

## How to test an 88-91 CRX Tachometer

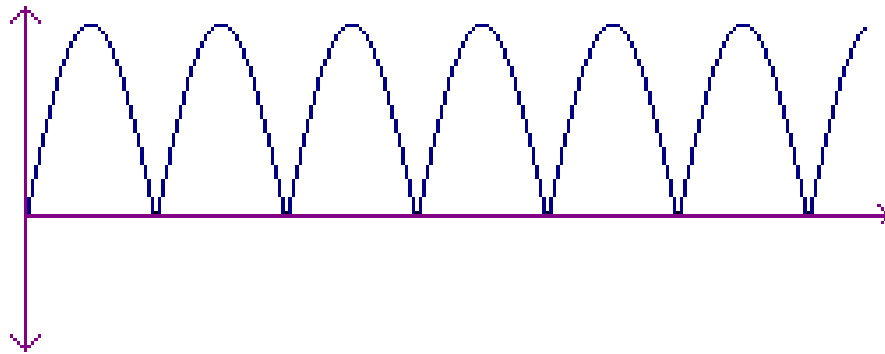
© Mark Olson, Accutach Co.

Rev. 1, 11/12/2011

This is a fairly cheap and easy method for testing the tachometers in 1988-1991 Honda CRX clusters. All you will need is a good well-regulated 12V power supply; a cheap, unregulated battery charger that can charge 6V batteries and three alligator clip-leads to hook it all together.

You need the well-regulated 12V power supply to provide power to the tachometer during testing. If you don't have access to a bench power supply, a charged car or motorcycle battery provides a great power supply. A battery charger is not a regulated power supply, so it will not work to power the speedometer or tachometer.

However, a battery charger can provide a good timing signal for your testing. Here in the US, our AC power frequency is very well controlled at 60Hz. Most battery chargers simply run the AC through a transformer to reduce the voltage and a rectifier bridge to convert it to DC. However, since the AC power is supplied in the form of a 60 Hz sine wave, the rectified sine wave becomes a 120 Hz DC signal such as this one:



It turns out that this signal is a pretty good signal for testing tachometers, with a 6V battery charger.

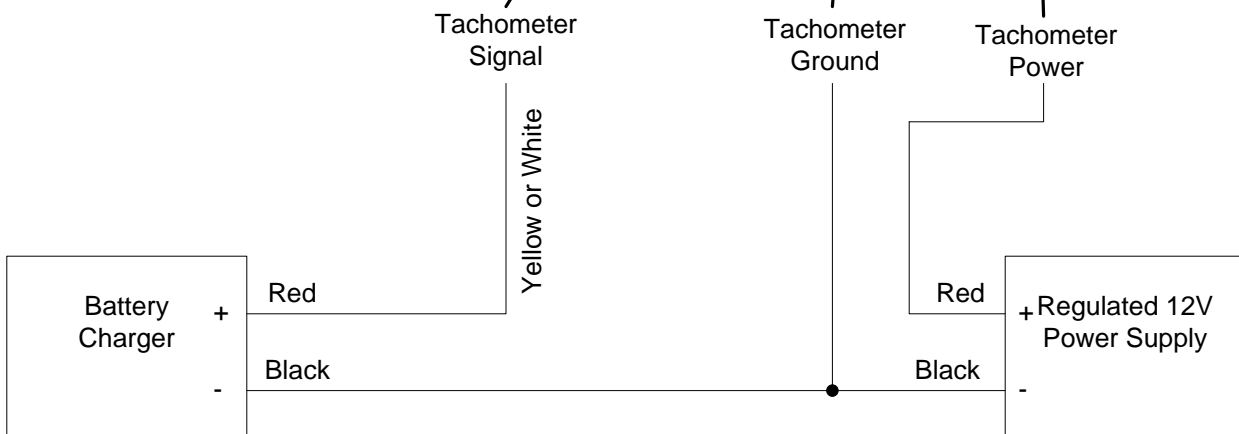
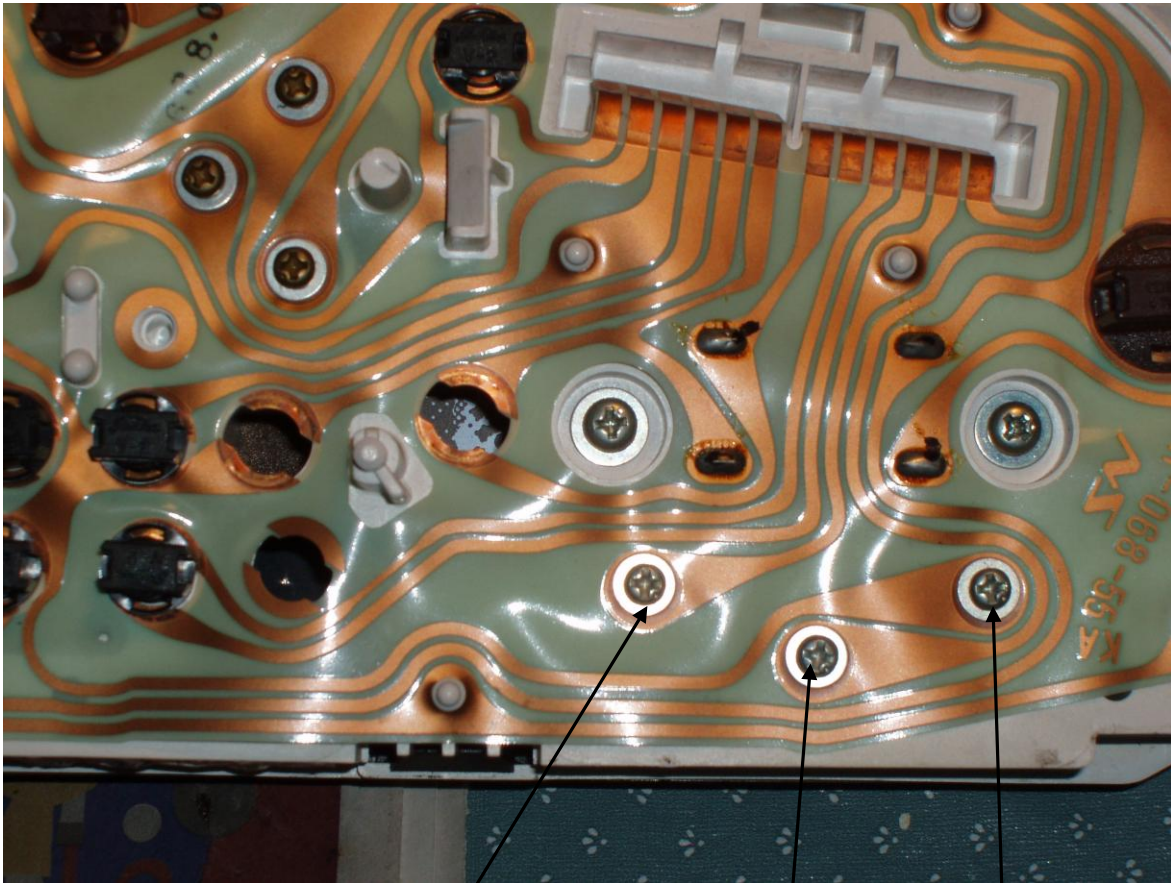
Four Cylinder tachometers use the following formula to relate RPMs shown to frequency input:

RPMs = 30 \* Frequency, so 120 Hz will simulate an 3600 RPM signal.

All that is needed to test a tachometer is to power up the tachometer and then feed the output of the 6V battery charger into the tachometer input to ensure that the needle moves and points to the correct RPM.

The following pages show how to hook up the tachometer for testing and for putting the needle back on the tachometer at the correct angle if it has been removed.

## Tachometer Connections

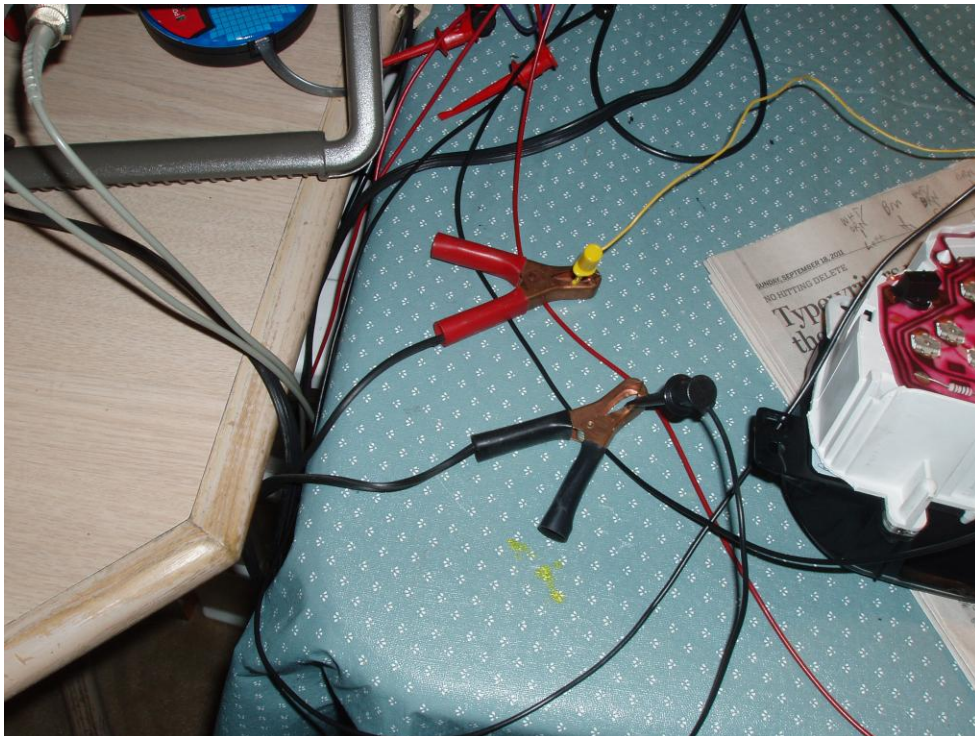


Connect the grounds together. Connect the regulated 12V power to the tachometer power pin. Connect the 6V battery charger power to the tachometer signal pin. (I used a yellow or white clip-lead for the tachometer signal.)

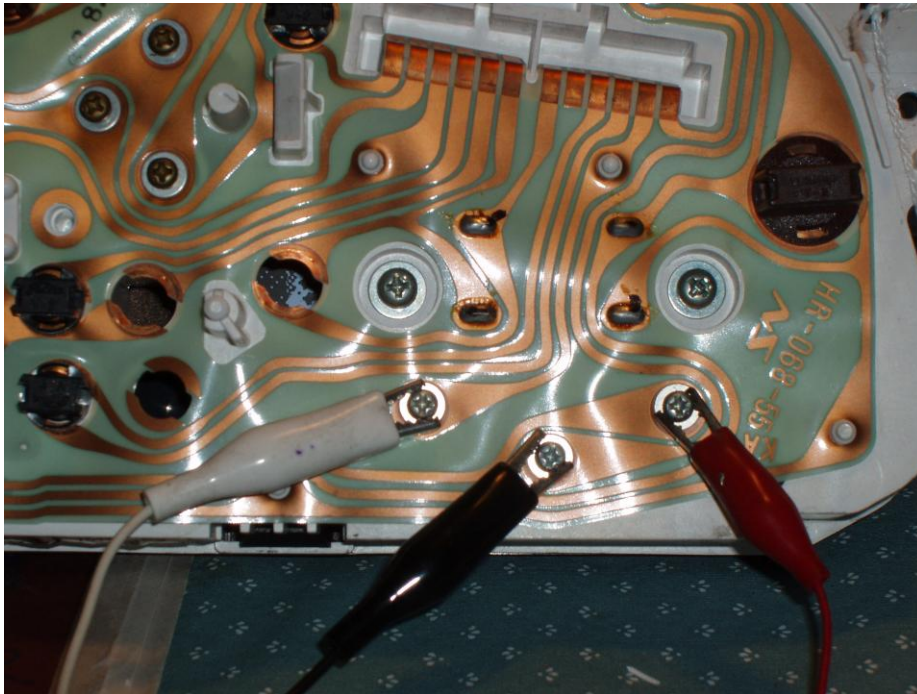
## Battery Charger



## Battery Charger Connections



## Cluster Connections



## Tachometer Needle



3600 RPM