

Kill A Watt Electricity Usage Monitor Full Instructions



Monitors are available for members to borrow from:



14935 US Hwy 36 in Norton
223 West 5th Street in Concordia
1.800.577.3323
prairielandelectric.com

INSTALLATION:

1. Remove the protective film (if any) covering the LCD meter display by pulling the tab marked “REMOVE BEFORE USE.”
2. Turn off the appliance and remove the power cord from the outlet. Connect the Kill A Watt™ EZ unit to the outlet and the appliance to the unit. If the outlet is in an inconvenient location, first connect a quality extension cord that is rated for the application.
3. Turn the appliance back on and confirm normal operation. If the appliance does not function, please recheck your installation.
4. Press and hold the RESET key on the unit. After a few seconds, “rEST” will appear momentarily on the LCD. Release the RESET key. This indicates that previous measurements have been deleted and that the total accumulated KWH, Elapsed Time and Cost

measurements have been reset to zero.

RATE SETTING:

1. To accurately calculate the actual cost of electricity consumed and to project future costs, first you must set your local utility's electric rate into the unit. The rate is typically charged as dollars (or cents) per kilowatt-hour (KWH). You can find this rate on your last utility bill or you can contact the utility's customer service department to determine your rate. Some utilities charge two or more rates depending on consumption, time of day, or season, Use the rate that more closely reflects your actual use patterns, or average the two rates to suit your needs.
2. Press and hold the SET key on the unit. "Rate" will be displayed and the currently set rate will flash.
3. Press the UP and DOWN key to set your desired rate. If you hold the UP or

DOWN key, the displayed rate will rapidly change. The range of settings is from \$0.000 to \$9.999. For example, if your utility charges you 10.472 cents per kWh, set the rate until the unit displays \$0.105.

4. Press the SET key again. "SAVE" will appear briefly in the display as the desired rate is set. The unit will return to the Measurements mode.

COST DISPLAY:

1. To display the actual cost of power consumed or projected cost, press the MENU key until "Cost" is displayed in the LCD.
2. Initially, the actual total cost will appear. "Total" will be displayed. This dollar amount represents the total cost of power consumed by the attached appliance since the last reset. This cost is calculated based upon the total consumed power in KWH and the utility rate that you have set.

3. Don't be surprised if the total cost display is 0.00 initially. It will take some time to accumulate cost.
4. Pressing the UP and DOWN key will cycle through the cost projection periods. "Hour," "Day," "Week," "Month," and "Year" will display on the LCD to indicate the selected period. The numeric display will indicate the projected cost to run the attached appliance for the selected period. For example, if the display indicates \$2.34 and "Month," the unit is projecting that the attached appliance will consume \$2.34 worth of electricity in one month.
5. These projections are based on real time and historical measurements of actual consumption of the attached appliance. The longer the appliance remains attached to the unit, the more accurate the projection will be. This is especially true for appliances that cycle on and off. Examples include refrigerators,

televisions, etc. Measurements conducted over long periods will accurately reflect true usage of the appliance. For example, if a television is used 4 hours a day, it is important to measure the 20 hours a day the appliance is not in use to get a true projection of the cost.

6. For an appliance that cycles on and off, the projections cannot be accurate until the unit has measured some full on and off cycles. Otherwise the projection will be skewed. For example, if a connected television is powered on and you reset the Kill A Watt™ EZ, the unit will begin measuring the power consumption of a powered television. The only data available to the unit is power consumption when the television is turned on. Initial projections of cost will be high as the unit has not had the opportunity to measure power consumption during the off cycle. If you observe the cost projection while

the television is turned off, you will see it decline over time. After the unit has been able to measure several typical use cycles, the cost projections will settle to an accurate projection based on real usage.

7. For a device this is never turned off, (e.g. a computer server) the cost projection will take less time to settle. You can observe accurate cost projections within minutes. It is still best to let the unit measure power consumption over an extended period. There can be power consumption variations even in devices that are never turned off.

MEASUREMENT DISPLAY:

1. To display the various available power measurements, press the MENU key until “Volt” is displayed on the LCD. In the measurement display mode, the LCD can display meter readings such as Volts, Current, Watts, Frequency, Power Factor,

- and VA.
- To cycle through the various measurements, press the UP and DOWN key as desired. The measurement unit currently selected will be indicated in the display.
 - Volts are displayed in Volts (true RMS), Current is displayed in Amps (true RMS), Watts are displayed in active power Watts, VA is displayed in apparent power VA ($VA = V_{rms} * A_{rms}$), Frequency is displayed in Hertz (Hz), Power Factor (P.F.) is displayed as ($Watts / V_{rms} * A_{rms}$).

RATE DISPLAY:

- To display the current programmed rate used in cost calculations, press the MENU key until "Rate is indicated in the display.
- The current programmed rate is displayed in dollars and cents. For example, a programmed rate of 10.472 cents per KWH will be displayed as \$0.105.

3. To change the programmed rate, please refer to the section on “Rate setting.”

KILOWATT-HOUR DISPLAY:

1. To display the total consumed power in Kilowatt-Hours, press the MENU key until “KWH” is indicated in the display.
2. Consumption will be displayed in Killowatt-Hours (from 0.01 KWH to 9999 KWH.) As KWH accumulate, the decimal point in the display will shift to accommodate a full reading.
3. To reset the accumulated KWH measurement, press and hold the RESET key on the unit. After a few seconds, “rEst” will appear momentarily on the LCD. Release the RESET key. This indicates that previous measurements have been deleted and that the total accumulated KWH, Elapsed Time and Cost measurements have been reset to zero.

ELAPSED TIME DISPLAY:

1. To display the total elapsed time that the Kill A Watt™ EZ has been connected to power since the last reset, press the MENU key until “Elapsed Time” is indicated in the display.
2. Time will initially be displayed as Hours:Minutes (from 00:00) and then switch to Hours only (to 9999) to accommodate a full reading.
3. To reset the elapsed time measurement, press and hold the RESET key on the unit. After a few seconds, “rEst” will appear momentarily on the LCD. Release the RESET key. This indicates that previous measurements have been deleted and that the total accumulated KWH, Elapsed Time and Cost measurements have been reset to zero.

RETAINED MEASUREMENTS:

1. When power to the Kill A Watt™ EZ is interrupted, the display will go

blank and the unit will stop measuring consumption and elapsed time. However all accumulated measurement including KWH, Elapsed time, and actual total cost will be retained.

2. This allows the user to take measurements anywhere and relocate the unit to a more convenient location to read the display. When the unit is plugged back in, the display will become active and the accumulated data can be retrieved by using the keys. Data should be retrieved immediately as the Elapsed Time counter will restart and potentially skew the data as time with no load elapses.
3. To reset the accumulated measurements, press and hold the RESET key on the unit. After a few seconds, “rEST” will appear momentarily on the LCD. Release the RESET key. This indicates that previous measurements have been deleted and that the total accumulated

KWH, Elapsed Time and Cost measurements have been reset to zero.

SPECIFICATIONS:

Function	Range	Accuracy Typ.	Accuracy Max.
RMS Voltage	85-125 Vrms	0.2%	1%
RMS Current	0.00-15.00 Arms	0.3%	1%
Active Power	0-1875 Watt	0.5%	2%
Apparent Power	0-1875 VA	0.5%	2%
Line Frequency	47.0-63 Hz	0.1 Hz	2%
Power Factor	0.00-1.00	0.01	0.03
Power Quantity	0.00-9999 KWH	0.5%	2%
Time Quantity	00:00-9999	30ppm	30ppm
Display Update	1 Sec	-	-
Power Consumption	10Wmax	-	-

Typical: V=90V~125V, A=0.2A~15A