

# Front Suspension

## TOYOTA CORONA

Corona

### DESCRIPTION

Independent front suspension with coil springs. Wheel is supported by steering knuckle mounted between upper and lower control arms by means of ball joints. Upper control arm pivots on shaft bolted to suspension crossmember. Lower control arm pivots on shaft bolted to suspension crossmember. Coil springs fit in pockets built into suspension crossmember at top and in pockets built into lower control arms at bottom. Hydraulic shock absorbers mount between lower control arms at bottom and suspension crossmember at top and are inside coil springs. A stabilizer bar is mounted to chassis members and connected at ends to lower control arms.

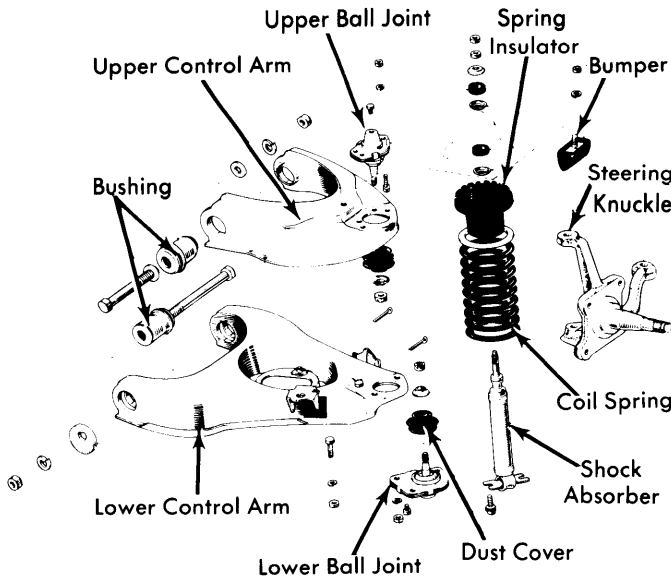


Fig. 1 Exploded View of Front Suspension Assy.

### ADJUSTMENT

**WHEEL ALIGNMENT SPECIFICATIONS & PROCEDURES**  
See Wheel Alignment Specifications & 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

#### STEERING KNUCKLE

**Removal** - 1) Raise vehicle by jacking up under lower control steering knuckle. **NOTE** - See appropriate information in BRAKE SYSTEMS Section for removal.

2) Detach tie rod end from steering knuckle using puller. Remove nuts from upper and lower ball joint studs and using puller, separate steering knuckle from ball joints. Remove steering knuckle from vehicle.

**Installation** - To install, reverse removal procedure and tighten all nuts and bolts.

#### LOWER CONTROL ARM, COIL SPRING & BALL JOINT

**Removal** - 1) Raise vehicle and place safety stands under body. Remove tire and wheel. Disconnect stabilizer bar from lower control arm. Remove shock absorber. Using a spring compressor, collapse coil spring until there is no pressure on

lower control arm. On models with ESP, disconnect wiring harness for brakes and separate clamp from arm.

2) Remove nut securing ball joint stud to steering knuckle. Using a puller, separate ball joint from steering knuckle. Push down on control arm, release spring pressure, and remove coil spring. Remove bolts securing control arm pivot shaft to suspension crossmember and remove control arm from vehicle.

3) **NOTE** - Ball joint can be removed from vehicle without removing control arm. Remove bolts securing ball joint to control arm and separate ball joint from control arm. Unscrew bushings from control arm and remove pivot shaft.

**Installation** - 1) Install new bushings and pivot shaft into control arm. Tighten bushings securely. **NOTE** - Make sure bushings are screwed in equal amounts on both sides. Bolt pivot shaft to crossmember. Install coil spring and collapse using spring compressor. Place ball joint in control arm and tighten bolts.

2) **NOTE** - Ball joint can be installed in control arm before control arm is fitted to vehicle. Place ball joint stud in steering knuckle and tighten nut. Connect stabilizer bar to control arm. Remove spring compressor and install shock absorber. Install wheel and tire and lower vehicle. Check front wheel alignment. Thoroughly grease suspension components.

#### UPPER CONTROL ARM & BALL JOINT

**Removal** - 1) Raise vehicle and place jack stands under body, leave jack under control arm. Remove tire and wheel. On models equipped with ESP, disconnect wire harness clamp from upper arm. **NOTE** - Ball joint can be removed with control arm in or out of vehicle. Remove nut from upper ball joint stud.

2) Using puller separate ball joint from steering knuckle. Note number and thickness of shims between pivot shaft and mount. Remove bolts securing control arm pivot shaft to crossmember. Remove control arm from vehicle. Remove screw in bushings and pivot shaft from control arm. Remove ball joint from control arm.

**Installation** - 1) Install ball joint in control arm and tighten. Install bushings and pivot shaft in control arm. Tighten bushings, ensuring they are screwed in equal amounts on both sides. Install dust cover on ball joint.

2) Install control arm in vehicle with shims correctly positioned; tighten pivot shaft bolts. Install ball joint in steering knuckle and tighten nut. Install wheel and tire and lower vehicle. Thoroughly grease front suspension components and check front wheel alignment.

### TIGHTENING SPECIFICATIONS

Application	Ft. Lbs. (mkg)
Lower Control Arm-to-Crossmember	
Celica .....	58-89 (8.0-12.3)
Corolla .....	51-65 (7.1-9.0)
Lower Ball Joint-to-Steering	
Knuckle .....	51-65 (8.0-12.3)
Strut Bar-to-Strut Bar Bracket .....	54-80 (7.5-11.1)
Crossmember-to-Frame	
Celica .....	29-36 (4.0-5.0)
Corolla .....	22-32 (3.0-4.4)
Strut-to-Steering Arm	
Celica .....	58-87 (8.0-12.0)
Corolla .....	51-65 (7.1-9.0)
Ring Nut .....	72-108 (9.9-14.9)