



# Operating instructions

## as combi boilers and gas boilers with integrated cylinder connection

**CGU-2-18/24**

**CGG-2-18/24**

**CGU-2K-18/24**

**CGG-2K-18/24**



<b>Index</b> .....	<b>Page</b>
General information .....	2
Safety instructions .....	3
Installation information / Maintenance information .....	4-5
Hydraulic connections .....	6
Control unit operation .....	7
Information for energy-efficient operation .....	8-9
Faults / Fault codes .....	9

### Enclosed documents

These operating instructions are for the attention of the system user. The installation and maintenance instructions are documents intended for the contractor.

### General notes

Gas is an environmentally-friendly fuel which does not represent any danger unless handled with gross negligence. Your gas fired boiler is a high-quality product which incorporates the latest safety technology.



**These safety instructions should protect you from potential risks.**

### Type plate (Example)

The type plate is located on the inside of the boiler casing and contains the following information:

A/D/L	Art.-Nr. 8612476 Herst.-Nr. 1234567890
086124761234567890	
 086124761234567890 <b>WOLF</b> <small>Wolf GmbH Mannheim</small> <b>CE-0085</b> 1234567890	↑ Herstellernummer ↑ Umlauf-Wasserheizer Typ CGU-2-18 Bestimmungsl. DE AT LU Kategorie I1ZEL3P I1ZHP I1ZEP Art. B11BS B11BS B11BS Eingestellt auf 2E - G20 - 20 mbar Eingestellt auf 2H - G20 - 20 mbar
Wärmebelastungsbereich 8,8 - 20,2 kW Wärmeleistungsbereich 8,0 - 18,0 kW Max. Vorlauftemperatur 90°C Wasserrinnleit-Heizwärmetauscher 0,5 l Max. Betriebsdruck 3 bar Heizkreis 230V ~ 50 Hz Netzanschluß Elektrische Leistungsaufnahme 90 W Schutzart IPX4D	
Die Gastherme darf nur in einem Raum installiert werden, der die maßgeblichen Befüllungsanforderungen erfüllt. Lesen Sie die Montage- bzw. Betriebsanleitung, bevor Sie die Gastherme in Betrieb nehmen.	
DE/AT/LU 11/07 8612624	

**SAFETY INSTRUCTIONS****If you smell gas**

- Never turn on a light switch.
- Never operate electrical switches.
- Keep naked flames away.
- Close the gas shut-off valve.
- Open windows and doors.
- Inform your gas supply utility; use a telephone outside the danger area.

**Caution - risk of poisoning, suffocation and explosion.!****If you smell flue gas**

- Shut the system down.
- Open windows and doors.
- Notify your local contractor.

**Caution - risk of poisoning.****When changing a fuse**

- Isolate the boiler from the mains supply prior to changing a fuse. The mains terminals of the boiler are 'live' even when the ON/OFF switch has been switched OFF.

**Caution - risk of electrocution.****Frost protection**

As long as the boiler is switched ON, it will be automatically protected against frost. The use of anti-freeze is not permissible. Completely drain the boiler if necessary.

**Caution - risk of water damage and faulty function through freezing.****Balanced flue system  
(only CGG-2)**

With low outside temperatures, the water vapour contained in the flue gas may condense and freeze on the balanced flue. **This ice may fall from the roof causing injury or material losses.** Prevent ice from falling by taking on-site measures, e.g. the installation of a snow catcher grille.

**Caution - risk of injury.**

**Positioning / modifications**

- Your gas fired boiler should only be installed and modified by an approved heating contractor, as only they have the essential knowledge to carry out such work.
- Gas components must not be modified.
- **Never close or restrict the ventilation apertures in doors or walls when operating the boiler in the open flue mode; only start the boiler when the flue has been fully installed.**
- **Only operate the boiler in balanced flue mode, after the balanced flue system has been fully installed and the wind protector is not covered up.**
- The gas fired boiler may only be installed in rooms that are protected from frost.
- Never isolate the boiler from the power supply when outside temperatures fall below freezing, as otherwise there is a risk of the system freezing-up.
- Do not modify the drain or the safety valve.



**Caution - ignoring this rule may lead to a risk of fire, as well as a risk of destruction, poisoning or explosion.**



**Do not use or store explosive and flammable materials, e.g. petrol, thinners, paints, paper, etc. inside the boiler room.**

**Corrosion protection**

Do not use (for cleaning, polishing, etc.) or store sprays, solvents, chlorinated cleaning agents, paints, lacquer, adhesives, salts, etc. on or in the vicinity of the gas fired boiler. Under unfavourable conditions, these materials may lead to corrosion in the boiler and the flue gas system. Ducted vents routed through a roof may also contain corrosive vapours.



**Caution - ignoring this rule may lead to a risk of fire as well as a risk of destruction, poisoning or explosion.**

**Water hardness**

Energy, and therefore operating costs, can be effectively saved through low DHW temperatures. Furthermore, scaling up of the flat-plate heat exchanger in the gas combi boiler version can be prevented. If the water's hardness is greater than 15°d.H. the cylinder water temperature should be limited to 55 °C.

**Care**

Clean the casing with a damp cloth and a mild cleaning agent (which must not contain chlorine). Then dry immediately afterwards. The gas fired boiler components may only be cleaned by a heating contractor.

**Maintenance**

**Caution - only the heating contractor has the required knowledge and expertise!**

- According to the regional regulations, the user is obliged to arrange regular maintenance of the system, in order to ensure the reliable and safe function of the gas fired boiler.
- Your boiler should be serviced annually.
- Maintenance is explicitly detailed in the installation and maintenance instructions.
- Isolate the boiler power supply before any maintenance work is carried out.
- After completing maintenance, and before the gas fired boiler is restarted, ensure that all components that have been removed for maintenance have been properly refitted.
- We recommend you arrange a maintenance contract with an approved heating contractor.

**Please keep your operating instructions safe, in an easily accessible place near your gas fired boiler.**

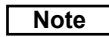
Please note before commissioning

### Filling the system

The heating system must be completely filled with water. If necessary top up with water. When filling the heating system, the shut-off valves must be open. The system pressure must be 1.5 to 2.5 bar. The connection between the tap water and heating water required for filling must be removed after the fill has been completed. Otherwise there is a risk that your tap water will be contaminated by heating water.



The system may overheat if the boiler is operated without water.

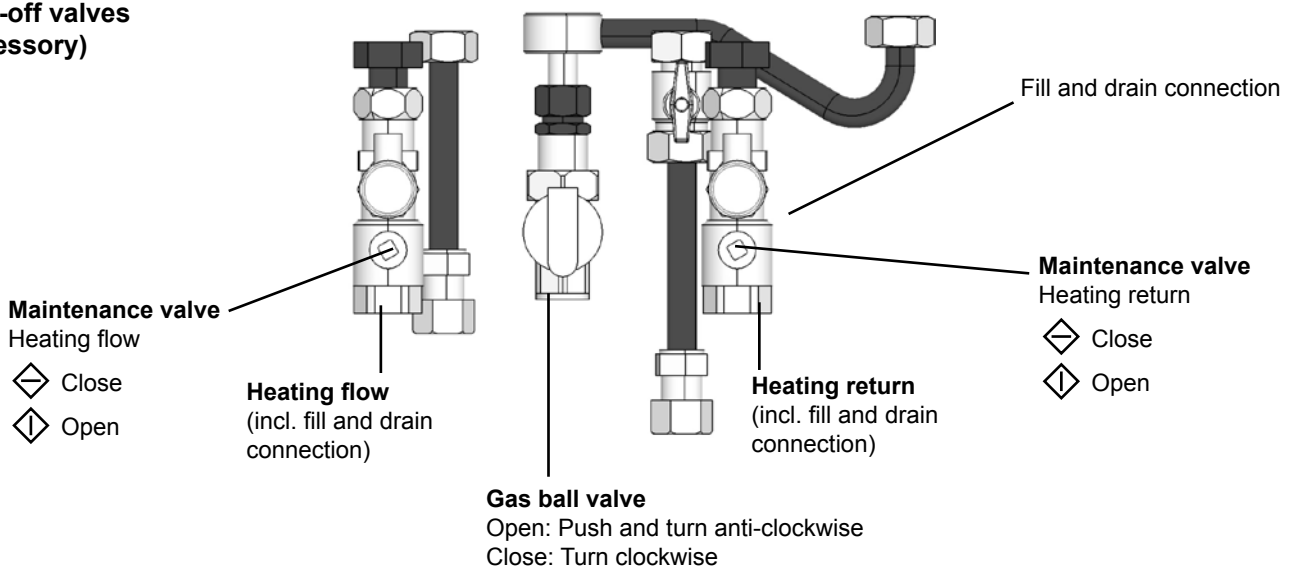


**Note** Inhibitors are not permissible. Otherwise there is a risk of damage to the boiler.

### Opening the shut-off equipment

The shut-off valves for heating flow and heating return must be open.

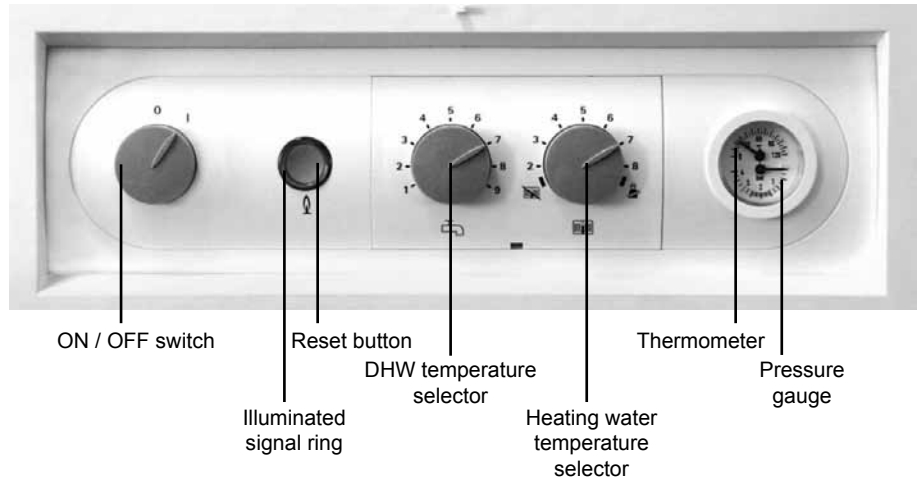
### Shut-off valves (accessory)



### Checking the heating water

Regularly check the system pressure. The pressure gauge must indicate between 1.5 and 2.5 bar. Your heating contractor will explain how to top up your system. Do not supplement your heating water with additives, otherwise components may be damaged.

### Control unit operation



### Illuminated signal ring as status indicator

Illuminated signal ring	Explanation
Flashing green	Standby (power supply ON, burner OFF, e.g. summer mode)
Constant green light	Winter mode: Pump running, burner OFF
Flashing yellow	Emissions test mode
Constant yellow light	Burner operates, flame ON
Flashing red	Fault

	Summer mode (heating OFF)	
	Winter mode position 2 to 8	
	Emissions test mode (illuminated ring flashes yellow)	
	DHW temperature selector, boiler *	1 (15°C) ... 9 (65°C) Gas boiler with cylinder 1 (40°C) ... 9 (65°C) Gas combi boiler
	Heating water temperature selector	2 (40°C) ... 8 (80°C)

\* When the hardness of the water is over 15°d.H. (2.5 mol/m<sup>3</sup>) the cylinder water temperature may be set to a maximum of 55°C. This corresponds without accessory controller to a setting of 5-6 on the DHW temperature selector with gas combi boilers or 6-7 on gas boilers with cylinders.

### Note:

The BM programming module can also be integrated into the control unit of gas fired boilers. That means that all adjustments are made at the control unit of the gas fired boiler. For installation and operation, see BM programming module operating instructions.



## Heating mode

### **Saving energy with modern heating technology: A Wolf boiler saves you hard cash.**

With modern condensing technology energy is used efficiently for heating.

### **Use as little electrical energy as possible.**

Operate the system with the heating pump at the lowest possible level.

### **Regular heating system maintenance pays for itself.**

A contaminated burner or poorly adjusted gas boiler can reduce the heating system efficiency. Regular heating system maintenance through your local contractor quickly pays for itself.

### **Heating at the lowest energy level**

Operate your heating system, where possible, with a return temperature of less than 45°C, to achieve the highest possible energy utilisation.

### **A heating system control unit also regulates your heating costs**

A heating system in standby mode saves energy. A modern, weather-compensated or room temperature dependent heating system control unit ensures - with automatic night setback and thermostatic valves - that the system only operates when heat is required, saving money for the rest of the time.

- Equip your heating system with a weather-compensated heating controller from the Wolf range of accessories. Your heating contractor will be happy to advise you about optimum adjustments.
- In conjunction with the Wolf control accessories, use the night setback function to match the energy level to the actual demand period.
- Use the optional summer mode adjustment.

### **Never overheat your home**

Adjust the room temperature as accurately as possible. This leaves occupants comfortable, and energy is not wasted on providing a heating output that is not required by anyone. Differentiate between the optimum temperature for different rooms, such as living rooms and bedrooms.

A room temperature which is one degree higher than necessary represents an additional energy consumption of approx. 6%.

- Use room thermostats to match the room temperature to the actual use of the room.
- In the room, where you have installed a room temperature sensor, open the thermostatic valve fully. This enables you to achieve optimum control characteristics for your heating system.

### **Ensure adequate air circulation**

Air must be able to freely circulate near the radiators and the room temperature sensors, otherwise the heating system will lose effectiveness. Badly positioned long curtains or furniture "swallow" up to 20% of energy.



**Keep the heat inside the room - at night too**

At night, closing shutters and drawing curtains noticeably reduces heat loss via the window areas. Insulating the radiator recesses and light coloured paintwork can reduce your heating bills by up to 4%. Airtight joints at windows and doors also help to keep energy inside the room.

**Minimise energy loss through sensible ventilation**

Ventilating for hours loses heat stored in walls and objects. As a result, the ambient climate will only become comfortable again after prolonged heating. Short and thorough airing is more effective and pleasant.

**Venting the radiators**

Regularly vent the radiators in every room. This safeguards the perfect function of radiators and thermostats, particularly in the upper apartments of apartment blocks. The radiator will then be able to respond quickly to changing heat demands.

**Intelligent use of DHW circulation pumps**

Always control DHW circulation pumps via time switches. Program these in accordance with your DHW demand patterns.

**DHW mode****The optimum DHW temperature**

Only ever set the DHW temperature, or that of the cylinder, to the temperature you really require. Any additional heating uses additional energy.

When the hardness of the water is over 15°d.H. (2.5 mol/m<sup>3</sup>) the DHW temperature may be set to a maximum of 55 °C. This corresponds without accessory controller to a setting of 5-6 on the DHW temperature selector with gas combi boilers, or 6-7 on gas boilers with cylinders. The actual temperature then falls between 50 °C and 55 °C.

**Sensible handling of DHW**

Showering consumes only approx. 1/3 of the water volume required for a bath. Immediately repair any dripping taps.

**Faults / Fault codes**

If the illuminated ring of the status indicator flashes red, where possible read the fault code of the connected controller and note the code. The boiler can be restarted by pressing the reset button. In case of repeated faults, switch OFF the boiler and notify your heating contractor.

Gas boilers from the CGU-2 series are equipped with an electronic flue gas monitor. If flue gas is escaping at the draught hood this shuts down the gas boiler. The boiler restarts automatically after approx. 15 mins.



**Caution - risk of damage, poisoning and suffocation.**





