

Rear Suspension

1965-73 PORSCHE 911 & 912 SERIES

911 Series (1965-73)
912 Series (1965-69)

DESCRIPTION

Independent torsion bar type rear suspension. Torsion bars are mounted inside rear crossmember tube and anchor in center by means of a splined hub. Outer end of torsion bars mount into splined hubs integral with spring plates which connect at ends to control arms. Control arms pivot in mounts integral with body and also serve as rear wheel bearing carriers. Hydraulic shock absorbers mount between control arms and inner fender panel. A stabilizer bar is installed on some models.

ADJUSTMENT

WHEEL ALIGNMENT SPECIFICATIONS & PROCEDURES — See *Porsche Rear Wheel Alignment Specifications and Procedures* in **WHEEL ALIGNMENT** Section.

REMOVAL & INSTALLATION

SHOCK ABSORBERS

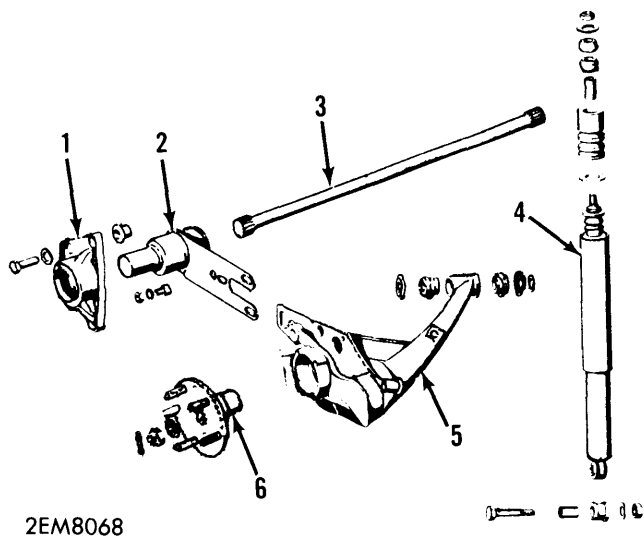
Removal — Raise vehicle and place safety stands in a position so that weight of vehicle is still on rear wheels. Remove rubber cap from upper mount, accessible from inside engine compartment and remove nut from shock absorber stem. Remove bolt

securing shock absorber to control arm and remove shock absorber. Remove rod cover and rubber buffer from shock absorber.

Installation — Inspect rubber buffer for wear or cracking and replace if necessary. Make sure that stop disc grooves face bottom of shock absorber when assembling. Install rubber buffer and cover and reverse removal procedure to install in vehicle. Tighten upper and lower mounts to specifications.

CONTROL ARM

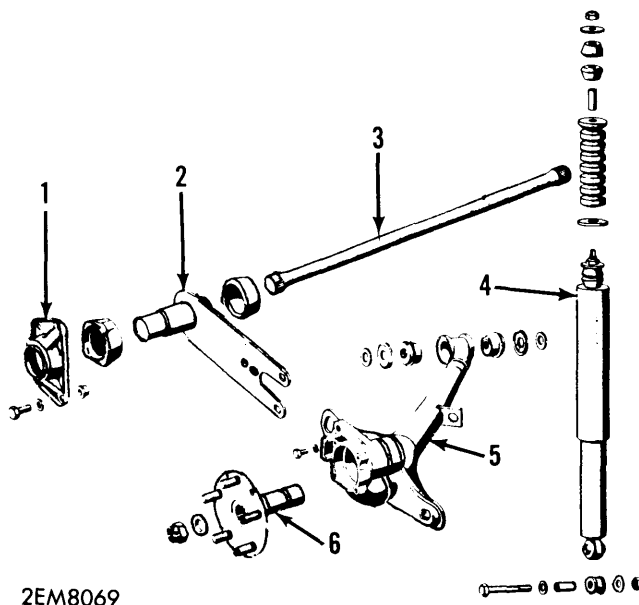
Removal — Raise vehicle and place safety stands under body. Remove wheels and tires. Remove brake system components from rear wheel hub. **NOTE** — See *appropriate story in BRAKE SYSTEMS* section for removal. Remove cotter pin from nut at axle hub and remove nut. Remove Allen head bolts from axle shaft flanges and remove axle shaft. Using a suitable driver (P297) drive rear wheel hub from control arm. Remove cotter pin and nut from parking brake cable and pull cable out toward center of vehicle. Remove bolts securing parking brake assembly to control arm and remove assembly. Raise torsion bar spring plate to take tension from shock absorber with a suitable tool (P289). Remove lower shock absorber mount. Remove bolts securing spring plate to control arm. Disconnect brake hose from bracket on control arm. Remove nut from control arm pivot bolt and drive bolt out with a punch. On models prior to 1973, move control arm slightly so that bolt can clear transmission housing. If necessary, slightly loosen transmission carrier retaining bolts. Remove control arm from vehicle.



2EM8068

- 1 — Spring Plate Hub Cover
- 2 — Spring Plate
- 3 — Torsion Bar
- 4 — Shock Absorber
- 5 — Control Arm
- 6 — Rear Wheel Hub

PORSCHE 911 & 912 REAR SUSPENSION
(1969-73 Models)



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PORSCHE 911 & 912 REAR SUSPENSION
(1965-68 Models)

1965-73 PORSCHE 911 & 912 SERIES (Cont.)

Disassembly — If bushing in control arm is pressed out, new bushing must be installed. Press bushing out using a suitable mandrel. *NOTE* — See appropriate story in REAR AXLE Section for removal of bearings in control arm.

Assembly — Press bushing into control arm all the way to stop. Install rear wheel bearing in control arm. *NOTE* — See appropriate story in REAR AXLE Section for installation.

Installation — Reverse removal procedure for installation. Use new self-locking nuts and tighten all bolts and nuts to specifications. Check wheel alignment and bleed brake system.

TORSION BAR & SPRING PLATE

Removal — Raise vehicle and place safety stands under body. Remove wheel and tire. Raise torsion bar spring plate to take tension off of control arm using a suitable tool (P289). Remove lower shock absorber mounting bolt. Remove bolts securing spring plate to control arm. Pull back on control arm to separate from spring plate. Remove torsion bar hub cover bolts and remove cover by prying off with a screwdriver. Remove torsion bar tensioner tool. Remove plug from body, remove spring plate and withdraw torsion bar. If torsion bar is broken, opposite side torsion bar will have to be removed in order to drive out broken piece.

Installation — Inspect all components for wear or damage. Coat torsion bar with lithium grease before installing. Torsion bars are marked left and right, install accordingly. Coat rubber components with glycerin paste. Install torsion bar and spring plate in correct position. *NOTE* — See appropriate story in WHEEL ALIGNMENT Section for torsion bar setting procedure. Install hub cover and start three bolts that are accessible. Raise spring plate until remaining bolt can be installed. Reverse removal procedure for remaining components. Tighten all nuts and bolts to specifications. Check rear wheel alignment.

TIGHTENING SPECIFICATIONS

Application	Ft. Lbs. (mkg)
Control Arm Pivot Bolt	87 (12)
Spring Plate-to-Control Arm Bolts	65 (9)
Camber Adjusting Bolt	43 (6)
Tracking Adjusting Bolt	36 (5)
Lower Shock Absorber Mount	54 (7.5)
Hub Nut	235 (32.5)
Axle Shaft Allen Head Bolts	
M10-8G	34 (4.7)
M8-12K	31 (4.3)
M10-12Kx55	60 (8.3)
Torsion Bar Hub Cover Bolts	34 (4.7)