Service Bulletin

Bulletin No.: 21-NA-214
Date: February, 2022

TECHNICAL

Subject: **Service Engine Soon Lamp Illuminated, Harsh or Delayed Transmission Shifts Including Slip, Surge, Shudder, Noise, Whine, Growl, Shake and/or Vibration, DTCs P2002, P2463, P2459, P144E, P0421, P0422, P0106 and/or P20EE Set Current or in Recent History**

Brand:	Model:	Model Year:		VIN:		Engine:	Transmission:
		from	to	from	to		
Chevrolet	Silverado 2500HD/ 3500HD	2020	2020			L5P	
GMC	Sierra 2500HD/ 3500HD	2020	2020				

Involved Region or Country	United States, Canada, Middle East, Israel and Palestine
Additional Options (RPOs)	
Condition	Some customers may comment on the Service Engine Soon Lamp being illuminated. They may also comment on multiple transmission issues including harsh or delayed shifts, slip, surge, shudder, noise, whine, growl, shake and/or vibration. As well as the exhaust brake not working or that they do not feel it. Technicians may find DTCs P2002, P2463, P2459, P144E, P0421, P0422, P0106 and/or P20EE set current or in recent history.
Cause	The cause of the condition may be by a software anomaly. GM Engineering has developed a field fix for the above conditions.
Correction	Please check for any updates to the TCM. If one is available, program it first. After checking and/or installing the transmission update, check for an ECM update. If one is available, install it. If one is not available, refer to SI for normal diagnostics. If after programming there is a Reduced Power message and/or U0101, it is likely that the ECM was updated but the TCM was not. Please reprogram the TCM.

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.

- 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.
- Follow the on-screen prompts regarding ignition power mode, but ensure that anything that drains excessive power (exterior lights, HVAC blower motor, etc) is off
- Please verify that the radio time and date are set correctly before inserting USB drive into vehicle for programming, otherwise an error will result..
- 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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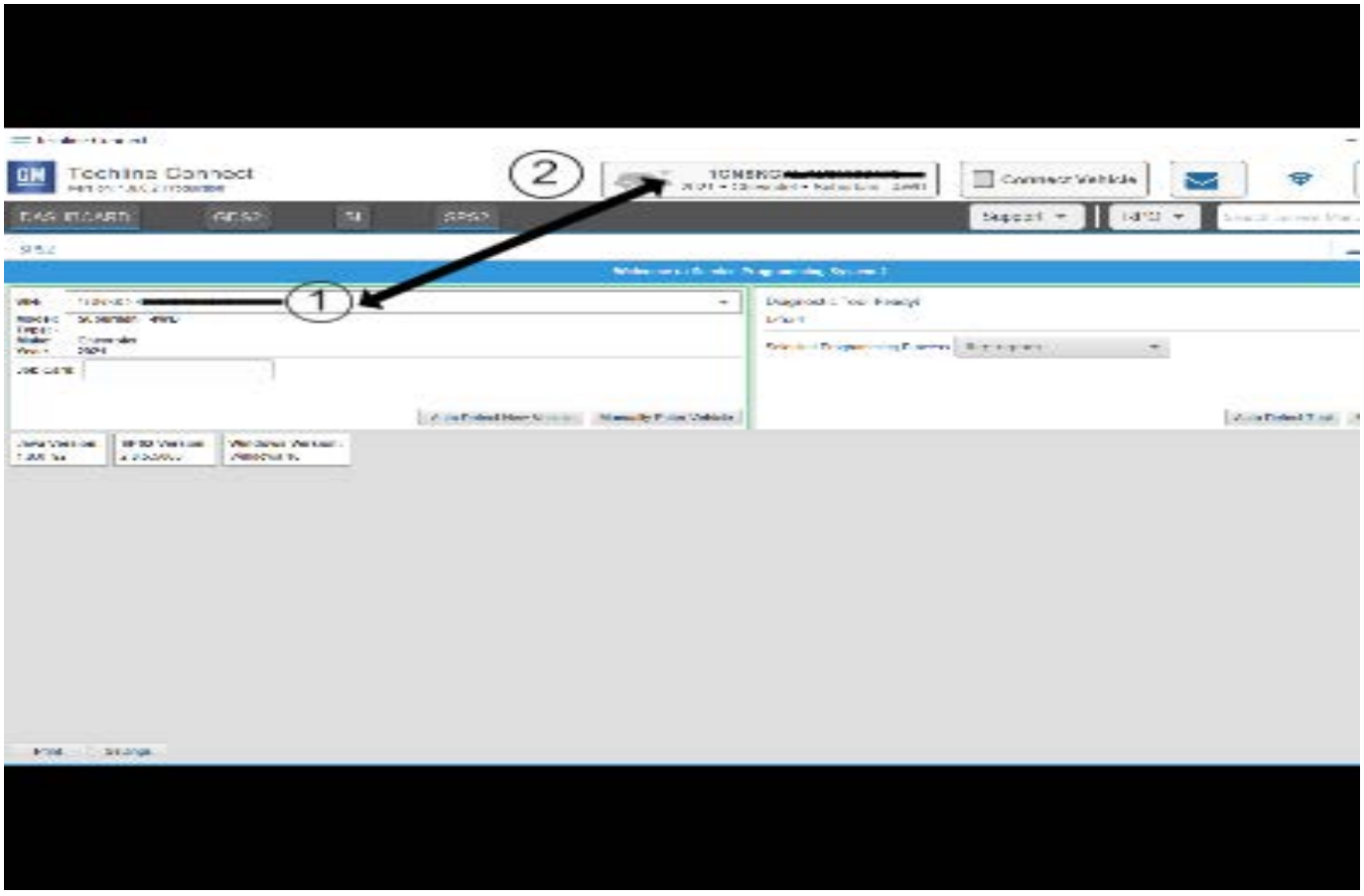
Important: The service technician always needs to verify that the VIN displayed in the TLC left side drop down menu and the top center window match the VIN plate of the vehicle to be programmed prior to using Service Programming System 2 (SPS2) for programming or reprogramming a module.

- For the TLC application, service technicians need to always ensure that the power mode (ignition) is "ON" before reading the VIN from the vehicle's VIN master module and that they do not select a VIN that is already in the TLC application memory from a previous vehicle.
- If the VIN that shows up in the TLC top center window after correctly reading the VIN from the vehicle does not match the VIN plate of the vehicle, manually type in the VIN characters from the vehicle VIN plate into the TLC top center window and use these for programming or reprogramming the subject module with the correct vehicle VIN and software and/or calibrations.
- The Engine Control Module (ECM) is the master module (for VIP vehicles) that TLC reads to determine the VIN of the vehicle. If the VIN read from the vehicle by TLC does not match the VIN plate of the vehicle, the ECM also needs to be reprogrammed with the correct VIN, software and calibrations that match the vehicle's VIN plate.
- The Body Control Module (BCM) is the master module (for GEM vehicles) that TLC reads to determine the VIN of the vehicle. If the VIN read from the vehicle by TLC does not match the VIN plate of the vehicle, the BCM also needs to be reprogrammed with the correct VIN, software and calibrations that match the vehicle's VIN plate.

Caution: Be sure the VIN selected in the drop down menu (1) is the same as the vehicle connected (2) before beginning programming.



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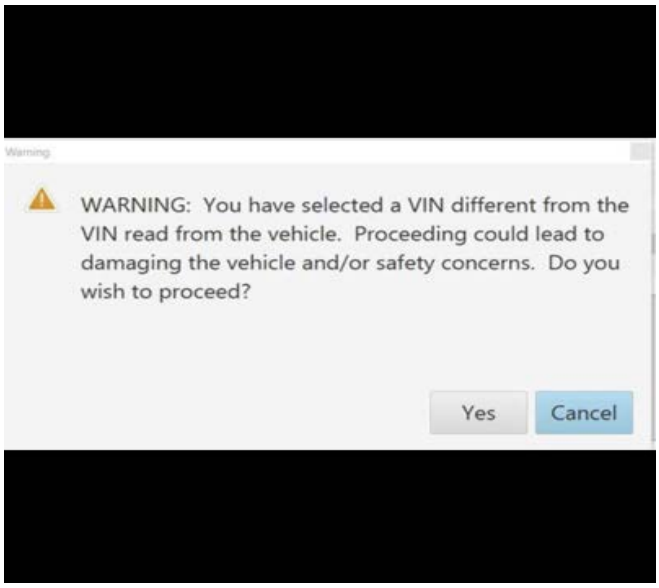
Important: If the vehicle VIN DOES NOT match, the message below will be shown



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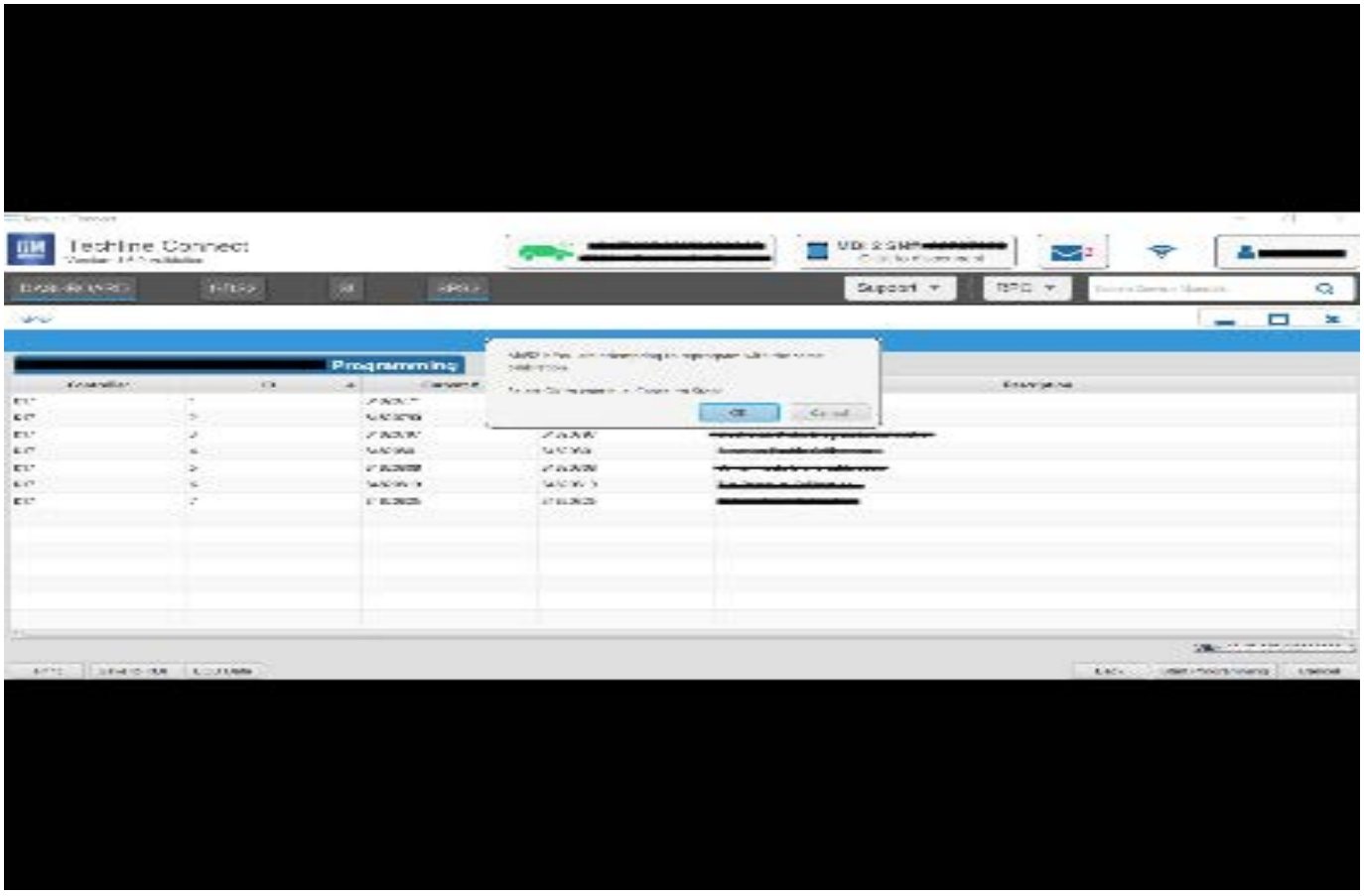

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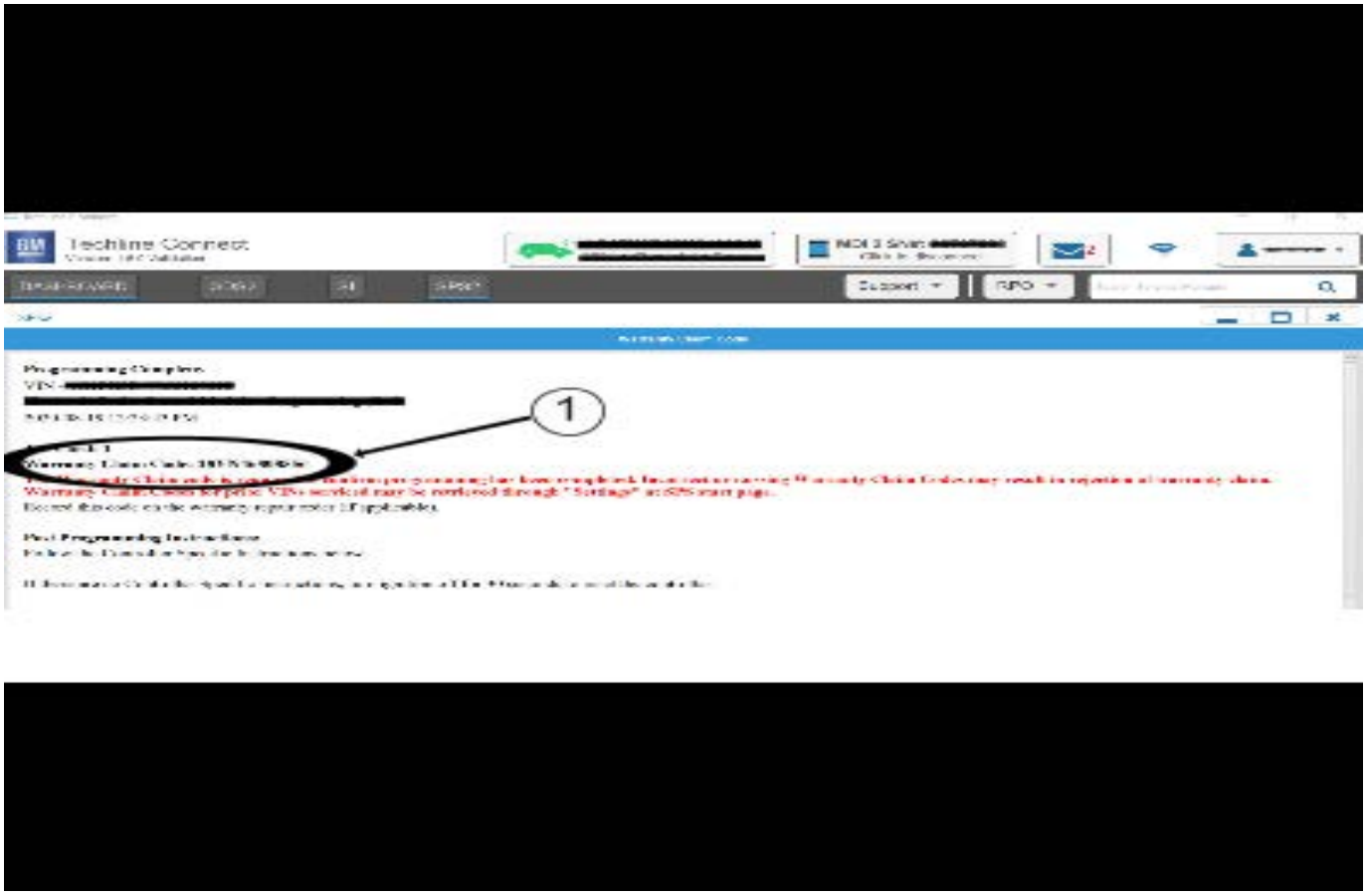
Important: Techline Connect and TIS2WEB screens shown above.

Important: If the same calibration/software warning is noted on the TLC or SPS Summary 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 Engine Control Module and Transmission Control Module sequentially. Refer to *K20 Engine Control Module: Programming and*

Setup in the Service Manual and *K71 Transmission Control Module: Programming and Setup in the Service Manual*.



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Note: The screenshots above are an example of module programming and may not be indicative of the specific module that is being programmed. Module selection and VIN information have been blacked out.

Important: To avoid warranty transaction rejections, you **MUST** record the warranty claim code provided on the SPS Warranty Claim Code (WCC) screen shown above 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.

Warranty Information

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.

Important: Warranty coverage code E2 applies for this module programming event. ECM reprogramming is covered for 8 years/80,000 miles (U.S.) or 8 years/ 130,000 km (Canada).

Labor Operation	Description	Labor Time
*2888228	ECM and TCM Sequential Reprogramming	0.6 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 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 SPS2.

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 TLC/TIS on the computer used to program the vehicle.
2. Select and start SPS2.
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	2
Modified	Released October 21, 2021 Revised January 27, 2022 – Added additional condition to Condition Section and updated programming procedure under Service Procedure

GM bulletins are intended for use by professional technicians, NOT a "do-it-yourselfer". They are written to inform these technicians of conditions that may occur on some vehicles, or to provide information that could assist in the proper service of a vehicle. Properly trained technicians have the equipment, tools, safety instructions, and know-how to do a job properly and safely. If a condition is described, DO NOT assume that the bulletin applies to your vehicle, or that your vehicle will have that condition. See your GM dealer for information on whether your vehicle may benefit from the information.

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