

Steering Wheel & Column Switches 10-11

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 & Turbo Carrera
912/E
914

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 – 1) Align front wheels in a straight-ahead position. Disconnect battery ground strap.

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.

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

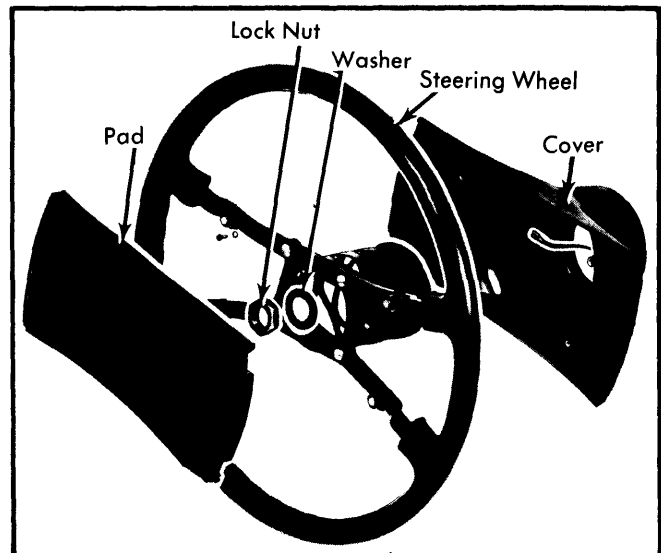


Fig. 1 Porsche 911 Steering Wheel and Related Components

RENAULT

R-5
R-12
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.

10-12 Steering Wheel & Column Switches

RENAULT (Cont.)

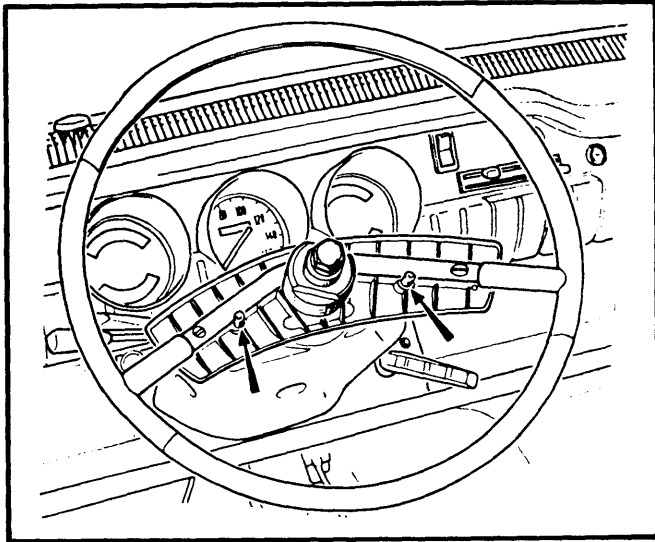


Fig. 1 Location of Pad Fitting Pins

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.

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.

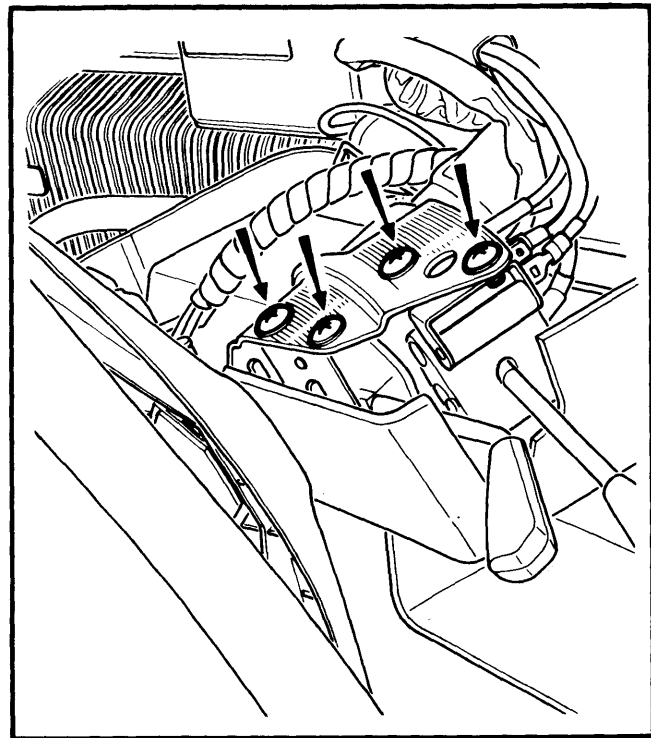


Fig. 2 Location of Switch Assembly Retaining Screws (R-5)

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

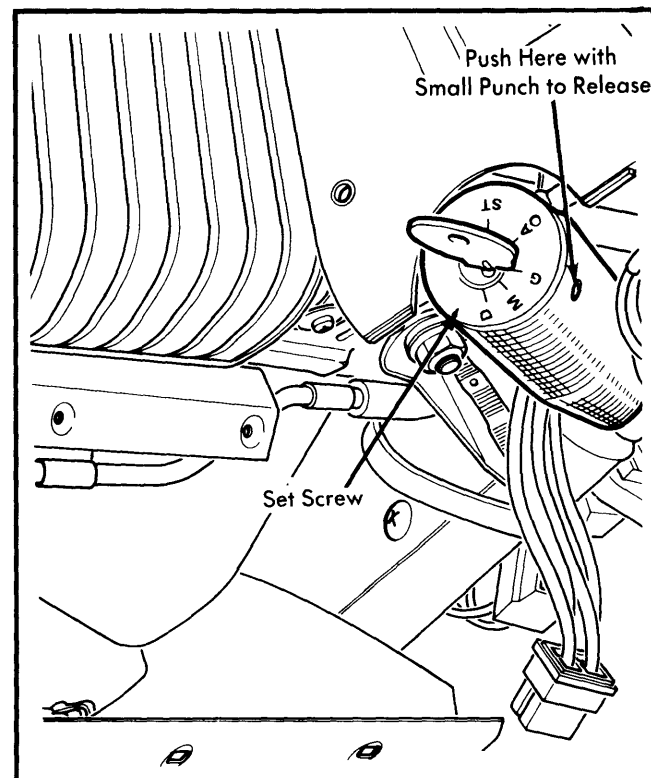


Fig. 3 Removing Ignition Switch