

Bi-Directional Isolator Relay Delay

On All Gasoline Engine Vehicles

INSTALLATION INSTRUCTIONS

Before beginning the installation of this system, please read all these instructions carefully. This will help to prevent misunderstandings that could cause problems with the installation.

NEEDED:

- 4) 16-18 AWG female spade connectors
 - 1) 16-18 AWG 5/16" ring terminal
 - 1) Butt splice connector
 - 1) 16-18 AWG #10 ring terminal
- Various lengths of 16-18 AWG stranded wire

ABOVE AVAILABLE AT A LOCAL AUTOMOTIVE OR ELECTRONIC HOBBY SHOP

- Step 1. Disconnect both the chassis and coach battery grounds to prevent possible short circuits during installation.
- Step 2. Locate your existing isolator solenoid. Disconnect the wiring to the coil (small screws). The attached solenoid identification sheet may help. If you are unable or unsure about locating your existing solenoid, please call the manufacturer of the vehicle.
- Step 3. Find a dry location near the isolator solenoid to be used for mounting the B.I.R.D. module. Mount the control box using four #8 self tapping screws.
- Step 4. The B.I.R.D. has four male spade connectors on it, therefore, each wire that you start will need a female spade connector on it first.
- Step 5. Route one wire from the isolator solenoid to the B.I.R.D. On the isolator side, crimp the 10AWG ring terminal. On the B.I.R.D. side, crimp the previously mentioned female spade. Push the female connector on to the spade marked RELAY COIL on the module.
- Step 6. Route the next wire from the COACH BATTERY side of the isolator solenoid to the B.I.R.D. by using the 5/16" ring crimped on the isolator side and a female spade on the B.I.R.D. end. This wire will go to the terminal on the module labeled COACH.
- Step 7. Route the next wire from an IGNITION SUPPLY WIRE to the B.I.R.D. terminal labeled IGNITION. Use the butt splice to splice onto the ignition wire and a female spade connector for the B.I.R.D. Connection.
- Step 8. Route the last wire from Chassis ground to the terminal on the B.I.R.D. labeled GROUND.
- Step 9. Installation is now complete. Verify your connections and wiring using an ohm meter. Reconnect your batteries.

On Vehicles with Intellitec's Isolator Relay Delay

Intellitec

1485 Jacobs Rd.
Deland, FL 32724
386.738.7307

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- Various lengths of 16-18 AWG stranded wire

ABOVE AVAILABLE AT A LOCAL AUTOMOTIVE OR ELECTRONIC HOBBY SHOP

- Step 1. Disconnect both the chassis and coach battery grounds to prevent possible short circuits during installation.
- Step 2. Locate your existing Isolator Relay Delay. It can be identified by its brown box and three wires, red, blue, and black coming from it.
- Step 3. Cut the three wires and remove the old Isolator Relay Delay.
- Step 4. Mount the B.I.R.D in the location vacated by the Isolator Relay Delay.
- Step 5. Crimp a female spade connector on each of the red, blue, and black wires.
- Step 6. Place the red wire on the spade marked RELAY COIL. Place the blue wire on the spade marked IGNITION SUPPLY WIRE. Place the black wire on the spade marked GROUND.
- Step 7. Route a wire from the Coach side of the isolator relay to the spade marked COACH BATTERY. On the relay side of the wire, crimp a 5/16" ring terminal.
- Step 8. Installation is now complete. Verify all connections using an ohm meter. Reconnect your batteries.

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How Does It Work?

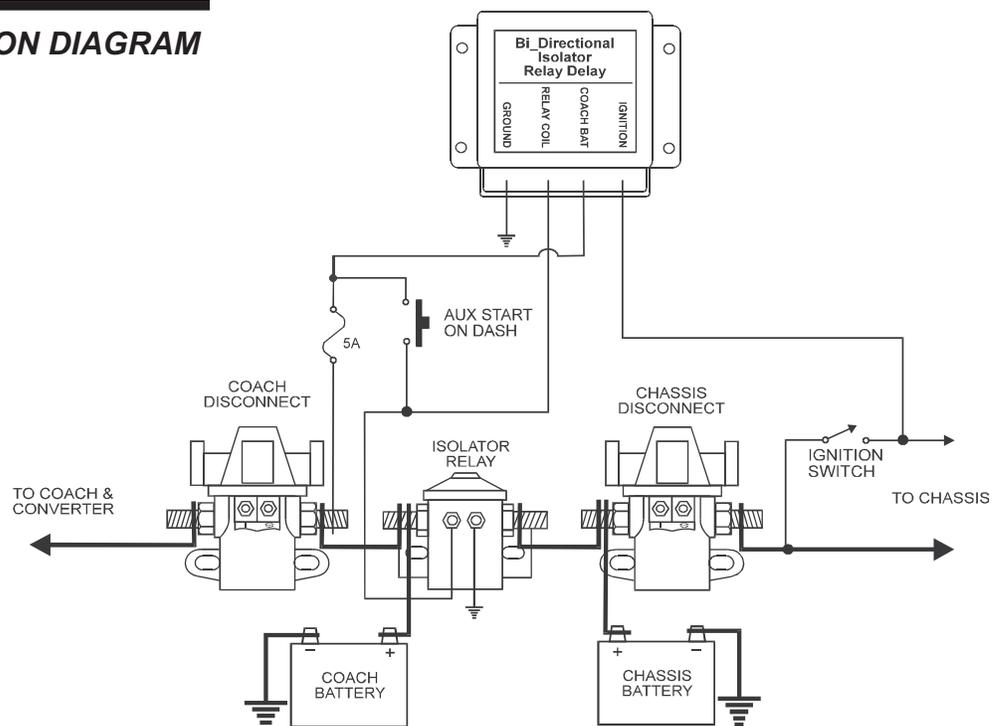
The Bi-Directional Isolator Relay Delay™ constantly senses the voltage on the coach and chassis batteries. If either voltage is above 13.3 volts, which indicates the batteries are being charged, the control closes the isolator relay. This parallels the batteries, charging them both. If the ignition is off and the voltage falls below 12.8 volts for approximately five seconds, the relay will open to prevent the coach loads from discharging the chassis battery. When the voltage goes back above 13.3 volts, the relay will close again.

If the ignition is on and the voltage falls below 12.0 volts for approximately five seconds, the relay will open to prevent the coach loads from discharging the chassis battery. When the voltage goes back above 13.3 volts, the relay will close again. Allowing the batteries to stay connected together to a lower voltage helps charge a heavily discharged coach more quickly with the varying output of the alternator.

Specifications:

Part Number:	00-00362-000
Standby Current:	Less than 2 milliamps
Ambient Temperature Range:	-40C to +85C
Normal Input Voltage Range:	10 to 18 volts
Short Term Over Voltage Protection:	+26 volts
Reverse Voltage Protection:	- 300 volts
Positive Voltage Spike Protection:	+150 volts
Operating Environment:	Out of direct weather

TYPICAL INSTALLATION DIAGRAM



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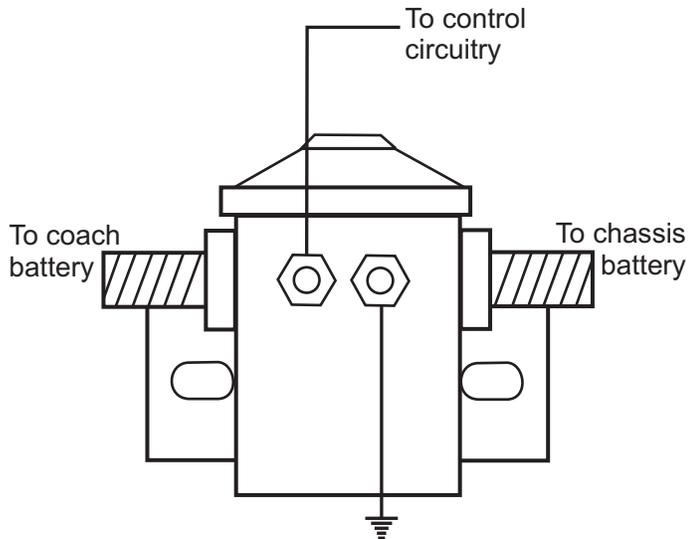
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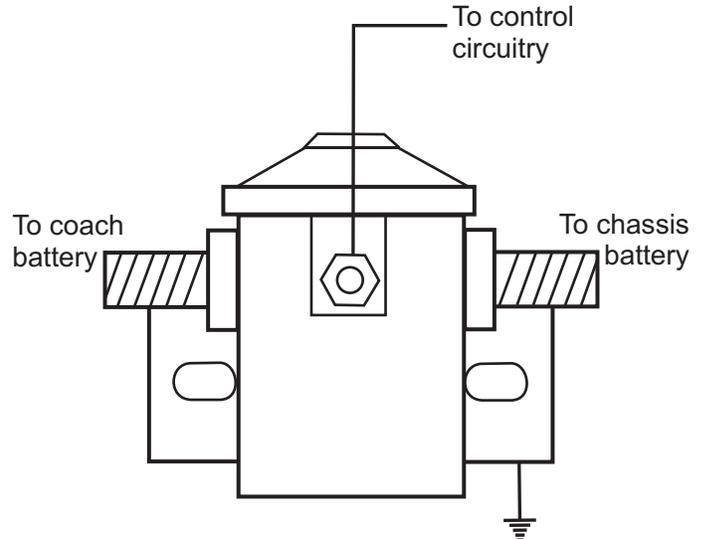
INSTALLATION INSTRUCTIONS

Isolator Solenoid Identification

Two types of acceptable configurations



Note: This configuration is OK.
One post is grounded.



Note: This configuration is also common.
The case is grounded to the body
of the coach.

RELAY SPECIFICATIONS:

- SPNO (single pole, normally open)
- 12 volt continuous duty
- 100 Amps continuous
- 200 Amps surge
- Maximum coil current, 1 Amp
- Minimum coil resistance, 15 ohms
- Intellitec Part Number 77-90000-100

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