



General Policy

All core returns must be,

- like for like, no mixed models
- drained of all fluids (\$50 Charge)
- be returned in the original packaging
- Part Disassembled
- No junkyard cores (core must have been removed from vehicle)
- No fire damage
- Free of excessive Rust or Water Damage

Returned cores that fail to follow the above conditions will be disallowed and scrapped or returned at the customer's expense. Freight and removal damage are not covered. BD Diesel reserves the right to adjudicate cores as it sees fit and may deviate from its policy.

BD FUEL INJECTION CORE ACCEPTANCE POLICY

Model	Deduction	No Credit
P7100 Injection Pump	<ul style="list-style-type: none"> • AFC Housing Damaged (25% Deduction) • Governor Housing Damaged Front or Back (25% Deduction) 	<ul style="list-style-type: none"> • Contaminated/Bio Diesel • Damaged Camshaft on 911/913 pumps. • Main Body Damaged
Bosch VE Pump	<ul style="list-style-type: none"> • AFC Housing Damaged (25% Deduction) • Cold Advanced Housing Damaged (50% Deduction) • Governor housing damaged front or back (25% deduction) • Main Body Damaged (50% Deduction) 	<ul style="list-style-type: none"> • Contaminated/Bio Diesel • Seized Head (Does not turn)
CP3		<ul style="list-style-type: none"> • Contaminated/Bio Diesel • Seized (Does not turn) • Catastrophic Shaft Failure (Frost Plugs Damaged or Missing) • Front Cover Damaged
VP44	<ul style="list-style-type: none"> • Damaged Electronics (50% Deduction) 	<ul style="list-style-type: none"> • Contaminated/Bio Diesel • Seized Head (Does not turn)
Common Rail Injectors	<ul style="list-style-type: none"> • Solenoid melted or destroyed, stretched terminals (25% Deduction) • 5.9/6.7 Broken Solenoid Terminal Divider (No Deduction) 	<ul style="list-style-type: none"> • Contaminated/Bio Diesel • Damaged Body
Mechanical Injectors		<ul style="list-style-type: none"> • Contaminated/Bio Diesel • Damaged Body

BD TURBOCHARGER CORE ACCEPTANCE POLICY

Turbo Model/ Application	Deduction	No Credit
Cummins ISX VGT Air or Electronic Actuated	<ul style="list-style-type: none"> • Damaged Electronics (50% Deduction) • Missing Clamps (25% Deduction) • Missing Parts or Actuators (50% Deduction) • Turbine Wheel Separation (50% Deduction) 	<ul style="list-style-type: none"> • Knock Off Models (Not Genuine) • Part Disassembled
Caterpillar (Ball Bearing) Models		<ul style="list-style-type: none"> • Knock Off Models (Not Genuine) • Wheel Separation
Caterpillar (Standard Turbocharger) 704604-9007, 704604-9011		<ul style="list-style-type: none"> • Knock Off Models (Not Genuine) • Turbo with 3 support Webs

Detroit Diesel VGT	<ul style="list-style-type: none"> • Damaged Electronics (50% Deduction) 	<ul style="list-style-type: none"> • Knock Off Models (Not Genuine) • Wheel Separation
Ford 6.4 Powerstroke	<ul style="list-style-type: none"> • Missing Parts or Actuators (50% Deduction) 	<ul style="list-style-type: none"> • Knock Off Models (Not Genuine) • Part disassembled • Wheel Separation
Ford 6.7 Powerstroke	<ul style="list-style-type: none"> • Missing Parts or Actuators (50% Deduction) 	<ul style="list-style-type: none"> • Wheel Separation
GM 6.6 L5P	<ul style="list-style-type: none"> • L5D Version (due to incorrect compressor cover) (25% Deduction) • Missing Parts or Actuators (50% Deduction) 	<ul style="list-style-type: none"> • Knock Off Models (Not Genuine) • Wheel Separation
Dodge Cummins 6.7 HE351VG/HE300VG	<ul style="list-style-type: none"> • Missing Parts or Actuators (50% Deduction) 	<ul style="list-style-type: none"> • Knock Off Models (Not Genuine)
Standard Turbochargers (All Models, Non VGT)	<ul style="list-style-type: none"> • Damaged Electronics (50% Deduction) • Missing Clamps (25% Deduction) • Missing Parts or Actuators (50% Deduction) 	<ul style="list-style-type: none"> • Knock Off Models (Not Genuine) • Wheel Separation

The above criteria apply to customer core returns. The following criteria will apply for core purchases.

Deduction	No Credit
<ul style="list-style-type: none"> • Cracked or Damaged due to freight • Damaged Electronics • Missing Parts or Actuators • Heavily Damaged Wheels and/or Shaft • Missing Clamps • Turbine Wheel Separation • Heavily Modified Turbochargers 	<ul style="list-style-type: none"> • Knock Off Models (Not Genuine)

BD TRANSMISSION/TORQUE CONVERTOR CORE ACCEPTANCE POLICY

Model	Deduction	No Credit
Transmissions	<ul style="list-style-type: none"> • Cracked Overdrive housings (\$100 Deduction) • 68rfe Cracked Case (25% Deduction) • Part disassembled (50% Deduction) • Missing Transmission Shipping Crate (\$200 Deduction) • Missing TC/Transmission bracket (\$50 Deduction) 	<ul style="list-style-type: none"> • Cracked Case (Except 68rfe)
Torque Convertors	<ul style="list-style-type: none"> • Hub and Impeller damaged. (50% Deduction) 	<ul style="list-style-type: none"> • Excessive corrosion • Part disassembled
Valve Bodies	<ul style="list-style-type: none"> • Missing electronics (25% Deduction) 	<ul style="list-style-type: none"> • Excessive corrosion • Part disassembled

GENERAL CORE ACCEPTANCE POLICY

Model	Deduction	No Credit
EGR Cooler		<ul style="list-style-type: none"> • Brackets broken

Please note that all cores have a time eligibility restriction. Please see BD Terms & Conditions for further details. https://cdn.bddiesel.com/downloads/bd_terms_general.pdf



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6.7L Cummins Fuel Injector

Stock Replacement Injectors

1715518	2007.5-2012 Ram Pickup	Standard
1725518	2007.5-2012 Ram Pickup	Premium
1715571	2007.5-2010 Ram C&C W/O SCR	Standard
1725571	2007.5-2010 Ram C&C W/O SCR	Premium
1715588	2010.5-2012 Ram C&C W/ SCR	Standard
1725588	2010.5-2012 Ram C&C W/ SCR	Premium
1715542	2013-2018 Ram Pickup	Standard
1725542	2013-2018 Ram Pickup	Premium
1715589	13-18 Ram Cab & Chassis	Standard
1725589	13-18 Ram Cab & Chassis	Premium

“Stock Plus” Performance Injectors (5-15HP)

1714518	2007-2012 Ram Pickup - SC-BDD01-0017	Standard
1724518	2007-2012 Ram Pickup - SC-BDD01-0017	Premium
1714542	2013-2018 Ram Pickup - D553-6	Standard
1724542	2013-2018 Ram Pickup - D553-6	Premium

Premium line injectors are built with new Bosch solenoids, nozzles and control valves

PLEASE READ ALL INSTRUCTIONS BEFORE INSTALLATION

1714542/1724542 Meets CARB requirements(EO D553-6)

1714518/1724518 Meets SEMA Certified Emissions (SC-BDD01-017)

Suggested Items

1050157**2007.5-2018 Ram Pickup, Injector Install Kit**

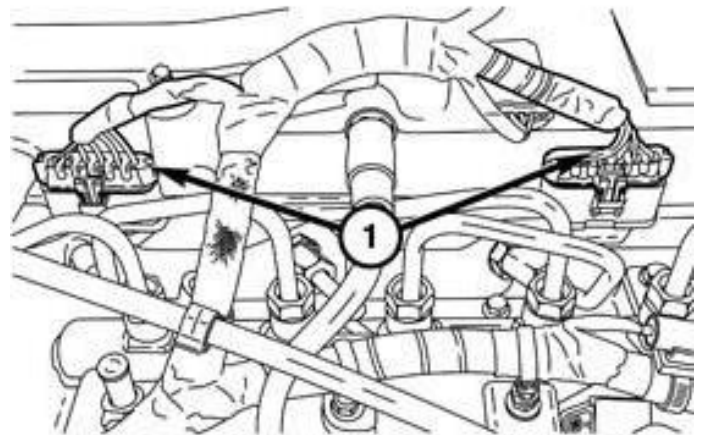
This kit contains brand new equipment to ensure no fuel line contamination occurs. This kit also includes a new valve cover gasket to replace any wear and tear, and aging that can occur. While this kit is not necessary, it is recommended to ensure optimal performance and longevity of your injection system.

Removal

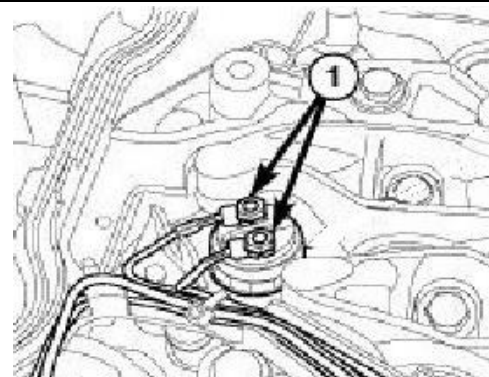
1. Disconnect both vehicle batteries before installation for safety.
2. Remove cylinder head cover

3. Disconnect both fuel injector harness connectors

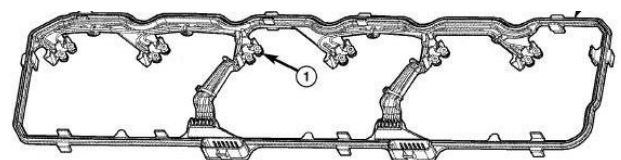
Only required on 2013-2018 models.



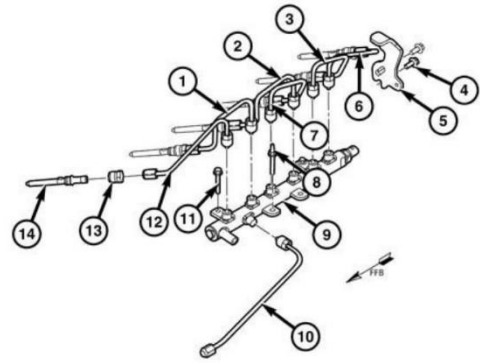
4. Remove all fuel injector wire harness nuts securing the integrated wiring harness to all fuel injectors.



5. Remove the cylinder cover gasket.



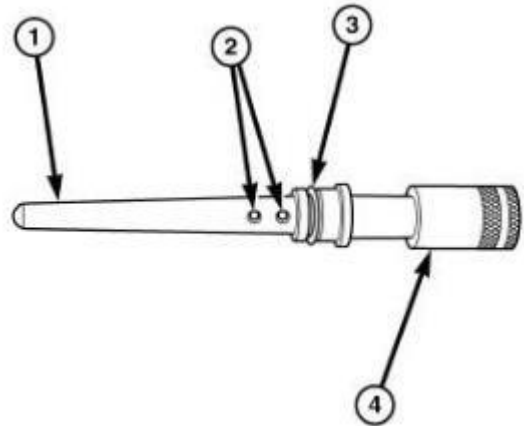
6. Remove the six high pressure fuel feed lines.



7. Remove the fuel injector connector nut.

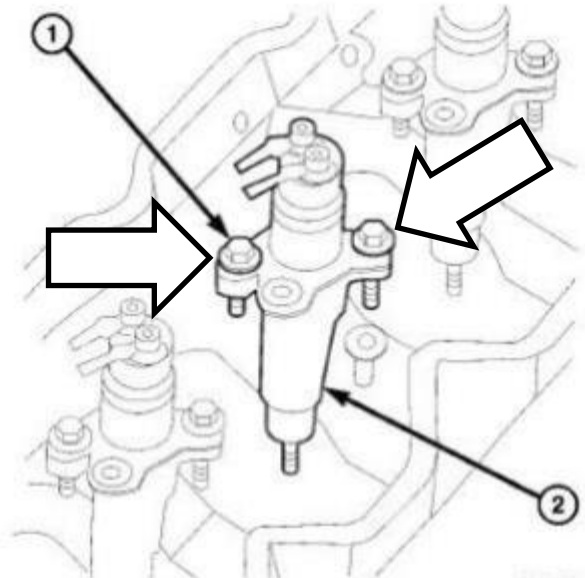
Install the High Pressure Connector Remover onto the fuel injector connector tube located in cylinder head.

Use the High Pressure Connector Remover pry and remove the fuel injector connector tubes from the cylinder head.



8. Slowly loosen the injector hold down clamp bolts.

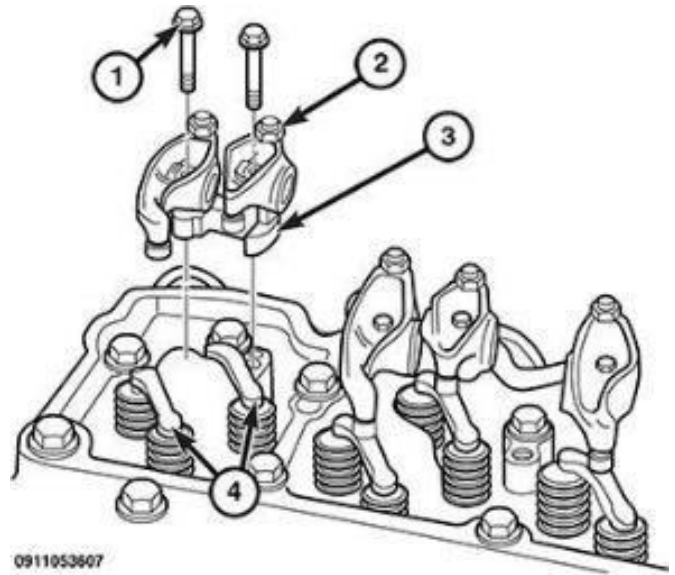
Sequentially turn one bolt counterclockwise 1 rotation, then switch to the other bolt, repeat.



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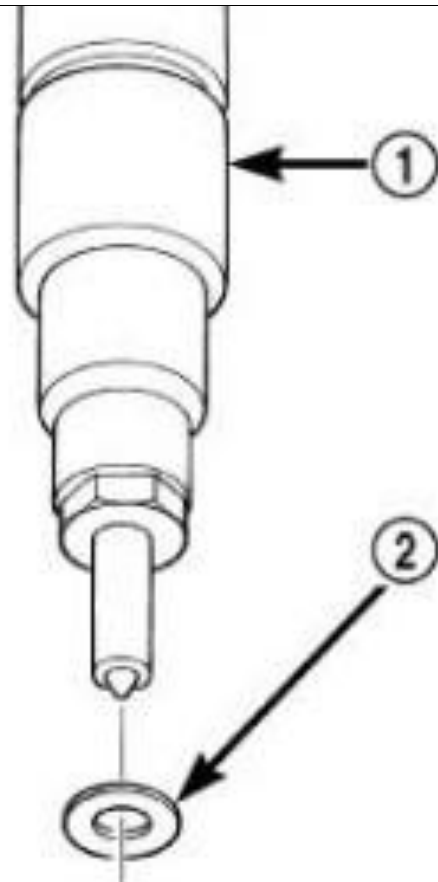
9. Remove the bolts, rocker arms, pedestals, and crossheads from the cylinder head.

Note: Mark each component so they can be installed in their original position.



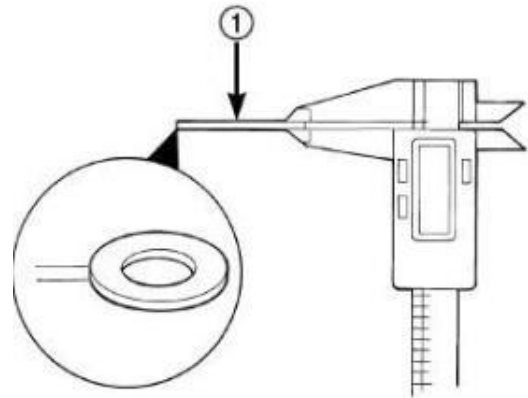
10. Ensure the fuel injector sealing washer has been removed and has not remained in the injector bore.

Discard the used seal, a new washer seal will need to be used.



Installation

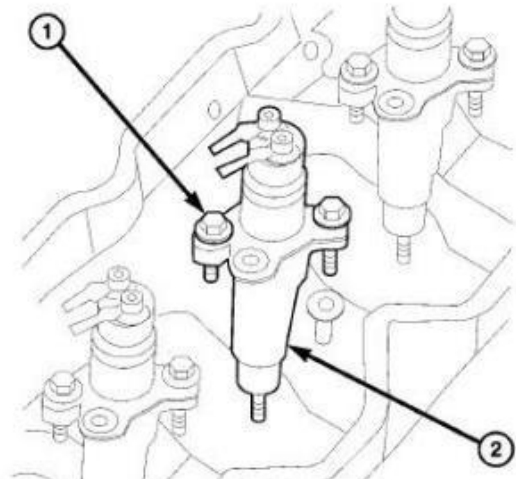
1. Measure the copper washer thickness, (.060"). Apply a light coating of clean engine oil to the washer to keep it in place during installation. Ensure the new copper sealing washer is installed on the injector.



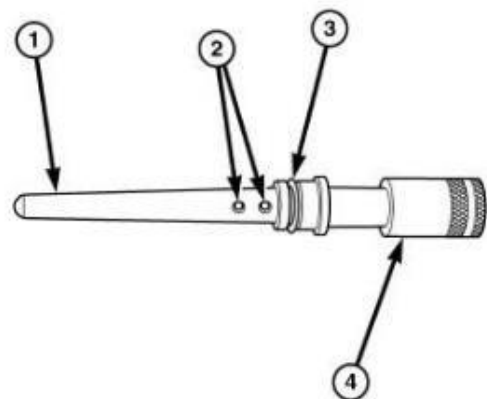
Apply a small amount of clean engine oil to the O-ring and injector bore and then seat the injector into the cylinder head.

2. Follow the tightening sequence listed in steps a-f below. The connector tubes must be seated in the center of the injector and perpendicular to the injector to seal properly.

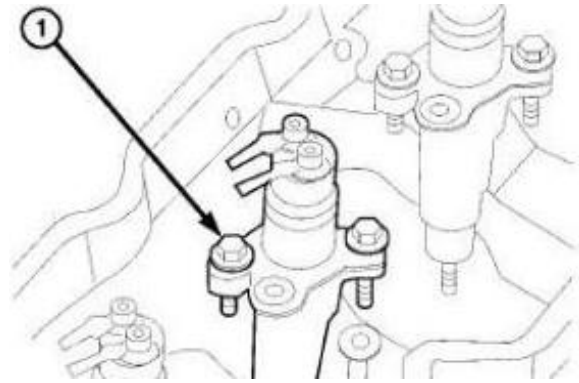
- a. Seat the fuel injector into the cylinder head.
- b. Ensure both bolts are threaded in evenly, preliminarily tighten down the two injectors hold down bolts to 44 **in-lb**.
- c. Relieve bolt torque, but leave both bolts threaded in place.



- d. By hand, thread in the fuel injector connector tubes to ensure the fuel injector is centered and perpendicular to the connector tube. You can gently rotate the injector until the connector tube is correctly positioned. Do a preliminary tightening of the connector tube nut to 133 **in-lb**.

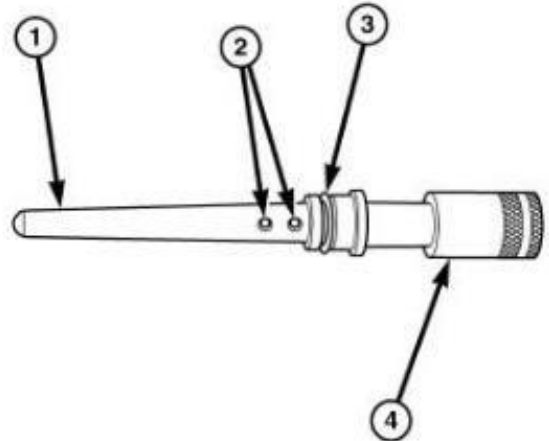


- e. Alternating tightening sequence, tighten the injector hold-down bolts to 71 **in-lb**.



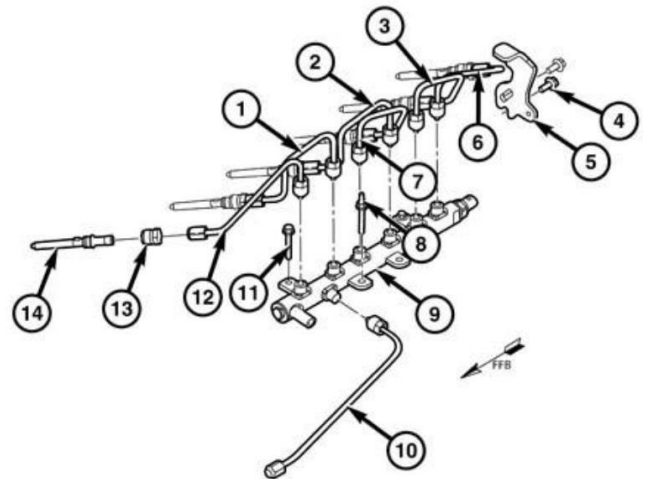
- f. Do a final tightening of the fuel injector tube nut.

Tighten to 41 **ft-lb**.



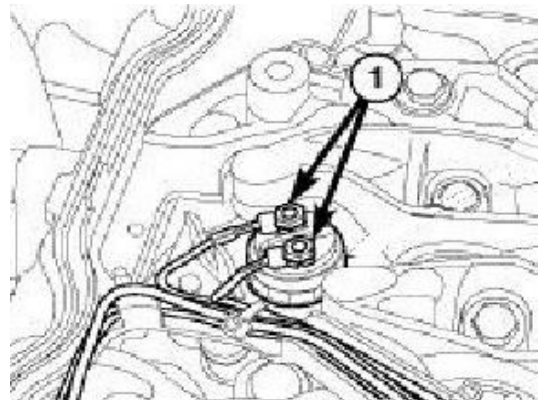
3. Install the correct fuel tubes to the correct injectors on the engine. Ensure each fuel line is free from debris and the sealing surfaces are in good condition.

Bracket (No. 5) must be loosened to install fuel tube No. 6. After all tubes are installed, torque the bracket (No. 5) to 32 **ft-lb**.

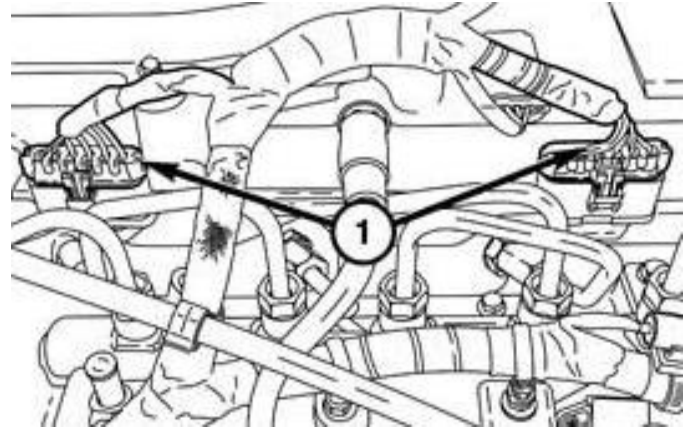


4. Connect the fuel injector solenoid wires and nuts to the top of the injectors. Tighten the connector nuts to 13 **in-lb**.

Note: Be very careful not to overtighten these nuts as damage to fuel injector will occur

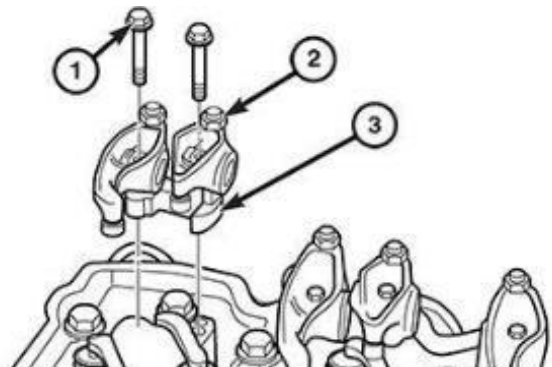


5. Reconnect both fuel injector harness connectors.



6. Install the intake and exhaust rocker arm assemblies.

Torque bolts to 27 **ft-lb**.



7. Ensure valve lash is within OEM specifications.

	Intake	Exhaust
MIN	.006"	.021"
PREF	.010"	.026"
MAX	.015"	.034"

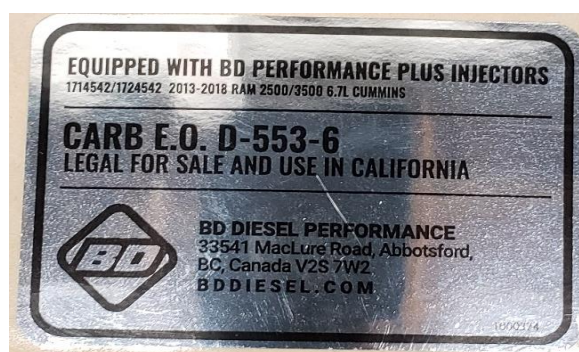


8. Reinstall rocker housing and cylinder head cover.

Connect both negative battery cables.

9. Apply the CARB EO decal underneath the hood next to the factory emissions label as indicated.

IMPORTANT Only for applicable models as listed on the front page of this installation manual



1. Program the injector using a scan tool. The 6 digit IMA / IQA code can be found on the injector solenoid nut and sticker provided in the box.

Note: IMA code programming only required for 2007-2012 vehicle models with stock injectors (1715518/1725518).





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Dodge 6.7L High Pressure Fuel Line Kit

1050150

2007.5-2018 Dodge 2500HD/3500HD/4500/5500

Kit Contents

1501156	1501157
	
<p>Fuel line; Cylinder 1 Qty: 1</p>	<p>Fuel Line; Cylinder 2/3 Qty: 2</p>
1501158	1501159
	
<p>Fuel line; Cylinder 4/5 Qty: 2</p>	<p>Fuel Line; Cylinder 6 Qty: 1</p>

Introduction

This kit contains all 6 injector feed lines for Dodge Cummins 6.7L ISB applications designed to provide a complete fit with no need for the end user to bend lines.

WARNING: Do not start vehicle after installation until the fuel system has been primed.

Tools Required for Installation

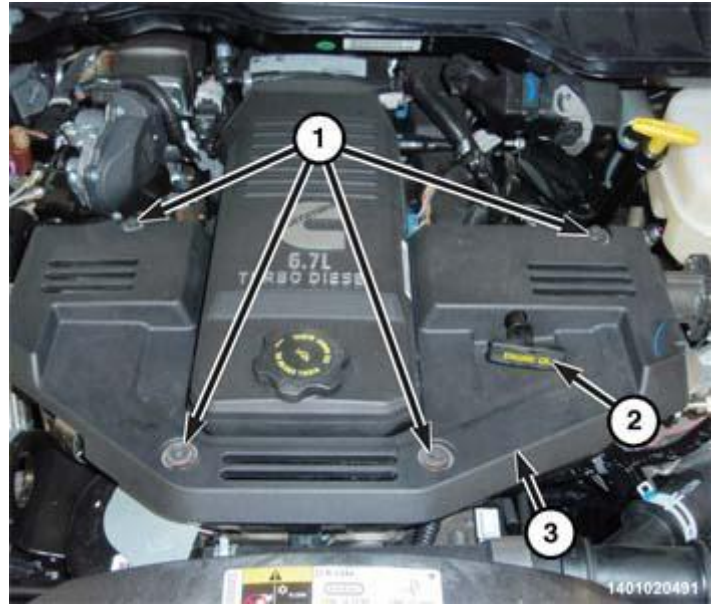
- Cable Tie
- 8, 10, 11mm socket
- 24mm wrench
- Torque wrench
- 19mm crowfoot
- Ratchet and ratchet extensions

Disassembly

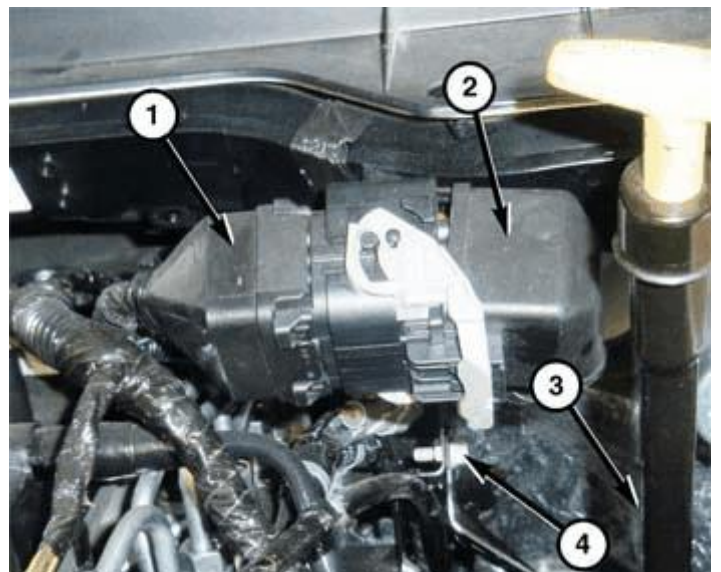
Disconnect both vehicle batteries before installation for safety.

Remove engine oil dipstick (2)

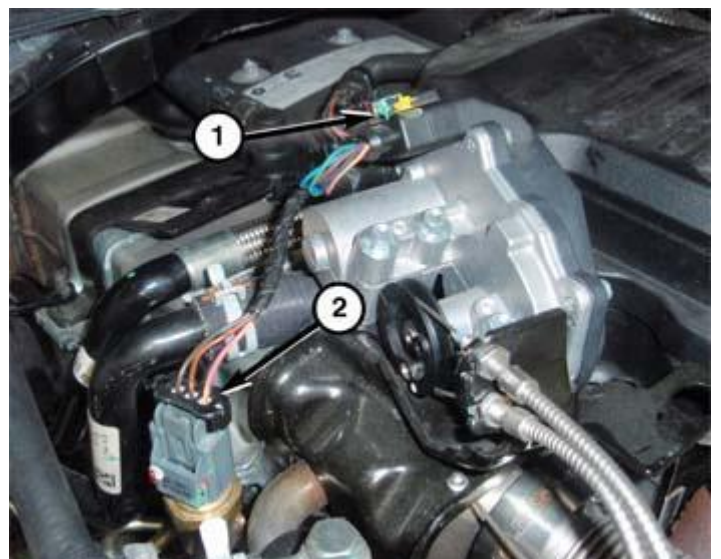
Remove bolts (1) and engine cover (3)



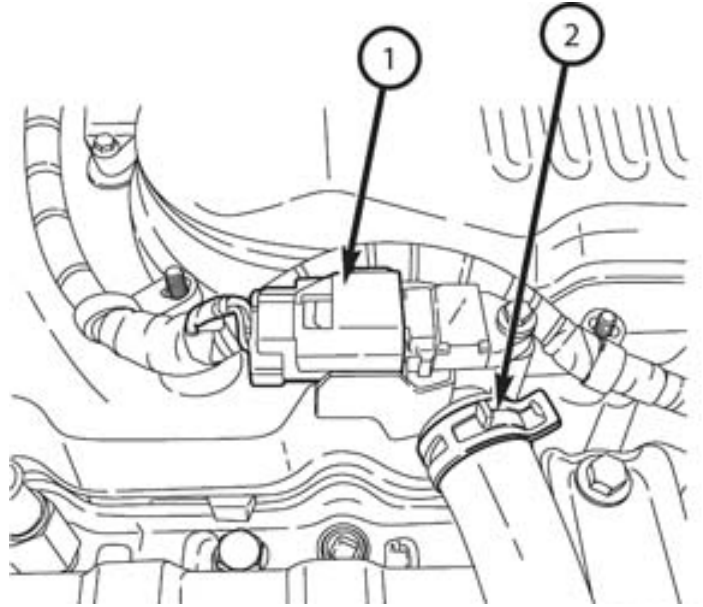
Cut cable tie and move aside the bulk head connector (1)



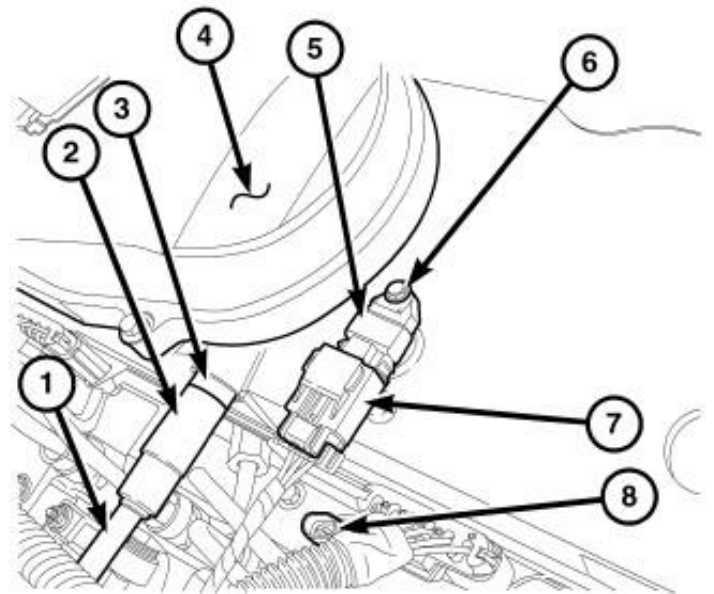
Disconnect the exhaust pressure sensor wire harness connector (2) and then the EGR cooler bypass valve wire harness connector (1)



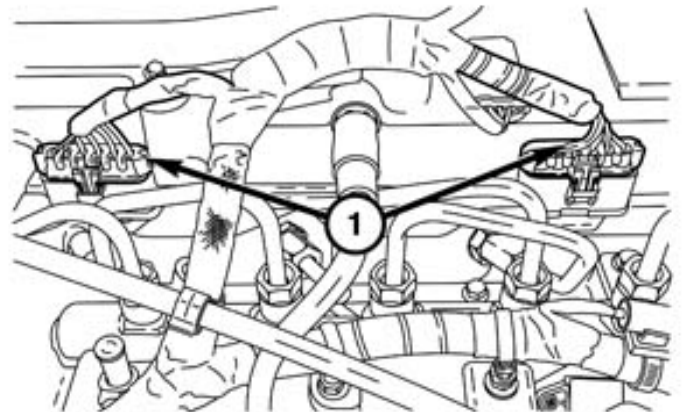
Disconnect the crankcase pressure sensor 2 wire harness connector (1)



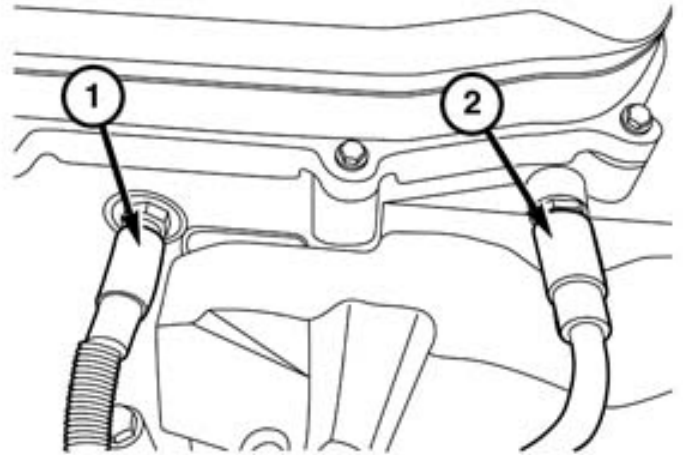
Disconnect crankcase pressure sensor 1 wire harness connectors (7)



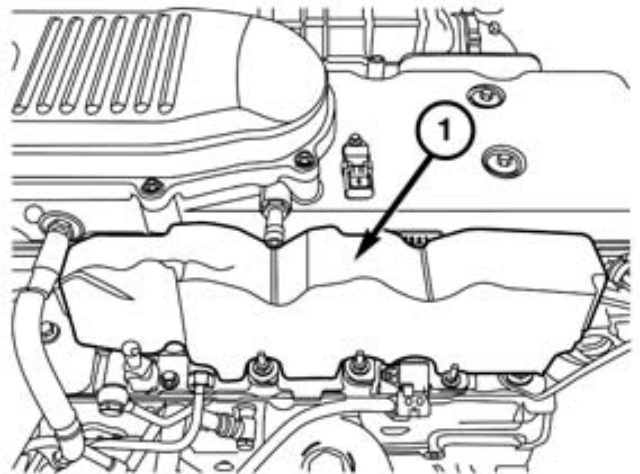
Disconnect both fuel injector harness connectors (1)



Remove the CCV oil drain hoses (1, 2) from cylinder head cover.

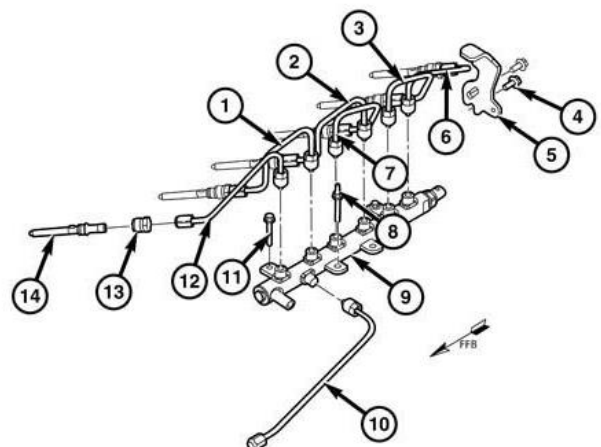


Remove the fuel tube silencer (1)



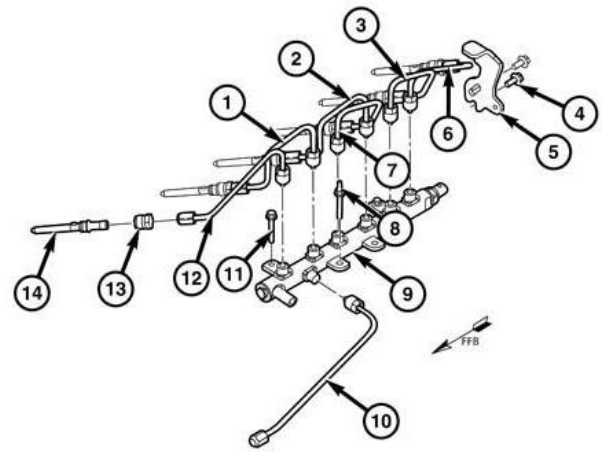
Remove the intake manifold.

Remove the bracket (5) located above the fuel tube connection at cylinder head. Two bolts (4) secure this bracket to the rear of the cylinder head. The upper bold hole is slotted. Loosen (but do not remove) these two bracket bolts. Tilt the bracket down.



Remove fuel injector lines.

WARNING: When loosening or tightening the high pressure lines attached to a separate fitting (13), use a backup wrench on fitting. Do not allow fittings to rotate. Damage to both fuel line and fitting will result.



IF INSTALLING INJECTORS, PLEASE INSTALL THEM NOW

Installation is reverse of disassembly instructions. Using the following torque specs:

Tighten fuel tube nut at the cylinder head to 40 N.m (30 ft. lbs.)

Tighten fuel tube nuts at the rail to 40 N.m (30 ft. lbs.)

Metal bracket at the rear of cylinder head: 43N.m (32 ft. lbs.)

Oil dipstick bolt and nut:
Bolt: 24 N.m (18 ft. lbs.)
Nut: 9 N.m (80 in. lbs.)

Engine cover bolts: 10 N.m (89 in. lbs.)

WARNING: Prime fuel system prior to starting the vehicle.

Fuel System Priming

Turn key to CRANK position and quickly release key to ON position before engine starts. This will operate fuel transfer pump (lift pump) for 25 seconds.



Crank engine. If the engine does not start after 25 seconds, turn key to OFF position, leave for at least 10 seconds. Repeat previous step until engine starts

Fuel system priming is now complete.

Attempt to start the engine. If engine fails to start, proceed to the following steps. **When the engine does start, it may run erratically and be noisy for a few minutes. This is normal condition.**

Caution: Do not engage the starter motor for more than 30 seconds at a time. Allow for 2 minutes between cranking intervals.

Perform previous fuel priming procedure steps using fuel transfer (lift) pump. Be sure fuel is present at the fuel tank.

Crank the engine for 30 seconds at a time to allow fuel system to prime.

WARNING: The fuel injection pump supplies extremely high fuel pressure to each individual injector through the HP lines, Fuel under this amount of pressure can penetrate skin and cause personal injury. Wear safety goggles and adequate protective clothing. Do not loosen fuel fittings while engine is running.

WARNING: Engine may start while cranking the starter motor.



Once all components have been reinstalled, be sure to check all connection points are tight and inspect for leaks.

