Tool Instruction
ECM TCM Programming Harness

4328865R1

Tool Number: 12-801-01-16

0000477770

Figure 1. ECM TCM Programming Harness 12-801-01-18

Purpose

Essential tool used to reflash / reprogram the Engine Control Module (ECM) and Transmission Control Module (TCM).

Application(s)

2024 International® S13 Integrated Powertrain, 2024 International® S13 Engine. Additional vehicle applications may apply.

⚠ **WARNING: To prevent personal injury and / or death, or damage to property, read all safety instructions in the "Safety Information" section of the *Engine Service Manual* or *Engine Diagnostic Manual.***

⚠ **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 either direction.**

⚠ **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, inspect tool for wear / damage prior to use. Replace any worn or damaged components as necessary.**

Tool Contents

Table 1

Image	Tool Number	Qty	Description
0000477771	12-801-01-16	1	ECM TCM Programming Harness
NAVISTAR 0000160075	4328863R1	1	Tool Instruction

Additional Tools Required

When using ECM and TCM Programming Harness (12-801-01-16), the following additional tools are required:

•   EZ-Tech® with 500K-compatible Interface Device (GREEN adapter)

•   Control Module Programming Station (12-801-01-01)

•   Service Diagnostics Solutions (SDS) Software

Instructions

NOTE: Please reference International® Service Portalˢᴹ regarding any possible revisions to this document.

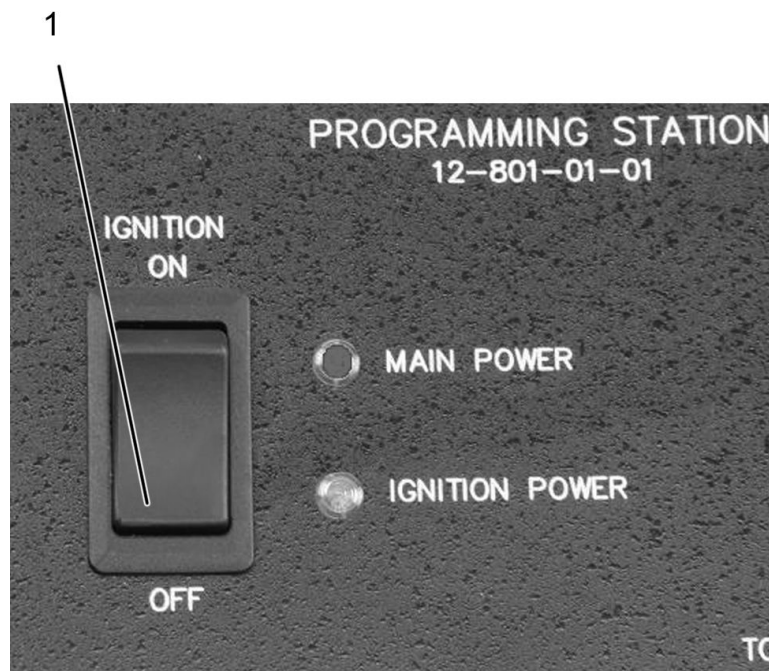This procedure is divided into the following main tasks:

ECM Programming

- **Set Up Control Module Programming Station: Step 1–Step 6**

- **Update Control Module Programming Station: Step 7**

- **Disconnect Control Module Programming Station: Step 8–Step 14**

TCM Programming

- **Set Up Control Module Programming Station: Step 15–Step 20**

- **Update Control Module Programming Station: Step 21**

- **Disconnect Control Module Programming Station: Step 22–Step 28**

Set Up Control Module Programming Station — Engine Control Module (ECM)
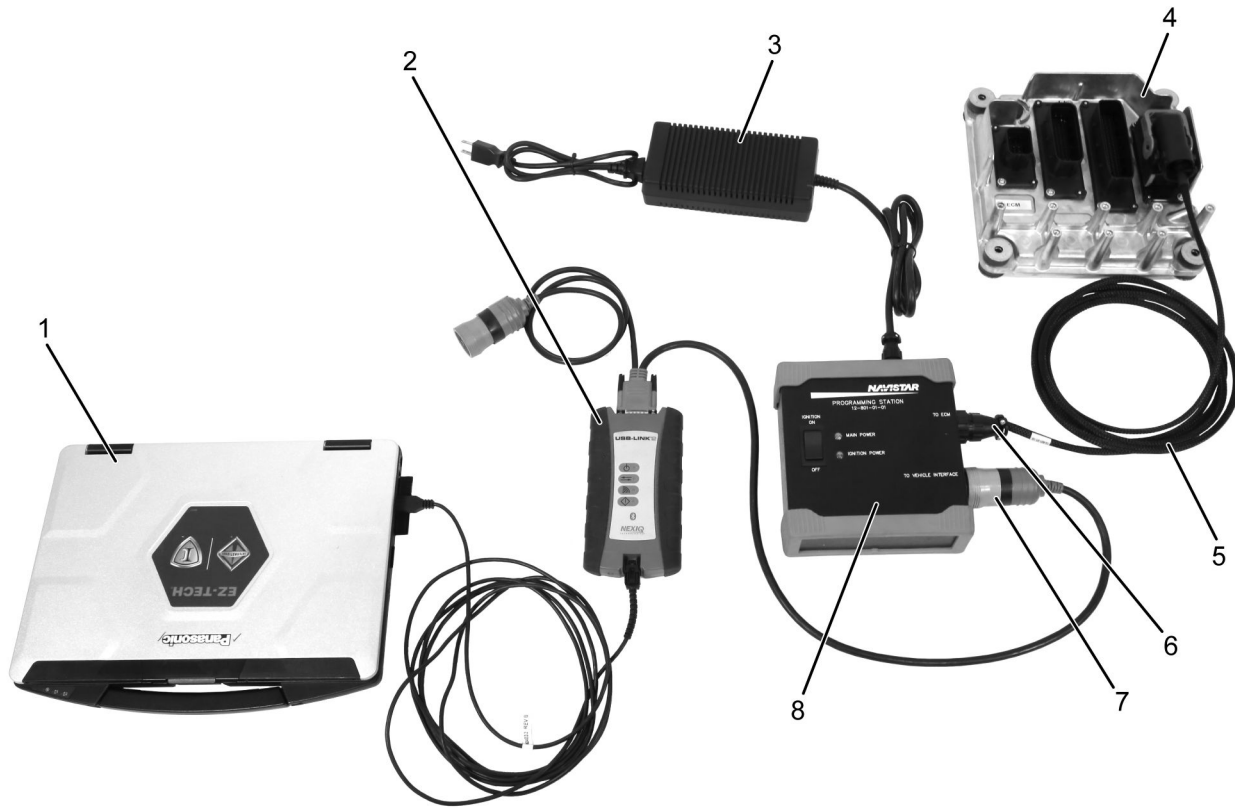

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Figure 2.   Control Module Programming Station Ignition Switch

1.   Ignition switch OFF

Instructions (cont.)

Figure 3.   Control Module Programming Station Connections — Engine Control Module (ECM)

1. EZ-Tech®
2. Interface device
3. 12-volt power supply (12-801-01-08)
4. ECM
5. Programming harness 12-801-01-16
6. Control module programming station ECM port
7. Control module programming station vehicle interface port
8. Control module programming station (12-801-01-01)

1. Press ignition switch (Figure 2, Item 1) on Control Module Programming Station (12-801-01-01) to OFF.

2. Using 12-volt power supply (Figure 3, Item 3), connect Control Module Programming Station (Figure 3, Item 8) to an AC power source.

3. Connect ECM and TCM Programming Harness (Figure 3, Item 5) to Control Module Programming Station port labeled TO ECM (Figure 3, Item 6).
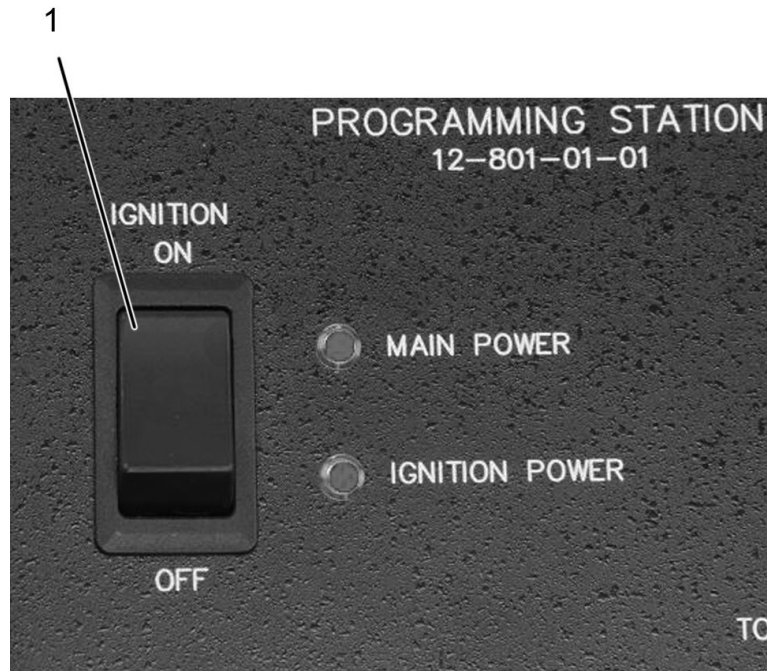

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Figure 4. Engine Control Module (ECM)

1. ECM and TCM Programming
   Harness 12-801-01-16
2. Engine Control Module (ECM)

4. Connect opposite end of harness to ECM (Figure 4, Item 2).

NOTE: GREEN adapter is needed for 500K compatibility.

5. Connect interface device (Figure 3, Item 2) to Control Module Programming Station port labeled TO VEHICLE INTERFACE (Figure 3, Item 7), and to EZ-Tech® (Figure 3, Item 1).

Instructions (cont.)

Figure 5.   Control Module Programming Station Ignition Switch

1.   Ignition switch ON

6.   Press ignition switch (Figure 5, Item 1) on Control Module Programming Station (12-801-01-01) to IGNITION ON.

Update Control Module Programming Station

Before updating the module using the Service Diagnostics Solutions (SDS) Software, make sure that all equipment is fully connected.
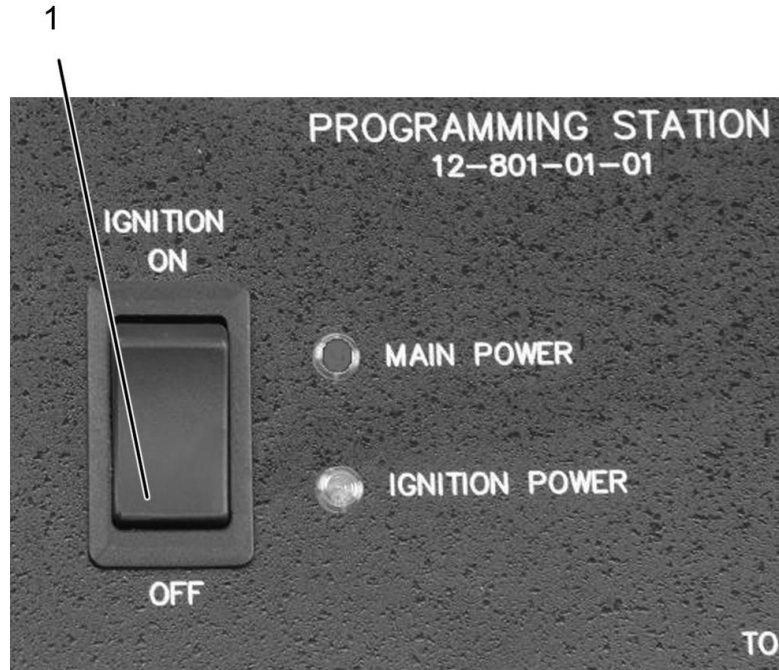
7.   Using SDS, update Control Module Programming Station.

Disconnect Control Module Programming Station

8.   After programming is complete, press ignition switch (Figure 2, Item 1) on Control Module Programming Station (12-801-01-01) to IGNITION OFF.

9.   Disconnect interface device (Figure 3, Item 2) from EZ-Tech® (Figure 3, Item 1).

10. Disconnect interface device (Figure 3, Item 2) from Control Module Programming Station port labeled TO VEHICLE INTERFACE (Figure 3, Item 7). Store interface device for reuse.

11. Disconnect ECM and TCM Programming Harness (Figure 3, Item 5) from control module (Figure 3, Item 4).

12. Install ECM, if removed from vehicle (refer to appropriate service manual for detailed instructions).

Instructions (cont.)

13. Disconnect ECM and TCM Programming Harness (Figure 3, Item 5) from Control Module Programming Station port labeled TO ECM (Figure 3, Item 6). Store ECM and TCM Programming Harness (Figure 3, Item 5) for reuse.

14. Disconnect Control Module Programming Station (Figure 3, Item 8) from power source (Figure 3, Item 3).

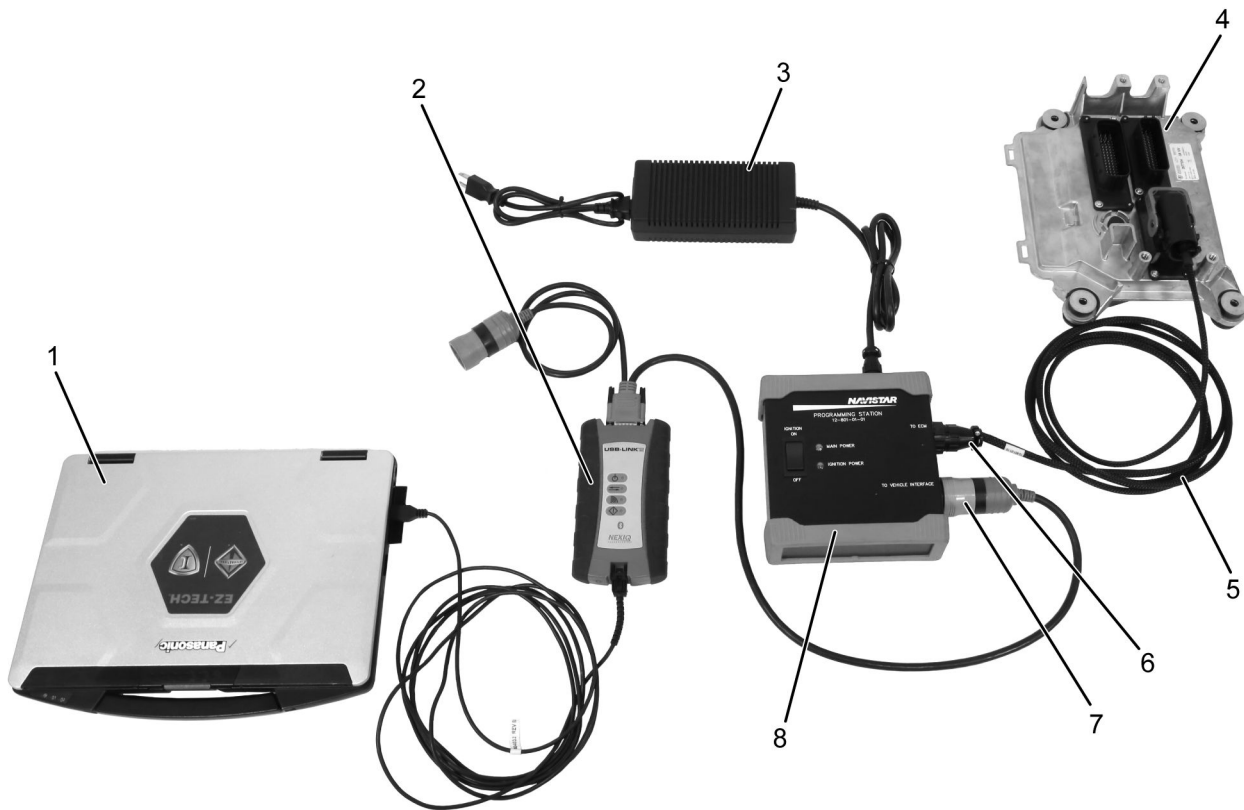**Set Up Control Module Programming Station — Transmission Control Module (TCM)**

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Figure 6.   Control Module Programming Station Ignition Switch

1.   Ignition switch OFF

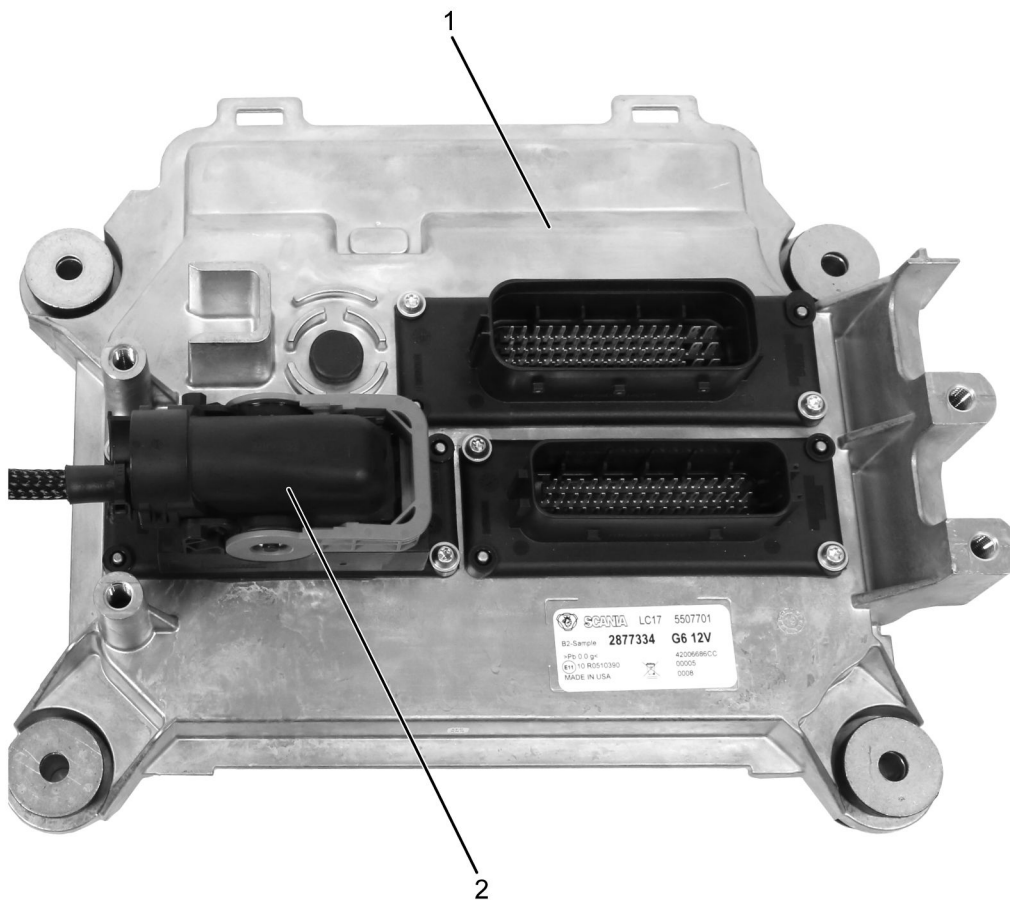**4328865R1**

Instructions (cont.)

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Figure 7. Control Module Programming Station Connections — Transmission Control Module (TCM)

1. EZ-Tech®
2. Interface device
3. 12-volt power supply (12-801-01-08)
4. TCM

5. Programming harness 12-801-01-16
6. Control module programming station ECM port

7. Control module programming station vehicle interface port
8. Control module programming station (12-801-01-01)

15. Press ignition switch (Figure 6, Item 1) on Control Module Programming Station (12-801-01-01) to OFF.

16. Using 12-volt power supply (Figure 7, Item 3), connect Control Module Programming Station (Figure 7, Item 8) to an AC power source.

17. Connect ECM and TCM Programming Harness (Figure 7, Item 5) to Control Module Programming Station port labeled TO ECM (Figure 7, Item 6).

Instructions (cont.)

Figure 8. Transmission Control Module (TCM)
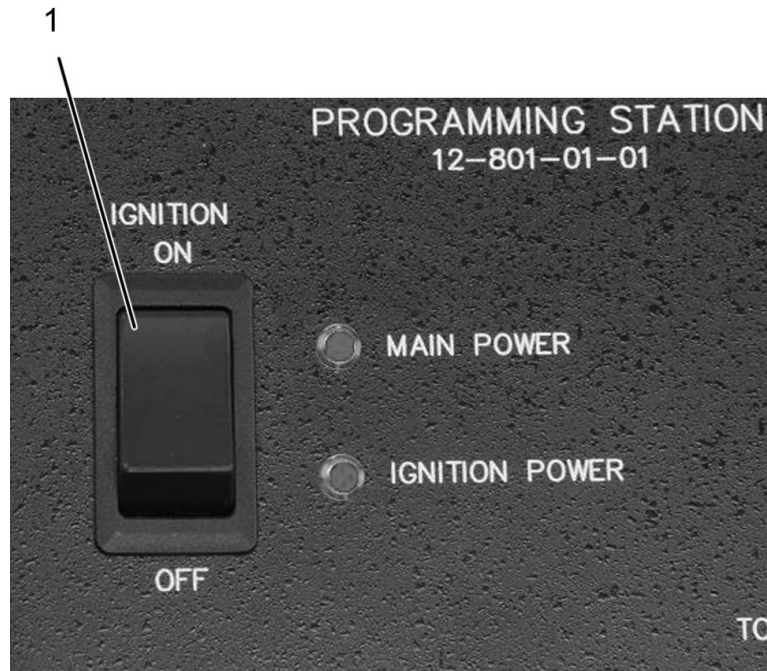
1. Transmission Control Module
2. ECM and TCM Programming
   Harness 12-801-01-16

18. Connect opposite end of harness to TCM (Figure 7, Item 4).

NOTE: GREEN adapter is needed for 500K compatibility.

19. Connect interface device (Figure 3, Item 2) to Control Module Programming Station port labeled TO VEHICLE INTERFACE (Figure 3, Item 7), and to EZ-Tech® (Figure 3, Item 1).

Instructions (cont.)

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Figure 9. Control Module Programming Station Ignition Switch

1. Ignition switch ON

20. Press ignition switch (Figure 9, Item 1) on Control Module Programming Station (12-801-01-01) to IGNITION ON.

Update Control Module Programming Station

Before updating the module using the Service Diagnostics Solutions (SDS) Software, make sure that all equipment is fully connected.

21. Using SDS, update Control Module Programming Station.

Disconnect Control Module Programming Station

22. After programming is complete, press ignition switch (Figure 6, Item 1) on Control Module Programming Station (12-801-01-01) to IGNITION OFF.

23. Disconnect interface device (Figure 7, Item 2) from EZ-Tech® (Figure 7, Item 1).

24. Disconnect interface device (Figure 7, Item 2) from Control Module Programming Station port labeled TO VEHICLE INTERFACE (Figure 7, Item 7). Store interface device for reuse.

25. Disconnect ECM and TCM Programming Harness (Figure 7, Item 5) from control module (Figure 7, Item 4).

26. Install ECM, if removed from vehicle (refer to appropriate service manual for detailed instructions).

Instructions (cont.)

27. Disconnect ECM and TCM Programming Harness (Figure 7, Item 5) from Control Module Programming Station port labeled TO ECM (Figure 7, Item 6). Store ECM and TCM Programming Harness (Figure 7, Item 5) for reuse.

28. Disconnect Control Module Programming Station (Figure 7, Item 8) from power source (Figure 7, Item 3).

Care and Maintenance

• Keep tools clean and free of contaminants.

• Replace any damaged components.

Contact Information

If you would like to order additional tools or need replacement parts, please refer to the Navistar Service Tool Catalog. If you have questions, concerns, or feedback, please contact Navistar Service Tool Support Center:

• Submit a Service Tool iKNow Case File.

• Phone: 800-365-0088 (toll free).