



SI M11 01 17  
Engine

January 2018  
Technical Service

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

New information provided by this revision is preceded by this symbol  .

This Service Information bulletin supersedes SI M11 01 17 dated December 2017.

### What's New:

- The Warranty Information section has been updated.

### MODEL

F54 (Cooper Clubman)	F54 (Cooper S Clubman)	F55 (Cooper Hardtop 4 door)	F55 (Cooper S Hardtop 4 door)
F56 (Cooper Hardtop 2 door)	F56 (Cooper S Hardtop 2 door)	F56 (John Cooper Works Hardtop)	F57 (Cooper Convertible)
F57 (Cooper S Convertible)	F57 (John Cooper Works Convertible)	F60 (Cooper Countryman)	F60 (Cooper S Countryman)
F54 (JCW Clubman)	F56 (JCW Hardtop 2 door)	F57 (JCW Convertible)	

With the B36, B38, B46, and B48 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 only 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

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: 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 [M11 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. Programming is **only** required if the integration level is earlier than the target level.

For vehicles equipped with B36 engines:

Model	Target
F54 (Cooper Clubman)	F056-17-11-523 or higher
F55 (Cooper Hardtop 4 door)	
F56 (Cooper Hardtop 2 door)	
F57 (Cooper Convertible)	
F60 (Cooper Countryman)	

For vehicles equipped with B38 and XB2H engines:

Model	Target
F55 (Cooper Hardtop 4 door)	F056-17-11-523 or higher
F56 (Cooper Hardtop 2 door)	
F60 (Cooper S E Countryman)	

For vehicles equipped with B46 and B48 engines: The software correction will be implemented in **ISTA Next 4.09.2x** which is expected to be released mid-December.

Prior to the release of **ISTA Next 4.09.2x** an IRAP solution is available.

- Program the vehicle using **ISTA Next 4.08.1x**
- Submit a PuMA case with the title **“IRAP B46/B48 mixture rich”**
- Connect to IRAP Next client immediately upon submitting the PuMA case

- The IRAP specialist will respond when completed

**For further information on IRAP Next usage and functionality, refer to SI [M09 01 16](#).**

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

**Always connect a MINI-approved battery charger/power supply (SI [M04 08 09](#)).**

For information on programming and coding with ISTA, refer to CenterNet / TIS / Technical Documentation / Programming and Diagnostics / Programming Documentation.

## PARTS INFORMATION

Part Number	Description	Quantity
11 42 8 570 590	Oil filter	1
83 21 2 365 955	MINI Original Engine Oil LL14FE+ 0W-20	B36/B38 – 4.25 liters
Or		
B46/B48 – 5.5 liters		



## WARRANTY INFORMATION

Covered under the terms of the MINI New Passenger Car Limited Warranty.

<b>Defect Code:</b>	<b>1060016000</b>	
<b>Labor Operation:</b>	<b>Labor Allowance:</b>	<b>Description:</b>
00 00 006	Refer to KSD2	Performing “vehicle test” (with vehicle diagnosis system – checking faults) (Main work)
Or:		
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 (including Standard Scope labor operation 00 00 105), then use the Plus code labor operation 00 00 556 instead of 00 00 006.

And, 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 [M01 06 13](#)) or the MINI Maintenance Program is expired.**

Labor Operation:	Labor Allowance:	Description:
11 99 000	3 FRU	Work time to replace the engine oil and filter on the warmed engine without resetting the CBS data

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 (MINI part number 83 21 2 365 955, 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 (MINI 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.

Or, when the vehicle has a:

**Active MINI Maintenance Program and the engine oil service task does show “Recommended, “Due” or “qualifies” to be performed based on the “60-day Bundling (SI [M01 06 13](#)):**

- Perform the Standard Scope (Main work), the engine oil service and any connected tasks that apply; and
- “Reset” the CBS data.

Submit and claim for the engine oil service (labor and parts) and any related tasks under the applicable MINI Maintenance Program Defect Code(s).

And, if the:

**Vehicle is not at the specified “Target” integration level or higher as stated in the Procedure section**

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

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

During the same workshop visit, if a vehicle also requires another Technical Campaign or repair that also includes programming and encoding the control units, the programming procedure may only be invoiced one time.

#### Vehicle Programming and Coding

- The programming procedure automatically reprograms and encodes all vehicle control modules which do not have the latest software i-level. If one or more 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.
- B. For control module failures that occurred “prior” to performing this programming procedure:
- When “covered” under an applicable limited warranty, claim this control module-related repair work using the applicable defect code and labor operations in KSD2/AIR.

### **Other Repairs**

Under the terms of the BMW New Vehicle Limited Warranty, if other eligible and covered work is performed as a result of performing the ISTA diagnostics and the related test plans, claim this work with the defect code and labor operations from the KSD2/AIR that apply (including diagnosis with separate punch times, when applicable).

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