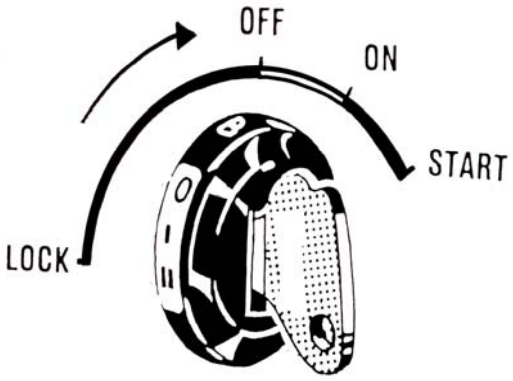
Opel GT Ignition Switch Diagnosis:

The Opel GT Ignition Switch is prone to internal resistance buildup & premature failure, due to a primitive circuit design which routes up to 30 amps from the battery through it, when the starter is cranking. (In the mid-1960's, Opel rummaged through the parts bin, using the switch from the Opel Admiral, and some parts from French sources. In quality terms, think: Renault). Typically, there's a puff of smoke, and you're stranded. To help prevent this, the Opel GT Ignition Switch can be tested, either in the car (using key to turn) or off the car (using a screwdriver to turn), with a simple ohm meter.



"Early" 1968-1969 Opel GT Lock Cylinder

Testing the Opel GT Ignition Switch (On the Car):

(1) Disconnect the battery ground cable

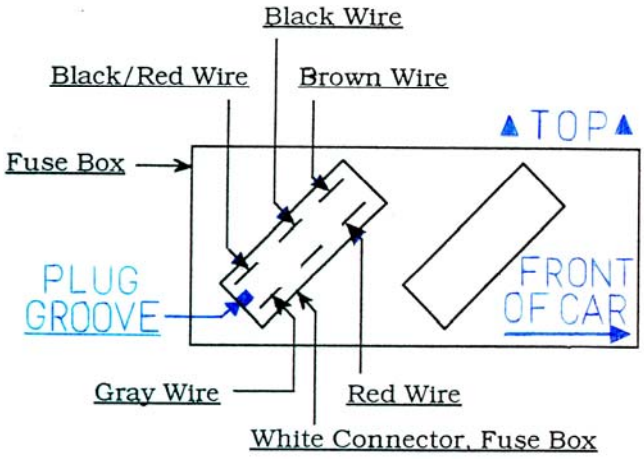
(2) Follow the wire loom from the steering column to the white plastic plug on the side of the fusebox, and carefully remove plug from the (brittle) fusebox.

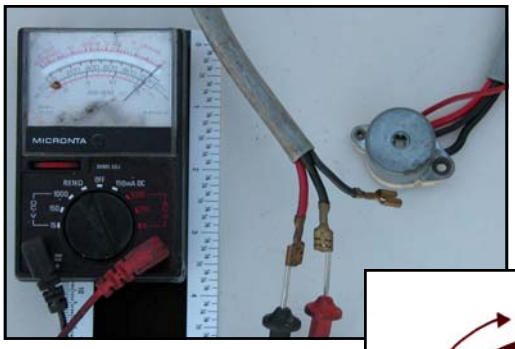
(3) Use a common volt-ohm meter, to test the switch in the "start" position. Connect one test lead to the end of the solid red wire (A) and another to the end of the striped red/black wire (B). (See: "Fusebox View")

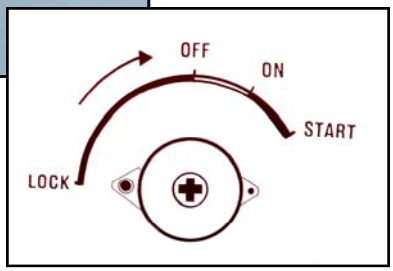
(4) Rotate the ignition key, to the start position and hold. The ohm-meter reading should drop from "infinity" to a steady 4 ohms or less on a good switch (less than 1 ohm indicates an excellent switch). Spray-cleaning the switch also lowers resistance, (requires partial disassembly of Steering Column).

(5) Release the switch for a moment. The ohms should revert back to infinity. If it doesn't (if measurement goes back and forth), the switch may have poor internal circuit isolation, which indicates carbon buildup or overheated parts. (If so, spray-cleaning may provide a quick-fix).

(6) You can also test the non-starting power circuit, by connecting the test leads to the solid red wire and to the solid black wire (C). They should read less than 1 ohm in the "on" position and infinite ohms resistance when "off."







Testing the GT Ignition Switch (Off the Car):

Use a phillips-head screwdriver to carefully rotate the "cross-shaped" center of the switch, between the "off" "on" & "start" positions, to perform the (#4-#6) above tests of resistance and isolation. Spray-clean with WD40 around "cross-shaped" area, rotate switch a few times, and let dry. Retest switch, to verify measurement of starting circuit of 4 ohms or less. You can also inspect the switch, to see if the striped red/black wire appears melted, or if the metal housing has a "bulge" around the "cross" area (indicating heat). If needed, an Opel retailer now provides rebuilding services for about $50.00. But when the white plastic backing has cracked, the switch has broken, and is non-repairable.

Opel GT Protective Ignition Relay installation:

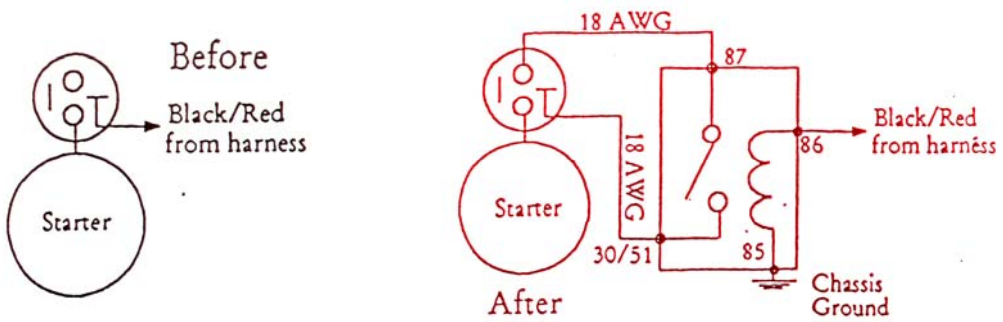
If the ignition switch is verified to be in working condition, the first protective action recommended is to install a protective 4-prong 30 amp relay in the starter circuit. An inexpensive relay will take up the brunt of the current when the starter is powered, keeping it out of your valuable original GT ignition switch.

The most readily available is the Radio Shack #275-226 (costs about $6).

The circuit schematic for installing this relay is as shown below.

To install, you will need to assemble a harness, with 3 short wires, 4 clip ends and 2 eyelet connectors, to connect to 3 relay terminals, 1 solenoid terminal, 1 round solenoid battery post, and a (suggested) round ground on the chassis. The existing ignition connection will be transferred from the starter solenoid to the new relay (per schematic).

A good place to mount the relay is above the starter, on the under-hood side engine area.



Circuit Schematic, for Installation of Protective Relay on Opel GT Ignition System

Note: An alternative currently available, is the Otto-Start Switch Kit (information c/o www.opelgt.com), which includes a relay and also includes a pre-prepared harness.

Another step some owners take is installation of a push-release on/off bypass switch. This assures starting power, regardless of the switch condition. (Consider your security needs too and plan to locate this switch in a nondescript or hidden location, as it allows starting without a key -- The steering column will still be in a locked position, presuming all original components are retained within).

To install a bypass switch, connect 2 wires to this switch from the solid red and black/red wires (near the white plug on the steering column connector harness). It is also possible to install a 3-position switch, to completely bypass the ignition switch while allowing operation of the “on” (but non-start) circuit, by adding the solid black wire function. Whichever your choice of bypass switch, make sure the operation function pattern never leaves the starter in a continuously powered position.

Cleaning the Opel GT ignition switch with a solvent (such as WD40) will help remove internal carbon buildup and will help lubricate its inner bearing. This step does require partial disassembly of the GT steering column (instructions in an article, continued in upcoming OMC Blitz newsletter).

OPEL MOTORSPORTS CLUB

OMC is an independent US-based auto club, that specializes in German-made 1968-1975 Opels.

OMC was founded in 1980 by Opel enthusiasts who wanted to share information and promote their marque in motorsports. A newsletter was established to promote Opel events, report Opel-related news, provide technical tips, discuss vehicle upgrades, and give members a free place to advertise.

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Opel Motorsport Club is the longest-established Opel club in the U.S.A. Members travel great distances to attend the OMC Annual Meeting, a mid-Summer gathering and display of classic and restored Opels. Benefits of membership also include information from other Opel owners on the maintenance and improvement of their Opel(s), and the ability to contact fellow members on their common interests. Opel Motorsport Club funds help maintain our website (with helpful Opel information) at: **www.opelclub.com**

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