



FIELD SERVICE CAMPAIGN – 23104

04 April 2023

SUBJECT:

Reprogram Power Take-Off Module (PTOM) and Engine Control Module (ECM).

MODELS INVOLVED:

International® CV™ Series trucks

DEFECT DESCRIPTION:

Certain International® CV™ Series trucks may experience electrical noise from the vehicle speed sensor and, in combination with settings in the ECM, may result in deactivation of the Power Take-Off (PTO). Updating the software in the PTOM and the ECM will address this concern.

ELIGIBILITY:

This procedure applies ONLY to vehicles marked in the International® Service PortalSM with FSC 23104. Also complete any other open campaigns listed on the Service Portal at this time.

TOOLS REQUIRED:

Description	Tool Number
EZ-Tech® or Electronic Service Tool (EST) with GDS 2 Software	N/A
MDI 2 Interface	EL-52100 MDI II

Table 1 Tools Information

PARTS REQUIRED:

No parts required.

WORK INSTRUCTIONS

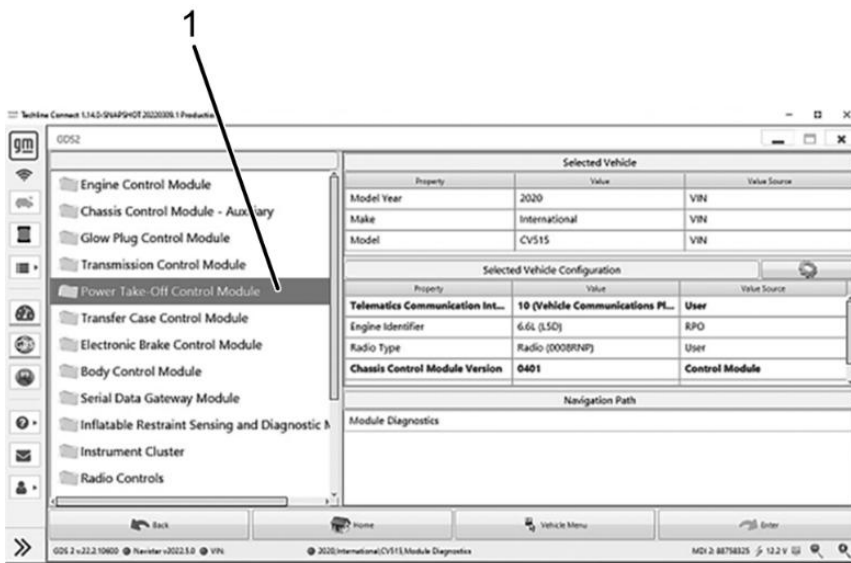
WARNING! To prevent personal injury and / or death, or damage to property, park vehicle on hard flat surface, turn the engine off, set the parking brake, and install wheel chocks to prevent the vehicle from moving in both directions.

WARNING! To prevent personal injury and / or death, always wear safe eye protection when performing vehicle maintenance.

WARNING! To prevent personal injury and / or death, or damage to property, keep flames or sparks away from vehicle and do not smoke while servicing the vehicle's batteries. Batteries expel explosive gases.

WARNING! To prevent personal injury and / or death, or damage to property, remove the ground cable from the negative terminal of the battery before disconnecting any electrical components. Always connect the ground cable last.

1. Park vehicle on a level surface.
2. Shift transmission into Park or Neutral and set parking brake.
3. Turn ignition to Key OFF position.
4. Install wheel chocks.
5. Connect battery charger / maintainer to vehicle battery.
6. Prior to making updates to PTOM, access GDS – PTOM and select **Copy Restore**.



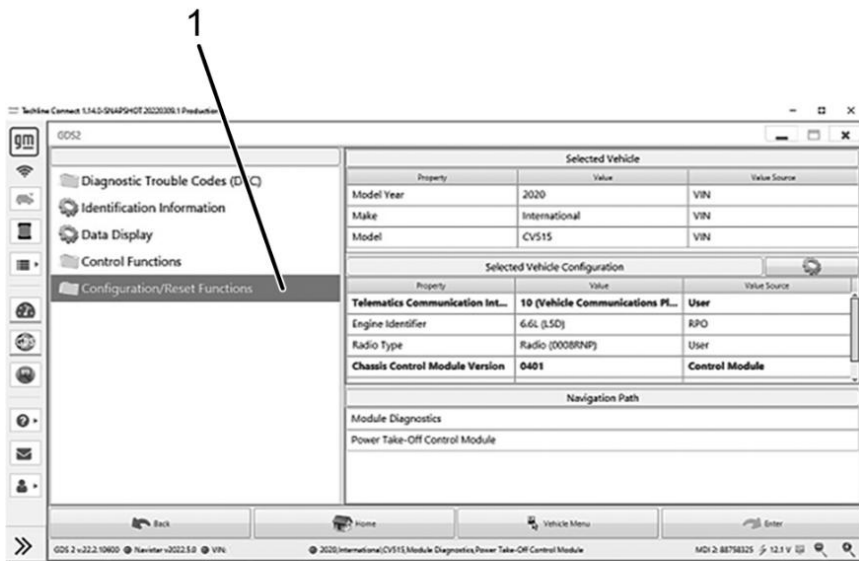
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Figure 1. GDS2 Screen

1. Power Take-Off Control Module

NOTE: This procedure is incompatible with TIS2 Web.

7. Using Techline Connect and MDI 2 Adapter, connect to vehicle Power Take-Off Control Module (Figure 1, Item 1).



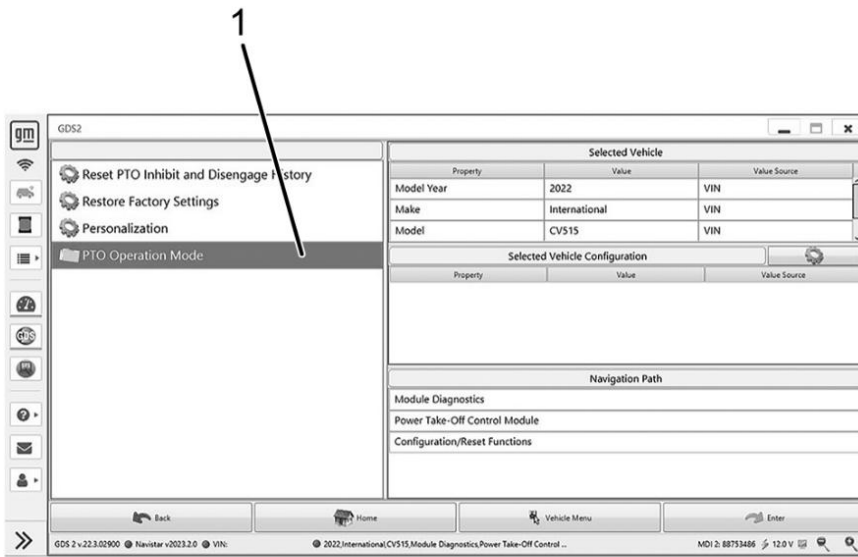
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Figure 2. GDS2 Screen

1. Configuration/Reset Functions

NOTE: Failure to perform Step 8 will erase all current PTOM settings during PTOM Calibration.

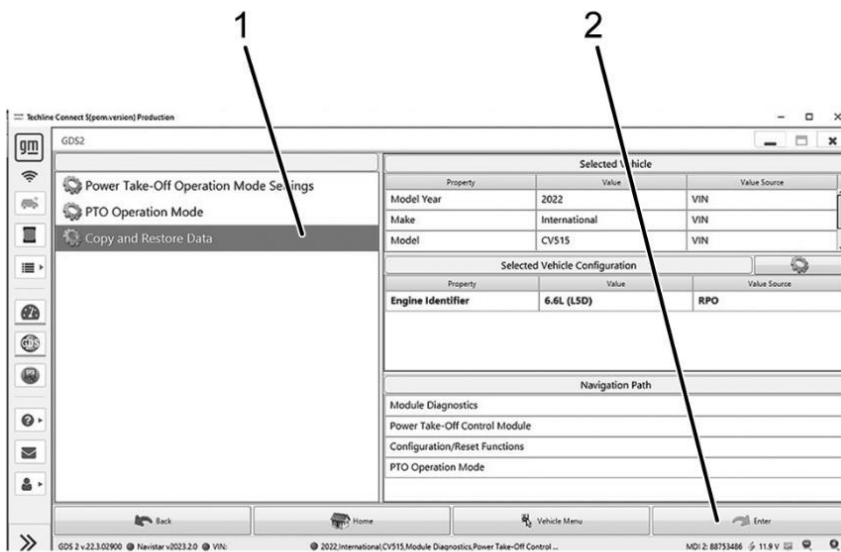
8. Select **Configuration/Reset Functions** (Figure 2, Item 1).



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Figure 3. GDS2 Screen

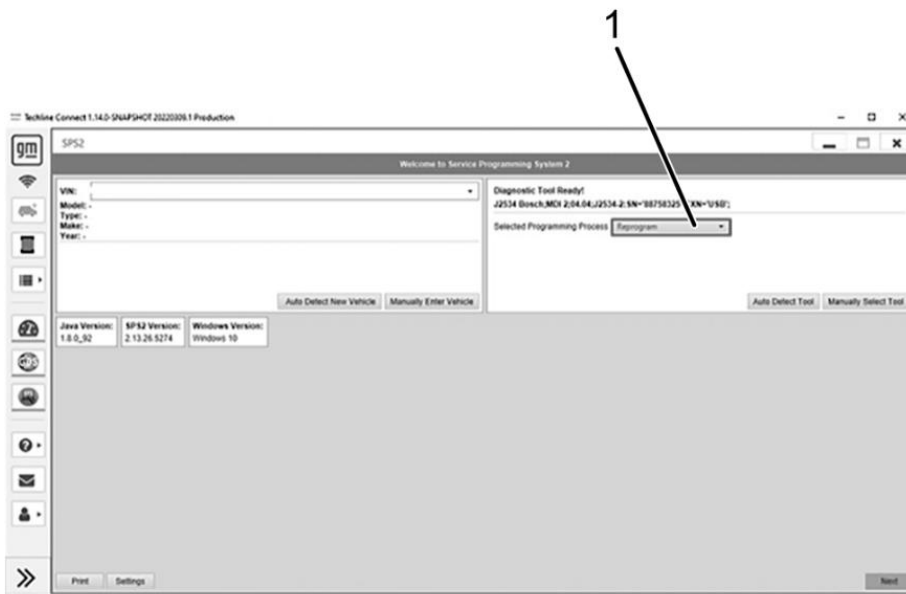
1. PTO Operation Mode
9. Select **PTO Operation Mode** (Figure 3, Item 1).



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Figure 4. GDS2 Screen

1. Copy and Restore Data
 2. Enter tab
10. Select **Copy and Restore Data** (Figure 4, Item 1) and click **Enter** tab (Figure 4, Item 2).
 11. Minimize the GDS2 screen on Techline Connect Homepage. Open SPS2 to begin programming updates on ECM / PTOM.



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Figure 5. SPS2 Screen

1. Reprogram tab
12. Select **Reprogram** tab (Figure 5, Item 1).

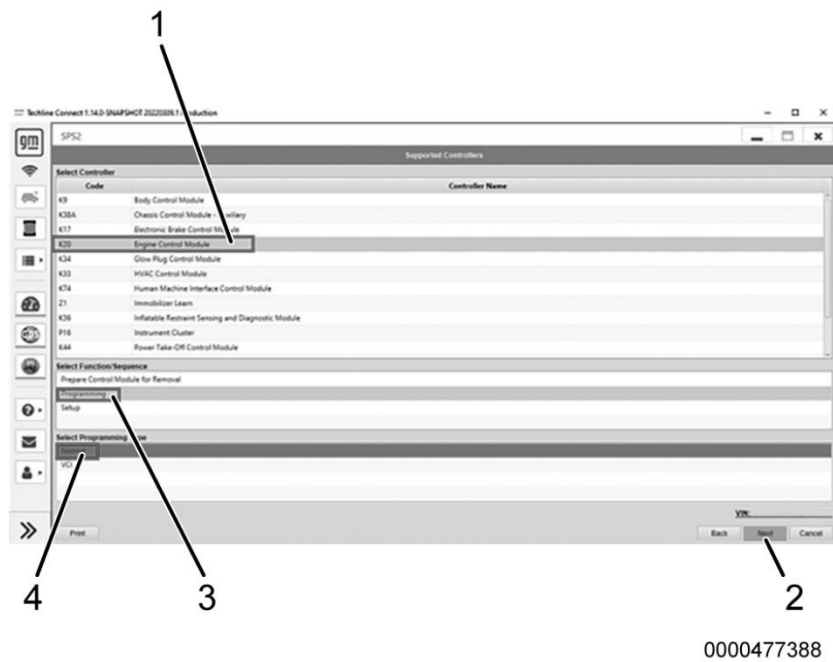


Figure 6. SPS2 Screen

1. K20 Engine Control Module
2. Next tab
3. Programming
4. Normal

13. Select **K20 Engine Control Module** (Figure 6, Item 1).
14. Select **Programming** (Figure 6, Item 3).
15. Select **Normal** (Figure 6, Item 4) and select **Next** tab (Figure 6, Item 2).

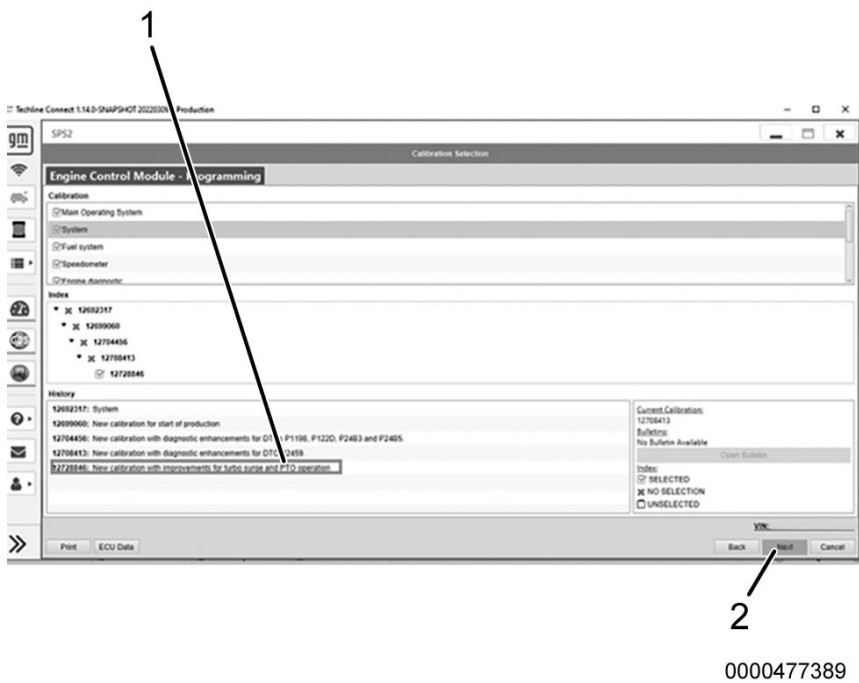
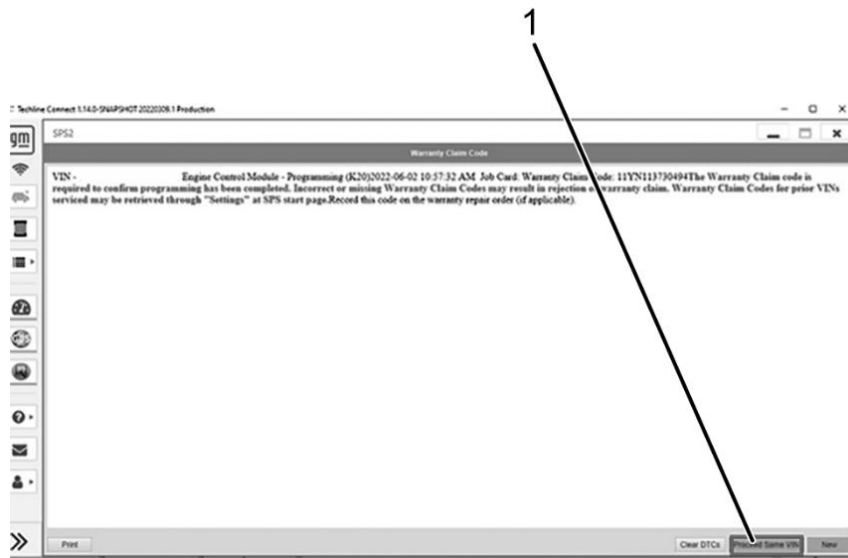


Figure 7. SPS2 Screen

1. New Calibration with improvements for turbo surge and PTO operation
2. Next tab

16. Select **New calibration with improvements for turbo surge and PTO operation** (Figure 7, Item 1), then click **Next** tab (Figure 7, Item 2). Allow download to complete before proceeding to next step.

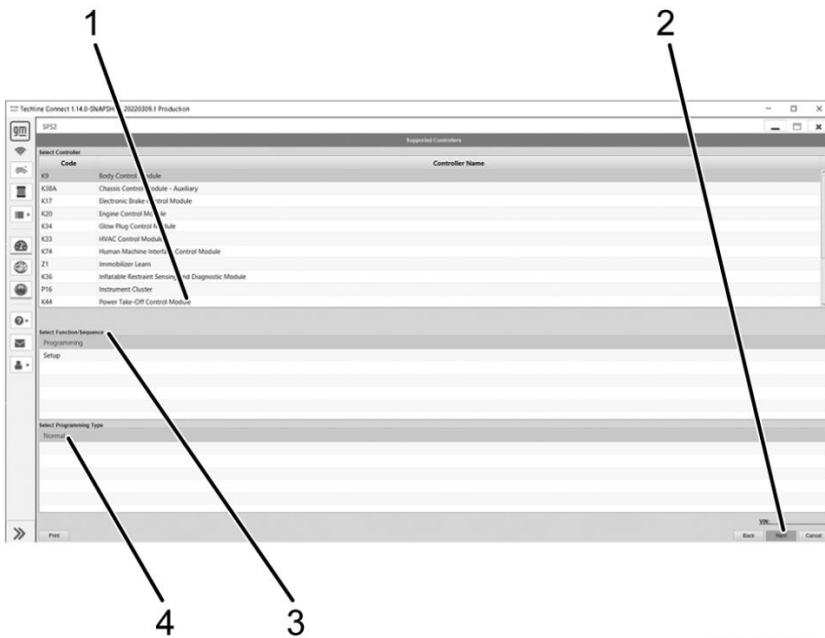


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Figure 8. SPS2 Screen

1. Proceed Same VIN tab

17. When download is complete, select **Proceed Same VIN** tab (Figure 8, Item 1).



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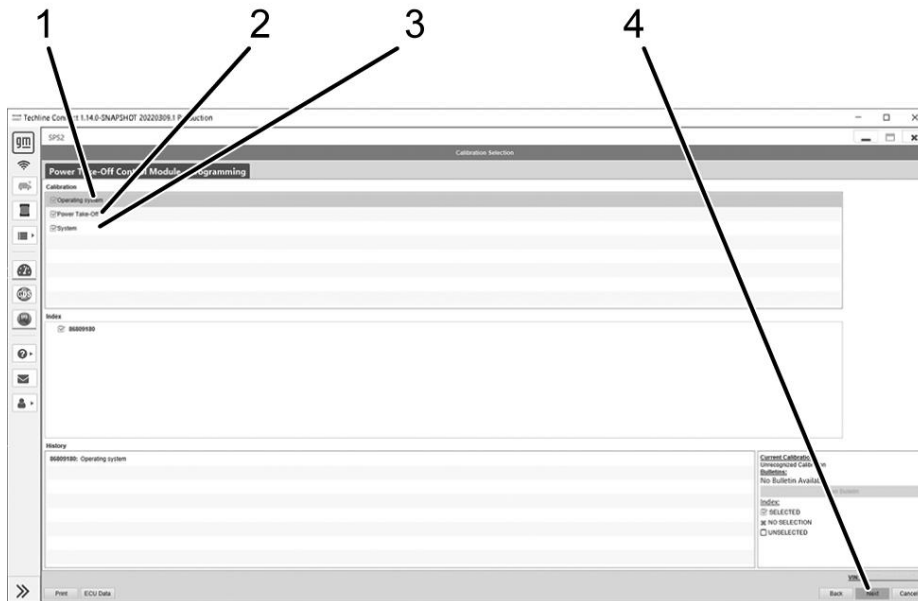
Figure 9. SPS2 Screen

1. K44 Power Take-Off Control Module
2. Next tab
3. Programming
4. Normal

18. Select **K44 Power Take-Off Control Module** (Figure 9, Item 1).

19. Select **Programming** (Figure 9, Item 3).

20. Select **Normal** (Figure 9, Item 4) and **Next** tab (Figure 9, Item 2).



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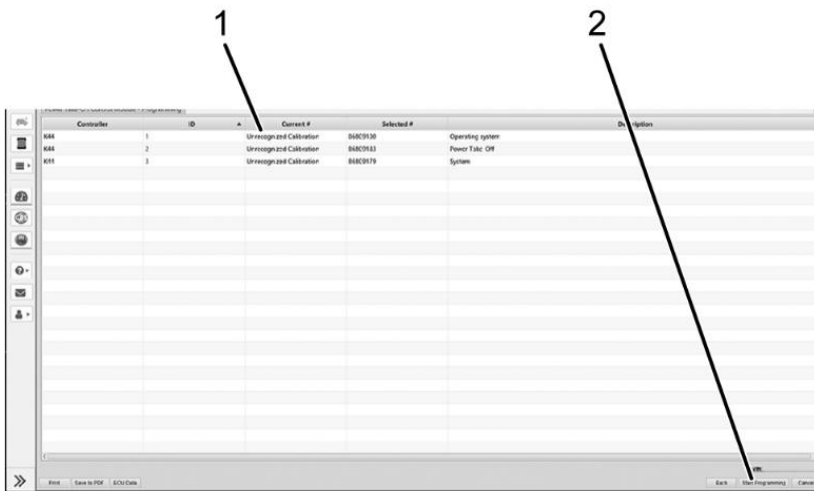
Figure 10. SPS2 Screen

1. Operating System
2. Power Take-Off
3. Systems
4. Next tab

21. Select the following Power Take-Off Control Module options:

- a. **Operating System** (Figure 10, Item 1).
- b. **Power Take-Off** (Figure 10, Item 2).
- c. **Systems** (Figure 10, Item 3).

22. Click **Next** tab (Figure 10, Item 4).



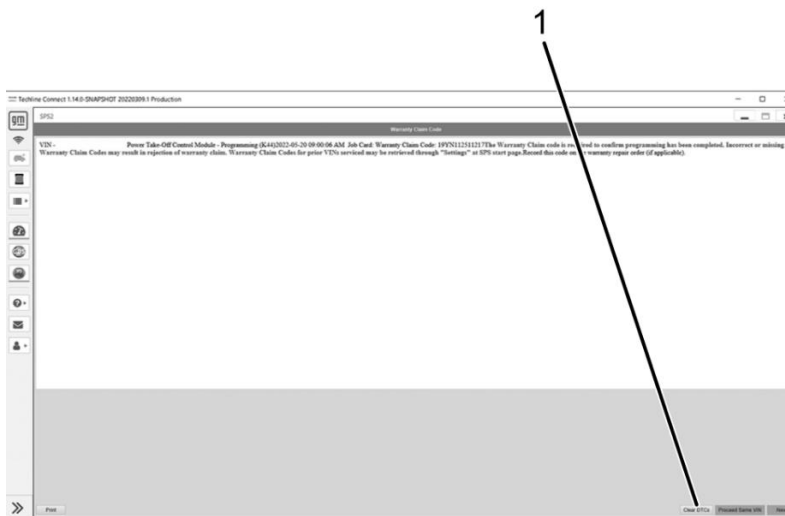
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Figure 11. SPS2 Screen

1. Unrecognized calibration message
2. Start Programming tab

NOTE: The message “Unrecognized Calibration” is normally displayed (Figure 11, Item 1).

23. Select **Start Programming** tab (Figure 11, Item 2) before proceeding to the next step.



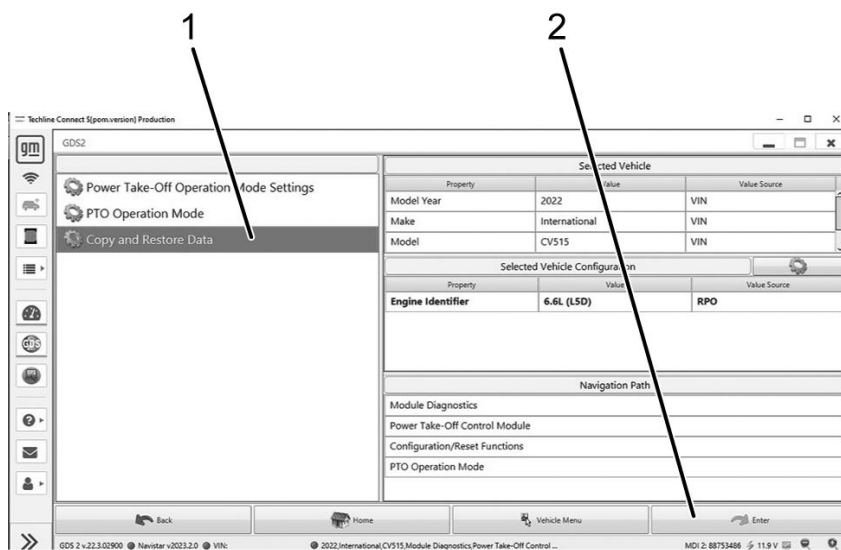
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Figure 12. SPS2 Screen

1. Clear DTCs

NOTE: Click OK to confirmation message that DTCs have been cleared.

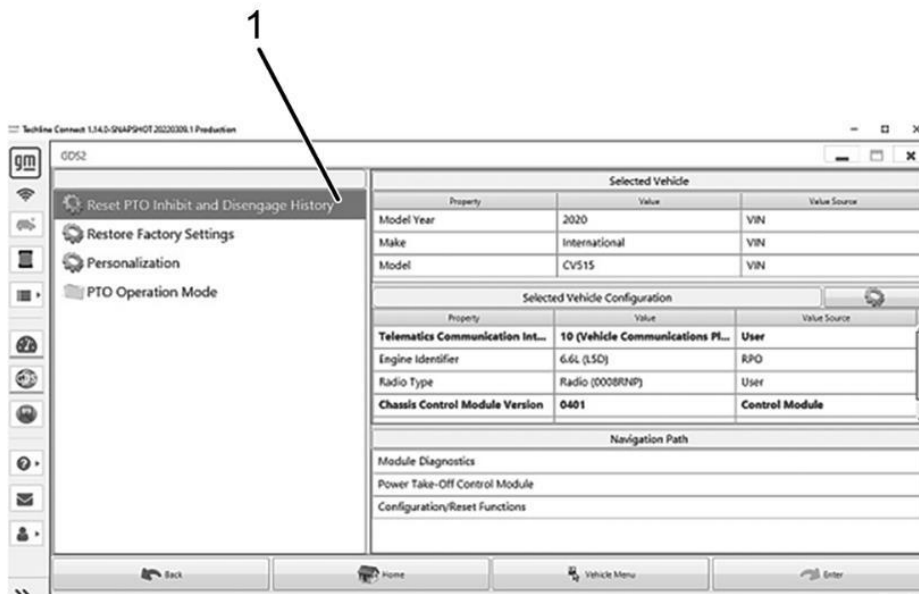
24. When programming is completed, select **Clear DTC** (Figure 12, Item 1).



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Figure 13. GDS2 Screen

1. Copy and Restore Data
 2. Enter tab
25. Minimize SPS2 and reopen GDS2 located on the Techline Connect Homepage. Select **Copy and Restore Data** (Figure 13, Item 1), then click **Enter** tab (Figure 13, Item 2). You will be directed to use saved data. Confirm message and continue to restore PTOM Data.
 26. GDS directs you to the previous menu (alternatively, use the Back button to return to the previous menu).

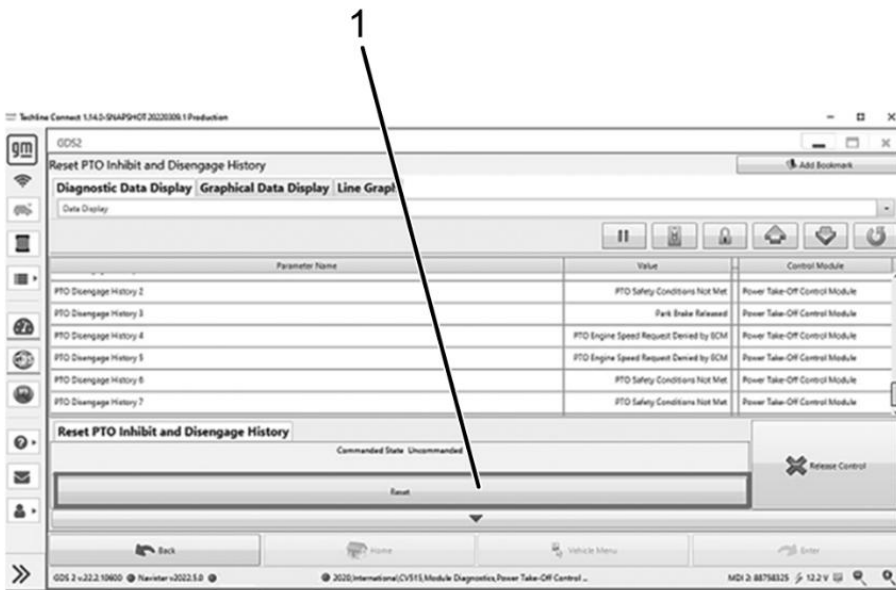


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Figure 14. GDS2 Screen

1. Reset PTO Inhibit and Disengage History

27. Select **Reset PTO Inhibit and Disengage History** (Figure 14, Item 1).



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Figure 15. GDS2 Screen

1. Reset tab

28. Select **Reset** tab (Figure 15, Item 1).
29. Set park brake, disconnect scan tool, turn ignition to Key OFF position, and remove key from ignition.
30. Test PTO operation.

IMPORTANT: Leave system off for 5 minutes before testing PTO operation. If the PTO does not engage and operate properly, repeat Steps 5 through 30.

31. Turn ignition to Key OFF position.
32. Disconnect interface connector from diagnostic port.
33. Disconnect battery charger / maintainer from vehicle battery.
34. Remove wheel chocks.

LABOR INFORMATION

Operation number must appear on all claims.

Operation Number	Description	Time
A40-23104-1	Reprogram ECM and PTOM	0.7 hrs

Table 2 Labor Information

WARRANTY CLAIMS

Warranty claim expense is to be charged to Warranty. Claims are to be submitted in the normal manner, making reference to Field Service Campaign 23104.

Section 7 of the Warranty Policy and Procedures Manual contains further information related to the submission and processing of AFC / Recall claims.

As with all claim submissions, items acquired locally must be submitted in the “Other Charges” tab. The cost of any bulk items (such as a bag of cable tie straps, roll of wire, barrel of oil, or tube of silicone) should be prorated for the cost of the individual pieces / amount used during each repair.

To make sure this important improvement is made in a timely manner, all claims for 23104 activity must be submitted by 04 April 2023 or within the normal warranty period for the component repaired, if after 04 April 2023.

	GROUP	NOUN	C	WARR.	TP	PAD
GROUP — Enter number						
NOUN — Leave blank						
C (CAUSE) — Enter either 1, 2, 3. (See below)						
1. Inspected (No repair required).						
2. Inspected and repaired.						
3. Defective part from parts stock.						
WARRANTY — (Warranty Code) Enter 40.						
TYPE PART — Enter P for type part causing failure.						
PAD — Enter 100						

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