



Service Bulletin

Bulletin No.: 21-NA-218

Date: December, 2021

TECHNICAL

Subject: Diagnostic Tip on Reduced Propulsion (EREV), Malfunction Indicator Lamp (MIL) Illuminated - DTC P0C17, P1B03 and/or P0C01 Set (Drive Motor 1 Only)

This bulletin replaces PIP5246A. Please discard PIP5246A.

Brand:	Model:	Model Year:		VIN:		Engine:	Transmission:
		from	to	from	to		
Chevrolet	Volt	2011	2015	All	All	All	All
Cadillac	ELR	2014	2016	All	All	All	All
Opel	Ampera	2012	2015	All	All	All	All
Holden	Volt	2013	2015	All	All	All	All

Involved Region or Country	North America, Europe, Australia/New Zealand
Condition	Some customers may comment that the MIL is illuminated with "Engine Unavailable" and "Propulsion Power is Reduced" messages on the DIC. Some customers may also comment that there is rough operation especially with the engine running. The most common DTC for this condition is P1B03. Technicians may find one or more of the following DTCs set in the Engine Control Module (ECM): " P1B03 " P0C01 " P0C4E
Correction	Important: If any DTCs set for Drive Motor 2, this bulletin does not apply. If a P0C17 is set after a vehicle repair and the engine will not start, refer to the Service Procedure below.

Service Procedure

Please review the following when trying to diagnose a vehicle setting.

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 less than 50 mpg (greater than 4.7 L/100 KM) 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.

Parts Information

Causal Part	Description	Part Number	Vehicle	Qty
N/A	Motor 1 STATOR, GEN POSN SEN	24275101	2011-2015 Volt 2014-2016 ELR	1
N/A	HARNESS, A/ TRNS WRG	24267811	2013-2015 Volt 2014-2016 ELR	1
N/A	Motor 1 STATOR, GEN	24263303	2013-2015 Volt 2014-2016 ELR	1
N/A	MODULE, DRV MOT GEN PWR INV	24279726	2011-2015 Volt 2014-2015 ELR	1
N/A	MODULE, DRV MOT GEN PWR INV	24279524	2016 ELR	1

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.

Version	1
Modified	Released December 09, 2021

