HELPFUL OPERATING TIPS

1. If taking measurements near a heat lamp, do not place the meter too close to the light source. If the end of the meter begins to feel hot to the touch, it is too close to the light source. Extended periods of heat exposure can cause deformation of the filters, resulting in a change in the accuracy of the meter. It is recommended that the heat lamp and meter are separated by at least 18 inches (46 cm).

2. When taking measurements for transmission percentage or comparative tests, it is important that the meter is held in the exact same position for both measurements (when possible). Any change in angle or proximity to your light source can adversely affect the accuracy of your measurements. FOR BEST RESULTS, place the meter on top of a stand (#SP2075). It is best to leave the heat lamp and meter stationary, while sliding the glass sample in between them. This will guarantee the most accurate measurements possible.

3. When performing tests, it is advised to take multiple readings to reduce the amount of error that occurs. Be aware that a changing light source (sun with moving clouds) will affect your measurements.

4. The light sensor is located at the top end of the enclosure. For the greatest accuracy in measurements, this sensor should be directly facing the light source. DO NOT alter the condition of the sensor opening by touching or pushing on the filter. Any modifications or altering of the exterior surface of the white filter WILL affect the calibration of the meter. This area should be kept clean at all times. Compressed air or a lint-free cloth should be used to clean the filter surface if it becomes soiled.

5. Do not attempt to open the enclosure. Opening the enclosure will void the product warranty and affect the calibration of the SP2065 meter.

BATTERY REPLACEMENT

The SP2065 is powered by a 9 volt battery. When the battery voltage is getting too low to operate the meter, the display will begin blinking. Once the display begins blinking you will want to replace the battery soon. To replace the battery, turn off the power meter. Remove the battery cover near the bottom of the meter and replace with a new battery. Alkaline batteries will provide the longest service, but are not required for this product.

CALIBRATION

This instrument has been calibrated to detect the total incident solar power of the sun. The largest incident value of solar power is obtained when the end of the meter faces the sun directly. When the end of the meter does not face the sun, the incident solar power is reduced by the cosine curve of the angle to the sun. Make sure the transparent materials being tested are reasonably clean.

This instrument is factory calibrated to a NIST (NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY) traceable thermopile and should require no field adjustment.

SP2065 WARRANTY

The manufacturer warrants all models of the SP2065 to be free from defects in material and workmanship under normal use and service as specified within the operator's manual. The manufacturer shall repair or replace the unit within six (6) months from the original date of shipment after the unit is returned to the manufacturers factory, prepaid by the user, and the unit is disclosed to the manufacturers satisfaction, to be thus defective. This warranty shall not apply to any unit that has been repaired or altered other than by the manufacturer. The aforementioned provisions do not extend the original warranty period of the unit which has been repaired or replaced by the manufacturer. Batteries are not covered by warranty as well as damage caused by over-heating the device.

The manufacturer assumes no liability for the consequential damages of any kind through the use or misuse of the SP2065 product by the purchaser or others. No other obligations or liabilities are expressed or implied. All damage or liability claims will be limited to an amount equal to the sale price of the SP2065.

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SOLAR TRANSMISSION & POWER METER

MODEL# SP2065 MADE IN THE USA

GENERAL DESCRIPTION:

The Digital "SOLAR TRANSMISSION & POWER METER" incorporates two meters into one. In Power Mode, the meter measures the power per unit area of incident solar radiation reaching the meter's sensing area. In Transmission Mode, the SP2065 is able to calculate the solar transmission percentage associated with a given material. The meter uses a state-of-the-art sensor coupled with microprocessor control to achieve an EASY TO READ hand-held meter. The device may be used to measure the solar characteristics of windows, film or other transparent materials.

FEATURES:

SOLAR TRANSMISSION & POWER MEASUREMENTS
CHOICE OF (BTU/HR*FT^2) OR (W/M^2)
AUTO-POWER-OFF FEATURE TO CONSERVE BATTERY
MEMBRANE STYLE POWER SWITCH
REAL-TIME READINGS CONTINUALLY UPDATED
DIGITAL TECHNOLOGY WITH EXCELLENT RESOLUTION
MICROPROCESSOR CONTROL
NO ADJUSTMENTS OR CALIBRATIONS NECESSARY
END-MOUNTED SENSOR
SMALL, PORTABLE CONVENIENT SIZE

KEEP THE COMPETITIVE EDGE WITH PRODUCTS FROM

EDTM
Glass, Window & Film Test Equipment

745 Capital Commons Drive
Toledo, Ohio 43615 USA
PHONE: (419) 861-1030 FAX: (419) 861-1031
WWW.EDTM.COM Email: sales@edtm.com

The SP2065 is designed to operate in either power mode or transmission mode. While operating in power mode, the SP2065 is identical to our SP1065 meter. However, when the SP2065 is switched into transmission mode, the meter self-calibrates to read 100% transmission for the current solar conditions presented to the meter. Thereafter all readings are referenced against the solar conditions that were present when the self-calibration occurred. Therefore if you place a piece of glass that passes 40% of the solar energy between the meter and the light source, the display will read P 40 (i.e. 40 % solar transmission).

The SP2065 is helpful in demonstrating the performance of fenestration products. Even more importantly, the SP2065 can be used to identify types of Low E coatings in the field. By knowing the general performance of specific coatings, the user can differentiate types of coatings

TABLETOP DEMONSTRATIONS/QC WORKSTATIONS

To set up a ***TABLETOP DEMONSTRATION***, or to perform readings in a bench-type QC application, place a light source facing the SP2065. The light source should be stable and locked in position so it cannot move during the measurements. Position the meter flat on the table with the sensor facing the light source directly. If necessary, place the SP2065 on top of a stand (#SP2075) to position the meter in the center of the light beam. To obtain the most accurate results, DO NOT move the light source OR the meter during the readings. To take solar transmission measurements, follow the steps below and the illustrations on the next page:

1) Turn on the SP2065 by pushing the power button
2) Place the meter on the table or platform with the light sensor (top end of meter) facing the light source directly. Turn on the light source and confirm that a power reading has registered on the display.
3) Self-calibrate the meter by pressing the BLUE % switch next to the power button.
4) The display should now read P100 (=100% transmission). Your meter is now prepared to take a transmission measurement with the current light conditions. (If the surrounding light conditions change, repeat STEP 3).
5) Place the window or film sample between the light source and the SP2065.
6) The resulting solar transmission percentage for that material will be displayed.
7) Remove the sample and confirm the SP2065 returns to P100. If the meter does not display P100 with the sample removed, disregard the reading and begin the test process again.

MEASURING INSTALLED WINDOWS

The best results are obtained when the meter is operated on windows that are directly facing the sun. The position of the meter is EXTREMELY important in obtaining an accurate reading. The meter should be placed on the window sill on top of it's stand or other stationary item that will hold the meter in the same position. To take a transmission reading, the meter should be self-calibrated with the window open (Step 3 & 4 above). The sensing area of the meter should NOT be looking through any glass or film at this time. In step #5 of the instructions, you should close the window without moving the position of the meter. Once the window is closed, the meter will measure the solar energy that is transmitting through the window. Several readings should be taken to guarantee the most accurate information is obtained. Please note that outdoor conditions are ever-changing. Clouds and environmental conditions can change the incident solar energy quickly.

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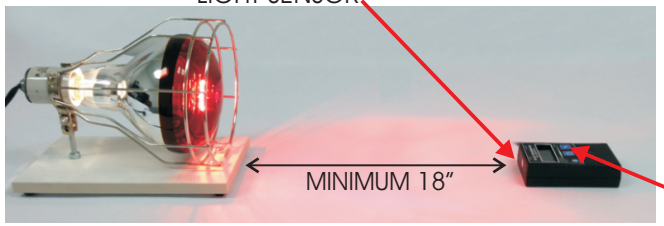
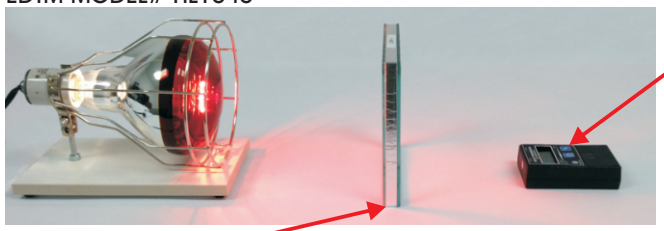


STEPS 2 - 4

INFRARED HEAT LAMP
EDTM MODEL# HL1040

% TOGGLE BUTTON



STEP 5 & 6

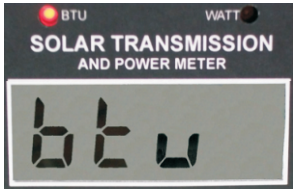
SAMPLE BEING TESTED

CHANGING THE UNIT OF MEASURE

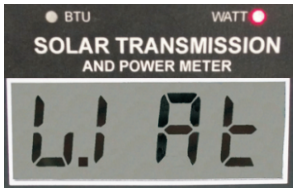
The SP2065 accommodates measurements in units of both Watts/Meter^2 and BTU/hour*foot^2. At start up, the meter will indicate the current setting on the LCD display (See Figure 1), as well as by indicating the unit of measure by the LED indicators. The meter will retain the previously established unit of measure until it is modified by the user. Therefore you do not have to modify it each time the meter is powered on. Follow the instructions below to change the unit of measure.

1) Power the unit on and release the power button.
2) Press ***AND HOLD*** the power button as though you are turning it off.
3) The display will go blank as though the instrument is turning off.
4) Continue to hold down the power button for 3 seconds.
5) The display will briefly show the current setting, and then switch to the new setting.
6) The LED indicator will also switch to the new setting to confirm your choice.
7) When the screen shuts off again release the power button.
8) The next time you turn the meter on, it will function in the new unit of measure.

FIGURE 1



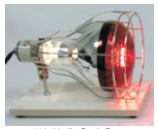
Indicates BTU/hr*ft^2



Indicates W/m^2

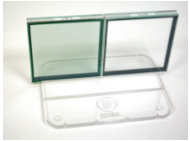
ACCESSORIES

For more information and a complete list visit EDTM.com.



#HL1040
Heat Lamp

#SP2075
Stand



#HS2056
Demonstration Base