



Lamborghini
CALORECLIMA

AZIENDA CERTIFICATA ISO 9001



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PLEASE MAKE SURE THAT THE
"USE MANUAL" IS HANDED
OVER TO THE USER
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"MANUAL DE USO"
FAVOR ENTREGAR O
"MANUAL DE USO"
AO SR. UTENTE

CALDAIA MURALE A GAS TERMO - ALTO RENDIMENTO - MODULANTE
WALL-HUNG GAS BOILER FOR HEATING - HIGH EFFICIENCY - MODULATING
CALDERA MURAL A GAS PARA CALEFACCIÓN - ALTO RENDIMIENTO - MODULANTE
CALDEIRA DE PAREDE A GÁS PARA CALEFACÇÃO - ALTO RENDIMENTO - MODULANTE



Xílo T 20 N MS W TOP U/IT

MANUALE DI
INSTALLAZIONE E
MANUTENZIONE

INSTALLATION
AND MAINTENANCE
MANUAL

MANUAL PARA
LA INSTALACIÓN Y
EL MANTENIMIENTO

MANUAL DE
INSTALAÇÃO E
MANUTENÇÃO

ENGLISH

GB

Read carefully all warning and instructions contained in this manual as they give important safety instructions regarding installation and maintenance. Keep this manual for future reference.

Installation must be carried out by qualified personnel who will be responsible for respecting existing safety regulations.



INDEX	PAGE
GENERAL INSTRUCTIONS	27
DESCRIPTION	28
MAIN COMPONENTS	29
DIMENSIONS	30
TECHNICAL FEATURES	30
GAS - NOZZLE CALIBRATION	31
ELECTRICAL CONNECTIONS - WIRING DIAGRAMS	32
MALFUNCTIONS AND ADJUSTMENTS	36
WATER CONNECTION	37
WATER CIRCUIT	38
INSTALLATION	39
START-UP	39
FLUE EXHAUST CONNECTION	40
FLUE EXHAUST INSTALLATION	41
ADJUSTMENTS	42
SWITCHING OFF	43
MAINTENANCE	43
OPERATION WITH DIFFERENT TYPES OF GAS	45
FAULT-FINDING CHART	46

Congratulations...

.....on an excellent choice. We thank you for the preference accorded to our products. LAMBORGHINI CALORECLIMA has been actively present in Italy and throughout the world since 1959 with a widespread network of agents and concessionary agents to constantly guarantee the presence of our product on the market. Alongside this is the support of a technical service, "LAMBORGHINI SERVICE", which is entrusted with the qualified servicing of the product.

For the installation and positioning of the boiler:
CAREFULLY OBSERVE THE LOCAL REGULATIONS IN FORCE



GENERAL INSTRUCTIONS

- This booklet constitutes an integral and essential part of the product. Read carefully the instructions contained in this booklet as they provide important directions regarding the safety of installation, use and maintenance. Preserve this booklet with care for any further consultation. The installation of the boiler must be carried out in compliance with current regulations, according to the instructions of the manufacturer and by qualified personnel. An incorrect installation can cause injury or damage to persons, animals and objects, for which the manufacturer cannot be held responsible.
- After removing the packaging materials, check the content integrity. In case of doubt, do not use the unit and contact the supplier. The packaging material (wooden crates, nails, clips, plastic bags, foam, etc.) must not be left within reach of children as they are potential sources of danger.
- This boiler is designed to heat water to a temperature below boiling (atmospheric pressure). It must be connected to a heating system compatible with its performances and output.
- This appliance should be destined only for the use for which it has been expressly envisaged. Any other use is to be considered improper and therefore dangerous. The manufacturer cannot be considered responsible for any damages caused from improper, erroneous or unreasonable use.

ALL INSTALLATION, MAINTENANCE AND GAS CONVERSION OPERATIONS MUST BE CARRIED OUT BY AUTHORISED SKILLED TECHNICIANS.

TO ENSURE THAT BOILER IS INSTALLED CORRECTLY AND THAT IT FUNCTIONS PROPERLY, WE RECOMMEND THAT ONLY LAMBORGHINI ACCESSORIES AND SPARE PARTS BE USED.

ON NOTICING THE SMELL OF GAS DO NOT TOUCH ANY ELECTRIC SWITCH. OPEN DOORS AND WINDOWS. SHUT OFF THE GAS COCKS.

INSTALL THE BOILER ON WALLS WHICH ARE AS WIDE AS OR WIDER THAN THE BOILER ITSELF.



DESCRIPTION

These boilers are fully automatic and gas control is effected by an electronic control unit having the following characteristics:

- continuous modulation mode on both circuits;
- possibility to adjust the heating output;
- possibility to adjust the slow ignition;

XILO T models are equipped with:

- no-water pressure switch;
- total safety thermostat;
- high efficiency bi-thermal flue gas exchanger;
- Hot water plate exchanger.

XILO T 20 N MS W TOP

Equipped with electronic control unit for automatic ignition and ionization electrode flame control.

To ensure safe operation, the electric fan is controlled by a pressure switch.

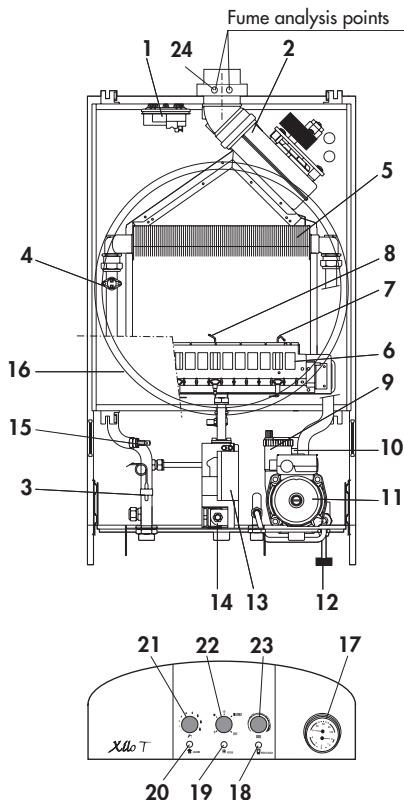
Flue gas exhaust can be made by means of the following:

- a flue pipe concentric with the air intake pipe;
- a double pipe, one for flue gas exhaust and the other for combustion air intake.



MAIN COMPONENTS

XILO T 20 N MS W TOP

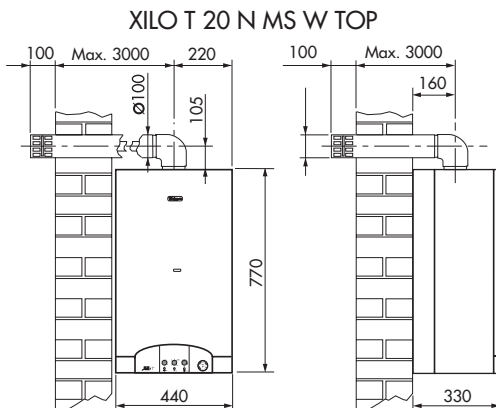


LEGEND

- | | | |
|-----------------------------|-------------------------------|-------------------------------------|
| 1 Fumes pressure switch | 11 Circulator | 20 Lock-out warning light |
| 2 Fan | 12 Filling cock | 21 Fixed knob |
| 3 Heating sensor | 13 Gas valve | 22 Function selector |
| 4 Total safety thermostat | 14 Modulating coil | 23 Heating adjustment potentiometer |
| 5 Exchanger | 15 Gas pressure reading point | 24 Taken combustion test |
| 6 Burner | 16 Expansion tank | |
| 7 Ignition electrodes | 17 Thermohydrometer | |
| 8 Control electrode | 18 Malfunction warning light | |
| 9 Automatic air bleed valve | 19 ON/OFF warning light | |
| 10 Safety valve | | |



DIMENSIONS mm



TECHNICAL FEATURES

MODEL	Thermal capacity				Min. thermal capacity				Connections				Operating pressure max.	Expansion tank	Weight
	Input		Output		Input		Output		Main system		Gas	Cold water inlet			
									Supply	Return					
	kW	kcal/h	kW	kcal/h	kW	kcal/h	kW	kcal/h	Ø	Ø	Ø	Ø	Bar	lt	kg
XILO T 20 MS W TOP	26	22.360	24	20640	12,1	10406	10,7	9202	3/4"	3/4"	3/4"	1/2"	3	8	35

Boiler version: type B22-C12-C32-C42-C52-C62-C82

Max. water temperature 90°C

Category: II 2H3+

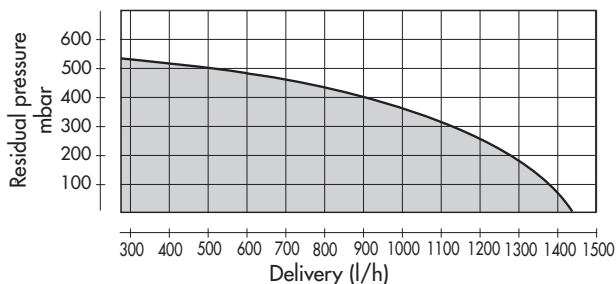
Rated gas pressure: G20 20 mbar

Cl NOx : 2

G30 28-30 mbar/G31 37 mbar

CIRCULATING PUMP FEATURES

System delivery/pressure





GAS - NOZZLE CALIBRATION

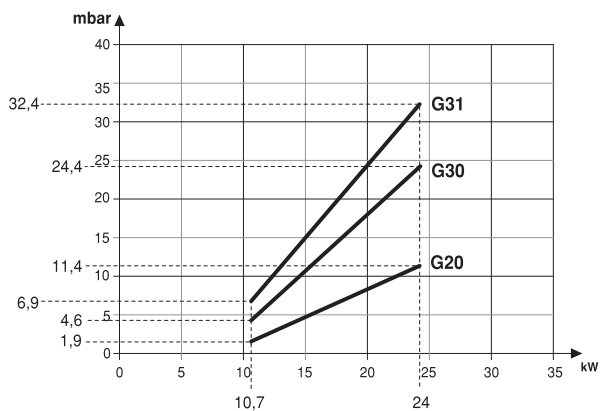
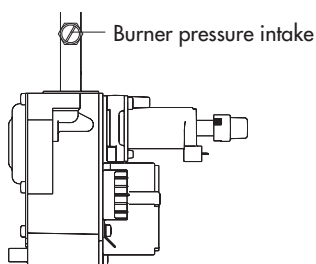
The boilers leave the factory calibrated and ready to operate with G20 (Natural gas) and G30/G31 (LPG).

For proper calibration, see the table below:

Gas type	Jets pressure mbar XILO T 20 N MS		Delivery m ³ /h	Burner jets Ø mm.	L.C.V. kcal/h
	min.	max.			
G20 20 mbar (Natural gas)	1,9	11,4	2,7	1,25	8.550
G30 28-30 mbar (LPG)	4,6	24,4	0,8	0,77	29.330
G31 37 mbar (LPG)	6,9	32,4	1	0,77	22.360

BURNER PRESSURE CURVES - OUTPUT

XILO T 20 N MS



- Slow ignition adjustment
3 mbar G20 (Natural Gas)
7,5 mbar G30/G31 (LPG)



ELECTRICAL CONNECTIONS - WIRING DIAGRAMS

The boiler must be connected to an earthed, single-phase 230V-50 Hz mains supply by means of a three-wire cable, ensuring that connections to the PHASE and NEUTRAL terminals are made correctly.

A bipolar switch must be used with contacts opening to at least 3 mm.

The power lead must only be replaced by another with the following characteristics: "HAR H05 VV-F" 3 X 1.00 mm². (You are strongly advised to use original LAMBORGHINI accessories and spare parts only).

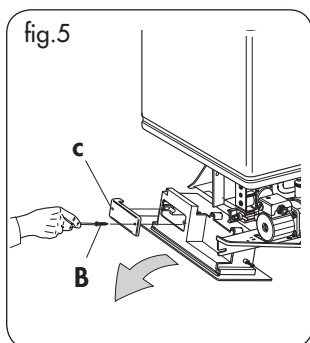
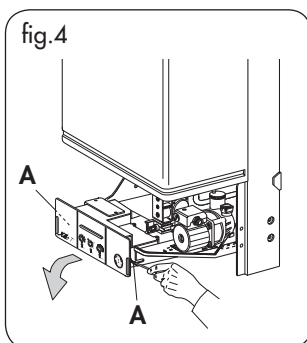
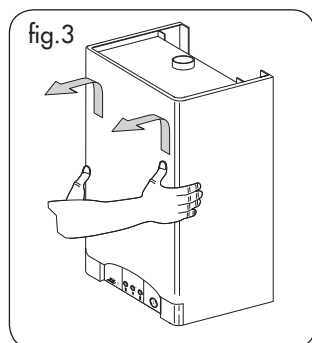
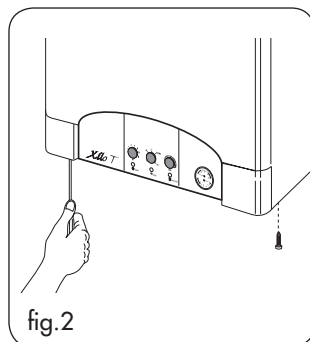
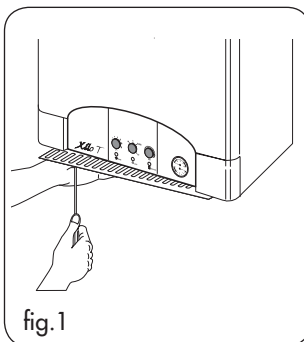
Installation must be made in compliance with safety REGULATIONS IN FORCE.

Ground connections are compulsory. Connect the boiler to an efficient grounding system.

Voltage	Frequency	Absorbed power kW	Protection index	Noise level dB (A)
V	Hz	MS	IP	MS
230	50	0,150	X 4D	46

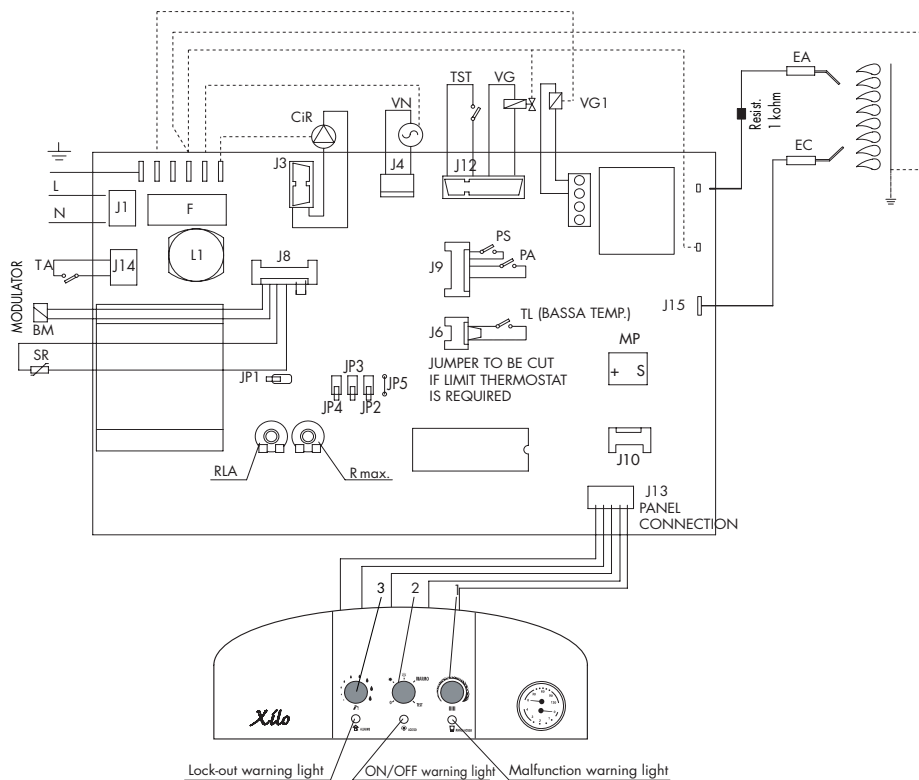
To gain access to the electrical panel which houses the power supply terminal block and any connection to a room thermostat, proceed as follows:

- Disconnect the boiler power supply
- Undo the two grating screws (fig. 1)
- Undo the two jacket fixing screws (fig. 2)
- Raise the jacket and then pull it towards you (fig. 3)
- To access electrical and electronic parts loosen screws A and pull the entire panel outwards (fig. 4). Tilt downwards and undo the screws B on the cover C





ASSEMBLY DIAGRAM XILO T 20 N MS W TOP - card code 4.56035.0



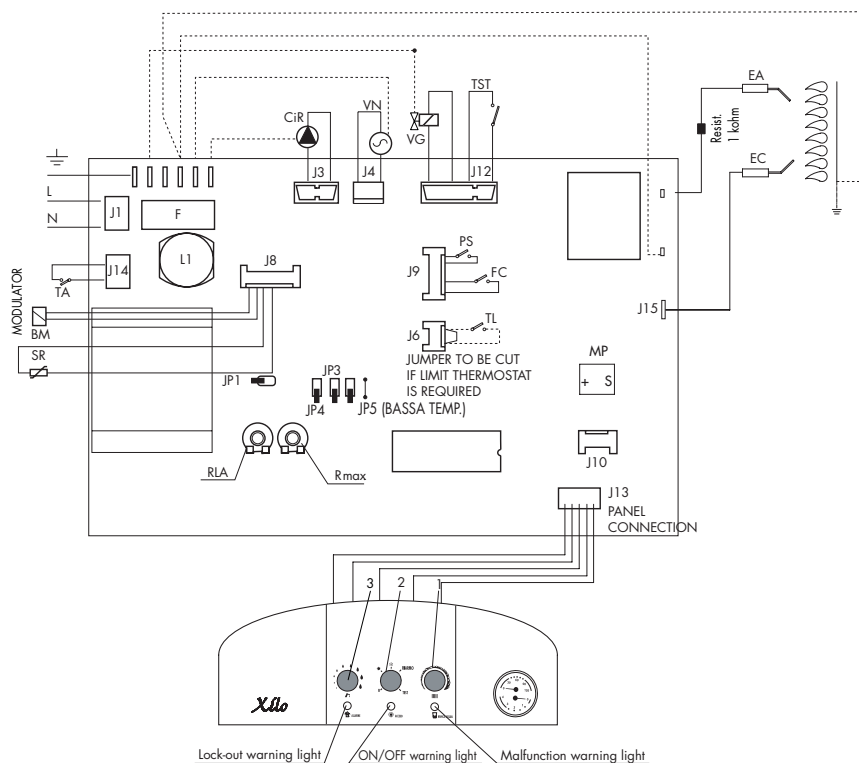
LEGEND

BM	Modulating coil	L	Phase 230 V 50 Hz	VG	Gas valve SIT 837
CiR	Heating circulator	N	Neutral	VG1	Gas valve Honeywell VK 4105M
EA	Ignition electrode	PA	Air pressure switch	VN	Fan
EC	Control electrode	PS	No-water pressure switch	1	Heating potentiometer
F	Fuse 2(A)	RLA	Slow ignition power adjustment	2	Selector: Off
JP1	Methane/LPG selector	Rmax.	Heating max. power adjustment		Winter
JP3	Post-circulation selector	SR	Heating sensor		Reset
JP4	Ignition limiting selector	TA	Room thermostat (if any)		Test
JP5	Jumper to be cut for low temperature	TL	Limit thermostat (if any)		
JP6	Mono-thermal/bi-thermal switch	TST	Safety thermostat	3	Fixed knob

Warning: One of the two gas valves only, VG or VG1, is fitted on the boiler.



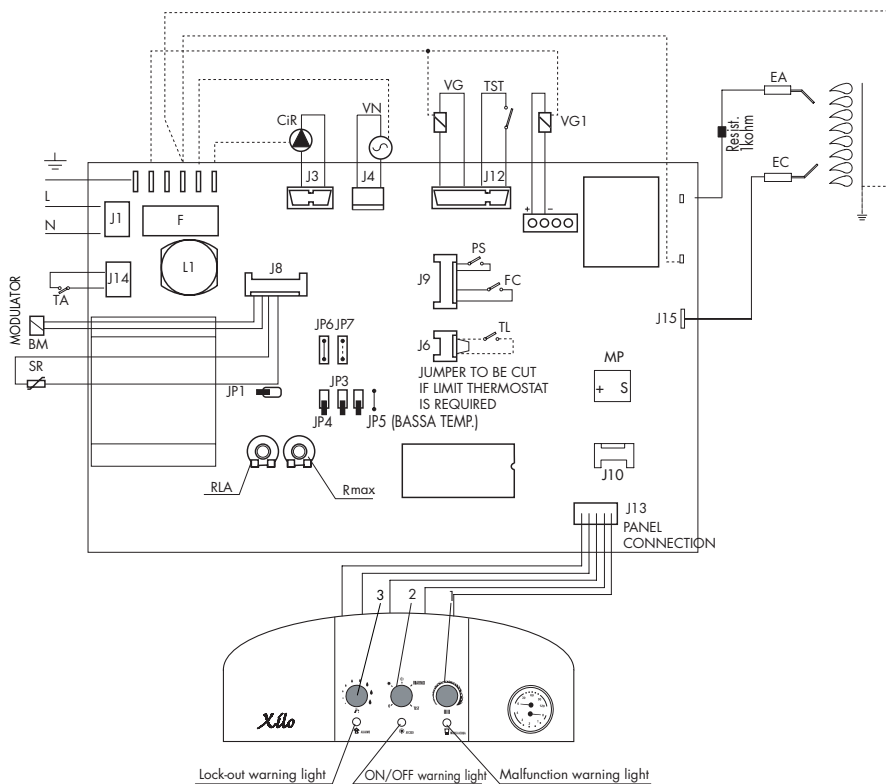
ASSEMBLY DIAGRAM XILO T 20 N MS W TOP - card code 4.55828.0



LEGEND

BM	Modulating coil	L	Phase 230 V 50 Hz	TST	Safety thermostat
CiR	Heating circulator	N	Neutral	VG	Gas valve
EA	Ignition electrode	PA	Air pressure switch	VN	Fan
EC	Control electrode	PS	No-water pressure switch	1	Heating potentiometer
F	Fuse 2(A)	RLA	Slow ignition power adjustment	2	Selector: Off
JP1	Methane/LPG selector	Rmax.	Heating max. power adjustment		Winter
JP3	Post-circulation selector	SR	Heating sensor		Reset
JP4	Ignition limiting selector	TA	Room thermostat (if any)		Test
JP5	Jumper to be cut for low temperature	TL	Limit thermostat (if any)	3	Fixed knob

ASSEMBLY DIAGRAM XILO T 20 N MS W TOP - card code 4.56040.0



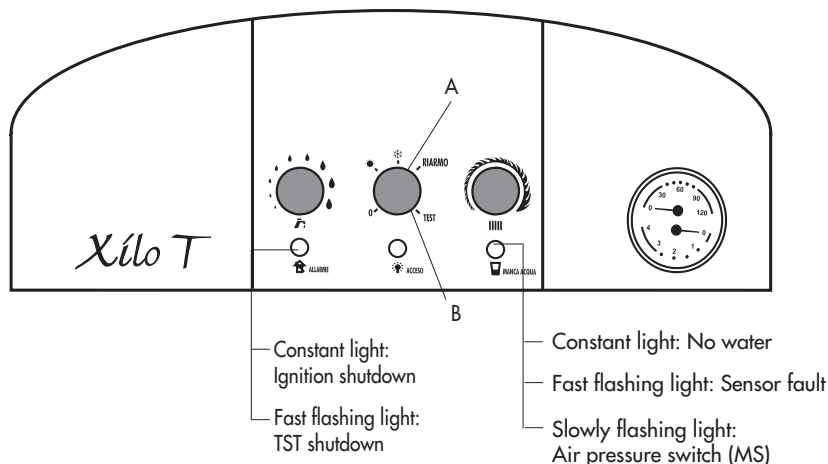
LEGEND

BM	Modulating coil	L	Phase 230 V 50 Hz	VG1	Gas valve Honeywell	
CiR	Heating circulator	N	Neutral		VK 4105M	
EA	Ignition electrode	PA	Air pressure switch	VN	Fan	
EC	Control electrode	PS	No-water pressure switch	1	Heating potentiometer	
F	Fuse 2(A)	RLA	Slow ignition power adjustment	2	Selector:	Off
JP1	Methane/LPG selector	Rmax.	Heating max. power adjustment			Winter
JP3	Post-circulation selector	SR	Heating sensor			Reset
JP4	Ignition limiting selector	TA	Room thermostat (if any)			Test
JP5	Jumper to be cut for low temperature	TL	Limit thermostat (if any)	3	Fixed knob	
JP6	Mono-thermal/bi-thermal switch	TST	Safety thermostat			
JP7	Gas valve switch	VG	Gas valve SIT 837			

Warning: One of the two gas valves only, VG or VG1, is fitted on the boiler.



MULFUNCTIONS AND ADJUSTMENTS



Should the boiler shut down it must be reset by rotating functions selector switch to position **A**.
B: see TEST functions at "Gas pressure adjustments with Honeywell VK 4105 valve"

Legend:

On		Off	
	JP1 G30/G30 LPG		G20 Natural Gas
	JP3 (post.circ. off) heating		post.circ. on 2,5 min.
	JP4 Heating timer off		heating timer on 2,5 min.
	JP5 Resistor jumper cut, floor heating temp. set to 30/40°C. Resistor jumper uncut, temperature 35/80°C		
	JP6 cards only: 4.56035.0 4.56040.0	Present: bi-thermal function Absent (cut): mono-thermal function	
	RLA Increase	Slow ignition adjustment	
	R max. Increase	Max. heating power adjustment	



WATER CONNECTION

Fit the supporting hooks and attach the assembly template, moving it up to the wall; fit all the pipes, starting with the end pipe fittings already mounted on the template: system supply, system return, cold water, hot water, any gas pipes and electric mains leads with room thermostat.

Once the pipes have been fitted, the end pipe fittings can be removed and ordinary caps fitted, ready for hydraulic tests to be carried out. The template can be removed or, if left in place, will be embedded in the wall once finishing operations have been completed (plaster and tiles); only the two supporting hooks will protrude from the wall, as well as an opening for the connections. Attach the boiler to the hooks through the holes at the back of the frame, pushing it up against the finished wall. Make the necessary hydraulic connections.

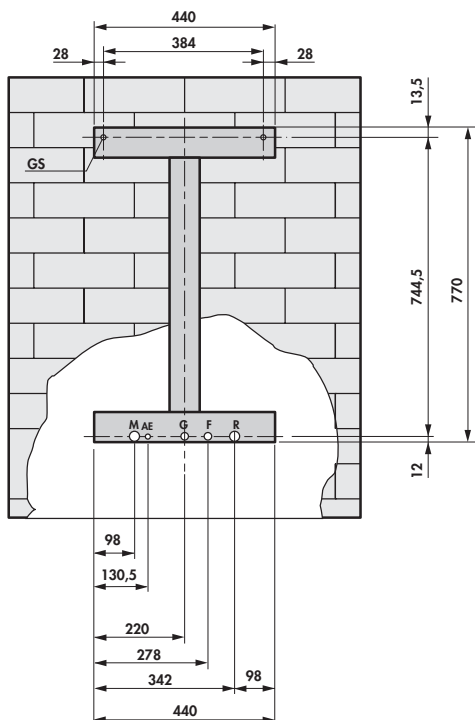
ADVICE AND SUGGESTIONS ON PREVENTING SYSTEM VIBRATION AND NOISE.

- Do not use pipes of reduced diameter.
- Do not use low-radius elbows or fittings that significantly reduce cross-section.
- Hot-flushing of the system is recommended in order to eliminate any impurities from the piping and radiators (especially oil and grease) which might damage the circulator.

LEGEND

- G Gas $\varnothing 1/2'' - \varnothing 3/4''$
(see cock supplied with the boiler)
F Boiler water supply $\varnothing 1/2''$ (cold)
AE Electrical supply
M System delivery $\varnothing 3/4''$
R System return $\varnothing 3/4''$
GS Holding hooks $\varnothing 10$ mm.

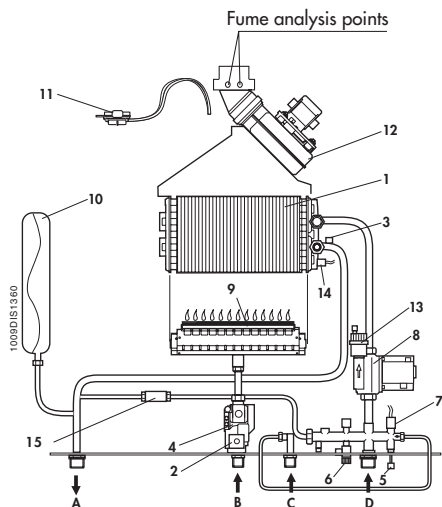
NOTE: Provide female water connections.





WATER CIRCUIT

XILO T 20 N MS W TOP



LEGEND

- A System delivery
- B Gas
- C Cold water inlet
- D System return
- 1 Exchanger
- 2 Modulator coil
- 3 Heating sensor
- 4 Gas valve
- 5 Filling cock
- 6 Safety valve

- 7 No-water pressure switch
- 8 Circulator
- 9 Burner
- 10 Expansion tank
- 11 Fumes pressure switch
- 12 Fan
- 13 Automatic air bleed valve
- 14 Total safety thermostat
- 15 By-Pass (if any)



INSTALLATION

To be carried out by qualified personnel.

The installation must be in compliance with the stipulations of the law regarding the evacuation of combustion materials according to the REGULATIONS IN FORCE.

The gas fume evacuation must be effected with a pipe of a diameter not less than that required by the boiler and it must be connected to a flue pipe suitable for the capacity of the installation.

For connection of appliances to smoke conduits:

- a) they must be easy to dismantle;
- b) they must be sealed and of a material able to resist the products of combustion and their possible condensation;
- c) they must not have regulation devices (gate valves). If such devices are already in operation they must be eliminated;
- d) the connection itself must not protrude inside the flue pipe but stop before the internal face of the same.

GAS CONNECTION

Carry out the gas connection in accordance with the regulations in force.

The boiler must be connected to the installation with a rigid metal pipe or a flexible stainless steel pipe with continuous wall of the approved type. The flexible corrugated metal pipes must be installed in such a way that their length, in a state of maximum extension, is not greater than 2000 mm. The boilers are calibrated and tested to function with G20 (Natural Gas) and G30/G31 (LPG), category II 2H3+, with rated pressures of 20 mbar, 28/30 mbar and 37 mbar respectively.

PUTTING THE BOILER INTO SERVICE

- Proceed with the clearing out of air.
- Check that there are no gas leaks (use a soapy solution or equivalent product).

START-UP

SYSTEM FILLING

Open the feeding tap slowly until the system reaches a working pressure (indicated on the hydrometer) of 1.5 bar, then close it. Check that the automatic air bleed valve, on the circulator, has its cap loosened; run the circulator repeatedly to eliminate any air in the circuit.

IGNITION

Open the gas tap and turn the selector switch to the desired position. The burner will ignite automatically. Should the unit fail to ignite see if the lock-out indicator is on. If it is, turn the selector switch to RESET so that the boiler repeats the ignition sequence. Then adjust heating and hot water temperature as desired via the appropriate controls.



FLUE EXHAUST CONNECTION

CONNECTION TO THE CHIMNEY - VERSION XILO T 20 N MS W TOP

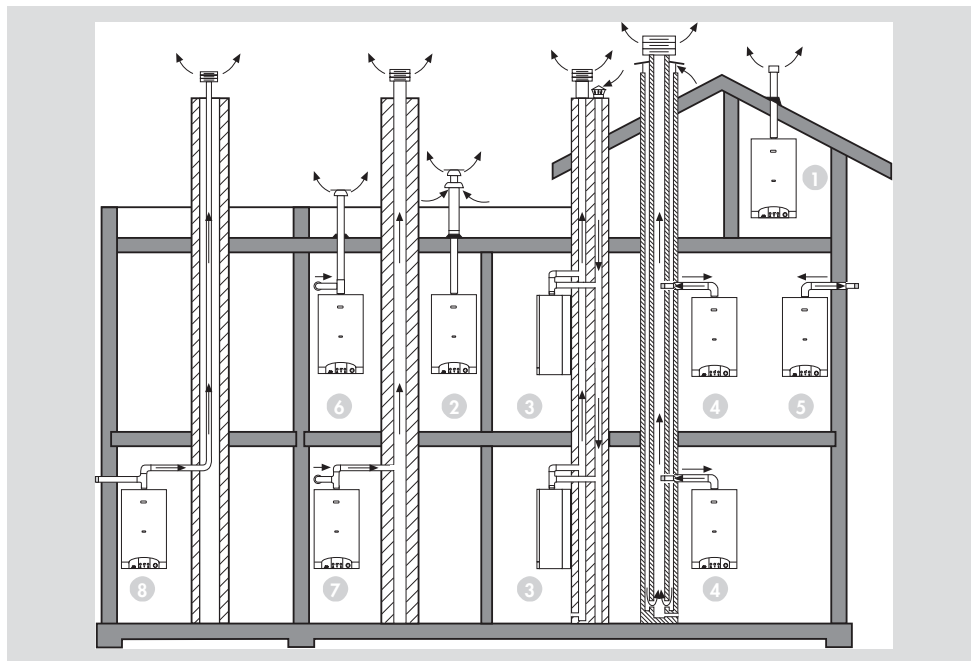
The boiler is for combustion in a sealed chamber and does not require any special ventilation, it can also be located in small rooms, lumber-rooms, laboratories. In addition, there are various possibilities for combustion fume evacuation and external air intake; basically the boiler is designed for two types of fume evacuation/air intake:

- fume evacuation/air intake concentric pipes system,
- fume evacuation/air intake double pipes system.

In this way it is possible, by using suitable kits, to connect the boiler to concentric flues, ventilating flues, separate flues, etc. Some possible solutions are indicated below.

FUME EVACUATION/AIR INTAKE

- 1 Concentric flue pipe, from the roof C32
- 2 Concentric flue pipe, from the terrace C32
- 3 Double flue pipe from separate flues C42
- 4 Concentric flue pipe, connected to concentric flues C42
- 5 Concentric flue pipe, from an external wall C12
- 6 Double flue pipe from the terrace C52
- 7 Double flue pipe from single flue C82
- 8 Double flue pipe C62



For positioning and for distances of draught terminals from windows, doors, etc. see regulations in force.

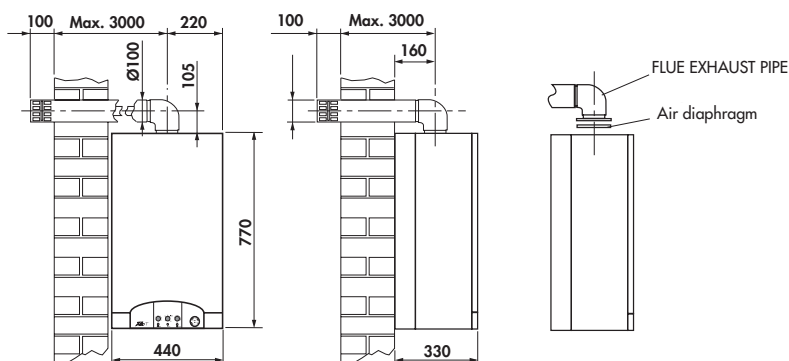


FLUE EXHAUST INSTALLATION

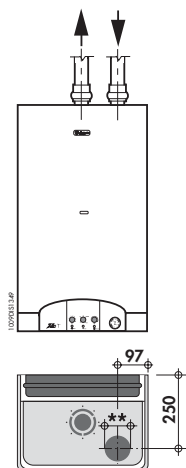
CONCENTRIC FLUE PIPE

Fit the concentric elbow pipe positioning it on the desired direction and insert on it the sealing gasket. Then fit the appropriate diaphragm (see table below).

Fit the air intake and flue exhaust pipes, observing the distances indicated on the installation scheme. The flue pipe should slope slightly outward.



DOUBLE FLUE PIPE



** Air intake Ø 80

CONCENTRIC FLUE PIPE		DOUBLE FLUE PIPE length m		
Max. length	Over 1 m			
0,5 ÷ 1 m	max. 3 m	0,5 ÷ 10	10 ÷ 20	20 ÷ 30
Diaphr.	Diaphr.	Diaphr.	Diaphr.	NO
Ø 78 mm	Ø 87 mm	Ø 47 mm	Ø 50 mm	

Maximum length of CONCENTRIC FLUE PIPE 3 m

Maximum length of DOUBLE FLUE PIPE

(Intake + Exhaust) 20 m

Installing an elbow to connect the boiler to the chimney will cause a drop in pressure.

The values set out in the table below indicate the necessary modifications to the length of the linear pipes.

TYPE OF INSTALLATION	ELBOW FITTED AT 90°	ELBOW FITTED AT 45°
CONCENTRIC FLUE PIPE	1 m	0,5 m
SEPARATE INTAKE/EXHAUST	0,6 m	0,3 m

ATTENTION: Use only air intake/ fume evacuation kits produced by Lamborghini Caloreclima.



GAS PRESSURE ADJUSTMENTS WITH HONEYWELL VK 4105 VALVE

All boilers are tested and calibrated in the factory. At first ignition it is necessary to check and set up the boiler to adapt it to the system characteristics. The gas pressure at the burner must be checked through the pressure plug placed on the pipe coming out from the gas valve and by using a water column pressure gauge or a micro-manometer. The values must be those indicated in the specific table. When all calibrations have been completed, close and seal the pressure plug used. Calibration of the slow ignition is electronically done and is adjustable (for optimising and for gas type conversion) by the trimmer RLA on the electronic board. The necessary thermal output for the heating system can be regulated by acting on the trimmer R.MAX. By removing the JP4 bridge, the waiting time for boiler restarting can be varied, after its stop when reaching the temperature selected on the heating potentiometer. (bridge off: 2,5 minutes)

MODULATION MAXIMUM PRESSURE ADJUSTMENT

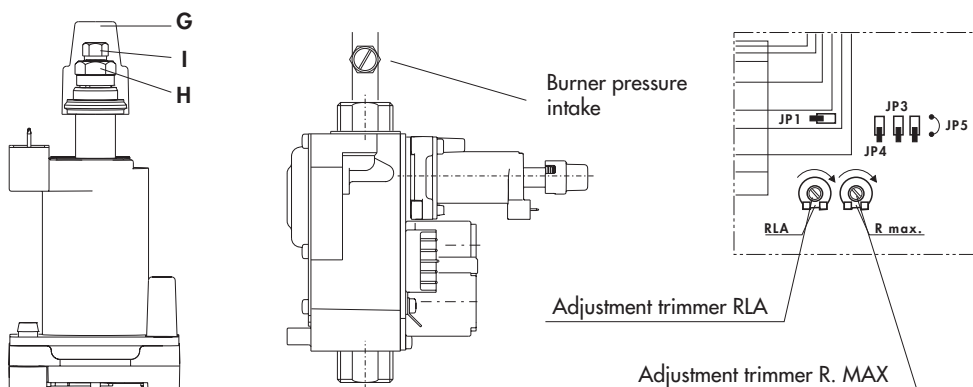
- remove the protecting cover G
- place the "function selector" on TEST position
- tighten (to increase) or untighten (to decrease) the adjustment bolt H

MINIMUM PRESSURE ADJUSTMENT

After the maximum pressure adjustment has been completed proceed with the following operations:

- disconnect the power wire (12 V) from the modulation coil
- tighten (to increase) or untighten (to decrease) the adjustment bolt I
- connect again the modulation coil power wire (12 V) ("function selector" must always be on TEST position)
- replace the protecting cover G

Once adjustments have been effected, replace "function selector" on Summer or Winter.



Note: "Function selector" places on "TEST" only for combustion test. This function stops gas pressure on maximum output for 15 minutes.

For this calibration it is necessary to use a water column pressure gauge connected to the pressure plug.



SWITCHING OFF

PROLONGED SWITCHING OFF

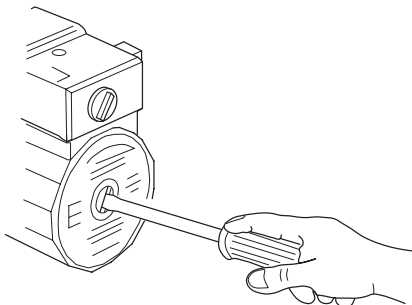
If the boiler should remain inactive at length close the gas cock and cut electrical power supply to the appliance.

TEMPORARY SWITCHING ON/OFF

Proceed in one of the following ways:

- use the room thermostat;
- use the adjustment potentiometers (on the instrument panel);

NOTE: with a new boiler or after a long period of inactivity, one can check for the locking of the circulating pump. In this case it is necessary to unscrew the front stopper and make the motor shaft rotate with a screwdriver.



MAINTENANCE

To ensure long-lasting product functionality and efficiency within the limits prescribed by the laws and standards in force, the unit must undergo regular maintenance.

Frequency of inspection depends on the specific conditions of installation and use but it is advisable to have the unit checked once a year by authorised Lamborghini Service personnel. Only properly qualified personnel with specific knowledge in the field of safety, efficiency, environmental hygiene and combustion may carry out work on the unit. To ensure proper maintenance it is also required that such personnel be fully updated on the constructive and functional characteristics of the boiler.

Should work or maintenance be carried out on any structures situated near fume ducts and/or fume discharge devices and their accessories always switch off the boiler and, when work is over, have its efficiency checked by qualified personnel

IMPORTANT: before doing any cleaning or maintenance work on the unit switch off the electrical power supply via the switch on the boiler itself. Shut off the gas supply by closing the tap on the boiler. The above stated, work generally involves the following:



- removal of any oxidation from burners
- removal of any encrustation from heat exchangers
- checking and general cleaning of fan (mod. MS)
- checking connections between the various air/fume pipes
- general pipe cleaning
- checking general external appearance of boiler
- checking for proper ignition, shutdown and operation of both hot water and heating functions
- checking for proper seal on gas/water fittings and pipes.
- checking gas consumption at minimum and maximum power
- checking position of ignition electrode
- checking position of detection electrode
- checking combustion and efficiency parameters
- checking the no-gas safety device
- water system pressure
- expansion tank efficiency
- checking for proper operation of safety and adjustment thermostats
- checking for proper circulation pump operation
- checking that no gas whatsoever leaks from the unit and no combustion gas leaks from the down-draught diverter or the boiler-flue connection.
- checking gas flow rate.

Do not clean the unit and/or its component parts with easily inflammable substances (e.g. petrol, alcohol etc.)

Do not clean panelling, painted and plastic parts with paint diluents.

Clean the panelling with soapy water only.

If a room thermostat is installed we recommend our chronothermostat CLASS PIU' which, in addition to guaranteeing the comfort of a precise regulation of temperature, offers a notable range of heating programmes; alternatively use a programming digital timer.

ATTENTION. The room thermostat with 230 V mains supply must be connected to the earth terminal, or use a class II room thermostat.



Chronothermostat CLASS PIU' (accessory)



OPERATION WITH DIFFERENT TYPES OF GAS

CONVERSION FROM NATURAL GAS TO LIQUID GAS

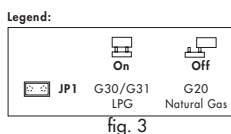
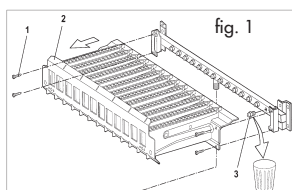
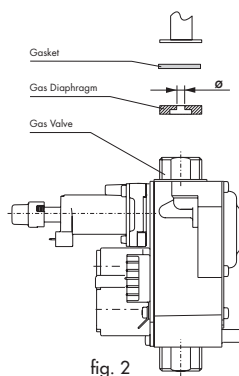
The boiler is factory-set for G20 (Natural Gas) or G30/G31 (LPG) operation, as mentioned on the Technical Nameplate and on the apparatus packaging. In the event the heater shall be operated using a different gas from that conceived by factory setting, a special kit has to be installed, which is to be ordered separately. To perform conversion, act as follows:

- Remove the cover and open the tight chamber (for model MS)
- Unscrew the fastening screws (1) and remove the burner (2) (fig. 1)
- Replace the burner nozzles (3) with those supplied with the transformation kit, making sure that the relevant diameter corresponds to that reported in the table shown below. Insert the sealing rings
- Reassemble the burner
- Close the tight chamber checking proper positioning of seal gaskets (for model MS)

Then act as follows:

For transformation from G20 (Natural Gas) to G30/G31 (LPG):

- Insert the gas diaphragm (fig. 2)
- Move jumper JP1 to ON position (fig. 3)
- Disconnect the pressure regulator by screwing tight the nut (H) (page 42) and adjust minimum pressure to the value reported in the table shown below by acting on the screw (I) (page 42)
- If necessary, adjust trimmers RLA and R.MAX according to the system features
- Seal the regulator by applying the cover (G)



For transformation from G30/G31 (LPG) to G20 (Natural Gas):

- Remove the gas diaphragm
- Move jumper JP1 to OFF position (fig. 3)
- Regulate the pressure (maximum and minimum values) of the burner according to the values reported in the table shown below, by acting on the nut (H) and on the screw (I) respectively, as described in paragraph 'ADJUSTMENTS' (page 42)
- If necessary, adjust trimmers RLA and R.MAX according to the system features
- To confirm transformation, apply the adhesive plate supplied with the transformation KIT on the Technical Nameplate reporting the information featuring the gas, and according to the factory-setting.

Gas type	Jets pressure mbar XILO T 20 N MS		Gas delivery m ³ /h	Burner jets Ø mm.	L.C.V. kcal/h	Classe NOx MS	Gas Diaphragm (H)
	min.	max.					MS Ø
G20-20mbar (Natural Gas)	1,9	11,4	2,7	1,25	8.550	2	-
G30-28/30mbar (LPG)	4,6	24,4	0,8	0,77	29.330	2	4,5
G31-37mbar (LPG)	6,9	32,4	1	0,77	22.360	2	4,5



FAULT-FINDING CHART

FAULT	CAUSE	REMEDY
1 NO IGNITION	A. Gas cock closed B. Boiler locked out C. No flame detection D. No ignition spark E. Air inside pipes F. Safety thermostat intervention G. Water not circulating H. Boiler water temperature higher than figure set on the adjustment thermostat	A. Open gas cock B. Reset by pressing C. Neutral and phase inverted D. Call technical service E. Repeat ignition F. Press reset push-button G. Adjust boiler pressure and check circulator H. Adjust thermostat setting on desired temperature.
2 CRACKLING IGNITION	A. Irregular flame B. Insufficient or wrongly adjusted gas delivery	A. Call technical service B. Call technical service
3 SMELL OF GAS	A. Leak in pipes circuit (inside and outside boiler)	A. Check the external pipes Check the internal pipes Call technical service
4 MELL OF UNBURNT GAS AND BAD BURNER COMBUSTION	A. Flue cross-section or height with joint not suitable for the boiler B. Excessive gas consumption - combustion is imperfect C. Flames tend to detach D. Flames have yellow tips	A. Replace unsuitable components B. Adjust gas delivery C. Check/adjust gas valve pressure stabilizer D. Check that air volutes and Venturi cones of the burner are clean If items A-B-C-D have been checked with negative result call technical service
5 CONDENSATION IN THE BOILER	A. Flue cross-section or height not suitable (excessive size) B. Boiler operating at low temperature	A. Replace unsuitable components. B. Adjust boiler thermostat at a higher temperature and check if air intake pipe/flue exhaust connection is correct.
6 COLD RADIATORS IN WINTER	A. Function selector on summer position B. Room thermostat set too low or faulty C. System or radiators closed D. Circulator blocked	A. Place it in winter position B. Adjust thermostat at a higher temperature or replace it. C. Check if system gate valves and radiator cocks are opened. If item C has been checked with negative result call technical service D. Unblock with a screwdriver and check electrical supply

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

CALORECLIMA

AZIENDA CERTIFICATA ISO 9001



IT

CALDAIA MURALE A GAS TERMO
ALTO RENDIMENTO - MODULANTE
MANUALE PER L'UTENTE

2

À la cortese attenzione del sig. **INSTALLATORE**:

Consegnare il presente manuale d'uso all'UTENTE

GB

WALL-HUNG GAS BOILER FOR HEATING
FOR HIGH EFFICIENCY - MODULATING
USER MANUAL

9

For the attention of the **INSTALLATION TECHNICIAN**:

make sure that this manual is handed over to the USER

ES

CALDERA MURAL A GAS PARA CALEFACCIÓN
ALTO RENDIMIENTO - MODULANTE
MANUAL PARA EL USUARIO

16

la atención del sr. **INSTALADOR**:

Entregar el presente manual para el uso al USUARIO

PT

CALDEIRA DE PAREDE A GÁS PARA CALEFAÇÃO
ALTO RENDIMENTO - MODULANTE
MANUAL DO UTENTE

23

Atenção do Sr. **INSTALADOR**:

Entregue este manual de uso ao UTENTE



Xílo T 20 N MS W TOP U/IT



INDEX	PAGE
GENERAL INSTRUCTIONS _____	10
INSTRUCTION FOR THE USE _____	11
CHECKINGS AND MAINTENANCE _____	12
DIMENSIONS mm _____	13
IGNITION - OPERATION - SHUTDOWN INSTRUCTIONS _____	14
FAULT-FINDING CHART _____	15

Dear User...

... you now own a product, result of a thorough project and of advanced construction systems, granting you the utmost reliability, operation safety and great saving for its use.
Carefully read this manual to know all information about the appliance operation.

"LAMBORGHINI AFTER-SALE SERVICE", is at your disposal to grant
you a QUALIFIED MAINTENANCE and a VERY PROMPT AFTER-SALE SERVICE

LAMBORGHINI CALORECLIMA

For boiler installation and location:
STRICTLY FOLLOW LOCAL SPECIFICATIONS IN FORCE.



GENERAL INSTRUCTIONS

- This booklet constitutes an integral and essential part of the product and should be preserved for any further consultation.
Read carefully the instructions contained in this booklet as they provide important directions regarding the operation of the appliance, allowing a great saving in its use and maintenance.
- If the appliance is sold or transferred to other people or if you move house and leave your apartment, ensure that the manual remains with the appliance so that it can be used by the new owner.
- This appliance should be destined only for the use for which it has been expressly envisaged.
Any other use is to be considered improper and therefore dangerous.
The manufacturer cannot be considered responsible for any damages caused from improper, erroneous or unreasonable use.
- Do not touch the parts of the boiler which during the operation become overheated.
These parts can be dangerous for children or inexperienced persons.
- Do not obstruct the inlet or dissipation screens.
- Do not make the boiler wet with splashes of water or other liquids.
- Do not rest any object upon the boiler.
- Use of the boiler is prohibited for children or the inexperienced.
- Do not carry out any cleaning of the boiler with inflammable substances.
- Do not deposit containers of inflammable substances in the location where the boiler is situated.
- In the presence of the risk of freezing suitable provisions must be taken which are not however the concern of the boiler manufacturer

ALL INSTALLATION, MAINTENANCE AND GAS CONVERSION OPERATIONS MUST BE CARRIED OUT BY AUTHORISED SKILLED TECHNICIANS.

TO ENSURE THAT BOILER IS INSTALLED CORRECTLY AND THAT IT FUNCTIONS PROPERLY, WE RECOMMEND THAT ONLY LAMBORGHINI ACCESSORIES AND SPARE PARTS BE USED.

ON NOTICING THE SMELL OF GAS DO NOT TOUCH ANY ELECTRIC SWITCH. OPEN DOORS AND WINDOWS. SHUT OFF THE GAS COCKS.



INSTRUCTION FOR THE USE

- In case of breakdown and/or malfunctioning of the appliance, disconnect it avoiding any attempt of repair or direct intervention.
Call exclusively professionally qualified personnel.
Any repair must be carried out by an after-sale service centre "LAMBORGHINI SERVICE" authorised by the manufacturing firm, and using original replacements exclusively.
Non-observance of the above could compromise the guarantee and the safety of the appliance.
In order to guarantee the efficiency of the appliance and its proper operation it is indispensable to keep to the manufacturer's directions, by ensuring the periodical servicing of the appliance is carried out by professionally qualified personnel.
- Check the hydraulic pressure of the installation on the hydrometer and that the indication, when the system is cold, is within the limits set by the manufacturer: if one should find a drop in pressure request for an inspection by qualified personnel.
- After each reopening of the gas cock wait a few minutes before restarting the boiler
- Do not leave the boiler switched on if it is not used for long time: in this case switch gas main supply, electricity and water supply off by their own cocks and switches.
- As soon as one decides not to use the appliance further, one should take care to render innocuous those parts liable to be potential sources of danger.
- As soon as one decides to disconnect the boiler definitively, one should ask qualified personnel to effect the related works, then ensure that the main supplies have been disconnected.
- For the power supply to the boiler the use of adaptors, multiple sockets or extensions is not permitted. The use of a switch as indicated by the safety regulations in force must be provided.
- The use of appliances which utilise electrical energy involve the observation of fundamental rules which are:
 - a) not to touch the appliance with parts of the body which are wet or when in bare feet;
 - b) not to pull electrical wires;
 - c) not to expose the appliance to the atmospheric agents;
 - d) not to allow use of the appliance to children or the inexperienced.
- In the case of structural work positioned near the flue pipe, turn off the boiler and at the end of the work ensure that the efficiency of the flue exhaust is verified by qualified personnel.
- On noticing the smell of gas do not touch any electric switch. Open all doors and windows. Shut off the gas cocks and call qualified personnel.



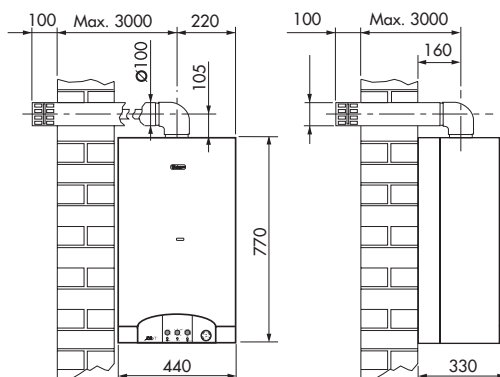
CHECKS AND MAINTENANCE

- Prima di avviare la caldaia far verificare da Personale Qualificato "LAMBORGHINI SERVICE":
 - a) that the data on the information plate corresponds to that required by the gas, electrical and water supply networks;
 - b) that the pipes which branch off from the boiler are lined with suitable thermally-insulated sheathing;
 - c) the proper functioning of the flue pipe;
 - d) that the comburent air flow and the fumes evacuation take place properly in accordance with the regulations in force.
 - e) that correct aeration and maintenance are possible in case of installation in the furniture.
- The transformation from a gas (methane or liquid gas) to a gas of another group, which can also be made with the boiler installed, must be made exclusively by qualified personnel.
- Ensure that the installer has connected the boiler safety discharge to a waste. In the case of the contrary the intervention of the safety valves could flood the premises and the manufacturer would not be held responsible for this.
- Ensure that the piping of the installation is not used as an earth outlet for other installations; beyond not being ideal for such a use it could in short bring serious damage to the other appliances connected to it.
- Ask qualified personnel "LAMBORGHINI SERVICE" to check:
 - a) the internal and external tightness of the gas system;
 - b) that the gas delivery is that required by the boiler output;
 - c) that the type of gas is suitable for the boiler;
 - d) that the pressure of gas supply is within the values stated on the boiler plate;
 - e) that the gas installation is the correct size and equipped with all the safety and checking devices prescribed by the current regulations.
- Ask periodically to check the proper functioning and the good state of the flue exhaust.
- Ensure that the electrical system has been confirmed by qualified personnel to be adequate for the power required by the appliance itself.
- The electricity supply cable must not be replaced by the user, but by qualified personnel only.
- The electrical safety of the appliance is attained only if the same has been connected to an effective system earthed in accordance with the current regulations. The verification of this fundamental prerequisite should be made by qualified persons as the manufacturer will not be responsible for damage caused by the lack of adequate earthing of the installation.

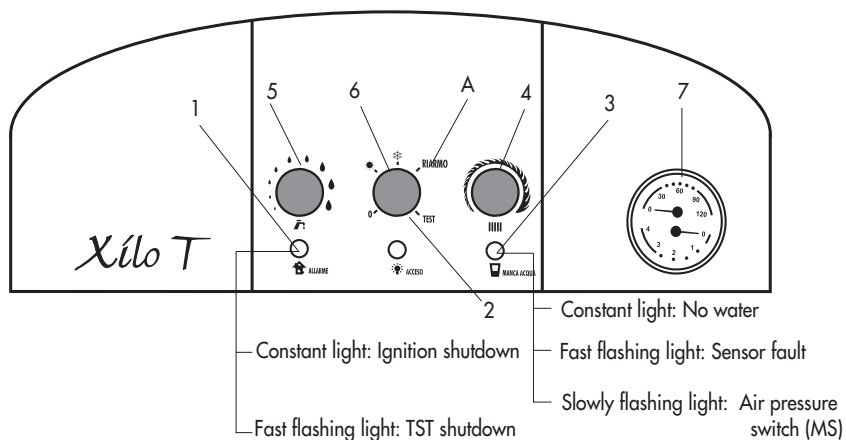


DIMENSIONS mm

XILO T 20 N MS W TOP



CONTROL PANEL AND ADJUSTMENTS



Should the boiler shut down it must be reset by rotating functions selector switch 6 to position A.

- | | |
|------------------------------------|--------------------------------------|
| 1 Lock-out warning light | 5 Hot water adjustment potentiometer |
| 2 ON/OFF warning light | 6 Function selector |
| 3 Malfunzionamento warning light | 7 Thermohydrometer |
| 4 Heating adjustment potentiometer | |



IGNITION - OPERATION - SHUTDOWN INSTRUCTIONS

IGNITION

Open the gas tap and turn the selector switch (6) to the desired position. The burner will ignite automatically. Should ignition fail to take place check the lock-out warning light (1) and fault warning light (3) to see if they have come on. Turn the selector (6) to the reset position A. Then rotate the selector (6) again to the desired position. Then adjust heating temperature (4) and hot water temperature (5) as desired via the appropriate controls.

TEMPORARY IGNITION/SHUTDOWN

Proceed as follows:

- adjust the room thermostat;
- adjust the potentiometers on the front panel (4) (5).

PROLONGED SHUTDOWN

Should the boiler remain idle for a long period close the gas tap, position the selector switch (6) at position (0) and disconnect the electrical power supply.

SUMMER MODE

Turn the selector switch (6) to SUMMER. ☀

Regulate the hot water potentiometer (5) to a position corresponding to desired water temperature.

WINTER MODE

Turn the selector switch (6) to WINTER. ❄

Regulate the heating potentiometer (4) to a position that corresponds to desired heating temperature.

If a room thermostat is installed then the thermostat will keep room temperature at the set level.

Adjust the hot water potentiometer (5) to a position corresponding to desired water temperature.

WARNING: When Summer ☀ or Winter ❄ mode is selected the ON indicator light comes on indicating that the boiler is electrically powered.

WARNING: Use only 2A/250VC - 5x20 rapid fuses.



FAULT-FINDING CHART

FAULT	CAUSE	REMEDY
1 NO IGNITION	A. Gas cock closed B. "Lock-out" button locked C. No flame detection D. No ignition spark E. Air inside pipes F. Safety thermostat intervention	A. Open gas cock B. Reset by pressing C. Call technical service D. Call technical service E. Repeat ignition F. Wait for the temperature to drop
2 CRACKLING IGNITION	A. Irregular flame B. Insufficient or wrongly adjusted gas delivery	A. Call technical service B. Call technical service
3 SMELL OF GAS	A. Leak in pipes circuit (inside and outside boiler)	A. Call technical service
4 MELL OF UNBURNT GAS AND BAD BURNER COMBUSTION	A. Flue section or height with joint not suitable for the boiler B. Excessive gas consumption - combustion state is imperfect C. Flames tend to move away or have yellow tips	A. Call technical service B. Call technical service C. Call technical service
5 CONDENSATION IN THE BOILER	A. Flue cross-section or height not suitable (excessive size) B. Boiler operating at low temperature	A. Call technical service B. Adjust boiler thermostat at a higher temperature.
6 COLD RADIATORS IN WINTER	A. Function selector on summer position B. Room thermostat set too low or faulty C. System or radiators closed D. Circulator blocked	A. Place it in winter position B. Adjust thermostat at a higher temperature or replace it. C. Check if system gate valves and radiator cocks are opened. If item C has been checked with negative result call technical service D. Call technical service

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