LOCTITE®

EQUIPMENT
Instruction Sheet

Part Number: **1390323 UV-A/B Radiometer Dosimeter**
1265282 UV-V Radiometer Dosimeter

1.0 OPERATION:

When you first turn on the UV-V or UV-A/B Radiometer Dosimeter (Meter) by pressing the "On/Off Mode" button once, the system will automatically test the battery and shut off if the system needs to be re-charged.

1.1 ADAPTER SELECTION

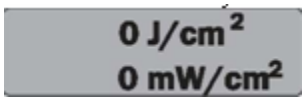
The Meter is designed to be used with Chambers, Conveyors, and Loctite® Led Curing devices. When using certain devices, it is recommended to use the proper adapters which are purchased separately. The adapter must be installed before taking a reading.

1390323 UV-A/B Radiometer Dosimeter		**1265282 UV-V Radiometer Dosimeter**	
Lamp/LED Device	**Adapter**	**Lamp/LED Device**	**Adapter**
365 LED Wand	1403402	77xx and 77xxHD series LED's	1403405
UV Arc Lamps	None Req.	405 Head 976420 & Indigo Head 976418	1403401
375 Head 1369539	1421420	405 Head 1369538 & Indigo Head 1369539	1421420
		Visible Arc Lamps	1403403
		AssureCure Emitters	1527709

1.2 TAKING A READING: (DATA ACQUISITION MODE)

If the screen is blank, press the "On/Off Mode" button once. The unit will turn on and will display **Screen One** below. The meter will turn off automatically in 5 minutes if no optical Power is detected.

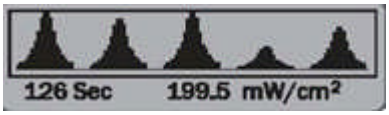
Screen One



Place the meter **LABEL SIDE DOWN** under the Light Source. After 5 seconds of reading, the display will alternate every 5 seconds between numeric and graphical displays similar to screens 2 and 3. **Screen Two** shows energy density and irradiance. **Screen three** is a plot of irradiance versus time.

Screen Two

Screen Three



To stop the display from alternating, press the "On/Off Mode" button once. Press it once again to start the display alternating again. The Meter will shut itself off automatically after five minutes. To shut the Meter off immediately press the "On/Off Mode" button two times quickly.

Any current reading may be stored for future analysis in the data analysis mode. Please read the Data Acquisition section for details.

2.0 DATA ACQUISITION AND ANALYSIS

The Meter provides a visual display of the status of your LED Lights and lamps as seen on screen three and also has the capability to compare the current condition of your equipment to that of a user selectable base line or reference condition. The Meter will hold **ONE** irradiance profile in memory that can be visually compared to a measurement at any time.

2.1. CREATING A BASELINE:

To create a baseline, you will need to take a reading first. Follow instructions in section 1.2. Once you have taken a reading and you have a profile as shown in **SCREEN 3**, you can create a baseline. To save the current profile as a baseline, press the "ON/OFF Mode" button three times rapidly. This stores the current profile as your baseline. When you do this, the screen will read all zeros. This profile will remain as your baseline until you press the "ON/OFF Mode" button three times when a current profile is displayed.

2.2 ENTERING THE DATA ANALYSIS MODE:

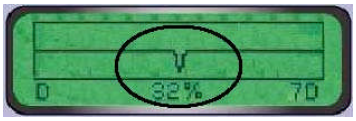
Before entering the Data Analysis mode, take a current reading, then shut down the Meter by pressing the “ON/OFF Mode” button two times rapidly. Then, to enter Data Analysis mode, press the “ON/OFF Mode” button two times rapidly. This will turn the unit back on and put you in Data Analysis mode where you can compare the baseline measurement to the current measurement you have just taken. By pressing the “On/Off/Mode” button once, you can toggle through three screens described in Section 2.3.

2.3 FEATURES AND OPTIONS IN DATA ANALYSIS MODE:

The base line profile can be identified by the letter "B" in the lower left corner of the display as shown below. The total exposure time and the maximum irradiance are displayed. They are 26 seconds and 271 mW/cm^2 respectively.

The current profile is from the most recent measurement. The current profile is identified by the letter "C" in the lower left corner of the display as shown below. It is easy to see in this example that the maximum irradiance of the system has not changed, as the maximum irradiance values of the base line above and current profiles are the same (271 mW/cm²).

The difference screen below shows the percentage difference in the irradiance profiles between the baseline and the current profile. The "7D" in the lower right corner shows that there were 7 days between the time the baseline and current measurements were taken. It also shows that the middle peak irradiance was 32% lower than the baseline.



3.0 BATTERY CHARGING

The Meter contains Nickel Metal Hydride Rechargeable Batteries and comes with a trickle charger.

Plug the charger into an AC outlet, then connect the cable to the meter. A red LED will light on the lower left corner of the meter to indicate the cable is properly inserted into the meter and the meter is charging. The meter will fully charge after approximate 3 to 5 hours of continuous charging. The red LED will turn green when the meter is fully charged. The LED will not light unless the charger is plugged into power and the meter. Henkel recommends keeping the meter and the charger plugged in and charging when not in use.

4.0 MAINTENANCE

The Meter is a very rugged instrument and should not require any maintenance other than cleaning. ***Note: It is important to keep the shiny surface clean and to avoid contaminating the input optic.*** It is recommend using lens cleaner and a soft cloth to prevent scratching the housing. Over time the band pass filters and integrating sphere in the Meter may begin to degrade due to the extreme UV exposure. This gradual degradation manifests itself in changes in total transmission and band pass characteristics, both of which adversely affect the calibration. It is, in part, for this reason that the Meter should be recalibrated on an annual basis. In some cases, with extreme use (irradiance, frequency, or temperature) shorter calibration cycles are required.

5.0 RECALIBRATION:

Calibration is recommended once a year. The recalibration procedure includes evaluation of the charging system and batteries, evaluation of the internal optics (sensor, filter and integrating sphere), and a complete optical and electrical calibration traceable to N.I.S.T. For calibration and repair services contact Henkel Equipment Services.

E-mail: **equipment-customerservice@loctite.com**
Phone: **860-571-5174**

Manual P/N: 8901810, Rev D, Date: 05/03/2011