

# Tool Instruction ACM Programming Harness

4328502R1

Tool Number: 12-801-01-13



0000415128

Figure 1. ACM Programming Harness

#### Purpose

The Aftertreatment Control Module (ACM) Programming Harness is used to reflash / reprogram the ACM.

### Application(s)

2013 SCR N9 / N10 2013 N13 2015 N13

Additional Engine / Vehicle Applications May Apply

**GOVERNMENT REGULATION:** Engine fluids (oil, fuel, and coolant) may be a hazard to human health and the environment. Handle all fluids and other contaminated materials (such as filters or rags) in accordance with applicable regulations. Recycle or dispose of engine fluids, filters, and other contaminated materials according to applicable regulations.

Read all safety instructions in the "Safety Information" section of the appropriate Engine Service or Diagnostic Manual. Follow all warnings, cautions, and notes. ©2017 Navistar, Inc. All rights reserved. All marks are trademarks of their respective owners.

# Application(s) (cont.)

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

WARNING: To prevent property damage, personal injury, and / or death, 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.

#### **Tool Contents**

Table 1

Image	Tool Number	Qty	Description
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# Tool Contents (cont.)

#### Additional Tools Required

When using ACM Programming Harness (12-801-01-13), the following additional tools are required:

- EZ-Tech<sup>®</sup> laptop with NavKal<sup>™</sup>
- Control Module Programming Station (12-801-01-01)
- Nexiq USB Link2 (NQ124032)
- N13 Engine Control Module (ECM) Programming Harness (12-801-01-02)
- N9 / N10 ECM / DCU Programming Harness (12-801-01-04)

#### Instructions

#### N9 and N10 ACM Programming Setup

IMPORTANT: Please reference International<sup>®</sup> Service Portal<sup>™</sup> regarding any possible revisions to this document.



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#### Figure 2. Control Module Programming Station Ignition Switch

- 1. Ignition switch
- 1. Make sure ignition switch (Figure 2, Item 1) on Control Module Programming Station (12-801-01-01) is OFF.

CAUTION: To prevent property / component damage, when removing and installing the Control Module connectors, use extreme caution as the lock levers are easily broken. Using one hand, lift the lock lever and use the other to ensure the slide lock is free to move without interference from the wiring harness.



Figure 3. Control Module Programming Station Connections for 2013 SCR N9 / N10 Engines

- 1. Doser Control Unit (DCU)
- 2. 12 volt power supply (12-801-01-08)
- 3. Control module programming station (12-801-01-01)
- 4. Control module programming station ECM Port
- 5. ACM
- 6. ACM programming harness (12-801-01-13)
- 7. Nexiq USB Link2 connection port
- 8. ACM programming harness connection port
- 9. ECM programming harness (12-801-01-04)
- 10. ECM
- 2. Connect Control Module Programming Station (Figure 3, Item 3) to an AC power source using 12 volt power supply (Figure 3, Item 2).
- 3. Using ACM Programming Harness (Figure 3, Item 6), connect to Control Module Programming Station port labeled TO ECM (Figure 3, Item 4). Connect opposite end of harness to control module that requires programming (Figure 3, Item 5). Connect J2 connector first, followed by J1 connector.
- 4. Using ECM Programming Harness (Figure 3, Item 9), connect to ECM (Figure 3, Item 10) and DCU (Figure 3, Item 1). Connect opposite end to ACM Programming Harness connection port (Figure 3, Item 8).
- 5. Connect Nexiq USB Link2 (NQ124032) to connection port (Figure 3, Item 7) labeled TO VEHICLE INTERFACE on Control Module Programming Station, and to laptop containing NavKal<sup>™</sup> software.

#### N13 ACM Programming Setup



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Figure 4. Control Module Programming Station Ignition Switch

- 1. Ignition switch
- 1. Make sure ignition switch (Figure 4, Item 1) on Control Module Programming Station (12-801-01-01) is OFF.



Figure 5. Control Module Programming Station Connections for 2013 N13 Engines

- 1. ECM
- 2. 12 volt power supply (12-801-01-08)
- 3. Control module programming station (12-801-01-01)
- 4. Control module programming station ECM port
- 5. ACM programming harness (12-801-01-13)
- 6. ACM
- 7. ACM programming harness connection port
- 8. Nexiq USB Link2 connection port
- 9. ECM programming harness (12-801-01-02)
- 2. Connect Control Module Programming Station (Figure 5, Item 3) to an AC power source using 12 volt power supply (Figure 5, Item 2).
- 3. Using ACM Programming Harness (Figure 5, Item 5), connect to Control Module Programming Station port labeled TO ECM (Figure 5, Item 4). Connect opposite end of harness to control module that requires programming (Figure 5, Item 6). Connect J2 connector first, followed by J1 connector.
- 4. Using ECM Programming Harness (Figure 5, Item 9), connect to ECM (Figure 5, Item 1). Connect opposite end to ACM Programming Harness connection port (Figure 5, Item 7).
- 5. Connect Nexiq USB Link2 (NQ124032) to connection port (Figure 5, Item 8) labeled TO VEHICLE INTERFACE on Control Module Programming Station, and to laptop containing NavKal<sup>™</sup> software.

#### **Programming Module**

After connecting Control Module Programming Station 12-801-01-01 to ACM, NavKal<sup>™</sup> can be used to update module.

NOTE: The NavKal<sup>™</sup> software should automatically connect to the vehicle without having the user select the protocol (unless the module is blank). Once connected, the main window will display information about the connected vehicle. If the software fails to connect (does not display information about the connected vehicle) or module is blank, refer to NavKal<sup>™</sup> User Guide for detailed instructions.

**NOTE:** Make sure all equipment is connected.



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Figure 6. Control Module Programming Station Ignition Switch

- 1. Ignition switch
- 1. Turn ignition switch on Control Module Programming Station to ON (Figure 6, Item 1)
- 2. Using NavKal<sup>™</sup>, program module. Refer to NavKal<sup>™</sup> User Guide for detailed instructions.

**Disconnecting Control Module Programming Station** 



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Figure 7. Control Module Programming Station Ignition Switch

- 1. Ignition switch
- 1. Once programming is complete, turn ignition switch (Figure 7, Item 1) on Control Module Programming Station to OFF position.
- 2. Disconnect interface device from software device.
- 3. Disconnect interface device from Control Module Programming Station port labeled TO VEHICLE INTERFACE. Store interface device for reuse.
- 4. Disconnect ACM Programming Harness from control module.
- 5. If necessary, install ACM. Connect and engage ACM vehicle harness connectors. Refer to appropriate service manual for detailed procedure.
- 6. Disconnect ECM Harness from ECM and DCU (if applicable). Connect and engage module vehicle connectors.
- 7. Disconnect ECM harness from ACM Programming Harness Connection Port. Store ECM Programming Harness for reuse.
- 8. Disconnect ACM Programming Harness from Control Module Programming Station port labeled TO ECM. Store ACM Programming Harness for reuse.
- 9. Disconnect Control Module Programming Station from power source. Store components for reuse.

### **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).