

# GROUND RESISTANCE TESTERS

Multi-Function



## Model 6472

Used under difficult conditions such as the presence of high stray currents that normally affect accuracy



Have a better understanding about Ground Resistance Testing



The Model 6472 provides an automated way to measure the value of the earth/ground using the Fall-of-Potential method and storing measurements.



### SPECIFICATIONS

<b>MODEL</b>	<b>6472</b>
<b>ELECTRICAL</b>	
<b>3-Point Measurement</b>	
Range (Auto-Ranging)	0.09Ω to 99.9kΩ
Resolution	0.01 to 100Ω
Test Voltage	Nominal 16 or 32Vrms user selectable
Resistance Measurement Frequency	41 to 5078Hz automatic or user selectable
Test Current	Up to 250mA
Accuracy	±2% of Reading + 1ct @ 128Hz
<b>2 Clamp Measurement</b>	
Range	0.1 to 500Ω
Resolution	0.01 to 1Ω
Measurement Frequency	Auto: 1611Hz Manual: 128Hz-1367Hz-1611Hz-1758Hz
<b>Soil Resistivity 4-Point Measurement</b>	
Test Method	Wenner or Schlumberger selectable with automatic calculation of test results in Ω-meters
Range (Auto-Ranging)	0.01 to 99.99kΩ; ρ max: 999kΩm
Resolution	0.01 to 100Ω
Test Voltage	16 or 32V user selectable
Frequency	From 41 to 128Hz selectable
<b>External Voltage Measurement</b>	
Range (Auto-Ranging)	0.1 to 65.0Vac/bc – DC to 440Hz
Accuracy	±2% of Reading + 1ct
<b>Resistance Measurement (Bond Testing)</b>	
Measurement Type	2-Pole (with lead resistance compensation) or 4-Pole (Kelvin sensing) user selectable
Range (Auto-Ranging)	2-Pole 0.02Ω to 99.99kΩ; 4-Pole 0.02Ω to 99.99kΩ
Accuracy	±2% of Reading + 2cts
Test Voltage	16Vdc (+, - or auto polarity)
Test Current	Up to 250mA max
<b>Data Storage</b>	
Memory Capacity	512 test results (64KB)
<b>Power Source</b>	
Recharging Source	9.6V rechargeable battery pack (included) 110/220V, 50/60Hz external charger with 18Vdc, 1.9A output

### TEST KITS

#### 6472 Meter

300ft Kit: Catalog #2135.53  
500ft Kit: Catalog #2135.54

Refer to page 40 for Model 6472 Kit descriptions Catalog #2135.35, #2135.36 & #2135.37



### ACCESSORIES

▶ **MN82 current probe (2mA to 10Arms)**

Catalog #2135.71 (optional)



▶ **SR182 current probe (0.5mA to 40Arms)**

Catalog #2135.72 (optional)



▶ **Reel Caddy**

Catalog #2135.85 (optional)

Set of two, for use with ground kit spools



## Model 6472

### Large Functional Displays

#### ► FEATURES

- Ground Integrity® Measurement
- Ground Resistance testing using the 2 clamp method (no auxiliary rods needed) using optional current probes
- 2- and 4-Wire Bond Resistance/Continuity Measurement (DC Resistance) with automatic polarity reversal
- 3-Point Fall-of-Potential measurement with manual or automatic frequency selection
- 4-Point soil resistivity measurement with automatic calculation of Rho ( $\rho$ ) and user selection of the Wenner or Schlumberger test method
- 3-Point Earth coupling measurement
- Measures Ground Impedance at frequencies up to 5kHz to test lightning strike protection
- Manual and automatic frequency scan from 41 to 5078Hz for optimum test accuracy in electrically noisy environments
- Selectable test voltage of 16 or 32V up to 250mA of test current
- Auto Power OFF feature
- Automatic recognition of all electrode connections and their resistance value
- Stores up to 512 complete test results
- Display with automatic backlight when entering a function
- Optically isolated USB communication cable included
- Automatic report generation including the fall of potential plot
- Rechargeable NiMH batteries from wall charger or vehicle power
- Rugged dustproof and rainproof field case – IP53 rated in closed position
- Includes DataView® software for set up, data storage, real-time display, analysis, report generation and system configuration

#### 4-Point Bond Test



The 4-Point Bond test shows lead connections, bond resistance test results, test voltage and current.

#### 3-Point Fall-of-Potential Test



The 3-Point Fall-of-Potential test displays test lead connection, grounding electrode resistance, test voltage and frequency.

#### Schlumberger Test



The Schlumberger test displays test lead connection, soil resistivity ( $\rho$ ) test results, test electrode resistance and more.

#### Frequency Selection Test



The Frequency selection screen displays selected test frequency and voltage for the test as well as lead connection.

#### Data Storage



Memory Recall displays test results stored at a specific memory location.

#### Wenner Test



The Wenner test displays test lead connection, soil resistivity ( $\rho$ ) test results, electrode spacing and resistance.

CATALOG NO.	DESCRIPTION
2135.51	Ground Resistance Tester Model 6472 (2-Point, 3-Point, 4-Point, Bond Test, Digital, Rechargeable Battery, DataView® software)
2135.53	Ground Resistance Tester Model 6472 Kit – 300ft (Model 6472 and Catalog #2135.36)
2135.54	Ground Resistance Tester Model 6472 Kit – 500ft (Model 6472 and Catalog #2135.37)
<b>Accessories (Optional) available on website storefront</b>	
2135.71*	AC Current Probe Model MN82 for use with Model 6472
2135.72*	AC Current Probe Model SR182 for use with Model 6472
2135.85	Caddy – Set of 2, Reel Caddy for use w/Ground Kit Spools
*2 probes required for two clamp testing method.	



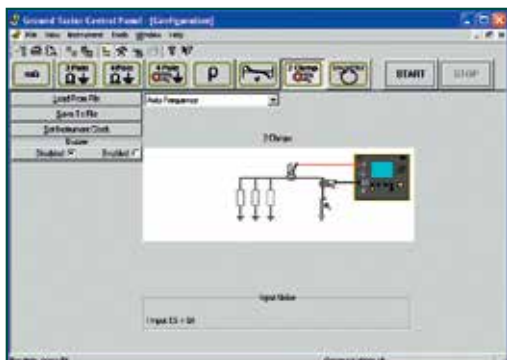
# GROUND RESISTANCE TESTERS

Multi-Function

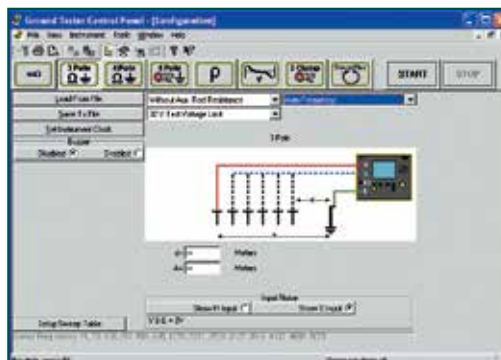
## Ground Testers Models 6471 & 6472

### Typical DataView® Functional Displays

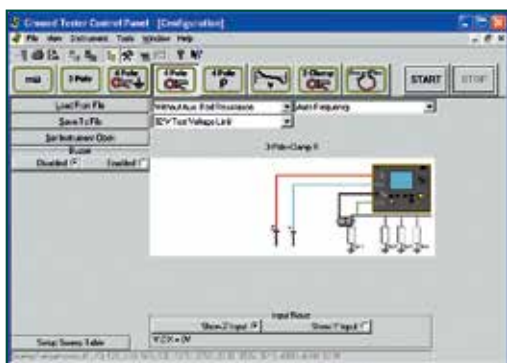
**2 Clamp Method Setup**



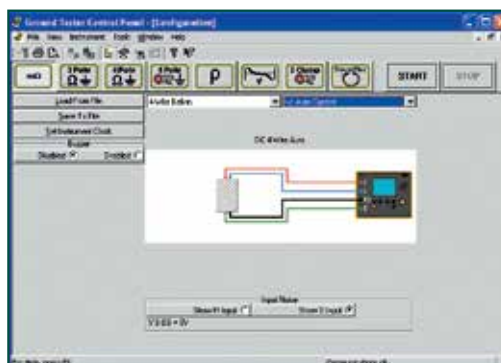
**Fall-of-Potential, Step-Touch Potential**



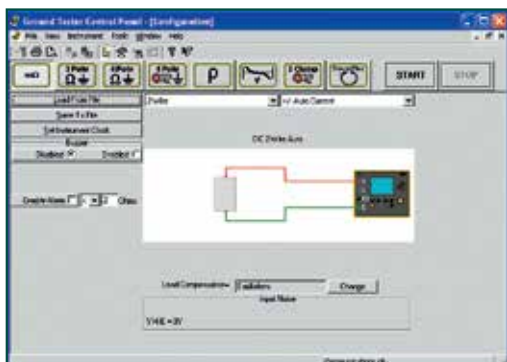
**Selective 3-Point Testing of Multiple Rods**



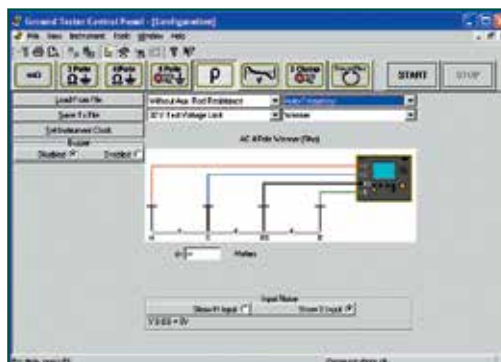
**4-Point Bonding For Very Low Resistance**



**Bonding**



**Soil Resistivity**



### OPTIONAL KITS

**150ft Kit**

**Catalog #2135.35**

Test Kit for 3-Point testing includes carrying bag, two 150ft color-coded leads on spools (red/blue), two 5ft color-coded leads (red/blue), one 30ft lead (green), two 14.5" T-shaped auxiliary ground electrodes, one set of five spaded lugs and 100ft tape measure.



**300ft Kit**

**Catalog #2135.36**

Test Kit for 4-Point testing includes carrying bag, two 300ft color-coded leads on spools (red/blue), two 5ft color-coded leads (red/blue), two 100ft color-coded leads (green and black), four 14.5" T-shaped auxiliary ground electrodes, one set of five spaded lugs and 100ft tape measure.



**500ft Kit**

**Catalog #2135.37**

Test Kit for 4-Point testing includes carrying bag, two 500ft color-coded leads on spools (red/blue), two 5ft color-coded leads (red/blue), two 100ft color-coded leads (green and black), one 30ft lead (green), four 14.5" T-shaped auxiliary ground electrodes, one set of five spaded lugs and 100ft tape measure.



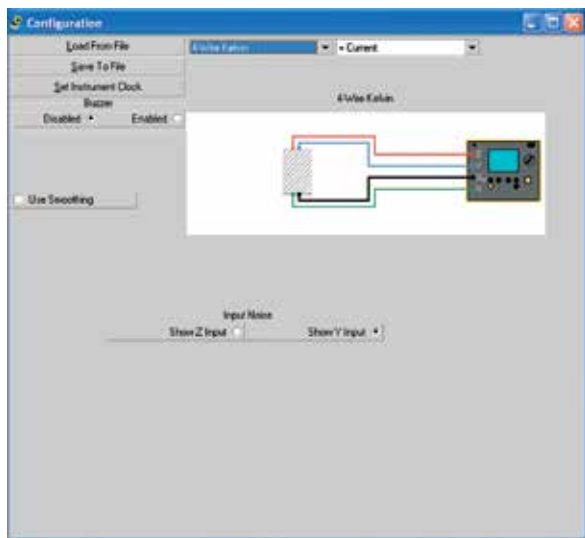
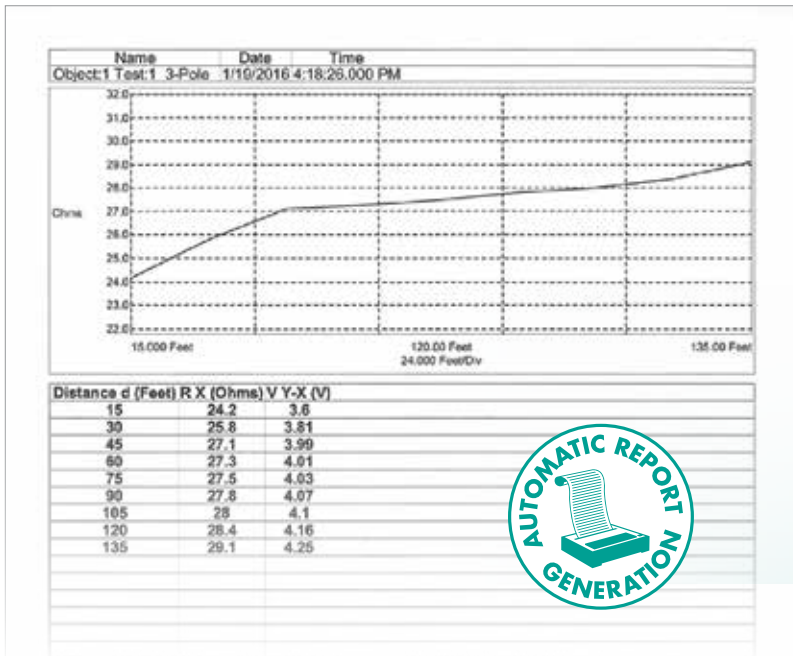
# DataView®

Data Analysis and Reporting Software for Ground Testers

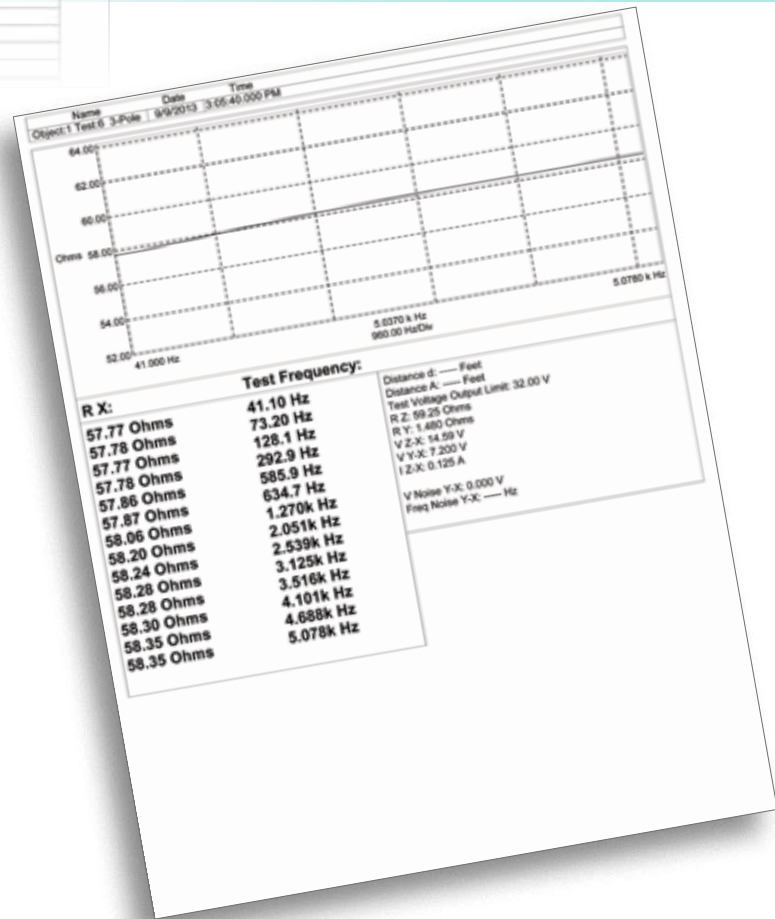


## Configure all functions of the Models 6417, 6471 & 6472

- Run tests and analyze real-time data from your PC
- Configure all test functions and parameters from your PC
- Customize views, templates and reports to your exact needs
- Display Fall-of-Potential plots, tabular listings of test results, resistance vs. frequency plots, soil resistivity and bonding tests (Models 6471 & 6472)
- Print reports using standard or custom templates you design



DataView® software provides a convenient way to configure and control ground resistance tests from your computer. Through the use of clear and easy-to-use tabbed dialog boxes, all ground tester functions can be configured and tests can be initiated. Results can be displayed in real-time and stored in your PC. Reports may be printed along with the operator's comments and analysis.



# GROUND RESISTANCE TESTER

## 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)	✓	—	
<b>GroundFlex® Field Kit Model 6474</b>	2136.03	0.001Ω to 99.99kΩ	Rechargeable Battery	—	✓	✓	✓	✓	—	✓	Digital	Value Displayed	—	✓	
<b>6471 (SR182 probes not included)</b>	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	Battery	✓	✓	—	✓	—	—	—	Digital	LED/Buzzer	—	—	
4630	2130.44	0.0 to 1999Ω	Rechargeable Battery	—	—	—	✓	—	—	—	—	—	—	—	
4630 Kit 150FT	2135.22			✓	✓	—	✓*	—	—	—	—	Digital	LED/Buzzer	—	—
4630 Kit 300FT	2135.23			—	—	—	✓	—	—	—	—	—	—	—	—
4630 Kit 500FT	2135.24			—	—	—	✓	—	—	—	—	—	—	—	—
3640	2114.92	0.0 to 1999Ω	Battery	—	—	—	—	—	—	—	—	—	—	—	
3640 Kit 150FT	2135.13			✓	✓	—	—	—	—	—	Digital	LED	—	—	
3640 Kit 300FT	2135.14			—	—	—	—	—	—	—	—	—	—	—	—

\* 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.

