

GROUND RESISTANCE TESTERS

CLAMP-ON

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)
	0.010 to 0.099Ω	0.001Ω	±1.5% ±0.01Ω
Auto-Ranging 0.01 to 1499Ω	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	0.200 to 0.999mA	1μA	±2% ±50μA
	1.000 to 2.990mA 3.00 to 9.99mA	10μA	
Auto-Ranging 1mA to 40A	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	(4) 1.5V LR6 (AA) alkaline batteries or (4) NiMH batteries; Battery life: 12 hours, or 1440 30-second measurements approx.		
SAFETY			
Safety Rating	EN 61010-1, 600V CAT IV		

Consult factory for NIST Calibration prices

PRODUCT INCLUDES

6416 & 6417

Hard carrying case, calibration loop,
(4) 1.5V AA batteries and a user manual.

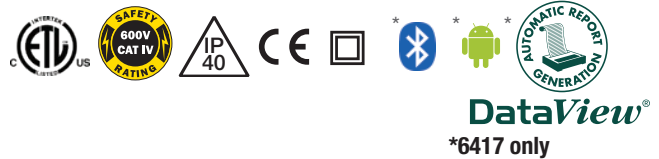
6417

Also includes Bluetooth USB adapter,
printed quick start guide, a USB drive
with DataView® software, ground tester
workbook and a user manual.



6416

6417



FEATURES

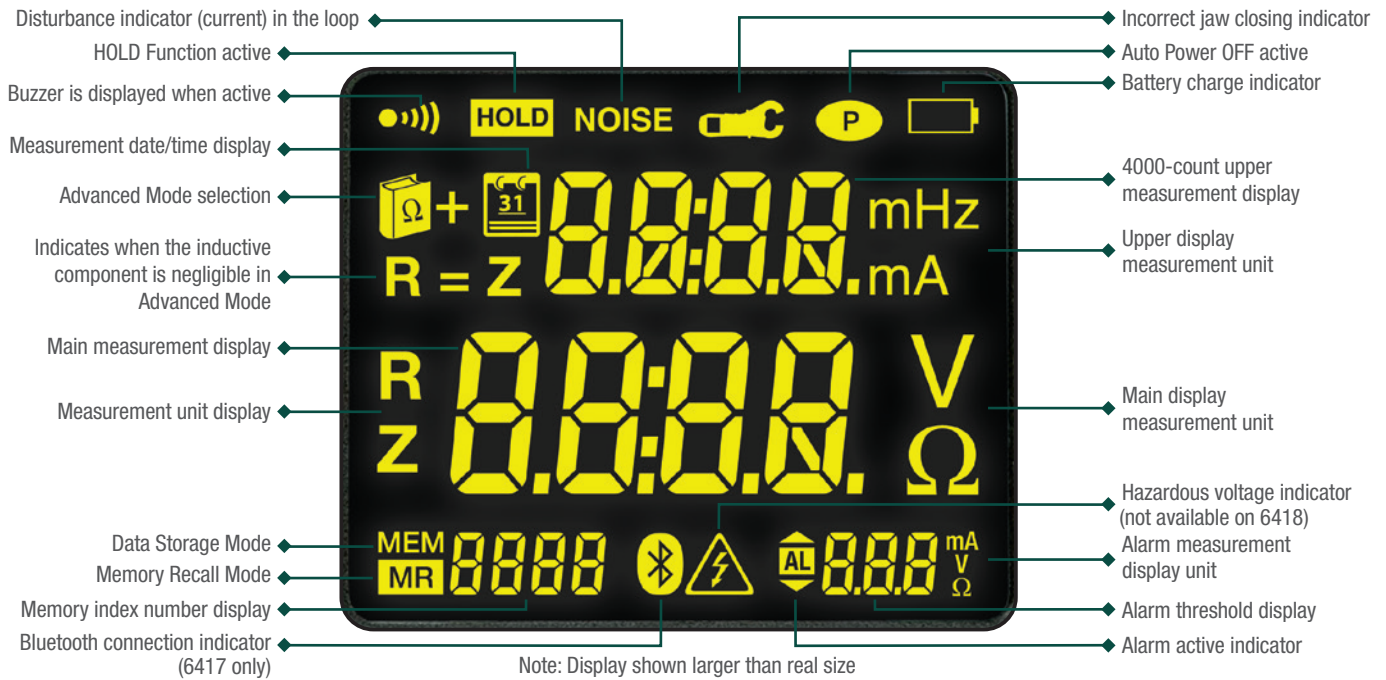
- Ground Integrity Measurement
- Ground voltage indication (warns of possible unsafe conditions)
- Large multi-function bright yellow OLED (organic LED display)
- Selectable test frequency (improves accuracy in inductive environments)
- Clamping diameter of 1.37" (35mm) with large jaw design
- Storage 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 retrieval, 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

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® Software)

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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

LOOP DETECTION



Detects and displays possible false readings associated with metal loops

GROUND VOLTAGE



Indicates voltage potential at the point of measurement

IMPEDANCE OVER RANGE



Indicates that the impedance is greater than 1500Ω

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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 1500Ω	Battery	Clamp-On Ground Resistance Tester w/Alarm and Memory				-	✓	✓**	Digital	Voltage Displayed (noise icon, buzzer)	✓	-
6417	2141.02	0.01 to 1500Ω	Battery	Clamp-On Ground Resistance Tester w/Alarm, Memory and Bluetooth communication				-	✓	✓**	Digital		✓	-
6418	2141.03	0.01 to 1200Ω	Battery	Clamp-On Ground Resistance Tester w/Alarm and Memory				-	✓	✓**	Digital	Noise Icon	-	-
6422	2135.55	0.05 to 50kΩ	Battery	✓			-			✓	Digital	Noise Icon	-	-
6422 Kit 150FT	2135.56	0.05 to 50kΩ	Rechargeable Battery	✓			-			✓	Digital	Noise Icon	-	-
6424	2135.57	0.05 to 50kΩ	Rechargeable Battery	✓			-			✓	Digital	Noise Icon	-	-
6424 Kit 150FT	2135.58	0.05 to 50kΩ	Rechargeable Battery	✓			-			✓	Digital	Noise Icon	-	-
6424 Kit 300FT	2135.59	0.05 to 50kΩ	Rechargeable Battery	✓			-			✓	Digital	Noise Icon	-	-
GroundFlex® Field Kit Model 6474	2136.03	0.001Ω to 99.99kΩ	Rechargeable Battery	-			✓		-	✓	Digital	Voltage Displayed	-	✓
6471 (SR182 probes not included)	2135.48	0.01 to 99.99kΩ	Rechargeable Battery				✓		✓***	✓	Digital	Voltage Displayed	-	-
6471	2135.49	0.01 to 99.99kΩ	Rechargeable Battery				✓		✓	✓	Digital	Voltage Displayed	-	-
6471 Kit 300FT	2135.50	0.01 to 99.99kΩ	Rechargeable Battery				✓		✓	✓	Digital	Voltage Displayed	-	-
6472	2135.51	0.01 to 99.99kΩ	Rechargeable Battery				✓		✓***	✓	Digital	Voltage Displayed	✓	-
6472 Kit 300FT	2135.53	0.01 to 99.99kΩ	Rechargeable Battery				✓		✓***	✓	Digital	Voltage Displayed	✓	-
6472 Kit 500FT	2135.54	0.01 to 99.99kΩ	Rechargeable Battery				✓		✓***	✓	Digital	Voltage Displayed	✓	-
4620	2130.43	0.0 to 1999Ω	Battery	✓	-		✓		-		Digital	LED/Buzzer	-	-
4620 Kit 150FT	2135.19	0.0 to 1999Ω	Battery	✓	-		✓*		-		Digital	LED/Buzzer	-	-
4620 Kit 300FT	2135.20	0.0 to 1999Ω	Battery	✓	-		✓		-		Digital	LED/Buzzer	-	-
4620 Kit 500FT	2135.21	0.0 to 1999Ω	Battery	✓	-		✓		-		Digital	LED/Buzzer	-	-
4630	2130.44	0.0 to 1999Ω	Rechargeable Battery	✓	-		✓		-		Digital	LED/Buzzer	-	-
4630 Kit 150FT	2135.22	0.0 to 1999Ω	Rechargeable Battery	✓	-		✓*		-		Digital	LED/Buzzer	-	-
4630 Kit 300FT	2135.23	0.0 to 1999Ω	Rechargeable Battery	✓	-		✓		-		Digital	LED/Buzzer	-	-
4630 Kit 500FT	2135.24	0.0 to 1999Ω	Rechargeable Battery	✓	-					-		Digital	LED/Buzzer	-

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

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

*** Must purchase an additional (2) SR182 or (2) MN82 accessory clamps