

# PRECISION CIRCUITS INC

The **BATTERY ISOLATION MANAGER (BIM)** isolates the two battery systems, chassis, and coach, in a motorhome. This prevents loads in one system from discharging both. It also connects the two battery systems together during charging. Both batteries are charged if either is being charged. The coach battery is charged while driving and the chassis battery is charged while plugged into Shore Power at a campground.

Key Features:

1. 160amp & 225amp continuous models available
2. Runs cooler using less power
  - a. Draws no current in ON or OFF state
  - b. Excellent for Solar Panel use
3. Microprocessor based
  - a. Monitors battery state over longer periods of time
  - b. Not simply voltage dependent
4.
  - a. Approved for Battery Compartments
  - b. Ignition Proof, SAE J1171
  - c. Waterproof, IEC 60529, IP66 IP67, ASTM B 117 96 Hours Salt Spray
5. Charges
  - a. Coach Battery from Alternator
  - b. Chassis Battery from Coach Charger
6. Isolates Batteries to prevent discharging or overcharging of Batteries
7. Prevents
  - a. Equalization cycles from Damaging Chassis Battery
  - b. Annoying clicking of Isolator Relay
  - c. Overcharging of Coach Battery during long drives
  - d. Overcharging of Chassis Battery during long stays
8. Provides Emergency Start with Dash Switch. Optional power connection for existing applications, and ground connection to allow Emergency Start of either battery.
9. Weighs under 1 pound

The **BIM** monitors the battery voltage of both the chassis and coach batteries over long periods of time. If it senses a charging voltage, it connects the two batteries together. If the charging system is drastically overburdened, the batteries will be isolated, however, if the **BIM** sees a long term charging of both batteries it will allow the batteries to remain connected and allow the charging system to do its job. Once the batteries have charged for one hour, the **BIM** will isolate the batteries to prevent overcharging, and will only reconnect the batteries for charging if one of the batteries drops to approximately 80% charge, and the other is being charged. This long term monitoring of the batteries prevents the annoying relay clicking that exists in simpler isolation modules today. The **BIM** does not guarantee 100% battery charge, but prevents harmful battery charge levels.



## BATTERY ISOLATION MANAGER

Operation:

The **BATTERY ISOLATION MANAGER** opens and connects the two 5/16" copper terminals by means of a sliding contact. Each time **BIM** changes ON/OFF state, the contact instantly switches. The **BIM** remains in the ON or OFF State, without coil power.

Part Number:	00-10041-200		00-10041-250
Relay Contacts:	160 Amps Continuous		225 Amps Continuous
Specifications:			
Relay Contacts:	Wire Size	Amps Continuous	Amps Intermittent, 30 secs
	2/0	225A	1200A
	1/0	200A	1200A
	1	160A	600A
	2	130A	600A
	4	100A	600A
Maximum Dimensions:	3" wide	5-1/4" high	2" deep
Mounting Holes:	Three 3/16" Holes		
Connections:	Coach or Chassis Battery:	5/16" Ring Terminal	
	Input Terminals:	#10 Ring Terminal	
Environment:			
Waterproof:	IEC 60529, IP66 IP67, ASTM B 117 96 Hours Salt Spray		
Ignition Proof:	SAE J1171		
	Minimum	Typical	Maximum
Coil Volts DC	9.0VDC	12.0VDC	16.0VDC
Coil Amps DC		10amps	0.25 sec max internally protected
Ambient Temperature	-40°C		+60°C
Switch Life	50,000 cycles		

