

SB-10052366-8683

SI B64 05 13
Heating and Air Conditioning

May 2013
Technical Service

SUBJECT

HV Battery Expansion Valve Sticking

MODEL

F02H (ActiveHybrid7)

F10H (ActiveHybrid5)

F30H (ActiveHybrid3)

SITUATION

The high-voltage battery is cooled by refrigerant as part of the vehicle's AC system. It is regulated using an expansion valve at the base of the battery itself. This expansion valve can become stuck in the open position, either intermittently or permanently.

Fault code **21F107 – Cooling valve: valve couldn't be closed** will be stored in the SME.

CAUSE

1. Excess material from the manufacturing process can become lodged in the valve, causing it to stick open.
2. The diagnostic software in the SME control unit is not robust enough and can lead to a fault being set when a particular threshold is reached, despite the fact that the valve is not actually sticking.

PROCEDURE

Regardless of whether the fault is permanent or intermittent, the expansion valve must be replaced and, if necessary, the vehicle software updated.

If the vehicle I-level is below 13-07-501, program the vehicle, including a complete vehicle coding, using ISTA/P 2.50.0 or a more recent version.

Note that ISTA/P will automatically reprogram and code all programmable control modules that do not have the latest software.

For information on programming and coding with ISTA/P, refer to Centernet / Aftersales Portal / Service / Workshop Technology / Vehicle Programming.

PARTS INFORMATION

Part Number	Description	Quantity
64 50 9 263 429	Expansion Valve	1
83 19 2 221 349	R134a	As needed

WARRANTY INFORMATION

Covered under the terms of the BMW New Vehicle Limited Warranty or the BMW Certified Pre-Owned Program.

Defect Code:	64 50 04 76 00		
Labor Operation:	Labor Allowance:	Description:	
00 00 006	Refer to KSD2	Performing “vehicle test” (with vehicle diagnosis system – checking faults)	
and if necessary, also			
61 21 528	Refer to KSD2	Charging battery	
and			
64 51 533	Refer to KSD2	Removing and installing expansion valve for high-voltage battery unit (includes disconnecting high-voltage system and discharging, evacuating and filling air conditioner)	
and			
61 00 730	Refer to KSD2	Programming/encoding control unit(s)	
and if necessary, also			
Sublet Code 4	See sublet reimbursement calculation below	Reimbursement for the top-up quantity of R134a when the recovered quantity is insufficient (BMW bulk qty P/N 83 19 2 221 394 – 30lb cylinder. Do not use this part number for claim submission)	

Labor operation code 00 00 006 is a Main labor operation. If you are using a main labor code for another repair, use the plus code labor operation 00 00 556 instead.

Refer to KSD2 for the corresponding flat rate unit (FRU) allowance. Enter the Chassis Number, which consists of the last 7 digits of the Vehicle Identification Number (VIN). Click on the “Search” button, and then enter the applicable flat rate labor operation in the FR code field.

If a control module was working properly and/or had no related faults stored prior to vehicle programming and it fails to program correctly or requires initialization, this additional work must be claimed with separate labor operations under the defect code listed above; refer to KSD2.

Sublet calculation: Reimbursement for the top-up quantity of R134a when the recovered quantity is insufficient (BMW bulk qty P/N 83 19 2 221 394 – 30lb cylinder) at dealer net plus handling. Enter this material cost in sublet and itemize the amount in the claim comment section.

Note: Locally sourced R134a is not eligible for markup.