SureTest® Circuit Analyzers

- Measures voltage drop under load*
- Hot and neutral conductor impedances
- Estimates Load on Line (ELL) up to 15A
- Tests GFCIs and EPDs for proper operation
- Super-bright display
- High accuracies
- True RMS
- Line voltage
- Peak voltage
- Frequency
- Ground to neutral voltage
- Ground impedance
- Identifies proper wiring in 3-wire receptacles
- Identifies false (bootleg) grounds
- Conducts testing without disturbing sensitive loads
- Verifies isolated grounds (with 61-176 adapter)
- 2-year warranty

*12A, 15A, 20A load tests

61-165

Description	Cat. No.
SureTest® Circuit Analyzer - Tests AFCIs wiring, tests for shared neutrals	61-165
SureTest® Circuit Analyzer	61-164

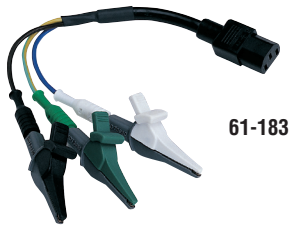
Accessories

Includes	
Carrying Case	61-179
1' Extension Cord	61-182
Optional	
Ground Continuity Adapter	61-175
Isolated Ground Adapter	61-176
Alligator Clip Adapter	61-183

Specifications

	Range & Resolution	Accuracy
AC Voltage	85.0 - 265.0 VAC	1.0%
Frequency	45.0 - 65.0 Hz	1.0%
Impedance	0.00 - 1.99 Ω	5.0%
Ground-Neutral Voltage	0.0 - 24.0 VAC	2.0%
% Voltage Drop 12A, 15A, 20A load tests	0.1% - 50.0%	5.0%
GFCI Test Current/Time	6.0 - 9.0 mA 0.0 - 6500 mS	2.0%

61-183



61-175

61-176

61-182

SureTest® Circuit Analyzer Functions

Voltage Drop
- NEC recommends no more than 5% voltage drop
- Higher voltage drop leads to heat buildup and performance issues
- <108V is a poor level for voltage load

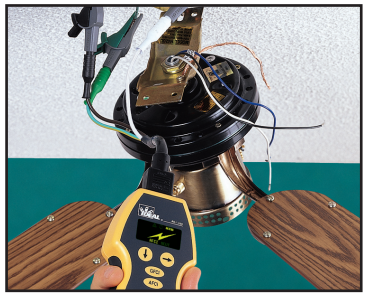
Line Voltage
- Specification is 120VAC +/-10% (108 to 132 VAC)
- True RMS ensures accuracy in harmonic environments

Ground-to-neutral Voltage
- Good circuit has 2VAC or less
- Higher reading indicates loaded circuit, harmonic distortion or shared neutral

Ground Impedance
- Ground impedance should be 1Ω or less (0.25Ω or less for sensitive equipment to run properly)

GFCI
- Applies a 6-9mA fault current and measures the trip time
- Applies a 30mA fault current to check for equipment protection

Troubleshoots branch circuit problems with a variety of tests at the receptacle.



AFCI testing with alligator clips on an installed device.