Users Manual

Oil and Gas Fired Boiler
Logano G215 US

Buderus

Table of Content

System pressure	
Optimum operating pressure (optimum valve):	_____ psi
Max system pressure: (Standard = 30 psi)	_____ psi

Record fuel source: _____
Company/Date/Signature

Address of manufacturer:

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1 Safety Considerations

1.1 With respect to this manual

This manual contains important information regarding safe and efficient operation and maintenance of your boiler.

The G215 boiler is designated as a heating appliance.

1.2 Application Purpose

The G215 boiler is used as a hot water heating boiler for space heating purposes as well as DHW heating using an indirect fired hot water tank in a closed loop heating system for single and multi-family homes.

1.3 Guideline of Notice

Two levels of danger are identified by the following warning labels:

DANGER

Denotes a possibly severely dangerous situation where, without proper caution, bodily injury or loss of life may result.

DANGER OF INJURY/SYSTEM DAMAGE

Denotes a possibly dangerous situation that can lead to mild or moderate bodily injury or physical damage.

APPLICATION NOTICE

Application comment for optimum use of equipment and adjustment as well as useful information.

➔ Cross reference

A cross reference to another statement or another manual is designated with an arrow ➔ .

1.4 Observe the following symbols

Learn proper operating procedures for your heating system so that you:

– are carefully and completely instructed by your installing contractor regarding proper operating procedures.
– have carefully read the G215 Operating Manual.

Perform only those tasks on your heating system, as they are described in this G215 Operating Manual.

DANGER

due to unqualified personnel.

- Please note that the installation, start-up and maintenance can only be performed by a qualified heating contractor or service organization. Any work on electrical and fuel carrying components must be done by a qualified service technician.

1.4.1 What to do when you smell smoke

DANGER TO LIFE

Explosive danger due to flammable fumes!

- No open fire! Do not smoke! Do not use a lighter!
- Avoid generating sparks! Do not use a electrical switch, or telephone, electrical plug or bell!
- Shut off main gas /oil supply!
- Open windows and doors!
- Notify home owner, but do not use a door bell or phone!
- Leave the building!
- Notify the gas utility or fuel oil service company immediately from a remote location.
- Possibly notify the police or fire department.
- Immediately leave the building when hearing or seeing discharging gases!

1.4.2 Boiler placement

WARNING!

DANGER

Due to poisoning!
Insufficient combustion air for chimney vent boilers with room air for combustion can lead to dangerous conditions.

- Make sure that the combustion air supply and discharge openings are not reduced or closed off.
- Keep doors to the boiler room closed and do not block lovers in boiler room door.
- Protect the boiler room and avoid rodents and birds from entering and blocking the air openings.
- When the above issues have not been resolved, the boiler can not be placed in operation.

WARNING!

FIRE DANGER

due to flammable materials or liquids.

- Make sure that flammable or liquid materials are not placed near the boiler.

2 Product Description

The G215 boiler is a low temperature boiler for oil or gas firing with a burner for both outdoor reset operation with a suitable control or for cold start operation with a Honeywell aquastat.

Your heating contractor or installer has equipped the boiler with an approved burner.

The boiler consists of the following components:

– Logamatic control panel or Aquasmart control
– Boiler jacket
– Boiler block with insulation
– Customized burner

The control panel controls boiler temperature and controls burner and pump operation.

The boiler can also be equipped with a Aquasmart control for a more simple control of boiler operation.

The boiler jacket reduces energy loss and noice levels.

The boiler block transfers the heat produced by the burning of the fuel to the boiler water. The insulation reduces the standby loss.

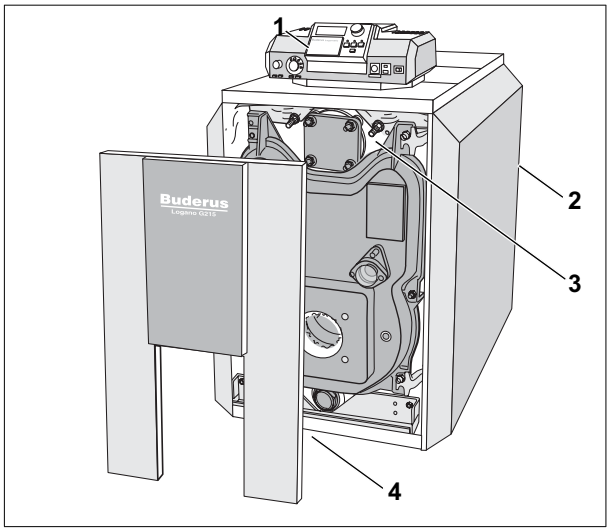

Fig. 1 Boiler less burner

1 *Logamatic control panel*
2 *Boiler jacket*
3 *Boiler block with insulation*
4 *Burner door front panel*

3 System Operation

3.1 Turning on the system

Make sure prior to turning the system on:

– that the operating pressure is sufficient.
– that main fuel shut-off valve has been opened.
– that the main emergency switch is turned on.

When using a Buderus Logamatic control (Fig. 2)

- Set the adjustable aquastat dial on “AUT“ .
- Set the main switch to position "I". This turns on the entire heating system.

NOTICE

Information regarding the operation of the Logamatic control, such as setting of temperatures etc, can be found in the ➔ documentation supplied with the control.

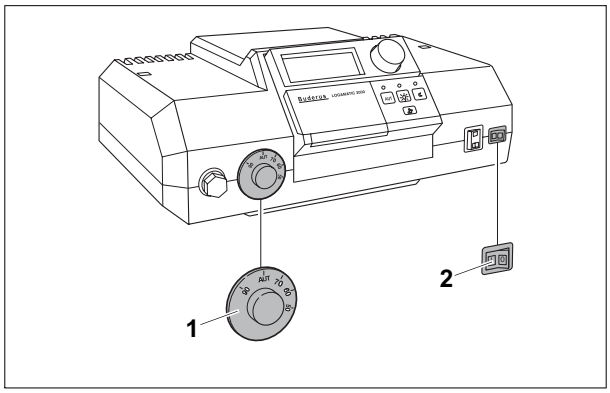

Fig. 2 Turning on heating system (Logamatic 2000)

1 *Adjustable aquastat dial*

2 *Main service switch*

When using a Aquasmart control (Fig. 3)

- Turn on the main system switch (Position "ON"). This activates the entire heating system.

3.2 Turning off the system

Buderus Logamatic Control (Fig. 2)

- Turn off main service switch (Position "0") at control. This shuts off the boiler as well as all other system components.

With Aquasmart control (Fig. 3)

- Turn off main service switch (Position "OFF") This shuts off the entire system and all its components.

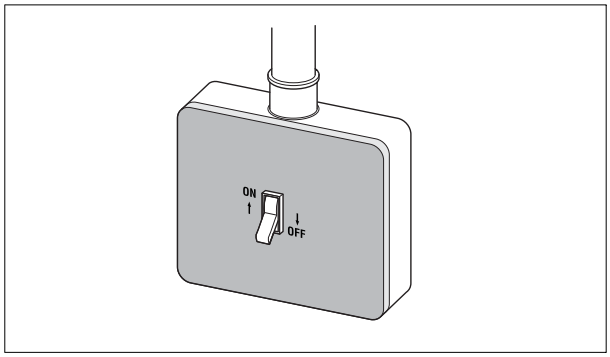

Fig. 3 Heating system control with Aquasmart control (main service switch)

- Shut off main fuel supply with main fuel valve.

CAREFUL!

SYSTEM DAMAGE

due to freezing conditions.

When the system is not in operation, the potential for a freeze-up exists.

- Keep the system in operation as much as possible.
- Protect the system against freeze-ups by either filling the system with a 50% glycol solution, or by draining both the heating and DHW systems at their lowest points.

3.3 Emergency operation

Proceed in the following manner in an emergency situation, such as a fire:

- Shut off fuel supply at the main shut off valve.
- Shut off the heating system by means of the main service switch.

3.4 Testing system pressure: adding make-up water and venting the system

3.4.1 When to test system pressure?

Newly added make-up water tends to reduce its volume within the first few days due to elimination of entrained air. This may lead to air build-up and possible system noise.

- Check newly started systems daily for system pressure and bleed radiators if necessary.
- Check system pressure on a monthly basis and add make-up water automatically and possibly bleed the radiators.

3.4.2 Testing system pressure

The system operating pressure must be at least 12 to 15 psi (1 bar). The specific recommended

- The specific recommended test pressure can be found on ➔page 2. of this manual.
- Read off the pressure (psi) and temperature (°F) at the P & T guage located at the supply side of the boiler.
- When the system pressure drops below 12 to 15 psi, add make-up water to the system.

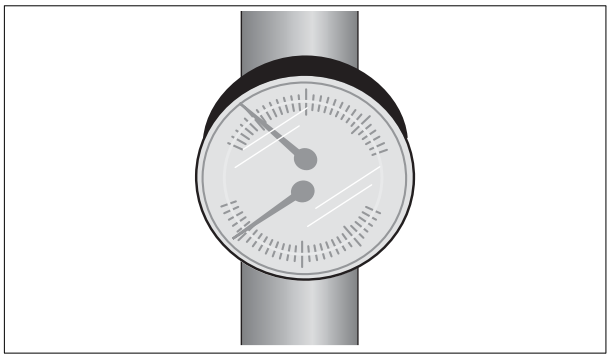

Fig. 4 Pressure/temperature gauge (located at the rear of the boiler)

3.4.3 Adding Make-up Water and Venting of the system

Have your heating contractor or installer indicate to you the location of the automatic feed valve and the automatic air elimininator.

CAREFUL!

SYTEM DAMAGE

due to thermal stresses.

When the boiler is hot and cold water is being added, this may lead to thermal stresses and shock the boiler. This may lead to a cracked boiler.

- Add only make-up water to the boiler when the boiler temperature below 100 F. (Or when the cold feed is piped in on the supply side of the boiler so that cold make-up water is first sent into the system).

- Connect water hose to boiler drain and water supply.
- Slowly fill the boiler system. Observe water pressure of the heating system.
- Close the water supply when reaching the desired system pressure.
- Bleed sir from the system at radiator air vents and other locations.
- When the system pressure drops due to air venting, add more water to the system.
- Disconnect water hose from boiler.

WARNING!

SYSTEM DAMAGE

Due to frequent filling of system.

When you need to frequently add water to the system, you can cause damage to the system due to fresh water entry leading to corrosion and internal lime build-up.

- Check with your local service company or contractor if you can use regular untreated tap water, or if the fill water must be treated.
- Please inform your installing contractor or service company, if frequent use of make-up water is necessary.

CAUTION!

SYSTEM DAMAGE

due to incorrect fuel.

- Use only the designated fuel listed on ➔page 2 of this manual.

Please contact your heating contractor or service company when you are changing your heating system to another fuel, or when you are switching over to fuel with different specifications.

Boiler room

CAUTION!

BOILER DAMAGE

due to contaminated combustion air.

- Never use or store chlorine containing cleaning agents or hydro-carbon-halogen type compounds (such as sprays, cleaning and dissolving agents, paints, glues and alike) in the boiler room or near the combustion air passages.
- Avoid excessive dust generation.

CAREFUL!

SYSTEM DAMAGE

due to water.

- In case of flooding conditions, shut of the fuel supply and electrically disconnect the heating system (➔ Chapter 3.2, page 6).
- Have your system fully checked by a qualified heating contractor or service company prior to putting it back in operation.
- Have all components, that have been in contact with water, replaced by your contractor or service company.

3.5 Why is regular maintenance important?

Heating systems require regular maintenance for the following reasons:

– To maintain high efficiency operation and minimal use of fuel.
– To maintain a high level of system reliability.
– To keep environmental emissions at a minimum.

CAREFUL!

SYSTEM DAMAGE

due to missing or poorly performed boiler cleaning and maintenance.

- Have your heating system once annually checked, cleaned and serviced by a qualified service company or contractor.

- We recommend that you sign a yearly maintenance agreement with your fuel oil company or service company.

4 Trouble Shooting your Heating System

Two different type of problems can be identified:

– burner related problems, or
– problems related with the control system and heating system.

An alarm light on the burner will typically light up during a burner lock-out condition (➔ See burner manual). Typically this problem is resolved by pressing the burner reset button. Press the burner reset button once. If the burner does NOT fire, contact your local service company for assistance.

Problems related to the control panel and/or heating system itself, are typically shown on the display of the control panel, if the boiler is so equipped. Further information can be found in the ➔ manuals supplied with the control panel.

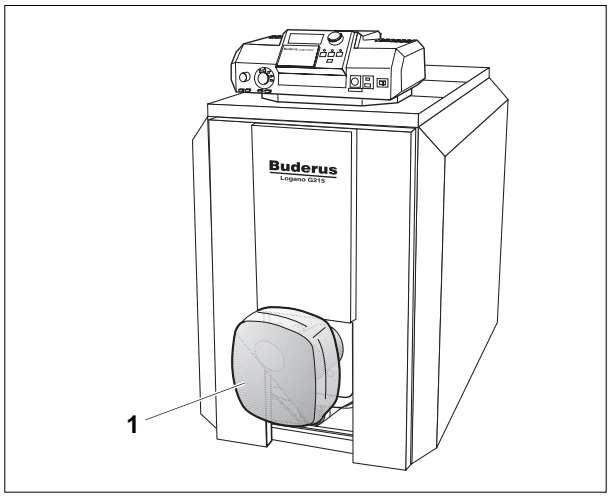

Fig. 5 Burner lock-out condition

1 *Burner*

Burner lock-out condition

- Press the burner reset button once. If the burner does NOT fire, contact your local service company for assistance.

CAUTION!

SYSTEM DAMAGE

due to freezing conditions.

When the heating system is not in operation due to a problem condition, the possibility of a freeze-up may exist.

- Try to locate and resolve the problem.
- If not possible, contact your local contractor or service company.

NOTICE

Local installer:

Buderus

HEIZTECHNIK

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