

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 | ± 1.5 % ± 0.01 Ω |
| | (0.10 to 0.99) Ω | 0.01 Ω | ± 1.5 % ± 0.02 Ω |
| | (1.0 to 49.9) Ω | 0.1 Ω | ± 1.5 % ± 0.2 Ω |
| | (50.0 to 149) Ω | 1 Ω | ± 2.5 % ± 2 Ω |
| | (150 to 245) Ω | 5 Ω | ± 5 % ± 10 Ω |
| | (250 to 440) Ω | 10 Ω | ± 10 % ± 20 Ω |
| Auto Ranging | (450 to 640) Ω | 10 Ω | ± 15 % ± 20 Ω |
| | (650 to 1200) Ω | 50 Ω | ± 20 % Reading + 100 Ω |
| | Measurement Frequency | 2083 Hz | |
| Current Measurement | (0.50 to 9.950) mA | 50 μA | ± 2 % + 200 μA |
| | (10.00 to 99.90) mA | 100 μA | ± 2 % + 100 μA |
| Auto Ranging 1 mA to 20 A | (100.0 to 299.0) mA | 1 mA | ± 2 % ± 1 mA |
| | (0.300 to 2.990) A | 10 mA | ± 2 % ± 10 mA |
| | (3.000 to 20.00) A | 100 mA | ± 2 % ± 100 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 Measurements approx. | | |

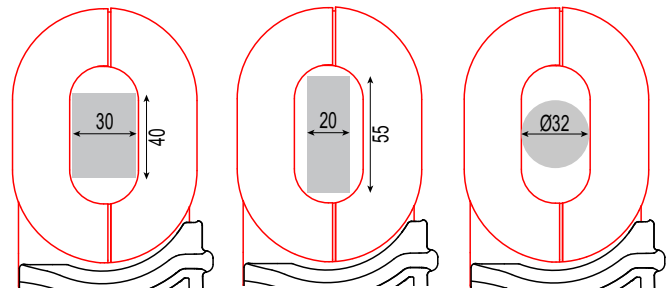
Consult factory for NIST Calibration prices

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. | DESCRIPTION |
|-------------|--|
| 2141.03 | Ground Resistance Tester Model 6418 (Clamp-On, Alarm, Memory, Oblong Jaws) |

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FUNCTIONAL DISPLAYS



MEASUREMENT RESULTS



Displays the leakage current and loop impedance at the test frequency

MEMORY RECALL MODE



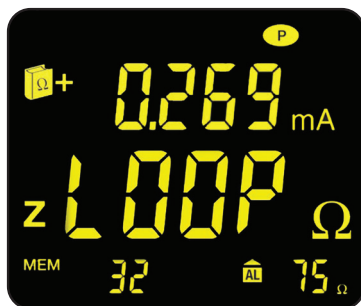
Measurement storage date-time screen

ALARM



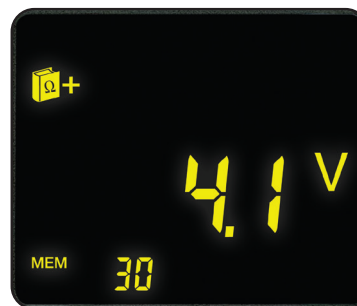
Indicates voltage/current alarm threshold along with the direction of impedance

LOOP DETECTION



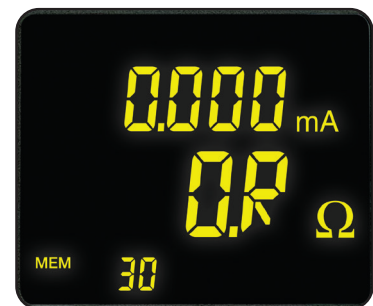
Detects and displays possible false readings associated with metal loops

GROUND VOLTAGE



Indicates voltage potential at the point of measurement

IMPEDANCE OVER RANGE



Indicates that the impedance is greater than 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 | DISPLAY | ADJUSTABLE FREQUENCY | SWEEP FREQUENCY |
|----------------------------------|---------------------|---------------------|----------------------|--------------|--------------|--------------------|-----------------------|----------------|---------|---------|----------------------|-----------------|
| 6422 | 2135.55 | 0.05 Ω to 2 kΩ | Battery | ✓ | | - / - | | - | | Digital | Auto (128 or 256) Hz | - |
| 6422 Kit 150 FT | 2135.56 | 0.05 Ω to 2 kΩ | Battery | ✓ | | - / - | | - | | Digital | Auto (128 or 256) Hz | - |
| 6424 | 2135.57 | 0.05 Ω to 50 kΩ | Rechargeable Battery | ✓ | | - / - | | - | | Digital | Auto (128 or 256) Hz | - |
| 6424 Kit 150 FT | 2135.58 | 0.05 Ω to 50 kΩ | Rechargeable Battery | ✓ | | - / - | | - | | Digital | Auto (128 or 256) Hz | - |
| 6424 Kit 300 FT | 2135.59 | 0.05 Ω to 50 kΩ | Rechargeable Battery | ✓ | | - / - | | - | | Digital | Auto (128 or 256) Hz | - |
| GroundFlex® Field Kit Model 6474 | 2136.03 | 0.001 Ω to 99.99 kΩ | Rechargeable Battery | - | ✓ | ✓ / - | ✓ | | - | Digital | Auto (41 to 5078) Hz | ✓ |
| 6471 (SR182 probes not included) | 2135.48 | 0.001 Ω to 99.99 kΩ | Rechargeable Battery | ✓ | | ✓ / ✓ | ✓ | | ✓*** | Digital | Auto (41 to 513) Hz | ✓ |
| 6471 | 2135.49 | 0.001 Ω to 99.99 kΩ | Rechargeable Battery | ✓ | | ✓ / ✓ | ✓ | | | Digital | - | ✓ |
| 6471 Kit 300 FT (with probes) | 2135.50 | 0.001 Ω to 99.99 kΩ | Rechargeable Battery | ✓ | | ✓ / ✓ | ✓ | | | Digital | - | ✓ |
| 6471 Kit 300 FT (no probes) | 2135.60 | 0.001 Ω to 99.99 kΩ | Rechargeable Battery | ✓ | | ✓ / ✓ | ✓ | | | Digital | Auto (41 to 513) Hz | ✓ |
| 6471 Kit 500 FT (no probes) | 2135.61 | 0.001 Ω to 99.99 kΩ | Rechargeable Battery | ✓ | | ✓ / ✓ | ✓ | | | Digital | Auto (41 to 513) Hz | ✓ |
| 6472 | 2135.51 | 0.001 Ω to 99.99 kΩ | Rechargeable Battery | ✓ | | ✓ / ✓ | ✓ | | ✓*** | Digital | Auto (41 to 5078) Hz | ✓ |
| 6472 Kit 300 FT | 2135.53 | 0.001 Ω to 99.99 kΩ | Rechargeable Battery | ✓ | | ✓ / ✓ | ✓ | | ✓*** | Digital | Auto (41 to 5078) Hz | ✓ |
| 6472 Kit 500 FT | 2135.54 | 0.001 Ω to 99.99 kΩ | Rechargeable Battery | ✓ | | ✓ / ✓ | ✓ | | ✓*** | Digital | Auto (41 to 5078) Hz | ✓ |
| 4620 | 2130.43 | (0.0 to 1999) Ω | Battery | ✓ | | ✓ / - | ✓ | | - | Digital | - | - |
| 4620 Kit 150 FT | 2135.19 | (0.0 to 1999) Ω | Battery | ✓ | | ✓ / - | ✓* | | - | Digital | - | - |
| 4620 Kit 300 FT | 2135.20 | (0.0 to 1999) Ω | Battery | ✓ | | ✓ / - | ✓ | | - | Digital | - | - |
| 4620 Kit 500 FT | 2135.21 | (0.0 to 1999) Ω | Battery | ✓ | | ✓ / - | ✓ | | - | Digital | - | - |
| 4630 | 2130.44 | (0.0 to 1999) Ω | Rechargeable Battery | ✓ | | ✓ / - | ✓ | | - | Digital | - | - |
| 4630 Kit 150 FT | 2135.22 | (0.0 to 1999) Ω | Rechargeable Battery | ✓ | | ✓ / - | ✓* | | - | Digital | - | - |
| 4630 Kit 300 FT | 2135.23 | (0.0 to 1999) Ω | Rechargeable Battery | ✓ | | ✓ / - | | | - | Digital | - | - |
| 4630 Kit 500 FT | 2135.24 | (0.0 to 1999) Ω | Rechargeable Battery | ✓ | | ✓ / - | ✓ | | - | Digital | - | - |

* 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.

CLAMP-ON

| AEMC MODEL NUMBER | AEMC CATALOG NUMBER | RESISTANCE RANGE | POWER SOURCE | VOLTAGE INDICATION | INDUCTANCE MEASUREMENT- mH | SELETABLE FREQUENCY | ALARM | MEMORY | BLUETOOTH |
|-------------------|---------------------|------------------|--------------|--|----------------------------|---------------------|--------------------------------|-------------------|-----------|
| 6416 | 2141.01 | (0.01 to 1500) Ω | Battery | Voltage Displayed (noise icon, buzzer) | ✓ | | 3 separate alarms (Ω, V and A) | 300 measurements | - |
| 6417 | 2141.02 | (0.01 to 1500) Ω | Battery | Voltage Displayed (noise icon, buzzer) | ✓ | | 3 separate alarms (Ω, V and A) | 2000 measurements | Yes |
| 6418 | 2141.03 | (0.01 to 1200) Ω | Battery | Noise Icon | - | ✓ | 2 separate alarms (Ω and A) | 300 measurements | - |