

## Replacing the gas train

for Vitodens 050-W

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### Safety instructions



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

#### 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.

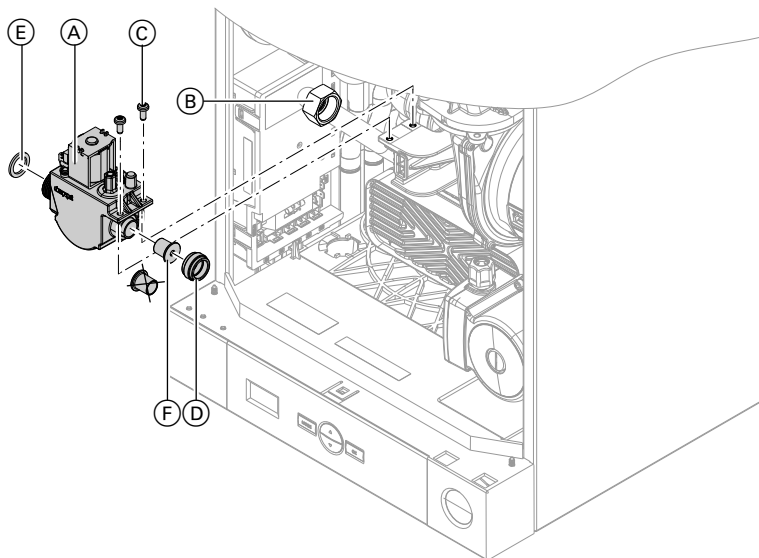
Repairing components which fulfil a safety function can compromise the safe operation of your heating system. For replacements, use only original spare parts supplied or approved by Viessmann.

### Opening the Vitodens



Installation and service instructions

## Replacing the gas train



1. Pull the cable off gas train (A).
2. Undo union nut (B).
3. Undo 2 screws (C) and remove gas train (A).
4. Insert new gasket (D) and, subject to gas type, gas restrictor (F) in new gas train (A).
  - Operation with natural gas EG-E (G20):  
Gasket (D) **without** gas restrictor.
  - Operation with LPG (G31):  
Gasket (D) **with** gas restrictor (F).
  - Operation with natural gas EG-Lw (G27):  
Gasket (D) **with** gas restrictor (F).
  - Operation with natural gas EG-Ls (G2.350):  
Gasket (D) **without** gas restrictor.
  - Operation with special gas (G230):  
Gasket (D) **without** gas restrictor.
  - Operation with natural gas EG-S (G25.1):  
Gasket (D) **with** gas restrictor (F).

## Replacing the gas train (cont.)



### Please note

Ensure the gas restrictor is fitted correctly.

- Mount gas train (A) with new gas-kets (E).  
Torque for fixing screws (C): 6 Nm  
Torque for union nut (B): 30 Nm

- Start the boiler and check for leaks.



### Danger

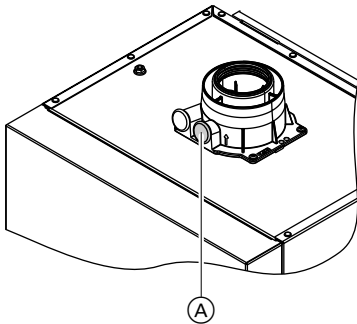
Escaping gas leads to a risk of explosion.  
Check all gas equipment for tightness.



### 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 seal the diaphragm opening on the gas valve.

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



- Connect a flue gas analyser at flue gas port (A) on the boiler flue connection.
- Start the boiler.
- To check the CO<sub>2</sub> content the burner output can be adjusted manually.
  - Press MODE.
  - Press ▲/▼ until "SERV" is displayed.
  - OK to confirm.  
"OFF" appears on the display.
  - Use ▲/▼ to select the burner output:

Display shows	Burner output
—	20 %
--	40 %
---	60 %
----	80 %
-----	100 %

- Confirm your settings with OK.



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

4. Set the upper heating output (100 %) and check the CO<sub>2</sub> content. The CO<sub>2</sub> content must be within the following range for the respective gas type:

Gas type	CO <sub>2</sub> content in %
Ls (G2.350)	7.5 – 9.7
E or H (G20)	7.5 – 10.5
L or LL (G25)	7.5 – 10.5
Lw (G27)	7.8 – 10.6
P (G31)	10.0 – 12.0
M (G230)	10.0 – 12.0

5. Set the lower heating output (20 %) and check the CO<sub>2</sub> content. The CO<sub>2</sub> content must be at least 0.4 % below the value for the upper heating output.

6. ■ If the CO<sub>2</sub> content is within the range indicated, continue with step 8.  
■ If the CO<sub>2</sub> content lies **outside** the indicated range, check the flue gas/ventilation air system for tightness; remedy any leaks.
7. Re-check the CO<sub>2</sub> content for the higher and lower heating output.
8. Use ▲/▼ to set the burner output to "OFF".
9. Press MODE, "SERV" is no longer shown.

### Note

*The function also terminates automatically after 30 min.*

## Starting the boiler

1. Shut down the boiler, remove the flue gas analyser and close flue gas test port (A).
2. Mount the front panel and start the boiler.









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