

## Wally's 928 Annual Electrical Maintenance

- 1) Open the hatch and remove the tool panel. Remove the carpet and spare tire cover. Remove the spare, tools, etc. Open the battery box.
- 2) Disconnect the ground cable from the chassis. Remove the negative battery terminal. Remove the positive battery terminal. Remove the battery. Use extreme caution to avoid getting battery acid or residue from the top of the battery or cables in your eyes. Goggles are recommended. If the battery brushes against your clothes, you can end up with holes.
- 3) Clean the battery terminals until they are bright and shiny. Dull gray won't do. If it is possible to check the fluid level in the battery, do so. Fill to the rings. Wash the battery. Put it on a charger if possible.
- 4) Clean the battery box, removing all corrosion. Wash the battery box. After it dries, touch up the finish as required.
- 5) Clean the battery cable terminals (all three) until the connection area is clean and shiny. Dull gray won't do. Clean the connection area on the chassis.
- 6) Clean the speedometer/odometer drive electrical connector in the right forward corner of the spare tire well (pre-'90 models).
- 7) Raise the hood (bonnet). Remove the protective cap from the jump start terminal and pull the protective plastic cover from the terminal. If you are missing the cover or the cap, replace them - they are critical items. If there is no cover, water will enter the connector and corrode the connectors and wires, causing serious electrical problems.
- 8) If the connections are clean and tight, replace the cover and cap. If the connections show any corrosion or looseness, disassemble, clean and reassemble.
- 9) Jack the right front of the car so that you can SAFELY work underneath.
- 10) Remove the ground cable that runs from the right side of the engine to the chassis. Clean both ends of the cable, and check for corrosion in the cable. Clean the connection points, and replace the cable.
- 11) Check the heavy cable connection on the starter solenoid for looseness or corrosion.
- 12) Check the moderately heavy wires on the same connection for corrosion and breaks inside the insulation. These carry the charging current from the alternator.
- 13) Check the small yellow wire connection for corrosion and tightness. This wire triggers the starter solenoid.
- 14) Lower the car. Fold back the carpet and open the central power panel cover.
- 15) Check the main power connections at the top of the panel for tightness and corrosion.
- 16) Check the ground connections above the panel for tightness and corrosion.
- 17) If you are having electrical problems, remove each fuse and reinsert three times. Check the fuses for the proper value, and examine them visually for damage or corrosion. Test them if desired. Later cars have a fuse tester built into one of the relays.
- 18) If you feel that it is necessary, remove and reinsert each relay. This won't be easy, as they fit very tightly in some cases. Porsche sells a relay removal tool, but I am not impressed. It is basically a pair of pliers with square jaws, and will pull the relay apart. One tool that works well is a spark plug boot removal tool. It is a thin but strong sheet metal tool shaped like a "J" with the top 1/8" bent over at a right angle. You can put this angle under the bottom edge of the relay and lift it out - IF the battery is disconnected!
- 19) Close the panel and replace the carpet.

20) Replace the battery. Install the positive cable. Install the negative cable. Put a drop of oil on each nut. Connect the chassis end of the ground (negative) cable. Lubricate the battery box latch and close the box.

21) Lubricate the wiper drive shaft and hatch latch mechanism.

22) Clean the spare tire, jack and tools. Put a couple of large heavy plastic garbage bags in the spare tire well for emergencies, along with a tube of hand cleaner and some paper towels. Install the cover and carpet.

23) Lubricate the jack, and put it inside the tool panel. Clean and lubricate the tools. Reinstall the tool and tool panel.

24) Reset the clock and radio presets.