



File in Section: 06 - Engine

Bulletin No.: 08-06-04-003C

Date: September, 2014

Service Bulletin

INFORMATION

Subject: New Tool Availability — EN-48974 – EGR Cooler Pressure Tester Adapter Set to Diagnose Duramax® Diesel Engine EGR Cooler Engine Coolant Leaks into Combustion Chamber

Models: 2002-2015 Chevrolet Silverado
2004-2009 Chevrolet Kodiak C4500-C5500 Series
2006-2015 Chevrolet Express Vans
2002-2015 GMC Sierra
2004-2009 GMC TopKick C4500-C5500 Series
2006-2015 GMC Savana Vans
Equipped with 6.6L Duramax™ Diesel Engine (VINs 1, 2, D, 6, L, 8 – RPOs LB7 (CA Emissions), LLY, LBZ, LMM, LML, LGH)
Please Refer to GWM/IVH

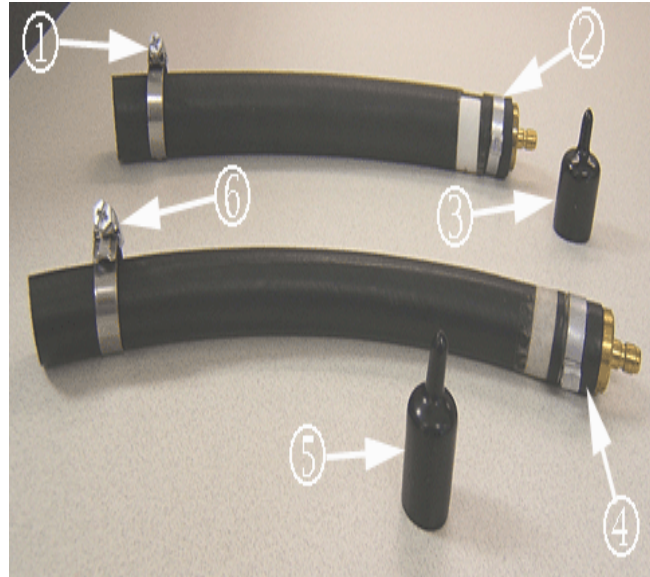
Attention: The graphics contained in this bulletin for clarity show the EGR cooler connections to J-46091 and EN-48974 on a workbench. The connections are the same with on-vehicle service.

This bulletin has been revised to add Model Years. Please discard Corporate Bulletin Number 08-06-04-003B.

An EGR Cooler Pressure Tester Adapter Set, EN-48974, was shipped essential to dealers in December 2007 to diagnose EGR cooler engine coolant leaks on all Duramax™ engines equipped with an EGR system. This adapter set is designed to be used with J-46091-1 – Charge Air Cooler Tester Regulator to pressurize the EGR cooler with shop air and monitor it for leakage.

Important: Leaks from the EGR cooler may allow coolant to pass through the exhaust system and enter the combustion chambers on the right bank cylinders. Failure to inspect the EGR cooler for leaks may lead to a misdiagnosis for coolant in the combustion chamber.

EN-48974 — EGR Cooler Pressure Tester Adapter Set



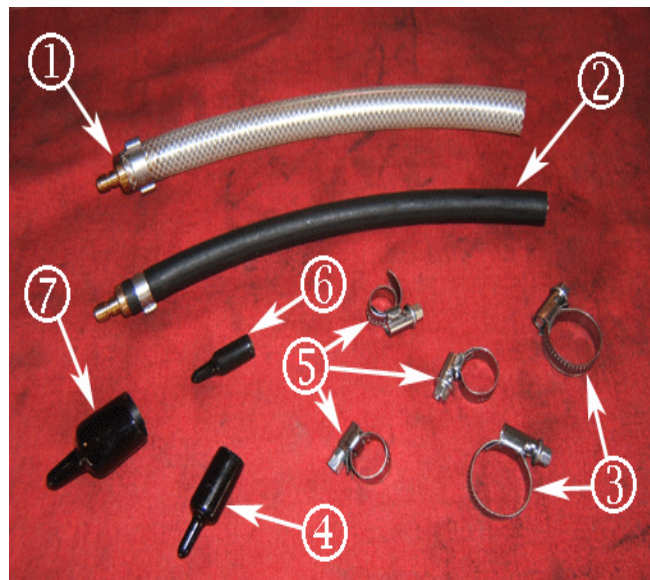
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Legend

- (1) 544259 (Qty 2) 19 mm (3/4 Inch) Hose Clamps
- (2) EN-48974-3 (Qty 1) 19 mm (3/4 Inch) EGR Cooler Hose Adapter
- (3) EN-48974-4 (Qty 1) 19 mm (3/4 Inch) Cap Plug
- (4) EN-48974-1 (Qty 1) 15.9 mm (5/8 Inch) EGR Cooler Hose Adapter
- (5) EN-48974-2 (Qty 1) 15.9 mm (5/8 Inch) Cap Plug
- (6) 544258 (Qty 2) 15.9 mm (5/8 Inch) Hose Clamps

In December 2010 another supplement to the EGR Cooler Pressure Tester Adapter Set, EN-48974-20, was shipped essential to dealers to diagnose EGR cooler engine coolant leaks on all 2010-2011 Duramax™ 6.6L engines equipped with multiple cooler EGR system. This supplement gives the test adapter set a larger variety of sizes to accommodate the newer style coolers that have multiple ports.

EN-48974-20 — EGR Cooler Pressure Tester Adapter Set



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Legend

- (1) EN-48974-21 (Qty 1) 12.7 mm (1/2 Inch) EGR Cooler Hose Adapter
- (2) EN-48974-22 (Qty 1) 8 mm (5/16 Inch) EGR Cooler Hose Adapter
- (3) 544259 (Qty 2) 19 mm (3/4 Inch) Hose Clamps
- (4) 553016 (Qty 1) 12.7 mm (1/2 Inch) Cap Plug
- (5) 544258 (Qty 3) 15.9 mm (5/8 Inch) Hose Clamps

- (6) 553015 (Qty 1) 8 mm (5/16 Inch) Cap Plug
- (7) 553017 (Qty 1) 22.2 mm (7/8 Inch) Cap Plug

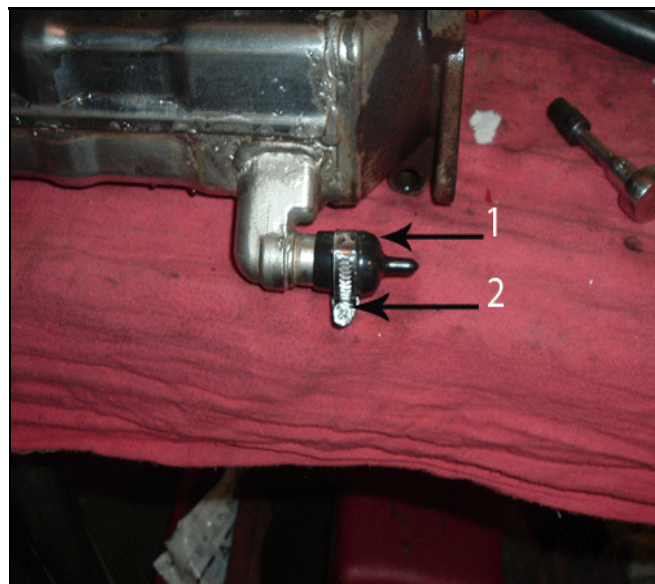
Important: If an investigation of loss of engine coolant leads to coolant found in one or multiple cylinders on the right bank, **YOU MUST** test the EGR cooler for leakage **BEFORE** attempting any engine repair. The cylinders affected will depend on which exhaust valves were open at the time of engine shutdown.

- 1. Partially drain the engine coolant to allow removal of the EGR cooler coolant hoses. Refer to Cooling System Draining and Filling in SI.
- 2. Select the appropriate size EGR Cooler Hose Adapter from the EN-48974 – EGR Cooler Pressure Tester Adapter Set.



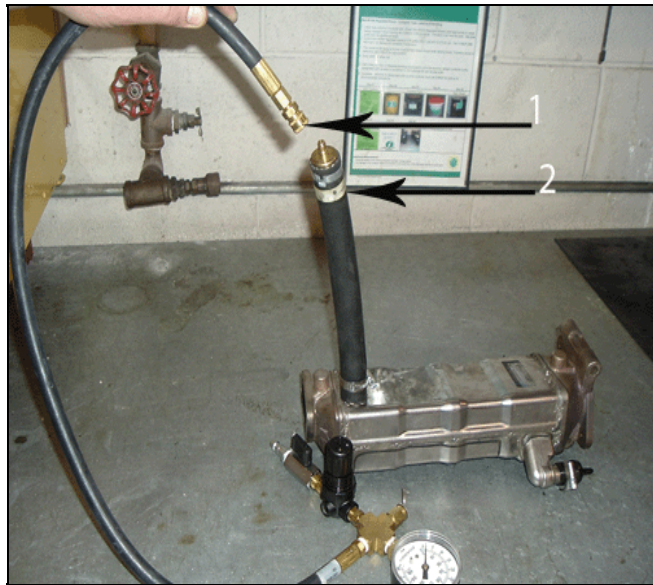
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- 3. Install the EGR Cooler Hose Adapter (1) and tighten the clamp (2) on the EGR cooler hose barb as shown.
- 4. Select the appropriate size Cap Plug(s) from the EN-48974 – EGR Cooler Pressure Tester Adapter Set.



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- 5. Install the Cap Plug(s) (1) and tighten the clamp(s) (2) on the EGR cooler hose barb(s) as shown.



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6. Connect the hose fitting (1) of pressure tester J-46091-1 Charge Air Cooler Tester Regulator to the EGR Cooler Hose Adapter (2) on the EGR cooler as shown.

Important: SOME J-46091-1 REGULATORS MAY BE PRESET AT 30 PSI WITH THE ADJUSTING KNOB RIVETED IN PLACE. THE RIVET HEAD MUST BE DRILLED OUT WITH A 5/16" DRILL BIT BEFORE ADJUSTMENT. DO NOT DRILL MORE THAN 1/8" IN DEPTH, OR JUST ENOUGH TO REMOVE THE RIVET HEAD. THE RIVET SHAFT DOES NOT HAVE TO BE REMOVED FROM THE REGULATOR.

7. Back off the regulator on J-46091-1 – Charge Air Cooler Tester Regulator by turning counterclockwise until it stops.
8. Connect J-46091-1 – Charge Air Cooler Tester Regulator to the shop air supply.
9. Open the shutoff valve, then slowly turn the regulator on J-46091-1 clockwise until the gauge reads 42 psi.
10. Close the shutoff valve on J-46091-1 and monitor the gauge for pressure decay for 5 minutes.
 - ⇒ If the gauge indicates pressure decay, replace the EGR cooler.
 - ⇒ If the gauge does not indicate pressure decay, proceed to Step 11.
11. Continue performing the engine diagnosis to determine the source of the coolant leak.
12. Install the EGR cooler. Refer to Exhaust Gas Recirculation Valve and Cooler Installation in SI.
13. Fill the engine coolant to the proper level. Refer to Cooling System Draining and Filling in SI.