

Models 6416 & 6417

Provides high safety level with new
ground voltage indication feature

► SPECIFICATIONS

MODELS	6416 & 6417		
ELECTRICAL			
Ground Resistance	Measurement Range	Resolution	Accuracy (% of Reading)
Auto-Ranging 1 to 199Ω	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.		

► PRODUCT INCLUDES

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

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



*Model 6417 only

► FEATURES

- Ground Integrity® Measurement
- 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 1.37" (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
- View stored measurements on the OLED display or via Bluetooth (Class 2 - communicates up to 30ft) 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

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Functional Displays



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)

GROUND RESISTANCE TESTER

Selection Chart

AEMC MODEL NUMBER	AEMC CATALOG NUMBER	RESISTANCE RANGE	POWER SOURCE	2 POINT TEST	3 POINT TEST	4 POINT/ SELECTIVE	SOIL RESISTIVITY TEST	EARTH COUPLING	2 CLAMP	BONDING	DISPLAY	VOLTAGE INDICATION	INDUCTANCE INDICATION	SWEEP FREQUENCY
6416	2141.01	0.01 to 1500 Ω	Battery	Clamp-On Ground Resistance Tester w/Alarm & Memory				—	—	✓**	Digital	Voltage Displayed (noise icon, buzzer)	✓	—
6417	2141.02	0.01 to 1500 Ω	Battery	Clamp-On Ground Resistance Tester w/Alarm, Memory & Bluetooth communication				—	—	✓**	Digital	Voltage Displayed (noise icon, buzzer)	✓	—
GroundFlex® Field Kit Model 6474	2136.03	0.001 Ω to 99.99k Ω	Rechargeable Battery	—	✓	✓	✓	✓	—	✓	Digital	Value Displayed	—	✓
6471 (SR182 probes not included)	2135.48	0.01 to 99.99k Ω	Rechargeable Battery											
6471	2135.49			✓	✓	✓	✓	✓	✓	✓	Digital	Value Displayed	—	—
6471 Kit 300FT	2135.50													
6472	2135.51	0.01 to 99.99k Ω	Rechargeable Battery											
6472 Kit 300FT	2135.53			✓	✓	✓	✓	✓	✓	✓	Digital	Value Displayed	—	✓
6472 Kit 500FT	2135.54													
4620	2130.43	0.0 to 1999 Ω	Battery	✓	✓	—	✓	—	—	—	Digital	LED/Buzzer	—	—
4620 Kit 150FT	2135.19						✓*							
4620 Kit 300FT	2135.20	0.0 to 2000 Ω	Battery	✓	✓	—	✓	—	—	—	Digital	LED/Buzzer	—	—
4620 Kit 500FT	2135.21	0.0 to 1999 Ω	Battery	✓	✓	—	✓	—	—	—	Digital	LED/Buzzer	—	—
4630	2130.44	0.0 to 1999 Ω	Rechargeable Battery	✓	✓	—	✓	—	—	—	Digital	LED/Buzzer	—	—
4630 Kit 150FT	2135.22						✓*							
4630 Kit 300FT	2135.23						✓							
4630 Kit 500FT	2135.24						✓							
3640	2114.92	0.0 to 1999 Ω	Battery	✓	✓	—	—	—	—	—	Digital	LED	—	—
3640 Kit 150FT	2135.13													
3640 Kit 300FT	2135.14													

* Performing soil resistivity tests with this kit requires two additional auxiliary electrodes not supplied in the 150ft kit and one additional test lead.

** Clamp-on Ground Resistance Tester can measure system continuity inclusive of all bonding points.

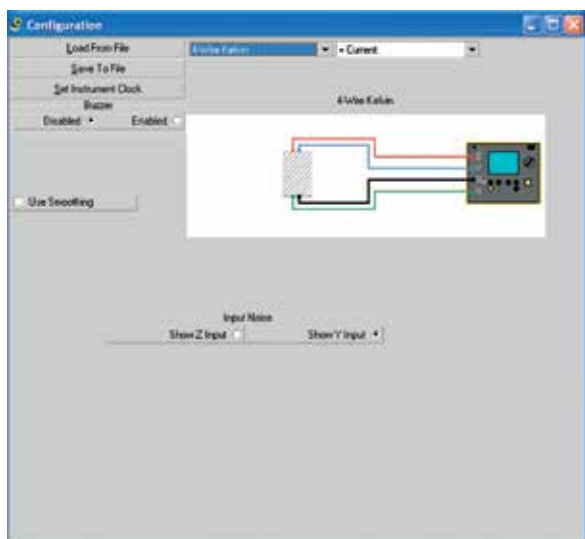
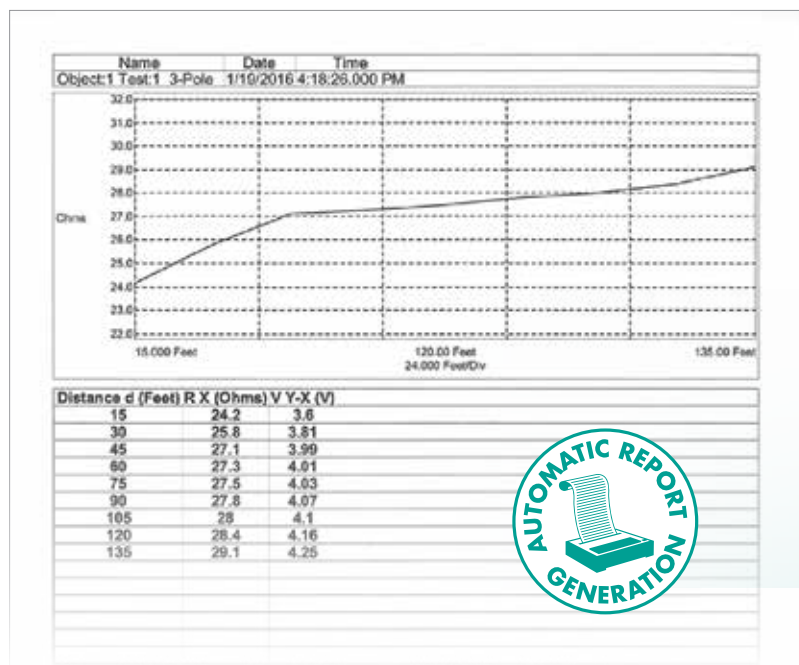
DataView®

Data Analysis and Reporting Software for Ground Testers



Configure all functions of 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 (Models 6471 & 6472)
- 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.

