1973 BUICK, CHEVROLET, OLDSMOBILE, PONTIAC FRONT

Buick (1973)
Chevrolet, Exc. Corvette (1973)
Oldsmobile, Exc. Toronado (1973)
Pontiac (1973)

▶ CHANGES, CAUTIONS, CORRECTIONS

▶ *BUICK LEFT UPPER CONTROL ARM SHAFT CLEARANCE NOTE:* The left upper control arm shaft is flattened in the middle to provide clearance from the steering shaft, when **maximum** 3/4" shim packs are installed. Do not exceed this maximum or interference with steering shaft will result.

▶ *BUICK, CHEVROLET & PONTIAC LOWER BALL JOINT WEAR INDICATOR NOTE:* Lower ball joint on full size vehicles incorporates a wear indicator. Check ball joint wear by supporting vehicle such that ball joints are in a loaded condition. If any portion of indicator is protruding through cover, ball joint is in satisfactory condition (see illustration).

▶ *STEERING KNUCKLE & BALL STUD SERVICING NOTE:* When servicing front suspension ball studs where tapered mating surfaces are disassembled, surfaces **must** be inspected for any deformation and/or foreign material present. If hole deformation exists, steering knuckle must be replaced.

▶ *NUT TIGHTENING CAUTION:* When tightening nuts which require cotter pins, do not back off nut to align pin hole; turn in direction of tightening only.

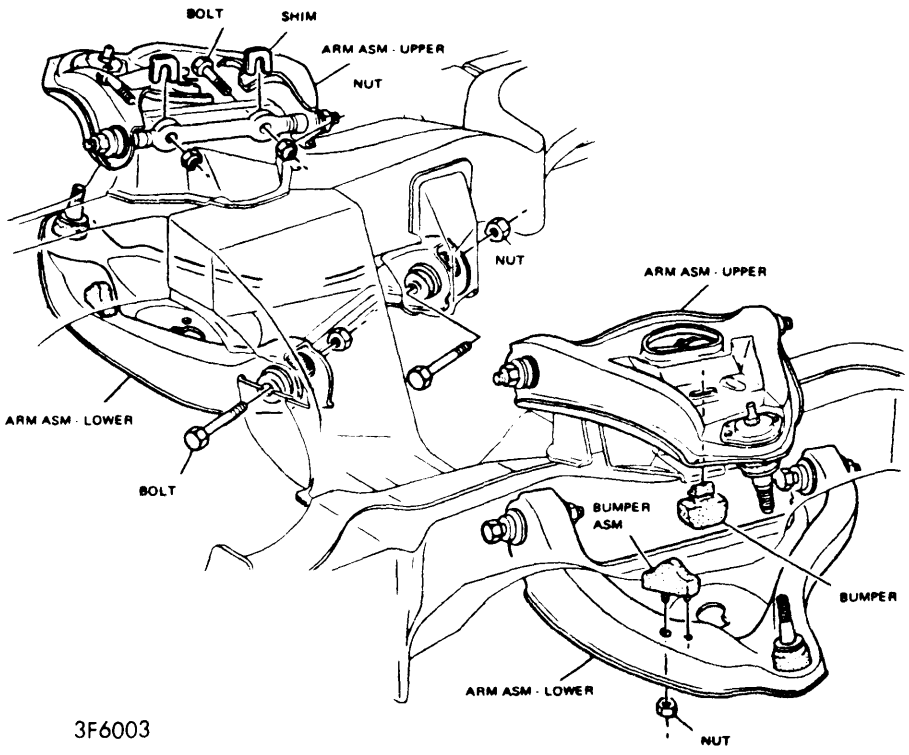
DESCRIPTION

Independent front suspension is used on all models. Each wheel is attached to frame by means of a steering knuckle, upper and lower control arm, and ball joint assembly. Front wheels are held in proper relation by linkage which attaches to steering knuckle. Inner end of lower control arm is connected to frame with rubber pivot bushings and outer end is connected to steering knuckle by a ball joint. Inner end of upper control arm is attached to cross shaft, which bolts to frame. Outer end of upper arm is attached by a ball joint to steering knuckle. Side roll stability is maintained with stabilizer shaft, supported by brackets at each frame side rail (forward of springs). End of stabilizer shaft is connected to lower control arm. Coil springs are located between each frame side rail and lower control arm. Front shock absorbers are located within spring.

ADJUSTMENT

Caster & Camber – *See Wheel Alignment Specifications & Adjustment in WHEEL ALIGNMENT Section.*

Wheel Bearings – *See Wheel Bearing Adjustment in WHEEL ALIGNMENT Section.*



FRONT SUSPENSION (TYPICAL)

1973 BUICK, CHEVROLET, OLDSMOBILE, PONTIAC FRONT (Cont.)

REMOVAL & INSTALLATION

STABILIZER BAR

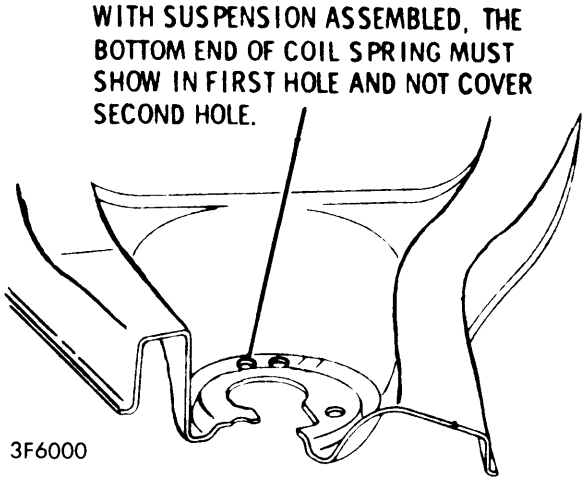
Removal – Support front end with stands at side rails. *NOTE – It may be necessary to remove wheel and tire assembly to obtain suitable access.* Disconnect both links from stabilizer shaft by removing each link nut and rotating shaft up from lower control arm. Remove screws holding stabilizer shaft brackets to frame. Remove brackets and rubber insulators from shaft. Remove stabilizer bar.

Installation – Reverse removal procedure and tighten nuts and bolts to specifications.

COIL SPRING

Removal – Support vehicle at side rails. Remove wheel and hub assembly. Disconnect lower end of shock absorber and push up through spring. Disconnect front stabilizer rod link from lower control arm. Remove tie rod (if necessary) and control arm bumper. Attach safety chain around lower control arm and coil spring. Position jack, with suitable removal tool (J-23028) attached, under lower control arm, as far outboard as possible, approximately 1/2" below arm. Loosen, but do not remove, lower ball joint stud nut. Pry ball joint stud free from steering knuckle. Raise jack against control arm, to relieve pressure on nut, and remove the nut. Carefully lower jack to release spring.

Installation – Reverse removal procedures, tightening nuts and bolts to specifications. Ensure spring is turned to proper mounting position (see illustration).



COIL SPRING POSITIONING

STEERING KNUCKLE AND/OR STEERING KNUCKLE ARM

Removal – Raise and support vehicle at front lower control arm (to keep spring compressed). If equipped with drum brakes, remove wheel and drum as assembly (it may be necessary to back off brake adjustment). With disc brakes, remove wheel and tire assembly, then remove hub dust cap. Detach and suspend brake caliper assembly. *NOTE – Do not disconnect brake hose.* Withdraw disc and hub assembly. On drum brakes, remove backing plate and brake assembly from steering knuckle, and move steering arm out of way. On disc brakes, remove splash shield and mounting bracket from steering knuckle, and move steering arm out of way. *NOTE – Ensure brake hose is not strained.* Remove tie rod end (if necessary). Pry upper and lower ball joint studs from steering knuckle. Remove knuckle from vehicle.

Installation – Reverse removal procedure, tightening nuts and bolts to specifications. Adjust wheel bearings, *See WHEEL BEARING ADJUSTMENT Section.*

UPPER CONTROL ARM

Removal – Support vehicle at front lower control arms (to keep spring compressed). Remove wheel and tire assembly. Pry upper ball joint stud from steering knuckle. Unbolt upper control arm. Remove shims, control arm, and shaft assembly.

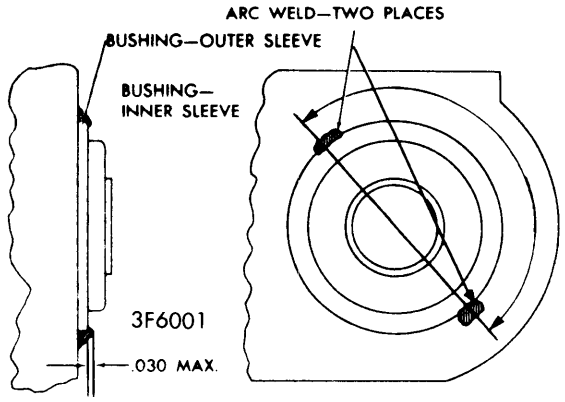
Installation – Reverse removal procedure, tightening nuts and bolts to specifications. Check front end alignment.

Bushing Service – With control arm removed from vehicle, remove nut and retainer from both ends of control arm shaft. Place control arm in an arbor press and position suitable tools as required. Press out and discard old bushings. Reverse procedure, for installation.

LOWER CONTROL ARM

Removal – Remove coil spring, as previously described. Pry lower ball joint stud from steering knuckle. Unbolt control arm from frame; remove from vehicle.

Installation – Reverse removal procedure, tightening nuts and bolts to specifications.



LOWER CONTROL ARM BUSHING INSTALLATION (TACK WELD)

Bushing Service – Raise vehicle and support at side rails. Remove lower shock absorber bolts and/or nuts and push shock up into coil spring. Remove front stabilizer rod link from lower control arm. Position jack, with suitable tool (J-23028) attached such that bushings seat in grooves of tool. Install a safety chain around control arm and coil spring. Remove control arm pivot bolts. Slowly release jack and lower the control arm until there is clearance to install bushing removal tools. After new bushings are installed, flare or tack weld as necessary (see illustration). Reverse removal procedure to reinstall control arm.

UPPER BALL JOINT

Removal – Raise vehicle and support lower control arm. Remove wheel and tire assembly. Pry ball joint stud from steering knuckle. Chisel or drill rivets which retain ball joint. Remove ball joint.

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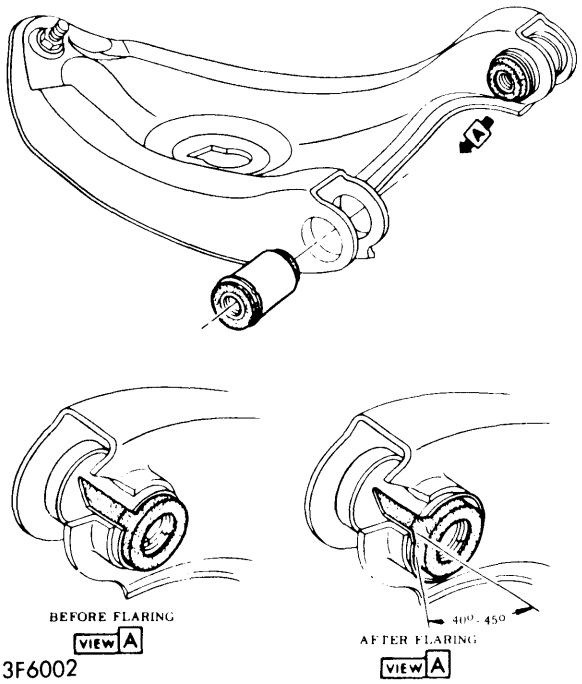
Installation – Reverse removal procedure, using special nuts and bolts supplied in service kit. Torque nuts and bolts to specifications.



LOWER CONTROL ARM BUSHING INSTALLATION (FLARING)

LOWER BALL JOINT

Removal – Raise vehicle and support lower control arms under spring seats. This keeps spring compressed and allows removal tool to have proper clearance. Remove brake caliper assembly and suspend out of way. *NOTE – Do not disconnect brake hose.* Pry ball joint stud from control arm. Remove ball joint seal and retainer (pry off with screwdriver). Remove ball joint. *NOTE – Nova lower ball joint is not internally preloaded, but firmly seated by weight of vehicle. When vehicle is supported by lower control arm (spring load removed from ball joint) some normal clearance looseness may be noticed; this does not necessarily indicate defective or worn ball joint.*

Installation – Reverse removal procedures, tightening nuts and bolts to specifications.

TIGHTENING SPECIFICATIONS

Application	Ft. Lbs.
Upper Ball Joint Studs	
Buick (All)	50
Chevrolet	60
Chevelle, Monte Carlo, Nova, Camaro	50
Oldsmobile, Pontiac (All)	① 40
Lower Ball Joint Studs	
Buick (Exc. Apollo)	95
Apollo, Nova	80
Chevrolet	93
Chevelle, Monte Carlo, Camaro	90
Oldsmobile (Omega, 88, 98)	① 90
Cutlass	① 70
Pontiac (Exc. Bonneville)	② 70
Bonneville	③ 80
Upper Control Arm-to-Frame	
Buick (Exc. Apollo)	70
Apollo, Nova, Omega	50
Chevrolet, Chevelle, Monte Carlo	83
Camaro	75
Oldsmobile (Exc. Omega)	85
Pontiac (All)	80
Lower Control Arm-to-Frame	
Buick (Exc. Apollo)	100
Apollo, Oldsmobile (All)	80
Chevrolet	105
Chevelle, Monte Carlo, Camaro, Nova	80
Pontiac (All)	90
Stabilizer Bar Bracket-to-Frame	
Buick (All), Chevrolet (All)	24
Oldsmobile (Omega, Cutlass)	30
88, 98, Pontiac (All)	25
Brake Caliper Mounting Assembly	
Buick, Chevrolet, Pontiac (All)	35
Oldsmobile (All)	40
Stabilizer Link Nuts	
Buick (Exc. Apollo)	12
Apollo, Nova	18
Chevrolet (Exc. Nova)	13
Oldsmobile (All)	15

① – Minimum
② – 100 Ft. Lbs. max. to align cotter pin hole.
③ – 110 Ft. Lbs. max. to align cotter pin hole.