

WARRANTY

SIMPSON ELECTRIC COMPANY warrants each instrument and other articles of equipment manufactured by it to be free from defects in material and workmanship under normal use and service, its obligation under this warranty being limited to making good at its factory any instrument or other article of equipment which shall within 90 days after delivery of such instrument or other article of equipment to the original purchaser be returned intact to it, or to one of its authorized service stations, with transportation charges prepaid, and which its examination shall disclose to its satisfaction to have been thus defective; this warranty being expressly in lieu of all other warranties expressed or implied and of all other obligations or liabilities on its part, and SIMPSON ELECTRIC COMPANY neither assumes nor authorizes any other persons to assume for it any other liability in connection with the sale of its products.

This warranty shall not apply to any instrument or other article of equipment which shall have been repaired or altered outside the SIMPSON ELECTRIC COMPANY factory or authorized service stations, nor which has been subject to misuse, negligence or accident, incorrect wiring by others, or installation or use not in accord with instructions furnished by the manufacturer.

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INSTRUMENTS THAT STAY ACCURATE

OPERATOR'S MANUAL

MILLIVOLTMETER MODEL 387

SIMPSON ELECTRIC COMPANY

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OPERATING INSTRUCTIONS

D. C. MILLIVOLTMETER MODEL 387

The Simpson D.C. Millivoltmeter Model 387 features ranges of 10, 30, 100, 300, and 1000 millivolts with a full scale deflection current drain of 750 microamperes. The unit's accuracy is 3% of full scale over an ambient temperature range of 50° to 120°F. At extreme temperatures from -55° to +185°F., an additional error of no more than 2% of full scale may be expected. Easy range selection is provided by the use of large binding posts on an engraved-filled panel.

ZERO ADJUSTMENT - Before attempting to make any measurements with your Simpson D.C. Millivoltmeter Model 387, check to see that its pointer rests over the zero mark on the dial. If the pointer is out of position, adjust it by rotating the screw located in the meter case just below the center of the dial.

MILLIVOLT MEASUREMENTS-If in doubt as to the amount of the voltage to be measured, always use the highest range in order to protect the instrument. Connect the black lead to the negative binding post and to the negative side of the circuit under test. Connect the red lead to the binding post for the desired range and to the positive side of the circuit. If the pointer deflects to the left of zero, turn off the power and reverse the lead connections to the circuit. Restore the power and make the measurements or determine the proper range to be used for most accurate results. The range used should be such as to obtain pointer indication over the upper half of the dial scale. For the utmost possible accuracy, the Simpson #8376 test leads supplied should be used for all applications as the unit is calibrated with similar leads.

Millivoltmeter Ranges	Full Scale Deflection Current	Terminal Resistance In Ohms
10 Millivolt	750 Microamperes	13.33Ω
30 Millivolt	750 Microamperes	40.00Ω
100 Millivolt	750 Microamperes	133.33Ω
300 Millivolt	750 Microamperes	400.00Ω
1000 Millivolt	750 Microamperes	1333.33Ω

The Model 387 is ruggedly constructed and will give excellent service if the following precautions are observed:

1. Avoid rough handling of tester and test leads.
2. Avoid serious overloading of meter, allowing unit to remain in the circuit under test when the pointer is indicating beyond full scale deflection.
3. Do not connect tester in series with circuit under test. Always connect tester across circuit.
4. Do not use to measure A.C. voltages.

The Model 387 will have many applications in the laboratory as well as furnishing an excellent test instrument for work on the safety thermo-couples used on gas fired units such as hot water heaters, furnaces, space heaters, and refrigerators.