

How to Create a Quick-Start Relay

Presented by George Snellen

Article by Judson Hudson

At the April 2006 meeting, George presented an interesting subject on the ignition system. I explained to him earlier that I was having issues with my car not starting like it should. Every time I tried to start, it would take numerous times for it to finally start. George used his multi-meter and tested the ballast resistor on my car. It's exactly what he thought; the Electronic Control Unit wasn't getting enough voltage for the car to start properly.

He explained to me that the reason for this fact is that with all of the wiring connectors there is, I lose half a volt at each one. Back when the car was brand new, this problem didn't exist. But as time rolls by, age gets to the wires causing a loss of voltage.

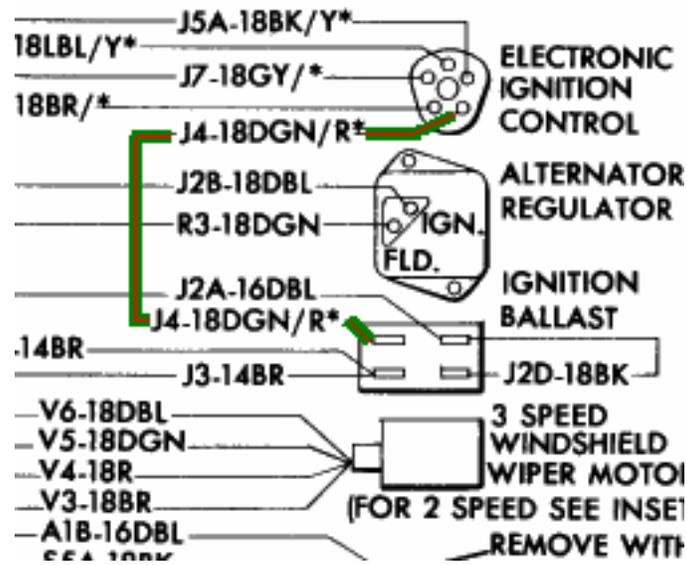
He told me how to fix this, and in the April 2006 meeting, demonstrated the way to correct this problem. That's why this article was written. Oh yeah, the vehicle that was used in this article is a 1973 Dodge Charger. Just thought you should know!

DISCLAIMER!

Before you begin, make note that we, the Tennessee Valley Mopar Club, are NOT responsible for anything that might go wrong. So keep that in mind. Please use at your own risk!

Do you have this problem?

Of course, there are a few parts you could troubleshoot that could cause your starting problem, but before you do anything, try this. Take your multi-meter and test the voltage on your ballast resistor. You'll want to test it on the Dark-Green/Red wire where it goes from the resistor to the ECU (see image below) and test it when you are cranking the car. If you read less than 9 volts, then yeah, this article is for you. If not, chances are your problem is elsewhere...



Tools/Supplies that you need

- Hella Relay (pick this up at Advance, Autozone, your parts store.)



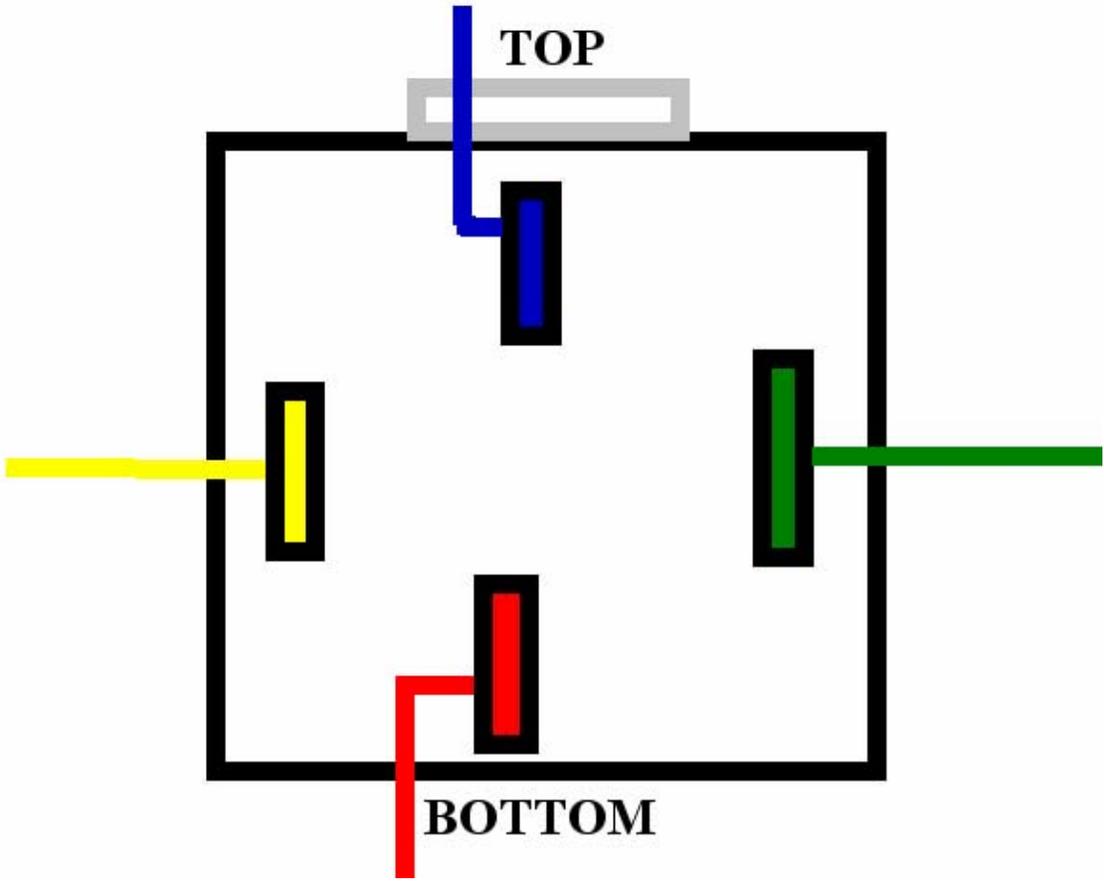
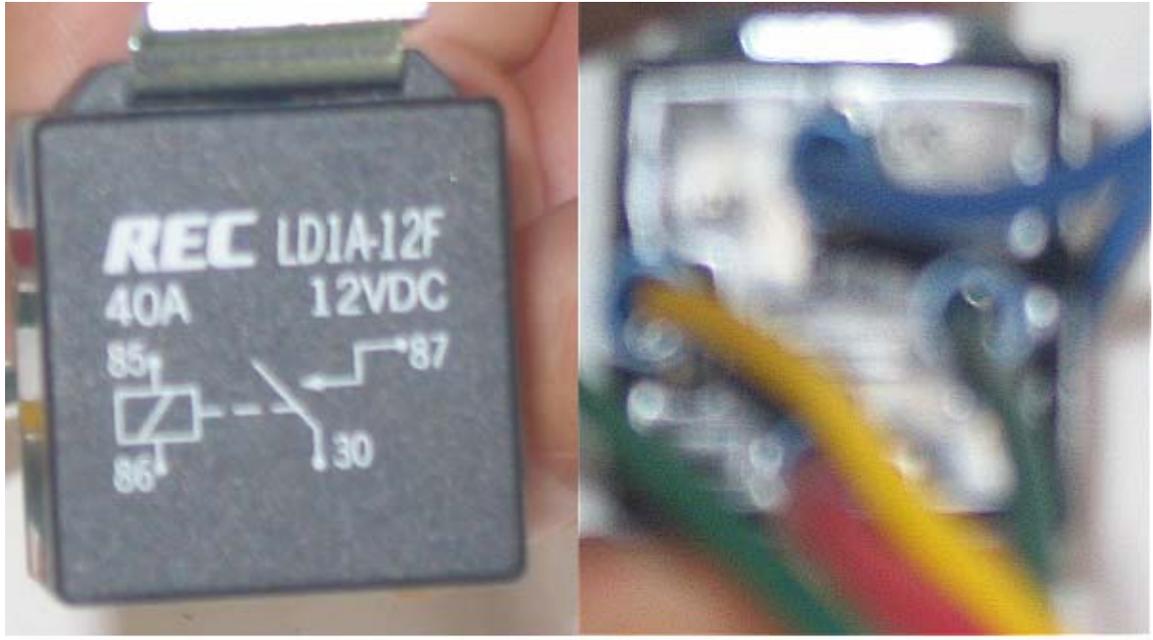
- **Female Connectors with Branching Male Connector (if you don't want to damage original wiring/connectors). Get them at Napa, part # 784385.**



- **Wires, red, yellow, the basic colors.**

Setting up your Relay

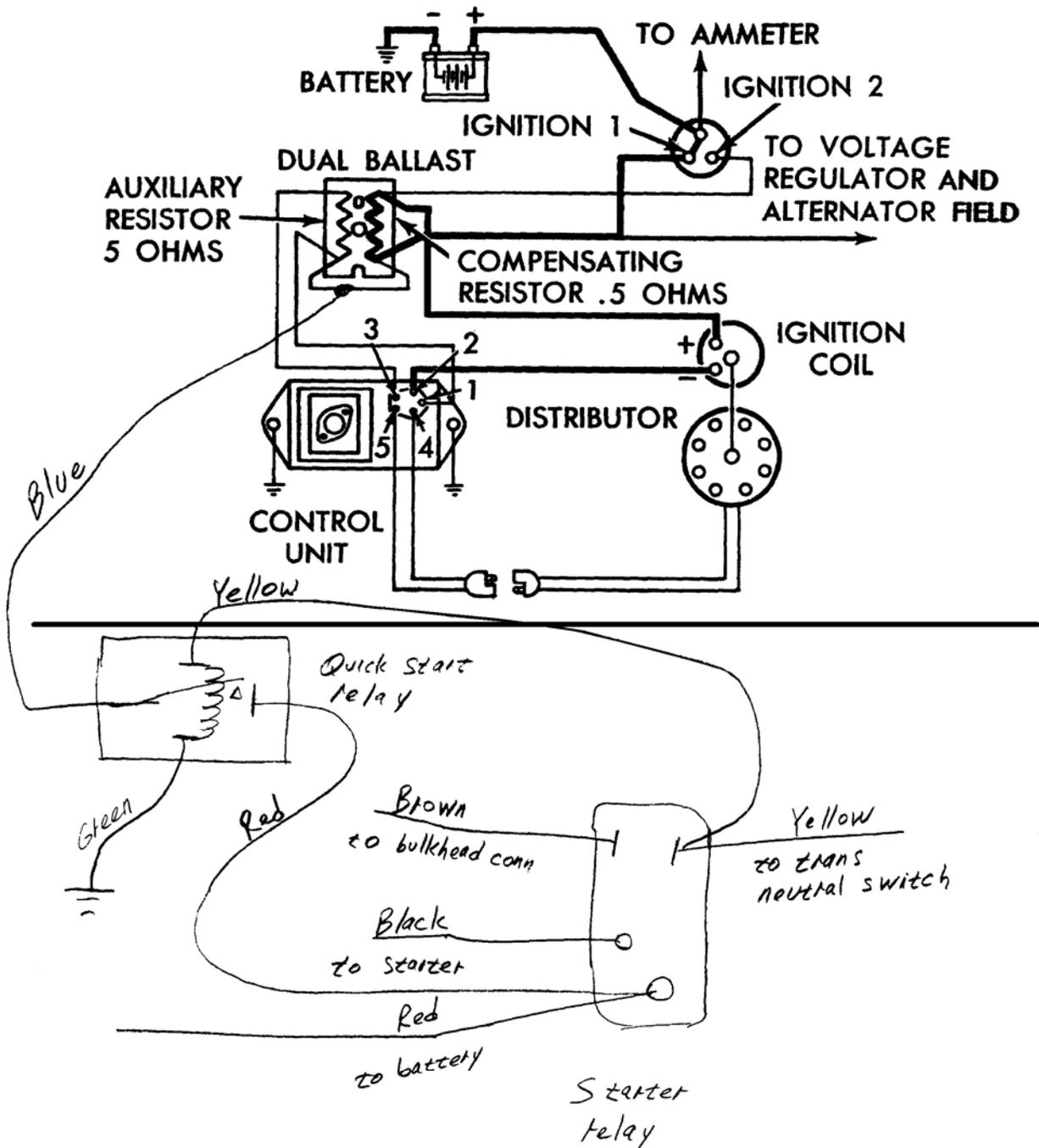
I'm not going to go into detail as in what wire hooks to which part on the relay (since I'm not too knowledgably on that, plus George sent me his relay with the wires already hooked properly) so just look at the picture below to see what color wires go on to the certain parts of the relay.



Yellow will go to the Start Relay yellow wire, Blue goes to ballast resistor with the Dark Green/Red wire, Green goes to ground, and Red goes to the red battery wire on the Start Relay.

George's Wiring Diagrams

Here are the wiring diagrams that George made for you to follow and to hook up. It's very simple to follow (see next page)



J.J.D.
 Good luck with it. The wires should hook to wires of the same color in the car.
 George 4-20-06

Hooking It All Up

This is very simple; all you need to do is follow the directions and hook the wires from the relay to the appropriate place. However, before you start wiring, it is always best to disconnect the battery. Better safe than sorry – so do this now!

Blue Wire – This wire hooks up to the Dark Green/Red wire on the ballast resistor.



Yellow Wire – This wire hooks up to the yellow Trans Neutral Switch wire on the Starter Relay.



Red Wire – This wire hooks up to the red Battery Wire on the Starter Relay.



Green Wire – This wire hooks up to ground.

Starting the Car

All and all, if you hooked up everything correctly, it's time to start the car (Don't forget to hook the battery up, otherwise nothing will work!). To my surprise, I wasn't expecting this to fix my problem, but it did! Once I got in and turned the key...VROOM it cranked right up like the day it did when it was bought new. Hopefully you'll have the same luck!