2007-2011 Four Door Petrol/Gas 17 Gallon Auxiliary tank Installation Instructions

Product Information/Install Instructions for

Jeep Wrangler JK 2077-2011 Four Door Petrol/Gas

Kit P/N JWJKPA





D. INSTALLATION KIT CONTENTS

HARDWARE	HOSE & CLAMPS	MISC PARTS
2 x M10 x 50mm Bolt 2 x M10 x 75mm Bolt 2 x M6 Flat Washer 8 x M10 x 30mm Flat Washer 4 x M10 Nylock Nut 5 x M5 x 8mm Pan Head Screw 1 x M6 x 16mm Bolt 1 x M6 Nyloc Nut 7 x Tek Screw 2 x 30mm Tek Screw	1 x 8mm Hose @ 43.3" Long 1 x 8mm Hose @ 55" Long 1 x 32mm Hose @ 4" Long 1 x 32mm Hose @ 16.5" Long 1 x 16mm NTP Hose @ 15.75" Long 1 x 16mm NTP Hose @ 41.3" Long 1 x 16mm NTP Hose @ 59" Long 7 x 1/4" Hose Clamp 6 x 5/8" Hose Clamp 4 x 1-1/4" Hose Clamp 1 x EFI Hose Clamp	1 x SC91 Fuel Cap 1 x FNJWJKPA Filler Neck 1 x FPJWJKPA Intermediate Fill Pipe 1 x Exhaust Heat Shield C/W Nuts & Clamps 1 x 16mm x 44mm Anti-Crush Tube Bushing 1 x 25mm IDP Clip 1 x 16mm IDP Clip 1 x Evap Canister Bracket 10 x 7" Cable Ties 5 x 11" Cable Ties 1 x Z14K Filter 1 x Fuel Transfer Pump 1 x Fuel Transfer Pump Mounting Bracket Magnet (for auxiliary fuel tank)
BRASS	**ELECTRICAL**	
1 x P3 5/16" X 1/8" Straight 1 x P3 5/16" X 1/4" Straight 1 x P6 5/16" X 1/8" Elbow 2 x P6 5/8" X 3/8" Elbow	1 x 3mm Two Core @ 157.5" Long 1 x Red Insulated Terminal 3 x 6mm Blue Eye Terminals 1 x 3/16" Wiring Grommet 3 x Heat Shrink Tube 1 x LRA-PG210 Switch Gauge 1 x 0-90 Ohm Sender Unit c/w 15.75"	

NOTE: If a replacement fuel filler cap is needed, they are available at AutoZone (Duralast, p/n 6817A)

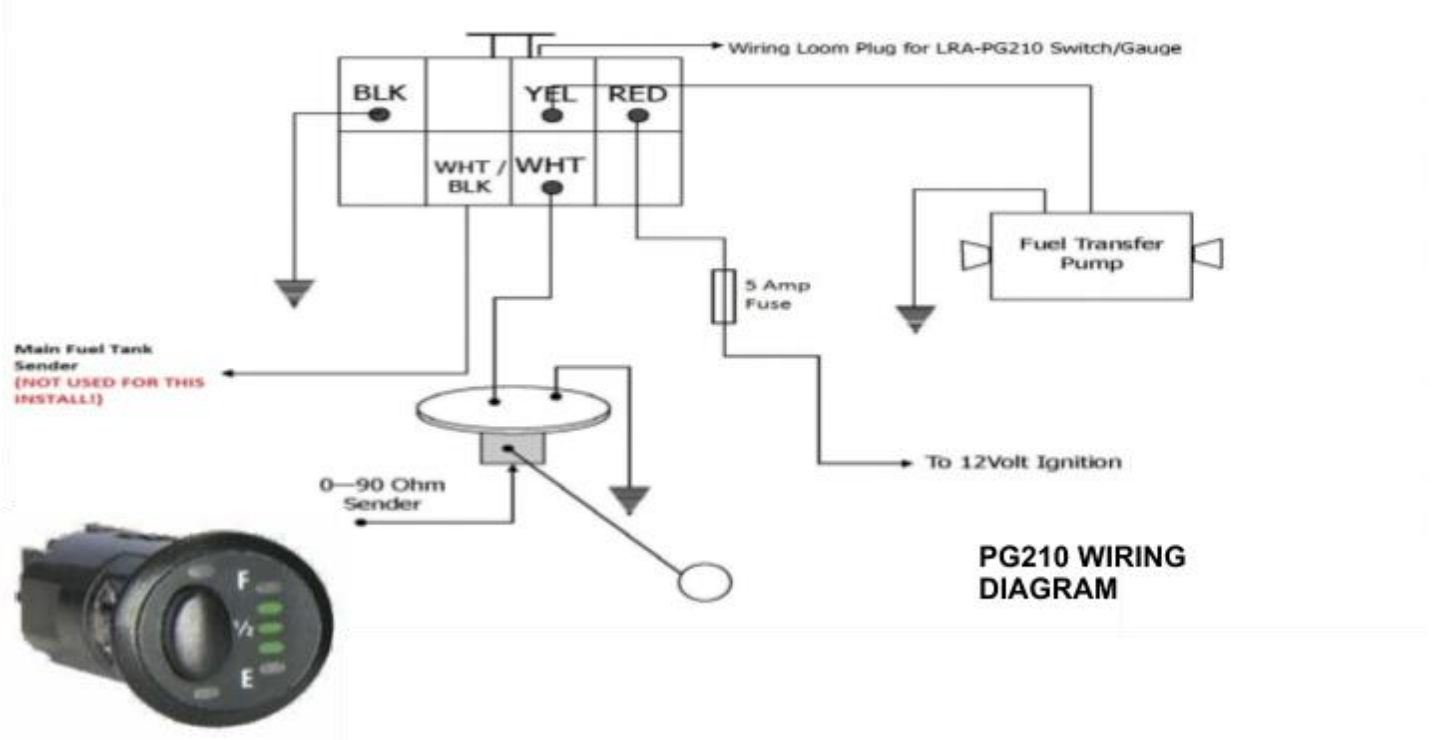
A. INSTALL THE FUEL TRANSFER SWITCH/GAUGE

1. Select a suitable location in the dash to mount the switch/gauge unit. Using a Uni-Bit, drill a 20mm hole to mount the unit. Use a small file to carefully adjust the hole size as needed.
2. The switch is fairly sensitive to installation. The hole diameter needs to be just the right size (20mm or .78”). If it is too small, and the switch is forced into place, the switch may be damaged or not function properly. You will need to test-fit and file or cut out more material if needed. **DO NOT FORCE SWITCH INTO PLACE WHILE TEST-FITTING.**
3. Connections should be soldered and heat shrunk, **not just crimped**.
4. Double-check all connections when done.

B. **WIRE THE FUEL TRANSFER SWITCH/GAUGE**

1. A 12 volt ignition source can be found under the right-hand side of the steering column, pink wire with white trace (check this with test light). Carry out wiring as per the wiring diagram, below. The 5 amp fuse and fuse holder are used in the red power wire that is connected to the ignition power source.
2. Run the 3mm twin core under the scuff plate then exit out through the floor under the left-hand front seat (drill an 8mm hole and use grommet supplied), run to rear of the vehicle for later connection to the fuel pump and auxiliary tank fuel gauge sending unit.
3. Leave enough wire to reach the sending unit.

PLEASE REFER TO OPERATING INSTRUCTIONS FOR THIS UNIT ON PAGES 17 & 19



PG210 WIRING DIAGRAM

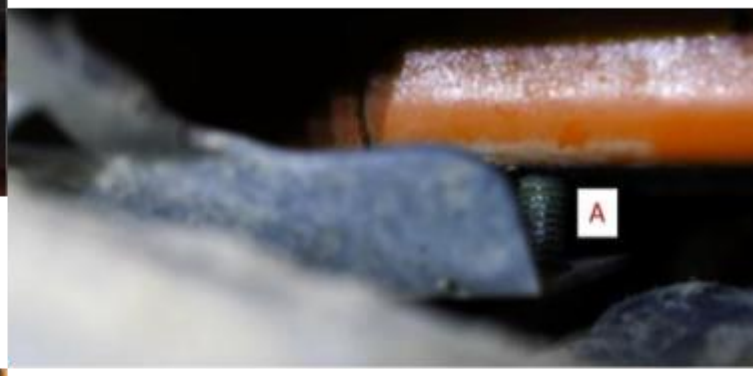
A. GET READY

1. We recommend power washing the underside of the vehicle, to remove mud and debris.
2. Unpack tank and installation kit. Review packing list and kit.

B. INSTALL EXHAUST HEAT SHIELD/REMOVE WHEEL AND ARCH COVER

1. If there is a vibration damper on the exhaust pipe, you will need to carefully cut it off the pipe. Bolt the new exhaust heat shield in place on the side of the pipe facing the tank.
2. Remove the left-hand rear wheel and arch cover (bolt “A” secures the cover and also connects to the body to mount a bracket for the fuel line—hard to get at). Then remove the left-hand rear tail light assembly.



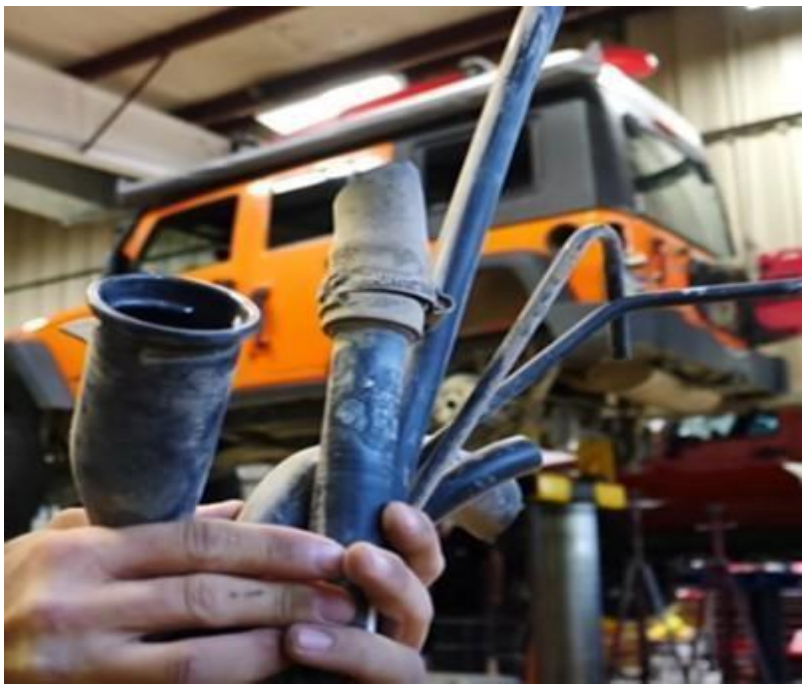






A. REMOVE OEM FILLER

1. Remove the OEM filler, fast fill and 8mm vent lines. (Note you will need to cut the filler neck to get it out). **Make sure you disconnect from the original tank before cutting**. The neck and pipes will not be reused.



2. Carefully remove the couplings from the tank ends of both the fast fill vent and the 8mm vent lines. Also remove the fast fill vent end cap that is riveted to the filler neck.

B. RELOCATE EVAP CANISTER

1. Remove the evaporative emission (evap) canister from the vehicle and unclip the unit from the OEM bracket.

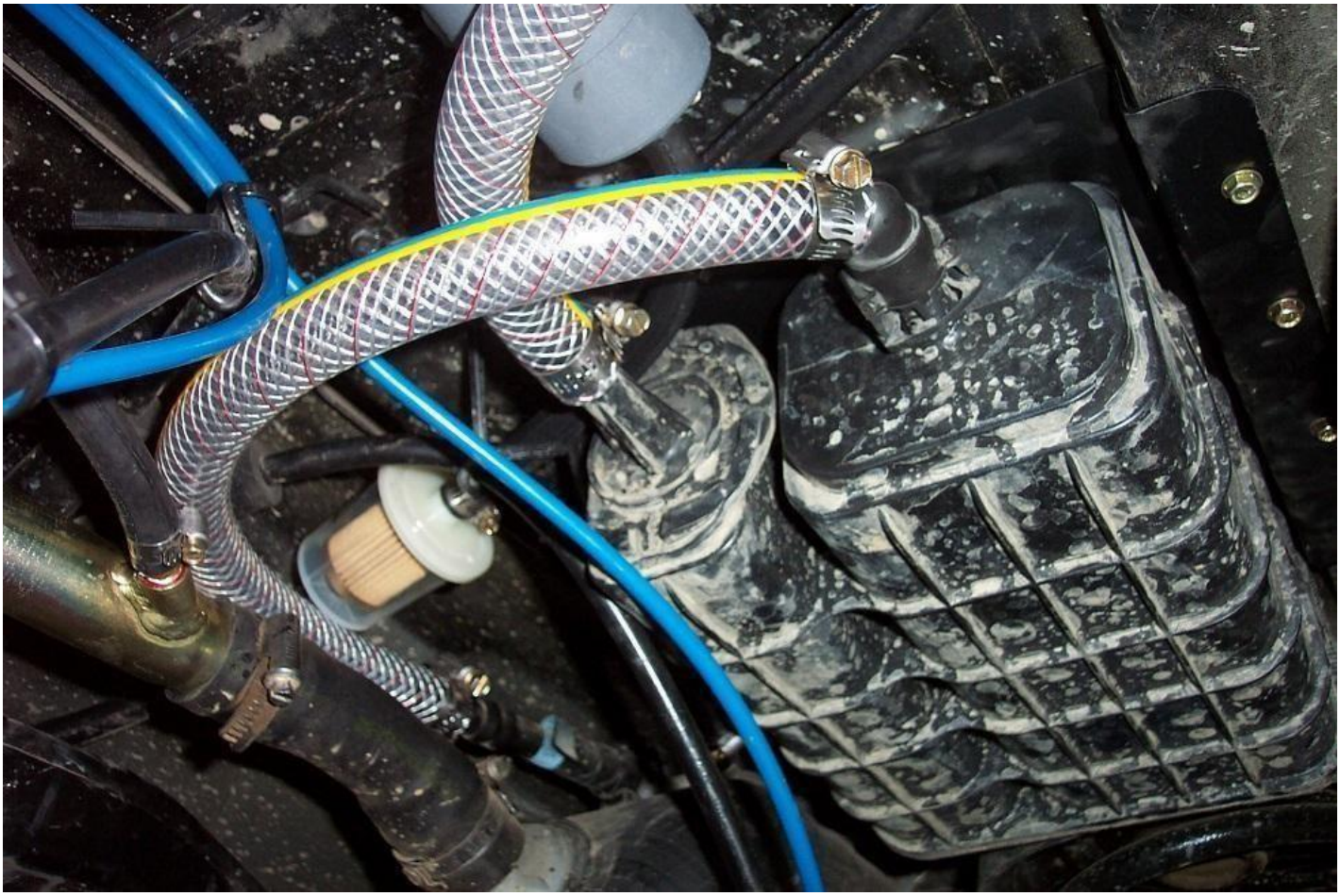


RELOCATE EVAP CANISTER *(continued)*

2. Fit the evap canister to the new bracket and bend the small metal tab to stop it from sliding out. The new bracket with canister locates under the right-hand stud from the park brake cable support and four TEK screws along the rear.

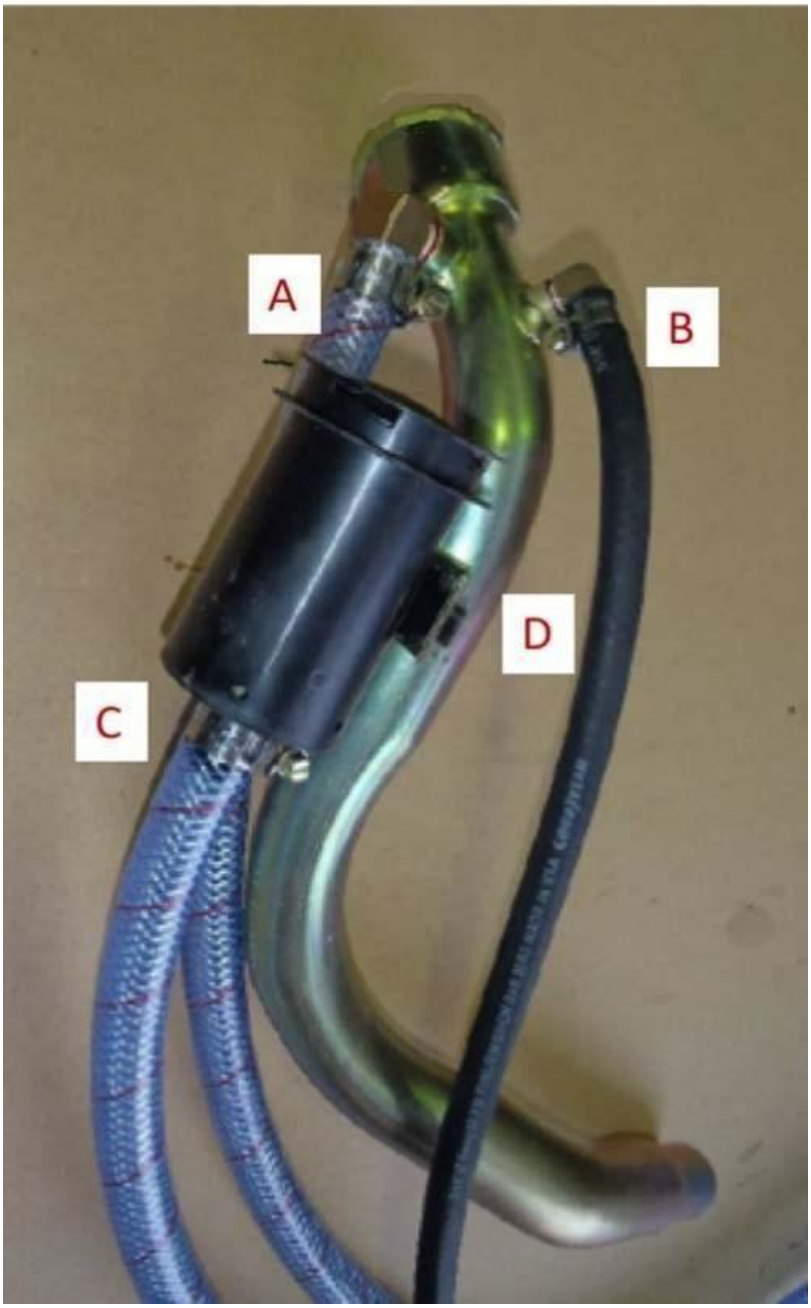
3. Connect the 41.3-inch length of 16mm hose that comes from the fast fill vent end cap to the FRONT fitting on the evap canister in its new location.

4. The REAR fitting on the evap canister uses one of the original couplings and the 15.75-inch length of 16mm hose and loops forward on to the 16mm tee that has the 8mm branch coming out of it.



A. ASSEMBLE NEW FILLER NECK

1. Locate the replacement filler neck and perform the following:
   a) Screw the P6 5/8 “ x 3/8” (A) and the P6 5/16” x 1/8” (B) elbows into the filler neck .
   b) Fit the 59-inch length of 16mm hose and the 55-inch length of 8mm hose to the new filler neck.
   c) Fit the fast fill vent end cap (C) to the 41.3-inch length of 16mm hose and attach to the bracket on the new filler neck (D).



A. **ASSEMBLE NEW FILLER NECK *(continued)***

1. Locate the replacement filler neck and perform the following *(continued)*:

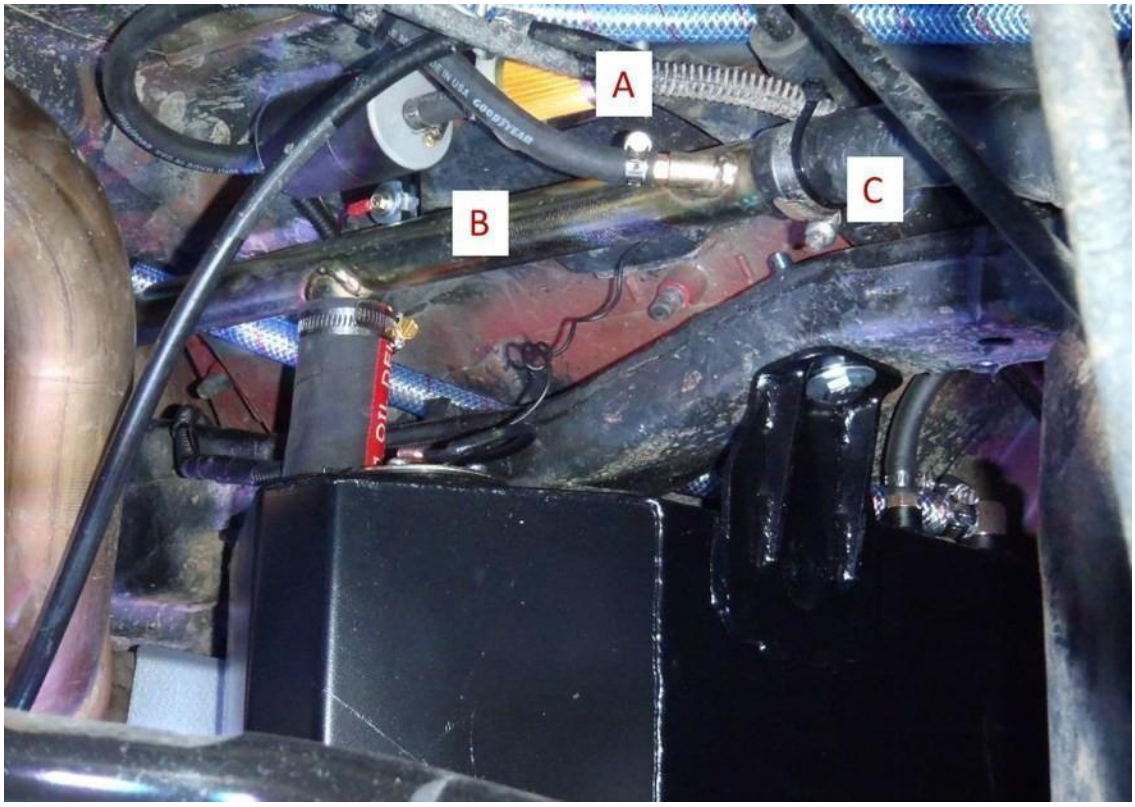
d) The other end of the 8mm line from fitting “B” on the new filler neck goes back to the top of the original tank, and uses one of the OE couplings salvaged from the original 8mm line that was

removed with the original filler to connect to the same connection on the OEM tank as it was connected when it was connected to the OEM filler neck (see arrow, below):



A. INSTALL NEW FILLER NECK TO VEHICLE BODY

1. Refit the new neck to the vehicle and fix to body with M6 x 16mm bolt, washers and Nyloc nut.
2. Fit 16.5-inch length of 32mm hose to the fill neck.
3. Screw the P3 5/16” x 1/8” straight fitting (A) into the intermediate pipe (B) and fit pipe in position connecting back to the original tank with the original hose (C).

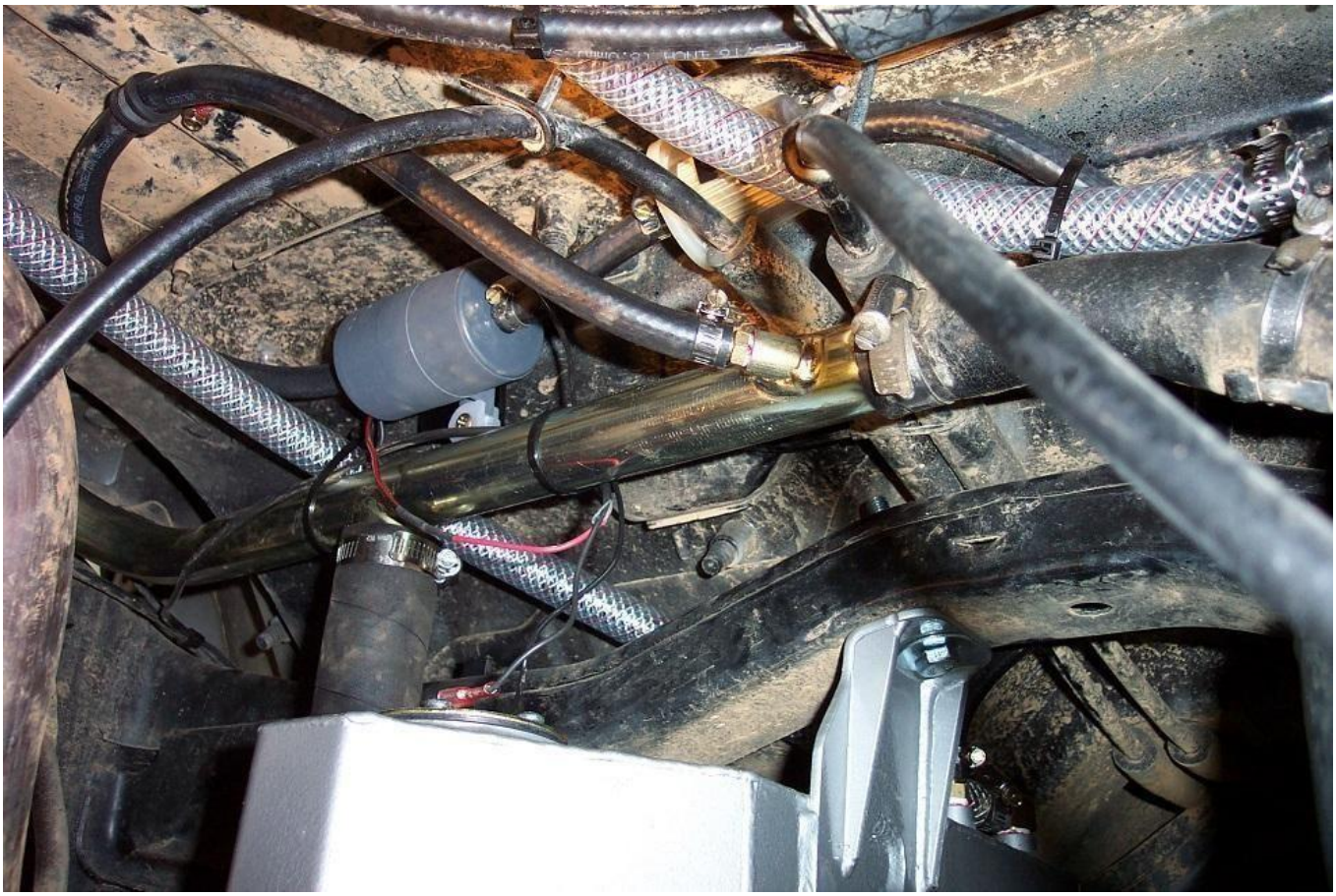


B. PREPARE AUXILIARY TANK

1. Screw the fittings into the tank. P6 5/8” x 3/8” elbow points towards the filler neck and P3 5/16” x 1/4” straight goes into the fuel pick up.
2. Remove the fuel gauge sending unit , install the provided magnet as close to the fuel pickup as possible, and reinstall the sending unit.

B. INSTALL FUEL TRANSFER PUMP

1. Attach the fuel transfer pump to the mounting bracket and mount above the rear of the auxiliary tank. **THE PUMP MUST BE INSTALLED ABOVE THE FUEL LEVEL OF THE NEW TANK, AND WITHIN 12 VERTICAL INCHES OF THE NEW TANK BOTTOM. THE FUEL PUMP SHOULD BE MOUNTED WITH THE OUTLET HORIZONTAL OR ABOVE THE INLET. THIS WILL HELP TO PREVENT LOCATION-RELATED GRAVITY FEED, CHECK ENGINE LIGHTS (CELs), AND VAPOR LOCK ISSUES.**
2. Complete pump wiring. **DO NOT** ground the pump to the mounting bracket, instead, drill a hole in the body and clear an area for the body ground grommet to be firmly connected to bare metal. The transfer pump is sensitive to power interruption when on and a good ground is **imperative**. For a video showing fuel transfer pump mounting location, please follow this link: https://youtu.be/YBCxCebRE9M?t=639 (index 10:35)



A. JACK THE TANK INTO POSITION AND SECURE

1. Carefully lift the tank into position. On the top of the front cross member you will find a hole that lines up with the front inboard bolt hole. Mark all holes and drill out to 10.5mm. (You may find it easier to move the tank out of the way to do this).
2. Bolt the tank into position, 16mm x 44mm anti-crush tube bushing (below) is to be used for the left-hand rear mount (prevents crushing of the crossmember when the left-hand rear mount bolt is tightened). Secure with M10 bolt, washers and Nyloc nuts.



B. FINISH INSTALLATION

1. Connect remaining hoses and fuel gauge sending unit wires (including the ground).
2. Check all clearances and neatly cable tie all hoses and wiring. Refit wheel arch cover and tail light.
3. Reconnect vehicle battery.
4. To test, fill both tanks and drive as normal. When the fuel level in the main tank has run down by one-quarter tank, test transfer pump operation and make sure the gauge is working properly, the level lights are correct and listen for undue noise (a “tic-tock” noise is normal when the pump is running).
5. Check again for leaks.

A. Are all hose clamps tight and secure?

B. Are all nuts and bolts secured?

C. Are mounting brackets and straps secure?

D. Are Fuel Gauge Sending Unit bolts secured?

E. Are all fuel lines secure with no kinks?

F. Does tank interfere with, or rub on, other vehicle components?

G. Is tank calibration accurate?

☐ Congratulations! You have completed the install!