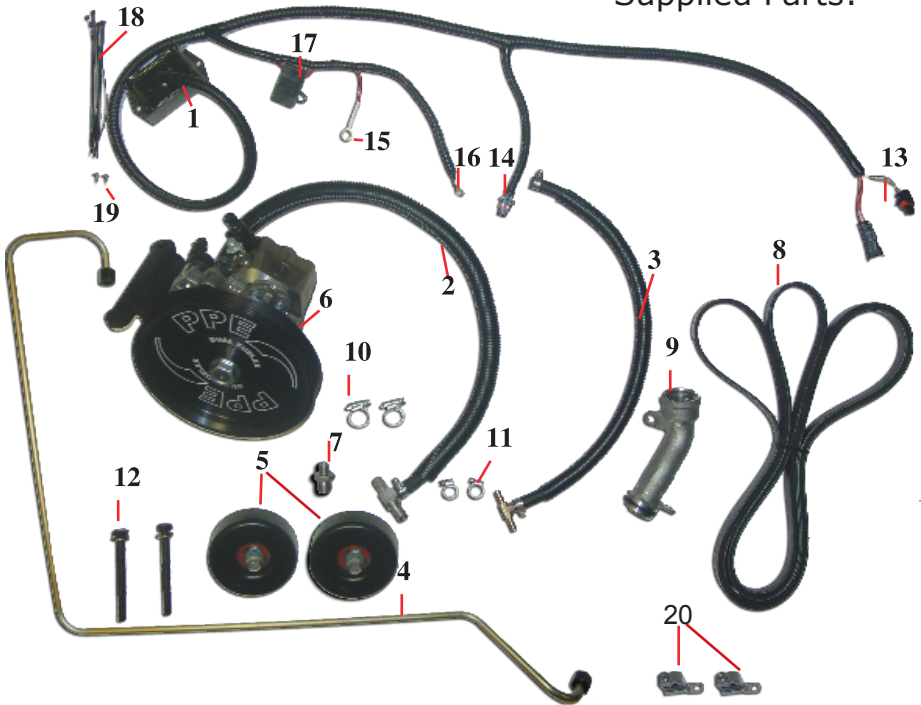


Pacific Performance Engineering, Inc.
www.ppediesel.com

Dual Fueler CP3 Pump Kit Installation Guide for **LLY**

50 STATES EMISSIONS LEGAL

Supplied Parts:



1. Control Module
2. 3/8" Inlet Fuel Line with Attached 1/2" x 1/2" x 3/8" 'T' Connector
3. 5/16" Return Fuel Line with Attached 5/16" x 5/16" x 5/16" 'T' Connector
4. High Pressure Steel Fuel Supply Line
5. Two Idler Pulleys with bolts
6. Assembled CP3 Pump, Wheel, and bracket
7. Fuel Rail Fitting
8. 6 Rib Belt
9. Oil Filler Tube
10. 2 #6 hose Clamps
11. 6 #4 hose Clamps (4 already on hoses)
12. 2 M10-1.5x100 bolts with 2 washers
13. Control Module Internal Engine Pump connectors
14. Control Module Dual Fueler Connector
15. Control Module +12V (Red Wire)
16. Control Module Ground (Black Wire)
17. Control Module Fuse 10A
18. Control Module Harness Tie Straps
19. Control Module Mounting Screws
20. Two Fuel Supply Line Mounting Brackets

Please note these part numbers, they will be used in installation descriptions!

DISCLAIMER OF LIABILITY

This is a performance product can be used to increased horsepower above and beyond factory specifications. Additional horsepower creates more stress on the drivetrain components, which could result in drivetrain failure. Note: Legal in California only for racing vehicles, which may never be used on the highway.

This agreement sets forth the terms and conditions for the use of this product. The installation of this product indicates that the Buyer has read and understands this agreement and accepts the terms and conditions.

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The Buyer is solely responsible for all warranty issues from the manufacturer.

LIMITATION OF WARRANTY

The Seller gives Limited Warranty as to description, quality, merchantability, and fitness for a particular purpose, productiveness, or any other matter of Seller's product sold herewith. The Seller shall not be responsible for the products proper use and service and the Buyer hereby waives all rights other than those expressly written herein. This warranty shall not be extended, altered or varied except by a written instrument signed by Seller and Buyer. The Warranty is limited to two (2) years from the date of sale and limited solely to the parts contained within the products kit. All products that are in question of Warranty must be returned prepaid to the Seller and must be accompanied by a dated proof of purchase receipt. All Warranty claims are subject to approval by Seller. Under no circumstances will the Seller be liable for any labor charged or travel time incurred in diagnosis for defects, removal, or reinstallation of this product or any other contingent expenses.

Under no circumstances will the Seller be liable for any damage or expenses incurred by reason of the use or sale of any such equipment. In the event that the buyer does not agree with this agreement: the buyer may promptly return this product, in a new and unused condition in its original packaging, with a dated proof of purchase to the place of purchase within ten (10) days from date of purchase for a full refund. The installation of this product indicates that the buyer has read and understands this agreement and accepts its terms and conditions.

First: Install the “Dual Fueler” bracket and the pulley if not assembled on the pump. Refer to Appendix B on page 8.

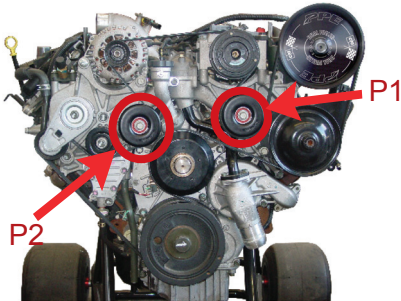
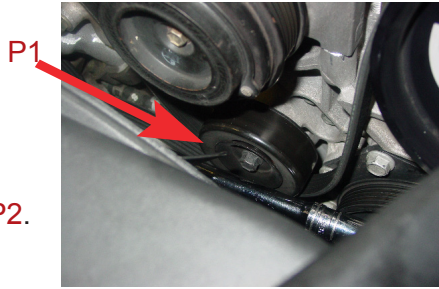


Photo shows both #5 Idler Pulleys that are to be installed on P1 and P2.

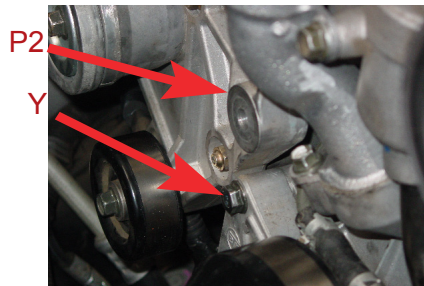
1. Remove the belt and Install 1 #5 Idler Pulley P1 in existing threaded hole on the engine bracket (as shown below). Torque to 27 lb. ft.



2. Remove Factory Idler Pulley in location P2.



3. Remove bolt Y shown below from location P2.

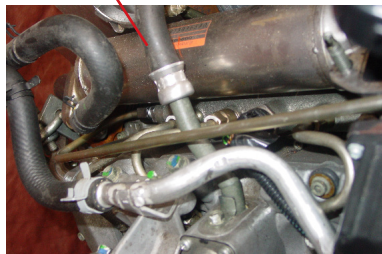


4. Grind off the top of bolt Y until the ridge of bolt Y is gone and it looks like example below, then replace bolt Y and install #5 Idler Pulley in location P2 as shown in step 3 photo. Shaving the top of Bolt Y allows for the #5 Idler Pulley not to catch on it.



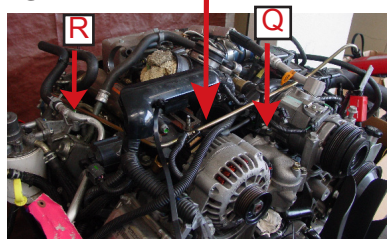
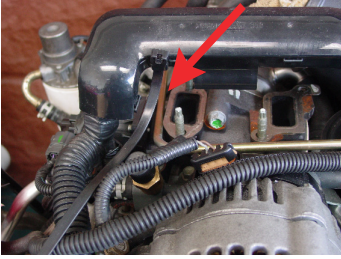
6. Remove the plug from the end of the fuel rail with a 500E (used on seatbelt bolts) Torx wrench or socket and install #7, Fuel Rail Fitting.

(photo shows with #4 high pressure line installed.)



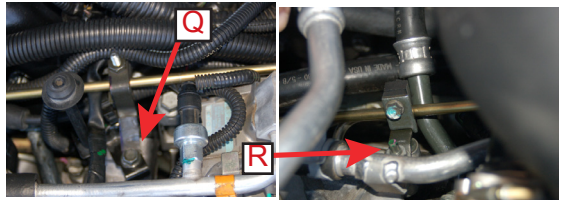
5. Drain the coolant from the radiator drain plug. Remove the alternator. Remove the EGR by disconnecting the in and out hoses first.

7. Remove the Intake Manifold to lay **#4 high pressure line** as shown between intake manifold and EGR.

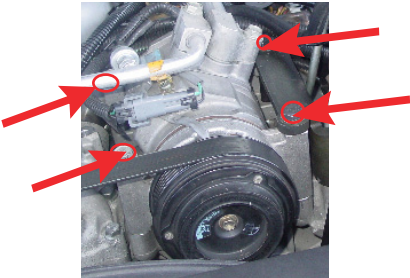


IMPORTANT: If these brackets are not installed properly the high pressure line will resonate and it will fail!

8. Install the **#20 Bolt on Brackets** to the **#4 High Pressure Line** as shown to thermostat housing bolt **Q** and stud **R** next to the fuel filter bracket.



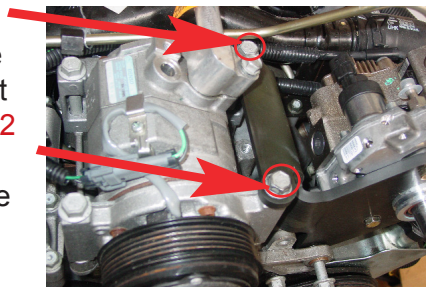
9. Remove the **4 A/C Bolts** as shown and set the **A/C compressor** to the left of the engine to access the fuel return line.



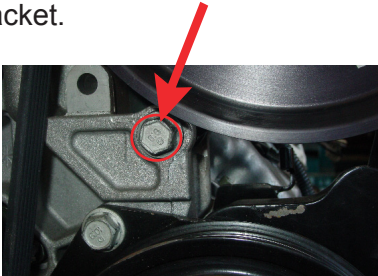
10. Locate stock return line **D** from the Stock CP3 Pump. Cut the rubber hose and insert the **#3 5/16"x5/16"x5/16"** 'T' connector. Use **#11** hose clamps to secure.



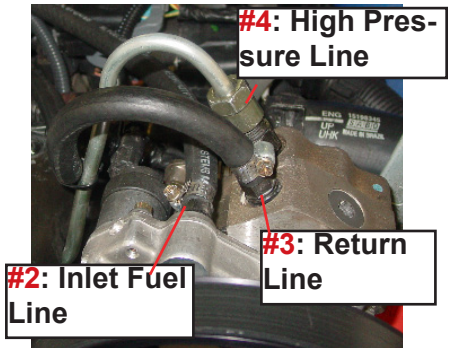
11. Replace the A/C compressor, and reinstall factory bolts on the left hand side. Place **#6, (Dual Fueler Assembly bracket with pump)** on the top of the Right A/C Compressor bolt holes on the right hand side. Use **#12 bolts** to attach Dual Fueler Bracket Assembly to A/C Compressor, torque to 37 lb. ft. Save 1 original A/C bolt for the next step.



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

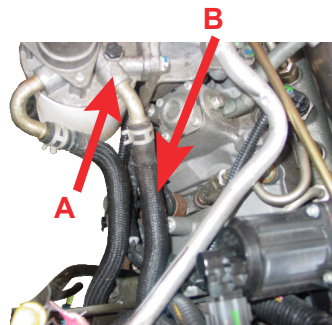


13. Attach lines by part number as shown below:



14. Then torque the #4 high pressure line nut on both the pump and fuel rail ends to 30 ft. lb. Re-install the Intake Manifold.

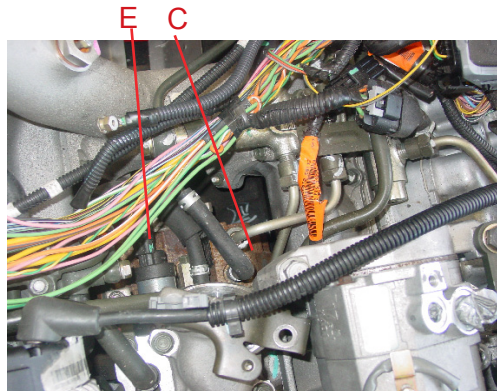
15. Follow the flow direction arrow A exiting from the fuel filter housing in order to locate the fuel supply hose B. Cut back the nylon sheathing on hose B. Cut the stock fuel supply line and insert the supplied #2 1/2"x1/2"x3/8" 'T' connector in between the 1/2" fuel supply line, secure with #10 1/2" hose clamps.



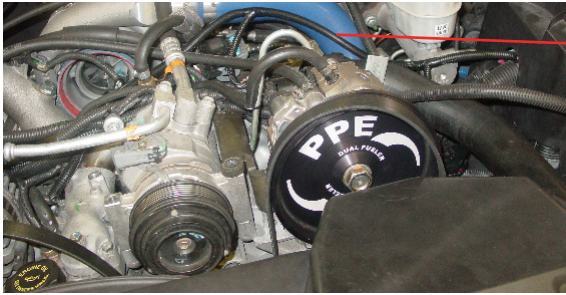
Now all 3 of the lines should be connected to the Dual Fueler Pump and to the engine in the correct spots.

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

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



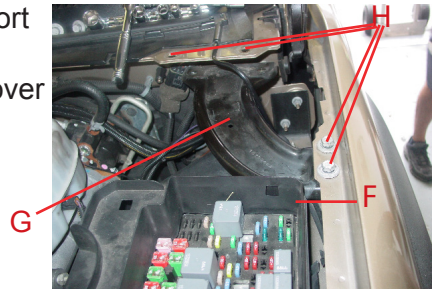
18. Route the #1, (Control Module) wiring from the Stock CP3 Pump C (as shown) and attach to the other wiring with #18 (tie straps). Connect #14 to the back of the Dual Fueler CP3 Pump.



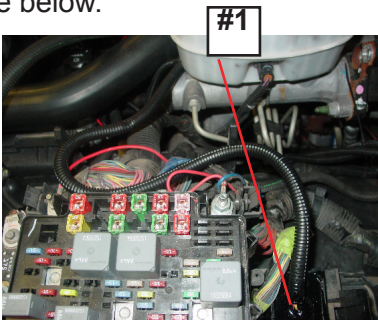
Wire Routing

(LB7 photo shown)

19. Temporarily remove the Metal Support G (as shown) by removing the 4 bolts H and set aside to remove the fuse box cover F. #1 will be tucked inside the fuse box cover F.



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



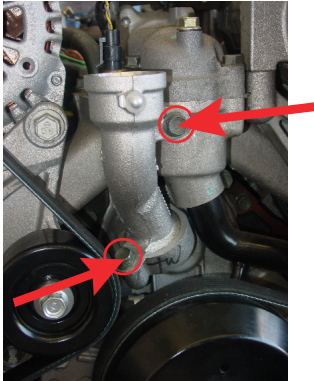
(photo is taken from the drivers side of the vehicle)

21. Secure #1 with the #19 screws as shown below.

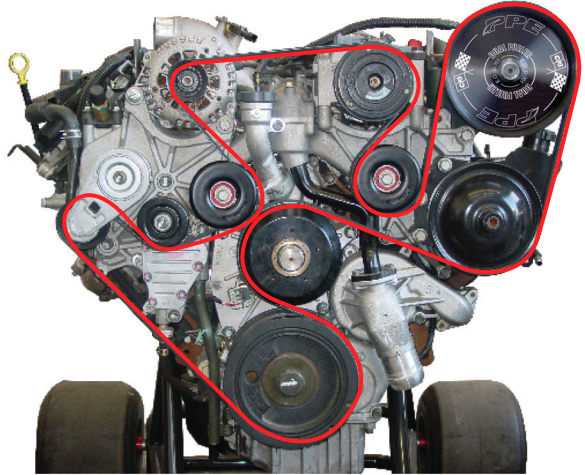


22. Replace the fuse box cover F, taking care not to pinch the wiring harness, and the re-assemble stock parts G and H as shown in step 18.

23. Remove original Oil Filler Tube, install the #9 (Replacement Oil Filler Tube) to allow for the belt clearance and then assemble with original bolts. Torque to 15 lb. ft.



24. Route the #8 (Replacement Belt) As shown below.



25. Connect #15 Red Wire to the 12V constant battery jumper terminal stud. And then #16 ground wire to the terminal stud mounting bolt as shown.



26. Insert the 10 Amp Fuse in #17.

27. The engine should be ready to start, 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 use during future smog testing.



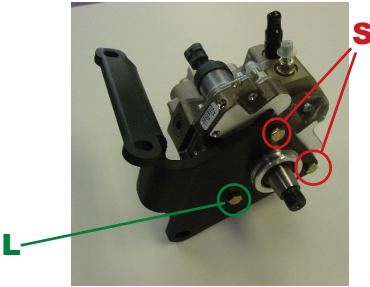
Appendix A: Troubleshooting

Engine noisy: Too Much Fuel Pressure

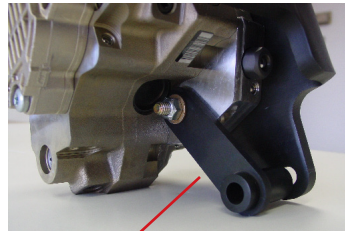
Cause: Check if the fuse is good and in controller's fuse holder. And all the power connections are secure, including both connectors for the pumps are fully plugged in.

Appendix B: Fuel Pump with Bracket Assembly

1. Install the Main Bracket and insert 3 supplied bolts. Make sure the **longer bolt L** and 2 **shorter bolts S** are used as shown.



2. Install the **Smaller Support Bracket** and secure with a washer and nut on the back of the pump as shown. Secure the other 2 bolts **S** with washer and nut on the back of the pump.



Smaller Support Bracket

3. Put the pulley on pump by the placing pully on pump with, a washer and nut, then torque the fuel injection pump drive pully nut to 52 lb ft.



drive pulley nut

PPE

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