SMART IGNITION SENSE

Smart Ignition Sense Module

This inertial sense module is a solid-state electronic device developed for use with Redarc and Enerdrive dcdc chargers to save the hassle of taping into the vehicles ignition system on cars with variable voltage alternators.

Using this module in conjunction with one of our universal dual battery kits elevates the need to wire into the cars factory wiring and keeps the entire kit plug and plug. Making it a simple install and easy to remove later if needed.

How it works

The *Smart Ignition Sense* detects movement (from both the engine vibration and acceleration), when attached to the vehicle chassis or body. Once the input voltage is within operating range this movement will provide a trigger signal to the Redarc or Enerdrive dc charger and initiate the charging cycle.

Installation

The body of the Smart Ignition Sense contains the movement sensor. It needs to be fixed to a part of the vehicle that is subject to vibration emitted from the engine while running. It can also be triggered by acceleration, however vibration detection provides better functionality as it commences once the engine is started as opposed to the vehicle moving.

The Smart Ignition Sense body can be attached by either the double sided 3m tape provided or with a seperate screw. In the instance where vibration is minimal the screw option is likely to give a better result as mechanical fastening will transmit the vibration.

The module can be oriented in any position in any axis, horizontally or vertically. It is ip67 environmentally rated but care should be taken not to expose it to unnecessary temperatures (not near turbo chargers or exhaust systems).

1. Select a location on a metal surface of the body or chassis within range of the dcdc charger. If vibration can be detected with your finger this will be enough for the module.
2. If using the double sided tape provided, prepare the surface by first degreasing with isopropyl alcohol. **Do not allow the alcohol to contact the module housing.**
   Peel off the backing paper being careful not to contaminate the adhesive surface.
   Affix in the desired location, pressing and holding for a minimum of 30 seconds.
   Once fixed in position the wires can now be connected to the dcdc charger and also the battery.
3. Place fuse into fuse holder.

Electrical Connections

1. The long cable marked ignition is to be plugged into the dcdc chargers ignition wire.

2. The red and black eye terminals are to be connected to the vehicles main start battery to monitor the operation of the alternator.

Opperation

Once connected the modules ‘ACTIVE’ LED will blink every 8 seconds indicating the module is in standby mode. If the led is not blinking it may be a connection fault or check that the fuse has been inserted into the fuse holder.

If the ACTIVE LED is blinking, start the vehicle. Once the main battery voltage rises above 13.2V and vibration is present the led will become steady, this could take up to 10 seconds after each of these conditions are met. Any time the led is on steady the module is providing an ignition signal to the blue wire on the Redarc or Enerdrive charger.

Once the engine is switched off the module no longer detects movement, the output signal will cease AFTER the main battery voltage drops to 12.8V. Your dc charger will then stop charging and become isolated from the main battery until the engine is restarted.