

## SUBARU

1600  
Brat

## REMOVAL & INSTALLATION

### DESCRIPTION

Suspension is strut type, utilizing a hydraulic shock absorber/coil spring assembly forming a strut. Strut is secured at top to body and at bottom to steering knuckle. Steering knuckle pivots on ball joint attached to lower control arm. Lower control arms are attached to front crossmember. Radius rods are welded to lower control arms and attached to rear crossmember with rubber bushings, washers, and nuts. A stabilizer bar is also used and attached to rear crossmember and to radius rods with clamps and rubber bushings.

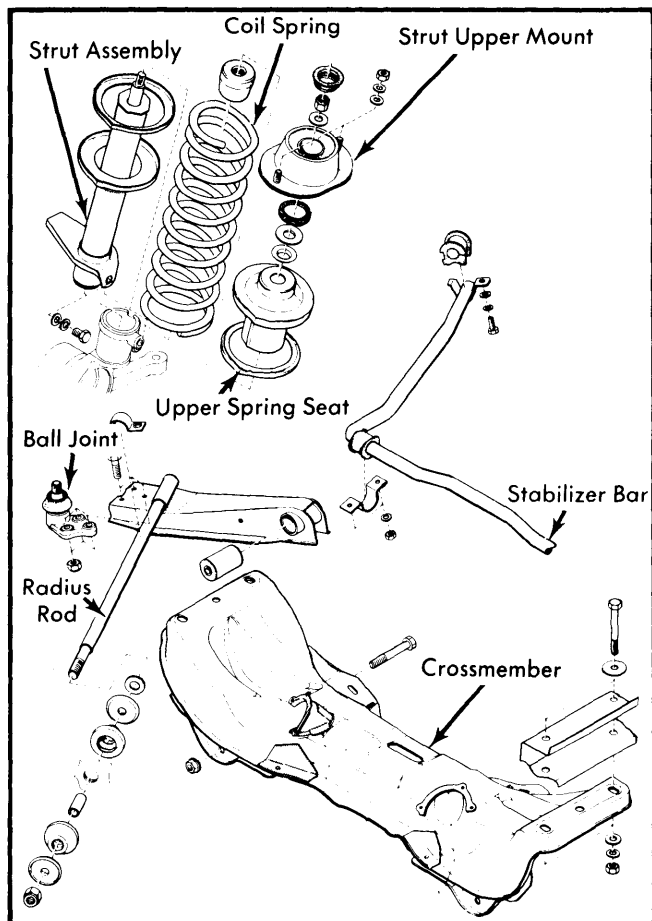


Fig. 1 Exploded View of Front Suspension

### ADJUSTMENT

#### WHEEL ALIGNMENT SPECIFICATIONS & PROCEDURES

See *Wheel Alignment Specifications and Procedures* in **WHEEL ALIGNMENT** Section.

#### WHEEL BEARING ADJUSTMENT

See *Wheel Bearing Adjustment* in **WHEEL ALIGNMENT** Section.

#### BALL JOINT CHECKING

See *Ball Joint Checking* in **WHEEL ALIGNMENT** Section.

### FRONT SUSPENSION

**Removal** – 1) Detach battery ground cable. Raise and support vehicle and remove front wheel(s).

2) Remove parking brake cable hanger from tie rod end, remove cable end from caliper lever, remove outer cable clip from caliper, remove cable bracket from housing and remove cable mounting bracket from lower control arm.

3) Drive out spring pins from inner end of drive axle nearest transaxle housing.

4) Remove self-locking nut and bolt holding control arm to crossmember. Pull control arm downward from crossmember.

5) Use suitable tool to separate tie rod end from steering knuckle arm.

6) Detach radius rod from rear crossmember. Remove stabilizer bar brackets.

7) Remove upper strut assembly mounting nuts. Pull drive shaft from transaxle and remove suspension assembly from vehicle.

**Installation** – To install, reverse removal procedure, noting the following points:

- Be sure to align spring pin holes in drive axle before installing.
- When installing strut top mounting, be sure stud marked "SEDAN" is forward on Sedan, Coupe and Hardtop models, while stud marked "VAN/4WD" is forward on Station Wagon and 4-Wheel Drive models.
- When installing stabilizer, be sure slit in bushing is facing downward in clamp.
- Replace all self-locking nuts.
- Before installing radius rod bushing, soak it in soapy solution or rubber lubricant to assist installation.
- When installing castellated nuts on ball joints, tighten nut, as required, beyond specified torque setting to align cotter pin hole.
- Always use new spring pins for attaching inner end of drive shaft.

### STRUT ASSEMBLY

**Removal** – 1) Raise and support vehicle. Remove front wheels. Remove bolts attaching strut tube to steering knuckle.

2) Detach tie rod end from steering knuckle arm. Pull strut out of mounting on steering knuckle. Remove upper strut mounting nuts. Remove strut assembly from vehicle.

**Disassembly** – 1) Attach special puller and wrench tool (925160000) to strut assembly and hold in horizontal position. Use tool to compress coil spring until upper seat is separated from coil spring.

2) Use wrench portion of tool to hold upper mounting plate while removing self-locking nut from top end of strut. Remove thrust washer, oil seal and thrust bearing. Remove the upper spring seat from rod.

## SUBARU (Cont.)

3) Carefully remove tension from coil spring and remove tool and spring from strut.

**Reassembly** — To reassemble, reverse disassembly procedures, replacing self-locking nut with a new one. Place small amount of grease on thrust washer.

**Installation** — To install, reverse removal procedure, noting the following:

- Be sure upper strut mounting plate is facing in proper direction as described under "Front Suspension" installation procedure in this article.
- When reattaching brake line and hose, be sure to allow enough clearance from wheel apron.

### STABILIZER BAR

**Removal** — Raise front of vehicle, and support with safety stands. Remove clamps securing stabilizer bar to radius rod. Remove clamps attaching stabilizer bar to rear crossmember.

**Installation** — Check all bushings for wear or damage and replace as necessary. Check stabilizer bar for possible cracking. To install, reverse removal procedure.

### LOWER CONTROL ARM

**Removal** — Raise front of vehicle, support with safety stands, and remove wheel and tire. Disconnect brake cable bracket from control arm. Disconnect stabilizer bar from radius rod. Disconnect radius rod from rear crossmember. Remove control arm-to-front crossmember attaching bolt. Remove ball joint-to-steering knuckle attaching nut and separate from knuckle. Remove control arm from vehicle.

**Installation** — Check ball joint for wear or damage. Check pivot bushing for wear or damage. To install lower control arm, reverse removal procedure and note: Torque ball joint castle nut, insert cotter pin, and tighten nut an additional turn.

### TIGHTENING SPECIFICATIONS

Application	Ft. Lbs. (mkg)
Stabilizer Bracket Nuts .....	13-16 (1.8-2.2)
Radius Rod-to-Rear Crossmember .....	51-62 (7.0-8.5)
Tie Rod End Ball Joint Nut .....	18-36 (2.5-5.0)
Wheel Nuts .....	58-72 (8.0-10.0)
Upper Strut Mounting Nuts .....	22-29 (3.0-4.0)
Strut-to-Piston Rod Nut .....	43-54 (6.0-7.5)
Lower Strut End-to-Housing .....	22-29 (3.0-4.0)
Control Arm-to-Crossmember .....	47-54 (6.5-7.5)
Control Arm Ball Joint Nut .....	80-94 (11.0-13.0)
Ball Joint-to-Control Arm .....	35-40 (4.8-5.5)