

## 1971-72 CHEVROLET & CAMARO FRONT

Chevrolet (1971-72)  
Camaro (1971-72)

### DESCRIPTION

Short and long control arm suspension system with control arms bolted at the inner pivot points on frame or cross-member and using ball joints to attach the outer point on the control arms to the steering knuckle and front wheel spindle. Shock absorbers are inside coil springs which mount between lower control arm and frame side rail.

### ADJUSTMENT

**Caster & Camber** – See “Wheel Alignment Specifications & Adjustment” in Section 9.

**Front Wheel Bearings** – See “Wheel Bearing Adjustment” in Section 9.

### REMOVAL & INSTALLATION

► **BALL JOINT CHECKING:** See “Ball Joint Checking” in Section 9.

#### Shock Absorber

**Removal** – Hold shock absorber upper stem to keep from turning, and then remove upper stem retaining nut, retainer, and rubber grommet. Remove two bolts retaining lower shock absorber pivot to lower control arm and pull shock absorber assembly out from bottom.

**Installation** – Reverse removal procedure. Tighten shock absorber upper nut to 100 INCH LBS. Tighten shock absorber lower nut to 20 ft. lbs.

#### Steering Knuckle

**NOTE** – Manufacturer recommends that car be raised and supported on a twin-post hoist so that coil spring is compressed and still maintain access to steering knuckle. If frame type hoist is used, support lower control arm with an adjustable jack to maintain spring at curb height.

**Removal** – With car raised and lower control arm supported, remove wheel, caliper unit and wheel hub and bearing assembly from steering knuckle spindle. Remove ball joint cotter pins and stud nuts, then free steering knuckle from ball studs using Tool J-23742 and remove steering knuckle.

**Installation** – Reverse removal procedure and tighten stud nut to 50 ft. lbs. Tighten caliper mounting bolts to 35 ft. lbs.

#### Stabilizer Bar

Raise vehicle, disconnect stabilizer bar from lower control arm and remove stabilizer brackets from frame. Remove stabilizer. Disconnect stabilizer links and inspect bushings.

**Installation** – Reverse removal procedure. If new insulators are necessary, coat bar with recommended rubber lubricant and slide frame bushings into position. **CAUTION** – Do not torque stabilizer brackets until stabilizer ends are connected to link bolts on lower control arms. Tighten bracket nuts to 24 ft. lbs. and link nuts to 15 ft. lbs.

#### Coil Spring

**Removal** – Place car on hoist and remove shock absorber. Support car by frame so that control arms hang free, remove stabilizer bar. Bolt Tool J-23028 to a suitable jack and place under lower control arm bushings so that they seat in grooves of tool. Raise jack to relieve tension on lower control arm pivot bolts and remove nuts and bolts. (Remove rear bolt first). Install chain around spring through control arm as safety measure. Lower control arm slowly and remove spring.

**Installation** – To install, reverse removal procedure making sure that spring is properly positioned on control arm. Make sure that front bolt is installed first. Tighten bolts but do not torque. Lower jack, remove car from hoist and torque control arm nuts and bolts to 60 ft. lbs.

#### Ball Joint Replacement

**Upper Ball Joint Replacement** – Raise car on hoist and remove wheel and tire. Support lower control arm with adjustable jack. Loosen, but do not remove, upper ball stud nut. Install Tool J-23742 between ball studs and turn threaded end of tool until ball stud is free of steering knuckle. Remove tool, remove ball stud from knuckle. Remove rivets from upper control arm using grinding wheel. Use nuts and bolts supplied in replacement kit and install lube fitting after attachment to control arm is final. Torque stud nut to 50 ft. lbs., install cotter pin, replace wheel and tire.

**NOTE** – Insert ball joint bolts from bottom with nuts on top.

**Lower Ball Joint Replacement** – Raise vehicle and remove wheel and tire and support lower control arm with floor jack. Loosen, but do not remove, lower ball stud nut. Install Tool J-23742 between ball studs with a heavy flat washer between tool and upper control arm ball stud nut, to protect stud nut. Turn threaded end of tool until ball stud is free of knuckle. Remove tool and remove nut from ball stud. Pull out and upward on wheel to free knuckle from ball joint. Remove wheel. Lift up on upper control arm, knuckle and hub assembly and place a wood block between control arm and frame. **NOTE** – If necessary remove tie rod end from knuckle. Using Tools J-9519-10 & J-9519-7 press ball joint from lower control arm and remove tools. To install, reverse removal procedure using Tools J-9519-10 & J-9519-9 and torque stud nut to 90 Ft. Lbs.

#### Upper Control Arm

**Removal** – Raise car on hoist and support lower control arm with jack stand. Separate upper control arm ball stud from steering knuckle. See “Ball Joint Replacement”. Remove two nuts securing upper control arm shaft to frame bracket. Note position and thicknesses of shims, tape together, and save for replacement. Remove bolts attaching control arm to frame and remove control arm.

# Front & Rear Suspension

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**Installation** – Reverse removal procedure, making sure that shims are installed in the same number and location as removed. Torque control arm pivot to frame to 85 ft. lbs. and Control arms shaft nuts/bolts to 60 ft. lbs.

**CAUTION** – Control arm shaft bolts must be installed with nuts toward engine. See illustration.

### Lower Control Arm

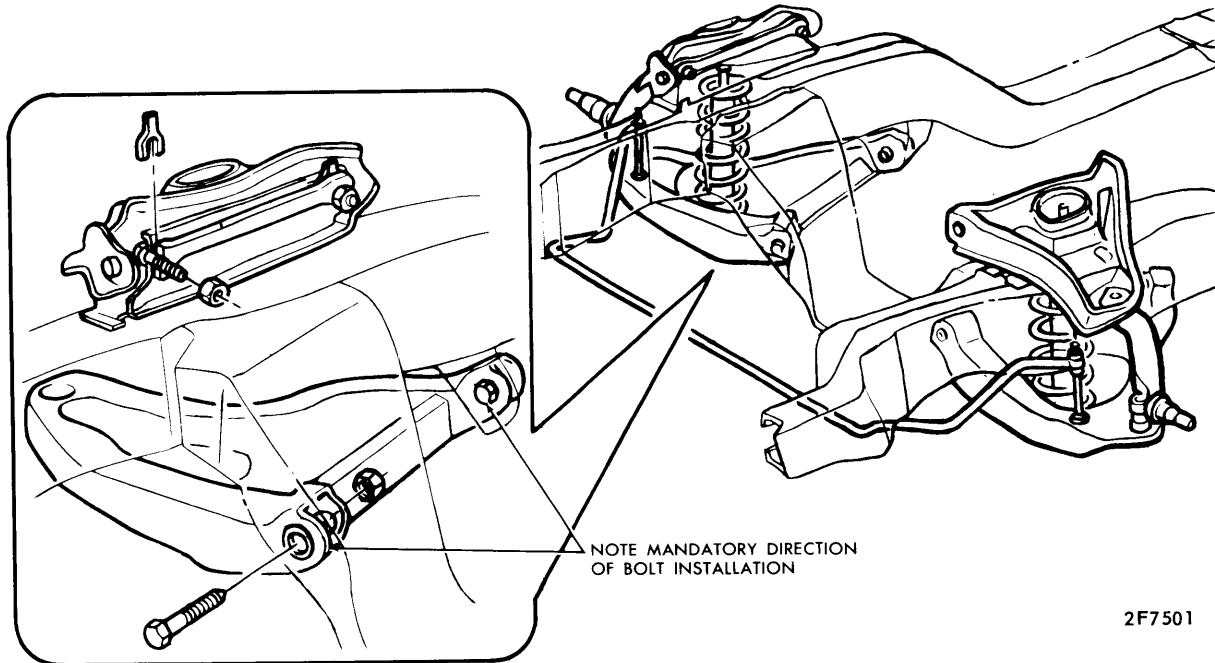
**Removal** – Remove coil spring, and ball stud from steering knuckle as outlined previously. Remove control arm from

car. To install, reverse removal procedure, tighten control arm pivot to frame to 90 ft. lbs.

### Control Arm Bushings

Upper and lower control arm bushings may be replaced using suitable tools and an arbor press. Be sure not to collapse control arm legs. On upper control arm, cross shaft must be installed so that it can be turned by hand.

**NOTE** – After installing bushing in control arm, bushing must be flared using tool J-23915 before installing control arm on chassis.



FRONT SUSPENSION ASSEMBLY (TYPICAL)