



THERMOSTAT FAULTS (B-ENGINES)

MODEL

F48 (X1)

SITUATION

The Service Engine Soon light is on. A Check Control message for “Engine overheated” and or “Exercise caution!” may also display.

The following fault codes may be stored in the DME:

- 1D2401 - Characteristic map thermostat, actuation: Short circuit to B+
- 1D2402 - Characteristic map thermostat, actuation: Short circuit to ground
- 1D2404 - Characteristic map thermostat, actuation: Line disconnection

During diagnosis the coolant may be found to be discolored.

CAUSE

Insulation on the wiring for the map activation thermostat (heating element) may be damaged. Exposed wiring may allow coolant to enter the harness. This may cause damage to the heating element.

CORRECTION

Follow Repair Instruction 11 16 550 “Removing and installing alternator bracket” (B48A, B46A). Remove the alternator bracket (water pump and thermostat are bolted to the bracket) and remove the water pump/thermostat to check for corrosion or signs of electrolysis (electric current transferring through the coolant to aluminum bracket).

Refer to the attachment “Inspecting the thermostat.pdf” for identifying a failed map thermostat.

- If there are no signs of corrosion or electrolysis of the coolant and thermostat, only replace the thermostat (including alternator bracket with t-stat and water pump).
- If there are signs of corrosion and electrolysis, replace the engine:
 - o Submit a TC case to the TC Engine Group for further assistance prior to replacing the engine.

PARTS INFORMATION

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Part Number	Description	Quantity
11 51 8 601 366*	Water pump, thermostat and support	1
82 14 1 467 704	Antifreeze	As needed
83 19 0 404 517	Loctite 5970 liquid sealer	As needed

*Only needed if there is no contamination in the engine cooling system

WARRANTY INFORMATION

Covered under the terms of the BMW New Vehicle Limited Warranty for Passenger Cars and Light Trucks or the BMW Certified Pre-Owned Program.

Defect Code:	1153129600	
Labor Operation:	Labor Allowance:	Description:
00 00 006	Refer to KSD2	Performing "vehicle test" (with vehicle diagnosis system – checking faults) (Main work)
And:		
61 21 528	Refer to KSD2	Connect an approved battery charger/power supply(indicated in KSD2 as "Charging battery")
And:		
11 53 500	Refer to KSD2	Removing and installing/replacing the coolant thermostat
Or:		
11 53 700	Refer to KSD2	Removing and installing/replacing the coolant thermostat (Coolant already drained)

If you are using a Main labor code for another repair, use the Plus code labor operation 00 00 556 instead.

And:

Sublet – Bulk Materials

		Reimbursement for the repair-
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Sublet Code 4	See sublet reimbursement calculation below	related bulk materials (BMW part number(s), please do not use the part numbers for claim submission)
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Sublet reimbursement calculation for claiming the “used quantities” of repair-related bulk materials (BMW part numbers) is at dealer net plus your center’s handling.

MINI Antifreeze/Coolant: Claim the amount needed to replace what was drained with a “50/50 coolant/water solution” at dealer net plus handling (MINI Bulk Part Number)

Enter this material cost in sublet and itemize the amount on the repair order and in claim comment section.

Consequential Repair(s)

When other or additional work and/or parts are required as a direct result of the issue being addressed in this bulletin, claim these items under the defect code listed above together the applicable labor operations listed in KSD2.

Overlapping Labor – Associated and/or Other Repairs

If invoicing KSD2 flat rate labor operation codes for the additional repair work results in overlapping labor being claimed, please invoice work time labor operation 00 50 000 for the additional time (FRU) minus the overlap instead.

Work time labor operation code 00 50 000 is not considered a Main labor operation.

On the repair order and in the claim comment section, please identify the labor operations that labor operation code 00 50 000 replaces and itemize the claimed FRU amount.

Associated Repairs: When work time labor operation 00 50 000 is used as an extension of the repair outlined in this bulletin, a separate defect code and punch time(s) are not required.

Other Repairs: When work time labor operation 00 50 000 is used for work that will be claimed under a different defect code, separate punch time(s) are required.

ATTACHMENTS

View PDF attachment [Inspecting the thermostat F48](#).

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