

## 9-000-7022 and 9-421-7022

### DeatschWerks 1994-2002 Nissan Silvia and 1993-2007 Nissan Skyline X2 Dual Fuel Pump Module Installation Guide



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## Included Parts:

- Billet Aluminum X2 Module (Hanger, Bucket, and Tophat)
- DW420 420 LPH Fuel Pumps (x3) *"421" PN# Only*
- DW420 Pump Electrical Connectors (x3)
- Convuluted Tube 6"x 5/16" (x2)
- Convuluted Tube 12"x 5/16" (x2)
- 5/16" Male and Female EFI Quick Connect Fittings
- 2.25" Hose Clamp
- DW420 Pump Pre-Filters (x3)
- 13mm Pinch Hose Clamp (x8)
- 11mm Pinch Hose Clamp (x4)
- 12-10awg #10 Ring Terminals (x4)
- 16-14awg #10 Ring Terminals (x6)
- 22-18awg #10 Ring Terminals (x4)
- Fuel Tank Sensor Harness with Butt Connectors
- 6AN Low Profile Swivel Fitting
- 6AN to Hose Barb and EFI Quick Connect Fittings

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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 an X2 DW420 pump module. The factory manual should supersede any contradiction.

**Important Notes:** The DeatschWerks Nissan Silvia X2 module adds a surge bucket feature, this helps fight fuel slosh issues. This requires the use of three total fuel pumps, two in the surge tank and one lift pump in the OEM location. DW part number 9-421-7022 includes three pumps.

**Note:** This module is designed to fit the Nissan Silvia S14, S15, and Skyline R33 and R34 applications, due to crossover model years and import/export models the year ranges listed may be incorrect.

Below are some of the suggested tools that will make the installation process easier.



## Assembly of the X2 Module

1 – Locate the stainless-steel OEM style hanger, the orange aluminum pump holder, 2.25" worm drive hose clamp, the longer rectangular pump filter sock and one of the included DW420 pumps (or your chosen lift pump). Loosen the set screw and set the pump saddle approximately 3/4" (19mm) up from the end of the stainless tube.



2 – Install the included rectangular prefilter sock onto the pump and clamp it to the pump holder with the worm drive hose clamp. The bottom of the pump should be approximately 1.5" (38mm) from the pump holder (not including the filter sock).

**Note:** This clamp is sized for pumps up to 46mm in diameter (DW400), if you are using a pump smaller than the DW420 you may need a smaller hose clamp.



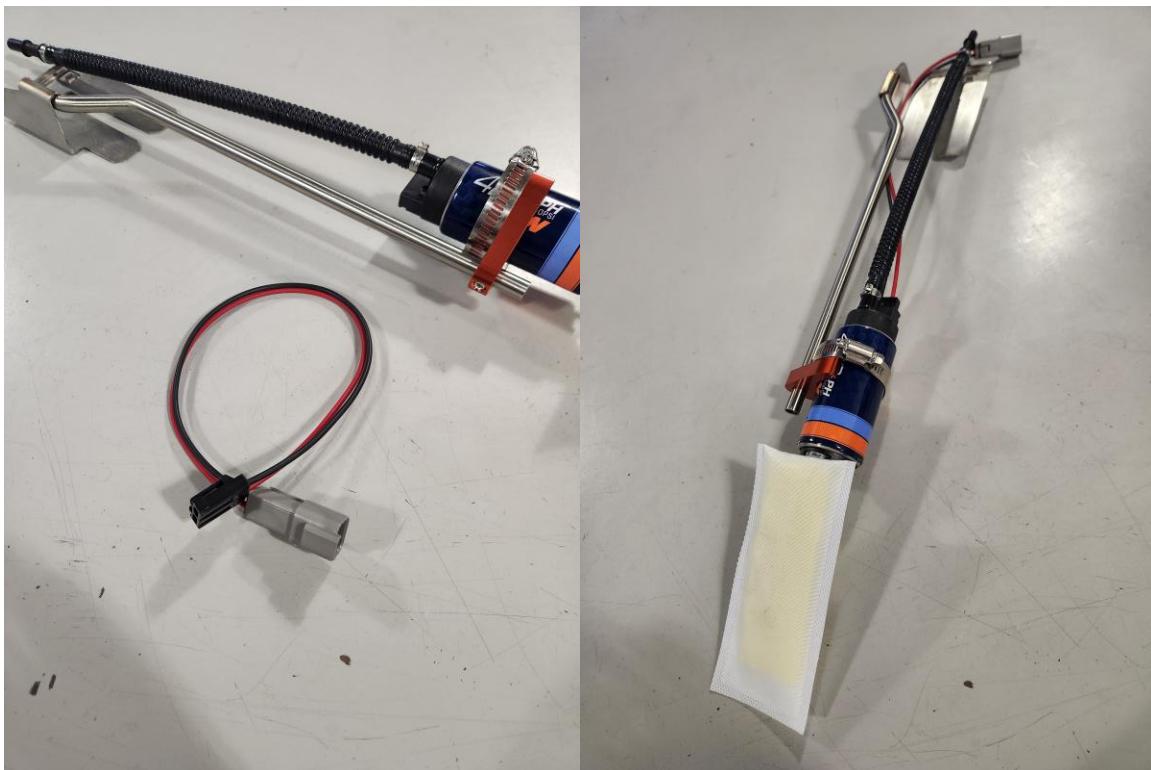


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3 – Locate one of the 12" (305mm) convoluted tubes, the plastic male EFI quick connect fitting and two of the supplied pinch clamps. Install them onto the fuel pump and tighten them.



4 – Included with the install kit is a 48" (575mm) long pump harness, separate the top and bottom halves and install the pump section onto the DW420 lift pump.

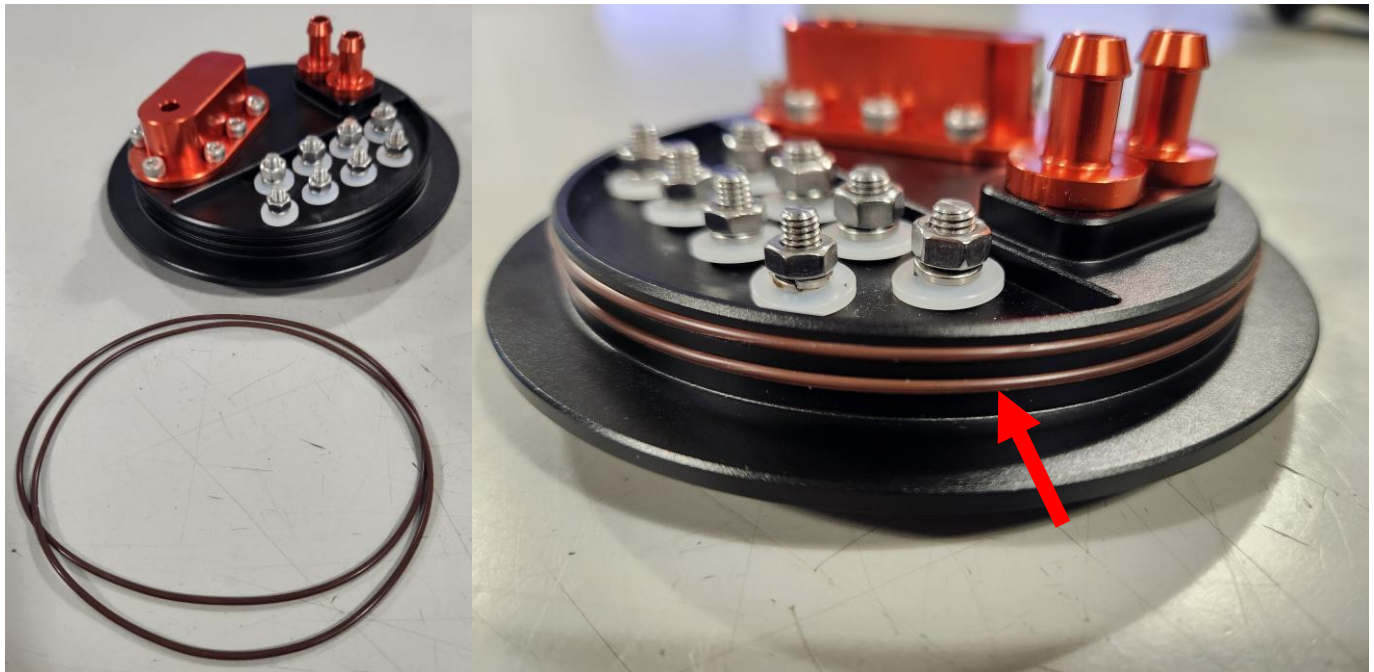


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5 – Locate the X2 module tophat, surge tank, 6ORB to hose barb fitting and the two tophat O-rings. Install the 6ORB fitting into the bottom of the surge tank, this is the feed for the surge tank from the lift pump.



6 – Install the two large O-rings into the grooves on the tophat as shown below.





7 – Locate the remaining DW420 fuel pumps and smaller round filter socks. Install them onto the pumps.



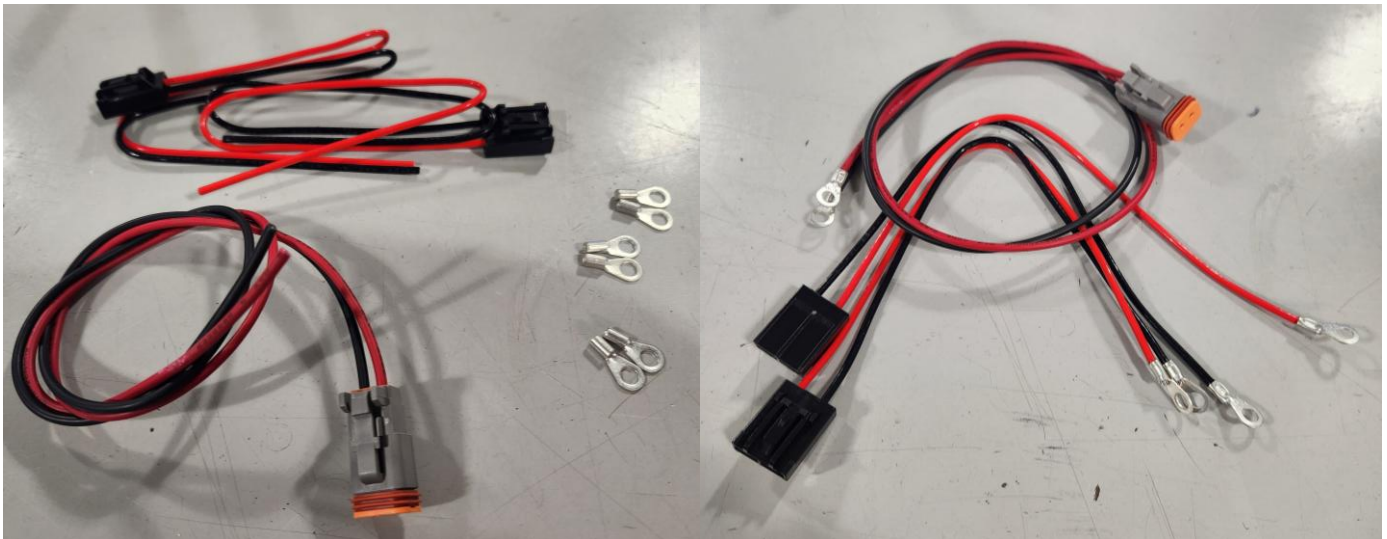
8 – Locate the included 6" (150mm) convoluted tubing and two more of the pinch style hose clamps, install the hoses on the pumps and secure with the clamps.



9 – Install the pumps with hoses into the surge tank bucket.



10 – Locate the upper half of the lift pump wiring harness from Step 4, the two standard pump pigtails and the six 16-14awg ring terminals. Strip and crimp the ring terminals to all three pump harnesses.

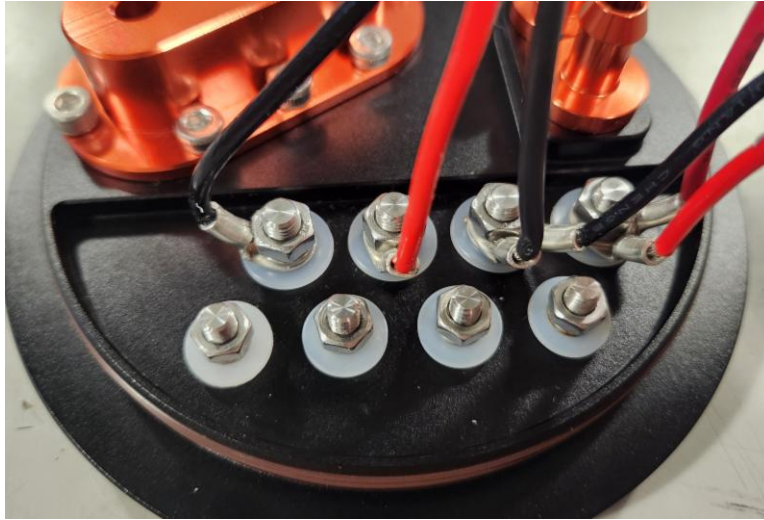




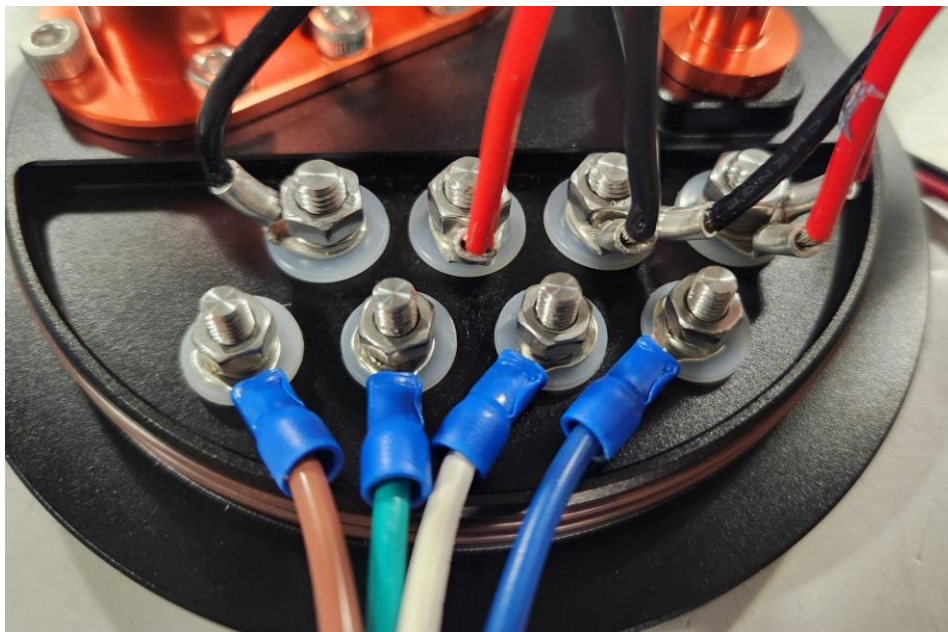
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11 – Attach the lift pump and one of the surge tank pump harnesses to the “Stage1” terminals. Attach the remaining surge tank pump harness to the “Stage2” terminals and tighten the M5 nuts to secure all three pump harnesses.

**Note:** Tighten terminal nuts no more than 5ft/lbs. (60 in/lbs.).

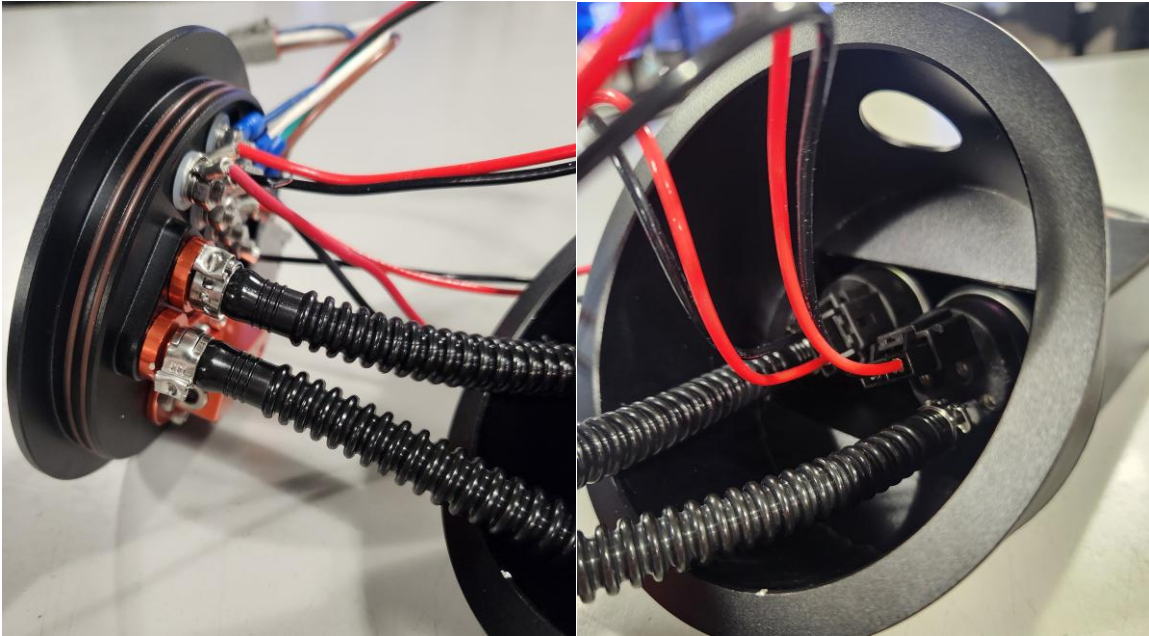


12 – Locate the four-wire pigtail harness for the fuel level, fuel temperature and low fuel light sensors. Attach this harness to the four smaller M4 terminals. Not all Silvia/Skyline applications will use all four wires, you may de-pin and remove the unused wires for a cleaner install.

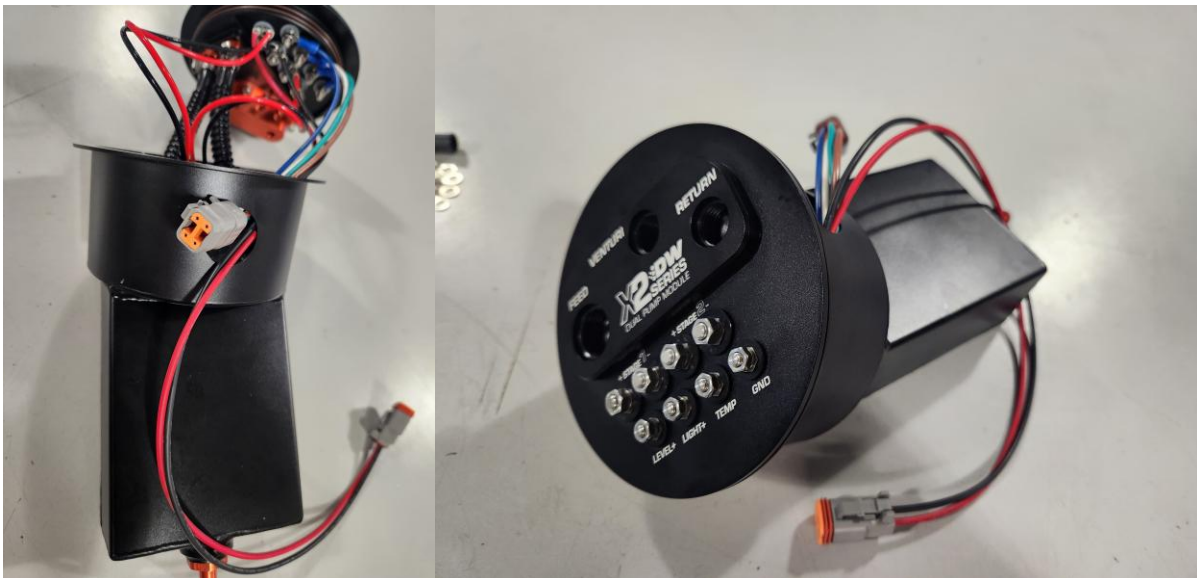


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13 – Install the two convoluted tubes from the surge tank fuel pumps onto the two hose barb fittings on the X2 module tophat, secure them with the remaining pinch clamps. Attach the Stage 1 and 2 pump pigtails to the pumps inside the surge tank.

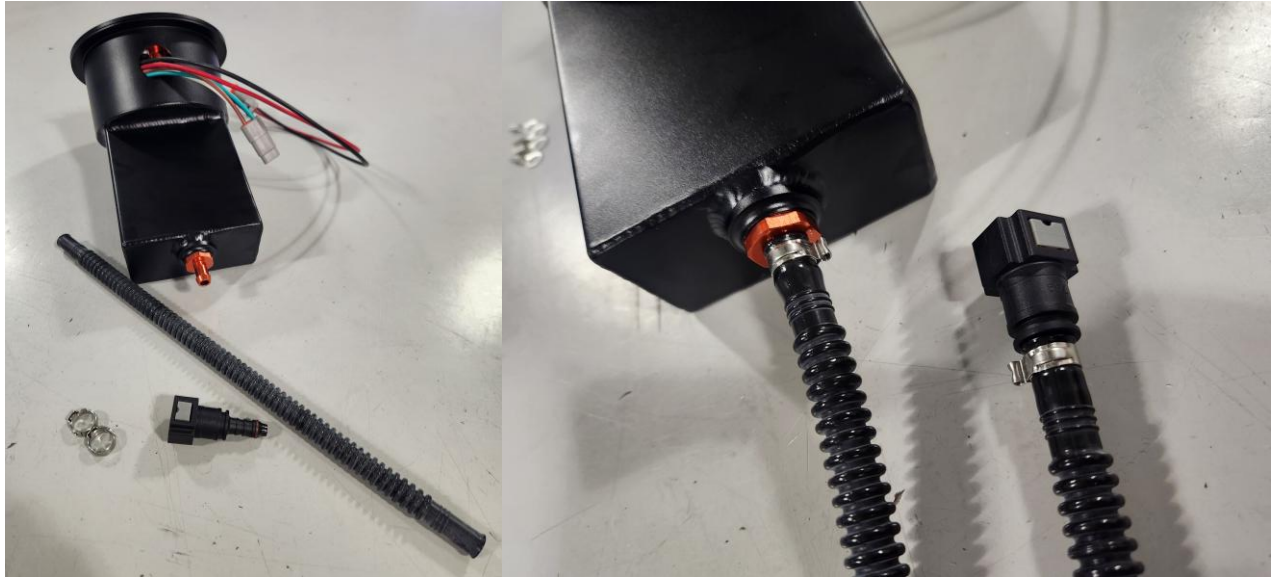


14 – Slide the two-wire lift pump harness and four wire level sensor harness through the hole in the surge tank. Lubricate the X2 module tophat with the supplied PTFE grease and install the tophat into the surge tank, this can be rotated to ease installation and, once inside the tank rotated for better fitting and wiring alignment.



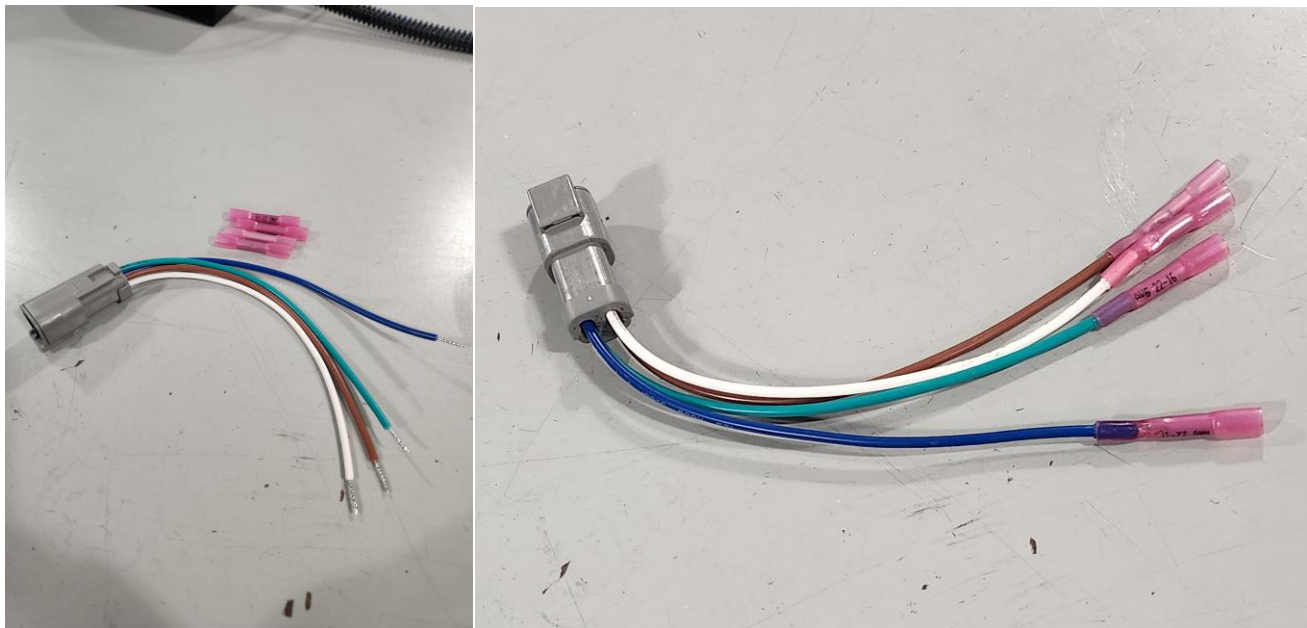
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15 – Locate the remaining 12" (305mm) convoluted tube, plastic female EFI Quick Connect fitting and pinch clamp. Install them onto the hose barb fitting on the bottom of the surge tank and secure them with pinch clamps.



16 – Install the supplied butt connectors onto the fuel tank sensor harness wiring. These connectors feature a fuel safe heat shrink outer covering.

**Note:** Never use an open flame around gasoline or open fuel systems.





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17 – Install the supplied 6AN low profile swivel fitting into the port on the tophat marked “Venturi.” Depending on your application this fitting will need to face away or toward the wiring terminals. Included with the module is a Female 6AN to Hose Barb fitting for the S14 and R33 applications, and a 6AN to EFI Quick Connect fitting for the S15 and R34 modules.



### Wiring the X2 Module

18 – The DW X2 Series Silvia module comes with supplied ring terminals; these are designed for up to 10awg wiring. The level sending unit wires should be connected to the factory level sending unit wires. Due to the increased amperage of aftermarket performance fuel pumps, the OEM pump wiring may be of insufficient size. This can be upgraded with a hardwire kit like the PN# **FPHWK-10-DP** (Fuel Pump Hardwire Kit 10AWG Dual Pump).

The factory fuel pump positive trigger wire is **Black/Yellow**, this wire should be connected to the Blue wire to trigger the Stage 1 relay in the FPHWK.

The factory fuel level sending unit wires are:

<u>Ground</u>	<b>Black</b>
<u>Level +</u>	<b>Grey/Red, White/Black, or Green</b>
<u>Light +</u>	<b>Light Green or Black/Red</b>
<u>Temp +</u>	<b>Yellow</b>



For additional technical support please contact us at: [TechSupport@Deatschwerks.com](mailto:TechSupport@Deatschwerks.com) or 405.233.3991