

COMBINER 200 12 Volt Model C200

FOR ALTERNATORS UP TO 200 AMPS.

SUMMARY

The Combiner 200 is a precision voltage-sensing relay (13.0 volts) which connects two batteries together when either is receiving a charge. When the charging ceases, it disconnects so that each battery operates independently and prevents accidental discharge of the starting battery. Supplemental battery banks can be added by using an additional Combiner for each bank. It eliminates manual switching every time you start the engine to parallel batteries for charging. Never again forget to switch it back. No diodes so no voltage drop, and batteries get a full charge.

FEATURES

Suitable for alternators up to 200 amps, up to 18 volts.
 175 amps continuous rating, 400 amps closing current,
 Nearly UNLIMITED warranty*
 Waterproof
 Ignition rated for explosive atmospheres
 No voltage drop so batteries reach full charge
 Electronic thermal monitoring with shutdown & restart
 Minimal wasted power, no heat sink or cooling required
 Can be used on alternators with internal regulators
 Protects alternator against overload from low batteries
 No special wiring for alternators with external sense
 Simple basic installation, two battery wires and ground
 Supplied with 6 gauge crimp terminals

Green LED indicates when combined

Red LED indicates thermal overload or low voltage.

Draws no current when batteries are not being charged

Draws 1/4 amp from the alternator when charging is in progress

No diodes to burn out if accidentally shorted

Optional external remote for **off, automatic, on**

Remote **"ON"** can be used for assisted engine starting

Withstands ambient temperature to over 175 F (80 C) for exposed or engine compartment mounting

SAFETY CONSIDERATIONS

DANGER: On all alternator/regulator circuits with an external sense wire it is critical that the sense wire can never be disconnected from the alternator output.

WARNING: If there are switches which can disconnect the alternator output from the battery this should be avoided

when the engine is running.

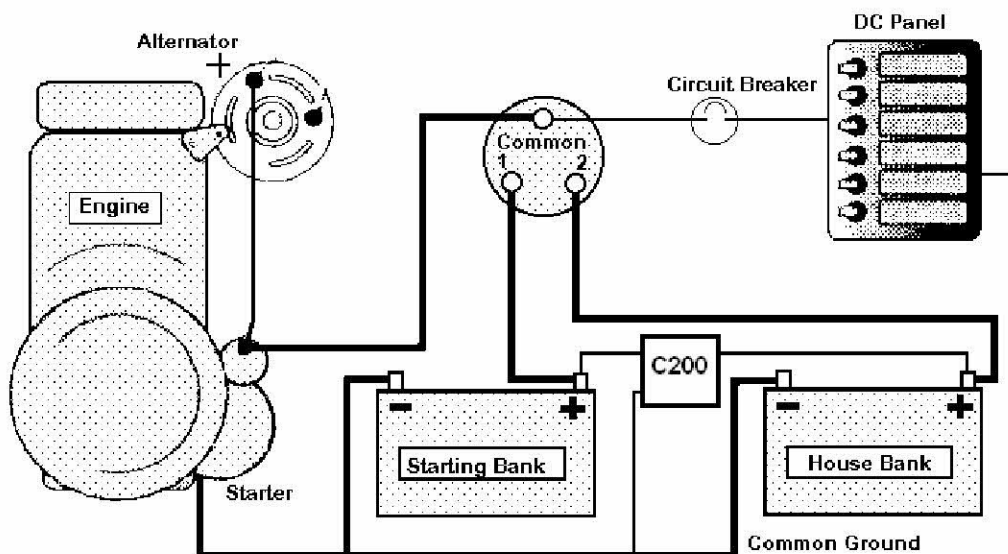
Since the connections made in the battery circuits can carry hundreds of amps, it is imperative that you have low resistance connections. This means having clean metal to metal contact, the right size ring terminals, properly crimped terminals, and secure mechanical fastenings.

BASIC INSTALLATION

1. Connect the **NEGATIVE** terminal (left of 3) to either battery negative or any convenient negative terminal block.
2. Connect two 6 gauge or smaller **RED** cables between the Combiner and the positive terminals of the batteries. **Use a MINIMUM of 6 feet. 3+3, 5+1, any combination.** Longer is OK. Gauge heavier than 6 can be used on runs over 12 feet apart.

The connections do not have to be made right on the battery terminals but any wire or cables between the battery and the Combiner must be heavy enough to carry the Combiner current in addition to any existing loads. Make sure the second Combiner connection is not touching ground when you connect the first since the Combiner sometimes closes momentarily when initially connected.

SAMPLE INSTALLATION INSTRUCTIONS



Single engine powerboats:

With the Combiner 200 you can use an (optional) **OFF-1-BOTH-2** switch to select the engine power source and leave the DC loads permanently on battery 2. Starting power is normally supplied from the starting battery in position 1 but battery 2 or both can be selected in an emergency. In all cases, both batteries are being charged when the engine is running.

WARNING: If you use this circuit, turning the switch to "OFF"

