



## Land Rover Discovery Series 1 and 2 with an Impco Airvalve system.

**System type:** Under bonnet we use an Impco airvalve system as the most suitable and durable equipment to fit to this application. This has an automatic petrol start and is a closed loop system on the Series 2 using the car's exhaust oxygen sensor to feed information back to the gas processor to control the mixtures. The Series 1 does not have oxygen sensors so the mixtures are set using an Air Fuel Ratio meter and this is where Impco's Airvalve system comes in to its own and is far superior to the venturi ring systems.

The series 2 can have a vapour injection system fitted. In the past these have not been successful by other installers because the injector nipples are too far from the cars inlet valves and these are all rough at idle. Various methods to correct this have been applied including putting a spacer plate between the manifold halves but with out success. The engine still idles poorly on LPG. We have corrected this by building the

Injectors in under the manifold and this has corrected the problem.

**Cylinder:** The discoveries get 2 small gas cylinders that hold 72 litres of useable LPG combined and a new petrol tank of 35 litres for the Series 1 and 40 litres for the Series 2.

**Location:** Under rear in lieu of petrol tank and a new petrol tank outside the chassis under the floor on the drivers side.

**Controls:** A unit combining the changeover switch and an LED gauge is fitted into an existing switch blank on the dashboard. This integrates well into the dash.

**Filler:** As with all our jobs, if it is possible to fit the LPG filler in with the petrol filler then that is where we locate the filler. This is standard procedure on the Discovery.

**Disclaimer:** We endeavour to get all our data correct but we do not guarantee that we are perfect and haven't made an error in some of the data.  
With the injection systems we do change the brand we use where we can improve on the quality of the equipment fitted. We are not tied into one particular brand and we are entirely motivated by self-interest; we aren't compensated for the labour to replace parts under warranty. When we fit components we don't fit them for ease of replacement but for best performance and looks and then within the requirements of the standards. It is therefore in our interests as well as yours that we don't have to replace parts and so we make sure we fit the most reliable, long lived parts.

**Website:** [www.agautogas.com.au](http://www.agautogas.com.au)