



## **BIDDLE®** **Tool and Appliance** **Tester**

- Complete UL and ANSI testing in less than one minute
- Safeguards tools and appliances against shock hazard
- Reduces downtime and protects against injury and liability
- Maintains compliance with OSHA safety regulations

# Tool and Appliance Tester

## DESCRIPTION

The Biddle Tool and Appliance Tester combines, in one portable unit, the three most frequently specified electrical safety tests for tools and appliances. In conformance to the latest UL and ANSI test requirements, the instrument performs tests of ground continuity, leakage current and electrical insulation; it also checks the nameplate current rating of the device.

## APPLICATIONS

Poorly maintained electrical tools can become a safety hazard and cause injury to personnel. Testing electrical tools on a regular basis is not only safe practice against costly repairs, but may even reduce liability. Applications for this handy instrument include in-plant OSHA safety surveys and production line, tool room and repair shop safety checks.

## Ground Continuity Test

To check the integrity of the ground circuit between tool and plug, the instrument applies a 25-ampere test current to the ground circuit. If the ground circuit resistance exceeds the 0.10-ohm failure threshold, a safety interlock prevents further testing. A

bypass switch is provided to allow testing of two-wire and double-insulated devices.

## Leakage Test

This test measures the current that would result from the ground conductor being accidentally severed; that is, the current to which the operator would be subjected if providing a path to ground at normal line voltage. A switch is provided to select testing at normal or reverse polarity. Measurements from 0 to 10 mA are indicated on a large, 3.5-in. (89-mm) analog meter with sensitivity greater than 0.01 mA. To ensure the accuracy of the meter, a calibration check can be initiated at the push of a button.

## Insulation Breakdown (High-Pot) Test

This test measures current through insulation at high voltage to detect weak spots in the insulation that may cause failure in the future. Test voltage up to 3000 volts ac may be applied, with the leakage current trip level adjustable from 0.3 to 12 mA by a front-panel control knob. Visual and audible alarms alert the operator to insulation failure.

## Operational Check

The Tool and Appliance Tester also provides an operational check to verify the nameplate current rating of the tool and to determine if maintenance is required. Measurements up to 15 amperes are indicated.

## FEATURES AND BENEFITS

- Full conformance to latest UL and ANSI test requirements
- Meter readings — not just “good/bad” indications
- Test procedures color-coded in sequence on front panel for ease of use
- Ground check bypass switch that permits testing of two-wire or double-insulated devices
- Removable lid with metal tray to hold device under test
- Heavy-duty case with carrying strap
- Front-panel NEMA 5-15 output receptacle, with adapters available to convert to a 20-ampere plug or twist lock up to 30 amperes

**SPECIFICATIONS**

**Input Power Source**

120 Vac ±10%, 60 Hz, 15 A

**Ground Check**

**Failure Threshold:** 0.10 Ω

**Maximum Test Voltage:** 3 V, 60 Hz

**Maximum Test Current:** 25 A

**Leakage Test**

Indicates from 0 to 10 mA ac on a 3.5-in. (89-mm) analog scale with 0.01-mA sensitivity

**Test Voltage:** 120 Vac, 60 Hz

**Insulation Breakdown Test**

**Test Voltage:** 0 to 3000 Vac, continuously adjustable. Applied voltage indicated on a 3.5-in. (89-mm) analog scale

**Maximum Short-Circuit Current**

12.6 mA

**Leakage Current Trip:** Adjustable from 0.3 to 12 mA

**Failure Indication:** Audible and visual alarms

**Operational Test**

Indicates from 0 to 15 A ac on a 3.5-in. (89-mm) analog scale

**Test Voltage:** 120 Vac, 60 Hz

**Environmental**

**Operating Temperature Range:** 50 to 104° F (10 to 40° C)

**Storage Temperature Range:** -22 to +131° F (-30 to +55° C)

**Humidity:** 5 to 95% RH

**Dimensions**

10 H x 13.5 W x 10 D in.  
254 H x 343 W x 254 D mm

**Weight**

28 lb (12.7 kg)

**ORDERING INFORMATION**

<b>Item</b>	<b>Cat. No.</b>
Tool & Appliance Tester .....	235303
<b>Included Accessories</b>	
High-voltage lead	
Ground cable	
Instruction manual	
<b>Optional Accessories</b>	
Adapters to convert output receptacle for use with twist-lock and 20-ampere plugs	
NEMA L5-15R twist lock .....	235300-1
NEMA L5-20R twist lock .....	235300-2
NEMA 5-20R, 20 A .....	235300-3
NEMA L5-30R twist lock .....	235300-4

