

**CUMMINS COOLANT BYPASS KIT:**  
2003-2007 AUTOMATIC TRANSMISSIONS



PART #	DESCRIPTION	QUANTITY
1	FLEECE PERFORMANCE THERMOSTAT HOUSING	1
2	M12 FLANGE HEAD BOLTS	3
3	OE THERMOSTAT HOUSING RISER BLOCK	1
4	M6 FLANGE HEAD BOLTS	2
5	-10 COOLANT LINE	1
6	M8 SOCKET HEAD CAP SCREWS	2
7	P CLAMPS	2
8	HEATER TUBE	1
9	COOLANT PLUG	1
10	HEAT EXCHANGER RUBBER CAPS	2

# **FLEECE PERFORMANCE ENGINEERING**

## **CUMMINS COOLANT BYPASS KIT**

### **INSTALLATION INSTRUCTIONS**

#### ***2003-2007 Cummins Equipped with an Automatic Transmission***

#### **REQUIRED TOOLS:**

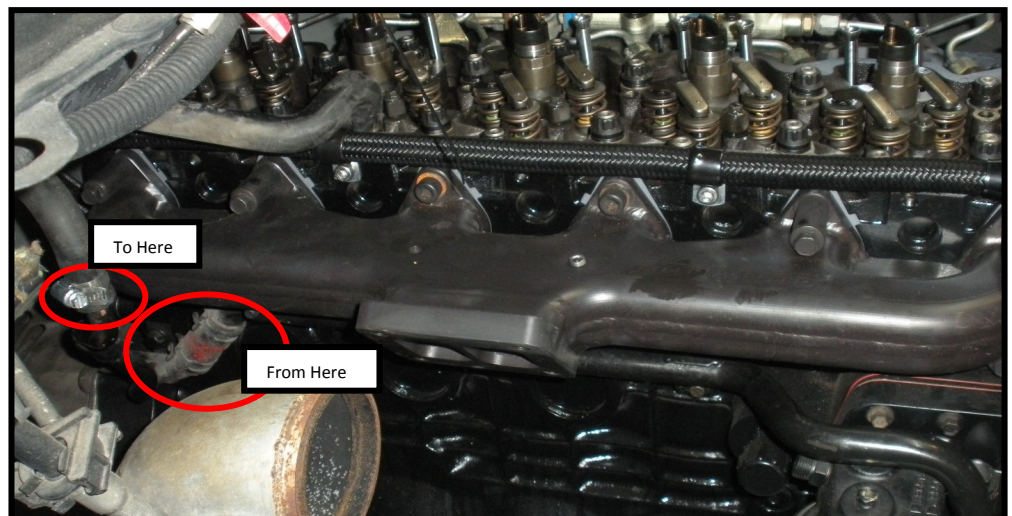
- 36" PRY BAR
- 16MM RATCHET WRENCH
- 10MM SOCKET
- 8MM SOCKET
- 6MM ALLEN
- 1" WRENCH
- HAMMER
- 5 GALLON, CLEAN DRAIN PAN
- SCOTCH-BRITE™ PAD
- DEGREASING CLEANING SOLUTION

**ESTIMATED TIME OF INSTALLATION: 1-2 HOURS**

#### **PROCEDURE:**

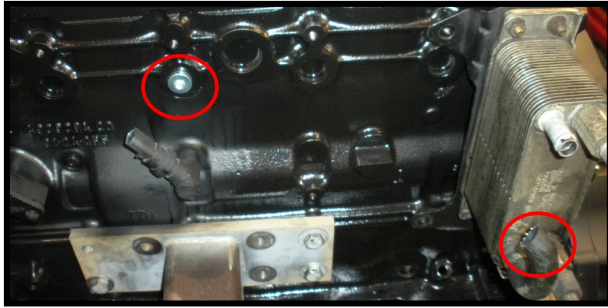
1. DISCONNECT THE BATTERIES
2. LOCATE THE COOLANT DRAIN, UNDER THE DRIVER'S SIDE OF THE RADIATOR. DRAIN THE COOLANT SYSTEM INTO A CLEAN DRAIN PAN, IN ORDER TO RE-USE YOUR COOLANT WHEN THE INSTALLATION IS COMPLETE.
3. LOCATE THE COOLANT TUBE THAT RUNS ALONG THE BACK OF THE ENGINE BLOCK CONNECTING THE TRANSMISSION HEAT EXCHANGER ON THE DRIVER'S SIDE AND THE HEATER CORE/COOLANT TUBE ON THE PASSENGER SIDE. REMOVE THIS HEATER TUBE AND DISCARD.

4. INSTALL THE PROVIDED HEATER TUBE FROM THE PASSENGER SIDE HEATER TUBE TO THE FACTORY 90° HEATER HOSE ON THE FIREWALL.



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5. REMOVE THE HOSE FROM THE TRANSMISSION HEAT EXCHANGER TO THE SIDE OF THE BLOCK AND DISCARD. INSTALL THE COOLANT PLUG IN THE SIDE OF THE BLOCK.

**NOTE: IF KEEPING THE HEAT EXCHANGER ON THE ENGINE, BLOW OUT THE COOLANT AND COVER WITH THE CAPS PROVIDED.**

6. USING A 8MM SOCKET, REMOVE THE BOLTS ANCHORING THE STOCK THERMOSTAT HOUSING. IT IS NOT NECESSARY TO REMOVE OR DISCONNECT THE THERMOSTAT HOUSING FROM THE UPPER RADIATOR HOSE. JUST PULL IT TO THE SIDE, OUT OF THE WAY OF THE EXPOSED THERMOSTAT.



7. 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.

8. LOCATE THE OE THERMOSTAT HOUSING RISER BLOCK (#3). WITH THE INSERTED O-RING FACING UP, AND THE THREADED FITTING FACING TOWARDS THE FIRE WALL, PLACE THE RISER BLOCK OVER THE STOCK THERMOSTAT.





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9. PLACE THE STOCK THERMOSTAT HOUSING OVER THE RISER BLOCK. USING THE SUPPLIED M6 FLANGE HEAD BOLTS (#4), AND TIGHTEN THE BOLTS TO 89 IN-LBS

10. FIND THE LARGE 58MM (2 1/4") 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



11. 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.

# FLEECE PERFORMANCE ENGINEERING

## CUMMINS COOLANT BYPASS KIT

**12. USING A 1" WRENCH, CAREFULLY THREAD THE -10 COOLANT LINE TO THE FITTING ON THE FLEECE PERFORMANCE THERMOSTAT HOUSING.**



**13. WITH ASSEMBLY GREASE OR LIGHT OIL, LUBRICATE THE SEALING RING OF THE FLEECE PERFORMANCE THERMOSTAT HOUSING, AND PRESS IT INTO PLACE ON THE BACK OF THE ENGINE BLOCK. THE -10 COOLANT LINE SHOULD BE ORIENTED TOWARDS THE PASSENGER SIDE, AND OVER THE EXHAUST MANIFOLD.**

**14. ENSURE THAT THE FLEECE PERFORMANCE THERMOSTAT HOUSING IS FIRMLY SEATED ON THE BACK OF THE BLOCK AND FASTEN IT SECURELY INTO PLACE USING THE SUPPLIED M12 FLANGE HEAD BOLTS (#2).**



**15. WITH THE COOLANT LINE ROUTED ABOVE THE EXHAUST MANIFOLD, CAREFULLY THREAD THE AVAILABLE END ONTO THE AN STYLE FITTING OF THE THERMOSTAT RISER BLOCK.**

# FLEECE PERFORMANCE ENGINEERING CUMMINS COOLANT BYPASS KIT

16. LOCATE THE "P" CLAMPS (#7) AND M8 SOCKET HEAD CAP SCREWS (#6) IN YOUR KIT. FIT THE CLAMPS OVER THE -10 COOLANT LINE AND FASTEN THEM TO THE CYLINDER HEAD, IN THE AVAILABLE TAPPED HOLES BETWEEN CYLINDER #2 & #3 AS WELL AS BETWEEN CYLINDER #4 & #5.

**NOTE:** ENSURE THE COOLANT LINE DOES NOT CONTACT THE EXHAUST MANIFOLD.



17. ENSURE THAT THE DRAIN PLUG HAS BEEN SECURED IN THE RADIATOR, AND PROCEED TO RE-FILL. IT WOULD BE A GOOD OPPORTUNITY TO REPLACE THE COOLANT AT THIS TIME. HOWEVER IF A CLEAN DRAIN PAN WAS USED, THE COOLANT CAN BE REUSED. BE SURE TO REMOVE ANY POSSIBLE FOREIGN DEBRIS.

18. CONNECT THE BATTERIES.

19. START THE TRUCK AND LET IT IDLE. BE SURE TO LOOK IT OVER FOR POSSIBLE LEAKS. BRING THE TRUCK UP TO A NORMAL OPERATING TEMPERATURE AND AGAIN, CHECK FOR LEAKS.

**FOR TECHNICAL SUPPORT CONTACT:**

**FLEECE PERFORMANCE ENGINEERING**

**468 SOUTHPOINT CIRCLE, SUITE 100**

**TOLL FREE:**

**855-839-5040**

**LOCAL:**

**317-286-3573**

**INFO@FLEECEPERFORMANCE.COM**

