

# 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** can wirelessly connect to the PV150/PV200/PV210 and Solar Utility Pro to give real-time irradiance, ambient temperature and PV module temperature measurement results simultaneously with the electrical tests being conducted, as required by the IEC 62446 international standard. All test results can then be downloaded from the PV150/PV200/PV210 and Solar Utility Pro to the relevant PC 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.



## Why buy the SS100 or SS200R?

- > **Measurement functions** – Irradiance, temperature, compass bearing and inclination.
- > **Display options** – for photovoltaic or thermal applications.
- > **Compliant** – with IEC 62446.
- > **Wireless connection** – to other Seaward PV instruments (PV200 only).
- > **Data logger** – store and download to PC (200R only).

To find out more about the **Solar Survey 100/200R Series** go to [seaward.com/gb/products/solar/irradiance-meters/](http://seaward.com/gb/products/solar/irradiance-meters/)



**SEAWARD**  
ELECTRICAL SAFETY TESTING & MEASURING.

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## Key Features:

- > Measure irradiance and display in W/m<sup>2</sup> for photovoltaic or BTU/hr-ft<sup>2</sup> for thermal applications.
- > Supplied with suction mount temperature probe for hands-free ambient and surface temperature measurement (Solar Survey 200R only).
- > Built-in compass and inclinometer to measure roof orientation and pitch.
- > 200R can wirelessly connect to the PV150/PV200/PV210 and Solar Utility Pro (available separately).
- > Built-in data logger and USB interface (Solar Survey 200R model only).
- > Rugged, robust and handheld.
- > Optional mounting bracket for accurate and easy measurements.

## Supplied with the instrument:

- > Solar Survey 100 or 200R irradiance meter.
- > Temperature sensor.
- > USB Cable (200R only)
- > Quick Start Guide.
- > Calibration Certificate.

## Optional Accessories:

- > Solar Survey 200R mounting bracket

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## Comparison Chart:

|                                                     | SS100 | SS200R |
|-----------------------------------------------------|-------|--------|
| IEC 62446 compliant                                 | ●     | ●      |
| Irradiance measurement (using solar reference cell) | ●     | ●      |
| Compass function                                    | ●     | ●      |
| Roof pitch measurement                              | ●     | ●      |
| Ambient temperature                                 | ●     | ●      |
| PV module temperature                               |       | ●      |
| Data logging function                               |       | ●      |
| Wireless connectivity                               |       | ●      |

## 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 W/m <sup>2</sup> or 1 BTU/hr-ft <sup>2</sup>                 |

### Temperature

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

### Compass Bearing

|                   |            |
|-------------------|------------|
| Display Range     | 0° to 360° |
| Measurement Range | 0° to 360° |
| Resolution        | 1°         |

### Inclinometer

|                   |           |
|-------------------|-----------|
| Display Range     | 0° to 90° |
| Measurement Range | 0° to 90° |
| Resolution        | 1°        |



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## General Specification:

### Instrument Dimensions and Weight

|                 |                                           |
|-----------------|-------------------------------------------|
| Weight          | 0.25kg / 0.6lb                            |
| Dimensions      | 14.8 x 8.0 x 3.3cm / 5.8 x 3.2 x 1.3"     |
| Display         | Custom LCD                                |
| Power Source    | 2 x AA Alkaline Batteries                 |
| Battery Life    | >20,000 Readings                          |
| Auto power down | After 2 minutes (unless in transmit mode) |
| Onboard memory  | Datasets 5000 (Survey 200R only)          |

### Connectivity (Survey 200R only)

|              |                                                                                                                                                                                                    |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sample Rate  | 1 to 60 minutes (user definable)                                                                                                                                                                   |
| Connectivity | USB download to PC (using free DataLogger – available online)<br>Wireless connection to PV150/PV200/PV210/Solar Utility Pro (range c. 30m/100 ft)<br>Frequency 433MHz (Rest of World)/ 915MHz (US) |

### Service

2 year warranty (subject to terms and conditions, available at <https://www.seaward.com/gb/12-month-warranty/>)

### Part Numbers:

- Solar Survey 100 – 396A910
- Solar Survey 200R (433MHz) ROW version – 396A914
- Solar Survey 200R (915MHz) US version – 396A916



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