

5 6 7 3 2			
Component parts	 2. Shock absorber 3. Lower spring seat 4. Dust cover 5. Washer 6. Dust cover bushing 7. Tie strap 		
5. TOOLS REQUIRED:Torque wrenchCombination wrenches (19mm)	 Coil spring compressor Ratchet wrenches Socket (14 mm, 19mm) Tools to remove wheels from vehicle 		
6. INSTALLATION NOTES AND PRECAUTIONS: You will see various symbols in this instruction. They are used in the following ways:			
⚠ WARNING	This is used to indicate the presence of a hazard that could cause death or serious personal injury. To avoid or reduce the risk, the procedures must be followed precisely.		
CAUTION	This is used to indicate the presence of a hazard that could cause minor or moderate personal injury or damage to your vehicle. To avoid or reduce the risk, the procedures must be followed carefully.		



A) Before Installation

- 1.) After opening the packing, check to see if any parts are missing and that the product is not damaged.
- 2.) This product should be installed with proper installation tools.
- 3.) Install this product while observing all warnings and precautions stated in this instruction.

•	Read your Vehicle Owner's Manual to assist you in the safe
	operation of your vehicle. Failure to do so may result in an
accident and serious injury.	

- Always observe rules, regulations and posted speed limits when operating any motor vehicle. Always wear your seatbelt.
- Do not make any alteration or modification to this product. Serious injury may result.
- Do not drop any of the components. If a shock absorber is dropped it may be damaged and no longer function properly.
- After installation, test-drive the vehicle for about 30 miles (50 km) at speeds less than 40 mph (60 kph). Avoid any quick maneuvers.
- If any abnormal noises are heard or abnormal vibrations are felt, immediately stop the vehicle in a safe place and check your vehicle. Driving with an abnormal condition may result in an accident and serious personal injury.
- Do not use this product for anything other than the purpose described in this manual. Any accident or injury incurred by improper use of this product is the sole responsibility of the user.
- Remember that lifting a vehicle can raise its center of gravity, and may make it more susceptible to rollover. We strongly recommend that you offset the loss of rollover resistance as much as possible by increasing tire track width, and that you equip the vehicle with a functional roll bar and cage system.
 Wear seat belts and shoulder harnesses at all times, and avoid situations where a side rollover may occur.
- Before installation, confirm application and part number. If the product is installed on an improper vehicle, it may result in vehicle damage or an accident.
- The specified torque shown in this manual must be used.
 Tightening bolts above the specified torque may result in damage.
- After installation, be sure to check to make sure that the tires, wheels, suspension parts and body do not interfere with each other.
- Do not use an impact wrench for installation or removal of the piston rod lock nut as it may cause damage to the shock absorber.



WARNING



CAUTION



B) Before Using



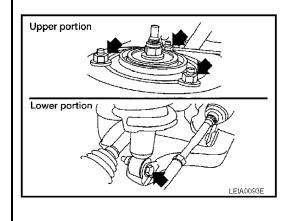
WARNING

- Installing the shock absorber by any other method than described in this manual may result in an accident and serious injury.
- Tightening torque specifications listed in this manual must be followed.
- Before installation, be sure to place the jack (or hoist) at the correct jack-up point to lift the vehicle and secure with suitable stands. Always chock the appropriate wheels.
- Never get under a vehicle while only supported by a jack.
- Do not use vehicle jack to install this kit. (Vehicle jack is not meant for this type of work).

7. INSTALLATION PROCEDURE

FRONT SHOCK ABSORBER

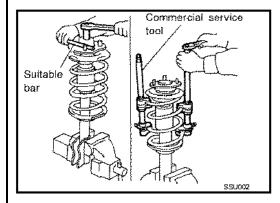
A) Removal of front shock absorber

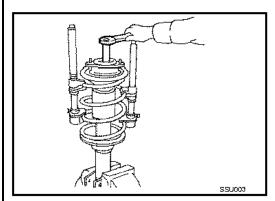


- 1.) Remove the wheel and tire using power tool.
- 2.) Remove the shock absorber lower bolt using power tool.
- 3.) Remove the three shock absorber upper mounting nuts using power tool.
- 4.) Remove the coil spring and shock absorber assembly.
 - Turn steering knuckle out to gain enough clearance for removal.



B) Disassembly

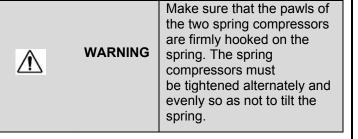




1.) Set the shock absorber in a vise, then loosen (without removing) the piston rod lock nut as shown.

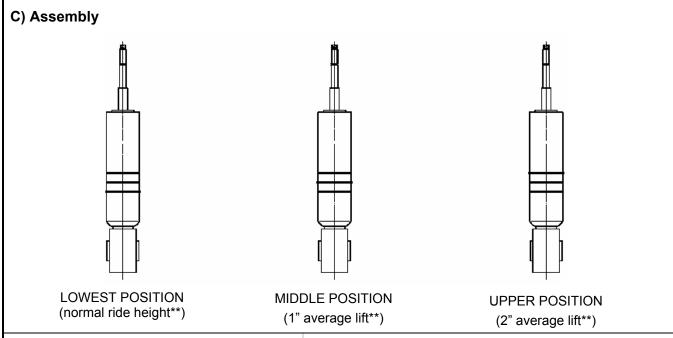
WARNING Do not remove piston rod lock nut at this time.

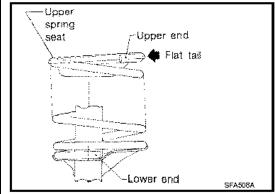
2.) Compress the spring using commercial service tool until the shock absorber mounting insulator can be turned by hand.

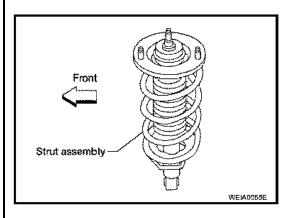


- 3.) Remove the piston rod lock nut.
 - Discard the piston rod lock nut. Use a new nut for assembly.









- 1.) Position the lower spring seat on shock absorber.
 - If desired, change position of the circlip under the spring seat to change ride height (see above).
 Read the warning on page 6 about lifting the vehicle.
 - ** Ride heights indicated are typical. Actual ride height is influenced by which factory suspension the vehicle is equipped with and its condition; optional equipment and accessories on your vehicle, and other vehicle modifications such as replacement coil springs, wheel and tire combinations, etc.
 - The step in the shock absorber assembly lower seat faces outside of vehicle.
- 2.) Install new washer above bellows boot.
- 3.) When installing coil spring on shock absorber, it must be positioned as shown.
- 4.) Install upper spring seat as shown in line with lower shock absorber mount and step in lower seat.
- 5.) Install and tighten the new shock absorber rod lock nut.
- 6.) Tightening torque: 40 ft-lbf (53.9 N-m)





WARNING

Remember that lifting a vehicle (changing its ride height) can raise its center of gravity, and may make it more susceptible to rollover. We strongly recommend that you offset the loss of rollover resistance as much as possible by increasing tire track width, and that you equip the vehicle with a functional roll bar and cage system. Wear seat belts and shoulder harnesses at all times, and avoid situations where a side rollover may occur.

D) Installation

Installation is in the reverse order of removal.

- The step in the shock absorber assembly lower seat faces outside of vehicle.
- Tighten all nuts and bolts to specification.

Shock absorber upper mounting nuts (3)	Tightening torque	22 ft-lbf (29.5 N-m)
Shock absorber lower bolt	Tightening torque	99 ft-lbf (134 N-m)

BILSTEIN SUSPENSION SUSPENSION SYSTEMS