

## INSTALLATION INSTRUCTIONS

**SUBJECT: DODGE CUMMINS COOLANT BYPASS KIT**

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**FITMENT:** 2003–2007 Dodge Cummins Manual Transmission Only  
2007.5-2015 Dodge Cummins Manual and Automatic Transmissions

**KIT P/N:** FPE-CLNTBYP-S-CUMMINS-MAN (-SS Optional Stainless Steel line)

**ESTIMATED INSTALLATION TIME:** 1.5 - 2 Hours

**TOOLS REQUIRED:** 16mm ratcheting wrench, 10mm socket, 8mm socket, 6mm Allen, 1" wrench, hammer, 5-gallon clean drain pan, 36" pry bar, Scotch-Brite™ pad (included in kit).

### KIT CONTENTS:

Item	Description	Qty
1	Coolant bypass line (-SS optional)	1
2	Coolant bypass thermostat housing and O-ring	1
3	Thermostat riser block and O-ring	1
4	Coolant bypass line riser bracket	2
5	M8 x 1.25, 20mm socket head cap screw	2
6	M6 x 1.00 x 60mm flange head bolt	3
7	M12 x 1.75, 40mm flange head bolt	2
8	Scotch-Brite™ pad	1



### WARNINGS:

- Use of this product may void or nullify the vehicle's factory warranty.
- User assumes sole responsibility for the safe & proper use of the vehicle at all times.
- The purchaser and end user releases, indemnifies, discharges, and holds harmless Fleece Performance Engineering, Inc. from any and all claims, damages, causes of action, injuries, or expenses resulting from or relating to the use or installation of this product that is in violation of the terms and conditions on this page, the product disclaimer, and/or the product installation instructions. Fleece Performance Engineering, Inc. will not be liable for any direct, indirect, consequential, exemplary, punitive, statutory, or incidental damages or fines cause by the use or installation of this product.

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## PROCEDURE:

STEP 1: Disconnect the vehicle batteries.

STEP 2: Locate the engine coolant drain, located under the driver's side of the radiator. Drain the coolant system into a clean drain pan.

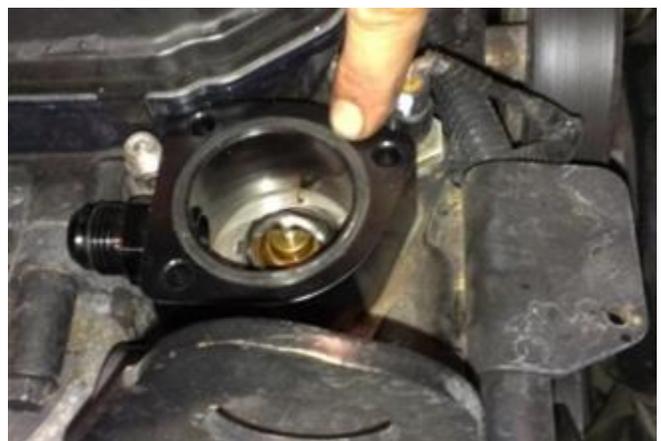
STEP 3: Using an 8mm Socket, remove the three bolts anchoring the stock thermostat housing. It is not necessary to remove or disconnect the thermostat housing from the upper radiator hose. Move it to the side, out of the way of the exposed thermostat, to allow for access.



STEP 4: Remove the stock thermostat. Inspect it for wear and proper function. With a Scotch-Brite™ pad and degreasing solution, thoroughly clean the sealing surface of the stock thermostat and thermostat housing. Be sure to remove any foreign debris, and reinstall the OE thermostat.



STEP 5: Position the thermostat housing riser block (item 3) on top of thermostat. The O-ring should be facing upward with the threaded fitting facing towards the rear of the vehicle.



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STEP 6: Place the stock thermostat housing over the thermostat riser block. Using the supplied M6 flange head bolts (item 6), tighten the bolts to 89 in-lbs.



STEP 7: To allow for clearance to the freeze plug at the rear of the engine block, remove the "L" shaped bracket located between the engine and top of the transmission. Remove the large 58mm (2 ¼") freeze plug at the rear of the engine block. From underneath the truck, using a 36" pry bar and hammer, drive the outer edge of the freeze plug in to rotate it in its bore. Remove the freeze plug from the block.



*NOTE: Do not hit the plug in the center.*

STEP 8: With the freeze plug removed, using a Scotch-Brite™ pad and a degreasing solution, thoroughly clean the block surface area from the head down to the rear cover, as well as the bore where the freeze plug was previously installed. Be sure to remove any dirt or foreign debris.



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STEP 9: Using a 1" wrench, thread the bypass coolant line (item 1) to the fitting on the coolant bypass thermostat housing (item 2).



STEP 9: With assembly grease or light oil, lubricate the sealing O-ring on the coolant bypass thermostat housing (item 2), and press it into place on the back of the engine block. The bypass coolant line should be oriented towards the passenger side of the vehicle and over the exhaust manifold.



STEP 10: Ensure that the coolant bypass thermostat housing is firmly seated on the back of the engine block and fasten it securely into place using the supplied M12 flange head bolts using a 16mm socket. (item 7).



STEP 11: With the coolant line routed above the exhaust manifold, thread the available end onto the AN style fitting of the installed thermostat riser block.



STEP 12: Utilizing the coolant bypass line riser brackets (item 11) and M8 socket head cap screws (item 5) in your kit; position the clamps over the bypass coolant line and fasten them to the cylinder head in the available tapped holes between cylinder numbers 2 & 3 as well as between cylinder numbers 4 & 5.



*NOTE: Ensure the coolant line does not contact the exhaust manifold.*

STEP 13: Ensure that the coolant drain plug has been reinstalled in the radiator and proceed to re-fill the coolant system. Re-use or replace coolant as necessary to properly fill the system with clean fluid.



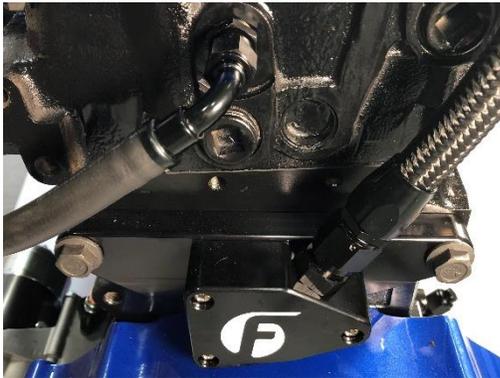
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STEP 14: Re-connect the vehicle batteries

STEP 15: Start the truck and allow the engine to idle. Inspect all fittings and split-lines for possible leaks. If no leaks are observed, bring the engine to a normal operating temperature and confirm that no leak is present. Repair any observed leaks.

## INSTALLED PRODUCT IMAGES:



Visit <https://fleeceperformance.com/resources> for the latest instructions and videos.

For Technical Assistance contact Fleece Performance Engineering at 855-839-5040.