



## INSTALLATION INSTRUCTIONS FOR AN AUXILIARY TANK

# THE LONG RANGER

THE BIG TANK FOR A BIG COUNTRY



## JEEP WRANGLER

JK Petrol 2 Door models 2012 on (Pentastar petrol engine)  
**TA73PA – AUXILIARY 42-LITRE TANK**

### GENERAL NOTES

- a) Take a few minutes to read through this installation guide before proceeding.
- b) Fitting time is approximately five hours for the tank and 1.5hrs for the exhaust modification.  
Note: this tank is identical to a TA64PA but includes an exhaust for the post 2012 model.
- c) This LONG RANGER tank locates between the prop shaft and exhaust on left hand side.
- d) The lowest point of the LONG RANGER tank is level with the OEM fuel tank.
- e) A vehicle hoist is not essential but will speed the job up significantly.
- f) 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.
- 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 rust proofed, it is suggested that the tank (and any changes made to the vehicle during fitting) be touched up after installation.
- i) Video tutorials for the 4 door diesel version 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, 20mm step drill or hole saw are required and a welder for the exhaust modification.



**INSTALLATION KIT TA73PA**

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

- 1 LONG RANGER TANK (**TA64PA**)
  - 1 **TA64DAHS** (heat shield)
  - 1 **TA64PB1** (Canister relocation bracket)
  - 1 **TA64PB2** (Canister mounting strap)
  - 1 **TA64PB3** (Canister small mounting bracket)
  - 1 **TA64PB4** (Hand brake cable relocating bracket)
  - 1 **TA64PJ1** (3 way breather junction)
  - 2 **SF02** (M8 bolt with tag for carbon canister)
  - 1 **EXHHOTDOG18x2.5** (hot dog muffler 18x2 ½)
  - 2 Bolts M10 x 65 (front tank mounting)
  - 2 Bolts M10 x 75 (rear tank mounting bolts)
  - 4 Self-locking nuts M10 x UNC
  - 6 Flat washers M10 x 32
  - 2 Flat washers M10 (tank mount- heat shield side)
  - 2 Bolts M8 x 20 (for carbon canister)
  - 5 Self-locking nuts M8
  - 6 Flat washers M8
  - 6 Bolts M6 x 20
  - 4 Self-locking nuts M6
  - 8 Flat washers M6
  - 2 Hose clamps HS24 (aux. to main tank)
  - 1 Hose clamps HS20 (filler to aux)
  - 4 Hose clamps HS08 (16mm filler breather)
  - 12 Hose clamps MH6
  - 2 Hose clamps MH4 (system breather)
  - 2 Brass fittings 1/8 BSP x 3/8" elbow
  - 5 M4 x 8 screws
  - 1 Rubber grommet #**ELGRCA13-21** (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 (**ELSWGGA002-1**)
  - 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, 32mm ID x 225mm long (Aux. tank to OEM tank)
  - 2 Fuel hose 16mm ID x 520mm long push-on (new hoses to canister)
  - 1 Fuel hose 12.5mm ID x 1200mm (Auxiliary system breather)
  - 2 Fuel hose 10mm ID x 60mm (system breather/3 way junction)
  - 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)
- Owners information pack
- 1 Warranty Information Sheet and Return Card
  - 1 Long Ranger sticker
  - 1 TA64A owner operating manual
  - 1 TA64 owner's manual supplement (stick on)

## 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](http://www.thelongranger.com.au) or email any comments about tank fitting to [fitting@thelongranger.com.au](mailto:fitting@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.

***Note:** We recommend consultation with the vehicle's owner if there is any doubt about the placing of the switch. Please ensure there is clearance behind the panel before drilling.*

**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

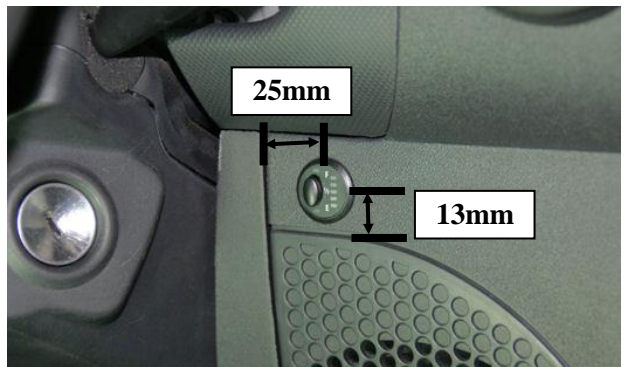


Photo 2: Switch location

12. Raise vehicle to a convenient height. Completely remove the section of exhaust system opposite tank to be modified in a later step, refer to photo 14.

13. As per photo 3: Disconnect the two filler breather hoses from the carbon canister and remove canister from chassis, including mounting bracket.

14. As per photo 3: Disconnect hard plastic filler breather (16mm) from first joiner located near left hand spring. Hint: release clip by squeezing tight. Fit the new 16mm x 520 hose and cable tie to straight section on top of cross member as per photo 4.

15. Completely remove the other hose, that was connected to the canister by cutting from joiner. Fit the new 16mm x 520 hose and hang over the top of handbrake cables.

16. Disconnect filler from fuel tank and completely remove the steel extension tube and rubber joiner at the tank end. Trim 50mm from rubber elbow at other end (removing OE clamp) as per photo 4.

17. As per photo 3: Disconnect the 8mm system breather which ran along the filler from clip closest to LH chassis, Re-route hose above handbrake cables, But do not re-connect at this stage.

18. As per photo 5: Drill hole for and fit rubber grommet 105mm in front of floor grommet.

19. Pull wiring harness through grommet and along LH chassis rail towards rear of vehicle.

20. As per photo 6: cut the system breather behind tail light, 25mm up from filler & 50mm down from bend. De-burr and blow metal filings from filler and system breather pipes (the other ends of these should not be connected at this stage).

21. **NOTE:** To ensure trouble-free performance when re-fuelling, the following principles must be applied 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 obstruct airflow during filling.

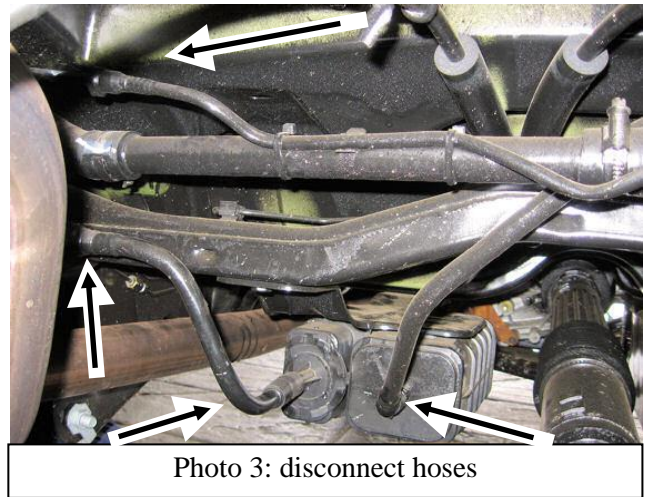


Photo 3: disconnect hoses

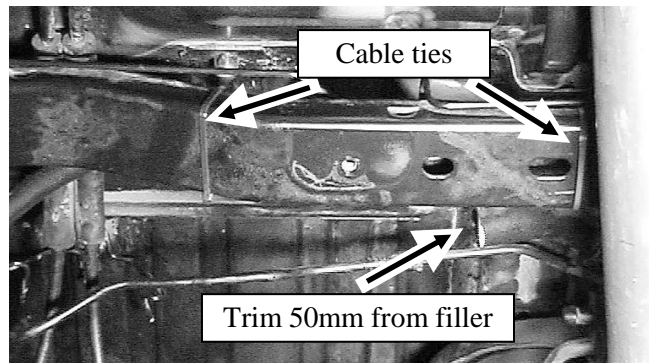


Photo 4: cable tie & trimming filler hose

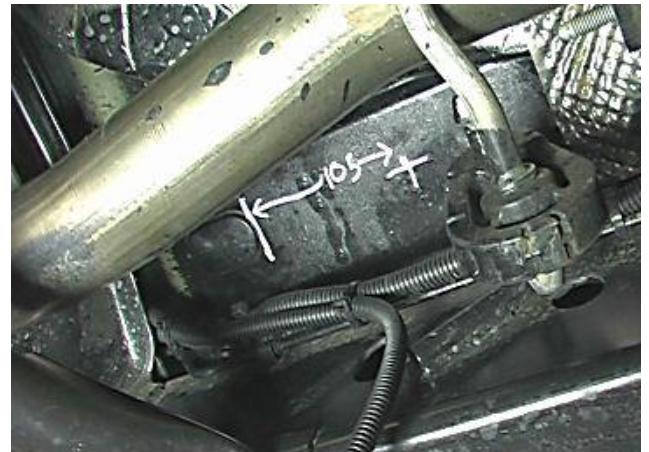


Photo 5: rubber grommet location

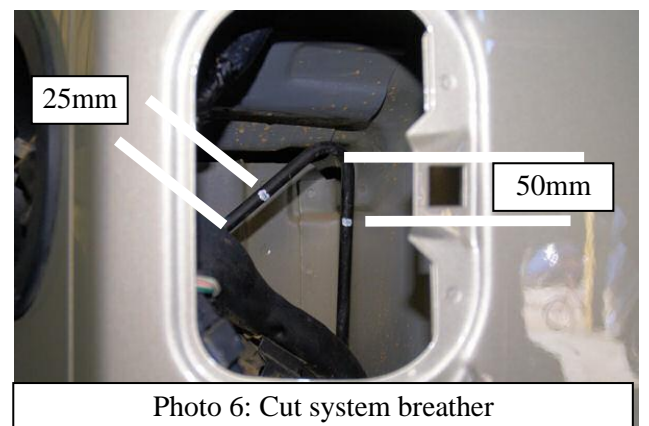


Photo 6: Cut system breather

*Ensure there is adequate clearance between all hoses and moving vehicle components. Do not over tighten cable ties and squash hose.*

22. **As per photo 7:** Connect the new auxiliary fast fill breather to the 3 way breather junction and fit to system breather line with joiners and clamps supplied.



Photo 7: fit 3 way junction

23. Run the auxiliary breather down to end of filler and fasten with cable ties.

24. Replace taillight. Ensure foam sealing is sitting neatly at base of inner guard.

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

26. Fit pump to tank using 2 off M6 bolts supplied with outlet towards rear of tank, connect earth to one of the bolts.

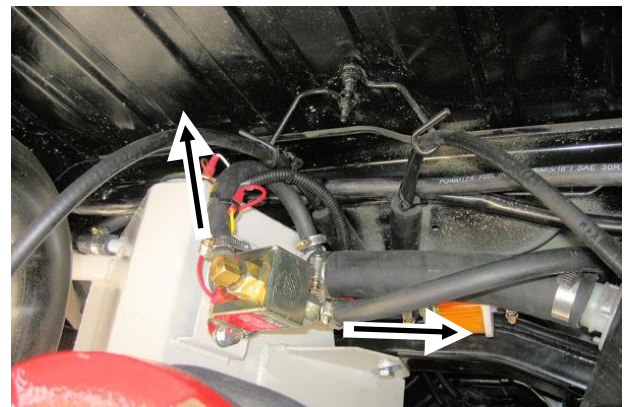


Photo 8: Barb orientation

27. **Refer to photo 8:** 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.



Photo 9: drill 3 holes

29. Position tank, support in place. Tank should be parallel with chassis and 140mm from chassis, at the back check clearance all round. Mark all holes remove tank and drill all mounting holes. *Note: be careful not to drill through handbrake cable on rear right mounting, **Note: if the tank is further than 145mm from the chassis it may contact the tail shaft with suspension travel.***

30. Fit tank, (fit filler while lifting into place) support in place and fit right hand side bolts first with mudguard washer. Fit heat shield and mounting bolts to left hand side, mudguard washers on top and standard washer under heatshield.

31. Connect the filler to the Aux tank with new clamp supplied.

32. Connect the 12mm fast fill breather to the Auxiliary tank.

33. Connect the main tank filler using the new 32mm hose and clamps supplied. *Note: 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.*

34. Connect pickup from aux. tank to pump inlet with filter, clamps and hoses supplied.

35. **As per photo 9:** Space the rear pigtail mounting bracket for the handbrake cable above the diff down using the TA64PB4 hand brake cable relocating bracket.

36. **As per photo 10:** Remove the canister from the mounting bracket and fit to new mounting bracket with strap and M6 bolts supplied bolts supplied.

37. **As per photo 11,12 & diagram:** Drill three 8.5 mm holes.

38. **As per photo 12:** Fit the small canister mounting bracket to the spring tower.

39. **As per photo 13:** Fit canister in new position above rear diff using M8 bolts with tag.

40. **As per pumbing diagram and photo 13:** Connect the 16mm hose from OE tank to rear most outlet on canister. Using the original hose cut the first bend off and fit to forward outlet on canister with the original rubber joiner, then connect the 16mm hose from filler neck, *Note: do not overtighten hose clamp.* Ensure hoses are on top of handbrake cables.

41. **Refer to photo 14 and 15:** Cut the exhaust system in location shown, prefit and tack in vehicle to ensure correct alignment, remove and fully weld, *Note 1: Have open flutes inside muffler aiming towards engine. Note 2: Ensure all fuel and fumes are removed while cutting and welding metal, at this point in the installation all hoses and fittings are connected and the fuel system should be sealed.*

42. Refit exhaust system.

43. 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.

44. After trimming wiring harness to length fit electrical terminals and connect to pump and sender.



Photo 10: mounting canister

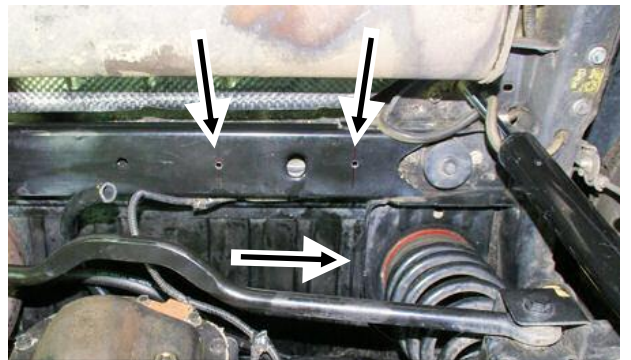


Photo 11: drill 3 holes



Photo 12: mounting canister bracket

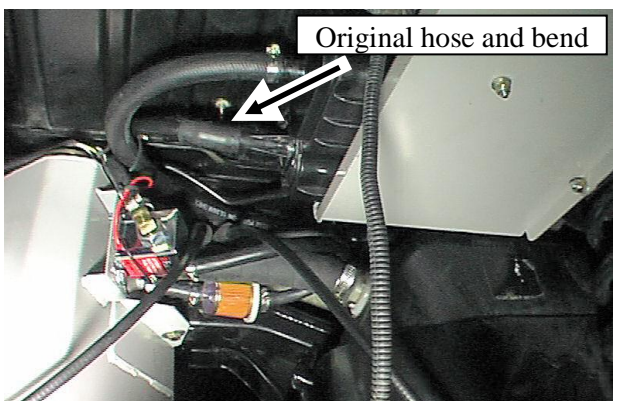


Photo 13: Canister location

45. 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.
46. Replace trim around doorsill and refit carpet to LH side.
47. Fit switch into hole, replace all trim and tidy area from fingerprints and off cuts of wire.
48. Place the owner's information pack on the passenger's seat.
49. 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).

