

Front Suspension

MERCEDES-BENZ 450SL & 450SLC

450SL
450SLC

DESCRIPTION

Front suspension assembly is a coil spring type, having separately-mounted coil springs and shock absorbers between upper and lower control arms. Other front suspension components include steering knuckle, tie rods and a stabilizer bar.

ADJUSTMENTS

WHEEL ALIGNMENT SPECIFICATIONS & PROCEDURES

See *Wheel Alignment Specifications and Procedures* in **WHEEL ALIGNMENT** section.

WHEEL BEARING ADJUSTMENT

See *Wheel Bearing Adjustment* in **WHEEL ALIGNMENT** section.

BALL JOINT CHECKING

See *Ball Joint Checking* in **WHEEL ALIGNMENT** section.

REMOVAL & INSTALLATION

NOTE — Manufacturer requires that shock absorber mountings and stabilizer bar attachments not be loosened or tightened unless vehicle is resting on ground or axle is supported enough to simulate full vehicle load.

SHOCK ABSORBERS

Removal — With vehicle on ground, detach upper and lower shock absorber mountings. Compress shock absorber to gain clearance and remove from vehicle.

Installation — To install, reverse removal procedure.

COIL SPRING

Removal — 1) Loosen lower shock absorber mounting and stabilizer bar connecting linkage. Raise front of vehicle. Remove front wheel.

2) Mark position of lower control arm eccentric bolts on inner end of arm for reinstallation reference. Attach and engage a suitable coil spring compressor. Remove eccentric bolts.

3) Place suitable cradle-type support beneath lower control arm directly below coil spring position. Slowly lower cradle, allowing inner end of control arm to drop down, and remove coil spring.

Installation — To install, reverse removal procedure, fully tightening stabilizer bar mountings and lower shock absorber mounting after vehicle is resting on ground.

STABILIZER BAR

Removal — Loosen stabilizer bar connecting linkage from both lower control arms. Remove stabilizer bar-to-frame mounting brackets and remove torsion bar.

Installation — To install, reverse removal procedure.

STEERING KNUCKLE

Removal — 1) Install coil spring compressor on spring. Raise and support front of vehicle. Remove front wheel.

2) Remove bolt holding steering knuckle arm to steering knuckle. Detach flexible brake hose from brake line and plug openings. Remove caliper.

NOTE — On some models, it may be possible to remove caliper from rotor and suspend out of way without detaching brake hose. This will eliminate necessity of bleeding brake system after installation.

3) Remove nuts from upper and lower ball joint studs. Detach both ball joints from steering knuckle. Remove steering knuckle.

Installation — To install, reverse removal procedure, bleed brakes and check front wheel alignment.

UPPER CONTROL ARM

Removal — 1) Attach suitable spring compressor to coil spring. Raise and support front of vehicle. Remove front wheel.

NOTE — Shock absorber remains installed.

2) Remove bolt holding steering knuckle to steering knuckle arm. Detach brake hose from brake line and plug openings.

3) Remove nuts from upper and lower ball joint studs. Using suitable tool, detach upper ball joint from steering knuckle.

4) Remove both upper control arm mounting nuts and remove arm.

Installation — To install, reverse removal procedure. Bleed brakes and check front wheel alignment.

LOWER CONTROL ARM

Removal — 1) Loosen and detach lower shock absorber mounting. Raise front of vehicle and remove front wheel.

2) Detach steering knuckle arm from steering knuckle. Separate brake hose from brake line and plug openings. Remove brake hose retaining clip.

3) Remove coil spring as described in this article.

4) Remove nuts from upper and lower ball joint studs. Detach lower control arm from lower ball joint. Remove control arm.

Installation — To install, reverse removal procedure, bleed brake system and tighten shock absorber mounting (after vehicle is resting on ground). Check front wheel alignment.

TIGHTENING SPECIFICATIONS

| Application | Ft. Lbs. (mkg) |
|--|----------------|
| Lower Shock Absorber Mount | 14 (2.0) |
| Upper Ball Joint Nut | 29 (4.0) |
| Lower Ball Joint Nut | 29 (4.0) |
| Tie Rod Ball Joint Nut | 14 (2.0) |
| Lower Control Arm-to-Frame | 130 (18.0) |
| Steering Arm-to-Steering Knuckle | 57 (8.0) |
| Upper Control Arm Clamping Bolt | 21 (3.0) |
| Upper Control Arm-to-Body | 60 (8.0) |