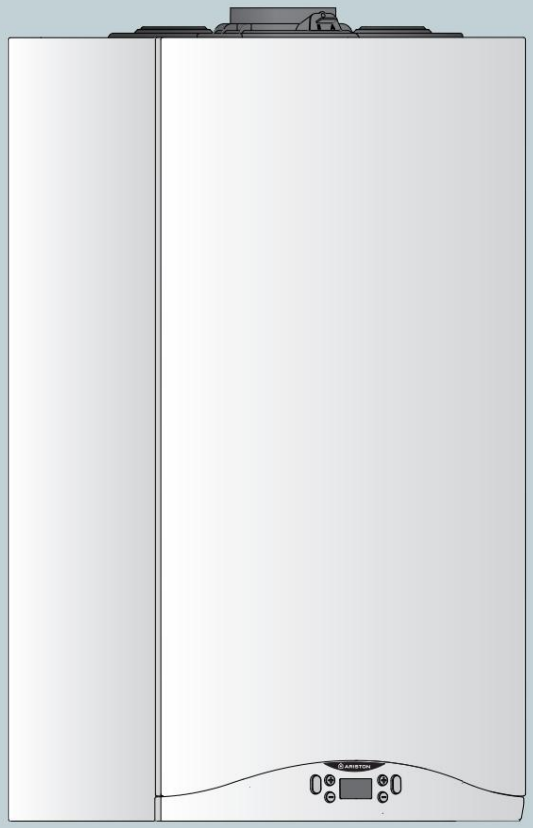


ARISTON

HS PREMIUM

TECHNICAL INSTRUCTIONS FOR INSTALLATION AND MAINTENANCE

CONDENSING WALL THERMAL POWER PLANT

HOT WATER I HEATING I RENEWABLE I AIR CONDITIONING

ErP

3300761
3300765

420000255500

INSTALLATION AND FIRST START-UP (FIRST START-UP) OF THE POWER PLANT MUST BE CARRIED OUT BY QUALIFIED PERSONNEL IN ACCORDANCE WITH THE NATIONAL INSTALLATION RULES IN FORCE AND THE POSSIBLE PROVISIONS OF LOCAL AUTHORITIES AND HEALTH INSTITUTIONS.
AFTER THE FIRST START OF THE POWER PLANT, THE TECHNICIAN MUST INFORM THE END USER ABOUT POWER PLANT OPERATION AND SAFETY DEVICES.

This appliance is intended for the production of domestic hot water for domestic use and heating for heating.

It must be connected to a heating system and to the domestic hot water distribution network compatible with its capacities and powers.
Use for purposes other than those specified are prohibited. The manufacturer is not responsible for any malfunctions caused by improper, incorrect and improper use or for failure to follow the instructions in this manual.

Installation, maintenance (overhaul) and any other intervention must be carried out in accordance with the regulations in force and in accordance with the instructions provided by the manufacturer. Improper installation can cause damage to persons, animals and property and for which the construction company is not responsible.

The boiler is supplied on a pallet, in a cardboard package, after removing the packaging, check the integrity of the appliance and make sure that the items supplied are complete. In case of non-compliance, contact your supplier.
Packaging materials (plastic bags, plastic bags, etc.) must not be left out of the reach of children, as they are a source of danger.

In the event of a malfunction and / or malfunction, switch off the appliance, close the gas valve and do not attempt to repair it yourself, contact qualified personnel.
Before any maintenance (overhaul) / boiler repair, you must switch off the boiler by turning the external bipolar switch to the “OFF” position.

Any repairs carried out using only original spare parts must be carried out only by qualified technicians. Failure to observe the above instructions could compromise the safety of the device and the manufacturer is not responsible for it.

When working or overhauling structures located near flue pipes or fittings and their accessories, turn off the appliance by placing the external bipolar switch in the “OFF” position and closing the gas valve. At the end of the work, have qualified personnel check the efficiency of the pipes or devices.

To clean the external components, switch off the boiler and set the external switch to the “OFF” position.

Clean with a cloth dampened with soap and water.
Do not use harsh detergents, insecticides or toxic products.

Compliance with current regulations allows for safe, environmentally friendly operation and energy savings. When using a kit or an optional one, the original ones must be used.

CE markings

The CE mark guarantees the conformity of the device with the following directives:

- **2009/142 / EEC** on gas appliances
- **2004/108 / EC** on electromagnetic compatibility

- **92/42 / EEC** on energy efficiency
only art.7 (& 2), art.8 and annex from III to v -
2006/95 / EC on electrical safety
- 2009/125 / **EC** Energy Impact Products - **813/2013** Delegated Regulation (EU)

SAFETY RULES

Legend symbols:

Failure to follow the warning instructions presents a risk of injury to persons, even in certain fatal circumstances.

Failure to follow the warning indicates the risk of causing damage, in certain very serious circumstances, to objects, plants and animals.

Install the appliance on a solid, non-vibrating wall.

Noise during operation

Do not damage when drilling the existing wall, electrical cables or pipes.

Electric shock on contact with live conductors. Explosions, fires or poisoning due to gas leaks through damaged pipes. Damage to existing installations. Floods due to water leaks through damaged pipes.

Make the electrical connections with conductors of suitable section.

Fire due to overheating due to the passage of electricity in undersized cables.

Protect pipes and connecting cables to prevent damage to them.

Electric shock on contact with live conductors. Explosions, fires or poisoning due to gas leaks through damaged pipes. Damage to existing installations. Floods due to water leaks through damaged pipes.

Make sure that the installation environment and the installations to which the appliance is to be connected comply with the applicable regulations.

Electric shock on contact with live conductors, incorrectly installed.

Damage to the appliance due to improper operating conditions.

Use hand tools and appliances suitable for use (especially make sure that the tool is not damaged and that the handle is fully and correctly fixed), use them correctly, make sure that they do not fall from a height, after use put put them in their place.

Injuries due to splinter or fragment projections, dust inhalation, bumps, cuts, punctures, scratches.

Damage to the device or objects around it due to the design of splinters, bumps, cuts.

Use suitable electrical appliances (especially make sure that the socket and the power cord are intact and that the parts with a rotary or reciprocating motor are properly secured), use them correctly, do not cross the pipes with the power cord, make sure they do not fall from a height, disconnect them and replace them after use.

Injuries due to splinter or fragment projections, dust inhalation, bumps, cuts, punctures, scratches, noise, vibration.

Damage to the device or objects around it due to the design of splinters, bumps, cuts.

Make sure that the portable ladders are well supported (stable), that they are sturdy, that the steps are full and non-slip, that they will not be moved with them, that someone is supervising them.

Injuries due to falls from a height or due to cuts (double stairs).

Make sure that the castle stairs are well supported (stable), sturdy, that the steps are complete and non-slip, that they have railings along the ramp and parapets on the platform.

Injuries due to falls from a height.

Make sure that in the case of work at a certain height (generally more than two meters above the level), support bars (parapets) have been provided in the work area or individual safety belts capable of preventing the fall, that in the space there are no dangerous obstacles to a possible fall, as the impact will be attenuated by semi-rigid or deformable stopping surfaces.

Injuries due to falls from a height.

Make sure that the workplace has adequate hygienic and sanitary conditions in terms of lighting, ventilation, solidity.

Injuries caused by bumps, obstructions, etc.

Protect the machine and areas near the workplace with suitable material.

Damage to the device or objects around it due to splinter design,

blows, cuts.

Handle the appliance with adequate protection, with the utmost care and caution.

Damage to the appliance or objects around it due to blows, cuts, crushes.

Equip yourself with the appropriate personal protective equipment during work.

Injuries due to splinter or fragment projections, dust inhalation, bumps, cuts, punctures, scratches, noise, vibration.

Arrange to disassemble the material and equipment so that it is easy and safe to handle, avoiding piles that can cause falls or collapses.

Damage to the appliance or objects around it due to blows, cuts, crushes.

Operations inside the appliance must be carried out with the utmost care so as to avoid sudden contact with the sharp parts.

Injuries due to cuts, stings, scratches.

Operate all safety and control functions required by the appliance and, before commissioning, make sure they are working properly.

Explosions, fires or poisoning due to gas leaks or improper exhaust fumes.

Damage or blockage of the appliance due to uncontrolled operation.

Empty components that may contain hot water by activating the respective drains before handling them.

Burn injuries.

Remove limescale deposits from components according to the specifications in the safety data sheet of the product used; In addition, ventilate the room, use appropriate protective equipment and avoid mixing with various products, protecting the appliance and surrounding objects.

Injuries due to skin and eye contact with acids, inhalation or ingestion of harmful chemicals.

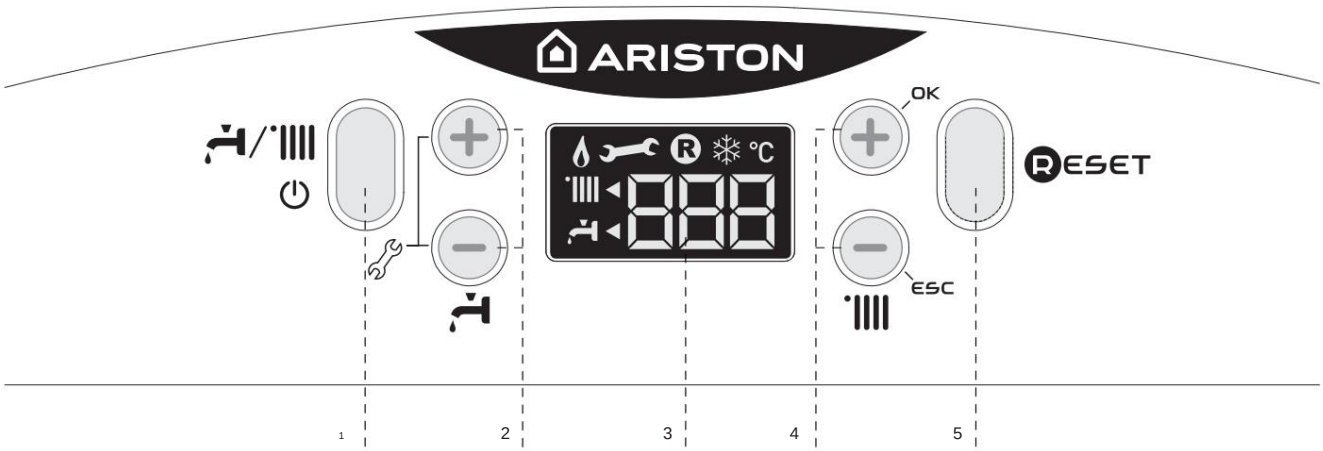
Damage to the appliance or objects around it due to corrosion by substances acid.

If you smell or see smoke coming out of the appliance, turn off the power, open the windows, and notify the technician.

Personal injury due to burns, smoke inhalation, poisoning.

PRODUCT DESCRIPTION

Control panel



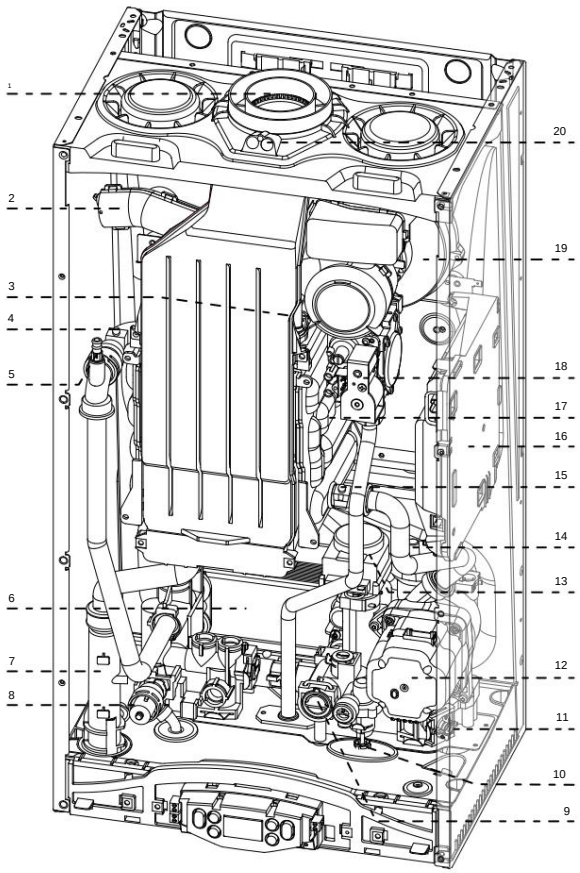
The legend:

1. ON / OFF key and select operating mode
   (summer Winter)
2. +/- keys to regulate the temperature in the sanitary circuit
3. Display
4. +/- keys to adjust the temperature in the heating circuit
5. RESET key

Display

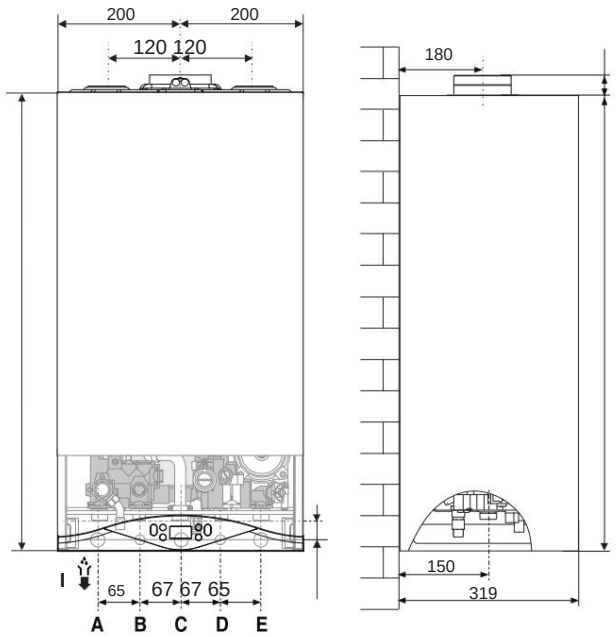
Figures for indications: - set temperatures - Set menu - Report error codes	°C
Request to press the Reset key (central locked)	
Request for technical assistance	
Operation on set mode	
Operation set on the heating circuit	
Active heating request	
Operation set on the sanitary circuit	
Active sanitary circuit application	
Active frost protection function	

Overview



Legend
1. Metal flue gas connection 2. Shock absorber 3. Flame / ignition electrode
4. Heating flow probe 5. Manual purge 6. Secondary plate heat exchanger 7. Siphon
8. Safety valve 3 bar 9. Flowmeter c. Sanitary 10. Filling valve 11. Heating circuit filter 12. Recirculation pump with vent valve
13. Motorized 3-way valve 14. Minimum load pressure switch 15. Heating return probe 16. Main plate 17. Burner 18. Valve gas 19. Fan 20. Outlets for flue gas analysis (smoke)

Boiler dimensions

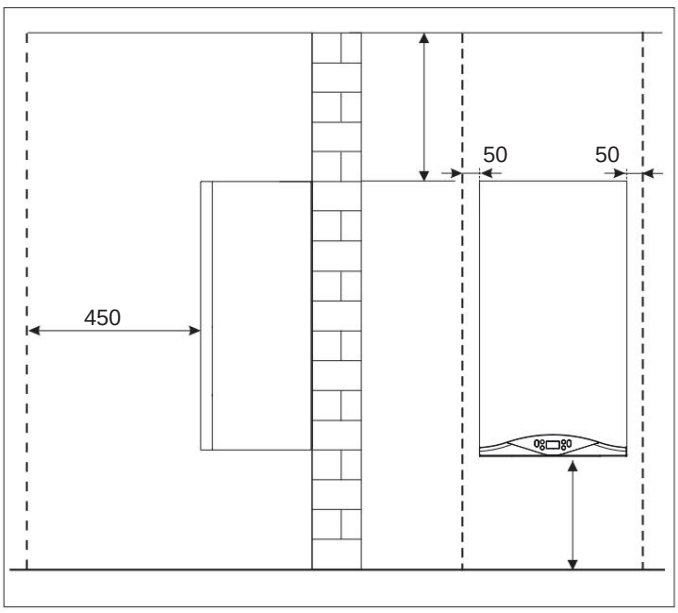


The legend

A. Installation Tour
B. Hot water outlet C. Gas inlet D. Cold water inlet E. Installation return

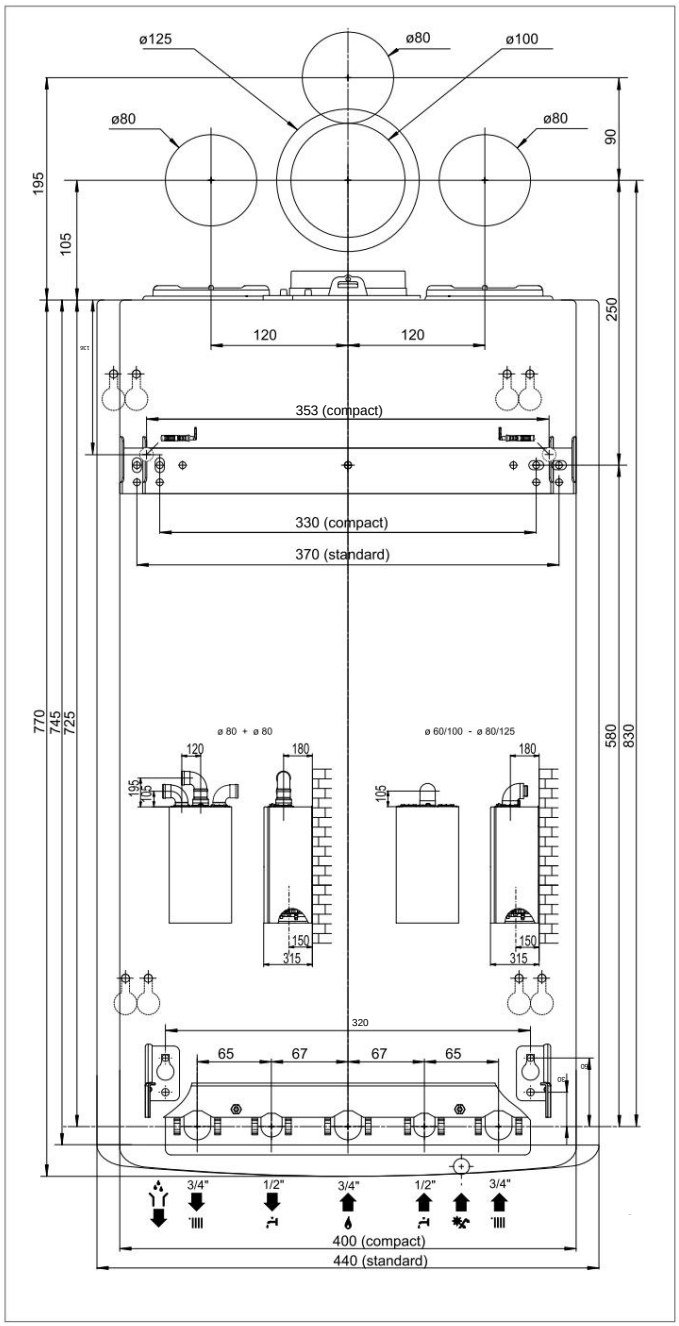
Minimum distances for installation In order to allow easy maintenance (overhaul) of the boiler, it is necessary to observe the minimum distances indicated in the diagram.

Place the boiler in accordance with the technical rules, using a bubble level.



PRODUCT DESCRIPTION

Installation template



Recommendations for the first installation

The boiler is used to heat the heating agent to a temperature lower than the boiling temperature.

It must be connected to a heating system and to a domestic water system, both sized according to the performance and power of the boiler. Before connecting the boiler it is necessary to:

- carry out a thorough cleaning of the installation pipes to remove any residues from threading, welding or dirt that could compromise the correct operation of the boiler,

- check the preparation (equipment) of the boiler for operation with the type of gas available (read those shown on the packaging label and on the stamp plate with the characteristics of the boiler),
- check that the flue gas chimney (smoke) is not interrupted (throat) and that other exhausts from other appliances are not connected, unless this has been done to serve more users. in accordance with the provisions of the Rules in force,

- to check, if connected to existing chimneys, that they are perfectly cleaned and do not show any residual slag, as their possible release could obstruct the passage of flue gases (smoke) causing dangerous situations,

- check, in case of connection to inappropriate chimneys, if they have been intubated,
- in the presence of water with a very high hardness, there will be a risk of limescale accumulation having as a consequence the decrease of the efficiency of the boiler components,
- avoid installing the appliance in areas where the combustion air contains high concentrations of chlorine (swimming pool environment), and / or other toxic products such as ammonia (hair salon), alkaline agents (laundry) ...,

Type C appliances, whose combustion chamber and air supply circuit are insulated (sealed) from the environment, have no limits due to ventilation conditions and room volume.

In order not to compromise the normal (regular) operation of the boiler, the installation location must be adequate in relation to the value of the operating temperature limit and be protected so that the boiler does not come into direct contact with atmospheric agents.

The boiler is designed for wall installation, so it cannot be installed on the floor. The boiler must be installed on a suitable wall to support its weight.

When creating a technical room, it is necessary to respect the minimum distances that guarantee the accessibility to the components of the boiler.

CAREFUL
NO APPROACH TO THE POWER PLANT THERE ARE FLAMMABLE OBJECTS.

MAKE SURE THE INSTALLATION ENVIRONMENT AND THE INSTALLATIONS TO WHICH THE APPLIANCE MUST BE CONNECTED ARE IN ACCORDANCE WITH THE RULES IN FORCE.

IF THE INSTALLATION ROOM IS DUST AND / OR IS AGGRESSIVE VAPOR, THE APPLIANCE MUST OPERATE INDEPENDENTLY ON THE AIR IN THE ROOM.

CAREFUL
INSTALLATION AND FIRST IGNITION (START) OF THE POWER PLANT MUST BE CARRIED OUT BY STAFF QUALIFIED IN ACCORDANCE WITH THE RULES INSTALLATION, IN FORCE AND ACCORDING TO ANY PROVISIONS OF LOCAL AUTHORITIES AND PUBLIC HEALTH INSTITUTIONS.

Gas connection

The boiler has been designed to use gases belonging to the categories presented in the following table:

nation	The pattern	Category
RO	HS PREMIUM 24 EU HS PREMIUM 30 EU	2H

Make sure that the stamp on the package and on the appliance is intended for the country in which it is to be installed, and that the gas category for which the boiler was designed also corresponds to one of the categories permitted by the country of origin. destination.

The gas connection pipes must be made and dimensioned according to those provided by the specific Norms and based on the maximum power of the boiler; also make sure that the shut-off valve is correctly sized and connected. Careful cleaning of the gas lines before installation is recommended to remove any debris that could compromise the operation of the boiler.

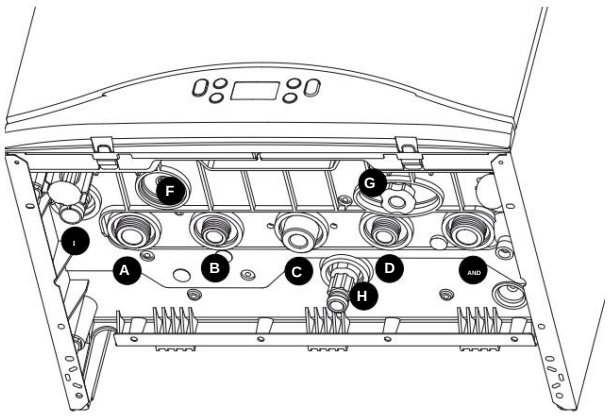
It is necessary to check whether the distributed gas corresponds to the gas for which the boiler was intended (see the stamp plate on the boiler).

In addition, it is important to check that the gas pressure (methane or LPG) to be used to power the boiler, if insufficient, could reduce the power of the burner with unpleasant consequences on the user's comfort.

Water connection (hydraulic)

The figure shows the connections for connecting the boiler to the water (hydraulic) network and to the gas installation.
Make sure that the maximum water main pressure does not exceed 6 bar, otherwise a pressure reducer must be installed.
Check that the expansion vessel has a capacity appropriate to the water content of the boiler.

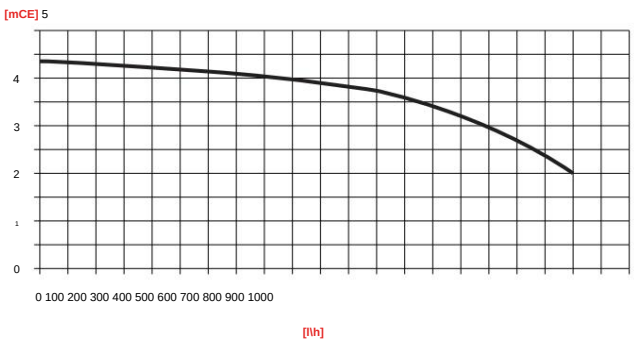
Hydraulic connections



A. Installation Tour
B. Hot water outlet
C. Gas inlet
D. Cold water inlet
E. Installation Return
F. Overpressure device discharge
G. Filling valve
H. Drain valve
I. Condensate drain

For the dimensioning of the pipes and radiators of the heating installation, the residual level value is evaluated according to the required flow (capacity), according to the values presented on the recirculation pump graph.

Graphical representation of the residual flow recirculation pump



Overpressure device

The evacuation of the overpressure device must be connected to a purge siphon which can be controlled with the naked eye, in order to avoid - in the event of its intervention - damage to persons, animals and damage to property for which the manufacturer is not responsible.

Heating system cleaning

Before installing the boiler, it is recommended to clean the entire system to remove any residue that may affect the proper operation of the boiler or boiler.

Boiler installation in new heating systems (or less than 6 months old)

- Clean the heating system with a suitable cleaning solution * to ensure the correct operation of the boiler in the long run

- Then rinse the pipes and radiators with enough water to remove the detergent together with magnetite, oxides and any other deposits (making sure that the system is completely emptied at all low points and that the water is clean) before connecting the boiler to the system. central heating.

Boiler installation in existing heating systems

- Remove the old heating agent together with the mud, rust and any other deposits from the old heating system.
- Rinse the entire heating system.
- Clean the heating system with a suitable cleaning solution * to ensure the correct operation of the boiler in the long run.

- Rinse the pipes and radiators again with enough water to remove debris and detergent (making sure that the system is completely drained at all low points and that the water is clean) before connecting the boiler to the central heating system.

Water treatment

In general, the boiler and the heating system can only be filled with cold water from the mains, without any water treatment.

If water treatment is required:

- Clean the entire heating system with a suitable cleaning solution * and then rinse the pipes and radiators with enough water to remove the washing agent together with magnetite, oxides and any other deposits (making sure that the system is completely emptied at all low points and that the water is clean) before connecting the boiler to the central heating system.
- Treat the water with a suitable solution * to ensure, on long term, proper operation of the plant.
- At the end of the treatment, please check if the pH value of the heating system is between 7 and 8 (very important to avoid the occurrence of corrosion in aluminum / light alloy components).

You should talk to the **ARISTON THERMO regional** technical service about the recommended chemicals and how to use them , as incorrect dosing can cause damage to the boiler and, in particular, to light aluminum / alloy components.

(*) Please contact the regional technical service ARISTON THERMO for any information on recommended products for cleaning / water treatment.

Heated floor installations

In underfloor heating systems, install a safety thermostat on the underfloor heating circuit. For the electrical connection of the thermostat, see the paragraph “Electrical connections”.
In the event of too high a flow temperature, the boiler will switch off both domestic hot water and heating.
The boiler restarts when the thermostat with automatic reset is closed.

If it is not possible to install a thermostat, the floor installation will need to be protected with a thermostatic valve or bypass to prevent the floor from reaching too high a temperature.

Condensation High energy efficiency produces condensation, which must be eliminated. For this purpose, use a plastic hose placed in such a way as to avoid any stagnation of condensation inside the boiler. This hose must be connected to an exhaust siphon with the possibility of visual inspection.

Observe the installation regulations in force in the country where the installation is being carried out and comply with any regulations of local authorities and public health bodies.
Check the installation of the condensate drain pipe:
- it must not be tight at the time of connection
- it does not have to form a swan neck
- Be sure to connect it to a vent.

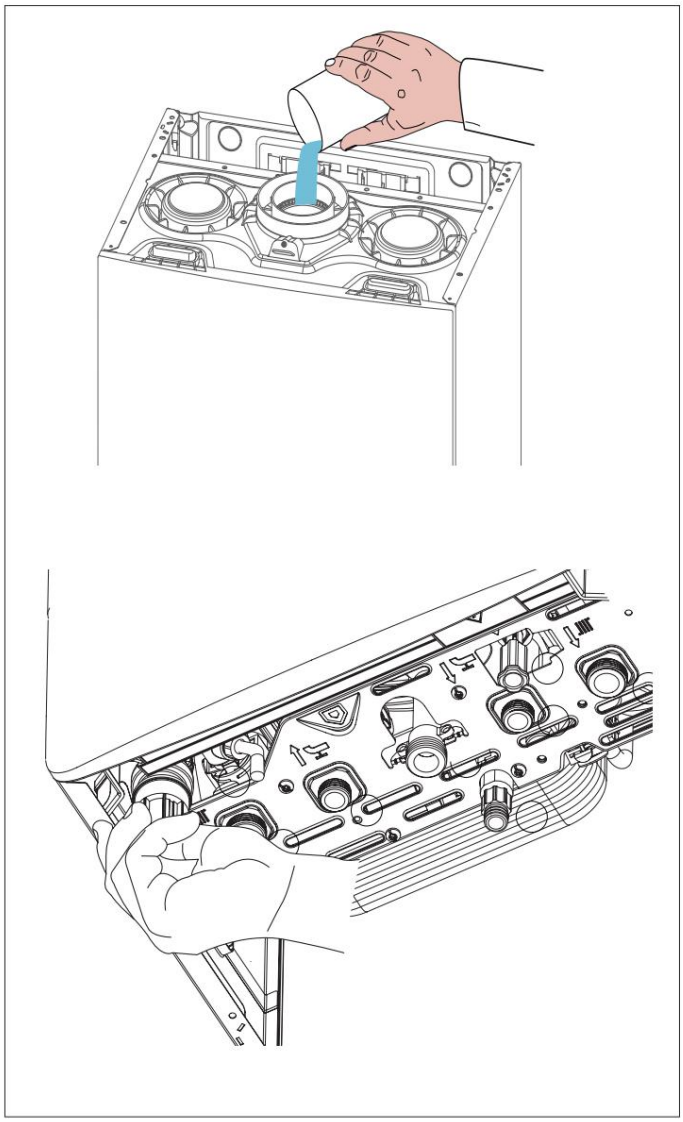
To drain condensate, use only appropriate piping.

Condensate flow can reach 2 liters / hour. As the condensation is acidic (pH close to 2), you will need to take all precautions before proceeding.

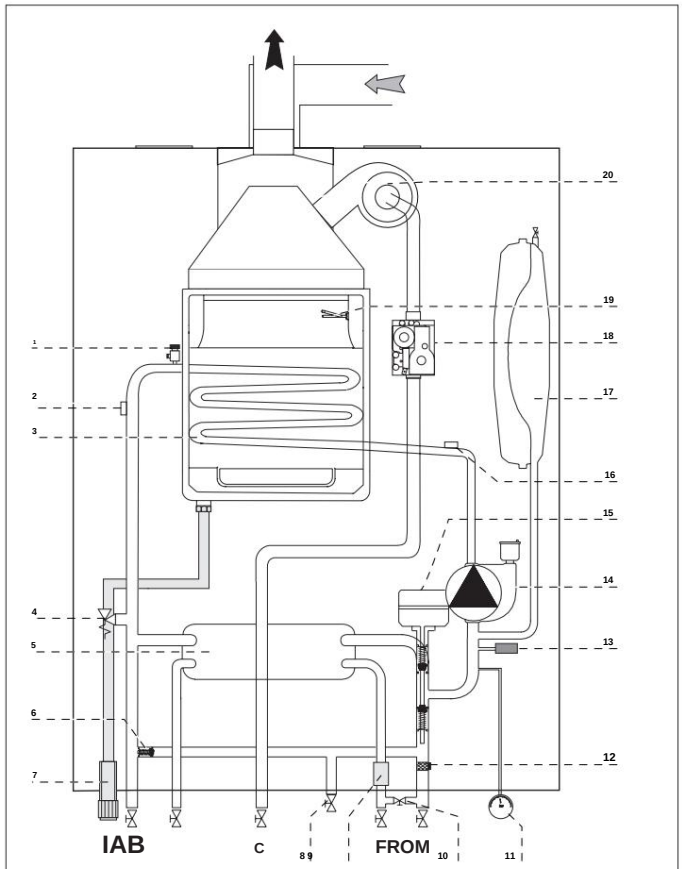
CAREFUL!

THE ABSENCE OF WATER IN THE SIPHON CAUSES

EMISSIONS OF SMOKE EMPTYED INTO AMBIENT AIR.



Hydraulic scheme



1. Purjor manual
2. Heating tower probe
3. Burner
4. Safety valve 3 bar
5. Secondary plate heat exchanger
6. By-pass automat
7. Chiffon
8. Drain valve
9. Sanitary flow meter
10. Filling valve
11. Hydrometer
12. Heating circuit filter
13. Minimum load pressure switch
14. Recirculation pump with vent valve
15. Motorized 3-way valve
16. Heating return probe
17. Expansion vessel
18. Gas valve
19. Ignition / ignition electrode
20. Ventilator

Connection of Suction and Exhaust Pipes

burned

The boiler is suitable for operation in mode B taking air from the environment and in mode C taking air from outside.
When installing an exhaust system, pay attention to the insulation to avoid the infiltration of flue gases into the air circuit.
The exhaust kit must not be tilted but mounted in a horizontal position because the coaxial tube is already tilted to the boiler.
In the case of a type B installation, the room in which the boiler is installed must be ventilated by an adequate air intake and in accordance with the regulations in force. In rooms with a risk of corrosive vapors (for example: laundries, hairdressing salons, galvanic process media, etc.) it is very important to use a type C installation with external air supply (combustion) for combustion. This protects the plant from the effects of corrosion.

For the realization of a coaxial type aspiration / evacuation system it is mandatory to use the original accessories.
Flue gas pipes must not come into contact with flammable materials, nor must they be installed near them, nor must they pass through structures or walls made of flammable materials.

The connection (connection) of the flue gas pipes is made with a male / female connection (plug) and a sealing gasket.
The connections must be placed against the direction of condensate leakage.

Typology of connecting the boiler to the chimney

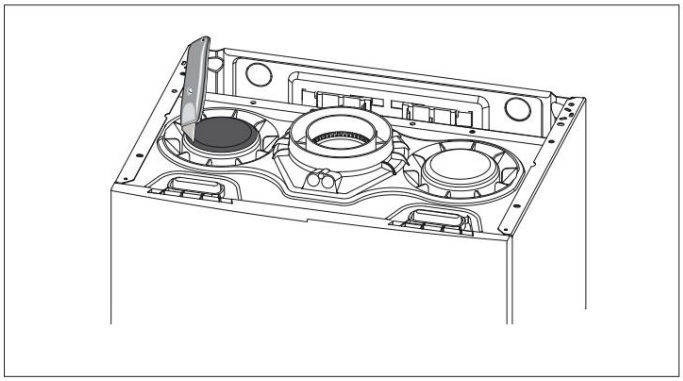
- coaxial connection of the boiler to the chimney / evacuation,
- double connection of the boiler to the exhaust chimney with the suction of outside air,
- double connection of the boiler to the exhaust chimney with the suction of ambient air.

Condensation-resistant products must be used when connecting the boiler to the chimney. For connection lengths and changes, see the exhaust type table.
Suction connection kits (flue gas are supplied separately from the appliance depending on the various installation solutions. The boiler is designed for connection to a coaxial flue gas suction and exhaust system.

The connection of the boiler to the chimney is carried out on all appliances with coaxial tubes Ø 60/100.
For pipe leakage, see flue gas catalog. The additional resistance must be taken into account in the above dimension.

For the calculation method, equivalent length values and installation examples, see the flue gas catalog.

The boiler is arranged to be connected to a 60/100 coaxial flue gas suction and exhaust system.
To use the mounting type with two separate ducts (one suction and one exhaust), it is necessary to use one of the two air intakes.



CAREFUL
MAKE SURE THE EXHAUST AND VENTILATION PIPES ARE NOT OBSTRUCTED.

CAREFUL
MAKE SURE THERE ARE NO GAS LEAKS IN THE EXHAUST PIPES.

ONLY BURNED GAS EXHAUST KITS WILL BE USED FOR CONDENSING POWER PLANTS

Flue gas suction and exhaust pipe length table

Typology of evacuation		Maximum length of suction / discharge pipes (m)		Diameter Pipes (mm)
		HS PREMIUM		
		24 EU	30 EU	
		MAX	MAX	
	C13 C33 C43	10	10	ø 60/100
	B33	10	10	
	C13 C33 C43	25	25	ø 80/125
	C13 C33 C43	S1 = S2	S1 = S2	ø 80/80
		25/25	25/25	
	C53 C83	S1 + S2	S1 + S2	ø 80/80
		42	42	
	B23	42	42	ø 80

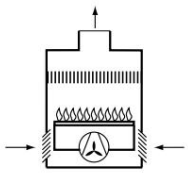
S1 = air intake - S2 = exhaust gas

Smoke extraction / exhaust type

Combustion air from the environment

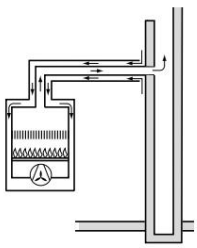
B23 Exhaust flue gas.

Ambient air suction



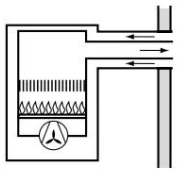
B33 Exhaust gas in a single or collective chimney integrated in the building.

Ambient air suction.

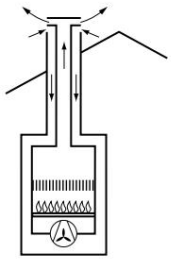


Combustion air from outside

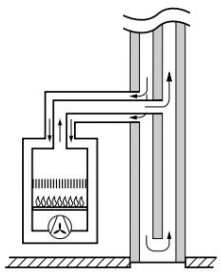
C13 Exhaust flue gas through the external wall in the same pressure range.



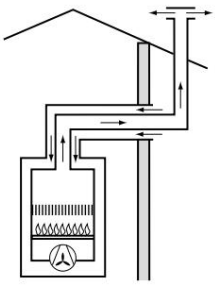
C33 Exhaust gas exhaust and outside air intake with external roof terminal in the same pressure range.



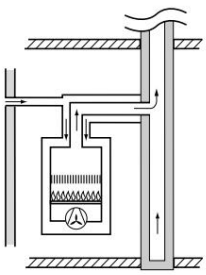
C43 Flue gas exhaust and air intake through individual or collective chimney integrated in the building.



C53 Exhaust gas exhaust and air intake through the external wall in the same pressure range.



C83 Flue gas exhaust through individual or collective chimney integrated in the building.
Suction air through the external wall.



CAREFUL
BEFORE ANY INTERVENTION AT THE POWER PLANT, SWITCH OFF THE POWER SUPPLY WITH THE HELP OF THE EXTERNAL BIPOLAR SWITCH.

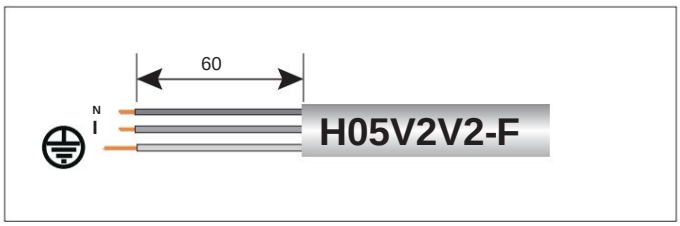
Electrical connections

For greater safety, have qualified personnel inspect the electrical system carefully.
The manufacturer is not responsible for any damage caused by failure to ground the system or power outages.

Check that the installation is suitable for the maximum power absorbed by the boiler and indicated on the stamp plate.
Check that the cable section is suitable, not less than 0.75 mm2 in any case. Proper connection to an efficient earthing system is essential to ensure the safety of the device.
The power cord must be connected to a 230V-50Hz mains with respect to LN polarization and grounding.

If the power cord is damaged, it must be replaced by a qualified technician using original parts available from the manufacturer or an authorized service center.

Power cord



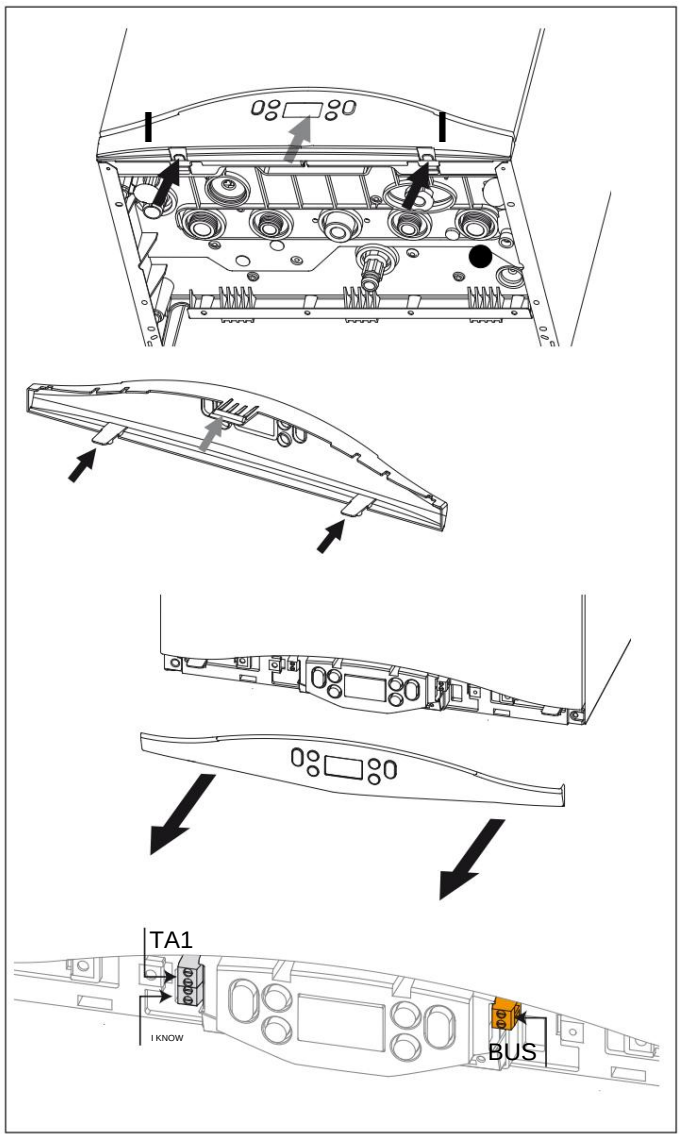
IMPORTANT!

CONNECTIONS TO THE ELECTRICAL NETWORK MUST BE MADE WITH A FIXED CONNECTION (NOT WITH A MOBILE PLUG) AND EQUIPPED WITH A BIPOLAR SWITCH WITH A CONTACT OPENING DIST OF AT LEAST 3 MM.

Multiple sockets, extension cords or adapters are prohibited.
It is forbidden to use the pipes of the sanitary, heating and gas installation for the construction of the earthing installation of the appliance.
The boiler is not protected against the effects of lightning. If network fuses need to be replaced, use fast 2A fuses.

Connecting accessories and peripheral equipment

To access the connection of accessories and a peripheral equipment:
- Disconnect the boiler from the power supply
- **Unlock and remove the control panel cover**



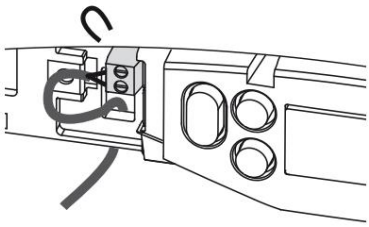
peripheral

BUS - = camera sensor connection (device modulating)
SE - External Probe

TA1 - Room thermostat 1
Note: The limit thermostat for underfloor heating can be connected in series with **TA1** thermostat - see diagram on next page.

Connecting the room thermostat

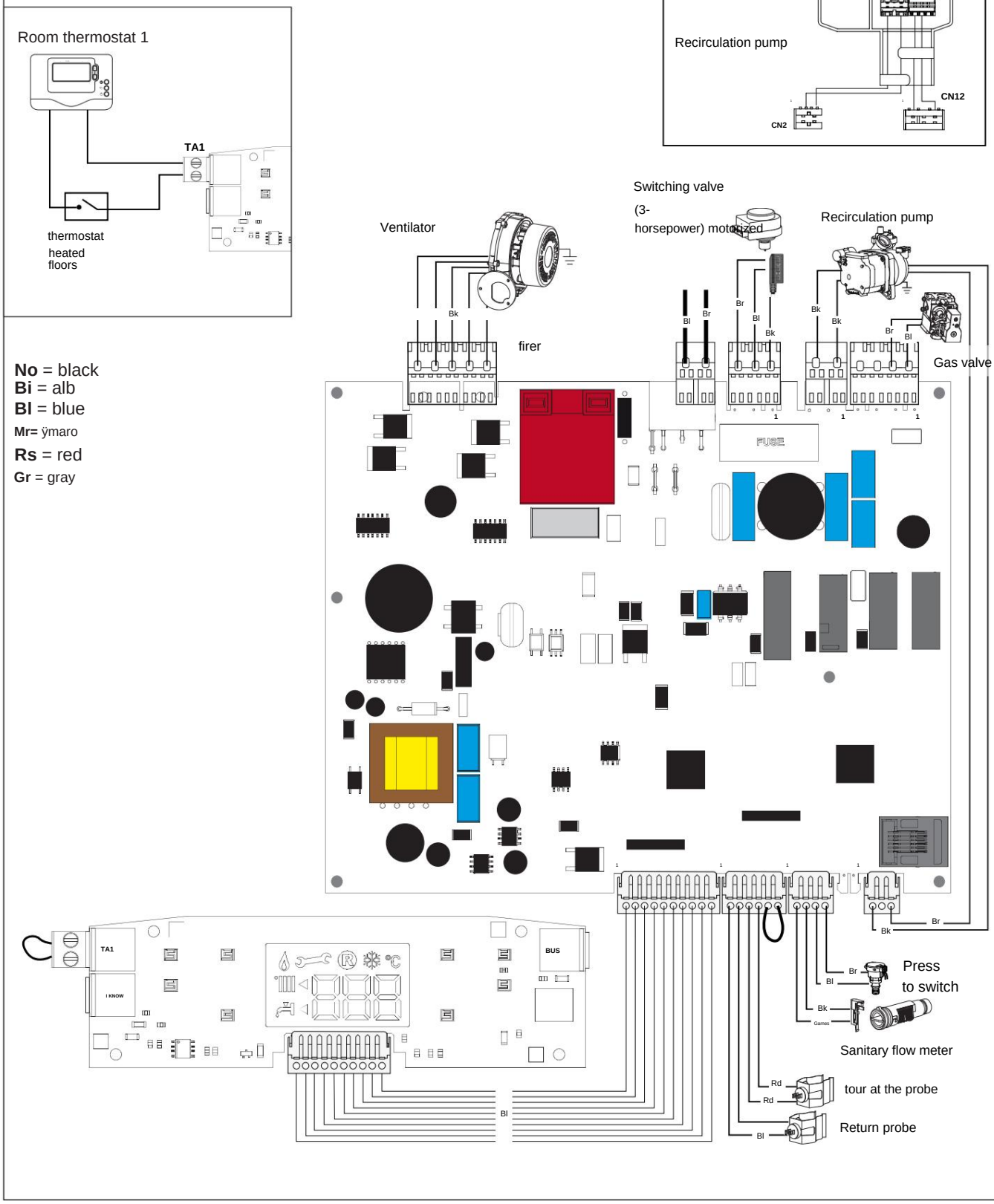
- Insert the thermostat wires into the opening next to it connector
- Connect the wires to terminal TA1, removing the factory connected bridge
- Replace the control panel cover



Boiler wiring diagram

For a better safety, qualified personnel are inspected by the electrical installation.
The manufacturer is not responsible for any damage caused by the failure of the system to be grounded or for power outages.

Room thermostat 1 and heated floor thermostat



Preparation for commissioning

In order to guarantee the safety and proper operation of the plant, commissioning must be carried out by a qualified technician who is authorized by law to do so.

Power supply

- Check that the supply voltage and frequency match yes
  tele inscribed on the stamp plate of the power plant;
- check the earthing efficiency.

Filling the installation with water

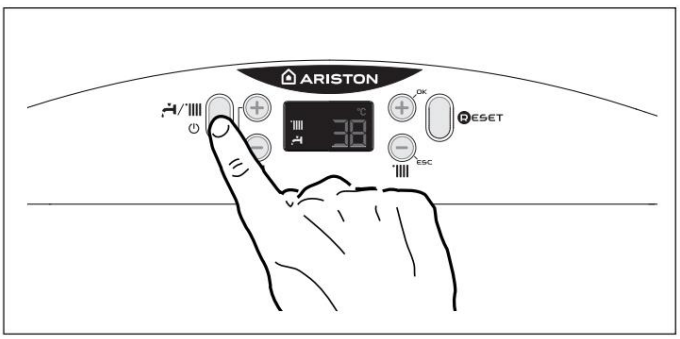
Proceed as follows:
- open the tap on the flow circuit (cold water supply);
- remove the automatic vent valve cover from the pump
  circulation;
- gradually open the filling valve and close the ventilation valves
  on the radiators as soon as the water comes out
- close the boiler filling valve when the pressure indicated on the
  hydrometer is 1 bar.

Gas supply

Proceed as follows:
- check if the type of gas supplied corresponds to the one indicated on
  the stamp plate of the boiler;
- open doors and windows;
- avoid sparks and open flames;
- check the tightness of the fuel system with the boiler shut-off valve
  closed and then open, and the gas valve closed (deactivated) for
  10 minutes the meter (gas sensor) must not indicate any gas
  passage.

Ignition procedure

Press the ON / OFF key on the control panel to turn on the boiler:



a - the mode of operation set with the symbols and b the numbers show:

- in heating mode, flow temperature
- in the sanitary circuit mode, the set temperature of the domestic horse water

The performance of certain functions is also indicated:

Deaeration cycle started	
Post-circulation heating	
Post-circulation domestic hot water	

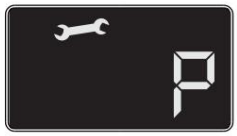
First start

1. Make sure that:
   - the gas valve is closed;
   - the electrical connection is made correctly.
     In any case, make sure that the ground wire is green / yellow is connected to a good earthing system;

   - lift the automatic overpressure valve plug with a screwdriver;

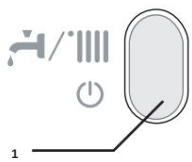
   on the pressure gauge, the pressure is higher than 1 bar; - start the boiler (by pressing the On / Off key) and select the standby mode, there are no demands, neither from the household circuit nor from the heating circuit.

   - activate the deaeration cycle by pressing the 1 key for 10 seconds. The plant will begin a deaeration cycle of approximately 7 minutes.
   - at the end of it, check that there is no more air in the installation; otherwise, repeat the operation;
   - ventilate the radiators;
   - the flue pipe must be e
     adequate and without any obstacles
   - make sure that all vents / windows in the room are open (type B installation).
2. **Check that the siphon contains water. If not, check it must be refilled.**
   NB: If the boiler is not used for a long time, the siphon must be refilled before starting the boiler. The siphon acts as a hydraulic barrier, and it is dangerous to start the boiler without water in the siphon, because the flue gases can be released into the room.
3. Open the gas valve and check the tightness of the connections, including those of the boiler, checking that the measuring device does not signal any gas passage. Eliminate any gas leaks.
4. Start the boiler by selecting with Key **1** operation (heating or domestic hot water). Burner ignites: If this does not happen on the first try, repeat the operation until it ignites.

Ventilation function

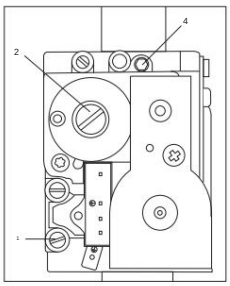
Pressing key **1** for 10 seconds will start the boiler cycle which will last approximately 7 minutes.
The function can be interrupted by pressing the 1 key again . If necessary, you can activate a new cycle. Check that the boiler is also in Standby mode (no request from the heating or sanitary circuit).



Burn control procedure

The order of operations must be followed in this procedure.

Operation 1:
Fill the gas valve.

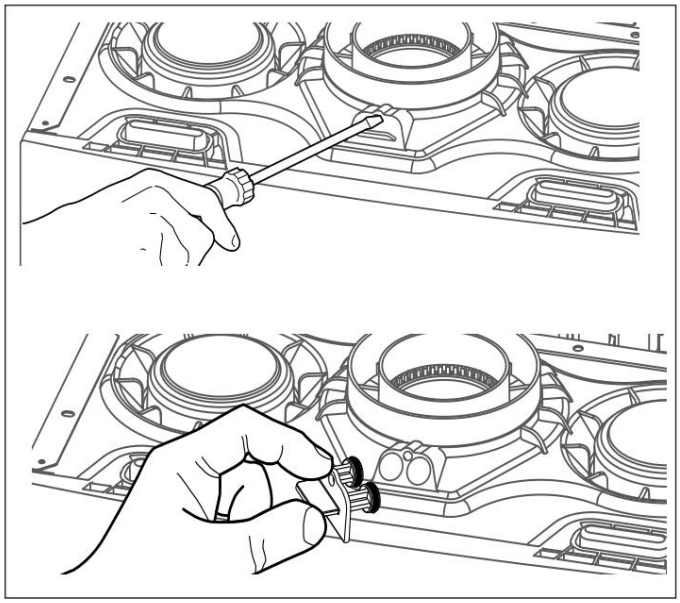


Unscrew the screw **1** and insert the pressure gauge hose on the nozzle.
Start the boiler on DHW at maximum power, activating the TEST mode (hold down the RESET button for 10 sec and turn the knob to select DHW at maximum power). The gas pressure must correspond to the value set depending on the type of gas for which it is built boiler

see table of value changes.

Operation 2 preparation of the measuring material

Connect the calibrated meter to the left combustion socket by unscrewing the screw and removing the shutter.



Operation 3
Adjust the CO2 level to the maximum gas flow (domestic hot water)

Perform a domestic hot water extraction at the maximum water flow.

Select "test mode" by pressing the **RESET** key for 5 seconds.

CAREFUL! By activating the TEST function, the water temperature at the outlet of the boiler can be higher than 65 ° C.

It appears on the display: The plant is forced to operate at maximum heating power.

Press the **1** key ⊕ to force the central to operate at maximum power on the DHW. The sign will appear on the display:

Wait 1 minute for the boiler to stabilize before performing the combustion analysis.

Measure the value of the CO2 level (%) and compare it with the values in the table below.

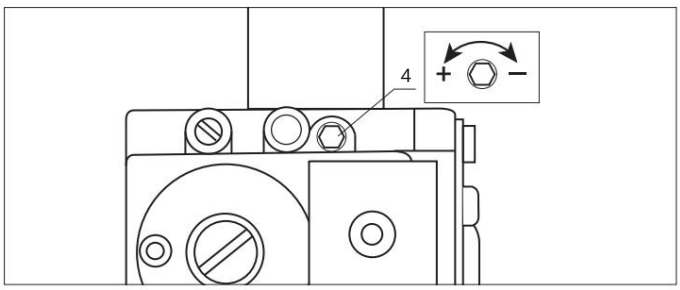
Gas	CO2 (%)	
	MAX	MIN
G20	9,4 ± 0,3	9,2 ± 0,3

NB: values obtained with the lid closed.

If the value of the measured CO2 level (%) is different according to the values indicated in the table, adjust the gas valve according to the instructions below, otherwise go directly to **operation** 4.

Adjusting the gas valve to the maximum gas flow

Adjust the gas valve by turning the adjusting screw **4** clockwise to reduce the CO2 level (one turn reduces the CO2 level by approx. 0.2-0.4%) Wait about 1 minute after each adjustment of the adjusting screw to stabilize the value of



CO2.If the measured value corresponds to the value in the table, the adjustment is complete, and if you do not repeat the adjustment procedures again.

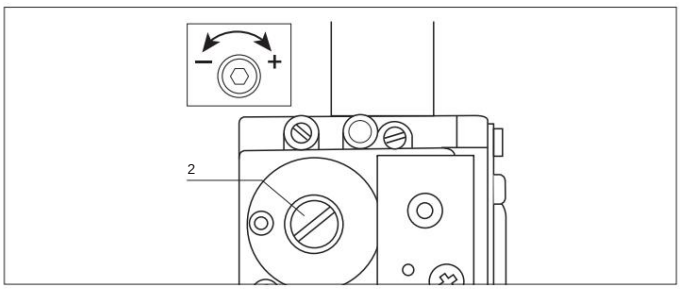
Note: The "test mode" function is deactivated automatically after 10 minutes or manually by briefly pressing the RESET key.

Operation
4 Checking the CO2 level at the minimum gas flow

Press the **1** ⊖ to select the sign key . The boiler is forced to operate at minimum power.
Wait 1 minute for the boiler to stabilize before performing the combustion analysis.
If the CO2 value read differs from the one in the table, adjust the gas valve following the instructions below, and if the value is correct, proceed directly to operation 5.

Adjusting the gas valve to the minimum gas flow
Remove the adjusting screw cover **2** by turning the screw counterclockwise to reduce the CO2 level. Wait about 1 minute for the set value to stabilize. If the measured value matches the value in the table, the adjustment is complete, and if you do not resume adjustment procedure again.

Replace the adjusting screw cover 2.

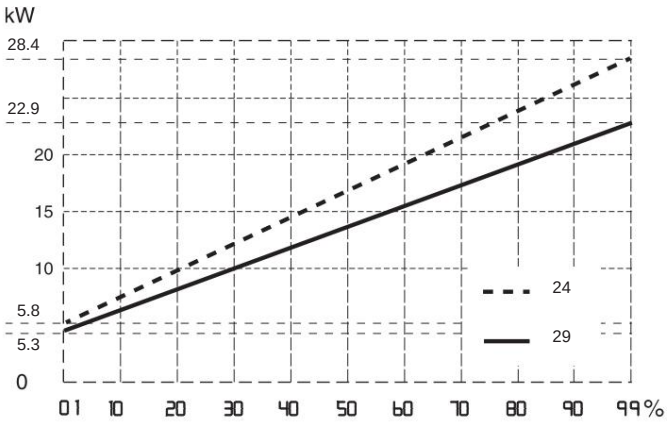


ATTENTION: If the CO2 value at minimum power has been changed, it is necessary to resume the adjustment of the gas valve at maximum power.

Operation 5 End of setting
Exit cleaning mode by pressing RESET.
Stop extraction.
Reassemble the front of the appliance.
Refit the combustion plugs.

Maximum heating power setting - parameter 231
It is possible to adjust the maximum heating power between the maximum permissible appliance and the minimum. At maximum power 100 will be displayed, at minimum 00 will be displayed.

To control the maximum power of the heating circuit, go to Parameter 231 and check (or change, if necessary) the value as indicated in the table “Summary table of gas transformation”.



Slow ignition adjustment - parameter 220
It is possible to adjust the slow ignition between maximum and minimum power.
To control the power on slow ignition, go to parameter 220.

If necessary, change the parameter value until the pressure is correct.

Heating start delay setting - parameter 236

This parameter 236 allows to set the delayed start on heating between 0 and 7 minutes.

Gas regulation table

		Parameter	HS PREMIUM	
			24 EU	30 EU
			G20	G20
Lower Wobbe Index (15 ° C, 1013 mbar) (MJ / m3)			45,67	45,67
Slow ignition		220	35	35
Maximum heating power		231	60	60
Minimum fan speed (%)		233	10	12
Maximum fan heating speed (%)		234	83	82
Maximum domestic hot water fan speed (%)		232	83	820
Debit gaz max/min (15°C, 1013 mbari) (nat - m3/h	max domestic hot water		2,4	3,07
	max heating		2,4	3,07
	min		0,44	0,63

CHANGE OF GAS TYPE
CHANGING OF THE TYPE OF GAS FROM NATURAL GAS (G20) TO PROPANE GAS (G31) OR REVERSE, IS PROHIBITED.

Auto function
The function allows the boiler to automatically adapt to the operating mode (radiator temperature) and to the external conditions, in order to reach and keep the set ambient temperature constant.

Depending on the connected peripherals as well as the number of zones controlled, the boiler automatically regulates the temperature on the flow circuit.
So set the parameters that interest you (see settings menu).
To activate the function, enter a parameter 224.
For detailed information, refer to the CHAFFOTEAUX Thermoregulation Manual.

Example 2:
Single zone installation (high temperature) with on / off room thermostat and external probe:
in this case it is necessary to enter the parameters:
421 - Activation Thermoregulation with sensors
- select 01 = external probe only
422 - Select the thermoregulation curve -
select the curve that interests you based on the type of installation, appliance, thermal insulation of the building, etc.
423 - The parallel movement of the curve - if applicable - can allow you to lower or increase the set-point temperature (can also be changed by the user with the heating temperature control cap, which, if the Auto function is deactivated, has the role of moving the curve in parallel).

Conditions for switching off the appliance

The boiler is protected from malfunction by the electronic board that performs certain internal controls, which triggers, if necessary, a safety locking device. In the event of a blockage, the control panel display shows a code referring to the type of stop and the cause that caused the stop.

They can be verified as two types of stops.

Safety stop

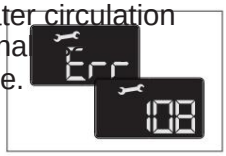
This error is of the "volatile" type, ie it disappears automatically immediately afterwards cessation of the cause that caused the arrest.

ERR and error code (eg Err / 110) appear on the display and the symbol appears - see table.

Immediately after the end of the cause that caused this shutdown, the device restarts and starts operating normally.

While the boiler is in safe stop, you may want to try restarting it by turning the unit off and on again from the control panel.

Safety shutdown due to insufficient water pressure In case of insufficient water circulation in the heating circuit, the boiler signa shutdown Err / 108 - see Error table.



Check the pressure on the pressure gauge and close the valve as soon as it reaches 1 - 1.5 bar.

The system can be restored by filling it with water from the filling valve under the boiler.

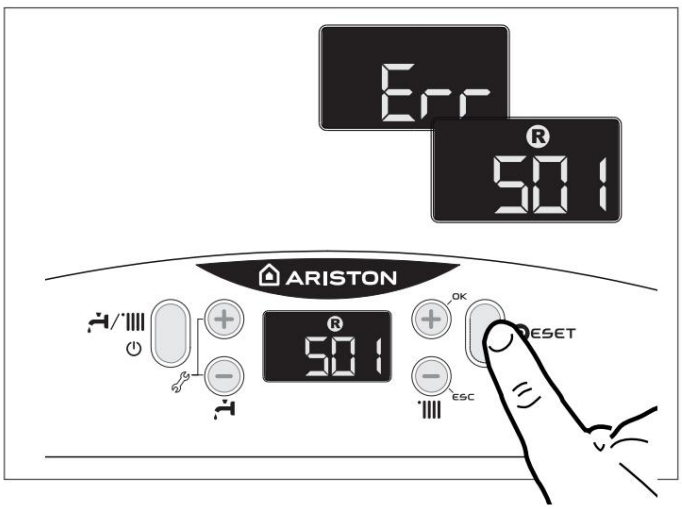
If the level request is frequent, switch off the boiler, set the external electrical switch to the OFF position, turn off the gas valve and call a qualified installer to check for water leaks.

Operation lock

This "non-volatile" error disappears even . which means no after eliminating the cause that caused the plant to shut down.

ERR and error code appear on the display (eg Err / 501). Also appears To description and symbol. ®

restore the boiler to normal operation, press the RESET key on the control panel.



Important

If the shutdown is repeated frequently, we recommend that you contact an authorized Technical Assistance Center. For safety reasons, the boiler will in any case allow a maximum of 5 reset attempts in 15 minutes (by pressing the RESET key). If the boiler rarely shuts down, this is not a problem.

The first digit of the error code (eg 1 01) shows the group in which the anomaly occurred:

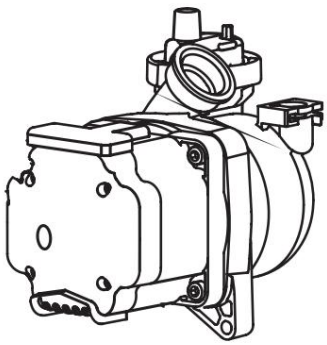
1 - Primary Circuit
2 - Sanitary Circuit
3 - Internal Electronic Part
4 - External Electronic Part
5 - Ignition and Detection
6 - Air supply - Flue gas exhaust

Warning of malfunction

This announcement appears on the display as follows:
5 P1 = first ignition attempt failed
the first digit (showing the group where the anomaly occurred) is followed by the letter P (ad) and the code for that ad.

Circulator malfunction notice

There is an LED on the circulator that indicates the status of operation:
Led stins:
The circulator is not powered.
Green LED fi x:
active circulator
Flashing green LED:
gear change in progress
Red LED:
signals circulatory blockage or lack of water



Summary table with error codes

Primary circuit	
1 01	Excessive temperature
1 03	Insufficient traffic
1 04	
1 05	
1 06	
1 07	
1 08	Lack of water (filling required)
1 10	Open circuit / Short circuit heating probe
1 12	Open circuit / Short circuit heating return probe
1 14	Open circuit / Short circuit external heating probe
1 16	Open floor thermostat
1 18	Primary circuit probe problem
1 P1	Insufficient traffic signal
1 P2	
1 P3	
Sanitary circuit	
2 05	Open circuit acm integration probe (Optional solar kit)
Internal Electronics	
3 01	EEPR display error
3 02	GP-GIU communication error
3 03	Electronic board error
3 04	Too much RESET
3 05	Main board error
3 06	Main board error
3 07	Main board error
3 P9	Scheduled maintenance - call for technical assistance
External Electronic Part	
4 11	Camera sensor 1 unavailable
4 12	Camera sensor 2 unavailable
4 13	Camera sensor 3 unavailable
Ignition and Detection	
5 01	No flame
5 02	Detection of flame with gas valve closed
5 04	Detachment of flame
5 P1	First ignition attempt failed
5 P2	First ignition attempt failed
5 P3	Detachment of flame
Air supply - Flue gas exhaust	
6 10	Open hot melt probe
6 12	Insufficient fan speed

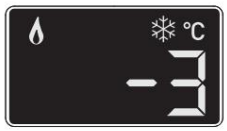
Anti-freeze function

If the central flow NTC probe measures a temperature below 8 ° C, the circulation pump remains in operation for 2 minutes. After the first two minutes of driving, the following situations may occur:

A) if the flow temperature is higher than 8 ° C, the circulation is interrupted;

B) if the flow temperature is between 3 ° C and 8 ° C, another two-minute circulation will be performed; if more than 10 cycles are performed, the boiler reaches situation C.

C) if the flow temperature is lower than 3 ° C, the burner is lit at minimum power until the temperature reaches 33 ° C.



The function is always active, except in the case of safety stops which impede the operation of the recirculation pump and the NTC flow probe.

Activation of frost protection is indicated on the display by the symbol. ❄

Frost protection is only activated if the boiler is in perfect working order:

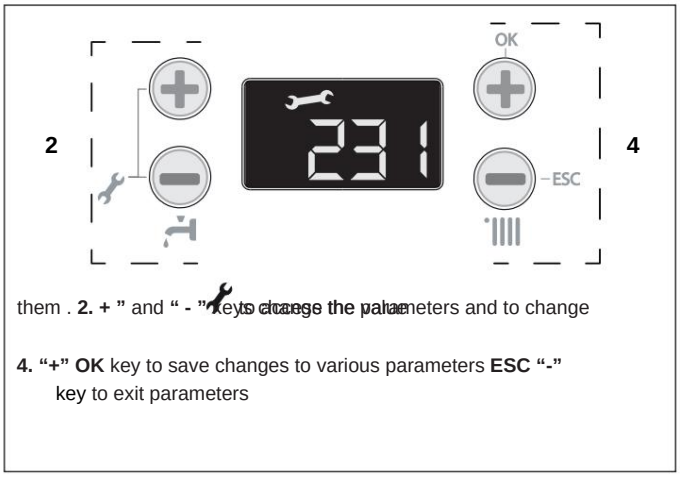
- if the pressure in the installation is sufficient;
- if the boiler is supplied with electricity; - if gas is supplied.

Access to setting-adjustment parameters - diagnostics

The boiler allows you to fully manage the heating system and domestic hot water.

Navigating within the parameters allows you to customize the operation of the installation and its related peripherals, thus optimizing comfort and energy consumption. In addition, the menus can give you a lot of useful information about the proper operation of the boiler.

The list of available parameters is presented on the following pages.
Access and modification of the various parameters is performed by the **"+"** and **"-"** keys and the **"+" OK** and **"-" ESC keys.**



them . **2. +** " and " **- "** keys to change the parameters and to change

4. "+" OK key to save changes to various parameters **ESC "-"** key to exit parameters

Parameter information is shown on the display.

Careful! Parameters that can only be changed by specialized installers can be accessed only after entering the code accession.

To access the Parameters, do the following:

1. Press the **1 "+"** and **"-"** keys simultaneously for 5 seconds. The control panel requires the entry of the access code, 222 appears on the display

2. press the **"+"** key to select the code 234

3. press the **"+" OK** key to access the parameters

4. The first available parameter appears on the display 220

5. to select the parameters press the **"+"** key to select the parameter
- Example: changing parameter 231 231

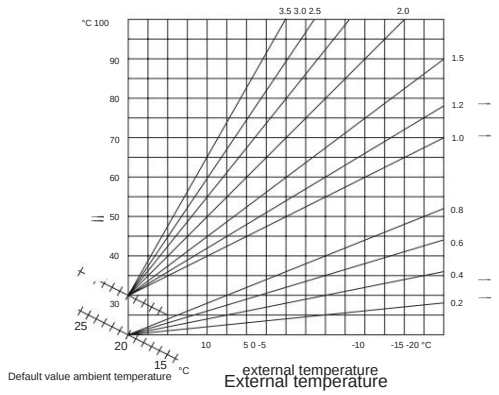
6. press the **"+" OK** key to access this parameter; the value will appear on the display, "e.g. 70 intermittent 70

7. press **1** "+" or **"-"** keys to select a new value "e.g. 65 " 65

8. press the **"+" OK** key to save the change or the **ESC "-"** key to exit without saving.

To exit, press the **"-" ESC** key to return to normal view.

	description	value	
INTRODUCTION CODE			222
Rotate the encoder clockwise to select 234 and press the OK key			
214 Selection circulator		0 = fix 1 = modulation	1
	SAT RESERVED Only in case of change of gas or electronic board		
220 Slow ignition		from 0 to 99	60
	SAT RESERVED		
224 Thermoregulation		0 = Absent 1 = Present	
228 Central Heating Version UNCHANGABLE		from 0 to 5	0
	FOR SERVICE ONLY - Use only as a PCB replacement		
229 Central rated power			
	SAT RESERVED Only in case of change of gas or electronic board		
231 Heating power adjustment max. from		0 to 100	
	refer to the gas adjustment table in the Commissioning section		
232 Percentage of maximum sanitary power NOT MODIFIED		from 0 to 100	
	SAT RESERVED Only in case of change of gas or electronic board see gas adjustment table		
233 Minimum power percentage UNCHANGABLE		from 0 to 100	
	SAT RESERVED Only in case of change of gas or electronic board see gas adjustment table		
234 Percentage of maximum heating power UNCHANGABLE		from 0 to 100	
	SAT RESERVED Only in case of change of gas or electronic board see gas adjustment table		
236 Heating delay delay timing adjustment		from 0 to 7 min 3	
245 Maximum pump speed		from 75 to 100% 100	
246 Minimum pump speed		40 to 100%	
247 Heating circuit pressure device indication		0 = probe only temperature 1 = pressure switch to minimum 2 = sensor pressure	1
	SAT RESERVED Only in case of change of electronic board		
250 COMFORT function		0 = Off 1 = Timed 2 = Always active	0
	Timed = activated for 30 minutes after a domestic hot water intake		
	The appliance allows to increase the comfort of domestic hot water through the "COMFORT" function. This function keeps the secondary exchanger (or external boiler) at a constant temperature during a period of inactivity of the boiler.		

description	value	
252 Domestic hot water flow delay	from 5 to 200 (0.5 to 20 seconds)	5
Aries		
253 Extinguishing the burner in domestic hot water mode	0 = anti-limescale (stop at> 67 ° C) 1 = + 4 ° C / adjustment	0
254 Post-circulation and post-ventilation after a domestic hot water intake	0 = OFF 1 = ON	0
OFF = 3 minutes post-circulation and post-ventilation after a domestic hot water intake if required by the temperature measured in the boiler. ON = always activated after 3 minutes post-circulation and post-ventilation after a domestic hot water intake.		
420 Temperature range zone 1	0 = 20 to 45 ° C (low temperature) 1 = 35 to 82 ° C (high temperature)	1
selection based on the type of installation		
421 Select the basic thermoregulation type according to the connected peripherals	0 = fixed flow temperature 1 = On / Off device 2 = indoor probe only 3 = probe only exterior 4 = indoor probe and external probe	1
422 Thermoregulation curve	from 1.0 to 3.5 (high temperature)	1.5
	from 0.2 to 0.8 (low temperature)	0.6
 External temperature		
When using the outdoor probe, the boiler calculates the most suitable flow temperature taking into account the outdoor temperature and the type of installation. The type of curve must be chosen according to the type of transmitter of the installation and the insulation of the house.		

description	value	
423 Parallel offset curve temp.	from - 7 to 7 (high temperature)	0
	da - 14 a + 14 (low temperature)	0
In order to adapt the thermal curve to the needs of the installation, it is possible to shift the curve in parallel so as to change the calculated flow temperature and therefore the ambient temperature.		
By accessing the parameter it is possible to move the heat curve in parallel. Each step corresponds to an increase / 1 C temperature drop with respect to the set target value: **Careful!** Without access to the parameter, parallel curves can be moved through **2** "+" keys and "-" the displacement value can be read on the display from -7 to +7. - 1 ° C for high temperature devices - 2 ° C for low temperature devices.		
		
424 Ambient proportional influence	from 0 to + 20 20	
if the setting = 0, the temperature measured by the ambient probe does not affect the setting calculation. If the setting = 20, the measured temperature has a maximum influence on the setting.		
425 Maximum zone temperature heating setting 1	35 to 82 ° C 82	
	if parameter 420 = 1	
	from 20 to 45 ° C 45	
	if parameter 420 = 0	
426 Adjusting the minimum heating temperature zone 1	35 to 82 ° C 35	
	if parameter 420 = 1	
	20 to 45 ° C 20	
	if parameter 420 = 0	
822 Fan speed (x100) rpm		
827 % modular pump		
832 Heat return temperature (° C)		
842 Solar domestic hot water inlet temperature (° C)		
Activated exclusively with the solar kit connected or with an external container		

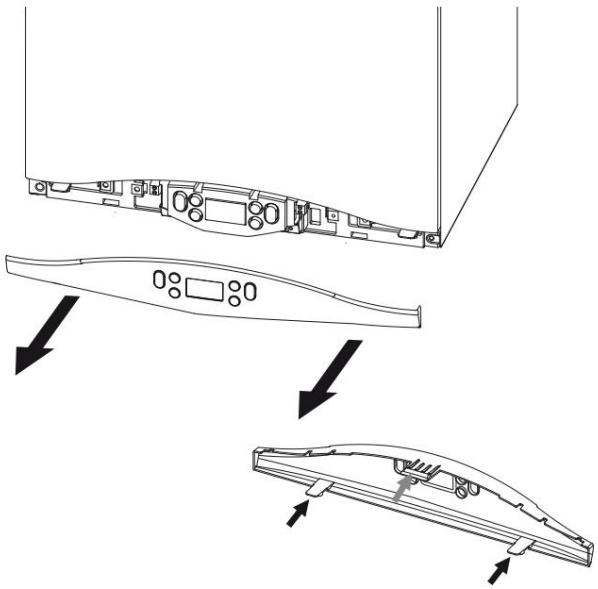
value
room temperature set point

Instructions for opening the housing and checking the inside of the boiler

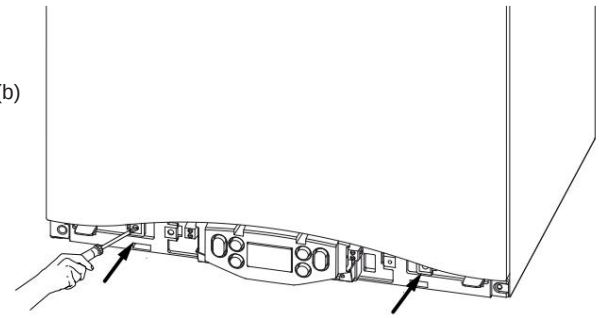
Before carrying out any operation on the boiler, disconnect it from the power supply by closing the external bipolar switch and the gas valve.
In order to have access inside the boiler it is necessary to:

1. remove the crankcase by removing it from the housing (a);
2. unscrew the two screws on the front panel (b), pull it forward and detach it from the top hooks (c -d).

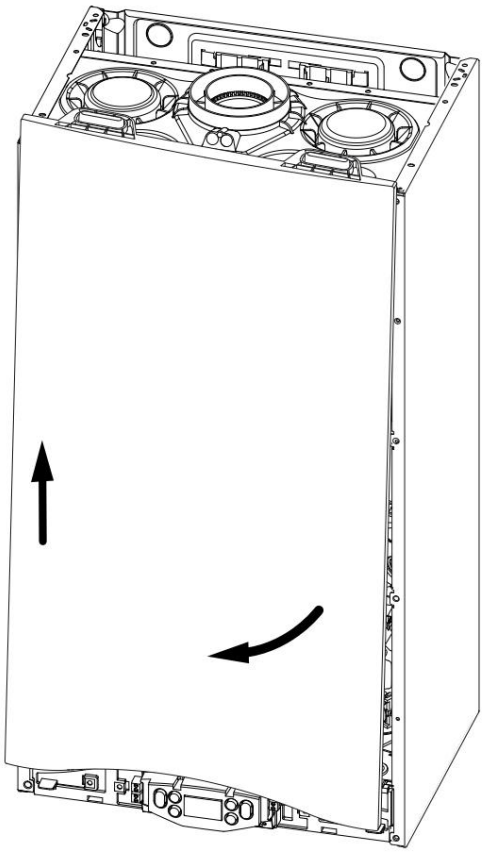
(a)



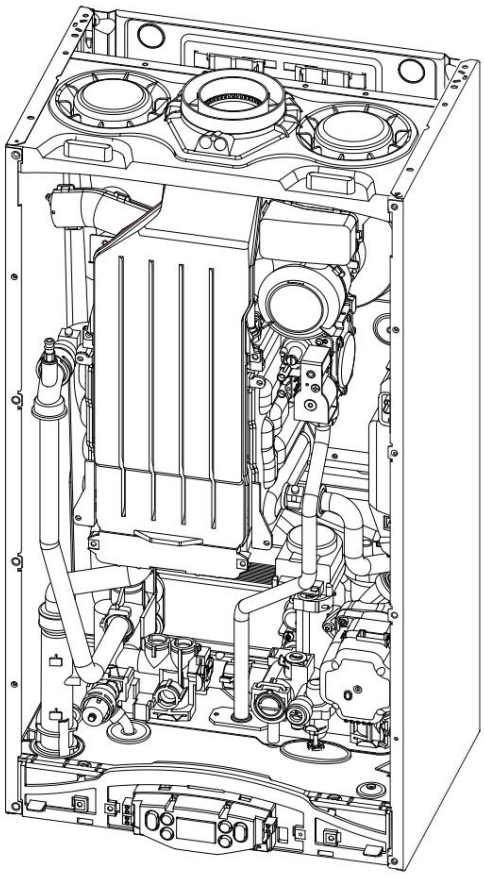
(b)



(c)



(d)



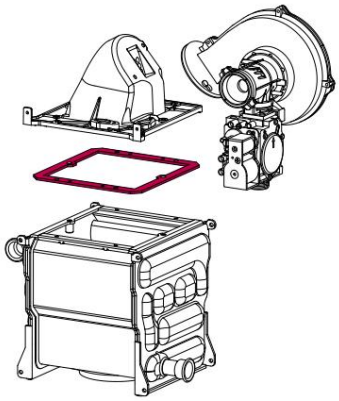
Maintenance (inspection, overhaul) is essential for the safety, proper operation and life of the boiler.
It is carried out in accordance with the provisions of the rules in force.
It is recommended that periodic flue gas (combustion) analysis be performed to monitor the efficiency and emissions of pollutants in accordance with applicable regulations.
Before starting maintenance:
- electrically disconnect the boiler and set the external bipolar switch to the OFF position - close the gas tap and the water taps of the heating and plumbing installations;

At the end, the initial settings are played back (resumed).

General Notes
It is advisable to carry out the following checks (checks) on the appliance at least once a year:
1. Checking the insulation gaskets (support) on the water side with the possible replacement of the gaskets and restoring the tightness.
2. Checking the insulation gaskets on the gas side if necessary replacement of gaskets and restoration of tightness.
3. Eye-check of the overall condition of the appliance.
4. As a result of the check in point 3, any disassembly and cleaning the combustion chamber
5. Cleaning the main heat exchanger.
6. Checking the operation of the heating safety systems:
- temperature limit safety.
7. Checking the operation of the safety systems on the side of gas:
- safety without gas or flame (ionization).
8. Control of domestic water production efficiency (bit and temperature verification).
9. General control of the operation of the appliance.
10. Remove the oxide from the ionization electrode with a piece of rough cloth (DO NOT use sandpaper!)

The presence of oxide on the heat exchanger does not affect the performance of the boiler. If you feel the need to clean the heat exchanger, follow the steps below.

Cleaning the primary exchanger
Connect to the primary heat exchanger by removing the burner - see Fig. The heat exchanger is cleaned with a non-metallic brush and a vacuum cleaner.



DO NOT use acidic liquids or detergent.
Careful!
It is mandatory to replace the gasket (see figure) each time the burner is removed.

Also clean the flue (located in front of the heat exchanger) before mounting.

When removing the siphon, use a suitable container to collect condensate that may leak from the boiler.

Soda cleaning
The siphon is reached by avoiding the condensate at the bottom.
Washing can be done with water and detergent.
Refit the condenser tank.
NB: In case of prolonged non-use of the rat water, the siphon MUST BE FILLED BEFORE A NEW START.

LACK OF WATER IN THE SIPHON IS DANGEROUS AND CAN CAUSE SMOKE TO COME OUT INTO THE ATMOSPHERE.

Function test After carrying out maintenance and inspection work, refill the heating circuit at a pressure of approx. 1.0 bar and ventilate the system. Refill the domestic water system as well.
- Switch on the appliance.
- If necessary, ventilate the heating system again.
- Check the settings and proper operation of all control, adjustment and control devices.
- Check the insulation (tightness) and proper operation of the flue gas / combustion supply system required for combustion (combu rent).

Installation emptying operations
The heating system must be emptied as follows:
- switch off (switch off) the boiler and set the external bipolar switch to the OFF position and close the gas valve;
- loosen (open) the automatic exhaust valve;
- open the drain valve of the installation by squeezing the water that drains into a water tank;
- evacuate from the lowest points of the installation (where they are provided).

If it is intended to keep the system switched off in areas where the ambient temperature may drop below 0 ° C during the winter, it is advisable to add antifreeze liquid to the water in the heating system to avoid repeated drainage; If you use such a liquid, please contact the ARISTON Service Center for any further information on the most suitable products to use.

Periodically check the pH of the water-antifreeze mixture (between 7 and 8) in the boiler circuit and replace the mixture when the measured value is less than the limit prescribed by the manufacturer.
DO NOT MIX DIFFERENT TYPES OF ANTIFREEZE.
The manufacturer is not responsible for any damage caused to the water or system and caused by the use of unsuitable antifreeze or additives.

Draining the sanitary installation
Whenever there is a danger of frost, the sanitary installation must be emptied as follows:
- Turn off the water tap,
- open all hot and cold water taps,
- empty from the bottom points (where provided).

CAREFUL
Empty components that may contain hot water by activating any drain valves before handling them.
Carry out the unclogging (unclogging) of the limescale of the components in accordance with the specifications in the safety data sheet of the product used, ventilating the environment, using protective equipment, avoiding mixing different products, protecting the appliance and the surrounding objects.
Seal the openings used to read the gas pressure or gas settings.

Make sure the nozzle is compatible with the supply gas.
If you smell or see smoke coming out of the appliance or smell strong gas, turn off the power supply, turn off the gas tap, open the windows, and inform your technician.

MAINTENANCE

User information

Inform the user about how the system works.

In particular, provide the user with all instruction manuals and warn the user to keep them with the device.
Warn the user to:

- Periodically check the water pressure in the installation; inform him about filling the installation with water and ventilating the radiators.
- Control and regulate the temperature as well as control the regulating devices, in order to economically and correctly manage the installation.
- Performs, according to the norms, the maintenance operations of the installation.
- In no case change the set values, the air supply required for combustion and the flue gas exhaust.

Boiler disposal and recycling.

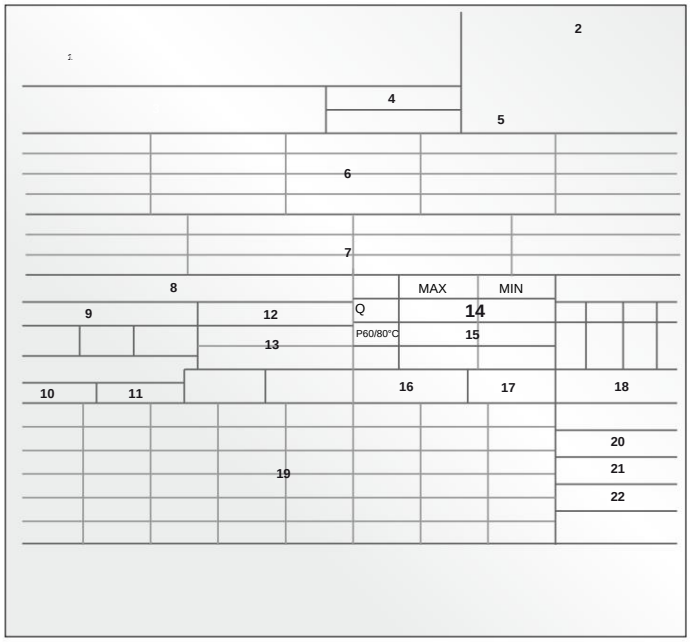
Our products are designed and manufactured for most recyclable components
The boiler and its accessories must be properly disposed of and the different materials differentiated, where possible.

The packaging used to transport the boiler must be disposed of by the installer / dealer.

ATTENTION:

The recycling and disposal of the boiler and the accessories must be done according to the norms and regulations in force.

Stamp plate features



1. Brand
2. Manufacturer
3. Mode- Serial No.
4. Commercial code
5. No approval
6. Countries of destination - gas category
7. Predispunere Gaz
8. Installation type
9. Electrical data
10. Maximum sanitary pressure
11. Maximum heating pressure
12. Boiler type
13. NOx / Efficiency Class
14. Thermal capacity max - min
15. Thermal power max - min
16. Debit specific
17. Boiler power calibration
18. Nominal flow in the sanitary circuit
19. Usable gas
20. Minimum ambient operating temperature
21. Maximum heating temperature
22. Maximum circ. sanitary

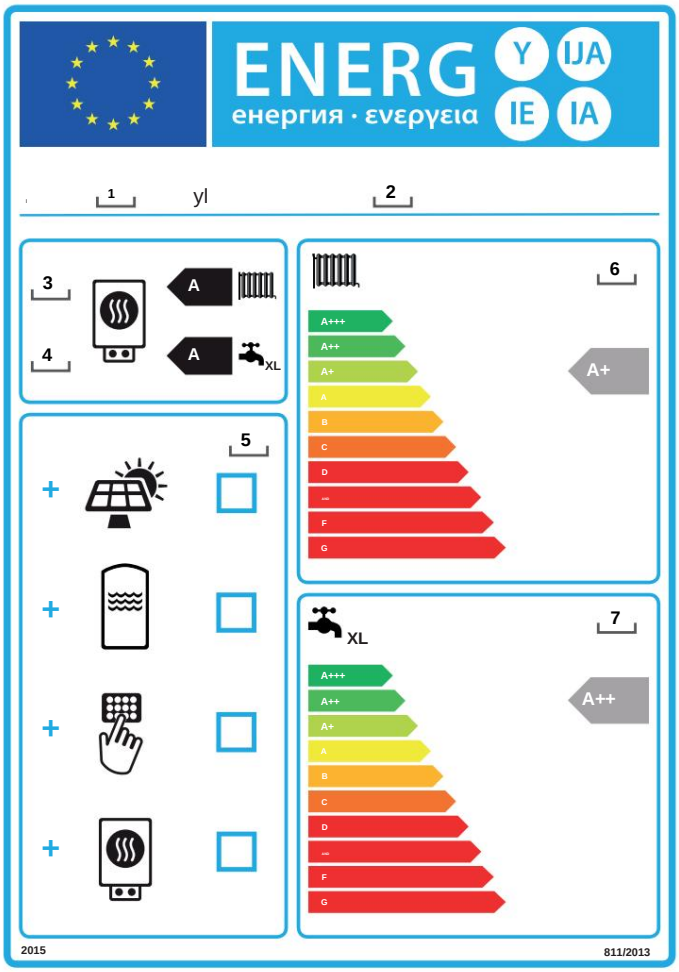
	Model		HS PREMIUM	
			24 EU	30 EU
	CE certificate (pin)		0085CO0349	
	Thermal power plant type		B23, B23p, B33 C13(x),C23, C33(x), C43(x), C53(x), C63(x) C83(x), C93(x)	
	Nominal calorific value max / min (Pci) .... Qn	kW	23,5/5,5	29,0/6,0
	Maximum calorific value max / min (Pcs) .... Qn	kW	26,1/6,1	32,2/6,7
	Nominal calorific value of domestic hot water max / min (Pci) ..... Qn	kW	23,5 5,5	29,0/6,0
	Nominal calorific value of domestic hot water max / min (Pcs) .... Qn	kW	26,1/6,1	32,2/6,7
	Max / min payload (80 ° C-60 ° C) .... Pn	kW	22,9/5,3	28,4/5,8
	Max power / min (50 ° C-30 ° C) .... Pn	kW	24,4/5,9	30,2/6,4
	Useful power max / min domestic hot water ..... up	kW	23,0/5,3	28,4/5,8
	Burning efficiency (in the chimney)	%	97,9	98,0
	Yield at rated calorific value (60/80 ° C) Hi / Hs	%	97,5/88,0	97,8/88,1
	Yield at rated calorific value (30/50 ° C) (condensation) Hi / Hs	%	103,9/93,5	104,0/93,7
	30% yield at 30 ° C (condensation) Hi / Hs	%	108,3/97,5	108,0/97,25
	Yield at minimum calorific value (60/80 ° C) Hi / Hs	%	96,1/86,5	96,0/86,4
	Yield Stars (dir. 92/42 / EEC)	star	****	****
	Sedbuk class		A	A
	Stopping loss (ÿT = 50 ° C)	%	0,2	0,1
	Leak in the chimney with the burner running	%	2,2	2,2
	Air pressure available	Well	100	100
	Nox class	class	5	5
	Smoke temperature (G20) (80 ° C-60 ° C)	°C	65	61
	CO2 content (G20) (80 ° C-60 ° C)	%	9,4	9,4
	O2 content (G20) (80 ° C-60 ° C)	%	3,8	3,8
	Debit cost (G20) (80°C-60°C)	Kg/h	37,2	46,0
	Excess air (80 ° C-60 ° C)	%	22	22
	Expansion vessel inflation pressure	bar	1	1
	Maximum heating pressure	bar (Pa)	0,3 (3)	0,3 (3)
	Expansion vessel capacity	l	8	8
	Min / max heating temperature (high temperature range)	°C	35 / 82	35 / 82
	Min / max heating temperature (low temperature range)	°C	25 / 45	25 / 45
	Domestic hot water temperature min / max	°C	36 / 60	36 / 60
	Specific domestic hot water flow (ÿT = 30 ° C)	l / min	10,5	13,2
	Amount of hot water ÿT = 25 ° C	l / min	13,1	16,3
	Amount of hot water ÿT = 35 ° C	l / min	9,4	11,6
	Comfort domestic hot water star (EN13203)	star	***	***
	Minimum hot water flow	l / min	>2	>2
	Domestic hot water pressure max / min	bar (Pa)	0,7/0,03 (7/0,3)	0,7/0,03 (7/0,3)
	Supply voltage / frequency	V / Hz	230 - 50	230 - 50
	Total absorbed electrical power	IN	80	85
	Minimum ambient operating temperature	°C	+5	+5
	Level of protection of the electrical installation	IP	X5D	X5D
	Weight	kg	25	27

TECHNICAL DATA

Date ErP - EU 813/2013

Template:		HS PREMIUM	
		24 EU	30 EU
Condensing boiler:	Yes No	gives	gives
Dual function heating system:	Yes No	gives	gives
Boiler type B1:	Yes No	not	not
Cogeneration system for space heating	Yes No	not	not
Low temperature appliance	Yes No	not	not
Contacts (Name and address of manufacturer or his authorized representative.)		ARISTON THERMO S.p.A. Viale A. Merloni 45 60044 FABRIANO AN - ITALIA	
ErP HEATING			
Nominal thermal power Pn	kW	23	28
At rated thermal input and high temperature mode P4	kW	23,0	28,4
At 30% of rated thermal input and low temperature (30 ° C return temperature) P1	kW	6,9	8,52
Seasonal energy efficiency related to space heating ÿs	%	92	92
Useful efficiency at rated thermal input and high temperature regime ÿ4	%	88,0	88,1
Useful efficiency at 30% of rated thermal output and low temperature regime (return temperature 30 ° C) ÿ1	%	97,6	97,3
ERP HOUSEHOLD HOT WATER			
Declared pregnancy profile		XL	XL
Energy efficiency related to water heating ÿwh	%	85	84
Daily electricity consumption Qelec	kWh	0,149	0,173
Daily fuel consumption Qfuel	kWh	23,053	23,124
AUXILIARY CONSUMPTION OF ELECTRICITY			
In total load elmax	kW	0,034	0,037
Part-time elmin In PSB standby	kW	0,014	0,013
mode	kW	0,005	0,005
OTHER PARAMETERS			
Pstby standby heat loss	kW	0,053	0,054
Pign Ignition Burner Power Consumption	kW	0,000	0,000
Acoustic power level, inside LWA	dB	50	51
NOx nitrogen oxide emissions	mg/kWh	37	64

PRODUCT SHEET - EU 811/2013			
Brand		**ARISTON**	
Model:		HS PREMIUM EU	
		24 EU	30 EU
Declared pregnancy profile		XL	XL
Seasonal energy efficiency class for space heating		A	A
Energy efficiency classes related to water heating		A	A
Nominal thermal power Pn	kW	23	28
Annual QHE energy consumption	GJ	47	57
Annual electricity consumption AEC	kWh	33	38
AFC annual fuel consumption	GJ	18	18
Seasonal energy efficiency related to space heating ÿs	%	92	92
Energy efficiency related to water heating ÿwh	%	85	84
Acoustic power level, inside LWA	dB	50	51



Instructions for completing the label for the package packages of the space heating (or dual function heating), temperature controller and solar device.

1. the name or trade mark of the trader and / or supplier;

2. the model identifier of the trader and / or the supplier;
3. the class of seasonal energy efficiency related to the heating of the premises of the installation for heating the premises, already loaded;
4. the classes of seasonal energy efficiency related to the heating of the premises and of energy efficiency related to the water heating of the heating installation with double function, already charged;
5. Indication Y the possibility of including a solar collector, a hot water tank, a temperature controller and / or an additional installation for heating the premises in the package of the installation for heating the premises, temperature controller and solar device;

6. the seasonal energy efficiency class related to the heating of the premises of the installation package for the heating of the premises, temperature regulator and solar device, determined in accordance with figure 1 on the following pages.
The tip of the arrow containing the seasonal energy efficiency class for the space heating installation package, the temperature controller and the solar device must be at the same height as the arrowhead on the corresponding energy efficiency class. 7. the seasonal energy efficiency class related to the heating of the premises of the heating installation package with double function, temperature regulator and solar device, determined in accordance with figure 1 on the following pages.

The tip of the arrow containing the seasonal energy efficiency class of the dual-function heating system package, temperature controller and solar device shall be at the same height as the arrowhead on the corresponding energy efficiency class.

DOUBLE FUNCTION HEATING INSTALLATION PACKAGES, TEMPERATURE REGULATOR AND SOLAR DEVICE

The package leaflet for dual-function heating, temperature controller and solar device packages shall contain the elements referred to in points (a) and (b):

a) the elements provided in figure 1 for the evaluation of the seasonal energy efficiency related to the space heating of a dual-function heating installation package, temperature controller and solar device, including the following information:

- I: the value of the seasonal energy efficiency related to the heating of the premises of the heating installation with preferential double function, expressed in%;
- II: the weighting factor of the preferential and additional heating installations in a package, (see DELEGATED REGULATION (EU) No 811/2013 - Annex IV - 6.a);
- III: the value of the mathematical expression: 294 / (11 · Prated), where Prated refers to the heating system with a preferential dual function;
- IV: the value of the mathematical expression 115 / (11 · Prated), where Prated refers to the heating system with a preferential dual function;

in addition, for preferential dual-function heat pump heating systems:

- -V: the value of the difference between the seasonal energy yields related to the heating of the premises in average and colder climatic conditions, expressed in%;
- -VI: the value of the difference between the seasonal energy yields related to the heating of the premises in warmer and average climatic conditions, expressed in%;

b) the elements provided in figure 5, for the evaluation of the energy efficiency related to the heating of water of a package of heating installation with double function, temperature regulator and solar device, where the following information must be included:

- I: the value of the energy efficiency related to the water heating of the dual function heating installation, expressed in%;
- II: the value of the mathematical expression (220 · Qref) / Qnonsol, where Qref is taken from Annex VII - table 15 DELEGATED REGULATION (EU) NO. 811/2013, and Qnonsol from the product sheet of the solar device for the declared load profile M, L, XL and XXL of the dual function heating installation;
- III: value of the mathematical expression (Qaux · 2,5) / (220 · Qref), expressed in% ,, where Qaux is taken from the product sheet of the solar device and Qref from Annex VII - table 15 DELEGATED REGULATION (EU) NO. 811/2013 for the declared load profile M, L, XL and XXL.

Figure 1

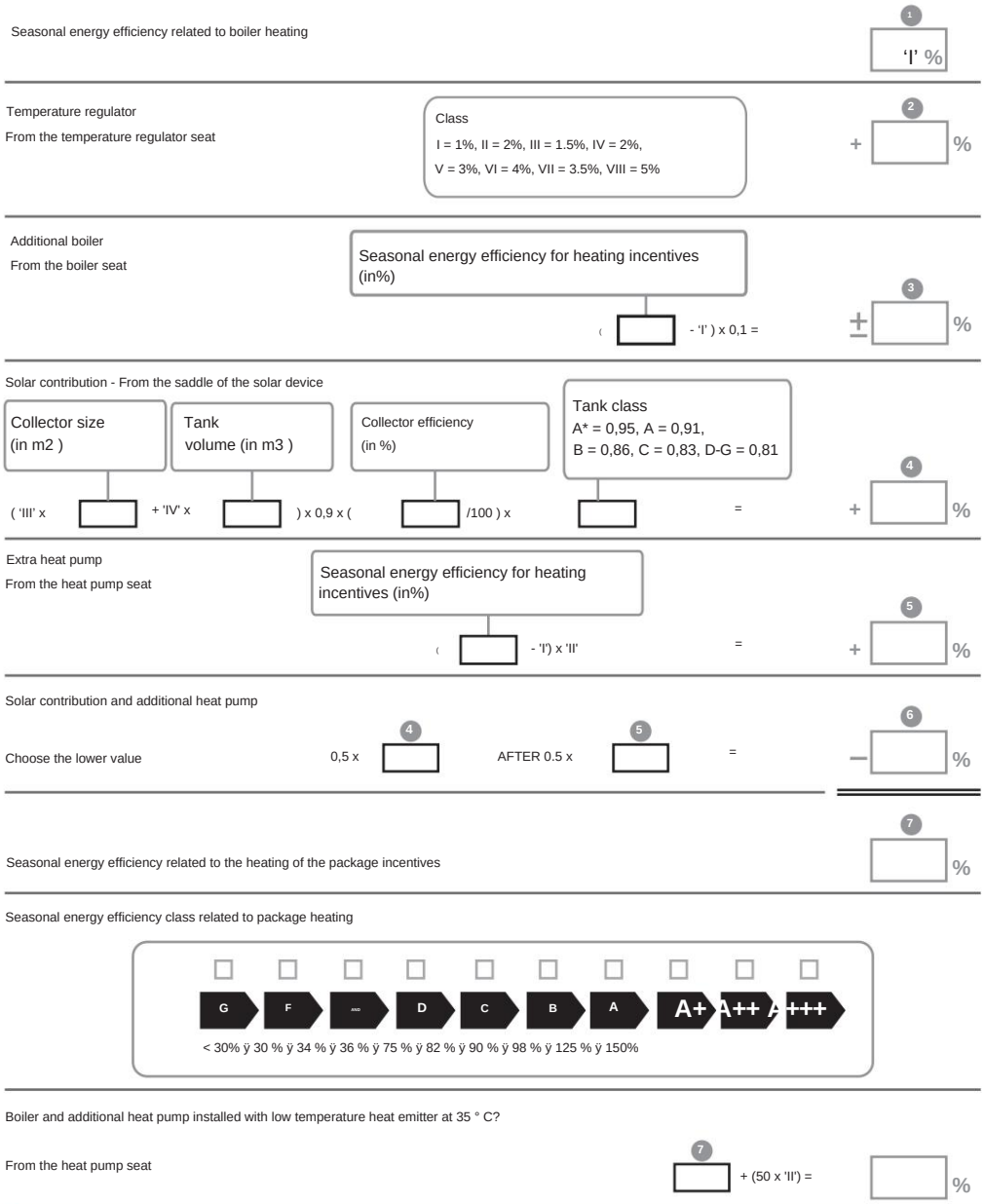


Figure 5

Energy efficiency of water heating of the dual function heating system

Declared pregnancy pro: ☐

1 'I' %

Solar contribution - From the saddle of the solar device

Auxiliary electricity

(1,1 x 'I' - 10%) x 'II' - 'III' - 'I' = + 2 ☐ %

Energy efficiency of water heating of the package in average climatic conditions

3 ☐ %

Energy efficiency classes related to water heating of the package in average climatic conditions

		G	F	AND	D	C	BA	A +		A++	+++
☐	M	< 27 % ÿ 27 %		ÿ 30 %	ÿ 33 % ÿ 36 % ÿ 39 % ÿ 65 % ÿ 100 % ÿ 130 % ÿ 163 %						
☐	I	< 27 % ÿ 27 %		ÿ 30 % ÿ 34 % ÿ 37 % ÿ 50 % ÿ 75 % ÿ 115 % ÿ 150 % ÿ 188 %							
☐	XL	< 27 % ÿ 27 % ÿ 30 % ÿ 35 % ÿ 38 % ÿ 55 % ÿ 80 % ÿ 125 % ÿ 160 % ÿ 200 %									
☐	XXL	< 28 % ÿ 28 % ÿ 32 % ÿ 36 % ÿ 40 % ÿ 60 % ÿ 85 % ÿ 131 % ÿ 170 % ÿ 213 %									

Energy efficiency related to water heating in colder or warmer climatic conditions

Colder: 3 ☐ - 0,2 x 2 ☐ = ☐ %

Warmer: 3 ☐ + 0,4 x 2 ☐ = ☐ %

The energy efficiency of the product package provided in this worksheet may not correspond to its actual energy efficiency, once installed in a building, because the energy efficiency is influenced by other factors, such as heat loss in the distribution system and product sizing. in relation to the size and characteristics of the building.

ITALIAN DESIGN

Ariston Thermo Romania srl

Polona Business Center, 68-72 Polona Street,
1st Floor 010505, 1st District, Bucharest

Phone: 004021-2319521
Fax : 004021-2319510 e-
mail: service.ro@aristonthermo.com
www.ariston.com/ro