

Volkswagen Cabriolet DIY Guide

Replacing & Testing Ignition Switch

Tools needed:

- 10mm or adjustable wrench
- 24mm socket
- Socket wrench
- Torque wrench
- T30 Torx wrench (airbag cars only)
- Flathead screwdriver
- Phillips screwdriver
- 6mm Allen wrench
- Channel lock pliers
- Gear or steering wheel puller (cars with adapter sleeve only)*
- Mallet or dead-blow hammer
- Crescent wrench (see tip 1)
- Interior trim removal tool (optional)
- Sharpie-type marker

Parts needed:

- New ignition switch
- Car's ignition key

Switch testing is on page 5.

*Refer to Step 13 for additional info.

Steering Column End Types – Know What You Have Before You Begin



1979-1987
Non-airbag

Single spline with plastic barrel spacer
(#171419549)



1988-1993
Non-airbag

Single spline with metal adapter sleeve
(#191419514), pressure spring (#1H0419667), &
thrust washer (#171419341)



1990-1993
Airbag

Double spline with spacer, pressure spring,
& locking ring

Note: These cars are now over 20 years old and, therefore, many may have undergone some modifications. The above shows what your model year should have had when it left the factory.

Step 1



Using 10mm wrench, disconnect battery negative terminal.

Step 2



Put the ignition key into the ignition lock/switch cylinder and put in "on" position.

Step 3



Without airbag: Skip to Step 5.

With airbag: Locate the airbag controller connection below the relay panel and disconnect the two halves of the connector.

Step 4



With airbag: Remove or lower the kneebars. Please download <http://www.cabby-info.com/Files/DashRemoval.pdf> and go to page 5 for complete instructions.

Step 5



Without airbag: Remove center pad by carefully prying it out with a small screwdriver or interior removal tool (1983-1987 sports wheel shown; others are similar). Disconnect wires, if need be.

With airbag: Using a T30 Torx wrench, undo the two screws on the back side of the steering wheel and disconnect the electrical connector. Remove airbag.

Step 6



Using 24mm socket wrench, remove steering wheel retaining nut but keep nearby.

With airbag: There is a washer behind the nut; don't lose it... keep it with the nut once the nut is removed.

Step 7



Using a permanent marker, draw a straight line from the steering shaft to steering wheel.

Put 24mm nut back on shaft just a few turns. Pull steering wheel loose; this may require smacking the back side of it with your hand or mallet. Once broken loose, remove nut and wheel.

Step 8



Without airbag: Skip to step 9.

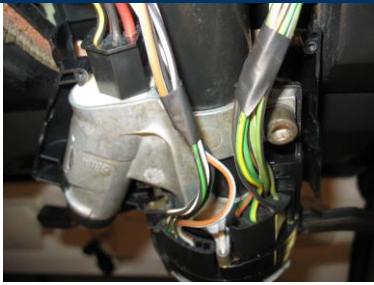
With airbag: Remove clock spring; simply let it dangle off to the side, if desired.

Step 9



Using Phillips screwdriver, remove the two steering column cover screws, and remove lower cover.

Step 10



Disconnect all electrical connectors on steering column: ignition switch, turn signal, wash/wipe. Disconnect cruise control*, if installed.

Step 11



Using flathead screwdriver, remove the 3 retaining screws for the turn and wiper stalks. Remove the two stalks.

Step 12



Remove the upper steering column cover. This may require loosening the 4 steering column Allen screws so that you can push down a bit to free the upper cover.

Step 13



1980-1987: Skip to Step 14.

1988-1989 (USA; up to 1993 ROW): Using a gear or steering wheel puller, remove the adapter sleeve (if your puller will not fit, try putting a 27mm spanner wrench at the bottom of the sleeve and attach the puller to the wrench; shown in photo: channel lock pliers). Then, slide off the pressure spring and thrust washer.

Step 14



Without airbag: Using channel lock pliers, lightly grip the plastic spacer sleeve and "walk" the sleeve off the shaft using a back-and-forth-pulling motion (or rotate it counterclockwise while pulling).

With airbag: Remove locking ring, spacer ring, and spring. Make note of their order.

Step 15



Using a marker, mark the location of the switch housing on the steering column (yellow line in photo) so that you can reinstall it in the exact same position.

Using 6mm Allen wrench, remove housing bolt (red arrow in photo). Slide housing off the column (you may need to pry the bolt-side mounting tabs apart a bit).

Step 16



Using Phillips screwdriver, remove screw and switch.




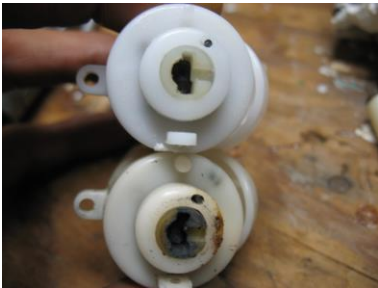

Replace old switch with new switch and reinstall screw.

Step 17



Re-installation is essentially reverse of removal.

See tips and notes on next page.

<p>Tip 1</p> <p>After installing the lock cylinder housing, slide the spacer sleeve back onto the shaft, with notches at the bottom. Put a crescent wrench the size of the plastic spacer sleeve on top of the sleeve and use a dead-blow hammer on the wrench to lightly drive the sleeve back into position.</p>	<p>Tip 2</p> <p>When reinstalling the wiper/turn switch assembly, be sure the turn signal stalk's hook is mounted into the loop on the wiper assembly's sliding gizmo (yellow arrow). If you don't, you won't have hi-beams and will have horn issues.</p> 	<p>Tip 3</p> <p>Speaking of the wiper/turn switch assembly, make sure the horn ring tab and mount aren't sliding around; if either is, the tab may come in contact with the mounting screw, which will lead to the horn honking as soon as you turn the key, and you won't be able to torque the nut all the way. If it's moving around, epoxy it into place (do not use any adhesive that contains metals, such as JBWeld).</p>
<p>Tip 4</p> <p>Speaking of the horn, you might take a moment to clean the horn contact ring and tab. Afterward, put a dab (just a dab!) of grease around the horn ring, then reinstall the steering wheel.</p> <p>The steering wheel nut torque spec is 50 Nm (36 ft. lbs.).</p>	<p>Note 1</p>  <p>The lock cylinder plunger tab goes into...</p>	<p>Note 2</p>  <p>...the steering column lock notch, which locks the steering wheel into place.</p>
<p>Note 3</p> <p>New switch vs. old switch:</p>  <p>Plastic components erode, or the metal components erode and/or fall apart creating poor internal contact.</p>	<p>Note 4</p> <p>Where the cruise control connector is located:</p> 	

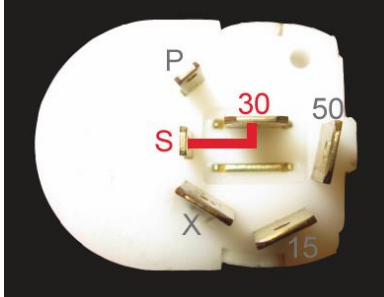
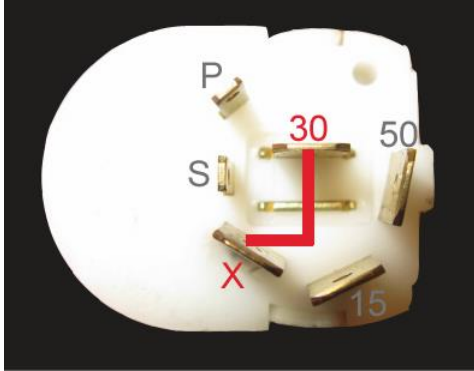
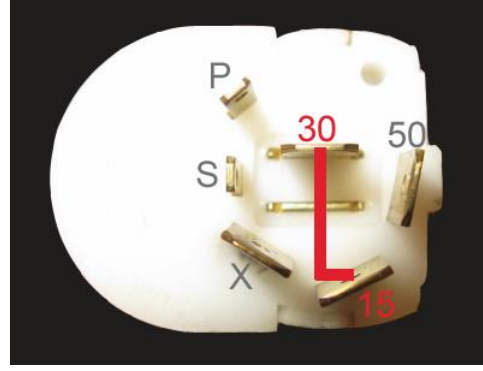
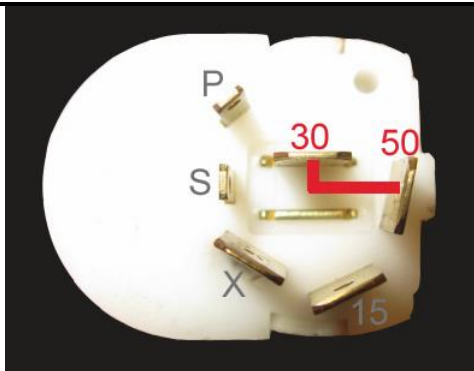
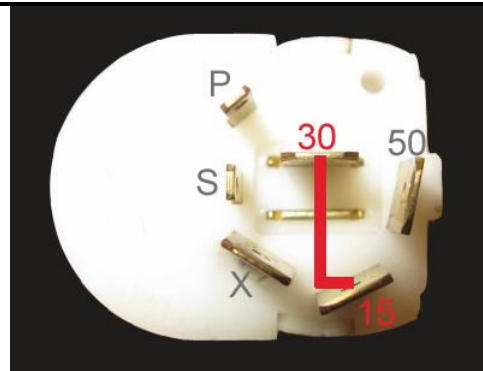
Above photos provided by *briano1234*, *tolusina*, *kamzcab86*, *wolfsburged*, *benplace.com*, and *Vintage Watercooleds*.

Testing the Ignition Switch

The ignition switch: **Terminal 30** brings power into the ignition switch from the battery. **Terminal 15** provides power to the ignition system and other parts of the electrical system when the ignition key is in the ON or START position. **Terminal X** supplies power through the load reduction relay; it has power when the ignition switch is in the ON position, but has no power when the switch is moved to the START position. **Terminal S** is for the seatbelt warning system.

The table below lists ignition switch continuity checks.

- ✓ Disconnect the battery
 - ✓ Remove the lower steering column cover per instructions above
 - ✓ Unplug the ignition switch
 - ✓ Use your ignition key to move the switch into each position during test. A flathead screwdriver can be used to test a switch not installed.
- A switch that fails any of these continuity tests is faulty and should be replaced; go back to page 1 and continue with replacement instructions.

Switch Position	Continuity Between Terminals	
Ignition OFF	 <p>30 and S</p>	
Ignition/battery ON	 <p>30 and X</p>	 <p>30 and 15</p>
START	 <p>30 and 50</p>	 <p>30 and 15</p>

**** Remember, you are responsible for working on your car; Cabby-Info.com, KamzKreationz, VAG, VWOA, or anyone else are not responsible if anything goes wrong while you are working on, in and under your car!
Use this information at your own risk!****