

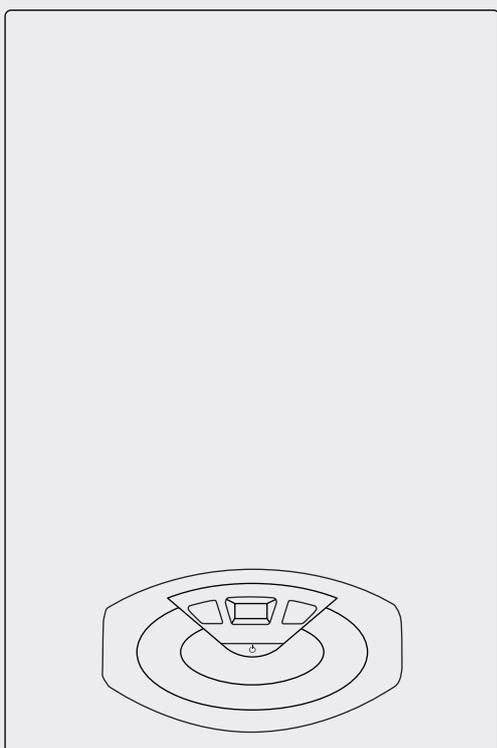


ARISTON

User's Manual

CLAS B

CLAS B Premium



GAS BOILER WITH STORAGE

**CONDENSING BOILER WITH
STORAGE**

**CLAS B 25 CF
CLAS B 25 FF
CLAS B 30 FF**

**CLAS B Premium 25
CLAS B Premium 35**

Dear Customer,

Thank you for choosing an ARISTON boiler. We guarantee that your boiler is a reliable and technically sound product. This manual provides detailed instructions and recommendations for proper installation, use and maintenance. Remember to keep this manual in a safe place for future reference i.e. by the gas meter. Your local ARISTON Servicing Centre is at your complete disposal for all requirements.

The installation and first ignition of the boiler must be performed by qualified personnel in compliance with current national regulations regarding installation, and in conformity with any requirements established by local authorities and public health organisations. After the boiler has been installed, the installer must ensure that the end user receives the declaration of conformity and the operating manual, and should provide all necessary information as to how the boiler and the safety devices should be handled.

This appliance is designed to produce hot water for domestic use. It should be connected to a heating system and a distribution network for domestic hot water, both of which must be compatible with its performance and power levels. The use of the appliance for purposes other than those specified is strictly forbidden. The manufacturer cannot be held responsible for any damage caused by improper, incorrect and unreasonable use of the appliance or by the failure to comply with the instructions given in this manual. Installation, maintenance and all other interventions must be carried out in full conformity with the governing legal regulations and the instructions provided by the manufacturer. Incorrect installation can harm persons, animals and possessions; the manufacturing company shall not be held responsible for any damage caused as a result. In the event of any maintenance or other structural work in the immediate vicinity of the ducts or flue gas exhaust devices and their accessories, switch the appliance off by switching the external bipolar switch to the "OFF" position and shutting off the gas valve. When the work has been completed, ask a qualified technician to check the efficiency of the ducting and the devices. If the boiler should be out of use for a prolonged period, it is recommended that the electrical power supply be disconnected and that the external gas cock be closed. If low temperatures are expected, the boiler and system pipe work should be drained in order to prevent frost damage. Turn the boiler off and turn the external switch "OFF" to clean the exterior parts of the appliance. Do not allow children or inexperienced persons to use the appliance without supervision.

CE labelling

The CE mark guarantees that the appliance conforms to the following directives:

- 90/396/CEE relating to gas appliances
- 2004/108/CEE relating to electromagnetic compatibility
- 92/42/CEE relating to energy efficiency
- 2006/95/CEE relating to electrical safety

Safety regulations

Key to symbols:

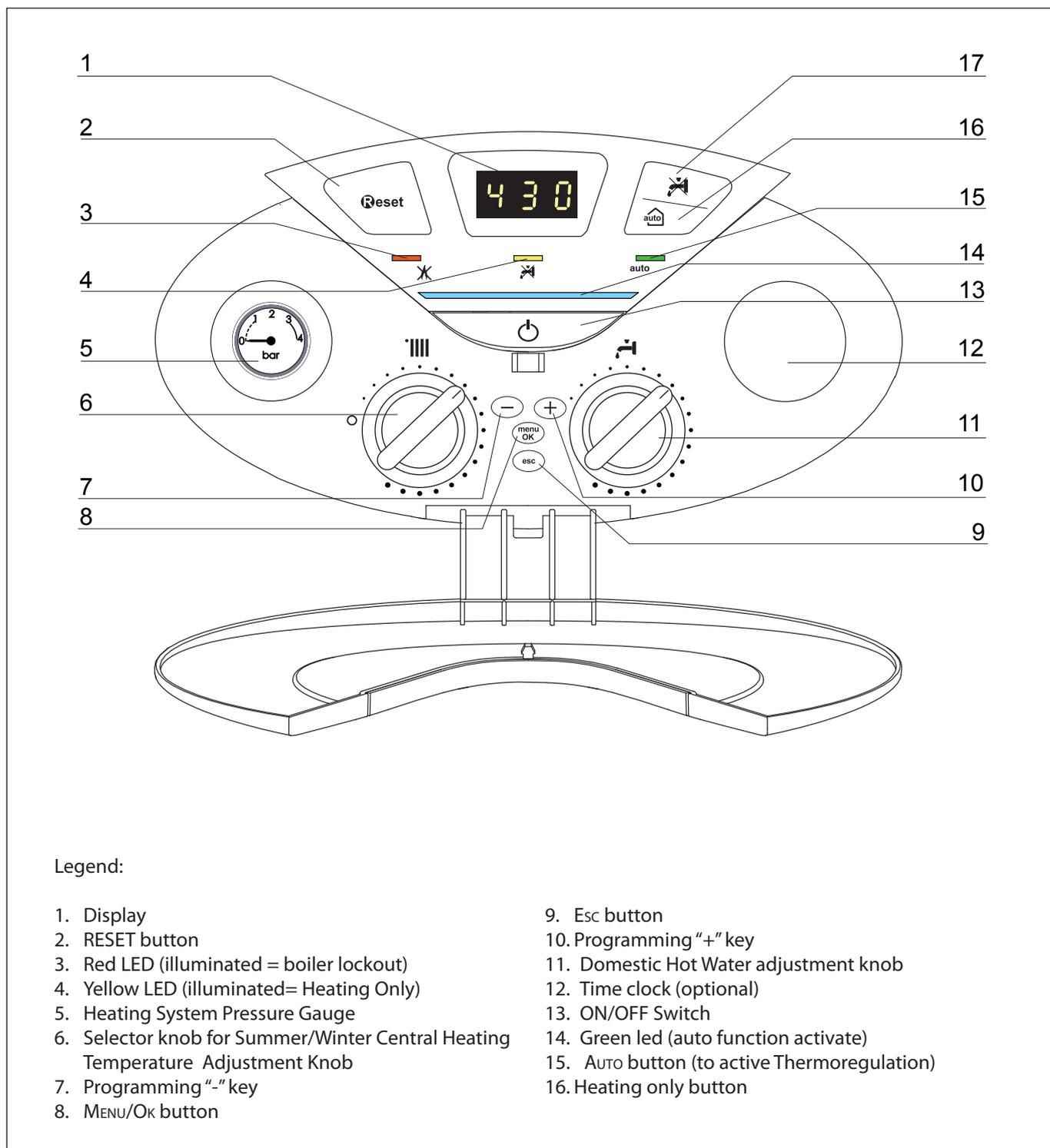
-  Failure to comply with this warning implies the risk of personal injury, in some circumstances even fatal
-  Failure to comply with this warning implies the risk of damage, in some circumstances even serious, to property, plants or animals.
Do not perform operations which involve opening the appliance.
-  Electrocutation from live components. Personal injury caused by burns due to overheated components, or wounds caused by sharp edges or protrusions.
Do not perform operations which involve removing the appliance from its installation space .
-  Electrocutation from live components. Flooding caused by water leaking from disconnected piping. Explosions, fires or intoxication caused by gas leaking from disconnected piping.
Do not damage the power supply cable.
-  Electrocutation from live uninsulated wires.
Do not leave anything on top of the appliance.
-  Personal injury caused by an object falling off the appliance as a result of vibrations. Damage to the appliance or items underneath it caused by the object falling off as a result of vibrations.
Do not climb onto the appliance.
-  Personal injury caused by the appliance falling. Damage to the appliance or any objects underneath it caused by the appliance falling away from its installation space.
Do not climb onto chairs, stools, ladders or unstable supports to clean the appliance.
-  Personal injury caused by falling from a height or cuts (step ladders shutting accidentally).
Do not attempt to clean the appliance without first switching it off and turning the external switch to the OFF position.
-  Electrocutation from live components.
-  Damage to plastic and painted parts.
Do not use the appliance for any use other than normal domestic use.
-  Damage to the appliance caused by operation overload. Damage caused to objects treated inappropriately.
Do not allow children or inexperienced individuals to operate the appliance.
-  Damage to the appliance caused by improper use.**If you detect a smell of burning or smoke coming from the appliance, disconnect it from the electricity supply, turn off the main gas valve, open all windows and call for assistance.**
-  Personal injury caused by burns, smoke inhalation, intoxication.
If there is a strong smell of gas, turn off the main gas valve, open all windows and call for assistance.
-  Explosions, fires or intoxication.

WARNING

Installation, first ignition and maintenance work must be performed by qualified personnel only, in accordance with the instructions provided.

Incorrect installation may harm individuals, animals or property; the manufacturer will not be held responsible for any damage caused as a result.

Control Panel



Legend:

- | | |
|--|--|
| 1. Display | 9. Esc button |
| 2. RESET button | 10. Programming "+" key |
| 3. Red LED (illuminated = boiler lockout) | 11. Domestic Hot Water adjustment knob |
| 4. Yellow LED (illuminated= Heating Only) | 12. Time clock (optional) |
| 5. Heating System Pressure Gauge | 13. ON/OFF Switch |
| 6. Selector knob for Summer/Winter Central Heating Temperature Adjustment Knob | 14. Green led (auto function activate) |
| 7. Programming "-" key | 15. AUTO button (to active Thermoregulation) |
| 8. MENU/OK button | 16. Heating only button |

Initial operating procedures

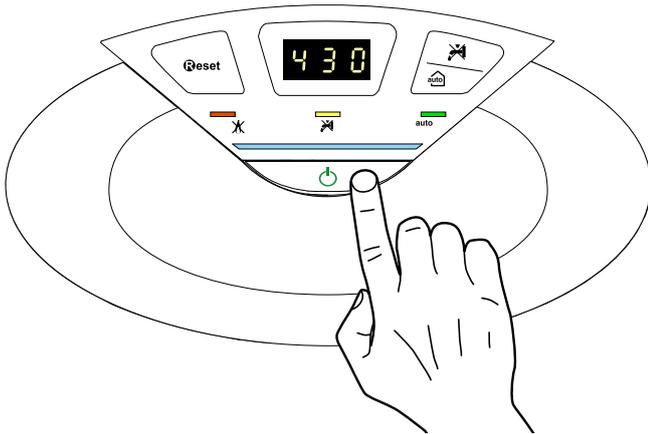
If the boiler is installed inside the apartment, make sure that all provisions relating to the air inlet and room ventilation (in compliance with current legislation) are respected.

Check the water pressure on the display regularly and make sure that the figure is between 0.6 and 1.5 bar when the system is cold. If the pressure is just under the minimum, reestablish the correct pressure by opening the valve under the boiler.

If the pressure drops very frequently, there may be a water leak at some point in the system. If this is the case, a plumber should be contacted.

Ignition procedure

Press the ON/OFF button on the control panel to switch on the boiler. The display shows:



The first figure indicates the operating mode:

- 0 XX - Stand-by,
- C XX - Central heating request
- c XX - Heating post-circulation
- d XX - Domestic hot water request
- b XX - Storage
- H XX - Hot water post-circulation
- F XX - Circulation pump anti-freeze protection enabled
- burner anti-freeze protection enabled

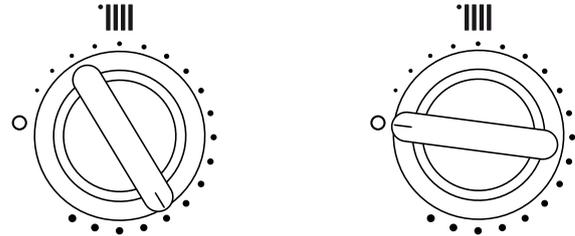
The second and third figures indicate:

- the flow temperature when no heating requests have been made
- the flow temperature in central heating mode
- the temperature of the hot water in domestic hot water mode
- the flow temperature in anti-freeze mode. ta.

Winter and Summer Operating Modes

In the "winter" operating mode, the boiler will produce both Central Heating and Domestic Hot Water. In the "summer" operating mode, the boiler will produce only Domestic Hot Water.

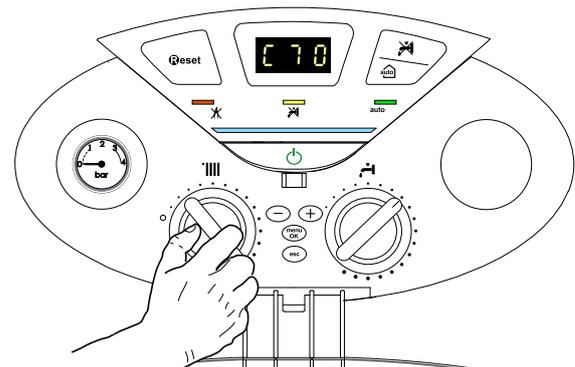
Using the knob on the control panel, the user can select "winter" or "summer" operating mode. Keeping the knob "5" at the "☀" position selects the "summer" operating mode. "Winter" operating mode may be selected by positioning the knob "5" between the min. and max. settings.



Adjusting the heating

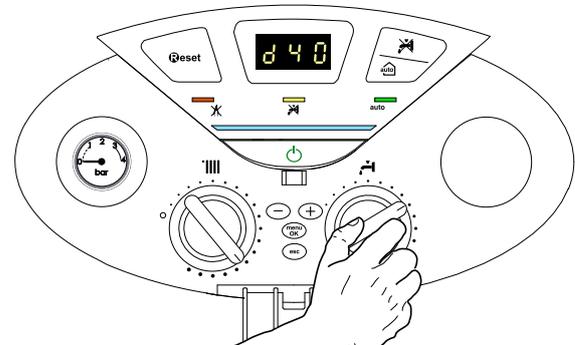
It is possible to set the temperature of the Central Heating system by adjusting the knob "5". By positioning the indicator somewhere between 1 and 6, a temperature may be obtained which varies from approximately 38°C to about 82°C.

The water temperature in the primary circuit is shown on the display.



Setting the hot water for domestic use

Both in the winter and summer mode, the temperature of the Domestic Hot Water may be adjusted by using knob "10". A delivery temperature for the water may be chosen in a range from



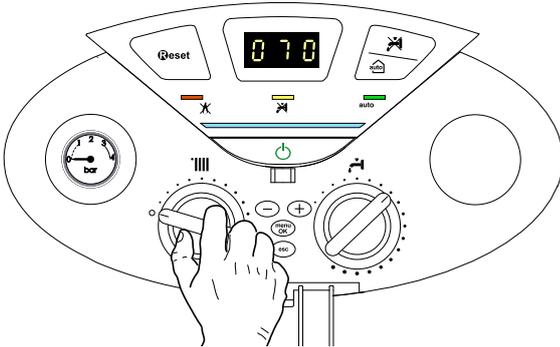
36°C to about 56°C, depending on the flow rate of the water and the position of the knob between the min. and max. settings.

To increase water temperature, turn knob "10" to max. and reduce the water flow rate at the tap.

The domestic hot water temperature is shown on the display. To exclude the storage, press the button 17, the Yellow LED 4 lights. The boiler will still provide only heating.

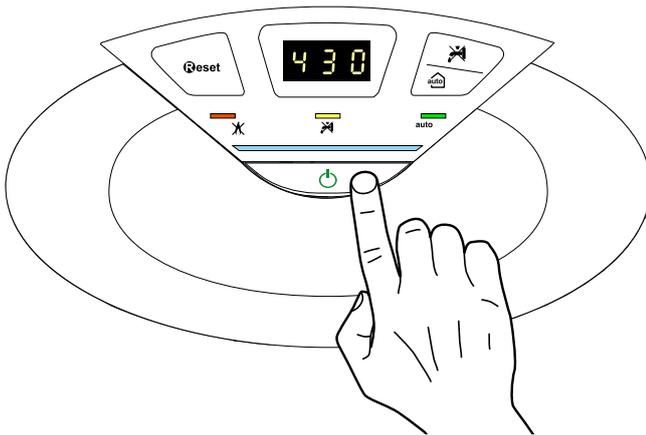
Turning Off the Heating

To turn off the heating, turn the selector knob "6" to "❄️". The boiler will still provide domestic hot water.

**Switching off the boiler**

To switch off the boiler press the ON/OFF button, the display will switch off.

Switch off the boiler completely by switching the external electrical switch to the OFF position. Shut off the gas valve.

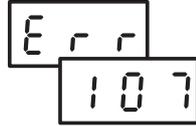


Appliance shut-off conditions

The boiler is protected from malfunctions by means of internal checks performed by the electronic P.C.B., which stops the boiler from operating if necessary. In the event of the boiler being shut off in this manner, a code appears on the control panel display which refers to the type of shut-off and the reason behind it. Two types of shut-off may occur:

Safety shut-off

This type of error is "volatile", which means that the boiler starts up again automatically as soon as the problem which caused the shut-off is removed. On the display flash "Err" and the error code (es. **ERR 107**). In fact, soon as the cause of the shut-off disappears, the boiler starts up again and continues to operate normally.



While the boiler is shut off for safety reasons, it is possible to attempt to restore normal operation by switching the appliance off and on again using the ON/OFF button on the control panel. If the boiler still indicates a safety shut-off, switch it off. Make sure the external electric switch is in the OFF position, shut off the gas valve and contact a qualified technician.

Safety shut-off due to insufficient water pressure

If the water pressure inside the heating circuit is insufficient, the boiler will perform a safety shut-off. On the display flash "Err" and the code for Insufficient circulation **ERR 100**

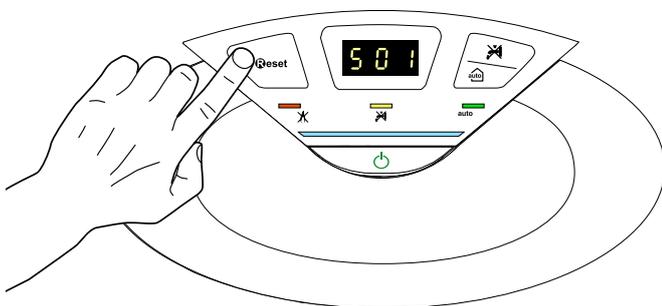
Check the water pressure on the pressure gauge and make sure that is between 0.6 and 1.5 bar when the system is cold. If the pressure is just under the minimum refill the system by open the valve under the boiler.

If the pressure drops very frequently, there may be a water leak at some point in the system. If this is the case a plumber should be contacted.

Operation shutdown

This type of error is "non-volatile", which means that it is not removed automatically. On the display flash **ERR** and the error code, and the red led "3"  will illuminate.

In this case the boiler does not restart automatically, but it may be reset by pressing the **Reset** button. If the problem manifests itself again after several attempts to reset the appliance, contact a qualified technician.



IMPORTANT

IF THIS SHUTDOWN OCCURS FREQUENTLY, CONTACT AN AUTHORISED SERVICE CENTRE FOR ASSISTANCE. FOR SAFETY REASONS, THE BOILER WILL ALLOW A MAXIMUM OF 5 RESET OPERATIONS TO TAKE PLACE IN 15 MINUTES (INDIVIDUAL PRESSES OF THE **Reset BUTTON).**

IF THE SHUTDOWN IS OCCASIONAL OR AN ISOLATED EVENT, THIS IS NOT A PROBLEM.

Operation shutdown error table

display	description
1 01	Overheating
5 01	No flame detected
1 03	Insufficient circulation
1 04	
1 05	
1 06	
1 07	
1 08	Insufficient water pressure
3 05	P.C.B. error
3 06	P.C.B. error
3 07	P.C.B. error
6 01	Fune Sensor Error (CF Models)

Temporary Shut-Off due to defective flue gas discharge (CF) 601

This device causes the boiler to shut down in the event of an anomaly in the flue gas discharge. The appliance shutdown is temporary and is signalled by error code **601**.

After 12 minutes, the boiler begins the ignition procedure; if normal conditions have been restored, the boiler operates as normal. If not, the boiler shuts down and the cycle is repeated.



WARNING!

In the event of a malfunction or if repeated intervention is required, switch the boiler off, shut off the electricity supply by turning the external switch to the OFF position and shut off the gas valve. Contact the Technical Assistance Service or a qualified technician in order to repair the flue gas discharge fault once the cause of the malfunction is detected.

Anti-frost Device.

The anti-frost function acts on the central heating flow temperature probe, independently from other regulations, when the electrical supply is turned on.

If the primary circuit temperature falls below 8°C the pump will run for 2 minutes.

After the two minutes of circulation (fixed) the boiler will check the following:

- a) if the central heating flow temperature is > 8°C, the pump stops;
- b) if the central heating flow temperature is between 4 and 8°C, the pump will run for another two minutes;
- c) if the central heating flow temperature is < 4°C, the burner will fire (heating position) at minimum power until the temperature reaches 33°C, the burner will go out and the pump will continue to run for two minutes.

The anti-frost device activates only when (with the boiler operating correctly):

- the system pressure is correct;

Auto button - Temperature adjustment activation

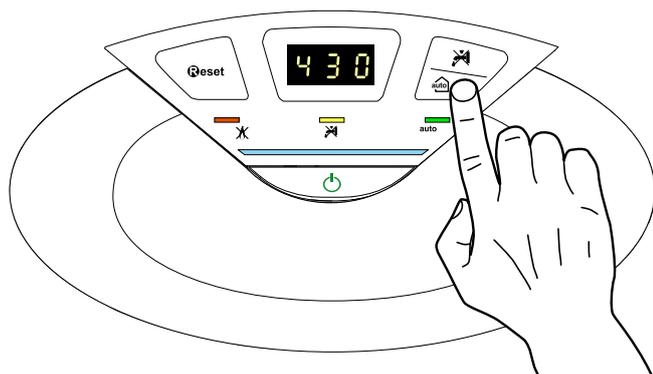
The AUTO function enables boiler operation to be adapted to external environmental conditions and to the type of system it is installed in.

Comfortable temperature is reached inside the room in the quickest way possible, without wasting money, energy or efficiency, while substantially reducing the amount of wear experienced by the components.

Contact one of our qualified technicians, who will advise you on the devices connectable to the boiler and will program it according to the system.

In normal boilers the water temperature inside the heating elements is usually set to a high value (70-80°C), thereby ensuring effective heating during the few really cold winter days. It then becomes excessive on less cold days (of which there are many) more typical of the autumn and winter seasons. This habit leads to excessive room heating after the thermostat has been switched off, resulting in energy waste and uncomfortable conditions inside the room.

The new AUTO function "takes control" of the boiler and selects the best operating regime based on environmental conditions, external devices connected to the boiler and the performance required. It constantly decides at which power level to operate based on the environmental conditions and the room temperature required.

**Change of gas type**

Our boilers are designed to function either with Natural Gas (methane) or L.P.G. gas. If you need to changeover from one gas to the other, one of our Authorised Service Centres should be contacted.

Maintenance

Schedule an annual maintenance check-up for the boiler with a competent person.

Correct maintenance always results in savings in the cost of running the system.

Ariston Thermo SpA

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