

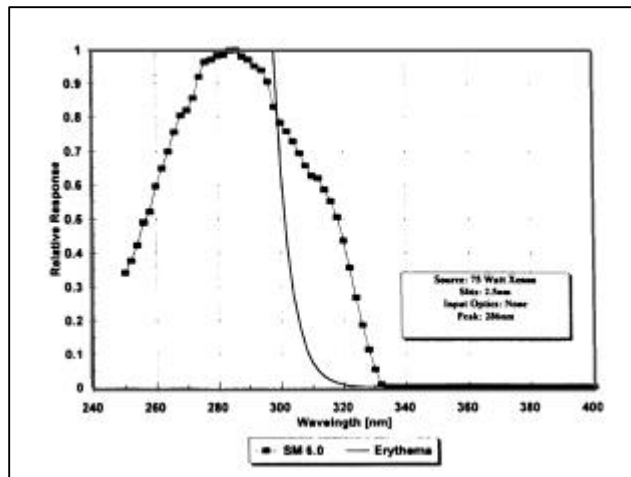
# UV PROCESS SUPPLY, INC.

## UV SOLAR METER UVB MODEL INSTRUCTION MANUAL

### PART # M007-073

#### SPECIFICATIONS

Irradiance Range	0-19.99 mW/cm <sup>2</sup> UVB
Response	280-320 nm
Resolution	0.1 mW/cm <sup>2</sup>
Cony. Rate	3.0 Readings/Sec
Display	3.5 Digit LCD
Digit Size	0.4 inch high
Oper. Temp	32°F TO 1200°F
Oper. Humid.	5% TO 90% RH
Accuracy	±10% REF. NIST (NBS)
Dimensions (in.)	4.2 L x 2.4 W x 0.9 D
Weight	4.5 OZ. (incl. ball.)
Power Source	9-Volt DC Battery
Lens	UV Glass
Diffuser	Virgin Teflon .005



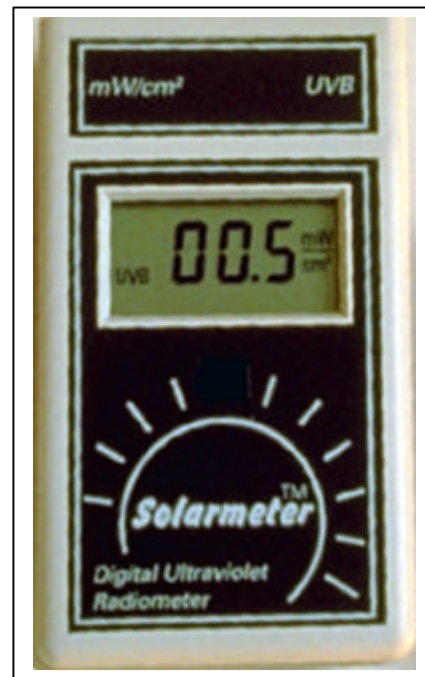
#### SENSOR

Silicon Carbide (SiC) Photodiode packaged in hermetically sealed UV glass window cap. Interference filter coating (Metal Oxide) blocks most UVA from response as shown on Spectral Sensitivity Graph.

#### OPERATION

Press and hold push-button switch on face of unit. Aim sensor window in top panel of meter directly at UV source. Note reading on LCD and record if desired.

Battery operating range is 9.0 to 6.5 volts. Battery indicator "Batt" will come on below 6.5 volts, indicating need for replacement of battery. Always replace battery when indicator comes on in order to maintain meter accuracy.



#### PROPER USAGE OF Solarmeter® ULTRAVIOLET RADIOMETER

- Wear UV-block eyewear when checking UV lamps.
- Allow lamps to warm-up prior to taking readings (at least 5 mm).
- Hold sensor against lamp or acrylic to measure individual lamp UVB intensity. Hold sensor at opening in bed for average intensity.
- When checking aging of lamps, keep measuring distance and locations constant. Note: Model M007-054 (UVA + B) is best for aging tests.

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- Lamps should be replaced when output drops to about 70% of their original (new) readings.
- If unsure of what original new values were, replace two adjacent lamps with new ones and compare to old ones.
- To determine percent UVB divide by reading from model M007-054 total UV meter (UVA + B).
- When checking acrylic transmission, take reading through acrylic; then remove acrylic and hold meter sensor at approximately the same distance from lamp as the acrylic shield was located. If acrylic blocks much UVB it should be replaced.
- Do not use meter to compare different type lamps, due to their different spectral power distributions. Although higher output lamps will read higher than low output lamps, the readings are relative rather than absolute.
- Do not subject the meter to extremes in temperature, humidity, shock or dust.
- Use a dry, soft cloth to clean the instrument. Keep sensor free of oil, dirt, etc.

NOTE: The black dot on the LCD glass is a decimal point. In order to provide 2 -place resolution for Model M007-073, the decimal point had to be shifted left 1 -digit from its Model M007-054 position. Range is therefore 0-19.99 mW/cm<sup>2</sup> UVB. Most UV fluorescent bulbs will emit less than 2.00. For example, If total UV from Model M007-054 = 15.3, Model M007-073 might read 0.95. To calculate percent UVB, divide UVB by total UV, e.g.:  $0.95/15.3 = 0.062$  or 6.2%.

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