The Case for adding a Combiner to a Stock Diode Isolator

RETAINED, STOCK, DIODE ISOLATOR FEATURES

* **NO –** electrical modifications required by the electrically challenged
* Retained features of the diode isolator
  - Electric choke - alternator pick-off
  - Electric fuel pump – alternator pick-off
  - High current, high speed fan connection – alternator pick-off
* Engine stops, alternator voltage stops

ENHANCED FEATURES

* The **SAFE** way to combine battery banks
  - Charge all banks from any source
  - Automatic drop-out from shorts, over voltage, heavy loads
* Drive home on Onan power after alternator failure

ISSUES

* Masks diode isolator failures
* APC still required to protect from alternator failure

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Blue Sea

Yandina

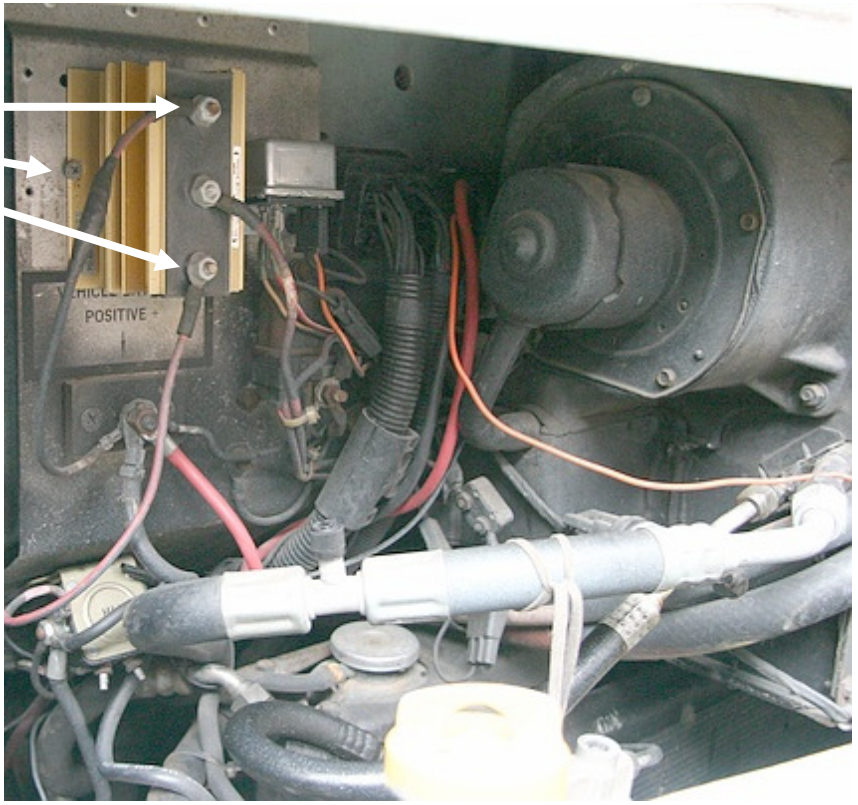
No changes in stock wiring

Three connections from a combiner

Much better and safer than a jumper wire

Automatic operation

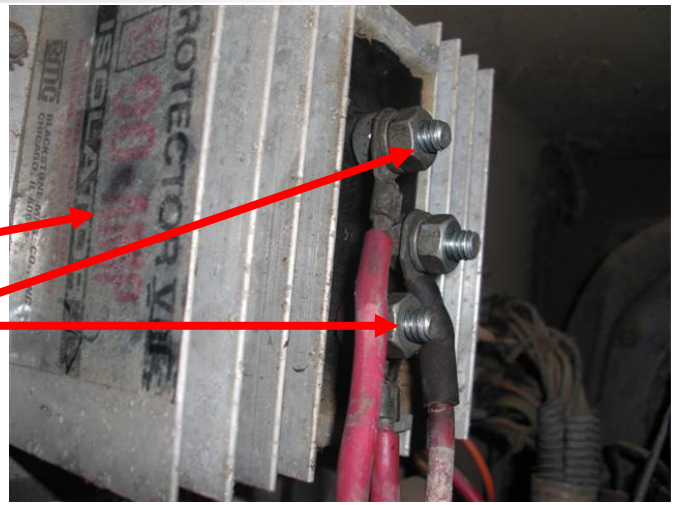
- Charge all banks from all sources
- Protection from failures
- Battery banks isolated
- Combiners will disconnect from hazards



Thanks to Denny for picture

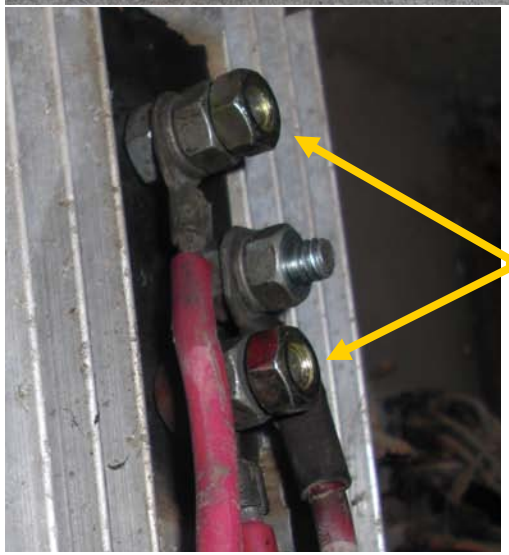
10 Minute Combiner Install

Combiner



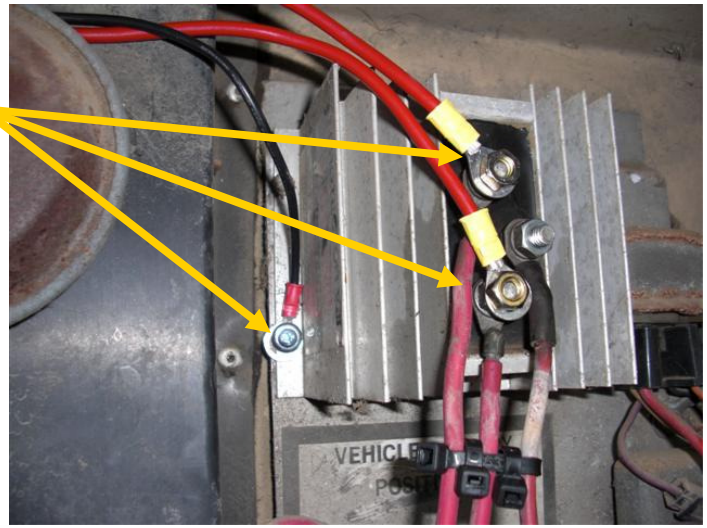
Isolator

Extra room on bolts



Add extra nuts

DONE !



These Functions still work with this Combiner Install

These "Engine-running" functions possible because of the isolator diodes

Electric Fuel Pump

Electric Choke

Heater (High Speed)

Alternator output

The isolator absorbs high alternator current

Until the batteries reach 13.3 volts

ISSUES

The combiner will mask Diode isolator failures

* Difficult to determine the isolator has failed as the combiner will still work

Still need the Alternator Protection cable

* The high voltage alternator failure will still destroy the dash wiring
* The APC also, does not modify stock electrical wiring
* The alternator light should never glow dim.

Banks of batteries can be connected with multiple combiners

* Bad batteries and discharges will automatically be disconnected

Smart chargers will automatically charge the engine battery