

# Operating instructions

## Gas fired condensing boiler



<b>CGB-11</b>	<b>Boiler</b>
<b>CGB-20</b>	<b>Boiler</b>
<b>CGB-24</b>	<b>Boiler</b>
<b>CGB-35</b>	<b>Boiler</b>
<b>CGB-50</b>	<b>Boiler</b>
<b>CGB-75</b>	<b>Boiler</b>
<b>CGB-100</b>	<b>Boiler</b>

<b>CGB-K-20</b>	<b>Combi boiler</b>
<b>CGB-K-24</b>	<b>Combi boiler</b>



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**General information**

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



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

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

- never switch ON any lights
- never operate electrical switches
- keep naked flames away
- close the gas shut-off valve
- open windows and doors
- inform your gas supply company; use a telephone outside the danger area



**Please note - risk of poisoning, suffocation and explosion.**

**If you smell flue gas**

- shut down the system
- open windows and doors
- notify your local contractor



**Please note - risk of poisoning.**

**When changing a fuse**

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



**Please note - risk of electrocution.**

**Frost protection**

The gas fired condensing boiler will be protected automatically against frost as long as it is switched ON. Never use any anti-freeze. Completely drain the boiler if necessary.



**Please note - risk of water damage and faulty function through freezing.**

**Balanced flue system**

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



**Please note - risk of injury**

## Installation/modifications

- Your gas fired condensing 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 pipe has been fully installed.**
- Only take the boiler into use when operating the device in balanced flue mode, if the balanced flue system has been fully installed and the wind protector is not covered up.
- Gas fired condensing boilers may only be installed in rooms which are protected from frost.
- Never isolate the condensing boiler from the power supply when outside temperatures fall below freezing, otherwise there is a risk of the system freezing up.
- Do not modify the drain or the safety valve.



**Please note - non-observance can create a fire hazard and a risk of material losses, poisoning and explosion.**



**Never use or store explosive and flammable materials, e.g. petrol, thinners, paints, paper etc. inside the boiler room.**

To save energy and protect against scaling if the total hardness is greater than 2.5 mol/m<sup>3</sup>, the DHW temperature may be set to a maximum of 50 °C. If the total hardness is greater than 3.58 mol/m<sup>3</sup>, we recommend using a water treatment facility in the cold water supply line for DHW heating, to prolong the maintenance interval (descaling DHW heat exchanger).

## Corrosion protection

**Never** use or store sprays, solvents, chlorinated cleaning agents, detergents, paints, lacquers, adhesives, de-icing salt etc. in the vicinity of the condensing 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.



**Please note - non-observance may cause gas leakage and can create a fire hazard and a risk of material losses, poisoning and explosion.**

## Care

Clean the casing with a damp cloth and a mild cleaning agent (without chlorine). Dry immediately after. The components inside the gas fired condensing boiler and in its immediate surrounding may only be cleaned by a heating contractor

## Wartung



**Please note - only the heating contractor offers the required knowledge and expertise!**

- The user is obliged to arrange regular system maintenance, in order to ensure the reliable and safe function of the gas fired condensing boiler.
- Your gas fired condensing 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 a service and before the gas fired condensing boiler is restarted, check that all components which have been removed for maintenance have been properly refitted.
- We recommend you arrange a maintenance contract with an approved heating contractor.



**Seal the front casing tightly with screws after completing the service. There is a risk of carbon monoxide poisoning if the flue system is faulty.**

Please note before commissioning

## Filling the heating system

The heating system must be completely filled with water. If necessary top up with water. Whilst filling the heating system, keep the shut-off valves open and check the system pressure at the control unit housing. The system pressure must lie inside the green marking. 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.**

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

## Filling the siphon

The siphon must be fitted and filled.



Fig.: Siphon CGB-75/100

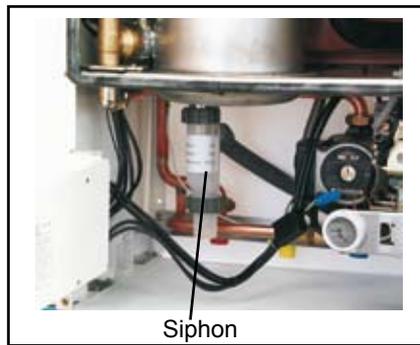


Fig.: Siphon CGB-11/20/24,  
CGB-K-20/24

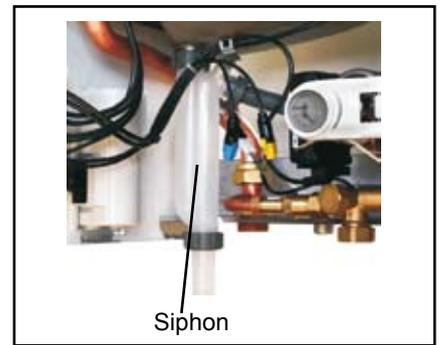
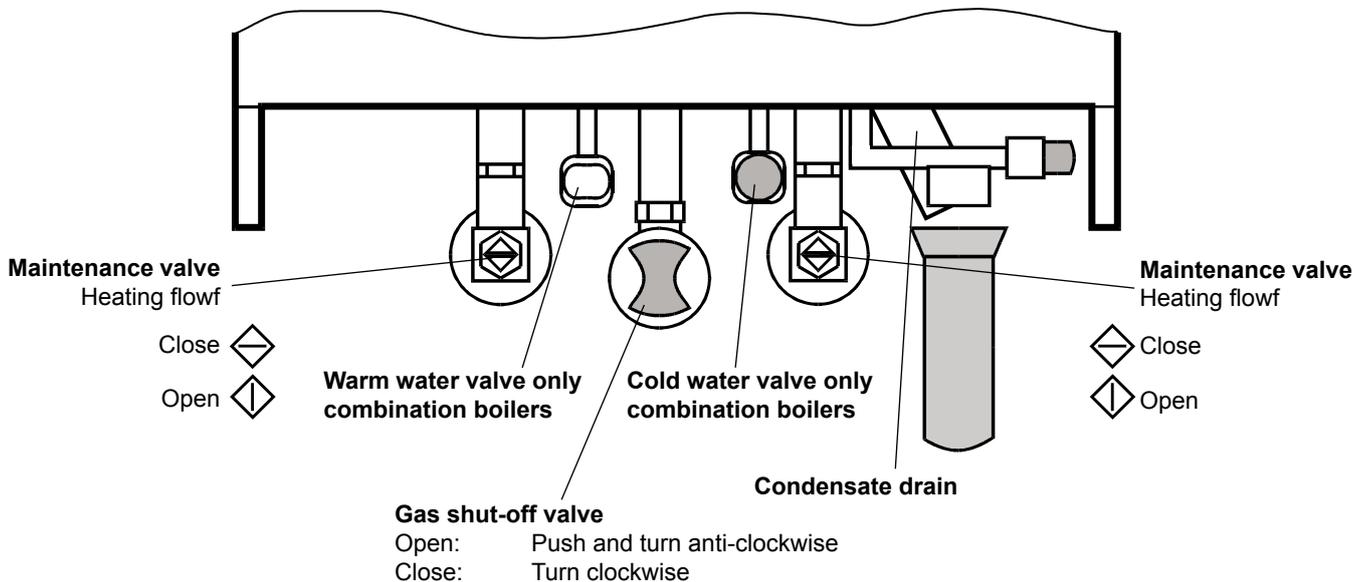


Fig.: Siphon CGB-35/50

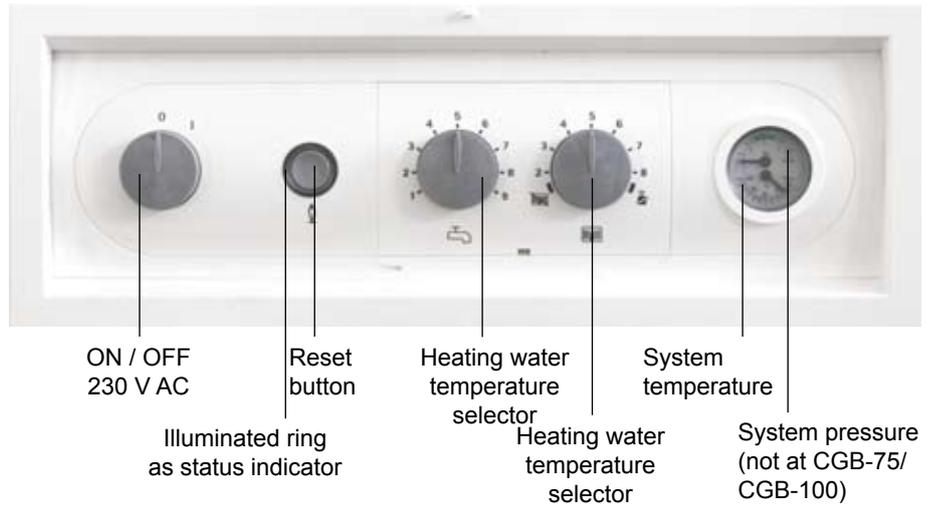
## Opening the shut-off equipment



## Checking the water level

Regularly check the water level. The pressure gauge must indicate between 2.0 and 2.5 bar. Your heating contractor will explain how to top up your system. Do not supplement your heating water with additives, as components may be damaged.

### Control unit operation



### Illuminated ring as status indicator

Illuminated ring	Explanation
Flashing green	Standby (power supply ON, burner OFF, e.g. summer mode)
Grünes Constant green Dauerlicht	Winter mode: Pump running, burner OFF
Flashing yellow	Emissions test mode
Constant yellow	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)	7 (50°C) recommended
	DHW temperature selector, combination boiler	1 (40°C) ... 9 (60 °C)	7 (50°C) recommended
	Heating water temperature selector	2 (20°C) ... 8 (75°C)	

### Note:

The programming unit BM may as well be integrated into the boiler control unit. Thus every setting is done on the boiler control unit. For installation and operation see „Installation and operation instructions“ of programming unit BM.



## Heating mode

### **Saving energy with modern heating technology: Gas fired condensing technology saves your cash**

Modern condensing technology utilises that energy for heating, which in conventional heating systems is expelled unused to the atmosphere with the flue gas.

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

Operate your system with multi-stage heating pumps at the smallest possible stage. Modulating pumps generally do not require adjustments, since they are automatically matched to the prevailing demand.

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

A contaminated burner or poorly adjusted 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 utilisation of condensing technology.

### **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, which is not required by anyone. Differentiate between the optimum temperature for different rooms, such as living rooms and bedrooms.

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. Long curtains or badly positioned furniture can „swallow“ up to 20 % energy.

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

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

## Minimise energy losses through sensible ventilation

Ventilating for long periods loses heat stored in walls and objects. 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 responds 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 costs additional energy.

### Continuous 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 off the fault code from the connected controller and note down the code. The boiler can be restarted by pressing the reset button. In case of a repeated fault, switch OFF the boiler and notify your heating contractor.

Gas fired condensing boilers are equipped with an electronic flue gas temperature limiter. The system automatically shuts down when the flue gas temperature exceeds 110 °C. The boiler can be restarted by pressing the reset button. If this recurs, ask your heating contractor to check the flue gas system.



**Please note - risk of damage, poisoning and suffocation.**

**Keep your operating instructions safe in an easily accessible place near your gas fired condensing boiler. The Velcro strip enables you to fit the clear wallet in a suitable position, for example on the side of the boiler.**