

## **INSTALLATION INSTRUCTIONS FOR A WATER TANK**

# LONGRANGER MADE IN AUSTRALIA SINCE 1976 The Big Tank for a Big Country!



# **TOYOTA LANDCRUISER 75/78 SERIES TROOPCARRIER**

TW21SS - 58 LITRE WATER TANK

WITH OEM FACTORY 90L TWIN TANKS (Including 4 CYL, 6 CYL & V8 VARIANTS)

#### **GENERAL NOTES**

- a) This LONGRANGER water tank locates under the rear of the of the Landcruiser, between the OEM sub tank and towbar. There are no chassis or exhaust modifications. The tank is filled via a backfill option which will be located at the rear of the vehicle. Fitting time is approximately 2 hours (add 1 extra hour adding Pump option). This tank will not fit models with Aftermarket fuel tanks.
- b) These fitting instructions have been developed and checked while designing and fitting tanks in our workshop. However, as part of our ongoing product development programme we would appreciate hearing how they relate to your model, and especially of any difficulties you may have encountered. This will assist us to maintain the best products, and most accurate and helpful instructions possible.
- c) All LONGRANGER water tanks are manufactured from low corrosion / low maintenance materials, including stainless steel for the tank itself. We suggest that the tank should be drained and flushed periodically. Drinking water should always be appropriately treated before consumption. If filling up from garden hose always run briefly to purge any tainted water.
- d) The capacity quoted above is the actual bench tested liquid capacity of the tank, and the design of the tank system is such that virtually the total contents of the water tank will be available for use. However, the useable capacity may vary slightly from one vehicle to another and should be verified by the user.

- e) This tank is supplied with a gravity fed outlet only, although there is an "Optional Pump Kit" available which is supplied with a 12-volt water pump with inbuilt pressure switch and plumbing required, discuss with vehicle owner the most practical (and preferred) location for both the switch and the water outlet, we have suggested locations with supplied universal bracket in these instructions.
- f) Observe safety precautions during the installation of this LONGRANGER tank.



## **INSTALLATION KIT TW21SS**

Q1	Υ	<b>DESCRIPTION</b> This <b>LONG</b> RANGER installation kit has been checked by
<b>y</b> '	1 4 2 2 1 6 4 1 1	LONGRANGER TANK - (TW2ISS)  Tap mounting spacer washers for elbow, special TW17FW 14.5 x 26 x 1.5  M8 x 25 Tag bolts (S12)  M8 x 25 bolts  M8 Spring washer  Flat washers 8mm x 20mm  M8 Nyloc nuts  Brass fitting 1/4 BSP x 45deg M/M  Brass hose adapter 1/4bsp-click on  Ball valve ¼ BSP F&F (47026-04M)  Hose clamp, MH6  Hose, PVC, 10mm ID x 1.6m long (for breather)
		Cable tie, 30 cm
	1 1	Cable tie, 20 cm Fitting instructions Warranty information sheet and return card Long Ranger sticker
	OF	PTIONAL PUMP KIT:
	3 3 4 1 1 1 5 10 2 1 1 1 1 1	Bolt M10 x 25 x 1.25 (fine thread, pump mounting) Flat washer M10 Screw M5 x 20mm Pan/Phil (pump mount) Screw M5 x 12mm Pan/Phil (pump earth) Face plate for switch mounting - (TW17FP) Pump Mounting Bracket - TW17B1 Tap Mounting Bracket - TW17B2 M5 Nyloc nut Flat washer M5x19 Brass fitting 1/4 BSP x 1/2" elbow Brass fitting 1/4 BSP x 45deg M/F Ball valve ½ BSP F&F (47026-04M) Plastic straight barb 12mm x ½ Female bsp (pump outlet #PLFST1212W) Plastic elbow barb 12mm x ½ Female bsp(pump inlet #PLFEL1212B) Hose clamp, MH6 Water pump with pressure switch and ½ bsp fittings #3206
	1 2 1 1 1	Toggle switch 12 volt on / off – 56-90029B  Terminal, female spade crimp, red  Joiner, crimp, red  Terminal, lug, 5mm red  Wire, single core double sheathed gas, 4mm x 6m long  Hose, Drinking Water, 12.5mm ID x 1.2m long (Tank to pump)  Hose, Drinking Water, 12.5mm ID x 1.0m long (Pump to outlet)

#### **INSTALLATION GUIDE**

- Please read these instructions right through before starting to fit your LONGRANGER tank, and follow them step by step during fitting. It may save you time and work in the long run, and will ensure the tank is fitted as it was designed to be. If you have any difficulties, contact the LONGRANGER factory office without delay for further advice – phone (02) 4953 3288 or visit www.thelongranger.com.au
- Before starting the job, check that you have received all items listed in the fitting kit above, and that nothing has been lost or damaged in transit.
- 3. Vacuum out your new water tank to make sure it is clean inside. It was thoroughly cleaned and sealed before despatch, but although we take all possible steps to ensure cleanliness and protection in transit, sometimes foreign matter can be found after shipping from our factory. Foreign matter can block or damage your pump.



Photo 1: Align rear mounting hole

- 4. If your vehicle is fitted with an OEM Genuine Towbar you will need to remove this to help install the water tank.
- 5. Position Tank into place and align both rear bracket with holes located in the rear corners of the chassis.
- 6. Mark the location for the holes to be drilled in the crossmember for both front brackets, remove tank and drill required holes.
- 7. Insert Tag Bolts into mounting holes for both front mounting brackets **as per Photo 1.**
- 8. Refit tank into using 2x M8x25 bolts, washers and Nyloc nuts in both rear mounting brackets (**NOTE:** if you have a captive nut located in rear left mounting location, use M8x25 bolt, washer and spring washer supplied), M8 Nyloc Nuts and washers are for previously located Tag bolts used for the front mounting bracket.
- 9. Re-fit Genuine towbar if previously removed.
- 10. Connect fast fill breather to fitting on front of tank and secure with clamp supplied, loop it up into fuel tank filler pipe area, as



Photo 2: Breather hose

high as possible and secure with ties. **NOTE:** check that overflow water will discharge clear of body. Also remind the owner that some of the water will discharge when the tank has been filled to the top.

11. Fit 45-degree brass elbow to thread hole at rear righthand side of the tank with suitable thread tape and aim towards back corner, then fit supplied ball valve and hose adapter **as per Photo 3. NOTE:** this fitting will also be used to connect the hose to backfill the water tank.

# 12. <u>If you are fitting this tank as gravity feed only then</u> skip to "Step 23".

NOTE: If installing a Pump Kit, you "CANNOT" backfill through the pump, so must use the fitting installed in previous step 11 for backfilling.

- 13. Fit plastic elbow to pump inlet and straight barb to outlet with suitable thread tape. **Warning:** remove the sealing bungs from the pump outlets, these could be internal.
- 14. As per photo 4: Secure water pump to bracket using M5 bolts and nyloc nuts. <u>NOTE:</u> check the correct orientation.
- 15. Using supplied cable lug connect the pump earth to the hole provided in the pump mounts.
- 16. Fit 1.6m length of 12mm drinking water hose to and pump inlet, 1.0m length of hose to pump outlet and secure with hose clamps.
- 17. **As per photo 4**: Fit pump mount to vehicle, if towbar fitted use the two existing bolts, if no towbar supplied, we have provided M10 bolts and washers, you will need to feed both the inlet and outlet hoses through while lifting pump into place.
- 18. Remove Blanking Plug from Front right fitting and fit supplied Brass 90-degree elbow, Fit Pump inlet hose to this fitting.
- 19. As per photo 5 & 6: Mount tap to bracket with supplied brass fittings and connect hose from pump. <u>NOTE:</u> We have supplied a universal bracket and brass fitting that are compatible with both Kaymar rear bars



Photo 3: Backfill/Gravity tap fitting

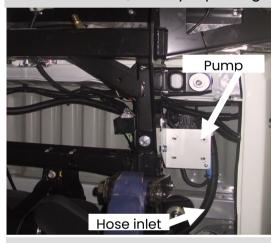


Photo 4: Pump mounting

Photo 5: Tap mounting OEM rear bar



Photo 6: Tap mounting with Kaymar

and OEM bumper, it should work on most popular setups.

- 20. Connect wiring to pump using crimp joiner supplied.
- 21. Run wire to location selected for switch and cable tie in place. As most setups will have drawer units, we recommend the isolating switch be mounted in a rear corner panel.
- 22. Lower vehicle and mount switch in selected location, this switch is designed for mounting in thin plastic or steel, if you have timber panels, we have provided a face plate for easier mounting (we recommend consolation with owner). Connect to fused power source for switch.
- 23. Fill tank, check for plumbing leaks, and test pump operation if have one fitted.

#### **FINAL CHECKS**

- 24. All bolts and hose clamps are tensioned correctly.
- 25. Adequate clearance exists all-round the tank.
- 26. Hoses will not chafe on nearby components and will not foul as suspension moves.

### Explain to the owner the operation of the LONGRANGER TANK.

- **a)** The electric pump is covered by its manufacturer's warranty, which does not include damage caused by incorrect use. It is important that the pump is not operated for more than a very brief period without a flow of water.
- **b)** 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.
- c) The vehicle manufacturer selected springs without accounting for additional fuel and water tanks. Several aftermarket suspension modification options are available.
- **d)** 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 Tank.

#### **CARE AND MAINTENANCE**

- 1) 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.
- **2)** At regular intervals, drain and flush the **LONG**RANGER water tank to guard against the accumulation of contaminants.