ACR Trouble Shooting Worksheet

In most cases ACR issues can be diagnosed by a few tests with a Multi-meter.

Step 1 should be: "Check all fuses and/or circuit breakers connected to the ACR." There could be up to (3): (1) on each battery positive wire to the ACR, and (1) on the ACR Ground wire.

Step 2 should be: "Unplug the Si (Start Isolation) wire if one is connected."

Step 3 should be: "Check battery voltage with charging OFF and batteries at rest tests 1 and 2."

Test 1: Voltage of Battery A at the battery terminals — Voltage reading: _____

Test 2: Voltage of Battery B at the battery terminals — Voltage reading: _____

Step 4 should be: "With a charging source, or engine, ON do for tests 3, 4, and 5."

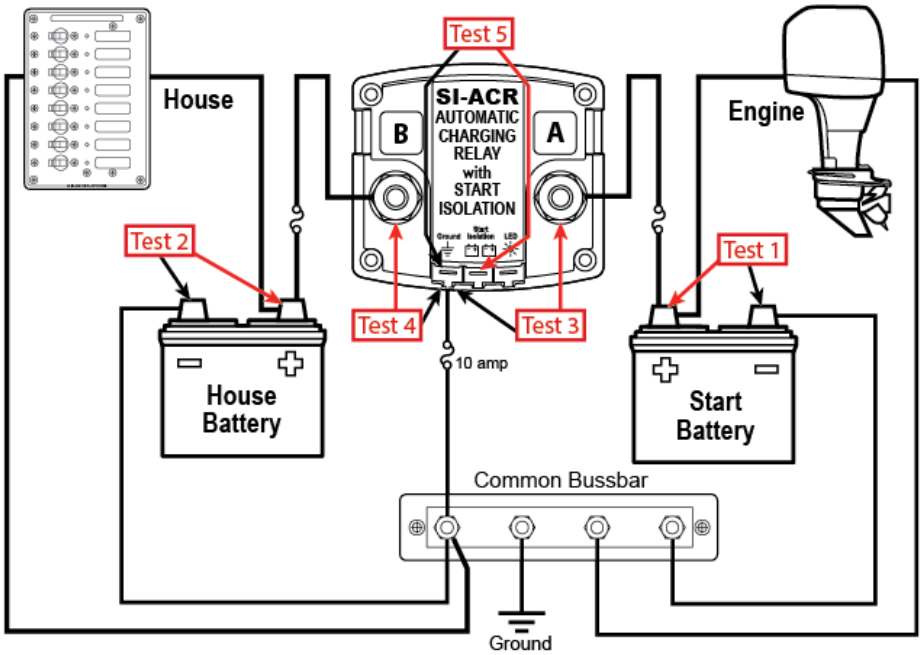
Take these tests twice. Once right away when charging starts, and one after 2 minutes.

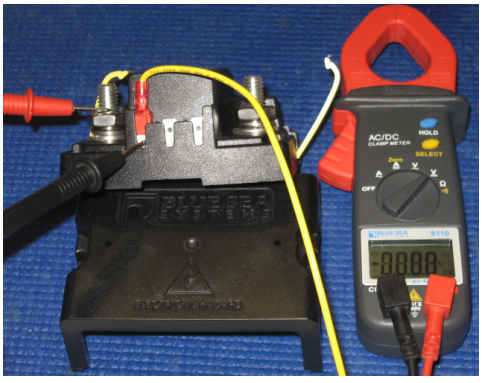
Make sure ground wire is attached and test probe it touching the base of the ground terminal. (See image below)

Test 3: Voltage between the ACR ground wire **(-)** and Terminal A **(+)** of the ACR. — Voltage reading: _____ /2 min _____

Test 4: Voltage between the ACR ground wire **(-)** and Terminal B **(+)** of the ACR. — Voltage reading: _____ /2 min _____

Test 5: Voltage between the ACR ground wire **(-)** and Start Isolation wire **(+)**. — Voltage reading: _____ /2min _____





During charging, battery terminal voltage of at least one battery MUST be above 13.0 VDC, and the second battery must be above 9.5 VDC, for the ACR to Combine. The battery readings should be the same as the ACR terminal to ACR ground voltage readings. The ACR will stay combined until the voltage at the A or B terminals goes below 12.75 VDC. If any voltage is present on the Start Isolation terminal the ACR will "Lock Out" until that voltage is removed. If any battery voltage is below 9.5 VDC the ACR will "Lock Out", and the battery must be charged before ACR will combine

Rev 2