

## **Service Bulletin**

# TECHNICAL

### Subject: Malfunction Indicator Light (MIL) Illuminated - DTC P200A, P2384, P111E, P0071, P214E, P2B60, P1010, P226D, P24B0, P2C7A and/or P14D9 Set

This bulletin replaces PIP5689C, PIP5688A and PIP5682. Please discard PIP5689C, PIP5688A and PIP5682.

Brand:	Madalı	Model Year:		VIN:		Engine	Transmission
	Branu.	woder:	from	to	from	to	Engine:
Chevrolet	Silverado 1500	2020	2020			LM2	
GMC	Sierra 1500						

Involved Region or Country	North America			
	Some customers may comment that the MIL is illuminated.			
	Some technicians may find one or more of the following DTCs set in the Engine Control Module (ECM):			
	<ul> <li>P0071: Ambient Air Temperature Sensor Performance</li> </ul>			
	<ul> <li>P1010: Engine Coolant Flow Control Valve Position Sensor Exceeded Minimum Learning Limit</li> </ul>			
	P111E: Engine Coolant Temperature Sensor Not Plausible			
Condition	P14D9: NOx Sensor Exceeded Minimum Learning Limit Bank 1 Sensor 3			
	P200A: Intake Manifold Runner Control Valve Performance			
	P214E: Reductant Pump High Current			
	P226D: Particulate Filter Deteriorated Substrate			
	P2384: Exhaust Gas Recirculation Differential Pressure Sensor Circuit Intermittent			
	P24B0: Particulate Matter Sensor Circuit Low Voltage			
	P2B60: Engine Coolant Flow Control Valve Position Sensor Circuit Performance			
	P2C7A: NOx Catalyst Efficiency Below Threshold Bank 1 Catalyst 2			
Cause	This condition may be caused by a software anomaly.			
	Verify if Service Update N192282970: Service Update – ECM and Reductant Control Module (RCM) has been performed:			
	• If Service Update N1922282970 has <b>NOT</b> been previously performed, refer to Service Update N1922282970 and no further action is required.			
Correction	<b>Note:</b> ECMs that has been programmed prior to February 17, 2020 may not have all of the latest software calibrations required to eliminate all the DTCs that set.			
	<ul> <li>If Service Update N1922282970 has been completed prior to February 17, 2020. Reprogram the ECM as outlined in this bulletin to the latest software available.</li> </ul>			
	<ul> <li>If DTC P24B0 is Active, replace the Exhaust Particulate Sensor.</li> </ul>			
	If any of the above DTCs return after any of the procedures have been completed, refer to SI for diagnosis and repair.			

#### **Service Procedure**

**Caution:** Before downloading the update files, be sure the computer is connected to the internet through a network cable (hardwired). DO NOT DOWNLOAD or install the files wirelessly. If there is an interruption during programming, programming failure or control module damage may occur.

**Important:** Carefully read and follow the instructions below.

- Ensure the programming tool is equipped with the latest software and is securely connected to the data link connector. If there is an interruption during programming, programming failure or control module damage may occur.
- Stable battery voltage is critical during programming. Any fluctuation, spiking, over voltage or loss of voltage will interrupt programming. Install a GM Authorized Programming Support Tool to maintain system voltage. Refer to www.gmdesolutions.com for further information. If not available, connect a fully charged 12 V jumper or booster pack disconnected from the AC voltage supply. DO NOT connect a battery charger.
- Turn OFF or disable systems that may put a load on the vehicles battery such as; interior lights, exterior lights (including daytime running lights), HVAC, radio, etc.
- Clear DTCs after programming is complete. Clearing powertrain DTCs will set the Inspection/ Maintenance (I/M) system status indicators to NO.

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Controlat	11	Caranie	Selected A	Descriptori		
C160	1	64753739	54752722	New software for which of piological		
	2	04793357	04730867	New calibration for abat of production		
	4	0433/333	04557555	Particle Craby Calordon		
	8	84981932	84681562	Declared Coloniation to improve disprimities for DTCs CO5BH and CO5BE		
	2	84999992	54606662	Galiper Acolst Calibrative		
	100	84952591	BALLON BAL	the Programming Suttern		
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**Important:** If the Same Calibration/Software Warning is noted on the SPS screen, select OK and follow screen instructions. After a successful programming event, the WCC is located in the Service Programming System dialogue box of the SPS Summary screen. No further action is required. Refer to the Warranty section of the bulletin.

1. Reprogram the ECM. Refer to *K20 Engine Control Module: Programming and Setup* in SI. Modify as required (e.g., select x module from the controller screen. Then provide step-by-step instructions or refer to SI procedure.



**Important:** To avoid warranty transaction rejections, you **MUST** record the warranty claim code provided on the SPS Warranty Claim Code (WCC) screen on the job card. Refer to callout 1 above for the location of the WCC on the SPS screen

- 2. Record SPS Warranty Claim Code on job card for warranty transaction submission.
- 3. If DTC P24B0 is active, replace the Exhaust Particulate Sensor. Refer to *Exhaust Particulate Sensor Replacement* in SI.

### **Parts Information**

Causal Part	Description	Part Number	Qty
N/A	SENSOR, EXH PRTLT	12680851	1

#### Warranty Information

**Important:** E2: This is a federal warranty that applies to specific components such as catalytic converters and emission related controllers and their reprogramming for emission related issues. • 8 years/ 80,000 miles or 8 years/130,000 km (Canada).

For vehicles repaired under the Emission coverage, use the following labor operation. Reference the Applicable Warranties section of Investigate Vehicle History (IVH) for coverage information.

Labor Operation	Description	Labor Time	
2886688*	ECM Reprogramming with SPS for DTC P200A, P2384, P111E, P0071, P214E, P2B60, P1010, P226D, P24B0, P2C7A and/or P14D9 Set	0.5 hr	
Add	Exhaust Particulate Sensor Replacement for P24B0 Set	0.4 hr	
*This is a unique Labor Operation for Bulletin use only.			

Important: \*\*To avoid warranty transaction rejections, carefully read and follow the instructions below:

• The SPS Warranty Claim Code must be accurately entered in the "SPS Warranty Claim Code" field of the transaction.

 When more than one Warranty Claim Code is generated for a programming event, it is required to document all Warranty Claim Codes in the "Correction" field on the job card. Dealers must also enter one of the codes in the "SPS Warranty Claim Code" field of the transaction, otherwise the transaction will reject. It is best practice to enter the FINAL code provided by SPS.

#### Warranty Claim Code Information Retrieval

If the SPS Warranty Claim Code was not recorded on the Job Card, the code can be retrieved in the SPS system as follows:

- 1. Open TIS on the computer used to program the vehicle.
- 2. Select and start SPS.
- 3. Select Settings.
- 4. Select the Warranty Claim Code tab.

The VIN, Warranty Claim Code and Date/Time will be listed on a roster of recent programming events. If the code is retrievable, dealers should resubmit the transaction making sure to include the code in the SPS Warranty Claim Code field.

Version	1
Modified	Released February 20, 2020



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