

9-000-7032 and 9-401-7032

DeatschWerks 2011-2024 Ford Mustang X3 Triple Fuel Pump Module Installation Guide



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Included Parts:

- Billet Aluminum X3 Module
- DW400 415 LPH Fuel Pumps (x3) *"401" PN# Only*
- DW400 Pump Electrical Connectors (x3)
- Convoluted Tube 12"x 3/8"
- Convoluted Tube 6"x 3/8" (x3)
- Convoluted Tube 12" x 5/16"
- Convoluted Tube 10" x 1/4"
- DW400 Pump Pre-Filter (x3)
- 3/8" Pinch Hose Clamp (x10)
- 1/4" Pinch Hose Clamp (x3)
- 12-10awg #10 Ring Terminals (x6)
- 16-14awg #10 Ring Terminals (x8)
- 22-18awg #10 Ring Terminals (x4)
- Rubber One Way Valve (x3)
- 39mm Pump Adapters (x3) *"000" PN# Only*
- Fuel Level Sensor and Float Arm



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 X3 DW400 pump module. The factory manual should supersede any contradiction.

Important Notes: The following instructions will cover the installation of the 46mm DW400 pump. If you are using a different fuel pump, use these instructions as guidance and reach out to DW Tech Support with any questions.

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



Assembly of the X3 Module

1 – Remove the three M6 bolts around the perimeter of the black metal bucket assembly, these secure the orange pump holder and tophat assembly. Separate the pump holder and tophat assembly and set aside.

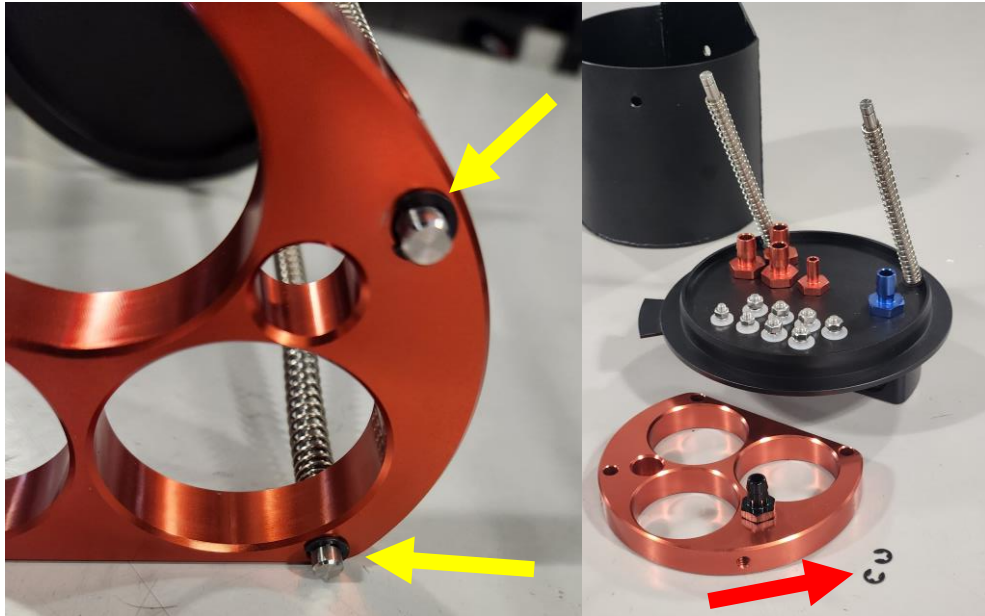


2 – Locate the three rubber one way check valves and install them into the bucket by pulling the center nub through from the inside.



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3 – Separate the pump holder from the tophat assembly by compressing the springs and removing the retaining clips, it may help to use a pair of pliers to grip the clip to keep it from flying across the room.

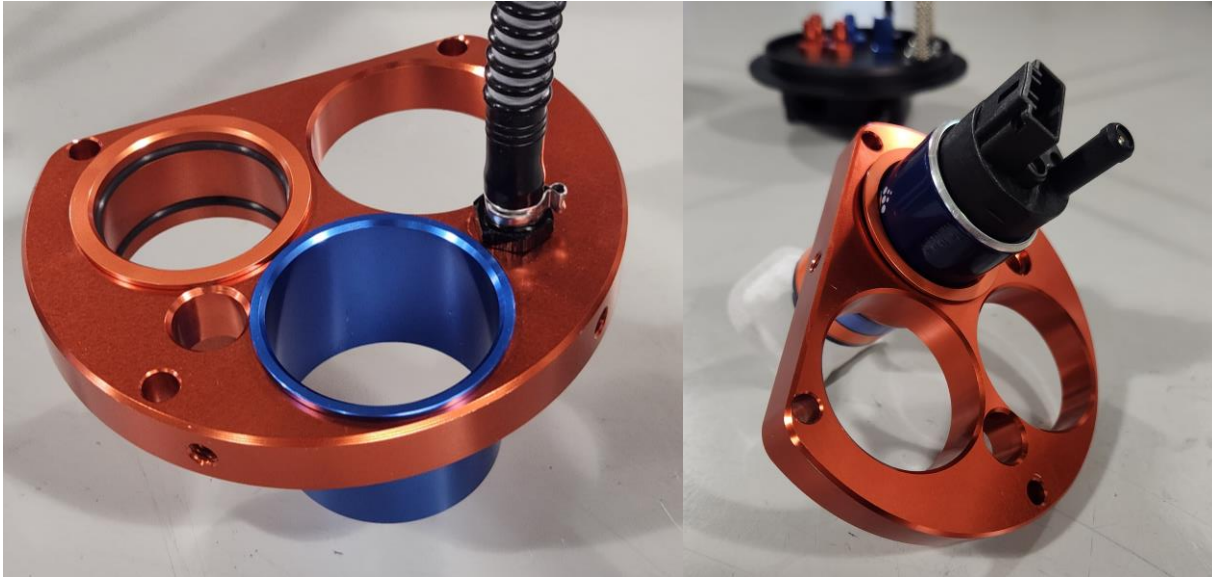


4a – Locate your DW400 fuel pumps, filter socks, 6-inch(150mm) convoluted tubing and 3/8" hose clamps. Install the filter socks by pressing them into the opening on the bottom of the DW400, this will take a small amount of force as its only retained by the friction. Install the convoluted tube onto the DW400 and secure it with the 3/8" pinch clamp.

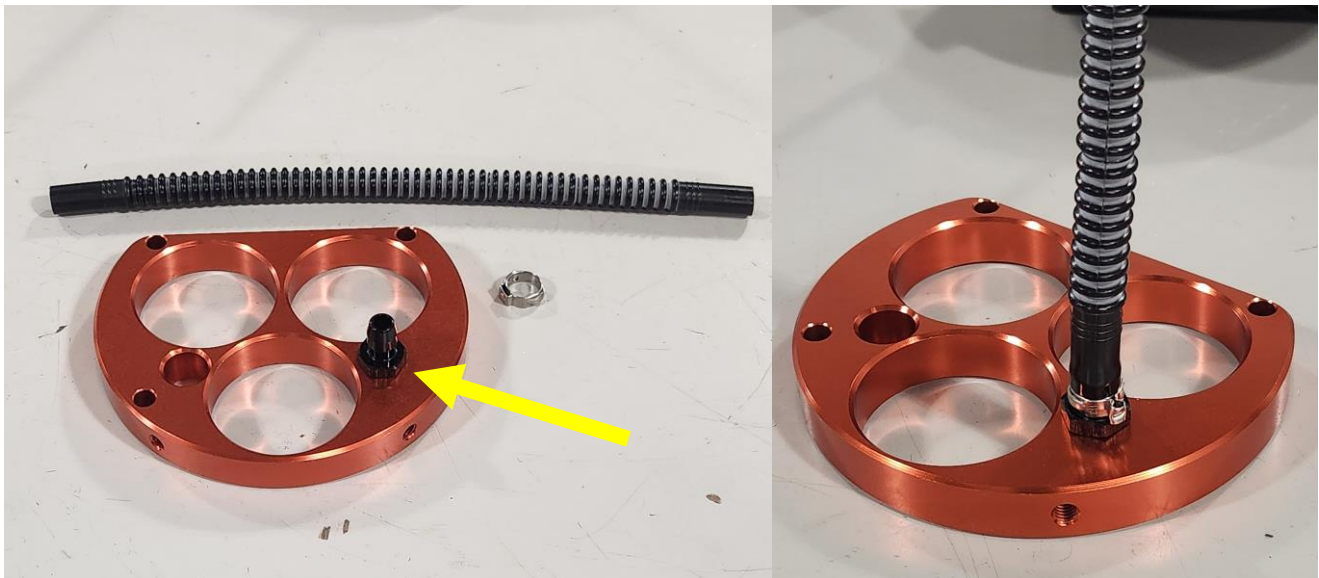


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5 – If you are installing 39mm or a 42mm Brushless fuel pump you will need the included adapter sleeves. These will take up the space between the smaller pump and the orange pump holder plate. Applying a small amount of lubrication to the O-rings will ease installation onto the fuel pump.

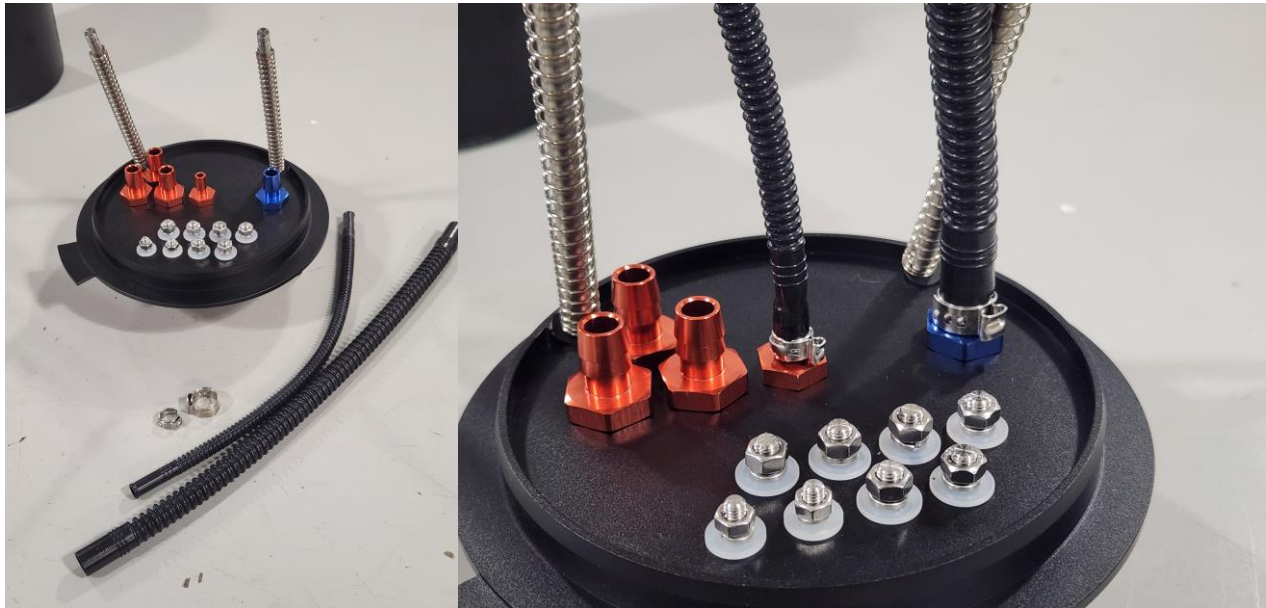


6 – Locate the supplied 12-inch long 5/16" convoluted fuel tube and one of the 13.3mm pinch clamps. Install it onto the black hose barb on the pump holder plate and tighten the clamp.

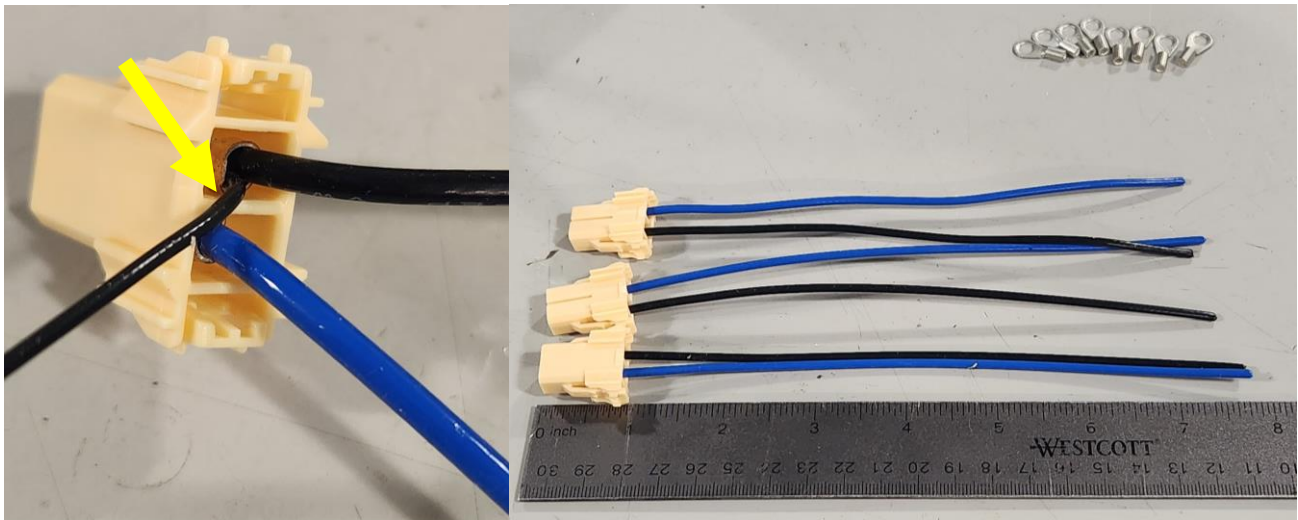


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7 – Locate the included 12-inch long 3/8" and 10-inch long 1/4" convoluted fuel tubes. You will need one each of the larger and smaller clamps (8.7mm and 13.3mm) to secure the hoses to the tophat.



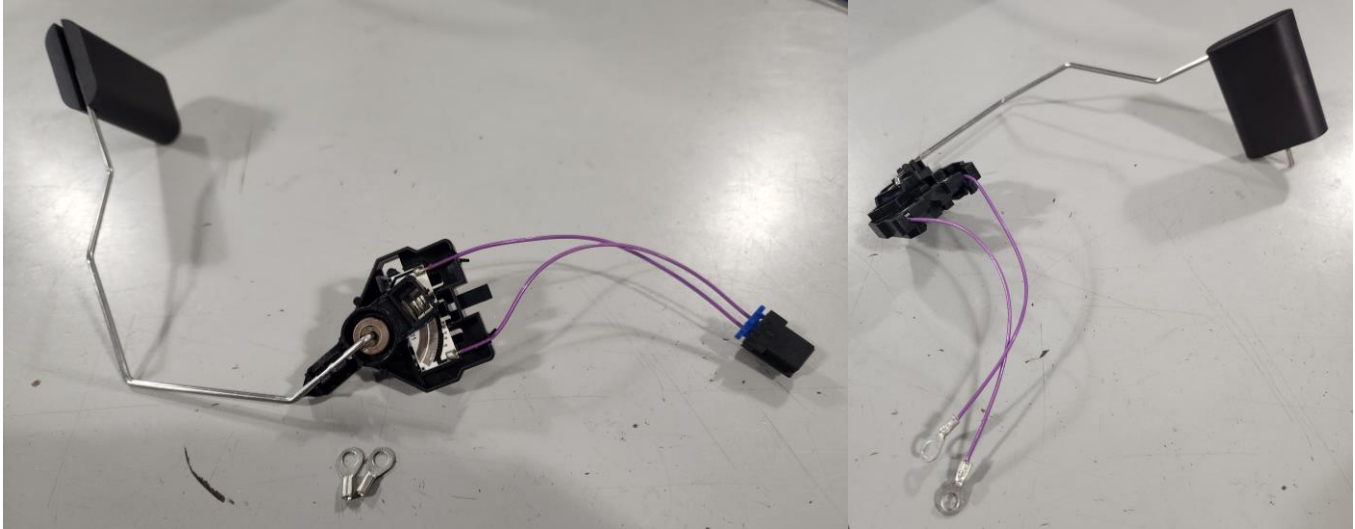
8 – Locate the included pump wiring harnesses and 14-16awg ring terminals. The harnesses have a smaller black ground wire, it can be removed. Shorten the harnesses to approximately 7-inches (175mm), strip the ends and install the ring terminals.



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9 – Locate the supplied fuel level sensor, and 22-18awg ring terminals. Remove the factory connector leaving the wires as long as possible. Strip the ends and crimp on the ring terminals.

Note: You can also reuse your OE level sensor if needed.



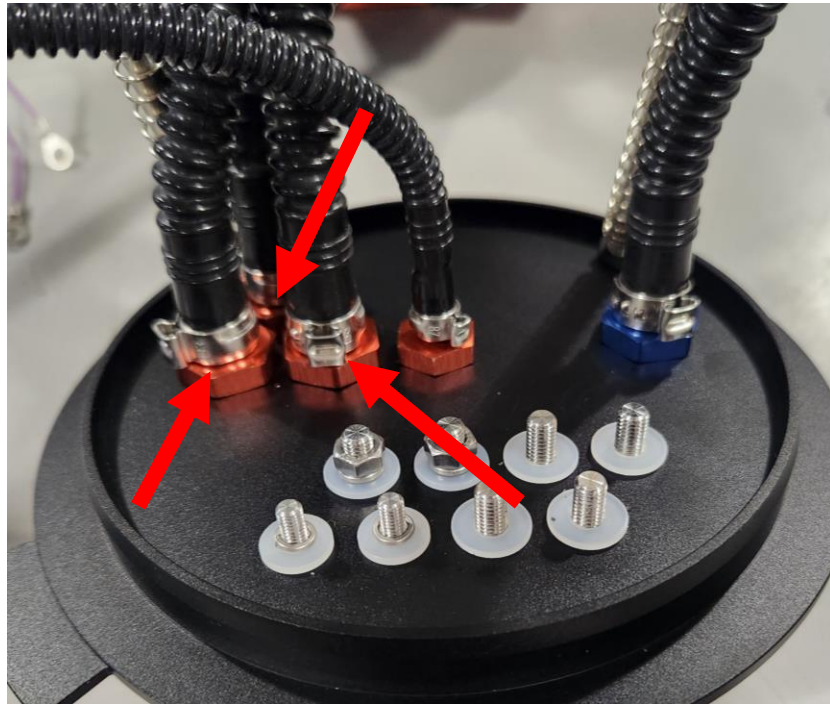
10 – Remove the M5 and M4 nuts and washers from the bottom side of the module tophat. Install the ring terminals onto the corresponding studs, one pump should be located on the “Stage 1 + and – “terminals. The remaining two pumps should be stacked on the “Stage 2 + and – “studs. The level sensor should be installed onto the smaller M4 studs labeled “Level + and – “. Install the lock washers and nuts and tighten to 15 in/lbs. Do not overtighten, it can cause the nylon washers to crack and cause an electrical short.

Note: If you are installing a Brushless pump, use the top row of M5 studs that match the wiring colors, and Stage2 for the remaining pumps.



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11 – Flip the module assembly over so you can access the three main hose barb fittings. Install the three convoluted tubes from the DW400 pumps to these three hose barbs and secure with the 13.3mm clamps provided.

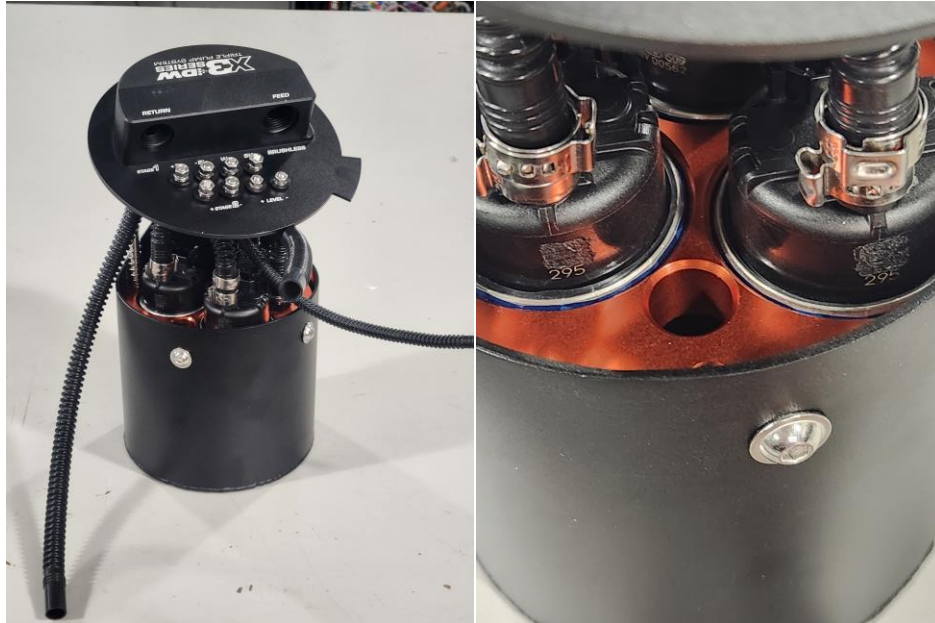


12 – Slide the fuel pumps into the orange pump holder plate with the hoses and filter socks attached. Install the pumps and holder onto the rods and reinstall the retaining clips removed in Step 3.

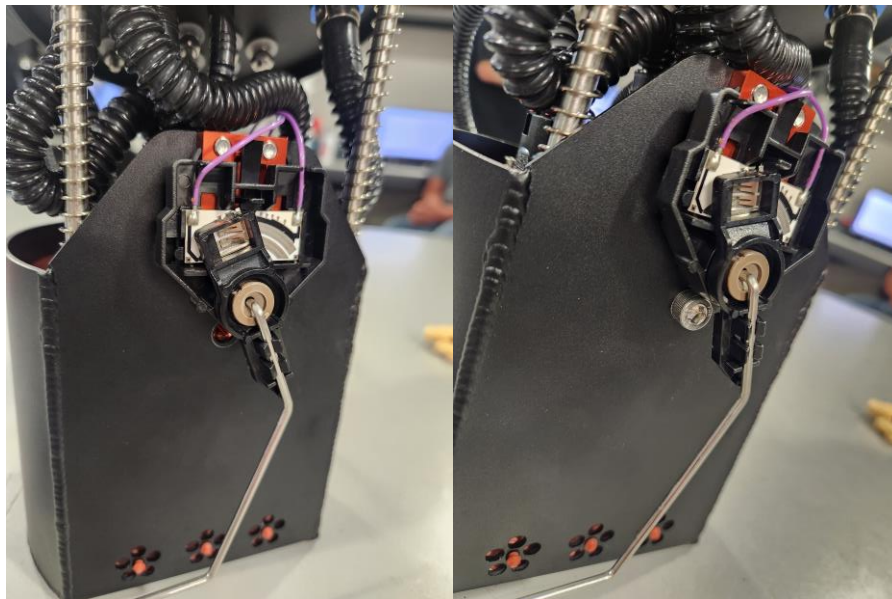


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13 – Carefully slide the tophat and pump assembly into the bucket. During installation it is possible for the filter socks to dislodge the rubber check valves from Step 2, if this happens, remove the pumps, reinstall the check valves then reinstall the pumps. Once you have the module assembled, install the two flange button head M6 bolts to secure it in place.



14 – Install the fuel level sensor by sliding it from the bottom up on the orange fuel level sensor bracket. Once in place, install the remaining M6 socket head bolt to secure the pump holder and fuel level sensor in place.

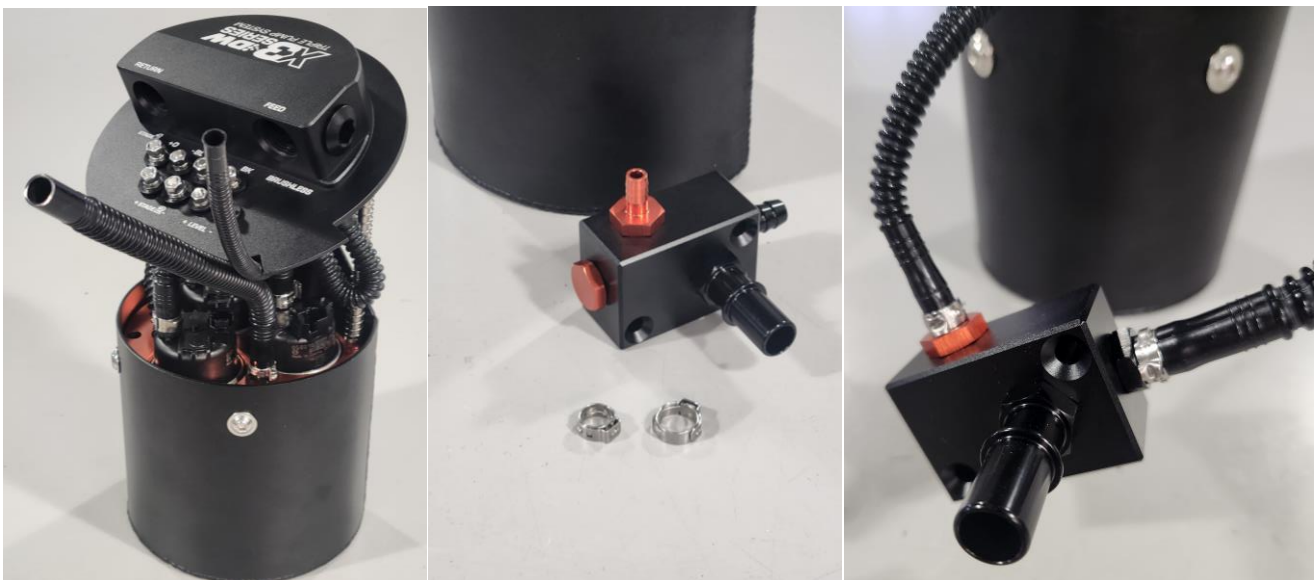


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15 – The larger 3/8" convoluted tube that is attached to the blue fitting on the tophat is the return line, this needs to be trimmed and inserted into the pump holder plate. The hose should be trimmed so that it sits inside the module once inserted. This should be approximately 1-2-inches (25-50mm).

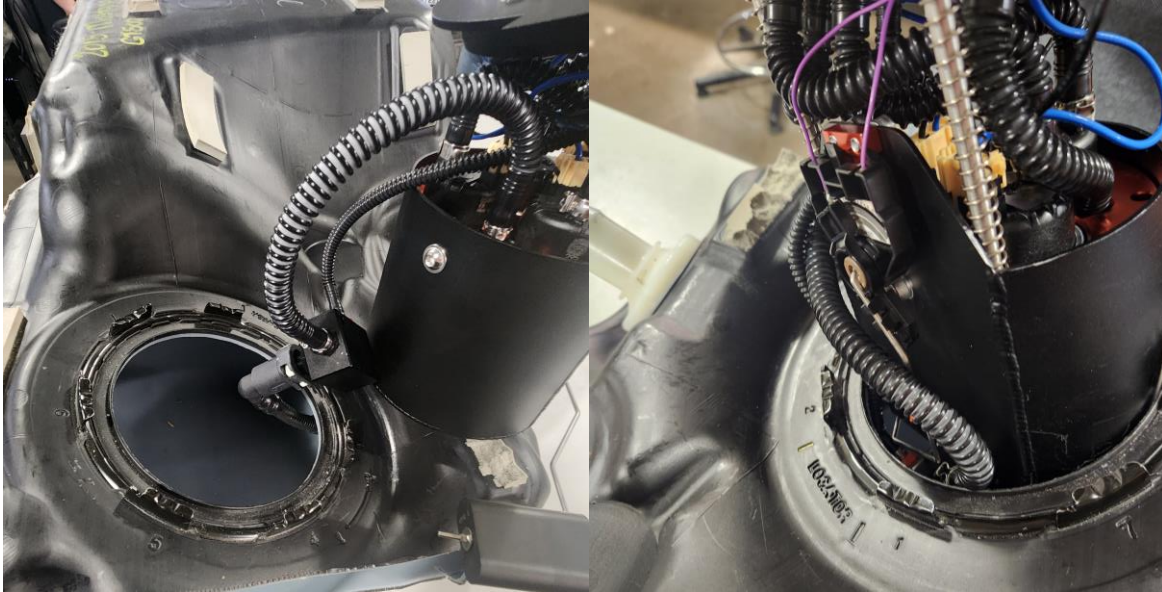


16 – There should now only be two smaller hoses unterminated, the 12-inch 5/16" connected to the pump holder plate and the 10-inch 1/4" tube connected to the tophat. These will get connected to the venturi siphon jet assembly as shown. The 1/4" hose attaches to the orange fitting and is secured with an 8.7mm clamp, and the 5/16" tube gets attached to the black fitting and secured with the 13.3mm clamp. This part is responsible for transferring fuel from one side of the fuel tank to the other.

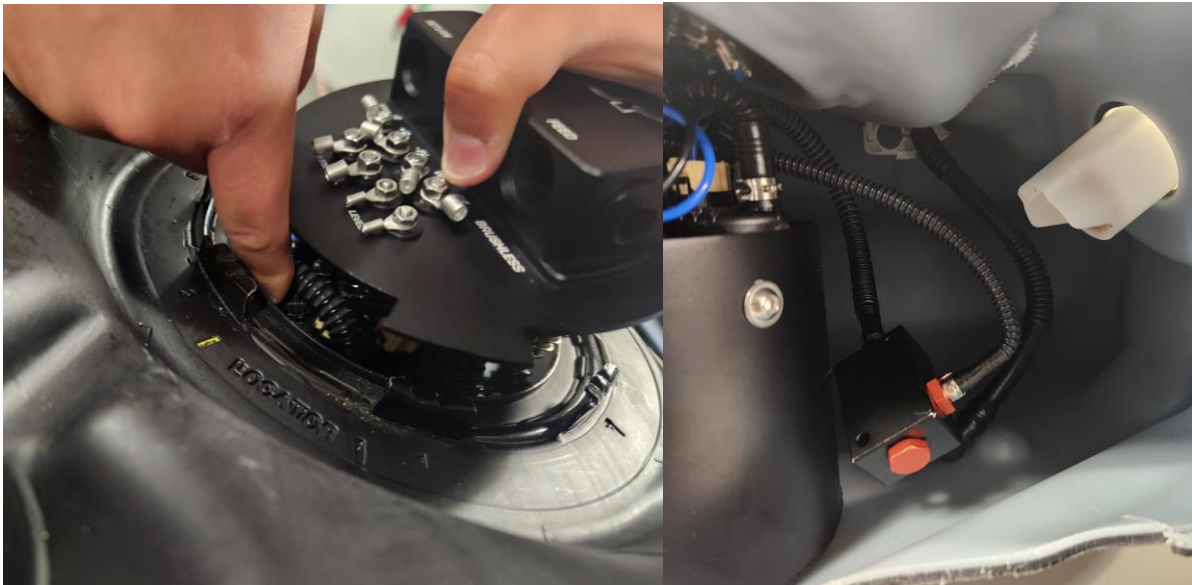


Installing the X3 Module

17 – Installation of the Mustang X3 module into the fuel tank can be tricky, due to its size and shape. First connect the in-tank siphon line to the X3 module siphon jet. Rotate the X3 module counterclockwise so the two venturi jet hoses are against the flat portion of the bucket. This with some wiggling should allow the module to drop into the tank.



18– Once you have the X3 module inside the tank, lift the module up slightly and make sure the fuel level sensor is not trapped inside the venturi siphon jet hoses. If they are tangled rotate the module counterclockwise and hook your finger on the two hoses then rotate the module clockwise to pull them backwards freeing the level sensor. The in-tank siphon hose will hold the jet in place once it is free.



Wiring the X3 Module

19 – The DW X3 Series Mustang 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 OEM Ford fuel pump controller, it may be necessary to either turn off the variable voltage/duty cycle options or bypass the Fuel Pump Control Module completely. This can be accomplished with a hardwire kit like the PN# **FPHWK-10-DP** (Fuel Pump Hardwire Kit 10AWG Dual Pump), this will ignore the variable signal delivered by the Fuel Pump Control Module and use a direct battery voltage to run the fuel pumps.

The factory fuel pump positive trigger wire is **Yellow/Grey**, this wire should be connected to the Blue wire/s to trigger the relays in the FPHWK.

The factory fuel level sending unit wires are **Green/Blue** and **Yellow/Purple**



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

