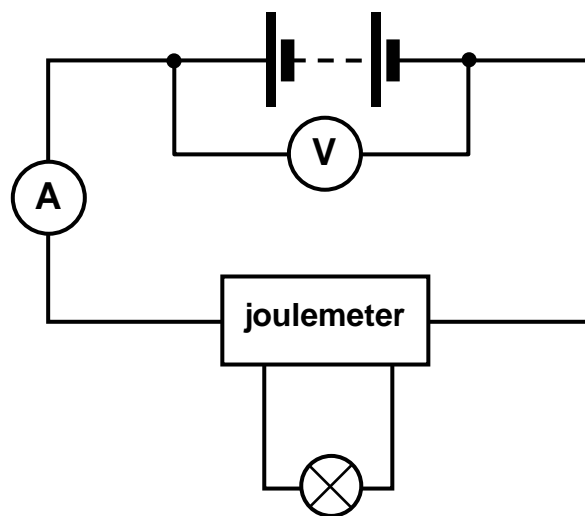


TAP 115- 1: Demonstration: Energy transferred by a lamp.

Requirements

- ✓ 4 mm leads
- ✓ stopwatch
- ✓ filament lamp 12 V, 24 W in holder
- ✓ display ammeter, voltmeter and joulemeter
- ✓ power supply, 0–12 V dc

The outputs of the ammeter, voltmeter and joulemeter should be visible to the class.



Set-up:

Show the effect of increasing the voltage across a filament lamp. The current through the lamp increases and the lamp gets brighter.

If the lamp is connected to a joulemeter you can show that the number of joules transferred increases with time and that the rate increases when voltage and current increase.