



# Instructions for conversion to LPG P (G31)

## Gas condensing boilers MGK

**Conversion kit, product no. 87 51 293  
for MGK-170 and MGK-250**

**Conversion kit, product no. 87 51 295  
for MGK-210**

**Conversion kit, product no. 87 51 298  
for MGK-300**



**These installation instructions are to be retained by the user.**

**We cannot accept any warranty claims if these operating instructions have not been observed.**

**Note**

Read the conversion instructions carefully before commencing the installation.

**WOLF LPG conversion kit for the MGK series**

Prior to changing the boiler coding card, perform the standard settings at the gas combination valve. Otherwise there is a risk of injury and material losses on the boiler.

**Note**

The partial load efficiency reduces by approx. 0.5% when using LPG on account of the higher minimum load.

**Standard delivery**

<b>Conversion kit, product no. 87 51 293 for MGK-170 and MGK-250</b>			
<b>No.</b>	<b>Material</b>	<b>Mat no.</b>	<b>Pce</b>
1	Boiler coding card for LPG P MGK-170 and 250	27 44 354	1
2	Conversion type plate	87 51 389	1
3	Installation instructions	30 61 633	1

<b>Conversion kit, product no. 87 51 295 for MGK-210</b>			
<b>No.</b>	<b>Material</b>	<b>Mat no.</b>	<b>Pce</b>
1	Boiler coding card for LPG P MGK-210	27 44 355	1
2	Conversion type plate	87 51 389	1
3	Installation instructions	30 61 633	1

<b>Conversion kit, product no. 87 51 298 for MGK-300</b>			
<b>No.</b>	<b>Material</b>	<b>Mat no.</b>	<b>Pce</b>
1	Boiler coding card for LPG P MGK-300	27 44 357	1
2	Conversion type plate	87 51 389	1
3	Installation instructions	30 61 633	1

The following symbols and references are used in conjunction with these important instructions concerning personal safety, as well as operational reliability.



"Safety instructions" are instructions with which you must comply exactly, to prevent risks and injuries to individuals and material losses on the boiler.



Fig.: Junction box:  
Danger from electrical voltage



**Danger from 'live' electrical components!**  
**NB: Switch OFF the ON/OFF switch before removing the casing.**

Never touch electrical components or contacts when the ON/OFF switch is in the ON position! This results in a risk of electrocution that may lead to injury or death.

The main supply terminals are 'live' even when the ON/OFF switch is in the OFF position.

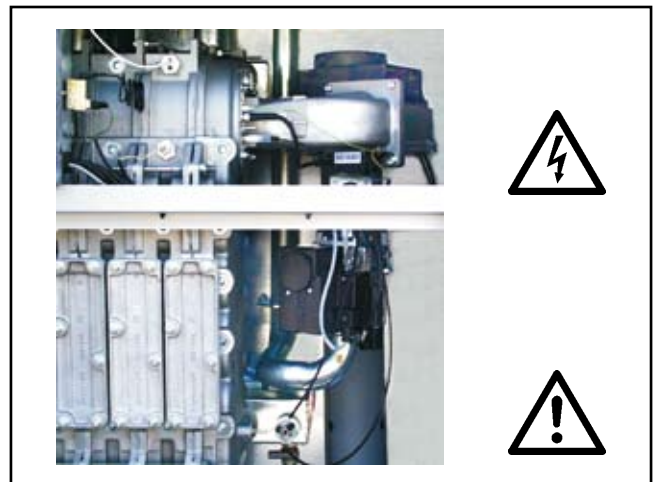


Fig.: Ignition transformer, high voltage ignition electrode, combustion chamber  
Danger from 'live' electrical components, risk of burning through hot components

**NB**

"NB" indicates technical instructions that you must observe to prevent material losses and malfunctions on the boiler.

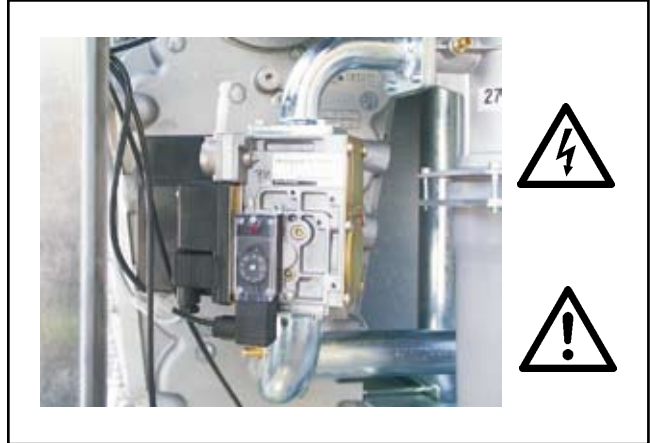


Fig.: Gas combination valve  
Danger from electrical voltage  
Escaping gas may cause poisoning or an explosion

**General information**

Maintenance work must only be carried out by a qualified heating contractor. Regular maintenance and the exclusive use of original Wolf spare parts are of crucial importance to the trouble-free operation and long service life of your appliance.

We therefore recommend you arrange a maintenance contract with your local heating contractor.

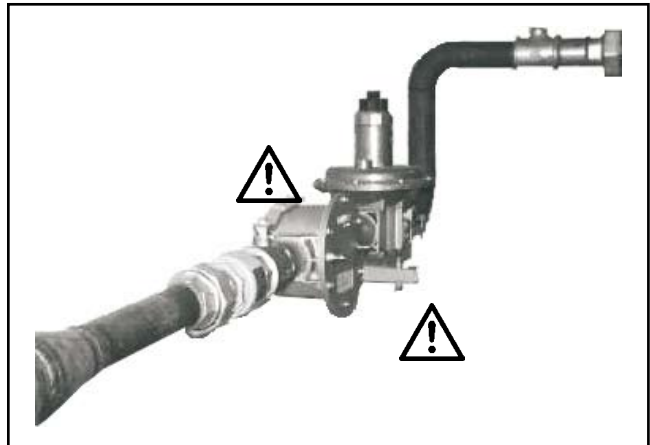


Fig.: Gas connection: Risk of poisoning and explosion through escaping gas

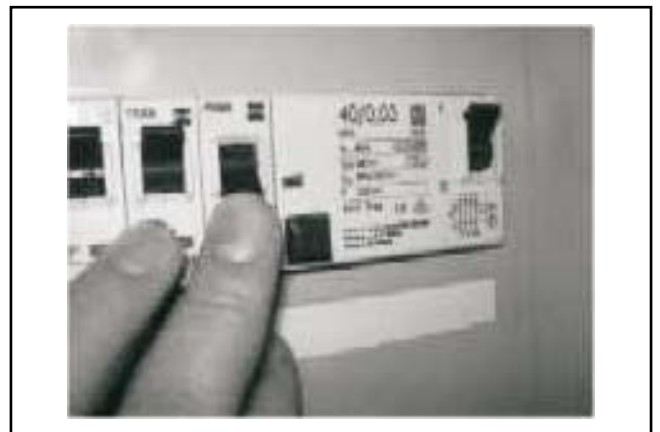
### Installation

- Pivot the control unit lid down. Switch OFF the ON/OFF switch at the gas condensing boiler.

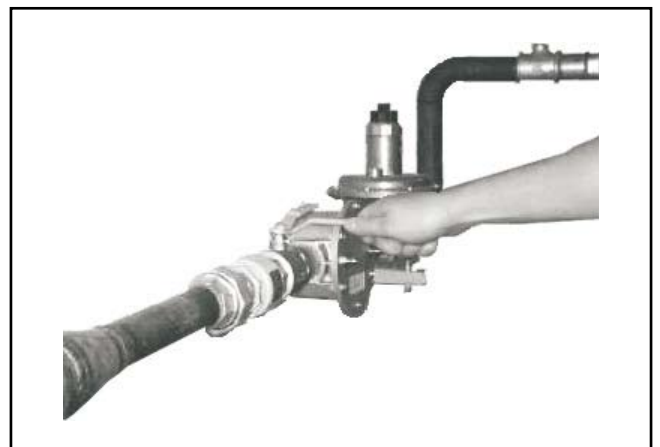


The mains terminals are 'live' even when the ON/OFF switch has been switched OFF.

Isolate the appliance from the power supply, otherwise there is a risk to life from electrocution.

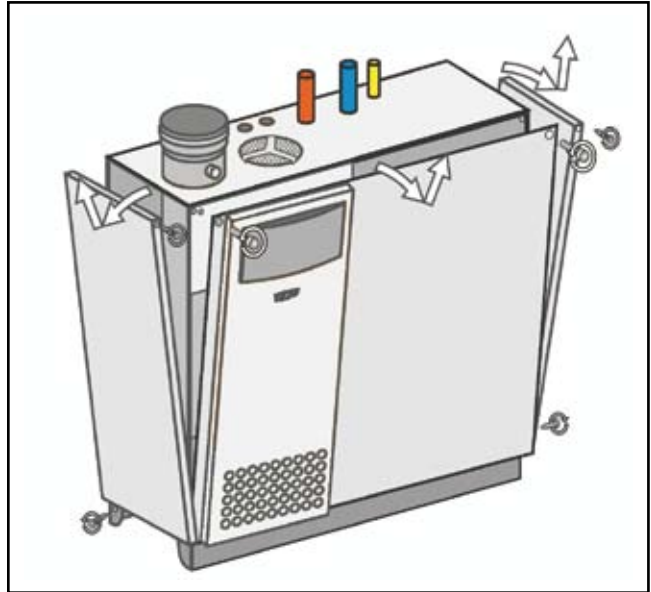


Close the on-site gas tap, otherwise there is a risk of suffocation or explosion.

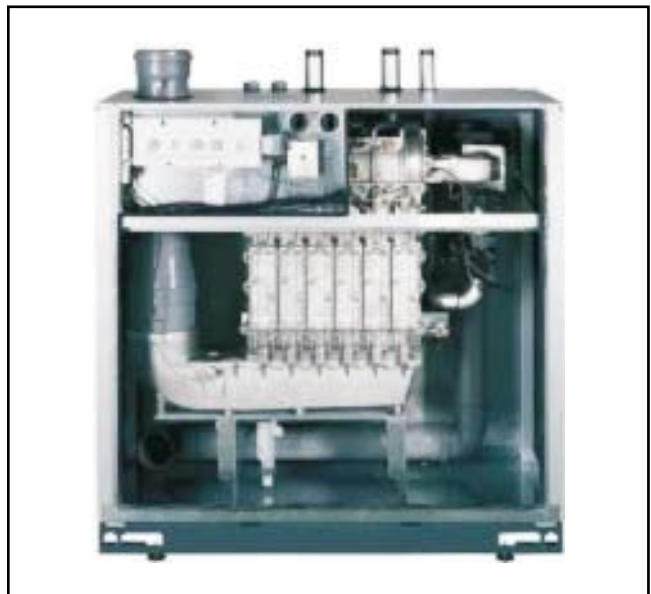


**Removing the front casing**

Undo the front casing with a no. 5 Allen key and the r.h. side panel with a screwdriver.

**Risk of burns!**

Various components can get very hot. Let these cool down or wear protective gloves, otherwise there is a risk of burns.



### 1. Standard setting at the gas combination valve

**NB** Make the standard settings at the gas combination valve in accordance with the table. Otherwise there is a risk of damage to the appliance.

Carefully turn the screw fully home and then undo as follows:

**Standard setting for different gas types:** Turn anti-clockwise

G31	Zero point	Flow rate
MGK-170	1 ½ turns	1 ¼ turns
MGK-210	1 ½ turns	1 ¼ turns
MGK-250	1 ½ turns	1 ¼ turns
MGK-300	1 ¾ turns	1 ¼ turns

G20 / G25	Zero point	Flow rate
MGK-170	2 turns	1 ½ turns
MGK-210	1 ½ turns	1 ¾ turns
MGK-250	1 ½ turns	1 ¾ turns
MGK-300	1 ¾ turns	2 turns

### 2. Setting of the gas / air mixture prior to changing the boiler coding card

**NB** Settings must be made with the natural gas boiler coding card to be able to set the lower output in soft start.

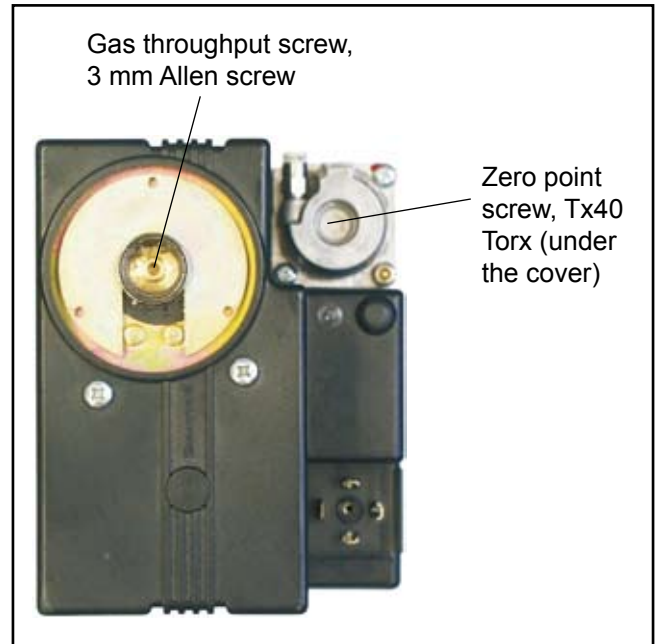



Fig.: Gas combination valve

**NB** Carry out the adjustments in the following sequence: At the factory, the gas combination valve has been set up for natural gas E (G20). Only adjust the gas combination valve after the system has been changed to a different gas type.

### A) CO<sub>2</sub> setting at the upper load (emissions test mode)

- Undo the four screws from the front casing and remove the casing.
- Remove the screw from the "flue gas" test port.
- Insert the test probe of the CO<sub>2</sub> test instrument into the "flue gas" test port.
- Turn the temperature selector to "Emissions test" .  
(Status indicator ring flashes yellow.)
- Check the CO<sub>2</sub> content at full load, and compare the actual values with those in the table below.
- Correct the CO<sub>2</sub> setting as required using the gas throughput screw on the gas combination valve in accordance with the table.

- **Turn clockwise - lowers CO<sub>2</sub> content**
- **Turn anti-clockwise - raises CO<sub>2</sub> content**

Appliance open (without casing) at upper load
G31 10.5% ± 0.2%

- Terminate the emissions test mode by returning the temperature selector to its original position.

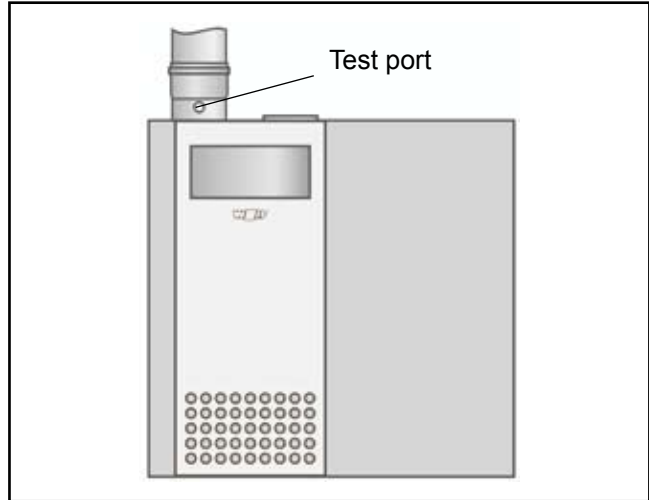


Fig.: Flue gas test at the integral test port

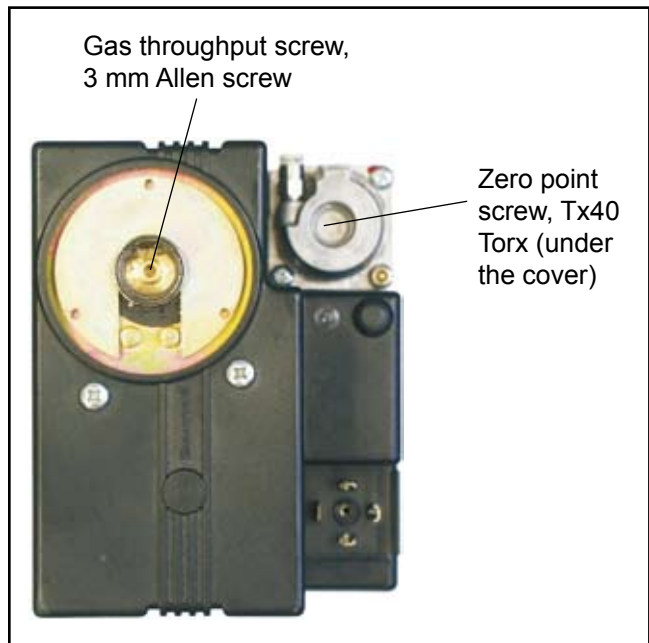


Fig.: Gas combination valve



**B) CO<sub>2</sub> adjustment at the lower load (soft start)**

- Restart the gas condensing boiler by pressing the "Reset button".
- Check and if necessary correct CO<sub>2</sub> content approx. 30 s after the burner start with the CO<sub>2</sub> tester, by fine adjusting the zero point adjusting screw in accordance with the table. Make this adjustment within 120 s of the burner start. If necessary, repeat the start phase for setting procedures by pressing the reset button.

- **Turn clockwise - raises CO<sub>2</sub> content.**
- **Turn anti-clockwise - lowers CO<sub>2</sub> content.**

<b>Appliance open (without casing) at lower load</b>
G31 12.5% ± 0.2%

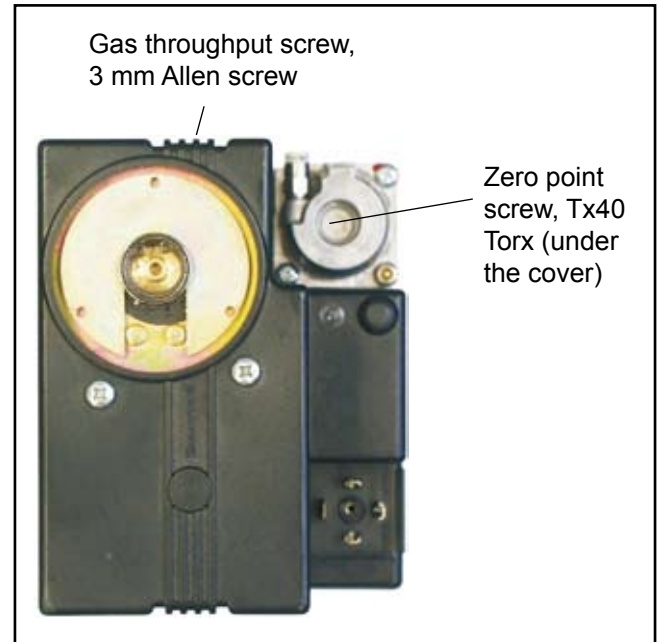
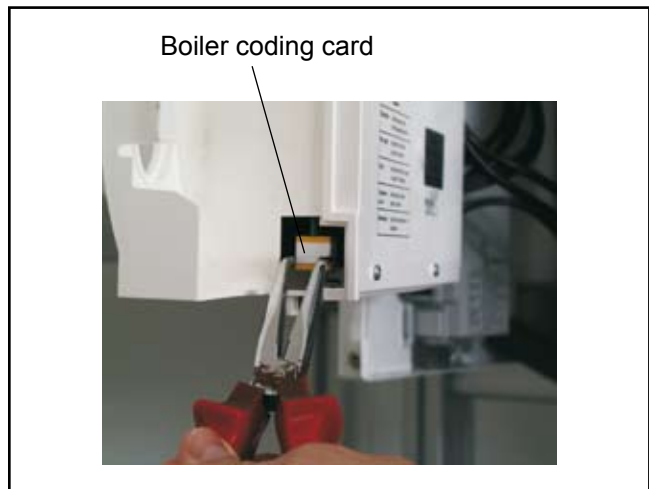


Fig.: Gas combination valve

**3. Changing the boiler coding card**

- a) Where appropriate, record the parameter changes compared to their factory settings (e.g. output, Tvmax, output 1, input 1, address setting).
- b) Isolate the appliance from the power supply.
- c) Pivot out the control unit.
- d) Open the boiler coding card cover.
- e) Pull off the boiler coding card and plug in the new one.
- f) Refit the boiler coding card cover.

**4. Function check**

- a) After commissioning, the multi-function indicator on the ON/OFF switch begins to flash. Press the reset button twice.
- b) The burner starts.
- c) **Function check:** Close the gas tap.  
Fault code 12 or indicator ring flashes red.
- d) Open gas tap, press reset button.  
The burner starts.
- e) Adjust parameters if changes from the factory settings are required.
- f) Check the function of control accessories.

**5. Checking the CO<sub>2</sub> setting**

**Note** Check in soft start following the installation of the LPG boiler coding card. The load in soft start with the LPG boiler coding card is not equal to the lower load.

- After completing the work, refit the casing cover and check the CO<sub>2</sub> value with the appliance closed.



Observe the CO emissions whilst making CO<sub>2</sub> adjustments. The gas combination valve is incorrectly adjusted if the CO value is >200ppm when the CO<sub>2</sub> value is correct. Take the following steps:

Standard setting: Carefully turn the screw fully home and then undo as described under point 1 "Standard setting at the gas combination valve".

<b>Appliance closed (without casing) at upper load</b>
G31 10.6% ± 0.5%

<b>Appliance closed (with casing) in soft start</b>
G31 11.3% ± 0.5%

**6. Completing the settings**

- Shut down the boiler and close the test ports and hose nipples; check for tightness.
- Cut out label "Set for 3P - G31 - 50 mbar" and affix to the type plate.

## 7. Updating the type plate

- From the conversion type plate, cut out the area that corresponds to the gas type.
- Overlay the respective type plate on the appliance with the cut-out section.



Set to	3P - G31 - 50 mbar	MGK-130
Type	B23, B33, C33, C43, C53, C83 C63 acc. to installation instructions	
Rated heat input		
DHW	Q = 29 - 120 kW	
Heating	Q = 29 - 120 kW	MGK-170
Rated output		
Heating 50/30°C	P = 30 - 126 kW	
Heating 80/60°C	P = 28 - 117 kW	
Set to	3P - G31 - 50 mbar	MGK-210
Type	B23, B33, C33, C43, C53, C83 C63 acc. to installation instructions	
Rated heat input		
DHW	Q = 43 - 160 kW	
Heating	Q = 43 - 160 kW	MGK-250
Rated output		
Heating 50/30°C	P = 46 - 167 kW	
Heating 80/60°C	P = 41 - 156 kW	
Set to	3P - G31 - 50 mbar	MGK-300
Type	B23, B33, C33, C43, C53, C83 C63 acc. to installation instructions	
Rated heat input		
DHW	Q = 60 - 240 kW	
Heating	Q = 60 - 240 kW	MGK-300
Rated output		
Heating 50/30°C	P = 62 - 250 kW	
Heating 80/60°C	P = 58 - 233 kW	
Set to	3P - G31 - 50 mbar	MGK-300
Type	B23, B33, C33, C43, C53, C83 C63 acc. to installation instructions	
Rated heat input		
DHW	Q = 74 - 280 kW	
Heating	Q = 74 - 280 kW	MGK-300
Rated output		
Heating 50/30°C	P = 78 - 294 kW	
Heating 80/60°C	P = 71 - 275 kW	
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Conversion type plate