

# Solar Survey 100/200R Series

## The ultimate solar site-survey tool



The Solar Survey series of irradiance meters are the perfect tools for solar photovoltaic and solar thermal installers to conduct comprehensive solar site surveys.

These rugged handheld units not only measure irradiance, but also have a built-in inclinometer to measure roof pitch, compass to measure roof orientation and thermometer to measure ambient air and module temperature. These unique additional features make the Solar Survey 100 and 200R truly versatile and indispensable instruments, ensuring optimum conditions for every system you install.

The 200R now features new Solarlink™ connectivity which allows it to wirelessly give the PV150 real-time irradiance, ambient temperature and PV module temperature measurement results simultaneously to electrical tests being conducted, as required by the IEC 62446 international standard. Results can be downloaded from the PV150 into certification software.

The Solar Survey 200R model also includes a data logging facility with USB interface for data download to a PC. This allows for irradiance and temperature to be recorded at user-defined intervals over a number of hours or days, the collected data can then be downloaded to a PC for analysis or for inclusion in installation reports.

### KEY FEATURES:

- Suitable for both photovoltaic and solar thermal installations
- Measures irradiance as required by IEC 62446
- Built-in compass and inclinometer measure roof orientation and pitch
- Dual channel temperature measurement
- 200R features Seaward Solarlink™ for wireless connectivity with the PV150 Solar Installation tester (available separately)
- Built-in data logger and USB interface (Solar Survey 200R model only)
- Rugged, robust and handheld

These high specification irradiance meters simply and quickly measure the sun's energy, displaying the information in either  $W/m^2$  or  $BTU/hr-ft^2$ , making them ideal for both solar photovoltaic and thermal applications.

The use of a photovoltaic reference cell, provides a more representative measurement of solar energy and greater accuracy and repeatability compared to irradiance meters which use simple photo diode detectors.

The Solar Survey 100 and 200R both incorporate a display hold feature, which enables the user to easily capture readings in difficult locations.

#### ALSO AVAILABLE:

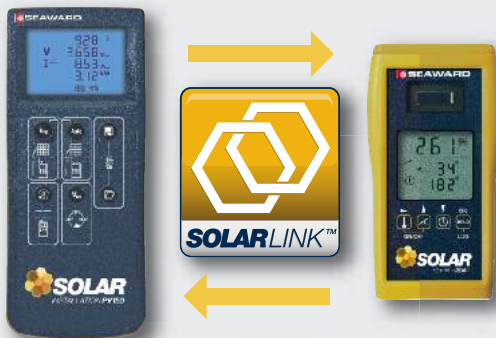
PV150 Installation Test Kit

SolarCert Elements  
Test Reporting & Certification  
Software

Solar Power Clamp

Solar Certificate and Report  
Pads

#### Solarlink™ Connectivity



Solarlink™ connectivity enables irradiance to be displayed and for irradiance, module and ambient temperature to be recorded with the PV150 (available separately) in real time as electrical tests are conducted.

## What is IEC 62446?

IEC 62446: 2009 Grid connected PV systems – minimum requirements for system documentation, commissioning tests, and inspection.

In short the standard sets out measures to ensure that:

- The PV panels and electrical supply connections have been wired up correctly
- That the electrical insulation is good
- The protective ground connection is as it should be
- There has been no damage to cables during installation
- That the PV installation performance is as expected

## TECHNICAL SPECIFICATION:

### IRRADIANCE

Display Range	100 – 1500 W/m <sup>2</sup> or 30 – 500 BTU/hr-ft <sup>2</sup>
Measurement Range	100 – 1250 W/m <sup>2</sup> or 30 – 400 BTU/hr-ft <sup>2</sup>
Resolution	1 BTU/hr-ft <sup>2</sup> / 1W/m <sup>2</sup>

### TEMPERATURE

Display Range	-30°C to +125°C
Measurement Ranges	-30°C to +125°C
Resolution	1°

### COMPASS BEARING

Display Range	0° to 360°
Measurement Ranges	0° to 360°
Resolution	1°

### INCLINOMETER

Display Range	0° to 90°
Measurement Ranges	0° to 90°
Resolution	1°

### DATALOGGING AND CONNECTIVITY (SURVEY 200R ONLY)

Datasets	5000
Sample Rate	1 to 60 minutes (user definable)
Datalogging	Download utility software included Compatible with SolarCert Elements software (version 1.1)
Connectivity	USB download to PC Wireless 'Solarlink™' to PV150 (range c. 30m / 100 ft)

### GENERAL SPECIFICATIONS

Display	Custom LCD
Power Supply	2AA Alkaline Batteries
Battery Life	>20,000 Readings
Auto power down	After 2 minutes

### SERVICEABILITY

Warranty	2 years (Terms and conditions apply. Go to <a href="http://www.seawardsolar.com/register-product">www.seawardsolar.com/register-product</a> for details)
Calibration	1 year

### ADDITIONAL INFORMATION

Supplied with calibration certificate

Solar Survey 100 Part No: 396A910  
Solar Survey 200R Part No: 396A914

Rev 1.3

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