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# **Preliminary Information**

# PIT5695B Brake Pad Life % Calculates Down too Quickly and/or Service Brake Pad Monitor System DTC C116B SYM59 and/or C116C SYM59

<u>Models</u>

Brand:	Model:	Model Years:	VIN:		Engine:	Transmissions:	
			from	to	Engine.		
Chevrolet	Silverado 1500 (New Model)	2019	SOP	Ft Wayne-1GCRYDED0KZ413442, Silao- 3GTP9EED9KG293960	All	All	
GMC	Sierra 1500 (New Model)	2019	SOP	Ft Wayne-1GCRYDED0KZ413442, Silao- 3GTP9EED9KG293960	All	All	
Involved Region or Country North America							
Condition		Some customers may notice a quick drop in the brake pad life % shown on the DIC, which may not be reflective to the actual pad wear. In some cases, the customer may comment of a Service Brake Pad message with DTC(s) C116B SYM59 and/or C116C SYM59.					
Cause		This concern could be cause by a software anomaly.					

## Correction:

Engineering has released new Brake System Control Module (BSCM) software to correct this concern. Reprogram the BSCM with the latest software available in Tis2Web on July 20, 2019. In addition to reprogramming the BSCM reset the brake pad life monitoring system using GDS2 as directed below.

- If the vehicle has less than 6,000 miles, then reset the brake pad life monitoring system to 100% using GDS2.
- If the vehicle has more than 6,000 miles, do not reset the brake pad life monitoring system.

Additional Information on the Brake Pad Life system and DTC's C116B SYM59 and C116C SYM59:

- The Brake System Control Module (BSCM) uses an algorithm to calculate the remaining brake pad life %. In addition to the algorithm, there is one pad wear sensor at the left front brake pad and one at the left rear brake pad. The wear sensor has three circuits, which successively open as they wear through at different pad thicknesses. As the pad wears and it reaches the first of the three circuits, it will open, and the BSCM will then tailor the calculation to either speed up, slow down, or maintain the current pad life % calculated rate.

- The Brake Pad Monitor system can only be reset back to 100%. It can be reset through the DIC, but this feature is only enabled in the DIC if the BSCM detects one of the brake pad wear sensors has worn through/opened and then replaced. Because many of these vehicles have lower mileage, it is unlikely that a wear sensor has already worn through and therefore, the only way to reset the brake pad life is by using GDS2.

- DTC's C116B SYM59 and/or C116C SYM59 can be set due to the software anomaly described in this PI. This is because the BSCM is calculating the brake pad life % down too quickly without seeing the pad wear sensor circuit wear open. If the BSCM does not see one of the wear sensor circuits open, before it calculates down the brake pad life to a very low % (example 10-20%), it determines there is a mismatch and sets the DTC. Do NOT replace the BSCM for these DTC's. To correct this issue, reprogram the BSCM with the latest calibrations in Tis2Web. Then, if the vehicle has less than 6,000 miles reset the brake pad life back to 100% using GDS2 and no further

repairs are required. If the vehicle has more than 6,000 miles, inspect the brake pads and if there is 9 mm or more of brake pad material left then reset the brake pad life to 100% using GDS2 and no further repairs are required. In the rare case that there is less than 9 mm of brake pad material left, the brake pads will need to be replaced, along with the pad wear sensor if worn. Then reset the brake pad life to 100% using GDS2 and no further repairs are required.

### 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	Time
2485998	Reprogram Brake System Control Module To Correct Brake Pad Life Calculation	0.3 HR.

### Version History

Version	3
	06/28/2019 - Created on
Modified	08/07/2019 - Updated to add Correction information
Modified	11/20/2019 - Additional information added to the Title, condition and
	correction



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