

BRAND ELECTRONICS

DIGITAL POWER METER

MODEL 4-1850

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OPERATING INSTRUCTIONS

Digital Power Meter Model 4-1850DR

The BRAND ELECTRONICS Power Meter is designed to provide you with accurate information about how much electricity an electrical device uses.

The Power Meter has the following displays:

- 1) "**0000W 0.000kWhr (or 0000 kWhr)**". This displays the amount of power being used *right now* (Watts) and the amount of power which has been used (kilo-Watt hours). Your power company charges you by the kilo-Watt hour. This reading is displayed after the unit is reset or first plugged in (after the calibration cycle).
- 2) "**0000.0 Total hrs**". This displays the amount of time since the Power Meter was last reset.
- 3) "**\$000.00 @10c/kWhr**". This displays the cost of running the device since the Power Meter was last reset.
- 4) "**\$000.00 av/month**". This displays the estimated cost of running the device for one month.
- 5) "**10.0 cents/kWhr**". This displays the cost per kilo-Watt hour of electricity. 10c is the default value. This value can be changed as described below.

Use of your Power Meter is very simple:

- 1) Plug the Power Meter into an electrical outlet within reach of the appliance you wish to

measure. The Power Meter automatically turns on and will display "BRAND ELECTRONIX" briefly. The Power Meter will then display "0000 W 0000.0 kWhr" (if something is already plugged in and drawing power, the display may not be zero).

- 2) Plug your appliance into the receptacle on the Power Meter.
- 3) Turn on the appliance (if necessary).

NOTE

Plugging in a device before plugging in the Power Meter is ok, even if the device is "on",

- 4) The number displayed on the Power Meter is the power being used by the appliance in "Watts". For example, if you plugged in a lamp with a 100 Watt bulb, the Power Meter would read approximately "100".
- 5) The "kWhr" value will change depending upon the power being used. For example, if you plug in a 100 Watt lightbulb, the value would be approximately "0.100 kWhr" after 1 hour.
- 6) To find the cost of running a device, depress the ">" button until the display reads ""\$000.00 @10c/kWhr". Now depress the "ENTER" button. The Power Meter display will show "10.0 cents/kWhr" (10 cents is the default value). Depress the "<" or ">" buttons to decrease or increase the value to the desired amount. Pushing the "<" or ">" button once will decrease or increase the value by .1 cent; keeping either button depressed will continuously decrease or increase the value. When you have entered the desired value, simply depress the "ENTER" button again, and the Power Meter will begin to display the cost. To see the "W kWhr" display again simply depress the "<" or ">" arrow button. Doing so will not reset any values. You may switch back and forth between the displays at any time.
- 7) To see the estimated cost of running the device for one month (the usual amount of time for your electrical bill), depress the "<" or ">" buttons until the display reads "\$000.00 av/month". The actual value displayed will depend upon the cost per kilo-Watt hour entered, and the amount of electricity used by the device since the Power Meter was last reset. This display is very useful to find the cost of running devices which cycle on and off (like refrigerators, freezers, air conditioner, etc).
- 8) To Reset the Power Meter at any time, simply depress the "RESET" button (Note, some meters will require the ENTER button to be held while the RESET button is pressed). This will clear the display, and reset all values, and the Power Meter will perform a self-calibration.

MEMORY

Your Power Meter is equipped with non-volatile memory for the following information:

kWhr

Cost per kWhr

Total cost

Total Time

These values are updated approximately every 8 minutes (the display will momentarily show **!DATA SAVE!** when this happens).

If the Meter loses power, the last saved data is used when the Meter is restarted.

To CLEAR the MEMORY, push the RESET button.

SPECIFICATIONS

Power (real Watts):

RANGE: 1-1850 Watts (2200 max)

RESOLUTION: 1 Watts

ACCURACY: +/- 2% of reading, +/- 2 in the least significant digit (+/-20 % < 10 watts)

POWER FACTOR: Any (leading or lagging)

Power used (Watt-hours or kilo-Watt-hours)

RANGE: 1 Watt-hour - 9999 kilo-Watt-hours

RESOLUTION: 1 Watt-hour

ACCURACY: +/- 2% of reading, +/- 2 in the least significant digit

Power Supply:

VOLTAGE: 100-130 ac volts rms

WAVEFORM: Any (sine wave, square wave, and triangle)

FREQUENCY 50/60 hz)

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LIMITED LIFETIME WARRANTY

BRAND ELECTRONICS warrants your Power Meter to be free of defects in craftsmanship and materials for 6 months from date of purchase. Should the Power Meter fail during this period, simply return the Power Meter to the address below for repair or replacement. Please include a note describing the problem and a return address. Should the Power Meter fail (for any reason) after the 6 month period, you may return your meter for repair or replacement for a single \$40 payment.

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COMMENTS

BRAND ELECTRONICS welcomes your comments and questions about the Power Meter. Please write to the above address. Please include your serial number (found on the bottom of the Power Meter) in your correspondence.