

## Written in 2011

I finally got around to a project I've been wanting to do for some time now, four way flashers on the 66 Charger. I know that there have been some previous threads talking about this so I think there must be some interest by other 66 owners. While planning this, I decided wanted to do it in a clean and minimally invasive way. My method described applies to the 66, not sure if this would work for a 67 or not, nor do I know if the wire colors are the same as I have no schematics for the 67.

I decided that I wanted the 4 ways to be useable while driving, with or without headlights on, still have the brake lights and turn signals work normally and not be dependant on the ignition switch. I also wanted all to be fused by the same fuse that normally serves the circuits involved requiring no additional fuses. After carefully looking over the 66 Charger schematics I had a plan. Here's what I did and how I did it...

On the headlamp switch there is a single wire that leaving the switch which is for the front parking lights which is a 17 GA. Yellow wire, with Black tracer. There is a single 17 Ga. Black wire that leaves the switch for the 6 tail lamps and license plate lamp. (Careful, there is also a black wire with a green tracer, don't want to snip that wire by accident...) I decided to interrupt these two wires paths with in line splice barrels, adding some 16 GA wire to them and route them through a pair of SPDT high current automotive relays. One relay transfers the front park lights, the other relay transfers the tail lights. Note that the wiper, or armature of the relays, is the actual wire going to the parking and tail lamps. This is important. In the de-energized condition, the wires mentioned above basically follow the normal path from headlamp switch to park and tail lights, they are just routed through the normally closed (N.C.) relay contacts. When the relays are energized, the normal paths are interrupted and the parking and tail lamps are now routed through the relays normally open (N.O.) , contacts to an alternate, or "Wig Wag" flasher. This flasher is a Tridon brand, model EL13 A-1, thermal-mechanical type like used for school bus lights or police car headlamps. It simply toggles the current flow from one pole to the other like an automatic toggle switch of sorts. The automotive relays are energized by an illuminated rocker switch mounted under the dash. It lights up when on, giving visual indication that the flashers are active. The Pink wire(s) coming from the headlamp switch is the normal fused source for the parking lamps, tail lamps, license plate lamp as well as interior lights. I used an insulation displacement type squeeze type "tap" to pinch into the Pink wire so I did not have to break and physically splice into it. The Pink wire is the +12 volt to source for the flasher input and relay coils as shown in my schematic. This pink wire (of which there are two), leaving the headlamp switch are electrically connected together at the switch, so either Pink wire can be tapped into for the fused + 12 volts required, as they are electrically the same.

The bulbs that are used for the park & tail lamps on the 66 Charger are all dual filament 1034 bulbs. The less bright, or low brightness filament, is used for the parking and tail lights. I measured a 1034 lamps low filament at just over ½ amp. (544 Milliamp to be exact) so worst case, with all lamps involved lit at the same time the total current draw is just 4.5 amps. The relay coils only draw 135 Milliamps each and the lamp in my switch is about 25 Milliamps. All is safely under the rating of the 20 amp fuse in the block. The "Wig Wag" flasher is basically just a double pole version of a normal turn signal flasher. As with most flashers, they require a minimal current through them to work. When there is no load connected via the relays, the flasher does nothing and is effectively out of the circuit. When the loads are transferred via the relay contacts, the front parking lamps, rear tail lamps and license plate lamp flash alternately, front and backside.

I mounted the relays and flasher unit to a small formed .090 aluminum angle. I drilled and tapped two 6-32 holes into the lower flange of the steel brake pedal bracket located just above and towards the outer drivers side of the steering column to mount the bracket. That seemed to be the easiest and most accessible place providing easy access to the connections of everything and not interfere mechanically with anything. All electrical parts, push on lugs ect. are available from your typical auto parts store. To get to the headlamp switch, I dropped the fuse block, and dropped the vent cable and pull handle bracket which makes getting to the wires on the headlamp switch fairly easy.

As with any electrical work on a car, it's always advisable to disconnect the battery before doing anything ! You might want to consult a 66's schematic to get a better understanding of the wiring and headlamp switch wiring. Attached are some PIX and my schematic.

Cheers, Terry