GenRad 1863 & 1864 High-Resistance Megohmmeter

IET Labs offers a choice of GenRad Megohmmeters to fit most high-resistance measurement needs.

Although these two instruments are similar in appearance and accuracy, their operating ranges differ to match differing needs in the laboratory and production area.

The IET Labs 1863 and 1864 Megohmmeters are manufactured using the same design and construction as the original GenRad megohmmeters.

1863 Megohmmeter

1864 Megohmmeter

See also:

- Positive Polarity Megohmmeter: **1864-1644**
- Digital Megohmmeter/IR Tester: **1865 Plus**

Features:

- Easy to use
- Rugged portable carrying case
- Charge current up to 5 mA
- High-accuracy: 0.01% (100 ppm)
- 200 test voltages: 10 Vdc to 1090 Vdc
- 50 kΩ to 200 TΩ (2 x 10^{14})
- Analog output
- 3 % basic accuracy
- Simple operation
- Direct reading, safe and reliable

Uses:

- Insulation resistance measurements for wire and cable
- Insulation resistance for capacitors
- A wide variety of insulation resistance measurements for components and devices
- Indicated for use in various service bulletins for aircraft fuel pump inspection

The 1863 Megohmmeter is the choice for production and inspection tests. The 1863 will measure resistance at any of 5 switch selectable test voltages of: 50, 100, 200, 250 and 500 Vdc. This allows for a simple front panel and is a more economical megohmmeter. It is best suited for applications requiring insulation resistance measurements from 50 kΩ to 20 TΩ.

The 1864 Megohmmeter is the choice for more demanding applications. It is the more flexible of the two megohmmeters. The test voltage can be set to any value from 10 Vdc to 109 Vdc in 1 V steps and 10 Vdc steps from 100 Vdc to 1090 Vdc. The 1864 can be set to common test voltages for various capacitors. The 1864 can measure resistances from 50 kΩ to 200 TΩ (2 x 10^{14} Ω).

Both instruments are easy to use with direct-reading meter indication and lighted range switch that shows the multiplier for each range and voltage. The maximum current possible at the terminals is limited to 5 mA. A danger light near the terminals warns when voltage is present.

Stable power supplies and feedback voltmeter circuit minimizes drift and time wasting adjustments. Guard and ground terminals permit measurements of grounded or ungrounded two or three terminal devices.

The instruments are supplied in a convenient, portable, flip-tilt case that is a stand for the meter when in use and protects the megohmmeter during transit and storage.

GenRad 1863 & 1864 High-Resistance Megohmmeter

SPECIFICATIONS

Resistance Accuracy:
1863: (minimum reading is 0.5):
Range 1-5: ±2(meter reading+1)%
(For example, if meter reading is 1, accuracy is ±2(1.0+1)% = ±4%
Range 6: ±(2(meter reading+1)%+2%)
Range 7: ±(2(meter reading+1)%+4%)

1864: (minimum reading is 0.5):
Range 1-5: ±2(meter reading+1)%
(For example, if meter reading is 0.5, accuracy is ±2(0.5+1)% = ±3%
Range 6: ±(2(meter reading+1)%+2%)
Range 7: ±(2(meter reading+1)%+3%)
Range 8: ±(2(meter reading+1)%+5%)

Meter Display:
Analog Meter
Caution High Voltage Indicator

Voltage Accuracy (across unknown)**:**
± 2%

Short-Circuit Current:
Approximately 5 mA

Input Terminals:
Front Panel Mounted:
(+) Unknown (Red)
(-) Unknown (Red)
Guard (Red)
Ground (Gold)

Power:
100 - 125 *or* 200 - 250 V, Switch Selectable
50 - 400 Hz
13 W

Fuse:
For 90 to 240 V operation: T 250mA, 250 Vac, 5 x 20 mm fuse

Dimensions
16.8 x 25.4 x 17.1 cm
(6.63 x 10 x 6.75 in.)

Weight
4.4 kg (9.5 lbs) - Net
7.0 kg (14 lbs) - Shipping

Environmental:
Operating: 0 °C to + 40 °C, Stated Accuracy, < 70% RH

Storage:
-20 °C to + 60 °C, < 80% RH

1863 Specifications

Voltage Setting	Rmin (Full Scale left end) (0.5 rdg.)	Rmax (right end)	
		(10% of scale) (5 rdg.)	(2.5% of scale) (20 rdg.)
50, 100 Vdc	50 kΩ	500 GΩ	2 TΩ
100, 250 & 500 Vdc	500 kΩ	5 TΩ	20 TΩ

1864 Specifications

Voltage Setting	Rmin (Full Scale left end) (0.5 rdg.)	Rmax (right end)		Useful Ranges
		(10% of scale) (5 rdg.)	(2.5% of scale) (20 rdg.)	
10 Vdc to 50 Vdc	50 kΩ	500 GΩ	2 TΩ	7*
50 Vdc to 100 Vdc	200 kΩ	5 TΩ	20 TΩ	8
100 Vdc to 500 Vdc	500 kΩ	5 TΩ	20 TΩ	7*
500 Vdc to 1090 Vdc	5 MΩ	50 TΩ	200 TΩ	8

***Recommended Limit**

ORDERING INFORMATION

1863-9700	1863 Megohmmeter
1864-9700	1864 Megohmmeter
Includes:	Instruction Manual
	Calibration Certificate Traceable to SI

Available Accessories:

630018	Lead Set
630018/S	Shielded Lead Set
1863-11	Resistivity Test Fixture

Общество с ограниченной ответственностью «МосЧип» ИНН 7719860671 / КПП 771901001
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