

Operating instructions



Gas-fired condensing boiler Logano plus GB312

For the user

Please read carefully before
use

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Operating pressure	
Design operating pressure (optimum value):	_____ bar
Maximum heating system operating pressure: (standard = 3 bar)	_____ bar

Use this fuel only:

stamp/date/signature

1 For your safety

1.1 About this manual

These instructions contain important information for the safe and correct operation of the boiler.

In the following, the Logano plus GB312 will generally be referred to as "the boiler".

1.2 Correct use

The boiler may only be used for heating water for the purposes of central heating or domestic hot water (DHW), in homes or apartment buildings.

1.3 Key to symbols

The following symbols are used in these instructions:



WARNING!

RISK TO LIFE

Indicates a possible danger which can lead to serious injuries or even death if appropriate care is not taken.



CAUTION!

RISK OF INJURY/ SYSTEM DAMAGE

Indicates a potentially dangerous situation which could lead to minor or moderately serious injuries or to damage to property.



USER NOTE

User tips for optimum utilisation and setting of the equipment, plus other useful information.

→ Cross-references

Cross-references to a specific point in the document or to other documents are marked with an arrow →.

1.4 Please observe these instructions

You will learn how to use your heating system by

- arranging for your local heating contractor to instruct you after installing the system and
- carefully reading these operating instructions.

Carry out tasks on the boiler only as described in these operating instructions.



WARNING!

RISK TO LIFE

if personnel are not qualified.

- Make sure that installation, initial start-up and maintenance are carried out only by professional heating technicians. Appropriate qualifications are particularly necessary for work on electrical and fuel-carrying parts.

1.4.1 If you smell gas



WARNING!

RISK TO LIFE

through the explosion of flammable gases. If you can smell gas, there is a risk of explosion.

- No open flames. No smoking. Do not use lighters.
- Prevent sparks.
Do not activate any electrical switches, including telephones, plugs or electrical bells.
- Close the main gas shut-off valve.
- Open windows and doors.
- Warn all occupants, but do not use doorbells.
- Leave the building.
- Call your local gas supplier and heating contractor from outside the building.
- If necessary, notify police or fire services.
- If you hear gas escaping, evacuate the affected area immediately.

1.4.2 Instructions for the boiler room



WARNING!

RISK TO LIFE

from poisoning.

In open-flue operation, insufficient ventilation can lead to dangerous flue gas leaks.

- Never close or obstruct air duct or vent apertures, or reduce their size.
- Keep the doors of the boiler room closed.
- Prevent small animals from entering the boiler room and in particular the air supply apertures, e.g. by means of an air grille.
- The boiler must not be operated until the problem has been remedied.



WARNING!

RISK OF FIRE

due to flammable materials or liquids.

- Ensure that there are no flammable materials or liquids in the immediate vicinity of the boiler.

2 Product description

2.1 Components on the Logano plus GB312 boiler

The boiler is a gas-fired condensing boiler with an aluminium heat exchanger.

The boiler consists of the following:

- Control panel
- Frame and casing
- Boiler block with lagging
- Gas burner

The control panel monitors and controls all electrical components of the boiler.

The boiler block transfers the heat generated by the burner to the heating water. The lagging reduces energy loss.

CE The design and operation of this product conforms to European Directives and the supplementary national requirements. Its conformity is confirmed by the CE marking. You can view the Declaration of Conformity on the internet at www.buderus.de/konfo or request a copy from your local Buderus office.

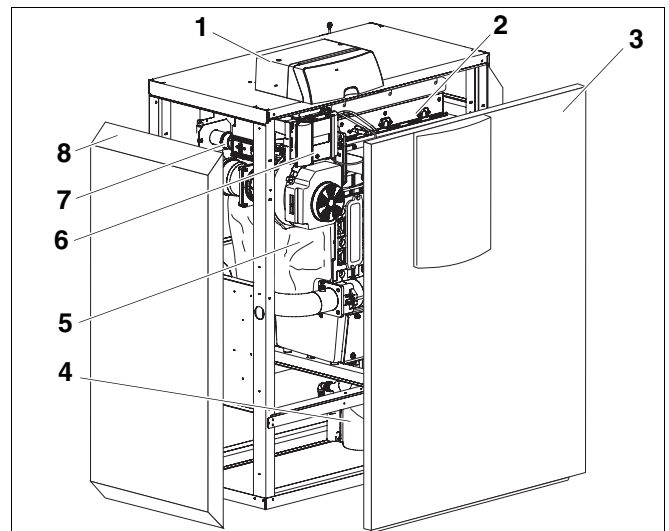


Fig. 1 Logano plus GB312 boiler

- 1 Control panel
- 2 Gas burner
- 3 Boiler front panel
- 4 Siphon
- 5 Boiler block with lagging
- 6 Burner control unit
- 7 Gas train
- 8 Boiler casing

2.2 Controls on the BC10



USER NOTE

- For more information on operation, see the → documentation for the BC10 base controller.

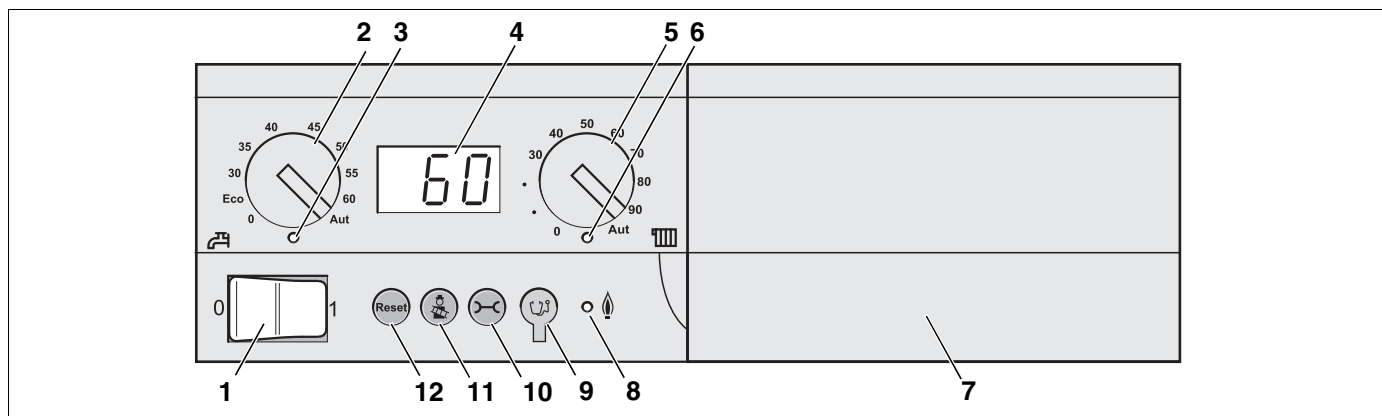


Fig. 2 Controls on the BC10 base controller

Pos. 1: ON/OFF switch

Pos. 2: Rotary selector for DHW temperature

Pos. 3: "DHW heating" LED

Pos. 4: Status display screen

Pos. 5: Rotary selector for maximum boiler temperature during heating mode

Pos. 6: "Heat demand" LED

Pos. 7: Base plate with a slot for a programming unit e.g. RC30 (behind the cover)

Pos. 8: "Burner" LED (on/off)

Pos. 9: Diagnostic plug

Pos. 10: "Status display" button

Pos. 11: "Chimney sweep" button for flue gas test and manual mode

Pos. 12: "Reset" button

3 Operating the heating system

3.1 Switching on the heating system

Before switching on, ensure that:

- The operating pressure is high enough
- The fuel supply has been opened at the main shut-off valve
- The heating system emergency stop switch is switched on

3.1.1 Starting the heating system via the control panel and programming unit

- Set both rotary selectors on the control panel to "AUT" (automatic mode). The programming unit takes control of the panel in this setting.
- Switch on the ON/OFF switch (position "1"). The control panel checks the current status of the system, and the burner may start up.

When the boiler detects heat demand, the start program begins and the burner fires after about 30 seconds. Heat demand arises when the central heating or DHW temperature falls below the set value. The LED below the corresponding rotary selector will light up.

- Check the following settings on the programming unit and adjust as required:
 - Automatic operating mode
 - Desired room temperature
 - Desired DHW temperature
 - Desired heating program



USER NOTE

- Information on operation, e.g. setting the temperatures, can be found in the → documentation for the programming unit.

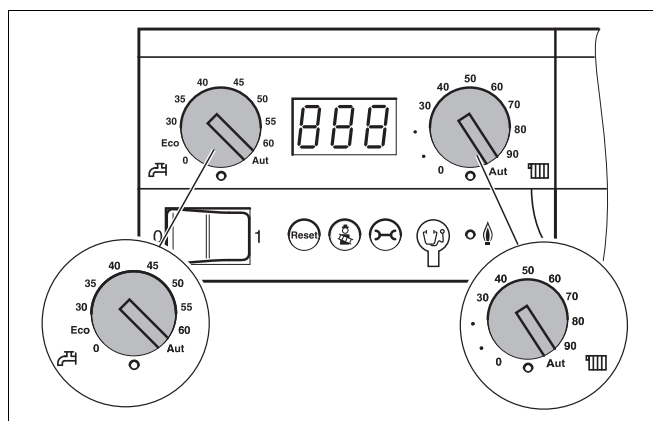


Fig. 3 Setting the control panel

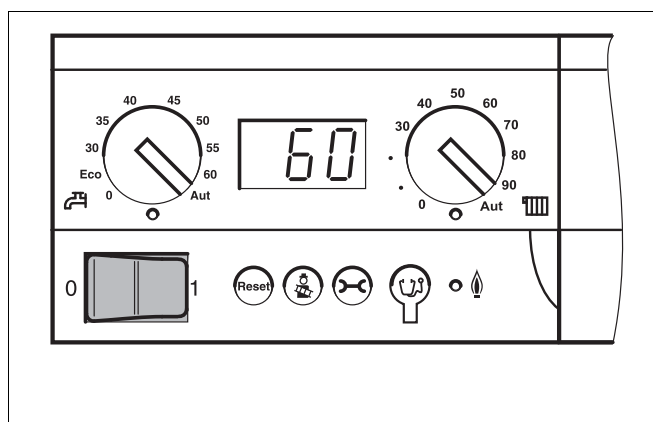


Fig. 4 Switching on the heating system

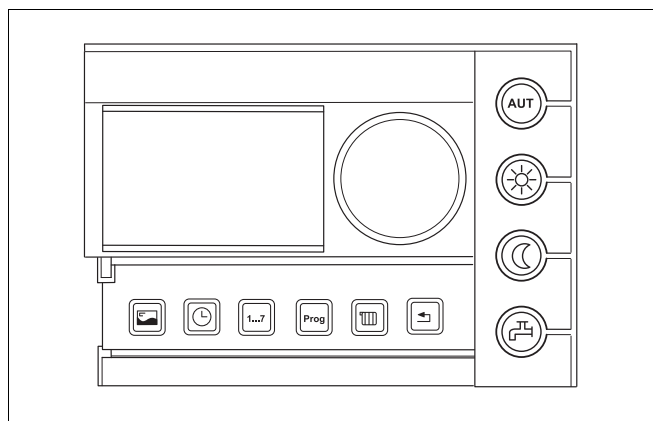


Fig. 5 Programming unit (e.g. RC30, with flap open)

3.2 Switching off the heating system

- Switch off the ON/OFF switch on the control panel (position "0"). This switches off the boiler and all its components (such as the burner).
- Close the main fuel shut-off valve.



SYSTEM DAMAGE

from freezing.

CAUTION!

When the heating system is switched off, it can freeze up in cold weather.

- Leave the heating system permanently switched on as much as possible.
- Protect your heating system from freezing by draining the pipework for central heating and DHW at the lowest possible point.

3.3 Emergency measures

In the event of an emergency, e.g. a fire, proceed as follows:

- Close the main fuel shut-off valve.
- Isolate the heating system from the power supply using the heating system emergency stop switch or the relevant domestic fuse.

3.4 Checking the operating pressure, topping up with heating water and bleeding the system

3.4.1 When do you need to check the operating pressure?

Newly added heating water loses much of its volume in the first few days because it releases gases. This causes air pockets, and the heating system will start to rumble.

- With new heating systems, check the operating pressure daily at first, topping up heating water and bleeding the radiators if needed.
- Later, check the operating pressure monthly, topping up heating water and bleeding the radiators if needed.

3.4.2 Checking the operating pressure

Your heating contractor has set the red needle of the pressure gauge to the required operating pressure (at least 1 bar).

You can check the design operating pressure for this heating system on → page 2.

- Check whether the pressure gauge needle is within the green field.
- If the pressure gauge needle falls below the green field, top up the heating water.

3.4.3 Topping up heating water and bleeding the system

Ask your heating contractor to show you where the boiler fill & drain valve for topping up the heating water is located on your heating system



RISK TO HEALTH

from contamination of drinking water.

CAUTION!

- Ask your heating contractor to show you how to fill your heating system with water.
- Always observe the regulations and standards applicable in your country for the prevention of contamination of drinking water (e.g. by water from heating systems). In Europe, observe standard EN1717.



SYSTEM DAMAGE

through temperature stresses.

CAUTION!

Temperature stresses can cause cracks if you fill your heating system when it is hot. The boiler will leak.

- Only fill the heating system when it is cold (the flow temperature should be no more than 40 °C).
- Fill the heating system slowly via the filling valve (pre-existing or fitted by customer). Watch the display (pressure gauge) as you do so.
- Once the desired operating pressure is reached, stop the procedure.
- Bleed the heating system via the bleed valves on the radiators.
- Top up with water if the pressure drops as a result of bleeding the system.

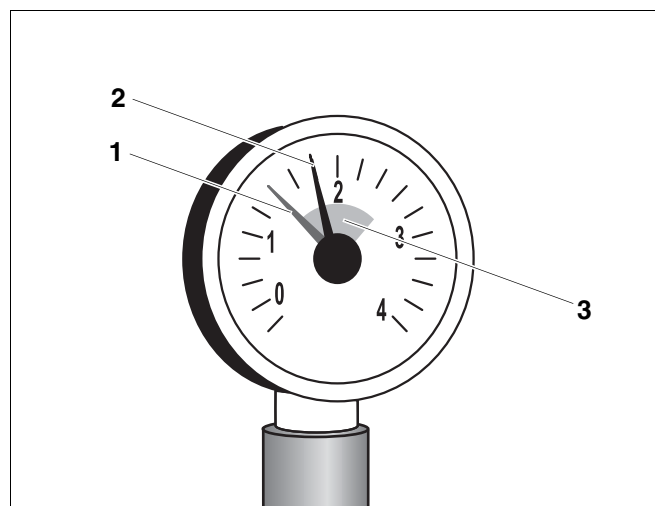


Fig. 6 Pressure gauge for sealed systems

- 1 Red needle
- 2 Pressure gauge needle
- 3 Green field

**CAUTION!****SYSTEM DAMAGE**

from frequent top-ups.

If you need to top up the heating water frequently, the heating system might be damaged by corrosion or scaling, depending on the water quality.

- Ask your heating contractor if you can add your local water without treating it, or whether it may need to be treated first.
- Notify your heating contractor if you often need to top up with additional water.

The right fuel

This heating system requires fuel of the correct type and grade to ensure its proper operation.

**CAUTION!****SYSTEM DAMAGE**

from the wrong fuel.

- Use only the fuel specified → page 2.

Consult your heating contractor if you want to switch over your heating system to a different fuel or operate it with a fuel with different technical specifications.

Boiler room**CAUTION!****BOILER DAMAGE**

from contaminated combustion air.

- Never use chlorinated cleaning agents or halogenated hydrocarbons (such as those contained in spray cans, solvents or cleaning agents, paints and adhesives).
- Prevent heavy accumulations of dust.

**CAUTION!****SYSTEM DAMAGE**

from water.

- In case of an acute risk of flooding, disconnect the boiler from its power supply and shut off the fuel supply before water enters the boiler room (→ section 3.2, page 8).
- If water has entered your heating system, have it checked by a professional technician before starting it up again.
- Any valves, controllers and regulating equipment that have come into contact with water must be replaced by a professional technician.

3.5 Why is regular maintenance important?

Heating systems require regular maintenance for the following reasons:

- To achieve a high level of efficiency and to operate the system economically (low fuel consumption)
- To achieve a high level of operational reliability
- To maintain the cleanest possible combustion



CAUTION!

SYSTEM DAMAGE

from lack of cleaning and maintenance or incorrect cleaning and maintenance.

- Have your heating system inspected, cleaned and serviced once a year by professional technicians.
- We recommend you sign a contract covering annual inspections with maintenance on an as-required basis.

4 Troubleshooting

4.1 Recognising and rectifying faults

In case of a fault, the fault code will flash on the control panel display. The programming unit shows faults as plain text messages.

A fault exists if the display flashes and indicates something other than the current boiler water temperature or an operating message.

Example: "6A" = the burner will not start

- Press and hold down the "Reset" button for about 5 seconds to clear the fault.

The display shows "rE" while the reset is implemented. A reset is only possible when a fault message is flashing on the display.

The fault is cleared when the display shows a normal operating message again. Should the fault recur, repeat the reset two or three times.

If the fault cannot be reset:

- Note down the fault message and notify your heating technician.



CAUTION!

SYSTEM DAMAGE

from freezing.

When the heating system has been shut down due to a fault, it can freeze up in cold weather.

- Immediately rectify the fault and restart the heating system.
- If this is not possible, protect your heating system from freezing by draining the pipework for central heating and DHW at the lowest possible point.

For more information on possible faults, see the
➔ documentation for the control panels.

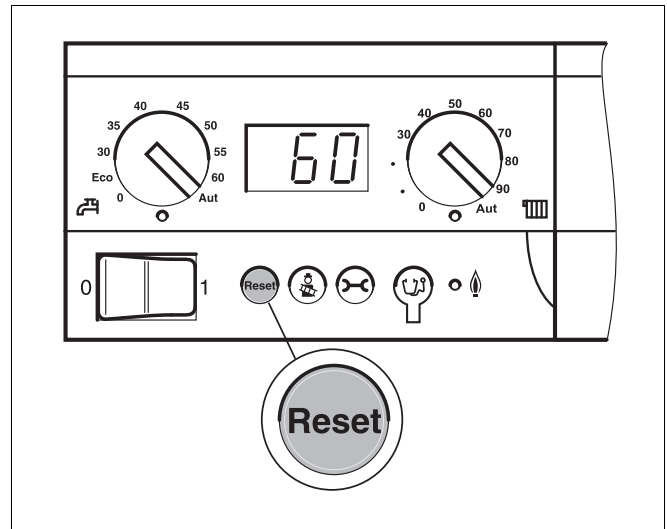


Fig. 7 Clear the fault with the "Reset" button

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