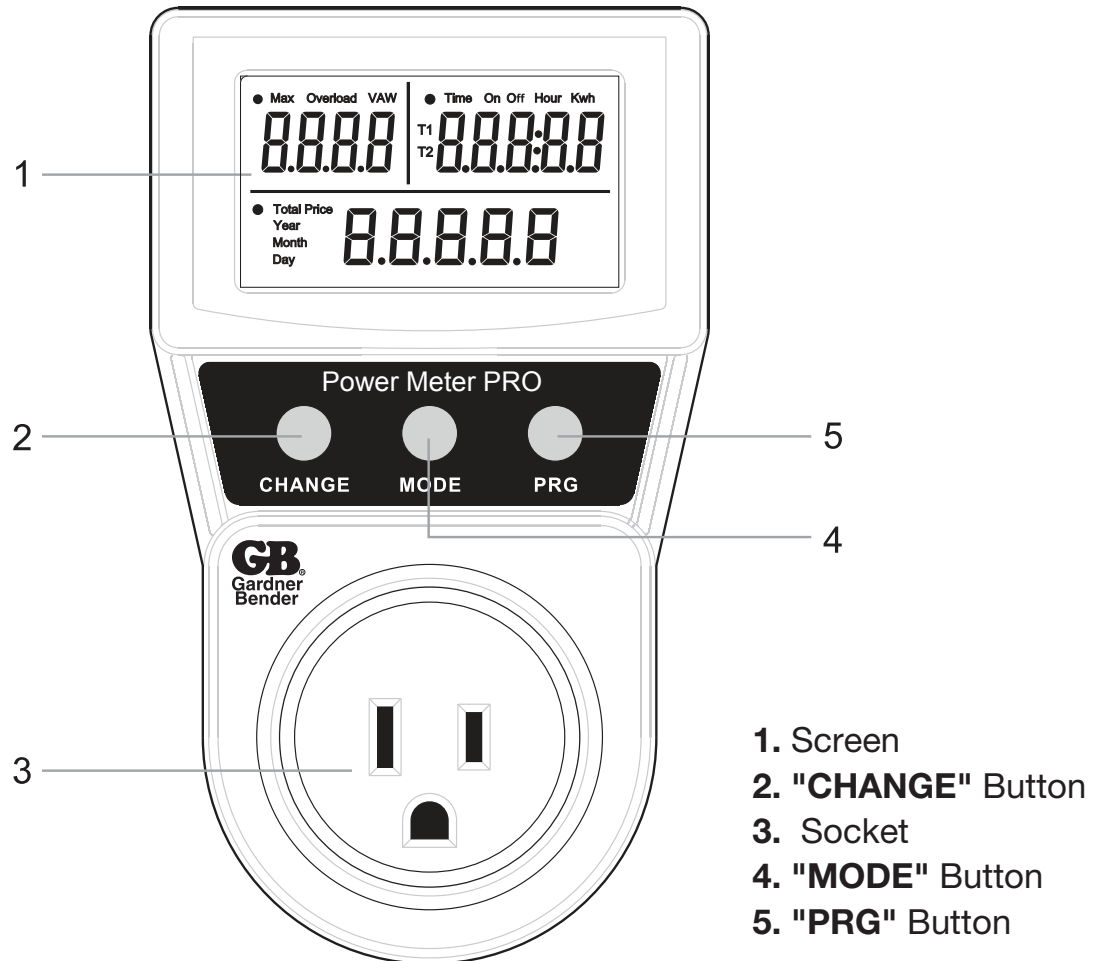


Read this owners manual thoroughly before use and save.



I. GENERAL INTRODUCTION

This instrument is a multifunctional meter which allows you to measure the amount of electricity used by an appliance. It is ideal for uses such as air conditioners, refrigerators, and various types of office equipment.

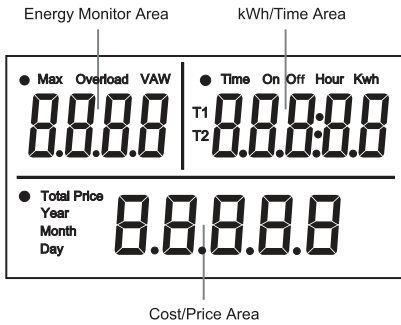
It allows you to enter two electricity prices for two different time periods to calculate the total cost of an appliance's power consumption, and to monitor the electricity usage. It can detect energy overloads and record the highest amperage, voltage and wattage.

To operate this instrument, you should read the manual first and adjust the settings. Then plug the instrument in to a standard AC outlet. Finally, connect the plug of the appliance to be monitored into the socket of the instrument.

Features:

- Energy monitor and consumption tracking
- Maximum amperage, voltage and wattage readings
- Energy cost calculation
- Energy cost prediction
- Energy usage time
- Clock
- Overload warning
- Dual price adjustment

II. SCREEN AND BUTTONS



A. "CHANGE" Button

Press this button to scroll through the following readings on the Energy Monitor area:

- Wattage
- Maximum Wattage
- Line Voltage
- Maximum Line Voltage
- Load Current
- Maximum Load Current
- Current Overload Threshold
- Wattage Overload Threshold

B. "MODE" Button

1. Used to switch among different modes.
2. Used for setting adjustment.

C. "PRG" Button

1. Used to enter setting mode and select the desired digit or item.
2. Used to clear all total cost, energy usage time and total consumed energy data together.

III. ENERGY MONITOR

Press CHANGE to scroll through the following readings on the energy monitor area:

- Wattage
- Maximum Wattage
- Line Voltage
- Maximum Line Voltage
- Load Current
- Maximum Load Current
- Current Overload Threshold
- Wattage Overload Threshold

The voltage reading indicates how many volts are available from your wall socket. The wattage and amperage readings indicate the energy presently being used by the appliance. The maximum amperage, maximum voltage and maximum wattage readings indicate the highest readings recorded when the corresponding display is being shown. If you switch to another display, the highest reading will be cleared.

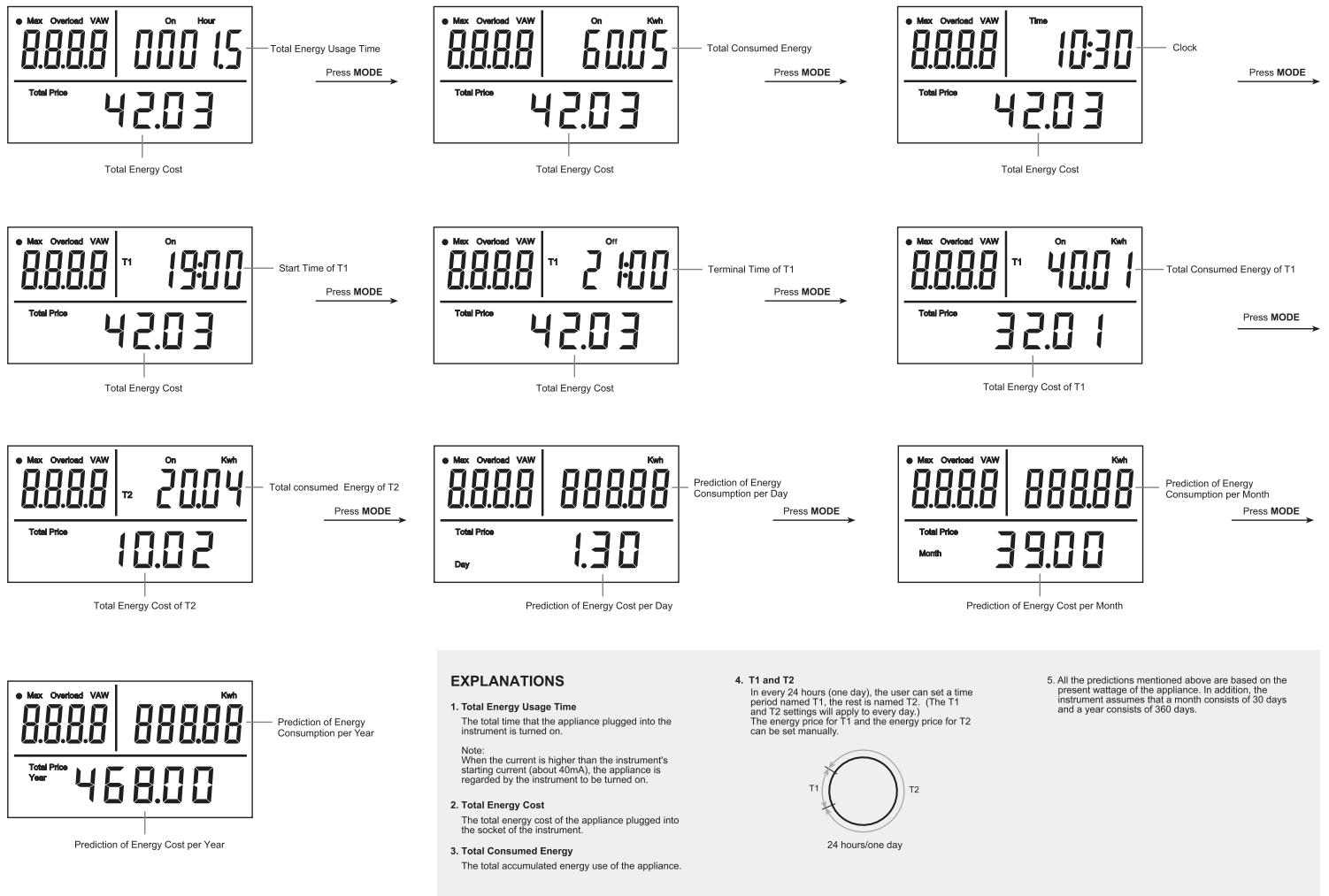
READINGS

- (W) Watt = Wattage
- (Max W) Watt = Highest recorded wattage used by load
- (V) Volt = Line Voltage
- (Max V) Volt= Highest recorded Line Voltage
- (A) Ampere= Load Current
- (Max A) Ampere = Highest recorded current drawn by load
- (Overload A) Ampere= Current Overload Threshold
- (Overload W) Wattage = Wattage Overload Threshold

You can set a desired current or wattage overload threshold. When the present current or wattage exceeds the threshold, the symbol "Overload" will blink on display as alarm if a relevant display is being shown.

IV. SWITCHING AMONG DIFFERENT MODES

Pressing MODE switches the Cost/Price area and kWh/Time area among different modes in a circulation pattern. The following illustrations show the process. Pay attention to the symbols and units on the two areas.



V. SETTING T1 , T2 AND THE PRICES

Setting the start time and terminal time of T1

1. Press **MODE** until the start time or terminal time of T1 is displayed on the screen.
2. Press **PRG** to enter setting mode.
3. Press **PRG** to select the desired item you want to adjust. The selected item will blink.
4. Press **MODE** to adjust the selected item.
5. When all adjustments have been completed, select the last item (the rightest item) by pressing **PRG**.
6. Press **PRG** once more to finish the setting.

Setting price T1/kWh and price T2/kWh

1. Press **MODE** until the total energy cost of T1 (for setting price T1 per kWh only) or the total energy cost of T2 (for setting price T2 per kWh only) is displayed on the screen.
2. Perform steps 2 through 6 of the **Setting the start time and terminal time of T1** section.

Note:

Price T1 /kWh is the energy price of T1, price T2/kWh is the energy price of T2.

VI. SETTING CLOCK

1. Press **MODE** until the clock is shown on the screen.
2. Perform steps 2 through 6 of the **Setting the start time and terminal time of TI** section.

VII. SETTING CURRENT OR WATTAGE OVERLOAD THRESHOLD

1. Press **CHANGE** until the current or wattage overload threshold is shown on the screen.
2. Perform steps 2 through 6 of the **Setting the start time and terminal time of TI** section.

VIII. BATTERY REPLACEMENT

Before battery replacement, make sure that the instrument has been removed from any AC outlet and no plug is inserted in the instrument's socket.

1. Remove the screws on the battery cover and remove the battery cover.
2. Replace the exhausted button cells with new button cells of the same type, make sure that the polarity connections are correct.
3. Reinstall the battery cover and the screws.
4. Check the clock of the instrument and adjust the time if necessary.

IX. TO CLEAR TOTAL ENERGY COST, TOTAL ENERGY USAGE TIME AND TOTAL CONSUMED ENERGY

1. Press **MODE** until the screen shows the total consumed energy.
2. Press **PRG** once, the Cost/Price area and kWh/Time area will respectively show a black dot on top left corner.
3. Press **PRG** once more, all total energy cost, total energy usage time and total consumed energy data will be cleared.

X. TECHNICAL SPECIFICATIONS

Operating Voltage: CAT II 90-125V, at 60Hz

Maximum Load: 1875W/15A

Current Range: 0.2A~15A

Wattage Range: ≤1875W

Current Measuring Accuracy: 0~10A: ±(2.0%) 10A~15A ±(2.5%+10D)

Current Resolution: 0.01A

Power Resolution: 1W

kWh Display: 0.00kWh~999.99kWh

Current Overload Indication: "EEEE" shown on the corresponding display

Energy Cost Overflow Indication: "EEEEEE" shown on the corresponding display

Batteries: 1.5V button cell, LR41, 3 pieces

IP Degree: IP20

Operating Environment: temperature: 0°C~40°C
relative humidity: < 75%

Storage Environment: temperature: -10°C~50°C
relative humidity: < 85%

Size: 136x84x66mm

Weight: about 210g (including button cells)

NOTE

1. Before you use the instrument, you should perform the settings (including clock, T1, T2, price T1, price T2).
2. If the instrument is not in use, it will turn off automatically and go into Sleep mode. In sleep mode, the instrument's data and settings are maintained. To arouse the instrument from Sleep, press any button for about 1 second.
3. Each time after you finish replacing the batteries, you should check and calibrate the clock of this instrument. Many calculations of the instrument are related to the clock.
4. Do not use the instrument if it is damaged or if it operates abnormally. Before you use the instrument, inspect the case. Look for cracks or missing plastic. Pay particular attention to the insulation surrounding the connectors.
5. Do not use the instrument where explosive gas, vapor, or dust is present.
6. Do not exceed the specifications.

7. Before use, verify the instrument's operation by measuring a known voltage.
8. Make sure all relevant ground connections are good and secure.
9. Do not position the instrument so that it is difficult to operate the disconnecting device.
10. Never attempt to repair or service the instrument.
11. To clean the instrument, use dry soft cloth. Do not use abrasives or solvents.
12. If the instrument is used in a manner not specified in this Instruction Sheet, the protection provided by the instrument may be impaired.
13. Do not use the instrument if label is damaged or part of label upwarps.
14. CAT II - Measurement Category II is for measurements performed on circuits directly connected to low voltage installation. (Examples are measurements on household appliances, portable tools and similar equipments.) Do not use the instrument for measurements within Measurement Categories III and IV.


CARE & STORAGE: Unit should be kept clean at all times. Clean using only a soft cloth or cotton swab with medical alcohol. Do not submerge any part of the Power Meter. The Power Meter should be stored at room temperature.

WARRANTY: Gardner Bender warrants its product against defects in workmanship and materials for 1 year from date of delivery to user. Chain is not warranted. Warranty does not cover ordinary wear and tear, abuse, misuse, overloading, altered products or use of improper fluid.

WARRANTY RETURN PROCEDURE: When question of warranty claim arises, send the unit to the nearest Gardner Bender Authorized Service Center for inspection, transportation prepaid. Furnish evidence of purchase date. If the claim comes under the terms of our warranty the Authorized Service Center will REPAIR OR REPLACE PARTS AFFECTED and return the unit prepaid.

*** Note:**

- The warranty is not applicable if the instrument has been: misused, abused, subjected to loads in excess of specifications, has had unauthorized repair or has been improperly assembled or used.
- Gardner Bender is not liable or responsible for any loss.

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