



Fitment	Part Number
Nissan Patrol	SS51A811

SS51A811 Install Instructions

NOTE – Installation is always recommended by a competent technician. Failure to properly install may result in reservoir fouling on components and voiding warranty.

WARNING:

- Do not release gas out of damper unless you have the ability to re-charge the damper
- Care must be taken to ensure the external oil/gas reservoir does not foul on any components over the full travel.



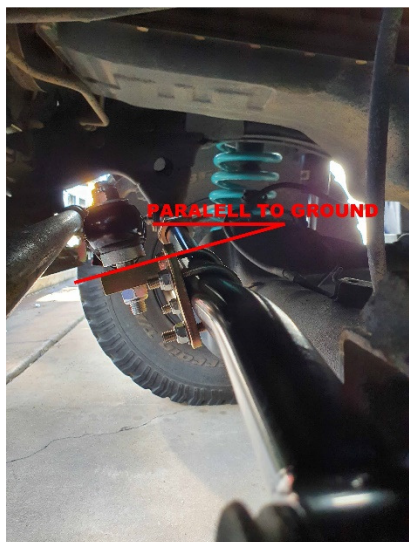
CHEERS!

Firstly, Dobinsons would like to say thanks for purchasing this damper!

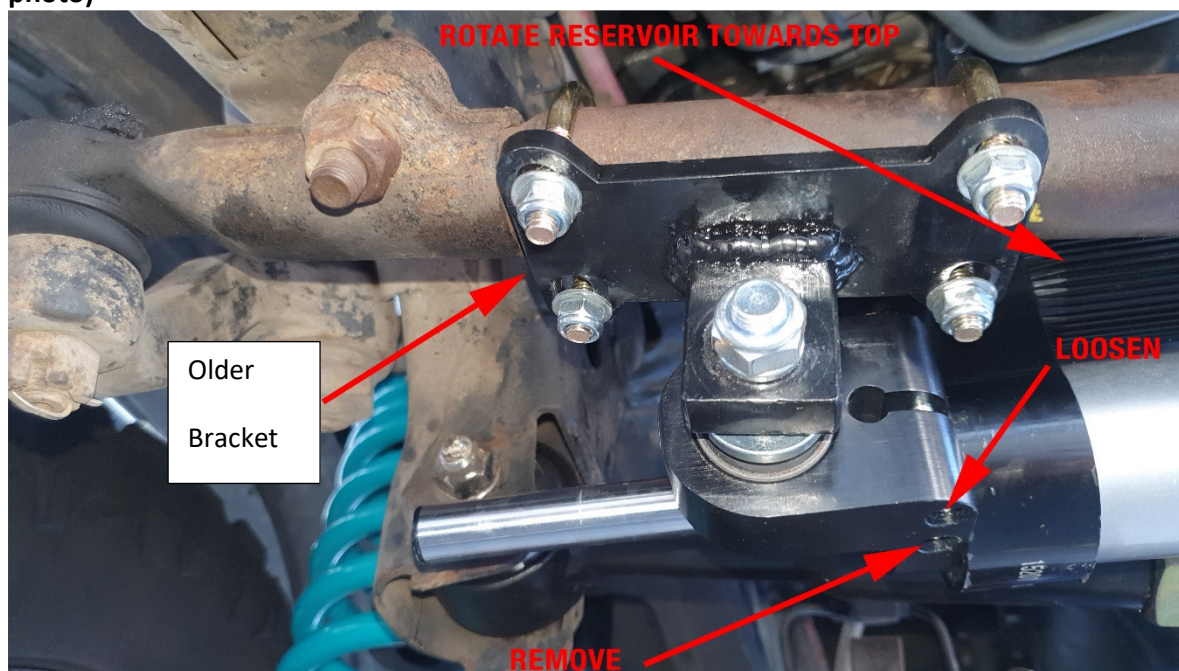
This steering damper is designed to fit in the original position of the factory steering damper. It is a through rod damper which means there is no force on the damper in any particular direction, compared to a foam cell steering damper, IFP steering damper, or coil centered steering damper. It is adjustable in valving, so you can dial it in, to how you like it. This has an aluminium body which will resist corrosion longer than normal steel dampers. Please wash away any mud that may be caked onto the rod to ensure longevity. Do not spray a pressure washer into the seal ends as you may damage the seals or inject water into oil. Make sure you can keep the reservoir as high as possible. Residual oil and assembly lube may be present near the seal paths from the factory which is normal from the assembly process. Make sure you do not remove the gas from the reservoir. Most importantly, enjoy yourself out there and stay safe. Enjoy the ride.

Instructions

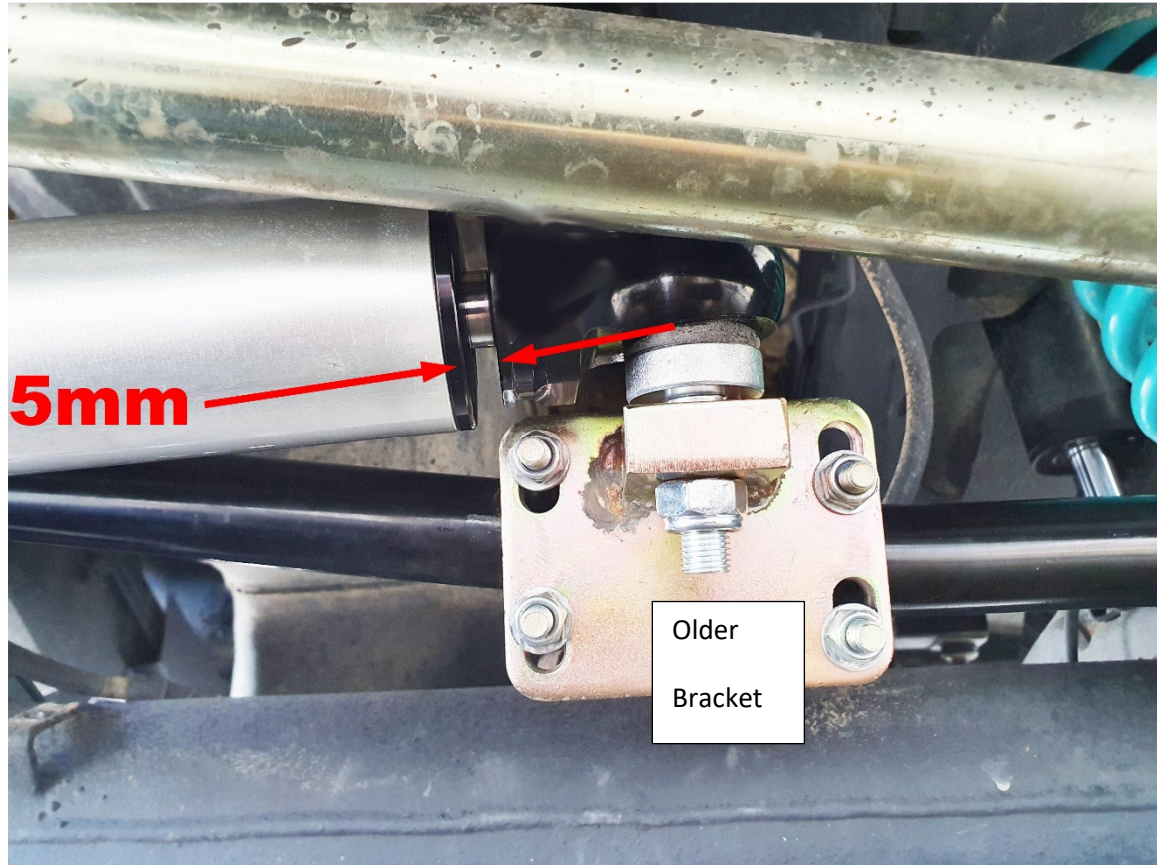
1. Firstly park the vehicle on level ground with the wheels facing forward. Make sure the vehicle cannot move, by using the handbrake or wheel chocks as you will be under the vehicle.
2. Remove the factory damper from the vehicle.
3. There are 2 x mounting brackets and 8 x bolts supplied to mount to your existing panhard rods and draglinks.
4. This steering damper will require cutting away the existing drag link and panhard rod steering damper mounts if the mounts are hard welded to the rods. This can be done first with a small grinder and cut off disk, and then cleaned up and painted to prevent rust.
5. With the original mounting brackets removed, install bracket and bolts loosely to the panhard rod. Orientate the bracket so that mounting post for the steering damper is to the top and rolled just forward from parallel to the ground. Ensure the tapered hole in the bracket is orientated correctly to receive the steering damper with the larger opening upwards. Orientate the bracket so that the centre of the bracket is around 250mm from the centre of the panhard rod diff mounting bolt. If your panhard rod has a large bend in it depending on the brand, just keep it down as close to 250mm as possible, it can be less if required. Tighten the bolts. See pictures over page



6. Install the supplied bushes to the shaft end of the steering damper, then fit supplied mounting bolt with the large end into the bushes, then fit one of the washers and nuts supplied.
7. Fit the damper to the panhard mounting bracket so that the adjustment screw is to the rear, to allow accesses from the back, This may require flipping the pin in the bushes.
8. Loosely fit the steering damper shaft end into the top of the mounting bracket as seen in the pictures above and loosely install the nyloc nut and tighten the nut until it just touches the bracket.
9. Loosely fit the other bracket to the drag link using the bolts supplied. Position the mounting bracket towards the end of the drag link with the mounting post to the bottom backward position as seen in the main picture on page 1. Tighten the bolts until the bracket is snug but not yet tight
10. Completely remove the rear allen head clamping bolt, and loosen the front allen head clamping bolt from the body end mount to allow the body to rotate independently to the body end mounting bolt. Rotate the body upward and slightly forward, Re-install and tighten bolts. **(older bracket shown in photo)**



11. Install the damper to the rear of the mounting bracket and install the nyloc nut and tighten the nut until it just touches the bracket.
12. You will now need to completely cycle your steering to check clearances, you may need someone to do this for you. First you want to SLOWLY cycle the steering to fully compress the steering damper (for right hand drive vehicles this is turning fully left until you touch the steering stopper). Whilst the vehicle is on the steering stopper, you need to slide the draglink bracket so that the steering damper has only 5mm of travel left. **(older bracket shown in photo)**



13. With the damper and steering in this position tighten the Bolts on the drag link bracket a little more. This aligns the damper in its left to right position and you now need to align the up/down position
14. SLOWLY Cycle the damper completely in the opposite direction, slow down as you come close to the end of the steering cycle. You need to check the clearance of the damper body to the panhard rod chassis mounting bracket. If you need to rotate the body for clearance, loosen the u bolts slightly on the drag link mounting bracket, ensuring the bracket doesn't move left to right, rotate the body for clearance and re-tighten. Rotate the reservoir up and forward for clearance to the panhard bracket and also the drag link. Depending on the panhard rod fitted and how close you could mount the panhard round mount to 250mm will determine the position of the body end to clear the panhard rod. Keep the steering damper as high as possible maintaining at least 5mm clearance at full steering lock to the panhard bracket. As the drag link rotates on the ball joints, the draglink should be rotated completely backward Before tightening the bolts – this is so that it can only rotate forward to give the steering damper clearance to the chassis panhard rod bolt. IMPORTANT: depending on the brand of aftermarket panhard rod fitted, you may need to slightly grind away the peak of the hexagonal lock nuts on the adjustable panhard rod as some brands are supplier with extremely large nuts which may contact the body of the steering damper



15. Tighten the drag link mounting bracket bolts and fully cycle the steering left to right checking clearances and checking the steering damper does not bottom out and has around 5mm of travel left.
16. Once you have made sure it does not hit on anything, tighten up both ends of the steering damper, the steering damping mounting pin on the rubber bushes and the U bolts on both mounting brackets.
17. The damper is now ready to use.
18. The adjustments can be made by a screw driver or a tool with a flat end. If you want to tighten up the steering, the damper can be adjusted stronger, or firmer by turning the adjuster clockwise.

