

10-18 Steering Wheel & Column Switches

TOYOTA (Cont.)

5) Put ignition key in "ACC" position. Use a small pointed tool to press down stop pin on side of cylinder to free the mechanism. Pull cylinder from housing. (Fig. 2)

6) After removing switch cylinder, column lock may be removed as follows:

- **Except Corona & Cressida** — Drill out shear bolts holding lock mechanism around steering column.
- **Corona & Cressida** — Lock mechanism is part of upper column bearing assembly. Remove 3 bolts mounting upper bearing carrier (housing lock) and slide off assembly.

Installation — 1) To install column lock and switch assembly, reverse removal procedure. Tighten lock housing shear-head bolts (new) until the heads shear off.

2) Fit key cylinder so ignition switch and cylinder will be aligned in "ACC" position. Insert into housing and check for proper locking operation and key movement.

3) Replace all other components (combination switch assembly, bearing retainer, steering wheel) as removed. Check for proper turn signal switch cancelling operation and smoothness of steering wheel movement.

TRIUMPH

TR7
Spitfire

REMOVAL & INSTALLATION

STEERING WHEEL

Place wheels in straight-ahead position. Pry off steering wheel pad. Remove mounting nut. Index mark wheel and column shaft. Use puller and remove steering wheel.

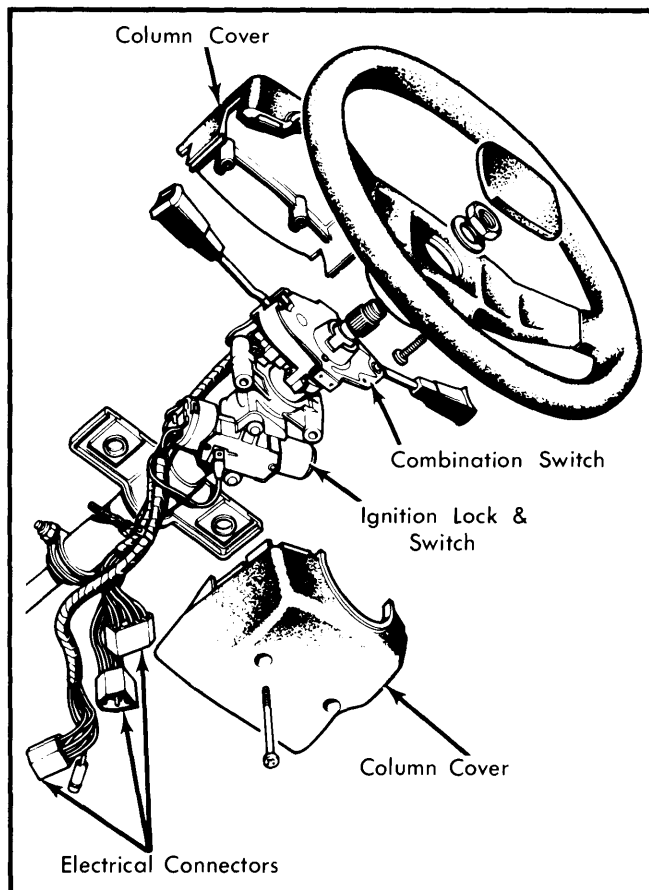


Fig. 1 TR7 Steering Wheel and Column Switches

TURN SIGNAL & WIPER SWITCHES

Removal — 1) Disconnect battery. Unscrew retaining screws for column cover halves and remove covers. Remove steering wheel as previously described.

2) Note the location of all wiring harnesses. Remove the wire harness clip securing the switch harnesses. Disconnect the two harness plugs. Loosen the switch clamp screw and remove switch assembly.

3) Individual switches may be replaced at this time, but note that the two center cross-head screws are not to be removed. Switches are separated by drilling out the two retaining rivets and removing the one cross-head screw (on right side of switch face).

Installation — To install, reverse removal procedure and note: Switch assembly must engage outer column assembly. Turn signal cancel collar must align in steering wheel.

IGNITION SWITCH AND STEERING COLUMN LOCK

Removal — On Spitfire only, remove nuts and washers securing steering lock shroud and withdraw shroud and column support. On all models, center punch both shear bolts mounting steering lock to column. Using a small chisel or suitable tool arrangement, remove bolts. Disconnect electrical plug and remove steering lock.

NOTE — It is possible to remove ignition switch without taking out column lock. There are 2 set screws mounting switch assembly in column lock housing.

Installation — To install ignition switch and steering column lock, reverse removal procedure and note the following: Ensure dowel pin aligns in column drilling. Fit new shear head bolts and tighten evenly.

VOLKSWAGEN

Type 1
Type 2
Dasher
Rabbit
Scirocco

REMOVAL & INSTALLATION

HORN PAD & STEERING WHEEL

All Models — Disconnect battery. Carefully pry off horn pad. Unscrew steering wheel retaining nut. Pull wheel upward and off the shaft.

CAUTION — Steering wheel or column has a collapsible section. Care must be taken when working with these components.

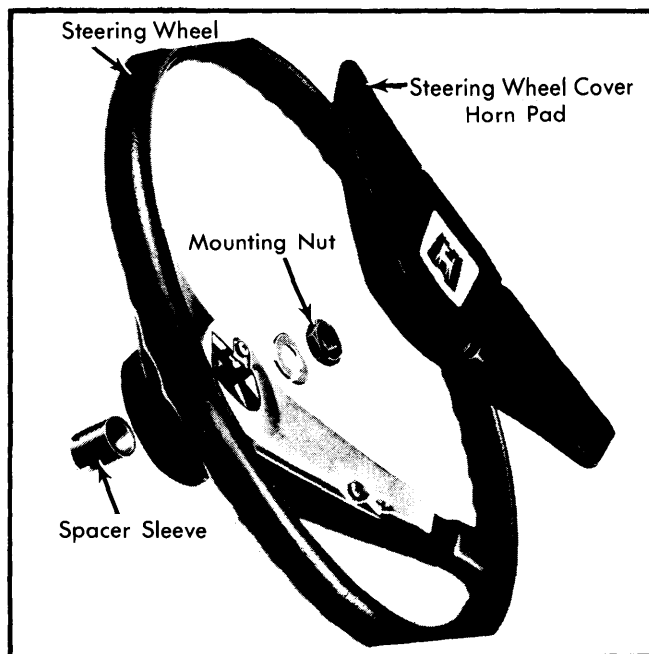


Fig. 1 Typical Volkswagen Steering Wheel Rabbit and Scirocco Shown

TURN SIGNAL & WIPER SWITCH

Removal; Type 1 — Disconnect battery ground. Place ignition key in on position. Remove steering as previously outlined. Remove circlip from groove below steering wheel splines. Disconnect electrical wiring from combination switch. Remove mounting bolt and pull switch assembly up and out.

NOTE — Wiper switch must be removed together then, separated. Make sure to bleed air pressure from washer reservoir before disconnecting hose of valve on switch.

Installation — To install, reverse removal procedure and note: Make sure turn signal wires are not crushed by windshield wiper switch. Adjust distance between steering wheel hub and steering column switch to $\frac{1}{16}$ – $\frac{1}{8}$ " (2-3 mm) by loosening both switch mounting screws.

Removal (Type 2) — 1) Disconnect battery ground. Using hand pressure, lift up steering pad. Remove steering wheel mounting nut. Pull steering wheel off shaft.

2) Remove spring and spacer from top end of steering column. Remove 4 screws holding turn signal switch and wiper switch on steering lock housing. Collect 4 spacers located between switches.

3) Disconnect water hoses from valve on wiper switch. Remove turn signal switch, wiper switch and switch housing upper trim from steering column.

Installation — To install, reverse removal procedure.

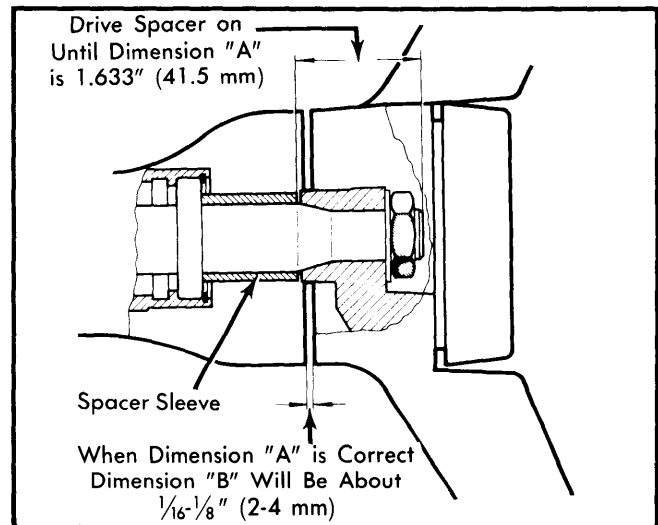


Fig. 2 Dimensions for Installing Spacer Sleeve

Removal (Rabbit & Scirocco) — Disconnect battery ground. Remove steering wheel. Remove 2 screws and 1 bolt from recess in switch housing bottom. Take off housing bottom half. Force switch assembly toward instrument panel as far as possible. Pry off spacer sleeve. Pull up on switch and disconnect wires. Remove switch, then separate turn signals and wipers.

Installation — Refit switches together with screw and spacer sleeve. Slide switch assembly onto column and hook up wires. Refer to Fig. 2 for how far to drive on spacer sleeve.

Removal (Dasher) — Disconnect battery ground. Remove steering wheel. Remove 2 screws mounting lower switch housing. Disconnect electrical wires. Remove 3 screws attaching turn signal and wiper switches to ignition switch mounting. Remove switches.

Installation — To install, reverse removal procedures and note: Drive spacer sleeve on until upper end of spacer is flush with bevel on steering column. Make sure steering wheel is installed with lug for turn signal cancel mechanism facing left side of vehicle.

STEERING/IGNITION LOCK

Removal (Type 1) — 1) Remove steering wheel. Remove clip and plastic bushing from steering column. Remove turn signal switch and wiper switch. Remove steering/ignition lock retainer plate.