

Road Star Warrior
Lighting Circuit Modifications
Turn Signal Fast-Flash and Click-of-Death

The stock front turn signals and running lights share a housing in the form of a two-filament bulb. The turn signal filament is on the Signal circuit. The running light filament is on the separate Headlight circuit.

About Click-of-Death

(Rev July 5th, 2012)

If you have removed the incandescent front running lights (one filament in the front bulbs) and also removed the incandescent license plate light, you will develop Click-of-Death (COD). You'll need to add a resistance back into that light-blue wire in the headlight bucket (or same wire under the seat) then to ground (black wire same spot or frame ground) to bleed-off residual ECU energy on shut-down. One good solution is to install a Song Chuan 896H mini-relay (see below) into the light-blue wire that feeds the stock front running lights (and license plate light). These can be connected in either direction but just for consistency go ahead and connect the blue 12v power wire to contact 86 and the black ground wire to contact 85. Only the coil-side of this relay is used, the relay side is taped-over to avoid abrading nearby items. The coil inside this relay is designed for 100,000 operations (one start a day for 273 years, or do your own math) and will mimic the missing light bulb filament without transferring heat into nearby wiring or components. It will fit in the headlight bucket but its tight. It will also fit under the rider seat in the relay well, or under the rear fender in some cases. Note that if cheap resistance later fails, you'll unexpectedly find yourself with COD again so remain alert to avoid battery failure.

So COD results from removing both front running light filaments (i.e. removing both front running light bulbs) and also removing the stock incandescent license plate bulbs. COD has nothing to do with the signals except the filaments happen to share the front light bulbs.

To solve COD, here's two good quality small relays under \$5:

Song Chuan 896H-1CH-C-12VDC (30/50 flux tight relay)

Song Chuan 896H-1CH-S-12VDC (30/50 water sealed relay)

One source: www.mouser.com

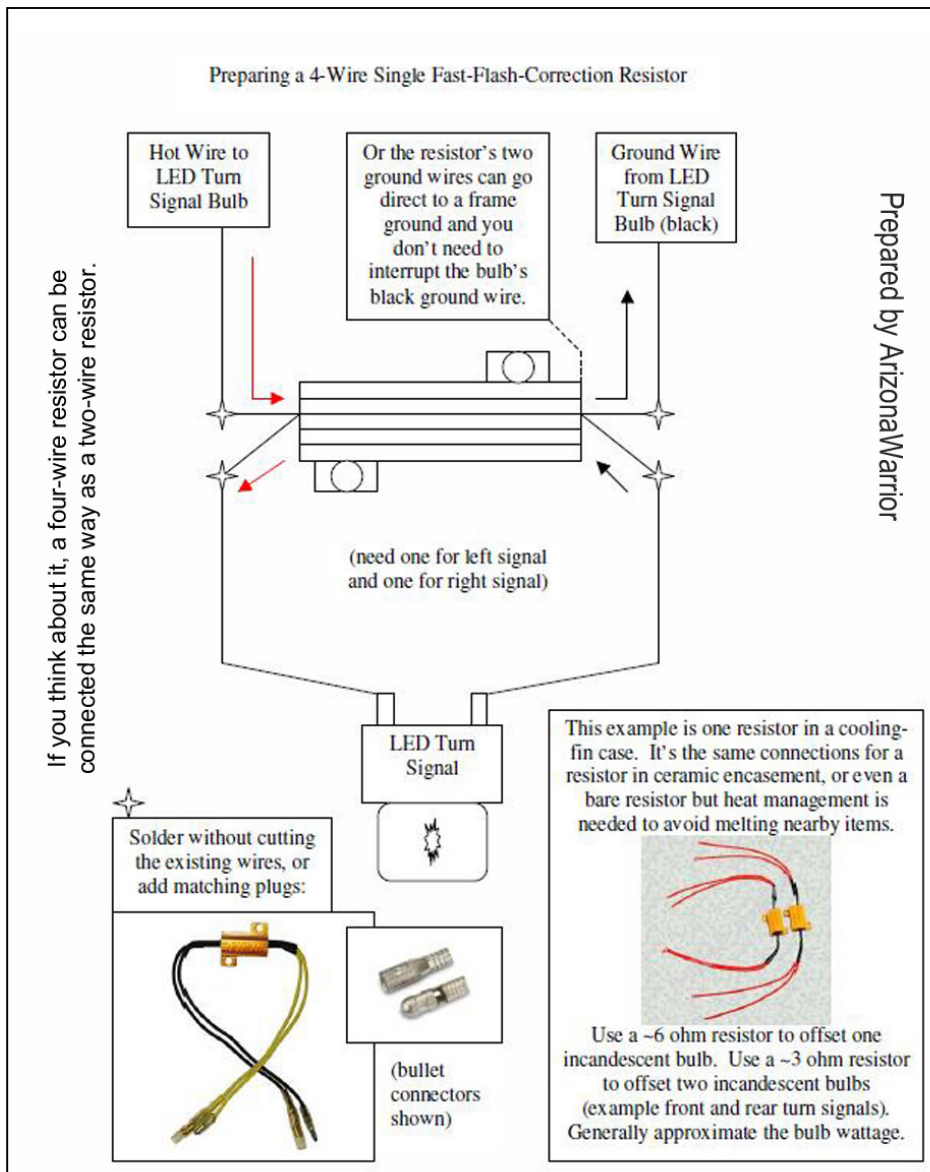
Also see www.rswarrior.com and search for 'click of death'

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About Turn Signal Fast-Flash

When an incandescent turn signal bulb goes bad your turn signals will flash faster, alerting you. The same thing happens when you purposely remove an incandescent turn signal bulb and install LED instead. If you replace (for example: the rear) incandescent bulb with LED, the turn signals will fast-flash. If you replace the front and rear incandescent bulbs with LED the turn signals may not flash at all.

This sketch illustrates one method used to mimic the incandescent filament adequately to return the flash rate to normal.



Fast-flash has nothing to do with the front running lights except the filament happens to share the front light bulb.

So Fast-Flash has nothing to do with COD except a shared bulb.

Assembled by Arizona Warrior