

Quick & Easy!

Isolating an electrical fault:

by Tom Endy

Most Model A owners today have installed a fuse mod on the top of their starter. This is certainly a prudent thing to do; a blown fuse is much better than having a fire in the car.

Once a blown fuse has occurred, the next step is to determine where the short circuit exists that caused it to blow. This can be accomplished rather quickly by a method of isolation. There are three areas on the car where a short circuit is most likely to occur.

- 1. In the light bail located at the bottom of the steering column, which consists of all the switching circuitry for the car's lights. This is the most common fault area.**
- 2. Inside the terminal box located on the firewall where a number of connections come together and can easily short out against the armored ignition cable.**
- 3. Behind the dash panel where connections to the ammeter and dash light are located that can easily short out against the dash.**

The first effort to isolate the fault is to unhook the three wires attached to the terminal post on the cutout switch, which sits on top of the generator. If you have an alternator the three wires are attached to the output terminal post of the alternator. Disconnect the three wires and spread them out so they don't touch anything.

One of the three wires comes from the terminal box on the firewall and provides battery power. A second wire runs down to the light bail, and the third wire goes off to the ahooguh horn.

Install a new fuse. If it does not blow you have eliminated the terminal block on the firewall and the dash panel as the culprit. If there is a short in either of these two places it would have blown the new fuse. Next connect the wire from the terminal block to the wire that runs to the ahooguh horn. If the fuse does not blow you have eliminated the ahooguh horn. Next hook these two wires back onto the terminal post of either the cutout or the alternator. If the fuse does not blow you have eliminated the

cutout, generator, or alternator. This leaves only the light bail as the likely culprit.

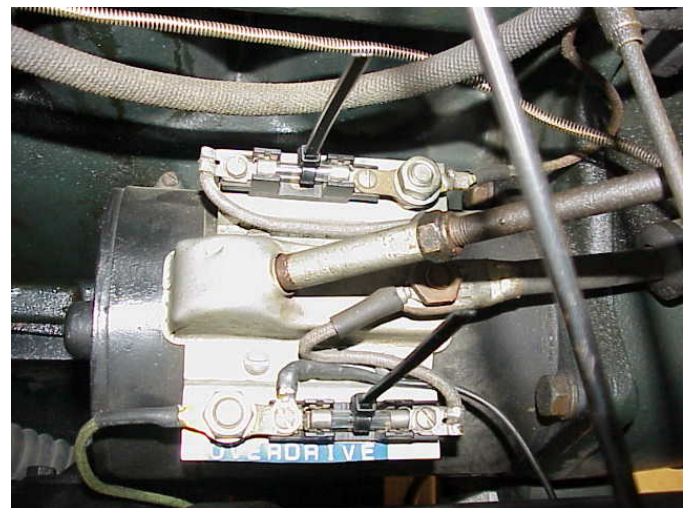
Inside the light bail is a rat's nest of wires and switch contacts that could be oil soaked from a leaking steering box. If the light bail assembly is a poor quality repo, chances are there are wire whiskers and poor connections involved. If you are out on the road it is best to fool with further trouble shooting of the light bail at home. You can drive the car with the light bail wire disconnected. Just keep in mind you won't have any lights, including brake lights.

If a new fuse blew when you installed it after disconnecting the three wires from the cutout, the fault is likely in the terminal block on the firewall or behind the dash panel, and not in the light bail, ahooguh horn, cutout, generator, or alternator.

Start with the terminal box. Remove the cover and inspect for loose and shorting wires. A poor quality repo terminal box can also have one of the terminal threaded shafts shorted out behind the box. It is possible for the threaded shaft to back off and touch the firewall.

If the terminal box appears to be ok, remove the dash panel and inspect for loose and shorted wires on the back of the ammeter.

If you follow this procedure you will quickly locate the fault 95% of the time. However, a subtle electrical fault could possibly be lurking somewhere else that may not be as obvious. ☺



This particular Model A has a second fuse circuit to accommodate a Borg Warner overdrive. The tie wraps are to provide a means to easily remove the fuses when the car is not in Use.