

INSTALLATION INSTRUCTIONS FOR A REPLACEMENT TANK



THE LONG RANGER

THE BIG TANK FOR A BIG COUNTRY



LANDCRUISER 80 SERIES

**TR34TCP –166 LITRE, SUITS ALL Petrol WAGONS WITH O/E
SUB TANK**

GENERAL NOTES

- a) Take a few minutes to read through this installation guide before proceeding.
- b) Fitting time is approximately 3.5 hours No major vehicle modifications are required. This LONG RANGER tank locates under the vehicle behind the rear axle, in place of the standard tank and spare wheel.
- c) The lowest point of the LONG RANGER tank lies within the Land Cruiser's departure angle and gives 50.0 to 70.0mm more ground clearance than the spare wheel.
- d) A vehicle hoist is not essential but will speed the job up significantly.
- e) Check that tools, clothing and footwear are clean before working on the interior of the vehicle.
- f) LONG RANGER tanks are coated with a high-performance primer. For added protection, a topcoat may be added. If the vehicle has been rust proofed, it is suggested that the tank (and any changes made to the vehicle during fitting) be touched up after installation.
- g) The LONG RANGER is designed to fit with most towbars and in most cases they are best fitted after or during the tank installation.
- h) Observe *safety precautions* during the installation of the LONG RANGER fuel tank.



INSTALLATION KIT TR34TCP

QTY DESCRIPTION This LONG RANGER installation kit has been checked by _____

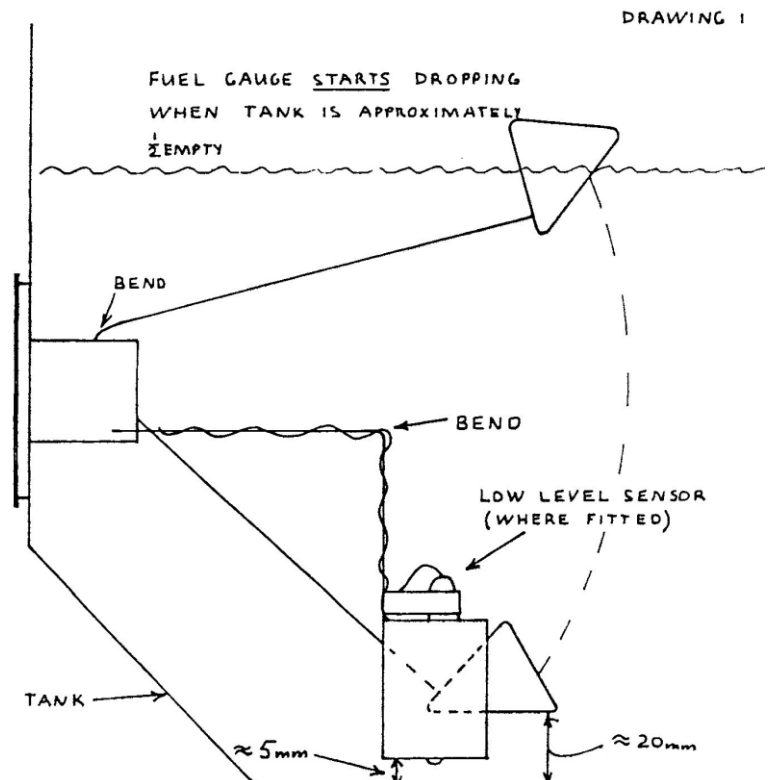
- 1 LONG RANGER TANK (TR34TC)
- 1 Mounting bracket RHS (B63)
- 1 Mounting bracket LHS (B64)
- 1 Spacer 25 x 25 x 105mm long (B65)
- 1 U-bolt M10 x 120mm long (FAUBOLTTR34L)
- 1 U-bolt M10 x 95mm long (FAUBOLTTR34S)
- 1 Canister mounting bracket #TR51CM
- 1 Carbon canister TLR #CC01
- 3 Tag bolt M8 x 20 #SF02 (for carbon canister mount)
- 4 Bolts M10 x 25
- 2 Bolts M10 x 40
- 10 M10 Nyloc
- 16 M10 flat washers
- 3 Self-locking nuts M8
- 3 Flat washers M8
- 4 Bolt M6 x 20 (canister)
- 4 Self-locking nuts M6
- 8 Flat washers M6
- 3 Hose clamps MH4 (canister)
- 2 Brass fittings 1/4 BSP x 8mm straight (canister)
- 1 Brass fittings 1/4 BSP x M&F 45 deg elbow (canister)
- 1 Fuel hose 8mm x 430mm (Long Ranger canister to chassis)
- 1 Fuel hose 8mm x 1550mm (Long Ranger canister to OEM canister "air inlet" port)
- 1 Fuel hose 12mm x 300mm long for pickup
- 1 Fuel hose 10mm x 100mm long
- 1 Fuel hose 6mm x 300mm long for return
- 1 Fuel hose 6mm x 50mm long for plug
- 1 Straight adapter joiner 10mm to 12mm
- 4 Hose clamps MH6
- 4 Hose clamp MH4
- 1 Blanking plug 6mm OD
- 15 Cable ties 150mm
- 6 Blue wiring joiners
- 1 Three-core wire x 700mm long
- 1 Installation Guide
- 1 Warranty Information Sheet and Return Card
- 1 LONG RANGER sticker

INSTALLATION GUIDE

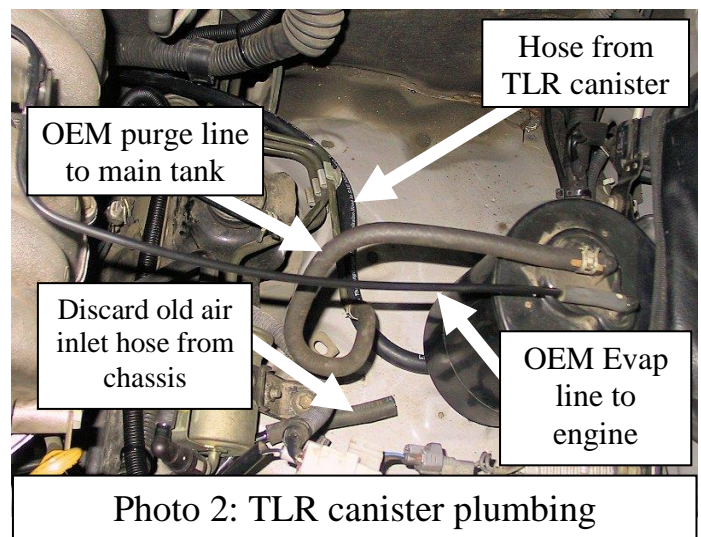
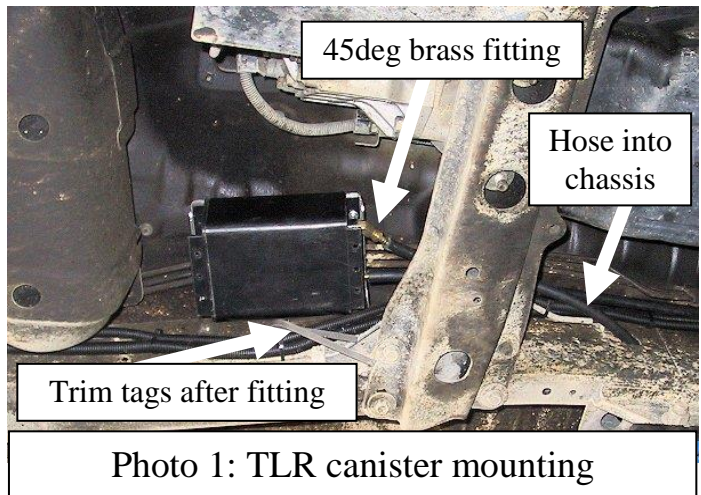
1. Check that all items listed in the LONG RANGER kit have been received, and that nothing has been damaged in transit.
2. Although the LONG RANGER tank has been cleaned and sealed at the factory, it is recommended that its interior be vacuumed again as an added precaution against blocked filters and/or fuel pump damage.

3. 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 visit www.thelongranger.com.au or email any comments about tank fitting to fitting@thelongranger.com.au
4. Inspect any components to be reused from the original tank for serviceability and replace if found to be defective, eg EFI pump stainers, fuel hoses, gaskets etc.
5. Remove spare wheel and spare wheel cross member.
6. Disconnect plumbing and wiring from the original equipment rear tank, drain fuel from the tank, and remove it.
CAUTION: Observe recognised safety practices.
7. Lift the LONG RANGER tank temporarily into position. Use the U-bolts at the front for support, and ensure there is adequate all-round clearance. Use spacer B65 on RHS.
8. MOST vehicles have a spare wheel safety rod mounted to the rear of the chassis with four M8 bolts. Remove the safety rod, but do not discard the four bolts. Mount the brackets supplied (B63 & B64) below (i.e. lower than) the rear tank mounts and align with two holes each side. Mark the remaining holes in the chassis, remove the tank, and drill holes for the 3/8" bolts. **NOTE:** It will be necessary to drill all six holes in cases where the vehicle does not have the safety rod, If vehicle has trailer wiring, mark a point on the flanged seam at the rear of the body approx 25mm either side of the RH bracket and using a shifting spanner bend a 100mm section up and back to provide adequate clearance for the wiring. Apply rust proofing if necessary.
9. Extend fuel level sender unit wires using the three-core wire and the joiners supplied.
NOTE: Some vehicles require only two wires.

10. Refer to Drawing 1. Bend the fuel level sender unit float arm, and the low level sensor, to ensure that they will operate accurately when the LONG RANGER tank is empty. Fit the sender unit into the new tank. **NOTE:** If a reasonable accurate indication of fuel level is required throughout the full to empty range, the float arm may be extended and adjusted accordingly.
11. Push the filler pipe for the front tank up carefully to provide a little extra clearance on the top of the LONG RANGER TANK. Hang the extended sender unit wire over this pipe before going on to STEP



12. Lift the LONG RANGER tank into position. Secure at the front with the two U-bolts, the spacer, self-locking nuts, and plain washers (do not over tighten!). Install the two mounting brackets, re-using the M8 bolts removed in STEP 7 with a 3/8" x 1" long bolt in each. Secure the tank with the 3/8" x 1 1/2" bolts.
13. Connect the fuel lines using the longer hoses supplied. Use worm-drive clamps at the tank fittings. Ensure there is adequate clearance at the brake equaliser pivot. **NOTE:** On vehicles with 10mm pickup lines use the straight joiner 10.0mm to 12.0mm and short length of 10.0mm hose. **NOTE:** On fuel-injected petrol vehicles, the return line in the fuel tank must be blocked off using the blanking plug, short length of hose, and clamp supplied.
14. Connect the sender unit, and fit the filler hose and the fast-fill breather to the new tank (trimming for best fit).
15. **As per photo 1:** Fit canister mount to LHS chassis just in front of OEM main fuel tank.
Two holes should align with existing holes in chassis. Mark third hole, drill and fit with SF02 tag bolts, nuts and washers. *Note: use large holes on either side of chassis*
16. **As per photo 1 and Canister plumbing diagram:** With correct orientation fit brass fittings to canister using Teflon thread tape, do not over tighten. *Note: the straight fitting goes closest to chassis.* With fittings towards front of vehicle, fit canister with M6 bolts, nyloc nuts and washers supplied. *Note: Check for clearance on body and wiring.*
17. **As per canister plumbing diagram:** Fit both 8mm hoses to the brass barbs, run over chassis cross member, fit end of short hose "Air inlet" into hole in chassis, continue other hose along chassis rail, run with fuel lines up into engine bay. *Note: Barb selection on canister is not important.*
18. **As per canister plumbing diagram and photo 2:** Remove the OEM "air inlet hose from bottom of OEM canister, disconnect from chassis vent and discard. Connect new hose from Long ranger canister. **Note: some models have a round canister, some have a square canister, the correct connection to Long Ranger canister is the "air inlet" port which has vent hose usually going to a chassis vent.**



19. Transfer the fuel removed from the original tank in STEP 6 into the LONG RANGER tank.
20. 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.
21. We suggest that the tank be filled with a test load of fuel, test drive vehicle and inspect all fittings for leaks (not included in the quoted price).

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*, The low warning light (some models) when activated will also measure a proportionally larger quantity of fuel, It is suggested that the gauge readings be cautiously interpreted until familiar with the new readings.
- c) 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.
- d) The vehicle manufacturer selected springs without accounting for a bigger fuel tank. Several suspension modification options are available.
- e) The LONG RANGER 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 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 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.

