

# SUSPENSION - REAR

## 1992 Subaru SVX

1992 SUSPENSION  
Subaru Rear

Legacy, Loyale, SVX

### DESCRIPTION

Rear suspension is a semi-trailing arm, independent type. Crossmember is mounted to body frame with brackets at both ends via bushings. See Fig. 1 or 2.

One end of trailing arm is bolted to crossmember through a bushing, and other end is mounted to body through shock absorber. An outer arm is bolted on one end to crossmember through a bushing, and other end is directly bolted to trailing arm.

NOTE: For information on rear axle shafts for 4WD vehicles, See 4WD REAR AXLE SHAFTS article in the DRIVE AXLES Section.

### ADJUSTMENTS & INSPECTION

#### WHEEL ALIGNMENT

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

#### WHEEL BEARING (2WD)

NOTE: Information on adjustment and inspection of Legacy models is not provided by manufacturer. A general inspection should be performed, however. Clean parts and check for wear, damage and corrosion.

##### Adjustment (Loyale)

Tighten hub nut to 36 ft. lbs. (49 N.m). Rotate hub several times to seat bearings. Check starting torque using spring scale. Correct starting torque is 1.9-3.2 lbs. (8.3-14.2 N). Adjust starting torque by loosening nut 1/10 - 1/8 turn.

##### Inspection

When inspecting grease, a general inspection of bearings should be performed. If grease has diminished in quantity or has turned white, remove bearings and races. Inspect for wear, damage or corrosion. Replace grease every 60,000 miles.

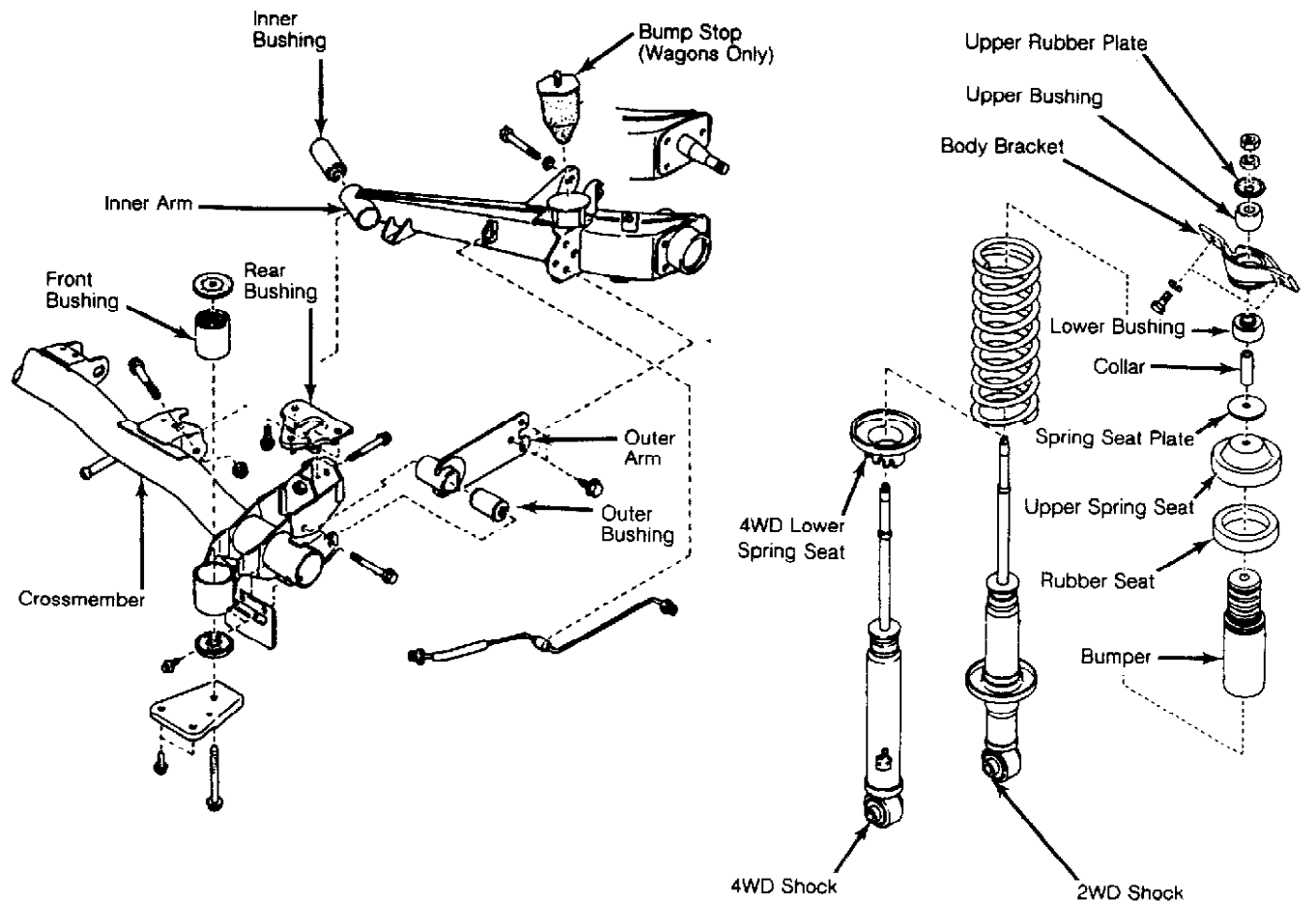


Fig. 1: Exploded View Of Rear Suspension & Strut Assembly (Loyale)  
 Courtesy of Subaru of America, Inc.

## WHEEL BEARING (4WD)

NOTE: No periodic adjustment of rear wheel bearings is required.

### Inspection (Legacy & SVX )

1) With rear of vehicle raised, move top and bottom of tire in and out to check bearing free play. Remove rear wheel. If bearing free play exists, attach a dial indicator to wheel hub. Measure axial hub play by pulling hub straight out.

2) Axial play should be no more than .002" (.05 mm). Turn hub back and forth to check for noise or binding. If axial play is excessive or if bearings are noisy or binding, disassemble hub assembly and check condition of bearings and seals.

### Inspection (Loyale)

When inspecting grease, a general inspection of bearings should be performed. If grease has diminished in quantity or has turned white, remove bearings from hub/housing, clean, inspect and repack. Inspect for wear, damage or corrosion. Replace grease every 60,000 miles.

## REMOVAL & INSTALLATION

## REAR SUSPENSION ASSEMBLY

### Removal (Legacy)

1) Remove shock absorber-to-body mounting bolts. Raise and support vehicle. Remove wheels. Remove all exhaust system parts interfering with access to rear suspension. Disconnect brake hoses at inner arm brackets. Remove drive shaft and rear stabilizer bar. Disconnect parking brake cable clamps. Remove differential bushing mounts-to-bracket bolts and loosen lower differential bracket bolts.

2) Support differential with floor jack. Using a drift and hammer, remove inner and outer Constant Velocity (CV) joint spring pins. Loosen crossmember-to-differential bolts. Remove differential bushing mounts. Separate axle shafts from differential and wire aside. Remove crossmember-to-lateral link bolts and slowly lower crossmember to floor.

### Inspection

Check for any damage or wear to bushings. Press out and replace bushings if necessary. Check for deformation or cracks on trailing arm, outer arm and crossmember. Replace components as necessary.

### Installation

To install, reverse removal procedure. Tighten bolts and rear bushing mounts with vehicle unloaded. See TORQUE SPECIFICATIONS table at end of article. Bleed brake system. Check wheel alignment. See SPECIFICATIONS & PROCEDURES article in the WHEEL ALIGNMENT Section.

### Removal (Loyale)

1) Remove shock absorber-to-body mounting bolts. Raise and support vehicle. Remove wheel. On 4WD models, remove axle shafts. Separate axle shaft from hub and wire aside. Disconnect drive shaft from differential. Slowly pull drive shaft out of transmission. Plug hole in transmission to prevent oil spills.

2) Support differential with floor jack. Remove 2 center differential nuts and 4 differential-to-crossmember nuts. Remove differential from vehicle.

3) Remove all exhaust system parts interfering with access to rear suspension. Disconnect brake hoses at inner arm brackets. Support crossmember at center with floor jack. Remove crossmember-to-body bolts and slowly lower rear suspension assembly to floor.

### Inspection

Check for any damage or wear to bushings. Press out and replace bushings if necessary. Check for deformation or cracks on trailing arm, outer arm and crossmember. Replace components as necessary.

### Installation

To install, reverse removal procedure. Tighten bolts and rear bushing mounts with vehicle unloaded. See TORQUE SPECIFICATIONS table at end of article. Bleed brake system. Check wheel alignment. See SPECIFICATIONS & PROCEDURES article in the WHEEL ALIGNMENT Section.

### Removal (SVX)

1) Remove shock absorber-to-body mounting bolts. Raise and support vehicle. Remove wheels. Place gear selector in Neutral position and release parking brake. Remove all exhaust system parts interfering with access to rear suspension. Disconnect brake hoses at inner arm brackets. Remove drive shaft. Separate CV joints from differential.

2) Support differential with floor jack. Remove differential-to-crossmember bolts. Slowly lower differential to floor and move it

forward. Remove gas tank cover bolts. Support crossmember with floor jack. Mark crossmember and mounting bolts for reassembly reference. With assistance, remove crossmember brackets and slowly lower crossmember to floor.

#### Inspection

Check for any damage or wear to bushings. Press out and replace bushings if necessary. Check for deformation or cracks on trailing arm, outer arm and crossmember. Replace components as necessary.

#### Installation

To install, reverse removal procedure. Tighten bolts and rear bushing mounts with vehicle loaded. See TORQUE SPECIFICATIONS table at end of article. Bleed brake system. Check wheel alignment. See SPECIFICATIONS & PROCEDURES article in the WHEEL ALIGNMENT Section.

## STRUT ASSEMBLY

#### Removal & Disassembly (Legacy)

Remove rear seat cushion and rear seat backrest. Raise and support vehicle. Remove rear wheels. Remove brake caliper if necessary. Remove upper and lower mounting bolts and remove strut from vehicle. Using a coil spring compressor, compress coil spring. Remove double nuts and disassemble shock. Note position of coil spring in relation to upper bracket. See Fig. 2.

#### Inspection

Check shock absorber for oil leaks. Check action of piston rod for abnormal noise or resistance.

#### Reassembly & Installation

To reassemble, reverse removal procedure. Mount coil spring with flat end down. To install, reverse removal procedure.

#### Removal & Disassembly (Loyale)

Raise and support vehicle. Remove rear wheels. Remove upper and lower mounting bolts and remove strut from vehicle. Using a coil spring compressor, compress coil spring. Remove strut lock nut and disassemble shock. See Fig. 1. Note position of coil spring in relation to upper bracket.

#### Inspection

Check shock absorber for oil leaks. Check action of piston rod for abnormal noise or resistance.

#### Reassembly & Installation

To reassemble, reverse removal procedure. Mount coil spring with flat end down. Use a NEW strut lock nut. To install, reverse removal procedure.

#### Removal & Disassembly (SVX)

Raise and support vehicle. Remove rear wheels. Remove brake caliper if necessary. Disconnect battery negative cable and remove rear quarter trim. Separate brake hose from strut. Using a floor jack, support knuckle/hub housing. Remove one strut flange bolt. See Fig. 2. Remove upper strut mount bolts. Remove remaining strut flange bolt and remove strut assembly from vehicle. Using a coil spring compressor, compress coil spring. Remove strut lock nut and disassemble shock. Note position of coil spring in relation to upper bracket.

#### Inspection

Check shock absorber for oil leaks. Check action of piston

rod for abnormal noise or resistance.

#### Reassembly & Installation

To reassemble, reverse removal procedure. Mount coil spring with flat end down. Use a NEW strut lock nut. To install, reverse removal procedure.

### WHEEL BEARING

NOTE: Information on rear wheel bearing removal for Legacy 2WD is not available from manufacturer.

#### Removal (Loyale 2WD)

Raise and support vehicle. Remove wheel. Remove brake drum, inner race and bearing, outer race and oil seal together. Remove spacer and inner race using a puller. Remove oil seal and inner bearing from drum. Remove outer bearing races using a hammer and brass drift.

#### Installation

To install, reverse removal procedure. Press in outer race of inner bearing using Bearing Installer (925220000). Press outer race of outer bearing using Bearing Installer (921130000). Stepped surface of spacer must face toward bearing. Use new lock washer and new "O" ring for dust cap.

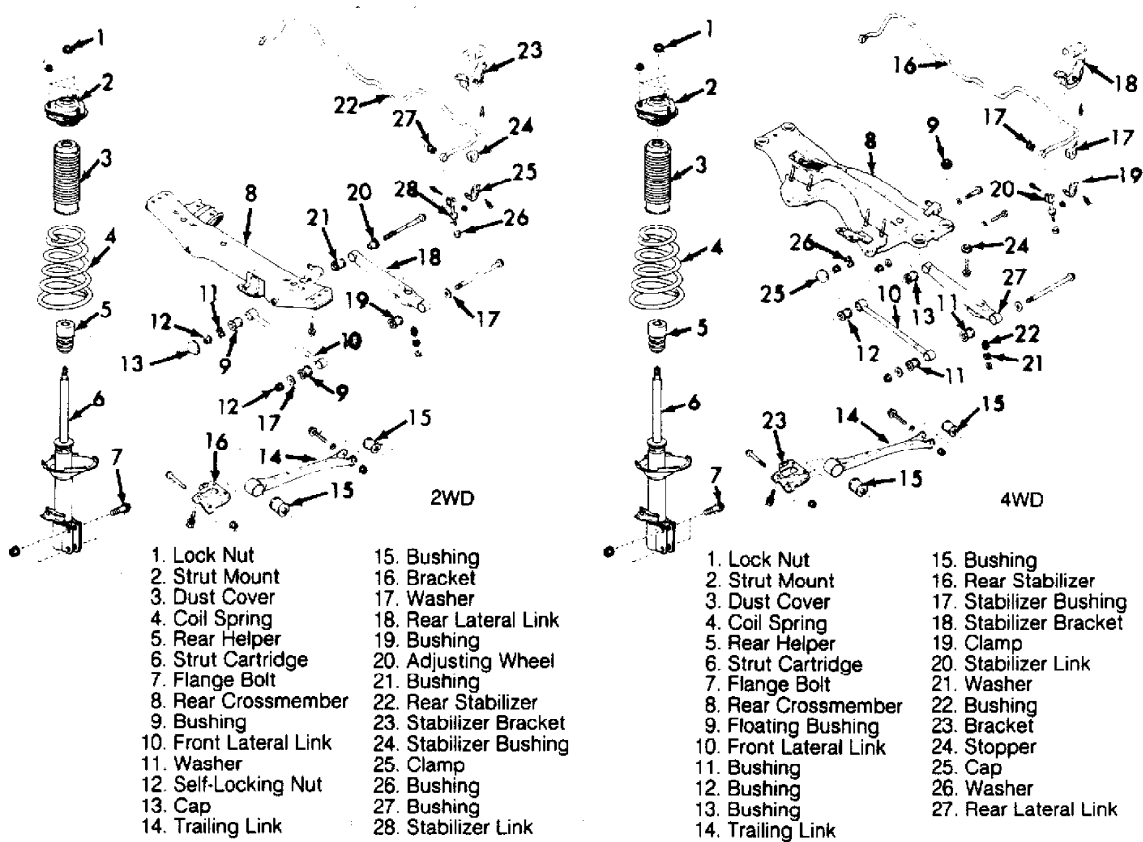


Fig. 2: Rear Suspension & Strut Assembly (Legacy Shown; SVX Is Similar To Legacy 4WD)  
 Courtesy of Subaru of America, Inc.

#### Removal (Loyale 4WD)

1) Apply parking brake. Remove cotter pin and loosen hub nut. Disconnect shock absorber from inner arm. Loosen lock bolts of crossmember outer bushing.

2) Raise and support vehicle. Remove rear wheels. Separate front drive shaft from hub and wire aside. Remove hub nut and brake drum assembly. Disconnect brakeline from brake hose at inner arm bracket. Remove brake assembly from trailing arm.

3) Remove inner arm bushing mount-to-crossmember bolt. Remove 3 inner-to-outer arm bolts. Remove inner arm. Put inner arm in a vise.

4) Straighten staked portion of inner arm housing ring nut. Using Socket (925550000), remove ring nut. Remove spindle by lightly tapping inward with a plastic hammer. Remove outer oil seal from inner arm housing. Press bearings and races from housing and spindle.

#### Installation

1) Install new inner and outer oil seals using Installer (925530000). To complete installation, reverse removal procedure. Tighten inner arm housing ring nut to specification. See TORQUE SPECIFICATIONS table at end of article. Lock ring nut by staking a point on housing surface facing ring nut groove.

2) Torque hub nut to specification. Ensure washer is positioned behind hub nut. Bleed brakes. Check rear wheel alignment. See SPECIFICATIONS & PROCEDURES article in the WHEEL ALIGNMENT Section.

#### Removal (Legacy 4WD & SVX)

1) Lift vehicle and remove rear wheels. Remove axle nut. Remove brake caliper and rotor. Disconnect parking brake cable. Remove rear speed sensor (if vehicle is equipped with ABS). Remove bolts connecting lateral link to axle housing.

2) Remove bolts attaching trailing arm to axle housing. Remove spring pin attaching differential spindle to axle. Remove axle shaft. Separate axle housing from strut.

NOTE: DO NOT remove bearings unless damaged. DO NOT reuse bearings if removed.

3) Remove backing plate. Remove oil seals and snap ring. Use Housing Stand (927430000) and Bearing Remover (927440000) to remove bearing. Remove axle housing. Use Hub Stand (927080000) and Hub Remover (927420000) to remove hub from axle housing.

#### Installation

1) Ensure axle housing is free of foreign particles. Use Housing Stand (927430000) and Bearing Remover (927440000) to press bearing into housing. Press in outer race while installing bearing. Install snap ring. Use Housing Stand (927430000) and Oil Seal Installer (927460000) to install oil seal.

2) Push oil seal into housing until it touches snap ring. Invert both Housing Stand (927430000) and Oil Seal Installer (927460000). Install inner oil seal until it touches bottom. Press sub seal into place. Apply Shell Grease (6459) to oil seal lip.

3) Install backing plate. Use Hub Stand (927080000) and Hub Installer (927450000) to press bearing into hub. To complete installation, reverse removal procedure.

## TORQUE SPECIFICATIONS

### TORQUE SPECIFICATIONS TABLE

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Application

Ft. Lbs. (N.m)

Legacy

Backing Plate-To-Inner Arm Bolt .....	34-43 (46-58)
Crossmember-To-Body Bolt .....	80-108 (108-147)
Differential-To-Crossmember Nut (4WD) .....	41-53 (56-72)
Hub Nut (4WD) .....	123-152 (167-206)
Drive Shaft Bolt (4WD) .....	18-29 (24-39)
Stabilizer Bracket-To-Inner Arm Bolt .....	13-16 (18-22)
Strut Piston Rod Lock Nut .....	36-51 (49-69)
Strut-To-Axle Housing Bolt .....	92-127 (132-172)
Strut-To-Body Bolt .....	10-18 (14-25)

Loyale

Backing Plate-To-Inner Arm Bolt .....	34-43 (46-58)
Crossmember-To-Body Bolt .....	58-72 (78-98)
Differential-To-Crossmember Nut (4WD) .....	51-58 (69-78)
Hub Nut (4WD) .....	145 (196)
Inner Arm-To-Crossmember Bolt .....	51-65 (69-88)
Inner-To-Outer Arm Bolt .....	94-108 (127-147)
Outer Arm-To-Crossmember Bolt .....	94-108 (127-147)
Drive Shaft Bolt (4WD) .....	18-24 (24-32)
Shock Bracket-To-Body Bolt .....	65-94 (88-127)
Shock Piston Rod Lock Nut .....	13-18 (18-25)
Shock-To-Inner Arm Bolt .....	65-87 (88-118)

SVX

Axle Nut .....	123-152 (167-206)
Crossmember Support Bolt .....	33-54 (44-74)
Crossmember-To-Body Bolt .....	94-116 (127-157)
Differential-To-Crossmember Bolt .....	94-116 (127-157)
Lateral Link	
Inner Bolt .....	61-83 (83-113)
Outer Bolt .....	72-101 (98-137)
Rear Stabilizer Link Nut .....	10-19 (14-25)
Strut Flange Bolt .....	98-127 (132-172)
Strut Mount Nut .....	10-17 (14-24)
Strut Piston Rod Lock Nut .....	36-51 (49-69)
Trailing Link Bolt .....	101-130 (137-177)
Trailing Link Bushing Bolt .....	80-101 (108-137)

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