



Lamborghini
CALORECLIMA

AZIENDA CERTIFICATA ISO 9001



CALDAIA MURALE A GAS PER SANITARIO E RISCALDAMENTO
WALL-MOUNTING GAS BOILER FOR HOT WATER AND HEATING
CHAUDIÈRE MURALE À GAZ POUR LA PRODUCTION D'EAU CHAUDE SANITAIRE ET LE CHAUFFAGE
CALDERA MURAL DE GAS PARA AGUA SANITARIA Y CALEFACCIÓN
CALDEIRA MURAL A GÁS PARA PRODUÇÃO DE ÁGUA QUENTE SANITÁRIA E AQUECIMENTO
ΕΠΙΤΟΙΧΟΣ ΛΕΒΗΤΑΣ ΑΕΡΙΟΥ ΓΙΑ ΖΕΣΤΟ ΝΕΡΟ ΚΑΙ ΘΈΡΜΑΝΣΗ



TAURA 24 MC W TOP

cod. 3540C15/0 ediz. 11/2005

**ISTRUZIONI PER
L'USO
E LA MANUTENZIONE**

**INSTRUCTIONS
FOR USE,
INSTALLATION
AND MAINTENANCE**

**INSTRUCTIONS
D'UTILISATION,
D'INSTALLATION
ET D'ENTRETIEN**

**INSTRUCCIONES
PARA EL USO,
LA INSTALACIÓN Y EL
MANTENIMIENTO**

**INSTRUÇÕES DE
UTILIZAÇÃO
INSTALAÇÃO
E MANUTENÇÃO**

**ΟΔΗΓΙΕΣ
ΧΡΗΣΗΣ
ΕΓΚΑΤΑΣΤΑΣΗΣ
ΚΑΙ ΣΥΝΤΗΡΗΣΗΣ**



- This instruction booklet is an integral part of the product and must be carefully kept by the user for future reference.
- Installation and maintenance must be carried out by professionally qualified personnel, according to current regulations and the manufacturer's instructions.
- Incorrect installation or poor maintenance can cause damage or physical injury. The manufacturer declines any responsibility for damage caused by errors in installation and use or by failure to follow the manufacturer's instructions
- In case the unit breaks down and/or functions poorly, deactivate it, do not make any attempt to repair it or directly intervene. Contact professionally qualified personnel.
- Any repair/replacement of products must only be carried out by qualified professional personnel using exclusively genuine parts. Failure to comply with the above could affect the safety of the unit.
- This unit must only be used for the purpose for which it was designed. Any other use is considered improper and therefore hazardous.
- Packing materials must not be left within the reach of children as they are potentially hazardous.

Declaration of conformity

The manufacturer declares that this unit complies with the following EU directives:

- Gas Appliance Directive 90/396
- Efficiency Directive 92/42
- Low Voltage Directive 73/23 (amended by 93/68)
- Electromagnetic Compatibility Directive 89/336 (amended by 93/68)

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1. OPERATING INSTRUCTIONS

1.1 Introduction



Dear Customer,

Thank you for choosing **Taura 24 MC W TOP**, a LAMBORGHINI wall-mounting boiler featuring advanced design, cutting-edge technology, high reliability and quality construction. Please read this manual carefully since it provides important information on safe installation, use and maintenance.

TAURA 24 MC W TOP is a **high-efficiency** heat generator for heating and hot water production running on natural or liquefied petroleum gas, equipped with an open-flue burner with electronic ignition, airtight chamber with forced ventilation and a microprocessor control system.

1.2 Control panel

- 1 System temperature adjustment
- 2 Hot water temperature adjustment
- 3 Selector:

0	Off
	Summer (hot water only)
	Winter (heating + hot water)
RESET	Boiler restore
TEST	Operation in TEST mode

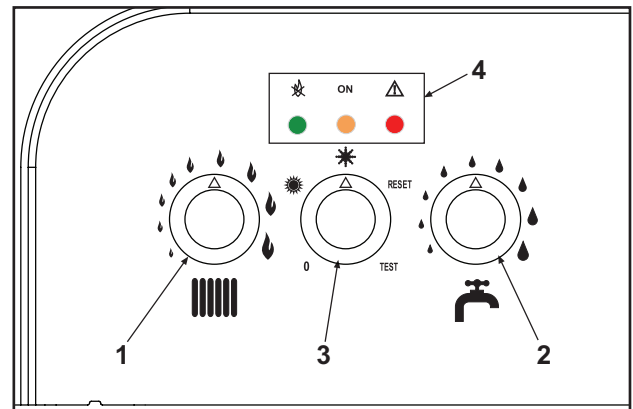



Fig. 1

- 4 LEDs indicating functional status and signalling trouble









 If the boiler is hooked up with the optional remote timer control, the system and hot water temperature adjustments can be made solely with the remote control.

Information during operation

During normal operation, the boiler diagnostics control sends information on the state of the boiler via the LEDs (4 - fig.1):

LED key

- On
- Off
-  Blinking (fast for trouble)

	ON 		
Red	Green	Yellow	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Boiler off
<input type="radio"/>		<input type="radio"/>	Boiler on stand-by
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Heating operation (burner on)
<input type="radio"/>	<input type="radio"/>		Operation in hot water mode (burner on)
			TEST mode operation

For other combinations, see chap. 3.4.



1.3 Turning on and off

Ignition

- Open the gas valve ahead of the boiler.
- Supply the unit with electricity.
Turn the selector 3 onto ❄️ (winter) or onto ☀️ (summer)
- Turn the heating and hot water knob onto the required temperatures.
- The boiler is ready to function automatically whenever hot water is drawn or the room thermostat calls for heating.



If after the ignition cycle the burners fail to ignite and the red LED comes on, turn the selector onto RESET for 1 second and then back onto ☀️ or onto ❄️. The controller will repeat the ignition cycle in the next 30 seconds. If the burners fail to ignite even after the third attempt, refer to chap. 3.1.



In case of an electrical power failure while the boiler is working, the burners will go out and re-ignite automatically when power is restored.

Turning off

Turn the selector onto 0.

When the boiler is turned off, the electronic card is still powered.

Hot water and heating operation are disabled, all the LEDs are off; but the antifreeze function stays on



The antifreeze system will not work if the electricity and/or gas supply to the unit are cut off. To avoid damage caused by freezing during long shutdowns in winter, it is advisable to drain all water from the boiler, the tap water and the system water; or drain off just the tap water and add a suitable antifreeze to the heating system, as prescribed in chap. 2.3.

1.4 Adjustments

Water system pressure adjustment

The filling pressure with the system cold, read on the boiler water gauge, must be about 1.0 - 1.5 bar. If the system pressure falls to values below the minimum, bring it back to the initial value by operating the filling cock (see fig. 7 part 74). At the end of the operation always close the filling cock.

2. INSTALLATION

2.1 General Instructions

BOILER INSTALLATION MUST ONLY BE PERFORMED BY QUALIFIED PERSONNEL, IN ACCORDANCE WITH ALL THE INSTRUCTIONS GIVEN IN THIS TECHNICAL MANUAL, THE PROVISIONS OF CURRENT LAW, THE PRESCRIPTIONS OF NATIONAL AND LOCAL STANDARDS AND THE RULES OF PROPER WORKMANSHIP.

2.2 Place of installation

This unit is an "open chamber" type model and can only be installed and operated in permanently ventilated rooms in accordance with the UNI-CIG 7129 standard.

Therefore the place of installation must be free of dust, flammable materials or objects or corrosive gases. The room must be dry and not subject to freezing.

The boiler is fitted to be installed on a wall and is equipped as standard with a set of brackets. The LEJ LINE plumbing kits also include a paper template to mark the drilling points on the wall if these kits are used. Secure the bracket to the wall and hook on the boiler. The wall fixing must ensure a stable and effective support for the generator.



If the unit is enclosed in furniture or mounted alongside, there must be space for removing the casing and for normal maintenance work.



2.3 Plumbing connections

The heating capacity of the unit should be previously established by calculating the building's heat requirement according to current regulations. The system must be equipped with all its components for it to work properly. It is advisable to install on-off valves between the boiler and heating system allowing the boiler to be isolated from the system if necessary.



The safety valve outlet must be connected to a funnel or collection pipe to prevent water flowing out onto the ground in the event of over-pressure in the heating circuit. If this is not done, and the drain valve trips and floods the room, the boiler manufacturer is not to be held responsible.

Do not use the water system pipes to earth electrical appliances.

Before installation, carefully wash all the pipes of the system to remove residues or impurities that could affect the unit's good working.

Make the connections to the corresponding connections as shown in fig. 6 in chap. IV and with the symbols on the unit. A plumbing kit is available on request.

Characteristics of the water system

In the presence of water harder than 25° Fr, we recommend the use of suitably conditioned water in order to avoid possible scaling in the boiler. Water treatment is indispensable in the case of very large systems or with frequent introduction of replenishing water in the system. If partial or total emptying of the system becomes necessary under these conditions, it is advisable to refill it with treated water.

Antifreeze system, antifreeze fluids, additives and inhibitors.

The boiler is equipped with an antifreeze system that turns on the boiler in heating mode when the system delivery water temperature falls under 6°C. The device will not come on if the electricity and/or gas supply to the unit are cut off. If it becomes necessary, it is permissible to use antifreeze fluid, additives and inhibitors only if the manufacturer of these fluids or additives guarantees they are suitable for this use and cause no damage to the heat exchanger or other components and/or materials of the boiler unit and system. It is prohibited to use generic antifreeze fluid, additives or inhibitors that are not expressly suited for use in heating systems and compatible with the materials of the boiler unit and system.

2.4 Gas connection



Before making the connection, ensure that the unit is arranged for operation with the type of fuel available and carefully clean all the pipes of the gas system to remove any residues that could affect good functioning of the boiler.

The gas must be connected to the relative connector (see fig. 7) in conformity with current standards, with rigid metal pipes or with continuous flexible s/steel wall tubing, placing a gas cock between the system and the boiler. Make sure that all the gas connections are tight.

The capacity of the gas meter must be sufficient for the simultaneous use of all equipment connected to it. The diameter of the gas pipe leaving the boiler does not determine the diameter of the pipe between the unit and the meter; it must be chosen according to its length and loss of head, in conformity with current standards.



Do not use the gas pipes to earth electrical appliances.



2.5 Electrical Connections

Connection to the electrical grid

The boiler must be connected to a single-phase, 230 Volt-50 Hz electric line.



The unit's electrical safety is only guaranteed when correctly connected to an efficient earthing system executed according to current safety standards. Have the efficiency and suitability of the earthing system checked by professionally qualified personnel. The manufacturer is not responsible for any damage caused by failure to earth the system.

The boiler is prewired and provided with a Y-cable and plug for connection to the electricity line. The connections to the grid must be made with a permanent connection and equipped with a bipolar switch whose contacts have a minimum opening of at least 3 mm, interposing fuses of max. 3A between the boiler and the line. It is important to respect the polarities (LINE: brown wire / NEUTRAL: blue wire / EARTH: yellow-green wire) in making connections to the electrical line. During installation or when changing the power cable, the earth wire must be left 2 cm longer than the others.



The user must never change the unit's power cable. If the cable gets damaged, switch off the unit and have it changed solely by professionally qualified personnel. When changing the cable use solely "HAR H05 VV-F" 3x0.75 mm² cable with a maximum outside diameter of 8 mm.

Room thermostat



CAUTION: THE ROOM THERMOSTAT MUST HAVE CLEAN CONTACTS. CONNECTING 230 V. TO THE TERMINALS OF THE ROOM THERMOSTAT WILL IRREPARABLY DAMAGE THE ELECTRONIC CARD.

When connecting a remote timer control or a timer switch, do not take the power supply for these devices from their cut-out contacts. Their power supply must be taken with a direct connection from the mains or with batteries, depending on the kind of device.

Access to the electrical terminal board

The terminal block is at the bottom of the boiler (see fig. 2)

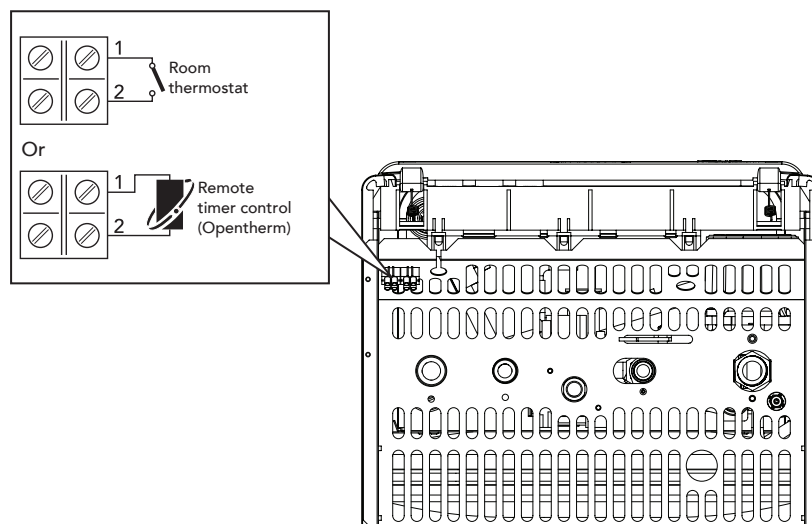


Fig. 2

2.6 Connection to the flue

The diameter of the flue connection pipe must not be less than that of the connection on the anti-backflow device. Starting from the anti-backflow device it must have a vertical section at least 50 cm long. Current standards must be complied with regarding the dimensioning and installation of the flues and connection pipe.



3. SERVICE AND MAINTENANCE

All adjustment, conversion, system start-up and maintenance operations described hereunder must be carried out solely by Qualified Personnel such as the personnel of the Local After-Sales Technical Service.

LAMBORGHINI declines any responsibility for damage or physical injury caused by unqualified and unauthorized persons tampering with the device.



The first ignition is free of charge and must be requested as directed on the sticker on the boiler.

3.1 Adjustments

Gas supply conversion

The unit can function with either Natural Gas or LPG and is factory-set for use with one of the two gases, as clearly shown on the packing and on the unit's dataplate. Whenever a different gas to that for which the unit is preset has to be used, a conversion kit will be required, proceeding as follows:

1. Replace the nozzles at the main burner, inserting the nozzles specified in the technical data table in chap. 4, according to the type of gas used
2. Adjust the burner minimum and maximum pressures (ref. relevant paragraph), setting the values given in the technical data chart for the type of gas used.
3. Edit the parameter for the type of gas:
 - turn the boiler onto standby
 - select RESET for 10 seconds: LEDs blinking fast for two seconds
 - select WINTER: red LED on
 - select RESET for 5 seconds: LEDs blinking fast for two seconds
 - select WINTER
 - turn the hot water knob (ref. 2 - fig 1) onto minimum (for Natural Gas operation) or onto maximum (for LPG operation)
 - red LED blinking (LPG operation) or red LED off (Natural Gas operation)
 - select RESET for 5 seconds: LEDs blinking fast for two seconds
 - select WINTER: yellow LED on
 - turn the heating knob (ref. 1 - fig 1) onto minimum and then onto maximum
 - the boiler will go back onto standby
 - turn the knobs onto the set temperatures.
4. Apply the sticker contained in the conversion kit, near the dataplate as proof of the conversion.

Turning on TEST mode

Select TEST.

TEST mode is turned off by selecting another mode or automatically after 15 minutes.


Adjusting burner pressure

Since this unit has flame modulation, there are two fixed pressure settings: the minimum and maximum, which must be as stated in the technical data chart according to the type of gas.

- Connect a suitable pressure gauge to pressure point "B" downstream from the gas valve.
- Run the boiler in TEST mode (selector on TEST):
 - TEST mode on: turn the heating knob (ref. 1 - fig. 1) onto maximum.
- Adjust the maximum pressure with the screw "G", clockwise to increase it and anticlockwise to decrease it.
- Disconnect one of the two faston connectors from the modureg "C" on the gas valve.
- Adjust the minimum pressure with the screw "E", clockwise to decrease it and anticlockwise to increase it.
- Reconnect the faston connector disconnected from the modureg on the gas valve.
- Check that the maximum pressure has not changed.
- Put the protective cap "D" back on.
- To end TEST mode, select another mode.



- Key**
- B** Pressure point
 - C** Modureg cable
 - D** Protective cap
 - E** Minimum pressure adjustment
 - G** Maximum pressure adjustment

 **After checking or adjusting the pressure, it is mandatory to seal the adjustment screw with paint or a specific seal.**

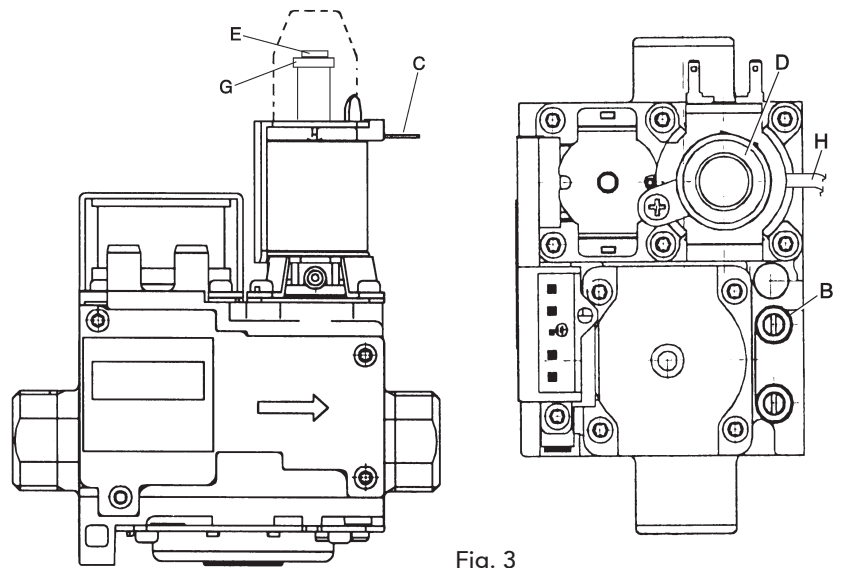


Fig. 3

Adjusting the maximum heating output

To adjust the heating power, set the boiler on TEST operation (see par. 3.1). Turn the heating temperature control knob (ref. 1 - fig. 1) clockwise to increase the power or anticlockwise to decrease it (see pressure/power diagram chap. 4.5). Exit TEST operation (see par. 3.1). The maximum heating power will remain as set during the TEST.

Ignition power adjustment

To adjust the ignition power, set the boiler on TEST operation (see par. 3.1).

Turn the hot water temperature control knob (ref. 2 - fig. 1) clockwise to increase the power or anticlockwise to decrease it (see pressure/power diagram chap. 4.5). Exit TEST operation (see par. 3.1). The ignition power will remain as set during the TEST.

Installer parameters menu

The card has 10 transparent parameters that can be modified either by Remote Control (Service parameters menu) or by itself (8 from Installer Parameters Menu and 2 in Test Mode):

Remote Control Parameters Menu	Range	Default	Card menu
1 (not used)	/	/	/
2 (Gas type selection)	0=Natural gas,1=LPG	0=Natural gas	P1
3 (not used)	/	/	/
4 (Heating post-circulation pump)	1-20 minutes	6 minutes	P3
5 (Heating ramp)	1-20°C/min	5°C/min	P5
6 (Maximum heating output)	0-100%	100%	TEST mode
7 (Heating stand-by time)	0-255 seconds	120sec.	P2
8 (Maximum hot water user setpoint)	0=55°C,1=60°C	0	P6
9 (Ignition power)	0-60%	50 %	TEST mode
10 (Maximum heating user setpoint)	30-85°C	85°C	P4
11 (Switching off burner in hot water mode)	0=Fixed,1=Tied to setpoint	1=setp.	P7
12 (Mains Voltage Frequency)	0=50Hz,1=60Hz	0=50Hz	P8

The Remote Timer Control is modified by entering its Service parameters menu (see relevant manual): the order and range correspond exactly to the contents of the table.

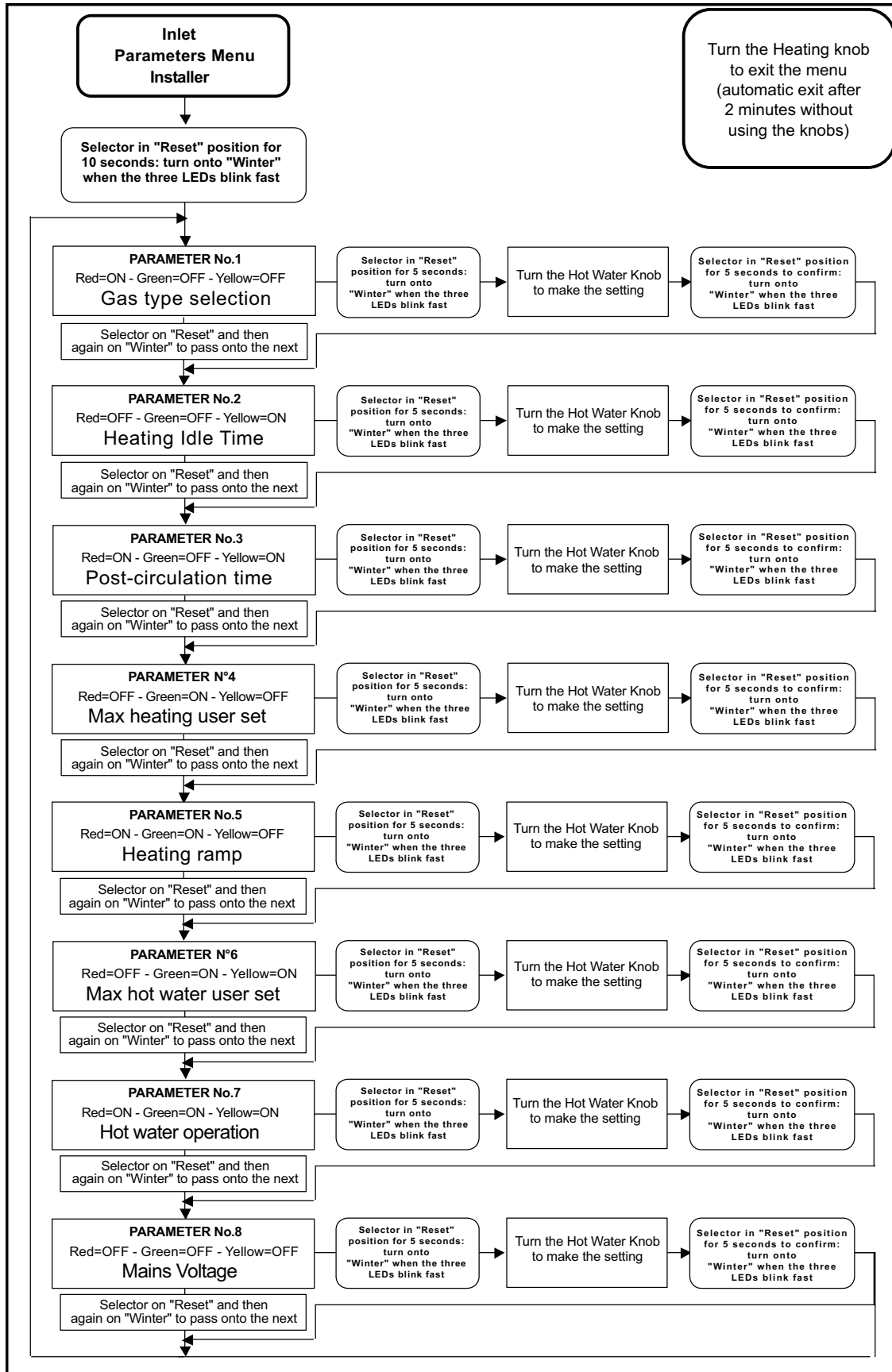
The card is modified in two ways.

The Maximum Heating Output and Ignition Power parameters can be modified in Test Mode (see relevant paragraph).

The parameters, designated P1,P8 in the previous table, can be displayed and if necessary modified from the Installer



Parameters menu via LED decoding and the position of the selector for different time intervals. The method to access, display and/or modify a set of parameters and exit the menu is described by the following flow chart.





After determining the parameter to set, it is necessary to use the following conversion tables to see what value is being set, depending on the blinking of the LEDs. OFF means LED switched off, ON means LED switched on and ON BL means LED blinking.

Red	Green	Yellow	Gas type selection
OFF	OFF	OFF	Natural gas
ON BL	OFF	OFF	LPG

Red	Green	Yellow	Heading idle time
OFF	OFF	OFF	00-30 seconds
ON BL	OFF	OFF	31-62 seconds
OFF	OFF	ON BL	63-94 seconds
ON BL	OFF	ON BL	95-126 seconds
OFF	ON BL	OFF	127-158 seconds
ON BL	ON BL	OFF	159-190 seconds
OFF	ON BL	ON BL	191-222 seconds
ON BL	ON BL	ON BL	223-255 seconds

Red	Green	Yellow	Pump post-circulation
OFF	OFF	OFF	0-2 minutes
ON BL	OFF	OFF	3-4 minutes
OFF	OFF	ON BL	5-7 minutes
ON BL	OFF	ON BL	8-9 minutes
OFF	ON BL	OFF	10-12 minutes
ON BL	ON BL	OFF	13-15 minutes
OFF	ON BL	ON BL	16-17 minutes
ON BL	ON BL	ON BL	18-20 minutes

Red	Green	Yellow	Maximum heating setpoint
OFF	OFF	OFF	30-36°C
ON BL	OFF	OFF	37-43°C
OFF	OFF	ON BL	44-50°C
ON BL	OFF	ON BL	51-57°C
OFF	ON BL	OFF	58-64°C
ON BL	ON BL	OFF	65-71°C
OFF	ON BL	ON BL	72-77°C
ON BL	ON BL	ON BL	78-85°C

Red	Green	Yellow	Heating ramp
OFF	OFF	OFF	0-2 °C/min
ON BL	OFF	OFF	3-4 °C/min
OFF	OFF	ON BL	5-7 °C/min
ON BL	OFF	ON BL	8-9 °C/min
OFF	ON BL	OFF	10-12 °C/min
ON BL	ON BL	OFF	13-15 °C/min
OFF	ON BL	ON BL	16-17 °C/min
ON BL	ON BL	ON BL	18-20 °C/min

Red	Green	Yellow	Maximum hot water setpoint
OFF	OFF	OFF	55°C
ON BL	OFF	OFF	60°C
OFF	OFF	ON BL	65°C

Red	Green	Yellow	Switching off burner in hot water
OFF	OFF	OFF	Fixed switch-off
ON BL	OFF	OFF	Tied to user setpoint

Red	Green	Yellow	Mains Voltage Frequency
OFF	OFF	OFF	50Hz
ON BL	OFF	OFF	60Hz



3.2 System start-up



Checks to be made at first ignition, and after all maintenance operations that involved disconnecting from the systems or an intervention on safety devices or parts of the boiler:

Before lighting the boiler:

- Open any on-off valves between the boiler and the systems.
- Check the airtightness of the gas system, proceeding with caution and using a soap and water solution to detect any leaks in connections.
- Fill the water system and make sure that all air contained in the boiler and the system has been vented by opening the air vent valve on the boiler and any vent valves on the system.
- Make sure there are no water leaks in the system, hot water circuits, connections or boiler.
- Make sure the electrical system is properly connected and the earth system works properly.
- Make sure that the gas pressure is as required for heating.
- Make sure there are no flammable liquids or materials in the immediate vicinity of the boiler.

Checks during operation

- Ignite the appliance as described in chap. 1.3.
- Check the airtightness of the fuel circuit and water systems.
- Check the efficiency of the flue and fume ducts while the boiler is working.
- Check that the water is circulating properly between the boiler and the systems.
- Make sure that the gas valve modulates correctly in both the heating and hot water production phases.
- Check the proper ignition of the boiler by performing various tests, turning it on and off with the room thermostat or remote control.
- Make sure that the fuel consumption indicated on the meter corresponds to that given in the technical data table in chap. 4.
- Make sure that with no call for heating the burner correctly ignites on opening a hot water tap. Check that during heating operation, on opening a hot water tap, the heating circulator stops and there is a regular production of hot water.
- Check the parameters are programmed correctly and perform any required customization (compensation curve, power, temperatures, etc.)

3.3 Maintenance

Seasonal inspection of the boiler and flue

To make sure that operating efficiency and safety are maintained over time, it is necessary to have the appliance and system checked regularly by qualified personnel. For the frequency of these operations, scrupulously observe the requirements of national and local regulations. In any case, it is advisable to carry out the following checks at least once a year:

- The control and safety devices (gas valve, thermostats, etc.) must function correctly.
- The fume end piece and ducts must be free of obstructions and leaks.
- The gas and water systems must be airtight.
- The burner and exchanger must be clean and free of scale. When cleaning, do not use chemical products or wire brushes.
- The electrode must be free of scale and properly positioned.
- The water pressure in the cold water system must be about 1-1.5 bar; otherwise, bring it to that value.
- The expansion tank must be filled.
- The gas flow and pressure must correspond to that given in the respective tables.
- The circulation pump must not be blocked.
- The boiler casing, panel and aesthetic parts can be cleaned with a soft damp cloth, possibly soaked in soapy water. Do not use any abrasive detergents and solvents.



Opening the casing

To open the boiler casing:

- 1 Unscrew the four screws **A**
- 2 Lower the inspection door
- 3 Raise and remove the casing **B**



Before carrying out any operation inside the boiler, disconnect the electrical power supply and close the gas cock upstream.

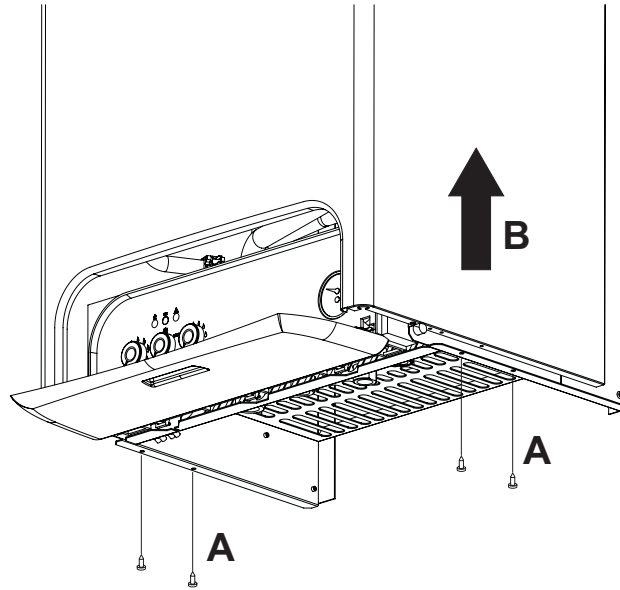


Fig. 4

Combustion analysis

To analyse the combustion, you must:

- 1) Insert the probe in the flue;
- 2) Open a hot water tap;
- 3) Adjust the hot water temperature to maximum.
- 4) Wait 10-15 minutes for the boiler to stabilize*
- 5) Take the measurement.



Analyses made with an unstabilized boiler can cause measurement errors.












3.4 Troubleshooting

Fault Diagnosis

The boiler is equipped with an advanced self-diagnosis system. In the event of trouble with the boiler, the 3 LEDs will indicate the code of the fault.

There are faults that cause shutdown: in order to restore operation it suffices to turn the selector (ref. 3 - fig. 1) onto RESET for 1 second and then back onto ☀ (summer) or onto ❄ (winter) or with the RESET on the optional remote timer control if this is installed; if the boiler fails to start, it is necessary to resolve the fault indicated by the operating LEDs.

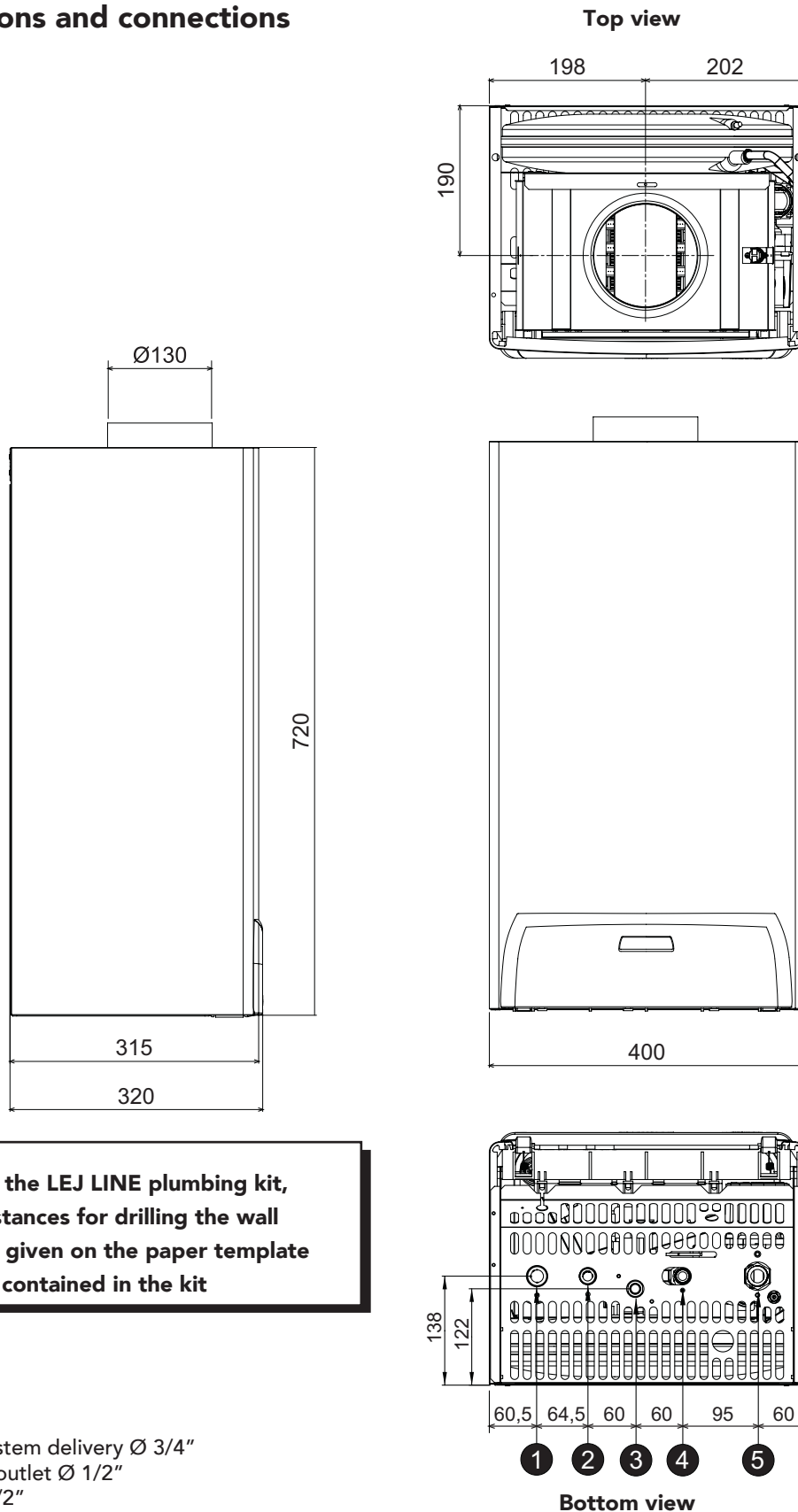
Other faults cause temporary shutdowns that are automatically reset as soon as the value comes back within the boiler's normal working range.

Fault	 Red	ON Green	 Yellow	Possible cause	Cure
No burner ignition	○	●	●	<ul style="list-style-type: none"> No gas Detection/ignition electrode fault Defective gas valve Ignition power too low 	<ul style="list-style-type: none"> Check the gas flow to the boiler is regular Check the wiring of the electrode and that it is correctly positioned and free of any deposits Check and change the gas valve Adjust the ignition power
Safety thermostat trips		●	●	<ul style="list-style-type: none"> Heating sensor damaged No circulation of water in the system Air in the system 	<ul style="list-style-type: none"> Check the correct positioning and operation of the heating sensor Check the circulator Vent the system
Flame present with burner off signal	●	○	●	<ul style="list-style-type: none"> Electrode fault Card trouble 	<ul style="list-style-type: none"> Check the ionizing electrode wiring Check the card
Fume thermostat trips (after the fume thermostat trips, boiler operation is disabled for 20 minutes)	●		●	<ul style="list-style-type: none"> Thermostat contact open Wiring broken Flue not sized correctly or obstructed 	<ul style="list-style-type: none"> Check the thermostat Check the wiring Check the flue
Low system pressure	●	●	○	<ul style="list-style-type: none"> System empty Water pressure switch not connected or damaged 	<ul style="list-style-type: none"> Fill the system Check the sensor
Delivery sensor fault		●		<ul style="list-style-type: none"> Sensor damaged Wiring shorted Wiring broken 	<ul style="list-style-type: none"> Check the wiring or change the sensor
Tap water sensor fault	●			<ul style="list-style-type: none"> Sensor damaged Wiring shorted Wiring broken 	<ul style="list-style-type: none"> Check the wiring or change the sensor
<p>LED key</p> <p>○ On ● Off  Blinking (fast)</p>					



4 TECHNICAL CHARACTERISTICS AND DATA

4.1 Dimensions and connections



**If using the LEJ LINE plumbing kit,
the distances for drilling the wall
are those given on the paper template
contained in the kit**

Key

- 1 Heating system delivery Ø 3/4"
- 2 Hot water outlet Ø 1/2"
- 3 Gas inlet 1/2"
- 4 Tap water inlet Ø 1/2"
- 5 Heating system return Ø 3/4"

Fig. 5



4.2 General view and main components

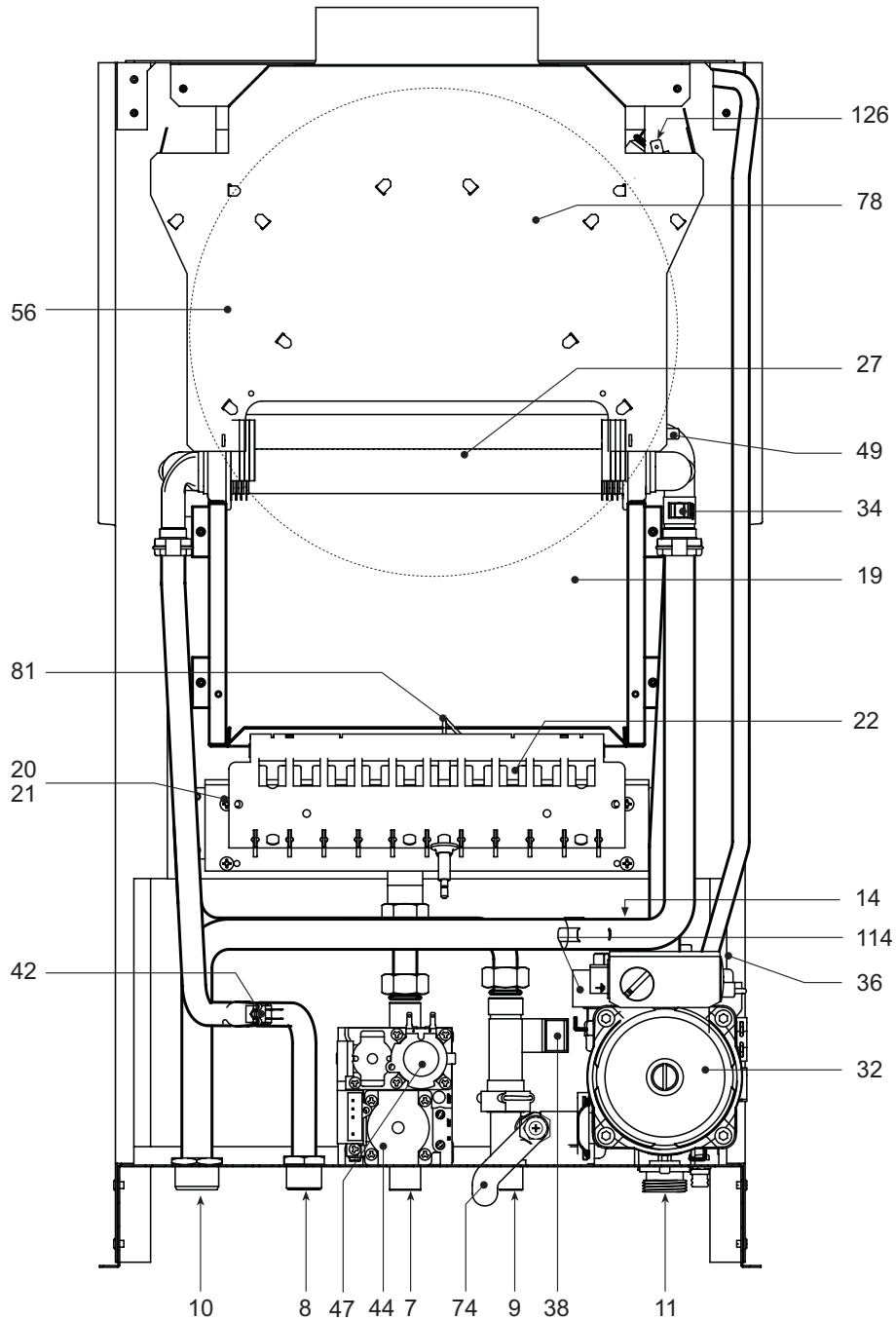


Fig. 6

Key

- | | | |
|------------------------------|--|--|
| 7 Gas inlet | 27 Copper exchanger for heating and hot water | 56 Expansion tank |
| 8 Tap water outlet | 32 Heating circulator | 74 Heating system cock |
| 9 Tap water inlet | 34 Heating temp. sensor | 78 Draft diverter |
| 10 System delivery | 36 Automatic air vent | 81 Ignition and detection electrode |
| 11 System return | 38 Flow switch | 114 Water pressure switch |
| 14 Safety valve | 42 Tap water temperature sensor | 126 Flue thermostat |
| 19 Combustion chamber | 44 Gas valve | |
| 20 Burner assembly | 47 Modureg | |
| 21 Main nozzle | 49 Safety thermostat | |
| 22 Burner | | |

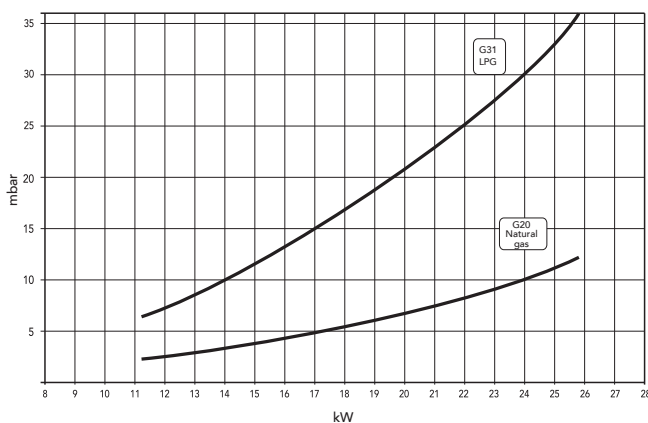


4.3 Technical data table

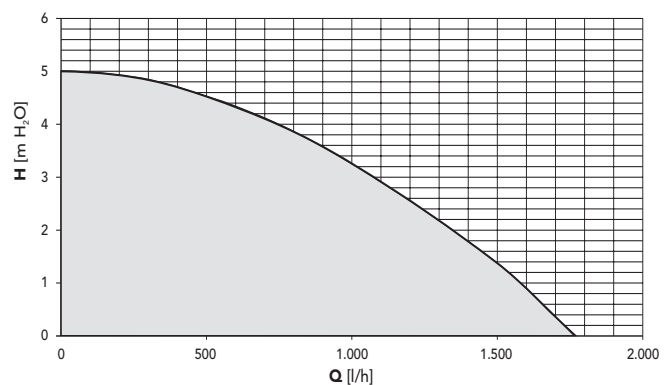
Powers		Pmax	Pmin
Heating Power (Net Heat Value - Hi)	kW	25,8	11,5
Available Thermal Power 80°C - 60°C	kW	23,5	9,7
Hot Water Heating Power	kW	23,5	9,7
Gas supply		Pmax	Pmin
Natural Gas main nozzles (G20)	mm	11x1.35	
Natural Gas supply pressure (G20)	mbar	20,0	
Pressure at Natural Gas burner (G20)	mbar	11,8	2,5
Natural Gas delivery (G20)	nm ³ /h	2,73	1,22
LPG main nozzles (G31)	mm	11x0.79	
LPG supply pressure (G31)	mbar	37,0	
Pressure at LPG burner (G31)	mbar	36,0	7,2
LPG delivery (G31)	kg/h	2,00	0,89
Heating			
Maximum working temperature in heating	°C	90	
Maximum working pressure in heating	bar	3	
Minimum working pressure in heating	bar	0,8	
Expansion tank capacity	litres	8	
Expansion tank pre-filling pressure	bar	1	
Boiler water content	litres	0.5	
Energy Efficiency Marking (EEC 92/42)		**	
Hot water			
Maximum hot water production Δt 30°C	l/min	11,2	
Maximum working pressure in hot water production	bar	10	
Minimum working pressure in hot water production	bar	0,25	
Hot water content	litres	0,3	
Electrical power supply			
Max electrical power absorbed	W	85	
Power voltage/frequency	V/Hz	230/50	
Electrical protection rating	IP	X4D	
Boiler weight	kg	25	

4.4 Diagrams

Pressure - power diagrams



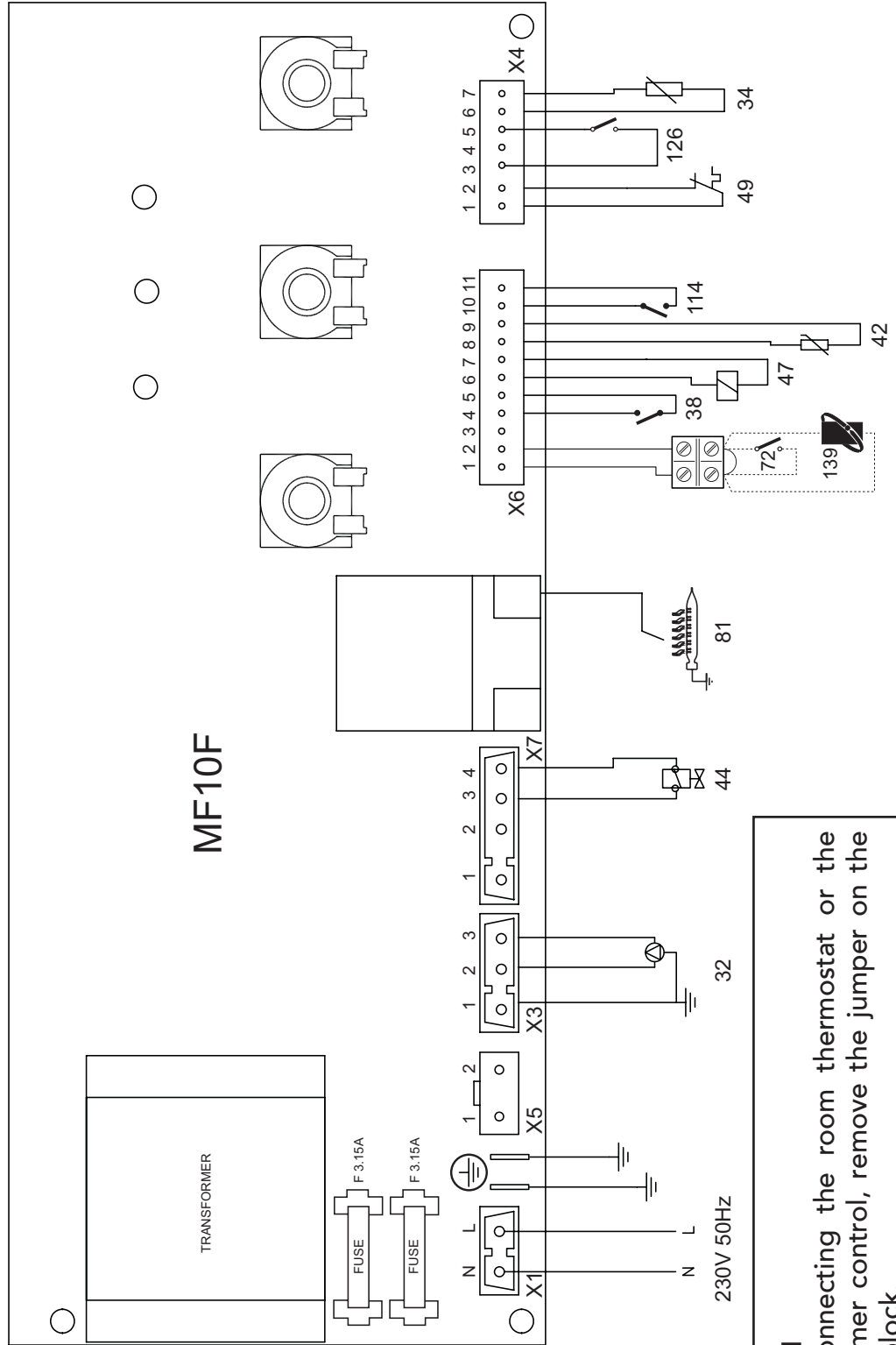
Head available for the system





4.5 Wiring diagram

- Key**
- 32 Heating circulator
 - 34 Heating temp. sensor
 - 38 Flow switch
 - 42 Tap water temperature sensor
 - 44 Gas valve
 - 47 Modureg
 - 49 Safety thermostat
 - 72 Room thermostat
 - 81 Ignition/detection electrode
 - 114 Water pressure switch
 - 126 Flue thermostat
 - 139 Remote timer control (Opentherm)



CAUTION
Before connecting the room thermostat or the remote timer control, remove the jumper on the terminal block.

Fig. 7

BRUCIATORI
CALDAIE MURALI E TERRA A GAS
GRUPPI TERMICI IN GHISA E IN ACCIAIO
GENERATORI DI ARIA CALDA
TRATTAMENTO ACQUA
CONDIZIONAMENTO

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LAMBORGHINI CALOR S.p.A.
VIA STATALE, 342
44040 DOSSO (FERRARA)
ITALIA
TEL. ITALIA 0532/359811 - EXPORT 0532/359913
FAX ITALIA 0532/359952 - EXPORT 0532/359947