Mini Environmental Quality Meter

850025
Instruction Manual

SPER SCIENTIFIC

Environmental Measurement Instruments

Mini Environmental Quality Meter 850025

INTRODUCTION

For environmental testing anywhere. 850025 combines an anemometer, humidity meter and thermometer into a single compact unit. Features include touch-tone buttons, min/max and hold functions. Comes ready to use with wrist strap, instructions, battery and soft carrying case.

MATERIALS SUPPLIED

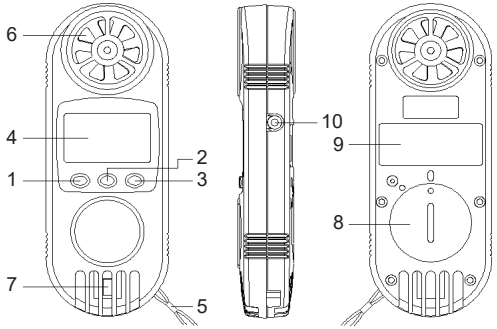
Meter
Wristlet
CR 2032 DC 3V Battery
Soft Carrying Case

TABLE OF CONTENTS

FEATURES

- 3 professional environmental instruments in 1: Air velocity, Humidity and Temperature
- Lightweight, ergonomic design
- Wristlet design provides extra protection to the instrument
- Low-friction ball bearing mounted impeller design provides high accuracy at high and low air velocity
- High precision humidity sensor with fast response time
- Built-in microprocessor circuit assures excellent performance and accuracy
- Concise and compact buttons arrangement for easy operation.
- Maximum and minimum memory with recall
- Hold function
- °F/°C selection

FRONT PANEL DESCRIPTION



1 Hold button
2 ⏻ Button (Power button)
3 REC button
4 LCD display
5 Wristlet
6 Anemometer vane
7 Humidity/Temperature sensor
8 Battery compartment cover
9 Buttons operation label
10 Anemometer temperature sensor

OPERATING INSTRUCTIONS

Power on/off

⏻ Button = Power Button

1. Power on: Press ⏻ once to turn meter on.
2. Power off: Press ⏻ for > 3 seconds to turn meter off.

LCD backlight on/off

With the meter on, press ⏻ once. The LCD backlight will light for 5 seconds, then shut off automatically.

Mode selection

This meter offers 2 selectable modes:

a. Anemometer (Air velocity)/Temperature
b. Humidity/Temperature

With the meter on, press **HOLD** continuously and the Display will show the following texts in sequence:

Display Mode text

An = Anemometer (Air velocity)/Temperature
rH = Humidity/ Temperature

When the display shows the desired mode, release **HOLD** and the meter will set this mode as the default.

An Mode Selection
REC button = Enter button

1. With the power on, press **REC** for >3 seconds, the display will show Unit. Release **REC**, then press ⏻ to scroll through the available scales. After the desired scale is selected, press **REC** to save as the default.
2. The next screen displays “dCdF” with the current temperature scale selection (°F or °C) below. Press ⏻ to select the desired scale. Press **REC** to save as the default.

Note…
When rH is the selected mode, you may only adjust the temperature scale setting. (°F or °C)

The selection scales for all modes are:

Measurement	**Scales**
Air Velocity	m/s, Km/h, mph, knot, FPM
Temp. (Air velocity)	°F/°C
Temp. (Humidity)	°F/°C

Note…
For the most accurate humidity measurement, do not touch or block the humidity sensor at any time with your hand.

Hold Function
Pressing **Hold** will freeze the current reading on the display. The HOLD symbol will be displayed at the top of the display window.

To release the Hold function, press **Hold** again, the HOLD indicator will disappear and the current reading will be displayed.

REC (Record) function
The **REC** (Record) function will record and display the maximum and minimum readings.

1. Start the Record function by pressing **REC** once. The REC symbol will appear on the display.
2. With the REC symbol on the display:
   a. Press **REC** once and the Max symbol will appear on the display along with the current maximum value.
   b. Press **REC** again, the MIN symbol will appear on the display along with the current minimum value.
   c. Clear the recorded MAX or MIN value from the display by pressing **Hold** once. The MAX/MIN symbols and their readings, will disappear from the display. The meter will return to the REC function and continue recording.
   d. To exit REC function press **REC** button for >2 sec.

Auto power off disable

In order to prolong the battery life, this instrument has an Auto Power Off function: the meter will turn off if no buttons are pressed for approximately 10 minutes.

To disable the Auto Power Off function, press **REC** and enter the record function (page 8). The Auto power off function will be disabled until the record function is exited.

REPLACE BATTERY

1. When the LCD display shows  symbol, it is time to replace the battery. (Measurements may still be made for several hours after the low battery indicator appears.)
2. Open the Battery Compartment and remove the battery.
3. Install the battery (CR2032) and replace the cover.

GENERAL SPECIFICATIONS

Display	8 mm LCD display
Measurement	1. Anemometer (Air velocity) /Temperature 2. Humidity/Temperature
Operating Humidity	Max. 80%RH
Operating Temp	32 to 122°F (0 to 50°C)
Over Input Display	"- - - -"
Power Supply	CR 2032 DC 3V battery
Power Consumption	Approx. DC 5 mA
Weight	2.2 oz (65 g) (battery included)
Dim (HWD)	4¾" x 1¾" x ⅞" (120 x 44 x 21 mm)
Standard Accessories	Instruction Manual, battery, soft case

VELOCITY DEFINITIONS

ft/min: feet per minute
m/s: meters per second
km/h: kilometers per hour
mph: miles per hour
knots: nautical miles per hour

ELECTRICAL SPECIFICATIONS

@ 74 ±9°F (23 ±5°C)

Humidity/Temperature			
	Range	Resolution	Accuracy
RH	10 to 95%RH	0.1%RH	<70%RH: ±4%RH ≥70%RH: ±(4%RDG +1.2%RH)
°F	32 to 122°F	0.1°F	±2.5°F
°C	0 to 50°C	0.1°C	±1.2°C

Air Velocity			
	Range	Resolution	Accuracy
ft/min	80 to 3927 ft/min	1 ft/min	±3% FS
m/s	0.4 to 20.0 m/s	0.1 m/s	
km/h	1.4 to 72.0 km/h	0.1 km/h	
mph	0.9 to 44.7 mph	0.1 mph	
knots	0.8 to 38.8 knots	0.1 knots	
°F	32 to 122°F	0.1°F	±2.5°F
°C	0 to 50°C	0.1°C	±1.2°C

WARRANTY

Sper Scientific warrants this product against defects in materials and workmanship for a period of **five (5) years** 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 probes, 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

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.

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