

Removal/Installation of Cam Driven Fuel Pump on Mazda DISI 2.3l Motors

Tools Needed:

E8 Internal Star Socket (3/8" drive)
3/8" Drive Ratchet Wrench w/ small extension
19mm open end wrench
Small, Flat Head screwdriver
45-60minutes of your time (or less)
1 Zip Tie

Step 1) Pop the hood of the car, and disconnect the breather hose from the intake to the valve cover using the flat headed screw driver (push tabs in and slide off – Fig. 1)

Step 2) Unclip the brace that holds the coolant line from the firewall of the car to the under side of the intercooler, and move it towards the drivers side tire of the car. (Fig 2)

Step 3) Unclip and remove the electrical connector to the top of the pump. (Fig 2)

Step 4) Pull out the fuse for the camdriven fuel pump (Mazdaspeed3 – Fuse #36, Mazdaspeed6

Step 5) Get in the car and crank the car to start it up 5 times, without letting the engine actually start up.

Step 6) With the small flat head screw driver, pull out the yellow/green square clip on the low pressure fuel return line and disconnect it from the pump. (Fig 3)

Step 7) With your hand, squeeze the blue circular clip from the incoming fuel line (from tank) and pull upwards to remove it. Gasoline will most likely flow out, but it shouldn't be much. Have a shop rag ready. (Fig 3)

Step 8) Wrap a zip tie loosely around the hard-line below the nut connecting the line to the pump. This allows the nut to not fall completely down on the side of the block, thus creating a mess. (Fig 4)

Step 9) Using the 19mm wrench slowly and gently loosen the massive 19mm nut that connects the hard fuel line to the bottom side of the pump, you should hear air escaping, depressurizing the fuel line. (Fig 4)

Step 10) Let the car sit for 10 minutes to depressurize.

Step 11) Completely remove the 19mm nut. After its loose, you should be able to spin it off with your hand. If you hear air escaping, pause and back away until it is no longer heard. The line may not have completely depressurized. (Fig 4)

Step 12) Using the 3/8" drive ratchet wrench coupled with the extension and the E8 internal star socket, remove the 3 brass colored bolts that mount the cam driven fuel pump to the actuator housing next to the drivers side of the valve cover. (Fig 4)

Step 13) Remove the fuel pump, pulling it out towards the cabin of the vehicle. The hard line may be tucked into the fitting on the bottom side. With effort, the pump will come out.

Step 14) With the pump removed, insert the 3 brass bolts back into the actuator housing, so they are not lost.



Figure 1:

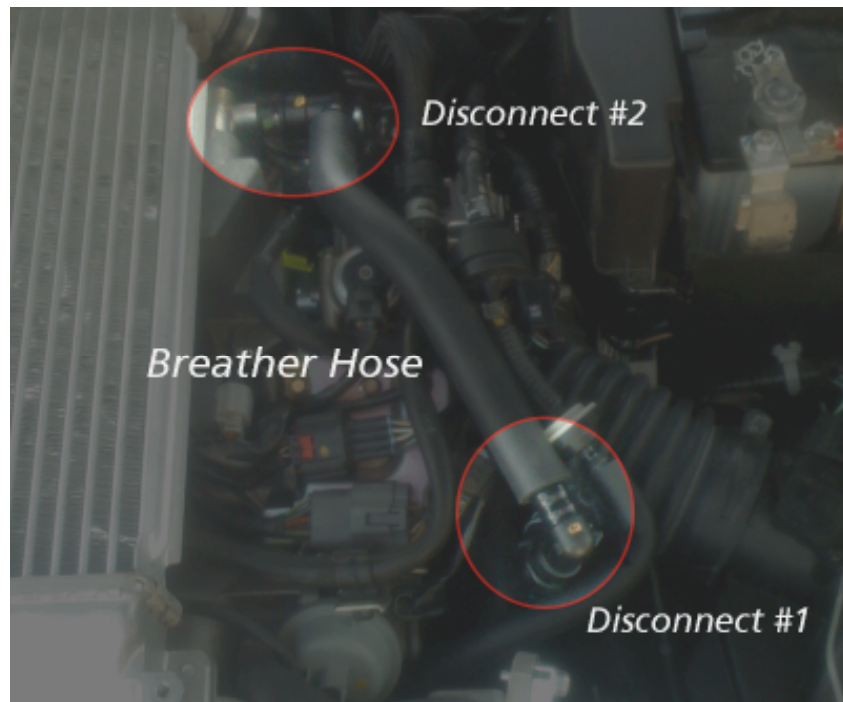


Figure 2:

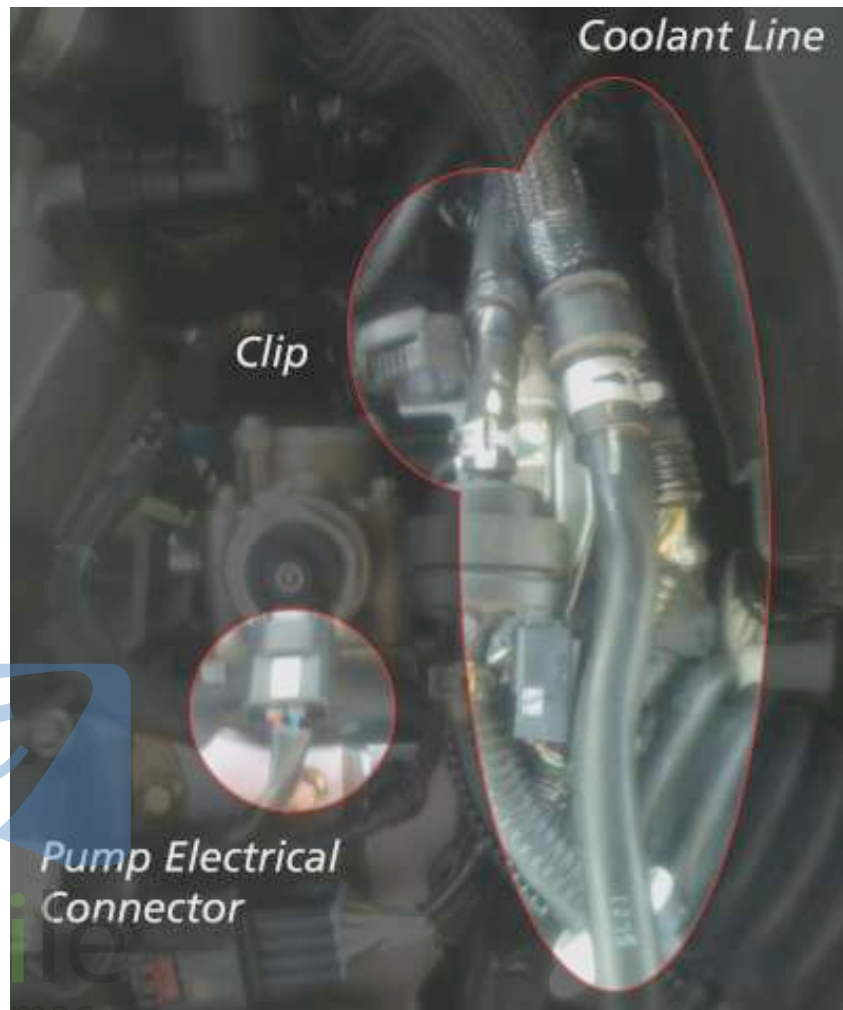


Figure 3:

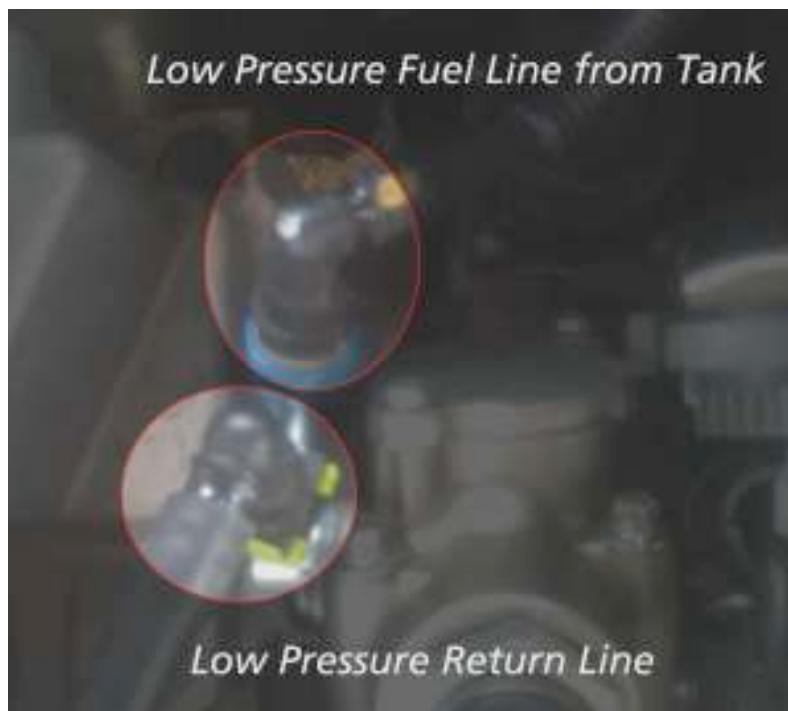


Figure 4:

