OFF - ROAD RACING SHOCKS

Installation Instructions (Page 1)

Nissan Patrol Y61 Front Bump Stop Kit

King Shocks 12472 Edison Way Garden Grove, CA 92841 714-530-8701 www.kingshocks.com

Front Parts List:

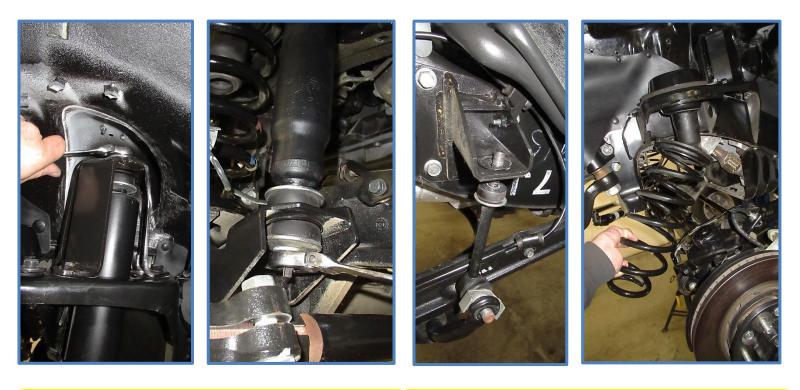
- 2 2" Compact Bump Stops (20AB001-108)
- 2 Bump Stop Mount/Weld Flange (20AB425-115)
- 1 Special Tool Hole Saw Adaptor (25079-002)

Tools Required:

Floor Jack/Jack Stands Metric Wrench/Socket Set Welder – Welding Equipment Drill & 2-5/16" Hole Saw Grinder/Sander



- **FRONT:** With the vehicle on level ground, set the emergency brake and block the rear tires. Using a floor jack, raise the front end and support the frame rails with jack stands for safety. Remove front tires. **NOTE: Never work under an unsupported vehicle.**
- 1. Unbolt and remove the front shocks from the vehicle. Unbolt the sway bar link. Remove front springs.



IMPORTANT: Read all instructions thoroughly from start to finish before beginning the install. Check parts list and make sure all parts are included in the kit. If the instructions are not properly followed severe frame, driveline and/or suspension damage may result. Check for frame and suspension damage prior to installation.



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2. Unbolt and remove the cap above the coil bucket.

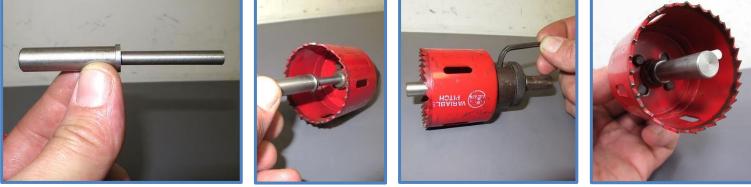


3. Unbolt and remove the factory bump stop.



4. You are now ready to drill the hole in the coil bucket to accept the King bump stop. First you will need a 2-5/16 (2.3125") hole saw. Remove the pilot drill bit from the hole saw and install the hole saw adaptor provided in the kit as shown below.





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5. Using the hole saw adaptor as a guide, insert the adaptor into the existing hole in the coil bucket and drill the 2-5/16 hole in the coil bucket as shown below.





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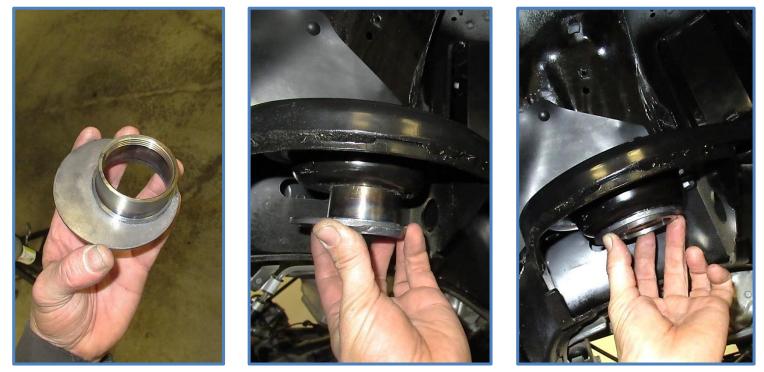


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6. Test fit the bump stop mount in the hole you just drilled and center the weld flange on the existing piece in the coil bucket. Make any necessary adjustments while test fitting. Remove the paint in the area to be welded and prep for welding.



Welding the bracket: Welding must be performed by a certified welder. Be sure to pay special attention to all safety hazards including but not limited to:

- Disconnect battery
- Protect all surrounding areas from weld splatter Fuel tank, Fuel lines, wiring, brakes, brake lines and anything flammable in the surrounding area.
- Always have fire extinguisher nearby and ready to use.
- NO WELDING with shocks or bump stops installed on the vehicle welding on the vehicle with shocks and bump stops installed can cause an arc from the welder to go through the shock which will damage the shock or bump stop. DO NOT WELD ON VEHICLE WITH SHOCKS INSTALLED!

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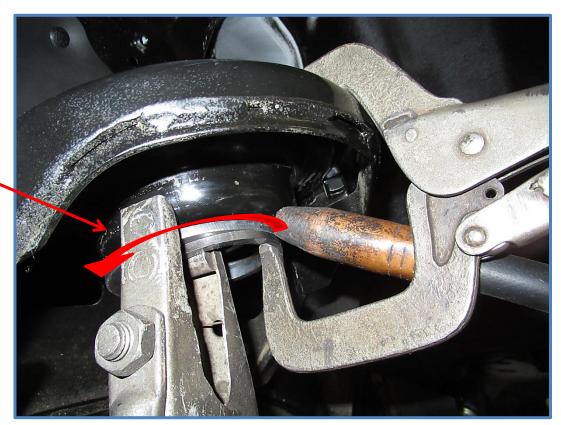
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7. Clamp bump stop mount in position and weld all the way around the flange.





Weld all the way around.

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- 8. After welding is complete you can clean up any weld splatter and prep for paint. Paint the bracket and any exposed metal to protect from rusting.
- 9. Install the King Bump Stop. Remove the upper nut (if applicable) and thread the bump stop into the bump stop mount. Thread the upper nut back on bump stop after final position has been determined.





10. Cycling suspension and adjusting bump stops – Now that the bump stops are installed you will need to adjust the position so the bump stop is setup properly for your vehicle. With the coil springs removed and the shocks installed, jack the axle up until the shocks are bottomed out (Fully Compressed). Now adjust the bump stop so that it bottoms out just before the shock does.



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Photo shows the bump stop bottomed out (fully compressed) with about an 1/8" of shaft showing on the shock. This is a proper setup for adjusting bump stops.





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<u>Additional note for setting up bump stops:</u> Tire size may play a role in setting up bump stops. If you are running larger tires you will want to install a tire while cycling suspension to check if you need to limit up travel for tire clearance issues. Bump stops and spacers can be set up to limit up travel to prevent tires from hitting fenders. However, maximizing wheel travel is also important for optimal suspension performance. Be sure to check all suspension components while cycling the suspension. Also be sure to install a tire while cycling suspension to make sure tire clearance isn't an issue. If tire clearance is an issue there are several aftermarket fender options that allow larger tires while maintaining full wheel travel. Fender trimming is also an option or use the spacers provided with your lift kit and adjust bump stops to limit up travel so that tires do not contact fenders.

11. Once the final position of the bump stop has been determine use a hammer and punch or screwdriver to tighten the lock ring. Apply locktite to the set screws and tighten the set screws.







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12. Once final position of the bump stop has been set you can reinstall the remaining suspension components. Reinstall springs, shocks and reattach sway bar links.



DOUBLE CHECK ALL HARDWARE:

Make sure everything is installed correctly and all hardware is tight before reinstalling tires. Install tires, remove jack stands and lower vehicle to the ground. Recheck all hardware and lug nuts after 100 miles and periodically after that as part of routine maintenance.

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