## **Battery Configuration and Wiring - Courtesy of Kyocera Solar**

Batteries may be wired in either series or parallel configuration. When a battery is wired in series the positive terminal is wired to the next battery's negative terminal. This increases the voltage while maintaining amperage of the two batteries. With parallel wiring the positive terminal is wired to the next battery's positive terminal, and the negative to the next negative. This arrangement increases amperage while maintaining voltage. One common mistake is to believe that both amperage and voltage will increase when wiring batteries together. It will not; only one value will increase with respect to the arrangement. A battery bank may combine both series and parallel wiring configurations. Series strings of batteries are used to achieve the correct voltage, then a number of these series strings are attached in parallel to increase the amp-hours of the total battery bank.

	12 Volt Systems	24 Volt Systems	48 Volt Systems
12 volt Batteries	+ 200 AH Capacity	100 AH Capacity  + 12V	+ 100 AH Capacity  + 12V
6 Volt Batteries	+ 200 AH Capacity	+ 200 AH Capacity + 6V	+ 200 AH Capacity  + 6V - 800 AH + 600 AH + 60
4 Volt Batteries	+ 1100 AH Capacity  + 4V	+ 1100 AH Capacity  + 4V - + 1100 AH  + 2200 AH Capacity  + 4V - + 1100 AH  + 100 AH Capacity  + 4V - + 1100 AH  + 1100 AH Capacity  + 4V - +	+ 1100 AH Capacity  + 4V
2 Volt Batteries	+ 2V	- + 1400 AH Capacity  - 2V - 1500 AH	1400 AH Capacity  1400 AH Capa