

**SUBJECT****Engine Intermittently Will Not Start at Very Low Outside Temperatures****MODEL**

F25 (X3 xDrive and sDrive)

F26 (X4 xDrive)

With the N20, N52T, and N55 engines

Produced to May 2015

F15 (X5 xDrive and sDrive)

F16 (X6 xDrive and sDrive)

With the N55 engine

Produced to May 2015

SITUATION

The engine will not start at times at very low outside temperatures (**-4°F/-20°C and colder**); however, the battery state of charge is correct and the starter turns the engine over properly.

This starting difficulty is most likely to occur after shutting the engine off briefly for 5 or 10 minutes, such as when refueling.

The following faults are most likely stored in the DME:

N20 engine:

- 1B5202 – Terminal 15N_1: No voltage
- 1B5302 – Terminal 15N_2: No voltage
- 1B5402 – Terminal 15N_3: No voltage

N52T engine:

- 1B5102 – Terminal 15N_3: line from CAS, electric: short circuit to earth
- 1B5501 – Terminal 15N: No voltage
- 1F0601 – Terminal 15N from CAS, switching delay: Switches too late

N55 engine:

- 1B5202 – Terminal 15N_1: No voltage
- 1B5302 – Terminal 15N_2: No voltage
- 1B5402 – Terminal 15N_3: No voltage

In addition, other engine electronic power supply-related faults could be stored for components such as VANOS solenoids, camshaft sensors, engine oil pressure sensor, engine oil pressure control valve, engine oil level sensor, etc.

CAUSE

At very low outside temperatures, low levels of moisture present inside the power distribution module (PDM) can freeze the internal micro-relay contacts.

CORRECTION

F25 and F26

Replace the PDM module and install the cover (if not already present) with the plastic rivet.

Important:

Follow the instructions in the attachment. This will help ensure that the power supply wiring does not contact the cover.

F15 and F16

Replace the PDM module and install the cover (if not already present) using the existing mounting screw.

Important!

The replacement PDM module part number listed below is only to be used in the case of a failure at very low ambient temperatures, as described above.

All other repairs requiring a PDM replacement must be done using P/N 12 63 7 591 534 and/or as specified in ETK.

PARTS INFORMATION

Part Number	Description	Quantity
12 63 8 645 514	Power Distribution Module	1

And, if not already installed:

Part Number	Description	Quantity
12 90 8 640 108	Covering cap (F15/F16)	1
Or:		
12 90 8 645 227	Covering cap (F25/F26)	1
51 71 8 195 811	Expanding rivet (F25/F26)	1

WARRANTY INFORMATION

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

Defect Code:	12 63 13 83 00	
Labor Operation:	Labor Allowance:	Description:
00 00 006	Refer to KSD2	Performing "vehicle test" (with vehicle

		diagnosis system – checking faults)
and		
61 21 528	Refer to KSD2	Connect an approved battery charger / power supply (indicated in KSD 2 as Charging battery)
and		
12 63 586	Refer to KSD2	Replacing the Power distribution module

And, for

F25 and F26 Vehicles Only

Labor Operation:	Labor Allowance:	Description:
12 99 000	1 FRU	Work time to position the harness (F25/F26 only)

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.

Even though work time labor operation code 12 99 000 ends in “000,” it 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.

ATTACHMENTS

View PDF attachment [B123014 F25 F26 PDM Installation](#).

[Copyright ©2014 BMW of North America, Inc.]