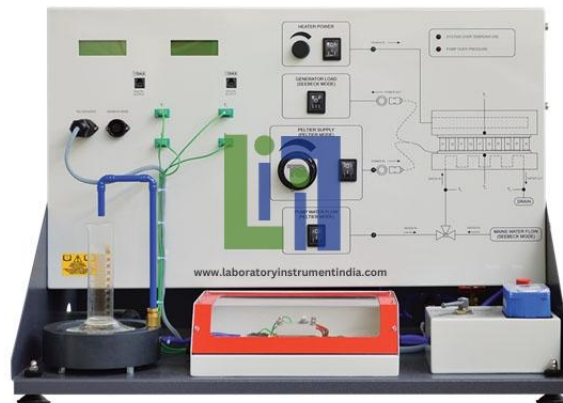




Email : sales@laboratoryinstrumentindia.com

**Product Name :**  
Peltier And Seebeck Effect

**Product Code :**  
LBNY-0005-1120007



#### **Description :**

To satisfy this need, manufacturers now use solid state thermoelectric devices in computers, portable refrigerators and cool boxes. The increasing need for smaller and more portable electrically powered equipment has produced a need for low maintenance, smaller and more portable cooling.

The Thermoelectric Device Demonstrator shows how one of these devices works and tests its performance when connected in a choice of two modes:

Heat to electricity for power generation when used in Seebeck mode often used for thermoelectric generation and given the acronym.

The load allows generated power to flow and be measured for a range of applied temperature gradients.

As an electrically powered heat pump when used in Peltier mode. Often used in thermoelectric cooling and given the acronym.

Students then learn to analyse its performance in both modes, analysing several factors including coefficient of performance and energy balance. For the Seebeck tests, the equipment uses an external cold water source and variable power electric heater to create a temperature difference across the device. A switch allows tests with and without an electrical load. The device then converts this into an electrical potential difference.

#### **Technical Specification :**

Approximate packed dimensions: 0.38 m<sup>3</sup> and 60 kg

Nett dimensions: 810 mm wide x 500 mm front to back x 600 mm high and 47 kg.

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# Laboratory Instrument India

