

Tool Instruction E1 BREAKOUT HARNESS

4328429R1

Tool Number: 12-801-04



0000405135

Figure 1. 12-801-04 E1 Breakout Harness

Purpose

Essential tool used in conjunction with the CPA tool to test various engine functions:

- Relative Compression Plus Test (RCT+)
- Idle Misfire
- High Idle Blow-By (BBT)
- High-Pressure Fuel Pump (HPFP)
- Additional procedures in development.

Application(s)

2010 – 2012 MaxxForce® 11 and 13

2013 – 2016 N13



WARNING: To prevent property damage, 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
 <p>0000405133</p>	12-801-04-01	1	E1 Breakout Harness
 <p>0000405132</p>	12-801-04-02	1	Canvas Bag
 <p>0000160075</p>	4328429R1	1	Tool Instruction

Instructions

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

1. Park vehicle on a flat surface.
2. Shift transmission to Park or Neutral and set parking brake.
3. Turn vehicle ignition to OFF position.
4. Install wheel chocks
5. Unlatch and open hood.
6. Access vehicle Engine Control Module (ECM).

NOTE: When removing and installing the ECM connectors, use extreme caution as the lock levers are easily broken. Using one hand lift the lock lever and use the other to insure the slide lock is free to move without interference from the wiring harness.

7. Disconnect ECM E2 engine harness to gain access to vehicle ECM E1 harness connector. Disconnect E1 engine harness at ECM.
8. Connect breakout harness to ECM E1 header and E1 engine harness.
9. Reconnect ECM E2 engine harness.

Instructions (cont.)

NOTE: The E1 Breakout Harness includes the following signal outputs:

- Cam Signal (CMP)
- Crank Signal (CKP)
- Fuel Rail Pressure (FRP)
- Fuel Delivery Pressure (FDP)
- Fuel Pressure Control Valve (FPCV)
- Engine Throttle Valve (ETV)
- Crankcase Oil Separator Speed (CCOSS)
- Vehicle Speed Sensor (VSS)
- Engine Oil Temperature (EOT)
- Intake Manifold Pressure (IMP)

10. Perform desired test. Refer to appropriate service / diagnostic manual for detailed instruction.

11. Once test is complete, turn vehicle ignition to OFF position.

NOTE: When removing and installing the ECM 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.

12. Disconnect E2 harness at ECM.

13. Disconnect breakout harness at ECM and E1 engine harness.

14. Connect E1 engine harness at ECM.

15. Connect E2 engine harness at ECM.

16. Close and latch hood.

17. Remove wheel chocks.

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).