

User Manual



**SPLT100**

**Solar Power Light Meter**



## 1. Introduction

Solar power meter is a device used to measure solar power (sunlight). From the moment you buy such a product, your future is not uncertain any more. When the sun shines recklessly, just take the DT-1307 and aim its opening the sun, and you will see how powerful the sun is, if you want your skin white, you surely cannot do without it! Measurement: Expressed by  $\text{w/m}^2$  or  $\text{BTU}/(\text{ft}^2 \cdot \text{h})$ .

## 2. Safety Precautions and procedures

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 all notes preceded by this symbol

### • International Safety Symbols

 This symbol, adjacent to another symbol or terminal, indicates the user must refer to the manual for further information.

 Double insulation

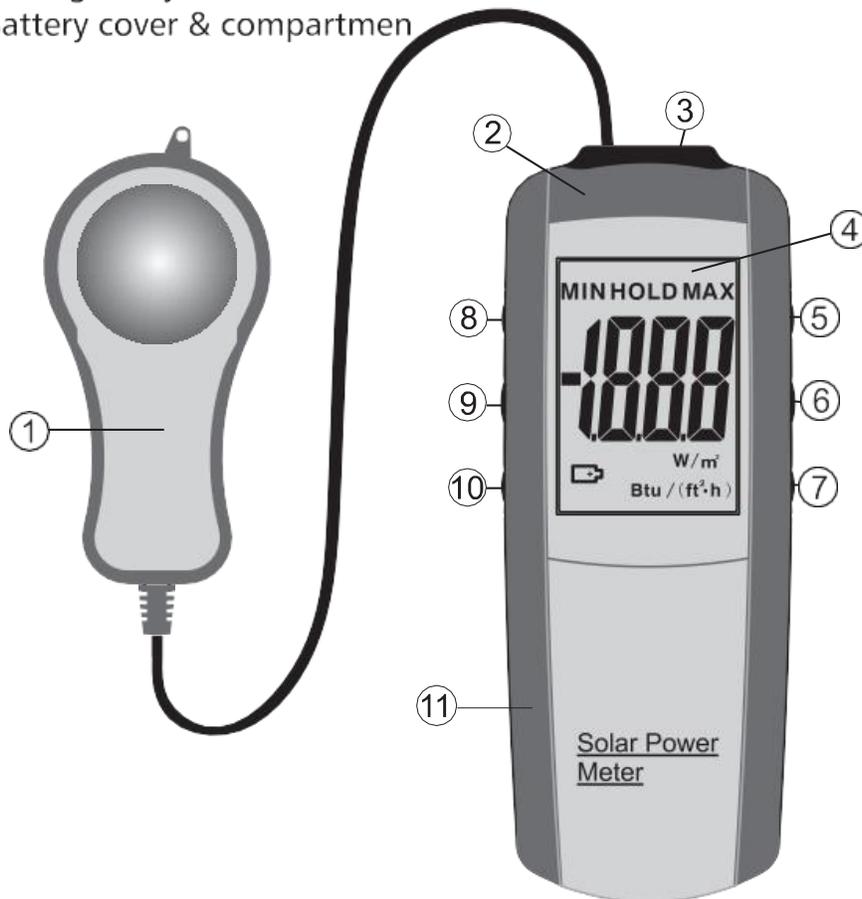
## 3. Meter Description

### 3.1 Features

1. Sunlight measurement up to  $1999 \text{w/m}^2$  or  $634 \text{BTU}/(\text{ft}^2 \cdot \text{h})$
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 among  $\text{w/m}^2$  and  $\text{BTU}/(\text{ft}^2 \cdot \text{h})$
6. Manual scale selection
7. Direct reading with no adjustments needed
8. Maximum and minimum values
9. Low battery indication

### 3.2 Instrument Description

- 1.Solar power meter the sunlight probe
- 2.The sunlight probe connect top
- 3.0 adjust
- 4.LCD display(data, min/max, hold, w/m<sup>2</sup> or BTU(ft<sup>2</sup>\*h), low battery, range)
- 5.ON/OFF key
- 6.W/B ---Unit (w/m<sup>2</sup> or BTU/(ft<sup>2</sup>\*h)selection key
- 7.Rang key
- 8.HOLD key
- 9.MIN/MAX key
- 10.Backlight key
- 11.Battery cover & compartmen



### 3.3 Description of function keys

- ON/OFF key:

Press the '☺' button to turn ON the power or OFF the power.

- W/B key:

Press the 'W/B' button to switch from BTU/(ft<sup>2</sup>\*h) to W/m<sup>2</sup>. To select a different unit just press this button once again.

- R key (large integrated circuit design):

When the device will become overloaded or has become overloaded 'OL'. In this case, Press the 'R' button, and '199.9' or your acquired value then comes up.

- HOLD key:

Press the 'HOLD' button to go into hold mode. 'HOLD' appears on the screen to allow you to read the data. Press this button once again to deactivate it.

- MIN/MAX key:

When you test in W/m<sup>2</sup> or BTU/(ft<sup>2</sup>\*h) Press the 'MIN/MAX' button to display the max or min. reading value. Press the button for more than 1 second, and the max and min come off. When the 'MIN/MAX' button is functional.

- Backlight key:

Press the '💡' button turn on or off backlight.

## 4. Electrical Specification

operating temp &RH:	5°C--40°C, below 80%RH.
Storage temp &RH:	-10°C--60°C, below 70%.
Display:	3-1/2 digits LCD with maximum reading 1999.
Sampling time:	Approx 0.25 second.
Resolution:	1W/m <sup>2</sup> ; 1BTU/(ft <sup>2</sup> *h).
Accuracy:	typically within $\pm 10\text{W/m}^2$ [ $\pm 3\text{BTU}/(\text{ft}^2*\text{h})$ ] or $\pm 5\%$ , whichever is greater in sunlight; Additional temperature induced error $\pm 0.38\text{W/m}^2/^\circ\text{C}$ .
Accuracy:	< $\pm 3/\text{year}$ .
Over-input:	Display shows 'OL'.
Range:	1999W/m <sup>2</sup> , 634BTU/(ft <sup>2</sup> *h).
Size:	162(L)*63(W)*28(H)
Weight(includeing battery):	About 250g

## 5. Operating instructions

- Press the power key '⏻' to turn on the meter
- Press the 'W/B' key to select W/m<sup>2</sup> or BTU/(ft<sup>2</sup>\*h) measurement
- Remove the protection cap of the photo detector and expose it to the light source in horizontal position. Read the sunlight value on the LCD display.
- Wait for values to be stable on the display. Press 'HOLD' key to activate the data hold function blocking the result on the display (NOTE: If the instrument display 'OL', the input signal is too strong. A higher range must be selected.)
- When the measurement is completed, fit the photo detector cap and check that the indication value should be '000' regardless of the range. If no, adjust the '0ADJ' trimmer on '000' before pressing the power key to turn off the meter.

## 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, expose to pollution level II.
- This is a precision device, During use or storage, do not go beyond its spec. To prevent any possible damage or danger.
- Do not put this device in direct sunlight or where it is hot and damp.
- Remember to turn OFF the power after use. For long storage, remove the battery to prevent the battery from leaking to cause damage to the parts inside.
- Clean the device 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 test leads from the input terminals.
- Unscrew the battery cover 11 and remove the battery. Insert a new battery of the same type(1.5V AAA\*3 alkaline battery) observing the proper polarity, re-screw the battery cover and reposition the protective holster.

## ***Warranty***

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Triplett / Jewell Instruments extends the following warranty to the original purchaser of these goods for use. Triplett warrants to the original purchaser for use that the products sold by it will be free from defects in workmanship and material for a period of (1) one year from the date of purchase. This warranty does not apply to any of our products which have been repaired or altered by unauthorized persons in any way or purchased from unauthorized distributors so as, in our sole judgment, to injure their stability or reliability, or which have been subject to misuse, abuse, misapplication, negligence, accident or which have had the serial numbers altered, defaced, or removed. Accessories, including batteries are not covered by this warranty.

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