

Isolator Relay Delay/E

Date datasheet created:
19/04/2013

Intellitec's Battery Isolator Relay Delay/E offers a low cost, reliable approach to charging multiple batteries. Unlike diode isolators, this system provides an engine driven alternator with the opportunity to begin charging the main battery before connecting the auxiliary battery. This allows the use of self-exciting alternators and lets the engine briefly warm up prior to placing the load of a heavily discharged auxiliary battery on the alternator. The unit is available in both 12 and 24 volt versions.

The unit is fully encapsulated in a plastic enclosure for mounting in the engine compartment with two screws. It operates in combination with a conventional continuous duty cycle isolator relay that has been used by a number of vehicle manufacturers. There are three (3) wires to connect to the delay unit: one from an ignition switched 12 volt source, a ground and the isolator relay coil.

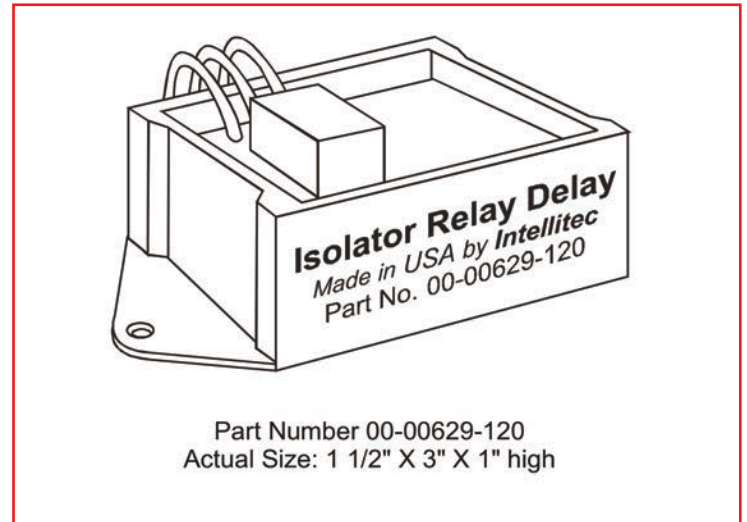
It operates by sensing the voltage on the main 12 volt system. When this voltage goes above 13.3 volts for approximately 12 seconds, as happens when the engine is running normally (normal alternator output voltage is approximately 14.4 volts), it will close the isolator relay providing charging current to the auxiliary battery. When the ignition switch is turned off, the relay will open immediately.

If the voltage should drop below 12.0 volts for more than two seconds while the engine is running, the relay will drop out. This might happen when the alternator is not able to supply sufficient current to all the loads and charge the auxiliary battery.

When the main battery voltage rises above 13.3 volts again, the relay will again close in about 2 seconds to retry charging the auxiliary battery. The resultant flicker of the lights will alert the driver of the system overload.

How It Works

The Isolator Relay Delay senses the voltage on the main battery of a multiple battery system, and supplies power to the coil of an isolator relay when the voltage on the main battery rises above 13.3 volts (26.6 volts on 24 volt system). If the voltage falls below 12.0 volts (24 volts on 24 volt system) the unit will



stop supplying current to the isolator relay, preventing the load of the auxiliary battery from stopping the engine.

Specifications

12 volt

Part Number: 00-00629-120

Maximum Continuous Carry Current: 10 Amps Max.

Maximum Ambient Temperature: 185 Degrees F.

Minimum Ambient Temperature: - 40 Degrees F.

IRD/E with Cont. Duty Solenoid: 00-00629-512

24 volt

Part Number: 00-00629-240

Maximum Continuous Carry Current: 10 Amps Max.

Maximum Ambient Temperature: 185 Degrees F.

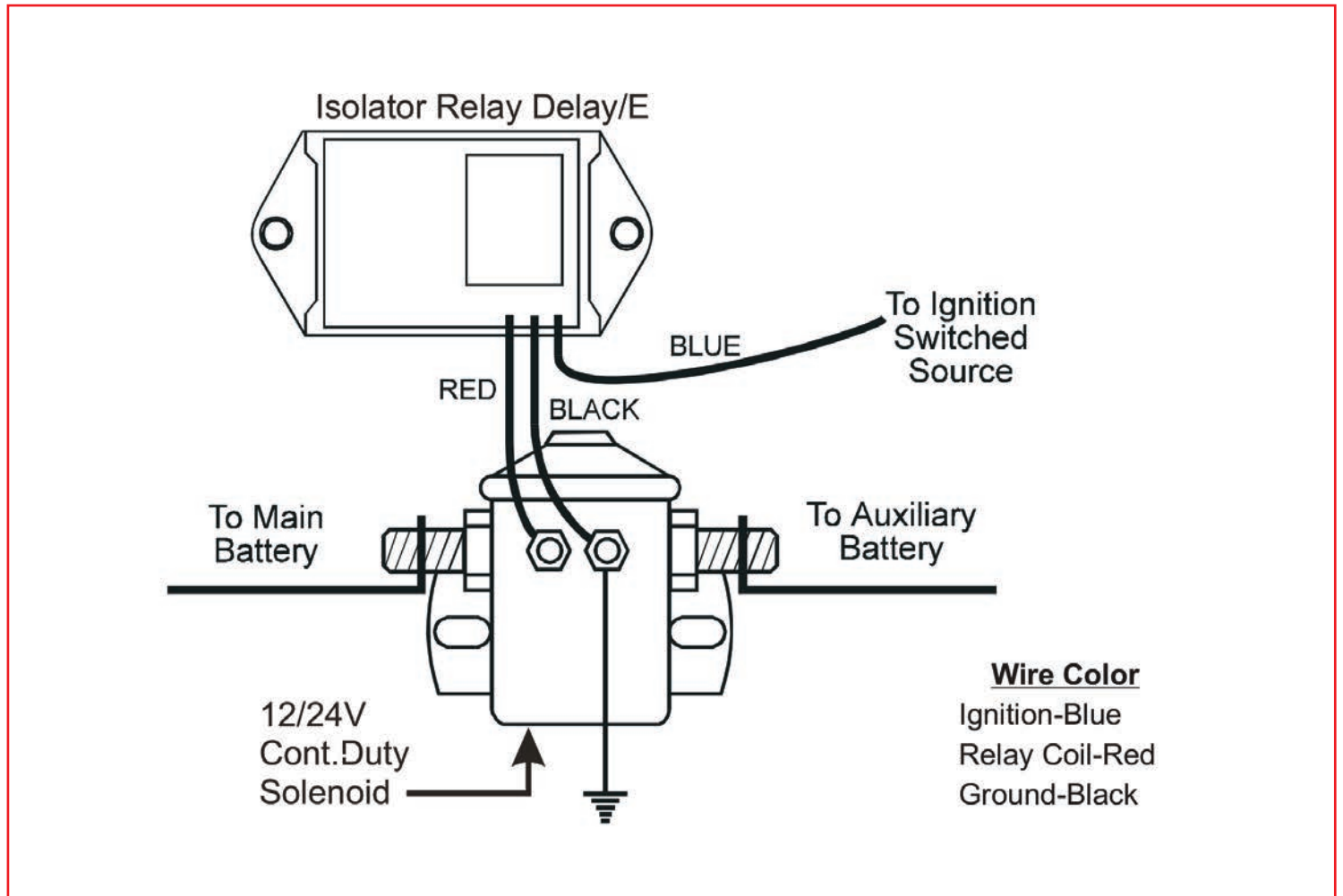
Minimum Ambient Temperature: - 40 Degrees F.

IRD/E with Cont. Duty Solenoid: 00-00629-524

Isolator Relay Delay/E

Date datasheet created:
19/04/2013

Schematic



For further information on this product, please contact Intellitec.