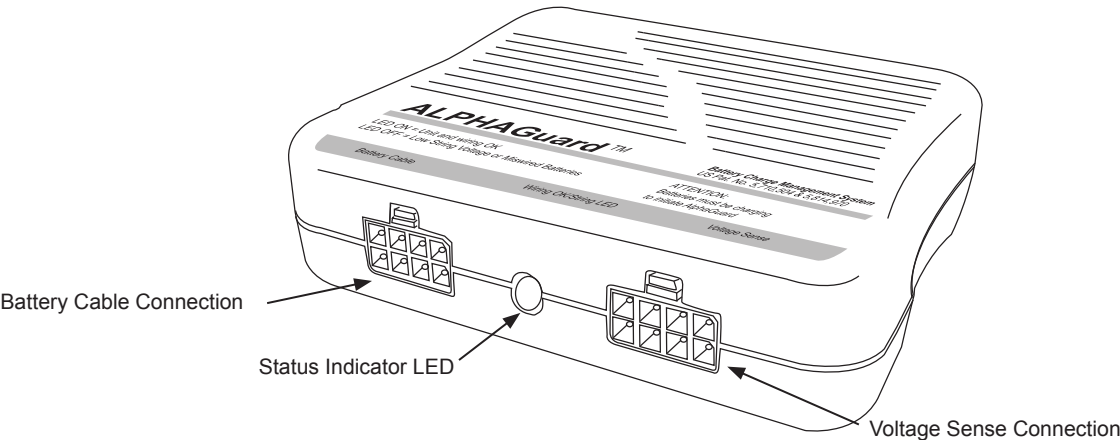


ALPHAGuard™ Battery Charge Management System

Installation Instructions

The ALPHAGuard supplies electrical compensation for differences in individual batteries in the string. One ALPHAGuard is required per battery string. A wire harness connects the ALPHAGuard to each of the batteries in the string. The unit can be configured to pass measurements from the battery string to a status monitoring device (EDSM card, DOCSIS transponder, etc.) via an interface cable.



WARNING! CHEMICAL HAZARD

Any liquid emissions from a valve-regulated lead-acid (VRLA) battery contains dilute sulfuric acid, which is harmful to the skin and eyes. Emissions are electrolytic and are electrically conductive and corrosive.

WARNING! ELECTRICAL HAZARD

- Battery strings contain lethal voltages. Refer to battery manufacturer's installation manual before installing or making any connections to the batteries.
- Refer to the power supply manufacturer's installation instructions before making any connections to the power supply.

CAUTION!

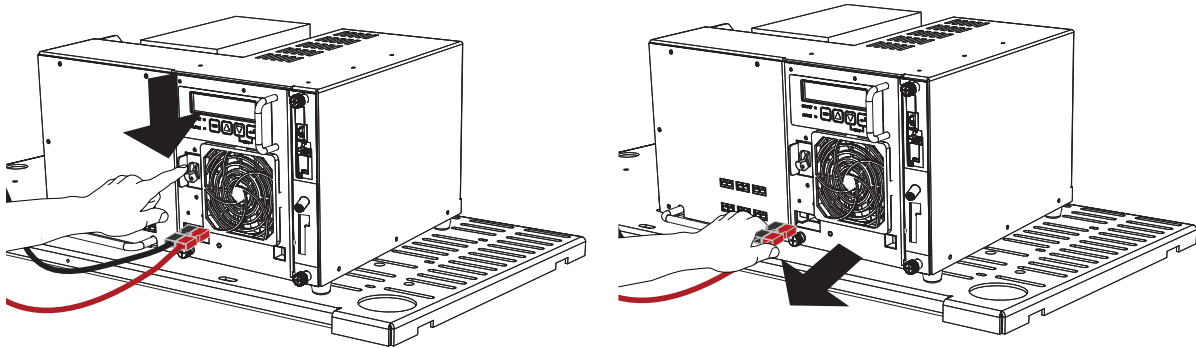
- The ALPHAGuard requires ventilation for proper operation and optimum life. Place the ALPHAGuard on top of the batteries, and position it so it will not fall between the batteries.
- Standby power is not available while the batteries are disconnected.

Model	Description	Battery Monitoring Cables		Voltage Sense Cables
AG-CMT-3SC	AlphaGuard manages 3 batteries*	36V Harness, 2.5':	Alpha p/n 875-090-30	Single String, 9', 36/48V: Alpha p/n 875-510-20
AG-CMT-4SC	AlphaGuard manages 4 batteries*	48V Harness, 2.5':	Alpha p/n 875-090-31	Dual String, 9', 36/48V: Alpha p/n 875-510-21
* Includes 6' battery monitoring cables.		36V Harness, 6':	Alpha p/n 875-090-32	Single String, 35', 36/48V: Alpha p/n 875-510-23
		48V Harness, 6':	Alpha p/n 875-090-33	Dual String, 35', 36/48V: Alpha p/n 875-510-22

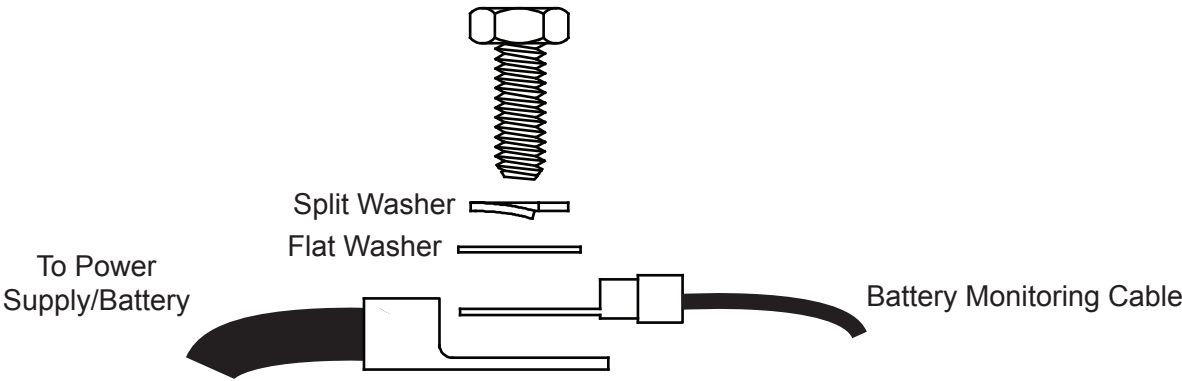
Alpha Technologies Inc. 3767 Alpha Way Bellingham WA 98226 USA Tel: +1 360 647 2360 Fax: +1 360 671 4936	Alpha Technologies Ltd. 7700 Riverfront Gate Burnaby BC V5J 5M4 Canada Tel: +1 604 436 5900 Fax: +1 604 436 1233	Alpha Technologies Europe Ltd. Twyford House, Thorley Bishop's Stortford, Hertfordshire CM22 7PA United Kingdom Tel: +44 1279 501110 Fax: +44 1279 659870	Alpha Technologies GmbH Hansastraße 8 D 91126 Schwabach Germany Tel: +49 9122 79889 0 Fax: +49 9122 79889 21	AlphaTec Ltd. 339 Saint Andrews Street Suite 101 Andrea Chambers 3307 Limassol Cyprus Tel: +357 25 375675 Fax: +357 25 359595	AlphaTEK ooo Khokhlovskiy Pereulok 16 Stroenie 1 Office 403 109028 Moscow Russia Tel: +7 495 916 1854 Fax: +7 495 916 1349	Alpha Technologies Suite 1903, Tower 1 33 Canton Road, Kowloon Hong Kong, China Tel: +852 2736 8663 Fax: +852 2199 7988
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ALPHAGuard Installation

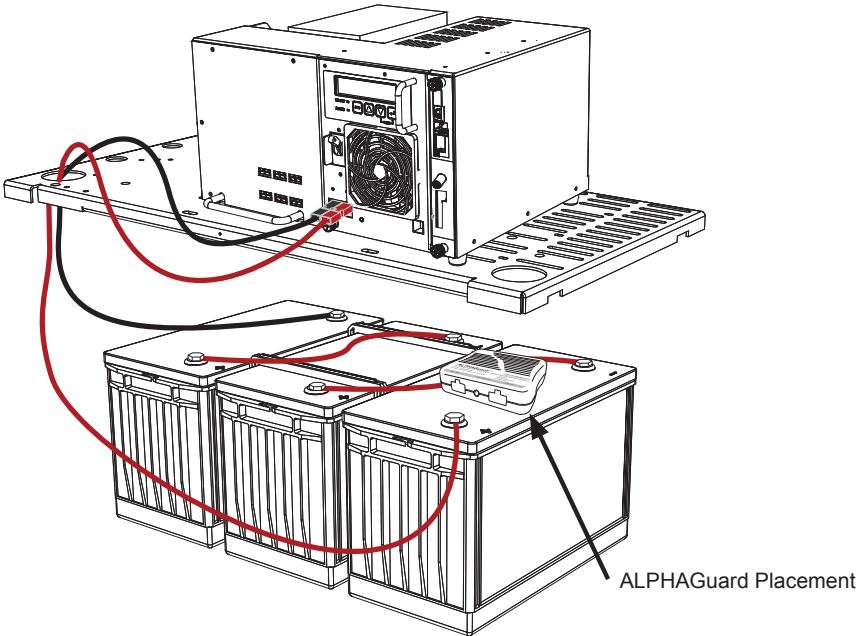
1. Set the BATTERY BREAKER to the OFF position, and unplug the battery string from the power supply.



2. Connect all battery monitoring harness leads to the appropriate battery terminals per the stack up diagram below. Connect the battery cable and the voltage sense cable to the ALPHAGuard. Refer to the wiring diagrams on page 2 for wiring details.

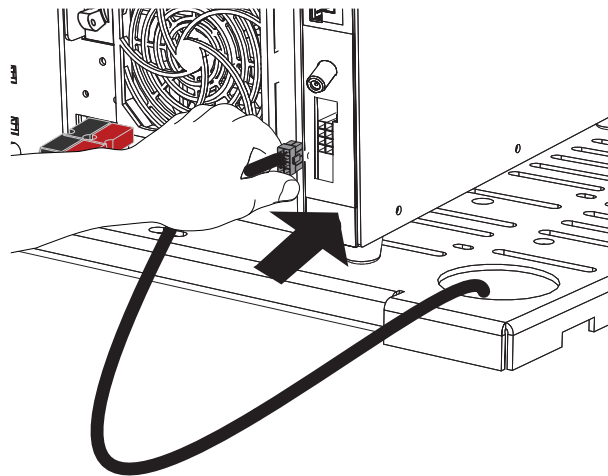
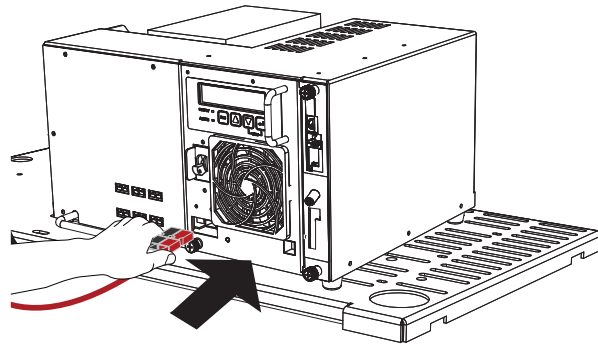


3. Place the ALPHAGuard on top of the batteries so it will not fall between the batteries.

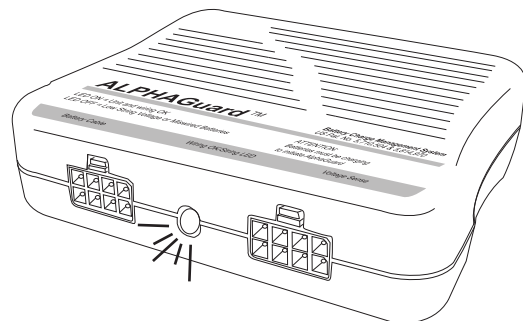


Single String Battery Wiring Diagrams

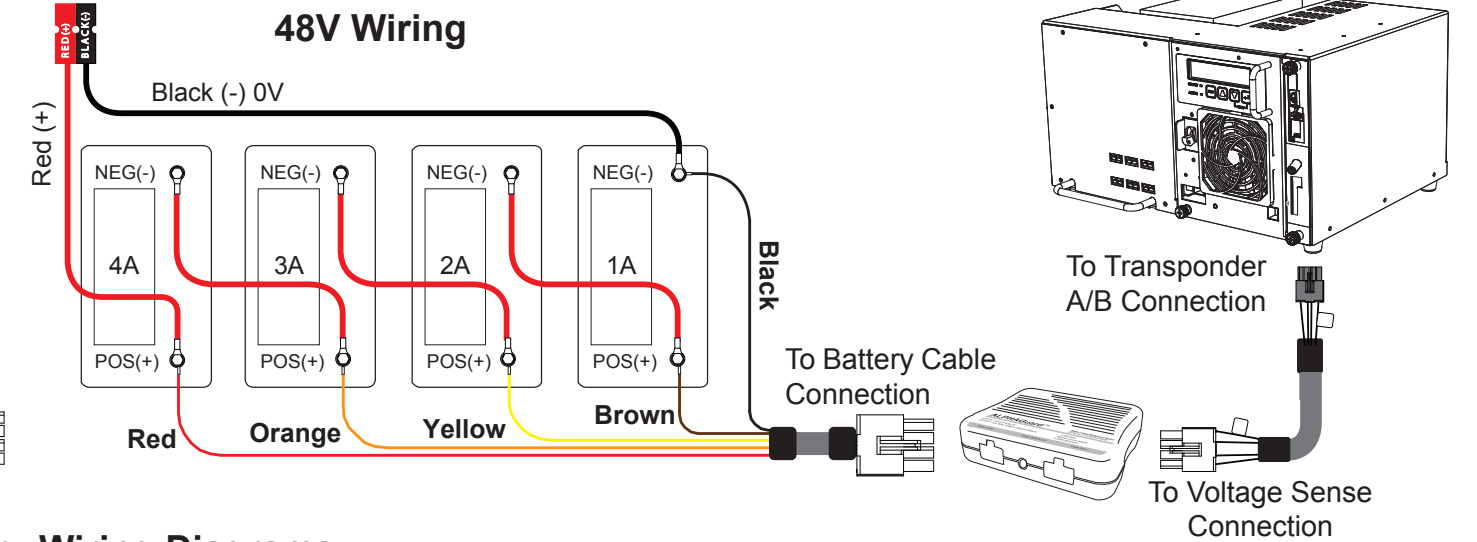
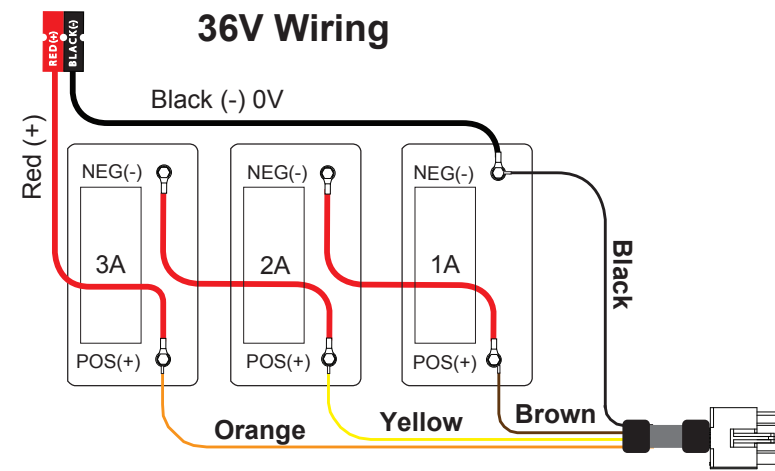
4. Plug the battery string cable into the power supply battery input connection and the voltage sense cable into the transponder A/B connection. Turn battery breaker to the ON position.



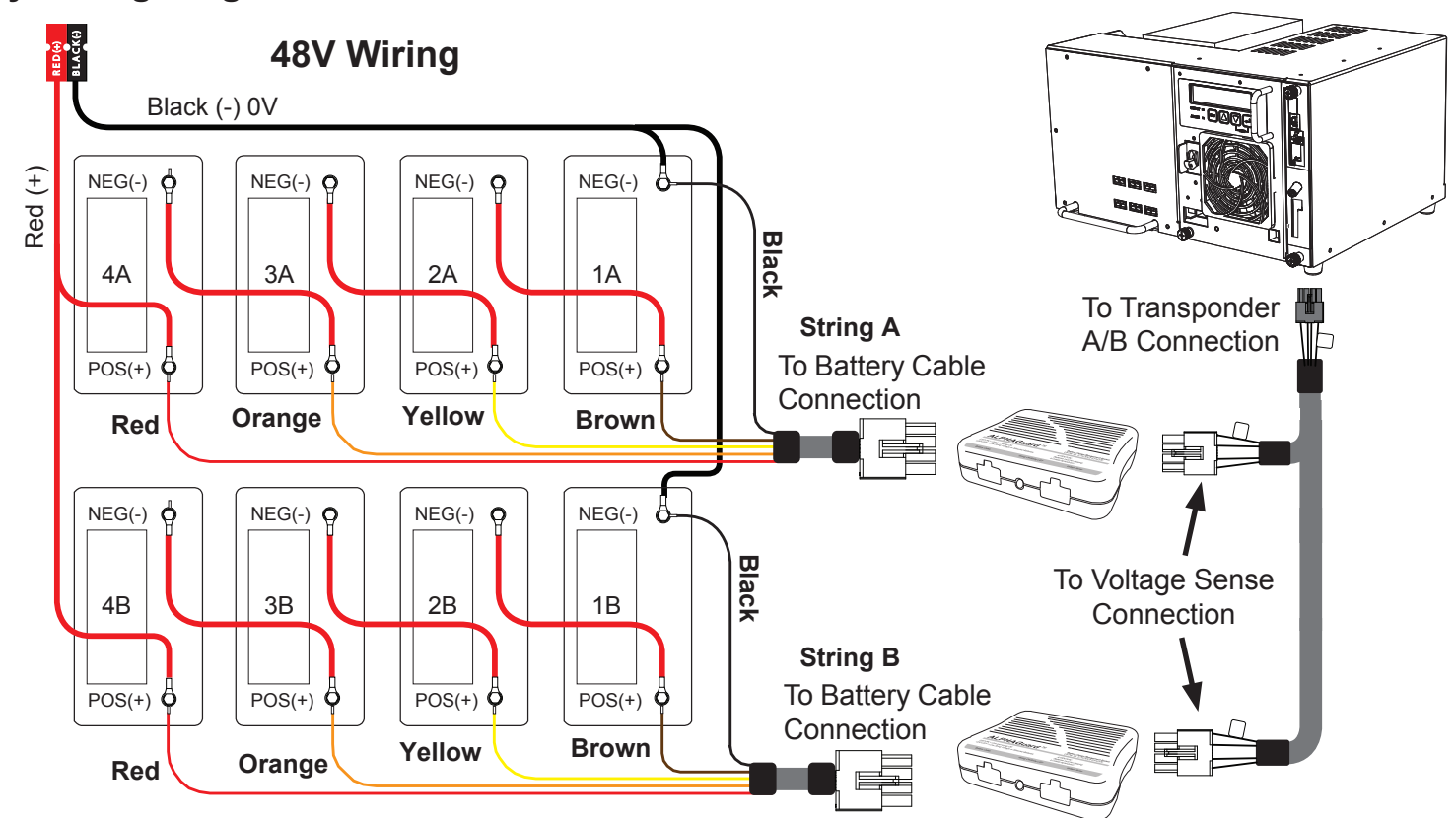
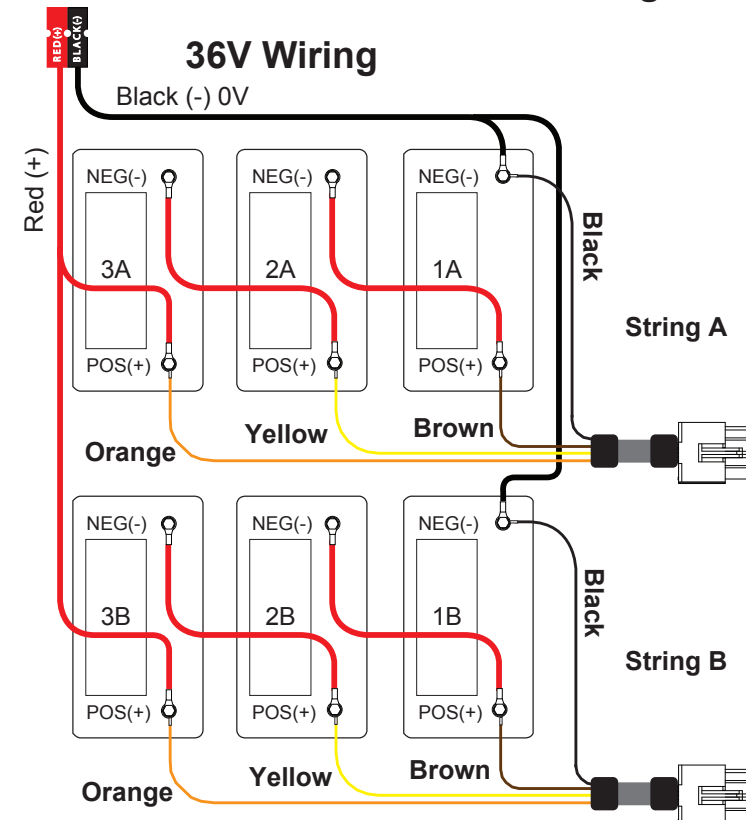
5. After the power supply resumes charging the batteries, verify the green status indicator LED illuminates (>38.6 for 36VDC strings; >51.4VDC for 48VDC strings). If it does not illuminate, verify wiring is correct and battery voltages.



6. Verify the individual battery voltages are displayed on the transponder web page and/or monitoring system.



Dual String Battery Wiring Diagrams



NOTE:

When using the **Voltage Sense connection** with the XM Power Supply and external Alpha DOCSIS Transponder, clip the black wire from the cable kit at both ends. See the illustration below.

Black Wire Label for XM Series Applications



Black Wire Label for XM Series Applications