

1998-99 WHEEL ALIGNMENT

Specifications & Procedures - Cars - Except Saturn

IDENTIFICATION

MODEL IDENTIFICATION

Body Code ⁽¹⁾	Model
"C"	Park Avenue
"E"	Eldorado
"F"	Camaro & Firebird
"G"	Aurora & Riviera
"H"	Bonneville, Eighty Eight, LeSabre, LSS & Regency
"J"	Cavalier & Sunfire
"K"	⁽²⁾ DeVille & Seville
"N"	Achieva, Alero, Cutlass, Grand Am, Malibu & Skylark
"V"	Catera
"W"	Century, Grand Prix, Intrigue, Lumina, Monte Carlo & Regal
"Y"	Corvette

(1) Vehicle body code is fourth character of VIN.
(2) Includes Concours and D'Elegance.

RIDE HEIGHT ADJUSTMENT

NOTE: Proper ride height is necessary for correct wheel alignment. Check ride height with vehicle on level floor. Ensure less than 15.5 lbs. of weight is in trunk (other than spare and tools), fuel tank is full (unless specified otherwise), front seats are in full rearward position and tires are the correct size and properly inflated. Tire inflation specification can be found on door pillar, sidewall of tire, sun visor or in glove box. On vehicles with electronic chassis controls, ensure all systems are functional before adjusting ride height or wheel alignment.

Visually inspect vehicle for signs of abnormal height from front to rear or side to side. If ride height is not within specification, check, repair or replace suspension components.

CHECKING PROCEDURE

"C" & "G" Bodies & Seville

1. Ensure Electronic Level Control (ELC) is operating properly (if equipped). Bounce front and rear end of vehicle 3 times. Measure dimension "A" to locate point to measure dimension "J". Measure dimension "J" from underbody points to floor. Measure dimension "Z" between lowest part of ball joint and centerline

of control arm bolt. See **Fig. 1** . See **RIDE HEIGHT SPECIFICATIONS ("C" & "G" BODIES & SEVILLE)** table.

2. Measure dimension "B" to locate point to measure dimension "K". Measure dimension "K" from underbody points to floor. See **Fig. 1** . Measure dimension "D" between bottom of wheel bearing face and centerline of outboard control arm bolt. See **RIDE HEIGHT SPECIFICATIONS ("C" & "G" BODIES & SEVILLE)** table.

"E" & "K" Bodies (Except Seville)

1. Ensure Electronic Level Control (ELC) is operating properly. Bounce vehicle 3 times at front and rear. Measure dimension "Z" between centerline of front lower control arm bushing bolt and lowest part of ball joint. From the front side of rear suspension, measure dimension "D" between centerline of front inner bearing bushing bolt and centerline of front outer bushing bolt. See **Fig. 2** . See **RIDE HEIGHT SPECIFICATIONS ("E" & "K" BODIES - EXCEPT SEVILLE)** .
2. Measure dimensions "A" and "B" to locate measuring points "J" and "K". Measure dimensions "J", "K", "E" and "F" between underbody and floor and center of wheel well and floor. See **Fig. 2** . See **RIDE HEIGHT SPECIFICATIONS ("E" & "K" BODIES - EXCEPT SEVILLE)** .

1998 "F" Body & 1998-99 "J" Body

1. Lift at front bumper 1.5" (38 mm) and let settle. Repeat 2 more times. Measure dimensions "A", "J" and "Z". See **Fig. 3** and **Fig. 4** . See **RIDE HEIGHT SPECIFICATIONS (1998 "F" BODY)** or **RIDE HEIGHT SPECIFICATIONS ("J" BODY)** table.
2. Push front bumper down 1.5" (38 mm) and let vehicle rise. Repeat 2 more times. Measure dimensions "A", "J" and "Z". Average readings for ride heights. See **Fig. 3** and **Fig. 4** . See **RIDE HEIGHT SPECIFICATIONS (1998 "F" BODY)** or **RIDE HEIGHT SPECIFICATIONS ("J" BODY)** table.
3. Lift rear bumper 1.5" (38 mm) and let settle. Repeat 2 more times. Push rear bumper down 1.5" (38 mm) and let rise. Repeat 2 more times. On "J" bodies, measure dimensions "B" and "K". On "N" bodies, measure dimensions "B", "K" and "D". See **Fig. 3** . **RIDE HEIGHT SPECIFICATIONS (1998 "F" BODY)** or **RIDE HEIGHT SPECIFICATIONS ("J" BODY)** table.

1999 "F" Body

Bounce front and rear bumper at least 1.5" (38 mm) and let settle. Measure and note front and rear trim heights. See **Fig. 5** . Repeat 2 more times. Average measurements for trim heights. See **RIDE HEIGHT SPECIFICATIONS (1999 "F" BODY)** table.

"H" Body & Metro

NOTE: **On Metro, fuel tank must be at least 1/8 full.**

1. Bounce vehicle 3 times at front and rear. Measure dimension "Z" between centerline of front lower control arm bolt and lowest part of ball joint. See **Fig. 6** . See **RIDE HEIGHT SPECIFICATIONS ("H" BODY)** table.
2. On "H" bodies, measure dimension "D" between centerline of rear lower control arm bolt and lowest point of ball joint (not grease fitting). See **Fig. 6** . See **RIDE HEIGHT SPECIFICATIONS ("H"**

BODY) table.

3. Measure dimension "A" from center of front axle to locate point to measure dimension "J". Measure dimension "J" between front underbody and floor. Measure dimension "B" from center of rear axle to locate point to measure dimension "K". Measure dimension "K" between rear underbody and floor. See **Fig. 7** . See **RIDE HEIGHT SPECIFICATIONS ("H" BODY)** or **RIDE HEIGHT SPECIFICATIONS (METRO)** table.

"N" Body

1. Lift front bumper about 1.5" (38 mm) and allow vehicle to settle. Repeat 2 more times. Distance "A" is from center of front axle to locate point to measure dimension "J". Dimension "J" is measured from floor to bottom of rocker panel. Measure dimension "Z". Dimension "Z" is measured from bottom of ball joint to bottom of frame rail. See **Fig. 3** . See **RIDE HEIGHT SPECIFICATION ("N" BODY)** table. Note measurements. Do this 2-3 times, and average measurements.
2. Lift rear bumper up about 1.5" (38 mm) and allow vehicle settle. Repeat 2 more times. Distance "B" from center of rear axle to locate point to measure dimension "K". Dimension "K" is measured from floor to bottom of rocker panel. See **Fig. 3** . See **RIDE HEIGHT SPECIFICATION ("N" BODY)** table. Push rear bumper down about 1.5" (38 mm) and allow vehicle to rise. Repeat 2 more times. Measure dimension "K" again. Average high and low measurements to determine true ride height.

Prizm

NOTE: Ride height specifications for 1998 Prizm are not available.

1. Lift front bumper 1.5" (38 mm) and let settle. Repeat 2 more times. Push front bumper down 1.5" (38 mm) and let settle. Repeat 2 more times. Measure dimension "Z" between center of lower control arm mounting bolt and floor. See **Fig. 8** . See **RIDE HEIGHT SPECIFICATIONS (1999 Prizm)** table.
2. Lift rear bumper 1.5" (38 mm) and let settle. Repeat 2 more times. Push rear bumper down 1.5" (38 mm) and let settle. Repeat 2 more times. Measure dimension "D" between center of rear trailing arm bolt and floor. See **Fig. 8** . See **RIDE HEIGHT SPECIFICATIONS (1999 Prizm)** table.

"V" Body

1. Ensure Automatic Level Control (ALC) is operative while taking measurements. Lift front bumper 1.5" (38 mm) and let settle. Repeat 2 more times. Push front bumper down 1.5" (38 mm) and let settle. Repeat 2 more times. Measure dimensions "J" and "P". Dimension "J" is measured from bottom of rocker panel to floor. Dimension "P" is measured from top of tire to bottom of front tire (diameter). See **Fig. 9** . See **RIDE HEIGHT SPECIFICATIONS ("V" BODY)** table.
2. Lift rear bumper 1.5" (38 mm) and let settle. Repeat 2 more times. Push rear bumper down 1.5" (38 mm) and let settle. Repeat 2 more times. Measure dimensions "K" and "R". Dimension "K" is measured from bottom of rocker panel to floor. Dimension "R" is measured from top of tire to bottom of rear tire (diameter). See **Fig. 9** . See **RIDE HEIGHT SPECIFICATIONS ("V" BODY)** table.

"W" Body

1. Lift front bumper 1.5" (38 mm) and let settle. Push front bumper down 1.5" (38 mm) and allow vehicle to

rise and settle. Measure dimension "Z" between center of rear bushing bolt and lowest point of ball joint. See **Fig. 10** . Measure dimension "A" from center of front wheel to locate point to measure dimension "J". Measure dimension "J" between lower rocker panel to floor. See **Fig. 3** . See **RIDE HEIGHT SPECIFICATIONS ("W" BODY)** table. If ride height is not within specification, replace damaged or worn suspension parts.

2. Lift rear bumper 1.5" (38 mm) and let settle. Push rear bumper down 1.5" (38 mm) and allow vehicle to rise and settle. Measure dimension "D" from a point 1.18" (30 mm) from outboard of rear hose bracket bolt centerline to trailing arm to knuckle attachment bolt centerline. See **Fig. 3** and **Fig. 10** . Measure dimension "B" to locate point to measure dimension "K". Measure dimension "K" between from bottom of rocker panel to floor. See **Fig. 3** . See **RIDE HEIGHT SPECIFICATIONS ("W" BODY)** table. If ride height is not within specification, repair or replace damaged or worn suspension parts.

"Y" Body (Front)

NOTE: When taking measurements, the real time damping system must be operative during procedure. If ride height adjustment is necessary, opposite trim height will be affected. Recheck vehicles ride height after each adjustment.

1. Lift front bumper 1.5" (38 mm) and let settle. Repeat 2 more times. Push front bumper down 1.5" (38 mm) and let settle. Repeat 2 more times. Measure from center of front axle to lower edge of rocker panel (dimension "A") to locate dimension "J" measuring point. Measure dimension "J" from bottom of rocker panel to floor. See **Fig. 11** . See **RIDE HEIGHT SPECIFICATIONS ("Y" BODY)** table. If front ride height is not within specification, go to step 3 .
2. Using Trim Height Measurement Gauge (J42854), measure left and right side dimension "Z" between lowest point of ball joint and center of lower control arm mounting bolt. See **Fig. 11** . See **RIDE HEIGHT SPECIFICATIONS ("Y" BODY)** table. If ride height is not within specification, go to next step.
3. If ride height adjustment is necessary, Trim Height Adjustment Tool (J42743) must be used to prevent damage to rubber shear pad on end of adjuster bolt. See **Fig. 12** . Adjust dimension "Z" by turning the spring adjuster bolt. One complete turn of adjuster bolt equals about 0.08" (2 mm). Remove trim height adjustment tool. Ensure maximum difference between left and right spring adjuster bolt gaps does not exceed 0.196" (5 mm). Recheck ride height. Measure and adjust front spring adjuster bolt gaps. Bolt gaps should be between 0.078-0.944 (2-24 mm). See **Fig. 13** .

"Y" Body (Rear)

NOTE: When taking measurements, the real time damping system must be operative during procedure. If ride height adjustment is necessary, the opposite trim height will be affected. Recheck vehicles ride height after each adjustment.

1. Lift rear bumper 1.5" (38 mm) and let settle. Repeat 2 more times. Push rear bumper down 1.5" (38 mm) and let settle. Repeat 2 more times. Measure from center of rear axle to lower edge of rocker panel (dimension "B") to locate dimension "K" measuring point. Measure dimension "K" from bottom of rocker panel to floor. See **Fig. 11** . See **RIDE HEIGHT SPECIFICATIONS ("Y" BODY)** table. If rear ride height is not within specification, go to step 3 .
2. Using Trim Height Measurement Gauge (J42854), measure left and right side dimension "D" between

lowest point of ball joint and center of lower control arm mounting bolt. See **Fig. 11** . See **RIDE HEIGHT SPECIFICATIONS ("Y" BODY)** table. If ride height is not within specification, go to next step.

- If ride height adjustment is necessary, adjust dimension "D" by removing spring bolt retainers and turning the spring adjuster bolt. One complete turn of adjuster bolt equals about 0.08" (2 mm). Ensure maximum difference between rear spring stud height does not exceed 0.196" (5 mm). See **Fig. 14** . Recheck ride height. Measure and adjust front spring adjuster bolt gaps. Rear spring stud height should be between 0.866-1.811 (22-46 mm). Install retainers to bolts.

RIDE HEIGHT SPECIFICATIONS

NOTE: Corvette ride height specification is not available from manufacturer.

On "C", "G", "H", and "J" body, maximum variation between side-to-side and front-to-rear should not exceed .75" (19 mm). On "N" body, maximum variation between side-to-side should not exceed 0.24" (6 mm). On all other models, maximum variation between side-to-side and front-to-rear should not exceed .47" (12 mm).

RIDE HEIGHT SPECIFICATIONS ("C" & "G" BODIES & SEVILLE)

Application	In. (mm)
Dimension "A"	
"C" & "G" Body ⁽¹⁾	23.5 (597)
Seville	23.62 (600)
Dimension "B"	
"C" & "G" Body	23.13 (588)
Seville	23.22 (590)
Dimension "J"	
"C" Body	6.44 To 7.25 (164 To 184)
"G" Body	6.69 To 7.5 (170 To 190)
Seville	
Standard Suspension (KS)	7.05 (179)
Touring Suspension (KY)	6.65 (169)
Dimension "K"	
"C" Body	8.38 To 9.19 (213 To 233)
"G" Body	8.63 To 9.41 (219 To 239)
Seville	
Standard Suspension (KS)	9.02 (229)
Touring Suspension (KY)	8.58 (218)
Dimension "Z"	
"C" & "G" Bodies	1.19 To 2.0 (30 To 50)
Seville	
Standard Suspension (KS)	1.57 (39.88)

Touring Suspension (KY)	1.18 (29.97)
Dimension "D"	
"C" & "G" Bodies	3.0 To 3.75 (79 To 96)
Seville	
Standard Suspension (KS)	3.39 (86)
Touring Suspension (KY)	2.99 (76)
(1) See Fig. 1 .	

RIDE HEIGHT SPECIFICATIONS ("E" & "K" BODIES - EXCEPT SEVILLE)

Application	In. (mm)
Concours, DeVille & Eldorado ⁽¹⁾	
Dimension "A"	22.84 (580)
Dimension "B"	22.17 (563)
Dimension "J"	
Concours	6.77 To 7.57 (172 To 192)
DeVille	7.16 To 7.96 (182 To 202)
Eldorado	8.26 To 9.06 (210 To 230)
Dimension "K"	
Concours	7.96 To 7.16 (162 To 182)
DeVille	8.35 To 7.55 (172 To 192)
Eldorado	8.03 To 8.83 (204 To 224)
Dimension "E"	
Concours	27.04 To 27.84 (687 To 707)
DeVille	27.43 To 28.23 (697 To 717)
Eldorado	27.75 To 28.55 (705 To 725)
Dimension "F"	
Concours	17.79 To 18.59 (452 To 472)
DeVille	20.98 To 21.78 (533 To 553)
Eldorado	27.51 To 28.31 (699 To 719)
Dimension "Z"	
Concours	1.25 To 2.05 (32 to 52)
DeVille	1.61 To 2.41 (41 To 61)
Eldorado	1.57 To 2.37 (40 To 60)
Dimension "D"	
Concours	0.7 To 1.5 (28 To 38)
DeVille	1.06 To 1.86 (27 To 47)
Eldorado	0.74 To 1.54 (19 To 39)
(1) See Fig. 2 .	

RIDE HEIGHT SPECIFICATIONS (1998 "F" BODY)

Application	In. (mm)
1998 Camaro & Firebird ⁽¹⁾	
Dimension "A"	16.5 (420)
Dimension "B"	14.4 (367)
Dimension "J"	7.6 To 8.4 (194 To 214)
Dimension "K"	8.0 To 8.8 (204 To 212)
Dimension "D"	4.2 To 5.0 (108 To 128)
Dimension "Z"	
With 235-55 Tires	0.8 To 1.6 (20 To 40)
With 245-50 Tires	1.1 To 1.9 (27 To 47)
(1) See Fig. 4	

RIDE HEIGHT SPECIFICATIONS (1999 "F" BODY)

Application	In. (mm)
1999 Camaro & Firebird ⁽¹⁾	
Dimension "1" (Side Rocker Panel)	8.0 (203)
Dimension "2" (Side Rocker Panel)	8.2 (208)
Dimension "3" (Front Fascia)	
Camaro	17.0 To 17.8 (432 To 452)
Firebird Except Trans Am With 235/55 Tires	13.0 To 13.8 (330 To 351)
Trans Am With 235/55 Tires	15.9 To 16.7 (404 To 424)
Dimension "4" (Rear Fascia)	
Camaro	14.0 To 14.8 (356 To 376)
Firebird	14.3 To 15.1 (363 To 384)
(1) See Fig. 5 .	

RIDE HEIGHT SPECIFICATIONS ("H" BODY)

Application	In. (mm)
Bonneville, Eighty Eight, LeSabre, LSS & Regency ⁽¹⁾	
Dimension "A"	23.5 (597)
Dimension "B"	23.5 (597)
Dimension "J"	9.0 To 9.8 (229 To 249)
Dimension "K"	9.3 To 10.1 (236 To 256)
Dimension "D"	2.69 To 3.44 (68 To 88)
Dimension "Z"	1.94 To 2.75 (50 To 70)
(1) See Fig. 6 and Fig. 7 .	

RIDE HEIGHT SPECIFICATIONS ("J" BODY)

Application	In. (mm)

Application	In. (mm)
1998 Cavalier & Sunfire ⁽¹⁾	
Dimension "A"	
Cavalier	31.5 (800)
Sunfire	32.16 (817)
Dimension "B"	22.05 (560)
Dimension "J"	8.77 To 9.57 (223 To 243)
Dimension "K"	9.05 To 9.85 (230 To 250)
Dimension "Z"	
With 14" Tires	-0.07 To 0.87 (2 To 22)
With 15" Tires	-0.15 To 0.65 (-4 To 16)
With 16" Tires	-0.24 To 0.56 (-6 To 14)
1999 Cavalier & Sunfire	
Dimensions "A" & "B"	(2)
Dimension "J"	8.77 To 9.57 (223 To 243)
Dimension "K"	
Except Convertible	9.04 To 9.84 (230 To 250)
Convertible	9.24 To 10.04 (235 To 255)
Dimension "Z"	
With 14" Tires	-0.24 To 0.56 (-6 To 14)
With 15" Tires	
Cavalier 2.2L 4-Door ⁽³⁾	-0.4 To 0.4 (-10 To 10)
Cavalier 2.4L 2-Door ⁽⁴⁾ , Sunfire 2.2L 4-Door ⁽³⁾ & 2.4L 2-Door ⁽⁴⁾	-0.32 To 0.48 (-8 To 18)
Cavalier 2.4L 4-Door ⁽⁵⁾ , Sunfire 2.4L 2 & 4-Door ⁽⁵⁾	-0.35 To 0.45 (-9 To 11)
Convertible 2.2L ⁽⁵⁾	-0.2 To 0.6 (-5 To 15)
Convertible 2.4L ⁽⁵⁾	-0.12 To 0.68 (-3 To 17)
<p>(1) See Fig. 3 .</p> <p>(2) Information is not available for 1999.</p> <p>(3) With active suspension.</p> <p>(4) With ride handling suspension.</p> <p>(5) With soft ride suspension.</p>	

RIDE HEIGHT SPECIFICATIONS (METRO)

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Application	In. (mm)
Metro ⁽¹⁾	
Dimension "A"	17.75 (450)
Dimension "B"	17.75 (450)
Dimension "J"	8.45 To 9.25 (215 To 235)
Dimension "K"	7.85 To 8.65 (200 To 220)
Dimension "Z"	1.35 To 2.10 (35 To 55)
(1) See Fig. 6	

RIGHT HEIGHT SPECIFICATIONS ("N" BODY)

Application	In. (mm)
1998 Achieva, Grand Am & Skylark	
Dimension "A"	31.5 (800)
Dimension "B"	21.4 (560)
Dimension "J"	8.99 To 9.75 (228 To 248)
Dimension "K"	9.19 To 9.95 (233 To 253)
Dimension "D"	(1)
Dimension "Z"	
14" Wheels	
Achieva, Grand Am & Skylark	0.19 To 0.94 (4.83 To 23.88)
15" Wheels	
Achieva	-.063 To .69 (-1.6 To 17.53)
Grand Am & Skylark	-0.03 To 0.72 (-3.56 To 18.26)
16" Wheels	
Achieva & Grand Am	-0.14 To 0.61 (-3.56 To 15.5)
Skylark	-0.09 To 0.66 (-2.29 To 16.8)
1998-99 Cutlass & Malibu, 1999 Alero & Grand Am	
Dimension "A"	(1)
Dimension "B"	(1)
Dimension "J"	8.96 To 9.71 (227 To 247)
Dimension "K"	9.23 To 9.99 (234 To 254)
Dimension "D"	
15" Wheels (Except Grand Am 4-Door)	4.47 To 5.22 (113 To 133)
15" Wheels Grand Am 4-Door	4.38 To 5.13 (110 To 130)
16" Wheels	4.40 To 5.15 (111 To 131)
Dimension "Z"	
15" Wheels (Except Grand Am 4-Door)	-0.38 To 0.38 (-10 To 10)
15" Wheels Grand Am 4-Door	-0.15 To 0.61 (-16 To 4)
16" Wheels	-0.18 To 0.58 (-15 To 5)

(1) Information is not available. See **Fig. 3** for approximate locations.

RIDE HEIGHT SPECIFICATIONS (1999 PRIZM ⁽¹⁾)

Application ⁽²⁾	In. (mm)
Dimension "Z"	
With P175/64R14 Tires	6.88 To 7.68 (175 To 195)
With P185/64R14 Tires	7.08 To 7.88 (180 To 200)
Dimension "D"	
With P175/64R14 Tires	9.25 To 10.05 (235 To 255)
With P185/64R14 Tires	9.44 To 10.24 (240 To 260)
(1) 1998 specifications are not available	
(2) See Fig. 8	

RIDE HEIGHT SPECIFICATIONS ("V" BODY)

Application	In. (mm)
Catera ⁽¹⁾	
Dimension "P"	27.3 (693)
Dimension "J"	6.9 (175)
Dimension "K"	6.5 (165)
Dimension "R"	27.3 (693)
(1) See Fig. 9 .	

RIDE HEIGHT SPECIFICATIONS ("W" BODY)

Application ⁽¹⁾	In. (mm)
1998 Lumina & Monte Carlo	
Dimension "A"	23.8 (605)
Dimension "B"	20.7 (526)
Dimension "J"	9.6 To 10.4 (244 To 264)
Dimension "K"	9.8 To 10.06 (249 TO 269)
Dimension "Z"	
Lumina & Monte Carlo ⁽²⁾ , 205/70R15 Tires; Lumina Police & Taxi ⁽³⁾ , 215/65R15 Tires	2.56 To 3.36 (65 To 85)
Lumina LS & Police ⁽²⁾ , 205/70R15 Tires	2.6 To 3.4 (66 To 86)
Lumina LS ⁽³⁾ , 225/60R16	2.36 To 3.16 (60 To 80)

Lumina , Lumina LS, ⁽²⁾ , 225/60R16 Tires; Monte Carlo Z34, 225/60R16 Tires & Monte Carlo LS 255/60R16 Tires, ⁽³⁾	2.32 To 3.12 (59 To 79)
Dimension "D"	
Lumina & Monte Carlo ⁽²⁾ , 205/70R15 Tires; Lumina Police & Taxi ⁽³⁾ , 215/65R15 Tires	10.3 To 11.1 (262 To 282)
Lumina LS & Police ⁽²⁾ , 205/70R15 Tires; Lumina LS ⁽³⁾ , 225/60R16	10.35 To 11.15 (263 To 283)
Lumina , Lumina LS ⁽²⁾ , 225/60R16 Tires	10.12 To 10.92 To (257 To 277)
Monte Carlo Z34, 225/60R16 Tires & Monte Carlo LS 255/60R16 Tires, ⁽³⁾	10.09 To 10.89 (256 To 276)
1998-99 Century & Regal; 1999 Lumina & Monte Carlo,	
Dimension "A"	23.8 (605)
Dimension "B"	20.7 (526)
Dimension "J" & "K"	8.00 To 8.80 (203 To 223) 8.00 To 8.80 (203 To 223)
Dimension "Z"	
Century, Lumina, Monte Carlo & Regal With 225/60R16 Tires	1.49 To 2.29 (38 To 58)
Lumina & Monte Carlo With 225/70R15 Tires	1.73 To 2.53 (45 To 65)
Dimension "D"	
Century, Lumina, Monte Carlo & Regal With 225/60R16 Tires	9.64 To 10.44 (245 To 265)
Lumina & Monte Carlo With 225/70R15 Tires	9.88 To 10.68 (251 To 271)
Intrigue	
Dimension "A"	23.8 (605)
Dimension "B"	20.7 (526)
Dimension "J"	
1998	8.00 To 8.80 (203 To 223)
1999	8.18 To 8.98 (208 To 228)
Dimension "K"	
1998	8.00 To 8.80 (203 To 223)
1999	8.38 To 9.18 (213 To 233)
Dimension "Z"	

1998 With Soft Ride Suspension	1.68 To 2.48 (43 To 63)
1998 With Firm Ride Suspension	1.43 To 2.23 (36.3 To 56.3)
1999	1.57 To 2.37 (40 To 60)
Dimension "D"	
1998 With Soft Ride Suspension	9.94 To 10.74 (252.7 To 277.7)
1998 With Form Ride Suspension	9.73 To 10.53 (247.4 To 267.4)
1999	10.15 To 10.95 (258 To 278)
(1) See Fig. 3 and Fig. 10 .	
(2) With soft ride suspension.	
(3) With firm ride suspension.	

RIDE HEIGHT SPECIFICATIONS ("Y" BODY)

Application	In. (mm)
Corvette ⁽¹⁾	
Dimension "A"	35 (889)
Dimension "B"	31 (787)
Dimension "J"	5.73 To 6.23 (146 To 158)
Dimension "K"	5.93 To 6.43 (151 To 163)
Dimension "D"	4.0 To 4.5 (102 To 114)
Dimension "Z"	1.48 To 1.98 (38 To 50)
(1) See Fig. 11	

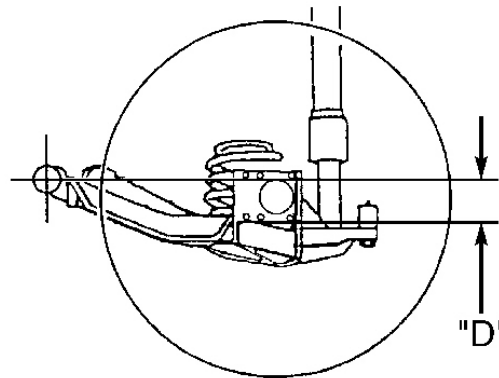
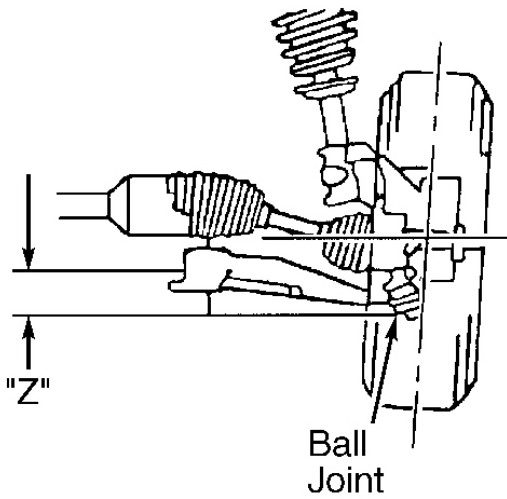
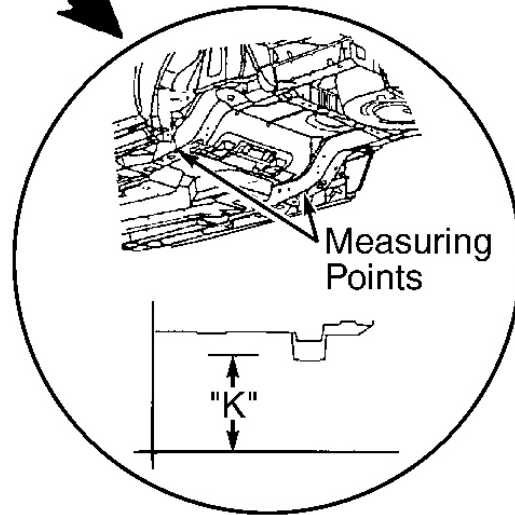
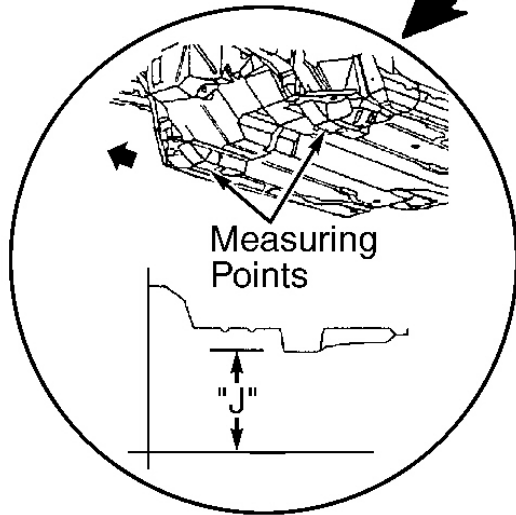
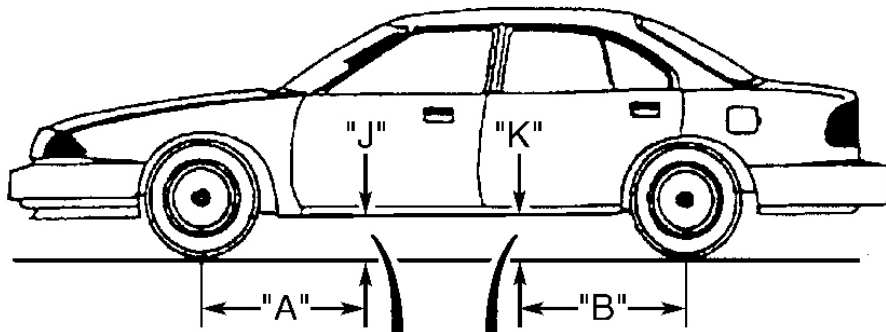
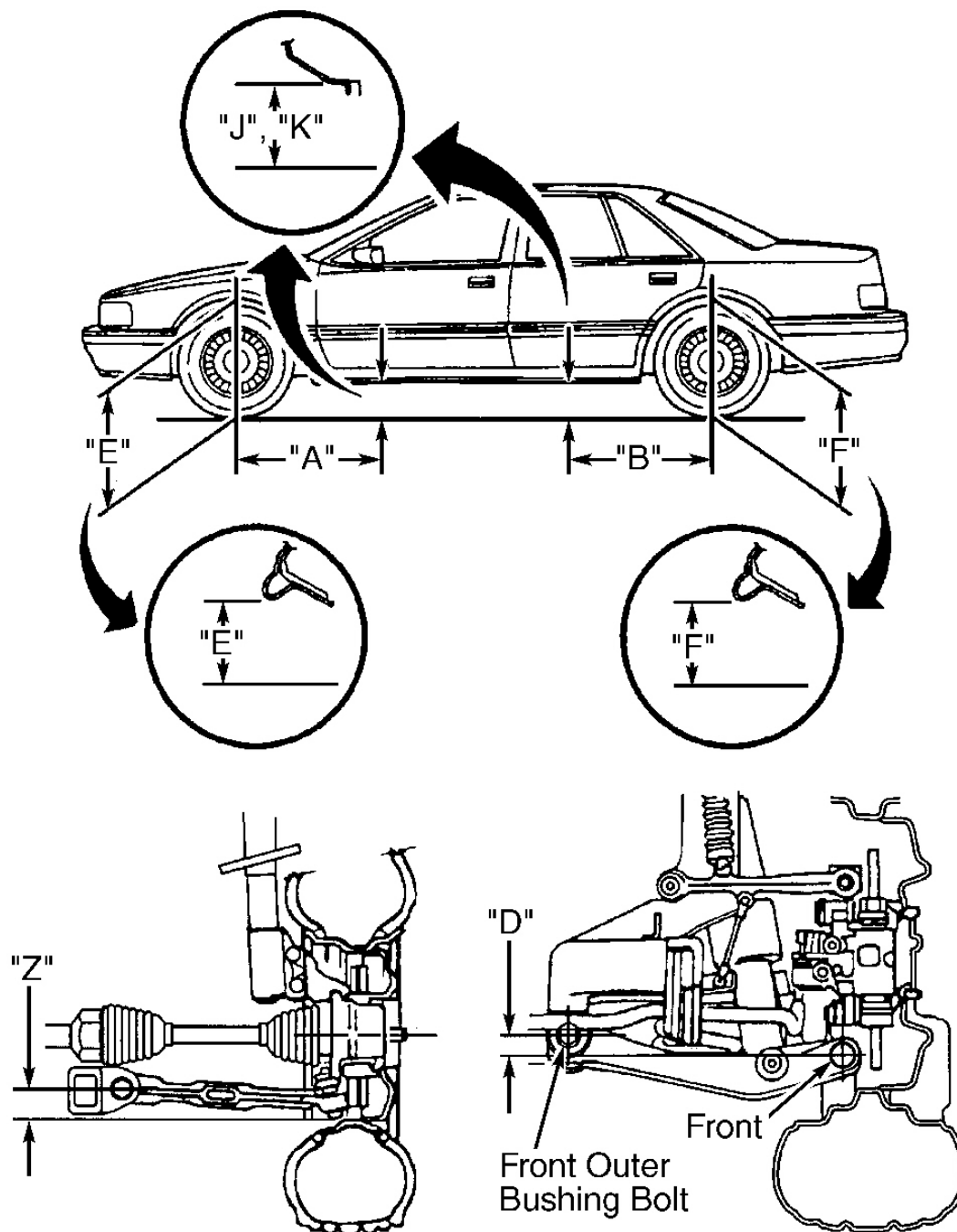
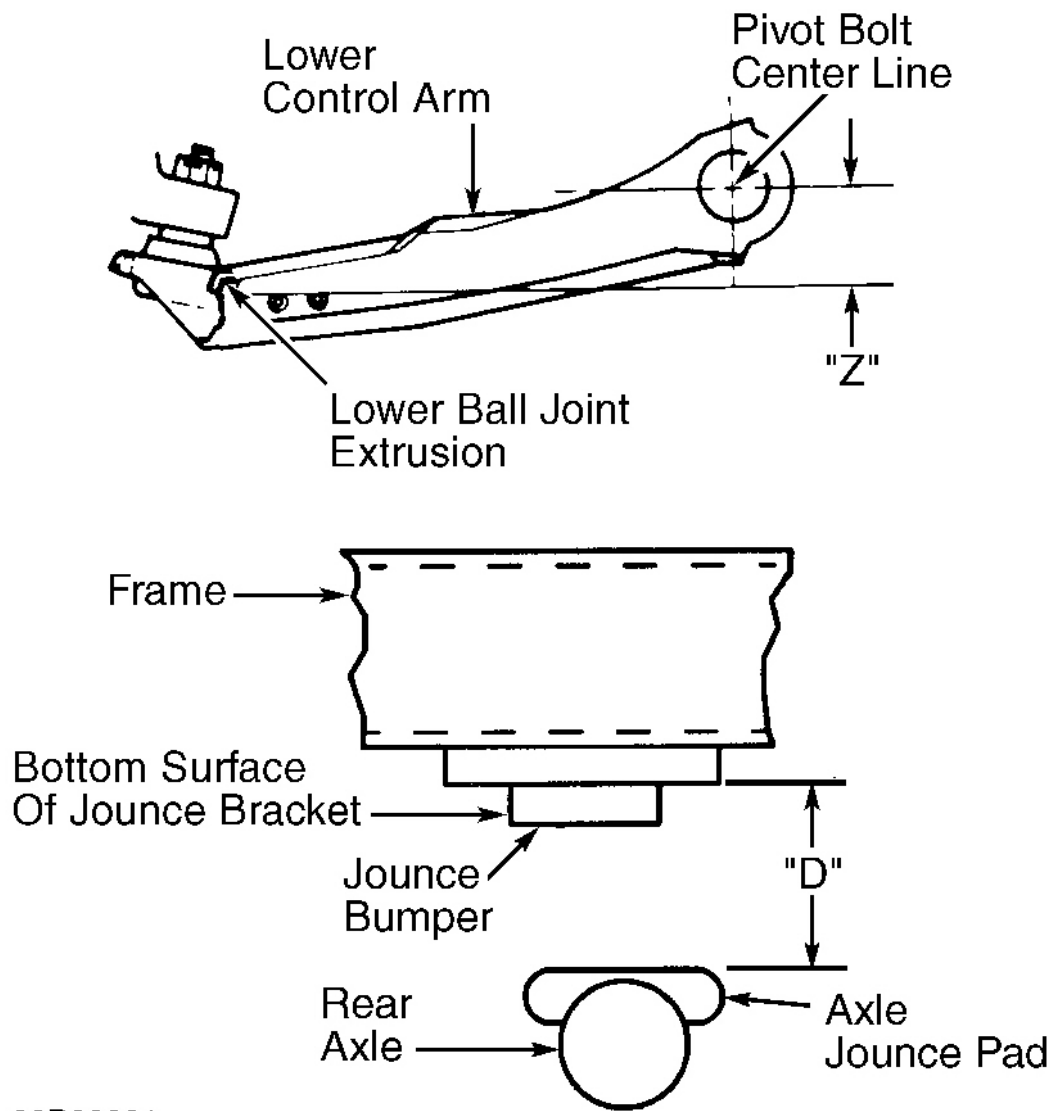


Fig. 1: Ride Height Measuring Points ("C" & "G" Bodies & Seville)
Courtesy of GENERAL MOTORS CORP.



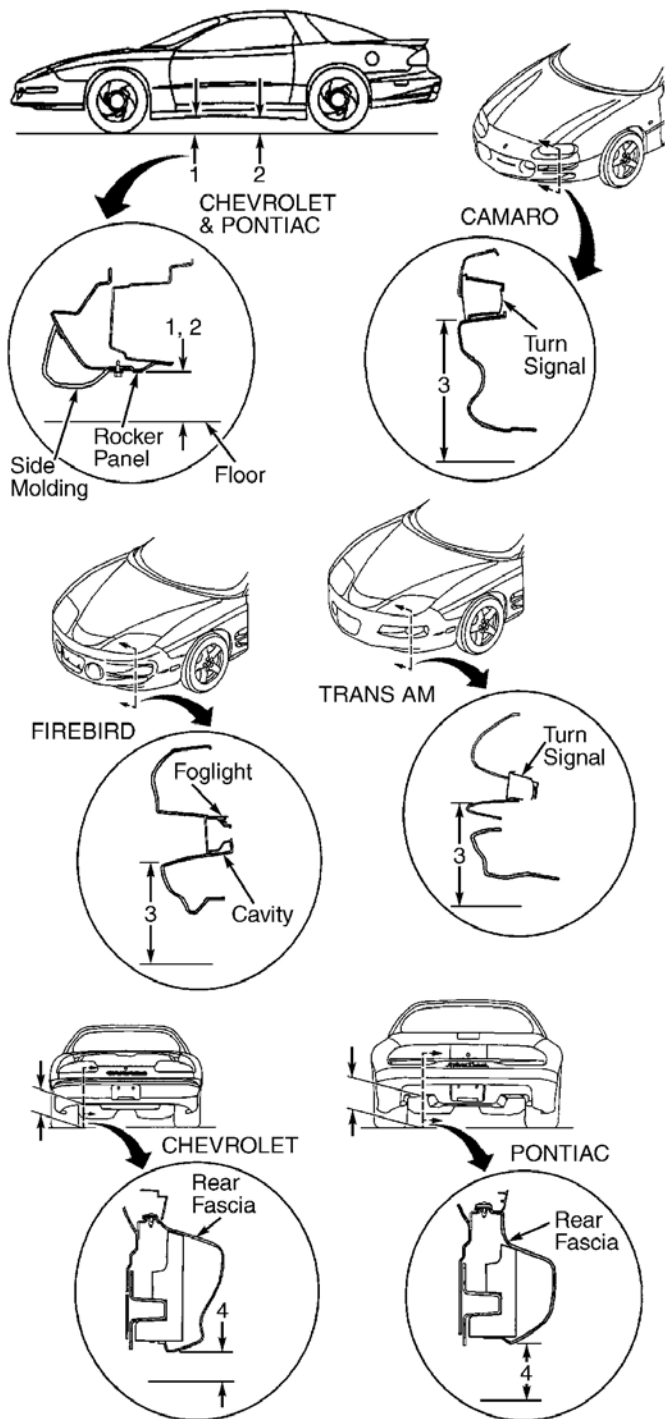
G99J03215

Fig. 2: Ride Height Measuring Points ("E" & "K" Body - Except Seville)



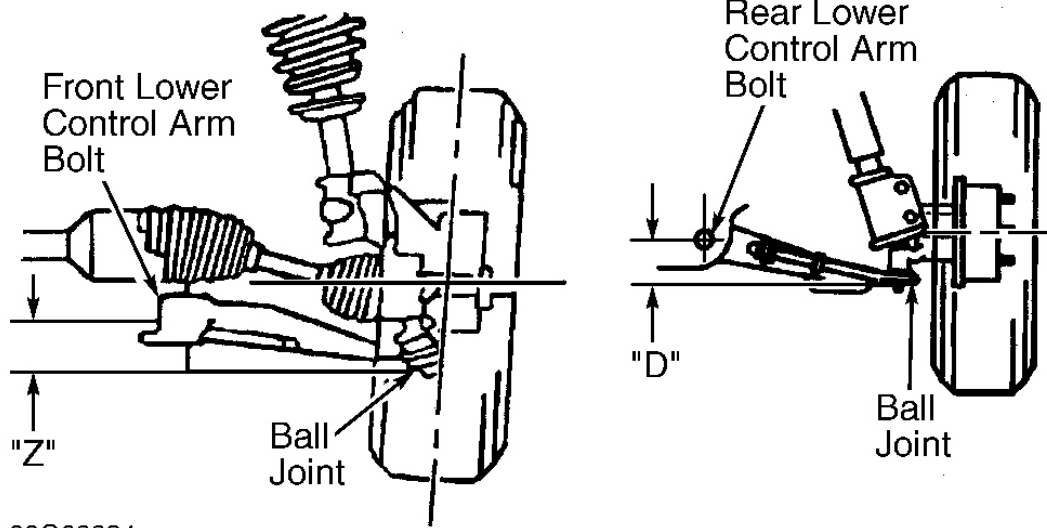
99B03221

Fig. 4: Ride Height Measuring Points (1998 "F" Body)
Courtesy of GENERAL MOTORS CORP.



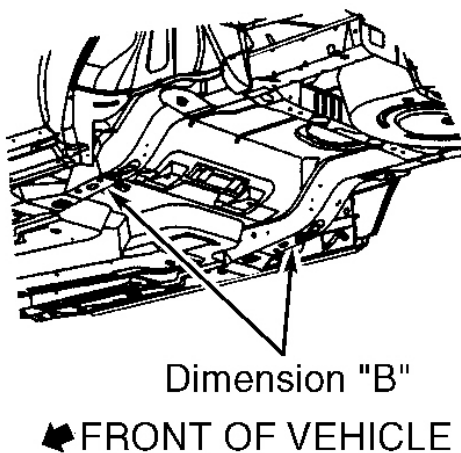
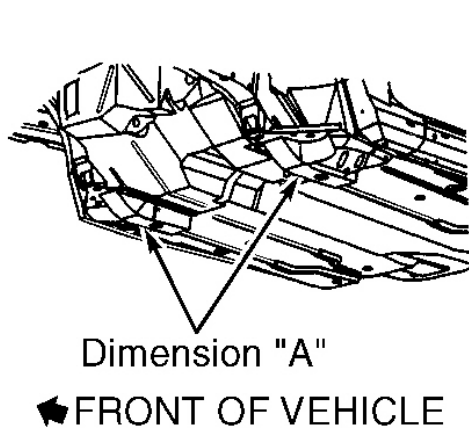
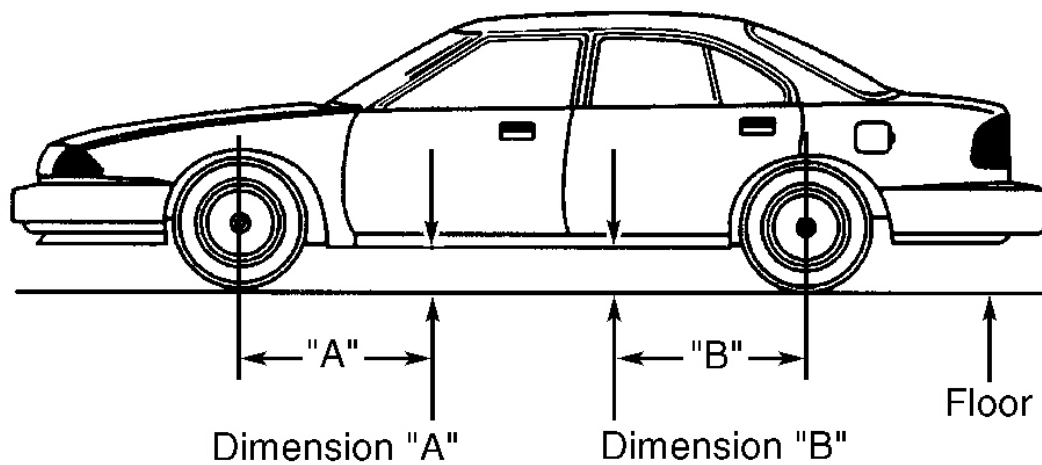
G99B03396

Fig. 5: Ride Height Measuring Points (1999 "F" Body)
 Courtesy of GENERAL MOTORS CORP.



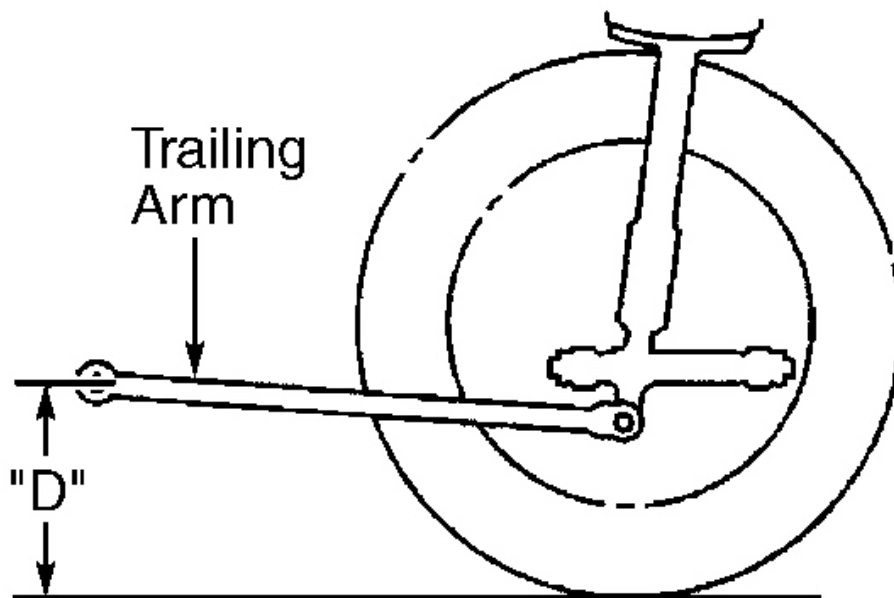
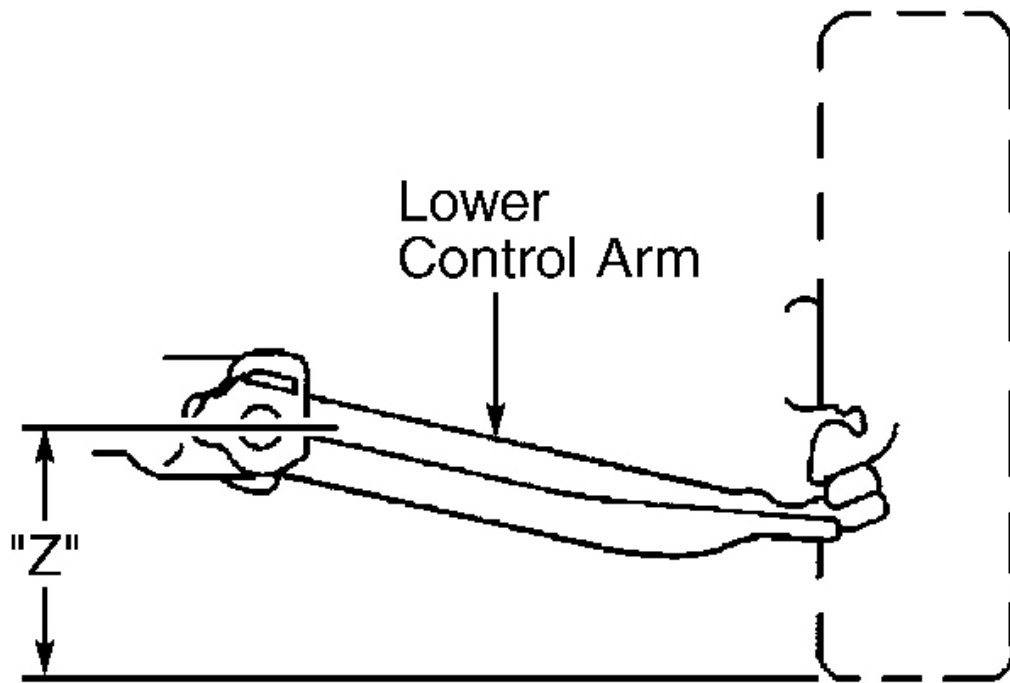
99G03394

Fig. 6: Ride Height Measuring Points ("H" Body & Metro)
Courtesy of GENERAL MOTORS CORP.



97H03511

Fig. 7: Ride Height Measuring Points ("H" Body)
 Courtesy of GENERAL MOTORS CORP.



G99J03220

Fig. 8: Ride Height Measuring Points (Prizm)
Courtesy of GENERAL MOTOR CORP.

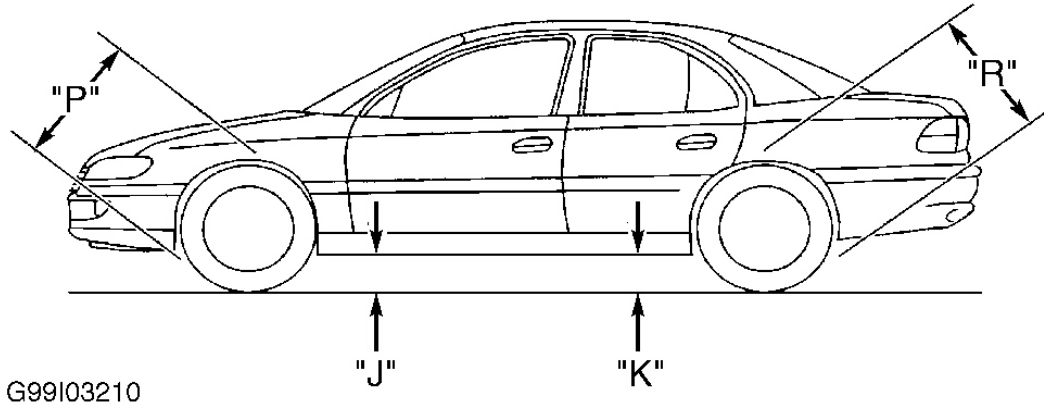
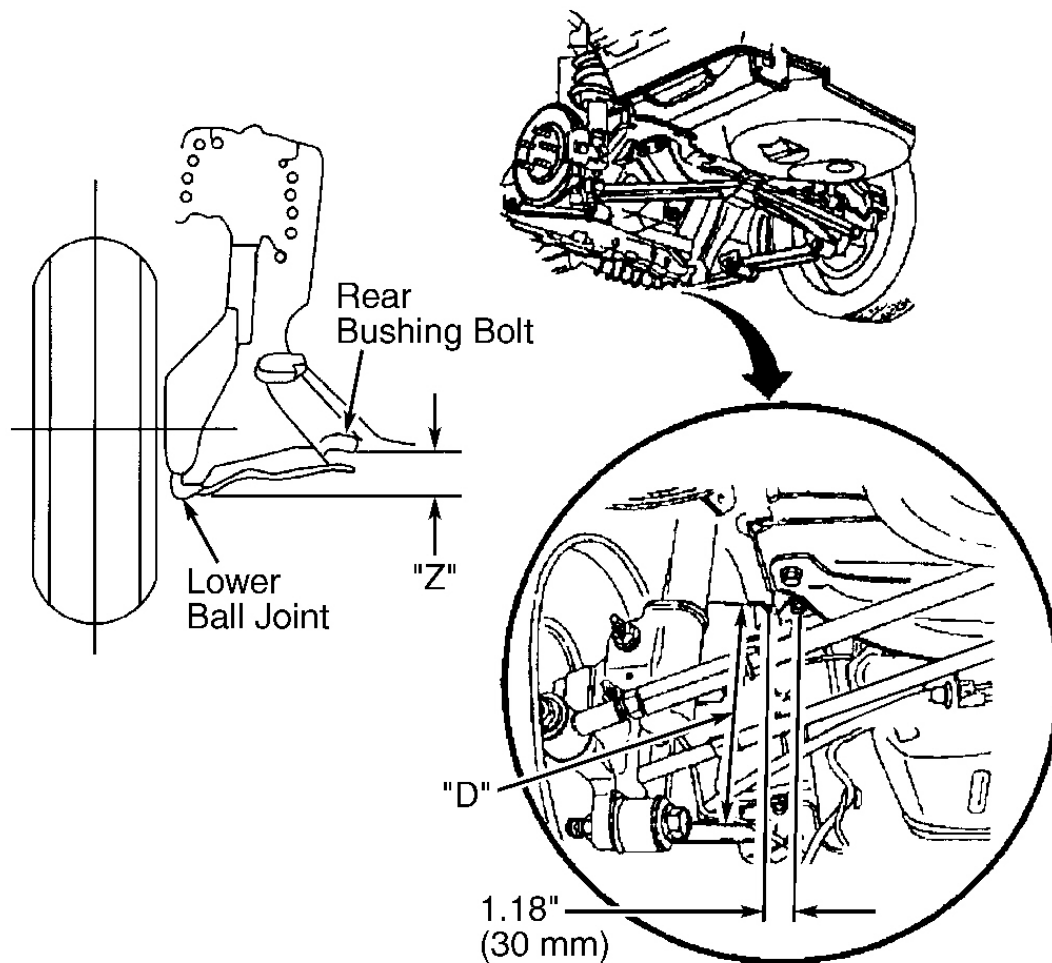
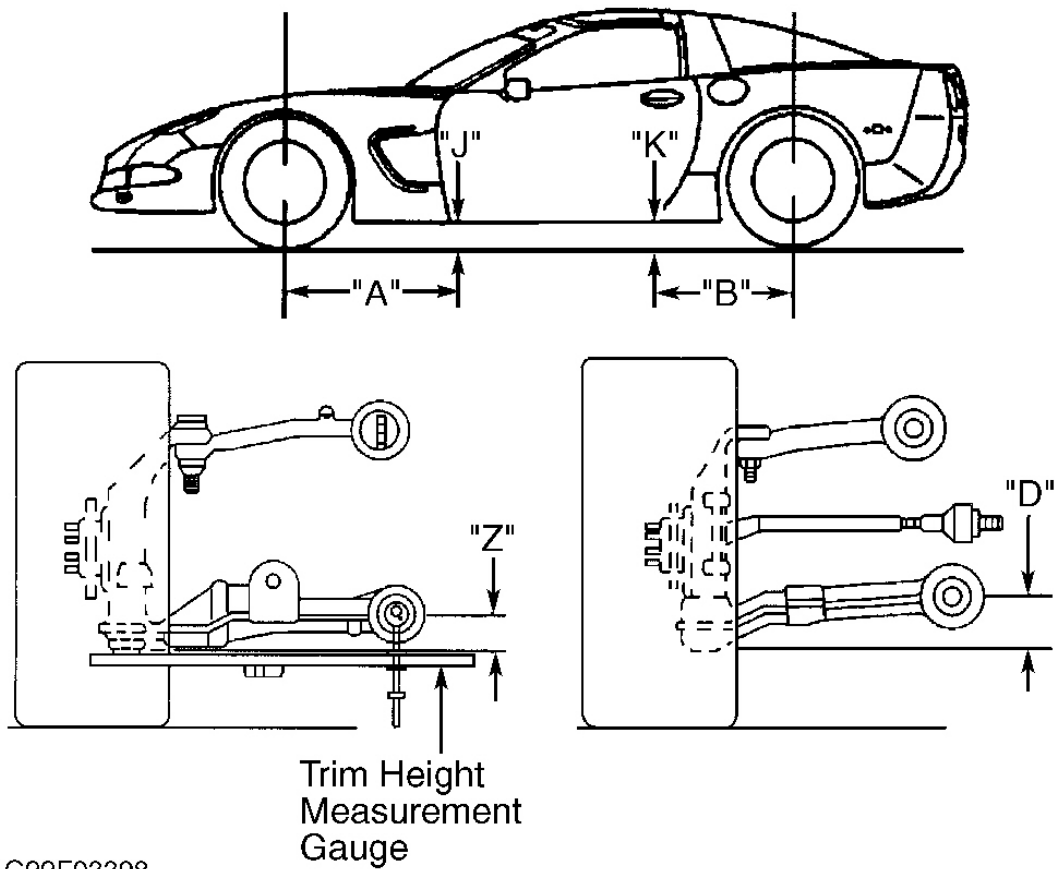


Fig. 9: Ride Height Measuring Points ("V" Body)
Courtesy of GENERAL MOTORS CORP.



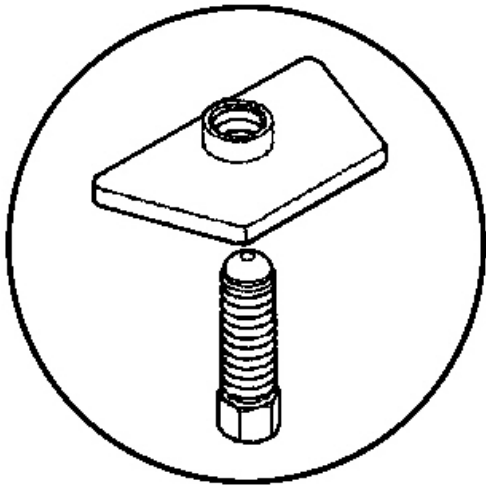
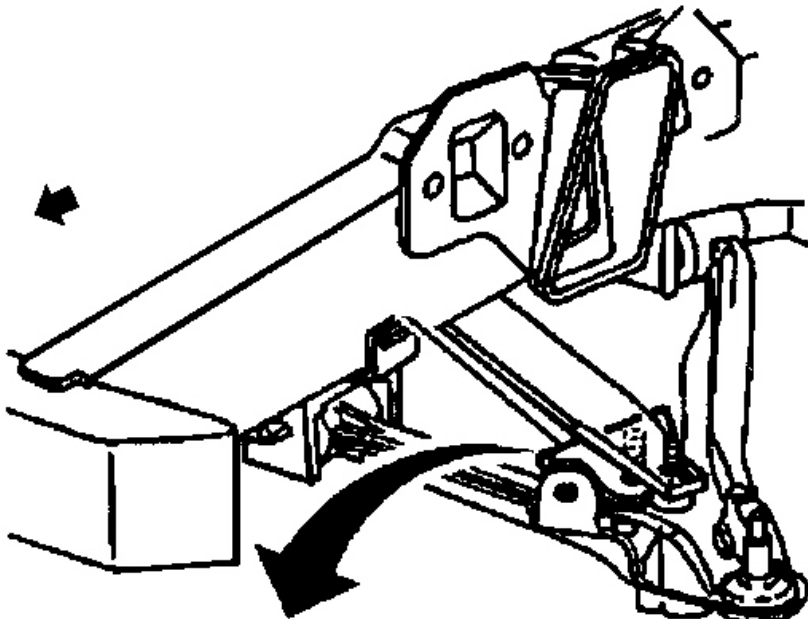
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Fig. 10: Ride Height Measuring Points ("W" Body)
Courtesy of GENERAL MOTORS CORP.



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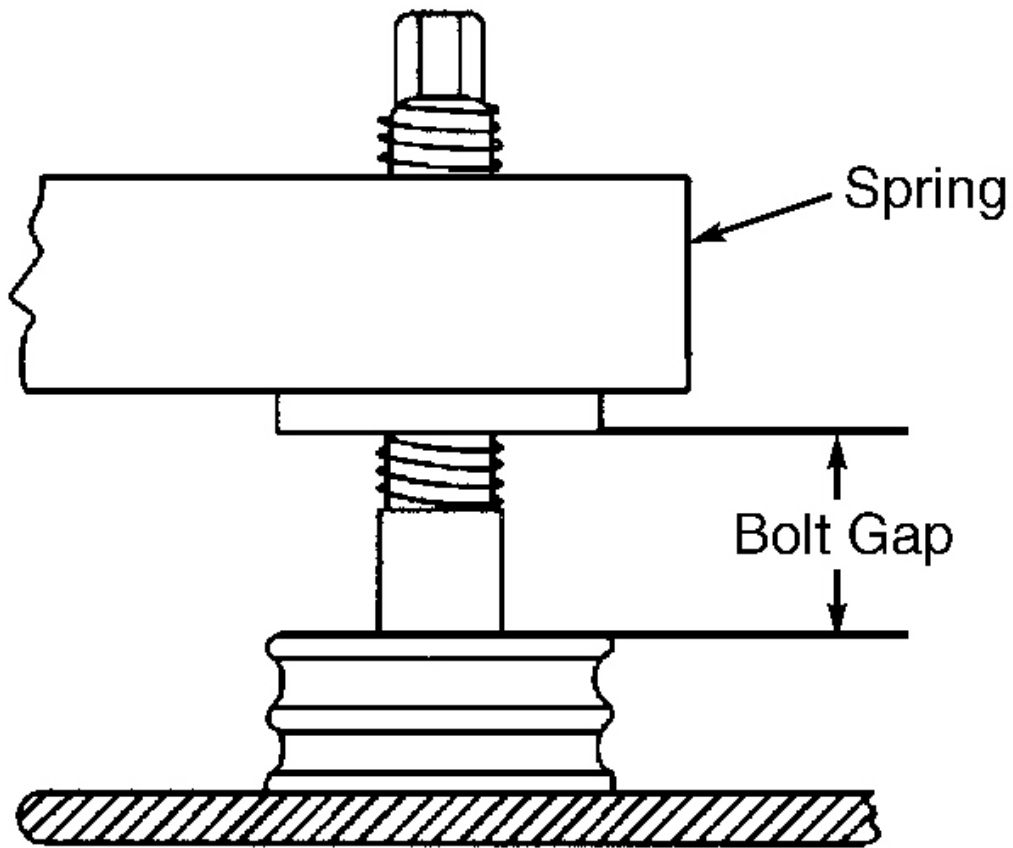
Fig. 11: Ride Height Measuring Points ("Y" Body)
 Courtesy of GENERAL MOTORS CORP.



TRIM HEIGHT
ADJUSTMENT TOOL

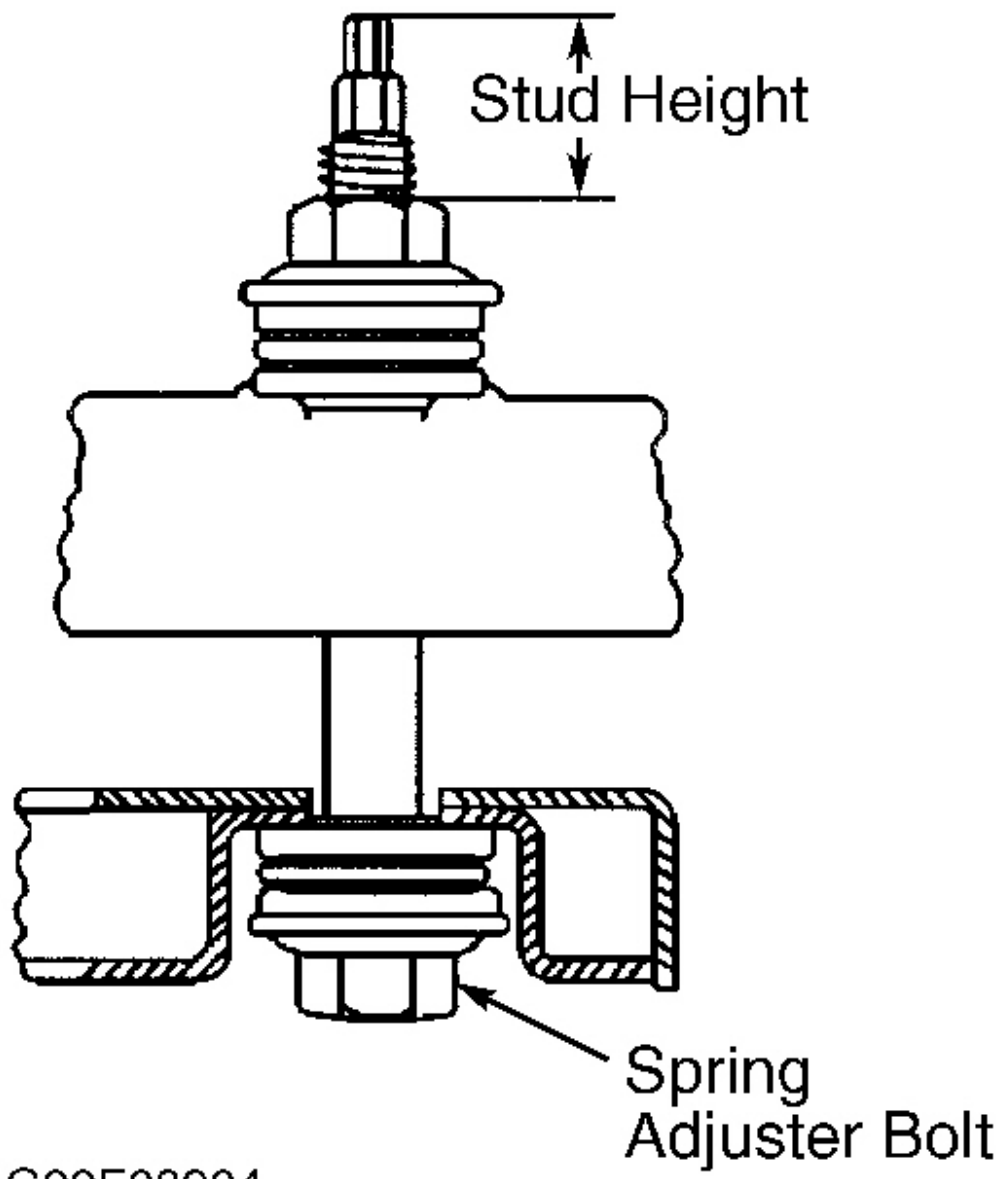
G99I03205

Fig. 12: Installing Trim Height Adjustment Tool ("Y" Body)
Courtesy of GENERAL MOTORS CORP.



G99H03399

Fig. 13: Measuring Front Spring Adjuster Bolt Gap ("Y" Body)
Courtesy of GENERAL MOTORS CORP.



G99F03204

Fig. 14: Measuring Rear Spring Stud Height ("Y" Body)
Courtesy of GENERAL MOTORS CORP.

JACKING & HOISTING

FLOOR JACK

FWD Vehicles

When supporting vehicle using floor jack, place support at suspension lift points or frame lift points. Floor jacks may be placed under front crossmember on most models. See **Fig. 15 - Fig. 23** .

RWD Vehicles

Floor jack may be used under rear axle or front suspension lower control arms. Observe the following precautions:

- DO NOT use jack on any part of underbody.
- DO NOT raise entire vehicle at side rail with jack midway between front and rear wheels, or permanent body damage may result.
- DO NOT allow lifting plate fingers to contact axle cover plate when lifting at rear axle housing.
- If vehicle is equipped with a stabilizer bar, DO NOT lift at rear axle housing. See **Fig. 15 - Fig. 23** .

BUMPER JACK

Bumper jack, if supplied as original equipment with vehicle, should only be used to change a flat tire. If vehicle is not supplied with a bumper jack, DO NOT lift vehicle by the bumper at any time.

AXLE CONTACT HOIST

NOTE: Always follow hoist manufacturer's instructions. DO NOT allow hoist or adapters to contact suspension, exhaust or steering components. Frame contact must be made. Use adapters if necessary.

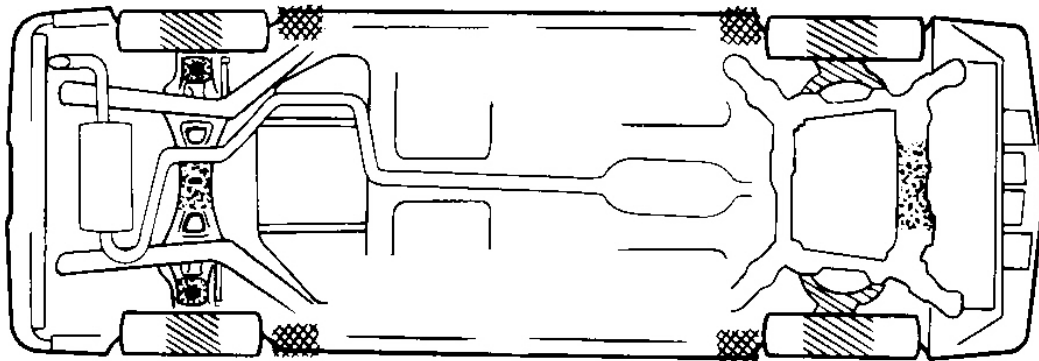
Hoist should contact lower control arms, or front crossmember and rear axle.

FRAME CONTACT HOIST

Hoist adapters must contact vehicle in specified areas. See **Fig. 15 - Fig. 23** . Adapters must be positioned to distribute load and support vehicle in a stable manner. DO NOT allow lift pads to contact body panels or exhaust system components.

WARNING: If removing rear axle, fuel tank, spare tire or liftgate using single-post hoist, anchor vehicle to hoist. Place jack stands under vehicle, or add weight on rear end of vehicle to prevent tipping when center of gravity changes.

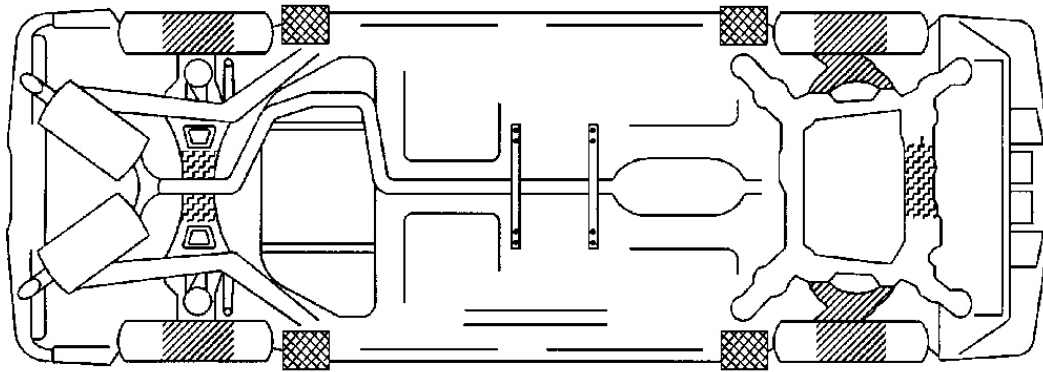
FRONT OF VEHICLE →



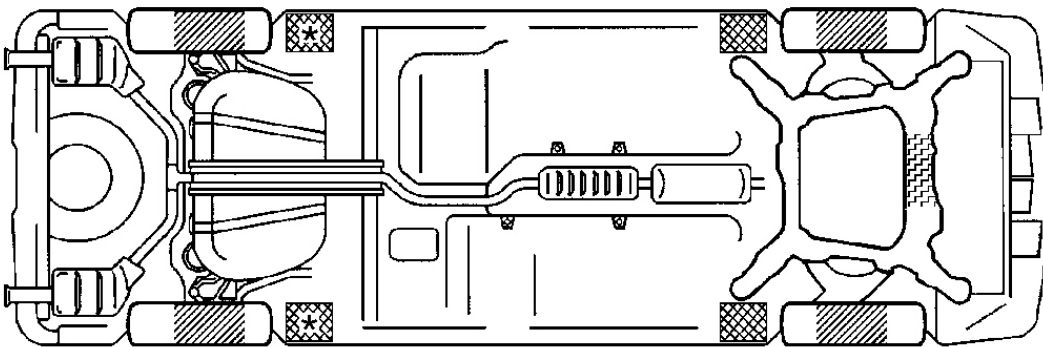
- Frame Contact Hoist ■ Floor Jack
■ Suspension Contact Hoist

G95E14609

Fig. 15: Lifting Points ("C", "G" & "H" Bodies)
Courtesy of GENERAL MOTORS CORP.

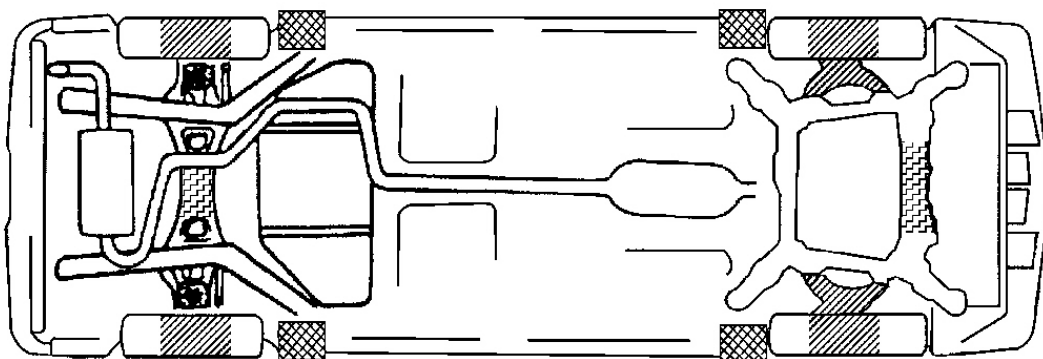


1999 "K" BODIES (EXCEPT SEVILLE)



* Lifting point for both Suspension Frame Contact & Floor Hoist.

1999 SEVILLE



1998 SEVILLE, 1998-99 "J" BODY & METRO




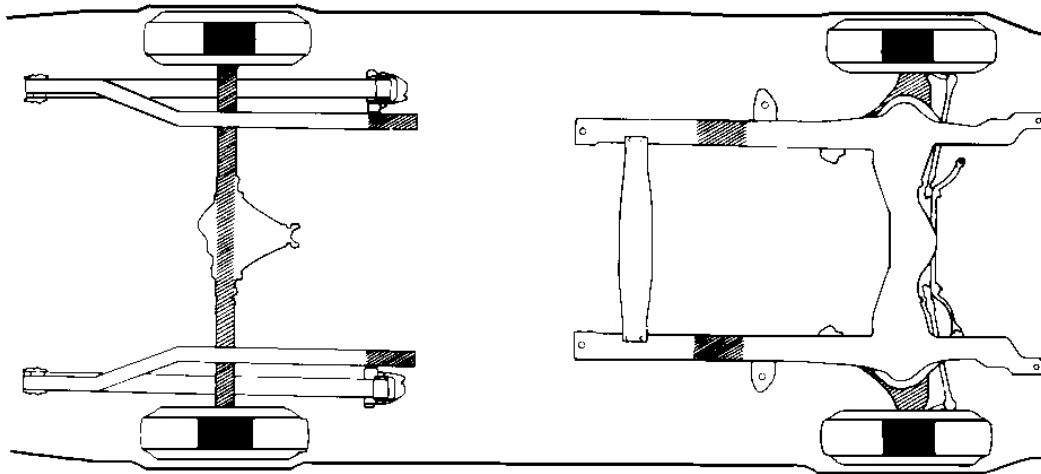
-  Frame Contact Hoist
-  Floor Jack
-  Suspension Or Drive-On Hoist

Fig. 16: Lifting Points ("E" & "K" Bodies)
Courtesy of GENERAL MOTORS CORP.

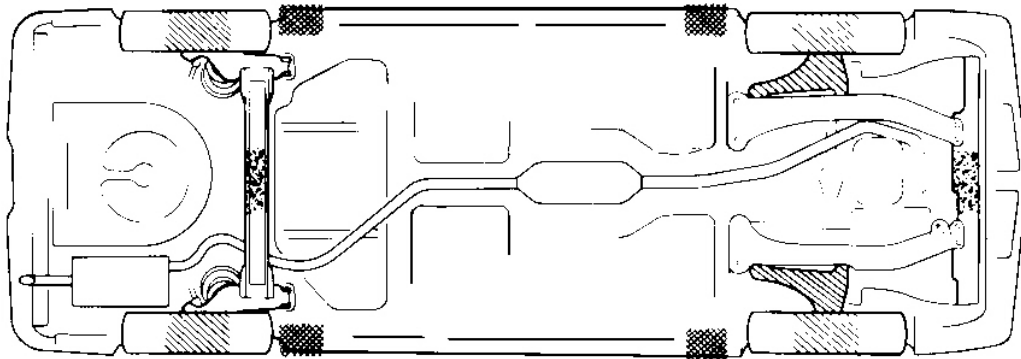


■ Drive-On Hoist

▨ Floor Jack Or Axle Contact Hoist

G95A14613

Fig. 17: Lifting Points ("F" Body)
Courtesy of GENERAL MOTORS CORP.

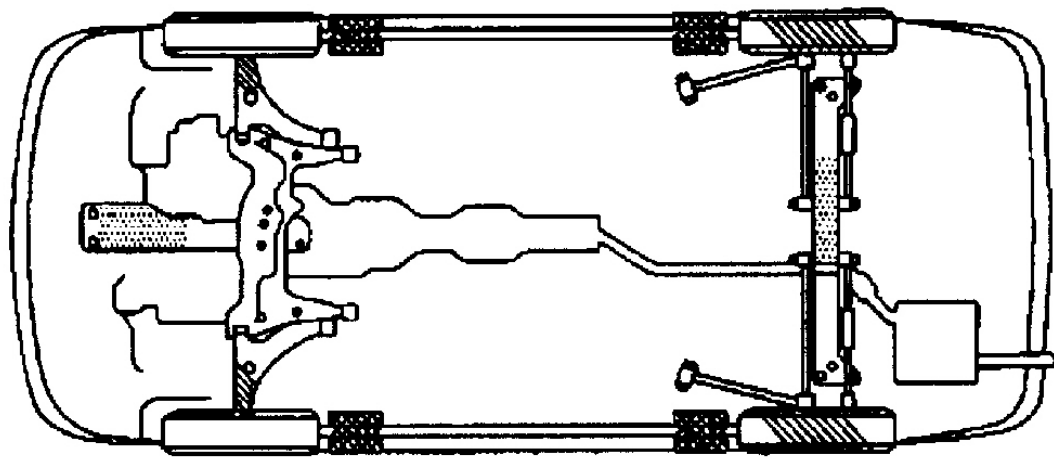


Floor Jack
 Frame Contact Hoist

Suspension Contact Hoist

G95C14615

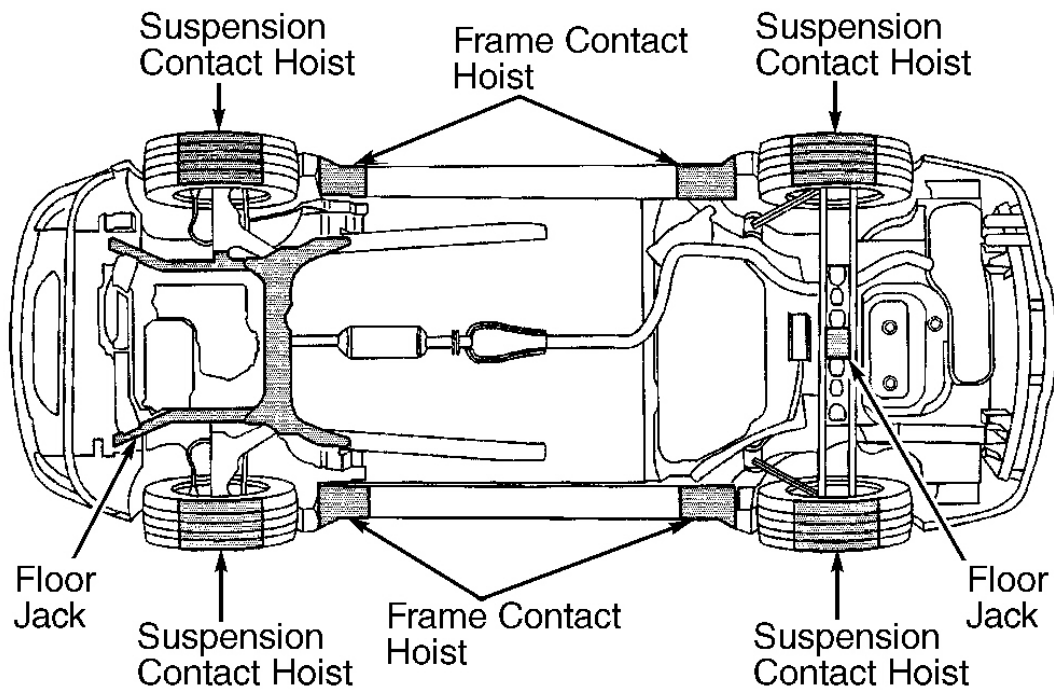
Fig. 18: Lifting Points ("J" & 1998 "N" Bodies)
 Courtesy of GENERAL MOTORS CORP.



Frame Contact Hoist
 Floor Jack
 Suspension Contact Hoist

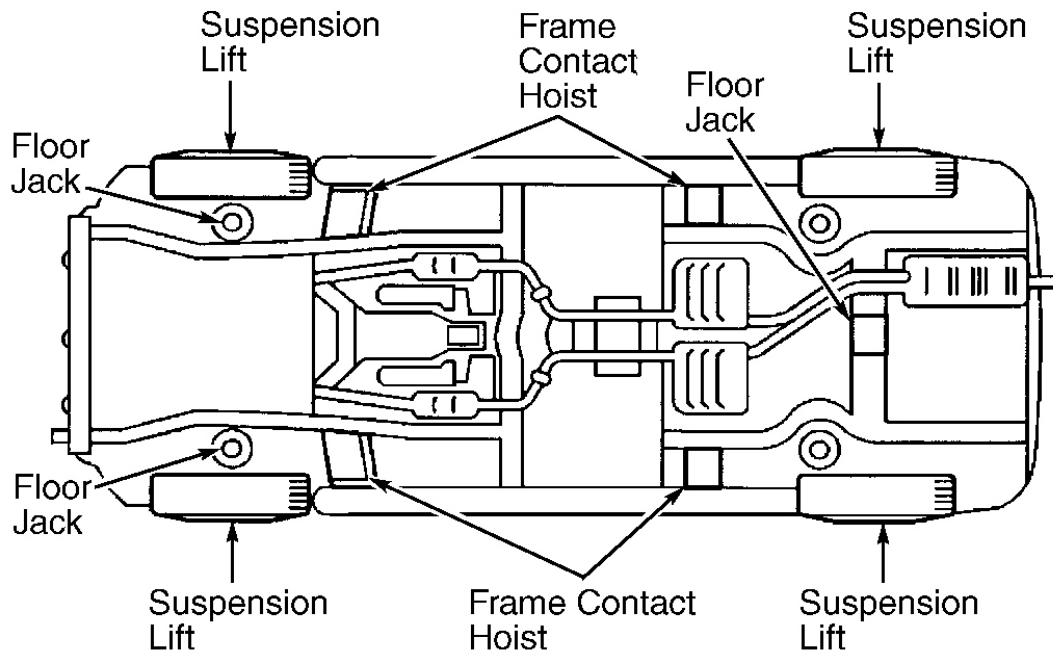
G99H03219

Fig. 19: Lifting Points (Metro)
Courtesy of GENERAL MOTORS CORP.



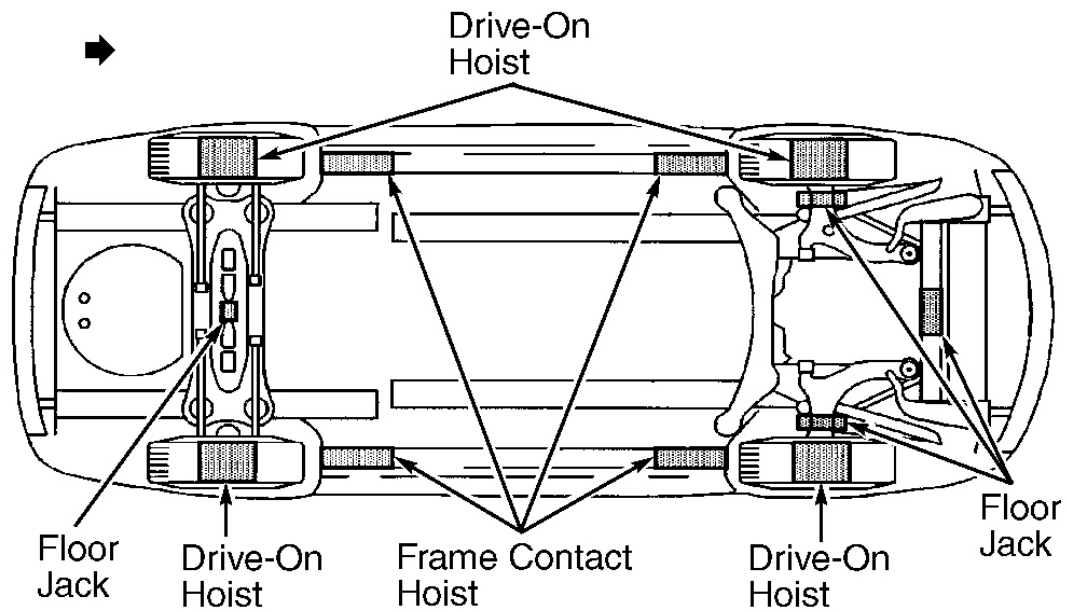
99E03393

Fig. 20: Lifting Points (1999 "N" Body)
Courtesy of GENERAL MOTOR CORP.



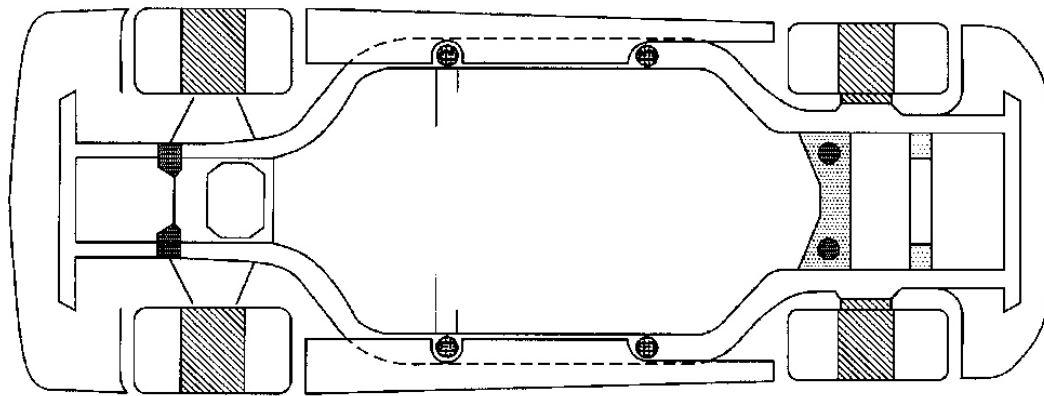
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


Fig. 21: Lifting Points ("V" Body)
Courtesy of GENERAL MOTORS CORP.



G99D03217

Fig. 22: Lifting Points ("W" Body)
 Courtesy of GENERAL MOTORS CORP.



-  Preferred Vehicle Jacking Locations
-  Optional Vehicle Jacking Locations
-  Frame Contact Hoist Locations,
Optional Vehicle Jacking Locations
-  Suspension Contact Hoist Locations

G99D03397

Fig. 23: Lifting Points ("Y" Body)

Courtesy of GENERAL MOTORS CORP.

WHEEL ALIGNMENT PROCEDURES

ORDER OF ALIGNMENT

NOTE: To ensure accurate alignment, align wheels in the following order: rear camber, rear toe-in, front caster, front camber and front toe-in.

CAMBER ADJUSTMENT (REAR)

"H" Body

Loosen nuts on 2 bolts securing strut to steering knuckle. Install Camber Adjuster (J-29862). See **Fig. 24** . Rotate bolt on camber adjuster until camber is as specified. See **WHEEL ALIGNMENT SPECIFICATIONS** table. Tighten nuts to specification. See **TORQUE SPECIFICATIONS** table.

"E" & "K" Bodies (Except Seville)

Loosen bolts securing front and rear ends of lower control arm to frame. See **Fig. 25** . Move lower control arm

inward or outward as necessary to adjust camber. Tighten bolts to specification. See **TORQUE SPECIFICATIONS** table.

"W" Body

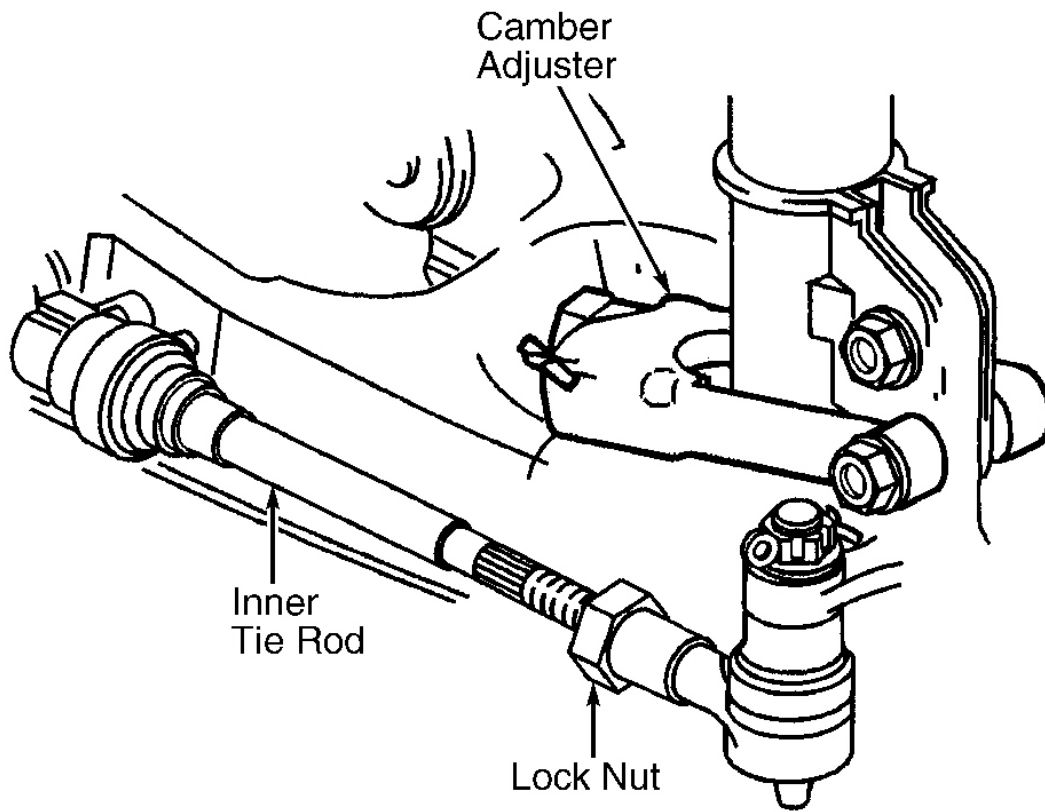
1. Raise and support vehicle. Remove rear wheel. Remove strut. Put strut in a vise. File the upper bolt hole at lower end of strut to make it oblong. See **Fig. 26** .
2. Install strut, but DO NOT fully tighten strut mounting bolts at steering knuckle. Lower vehicle. Adjust camber to specification. See **WHEEL ALIGNMENT SPECIFICATIONS** table. Tighten bolts to specification. See **TORQUE SPECIFICATIONS** table.

"Y" Body

Loosen lower control arm cam bolt nut. Rotate cam bolt until camber is within specification. See **Fig. 27** . See **WHEEL ALIGNMENT SPECIFICATIONS** table. Tighten bolts to specification. See **TORQUE SPECIFICATIONS** table.

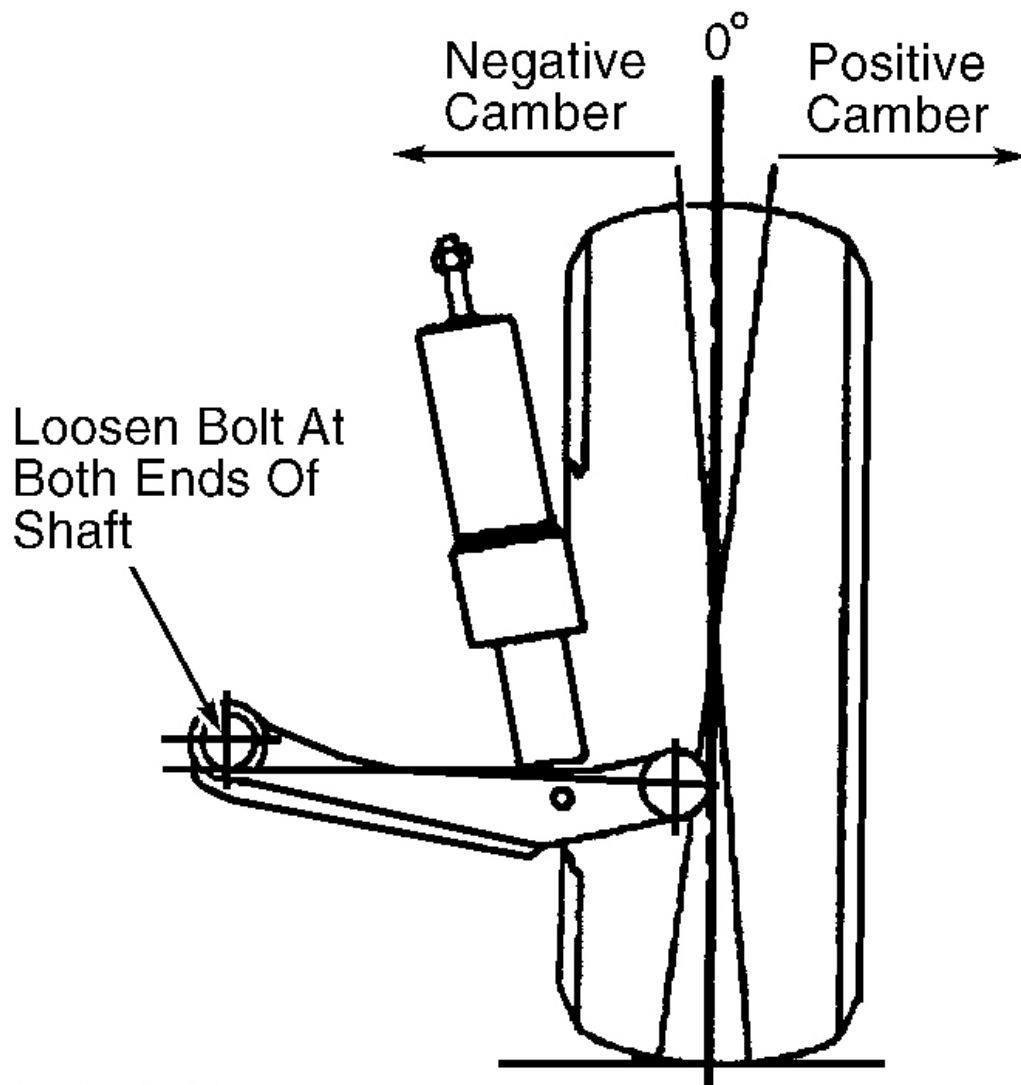
All Others

Rear camber is not adjustable. If rear camber is not as specified, repair or replace worn or damaged components.



99J03395

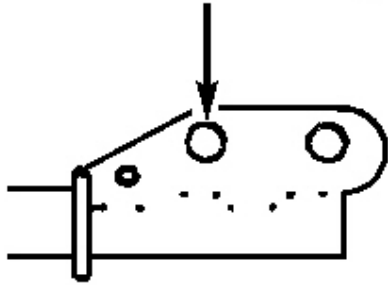
Fig. 24: Adjusting Rear Camber & Toe-In ("H" Body)
Courtesy of GENERAL MOTORS CORP.



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Fig. 25: Adjusting Rear Camber ("E" & "K" Body - Except Seville)
Courtesy of GENERAL MOTORS CORP.

Before Filing



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After Filing

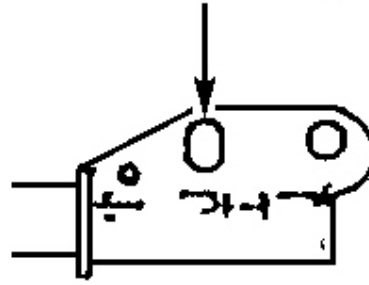


Fig. 26: Elongating Bolt Hole For Camber Adjustment - Rear Struts
Courtesy of GENERAL MOTORS CORP.

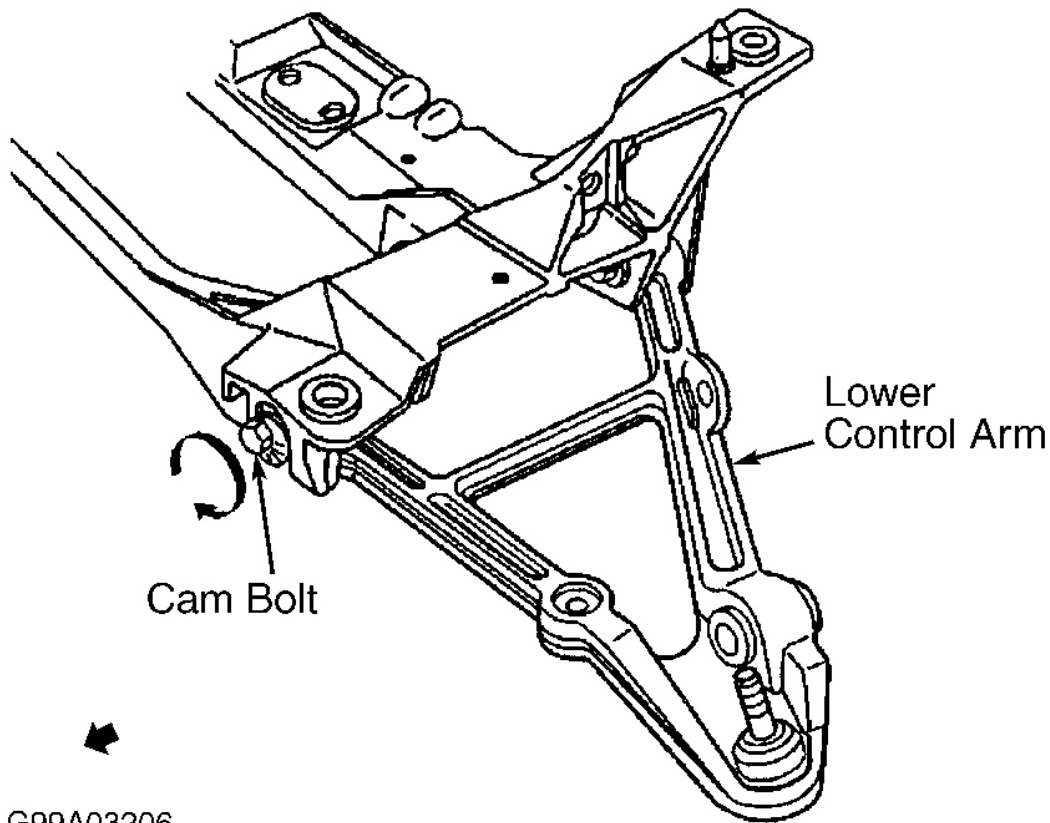


Fig. 27: Adjusting Rear Camber ("Y" Body)
 Courtesy of GENERAL MOTORS CORP.

TOE-IN ADJUSTMENT (REAR)

"C" & "G" Bodies & Seville

Adjust left and right sides separately. Loosen inner adjustment link cam nut. See **Fig. 28** . Using an 18-mm wrench or socket, rotate cam bolt until toe-in is as specified. See **WHEEL ALIGNMENT SPECIFICATIONS** table. Tighten cam nut to specification. See **TORQUE SPECIFICATIONS** table.

"H" Body

Loosen lock nut on tie rod. See **Fig. 24** . Rotate inner tie rod as necessary until full toe-out position is obtained, then rotate inner tie rod until rear toe-in is as specified. See **WHEEL ALIGNMENT SPECIFICATIONS** table. Tighten lock nut to specification. See **TORQUE SPECIFICATIONS** table.

"E" & "K" Body (Except Seville)

Loosen toe link bolt. See **Fig. 29** . Move wheel inward or outward as necessary until toe-in is as specified. See **WHEEL ALIGNMENT SPECIFICATIONS** table. Tighten bolts to specification. See **TORQUE SPECIFICATIONS** table.

Metro

Loosen right and left body side control rod cam bolts. Rotate cam bolt until toe-in is as specified. See **WHEEL ALIGNMENT SPECIFICATIONS** table. Tighten lock nut to specification. See **TORQUE SPECIFICATIONS** table.

Prizm

Loosen both tie rod end locknuts. Rotate threaded sleeve until toe-in as specified. See **WHEEL ALIGNMENT SPECIFICATIONS** table. Tighten lock nut to specification. See **TORQUE SPECIFICATIONS** table.

"V" Body

Loosen tie rod adjuster clamps. Rotate threaded sleeve until rear toe-in is as specified. See **WHEEL ALIGNMENT SPECIFICATIONS** table. Tighten adjuster clamps to specification. See **TORQUE SPECIFICATIONS** table.

"W" Body (Lumina & Monte Carlo)

1. Adjust left and right sides separately. Lubricate threads of Turnbuckle Adjuster (J-38118). On Lumina and Monte Carlo, install turnbuckle adjuster in rear rod access hole closest to center of rear suspension support and other end to rear suspension support. On Cutlass Supreme, install turnbuckle adjuster between hole in rear suspension rod and hole in jackstand pad. See **Fig. 30** . On all models, hand-tighten turnbuckle adjuster in direction of adjustment.
2. Loosen nut on bolt securing rear suspension rod to crossmember at least 4 turns. Rotate turnbuckle adjuster as necessary until rear toe-in is as specified. See **WHEEL ALIGNMENT SPECIFICATIONS** table. Tighten rear suspension rod nut at crossmember to specification. See **TORQUE SPECIFICATIONS** table.

"W" Body (Century, Grand Prix & Regal)

Adjust left and right sides separately. Loosen nuts at rear wheel spindle rod. Adjust toe to proper setting. See **WHEEL ALIGNMENT SPECIFICATIONS** table. Tighten rear wheel spindle rod nuts to specification. See **TORQUE SPECIFICATIONS** table.

"Y" Body

Loosen lock nut on rear tie rod. Rotate tie rod as necessary until rear toe-in is as specified. See **WHEEL ALIGNMENT SPECIFICATIONS** table. Tighten lock nut to specification. See **Fig. 31** . See **TORQUE SPECIFICATIONS** table.

All Others

Rear toe-in is not adjustable. If rear toe-in is not as specified, repair or replace worn or damaged components.

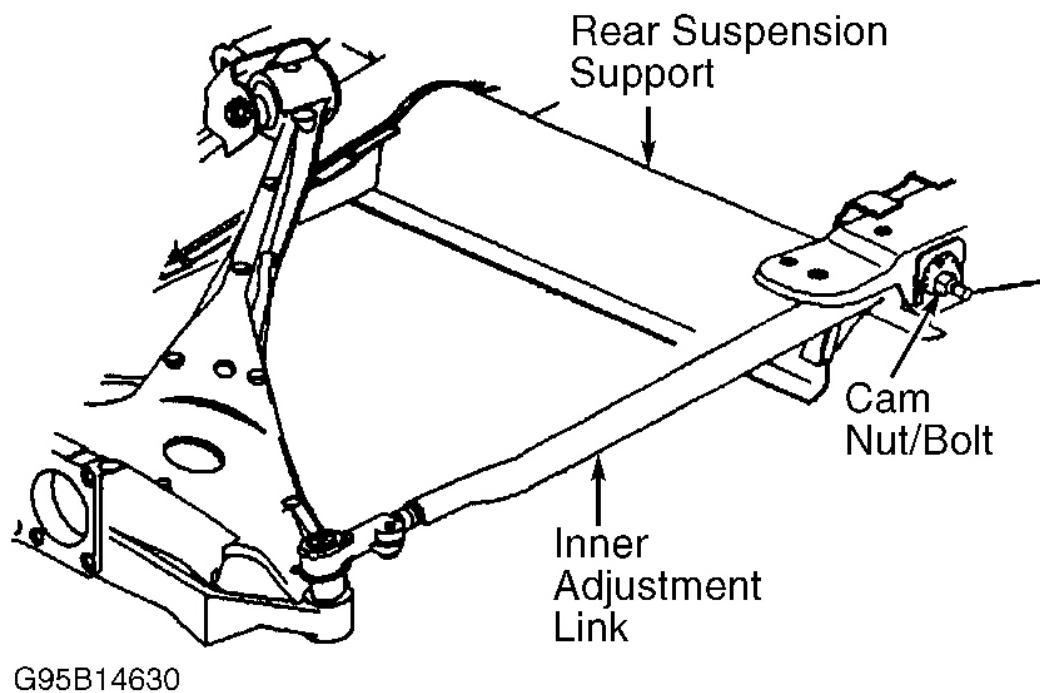
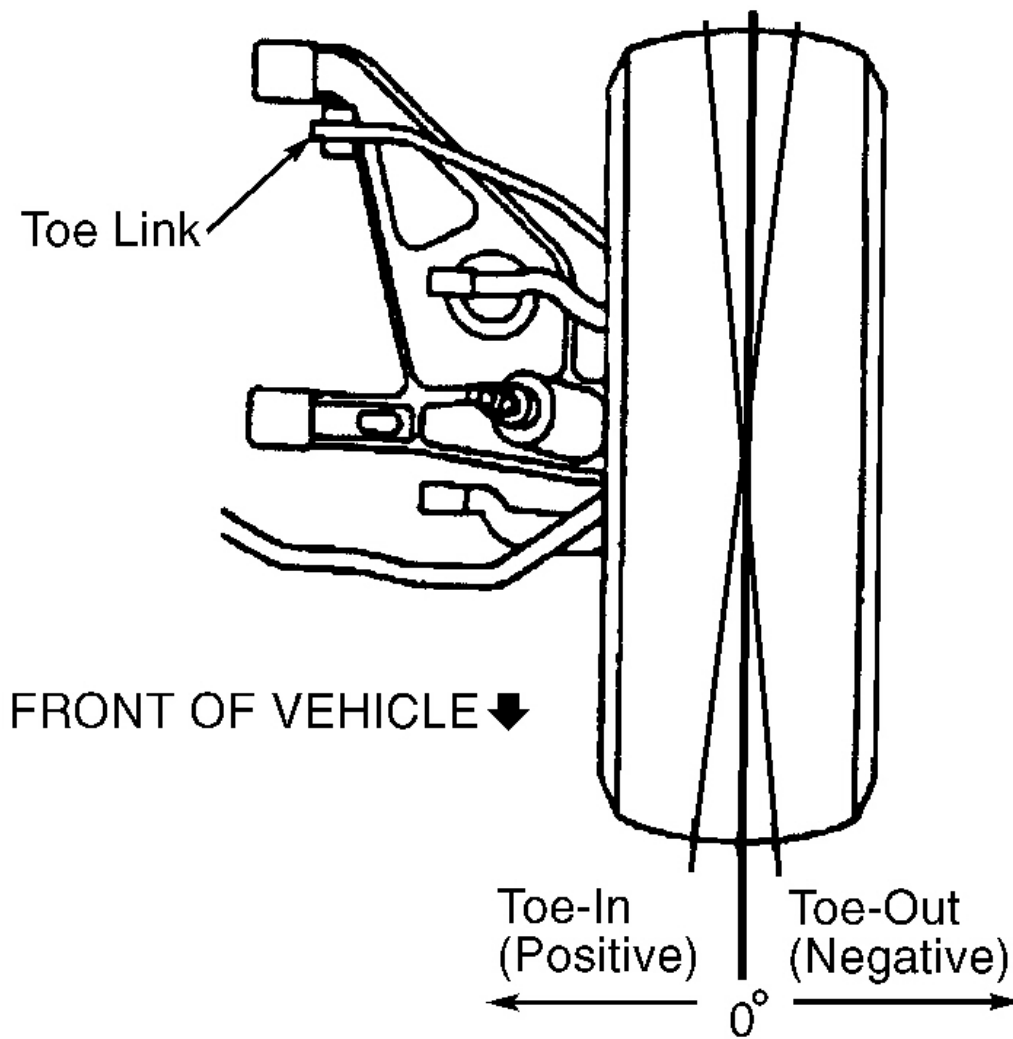
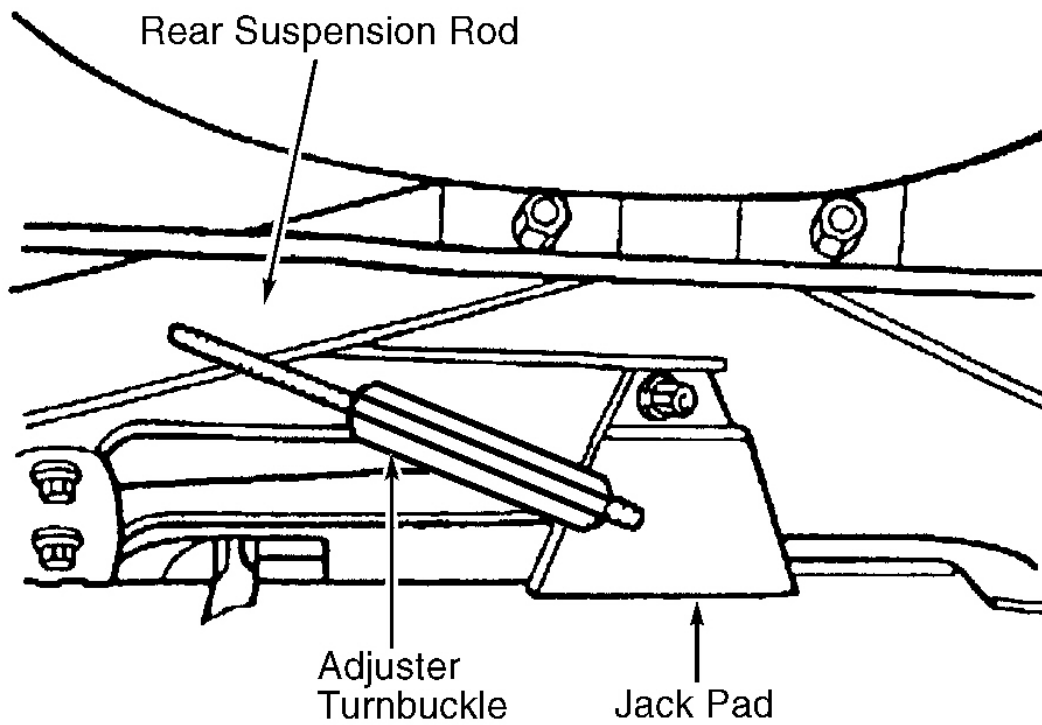


Fig. 28: Adjusting Rear Toe-In ("C" & "G" Bodies & Seville)
Courtesy of GENERAL MOTORS CORP.



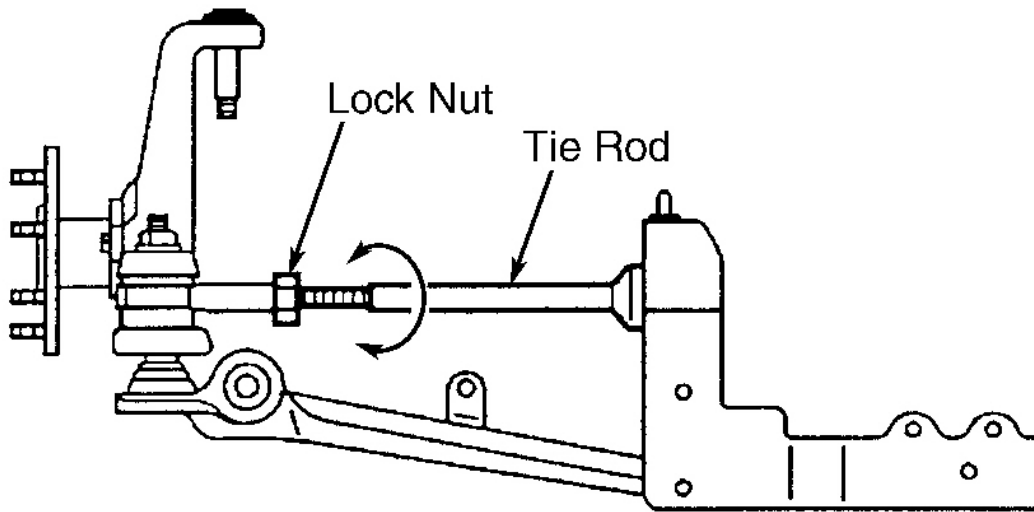
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**Fig. 29: Adjusting Rear Toe-In ("E" & "K" Body - Except Seville)
Courtesy of GENERAL MOTORS CORP.**



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Fig. 30: Adjusting Rear Toe-In ("W" Body - Lumina & Monte Carlo)
Courtesy of GENERAL MOTORS CORP.



G99C03207

Fig. 31: Adjusting Rear Toe-In ("Y" Body)
 Courtesy of GENERAL MOTORS CORP.

CASTER ADJUSTMENT

"C", "G" & "H" Bodies & Seville

1. With vehicle on ground (suspension loaded), remove nuts securing strut upper mount to body at each strut tower. See **Fig. 32** . Raise front of vehicle until strut studs have cleared holes.
2. Drill 13/32" holes at each strut stud hole, then file excess material between holes to create an elongated slot. Lower vehicle to install strut into tower. Adjust caster to specification by moving top of strut forward or rearward. See **WHEEL ALIGNMENT SPECIFICATIONS** table. Tighten nuts to specification. See **TORQUE SPECIFICATIONS** table.

"E" & "K" Body (Except Seville)

Support vehicle by its wheels (suspension loaded). Remove nuts and washers from front strut mounting tower. Move top of strut forward and/or rearward as necessary to adjust caster. See **WHEEL ALIGNMENT SPECIFICATIONS** table. Tighten nuts to specification. See **TORQUE SPECIFICATIONS** table.

"F" Body

Loosen nuts on bolts securing lower control arm to crossmember. Attach Turnbuckle Adjuster (J-38658) to crossmember and lower control arm. See **Fig. 33** . Rotate turnbuckle clockwise to increase caster or counterclockwise to decrease caster. Adjust caster to specification. See **WHEEL ALIGNMENT SPECIFICATIONS** table. Tighten nuts to specification. See **TORQUE SPECIFICATIONS** table. Remove

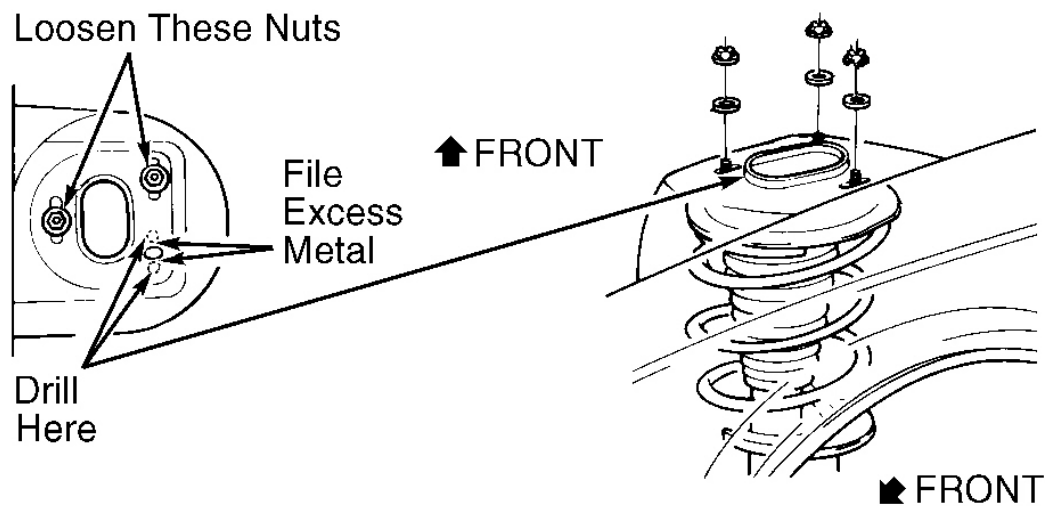
adjuster.

"Y" Body

Loosen lower control arm cam bolt nuts. Rotate cam bolts to required camber specification. See **Fig. 34** . See **WHEEL ALIGNMENT SPECIFICATIONS** table. Tighten nuts to specification. See **TORQUE SPECIFICATIONS** table. If unable to achieve specification for caster, washers at upper control arm can be added or subtracted to obtain specification. See **Fig. 35** .

All Others

Caster is not adjustable. If caster is not as specified, check for worn or damaged suspension or body parts. Repair or replace as necessary.



G95D14632

Fig. 32: Adjusting Caster ("C", "G" & "H" Bodies & Seville)
Courtesy of GENERAL MOTORS CORP.

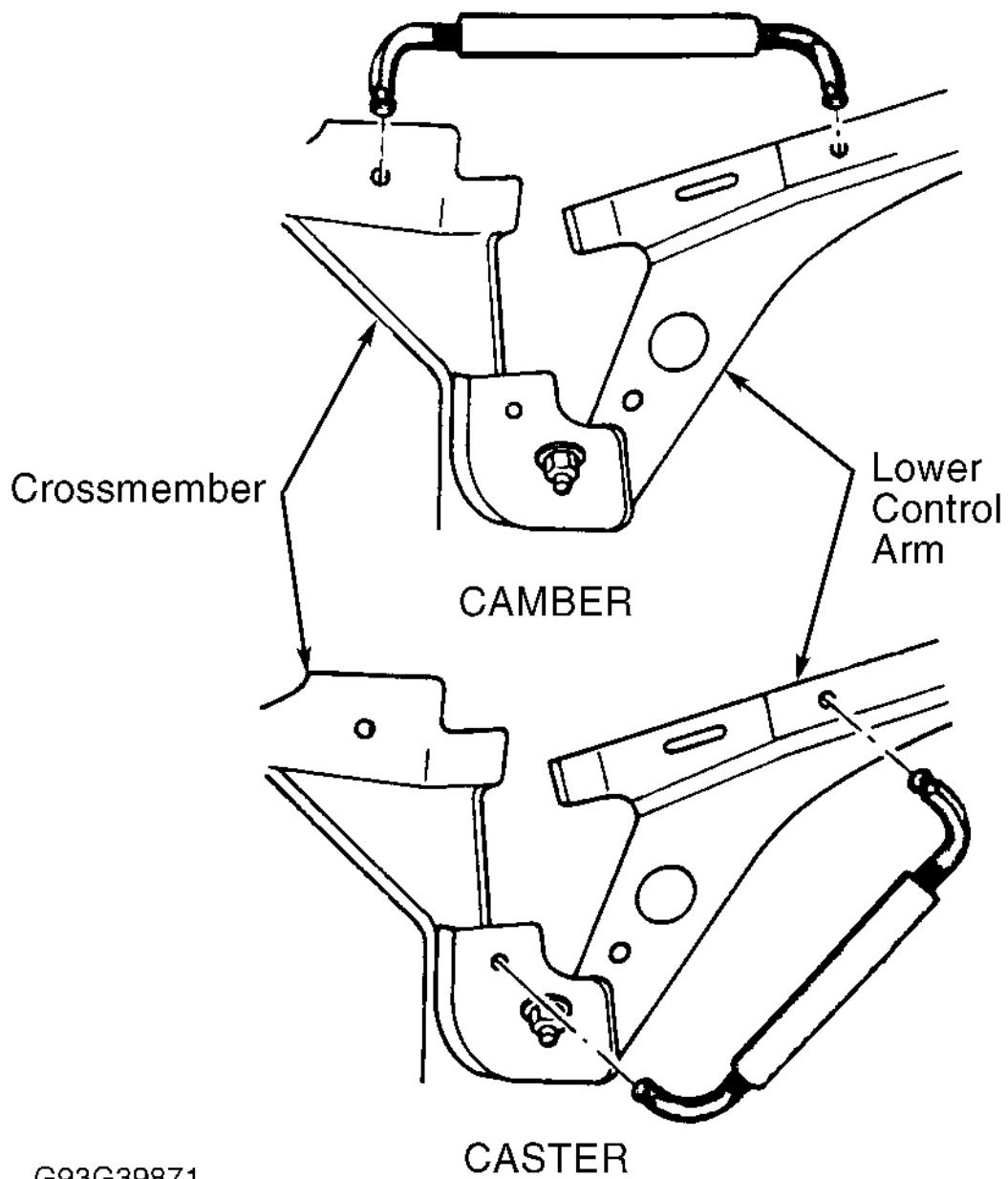


Fig. 33: Adjusting Front Camber & Caster ("F" Body)
Courtesy of GENERAL MOTORS CORP.

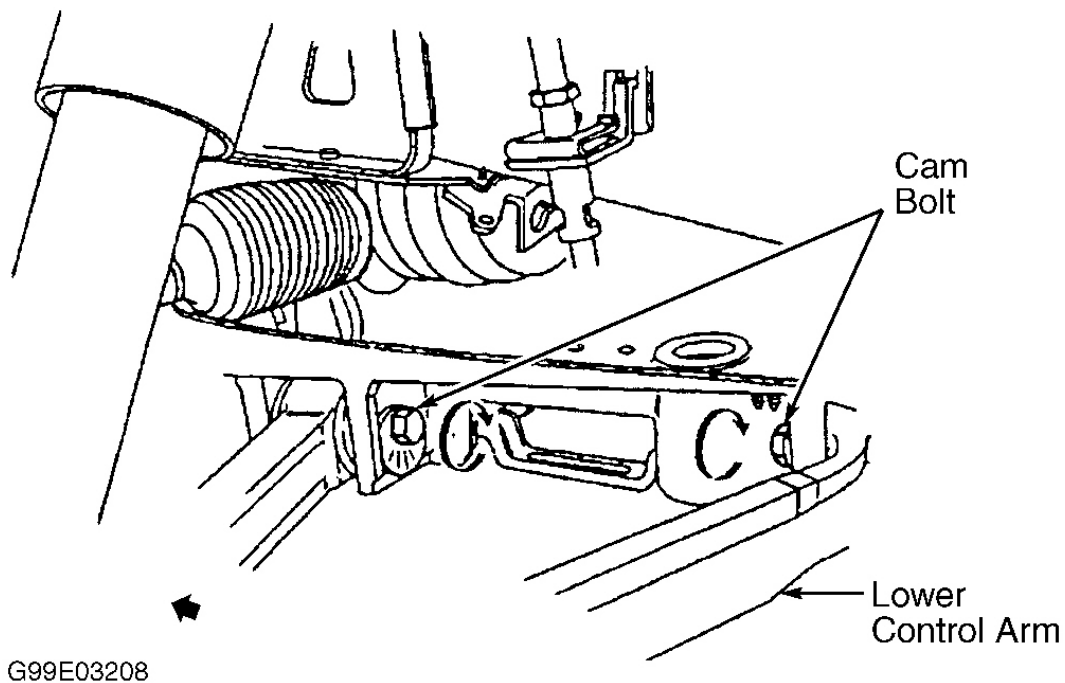


Fig. 34: Adjusting Front Camber & Caster ("Y" Body)
Courtesy of GENERAL MOTORS CORP.

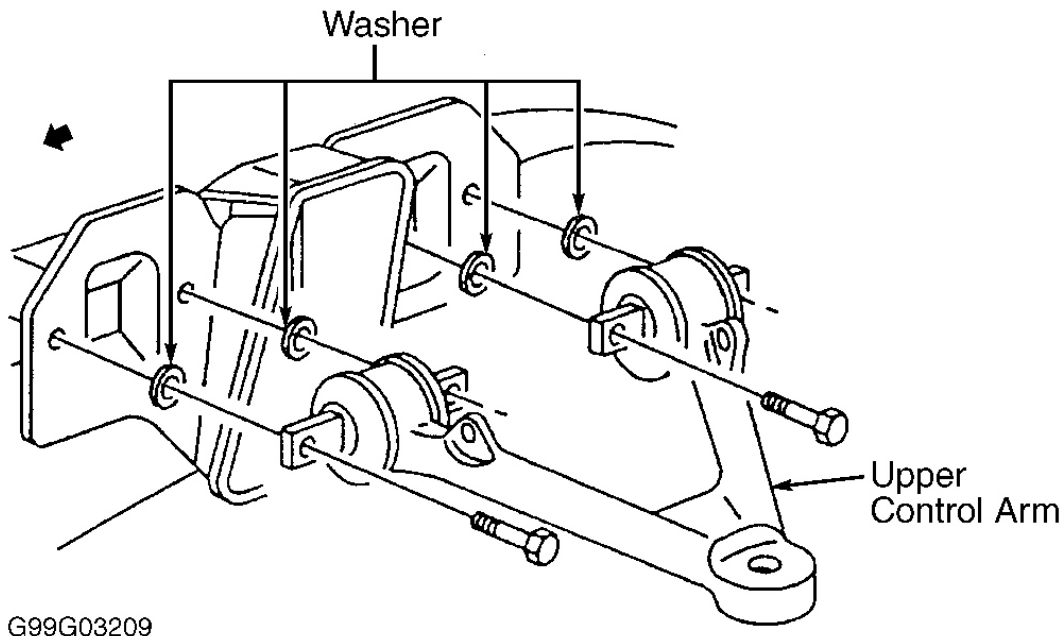


Fig. 35: Removing/Adding Upper Control Arm Washers ("Y" Body)
 Courtesy of GENERAL MOTORS CORP.

CAMBER ADJUSTMENT (FRONT)

"C", "G" & "H" Bodies & Seville

Loosen nuts on 2 bolts securing strut to steering knuckle. See **Fig. 36** . Install Camber Adjuster (J-39601). Rotate bolt on camber adjuster until camber is as specified. See **WHEEL ALIGNMENT SPECIFICATIONS** table. Tighten nuts to specification. See **TORQUE SPECIFICATIONS** table.

"E" & "K" Body (Except Seville)

Loosen nuts on bolts securing strut to steering knuckle. Tighten or loosen camber adjusting bolt as necessary to adjust camber to specification. See **WHEEL ALIGNMENT SPECIFICATIONS** table. While holding wheel in position, tighten nuts to specification. See **TORQUE SPECIFICATIONS** table.

"F" Body

Loosen nuts on bolts securing lower control arm to crossmember. Attach Adjuster (J-38658) to crossmember and lower control arm. See **Fig. 33** . Rotate turnbuckle clockwise to increase camber or counterclockwise to decrease camber. Adjust camber to specification. See **WHEEL ALIGNMENT SPECIFICATIONS** table. Tighten nuts to specification. See **TORQUE SPECIFICATIONS** table. Remove adjuster.

"J" & "N" body

1. Remove nuts and bolts securing strut to steering knuckle. See **Fig. 37** . If lower bolt hole has been elongated, go to step 3 . See **Fig. 38** . If lower bolt hole has NOT been elongated, go to next step.
2. Disengage strut from steering knuckle. Reposition strut at lower control arm. Elongate lower bolt hole. Paint exposed metal with rust-preventive paint or primer.
3. Install bolts and nuts, but DO NOT tighten nuts. Move top of wheel inward or outward as necessary until camber is as specified. See **WHEEL ALIGNMENT SPECIFICATIONS** table. Tighten nuts to specification. See **TORQUE SPECIFICATIONS** table.

"V" Body

Remove brake caliper and suspend out of way. Do not disconnect hydraulic line. Remove strut to steering knuckle bolts. Replace with NEW bolts and tighten to 15 ft. lbs. (20 N.m). Clean brake caliper mounting bolt threads to remove any residual locking compound. Apply 272 Threadlock or equivalent to NEW caliper mounting bolts. Install and tighten to specification. Reposition strut to adjust camber to specified range. See **WHEEL ALIGNMENT SPECIFICATIONS** table. Tighten bolts to specification. See **TORQUE SPECIFICATIONS** table.

"W" Body (Except Century, Grand Prix & Regal)

CAUTION: DO NOT lift vehicle by suspension parts. DO NOT overextend drive axles.

1. Loosen 3 strut cover attaching nuts. Remove strut cover. Lift front of vehicle enough to allow strut attaching studs to clear mounting holes. Cover top of strut to keep metal shavings from damaging strut. Using Template (J-36892) as a guide, file the 3 holes as necessary to allow for camber adjustment. See **Fig. 39** .
2. Paint exposed surfaces with rust-preventive paint or primer. Lower front of vehicle while aligning studs into holes. Install, but DO NOT tighten, 3 strut cover attaching nuts. Set camber to specification. Tighten strut cover attaching nuts to specification. See **TORQUE SPECIFICATIONS** table.

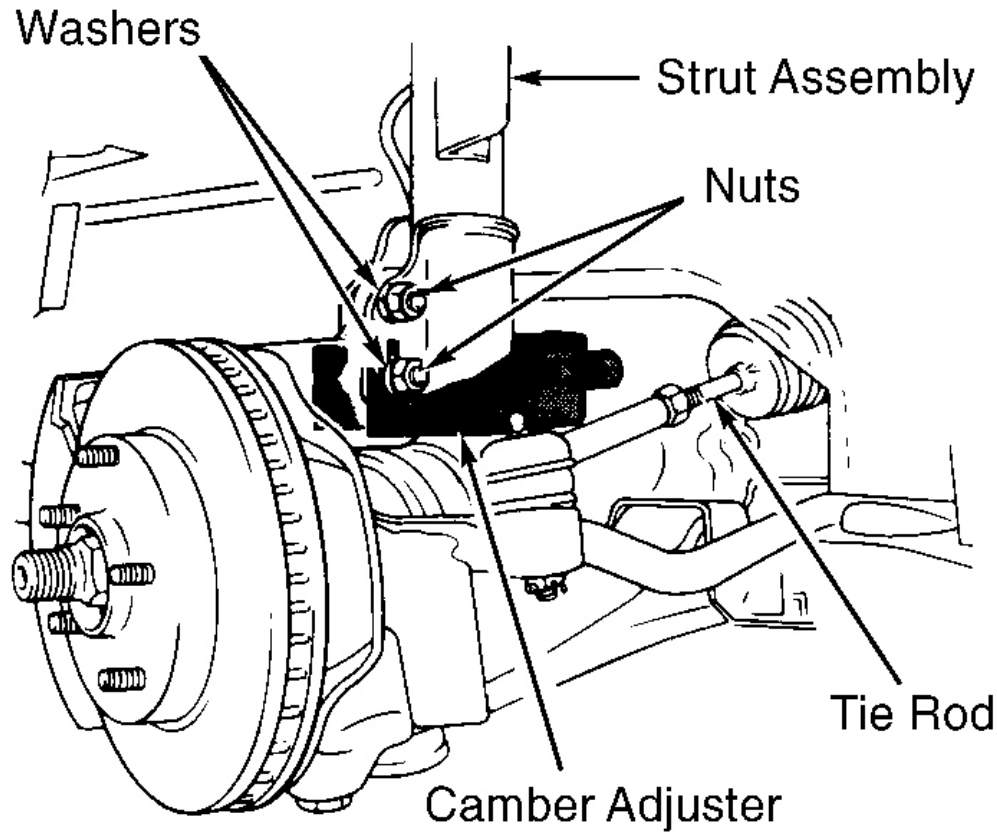
"W" Body (Century, Grand Prix & Regal)

1. Raise and support vehicle. Remove rear wheel. Remove strut. Put strut in a vise. File lower end of strut bolt hole to make lower bolt hole oblong. See **Fig. 38** .
2. Install strut, but DO NOT fully tighten strut mounting bolts at steering knuckle. Lower vehicle. Adjust camber to specification. See **WHEEL ALIGNMENT SPECIFICATIONS** table. Tighten bolts to specification. See **TORQUE SPECIFICATIONS** table.

"Y" Body

1. Loosen lower control arm cam bolt nuts. Rotate cam bolts to required camber specification. See **Fig. 34** . See **WHEEL ALIGNMENT SPECIFICATIONS** table. Tighten nuts to specification. See **TORQUE SPECIFICATIONS** table.
2. If unable to set camber to specification using cam bolts, upper control arm shims can be added or subtracted. See **Fig. 35** . Ensure shims are of equal thickness to avoid caster change. If shims are removed

to obtain additional negative camber, ensure there is proper clearance between upper control arm and shock absorber with suspension in full rebound.



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Fig. 36: Adjusting Front Camber ("C", "G" & "H" Bodies & Seville)
Courtesy of GENERAL MOTORS CORP.

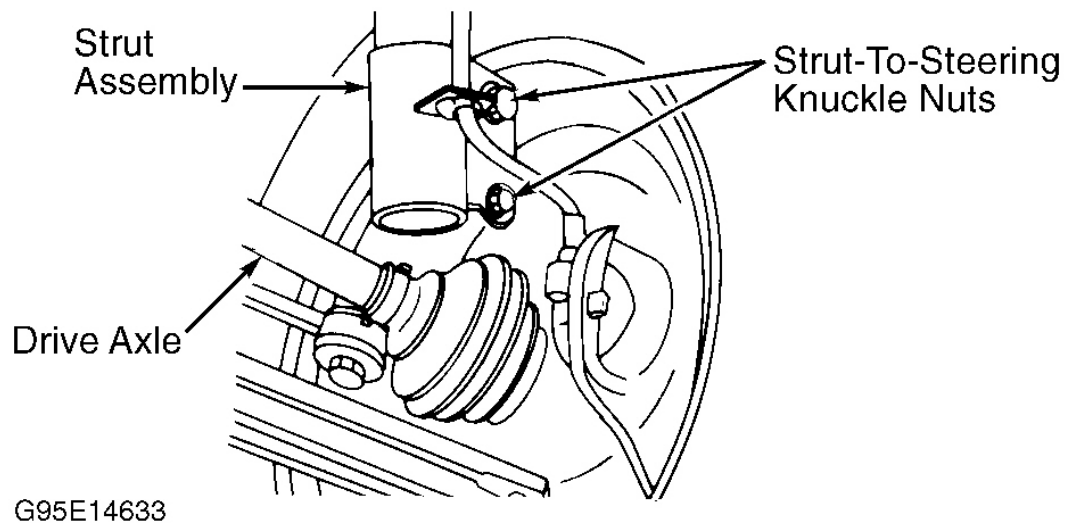


Fig. 37: Adjusting Front Camber ("J" & "N" Body)
 Courtesy of GENERAL MOTORS CORP.

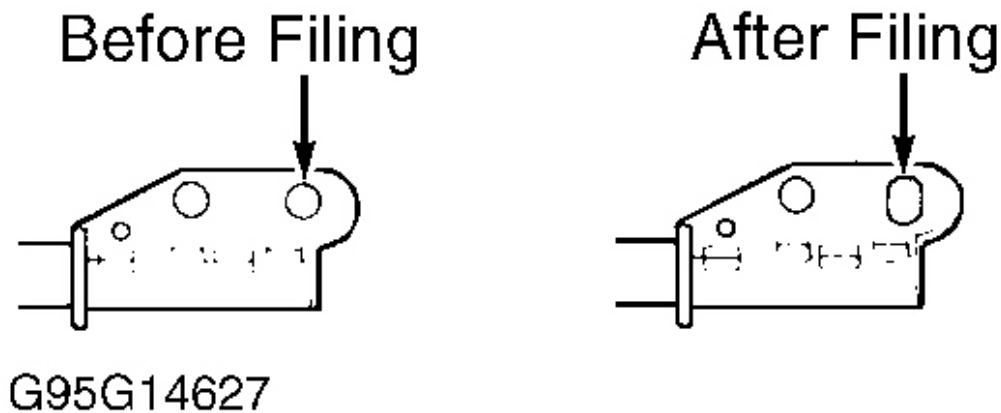


Fig. 38: Elongating Bolt Hole For Camber Adjustment - Front Struts)
 Courtesy of GENERAL MOTORS CORP.

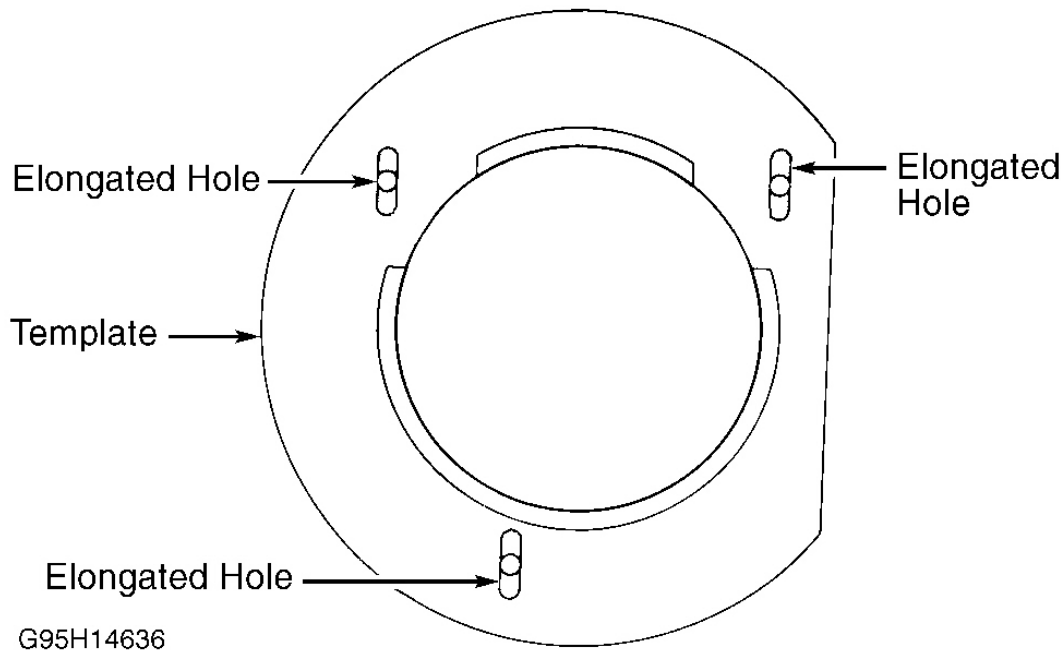


Fig. 39: Adjusting Front Camber ("W" Body - Cutlass Supreme, Lumina & Monte Carlo)
 Courtesy of GENERAL MOTORS CORP.

TOE-IN ADJUSTMENT (FRONT)

Except 1998 Achieva, Grand Am , Skylark, & 1998-99 "V" Body

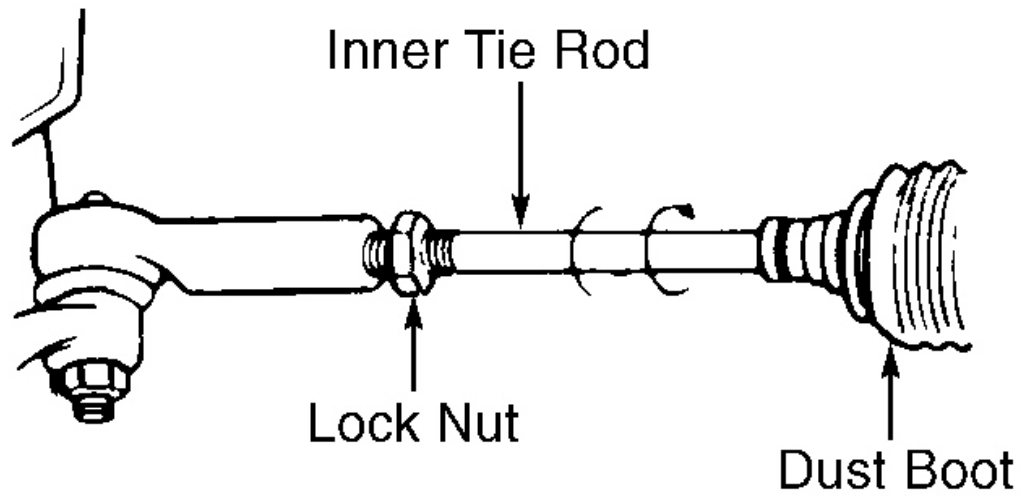
Center steering wheel and lock in place. Loosen tie rod end lock nut. Loosen clamp securing dust boot to inner tie rod. Rotate inner tie rod until toe-in is as specified. See **Fig. 40** . See **WHEEL ALIGNMENT SPECIFICATIONS** table. Tighten lock nut to specification. See **TORQUE SPECIFICATIONS** table. Ensure steering gear dust boot is straight after adjustment. Tighten dust boot clamp.

1998 Achieva, Grand Am & Skylark

Center steering wheel and keep it centered throughout procedure. Loosen clamp bolts. See **Fig. 41** . Rotate adjuster (between inner and outer tie rods) until toe-in is as specified. See **WHEEL ALIGNMENT SPECIFICATIONS** table. Tighten clamp bolts to specification. See **TORQUE SPECIFICATIONS** table.

1998-99 "V" Body

Loosen tie rod adjuster clamps. Rotate threaded sleeve toe position is obtained. See **WHEEL ALIGNMENT SPECIFICATIONS** table. Tighten adjuster clamps to specification. See **TORQUE SPECIFICATIONS** table.



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Fig. 40: Adjusting Front Toe-in (Except 1998 Achieva, Grand Am & Skylark, & 1998-99 "V" Body)
Courtesy of GENERAL MOTORS CORP.

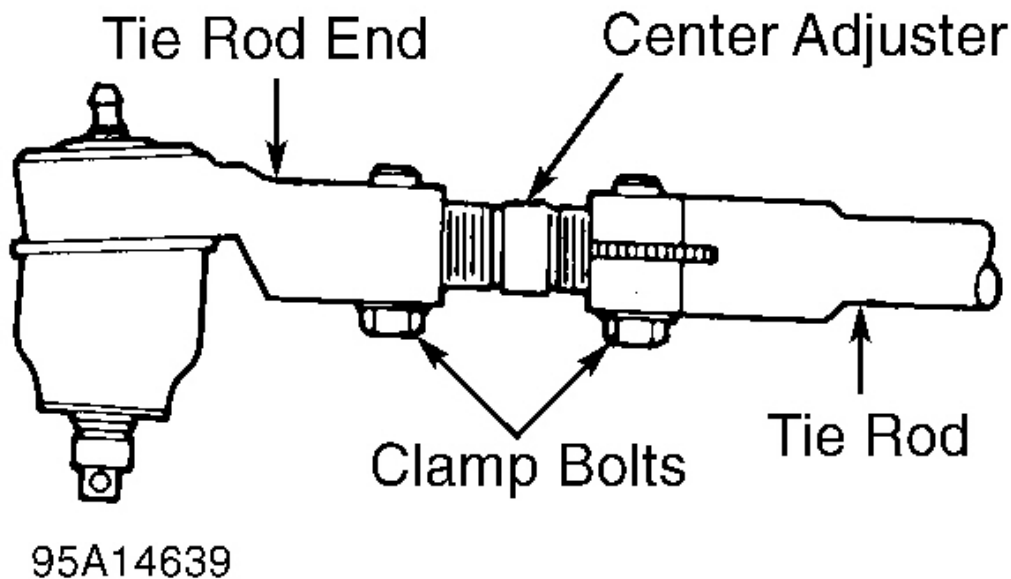


Fig. 41: Adjusting Front Toe-In (1998 Achieva, Grand Am & Skylark)
 Courtesy of GENERAL MOTORS. CORP.

TORQUE SPECIFICATIONS

TORQUE SPECIFICATIONS

Application	Ft. Lbs. (N.m)
"C" Body	
Adjustment Link Cam Nut	55 (75)
Strut-To-Steering Knuckle Nut	137 (185)
Strut-To-Strut Body Nut	35 (47)
Tie Rod End Lock Nut (Front & Rear)	47 (64)
"E" & "K" Body (Except Seville)	
Rear Toe Link Bolt	66 (90)
Strut-To-Steering Knuckle Nut	140 (184)
Strut-To-Strut Tower Nut	18 (24)
Tie Rod End Lock Nut	46 (63)
"F" Body	
Lower Control Arm-To-Crossmember Nut	74 (100)
Tie Rod End Lock Nut	35 (47)
"G" Body & Seville	

Rear Inner Adjustment Link Cam Nut	
"G" Body	55 (75)
Seville	74 (100)
Strut-To-Steering Knuckle Nut	
G" Body	137 (185)
1998 Seville	125 (170)
1999 Seville	166 (225)
Strut-To-Strut Tower Nut	
Except 1999 Seville	35 (47)
1999 Seville	30 (40)
Tie Rod End Lock Nut	47 (64)
"H" Body	
Strut-To-Steering Knuckle Nut	140 (190)
Strut-To-Strut Body Nut	18 (24)
Tie Rod End Lock Nut (Front & Rear)	47 (64)
"J" Body	
Strut-To-Steering Knuckle Nut	133 (180)
Tie Rod End Lock Nut	55 (75)
Metro	
Rear Cam Bolt Nut	59 (80)
Tie Rod End Lock Nut	33 (45)
"N" Body	
Strut-To-Steering Knuckle Nut	133 (180)
Tie Rod End Clamp Bolt	
1998 Achieva, Grand Am & Skylark	31 (42)
Tie Rod End Lock Nut	(3)
1998 Cutlass & Malibu	
Except 1998 Cutlass & Malibu	50 (68)
Prizm	
Tie Rod End Lock Nut	41 (56)
"V" Body	
Brake Caliper Mounting Bolts	(1) 70 (95)
Strut-To-Steering Knuckle Bolts	(2) 66 (90)
Tie Rod Adjuster Clamp Bolts	11 (15)
Wheel Lug Nuts	80 (109)
"W" Body	
Century, Grand Prix & Regal	
Rear Wheel Spindle Rod	37 (50)
Tie Rod End Lock Nut	50 (68)
Strut-To-Knuckle Bolts	89 (120)

Intrigue, Lumina & Monte Carlo	
Rear Rod-To-Crossmember Nuts	111 (150)
Front Strut Cover Plate Nuts	24 (33)
Strut-To-Knuckle Nuts	112 (83)
Tie Rod End Lock Nuts	46 (62)
"Y" Body	
Front Lower Control Arm Cam Bolt Nuts	125 (170)
Front Upper Control Arm Bolts	42 (57)
Rear Lower Control Arm	
Front Cam Bolt Nuts	107 (145)
Rear Cam Bolt Nuts	70 (95)
Front Tie Rod End Lock Nuts	50 (68)
Rear Tie Rod End Lock Nuts	44 (60)
(1) Tighten an additional 37 degrees.	
(2) Tighten an additional 53 degrees.	
(3) Tighten to 89 INCH lbs. (10 N.m) plus an additional 210 degrees.	

WHEEL ALIGNMENT SPECIFICATIONS

WHEEL ALIGNMENT SPECIFICATIONS

Application	Preferred	Range
"C" Body		
Camber ⁽¹⁾		
Front	-0.2	-0.7 To 0.3
Rear	-0.3	-0.8 To 0.2
Caster ⁽¹⁾	6	5.5 To 6.5
Toe-In ⁽¹⁾		
Front	0.2	-0.1 To 0.5
Rear	0.2	0 To 0.4
Toe-In ⁽²⁾		
Front	0.1 (2.5)	-0.05 To 0.25 (-1.3 To 6.4)
Rear	0.1 (2.5)	0 To 0.2 (0 To 5.1)
"E" & "K" Body		
Concours, DeVille & Eldorado		
Camber ⁽¹⁾		
Front	0	-0.5 To 0.5
Rear	0	-0.5 To 0.5

Caster ⁽¹⁾		2.3	1.3 To 3.3
Toe-In ⁽¹⁾			
Front		0.2	0 To 0.4
Rear		0.2	0 To 0.4
Toe-In ⁽²⁾			
Front		0.1 (2.5)	0 To 0.2 (0 To 5.0)
Rear		0.1 (2.5)	0 To 0.2 (0 To 5.0)
Seville SLS & STS			
Camber ⁽¹⁾			
SLS			-0.07 To 0.3
Front		-0.02	
Rear		-0.03	
STS			
Front	-0.2	-0.7 To 0.3	
Rear	-0.6	-1.1 To -0.1	
Caster ⁽¹⁾		6	5.5 To 6.5
Toe-In ⁽¹⁾			
Front		0.2	0 To 0.4
Rear		0.2	0 To 0.4
Toe-In ⁽²⁾			
Front		0.1 (2.5)	0 To 0.2 (0 To 5)
Rear		0.1 (2.5)	0 To 0.2 (0 To 5)
"F" Body			
Camber ⁽¹⁾			
Front		0.4	-0.1 To 0.9
Rear		0	-0.6 To 0.6
Caster ⁽¹⁾		5.0	4.5 To 5.5
Toe-In ⁽¹⁾			
Front		0	-0.1 To 0.1
Rear		0	-0.15 To 0.15
Toe-In ⁽²⁾			
Front		0	-0.2 To 0.2 (-

		2.5 To 2.5)
Rear	0	-0.3 To 0.3 (-4.0 To 4.0)
"G" Body		
Camber ⁽¹⁾		
Front	-0.2	-0.7 To 0.3
Rear	-0.3	-0.8 To 0.2
Caster ⁽¹⁾	6	5.5 To 6.5
Toe-In ⁽¹⁾		
Front	0	-0.2 To 0.2
Rear	0.2	0 To 0.4
Toe-In ⁽²⁾		
Front	0 (0)	-0.1 To 0.1 (-2.5 To 2.5)
Rear	0.1 (2.5)	0 To 0.2 (0 To 5.0)
"H" Body		
Camber ⁽¹⁾		
Front	0.2	-0.3 To 0.7
Rear	-0.3	-0.8 To 0.2
Caster ⁽¹⁾	3.0	2.5 To 3.5
Toe-In ⁽¹⁾		
Front	0	-0.2 To 0.2
Rear	0.1	-0.1 To 0.3
Toe-In ⁽²⁾		
Front	0.1 (2.5)	-0.1 To 0.1 (-2.5 To 2.5)
Rear	0.05 (1.5)	-0.05 To 0.15 (-1.5 To 4.0)
"J" Body		
Camber ⁽¹⁾		
Front	-0.2	-1.2 To 0.8
Rear	-0.25	-1.0 To 0.5
Caster ⁽¹⁾	4.3	3.3 To 5.3
Toe-In ⁽¹⁾		
Front	0.1	-0.15 To 0.35
Rear	0.2	-0.1 To 0.5
Toe-In ⁽²⁾		
Front	0.05 (1.5)	-0.07 To 0.17

			(-1.5 To 4)
Rear		0.1 (2.5)	-0.05 To 0.25 (-1.5 To 6.5)
"N" Body			
1998 Achieva, Grand Am & Skylark			
Camber ⁽¹⁾			
Front	0	-1.0 To 1.0	0.45 To 2.45
Rear	-0.4	-1.15 To 0.35	
Caster ⁽¹⁾		1.45	
Toe-In ⁽¹⁾			
Front	0	-0.25 To 0.25	0.45 To 2.45
Rear	0.2	-0.1 To 0.5	
Toe-In ⁽²⁾			
Front	0 (0)	-0.12 To 0.12 (-3.0 To 3.0)	0.45 To 2.45
Rear	0.1 (2.5)	-0.05 To 0.25 (-1.5 To 6.5)	
1998-99 Malibu & Cutlass, & 1999 Alero & Grand Am			
Camber ⁽¹⁾			
Front	-0.2	-1.2 To 0.8	3.1 To 5.1
Rear	-0.2	-0.7 To 0.30	
Caster ⁽¹⁾		4.1	
Toe-In ⁽¹⁾			
Front	0.1	-0.15 To 0.35	3.1 To 5.1
Rear	0.06	-0.26 To 0.14	
Toe-In ⁽²⁾			
Front	0.05 (1.5)	-0.07 To 0.17 (-1.5 To 4.0)	3.1 To 5.1
Rear	0.03 (1)	-0.13 To 0.07 (-2.5 To 2.5)	
Metro			
Camber ⁽¹⁾			
Front		0.5	-0.5 To 1.5
Rear		0	-1 To 1
Caster ⁽¹⁾		3	2 To 4
Toe-In ⁽¹⁾			
Front		0.16	0 To 0.32
Rear		0.45	0.3 To 0.6
Toe-In ⁽²⁾			

Front		0.08 (2)	0 To 0.16 (0 To 4)
Rear		0.23 (6)	0.15 To 0.3 (4 To 7.5)
Prizm			
Camber ⁽¹⁾			
Front		-0.18	-0.93 To 0.57
Rear		-0.92	-1.67 To - 0.17
Caster ⁽¹⁾		1.33	0.58 To 2.08
Toe-In ⁽¹⁾			
Front		0.1	-0.1 To 0.3
Rear		0.4	0.2 To 0.6
Toe-In ⁽²⁾			
Front		0.05 (1.5)	-0.05 To 0.15 (-1.5 To 4)
Rear		0.25 (5)	0.1 To 0.3 (2.5 To 7.5)
"V" Body			
Camber ⁽¹⁾			
Front		-1.5	-2.0 To -1.0
Rear		-1.9	-2.3 To -1.5
Caster ⁽¹⁾		4.4	3.9 To 4.9
Toe-In ⁽¹⁾			
Front		0.1	-0.06 To 0.26
Rear		0.1	-0.06 To 0.26
Toe-In ⁽²⁾			
Front		0.05 (1.5)	-0.03 To 0.13 (-1.0 To 3.5)
Rear		0.05 (1.5)	-0.03 To 0.13 (-1.0 To 3.5)
"W" Body			
Lumina & Monte Carlo			
With 15" Wheels			
Camber ⁽¹⁾			
Front	0.7		0.2 To 1.2
Rear	-0.35		-0.85 To 0.15

Caster ⁽¹⁾		1.8	1.3 To 2.3
Toe-In ⁽¹⁾			
Front	0	-0.2 To 0.2	
Rear	0	-0.3 To 0.3	
Toe-In ⁽²⁾			
Front	0 (0)	-0.1 To 0.1 (-2.5 To 2.5)	
Rear	0 (0)	-0.15 To 0.15 (-3.8 To 3.8)	
With 16" Wheels			
Camber ⁽¹⁾			
Front	0.7	0.2 To 1.2	
Rear	-0.45	/0.95 To 0.05	
Caster ⁽¹⁾		1.8	1.3 To 2.3
Toe-In ⁽¹⁾			
Front	0	-0.2 To 0.2	
Rear	0	-0.3 To 0.3	
Toe-In ⁽²⁾			
Front	0 (0)	-0.1 To 0.1 (-2.5 To 2.5)	
Rear	0 (0)	-0.15 To 0.15 (-3.8 To 3.8)	
Century, Grand Prix & Regal			
With 15" Wheels			
Camber ⁽¹⁾			
Front		-0.85	-1.35 To -0.35
Rear		-0.9	-1.4 To -0.4
Caster ⁽¹⁾		3.2	2.7 To 3.7
Toe-In ⁽¹⁾			
Front	0.1	-0.1 To 0.3	
Rear	0.1	-0.1 To 0.3	
Toe-In ⁽²⁾			

Front	0.05 (1.5)	-0.05 To 0.15 (-1.5 To 4)
Rear	0.05 (1.5)	-0.05 To 0.15 (-1.5 To 4)

With 16" Wheels

Camber ⁽¹⁾

Front	-0.94	-1.44 To - 0.44
Rear	-0.1	-1.5 To - 0.5

Caster ⁽¹⁾

3.2

2.7 To 3.7

Toe-In ⁽¹⁾

Front	0.1	-0.1 To 0.3
Rear	0.1	-0.1 To 0.3

Toe-In ⁽²⁾

Front	0.05 (1.5)	-0.05 To 0.15 (-1.5 To 4)
Rear	.05 (1.5)	-0.05 To 0.15 (-1.5 To 4)

Intrigue

Camber ⁽¹⁾

Front	-0.91	-1.41 To -0.41
Rear	-0.52	-1.02 To -0.02

Caster ⁽¹⁾

3.05

2.55 To 3.55

Toe-In ⁽¹⁾

Front	0.1	-0.1 To 0.3
Rear	0.05	-0.15 To 0.25

Toe-In ⁽²⁾

Front	0.05 (1.5)	-0.05 To 0.15 (-1.5 To 4)
Rear	0.2 (1.5)	-0.07 To 0.12 (-1.5 To 3)

"Y" Body

Camber ⁽¹⁾

Front	-0.2	-0.7 To 0.3
Rear	-0.18	-0.68 To
	6.1	5.6 To 6.6

Caster ⁽¹⁾		
Toe-In ⁽¹⁾		
Front	0.08	-0.12 To 0.28
Rear	-0.02	-0.22 To 0.18
Toe-In ⁽²⁾		
Front	0.04 (1)	-0.06 To 0.14 (-1.5 To 3.5)
Rear	-0.01 (.5)	-0.11 To 0.09 (-3 To 2)
(1) Measurement is in degrees.		
(2) Measurement is in inches (mm).		