



PRAT SOLÀ ELECTRÓNICA, S.L.

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Rev:2

E772V2 smart charging relay

Description:

The new smart relay E772V2 is an excellent and cost effective alternative of a Booster to recharge the auxiliary battery.

E772V2 smart relay connects the auxiliary battery to the starter battery when the vehicle is running, allowing the car alternator to charge the two battery at once. When the vehicle is stopped the relay disconnects the batteries, protecting the starter battery of unintended discharge.

With EURO6 low emission regulations enforcement, car manufacturers have developed variable voltage alternators. The new E772V2 smart relay has been designed to work with all alternators, included the EURO6 ones.

Smart Relay E772V2 functions:

- Connection when alternator output is over 13,4V even when the car is stopped but the engine is running.
- Motion detection: Advanced signal processing techniques are used to rule out punctual vibrations and only accept motion patterns that correspond to the vehicle in motion. This function ensures connection when the vehicle is running even if the alternator output voltage is lower than 13.4V. There is an intended delay between motion detection event and relay connection.
- "Ideal diode" function: specific current sensor circuit is used to detect current through the relay. This feature avoids currents going back from auxiliary battery to starter battery. This function is necessary using EURO6 alternators.
- Starter battery protection function: the relay separates the auxiliary battery if the starter one has less than 12V in any situation.
- 180A peak current and 120A nominal current withstanding

Tips and assembly:

- Use wiring section of 10mm² or greater and as short as possible. A lower section and a long wiring would generate voltage drop that would confuse the smart relay readings.
- Install the relay as close as possible to the alternator.
- Firmly secure the relay with the vehicle for correct motion detection.
- If available, disable the Start/Stop function of your vehicle when you need to charge the second battery quickly.
- In the event of a car-traveling on a boat or train, be sure to turn off all auxiliary battery loads.