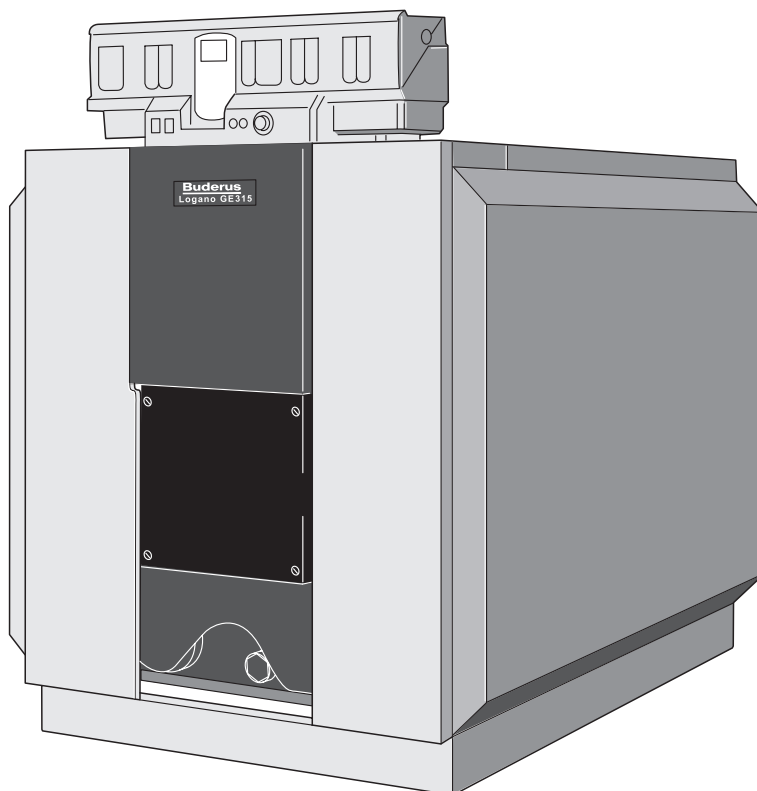


Operating instructions

Logano GE315
Boiler for
oil-/gas-fired pressure jet burners



Buderus

Dear Customer,

Logano GE315 oil- and gas-fired boilers from Buderus have been developed and built employing the latest technologies and safety regulations. Particular attention has been paid to make them easy to operate.

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



SAFETY INSTRUCTIONS

If you notice a smell of gas:

1. **Keep naked flames away! Do not smoke.**
2. **Avoid sparks!**
Do not operate electrical switches, incl. telephone, plugs or door-bells!
3. **Close the mains gas shut-off valve.**
4. **Open windows and doors.**
5. **Warn all residents and leave the building!**
6. **Call your gas supplier or your local heating engineer from outside the building!**

In all other dangerous situations, immediately close the main gas shut-off valve and isolate the system from the electrical power supply, e.g. turn off the heating system emergency stop switch outside the boiler room.

If you use oil as a fuel and you notice any oil leaks you must seek expert help immediately to remedy the situation!

Location/boiler room

Never close or obstruct the air flow duct and ventilation apertures or reduce their size.

Never store or use combustible material or liquid near the boiler.

Prevent boiler damage through contamination of the combustion air by halogenated hydrocarbons (found in spray cans, solvents or cleaning fluids, paints, adhesives, for example) or by extremely dusty conditions. The boiler location must be kept free from frost and must be adequately ventilated.

Working on the heating system

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 and repair work. Only registered gas fitters may carry out work on gas components.

Carry out maintenance and cleaning procedures annually! As part of these steps, check the correct function of the entire system. Immediately rectify all discovered faults.

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

Instructions in function and operation

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

Fuels

- Appropriate burner must be used for each fuel type.

Logano GE315:

- fuel oil EL
- NG Natural gas
- LPG Liquid Petroleum Gas

Regulations and directives

Installation:

90/396/EEC gas appliance directive
92/42/EEC boiler efficiency directive
73/23/EEC low voltage directive
89/336/EEC EMC directive
97/23/EC pressure equipment directive
current Gas safety (Installation and Use) Regulations
The Building Regulations
Building Standards (Scotland)
IEE Wiring Regulations BS 7671
National and ByLaws of the local water undertaking
Corgi registered required to work on the appliance (Competent Persons)
Oftec registered required to work on the appliance (Competent Persons)

Codes of practice:

BS 6880 Code of practice for low temperature hot water heating systems for output greater than 45kW
BS 6644 Specification for Installation of gas-fired hot water boilers of rated inputs between 70kW (net) and 1.8 MW (net) (2nd and 3rd family gases)
CP 342.2 centralised hot water supply
BS 5449 Forced circulation hot water systems
BS 5546 Installation of gas hot water supplies for domestic purpose (2nd. Family Gases)
BS 6891 Low pressure installation pipes
BS 5410 Code of practice for Oil firing Part 2
BS 5854 & IM/11 Codes of Practice for flues (as appropriate)
BS 7074 Application Selection & Installation of Expansion vessels & ancillary for sealed water systems Part 2
IGE/UP/1 Soundness testing & purging of industrial & commercial installations
IGE/UP/2 Gas installation pipework and compressors on industrial and commercial premises
IGE/UP/7 Gas installations in Timber framed buildings
IGE/UP/10 Installation of gas appliances in industrial and commercial premises, part 1: flued appliances
CISBE Guide
Management of Health and Safety at work regulations 1992 - Guidance note PM5
Health & Safety at work act 1974
Manual Handling Regulations 1992

The Electricity at Work Regulations, 1989

Initial start-up

Check the water level in the system.

- On open systems, the pressure gauge marker must be within the red range.
- On sealed systems the pressure gauge marker must be within the green range.
- Where necessary, replenish with water and vent the entire system.

If water is lost during operation, replenish it slowly and vent the entire system. If the system frequently requires topping up, investigate the cause and rectify immediately.

Filling and system water

Please check the quality of the water supply when operating this boiler. Where necessary use a water treatment system.



PLEASE NOTE:

For details on water treatment see the Code of Practice K8 "Water treatment for heating systems" (main catalogue) or the addendum "Water treatment".

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. 1, **item 2**) must be within the green range (Fig. 1, **item 3**). Set the red needle (Fig. 1, **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.

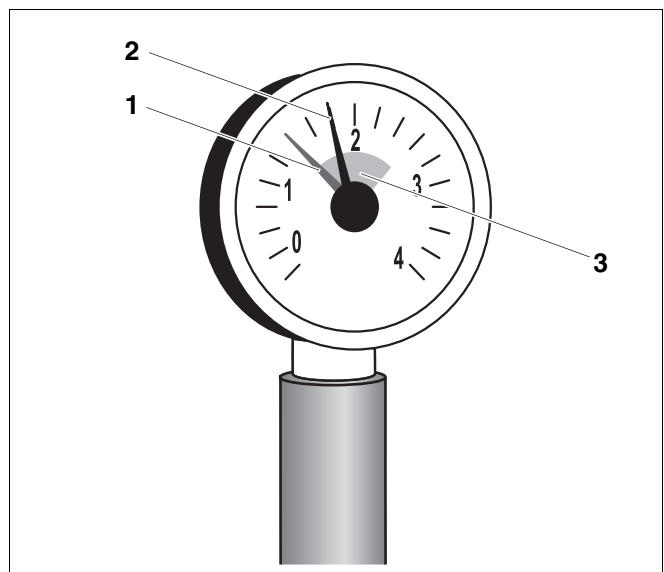


Fig. 1 Pressure gauge for sealed systems

Item 1: Red needle

Item 2: Pressure gauge needle

Item 3: Green range

Operating instructions

- 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

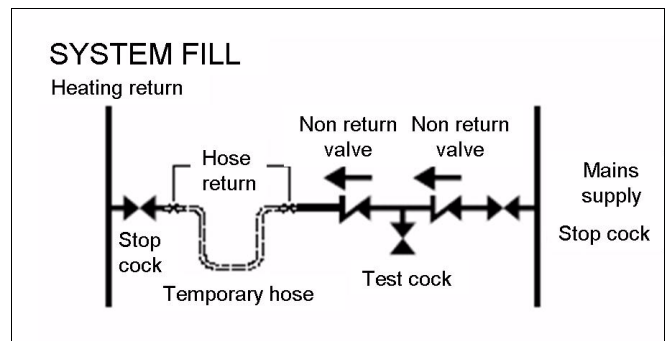


Fig. 2 Requirements Fluid Category 3 systems

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

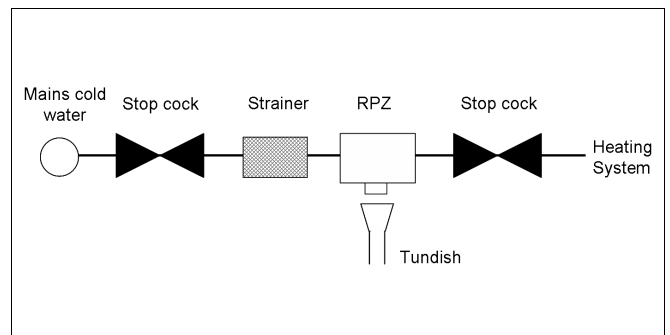


Fig. 3 Requirements Fluid Category 4 systems

- 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.

Operating instructions

Start up the burner

- Set the On/Off switch to (Fig. 1, **item 1**) "I" (ON).
- Slowly open the main fuel shut-off valve.
- Set the boiler water thermostat (Fig. 1, **item 2**) to Automatic (AUT) or 80 °C. Set the control for constant operation to the required temperature, i.e. for gas burners at least to 60 °C and for oil burners at least to 50 °C.

Please observe the operating instructions of the control unit.

Fault

- Press the reset button if the indicator lamp on this button lights up.
This fault will also be indicated by a burner fault indicator on the control device or on the display.
- Should the burner not fire after pushing the reset button several times, call your registered heating contractor to repair the fault.

Shutting down

- Set the On/Off switch to (Fig. 1, **item 1**) "0" (OFF).
- Close the main fuel shut-off valve.

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

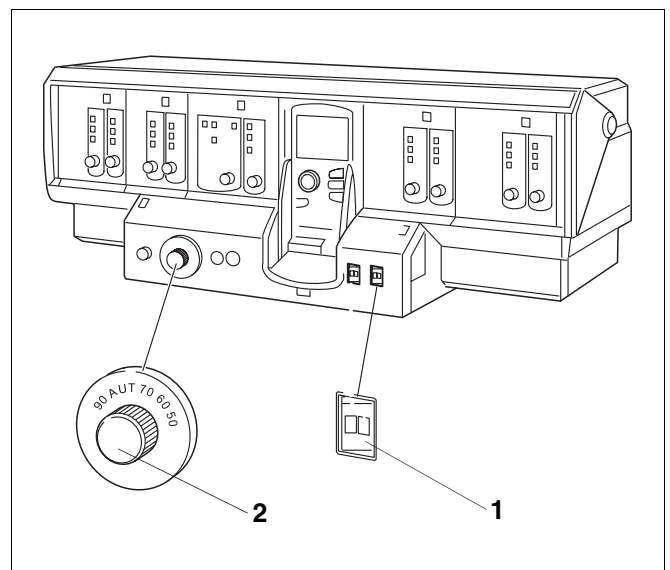
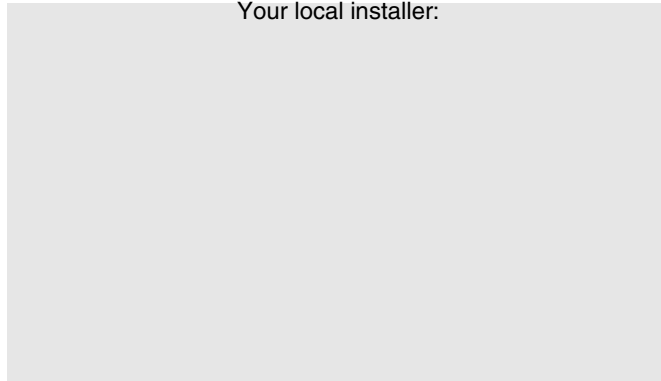


Fig. 1 Control device, e. g. Logamatic 4311

Your local installer:



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