

# INSTALLER INSTRUCTIONS

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**FONDERIE SIME S.p.A.** of Via Garbo 27 - Legnago (VR) - Italy declares that its hot water boilers, which bear the CE mark under Gas Directive 90/396/CEE and are fitted with a safety thermostat calibrated to a maximum of 110°C, **are not subject** to application of PED Directive 97/23/CEE as they meet the requirements of article 1 paragraph 3.6 of the Directive.

## IMPORTANT

When carrying out commissioning of the boiler, you are highly recommended to perform the following checks:

- Make sure that there are no liquids or inflammable materials in the immediate vicinity of the boiler.
- Make sure that the electrical connections have been made correctly and that the earth wire is connected to a good earthing system.
- Open the gas tap and check the soundness of the connections, including that of the burner.
- Make sure that the boiler is set for operation for the type of gas supplied.
- Check that the flue pipe for the outlet of the products of the combustion is unobstructed.
- Make sure that any shutoff valves are open.
- Make sure that the system is charged with water and is thoroughly vented.
- Check that the circulating pump is not locked.
- Purge the system, bleeding off the air present in the gas pipe by operating the pressure relief valve on the gas valve inlet.

# 1 DESCRIPTION OF THE BOILER

## 1.1 INTRODUCTION

"LOGO" is the thermal group with multi-gas burner with low of Nox premix, designed and manufactured to comply with the european directives 90/396/CE, 89/336/CEE, 73/23/CEE, 92/42/CEE and with the european specifications EN 297 - EN 625. This booklet provides the

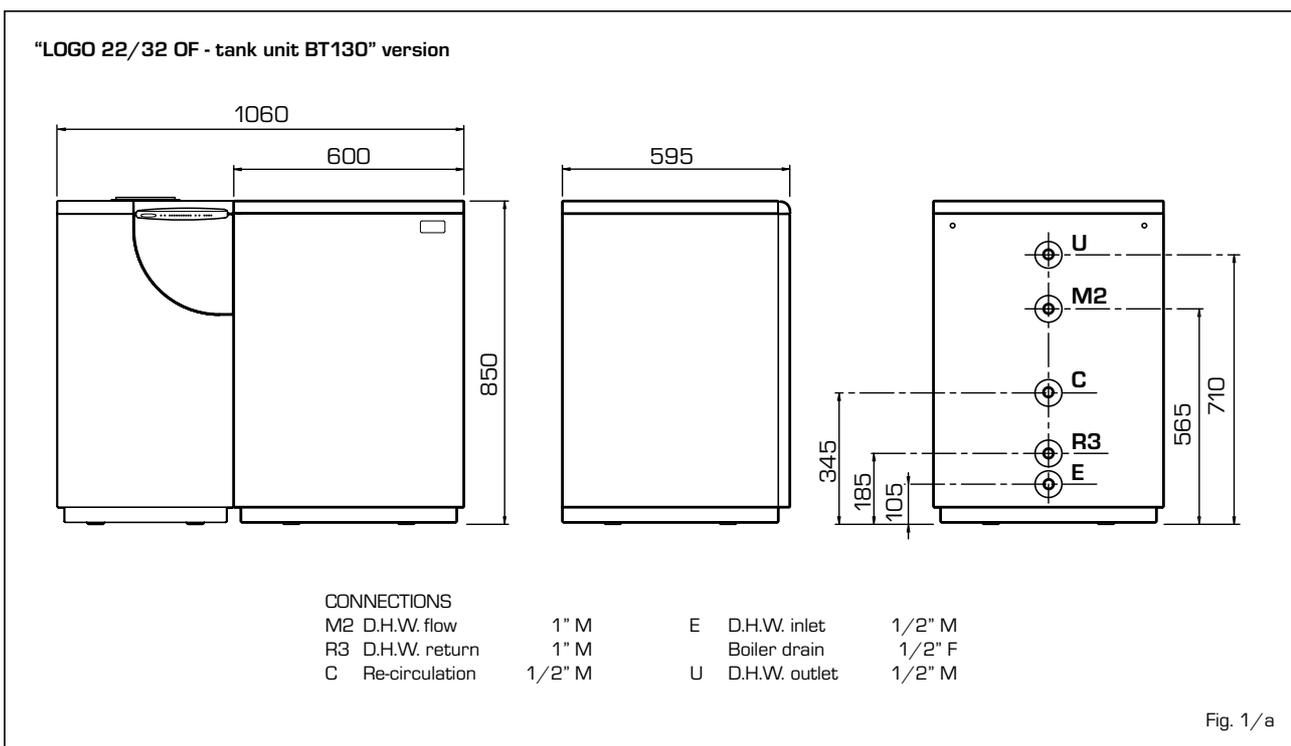
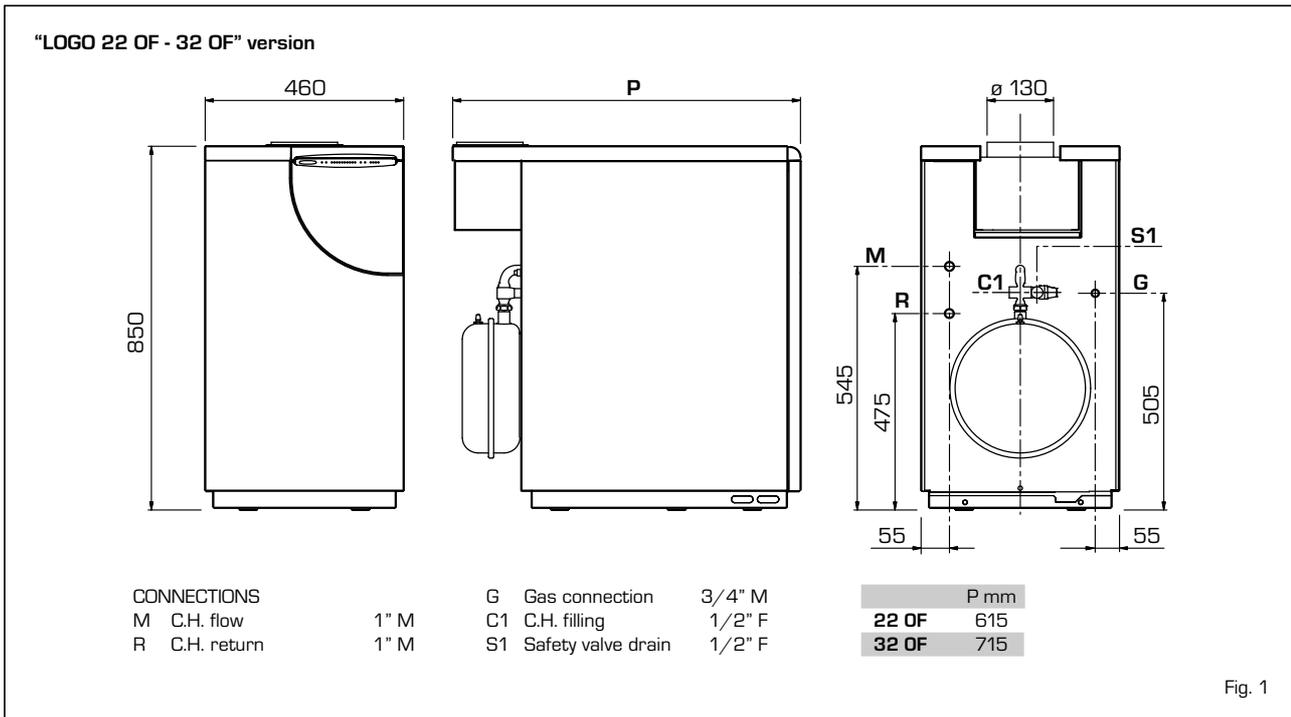
instructions for the following boiler models:

- "LOGO 22 OF - 32 OF"  
central heating only, electronic ignition and modulation, natural draught, matchable with "BT130 - BT150" D.H.W. tanks.
- "LOGO 32/50 OF - 32/80 OF"  
central heating and D.H.W. production,

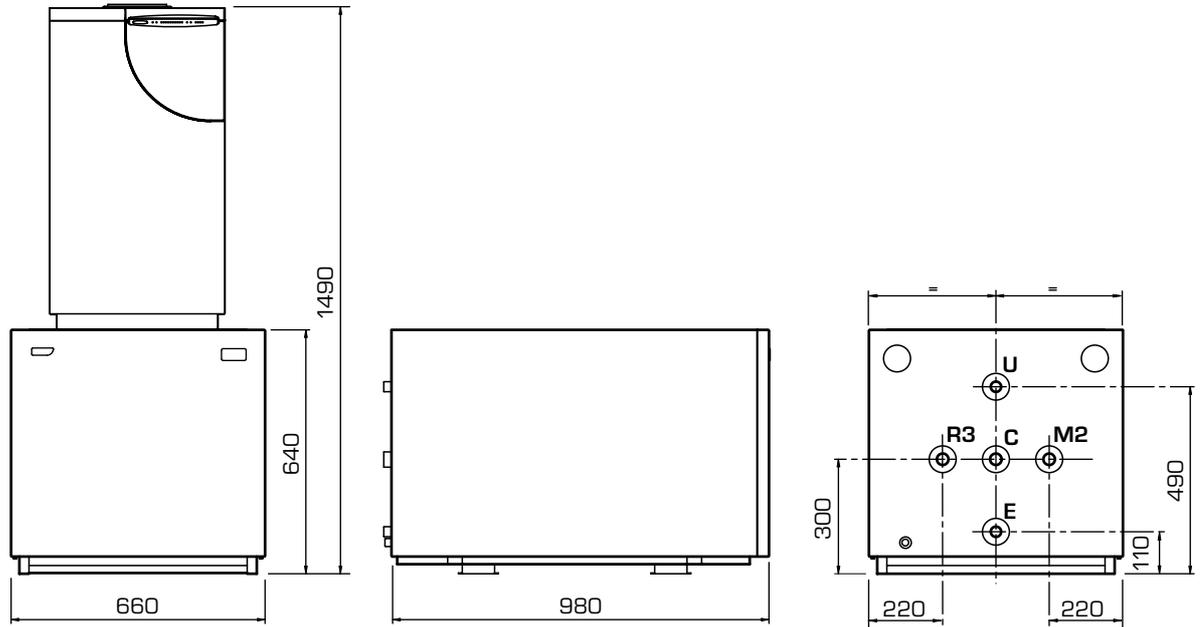
electronic ignition and modulation, natural draught.

Follow the instructions given in this manual for the correct installation and perfect functioning of the apparatus.

## 1.2 DIMENSIONS



"LOGO 22/32 OF - tank unit BT150" version

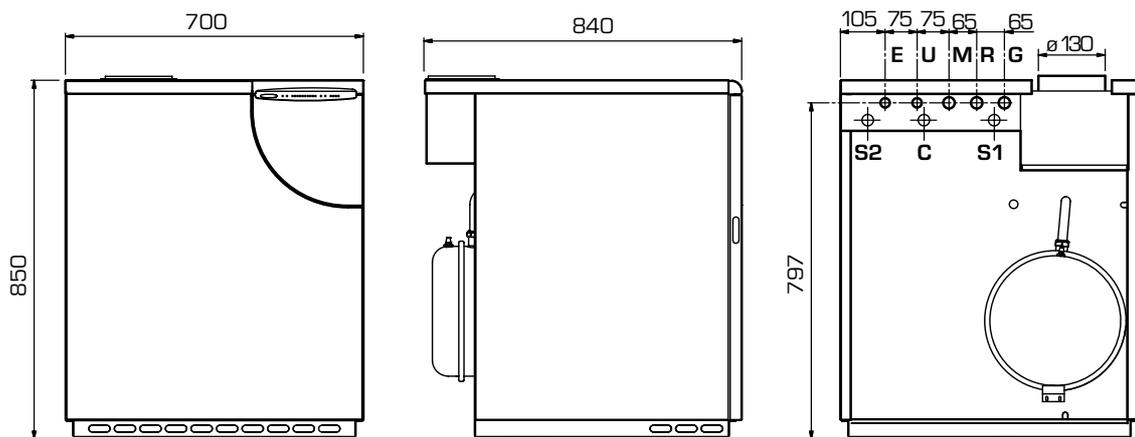


CONNECTIONS

M2 D.H.W. flow	1" F	E D.H.W. inlet	3/4" M
R3 D.H.W. return	1" F	Boiler drain	1/2" F
C Re-circulation	3/4" M	U D.H.W. outlet	3/4" M

Fig. 1/b

"LOGO 32/50 OF" version

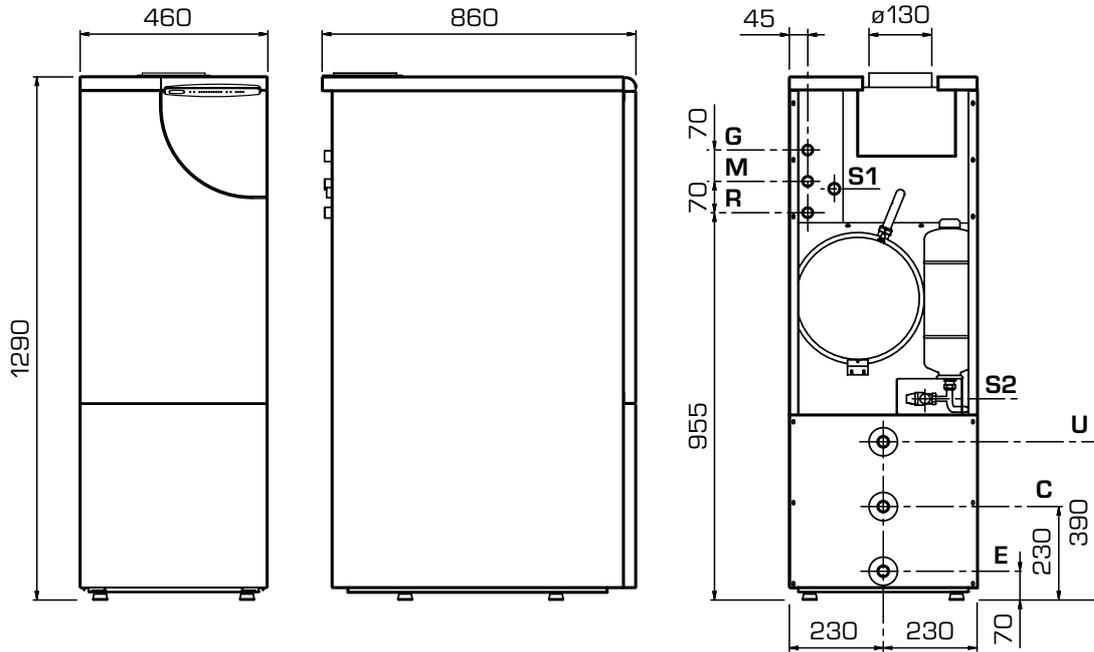


CONNECTIONS

M C.H. flow	3/4" M	U D.H.W. outlet	1/2" M
R C.H. return	3/4" M	C Re-circulation	1/2" F
E D.H.W. inlet	1/2" M	S1 Safety valve drain	1/2" F
G Gas connection	3/4" M	S2 D.H.W. tank safety valve drain	1/2" F

Fig. 1/c

"LOGO 32/80 OF" version



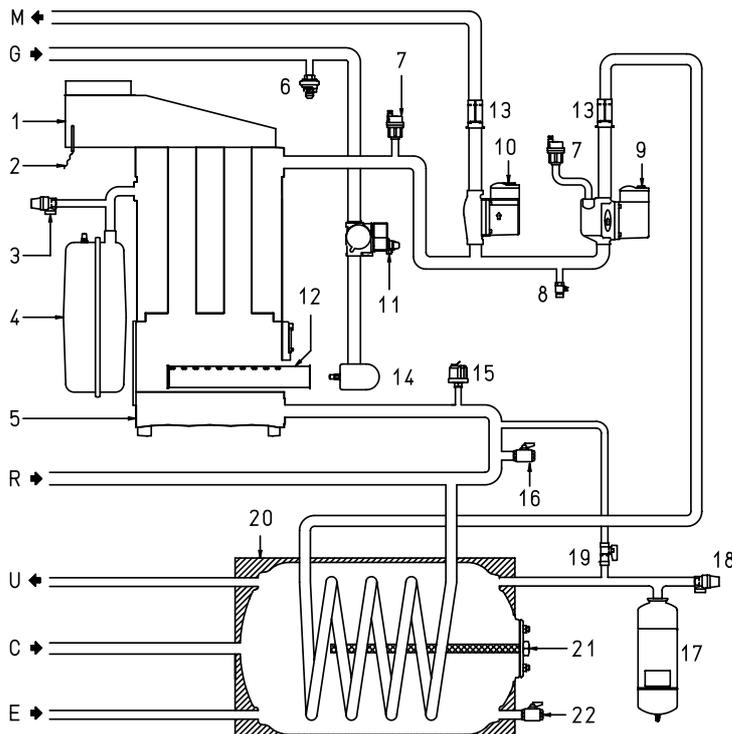
CONNECTIONS

M	C.H. flow	3/4" M
R	C.H. return	3/4" M
E	D.H.W. inlet	3/4" F
G	Gas connection	3/4" M

U	D.H.W. outlet	3/4" F
C	Re-circulation	3/4" F
S1	Safety valve drain	1/2" F
S2	D.H.W. tank safety valve drain	1/2" F

Fig. 1/d

1.3 FUNCTIONAL DIAGRAM



KEY

- 1 Smoke chamber
- 2 Smoke stat capillary
- 3 Safety valve
- 4 Boiler expansion vessel
- 5 Boiler block
- 6 Gas pressure switch
- 7 Air vent valve
- 8 Manual air vent
- 9 D.H.W. circulating pump
- 10 C.H. circulating pump
- 11 Gas valve
- 12 Burners
- 13 Non return valve
- 14 Burners manifold
- 15 Water pressure transducer
- 16 Boiler drain cock
- 17 D.H.W. expansion vessel
- 18 D.H.W. safety valve
- 19 Manual filling group
- 20 D.H.W. tank
- 21 Magnesium anode
- 22 D.H.W. drain cock

Fig. 2

## 1.4 TECHNICAL FEATURES

		Heating only		Combined		D.H.W. tank	
		22 OF	32 OF	32/50 OF	32/80 OF	BT130	BT150
<b>Heat output</b>							
Nominal	kW	17,8÷23,7	24,1÷31,6	24,1÷31,6	24,1÷31,6	-	-
	kcal/h	15.300÷20.400	20.700÷27.200	20.700÷27.200	20.700÷27.200	-	-
Minimal	kW	17,8	24,1	24,1	24,1	-	-
	kcal/h	15.300	20.700	20.700	20.700	-	-
<b>Heat input</b>							
Nominal	kW	19,5÷26,0	26,1÷34,8	26,1÷34,8	26,1÷34,8	-	-
Minimal	kW	19,5	26,1	26,1	26,1	-	-
Sections	n°	4	5	5	5	-	-
<b>Expansion vessel</b>							
Capacity/Pre-loading pressure	l/bar	8/1	10/1	10/1	10/1	-	-
Absorbed power consumption	W	105	125	125	125	-	-
Maximum water head	bar	4	4	4	4	-	-
Maximum temperature	°C	85	85	85	85	-	-
Water content	l	14	16	18	18	-	-
C.H. setting range	°C	40÷80	40÷80	40÷80	40÷80	-	-
D.H.W. setting range	°C	10÷60*	10÷60*	10÷60	10÷60	-	-
Category		II2H3P	II2H3P	II2H3P	II2H3P	-	-
Type		B11BS	B11BS	B11BS	B11BS	-	-
Smokes temperature	°C	108	110	116	119	-	-
Smokes flow	gr/s	18,5	23,2	23,0	23,0	-	-
CO at 0% of O <sub>2</sub> min./max (G20)	ppm	10/4	10/8	7/8	10/6	-	-
CO at 0% of O <sub>2</sub> min./max (G31)	ppm	5/10	7/6	7/7	7/6	-	-
NO <sub>x</sub> at 0% of O <sub>2</sub> average value (G20)	ppm	13	13	13	13	-	-
NO <sub>x</sub> class		5	5	5	5	-	-
<b>D.H.W. production</b>							
Tank capacity	l	-	-	50	80	130	150
D.H.W. flow rate (EN 625)**	l/min	-	-	16,2	17,3	23,5	28,9
Continuous D.H.W. flow rate Δt 30°C	l/h	-	-	810	726	900	918
D.H.W. expansion vessel	l	4*	4*	2,5	4	-	-
D.H.W. maximum water head	bar	7*	7*	7	7	-	-
Recovery time from 25 to 55°C	min	-	-	5'	9' 30"	10'	15'
<b>Main gas nozzles</b>							
Quantity	n°	3	3	3	3	-	-
Methane (G20)	ø mm	2,40	2,75	2,75	2,75	-	-
Propane (G31)	ø mm	1,55 N	1,80	1,80	1,80	-	-
<b>Pilot nozzles</b>							
Methane (G20)	ø mm	0,45	0,45	0,45	0,45	-	-
Propane (G31)	ø mm	0,25	0,25	0,25	0,25	-	-
<b>Gas flow***</b>							
Methane (G20)	m <sup>3</sup> st/h	2,75	3,68	3,68	3,68	-	-
Propane (G31)	kg/h	1,97	2,64	2,64	2,64	-	-
<b>Gas burner pressure</b>							
Methane (G20)	mbar	7,3÷12,7	7,3÷12,7	7,3÷12,7	7,3÷12,7	-	-
Propane (G31)	mbar	16,6÷28,4	16,6÷28,4	16,6÷28,4	16,6÷28,4	-	-
<b>Gas flow pressure</b>							
Methane (G20)	mbar	20	20	20	20	-	-
Propane (G31)	mbar	37	37	37	37	-	-
<b>Weight</b>							
	kg	139	170	225	238	89	117

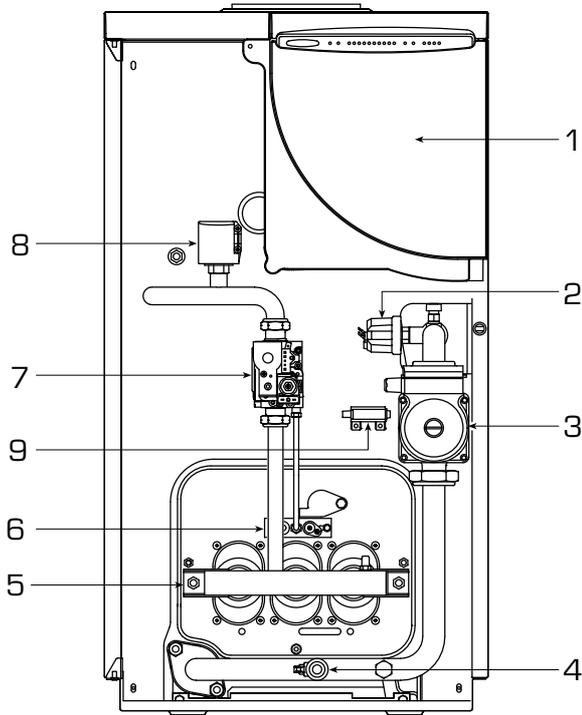
\* When the "BT130 - BT150" tank units is connected to the boiler with the kit provided and the optional D.H.W. expansion vessel.

\*\* Flow calculated with a fixed temperature on the D.H.W. potentiometer of 60°C for a maximum period of 10 minutes.

\*\*\* The gas flow refers to the inferior calorific value in standard conditions of 15°C - 1013 mbar

1.5 MAIN COMPONENTS

"LOGO 22 OF - 32 OF" version

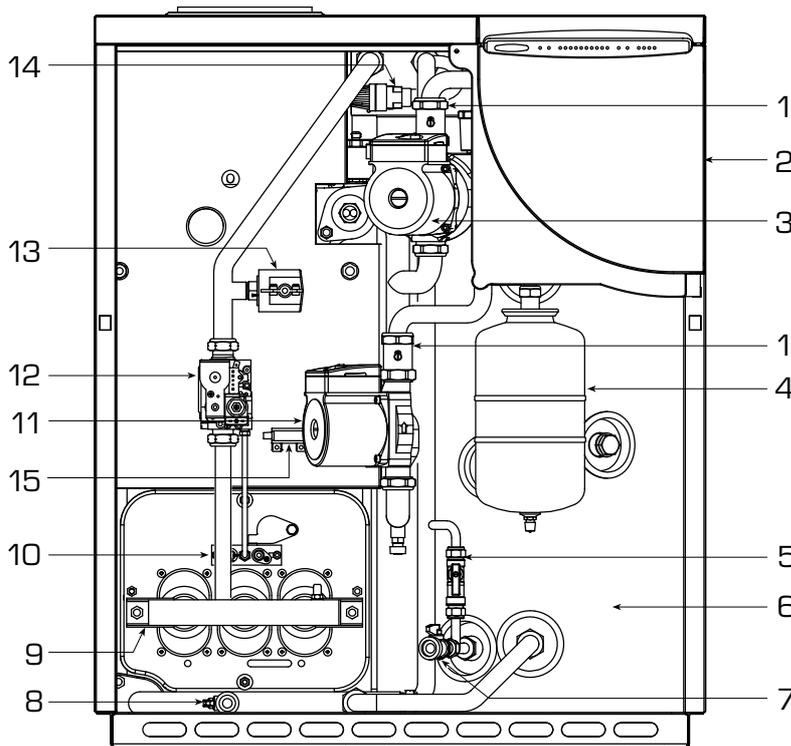


KEY

- 1 Control panel
- 2 Pressure transducer
- 3 C.H. circulating pump
- 4 Boiler drain cock
- 5 Burners manifold
- 6 Pilot burner
- 7 Gas valve
- 8 Gas pressure switch
- 9 Ignition transformer

Fig. 3

"LOGO 32/50 OF" version

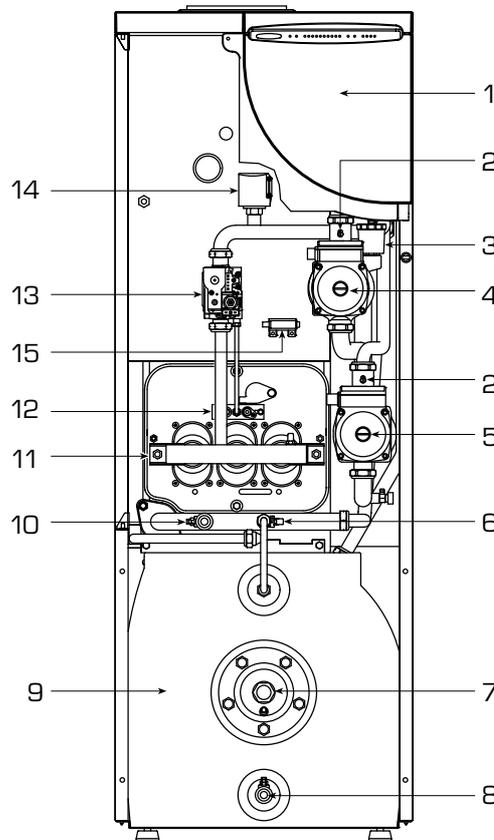


KEY

- 1 Non return valve
- 2 Control panel
- 3 D.H.W. circulating pump
- 4 D.H.W. expansion vessel
- 5 Manual filling group
- 6 D.H.W. tank
- 7 D.H.W. tank drain cock
- 8 Boiler drain cock
- 9 Burners manifold
- 10 Pilot burner
- 11 C.H. circulating pump
- 12 Gas valve
- 13 Gas pressure switch
- 14 Safety valve
- 15 Ignition transformer

Fig. 3/a

"LOGO 32/80 OF" version



KEY

- 1 Control panel
- 2 Non return valve
- 3 Air vent valve
- 4 D.H.W. circulating pump
- 5 C.H. circulating pump
- 6 Manual filling group
- 7 Magnesium anode
- 8 D.H.W. tank drain cock
- 9 D.H.W. tank
- 10 Boiler drain cock
- 11 Burners manifold
- 12 Pilot burner
- 13 Gas valve
- 14 Gas pressure switch
- 15 Ignition transformer

Fig. 3/b

## 2 INSTALLATION

The boiler must be installed in a fixed location and only by specialized and qualified firms in compliance with all instructions contained in this manual. Furthermore, the installation must be in accordance with current standards and regulations.

### 2.1 BOILER ROOM AND VENTILATION

The "LOGO" version boilers with less than 35 kW power can be installed in domestic environments when simply replacing or in a plant room complying with current standards. In rooms where open chamber gas appliances are installed, it is important that at least as much air at least as much air can arrive as required by normal combustion of the gas consumed by the various appliances.

The minimum distance between the boiler

and inflammable materials has to be  $\geq 200$  mm. Consequently, it is necessary to make openings in the walls for the air inlet into the rooms (around  $2 \text{ m}^3/\text{h}$  for each kW of heat input). These openings must meet the following requirements:

- Have a total free section of at least  $6 \text{ cm}^2$  for every kW of heat input, with a minimum of  $100 \text{ cm}^2$ .
- They must be located as close as possible to floor level, not prone to obstruction and protected by a grid which does not reduce the effective section required for the passage of air.

### 2.2 CONNECTING UP SYSTEM

Before proceeding to connect up the boiler, you are recommended to make the air circulating in the piping in order to eliminate any foreign bodies that might be detrimental to the operating efficiency of the applian-

ce. It is always advisable to put intercepting sluice gates on the C.H. flow and return tubes. The gas connection must be made using seamless steel pipe (Mannesmann type), galvanized and with threaded joints provided with gaskets, excluding three-piece connections, except for initial and end connections. Where the piping has to pass through walls, a suitable insulating sleeve must be provided.

When sizing gas piping, from the meter to the boiler, take into account both the volume flow rates (consumption) in  $\text{m}^3/\text{h}$  and the relative density of the gas in question.

The sections of the piping making up the system must be such as to guarantee a supply of gas sufficient to cover the maximum demand, limiting pressure loss between the gas meter and any apparatus being used to not greater than:

- 1.0 mbar for family II gases (natural gas);
- 2.0 mbar for family III gases (butane or propane).

An adhesive data plate is stuck inside the front panel; it contains all the technical data identifying the boiler and the type of gas for which the boiler is arranged.

### 2.2.1 D.H.W. tank unit "BT130 - BT150"

The "22 OF - 32 OF" versions can be matched to the separate D.H.W. tank units "BT130-BT150".

The D.H.W. tank units can be installed underneath the boiler ("BT150") or on the side ("BT130"). The D.H.W. sensor (SB) is supplied with the tank.

The SB must be connected to the electronic control panel of the boiler as shown in fig. 6. To aid installation an optional hydraulic connection kit is available, code 8076104 ("BT130") and code 8076105 ("BT150"). Detailed instructions on assembling the kit are given in the packaging.

### 2.2.2 Filter on the gas pipe

The gas valve is supplied ex factory with an inlet filter, which, however, is not adequate to entrap all the impurities in the gas or in gas main pipes. To prevent malfunctioning of the valve, or in certain cases even to cut out the safety device with which the valve is equipped, install an adequate filter on the gas pipe.

### 2.3 CHARACTERISTICS OF FEEDWATER

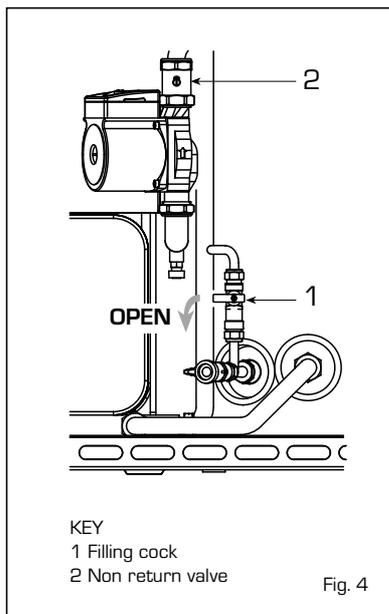
To prevent lime scale and damage to the tap water exchanger, the water supplied should have a hardness of no more than 20°F. In all cases the water used should be tested and adequate treatment devices should be installed. To prevent lime scale or deposits on the primary exchanger, the water used to supply the heating circuit should be treated in accordance with UNI-CTI 8065 standards.

It is absolutely essential that the water is to be treated in the following cases:

- Very extensive system (with high contents of feedwater).
- Frequent addition of makeup water into the system.
- Should it be necessary to empty the system either partially or totally.

### 2.4 SYSTEM FILLING (fig. 4)

The filling is carried out at a boiler temperature no less than 40°C. It is done slowly in order to allow the air bubbles to be released through appropriate vents. In order to facilitate this operation position the set screw slot of the non return valves horizontally. Once the filling is completed put the screws back in the starting position. The loading pressure of the un-started plant should be 1 bar. **Once the filling has been completed, close the filling tap.**



### 2.4.1 Emptying the plant

To carry out this operation act on the discharge tap (4 fig. 3 - 8 fig. 3/a - 10 fig. 3/b). Before carrying out this operation check that the filling tap is closed.

### 2.5 FLUE

The flue for the atmospheric expulsion of the combustion products from natural draught appliances must meet the following requirements:

- Be gas-tight to the combustion products, waterproof and thermally insulated.
- Be built of materials suitable for keep resisting to normal mechanical stresses, heat, and the action of combustion products and their possible condensates.
- Follow a vertical path and not present any throttling throughout its entire length.
- Be adequately insulated to prevent phenomena of condensation or smokes cooling, in particular if located outside the building or in unheated ambiances.
- Be set at an adequate distance from

combustible or easily inflammable material by means of an air gap or suitable insulating material.

- Have beneath the mouth of the first smoke duct a chamber for collecting solid material and any condensate; the height of the chamber must be at least 500 mm.
- Access to the chamber must be guaranteed by means of an opening provided with an air-tight metal door.
- Have a circular, square, or rectangular internal cross section; in the case of square or rectangular sections, the corners must be rounded off with a radius of not less than 20 mm. However, hydraulically equivalent cross sections are allowed.
- Be equipped with a chimney-pot at the top, which must be outside the so-called back-flow zone, so as to prevent the formation of back-flow, which prevents free discharge of the products of combustion into the atmosphere.
- Be devoid of mechanical means of suction located at the top of the pipe.
- No overpressure should be present in a chimney that passes within or close up to inhabited rooms.

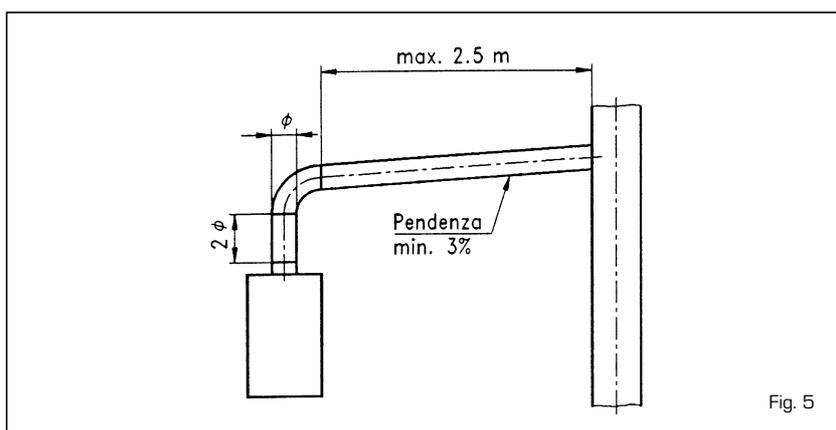
### 2.5.1 Connecting up flue

Fig. 5 refers to the connection of the boilers to the flue or chimney through smoke ducts for apparatus of nominal heat input not greater than 35 kW.

When making the connection, in addition to respecting the dimensions given, you are recommended to use gas-tight materials capable of resisting over time mechanical stresses and the smokes heat.

At any point along the smoke duct, the temperature of the combustion products must be higher than the dew point.

More than a total of three changes of direction must not be made, including the inlet connection to the chimney/flue. For any changes of direction use only curved pipe lengths. In case of having to go through combustible walls, insulation of the section is necessary; the insulation must be at least 5cm thick.



## 2.6 ELECTRICAL CONNECTION

The boiler is supplied with an electric supply cable which, in case of replacement, must be requested from SIME. The supply must be carried out with a monophasic voltage of 230V - 50 Hz via a general switch protected by fuses, with a distance between contacts of at least 3 mm. Observe the L-N polarities and the earth connection.

**NOTE:** Device must be connected to an efficient earthing system. SIME declines any responsibility for damages to persons or objects due to failing to earth the boiler. Always turn off the power supply before doing any work on the electrical panel.

### 2.6.1 Room stat connection (fig. 6 pos. A)

In order to have access to the connector of

the electronic panel (3), remove the cover of the control panel and, after having removed the bridge, electrically connect the room stat to the terminals TA (5-6). The thermostat or chronothermostat, whose installation allows a better regulation of the temperature and comfort of the environment, must be class II in compliance with norm EN 60730.1 (clean electrical contact).

**ATTENTION:** The application of the grid voltage to the connector ends (3) damages irreparably the control panel. Before the connection make sure that there is no voltage.

### 2.6.2 "Logica Remote Control" connection (fig. 6 pos. B)

The electrical systems must be in compliance with the local regulations and cables must be positioned in compliance

with the specifications for safety low voltage EN 60730. For lengths up to 25 m use cables with a section of 0.25 mm<sup>2</sup> and for lengths greater than 50 m use cables with a section of 0.5 mm<sup>2</sup>.

First of all assemble and cable the base (2) then insert the apparatus that will start up as soon as it receives power. To access the connector (3) remove the cover of control panel and electrically connect the climate control to the terminals CR (6-7).

**ATTENTION:** External voltage cannot be connected to terminals 1-2-3-4 of the base (2). To terminals 3-4, the telephone remote control switch of the telephone may be connected with a zero potential contact or window contact.

A type of electronic instrument for the control of civil plants via a telephone line, which may be mentioned, is the model TEL 30.4 LANDIS & STAFA.

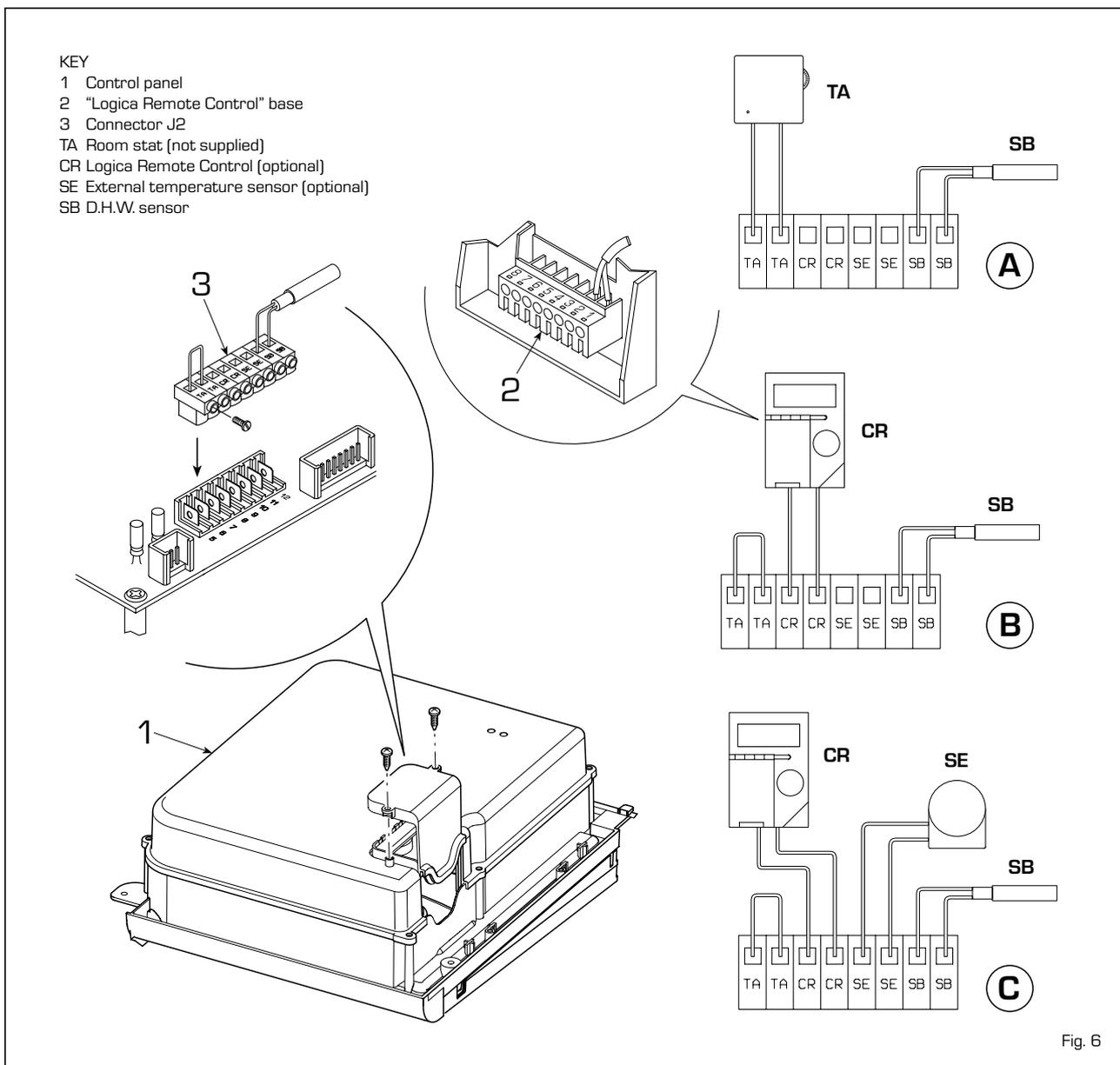


Fig. 6

### 2.6.3 External temperature sensor connection (fig. 6 pos. C)

The cables must be placed in compliance with the specifications for safety low voltage EN 60730. For lengths up to 25 m use cables with a section of 0.25 mm<sup>2</sup> and for lengths up to 50 m use cables with a section of 0.5 mm<sup>2</sup>. To have access to the connector

of the boiler (3) remove the control panel cover and electrically connect the external temperature feeler to the terminals SE (8-9).

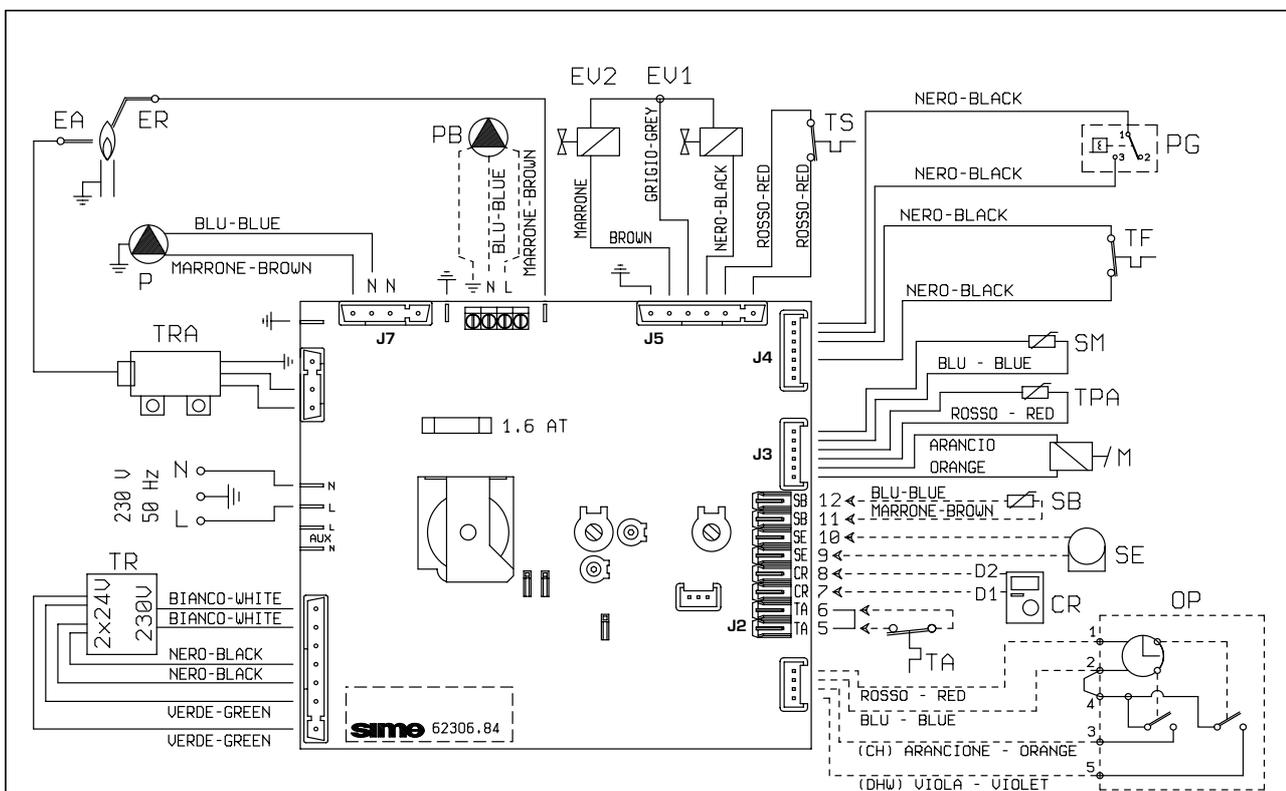
D.H.W. sensor (SB) to be connected to the J2 connector (3 fig. 6)

### 2.6.4 D.H.W. sensor "BT130 - BT150" connection

The "BT130 - T150" tanks come with a

When the tank unit is matched to boilers "22 OF - 32 OF", introduce the sensor in the sheaf on the inspection, control and cleaning flange of the tank.

### 2.6.5 Wiring diagram



- KEY
- TR Transformer 230 - 24V
  - TRA Ignition transformer
  - P C.H. circulating pump
  - PB D.H.W. circulating pump
  - EA Ignition electrode
  - ER Sensing electrode
  - EV1 Gas valve coil
  - EV2 Gas valve coil
  - TS Safety stat 100°C
  - PG Gas pressure switch
  - TF Smoke safety device

- M Modulator
- TPA Water pressure transducer
- SM C.H. sensor (blue)
- SB D.H.W. sensor
- SE External sensor (optional)
- CR Logica Remote Control (optional)
- TA Room stat
- OP Time programmer

**Note:** When connecting the room stat remove the bridge between the terminals 5-6.

- vers. LOGO 22 OF - 32 OF  
CONNECTOR SPARE PART CODES:
- J2 code 6278613
  - J3 code 6278642
  - J4 code 6278628
  - J5 code 6278643
  - J7 code 6278626

- vers. LOGO 32/50 - 32/80 OF  
CONNECTOR SPARE PART CODES:
- J2 code 6278613
  - J3 code 6278629
  - J4 code 6278628
  - J5 code 6278627
  - J7 code 6278636

Fig. 7

## 2.7 LOGICA REMOTE CONTROL

All the boiler's functions can be managed by a optional digital multifunctional device code 8092204 for the remote of the boiler itself and for regulating room climatic conditions with an operational reserve of 12 hours.

The heating circuit is controlled by the room temperature sensor built-in the equipment or by the atmospheric conditions, with or without environmental inflow, if the boiler is connected to an external sensor:

### Characteristics:

- Ergonomic control unit divided according to function (control levels)).
- Clear division of basic functions:
  - operating regime, correction of set value and presence button are directly accessible;
  - Different real current values are accessible through the "info" button;
  - other functions can be programmed after the cover has been opened;
  - special service level with protected access;
- Each setting or modification is displayed and confirmed.
- Tome setting (special line for changing BST/CET).
- Heating programme with max. 3 heating periods per day, individually selectable.
- Copy function for easy transfer of heating programme to the next or previous day.

- Holiday programme: the programme is interrupted for the holiday period and automatically restarted on returning home.
- Option to return the heating program to default values.
- Programming lock (child safety).

### Functions:

- Delivery temperature control guided by the atmospheric conditions, taking into account the dynamics of the building.
- Delivery temperature control guided by atmospheric conditions with influence of ambient temperature.
- Ambient temperature control only.
- Adjustable influence of ambient temperature shift .
- Switch-on and switch-off optimisation.
- Rapid lowering.
- ECO functions (daily heating limiter; automatic summer/winter switch-over).
- Controllable maximum delivery temperature limit (specifically for floor plants).
- Limitation of increase in pre-set delivery temperature.
- Anti-freeze protection for buildings.
- Hourly programming of the tank unit temperature on two levels: comfort and reduced.
- Domestic hot water control with nominal value requirement and enable.
- Connection to room sensor or switching of operating regime through the telephone system with external contact or

- through a window contact.
- Anti-bacterial.

### 2.7.1 Installation

The unit must be installed in the main living room. For installation, follow the assembly instructions inserted in the package.

At this point, with the selector knob on (  ), the installer can adjust the basic parameters settings according to the individual needs.

**If there is a thermostatic radiator valve fitted, this must be set to maximum.**

### 2.7.2 Installation settings

The settings for the basic operating parameters for individual needs are reported in the instruction leaflet supplied with the "Logica Remote Control" and in the section reserved for the user in this manual.

For further adjustments which can be carried out by the installer, the "Logica Remote Control" offers a level of service and parameterising which can only be accessed through a special combination of buttons.

To activate this level of service or parameterising press buttons  and  least 5 seconds. This will activate the parameterising level. Then use the same arrow buttons to select the individual input lines and adjust the values with  or  .

## HEATING CIRCUIT SETTINGS

<b>Antifreeze protection</b> <b>"Pre-set ambient temperature value"</b>		Heating takes place up to this pre-set value if the plant is activated in standby (e.g. holidays). In this way, the building antifreeze function is active, preventing an excessive lowering of the ambient.
<b>Summer/Winter switch-over temperature</b>		This parameter regulates the temperature of the automatic summer/winter switch-over.
<b>Type of control:</b> <b>0 = with ambient influence</b> <b>1 = without ambient influence</b>		This parameter de-activates the ambient influence and as a result all the optimisations and adaptations. If a valid external temperature is not transmitted , the controller switches to the pure ambient control guide variable.
<b>Influence of ambient temperature</b>		If the ambient controller is used only as a remote control (placed in the reference room and without an external sensor connected), the value must be set at 0 (zero). If the change in ambient temperature from the pre-set value remains high during the entire day, the influence must be increased. If the ambient temperature is around the pre-set value (control oscillation), the influence must be reduced.  <b>Note: If the ambient temperature influence constant is set at 0, the adaptation of the heating curve is deactivated. In this case, parameter 57 will have no effect at all.</b>

<b>Maximum limit of delivery temperature</b>	<b>55</b>	The delivery temperature is limited to the maximum set value.
<b>Variation of the maximum speed of the delivery temperature</b>	<b>56</b>	The increase per minute of the prescribed delivery temperature value sent in °C is limited to the imposed value.
<b>Activation of adaptation</b>	<b>57</b>	With the activation of the adaptation, the pre-set value transmitted to the boiler regulator is adapted to the effective heat need. The adaptation functions with both the atmospheric guide with ambient influence and with pure ambient control. If the "Logica Remote Control" is set as a remote control only, the adaptation must be is deactivated.
<b>Optimisation of switch-on time</b>	<b>58</b>	If the switch-on time optimisation is active, the "Logica Remote Control" modifies the heating gradient until it finds the optimum heating point <b>0 = OFF    1 = ON</b>
<b>Heating gradient</b>	<b>59</b>	The "Logica Remote Control" selects the switch-on time such that the set value has more or less been reached at the start of the usage time. The more severe the night-time cooling, the earlier the heating time starts.  Example: Current ambient temperature 18.5°C Nominal ambient temperature 20°C Heating gradient 30 min/K Presetting of switch-on time: 1.5 K x 30 min/K = 45 minutes  00 means that the switch-o time has not been pre-set (function disabled).
<b>Presetting switch-off time (00 = off)</b>	<b>60</b>	If the switch-off time optimisation is active (value > 0), the "Logica Remote Control" modifies the pre-set time until it finds the optimum switch-off time..

#### SETTING THE HOT-WATER SERVICE PARAMETERS

<b>Reduced hot water temperature value</b>	<b>61</b>	The hot water may be set to a reduced temperature value, such as 40°C, which is outside the comfort zone, such as 60°C (daily programme 8).
<b>Hot-water service filling</b>	<b>62</b>	<b>0</b> = 24 hours/ day - Hot water is always available at the temperature set with user parameter n°3. <b>1</b> = standard - Hot water according to the daily heating programme. In the comfort areas of heating the temperature of the boiler unit is regulated to the value set with user parameter n° 3. In the reduced areas of heating the temperature of the boiler unit is regulated to the value set with parameter n° 61 of the service level. <b>2</b> = service disconnected <b>3</b> = second daily programme (B) - Every day of the week the temperature of the hot water is set according to programme 8. In this case there is a single programming for all the days of the week and three time zones are available. In the time spans set the temperature of the boiler unit is regulated according to that set in parameter n°3. In the remaining hours the boiler unit is controlled to the temperature set with parameter n° 61 the of service level.

#### SERVICE VALUES

<b>Final user level 2 programming block</b>	<b>63</b>	This block (1) can be activated to display all the parameters without modifying them. Pressing buttons  or  displays "OFF".  <b>WARNING:</b> The activation block can be deactivated temporarily by pressing buttons  and  simultaneously; a confirmation sign appears on the display. At this point press simultaneously the buttons  and  for at least 5 seconds. To permanently remove the activation block, set parameter 63 on 0.
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### Entrance function terminal 3-4

64

The freely programmable input (terminals 3 and 4 of the socket) allows three different functions to be activated. The parameter has the following significance:

- 1 = If an external sensor is connected, the display will show the temperature of the external sensor ( \_ \_ = no sensor connected, function disabled).
- 2 = With an external contact, it is possible to switch-over to "reduced pre-set value of the ambient temperature".
- 3 = With an external contact, it is possible to switch-over to "reduced pre-set value of the antifreeze ambient temperature" (short circuit 0 0 0 or interruption \_ \_ \_). The display shows the current status of the external contact.

### Operating mode of external contact

65

If the entrance (terminals 3 and 4 of the base) is connected to a zero potential external contact (parameter 64 = 2 or 3), the operating mode of the contact can be determined (remote telephone switch or window contact). The operating mode specifies the status of the contact in which the required function is active.

Display: Operating mode closed (short circuit) 0 0 0  
Operating mode open (interruption) \_ \_ \_

### External and ambient sensor influence

66

Determines the mix ratio between the internal and external ambient sensor when parameter 64 = 1.

- 0 % = internal sensor only active (0% external - 100% internal)
- 50 % = mean value of external + internal sensor
- 100 % = external sensor only active

The set mix is used for ambient control and display.

If the external sensor is short circuited or interrupted, the operation continues with the internal sensor.

### Anti-bacterial function

69

This function allows the hot water to be brought to a high temperature once a week in order to eliminate eventual pathogenic agents.

It is active every Monday for a maximum duration of 2.5 hours at a delivery temperature of 65°C.

- 0 = not active
- 1 = active

### 2.7.3 Gradient of the characteristic heating curve

The gradient of the characteristic heating curve is imposed on the current value "15" of Logica. Increasing the gradient as shown in the drawing of fig. 8, the delivery temperature increases in correspondence to the outside temperature.

EXAMPLE: Choosing a gradient of 15 with an outside temperature of -10°C we shall have a delivery temperature of 60°C.

### 2.8 EXTERNAL TEMPERATURE SENSOR

The "Logica Remote Control" can be connected to an external temperature sensor available as an optional extra (code 8094100). This configuration ensures and maintains the required temperature constant in the room.

The ambient temperature is, in fact, indicated and evaluated as the calculated mean of the value measured inside and outside the dwelling.

For installation, follow the assembly instructions inserted in the package.

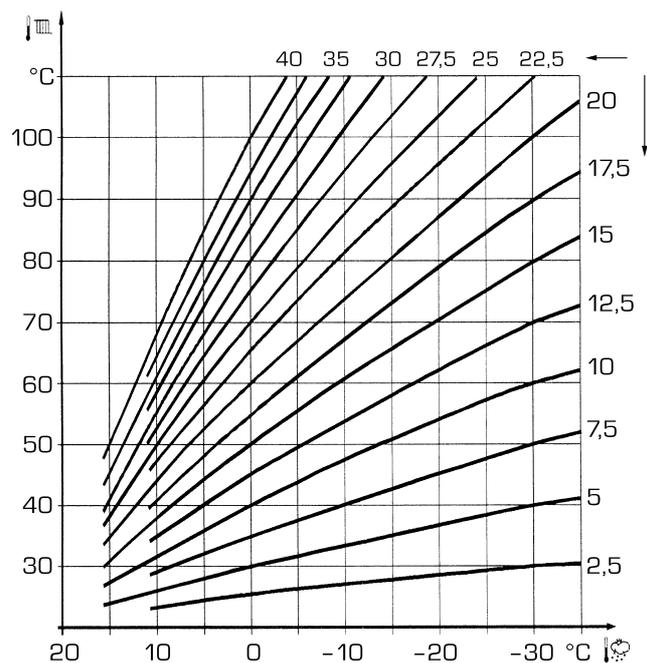


Fig. 8

### 3 CHARACTERISTICS

#### 3.1 ELECTRONIC BOARD

Made in accordance with the Low Voltage EEC directive 73/23, supplied with 230 V; via a transformer it sends 24 V to the following components: gas valve, safety stat, C.H. and D.H.W. sensors, external temperature sensor (optional), modulator, micro divertor valve, flow switch safety valve, water pressure transducer, smoke pressure switch, smoke stat, room stat or "Logica Remote Control".

An automatic and continuous modulating system allows the boiler to adjust the power to the various plant or user demands. The electronic components are guaranteed to work in a temperature range between 0 and +60 °C.

##### 3.1.1 Faults findings

The leds that show an irregular and/or incorrect functioning of the boiler are shown in fig. 9.

##### 3.1.2 Devices

The electronic board has the following devices:

- **Trimmer "POT. RISC."** (10 fig. 10)  
It regulates the maximum value of heating power. To increase the value turn the trimmer in a clockwise direction and to decrease it turn the trimmer in an anti-clockwise direction.

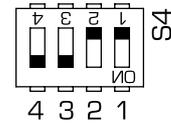
- **Trimmer "POT. ACC."** (6 fig. 10)  
Trimmer for the changing of the ignition pressure level (STEP) of the gas valve. According to the type of gas for which the boiler is predisposed, the trimmer must be regulated so as to provide the burner with a pressure of around 8 mbar for methane gas or 18 mbar for propane gas (G31). To increase the pressure turn the trimmer in a clockwise direction, to decrease it turn the trimmer in an anti-clockwise direction. The level of pressure of slow starting is able to be set during the first 5 seconds from the starting of the burner. **After having established the level of pressure at starting (STEP) according to the type of gas, check that the heating gas pressure is still on the value set beforehand.**

- **Connector "MET-GPL"** (7 fig. 10)  
With the connector disconnected, the boiler is ready to function with MET; with the connector connected with GPL.

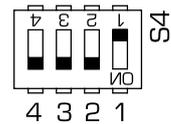
- **Connector "ANN. RIT."** (5 fig. 10)  
The electronic board is programmed, in heating phase, with a technical pause by the burner of around 90 seconds, both at the beginning when the plant is cold and in the subsequent startings. This is so to avoid ignitions and switching off with very short intervals, that may in particular be found in plants with high losses. At every restarting, following the period of slow starting, the boiler will position itself for around 1 minute to the minimum modulating pressure to then return

to the set value of heating pressure. With the insertion of the bridge both the technical pause programmed and the period of functioning at minimum pressure in the starting phase will be eliminated. In such a case, the time that runs between the switching off and the next starting will be in function of a variance of 5 °C, as shown by the heating feeler (SM).

- **DIP SWITCH** (13 fig. 10)  
In the "32/80 OF" version and in the "22 OF -32 OF" versions connected to the "BT130- BT150" D.H.W. tanks, the riders must have the configuration shown in the figure in order for the boiler to work:



In the version "32/50 OF", instead, the riders must have the configuration shown in the figure for the boiler to function:



- **Connector "Modureg Sel."** (14 fig. 10)  
With the bridge disconnected the boiler is predisposed to function with the SIT gas valve, and with the bridge connected it is predisposed to function with the HONEYWELL gas valve.

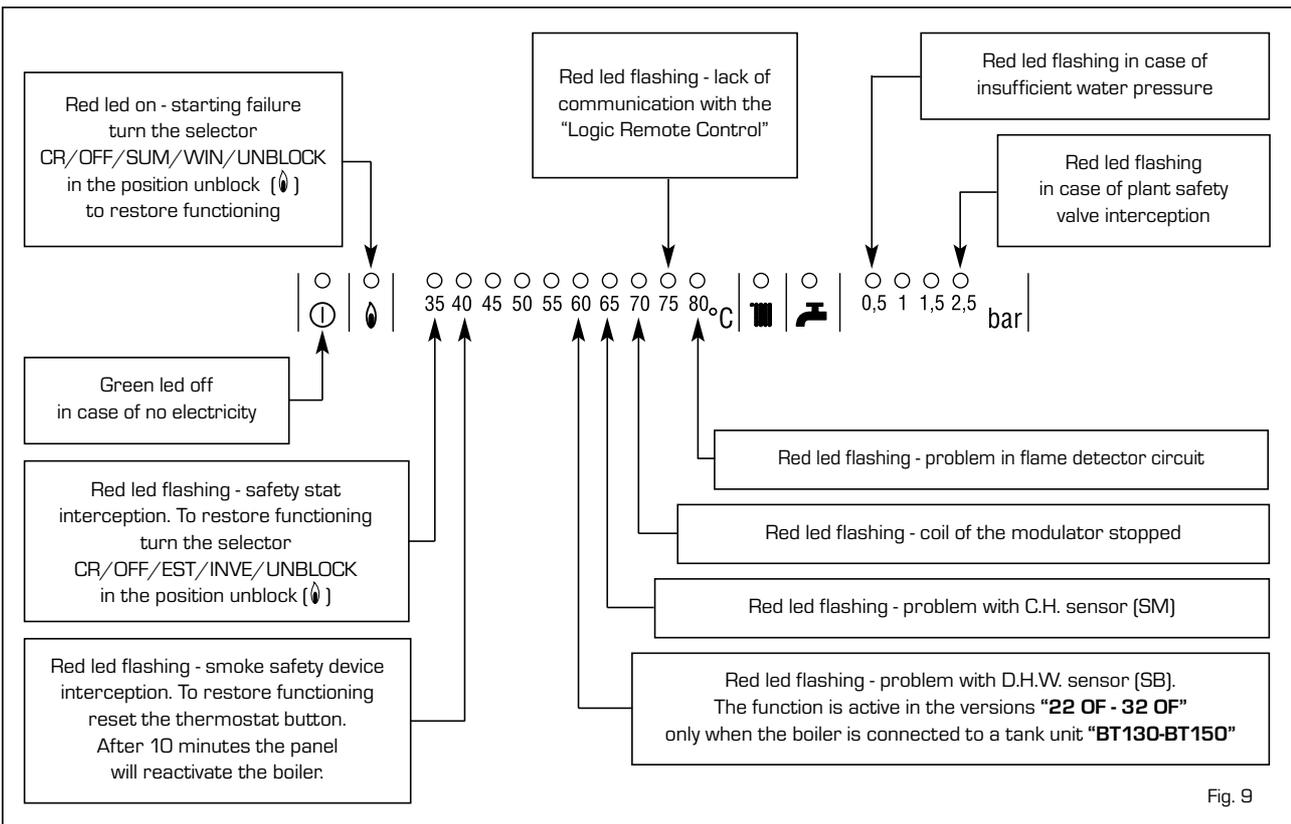


Fig. 9

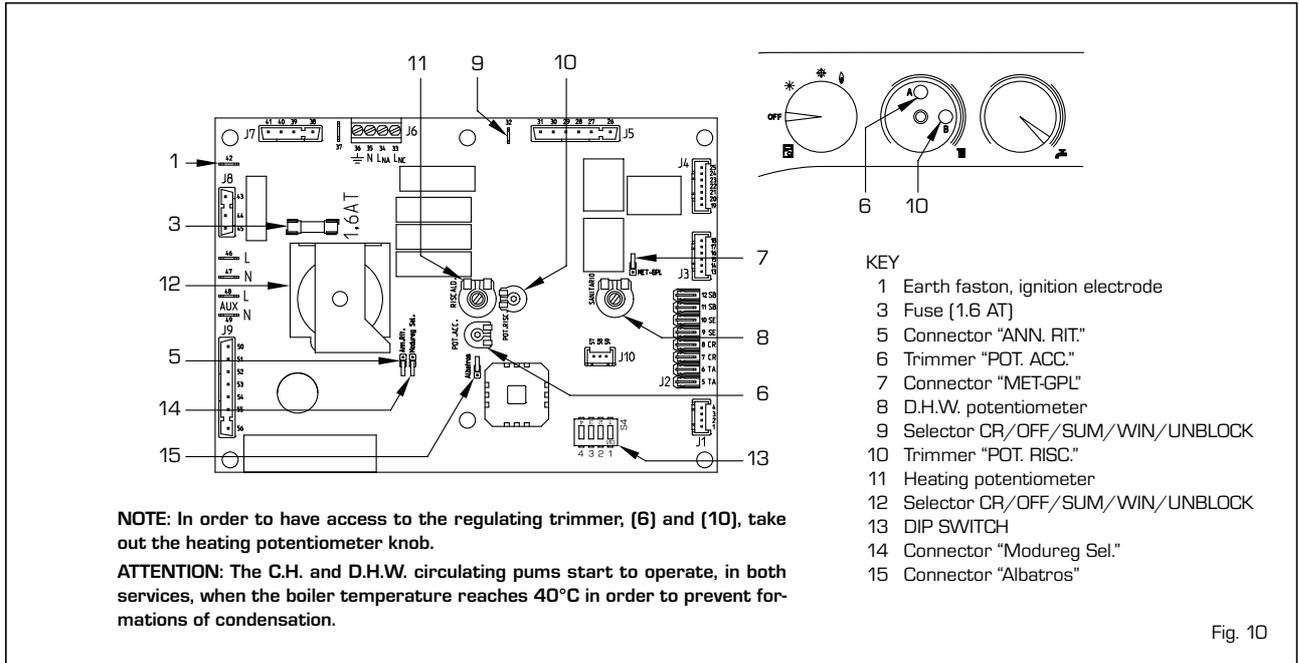


Fig. 10

- Connector "Albatros" [15 fig. 10]  
The bridge must always be disconnected. It is connected only when multiple boilers are installed in a sequence/cascade.

**ATTENTION: All of the operations described above must be carried out by authorized personnel.**

### 3.2 TEMPERATURE SENSORS

In **Table 1** the resistance ( $\Omega$ ) values are given. They are obtained by the feelers when the temperature varies and by the transducers when the pressure varies. **With the C.H. sensor (SM) interrupted the boiler will not function with both services. With the D.H.W. sensor (SB) interrupted the boiler functions only with heating.**

TABLE 1

Temperature (°C)	Resistance ( $\Omega$ )
20	12.090
30	8.313
40	5.828
50	4.161
60	3.021
70	2.229
80	1.669

### 3.3 ELECTRONIC IGNITION

The starting and flame sensing are controlled by two electrodes that guarantee the maximum safety, with a time of intervention of one second for accidental switching off or lack of gas.

#### 3.3.1 Functioning cycle

Turn the selector knob to summer or winter

and note, from the lighting up of the green led (Ⓛ) whether electricity is present. The starting up of the pilot burner should take place within 20 seconds. With the pilot burner on the electronic panel opens the second electro-valve and proceeds with the starting of the main burner. We can summarise the manifestations of a failure to start, with consequent activation of the failure signal as follows:

- **Lack of gas**  
The starting electrode continues to spark for a maximum of 20 seconds, the pilot burner does not start, the blockage indicator lights up. This may occur at the first starting attempt or after long periods of inactivity with the presence of air in the tubing. May be due to the gas tap being closed or a break in the valve coil, which do not allow opening.
- **The starting electrode does not give a jump spark.**  
In the boiler only the gas opening to the burner is noted, after 20 seconds the block signal lights up. May be due to the fact that the cable of the electrode is interrupted or is not well fixed to the terminal of the Ignition transformer.
- **The flame is not detected**  
From the time of the starting a continuous jump spark from the electrode is noted despite the pilot burner being lit. After 20 seconds the sparking stops, the burner goes off and the block signal lights up. The cable of the detector electrode is interrupted or the electrode itself is earthed; the electrode is very worn and needs to be replaced. The electronic panel is faulty.

Due to a sudden fall in electricity the burner is immediately arrested, once the electricity is restored, the boiler will automatically restart.

### 3.4 SMOKE SAFETY DEVICE

It is a safety measure against the outflow of smoke into the environment due to inefficiency or a partial clogging up of the smoke stack (fig. 11). It acts by blocking the gas valve when the release of smoke into the environment is continuous and in such a quantity as to be dangerous. To restart the boiler, unscrew the cover of the thermostat and reactivate the button beneath. After 10 minutes from the restarting of the thermostat, the electronic panel will reactivate the boiler. For immediate reinstating, after having reset the thermostat, switch off the boiler and wait a few seconds before restarting it. If the blockage occurs repeatedly a thorough control of the smoke stack will be necessary, making all the modifications and taking all the precautions necessary in order for it to be efficient. After every intervention carried out on the system, ensure that it is working correctly. In case of replacement use only Sime original spares.

**NOTE: It is forbidden to put the system out of order.**

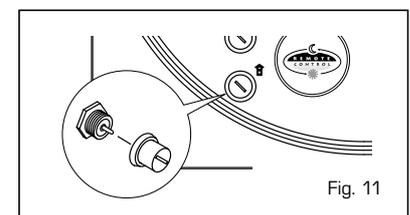


Fig. 11

### 3.5 SYSTEM AVAILABLE HEAD

The residual head for the heating plant is represented, in function of the thermal flow, by the graph in fig. 12.

### 3.6 ELECTRICAL CONNECTION ZONE PLANTS

Use a separate electric line to link up the room tats and relative valves or zone pumps. The connection of the micros or the relay contacts is carried out on the connector of electronic panel [J2] after having removed the existing bridge [fig. 13].

#### 3.6.1 Zone plants kit

The "LOGO" may be inserted in traditional plants and in those with more than one zone. To realise this type of installation an optional kit for the hydraulic connection

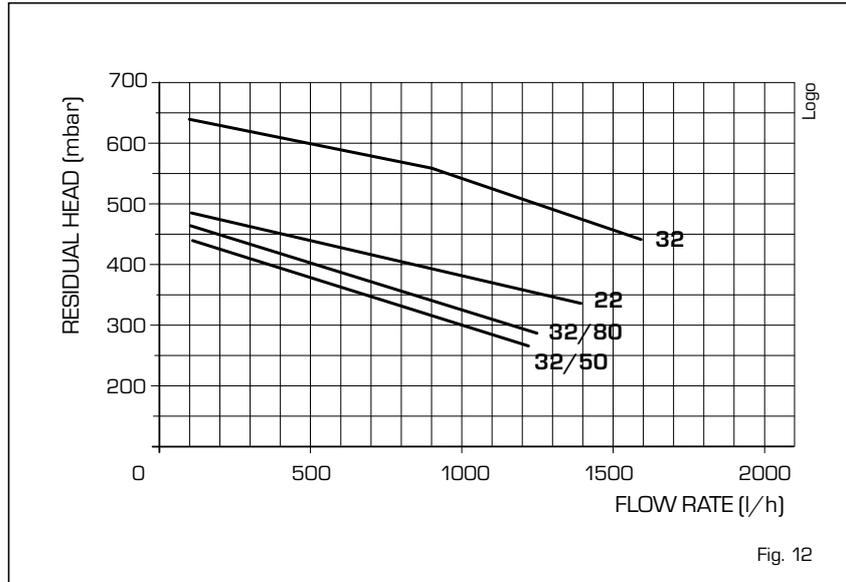


Fig. 12

complete with all the accessories, cod. 8098200, and an electronic exchange kit for the management of the zones, cod.

8098300, are available. Detailed instructions on the assembly are given on the package.

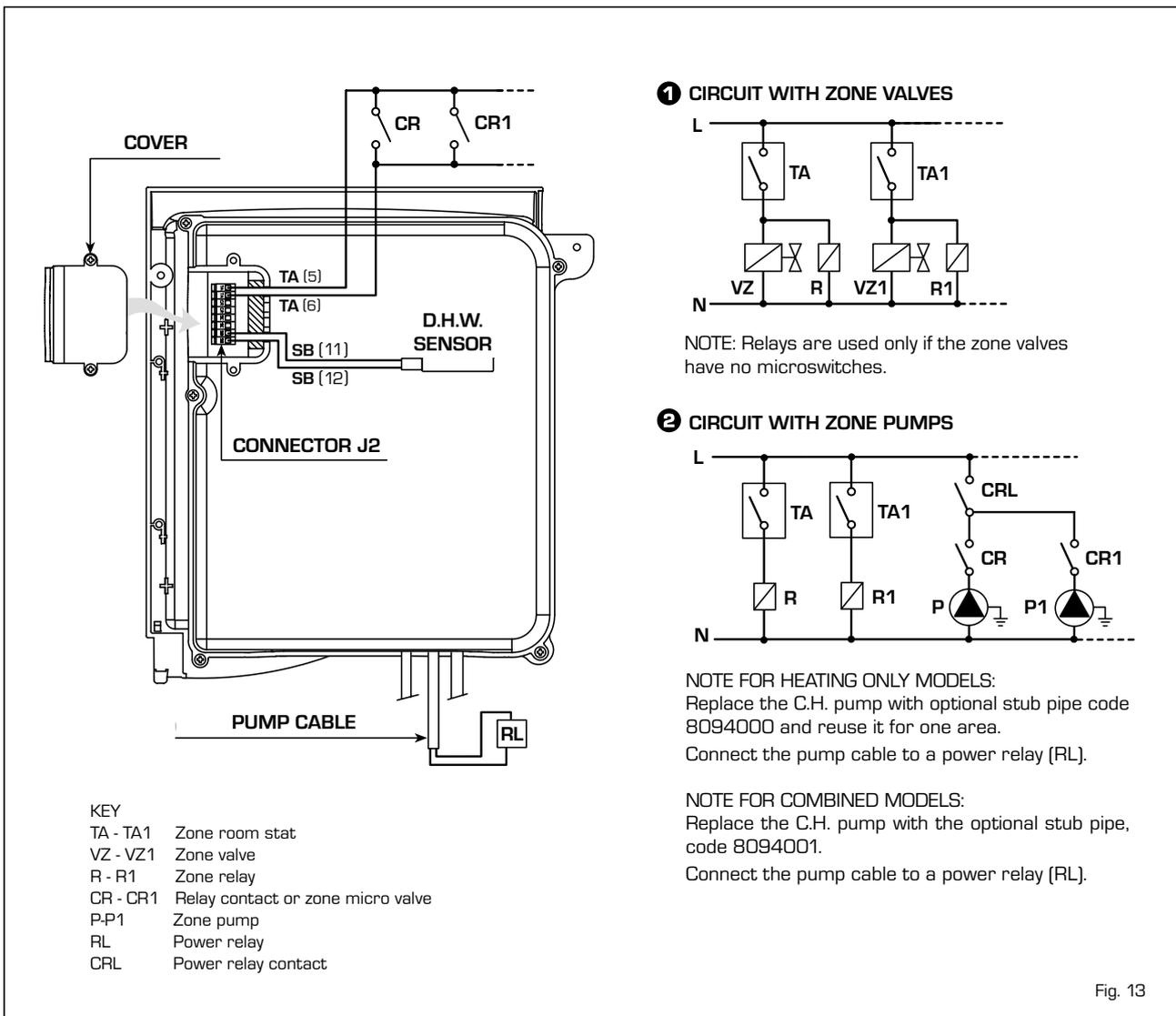


Fig. 13

## 4 USE AND MAINTENANCE

### 4.1 D.H.W. TANK UNIT

The enamelled D.H.W. tank comes with a magnesium anode to protect the boiler and an inspection flange for checking and cleaning. **The magnesium anode must be checked annually and replaced if it is worn.** It is advisable to place a sluice gate at the entrance of the D.H.W. tank unit which, apart from the total closure, allows the regulation of the supply capacity.

**When the boiler does not produce hot water, make sure that the air has been released by acting on the manual vents after having turned the main switch off.**

### 4.2 CONTROL OF THE GAS PRESSURE UPSTREAM OF THE BOILER

If the upstream pressure is between 11.5 and 15 mbar the boiler is functioning, though at an inferior maximum nominal power. In case of pressure less than 11.5 mbar the gas pressure switch acts.

### 4.3 GAS VALVE

The boiler model SIT 845 SIGMA (fig. 14) is produced with gas valve set at two pressure values: maximum and minimum, that correspond according to the type of gas to the values indicated in **Table 2**.

The setting of the gas pressure at minimum and maximum values is carried out by SIME: variations are discouraged.

Only in the passing from one type of gas supply (methane) to another (propane) is a change in the working pressure allowed.

**Such an operation must be carried out by authorised personnel, or the guarantee will lose validity. Once the change in working pressure has been carried out, seal the regulators.**

When proceeding with the setting of the pressure, it is necessary to follow a pre-established order, regulating first the MAXIMUM and then the MINIMUM.

#### 4.3.1 Maximum and minimum pressure adjustment

In order to carry out the setting of the maximum proceed in the following way (fig. 15):

- Connect a differential manometer as shown in fig. 14.
- Remove the plastic cap of the modulator (1).
- Start the boiler by pressing on the four way switch.
- Place the heating potentiometer knob on the maximum value.
- Using a  $\varnothing 10$  wrench turn the nut (3) to find the maximum pressure as shown in **Table 2**: to reduce the pressure turn the nut anti-clockwise, to increase the pressure turn the nut clockwise.
- Turn off and turn on the burner 2-3

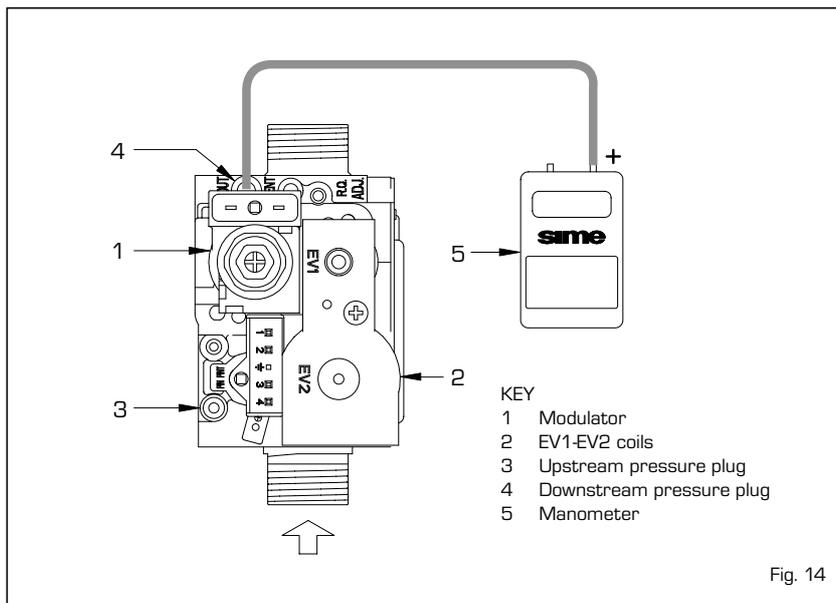


Fig. 14

TABLE 2

		22	32 - 32/50 - 32/80
<b>Methane - G20</b>			
Maximum burner pressure	mbar	12,7	12,7
Minimum burner pressure	mbar	7,3	7,3
<b>Propane - G31</b>			
Maximum burner pressure	mbar	28,4	28,4
Minimum burner pressure	mbar	16,6	16,6

times to verify that the pressure corresponds to the values given in **Table 2**.

After having regulated the maximum pressure, proceed with the setting of the minimum pressure.

- Disconnect the electric supply of the modulator:
- With the heating potentiometer knob on the maximum value and the burner alight, holding the nut (3) blocked, turn the screw (2) to find the minimum pressure value as shown in **Table 2**: to decrease the pressure turn the nut anti-clockwise and to increase the pressure turn the nut clockwise.
- Turn on and turn off the burner 2-3 times to verify that the pressure corresponds to the values given in **Table 2**.
- Reconnect the electrical supply of the modulator:
- Replace the plastic cap (1).

### 4.4 ADJUSTMENT OF HEATING OUTPUT

To regulate the heat output, modifying the factory settings, which is the minimum thermal power for each model (17.8 - 24.1 kW), it is necessary to work with a screwdriver on the trimmer of the heating power (10 fig. 10).

To increase the operating pressure turn the trimmer in a clockwise direction, to decrease the pressure turn the trimmer in an anti-clockwise direction.

To facilitate the search for the adjusting of the heating power the diagrams pressure/heat output for natural gas (methane) and propane gas are available (figs. 16 - 16/a). To ensure proper operation, check that the burner flame looks like the one shown in fig. 17.

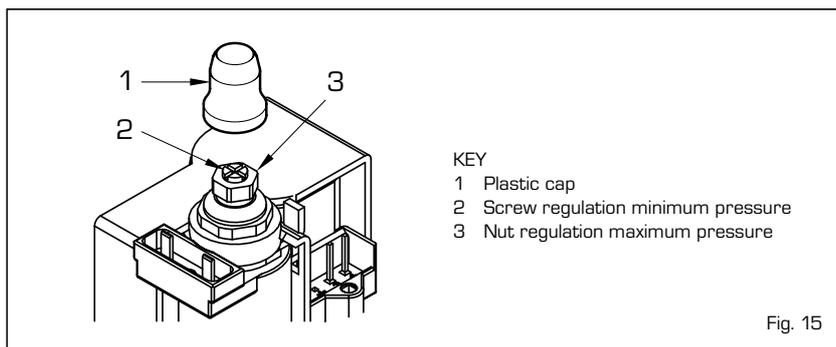
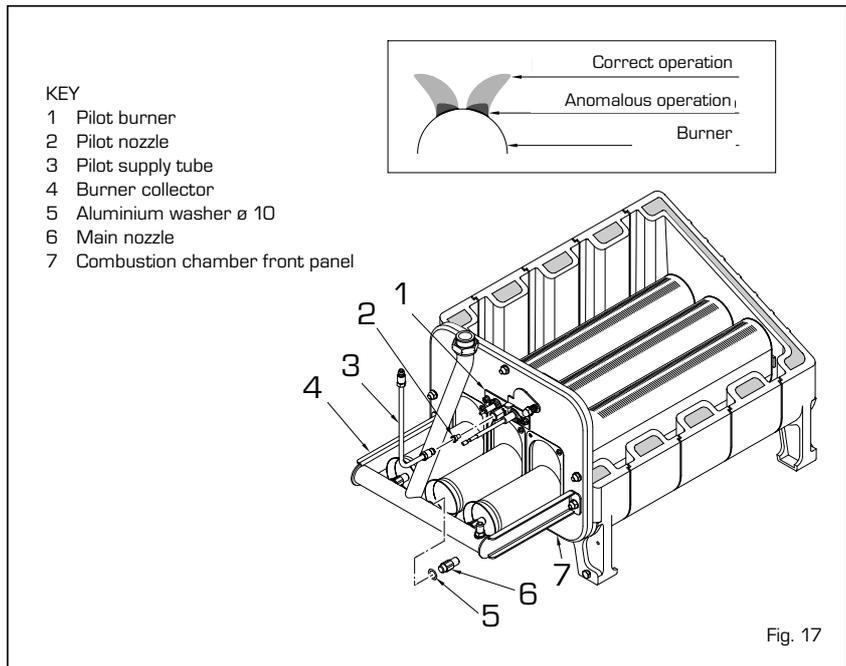
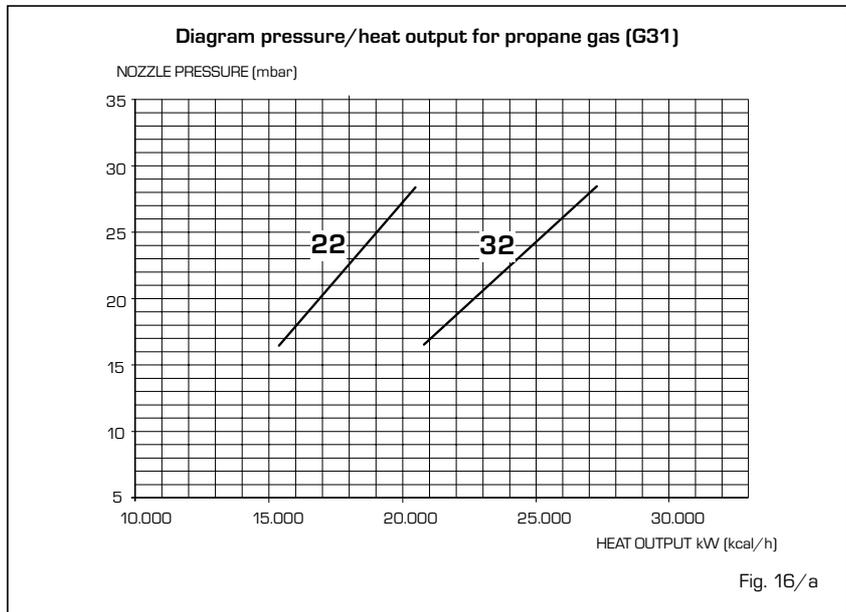
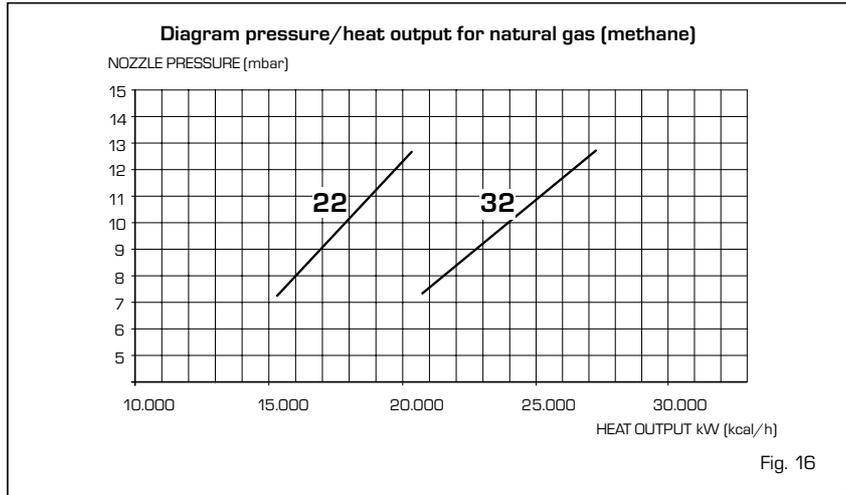


Fig. 15



#### 4.5 CONVERSION TO ANOTHER GAS

For the functioning with propane gas (G31), a kit with what is needed for the conversion is supplied.

To convert from one gas to another follow the instructions below (fig. 17):

- Close the gas tap
- Replace the main nozzles (6) supplied in kit, the aluminium washer  $\varnothing$  10 (5); to carry out this operation use a  $\varnothing$  12 wrench.
- Remove the supply fitting of the pilot burner and substitute the nozzle (2).
- Insert the "GPLMET" bridge of the connector of the electronic panel onto the "GPL" position (7 fig. 10).
- For the setting of the values of the maximum gas pressure and the minimum follow the indications as specified in point 4.3.

**Once the operating pressure changes have been carried out seal the regulators.**

- The supply pressure must never be greater than 50 mbar.
- Once the operations have been finished apply the label with gas pre-settings supplied with the kit to the shell panel.

**NOTE: After the assembly the sealing capacity of all the gas connections must be tested, using soapy water and special products, and avoiding the use of naked flames. The conversion must be carried out only by authorised personnel.**

#### 4.6 DISASSEMBLY OF EXPANSION VESSEL

Before disassembly the expansion vessel, empty the boiler of water. After the assembly ensure that the expansion vessel is pre-filled to a pressure of 1 bar:

#### 4.7 CLEANING AND MAINTENANCE

Carry out the cleaning of the generator in the following way (fig. 18):

- Remove the electricity supply to the boiler and close the gas supply tap.
- Dismantle the gas group completely.
- Dismantle the lid; clean the interstices of the boiler structure, going from the top to the bottom with an adequate brush.
- In cleaning the burners chemical products or steel brushes must never be used. Make sure that the top perforated part of the burners is free of encrustations.
- During the assembly and disassembly of the burner it is recommended that attention be paid to the starting and detection electrodes. Reassemble the parts removed from the boiler, observing the succession of the phases.
- Check the chimney making sure that the smoke stack is clean.
- Check the functioning of the main burner.
- After the assembly all the gas connec-

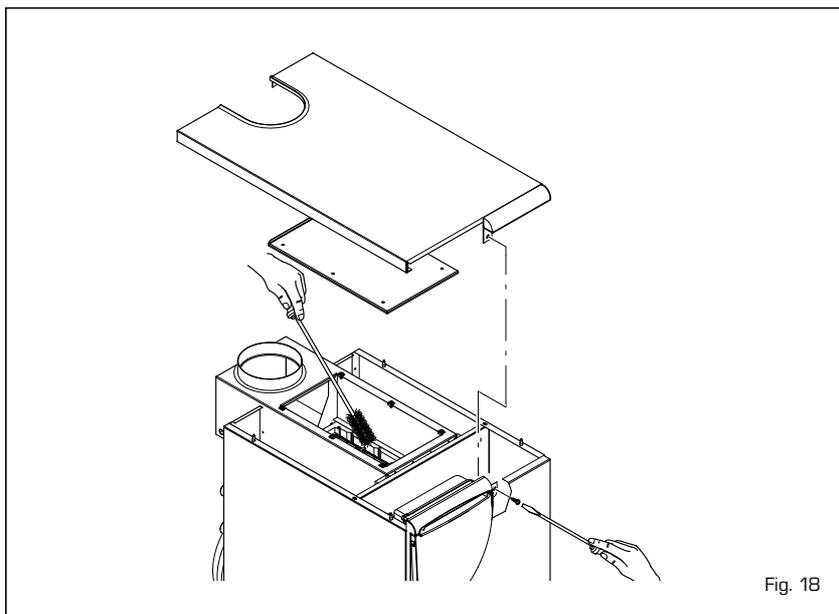


Fig. 18

tions must be checked for the seal, using soapy water or specific products, avoiding the use of naked flames.

**The maintenance or the boiler programmed is carried out annually .**

#### 4.7.1 Disassembly the control panel and skirt cover lid (fig. 19)

To remove the cover, take out the screws (1 - 2) that hold it in place on the instrument panel. Position side "A" of the bracket on the skirt side so that the instrument panel is hooked on the side in order to facilitate this operation.

#### 4.7.2 Chimney sweep function

To carry out the verification of combustion

in the boiler turn the selector and stop on the position (☉) until the yellow led (■) starts to flash (fig. 20).

From that moment the boiler will start functioning in heating mode at the maximum power, with switching off at 80 °C and restarting at 70 °C.

**Before activating the chimney sweep function make sure that the radiator valves or eventual zone valves are open.**

The test may be carried out also during hot-water service functioning, when the boiler part is connected.

To do so it is enough, after having activated the chimney sweep function, to take some hot water from one or more taps; after a few minutes the request of the D.H.W. sensor is activated and it automatically commutes on the led (☾).

Even in this condition the boiler functions at the maximum temperature always with the primary circuit controlled between 80 °C

and 70 °C.

During the entire duration of the testing the hot water taps must remain open.

After verifying the combustion the boiler should be switched off by placing the selector on the **OFF** position; then return the selector to the desired function.

**ATTENTION: After about 15 minutes the chimney sweep function automatically deactivates.**

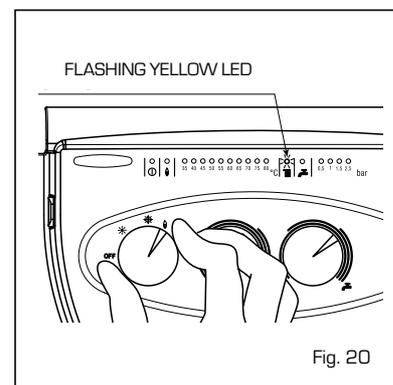


Fig. 20

## 4.8 FAULT FINDING

**The principal burner burns badly: flames too high, yellow flames.**

- Check that the gas pressure to the burner is normal.
- Check that the burners are clean.

**The radiators heat up also in summer.**

- Check that there are no impurities on the seat of the non-return valve.
- The non-return valve is faulty, see to its replacement.
- Assemble a non-return valve on the plant return tubing.

**The safety valve of the boiler frequently intercepts.**

- Check that the cold filling pressure is not too high, keep to the given values.
- Check that the safety valve is calibrated, eventually replace it.
- Check the pre-inflation pressure of the expansion tank.
- Replace the expansion tank.

**The boiler functions but the temperature does not increase.**

- Check that the consumption of gas is not below that foreseen.
- Check that the boiler is clean.
- Check that the boiler is proportional to the plant.

**Abnormal burner flame (fig. 17).**

- Check the chimney flue draught.
- Check that the nozzle is centred in the burner.
- Clean the cast iron exchanger and the burner.

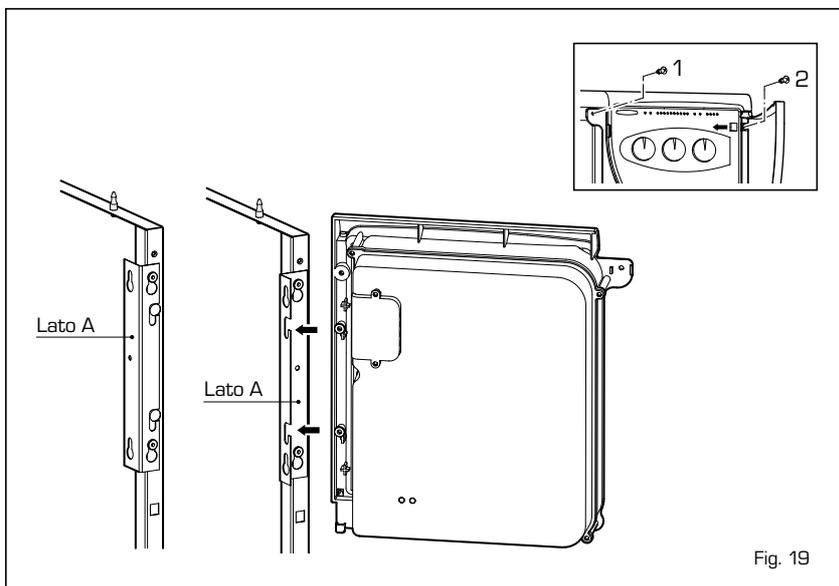


Fig. 19

# USER INSTRUCTIONS

## WARNINGS

- In case of fault and/or incorrect equipment operation, deactivate it, without making any repairs or taking any direct action. Contact the nearest Authorised Technical Service Centre.
- The installation of the boiler and any servicing or maintenance job must be carried out by qualified personnel. Under no circumstances, the devices sealed by the manufacturer can be tampered with.
- It is absolutely prohibited to block the intake grilles and the aeration opening of the room where the equipment is installed.
- The manufacturer is not held responsible for any damages due to improper use of the apparatus.
- Do not allow children or inexperienced people to use the apparatus. Do not touch the door of the combustion chamber nor the glass of the spy hole since high temperatures are reached.

## LIGHTING AND OPERATION

### BOILER IGNITION (fig. 1)

Open the gas tap, lower the cover of the commands and start the boiler by turning the selector knob to the summer (☀) position. When the green led (Ⓢ) lights up, electricity is present in the apparatus

- With the selector knob on the summer (☀) position, the boiler produces hot water on request. It draws on the maximum power in order to reach the temperature selected. At this point the gas pressure will automatically and continuously change to maintain the temperature requested constant.
- With the selector knob on the winter position (❄) the boiler, once it has reached the temperature set on the heating potentiometer, will begin to modulate automatically in order to supply the plant with the effective power requested. The boiler will stop functioning if the environment thermostat or the "Logica Remote Control" intercede.

**ATTENTION:** The C.H. and D.H.W. circulating pums start to operate, in both services, when the boiler temperature reaches 40°C.

### REGULATING THE TEMPERATURE (fig. 2)

- Regulation of the hot water temperature is carried out by acting on the hot-water service (☞) knob.

When hot water is requested the fixed temperature is displayed on the red led scale from 35 ±80 °C and the yellow led of the hot water will light up at the same time. (☞). In the versions with storage capacity, when there is no request for hot-water service and heating (the leds

- ☞ and ☞ are off), the operating temperature of the boiler unit is shown on the scale of the red leds 35 ±80 °C.
- Regulation of the heating temperature is car-

ried out by acting on the heating knob (☞). The fixed temperature is displayed on the scale of the red leds from 35 ±80 °C and the yellow leds of the heating (☞)

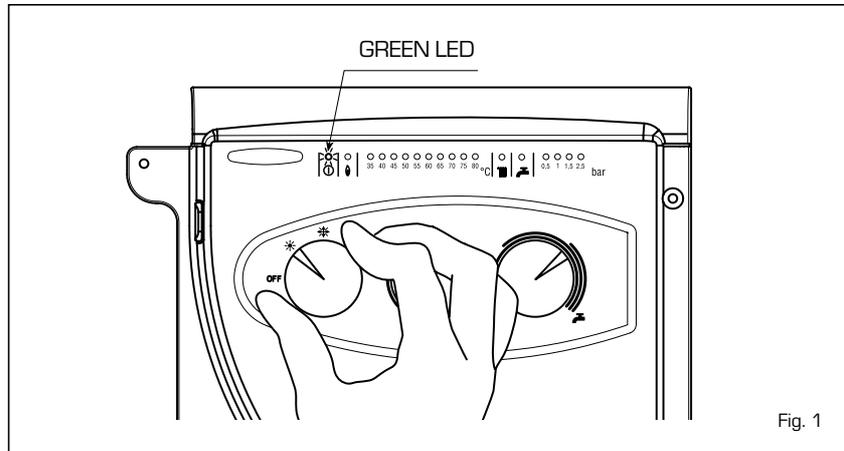


Fig. 1

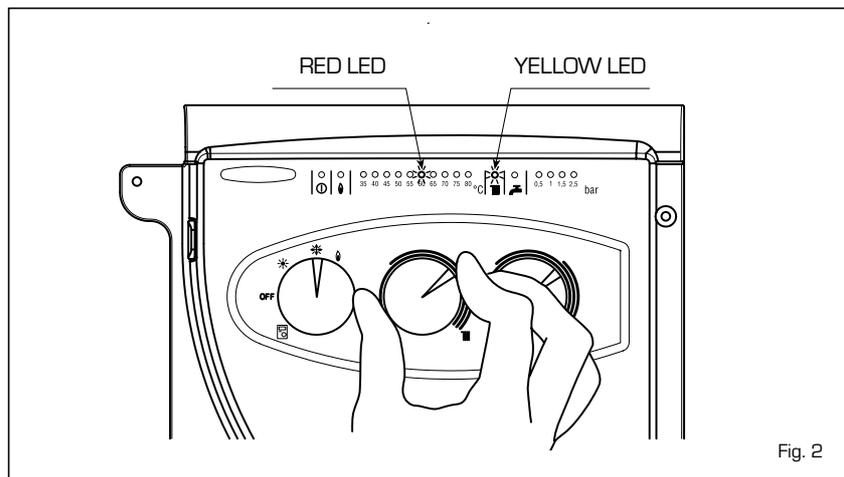


Fig. 2

will light up at the same time. To guarantee an always optimal output from the generator it is advised not to go below a minimum operating temperature of 60 °C.

#### TURNING THE BOILER OFF (fig. 1)

To turn the boiler off place the selector knob on the **OFF** position. If the boiler is not going to be used for a lengthy period it is advised to turn off the elec-

tricity supply, close the gas tap, and if the temperatures foreseen are low, empty the boiler and the hydraulic system to avoid breakage in the tubes due to the freezing of the water.

#### GAS CONVERSION

If gas conversion proves to be necessary, refer exclusively to an authorised SIME technician.

#### CLEANING AND MAINTENANCE

The programmed maintenance of the generator is carried out annually.

It must be request from the nearest Authorised Technical Service between April and September.

The boiler comes with an electricity supply cable which, in case of replacement, must be requested only from SIME.

#### FAULT FINDING

##### - Starting failure (fig. 3)

If the burner fails to start the red led will light up ( ).

To attempt starting it again, the selector knob must be turned to the position ( ) and released soon after, returning to the summer ( ) or winter ( ).

**If the failure should occur again, call the Authorised Technical Service for assistance.**

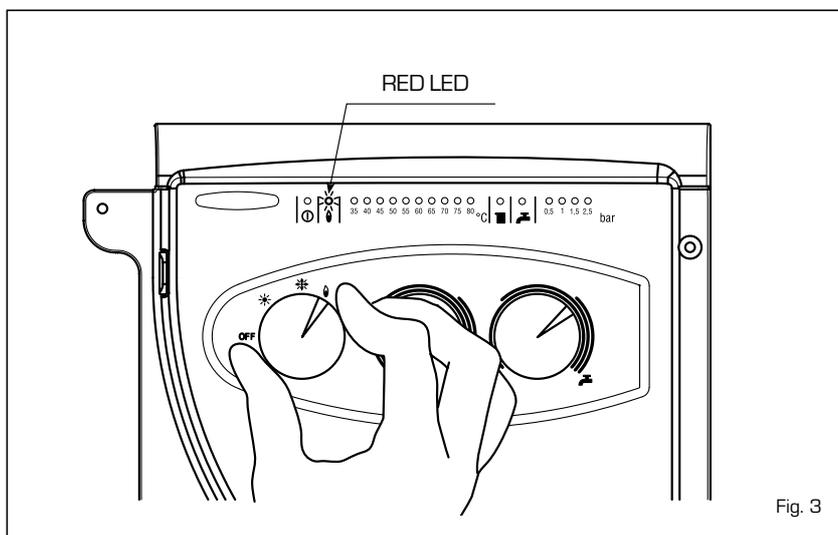


Fig. 3

##### - Insufficient water pressure (fig. 4)

If the red led "0.5 bar" intermittently lights up, the boiler is not functioning. To restore functioning act on the filling tap until the green led "1 bar" lights up.

**Once filled close the filling tap.**

If all the leds are off, call the nearest Authorised Technical Service.

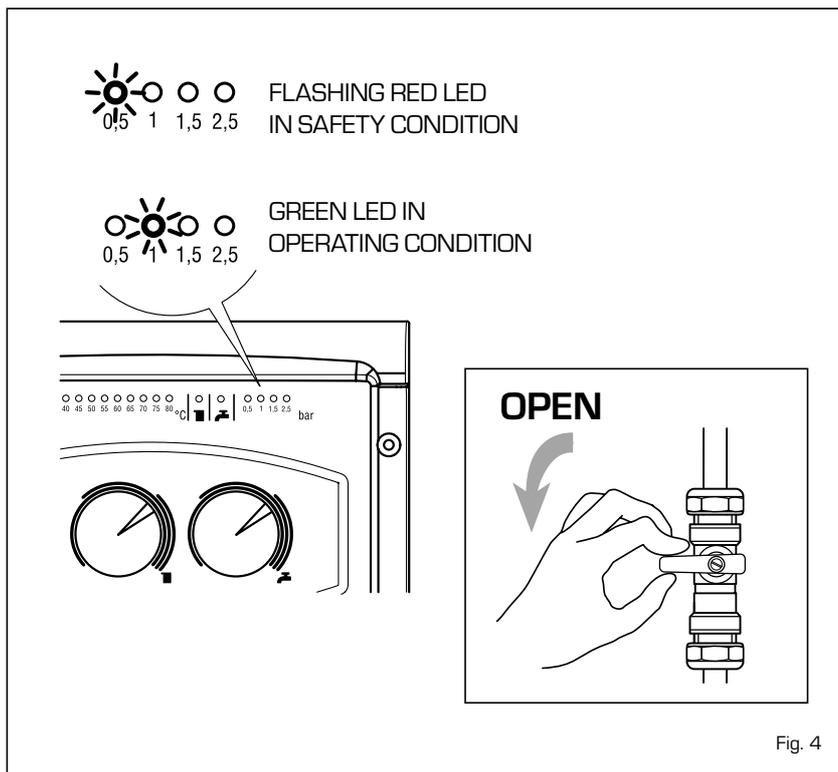


Fig. 4

- **Safety stat interception** (fig. 5)

If the safety thermostat intercedes the red led "35 °C" intermittently lights up. To start the boiler again, turn the selector knob in the position (☰) and then release immediately, returning it to the winter (☼) or summer (☼) function.

**If the failure should occur again, call the Authorised Technical Service for assistance.**

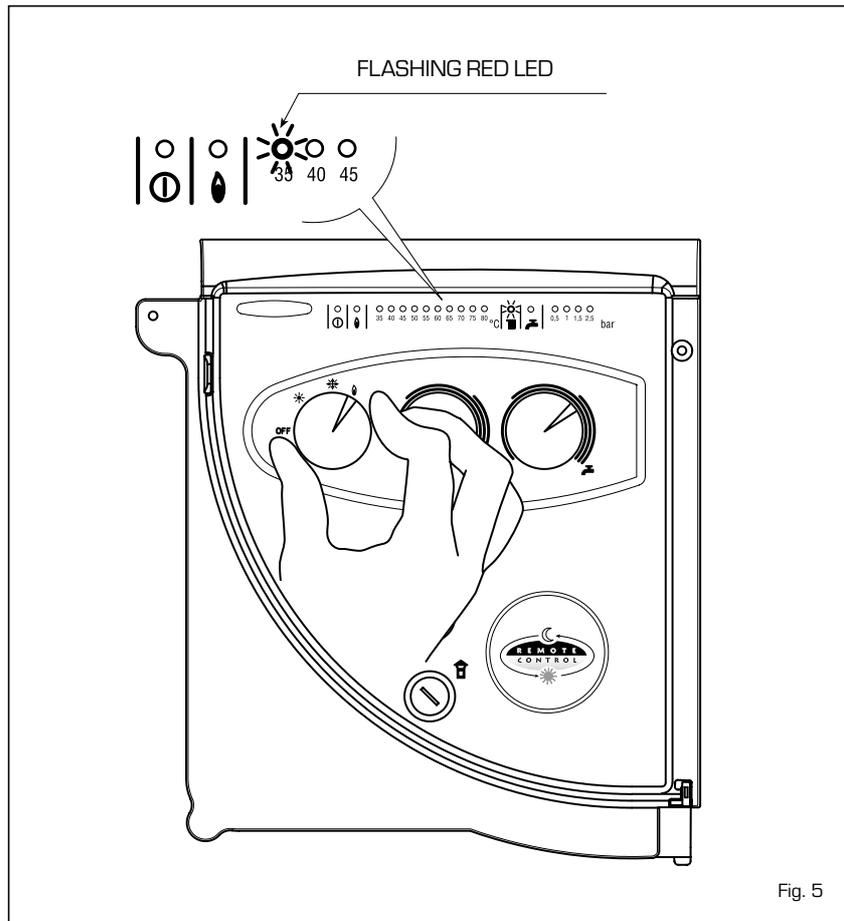


Fig. 5

- **Smoke safety device interception** (fig. 6)

In case of perturbation during the discharge of the fumes the safety switch intercedes and the flashing red led "40°C" lights up. To attempt to start the boiler again, unscrew the cover of the thermostat and reset the button underneath.

After 10 minutes from the resetting, the boiler will automatically restart. For an immediate restarting, after having reset the thermostat, turn the boiler off and wait a few seconds before restarting it.

**WARNING:**

The safety switch must never be put out of use.

Tampering with the device could cause serious faults.

In case of replacement or repair only original parts must be used.

Repeated interceptions by the device require the assistance of the Technical Service Centre.

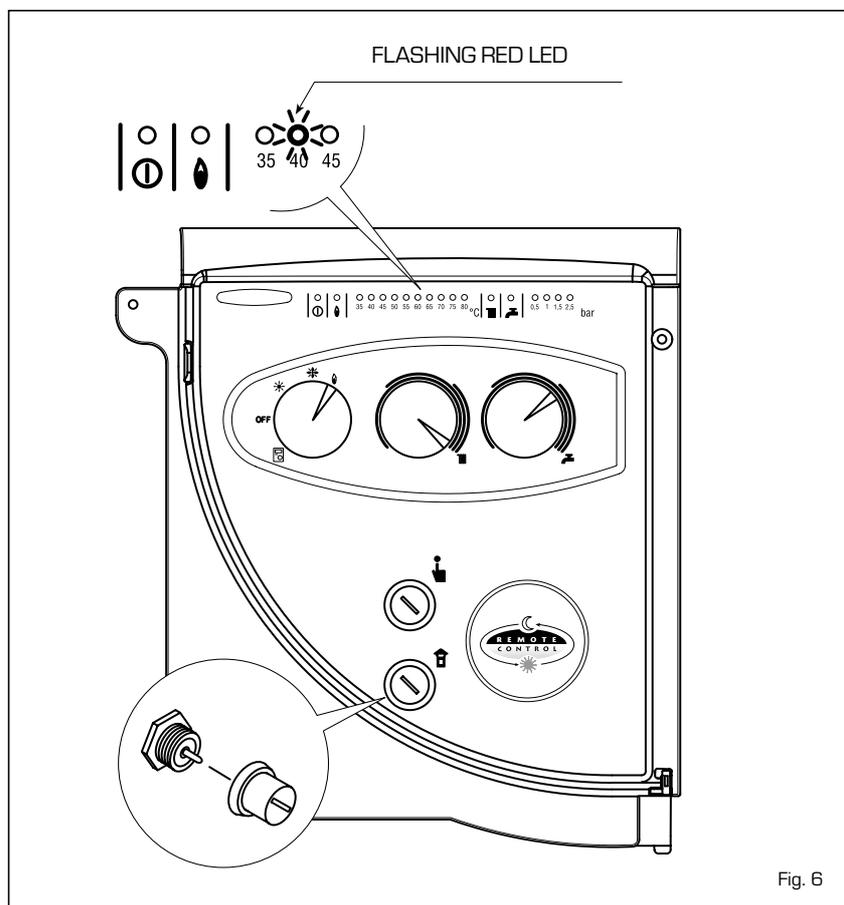


Fig. 6

- **Other faults** (fig. 7)

When one of the leds is flashing from "45 ÷ 80 °C", deactivate the boiler and try to start it again. The operation may be repeated 2 or 3 times, and if there is no success call the nearest Authorised Technical Service for assistance.

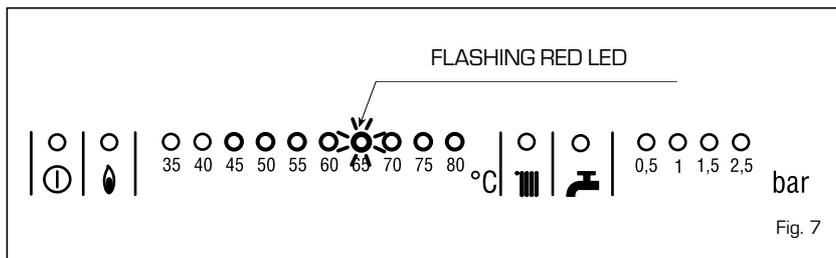


Fig. 7

## LOGICA REMOTE CONTROL

When "LOGO" is connected to the "Logica Remote Control" regulator; the selector CR/OFF/SUM/WIN/UNBLOCK must be placed in the position (OFF); the knobs of the hot-water service heating potentiometers do not have any effect and all of the functions will be managed by the regulator (fig. 8).

If the "Logica Remote Control" breaks

down, the boiler will function by placing the selector on the (OFF), position, obviously without consequent control of the room temperature.

The functioning instructions are inside the lid (fig. 9).

Every setting or modification is displayed and confirmed on the display (fig. 10).

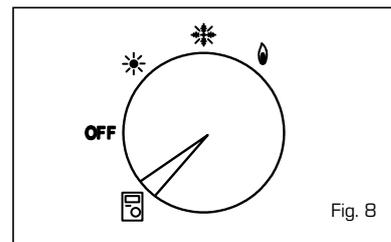


Fig. 8

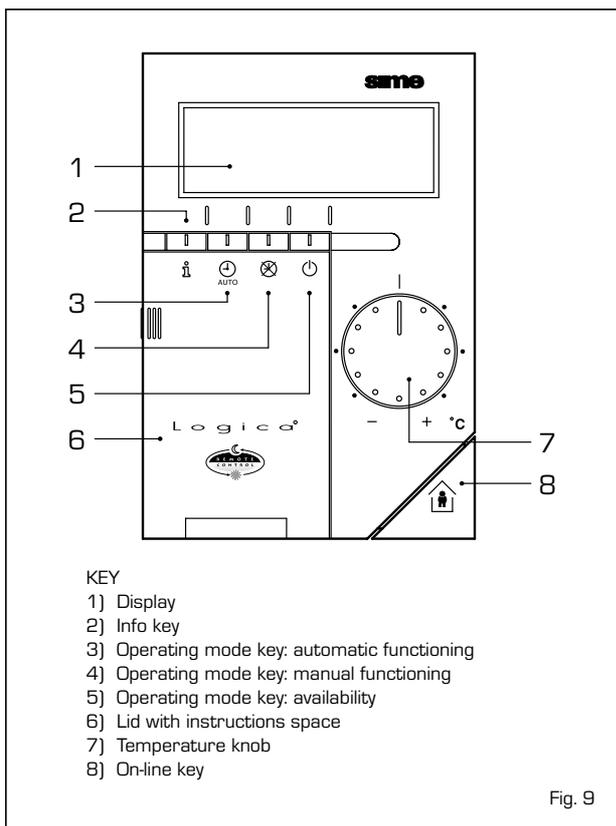
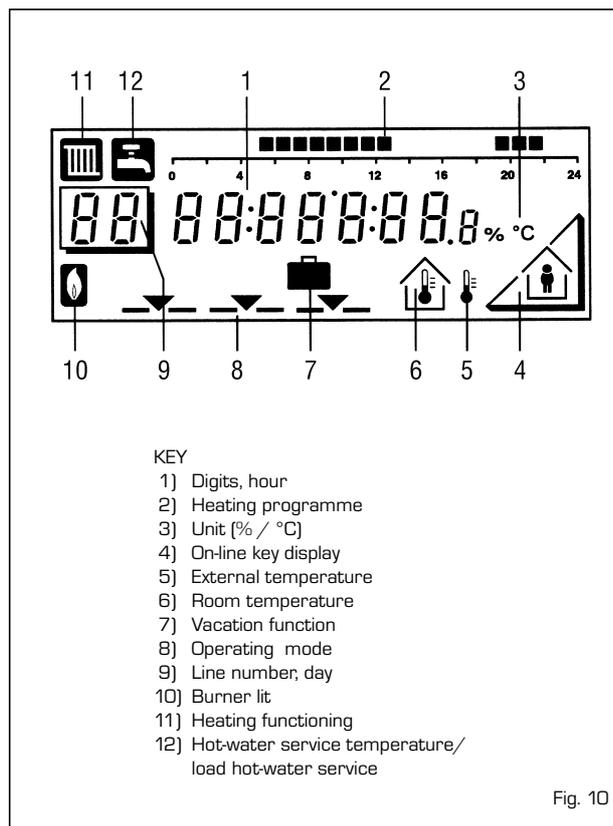


Fig. 9



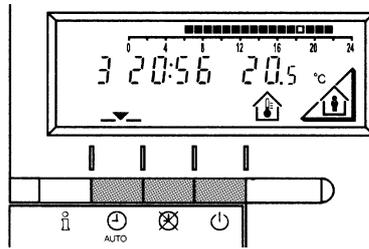
- KEY
- 1) Digits, hour
  - 2) Heating programme
  - 3) Unit [% / °C]
  - 4) On-line key display
  - 5) External temperature
  - 6) Room temperature
  - 7) Vacation function
  - 8) Operating mode
  - 9) Line number, day
  - 10) Burner lit
  - 11) Heating functioning
  - 12) Hot-water service temperature/load hot-water service

Fig. 10

## ACTIVATING

During functioning the lid of the regulator must be closed.

- **Selection of the operating mode**  
(reference keys grey colour)



The operating mode desired is selected by pressing the relative key with the corresponding symbol. The choice is displayed with the symbol .



**AUTO**

**Automatic functioning:** the heating functions automatically according to the heating programme entered. The programme may be excluded for brief periods with the on-line key.

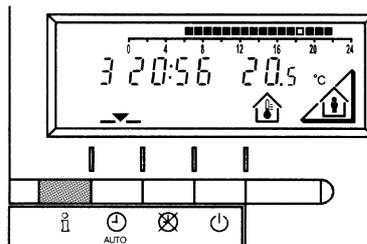


**Manual functioning:** the heating functions manually according to the choice made with the on-line key.



**Availability:** the heating is deactivated.

- **Info key**  
(reference key grey colour)



For every operation of the Info key the following list of items, one after the other, are displayed. The thermo-feeler continues to function independently of the display.



Day, hour, room temperature



External temperature\*

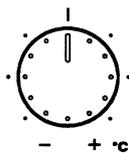


Hot-water service temperature\*

\* This data appear only if the relative feeler is connected or if they are transmitted by the regulator of the boiler.

- **Adjusting the temperature**

**Before adjusting the temperature of the regulator, the thermostatic valves, which may be present, have to be regulated to the desired temperature.**



If it is too hot or too cold in your apartment, you can easily adjust the fixed temperature with the temperature knob.



If you turn the knob towards the + sign, the fixed temperature is increased by about 1 °C for every notch.

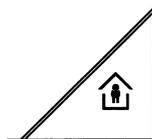


If you turn the knob towards the - sign, the fixed temperature is decreased by about 1 °C for every notch.

**Before adjusting it again, however, allow the temperature to stabilise first.**

**Note:** With the temperature knob you can only adjust the fixed temperature, whilst the reduced temperature remains the same.

- On-line key



If the rooms remain unused for a long period of time, the temperature can be reduced with the on-line key, in this way saving energy. When the rooms are occupied again, press the on-line key to re-heat them. The current choice is displayed on the display:



Fixed temperature heating



Reduced temperature heating

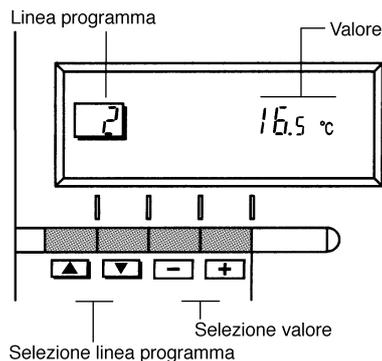
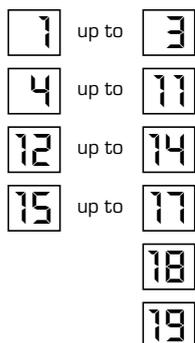
**NOTA:** The choice made will work in a permanent way when manually , carried out, instead, if automatic  it will work up to the next switching according to the heating programme.

**PROGRAMMING**

For the programming the lid of the regulator must be open.

You can set or display the following values:

- Temperatures 1 up to 3
- Heating programme 4 up to 11
- Day of the week and hour 12 up to 14
- Current values 15 up to 17
- Vacation period 18
- Return to the default values 19



As soon as the cover is open, the display and the key functions are switched on. The number in the square represents the programme lines that may be selected with the arrow keys.

- Temperature regulation

**Before proceeding with the adjustment in the temperature on the regulator, the thermostatic valves, which may be present, have to be regulated to the desired temperature.**

In automatic mode, the apparatus switches from the fixed temperature to the reduced temperature according to the temporal programme. The manual switching of the temperature is done manually with the on-line key.



Fixed temperature: temperature when the rooms are occupied (basic setting)



Reduced temperature: temperature during periods of absence or night



Hot-water service temperature:  
- desired temperature of hot-water service  
- comfort temperature of the hot-water service with storage capacity boiler unit.

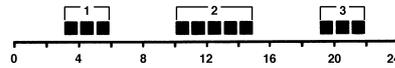


Reduced temperature of hot-water service with storage capacity boiler unit: temperature desired for hot-water service at reduced level.

To have access to the "reduced hot-water service temperature" parameter, press the  and  keys at the same time for at least 5 seconds and then go along the entered lines with the key  until parameter 61 is reached. Regulate the value with  and .

- Heating/hot-water service programme

With the heating programme it is possible to set the switching times of the temperature for a period of a week. The weekly programme consists of 7 daily programmes. One daily programme allows 3 phases of heating. Each phase is defined by a starting time and a finishing time. The n. 8 daily programme is for the hot-water service. If a phase is not required, the same starting and finishing time may be entered.



- 4 Select the days that correspond with the heating phase.  
1 = Monday, ... 7 = Sunday/8 = hot-water service programme
- 5 Start of phase 1: heating with fixed modality
- 6 End phase 1: heating with reduced modality
- 7 Start phase 2: heating with fixed modality
- 8 End phase 2: heating with reduced modality
- 9 Start phase 3: heating with fixed modality
- 10 End phase 3: heating with reduced modality
- 11 Copying of the daily programme

+ By pressing this key it is possible to repeat the current heating programme for the **next day**.

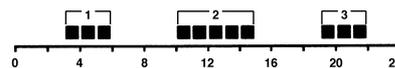
- By pressing this key it is possible to repeat the current heating programme for the **previous day**.

As a confirmation the following day is displayed.

- Programme for hot-water service with storage capacity boiler unit

With the Logic Remote Control it is possible to manage the temperature of boiler unit on two levels (a comfort level and one at reduced temperature) in accordance with the programme chosen with parameter 62 (load hot-water service). To have access to the parameter press the ▲ and ▼ keys for at least 5 seconds and then go along the entered lines with the ▼ key until parameter 62 is reached. At this point four different programmes may be selected with - or + keys, with the following characteristics:

- 0** = 24 hours/ day - Hot water always available at the temperature set in parameter 3.
- 1** = standard - Hot water according to the daily heating programme. In the comfort periods of the heating the temperature of the boiler unit is regulated at the value set via parameter 61.
- 2** = sservice suspended.
- 3** = second daily programme (8) - Everyday of the week the temperature of the hot-water service is set according to programme B. In this case the programming is one for all the days of the week and three periods of time are available. In the periods of time set, the temperature of the boiler unit is controlled via the temperature setting of parameter 61.



- 5 Start phase 1: preparation of the boiler unit to the comfort temperature
- 6 End phase 1: Temperature of boiler unit maintained at the reduced value
- 7 Start phase 2: Preparation of boiler unit to the comfort temperature
- 8 End phase 2: Temperature of boiler unit maintained at the reduced value
- 9 Start phase 3: preparation of boiler unit to the comfort temperature
- 10 End phase 3: Temperature of boiler unit maintained at the reduced value

- **Setting the time**

12

To set the current day of the week  
(1 = Monday/7 = Sunday)

13

To set the current hour

14

To set the current minute  
Once the hour is completed, the setting of the hour changes.

With  and  keys the current hour is regulated. Pressing these keys together, the regulation is speeded up in an increasing sense.

- **Current values**

15

Display and setting of the gradient of the heating characteristics curve.  
When the room temperature set is not reached choose the gradient indicated in point 2.7.3

16

Display of the current boiler temperature.

17

Display of the current power of the burner and of the current operating mode  
( = heating/  = hot-water service)

- **Vacation function**

18

To enter the number of days of absence.

In the display the vacation symbol will be shown () , on the left the day of activation (1 = Monday/7 = Sunday) and on the right the number of vacation days.

**NOTE:**



During the vacation the regulator will be on the availability mode.



When the set days have elapsed, the regulator will go on to the automatic function.

AUTO

The vacation period may be cancelled by pressing a key of the operating mode.

- **Default values**

19

To take the setting to the default values, press the  and  keys at the same time for at least 3 seconds. As confirmation a sign will appear on the display.

**ATTENTION**

The values of the following line numbers previously entered will be lost.

- Temperature and time programme

 to 

- Vacation period



- **Display of the functioning faults on the display**

Er 0

**Starting failure**

Turn the selector CR/OFF/SUM/WIN/UNBLOCK from the "LOGO" control panel to the unblock position () to restore functioning (fig. 3). If the failure should occur again, call the Authorised Technical Service for assistance.

Er 1

**Thermostat safety interception**

Turn the selector CR/OFF/SUM/WIN/UNBLOCK of the "LOGO" control panel to the unblock position () to restore functioning (fig. 5). If the failure should occur again, call the Authorised Technical Service for assistance.

Er 65

**Smoke safety device interception**

To restore functioning unscrew the lid of the thermostat and reset the button underneath (fig. 6). If the failure should occur again, call the Authorised Technical Service for assistance.

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Er 67

**D.H.W. sensor fault (SB)**

Call the Authorised Technical Service for assistance.

Er 68

**C.H. sensor fault (SM)**

Call the Authorised Technical Service for assistance.

Er 69

**Insufficient water pressure**

Restore functioning by acting on the filling tap of the boiler (fig. 4).

Er 70

**Plant overpressure**

Call the Authorised Technical Service for assistance.

Er 792

**Thermostat safety interception**

Call the Authorised Technical Service for assistance.

Er 794

**Failure of the modulating coil**

Call the Authorised Technical Service for assistance.

Er 795

**Communication failure between the Logic Remote Control and the boiler**

Call the Authorised Technical Service for assistance.