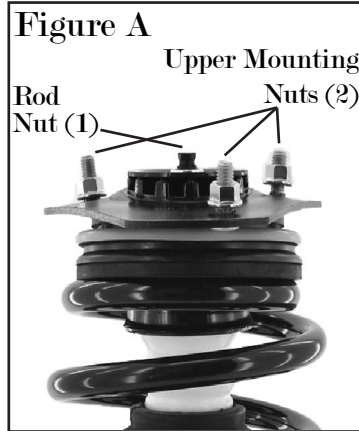


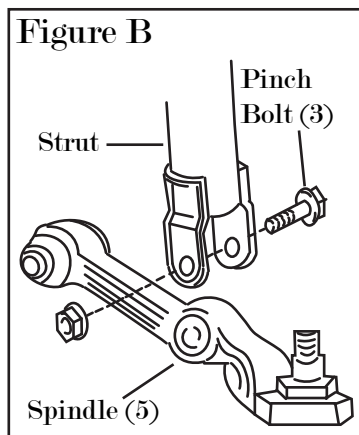


## Safety Precautions



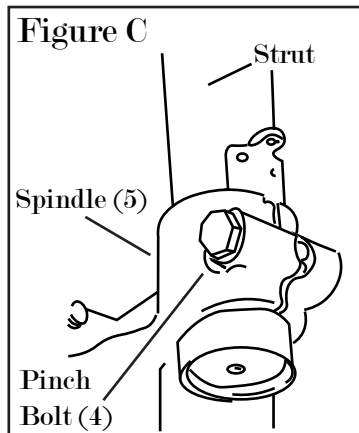
- Read the entire instruction manual before removing the old assembly and starting the new assembly installation
- Gas pressurized unit, do not open or heat. Keep away from children.
- Use a weight appropriate jack stand to prevent inquiry, leveled on both sides.
- Head, eye, hand and foot protection is required at all times.
- Do not touch the polished piston rod with any tools. Doing so will cause nicks and scratches leading to decreased service life, oil leakage and voiding warranty.
- Do not, under any circumstance, remove the rod nut (1) (Figure A), doing so will cause the coil spring to release tension and your warranty will be voided.**
- Strut Assemblies should be replaced in pairs (replace all four corners for optimal results) to reduce the risk of suspension failure, and to increase performance.

## General Removal Instructions



- Put aside any hardware from the existing strut assembly for possible re-use.
- Find the upper mounting nuts (2) of the upper mount (Figure A), loosen, but do not completely remove the nuts (Do not loosen the rod nut (1)). Mark one of the mounting studs as a reference point, then mark the corresponding nut on the strut assembly.
- Raise the vehicle and be sure to safely support the frame equally on each side.
- Remove wheel, brake hose bracket, stabilizer link, ABS and tie rod (all components attached to the existing assembly).
- Be cautious while removing any brake or suspension components, do not let components hang, use a retention strap for support. Be sure to cover the drive shaft. Failure to do so may result in additional repairs.
- Remove lower mounting nuts and bolts (6)(7) from the outer tie rod (Figure D).
- Disposal of old assembly must be in accordance with local ordinance.**

## Removal Steps for Specific Strut Configurations



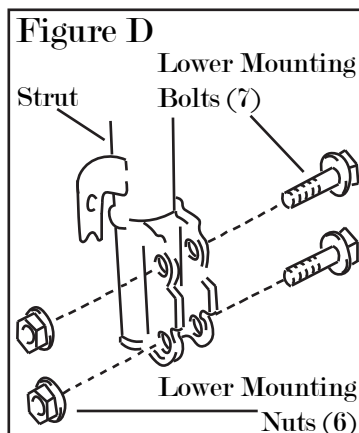
### Single-Bolted Strut

- Remove and save pinch bolt (3) and nut (Figure B)
- Remove and save spindle-to-strut assembly pinch bolt (4) (Figure C)
- Using a screwdriver, spread strut to spindle (5) joint, if necessary, for removal. Lightly tap on top of the spindle (5) with a hammer to loosen it until the strut comes free (Figure B).

### Double-Bolted Strut

- Remove and save lower mounting nuts (6) and bolts (7) (Figure D).
- Loosen the strut from the steering knuckle, and separate.
- Remove old assembly from the wheel well and set aside

## General Installation Instructions



- Position strut inside of wheel well, lining up the previously marked stud and bolt.
- Reconnect components to the new strut assembly, including but not limited to, tie rod, brake hoses, stabilizer link, ABS, etc. Torque components to the specifications listed in the vehicles repair manual.
- If used, remove protective cover from drive shaft.
- Replace wheel and lug nuts, tighten until meeting manufacturers specifications.
- Once wheel is properly installed, lower vehicle to the ground and tighten upper mounting nuts (2) (Figure A). Only torque with wheels on the ground for accurate installation. (See backside for specific instructions)

## Warning

Do not over tighten nuts or bolts, excessive torque will cause damage to treads or the bolt or nut itself. Tighten to manufacturers specifications. Over tightening may cause warranty to be voided and additional repairs.

# Installation Instructions



## Additional Information

- Installation should take between one and two hours for one person.
- On some vehicles, turning the steering wheel before installation, will make access to the lower bolts much easier.
- After installation ride height might be higher than normal, please give between two and four weeks or eight hundred to sixteen hundred kilometers for the springs to adjust to the vehicles weight, and to settle to the manufacturers specifications.

## Tips

- **Wheel alignment after installation is highly suggested.**
- Removing two of the three upper mounting nuts (2) and loosening the third (Figure A) will allow the strut to pivot freely.
- Take a photo of the suspension system before removal and after installation. Compare before and after photo.
- Ensure the wheels are on the ground before tightening the upper mounting nuts (2) (Figure A).
- Match up left and right units as well as their orientation. Spring orientation can affect ride quality and steering.
- Before getting a wheel alignment, take a test drive. Wiggle the steering wheel, bounce the vehicle, hit a speed bump, accelerate and brake, while listening and feeling for loose parts.

## Installation Steps for Specific Strut Configurations

### Single-Bolted Strut

- Place top of assembly, into the strut tower, loosely screw on one bolt (2) (Figure A).
- Install pinch bolt (3) loosely into spindle (5) (Figure C).
- Place strut into spindle.
- Tighten pinch bolt until manufacturers specifications.
- Re-attached any components that were unattached in the removal process.
- Lower vehicle then tighten the upper mounting bolts (2) to manufacturers specifications.

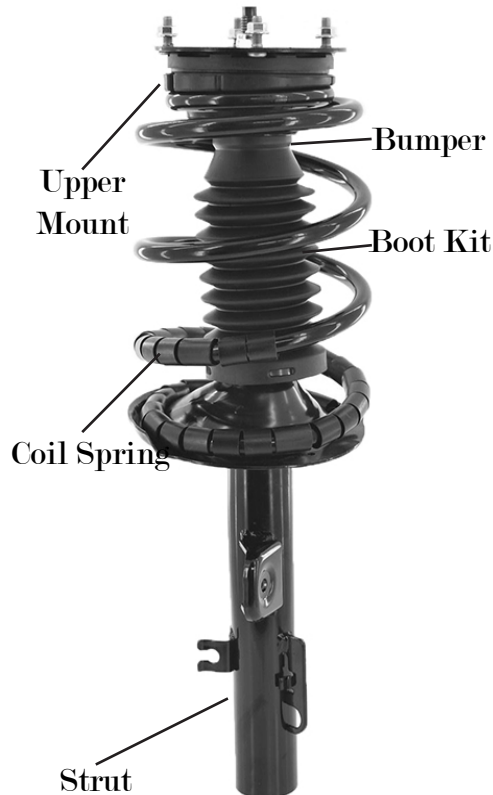
### Double-Bolted Strut

- Place top of assembly, into the strut tower, loosely screw on one bolt (2).
- Install lower mounting nuts (6) and bolts (7) (Figure D).
- Torque nuts and bolts to manufactures specifications.
- Re-attached any components that were unattached in the removal process.
- Lower vehicle then tighten the upper mounting bolts (2) to manufacturers specifications.

### SINGLE BOLTED STRUT



### SINGLE BOLTED STRUT (PINCH BOLT)



### DOUBLE BOLTED STRUT

