

Experiment 2

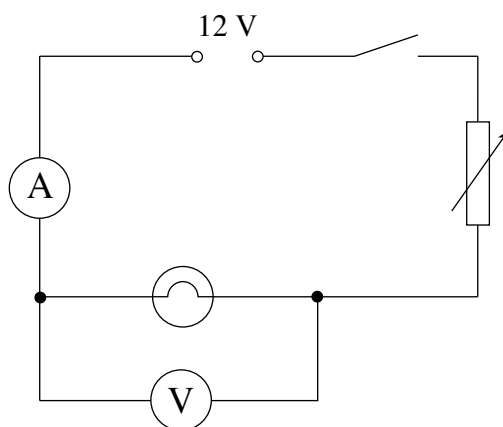
Test 1

Candidates will be expected to investigate the current-voltage characteristics of a filament bulb.

Apparatus required:

1. 24 W, 12 V filament bulb.
2. Digital voltmeter reading to 0.01 V.
3. Digital ammeter reading to 0.01 A.
[N.B. The meters can both be multimeters set onto the appropriate range]
4. Fixed 12 V d.c. power supply.
5. Variable resistor / rheostat with maximum resistance of 15 – 20 Ω .
6. Connecting leads as required.
7. Press switch.

The following circuit should be set up ready for the candidates to use. The variable resistor should be set to approximately mid-range. Unless the meters are auto-ranging, they should be set to the appropriate ranges.



Test 2

The apparatus and circuit are as for Test 1.