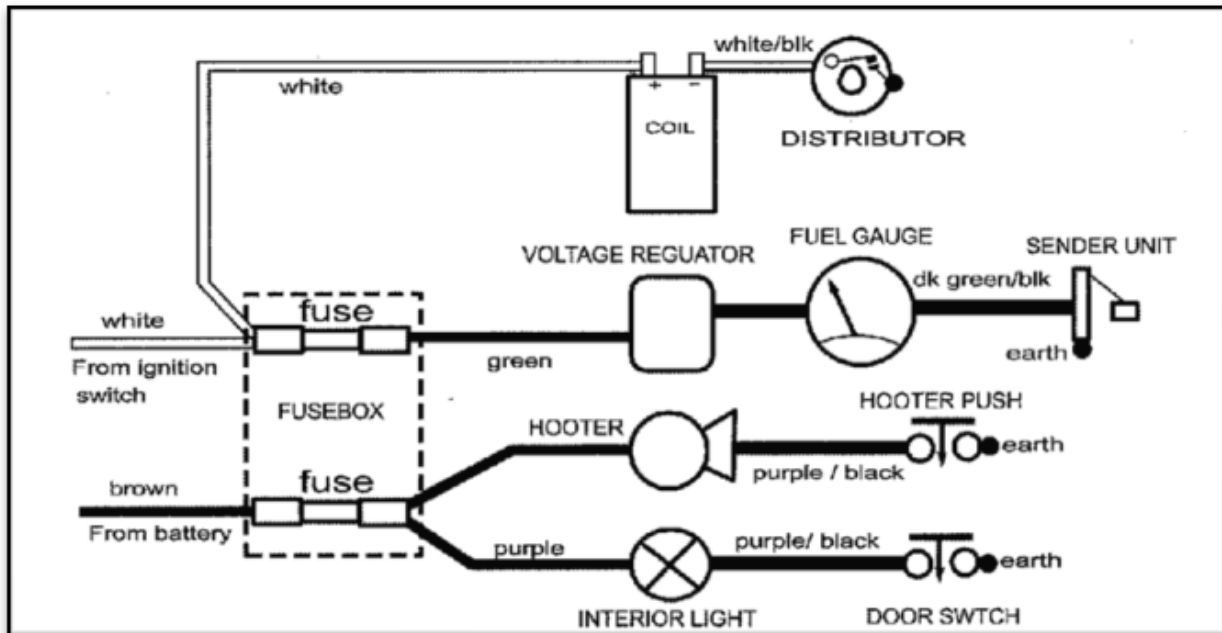


Classic British Electric Basics Explained for the Novice

By Marv Proctor



Preamble: The two primary wire colors that transmit power are white and brown.

A heavy gage white wire will almost always be switched power from the ignition switch and will then go to the fuse box before changing colors to downstream instrumentation and devices it is meant to control. The exception to this is illustrated in the sample diagram above where an un-fused white wire feeds the ignition circuit once the key is turned to the “on” position. The example above only illustrates a fused green wire feed off of the white wire ignition switch lead. (Other wire colors will generally follow the same pattern as this.) The solid green wire will run to the devices it is intended to power and control first and the wire exiting those devices will now be green with a black tracer that generally connects to a controlling switch mechanism that leads to an earthing (ground) connection as the fuel tank sending unit exemplifies in the illustration. The black tracer on any wire color indicates it is part of the “control” circuitry leading to an earthing connection. Solid colors will generally indicate they are fused power feeds to the device being controlled by that wire circuit. Black wires will typically be earthing (ground) connections to the other side of any controlling switch mechanism be it a dash switch, a fuel tank sending unit or an instrumentation light bulb.

A heavy gage brown wire will almost always be a power lead (always on) from the battery leading to the fuse box and then changing colors on the exit side of the fuse. The above example shows a solid purple wire going off to the “Hooter” (horns) circuit and the interior lights circuit. Notice again the solid purple color runs to the device(s) it is intended to control while the wire exiting those devices will now be the same color with a black tracer. This wire will lead to controlling switching mechanism(s) that take the device(s) to earth to complete their circuit(s) as with the discussion above on white wire.

In summation, the basics illustrated here are to show the reader a quick and simple method for helping him/her to troubleshoot typical British wiring found on our cars and bikes. Solid color wires (except brown and white) are generally carrying fused power to the device that it is intended to control. The same color wire with a black tracer will be the wire leading from the controlled device to a switching mechanism of some type. Solid black wiring will be a direct earth connection to the switching mechanism or illumination circuit.

As many of us know from first-hand experience having been the second, third or more generation owners of our vehicle, previous owner electrical "additions", "fixes" and "improvements" will not always, if ever, follow the wiring guidelines as set down by the manufacturers. Thus, "CAUTION" is the word of choice when troubleshooting wiring that has had previous owner "modifications" and it is the primary reason for using the caveat wording of "almost always" in the descriptions above.