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# 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 makes 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<sup>™</sup> 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 of 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 seperately)
- Built-in data logger and USB interface (Solar Survey 200R model only)
- Rugged, robust and handheld





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These high specification irradiance meters simply and quickly measure the sun's energy, displaying the information in either W/m<sup>2</sup> or BTU/hr-ft<sup>2</sup>, 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.

# 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?

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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:

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

# **ALSO AVAILABLE:**

PV150 Installation Test Kit

SolarCert Elements
Test Reporting & Certification
Software

Solar Power Clamp

Solar Certificate and Report Pads





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# **TECHNICAL SPECIFICATION:**

#### **IRRADIANCE**

Display Range  $100-1500 \text{ W/m}^{-2} \text{ or } 30-500 \text{ BTU/hr-ft}^2$   $\text{Measurement Range} \qquad 100-1250 \text{ W/m}^{-2} \text{ or } 30-400 \text{ BTU/hr-ft}^2$ 

Resolution 1 BTU/hr-ft<sup>2</sup> / 1W/m<sup>-2</sup>

#### **TEMPERATURE**

Display Range  $-30^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$  Measurement Ranges  $-30^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$ 

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. 100m / 330 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
Calibration 1 year

# ADDITIONAL INFORMATION

Supplied with calibration certificate

Solar Survey 100 Part No: 396A910 Solar Survey 200R Part No: 396A914 Seaward, Bracken Hill, South West Industrial Estate, Peterlee, County Durham SR8 2SW United Kingdom

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