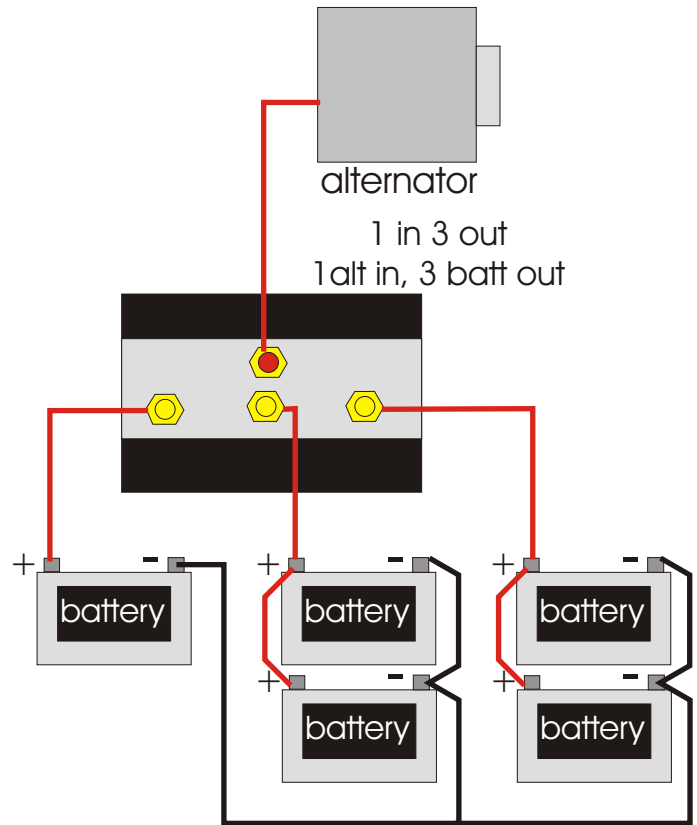


installation for split charge diodes

The diode rating is its maximum continuous at 40 deg c, however there are some things to take into consideration

- 1) Some 70 amp alt can easily give up to 85+ amps for a short time when they are cold, so its best to work about 10 amps higher than the alternator rating if diode to be placed in a engine room, outside engine room there is no problem
- 2) fit in a cool place, do not fit up high in a engine room, and do not fit in a cupboard, remember the heat sink is there to remove heat, it cannot do this if it is in a enclosed space.
- 3)the number of batteries in each battery bank is not important.
- 4)remember a split diode will safety split the output from your alternator to the different batteries banks, however it will also effect the charging performance of the alternator, for best results always use in conjunction with battery sensed alternator or best of all a advanced alternator regulator (see www.sterling-power.com , advanced digital alternator regulators) this will improve the charger performance by over 500%
- 5) ensure the cable used can carry the full output from the alternator for the distance required



In the event of the alternator not working after installation

Please note there are 2 main types of alternators, one requires 12/24 volts on the alternator to fire up, and the other type does not. 90% of alt fire up with no voltage on the alt and about 10% require voltage. Therefore in the event of a alternator not working after installing a Split diode one can only assume its one of the 10% which require a voltage (remember a diode will remove that voltage from the alternator) . to prove that this is the case

- 1) start the engine
- 2) rev it up a little
- 3) with a volt meter measure the output voltage of the alternator, if it is between 0-12.6 volts then it is not working (one would also expect the ign warning light on the dash to be on showing that the unit is not working
- 4) keep the engine running, get about 12 inches of cable (10 amp is fine), go to the split charger diode and touch one of the cable to the starter battery side of the diode and for about 1 second touch the other side to the alternator connection. (ie bridge out the diode and supply a voltage

to the alternator direct from the starter battery) . the alternator should spring into like and continue to work while the engine is running. if this is the case then do the following.

connect a relay normally opened relay across the diode between alt and starter battery. energize relay from the starter motor engagement relay, so when the starter motor is being engaged then the relay is also engaged to connect the alt to the starter battery for a short time frame, this is enough to fire up the alt. after fire up the starter motor is disengaged and so is this relay, the alt will continue to work.

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