

DATALOGGING DIGITAL RAIN GAUGE (WATCHDOG MODEL 120)

CATALOG # 3524WD



Spectrum
Technologies, Inc.

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This manual will familiarize you with the features and operation of your new Datalogging Digital Rain Gauge. Please read this manual thoroughly before using your instrument. For customer support, or to place an order, call Spectrum Technologies, Inc. at (800) 248-8873 or (815) 436-4440 between 7:30 am and 5:30 p.m. CST, FAX at (815)436-4460, or E-Mail at info@specmeters.com.
www.specmeters.com

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Plainfield, IL 60585

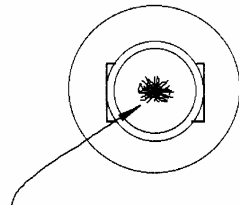
GENERAL OVERVIEW

Thank you for purchasing a Spectrum Datalogging Digital Rain Gauge. With proper installation and care, it will give you years of accurate and reliable measurements. This instruction manual takes you through the procedures required to set up and use the Datalogging Digital Rain Gauge. Read it thoroughly to insure proper and effective use of the sensor.

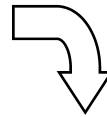
The device is switchable from inches to mm through the Specware software. This rain collector measures rainfall in 0.01 inch (0.25cm) increments. The fiber filter allows up to 0.033 inches (0.8cm) of rainwater to flow through per minute. The continuous flow-through design is accurate and reliable. The rain collector will be accurate to $\pm 4\%$.

Use SpecWare software (version 4.19 or greater) to launch the rain gauge's WatchDog datalogger and program it to log rainfall. Measurements can be recorded in metric or US units. Refer to the SpecWare User's Guide for detailed launch and/or readout instructions.

DATALOGGER



Top View



Important!!!

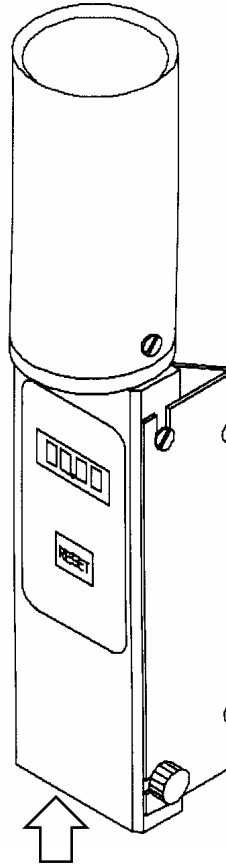
Fiber Filter is important to gauge operation. It should not be removed. This filter keeps the gauge clean and insures accurate measurement.

Collector:
Freeze Proof

Display:
Records up to 99.99"

Reset Button:
Depress to set the display back to 00.00'. This will not affect the data being collected.

Mounting Bracket:
To be used in mounting the logger on a post.



Serial Port: Care should be taken to keep the cover screwed on tight.

DATALOGGER (CONT.)

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Specifications:

Principle: Continuous, flow-through.

Measurement intervals: 1, 5, 10, 15, 30, 60 and 120 minutes.

Memory capacity: 7000 intervals with a maximum of 2.55" per interval.

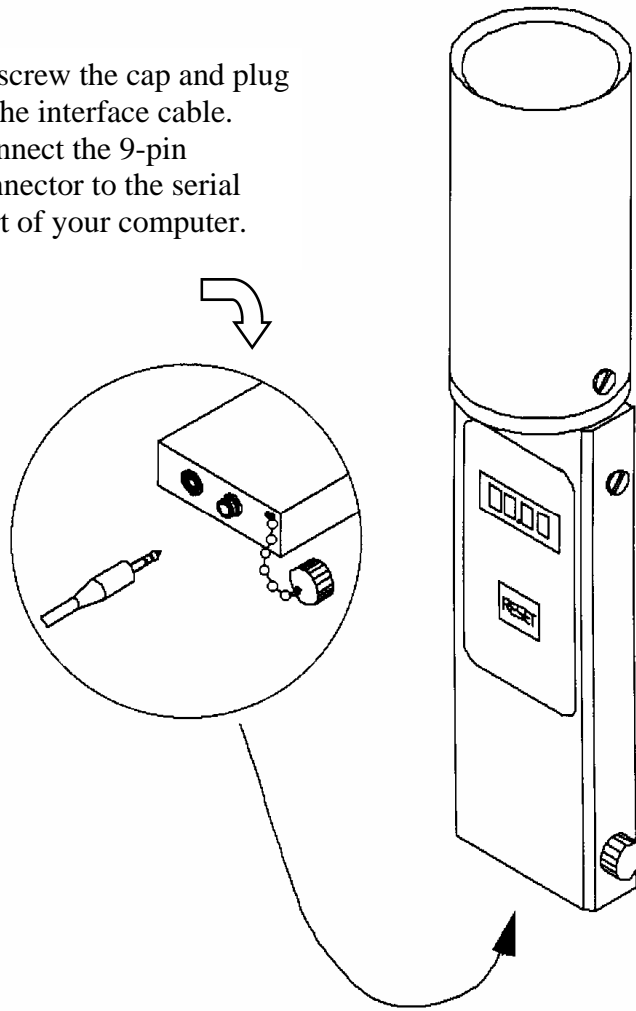
Battery: CR2032 (replace every year)

The datalogger records rain activity over time and is connected to the flow-through rain collector. The logger records accumulated rainfall during each interval (maximum of 2.55" per interval). When in operation, the gauge will display the accumulated rainfall since it was last reset. The reset button does not affect how data is collected by the datalogger. It's purpose is similar to the odometer on a car. It allows the user to monitor rainfall in at regular intervals (e.g. daily accumulation) without having to download the logger. The same information will also be available when the logger is downloaded to your computer.

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CONNECTING TO COMPUTER

Unscrew the cap and plug in the interface cable.
Connect the 9-pin connector to the serial port of your computer.



Operation Indication:

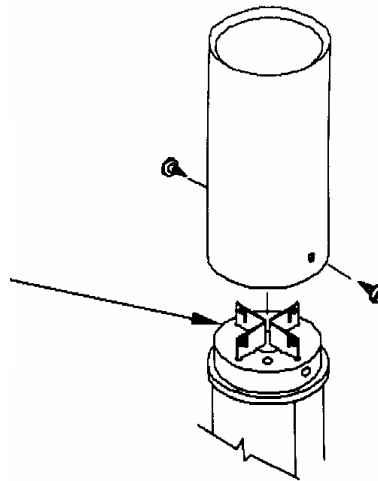
After the Digital Rain logger has been launched, the LCD will be illuminated and display the accumulated rainfall since the logger was last reset.

INSTALLATION AND MAINTENANCE

When choosing a location for your rain collector, keep the following in mind:

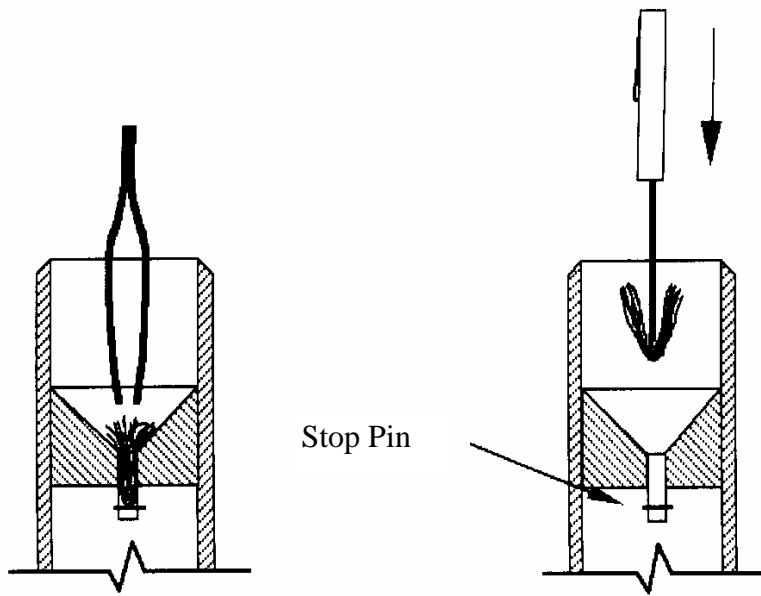
- Mount the collector on a mast (pipe) or post using the enclosed screws and/or cable ties.
- Choose an easily accessible location for normal cleaning that is far from trees and other sources of pollen or debris.
- The rain gauge must be located in an open area.
- Install the Rain Gauge with the logger facing north if possible. This will make viewing the display easier.

Make sure that the drip contacts are free from dirt. Clean out the collection area from any debris.



FILTER REPLACEMENT

The filter should only be replaced if it becomes plugged. This will result in very slow recording of heavy rainfalls. Typically, replacement is required every 2 years.



Remove the old filter with tweezers or pliers. Gently pull it straight out of the gauge without allowing dirt to fall in. Wrap the new filter element around the tip of a small screwdriver as shown above. Gently work the filter into the gauge by pressing down and twisting. The filter should be inserted to the depth of the stop pin (as shown above).

BATTERY REPLACEMENT

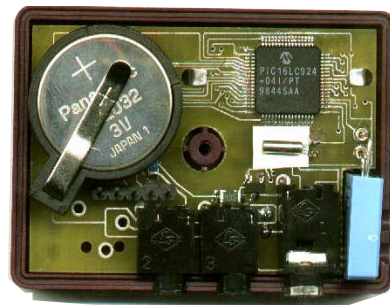
The datalogger is powered by a 3 Volt CR2032 battery. It is user replaceable and can be purchased locally. Other battery numbers that may be substituted for a CR2032 are BR2032 or DL2032. We recommend changing the battery every 6 months.

To replace the battery:

1. Remove the rain gauge assembly from the mounting bracket.
2. Remove the 4 screws on the back of the rain gauge and remove the back cover.
3. Slide the battery out of the battery holder.
4. Insert a new CR2032 battery positive side up.
5. Replace cover and tighten cover screws.

After being relaunched with SpecWare software, the LCD will illuminate.

Insert a flat-edged screwdriver completely underneath old battery. Gently lift edge of battery over casing lip and slide battery out. Slide new battery into battery casing.



SERVICE AND SUPPORT

Datalogging products are reliable and easy to use. In the unlikely event that you have a problem with the hardware or software, please read the following.

Who do I contact?

Contact the company from which you bought the loggers: Spectrum Technologies, Inc. or a Spectrum Authorized Dealer.

Before calling, you can evaluate, and often solve, your problem by reviewing this manual and checking the SpecWare Help topics.

When Contacting Spectrum Technologies, Inc. please indicate that you need Technical Support for the Digital Datalogging Rain Gauge. Be prepared to:

1. Provide details on the hardware and software configuration of your computer including: manufacturer, model number, peripherals, and versions of the operating system.
2. Completely describe the problem. The more information you provide, the faster and more accurately we will be able to respond.

WARRANTY

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This product is warranted to be free from defects in material or workmanship for 1 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 is void if the Spectrum products have 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.

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