

WatchDog® 1000 Series Micro Stations



1000 Series Micro Stations

Micro Stations offer a cost-effective way to record multiple environmental conditions.

- Internal sensors can include temperature and humidity (radiation shield required)
- Up to 4 external sensor ports
- Up to 8 sensor values with the Model 1650 using up to two WaterScout SMEC 300 Soil Moisture/EC/Temperature Sensors
- LCD displays sensor readings and battery level
- Select measurement intervals from 1 to 60 minutes
- Log 10,584 (8,064 with SMEC 300) intervals (220 days at 30 minute intervals)
- Water-resistant case (radiation shield or enclosure recommended for outdoor use)
- 12-month battery life (CR2450, included)

How do you access the data?

1. **Direct Connect:** Download from the station to your PC. Requires SpecWare Basic or Pro
2. **Data Shuttle:** Transport data from your station to your PC. Requires SpecWare Basic or Pro



DESCRIPTION	INTERNAL SENSOR	EXTERNAL PORTS	MAX. NUMBER OF SMEC 300 SENSORS
MODEL 1650 Item 3688WD1	TEMPERATURE RELATIVE HUMIDITY	4	2
MODEL 1525 Item 3687WD1	TEMPERATURE	4	2
MODEL 1450 Item 3684WD1	TEMPERATURE RELATIVE HUMIDITY	2	1
MODEL 1425 Item 3683WD1	TEMPERATURE	3	1
MODEL 1400 Item 3685WD1	NONE (EXTERNAL ONLY)	4	2
MODEL 1250 Item 3682WD1	TEMPERATURE RELATIVE HUMIDITY	NONE	0
MODEL 1225 Item 3681WD1	TEMPERATURE	1	0
MODEL 1200 Item 3680WD1	NONE (EXTERNAL ONLY)	2	1
MODEL 1120 Item 3554WD1	RAINFALL (SEE BELOW FOR DETAILS)	NONE	0
MODEL 1115 Item 3635WD1	REQUIRES EXTERNAL RAINFALL (SEE WEBSITE FOR DETAILS)	1	0



1120 Data-Logging Rain Gauge

High accuracy, low-maintenance tipping bucket rain collector

- Meets NWS guidelines with an 8 in (20.5 cm) diameter collector
- The included data logger can log up to 10,584 intervals
- Select intervals from 1 to 60 minutes [maximum 10.23 in (26.0 cm) per interval]
- Rain collector mounting bracket and hardware included
- Record rainfall in either metric (mm) or US (in) units
- Accuracy: ±2% at < 2 in (5 cm) per hour
- Requires SpecWare 9 Basic or Pro
- Includes Bird Guard to reduce maintenance

3554WD1

Data-Logging Rain Gauge



Pre-Packaged Stations

WatchDog® 2000 Series Plant Disease Station

- Includes WatchDog Mini Station Model 2450, leaf wetness sensor and rainfall sensor
- View current conditions on LCD screen, as well as track severity indicators from onboard plant disease models
- University published disease models (sold separately) can be added to Specware 9 Pro or SpecConnect for more accurate disease and pest monitoring

Buy this station as a package and save \$20.00

3684WDPD WatchDog® 2000 Series Plant Disease Station



WatchDog® 1000 Series Plant Disease Micro Station

- Includes Watchdog Model 1450 Micro Station, leaf wetness sensor, tipping bucket rain gauge, and radiation shield
- Data log current conditions and historical plant disease severity indicators
- University published disease models (sold separately-requires SpecWare 9 Pro) can be added for more accurate disease and insect monitoring

Buy this station as a package and save \$20.00

3684PD1 WatchDog® Plant Disease Micro Station



Soil/Air Temperature Station

- Study soil and air temperature trends across multiple microclimates
- Includes Model A125 Data Logger, external temperature sensor and radiation shield

Buy this station as a package and save \$20.00

3617ARS Soil/Air Temperature Station



Plant Growth Micro Stations

- Includes a WatchDog Model 1450 Micro Station, Quantum/PAR light sensor and radiation shield
- Monitor conditions crucial to growing high quality plants

Buy this station as a package and save \$20.00

3684PAR1 WatchDog® Plant Growth Micro Station



How do you access the data?	3684WDPD	3684PD1	3684PAR1	3617ARS
Direct Connect: Download from the station to your PC. Requires SpecWare Basic or Pro	✓	✓	✓	✓
Data Shuttle: Transport data from your station to your PC. Requires SpecWare Basic or Pro	✓	✓	✓	
SpecConnect: Wireless or Cellular Communication: Access real time data from your PC, tablet or smart phone	✓			

Soil Sensors



6470-6



6460



6450WD



3667



3669



6451

Light Sensors



3668I / 3676I



3668I6

WaterScout® SMEC 300 Soil Moisture/EC/Temperature Sensor

Measures soil moisture (Volumetric Water Content), EC, and temperature. Range: VWC: 0 to saturation (typically 50%), Accuracy: $\pm 3\%$; EC: 0 to 10 mS/cm, Accuracy: $\pm 2\%$. Requires WaterScout Calibration Device. Compatible with WatchDog 2000 Series Stations (Full and Mini), 1000 Series Micro Stations, and Pups

- 6470-6 WaterScout SMEC 300 Sensor with 6 ft (1.8 m) Cable
- 6470-20 WaterScout SMEC 300 Sensor with 20 ft (6.1 m) Cable
- 6470CAL3V WaterScout Calibration Device
- 2251 Conductivity Standard, 1.41 mS/cm, 250 mL

WaterScout® SM 100 Soil Moisture Sensor

Measures soil moisture (Volumetric Water Content) with little or no disturbance to the root zone. Range: 0 to saturation (typically 50%), Accuracy: $\pm 3\%$. Compatible with WatchDog 2000 Series Stations (Full and Mini), 1000 Series Micro Stations, and Pups

- 6460 WaterScout SM 100 Sensor with 6 ft (1.8 m) Cable
- 6460-20 WaterScout SM 100 Sensor with 20 ft (6.1 m) Cable

Watermark Soil Moisture Sensor

Measures soil moisture tension from 0 to 200 centibars. Compatible with WatchDog 2000 Series Stations (Full and Mini), 1000 Series Micro Stations, and Pups

- 6450WD Watermark Sensor with 11 ft (3.3 m) Cable
- 6450WD20 Watermark Sensor with 25 ft (7.6 m) Cable

External (Soil) Temperature Sensor

Measure soil, air, or water temperature with a resistance-based sensor. Range: -25 to 212°F (-32 to 100°C). Accuracy: $\pm 1^{\circ}\text{F}$ ($\pm 0.5^{\circ}\text{C}$). Compatible with WatchDog 2000 Series Stations (Full and Mini), 1000 Series Micro Stations, and Pups

- 3667 External (Soil) Temperature Sensor with 6 ft (1.8 m) Cable
- 3667-20 External (Soil) Temperature Sensor with 20 ft (6.1 m) Cable

Pressure Transducer

Connects to Irrrometer tensiometers and utilizes the dial gauge for measurements. Accuracy: $\pm 2\%$. Compatible with WatchDog 2000 Series Stations (Full and Mini), 1000 Series Micro Stations, and Pups

- 3669 Pressure Transducer

Irrigation On/Off Sensor

Record and analyze relationships between irrigation periods and soil moisture. Does not control irrigation system, but monitors on/off periods. Range: On at 5psi. Compatible with WatchDog 2000 Series Stations (Full and Mini), 1000 Series Micro Stations, and Pups

- 6451 Irrigation On/Off Sensor

LightScout® Silicon Pyranometer

Measure solar radiation between 300 and 1100 nanometers. 2000 Series & Pups Range: 2000 Series & Pups: 0 to 1500 W/m², Accuracy: $\pm 5\%$; Micro Stations: 0 to 1250 W/m², Accuracy: $\pm 5\%$. Compatible with WatchDog 2000 Series Stations (Full and Mini), 1000 Series Micro Stations, and Pups

- 3670I LightScout Silicon Pyranometer

LightScout® UV Light Sensor

Measure UV radiation between 250 and 400 nanometers. Range: 0 to 200 $\mu\text{mol m}^{-2} \text{s}^{-1}$, Accuracy: $\pm 5\%$. Compatible with WatchDog 2000 Series Stations (Full and Mini), 1000 Series Micro Stations, and Pups

- 3676I LightScout UV Light Sensor

LightScout® Quantum Light Sensors

Measure PAR light between 400 and 700 nanometers. Sensor bars average PAR light readings to minimize the effects of small shadows. Sensor bars are 19 in (48 cm) long and include mounting brackets. 2000 Series & Pups Range: 0 to 3000 $\mu\text{mol m}^{-2} \text{s}^{-1}$, Accuracy: $\pm 5\%$; Micro Stations: 0 to 2500 $\mu\text{mol m}^{-2} \text{s}^{-1}$, Accuracy: $\pm 5\%$. Compatible with WatchDog 2000 Series Stations (Full and Mini), 1000 Series Micro Stations, and Pups

- 3668I LightScout Quantum Light Sensor
- 3668I3 LightScout Quantum 3 Light Sensor Bar
- 3668I6 LightScout Quantum 6 Light Sensor Bar