

Multi-Function Ground Resistance Tester Model 6472



The Model 6472 measures from 0.01 to 99.99k Ω and is auto-ranging, automatically seeking out the optimum measurement range, test frequency and test current.

Easy-to-use – Simply connect the leads, select test mode, press Start and read the results. Up to 512 test results can be stored in internal memory for recall to the display or downloaded to a PC via DataView® software.

The large LCD is easy-to-read and indicates ground electrode resistance, test voltage, current

and frequency as well as individual electrode resistance, battery status and more.

The Model 6472 is Cat IV rated to 50V and is over voltage protected to more than 250VAC against accidental live connection to live circuits. The voltage is also displayed on screen. In the event of a system fault, the Model 6472 can withstand 250VAC.

Additional features of the Model 6472 include; manual and automatic test frequency selection from 40 to 5078Hz; user

selectable 3 or 4-Pole Fall of Potential or 4-Pole Soil Resistivity test methods and user selectable 2-Wire or 4-Wire Bond Resistance test method.

The Model 6472 is powered by 9.6V, 3.5 Ah NiMH rechargeable batteries. An external recharger powered from 120/230V, 50/60Hz is included and provides for testing while recharging. The Model 6472 can also be vehicle powered from an optional 12V battery adapter. (Cat. #2135.42)



FEATURES

- 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 (ρ) and user selection of the Wenner or Schlumberger test method
- 3-Point earth coupling measurement
- Measures Ground Resistance using the 2 clamp method (selective ground testing)
- Measures Ground Impedance at frequencies up to 5kHz to test lightning strike protection
- Manual and automatic frequency scan from 40 to 5078Hz 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
- Optically isolated USB communication
- Remote set up and operation of all measurements using DataView® software
- Automatic report generation including the fall of potential plot
- Rechargeable NiMH batteries from wall charger or vehicle power
- Rugged dustproof and rainproof field case
- Includes DataView® software for data storage, real-time display, analysis, report generation and system configuration

APPLICATIONS

- **3-Point measurements of resistance to ground of ground rods and grids.** 3-Point measurements are generally used when the electrode or grid can be easily disconnected.
- **4-Point tests or soil resistivity measurements.** Locating areas of lowest soil resistivity is essential for achieving an economical grounding installation.
- **Touch and step potential testing measurements.** These tests are recommended when the ground cannot be disconnected, where ground faults are highly likely to occur, or when the “footprint” of grounded equipment (the outline of the part of equipment in contact with the earth) is comparable to the size of the ground to be tested.
- **2- or 4-Wire tests for continuity tests on bonding or on grounding systems.** This test is a DC resistive test using 250mA or more and is used to check bonding of all connection points on the ground system.
- **Earth coupling measurement and display.** Used to estimate the influence of two earth resistance systems that are not connected to each other.



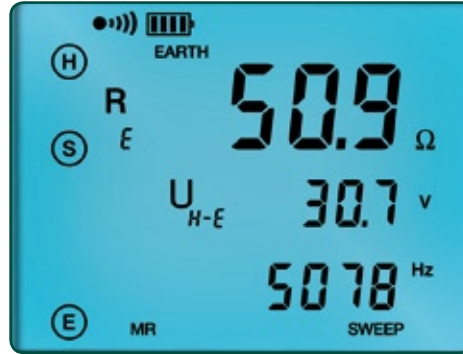
FUNCTIONAL DISPLAYS

4-Point Bond Test



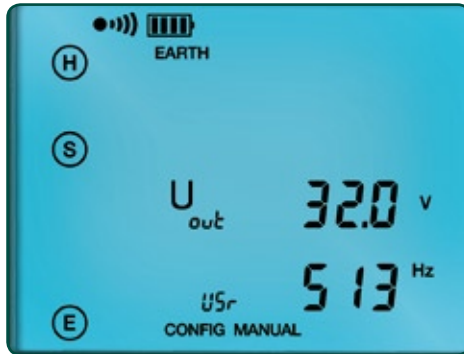
The 4-Point Bond test displaying lead connections, bond resistance test results, test voltage and current.

3-Point Fall-of-Potential Test



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

Frequency Selection Test



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

Data Storage



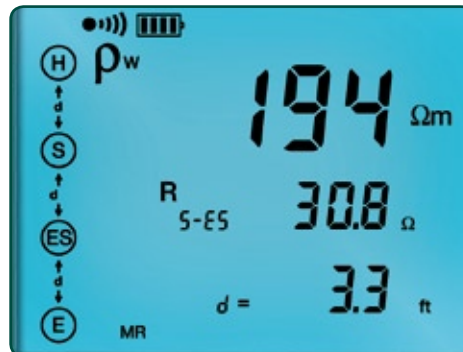
Memory Recall displays test results stored at a specific memory location.

Schlumberger Test



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

Wenner Test



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

SPECIFICATIONS

MODEL 6472	
ELECTRICAL	
3-Pole Measurement	
Range (Auto-Ranging)	0.09 Ω to 99.9k Ω
Resolution	0.01 Ω to 100 Ω
Test Voltage / Current	Nominal 16 or 32Vrms user selectable; Up to 250mA
Resistance Measurement Frequency	41 to 5078Hz user selectable or automatic selection
Accuracy	$\pm 2\%$ of Reading + 1ct @ 128Hz
Earth Coupling Measurement	Yes
4-Pole Measurement	
Range (Auto-Ranging)	0.001 to 99.99k Ω
Resolution	0.001 to 10 Ω
Test Voltage	16 or 32V user selectable
Resistance Measurement Frequency	From 41 to 5078Hz selectable
Accuracy	$\pm 2\%$ of Reading + 1cts @ 128Hz
NOTE: 4-Pole Measurement with 1 Clamp SR182 (same specification as the 4-Pole measurement)	
4-Pole Measurement with 1 Clamp MN182 (same specification as the 4-Pole measurement + 5%)	
2 Clamp Measurement	
Range (Auto-Ranging)	0.01 to 500 Ω
Resolution	0.01 to 1 Ω
Frequency	128Hz, 1367Hz, 1611Hz, 1758Hz
Accuracy with SR182	$\pm 10\%$ of Reading + 1cts
Accuracy with MN182	$\pm 20\%$ of Reading + 2cts
Soil Resistivity 4-Pole Measurement	
Test Method	Wenner or Schlumberger selectable with automatic calculation of test results in Ω -meters, Ω -cm or Ω -feet
Range (Auto-Ranging)	0.01 to 99.99k Ω ; ρ Max: 999k Ω m (display in k Ω ft is not possible)
Resolution	0.01 to 100 Ω
Test Voltage	16 or 32V user selectable
Frequency	From 41 to 128Hz selectable
Accuracy	$\pm 2\%$ of Reading + 1cts
Earth Potential Measurement	
Range (Auto-Ranging)	0.01mV to 65V
Resolution	0.01 to 10mV
Accuracy	$\pm 2\%$ of Reading + 1ct @ 128Hz
Frequency	From 41 to 128Hz selectable
Accuracy	2% of Reading + 1cts
External Voltage Measurement	
Range (Auto-Ranging)	0.1 to 65.0VAC/DC – DC to 440Hz
Accuracy	$\pm 2\%$ of Reading + 1cts
Input Impedance	1.2M Ω
External Current Measurement	
Range (Auto-Ranging) with SR182	0.01 to 40.0A – 16 to 400Hz
Accuracy @ 50 to 99Hz	$\pm 5\%$ of Reading + 2cts from 0.01 to 100mA; $\pm 10\%$ + 2cts from 0.1 to 40A
Range (Auto-Ranging) with MN182	0.01 to 9.99A – 16 to 400Hz
Accuracy @ 50 to 99Hz	$\pm 7\%$ of Reading + 2cts from 0.01 to 100mA; $\pm 15\%$ + 2cts from 0.1 to 10A
Resistance Measurement (Bond Testing) IEC 61557/4	
Measurement Type	2-Pole (with lead resistance compensation) or 4-Pole (Kelvin sensing) user selectable
Range (Auto-Ranging)	2-Pole 0.01 Ω to 99.9k Ω ; 4-Pole 0.001 Ω to 99.99k Ω
Accuracy	$\pm 2\%$ of Reading + 2cts
Test Voltage / Current	16Vdc (+, - or auto polarity); Up to 250mA max
Data Storage	
Memory Capacity	512 test results
Communication	Optically Isolated USB
Automatic Report Generation	Yes — Tabular listings, Fall-of-Potential plots and Frequency/Resistance plots
Power Source	9.6V rechargeable battery pack
Recharging Source	110/220 50/60Hz external charger with 18Vdc, 1.9A output or 12V vehicle power

MECHANICAL	
Test Lead Connection	4mm recessed banana jacks
Mechanical Shock	Per EN 61557
Vibration Test	Per EN 61557
Drop Test	Per EN 61557
Dielectric Test	3kV 50/60Hz
Dimensions	10.7 x 9.76 x 5.12" (272 x 248 x 130mm)
Weight	7.5 lbs (3.5kg)
Case	Polypropylene
Index of Protection	IP53 with cover closed
DISPLAY	
Display Type	Custom 256 segment multi-line LCD
Backlight	Blue electroluminescent
COMMUNICATION	
Software	DataView® graphing, analysis and reporting software
ENVIRONMENTAL	
Operating Temperature	14° to 122°F (-10° to 55°C)
Storage Temperature	-40° to 158°F (-40° to 70°C)
SAFETY	
Safety Rating	EN61010-1 50V Cat IV, Pollution Degree 2
Double Insulation	Yes
CE Mark	Yes

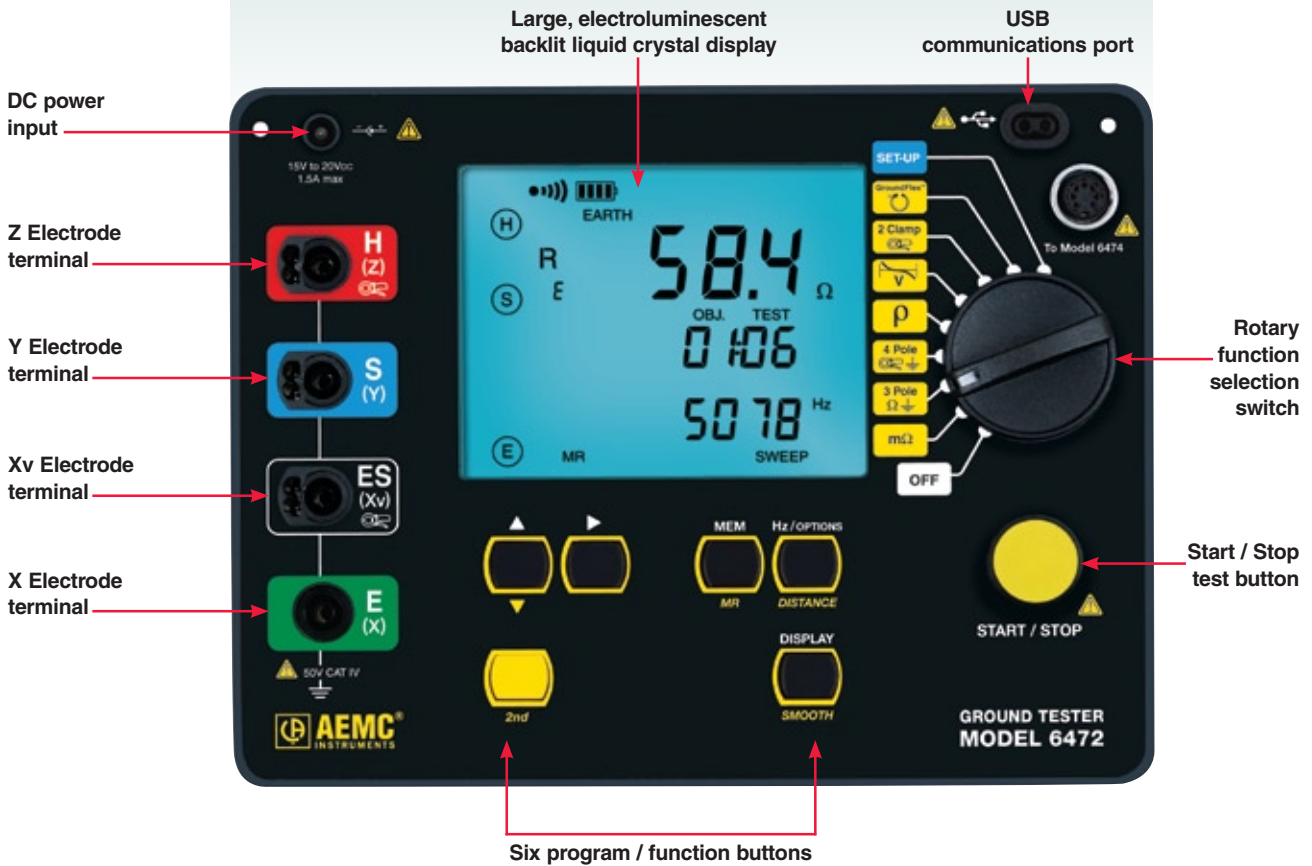
Ground Resistance Tester Model 6472 Kit (500 ft kit shown) includes meter, NiMH batteries, optically isolated USB cable, DataView® software, external battery charger, AC power cord, one 30 ft green wire, one each 500 ft red and blue wire, one each 100 ft black and green wire, set of five spade lugs, four 14.5" auxiliary electrodes, tape measure (100 ft), carrying case and user manual.
Catalog #2135.54



CONSTRUCTION



FACEPLATE



DataView[®]

Data Analysis and Reporting Software

Configure all functions of the Model 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
- Create and store a complete library of configurations that can be used with the Model 6472 as needed
- 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 through our website www.aemc.com



DataView is included with the Model 6472.



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 of Model 6472 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.

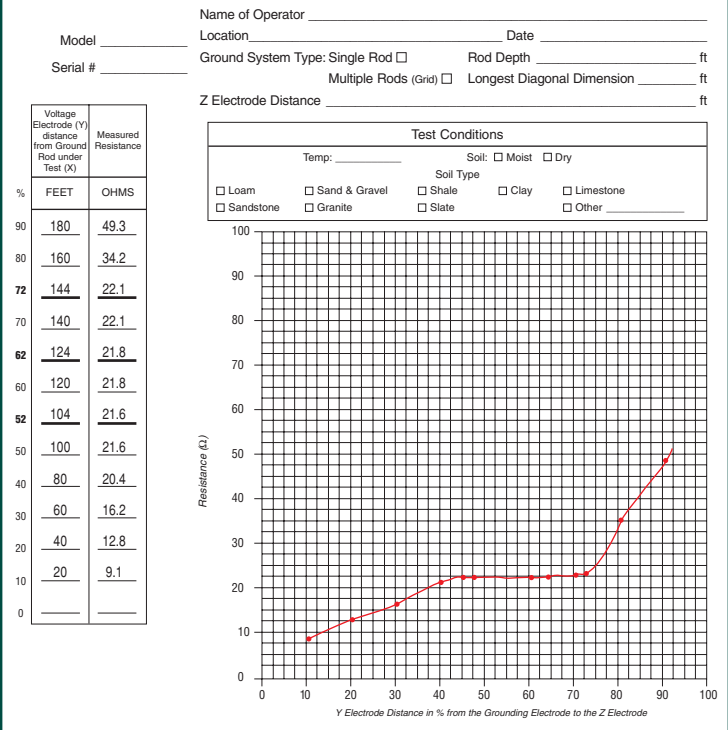


DataView[®] Minimum System Requirements:

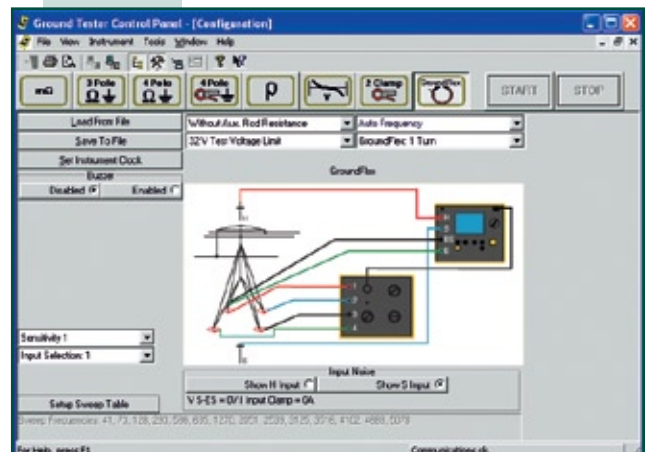
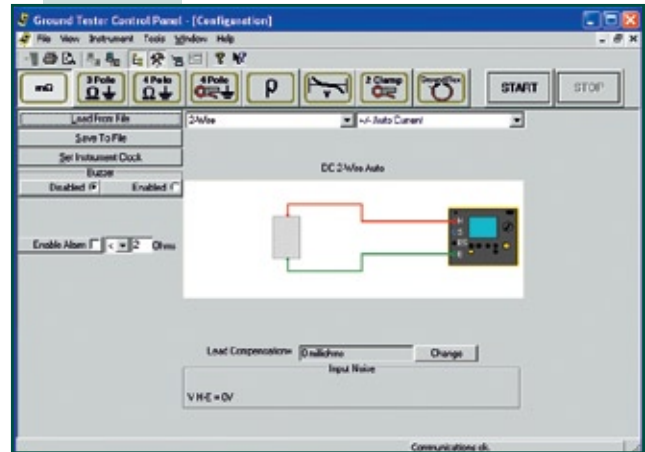
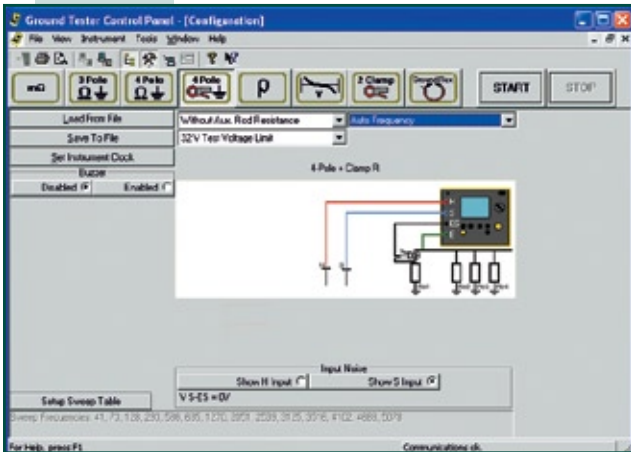
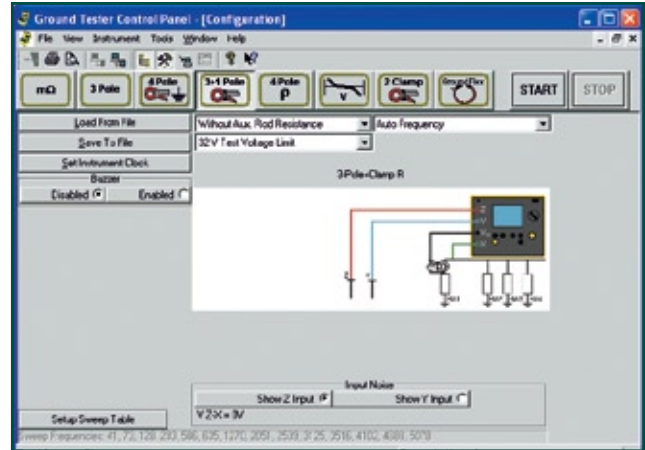
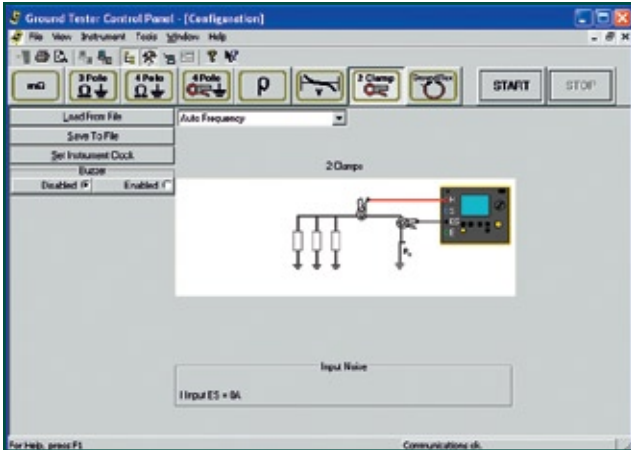
- Windows 2000/XP/Vista[®] operating system
- 128MB of RAM for Windows 2000 (256MB recommended)
- 256MB of RAM for Windows XP
- 512MB of RAM for Windows Vista[®]
- 80MB of hard disk space (200MB recommended)
- CD-ROM drive

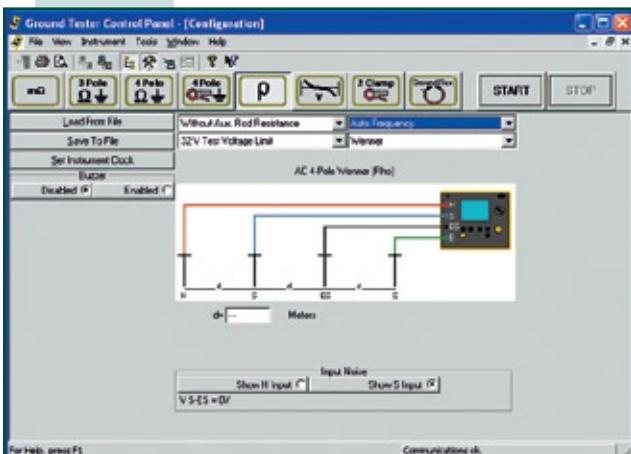
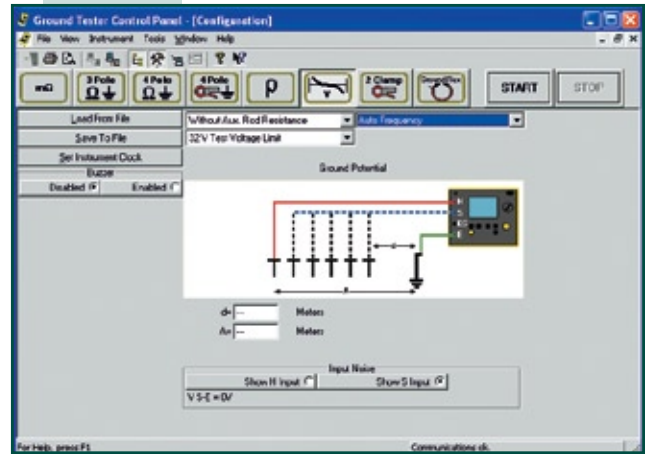
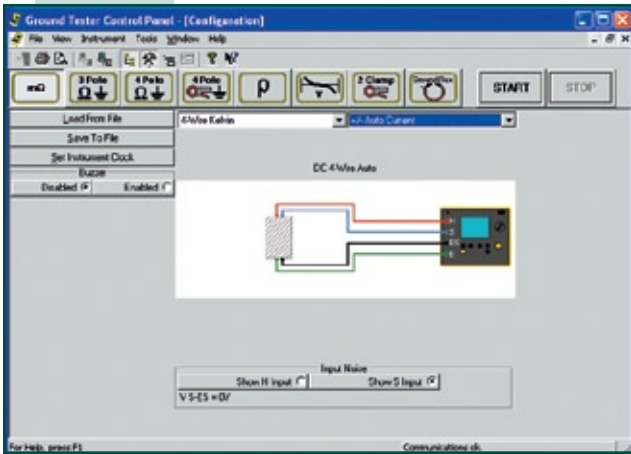
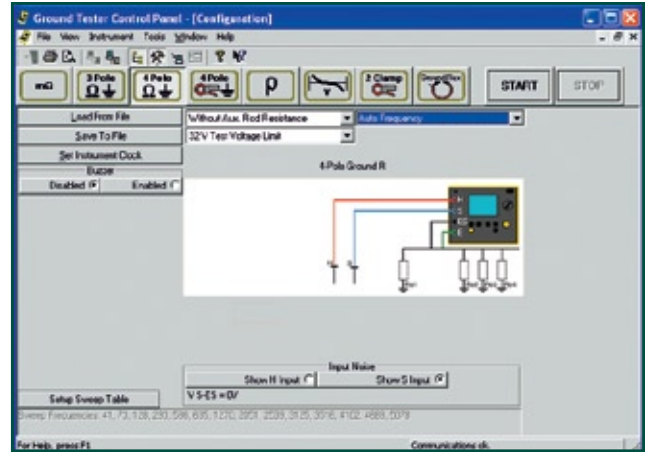
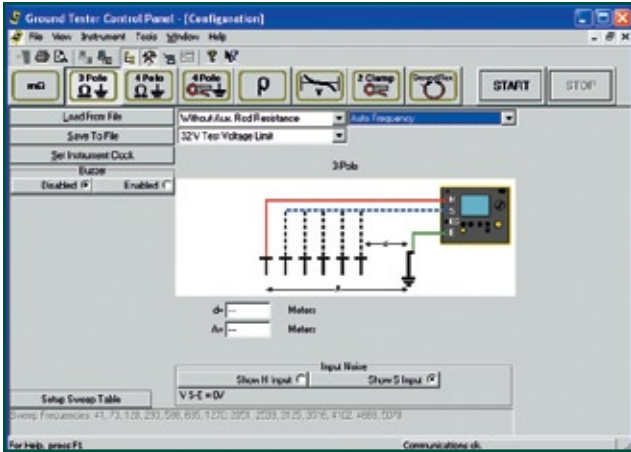
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Fall-of-Potential Plot



Typical report showing Fall-of-Potential plot using DataView[®] software.





ACCESSORIES



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



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



Test Kit for 4-Point testing includes two 500 ft color-coded leads on spools (red and 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 spade lugs, 100 ft tape measurer and carrying bag.
Catalog #2135.37



Test Kit for 3-Point testing (supplemental for 4-Point testing) includes two 100 ft color-coded leads, one 30 ft lead (green), two 14.5" auxiliary electrodes and soft carrying bag for use with kit number 2135.35 when 4-Point soil resistance testing is necessary.
Catalog #2135.38

ORDERING INFORMATION

CATALOG NO.

Ground Resistance Tester Model 6472	Cat. #2135.51
Includes rechargeable NiMH batteries, optical USB cable, power adapter 110/240V with power cord 115V US, DataView® software, ground tester workbook CD, carrying bag for meter, product warranty and registration card and a user manual.	
Ground Resistance Tester Model 6472 Kit (150 ft)	Cat. #2135.52
Includes meter, rechargeable NiMH batteries, optical USB cable, power adapter 110/240V with power cord 115V US, two 150 ft color-coded leads on spools (red/blue), one 30 ft lead (green), two T-shaped auxiliary ground electrodes, set of five spaded lugs, one 100 ft AEMC® 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.	
Ground Resistance Tester Model 6472 Kit (300 ft)	Cat. #2135.53
Includes meter, 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 100 ft color-coded leads (hand-tied, green/black), four T-shaped auxiliary ground electrodes, set of five spaded lugs, one 100 ft AEMC® 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.	
Ground Resistance Tester Model 6472 Kit (500 ft)	Cat. #2135.54
Includes meter, rechargeable NiMH batteries, optical USB cable, power adapter 110/240V with power cord 115V US, two 500 ft color-coded leads on spools (red/blue), two 100 ft color-coded leads (hand-tied, green/black), one 30 ft lead (green), four T-shaped auxiliary ground electrodes, set of five spaded lugs, one 100 ft AEMC® 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 (Optional)	
25Ω Calibration Checker	Cat. #2130.59
Tape Measure (100 ft)	Cat. #2130.60
Test Kit for 3-Point testing (includes two 150 ft color-coded leads on spools (red/blue), one 30 ft lead (green), two 14.5" T-shaped auxiliary ground electrodes, set of five spade lugs, 100 ft tape measure and soft carrying bag)	Cat. #2135.35
Test Kit for 4-Point testing (includes two 300 ft color-coded leads on spools (red/blue), two 100 ft color-coded leads (hand tied green/black), four 14.5" T-shaped auxiliary ground electrodes, set of five spade lugs, 100 ft tape measure and soft carrying bag)	Cat. #2135.36
Test Kit for 4-Point testing (includes two 500 ft color-coded leads on spools (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 spade lugs, 100 ft tape measure and soft carrying bag)	Cat. #2135.37
Ground Test Kit for 3-Point testing (Supplemental for 4-Point testing — includes two 100 ft color-coded leads, one 30 ft lead (green), two 14.5" T-shaped auxiliary ground electrodes and soft carrying bag)	Cat. #2135.38

Contact Us

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