

EKHY075787 / EKPS075867 / EKPS075877 / EKPS075917 EKPS076197 / EKPS 076207 / EKPS076217 / EKPS076227

Conversion Instructions

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THE APPLIANCE IS FOR USE WITH NATURAL GAS OR LPG. (Cat II 2H3P)
These instructions must be read in conjunction with the installation & servicing instructions. This conversion may only be carried out by a competent person and has to be in accordance with local or national standards that apply when converting to another gas type.

It must NOT be attempted unless the person carrying out the conversion is equipped with a combustion analyser and is competent in its use.

ISOLATE MAINS ELECTRICAL SUPPLY AND REMOVE OUTER CASE AS SHOWN IN THE INSTALLATION, COMMISSIONING & SERVICING INSTRUCTIONS.

Important: Do not install the appliance into a room or internal space below ground level when it is intended for use with LPG (propane – G31). This does not apply to basements that are open on at least on side.

Installation Regulations

In addition to those specified in the installation and operation manual of the boiler, the following local or national standard apply.

All conversions require the air/gas ratio to be set correctly in accordance with the gas that will be used. The procedure for setting the air/gas ratio is included in these instructions.

1 BOILER CONFIGURATION

Table 1, inserts and associated gas ring for conversion to G31

Gas category: Propane P G31, 30/37/50 mBar			
Article no. conv. set	Insert model	Applicable for boiler models	Gas ring
EKPS075917	541	<ul style="list-style-type: none"> • EHOB12AAV1, EHOBG12AAV1 • RHOB12AAV1, RHOBG12AAV1 	315
EKPS075877	471	<ul style="list-style-type: none"> • EHOBG18AAV1, EKOMBG22AAV1, EKOMBGU22AAV1, • RHOBG18AAV1, RKOMBG22AAV1 	410
EKPS075867	406	<ul style="list-style-type: none"> • EHOB18AAV1, EKOMB22AAV1, EKOMBG28AAV1, EKOMBGU28AAV1 • RHOB18AAV1, RKOMB22AAV1, RKOMBG28AAV1 	480
EKHY075787	362	<ul style="list-style-type: none"> • EKOMB28AAV1, EKOMB33AAV1, EKOMBG33AAV1, EHOB42AAV1 • EKOMBGU33AAV1 • RKOMB28AAV1, RKOMB33AAV1, RKOMBG33AAV1, RHOB42AAV1 • EHYKOMB33AA, RHYKOMB33AA 	525

Table 2, inserts and associated gas ring for conversion to G25

Gas category Natural gas H G25, 25 mBar			
Article no. conv. set	Insert model	Applicable for boiler models	Gas ring
EKPS076197	541	<ul style="list-style-type: none"> • EHOB12AAV1, EHOBG12AAV1 • RHOB12AAV1, RHOBG12AAV1 	620
EKPS076207	471	<ul style="list-style-type: none"> • EHOBG18AAV1, EKOMBG22AAV1, EKOMBGU22AAV1, • RHOBG18AAV1, RKOMBG22AAV1 	550
EKPS076217	406	<ul style="list-style-type: none"> • EHOB18AAV1, EKOMB22AAV1, EKOMBG28AAV1, • EKOMBGU28AAV1 • RHOB18AAV1, RKOMB22AAV1, RKOMBG28AAV1 	650
EKPS076227	362	<ul style="list-style-type: none"> • EKOMB28AAV1, EKOMB33AAV1, EKOMBG33AAV1, EHOB42AAV1 • EKOMBGU33AAV1 • RKOMB28AAV1, RKOMB33AAV1, RKOMBG33AAV1, RHOB42AAV1 • EHYKOMB33AA, RHYKOMB33AA 	720

2 CONVERSION OF THE GAS RING

1. Switch off the electrical supply to the appliance
2. Close the gas tap on the gas supply to the appliance
3. Remove the front panel of the appliance
4. Disconnect the coupling above the gas valve and turn the gas mixing pipe backwards
5. Replace the original O-ring and the gas setting ring with the rings in the conversion set
6. Reconnect the coupling above the gas valve and open the gas tap
7. Check the gas connections for tightness/leaks
8. Switch on the electrical supply to the appliance



CAUTION

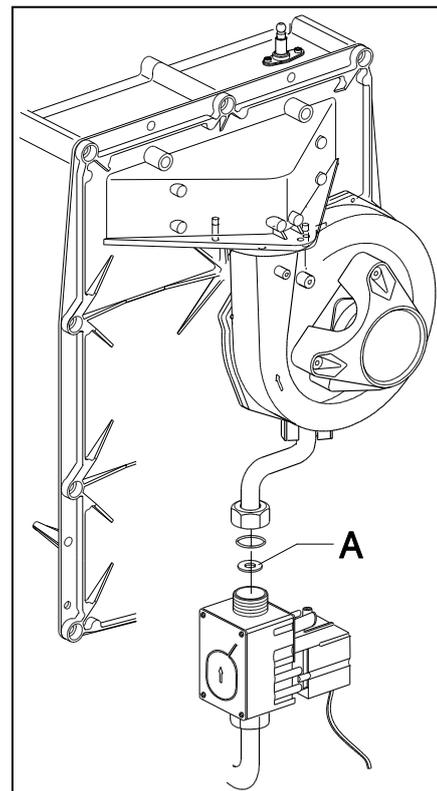
It is not possible to adjust the CO₂ level at high setting.
When the CO₂ level at high setting is not within the prescribed tolerance band please contact your local Daikin or Rotex dealer.
For adjusting CO₂ level at low setting see § 3 .

9. Apply a sticker "gas type" (2 pcs. included in the conversion set) to the nut at the upper side of the gas valve
10. Apply the second sticker "gas type" to the appliance plate (lower left corner) in such a way that the original data referring to the gas type is covered.
11. Continue with checking the CO₂ setting of the boiler. See § 3 .



CAUTION

- **Checking the CO₂ setting of the boiler must be executed with the front panel removed.**
- **The maximum deviation of the flue gas analyser that is allowed is $\pm 0,3\%$.**
- **During the check the installation location must not be under the influence of over- or under pressure situations.**
- **It is not possible to adjust the CO₂ value at maximum power..**
- **When the value measured at maximum power falls without the prescribed range the boiler has to be checked on gas tightness and usage of the correct components, in particular the gas ring, the insert and the fan.**
- **When replacing parts that can affect combustion or conversion to another gas type the CO₂ setting needs to be checked.**



3 CHECKING AND ADJUSTING CO₂ SETTING

3.1 Checking flue gas at maximum power.

1. Make sure that the appliance is switched off.
[-] is shown in the service display.
2. Remove the cap X of the flue gas sampling point on the adapter.
3. Position the measuring probe or the flue gas analyser into the sampling point.



Important

- Ensure that the analyser start up procedure has been finalized before placing the probe.
- The probe needs to close the sampling point fully to ensure an accurate measurement.
- The end (tip) of the probe must be completely in the flue gasses (in the middle of the flue pipe).

4. Switch the appliance on with the **ⓘ** button.
5. Activate the test program for maximum output by simultaneously pressing the buttons **↶** and **+** twice.
A capital **H** appears in the service display.



Important

- Make sure a capital **H** is shown in the display to ensure the appliance to run at maximum power.

6. Wait until the reading of the flue gas analyser is stabilized (minimal 3 minutes).
7. Note the measured value : CO₂(H).
CO₂(H) = measured CO₂ value at maximum power
8. Check if the measured value is in accordance with the data noted in table 3.

Table 3: Limits CO₂(H) at maximum power (front panel removed)

Limits	Gas category	
	Natural gas G 25	Propane 3P G31
	CO ₂ [%]	CO ₂ [%]
Maximum value	9.6	10.8
Minimum value	8.6	9.8



Important

- A deviation at maximum power can not be adjusted with the gas valve setting. When the value measured at maximum power is outside the prescribed range the boiler has to be checked on gas tightness and usage of the correct components, in particular the gas ring, the insert and the fan.

9. Proceed performing the measurement and adjustment on minimum output (see § 3.2).

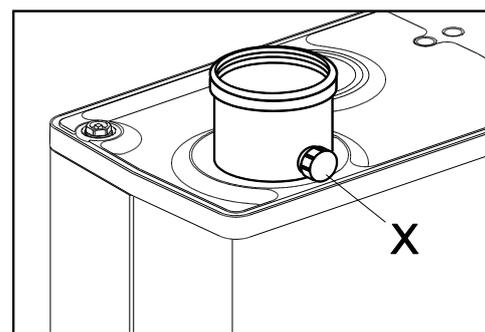
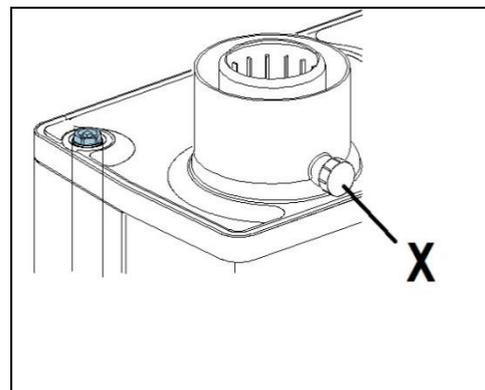
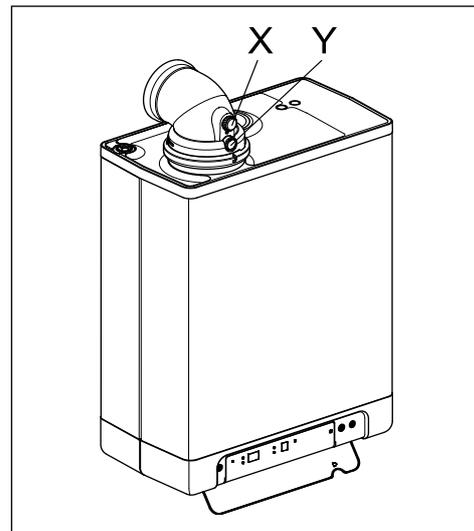
3.2 Adjusting CO₂ value at minimum power



Important

Work on gas carrying parts may only be carried out by a qualified competent person.

Before adjusting the CO₂ value at minimum output the measurement of the maximum output must be completed. The measured O₂ or CO₂ value at maximum output is important for determining the correct value for the measurement at minimum output. See § 3.1 for measuring at maximum output.



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1. Remove the cover cap (A) on the gas valve so setting screw B will become accessible.
2. Activate the test program for minimum output by simultaneously pressing the buttons  and . A capital L appears in the service display.
3. Wait until the reading of the analyser is stabilized (min. 3 minutes).
4. Measure the O2(L) or CO2(L) value.
5. Set the correct value for O2(L) or CO2(L) by turning setting screw B.
See table 4 or 5 for the correct value.



- Choose the correct table. Table 4 is for Propane, table 5 is for Natural Gas G25.
- (CO2(H) is the value that has been noted during the measurement on maximum output.
- Turning the adjustment screw clockwise will raise the CO2 value. Turning anti clockwise will lower the CO2 value.
- Change the setting in small steps and wait until the reading is stabilized before continuing.

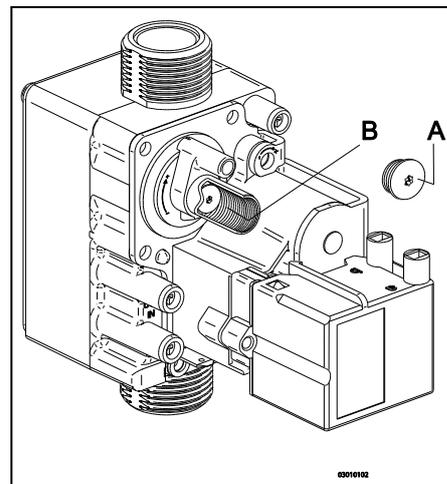


Table 4: Determining the correct setting of CO₂ at minimum output for propane G31 (front panel removed)

Propane 3P G31 (30 & 50 mBar)	
Measured value am maximim power (See § 3.1)	Prescribed value at minimum power (= CO ₂ (H) – 0.3)
CO ₂ (H) [%]	CO ₂ (L) [%]
10.8	10.5 ±0.1
10.6	10.3 ±0.1
10.4	10.1 ±0.1
10.2	9.9 ±0.1
10.0	9.7 ±0.1
9.8	9.5 ±0.1

Table 5: Determining the correct setting of CO₂ at minimum output for natural gas G25 (front panel removed)

Natural gas G25 (25 mBar)	
Measured value am maximim power (See § 3.1)	Prescribed value at minimum power (= 0.5 x CO ₂ (H) + 4.2)
CO ₂ (H) [%]	CO ₂ (L) [%]
9.6	9.0 ±0.1
9.4	8.9 ±0.1
9.2	8.8 ±0.1
9.0	8.7 ±0.1
8.8	8.6 ±0.1
8.6	8.5 ±0.1

6. Reposition the cover cap A of the setting screw B for protection.
7. Repeat the measurement at maximum output (§ 3.1) to ensure the correct operation of the boiler.
8. Place the front panel back on the boiler.
9. Activate the test program for maximum output by simultaneously pressing the buttons  and  twice. A capital H appears in service display.
10. Check the CO value of the combustion to make sure no recirculation is taking place.
11. Switch the appliance off with the  button. [-] is shown in the service display.
12. Remove the measuring probe and reposition the cap X on the sampling point of the adapter.
13. Switch the appliance on with the  button .
14. Check if the central heating and (when available) DHW are working properly.

