



INSTALLATION INSTRUCTIONS FOR A REPLACEMENT TANK

THE LONG RANGER

THE BIG TANK FOR A BIG COUNTRY



LANDROVER DISCOVERY SERIES II

TR56 – REPLACEMENT 130-LITRE Diesel only

Designed for factory towbar only

GENERAL NOTES

- a) 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 behind the rear axle, in place of the standard tank.
- c) The lowest point of the LONG RANGER tank lies within the Discovery's departure angle
- d) The original filler, fuel level sender unit and pick-up unit, 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) The LONG RANGER is designed to fit with the factory towbar.
- j) *Observe safety precautions during the installation of the LONG RANGER fuel tank.*

INSTALLATION KIT TR56

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

- 1 LONG RANGER TANK (TR56)
- 2 Nut 3/8-inch UNC with tag attached (SF07)
- 1 Clamp ring
- 6 Screws M5 x 10.0mm for clamp ring
- 2 Pop rivet 6-4 AS
- 2 Bolt 3/8- x 1½-inch UNC
- 2 Flat washers 3/8-inch
- 2 Springs washers 3/8-inch
- 4 Flat washers 10.0 x 30.0 x 2.5mm
- 1 Hose joiner 50.0 x 75.0mm long
- 1 * Steel pipe 50.0 x 120.0mm long
- 1 Fuel hose ¼ ID x 350mm
- 1 Fuel hose ¼ ID x 350mm from inner guard to ¼ T piece
- 1 Fuel hose ¼ ID x 230mm for link breather
- 1 Fuel hose ¼ ID x 120mm
- 1 T piece ¼-inch (plastic)
- 2 Hose clamps HS32 for filler hose
- 7 Hose clamps ¼-inch spring
- 2 Cable ties 300.0mm
- 1 Installation Guide
- 1 Warranty Information Sheet and Return Card
- 1 LONG RANGER sticker

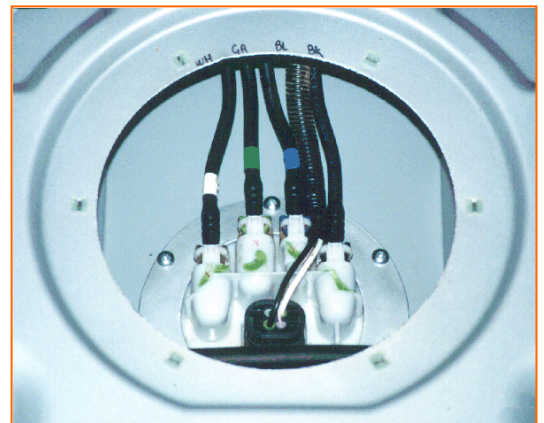
NOTE: * this component is not required if this TR56 **LONG RANGER** tank is to be installed in conjunction with a TA56 tank.



VIEW OF TR56 & TA56
FITTED WITH FACTORY TOWBAR AND REAR STEP

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
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. Be sure that tools, clothing, footwear, and hands are clean before working on the inside of the vehicle.
6. Inside rear luggage area, remove the black plastic strip across rear and lift carpet back for access to floor area. Hint: remove the plastic insert to reveal screws.
7. For access to the fuel pump/fuel-level sender unit located in the top of the fuel tank, remove and retain the six screws securing the access plate to the rear floor.
8. Unplug wiring harness from the pickup/sender unit.
9. Mark fuel lines at fuel pump fittings so that they will be correctly identified during reassembly. Remove fuel pipes from the pump unit.
10. Drain fuel from tank into a suitable container.
CAUTION: Observe recognised safety practices when handling fuel.
11. Raise vehicle to a safe and convenient working height. (A hoist is not essential but should be used if available).
12. Remove the two towbar braces.
13. If applicable remove the factory rear step from the left hand chassis rail.
14. Disconnect the filler and fast fill breather from tank.
15. Disconnect the system breather from the tank and the fitting in the inner guard.



16. Remove steel skid plate and lower the tank. Retain the nuts and bolts. Remove the upper tank retaining strap.
 17. Clean any dirt from the top of the tank and carefully remove the pump/sender unit from the tank by unscrewing the plastic nut anti-clockwise and withdrawing the nut. Remove the rubber ring seal.
CAUTION: Inspect the rubber seal. If it is hard, deformed, cracked, or otherwise damaged, it must be replaced with a new part (available from Land Rover dealers).
 18. Carefully fit the seal and pump/sender unit into the new tank, with the fuel line fittings pointing along the recess towards the front of the tank.
 19. Secure pump/sender unit into the **LONG RANGER** tank using the clamp ring and M5 x 10 screws supplied. Tighten to correct tension.
 20. Connect the two small breather pipes in the centre of the tank with the 230mm long link breather hose and spring clamps.
 21. Lift the **LONG RANGER** tank into position, temporarily support it with a suitable jack or stand, and secure with the original front tank mounting bolts and nuts, using the heavy washers from the fitting kit. Check for all-round clearance before securing to correct tension.
 22. At the rear drill up through the chassis, apply rust preventative to the holes. Secure the tank with the bolts, flat washers, spring washers and captive nuts with tags attached. We recommend securing the loose end of the tags to the chassis with the pop rivets supplied.
 23. Reinstall any tow bar components removed earlier. **NOTE:** If the **LONG RANGER** TA56 auxiliary tank is being installed in conjunction with this replacement **LONG RANGER** tank, refer now to the separate TA56 fitting instructions for fitment of the filler T piece.
IMPORTANT: It is absolutely essential that the tow bar bolt is inserted through the right-hand chassis rail bracket before installing the TA56 auxiliary tank.
- NOTE:** To ensure trouble-free performance of the fuel system, the following principles must be applied to the following steps with respect to fuel hoses. Ensure that there are no kinks, and no pinched or drooping sections. Ensure the filler and breather hoses have a steady and consistent gradient throughout their full length, with no low points where fuel could lie and hinder airflow during filling. Ensure there is adequate clearance between all hoses and moving vehicle components such as the axle and the sway bar. Secure hoses where necessary using ties supplied. **CAUTION:** Guard against fuel hazards when working on fuel lines.

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24. Connect the two small ¼-inch outlets on the side of the tank to the system breather in the inner guard. Use the ¼-inch T piece and the hose supplied.
25. Fit the original rubber filler hose to the tank and extend using steel and rubber joiners supplied along with the HS32 hose clamps
26. Re-connect the fast-fill breather, trimming to length.
27. Lower vehicle to floor level.
28. Reconnect the fuel lines to the pump in original positions as marked.
29. Reconnect the electrical plug.
30. Pump any fuel removed from the original tank into the **LONG RANGER** tank.

FINAL CHECKS

1. Start and run engine, and check for leaks at the pump unit.
2. Check that all bolts and hose clamps are tensioned correctly.
3. 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).
4. Test drive or idle vehicle for a sufficient period of time to ensure that there are no air locks, and inspect for leaks.
5. Replace cover plate in rear floor.
6. Replace carpet and trim strip.
7. 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 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.