

1 Water Tank(s)

First first step is to decide what size tanks you want to install as this impacts the frame dimensions

- Whether you want to mount the tanks left to right in car or Front to back
- Decide if you are going to keep the carpet under the tanks? (I kept mine)
 - Pro – Reduced Road Noise but higher floor level
 - Con – If the tank leaks you will have wet / smelly carpets lower floor level by about 15mm

I went with two of these tanks from eBay:



2 Vertical Uprights

For the uprights I used 25mm x 25mm Angle Iron and the two existing bolt holes for the rear seats. In hind sight I should have used 30x30 so that the mounting holes were a straight hole drill without adding welding any bits on. You do have to remove a small amount of Carpet but nothing serious.

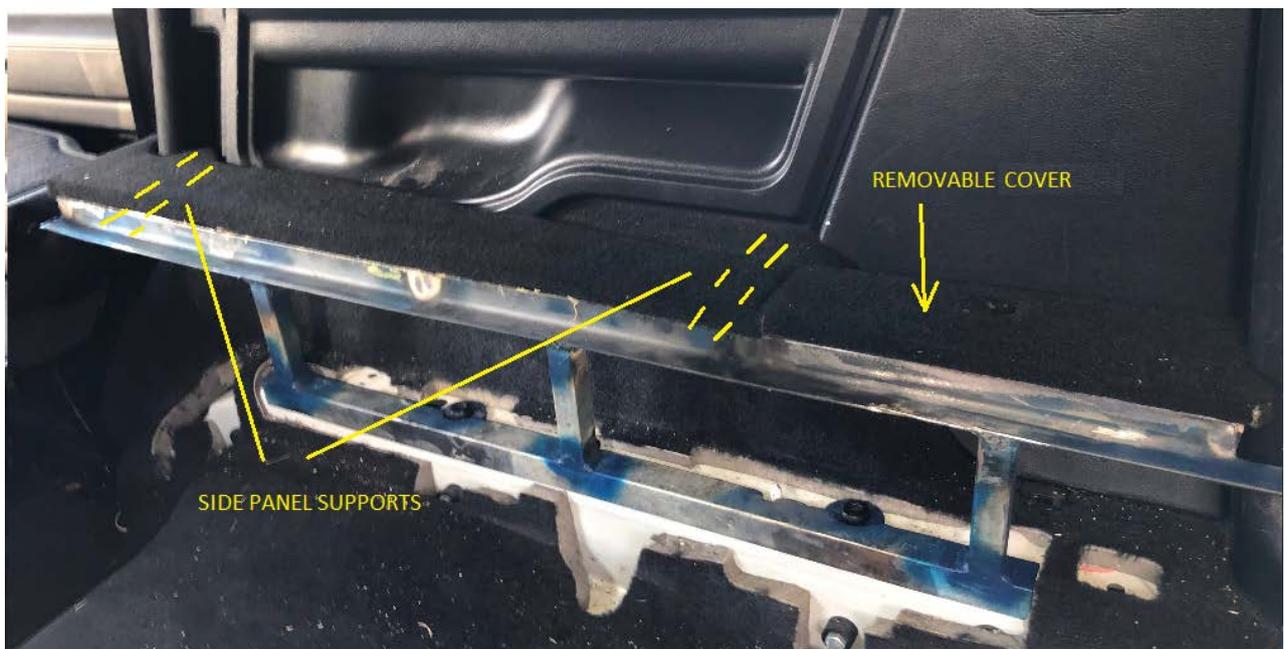


Once the 'foundation' is done add the 25x25 mm Square Tube uprights and the 25x15mm slides / runners for the tank frame. The height of the uprights will be determined by what water tank you select. The yellow lines drawn in are the supports for the side panels which had not been installed yet.

Left Side



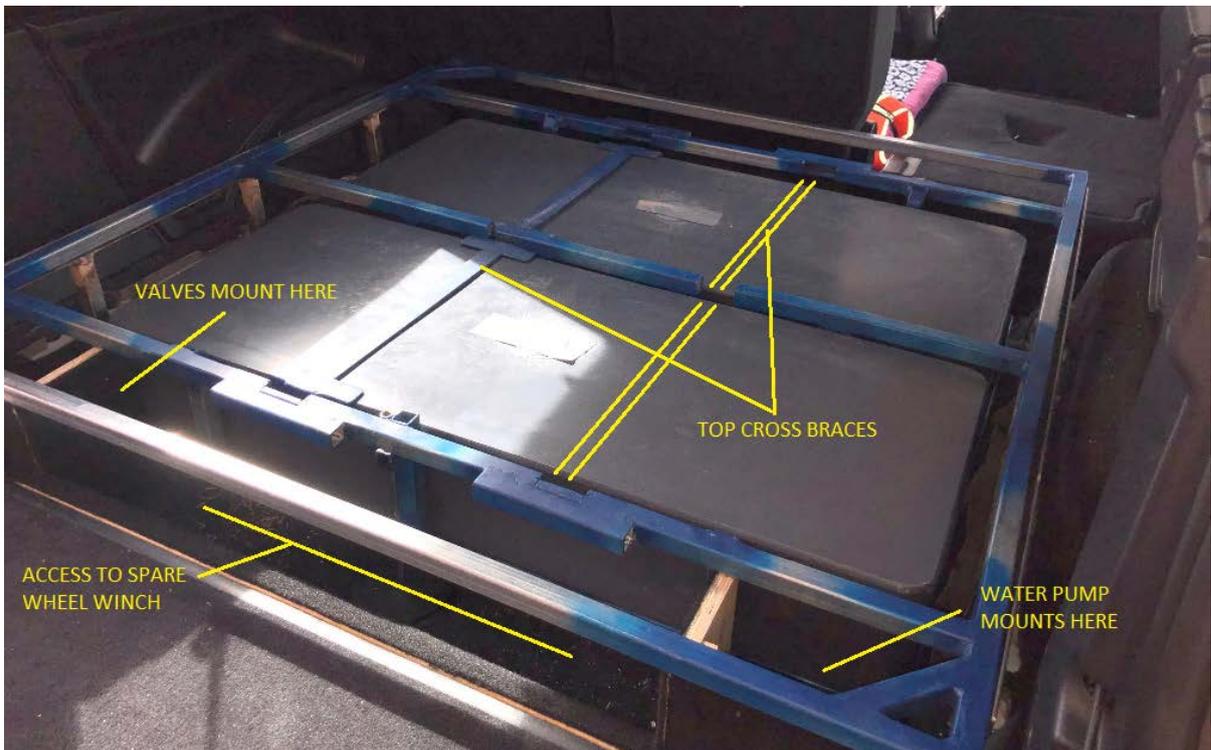
Right side Note: the photo below is from a little later in the build and have the supports for the side covers installed.



3 Water Tank Tray / Floor

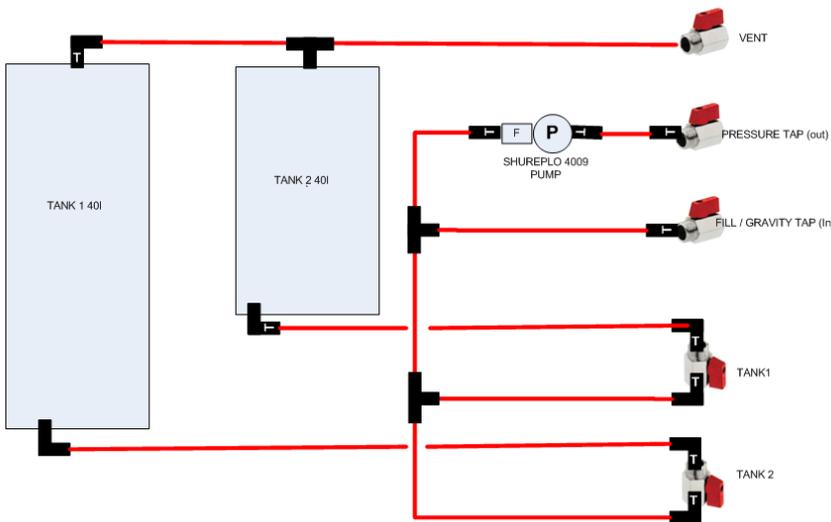
This will need to be designed to fit the water tanks you decide to buy. I did not trust the little M10 Threaded Mounting inserts in the water tank to hold the 40L weight while off-road – so I opted for a 25x25mm suspended angle iron tray with a cross braces top & bottom (with 2mm foam stuck on to prevent abrasion) that the water tank lays in the tray.

For Install / removal the whole tray assembly (incl tanks, valves, pump) slides along the runners of the uprights and is bolted to them on install (not shown in these photo's). With the tray height (shown below), 12mm Marine Ply and automotive carpet the new rear floor level lines up nicely with the middle row chairs when the back rest is folded down.



Plumbing

This is the configuration I used. Plastic piping ran down the left side of the water tanks.



To draw water from a jerry can for showering close the tank 1 & 2 Valves and connect the jerry can hose to the fill valve. After use shut fill valve and open tank 1 & 2 to flush out any remaining shower water.

Caution: After I had built my frame, I found that I did not have enough space at the back door of the D4 to mount the taps/ valves, water pump and also have the bend radius of the plastic piping. I ended up having to remove the permanent floor mounting support for the rear seats and turn it into a removable one if I ever remove the tanks in the future.

12mm Plywood Floor & Carpet.

Once the frame is complete and all the plumbing and electrics done - it all gets covered with 12mm Ply and the carpeted. You will need to play around a bit to get a tight fit. I found that if I take 5mm off the dimension it allows enough space to get the carpet folds done with no gaps.

The Side panels will need to be custom cut to suit your install but remember to add hatches so that you can still get into the side storage compartments.





Completed Project. (drawers & Fridge)

Almost complete just needs a bit of a tidy up – switches need to be installed correctly, etc...

