

**FITTING
INSTRUCTIONS**

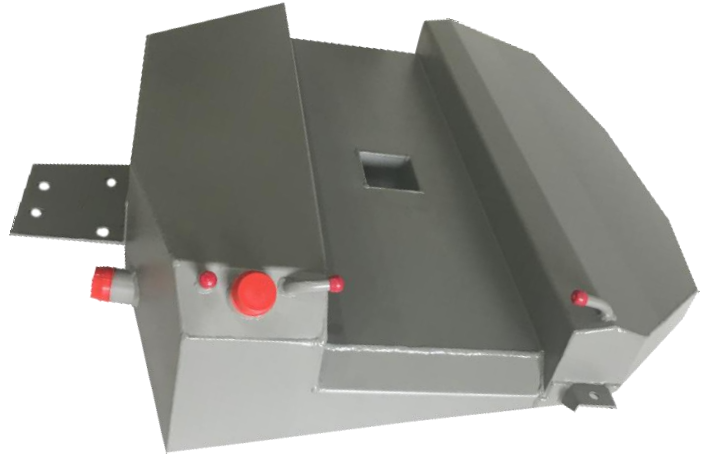
LONGRANGER

4WD LONG RANGE FUEL & WATER TANKS

TOYOTA FORTUNER

All 4x4 Diesel Models

August 2015 On



TA80S – Retained Spare Tyre Model

Auxiliary Tank Capacity – 45L

GENERAL NOTES

The TA80S Auxiliary tank fits between the body of the vehicle and the spare tyre, with the winding action working through a cutout in the tank to maintain the factory operation. While the spare tyre is spaced down from its original location there is only a one degree difference in departure angle.

- a) Fitting time is approximately 3 hours. No major vehicle modifications are required. This LONG RANGER tank locates in the rear of the vehicle as an auxiliary to the standard tank.
- b) A hoist is not essential but will speed the job up significantly.
- c) The original filler, fuel level sender unit and pick-up unit all remain in factory locations in this installation. Extreme care and cleanliness is recommended when handling fuel level sender and submerged fuel pump units. Inspect any components that are to be reused from the original tank installation for serviceability and replace any item found to be defective.
- d) Check if the vehicle owner wants to retain any associated parts that are not re-used
- e) LONG RANGER tanks are coated with a high-performance primer. For added protection, a topcoat may be added. If the vehicle has been rustproofed, it is suggested that the tank (and any changes made to the vehicle during fitting) be touched up after installation.
- f) The trip meter distance to empty will no longer work as intended by the manufacturer.
- g) Ensure all fasteners are torqued to correct tension as per the table in the installation kit

Observe all fuel handling & safety precautions during the installation of the LONG RANGER fuel tank

INSTALLATION KIT TA80

QTY DESCRIPTION

- ☐ 1 LONG RANGER Tank #TA80S
- ☐ 1 Rubber Filler Hose #TA70DFH1
- ☐ 1 Twin Bolt Plate #TA80STB1
- ☐ 1 Passenger Side Auxiliary Mount #TA80SB1
- ☐ 1 Metal Joiner Tube 38 x 60mm
- ☐ 2 U-Bolt M10 x 95Lx70W #FAUBOLTR34S
- ☐ 5 Nyloc Nut M10
- ☐ 2 Standard Nut M10
- ☐ 7 Flat Washer M10 x 30
- ☐ 2 Spring Washer M10
- ☐ 6 Toyota Square Body Clips
- ☐ 6 Hose Clamp #MH24
- ☐ 9 Hose Clamp #MH6
- ☐ 2 Hose Clamp #MH4
- ☐ 1 Tee Piece – 12mm Plastic #PLTE12MM
- ☐ 1 Straight Joiner – 12mm Plastic #PLJO12MM
- ☐ 1 Fuel Hose 12mm x 325mm (Link Breather)
- ☐ 1 Fuel Hose 12mm x 655mm (Tee to Straight Joiner)
- ☐ 1 Fuel Hose 12mm x 85mm (Tee to Filler Neck)
- ☐ 1 Fuel Hose 12mm x 500mm (Tee to AUX Tank)
- ☐ 1 Fuel Hose 8mm x 650mm (Rollover Breather)
- ☐ 4 Cable Ties – 300mm
- ☐ 1 Plastic Bag 550mm long
- ☐ 1 Fitting Instructions
- ☐ 1 Warranty Information Sheet And Return Card
- ☐ 1 LONG RANGER sticker
- ☐ 1 Owner's Manual Update Sticker



Fastener Size	Recommended Torque (Nm)	Recommended Torque (lbft)
M6 Class 8.8	9 Nm	7 lbft
M8 Class 8.8	22 Nm	16 lbft
M10 Class 8.8	44 Nm	32 lbft
M12 Class 8.8	77 Nm	57 lbft
M10 U-Bolt	17 Nm	12 lbft

INSTALLATION GUIDE

1. Take a few minutes to read through this installation guide before proceeding.
2. Check that all items listed in the LONG RANGER kit have been received, and that nothing has been damaged in transit.
3. The LONG RANGER tank has been cleaned and sealed at the factory, it is recommended that its interior be thoroughly checked just prior to fitting the fuel pickup unit as an added precaution against blocked filters and/or fuel pump damage.
4. If parts are missing or damaged, if foreign matter is found in the tank, or if any problems arise during installation, contact the factory office without delay for advice phone (02) 4953 3288, fax (02) 4953 1916 or email fitting@thelongranger.com.au. Our web page also contains an FAQ, so some of your questions may already be answered.
5. Apply the new owner's manual update sticker to page 400 (fuel capacities) of the vehicle manual.

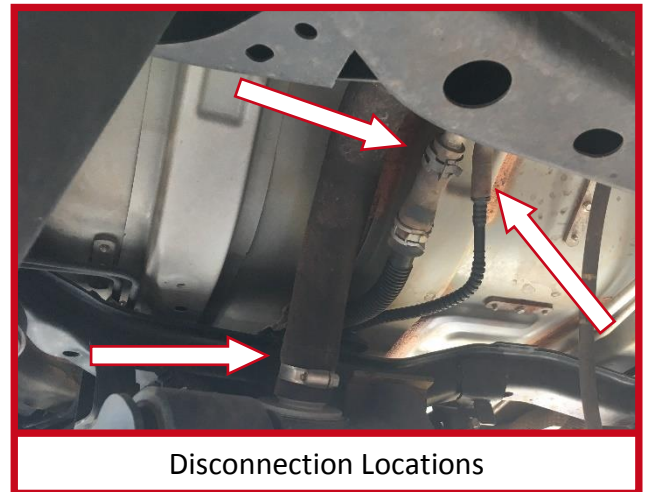
Dis-Assembling the Vehicle

6. Lower the spare tyre and remove from chain. *Note:- Tools are located in the rear cargo area on the passenger side*
7. Remove passenger rear wheel
8. Remove passenger side rear guard liner and mud flap. This will require drilling out the 6 x Toyota plastic body clips using an 8mm drill bit. *Note: - Retain all screw for re-assembly later.*

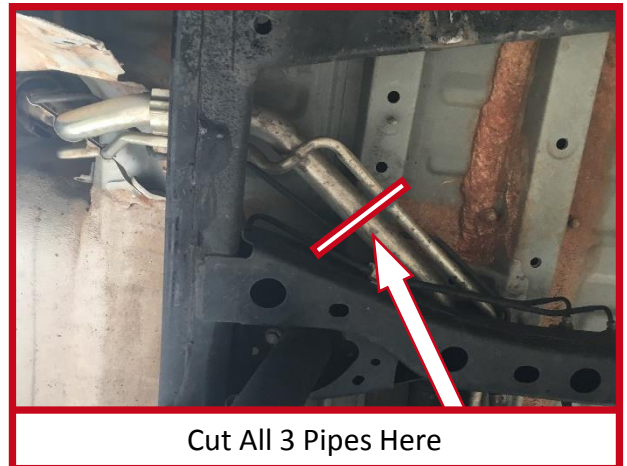


Drill out Toyota Body Clips

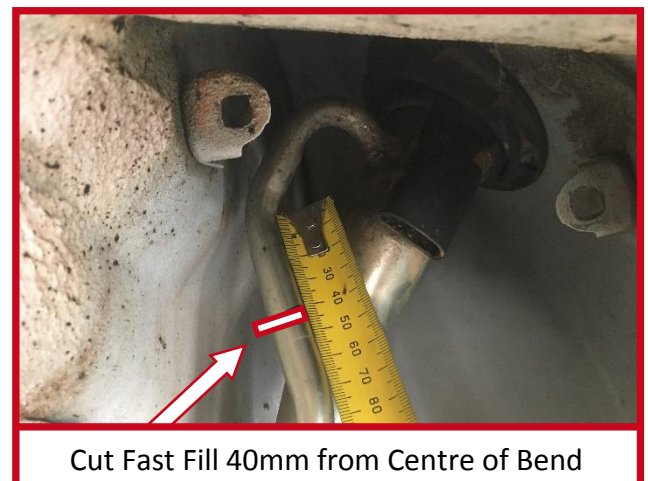
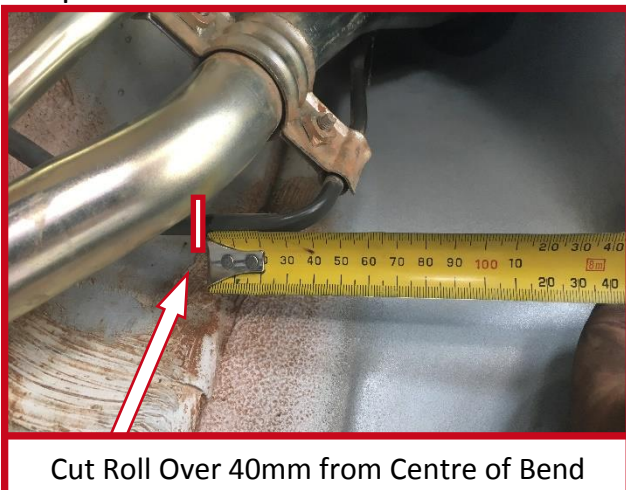
9. Disconnect filler, fast fill & ROV at tank side at the location shown in the photo from the filler assembly



10. Cut all of the filler neck pipes near the inside of the passenger side chassis rail approximately 80mm from the centre of the 90 degree bend in the fast fill breather (the middle sized pipe)
11. Undo the M8 bolt (12mm Spanner) holding the lower section to the floor and remove the lower cut section from the vehicle. *Note:- The bolt is located above the cross member*

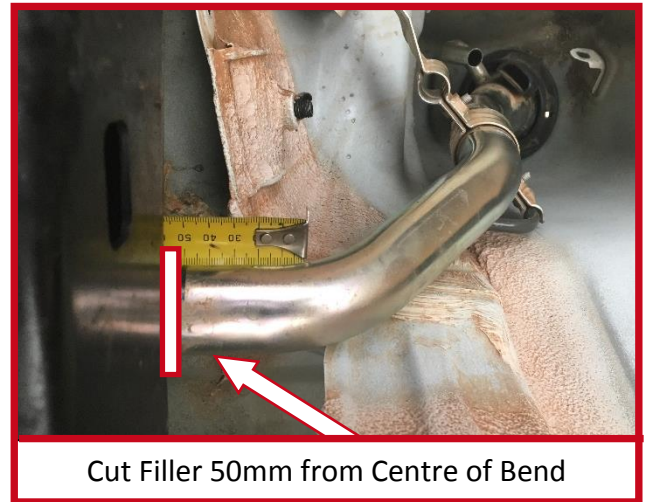


12. Working in the inner guard mark out and cut the roll over and fast fill breathers as per the photos



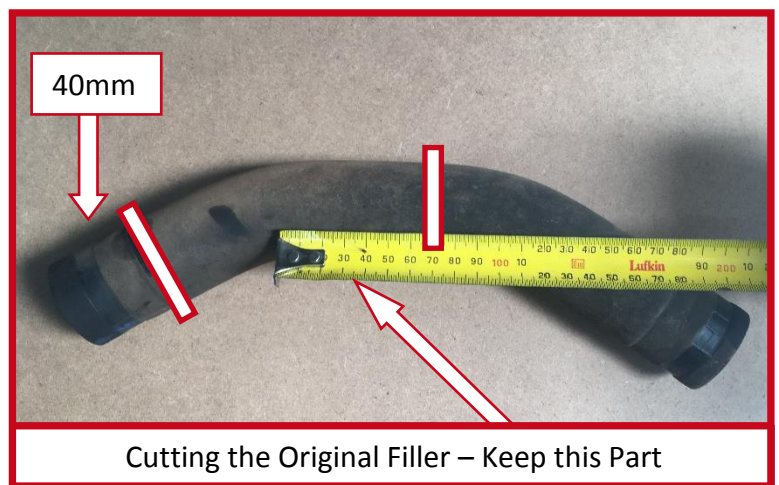
13. Undo the M6 (10mm Spanner) clamp bolt on the fast fill breather side and remove the lower cut section of the fast fill breather. Discard both the ROV and breather sections. Re tighten the clamp bolt.

14. Mark the filler pipe 50mm from the centre of the bend near the chassis rail and cut as per photo. *Note: - Undoing the M8 nut (12mm Spanner) may help moving the filler to help in cutting, re-tighten when finished.*



Preparing the Long Ranger Tank

15. Trim the original rubber filler hose working from the SHORT LEG side.
40mm from the end
70mm from the centre of the bend



16. Cut the supplied Long Ranger **TA70DFH1** filler hose section (30mm & 145mm from the inner side).
Join the 2 cut pieces together using the 38mm x 60mm steel tube & 2 x MH24 hose clamp. *Note: - Ensure orientation as per photo*



17. Fit the modified original filler hose to the filler pipe on the Long Ranger tank
Note:- The short side leg will be on the tank)

18. Fit the 12mm x 325mm fuel hose to the rear link breather outlet on the Long Ranger tank using an MH6 hose clamp

19. Fit the 12mm x 500mm fuel hose to the fast fill breather outlet on aux tank using an MH6 hose clamp



Fast Fill Breather, Main Filler and Link Locations

Preparing The Vehicle

20. Fit the 12mm x 85mm fuel line and T-Piece to the factory filler breather line inside the wheel arch using 2 x MH6 hose clamps.

Note:- Leave loose for now to allow being diddled later



12mm x 85mm Hose with T-Piece

21. Fit the 12mm straight joiner to the short factory rubber hose on the main tank breather using an MH6 hose clamp

22. Fit the 12mm x 655mm fuel hose to the 12mm joiner on the factory tank fast fill breather and run up to the t-piece previously fitted to the filler neck. Fasten with an MH6 hose clamp. *Note:- This joins the right angle on the T-Piece*



Straight Joiner and 12mm x 655mm Hose

23. Fit the supplied section of 8mm x 650mm fuel hose to the factory tank roll over outlet. Run up to filler area and connect to the filler neck rollover outlet. Both using supplied MH4 hose clamps



Factory Roll Over Location & Connection

24. Remove the passenger side chassis towbar bolts and fit the auxiliary bracket #TA80SB1 – Tighten to correct factory torque specifications



Tow Bar Bolts & Auxiliary Bracket

Fitting the Long Ranger Tank to the Vehicle

25. Lift tank into place ensuring the fitted hoses are not jammed between the tank and the floor. Support with an appropriate stand or lifter. *Note:- The captive bolt in the passenger auxiliary bracket should line up with the hole in the tank bracket.*
26. Loosely fit an M10 flat washer and nyloc nut to the bolt in the mount on passenger side



Auxiliary Mount with Nut Fitted

27. Hang the 2 supplied U-bolts over the cross member and through the tanks front bracket. Loosely fit 4 x M10 flat washer and nyloc nuts.



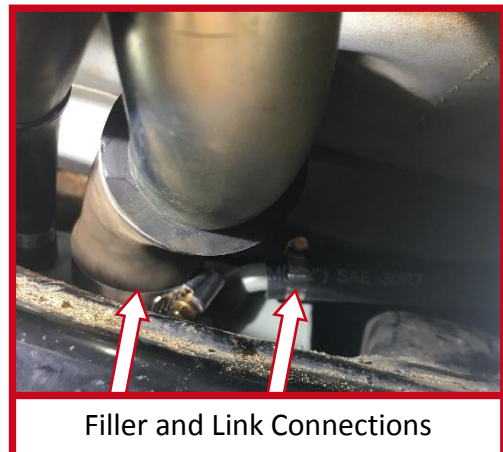
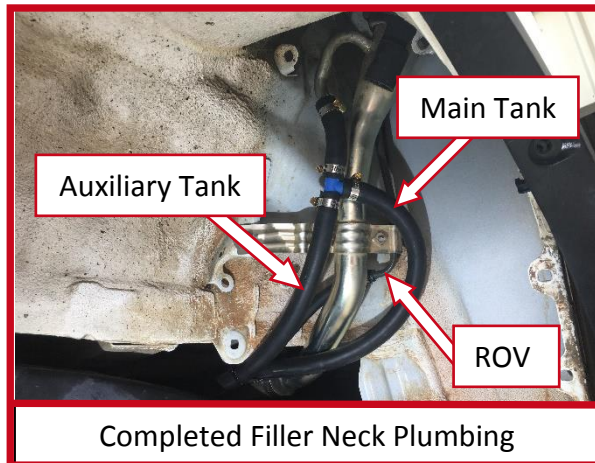
U-Bolts with Nuts Loosely Fitted

28. Align the tank so that the scolop in the drivers side tank bracket lines up with the large circle in the crossmember. Tighten both U-bolts and the passenger side mount to specified torque settings.
29. Using the holes in the drivers side tank mount bracket, drill the 2 holes in the drivers side of the cross member using a 10.5mm drill bit. *Note:- Ensure appropriate rust proofing and paint is applied to all drilled areas*



Driver Side Alignment and Drilling Guide Holes

30. Feed the twin bolt plate #**TA80STB1** into the crossmember allowing bolts to poke through. Fix in place with 2 x M10 flat washers, 2 x M10 spring washers and 2 x standard nuts. Tighten to correct torque specification
31. Connect the link breather to the remaining outlet on the Long Ranger Tank that is behind the filler neck using an MH6 hose clamp
32. Connect the main filler hose to the filler neck outlet using an MH24 hose clamp.
33. Connect the auxilary tanks 12mm fast fill breather hose to the straight of the T-Piece.



34. Fit the modified filler link hose #**TA70DFH1** to the main and auxillary tank using 2 x MH24 hose clamps



35. Re-fit inner guard liner and mud flap using the original screws and the 5 x supplied toyota body clips
36. Re-fit rear wheel and torque to correct manufacturers specifications.
37. Re-hang spare tyre and pull back into place ensuring the lifting chain feeds neatly around the Long Ranger tank



Explain to the owner the operation of the LONG RANGER TANK.

- a) The LONG RANGER tank will fill in a similar fashion to the tank it replaces, but the operator has the option of carrying a substantially larger quantity of fuel.
- b) Due to the different shape of the LONG RANGER tank the gauge will measure a larger quantity of fuel and will remain on *FULL* for a longer distance before slowly moving to *EMPTY*.
- c) The **trip computer** with distance (range) to empty will no longer accurately show the distance left to travel. The computer still thinks the tank only has 80lt and will not give a larger range reading with the new tank installed. It is suggested that the readings be cautiously interpreted along with the gauge until familiar with the new readings. As a rough guide the range will be approximately twice the distance shown.
- d) The quoted capacity of the LONG RANGER tank was determined by a bench test. The actual operating capacity may vary slightly from vehicle to vehicle.
- e) The vehicle manufacturer selected springs without accounting for a bigger fuel tank. Several suspension modification options are available.
- f) The LONG RANGER tank is a premium quality accessory that will provide many years of outstanding service provided that the Care and Maintenance items listed below are taken care of each time the vehicle is serviced.

Hand these instructions, together with the Warranty Registration card and warranty information, to the owner. Neatly apply the LONG RANGER sticker to the rear bumper or window.

CARE AND MAINTENANCE

1. After the first 1,000 kilometers, clean or replace the fuel filter, check that there is no rubbing or chafing of the tank, fuel hoses or associated components.
2. At each of the vehicle manufacturer's recommended services, check all fastenings for the correct tension, that rust preventative has been correctly applied where applicable, release the tank drain plug and confirm that there is no water present, and replace the fuel filter according to manufacturer's recommendations.