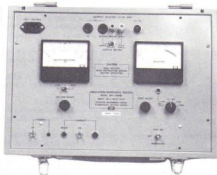


INSULATION-RESISTANCE TESTER

MODEL BIRT-10000B

- REGULATED TEST VOLTAGE — 0 to 10 000 V DC
- WIDE RESISTANCE RANGE
— 1 M Ω TO 2 T Ω (1 to 2 000 000 M Ω)
- TEST LOAD AUTOMATICALLY
DISCHARGED AFTER EACH TEST
- GUARD CIRCUIT
- INTERNAL CALIBRATION STANDARD
- CURRENT LIMITED
— SHORT-CIRCUIT PROOF
- RECESSED HIGH-VOLTAGE
TERMINALS FOR SAFETY
- LINE & BATTERY OPERATED
— BUILT-IN CHARGER
- RECHARGEABLE BATTERIES
- BATTERY TEST
- PORTABLE STEEL CASE WITH CARRYING HANDLE AND COVER
- A TWO-POSITION TEST SWITCH — MOMENTARY AND PERMANENT



DESCRIPTION

Model BIRT-10000B Insulation-Resistance Tester is a solid-state dc ohmmeter used for the measurement of very high resistances, from 1 M Ω to 2 T Ω (1 to 2x10⁹ M Ω). It is designed for the rapid, convenient and accurate measurement of the insulation resistance of capacitors, cables, motors, transformers and similar devices, as well as direct measurements on samples of insulating materials. It is intended primarily for the electrical utilities but is a valuable measuring instrument for use in quality control, on production lines, and in the laboratory.

The test voltage comes from a dc, well-filtered and well-regulated power supply, adjustable from 0 to 10 000 V in two ranges. The voltmeter reads the true voltage applied to the device under test. This voltage does not

depend on the unknown resistance, as is often the case with a conventional ohmmeter. The test voltage is not affected by input line variations, and so capacitor leakage resistance is easily measured.

The tester is fully protected against a short circuit across the high-voltage output terminals. The output current is limited to about 1.5 mA (depending on the voltage), low enough to prevent damage to the equipment, but high enough to charge a capacitor under test in a reasonable length of time. For example, a 1- μ F capacitor can be charged to 1000 V in about 15 seconds.

The unit is powered by two sealed lead-acid batteries (with a built-in charger), giving about 5 hours of continuous service away from a power line.

INSULATION RESISTANCE TESTER MODEL BIRT-1000C



INPUT	120 V 60Hz (c/w two batteries and a charger)
OPERATION	It can be operated on 120V line and on the batteries alone
OUTPUT VOLTAGE	0-1000 V dc with better than 0.5% ragulation
RESISTANCE RANGES	2 M Ω to 2 T Ω (2 to 2 10 ⁶ M Ω) in four ranges
ACCURACY	Voltage: \pm 1.5% of full scale on both ranges, Resistance meter: \pm 1.5% in terms of leakage current. Internal calibration standard: 2 M Ω \pm 1% for verification.
GARD CIRCUIT	Yes
CONTROLS	Fuse, on/off switch, charger switch, volt range switch, guard circuit switch, test switch, 3 voltage and resistance dials.
INDICATORS	Power-on light, charger-on light and high-voltage-on light
TEST LEADS	1.4 m (6 ft) long c/w banana plugs at one end and test clips at the other end
SIZE	34W x 28D x 11H cm (13.5W x 11D x 4.5H inches)
Weight	7.7 kg (17 lb)

INSULATION RESISTANCE TESTER

MODEL BIRT-5000B



INPUT	120 V 60Hz (c/w two batteries and a charger)
OPERATION	It can be operated on 120V line and on the batteries alone
OUTPUT VOLTAGE	400 to 5000 V dc in two ranges with better than 0.5% regulation
RESISTANCE RANGES	1 M Ω to 1 T Ω (1 to 10 ⁶ M Ω) in four ranges
ACCURACY	Voltage: \pm 1.5% of full scale on both ranges, Resistance meter: \pm 1.5% in terms of leakage current. Internal calibration standard: 2 M Ω \pm 1% for verification.
GUARD CIRCUIT	Yes
CONTROLS	Fuse, on/off switch, charger switch, volt range switch, guard circuit switch, test switch, 3 voltage and resistance dials.
INDICATORS	Power-on light, charger-on light and high-voltage-on light
TEST LEADS	1.4 m (6 ft) long c/w banana plugs at one end and test clips at the other end
SIZE	34W x 28D x 11H cm (13.5W x 11D x 4.5H inches)
Weight	7.7 kg (17 lb)

INSULATION RESISTANCE TESTER MODEL BIRT-5000C



INPUT	120 V 60Hz (c/w two batteries and a charger)
OPERATION	It can be operated on 120V line and on the batteries alone
OUTPUT VOLTAGE	400 to 5000 V dc in two ranges with better than 0.5% ragulation
RESISTANCE RANGES	100 M Ω to 100 T Ω (1 to 10 ⁸ M Ω) in four ranges
ACCURACY	Voltage: \pm 1.5% of full scale on both ranges, Resistance meter: \pm 1.5% in terms of leakage current. Internal calibration standard: 2 M Ω \pm 1% for verification.
GARD CIRCUIT	Yes
CONTROLS	Fuse, on/off switch, charger switch, volt range switch, guard circuit switch, test switch, 3 voltage and resistance dials.
INDICATORS	Power-on light, charger-on light and high-voltage-on light
TEST LEADS	1.4 m (6 ft) long c/w banana plugs at one end and test clips at the other end
SIZE	34W x 28D x 11H cm (13.5W x 11D x 4.5H inches)
Weight	7.7 kg (17 lb)