

**IMPORTANT WARRANTY INFORMATION**  
**AVOID SEVERE ENGINE DAMAGE & PREMATURE INJECTOR FAILURE**

► **FUEL INLET TUBE**

High pressure fuel inlet tube contamination and wear is common, which can result in immediate injector failure upon installation. Worn, deformed, or improperly torqued inlet tubes can result in leakage causing low rail pressure or no-start condition. **Failure to replace the fuel inlet tube at the time of injector replacement will void the injector warranty.** Use GB part number 522-043 or equivalent.

**NOTE:** The fuel injector inlet tube for the 5.9L engine has been revised to utilize the larger late model tube that is also used on the 6.7L engine. The replacement part is the updated design and may not match the appearance of the part being replaced.



Original Design



Updated Design (GB Part # 522-043)

► **INJECTOR TORQUE PROCEDURE**

These injectors require a special torque procedure. Failure to properly perform this procedure can result in leaking or improper injector operation. **NOTE: Torque values are in both (in. lbs.) and (ft. lbs.)**

P/N: 712-501, 502, 503, 504	
<b>Step 1:</b>	To pre-seat injectors, torque injector hold down bolts (Fig.1) to <b>44 in. lbs.</b> Then loosen injector bolts but do not remove.
<b>Step 2:</b>	Pre-torque fuel inlet tube retaining nut (Fig. 2) to 11 ft. lbs.
<b>Step 3:</b>	Now, re-torque injector hold down bolts to <b>89 in. lbs.</b>
<b>Step 4:</b>	Finally, torque fuel inlet tube retaining nut to 37 ft. lbs.



Figure 1

P/N: 712-505 & 712-506	
<b>Step 1:</b>	To pre-seat injectors, torque injector hold down bolts (Fig.1) to <b>44 in. lbs.</b> Then loosen injector bolts but do not remove.
<b>Step 2:</b>	Pre-torque fuel inlet tube retaining nut (Fig. 2) to 11 ft. lbs.
<b>Step 3:</b>	Now, re-torque injector hold down bolts to <b>71 in. lbs.</b>
<b>Step 4:</b>	Finally, torque fuel inlet tube retaining nut to 41 ft. lbs.



Figure 2

► **NOTICE: NEW FUEL FILTER ADD-ON REQUIRED**

GB has released an OE recommended severe duty fuel filter upgrade kit for the Dodge Cummins 5.9L and 6.7L. Contamination is the number one cause of failure on Dodge common rail systems. The original equipment filtration system is inadequate in removing common contaminants, resulting in premature injector failure. Injector failure due to contamination is not covered under GB's limited warranty. This new kit includes an upgraded fuel filter and housing, wiring harness, fuel lines, fuel heater and water-in-fuel sensor (used on 5.9L only).

Year	Application	GB P/N	Replacement Filter
2004.5-09	Dodge Cummins 5.9L Pickup	522-050	522-056
2007-12	Dodge Cummins 6.7L Pickup		
2007-12	Dodge Cummins Cab & Chassis 6.7L	522-049	



Injector failure as a result of any of these conditions is not covered by GB's limited warranty.

**SEE BACK SIDE FOR ADDITIONAL INFORMATION**

## IMPORTANT WARRANTY INFORMATION AVOID SEVERE ENGINE DAMAGE & PREMATURE INJECTOR FAILURE

### ▶ 6.7L ENCODING INSTRUCTIONS (P/N: 712-503 & 712-504)

The GB 712-503 & 712-504 injectors are tagged with a six digit alphanumeric code that must be entered into the ECM using a scan tool. The encoding refers to the injector's flow and operating characteristics and is unique to each injector. The ECM uses this code to adjust baseline fuel delivery for each injector and cylinder. It is mandatory to enter the injector's code to achieve proper engine performance.

### ▶ SPECIAL INSPECTION PROCEDURE

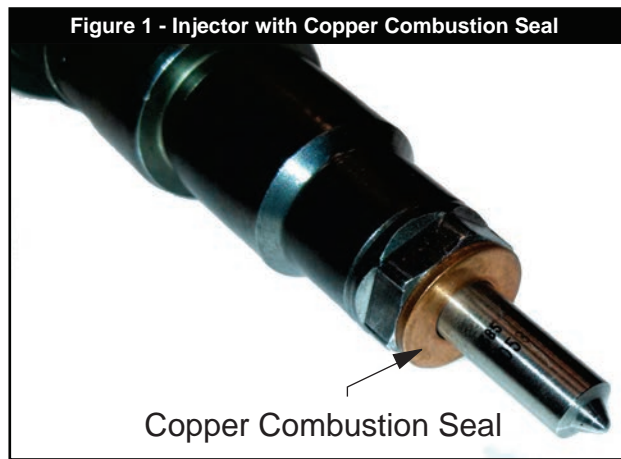
- Contamination is common in the rail near the #5 and the #6 injection line connections. Remove and inspect the #1 line fitting with a borescope. If any contamination is present, it is mandatory to replace the rail.
- Inspect the return back-pressure valve in the injector return line connection banjo bolt for contamination. Clean or replace if needed.
- Inspect the injector bore for corrosion, damage or leakage prior to the installation of the injector.

### ▶ COMBUSTION SEAL INSTALLATION

Failure to install the copper combustion seal or an improperly torqued injector can result in injector failure and engine damage. The copper combustion seal is included with GB's remanufactured injectors. See figure 1.

**Injector failure as a result of this condition is not covered by GB's limited warranty.**

- Ensure the copper combustion seal is present on the injector being replaced. If the seal is missing inspect the injector bore for seal and remove prior to installing replacement injector.
- If the injector being replaced shows signs of combustion seal leakage and the prior injector is missing the copper seal it will be necessary to replace the injector sleeve prior to installing the replacement injector. Failure to do so will result in leakage of the new combustion seal and injector failure.
- Always inspect the injector bore for corrosion, damage or leakage prior to installing new injector.
- Ensure injector is torqued to manufacturer's specification.



An injector installed without the copper combustion seal will result in hot combustion gases heating the injector's lower section, resulting in premature failure. If combustion gas leakage is present the injector sleeve must be replaced.

**SEE FRONT SIDE FOR ADDITIONAL INFORMATION**

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