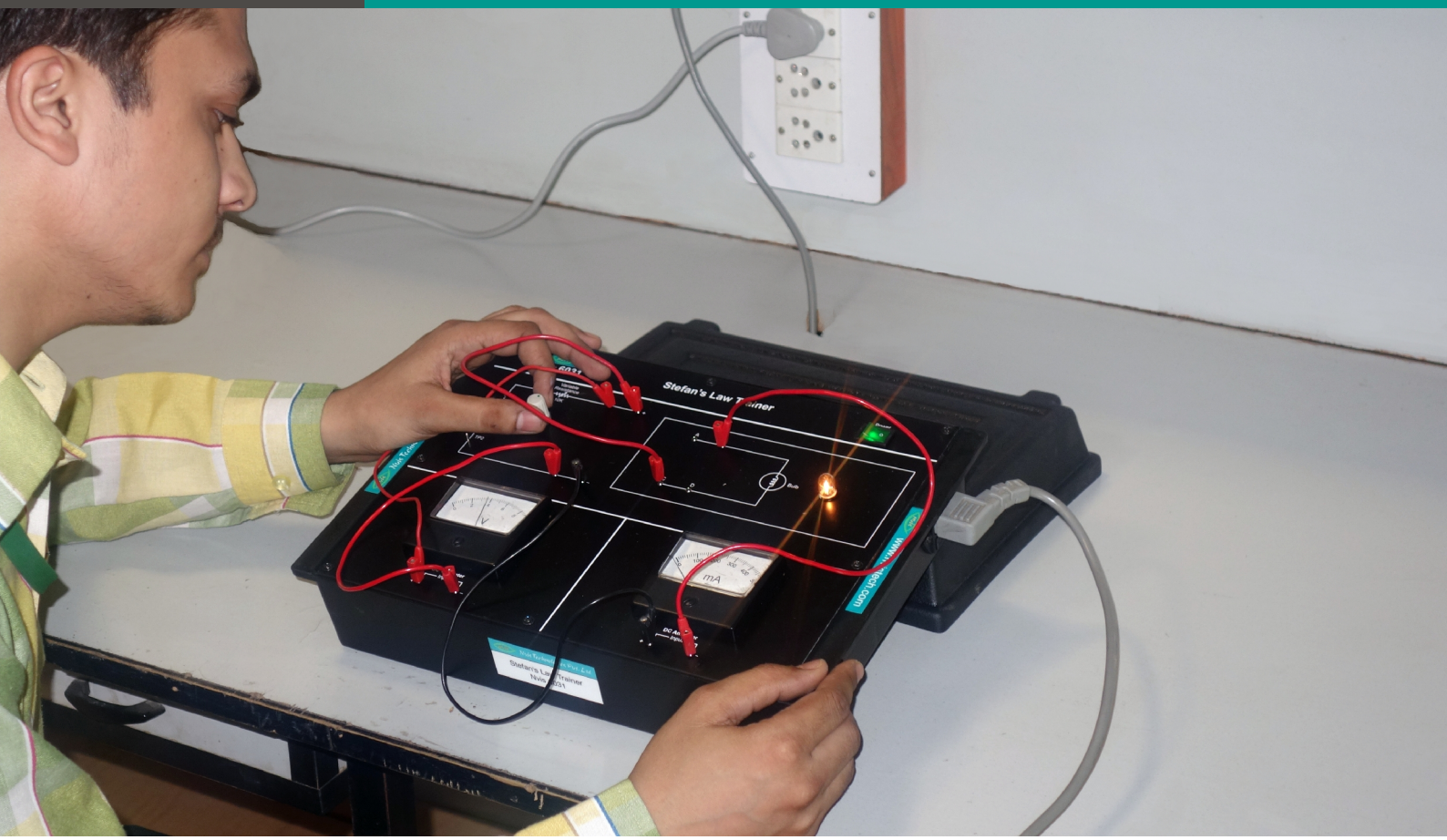
Verification of Stefan's Law

Nvis 6031



Nvis 6031 Verification of Stefan's Law illustrates the basic phenomenon of thermodynamics. The Trainer gives an idea of how energy loss depends on temperature. Stefan's Law states that the power radiated by a body is proportional to the 4^{th} power of the absolute temperature. The phenomenon can be studied using a light-bulb filament used as radiating body. The power can be determined from the voltage and current of the filament. The temperature of the filament can be determined indirectly by first computing the electrical resistance and then using a standard resistance versus temperature relationship.

Features

- **Inbuilt Ammeter and Voltmeter**
- **Variable DC Supply**
- **Easy to Operate**
- **Designed by considering all Safety Precautions**
- **Online product tutorial**

Scope of Learning

- Verification of Stefan's law by electrical method
- Study the temperature dependence of total radiation and hence, verify the Stefan's law

Technical Specifications

Voltmeter	: 0 -10V
Ammeter	: 0 - 500mA
Bulb	
Type	: DC bulb (small)
Operating Voltage	: 12V DC
Variable Resistance	: 1kΩ
Mains Supply	: 230V ±10%, 50Hz
Fuse	: 500mA

Subject to change - Version 2.0

Designed & Manufactured in India by

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