

**Vacuum Meter**

**840064**

**Instruction Manual**

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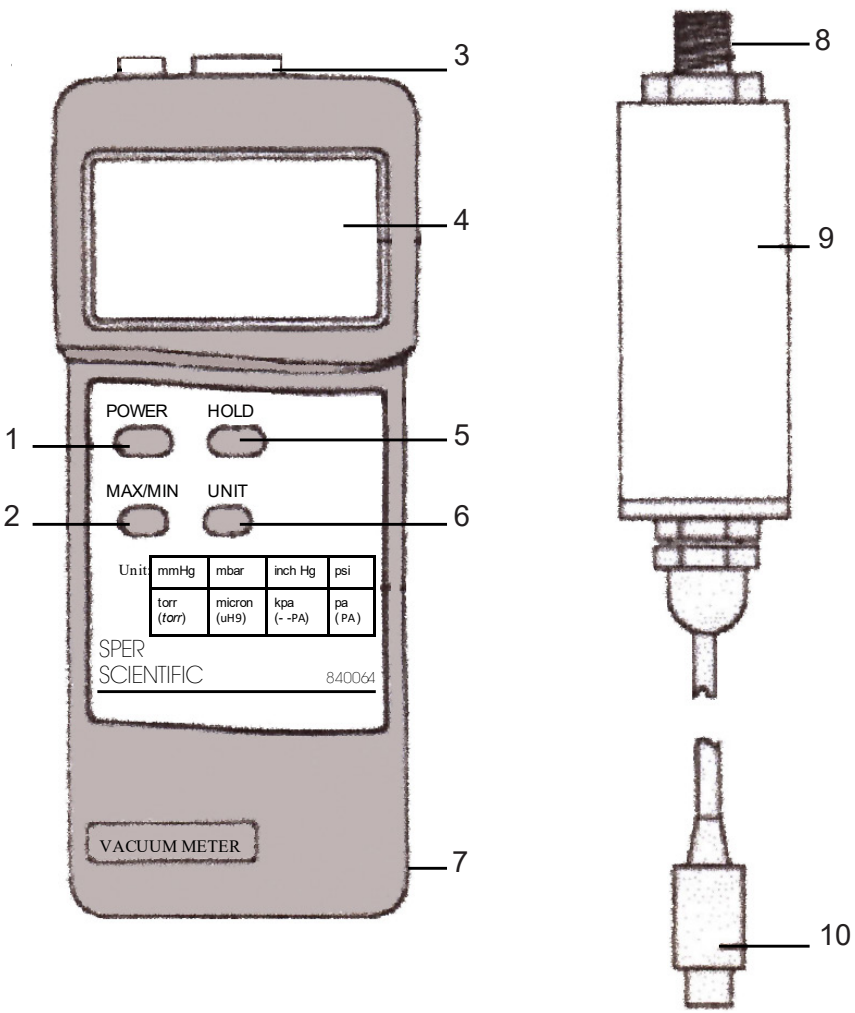
### INTRODUCTION

Portable meter for absolute vacuum pressure measurements in hospital labs, crystal growing, solvent recovery, distillation, and rotary evaporation. Also used in HVAC, automotive and other industrial applications. Includes a detachable heavy-duty probe with ¼ PS connector for liquid, air, oil and gas.

Features a large display, min-max, hold, low battery indicator, auto power off, and 8 units of measure: torr, mm Hg, micron, mbar, KPa, PA, inch Hg, and PSI.

Comes ready to use in a foam-lined, hard-shell carrying case, with 9V battery and instructions.

# METER DESCRIPTION



- 1. Power Button
- 2. Max/Min Button
- 3. Input Socket
- 4. Display
- 5. Hold
- 6. Unit Button
- 7. Battery Compartment (back)
- 8. Sensor Input
- 9. Sensor Body
- 10. Probe Plug

## OPERATING INSTRUCTIONS

### 3-A. Precautions - Read Before First Use

- Do not insert objects into the **Sensor Input** (9) or the diaphragm can be damaged and the warranty voided.
- The sensor is compatible with industrial gases and liquids that are also compatible with ceramic material.
- The sensor must be attached to the meter in order to display the ambient barometric pressure (in/Hg). Otherwise, “0” will be displayed.

### 3-B. General Measurement - See page 7 for range, resolution and accuracy specifications.

- Connect the **Probe Plug** (11) to the meter’s **Input Socket** (4).
- Remove the protective cap and connect the threaded **Sensor Input** (9) to the vacuum source to be measured.
- Press the **Power** (2) button to turn on the meter.
- Press the **Unit** (7) button to select one of the eight units of measure: torr, mm Hg, micron (uH9), mbar, KPa (- - PA), PA, inch Hg (in/Hg), or PSI.
- The measurement will appear on the **Display** (5).
- This meter has an automatic shut off function in order to prolong battery life. After approximately 10 minutes without activity (no buttons pushed), the meter will automatically shut off. To disable this feature, press the **MAX/MIN** (3) button once during measurement. “REC” will be displayed.
- Press the **POWER** (2) button to manually turn the meter off.

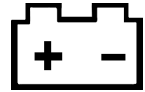
### 3-C. Hold

- During the measurement procedure, press the **HOLD** (6) button to freeze the current measurement.
- “HOLD” and the measured value are displayed.
- Press the **HOLD** (6) button again to exit this function.

### 3-D. Record, Maximum, Minimum

- Press the **MAX/MIN** (3) button once to enter the recording mode.
- “REC” and the recorded values are displayed and continuously updated.
- Press the **MAX/MIN** (3) button as needed to view the recorded Max and Min values. “REC”, “Max” and the maximum recorded value or “REC”, “Min” and the minimum recorded value are displayed.
- To exit the this function, press and hold the **MAX/MIN** (3) button for about 2 seconds, the display reverts to the current reading.

### 4. BATTERY REPLACEMENT



- Replace the battery when the low battery icon is displayed.
- In-spec measurements may be made for several hours after the low battery indicator appears.
- Use a small screwdriver to gently pry off the **BATTERY COVER** (8).
- Replace the battery with a fresh 9V battery (alkaline or heavy duty).

## SPECIFICATIONS

Unit	Max Range	Resolution	Accuracy
<b>mbar</b>	1500 mbar	1 mbar	± 1% Full Scale (at 23°C ±5°C) including linearity, hysteresis and repeatability
<b>Kpa</b>	150.0 Kpa	0.1 Kpa	
<b>Pa</b>	150,000 Pa	100 Pa	
<b>torr</b>	1125 torr	1 torr	
<b>mm Hg</b>	1125 mm Hg	1 mm Hg	
<b>micron</b>	1,125,000 micron	1000 micron	
<b>In Hg</b>	44.30 inch Hg	0.02 inch Hg	
<b>PSI</b>	21.75 psi	0.01 psi	

<b>Dimension</b>	Meter: 7 × 3 × 1 ½" (180 × 75 × 35 mm) Probe cord: 49" (125 cm)
<b>Display</b>	61 mm x 34 mm super large LCD display. 15 mm (0.6") digit size
<b>Weight</b>	Meter with battery: 8 oz (220 g) Probe: 6 oz (170 g)
<b>Sampling Time</b>	Approx. 0.8 second
<b>Operating Environment</b>	32 to 122°F (0to50°C), less than 80% rh
<b>Power Consumption</b>	Approx. DC 6 mA
<b>Circuit</b>	Exclusive microcomputer circuit
<b>Optional Accessories</b>	840090 Water Resistant Instrument Pouch



## **WARRANTY**

Sper Scientific warrants this product against defects in materials and workmanship for a period of **one (1) 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 break the waterproof seal and void the warranty.

To obtain warranty service, ship the unit postage prepaid to:

**SPER SCIENTIFIC LTD.**

8281 East Evans Road, 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](http://www.sperwarranty.com) within 10 days of purchase.