



N63R - VALVETRONIC ACTUATOR POSITION FAULTS CAUSED BY POOR HARNESS CONNECTION

MODEL

G12 (7 Series) With the N63R engine
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SITUATION

The Service Engine Soon (MIL) Lamp is on and a “Drivetrain Malfunction” Check Control warning may be displayed.

CAUSE

A connector on the engine wiring harness is not correctly locked or there is a problem with the pin contacts resulting in sporadic connection error.

Any of the following Valvetronic faults may be stored:

- 136608 - Valvetronic servomotor 2, position sensors, signal: Not plausible
- 136408 - Valvetronic servomotor 2, position sensors, signal: Short circuit or open circuit
- 135808 - Valvetronic servomotor 1, position sensors, signal: Not plausible
- 135A08 - Valvetronic servomotor 1, position sensors, signal: Short circuit or open circuit

These additional faults for bank 2 may also be stored:

- 135B10 Valvetronic servomotor 2, triggering phase U: Line break
- 135B11 Valvetronic servomotor 2, triggering Phase V: line break
- 135B12 Valvetronic servomotor 2, triggering Phase W: line break

Any of the following consequential faults would be set as a result of the Valvetronic problem:

- 102902 air mass 2, plausibility: air mass too low
- 120408 boost pressure control: shutdown due to reaction
- 120908 boost control 2: shutdown due to reaction
- 107001 throttle angle 2 - absolute pressure suction pipe 2, comparison: pressure too high

Additional misfire faults are also possible:

- 140001 - Misfires, several cylinders: injection is switched off
- 140501 - Misfire, cylinder 5: injection is switched off
- 140601 - Misfire, cylinder 6: injection is switched off
- 140701 - Misfire, cylinder 7: injection is switched off
- 140801 - Misfire, cylinder 8: injection is switched off

CORRECTION

Troubleshoot to identify the cause of the wiring harness contact problem.

PROCEDURE

Follow all of the recommended test plans using only the latest version of ISTA. Versions prior to 3.56 will not provide the correct test plan paths for many of the stored fault code patterns.

The following steps must also be followed:

1. Check the DME connectors for water ingress.

Is there evidence of water ingress?

YES—refer to SI B12 36 16.

NO – continue to next step.

2. a. For vehicles produced up to 3/31/2016:

Replace the Valvetronic wiring harness. Go to step 3.

2. b. For vehicles produced 4/1/2016 and later:

Check that the connector on the Valvetronic servomotor (see attachment) is completely engaged and locked (this is the most likely cause).



Note: A connector which is not engaged completely can lead to sporadic fault patterns

and the servomotor not reaching the end position.

- **Have the faults gone away?**
 - YES- the repair is complete.
 - NO- replace the Valvetronic wiring harness. Go to step 3.
3. Check the fault memory.

Did the faults return after the Valvetronic wiring harness was replaced?

YES- replace the Valvetronic servomotor. The Valvetronic servomotor is not normally the

problem.

NO- the repair is complete.

WARRANTY INFORMATION

This service information bulletin provides technical, diagnostic and/or repair-related information.

Eligible and Covered Work/Repairs

To submit a claim for the repair of a verified defect in materials or workmanship, please following the established and applicable warranty policy and procedures together with the using corresponding defect code and labor operations provided in the KSD2.

ATTACHMENTS

View PDF attachment [VVT_connector](#).

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