



## Installation Instructions for LDALR Landrover Discovery I 45L Sill Auxiliary Tanks – PAIR

These sill tanks fit underneath the left and right hand sills of the vehicle. They each have their own filler neck and can be filled from both the left and right hand rear wheel arches respectively. The system operates via a fuel transfer system where by the fuel is pumped from either tank back to the main tank via an electric fuel transfer pump. Each sill tank has its own fuel level sender. Connected to one new dash fuel gauge. The way the system is wired the new dash fuel gauge will always show the level of the right hand tank. By turning on the fuel transfer pump you are able to pump from the right hand tank into the main tank. By turning on the second switch this has two purposes.

- i. It shows the fuel level of the left hand sill tank on the new dash gauge.
  - ii. It allows the pump to transfer fuel from the left hand sill tank into the main tank.
1. Carry out electrical wiring as per wiring diagram. Running sheathed cable to the rear of the vehicle for the connection of both left and right hand fuel tank sender units, solenoid valve and fuel transfer pump.
  2. Check the underside of the floor pan above the sill tank location for any screws or bolts that protrude through and would foul or rub on the top of the tank. Bend the vertical metal flange flat out of the way. Be careful with the pipes in this area.
  3. Remove the lower gearbox crossmember bolt and fit front inner tank mounting bracket. Measure 480mm to the rear from this bolt and drill hole at the same height as the gearbox crossmember bolt. Fit the rear inner tank mounting bracket.
  4. Fit fuel sender unit to tank. The 6mm hose barb fitting into top of the filler neck. The 12mm hose barb straight fitting into the socket in the underside of the filler neck. The 8mm hose barb elbow into fuel pick up and plug into fitting next to fuel pick up. 12mm hose barb elbow goes in the socket at the top of the tank pointing towards the rear.

5. Lift tank into position (don't forget to connect the sender unit wire and earth). Secure tank to front and rear inner brackets. Leaving a minimum of 5mm clearance at the front of the tank to the sill edge of the body. Level tank left to right and secure front and rear of tank to chassis out riggers with 50 x 50mm angle brackets.
6. Fit the solenoid and fuel transfer pump into place and complete wiring and connection of all hoses and fittings. Mount filler necks using M6 bolts and nuts provided then connect fast fill hoses. Tee two 6mm vent lines from the top of the filler necks together and tee them into the vent line that runs from the rear tank to the emission canister.
7. Fill tanks with fuel and check operation of fuel sender units on the new switch/gauge. Check operation of the fuel transfer pump from both the left and right hand tanks.



## FITTING KIT CONTENTS LDALR

<b>Brass:</b> <ul style="list-style-type: none"> <li>○ 2 x P6 5/16 x 1/4 (8mm hose barb elbow)</li> <li>○ 2 x P6 1/4 x 1/4 (6mm hose barb elbow)</li> <li>○ 2 x P6 1/2 x 1/4 (12mm hose barb elbow)</li> <li>○ 2 x P3 1/2 x 1/4 (12mm hose barb straight)</li> <li>○ 2 x P14 x 1/4 (6mm hose barb tee)</li> <li>○ 1 x 16mm x 8mm reducing tee</li> <li>○ 2 x 1/4 BSP plug</li> </ul>	<b>Electrical:</b> <ul style="list-style-type: none"> <li>○ 1 x Change over relay</li> <li>○ 1 x On/off toggle switch</li> <li>○ 8 x Red insulated terminals</li> <li>○ 3 x Red plain terminals</li> <li>○ 5 x Red earth eye</li> <li>○ 1 x 8mm blue earth eye</li> <li>○ 1 x 10 AMP fuse and holder</li> <li>○ 1 x 3mm five core wire @ 5000mm</li> <li>○ 1 x LRA- PG210 Switch/Gauge Unit</li> </ul>
<b>Bolts / Nuts:</b> <ul style="list-style-type: none"> <li>○ 4 x M6 x 16 Bolts</li> <li>○ 4 x M6 Nuts</li> <li>○ 4 x M6 Flat Washers</li> <li>○ 2 x M8 x 100 Bolts</li> <li>○ 2 x 5/16 x 1 1/4" Washers</li> <li>○ 14 x M8 x 25mm Bolts</li> <li>○ 14 x M8 Nyloc Nutt</li> <li>○ 12 x 5/16 x 3/4 Washers</li> <li>○ 10 x M5 x 10m Pan Head Screws</li> </ul>	<b>Misc Parts:</b> <ul style="list-style-type: none"> <li>○ 8 x Secondary Mounting Bracket</li> <li>○ 1 x 3 Port Solenoid Valve with 8mm Hose Barbs</li> <li>○ 2 x Left &amp; Right Filler Necks #FN4490XIN</li> <li>○ 2 x Fuel Caps to Suit Above Filler Necks</li> </ul>
<b>Hose Clamps:</b> <ul style="list-style-type: none"> <li>○ 10 x 1/4 Hose Clamps</li> <li>○ 4 x 1/2 Hose Clamps</li> <li>○ 2 x 5/8 Hose Clamps</li> <li>○ 4 x 1 1/2 Hose Clamps</li> </ul>	<b>Cable Ties:</b> <ul style="list-style-type: none"> <li>○ 10 x 7" Cable Ties</li> <li>○ 5 x 11" Cable Ties</li> </ul>
<b>Sender:</b> <ul style="list-style-type: none"> <li>○ 2 x 0-90 ohm fuel sender units (VDO 220-004) - set up in tanks, with 600mm earth lead.</li> </ul>	<b>Pumps &amp; Filters:</b> <ul style="list-style-type: none"> <li>○ 1 x Fuel Pump</li> <li>○ 2 x Z14K Filters</li> </ul>

Hose:	Pages of Fitting Instructions Consisting of:
<ul style="list-style-type: none"> <li>○ 1 x 6mm CMP Hose @ 2500mm</li> <li>○ 1 x 8mm Fuel Hose @ 4000mm</li> <li>○ 2 x 1/2" Fuel Hose @ 400mm</li> <li>○ 2 x 44mm Hose @ 180mm</li> </ul>	<ul style="list-style-type: none"> <li>○ 2 x Pages Fitting Instructions</li> <li>○ 2 x Pages Fitting Kit Contents</li> <li>○ 1 x Page WDLDas01 Diagram</li> </ul>

Kit Packed By\_\_\_\_\_

Checked By \_\_\_\_\_

