

STEERING COLUMN

1994 Mitsubishi 3000GT

1994 STEERING

Chrysler Corp./Mitsubishi - Steering Column - FWD

Dodge; Stealth

Mitsubishi; Diamante, 3000GT

DESCRIPTION & OPERATION

The steering system consists of solid steering shaft with a lower joint assembly. Diamante, Stealth and 3000GT models are equipped with a Supplemental Restraint System (SRS) that includes an air bag and clockspring located in the steering column.

WARNING: Diamante, Stealth and 3000GT are equipped with a Supplemental Restraint System (SRS) that includes an air bag located in steering column. Use caution when working around steering column. Ensure battery is disconnected before attempting any repair. DO NOT apply electrical power to any component on steering column without disconnecting air bag module (air bag could deploy).

NOTE: For information on air bag DIAGNOSIS & TESTING or DISPOSAL PROCEDURES, see appropriate AIR BAG article in the ACCESSORIES/SAFETY EQUIPMENT section below.

- * AIR BAG RESTRAINT SYSTEM (for Diamante)
- * WHEEL ALIGNMENT SPECIFICATIONS & PROCEDURES (for 3000GT & Stealth)

TROUBLE SHOOTING

Refer to TROUBLE SHOOTING - BASIC PROCEDURES article in the GENERAL TROUBLE SHOOTING section.

DISABLING & ACTIVATING AIR BAG SYSTEM

WARNING: Wait at least 60 seconds after disconnecting negative battery cable before servicing SRS. System reserve capacitor maintains SRS voltage for about 60 seconds after battery is disconnected. Servicing SRS before 60-second period may cause accidental air bag deployment and possible personal injury.

To disable system, turn ignition switch to OFF position. Disconnect and isolate negative battery cable end. Wait at least 60 seconds. To activate system, reconnect negative battery cable. For air bag servicing information not covered in this article, see appropriate AIR BAGS article in ACCESSORIES & EQUIPMENT section below.

- * AIR BAG RESTRAINT SYSTEM (for Diamante)
- * WHEEL ALIGNMENT SPECIFICATIONS & PROCEDURES (for 3000GT & Stealth)

AIR BAG SERVICE PRECAUTIONS

The following precautions should be observed when working with SRS:

- * Disable SRS before servicing any SRS or steering column component. Failure to do this may result in accidental air bag deployment and possible personal injury. See DISABLING & ACTIVATING AIR BAG SYSTEM.
- * Wait at least 60 SECONDS after disabling air bag system. SRS system retains enough voltage, for a short time after system is disabled, to deploy air bag.
- * After repairs, always turn ignition on from passenger-side of vehicle in case of accidental air bag deployment. Ensure SRS warning light is working properly and no system faults are indicated.
- * Always wear safety glasses when servicing or handling an air bag.
- * DO NOT expose air bag module and clockspring to temperatures greater than 200°F (93°C).
- * When placing a live air bag on a bench or other surface, always face air bag and trim cover up, away from surface. This will reduce motion of module if air bag accidentally deploys.
- * After air bag deploys, air bag surface may contain deposits of sodium hydroxide, which irritate skin. Always wear safety glasses, rubber gloves and long-sleeved shirt during clean-up. Wash hands using mild soap and water. Follow correct clean-up and disposal procedures.
- * Because of critical system operating requirements, DO NOT service any SRS components. Repairs are only made by replacing defective part(s).
- * DO NOT allow any electrical source near inflator on the back of air bag module.
- * When carrying live air bag module, trim cover should be pointed away from body to minimize injury in case of accidental air bag deployment.
- * If SRS is not fully functional for any reason, DO NOT drive vehicle until system is repaired and is fully functional. DO NOT remove bulbs, modules, sensors or other components, or in any way disable system from operating normally. If SRS is not functional, park vehicle until repairs are made.

REMOVAL & INSTALLATION

STEERING WHEEL & AIR BAG

Removal

1) Before proceeding, follow air bag service precautions. See AIR BAG SERVICE PRECAUTIONS. Disable SRS. See DISABLING & ACTIVATING AIR BAG SYSTEM.

2) Air bag module is mounted on face of steering wheel. See Fig. 1. Ensure wheels are straight ahead and steering wheel is locked. Remove air bag module-to-steering wheel nuts from back side of steering wheel.

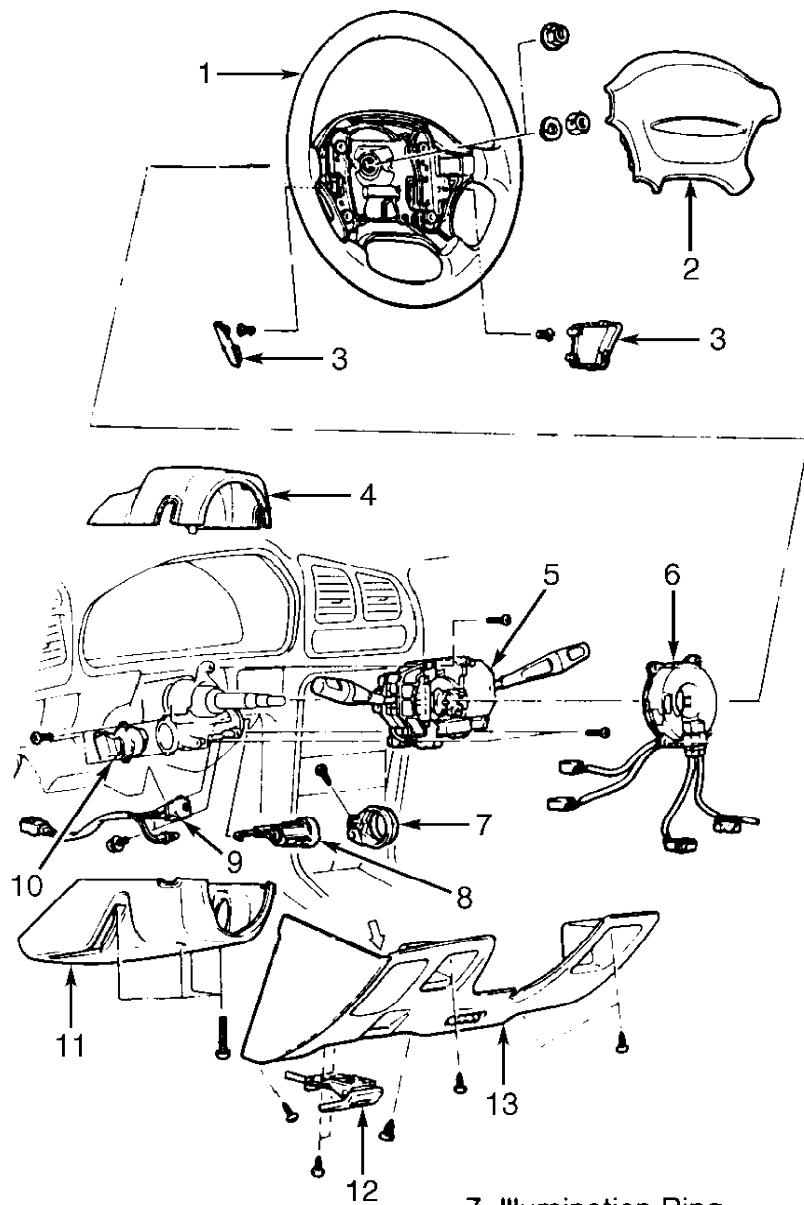
3) Lift air bag module. Disconnect electrical connector from air bag module by pressing air bag connector lock toward outside to spread it open. See Fig. 2. Pry upward gently to remove connector. DO NOT apply excessive force. Remove air bag module.

4) Place reference mark on steering wheel and steering column shaft for installation reference. Remove steering wheel nut and washer. Using steering wheel puller, remove steering wheel.

CAUTION: DO NOT hammer on steering wheel during removal, as it may damage steering column.

Installation

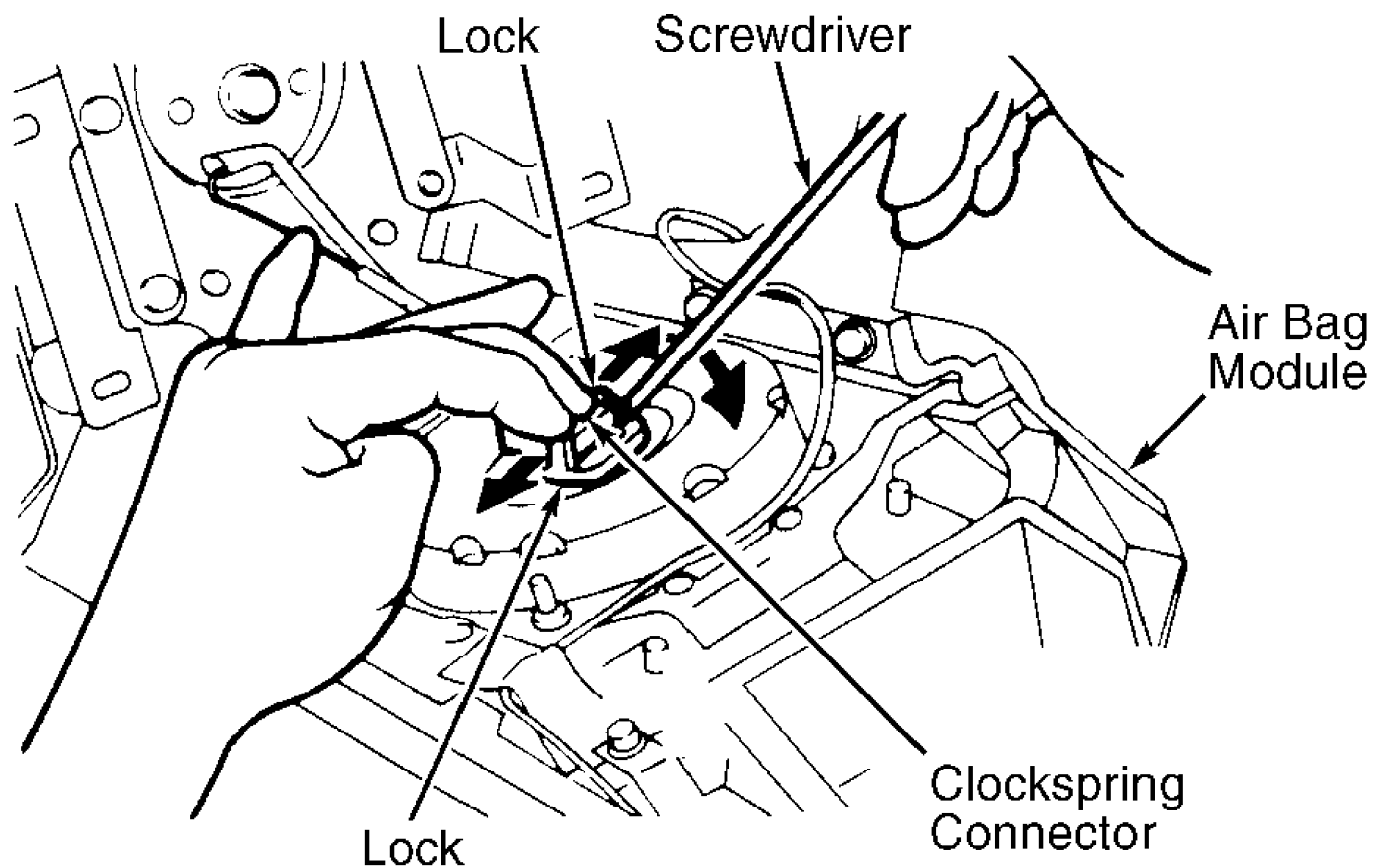
To install, reverse removal procedure. Ensure reference marks are aligned. Tighten steering wheel nut to specification. See TORQUE SPECIFICATIONS.



- | | |
|-----------------------|---------------------------|
| 1. Steering Wheel | 7. Illumination Ring |
| 2. Air Bag Module | 8. Steering Lock Assembly |
| 3. Cover | 9. Key Reminder Switch |
| 4. Upper Column Cover | 10. Ignition Switch |
| 5. Combination Switch | 11. Lower Column Cover |
| 6. SRS Clockspring | 12. Hood Release Handle |
| | 13. Instrument Undercover |

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Fig. 1: Exploded View Of SRS Steering Column Components (Typical)
Courtesy of Mitsubishi Motor Sales of America



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Fig. 2: Disconnecting Clockspring Connector
Courtesy of Mitsubishi Motor Sales of America

COMBINATION SWITCH

CAUTION: When installing steering wheel, if rotating part of clock-spring is not properly centered with steering column and front wheels, clockspring failure will result.

Removal & Installation

1) Remove steering wheel and air bag. See STEERING WHEEL & AIR BAG under REMOVAL & INSTALLATION. Remove lower instrument panel cover (if equipped). Remove steering column covers.

CAUTION: A double-lock connector locking mechanism is used on SDU. DO NOT use excessive force when disconnecting connector, or damage to connector may occur.

2) Gain access to SDU, located under center console. Using a screwdriver, push in SDU lock spring to unlock wiring connector lock lever. Disconnect wiring connector. Remove knee protector. Remove steering column covers. Remove screws attaching clockspring. Remove clockspring.

3) Disconnect combination switch electrical connectors. Remove screws and combination switch. See Fig. 1. To install, reverse removal procedure.

IGNITION SWITCH & STEERING LOCK CYLINDER

Removal

1) Remove steering wheel and combination switch. See STEERING WHEEL & AIR BAG and COMBINATION SWITCH. Disconnect electrical lead for ignition switch.

2) Use a hacksaw to cut bolts at steering lock bracket. Remove ignition switch, steering lock and bracket.

Installation

To install, reverse removal procedure. Use new steering lock bracket and bolts. Temporarily install ignition switch and steering lock cylinder onto steering column. Ensure ignition switch functions normally, then tighten steering lock cylinder bolts. Tighten lock bolts until heads twist off.

STEERING COLUMN

NOTE: Before removing, ensure wheels are in straight-ahead position and note steering wheel location for reassembly reference.

Removal

1) Remove steering wheel, horn pad and combination switch. See STEERING WHEEL & AIR BAG and COMBINATION SWITCH. Remove lower instrument panel covers and air ducts. Disconnect all electrical connectors to steering column.

2) Remove key interlock cable and slide lever (if equipped). Remove coupling bolt at steering gear. Remove cover bolts or retaining band. Remove steering column bracket bolts. Remove steering column assembly.

Installation

To install, reverse removal procedure. Ensure coupling is installed on steering gear so steering wheel will be centered.

OVERHAUL

STEERING COLUMN

Disassembly

Remove steering column. See STEERING COLUMN under REMOVAL & INSTALLATION. Remove joint assembly. Remove boot, cover and bearing. Remove snap ring, stopper and spacer. If removing steering lock, cut retaining screws with hacksaw. Remove steering lock and bracket. See Fig. 3.

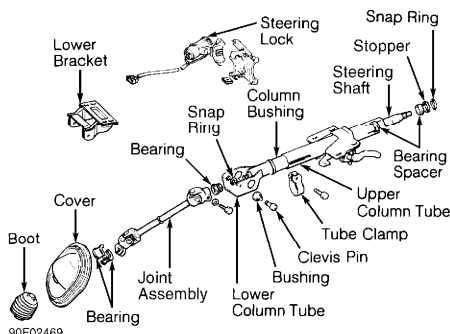


Fig. 3: Exploded View Of Steering Column Assembly (All Models)
Courtesy of Mitsubishi Motor Sales of America

CAUTION: If steering lock is removed, use new steering lock bracket and bolts when reassembling steering lock.

Reassembly

1) To reassemble, reverse disassembly procedure. Align steering lock with column boss. Ensure steering lock is operational. Tighten steering lock bracket bolt until bolt head breaks off.

2) Apply multipurpose grease to bearing spacer and lower column tube-to-shaft contact areas. Install cover on joint assembly. Fill inside of bearing with multi-purpose grease. Install bearing on joint assembly. Wrap tape around circumference of bearing approximately 1 1/2 times. Press bearings into cover.

TORQUE SPECIFICATIONS

TORQUE SPECIFICATIONS TABLE

| Application | Ft. Lbs. (N.m) |
|---------------------------|-----------------|
| Joint Clamp Bolt | 11-14 (14-19) |
| Steering Wheel Nut | 25-33 (34-45) |
| | INCH Lbs. (N.m) |
| Air Bag Module Nuts | 48 (5) |
| Column Bracket Bolt | 84-120 (10-14) |
| Dust Cover Bolt | 36-50 (4-6) |