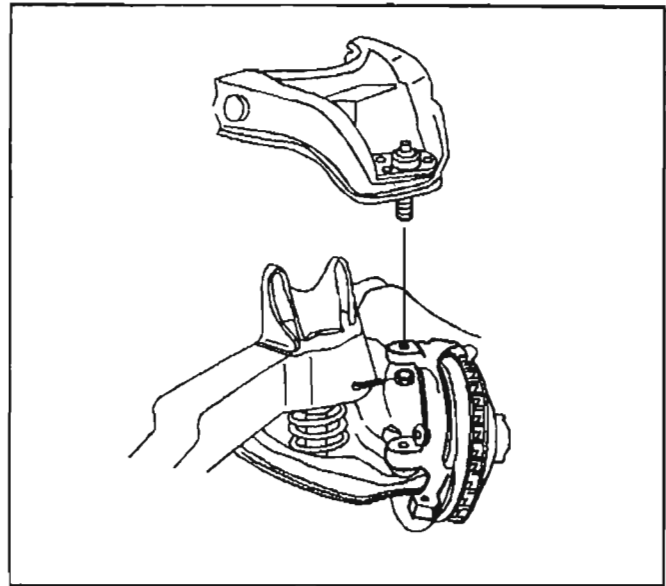


3. Install the upper ball joint to the steering knuckle.
4. Install the upper ball joint stud nut.

Tighten

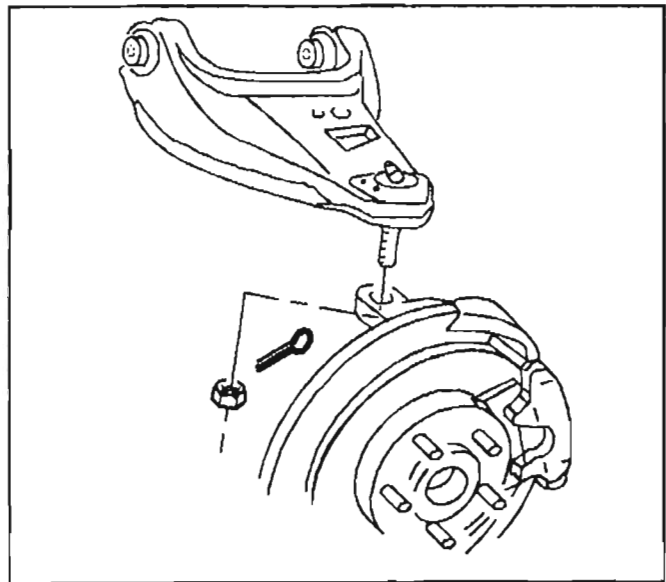
- Tighten the upper ball joint stud nut to 83 N·m (61 lb ft).
 - Tighten the stud nut in order to align the slot in the stud nut with the hole in the stud.
5. Install a new cotter pin.
 6. Install the grease fittings.
 7. Lubricate the upper ball joint.
 8. Connect the wheel speed sensor electrical connector.
 9. Install the wheel speed sensor electrical connector to the upper control arm.
 10. Install the brake caliper. Refer to *Brake Caliper Replacement - Front (Single Piston)* in Disc Brakes.
 11. Install the tire and wheel assembly. Refer to *Tire and Wheel Removal and Installation* in Tires and Wheels.
 12. Lower the vehicle.
 13. Check the front wheel alignment. Refer to *Wheel Alignment Specifications* in Wheel Alignment.



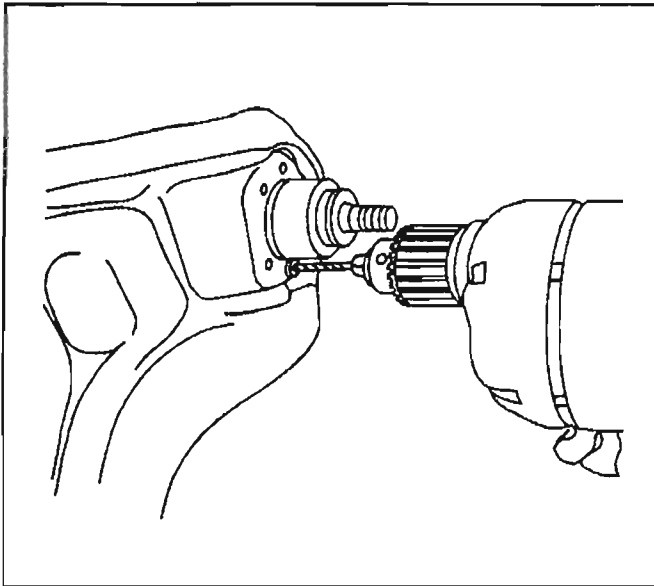
1839

Upper Ball Joint Replacement (4WD)**Removal Procedure**

1. Raise and suitably support the vehicle 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.
3. Remove the wheel speed sensor electrical connector from the upper control arm.
4. Disconnect the wheel speed sensor electrical connector.
5. Remove the cotter pin from the upper ball joint stud.
6. Remove the upper ball joint stud nut.
7. Using a pry bar, placed under the upper control arm and on top of the frame, pry upward.
8. With the aid of a helper, carefully hammer on the steering knuckle in the area of the upper ball joint stud in order to release the stud from the steering knuckle.
9. Remove the upper ball joint from the steering knuckle.
 - 9.1. Place a block under the upper control arm to keep the control arm and the steering knuckle out of the way.
 - 9.2. Suspend the steering knuckle to prevent straining the brake line.

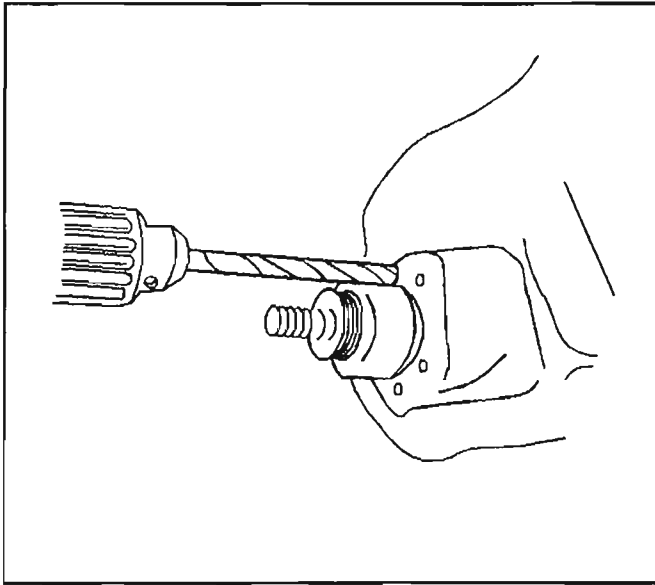


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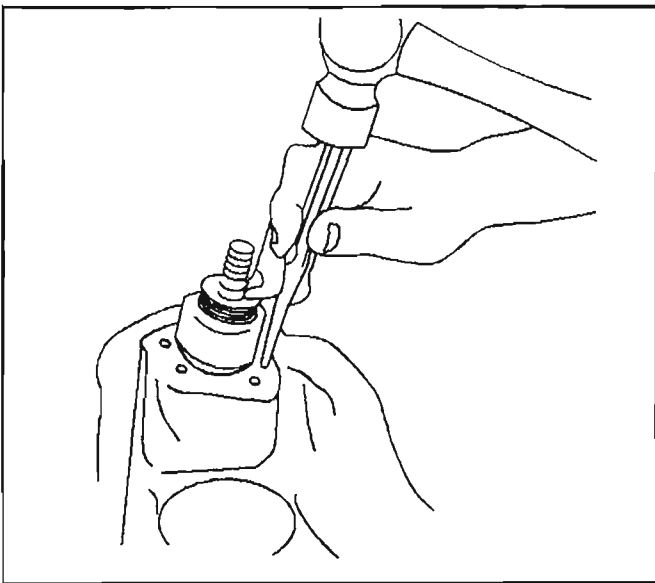
1832

10. Remove the rivets from the upper ball joint.
11. 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.



1833

12. Drill the rivet heads away using a 12.7 mm ($\frac{1}{2}$ in) drill.



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13. Remove the rivets using a pin punch.
14. Remove the upper ball joint.

Installation Procedure

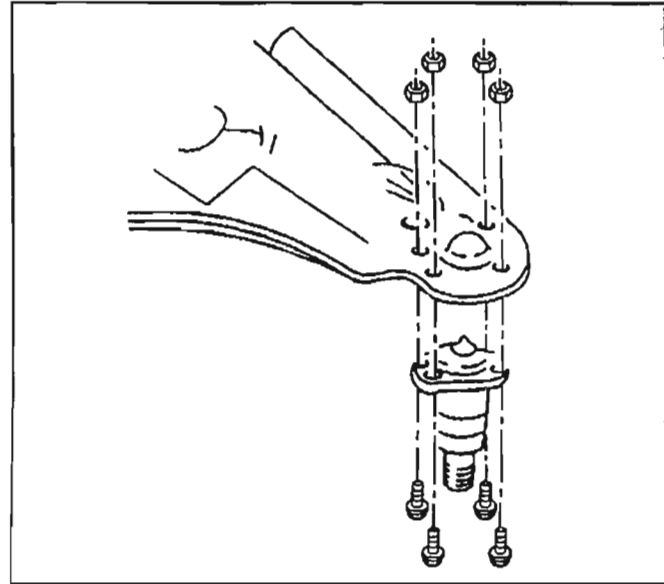
1. Install the upper ball joint to the upper control arm.

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

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

Tighten

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



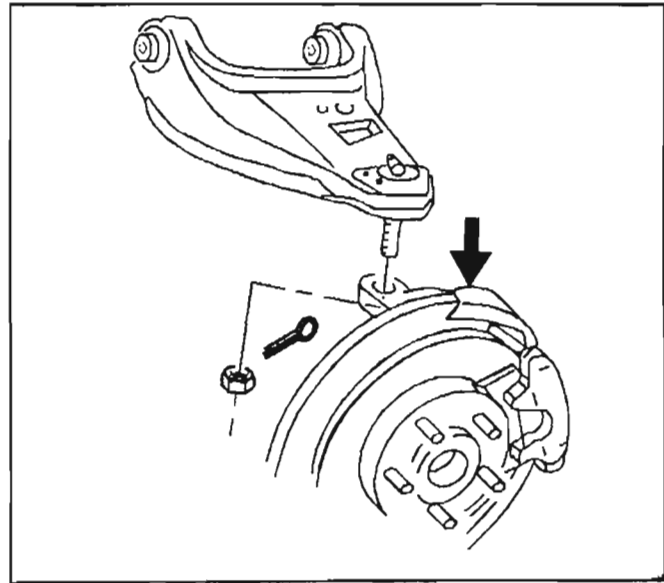
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3. Install the upper ball joint to the steering knuckle.
4. Install the upper ball joint to steering knuckle nut.

Tighten

- Tighten the upper ball joint to steering knuckle nut to 83 N·m (61 lb ft).
- Tighten the upper ball joint to steering knuckle nut in order to align for the cotter pin. Do not tighten the nut more than 1/6 turn.

5. Install the new cotter pin to the upper ball joint stud. Bend the pin ends against the nut.
6. Connect the wheel speed sensor electrical connector.
7. Install the wheel speed sensor electrical connector to the upper control arm.
8. Install the tire and the wheel. Refer to *Tire and Wheel Removal and Installation* in Tires and Wheels.
9. Lower the vehicle.
10. Check the front wheel alignment. Refer to *Wheel Alignment Specifications* in Wheel Alignment.



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