



FAULT 118002 - MIXTURE TOO RICH SETS DURING WINTER WITH COLD AMBIENT TEMPERATURES

MODEL

F48 (X1)

i8 (I12)

With the B38T and B46O engines

SITUATION

The Service Engine Soon (MIL) light is on with the following fault stored in the DME.

- Fault: 118002 – Mixture too rich

In the situation being described, the fault is primarily stored during the cold winter months along with the use of winter fuel.

Various other causes for a rich mixture fault are possible and should not be overlooked.

CAUSE

- DME software diagnostic is too sensitive
- This situation is most likely to occur if the driving profile is one of frequent cold engine starts and/or primarily short distance trips (idle / low load operation) where full engine operating temperature is not reached.
- Due to the lower engine oil temperatures crankcase vapors that contain a higher fuel content are not completely drawn off via the crankcase ventilation system.
- A false DME adaptation routine could then lead to this fault being set.

PROCEDURE

This situation remains under technical analysis and an improved DME software diagnostic is being planned for a future ISTA Next release

Until then the following procedure is recommended

Do not replace any parts unless a definite failure is identified during diagnosis.

Perform diagnosis using the latest version of ISTA Next.

1. Check the current mixture adaptation: Path:

Path: ECU function - DME / Diagnostic scan / 721 Mixture Adaptation



Note: Let the engine idle at operating temperature. If the mixture adaptation drops

significantly below 1.0 it indicates a rich mixture condition.

2. Replace the engine oil and filter on a warm engine.

Refer to [SI B11 01 15](#): Engine Oil Quick Reference and Drain Plug Torque

Do not reset the CBS for engine oil service unless the oil service shows to be currently recommended or due on the key reader.

3. For vehicles produced up to 11/2015 check the current software integration level.

Programming is **only** required if the current integration level is earlier than these targets.

F48 (X1)	F056-15-11-500 or higher
I12 (I8)	I001-15-11-500 or higher

When programming always use the latest version of ISTA Next or ISTA/P.

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

Always connect a BMW approved battery charger/power supply ([SI B04 23 10](#)).

PARTS INFORMATION

Part Number	Description	Quantity
11 42 8 570 590	Oil filter	1
83 21 2 365 954	BMW Original Engine Oil LL14FE+, 0W-20	B38 – 4.25 liters
Or		
B46 – 5.25 liters		

WARRANTY INFORMATION

Covered under the terms of the BMW New Vehicle Limited Warranty for Passenger Cars and Light Trucks.

When the engine oil service task does not show “Recommended, “Due” or does

not “qualify” to be performed based on the “60-day Bundling ([SI B01 06 13](#)) or the BMW Maintenance Program has expired.

Defect Code:	1042315900	
Labor Operation:	Labor Allowance:	Description:
00 00 556	Refer to KSD2	Performing “vehicle test” (with vehicle diagnosis system – checking faults) (Plus work)
And:		
61 21 528	Refer to KSD2	Connect an approved battery charger/power supply(indicated in KSD2 as “Charging battery”)
And, as necessary:		
61 00 006	Work time (WT)	Performing vehicle diagnosis – test module

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

And, for the:

X1 (F48):

Labor Operation:	Labor Allowance:	Description:
61 21 528	Refer to KSD2	Connect an approved battery charger/power supply(indicated in KSD2 as “Charging battery”)

Or, for the:

I8 (I12):

Labor Operation:	Labor Allowance:	Description:
61 25 910	Refer to KSD2	Recharging high-voltage battery unit (to high voltage charging unit)

And, as necessary:

Labor Operation:	Labor Allowance:	Description:

61 00 006	Work time (WT)	Performing vehicle diagnosis – test module
And:		
11 99 000	2 FRU (X1 – F48); 4 FRU (i8 – I12)	Change the engine oil and filter (without CBS reset an and without performing the Standard Scope procedure) (Plus work – Vehicle is already in the workshop)

Work time labor operation code 61 00 006 is not considered a Main labor operation; however, it does require an individual punch time and an explanation on the repair order and in the claim comments section.

Work time labor operation code 11 99 000 is not considered a Main labor operation. Also, since the “work time” FRU allowance to be claimed is specified, a separate punch time is not required.

And:

Sublet – Engine Oil

Sublet Code 4	See sublet reimbursement calculation below	Reimbursement for the engine oil (BMW part number 83 21 2 365 954, please do not use this part number for a non-maintenance claim submission)
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Sublet reimbursement calculation for claiming the engine oil (BMW part number) is at dealer net plus your dealer’s handling.

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

And, for:

Vehicles produced up to 11/2015 with a target integration level earlier than Xxxx-15-11-500 or higher.

Labor Operation:	Labor Allowance:	Description:
61 00 730	Refer to KSD2	Programming / encoding control unit(s)

Or:

When the engine oil service task does show “Recommended, “Due” or does “qualify” to be performed based on the “60-day Bundling ([SI B01 06 13](#)) and the

BMW Maintenance Program is active.

Covered under the terms of the BMW Maintenance Program for Passenger Cars and Light Trucks as applicable.

Engine Oil Service Task - BMW Maintenance Program

Perform the Standard Scope (**Main work: 00 00 105**) and Engine Oil Service (**Associated work: 00 00 610**) tasks and "Reset" the CBS data.

Submit and claim for these maintenance service tasks under the applicable BMW Maintenance Program defect codes that apply.

And:

Covered under the terms of the BMW New Vehicle Limited Warranty for Passenger Cars and Light Trucks.

Defect Code:	1042315900	
Labor Operation:	Labor Allowance:	Description:
00 00 556	Refer to KSD2	Performing "vehicle test" (with vehicle diagnosis system – checking faults) (Plus work)
And:		
61 21 528	Refer to KSD2	Connect an approved battery charger/power supply(indicated in KSD2 as "Charging battery")
And, as necessary:		
61 00 006	Work time (WT)	Performing vehicle diagnosis – test module

Work time labor operation code 61 00 006 is not considered a Main labor operation; however, it does require an individual punch time and an explanation on the repair order and in the claim comments section.

And, for:

Vehicles produced up to 11/2015 with a target integration level earlier than Xxxx-15-11-500 or higher.

Labor Operation:	Labor Allowance:	Description:

61 00 730

Refer to KSD2

Programming / encoding control
unit(s)

Refer to KSD2 for the corresponding flat rate unit (FRU) allowances.

Vehicle Programming and Coding

When ISTA/P automatically reprograms and codes all the vehicle's control modules that currently do not have the latest software, and if control module failures occur during this programming procedure:

- Please claim this consequential control module-related repair work under the defect code listed in this bulletin with the applicable KSD2/AIR labor operations.

Other Repairs

Control module failures that occurred prior to this programming procedure and/or additional work is performed as a result of performing the ISTA diagnostics and related test plans:

- When covered under an applicable limited warranty, claim the control module-related and/or other repair work using the applicable defect code and labor operations in KSD2/AIR.

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