



Preliminary Information

PIP5697E DTC P0747 Setting At Engine Shut Down When The Transmission Is In Park/Neutral With No Hydraulic/Mechanical Transmission Concern.

Models

Brand:	Model:	Model Years:	VIN:		Engine:	Transmissions:
			from	to		
Buick	Enclave	2018 - 2019	ALL	ALL	ALL	M3W
Buick	Envision	2018 - 2019	ALL	ALL	ALL	M3T
Buick	LaCrosse	2018 - 2019	ALL	ALL	ALL	M3G
Buick	Regal	2018 - 2019	ALL	ALL	ALL	M3D M3T
Cadillac	XT4	2019	ALL	ALL	ALL	M3H
Chevrolet	Blazer	2019	ALL	ALL	ALL	M3D M3T M3V
Chevrolet	Cruze	2017 - 2019	ALL	ALL	ALL	M3D
Chevrolet	Equinox	2018 - 2019	ALL	ALL	ALL	M3D
Chevrolet	Malibu	2017 - 2019	ALL	ALL	ALL	M3E
Chevrolet	Traverse	2018 - 2019	ALL	ALL	ALL	M3V
GMC	Terrain	2018 - 2019	ALL	ALL	ALL	M3H M3U

Involved Region or Country	North America and NA Exports.
Condition	DTC P0747 may set in the TCM during engine shut-down when the transmission is in Park/Neutral without any hydraulic/mechanical concerns with the transmission. This DTC will be current at time of engine start-up and DTC will transition to History only after 6-7 upshift.
Cause	The concern may be that the BCM is not continuing to supply ignition voltage (<i>within 4.0 volts of B+</i>) to the TCM/ECM after engine running shut down to allow the modules to perform the power-down self test. If ignition voltage (<i>within 4.0 volts of B+</i>) is not present from the BCM connector X4, terminal 22, for a minimum of 15 seconds after the ignition is cycled off, the TCM/ECM modules will not complete the power down self test, and then during the next engine cranking (start-up) will see data from wherever the self test stopped, typically will see engine RPMs during cranking, and may set DTC P0747 in the TCM.

Correction:

With the Key On Engine OFF, disconnect the Keyless Entry Control Module (KECM) and verify ignition voltage is within 4.0 volts of B+ at the BCM connector X4, terminal 22.

**** Note **** Use the VIN of the vehicle to locate the BCM schematic for circuit 5985 in SI : Power and Signal Distribution / Data Communications / Schematic and Routing Diagrams / Data Communication Schematics / High Speed GMLAN Communication Enable -- (May read Accessory Wake up).

Inspect the TCM and ECM connector for possible terminal connection concern, and/or for possible open in circuit 5985 to the TCM and ECM.

If no fault is found with circuit 5985, and/or no fault is found for a terminal connection concern at the BCM/ECM/TCM connectors, then replace and re-program the BCM.

**** Note **** B+ voltage minus 4 volts variation. Example : if battery voltage is 12 volts then the circuit should never be below 8 volts.

* This P/I will be updated or advanced to a TSB, if needed.

Version History

Version	6
Modified	01/08/2020 - Created on. 03/27/2020 - Updated to add the 2020 Encore GX. 03/30/2020 - Updated to add the 2021 Trailblazer. 06/16/2020 - Revised to removed model years, and to improve diagnostic direction. 06/26/2020 - Revised to remove the Encore and to add note for clarification of minimum voltage reading. 07/15/2020- Revised to update repair direction to include a SI path to find the BCM schematic for circuit 5985.

