

Solar Simulator

User manual

SAFETY INFORMATION - The Solar simulator is designed for safe and efficient operation when used properly and in accordance with this manual. Failure to observe the following precautions could result in serious personal injury:

- ❖ The solar simulator is an electrical instrument. To avoid electric shock, please observe all standard precautions.
- ❖ Do not use the solar simulator near window or in presence of any external light.
- ❖ All the connections between different parts of instrument should be proper.
- ❖ **Don't use without proper training.**

Operation:-

1. Check all connections carefully.
2. Switch on main power.
3. Press on both screen "Fans on" and wait 10 minutes.
4. If you want to do the measurement in the dark then don't on the lamp.
5. For measurement in the light, on the lamp according to desire (Bias lamp, monochromatic lamp)
6. Set the lamp on standard values (written on the screen).
7. Switch on the sensitive equipment.
8. Connect your devices to connections (use probe station if needed). Kindly check the wires are properly connected to source meter.
9. Start the software in computer.
10. For checking the device connection, enter very small bias range and run the measurement. Check the data and make sure that device is properly connected.

11. Enter the measurement range in the software, like bias range, current range, DC bias voltage, number of data point, cyclic measurement according to desire.
12. For measurement in the light, firstly decide that how we want to measure the response like under continuous illumination, on-off measurement etc.
13. If it is continuous illumination, then don't use the shutter.
14. If it is on-off measurement, then on the shutter and enter the on-off time, number of cycles and put it in the exposure mode.
15. For intensity dependent measurement, filter needs to be inserted after the AM1.5 filter (in the right corner of the instrument). Kindly check the filter properly. We have 4 filter with us (0.9 OD - 0.1 sun, 0.5 OD- 0.5 sun, 0.3 OD- 0.7 sun and 0.15 OD- 0.85 sun) with the 1-sun illumination.
16. After the measurement, disconnect all the connections, switch off the lamp, wait 5-7 minutes and then switch off the fan.
17. Switch off the sensitive equipment and lamp power.
18. Switch off the main power supply.