

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) |
| Auto-Ranging 0.01 to 1499Ω | 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 | 0.200 to 0.999mA | 1μA | ±2% ±50μA |
| Auto-Ranging 1mA to 40A | 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. | | |



*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 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

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.



| 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) |



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GROUND RESISTANCE TESTERS

CLAMP-ON

Functional Displays



MEASUREMENT RESULTS



MEMORY RECALL MODE



ALARM



LOOP DETECTION



GROUND VOLTAGE



IMPEDANCE OVER RANGE



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 | | | | — | — | ✓** | Digital | Voltage Displayed (noise icon, buzzer) | ✓ | — |
| 6417 | 2141.02 | 0.01 to 1500Ω | Battery | Clamp-On Ground Resistance Tester w/Alarm, Memory & Bluetooth communication | | | | — | — | ✓** | Digital | Voltage Displayed (noise icon, buzzer) | ✓ | — |
| Groundflex® Field Kit Model 6474 | 2136.03 | 0.001Ω to 99.99kΩ | Rechargeable Battery | — | ✓ | ✓ | ✓ | ✓ | — | ✓ | Digital | Value Displayed | — | ✓ |
| 6471 (SR182 probes not included) | 2135.48 | 0.01 to 99.99kΩ | Rechargeable Battery | | | | | | | | | | | |
| 6471 | 2135.49 | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Digital | Value Displayed | — | — |
| 6471 Kit 300FT | 2135.50 | | | | | | | | | | | | | |
| 6472 | 2135.51 | 0.01 to 99.99kΩ | Rechargeable Battery | | | | | | | | | | | |
| 6472 Kit 300FT | 2135.53 | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Digital | Value Displayed | — | ✓ |
| 6472 Kit 500FT | 2135.54 | | | | | | | | | | | | | |
| 4620 | 2130.43 | 0.0 to 1999Ω | Battery | ✓ | ✓ | — | ✓ | — | — | — | Digital | LED/Buzzer | — | — |
| 4620 Kit 150FT | 2135.19 | | | | | | ✓* | | | | | | | |
| 4620 Kit 300FT | 2135.20 | 0.0 to 2000Ω | Battery | ✓ | ✓ | — | ✓ | — | — | — | Digital | LED/Buzzer | — | — |
| 4620 Kit 500FT | 2135.21 | 0.0 to 1999Ω | | | | | | | | | | | | |
| 4630 | 2130.44 | 0.0 to 1999Ω | Rechargeable Battery | ✓ | ✓ | — | ✓ | — | — | — | Digital | LED/Buzzer | — | — |
| 4630 Kit 150FT | 2135.22 | | | | | | ✓* | | | | | | | |
| 4630 Kit 300FT | 2135.23 | | | | | | | | | | | | | |
| 4630 Kit 500FT | 2135.24 | | | | | | ✓ | | | | | | | |

* 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.