

CHRYSLER CORP.

Chrysler, All Models
Dodge, All Models
Plymouth, All Models

DESCRIPTION

All models use ball joint independent type suspension with torsion bar front suspension. On all models except Aspen and Volare a longitudinal torsion bar is mounted between inboard end of lower control arm and frame rear crossmember. On Aspen and Volare models transverse torsion bars are mounted between outboard ends of lower control arms and the forward portion of the suspension crossmember. On all models upper and lower control arms are attached to crossmember with steering knuckle connected between control arms. Shock absorber is mounted on lower control arm. On all models except Aspen and Volare a strut rod is connected to lower control arm. A sway bar is used on all models and on Aspen and Volare models bar also functions as the strut rod.

ADJUSTMENT

CASTER & CAMBER

See *Caster and Camber Adjustments and Specifications in WHEEL ALIGNMENT Section.*

RIDING HEIGHT

See *Riding Height Adjustments and Specifications in WHEEL ALIGNMENT Section.*

FRONT WHEEL BEARINGS

See *Wheel Bearing Adjustment in WHEEL ALIGNMENT Section.*

BALL JOINT CHECKING

See *Ball Joint Checking in WHEEL ALIGNMENT Section.*

REMOVAL & INSTALLATION

TORSION BAR

Removal (Exc. Aspen & Volare) — Remove upper control arm rebound rubber and raise vehicle on hoist placing front suspension in rebound. Release load from torsion bar by turning anchor adjust bolt, in lower control arm, counterclockwise. Remove lock ring from anchor at rear of bar. Place suitable tool (C-3728) toward rear of bar to allow sufficient room to strike tool with hammer. *NOTE* — If necessary, remove transmission torque shaft to provide tool clearance. Strike tool to remove bar rearward, remove tool and slide bar out through rear anchor, using care not to damage balloon seal. *NOTE* — Torsion bars are not interchangeable side for side. The bars are marked either "R" or "L".

Installation (Exc. Aspen & Volare) — Reverse removal procedure while noting following: Cupped end of balloon seal faces rear of torsion bar. Position lip of balloon seal in groove of anchor. Coat both ends of torsion bar and pack annular openings in rear anchor with suitable high mileage lubricant. Turn adjusting bolt clockwise to place load on torsion bar, then lower vehicle and adjust front suspension height.

Removal (Aspen & Volare) — Raise car on hoist so that suspension is in full rebound. Release load on torsion bar by turning anchor adjusting bolt in crossmember counterclockwise. Remove adjusting bolt. Raise lower control arms until clearance between jounce bumper and torsion bar end bushing is $2\frac{7}{8}$ " and support in this position. Disconnect sway bar from control arm. Remove two bolts attaching torsion bar end bushing to control arm. Remove two bolts attaching torsion bar pivot cushion bushing to crossmember and remove torsion bar and anchor assembly from crossmember. Carefully separate anchor from torsion bar.

Installation (Aspen & Volare) — Carefully slide balloon seal over end of torsion bar, cupped end toward hex. Coat hex end of bar with suitable high mileage lubricant and install torsion bar hex into anchor bracket. With bar in horizontal position, ears of bracket should be nearly straight up. Position swivel into anchor bracket ears. Install anchor bracket assembly into crossmember anchor retainer and install adjusting bolt and bearing. Install bolts attaching pivot cushion bushing to crossmember and tighten bolts finger tight. With lower control arms at same height as during removal, install bolts attaching torsion bar bushing to lower control arm. Ensure that anchor bracket is fully seated in crossmember, then tighten retainer bolts. Position balloon seal over anchor and connect sway bar to control arm using new bolt. Load torsion bar by turning adjusting bolt clockwise, lower vehicle and adjust front suspension height.

TORSION BAR ISOLATOR

Removal (Fury, Coronet, Cordoba & Charger) — Raise and support vehicle so that suspension is in full rebound. Turn adjusting bolts counterclockwise until all load is removed from torsion bars. Remove lock rings from rear anchors and one bolt from each side attaching torsion bar isolator assembly to crossmember brackets. Remove torsion bar crossmember isolator assembly.

Installation (Fury, Coronet, Cordoba & Charger) — To install, reverse removal procedure, taking care not to damage or displace balloon seals.

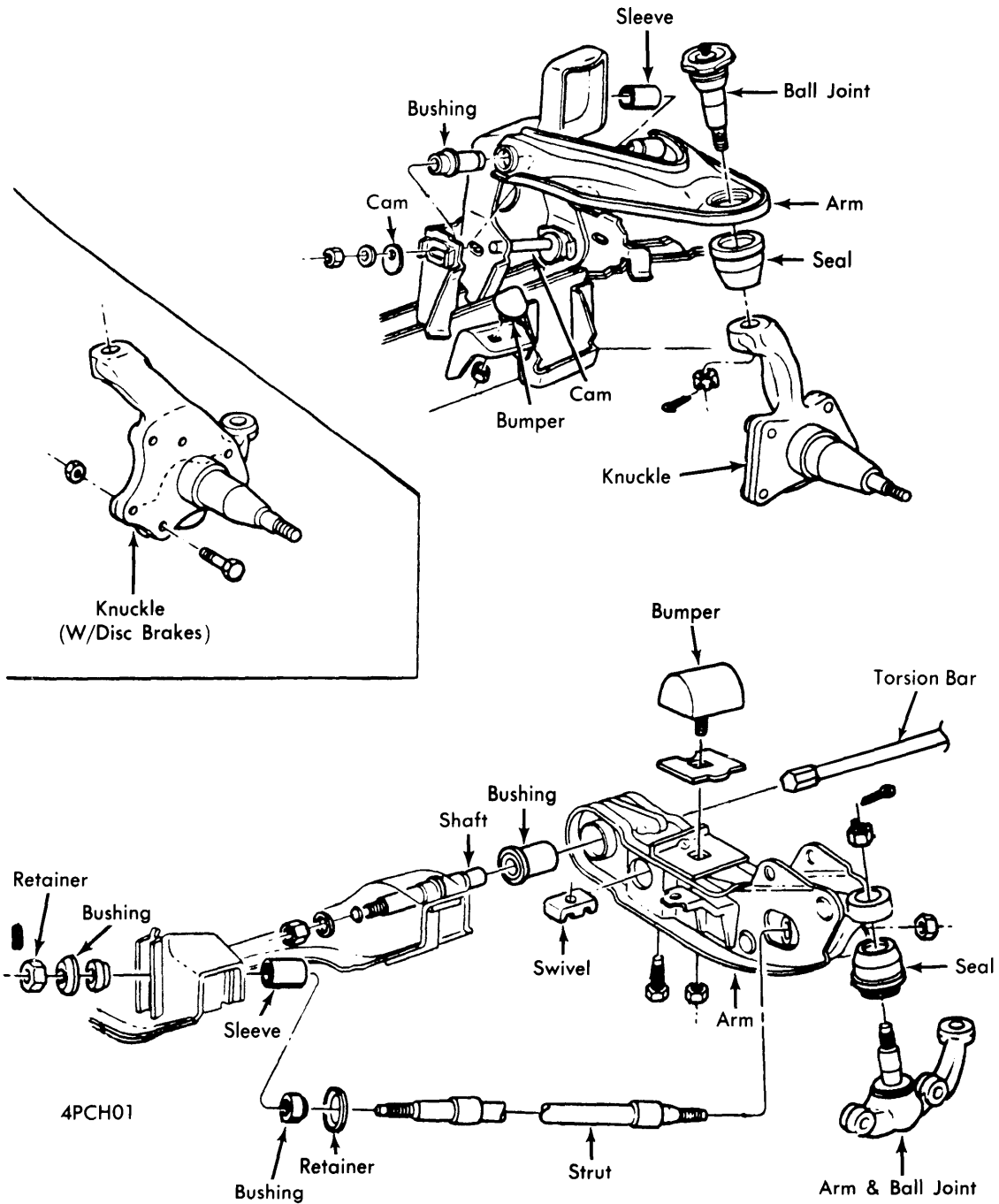
STEERING KNUCKLE

Removal — Remove upper control arm rebound bumper and raise vehicle so suspension is in full rebound. Remove wheel and tire assembly. On models with disc brakes, remove brake caliper at torque plate adapter and position to one side. Remove hub and disc or drum assembly. Remove brake splash shield. Remove all load from torsion bar by turning adjusting bolt counterclockwise. Remove upper ball joint from steering knuckle by removing cotter key and nut. Install suitable tool (C-3564A) on Gran Fury, Monaco and Chrysler or tool (C-3711) on all other models to force ball joint stud from knuckle. Remove bolts attaching steering arm to knuckle and separate upper control arm from knuckle. Remove steering knuckle from vehicle.

Installation — Place knuckle on brake support and install upper mounting bolts and nuts finger tight, position arm on knuckle and install mounting bolts and nuts finger tight. Install upper ball joint stud and tighten nuts to specification.

Front Suspension

CHRYSLER CORP. (Cont.)

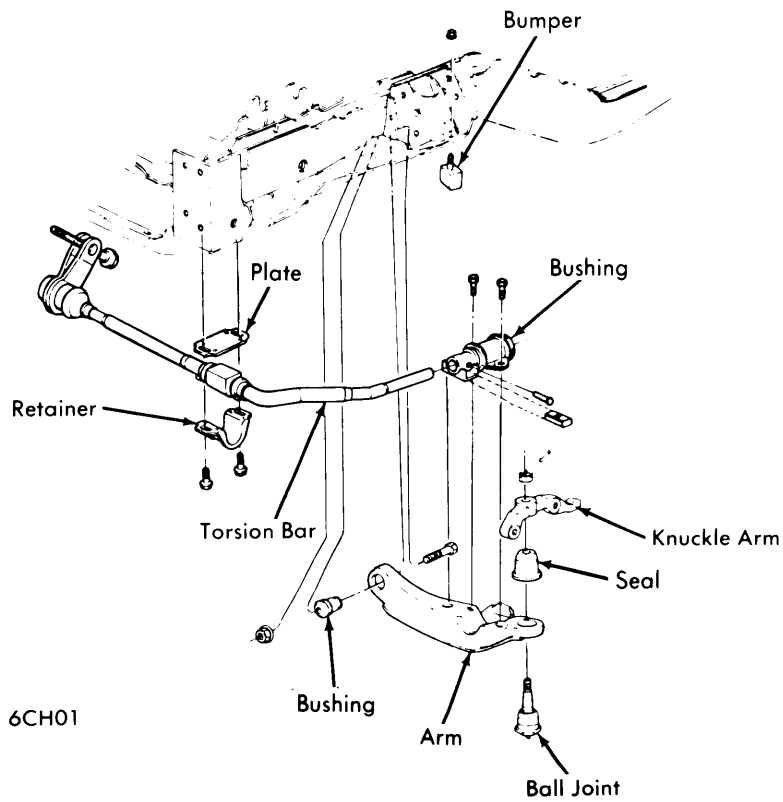
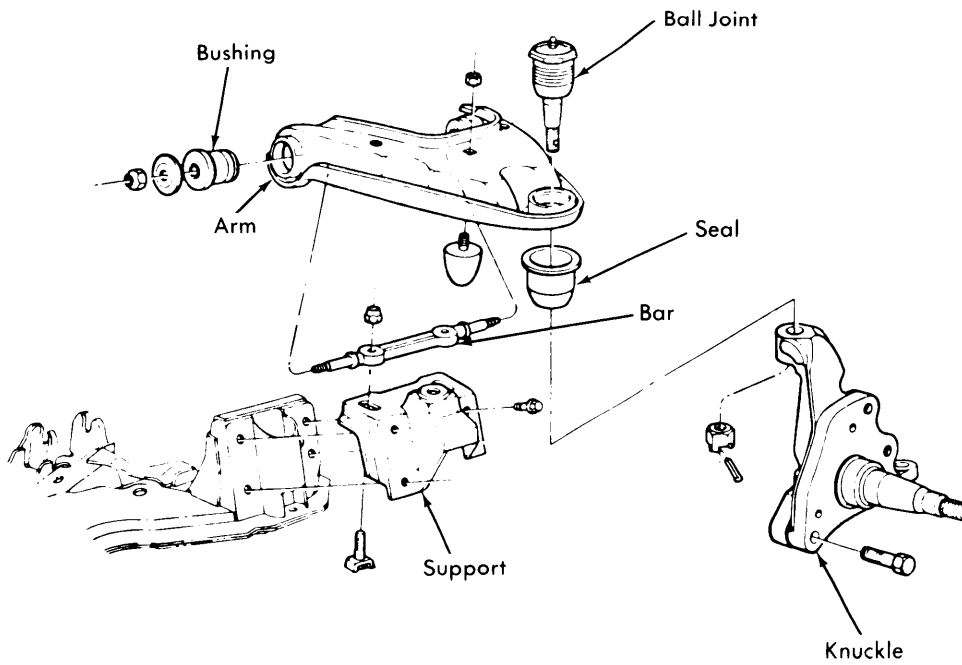


**FRONT SUSPENSION (TYPICAL)
DART & VALIANT**

Front Suspension

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CHRYSLER CORP. (Cont.)

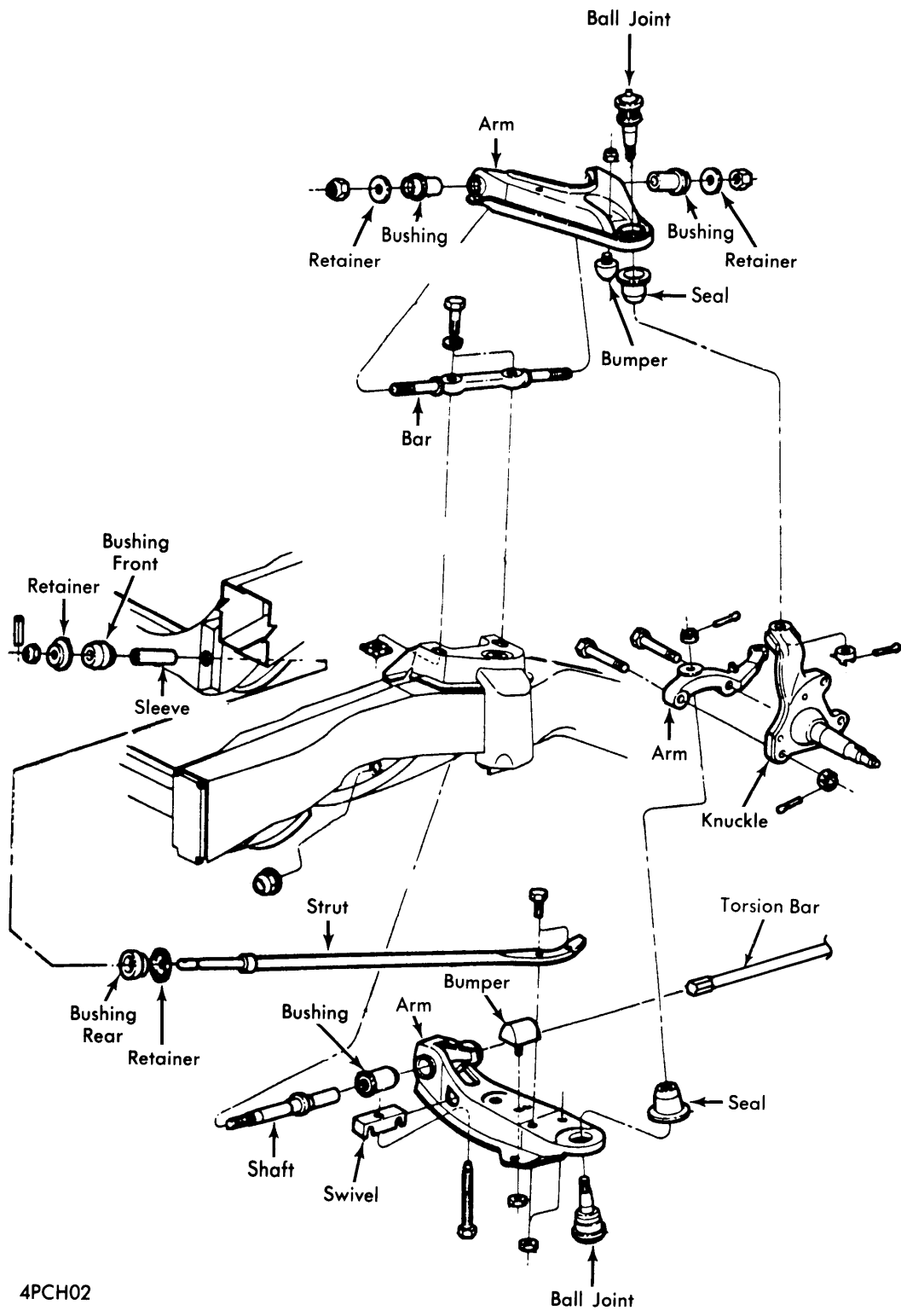


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**FRONT SUSPENSION (TYPICAL)
ASPEN & VOLARE**

Front Suspension

CHRYSLER CORP. (Cont.)

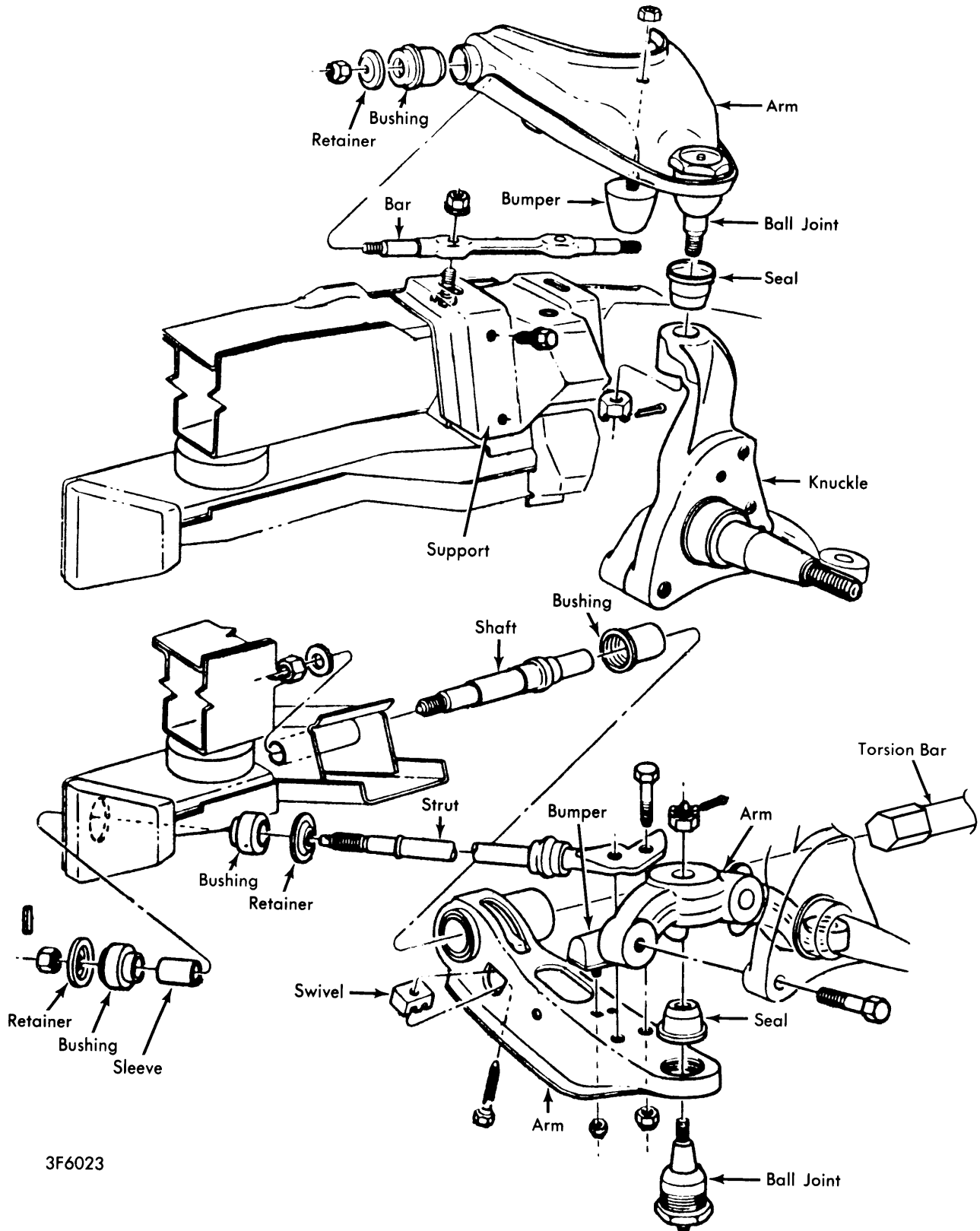


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**FRONT SUSPENSION (TYPICAL)
MONACO, GRAN FURY & CHRYSLER**

Front Suspension

CHRYSLER CORP. (Cont.)



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**FRONT SUSPENSION (TYPICAL)
FURY, CORONET, CORDOBA & CHARGER**

CHRYSLER CORP. (Cont.)

SWAY BAR

Removal (Fury, Coronet, Cordoba & Charger) — Raise and support vehicle so that suspension is in full rebound. Remove one wheel and remove bolts on each end of sway bar strut clamp. Remove bolts securing frame link strap to retainer link on each side of sway bar and remove bar by pulling through crossmember.

Installation (Fury, Coronet, Cordoba & Charger) — To install, reverse removal procedure.

Removal (Aspen & Volare) — Raise vehicle and release load on torsion bars by turning adjusting bolts counterclockwise. Raise lower control arm until clearance between jounce bumper and torsion bar is $2\frac{7}{8}$ ". Support control arm in this position during entire removal and installation process. Remove sway bar to torsion bar bushing attaching bolts, retainers, cushions and sleeves. Remove retainer assembly strap bolts and retainer straps, remove sway bar.

Installation (Aspen & Volare) — To install, reverse removing procedure, noting following: Install new bolts through sway bar retainer, cushions and sleeve. Load torsion bar before lowering vehicle and adjust suspension height.

Removal (All Other Models) — Raise vehicle on hoist to place front suspension in full rebound. Turn front wheels to extreme right or left. Remove upper bolts, retainers and insulators from both sides of bar. On Dart and Valiant models, remove link bolt, retainers and insulators. Remove screws securing retainers to bar bushings at frame and remove retainers. Remove sway bar by moving it in one direction, then reverse to clear lower control arm strut, then move bar clear of frame in direction wheels are turned.

Installation (All Other Models) — To install, reverse removal procedure.

LOWER CONTROL ARM & SHAFT

Removal (All Models Except Dart, Valiant, Aspen & Volare) — 1) Remove rebound bumper and raise vehicle on hoist to place front suspension in rebound. Place jack stands under front frame for additional support. Remove wheel and tire assembly, brake caliper (position to one side) and remove shock absorber lower bolt. Remove hub and rotor assembly, splash shield and lower shock mounting nut. Remove retainer and insulator on Monaco, Gran Fury and Chrysler models. Remove bolt and nut on Fury, Coronet, Cordoba and Charger models.

2) Remove strut bar attaching bolts from lower control arm. Remove sway bar lower retainer bolt, retainer and insulator from lower control arm on Monaco, Gran Fury and Chrysler models only. Remove automatic transmission gear shift torque shaft assembly from Fury, Coronet, Cordoba and Charger models only.

3) Measure torsion bar anchor bolt depth into lower control arm and remove torsion bar, lower ball joint from knuckle arm and lower control arm shaft nut from control arm shaft. Push out shaft from crossmember and lower control arm and shaft as an assembly.

Bushing Service — Place control arm in vise and remove torsion bar adjusting bolt and swivel. Place control arm assembly in an arbor press with torsion bar hex opening up and with support around anchor on bottom end. Place a brass drift into hex opening and press shaft out of control arm. Bushing inner shell will remain on shaft. Cut and remove rubber part of bushing from control arm or shaft. Remove bushing outer shell by cutting with a chisel, using care not to cut into control arm. Remove bushing inner shell from shaft. To install new bushing, place bushing on shaft, flange end of bushing first. Press shaft into inner sleeve until bushing seats on shaft shoulder. Press shaft and bushing assembly into lower control arm using a suitable tool (C-3556) and an arbor press. Install torsion bar adjusting bolt and swivel.

Installation — To install, reverse removal procedure. **NOTE** — Do not tighten lower control arm nut until full weight of vehicle is on wheels.

LOWER CONTROL ARM & STRUT

Removal (Dart & Valiant) — 1) Remove rebound bumper and raise vehicle on hoist to place front suspension in rebound. Place jack stands under front frame for additional support. Remove wheel and tire assembly and brake caliper (if equipped, position to one side). Remove hub and rotor or drum assembly. Remove shock absorber lower bolt and position shock out of way. Remove sway bar link (if equipped) from lower control arm.

2) Remove strut roll pin, nut, retainer and front bushing with sleeve from forward end of strut. Strut will remain attached to lower control arm when removed from vehicle. Measure torsion bar anchor bolt depth and remove torsion bar from control arm. Separate steering knuckle arm from tie rod end using suitable tool (C-3894-A). Remove lower ball joint stud with knuckle from lower control arm using suitable tool (C-3964). Remove control arm shaft nut and washer and remove control arm from vehicle.

Bushing Service — Place strut portion of control arm assembly in a vise and remove strut nut and strut. Remove torsion bar adjusting bolt and swivel. Place assembly in an arbor press with torsion bar hex opening up and with support under outer edge of control arm. Place a brass drift into hex opening and press shaft out of control arm. Bushing inner shell will remain on shaft. Cut and remove rubber portion of bushing from control arm shaft. Remove bushing outer shell by cutting with a chisel using care not to cut into control arm. Remove bushing inner shell from pivot shaft, cut if necessary. To install bushing, position on shaft with flange end of bushing first. Press shaft into inner sleeve until bushing seats on shaft shoulder. Press shaft and bushing assembly into lower control arm using a suitable tool (C-3848) and an arbor press. Reduce diameter of shaft shoulder, if necessary, to permit use of tool. Install torsion bar adjusting bolt and swivel. Install strut.

Installation — To install, reverse removal procedure. **NOTE** — Do not tighten lower control arm nut until full weight of vehicle is on wheels.

CHRYSLER CORP. (Cont.)

LOWER CONTROL ARM

Removal (Aspen & Volare) — 1) Raise vehicle and remove wheel and tire. Remove brake caliper retaining screws, clips and anti-rattle springs, remove caliper and suspend out of way. Remove shock absorber lower nut, retainer and insulator. Remove hub and rotor assembly along with splash shield. Release load on both torsion bars by turning anchor adjusting bolts counterclockwise. **NOTE — Release tension on both torsion bars even if only one control arm is being removed because of sway bar reaction from opposite torsion bar.**

2) Raise lower control arm until clearance between jounce bumper and torsion bar bushing is 2 7/8". Support control arm at this "design height" and remove two bolts attaching torsion bar end bushing to lower control arm. Separate lower ball joint from knuckle using suitable tool (C-3564-A). Remove lower control arm pivot bolt and lower control arm.

Bushing Service — Remove pivot bushing using suitable tool (C-4383) and install new bushing using suitable tool (C-4382).

Installation — To install, reverse removal procedure. **NOTE — Do not tighten lower control arm nut until full weight of vehicle is on wheels.**

LOWER BALL JOINT

Dart & Valiant — Ball joint is integral with steering knuckle arm and is replaced as a complete assembly. See *Ball Joint Checking* in **WHEEL ALIGNMENT** Section.

All Other Models — Remove rebound rubber and raise vehicle on hoist to place suspension in rebound. Place jack stands under front frame for additional support. Remove wheel, tire and brake assembly. Remove hub and rotor, splash shield, lower shock mounting nut, retainer and insulator or bolt and nuts. Unload torsion bar. Remove ball joint stud nut and use suitable tool (C-3564A or C-3711) to break ball joint loose. Use suitable tool (C-4212) to press ball joint from lower control arm. To install, reverse removal procedures and replace seal if necessary. When installing ball joint, use suitable ball joint installing tools (C-4039 or C-4034).

UPPER BALL JOINT

Ball joint can be removed from upper control arm after lower control arm is supported as close to wheel as possible. Remove upper ball joint using suitable tools (C-3561, C-3560 or C-3741). Always replace balloon seals after they have been removed. When installing ball joint, be sure ball joint threads squarely engage threads of upper control arms. Position new seal over ball joint stud and install using suitable adapter (C-4039 or C-4034).

UPPER CONTROL ARM

Removal — Raise front of vehicle with hand jack and place jack stand under lower control arm, then remove wheel and tire assembly. Remove stud nuts from upper and lower ball joints. Using suitable tool (C-3564-A or C-3711), pull ball joint stud from control arm using sharp hammer blows on steering knuckle boss to help remove stud. Remove tool and disengage upper ball joint from knuckle. Remove cams and cam bolts or

pivot shaft nut and bolts from upper control arm. Lift control arm away from support bracket and remove from vehicle.

Bushing Service — On all except Dart and Valiant models, place control arm in vise and bolt suitable support tool (C-4253-1) to pivot bar. Place suitable puller tool (C-4253-2) over end of pivot bar and reinstall nut. Snug bolts against arm, then screw bolts equally until bushing is free in arm. Remove tool and bushing. On Dart and Valiant models, place control arm in vise and press bushing out from inside using suitable tool (C-3710-A). On all models, to install new bushing, press in using suitable tool (C-4253-8, 4253-7 or C-3710-A). On Dart and Valiant models, ensure that tapered portion of bushing seats on control arm.

Installation — Reverse removal procedure and tighten all nuts and bolts.

TIGHTENING SPECIFICATIONS

Application	Ft. Lbs.
Ball Joint-To-Control Arm (Upper)	
Gran Fury, Monaco & Chrysler	150
All Others	125
Ball Joint Stud Nut (Upper)	
Gran Fury, Monaco & Chrysler	135
All Others	100
Ball Joint Stud Nut (Lower)	
Gran Fury, Monaco & Chrysler	135
All Others	100
Rebound Bumper (All).....	17
Adjusting Bolt (Upper Control Arm)	
Dart & Valiant	70
All Others	15
Pivot Shaft (Lower)	
Aspen & Volare.....	75
Gran Fury, Monaco & Chrysler	190
All Others	145
Steering Knuckle Bolts (Upper)	
Dart & Valiant	55
Steering Knuckle Bolts (Lower — All).....	160
Strut-to-Lower Control Arm (Exc. Aspen & Volare)	
Dart & Valiant	105
All Others	100
Strut-to-Frame (All, Exc. Aspen & Volare).....	70
Insulator-to-Frame	
Fury, Coronet, Cordoba & Charger	75
Sway Bar Strap Nut	
Dart & Valiant	17
All Others	30
Sway Bar Retainer Nut	
Gran Fury, Monaco & Chrysler	17
All Others	8
Sway Bar Plate-to-Crossmember	
Dart & Valiant	30
Idler Arm (All).....	70
Tie Rod End (All).....	40
Tie Rod Sleeve Clamps (All)	13
Shock Absorber (Upper — All).....	25
Shock Absorber (Lower)	
Gran Fury, Monaco, Chrysler, Aspen & Volare.....	35
All Others	50