

Using a Kill A Watt Meter

Courtesy of the Maine Energy Education Program (MEEP) www.mEEPnews.org.

The Kill A Watt meter measures the electricity usage of various electronics and appliances. It can tell consumers how much energy is used at that instant or over time. Once familiar with how to use it, the Kill A Watt meter can be a valuable tool in helping schools and families reduce their energy use.

Setting up the Kill A Watt meter

The meter requires a 3-pronged outlet. Orient the outlet so that the round hole is on the bottom, as shown in the photo. This orientation makes it easier to read the meter. If necessary, plug the meter into a power strip or extension cord.

Plug the meter into the outlet, and then plug an electronic device or appliance into the meter. Numbers will be displayed on the digital screen.

Features of the Kill A Watt meter

The Kill A Watt meter's LCD displays various measurements of electrical power as different buttons are selected:

- Pressing one of the gray buttons on the meter will show the voltage (V), amperage (A), wattage (W), and hertz (Hz). Wattage is the most pertinent of these four units for measuring electricity usage. Notice that the number of volts multiplied by the number of amps calculates the number of watts.
- The pink button is a toggle function. Press the KWH/Hour key one time to show the cumulative number of kilowatt hours of energy used when the device plugged in over a period of time. This kilowatt hour (kWh) function reads electrical use in the same way as a power company measures the amount of electricity people use. If we can figure out how many kWh a device uses, we can then calculate how much money it costs to run that machine for a much longer period of time, such as a year.
- Press the pink button twice to see how many hours that device has been plugged in (KWH Time). Important note: Unplug the Kill A Watt meter to reset it.
- When monitoring electrical use over time, be sure to put the Kill A Watt meter in a place where it will be left undisturbed!



Ideas for using the Kill A Watt meter

Here are some of the ways Kill A Watt meters can be used:

- **Measure Phantom Loads.** Some electronic devices and appliances use energy even when they are “off!” TVs, VCRs and microwaves are good examples of this. Press the Watt button on the Kill A Watt meter to see how much energy these “vampires” are consuming!
- **Measure the electricity a device uses over time.** Vending machines are big energy users! Press the kWh button on the Kill A Watt meter to see how much electricity a vending machine uses for a few days, and then calculate how much it would use in a year! Special tools, called Vending Misers, can reduce the energy used by a vending machine. Is your school interested in taking the Vending Miser Challenge? Contact MEEP (www.meepnews.org) for project details.
- **Discover devices “energy-saving” mode.** Photocopiers use a lot of energy. Many photocopiers have an energy-saving mode that people are often unaware of or forget to use. See how much energy can be saved by using the “Energy-Saver” mode, and then figure out ways to encourage people to push the “Energy-Saver” button when they’re done copying!
- **Compare two similar devices.** Compare the energy use of a flat-screen computer monitor versus the older boxier style. Compare a laptop’s energy use to a desk top computer. See how much less energy is used when a computer is in stand by mode!
- **Laptop charging carts.** How much energy is used when all of the classroom laptops are charging?
- **How “energy” smart are Smart boards?** Smart boards are becoming more and more common in Maine classrooms. How much energy do they use?
- **What’s your idea?** Tell us how the Kill A Watt meter was used in the classroom or at home. Send your idea to MEEP (www.meepnews.org).