

Safety Information

To ensure the safe operation and service of the meter, follow these instructions closely. Failure to observe warnings can result in severe injury.



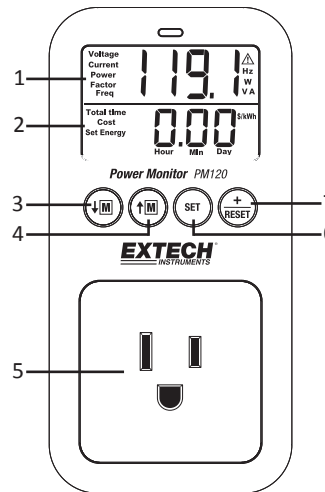
WARNINGS

WARNINGS identify hazardous conditions and actions that could cause BODILY HARM or DEATH.

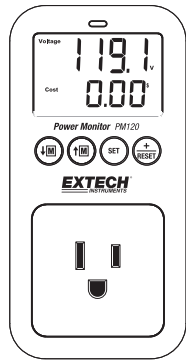
- Check the housing for cracks or missing plastic especially surrounding the plug. Do not use if any part of the meter is damaged.
- Verify the meter’s operation. Do not use if the meter responds abnormally as the internal structure may be damaged.
- Use the meter only as specified in this User Guide or accompanying Quick Start to avoid compromising the protections provided by the meter.
- Do not exceed the rated power or current of this meter.
- Do not expose the meter to extremes in temperature or to high humidity.
- Keep this meter away from children.
- Do not use the meter in the presence of explosive gas, vapor or dust.
- To reduce risk of fire or electric shock, do not use the meter if it is wet and do not expose the meter to moisture.

Meter Description

1. Primary Display: See ↑M for functions.
2. Secondary Display: See ↓M for functions
3. ↓M: Cycles through secondary display functions: Total Time, Cost, Energy and the corresponding values of each selection.
4. ↑M: Cycles through primary display functions: Voltage, Current, Power, Power Factor, Frequency and the corresponding values of each selection.
5. Appliance outlet
6. SET: Long press to set the cost in \$/kWh
7. +/RESET: Short press to increase the digits. Long press to reset the Energy or Cost functions. Short press to wake the power monitor from sleep mode.



PM120 – Power Monitor



Introduction

Thank you for selecting the Extech PM120 Power Meter. The PM120 monitors and records power usage of home and work appliances for energy conservation and cost reduction analysis. The power meter measures the voltage, current, power, and power factor as well as total time, cost, and energy. The PM120 is equipped with a high-precision current sensor giving real-time monitoring of AC power supply units. It features an alarm and power cut-off for safety.

This device is shipped fully tested and calibrated and, with proper use, will provide years of reliable service. Please visit our website (www.extech.com) to check for the latest version and translations of this User Manual, Product Updates, Product Registration, and Customer Support.

Features

- Large dual LCD manually displays electrical, cost, and metering functions in real-time.
- Electrical safety transfer function when connecting this product to a socket and then plugging the electrical appliance into this product.
- Over-current warning function.
- Primary LCD shows voltage, current, power, power factor, or frequency.
- Secondary display shows total time, cost, set, or energy.
- Enter electric charge (cost setting) to calculate and display kWh.
- Display cost of operation in minute, hour, day, and week.
- Battery backup stores data when removed from outlet.
- Three prong standard US plug and front socket for easy connection.

Operation

Measurement

Plug the PM120 into a household socket to begin measuring. The display will power on and enter default measurement display (Voltage and Total Time).



Select the Mode

- Short press the ↑M button to scroll through primary display functions. The meter will cycle through Voltage, Current, Power, Power Factor and Frequency. Long press ↑M to return to default ‘Voltage’ mode.
- Short press the ↓M button to scroll through secondary display functions. The meter will cycle through Total Time, Cost, and Energy. Long press ↓M to return to default ‘Total Time’ mode.

Total Time

Check the time by pressing the +/RESET button. If the accumulated time is less than 1 day, only Hour and Min will display. If the accumulated time exceeds 1 day, the LCD will only display ‘Day’. To view the hour and minute display, short press the +/RESET button.



Note: If the meter is above the rated current, the display will show a warning in the primary display and OL in the secondary display. Both displays and the power light will flash.

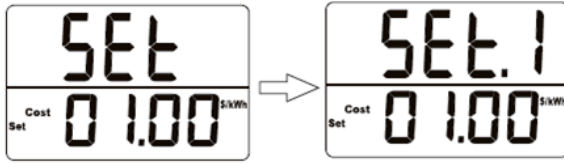


Cost Setting

The power monitor can be used to calculate the cost of electrical appliances.

1. Short press the ↓M button to enter the cost mode.
2. Long press the SET button to set the \$/kWh price of the electric charge.
3. Press the +/RESET button to adjust the amount.
4. Press the SET button to advance to the next digit.
5. Long press SET to save the data and return to normal operating mode.

The meter can be adjusted from 0 to 99.99 \$/kWh with the default condition being 1.00 \$/kWh.



Standby Mode

The PM120 comes with a 3V button cell battery to ensure data is not lost when removing the meter from the power source. The meter will enter standby mode after approximately 10 seconds of inactivity after disconnecting from the power source. To begin reading data while unplugged from a source, press the +/RESET button to wake the meter. Replace the battery if the LCD begins flickering or the readings are no longer stable.

Maintenance



WARNING: To avoid electrical shock, disconnect the meter from any circuit and turn OFF the meter before opening the case. Do not operate with an open case.

Battery Replacement

1. Remove the one Phillips head screws that secure the battery compartment at the back of the meter.
2. Open the battery compartment and replace the 3V button cell battery observing correct polarity. Re-assemble the meter before use.

Safety: Please dispose of batteries responsibly; never dispose of batteries in a fire, batteries may explode or leak. If the meter is not to be used for 60 days or more, remove the battery and store separately.

Never dispose of used batteries or rechargeable batteries in household waste.

Specifications

LCD:	50 x 36mm (1.97 x 1.41")
Voltage:	100 ~ 150 VAC @60Hz
Current:	0 ~ 15 A AC
Power:	0 ~ 1800 W
Power Factor:	0 ~ 1.00
Energy:	0 ~ 9999 kWh
Total Cost:	0 ~ 9999 USD (\$)
Cost/kWh:	0 ~ 99.99 USD (\$)
Total Time:	0 Min ~ 9999 Days
Frequency:	45Hz ~ 65Hz
Over-current Warning:	>16.5 A
Operating Temp. /Humidity:	0°C to 45°C (32°F to 113°F) / <95% RH
Storage Temp. /Humidity:	-10°C to 60°C (14°F to 140°F) / <95% RH
Dimensions:	130 x 65 x 37mm (5.1 x 2.6 x 1.5)
Weight:	155g (5.47 oz.)
Altitude:	Max 2000 meters (above sea level)
Power Supply:	one (1) 3V button cell battery (CR2032)
Safety:	CE, ETL, CAT II 150V

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