

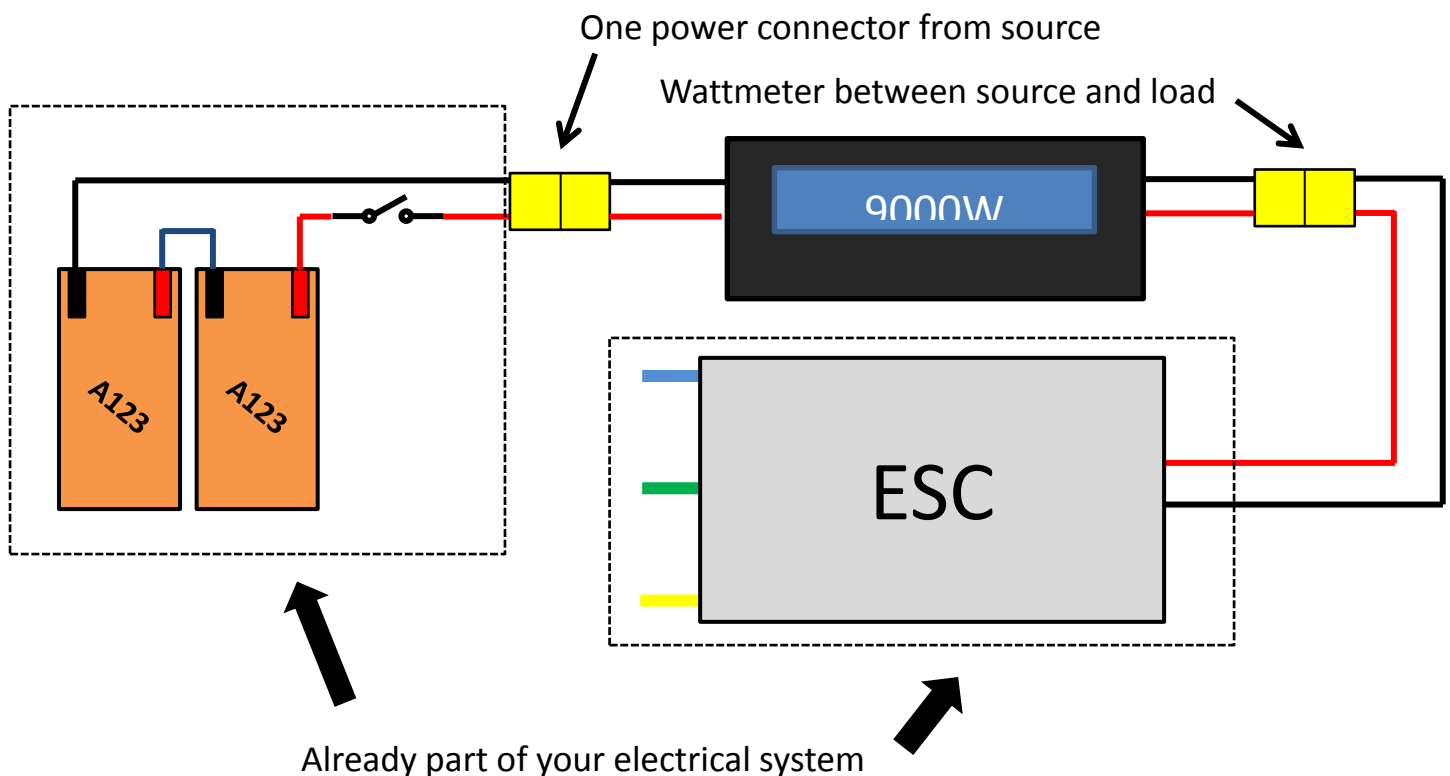
2.007 Race Instrumentation

If you want to have your vehicle's energy use statistics recorded for future EV classes as a benchmark or for your own data, you should ensure your vehicle has facilities to use the Wattmeter for the duration of the competition. The wattmeter is the official "instrument" of the challenge. The unit is approximately 3.25" x 2" x 1" and records peak watts, watt-hours of energy used, etc.

Link: http://www.hobbyking.com/hobbyking/store/uh_viewItem.asp?idProduct=10080

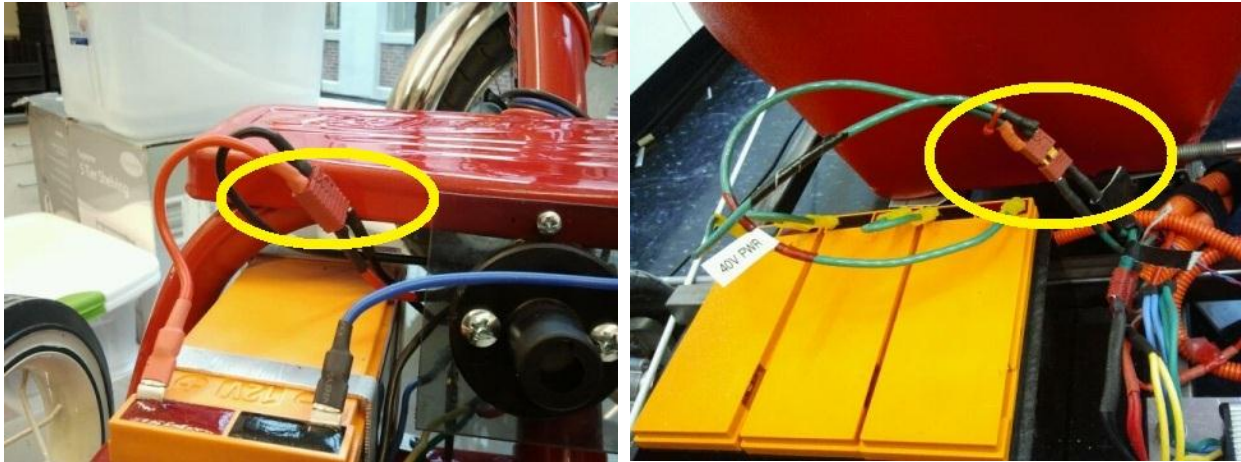
Electrical Installation

The wattmeter has a single power input lead and power output lead (It derives its own internal power supply). It needs to be mounted **inline** with your **main** power bus between battery and motor controller, i.e. DC side. The following diagram illustrates the idea:



Your electrical system may already have a single power connector in it. The Wattmeter is available with either the red Deans connector, the yellow XT60 connector, or the ¼" quick-disconnect terminals. Its leads span a maximum of 7 inches.

Examples:



These are example places where the Wattmeter can be installed.

Mechanical Installation

The wattmeter may be contained inside the vehicle or temporarily mounted outside. If it is inside, it must be accessible (to reset) and the reading visible for at least one vehicle orientation (e.g. picking up and looking under a scooter is fine)

If mounted outside, it will most likely be mounted with temporary fasteners like zip ties or electrical tape. The single power plug should be long enough to run outside your vehicle e.g. to the side of a scooter deck, else you can make an “extension cord” to do so.