

To Draw the Diagram Of a Given Open Circuit Comprising At Least a Battery, Resistor/Rheostat, Key, Ammeter & Voltmeter. Mark the Components that Are Not Connected In Proper Order & Correct the Circuit & Also the Circuit Diagram

Aim

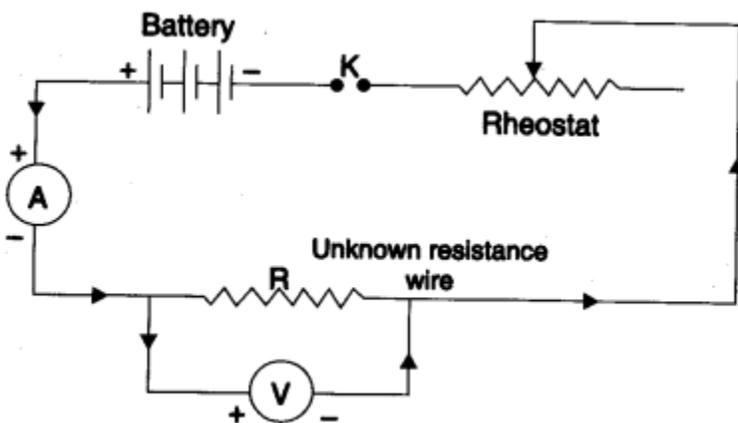
To draw the diagram of a given open circuit comprising at least a battery, resistor/rheostat, key, ammeter and voltmeter. Mark the components that are not connected in proper order and correct the circuit and also the circuit diagram.

Apparatus and material

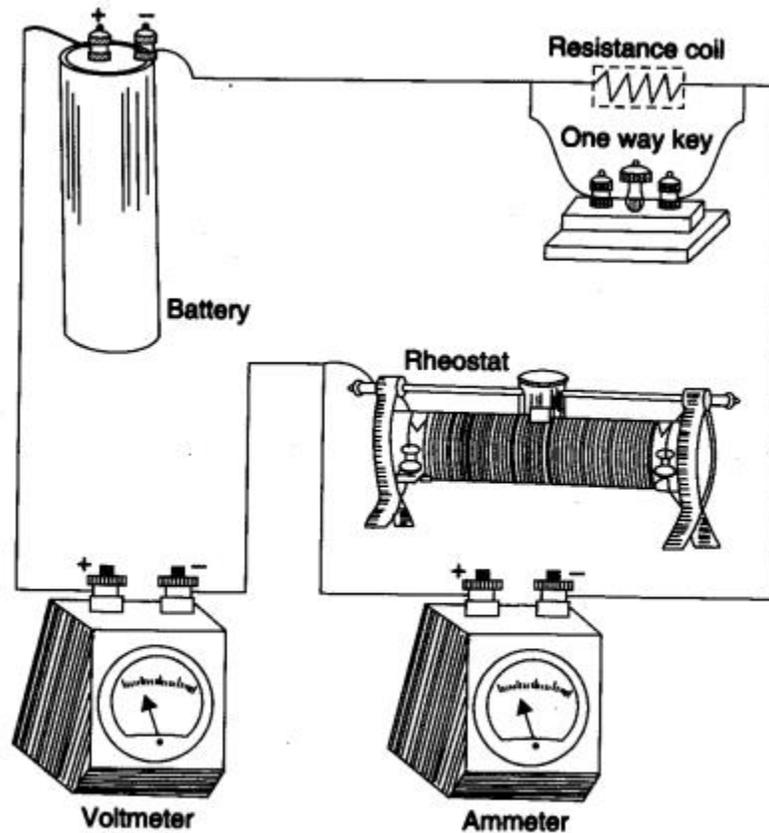
A battery eliminator or a battery (0 to 6 V), rheostat, resistance box (0 to 100 Ω), two or one way key. D.C. ammeter (0-3) A and a D.C. voltmeter (0-3) V.

Theory

An open circuit is the combination of primary components of electric circuit in a such a manner that on closing the circuit no current is drawn from the battery.



Diagram



Open circuit diagram (Components not connected in proper order).

Procedure

Ammeter: It should be connected in series, with the battery eliminator.

Voltmeter: It should be connected in parallel to the resistor.

Rheostat: It should be connected in series (in place of resistance coil) with the battery eliminator.

Resistance coil: It should be connected in parallel (in place of rheostat).

One way key: It should be connected in series to the battery eliminator.

Correct circuit diagram: (Components connected in proper order)