



NOISE FROM ENGINE WHEN STARTING

MODEL

F30 PHEV (330e iPerformance)	G12 PHEV (740e xDrive iPerformance)	G30 PHEV (530e iPerformance)
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Vehicles produced from SOP to 3/14/18

SITUATION

Noise when starting the engine.

Engine making a rattling/grinding noise near the 12 volt starter motor.

The following fault has been stored in the DME fault memory:

- 21A511 - Start system, pinion starter motor: Timeout

The following faults are also possible:

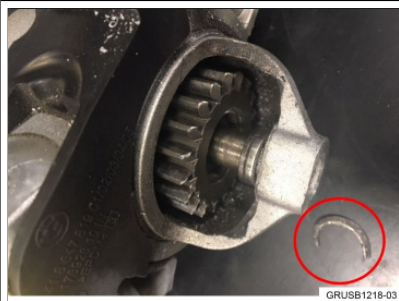
- 21A504 - EGS, separation clutch: jammed open
- 21A50A - Start system, pinion starter: Timeout successively occurred multiple times
- 21A510 - Start system, EME: Timeout

Consequential damage to flywheel (Torsional vibration damper) and automatic transmission may have also occurred.

CAUSE

The starter motor is broken. It may be indicated by:

- The circlip on the pinion being broken



- The bearing shield of the starter motor being broken



CORRECTION

Replace the starter motor and evaluate for consequential damage.

PROCEDURE

For conditions that are similar to the situation described:

Follow the attached Starter Motor Failure Repair procedure (B120918_Attachment.pdf).

PARTS INFORMATION

Part Number	Description	Quantity
12 41 8 691 765	Exchange starter motor – index 03 or higher	1
Refer to EPC	Automatic transmission Eh	1 (if required)
Refer to EPC	Torsional vibration damper	1 (if required)

Bulk Materials

Part Number	Description	Quantity
83 22 2 289 720	ATF 3+ (1L)	As needed

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:	1241900100	
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Completion “before” vehicle delivery to the customer or the vehicle is already in the workshop (Plus work)

Labor Operation:	Labor Allowance:	Description:
00 66 553	16 FRU (F30); 21 FRU (G12); 11 FRU (G30); 15 FRU (G30 xDrive)	Vehicle test and replace starter motor
Or:		
	21 FRU (F30); 26 FRU (G12); 16	

00 66 554	FRU (G30); 20 FRU (G30 xDrive)	Vehicle test, replace starter motor, program and encode control units
Or:		
00 66 555	60 FRU (F30); 78 FRU (G12); 61 FRU (G30); 71 FRU (G30 xDrive)	Vehicle test, replace starter motor and the torsional vibration damper
Or:		
00 66 556	64 FRU (F30); 82 FRU (G12); 65 FRU (G30); 75 FRU (G30 xDrive)	Vehicle test, replace starter motor, torsional vibration damper and program and encode control units.
Or:		
00 66 557	70 FRU (F30); 88 FRU (G12); 71 FRU (G30); 81 FRU (G30 xDrive)	Vehicle test, replace starter motor, torsional vibration damper and automatic transmission.
Or:		
00 66 558	74 FRU (F30); 92 FRU (G12); 74 FRU (G30); 84 FRU (G30 xDrive)	Vehicle test, replace starter motor, torsional vibration damper, automatic transmission and program and encode control units
And, when applicable:		
00 66 559	13 FRU (G12); 11 FRU (G30, (G30 xDrive)	Associated (additional) work with "active stabilizer" for torsional vibration damper or replace automatic transmission repairs (Applicable repairs and for the G12, G30 and G38 with this option only)

Or:

Completion after vehicle delivery to the customer (Main work)

Labor Operation:	Labor Allowance:	Description:
00 66 038	16 FRU (F30); 21 FRU (G12); 11 FRU (G30); 15 FRU (G30 xDrive)	Vehicle test and replace starter motor
Or:		
00 66 039	21 FRU (F30); 26 FRU (G12); 16 FRU (G30); 20 FRU (G30 xDrive)	Vehicle test, replace starter motor, program and encode control units
Or:		
00 66 040	60 FRU (F30); 78 FRU (G12); 61 FRU (G30); 71 FRU (G30 xDrive)	Vehicle test, replace starter motor and the torsional vibration damper

Or:		
00 66 041	64 FRU (F30); 82 FRU (G12); 65 FRU (G30); 75 FRU (G30 xDrive)	Vehicle test, replace starter motor, torsional vibration damper, program and encode control units.
Or:		
00 66 042	70 FRU (F30); 88 FRU (G12); 71 FRU (G30); 81 FRU (G30 xDrive)	Vehicle test, replace starter motor, the torsional vibration damper and automatic transmission.
Or:		
00 66 043	75 FRU (F30); 93 FRU (G12); 76 FRU (G30); 86 FRU (G30 xDrive)	Vehicle test, replace starter motor, torsional vibration damper, automatic transmission and program and encode control units
And, when applicable:		
00 66 559	13 FRU (G12); 11 FRU (G30, G30 xDrive)	Associated (additional) work with “active stabilizer” for torsional vibration damper or replace automatic transmission repairs (Applicable repairs and for the G12, G30 and G38 with this option only)

And, also as applicable:

Sublet – Bulk Materials

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

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

Vehicle Programming and Encoding (When applicable)

- A. 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.

Please explain this additional work (The why and what) on the repair order in the claim comments section.

- 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 (including diagnosis) in KSD2/AIR.



ATTACHMENTS

View PDF attachment [B120918 Attachment](#).

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STARTER MOTOR FAILURE REPAIR

Procedure:

	<p>1. Remove the starter motor</p> <p>2. Check transmission housing for stress cracks or visible damage (similar to shown).</p> <p>Were stress cracks/damage discovered on the transmission?</p> <p>YES- Replace both the flywheel and transmission as detailed in step 4.</p> <p>NO – Go to next step.</p>
	<p>3. Check flywheel for damage (similar to shown).</p> <p>Was flywheel only damaged?</p> <p>YES- Replace flywheel only, as detailed in next step.</p> <p>NO – Go to Step 5.</p>

4. Replace the damaged parts as specified in Step 2 or Step 3 above, following the appropriate repair instructions:

Flywheel - 11 22 000 - remove and install/replace flywheel

Transmission - 24 00 162 - install exchange transmission (GA8P75HZ) (B48 hybrid drive)

5. Verify appropriate part is available for starter replacement using chart below.



Note: Improved parts were not assigned new numbers in the Electronic Parts Catalog (EPC). Parts are differentiated by the production index located directly below the part number (as shown below).



Starter Revision Index Application – improved part - All Models

Part Description	Part Number	Revision index	
		Use Only	Do Not Use
Exchange starter motor	12 41 8 691 765	03 or higher	02 or lower

6. Replace the starter following REP 12 41 020 - remove and install/replace starter motor.
7. Check the current I-Level of the vehicle.

Does the vehicles current I-Level conform to that specified in the following table?

Model	Required Target integration level
F30 PHEV (330e iPerformance)	F020-18-03-510 or more recent
G12 PHEV (740e xDrive iPerformance) G30 PHEV (530e iPerformance)	S15A-18-03-510 or more recent

YES- repair is complete

NO - Program the vehicle using ISTA 4.10.1x (F30) or ISTA 4.10.2x (G12, G30) or a more recent version.

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

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

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