# **GROUND RESISTANCE TESTERS MULTI-FUNCTION**

### MODELS 6422 & 6424

To keep your installation safe, measure the resistance of its connection to earth!











### **SPECIFICATIONS**

| MODELS                      | 6422  |               |               | 6424  |               |               |               |  |
|-----------------------------|---|---------------|---------------|---|---------------|---------------|---------------|--|
| ELECTRICAL                  |   |               |               |   |               |               |               |  |
| Voltage                     |   |               |               |   |               |               |               |  |
| Measurement Range           | -   |               |               | 0.1-600Vac/dc   |               |               |               |  |
| Resolution                  | -   |               |               | 0.1V  |               |               |               |  |
| Accuracy                    | -   |               |               | ±(1%R + 1ct)  |               |               |               |  |
| Current                     |   |               |               |   |               |               |               |  |
| Range                       | -   |               |               | 0.5-60.00Aac (requires optional MN72 probe)                     |               |               |               |  |
| Ground Resistance (2P Mode) |   |               |               |   |               |               |               |  |
| Measurement Range           | 0.05-99.99Ω, $80.0$ -999.9Ω , $0.800$ -9.999kΩ, $8.00$ -50.00kΩ                                     |               |               |   |               |               |               |  |
| Resolution                  | 0.01Ω, 0.1Ω, 1Ω, 10Ω  |               |               |   |               |               |               |  |
| Accuracy                    | $\pm$ (2%R + 10 ct), $\pm$ (2%R + 2 ct), $\pm$ (2%R + 1 ct), $\pm$ (2%R + 1 ct)                     |               |               |   |               |               |               |  |
| Ground Resistance (3P Mode) |   |               |               |   |               |               |               |  |
| Measurement Range           | 0.50-99.99Ω   | 80.0-999.9Ω   | 0.800-2.000kΩ | 0.50-99.99Ω   | 80.0-999.9Ω   | 0.800-9.999kΩ | 8.00-50.000kΩ |  |
| Resolution                  | 0.01Ω   | 0.1Ω          | 1Ω            | 0.01Ω   | 0.1Ω          | 1Ω            | 10Ω           |  |
| Accuracy                    | ± (1%R + 10ct)  | ± (1%R + 2ct) | ± (1%R + 1ct) | ± (1%R + 10ct)  | ± (1%R + 2ct) | ± (1%F        | R + 1ct)      |  |
| Measurement<br>Frequency    | 128Hz or 256Hz (automatically selected)   |               |               |   |               |               |               |  |
| No-load Voltage             | ±10 V peak  |               |               |   |               |               |               |  |
| <b>Maximum Test Current</b> | 20mA  |               |               |   |               |               |               |  |
| Measurement Mode            | One shot or continuous  |               |               |   |               |               |               |  |
| Data Storage                |   | -             |               | Stores the 52%, 62% and 72% 3P resistance measurements          |               |               |               |  |
| Calculation                 |   | -             |               | Calculates average and % deviation of the three saved readings  |               |               |               |  |
| GENERAL                     |   |               |               |   |               |               |               |  |
| Display                     | Backlit LCD   |               |               |   |               |               |               |  |
| Measurement Mode            | 2Ρ (Ω), 3Ρ (Ω)  |               |               | V, I, 2P (Ω), 3P (Ω)  |               |               |               |  |
| Power Supply                | (6) AA Alkaline batteries   |               |               | (6) NiMH rechargeable batteries,<br>charging time approx. 6 hrs |               |               |               |  |
| Battery Life                | $>$ 2,000 x 3P earth measurements at 100 $\Omega$ $>$ 1,500 x 3P earth measurements at 100 $\Omega$ |               |               |   |               | Ω             |               |  |
| Dimensions                  | 8.78 x 4.96 x 2.75" (223 x 126 x 70mm)  |               |               |   |               |               |               |  |
| SAFETY                      |   |               |               |   |               |               |               |  |
| Safety Rating               | EMC: IEC 61326-1; IEC 61010-2-030 / 600 V CAT IV  |               |               |   |               |               |               |  |

| CATALOG NO. | DESCRIPTION  |  |
|-------------|--|--|
| 2135.55     | Ground Resistance Tester Model 6422 (Digital, 3-Point)           |  |
| 2135.56     | Ground Resistance Tester Model 6422 Kit-150ft (Digital, 3-Point) |  |
| 2135.57     | Ground Resistance Tester Model 6424 (Digital, 3-Point)           |  |
| 2135.58     | Ground Resistance Tester Model 6424 Kit-150ft (Digital, 3-Point) |  |
| 2135.59     | Ground Resistance Tester Model 6424 Kit-300ft (Digital, 3-Point) |  |





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#### **FEATURES**

- Simple, one button operation eliminates errors in testing
- Test button turns green when measurement is stable
- 2P resistance measurement up to 50kΩ
- 3P ground resistance measurement up to 2kΩ (Model 6422) up to  $50k\Omega$  (Model 6424) for highly resistive terrain
- Large back lit digital display easier to read in all lighting conditions
- · Automatic hold function retains last measurement after the reading stabilizes ensuring the measurement is valid
- Automatic test frequency selection between 128 and 256 Hz, providing stable results in adverse environments
- Powers up in 2 pole mode automatically checks the injector lead connection when connected to the H auxiliary rod
- Convenient storage of the three measurements along with the average and % deviation - easily determines proper test results
- Built in test lead compensation capability improves the accuracy of low resistance measurements
- CAT IV 600V rated for a high level of operator safety
- Checks AC/DC voltage (Model 6424)
- Stores 52, 62 and 72% measurements eliminates errors in determining the ground resistance (Model 6424)
- Leakage current measurement from 0.5mA to 60A (Model 6424)
- Battery recharging via AC adapter, USB or vehicle DC port (Model 6424)
- Color coded leads and terminals provide fast, error-free connection
- Detects the presence of hazardous voltage and prohibits measurement
- Direct access to all functions, even when wearing work gloves
- Rugged water resistance case, for all terrain use
- · Built-in display stand to prop up instrument for seeing the display better when placed on the ground

#### **FUNCTIONAL DISPLAYS**



2P mode used for continuity and bonding checks - is active when the instrument is turned on.

3P mode used for measuring the

HOLD

grounding system. The resistance of the injector electrode and the test voltage are also displayed.

**Model 6424** 

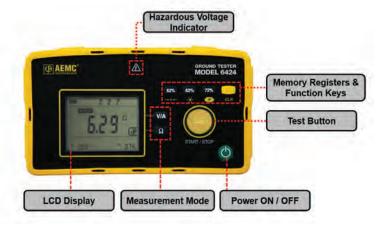


Live voltage is displayed when the V/A function is selected and test leads are connected to AC or DC voltage (Model 6424).



Leakage current is displayed when the optional MN72 probe is connected and the V/A function is selected (Model 6424).

### FRONT PANEL - 6424



# ACCESSORIES/REPLACEMENTS

#### Catalog #2135.39

Ground Rod - Set of (2) 17" Stainless Steel T-shaped **Auxiliary Ground Electrodes** 

#### Catalog #2153.06

MN72 AC Current Probe (6424 only)

**CATALOG #5000.92** Calibration Checker







