

AUDI

4000
5000

REMOVAL & INSTALLATION

STEERING WHEEL & HORN

Removal — Disconnect battery ground cable. Using hand pressure, pull off steering wheel center pad. Remove steering wheel nut. Using wheel puller, remove steering wheel.

Installation — To install, reverse removal procedure.

NOTE — On 5000 models, make sure horn leads (carbon brushes) slide out of recess in steering wheel during removal of center pad.

TURN SIGNAL, WIPER/WASHER, DIMMER

Removal (4000) — Disconnect battery cable. Remove steering wheel. Unscrew 3 steering column switch housing screws and pull housing off column tube. Disconnect electrical wires from switch housing. Remove mounting screws and switches.

Installation — To install, reverse removal procedure.

TURN SIGNAL, WIPER/WASHER HAZARD, DIMMER

Removal (5000) — Remove steering wheel. Working through hole in bottom of column shrouding, release mounting and take off shroud. Disconnect electrical wire connectors. Remove switch mounting screws. Lift out switches.

Installation — To install, reverse removal procedure.

STEERING COLUMN LOCK

Removal (Power Steering) — Remove lower cover and switches. Remove lock washer and contact ring. With key in ignition, remove bolt and lock assembly.

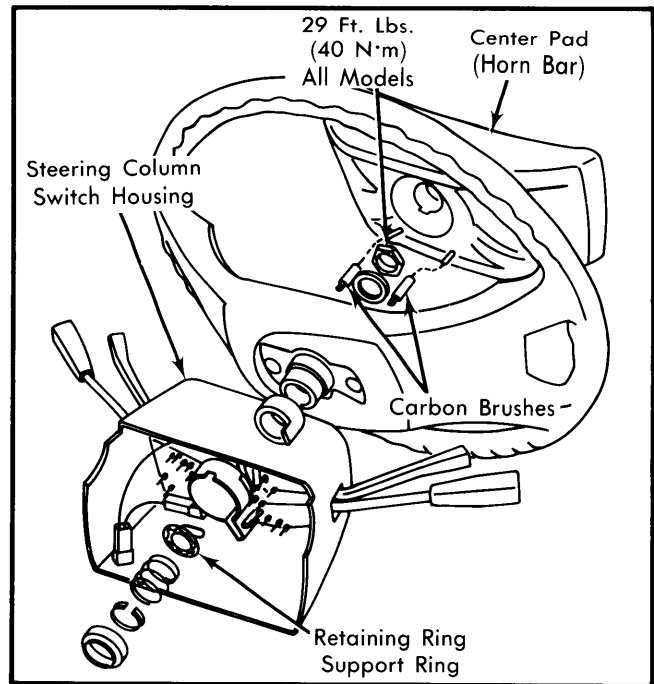


Fig. 1 Audi 5000 Steering Wheel Assembly

Installation — To install, reverse removal procedure.

Removal (All Others) — Remove lower cover. Disconnect electrical wires from back of ignition switch. With key in ignition, drill out shear bolts. Remove lock from column.

Installation — Make sure lugs on steering lock engage column tube. Tighten mounting bolts until heads shear off. To complete installation, reverse removal procedure.

BMW

320i
528i
633CSi
733i

REMOVAL & INSTALLATION

STEERING WHEEL

Removal — Place wheels in straight-ahead position. Pry steering wheel cover off to expose wheel mounting nut. Index mark wheel and main shaft. Remove mounting nut and pull steering wheel off main shaft.

Installation — To install, reverse removal procedure and refer to reference marks made during removal.

HORN CONTROLS

Removal (Horn Button) — Remove screws on back side of steering wheel spoke to free horn button.

Installation — To install, reverse removal procedure.

Removal (Contact Spring) — Pry off cover concealing contact spring and remove spring.

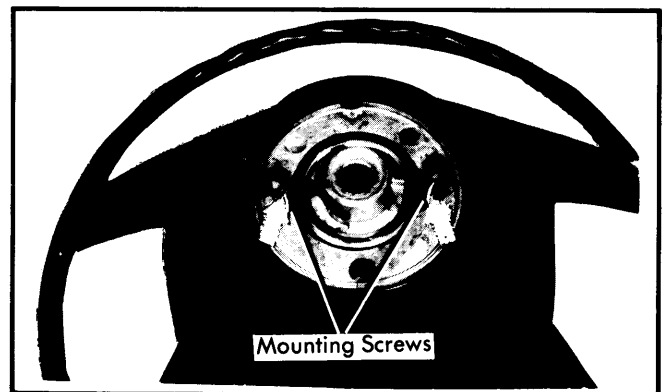


Fig. 1 Screws to Take Out for Slip Ring Removal

Installation — Replace spring if broken or if spring is unable to provide adequate contact. To complete installation, reverse removal procedure, making sure contact pins face inward.

11-4 Steering Wheel & Column Switches

BMW (Cont.)

Removal (Slip Ring) – Disconnect electrical lead at each spoke. Remove 2 slip ring mounting screws and slide slip ring off steering wheel.

Installation – To install, reverse removal procedure.

TURN SIGNAL & DIMMER SWITCH

Removal – Disconnect battery ground cable. Remove 3 mounting screws and pull down lower shroud. Remove steering wheel as previously outlined. Separate wiring from mounting straps on steering column. On 320i models, disconnect electrical plug under instrument panel. On other models, disconnect central fuse/relay plug. Remove 4 switch mounting screws and slide off switch with harness.

Installation – To install, reverse removal procedure and note: Make sure steering wheel is lined up with reference marks. Ensure turn signal assembly is centered. Finger on cancelling cam must face toward center. Distance between switch and finger should be about .118" (3 mm).

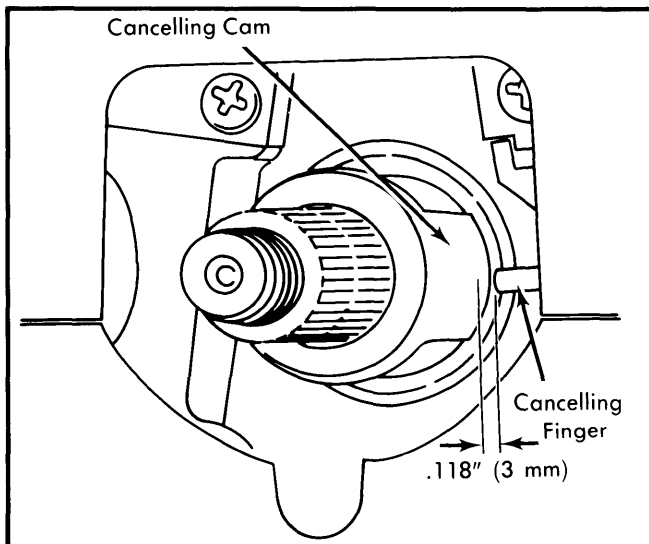


Fig. 2 Cancelling Cam and Finger with Clearance Shown

IGNITION SWITCH

Removal – 1) Disconnect battery ground cable. Remove mounting screws and pull off lower plastic shroud. Remove hollow set screw and slide out ignition switch. Disconnect horn wires on 320i models only.

2) Disconnect steering column wire holders. Disconnect central fuse/relay plate plug and plug connector. On 320i models only, disconnect central plug. On all models, remove ignition switch.

Installation – To install, reverse removal procedure and note following: Make sure to turn ignition key all the way back before inserting. Set ignition switch at "O" position before installing. On 320i models only, marks on ignition switch must oppose each other.

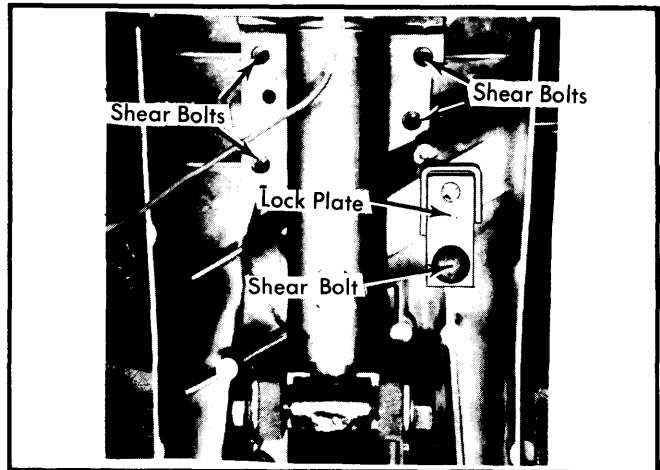


Fig. 3 Location of Shear Bolts. View Looking Up From Under Steering Column. All Models Except 320i

STEERING LOCK

Removal (Exc. 320i) – 1) Disconnect battery ground. Remove steering wheel. Remove 3 screws holding lower steering column shroud. Disconnect and remove turn signal and wiper/washer switch plate.

2) Remove shear bolts from switch plate with chisel. Remove set screw on outside of steering column tube. Pull out ignition switch. Remove steering lock plate shear bolt and pull out steering lock.

Installation – To install, reverse removal procedure.

Removal (320i) – Disconnect electrical wires from under instrument panel. Remove shroud. Remove shear bolt from lock plate and pull out steering lock.

Installation – To install, reverse removal procedure.

CHRYSLER CORP. IMPORTS

Arrow Pickup
Challenger
Champ

Colt
Ram-50 Pickup
Sapporo

REMOVAL & INSTALLATION

STEERING WHEEL & COMBINATION SWITCH

Removal – 1) Disconnect battery ground cable. Remove horn pad. Mark main shaft and steering wheel for reassembly reference. Remove steering wheel nut. Remove steering wheel with suitable puller (DT1001A).

NOTE – If equipped with tilt steering, handle must be in lowest position before removing steering wheel.

2) Remove column cover. Disconnect electrical connections at base of steering column. Remove retaining screws and pull combination switch out.

Installation – 1) Install combination switch and retaining screws. Connect electrical connections at base of column and route harness along center of tube.