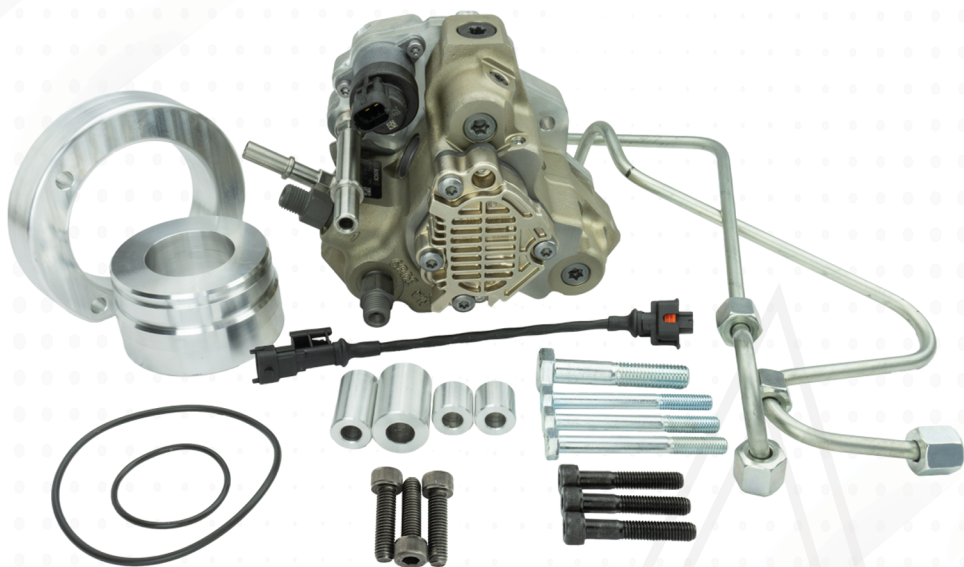


INDUSTRIAL I N J E C T I O N



CP4 to CP3 Conversion Kit INSTALLATION INSTRUCTIONS

2019+ 6.7L Cummins

(No Tuning Required Kit)

STEP 1

Disconnect and isolate negative battery cables.



STEP 2

Remove engine cover.



STEP 3

Loosen left charge air cooler clamp and remove air intake elbow.



STEP 4

Remove fuel rail noise isolator.



STEP 5

Using brake clean and shop air, clean fuel rail and fuel injection pump. Then remove high pressure and low pressure fuel connections.



STEP 6

Disconnect low pressure feed and return lines from cp4 injection pump. #2 and #3 in **Figure 1**.



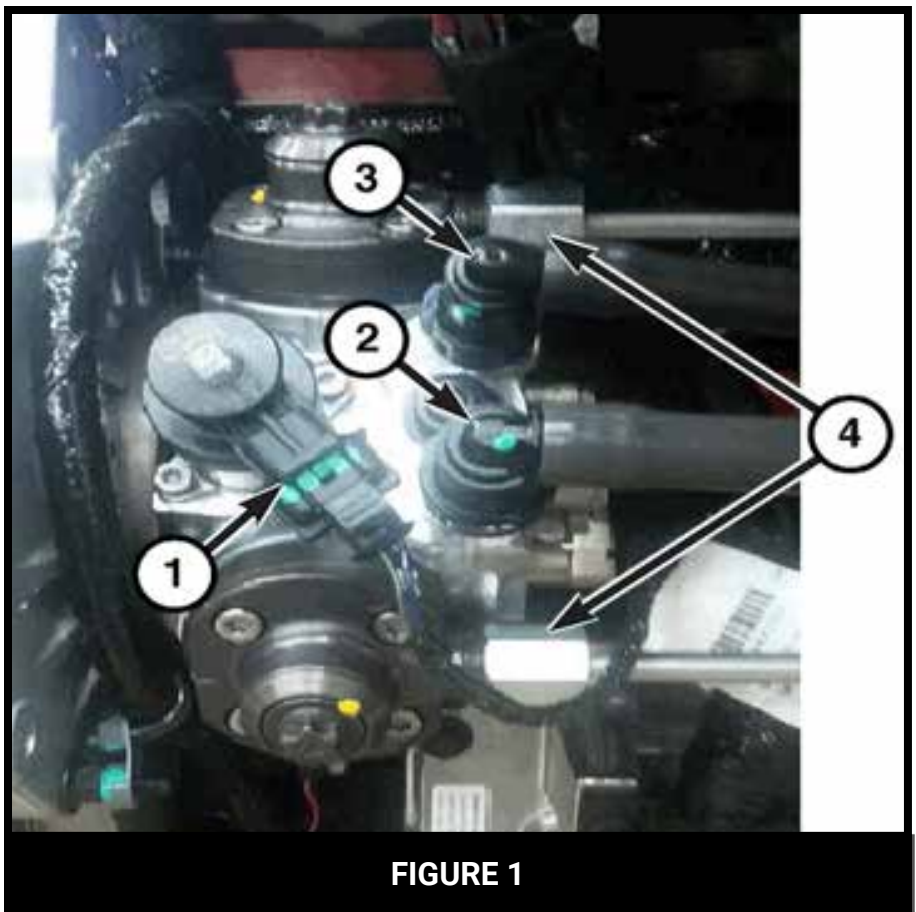


FIGURE 1

STEP 7

Remove rear high pressure fuel line hold down bolt #7 from cylinder head and hold down nut #1 from side of cylinder block. Remove both high pressure fuel lines from fuel rail and injection pump. #16 and #17 in **Figure 2**.



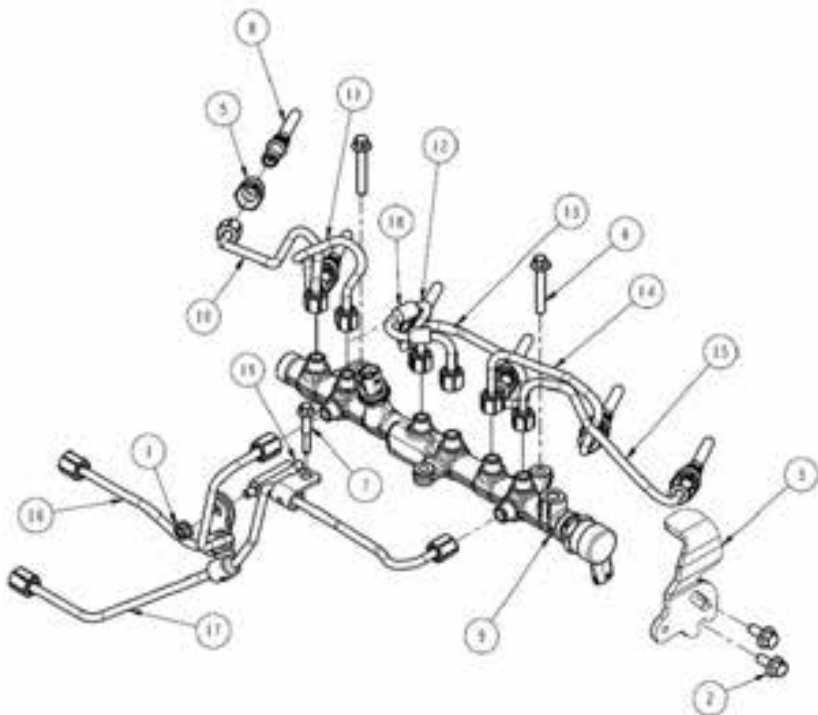


FIGURE 2

STEP 8

Disconnect fuel quantity solenoid electrical connector. #1 in **Figure 1**.

STEP 9

Remove nut holding engine harness to the injection pump support bracket. And remove fuel pump support bracket mounting bolts and bracket. **Figure 3**.

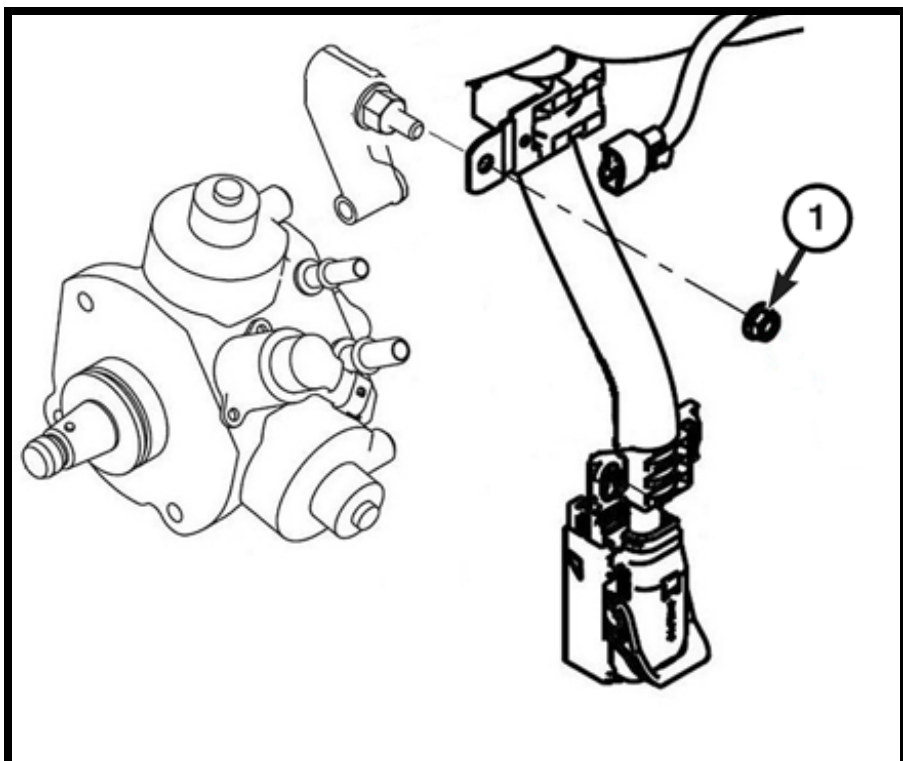


FIGURE 3

STEP 10

Remove engine harness holder that is attached to the engine harness.

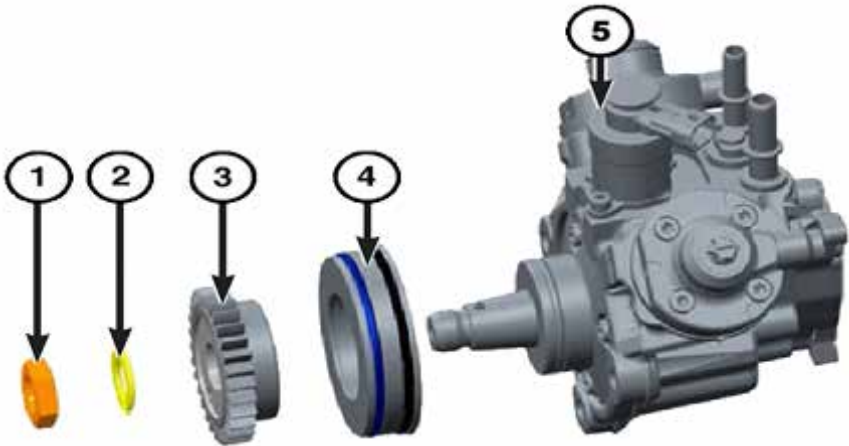


STEP 11

Remove 3 injection pump mounting nuts and remove injection pump by pulling straight backwards from the gear housing. Pump, pilot adapter, and gear will come out as one unit.

STEP 12

Remove nut washer and gear from injection pump as these will be re-used. Also remove blue and black O-rings from pilot adapter as these will be re-used also.



STEP 13

Remove mounting studs from front cover at this time. (Mounting nuts can be used to double nut and remove studs)



STEP 14

Disconnect ECM connectors by pushing in tabs under latches and pulling latch upwards.



STEP 15

Remove 4 bolts attaching ECM to mounting plate and remove ECM.



STEP 16

Remove ECM mounting plate bolts and remove mounting plate from engine block.



STEP 17

Re-install ECM mounting plate with new supplied bolts and spacers. 2 short spacers for lower 2 mounting holes and longer spacers for the upper 2 mounting holes.



STEP 18

Re-install ECM to mounting plate with the factory hardware. You may need to slightly bend power steering line towards the drivers fender.



STEP 19

Re-install the rear ECM connector using caution to not bend ECM pins as this is a tight fit.



STEP 20

Install supplied black O-ring onto CP3 hub.



STEP 21

Install Blue and Black O-rings from old pilot adapter onto the new adapter and install pump gear lock washer and nut from cp4. Torque to 85 lbft.



STEP 22

Install front cover adapter to front cover as shown using supplied M8x1.25X30 cap head bolts. Use a small amount of Loctite and torque to 15lbft.



STEP 23

Install CP3 injection pump through the front cover adapter. Pump will need to be rotated towards the driver's fender and then rotated towards the engine block to clear the boss on the block and align the pump mounting holes. Install supplied m8x1.25x40 cap head bolts and lock washers. Hand tighten and then tighten them in a star pattern.



STEP 24

Plug in front ECM connector. Then install FCA extension harness between factory harness and actuator on the pump.



STEP 25

Install high pressure fuel lines. The long line will route from the fitting on the rear of the pump to the rear port on the fuel rail. The short line will route from the high pressure outlet next to the return fitting to the front port on the fuel rail.

Connect fuel feed and return lines onto the pump. Be sure the lines are not bent or pinched.



STEP 26



Reinstall noise isolator over fuel rail and install intake air horn. Be sure to plug in all sensors that were disconnected when removing.

Be sure to replace both fuel filters before starting truck with the new fuel pump.

STEP 27



Turn truck to the run position for 3 cycles - 15 sec each while keeping your foot off the brake, in order to prime the low pressure system. Start truck and check for fuel leaks and codes.

Truck may have a little extended crank on first fire up after a few minutes of driving it will be back to normal.

DO NOT ATTEMPT TO BLEED HIGH PRESSURE FUEL SYSTEM SERIOUS INJURY MAY OCCUR.