

RENAULT 18i

DESCRIPTION

Coil spring front suspension utilizing upper and lower control arms. Hydraulic, double action shock absorber is mounted to inner fender panel at top and to upper control arm at bottom. Coil spring mounts around upper portion of shock absorber. Wheel hub and rotor are supported by a steering knuckle which is mounted between the control arms with ball joints. A stabilizer bar is used to aid vehicle control and stability.

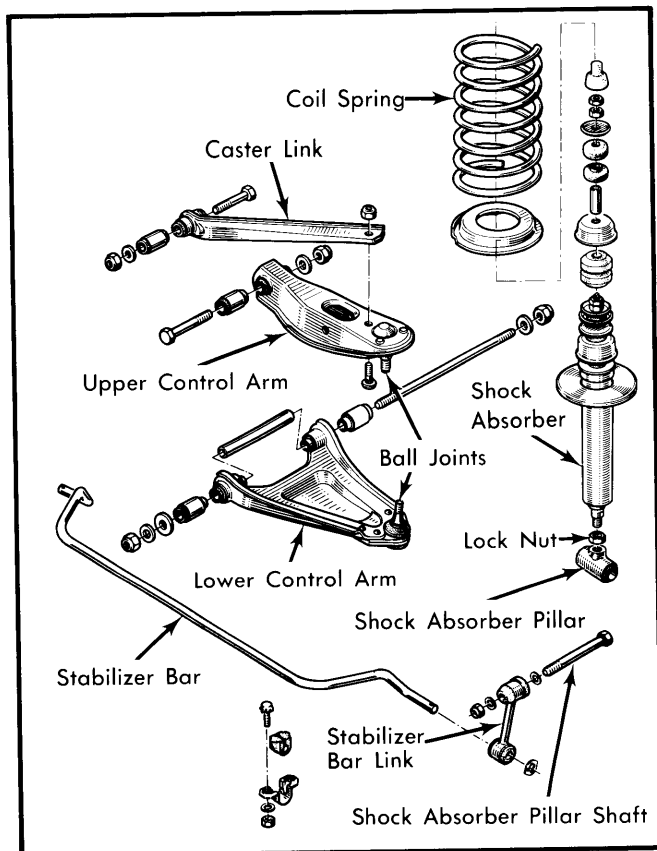


Fig. 1 Exploded View of 18i Front Suspension

ADJUSTMENTS

WHEEL ALIGNMENT SPECIFICATIONS & PROCEDURES

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

WHEEL BEARING ADJUSTMENT

Wheel bearings are not adjustable. Tighten axle shaft nuts to 185 ft. lbs. (252 N·m).

BALL JOINT CHECKING

Inspect ball joints for excessive wear or play. Replace as needed. If rubber grease cup is cracked or otherwise damaged, ball joint must be replaced.

REMOVAL & INSTALLATION

SHOCK ABSORBER & COIL SPRING ASSEMBLY

Removal - 1) Raise vehicle and remove wheels. Place jack stand under lower control arm at ball joint. Lower vehicle until entire weight (for that side) is supported by stand.

2) Install spring compressor tool (Sus. 863) with clamps over next-to-last upper coil of spring. Lubricate threaded ends of clamps. Install nuts hand tight only.

3) Lower jack stands until coil spring separates from upper spring mounting cup. Spring should now turn by hand. Loosen shock absorber pillar shaft nut but do not remove bolt.

4) Remove upper shock mounting nut. Loosen lower shock lock nut. Unscrew shock from pillar and remove shock absorber, coil spring and tool.

5) Install inside type coil spring compressor (Sus. 594) and tighten to release spring compressor clamps. Loosen compressor and remove spring.

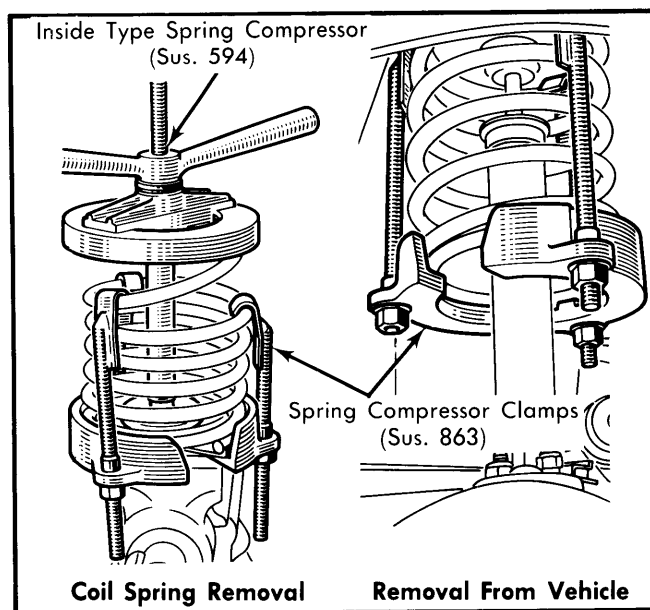


Fig. 2 Shock Absorber & Coil Spring Removal

Installation - 1) Compress spring with inside compressor (Sus. 594) and install compressor clamps. Remove inside compressor. Install shock absorber with coil spring and compressor.

2) Raise jack and screw shock tightly into pillar. Back off one turn. Install upper shock absorber bushings and cups in same position as before removal. Install upper nut hand tight.

3) Lower vehicle completely and bounce up and down a few times to settle suspension. Tighten upper nut, lower lock nut and pillar shaft nut to final specifications. Remove spring compressor.

WHEEL BEARINGS

Removal - 1) With vehicle on ground and parking brake engaged, remove hub cap and loosen axle shaft nut (do not remove nut). Raise and support vehicle. Remove wheels.

2) Remove brake pads and caliper assembly. Do not allow caliper to hang by brake line. Remove 2 hub-to-rotor retaining bolts with Torx type wrench. Remove brake rotor.

3) Remove axle shaft nut. Place 2 metal blocks between wheel hub and steering knuckle so that 2 wheel bolts can be used to

Front Suspension

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press off hub. Install wheel bolts in hub and tighten gradually and alternately, pressing hub out of knuckle.

4) Remove 6 bearing-to-knuckle retaining bolts and remove bearing. Remove inner race from axle shaft. Remove outer bearing from wheel hub with puller.

Installation — **1)** Install bearing inner race on axle shaft. Install bearing to steering knuckle. Press outer race into wheel hub. Pack bearing, races and grease seals with multi-purpose grease.

2) Position wheel hub on axle shaft and tap on with plastic hammer until axle shaft nut can be installed a few turns. Attach tool (Rou. 604) to keep hub from turning and tighten axle shaft nut to final specifications. Reverse removal procedure to complete installation.

UPPER CONTROL ARM & BALL JOINT

Removal — **1)** Raise and support vehicle. Remove wheels. Loosen shock absorber lower lock nut. Disconnect caster link from control arm.

2) Separate ball joint from steering knuckle. Remove control arm-to-frame pivot bolt. Raise control arm and unscrew shock absorber pillar. Remove control arm.

3) Remove ball joint-to-control arm retaining bolts. Remove ball joint.

Installation — Reverse removal procedure to install. Do not tighten control arm-to-crossmember bolt, caster link or shock absorber pillar shaft nut until vehicle is resting on ground with full weight on suspension.

LOWER CONTROL ARM & BALL JOINT

Removal — **1)** Raise and support vehicle. Remove wheels. Loosen ball joint-to-knuckle nut until it contacts axle shaft constant velocity joint. Press ball joint from knuckle by continuing to remove ball joint nut. Remove control arm pivot shaft bolts and pivot shaft. Remove arm from vehicle.

2) Punch out ball joint retaining rivets with cold chisel. Remove ball joint from control arm.

Installation — Install new ball joint with bolts supplied. Bolts must be installed with heads on top side of control arm. Reverse removal procedures to complete control arm installation. Do not torque pivot shaft bolt to final specification until vehicle is resting on ground.

NOTE — *Since the ball joint-to-control arm nut is used to press out ball joint, a new nut MUST be used upon reassembly.*

STABILIZER BAR

Removal — Raise and support vehicle. Remove engine under-cover. Remove stabilizer bar clamp-to-frame bushing bolts. Remove shock absorber pillar shaft nut and stabilizer bar link retainer. Remove stabilizer bar with links and bushings.

Installation — Reverse removal procedure to install. Tighten bolts to specification only after vehicle is resting on ground.

TIGHTENING SPECIFICATIONS

Application	Ft. Lbs. (N·m)
Axle Shaft Nut	185 (252)
Shock Absorber Lock Nut	30 (41)
Shock Absorber Pillar Shaft Nut	59 (80)
Pillar Shaft-to-Shock Absorber	44 (60)
Caster Link-to-Upper Control Arm	59 (80)
Upper Control Arm-to-Frame	65 (88)
Lower Control Arm-to-Frame	65 (88)
Upper Ball Joint-to-Steering Knuckle	48 (65)
Lower Ball Joint-to-Steering Knuckle	48 (65)
Wheel Bearing-to-Steering Knuckle	11 (15)
Stabilizer Bar Clamp-to-Frame	11 (15)