

# SUSPENSION - REAR

## 1991 Mazda Miata

1991 SUSPENSION  
Rear - Miata

### DESCRIPTION

Rear suspension consists of MacPherson-type struts, crossmember, upper and lower arms and stabilizer bar with control link. Upper and lower arms attach to crossmember and knuckle. A stabilizer bar with control link is mounted to lower arm and crossmember. Rear wheel alignment is adjusted by turning adjusting cams on lower arm.

### ADJUSTMENTS & INSPECTION

#### WHEEL ALIGNMENT SPECIFICATIONS & PROCEDURES

NOTE: See SPECIFICATIONS & PROCEDURES article in the WHEEL ALIGNMENT Section.

#### WHEEL BEARING

Raise vehicle and support. Remove wheel assembly. Remove caliper assembly and wire aside. Remove brake rotor. Attach dial indicator to axle hub and measure bearing play. Maximum bearing play is .002" (.05 mm). If play exceeds specification, check rear axle lock nut torque or replace wheel bearing.

### REMOVAL & INSTALLATION

#### WHEEL BEARING

##### Removal

1) Raise and support vehicle. Remove wheel assembly. Remove drive axle lock nut. Remove brake caliper assembly, and wire aside. Remove screws and rotor. Disconnect ABS speed sensor. Remove knuckle assembly from upper and lower arms.

2) Using a press, Installer (49-G030-727) and Puller (49-F026-103), remove hub from knuckle. Remove snap ring from knuckle. Using a press, installer and Puller (49-0636-145), remove wheel bearing inner race from hub. Remove wheel bearing outer race from knuckle using a press and Adapter (49-F027-005).

##### Inspection

Check wheel hub and knuckle for cracks and damage. Check dust cover for deformation. Check bearing for excessive wear or seizure.

##### Installation

Press new wheel bearing into knuckle using Installer (49-F027-007) and Adapter (49-F027-009). Press hub into knuckle using installer. To install, reverse removal procedure. Tighten drive axle lock nut to specification. Stake drive axle lock nut. Check axial play. See WHEEL BEARING under ADJUSTMENTS & INSPECTION.

### STRUT ASSEMBLY

##### Removal & Disassembly

1) Raise vehicle and remove fuel tank filler pipe protector.

Remove rear wheel assembly. Remove stabilizer bar nut and bolt. Remove 2 upper strut mount-to-body nuts. Remove lower strut bolt. Loosen upper and lower arm bolts. Lower arms and remove strut assembly.

2) Clamp strut securely in soft-jawed vise. Compress coil spring. Remove lock nut and washer. Remove remaining components and note order for reassembly.

#### Inspection

Check strut for leaks or abnormal noise. Inspect parts for wear or damage. Check for loose installation of bolts and nuts. Replace parts as necessary.

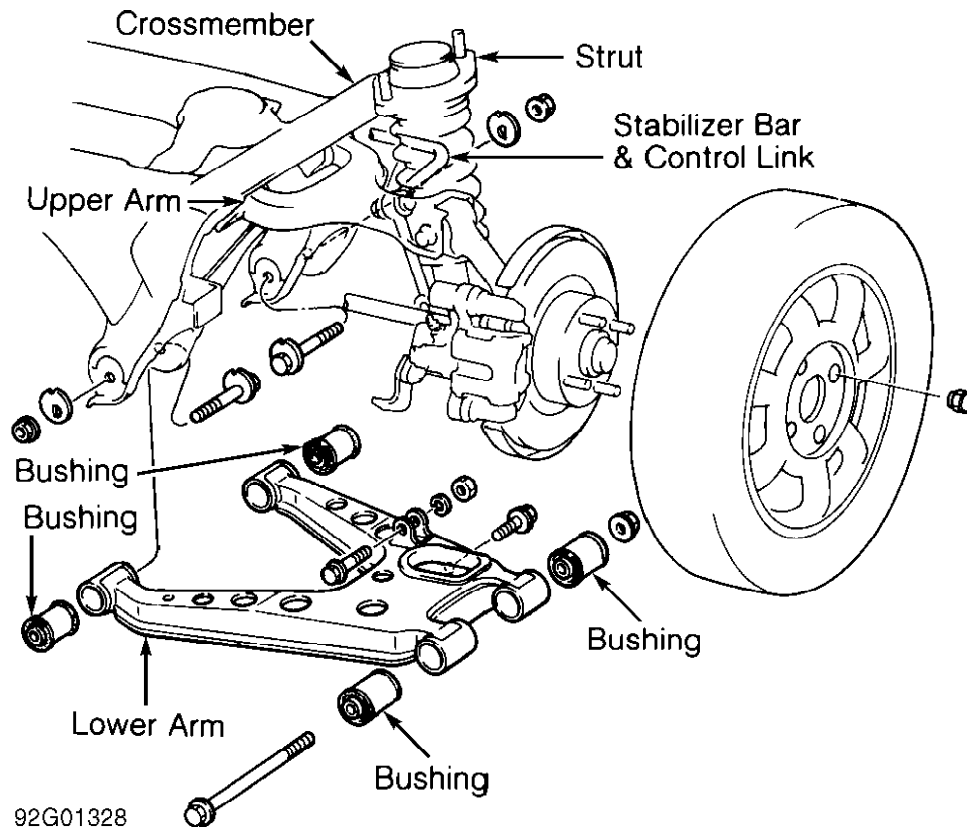
#### Reassembly & Installation

To reassemble, reverse disassembly procedure. To install, reverse removal procedure. Ensure coil spring is well seated in upper and lower seats. Check rear wheel toe-in. See SPECIFICATIONS & PROCEDURES article in the WHEEL ALIGNMENT Section.

### LOWER ARM

#### Removal

Raise and support vehicle. Remove wheel assembly. Remove stabilizer bar control link nut and bolt. See Fig. 1. Remove lower strut bolt. Remove lower arm-to-crossmember bolts. Remove lower arm-to-knuckle bolts. Remove lower arm. Inspect arm for damage, cracks and deformation. Check for damaged or worn bushings.



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Fig. 1: Exploded View of Rear Lower Arm Assembly  
Courtesy of Mazda Motors Corp.

#### Installation

To install, reverse removal procedure. Tighten all bolts with

vehicle resting on ground and suspension unloaded. Adjust rear wheel toe-in. See SPECIFICATIONS & PROCEDURES article in the WHEEL ALIGNMENT Section.

## UPPER ARM

### Removal

Raise and support vehicle. Remove wheel assembly. Remove upper arm-to-crossmember bolts. Remove upper arm-to-knuckle bolts. Remove upper arm. Inspect arm for damage, cracks and deformation. Check for damaged or worn bushings.

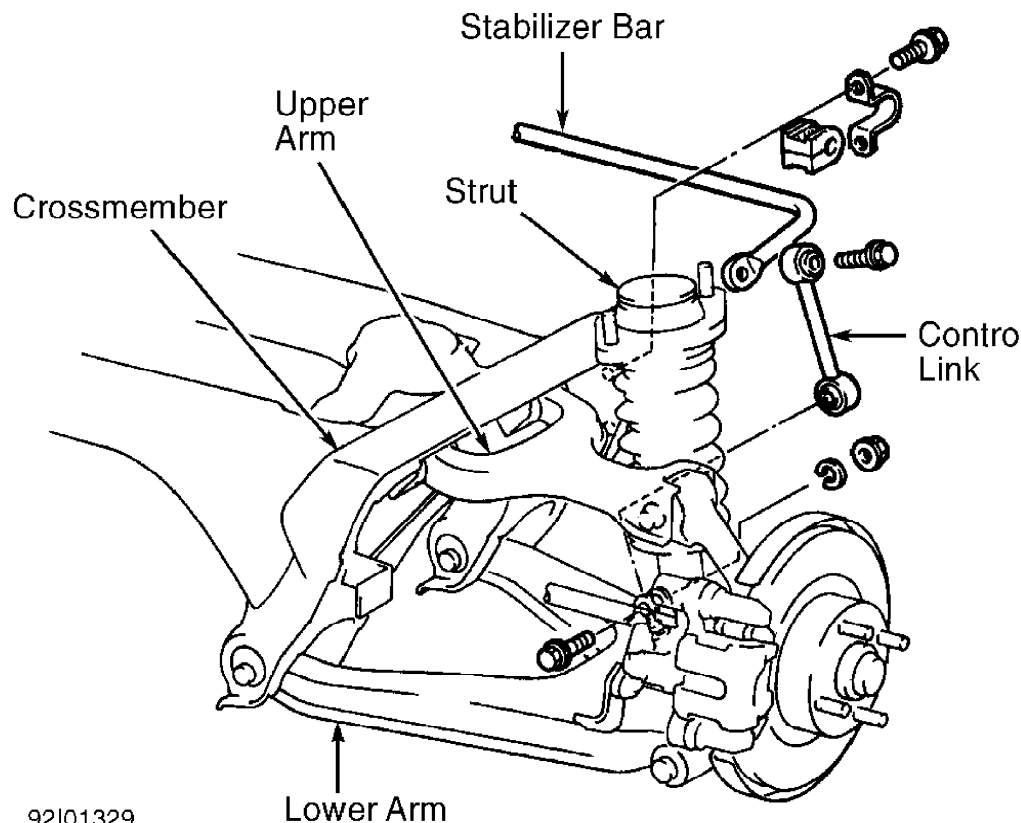
### Installation

To install, reverse removal procedure. Tighten all bolts with vehicle resting on ground and suspension unloaded. Adjust rear wheel toe-in. See SPECIFICATIONS & PROCEDURES article in the WHEEL ALIGNMENT Section.

## STABILIZER BAR

### Removal

Raise and support vehicle. Remove wheel assembly. Remove stabilizer bar-to-crossmember bolt, bracket and bushing. See Fig. 2. Remove stabilizer bar control link-to-lower arm nut and bolt. Remove stabilizer bar and control link from vehicle. Separate stabilizer bar from control link.



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Fig. 2: Exploded View of Rear Stabilizer Bar & Control Link  
Courtesy of Mazda Motors Corp.

### Installation

Inspect stabilizer bar and components for damage, cracks and

deterioration. To install, reverse removal procedure. Ensure bushing is aligned with White line on stabilizer. Ensure seam faces front of vehicle. Tighten nuts and bolts to specification with vehicle resting on ground and suspension unloaded.

## TORQUE SPECIFICATIONS

TORQUE SPECIFICATIONS TABLE

Application	Ft. Lbs. (N.m)
ABS Speed Sensor Harness Bracket Bolts .....	12-17 (16-23)
Caliper Assembly-To-Knuckle Bolt .....	36-51 (49-69)
Control Link-To-Lower Arm Nut .....	27-40 (36-54)
Lower Arm-To-Crossmember Nuts .....	54-70 (73-95)
Lower Arm-To-Knuckle Nut .....	46-55 (63-75)
Rear Axle Nut .....	159-217 (216-294)
Stabilizer Bar Brackets Bolts .....	15-21 (20-28)
Stabilizer Bar-To-Control Link Bolt .....	27-40 (36-54)
Strut Piston Rod Lock Nut .....	23-34 (31-46)
Strut-To-Body Nuts .....	22-27 (29-36)
Strut-To-Lower Arm Bolt .....	54-69 (73-93)
Upper Arm-To-Crossmember Nuts .....	34-49 (46-67)
Upper Arm-To-Knuckle Bolt .....	34-49 (46-67)
Wheel Lug Nuts .....	65-87 (88-118)