

**SUBJECT****Check Control Messages Related to Battery Charge During Cold Ambient Temperatures****MODEL**

E60 (5 Series Sedan)

E61 (5 Series Sports Wagon)

E63 (6 Series Coupe)

E64 (6 Series Convertible)

E65, E66 (7 Series Sedan)

E70 (X5)

E71 (X6)

E72 (X6 Hybrid)

E82 (1 Series Coupe)

E88 (1 Series Convertible)

E83 (X3)

E84 (X1)

E85 (Z4 Roadster)

E86 (Z4 Coupe)

E89 (Z4 Roadster)

E90 (3 Series Sedan)

E91 (3 Series Sports Wagon)

E92 (3 Series Coupe)

E93 (3 Series Convertible)

F01, F02 (7 Series Sedan)

F04 (ActiveHybrid 7)

F06 (6 Series Gran Coupe)

F07 (Gran Turismo)

F10 (5 Series Sedan)

F10H (ActiveHybrid 5)

F12 (6 Series Convertible)

F13 (6 Series Sedan)

F15 (X5)

F25 (X3)

F30 (3 Series Sedan)

F30H (ActiveHybrid 3)

F31 (3 Series Sports Wagon)

F32 (4 Series Coupe)

F33 (4 Series Convertible)

F34 (Gran Turismo)

#### SITUATION

On cold days with an outside ambient temperature of less than 15°F, customers may notice a check control message related to the battery that is displayed on the instrument cluster and the control information display.

Under these conditions, the vehicle starts. Various power management faults can be stored:

- 213901 – Power management: Reduction or shutdown of individual electrical consumer
- 8040BD – Reset or deactivation of Terminal 30F
- 8040B9 – De-activation of terminal 30B: Top start capability limit reached
- 8020E8 – Reset or deactivation of terminal 30F
- 800E89 – FRM: start capability limit reached with lights active during stationary mode
- 93076B – Deactivation of terminal 30B: upper start capability limit reached
- 93076A – Deactivation of terminal 15: upper start capability limit reached, but deactivation preventer active
- 93076C – Deactivation of terminal 30B: upper start capability limit reached, but deactivation preventer or legal loads active
- 930769 – Deactivation of terminal 15: upper start capability limit reached

Note: When the outside temperatures drop below 46°F, the charging system is switch to full charge.

#### CAUSE

- The check control message (ID 229) is caused by a heavily discharged battery.
- The check control message is triggered when the current state of charge (SoC) of the battery approaches the minimum SoC that is required to start the vehicle (start capability limit).
- In low outside ambient temperatures, the start capability limit of the vehicle is higher. Therefore it takes

more energy from the battery to start a cold engine.

- Without the early warning of the check control message, the current state of charge would drop below the start capability limit and the vehicle would not start.
- The vehicle's intelligent power management system actively takes measures to increase the charge of the battery, such as increasing idle speed and reducing or shutting down certain electrical consumers.

## PROCEDURE

1. Consult with the customer to find out which conditions the vehicle was in when the check control message was displayed (ambient temperature, parked outside or in a garage, etc.)
2. Perform energy diagnosis to identify why the battery is discharged, and troubleshoot according to the results of the test plan.
3. Troubleshoot all power management faults that are stored in the vehicle.
4. Check the condition of the battery (E-Series vehicles: use the external battery tester; F-Series vehicles: use the Energy Diagnosis test plan). Charge or replace the battery as needed.
5. "Unfavorable Driving Profile" occurs when the vehicle is driven mostly on short trips (less than 3 miles), and the charging system cannot keep up with the discharging of the battery because of low ambient temperatures. For vehicles that are identified as having an "Unfavorable Driving Profile," it is recommended that the customer use a suitable battery trickle charger (5 amps would be recommended in cold climate conditions). All vehicles that are identified with an "Unfavorable Driving Profile" are covered under warranty, as per SI B61 13 05, if the battery needs to be tested, recharged or replaced and the vehicle is still covered under the warranty period.
6. The attached information flyer contains information for the customer.

## WARRANTY INFORMATION

Not applicable.

## ATTACHMENTS

View PDF attachment [B610314 Dealer Information CCM](#).

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