Service Bulletin

Bulletin No.: 23-NA-102

Date: January, 2025

TECHNICAL

Subject: Drivability Concerns, Hesitation, Transmission Shifting Rough/Harsh, Malfunction Indicator Lamp (MIL) Illuminated - Multiple DTCs Set

Brand:	Model:	Model Year:		Breakpoint Date:		Engine:	Transmission:
		from	to	from	to		
Cadillac	Escalade	2023	2024			LM2	
Chevrolet	Silverado 1500 - New (RPO J22, VIN Digit 5 = A/D)	2022	2022			LM2	
	Silverado 1500	2023	2025			LZ0	
	Suburban		2024			LM2	
			2025			LZ0	
	Tahoe		2024			LM2	
			2025			LZ0	
GMC	Sierra 1500 - New (RPO J22, VIN Digit 5 = H/U)	2022	2022			LM2	
	Sierra 1500	2023	2025			LZ0	
	Yukon Models		2024			LM2	
			2025			LZ0	

Involved Region or Country	North America, Europe, Kazakhstan, Uzbekistan, Russia, Middle East, Iraq, Israel, Palestine, Argentina (Mercosur), Brazil (Mercosur), Bolivia (West), Chile (West), Colombia (West), Ecuador (West), Paraguay (West), Peru (West), Uruguay (West), Venezuela (West), Other Central America, Japan, Cadillac Korea (South Korea), GM Korea Company, China - SGM, Taiwan , Thailand (ASEAN), Singapore, Philippines, Australia/New Zealand, Caribbean, Egypt, Other Africa, South Africa
Condition	Some customers may comment on one or more of the following conditions: 1. Drivability concerns (engine performance) 2. Hesitation 3. Transmission shifting rough/harsh 4. MIL illuminated Some technicians may find one or more of the following DTCs set: **Note:** Additional DTCs may have been set. It was found that these were the most common. • P1005 • P31C3 • P0700 • U0073 • U0074 • P25A2

	• U1600 • U0633 • U0623 • U02A9 • U0285 • U0284 • P10C6 • P2269 • U0074 • U0131 • U029D • U029E • U059F • U18A2
Cause	This condition may be caused by one or more of the following: • CAC pump electrical connector • Active grill shutter electrical connector • Engine wiring harness contacting the alternator bracket • Loose ground at the front of the engine
Correction	Repair the wiring using SI procedures. Refer to *Wire to Wire Repair* or *Ground Repair in SI.*

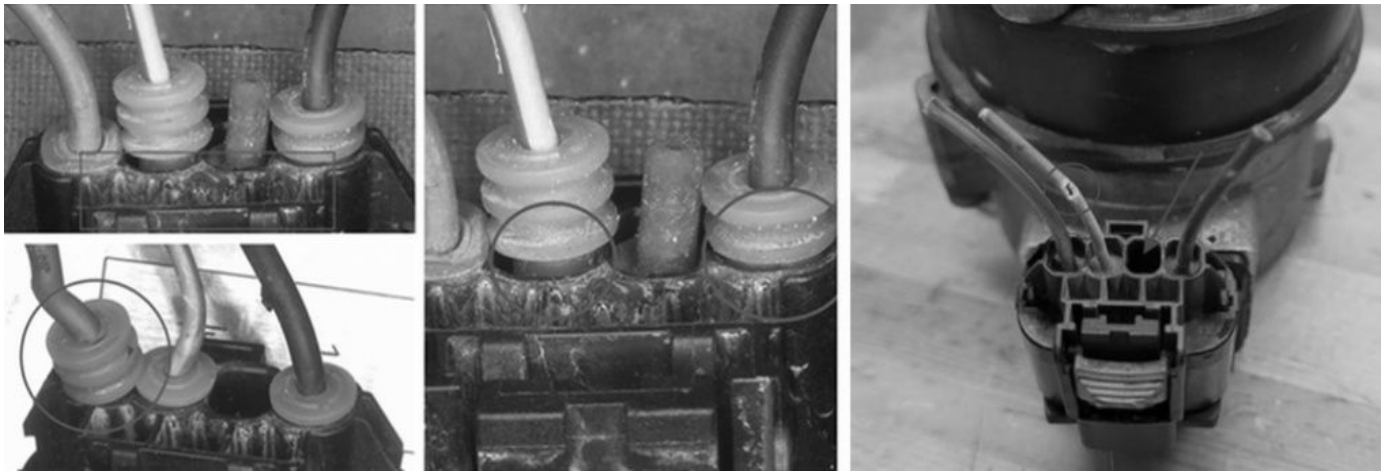
Important: Service agents must comply with all International, Federal, State, Provincial, and/or Local laws applicable to the activities it performs under this bulletin, including but not limited to handling, deploying, preparing, classifying, packaging, marking, labeling, and shipping dangerous goods. In the event of a conflict between the procedures set forth in this bulletin and the laws that apply to your dealership, you must follow those applicable laws.

Service Procedure

Note: Using Woven Polyester Electrical Tape (PET), tape all the contact points of the wiring harness ensuring that the tape is applied in a double layer extending along the harness past the splice sleeves. Verify all straps are secured and retainers are installed.

Information

Area of Concern at the CAC Pump Electrical Connector



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An open cavity or an unsealed pump connector allowing water into the (M10) charge air cooler pump electrical connector might be the root cause of the communication failure.

- Check the CAC Pump connector sealing and look for any corrosion at the pump due to water leakage.

DTCs that may be common with water intrusion the electrical connector:

Note: U02A9 might be set with or without U1345 (LIN BUS1 Failure).

- P0700 Transmission Control Module Requested Malfunction Indicator Lamp Illumination
- P25A2 Brake System Control Module Requested Malfunction Indicator Lamp Illumination
- U0284 Lost Communication with Active Grille Air Shutter Actuator 1
- U0285 Lost Communication with Active Grille Air Shutter Actuator 2
- U02A9 Lost Communication with Charge Air Cooler Coolant Pump
- U0623 Lost Communication with Heater Coolant Pump
- U0633 Lost Communication with Engine Cooling Fan 2
- U1345 Engine Control Module LIN Bus 1
- U1600 Lost Communication with Transmission Control Module on Engine Control Module LIN Bus 1

Area of Concern Active Grille Air Shutter Actuator In-line Connector

The following DTCs may be caused by the engine wiring harness to active grille air shutter actuator in-line connector (X618 on the pickup and X604A 0n the SUV). Please check circuit 4621 which may be:

- Not properly connected

- Not properly held by the rear clip
- Grounded on the radiator

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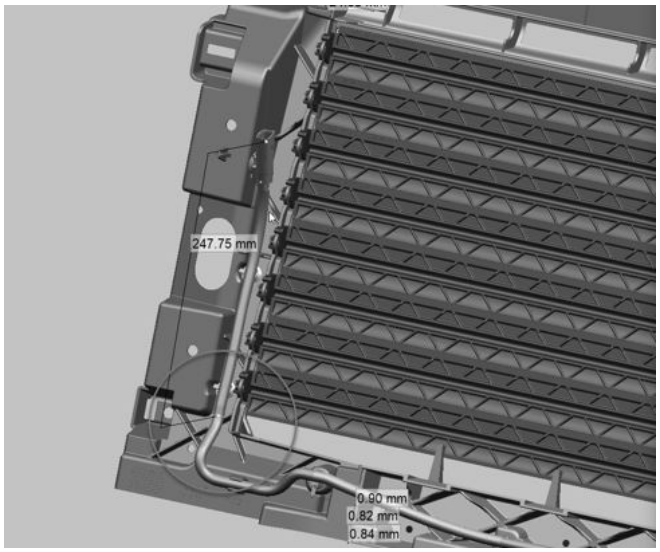
The graphic above shows how the proper connection must be.

- Check the active grille air shutter actuator in-line connector for not being properly connected or grounded to the radiator.

DTCs may be caused by the active grill air shutter wiring pinched at the radiator support.



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The graphic above depicts where a pinching condition may be located.

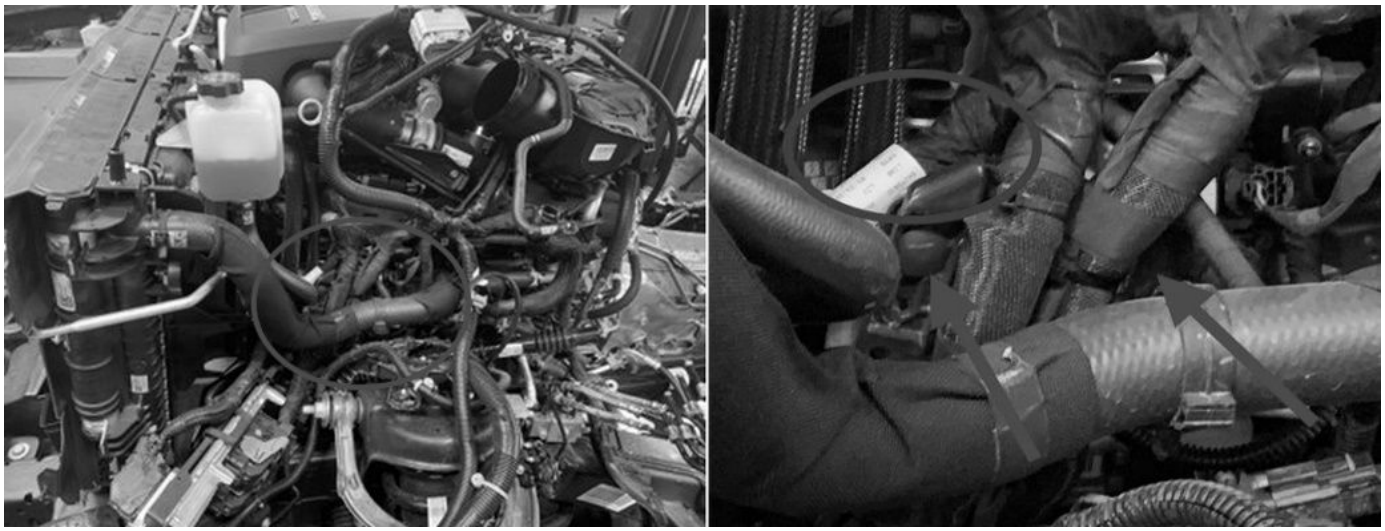
- Check the active grill air shutter wiring route to identify possible damaged points in the wiring.

DTCs that may be common with the wiring harness contacting the radiator or an improper connection:

- P0700 Transmission Control Module Requested Malfunction Indicator Lamp Illumination
- P25A2 Brake System Control Module Requested Malfunction Indicator Lamp Illumination
- U0284 Lost Communication with Active Grille Air Shutter Actuator 1

- U0285 Lost Communication with Active Grille Air Shutter Actuator 2
- U02A9 Lost Communication with Charge Air Cooler Coolant Pump
- U0623 Lost Communication with Heater Coolant Pump
- U0632 Lost Communication with Cooling Fan Motor
- U0633 Lost Communication with Engine Cooling Fan 2
- U1345 Engine Control Module LIN Bus 1
- U1600 Lost Communication with Transmission Control Module on Engine Control Module LIN Bus 1

LM2 Area of Concern at Alternator Bracket



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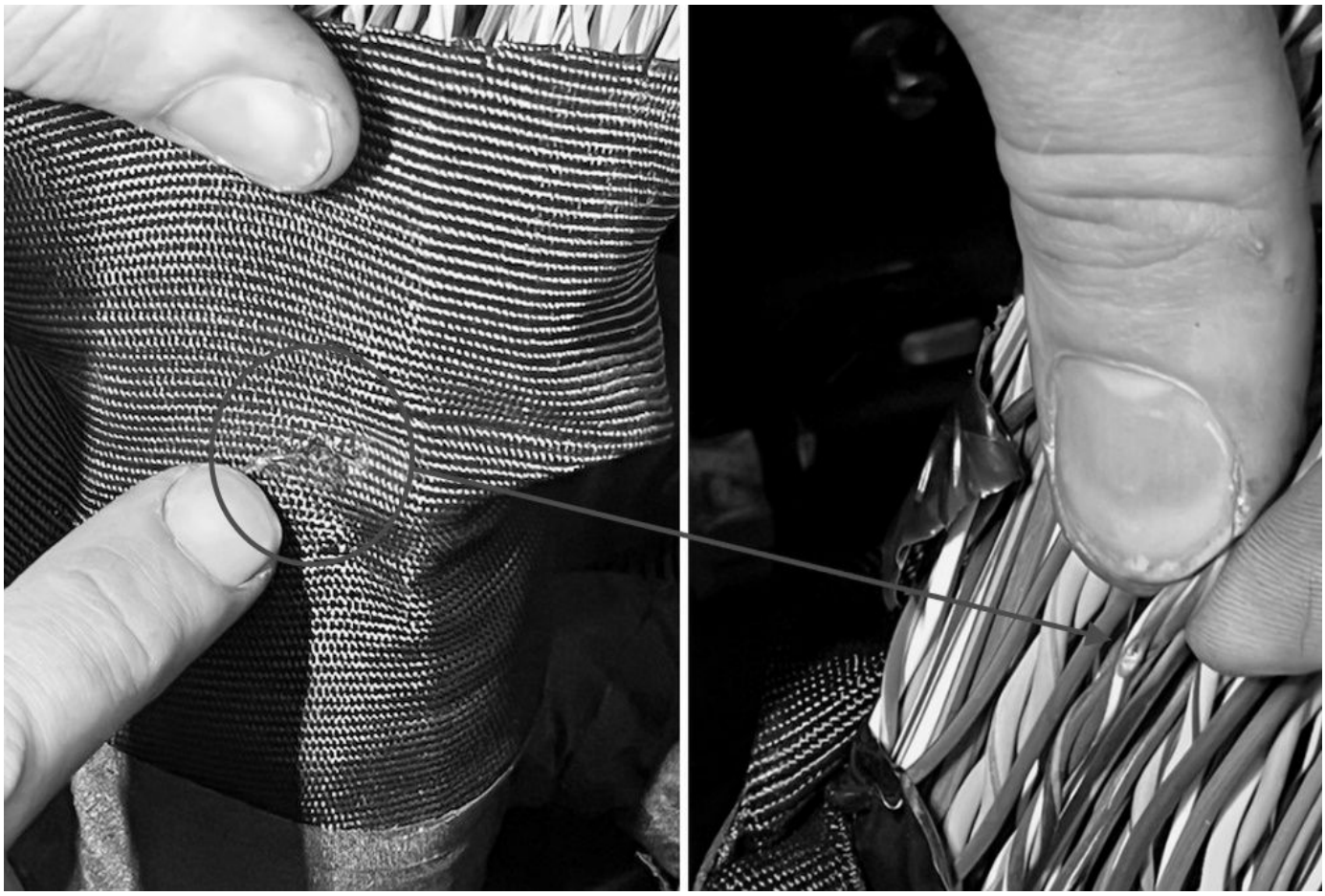
- Arrows indicate location of retainer pins that were not properly installed.
- Blue circle indicates where a chafe in the wiring has occurred. The mis-installed bracket allowed the harness to lay on the alternator.



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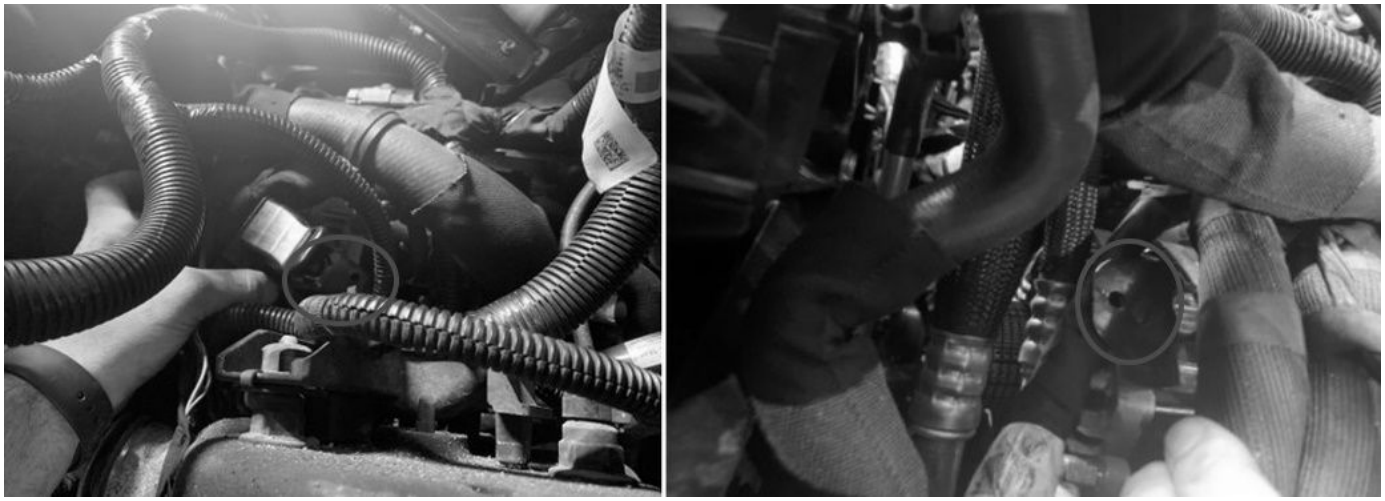
LM2 – Wiring Harness Contact at Alternator Bracket.

- The engine wire harness was chafed by a bracket next to the back of the alternator.

U0073 CAN BUS 2 off or U0074 CAN BUS 3 off



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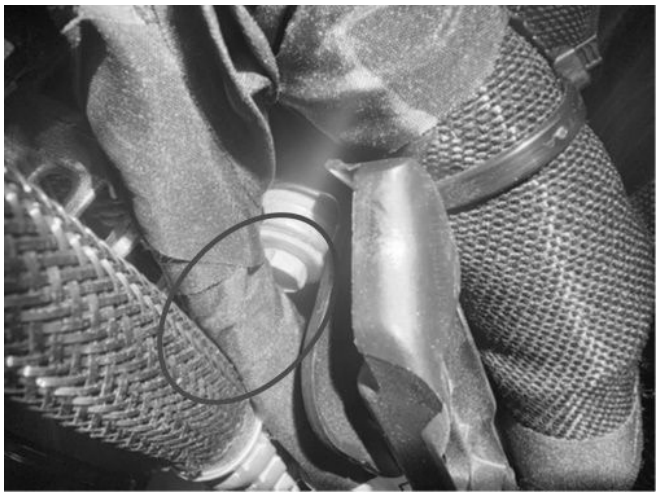
LM2 – TCCM Wiring Harness Contact at A/C Line and Bracket near Alternator.

LZ0 Area of Concern at Alternator Bracket



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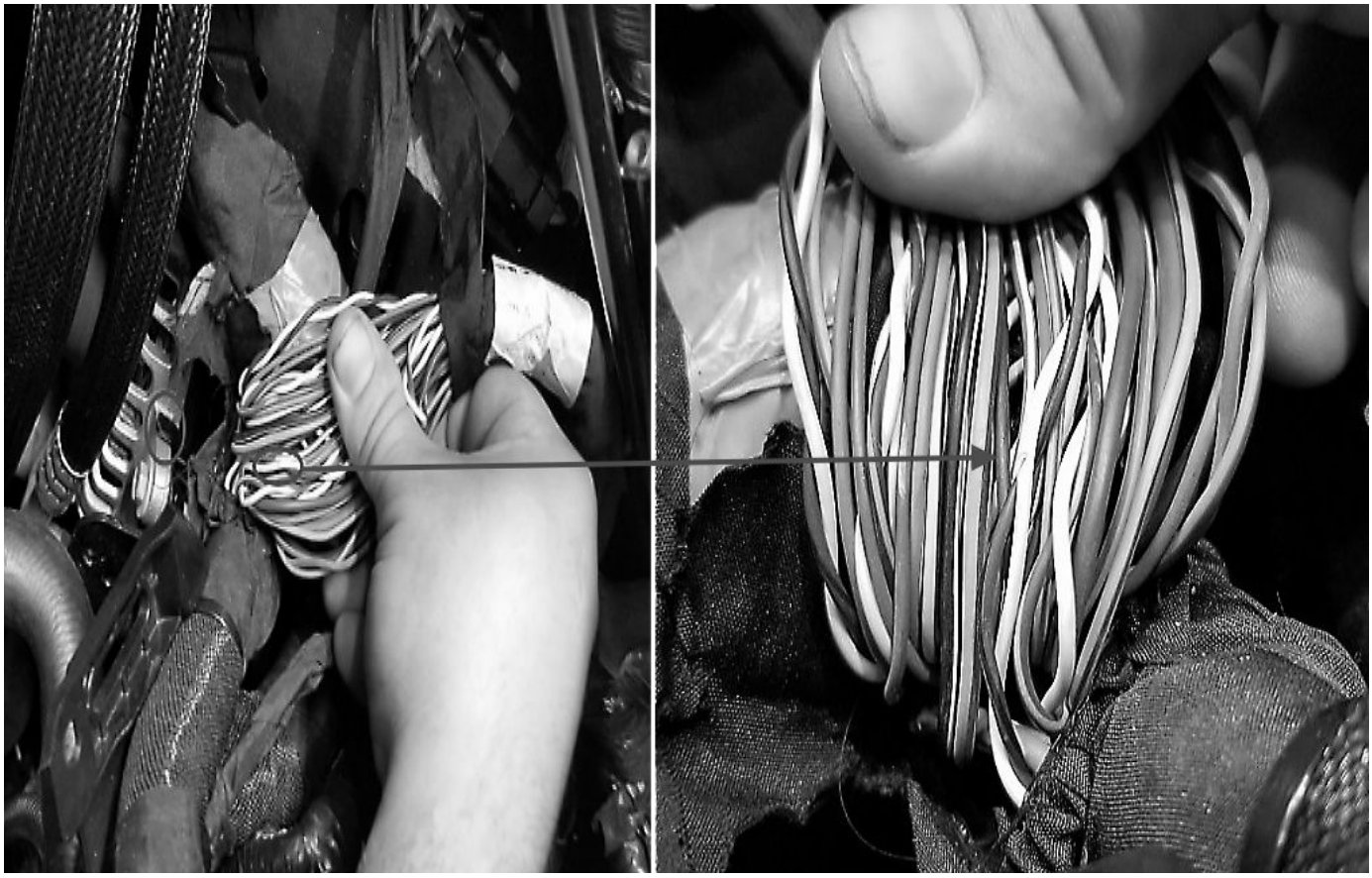

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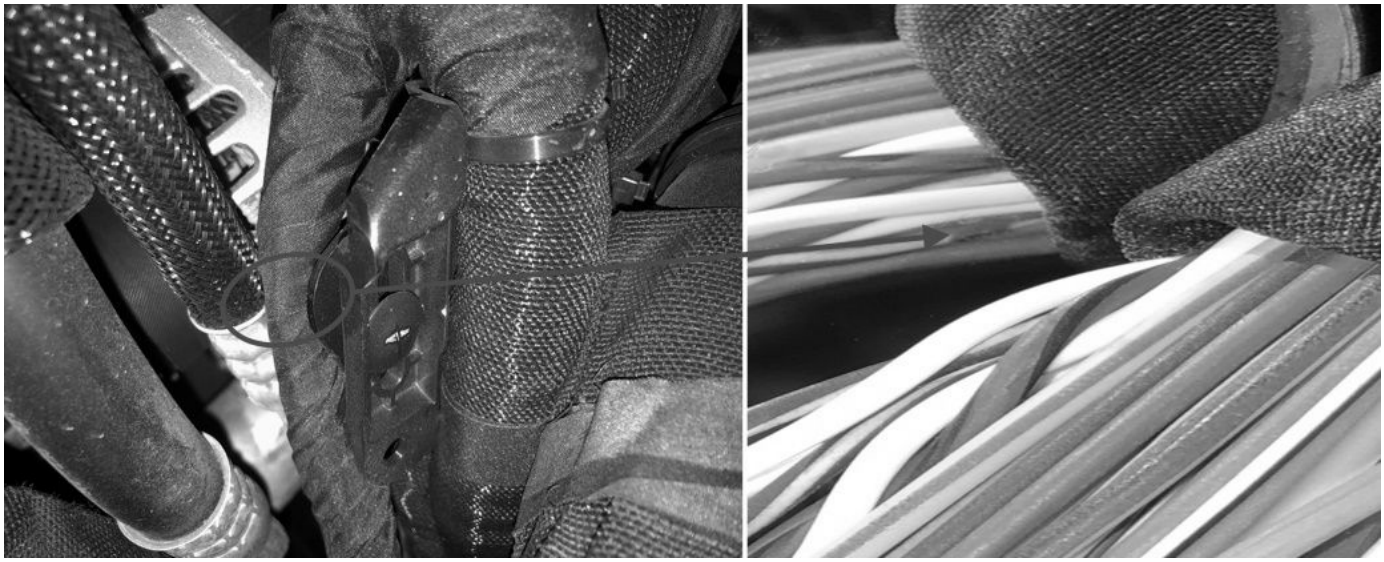
LZ0 – The Wiring Harness Contacted the Alternator Bracket do to Routing of the Harness.

Note: During the repair. It was noted that a 5/8 ths diameter hose was used to prevent a reoccurring chafe condition.



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This is CAN 3 wire harness. Can 4 is also in this bundle only blue and yellow twisted with white.

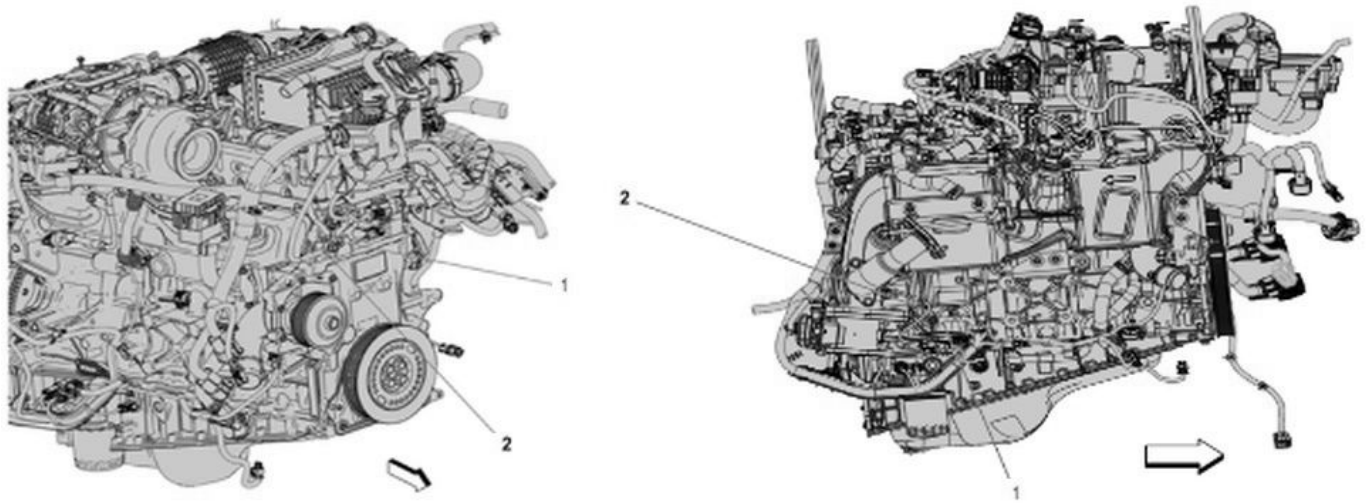
LZ0 – Wiring Harness Contacting the A/C Line and Alternator Bracket.

For both the LM2 and the LZ0, the DTCs that may be common with the wiring harness contacting the A/C line and alternator bracket:

- P0700 Transmission Control Module Requested Malfunction Indicator Lamp Illumination
- P10C6 Engine Diagnostic Status Signals Message Counter Incorrect
- P1789 Current Transmission Range Unknown
- U0073 Control Module Communication CAN Bus 2 Off
- U0074 Control Module Communication CAN Bus 3 Off
- U0076 Control Module Communication Powertrain Sensor CAN Bus Off
- U010E Lost Communication with Reductant Control Module
- U0140 Lost Communication with Body Control Module
- U0198 Lost Communication with Telematic Control Module
- U029E Lost Communication with Nitrogen Oxides Sensor 2
- U0402 Invalid Data Received from Transmission Control Module
- U0403 Invalid Data Received from Transfer Case Control Module
- U0404 Invalid Data Received from Gear Shift Control Module
- U040F Invalid Data Received from Reductant Control Module
- U0418 Invalid Data Received from Brake System Control Module 1
- U0422 Invalid Data Received from Body Control Module

- U1009 Reductant Control Module CAN Bus 3 Off
- U1345 Engine Control Module LIN Bus 1
- U1600 Lost Communication with Transmission Control Module on Engine Control Module LIN Bus 1
- U1609 Lost Communication with Serial Data Gateway Module on CAN Bus 3
- U1610 Lost Communication with Brake System Control Module 1 on CAN Bus 2
- U1643 Lost Communication with Transmission Control Module on CAN Bus 2
- U18D2 Lost Communication with Gear Shift Control Module on Powertrain Sensor CAN Bus
- U18D3 Lost Communication with Gear Shift Control Module on CAN Bus 3
- U2204 Serial Data Gateway Module Lost Communication with Reductant Control Module
- U220F Serial Data Gateway Module Lost Communication with Transmission Control Module
- U2212 Reductant Control Module Lost Communication with Engine Control Module
- U2405 Gear Shift Control Module Lost Communication with Engine Control Module on CAN Bus 2
- U2419 Serial Data Gateway Module Lost Communication with Brake System Control Module 1 on CAN Bus 2
- U241C Serial Data Gateway Module Lost Communication with Engine Control Module on CAN Bus 2
- U241D Serial Data Gateway Module Lost Communication with Engine Control Module on CAN Bus 3

Loose Ground



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Note: Refer to SI for ground locations in relation to the vehicle.

Inspect ground connections G176A (1) and G177B (2) may exist. Please check for any:

- Loosen condition
- Damaged or dirty threads

DTCs that may be common with a loose ground:

- P00EB Intake Air Temperature Sensor 3 Circuit High
- P0108 Manifold Absolute Pressure Sensor Circuit High
- P045A Exhaust Gas Recirculation Valve 2 Control Circuit
- P0494 Cooling Fan Speed Too Low — Left Side
- P0615 Starter Relay Control Circuit
- P0617 Starter Relay Control Circuit High Voltage
- P0628 Fuel Pump Control Circuit Low

- P0700 Transmission Control Module Requested Malfunction Indicator Lamp Illumination
- P1098 Engine Coolant Control Valve Position Sensor Minimum Stop Performance — Internal Component Fault
- P129F Fuel Pump Power Control Module Fuel Pump Speed Signal Incorrect
- P12A6 Fuel Pump Power Control Module Enable Circuit Performance
- P189C Transmission Range Command Message Performance
- P2053 Reductant Injector 2 Control Circuit
- P305D DC/DC Converter Crank Input Signal Circuit High Voltage
- P3187 Fuel Pump Pressure Performance - Low Pressure
- P31C3 Stop/Start System Performance
- U0284 Lost Communication with Active Grille Air Shutter Actuator 1
- U0285 Lost Communication with Active Grille Air Shutter Actuator 2
- U02A9 Lost Communication with Charge Air Cooler Coolant Pump
- U0585 Invalid Data Received from Active Grille Air Shutter Actuator 1
- U0586 Invalid Data Received from Active Grille Air Shutter Actuator 2
- U0623 Lost Communication with Heater Coolant Pump
- U0632 Lost Communication with Cooling Fan Motor
- U0633 Lost Communication with Engine Cooling Fan 2
- U0650 Lost Communication with Exhaust Pressure Regulator Valve Position Sensor
- U1345 Engine Control Module LIN Bus 1
- U1346 Engine Control Module LIN Bus 2
- U1347 Engine Control Module LIN Bus 3
- U137E Invalid Data Received from Auxiliary Coolant Pump
- U1600 Lost Communication with Transmission Control Module on Engine Control Module LIN Bus 1

Parts Information

Causal Part	Description	Part Number	Qty
N/A	SPLICE,WIRE (SALMON)	19300089	As Required
N/A	Woven Polyester (PET) Electrical Tape**	1985620 (USA)*	1
		894.1230 (Canada)*	

*There is enough material to service multiple vehicles. Store the remaining material for future use.

**For USA, contact Wurth though website www.wurthusa.com, by e-mail at www.customer.service@wurthusa.com, or by calling 1-800-987-8487.

For Canada, contact Wurth though their website at www.wurth.ca/, by e-mail at info@wurth.ca, by calling 1-800-263-5002 or your local Wurth rep.

Warranty Information

For vehicles repaired under the Bumper-to-Bumper coverage (Canada Base Warranty coverage), use the following labor operation. Reference the Applicable Warranties section of Investigate Vehicle History (IVH) for coverage information.

Labor Operation	Description	Labor Time
5486388*	Repair Wire Chafe on LM2 and LZ0 T1 LD SUV and LDPU	1.0 hr
Add	Additional Wire Repair (As Required)	0.2 hr
*This is a unique Labor Operation for Bulletin use only.		

Version	8
Modified	Released June 12, 2023 Revised June 29, 2023 - Add Breakpoint Date of June 1, 2023. Revised July 19, 2023 - Added the Additional Keywords section. Revised August 01, 2023 — Added DTC's and Loose Ground Section and Added 2024 Model Year for Silverado 1500 and Sierra 1500. Revised August 17, 2023 – Update the Information in the Cause and Correction section, Update Graphic in CAC Electrical Connector section, and Added Additional DTCs. Revised September 08, 2023 - Changed DTC P1098 Definition. Revised June 28, 2024 - Added U0100, U0101, U0102, and U0121 to Additional Keywords section. Revised January 28, 2025 - Added 2025 Model Year.

Additional Keywords: P0658, P0659, P2812, P2814, P2815, P281B, P281D, P281E, P0960, P0962-P0964, P0966-P0968, P0970, P0971, P2670, P2671, P2718, P2720, P2721, P2727, P2729, P2730, P2736, P2738, P2739, P2824, P2826, P2827, P0716, P0717, P07BF, P07C0, P1783, P17CE, P0721-P0723, P077C, P077D, P172A, P172B, P0707, P0708, P2802, P2803, P2805, P0711, P0712, P0713, P176B-P176D, P178F, P17D3, P17C5, P17C6, P17CC, P17CD, P17D6, P17F5, P17F6, P17F7, P17FA, P17FB, P17FC, P18A2, P18A3, P18A4, P27EB, P27ED, P27EE, P2796, P2797, P2798, P2799, U1611, P0477, P0404, U0100, U0101, U0102, U0121