

## Model 6470-B

Measure ground resistance,  
soil resistivity and bonding  
resistance with one instrument!

## ► SPECIFICATIONS

MODEL	6470-B
<b>ELECTRICAL</b>	
<b>3-Point Measurement</b>	
Range (Auto-Ranging)	0.01 to 99.99k $\Omega$
Resolution	0.01 to 100 $\Omega$
Test Voltage	16 or 32V selectable
Resistance Measurement Frequency	40 to 513Hz selectable or automatic selection
Test Current	Up to 250mA
Accuracy	$\pm 2\%$ of Reading + 1ct
<b>Soil Resistivity 4-Point Measurement</b>	
Test Method	Wenner or Schlumberger selectable with automatic calculation of test results displayed in $\Omega$ -meters
Range (Auto-Ranging)	0.01 to 99.99k $\Omega$
Resolution	0.001 to 10 $\Omega$
Test Voltage	16 or 32V selectable
Frequency	41 to 128Hz selectable
<b>External Voltage Measurement</b>	
Range (Auto-Ranging)	0.1 to 65.0V <sub>AC/DC</sub> – DC to 450Hz
Accuracy	$\pm 2\%$ of Reading + 1ct
<b>Resistance Measurement (Bond Testing)</b>	
Measurement Type	2-Point or 4-Point user selectable
Range (Auto-Ranging)	2-Point 0.01 to 99.9k $\Omega$ ; 4-Point 0.001 to 99.99k $\Omega$
Accuracy	$\pm 2\%$ of Reading + 2cts
Test Voltage	16V <sub>DC</sub>
Test Current	200mA max
<b>Data Storage</b>	
Memory Capacity	512 test results (64KB)
Communication	Optically isolated USB
<b>Power Source</b>	
Recharging Source	9.6V NiMH rechargeable battery pack (included) 110/120 50/60Hz external charge with 18V <sub>DC</sub> , 1.9A output or 12V <sub>DC</sub> vehicle power



The Model 6470-B quickly checks ground rod resistance with its Connect – Press – Read approach.

Why measure  
soil resistivity?  
Get your answer here!



## ► TEST KITS

150 ft Kit: Catalog #2135.02

300 ft Kit: Catalog #2135.03

500 ft Kit: Catalog #2135.04

Includes meter, NiMH batteries, optical USB cable, DataView® software, power adapter 110/240V with power cord 115V US, power cord 110/240V (line), two 5 ft red/blue leads, one 30 ft green wire, one each 150, 300, 500 ft red and blue wire, one each 100 ft black and green wire, set of five spaded lugs, four auxiliary ground electrodes, tape measure, carrying case and user manual.



## ► PRODUCT INCLUDES

NiMH batteries, optical USB cable, DataView® software, power adapter 110/240V with power cord 115V US, ground workbook CD, carrying bag and user manual.

► Reel Caddy  
Catalog #2135.85 (optional)  
Set of two, for use with ground kit spools



## Model 6470-B

### Large Functional Displays

#### ► FEATURES

- 2- and 4-Wire Bond Resistance/Continuity Measurement (DC Resistance) with automatic polarity reversal
- 3-Pole (3-Point) Fall-of-Potential measurement with manual or automatic frequency selection
- 4-Pole (4-Point) Fall-of-Potential measurement for very low resistance measurements with manual and automatic frequency selection and automatic lead compensation
- 4-Pole (4-Point) Soil Resistivity measurement with automatic calculation of Rho ( $\rho$ ) and user selection of the Wenner or Schlumberger test method
- 3-Pole (3-Point) Earth Coupling measurement
- Manual and automatic frequency scan from 40 to 513Hz for optimum test accuracy in electrically noisy environments
- Selectable test voltage of 16 or 32V up to 250mA of test current
- Auto-off power management
- Automatic recognition of all electrode connections and their resistance value
- Stores up to 512 complete test results in internal memory
- Optically isolated USB communication cable included
- Display with automatic backlight when entering a function
- Remote set up and operation of all measurements using DataView® software supplied
- Automatic report generation
- Rechargeable NiMH batteries from wall charger or vehicle power
- Rugged dustproof and rainproof field case – IP54 rated in closed position
- Grounding standards IEC 61557 parts 4 and 5 compliant
- Includes FREE DataView® software for data storage, real-time display, analysis and report generation (see page 38)

#### 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



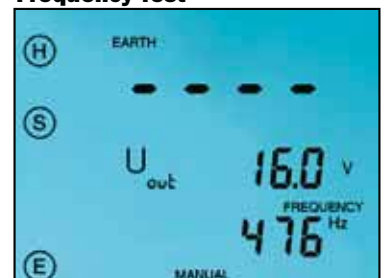
The 3-Point Fall-of-Potential test displays test lead connection, grounding rod resistance and test electrode resistances.

#### Schlumberger Test



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

#### Frequency Test



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

#### Data Storage



Displays test results stored at a specific memory location as well as the test function.

#### Wenner Test



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

#### CATALOG NO. DESCRIPTION

2135.01	Ground Resistance Tester Model 6470-B (2-Point, 3-Point, 4-Point, Bond Test, Digital, Rechargeable Battery, DataView® software)
2135.02	Ground Resistance Tester Model 6470-B Kit – 150 ft (Model 6470-B and Catalog #2135.35)
2135.03	Ground Resistance Tester Model 6470-B Kit – 300 ft (Model 6470-B and Catalog #2135.36)
2135.04	Ground Resistance Tester Model 6470-B Kit – 500 ft (Model 6470-B and Catalog #2135.37)

#### Accessories (Optional)

2135.35	Test Kit for 3-Point Testing (includes two 150 ft color-coded leads on spools (red/blue), two 5 ft color-coded leads (red/blue), one 30 ft lead (green), two 14.5" T-shaped auxiliary ground electrodes, set of five spaded lugs, 100 ft tape measure and soft carrying bag)
2135.36	Test Kit for 4-Point Testing (includes two 300 ft color-coded leads on spools (red/blue), two 5 ft color-coded leads (red/blue), two 100 ft color-coded leads (hand-tied green/black), four 14.5" T-shaped auxiliary ground electrodes, set of five spaded lugs, 100 ft tape measure and soft carrying bag)
2135.37	Test Kit for 4-Point Testing (includes two 500 ft color-coded leads on spools (red/blue), two 5 ft color-coded leads (red/blue), two 100 ft color-coded leads (hand-tied green/black), one 30 ft lead (green), four 14.5" T-shaped auxiliary ground electrodes, set of five spaded lugs, 100 ft tape measure and soft carrying bag)
2135.38	Ground Test Kit for 3-Point Testing (Supplemental for 4-Point Testing – includes two 100 ft color-coded leads, hand-tied green/black), one 30 ft lead (green), two 14.5" T-shaped auxiliary ground electrodes and soft carrying bag)
2135.85	Caddy – Set of 2, Reel Caddy for use w/Ground Kit Spools (available on website storefront)



The Right Source For Your Test & Measurement Needs

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Toll Free: 1.866.363.6634 Tel: 1.619.429.4545 Fax: 1.619.374.7012

Email: sales@calright.com <http://www.calright.com>



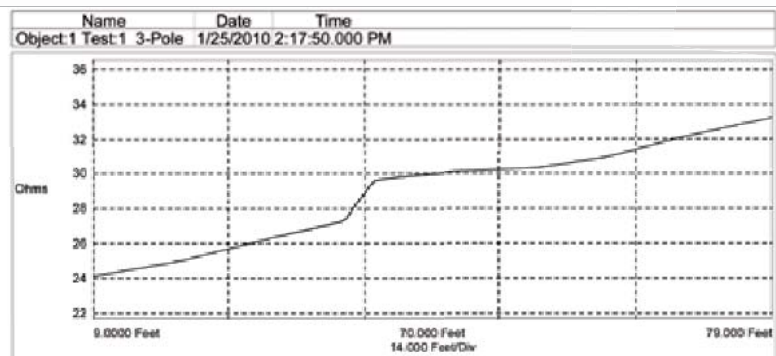
# DataView®

Data Analysis and Reporting Software for Ground Testers

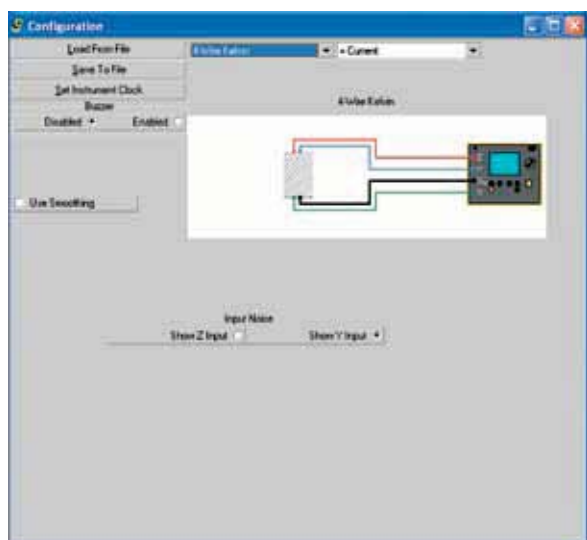
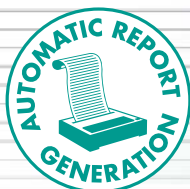


## Configure all functions of the Models 6470-B, 6471 & 6472

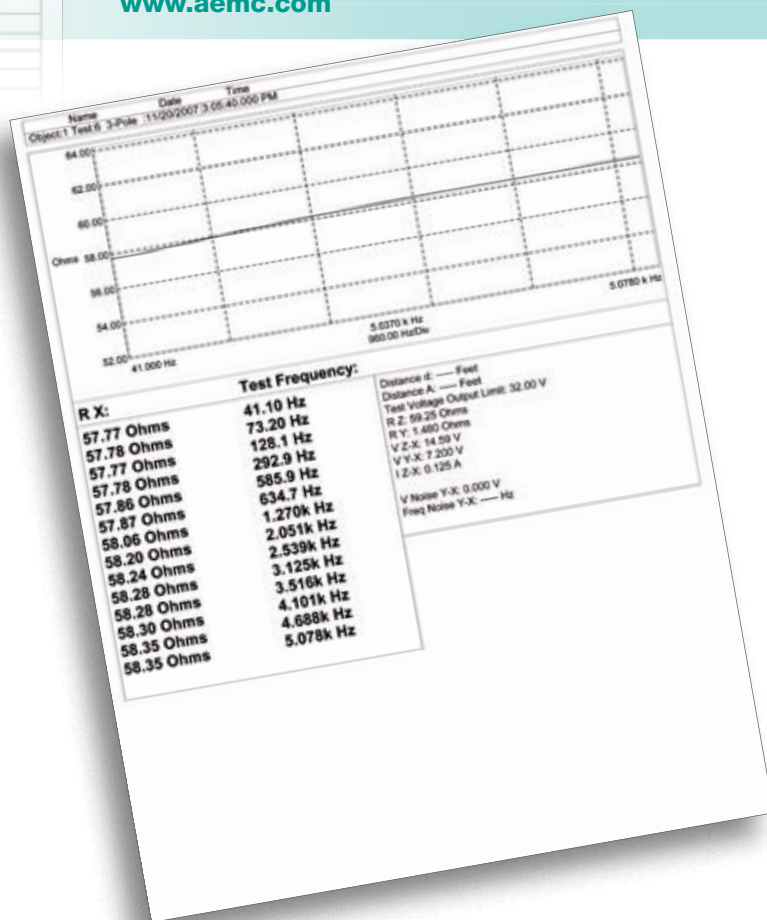
- Run tests and analyze real-time data from your PC
- Configure all test functions and parameters from your PC
- Customize views, templates and reports to your exact needs
- Display Fall-of-Potential plots, tabular listings of test results, resistance vs. frequency plots, soil resistivity and bonding tests
- Print reports using standard or custom templates you design
- Free updates are available on our website [www.aemc.com](http://www.aemc.com)



Distance d (Feet)	R X (Ohms)	V Y-X (V)
9	24.1	3.27
18	25	3.37
26	26.1	3.49
35	29.3	3.63
44	30.0	3.84
46	30.1	3.96
55	30.3	3.98
62	30.9	4.05
70	32.1	4.19
79	33.2	4.31



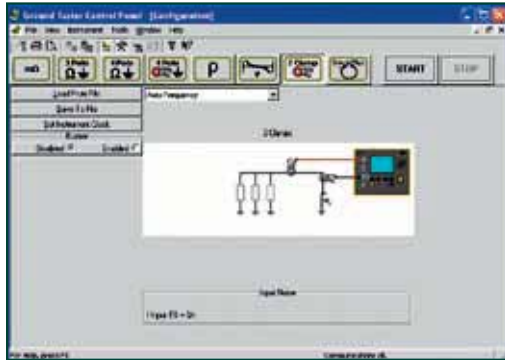
DataView® software provides a convenient way to configure and control ground resistance tests from your computer. Through the use of clear and easy-to-use tabbed dialog boxes, all ground tester functions can be configured and tests can be initiated. Results can be displayed in real-time and stored in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



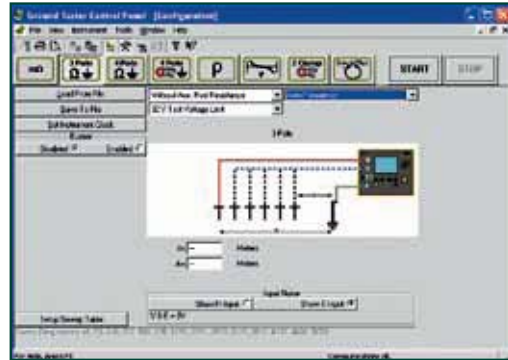
# Ground Testers Models 6470-B, 6471 & 6472

## Typical DataView® Functional Displays

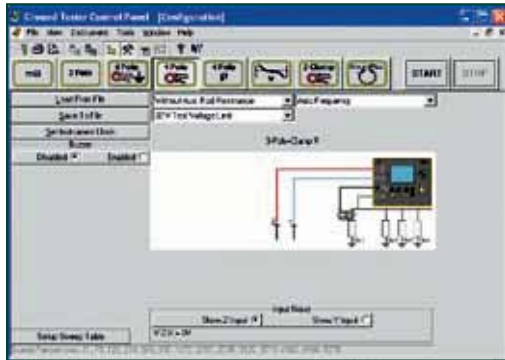
### 2 Clamp Method Setup



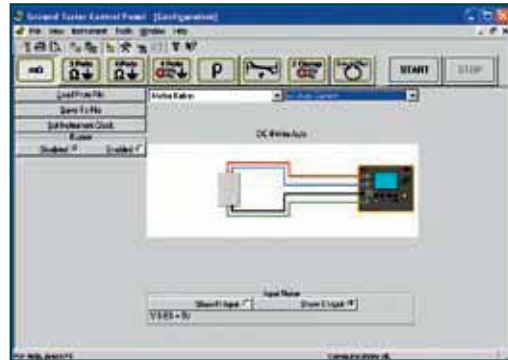
### Fall-of-Potential, Step-Touch Potential



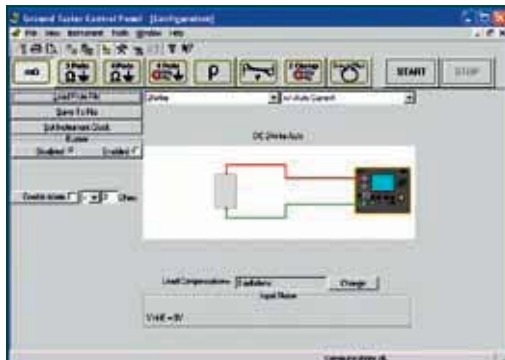
### Selective 3-Point Testing of Multiple Rods



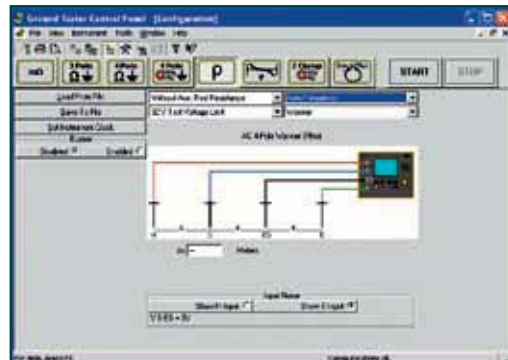
### 4-Point Bonding For Very Low Resistance



### Bonding



### Soil Resistivity



#### 150 ft Kit

**Catalog #2135.35**  
Test Kit for 3-Point testing includes two 150 ft color-coded leads on spools (red and blue), two 5 ft color-coded leads (red/blue), one 30 ft lead (green), two 14.5" T-shaped auxiliary ground electrodes, one set of five spaded lugs, 100 ft tape measure and carrying bag.



#### 300 ft Kit

**Catalog #2135.36**  
Test Kit for 4-Point testing includes two 300 ft color-coded leads on spools (red and blue), two 5 ft color-coded leads (red/blue), two 100 ft color-coded leads (green and black), four 14.5" T-shaped auxiliary ground electrodes, one set of five spaded lugs, 100 ft tape measure and carrying bag.



#### 500 ft Kit

**Catalog #2135.37**  
Test Kit for 4-Point testing includes two 500 ft color-coded leads on spools (red and blue), two 5 ft color-coded leads (red/blue), two 100 ft color-coded leads (green and black), one 30 ft lead (green), four 14.5" T-shaped auxiliary ground electrodes, one set of five spaded lugs, 100 ft tape measure and carrying bag.

## ► OPTIONAL KITS