



# User manual

## Logano G334X

Gas central heating boilers

6 720 811 239 (2014/05) US

Please read carefully before use.

**Buderus**

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**1 Safety instructions**

**1.1 Key to symbols**

**Warnings**

Warnings in this document are identified by a warning triangle printed against a grey background. Keywords at the start of a warning indicate the type and seriousness of the ensuing risk if measures to prevent the risk are not taken.

The following keywords are defined and can be used in this document:

- **DANGER:** indicates a hazardous situation which, if not avoided, will result in death or serious injury.
- **WARNING:** indicates a hazardous situation which, if not avoided, could result in death or serious injury.
- **CAUTION:** indicates a hazardous situation which, if not avoided, could result in minor to moderate injury.
- **NOTICE:** is used to address practices not related to personal injury.

**Important information**



This symbol indicates important information where there is no risk to people or property.

**Additional symbols**

Symbol	Function
▶	Sequence of steps
→	Cross-reference to another part of the document
•	Listing/list entry
–	Listing/list entry (2nd level)

Table 1 Symbols

**1.2 Safety instructions**

**Risk of fatal injury from failing to consider your own safety**

- ▶ Never risk your own life! Your own safety is paramount.

**If you hear gas leaking**

- ▶ Leave the building immediately.
- ▶ Prevent others from entering the building.
- ▶ Notify the police and fire department from outside the building.
- ▶ **From outside the building,** call the gas supply company and a trained and certified installer or service company.

**If you smell flue gas**

- ▶ Switch off the heating system by shutting off the emergency shutoff switch.
- ▶ Open windows and doors
- ▶ Call a trained and certified installer or service company

**Risk of fire from soldering and welding**

When soldering and brazing around combustible and flammable material:

- ▶ Take appropriate protective measures.

**If you smell gas**

- ▶ Close the gas shutoff valve.
- ▶ Open windows and doors
- ▶ Do not operate any electrical switches or telephones.
- ▶ Do not use any sockets.
- ▶ Extinguish all open flames.
- ▶ No smoking.
- ▶ Do not use lighters.
- ▶ Warn all occupants of the building that they need to leave the building.
- ▶ Do not ring doorbells.
- ▶ **From outside the building:** Notify the police and fire department.
- ▶ **From outside the building:** Call the gas supply company and a trained and certified installer or service company.

**Danger of escaping flue gases**

- ▶ Ensure that the boiler is not fitted with a barometric damper or a thermally controlled vent damper downstream of the flue connector.
- ▶ Do not tamper with, remove, or attempt to repair the flue gas shutoff switch.
- ▶ When replacing the flue gas shutoff switch, install the new part in the original location.
- ▶ A flue gas shutoff switch tripping more than once indicates a problem with the flue gas system or chimney which must be repaired immediately.
- ▶ Ensure none of the vent pipes and chimneys are damaged or blocked.
- ▶ Connect only one appliance to each flue gas system or chimney.
- ▶ The flue gas system must not feed into or through another air extraction duct.
- ▶ The flue gas system must be inspected once a year. All parts that show any signs of damage or corrosion must be replaced.

**Danger of explosion of flammable gases.**

- ▶ Work on gas components may be carried out only by a trained and certified installer or contractor.
- ▶ Installation, gas and flue gas connections, initial commissioning, power connection, preventive maintenance and repair may be carried out only by a trained and certified installer or contractor.

**Danger of poisoning**

- ▶ Do not close or reduce combustion air vents.
- ▶ The boiler must not be operated until all obstructions have been removed.

**Dangers posed by explosive and easily flammable materials**

- ▶ Never use or store easily flammable or combustible materials (e. g. paper, curtains, clothing, thinners, paints etc.) near the boiler.
- ▶ It is recommended not to store any items within 16 inches (415 mm) of the boiler.

**Danger from neglecting safety devices.**

Hot water may escape from the safety valve when the appliance is running.

- ▶ Never shut off safety valves.

**Danger of electric shock when the boiler is open.**

Before opening the boiler:

- ▶ Disconnect the heating system from the electrical power supply via the ON/OFF switch or the appropriate building fuse. It is not sufficient just to switch off the controller. Power to the controller must be disconnected.
- ▶ Take measures to ensure that the heating system cannot be accidentally reactivated.
- ▶ Electrical work may be carried out only by qualified and certified electricians.

**Danger due to short-circuits**

To prevent short circuits:

- ▶ Only genuine Buderus wiring replacement parts.
- ▶ Do not attempt to operate an appliance if any part of it has been under water.
- ▶ Replace any appliance that has been under water.

**Risk of system damage due to contaminated combustion air supply**

- ▶ Keep the combustion air free of corrosive substances, e.g. halogenated hydrocarbons from painting operations or beauty salons.
- ▶ Keep combustion air free from dust and lint (e. g. from nearby laundry or agricultural operations).
- ▶ If clean room air is not available, fresh outdoor combustion air must be provided.

**System damage due to improper operation**

- ▶ Use the boiler only for its intended purpose.
- ▶ Operate the boiler only if it has been installed and maintained per the instructions provided in the Installation Manual.
- ▶ Do not attempt to operate an appliance if any part of it is not in working order or is damaged.
- ▶ Use only original spare parts. The use of parts not supplied by the manufacturer may cause damage to the boiler, other property and personal injury. Also, boiler damage caused by the use of unauthorized parts is not covered by the warranty.
- ▶ With **sealed combustion appliances**: do not cover or reduce the size of air inlet and ventilation openings in doors, windows and walls.
- ▶ If draft-proof windows are installed, ensure an adequate supply of combustion air.

**Notice regarding regulations and legal requirements**

- ▶ The installation must comply with all applicable national, state, and local codes, rules, and regulations.
- ▶ The operator is responsible for the operational safety and regulatory compliance of the heating system.
- ▶ In the Commonwealth of Massachusetts, the appliance must be installed by a licensed plumber or gas fitter.

**Instructing the owner/operator**

- ▶ The installer must instruct the owner and operator on the functionality of the components and the proper operation of the boiler and the heating system.
- ▶ Upon completion of the installation, these instructions should be handed to the owner and operator of the appliance.
- ▶ Inform the owner/operator that they must never carry out any modifications or repairs.

## 2 Product Information

These instructions provide the operator of the heating system with an overview of the use and operation of the boiler.

The Logano G334X floor-standing gas boiler is generally referred to below as a boiler.

### 2.1 Designated use

The boiler is designed for heating central heating system water and indirect provision of domestic hot water (e.g. in a hot water storage tank) in residential buildings or apartment buildings. Any other purpose is considered improper use.

### 2.2 Product Description

The boiler is a gas floor standing boiler employing gas combustion.



The boiler is fully functional with the factory-installed aquastat. A Logamatic 2107 controller can be installed in addition to the factory-installed aquastat.

The boiler consists of the following main components (→ Fig. 1):

- Automatic ignition unit and aquastat
- Logamatic 2107 control (optional control)
- Boiler casing and front cover
- Boiler block with insulation
- Burners

The burner controller, the aquastat and, if installed, the Logamatic 2107 controller monitor and control all electrical and operational components of the boiler.

The boiler casing prevents energy loss and acts as soundproofing.

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

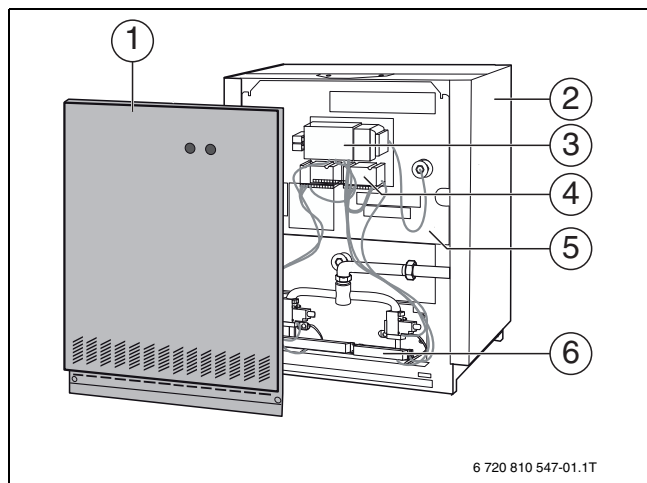


Fig. 1 Main boiler components G334X

- [1] Front wall of boiler
- [2] Boiler casing
- [3] Aquastat
- [4] Burner controller
- [5] Boiler block with insulation
- [6] Burners

## 3 Start-up procedure

### 3.1 Operating tips

Before commissioning, read the safety instructions in chapter **1.2 on page 2 for your** own safety.

#### Before operating the appliance

- ▶ Ask your heating contractor to provide detailed information about how the boiler works and is operated.



**DANGER:** Risk of fatal injury from failure to observe the commissioning instructions and subsequent incorrect operation!

Risk of fire and explosion from failure to observe the startup instructions.

- ▶ Read the startup instructions carefully before commissioning.



**DANGER:** Risk of fatal injury from gas explosion! If you smell gas there is a danger of explosion.

- ▶ Close the gas shutoff valve.
- ▶ Open windows and doors
- ▶ Do not operate any electrical switches or telephones.
- ▶ Do not use any sockets.
- ▶ Extinguish all open flames. No smoking. Do not use lighters.
- ▶ Warn all occupants of the building that they need to leave the building.
- ▶ Do not ring doorbells.
- ▶ **From outside the building:** Notify the police and fire department.
- ▶ **From outside the building:** Call the gas supply company and a trained and certified installer or service company.

**NOTICE:** System damage!

The following test must also be conducted at floor level, because some gas types are heavier than air and may accumulate at floor level.

- ▶ Check for odor of gas around the heating system.



**DANGER:** Risk of system damage and serious injury from fire or explosion!

Any attempt to use force or to repair the gas shutoff valve may cause a fire or explosion.

- ▶ Operate the ON/OFF knob on the gas valve by hand only.
- ▶ Do not use any tools.
- ▶ If the ON/OFF knob on the gas valve cannot be operated by hand: Do not repair it.
- ▶ Contact a qualified and certified service company.

**NOTICE:** Risk of system damage from corrosion.

- ▶ Do not use the appliance if any part of it has been under water.
- ▶ Contact a qualified and certified service company.

### 3.2 Turning on heating system

**STOP!** First read the safety instructions in chapter 1.2 on page 2.

1. Set the room thermostats to the lowest setting.
2. Disconnect the heating system from the power supply.
3. Close the gas shutoff valve.

**NOTICE:** System damage due to incorrect operation!  
This appliance is fitted with an ignition module that automatically starts the pilot burner.  
▶ Do not light the ignition flame manually.

#### Removing the front wall of the boiler

4. Unscrew the locking screws (→ Fig. 2 [2]) at the bottom of the front cover [1], lift front cover up, pull outward and remove to the front.

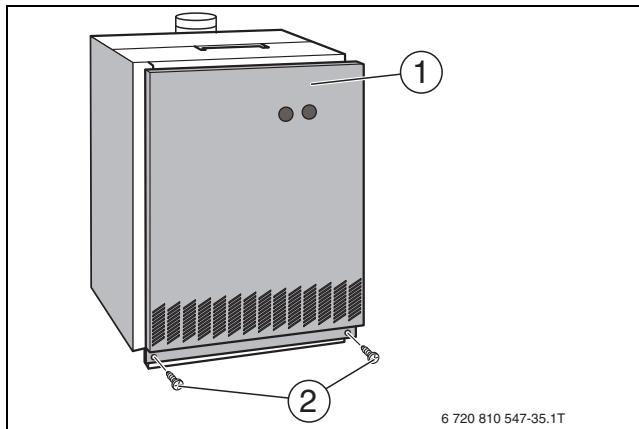


Fig. 2 Installing/removing the front wall of the boiler

- [1] Front wall of boiler
- [2] Locking screws

#### Switching on the gas valve

5. Turn the gas valve ON/OFF knob (→ Fig. 3 [1]) clockwise to the **OFF** position. Do not use excessive force.

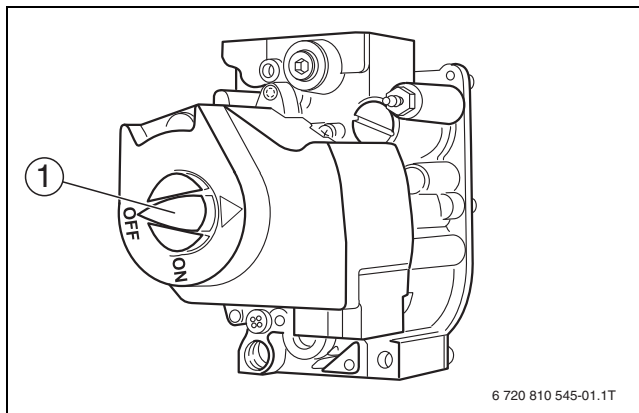


Fig. 3 Gas valve (OFF position)

- [1] ON/OFF knob

6. Wait five (5) minutes until all gas has dissipated. Finally, check whether there is any smell of gas (including at floor level).

If there is a gas odor:

- ▶ **STOP!** Follow the safety instructions for "Risk of explosion from escaping gas!" (→ page 2).

If you do not smell gas:

- ▶ Continued to the next step.

7. Turn gas valve ON/OFF knob [1] counterclockwise to the **ON** position. Do not use excessive force.

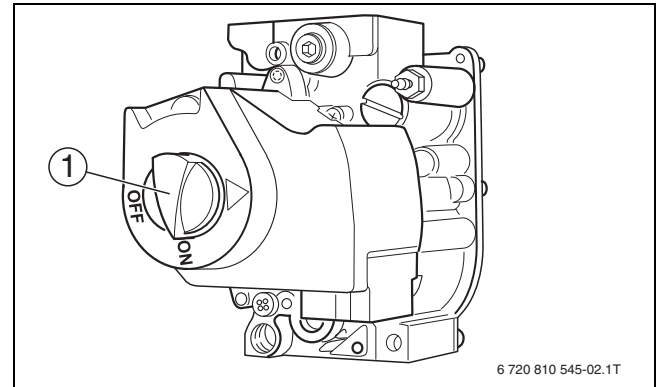


Fig. 4 Gas valve (ON position)

- [1] ON/OFF knob

8. Replace front wall of boiler (→ Fig. 2, page 5).
9. Open gas shutoff valve.
10. Turn on electric power to heating system.
11. Set thermostat to desired room temperature.

If the heating system does not start to operate:

- ▶ Turn off the gas supply (→ chapter 3.3, page 6).
- ▶ After that, inform a customer service technician or the gas utility company.

### 3.3 Turn off the gas supply

1. Set the room thermostats to the lowest setting.
2. Disconnect the heating system from the power supply.

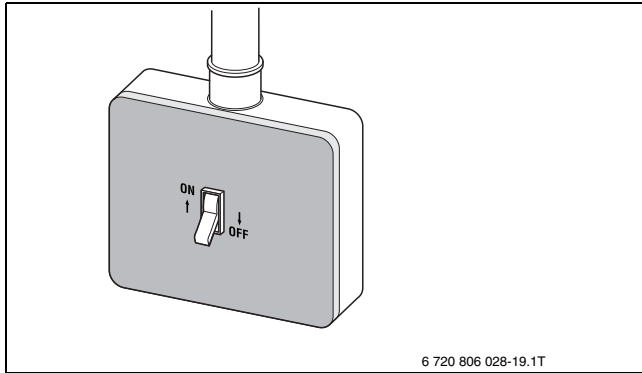


Fig. 5 ON/OFF switch (OFF position)

3. Close the gas shutoff valve.
4. Removing the front wall of the boiler (→ Fig. 2, page 5).
5. Turn the gas valve ON/OFF knob (→ Fig. 3 [1], page 5) clockwise to the **OFF** position. Do not use excessive force.
6. Replace front panel of boiler.

#### Flame roll-out safety shutoff switch

The boiler is equipped with a flame roll-out switch. The flame roll-out switch is actuated if the flue duct in the boiler is blocked.

If the flue duct is blocked:

- ▶ Do not try to light the boiler.
- ▶ Inform a qualified service company.

The vent pipe in the boiler must be checked for blockage and the flame baffle replaced.

The flame roll-out switch is for one-time use only and may not be reused.

## 4 Shutdown

### 4.1 Normal shutdown of the heating system

- ▶ Place the ON/OFF switch in the **OFF** position (→ Fig. 5). This shuts off power to the boiler and all of its components (e. g. burner, temperature controller).



#### **CAUTION:** Risk of system damage due to freezing!

The heating system can freeze up if it does not operate for an extended period of time and is exposed to temperatures below freezing (e. g. during a power failure, if the power has been switched off, through lack of gas supply, boiler fault).

- ▶ Protect the heating system against frost when temperatures below freezing are expected.
  - ▶ With the controls switched OFF, drain the water from the boiler, the DHW tank and the pipework of the heating system and, as far as possible, from the DHW pipework at the lowest point.
- ▶ Turn the gas valve ON/OFF knob clockwise to the **OFF** position (→ Fig. 3, page 5).
  - ▶ Shut off the fuel supply at the main fuel shutoff valve.

For further shutdown procedure → Documents for the AquaSmart™.

### 4.2 Shutting down the heating system in emergencies

- ▶ Have a heating contractor explain what to do in an emergency (e. g. a fire).



Switch OFF the heating system via the emergency shutoff switch or the building circuit breaker/fuse only in emergencies.

- ▶ Never put yourself at risk of fatal injury. Your own safety is paramount.
- ▶ Close the main shutoff valve or gas shutoff valve.
- ▶ Isolate the heating system from the electrical power supply via the emergency shutoff switch or the corresponding building fuse.

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## 5 Environmental Protection / Disposal

Environmental protection is one of the fundamental company policies of the Bosch Group.

Quality of products, efficiency and environmental protection are equally important objectives for us. Environmental protection laws and regulations are strictly observed.

To protect the environment, we use the best possible technology and materials, taking into account economic points of view.

### **Packaging method**

For the packaging, we participate in the country-specific recycling systems, which guarantees optimal recycling.

All packaging materials used are environmentally-friendly and recyclable.

### **Old appliances**

Old appliances contain materials that must be recycled.

The relevant assemblies are easy to separate, and all plastics are identified. This allows the various components to be sorted for appropriate recycling or disposal.

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