



X-Eng is a division of  
Foundry 4x4 Limited  
The Old Bakery,  
Rear of Vale Terrace,  
Tredegar, Gwent. NP22 4HT

## **X-Defend Fuel / Hydraulic Lock**

### **Fitting Instructions**

Thank you for choosing to buy our Fuel / Hydraulic lock.  
Fitting is straightforward and will take about an hour.

Your kit should contain the following parts:

8 x Hose Clips	4 x Tube bore reducers
2 x Barbed 1/4 BSP Fittings	1 x Length of Hose
1 x 8mm Non Return Valve	1 x Valve Body
1 x Valve Operating Handle	1 x Security Screw
1 x Stainless Facia Plate	1 x Folded Valve Mount plate
2 x Stainless Socket Screws	2 x Stainless Nuts & Washers
4 x Hose couplers	

The first step is to identify a location. Ideally, this should be close to where your fuel lines run. For Land Rover Defenders we would suggest:

1. Through the floor of a cubby box.
2. Behind the right hand seat.
3. Next to the fuse box on the bulkhead.
4. In the right hand front foot well.

If you cannot find a suitable location, use additional 5/8" Fuel Hose to extend the fuel lines to suit.

Make sure there is enough space in the selected location for the front panel. Use this as a template for the holes you need to cut. We suggest using a marker pen to draw round the inside of the holes. For the big hole in the middle, you will probably have to drill the largest hole you can, then use a round file to enlarge.



Using the two M6 socket head screws, washers and nuts provided, attach the valve as shown.

**DO NOT TIGHTEN THE VALVE HANDLE SECURITY SCREW YET!**

Identify your fuel send & return lines.

The photo Right shows how the components should be plumbed. Depending upon the bore of your fuel lines, the reducers may not be necessary. If not, use the hose couplers in their place.

Cut both fuel lines as close to the valve as possible. Insert the Non Return Valve in the return line with the arrow pointing towards the fuel tank. Screw the two 1/4BSP barbed fittings into the valve. These may require thread seal liquid or PTFE tape to seal properly. If the fuel hoses are long enough, push the ends of the fuel hose on to the barbed fittings and secure with the supplied hose clips. If they are not long enough, use some of the supplied hose and barbed joiners to extend the hoses as necessary. Route the tube to avoid kinks or twists.



Make sure all the hose clips are tight and leak free.

You can now loosely attach the valve handle as shown. Depending on the thickness of the panel you have fitted the valve through, you may need to space the handle away from the valve using a washer.

Push down on the valve handle and move it from one position to the other, making sure it is free to move without rubbing on the face plate. If it does, fit a washer as a spacer.



Once you are satisfied the valve handle will move freely, move the valve to the Open position (indicated by the triangular cut-out in the face plate - similar to the 'Play' symbol on a tape recorder).

You will now need to bleed the fuel system to remove any air.

Once you have started the engine and it is running normally, move the valve to the closed position (indicated by the cut-out in the face plate with two parallel lines - similar to the 'Pause' symbol on a tape recorder).

The engine may run on for a few seconds while it uses the fuel in the pipes, then stall.

If it does not stall, make sure you have no air leaks and that the non return valve is fitted the correct way round.

Once you are satisfied that the engine runs and stops correctly, you can tighten the security screw on top of the valve handle, permanently securing it in place.

Apply some oil (3 in 1 or WD40) to the lock mechanism.

With the valve handle in either the run or stop position, press the lock plunger. It will click and lock in the depressed position.

Insert your key and turn clockwise until the lock plunger can be gently pulled outwards.

### **Put one of the keys in a safe place!**

We are unable to immediately supply replacement keys for the locks as they are randomised and there are thousands of combinations.

Keep a note of the key number as we can order a key from the lock manufacturer (Lowe & Fletcher in the UK). However a replacement key costs more than a whole lock and can take several days to arrive!

We can also supply replacement lock barrels at reasonable cost.

If you have any problems or questions, please email us at:

[Xeng@foundry4x4.co.uk](mailto:Xeng@foundry4x4.co.uk)

And we will do our best to answer promptly.