



BIDDLE™ **Three-Terminal** **Ground Resistance** **Tester**

- Simple to operate
- For quick, routine single-electrode tests
- Direct readout in ohms

Ground Resistance Tester

DESCRIPTION

The Biddle™ Three-Terminal Ground Resistance Tester is the economical choice for electrical contractors, plant electricians, telephone and CATV technicians making routine ground resistance tests on single electrodes and other simple grounding systems. The instrument is easy to use for quick measurement of resistances from 0.5 to 500 ohms.

Because factors such as seasonal variations in temperature, moisture and salt content affect soil resistivity, periodic tests are essential to ensure that resistance to ground remains at a safe value.

The instrument is simple to operate:

- Drive probes and hook up the leads.
- Push switch to READ and ground resistance is displayed directly.
- If reading is questionable, switch to CHECK to verify test lead continuity and probe resistance.

Designed for simplicity of use, the instrument is operated by a single three-position switch to read the measurement, check the probe resistance and turn the instrument off. Measurements are displayed directly in ohms; range changing, multipliers or calibration adjustments are not necessary.

APPLICATIONS

The instrument can be used to make the usual fall-of-potential ground resistance measurements. Two models are available, one for testing in the vicinity of 60-Hertz power systems; the other near 50-Hertz systems. Applications include testing grounds of:

- Utility poles
- Distribution transformers
- Residential wiring systems
- Lightning arresters
- Computer grounds
- Machinery safety grounds

- Telecommunication and data transmission systems
- Railway electric substations and signal systems
- Antistatic grounds

FEATURES AND BENEFITS

- Measures ground resistance down to 0.5 ohm
- Reads directly in ohms on a single range scale
- Stable calibration — requires no field adjustments
- Checks probe resistance and battery condition
- Powered by replaceable C cells
- Limits output to 50 volts open circuit, 5 mA short circuit
- Weighs less than 3 lb (1.5 kg)

SPECIFICATIONS**Input****Power Source:** Four C alkaline batteries**Output****Test Frequency**

Cat. No. 250260: 135 Hz

Cat. No. 250261: 121.6 Hz

Maximum Output Voltage: 50 V**Maximum Test Current:** 5 mA**Accuracy****1 to 100 Ω :** $\pm 2\%$ of full-scale deflection**500 Ω :** $\pm 4\%$ of full-scale deflection**Range**0.5 to 500 Ω **Interference**

2 V peak to peak

Dimensions

7.5 H x 6.5 W x 4.75 D in.

190 H x 165 W x 120 D mm

Weight

2.8 lb (1.3 kg)



General-purpose accessory kit includes probes, leads and calibration standard. Accessory kit and instrument can be protected with a rigid vinyl case (sold separately).

ORDERING INFORMATION

Item (Qty)	Cat. No.	Item (Qty)	Cat. No.
Three-Terminal Ground Resistance Tester		Optional Accessories	
60 Hz	250260	Accessory kit	
50 Hz	250261	Includes three color-coded test leads, 12, 31 and 50 ft [3.6, 9.4 and 15 m] (1 set); ground rods, 11 in. [250 mm] (1 pr); and a calibration standard	250560
Included Accessories		Test leads, color-coded, 12, 31 and 50 ft [3.6, 9.4 and 15 m] (1 set)	250574
Test record cards	250942	Ground rods	
Batteries, C cells (4)	19111	11 in. [250 mm] (1 pr)	250584
"Getting Down to Earth" manual	AVTM25-TA	20 in. [510 mm] (1 pr)	250580
Instruction manual	AVTM25-J4	30 in. [760 mm] (1 pr)	250582
		Field calibrator	10245
		Canvas case for leads and rods only	250578
		Instrument case	217719
		Instrument and accessory case	250855