

## Denso Charging Issues

Later Model Denso Alternators Commonly fitted to Honda Toyota and Lexus can have 4 pin connector plugs that look identical but can function in a number of different ways and will not interchange. For Example a RAV4 can have ANJ250 OR ANJ254 depending on the year and the correct unit is needed or they will not operate at all or not correctly.

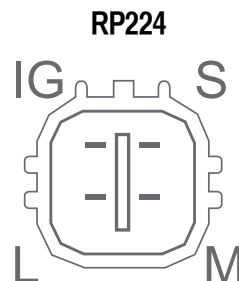
Looking at the RP224 below, commonly in but not limited to Alternators ANJ216, ANJ233, ANJ249, ANJ294.

The Terminals are:

- **IG** - Ignition, a positive supply, ignition fuse fed possibly with Reverse lights fuse
- **S** - Battery Sense direct from Battery positive to supply alternator with correct battery voltage
- **L** - Warning Light, Alternator warning light in dash, supplied by instrument fuse then through the globe
- **M** - Monitor this is a Duty Cycle output to report Alternator load to the Vehicle ECU/BCM and may be able to be read with a duty cycle meter or may need a pull up voltage to read as this is switched to ground.

We have had instances where a blown ignition fuse has caused this type of Alternator to charge on the vehicle but the warning light has remained on.

Loss of The S or battery sense will cause incorrect charging voltage.



**RP269 Below as Fitted to ANJ250 is slightly different.**

S is replaced by RLO which is a ECU/BCM control Over the Alternator output, this will vary Alternator Output in response to battery condition / vehicle load. In this type of plug loss of IG supply due to a blown fuse will stop the Alternator charging and leave warning light on.

