



INSTALLATION INSTRUCTIONS FOR A REPLACEMENT TANK

THE LONG RANGER

THE BIG TANK FOR A BIG COUNTRY



NISSAN PATROL GU

TR59 – 70 litre Replacement Sub Tank – Diesel Only



GENERAL NOTES

- a) Please take a few minutes to read through this installation guide before proceeding.
- b) Fitting time is approximately three hours. No major vehicle modifications are required. This LONG RANGER tank locates under the vehicle between the RH chassis rail and the rear drive shaft, in place of the standard sub tank.
- c) The lowest point of this LONG RANGER auxiliary fuel tank lies at approximately the same height as the Patrol's standard muffler.
- d) The original filler, fuel level sender unit, pick-up unit, and roll-over valve are used 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.
- e) Check if the vehicle owner wants to retain the original tank and any associated parts.
- f) A vehicle hoist is not essential but will speed the job up significantly.
- g) Check that tools, clothing and footwear are clean before working on the interior of the vehicle.
- h) 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.

- i) **WARNING:** *1. If vehicle is fitted with SRS Air Bags exercise EXTREME CARE when working on the electrical system to avoid problems.*
 - j) **IMPORTANT:** *2. Some computer systems may be affected if vehicle is turned on or started with fuel gauge sender unit or pump disconnected, requiring dealer to re-set computer. VEHICLE SHOULD NOT BE DRIVEN WHILST TANK IS OUT OR FUEL LINES / WIRING IS DISCONNECTED – we recommend ignition be left “off” until installation is complete.*
 - k) Observe *appropriate safety precautions* during the installation of the LONG RANGER fuel tank.
 - l) **Special tools:** A normal mechanical toolkit is sufficient - no special equipment or tools are required.
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INSTALLATION KIT TR59

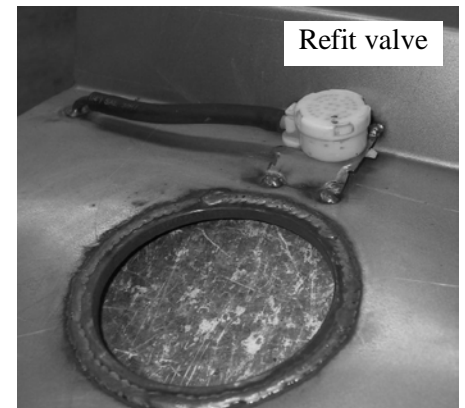
QTY DESCRIPTION This LONG RANGER installation kit has been checked by _____

- 1 LONG RANGER TANK (TR59)
 - 1 Fuel hose, 6mm ID x 130mm long – rollover valve
 - 1 Fuel hose, 8mm ID x 80mm long – pickup unit (in-tank fuel hose)
 - 1 TR59 Replacement Float
 - 1 Hose clamp, MH6
 - 1 Hose clamp, MH4
 - 3 Cable ties 150mm
 - 1 Installation Instructions
 - 1 Warranty Information Sheet and Return Card
 - 1 LONG RANGER sticker
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INSTALLATION GUIDE

1. Please take a few minutes to read through this installation guide before proceeding.
2. Check that all items listed in the LONG RANGER installation kit have been received, and that nothing has been damaged in transit.
3. 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.
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 visit www.thelongranger.com.au
5. If inspection hatch is accessible (eg. no drawer unit fitted), remove hatch. This step is not essential but will make connection of the fittings easier.

6. Raise vehicle on hoist if available.
7. Drain fuel from tank into a suitable container. There may not be a drain plug – in this case use a pump or syphon. **NOTE: Observe recognised safety practices when handling fuel.**
8. Support tank on suitable stand.
9. Disconnect RH upper control arm from diff to rotate away from tank.
10. Remove all mounting bolts. Lower tank a little away from vehicle.
11. Mark fuel hoses for identification during reassembly. Disconnect pickup, return, and system breather lines from tank connections. **WARNING: Fuel in some hoses may be under pressure – take care when disconnecting.** Disconnect electrical fittings.
12. Remove tank.
13. Remove pickup unit, and wire harness from top of tank.
14. As per photo Remove rollover valve from inside of O/E tank and re-fit to the LongRanger using 6mm ID x 130mm hose.
15. Fit new float supplied. The float must be near the bottom of the tank, otherwise complete fuel transfer will not happen.
16. Straighten pickup pipe and push 8mm ID x 80mm hose onto pipe by 20mm. Without the O-ring temporarily fit the unit and push down firm to allow the hose to slide on the pipe and find its natural length. Remove unit, cut end of hose at 45deg. and fit clamp. **Note: If the end of the hose is sitting down hard on the bottom of the tank the engine will not be able to suck fuel from the tank.**
17. Check fitment of sender unit and pickup – ensure they operate correctly and will not foul on inside of tank when fitted.
18. Remove two small lugs from pickup unit and fit to new tank using original screws and clamp ring.
19. Trim 20mm off filler hose and cut fast fill hose level with filler hose.
20. Trim 6mm ID breather hose 50mm shorter.
21. Move fuel line at front corner closer to chassis.
22. Lift tank into position and support back of tank (leave it “hanging” temporarily).
23. Fit pickup hose and wiring, and 6mm ID breather hose.
24. Raise tank a little and fit filler hose and fast fill breather hose.
25. Lift into final position and loosely fit all mounting bolts. Check for clearance all round tank.
26. Tighten all bolts.



27. Cable tie wire harness at front of tank so it will not foul on tailshaft.
28. Transfer the fuel removed in an earlier step to the new LONG RANGER tank.
29. We suggest that the tank be filled with a test load of fuel (not included in the quoted price). Test drive the vehicle and inspect all fittings for leaks.
30. 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 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 interpreted cautiously 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 original vehicle springs do not take into account the additional weight of a bigger fuel tank. Suspension modification options are available if required – please enquire.
- 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 vehicle's fuel filter and check all hose connections for leaks. Check that all fasteners are correctly tensioned, and 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.