

GROUND RESISTANCE TESTERS

CLAMP-ON

MODEL 6418

Designed for measuring ground impedance on ground rods and bus bars

SPECIFICATIONS

MODEL	6418		
ELECTRICAL			
Ground Resistance	Measurement Range	Resolution	Accuracy (% of Reading)
	(0.010 to 0.099) Ω	0.001 Ω	$\pm 1.5\% \pm 0.01 \Omega$
	(0.10 to 0.99) Ω	0.01 Ω	$\pm 1.5\% \pm 0.02 \Omega$
	(1.0 to 49.9) Ω	0.1 Ω	$\pm 1.5\% \pm 0.2 \Omega$
	(50.0 to 149) Ω	1 Ω	$\pm 2.5\% \pm 2 \Omega$
	(150 to 245) Ω	5 Ω	$\pm 5\% \pm 10 \Omega$
	(250 to 440) Ω	10 Ω	$\pm 10\% \pm 20 \Omega$
	(450 to 640) Ω	10 Ω	$\pm 15\% \pm 20 \Omega$
Auto Ranging	(650 to 1200) Ω	50 Ω	$\pm 20\% \text{ Reading} + 100 \Omega$
Measurement Frequency	2083 Hz		
Current Measurement	(0.50 to 9.950) mA	50 μA	$\pm 2\% + 200 \mu\text{A}$
	(10.00 to 99.90) mA	100 μA	$\pm 2\% + 100 \mu\text{A}$
Auto Ranging 1 mA to 20 A	(100.0 to 299.0) mA	1 mA	$\pm 2\% \pm 1 \text{ mA}$
	(0.300 to 2.990) A	10 mA	$\pm 2\% \pm 10 \text{ mA}$
	(3.000 to 20.00) A	100 mA	$\pm 2\% \pm 100 \text{ mA}$
Current Measurement Frequency	(47 to 800) Hz		
Current Overload	OL displayed above 19.99 Arms		
Power Supply	(4) 1.5 V LR6 (AA) alkaline batteries or (4) NiMH batteries; Battery life: 12 h, or 1440 30 s <i>Measurements approx.</i>		

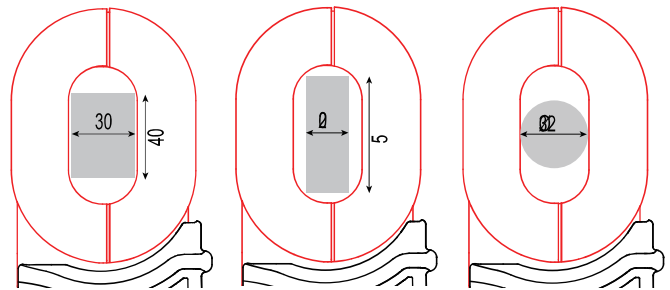
Consult factory for NIST Calibration prices

PRODUCT INCLUDES

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



CLAMPING CHARACTERISTICS



FEATURES

- Ground Integrity Measurement
- Large multi-function bright yellow OLED (organic LED display) (1.89 x 1.55) in (48 x 39) mm
- Clamping diameter accommodates both cable and bus bar
- Storage of measurements (Ω and/or A, with time-stamping)
- Up to 300 measurements stored
- View stored measurements on the OLED display
- Auto Power OFF function
- Auto Hold
- Alarm function with adjustable set point and buzzer for quick field checks for amps and ohms
- Rugged Lexan® head and body construction resists breakage
- Alarm settings and stored memory information saved during shutdown
- Noise icon and buzzer alert user to presence of dangerous current levels
- Designed to EN 61010-1, 100 V CAT IV and 150 V CAT III safety standards
- Automatic calibration of the jaw gap at power-up

CATALOG NO.

2141.03

DESCRIPTION

Ground Resistance Tester Model 6418 (Clamp-On, Alarm, Memory, Oblong Jaws)



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CLAMP-ON

FUNCTIONAL DISPLAYS



MEASUREMENT RESULTS



Displays the leakage current and loop impedance at the test frequency

MEMORY RECALL MODE



Measurement storage date-time screen

ALARM



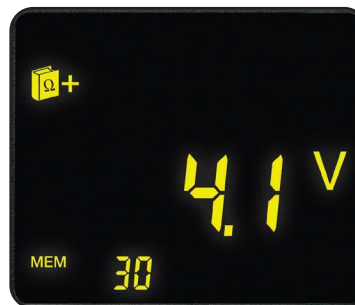
Indicates voltage/current alarm threshold along with the direction of impedance

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 1500 Ω

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 1500) Ω	Battery	Clamp-On Ground Resistance Tester w/Alarm and Memory				-	✓	✓**	Digital	Voltage Displayed (noise icon, buzzer)	✓	-
6417	2141.02	(0.01 to 1500) Ω	Battery	Clamp-On Ground Resistance Tester w/Alarm, Memory and Bluetooth communication				-	✓	✓**	Digital		✓	-
6418	2141.03	(0.01 to 1200) Ω	Battery	Clamp-On Ground Resistance Tester w/Alarm and Memory				-	✓	✓**	Digital	Noise Icon	-	-
6422	2135.55	0.05 Ω to 50 k Ω	Battery	✓			-			✓	Digital	Noise Icon	-	-
6422 Kit 150 FT	2135.56	0.05 Ω to 50 k Ω	Rechargeable Battery	✓			-			✓	Digital	Noise Icon	-	-
6424	2135.57	0.05 Ω to 50 k Ω	Rechargeable Battery	✓			-			✓	Digital	Noise Icon	-	-
6424 Kit 150 FT	2135.58	0.05 Ω to 50 k Ω	Rechargeable Battery	✓			-			✓	Digital	Noise Icon	-	-
6424 Kit 300 FT	2135.59	0.05 Ω to 50 k Ω	Rechargeable Battery	✓			-			✓	Digital	Noise Icon	-	-
GroundFlex® Field Kit Model 6474	2136.03	0.001 Ω to 99.99 k Ω	Rechargeable Battery	-		✓			-	✓	Digital	Voltage Displayed	-	✓
6471 (SR182 probes not included)	2135.48	0.001 Ω to 99.99 k Ω	Rechargeable Battery			✓			✓***	✓	Digital	Voltage Displayed	-	✓
6471	2135.49	0.001 Ω to 99.99 k Ω	Rechargeable Battery			✓			✓	✓	Digital	Voltage Displayed	-	✓
6471 Kit 300 FT (with probes)	2135.50	0.001 Ω to 99.99 k Ω	Rechargeable Battery			✓			✓	✓	Digital	Voltage Displayed	-	✓
6471 Kit 300 FT (no probes)	2135.60	0.001 Ω to 99.99 k Ω	Rechargeable Battery			✓			✓	✓	Digital	Voltage Displayed	-	✓
6471 Kit 500 FT (no probes)	2135.61	0.001 Ω to 99.99 k Ω	Rechargeable Battery			✓			✓	✓	Digital	Voltage Displayed	-	✓
6472	2135.51	0.001 Ω to 99.99 k Ω	Rechargeable Battery			✓			✓***	✓	Digital	Voltage Displayed	-	✓
6472 Kit 300 FT	2135.53	0.001 Ω to 99.99 k Ω	Rechargeable Battery			✓			✓***	✓	Digital	Voltage Displayed	-	✓
6472 Kit 500 FT	2135.54	0.001 Ω to 99.99 k Ω	Rechargeable Battery			✓			✓***	✓	Digital	Voltage Displayed	-	✓
4620	2130.43	(0.0 to 1999) Ω	Battery	✓	-	✓			-		Digital	LED/Buzzer	-	-
4620 Kit 150 FT	2135.19	(0.0 to 1999) Ω	Battery	✓	-	✓*			-		Digital	LED/Buzzer	-	-
4620 Kit 300 FT	2135.20	(0.0 to 1999) Ω	Battery	✓	-	✓			-		Digital	LED/Buzzer	-	-
4620 Kit 500 FT	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 150 FT	2135.22	(0.0 to 1999) Ω	Rechargeable Battery	✓	-	✓*			-		Digital	LED/Buzzer	-	-
4630 Kit 300 FT	2135.23	(0.0 to 1999) Ω	Rechargeable Battery	✓	-	✓			-		Digital	LED/Buzzer	-	-
4630 Kit 500 FT	2135.24	(0.0 to 1999) Ω	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.

