#### SPECIFICATIONS

0 to 199.9 uW/cm<sup>2</sup> Ranges:

> 0 to 1.9999 mW/cm<sup>2</sup> 0 to 19.99 mW/cm<sup>2</sup>

0.1 uW/cm2 (0 to 199.9 uW/cm2) Resolution:

> 0.001 mW/cm<sup>2</sup> (0 to 1.9999 mW/cm<sup>2</sup>) 0.01 mW/cm<sup>2</sup> (0 to 19.99 mW/cm<sup>2</sup>)

±2% full scale plus 2 digits

Accuracy: Wide band wavelength:

320 to 390 nm

Sampling Time: Approximately 0.4 seconds

PC serial interface Data Output: Case: ABS plastic

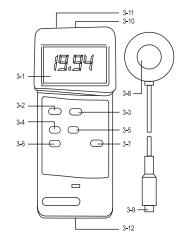
Fall safe: Low battery indicator Power: One (1) 9-Volt alkaline battery

Accessories

Supplied: carrying case, UV sensor probe,

battery, desiccant Traceable® Certificate, instructions.

### FIGURE 1:



# **DESCRIPTION**

- 3-2 Power Button
- Hold Button: press to hold reading 3-3
- Record Button: press to record results 3-4
- 3-5 Recall Button: press to show minimum

and maximum readings

- 3-6 Zero Button
- 3-7 Range Switch 3-8 **UV Sensor**
- 3-9
- Sensor Plug 3-10 Sensor Input Socket
- 3-11 Computer Output Socket
- 3-12 **Battery Compartment**

#### **UV LIGHT METER OPERATION**

- 1. Turn the meter on by pressing the POWER BUTTON (3-2, fig. 1).
- 2. Zero Adjustment: Set the RANGE SWITCH (3-7, fig. 1) to 199.99. This is the far left setting. Cover the UV SENSOR (3-8, fig. 1) with hand to protect it from the environment for a more accurate zero reading. Press the ZERO BUTTON (3-6, fig. 1). The display should read 0.0. Remove your hand.

NOTE: if the display shows: "CALO" the further adjustment is needed. Turn the power off by pressing the POWER BUTTON. Press and hold the ZERO BUTTON. Press the POWER BUTTON again. The bottom line of the display will show "0000". Adjust the VR9 by turning the knob on the right of the unit until the top line of the display reads "0".

- 3. Select the desired range by switching the RANGE SWITCH (3-7, fig. 1) NOTE: If the display shows "----" then there is too much light for the meter to read in this range. Select the next higher range.
- 4. Place the UV SENSOR (3-8, fig. 1) directly under the light source you wish to measure. Hold for at least 0.4 seconds. The meter will measure the light and display the value. Limit the angle of light from the source being measured to 45 degrees; if possible, limit the angle of light to within 30 degrees.
- 5. To hold a measurement on the display, press the HOLD BUTTON (3-3, fig. 1) while a measurement is being taken. The LCD will show DH in the upper left portion of the display to indicate that the value is a "held" value. To cancel the data hold feature, simply press the HOLD BUTTON a second time.
- 6. To record a measurement, press the RECORD BUTTON (3-4, fig. 1) while a measurement is being taken. The LCD will show REC in the lower left portion of the display to indicate that the value is being recorded. To deactivate the record function, press the RECORD BUTTON again.
- 7. Memory Recall: Use the RECALL BUTTON (3-5, fig. 1) to recall the minimum and maximum readings. When the REC symbol appears or the display, press the RECALL BUTTON (3-6, fig. 1) once. The maximum recorded value will be displayed. The letters "Max" will also appear on indicating that this is the maximum or highest reading. A second press of the RECALL BUTTON will display the minimum reading. The letters "Min" will also appear indicating that this is the minimum lowest reading.

Note: The Data Record function must be in use to utilize the Memory recall features. Once the RECORD BUTTON has been pressed a second time to deactivate the data record function, the minimum and maximum values are no longer stored.

# CARING FOR THE UV LIGHT METER

It is recommended that the meter be recalibrated every year. The sensor is extremely sensitive to humidity. Store in a low humidity environment by keeping it in its case with the Humidity Sponge™ provided. Proper storage will extend the length of time between recalibration of the unit

# **COMPUTER SERIAL INTERFACE**

This unit features computer output. A COMPUTER OUTPUT SOCKET (3-11 fig. 1) is located on the top of the unit. To utilize this feature, connect the unit to a PC with an accessory Data Acquisition System. **See** 

Data is displayed in a 16 digit stream: D15 through D0. Each digit indicates the following:

D0	end word
D1 to D4	Upper Display Reading, D1=LSD, D4=MSD
D5 to D8	Lower Display Reading, D5=LSD, D8=MSD
D9	Decimal Point (DP) for Upper Display: 0= no DP, 1= 1 DP, 2=2 DP, 3=3 DP
D10	Decimal Point (DP) for Lower Display: 0= no DP, 1= 1 DP, 2=2DP,3=3DP
D11/D12	Annunciator for Upper Display: 00= No Symbol, 01= °C, 02= °F, 03= %, 04= %RH, 05= %PH, 06= %O <sub>2</sub> 07= mg/L,
	$\begin{array}{l} 08\text{= m/s, }09\text{= knots, }10\text{= Km/h, }11\text{= Ft/min,} \\ 12\text{= mph, }13\text{= }\mu\text{S, }14\text{=mS, }15\text{= Lux,} \\ 16\text{= Ft-cd, }17\text{=dB, }18\text{=mV} \end{array}$
D13	Annunciator for lower display: $0=$ No symbol $1=00., 2=$ °F
D14	Reading Polarity for the display:
	0= both upper and lower displays are ~
	1= upper is "-" and lower is "+"
	2= upper is "+" and lower is "-",
	3= both upper and lower displays are "-".

#### BATTERY LIFE

Start Word

D15

If the letters "LBT" appear on the left corner of the display, it indicates the batteries are low and need to be replaced. To replace the battery, slide the battery cover located on the back of the unit away from the unit. Remove the old battery and replace it with a new 9-Volt alkaline battery. Use an alkaline battery, NOT a regular or heavy duty battery. Property connect the battery. Replace the battery cover. Incorrectly installed batteries may damage electronics.

The unit has an automatic shut off feature to prolong battery life. If no button on the unit is pressed for ten minutes, the unit will automatically shut off. To deactivate this feature, press the RECORD BUTTON while a measurement is being taken.

# **ALL OPERATIONAL DIFFICULTIES**

If this Ultra Violet Light Meter does not function properly for any reason, please replace the battery with a new 9-Volt alkaline battery (see Low Batt section, above). Low battery power can occasionally cause any number o "apparent" operational difficulties. Replacing the battery with a new fresh battery will solve most difficulties.

# **ACCESSORIES**

# Cat. No. 3150 Humidity Sponge™ Indicator Desiccant (40 bags/pack)

Contains a blue indicating gel, which turns to pink when the desiccant pack has achieved its moisture capacity and needs to be replaced. The desiccant (sodium calcium aluminosilicate hydrate) is nontoxic and is a "Generally Recognized as Safe" (GRAS) material. Packs are certified as Class 100 Clean-Room compatible. Each pack is 3 x 3 x ¼ inches.

Cat. No. 4138 Easy-Use Accessory Adaptor 115 VAC Bonus Free Disk This demonstration disk shows the data acquisition capabilities of this digital product when connected to a computer. See Cat No. 4136 below to order complete Data Acquisition System.

Cat. No. 4136 Data Acquisition System Accessory
Powerful and easy to use computer data capture/data
logging program works with Traceable® Instruments with
computer output. Records interval readings from 1 to
10,000 seconds; displays minimum/maximum readings;
and utilizes an alarm mode that permits the user to be
notified visually, audibly, and by email when an alarm is
triggered. Data is stored to a file that can be printed in
any report or spreadsheet format. Networking server/
client capability allows the captured data to be monitored
on a remote workstation and/or by email. It is designed to
work with Windows® 98/Me/NT/2000/XP/Vista. Includes
a CD, a 6-foot cable (supplied USB and serial connections) that plugs into the instrument and computer.
Accessory extension cables expand cable length to 300

Cat No. 4325 Data Logger Complete DAS–4™ System captures and stores up to 8000 bytes (over 1000 readings) from all meters. Reading may be taken at intervals from 1 second to 99 hours. Stored readings may be downloaded to any PC and viewed. Can be read "as is" or imported to spreadsheets, databases, and statistical programs. Supplied with 36-inch serial cable with D9F computer plug, disk (Windows®), and four AA allkaline batteries. Size is 5 x 3 x 1 inches. Weight is 7

Cat. No. 4326 Accessory Adaptor 115 VAC for Data Logger

# **CONTROL COMPANY**

Control Company is ISO 9001:2008 Quality-Certified by DNV and ISO/IEC 17025:2005 accredited as a Calibration Laboratory by A2LA.

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INSTRUCTIONS

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