



How to change
temperature sensor and
engine thermostat on
MERCEDES-BENZ VARIO
Box Body / Estate –
replacement guide

SIMILAR VIDEO TUTORIAL



This video shows the replacement procedure of a similar car part on another vehicle

Important!

This replacement procedure can be used for:

MERCEDES-BENZ VARIO Box Body / Estate 512 D 2.9 (667.351, 667.352, 667.353),

MERCEDES-BENZ VARIO Box Body / Estate 612 D 2.9 (668.351, 668.352, 668.353),

MERCEDES-BENZ VARIO Box Body / Estate 812 D 2.9 (670.351, 670.352, 670.353)

The steps may slightly vary depending on the car design.

This tutorial was created based on the replacement procedure for a similar car part on: MERCEDES-BENZ E-Class Saloon (W124) E 250 D (124.126, 124.129)

REPLACEMENT: TEMPERATURE SENSOR AND ENGINE THERMOSTAT – MERCEDES-BENZ VARIO BOX BODY / ESTATE. TOOLS YOU'LL NEED:



- Wire brush
- All-purpose cleaning spray
- Dielectric grease
- Torque wrench
- Combination spanner #10
- Combination spanner #19
- Drive socket # 7
- Drive socket # 10
- Drive socket # 22
- Ratchet wrench
- Flat screwdriver
- Funnel
- Fluid container
- Fender cover

Buy tools

Replacement: temperature sensor and engine thermostat – MERCEDES-BENZ VARIO Box Body / Estate. AUTODOC experts recommend:

- Check the condition of the coolant every time you replace the thermostat. Change the coolant if necessary.
- All work should be done with the engine stopped.
- All work should be done with the engine stopped.

REPLACEMENT: TEMPERATURE SENSOR AND ENGINE THERMOSTAT – MERCEDES-BENZ VARIO BOX BODY / ESTATE. TAKE THE FOLLOWING STEPS:

1 Open the bonnet.

2 Use a fender protection cover to prevent damaging paintwork and plastic parts of the car.

3 Loosen the air filter hose clamps. Use a drive socket #7. Use a ratchet wrench.



4 Remove the air intake hose.



5 Cover the throttle body with a microfibre towel to prevent dust and dirt from getting into the system.

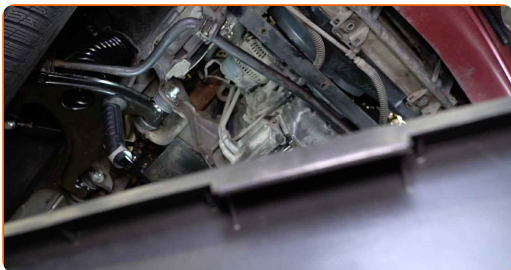


6 Unscrew the coolant reservoir cap.

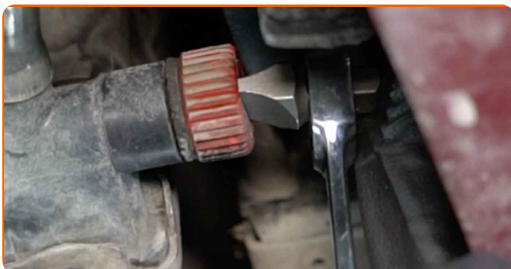


7 Lift the car using a jack or place it over an inspection pit.

8 Prepare a container for fluids.



9 Open the coolant drain tap. Use a flat screwdriver.



10

Drain the coolant from the engine.



Replacement: temperature sensor and engine thermostat – MERCEDES-BENZ VARIO Box Body / Estate. Tip:

- All work should be done with the engine stopped.
- Wait until the coolant has completely flowed out of the drain hole.

11

Unscrew the coolant drain plug on the engine block. Use a combination spanner #19.



12

Drain the coolant from the engine.



AUTODOC recommends:

- All work should be done with the engine stopped.
- Wait until the coolant has completely flowed out of the drain hole.

13

Screw in the coolant drain plug on the engine block. Use a combination spanner #19.



14

Close the coolant drain tap. Use a flat screwdriver.



15

Clean the thermostat housing fasteners. Use a wire brush. Use all-purpose cleaning spray.



- 16** Unscrew the thermostat housing fasteners. Use a combination spanner #10. Use a drive socket #10. Use a ratchet wrench.



- 17** Remove the fastening bolts.



- 18** Loosen the coolant hose clamp. Use a drive socket #7. Use a ratchet wrench.



- 19** Detach the coolant hose.



Replacement: temperature sensor and engine thermostat – MERCEDES-BENZ VARIO Box Body / Estate. AUTODOC recommends:

- Be careful! The coolant may leak.

20 Remove the thermostat together with the housing.



21 Clean the thermostat housing mounting seat. Use a wire brush. Use all-purpose cleaning spray.



22 Remove the thermostat.

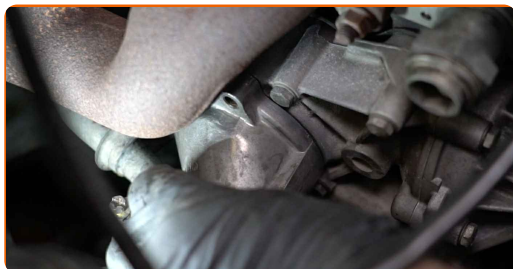


23 Clean the thermostat mounting seat. Use a wire brush. Use all-purpose cleaning spray.

24 Install a new thermostat.



25 Install the thermostat together with the housing.



26 Install the fastening bolts.



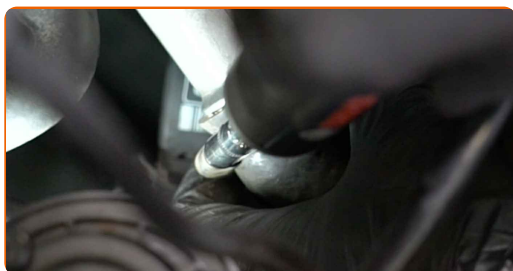
27 Tighten the thermostat housing fasteners. Use a drive socket #10. Use a torque wrench. Tighten it to 12 Nm torque.



28 Attach the coolant hose.



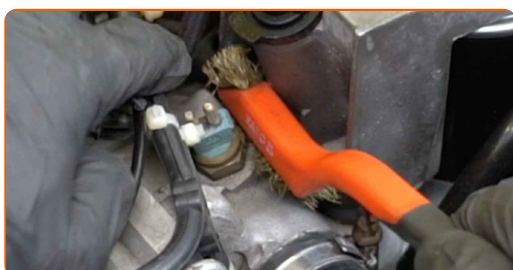
29 Secure the coolant hose clamp. Use a drive socket #7. Use a ratchet wrench.



30 Unplug the connector of the coolant temperature sensor. Use a flat screwdriver.



31 Clean the coolant temperature sensor. Use a wire brush. Use all-purpose cleaning spray.



32 Unscrew the coolant temperature sensor. Use a drive socket #22. Use a ratchet wrench.



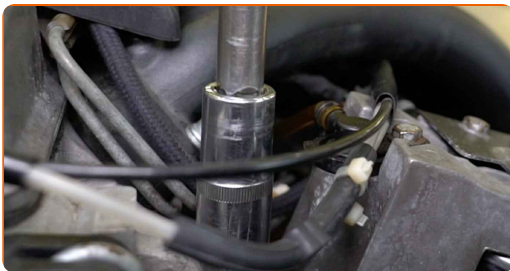
33 Install a new coolant temperature sensor.



Replacement: temperature sensor and engine thermostat – MERCEDES-BENZ VARIO Box Body / Estate. Tip from AUTODOC experts:

- Be sure to use a new O-ring when installing the sensor.

34 Screw in and tighten the coolant temperature sensor. Use a drive socket #22. Use a torque wrench. Tighten it to 25 Nm torque.



35 Treat the coolant temperature sensor connector. Use dielectric grease.



36 Plug in the connector of the coolant temperature sensor.



37 Remove the microfibre towel from the throttle body.



38 Install the air intake hose and secure it.



39 Tighten the air filter hose clamps. Use a drive socket #7. Use a ratchet wrench.



40 Remove the coolant reservoir cap.



41 Insert the funnel.



42

Pour coolant in the coolant reservoir.



AUTODOC recommends:

- Only use the coolant recommended by the manufacturer.
- The coolant level should be at the MAX mark.
- Wait until the air goes out of the system.

43

Run the engine for a few minutes.

Replacement: temperature sensor and engine thermostat – MERCEDES-BENZ VARIO Box Body / Estate. Professionals recommend:

- This should be done in order to remove residual air from the cooling system and to check if the components are operating correctly.

44

Shut off the engine.

45

Install the coolant reservoir cap.



46

Screw on the coolant reservoir cap.



47

Remove the fender protection cover.

48

Close the hood.

WELL DONE! 

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