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› [Power Consumption Monitor Electricity Usage Monitor with Backlight LED Plug Power Watt Voltage Amps Meter, Overload Protection and 7 Display Modes for Energy Saving](#)

AMTAST AMF050M

AMTAST Power Consumption Monitor User Manual

Model: AMF050M

Brand: AMTAST

INTRODUCTION

This user manual provides comprehensive instructions for the AMTAST Power Consumption Monitor (Model AMF050M). This device is designed to accurately measure and display various electrical parameters of connected appliances, including power consumption, voltage, current, and cost. It features a clear backlight LCD display and built-in data memory for convenient energy management and cost analysis.

KEY FEATURES

- Comprehensive Monitoring:** Measures power (W), energy (kWh), volts (V), amps (A), hertz (Hz), power factor, maximum power (W), time, and days. This allows for detailed tracking of electricity usage, which is crucial for understanding and managing electricity bills.
- Backlight LCD Display:** Equipped with a large, clear LCD display (45mm x 70mm) with a blue backlight for easy reading, even in low-light conditions. The backlight activates when the meter is connected to AC power.
- Data Memory Function:** Features a built-in 3.6V rechargeable battery that retains stored power usage data during power outages, ensuring continuous tracking and allowing data retrieval once power is restored.
- Overload Protection:** Includes an overload protection function that alerts the user if the connected appliance's power consumption exceeds the safe capacity, enhancing safety.
- Ease of Use:** Simple plug-and-play operation. Connect the monitor to a wall outlet and then plug your appliance into the monitor to begin tracking energy usage.
- Cost Calculation:** Calculates electricity expenses based on cumulative kWh usage, providing a clear overview of energy costs.

SETUP GUIDE

Initial Setup

- Unpack the Device:** Carefully remove the Power Consumption Monitor from its packaging.
- Connect to Power:** Plug the monitor directly into a standard 110V 60Hz US wall outlet. The LCD display should illuminate,

and the backlight will activate.

3. **Internal Battery Charging:** The internal rechargeable battery will begin charging automatically. This battery maintains data even when the unit is unplugged.
4. **Plug in Appliance:** Connect the appliance you wish to monitor into the receptacle on the front of the Power Consumption Monitor.





Figure 1: The AMTAST Power Consumption Monitor ready for use.

OPERATING INSTRUCTIONS

The monitor features several buttons for navigation and setting. The primary buttons are **FUNCTION**, **COST**, **RST** (Reset), **UP**, and **DOWN**.

Display Modes

Press the **FUNCTION** button to cycle through the 7 different display modes:

1. **Time/Watt/Cost Display:** Shows the elapsed time, current power consumption in Watts, and the accumulated cost.





Figure 2: Time, Wattage, and Cost display mode.

2. **Time/Cumulative Electrical Quantity Display:** Displays the elapsed time and the total accumulated energy consumption in Kilowatt-hours (kWh).





Figure 3: Time and Cumulative Electrical Quantity (kWh) display mode.

3. **Time/Voltage/Frequency Display:** Shows the elapsed time, the current voltage (V), and the frequency (Hz) of the power supply.



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FUNCTION

COST

RST

UP

DOWN



Figure 4: Time, Voltage, and Frequency display mode.

4. **Time/Current/Power Factor Display:** Displays the elapsed time, the current (Amps), and the power factor.





Figure 5: Time, Current, and Power Factor display mode.

5. **Time/Minimum Power Display:** Shows the elapsed time and the lowest recorded power consumption (Watts) during the monitoring period.





Figure 6: Time and Minimum Power display mode.

6. **Time/Maximal Power Display:** Displays the elapsed time and the highest recorded power consumption (Watts) during the monitoring period.





Figure 7: Time and Maximal Power display mode.

7. **Time/Price Display:** Shows the elapsed time and the set price per Kilowatt-hour (COST/KWH).





Figure 8: Time and Price per kWh display mode.

Setting Cost per kWh

To accurately calculate electricity expenses, you need to set the price per Kilowatt-hour (kWh):

1. Press the **COST** button to enter cost setting mode. The current cost per kWh will flash.
2. Use the **UP** and **DOWN** buttons to adjust the value.
3. Press the **COST** button again to confirm and save the setting.

Resetting Data

To clear all accumulated data (time, kWh, cost, min/max power), press and hold the **RST** button for approximately 5 seconds until the display resets to zero.

MAINTENANCE

- Cleaning:** Wipe the device with a soft, dry cloth. Do not use abrasive cleaners or immerse the device in water.
- Storage:** Store the monitor in a cool, dry place away from direct sunlight and extreme temperatures.
- Battery Care:** The internal rechargeable battery is designed for long life. For optimal performance, ensure the unit is occasionally plugged in to allow the battery to charge.

TROUBLESHOOTING

Problem	Possible Cause	Solution
Display is blank or not lighting up.	Not properly plugged into an active outlet.	Ensure the monitor is securely plugged into a live 110V 60Hz US outlet.
Display is difficult to read.	Viewing angle is off; backlight is off (if on battery).	Adjust your viewing angle. Ensure the unit is plugged into AC power for backlight activation.
Readings appear inaccurate.	Incorrect cost setting; appliance drawing very low power; external electrical interference.	Verify the cost per kWh setting. Ensure the appliance is drawing sufficient power for accurate measurement. Test with another appliance.
Data not saving after unplugging.	Internal backup battery is low or faulty.	Keep the unit plugged in for several hours to allow the internal battery to charge. If the issue persists, contact customer support.
Overload alert triggered.	Connected appliance exceeds the monitor's maximum wattage (1800W).	Unplug the appliance immediately. Do not connect appliances that exceed the specified maximum power rating.

SPECIFICATIONS

Parameter	Value
Power Consumption of Monitor	0.5W
Operating Voltage	120VAC
Frequency Display	50HZ or 60HZ
Operating Current	Max 15A
Wide Voltage Range	110V~130V
Set Wattage Display Range	0W~9999W
Real Wattage Display Range	0~1800W
Timing Display Range	0 second~9999 days
Voltage Display Range	0V~9999V

Parameter	Value
Current Display Range	0.000A~15.000A
Frequency Display Range	0Hz~9999Hz
Price Display Range	0.00COST/KWH~99.99COST/KWH
Total KWh and Cost Display	0.000KWh~9999KWh, 0.00COST~9999COST
Dimensions (L x W x H)	155mm x 70mm x 45mm (not including pins)
Item Weight	7 ounces
Model Number	AMF050M
Manufacturer	AMTAST

WARRANTY INFORMATION

AMTAST products are manufactured to the highest quality standards. This product is covered by a standard manufacturer's warranty against defects in materials and workmanship from the date of purchase. Please retain your proof of purchase for warranty claims. For specific warranty terms and conditions, refer to the product packaging or contact AMTAST customer support.

CUSTOMER SUPPORT

For technical assistance, troubleshooting, or warranty inquiries, please contact AMTAST customer support through the following channels:

- Website:** Visit the official AMTAST website for FAQs and support resources.
- Email:** Refer to your product packaging for customer service email address.
- Phone:** Refer to your product packaging for customer service phone number.

When contacting support, please have your product model number (AMF050M) and purchase information ready.

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Related Documents - AMF050M

	Amtast AMT620 Lab pH Meter - Features and Specifications Detailed information on the Amtast AMT620 Lab pH Meter, including its features such as auto/manual pH temperature compensation, GLP function, data saving capabilities, and RS232 communication. Specifications for pH, mV, and temperature ranges and accuracy are provided.
	AMTAST Water Timer: Installation, Operation, and Troubleshooting Guide Comprehensive guide for the AMTAST Water Timer, covering product overview, specifications, installation, automatic watering program settings, manual watering, rain delay, child lock, and frequently asked questions.

Surface Roughness Tester
Instruction manual



AMTAST USA INC

[AMTAST Surface Roughness Tester Instruction Manual](#)

Comprehensive instruction manual for the AMTAST Surface Roughness Tester, detailing its features, operation, maintenance, troubleshooting, and technical specifications for accurate surface texture analysis.

IN/OUT ALARM THERMOMETER
AMT-105 PRODUCT MANUAL

FEATURES
• 2 Alarm levels for temperature monitoring
• Instantaneous temperature reading
• Large LCD digital display
• 1000 memory storage
• Auto power off
• Auto calibration
• Auto power on
• Auto power off
• Auto range key lock

DESCRIPTION
• Dimensions: (20.5 x 105 x 105) mm
• Weight: 100g
• Power requirement: 2 x 1.5V AAA batteries
• Digital accuracy: ±0.5°C
• Digital resolution: 0.1°C
• Digital memory: 1000
• Sensors: 2 x NTC
• Power source: 2 x 1.5V AAA batteries
• Power consumption: 0.5W
• Protection: IP54
• Dimensions: (20.5 x 105 x 105) mm
• Weight: 100g

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NOTES
• 1. Carefully read the manual.

[AMT-105 Indoor/Outdoor Alarm Thermometer Product Manual](#)

Product manual for the AMTAST AMT-105 indoor/outdoor alarm thermometer, detailing its features, specifications, installation steps, and operational guidance.