2007-2014 Toyota FJ Cruiser Auto 30 Gallon Replacement Tank Instructions

Product Information/Install Instructions for

Toyota FJ Cruiser Auto Transmission Main Replacement Tank

Kit P/N TLC80FR-DA





D. INSTALLATION KIT CONTENTS

HARDWARE	HOSE & CLAMPS	MISC PARTS
1 x M10 x 80mm Bolt	1 x 8mm Fuel Hose @ 11" Long	1 x Roll over Valve with 8mmSleeve
3 x M12 x 25mm Washer	2 x 8mm EFI Hose @ 52" Long	1 x Roll over Valve Grommet
2 x M10 x 25mm Washer	2 x 16mm Conduflex @ 48" Long	1 x 2.5mm Rod @ 60mm Long
1 x M10 Nyloc Nut	1 x 8mm Fuel Hose @ 20” Long	1 x Pump Hold Down Ring
3 x M12 Nyloc Nut	1 x 1” ID Fuel Filler Hose @ 16” Long	1 x BS356 "O" Ring
6 x M5 x 8mm Cap Screws	8 x EFI Hose Clamp	1 x 16mm x 45mm Tube Spacer
6 x M5 x 10mm Washers	2 x #20 Hose Clamp	2 x M12 x 30mm Bolt with Washer and Strap Welded
6 x M5 x 12mm Pan Head Screws	1 x 16mm Conduflex @ 20” Long	1 x 35mm x 55mm x4mm Profile Cut Plate with M12 x 30mm Bolt Welded 1 x Attwood valve with LRA Canister Fitting 1 x BS337 O/Ring 4 x 7" Cable Ties

PLEASE NOTE: UNPACK THE TANK AND INSTALLATION KIT AND REVIEW THE INSTALLATION GUIDE FULLY BEFORE STARTING THE INSTALL!

A. REMOVE THE DRIVESHAFT/DISCONNECT ALL HOSES AND VENTS FROM THE OEM TANK

1. Remove the rear driveshaft.
2. Remove the factory fuel tank skid plate
3. Disconnect OEM filler and fast fill vent hoses at the tank (**CAUTION: FUEL MAY BE UNDER PRESSURE)**.Make sure to capture any fuel leakage.

B. REMOVE THE OEM TANK FROM THE VEHICLE

1. Support the OEM fuel tank with a transmission jack. Remove pins from the OEM tank straps. Remove the OEM tank from the vehicle. Be careful when you lower the tank as the fuel pump wiring harness is very short. Disconnect the wiring harness plug at tank, on top of sending unit. Locate thesupply/return lines at front of tanks (pictured below). Mark one of the fuel lines on both sides of the connector before disconnecting, to verify connectors are hooked up correctly later in the installation. One connector is Fuel Supply, and the other is Fuel Return, swapping these connections will have negative results. Disconnect both lines.
2. Remove the two fuel lines from the fuel pump/fuel gauge sending unit assembly. Make sure that the connector and the fuel pump/sending unit assembly connection point are marked (this will be the same fuel line that was marked in Step 1). One line will be marked with paint marker at four locations, to make sure the connections are made as they were originally. This step is important to insure that the Fuel Supplyand Fuel Return lines are connected correctly.



A. REMOVE THE FUEL PUMP/FUEL GAUGE SENDER UNIT FROM THE OEM TANK

1. Consider cleaning the top of the fuel pump/sender unit before removing from the OEM tank, to prevent contamination of the remaining fuel in the tank (Figure A):

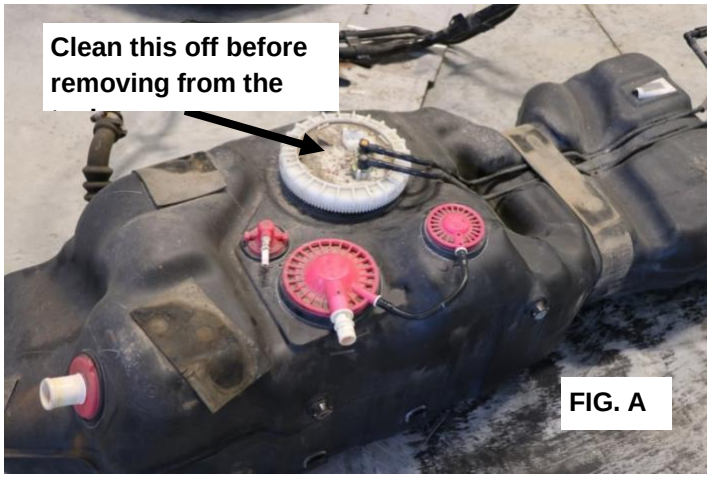


FIG. A

2. Remove the fuel pump /sender unit assembly from the tank :



FIG. B

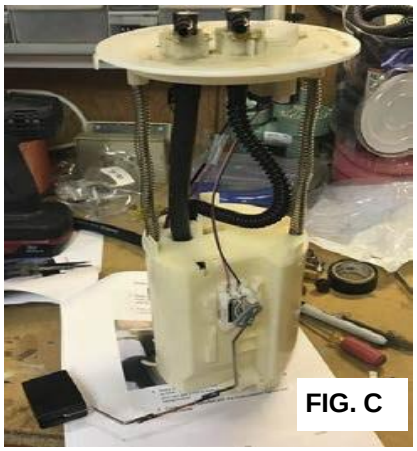


FIG. C



FIG. D

B. UPDATE THE FUEL PUMP/FUEL GAUGE SENDER UNIT ASSEMBLY

CAUTION: INSURE THERE IS NO FUEL LEFT IN/ON THE ASSEMBLY AND FUMES HAVE EVAPORATED BEFORESOLDERING!

1. Trim the locating tab from the top of the fuel pump/sender unit assembly (Figure B).
2. Unclip the float arm from the assembly and extend the horizontal section (near the float) of the arm by 40mm, using the rod section provided for in the installation kit. This is accomplished by cutting the originalfloat arm and soldering in the rod section provided (Figure C). **NOTE: DO NOT OVERHEAT THE UPPER ROD WHEN SOLDERING, THE CIRCUIT IN THE SENDING UNIT HEAD CAN BE DAMAGED.** The rod in the kit is 60mm long to allow for a 10mm overlap on each joint. Make sure the float on the Float Level Arm remainslevel, and does not twist when soldering in the new extension rod (Figure D).
3. With a sharp blade trim the coupling ends from the fuel pick up and return lines. Use the coupling endsand the two lengths of 8mm EFI hose and EFI clamps to make up new lines.
4. Trim the coupling end from the small vent line on the OE tank and connect to the 20-inch length of 8mmhose.

A. INSTALL MAGNET, FUEL PUMP ASSEMBLY AND FITTINGS

1. Drop magnet included in installation kit into the large hole where the fuel pump/sending unit assembly willbe installed. Make sure to push off to the side far enough so that it will not touch or interfere with the fuel pump/sending unit assembly once installed. The magnet will collect any metallic contamination in the tank.
2. Fit the fuel pump assembly to the tank with the float arm and the pick up and return barbs pointing to thefront of the vehicle (Figure E):

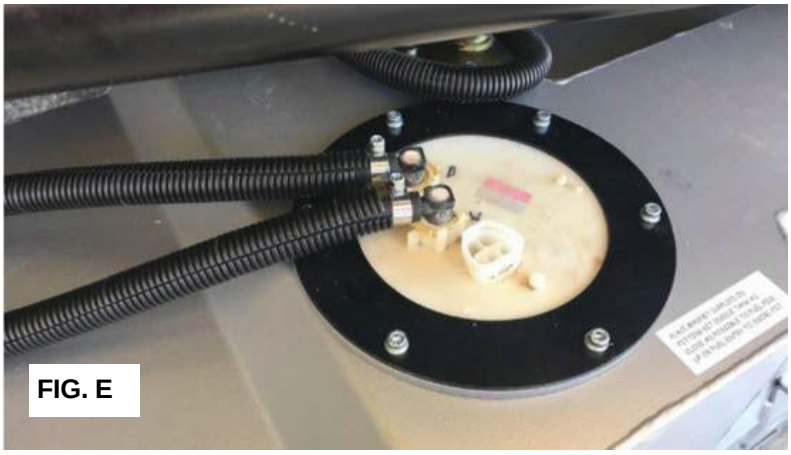


FIG. E

3. Secure the fuel pump/sender unit assembly into the replacement tank with the new O/Ring, hold downring, (6) M5 x 8mm cap screws, and (6) lock washers.
4. Screw the P3 5/16 x 1/4" straight fitting into the top of the tank. Make sure to use fuel-safe thread sealerto insure threads are properly sealed on straight fitting.

B. CONNECT HOSES

1. Fit the 20-inch length of 8mm hose with the OE coupling to the straight fitting.
2. Connect the hose that runs between the Attwood valve and the roll-over valve.
3. Fit the new 52-inch EFI hoses with the OE couplings to the fuel pump assemblyand cover with the 16mm Conduflex.

A. LIFT TANK INTO POSITION

1. Jack the tank into position slowly, and feed the pick up and return lines over the cross member near driveshaft side of tank (Figures F, G).



FIG. F



FIG. G

B. MAKE CONNECTIONS

1. Connect to the OE fuel pick up and return lines, taking care to use the paint marker markings made before disconnecting these lines, to make correct connections.
2. Connect the Sender / Pump wiring. Check the position of the tank to the brake lines on the left side frontof the tank and insure clearance.
3. Remove the factory soft fuel filler hose that connects the fill tube to the tank. Measure 4-1/2” back on the metal fill tube and cut off using a chain pipe cutter (Figure H). Using the supplied 1” ID x 16” long soft fuel hose and 2 x #20 SS hose clamps, connect the fill tube to the tank.

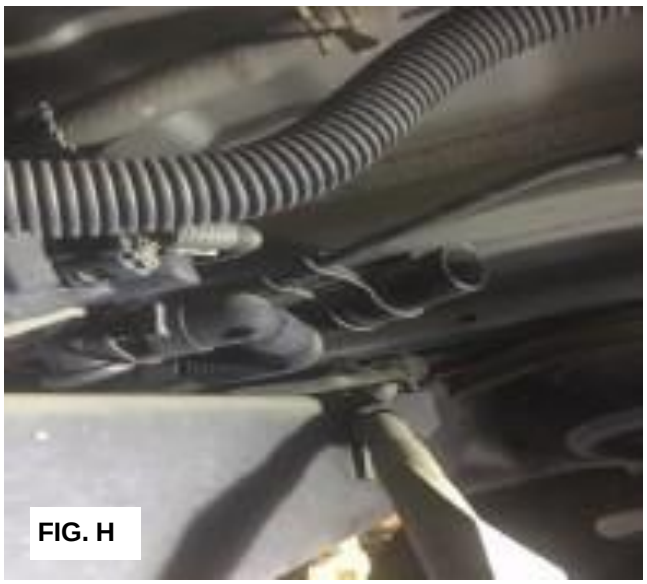


FIG. H

3. Connect the 8mm 20-inch long line to the small line on the OE filler neck, this is the replacement tank ventline. Use hose clamp to make connections.

C. SECURE TANK

1. Drill the two front mounting holes.
2. Secure the RH Rear of the tank with the M10 x 80mm bolt using the 16mm x 45mm Tube Spacer and Nylocnut and washers, LH Rear with the OE strap bolt. Use the M12 x30mm bolt with the 35mm x 55mm plate on the RH front, and the two M12 x 30mmBolts with the washers and straps attached for the LH Front.

D. FINISH INSTALL

1. Cable tie the pick up and return lines neatly in place. Connect the emission canister line to the Attwoodvalve with OEM coupling.
2. Check over all clearances, hoses and fittings.
3. Reinstall driveshaft.
4. Reconnect vehicle battery.
5. Fill tank with fuel, check again for leaks. **DO NOT OVERFILL OR "TOP OFF" TANK WHEN FILLING, DAMAGETO YOUR EMISSION SYSTEM MAY RESULT.**

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!