



## Patrol coil conversion Installation

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Thank you for your purchase of the CAM Fabrications Nissan Patrol leaf to coil conversion kit.

As you will see, much of the kit is self-explanatory but I'll do my best to explain how it all works as clearly as possible. Most components are very similar to factory, so it may not hurt to have a factory

coil patrol handy to check out. And most of all be safe and make sure there is no chance of the vehicle falling.

Any questions please give me a call on 0439741971.

### **Step one: Strip**

Jack up rear and support on stands, weld legs on, or use a hoist if you can. Unbolt and remove the leaf suspension, shocks, tail shaft, diff, main fuel tank and sub tank.

### **Step two: Remove leaf mounts**

Using a grinder and cutting disc, remove the leaf suspension and shock mounts. Keep in mind that they're only going in the bin, so don't be afraid to cut them up to gain access and try to cut into the bracket side rather than the chassis side as that will make more work to clean up. Grind up and clean up.

### **Step three: Lower control mount**

Just in front of where the front leaf mount was, you will notice a large hole (29mm) in the side of the chassis, this is for the lower control arm crush tube. The plate on the outside will need to be trimmed back to allow the control arm box to sit neatly against the chassis rail and the hole marked and drilled (hole saw) on the other side in the exact same location.

Bolt a spacer or control arm and supplied crush tube to the lower control box and slide it into position. Ensure the box is hard against the side and bottom of the chassis and tack weld them on.



### **Step four: Chassis plates**

Align with chassis and tack on making sure you have the plate with the panhard mount attached on the drivers side. Be sure to mark and remove paint from chassis first.

### **Step Five: Coil hats**

Stitch coil locators onto the underside of coil hats before fitting. Align with tag on top of chassis plate and tack on. Longer side goes to the front. Use a straight edge or similar across the top of the two to ensure they are flat. **Do not fit the brace tubes until the shock mounts are in.**

### Step Six: Sway bar brackets

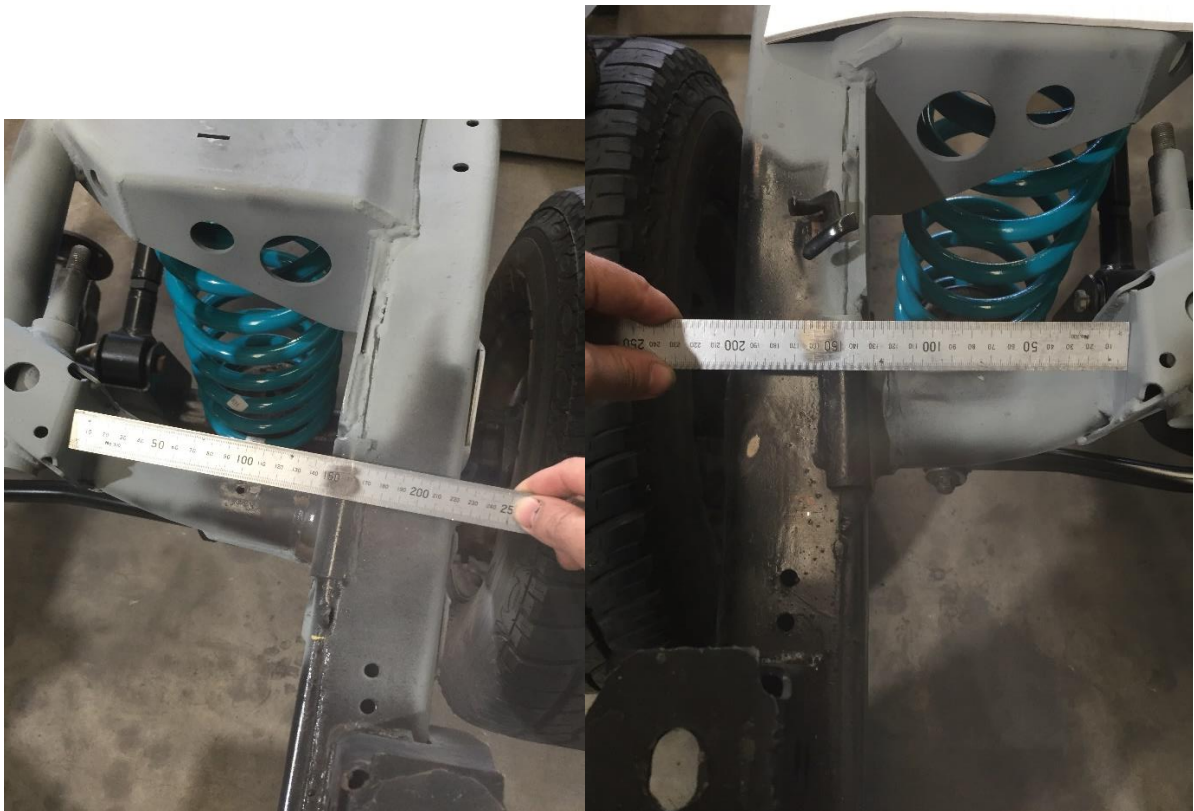
The passengers side sway bar bracket simply keys into the slots with the bend to the top.

The drivers side mount aligns with the front tag central onto the tube crossmember with the mounting face level.

### Step Seven: Shock mounts

Note- Left and right hand side do not mount the same distance in to avoid hitting as the diff moves side to side with the cycle of the panhard (same setup as factory).

Measuring from the inside of the fish plate on the crossmember to the body of the shock mount – the passengers side is 134mm in, drivers side is 148mm in, with the centre line of the pins running angled up to be parallel with the chassis. *See figures 2,3&4*





### **Step Eight: Brace tubes**

Fit brace tubes for the coil hat from crossmember in front of the coil hat to the crossmember behind. Some fine tuning of the tubes may be required as we have found that there can be a bit of variation in this area from one chassis to the next.

### **Step Nine: Upper control arm mounts**

The upper control arm mounts attach to the crossmember in front of the diff with the 'C' open to the rear.

These brackets are located centrally on the crossmember with a spacing of 390mm in between them.

The rotation of them can be setup and checked in two ways – by angle or measurements.

Angle- The rotation angle is 22 degrees forward. This can be setup with the chassis being level and using a digital level or even an iPhone level.

Measurements- The hole centre of the brackets should be 842mm from the back of the next crossmember in front and 553mm from the one behind.

Again, every chassis is slightly different so don't be concerned if you can't get the exact measurements listed.

Once they are tacked in place it doesn't hurt to double check again by sitting the sub tank in place.

### **Step Ten: Panhard Mount**

In order to align the rotation of the panhard mount correctly, the rear diff will need to be loosely fitted into position with the upper and lower control arms and set roughly at ride height. Mount the panhard onto the diff end and the panhard mount side plates to the other end. Swing the rod up to the chassis and align the plates with the chassis plate section by moving the diff side to side. Some fine tuning may be needed depending on the brand of Panhard used.

Once aligned, tack in place along with the outer plate and the gusset on the inner.

### **Step Eleven: Sub Tank Mount Mod**

The rear inner sub tank bolt on bracket will need to be trimmed to clear the new upper control arm.

Simply mark out or cut out the template and trace and cut the bracket back. Try not to over cut as this may start cracks. For obvious safety reasons, we highly recommend not to cut the bracket while attached to the fuel tank.

### **Final Notes**

Once everything is in place, strip it down and finish welding of brackets, clean, paint and bolt up all the nice new parts. Fish oil or similar for the inside of the chassis is also a good idea.

Refit your tray and anything else you usually carry, add some fuel and then begin adjusting the panhard and upper control arms to suit the weighted ride height.

We recommend while your there to rebuild the brake callipers and replace pads, discs, short flexy line onto callipers and main line from diff to chassis with an extended unit to suit your lift.