



Using the Dent PLUGlogger

Overview

The Dent PLUGlogger measures line voltage (volts), current (amps), power (watts), power factor (PF), records energy consumption (watt-hours) and hours of monitoring of 110V plug loads. The logger calculates the total energy cost of the load over the monitoring period, and the predicted average monthly and yearly energy costs of operating the monitored equipment.

- The instantaneous and logged data are displayed on the LCD screen. This logger does not require a computer interface.
- The PLUGlogger must be plugged into a receptacle to operate, however the recorded data is stored in permanent memory and is not lost when the logger is unplugged until it is cleared manually.



Figure 1: PLUGlogger monitoring energy use of an appliance

Monitoring the Energy Use of an Appliance

1. **Plug the logger into an 110V outlet.** The logger must be plugged into a receptacle to operate and display values.
2. **Enter the current cost of energy (\$/kWh).** Press and release the *COST* button. The number displayed is a user-settable value for the dollars per kWh charged by the local utility. If the number shown is not correct, press and hold the *COST* button until an {} appears to the upper left of the left most digit.
3. **Press and release the *COST* button to cycle through the digits.** Use the top, *FUNCTION* button to change the value of the digit. *Note: An {} appears to the upper left of the digit to be modified.*
4. **Return to the display of measurements.** When all of the digits of the energy cost have been set, push the *COST* button one time to exit the cost setting function and return to the display of measurements.
5. **The logger's memory must be manually cleared before each monitoring session!** Clear the previously stored values in the logger by holding both the *COST* and the *FUNCTION* buttons down for 4 seconds until the word *CLEAR* appears in the display. Clearing the memory sets the hours of monitoring, total cost and predicted monthly and yearly operating costs and kilowatt-hours to 0.



Figure 2: Dent PLUGlogger

6. **Monitoring hours begin accumulating.** Once the Logger has been plugged into an outlet, the internal clock begins accumulating the hours of the monitoring session, and will stop once the logger is removed from the outlet.
7. **Plug the appliance into the PLUGlogger.**
8. **Press the *FUNCTION* button to view the measurements.** Press and hold the *FUNCTION* button down for 4 seconds to enter engineering mode until *ENG* appears on the display. Press the *FUNCTION* button repeatedly to toggle through and view the following 10 measured values: Line Voltage (V), Current (A), Watts (W), Volt-Amps (VA), Power Factor (PF), Accumulated Watt-hours (Wh), Total Cost (T\$), Predicted Monthly Cost (M\$), Predicted Yearly Cost (Y\$) and Total Elapsed Time in hours and tenths of hours (hR) since the logger was reset.

