



DUAL FUELER

Dual Fueler CP3 Pump Kit for LLY

2004.5-2005 GM 6.6L Duramax



**PRODUCT
RESOURCES**

Supplied Parts:

- | | | | |
|----|--|----|--|
| 1 | One Drive Belt (PN 113061490) | 18 | One CP3 Fuel Pump Support Bracket |
| 2 | One High-Pressure Fuel Line (PN 113063070) | 19 | Two 8 x 0.5 Self-Tapping Screws |
| 3 | One CP3 Fuel Pump (113062000 only) | 20 | One 18 x 1.5 Nut |
| 4 | One CP3 Bracket | 21 | One 18mm Washer |
| 5 | One High-Pressure Fuel Line (PN 113063069) | 22 | Three 10mm Idler Pulley Flat Washer |
| 6 | One Dual Fueler Pulley Wheel | 23 | One 5/16 x 18 x 2.25 Bolt |
| 7 | Four M6 - 1.0 x 10 Bolt | 24 | Two 5/16 x 18 x 2 Bolt |
| 8 | One Dual Fueler Control Module | 25 | Three 5/16 Washers |
| 9 | One Fuel Junction Block | 26 | One 5/16" Brass Fuel Tee |
| 10 | One Dual Fueler Race Valve | 27 | Three 5/16 x 18 Nuts |
| 11 | Two 10 x 1.5 x 45 Bolts | 28 | One 1/2 x 3/8 x 1/2 S.S. Fuel Tee |
| 12 | Two M10-1.5x100 bolts | 29 | Two Idler Pulley Spacers |
| 13 | One Fuel Junction Block Bracket | 30 | Two Idler Pulleys (P1) (P2) |
| 14 | Two 10mm washers | 31 | One 34" x 3/8" Hose with 33" Split Loom |
| 15 | Four 5/16" Hose Clamps | 32 | One 20" x 5/16" Hose with 19" Split Loom |
| 16 | Two 3/8" Hose Clamps | | |
| 17 | Two 7/8" Hose Clamps | | |



Control Module 2463571



- 1 Control Module
- 2 Control Module Fuse 10A
- 3 Control Module +12V (Red Wire)
- 4 Control Module Ground (Black Wire)
- 5 Control Module Internal Engine Pump connector
- 6 Control Module Internal Engine Pump connector
- 7 Control Module Dual Fueler Connector

INSTALLATION

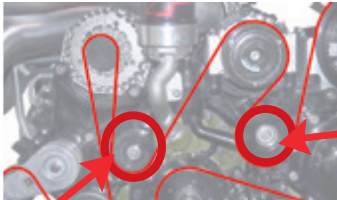
1. Install the Dual Fueler Bracket (4) and Spacer (18) on CP3. Tighten to secure.



Dual Fueler Installation Guide

2. Remove the belt and Install one Idler Pulley (30) on the engine bracket (as shown). Torque to 27 lb. ft.

P1



P1

Photo shows both Idler Pulleys that are to be installed on P1 and P2.

P2

3. Remove Factory Idler Pulley in location P2.**P2**

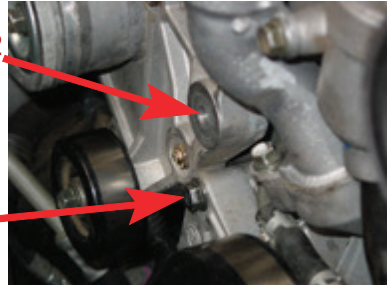


P2

4. Remove bolt Y shown below from location P2.

P2

Y



5. Grind off the top of bolt Y until the ridge of bolt Y is gone and it looks like example shown.

Then replace bolt Y and install Idler Pulley in location P2 as shown in step 3 photo. Grinding the top of Bolt Y allows for the Idler Pulley not to catch on it.

6. Drain the coolant from the radiator. Remove the alternator. Remove the EGR by disconnecting the in and out hoses first.

7. Remove the plug from the end of the fuel rail with a 500E Torx wrench or socket and install, Dual Fueler Race Valve.

8. Remove the four A/C Bolts as shown and set the A/C compressor to the left of the engine to access the fuel return line.

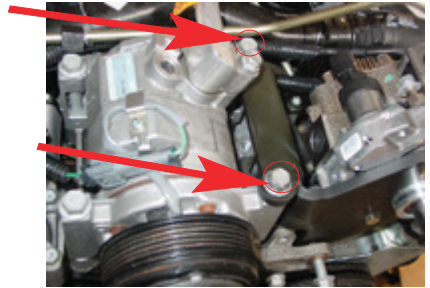


9. Locate stock return line D from the Stock CP3 Pump. Cut the rubber hose and insert the 5/16" x 5/16" x 5/16" 'T' connector. Use 5/16" Hose Clamps to secure.

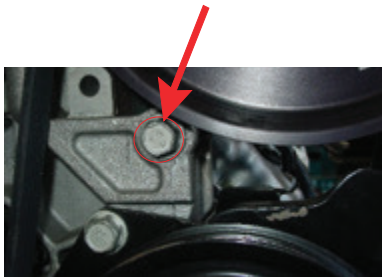


10. Replace the A/C compressor, and reinstall factory bolts on the left hand side. Place Dual Fueler Assembly bracket with pump on the top of the Right A/C Compressor bolt holes on the right hand side. Use 2 bolts to attach Dual Fueler Bracket Assembly to A/C Compressor, torque to 37 lb. ft.

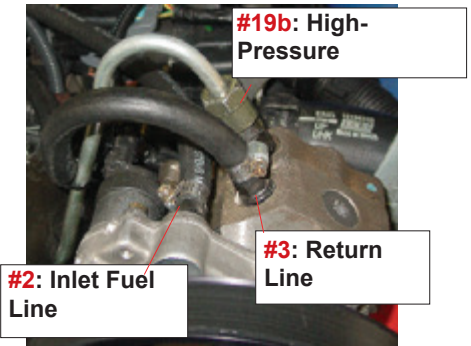
Save one original A/C bolt for the next step.



11. Install the 1 factory A/C Bolt that you removed from the top of A/C Unit into bottom of Dual Fueler bracket



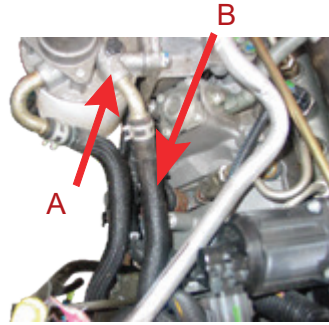
12. Attach lines by part number as shown below:



13. Then torque the #19 high pressure line nut on both the pump and fuel rail ends to 30 ft. lb. Re-install the Intake Manifold.

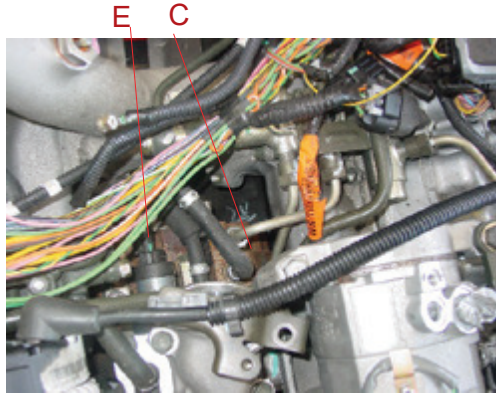
Dual Fueler Installation Guide

14. Follow the flow direction arrow A exiting from the fuel filter housing in order to locate the fuel supply hose B. Cut back the nylon sheathing on hose B. Cut the stock fuel supply line and insert the supplied #2 1/2" x 1/2" x 3/8" 'T' connector in between the 1/2" fuel supply line, secure with #9 1/2" hose clamps.



Now connect all three of the lines to the Dual Fueler Pump and to the engine in the correct locations.

15. Locate the Stock CP3 Pump C, and the electronic control wire harness E. Unplug wire Harness E.



16. Plug the Wire Harness E into #13, then plug the other end of #13 back into the Stock CP3 Pump C.

17. Route the #1, (Control Module) wiring from the Stock CP3 Pump C (as shown) and attach to the other wiring with #18 (tie straps). Connect #14 to the back of the Dual Fueler CP3 Pump.

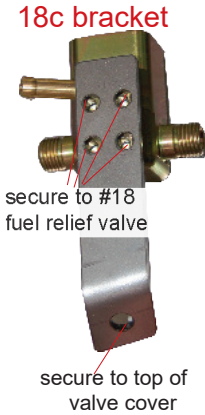


Wire Routing

(LB7 photo shown)

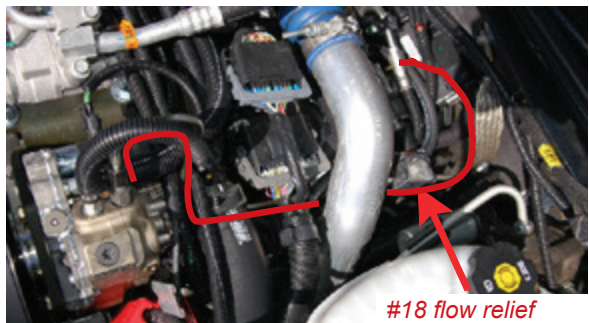


18a. Secure the #18c Flow Relief Bracket to the #18a Flow Relief Valve with the supplied (four) bolts and secure to the top of valve cover with stock bolt.



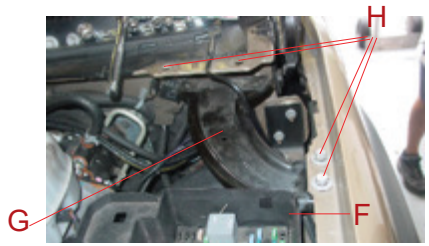
18b. Route the #19b high pressure line under the radiator hose as shown to #18a flow relief. Route the #19a high pressure line under removed module M to fuel rail and install onto the #20 Dual Fueler Race Valve. Torque the #19 high pressure line nuts on all four ends to 30 ft.lb. (view photo below)

19. Connect the fuel return line from #18a fuel relief fitting to fuel return #18b. Install the #8 Rubber Cap on the Fuel Rail open fitting.

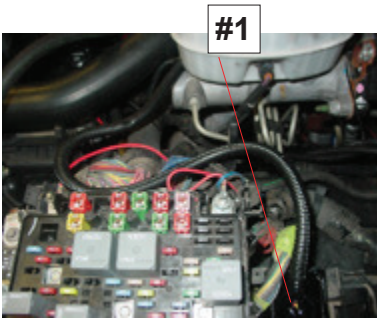


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20. Temporarily remove the Metal Support G (as shown) by removing the four bolts H and set aside to remove the fuse box cover F. #1 will be tucked inside the fuse box cover F.



21. Remove the Fuse box Cover F and place #1 (Control Module) as shown.



22. Secure #1 with the #17 screws as shown.



23. Replace the fuse box cover F, taking care not to pinch the wiring harness. Re-assemble stock parts G and H in step 19.

24. Route the #7 Belt as shown.



25. Connect #13 Red Wire to the 12V constant battery jumper terminal stud. And then #14 ground wire to the terminal stud mounting bolt as shown.

26. Insert the 10 Amp Fuse in #17.

27. Prime the fuel filter pump to bleed air from the system and start the engine.

28. Place supplied Dual Fueler decal on the engine shield in the designated area for reference on future smog testing.





Troubleshooting

Engine noisy: Too much fuel pressure

Cause: Check if the fuse is good and in controller's fuse holder. And all the power connections are secure, including both connectors for the pumps are fully plugged in.

DISCLAIMER OF LIABILITY

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