Special product features

GROUND RESISTANCE TESTERS
Clamp-On

Models 6416 & 6417

Provides high safety level with new ground voltage indication feature

*Model 6417 only

▶SPECIFICATIONS

MODELS	6416 & 6417		
ELECTRICAL			
Ground Resistance Auto-Ranging 1 to 199Ω	**Measurement Range**	**Resolution**	**Accuracy (% of Reading)**
	0.010 to 0.099Ω	0.001Ω	±1.5% ±0.01Ω
	0.10 to 0.99Ω	0.01Ω	±1.5% ±0.02Ω
	1.0 to 49.9Ω	0.1Ω	±1.5% ±0.1Ω
	50.0 to 99.5Ω	0.5Ω	±2% ±0.5Ω
	100 to 199Ω	1Ω	±3% ±1Ω
	200 to 395Ω	5Ω	±5% ±5Ω
	400 to 590Ω	10Ω	±10% ±10Ω
	600 to 1150Ω	50Ω	20% approx
	1200 to 1500Ω	50Ω	25% approx
Current Measurement Auto-Ranging 1mA to 40A	0.200 to 0.999mA	1µA	±2% ±50µA
	1.000 to 2.990mA 3.00 to 9.99mA	10µA	±2% ±50µA
	10.00 to 29.90mA 30.0 to 99.9mA	100µA	±2% ±100µA
	100.0 to 299.0mA 0.300 to 0.990A	1mA	±2% ±1mA
	1.000 to 2.990A 3.00 to 39.99A	10mA	±2% ±10mA
Selectable Measurement Frequency	50, 60, 128 or 2083Hz		
Current Measurement Frequency	47 to 800Hz		
Inductance Measurement	10 to 100µH; 100 to 500µH		
Current Overload	OL displayed above 39.99Arms		
Communication	*Bluetooth* connection (Model 6417 only)		
Power Source	4x1.5V LR6 (AA) Alkaline batteries or 4 NiMH batteries; Battery life: 12 hours, or 1440 30-second measurements approx.		

▶FEATURES

- Ground voltage indication (warns of possible unsafe conditions)
- Large multi-function bright yellow organic LED display (OLED)
- Selectable test frequency (improves accuracy in inductive environments)
- Clamping diameter of 35mm with large jaw design
- Storage of measurements (Ω and/or A, with time-stamping)

  Model 6416: up to 300 measurements stored

  Model 6417: up to 2000 measurements stored
- Displays stored measurements on the OLED display or via *Bluetooth* (Class 2 - communicates up to 30 ft) to a PC or the Android™ based mobile application (Model 6417)
- Auto Power OFF function
- Alarm function with adjustable set point and buzzer for quick field checks for volts, amps and ohms
- Rugged Lexan® head and body construction resists breakage
- Alarm settings and stored memory information saved during shutdown
- Includes DataView® software for data storage, real-time display, analysis, report generation and system configuration (Model 6417)
- Noise icon and buzzer alert user to presence of dangerous voltage and current levels
- Designed to EN 61010-1, 600V CAT IV safety standards

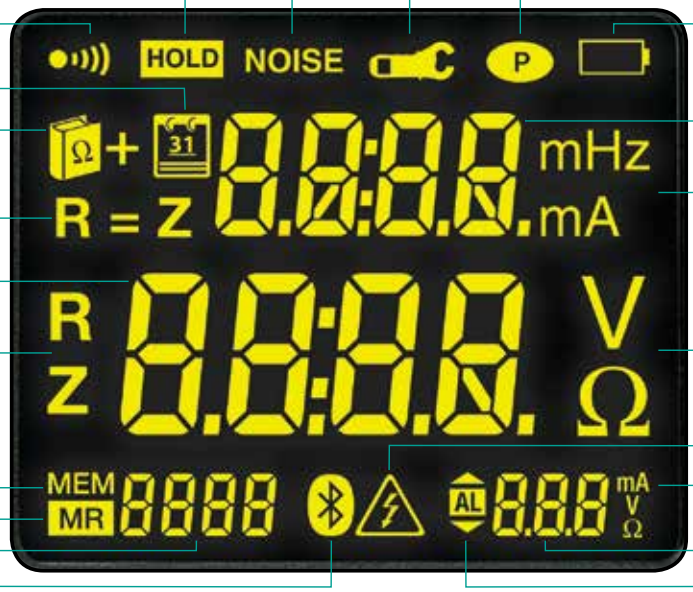
▶PRODUCT INCLUDES

Model 6416 includes a hard carrying case, calibration loop, four 1.5V AA batteries and a user manual.

Model 6417 also includes a Bluetooth USB adapter, quick start guide, and a USB stick with DataView® software and user manual.

Models 6416 & 6417

Functional Displays



Disturbance indicator (current) in the loop
HOLD Function
Buzzer is displayed when active
Measurement date/time display
Advanced Mode selection
Indicates when the inductive component is negligible in Advanced Mode
Main display
Symbols identify the value displayed in Advanced Mode
Data Storage Mode
Memory Recall Mode
Memory index display
Bluetooth connection indicator (active for 6417 only)

Incorrect jaw closing indicator
Auto Power OFF displayed
Battery charge indicator
4000-count upper measurement display
Upper display measurement unit
Main display measurement unit
Signal for hazardous voltage
Alarm measurement display unit
Alarm threshold display
Alarm threshold indicator

Note: Display shown larger than real size.

Measurement Results

Displays the leakage current and loop impedance at the test frequency

Memory Recall Mode

Measurement storage date-time screen

Alarm

Indicates voltage/current alarm threshold along with the direction of impedance

Ground Voltage

Indicates voltage potential at the point of measurement

Current Disturbance

Indicates that the current is greater than 10A

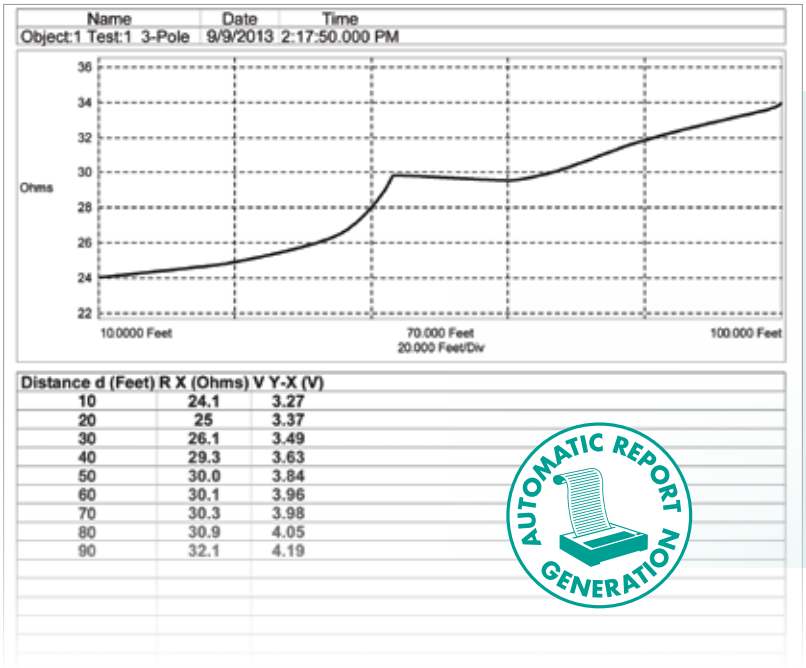
Impedance Over Range

Indicates that the impedance is greater than 1500Ω

CATALOG NO.	DESCRIPTION
2141.01	Ground Resistance Tester Model 6416 (Clamp-On, Alarm, Memory)
2141.02	Ground Resistance Tester Model 6417 (Clamp-On, *Bluetooth*, Alarm, Memory)

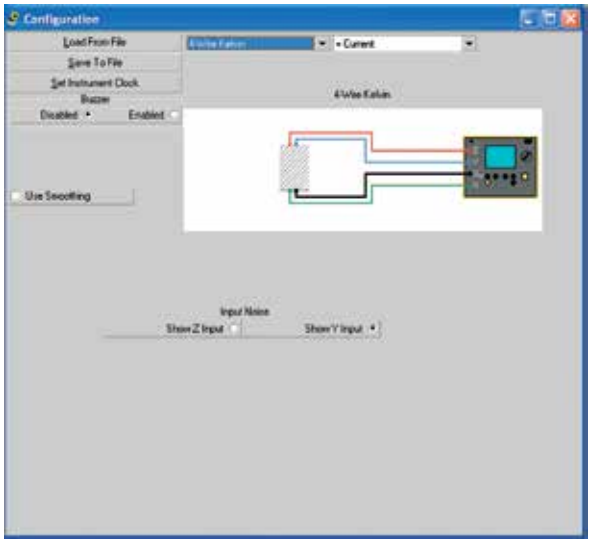
DataView®

Data Analysis and Reporting Software for Ground Testers



Configure all functions of the Models 6417, 6471 & 6472

- Run tests and analyze real-time data from your PC
- Configure all test functions and parameters from your PC
- Customize views, templates and reports to your exact needs
- Display Fall-of-Potential plots, tabular listings of test results, resistance vs. frequency plots, soil resistivity and bonding tests
- Print reports using standard or custom templates you design
- Free updates are available on our website **www.aemc.com**



DataView® software provides a convenient way to configure and control ground resistance tests from your computer. Through the use of clear and easy-to-use tabbed dialog boxes, all ground tester functions can be configured and tests can be initiated. Results can be displayed in real-time and stored in your PC. Reports may be printed along with the operator's comments and analysis.