

Gas type conversion to G 31

for 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.

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

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).

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.

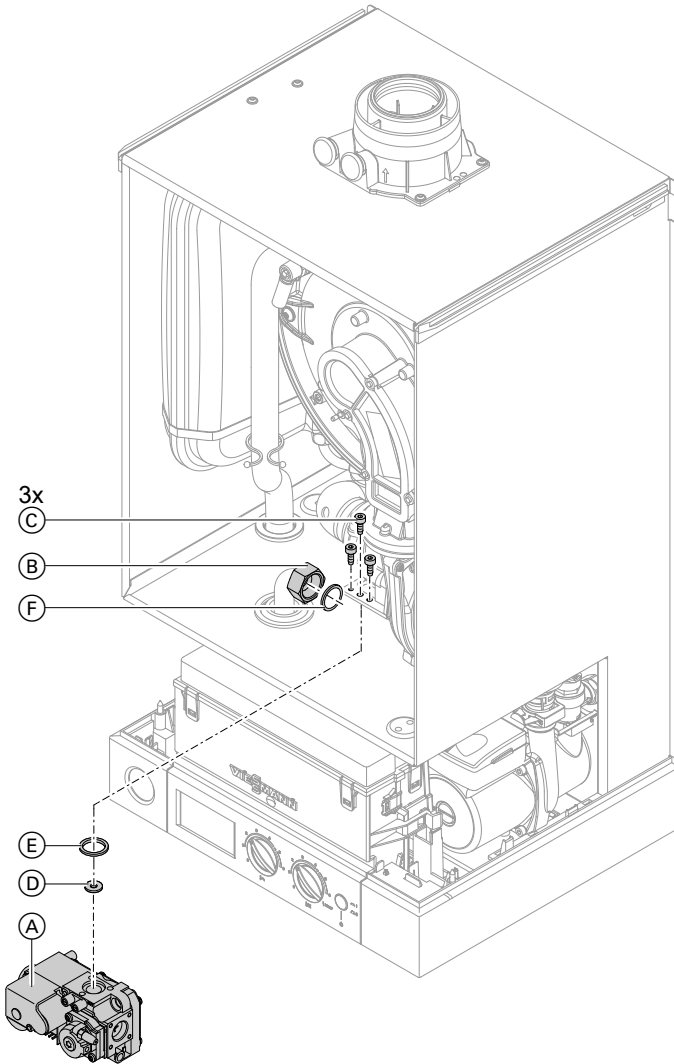
Before working on the equipment/heating system, isolate the power supply (e.g. by removing a separate mains fuse or by means of a mains isolator) and safeguard against unauthorised reconnection.

Opening the Vitodens



Installation and service instructions

Replacing the gas restrictor

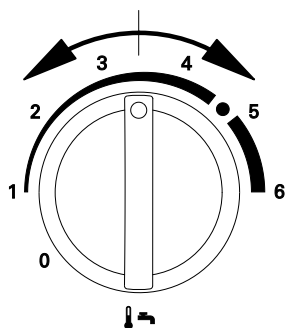
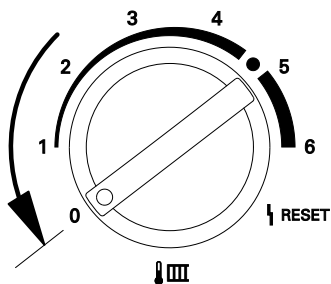
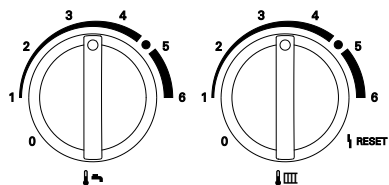


1. Disconnect cable from gas train (A).
2. Undo union nut (B).
3. Undo three screws (C) and remove gas train (A).

Type WB1B with serial no. 7373 06 ... (cont.)

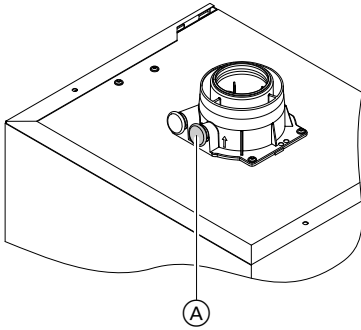
- Remove gas restrictor (D) (if installed) from gas train (A) and insert new gas restrictor (D) with new gasket (E) in gas train (A).
- Mount gas train (A) with new gasket (F).
Torque for fixing screws (C): 3 Nm.
Torque for union nut (B): 22 Nm.

Changing the gas type at the control unit

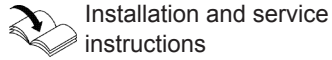


- Turn on the ON/OFF switch.
- Turn both rotary selectors "⌚" and "⌚ III" simultaneously to the central position.
"SERV" appears on the display.
- Turn rotary selector "III ⌚" fully anti-clockwise within 2 s.
"⌚" and the new set value flash on the display.
- Change the control unit setting to natural gas or LPG by turning rotary selector "⌚ ⌚".
The display shows:
 - "0" for operation with natural gas
or
 - "1" for operation with LPG
- Do **not** adjust the rotary selectors for at least 15 s. The set operating mode is then saved and the control unit returns to standard mode.

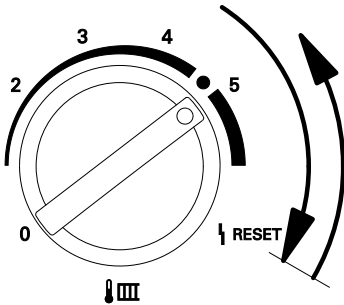
Adjusting the burner



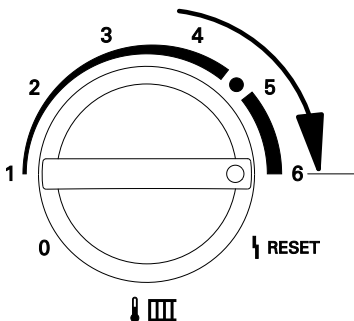
1. Connect a flue gas analyser at flue gas port (A) on the boiler flue connection.
2. Start the boiler and check for leaks.



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

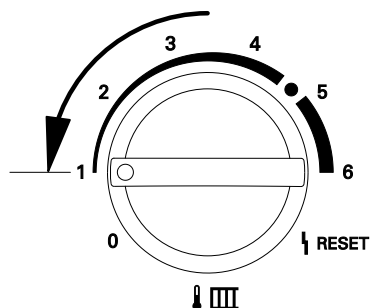


3. Turn rotary selector "▮▮▮" fully clockwise for less than 2 s and then back into the r.h. section of the control range.
The display shows "SERV" and the boiler water temperature is displayed.



4. Set the upper heating output:
Turn rotary selector "▮▮▮" into the r.h. section of the control range.
The display shows 5 bars for upper heating output.
5. Measure the CO₂ content for the upper heating output.
The CO₂ content must be between 10.0 and 12.0 %.

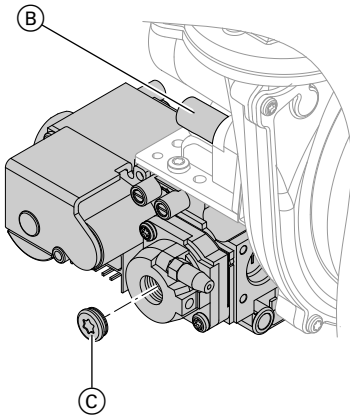
Type WB1B with serial no. 7373 06 ... (cont.)



6. Set the lower heating output:
Turn rotary selector "🌡️ III" into the l.h. section of the control range.
The display shows 1 bar for lower heating output.
7. Measure the CO₂ content for the lower heating output.
The CO₂ content must be between 10.0 and 12.0 %.
8.
 - If the CO₂ content is within the indicated 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.
9. Measure the CO₂ content for the upper and lower heating 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 heating output.



Type WB1B with serial no. 7373 06 ... (cont.)



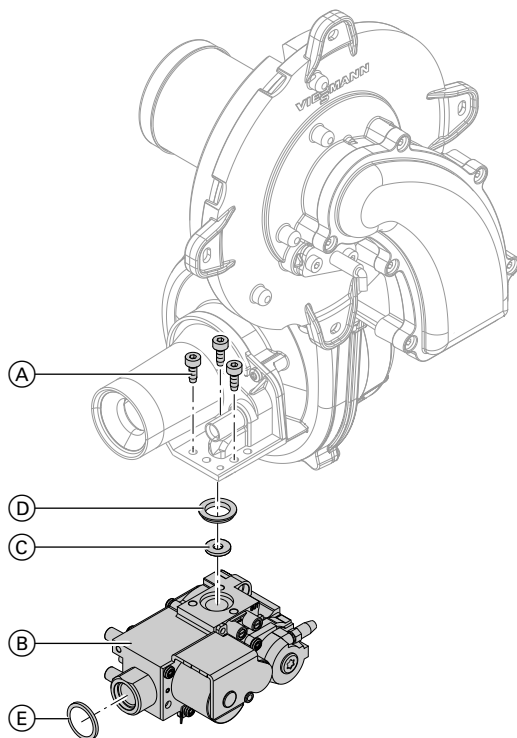
11. Use adjusting screw (B) to set the CO₂ content for the upper heating output to 10.8 %.
12. Adjust the lower heating output.
13. Remove cover (C) from the gas train. Use the adjusting screw underneath to set the CO₂ content for the lower heating output to 10.5 %.
14. Re-insert cover (C).
15. Shut down the boiler, remove the flue gas analyser and close flue gas test port (A).
16. Turn both rotary selectors "⚙️" and "⚙️" back to their respective original positions.
17. Select the appropriate label from "Gas type" labels supplied and affix next to the type plate on the top of the boiler.

Note

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

18. Mount the front panel and start the boiler.

Replacing the gas restrictor



1. Remove the burner.



Installation and service instructions

2. Undo three screws (A) and remove gas train (B).
3. Remove gas restrictor (C) (if installed) from gas train (B) and insert new gas restrictor (C) in gas train (B).

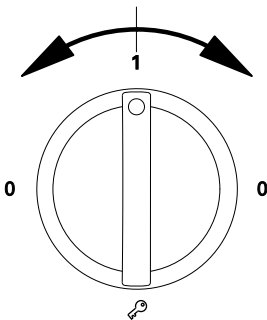
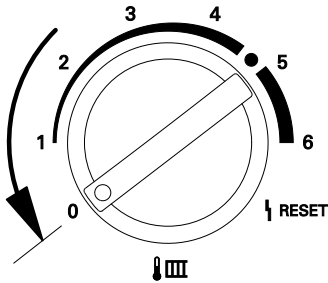
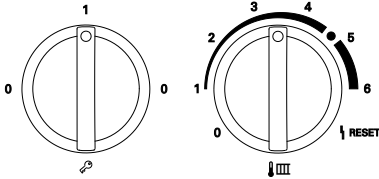
4. Mount gas train (B) with new gasket (D).
Torque for fixing screws (A): 3 Nm.

5. Refit the burner with new gasket (E).



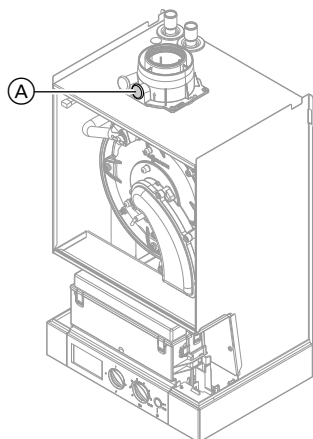
Installation and service instructions

Changing the gas type at the control unit



1. Turn on the ON/OFF switch.
2. Simultaneously turn both rotary selectors to their centre position. "SERV" appears on the display.
3. Turn rotary selector "0 III" fully anti-clockwise within 2 s. The display shows "0" and the set value flashes.
4. Turn left hand rotary selector "1" to change the control unit to natural gas or LPG. The display shows:
 - "0" for operation with natural gas
or
 - "1" for operation with LPG
5. Do **not** adjust the rotary selectors for at least 15 s. The set operating mode is then saved and the control unit returns to standard mode.
6. Turn the ON/OFF switch off and on again. The selected gas type is now enabled

Adjusting the burner



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

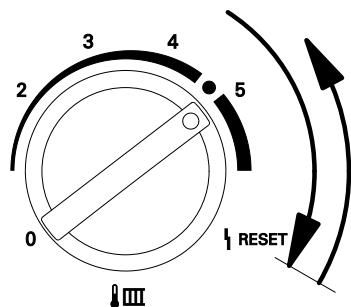


Installation and service instructions

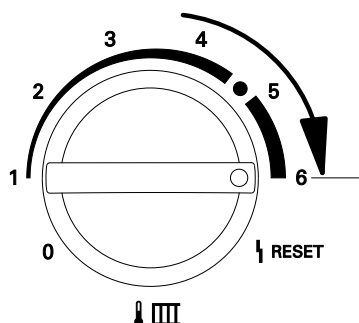


Danger

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

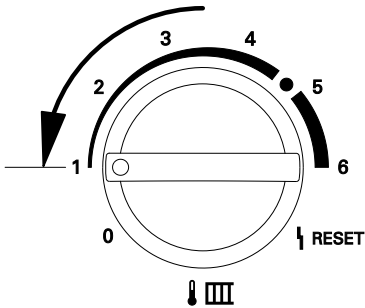


3. Turn rotary selector "🌡️ III" fully clockwise for less than 2 s and then back into the r.h. section of the control range.
The display shows "SERV" and the boiler water temperature is displayed.



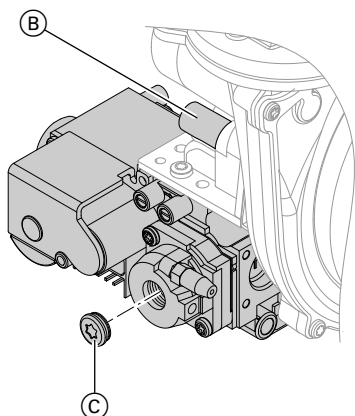
4. Set the upper heating output:
Turn rotary selector "🌡️ III" into the r.h. section of the control range.
The display shows 5 bars for upper heating output.
5. Measure the CO₂ content for the upper heating output.
The CO₂ content must be between 10.0 and 12.0 %.

Type WB1B with serial no. 7416 30 ... (cont.)



6. Set the lower heating output:
Turn rotary selector "↓ III" into the l.h. section of the control range.
The display shows 1 bar for lower heating output.
7. Measure the CO₂ content for the lower heating output.
The CO₂ content must be between 10.0 and 12.0 %.
8.
 - If the CO₂ content is within the indicated 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.
9. Measure the CO₂ content for the upper and lower heating 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 heating output.

Type WB1B with serial no. 7416 30 ... (cont.)



11. Use adjusting screw (B) to set the CO₂ content for the upper heating output to 10.8 %.
12. Adjust the lower heating output.
13. Remove cover (C) from the gas train.
Use the adjusting screw underneath to set the CO₂ content for the lower heating output to 10.5 %.
14. Re-insert cover (C).
15. Shut down the boiler, remove the flue gas analyser and close flue gas test port (A).
16. Turn both rotary selectors "⚡" and "⏏" back to their respective original positions.
17. Select the appropriate label from "Gas type" labels supplied and affix next to the type plate on the top of the boiler.

Note

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

18. Mount the front panel and start the boiler.



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5355102 Subject to technical modifications.