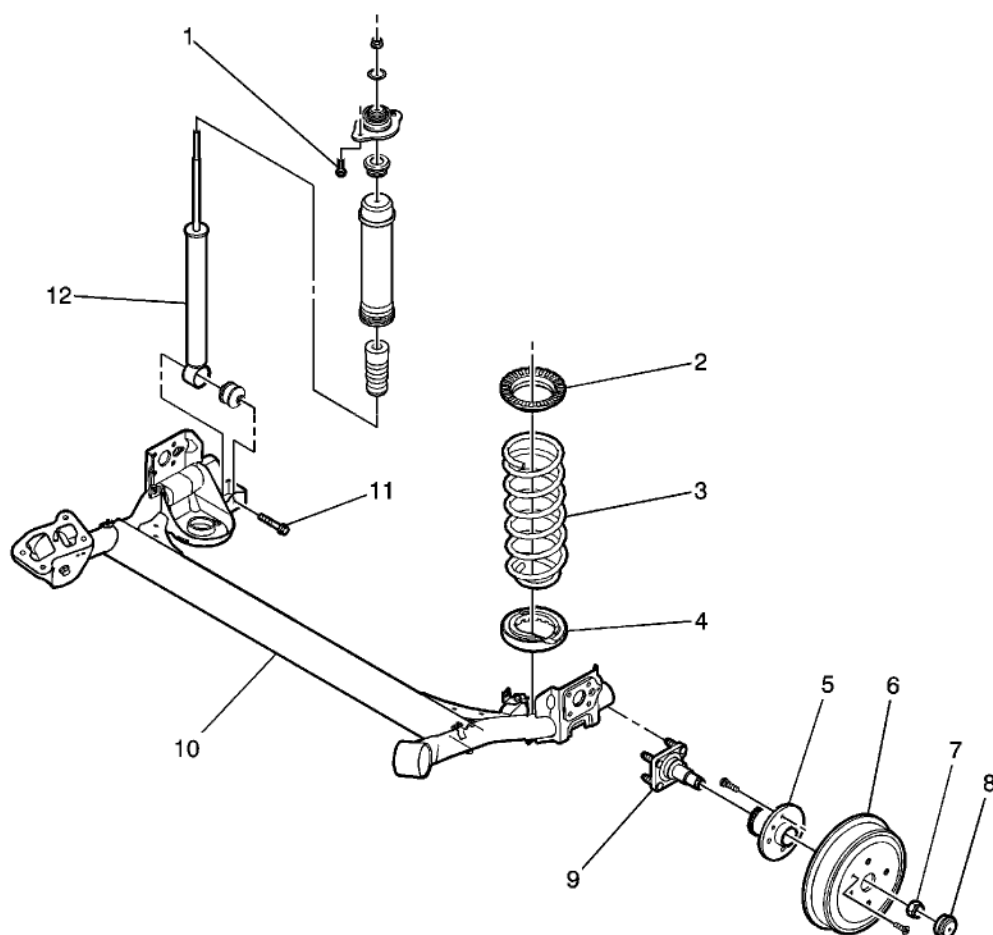


[2008 Chevrolet Aveo](#) | [Aveo, Wave, G3, Barina \(VIN S/T\) Service Manual](#) | [Suspension](#) | [Rear Suspension](#) | [Specifications](#)
| Document ID: 1294218

Fastener Tightening Specifications

Application	Specification	
	Metric	English
Rear Axle to Body Bracket Bolt	115 N·m	85 lb ft
Rear Axle Mounting Bracket Bolts	70 N·m	52 lb ft
Rear Hub Caulking Nut	190 N·m	140 lb ft
Shock Absorber-to-Axle Bolt - Lower	72 N·m	53 lb ft
Shock Absorber-to-Body Bolts - Upper	50 N·m	37 lb ft

Rear Suspension Components



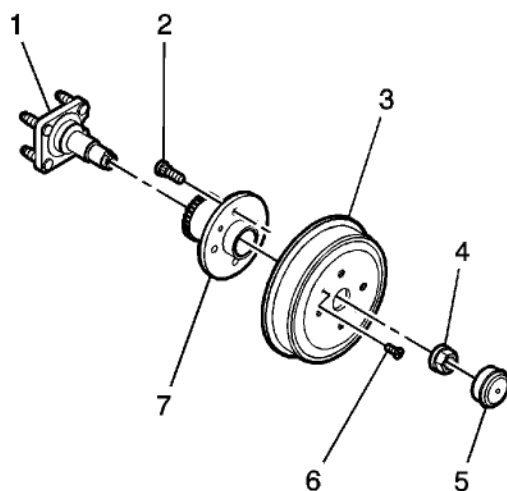
- (1) Shock Absorber Upper Bolt
- (2) Spring Upper Insulator
- (3) Coil Spring
- (4) Spring Lower Insulator
- (5) Rear Wheel Bearing and Hub Assembly
- (6) Brake Drum
- (7) Caulking Nut
- (8) Spindle Cap
- (9) Spindle
- (10) Rear Axle
- (11) Shock Absorber Lower Bolt
- (12) Shock Absorber

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Rear Wheel Bearing and Hub Replacement

Removal Procedure

1. Remove the rear wheel speed sensor, if equipped. Refer to [Rear Wheel Speed Sensor Replacement](#).
2. Remove the brake drum. Refer to [Brake Drum Replacement](#).

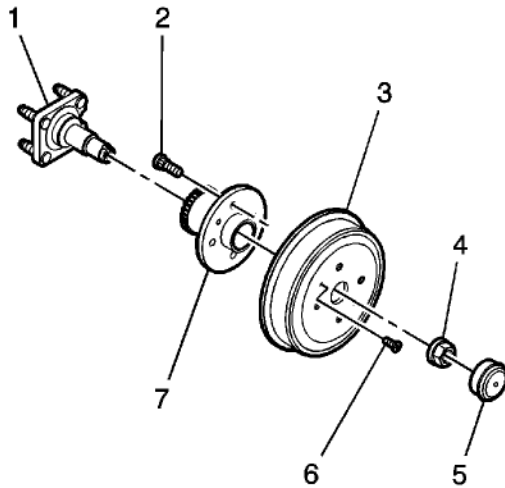


3. Unstake the caulking nut (4).
4. Remove the caulking nut.

Important: Pull the wheel bearing and hub assembly straight off the spindle. The 2 inner wheel bearing races may not be secure.

5. Remove the wheel bearing and hub assembly (7) from the spindle (1).

Installation Procedure



Important: Slide the wheel bearing and hub assembly straight onto the spindle. Use care in order to properly position the wheel bearing races on the spindle.

1. Install the wheel bearing and hub assembly (7) to the spindle (1).

Notice: Refer to [Fastener Notice](#) in the Preface section.

2. Install the caulking nut (4) to the spindle.

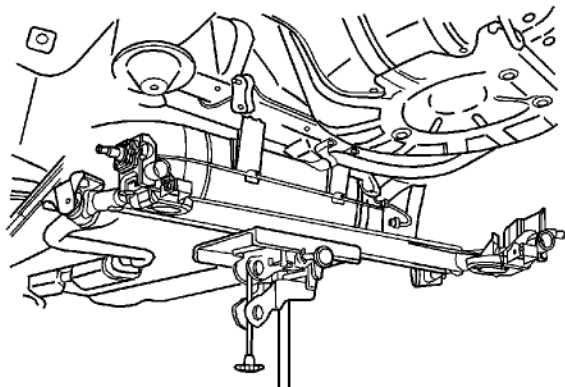
Tighten

Tighten the nut to 190 N·m (140 lb ft).

3. Stake the caulking nut.
4. Install the brake drum. Refer to [Brake Drum Replacement](#).
5. Install the rear wheel speed sensor, if equipped. Refer to [Rear Wheel Speed Sensor Replacement](#).

Shock Absorber Replacement

Removal Procedure



Notice: Remove only one shock at a time when both shocks are being replaced. Do not suspend the rear axle by the brake hoses. Damage to the brake hoses may result.

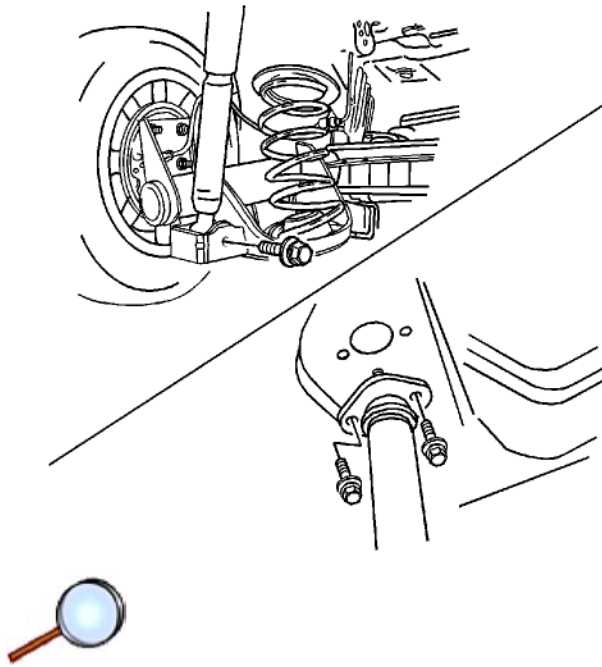
1. Remove the shock absorber-to-body bolts - upper.

Notice: Refer to [Vehicle Lifting and Jacking Notice](#) in the Preface section.

Important: When lifting the vehicle with a body hoist, it will be necessary to support the rear axle with adjustable jack stands.

2. Raise the vehicle and support the rear axle assembly.
3. Remove the lower shock absorber-to-axle bolt.
4. Remove the shock absorber.

Installation Procedure



Important: It will be necessary to bring the axle assembly to trim height prior to tightening the shock absorber attachment bolts.

1. Insert the lower shock absorber-to-axle bolt through the shock absorber lower attachment bracket and into the axle.

Notice: Refer to [Fastener Notice](#) in the Preface section.

2. Lower the vehicle enough to guide the upper shock stud on the body opening and loosely install the attaching bolts.

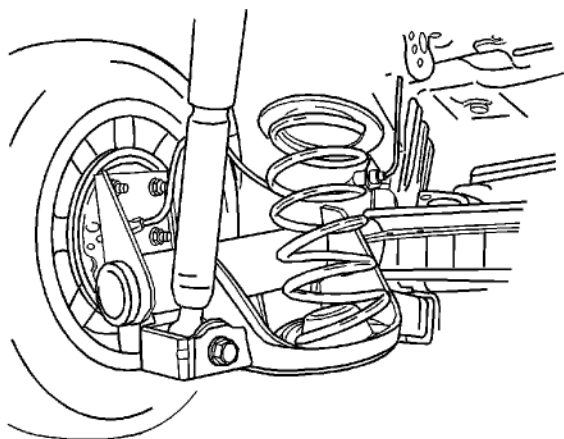
Tighten

- Tighten the lower shock absorber-to-axle bolt to 72 N·m (53 lb ft).
- Tighten the upper shock absorber-to-body bolt to 50 N·m (37 lb ft).

Coil Spring Replacement

Removal Procedure

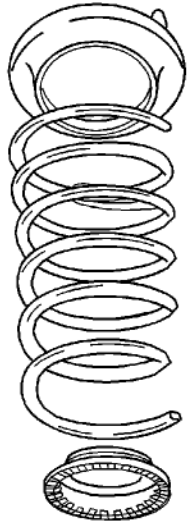
Notice: Refer to [Vehicle Lifting and Jacking Notice](#) in the Preface section.



Caution: When removing the rear springs, do not use a twin-post type hoist. The swing arch tendency of the rear axle assembly when certain fasteners are removed may cause it to slip from the hoist which may cause personal injury.

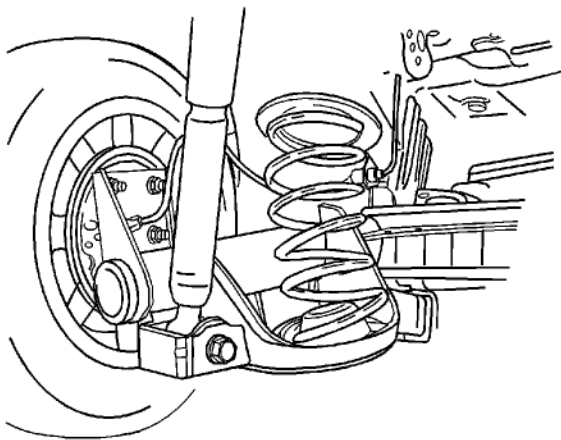
1. Raise and suitably support the vehicle. Use a frame contact hoist if possible and support the rear control arms with jack stands. If it becomes necessary to lift the vehicle with a twin-post hoist, lift the body and support the control arms with jack stands.
2. Remove the wheel. Refer to [Tire and Wheel Removal and Installation](#).
3. Remove the right and the left shock absorber bolts. Refer to [Shock Absorber Replacement](#).
4. Lower the rear axle and remove the springs and the top insulator.

Installation Procedure



Important: Prior to installing the springs, it will be necessary to install the upper insulators to the body and adhesive to keep them in position while raising the axle assembly and the springs.

1. Install the upper insulator and seat the lower bumper.



2. Install the springs and raise the axle.
3. Install the shock absorbers. Refer to [Shock Absorber Replacement](#).

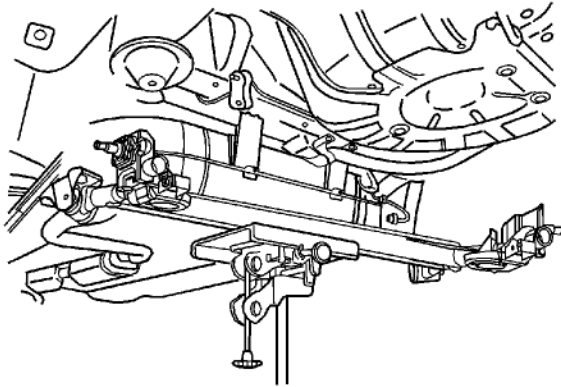
Important: It will be necessary to bring the axle assembly to trim height prior to tightening the shock absorber attachment bolts.

4. Install the wheel. Refer to [Tire and Wheel Removal and Installation](#).

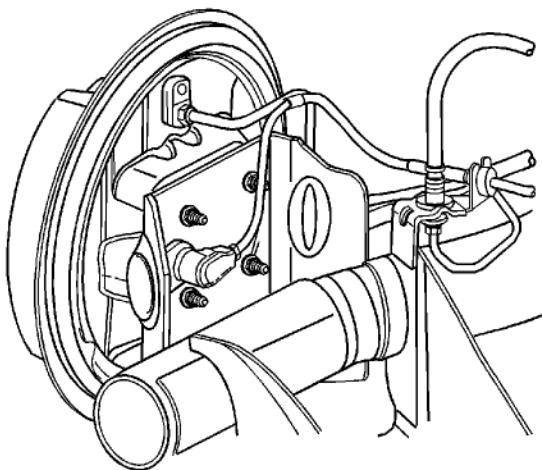
5. Remove the jack stands and lower the vehicle.

Rear Axle Replacement

Removal Procedure

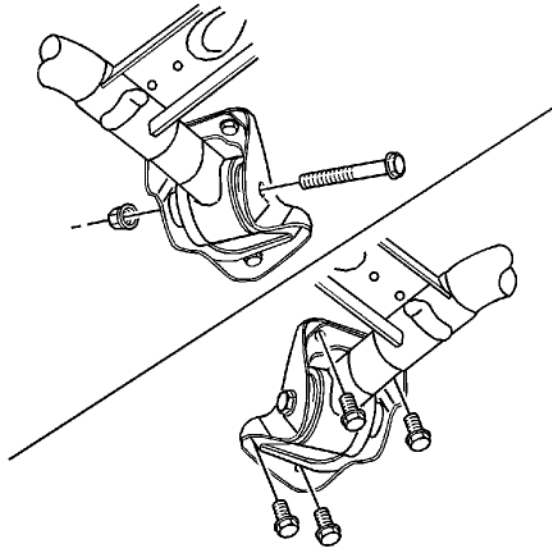


1. Raise and support the vehicle. Refer to [Lifting and Jacking the Vehicle](#) .
2. Remove the rear tire and wheel assemblies. Refer to [Tire and Wheel Removal and Installation](#) .
3. Remove the brake shoes. Refer to [Brake Shoe Replacement](#) .
4. Remove the park brake cable from the rear axle. Refer to [Park Brake Cable Replacement](#) .
5. Disconnect the wheel speed sensor connector, if equipped.





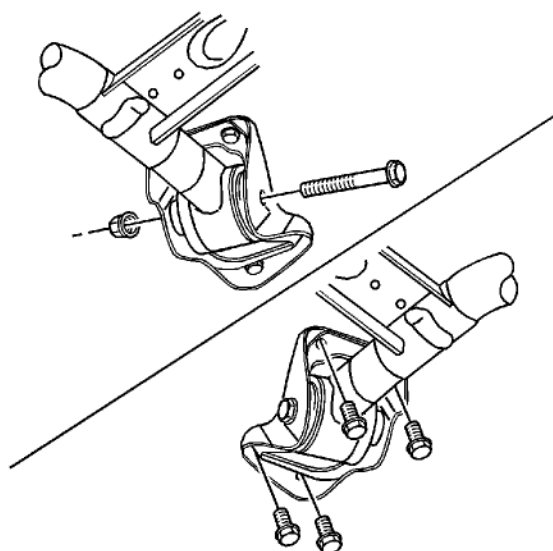
6. Remove the brake pipes from the brake hoses at the rear axle brackets. Cap or tape the brake hose openings to prevent entry of foreign matter.
7. Remove the retaining clips from the brake hoses.
8. Unclip the brake hoses from the rear axle brackets.
9. Place support jacks under the arms of the rear axle and raise the rear axle arms slightly.
10. Remove the shock absorbers. Refer to [Shock Absorber Replacement](#).
11. Lower the support jacks and remove the rear springs. Refer to [Coil Spring Replacement](#).



12. Remove the left axle-to-bracket nut and bolt from the bracket. Pry the rear axle slightly, if necessary.
13. Remove the right axle mounting bracket bolts from the underbody.
14. Remove the rear axle from the vehicle.
15. Remove the right axle-to-bracket nut and bolt from the bracket.
16. Remove the right axle bracket from the axle.
17. Remove the remaining drum brake components from the axle. Refer to [Rear Brake Backing Plate Replacement](#).

Installation Procedure

1. Install the backing plate and the wheel cylinder to the axle. Refer to [Rear Brake Backing Plate Replacement](#).



2. Install the right axle bracket to the axle.
3. Loosely install the right axle-to-bracket nut and bolt to the right axle bracket.
4. Raise and support the rear axle.
5. Loosely install the left axle-to-bracket nut and bolt to the left axle bracket.
6. Apply blue medium strength threadlocker, GM P/N 12345382, or equivalent, to the right axle mounting bracket bolts.

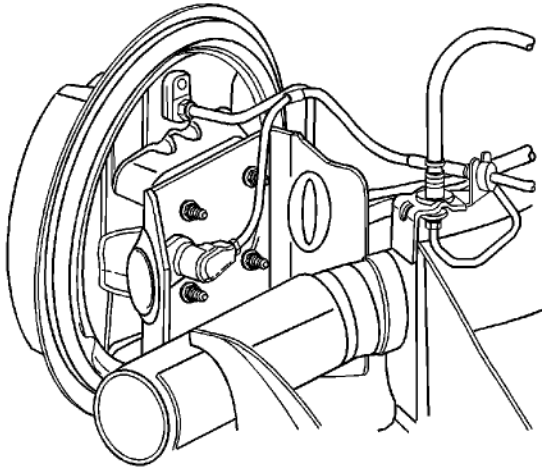
Notice: Refer to [Fastener Notice](#) in the Preface section.

7. Install the right axle mounting bracket bolts to the underbody.

Tighten

Tighten the axle mounting bracket bolts to 70 N·m (52 lb ft).

8. Install the rear springs and insulators. Refer to [Coil Spring Replacement](#).
9. Install the shock absorbers to the axle with the lower attachment bolts. Refer to [Shock Absorber Replacement](#).
10. Install the brake hoses to the brackets on the rear axle.
11. Install the retaining clips to the brake hoses.
12. Install the brake pipes to the brake hoses.
13. Install the park brake cable to the rear axle. Refer to [Park Brake Cable Replacement](#).
14. Install the brake shoes. Refer to [Brake Shoe Replacement](#).
15. Connect the wheel speed sensor connector, if equipped.



16. Bleed the brake system and inspect for leaks. Refer to [Hydraulic Brake System Bleeding](#) .
17. If necessary, adjust the park brake. Refer to [Park Brake Adjustment](#) .
18. Lower the vehicle slightly and install the rear tire and wheel assemblies. Refer to [Tire and Wheel Removal and Installation](#) .
19. Lower the vehicle.
20. Raise the vehicle on an alignment rack. Refer to [Lifting and Jacking the Vehicle](#) .
21. With the weight of the vehicle on the tires, tighten the lower shock absorber-to-axle bolts.

Tighten

Tighten the lower shock absorber-to-axle bolts to 72 N·m (53 lb ft).

22. Tighten the axle-to-bracket nuts and bolts.

Tighten

Tighten the axle-to-bracket nuts and bolts to 115 N·m (85 lb ft).

23. Lower the vehicle.

Wheel Stud Replacement

Removal Procedure

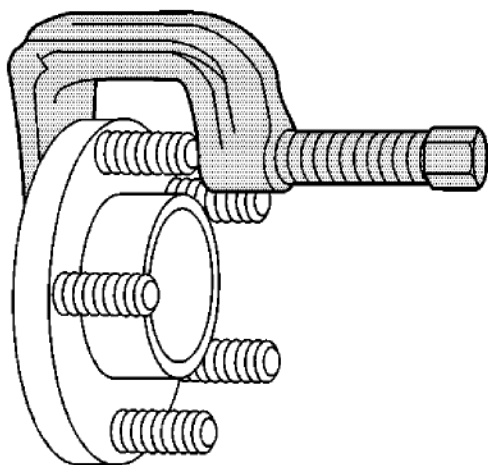
Tools Required

[J 43631](#) Ball Joint Remover

1. Remove the brake drum. Refer to [Brake Drum Replacement](#).

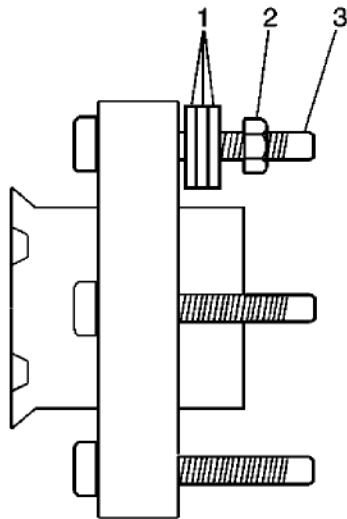
CAUTION:: If one stud is damaged, replace all the studs. A loose-running wheel may cause only one stud to break, but the other studs could have internal fatigue. Replacing only the broken stud and remounting the wheel may cause further damage and personal injury. If the stud holes in the wheels have become enlarged or distorted, replace the wheel.

2. Install 2 wheel nuts onto 2 wheel studs.
3. Use a pry bar on the 2 nuts in order to prevent the hub from turning.



4. Use the [J 43631](#) in order to remove the stud.

Installation Procedure



1. Install the wheel stud (3) into the stud hole.
2. Install 3 washers (1) and a wheel nut (2) onto the stud.
3. Install 2 wheel nuts onto 2 studs.
4. Use a pry bar on the 2 nuts in order to prevent the hub from turning.
5. Tighten the wheel nut in order to seat the stud.
6. Remove the 3 wheel nuts and the 3 washers.
7. Install the brake drum. Refer to [Brake Drum Replacement](#).