



## INSTALLATION INSTRUCTIONS FOR AN AUXILIARY TANK

# THE LONG RANGER

THE BIG TANK FOR A BIG COUNTRY



## JEEP WRANGLER

JK Diesel 4 Door models 07 on

**TA64D – AUXILIARY 68-LITRE TANK**

### GENERAL NOTES

- a) Take a few minutes to read through this installation guide before proceeding.
- b) Fitting time is approximately five hours. No major vehicle modifications are required. This LONG RANGER tank locates between the prop shaft and exhaust on left hand side.
- c) The lowest point of the LONG RANGER tank is level with the OEM fuel tank.
- d) A vehicle hoist is not essential but will speed the job up significantly.
- e) This LONG RANGER tank is filled via a pass through filler to the original tank. Fuel is transferred as required to the original tank via an electric pump.
- f) Check that tools, clothing and footwear are clean before working on the interior of the vehicle.
- g) 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.
- h) A new 38mm filler is provided which replaces the 26mm diameter OEM filler. This will assist greatly in re-fuelling the vehicle.
- i) Video tutorials are available at [www.thelongranger.com.au/ta64d](http://www.thelongranger.com.au/ta64d)

**Special tools:** An electrical crimping tool, metal cutting equipment, drill, fuel sealant and 20mm step drill or hole saw are required.



**INSTALLATION KIT TA64D**

**QTY DESCRIPTION** This LONG RANGER installation kit has been checked by \_\_\_\_\_

- 1 LONG RANGER TANK (**TA64D**)
- 1 **TA64DFN01** (new filler neck)
- 1 **TA64DHS** (heat shield)
- 3 Bolts M10 X 50 (front bolts for H/shield & tank)
- 1 Bolts M10 X 65 (rear H/shield mount)
- 2 Bolts M10 X 75 (rear tank mounting bolts)
- 6 Self-locking nuts M10
- 12 Flat washers M10 x 32
- 4 Bolts M6 X 20
- 3 Self-locking nuts M6
- 7 Flat washers M6
- 1 Spring washers M6
- 2 Hose clamps HS32
- 4 Hose clamps HS24
- 2 Hose clamps HS08 (16mm filler breather)
- 8 Hose clamps MH6
- 4 Hose clamps MH4 (system breather & link breather)
- 2 Brass fittings 1/8 BSP x 3/8" elbow
- 5 M4 x 8 screws
- 1 Rubber grommet #**ELGRCA13x21x26** (through floor)
- 1 Electrical scotch lock (power source)
- 1 Terminal red male bullet connector
- 1 Terminal red female bullet connector
- 2 Terminal red female spade connector
- 1 Switch/Gauge timer module with wiring loom (**ELSWGGA005-4**)
- 1 Switch/Gauge LED 24mm round (**ELSWGATIMER12V01B**)
- 1 Fuel pump 12-volt #**ELFUPU12V03**
- 1 Fuel level sender unit, #**ELSETLR2-90TA64** (factory modified)
- 1 Fuel filter in-line 10mm" # **Z153**
- 10 Cable ties 200mm
- 10 Cable ties 300mm
- 1 Fuel hose, 51mm ID x 65mm long, (Main filler)
- 1 Fuel hose, 38mm ID x 480mm long, (Main filler, neck to auxiliary tank)
- 1 Fuel hose, 32mm ID x 225mm long (Aux. tank to OEM tank)
- 1 Fuel hose 16mm ID x 910mm long push-on (filler breather)
- 1 Fuel hose 12.5mm ID x 1200mm (Auxiliary system breather)
- 1 Fuel hose 10mm ID x 80mm (aux pickup to filter)
- 1 Fuel hose 10mm ID x 350mm (filter to pump inlet)
- 1 Fuel hose 10mm ID x 220mm (transfer hose, pump outlet to filler)
- 1 Fuel hose, 8mm ID x 1955mm long (system breather)
- 1 Fuel hose, 6.5mm ID x 290mm long (link breather)
- 1 Long Ranger auxiliary tank fitting guide
- Owners information pack
- 1 Warranty Information Sheet and Return Card
- 1 Long Ranger sticker
- 1 TA64 owner operating manual
- 1 TA64 owner's manual supplement (stick on)

## INSTALLATION GUIDE

1. The first thing to do is 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](http://www.thelongranger.com.au)
4. Remove all the three trim panels from below the steering column including the one around the ignition switch. Unclip the fourth panel from the end of the dash.
5. Remove trim from left hand door sill, raise carpet under seat (prop up) and make sure area 105mm in front of grommet is clear. **Refer to photo 1:**

6. **Refer to photo 2:** Locate a suitable position for the switch and drill hole with 20mm step drill. Measure across 25 & up 13mm.  
we recommend consultation with the vehicle's owner if there is any doubt about the placing of the switch.

**IMPORTANT:** *The Jeep is fitted with SRS Air Bags. Exercise EXTREME CARE when working on the electrical system*

7. **As per wiring diagram:** Plug the switch into loom from timer module, remove the fuse from holder and plug main loom into module. Mount timer under dash in suitable location (black box).

8. **As per wiring diagram:** Connect earth and power wires under dash. Connect the red power wire from the timer module to a 12v ignition power source, locate the pink with white trace wire from the back of the ignition switch, confirm it is a 12-volt ignition power source (A better alternative to the provided scotch lock would be to solder these connections). Connect earth to bolt in behind kick panel, a good earth point can be found below the kick panel. Have fuse holder behind lowest panel for easy access *Note: leave all trim panels off till finishing of job.*

9. Run harness under dash to left hand seat.
10. Neatly fasten all wiring under dash to prevent chafing. Protect wiring where necessary with sheathing.
11. Remove LHS taillight



Photo 1: Prop carpet up

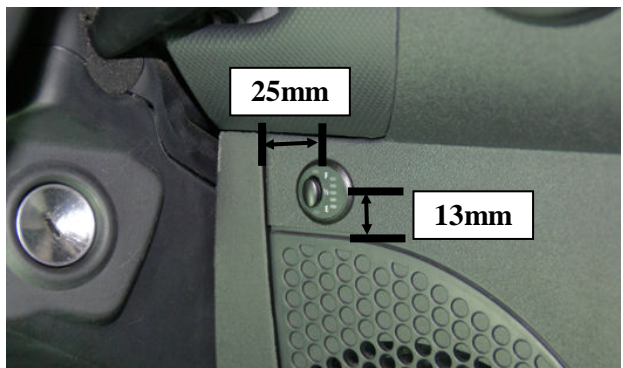


Photo 2: Switch location

12. Remove LHS rear flare and plastic inner guard (one piece). Hint: Pull around edge of flare and clips will release.
13. Remove LHS taillight.
14. Raise vehicle to a convenient height.
15. Some models have a rubber weight welded to the inner side of the exhaust pipe in the area of the tank. This needs to be removed to allow for the tank. Be careful not to put a hole in the pipe when cutting or taking off. It can be rewelded on in a different location if required. We have test driven vehicles with no noticeable difference when left off.  
**Warning: Ensure no fuel or fumes are present when cutting metal.**
16. Disconnect hard plastic filler breather (16mm) from first joiner located near left hand spring. Hint: release clip by squeezing tight. Temporarily remove handbrake cables from retainers, and relocate hose to be on top of handbrake cables. Refit handbrake cable into retainers.
17. Disconnect filler from fuel tank and completely remove the steel extension tube and rubber bends at either end.
18. Disconnect 8mm system breather from tank and discard hose
19. Remove completely the remaining OE fill Assy. This will need to be cut from the vehicle after the bolt has been removed. The mounting bracket will also need to be removed from the filler pipe by cutting the two small straps and prising off. **Warning: Ensure no fuel or fumes are present when cutting metal.**
20. Remove the plastic joiner from the fast fill breather and place back in quick release fitting.
21. **Refer to photo 3:** Fit heat shield with two M10 bolts, front will be level with front edge of front crossmember, back edge of shield should line up with inside of elongated holes. Fit rear bolt (M10X65) first through existing holes in crossmember, align parallel with chassis and drill 3/8 clearance hole through chassis and fit remaining bolt (M10x50 long) at front.
22. **As per photo 4:** Drill hole for rubber grommet 105mm in front of floor grommet.
23. Pull wiring harness through grommet and along LH chassis rail towards rear of vehicle.
24. **As per plumbing diagram:** Fit M6 link breather on tank with clamps supplied.
25. Fit sender unit to tank with screws and gasket supplied. This has been set-up in our factory and when held on side of tank should be just off the bottom when on empty. This will only fit in one position which should have the float plane approximately parallel with the left rear corner of tank, this will avoid baffles and internal pipes etc. We



Photo 3: Heat shield

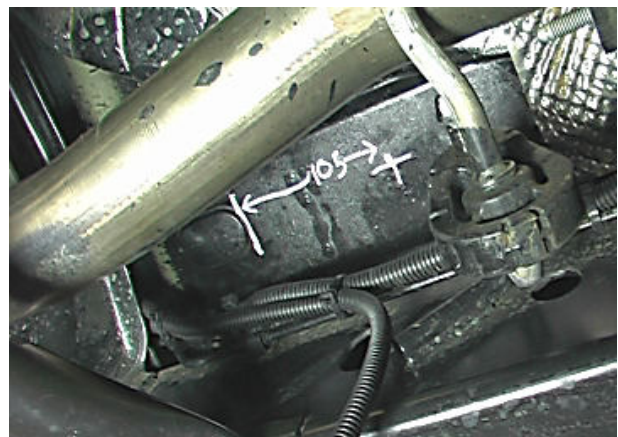


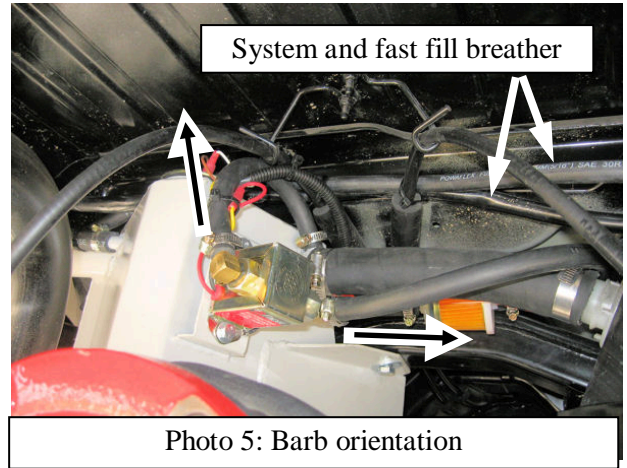
Photo 4: rubber grommet location



recommend confirming the operation of the sender with a multimeter, it should read 2ohms empty and 90 ohms full.

26. **As per photo 5:** Fit pump to tank using 2 M6 bolts supplied with outlet towards rear of tank, connect earth to one of the bolts.

27. **As per photo 5:** Fit both the brass elbows to the pump with a suitable sealant. With the outlet aiming towards the top rear corner of the tank and the inlet away from the tank at 90 deg.



28. Fit transfer hose (220mm long) to pump outlet and fitting in filler with MH06 clamps.

29. Fit tank, Support in place and fit front left bolt first with mudguard washers. Tank will be parallel with chassis and 145mm at front & 140 (thicker bit) from chassis, at the back check clearance all round, be careful not to drill through handbrake cable on rear right mounting, drill remaining three holes. **Note:** *if the tank is further than 140mm from the chassis it may contact the tail shaft with suspension travel.*

30. Fit the 38mm filler hose to auxiliary tank with clamps either end, do not tighten at this stage.

31. Remove the large filler breather vent from the filler neck, (drill pop rivet out).

32. **As per photo 6:** Cut end from filler neck just above 8mm system breather and retain the flanged screw thread, this will be joined to the new filler later with a hose joiner, deburr and clean.



33. With flange face down on a flat surface knock the nozzle restrictor out with a large socket or similar. This will allow filling with Australian Hi-Flow nozzles.

34. Fit 12mm fast fill breather and 8mm system breather to filler neck with clamps supplied.

35. Fit screw flange to end of new filler neck with 51 mm hose and clamps supplied. **Note:** ensure metal-to-metal contact when joining to keep overall length to a minimum.

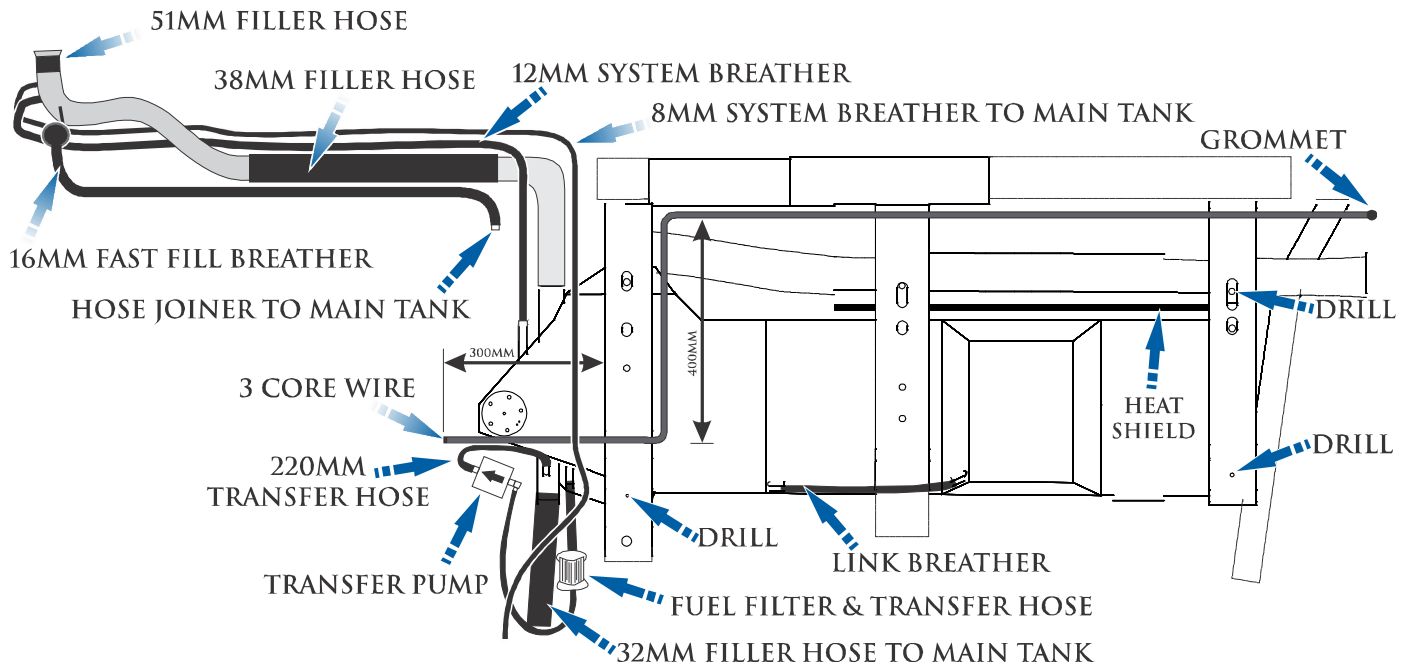
36. Pass filler neck up through bodywork and fit to grommet with lower mounting bracket flush against and to wheel side of bodywork. Fit to rubber filler hose in the process. Ensure the flange is neatly in the grommet.

37. Check position of 38mm rubber filler for correct overlap either end and fasten both clamps.

38. **As per plumbing diagram:** Fit new 16mm fast fill breather to breather vent previously removed from neck and pass up through bodywork and mount on filler neck with M6 bolt washer & spring washer.

- 39.**NOTE:** *To ensure trouble-free performance when re-fuelling, 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 sway bar. Do not over tighten cable ties and squash hose.*
40. Push 16mm breather between chassis and body lip so it passes to the front of the spring tower. Push hose in under along filler so it ends up at the back, use blunt tool eg: ring spanner.
41. Lay the 8mm system breather along the chassis in under the filler hose. Passing the end down in front of filler neck on auxiliary tank.
42. Pass the 12mm fast fill breather along chassis and down over the top of the filler neck on the auxiliary tank.
43. Position filler and drill hole through lip and fit bolt. Ensure the flange is neatly in the filler grommet.
44. Fit at least 4 cable ties along the filler neck securing all the new hoses. Ensuring they are flush with the bodywork.
45. Raise vehicle to complete the work under the vehicle.
46. **As per plumbing diagram:** Connect the 16mm breather to the joiner from main tank, ensure the hard plastic hose has no permanent kinks.
47. Fit the 12mm fast fill breather to the Auxiliary tank.
48. Connect the main tank filler using the new 32mm hose and clamps supplied. The filler is a passthrough design, allowing a majority of fuel to fill the main tank first then when it is full any additional fuel added will go into the auxiliary tank till both full.
49. Pass the 8mm system breather over the top and run with main tank filler breather, connect to main tank with MH4 clamp supplied.
50. Connect pickup in aux. tank to pump inlet with filter, clamps and hoses supplied.
51. Fit electrical terminals to wiring harness and connect to pump and sender.
52. Test the operation of the pump and sender unit. The gauge should be on empty (red LED). The pump should be audible when turned on, the amber pump LED with illuminate and should be flashing with an empty tank.
53. Neatly fasten all wiring and hoses to prevent chafing or contact with moving parts. Protect wiring where necessary with sheathing. Do not fasten wiring to section of hand break cable after last mounting point as this will move up and down with suspension travel.
54. Replace trim around doorsill and refit carpet to LH side.
55. Fit switch into hole, replace all trim and tidy area from fingerprints and off cuts of wire.
56. Replace tail light. Ensure foam sealing is sitting neatly at base of inner guard.
57. Replace flare and inner guard.
58. Place the owner's information pack on the passenger's seat.

59. 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).



## PLUMBING & WIRING DIAGRAM

