



## 1000/2000 Data Shuttle

# PRODUCT MANUAL

Item # 3679WD1



**Spectrum<sup>®</sup>**  
**Technologies, Inc.**

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## SPECIFICATIONS

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**Software:** Spec8 Pro or greater; Spec 9 Pro 9.02 Build 0223 or greater for use with WatchDog 1000 Series Loggers.

**Compatibility:** See chart on page 3.

**Capacity:** Can hold the maximum amount of data from 5 WatchDog 2000 Series Weather Stations, 10 Mini Stations, or 12 Loggers. Because it holds only the new data from any logger or station, it will hold data from up to 25 loggers or stations.

**Speed:** Offloads the maximum amount of data from a WatchDog 2000 Series Weather Station in approximately 22 minutes (depending on the number of sensors in use). Partial offloads complete proportionately faster.

**Battery:** 1 user-replaceable 9V alkaline battery. Battery life is about 6 months at idle. The battery is consumed at a greater rate while reading and writing. A battery can process approximately 10 full shuttles. As a rule of thumb, if the Data Shuttle display reads "30% FULL", then 3% of the projected battery life will have been consumed in transferring that data from the logger/station and to the PC.

# OVERVIEW

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Thank you for purchasing the WatchDog 1000/2000 Data Shuttle.

This manual describes how to use your shuttle in conjunction with SpecWare software to easily and conveniently retrieve data from your remotely located WatchDog 1000 and 2000 Series Loggers, Mini Stations, and Weather Stations.

The WatchDog 1000/2000 Data Shuttle performs the following functions:

- Offloads data from WatchDog 1000 and 2000 Loggers, Mini Stations, and Weather Stations in the field.
- Checks battery status and alerts the user if the station/logger batteries need to be replaced.
- If necessary, corrects the station/logger's time-of-day clock.
- Communicates with SpecWare to transfer the offloaded data to the PC.

<b>Which WatchDog Shuttle is designed for which Logger or Station?</b>	<b>1000/2000 Shuttle #3679WD1</b>	<b>2000 Shuttle #3679WD</b>	<b>Data Shuttle #3679</b>
<b>2000 Series Mini and Weather Stations (Models 2400—2900)</b>	Yes	Yes	No
<b>1000 Series Data Loggers (Models 1200—1650)</b>	Yes	No	No
<b>Original Loggers and Weather Stations (Models 110—900)</b>	No	No	Yes

# COMPONENTS

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1. 3679WD1 WatchDog 1000/2000 Data Shuttle
2. 12" (30 cm) data cable
3. 9V battery
4. Product Manual

# STARTUP

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## Installing the Battery

The WatchDog 1000/2000 Data Shuttle requires a 9V alkaline battery for operation. To install the battery, slide open the door on the back of the Data Shuttle. Remove any used battery, and insert a fresh battery. Refer to the embossed diagram on the bottom of the battery compartment for proper alignment.

The Data Shuttle will beep when the battery is installed properly. If no beep is heard, check to see if the battery was inserted backwards.

Slide the battery cover back into place.

## Power-On Sequence

If the “ON/OFF” button is pressed, or a battery is placed into the Data Shuttle, the shuttle will begin its power on sequence, displaying in sequence:

### **SHUTTLE Vx.x**

“x.x” indicates the firmware level number.

### **BATTERY AT xxx%**

“xxx” indicates the shuttle battery level in 10% increments.

### **SET DATE & TIME or mm-dd-yy hh:mm am**

“SET DATE & TIME” only appears the first time after the battery is removed and reinserted. If this message appears, you **MUST** set the date and time before continuing. See below for details.

### **READY xx% FULL**

“xx” indicates the amount of Data Shuttle memory currently holding offloaded data.

Note that the Data Shuttle does not respond to button presses while the Startup Sequence is occurring.

## Setting the Date and Time

The “SET” button is used to enter the date/time set process, and to switch between parts of the date and time. “\*\*” is used on the display to indicate where changes will occur. Press (and optionally hold) the “READ” button to change the value. If you overshoot, continue to press “READ” until the value wraps back to the desired value.

For the following steps, “See” shows what you should see on the display, where “00” is used as a number placeholder.

1. Press the “SET” button. See “\*\*-00-00 00:00 AM” Press the “READ” button until the correct month appears.
2. Press the “SET” button. See “00-\*\*-00 00:00 AM”. Press the “READ” button until the correct day number appears.
3. Press the “SET” button. See “00-00-\*\*-00 00:00 AM”. Press the “READ” button until the correct year number appears.
4. Press the “SET” button. See “00-00-00 \*\*:00 AM”. Press the “READ” button until the correct hour number appears. Do not be concerned with the “AM/PM” indicator at this point.
5. Press the “SET” button. See “00-00-00 00:\*\* AM”. Press the “READ” button until the correct minute number appears.
6. Press the “SET” button. See “00-00-00 00:00 \*\*”. Press the “READ” button until the correct “AM/PM” indicator appears.
7. Press the “SET” button. The display will read the set date and time as “mm-dd-yy hh:mm am”. If the date or time are wrong, begin again at step 1.

## **OFFLOADING LOGGERS/STATIONS**

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Press the “DISPLAY” button on the WatchDog 1000 or 2000 Series Logger, Mini Station, or Weather Station to confirm that it is working properly.

Power on the WatchDog 2000 Data Shuttle by pressing the “ON/OFF” button.

Insert the 12” Data Cable into the Data Shuttle, and into the “Computer” port of the WatchDog 2000 Series Mini Station or Weather Station.

Press the “READ” button on the Data Shuttle. “STARTING CONNECT” will display until a connection is made, or until a time-out occurs without a successful connection (indicated by “ERROR=NO CONNECT”).

Once a connection is made with the weather station, the Data Shuttle will display several “STATUS” messages quickly, and then display “READING mm-dd-yy”. The date shown will most likely be the current date.

The WatchDog 1000/2000 Data Shuttle offloads the data from the weather station in reverse order—newest first. The Data Shuttle remembers when it last offloaded each weather station, and it will only read data back to that point. If you know approximately when you last offloaded the weather station, then you can use the “READING” display

date to estimate how much longer you will have to wait until the offload process is complete.

You may note a date with a year of “00” display. This indicates that the data currently being offloaded was recorded when the weather station’s date and time were not set. Do not be concerned. SpecWare will adjust this time when it is read from the Data Shuttle.

Because the Data Shuttle only offloads as much of the weather station data as it needs, it is impossible to predict the exact number of weather stations that will fit on the Data Shuttle. The Data Shuttle will hold data from 5 full-size WatchDog 2000 Series Weather Stations, which are completely full, and have never been offloaded by the Data Shuttle previously. This represents the minimum number of stations that can be held.

In most cases, the Data Shuttle will be reading only the part of the data which was recently recorded. As a result, the usual capacity of the Data Shuttle is most likely to be at the maximum limit of 25 loggers or stations. The “READY xx% FULL” display lets you see how much Data Shuttle memory is being used, and as long as the display does not read “SHUTTLE FULL”, there is room for the data from at least one more full weather station.

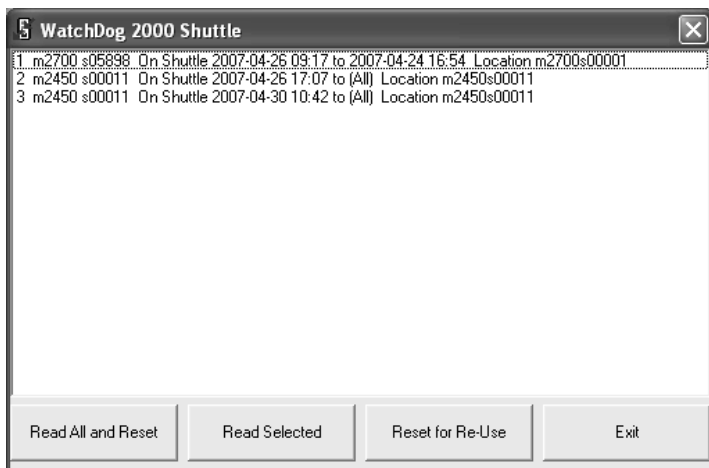
The Data Shuttle indicates successful completion by displaying “DOWNLOAD COMPLETE”. The battery-saving power off feature is disabled when this or any error message are displayed, so you are sure to see the message. Press the “ON/OFF” button to turn off the Data Shuttle.

## **TRANSFERRING DATA TO THE PC**

To download data from the WatchDog 2000 Data Shuttle to the computer, follow this procedure:

1. Connect the Data Shuttle to the PC interface cable (provided with SpecWare).
2. Open SpecWare software (Spec8 Pro or later is required).
3. Select the **WatchDog Manager** option from the **Logger** menu, or click the WatchDog Manager icon in the toolbar.
4. Select “<Direct-Connect 2000 Series>” in the list of stations and loggers.
5. Click the **Readout** button. The Data Shuttle will be recognized, and the WatchDog 2000 Shuttle screen will appear, listing its contents.

The contents are listed in the order they were offloaded from the sta-



tions. Each line contains the model number, serial number, the time it was offloaded to the Data Shuttle, the oldest datapoint offloaded (or "(All)" if everything was offloaded), and the location name.

Note on the example screen that "m2450s00011" was offloaded twice. There is no problem with offloading a single station more than once, except that it is using twice as much space as it needs to. SpecWare will only download the data it does not already have from the Data Shuttle.

Click the **Read All and Reset** button to read all the data sets. This is the option you should normally choose. If all data was transferred correctly, the Data Shuttle will be reset to empty so it can be reused. If one or more data sets are not successfully read, an error message will be displayed, and "\*\*Fail-reason\*\*" notices will be added to the right of the location names.

To selectively transfer data to the PC, select one or more data sets from the list (using shift-click or ctrl-click as needed to select multiples) and click the **Read Selected** button. An error message will be displayed if any downloads are not successful. Each selected entry will be marked to the right of the location name with "<OK>" or "\*\*Fail-reason\*\*".

The **Reset for Reuse** button resets the Data Shuttle to empty, and resets its clock to match that on the PC. An "Are you sure?" message is displayed to help ensure that desired data is not being lost.

The **Exit** button closes the WatchDog 2000 Shuttle screen, returning to WatchDog Manager. If a reset was not done, an "Are you sure?" message displays as a reminder that data sets remain on the Data Shuttle until it is reset.

# 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.



## DECLARATION OF CONFORMITY

Spectrum Technologies, Inc.  
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Model Number: 3679WD1  
Description: WatchDog 1000/2000 Data Shuttle  
Type: Electrical equipment for measurement, control, and laboratory use  
Directive: 2004/108/EC  
Standards: EN 61326-1:2006  
EN 61000-4-2:1995, including A1:1998 and A2:2001  
EN 61000-4-3:2002  
EN 55011:2007

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