

9-811-C105-1002

DeatschWerks Universal DW810 Brushless Fuel Pump Installation Guide



Included Parts:

- DW810 LPH Brushless Fuel Pump
- DW Dual Speed Brushless Controller
- Controller Harness w/ Flying Leads
- 4 Wire Bulkhead Connector w/ Retainer and O-Ring
- Pump to Bulkhead Harness
- -4 ORB to 5/16" Hose Barb Fitting
- -4 ORB to 3/8" Hose Barb Fitting
- -4 ORB to -6 AN Fitting
- -4 ORB to -8 AN Fitting
- (2x) Fuel Socks w/ Retainer Clips
- 8"X 5/16" Submersible Fuel Injection Hose
- 8"X 3/8" Submersible Fuel Injection Hose
- (3x) 11.3mm Permanent Hose Clamps
- (3x) 13.3mm Permanent Hose Clamps
- Lube Packet

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Terms of Use

- Factory wiring is not sufficient for use with the DW810, upgraded wiring is required with a minimum of 10AWG power and grounds. (See DW PN# FPHWK-10-HD).
- Brushless pumps require a controller, due to the high amperage nature of the DW810 pump, it may not function with OEM or other aftermarket controllers. (See DW PN# C105)
- It is recommended to run the DW810 on the low-speed setting when not under high load or boost. Extended high-speed use can damage the controller and pump.
- The DW810 is not compatible with boosted voltage. Voltage above 14.5 volts can damage the pump and controller. Pump performance does not increase above 14.5 volts.
- This pump can be used with Gasoline, Ethanol and 100% Methanol fuels only.
- Due to the extremely high flow of the DW810 it may not be compatible with OEM fuel pressure regulators, both internal and external. (See DW PN# 6-1000-FRB)
- The DW810 does not feature an internal check valve. An aftermarket in-line check valve will be needed for staged pumps or to fix hard or long starting issues. (See DW PN# 6-02-0723).

Universal DW810 Brushless Fuel Pump Installation Guide

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 Universal DW810 Brushless Pump and Controller. The factory manual should supersede any contradiction.

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



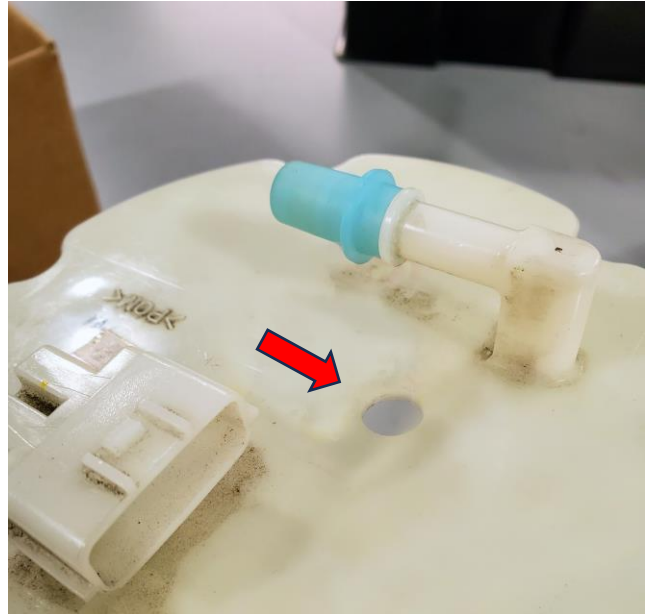
Universal Fuel Pump Install

1 – Install one of the (4x) provided fittings to the outlet of the fuel pump. Verify the O-ring is pre-installed on the -4 ORB side of the fitting. Fully tighten the fitting onto the fuel pump to **11-14 ft-lbs.** **Note: DO NOT exceed 11-14 ft-lbs. of torque on the fitting. Overtightening the fitting can damage the pump and void warranty.**



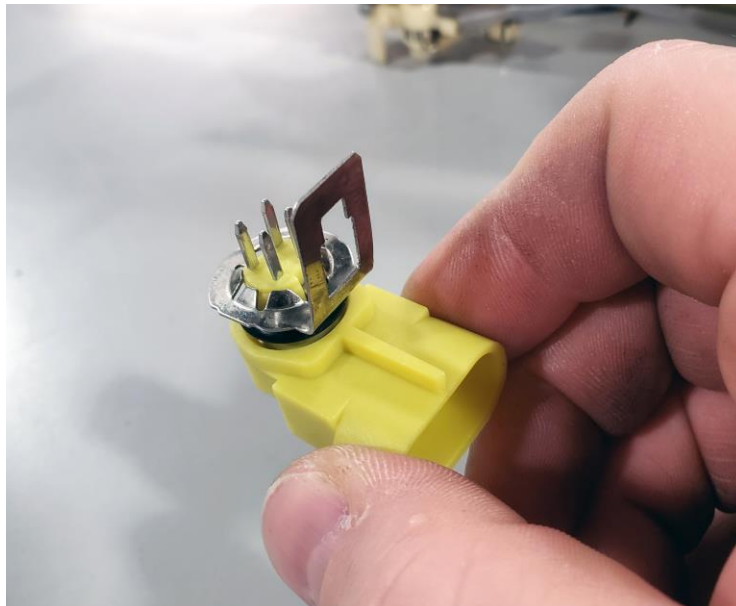
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2 – To install the wiring bulkhead fitting you will need to drill a 13/32" (10.3mm) hole in the top of the assembly. Be sure to pick a location that does not interfere with other plumbing, wiring, or sensors.



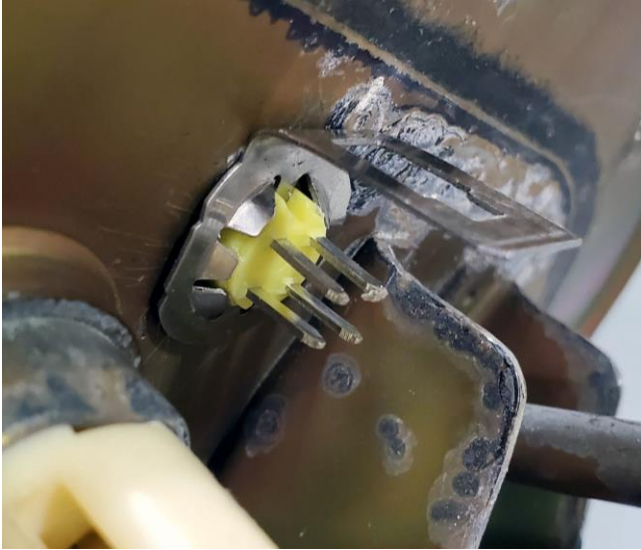
3 – Install the bulkhead as shown, with the metal retaining clip facing the connector. This orientates the pump wiring correctly.

NOTE: installing the harness backwards will result in a non-functioning fuel pump.

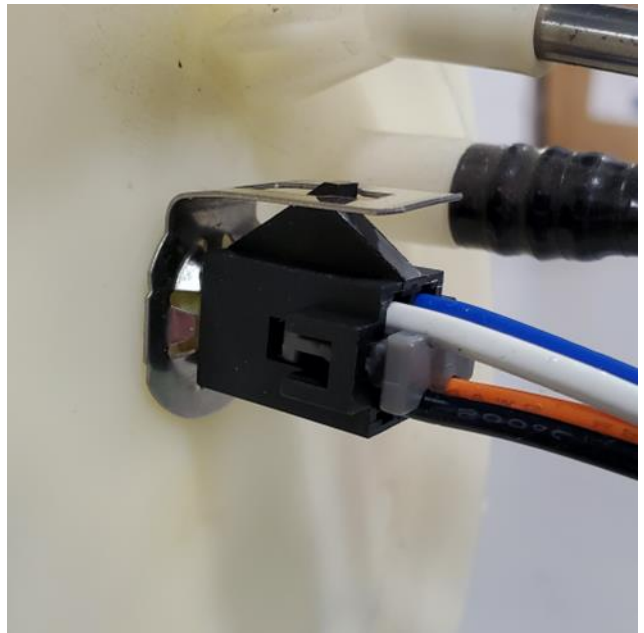
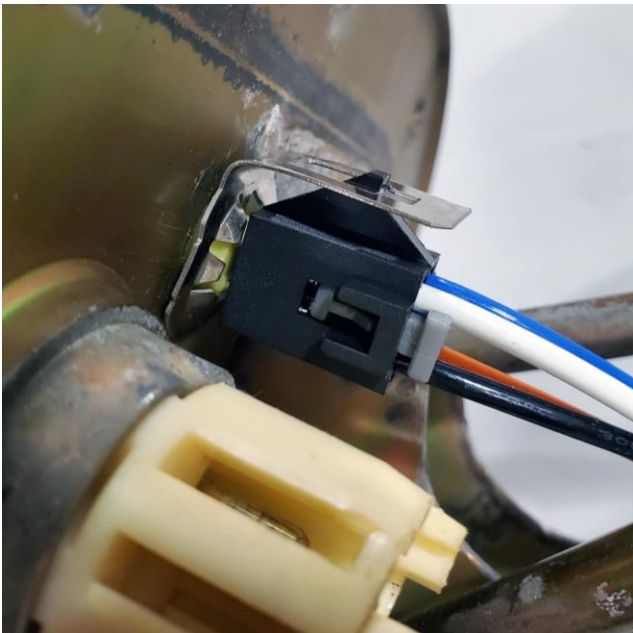


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4 – Press the retaining clip into place to secure the bulkhead connector. This can be made easier with a socket and c-clamp style tool to press the clip into place. The bulkhead O-ring should be compressed to provide a fuel tight seal. This can only be possible on a flat surface. Further modifications to plastic modules may be necessary, like removing any webbing or rough edges.

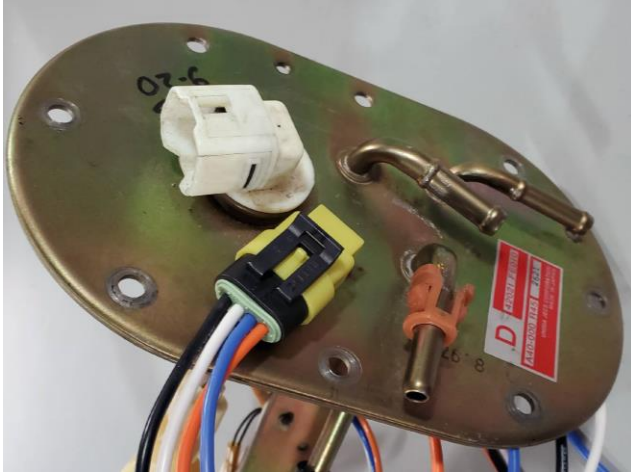


5 – Install the pump wiring harness, the metal retainer for the bulkhead acts as the latch for the harness. Refer to step 6 to make sure the retaining clip and wiring harness are installed correctly.



Wiring the Controller

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



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



Wiring the Two Speed High/Low Controller (PN:9-811-C105-1002)

3 – The Two Speed DeatschWerks Brushless controller gives you the ability to operate the pump at low flow for idle and light duty driving, and a high flow for maximum performance.

Note: *This pump was designed to operate in switched dual speed control ONLY. Using the pump at a permanent (High) speed control is prohibited and may void warranty.*

- 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 in many ways, popular solutions would be a pressure activated switch like a “Hobb switch”, a second fuel pump output on your ECU, or an RPM/WOT switch could be used to trigger the high flow mode. All options should be switched ground.
 - Low flow mode is 55% duty cycle outputting 450LPH at 40psi.
 - High flow mode is 100% duty cycle outputting 810LPH at 40psi.



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