

Installation instructions

for contractors



Gas valve replacement

for the Vitodens 100-W, type WB1B

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.

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.

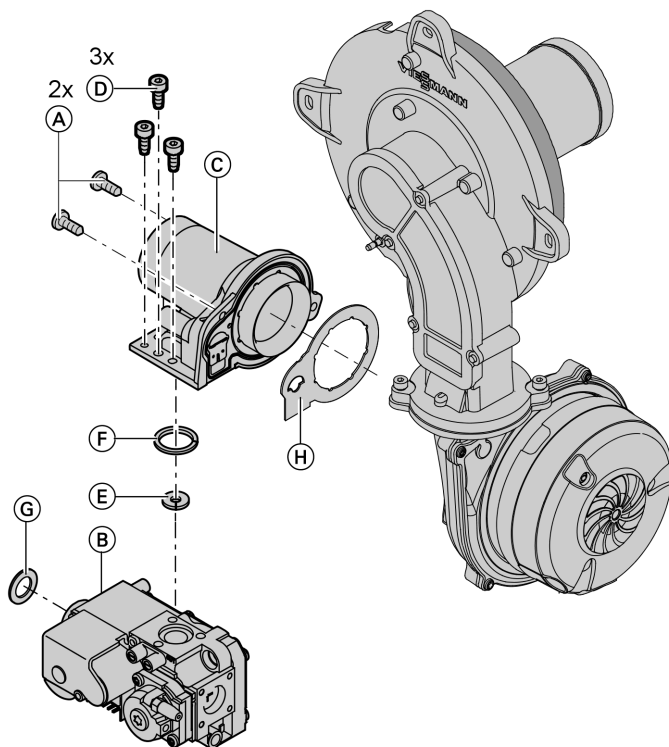
For replacements, use only original spare parts supplied or approved by Viessmann.

Opening the Vitodens and removing the burner



Installation and service instructions

Replacing the gas valve



1. Undo two screws (A) and remove gas valve (B) together with venturi nozzle (C).

2. If the boiler is **not** operated with gas type G 20 or G 25, remove the gas restrictor from the old gas valve and insert it into the new one:
- Undo three screws (D) and remove venturi nozzle (C) from gas valve (B).
 - Remove gas restrictor (E) from old gas valve (B) and insert with new gasket (F) into new gas valve (B).
 - Fit venturi nozzle (C) to new gas valve (B).
- Fixing screw torque: 3 Nm.

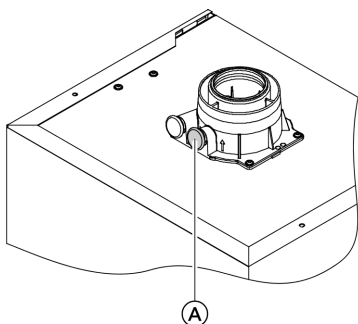
Replacing the gas valve (cont.)

3. Fit new gas valve (B) with venturi nozzle (C) and new gaskets (G) and (H).
Fixing screw torque: 3 Nm.


4. Install the burner.
Union nut torque: 22 Nm.


Note
Insert new gaskets on all gas connections.

Adjusting the burner

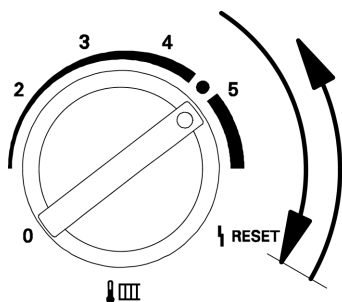


1. Connect a flue gas analyser at flue gas port (A) on the boiler flue connection.
2. Start up the boiler and check for tightness.

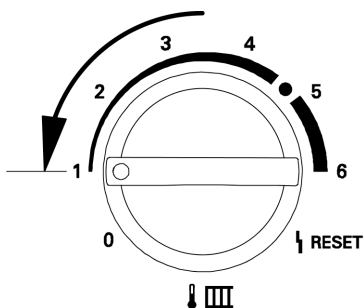
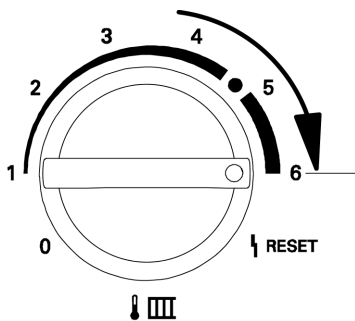
 Installation and service instructions

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

3. Turn rotary selector "⏴ III" clockwise for less than 2 s and then anticlockwise back to the control range on the right.
The display shows "SERV" and the boiler water temperature is shown.



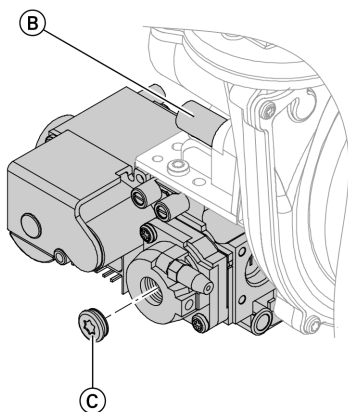
Adjusting the burner (cont.)



4. Adjust the upper output:
Turn rotary selector "📊" to the control range on the right.
The display shows 5 bars for upper output.
5. Measure the CO₂ content for upper output.
The CO₂ content must be between the following values:
 - When operating with G 20/G 25: 7.5 to 10.5 %
 - When operating with G 31: 10.0 to 12.0 %
6. Adjust the lower output:
Turn rotary selector "📊" to the left control range.
The display shows 1 bar for lower output.
7. Test the CO₂ content for lower output.
The CO₂ content must be between the following values:
 - When operating with G 20/G 25: 7.5 to 10.5 %
 - When operating with G 31: 10.0 to 12.0 %
8. ■ If the CO₂ content is within the given range, continue with point 15.
 - If the CO₂ content is **not** within the given range, check the flue gas/ventilation air system for tightness.
Remedy any leaks.



Adjusting the burner (cont.)



9. Test the CO₂ content for upper and lower output again.
If the CO₂ content is **still not** within the given range, adjust the CO₂ content.

10. Adjusting the CO₂ content

Adjust the upper output.

11. With the adjusting screw (B), set the CO₂ content for upper output to the following values:
 - When operating with G 20/G 25: 9.0 %
 - When operating with G 31: 10.8 %

12. Adjust the lower output.

13. Remove cover (C) from gas train. With the adjusting screw below, set the CO₂ content for lower output to the following values:
 - When operating with G 20/G 25: 8.7 %
 - When operating with G 31: 10.5 %

14. Refit cover (C).

15. Shut the boiler down, remove flue gas analyser and close flue gas port (A).

16. Return rotary selectors "↓↔" and "⏏↓" to their original positions.

17. Fit front panel and start the boiler.



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