Solar Power Meter

User Manual

Part Number: MP780966

1. Introduction

Solar power meter is a device used to measure solar power (sunlight). The MP780966 has the advantages of high precision, good stability and fast response.
Measurement unit: w/m² or BTU/(ft²*h).

2. Safety Precautions and regulations

This meter is in compliance with safety standard EN 61010-1 related to electronic measuring instruments. For your own safety and to avoid damaging the instrument follow the procedures described in this instruction manual and read carefully before operation

3. Meter Description

3.1 Features

1. Sunlight measurement up to 1999w/m²or 634BTU/(ft²*h)
2. High accuracy and rapid response
3. Data HOLD function to hold measurement values
4. Unit and sign display for easy reading
5. Measuring unit selection between w/m²and BTU/(ft²*h)
6. Manual range selection
7. Direct reading
8. Maximum and minimum value measurement
9. Low battery indication

3.2 Instrument Description

1. Photo Detector
2. The photo detector connection port
3. Zero adjustment
4. LCD display (data, min/max, hold, w/m² or BTU (ft²*h), low battery indication)
5. ON/OFF button
6. Unit conversion button (w/m²or BTU/(ft²*h))
7. Range button
8. HOLD button
9. MIN/MAX button
10. Backlight button

3.3 Description of function buttons

- ON/OFF button:
  Press the '⏻' button to turn ON/OFF the power
- W/B button:
  Press the 'W/B' button to switch from BTU/(ft²*h) to W/m². To select a different unit press this button once again.
- R button (Range switching button):
  Press the "R" button to convert range / measurement value
- HOLD button:
  Press the 'HOLD' button to go into hold mode. 'HOLD' appears on the screen to hold the data.
  Press the "HOLD" button again to exit Hold mode.
- MIN/MAX button:
  When measuring the photometric values, press the 'MIN/MAX' button to display the min/max value. Long press the "HOLD" button for 1 second, the min/max value released.
- Backlight key:
  Press the ' 🔦' button turn on or off backlight.

4. Electrical Specification

Operating temperature and Relative Humindity:	5°C to 40°C, below 80%RH.
Storage temperature and relative humidity:	-10°C to 60°C, below 70%.
Display:	3-1/2 digits LCD with maxmum reading 1999.
Sampling time:	Approx 0.25 second
Resolution:	1W/m²;1BTU/(ft² × h)
Accuracy:	Typically within ±10W/m² [±3BTU/(ft² × h)] or ±5%; ±0.38W/m²/°C per temperature changes.
Overload:	Display shows 'OL'
Range:	1999W/m², 634BTU/(ft² × h).
Size:	162(L) × 63(W) × 28(H)

Weight (including battery):	About 250g

5. Operating instructions

- Press the power button '⏻' to turn on the meter.
- Press the 'W/B' button to select measurement range W/m²or BTU/(ft² × h).
- Remove the protection cap of the photo detector and expose it to the light source in horizontal position. Read the photometer value from the LCD display.
- After the luminosity value has stabilized. Press 'HOLD' button to hold the testing data (NOTE: If display shows 'OL', it means that the input signal is too strong and a higher range must be selected.)
- After the measurement is completed, cover the protective cover, the LCD display should be displayed at '000', if not please press "zero" adjust before turn off.

6. Accessories

- User manual.
- 4.5V (1.5V AAA × 3) alkaline battery
- carrying case

7. Safety and maintenance

- Operating altitude: below 2000m.
- Operating environment: for indoor use, Pollution level II.
- Do not place the meter in direct sunlight or store the meter where temperature or humidity is excessively high.
- Remember to turn OFF the power after use. If the meter is not to be used for a long time, removed battery.
- Clean the meter with a dry soft cloth, wet cloths, liquid and water are prohibited.

8. Battery replacement

- When the symbol '  ' is display, batteries need replacement. Turn off the meter and disconnect the photo detector from the meter.
- Unscrew the battery compartment and remove the battery, insert a new battery of the same type (1.5V AAA × 3 alkaline battery), re-screw the battery compartment