



## DIAGNOSING NON FUNCTIONING "eDRIVE"

This Service Information bulletin supersedes SI B12 27 16 **dated November 2016**.

### MODEL

G12 PHEV (740e xDrive iPerformance)	F15 PHEV (X5 xDrive40e)	F30 PHEV (330e)
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### SITUATION

The customer complains that the vehicle will not go into "eDrive", and in some cases "eDrive" is greyed-out in the control display (CID) and is not selectable. Also, there are no pertinent electric drivetrain fault codes that assist with diagnosis.



### CAUSE

Possible 12 volt battery failure, Intelligent Battery Sensor (IBS) failure or MSA deactivation.

### CORRECTION

Diagnose and replace faulty parts.

### PROCEDURE

**Only properly trained personnel, who have passed all applicable technical training courses, should perform any maintenance or repairs on any Hybrid or Electric Vehicle. Work performed by unqualified persons may result in severe injury or damage to the vehicle. Additional information may be found in REP 61 00... Observe safety instructions when handling electric vehicles.**



**Note for brand new vehicles or vehicles with extremely low mileage:** It is

possible that MSA has been deactivated and is preventing "eDrive". In these situations do not follow the procedure below or replace any parts. Please program the vehicle with the most current version of ISTA 4. If "eDrive" is still not functioning, set up the vehicle for IRAP and submit a PuMA case titled "No eDrive". Once the case is received MSA will be activated to restore the "eDrive" function.

In other cases "eDrive" does not function because of a faulty 12 volt battery or IBS, but the battery sensor does not set any faults to indicate it. The diagnosis steps below provide a general diagnostic hint for these situations:

1. Perform a Midtronic test on both 12 volt batteries. Replace if necessary.
2. **Is "eDrive" functioning correctly?**

YES- the vehicle is repaired.

NO- go to step 3.

3. Check the wiring, connections, pins etc. of the IBS on the main and auxiliary 12 volt batteries. Repair any wiring issues found. If there are no issues with the wiring, replace the IBS on the auxiliary battery.

4. **Is “eDrive” functioning correctly?**

YES- the vehicle is repaired.

NO- go to step 5.

5. Replace the IBS on the main 12 volt battery.

6. **Is “eDrive” functioning correctly?**

YES- the vehicle is repaired.

NO- submit a PuMA case for further assistance.

## **WARRANTY INFORMATION**

This Service Information bulletin provides technical diagnostic and/or repair information.

Claims that result from the repair of a “verified defect” are to be submitted by following the established and applicable warranty policy and procedures, together with using the corresponding defect code and labor operations that are provided in KSD2.

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