



Maverick R Rising Rate 340 Fuel Pump Conversion Kit

SKU(s): 500FC0066

INCLUDED PARTS

(1) EVP Conversion Fuel Pump
(1) Vacuum Hose
(1) 20 AMP Fuse
(1) Fuel Pump Relay Harness
(2) Hand Tools
Hardware

REQUIRED TOOLS

10mm Socket
T-30 Socket
Dielectric Grease
Rags



**Included Parts**

Part Number	Description	Quantity
500RU0064	DW 340LPH Compact Style Fuel Pump Kit	1
953RU0397	5/16 Corrugated Fuel Line 8.0"	1
953RU0045	13.3mm Pinch Clamp	3
500RU0057	50mm Inline Fuel Filter, 100 Micron	1
500RU0058	X3 Billet Fuel Hat	1
953RU0618	X3 Fuel Filter O-ring	1
953RU0619	10 AN ORB to 5/16 Barb Fitting	1
953RU0620	6AN to 3/8" Straight Quick Connect Fitting	1
953RU0622	1/8" NPT Plug, Stainless	1
953RU0623	1/16" NPT Plug, Stainless	1
953RU0629	DEUTSCH Female 2 Position 20 AWG Connector	1
953RU0630	DEUTSCH Terminal for Female 2 Position 20 AWG Connector	2
953RU0631	DEUTSCH Female 20 AWG 2 Position Wedge Lock	1
702FC0036	X3 Billet Fuel Hat Wiring Harness	1
953RU0632	M8 x 1.25 x 270mm, Stainless Threaded Rob	2
953RU0633	M8 x 1.25 Distorted Locknut	2
953RU0634	Corrugated Fuel Hose, 8mm ID x 8mm ID x 250mm Length	1
953RU0637	Circlip 36mm ID, 38.8mm OD	1
953RU0638	M6 x 1.0 x 10mm Stainless-Steel Low-Profile Socket Cap Screw	1
500RU0063	Bosch 4.5 Bar Fuel Pressure Regulator	1

**INSTALLATION INSTRUCTIONS**

953RU0034	11.3mm Pinch Clamp	2
953RU0037	3MM ID Hose	84
953RU0038	3/16" 90 Degree Hose Barb	1
953RU0070	15.7mm Pinch Clamp	1
705RU0009	20 AMP Fuse ATM	1
702RC0037	Maverick R Fuel Pump Relay Harness	1
953RU0645	DTM 20-22 AWG Crimping Tool	1
953RU0646	Corrugated Fuel Hose Tool	1
953RU0452	M6-1.0 x 16mm Flange Button Head Screw, Black Stainless	1
953RU0453	M6-1.0 Nyloc Nut, Aluminum Black Stainless	1

WE'D LOVE TO HEAR FROM YOU - LEAVE A REVIEW & STAY CONNECTED!   

Fuel Pump Removal

Step 1: Remove the center dash cover (if it hasn't already fell off).



Figure 1

Step 2: Remove the passenger side yellow panel. Slightly lift on each corner, (4) tabs are holding it in place.



Figure 2



Figure 3

Step 3: With a T-30 socket, remove the cage trim piece. You can open the fuel door to help remove.



Figure 4

Step 4: Remove the passenger side upper dash. (3) 10mm screws and (1) T-30 screw.



Figure 5

Step 5: Remove the fuel pump safety bracket by removing (2) 10mm screws. **NOTE:** Notice the arrow on the fuel pump is facing the middle of the box. When reinstalling make sure the arrow is facing the middle of the box or your fuel float will read incorrectly.

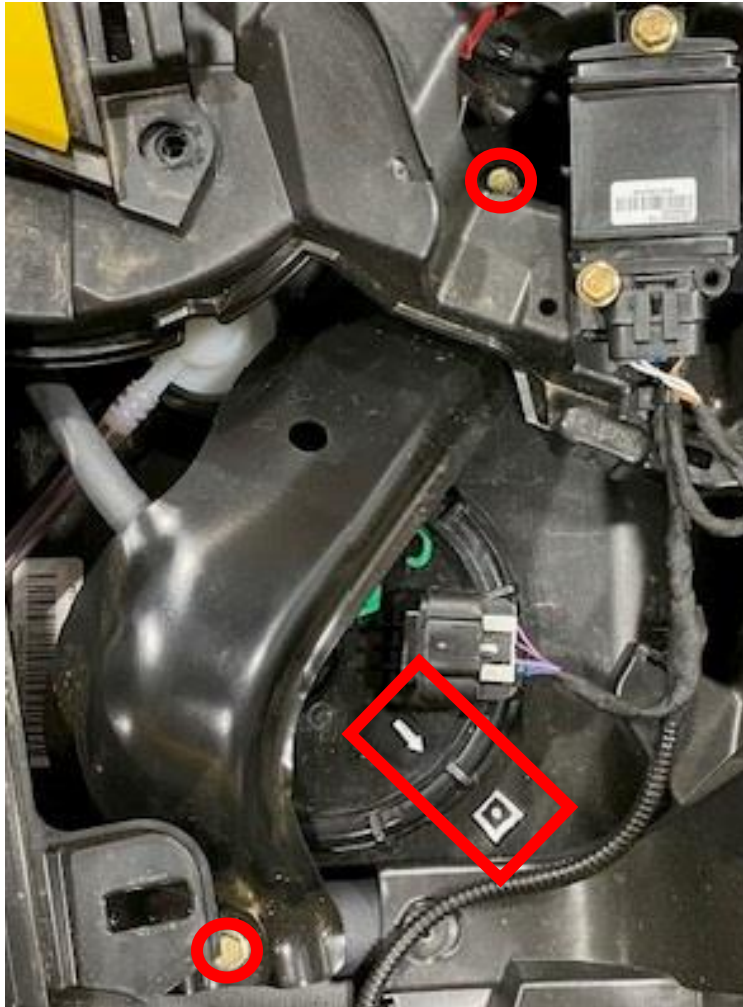


Figure 6

Step 6: Remove the silver safety clip on the electrical connector, then remove plug. Remove the blue safety clip on the fuel connector, press the black quick connect and remove the fuel hose.



Figure 7



Figure 8

Step 7: Remove the fuel pump nut, be careful not to damage it. The fuel pump assembly has springs so the hat might spring up about one inch.

NOTE: If you are changing fuel octane, now is the time to drain your fuel tank!

Fuel Pump Disassembly

Step 1: Unplug the fuel pump electrical connector, it won't be able to be removed at this point, as long as it's unplugged. Disconnect the fuel float connector from the fuel hat.

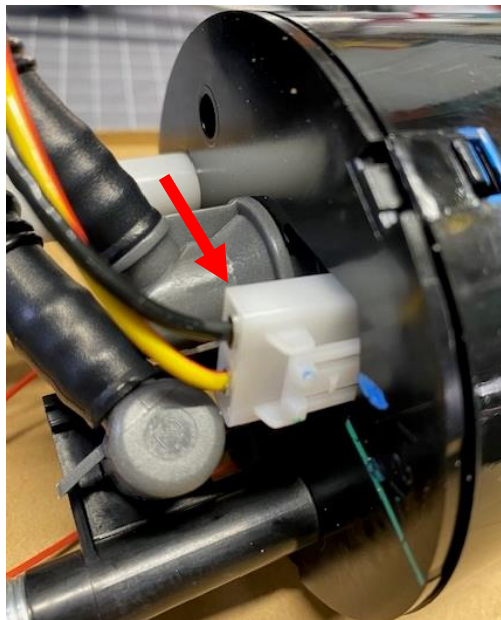


Figure 9

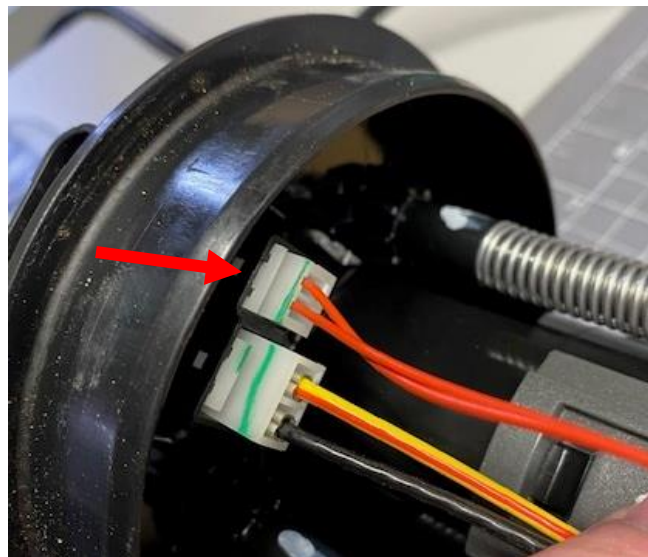


Figure 10

Step 2: Carefully push down 1 tab at a time on the surge tank, work your way around the top of the surge tank hat. Total of (3) tabs. **DO NOT BREAK THE TABS!** Once complete you can slowly pull the top surge tank away from the lower half. **BE CAREFUL!**



Figure 11

Step 3: Slide the top hat away from the surge tank. The fuel pump may come with the hat or stay in the surge tank. Remove the fuel pump and rubber grommet from the lid.



Figure 12



Figure 12

Step 4: Compress the lid and springs a bit, remove the locking washer. Remove the lid from supports. Keep the springs!



Figure 13

Step 5: On the lid you will find the fuel inlet and fuel pressure regulator. Cut both hoses off the grey fittings. Keep both black hose sleeves. **NOTE: Don't cut the grey fittings, be careful!**



Figure 14

Step 6: Remove the fuel pressure regulator by turning the grey fitting 1/16 of a turn counterclockwise. Then push up and remove, you can discard this part.

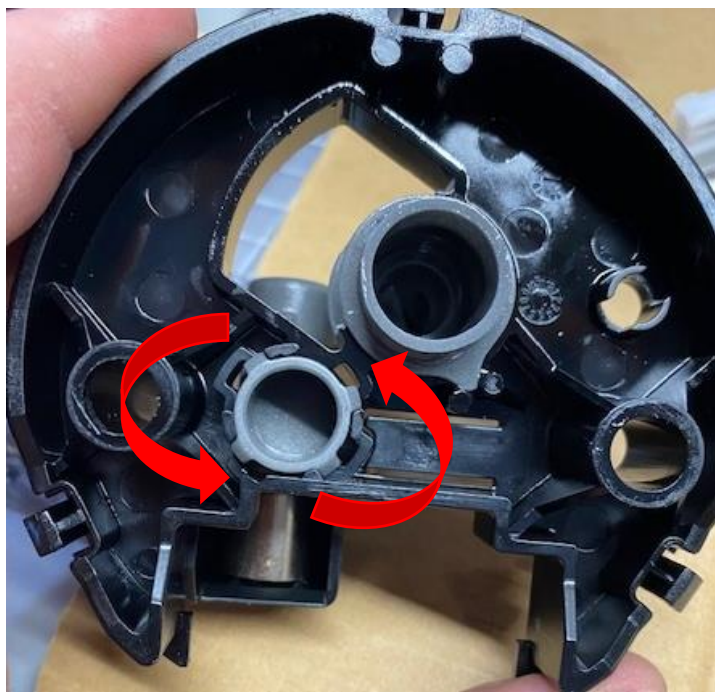


Figure 15



Figure 16

Step 7: Remove the fuel inlet fitting. Notice it clicks into place between (2) tabs. Turn it counterclockwise, find the two flat sides and remove the fitting from the lid.



Figure 17



Figure 18

Step 8: Discard the upper fuel hat, save the black sleeve.



Figure 19

Step 9: Install the 8.0" corrugated fuel hose onto the fuel inlet fitting. It helps to apply dielectric grease onto the fittings. Use supplied corrugated hand tool. Heat up the end of the fuel hose with a heat gun **NOT A FLAME!** You can notice the color turn shiny, remove heat source, let it cool for a few seconds. Install onto the fitting, use supplied 13.3mm pinch clamp to secure.



Figure 20



Figure 21

Step 10: Reinstall the fuel inlet fitting into the surge tank lid.



Figure 22

Step 11: Remove both fuel pump caps before installation.



Figure 23

Step 12: Install the new pump into the bottom surge tank. Make sure both tabs are locked into place. The pump shouldn't move when properly locked into place.



Figure 24

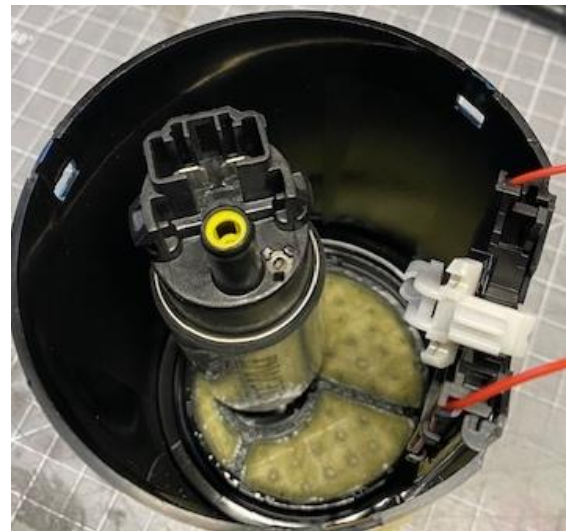


Figure 25

Step 13: Install the springs onto the new supplied fuel hat. Reinstall the lid to the fuel hat supports. Make sure orientation is correct, figure 26, otherwise the hat will be off-center. Push down and compress the springs slightly, install supplied distorted lock nuts so 2 threads show.

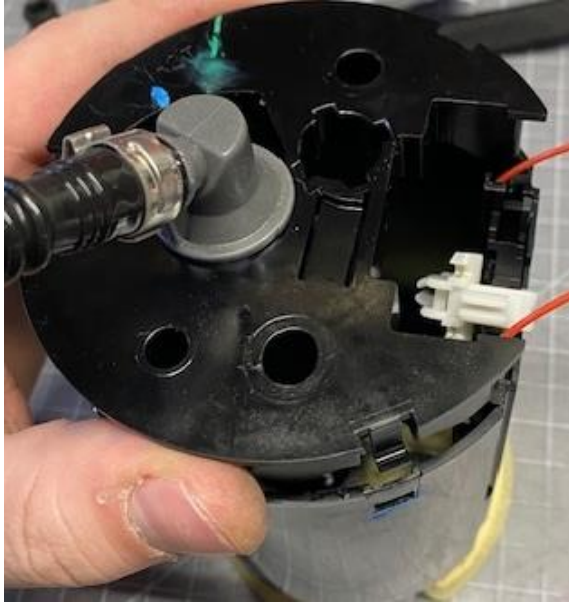


Figure 26



Figure 27



Figure 28

Step 14: Apply dielectric grease to the rubber gromet. Reinstall it into the upper lid inlet port. Apply dielectric grease to the fuel pump outlet port. Slowly reinstall the upper lid to the surge tank, making sure all (3) clips meet and fuel pump and inlet meet. Watch the float wires.



Figure 29

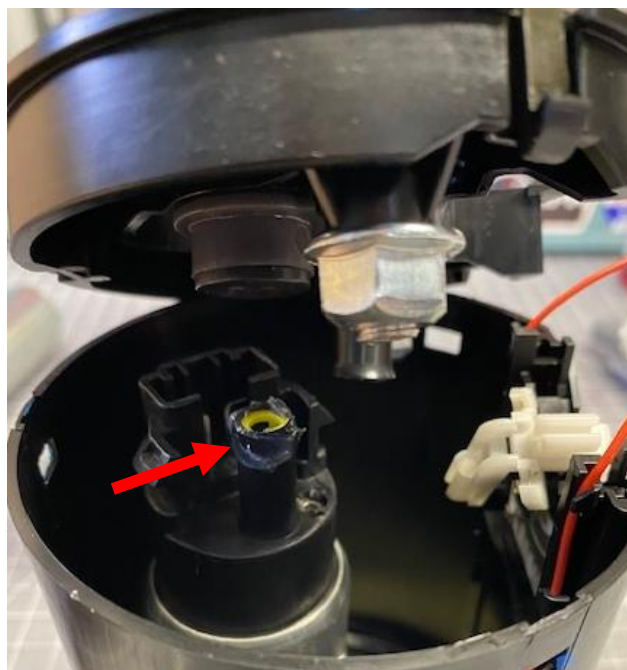


Figure 30

Step 15: Trim 2.0" off both sleeves, should be 7.0" in total length. Burn the ends you cut with a flame. Slide one sleeve onto the fuel return hose, and the other will be used on the fuel inlet hose.

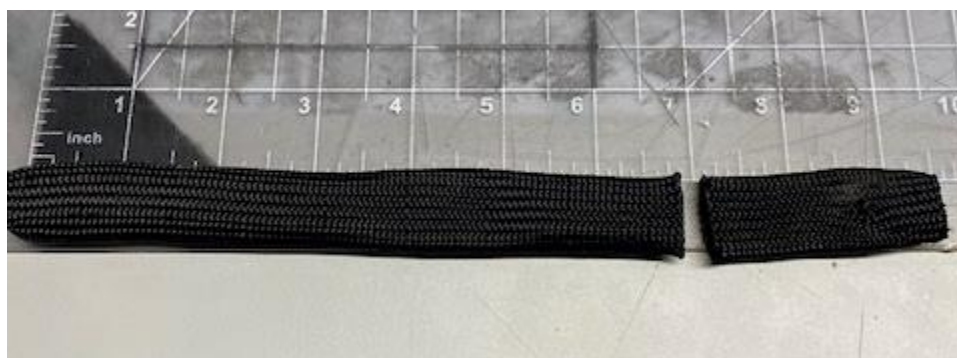


Figure 31

Step 16: Install sleeve and 13.3mm pinch clamp onto the fuel inlet hose. Notice orientation of hose. Apply dielectric grease to fuel filter inlet fitting. Heat up the hose with a heat gun and install. Secure pinch clamp when done.



Figure 32



Figure 33



Figure 34

Step 17: Install the fuel pump connector, you will hear a click. Install the fuel return hose into the OLD fuel pressure regulator hole.

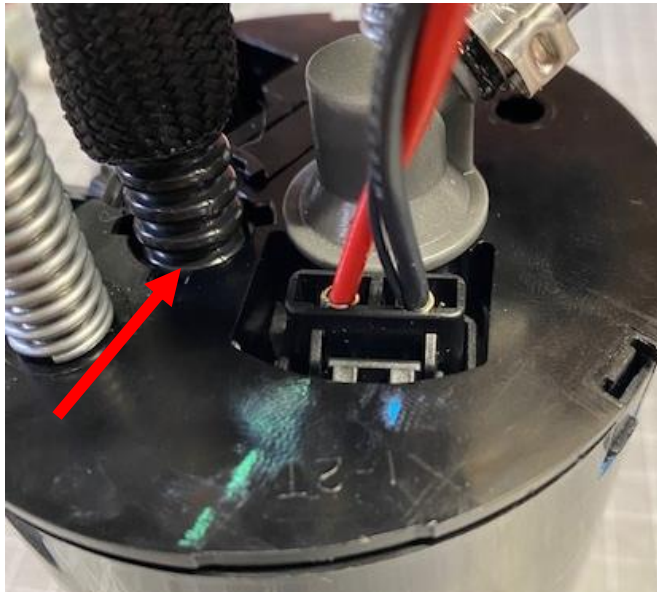


Figure 35

Step 18: Cut off 5.0" from the float white connector that plugged into the OEM hat.



Figure 36

Step 19: You have (2) terminals, a connector and wedge lock. Remove the orange seal if still installed in connector. Strip 1/4" of the 20awg float wire attached to the float.



Figure 37



Figure 38

Step 20: Install the barrel connector into the supplied hand tool. The wire goes into the shallower side, that's the side you want to see once the terminal is inserted into the tool. Make sure the tool is 100% open. Do this by squeezing the tool all the way shut, it will open all the way when your hand is released. Install the wire into the terminal and squeeze the handle 100% closed. Release.



Figure 39



Figure 40



Figure 41

Step 21: Install the terminals into the connector, from the backside. You will push until you hear a click. Orientation does not matter on this connector. 1 & 2 can be flip flopped. The terminals will be loose until you install the wedge lock. Install the wedge lock from the front.

Install terminals through the backside of the connector.



Figure 42

Front side of connector.



Figure 43

Install the wedge lock from the front side of connector.



Figure 44

Step 22: Connect the float connectors.



Figure 45

Step 23: Install the new fuel pump assembly with a seal. Apply dielectric grease on the seal. Clock the fuel pump assembly correctly.

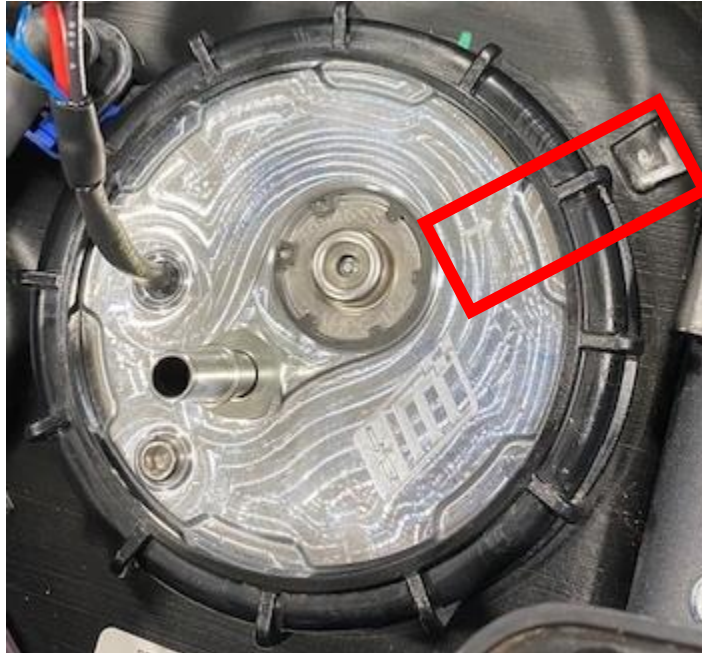


Figure 46

Step 24: Install the fuel pump relay harness into the vehicle. Use the positive and negative to the upper dash bus bar. Route the wires under the plastics, use a 10mm socket.



Figure 47

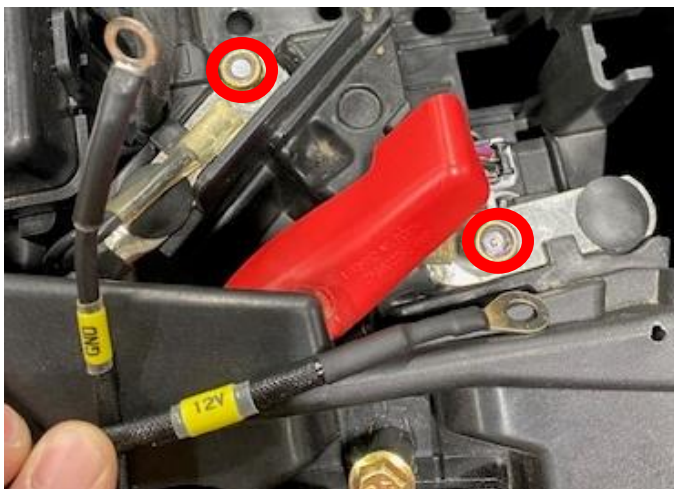


Figure 48



Figure 49

Step 25: Locate the plastic opening right in front of the fuel pump. Install the relay mounting clip into the slot. Mark with a sharpie and drill a 1/4" hole. Install supplied M6 flange screw and nut. Install the fuel pump harness to the fuel pump and OEM harness.



Figure 50



Figure 51



Figure 52

Step 26: Install supplied 3/16" 90 degree barb into the charge tube, use supplied pinch clamp to fasten. Install vacuum hose and clamp to the barb, route the hose through the firewall and up through the center tunnel, up the dash and to the fuel pump regulator. Loosely zip tie the hose (without kinking).



Figure 53



Figure 54

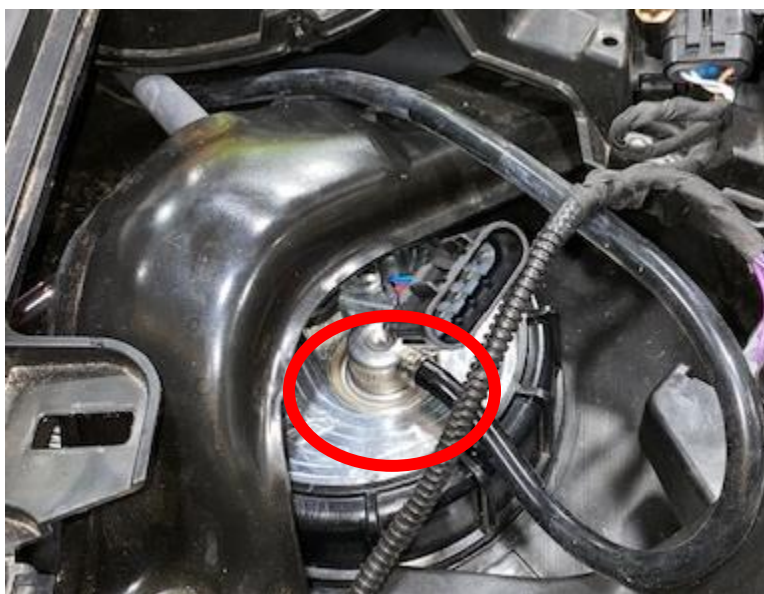


Figure 55

Step 27: Behind the driver's seat you will find the fuse box. Locate the fuel pump fuse (F28), replace the 10amp with supplied 20amp.



Figure 56

NOTE: Plug the CodeShooter device into the vehicle and **UPDATE** your tune file for the rising rate fuel pump assembly. If you are changing your tune file make sure you have the correct fuel octane in the vehicle!

Step 28: Key the vehicle on a few times and look for fuel leaks. If everything checks out reinstall all plastics.

Thank you for choosing Evolution Powersports products. If you require further assistance, please call our Tech Support @ (715) 247-3862

Note: This product is exempt from the emission standards and related requirements of 40 C.F.R. § 1051 as provided by 40 C.F.R. § 1051.620, and California law [e.g., vehicle code §§ 27156 and 38391]. This product is sold only for use in connection with EPA certified, purpose-built, nonroad vehicles used solely for closed course, nonroad competition/racing and not used for any recreational purpose or on public highways or right of ways maintained by and open to the public. This product is sold only in connection with machines that do not fall under state and/or federal noise or emission standards/regulations. Purchasers who/that purchase this product represent and warrant that the product is purchased only in connection with EPA -certified, emission-regulations-exempt and noise-regulations-exempt competition/racing vehicles as interpreted under applicable state and/or federal law. Questions: Call Evolution Powersports at (715) 247-3862.