1998-2007 Toyota Land Cruiser 100 Series 40 Gallon Replacement Tank Instructions

Product Information/Install Instructions for

Toyota Land Cruiser 100 Series Main Replacement Tank

Kit P/N TLC100IFSEFR





D. INSTALLATION KIT CONTENTS

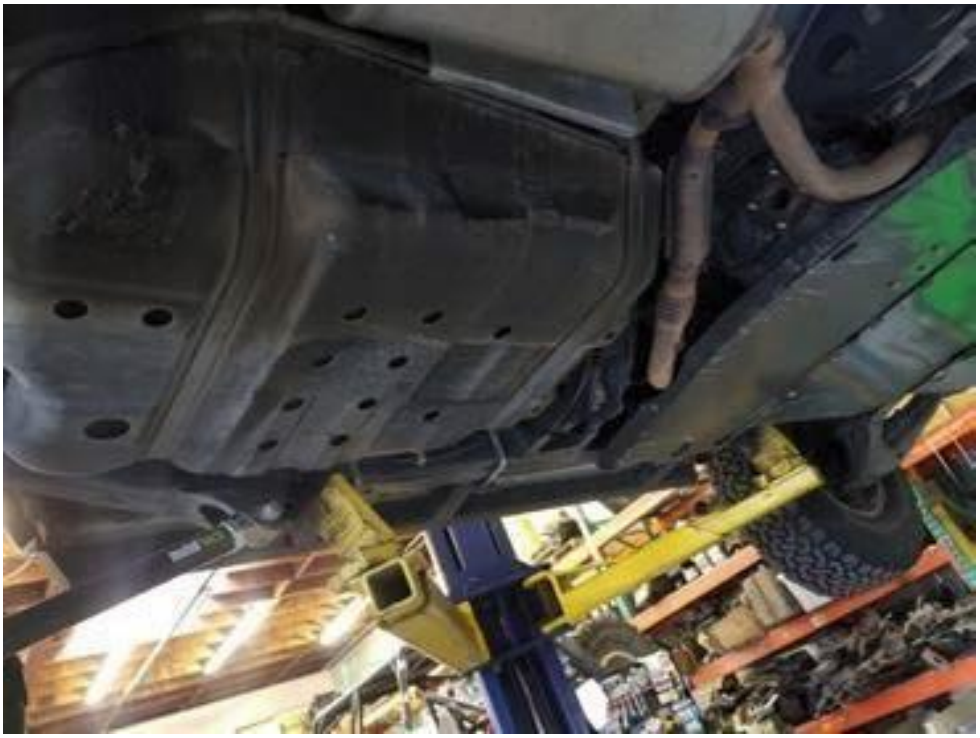
HARDWARE	HOSES & CLAMPS	MISC PARTS
1 x M8 x 30mm Bolt	1 x 8mm In Tank EFI Hose @ 5.1" Long	1 x 2.5mm Rod @ 3.74" Long (to extend float arm on sending unit)
2 x M8 x 100mm Bolt	1 x 8mm EFI Hose @ 39.37" Long	1 x Strap Rubber @ 4.92" Long
2 x M10 x 40mm Bolt	1 x 8mm EFI Hose @ 23.62" Long	1 x Strap Rubber @ 6.89" Long
1 x M10 x 100mm Bolt	1 x 8mm Rigid Tube @ 3.74" Long	1 x Strap Rubber @ 30.91" Long
1 x M8 x 20mm Washer	1 x Tube Joiner	1 x Strap Rubber @ 34.84" Long
4 x M8 x 25mm Washer	4 x 5/16" EFI Clamp	1 x 60mm x 3mm Rubber @ 19.29" Long
1 x M8 Spring Washer		1 x 60mm x 3mm Rubber @ 22.05" Long
5 x M10 x 25mm Washer		1 x Fuel Pump Extension Bracket
4 x M8 Nyloc Nut		2 x 16mm P-Clip
3 x M10 Nyloc Nut		6 x Strap Reinforcing Plate
1 x M12 Nyloc Nut		2 x Tank Strap
1 x M12 Washer		2 x Strap Extension Bracket
2 x TEK Screw		1 x C-Section Bracket
BRASS	**ELECTRICAL**	1 x Floor Plate
1 x P3 5/8" x 1/4" Straight	1 x 3mm Single Core Blue Wire @ 3.15" Long	Magnet (to be used in new tank)
	1 x 3mm Single Core Black Wire @ 3.15" Long	
	1 x 3mm Twin Core Wire @ 11.81" Long	
	4 x Fuel Resistant Shrink Tube	
	4 x Shrink Tube (Standard)	

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. PREPARE TANK FOR REMOVAL

1. Support the OEM tank with a jack to prevent it from falling when the straps are removed:



2. Remove the filler hose and fast fill hose that are located above the rear cross member, they are accessible from the rear.
3. Remove the fuel lines (send and return) just to the left of the fill hose.

C. REMOVE TANK FROM THE VEHICLE

1. Remove all 4 bolts holding in the 2 tank straps
2. Slowly lower the tank partway and disconnect electrical connection to the fuel gauge sending unit.
3. Carefully finish removing the OEM fuel tank, making sure there are no more connections or items hung up on the tank, and set aside. Remove the roll over valve as well as the fuel cartridge and set aside. We recommend covering open ports with rags or caps to avoid contamination.

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

1. Consider cleaning the top of the fuel pump/sending unit before removing from the OEM tank, to prevent contamination of any remaining fuel in the tank .
2. Remove the fuel pump /sending unit assembly from the OEM tank .

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

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

1. Disassemble the fuel cartridge by removing the fuel sender and pump:



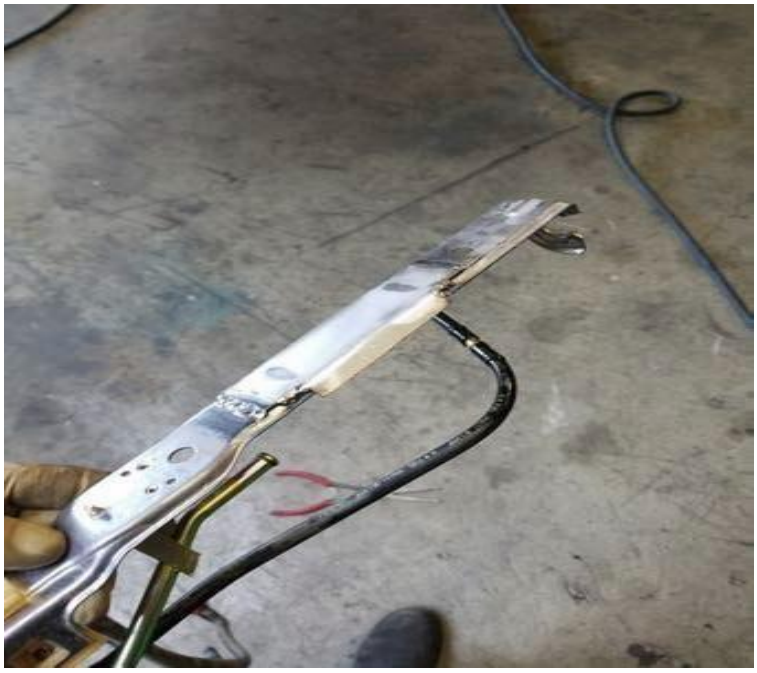


2. Cut the back strap between the two factory holes:



B. **UPDATE THE FUEL PUMP/FUEL GAUGE SENDING UNIT ASSEMBLY *(continued)***

1. Weld in the supplied extension bracket:



2. Extend fuel level sender float arm by 75mm with the 95mm wire supplied (this allows for 10mm overlap on each end). NOTE: DO NOT OVERHEAT THE UPPER ROD WHEN SOLDERING, THE CIRCUIT IN THE SENDING UNIT HEAD CAN BE DAMAGED:



B. **UPDATE THE FUEL PUMP/FUEL GAUGE SENDING UNIT ASSEMBLY *(continued)***

1. Lengthen the fuel pump wires by soldering in the 80mm (3.15-inch long) wires provided and using fuel-resistant heat shrink tube to seal the soldered joints. Reinstall pump with longer fuel hose and wiring harness to the fuel pump/sending unit assembly (fasten pump to assembly with large zip ties):



2. Extend the return line on the pump assembly with the provided 95mm length of 8mm rigid plastic tubing and joiner. This will allow the return line to reach the bottom of the tank.

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 will be installed. Locate as close to the entrance of the swirl pot as possible without blocking the intake.
2. Install the factory roll over valve from the OEM tank:



3. Install the 5/8 straight brass fitting next to the fill port:



A. **INSTALL MAGNET, FUEL PUMP ASSEMBLY AND FITTINGS *(continued)***

4. Install fuel pump/sending unit assembly, check float arm travel, and fasten with factory screws:



5. Lengthen the wires that go to the return line solenoid valve:



A. CONNECT HOSES

1. With a sharp knife cut the hard plastic line on the fuel send side. Attach 1000mm length of 8mm hose with clamp:



2. Remove the factory return line and install 600mm (23.62-inch long) 6mm fuel line and clamp.
3. Trim 90mm (3.54”) from the fast fill hose. Cut 50mm (1.97”) off the end of the factory steel filler pipe (at the tank end):

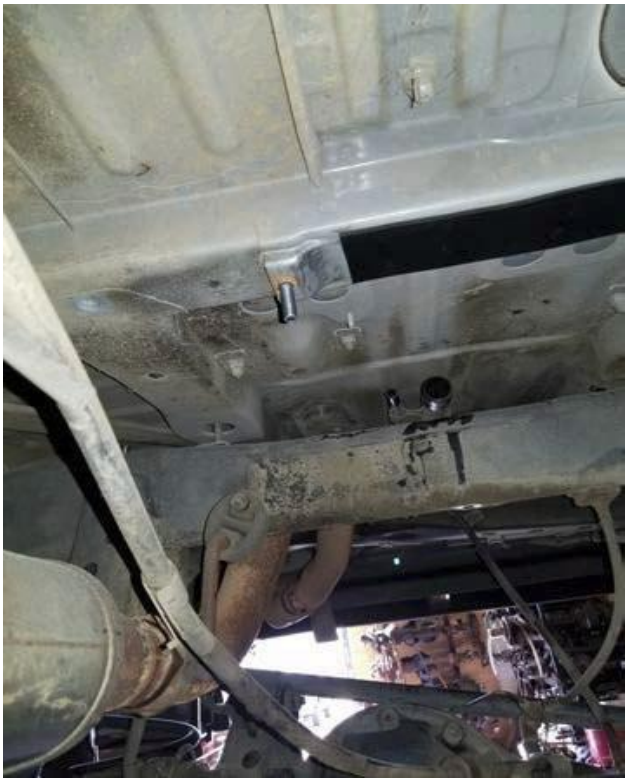


A. INSTALL TANK MOUNTING STRAPS

1. Unbolt the park brake cable mounts.
2. Bolt the new inboard strap mount in place with 1 x OE strap bolt, 1 x M8 x 30mm bolt spring and flat washer. Drill thru this bracket horizontally and fit 2 x M8 x 100mm bolts with Nyloc nuts and washers.
3. Bolt the two new L/H strap extension brackets in place with the OE strap bolts and reinforcing plates. The longer of the two is the rear bracket.

B. INSTALL FLOOR PLATE

1. Tilt the rear seats forward and lift the carpet.
2. From underneath the vehicle. drill a 10.5mm hole up through the hole that is in the OE tank locator bracket on the rear floor brace. Fit floor plate with M10 x 100mm bolt from inside and out through this hole:



3. Glue the two rubber strips to the floor braces (shorter one goes toward the front).

A. LIFT TANK INTO POSITION

1. Carefully jack the tank into position guiding the fill hose on to the filler pipe as the tank goes into position.



2. Connect electrical and roll over valve when tank is part way in.

B. SECURE TANK

1. Once the tank is positioned against the body install the new tank straps and M10/12 bolts with Nyloc nuts (check to make sure the fuel hoses are routed out the passenger side and not pinched between the tank and body). Route the fuel line out the passenger side and above the filler hose back to the factory hard lines and clamp.
2. Secure the fuel lines to the body using the supplied rubber-lined P-clips:



C. MAKE CONNECTIONS/FINISH INSTALL

1. Bolt the park brake cable back to the M8 stud on the inside of the rear strap.
2. Check over all clearances, make sure hose clamps and fittings are tightened.
3. Reconnect vehicle battery.
4. Fill tank with fuel, check for leaks. **DO NOT OVERFILL OR "TOP OFF" TANK WHEN FILLING, DAMAGE TO 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!**