Bachmann 852.9821

Bachmann 852.9821 Energy Meter User Manual

Model: 852.9821 | Brand: Bachmann

1. Introduction and Overview

This manual provides comprehensive instructions for the safe and efficient use of your Bachmann 852.9821 Energy Meter. This device is designed to measure and display the energy consumption of connected electrical appliances. It features a large LCD with a blue backlight for clear readability, displaying various electrical parameters and supporting two separate tariff rates for accurate cost calculation.

Figure 1: Front view of the Bachmann 852.9821 Energy Meter, showing the digital display, control buttons (MENU, SET, arrow buttons, RST), and the integrated power socket. The display shows time and energy consumption in kWh.

2. Safety Instructions

Please read these safety instructions carefully before using the device. Failure to follow these instructions may result in electric shock, fire, or damage to the device.

- Do not open the device casing. There are no user-serviceable parts inside.
- Do not expose the device to moisture, rain, or extreme temperatures.
- Ensure the device is connected to a properly grounded power outlet.
- Do not overload the device. The maximum load is 3680 W (16 A at 230 V).
- Keep out of reach of children. The device includes child protection features.
- If the device is damaged, discontinue use immediately and contact qualified personnel for repair.
- Clean the device only with a dry, soft cloth. Do not use liquid cleaners.

3. Product Features

The Bachmann 852.9821 Energy Meter offers the following key features:

- Large LCD screen with blue backlight for easy reading.
- Displays various electrical parameters: Voltage (V), Frequency (Hz), Active Power (W), Apparent Power (VA).
- Records total energy consumption in kWh.
- Supports two separate tariff rates for precise cost calculation.
- Integrated timer function.
- Wide voltage range: 160 V - 280 V.

- Power measurement range: 4 W - 3680 W.
- Low self-consumption: Less than 1 W.
- Equipped with child protection.

4. Setup

Setting up your energy meter is a straightforward process:

1. **Unpack:** Carefully remove the energy meter from its packaging.
2. **Plug In:** Insert the energy meter into a standard 230V AC wall socket. The display should illuminate.
3. **Connect Appliance:** Plug the appliance you wish to monitor into the socket on the front of the energy meter.
4. **Initial Settings:** Upon first use or after a reset, you may need to set the current time and tariff rates. Refer to the "Operating Instructions" section for details on navigating the menu.

5. Operating Instructions

The energy meter is controlled using the buttons located below the display.

- **MENU Button:** Press to cycle through different display modes (e.g., Voltage, Current, Power, Frequency, Cost, Total kWh).
- **SET Button:** Used to enter settings mode for time, date, and tariff rates. Press again to confirm selections.
- **Arrow Buttons (⇄ and +):** Used to navigate through options or adjust values within settings mode. The ⇄ button typically moves between settings, while the **+** button increases values.
- **RST Button:** A small recessed button (often requiring a pen tip to press) used to reset all accumulated data and settings to factory defaults. Use with caution.

5.1. Setting Time and Date

1. Press and hold the **SET** button until the time display flashes.
2. Use the ⇄ button to select the hour, minute, day, month, and year.
3. Use the **+** button to adjust the flashing value.
4. Press **SET** to confirm each setting and move to the next.
5. Press **MENU** to exit settings mode.

5.2. Setting Tariff Rates

The device supports two tariff rates (Tariff 1 and Tariff 2) for calculating electricity costs.

1. Press the **MENU** button repeatedly until the cost display mode is shown.
2. Press and hold the **SET** button until the tariff rate flashes.
3. Use the ⇄ button to select Tariff 1 or Tariff 2.
4. Use the **+** button to adjust the cost per kWh for the selected tariff.
5. Press **SET** to confirm and save the tariff rate.
6. Press **MENU** to exit settings mode.

6. Display Information

The LCD provides various readings. Press the **MENU** button to cycle through the following displays:

- **Time and Date:** Current time and date.
- **Voltage (V):** Displays the current line voltage (e.g., 230V).
- **Frequency (Hz):** Shows the current power line frequency (e.g., 50Hz).
- **Active Power (W):** The real power consumed by the connected appliance.

- **Apparent Power (VA):** The total power in an AC circuit, including reactive power.
- **Power Factor:** The ratio of active power to apparent power.
- **Total Energy (kWh):** Accumulated energy consumption in kilowatt-hours.
- **Cost:** Calculated cost based on accumulated kWh and set tariff rates.
- **Operating Time:** Total time the appliance has been connected and drawing power.

7. Maintenance

The Bachmann 852.9821 Energy Meter requires minimal maintenance.

- **Cleaning:** Disconnect the device from the power outlet before cleaning. Use a soft, dry cloth to wipe the exterior. Do not use abrasive cleaners or solvents.
- **Storage:** When not in use for extended periods, store the device in a cool, dry place, away from direct sunlight and extreme temperatures.

8. Troubleshooting

If you encounter issues with your energy meter, refer to the following troubleshooting guide:

Problem	Possible Cause	Solution
Display is blank.	No power supply.	Ensure the meter is securely plugged into a live wall socket. Check the wall socket with another appliance.
Incorrect readings.	Improper settings or device malfunction.	Verify tariff settings. If issues persist, perform a factory reset using the RST button.
Buttons are unresponsive.	Temporary software glitch.	Unplug the device from the wall socket, wait 10 seconds, then plug it back in.
Appliance not receiving power.	Meter malfunction or appliance issue.	Test the appliance directly in the wall socket. If the appliance works, the meter may be faulty.

9. Technical Specifications

Below are the technical specifications for the Bachmann 852.9821 Energy Meter:

Model Number: 852.9821

Brand: Bachmann

Color: White

Voltage Range: 160 V - 280 V AC

Nominal Voltage: 230 Volts

Max. Power Load: 3860 Watts (16 A)

Min. Power Measurement: 4 Watts

Self-Consumption: < 1 Watt

Dimensions (L x W x H): 21.2 x 9.2 x 7.6 cm (8.35 x 3.62 x 2.99 inches)

Weight: 230 grams

Measurement System: Metric

Features: Large LCD with blue backlight, 2 separate tariff rates, child protection.

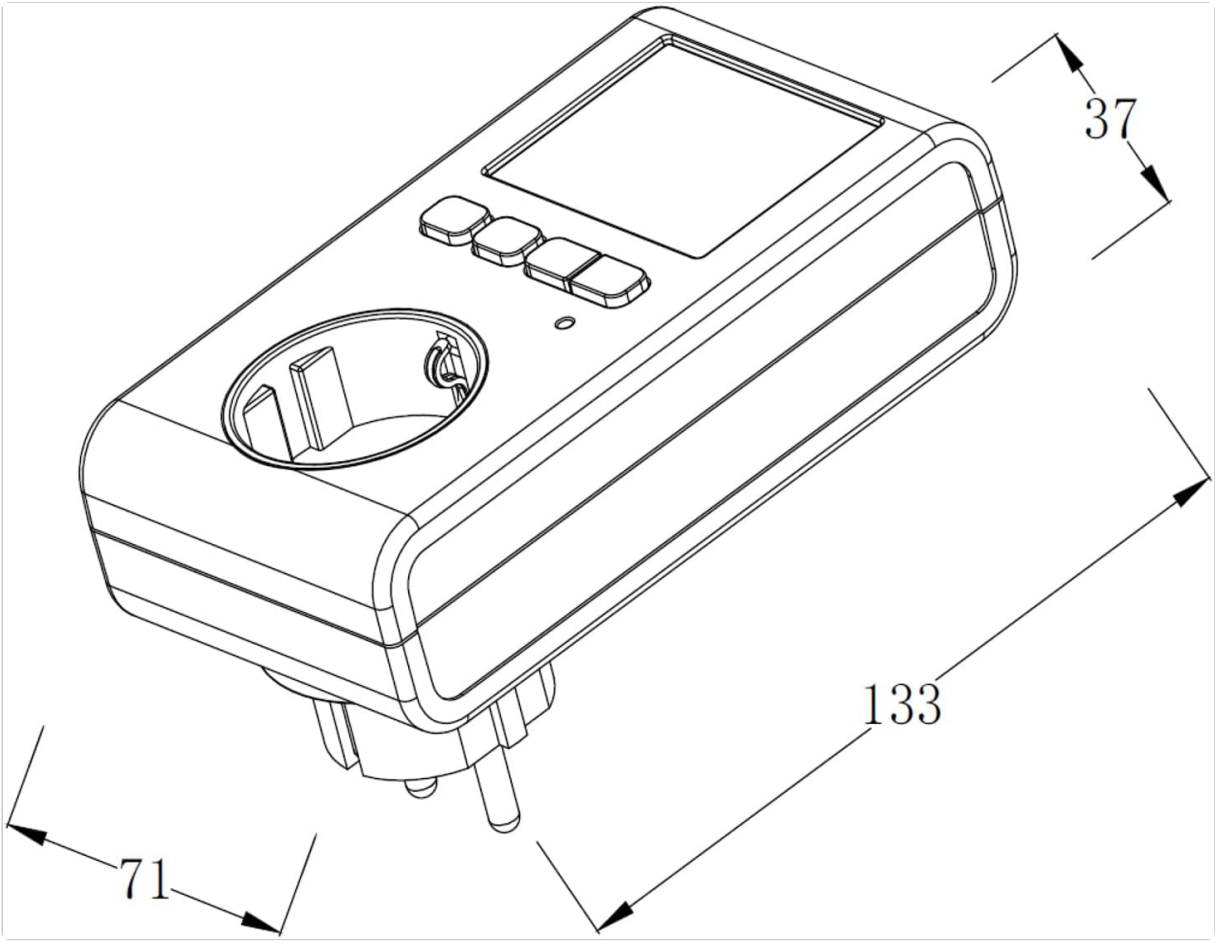


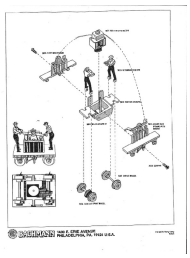
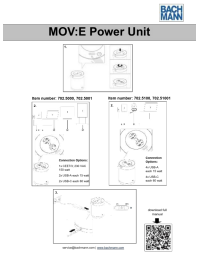
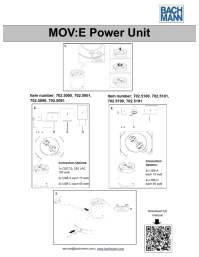
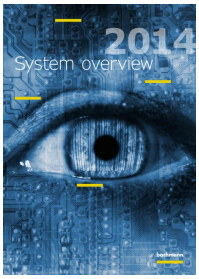
Figure 2: Dimensional drawing of the Bachmann 852.9821 Energy Meter, illustrating its length (133mm), width (71mm), and height (37mm) for precise installation planning.

10. Warranty and Support

Bachmann products are manufactured to high-quality standards. For information regarding warranty coverage, please refer to the warranty card included with your purchase or visit the official Bachmann website.
For technical support, troubleshooting assistance beyond this manual, or spare parts inquiries, please contact Bachmann customer service through their official channels.

Related Documents - 852.9821

	Bachmann Casia 2 Hoekstopcontact met 2 Stopcontacten en USB A/C - Zwart (932.102) Ontdek de Bachmann Casia 2 hoekstopcontact, ideaal voor keukens. Met 2 stopcontacten, USB A/C (22W), en een stijlvol zwart design met anti-vingerafdruk coating. Verkrijgbaar in verschillende varianten voor optimale flexibiliteit.

	[Bachmann HO Gandy Dancer Exploded View Diagram and Parts List] Detailed exploded view diagram and parts list for the Bachmann HO Gandy Dancer model train component, including part numbers and descriptions.
	[Bachmann MOV:E Power Unit - Product Overview and Connection Options] Learn about the Bachmann MOV:E Power Unit, including its item numbers, connection options for various devices (CEE7/3, USB-A, USB-C), and power status indicators. Get essential information for this versatile power solution.
	[Bachmann MOV:E Power Unit - Versatile Charging and Connectivity] Discover the Bachmann MOV:E Power Unit, a versatile solution for powering and charging multiple devices. Features include CEE7/3 outlets and high-speed USB-A/USB-C ports. Explore different models and connection options for efficient power management.
	[Bachmann bluecom: Open Real-Time Ethernet Transmission Protocol] Detailed information on Bachmann's bluecom, an open real-time transmission protocol optimized for diverse Ethernet networks, including industrial automation and alternative energy plants. This document details its features, technical specifications, diagnostics, performance data, and order codes.
	[Bachmann M1 Controller Hardware System Overview 2014] Explore the comprehensive Bachmann M1 controller hardware system, detailing its industrial automation capabilities, diverse modules, networking options, and engineering software for robust and scalable solutions.