

# Heavy Duty Battery Guard<sup>®</sup> 1000 (12v)

Part number: 01-00058-000



**BATTERY DISCONNECT** provides a simple and safe means of disconnecting the coach and chassis battery(s) of an RV. With just the touch of a switch on the monitor panel conveniently located inside the RV, the battery(s) will be completely disconnected. Since the 12 Volt battery system plays such a vital role in the use and enjoyment of your RV, Battery Disconnect can give you peace of mind.

Through its correct use you may:

- 1) Prevent unwanted discharging of batteries during extended periods of storage
- 2) Prevents shorts or fire hazard while storing on the 12 Volt electrical system
- 3) Prevent overcharging of batteries if RV is plugged into shore power (120 Vac) for extended periods.

These instructions contain all the information needed to help you install the Battery Disconnect. It is assumed the installer has basic skills in electrical wiring, mechanics and carpentry. If you have any doubts about these techniques or instructions, consult with someone **BEFORE** you connect a wire or cut a hole.

It is best to read **EVERYTHING** before doing **ANYTHING**. These instructions are written for a typical travel coach, not for any specific make or model. You should devote some thought and ingenuity to finding the best way to accomplish each step, so that the finished job will be a worthy addition to the coach in which it is installed.

## Additional Parts

Since this kit is for many different types of vehicles, not everything you need can be included. The parts required are listed below and can be purchased at any RV or automotive store.

- 1) Crimp on battery cable lugs. Two (2) for each relay. Must fit 3/8" copper studs on relay.
- 2) Crimp on control lines. Two (2) for reach relay. Must fit #10 screw on relay.
- 3) Relay Mounting bolts, 1/4", length to suit. Two (2) per relay.
- 4) If the battery cables are too short to reach where the relays will be mounted, additional cable will be needed.
- 5) Control Panel or Rocker switch with H-Bridge configuration capable of driving 5 Amps.

### **Choose the Location**

The Control Panel/Rocker Switch should be visible and reachable by occupants. One typical location is on an interior wall near the entrance door of the coach. It should be noticeable as you enter and leave the coach to remind you to connect/disconnect the battery.

Be sure there are no obstructions at the location; there must be at least  $\frac{3}{4}$ " of clear space behind the panel. Cable routing space must be factored in when choosing location.

### **Route the Control Cable**

The Control Cable connects the Control Panel/Rocker Switch to the Disconnect Relay and to the vehicle ground. Locate where the relays will be mounted (see Install the Battery Disconnect Relay). Make a path for the cable and put it through. Leave a foot of slack at the Panel/Rocker Switch end so that it can be plugged in and secure the cable to the inside of the wall.

### **Installing the Disconnect Relay**

***WARNING: Before proceeding, disconnect all sources of power. Unplug the shore power cable and turn off the generator. Disconnect the battery(s) negative (-) terminal.***

The relay is the electromechanical switch that disconnects the battery. It should be located near the battery for wiring simplicity. When installed, the relay will be inserted "in-line" with the cable coming from the positive (+) terminal of the battery. *Keep this in mind when choosing a location.*

While holding the relay in place near the chassis battery, mark the location of the two holes for the relay mounting bolts. Set the relay aside, and drill two mounting holes. Before bolting the relay in place, route the Control Cable near the mounting place. When installing in an engine compartment, be sure to provide enough space for airflow to allow for cooling.

### **Connecting the Cables:**

Locate the positive battery cable for the battery. Carefully cut the cable near the relay. Strip the cable insulation back about 1/2" on each end and crimp on the battery cable terminals. Remove flange nuts from both copper studs. Connect the terminals to the copper studs on the relay. Torque requirements for the high-power copper contact studs should be **5 – 7 FT-LBS**. Use of calibrated torque device is recommended to ensure proper installation.

Remove the two keps nuts on the side opposite the copper bolts. Attached the two control cables to the "S" and "I" terminals. A positive battery voltage on the "S" and ground on the "I" will put the Battery Disconnect into the disconnected state. Reversing the signals will put the Battery Disconnect into the connected state. Torque requirements for the control lines should be **30 IN-LBS**.

The installation is now complete. Reconnect the negative cable to the battery.

**Troubleshooting**

Symptom	Remedy
Relay won't connect/disconnect	<ul style="list-style-type: none"><li>• Battery voltage below 10.5 Volts - recharge battery.</li><li>• Control Cable connected improperly - check wiring.</li><li>• Fuses to relay blown -replace</li></ul>
Relay connectors for store and disconnects for use	Wires on S and I terminals of relay are reversed - check wiring.

\*In the event a battery cannot be connected due to any difficulty with the BATTERY DISCONNECT, simply move the LOAD cable to the same relay stud as the BATTERY cable and the relay will be out of the circuit.

Available Product Literature and Guides:

Brochure:	53-00058-000
Product Specification:	53-00058-001
User's Guide:	53-00058-100
Installation and Applications:	53-00058-200
Supporting Documents:	53-00058-300

Contact Information:

[www.intellitec.com](http://www.intellitec.com)

Intellitec Products, LLC      1485 Jacobs Road, De Land Florida, USA 32724  
(386) 738-7307