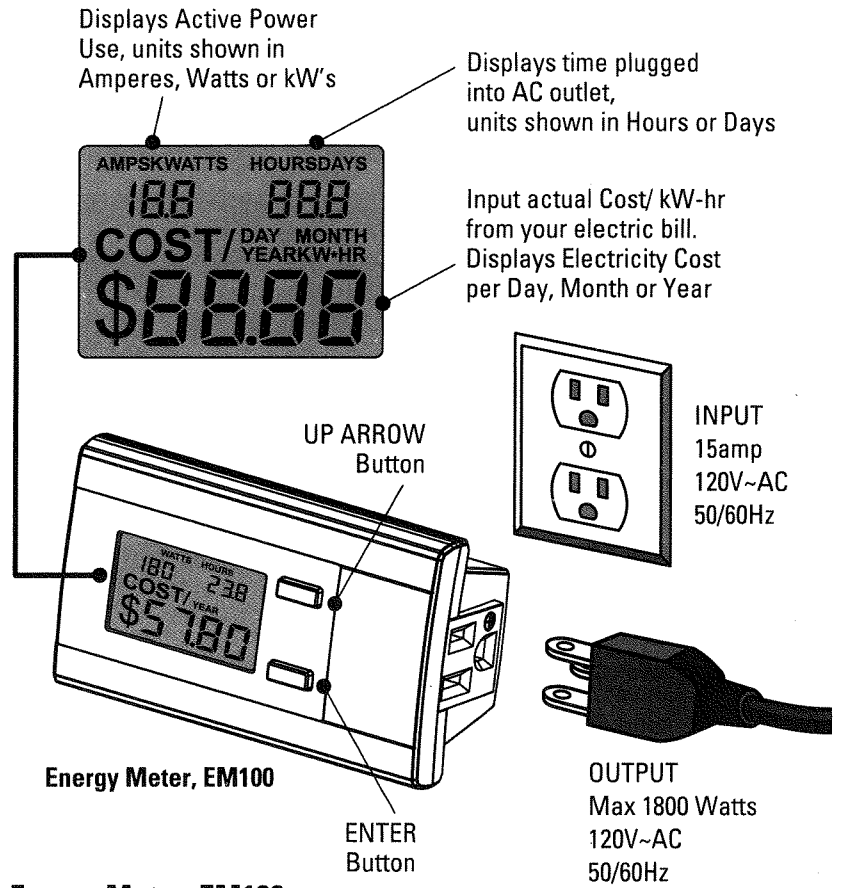


STANLEY

77-028

Energy Meter, EM100

DESCRIPTION



Stanley Energy Meter, EM100

The Stanley Energy Meter, EM100, measures and calculates the amount of energy a household device will use per day, month or year. The large display actively shows you the amount of power used when a device is in use and when in "sleep" mode.

To enjoy the full utility of the EM100, please read all directions prior to use.

SPECIFICATIONS

Ratings	0.1 to 15 amps max. or 12 to 1800 watts max. @ 100-120VAC (50-60Hz)
Display Auto Off	3 minutes
Input/ Output	Input 120VAC @ 60Hz Output 15 amps Max 120VAC @ 60Hz
Operating Temperature	32° to 122°F (0 to 50°C)
Operating Humidity	20 to 80% Rh
Operating Altitude	Up to 6500 Ft (2000m)
Battery Requirement (for display & memory)	(2) LR44 Button Cells
Transient voltage	1500V
Degree of protection	IP20
Pollution degree	2

PRECAUTIONS

1. FOR INDOOR USE ONLY.
2. DO NOT GET THE UNIT WET. DO NOT USE IF THE UNIT IS EXPOSED TO MOISTURE.
3. DO NOT DISASSEMBLE. NO USER SERVICABLE PARTS.
4. AS WITH ALL ELECTRICAL DEVICES, USE CAUTION WHEN PLUGGING/UNPLUGGING THIS UNIT INTO AN OUTLET OR PLUGGING/UNPLUGGING OTHER DEVICES INTO THIS UNIT. DO NOT FORCE THIS UNIT INTO AN OUTLET. DO NOT FORCE PLUGS INTO THIS UNIT.
5. IF REQUIRED, USE ONLY UL/ETL APPROVED EXTENSION CORDS WITH THIS PRODUCT.
6. IF THIS UNIT IS USED IN A MANNER NOT SPECIFIED BY THE MANUFACTURER, THE PROTECTION PROVIDED BY THIS EQUIPMENT MAY BE IMPAIRED.
7. FOR USE IN GROUNDED OUTLETS ONLY. DO NOT REMOVE GROUNDING PRONG FROM BACK OF PRODUCT.
8. OPERATE THIS PRODUCT USING ONLY THE AC POWER TYPE LISTED IN THE PRODUCT SPECIFICATIONS.
9. TWO OR THREE PRONG PLUGS MAY BE USED WITH THIS PRODUCT. DO NOT FORCE A POLARIZED PLUG (ONE PRONG LARGER THAN THE OTHER) INTO THIS PRODUCT. FLIP PLUG OVER AND RETRY.

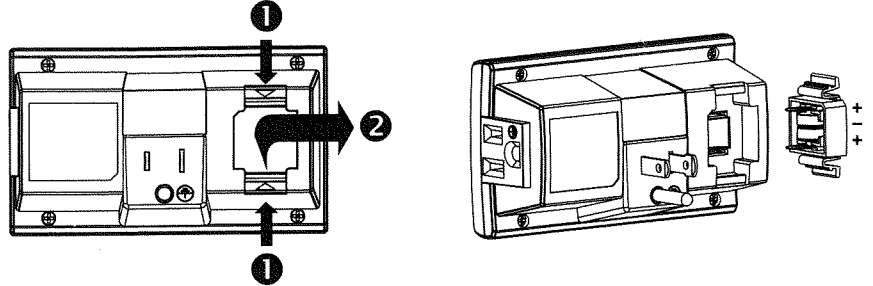
SET UP INSTRUCTIONS

Batteries:

The EM100 comes with batteries and is ready to use. To start the product:

1. Push on the two latches of battery holder.
2. Lift out battery holder.
3. Pull out the ribbon from between the batteries.
4. Slide battery holder into case being careful not to bend the metal contacts.

Battery replacement follows the same steps. The EM100 uses (2) LR44 cells. Follow polarity markings shown on battery holder.



DISPLAY SETTINGS AND PREFERENCES

The EM100 already has display defaults of Watts, Hours & Cost/Month. These can be changed at any time. To change the displayed units to your personal preferences:
(If the LCD display is not already on, press either button to activate it.)

1. Press and hold down the ENTER button for 2 seconds. One of the units will start to blink on & off.
2. Momentarily press the ▲ button to change the units. Or momentarily press the ENTER button to move to the next display item.
 - A. Power- Shown in AMPS or WATTS (Watts will automatically switch to Kilowatts (KW) above 199 watts).
 - B. Time- Shown in HOURS (will automatically switch to DAYS above 23.9 hours).
 - C. COST- Shown per DAY, MONTH or YEAR
 - D. COST/KW-HR- Shown in cents. The unit already has a default cost of \$0.12/kW-hr. To change the cost to your actual rate, momentarily press the ▲ button to increase the value by \$0.01. Hold down the ▲ button or press repeatedly until the desired cost is reached (maximum value of \$0.50). If you pass your target cost, continue to press the ▲ button. The cost will restart at \$0.00 once \$0.50 is reached.
3. Press and hold down the ENTER button for 2 seconds to exit.

These preferences can be changed at any time and all calculations will be updated based on the stored data.

USE

1. Check that the EM100 is reset to zero before starting. Otherwise, the EM100 will add to the readings already in memory.
To reset the EM100 at any time, press and hold down both buttons for 2 seconds. All memory will be erased.
2. Plug the device to be monitored into the EM100.
3. Plug the EM100 into any standard, grounded wall outlet or UL/ETL approved, grounded 15 amp capable extension cord.
4. The EM100 timer and cost display will not start until the unit detects electricity use.
5. Once electricity use is detected, the LCD will display a countdown from 10 to 1. Then the cost will be shown. The timer will continue until the EM100 is removed from the AC outlet.

Notes:

1. Unplugging the EM100 from the AC outlet will stop the timer. The timer will resume when plugged back into an AC outlet.
2. The last readings will be saved in memory until the EM100 is reset.
3. If the display is off, press either button momentarily to re-activate the display.

OVERLOAD WARNING

If the electrical current going through the EM100 exceeds 15 amps (1800 watts), all icons on the LCD display will flash. The EM100 is only rated for 15 amps (1800 watts) and should not be used. The device being measured through the EM100 should be powered down and disconnected from the EM100.

STORAGE

It is recommended to remove the batteries from the unit if it will be stored for long periods of time. (Note: Memory will be erased when batteries are removed.)

TROUBLESHOOTING

If the display becomes hard to see or the readings become erratic. First try to remove and replace the batteries. If that does not correct the issue, replace the batteries, (2) LR-44, with new ones.

CLEANING

If the unit becomes dirty or dusty, unplug it from outlet. Unplug any attached devices. Wipe outside of product with a dry or lightly dampened rag only. Allow to dry completely prior to use. Do not use spray cleaners.

WARRANTY

The Stanley Works warrants the Energy Meter, EM100, against defects in material and workmanship for one year from the date of purchase. Deficient products will be repaired or replaced at Stanley's discretion if sent to:

The Stanley Works
Customer Service
480 Myrtle Street
New Britain, CT 06053

Stanley's liability under this warranty is limited the replacement of the unit. Any attempt to repair the product by other than factory authorized personnel will void this warranty. Calibration, replacement batteries and maintenance are the responsibility of the user. Where permitted by law, Stanley is not responsible for incidental or consequential damages. Agents of Stanley cannot change this warranty. Stanley is not responsible for damage resulting from wear, abuse or alteration of this product. The user is expected to follow ALL operating instructions. This warranty may provide you with additional rights that vary by state, province or nation.



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Stanley Tools Product Group,
480 Myrtle Street, New Britain, CT 06053 U.S.A.
Tel 1-800-262-2161 Fax 860-643-3756

Typical Wattages of Various Appliances

Here are some examples of the range of wattages for various household appliances as stated by the US Department of Energy:

Aquarium	50 - 1210 Watts
Coffee maker	900 - 1200
Clothes washer	350 - 500
Dehumidifier	785
Electric blanket (Single)	60
Electric blanket (Double)	100
Hair dryer	1200 - 1875
Heater (portable)	750 - 1500
Fans (Ceiling)	65 - 175
Fans (Window)	55 - 250
Furnace	750
Whole house	240 - 750
Radio (stereo)	70 - 400
Clothes iron	1000 - 1800
Microwave oven	750 - 1100
Personal computer-	
CPU - awake / asleep	120 / 30 or less
Monitor - awake / asleep	150 / 30 or less
Laptop	50
Refrigerator (frost-free, 16cuft)	725
Televisions (color) 19"	65 - 110 W
Televisions (color) 27"	113 W
Televisions (color) 36"	133 W
Televisions (color) 53"-61" Projection	170 W
Toaster	800 - 1400
Toaster oven	1225
VCR/DVD	17 - 21 / 20 - 25 W
Vacuum cleaner	1000 - 1440
Water heater (40 gallon)	4500 - 5500
Water bed (heated, no cover)	120 - 380