

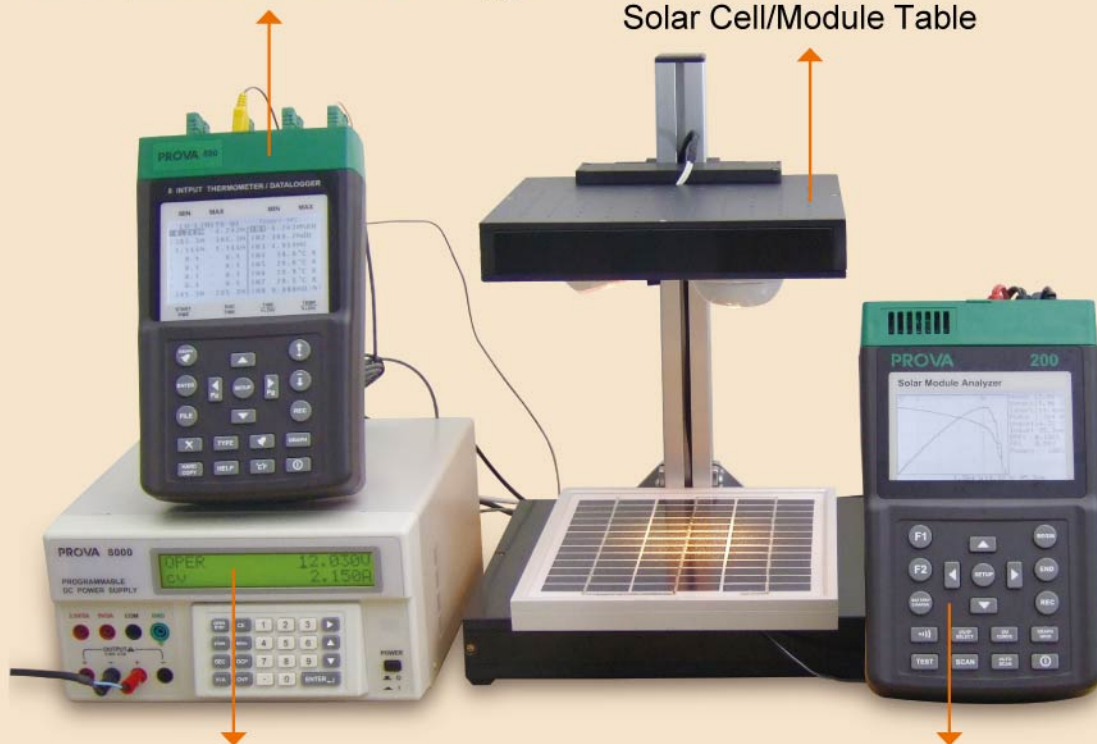
# TES SS1

## Educational Solar Power Development System



PROVA 800  
Multi-Input Thermometer/Datalogger

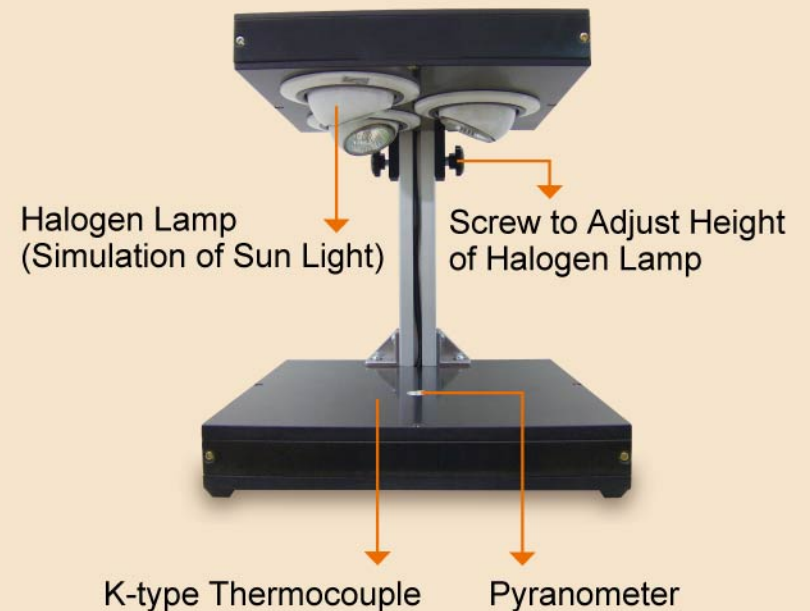
Solar Cell/Module Table



PROVA 8300  
Light Radiation Controller

PROVA 200  
Solar Module Analyzer

Solar Cell/Module Table



<http://www.tes.com.tw>

**TES ELECTRICAL ELECTRONIC CORP.**

7F, No.31 Lane 513, Rui Guang Rd., Neihu Dist, Taipei, Taiwan

Tel : (02) 2799-3660 Fax : 886-2-2799-5099 E-mail : tes@ms9.hinet.net

# TES SS1 Educational Solar Power Development System



## Includes

- PROVA 200 Solar Module Analyzer
- PROVA 800 Multi-Input Thermometer/Datalogger
- PROVA 8300 Light Radiation Controller
- Solar Cell/Module Table

## PROVA 200 Solar Module Analyzer

### Features

- I-V Curve Test for Solar Cell.
- Max. Solar cell/module Power (Pmax) search by auto-scan (60V, 6A).
- Best Resolution: 1mV, 0.1mA.
- Manual Single Point I-V Test.
- Max. Voltage (Vmaxp) at Pmax.
- Max. Current (Imaxp) at Pmax.
- Voltage at open circuit (Vopen).
- Current at short circuit (Ishort).
- Efficiency (%) calculation of solar panel.
- RS232C (to USB Bridge) cable for PC.

## PROVA 800 Multi-Input Thermometer/Datalogger

### Features

- 8 input temperature measurement/logging (°C/°F)
- Graphic display of each input
- 11 types of thermocouple (K, J, E, T, R, S, N, L, U, B, C)
- Easy thermocouple mini connector, no need for wire peeling.
- Basic accuracy 0.05% ± 1°C (K type)
- Sampling rate: 1 sec. / 8 inputs
- Programmable Hi-Lo alarm for 8 inputs
- Standard 2G SD memory card (stores 3.8-year data)
- Built-in calendar clock
- Paperless Recorder

<http://www.tes.com.tw>

## TES ELECTRICAL ELECTRONIC CORP.

7F, No.31 Lane 513, Rui Guang Rd., Neihu Dist, Taipei, Taiwan  
Tel : (02) 2799-3660 Fax : 886-2-2799-5099 E-mail : tes@ms9.hinet.net

## PROVA 8300 Light Radiation Controller

### Features

1. Control halogen lamp (or other light source) to emulate sunlight irradiance.
2. Low cost for educational purpose.
3. Standard pyranometer (sunlight sensor) to show true irradiance.
4. User Friendly Interface.

### Specifications

1. Controller Output Capacity: 40VDC and 5ADC.
2. Range of Irradiance: 100 to 1500 W/m<sup>2</sup>
3. Pyranometer: Temperature response: +/- 0.5% (-10 to 50 deg. C)  
Cosine response: 1/1.5/17% at (30/60/80 deg).
4. Fixed 5V / 2A Accuracy: 5V ±0.25V
5. Fixed 3.3V / 3A Accuracy: 3.3V ±0.16V
6. Power Source: 115V (90V to 130V) or 230V (200V to 240V)
7. Accessories: power cord x 1, users manual x 1
8. Dimensions: 310mm x 250mm x 133 mm / 12.2" x 9.8" x 5.2"
9. Weight: 3.8kg / 8.4lbs

## Solar Cell/Module Table

### Specifications

1. Dimension: 300 (L) x 300 (W) x 420 (H) mm / 11.8" x 11.8" x 16.5"
2. Height from Halogen Lamps to table base:  
\* adjustable from 90mm to 30cm. \* standard: 150mm.
3. Solar Cell/Module for measurement: max. 300 x 250 mm / 11.8" x 9.8"
4. Light sensor: 0 ~ 1500 W/m<sup>2</sup>
5. with K-type Thermocouple.
6. with Halogen Lamp (Simulation of Sun Light): DC 12V, 50W x 3pcs.
7. Input Voltage (for Halogen Lamps): DC 0V ~ 40V.
8. Weight: 5.95kg / 13.1 lbs

# PROVA SS1

## Educational Solar Power Development System

Includes:

- **PROVA 200** Solar Module Analyzer
- **PROVA 800** Multi-Input Thermometer/Datalogger
- **PROVA 8300** Light Radiation Controller
- Solar Cell/Module Table

### PROVA 200 Solar Module Analyzer

Please refer to the catalog and data sheet of PROVA 200.

### PROVA 800 Multi-Input Thermometer/Datalogger

Please refer to the catalog of PROVA 800.

### Solar Cell/Module Table

#### Specifications:

1. Dimension: 300 (L) x 300 (W) x 420 (H) mm / 11.8" x 11.8" x 16.5"
2. Height from Halogen Lamps to table base:
  - \* adjustable from 90mm to 30cm.
  - \* standard: 150mm.
3. Solar Cell/Module for measurement: max. 300 x 250 mm / 11.8" x 9.8"
4. Light sensor: 0 ~ 1500 m/w<sup>2</sup>
5. with K-type Thermocouple.
6. with Halogen Lamp (Simulation of Sun Light): DC 12V, 50W x 3pcs.
7. Input Voltage (for Halogen Lamps): DC 0V ~ 40V.
8. Weight: 5.95kg / 13.1 lbs

## PROVA 8300 Light Radiation Controller

### Features:

1. Control halogen lamp (or other light source) to emulate sunlight irradiance.
2. Low cost for educational purpose.
3. Standard pyranometer (sunlight sensor) to show true irradiance.
4. User Friendly Interface.

### Specifications:

1. Controller Output Capacity: 40VDC and 5ADC.
2. Range of Irradiance: 100 to 1500 W/m<sup>2</sup>
3. Pyranometer:
  - Temperature response: +/- 0.5% (-10 to 50 deg. C)
  - Cosine response: 1/1.5/17% at (30/60/80 deg).
4. Fixed 5V / 2A Accuracy: 5V ±0.25V
5. Fixed 3.3V / 3A Accuracy: 3.3V ±0.16V
6. Power Source: 115V (90V to 130V) or 230V (200V to 240V)
7. Accessories: power cord x 1, users manual x 1
8. Dimensions: 310mm x 250mm x 133 mm / 12.2" x 9.8" x 5.2"
9. Weight: 3.8kg / 8.4lbs