

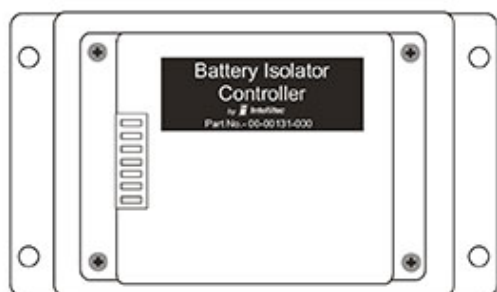
Battery Isolator Controller

Battery Isolator Controller performs two important functions. First, it provides a method of charging and isolating dual batteries in an RV. It also provides automatic auxiliary starting from the coach batteries when the chassis battery is unable to provide sufficient starting power. Indicator lamp drivers are included to signal the driver both normal and auxiliary start. This unit combines the functions of the conventional diode isolator and manually operated auxiliary start functions.

The unit is housed in a plastic enclosure suitable for mounting near the batteries or in an engine compartment. It operates in combination with a conventional continuous duty cycle isolator relay.

It operates as an isolator by sensing the level of voltage on the chassis 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 coach battery. When the ignition switch is turned off, the relay will open immediately. If the voltage should drop below 12 volts for more than two seconds while the ignition is on, the relay will drop out. This might happen when the alternator is not able to supply sufficient current to all of the loads.

When the chassis voltage goes above 13.3 volts again, the relay will again close in about two (2) seconds to re-try and charge the battery. The resultant flickering of lights would alert the owner of the system overload.



Part Number 00-00131-000
Actual Size 6.7" x 3.9"

As an automatic auxiliary starter, it operates by sensing the level of both the coach and chassis batteries. If, when starting, the chassis batteries voltage falls below 9 volts for about 1/2 second, and the coach battery is above 9 volts, the relay will be closed and held until the starter switch is released.

This parallels the coach and chassis batteries, providing the needed boost for starting. The indicator lamp drivers will control two optional dash mounted lights, a normal start and an auxiliary start.

Under normal starting conditions, the normal start indicator light will light when the starter is being activated and will remain on for approximately 3 seconds after starter deactivation. During cranking, should the auxiliary start function occur, the normal start indicator will go out and the auxiliary start lamp will come on and remain on for approximately 3 seconds after the starter deactivation.

Specifications:

Part Number: 00-00131-000

Isolator function:

Pull-in voltage 13.3 0.3 volts
?Pull-in time 15.0 4 seconds
Drop-out voltage 12.0 0.3 volts Drop-out time
4 1 second

General:

Output current 1.5 Amp maximum
Ambient temperature -40F to 185F
(-40C to +85 C)

Auxiliary Start function:

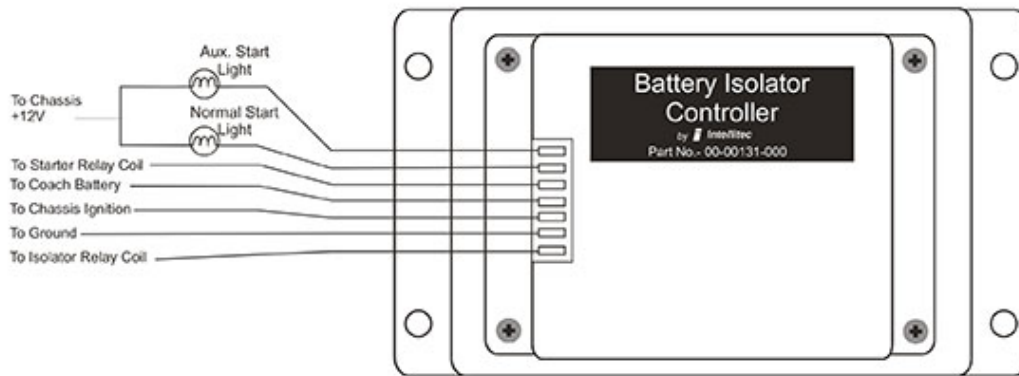
Chassis battery < 9.0 ± 0.3 volts
Coach battery >9.0 ± 0.3 volts
Pull-in time approx. 0.5 seconds
Indicator lamp current 0.15 amps maximum

Mating Plug:

Housing: Molex 09-50-3071 or equal C
ontacts: Molex 08-50-0106 or equal
(qty 5 or 7 required)



Wiring Diagram



NOTE: USE 18 AWG WIRE.

An alternative indicator lamp could be connected in parallel with the relay coil. This indicator would then show when the system is either charging the coach battery or when an auxiliary start has occurred.