# Bluetooth® Datalogging RH / Temperature / Barometer

# 800018

## Instruction Manual

SPER
SCIENTIFIC
Environmental Measurement Instruments

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## INTRODUCTION

This Sper Scientific humidity, temperature, barometer, datalogger (model 800018) offers a compact design and the convenience of Bluetooth® streaming to a smartphone App for data storage and sharing. Humidity, temperature, and barometric pressure cycle automatically on the large LCD screen while Hi/Low alarms are clearly indicated at a distance by the color-coded bright LED light on the housing. An optional audible alarm matches this warning from the phone. Measurement intervals can be set up to 12 times per day with 16000 datapoints available per parameter. Once the dataset is complete, there is no need to attach the device to a computer to retrieve comprehensive reports. Simply download a full color graphical report and e-mail it directly from the phone to any computer for printing or further analysis in Excel.  Quickly view Min/Max at any time by pushing a button on the device without interfering with the datalogging. The App can simultaneously communicate with up to 3 loggers allowing the user to have multiple units in different areas of any business.
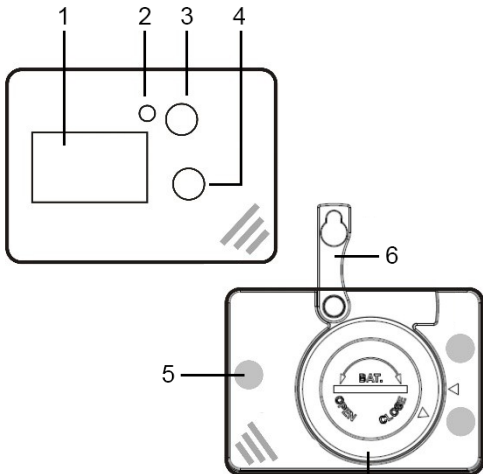
**FEATURES**

- Min/Max for each function.
- Attached flip-out tag for wall mounting.
- Magnetic backing
- Long life Lithium Battery

**MATERIALS SUPPLIED**

- Temperature
- CR2 Lithium ion battery
- Instruction manual

# MONITOR DESCRIPTION



1. LCD Display
2. Color-coded LED light
3. Power/Start/Stop
4. Min/Max
5. Magnets for mounting
6. Flip out wall mount
7. Battery Door

## SET UP

### Battery Installation

1. Using a coin or slotted screwdriver, turn the battery door counter-clockwise to open the housing.

2. Carefully install the CR2 Lithium ion battery, ensuring correct polarity.

3. Replace the battery door and turn clockwise using gentle inward pressure.

### Download the App

You will need to download the free App from iOS or Android before using this device.

1. Search Nice Logger in the App store and look for this icon

   

2. Download the App and open it on your smartphone.

3. Connect the phone to the logger by selecting the serial number on the screen that matches the logger.

**Changing the Unit of Measure, naming the device, or setting a password.**

1. On the main screen of the app (operation screen), select the Logger ID icon.

2. Using the toggle keys, select the desired Fahrenheit or Celsius temperature unit and hPa or inHg scale for barometric pressure.

3. Click in the gray ID box to name the device. Naming the Device can provide a description for all reports such as "warehouse temperature" or "My datalogger." Press Save in the upper left corner to save your settings.

## PROGRAMMING THE DEVICE

Once the device starts logging, you will not be able to change the settings.  Make sure all parameters are set properly before starting the device.

1. Press POWER to turn the device on.

2. Open the app on your smart phone and connect to the device by pressing the serial number in the upper left corner.

3. The operations screen should display. If it does not, press the serial number again.

4. Press the configure icon to open the inter-active settings display.

5. For each parameter, select the gray box for data entry.

6. Set the sampling rate. The sampling rate is equal to how often the logger takes a reading. You can set it to once every ten seconds all the way up to once every 2 hours. Once your desired selection has been made click done.

7. Select the starting mode as key or on time. All methods require you to push the start button on the App before the logging will commence. If the logging is for a future date, you will still need to press start, but the logging won't begin until the date and time you set.

8. Set the stop time. There are four options for this, which are described below:

**Memory Full or Key stop:** The logger will continue taking readings until the memory is full. Once the memory is full, it will not take any more readings. You can override this by manually stopping the logger at any time.

**Memory Loop till key stop:** The logger will continue taking readings until the memory is full. Once the memory is full, it will continue taking readings, replacing the earliest data with new readings. You can override this by manually stopping the logger at any time.

**Memory Full or on Date/Time:** The logger will continue taking readings until the Date and Time you program it to stop. It will stop reading if the memory is full before the date/time you set. You can override this by manually stopping the logger at any time.

**Memory Loop till Date/Time:** The logger will continue taking readings until the date and time you set. If the memory is full before the preset date and time, it will continue taking readings and replace the earliest data with new readings. You can override this by manually stopping the logger at any time.

9. Set the alarm to by either a single event or for the entire time the logger is active (cumulative)

10. Choose which parameters to alarm. Individual alarms show a visible warning light for each parameter. Click done after your alarms are set.

11. Click Save in the upper left corner of the screen. **This step is important. The logger will not function if the settings are not saved.**

12. Make sure you have the desired units of measure selected from the Logger ID section on the operations screen (standard or metric) and press Save.

13. Press the Start Logging button on the operations screen of the phone to begin. The meter itself will display REC to confirm that the datalogging is underway.

**IMPORTANT: DO NOT PRESS START/ STOP ON THE DEVICE. IT WILL SHUT THE MONITOR OFF. IF YOU SHUT THE MONITOR OFF, YOU WILL NEED TO SAVE THE SETTINGS AGAIN BEFORE INITIATING THE DATALOGGING.**

## DOWNLOADING THE DATA

1. Stop the datalogging by pressing the stop logging icon in the App or turning the monitor off with the START/STOP button.

2. Turn the monitor back on if necessary to connect to the App.

3. Select Readout from the operations screen of the App. after the download is complete click the Files Icon at the bottom center of the screen.

4. click in the search box and the serial number list will pop up. After selecting the serial number press done. This places the serial number in the search box, then press the magnifier icon to generate the data file.

5. Select the file in question and choose CSV (Excel) or PDF format from the icons at the top of the screen.

6. Your file can now be sent via text, e-mail, file sharing, or any other data sharing application available on your phone.

## ADDITIONAL FEATURES

**Password Protection:** The device can be protected from unauthorized use by applying a password. To do this, enter the Logger ID screen and toggle the password option on.

**Manual Min/Max:** You can view the minimum and maximums for each parameter at any time directly on the device without having to look at the phone app. Simply press the min/max button to toggle through the minimum and maximum values. Once they have been viewed, toggle to the main screen by pressing min/max again.

## CARE AND MAINTENANCE

- Do not use abrasives, solvents or cleaning agents containing carbon, alcohol or benzenes on the monitor.

- Do not drop the monitor.

- Repairs or services not covered in this manual should be performed by qualified personnel only. Please contact Sper Scientific to speak with a technician.

- Use only the recommended battery when replacement is needed.

**SPECIFICATIONS**

|  | Range | Res. | Accuracy |
|---|---|---|---|
| Temp. | -22 to 158°F<br>-30 to 70°C | 0.1°F/C | ±1.5°F<br>±1°C |
| RH | 0.1 to 80% | 0.1% | ±3% (@25°C & 10 to 80% RH)<br>otherwise ±5% |
| Barometric pressure | 300 to 1100 hPa<br>8.9 to 32.5 inHg | 0.1 hPa<br>0.1 inHg | ±3 hPa (0 to 60°C)<br>±5 hPa (-20 to 0°C) |
| Battery type | CR2 | | |
| Battery life | 72 Days | | |
| Dimensions | 3" x 2" x 1" (78 x 50 x 23 mm) | | |
| Weight | 2.3 oz (66 g) (with battery) | | |
| Data points | 16000 per parameter | | |

## WARRANTY

Sper Scientific warrants this product against defects in materials and workmanship for a period of **one (1) year** from the date of purchase, and agrees to repair or replace any defective unit without charge. If your model has since been discontinued, an equivalent Sper Scientific product will be substituted if available. This warranty does not cover batteries, battery leakage, or damage resulting from accident, tampering, misuse, or abuse of the product. Opening the meter to expose its electronics will void the warranty. To obtain warranty service, ship the unit postage prepaid to:

**SPER SCIENTIFIC LTD.**
8281 E. Evans Rd., Suite #103
Scottsdale, AZ 85260
(480) 948-4448

The defective unit must be accompanied by a description of the problem and your return address. Register your product online at www.sperwarranty.com within 10 days of purchase.

*Please note: The most current version of the manual can always be found at www.sperdirect.com*

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