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2. Install the ball joint stud into the steering knuckle.

Notice: Refer to *Fastener Notice* in Cautions and Notices.

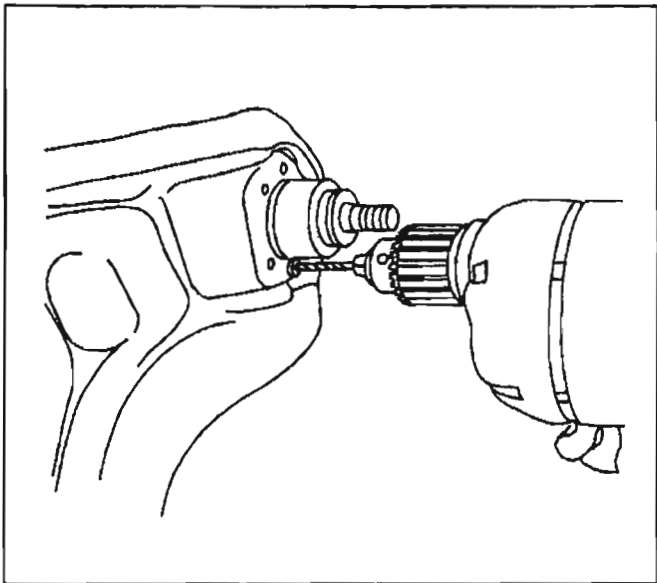
3. Install the lower ball stud nut.

Tighten

Tighten the lower ball stud nut to 108 N·m (79 lb ft).

Tighten in order to align the slot in the stud nut with the hole in the stud.

4. Install a new cotter pin to the stud.
5. Lubricate the lower ball joint.
6. Install the brake caliper. Refer to *Brake Caliper Replacement - Front (Single Piston)* in Disc Brakes.
7. Install the tire and wheel assembly. Refer to *Tire and Wheel Removal and Installation* in Tires and Wheels.
8. Lower the vehicle.
9. Check the front wheel alignment. Refer to *Wheel Alignment Specifications* in Wheel Alignment.



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Lower Ball Joint Replacement (4WD)

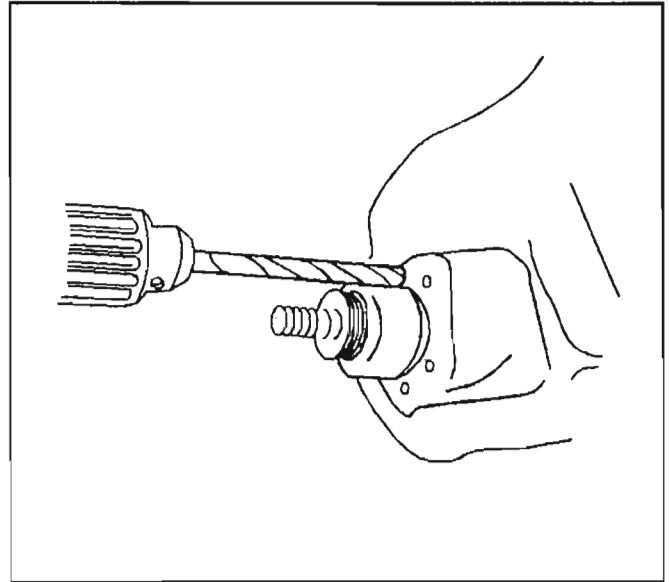
Removal Procedure

1. Raise and support the vehicle under the lower control arms with safety stands. Refer to *Lifting and Jacking the Vehicle* in General Information.
2. Remove the tire and wheel. Refer to *Tire and Wheel Removal and Installation* in Tires and Wheels.

Caution: Floor jack must remain under the lower control arm during removal and installation to retain the lower control arm in position. Failure to do so could result in personal injury.

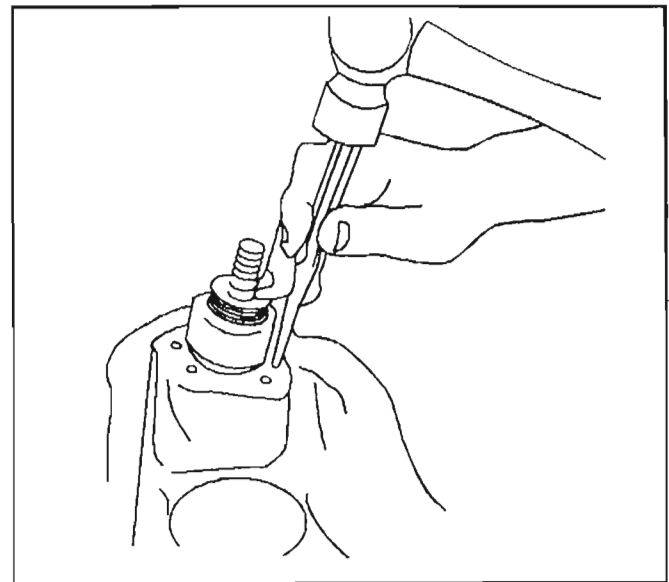
3. Disconnect the cotter pin from the lower ball joint stud.
4. Remove the ball joint to steering knuckle nut.
5. Using a pry bar, placed on top of the upper control arm and on the bottom of the frame, pry downward.
6. With the aid of a helper, carefully hammer on the steering knuckle in the area of the lower ball joint stud in order to release the stud from the steering knuckle.
7. Remove the ball joint from the steering knuckle.
 - 7.1. Tip the bottom of the steering knuckle out and toward the rear of the vehicle.
 - 7.2. Suspend the steering knuckle and the upper control arm in order to prevent straining the brake line.
8. Remove the rivets from the lower ball joint.
9. Use a 3.175 mm ($\frac{1}{8}$ in) drill to cut a 6.35 mm ($\frac{1}{4}$ in) deep hole in the center of each rivet.

10. Drill the rivet heads away using a 12.7 mm (1/2 in) drill.



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11. Remove the rivets using a pin punch.
12. Remove the lower ball joint.



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Installation Procedure

1. Install the lower ball joint to the control arm.

Notice: Refer to *Fastener Notice* in Cautions and Notices.

2. Install the lower ball joint retaining bolts and the nuts.

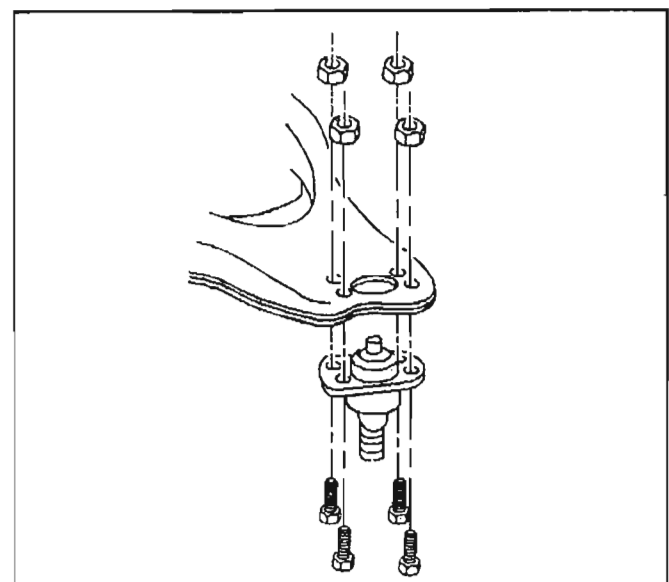
Tighten

Tighten the lower ball joint retaining nuts to 23 N·m (17 lb ft).

3. Install the lower ball joint to the steering knuckle.
4. Install the lower ball joint to steering knuckle nut.

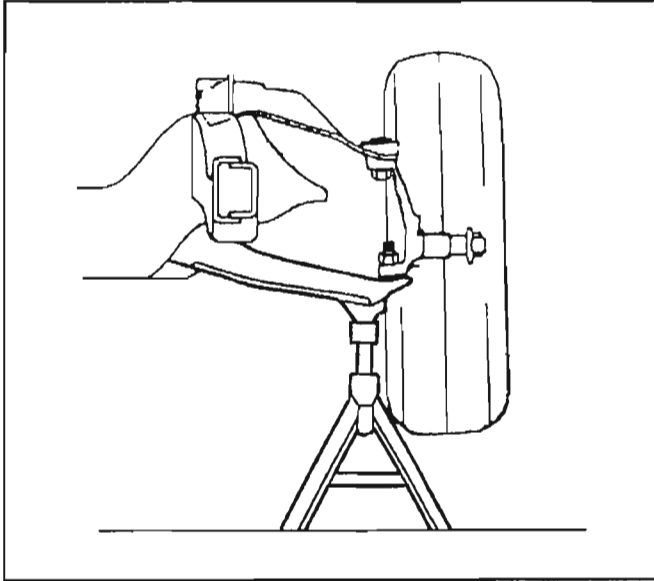
Tighten

- Tighten the lower ball joint stud nut to 108 N·m (79 lb ft).
- Tighten the nut in order to align the cotter pin. Do not tighten the nut more than 1/8 turn.



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5. Install new cotter pin. Bend the pin ends against the nut.
6. Install the tire and the wheel. Refer to *Tire and Wheel Removal and Installation* in Tires and Wheels.
7. Lower the vehicle.
8. Check the front wheel alignment. Refer to *Wheel Alignment Specifications* in Wheel Alignment.



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Steering Knuckle Replacement (RWD)

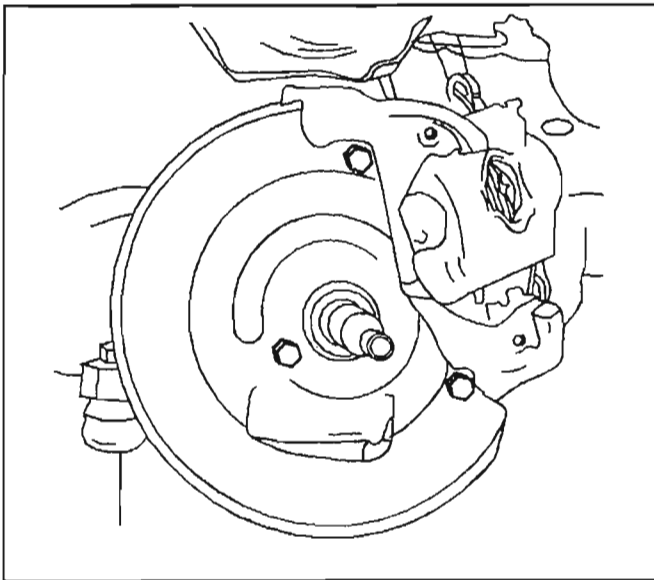
Removal Procedure

Tools Required

- J 23742 Ball Joint Separator
- J 24319-B Universal Steering Linkage Puller
- J 6627-A Tie Rod Puller

Caution: Floor jack must remain under the lower control arm during removal and installation to retain the lower control arm in position. Failure to do so could result in personal injury.

1. Raise the vehicle. Refer to *Lifting and Jacking the Vehicle* in General Information.
 - Support the lower control arm with floor stands.
 - Place floor stands under the lower control arms as far outboard as possible (between spring seats and ball joint) to maintain maximum leverage.
2. Remove the rotor. Refer to *Wheel Hub, Bearing, and Seal Replacement (RWD Pickup)*.
3. Remove the bolts that attach the splash shield to the steering knuckle.



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