# Superior Engineering PART LISTING



499 Uhlmann Rd Burpengary QLD 4505 Australia

## **PART NUMBER -**

ITEM#	PART#	QUANTITY	DESCRIPTION		
1		1	SHOCK TOWER (PASSENGER SIDE)		
2		1	SHOCK TOWER (DRIVER SIDE)		
3		6	M12X1.5X30mm BOLTS		
4		6	M12X1.5 NYLOCK NUTS		
5		12	M12 FLAT WASHER		

### **NOTES:**

- Approximate installation time: 1 to 2 HOURS
- Ensure you have all required components, before undertaking the installation
- Ensure all parts are suitable for the vehicle prior to undertaking the installation.

### **WARNING**

- The following instructions are the installer's responsibility.
- Read and completely understand these Installation Instructions before beginning the installation process.
- Retain these installation Instructions for future reference.
- It is highly recommended that this item is installed by a Qualified Person.
- This product must be installed as per these instructions, only using the hardware supplied by Superior Engineering unless given prior written consent from Superior Engineering.
- This product is not to be fitted differently or modified in anyway other than specified by Superior Engineering.
- This product is not to be used on any other vehicle than those specified by Superior Engineering.



# Superior Engineering Installation Instructions

Part Description: Nissan Patrol GQ-GU Raised / Heavy

**Duty Shock Tower** 

Part Number: Multiple p/n

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

NOTE: Carefully read and understand these Installation Instructions before commencing the installation process. Retain these installation Instructions for future reference. It is highly recommended that this item is installed by a Qualified Person with a sound understanding of suspension geometry.

### **NOTE**

Working on one side at a time can make installation easier. This should be done by a qualified person.

### NOTE

Depending on the vehicle's chassis the coil tower may require drilling with a 12.5mm drill to fit this part.

### **CAUTION**

Please ensure all bolts are tightened to correct torque setting with 263 Loctite.

Size	Torque (Nm)	Torque (ft-lb)
M12	85	64

- 1. Chock wheels front and rear with the vehicle in gear, or in park with the handbrake also on.
- 2. Remove the front shock absorbers as per vehicle service manual.
- 3. Remove the factory shock towers. (As seen in *Figure 1&2*)
- Some models of patrol utilise captive nuts on the underside of the coil tower for retaining the factory tower. If your vehicle has these captive nuts, you will need to remove them before proceeding.
- Measure the diameter of the mounting holes to ensure they suit the supplied M12 bolt if not drill out holes to suit.

- 6. Mount Superior Engineering Replacement Shock mount in factory location.(As seen in *Figure 3*)
- 7. Loosely re-fit shock absorbers into the shock mount and check working clearance between the top of the pin/ nut and the inner guard.
- If more working clearance is required a hole may need to be drilled above the shock pin in the inner guard. NOTE: Be careful not to damage any components and lines in the engine bay.
- 9. If there is more room required E.g. The bush is close to the inner guard, the top of the inner guard above the shock mount may need to be cut off or hole-sawed or grinder NOTE: Be careful not to damage any components and lines in the engine bay.
- Refit shock absorbers correctly and tighten all bolts to correct torque settings making sure to use 263 Loctite.(As seen in *Figure 4*)
- 11. Check the full compression of the suspension to see if the shocks bottom out before the bump stop. If the shocks are bottoming out, a bump stop extension will be required. These can be purchased from Superior Engineering.



Figure 1: Factory Shock Mount



Figure 2: Front Coil Tower With Factory Shock Tower Mount Removed



**Figure 3: Correctly Fitted Shock Tower** 



Figure 4: Shock Tower With Shock Fitted With Out remote Reservoir Mounted