BUICK, CADILLAC, CHEVROLET, OLDSMOBILE & PONTIAC

Buick (Exc. Riviera & Skylark)
Cadillac (Exc. Eldorado & Seville)
Chevrolet (Exc. Camaro, Citation, Chevette & Corvette)
Oldsmobile (Exc. Omega & Toronado)
Pontiac (Exc. Firebird & Phoenix)

DESCRIPTION

Rear suspension is a link type with coil springs. System uses four control arms that attach the rear axle assembly to the frame. A bracket on the axle supports the coil springs. Top of coil spring is positioned under frame rail. Upper arms are attached to top of differential and extend forward to frame. Two shock absorbers are attached to frame and brackets on axle housing.

ADJUSTMENT

RIDING HEIGHT

See Riding Height Adjustments and Specifications in WHEEL ALIGNMENT Section.

REMOVAL & INSTALLATION

COIL SPRING

Removal (Buick, Oldsmobile & Pontiac) – 1) Hoist rear of vehicle at axle housing and place safety stands under frame rails. Disconnect brake line at axle housing. Disconnect upper control arms at axle housing.

2) Remove shock absorber lower mount. Lower hoist at rear axle. Remove coil spring.

Installation (Buick, Oldsmobile & Pontiac) – To install, reverse removal procedures, ensuring that coil spring is positioned as shown in illustration.

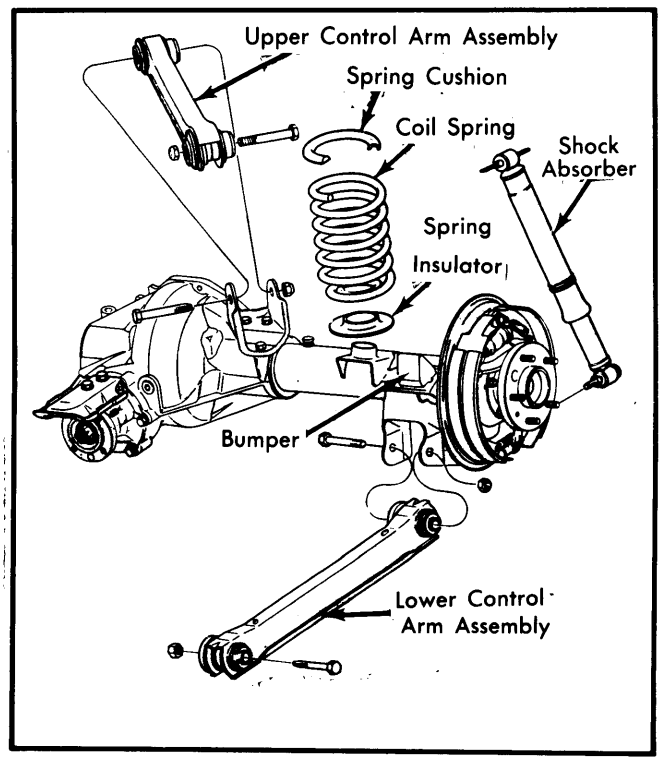

Fig. 1 Rear Coil Spring Suspension

Removal (Chevrolet) – 1) Raise vehicle and support rear axle with adjustable lifting device. Disconnect upper control arms from axle. Disconnect stabilizer bar, if equipped. Remove brake hose support bolt to allow for additional axle drop.

NOTE – *Brake lines do not have to be disconnected to allow for additional drop. Do not lower axle to a point where brake line becomes taut, as damage will result.*

2) Remove left side shock absorber lower attachment. Allow axle to travel beyond the fully extended shock with the aid of adjustable lifting device. Lower axle enough to remove spring.

Installation (Chevrolet) – To install, reverse removal procedure, ensuring that coil spring is positioned as shown in the illustration.

Removal (Cadillac) – 1) Raise vehicle on hoist so rear axle is supported. Remove shock absorbers. If equipped with Electronic Level Control, remove stabilizer bar-to-lower control arm bolts, and remove stabilizer bar. Remove one bolt securing junction block to top of differential. Disconnect brake lines from clips on axle.

2) On ELC vehicles, disconnect link from leveling valve arm. Place jackstand under nose of differential carrier and remove lower control arm-to-axle bolts. Disconnect drive shaft from pinion flange and support drive shaft with wire. Remove jack stands.

3) Remove upper arm pivot bolts at axle. Disconnect left side parking brake cable at equalizer. Disconnect cable at frame by removing clip. Slide cable through hole. Remove cable from clip at center of rear crossmember. Disconnect cable at connector located at left of frame. Support both frame rails at rear of frame. Lower axle enough to allow removal of coil springs, and remove springs.

CAUTION – *Do not allow axle to wind-up as it is lowered, as springs may snap from their seats and cause injury.*

Installation (Cadillac) – To install, reverse removal procedure ensuring that coil spring is positioned as shown in the illustration.

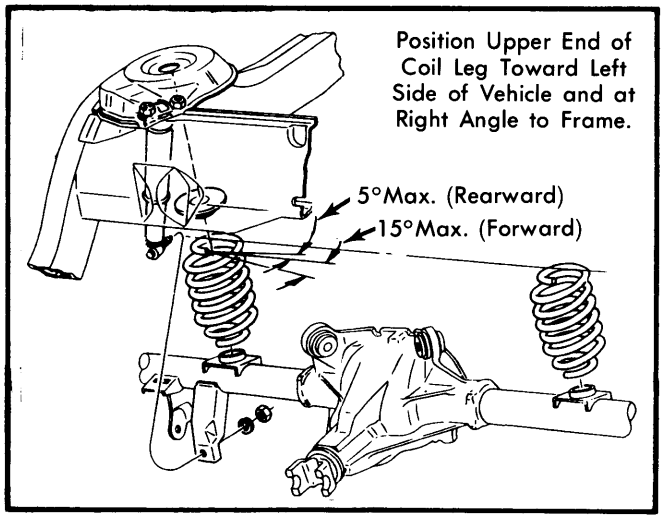

Fig. 2 Coil Spring Installation (All Models Except Cadillac)

BUICK, CADILLAC, CHEVROLET, OLDSMOBILE & PONTIAC (Cont.)

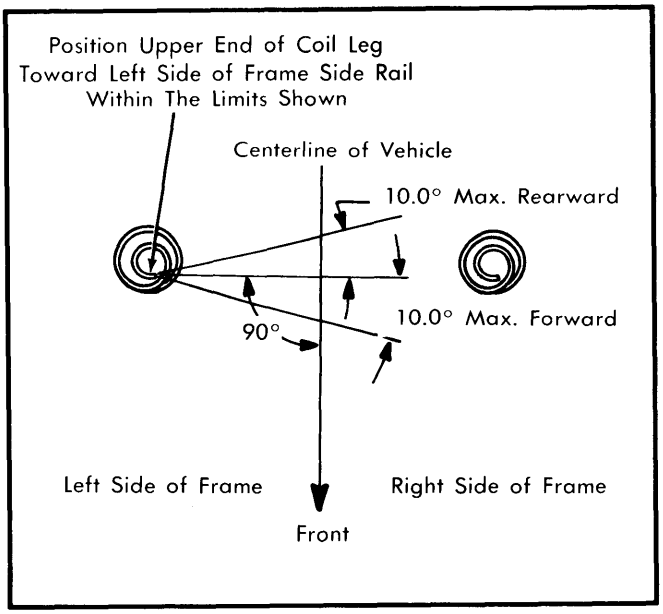

Fig. 3 Coil Spring Installation for Cadillac

UPPER CONTROL ARM

CAUTION – *Remove and replace one control arm at a time to prevent rear axle from rolling or slipping.*

Removal – 1) Raise vehicle on hoist and support axle. If equipped with Automatic Level Control, disconnect link at overtravel lever and set lever in center position.

NOTE – *On some vehicles, disconnecting lower shock absorber mount will provide clearance for upper control arm removal.*

2) Unbolt control arm from upper and lower pivot bolt mounting and remove arm from vehicle.

Installation – Reverse removal procedures and tighten pivot bolts with vehicle on ground and at curb height.

LOWER CONTROL ARM

CAUTION – *Remove and replace one control arm at a time to prevent rear axle from rolling or slipping.*

Removal – Raise and support rear of vehicle. Support axle housing to relieve tension on control arm bolts. Remove lower control arm pivot bolt (below axle housing). Disconnect control arm from frame crossmember and remove assembly.

NOTE – *If vehicle is equipped with stabilizer bar it will be necessary to remove bar before unbolting arm.*

Installation – Reverse removal procedures and tighten pivot bolts with vehicle on ground and at curb height.

TIGHTENING SPECIFICATIONS

CONTROL ARMS

Application	Ft. Lbs. Bolt	Nut
Upper Control Arm-to-Frame		
Buick		
Century	70	70
Electra, LeSabre	80	95
Cadillac		
All Models	90	85
Chevrolet		
Caprice, Impala	70	80
El Camino, Malibu, Monte Carlo	70	80
Oldsmobile		
Cutlass	70	70
88, 98	95	95
Pontiac		
Bonneville, Catalina	92	92
Grand Prix, LeMans	.....	70
Lower Control Arms-to-Axle		
Buick		
Century	70	80
Electra, LeSabre	120	95
Cadillac		
All Models	122	.....
Chevrolet		
Caprice, Impala	125	92
El Camino, Malibu	73	70
Oldsmobile		
Cutlass	80	80
88, 98	120	95
Pontiac		
Bonneville, Catalina	50	92
Grand Prix, Le Mans	90	.....

TIGHTENING SPECIFICATIONS

Application	Ft. Lbs.
Shock Absorber (Upper Attachment)	
Chevrolet	12
Buick, Cadillac, Oldsmobile, Pontiac	20
Shock Absorber (Lower Attachment)	
Buick, Oldsmobile	65
Cadillac, Pontiac	60
Chevrolet	62
Stabilizer-to-Control Arm	
Buick	
Century	35
LaSabre, Electra	52
Cadillac	
All	55
Chevrolet	
Impala, Caprice	20
El Camino, Malibu, Monte Carlo	37
Oldsmobile	
Cutlass	35
88, 98	50
Pontiac	
All	42