# **GROUND RESISTANCE TESTERS**



#### MODELS 6416 & 6417

Provides high safety level with new ground voltage indication feature

### **CDECIFICATIONS**

MODELS		6416 & 641	7						
ELECTRICAL		0410 & 041	1						
Ground Resistance	Measurement Range	Resolution	Accuracy (% of Reading)						
	0.010 to 0.099Ω	0.001Ω	Accuracy (% of Reading)  ±1.5% ±0.01Ω  ±1.5% ±0.02Ω  ±1.5% ±0.1Ω  ±2% ±0.5Ω  ±3% ±1Ω  ±5% ±5Ω  ±10% ±10Ω  20% approx  25% approx  ±2% ±50μA  ±2% ±50μA  ±2% ±100μA						
Auto-Ranging 0.01 to 1499Ω	0.10 to 0.99Ω	0.01Ω							
0.01 (0 1455)2	1.0 to 49.9Ω	0.1Ω	±1.5% ±0.1Ω						
	50.0 to 99.5Ω	0.5Ω	Accuracy (% of Reading)  ±1.5% ±0.01Ω  ±1.5% ±0.02Ω  ±1.5% ±0.1Ω  ±2% ±0.5Ω  ±3% ±1Ω  ±5% ±5Ω  ±10% ±10Ω  20% approx  25% approx  ±2% ±50μA  ±2% ±50μA  ±2% ±100μA						
	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	0.200 to 0.999mA	1µA	Accuracy (% of Reading)  ±1.5% ±0.01Ω  ±1.5% ±0.02Ω  ±1.5% ±0.5Ω  ±2% ±0.5Ω  ±3% ±1Ω  ±5% ±5Ω  ±10% ±10Ω  20% approx  25% approx  ±2% ±50μA  ±2% ±50μA  ±2% ±100μA  33Hz						
Measurement	1.000 to 2.990mA 3.00 to 9.99mA	10μΑ	±2% ±50µA						
Auto-Ranging 1mA to 40A	10.00 to 29.90mA 30.0 to 99.9mA	100μΑ	±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 d	isplayed above 3							
Communication		connection (Mo							
Power Source	4x1.5V LR6 (AA) Alkaline batteries or 4 NiMH batteries; Battery life: 12 hours, or 1440 30-second measurements approx.								

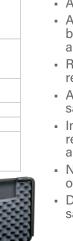


#### **MODEL 6416**

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 ( $\Omega$  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<sup>™</sup> 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
- Designed to EN 61010-1, 600V CAT IV safety standards

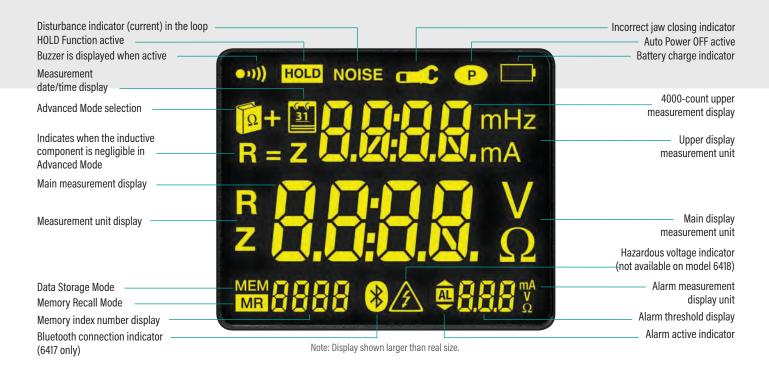


2141.01 Ground Resistance Tester Model 6416 (Clamp-On, Alarm, Memory) 2141.02 Ground Resistance Tester Model 6417 (Clamp-On, Bluetooth, Alarm, Memory)



# **GROUND RESISTANCE TESTERS**

## **Functional Displays**



#### **MEASUREMENT RESULTS**



Displays the leakage current and loop impedance at the test frequency

#### **LOOP DETECTION**



Detects and displays possible false readings associated with metal loops

#### **MEMORY RECALL MODE**



Measurement storage date-time screen

#### **GROUND VOLTAGE**



Indicates voltage potential at the point of measurement

#### ALARM



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

#### **IMPEDANCE OVER RANGE**



Indicates that the impedance is greater than 1500 $\Omega$ 



# GROUND RESISTANCE TESTERS 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 & Memory				1	١	<b>√</b> **	Digital	Voltage Displayed (noise icon, buzzer)	<b>✓</b>	-	
6417	2141.02	0.01 to 1500Ω	Battery	Clamp-On Ground Resistance Tester w/Alarm, Memory & Bluetooth communication				_	_	<b>√</b> **	Digital	Voltage Displayed (noise icon, buzzer)	✓	-	
Groundflex <sup>®</sup> Field Kit Model 6474	2136.03	0.001Ω to 99.99kΩ	Rechargeable Battery	-	<b>√</b>	<b>√</b>	✓	<b>√</b>	_	<b>√</b>	Digital	Value Displayed	-	✓	
6471 (SR182 probes not included)	2135.48	0.01 to 99.99kΩ	Rechargeable Battery	<b>✓</b>	~	<b>√</b>	<b>√</b>	<b>√</b>	<b>✓</b>	<b>√</b>	Digital	Value Displayed	-	-	
6471	2135.49														
6471 Kit 300FT	2135.50														
6472	2135.51	0.01 to 99.99kΩ	Rechargeable Battery	<b>✓</b>	<b>✓</b>	<b>√</b>	<b>✓</b>	<b>√</b>	<b>✓</b>	<b>✓</b>	Digital	Value Displayed	-	✓	
6472 Kit 300FT	2135.53														
6472 Kit 500FT	2135.54														
4620	2130.43	0.0 to 1999Ω	Battery	<b>√</b>	<b>√</b>	_	✓		_	_	Digital	LED/Buzzer	_	-	
4620 Kit 150FT	2135.19						<b>√</b> ∗								
4620 Kit 300FT	2135.20	0.0 to 2000Ω	Battery	Rattery	<b>✓</b>	<b>√</b>		<b> </b>		_	_	Digital	LED/Buzzer	_	_
4620 Kit 500FT	2135.21	0.0 to 1999Ω					ľ				Digital	ELD, DULLOI			
4630	2130.44	0.0 to 1999Ω	Rechargeable Battery	<b>✓</b>	<b>✓</b>	_	✓	_	_		Digital	LED/Buzzer		ı	
4630 Kit 150FT	2135.22						<b>√</b> ∗								
4630 Kit 300FT	2135.23														
4630 Kit 500FT	2135.24						<b>√</b>								

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



<sup>\*\*</sup> Clamp-on Ground Resistance Tester can measure system continuity inclusive of all bonding points.