# **GROUND RESISTANCE TESTERS**

Multi-Function











The Model 6471 performs a fast and easy way to measure the value of the earth/ground using the 2 Clamp method (no auxiliary rods needed).



# **►TEST KITS**

### 300 ft Kit: Catalog #2135.50

Includes meter, set of two SR182 current probes, rechargeable NiMH batteries, optical USB cable, power adapter 110/240V with power cord 115V US, two 300 ft color-coded leads on spools (red/blue), two 5 ft color-coded leads (red/blue), two 100 ft color-coded leads (handtied, green/black), four T-shaped auxiliary ground electrodes, set of five spaded lugs, one 100 ft tape measure, DataView® software, ground tester workbook CD, carrying bag for meter, carrying bag for kit, product warranty and registration card and a user manual.

### ACCESSORIES

► MN82 current probe (50A) Catalog #2135.71 (optional)



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



SR182 current probe (50A) Catalog #2135.72





### **►**SPECIFICATIONS

MODEL	6471
ELECTRICAL	
2 Clamp Measurement	
Range	0.10 to 500Ω
Resolution	0.01 to 1Ω
Measurement Frequency	Auto: 1367Hz Manual: 128Hz-1367Hz-1611Hz-1758Hz
3-Point Measurement	
Range (Auto-Ranging)	$0.09\Omega$ to $99.9$ k $\Omega$
Resolution	$0.01\Omega$ to $100\Omega$
Test Voltage	Nominal 16 or 32Vrms user selectable
Resistance Measurement Frequency	41 to 513Hz automatic or user selectable
Test Current	Up to 250mA
Accuracy	±2% of Reading + 1ct @ 128Hz
Soil Resistivity 4-Point Mea	surement
Test Method	Wenner or Schlumberger selectable with automatic calculation in $\Omega$ -meters
Range (Auto-Ranging)	0.01 to 99.99kΩ; $\rho$ Max: 999kΩm
Resolution	0.001 to 10Ω
Test Voltage	16 or 32V user selectable
Frequency	From 41 to 128Hz selectable
<b>External Voltage Measurem</b>	ent
Range (Auto-Ranging)	0.1 to 65.0Vac/dc - DC to 440Hz
Accuracy	±2% of Reading + 1ct
Resistance Measurement (E	Bond Testing)
Measurement Type	2-Pole (with lead resistance compensation) or 4-Pole (Kelvin sensing) user selectable
Range (Auto-Ranging)	2-Pole $0.02\Omega$ to $99.99$ k $\Omega$ ; 4-Pole $0.02\Omega$ to $99.99$ k $\Omega$
Accuracy	±2% of Reading + 2cts
Test Voltage	16Vpc (+, - or auto polarity)
Test Current	Up to 250mA max
Data Storage	
Memory Capacity	512 test results (64KB)
Communication	Optically Isolated USB
Power Source	9.6V rechargeable battery pack (included)
Recharging Source	110/220 50/60Hz external charger with 18Vpc, 1.9A output



# **Model 6471**

# **Large Functional Displays**

### **▶ FEATURES**

- Ground Resistance testing using the 2 clamp method (no auxiliary rods needed)
- 2- and 4-Point 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 (ρ) and user selection of the Wenner or Schlumberger test method
- 3-Point Earth Coupling measurement
- Manual and Automatic frequency scan from 41 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
- Display with automatic backlight when entering a function
- Optically isolated USB communication cable included
- Remote set up and operation of all measurements using DataView<sup>®</sup> software
- 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 DataView® software for 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.

### Schlumberger Test



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

### **Data Storage**



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

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



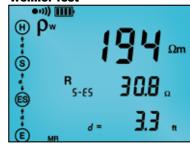
The 3-Point Fall-of-Potential test displays test lead connection, grounding rod resistance and test electrode resistances.

### **Two Clamp Test**



The 2 Clamp method displays clamp connection resistance, test current and frequency.

### **Wenner Test**



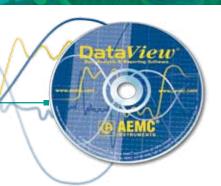
The Wenner test displays test lead connection, soil resistivity  $(\rho)$  test results, electrode spacing and resistance.

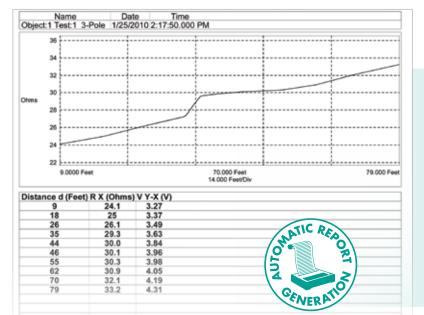
NOTE: More information for each test is available by scrolling through the displays.

CATALOG NO.	DESCRIPTION
2135.49	Ground Resistance Tester Model 6471 (set of two SR182 current probes, 2-Point, 3-Point, 4-Point, Bond Test, Digital, Rechargeable Battery, DataView® software)
2135.50	Ground Resistance Tester Model 6471 Kit – 300 ft (Catalog #2135.49 and Catalog #2135.36)
Accessories (Optio	nal)
2135.71*	AC Current Probe Model MN82 for use with Model 6471
2135.72*	AC Current Probe Model SR182 for use with Model 6471
2135.85	Caddy – Set of 2, Reel Caddy for use w/Ground Kit Spools (available on website storefront)
*2 probes required fo	or two clamp testing method.

# Data View ®

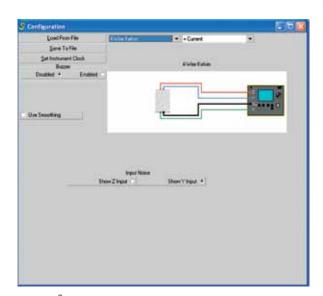
**Data Analysis and Reporting Software for Ground Testers** 



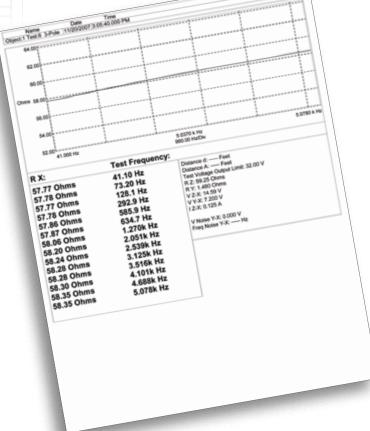


# **Configure all functions of** the Models 6470-B, 6471 & 6472

- 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



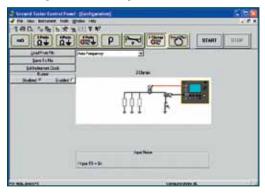
DataView® software provides a convenient way to configure and control ground resistance tests from your computer. Through the use of clear and easy-to-use tabbed dialog boxes, all ground tester functions can be configured and tests can be initiated. Results can be displayed in real-time and stored in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



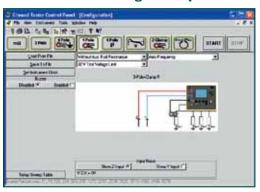
# **Ground Testers Models 6470-B, 6471 & 6472**

# Typical DataView® Functional Displays

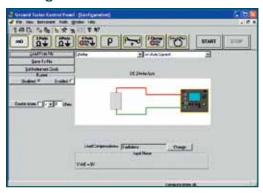
### **2 Clamp Method Setup**



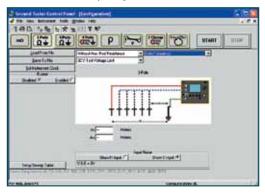
### **Selective 3-Point Testing of Multiple Rods**



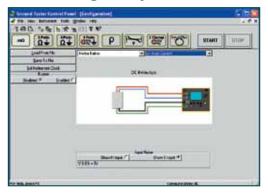
### **Bonding**



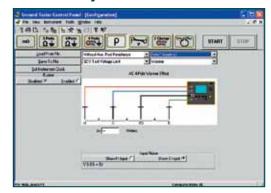
### Fall-of-Potential, Step-Touch Potential



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



### **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 colorcoded 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.



## ► OPTIONAL KITS

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.

