

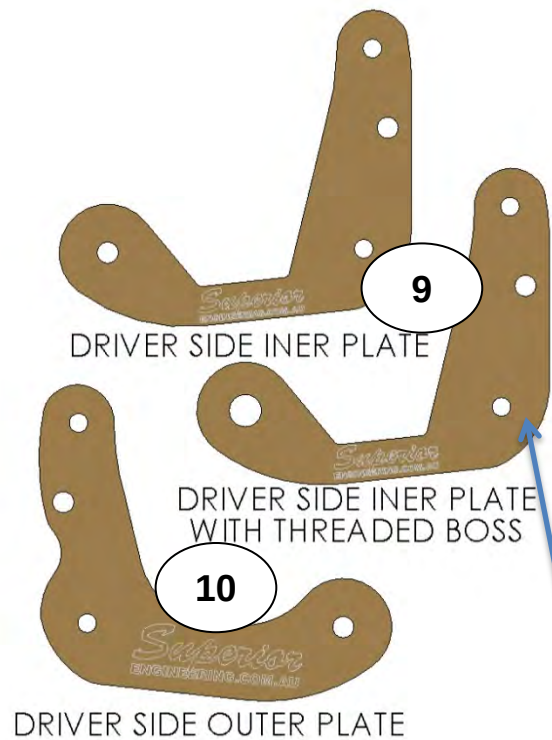
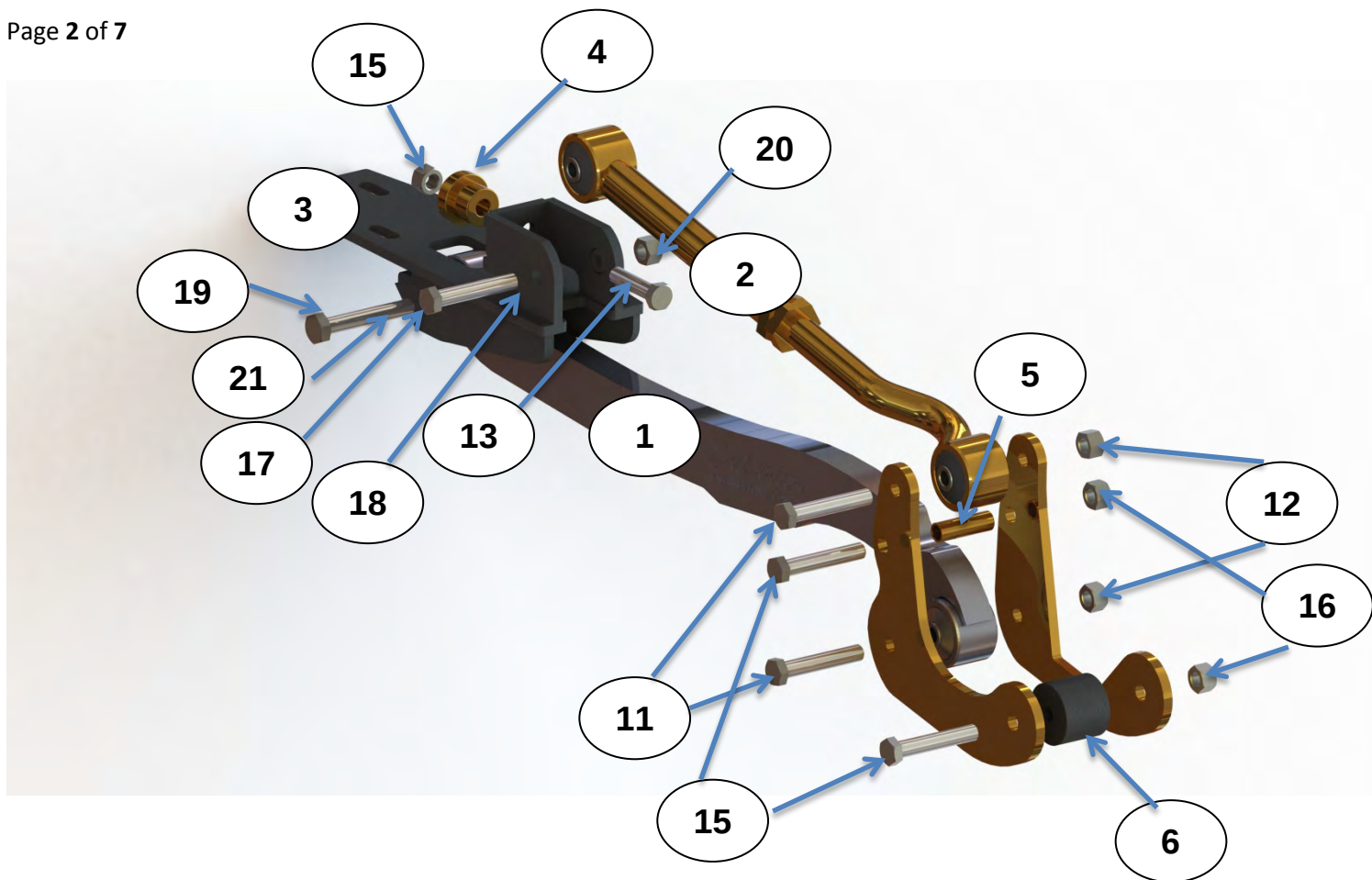
Superior Engineering PART LISTING

Superior
ENGINEERING.COM.AU
PREMIUM 4X4 ACCESSORIES
499 Uhlmann Rd
Burpengary QLD 4505
Australia

ITEM#	PART#	QUANTITY	DESCRIPTION
1		2	5 LINK RADIUS ARM (DS/PS)
2		2	5 LINK ADJUSTABLE UPPER CONTROL ARM
3		2	5 LINK DROP BOX (DS/PS)
4		2	STEEL DROP BOX BOSS
5		2	STEEL CRUSH TUBE
6		2	ALLOY BOSS CRUSH TUBE
7		1	PASSENGER SIDE OUTER PLATE DIFF
8		1	PASSENGER SIDE INNER PLATE DIFF
9		1	DRIVER SIDE INNER PLATE DIFF
10		1	DRIVER SIDE OUTER PLATE DIFF
11		4	M14 X 100mm BOLT
12		4	M14 NYLOCK/ CONELOCK NUT
13		2	M16X75mm BOLT
14		2	M16 FLAT WASHER
15		4	M16X100mm BOLT
16		6	M16 NYLOCK/CONELOCK NUT
17		2	M14X1.5X90mm BOLT
18		2	M14 SRING WASHER
19		2	M18X110mm BOLTS
20		2	M18 NYLOCK/CONELOCK
21		4	M18 FLAT WASHERS
22		4	P CLAMPS

NOTES:

- Approximate installation time: 4 HOUR
- Ensure all parts have been received correctly.
- Ensure parts are suitable for the vehicle prior to undertaking the insulation.



ONLY IF REQUESTED, TO
SUIT WELD ON DIFF GUARD

Superior Engineering Installation Instructions

Part Description: Nissan Patrol 5 Link
Part Number: SUP-5LINKGQGU

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NOTE: Read and understand these Installation Instructions before beginning the installation process. Retain these installation Instructions for future reference.

It is recommended this item is installed by a Qualified Person.

NOTE: Please check with your local transport department if it is legal in your area.

CAUTION

**Please ensure all bolts are tightened to correct torque settings.
Recheck in 500Km
It is recommended the vehicle receive a wheel alignment after the fitting of this item.
Make sure all bolts have 263 Loctite.**

Size	Torque (Nm)	Torque (lbft)
M10	49	36
M12	85	64
M14	135	96
M16	215	157
M18	295	227

1. Start by chocking the rear wheels and have the vehicles in gear or park with the hand brake applied. Chock the front wheels so they are unable to move forwards or backwards.
2. Remove the tie rod as per the factory manual.
3. Place a suitable jack under the pinion this is just to hold the pinion in place lifting pressure is not required. (be careful not to put the jack under the pinion seal)
4. Remove the radius arms and sway bar as per the factory manual. (This step may be easier if one side is done at a time.)

5. Place a second jack under the gearbox crossmember, undo the crossmember bolts and lower the crossmember down enough to fit the 5 link drop boxes. Then loosely bolt the crossmember back into place using the factory bolts with the drop box between the crossmember and the chassis. (As seen in figure 1) (If bolts are rusted or pitted do not reuse, replace bolts)

NOTE: It is recommended to undo and lower one side of the gearbox crossmember at a time to make installation easier.

6. Fit supplied steel boss (Part number 4) through the rear side of the factory mounting position of the radius arm. The steel boss will go through the chassis from the rear and butt up against the drop box at the front face.
7. Fit the supplied M16X75mm bolts and flat washer through the drop box, and into the steel boss, secure with the supplied M16 Nylock/conelock nut. Tighten the M16 bolt to the correct torque settings and then tighten the crossmember bolts to the correct torque settings. (bolts must be tighten in this order) Lower the second jack. (gearbox jack)
8. Moving on to the diff hold the outside diff plate up into position and check the brake lines. The steel brake line will need to be moved out of the way of the plates (Make sure to have room for the upper control arm boss and not to have the line to close to the coil. Make sure the line is clear and not rubbing on any surfaces. (As seen in figure 2)

9. Still holding the outside diff plate in place fit two M16X100mm bolt through the plate and into the factory radius arm mounting holes. The front bolt will need the alloy boss crush tube fitted between the factory radius arm mount with the M16X100mm bolt going through and into the other side. The rear bolt will need the steel crush tube fitted the same way. (As seen in figure 3 and 4)
10. Fit the inner diff plates and the M16 Nylock/conelock nuts, Leave loose.
11. Repeat steps 10 and 11 on the opposite side. (If fitting the driver side inner plate with the threaded boss the M16 nut is not needed as it has a threaded boss but will need to use 263 Loctite). **NOTE: The driver side inner plate with the threaded boss is to suit vehicles with weld on diff guards.**
12. Fit the lower radius arm with the logo facing out into the lower mount on the drop box using one M18X110mm bolt with two flat washers and one Nylock/ conelock nut.
13. Swing the front of the lower radius arm up in-between the two diff plate and mount in the lower hole with a M14X100mm bolt with one M14 Nylock/conelock nut.
14. Repeat steps 12 and 13 to the opposite side.
15. Check the caster angle, the caster angle should be between 2° and 3.5° (Larger tyres may need different caster). Lift the pinion up or down to get the desired angle. Then measure the distance of the mounting holes for the upper adjustable control arm from the top drop box mount to the top diff plate's holes. Use this measurement to set the upper control arms. A good starting measurement is 610mm
16. Fit the upper control arm with the logo facing out and the bend in the arm towards the front with the bend allowing the most clearance around the shock. (As seen in figure 6) Fit the front of the arm to the top diff plates using a M14X100mm bolt and Nylock/conelock nut. Then fit the back of the arm to the top drop box mount using M14X1.25X90mm bolt with a spring washer and thread into the inner boss in the drop box, making sure to use 263 Loctite.
17. Lower the jack's then tighten all bolts to the correct torque settings. Then tighten the upper control arms locking nuts.
18. Refit the tie rod as per the factory manual.
19. Refit sway bar to the tapped hole's in the lower radius arms.
20. If the vehicle is equipped with ABS. Mount the ABS line with the P clamps to the 2 small tapped holes along the inside of the radius arm. Make sure the ABS line clears all components through the full range of movement. Also make sure the line doesn't get tight.
21. Take the vehicle for a test drive to ensure your caster is within the required specifications. If the car appears to wander, the caster will need to be adjusted (as per step 15). Remove and re-adjust the upper arms, re-fit as per step 16 and take the vehicle for another test drive. Repeat this process until the vehicle is no longer wandering. The amount of adjustment required is dictated by a long list of factors including tyre size and lift. It may take 2-3 adjustments and test drives before you are happy. Your vehicle may need further wheel alignment once you are satisfied with the handling. **Note: This is best performed by a professional wheel aligner with sound understanding of suspension geometry.**



Figure 1: Correctly Fitted Drop Box



Figure 2: Correctly Fitted Diff Plates and Crush Tube



Figure 3: Correctly Fitted Front Boss



Figure 4: Fitting Of Arms



Figure 5: Correctly Fitted 5 Link



Figure 6: Complete Driver Side 5 Link Assembly