FAQ for Energy Meter

How do I get started?
Be sure to charge and discharge the Energy Meter three times before using it the first time, to optimize the efficiency of the Energy Storage. It is important that you separate the Energy Display and Energy Storage after use. This will maintain the level of charge for longer.

What should I do if the Energy Display does not come on when the Energy Storage is connected, and I push the green on/off button?
Remove the battery, wait for 5 minutes, and then replace the battery and try again.

For how long can I use the Energy Meter after the lightning sign starts flashing?
You can use the Energy Meter until the lightning sign is lit continuously (not flashing). From the time the lightning sign starts flashing until the sign shows continuously you will have up to 1 hour of use. This should be plenty of time in which to finish your testing.

How do I charge the Energy Meter?
You can charge the Energy Meter in any one of two ways (see the information sheet for further details):

1. By using the Power Functions Battery Box

2. By using the Power Functions Rechargeable Battery Box

How do I know that I have to charge the Energy Meter?
When the lightning sign in the display starts to flash, it is a signal that you will need to charge the Energy Meter after you have finished your class or experiment. If the lightning sign remains on continuously (not flashing), then you need to charge the unit immediately. We recommend charging the Energy Meter before each session.

How long does it take to charge the Energy Meter?
If you charge the Energy Meter immediately the lightning sign starts flashing, it will take approximately 1 hour to charge fully. If the lightning sign is showing continuously, then it will take up to 3 hours to charge the Energy Meter fully. The Energy Meter is fully charged when the display turns off.

How often do I have to charge the Energy Meter?
Depending on the use made of the Energy Meter and the conditions under which it is stored, it can be used for more than 2½ hours of testing, the exact length of time depending on the level of activity. If the Energy Meter is not used at all, if it is fully charged and if the Energy Display and Energy Storage are stored separately, the charge will run out after approximately 3 months.

The lightning sign starts to flash and the number of joules resets to 0 J.
The Energy Meter has been overloaded. This can occur if a motor connected to the output plug has jammed. (please consult the information sheet in the set)

What readings can I see on the Energy Meter?
When an energy source is connected to the input plug on the back of the Energy Meter you can read the current input in volts, amps and watts at the top of the display. In the middle of the display you can read the accumulated joule level, which is the amount of energy you have stored. When the stored energy is used by connecting a motor or other device to the output plug on the front of the Energy Meter, you can read the current output in volts, amps and watts at the bottom of the display. In the middle of the display, the joule level of the stored energy will count down until all the energy is used.

Why are the readings not stable?
The Energy Meter is intelligent. It will always try to draw as much energy from the source, e.g. the solar panel, as possible. This regulation/optimization process will cause the readings to fluctuate.

Why does the Energy Meter stop measuring when the joule level reaches 100?
The Energy Meter is programmed to work with small experiments, and consequently it stops measuring when the level of 100 joule is reached.