



**INSTALLATION INSTRUCTIONS FOR A
REPLACEMENT TANK**

LONGRANGER

MADE IN AUSTRALIA SINCE 1976

The Big Tank for a Big Country!



TOYOTA HILUX All 4WD Diesel Models

Including Dual, Extra and Single cab

Wide and Narrow body and 2wd Hi Rider and 48V Hybrid models

TR105L – 149 L, SUITS 4WD 8/2015-ON

TR105S – 126 L, SUITS ALL 8/2015-ON

GENERAL NOTES

- a) Fitting time is approximately 2.5hrs. No major vehicle modifications are required. This **LONGRANGER** tank locates under the vehicle in place of the standard tank.
- b) A hoist is not essential but will speed the job up significantly.
- c) The original filler, fuel level sender unit, pick-up unit, are reused 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 the original tank and any associated parts.
- e) We recommend inverting a spring bolt during fitment of the tank.
- f) The TR105S leading edge is flush with the chassis, the main body of the tank is about 5mm higher than the OEM plastic tank bash plate and has more clearance above the tail shaft for 2wd and has 50mm more ground clearance than the TR105L.
The TR105L leading edge is approximately the same as the OEM tank but the main body is approximately 45mm lower than the OEM 4wd tank bash plate.
- g) **LONGRANGER** 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.
- h) The trip meter distance to empty will no longer work as intended by the manufacturer.

Observe safety precautions during the installation of the **LONGRANGER** fuel tank.



INSTALLATION KIT TR105

QTY DESCRIPTION This **LONGRANGER** installation kit has been checked by _____

- 1 **LONGRANGER** Tank #**TR105L** (38 KG)
- 1 **LONGRANGER** Tank #**TR105S** (37 KG)
- 1 Plastic bag 550mm long
- 1 Clamp ring #**TR63CR**
- 1 Replacement float arm #**FLARTR75L** or #**FLARTR75S**
- 1 Front mounting bracket #**TR75B1**
- 1 Rear mounting bracket #**TR75B2**
- 1 Ubolt M10 x 150x120 #**FAUBOLTR75**
- 6 Cable tie 5mm x 300mm
- 2 Bolt M10 x 70mm long (Front)
- 1 Bolt M10 x 90mm long (Rear right)
- 5 Self-locking nuts M10
- 8 Flat washers 10 x 30 x 2.5mm
- 2 Flat washer 10 x 20 (Rear mount bracket)
- 1 Plastic joiner/reducer 8x6mm (**PLJORE0806MM**)
- 8 Screw M5 x 12mm
- 3 Hose clamp MH4
- 2 Hose clamp HS6
- 2 Hose clamp HS8
- 1 Fuel hose 16mm x 250 mm (Main breather)
- 1 Fuel hose 12mm x 400 mm (Link breather)
- 1 Fuel hose 6.5mm x 300mm (Rollover valve)
- 2 Convoluted tubing 10mm x 360mm (fuel lines)
- 1 Fitting instructions
- 1 Warranty information sheet and return card
- 1 **LONGRANGER** sticker
- 1 Owner's manual update sticker
- 1 *Factory fitted in top of tank*-Rollover valve (#**VAROLL07**)
- 1 *Factory fitted in top of tank*-Rollover valve grommet (#**VAROLL08**)

INSTALLATION GUIDE

1. Take a few minutes to read through this installation guide before proceeding.
2. Check that all items listed in the **LONGRANGER** kit have been received, and that nothing has been damaged in transit.
3. The **LONGRANGER** 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 or simply send an email to fitting@thelongranger.com.au

Our web page also contains an FAQ , so some of your questions may already be answered.

5. Lower the spare wheel and remove from vehicle, this is for access to filler hose rather than taking inner guard off on models with one. **Note:** *If tray fitted that allows easy access to rubber filler hose and top of tank this step may not be required.*
6. Disconnect filler and breather hoses from tank.
7. Disconnect pickup and return lines from front steel pipes on chassis (spring clamps). Mark for future re-connection. **Note:** *Have rag ready for the fuel that will come out.*
8. Drain fuel from tank (observe recognised safety procedures).
9. Disconnect rear end of rear drive shaft from differential and swing to one side.
10. Remove stone guard, support tank and remove tank straps and rear left mount.
11. Remove tank, while lowering be sure to disconnect the wiring harness from tank.

WARNING: *Cleanliness and care in handling the fuel pickup unit is essential. Contamination or rough handling may damage the unit.*

12. Clean the top of the unit and surrounds thoroughly and remove from original fuel tank. **IMPORTANT:** *Carefully inspect the intake filter screen for damage or contamination and clean or replace if required (report any fuel contamination observed to the vehicle owner).*

13. **Refer photo 1:** Carefully unclip the float arm and replace with the new longer one supplied. **Note:** *Sit pickup unit on flat surface and check float is just touching surface. Note: before removing the wire from the holder check which hole it is in, we have found so far, the middle hole is always used, also check the operating range after fitment, it is possible to incorrect reassemble and the gauge will either stay on full or empty.*

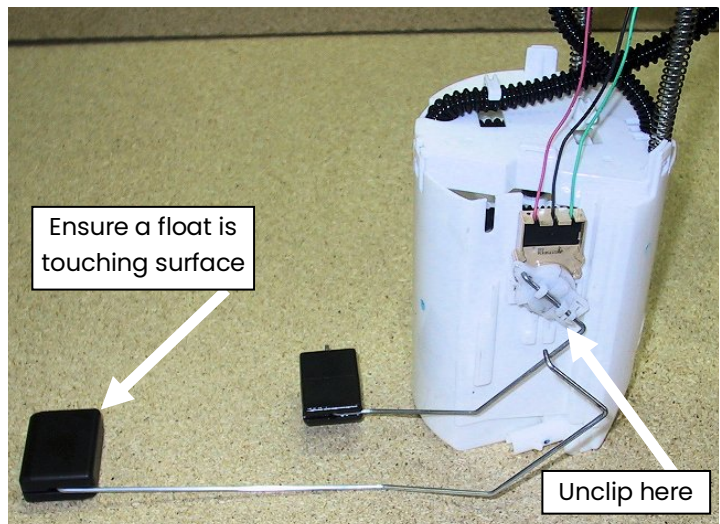


Photo 1: Fit new longer float arm

14. Trim the two location tabs on either side of the pickup unit to approximately half their current length, this ensures they do not bottom out on the tank before the unit seals on the O ring.

Note: *side cutters are recommended.*

15. **Refer photo 2:** Carefully fit the pickup unit using the existing O-

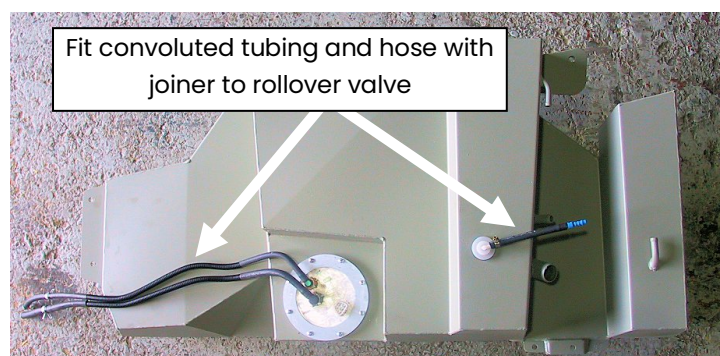
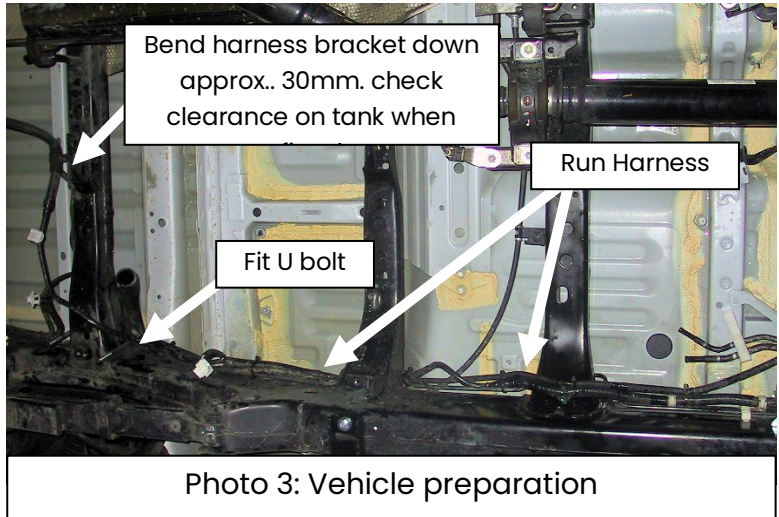


Photo 2: Tank preparation

ring, with new screws and clamp ring supplied. **Note:** The unit can only be fitted in one orientation, ensure the float does not foul on internal baffling. Run hoses towards the front LH corner. **Note:** ensure they are not blocking the electrical plug.

16. **Refer photo 2:** Fit supplied convoluted tubing to pickup and return lines to prevent chafing.
17. **Refer photo 2:** Trim the supplied 6mm system breather hose from 300mm to 150mm long and fit to rollover valve in top of tank with hose joiner/reducer. **Note:** On OEM cab chassis leave this hose at 300 as it will connect directly to the vent in chassis crossmember.

18. **Refer to photo 3:** Bend clip down from above the diff for electrical harness in centre of rear cross member, check clearance on tank when fitted.



19. **Refer photo 3:** Hang the u-bolt over the crossmember for rear left mount, **Note:** u-bolt must not sit on brake lines.

20. **Refer photo 3:** Pass the wire harness up over the original front tank support mount and fasten along chassis rail. Note: leave enough of the plug free for connection to tank.

21. We recommend turning the front spring bolt around for future replacement of bushes without removal of the tank.

22. Lift the **LONGRANGER** tank into position, this is best done by lifting the rear up over the diff then lift the front up, loosely fit an original bolt to rear LH mount/captive nut and u-bolt on rear cross member, with the TR75B2 bracket on top of chassis fit M10 x 90 bolt to rear right mount through existing holes. **Note:** Connect the wiring to the pickup unit while lifting tank into place, listen for the click to ensure plug fitting correctly.

Note: If the original bolt is not fitted to the LH mount, the tank can eventually move over and hit the tail shaft.

Note: ensure the fuel hoses are passed over the top of the front crossmember and the harness and hoses are not squashed. Align filler hose during the lifting process.

23. Tank should be parallel and approx. 20mm from chassis.

24. Loosely fit the two front bolts with the TR75B1 bracket on top of the chassis and check for clearance all round. You will need to drill a clearance hole up through the cross member for bolt

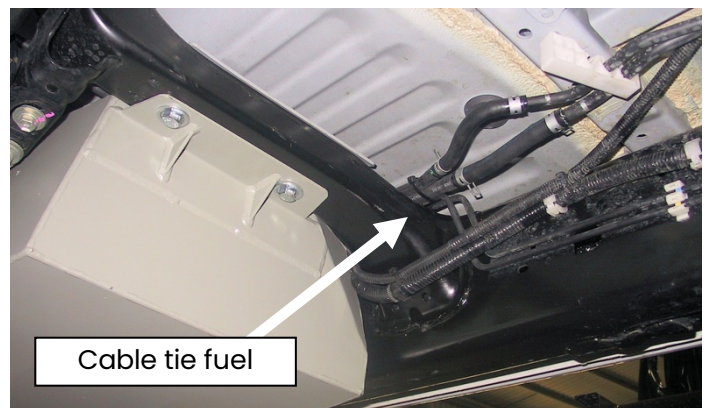


Photo 4: Fuel hose connection

close to tail shaft. **Note:** For adBlue models use one new front bolt and two existing bolts from adBlue mounting bracket.

25. Check for clearance all round particularly the main exhaust heat shield at side of tank should not be touching.
26. Tighten all mounting bolts.
27. Refit drive shaft, tighten all bolts.
28. **Refer photo 4:** Re-connect pickup and return hoses to steel lines at front. Fasten hoses to cross member with cable tie. Note: steel fuel lines can be bent towards the fuel lines to ensure the rubber hose does not kink, shorten fuel lines to suit.
29. Re-fit filler
30. Fit new 16mm breather with clamps supplied.
31. Fit 400mm long link breather to rear right corner of tank fittings.

32. **Refer photo 5:** Trim the last bend from the OEM system breather, connect to the hose joiner from rollover valve. Note: On OEM cab chassis this breather can be found going into the chassis cross member rather than the filler neck, it can be left here or it may be a good idea to extend higher for water crossings.



Photo 5: Trim OEM 8mm system breather

33. Check that all bolts and hose clamps are tensioned correctly. Check all hoses are secure and won't chafe.
34. Transfer the fuel removed earlier to the new **LONGRANGER** tank.
35. We suggest that the tank is filled with a test load of fuel, test drive vehicle and inspect all fittings for leaks (not included in the quoted price).
36. Visually check the job over, make sure all bolts and clamps are fastened correctly, ensure all fuel hoses and electrical wiring will not chafe on nearby components and moving suspension, detail the area involved in the work before returning the vehicle to its owner.

Explain to the owner the operation of the LONGRANGER TANK.

- a) The **LONGRANGER** 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 **LONGRANGER** 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 **LONGRANGER** 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 **LONGRANGER** tank is a premium quality accessory that will provide many years of satisfactory 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 to the owner. Neatly apply the **LONGRANGER** sticker to the tank, rear bumper, or window.

CARE AND MAINTENANCE

1. After the first 1,000 kilometres, 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.