

Steering Wheel & Column Switches 10-9

MG

**MGB
Midget**

STEERING WHEEL AND HORN BUTTON

Removal and Installation — Disconnect the battery ground. Pry off steering wheel pad and remove horn contact plunger from its seat. Remove the six bolts holding steering wheel and lock ring to hub. Lift wheel from hub and set aside. To install steering wheel, reverse removal procedure.

STEERING WHEEL HUB

Removal and Installation — Loosen hub nut slightly and index mark hub and column. Fit a suitable steering hub puller and withdraw hub until loose on shaft. Remove puller tool,

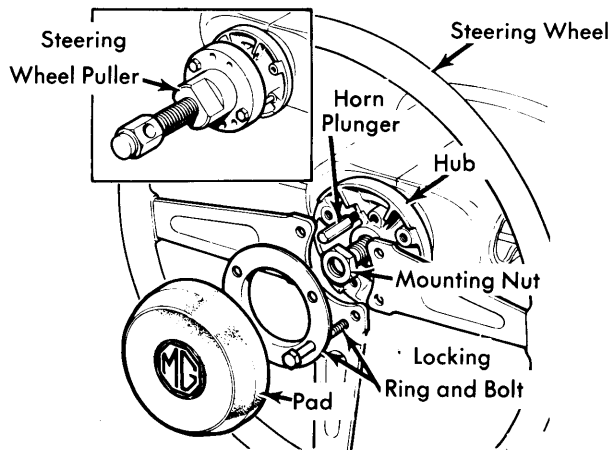


Fig. 1 MG Steering Wheel and Related Components

steering wheel nut and lift off steering hub. When installing, reverse removal procedure and note index marks made during removal.

STEERING COLUMN LOCK AND IGNITION SWITCH

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

Removal and Installation — Take out the four screws mounting left and right side cowls. Turn ignition key to the unlocked position (ensure steering lock is disengaged). Remove shear bolts and take out column lock and ignition switch. To install, reverse removal procedure and note the following: After tightening shear bolts to 70 ft. lbs. (9.7 mkg), check steering lock operation; then torque bolts to shear point.

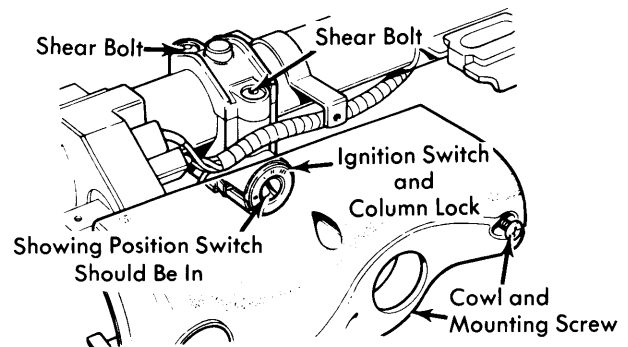


Fig. 2 Pointing Out Column Lock and Ignition Switch

OPEL

**Manta
1900**

HORN BUTTON & STEERING WHEEL

Removal — Disconnect battery. Pry off horn cap and remove attaching wires. Bend lock plate tabs down, unscrew steering wheel retaining nut and remove lock plate. Attach a suitable steering wheel puller (J-21686) and detach steering wheel from shaft.

Installation — Before replacing steering wheel, lubricate return pin and sliding area of turn signal return cams and horn contact ring. Ensure steering shaft flange clamp is on top and that notch on shaft face is horizontal. Install a new lock plate, position steering wheel on shaft, tighten retaining nut to 11 ft. lbs. (1.52 mkg). Bend up lock plate tabs, reconnect horn cap wires, and replace cap.

TURN SIGNAL SWITCH & IGNITION LOCK

Removal — 1) Remove steering wheel as outlined. Pull off signal switch and ignition lock wiring harness. Pull directional lever out of seat (lever is held in place by a lock ball). Detach lower half of steering column cover. Remove hex nut from steering mast jacket attachment at front of instrument panel.

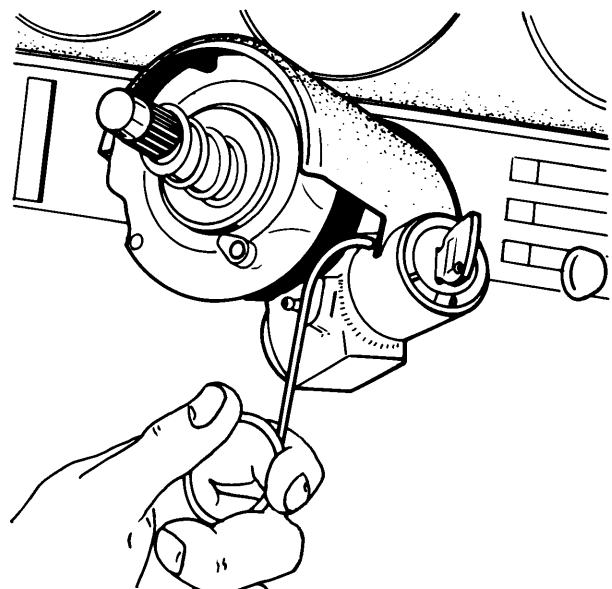


Fig. 1 Using a Fabricated Tool to Remove Ignition Lock Switch

10-10 Steering Wheel & Column Switches

OPEL (Cont.)

2) Unscrew slide-off base from underside of instrument panel and remove upper part of signal switch housing cover. Place thick piece of wood on front seat and allow steering column to rest on it.

3) Centerpunch shear-head bolts for lock bracket; drill and remove bolts. Remove steering and ignition lock and signal switch assemblies from mast jacket, and loosely attach slide-off base below instrument panel.

4) To remove lock cylinder from its housing, place key in position "1" and push in cylinder lock spring with a stiff wire. Cylinder can now be withdrawn.

Installation – 1) When installing a new turn signal switch, also use a new bearing and snap ring in the switch assembly. Install switch and lock assemblies in position using new shearhead bolts.

2) Disconnect slide-off base, replace upper half of turn signal switch housing cover and loosely reattach slide-off base. Attach steering mast jacket at front of dash panel.

3) Torque slide-off base attaching nuts. Install lower half of steering column cover and reconnect wire harness. Install steering wheel.

PORSCHE

911
914

STEERING WHEEL & HORN BUTTON

NOTE – 911 models use a steering wheel with a collapsible portion built into the wheel hub. Care must be exercised when handling this steering wheel. The 914 models use the non-collapsible steering wheel.

Removal – Align front wheels in a straight-ahead position. Disconnect battery ground strap. Grasp horn bar/protective cover and push down rotating counterclockwise. Pull out horn contact finger. Loosen steering wheel retaining nut. Mark position of wheel to mainshaft and using a puller, remove wheel from splines. Take off support ring and compression ring as equipped.

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

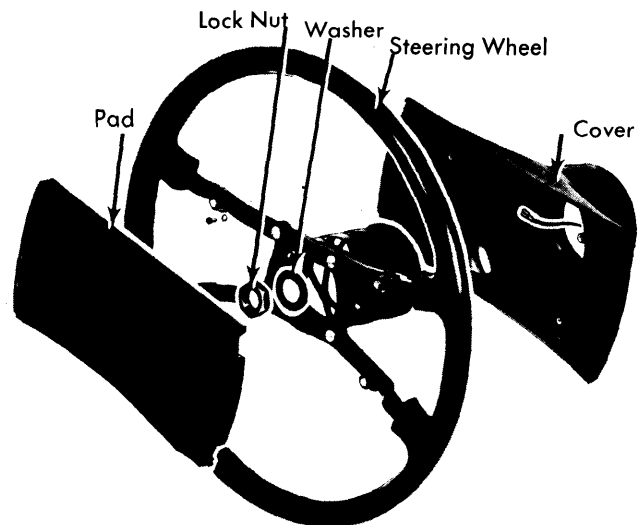


Fig. 1 Porsche 911 Steering Wheel and Related Components

RENAULT

R-12
R-15
R-17

HORN CONTROL & STEERING WHEEL

Remove horn button (center pad), unscrew steering wheel retaining nut, then pull steering wheel from shaft, using suitable puller (Dir. 21.A). When installing wheel, set front wheels in straight-ahead position and place steering wheel on shaft with spokes horizontal. Torque steering wheel nut. Replace center pad.

TURN SIGNAL & LIGHTING SWITCH

After removing steering wheel, unscrew and separate column cover. Disconnect return spring on flasher switch. Mark position of electrical connections to switch, then detach wiring. Disconnect return spring on turn signal switch. Remove lighting switch securing bolts and remove switch from column.

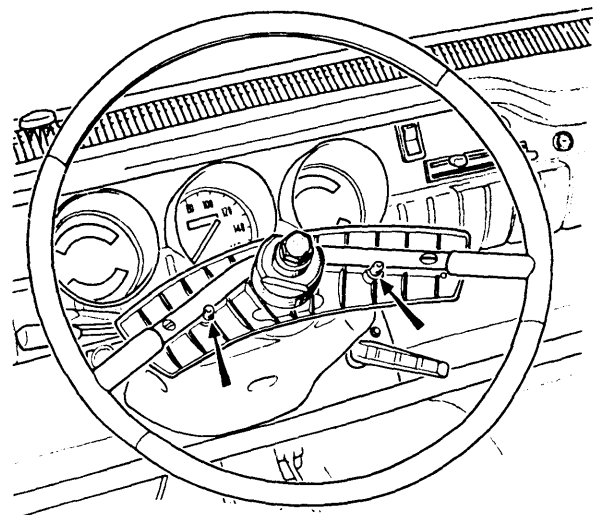


Fig. 1 Location of Pad Fitting Pins