



Service Bulletin

Bulletin No.: 20-NA-071

Date: November, 2020

TECHNICAL

Subject: Service Engine Soon Lamp Illuminated and/or Service Power Brake Assist Message Displayed, with DTCs P0557 or P0558 Stored

Brand:	Model:	Model Year:		VIN:		Engine:	Transmission:
		from	to	from	to		
Buick	Enclave	2018	2020				
Cadillac	XT5	2017	2021				
	XT6	2020					
Chevrolet	Blazer	2019	2020				
	Traverse	2018					
GMC	Acadia	2017 (VIN N)	2021				
Holden	Acadia	2019					

Involved Region or Country	North America, Europe, Russia, Middle East, Israel, Palestine, Chile, Ecuador, Peru, Japan, Korea, Africa
Additional Options (RPOs)	Equipped with BRAKE SYSTEM-POWER, FRT & RR DISC, ABS, 17" (J61)
Condition	<p>Some customers may comment that the Service Engine Soon (SES) lamp is illuminated and/or the Service Brake Assist message is displayed on the Driver Information Center (DIC).</p> <p>A technician may find DTC P0557 or P0558 stored.</p> <p>There is potential for EMI in the engine harness negatively impacting the signal from the vacuum sensor.</p>
Cause	The cause of the condition may be poor terminal tension at the B19B Brake Booster Vacuum Sensor and/or the wiring from the brake vacuum sensor to the Engine Control Module (ECM).
Correction	Replace the power brake booster vacuum hose and install a new external wiring harness, following the Service Procedure below.

Service Procedure

Note: Examples of the 3 different designs for the power brake booster vacuum hoses are shown in the graphics below.



5549611

LFY Hose



5549615

LGX Hose



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LCV Hose

Note: Please print the Matrix below and use it for reference while completing steps #16-22 of the Service Procedure,

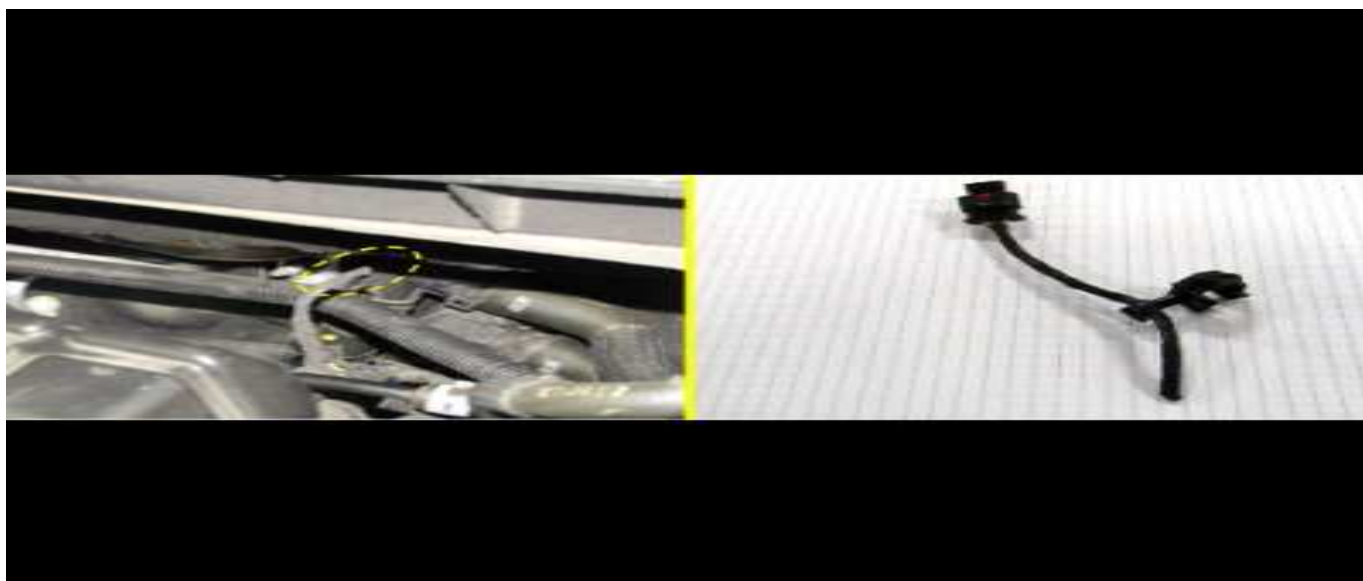
Matrix			
Application/Circuit/Wire Color/ECM Connector/ECM Terminal			
New wire harness lead tag ID's	6270	6271	6272
Wire Color	Vt/Ye	Gn/Vt	Bk
LGX/LFY - V6 only	Acadia, XT5, XT6, Traverse, Enclave, Blazer		
Circuit Number	6030	6031	2151
Body Harness Color	Ye/Vt	Ye/Rd	Bk/Wh
ECM Connector	X1	X1	X1
ECM Terminal	65	45	44
LCV - 4 Cyl. only	Acadia		
Circuit Number	6030	6031	2151
Body Harness Color	Ye/Vt	Ye/Rd	Bk/Wh
ECM Connector	X1	X3	X3
ECM Terminal	32	15	20

Matrix			
LGX - V6 only	Holden Acadia		
Circuit Number	6030	6031	2151
Body Harness Color	Ye/Vt	Ye/Rd	Bk/Wh
ECM Connector	X1	X1	X1
ECM Terminal	65	45	44
LCV - 4 Cyl. only	Holden Acadia		
Circuit Number	6030	6031	2151
Body Harness Color	Ye/Vt	Ye/Rd	Bk/Wh
ECM Connector	X1	X3	X3
ECM Terminal	32	15	20

1. Remove and discard the power brake booster vacuum hose. Refer to *Power Brake Booster Vacuum Hose Replacement*, in SI.



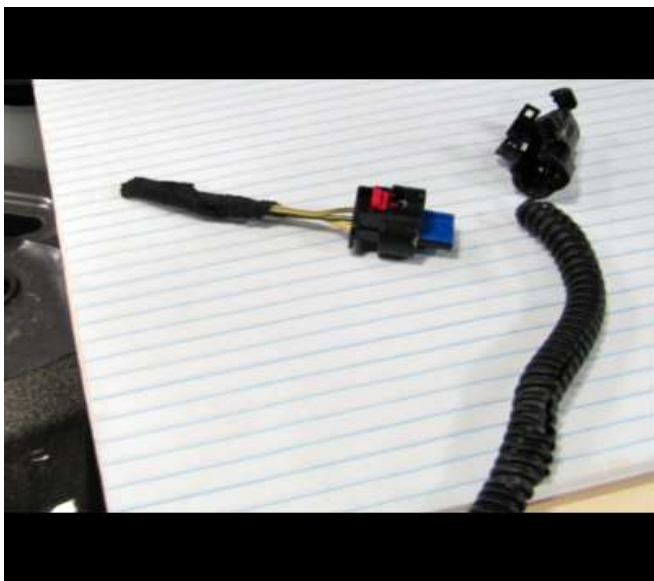
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Note: The top graphic shows the LGX connector intact; the bottom one shows the LFY wiring already cut.

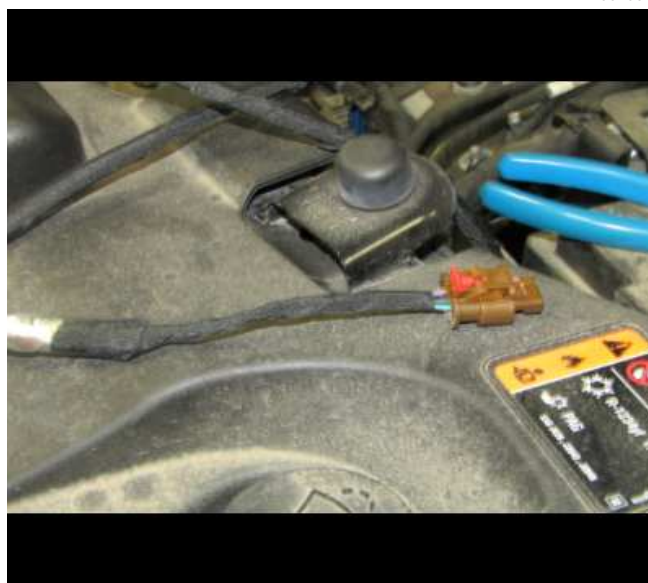
2. Locate the power brake booster vacuum sensor electrical connector. Fold conduit back and cut off connector, leaving approximately 5.0 cm (2.0 in) of wiring on the engine harness side.
3. Tape the cut wiring end to the engine harness. These wires will no longer be used.



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Note: Not all applications will have a cover on the connector.

4. Remove conduit and cover from the old connector.



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5. Apply tape to connector end of the new harness, leaving enough length as was on original connector to allow for 90 degree elbow bend, if applicable.

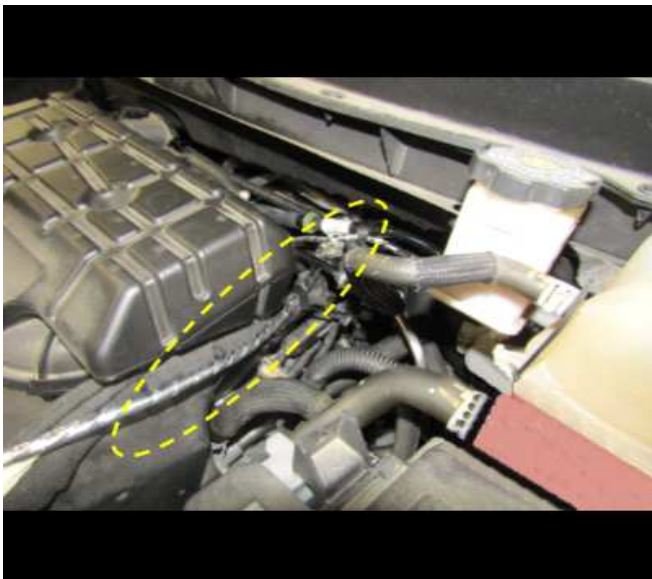


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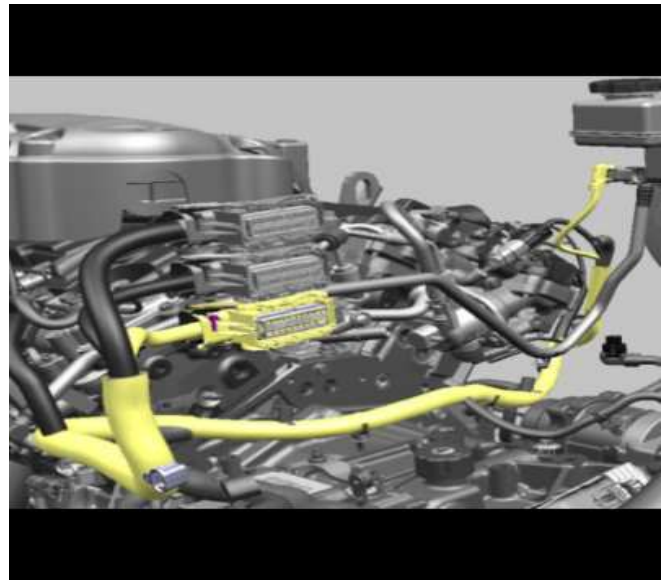
6. Install old conduit piece, connector cover and apply abrasion resistant tape over the conduit up to the new connector end.
7. Install the new power brake booster vacuum hose. Refer to *Power Brake Booster Vacuum Hose Replacement*, in SI.
8. Plug in the new harness to the power brake booster vacuum sensor electrical connector.

Note: It is not necessary to reposition the radiator surge tank on all applications.

9. Remove the mounting bolt and reposition the radiator surge tank away from the cowl. Refer to *Radiator Surge Tank Replacement*, in SI.



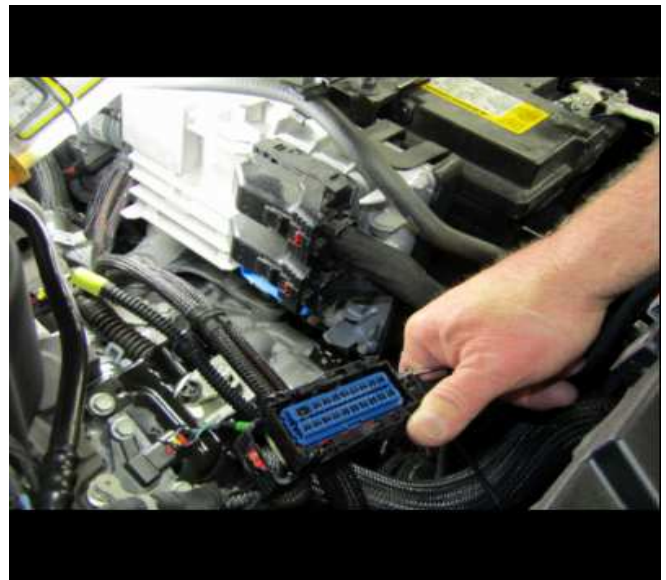
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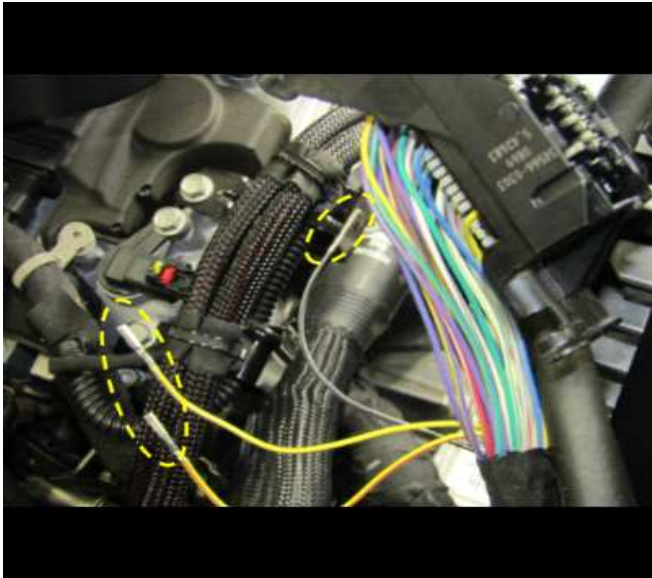
Note: The LFY harness routing is shown in the top graphic, the LGX routing is shown in the bottom math file. The routing for LCV is similar to the routing of the LGX.

10. Start routing the new harness alongside the engine harness.



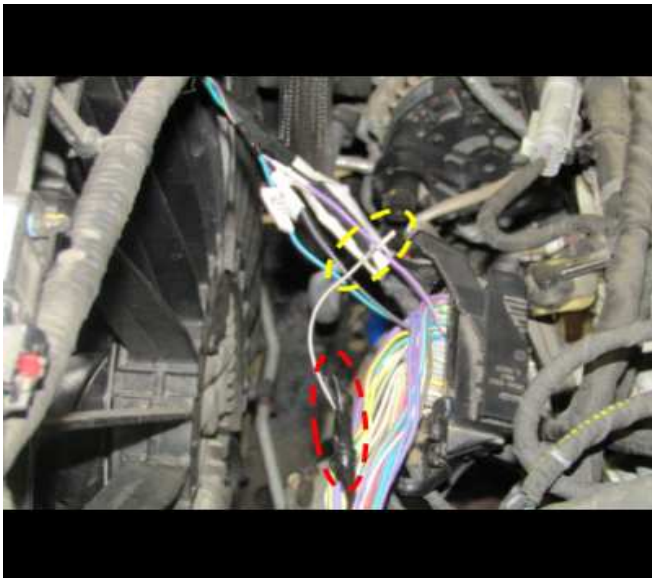
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11. Unplug the X1 ECM connector (blue) from the ECM, for LGX and LFY. Also unplug ECM connector X3 on LCV engine applications.
12. Cut back some of the tape on the connector wiring to expose more wiring.
13. Using a suitable pry tool, remove the cover from the connector.



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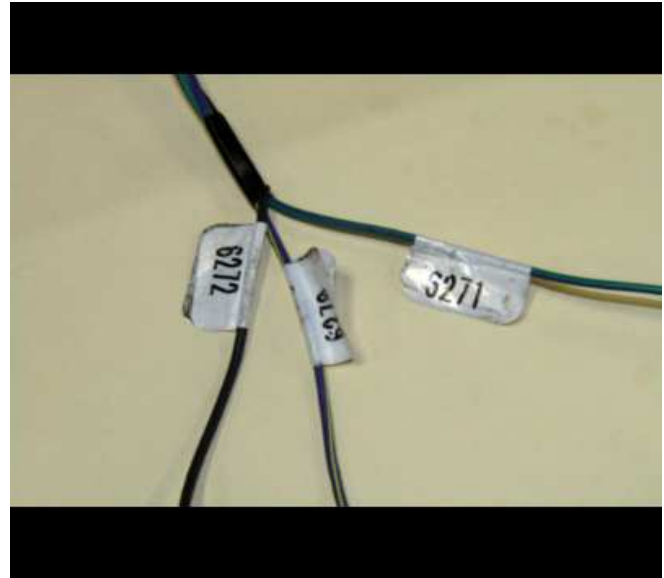
14. Using terminal release tool J-38125-12A, or similar tool, remove the terminated leads from circuits #6030, #6031 and #2151 from the X1 connector.



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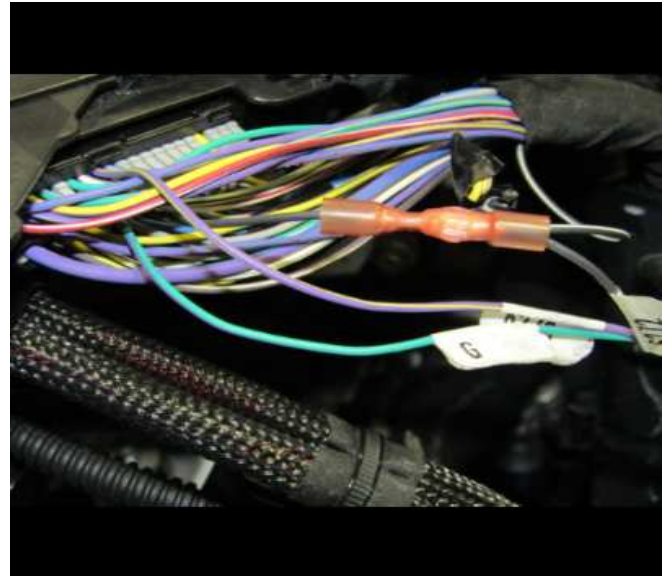
Note: In this step, do NOT cut the terminal off of circuit #2151 (circled in yellow in the graphic above).

15. Cut off the terminated leads that were in circuits #6030 and #6031 and fold and tape off the ends (circled in red in the graphic above). These circuits will no longer be used.



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16. Locate the wire labeled #6270 on the new harness and install that terminated lead into the location in connector X1, where circuit #6030 was located.
17. Locate the wire labeled #6271 on the new harness and install that terminated lead into the location in connector X1, where circuit #6031 was located.
18. Locate the wire labeled #6272 on the new harness and install that terminated lead into the location in connector X1 where circuit #2151 was located.



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Important: There are multiple ground circuits tied to ECM ground circuit #2151 and the existing vehicle harness wire **MUST** be spliced into the new harness.

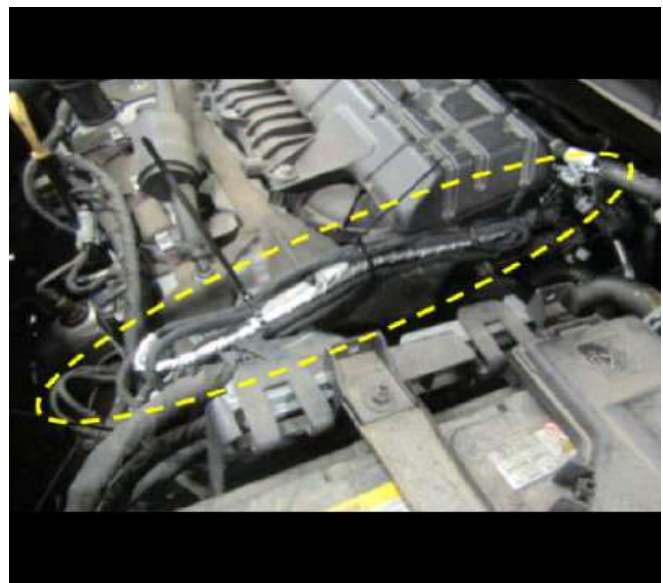
19. Cut the new harness wire labeled #6272 approximately 7.6 cm (3.0 in) from the ECM connector body.
20. Cut the engine harness ground circuit #2151 approximately 7.6 cm (3.0 in) from the ECM connector body.

21. Strip the end of all three of these wires, leaving enough length to make a splice in the butt connector.
22. Twist the engine harness side of circuit #2151 with the new harness #6272 and insert in the butt connector and crimp.
23. Insert circuit #2151 wire from the ECM connector into the butt connector and crimp.
24. Apply heat to shrink and seal the butt connector to complete the splice. Refer to *Wire to Wire Repair*, in SI.



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25. Reposition the wiring to the connector and using abrasion resistant tape, apply tape up to the flip door of the ECM connector.
26. Reinstall the cover to the connector.
27. Reconnect the ECM connector(s).



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Note: Graphic shown above is LFY harness routing.



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Note: Graphic shown above is LGX harness routing, with LCV being similar.

Important: It will be necessary to coil the extra wire length. Ensure the wire is tied back away from any sharp edges or moving parts that could cause damage to the harness.

28. Secure the new harness to the engine wiring harness using at least 5 or 6 tie straps.
29. Check and clear any DTC's, as necessary.

Parts Information

Use the VIN and refer to the GM Electronic Parts Catalog (EPC) to determine the proper part to order.

Causal Part	Description	Part Number	Qty
N/A	WRG HARN	84441605	1
X	HOSE ASM-P/B BOOS VAC	84265637 84341899 84210413	1
N/A	SALMON SPLICE	19300089	1

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
2486068*	Replace Power Brake Booster Vacuum Hose Assembly and Install Wiring Harness	LFY – 1.0 hr LGX or LCV – 1.3 hrs
*This is a unique Labor Operation for Bulletin use only.		

Version	4
Modified	Released March 20, 2020. Revised April 16, 2020 – Corrected Salmon Splice Part Number. Revised June 01, 2020— Changed all sections of matrix that reference Circuit 6032 - Bk/ Ye – to 2151 – Bk/Wh. Revised November 06, 2020 – Added 2021 Model Year to Several Models.

