

## Gas type conversion

For Vitodens 100-W and 111-W

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### Safety instructions



**Please follow these safety instructions closely to prevent accidents and material losses.**

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### Safety instructions explained



#### **Danger**

This symbol warns against the risk of injury.



#### **Please note**

This symbol warns against the risk of material losses and environmental pollution.

#### **Note**

*Details identified by the word "Note" contain additional information.*

Installation, initial start-up, inspection, maintenance and repairs must only be carried out by a competent person (heating engineer/installation contractor).

Before working on the equipment/heating system, isolate the power supply (e.g. by removing a separate mains fuse or by means of a mains isolator) and safeguard against unauthorised reconnection.

When using gas as fuel, also close the main gas shut-off valve and safeguard against unauthorised reopening.

Repairing components which fulfil a safety function can compromise the safe operation of your heating system. For replacements, use only original spare parts supplied or approved by Viessmann.

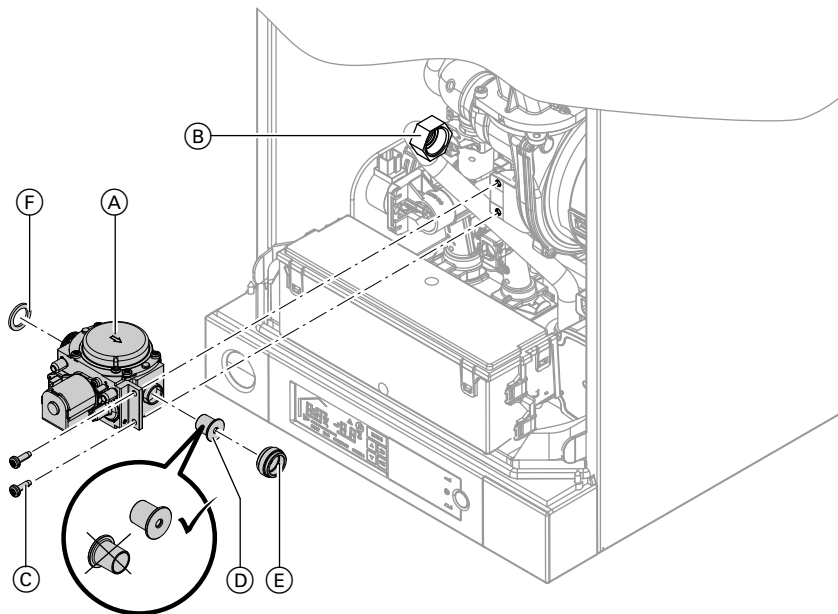
### Opening the Vitodens



Installation and service instructions

## Conversion to gas type G31 - fitting the gas restrictor

### Vitodens 100-W



1. Disconnect cable from gas train (A).
2. Undo union nut (B) and remove gasket (F).
3. Undo 2 screws (C) and remove gas train (A).
4. Remove gasket (E) from gas train (A).
5. Insert gas restrictor (D) from the conversion kit into new gasket (E).
6. Mount gas train (A) with new gasket (E) and inserted gas restrictor (D). Torque for fixing screws (C): 6 Nm
7. Mount gas pipe with new gasket (F). Torque for union nut (B): 30 Nm

#### **Note**

Ensure the gas restrictor (D) is fitted correctly.

## Conversion to gas type G31 - fitting the gas... (cont.)

8. Start the boiler and check for leaks.



### Danger

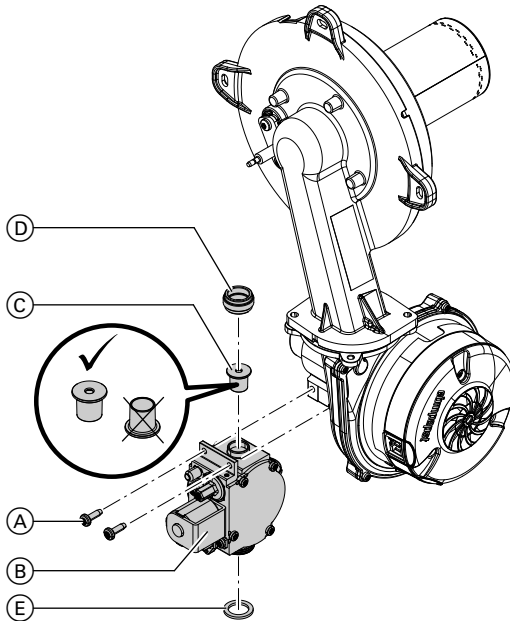
Escaping gas leads to a risk of explosion.  
Check gas equipment for leaks.



### Please note

The use of leak detection spray can result in faulty operation.  
Leak detection spray must not come into contact with electrical contacts or block the diaphragm opening on the gas valve.

## Vitodens 111-W



1. Remove the burner.



Installation and service instructions

2. Undo 2 screws (A) and remove gas train (B).

3. Remove gasket (D) from gas train (A).



## Conversion to gas type G31 - fitting the gas... (cont.)

4. Insert gas restrictor (C) from the conversion kit into new gasket (D).

### Note

Ensure the gas restrictor (C) is fitted correctly.

5. Mount gas train (B) with new gasket (D) and inserted gas restrictor (C).  
Torque for fixing screws: 6 Nm
6. Install the burner.  
Mount gas pipe with new gasket (E).  
Torque for union nut: 30 Nm



Installation and service instructions

7. Start the boiler and check for leaks.



Installation and service instructions



### Danger

Escaping gas leads to a risk of explosion.  
Check gas equipment for leaks.



### Please note

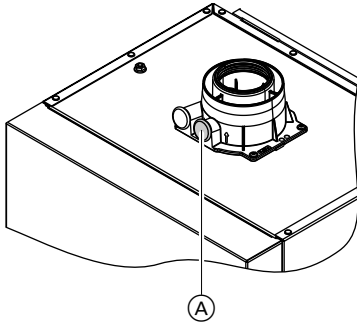
The use of leak detection spray can result in faulty operation.

Leak detection spray must not come into contact with electrical contacts or block the diaphragm opening on the gas valve.

## Changing the gas type at the control unit

1. Turn on the ON/OFF switch.
2. Tap **MODE**.
3. ▲/▼ repeatedly until **CONF1** flashes.
4. **OK** to confirm.  
"P" is shown in the l.h. display area. The r.h. display area flashes.
5. Use ▲/▼ to select "12".
6. **OK** to confirm.  
"1" flashes in the l.h. display area.
7. Use ▲/▼ to select "5".
8. **OK** to confirm.  
The value currently selected flashes in the r.h. display area.
9. Use ▲/▼ to change the control unit to the available gas type.  
■ Gas types P (G31):  
"1"
10. **OK** to confirm.
11. Turn the ON/OFF switch off and back on again.  
The selected operating mode is saved.

## Checking the CO<sub>2</sub> content



1. Connect a flue gas analyser at flue gas port (A) on the boiler flue connection.
2. Start the boiler.
3. Set the upper heating output: See chapter "Setting the heating output".
4. Measure the CO<sub>2</sub> content for the upper heating output.  
The CO<sub>2</sub> content must be within the following ranges for the respective gas type. See table.

Gas type	CO <sub>2</sub> content (limit values) in %
P (G31)	10.0 – 12.0

5. Set the lower heating output: See chapter "Setting the heating output".
6. Measure the CO<sub>2</sub> content for the lower heating output.  
The CO<sub>2</sub> content must be at least 0.5 % below the value for the upper heating output.
7.
  - If the CO<sub>2</sub> content is within the indicated range, continue with point 9.
  - If the CO<sub>2</sub> content is **not** within the indicated range, check the flue gas/ventilation air system for tightness; remedy any leaks. Replace the gas train if required.



## Checking the CO<sub>2</sub> content (cont.)

8. Measure the CO<sub>2</sub> content for the upper and lower heating output again.
9. Shut down the boiler, remove the flue gas analyser and close flue gas test port (A).
10. Enter limit values for the selected gas type (see table) in chapter "Gas type conversion" in the installation and service instructions for the boiler.

## Setting the heating output (test mode)

1. Turn on the ON/OFF switch.
2. Tap **MODE**.
3. ▲/▼ repeatedly until **SERV** flashes.
4. **OK** to confirm.  
The current heating output is shown on the display.

Shown on display	Burner output in %
--	0
<b>20</b>	20
<b>40</b>	40
<b>60</b>	60
<b>80</b>	80
<b>99</b>	100

5. Use ▲/▼ to select the required heating output.
  - Upper heating output (100 %):  
    -- -- -- **99**
  - Lower heating output (20%):  
    \_ **20**

## Terminating test mode

1. Tap **MODE**.
2. ▲/▼ repeatedly until **SERV** flashes.
3. **OK** to confirm.  
The selected heating output is shown on the display.
4. ▼ until "- -" flashes.
5. **OK** to confirm.  
Test mode has terminated. **SERV** is no longer displayed.

## Starting the boiler

1. Affix the label supplied for the applicable gas type next to the type plate on the top of the boiler.
2. Mount the front panel and start the boiler.

**Note**

*The delivered condition shown on the type plate then no longer applies.*



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