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Service Bulletin

PRELIMINARY INFORMATION

Subject: (EREV) Reduced Propulsion with P0C17 P1B03 Or P0C01 (Drive Motor 1 Only)

Models: 2011- 2015 Chevrolet Volt
2014- 2015 Cadillac ELR

The following diagnosis might be helpful if the vehicle exhibits the symptom(s) described in this PI.

Condition/Concern

During diagnosis, a technician may find P1B03, P0C01, or P0C4E set in history.

Some customers may comment that the Check Engine Light (CEL) illuminated with an "Engine Unavailable" and "Propulsion Power is Reduced" messages on the DIC. The customer may also comment there is rough operation especially with the engine running. The most common DTC for this condition is P1B03.

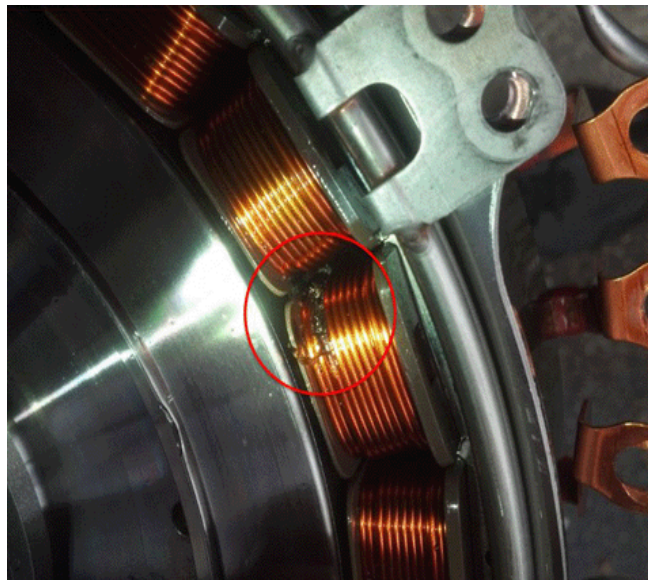
If a P0C17 is set after a vehicle repair and the engine will not start, follow the appropriate instructions below.

Important: If any DTCs set for Drive Motor 2, this PI does not apply.

Recommendation/Instructions

Please review the following when trying to diagnose a vehicle setting P1B03, P0C01, or P0C4E.

Some SI diagnostic procedures may not comprehend the possibility of the Motor 1 Stator as the cause of these DTCs. If one or more of these diagnostics are set, especially on a vehicle with a lifetime fuel economy below 50 mpg and above average annual mileage, inspect the Motor 1 Stator for damage as shown in the pictures below.





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If no damage is found, replace all of the following parts: Motor 1 Position Sensor, Transmission Internal Harness, and Motor 1 Stator (damage may be on windings below the top layer). Replacing the Drive Motor Generator Control Module should only be ordered if the condition persists after replacing these parts.

If the vehicle is not starting and setting an active P0C17 after a repair or reprogramming, this stator condition may also be present. Also check the 3 phase copper ring terminals fasteners for proper torque if they were removed as part of a repair. The P0C17 indicates that the motor control processor cannot properly learn the position sensor due to a lack of proper high voltage and 3 phase current readings.

If both P0C17 and P0C18 are set, a programming event on the high speed bus is required to enable a wide position sensor learn. If a wide sensor learn does not remove the DTC, it may be possible that DC high voltage is not reaching the Drive Motor Generator Control Module, which may indicate a battery contactor malfunction or disconnected High Voltage cable.

Warranty Information

The correction for this concern may be one of several repairs described above. For vehicles repaired under warranty, please use the appropriate warranty labor operation based on the actual cause and repair.

Please follow this diagnostic or repair process thoroughly and complete each step. If the condition exhibited is resolved without completing every step, the remaining steps do not need to be performed.