Di-LOG SOLAR

SL101
Solar Power Irradiance Meter

Instruction Manual

CE

Please read this manual before switching the unit on.
Important safety information inside.

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Safety Information

This manual contains information that must be followed for operating the meter safely and maintaining the meter in a safe operating condition. If this meter is not used in the manner specified, the protection provided may be impaired.

⚠ Warning! Warns of potential danger, refer to the instruction manual to avoid personal injury or damage to the meter.

⚠ Caution! Dangerous voltage. Danger of electrical shock.

⧈ Continuous double or reinforced insulation complies with IEC536, class 11

CE Symbol of conformity, confirms conformity with relevant EU directives. The meter complies with EMC directives (89/336/EEC). Specifically standards EN 50081-1 and EN 50082-1 as well as the Low Voltage Directive (73/23/EEC) described in the standard EN 61010-1.

The meter has been designed in accordance with the safety regulations for electronic measuring instruments, EN 61010-1, IEC 61010

Before using the meter check for physical damage to the casing in particular around the connectors. If the case is damaged do not use the meter.

Do not use or store the meter in an environment of high temperature, humidity, fumes, vapour, gaseous, inflammable and strong magnetic field. The performance and safety of the user may be compromised is such circumstances.

Replace the battery as soon as the low battery indicator appears. If the battery is low the meter may give false readings.
Turn the meter power off when not in use. Remove the battery if the meter is not un use for long periods. Constantly check the battery as it may have leaked. A leaking battery will damage the meter.
The meter may only be opened buy a qualified service technician for calibration and repair.

Controls, Input and Display

1. Solar power sensor
2. Sunlight sensor input
3. Zero adjust
4. LCD display (data, min/max, hold, W/m² or BTU (ft²*h), low battery range)
5. ON/OFF key
6. W/B - - -Unit (W/m² or BTU/(ft²*h) selection key
7. Range selection key
8. HOLD key
9. MIN/MAX key
10. Backlight key
11. Battery cover & compartment.

Function Keys & Operation

- **ON/OFF KEY:**

  Press the '⏻' switch to turn the meter on.

- **W/B KEY:**

  Press the 'W/B' key to switch from BTU/(ft²*h) to W/m².

- **RANGE SELECTION KEY**

  Press the range key to toggle between ranges, If '0L' is displayed press range to move to a higher range. If 199.9 is displayed then the reading is beyond the instrument range.

- **HOLD KEY:**

  Press the 'HOLD' key to go into hold mode. 'HOLD' appears on the screen to allow you to read the data, the reading on the display is frozen. Press the key once again to deactivate it.

- **MIN/MAX KEY:**

  When testing in W/m² or BTU/(ft²*h) press the 'MIN/MAX' key to display the max or min reading value. To turn this mode off hold down the 'MIN/MAX' key for 1 second.

Operation

- Press the power key '⏻' to turn the meter on.
- Press the 'W/B' key to select W/m² or BTU/(ft²*h) measurement.
- With the sensor cap on, check that the display is zeroed. If the display in not zeroed, adjust it to zero using the ⏀ 'Adj' trim ③
- Remove the protection cap from the photo detector and expose it to the light source in a horizontal position. Read the sunlight (irradiance) value on the LCD display.
- Wait for values to stabilise on the display. Press 'HOLD' key to activate the data hold function freezing the result on the display (NOTE: If the instrument displays 'OL' the input signal is too high, a higher range must be selected).

Specification

Operating tem & RH:	5°C to 40°C, below 80%RH.
Storage temp & RH:	–10°C to 60°C, below 70%.
Display:	3–1/2 digits LCD with maximum reading 1999.
Sampling time:	Approx 0.25 second.
Resolution:	1W/m²; 1BTU/(ft²*h).
Accuracy:	Typically within ± 10W/m² [±3BTU/(ft²*h) or ±5%, whichever is the greater in sunlight; Additional temperature induced error ±0.38W/m²/°C.
Accuracy:	> ±3/year.
Over range	Display shows 'OL'.
Range:	1999W/m2, 634BTU/(ft²*h).
Size:	162 (L)*63 (W)*28(H).
Weight (inc. battery):	250g

Battery Replacement

- When the symbol ' ▬+ ' is displayed, batteries need replacement. Turn the meter off.
- Unscrew the battery cover ⑪ and remove the batteries. Insert new batteries of the same type (3 x 1.5v AAA alkaline batteries) observing the correct polarity, replace the battery cover and reposition the protective holster.

Warning

Do not attempt to repair or service your meter unless you are qualified to do so and have the relevant calibration, performance test and service information.

To avoid electrical shock or damage to the meter do not get water inside the case. Periodically wipe the case with a soft damp cloth and mild detergent. Do not use chemical solvent.

Accessories

- User manual.
- 3 x 1.5v AAA alkaline batteries.
- Carry case.

24 Month Warranty

Di-Log Solar instruments are subject to stringent quality controls. If in the course of normal daily use a fault occurs we will provide a 24 month warranty (only valid with invoice).
Faults in manufacturer and materials defect will be rectified by us free of charge, provided the instrument has not been tampered with and returned to us unopened.
Damage due to dropping, abuse or misuse is not covered by the warranty.
Outside the warranty period we offer a full repair and re-calibration service.

Di-Log Solar
28 Wheel Forge Way, Trafford Park,
Manchester M17 1EH

Tel: 0161 877 0322
Fax: 0161 877 1614
e-mail: sales@dilogsolar.com
www.dilogsolar.com