

STEERING COLUMN

1998 Mitsubishi Montero

1997-98 STEERING
Mitsubishi - Steering Columns - RWD & 4WD

Mitsubishi: Montero, Montero Sport

DESCRIPTION & OPERATION

WARNING: Vehicle is equipped with a Supplemental Restraint System (SRS) that includes an air bag located in steering wheel. 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).

Steering column consists of a collapsible steering shaft with lower joint assembly. Vehicle is equipped with a Supplemental Restraint System (SRS) that includes an air bag and clockspring located in steering column wheel.

NOTE: For information not covered in this article, air bag DIAGNOSIS & TESTING or DISPOSAL PROCEDURES, see AIR BAG RESTRAINT SYSTEM article.

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.

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 to 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 more 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

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.

Removal

Disable air bag. See DISABLING & ACTIVATING AIR BAG SYSTEM. Ensure steering wheel is straight ahead. Remove air bag. 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 or installation, as it may damage steering column.

Installation

To install, reverse removal procedure. Ensure reference marks are aligned. Tighten fasteners to specification. See TORQUE SPECIFICATIONS. Activate air bag. See DISABLING & ACTIVATING AIR BAG SYSTEM.

COMBINATION SWITCH

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

Removal & Installation

Remove lower instrument cover and lower heater duct. Remove air bag and steering wheel. See STEERING WHEEL under REMOVAL & INSTALLATION. Remove upper and lower steering column covers. Disconnect clockspring electrical connector. Remove screws attaching colckspring and remove colckspring. Disconnect combination switch electrical connectors. Remove screws and combination switch. To install, reverse removal procedure.

IGNITION SWITCH

Removal & Installation

1) Remove upper and lower steering column covers. Disconnect harness connector from ignition switch. Using hacksaw, cut slots in bolt heads of lock assembly. Using screwdriver, remove bolts and lock assembly.

2) To install, reverse removal procedure. Tighten new bolts until heads of bolts sheer off.

STEERING COLUMN

WARNING: Failure to follow air bag service precautions may result in air bag deployment and personal injury. See AIR BAG SERVICE PRECAUTIONS. Follow all service precautions before attempting repairs. After component replacement, perform a system operational check to ensure proper system operation.

CAUTION: Applying excessive pressure or causing impact to steering shaft during service may cause column to collapse. Before removing steering column, ensure wheels are in straight-ahead position. Note steering wheel location for installation reference.

Removal

1) Remove steering wheel. Remove combination switch and ignition switch (if necessary). See STEERING WHEEL under REMOVAL & INSTALLATION.

2) Remove lower instrument panel cover and air duct. Disconnect all electrical connections. Disconnect brake pedal return spring (if equipped). Disconnect gearshift control cable.

3) Remove bolts for dust cover at firewall. Remove bolt from clamp at steering gear. Remove steering column bolts and remove steering column.

Installation

To install, reverse removal procedure. Apply sealant (3M ATD 8663) to dust cover bolts before installing. Tighten bolts to specification. See TORQUE SPECIFICATIONS.

OVERHAUL

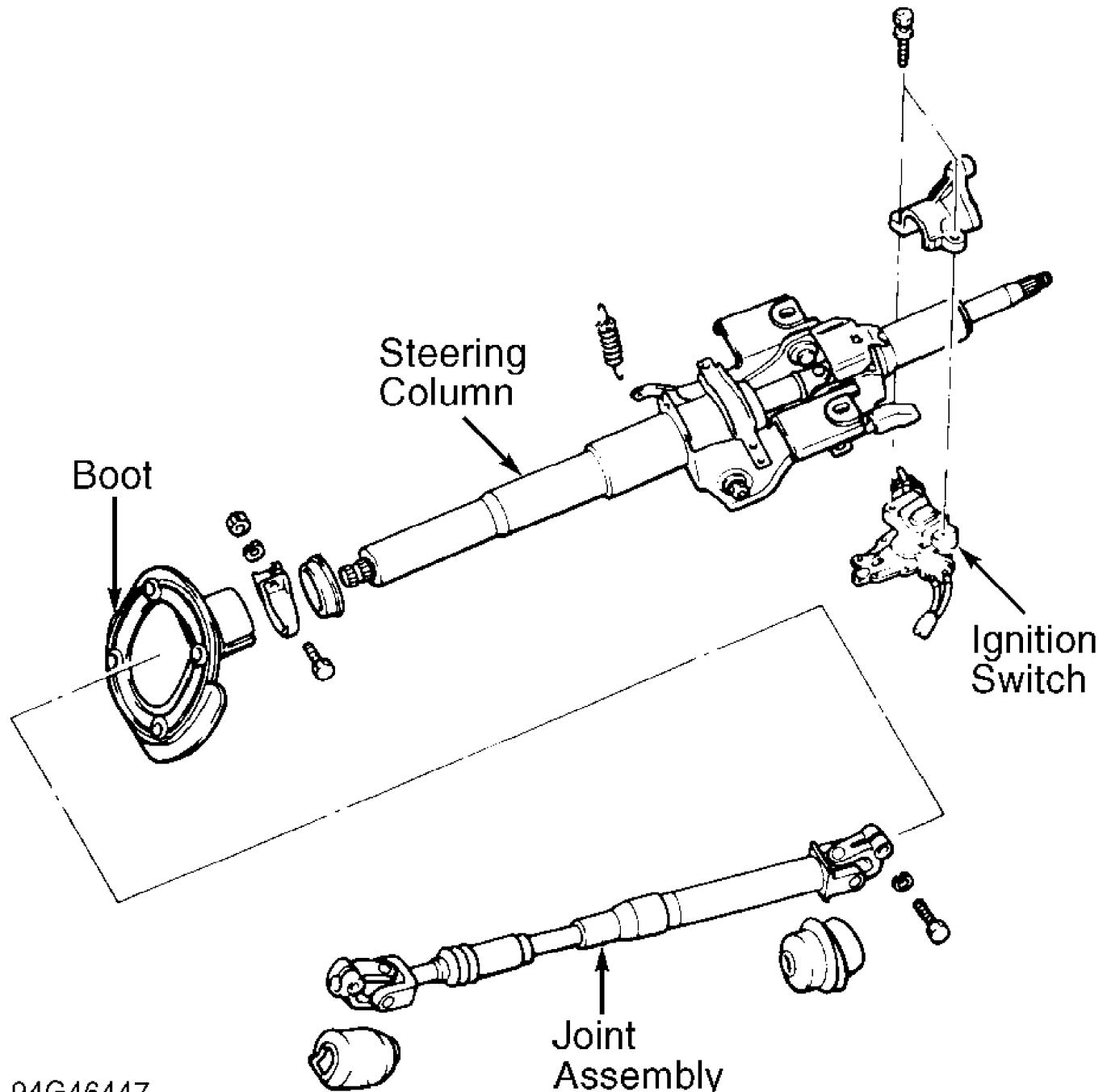
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NOTE: Vehicle steering column is not repairable. See below for joint assembly and steering lock removal and installation.

Disassembly

Remove steering column from vehicle. See STEERING COLUMN under REMOVAL & INSTALLATION. Remove clamp bolt from joint assembly. See Fig. 1. Remove assembly. Remove lower boot, upper boot and dust cover from joint assembly. To remove steering lock, use a hacksaw to cut bolts at steering lock bracket side. Remove steering lock and bracket.



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Fig. 1: Exploded View Of Steering Column (Montero Shown, Montero Sport Similar)

Courtesy of Mitsubishi Motor Sales of America.

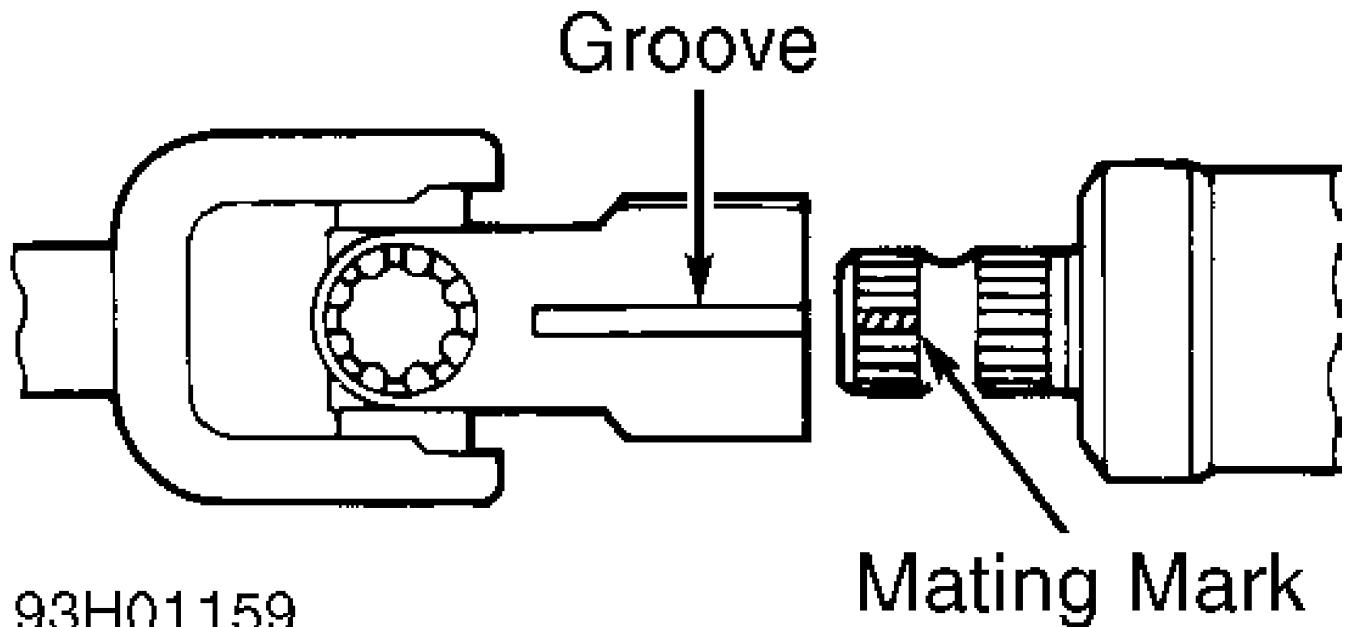
Reassembly

1) To reassemble, reverse disassembly procedure. Install upper boot on joint assembly. Install lower boot and dust cover on joint assembly. Leave boots on shafts without assembling them to universal joint.

2) Apply multipurpose grease to universal joints of joint assembly. When installing upper boot, lower boot and dust cover, ensure arrows on boots align with slit area on yoke. Align steering

lock with column boss. Ensure steering lock is operational. Tighten bolt until bolt head breaks off.

3) Assemble upper steering column with lower joint assembly. Ensure mating mark on lower steering shaft aligns with yoke groove in upper steering shaft. See Fig. 2. Apply thread sealant to bolts and nuts of lower steering column.



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Fig. 2: Aligning Mating Mark
Courtesy of Mitsubishi Motor Sales of America.

TORQUE SPECIFICATIONS

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Application	Ft. Lbs. (N.m)
Column Bracket Bolts	
Montero	16 (22)
Montero Sport	(1)
Lower Steering Shaft Clamp Bolt	
Montero	22-25 (30-34)
Montero Sport	14 (19)
Steering Wheel Nut	29 (40)
Upper Steering Shaft Clamp Bolt	13 (18)
Dust Cover Bolt	
Montero	3 (4)
Montero Sport	(1)
Air Bag Bolts	7 (9)
Steering Column Tube Clamp	4 (5)

(1) - Tighten bolts to 106 INCH lbs. (12 N.m).

(2) - Tighten bolts to 43 INCH lbs. (4.9 N.m).