

Operating instructions

Logano plus SB315 and Gas-fired condensing boiler



Buderus

Dear Customer,

Buderus Logano plus SB315 and Logano plus SB315 VM gas condensing boilers have been developed and built employing the latest technologies and safety regulations. Ease of operation was given a particularly high priority.

Please observe the safety instructions and the operation instructions to ensure optimum safe, economical and environmentally-friendly use of your system.

Important – General Application Notes

Use this boiler only for its intended purpose and according to these operating instructions. Maintenance and repairs must only be carried out by authorised and qualified personnel.

Use this boiler only in those combinations, together with accessories and spare parts indicated in the operating instructions. Any other combination, wearing parts and accessories may only be used, if these are specifically designed for the intended application and impair neither the performance characteristics nor the stipulated safety requirements.

Subject to technical modifications.

Constant development may lead to minor deviations of illustrations, functional steps and specifications from those described/shown.

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1 Notes on hazards and safety instructions



DANGER!

If you notice a smell of gas:

- Keep naked flames away. Do not smoke.
- Avoid sparks!
Do not use electrical switches, not even telephones, plugs or door-bells.
- Close the main gas shut-off valve.
- Open windows and doors.
- Warn all residents and leave the building.
- Call your gas supplier or your local heating contractor from outside the building.



DANGER!

In other dangerous circumstances, when you cannot smell gas:

Immediately close the main gas shut-off valve and isolate the heating system from the power supply, e.g. by operating the heating system emergency stop switch outside the boiler room.

1.1 Boiler Room



ATTENTION

Ensure the following safety measures are taken:

- The boiler room must be kept free from frost and must be adequately ventilated.
- Never close or obstruct air ducts and vent apertures or reduce their size.
- Prevent contamination of the combustion air by halogenated hydrocarbons (for example found in spray cans, solvents or cleaning fluids, paints and adhesives) or by extremely dusty conditions.
- Always observe all relevant regulations and requirements as may apply in your country.
- Never store or use combustible material or liquids near the boiler.

2 Working on the heating system



ATTENTION

Only qualified personnel must carry out the installation, the main fuel and flue gas connections, the initial start-up, the electrical connection as well as maintenance or repair work. Only registered Corgi and ACS may carry out work on gas components.

2.1 Instruction in function and operation

The installation engineer should instruct the user in all functions covering the safe operation of the heating system and must hand over the relevant technical documentation for safe keeping.

2.2 Checking the condition of the heating system



NOTE FOR USERS

Please regularly check the water level in your boiler. Arrange for water to be replenished, if the water level is too low. Never use boiler water for domestic use.

- Open all radiator valves, shut-off valves and damper valves in the heating system.
- Vent the whole system at the air vent valves provided.
- Check, whether the cleanout covers and doors have been closed.
- Check the water level in the system and top up, if necessary.
- Check the system inlet pressure, on your expansion vessel. If necessary notify your installer, who may adjust your heating system to the correct operating pressure.

2.3 Burner adjustment



NOTE FOR USERS (currently not available in the UK)

The Logatop VM pre-mix gas burner is matched to the Unit boiler. For other burners observe the applicable commissioning instructions.



NOTE FOR USERS

Let a specialist adjust the burner to the required heat demand for central heating and DHW (Domestic Hot Water) production. The correct setting of the burner must be verified on handover. Never exceed the rated output stated on the boiler typeplate.



ATTENTION

Carry out the commissioning in accordance with the installation, commissioning and maintenance instructions.

Fuel

- LPG and natural gas (observe the details supplied by the burner manufacturer).

2.4 Initial start-up



NOTE FOR USERS

The system must be commissioned by the system installer (and should be witnessed by the system user).



ATTENTION

Carry out the commissioning in accordance with the installation, commissioning and maintenance instructions of the respective components. Particularly observe the installation, commissioning and maintenance instructions for Logano plus SB315.

- Open the gas shut-off valve.
- Switch on the heating system emergency stop switch.
- Place the system On/Off switch (Fig. 1, **item 1**) and (Fig. 2, **item 1**) and (Fig. 5, **item 1**) into position "I" (ON).
- Place the switch for the emergency operation of central heating and DHW (Fig. 1, **item 2**) and (Fig. 2, **item 2**) and (Fig. 5, **item 2**) to "AUT" (Automatic).
- Commission the control in accordance with the respective operating instructions.



NOTE FOR USERS

For Logamatic control unit, the boiler water thermostat (Fig. 1, **item 3**) and (Fig. 2, **item 3**) and (Fig. 5, **item 3**) is preset to "AUT" at the factory.

- Place the system On/Off (Fig. 3, **item 1**) into position "ON".
- Commission the control in accordance with the respective operating instructions.

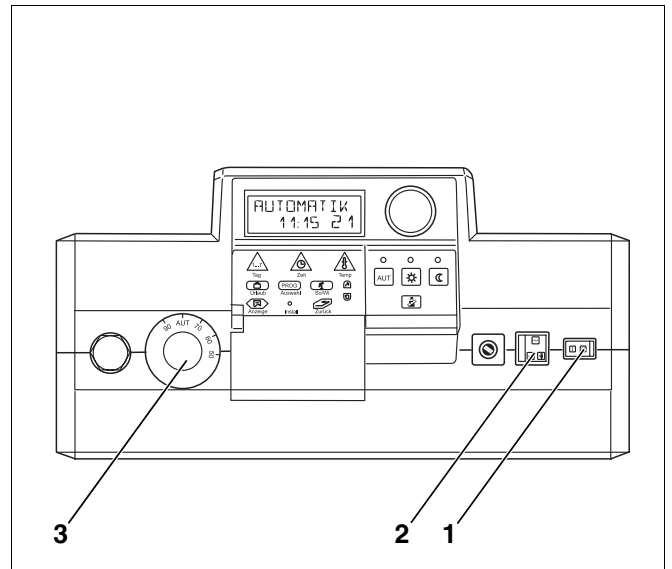


Fig. 1 Logamatic 2107 control unit (not available in UK)

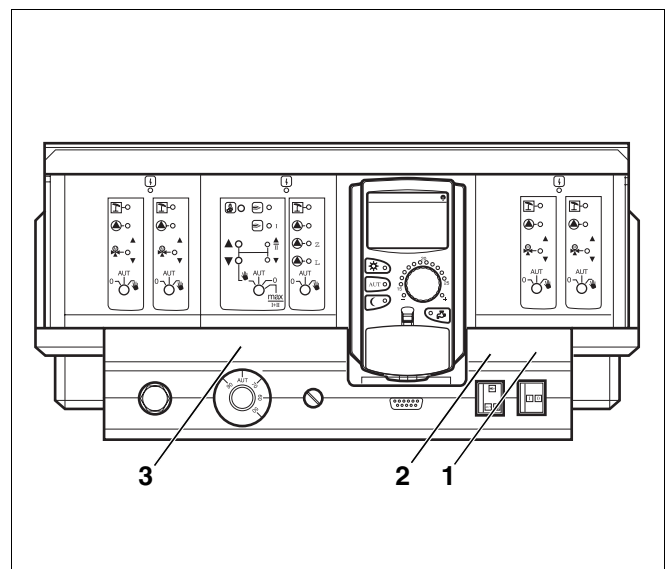


Fig. 2 Logamatic 4211 control unit

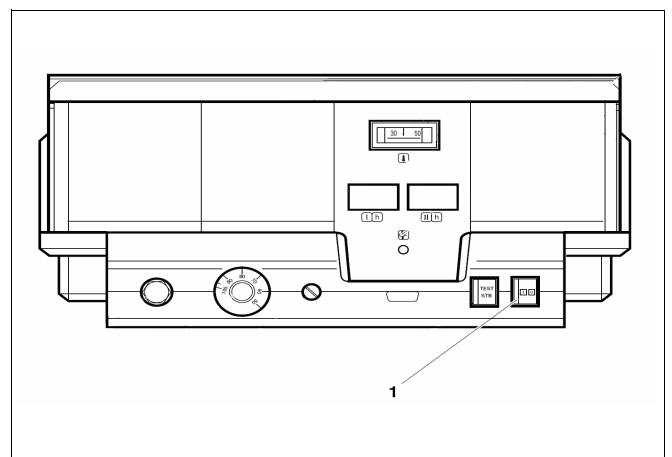


Fig. 3 Logamatic 4212 control unit

2.5 Faults

Resetting the burner

- Press the reset button (Fig. 4, **item 1**) on the gas pre-mix burner.

Logano plus SB315

- If the burner on Logano plus SB315 goes into a fault state, the fault lamp on the control illuminates and the fault will be displayed in the control display.

Resetting the burner

- Observe the operating instruction of the respective burner.



NOTE FOR USERS

Should the burner not fire after you have pushed the reset button several times, call your installer to remove the fault.

- The burner will not fire up and the fault lamp on the burner also does not illuminate.
- Check whether the electrical supply is switched on, or whether the control equipment is correctly set up.
- Test the high limit safety cut-out (STB).



NOTE FOR USERS

Notify your installer if the burner will not fire after the reset button has been pressed several times.

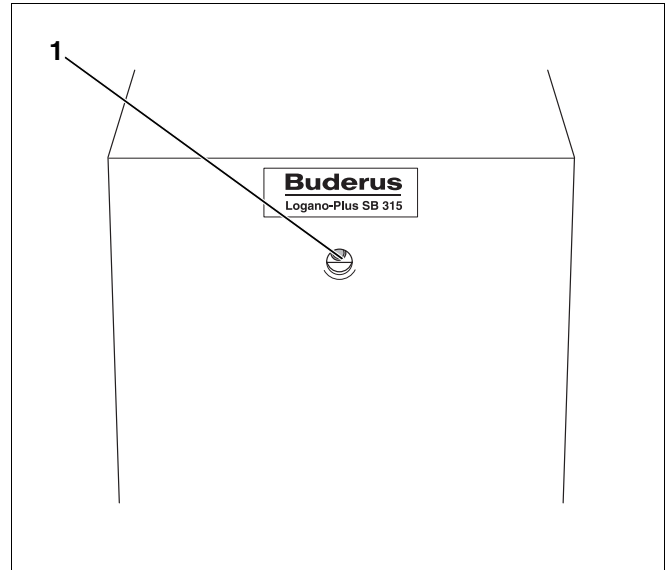


Fig. 4 Reset button with integrated fault lamp

2.6 Shutting down the heating system



ATTENTION

Protect the heating system against frost damage if it has been shut down, e.g. through a fault shutdown, and there is a risk of frost.

- Put the system On/Off switch (Fig. 1, **item 1**) and (Fig. 2, **item 1**) and (Fig. 5, **item 1**) into position "0" (OFF).
- Close the gas shut-off valve.

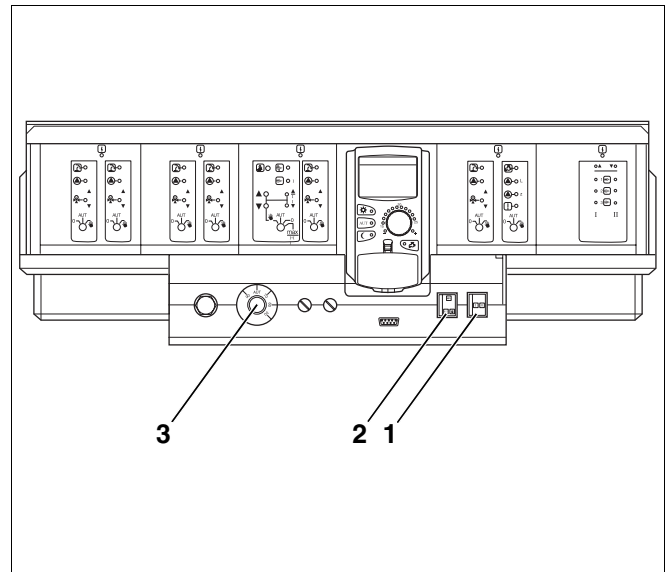


Fig. 5 Logamatic 4311 control unit

2.7 Filling the heating system and checking for leaks

Before commissioning the heating system, check for leaks to prevent problems during operation. Pressurise the heating system to 1.3x bar permissible operating pressure (observe the safety pressure of the safety valve).

On sealed systems the pressure gauge needle (Fig. 6, **item 2**) must be within the green range (Fig. 6, **item 3**). Set the red needle (Fig. 6, **item 1**) on the pressure gauge to the required system pressure.

- Check the system water pressure



CAUTION!

SYSTEM DAMAGE

through over pressure during leak testing. Pressure, control and safety equipment may be damaged through excessive pressure.

- When you carry out a leak test, make sure that no pressure, control or safety equipment is fitted which cannot be isolated from the boiler water chamber.

- Shut off the pressure expansion vessel from the system by closing the cap valve.
- Check the connections and pipework for leaks.
- Open the mixing and shut-off valves on the hot water (primary) side.
- Fill the system via an approved filling link.

Filling the heating system

Filling and refilling of the heating circuit must be carried out by a method that has been approved by the Water Regulation Advisory Scheme (WRAS), for the type of heating appliances, i.e. Domestic (in-house) Fluid Category 3. Non-Domestic (other than in-house) Fluid Category 4. Depending on the Fluid Category the approved method should comprise of the following:

1. Requirements Fluid Category 3 systems (fig see right)
 - Control valve (stop valve) including a double check valve on the mains cold water supply pipe
 - Temporary connection to be removed after filling (filling loop)
 - Control valve (stop valve) on the heating system pipework

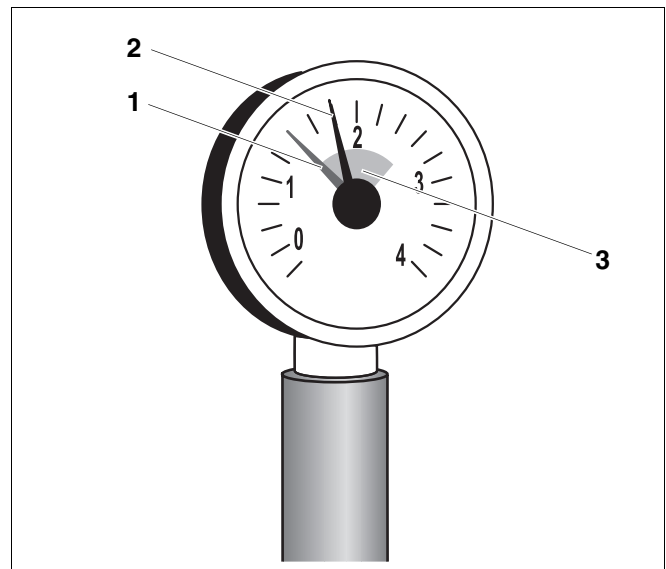


Fig. 6 Pressure gauge for **sealed systems**

Item 1: Red needle

Item 2: Pressure gauge needle

Item 3: Green marking

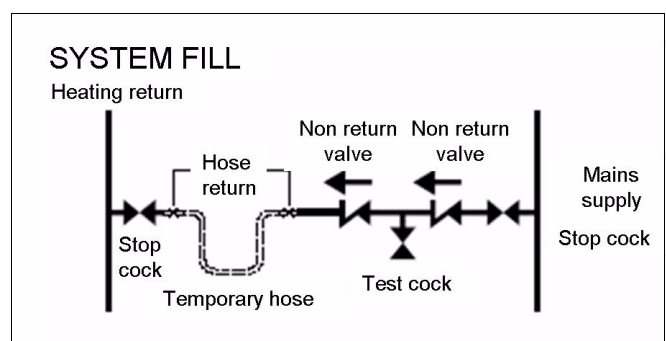


Fig. 7 Requirements Fluid Category 3 systems

2. Requirements Fluid Category 4 systems (fig see right)

- Control valve (stop valve) on the mains cold water supply pipe
- Strainer
- Verifiable Backflow Prevention Device with reduced pressure Zone (RPZ valve assembly) incorporating a Type BA air gap
- Tundish
- Control valve (stop valve) on the heating system pipework

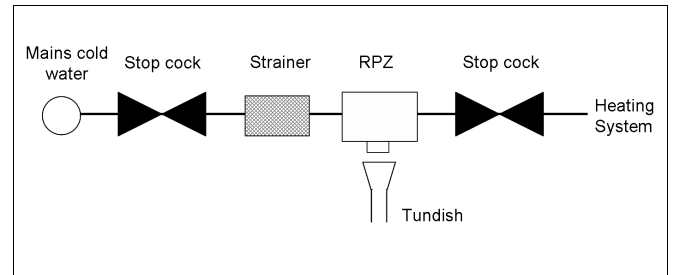


Fig. 8 Requirements Fluid Category 4 systems

- Open the cap of the automatic air vent by one full turn to allow air to escape.
- Slowly fill the heating system. Observe the pressure gauge whilst filling.
- Close the water tap and the boiler drain valve once the required operating pressure has been reached.
- Bleed the system via the radiator bleed valves.
- Top up with water if the pressure drops as a result of bleeding the system.
- Take the hose off the boiler drain valve.



SYSTEM DAMAGE

through frequent topping up.

CAUTION! The heating system may be damaged, depending on water quality, by corrosion or scaling if you frequently need to top-up the heating water.

- Enquire from your installer, whether you can use your public water untreated or whether you need to treat it before filling your system.
- Notify your installer, if you need to regularly add top-up water to your system.

2.8 Maintenance



NOTE FOR USERS

The user of a heating system is responsible for carrying out or for arranging the cleaning and maintenance of the boiler, the burner, controls and safety equipment.

To ensure safe and reliable functioning of the product, inspection and maintenance is recommended to be carried out on an annual basis.

Check the correct function of the entire system.

Immediately remedy all defects found.

We recommend you arrange a maintenance contract with a heating engineer.



INSTRUCTIONS

Always observe the appropriate installation, commissioning and maintenance instructions when carrying out any maintenance work on the boiler, the gas pre-mix burner (Unit version) and on other system components.

Your installer:

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