

Steering Wheel & Column Switches 10-13

MG (Cont.)

STEERING COLUMN LOCK & IGNITION HUB

NOTE — Steering column must be removed before lock or switch can be removed.

Removal — Remove necessary shrouding to gain access to lock. Make sure steering lock is disengaged. Disconnect ignition switch multi-pin connector. Drill out and remove shear bolts from lock bracket. Remove steering screw holding switch in lock and remove switch.

Installation — Center locking mechanism on column. Hand tighten new shear bolts. Reconnect multi-pin connector. Check switch and lock operation. Tighten shear bolts until heads break.

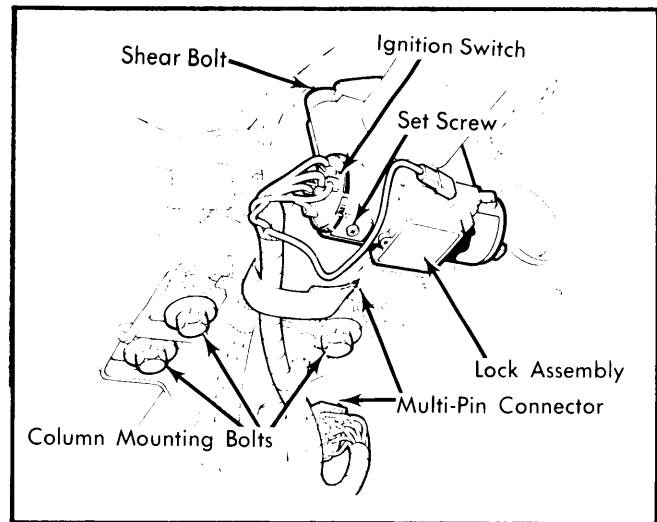


Fig. 2 Bottom View of Steering Column Showing Ignition Switch and Column Lock — MGB Shown

OPEL

All Models

REMOVAL & INSTALLATION

HORN PAD & STEERING WHEEL

Removal — 1) Disconnect battery cable. Remove two screws from backside of steering wheel which hold the horn pad in place.

2) Remove horn pad from its position and disconnect the horn contact wire from the hub connection.

3) Remove steering wheel retaining nut and washer. Position suitable puller and remove the steering wheel.

Installation — To install, reverse removal procedure after making sure that front wheels are in straight-ahead position and that steering wheel spokes are horizontal when steering wheel is installed. Make sure cancelling cam of turn signal switch engages properly.

COMBINATION SWITCH & IGNITION LOCK

Removal — 1) Remove screws holding upper and lower steering column covers in place. Remove the hazard warning button.

2) Detach the combination turn signal/lighting switch by removing the four retaining screws. Remove two retaining screws to take off the washer/wiper switch.

3) Remove the lock cylinder by removing the snap ring and three attaching bolts on the column flange. Lift off the cylinder housing, lower washer and shaft. Use a screwdriver to pry out the lower column rubber bushing.

Installation — To install, reverse removal procedure, noting that lock cylinder engages shaft properly and that cancelling cam of turn signal switch engages steering wheel properly.

PORSCHE

911 Series 924

REMOVAL & INSTALLATION

HORN PAD & STEERING WHEEL

NOTE — On models equipped with a collapsible "can" behind the steering wheel, care must be taken in all service

procedures. Do not apply excessive or striking forces to the steering wheel or steering column.

Removal; 911 Series — 1) Align front wheels in straight-ahead position. Disconnect battery ground cable.

2) Grasp horn pad and rotate counterclockwise while pushing in. When horn pad is free, lift from steering wheel and disconnect horn contact finger.

3) Loosen steering wheel retaining nut. Mark position of steering wheel to steering shaft. Attach a suitable puller and remove the steering wheel.

10-14 Steering Wheel & Column Switches

PORSCHE (Cont.)

Installation — To install steering wheel, reverse removal procedure and note the following: Lightly lubricate horn contact finger with electrical contact grease before reinstalling.

Removal & Installation; 924 — Disconnect battery. Carefully pry off horn pad. Unscrew wheel retaining nut. Pull wheel upward and off the shaft. To refit wheel, reverse removal procedure.

STEERING WHEEL COMBINATION SWITCH

Removal; 924 — 1) Disconnect battery ground. Using hand pressure, lift up steering pad. Remove steering wheel mounting nut. Pull steering wheel off shaft.

2) Remove shroud from around switch housing. Pull up on switch plate and disconnect electrical wires. Remove entire switch assembly then, separate wiper/washer switch from turn signal switch by taking out screw that mounts them together.

Installation — Refit switches together with screw. Slide switch assemblies back into place refitting spacer at same time. Make sure spacer is driven in until there is a distance of 1.6" (41 mm) from face (top edge) of spacer to top edge of shaft. This distance will ensure there is .08-.15" (2-4 mm) between steering wheel and steering column switches. Reverse removal procedure to install remaining components.

STEERING COLUMN LOCK, KEY CYLINDER & IGNITION SWITCH

Removal — 1) Remove combination switch as previously outlined.

2) Drill out shear bolts.

3) Disconnect ignition switch wiring.

4) Disengage snap ring and slide out switch housing with bearing.

5) Use a pointed tool (scribe) and push cylinder lock retainer in to release cylinder. With key inserted and retainer depressed, pull cylinder from housing.

6) Take out ignition switch set screw and pull ignition switch back out of housing.

Installation — To install, reverse removal procedure.

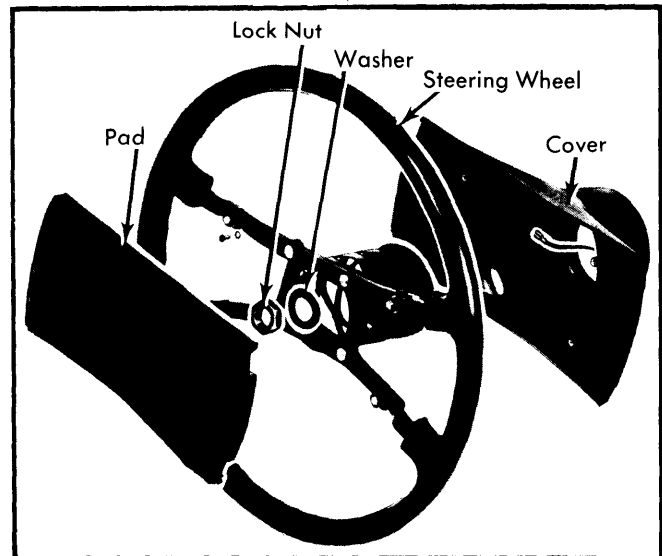


Fig. 1 Porsche 911 Steering Wheel and Related Components

RENAULT

R-5
R-15
R-17

REMOVAL & INSTALLATION

HORN PAD & STEERING WHEEL

Removal, All Models — Disconnect battery. Remove horn pad. Unscrew steering wheel retaining nut. Use a suitable puller (Dir. 21.A or equivalent) to free steering wheel from shaft.

Installation, All Models — When installing steering wheel, set front wheels in straight-ahead position and place steering

wheel on shaft with spokes horizontal. Torque steering wheel nut. Replace horn pad.

TURN SIGNAL & LIGHTING SWITCH

Removal, Exc. R-5 — 1) After removing steering wheel, remove steering column cover. Disconnect return spring on flasher switch.

2) Note location of all electrical connections to switch, then detach the wiring. Disconnect return spring for turn signal switch.

3) Remove lighting switch retaining screws and remove switch from steering column.

Steering Wheel & Column Switches 10-15

RENAULT (Cont.)

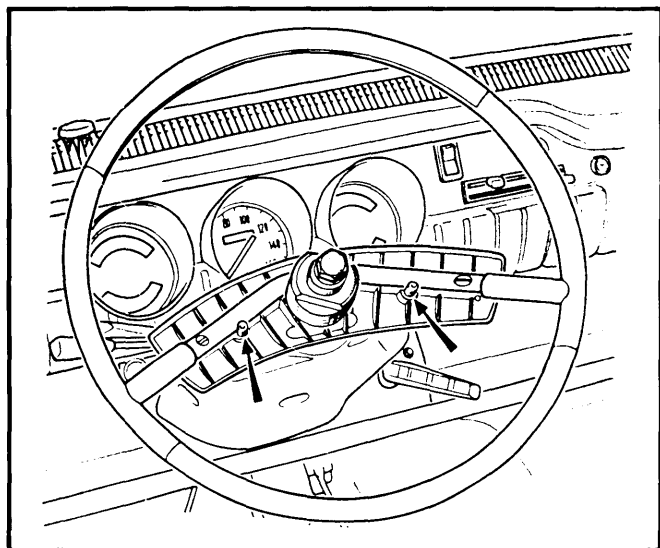


Fig. 1 Top View of Steering Wheel with Detail of Horn Pad Mounting Pins

Installation, Exc. R-5 — To install, reverse removal procedure, noting original location of all wiring connections.

NOTE — For the following procedure, steering wheel does not have to be removed.

Removal, R-5 — 1) Disconnect battery. Remove instrument panel housing screws. Remove screws from bottom shell of switch cover.

2) Remove screws securing turn signal/lighting switch to column. Disconnect electrical couplings and remove switch.

Installation, R-5 — To install, reverse removal procedure. Make sure electrical connections are made in their original locations.

IGNITION SWITCH/COLUMN LOCK

Removal, All Models — 1) Disconnect the battery. Remove shell cover from around switch assemblies. Disconnect electrical couplings. Turn ignition key to "G" (Garage) and remove it.

2) Unscrew the set screw and press retaining catch in with a small punch. Push switch body from backside to release it.

Installation, All Models — To install, reverse removal procedure.

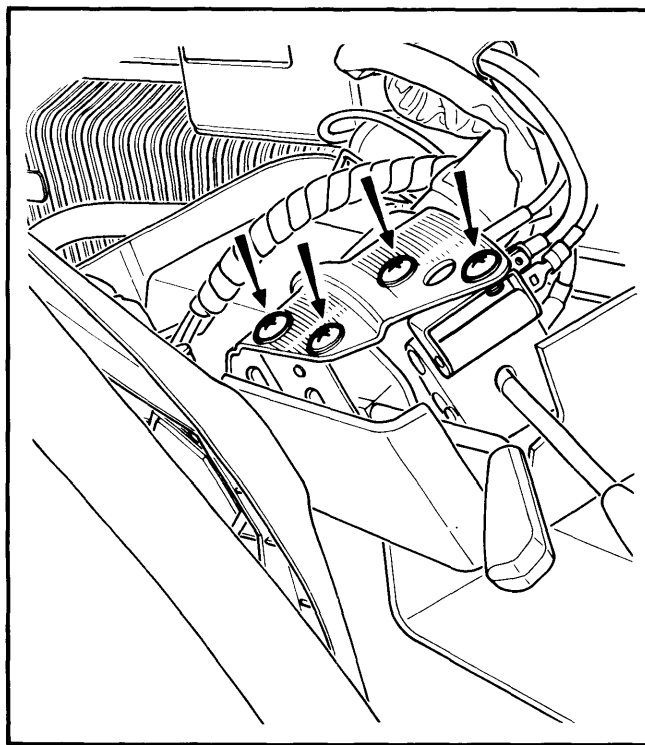


Fig. 2 Location of Switch Assembly Retaining Screws — R-5 Shown

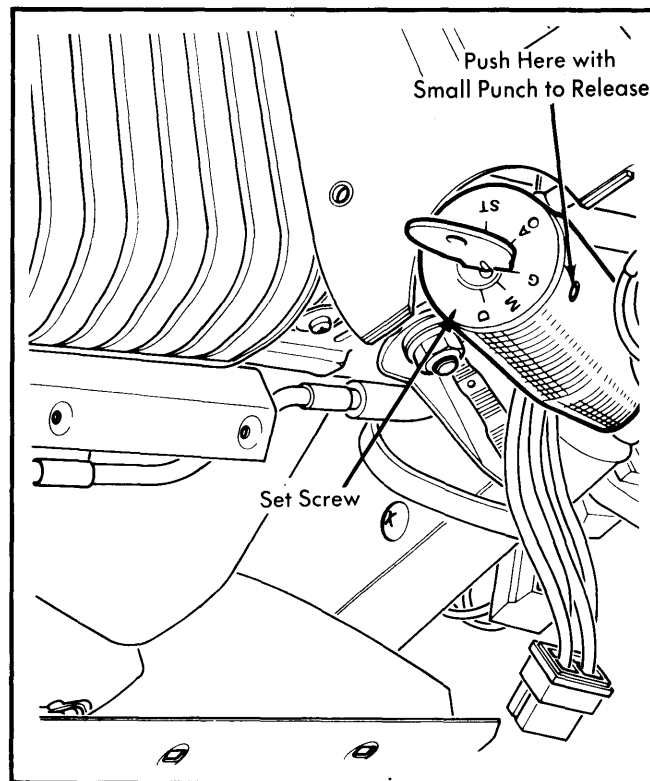


Fig. 3 Ignition Switch Removal — R-5 Shown