# **Potted Bi-Directional Isolator Relay Delay - Gas**

Intellitec's **Potted Bi-Directional Isolator Relay Delay-Gas**<sup>™</sup> offers a new approach to charging batteries in an RV application.

### How Does It Work?

The **Potted Bi-Directional Isolator Relay Delay**<sup>™</sup> constantly senses the voltage on the coach and chassis batteries. If either voltage is above 13.1 volts, which indicates the batteries are being charged, the control module closes the isolator relay. This parallels the batteries, charging them both.

If the ignition is **off** and the coach battery voltage falls below 12.6 volts for approximately 30 seconds, the isolator relay will open to prevent the coach loads from discharging the chassis battery. When the voltage goes back above 13.1 volts for approximately 1 minute, the isolator relay will close again allowing the chassis and coach batteries to charge.

If the ignition is **on**, (engine running), and the voltage falls below 12.0 volts for approximately 1 minute, the isolator relay will open to prevent the coach loads form discharging the chassis battery and to insure the alternator's full output is available for important chassis functions. When the voltage goes back above 13.1 volts, for 30 seconds, the relay will close again.

After the isolator relay has been closed, the system continues to sense the voltage. If the ignition switch is **off** and the coach battery voltage drops below 12.6 volts for approximately 30 seconds, which might occur when the converter is heavily loaded, the isolator relay is opened to prevent the chassis battery from being discharged by the coach loads. When the voltage goes above 13.1 volts again for approximately 1 minute, the isolator relay closes again.



Part Number: 00-00956-000

The **Potted Bi-Directional Isolator Relay Delay**<sup>™</sup> is housed in a plastic enclosure for mounting in an engine compartment. The module operates in combination with a conventional continuous duty solenoid to connect the two batteries together under the proper conditions. This allows the batteries to stay connected together which helps charge a heavily discharged coach battery more quickly with the varying output of the alternator. If neither battery is being charged, the batteries are fully isolated. The controller also senses heavy loads on either battery to prevent the wrong battery from being inadvertently discharged.



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P/N 53-00956-000 Rev. B 082108

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### Specifications:

Part Number: Output Current: Standby Current: Ambient Temperature Range: Normal Input Voltage Range: Short Term Over Voltage Protection to: Reverse Voltage Protection to: positive Voltage Spike Protection to: Operating Environment: 00-00956-000 3 Amp maximum Less than 2 milliamps -40°C to +85°C 10 to 18 volts +26 volts -300 volts +150 volts Out of direct weather

#### Typical Installation Diagram



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