

BRAKE LIGHT RELAY

by Dave DuBois

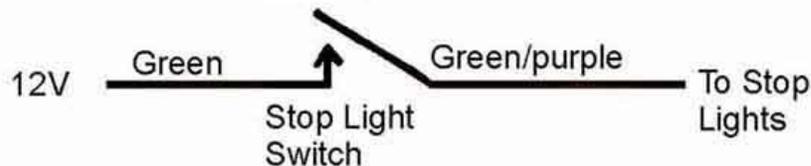
The replacement brake light switches sold today are extremely light duty and don't hold up for very long to the 3 amps drawn by the brake lights before the contacts burn again (I have had them burn in just two weeks). Adding a relay to the brake light circuit will remove the heavy current from the brake light switch.

The relay to use is a general purpose 30 Amp automotive relay, sometimes known as a Bosch relay. They are available from Radio Shack and most auto parts stores. The relay can be mounted anywhere that is convenient. I mounted mine close to the original brake light switch, but it can just as well be mounted in the trunk (for the MGAs or MGBs), close to one of the tail light/brake light assemblies (if you do this, you will need to bring a source of 12 volts, other than the 12 volts that is switched by the brake light switch, back to where the relay is mounted).

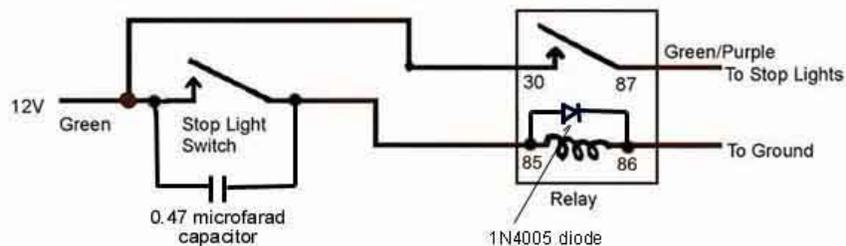
In the accompanying diagrams (see below), I show a 0.47 microfarad capacitor across the contacts of the brake light switch and a diode across the coil of the relay. These are optional parts and can be left out if you wish. I added them as additional protection for the brake light switch. The capacitor is just soldered across the switch terminals. The diode can be soldered across terminals 85 and 86 of the relay. The advantage of the capacitor is that the capacitor acts as an arc suppressor and the diode collapses the field of the relay coil, eliminating any inductive surge across the brake light switch when it opens.

Note: In the following two diagrams the only difference is the orientation of the diode.

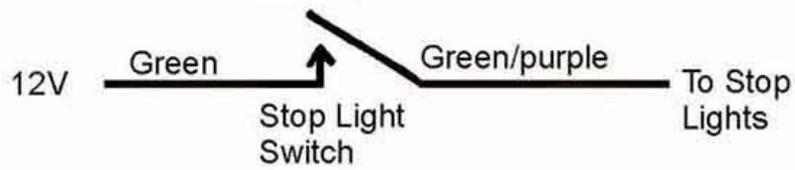
Positive Ground Vehicle ORIGINAL WIRING



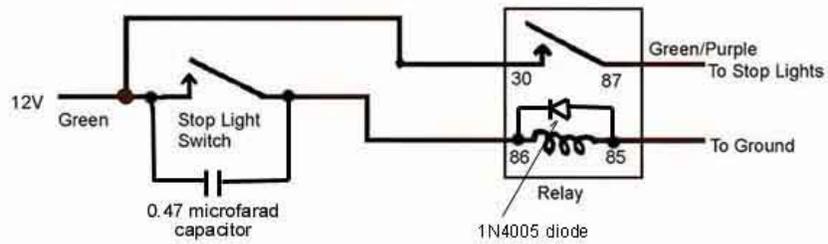
RELAY ADDED



Negative Ground Vehicle ORIGINAL WIRING



RELAY ADDED



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