bedieningspaneel Cable 15 m. de generador a panel de control
39	00578	N. 4	Vite M 8x16 UNI 5739 Screw M 8x16 UNI 5739	Vis M 8x16 UNI 5739 Schraube M 8x16 UNI 5739	Schroef M 8x16 UNI 5739 Tornillo M 8x16 UNI5739
40	00854	N. 4	Vite M8x20 TE Screw M8 x 20 TE	Vis M8 x 20 TE Schraube M8 x 20 TE	Schroef M8 x 20 TE Tornillo M8 x 20 TE
41	00374	N. 8	Rondella 8 x 24 UNI 6593 Washer 8 x 24 UNI 6593	Rondelle 8 x 24 UNI 6593 Scheibe 8 x 24 UNI 6593	Onderlegring 8 x 24 UNI 6593 Arandela 8 x 24 UNI 6593

Pos.	Code	Q.tà	Descrizione Description	Dèsignation Bezeichnung	Denomination Descripcion
42	02586	N. 8	Rondella 8 UNI 8842A Washer 8 UNI 8842A	Rondelle 8 UNI 8842A Scheibe 8 UNI 8842A	Onderlegring 8 UNI 8842A Arandela 8 UNI 8842A
43	00967	N. 4	Rondella 6 UNI 6592 Washer 6 UNI 6592	Rondelle 6 UNI 6592 Scheibe 6 UNI 6592	Onderlegring 6 UNI 6592 Arandela 6 UNI 6592
44	04255	N. 4	Tappo in Gomma M8 Stopper in rubber M8	Taquet en caoutchouc M8 Stopper im Gummi M8	Kurk in rubber M8 Tapón en caucho M8
45	01772	N. 2	Vite M6x16 TBCE Screw M6 x 16 TBCE	Vis M6 x 16 TBCE Schraube M6 x 16 TBCE	Schroef M6 x 16 TBCE Tornillo M6 x 16 TBCE
46	00642	N. 2	Vite M6x12 TE Screw M6 x 12 TE	Vis M6 x 12 TE Schraube M6 x 12 TE	Schroef M6 x 12 TE Tornillo M6 x 12 TE
47	02644	N. 4	Rondella 8 x 18 DIN 6796 Washer 8 x 18 DIN 6796	Rondelle 8 x 18 DIN 6796 Scheibe 8 x 18 DIN 6796	Onderlegring 8 x 18 DIN 6796 Arandela 8 x 18 DIN 6796
48	03103	N. 4	Vite M8x14 TE Screw M8 x 14 TE	Vis M8 x 14 TE Schraube M8 x 14 TE	Schroef M8 x 14 TE Tornillo M8 x 14 TE
49	04465	N. 2	Staffa Fissaggio Generatore Bracket Implantation of the Generator	Étrier Fixation du Générateur Steigbügel-Einpflanzung des Generators	De Inplanting van de stijgbeugel van de Generator Implantación del estribo del generador
50	04547	N. 2	Staffa ancoraggio 2009 Anchor clamp 2009	Bride de fixation 2009 Befestigungsbügel 2009	Verankeringsbeugel 2009 Estribo de anclaje 2009
51	00093	N. 1	Relè 12 V 70 A 12 V 70 A Relay	Relais 12 V 70 A Relais 12 V 70 A	Relais 12V 70A Rele 12 V 70 A
52	04218	N. 1	Tappo Cap	Bounchon Kappe	Dop Tapòn
54	04219	N. 1	Cablaggio completo En4010G Complete wiring En4010G	Accomplissez le câblage En4010G Schließen Sie Verdrahtung ab En4010G	Volledige bedrading En4010G Termine el cableado En4010G
55	01929	N. 1	Protezione termica Thermal protection	Protection thermique Thermoschutz	Thermische beveiliging Protección térmica
56	02688	N. 1	Fusibile 4A 4A fuse	Fusible 4A 4A Sicherung	Zekering 4A Fusible 4A

Pos.	Code	Q.tà	Descrizione Description	Dèsignation Bezeichnung	Denomination Descripcion
57	01607	N. 1	Fusibile 15A 15A fuse	Fusible 15A 15A Sicherung	Zekering 15A Fusible 15A
58	01605	N. 2	Potafusibile Fuse carrier	Tableau des fusibles Sicherungshalter	Zekeringhouder Portafusible
59	01603	N. 1	Piastra fissaggio Potafusibile Fastening plate for fuse carrier	Plaque de fixation tableau des fusibles Befestigungsplatte Sicherungshalter	Bevestigingsplaat zekeringhouder Placa fijación Portafusible
60	03854	N. 1	Scatola di Comando Control box	Boîtier de Commande Steuerbox	Besturingskast Caja de Mando
61	05724	N. 1	Cablaggio con scheda elettronica Wiring with electronic board	Câblage avec carte électronique Verkabelung mit elektronischer Platine	Bedrading met elektronische kaart Cableado con tarjeta electrónica
62	03779	N. 2	Morsetto Legrand 25mmq Terminal Legrand 25sq.mm	Borne LEGRAND 25 mm2 Klemme LEGRAND 25mmq	Aansluitklem LEGRAND 25mmq Borne LEGRAND 25mmq
63	01139	N. 1	Morsetto Muller 3/12 Terminal Muller 3/12	Borne Muller 3/12 Klemme Muller 3/12	Aansluitklem Muller 3/12 Mordaza Muller 3/12
64	04160	N. 1	Kit Guida corda avviamento a strappo Rope guide kit for recoil starting system	Kit Guide câble de démarrage par lanceur Kit Führung für Seilzugstarter-Seil	Geleiderset trekstartkoord Kit Guía cuerda de arranque de tiro
65	03440	N. 3	Distanziale Esagonale M3x8 Hexagonal M3x8 spacer	Entretoise Hexagonale M3x8 Distanzstück Sechskant M3x8	Zeskantafstandshouder M3x8 Separador Hexagonal M3x8
66	03853	N. 1	Fondo Scatola di Comando Control box bottom	Base Boîtier de Commande Boden der Steuerbox	Bodem besturingskast Fondo escala de Mando
67	03833	N. 1	Fusione ATR 4000/B1 Casting ATR 4000/B1	Moulage ATR 4000/B1 Gussteil ATR 4000/B1	Gietwerk ATR 4000/B1 Fundicion ATR 4000/B1
68	04067	N. 1	Fusione ATR 4000/A1 Casting ATR 4000/A1	Moulage ATR 4000/A1 Gussteil ATR 4000/A1	Gietwerk ATR 4000/A1 Fundicion ATR 4000/A1
69	01086	N. 4	Vite M6x160 UNI5931 Screw M6x160 UNI5931	Vis M6x160 UNI5931 Schraube M6x160 UNI5931	Schroef M6x160 UNI5931 Tornillo M6x160 UNI5931
70	02050	N. 1	Rondella alternatore Alternator washer	Rondelle de l'alternateur Scheibe der Lichtmaschine	Onderlegring dynamo Arandela alternador

Pos.	Code	Q.tà	Descrizione Description	Dèsignation Bezeichnung	Denomination Descripcion
71	02051	N. 1	Cuscinetto alternatore	Palier de l'alternateur	Lager dynamo
			Alternator bearing	Lager der Lichtmaschine	Cojinete alternador
72	05035	N. 1	Statore alternatore	Stator de l'alternateur	Stator dynamo
			Alternator stator	Stator der Lichtmaschine	Estator alternador
73	00299	N. 1	Motore EL. 12 V 0,30 kW	Moteur él. 12 V 0,30 kW	El. motor 12 V 0,30 kW
			El. Motor 12 V 0.30 kW	Elektromotor 12 V 0,30 kW	Motor el. 12 V 0,30 kW
74	04397	N. 1	Rotore alternatore + Corona + Mozzo con Flangia	Rotor alternateur + Couronne + Moyeu avec bride	Rotor wisselstroomdynamo + Krans + Naaf met flens
			Rotore alternatore + Corona + Mozzo con Flangia	Rotor alternateur + Couronne + Moyeu avec bride	Rotor wisselstroomdynamo + Krans + Naaf met flens
75	02717	N. 1	Fusione ATR 4000/B1	Moulage ATR 4000/B1	Gietwerk ATR 4000/B1
			Casting ATR 4000/B1	Gussteil ATR 4000/B1	Fundicion ATR 4000/B1
76	03574	N. 1	Ventola	Ventilateur	Ventilator
			Fan	Lufterrad	Ventilador
77	02183	N. 1	Convogliatore alternatore	Convoyeur alternateur	Geleider wisselstroomdynamo
			Alternator conveyor	Luftleitblech Lichtmaschine	Transportador alternador
78	02614	N. 1	Distanziale ventola	Entretoise du ventilateur	Afstandshouder ventilator
			Fan spacer	Distanzstuck Lufter	Riostra ventilador
79	03573	N. 1	Ventola 160	Ventilateur 160	Ventilator 160
			Fan 160	Lufterrad 160	Ventilador 160
80	02630	N. 1	Chiusura convogliatore	Fermeture du convoyeur	Afdekking geleider
			Conveyor closure	Verschluss Luftleitblech	Cierre transportador
81	05120	N. 1	Motore YAMAHA MZ 250	Moteur YAMAHA MZ 250	YAMAHA motor MZ 250
			YAMAHA motor MZ 250	Motor YAMAHA MZ 250	Motor YAMAHA MZ 250
82	02743	N. 1	Candela	Bougie	Bougie
			Plug	Kerze	Bujia
83	02732	N. 1	Tappo olio	Bouchon de l'huile	Oliedop
			Oil cap	Ölschraube	Tapon aceite
84	03432	N. 1	Guarniz. ALLUMINIO	Joint ALUMINIUM	Afdichting ALUMINIUM
			Gasket ALUMINUM	Dichtung ALUMINIUM	Junta ALUMINIO
85	02727	N. 1	Scatola filtro aria	Boitier du filtre à air	Behuizing luchtfilter
			Air filter box	Luftfiltergehause	Cajà filtro aire

Pos.	Code	Q.tà	Descrizione Description	Dèsignation Bezeichnung	Denomination Descripcion
86	02730	N. 1	Coperchio filtro aria	Couvercle du filtre à air	Kap luchfilter
			Air filter lid	Luftfilterdeckel	Tapa filtro aire
87	02729	N. 1	Filtro aria	Filtre à air	Luchtfilter
			Air cleaner	Luftfilter	Filtro aire
88	02728	N. 1	Supporto filtro aria	Support du filtre à air	Steun luchtfilter
			Air filter support	Luftfilteraufnahme	Soporte filtro aire
89	02314	N. 1	Termostato 45°	Thermostat 45°	Thermostaat 45°
			Thermostat 45°	Thermostat 45°	Termostato 45°
90	01128	N. 1	Termostato 90°	Thermostat 90°	Thermostaat 90°
			Thermostat 90°	Thermostat 90°	Termostato 90°
91	00478	N. 1	Raccordo 90° 1/8 MF	Raccord 90° 1/8 MF	Koppeling 90° 1/8 MF
			1/8 MF union elbow	Anschlussstuck 90° 1/8 MF	Empalme 90° 1/8 MF
92	00931	N. 1	Rondella in alluminio	Rondelle en aluminium	Onderlegring van aluminium
			Aluminium washer	Alu-Scheibe	Arandela aluminio
93	00810	N. 1	Tappo	Bouchon	Dop
			Cap	Kappe	Tapón
94	03423	N. 1	Ghiera di serraggio	Douille de serrage	Klemmoer
			Locking ring nut	Befestigungsschraube	Virola de apretado
95	03422	N. 1	Anello di serraggio	Bague de serrage	Klemring
			Locking ring	Arretierring	Anillo de apretado
96	03855	N. 1	Tubo raccordo GAS	Tuyau de raccord GAZ	GAS aansluitpijp
			GAS union pipe	GAS Anschlussleitung	Tubo conexión GAS
97	03834	N. 1	Raccordo GAS a 90°	Raccord GAZ à 90°	GAS aansluiting 90°
			GAS union elbow	GAS Anschluss 90°	Conexión GAS a 90º
98	01351	N. 1	Miscelatore Gigleur 2,7	Mélangeur Gigleur 2,7	Menger Gigleur 2,7
			Gicleur 2.7 mixer	Mischer Gigleur 2,7	Mezclador Gigleur 2,7
99	01344	N. 1	Bobina GAS 12 V	Bobine GAZ 12 V	Gasspoel 12 V
			GAS 12 V coil	Spule GAS 12 V	Capuchón GAS 12 V
100	00931	N. 4	Rondella in alluminio	Rondelle en aluminium	Onderlegring van aluminium
			Aluminium washer	Alu-Scheibe	Arandela aluminio
101	05570	N. 1	Raccordo ingresso GAS	Raccord d'admission GAZ	GAS inlaatkoppeling
			GAS input fitting	Anschlusss Eingang GAS	Conexión entrada GAS
102	05079	N. 1	Riduttore Pressione GAS	Manodétendeur GAZ	GAS drukregelaar
			GAS pressure reducer	GAS Druckreduzierer	Reductor Presión GAS

Pos.	Code	Q.tà	Descrizione Description	Dèsignation Bezeichnung	Denomination Descripcion
103	02292	N. 1	Bobina di starter Starter coil	Bobine d'allumage Starterspule	Starterspoel Bobina de starter
104	04548	N. 1	Tappo Cap	Bouchon Kappe	Dop Tapón
105	04042	N. 1	Raccordo uscita GAS GAS output fitting	Raccordo uscita GAS GAS output fitting	GAS uitlaatkoppeling Conexión salida GAS
106	05080	N. 1	Riduttore Pressione GAS - completo GAS pressure reducer - comple-te	Manodétendeur GAZ - complète GAS Druckreduzierer - komplett	GAS drukregelaar - compleet Reductor Presión GAS completo

Notes

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Group TELECO

TELECO SPA

ITALY

Via E. Majorana 49
48022 LUGO (RA)
Tel. + 39 0545 25037
Fax. + 39 0545 32064
mail: info@telecogroup.com
www.telecogroup.com
Assistenza 899 899 856

TELECO GmbH

DEUTSCHLAND

82041 Deisenhofen
Tel. 08031 98939
Fax 08031 98949
telecogmbh@telecogroup.com
www.telecogroup.com

TELECO sas

FRANCE

3, Impasse des Iles
ZA La Maladière
07300 St Jean de Muzols
mail: contact@telecogroup.fr
www.telecogroup.fr

Telair srl
AIR CONDITIONER

ITALY

Via E. Majorana 49
48022 LUGO (RA)
Tel. + 39 0545 25037
Fax. + 39 0545 32064
mail: telair@telecogroup.com
www.telecogroup.com

IN EUROPE:

GREAT BRITAIN - SCAN TERIEUR LTD
30, The Metro Centre, Tolpits Lane - Watford,
Herts - England - WD18 9XG
Tel. 01923 800353 - Fax 01923 220358
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Tel. +31 (0) 341 722450 - Fax +31 (0) 341 722451
e-mail: info@karmantrading.eu
www.karmantrading.eu

FRANCE - TELECO SAS
3, impasse des ILES - ZA La Maladière
07300 St Jean de Muzols - France
TéL. 04 75 08 49 17 - Fax 09 70 32 83 00
contact@telecogroup.fr
www.telecogroup.fr
SERVICE COMMERCIAL:
Jean-Philippe Bleys
Tél. 02 48 58 03 67 - Fax. 02 48 58 35 85
teleco.telair@bleysetd.com
Service Technique:
Tél. 06 83 31 44 05 ou 04 75 08 28 25

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Polígono Industrial Can Roqueta 2, Calle De Can
Lletget, n°2 - 08202- SABADELL (Barcelona)
Tel. 937 457 054 - Fax 937 254 484
comercial@naucca.com www.naucca.com
Servicio técnico: Fills de Rocha i Lopez, S.L.
C/Goya, 4 - 08903 L'Hospitalet de Llobregat - Barcelona
Tel. 933 333 753 Fax 933 337 236
fillsrocha@fillsrocha.com

ÖSTERREICH - TELECO GmbH
82041 Deisenhofen - Deutschland
Tel. 0049 8031 98939 - Fax. 0049 8031 98949
telecogmbh@telecogroup.com
www.telecogroup.com
SERVICE 0900 94 94 70

DEUTSCHLAND - TELECO GmbH
82041 Deisenhofen
Tel. 08031 98939 - Fax 08031 98949
telecogmbh@telecogroup.com
www.telecogroup.com
Vertretung:
Zimmer - Technik für Mobile Freizeit
Raiffeisenstr. 6 - 64347 Griesheim
Tel. 06155 797873 - Fax 06155 797871
info@zimmer-mobiltechnik.de
SERVICE 08921129995

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