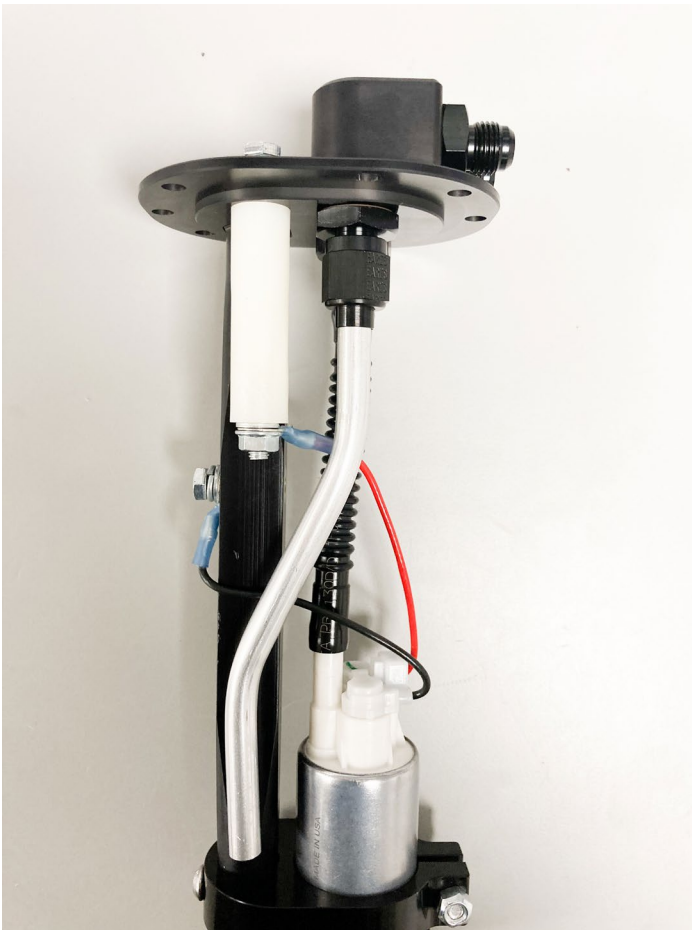


**INSTALL TIME:** 2 - 3 hours

**DIFFICULTY LEVEL:** 4

**TOOLS NEEDED:** socket driver  
7 mm socket  
8 mm socket  
10 mm socket  
11/16" wrench  
7/8" wrench  
17 mm wrench  
4 mm allen key  
wire crimpers  
wire cutters  
heat source for heat shrink connectors



**FUEL PUMP HANGER PRE-ASSEMBLY:**

1. Begin by removing the fuel pump hanger components from the product box. (Fig 1)



Figure 1

2. Install the fuel pump column to the top hat. The column top will key into the top hat. Make sure the the M6 bolt faces the back of the top hat. (Fig 2)

**NOTE:** Make sure there is an o-ring at the top of the column. This should be pre-installed. If the o-ring is missing, please contact us.



Figure 2

3. Install, but do not tighten the M10 hex bolt, washer and lock washer.

**NOTE:** It is recommend to install the large eyelet and small length of wire between the flat washer and lock washer. This will make installation easier when installing the pump hanger into the fuel tank. (Fig 3)

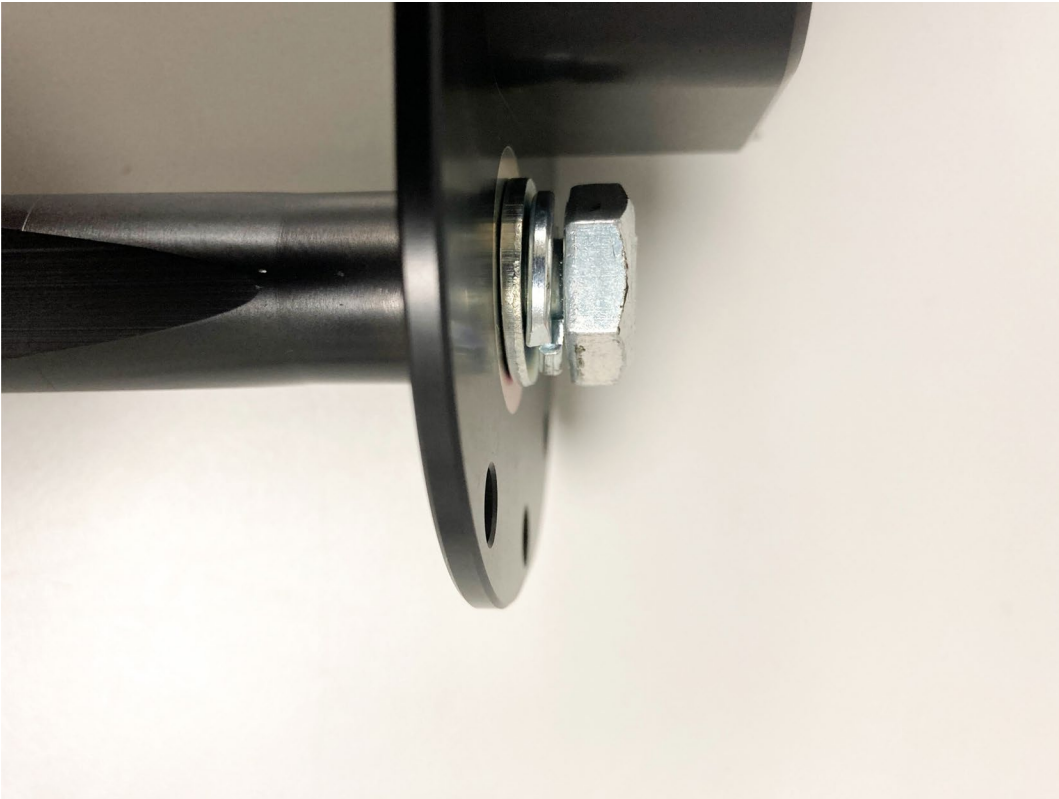


Figure 3

4. Install the fuel pump clamp using the provided M6 button head and lock washer. Tighten with a 4 mm allen wrench. Again, the M6 hex bolt and button head should face the back side of the top hat. (Fig 4)



Figure 4



5. Install the 6 AN or 8 AN ORB fittings. Tighten with a 7/8" open ended wrench. It is best to install one fitting completely and then the second fitting, as it's a very tight fit. (Fig 5)



Figure 5

6. To seat the o-rings into the fuel pump clamp: Remove the o-rings from the fuel pump clamp and lightly lubricate with engine oil. Then press the o-rings into the grooves on the fuel pump clamp. They should sit almost flush when properly seated. (Fig 6 and Fig 7)



Figure 6



Figure 7

7. Install the fuel pump into the clamp and rotate so the fuel feed fitting is facing the column. Tighten the clamp using a 4 mm allen key and 10 mm open ended wrench. The nut is a deformed thread, so it will feel different than a standard style bolt and nut thread.

If you are using a 255 LPH Walbro style fuel pump, make sure to space the bottom of the pump roughly 1" from the clamp. The 450 LPH and 525 LPH pump will be seated as far as they can be pushed into the clamp. (Fig 8)

**NOTE:** ONLY OEM and Walbro style fuel pumps can be used with the Racer X fuel pump hanger. The diameter of the pump should be 1.55" +/- 0.015".

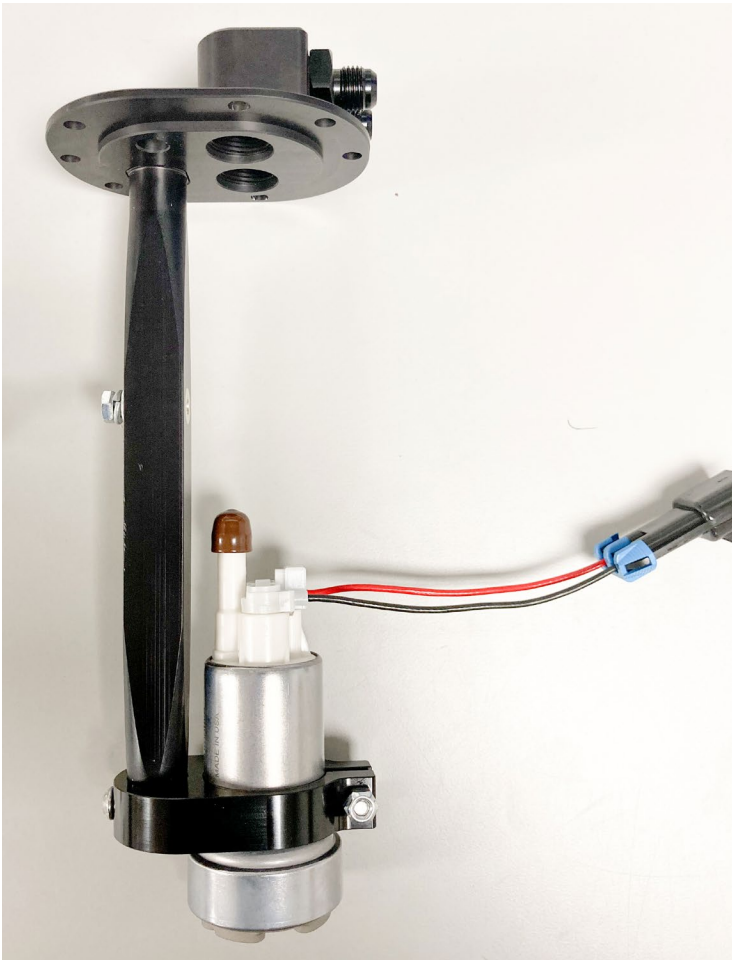


Figure 8



8. Install the fuel feed line onto the hose barb fitting. **DO NOT** try to install the feed line with the fitting installed. This step is difficult with the E85 compliant hoses. Start by securely holding the fitting (we recommend using aluminum vise jaws as pictured). Slide the hose onto the tapered portion of the fitting, right before the step. Then, using a heat gun (a hair dryer can work in a pinch) apply heat to the hose while continuing to press. When done properly the hose will slide over the step and sit about 3/8" above it. Once properly seated install (1) of the clamps provided with the fuel pump kit. (Fig 9, Fig 10 and Fig 11)

**CAUTION:** Overheating the hose will cause it to melt and deform, rendering it unusable.

**NOTE:** We do NOT provide the fuel feed hose, it is provided with the fuel pump as part of the assembly hardware.



Figure 9



Figure 10



Figure 11

9. Install the fuel feed line into the top hat using a 7/8" open ended wrench. Press the line onto the fuel pump feed fitting. Make sure to install the small clamp from the fuel pump kit before installing onto the fuel feed fitting. (Fig 12 and Fig 13)



Figure 12



Figure 13

10. Install the 6 AN ORB fitting and hardline return. Position the line so it is close to the column. Tighten using an 11/16" open ended wrench. **DO NOT** over tighten this fitting. The fitting is designed to seal on the tapered portion of the mating component. (Fig 14)



Figure 14

11. Cut or remove the fuel pump connector. Removing the pins from the connector will provide about 1" of additional length. The pictures below show the wire lengths if you cut the connector off. Strip the wires and crimp on the smaller eyelets. Then, using a heat gun shrink the insulation. (Fig 15, Fig 16 and Fig 17)

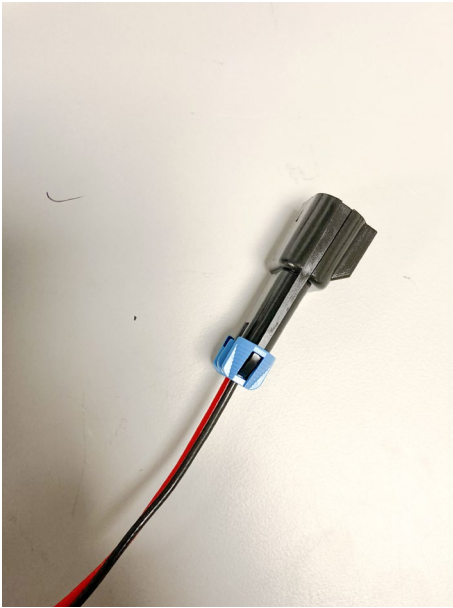


Figure 15

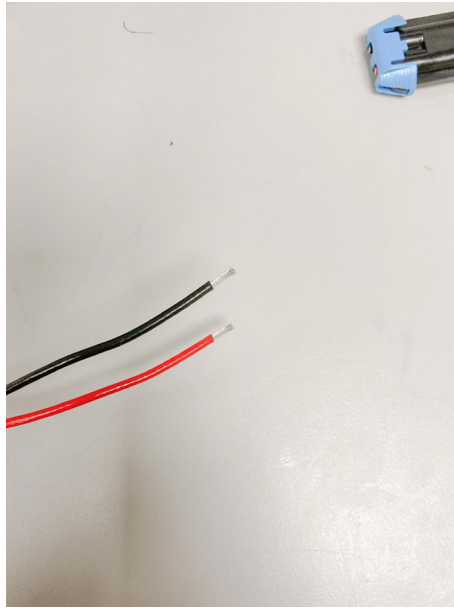


Figure 16

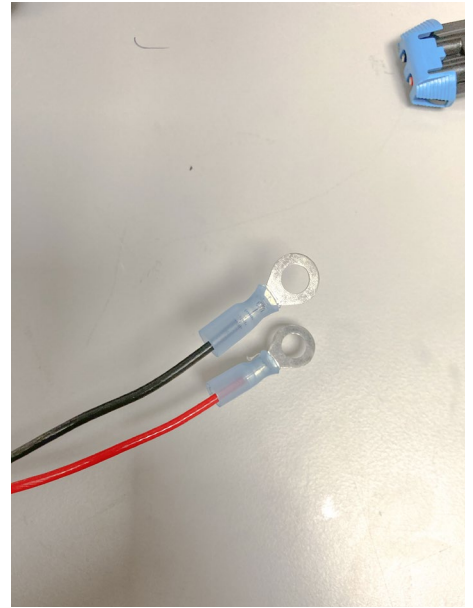


Figure 17



12. Remove the white spacer, washer and shoulder bolt from the M6x80mm hex bolt. Make sure there is an o-ring underneath the black isolator. Install the bolt along with the lock washer, flat washer and isolator into the hole on the top hat. If you are missing the o-ring pictured please contact Racer X.

**NOTE:** It is recommend to install the small eyelet and length of wire between the M6 flat washer and lock washer. This will make installation easier when installing the pump hanger into the fuel tank. (Fig 18 and Fig 19)



Figure 18



Figure 19



13. Remove the M6 hex head bolt, lock washer and flat washer from column. Install the black grounding wire onto the column. The circular connector should be placed directly onto the gold colored circle. Then re-install the M6 hex bolt with lock washer and flat washer. Tighten using a 10 mm socket. Route wiring so that the ground wire is not making contact with other components. (Fig 20 and Fig 21)



Figure 20



Figure 21

14. Slide the white spacer onto the M6x80 hex head bolt. Place flat washer at the bottom, then 12V+ red power wire below flat washer. Finally, install M6 flange nut. Tighten assembly using 10 mm socket and 10 mm open ended wrench. Route wiring so that it does not touch other components. (Fig 22 and Fig 23)



Figure 22

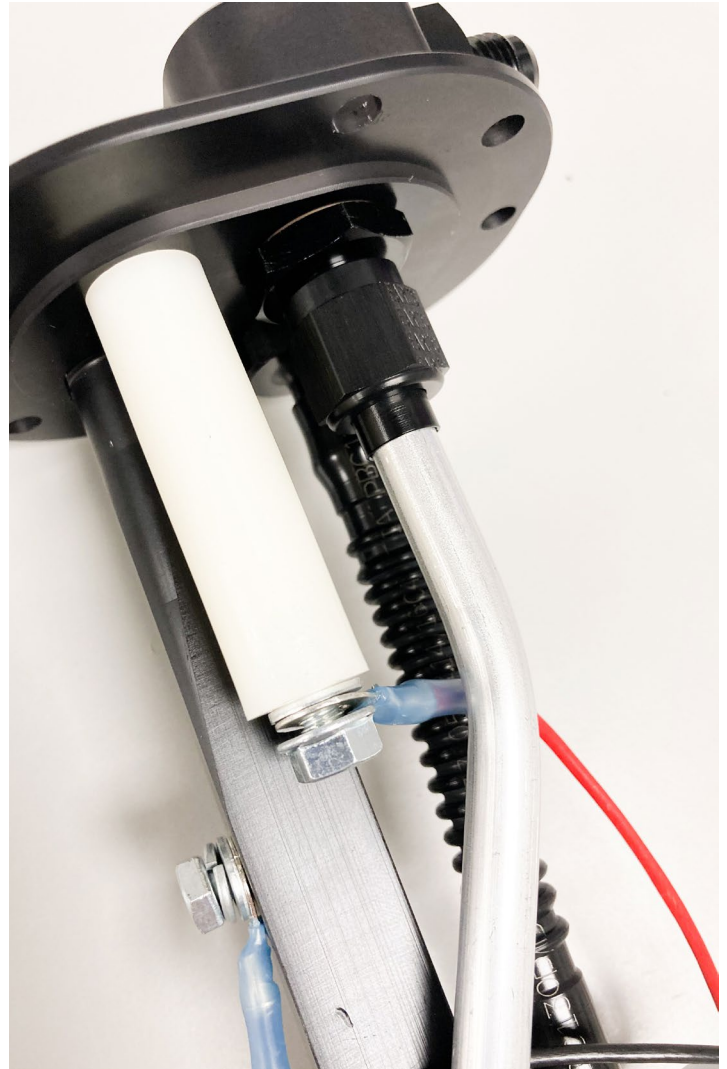


Figure 23

15. Finally, tighten the M10 bolt at the top of the assembly using a 17 mm open ended wrench. Pictured below is the fuel pump hanger assembly before installing into the fuel tank. Be sure to install the fuel pump filter and small clip that retains the filter. (Fig 24)

**NOTE:** As mentioned previously, it's best to install the large eyelet below the M10 washer with a length of wire and small eyelet for 12V power with length of wire before installing the pump assembly into the fuel tank. If you decide to directly connect these eyelets to the OEM wiring, you will need to disassemble the top portions of the hanger to install the eyelets correctly.

**Please follow OEM instructions for the correct wire gauge sizes to the fuel pump you are using.**



Figure 24



**IMPORTANT:** Check continuity on both the ground and 12V power.

Using a multimeter, set to OHMS( $\Omega$ ) and measure resistance for both the grounding bolts and 12V power. The grounding locations are the M10 bolt and M6 bolt on the column. The 12V locations are the M6 hex head at the top of the assembly and the M6 flange nut at the bottom.

The resistance should measure between 0  $\Omega$  and 2  $\Omega$ . This number can vary depending on the type of multimeter. You can also rotate the dial one more notch to audibly check for continuity, if it beeps you are good to go.

**NOTE:** Failure to check for continuity will lead you to being very upset if you find out that your fuel pump does not function after reinstalling the fuel tank. This step is paramount to trouble shooting and it is the first question we will ask.

In other words: **DON'T BE THAT GUY!!!** (Fig 25 and Fig 26)



Figure 25

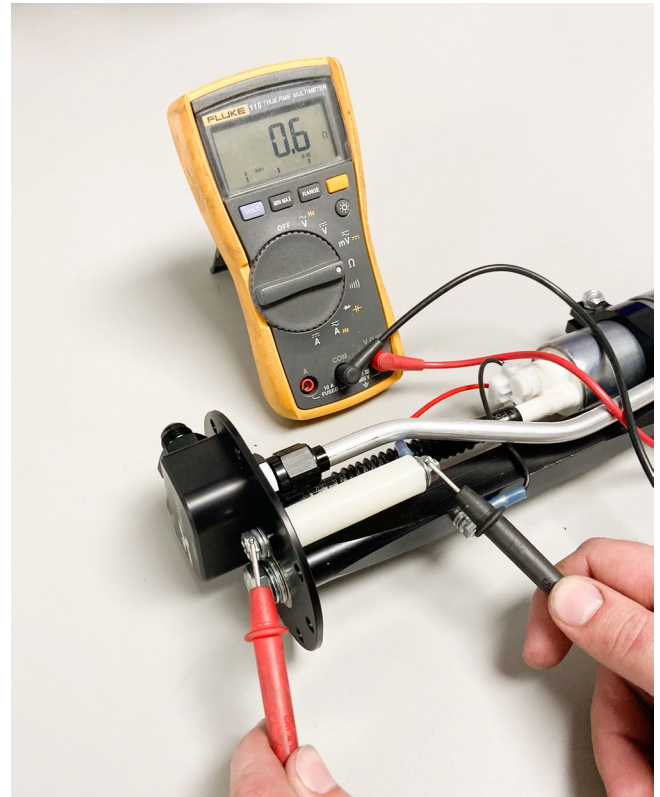


Figure 26

### INSTALLING FUEL PUMP HANGER ASSEMBLY

1. Remove the fuel tank. Please follow the removal procedure using the Toyota service manual (BGB).

Pictures are for reference only. (Fig 27, Fig 28 and Fig 29)



Figure 27



Figure 28



Figure 29



2. Once the OEM fuel pump is removed you will need to cut these wires. (Fig 30)



Figure 30

**3. To install the Racer X fuel pump hanger into fuel tank:** Angle the fuel pump into the tank first, then the clamp will go in after. Slide the assembly down into the tank making sure it does not catch.

**Connect the wiring:** The 12V supply is blue and the ground is white.

Once the pump assembly is seated, install the M5 allen head bolts. Make sure these thread in freely. If they feel sticky, remove the bolt and lubricate the threads.

**NOTE:** If you are using 8AN ORB fittings, you will need to use the M5 button head between the fittings for clearance. If you are using 6AN ORB fittings, then this bolt will not be used. (Fig 31)

**Installation is complete.** Re-install the fuel tank following the Toyota Service manual.

If you have any problems with the fuel pump functioning please contact us.



Figure 31

Fuel line routing for reference. (Fig 32, Fig 33, Fig 34 and Fig 35)



Figure 32



Figure 33

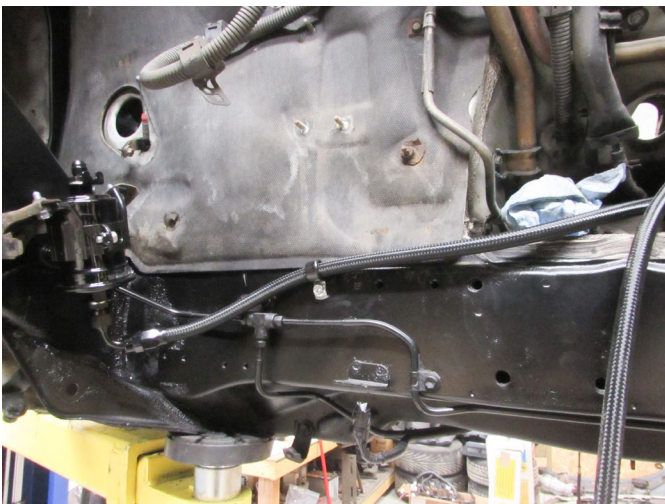


Figure 34

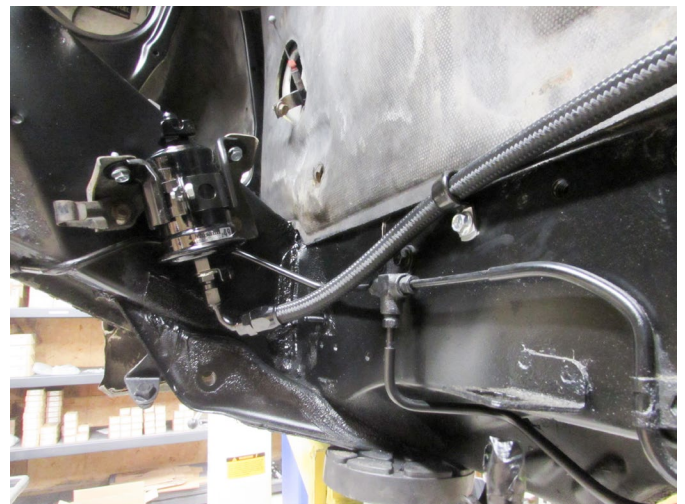


Figure 35