
USER MANUAL

CATALOG # 3415FX

FIELDSCOUT™

LIGHT SENSOR READER



Spectrum
Technologies, Inc.

USING YOUR METER

Thank you for purchasing a Field Scout™ Light Sensor Reader. This manual will familiarize you with the features and operation of your new meter. Please read this manual thoroughly before using your instrument.

Using the Meter

1. Connect a Spectrum Technologies light sensor to your meter by plugging it into the jack on the top end.
2. Press the ON/OFF button to turn the meter on or off. When first turned on, the display will show the current battery level.
3. Press the SET button until your sensor type is shown on the second line of the display.
4. The display will be updated every half-second. Hold the sensor vertical for accurate readings.
5. Turn the meter off after use to conserve battery power.

Changing the Battery

The Field Scout Light Sensor Reader uses a standard 9V battery. To change the battery:

1. Slide open the door on the back of the meter.
2. Remove the old battery from the compartment, and insert the new battery. Be sure to orient the battery to match the image on the bottom of the compartment.
3. Place the battery cover on the case and slide it closed.

Light Sensors

The Field Scout Light Sensor Reader can use any of the Spectrum Technologies light sensors listed on the facing page (sensors sold separately). Because the sensors can also be used with WatchDog weather stations and data loggers, a mounting bracket may be attached to the sensor. Loosen the thumbscrews to remove the bracket, and save the parts for future reassembly.

3668i Quantum Light Sensor**3668i3 Quantum Light 3 Sensor Bar****3668i6 Quantum Light 6 Sensor Bar****Display Setting: PAR SUN or PAR ELEC**

The quantum sensors measure radiation between 400 and 700 nanometers, which is referred to as Photosynthetically Active Radiation, or PAR light. It is measured in units of $\mu\text{mol m}^{-2} \text{s}^{-1}$ (the number of photons in units of micromoles, striking an area one meter square each second), which is abbreviated on the display as “uM”. The meter displays in the range 0-2500 $\mu\text{mol m}^{-2} \text{s}^{-1}$, with $\pm 5\%$ accuracy.

Use the PAR ELEC setting for Fluorescent lights. Use the PAR SUN setting for all other light sources. Sunlight and High Pressure Sodium can be read directly, while the displayed reading must be multiplied by 0.94 for Metal Halide lighting.

3670i Silicon Pyranometer Sensor**Display Setting: SOLR RAD**

The silicon Pyranometer sensor measures solar radiation between 300 and 1100 nanometers. It is measured in units of Watts/m², indicated on the display as “W/m”. The meter displays in the range 0-1250 W/m², with $\pm 5\%$ accuracy.

3676i UV Light Sensor**Display Setting: UV A&B**

A quantum is the amount of energy possessed by a photon. The UV light sensor measures the intensity of ultraviolet light between 250 and 400 nanometers in units of $\mu\text{mol m}^{-2} \text{s}^{-1}$ (the number of photons in units of micromoles, striking an area one meter square each second), which is abbreviated on the display as “uM”. The meter displays in the range 0-200.0 $\mu\text{mol m}^{-2} \text{s}^{-1}$, with $\pm 5\%$ accuracy.

Cosine correction on all sensors is accurate to $\pm 3\%$ at 45° , and $\pm 7\%$ at 80° .

WARRANTY

The Field Scout™ Light Sensor Reader is warranted to be free from defects in materials and workmanship for a period of 1 year from the date of original purchase. During the warranty period, Spectrum will, at its option, either repair or replace products that prove to be defective. This warranty is void if the product has been damaged by customer error or negligence, or if there has been an unauthorized modification.

Returning Products to Spectrum

Before returning a failed unit, you must obtain a Returned Goods Authorization (RGA) number from Spectrum. You must ship the product(s), properly packaged against further damage, back to Spectrum (at your expense) with the RGA number marked clearly on the outside of the package. Spectrum is not responsible for any package that is returned without a valid RGA number or for the loss of the package by any shipping company.

For customer support, or to place an order, call

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