

Unical[®] LATTNER

Condensing gas boiler

ALKON 50

ALKON 70

ALKON 90



Notice:

- This manual is available in the English and French language
- In the Commonwealth of Massachusetts this boiler must be installed by a licensed Plumber or Gas Fitter.

USER'S OPERATING INSTRUCTIONS

Contents

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WARNING!

Installation and service must be performed by a qualified installer, service agency or the gas supplier.

1 - SYMBOLS USED IN THIS GUIDE

When reading this guide particular care has to be given to the parts marked with the followings symbols:



DANGER

INDICATES AN IMMINENTLY HAZARDOUS SITUATION, WHICH IF NOT AVOIDED, WILL RESULT IN DEATH OR SERIOUS INJURY.



WARNING

INDICATES A POTENTIALLY HAZARDOUS SITUATION, WHICH IF NOT AVOIDED, COULD RESULT IN DEATH OR SERIOUS INJURY.



CAUTION

INDICATES A POTENTIAL HAZARDOUS SITUATION, WHICH IF NOT AVOIDED, MAY RESULT IN MINOR OR MODERATE INJURY.



CAUTION

RISK OF ELECTRIC SHOCK. INDICATES PRESENCE OF HAZARDS DUE TO ELECTRIC SHOCK.



NOTICE

INDICATES SPECIAL ISTRUCTIONS ON INSTALLATION, OPERATION OR MAINTENANCE THAT ARE IMPORTANT BUT NOT RELATED TO PERSONAL INJURY OR PROPERTY DAMAGE.

WARNING!

If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

- Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
- WHAT TO DO IF YOU SMELL GAS
 - Do NOT try to light any appliance
 - Do NOT touch any electrical switch.
 - Do NOT use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone.
Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire dep.

2 - CORRECT USE OF THE APPLIANCE



The ALKON appliance has been designed utilizing today's heating technology and in compliance with the current safety regulations.

However, following an improper use, dangers could arise for the safety and life of the user or of other people, or damage could be caused to the appliance or other objects.

The appliance is designed to be used in pumped hot water central heating systems and for domestic hot water production.

Any other use of this appliance will be considered improper.

LATNER declines any responsibility for any damages or injuries caused by an improper use; in this case the risk is completely at the user's responsibility.

In order to use the appliance according to the scopes it was designed for it is essential to carefully follow the instructions indicated in this guide.

3 - WATER TREATMENT



- The hardness of the mains water supply conditions the frequency with which the heat exchanger is cleaned.
- In hard water areas where the main water can exceed 15°f total hardness, a scale reducing device is recommended. The choice of this device has to be made taking into consideration the characteristics of the water.
- In order to improve the resistance to lime scale it is recommended to adjust the domestic hot water temperature as near as possible to the one you really require.
- We recommend you to check the state of cleanliness of the domestic hot water heat exchanger at the end of the first year and subsequently, on the basis of the lime scale found, this period can be extended to two years.

4 - INFORMATION TO BE HANDED OVER TO THE USER (BY THE INSTALLER)



The user has to be instructed on the use and operation of his heating system, in particular:

- Hand over these instructions to the end user, together with any other literature regarding this appliance, placed inside the envelope contained in the packaging. **The user has to keep these documents in a safe place in order to always have them at hand for future reference.**
- Inform the user on the importance of air vents and of the flue outlet system, stressing the fact that is absolutely forbidden to make any alterations to the boiler.
- Inform the user how to check the system's water pressure as well as informing him how to restore the correct pressure.
- Explain the function of time and temperature controls, thermostats, heating controls and radiators, to ensure the greatest possible fuel economy.
- Remind the user that, in order to comply to the standards in force, it is necessary to inspect and service the boiler according to the current codes of practice and according to the schedule indicated in this manual by the manufacturer.
- If the appliance is sold or transferred to another owner or if the present user moves home and leaves the appliance installed, ensure yourself that the manual always follows the appliance so that it can be consulted by the new owner and/or installer.

Failure to follow the instructions indicated in this guide, which is supplied with the boiler, could cause injury to persons, animals or damage to property. The manufacturer shall not be held liable for any such injury and/or damage.

5 - SAFETY WARNINGS



CAUTION!

The installation, adjustment, and servicing of this appliance must be carried out by a competent person and installed in accordance with the current standards and regulations. Failure to correctly install this appliance could cause injury to persons, animals or damage to property. The manufacturer shall not be held liable for any such injury and/or damage.



DANGER!

NEVER try to service or repair the appliance yourself.

All types of servicing or repairs must be carried out by a professionally qualified person, authorized by LATNER; LATTNER recommends drawing up a service contract.

Bad or irregular servicing could compromise the safe operation of the appliance, and could cause injury to persons, animals or damage to property for which UNICAL shall not be held liable.



WARNING

Alterations to parts connected to the appliance

Do not carry out any alterations to the following parts:

- the boiler
- to the gas, air, water feed pipes and electrical current
- to the flue pipe, safety relief valve and its drainage pipe
- to the constructive components which influence the appliance's safe operation



DANGER

Smell of gas

If you smell gas follow these safety indications:

- Do not touch any electrical switches
- Do no smoke
- Do not use the telephone
- Close the On/Off gas service cock
- Open all windows and doors where the gas leakage has occurred
- Inform the gas society or a specialized company



DANGER

Explosive and easily inflammable substances

Do not use or leave explosive or easily inflammable material (as for example: petrol, paint, paper) in the room where the appliance has been installed.

FOR YOUR SAFETY READ BEFORE OPERATING

WARNING: If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

- A. This appliance does not have a pilot. It is equipped with an ignition device which automatically lights the burner. Do not try to light the burner by hand.
- B. **BEFORE OPERATING** smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.
- WHAT TO DO IF YOU SMELL GAS
- Do not try to light any appliance.
 - Do not touch any electric switch; do not use any phone in your building.
 - Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.
- C. Use only your hand to push in or turn the gas control knob. Never use tools. If the knob will not push in or turn by hand, don't try to repair it, call a qualified service technician. Force or attempted repair may result in a fire or explosion.
- D. Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.

OPERATING INSTRUCTIONS

1. **STOP!** Read the safety information above on this label.
 2. Turn off all electric power to the appliance.
 3. This appliance is equipped with an ignition device which automatically lights the burner. Do not try to light the burner by hand.
 4. Open the gas valve.
 5. Check Gas and Water Pressure.
 6. Wait five (5) minutes to clear out any gas. Then smell for gas, including near the floor.
 7. Turn on all electric power to the appliance.
 8. Turn the start up switch "ON." Replace control access panel.
 9. Set thermostat to desired setting.
 10. If the appliance will not operate, follow the instructions "To Turn Off Gas To Appliance" and call your service technician or gas supplier.
- If you smell gas, STOP! Follow "B" in the safety information above on this label. If you don't smell gas, go to the next step.

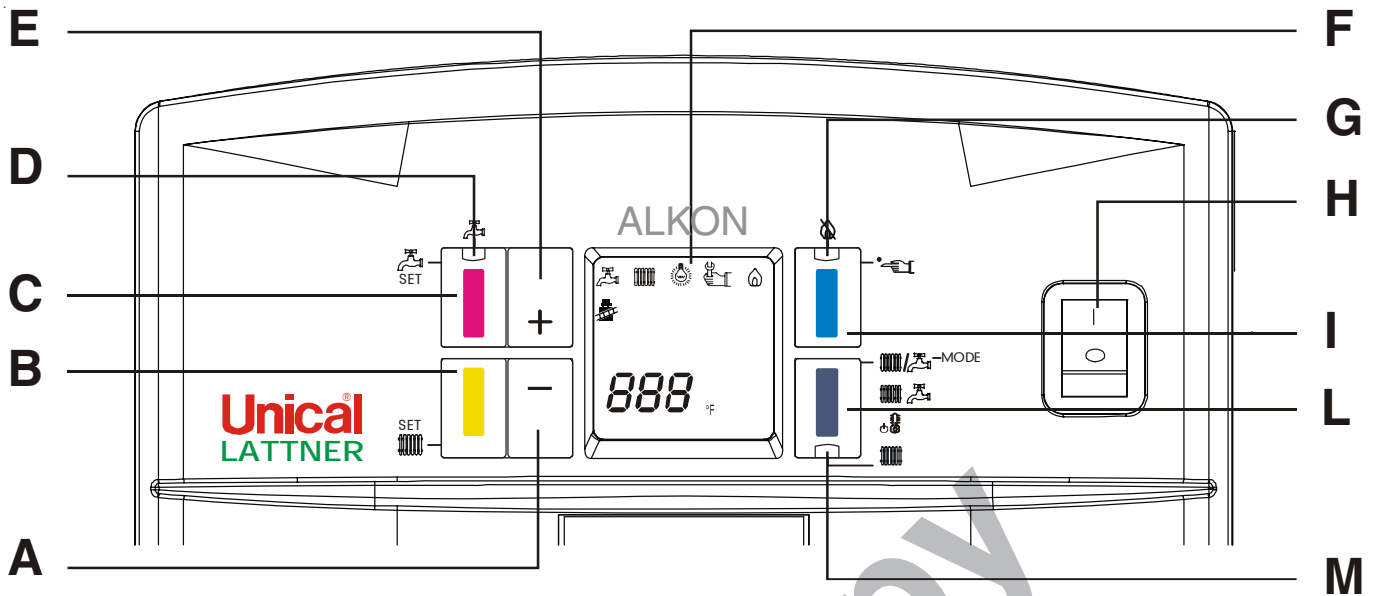
TO TURN OFF GAS TO APPLIANCE

1. Set the thermostat to lowest setting.
2. Turn off all electric power to the appliance if service is to be performed.
3. Close the gas Valve

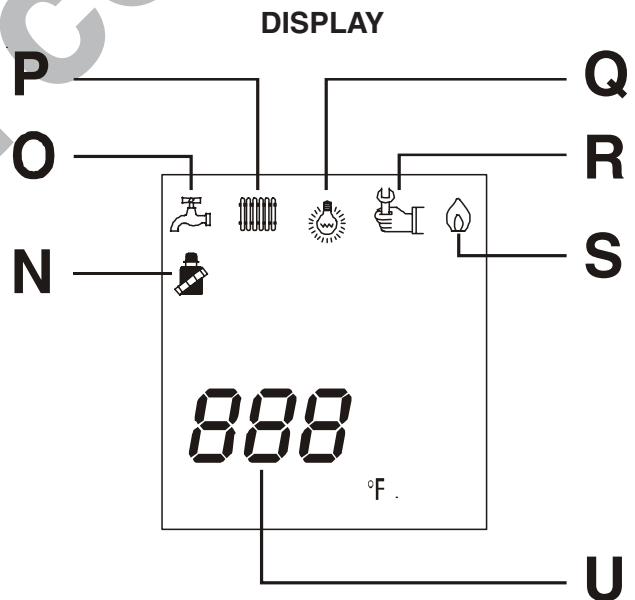
User's operating instructions

6 - OPERATING INSTRUCTIONS

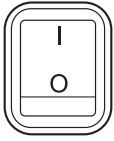
6.1 - CONTROL PANEL



- A = Temperature decrease key
- B = Central Heating adjustment key
- E = Temperature increase key
- F = Display
- G = Lock-out led indicator
- H = Interruttore ON-OFF
- I = Reset /chimney-sweeper key
- L = Operational mode selector key:
Frost protection /Central Heating
- M = Central Heating mode indicator led
- N = Activation sweeper key indicator led
- P = Activation Central Heating request indicator led
- Q = Power On indicator led
- R = Fault indicator led
- S = Burner On indicator led
- U = Digital temperature control / Digital system pressure gauge / Error code display / Servicing request indicator



On-Off switch

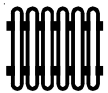
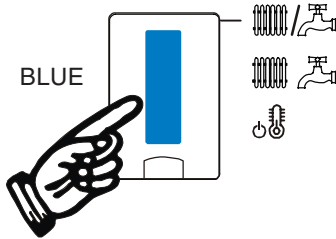
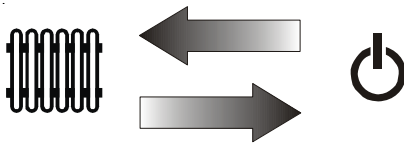


Through this switch it is possible to switch On and Off the boiler.

- With the switch in pos. I, the boiler is electrically supplied.
- With the switch in pos. O, the boiler is not electrically supplied.

Operating mode selection key

By pressing this key it is possible to select the type of boiler operation desired. Every time you press this key it selects the boiler's operating mode according to the following sequence:



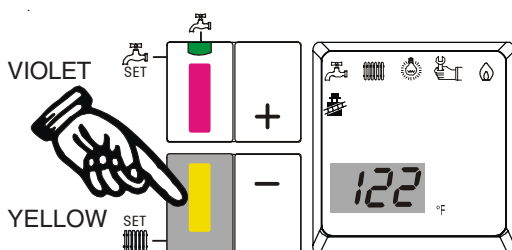
- **Only Central heating:** In this mode the boiler will operate only for heating the system. In this mode the led "M" indicator is illuminated.



- **Stand-by:** In this mode the boiler is in a stand-by condition. The led M indicator is off.

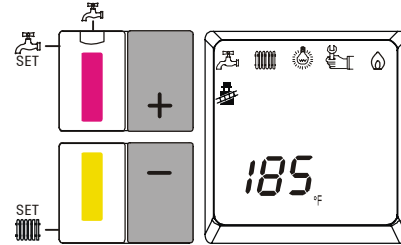
Central Heating temperature display/adjustment key

By keeping this key pressed, the set operating temperature of the CH circuit will appear on the display "U"



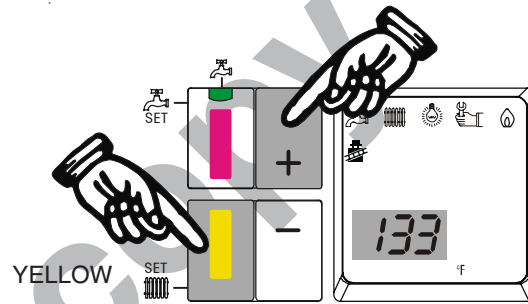
Temperature adjustment keys

By pressing the following keys it is possible to increase (key "+") or reduce (key "-") the central heating or domestic hot water temperature.

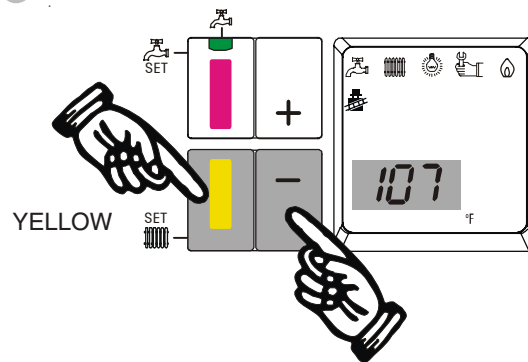


Central heating temperature adjustment

The central heating temperature can be adjusted by keeping the YELLOW "B" key pressed down and simultaneously pressing the "+" key to increase the temperature



or the "-" key to reduce it.




The set temperature value appears on the display.

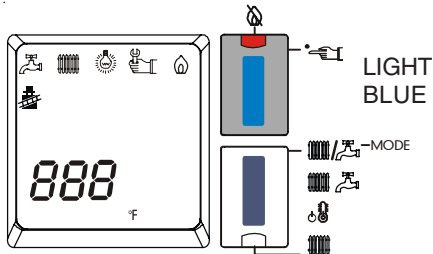
The temperature can be adjusted between 86 °F minimum and 176 °F maximum (30°C - 80°C)

User's operating instructions

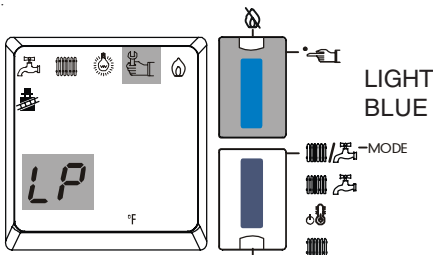
Reset key/fault code display

This key has a dual function:

- it will reset correct boiler operation after the cut-off device has shutdown the boiler (red "G" led indicator  illuminated).



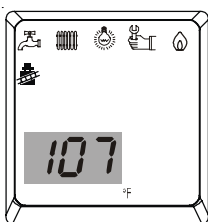
- it will display the boiler's error code, in place of the temperature "U", after the fault indicating led "R" has illuminated.



Temperature control /error code display

This displays:

- The CH circuit temperature (during central heating operation)
- The CH return temperature (by pressing simultaneously the LIGHT BLUE "I" and BLUE "L" keys)
- The set temperature of the CH circuit (by pressing the YELLOW "B" key).



"Chimneysweeper" function indicator led

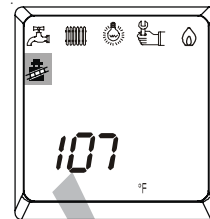


CAUTION!

This operation can be carried out exclusively by an authorized After Sales Service Centre.

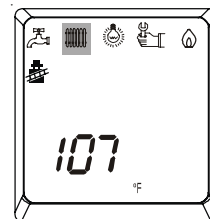
The user is NOT authorized to activate the following described function.

This "N" indicator led will illuminate when the "Chimneysweeper" function is activated by a qualified professional service engineer. This means that the boiler will be forced to operate at the maximum (or minimum) output so as to permit the adjustment operations and the combustion analysis.



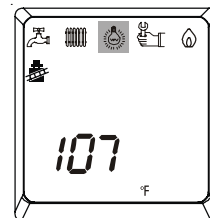
Central heating mode indicator led

The led indicator "P" will illuminate when there is a request for central heating.



Power On indicator led

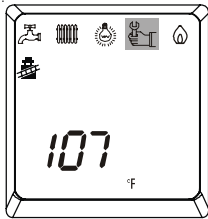
The led indicator "Q" will illuminate when the boiler is connected to the electricity supply.



Fault indicator led

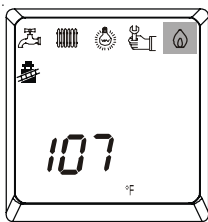
When the led "R" is illuminated on the display it indicates that the boiler has detected a failure in normal boiler operation or is in lock-out due to a permanent failure.

The code which identifies the cause can be viewed in place of the centigrade temperature scale by pressing the LIGHT BLUE "I" reset key (for the list of error codes refer to paragraph 5 – "Error codes" in the servicing and installation instructions manual).



Burner On indicator led

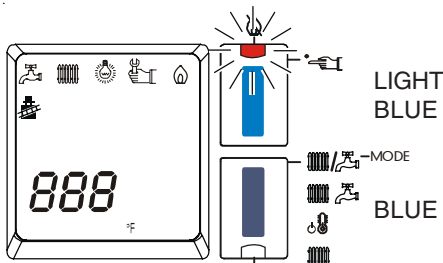
When the "S" led is illuminated it indicates that the burner is functioning correctly, both in central heating request mode and in domestic hot water production mode.



Lock-out indicator led

When this led "G" is illuminated it indicates that the burner's safety cut-off device has shut-down the boiler, due to the following causes:

- presence of air in the piping (if it is a new system or after a long inactivity of the boiler)
- no gas supply. If this is the case, and the burner fails to light, it will be necessary to check that the gas supply cock is in the On position.

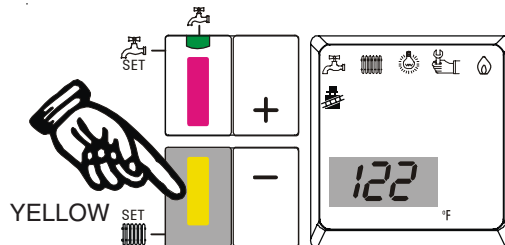


CAUTION
If the cut-off device operates more than 3 times, causing boiler shutdown, do not try to reset the boiler yourself. Contact your nearest Unical Lattner authorized After Sales Service Centre.

6.2 - CONTROL OF THE OPERATING PARAMETERS

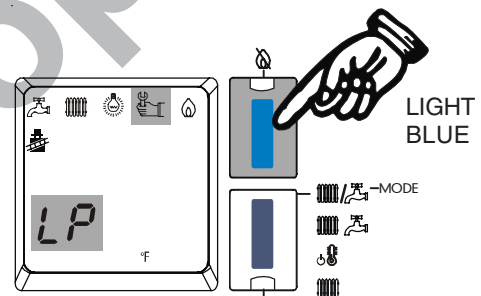
Central Heating circuit temperature

By pressing the **YELLOW** key on the control panel it is possible to control the **stored value of the CH circuit temperature** value between 86 °F and 176 °F (30° and 80°).



Error codes

When the fault indicator led "R" is illuminated on the display, by pressing the **LIGHT BLUE** key on the control panel, it is possible to control the **error codes** (for the list of error codes refer to paragraph 5 – "Error codes" in the servicing and installation instructions manual).



6.3 - CHECK LIST BEFORE COMMISSIONING THE BOILER

Before commissioning the appliance it is recommended to check the following points:

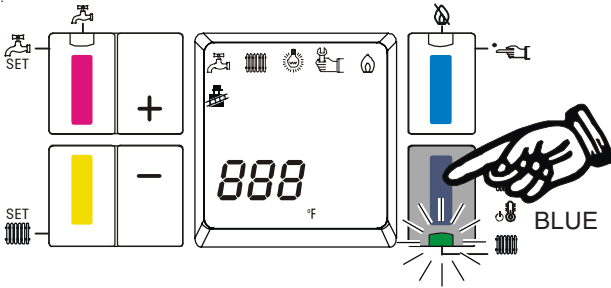
- Check that the On-Off gas valve, positioned upstream of the boiler, is in the On position.
- Check that any On-Off valves fitted on the flow and return pipes for servicing purposes are in the On position.
- Check that any On-Off valves fitted on the cold water inlet for servicing purposes are in the On position.
- Check that the pressure relief valve drainage pipe is connected to the sewage system.
- Check that the boiler is connected to the electrical supply; the green indicator led "P" (⚡) on the control panel must be illuminated.
- Check the heating system pressure, indicated by the pressure gauge. For correct operation the pressure should be between 80 / 100 Kpa (0,8 and 1 bar) (with the pump not running). If the pressure falls below 70 kPa (0,7 bar) when the system is cold re-pressurise the system by regulating the filling valve (refer to paragraph 6.6).

User's operating instructions

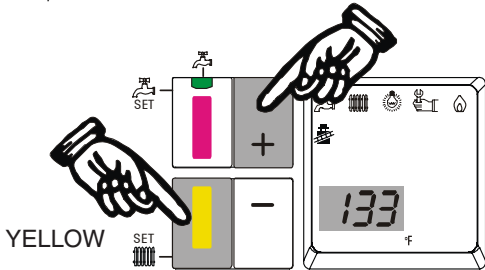
6.4 - BOILER OPERATION

HEATING MODE

Press the BLUE "L" key and select the mode: Heating (the green indicator leds "M" will illuminate).

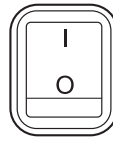


You can adjust the DHW draw-off temperature by keeping the PURPLE "B" key pressed down, and simultaneously pressing the keys "+" to increase the temperature or "-" to reduce it.



If a room thermostat has been installed, check that the desired temperature has been set..

6.5 - SHUTTING DOWN THE BOILER



For switching the boiler completely Off, switch the "A" switch in 0 position: the display will be Off.

To completely shut down the boiler switch off the mains electricity supply.

If the boiler will remain shut down for a longer period, turn the On/Off gas cock into the Off position and, if fitted, turn off the cold water supply valve.



CAUTION!

If the boiler will remain shut down for a prolonged period, and frost is likely, the entire system should be drained.

However, it is possible to avoid this operation by using specific frost protection products suitable for multi-metal systems.

6.6 - ELIMINATING THE FAULTS

When the "R" led is illuminated on the control panel display it indicates that the boiler has detected a failure in normal boiler operation or is in lock-out due to a permanent failure.

The code which identifies the cause can be viewed in place of the centigrade temperature scale by pressing the **LIGHT BLUE "I"** reset key (for the list of error codes refer to Chapter 5 – "Fault codes" in the servicing and installation instructions manual).

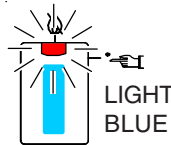
The person in charge of the appliance can try to reset normal boiler operation only in the following cases:

- Burner Off indicator led illuminated



If the heating system pressure has to be frequently re-pressurised please contact an authorized Unical After Sales Service Centre.

Lock-out indicator led illuminated



Description:

The burner's lock-out device has intervened due to:

- no gas supply
- presence of air in the piping (if it is a new system or after a long inactivity of the boiler).

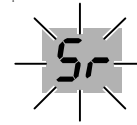
Eliminating the fault: Check that the gas supply cock is in the On position and press the reset key to restore correct boiler operation.



If the cut-off device operates repeatedly (a maximum of 3 times), causing boiler shutdown, do not try to relight the boiler yourself. Contact your nearest Unical Lattner authorized After Sales Service Centre.- no gas supply

6.7 - SERVICING REQUEST

Code (flashing)



Cause:

The appliance needs servicing

This request is signalled after 10.000 ignitions or 2.000 hours of burner operation.



Note: The code **Sr** flashing will not impede correct boiler operation.

Please contact an authorized Unical Lattner After Sales Service Centre for servicing the boiler at regular intervals. Once performed the intervention of maintenance the technician will restore the control device. The boiler will regularly develop all its functions in full safety.

Unical[®]
LATTNER

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