

Portable AC/DC Wattmeter

Elliott Instruments, UK



- History & Characteristics:
 - Type: Portable laboratory precision dynamometer wattmeter.
 - Purpose: Measures power in AC/DC circuits.
 - Era: Developed late 19th/early 20th centuries by Elliott Brothers.
- Key Features:
 - Dynamometer mechanism (movable/fixed coils).
 - Dual AC/DC functionality.
 - Portable, robust design.

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- Usage: Electrical equipment testing, power monitoring, maintenance.
- Legacy: Significant historical instrument, replaced by digital devices, but valued for precision.
- Usage Instructions
 - Terminals:
 - Voltage (potential) terminals.
 - Current terminals.
 - Range selectors.
 - AC/DC selector.
 - Safety:
 - De-energize circuit before connecting.
 - Verify wattmeter ratings.
 - Use personal protective equipment.



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- \circ Select AC or DC mode.
- Start with highest range setting.
- Connections:
- Voltage: Connect across load.
- Current: Connect in series with load.
- Measurement:
- Power on circuit.
- Read scale (watts).
- Avoid parallax error.
- Adjust range as needed.
- Record reading, apply range multiplier if applicable.
- VJTI Legacy:
 - Used in VJTI laboratory since mid-20th century.



- Trained electrical engineering students.
- Measures AC and DC power.
- Retired, now a historical display.

References:

- 1. <u>https://www.mhs.ox.ac.uk/exhibits/elliott-brothers/</u>
- 1. <u>https://americanhistory.si.edu/collections/nmah_904290</u>
- 1. <u>https://www.gracesguide.co.uk/Elliott_Brothers</u>

