

9-442-C102-0911

DeatschWerks 2014-2019 Chevrolet Corvette C7 DW440 Brushless Pump Installation Guide



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Included Parts:

- DW440 Brushless 440LPH Fuel Pump
- 12" Pump Electrical Connector
- Electrical Bulkhead w/Retainer and O-Ring
- Pump Outlet Spacer
- 11.5mm OD O-Ring (x3)
- 14.5mm OD O-Ring
- 10" x ¼" Convoluted Fuel Tube
- 8.7mm Hose Clamp (x2)
- 1cc Super Lube

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PLEASE READ: This guide is intended to aid in the installation of our products. It is recommended that factory manuals or instructions are followed to remove the fuel pump assembly from the vehicle. Instructions in this guide are generic and are intended to aid in the installation of a DW440 Brushless fuel pump. The factory manual should supersede any contradiction.

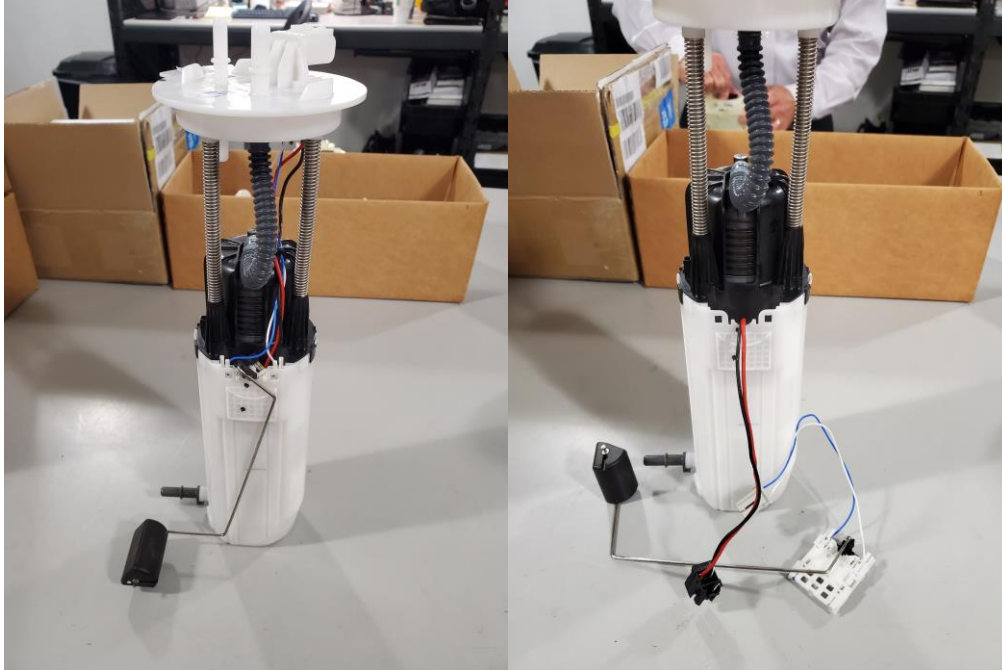
Note: The 2014-2019 Corvette assembly uses an OEM specific fuel sock filter, in order to install the DW440 pump you must reuse the OEM filter, if yours is damaged or too dirty you will need to source a new one.

Below is a picture of some suggested tools that will make the installation process easier.

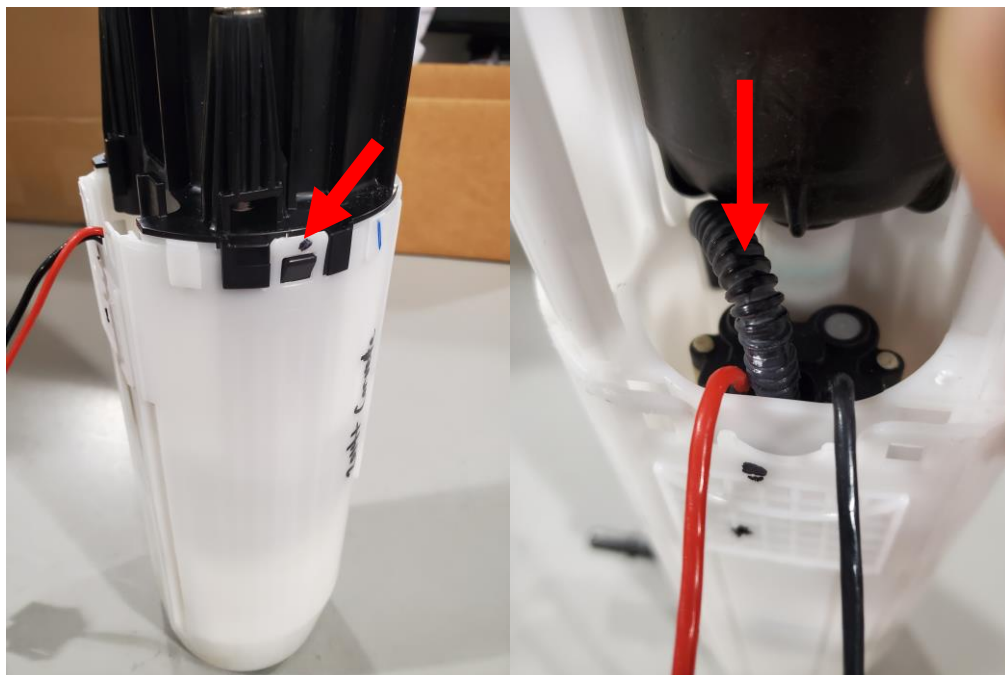


Disassembly of OEM Module

1 – Remove the factory sending unit and pump wiring from the module and tophat, it may be necessary to cut or de-pin the factory pump wiring to remove it.



2 – Separate the bucket from the center section by unlatching the clips around the edge of the bucket. Slide the module apart and cut the factory venturi hose allowing you to fully separate the module.

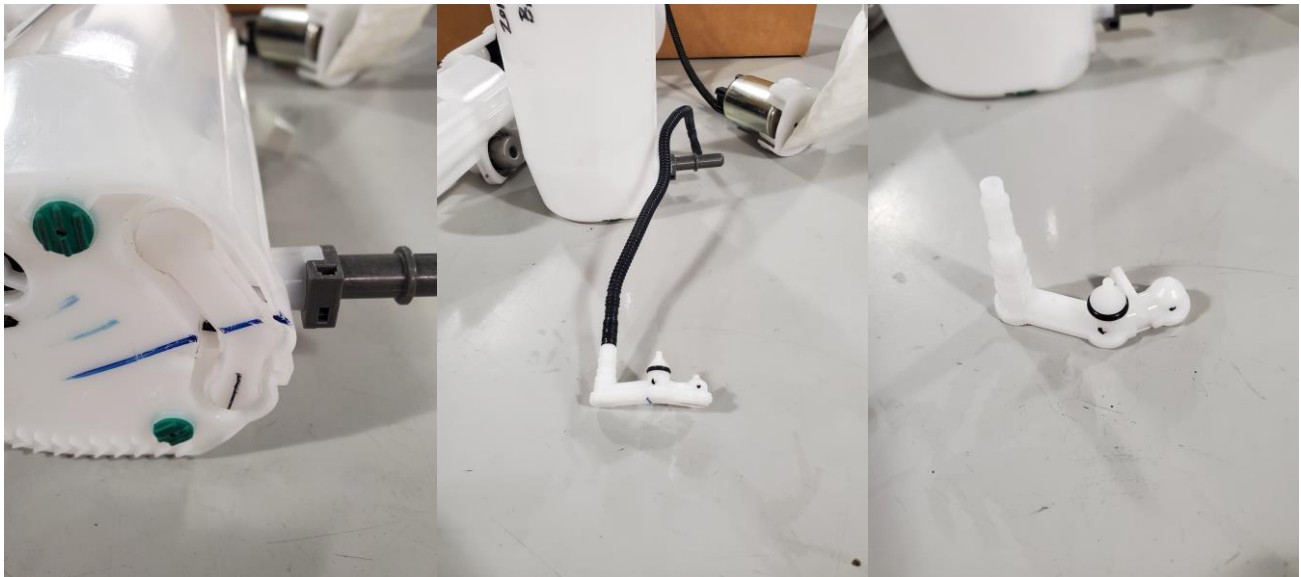


3 – Remove the factory pump, filter, and wiring harness by prying the three latches around the filter sock.



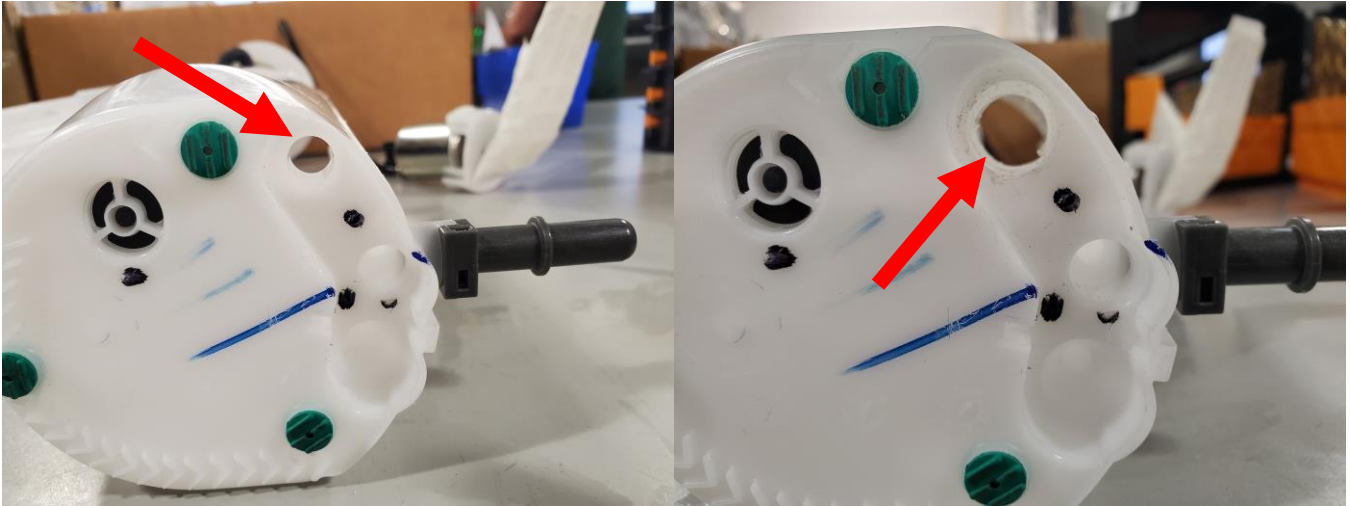
Modifications to the Module

4 – Remove the factory venturi jet by prying it away from the bucket. Remove the factory convoluted tube.



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5 – Enlarge the hole the venturi hose passes through to 1/2" (13mm). This will allow you to re-install the venturi jet assembly with a hose clamp on it.



Installation of the DW440 Pump

6 – Prep your DW440 pump by installing the supplied 14.5mm O-Ring over the inlet on the bottom of the pump, this is needed to seal the pump to the OEM Chevy fuel sock.



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7 – Prep your DW440 pump by installing the supplied outlet spacer on the pump followed by the three 11.5mm O-rings, use some of the supplied Super Lube to lubricate the O-rings for installation into the pump center section. Install the OEM filter sock onto the bottom of the pump, the O-ring on the bottom of the pump will seal the size difference from the OEM pump inlet to the DW440 inlet. Install the supplied 1/4" venturi hose onto the smaller pump outlet and secure with the supplied 8.7mm hose clamp.

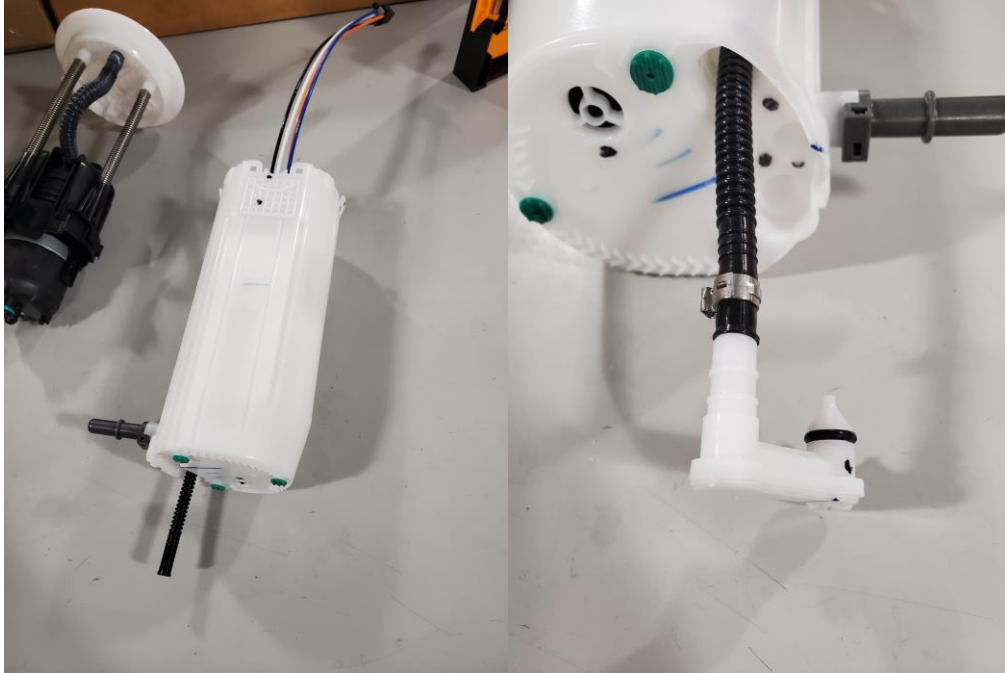


8 – Install the pump into the center section, all 3 of the O-rings should be seated inside the inlet of the module center section, lock the pump into place by latching the three lock tabs on the filter sock retainer. Slip the venturi hose into the OEM position, it should extend out of the center section. Connect the pump harness to the pump at this point.

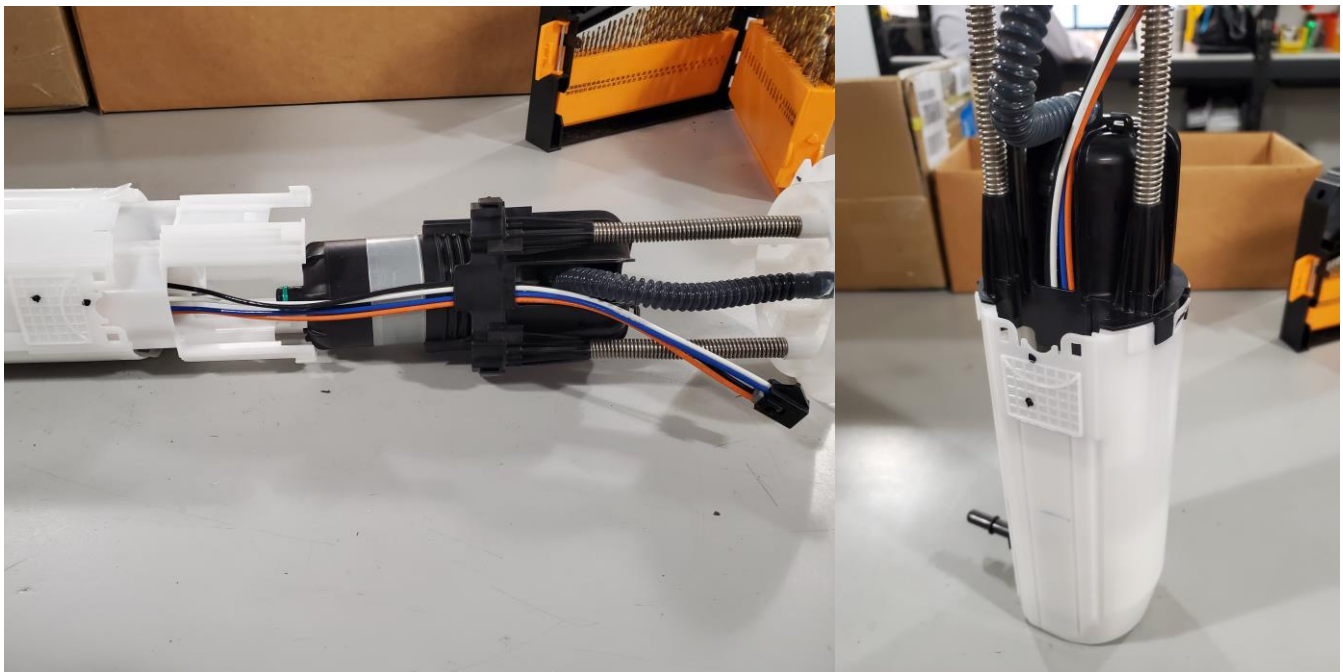


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9 – Install the center section back into the bucket. Guide the venturi tube back out the hole we enlarged in Step 5, click the center section into place. Install the venturi jet back onto the hose and secure with the provided 8.7mm hose clamp, push the hose and venturi jet back into place, the jet should sit flat with the bucket once its fully in place.

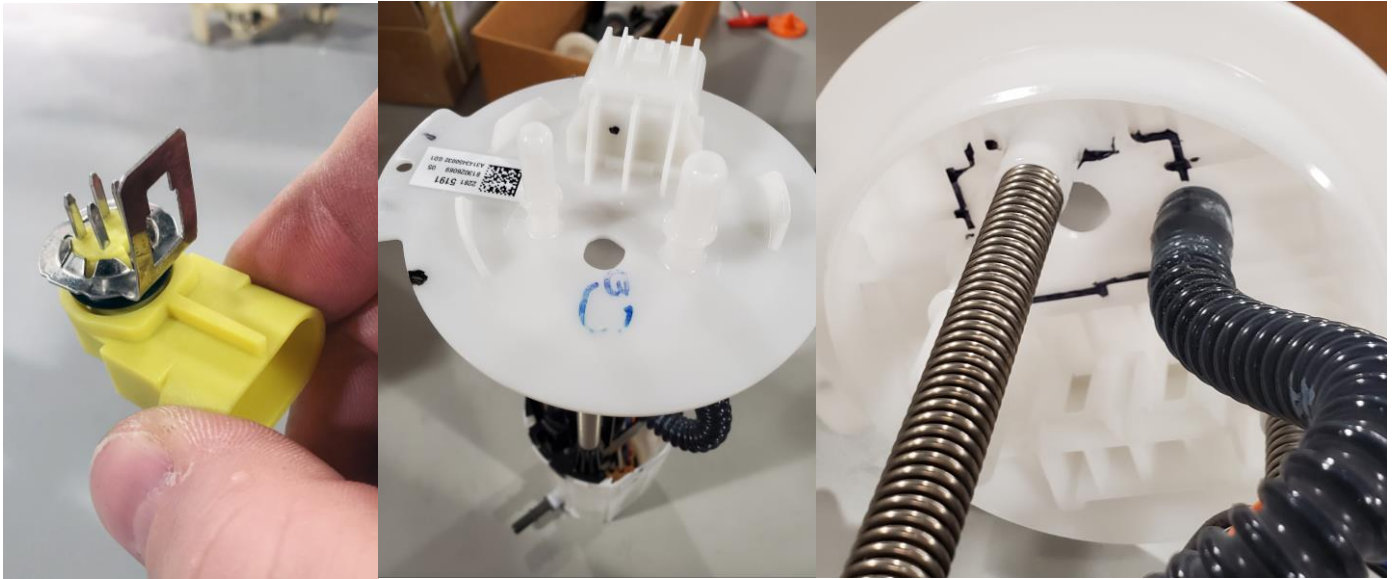


10 – Install the top hat section back onto the module, you will need to route the new brushless wiring between the filter and the black plastic retainer, if you run the wiring behind the fuel level sensor it will cause the float level arm to hang and give incorrect fuel level readings.



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11 – The DW440 pump comes with its own 4 wire bulkhead to power the pump. Locate a position on the top hat that has no obstructions on the bottom side and drill a 10.3mm or 13/32" hole for the bulkhead. The bulkhead uses an O-Ring to seal and a metal push style retainer on the bottom. The metal retainer also acts as a latch for the electrical connector, make sure the latch is facing the pins of the bulkhead (see Picture). Due to the webbing on the bottom side of the top hat, it is necessary to remove the webbing around the bulkhead retainer, this can be done with a Dremel style tool or a file and sandpaper.

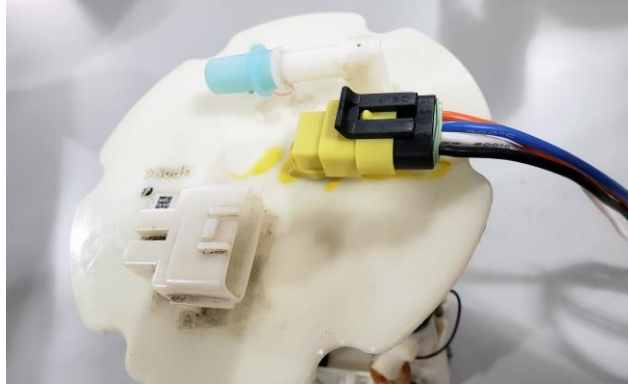


12 – The factory fuel pump power and ground wires can be removed or covered so they will not short on the module. Attach the supplied Brushless pump harness to the bulkhead and the DW440 pump.



Wiring the Controller and Pump

13 – Plug the 4-wire harness from the controller into the bulkhead wiring connector.



14 – Plug the 3-wire pigtail harness into the controller.



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Wiring the Two Speed High/Low Version (PN# 9-441-C102-09xx)

15a – The Two Speed version of the DeatschWerks Brushless controller, gives you the ability to run two staged pumps in one. A low flow pump for idle and light duty driving, and a high flow pump for maximum performance.

Note: To bypass the Low Speed setting permanently ground the White wire, when power is applied to the controller, this will permanently switch the pump to the full 440LPH High Speed mode. (This is the same function as the discontinued C101 part number)

- Attach the **Red** wire on the controller to a known solid +12v key on switched power source.
- Attach the **Black** controller wire to a known solid clean ground source.
- Attach the White wire to a switched ground to activate the High flow mode.
 - You can activate this many ways, popular solutions would be a pressure activated switch like a “Hobb switch”, a second fuel pump output on your ECU, or a RPM/WOT switch could also be used to trigger the high flow mode. All options should be switched ground.
 - Low flow mode is 68% duty cycle outputting 265 LPH at 40psi.
 - High flow mode is 100% duty cycle outputting 440 LPH at 40psi.



Flushing and Priming the System

- 16 – Reinstall the assembly into the fuel tank and attach a length of hose to the outlet of the pump assembly allowing it to drain into a fuel safe container and prime the fuel pump assembly
- 17 – Cycle the key to the on position as many times as required to prime the pump assembly and evacuate the air introduced during the pump installation process
- 18 – Attach supply line to the outlet of the pump assembly



For additional technical support please contact us at: TechSupport@Deatschwerks.com or 405.233.3991