



Soil Sensor Reader

PRODUCT MANUAL

Item # 6466



Spectrum[®]
Technologies, Inc.

Thank you for purchasing a Field Scout™ Soil 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.

Basic Operation

Power up/down

The soil moisture sensor reader is powered on and off with the **ON/OFF** button.

Taking readings

Initially, the meter will display the battery level and the firmware version number. It then transitions to measurement mode. The display is dynamic and will be continually updated as conditions surrounding the sensor change. The LCD will display the reading on the top row and the sensor type on the bottom row. Because the meter automatically refreshes itself, occasionally you will notice that the LCD will spontaneously restart and display the initial power-up screen. This happens if a sensor is being inserted or withdrawn at the precise moment when the meter is taking a reading. This is normal and will not affect the subsequent readings.

Selecting a sensor mode

The reader reads a voltage from the soil moisture sensor and uses internal calibration equations to convert this to a soil moisture value. Soil moisture sensor options are Spectrum's WaterScout SM100 moisture sensors, SM300 moisture/EC/temperature sensors, and WatchDog-compatible Watermark sensors. The meter can also display the raw A/D reading. The SM100 and SM300 sensors have calibrations for mineral soil (Standard) and soilless media. For the SM300, the soil type will flash briefly on the LCD before displaying the moisture and EC values. At power-up, the reader will default to the sensor type that was selected when the meter was turned off. To change the sensor type, press the **SET** button until the desired sensor is displayed.



Sample LCD screen

Connecting Sensors

WaterScout SM100 and SM300 Sensors

Insert the 2.5mm stereo pin into the socket at the top of the meter.

WaterMark Sensors

If the sensor is a WatchDog-compatible model of the sensor (item numbers 6450WD and 6450WD20), the sensor can be plugged directly into the meter like a WaterScout sensor. If the sensor terminates in 2 green wires with circular leads, the sensor must be connected to a Watermark Adapter (item 6450ADPT). The adapter has a 2.5mm stereo pin which can then be connected to the meter.

Note: Only one adapter per meter is necessary.



Changing the Battery

The Field Scout Soil 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.



DECLARATION OF CONFORMITY

Spectrum Technologies, Inc.
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Plainfield, IL 60585 USA

Model Numbers: 6465
Description: Soil Moisture Sensor Reader
Type: Electrical Equipment for Measurement, Control, and Laboratory Use

The undersigned hereby declares, on behalf of Spectrum Technologies, Inc. of Plainfield, Illinois, USA, that the above referenced product, to which this declaration relates, is in conformity with the provisions of:

Directive: 2004/108/EC
EN 61326-1:2006
EN 61000-4-2:1995, including A1:1998 and A2:2001
EN 61000-4-3:2002
EN 55011:2007

Douglas L. Kieffer,
Soil/Water Products Manager

February 27, 2009

WARRANTY

This product is warranted to be free from defects in material or workmanship for one year from the date of purchase. During the warranty period Spectrum will, at its option, either repair or replace products that prove to be defective. This warranty does not cover damage due to improper installation or use, lightning, negligence, accident, or unauthorized modifications, or to incidental or consequential damages beyond the Spectrum product. Before returning a failed unit, you must obtain a Returned Materials Authorization (RMA) from Spectrum. Spectrum is not responsible for any package that is returned without a valid RMA number or for the loss of the package by any shipping company.

Spectrum[®] **Technologies, Inc.**

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