MICRO-OHMMETERS

Low Resistance Testers





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Since pioneering the first ever Digital Micro-ohmmeter over twenty years ago, ALBER has been known as the industry leader in the design and manufacture of "Storage Battery" test equipment. Today, through visionary technology, ALBER continues to set the standards for low resistance measurement. Their product line of five instruments is the widest range offered by any manufacturer.

System Description

Micro-ohmmeters are instruments specifically designed to eliminate the guesswork when determining electrical connection problems. Applications include measuring the resistance of switch and circuit breaker contacts; transformers and motors; aircraft, rail and pipe bonds; cable splices, welds and fuses; metal alloys, graphite electrodes, wire and cable.

ALBER micro-ohmmeters use a technique known as four-wire measurement to test for very low resistances. This highly accurate yet simple method passes a known current through the unknown resistance being tested while measuring the voltage drop. Results are displayed by a digital voltmeter.

What distinguishes one micro-ohmmeter from another is the amount of current used in the measurement, as well as the number of measuring ranges. ALBER instruments use higher average current across measuring ranges than any other manufacturer, allowing them to provide accurate, consistent readings even in a high noise environment.

The internal power source that provides the constant DC measurement current is either a battery, AC powered supply, or a combination of both. Rating of an instrument is usually the highest current used on the lowest resistance range. Standard current ranges offered are 10, 25 and 100 Amps.

Selection Criteria

- What range of readings is required?
 Refer to the back page of this brochure for specifications.
- 2) Will the unit be used for highly inductive loads such as transformers?

Battery operated units are not well suited for this type of application due to the high amount of energy required per reading. The AC powered RT4-25 and the RT5-10 are designed specifically for this purpose.

- 3) Will the unit be used for battery intercell connections?
 - The RT3-100L and the RT-10 feature speciallydesigned safety circuits built in to protect against active circuits.
- 4) Is battery operation a desirable feature?
 If battery operation during testing is desired, select either the RT-10, the RT5-10 or the RT3-100. These units can all be used continuously without interfering with the battery system. The RT-10 also features built in safety circuits.

Connector Options



Kantwist Leads



Standard Leads



Spike Probe Leads



Concord-Mueller Leads

RT3-100



Battery Powered 3-1/2 Digit Display Two Ranges 0-20.00 Milliohms 1 Microhm Resolution Battery Saver Circuits Designed to meet NEMA and ANSI standards for power equipment testing, the RT3-100 is the most accurate and repeatable reading instrument on the market today. Due to limited range, it is primarily used for switchgear, power circuit breakers, welds, high current joints or bonds and intercell connections on batteries.

RT3-100L



AC Powered 3-1/2 Digit Display Two Ranges 0-20.00 Milliohms 1 Microhm Resolution Protected Against Active Circuits The RT3-100L is the lightest 100 Amp continuous rated current instrument on the market. Similar in performance to the RT3-100, this unit offers the additional features of AC power and special built in safety circuits. This instrument can also be used continuously and is ideal for testing battery intercell connections.

RT-10



Battery Powered
4-1/2 Digit Display
Five Ranges 0-200.00 Ohms
1 Microhm Resolution
Light Weight
Protected Against Active Circuits

The RT-10 is a lightweight, general purpose instrument with very high resolution. Designed to operate well in high 50/60Hz noise environments, this unit is well suited for testing in high voltage switchyards. Special safety circuits protect against active circuits up to 500VDC, making it ideal for battery test crews.

RT4-25



AC Powered 3-1/2 Digit Display Five Ranges 0-20.00 Ohms 1 Microhm Resolution The RT4-25 is the ideal unit for power transformer testing. High test current is used on all ranges, providing a stable reading in a short period of time. Wide range of measurement and high test current make the RT4-25 a good general purpose instrument in situations where battery operation is not a requirement.

RT5-10



AC and/or Battery Powered 3-1/2 Digit Display Five Ranges 0-20.00 Ohms 1 Microhm Resolution The RT5-10 offers both an AC powered supply and a battery source capable of delivering 10 Amps. This dual power supply, coupled with a wide measuring range, makes this instrument the most versatile. Instrument applications range from battery intercells to power circuit breakers to power transformers.

MICRO-OHMMETER System Specifications

			TEST	GENERAL		
MODEL	RANGES	RESOLUTION	CURRENTS	Accuracy	Power Source	Weight
RT4-25	0-1999 Microhms 0-19.99 Milliohms 0-199.9 Milliohms 0-1.999 Ohms 0-19.99 Ohms	1 Microhm 10 Microhms 100 Microhms 1 Milliohm 10 Milliohms	25 Amps 25 Amps 10-25 Amps 6 Amps 0.5-6 Amps	0.25% of Reading +/- 1 LSD	Line 115/230VAC 50/60 Hz	Approx. 25 lbs.
RT5-10	0-1999 Microhms 0-19.99 Milliohms 0-199.9 Milliohms 0-1.999 Ohms 0-19.99 Ohms	1 Microhm 10 Microhms 100 Microhms 1 Milliohm 10 Milliohms	10 Amps 8 Amps 6 Amps 85 Milliamps 70 Milliamps	0.25%	Rechargeable Battery and AC Line	Approx. 27 lbs.
RT-10	0-19999 Microhms 0-199.99 Milliohms 0-1.9999 Ohms 0-19.999 Ohms 0-199.99 Ohms	1 Microhm 10 Microhms 100 Microhms 1 Milliohm 10 Milliohms	10 Amps 1 Amp 0.1 Amp 10 Milliamps 1 Milliamp	0.25%	Rechargeable Battery	Approx. 14 lbs.
RT3-100	0-1999 Microhms 0-19.99 Milliohms	1 Microhm 10 Microhms	100 Amps 100 Amps	0.25%	Rechargeable Battery	Approx. 27 lbs.
RT3-100L	0-1999 Microhms 0-19.99 Milliohms	1 Microhm 10 Microhms	100 Amps 100 Amps	0.25%	Line 115/230VAC 50/60 Hz	Approx. 25 lbs.

Note: Specifications and prices subject to change without notice.

For further information on which Micro-ohmmeter is best suited to your individual requirements, contact your local ALBER representative or ALBERCORP directly at:

Albér Corp.

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Represented By:	