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PART #	DESCRIPTION
87842P	97-UP NISSAN PATROL Y61 2.5" FRONT SHOCK KIT

COMPONENTS INCLUDED	
(1) 184949D 97-UP PATROL Y61 2.5 DRVR REMOTE RESERVOIR SHOCK (1) 184949P 97-UP PATROL Y61 2.5 PASS REMOTE RESERVOIR SHOCK (1) 180001 Y61 DRVR SIDE RESERVOIR MOUNT	(1) 180002 Y61 PASS SIDE RESERVOIR MOUNT (2) 180003 Y61 FRONT BRAKE LINE BRACKET (4) 611007 MED DUTY 9/16" STEM BUSHING KIT (1) 611051 #40 2 1/16-3" HOSE CLAMP KIT (4)
HARDWARE INCLUDED	
(2) 180003 Y61 FRONT BRAKE LINE BRACKET	(2) 605807 M8-1.25 X 16MM BOLT
TOOLS REQUIRED	
FLOOR JACK JACK STANDS ABRASIVE GRINDER/SANDER PAINT DRILL CENTER PUNCH TORQUE WRENCH 21/64" DRILL BIT	10MM SOCKET / WRENCH 12MM SOCKET / WRENCH 14MM SOCKET / WRENCH 15MM SOCKET / WRENCH 17MM SOCKET / WRENCH 19MM SOCKET / WRENCH 22MM SOCKET / WRENCH 5/16 SOCKET / WRENCH
TECH NOTES	
<p>1. YOUR ICON SHOCK ASSEMBLIES COME FACTORY CHARGED TO 250 PSI. RELEASING NITROGEN PRESSURE MAY LEAD TO SHOCK MALFUNCTION AND REDUCED RIDE QUALITY. FAILURE CAUSED BY LOW NITROGEN PRESSURE IS NOT COVERED UNDER ICON'S WARRANTY POLICY.</p> <p>2. ICON SHOCK KITS PROVIDE ADDITIONAL DROOP TRAVEL. ICON SHOCK KITS WERE DESIGNED TO BE USED WITH ICON SPRING KITS. IF OTHER SPRINGS ARE BEING USED, THE INSTALLER MUST CHECK TO MAKE SURE COIL SPRINGS ARE SECURE AT FULL DROOP. IF COILS ARE LOOSE, LONGER COILS ARE REQUIRED.</p>	



WARNING!
<p>** READ ALL INSTRUCTIONS THOROUGHLY FROM START TO FINISH BEFORE BEGINNING INSTALLATION! IF THESE INSTRUCTIONS ARE NOT PROPERLY FOLLOWED SEVERE FRAME, SUSPENSION AND TIRE DAMAGE MAY RESULT TO THE VEHICLE!</p> <p>** ICON VEHICLE DYNAMICS RECOMMENDS THAT YOU EXERCISE EXTREME CAUTION WHEN WORKING UNDER A VEHICLE THAT IS SUPPORTED WITH JACK STANDS.</p> <p>** ICON VEHICLE DYNAMICS RECOMMENDS ALL INSTALLATION TO BE PERFORMED BY A PROFESSIONAL SHOP/SERVICE TECHNICIAN. PRODUCT FAILURE CAUSED BY IMPROPER INSTALLATION WILL NOT BE COVERED UNDER ICON'S WARRANTY POLICY.</p>

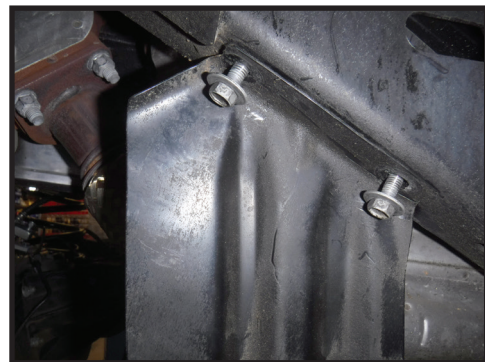
INSTALLATION

- Using a properly rated jack, raise the front of the vehicle and support the frame rails with jack stands. Ensure the jack stands are secure and set properly before lowering the jack. NEVER WORK UNDER AN UNSUPPORTED VEHICLE. Remove the front wheels.
- Using a 14mm, disconnect the front sway bar links from the frame. Use a 12mm to remove the engine skid plate. [FIGURE 1 & 2]

FIG.1



FIG.2

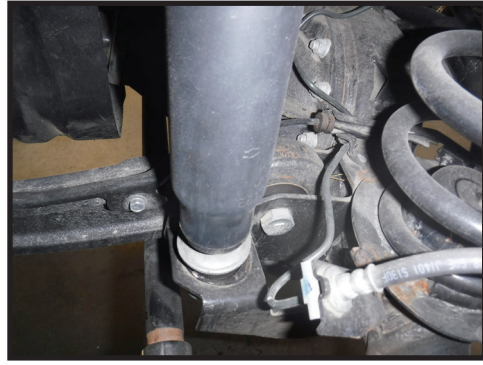


3. Use a 22mm to disconnect the track bar from the differential. Disconnect the shock from the differential and shock tower using a 19mm. [FIGURE 3 & 4]

FIG.3



FIG.4



4. Disconnect the differential breather hose from the axle tube using a 10mm. [FIGURE 5]

FIG.5



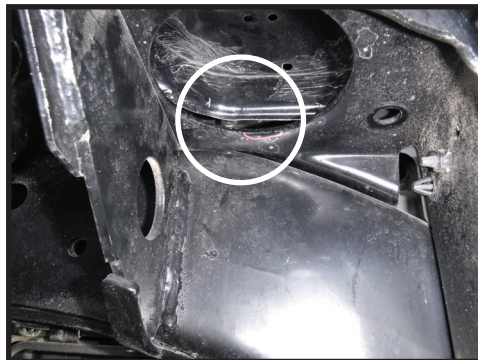
5. Disconnect the brake line blocks from the top of the differential using a 12mm. [FIGURE 6]

FIG.6



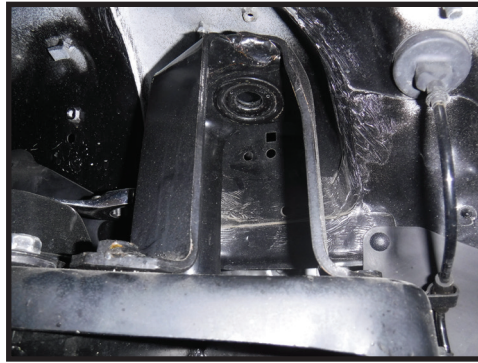
6. The opening in the bottom of the shock tower will need to be modified for shock fitment. Using a barrel sander, cut a notch in the back of the opening as shown. The notch needs to be between 1/4" - 3/8" deep. The notch is necessary to allow the stem of the shock to rotate into the shock tower. Paint exposed metal after cutting. [FIGURE 7]

FIG.7



7. Remove the shock tower from the frame using a 17mm. This provides room for the shock reservoir to be fed up through the hole and the stem of the shock to be rotated through the hole. [FIGURE 8]

FIG.8



8. Once shock is positioned through the hole, mount the shock tower to the frame. Use a 17mm and torque to factory spec.

9. Mount the shock to the shock tower using supplied stem bushings and torque to factory spec using a 19mm. [FIGURE 9]

FIG.9



10. Remove the coil bucket cap using a 15mm.

11. Position the reservoir mount on the coil bucket. The mount should put the reservoir forward and inboard of the coil bucket.

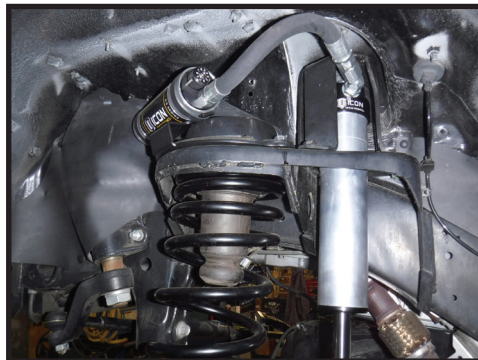
12. Mount the coil bucket cap. Use a 15mm to torque bolts to factory spec. [FIGURE 10]

FIG.10



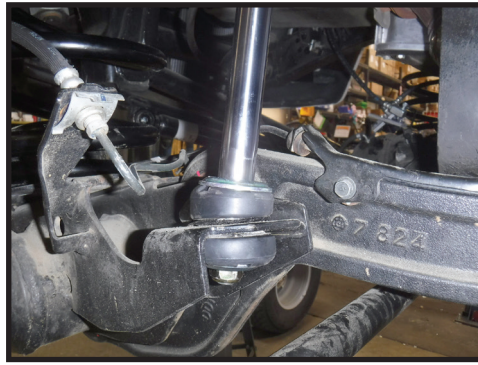
13. Use supplied hose clamps and a 5/16 to mount the reservoirs to the reservoir mounts. [FIGURE 11]

FIG.11



14. Mount the shock to the differential using supplied stem bushings a 19mm. [FIGURE 12]

FIG.12



15. Using the supplied M8 bolt (605807), mount the relocation bracket (180003) to the differential. Mount the brake line blocks to the relocation bracket using the factory bolt and the supplied M8 nylock nut. This will require careful bending of the hard lines. Torque to 18 ft-lbs using a 12mm and 13mm. [FIGURE 13]

FIG.13



16. Connect the track bar to the differential and torque to factory spec using a 22mm. [FIGURE 14]

FIG.14



17. Connect the differential breather hose to the axle tube using a 10mm. [FIGURE 15]

FIG.15



18. Using a 14mm, connect the front sway bar links to the frame. Use a 12mm to connect the engine skid plate. [Torque to factory spec] [FIGURE 16 & 17]

FIG.16

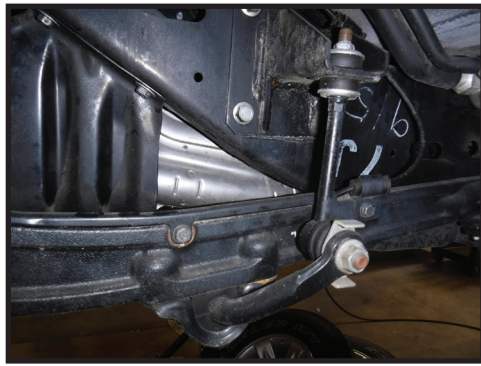


FIG.17



VERIFY ALL FASTENERS ARE PROPERLY TORQUED BEFORE DRIVING VEHICLE.

RETORQUE ALL NUTS, BOLTS AND LUGS AFTER 100 MILES AND PERIODICALLY THEREAFTER.

2.5 VS SERIES SHOCK & COILOVER TECHNICAL INFORMATION

MAINTENANCE

ICON shock absorbers are a high quality rebuildable race style shock absorber designed for optimal performance. With a unit of this caliber on your vehicle, routine maintenance is required to keep them looking and operating in like new condition. Residual oil and assembly lube may be present at all seal paths from the factory out of the box and is considered normal. Pooling of oil however is not acceptable at any time and one should contact the ICON dealer where purchased.

BELOW ARE GUIDELINES BASED ON HOW YOU USE YOUR VEHICLE BUT YOUR MILEAGE MAY VARY:

STREET USE:

- Send in for factory servicing every 40,000 miles or if a leak develops, ride quality decreases, or they begin to make excessive noise.
- Remove any buildup of road salt, mud, or debris from shocks and coil springs anytime accrued
- Clean with mild soap and water with each oil change or anytime you notice build up.
- Wax the cylinders yearly with automotive wax to prevent corrosion.
- Check nitrogen pressure yearly. (252004 charge needle assembly available at any ICON distributor)
- Check bearings for excessive wear yearly.
- DO NOT apply any type of lube to the upper and lower bearings.

STREET/DIRT:

- Send in for factory servicing every 15,000 miles or if a leak develops, ride quality decreases, or they begin to make excessive noise.
- Clean with mild soap and water with each oil change, offroad trip, or anytime you notice build up.
- Wax the cylinders yearly with automotive wax to prevent corrosion.
- Check nitrogen pressure each dirt outing. (252004 charge needle assembly available at any ICON distributor)
- Check bearings for excessive wear yearly.
- DO NOT apply any type of lube to the upper and lower bearings.

DIRT USE:

- Send in for factory servicing every 1,000 miles.
- Check nitrogen pressure each outing. (252004 charge needle assembly available at any ICON distributor)
- Remove any buildup of mud or debris from shocks and coil springs after every outing.

SELF-SERVICE:

- Contact ICON for service kits & tools at (951) 689-4266.

PRODUCT REGISTRATION

Please visit: <http://www.iconvehicledynamics.com/tech-support/registration/> to register your product.

ICON VEHICLE DYNAMICS SHOCK ABSORBER WARRANTY

This shock absorber has a 1 year warranty against any manufacturer's defects. If a shock fails within the initial year of ownership, the shock must be shipped to ICON Vehicle Dynamics for inspection and service. If a shock is inspected and it has been determined the shock failed due to neglect, damage caused by improper installation or any other reason besides "normal wear and tear", the owner of said shock is responsible for all service costs. This includes labor, parts, and shipping.

ICON Vehicle Dynamics warrants to the original retail purchaser who owns the vehicle on which the product was originally installed. ICON Vehicle Dynamics does not warrant the product for finish, alterations, modifications and/or installation contrary to ICON Vehicle Dynamics instructions. ICON Vehicle Dynamics products are not designed, nor are they intended to be installed on vehicles used in race applications, for racing purposes or for similar activities. (A "race" is defined as any contest between two or more vehicles, or a contest of one or more vehicles against the clock, whether or not such contest is for a prize). This warranty does not include coverage for police or taxi vehicles, race vehicles, or vehicles used for government or commercial purposes. Also excluded from this warranty are sales outside of the United States of America and Canada.

ICON Vehicle Dynamics' obligation under this warranty is limited to the repair or replacement, at ICON Vehicle Dynamics' discretion, of the defective product. Any and all costs of removal, installation or re-installation, freight charges and incidental or consequential damages are expressly excluded from this warranty. Items that are subject to wear are not considered defective when worn and are not covered.

ICON Vehicle Dynamics components must be installed as a complete kit as shown in our current application guide. Any substitutions or exemptions of required components will immediately void the warranty. Some finish damage may happen to parts during shipping and is not covered under warranty.

This warranty is expressly in lieu of all other warranties expressed or implied. This warranty shall not apply to any product that has been improperly installed, modified or customized subject to accident, negligence, abuse or misuse.

To send a shock in for warranty please visit our website <http://www.iconvehicledynamics.com/tech-support/shock-service/>