



## **Dual Fueler Kit**

### *Dodge Cummins 5.9L*

|               |         |             |
|---------------|---------|-------------|
| 2003 - 2004   |         | (213001100) |
| 2003 - 2004   | no pump | (213001000) |
| 2004.5 - 2007 |         | (213002000) |
| 2004.5 - 2007 | no pump | (213002100) |

## **Installation Guide**

## Parts in Kit (2003-2004):



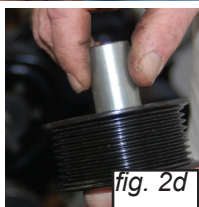
- |                                     |                                           |
|-------------------------------------|-------------------------------------------|
| 26. 8" Zip Ties (3)                 | 17. 3/8" Nut (4)                          |
| 5. 5/16" x 18 x 2" Bolt (2)         | 12. 3/8" Washers (4)                      |
| 25. 8 x 0.5" Self-Tapping Screw (2) | 10. 8 x 1.25 Nut (4)                      |
| 6. 5/16 x 18 x 2.25 Bolt (1)        | 15. 8mm Washer (4)                        |
| 8. 18 x 1.5 Nut (1)                 | 1. 8 x 1.25 x 30 Bolt (1)                 |
| 16. 5/16 x 18 Nut (3)               | 3. 3/8 x 16 x 2 Bolt (1)                  |
| 11. 5/16 Washer (3)                 | 2. 8 x 1.25 x 25 Bolt (2)                 |
| 9. 18mm Washer (1)                  | 4. 3/8 x 16 x 1.75 Bolt (2)               |
| 21. 5/16" Brass Fuel Tee (2)        | 28. Transmission Kick Brace (1)           |
| 22. 5/16" Hose Clamp (8)            | 19. Fuel Line Bracket (1)                 |
| 13. 10mm Washer (1)                 | 27. Dipstick Bracket (1)                  |
| 7. 10 x 1.50 x 25 Bolt (3)          | 40. H.P. Fuel Line 515-006-2171 (1)       |
| 14. 8 x 1.25 x 12 Bolt (1)          | 36. 21" x 5/16" Fuel hose (1)             |
| 18. 6 - 1.0 x 25 Bolt (1)           | 35. 18" x 5/16" Fuel Hose (1)             |
| 23. 2.25" Hose Clamp (3)            | 43. Coolant Reroute Tube - Single Tab (1) |
| 24. 2.5" Hose Clamp (1)             | 45. Transmission Kick Bracket (1)         |
| 32. H.P. 3 Way Fuel Block (1)       | 46. Serpentine Belt 2003-2009 (1)         |
| 49. Idler Pulley (1)                | 47. Duel Fueler Pump Bracket (1)          |
| 34. Duel Fueler Controller (1)      | 48. Duel Fueler Pump Pulley (1)           |
| 39. H.P. Fuel Line 515-006-2170     | 50. Coolant Hose - Long "V" Shape         |
| 41. H.P. Fuel Line 515-006-2172     | 51. Coolant Hose - Short                  |

*Parts in Kit (2004.5-2007):*

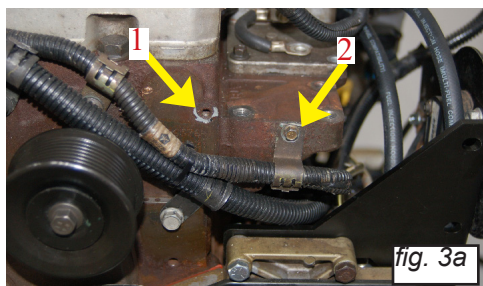


- |     |                                 |     |                                   |
|-----|---------------------------------|-----|-----------------------------------|
| 26. | 8" Zip Ties (3)                 | 49. | Idle Pulley                       |
| 5.  | 5/16 x 18 x 2 Bolt (2)          | 34. | Duel Fueler Controller            |
| 25. | 8 x 0.5" Self Tapping Screw (2) | 39. | H.P. Fuel Line 515-006-2170 (1)   |
| 6.  | 5/16" x 18 x 2.25" Bolt (1)     | 41. | H.P. Fuel Line 515-006-2172 (1)   |
| 8.  | 18 x 1.5 Nut (1)                | 10. | 8 x 1.25 Nut (1)                  |
| 16. | 5/16" x 18 Nut (3)              | 15. | 8mm Washer (1)                    |
| 11. | 5/16" Washer (3)                | 19. | Fuel Line Bracket (1)             |
| 9.  | 18mm Washer (1)                 | 27. | Dipstick Bracket (1)              |
| 21. | 5/16" Brass Fuel Tee (2)        | 40. | H.P. Fuel Line 515-006-2171       |
| 22. | 1/16" Hose Clamp (8)            | 36. | 21" x 5/16" Fuel Hose             |
| 13. | 10mm Washer (1)                 | 35. | 18" x 5/16" Fuel Hose             |
| 7.  | 10 x 1.50 x 25 Bolt (3)         | 43. | Coolant Reroute Tube – Single Tab |
| 14. | 8 x 1.25 x 12 Bolt (1)          | 46. | Serpentine Belt 2003-2009         |
| 18. | 6 – 1.0 x 25 Bolt (1)           | 47. | Dual Fueler Pump Bracket          |
| 23. | 2.25" Hose Clamp (3)            | 48. | Duel Fueler Pump Pulley           |
| 24. | 2.5" Hose Clamp (1)             | 50. | Coolant Hose – Long "V" Shape     |
| 32. | H.P. 3 Way Fuel Black (1)       | 51. | Coolant Hose Short                |

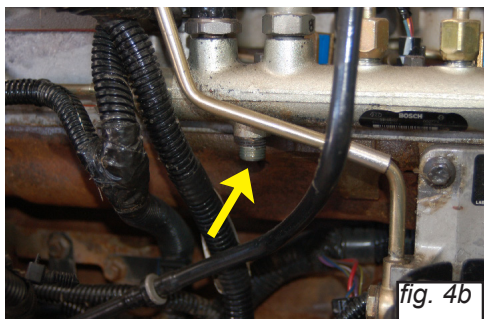
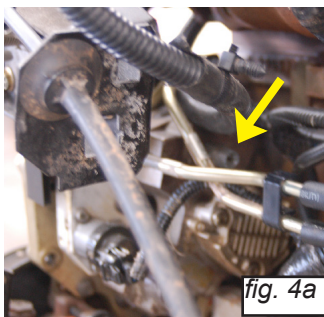
- 1) Remove the Radiator Hose, Fan Shroud Bracket and Engine Belt.
- 2) Remove the Idler Pulley, and replace with **#5a** Idler Pulley as shown (fig. 2a), by using the stock spacer (remove it from the stock pulley, fig. 2b) and insert **#5b** Washer as shown (fig. 2c, 2d). Install this assembly back onto engine (same place as fig. 2a).



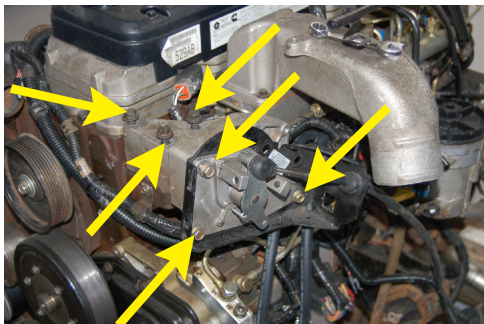
- 3) Remove the Harness wire bracket bolt, and move to the position as shown from arrow **1** to arrow **2** (fig. 3a).



- 4) Remove the inlet high pressure fuel line from the stock fuel pump (fig. 4a) and the fuel rail (fig 4b).



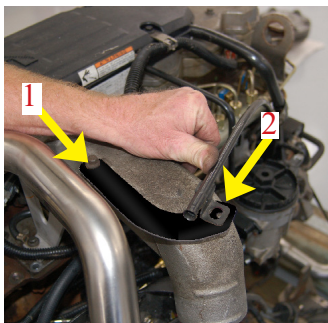
- 5) Remove 6 bolts on the assembly for the transmission kickdown (as shown). The transmission kickdown will be relocated.



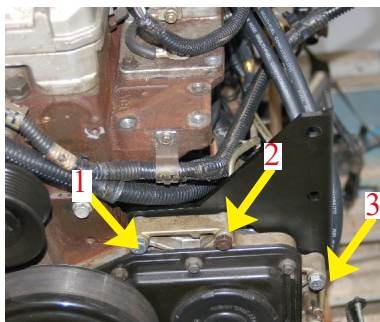
- 6) Install **#16a Radiator Pipe** (as shown) with stock bolt and making sure to reattach ground wire (as shown).



- 7) Install **#14 Dipstick Support bracket** by using the stock bolt on arrow **1**, and the supplied **#14 bolt, washer and nut** on arrow **2**.



- 8)\* Install **#12a transmission kickdown bracket** as shown by using the **3 #12b bolts washers and nuts** as shown. On arrow **2**, use the longer **12b bolt** and don't secure the nut or washer until the next step.



\*2003 and 2004 only.

- 9)\* Secure **transmission kickdown** by bolting the **#12a transmission kickdown bracket** with the **#13b transmission kickdown support bolt** (fig. 9a), and secure the **#13a transmission kickdown support** as shown (fig. 9b). Use the longer **#13b bolt** on **Arrow 3**, and secure the other end of **#13a** with the longer bolt from **#12b** in step 8 (**Arrow 4**).

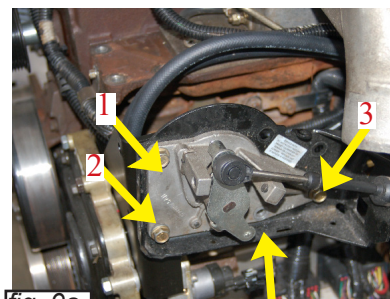


fig. 9a

**Transmission Kickdown**

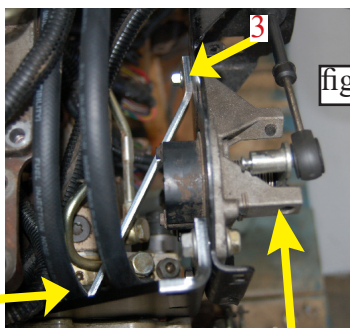
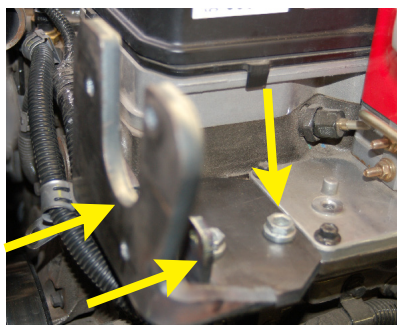
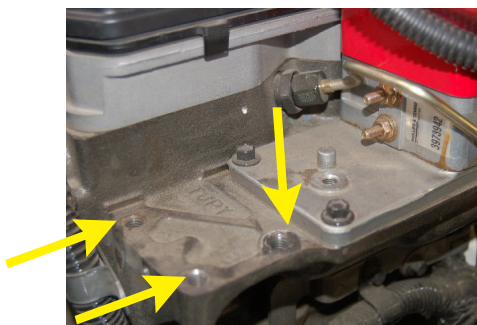


fig. 9b

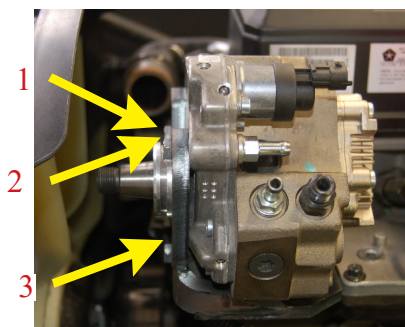
**Transmission Kickdown**

\*2003 and 2004 only.

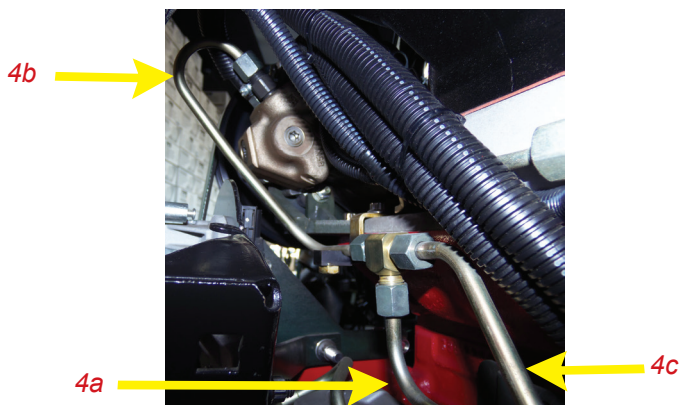
- 10) Install the **#8a fuel pump bracket** to the top front of the engine as shown below with 3 supplied **#8b** bolts.



- 11) Install **#6a Fuel Pump** by sliding it into position onto the bracket, and bolt on with 3 **#6b 5/16-18 bolts**. See figure to the below. The longer **#6b** bolt is on **arrow #3**.

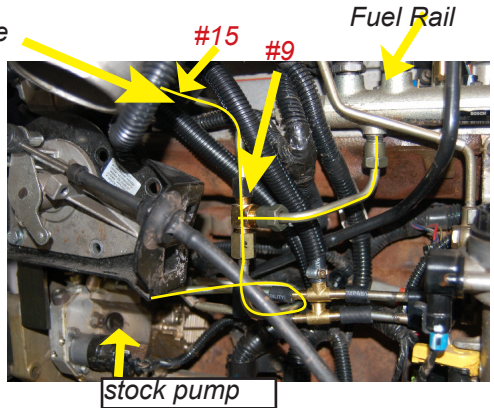
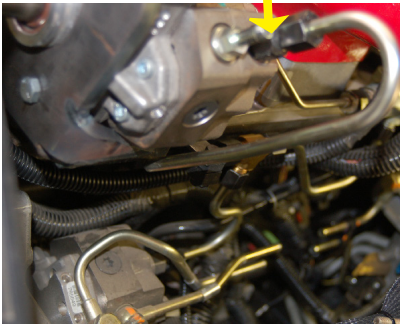


- 12) Install the **#15 high pressure line fastener** as shown. Install the **#4a** line from the factory CP3 pump to the T, **#4b** line from the second pump to the T and **#4c** line from the fuel rail to the T. Dual Fueler pump all connected with the **#9 fuel T connector**.

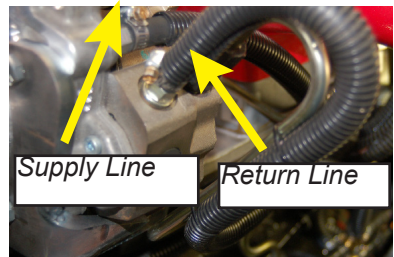
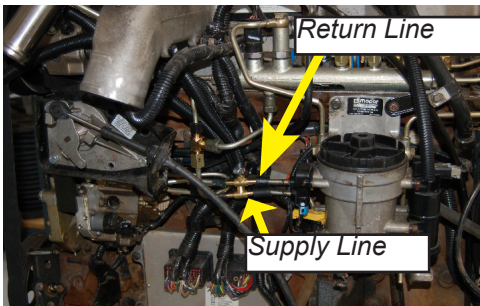


12) cont.

Dual Fueler High Pressure Line

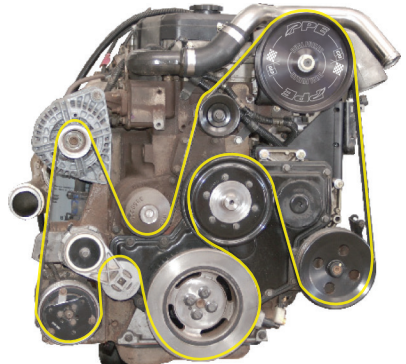


- 13) Cut the return fuel and supply line hose about 3/4 the way along the length (as shown below), and insert **#2 & #3 5/16" T fittings** into the return fuel line and supply fuel line hoses. Secure with **#11** hose clamps. Then connect the **#2 supply line** and **#3 return line** to the Dual Fueler Pump, secure with a **#11** hose clamps.



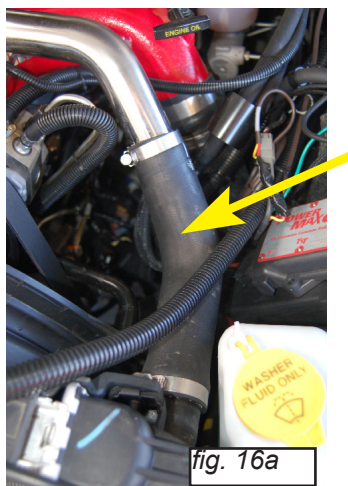
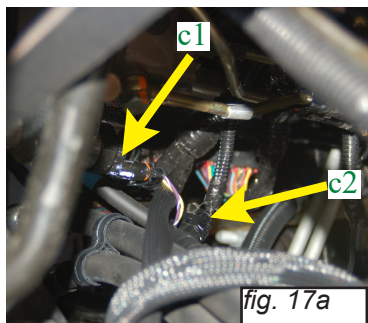
- 14) Install Fuel Pump Pulley, torque nut to 35 ft lbs.

15. Install the new engine belt. Follow the belt routing below.



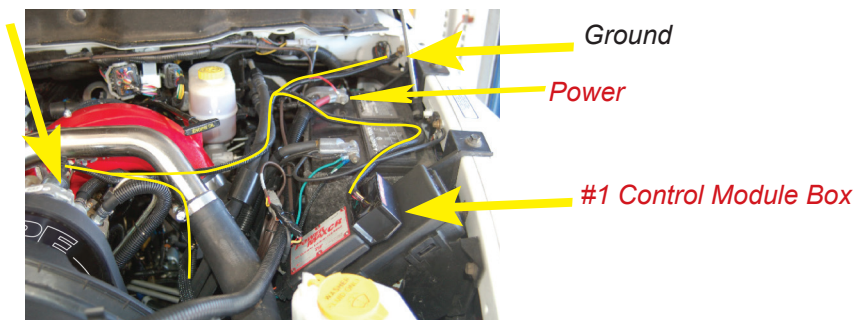
- 16) Install Radiator Hoses **16b & 16c** to radiator pipe and radiator using **#17a** and **#17b** hose clamps (fig.16a).

- 17) Disconnect OEM fuel pump connector **c2** from stock fuel pump socket **c1** and connect **control module Y connector** into stock fuel pump **c1** and stock connector **c2**. (fig. 17a)



- 18) Route control module wiring from stock fuel pump and connect **control module connector** to dual fueler as shown. Route remaining control module to connect Ground to chassis ground and **Power** to battery. Mount **#1 control module box** with **#19 Control Module Mounting Screws** or **tie straps**.

#### Control Module Connector



- 19) Check coolant levels and add coolant as needed.

- 20) *Place supplied Dual Fueler decal on the engine shield in the designated area for use during future smog testing.*



## *Troubleshooting*

*Engine noisy - Too Much Fuel Pressure or fuel delivery code.*

- 1) *Cause: Check the fuse is good and in the controller's fuse holder securely. All power connections are secure, and that connectors for both pumps are fully plugged in.*
- 2) *The lift pump pressure supplied to both CP3 pumps is too high. Supply pressure from lift the pump should be 12 - 15 PSI, not more.*

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## DISCLAIMER OF LIABILITY

Performance products can increase horsepower above and beyond factory specifications. Additional horsepower creates more stress on the drive-train components, which could result in drive-train failure.

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