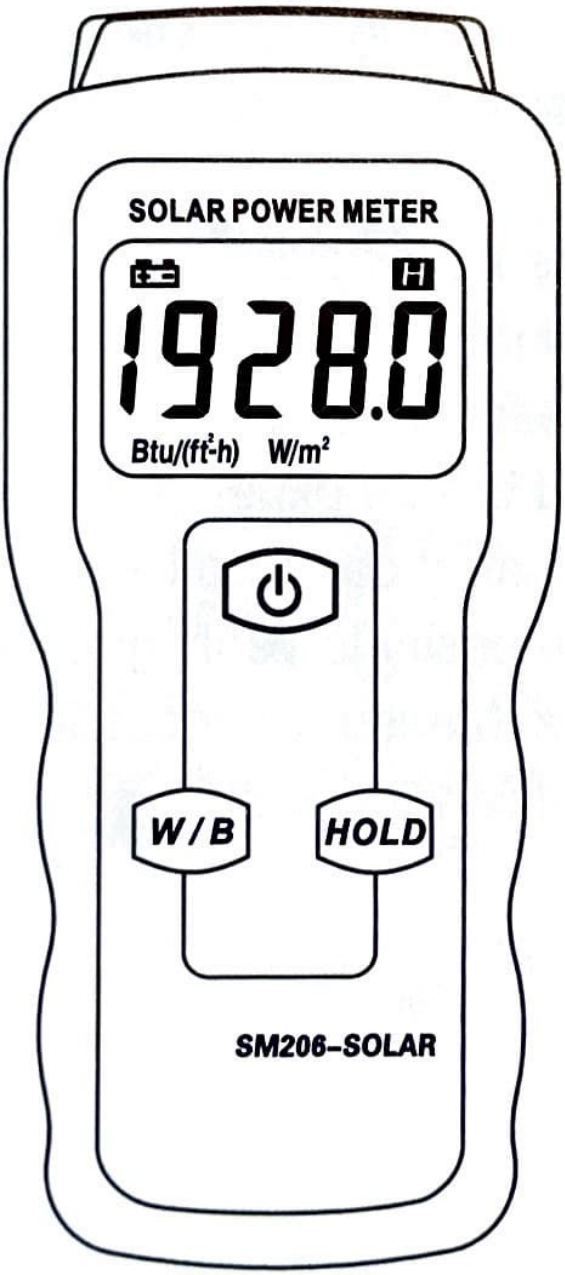
SOLAR POWER METER INSTRUCTION MANUAL



As this device is an intellectual precise measurement apparatus, it is very important that you read through these instructions before using this device.

I Overview

Thank you for selecting our product. Before using this meter, please carefully read this Manual. It will instruct you on correct operation methods and simple examination and handling essentials so you can benefit from its advantages.

This meter is a precision instrument for measuring light intensity. It is used in solar radiation measurement, solar research, physical and optical experiments, meteorology, and agriculture. It can also be used to measure glass light intensity to verify glass properties. For example: Measurement of light intensity through vehicle windows.

II Features

*Selectable from two units:W/m² and Btu

*4-1/2 digital display

*Data retention function

*Wide measure range without adjustment

III Specifications

*Resolution: 0.1W/m², 0.1 Btu/(ft²-h)

*Error range: ±(10%R+2dgts) R:readings

*Temperature error: ±0.38W/m² / ℃
[±0.12 Btu/(ft²-h)/℃] deviation at 25℃

*Display: 4-1/2 LCD display,
maximum displayed numerical value 19999,
over load "OL"

*Drift: < ±1.5% /year

*Measuring range: 0.1~1999.9 W/m²,
0.1~1999.9 Btu/(ft²-h)

*Wave length range: 340~1100nm; Incidence Angle normal direction less than ±45 degree; peak wavelength 900nm

*Sampling time:2.5t/s

*Operation temperature and humidity:
0°C to 40°C <80%RH

*Storage temperature and humidity:
-10°C to 50°C <70%RH

*Dimensions and weight:
132(L)x60(W)x38(H)mm

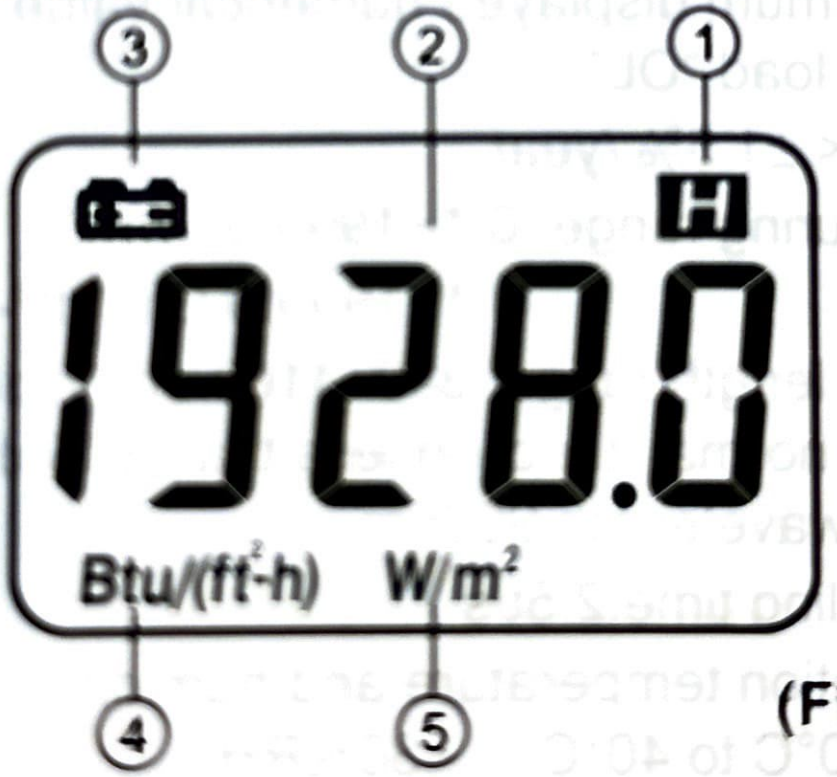
*Weight: approx. 150g

*Battery needed: 9V 6F22 battery

*Battery operation life: Approx. 100 hours

IV Description of the display (Fig.1)

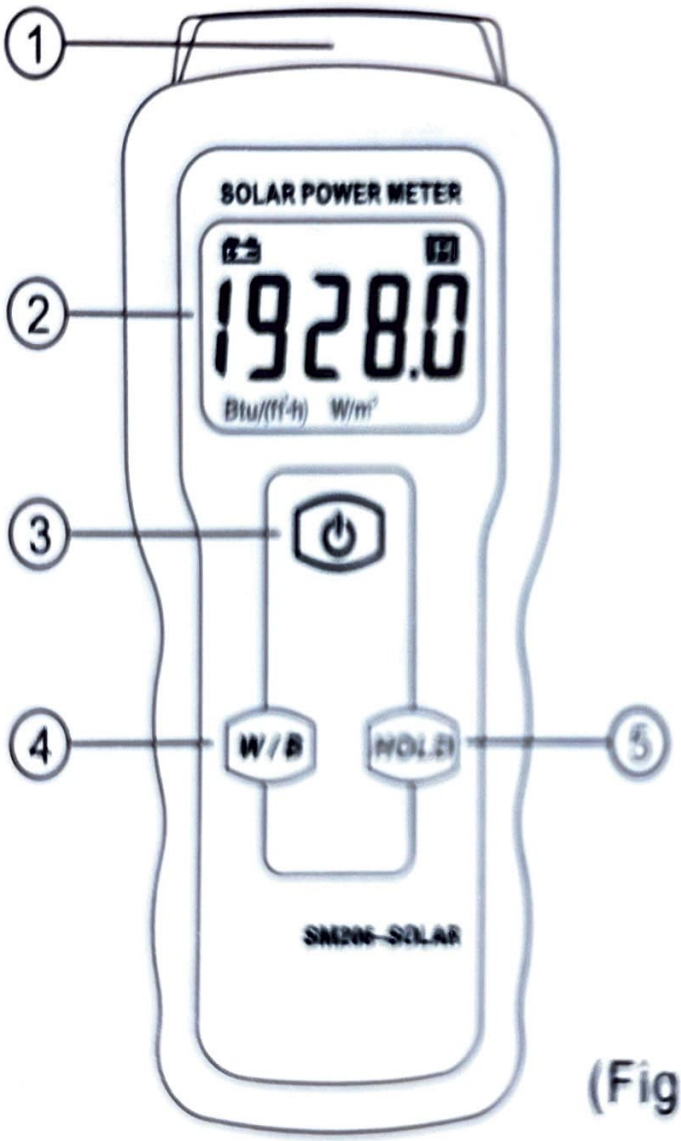
1. Value retention symbol
2. Displayed data
3. Low voltage symbol
4. English unit Btu/ (ft^2-h)
5. Metric unit W/m^2



(Fig.1)

V Description of the keypad(Fig.2)

1.Photosensitive window
2.LCD display
3. ⏻ : ON/OFF button
4.W/B: Units W/m^2 and Btu/ (ft^2-h) selection key
5.HOLD: Value retention Key



(Fig.2)

Ⅵ Operation

1.According to the battery compartment positive and negative, installed the battery correctly, press "⏻" to turn the meter on. It enters the measuring state. The LCD screen displays 00.0. The default unit after turning on is W/m².

2.Press "W/B" to select the unit W/m^2 or Btu/ (ft^2-h) as desired.

3.Make measurements after unit selection. Cover the photosensitive test window with the hand, screen displays 000.0 or 000.1 illustrates the instrument work normally, you can start testing .

4.Press "HOLD" during measurement and the LCD screen displays "H" and the displayed value is locked at the same time. Press "HOLD" to exit the data retention function to continue measurement.

5.After the measurement is completed, press " ⏻ " to turn the meter off.

Ⅶ Battery replacement

1. When the battery voltage becomes too low, the low battery symbol" ⏻ "will appear on the screen, indicating that the battery needs to be replaced. If it is not replaced in time, the measurement accuracy will be affected.

2. Open the battery door and take out the battery.
3. Correctly install a new 9V battery.
4. If the meter is not used for a long period of time, please take out the battery to prevent damage to the meter from liquid leakage of the battery.

Ⅷ Precautions

1. This meter is a precision instrument. Please store it in the storage device provided with it. Avoid storing it in moist places.
2. Please keep the instrument front "photosensitive window" clean, do not scratch or infected with dirt
3. Never clean or wipe the meter with any liquid or water.