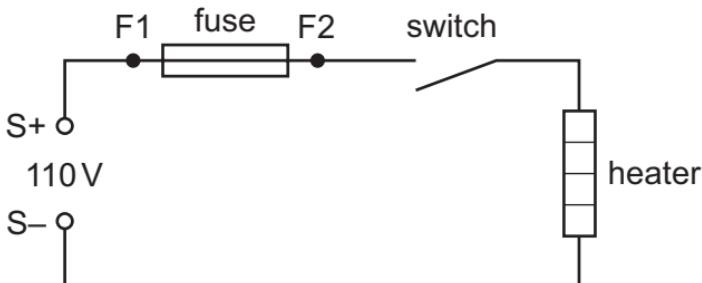


**35** A 110V d.c. supply is connected to a heater, a fuse and a switch, as shown.



Owing to a fault in the system, power is not supplied to the heater. A technician diagnoses the fault using a voltmeter.

He closes the switch and connects his meter between the positive supply terminal S+ and the fuse terminal F2. The voltmeter reads 110V.

Which diagnosis is correct?

- A** The fuse has melted.
- B** The fuse has not melted and there is a short circuit in the heater.
- C** The fuse has not melted and there is no path for current through the heater.
- D** The fuse has not melted and the switch has operated correctly.

**36** The diagram shows a potentiometer and a fixed resistor connected across a 12V battery, of