

# TEST & MEASUREMENT INSTRUMENTS

2008 Rev. 01



**Megohmmeters • Power Quality Analyzers, Meters and Loggers • Ground Resistance Testers • Cable Testers •  
Data Loggers • Environmental Testers • Digital Multimeters • Clamp-On Meters • Oscilloscopes •  
Leakage Current Meters and Probes • DC Power Supplies • Decade Boxes • Current Measurement Probes  
Electrical Test Tools • Micro-Ohmmeters • Transformer Ratiometers  
Other Products from the Chauvin Arnoux Group**

**Technical Hotline: (800) 343-1391**  
**www.aemc.com**

 **AEMC<sup>®</sup>**  
**INSTRUMENTS**  
**CHAUVIN ARNOUX GROUP**

# How To Order

- ◆ All AEMC® Instruments products are available through a network of authorized electrical, electronic and instrumentation distributors.
- ◆ If you have difficulty locating a distributor near you, contact AEMC® Instruments or your local AEMC® Instruments sales representative or check [www.aemc.com](http://www.aemc.com) for a distributor in your area by clicking on the "Ordering Info" tab:

AEMC® Instruments  
200 Foxborough Blvd.  
Foxborough, MA 02035 USA  
(508) 698-2115 • Fax (508) 698-2118  
**Technical Hotline: (800) 343-1391**  
**sales@aemc.com • www.aemc.com**

- ◆ For Ordering Information:

Chauvin Arnoux®, Inc., d.b.a. AEMC® Instruments  
15 Faraday Drive  
Dover, NH 03820 USA  
(800) 442-2362 • Fax (603) 749-9153

- ◆ Direct Export Department Lines:

(978) 526-7667 • Fax (978) 526-7605

- ◆ When ordering, please use the catalog number and product description.

Example:

Quantity	Catalog #	Description
1	2117.61	Ground Resistance Tester Model 3731 (Clamp-On) with memory and alarm

- ◆ A separate price list is available. Contact your AEMC® Instruments distributor or AEMC® Instruments for an up-to-date copy.
- ◆ AEMC® Instruments reserves the right to discontinue models at any time, or change specifications, price or design without notice and without incurring any obligation. Please contact us, your local representative, agent or distributor for updates.

## Find us on the WEB at

**Detailed product  
brochures available  
on the web!**

**WWW.**  
**AEMC**  
**.COM**

# Table of Contents

**Megohmmeters .....2**

**Power Quality Analyzers, Meters and Loggers ..... 12**

**Ground Resistance Testers .....18**

**Cable Testers .....25**

**Data Loggers.....28**

**Environmental Testers.....38**

**Clamp-On Meters.....43, 67**

**Leakage Current Meters and Probes .....45**

**Oscilloscopes .....49**

**DC Power Supplies .....51**

**Decade Boxes..... 52**

**Current Measurement Probes..... 53**

**Electrical Test Tools ..... 60**

**High Voltage Detectors ..... 62**

**Transformer Ratiometers ..... 63**

**Micro-Ohmmeters ..... 64**

**Other Products from the Chauvin Arnoux® Group.....66**

    Digital Multimeters .....66

    Clamp-On Meters.....67

**Meghommmeters Selection Chart.....68**

**Ground Resistance Testers Selection Chart.....69**

**Catalog Cross Reference Index .....70**

**Training Seminars ..... 72**

**Product Support..... Inside Back Cover**



# Digital/Analog Megohmmeter Models 1030, 1040 & 1045



Models 1030, 1040 &amp; 1045



## For motors, cables, switchgear and general applications

### Features

- True Megohmmeter®
- Test voltage combinations of 250V, 500V and 1000V
- Insulation measurements to 2000MΩ (2GΩ)
- Automatic test inhibition (if live sample >25V)
- Automatic discharge for operator safety
- Multi-line 4000-count backlit digital display with analog bargraph
- Resistance measurements to 400kΩ
- Continuity with 200mA test current
- Timer function for easy DAR and PI (Model 1045)
- Slip-proof over-molded protective rubber housing for rugged field use
- EN 61010-1, 300V Cat. II, EN 61557
- Includes test leads and soft carrying case (see page 3)

SPECIFICATIONS				
MODELS		1030	1040	1045
INSULATION TESTS				
Test Voltage	250V	50kΩ to 2000MΩ (2GΩ)	—	50kΩ to 2000MΩ (2GΩ)
	500V	100kΩ to 2000MΩ (2GΩ)	100kΩ to 2000MΩ (2GΩ)	100kΩ to 2000MΩ (2GΩ)
	1000V	—	200kΩ to 2000MΩ (2GΩ)	200kΩ to 2000MΩ (2GΩ)
Short Circuit Current		≤3mA		
Accuracy	<40MΩ	±3% of Reading ± 5cts		
	≥40MΩ	±3% of Reading ± 2cts		
Voltage Test/Safety Check		0 to 600VAC/DC		
Voltage Warning Indicator		>25V		
Test Inhibition		Yes >25V		
RESISTANCE TESTS (MODELS 1040 AND 1045)				
Measurement Range		—	0.0 to 400kΩ	
Test Voltage		—	7 to 9V	
Test Current		—	600μA	
Accuracy	>4kΩ	—	±3% of Reading ± 1ct	
CONTINUITY TESTS				
Measurement Range		0.00 to 19.99Ω		
Test Current		≥200mA		
Accuracy		±3% of Reading ± 1ct		


Hands-free carrying case  
Catalog #2118.99

Field kits include megohmmeter, field case, two color-coded leads, black test probe, two alligator clips, remote test probe, batteries and user manual.

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2116.89	Megohmmeter Model 1030 (Digital, with Analog Bargraph, 250V, 500V)	\$499.00	\$75.00
2116.92	Megohmmeter Model 1040 (Digital, with Analog Bargraph, Alarm, Backlight, 500V, 1000V, 400kΩ, Continuity)	\$549.00	\$94.00
2116.93	Megohmmeter Model 1045 (Digital, with Analog Bargraph, Alarm, Timer, Backlight, 250V, 500V, 1000V, 400kΩ, Continuity)	\$639.00	\$94.00
2117.30	Megohmmeter Model 1040 Field Kit	\$829.00	\$94.00
2117.31	Megohmmeter Model 1045 Field Kit	\$919.00	\$94.00
Accessories (Optional)			
2118.97	Remote Test Probe	\$184.00	—
2118.98	Field Case (Waterproof)	\$145.00	—
2118.99	Hands-Free Carrying Case	\$ 61.00	—

# Multi-Function Voice, Data, Video Cable Testing Megohmmeter Models 1035 & 1039

**For voice, data and video cable applications**

## Features

*Common features with Models 1030, 1040 & 1045, plus:*

- True Megohmmeter®
- Test voltage combinations of 50V, 100V, 250V and 500V
- Insulation measurement to 20,000MΩ (20GΩ) (Model 1035)
- Insulation measurement to 400MΩ (Model 1039)
- Capacitance measurement to 4000nF (Model 1039)
- Cable length measurement to 80.0km (>264,000 ft) (Model 1039)
- Ideal for telecom testing and high sensitivity measurements
- EN 0-1, 600V Cat. III, EN 61557

Field kits include megohmmeter, field case, two color-coded leads, (three for Model 1035), black test probe, two alligator clips (three for Model 1035), two grip probes, remote test probe, AC current probe (Model 1039 Kit only), batteries and user manual.



Test leads, soft carrying case and user manual included.



Models 1035 & 1039



## SPECIFICATIONS

MODELS	1035	1039	
INSULATION TESTS			
Test Voltage	50V	10kΩ to 2000MΩ (2GΩ)	10kΩ to 400MΩ
	100V	20kΩ to 2000MΩ (2GΩ)	20kΩ to 400MΩ
	250V	50kΩ to 20,000MΩ (20GΩ)	—
	500V	100kΩ to 20,000MΩ (20GΩ)	—
Short Circuit Current	≤3mA		
Accuracy	±3% of Reading ± 5cts		
Voltage Test/Safety Check	0 to 600VAc/dc		
Voltage Warning Indicator	>25V		
Test Inhibition	Yes >25V		
RESISTANCE TESTS			
Measurement Range	0.0 to 400kΩ	0.0 to 40.0kΩ	
Test Voltage	7 to 9V	7 to 9V	
Test Current	600μA < 400Ω; 6μA > 40Ω	600μA < 400Ω	
Accuracy	>400kΩ ±3% of Reading ± 1ct	±3% of Reading ± 1ct	
CURRENT TESTS			
AC Current Range	—	0.00 to 400mA (240A) (with probe option)	
CAPACITANCE/CABLE LENGTH			
Capacitance Range	—	0.00 to 4000nF	
Cable Length Range	—	0.000 to 80.0km	
VOLTAGE TESTS			
Measurement Range	—	0 to 400VAc	
Accuracy	—	±3% of Reading ± 1ct	

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2116.90	Megohmmeter Model 1035 (Digital, with Analog Bargraph, Alarm, Backlight, 50V, 100V, 250V, 500V, 400kΩ)	\$ 649.00	\$ 94.00
2116.91	Megohmmeter Model 1039 (Digital, with Analog Bargraph, Alarm, ΔRel, Backlight, 50V, 100V, mA, nF, km)	\$ 789.00	\$ 94.00
2115.42	Megohmmeter Model 1035 Field Kit	\$ 929.00	\$ 94.00
2115.43	Megohmmeter Model 1039 Field Kit	\$1,149.00	\$109.00
<b>Accessories (Optional)</b>			
2115.73	AC Current Probe Model MN211 (Lead – 1mA/A – 240A max (for use with Model 1039 only))	\$ 99.00	\$ 65.00
2118.97	Remote Test Probe	\$ 184.00	—
2118.98	Field Case (Waterproof)	\$ 145.00	—
2118.99	Hands-Free Carrying Case	\$ 61.00	—

# 1000V Digital/Analog Megohmmeter Models 1050 & 1060



Model 1060



## SPECIFICATIONS

MODELS	1050	1060
<b>INSULATION TESTS</b>		
Test Voltage	50V 100V 250V 500V 1000V	2k $\Omega$ to 200G $\Omega$ 4k $\Omega$ to 400G $\Omega$ 10k $\Omega$ to 1000G $\Omega$ (1T $\Omega$ ) 20k $\Omega$ to 2000G $\Omega$ (2T $\Omega$ ) 40k $\Omega$ to 4000G $\Omega$ (4T $\Omega$ )
Accuracy	2k $\Omega$ to 400G $\Omega$ 400G $\Omega$ to 4T $\Omega$	$\pm 5\%$ of Reading $\pm 3$ cts $\pm 5\%$ of Reading $\pm 10$ cts
Voltage Test/Safety Check		0 to 1000VAC/DC
Voltage Warning Indicator		>25V
Test Inhibition		Yes >25V
Smooth Function		Yes
<b>RESISTANCE TESTS</b>		
Measurement Range		0.01 $\Omega$ to 400k $\Omega$
Test Voltage		12.4Vdc max
Test Current		<6mAac
Accuracy		$\pm 3\%$ of Reading $\pm 3$ cts
<b>CONTINUITY TESTS</b>		
Measurement Range		0.01 to 39.99 $\Omega$
Test Current		$\geq 200$ mA from 0.01 to 20.00 $\Omega$
Accuracy		$\pm 3\%$ of Reading $\pm 4$ cts
<b>COMMUNICATION</b>		
Memory of Reading over Time R(t)	Yes (20 Readings)	Yes (128kB memory)
Report Print Out Direct to Printer	No	Preset format
Memory of Test Results in Files	No	128kB memory with RS-232
PC Software/Report Generation	No	Yes (included)
<b>ELECTRICAL</b>		
Power Source	Eight 1.5V C Cells	9.6V NiMH Battery Pack 85 to 256V (50/60Hz)

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2130.01	Megohmmeter Model 1050 (Digital, with Analog Bargraph, Backlight, Alarm, Timer, 50V, 100V, 250V, 500V, 1000V, Auto DAR/PI, Resistance, Continuity)	\$1,299.00	\$98.00
2130.03	Megohmmeter Model 1060 (Digital, with Analog Bargraph, Backlight, Alarm, Timer, 50V, 100V, 250V, 500V, 1000V, Auto DAR/PI, Resistance, Continuity, RS-232 w/ DataView® software, 128kB Memory)	\$1,799.00	\$98.00
2118.97	Remote Test Probe	\$ 184.00	-

## Features

- True Megohmmeter®
- Test voltage combinations of 50V, 100V, 250V, 500V and 1000V
- Insulation measurements to 4000G $\Omega$  (4T $\Omega$ )
- Direct measurement of DAR and PI values
- Direct measurement of sample Capacitance
- Display of test voltage and run time
- Programmable test run times and PI times
- Smooth and Alarm functions
- Automatic test inhibition (if live sample >25V)
- Automatic discharge and display of discharge voltage
- Large dual display with time, voltage and measurement
- Bright blue electroluminescent backlight
- Battery powered (Model 1050)
- Auto power-down when not in use
- Remote operation with optional test probe
- Rugged, dual wall, weatherproof field case with detachable lead/accessory pouch
- EN 61010-1, 600V Cat. III, EN 61557

### Model 1060 includes the following additional features:

- AC rechargeable NiMH battery pack
- RS-232 interface for direct printing of results (serial output)
- 128kB memory to store measurements in specific files
- Remote operation of megohmmeter through PC
- Includes DataView® software for data storage, real-time display, analysis and report generation



Models 1050 and 1060 include detachable accessory pouch including one red, one blue test lead, one black shielded lead, one each black, red and blue alligator clips, one black test probe and user manual. Model 1060 also includes PC RS-232, DB9 F/F 6 ft null modem cable, rechargeable battery, DataView® software and US 120V power cord.



# DataView® Software for Model 1060

## Features

- Configure all functions of the Megohmmeter Model 1060
- Print reports of all test results
- Select test voltage and run tests from your computer with a simple click and execute process
- Capture and display data in real time
- Retrieve data from the instrument's memory:
  - Over 1500 insulation resistance measurements
  - Over 4000 resistance measurements
- Display DAR and PI ratios
- Plot graphs of manual and timed tests
- Include your analysis comments section with the report
- Store a library of setups for different applications
- Certification of results through report generation

## Minimum System Requirements:

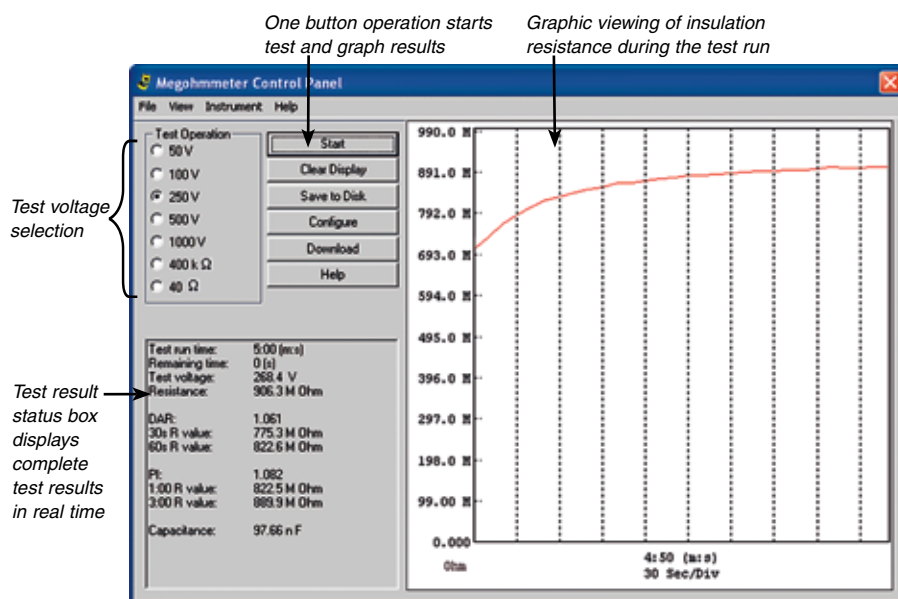
- Windows®2000/XP/Vista
- 128MB of RAM for Windows®2000 (256MB of RAM recommended)
- 256MB of RAM for Windows®XP
- 512MB of RAM for Windows®Vista
- 80MB of hard disk space (200MB recommended)
- CD-ROM drive



Clear and easy setup from one dialog box.



DataView® is included with the Model 1060.



Run test and display results from one dialog box.

DataView® software provides a convenient way to configure and control Megohmmeter tests from your computer. Through the use of clear and easy-to-use dialog boxes, all functions of the Model 1060 can be configured and tests can be initiated. Results can be displayed in real time and stored in your PC. Reports can be printed along with the operator's comments and analysis.

# 5000V Digital/Analog & Graphical Megohmmeter Models 5050, 5060 & 5070



Models 5060 & 5070



## Features

- True Megohmmeter®
- Test voltage combinations of 500V, 1000V, 2500V and 5000V
- Insulation measurements from 30kΩ to 10,000GΩ (10TΩ)
- Selectable and programmable test voltage (40 to 5100V)
- Automatic calculation of DAR, PI and DD ratios
- Direct measurement and display of Capacitance and Leakage Current
- Display resistance, test voltage and run time
- Programmable test run times and PI ratio times
- Smooth and Alarm functions
- Automatic test inhibition (if live sample >25V)
- Automatic discharge and display of discharge voltage
- Large dual display with time, voltage and measurements shown (Models 5050 and 5060)
- Graphic and digital display of test voltage, resistance and more (Model 5070)
- Bright blue electroluminescent backlight

- Programmable test voltage lock-out
- Programmable alarm setting
- Auto power-down when not in use
- AC or DC powered with rechargeable NiMH battery pack - run while charging
- Rugged, weatherproof field case
- Designed and built to IEC safety standards
- EN 61010-1, 1000V Cat. III

## SPECIFICATIONS

MODELS	5050	5060	5070
INSULATION TESTS			
Test Voltage	500V 1000V 2500V 5000V	30kΩ to 2000GΩ (2TΩ) 100kΩ to 4000GΩ (4TΩ) 100kΩ to 10,000GΩ (10TΩ) 300kΩ to 10,000GΩ (10TΩ)	
User Selectable Test Voltage	Programmable: 40 to 1000V: 10V increments; 1000 to 5100V: 100V increments		
Automatic Step Voltage	—	—	Programmable step voltage and duration up to five steps. Three profiles can be stored.
Accuracy	1kΩ to 40GΩ 40GΩ to 10TΩ	±5% of Reading ± 3cts ±15% of Reading ± 10cts	
Voltage Test/Safety Check	0 to 1000VAC/DC		
Voltage Warning Indicator	Yes >25V		
Test Inhibition <sup>(1)</sup>	Yes — adjustable from 25 to 1000V depending on test voltage range in use		
Smooth Function (user selectable)	Digital filtering stabilizes display readings		
COMMUNICATION			
Storage of Readings over Time R(t)	4kB memory	128kB memory	128kB memory
Report Print Out Direct to Printer	No	Preset format	Preset format
Storage of Test Results	20 Readings	Stores over 1500 test results	Stores over 1500 test results
Communication Port	—	RS-232	RS-232
PC Software/Report Generation	No	Yes (included)	Yes (included)
ELECTRICAL			
Power Source	9.6V NiMH rechargeable battery pack – line power: 85 to 256V (50/60Hz)		

<sup>(1)</sup> Inhibit voltage is selectable at 3, 10 or 20% of test voltage



## Models 5060 & 5070 include these additional features

- RS-232 interface for direct printing of results (serial or parallel output)
- 128kB memory for storing extensive field test data
- Configure instrument and run tests from a PC
- Includes DataView® software for data storage, real-time display, analysis and report generation (see page 8)

## Model 5070 includes these additional features

- Selectable and programmable test voltage (40 to 5100V) - three can be stored
- Automatic step voltage with programmable step and dwell times - three profiles can be stored, each with up to five steps
- Programmable temperature compensation of resistance readings
- Large graphic display with five line alphanumeric display and graph of all test results

### FEATURES & FUNCTIONS

MODELS	5050	5060	5070
Test Voltage	500V	✓	✓
	1000V	✓	✓
	2500V	✓	✓
	5000V	✓	✓
	Selectable 40 to 5100V	✓	✓
Step Voltage	–	–	✓
Rechargeable Batteries	✓	✓	✓
AC Powered	✓	✓	✓
Smooth Function	✓	✓	✓
Alarm Function	✓	✓	✓
Test Voltage Lockout	✓	✓	✓
Timer Function	✓	✓	✓
Record Function	–	✓	✓
Print Function	–	✓	✓
Graph Function	–	–	✓
Temperature Correction Function	–	–	✓
Software Included	–	✓	✓

Models 5050, 5060 and 5070 include one red, one blue and one black lead with integral 5kV rated hippo clips, one jumper lead for use with guard terminal, rechargeable battery, US 120V power cord, soft accessory bag and user manual.



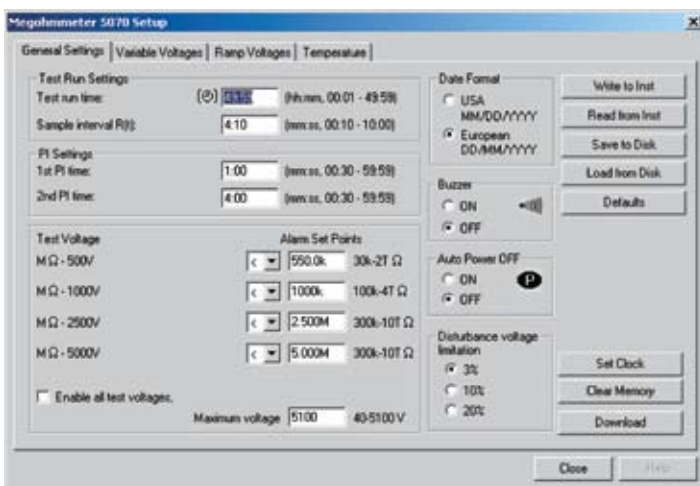
Models 5060 and 5070 also include PC RS-232, DB9 F/F 6 ft null modem cable and DataView® software.

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2130.20	Megohmmeter Model 5050 (Digital, with Analog Bargraph, Backlight, Alarm, Timer, 500V, 1000V, 2500V, 5000V, Auto DAR/PI/DD)	\$2,995.00	\$142.00
2130.21	Megohmmeter Model 5060 (Digital, with Analog Bargraph, Backlight, Alarm, Timer, 500V, 1000V, 2500V, 5000V Auto DAR/PI/DD, RS-232 w/DataView® software)	\$3,595.00	\$142.00
2130.30	Megohmmeter Model 5070 (Graphical, Analog Bargraph, Backlight, Alarm, Timer, 500V, 1000V, 2500V, 5000V, Ramp, Auto DAR/PI/DD, RS-232 w/DataView® software)	\$4,295.00	\$142.00
<b>Accessories (Optional)</b>			
2119.45	Cable, PC RS-232, DB9 F/F 6 ft Null Modem Cable	\$ 16.95	–
2119.46	Cable, PC RS-232, DB9 F/F 6 ft (for serial printer)	\$ 11.95	–
2119.76	Leads, set of three, 10 ft color-coded with color-coded alligator clips; (rated 5000V)	\$ 308.00	–
2119.85	Leads, set of three, 10 ft color-coded with color-coded clips; one red, one blue and one black with integral 5kV hippo clips (rated 5000V)	\$ 395.00	–
2119.86	Leads, set of three, 25 ft color-coded with color-coded clips; one red, one blue and one black with integral 5kV hippo clips (rated 5000V)	\$ 550.00	–
2119.87	Leads, set of three, 45 ft color-coded with color-coded clips; one red, one blue and one black with integral 5kV hippo clips (rated 5000V)	\$ 825.00	–

# DataView® Software for Models 5060 & 5070



Clear and easy setup from one dialog box for Model 5060.



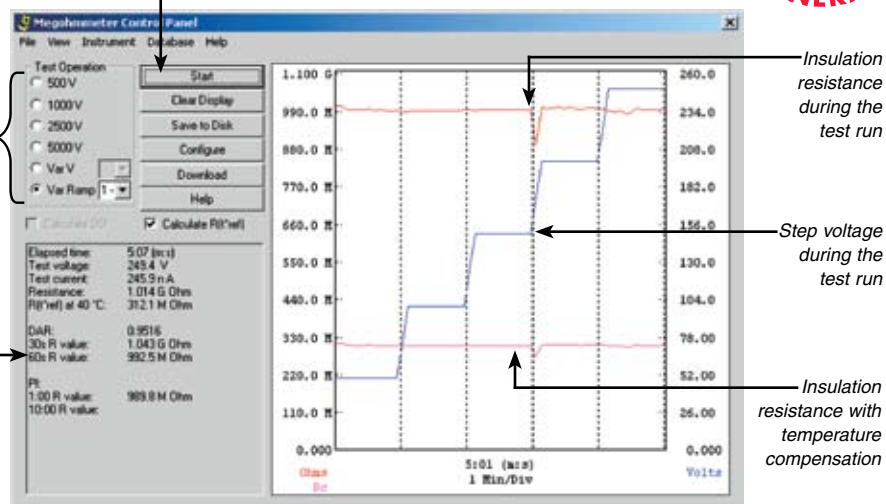
Four tabbed dialog boxes allow for clear and easy setup of all functions of the Model 5070, including setup for variable voltage and alarm set points, as well as step voltage tests and temperature compensation.

DataView® software provides a convenient way to configure and control Megohmmeter tests from your computer. Through the use of clear and easy-to-use dialog boxes, all functions of the Models 5060 and 5070 can be configured and tests can be initiated. Results can be displayed in real time and stored in your PC. Reports can be printed along with the operator's comments and analysis.

One button operation starts test and graphs results

Test voltage selection

Test result status box displays complete test results in real time



Run test and display text and graphical results from one dialog box. Model 5070 also displays step voltage.

## Features

- Configure all functions of the Megohmmeter Models 5060 and 5070
- Print reports of all test results
- Select test voltage and run tests from your computer with a simple click and execute process
- Capture and display data in real time
- Retrieve data from the instrument's memory:
  - Over 1500 insulation resistance measurements
  - Over 4000 resistance measurements
- Display DAR, PI and DD ratios
- Plot graphs of manual and timed tests
- Include your analysis in the comments section with the report
- Store a library of setups for different applications
- Certification of results through report generation

## Minimum System Requirements:

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



# 500V Hand-cranked Megohmmeter Model 1210N 1000V Hand-cranked Megohmmeter Model 1250N

## Features

- True Megohmmeter®
- Test voltage combinations of 250V, 500V and 1000V
- Insulation measurements to 200 and 5000M $\Omega$
- LED indicates constant voltage output and proper cranked speed
- Automatic discharge when measurement is finished
- Auto-Ranging - dual scale operation for better sensitivity and easier readings
- Designed for harsh environments: marine, mining, heavy-duty field, industrial and military use
- Extra rugged cast aluminum case; O-ring sealed against rain, water and dust with aluminum lid
- Compact self-contained package; folding crank
- Large direct-reading scale
- Includes test leads, clips and test probe



Model 1250N



Includes test leads, clips, test probe  
(in detachable soft carrying case) and user manual.  
The case attaches to the carrying strap.

SPECIFICATIONS			
MODELS	1210N	1250N	
INSULATION TESTS			
Test Voltage*	250V 500V 1000V	— 0.5 to 5.5MΩ; 5.5 to 200MΩ —	1 to 11MΩ; 11 to 500MΩ 1 to 11MΩ; 11 to 500MΩ 10 to 110MΩ; 110 to 5000MΩ
Short Circuit Current	5mA (max)	5mA (max)	
Voltage Measurement/ Safety Check	0 to 600Vac	0 to 600Vac	
Accuracy (MΩ)	2.5% of Full Scale Length	2% of Full Scale Length	
RESISTANCE TESTS			
Measurement Range	0 to 45kΩ 45 to 500kΩ	—	
Test Current	1mA constant current	—	
Accuracy	2.5% of Full Scale Length	—	
CONTINUITY TESTS			
Measurement Range	0 to 9Ω 9 to 100Ω	—	
Test Voltage	10V max, 5mA constant	—	
Accuracy	2% of Full Scale Length	—	

\*DC Test voltage generated 5.5 to 200M $\Omega$  in full across the entire measurement range.

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
1326.01	Megohmmeter Model 1210N (Hand-cranked, 500V, 500k $\Omega$ , Continuity)	\$845.00	\$94.00
1326.02	Megohmmeter Model 1250N (Hand-cranked, 250V, 500V, 1000V)	\$945.00	\$94.00



# 1000V Digital Megohmmeter Model 1026



Model 1026



## Features

- Test voltage combinations of 250V, 500V and 1000V
- Insulation measurements to 4000MΩ
- Resistance measurements to 4000Ω
- Continuity test
- Continuity beeper
- 600VAC/DC test voltage range
- Large, easy-to-read digital display
- Data hold switch
- Test button may be “locked-on” for three minutes for hands-free operation
- Automatic discharge when test button is released
- Low battery indicator
- Includes test leads and soft carrying case

SPECIFICATIONS		
MODEL		1026
INSULATION TESTS		
Test Voltage	250V 500V 1000V	1kΩ to 4000MΩ 1kΩ to 4000MΩ 1kΩ to 4000MΩ
Accuracy	<2000MΩ ≥2000MΩ	±3% of Reading ± 5cts ±5% of Reading ± 5cts
RESISTANCE TESTS		
Measurement Range	Auto ranging to 4000Ω	
Resolution	0.1 to 1Ω	
Accuracy	±1% of Reading ± 5cts	
CONTINUITY TESTS		
Measurement Range	Displays and beeps below 40Ω	
Active	≤40Ω	
Protection	600Vrms	
VOLTAGE TESTS		
AC VOLTAGE Measurement Range	0 to 600V	
Accuracy	±1.5% of Reading ± 5cts	
DC VOLTAGE Measurement Range	0 to 600V	
Accuracy	±1% of Reading ± 3cts	



Model 1026 includes test leads, screw on alligator clips, soft carrying case and user manual.

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2117.72	Megohmmeter Model 1026 (Digital, 250V, 500V, 1000V, 4000Ω, V)	\$269.00	\$94.00

# 1000V Megohmmeter Model 1015

## Features

- True Megohmmeter®
- Test voltage combinations of 500V or 1000V
- Insulation measurements to 1000M $\Omega$
- Push button for battery check
- Resistance range to 1000 $\Omega$
- 0 to 10 $\Omega$ - and 0 to 10 $\Omega$ + continuity ranges
- Continuity measurements with 200mA test current
- Compact and lightweight
- Large, direct-reading, colored scale
- 600V test voltage range (safety check)
- Includes a yellow, non-slip shockproof rubber housing and soft carrying case



Model 1015



Models 1015 include shockproof rubber housing, one set of black and red leads, one black test probe, one red alligator clip, spare fuse (inside Megohmmeter), four 1.5V Alkaline AA batteries, soft carrying case and user manual.

## SPECIFICATIONS

MODELS		1015
<b>INSULATION TESTS</b>		
Test Voltage	500V 1000V	0.1 to 1000M $\Omega$ 0.1 to 1000M $\Omega$
Short Circuit Current		$\leq 6\text{mA}$ (max)
Accuracy		$\pm 5\%$ of Reading
Voltage Test/Safety Check		0 to 600Vac
<b>RESISTANCE TESTS</b>		
Measurement Range		0 to 1000 $\Omega$
Short Circuit Current		$\geq 2\text{mA}$
Open Circuit Current		4.5 to 6.5V
Accuracy		$\pm 3\%$ of Full Scale
<b>CONTINUITY TESTS</b>		
Measurement Range		0 to 10 $\Omega$ -; 0 to 10 $\Omega$ +
Short Circuit Current		$\geq 200\text{mA}$
Open Circuit Current		4.5 to 6.5V
Accuracy		$\pm 3\%$ of Full Scale
<b>VOLTAGE TESTS</b>		
Measurement Range		0 to 600Vac
Frequency		45 to 400Hz
Accuracy		$\pm 3\%$ of Full Scale
Input Impedance		300k $\Omega$

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
1403.01	Megohmmeter Model 1015 (Analog, 500V, 1000V, Resistance, Continuity)	\$549.00	\$96.00

# Three-Phase Power Quality Analyzer

## PowerPad® Model 3945-B

**Captures & records  
transients, events  
& waveforms  
simultaneously!**

**FREE full  
featured  
software  
included for  
complete  
power quality  
analysis and  
reporting!**



(upon registering)

Model 3945-B



### SPECIFICATIONS

MODEL	3945-B
<b>ELECTRICAL</b>	
Sampling Frequency	256 samples/cycle
Data Storage	4MB partitioned for waveforms, transients, alarms and trend recording
Voltage (TRMS)	Phase-to-Phase: 960V Phase-to-Neutral: 480V
Current (TRMS)	MN Clamp: 5mA to 100mA/120A or 2 to 240A MR Clamp: 10 to 1000Aac, 10 to 1400Adc SR Clamp: 3 to 1200A AmpFlex®: 10 to 6500A <sup>(1)</sup>
Frequency (Hz)	40 to 69Hz
Other Measurements	kW, kVAR, PF, DPF, kWh, kVARh, kVAh, K-Factor, Flicker
Harmonics	1 <sup>st</sup> to 50 <sup>th</sup> , Direction, Sequence
Power Source	9.6V NiMH rechargeable battery pack AC Supply: 110/230VAc ±20% (50/60Hz)
Battery Life	≥Eight hours with display on; ≤35 hours with display off (record mode)
<b>MECHANICAL</b>	
Communication Port	Optically coupled RS-232
Display	¼ VGA (320 x 240) color LCD
Dimensions	9.5 x 7 x 2" (240 x 180 x 55mm)
Weight	4.6 lbs (2.1kg)
Safety Rating	EN 61010, 600V Cat. IV, Pollution Degree 2

<sup>(1)</sup>Crest factor at 6500 = 1

### Choose from a variety of current probe options



Set of three color-coded SR193 (1200A) current probes, rated 600V Cat. IV



Set of three color-coded AmpFlex® 193 (6500A) flexible current probes (available in 24" or 36" lengths), rated 600V Cat. IV



Set of three color-coded MN93 (240A) current probes or MN193 (6A/120A) current probes, rated 600V Cat. III

### Features

- True RMS single-, two- and three-phase measurements at 256 samples/cycle, plus DC
- Real-time color waveforms
- Easy-to-use on-screen setup
- Automatic current probe recognition and scaling
- True RMS voltage and current measurement
- Measures DC volts, amps and power
- Display and capture voltage, current and power harmonics to 50<sup>th</sup> order, including direction, in real time
- Capture transients down to 1/256<sup>th</sup> of a cycle
- Stores comprehensive data base of logged data
- Phasor diagram display
- VA, VAR and W per phase and total
- kVAh, VARh and kWh per phase and total
- Neutral current display for three-phase
- Transformer K-factor display
- Power Factor, displacement PF display
- Captures up to 50 transients
- Short-term flicker display
- Phase unbalance (current and voltage)
- Harmonic Distortion (total and individual) from 1<sup>st</sup> to 50<sup>th</sup>
- Alarms, surges and sags
- Screen snapshot function captures waveforms or other information on the display
- Includes DataView® software FREE for data storage, real-time display, analysis and report generation



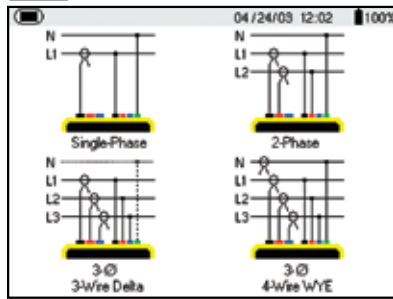
All models include three color-coded current probes with 10 ft leads (AmpFlex® example shown), four color-coded 10 ft voltage leads, four color-coded alligator clips, RS-232 DB9F optically coupled serial cable, NiMH battery, US 120V power cord, DataView® software, carrying bag, soft carrying pouch and user manual.



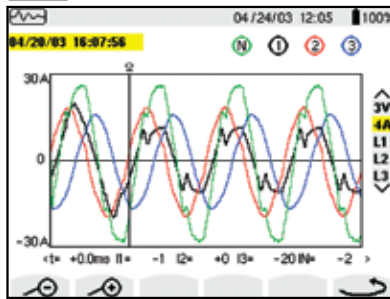
## Large Color Display!



### Configuration



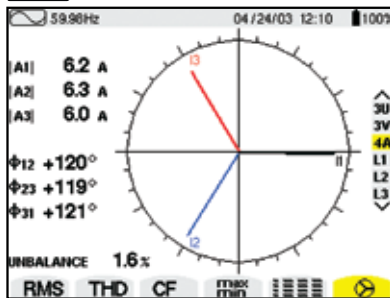
### Transient Mode



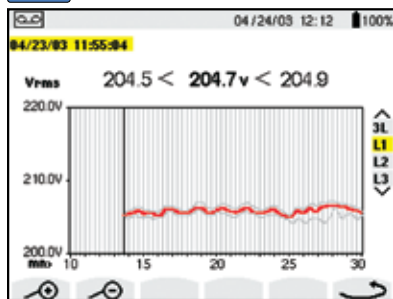
### Power and Energy Mode



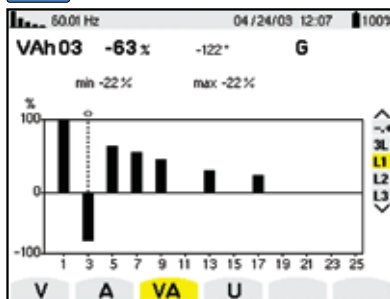
### Phasor Diagram



### Recording Mode



### Harmonics Mode



## DataView® Software for Model 3945-B



DataView® is included with the PowerPad® Model 3945-B

### Configure all functions of the PowerPad®

- Display and analyze real-time data on your PC
- Configure all PowerPad® 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 uploaded to the PowerPad® as needed
- Zoom in and out and pan through sections of the graph to analyze the data
- Download, display and analyze recorded data
- Display waveforms, trend graphs, harmonic spectrums, text summaries, transients, event logs and stored alarms
- Print reports using standard or custom templates you design



CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2130.75	PowerPad® Model 3945-B w/MN93 (240A)	\$4,095.00	\$190.00
2130.76	PowerPad® Model 3945-B w/SR193 (1200A)	\$4,245.00	\$190.00
2130.77	PowerPad® Model 3945-B w/24" AmpFlex® 193-24 (6500A)	\$4,395.00	\$190.00
2130.78	PowerPad® Model 3945-B w/36" AmpFlex® 193-36 (6500A)	\$4,595.00	\$190.00
2130.79	PowerPad® Model 3945-B w/MR193 (1000Aac/1400Adc)	\$4,495.00	-
2130.80	PowerPad® Model 3945-B w/MN193 (6A/120Aac)	\$4,395.00	-
<b>Accessories (Optional)</b>			
2140.09	Set of three color-coded MN93 probes (240A) with 10 ft leads	\$ 449.00	-
2140.10	Set of three color-coded SR193 probes (1200A) with 10 ft leads	\$ 669.00	-
2140.11	Set of three color-coded 24" AmpFlex® 193-24 probes (6500A) with 10 ft leads	\$ 659.00	-
2140.12	Set of three color-coded 36" AmpFlex® 193-36 probes (6500A) with 10 ft leads	\$ 959.00	-
2140.13	Set of three color-coded MR193 probes (1000Aac/1400Adc) with 10 ft leads	\$ 819.00	-
2140.14	Set of three color-coded MN193 probes (6A/120A) with 10 ft leads	\$ 589.00	-
2140.17	5A Adapter box	\$ 895.00	\$ 94.00
2140.61	Set of four color-coded 30 ft voltage leads (rated 600V Cat. IV 10A)	\$ 129.00	-
2140.24	Set of three color-coded MN93-30 probes (240A) with 30 ft leads	\$ 589.00	-
2140.25	Set of three color-coded SR193-30 probes (1200A) with 30 ft leads	\$ 799.00	-
2140.26	Set of three color-coded 24" AmpFlex® 193-24-30 sensors (6500A) with 30 ft leads	\$ 799.00	-
2140.27	Set of three color-coded 36" AmpFlex® 193-36-30 sensors (6500A) with 30 ft leads	\$1,088.00	-
2140.28	One AC/DC Current Probe Model MR193-BK (black connector) (1000Aac/1400Adc)	\$ 289.00	-
2140.29	Set of three color-coded MN193-30 probes (6A/120A) with 30 ft leads	\$ 729.00	-
2140.30	Set of three color-coded MR193-30 probes (1000Aac/1400Adc) with 30 ft leads	\$ 949.00	-

# Single-Phase Power Quality Analyzer

## PowerPad® Jr. Model 8230



Model 8230



### Features

- Measures up to 660Vrms or Vdc
- Measures up to 6500AAC or 1400ADC (probe dependent)
- Displays Min, Max and Average Volts and Amps, Crest Factor, Peak value and K-Factor
- Calculates and displays Watts, VARs and VA, Power Factor and Displacement Power Factor for single-phase and balanced three-phase
- Displays total harmonic distortion (THD-F and THD-R) for voltage and current
- Displays individual harmonic values and % for Volts and Amps through the 50<sup>th</sup> harmonic
- Captures, displays and stores inrush current waveforms and statistics
- Stores up to eight screen captures
- Stores up to 1MB of trend recorded data
- Configurable from DataView® software or front panel
- Download stored data to DataView® software via optical USB port
- Captures up to 4096 alarm events from up to 10 different thresholds
- Displays and records up to 17 different power quality parameters
- Includes DataView® software free for data storage, real-time waveform display, analysis and report generation

SPECIFICATIONS	
MODEL	8230
<b>ELECTRICAL</b>	
Voltage (TRMS)	Phase-to-Phase: 660V Phase-to-Neutral: 600V
Current (TRMS)	MN Clamp: 5mA to 100mA/120A or 2 to 240A MR Clamp: 10 to 1000Aac, 10 to 1400Adc SR Clamp: 3 to 1200A AmpFlex®: 10 to 6500A <sup>(1)</sup>
Frequency (Hz)	40 to 70Hz
Other Measurements	kW, kVAR, PF, DPF, kWh, kVARh, kVAh, K-Factor, Flicker, Harmonic Phase Shift, Phase Rotation
Harmonics	THD-R, THD-F, V, A, VA 1 <sup>st</sup> to 50 <sup>th</sup> , Direction, Sequence
Sampling Frequency	256 samples/cycle
Data Storage	1.5MB partitioned for waveforms, alarms and trend recording
Power Source	Six NiMH AA rechargeable batteries AC Supply: 120/230Vac (50/60Hz) <sup>(2)</sup>
Battery Life	≥8 hrs with display on ≥40 hrs with display off (recording mode)
<b>MECHANICAL</b>	
Communication Port	Optically isolated USB
Display	¼ VGA (320 x 240) color LCD
Dimensions	8.3 x 4.3 x 2.4" (211 x 108 x 60mm)
Weight	1.9 lbs (0.88kg)
Safety Rating	EN 61010, 600V Cat. III, Pollution Degree 2

<sup>(1)</sup>Crest factor at 6500 = 1

<sup>(2)</sup>230V Optional

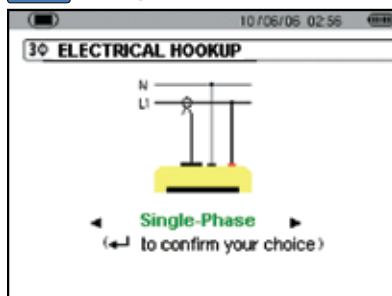


All models include current probe with 10 ft lead and black connector (MN93 example shown), black and red 10 ft voltage leads and alligator clips, optical USB cable, NiMH battery, 120V US wall charger, DataView® software, carrying bag, soft carrying pouch and user manual.

## Large Color Display!



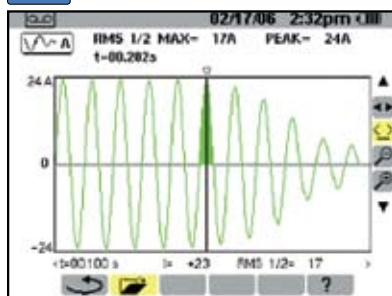
### Configuration



### Recording Setup



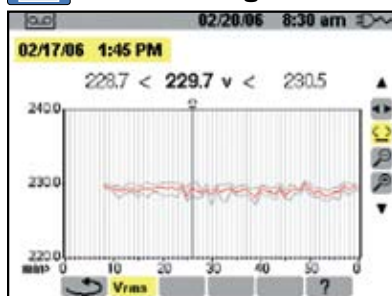
### Inrush Mode



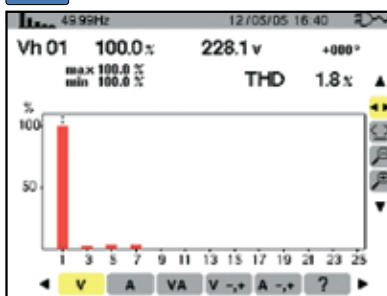
### Waveform Mode



### Trend Recording



### Harmonics Mode



The screens above are a sample of the many available on PowerPad® Jr.

## Choose from a variety of current probe options



SR193 (1200A) current probe



AmpFlex® 193 (6500A) flexible current probe  
(available in 24" or 36" lengths)



MN93 (240A) current probe or  
MN193 (6A/120A) current probe



## DataView® Software for Model 8230



DataView® is included with the PowerPad® Jr. Model 8230.

### Configure all functions of the PowerPad® Jr.

- Display and analyze real-time data on your PC
- Configure all PowerPad® Jr. 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 uploaded to the PowerPad® Jr. as needed
- Zoom in and out and pan through sections of the graph to analyze the data
- Download, display and analyze recorded data
- Display waveforms, trend graphs, harmonic spectrums, text summaries, transients, event logs and stored alarms
- Print reports using standard or custom templates you design

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2130.82	PowerPad® Jr. Model 8230 w/MN93-BK (240A)	\$1,995.00	\$98.00
2130.83	PowerPad® Jr. Model 8230 w/SR193-BK (1200A)	\$2,195.00	\$98.00
2130.84	PowerPad® Jr. Model 8230 w/24" AmpFlex® 193-24-BK (6500A)	\$2,295.00	\$98.00
2130.85	PowerPad® Jr. Model 8230 w/36" AmpFlex® 193-36-BK (6500A)	\$2,395.00	\$98.00
2130.86	PowerPad® Jr. Model 8230 w/MR193-BK (1000Aac/1400Adc)	\$2,195.00	\$98.00
2130.87	PowerPad® Jr. Model 8230 w/MN193-BK (6A/120Aac)	\$2,095.00	\$98.00
<b>Accessories (Optional for Models 8230 &amp; 8220)</b>			
2140.28	AC Current Probe Model MR193-BK (1000Aac/1400Adc) with 10 ft leads	\$ 289.00	-
2140.32	AC Current Probe Model MN93-BK (240A) with 10 ft leads	\$ 199.00	-
2140.33	AC Current Probe Model SR193-BK (1200A) with 10 ft leads	\$ 299.00	-
2140.34	AmpFlex® sensor 24" Model 193-24-BK (6500A) with 10 ft leads	\$ 359.00	-
2140.35	AmpFlex® sensor 36" Model 193-36-BK (6500A) with 10 ft leads	\$ 459.00	-
2140.36	AC Current Probe Model MN193-BK (6A/120A) with 10 ft leads	\$ 249.00	-



# Power Quality Meter Model 8220



Model 8220

## SPECIFICATIONS

MODEL	8220
<b>ELECTRICAL</b>	
<b>Voltage (TRMS)</b>	Phase-to-Phase: 660V Phase-to-Neutral: 600V
<b>Current (TRMS)</b>	MN Clamp: 5mA to 100mA/120A or 2 to 240A MR Clamp: 10 to 1000Aac, 10 to 1400Adc SR Clamp: 3 to 1200A AmpFlex®: 10 to 6500A <sup>(1)</sup>
<b>Frequency (Hz)</b>	40 to 70Hz
<b>Other Measurements</b>	kW, kVAR, PF, DPF, VA, Phase Rotation Temperature, RPM, Resistance, Continuity, Diode Test
<b>Harmonics</b>	1 <sup>st</sup> to 50 <sup>th</sup>
<b>Sampling Frequency</b>	256 samples / cycle
<b>Data Storage</b>	Stores nine sets of readings for volts, amps, power and harmonics
<b>Power Source</b>	Six 1.5V AA Alkaline batteries
<b>Battery Life</b>	≥8 hrs with display on ≥40 hrs with display off (recording mode)
<b>MECHANICAL</b>	
<b>Communication Port</b>	Optically isolated USB
<b>Display</b>	Three-line backlit digital display with custom icons
<b>Dimensions</b>	8.3 x 4.3 x 2.4" (211 x 108 x 60mm)
<b>Weight</b>	1.9 lbs (0.88kg)
<b>Safety Rating</b>	EN 61010, 600V Cat. III, IP 54, Pollution Degree 2

<sup>(1)</sup>Crest factor at 6500 = 1

## Features

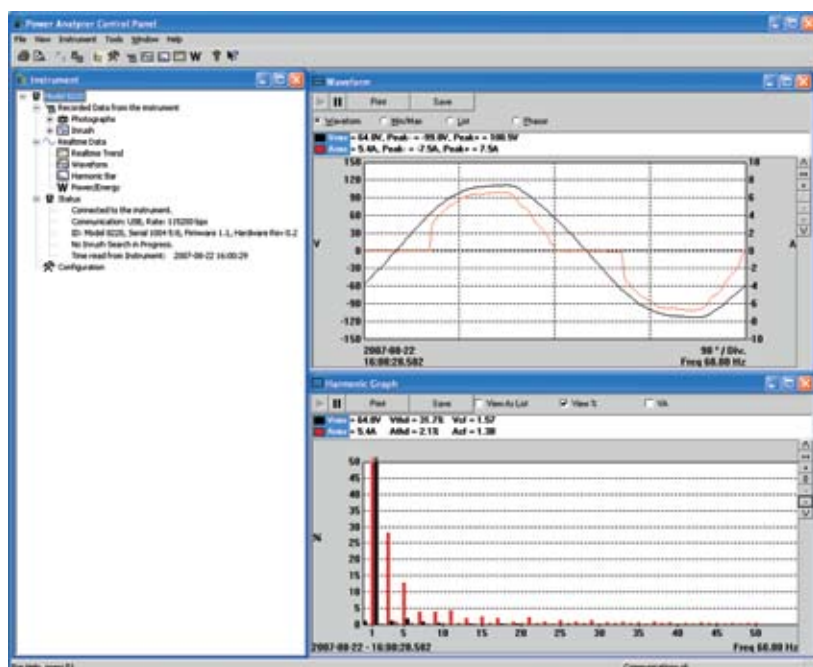
- Measures up to 660Vrms or Vdc
- Measures up to 6500Aac or 1400Adc (probe dependent)
- Displays Min, Max and Average Volts and Amps, Crest Factor, Peak value and K-Factor
- Calculates and displays Watts, VARs and VA, Power Factor and Displacement Power Factor for single-phase and balanced three-phase
- Displays total harmonic distortion (THD-F and THD-R) for voltage and current
- Displays individual harmonic values and % for Volts and Amps through the 50<sup>th</sup> harmonic
- Captures and displays inrush current
- Calculates and displays phase rotation and RPM
- Displays temperature in both °F and °C
- Displays resistance up to 200Ω
- Conducts continuity and diode tests
- Stores up to nine complete sets of readings for all volt, amp, power and harmonic measurements
- Configurable from DataView® software or front panel
- Download stored data to DataView® software via optical USB port
- Operates off batteries or optional recharger
- Includes DataView® software free for data storage, real-time waveform display, analysis and report generation



All models include current probe with 10 ft lead and black connector (MN93 example shown), black and red 10 ft voltage leads and alligator clips, optical USB cable, six 1.5V batteries, two safety test probes, DataView® software, carrying bag, soft carrying pouch and user manual. See page 15 for optional accessories available for Model 8220.

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2130.91	Power Quality Meter Model 8220 w/MN93-BK (240A)	\$1,299.00	\$98.00
2130.92	Power Quality Meter Model 8220 w/SR193-BK (1200A)	\$1,399.00	\$98.00
2130.93	Power Quality Meter Model 8220 w/24" AmpFlex® 193-24-BK (6500A)	\$1,499.00	\$98.00
2130.94	Power Quality Meter Model 8220 w/36" AmpFlex® 193-36-BK (6500A)	\$1,599.00	\$98.00
2130.95	Power Quality Meter Model 8220 w/MR193-BK (1000Aac/1400Adc)	\$1,399.00	\$98.00
2130.96	Power Quality Meter Model 8220 w/MN193-BK (6A/120A)	\$1,349.00	\$98.00
2140.37	Adapter - US 110V Power Adapter (eliminates need for batteries)	\$ 129.00	-

# DataView® Software for Model 8220



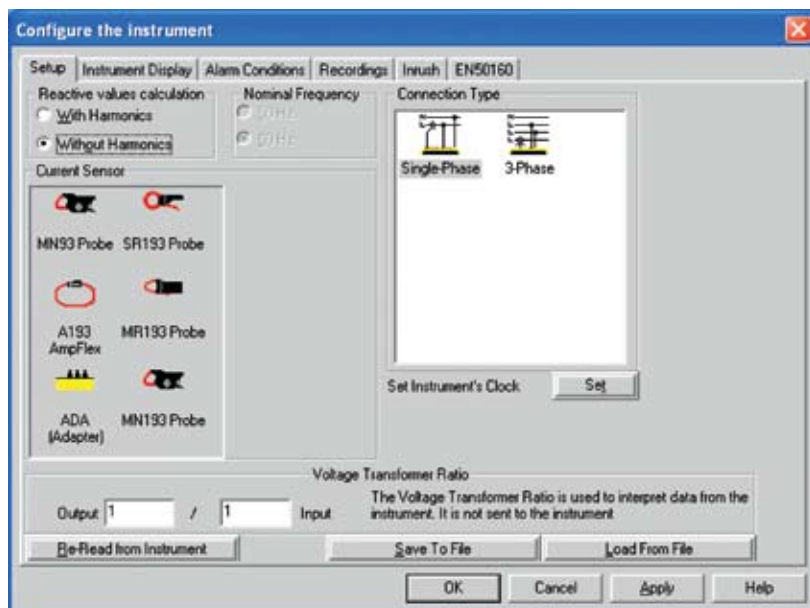
Real-time waveform and harmonics display using DataView® software.



DataView® is included with the Power Quality Meter Model 8220.

## Configure all functions of the Model 8220

- Display and analyze real-time data on your PC
- Configure all Model 8220 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 uploaded to the Model 8220 as needed
- Zoom in and out and pan through sections of the graph to analyze the data
- Download, display and analyze recorded data
- Display waveforms, trend graphs, harmonic spectrums, text summaries, transients, event logs and stored alarms
- Print reports using standard or custom templates you design



Quick and easy setup from one screen.

## Choose from a variety of current probe options



SR193-BK (1200A) current probe



AmpFlex®193-BK (6500A) flexible current probe (available in 24" or 36" lengths)



MR93-BK (1000Aac/1400Aac) current probe



MN193-BK (240A) current probe or MN193-BK (6A/120A) current probe

# Multi-Function Ground Resistance Tester Model 6472



Model 6472



## SPECIFICATIONS

MODEL	6472
<b>ELECTRICAL</b>	
<b>3-Point Measurement</b>	
Range (Auto-Ranging)	0.09 $\Omega$ to 99.9k $\Omega$
Resolution	0.01 $\Omega$ to 100 $\Omega$
Test Voltage	Nominal 16 or 32VRMS user selectable
Resistance Measurement Frequency	41 to 5078Hz user selectable or automatic selection
Test Current	Up to 250mA
Accuracy	$\pm 2\%$ of Reading + 1ct @ 128Hz
<b>Soil Resistivity 4-Point Measurement</b>	
Test Method	Wenner or Schlumberger selectable with automatic calculation of test results in $\Omega$ -meters, $\Omega$ -cm or $\Omega$ -feet
Range (Auto-Ranging)	0.01 to 99.99k $\Omega$ ; $\rho$ Max: 999k $\Omega$ m (display in k $\Omega$ ft is not possible)
Resolution	0.01 to 100 $\Omega$
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/DC – DC to 440Hz
Accuracy	$\pm 2\%$ of Reading + 1cts
<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 0.01 $\Omega$ to 99.9k $\Omega$ ; 4-Pole 0.001 $\Omega$ to 99.99k $\Omega$
Accuracy	$\pm 2\%$ of Reading + 2cts
Test Voltage	16VDC (+, - or auto polarity)
Test Current	Up to 250mA max
<b>Data Storage</b>	
Memory Capacity	512 test results
Communication	Optically Isolated USB
<b>Power Source</b>	9.6V rechargeable battery pack
<b>Recharging Source</b>	110/220 50/60Hz external charger with 18Vdc, 1.9A output or 12V vehicle power

## 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 ( $\rho$ ) 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

## Description

The Model 6472 measures from 0.01 to 99.99k $\Omega$  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)



## Large Display!

### 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 ( $\rho$ ) test results, test electrode resistance and more.

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

### Wenner Test



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

## DataView® Software for Model 6472



DataView® is included with the Model 6472.

- Configure all functions and parameters from your PC
- Display and analyze real-time data on your PC
- Customize views, templates and reports to your exact needs
- Create and store a complete library of configurations that can be uploaded to the Model 6472 as needed
- Zoom in and out and pan through sections of the graph to analyze the data
- Download, display and analyze recorded data
- Print reports using standard or custom templates you design



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.

Catalog #2135.54

### Current Probe accessory options

(For use in two probe and selective ground testing methods)

AC Current Probe  
Model MN82  
Catalog #2135.71



AC Current Probe  
Model SR182  
Catalog #2135.72



CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2135.51	Ground Resistance Tester Model 6472 (2-Point, 3-Point, 4-Point, Bond Test, Digital, Rechargeable Battery, DataView® software)	\$3,795.00	\$94.00
2135.52	Ground Resistance Tester Model 6472 Kit – 150 ft (Model 6472 and Catalog #2135.35)	\$4,195.00	\$99.00
2135.53	Ground Resistance Tester Model 6472 Kit – 300 ft (Model 6472 and Catalog #2135.36)	\$4,295.00	\$99.00
2135.54	Ground Resistance Tester Model 6472 Kit – 500 ft (Model 6472 and Catalog #2135.37)	\$4,395.00	\$99.00
<b>Accessories (Optional) Reference to page 21 for Model 6472 Kits Catalog #2135.35, #2135.36 &amp; #2135.37</b>			
2135.71*	AC Current Probe Model MN82 for use with Model 6472	\$ 299.00	–
2135.72*	AC Current Probe Model SR182 for use with Model 6472	\$ 369.00	–

\*2 probes required for two clamp testing method.

# Multi-Function Ground Resistance Tester

## Model 6470

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



Model 6470



### SPECIFICATIONS

<b>MODEL</b>	<b>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 or $\Omega$ -feet
Range (Auto-Ranging)	0.01 to 99.99k $\Omega$
Resolution	0.01 to 100 $\Omega$
Test Voltage	16 or 32V selectable
Frequency	73, 91.5, 101, 110 or 128Hz selectable
<b>External Voltage Measurement</b>	
Range (Auto-Ranging)	0.1 to 65.0V <sub>ac/dc</sub> – DC to 450Hz
Accuracy	2% of Reading + 2cts
<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
Communication	Optically isolated USB
<b>Power Source</b>	
9.6V NiMH rechargeable battery pack	
<b>Recharging Source</b>	
110/120 50/60Hz external charge with 18V <sub>dc</sub> , 1.9A output or 12V <sub>dc</sub> vehicle power	

### Features

- 3- and 4-Point measurement with manual or automatic frequency selection (even during measurement) from 40 up to 500Hz
- Automatic calculation of Soil Resistivity  $\Omega$ cm
- Selectable test voltage of 16 or 32V with up to 250mA
- Automatic frequency scan for optimum test frequency in noisy environments
- Automatic measurement of auxiliary electrodes resistance
- Soil resistivity measurement using Wenner or Schlumberger test method
- 2- and 4-Point DC resistance measurement with automatic polarity change (Bonding test function)
- Auto-off power management
- Automatic recognition of all electrode connections and their resistance value
- Memory stores up to 512 test results
- USB communication
- Remote operation of all measurement functions using DataView® software
- Automatic report generation through computer or serial printer
- Rechargeable NiMH battery pack
- Rugged dustproof and rainproof field case - IP54 in closed position
- IEC 61557 part 4 and part 5 compliance
- Includes DataView® software for data storage, real-time display, analysis report generation and system configuration



Model 6470 includes meter, NiMH batteries, optical USB cable, DataView® software, external battery charger, power cord 110/240V (line) and user manual.



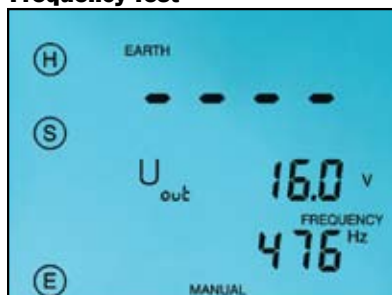
## Large Display!

### 4-Point Bond Test



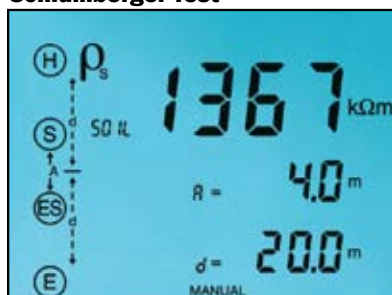
The 4-Point Bond test shows lead connections, bond resistance test results, test voltage and current.

### Frequency Test



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

### Schlumberger Test



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

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



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

### Memory Test



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.

## DataView® Software for Model 6470



DataView® is included with the Model 6470.

- Configure all functions and parameters from your PC
- Display and analyze real-time data on your PC
- Customize views, templates and reports to your exact needs
- Create and store a complete library of configurations that can be uploaded to the Model 6470 as needed
- Zoom in and out and pan through sections of the graph to analyze the data
- Download, display and analyze recorded data
- Print reports using standard or custom templates you design



Multi-Function Ground Resistance Tester Model 6470 Kit (500 ft) includes meter, NiMH batteries, optical USB cable, DataView® software, external battery charger, power cord 110/240V (line), one 30 ft green wire, one each 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.

Catalog #2135.04

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2135.01	Ground Resistance Tester Model 6470 (2-Point, 3-Point, 4-Point, Bond Test, Digital, Rechargeable Battery, DataView® software)	\$2,250.00	\$94.00
2135.02	Ground Resistance Tester Model 6470 Kit – 150 ft (Model 6470 and Catalog #2135.35)	\$2,649.00	\$99.00
2135.03	Ground Resistance Tester Model 6470 Kit – 300 ft (Model 6470 and Catalog #2135.36)	\$2,749.00	\$99.00
2135.04	Ground Resistance Tester Model 6470 Kit – 500 ft (Model 6470 and Catalog #2135.37)	\$2,849.00	\$99.00
<b>Accessories (Optional)</b>			
2135.35	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 spaded lugs, 100 ft tape measure and soft carrying bag)	\$ 449.00	–
2135.36	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 spaded lugs, 100 ft tape measure and soft carrying bag)	\$ 549.00	–
2135.37	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 spaded lugs, 100 ft tape measure and soft carrying bag)	\$ 649.00	–
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)	\$ 249.00	–



# Ground Resistance Tester Models 4620 & 4630



Model 4630



## SPECIFICATIONS

MODELS	4620	4630	
ELECTRICAL			
Range	20Ω	200Ω	2000Ω
Measurement Range	0.00 to 199.9Ω	20.0 to 199.9Ω	200 to 1999Ω
Resolution	10mΩ	100mΩ	1Ω
Open Voltage	≤42V peak	≤42V peak	≤42V peak
Resistance Measurement Frequency	128Hz square wave	128Hz square wave	128Hz square wave
Test Current	10mA	1mA	0.1mA
Accuracy	±2% of Reading ± 1ct	±2% of Reading ± 1ct	±2% of Reading ± 3ct
Auxiliary Electrode Influence			
Max Res. in Current Circuit	3kΩ	30kΩ	50kΩ
Max Res. in Voltage Circuit	50kΩ	50kΩ	50kΩ
Response Time	Approximately four to eight seconds for a stabilized measurement		
Withstanding Voltage	250V <sub>AC</sub> or 100V <sub>DC</sub>		
Power Source	Eight C cell batteries; Alkaline recommended		120/230V 50/60Hz Rechargeable 9.6V, 3.5 Ah NiMH battery pack
Battery Life	>2000 15-second measurements; LO BAT indication on LCD		
Fuse Protection	0.1A, >250V, 0.25 x 1.25"; 30kA Interrupt Capacity		

## Features

- Measures soil resistivity (4-Point)
- Measures ground resistance (2- and 3-Point) Fall-of-Potential method
- Step voltage tests and touch potential measurements
- Auto-Ranging: automatically selects the optimum resistance range and test current
- Designed to reject high levels of noise and interference
- Extremely simple to operate: connect - press - read
- LED on faceplate informs operator of high input noise, high auxiliary rod resistance and fault connections
- Large easy-to-read backlit display
- Battery powered (Model 4620)
- AC powered with rechargeable NiMH battery pack (Model 4630)
- Rugged dustproof and rainproof field case
- Can also be used for continuity tests on bonding
- Color-coded terminals

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 spaded 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 spaded 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 spaded lugs, 100 ft tape measurer and carrying bag. Catalog #2135.37

See page 23 for Ground Testing kit images.

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2130.43	Ground Resistance Tester Model 4620 (Digital, 4-Point, Battery Powered)	\$1,265.00	\$ 94.00
2130.44	Ground Resistance Tester Model 4630 (Digital, 4-Point, Rechargeable Battery)	\$1,795.00	\$ 94.00
2135.19	Ground Resistance Tester Model 4620 Kit – 150 ft (Model 4620 and Catalog #2135.35)	\$1,669.00	\$105.00
2135.20	Ground Resistance Tester Model 4620 Kit – 300 ft (Model 4620 and Catalog #2135.36)	\$1,769.00	\$105.00
2135.21	Ground Resistance Tester Model 4620 Kit – 500 ft (Model 4620 and Catalog #2135.37)	\$1,869.00	\$105.00
2135.22	Ground Resistance Tester Model 4630 Kit – 150 ft (Model 4630 and Catalog #2135.35)	\$2,199.00	\$105.00
2135.23	Ground Resistance Tester Model 4630 Kit – 300 ft (Model 4630 and Catalog #2135.36)	\$2,299.00	\$105.00
2135.24	Ground Resistance Tester Model 4630 Kit – 500 ft (Model 4630 and Catalog #2135.37)	\$2,399.00	\$105.00
<b>Accessories (Optional)</b>			
2130.60	Tape Measure (100 ft)	\$ 34.95	–
2135.35	Test Kit for 3-Point testing – 150 ft (see descriptions above for details)	\$ 449.00	–
2135.36	Test Kit for 4-Point testing – 300 ft (see descriptions above for details)	\$ 549.00	–
2135.37	Test Kit for 4-Point testing – 500 ft (see descriptions above for details)	\$ 649.00	–
2135.38	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) (see descriptions above)	\$ 249.00	–
2130.59	Calibration checker – 25Ω for Models 3620, 3640, 4500, 4610, 4620 and 4630	\$ 54.95	–

# Ground Resistance Tester Models 3620, 3640 & 4610

## Features

- Measures soil resistivity (4-Point) (Model 4610)
- Measures ground resistance (2- and 3-Point) Fall-of-Potential method
- Large analog display (Model 3620)
- Large LCD digital display (Models 3640 and 4610)
- Designed to reject high levels of noise and interference
- Auto-Ranging: automatically selects the optimum range (Models 3640 and 4610)
- Battery powered
- Extremely simple to operate: connect - press- read
- Error indicator lights
- Rugged dustproof and rainproof case
- Color-coded terminals and lead identification



Model 4610

All individual units include soft carrying case and user manual.



Catalog #2135.35

See page 22 for  
Ground Testing  
kit descriptions.



Catalog #2135.36



Catalog #2135.37

## SPECIFICATIONS

MODELS	3620	3640		4610
Types of Measurements	2- and 3-Point	2- and 3-Point		2-, 3-, and 4-Point
Display	Analog	Digital		Digital
Soil Resistivity Test	No	No		Yes
Measurement Ranges	0.5 to 1000Ω	20Ω: 0.00 to 19.99Ω	200Ω: 20.0 to 199Ω	2000Ω: 200 to 1999Ω
Resolution	—	10mΩ	100mΩ	1Ω
Test Current	10mA	10mA	1mA	0.1mA
Open Voltage	≤24V peak	≤42V peak		
Operating Frequency	128Hz square wave			
Accuracy	±5% of Reading + 0.1% scale length	±2% of Reading ± 1ct	±3% of Reading ± 3cts	
Interference	All models reject high levels of interference voltage (DC, 50 to 60Hz, harmonics)			
Power Source	Eight 1.5V AA batteries			
Battery Life	Approx. 1680 15-second measurements	Approx. 1800 15-second measurements		
Low Battery Indication	Yes			
Fuse Protection	High breaking capacity, 0.1A, >250V			

## CATALOG NO. DESCRIPTION

		PRICE	NIST CALIBRATION
2114.90	Ground Resistance Tester Model 3620 (Analog, 3-Point)	\$ 759.00	\$ 94.00
2114.92	Ground Resistance Tester Model 3640 (Digital, 3-Point)	\$ 795.00	\$ 94.00
2114.94	Ground Resistance Tester Model 4610 (Digital, 4-Point)	\$1,045.00	\$ 94.00
2135.10	Ground Resistance Tester Model 3620 Kit – 150 ft (Model 3620 and Catalog #2135.35)	\$1,159.00	\$105.00
2135.11	Ground Resistance Tester Model 3620 Kit – 300 ft (Model 3620 and Catalog #2135.36)	\$1,259.00	\$105.00
2135.12	Ground Resistance Tester Model 3620 Kit – 500 ft (Model 3620 and Catalog #2135.37)	\$1,359.00	\$105.00
2135.13	Ground Resistance Tester Model 3640 Kit – 150 ft (Model 3640 and Catalog #2135.35)	\$1,175.00	\$105.00
2135.14	Ground Resistance Tester Model 3640 Kit – 300 ft (Model 3640 and Catalog #2135.36)	\$1,275.00	\$105.00
2135.15	Ground Resistance Tester Model 3640 Kit – 500 ft (Model 3640 and Catalog #2135.37)	\$1,375.00	\$105.00
2135.16	Ground Resistance Tester Model 4610 Kit – 150 ft (Model 4610 and Catalog #2135.35)	\$1,449.00	\$105.00
2135.17	Ground Resistance Tester Model 4610 Kit – 300 ft (Model 4610 and Catalog #2135.36)	\$1,549.00	\$105.00
2135.18	Ground Resistance Tester Model 4610 Kit – 500 ft (Model 4610 and Catalog #2135.37)	\$1,649.00	\$105.00
2130.59	Calibration checker – 25Ω for Models 3620, 3640, 4500, 4610, 4620 and 4630	\$ 54.95	—

# Clamp-On Ground Resistance Tester

## Models 3711 & 3731



Model 3731  
US Patent No. 362,639



### Features

- Simple and fast clamp-on operation - no leads, no auxiliary rods or spacing requirements
- Direct reading of ground resistance from 0.1 to 1200Ω
- Direct reading of continuity and ground loop resistance
- Direct reading of ground leakage or phase current from 1mA to 30Arms
- Jaw design with large 1.25" (32mm) window - accommodates up to 1000kcmil cables
- Auto-Off for power management
- Alarm function with adjustable set point and buzzer for quick field checks (Model 3731)
- Memory function to store 99 field measurements for later retrieval and analysis (Model 3731)
- Rugged Lexan® head and body construction resists breakage
- Alarm settings and stored memory information saved during shutdown (Model 3731)
- Designed to EN 61010-1, Cat. III safety standards
- Patented design

### SPECIFICATIONS

MODELS	3711 & 3731		
ELECTRICAL			
Ground Resistance	Measurement Range	Resolution	Accuracy (% of Reading)
Auto-Ranging 0.01 to 1200Ω	0.1 to 1.0Ω	0.01Ω	±(2% ± 0.02Ω)
	1.0 to 50.00Ω	0.1Ω	±(1.5% ± 0.1Ω)
	50.0 to 100.0Ω	0.5Ω	±(2.0% ± 0.5Ω)
	100 to 200Ω	1Ω	±(3.0% ± 1Ω)
	200 to 400Ω	5Ω	±(6% ± 5Ω)
	400 to 600Ω	10Ω	±(10% ± 10Ω)
	600 to 1200Ω	50Ω	25% of Reading ±50Ω
Current Measurement	1 to 299mA	1mA	±(2.5% + 2mA)
Auto-Ranging 1mA to 30.00Arms	0.300 to 2.999A	0.001A	±(2.5% + 2mA)
	3.00 to 29.99A	0.01A	±(2.5% + 20mA)
Resistance Measurement Frequency	2403Hz		
Current Measurement Frequency	47 to 800Hz		
Current Overload	OL displayed above 29.99Arms		
Power Source	9V Alkaline battery; Battery life: Eight hours or approximately 1000 measurements of 30 seconds		

### FEATURES & FUNCTIONS

MODELS	3711	3731
Ohms Range	✓	✓
Arms Range	✓	✓
Hold Function	✓	✓
Self Test	✓	✓
Auto-Off	✓	✓
Battery Life Indicator	✓	✓
Noise Indicator	✓	✓
Open Jaw Indicator	✓	✓
Closed Loop Indicator	✓	✓
Multi-Tone Beeper	✓	✓
Alarm Function	—	✓
Memory (Logging)	—	✓



Models 3711 and 3731 include calibration loop, battery, hard carrying case and user manual.

### CATALOG NO. DESCRIPTION

		PRICE	NIST CALIBRATION
2117.60	Ground Resistance Tester Model 3711 (Clamp-On)	\$1,545.00	\$ 98.00
2117.61	Ground Resistance Tester Model 3731 (Clamp-On with memory and alarm)	\$1,745.00	\$ 98.00



## Features

- Hand-held LAN Cable Mapping and Troubleshooting Tester
- Indicates all common wiring faults including split pairs, shorts, opens, reversed pairs and crossed wires
- Unique graphical and digital display of fault information and length
- Active remote unit indicates Pass/Fail by Green/Red LED during the test
- Indicates distances to opens and shorts and identifies location
- Display fault location up to 500 ft or 150m (selectable)
- Built-in tone generator for tracing and locating cables
- Built-in service check function to detect telephone, 10BaseT, 100Mbit+ and Token Ring
- Visual and audible warning of live telephone network voltages
- Works with all category cables
- Rugged design weighs less than 12 oz (350g)
- Large high-visibility blue electroluminescent backlit display
- Complete with remote unit and mini patch leads
- Active remote identifiers indicate Pass/Fail at remote end using Green/Red LED
- Up to 16 unique remote identifiers available
- Works with TIA 568A/B, USOC and ISDN wiring schemes

Tone Receiver/Cable Tracer Model TR03 is available as an accessory (see page 26)



Model CA7028 includes remote ID (#1), two patch cords, four 1.5V AA batteries, soft carrying case and user manual.

# Wire Mapper Pro<sup>®</sup> LAN & Cable Tester Model CA7028

**The only wire-mapper in its class with graphical and digital display of fault type and fault location**



Model CA7028



## SPECIFICATIONS

MODEL	CA7028
MEASUREMENTS	
Range	500 ft or 150m (selectable)
Accuracy	±5%
Cable Type	UTP, STP, FTP and SSTP
Faults Indicated	Short Circuit Pair, Open Circuit Wire, Short Between Pairs, Split/Cross Pairs, Pair Reversals, Shield Continuity
Fault Location	Near end, remote end, or distance to fault
Fault Display	All fault and setting info displayed textually and graphically
Wiring Schemes	TIA 568A/B, USOC and ISDN
Service Indication	Telephone, 10BaseT, 100Mbit+, Token Ring
Voltage Warning	Audible and visual warning of TNV (Telecom Network Voltage)
Test Inhibit	Inhibits testing in the presence of live voltages
Tone Generator	Oscillating 810 to 1110Hz
Power Source	Four 1.5V AA Alkaline batteries
Display Backlight	Blue electroluminescent
Remote Display	Green/Red Pass/Fail LED
Auto-Off	After three minutes
Weight	Main unit: 12 oz (350g); Remote unit: 1.5 oz (40g)

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2127.82	Wire Mapper Pro <sup>®</sup> Model CA7028 (LAN Cable Tester)	\$495.00	–
<b>Accessories (Optional)</b>			
2127.76	Tone Receiver/Cable Tracer Model TR03	\$ 59.00	–
2127.90	Wire Mapper Pro <sup>®</sup> Remote IDs (#2 – 5)	\$295.00	–
2127.91	Wire Mapper Pro <sup>®</sup> Remote IDs (#6 – 9)	\$295.00	–

# Fault Mapper® Cable Length Meter & Fault Locator Alphanumeric TDR Model CA7024

**Finds opens,  
shorts and  
cable length**



Model CA7024



## SPECIFICATIONS

MODEL	CA7024
MEASUREMENTS	
Range @ Vp = 70%	6000 ft or 2000m (selectable)
Resolution	0.1 ft up to 100 ft, then 1 ft (0.1m up to 100m, then 1m)
Accuracy	±2% of Reading
Minimum Cable Length	12 ft (4m)
Cable Library	Built-in, user selectable and user programmable
Velocity of Propagation (Vp)	Adjustable from 0 to 99%
Output Pulse	5V (peak to peak) into open circuit; nanosecond rise Step Function
Output Impedance	Automatic compensation
Display Resolution	128 x 64 pixel graphical LCD
Tone Generator	Oscillating 810 to 1110Hz
Voltage Warning	Triggers at >10VAc/dc
Power Source	Four 1.5V AA Alkaline batteries
Auto-Off	After three minutes
Weight	12 oz (350g)

## Features

- Hand-held Cable Length Meter and Fault Locator
- Detects opens and shorts and the distance to them from one end of the cable
- Measure cable length up to 6000 ft or 2000m (selectable)
- Automatic cable impedance compensation
- Built-in library of most common cables and their Velocity of Propagation (Vp)
- Manual selection of Vp for all cables not found in library
- User programmable cable library with 15 storage positions
- Vp setting displayed along with length and cable type (if in library)
- Built-in tone generator for tracing and locating cables
- Large high-visibility blue electroluminescent backlit display

## Tone Receiver/Cable Tracer Model TR03:

- Compatible with Models CA7024, CA7026 and CA7028
- One button operation
- Volume control
- Audio output



Model TR03



Model CA7024 includes BNC pigtail cable with alligator clips, four 1.5V AA batteries, soft carrying case and user manual.

## CATALOG NO. DESCRIPTION

		PRICE	NIST CALIBRATION
2127.80	Fault Mapper® Model CA7024 (Cable Length Meter & Fault Locator – Alphanumeric TDR)	\$495.00	–
<b>Accessories (Optional)</b>			
2127.76	Tone Receiver/Cable Tracer Model TR03	\$ 59.00	–

# Fault Mapper Pro<sup>®</sup> Telephone/Coaxial/Parallel Cable Tester Graphical TDR Model CA7026

## Features

- Hand-held Graphical TDR (Time Domain Reflectometer)
- Detects opens, shorts, taps, faulty taps, bridge taps, splitters, high resistance, wet cables, splices and more
- Identifies impedance mismatches
- Indicates cable faults and terminations up to 11,700 ft or 3500m (selectable)
- Works with twisted pair, parallel and coaxial cable
- Selectable cable impedance (50Ω, 75Ω, 100Ω)
- Over-voltage protection up to 250V
- Adjustable cursor assists in locating faults and termination
- Built-in tone generator for tracing and locating cables
- Auto-Ranging scale
- Large high-visibility blue electroluminescent backlit display

Tone Receiver/Cable Tracer Model TR03 is available as an accessory (see page 26)



Model CA7026



**Maps and pinpoints the locations of errors in ethernet cables terminated with RJ-45 connectors**



Model CA7026 includes BNC pigtail cable with alligator clips, four 1.5V AA batteries, soft carrying case and user manual.

## SPECIFICATIONS

MODEL	CA7026
<b>MEASUREMENTS</b>	
Range @ Vp = 70%	670, 1470, 2900, 5830 and 11,700 ft (220, 440, 870, 1750 and 3500m) auto-ranging
Resolution	Approximately 1% of selected range
Accuracy	±1% of range
Range Selection	Automatic range selection against cursor position
Minimum Cable Length	12 ft (4m)
Sensitivity	Minimum 3 pixel return on a fault at 6000 ft (2km)
Velocity of Propagation (Vp)	Adjustable from 0 to 99% in 1% steps
Output Pulse	+5V into an open circuit or +1.5V into 50Ω load; 25ns min to 2.15μs dependent on range
Cable Impedance	Selectable between 50, 75 and 100Ω
Display Resolution	128 x 64 pixel graphical LCD
Tone Generator	Oscillating 810 to 1110Hz
Scan Rate	Single shot or 6.7 pulses per second (selectable)
Power Source	Four 1.5V AA Alkaline batteries
Auto-Off	After three minutes
Weight	12 oz (350g)

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2127.81	Fault Mapper Pro <sup>®</sup> Model CA7026 (Telephone Cable Tester/Graphical TDR)	\$795.00	–
<b>Accessories (Optional)</b>			
2127.76	Tone Receiver/Cable Tracer Model TR03	\$ 59.00	–



# Sentinel® Data Loggers Voltage & Current



Models SDL V301  
and SDL A302

## Features

- Three- and four-channel voltage and current loggers
- True RMS measurements
- Low-cost, self-contained and portable
- Differential three-phase inputs (Voltage Loggers)
- Three programmable storage modes
- Programmable data storage rate
- Integral flexible current probes for three-phases (Current Loggers)
- Measures up to 3000A (Current Loggers)
- Stores up to 480,000 points (1MB)
- 64 samples per cycle
- Includes DataView® software for data storage, real-time display, analysis and report generation
- Isolated USB communication
- 600V Cat. III

## SPECIFICATIONS

MODELS	SDL V301	SDL V401	SDL A301	SDL A302	SDL A303	SDL A304	SDL A401	SDL A402
<b>ELECTRICAL</b>								
Number of Channels	Three	Four	Three	Three	Three	Three	Four	Four
Input Termination	Recessed banana jacks	Recessed banana jacks	Hard-wired flexible CTs	Hard-wired flexible CTs	Hard-wired flexible CTs	Hard-wired flexible CTs	BNC	BNC
Voltage Range	5 to 600VAC 0 to 850VDC	5 to 600VAC 0 to 850VDC	—	—	—	—	—	—
Current Range	—	—	5 to 1000A	15 to 3000A	5 to 1000A	15 to 3000A	5 to 1000A or 15 to 3000A, sensor dependent	Probe dependant
Resolution	0.1V	0.1V	0.1A	0.25A	0.1A	0.25A	0.25A	Probe dependent
Accuracy	5 to 85VAC/DC: ±(1.0% of Reading + 0.6V) 85 to 600VAC/850VAC: ±(0.25% of Reading + 0.6V)		±(1% of Reading + 1.5A)	±(1% of Reading + 1.5A)	±(1% of Reading + 1.5A)	±(1% of Reading + 1.5A)	±(1% of Reading + 1.5A)	Probe dependent
Sample Rate	64 samples/cycle							
Storage Rate	Programmable from 250ms to 12 hours							
Recording Method	Stop when full, FIFO, and Extended Recording Mode (XRM™)*							
Memory Capacity	1MB, stores 480,000 readings							
Communication	USB 2.0 optically isolated to 5500Vrms							
Controls	One button to turn logger on/off and start/stop recording							
Indicators	Red, yellow and green status indicators							
Power Source	Four 1.5V C Alkaline batteries	AC power/rechargeable NiMH batteries	Four 1.5V C Alkaline batteries	Four 1.5V C Alkaline batteries	AC power/rechargeable NiMH batteries	AC power/rechargeable NiMH batteries	AC power/rechargeable NiMH batteries	AC power/rechargeable NiMH batteries
Battery Life**	100 hours to 90 days	Power ride through 10 hrs	100 hours to 45 days	100 hours to 45 days	Power ride through 10 hrs	Power ride through 10 hrs	Power ride through 10 hrs	Power ride through 10 hrs
<b>MECHANICAL</b>								
Protection Index	IP50	IP50	IP50	IP50	IP50	IP50	IP50	IP50
Dimensions	6.73 x 4.76 x 2.17"	6.73 x 4.76 x 2.17"	6.73 x 4.76 x 2.17"	6.73 x 4.76 x 2.17"	6.73 x 4.76 x 2.17"	6.73 x 4.76 x 2.17"	6.73 x 4.76 x 2.17"	6.73 x 4.76 x 2.17"
Weight	1.8 lbs (0.8kg)	1.8 lbs (0.8kg)	3.2 lbs (1.4kg)	3.2 lbs (1.4kg)	3.2 lbs (1.4kg)	3.2 lbs (1.4kg)	3.2 lbs (1.4kg)	3.2 lbs (1.4kg)

### \*Extended Recording Mode (XRM™)

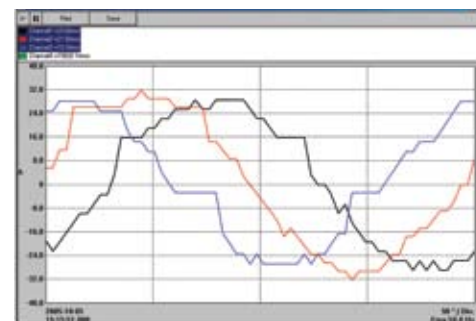
This unique recording mode provides the opportunity to continuously record over long periods of time by reducing the stored samples of the oldest data and maintaining matching resolution for the newest data. Each time the memory fills up using XRM™ every other of the oldest stored samples is discarded making room for newer samples. This process continues until the recording is manually stopped.

\*\*Dependent on sample rate.

# DataView® Software for Sentinel® Loggers

## Features

- Display and analyze real-time data on your PC
- Configure all data logger functions and parameters from your PC including sample rate, recording length, channel configuration and more
- Create and store a complete library of configurations that can be uploaded to the logger as needed
- Zoom in and out and pan through sections of the graph to analyze the data
- Download, display and analyze recorded data
- Display waveforms, trend graphs, harmonics and text summaries
- Create custom views and reports
- Print reports using standard or custom templates you design
- Free software upgrades



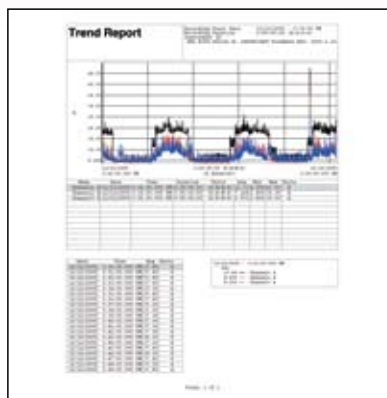
Real time display of all active inputs on computer through DataView® software.

### SENSORS COMPATIBLE WITH MODEL SDL-A401

AmpFlex® SDL-1000A - 24" with BNC output	Cat. #2129.00
AmpFlex® SDL-1000A - 36" with BNC output	Cat. #2129.01
AmpFlex® SDL-3000A - 24" with BNC output	Cat. #2129.02
AmpFlex® SDL-3000A - 36" with BNC output	Cat. #2129.03

### CURRENT PROBES COMPATIBLE WITH MODEL SDL-A402

AC Model MN103 (Lead - 1mV/mA - 1A max & 1 mV/A - 100A max)	Cat. #1031.02
AC Model MN114 (Lead - 100mV/A - 10A max)	Cat. #2110.71
AC Model MN251 (Lead - 1mV/A - 100A max)	Cat. #2115.77
AC Model MN261 (BNC - 100mV/A - 10A max; 10mV/A - 100A max)	Cat. #2115.82
AC Model MN307 (Lead - 100mV/A - 12A max)	Cat. #2116.23
AC Model MN375 (Lead - 100mV/A - 10A max)	Cat. #2115.41
AC/DC Model SL201 (Lead - 1mV/mA - 1A max & 1mV/A - 150A max)	Cat. #1201.40
AC/DC Model SL206 (Lead - 1mV/mA - 1A max & 10mV/A - 80A max)	Cat. #1201.45
AC/DC Model SL261 (BNC - 100mV/mA - 10A peak & 10mV/A - 100A peak)	Cat. #1201.51
AC Model MD301 (Lead - 1mVdc/A - 500A max)	Cat. #1201.07
AC Model MD314 (Lead - 1mV/A - 500A max)	Cat. #2110.75
AC Model SR652 (Lead - 1mV/A - 1000A max)	Cat. #2113.46
AC Model SR661 (BNC - 100mV/A-10A; 10mV/A-100A; 1mV/A-1000A max)	Cat. #2113.49
AC Model SR752 (Lead - 1mV/A - 1000A max)	Cat. #2116.32
AC Model SR759 (Lead - 1/10/100/1000A/1V)	Cat. #2116.33
AC/DC Model MR461 (BNC - 10mV/A - 60A peak & 1mV/A - 600A peak)	Cat. #1200.72
AC/DC Model MR561 (BNC - 10mV/A - 150A peak & 1mV/A - 1500A peak)	Cat. #1200.73



CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2134.10	Sentinel® Voltage Logger Model SDL V301 (3-Channel, 600VAC, three color-coded leads and alligator clips, four C-cell batteries)	\$ 695.00	\$94.00
2134.11	Sentinel® Voltage Logger Model SDL V401 (4-Channel, 600VAC, four color-coded leads and alligator clips, rechargeable NiMH batteries, 120V US wall charger)	\$ 945.00	\$98.00
2134.15	Sentinel® Current Logger Model SDL A301 (3-Channel, 1000AAC, 24" AmpFlex® attached, four C-cell batteries)	\$1,095.00	\$98.00
2134.16	Sentinel® Current Logger Model SDL A302 (3-Channel, 3000AAC, 24" AmpFlex® attached, four C-cell batteries)	\$1,295.00	\$98.00
2134.17	Sentinel® Current Logger Model SDL A303 (3-Channel, 1000AAC, 24" AmpFlex® attached, rechargeable NiMH batteries, 120V US wall charger)	\$1,245.00	\$98.00
2134.18	Sentinel® Current Logger Model SDL A304 (3-Channel, 3000AAC, 24" AmpFlex® attached, rechargeable NiMH batteries, 120V US wall charger)	\$1,445.00	\$98.00
2134.19	Sentinel® Current Logger Model SDL A401 (4-Channel, four AmpFlex® sensors with BNC Output (not included), rechargeable NiMH batteries, 120V US wall charger)	\$ 945.00	\$98.00
2134.20	Sentinel® Current Logger Model SDL A402 (4-Channel, four 1V current probes with BNC Output (not included), rechargeable NiMH batteries, 120V US wall charger)	\$ 945.00	\$98.00
2134.21	Sentinel® Current Logger Model SDL A401 Kit (4-Channel, three 1000A 24" AmpFlex® with BNC Output, rechargeable NiMH batteries, 120V US wall charger, carrying bag)	\$1,625.00	\$98.00
2134.22	Sentinel® Current Logger Model SDL A401 Kit (4-Channel, four 1000A 24" AmpFlex® with BNC Output, rechargeable NiMH batteries, 120V US wall charger, carrying bag)	\$1,825.00	\$98.00
2134.23	Sentinel® Current Logger Model SDL A401 Kit (4-Channel, three 3000A 36" AmpFlex® with BNC Output, rechargeable NiMH batteries, 120V US wall charger, carrying bag)	\$1,795.00	\$98.00
2134.24	Sentinel® Current Logger Model SDL A401 Kit (4-Channel, four 3000A 36" AmpFlex® with BNC Output, rechargeable NiMH batteries, 120V US wall charger, carrying bag)	\$1,995.00	\$98.00

\* See pages 54, 56 and 57 for probes that are used with the Sentinel® Model SDL-A402

# Simple Logger® II TRMS Clamp-On Current Model CL601



Model CL601

## Features

- 0 to 600Arms
- True RMS measurements
- Self contained, no exposed connections
- Overload indication
- Optically isolated USB 2.0 output (cable included)
- One button operation
- Alarm function
- 5 LED indicators quickly and clearly display Logger status
- Includes DataView® software for data storage, real-time display, analysis and report generation
- 300V Cat. IV, 600V Cat. III

## Applications

- Machine load monitoring
- HVAC troubleshooting
- Load profiling
- Electrical troubleshooting

## SPECIFICATIONS

<b>MODEL</b>	<b>CL601</b>
<b>ELECTRICAL</b>	
<b>Channels</b>	One
<b>Input</b>	Split CT – AC Current
<b>Measurement Range</b>	0 to 600Aac
<b>Resolution</b>	0.1A
<b>Accuracy (50/60Hz)</b>	0 to 5A: unspecified 5 to 50A: $\pm(1\% \text{ of Reading} + 1A)$ 50 to 400A: $\pm(1\% \text{ of Reading} + 0.5A)$ 400 to 600A: $\pm(3\% \text{ of Reading} + 1A)$
<b>Sample Rate</b>	64 samples/cycle
<b>Storage Rate</b>	Programmable from 125ms to 1 day
<b>Storage Modes</b>	Start/Stop, FIFO and Extended Recording Mode* (XRM™)
<b>Recording Length</b>	15 minutes to 8 weeks, programmable using DataView®
<b>Memory</b>	240,000 measurements (512KB) - The recorded data is stored in non-volatile memory and will be retained even if the battery is low or removed.
<b>Communication</b>	USB 2.0 optically isolated
<b>Power Source</b>	2 x 1.5V AA-cell alkaline batteries
<b>Battery Life</b>	100 hours to >45 days (dependent on sample rate and recording length)
<b>MECHANICAL</b>	
<b>Dimensions</b>	9.25 x 4.0 x 1.63" (235 x 102 x 41mm)
<b>Max Conductor Size</b>	1 conductor - Ø 1.65" (42 mm) 2 conductor - Ø 1.00" (25.4 mm) ea
<b>Weight (with battery)</b>	17.1 oz (485 grams)
<b>Case</b>	UL94-V0
<b>Vibration</b>	IEC 68-2-6 (1.5mm, 10 to 55Hz)
<b>Shock</b>	IEC 68-2-27 (30G)
<b>Drop</b>	IEC 68-2-32 (1m)

### \*Extended Recording Mode (XRM™)

This unique recording mode provides the opportunity to continuously record over long periods of time by reducing the stored samples of the oldest data and maintaining matching resolution for the newest data. Each time the memory fills up using XRM™ every other of the oldest stored samples is discarded making room for newer samples. This process continues until the recording is manually stopped.

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2126.01	Simple Logger® II Model CL601 (1-Channel, TRMS Clamp-On, 600Aac)	\$469.00	\$72.00



## Features

- Compatible standard current probes with voltage output and BNC connection (see chart on page 57 for compatible Current Probes)
- 2 inputs (Model L102)
- 64 samples per cycle
- Programmable storage rates from 8 every second to 1 every day
- 3 user selectable storage modes
- Stores up to 240,000 measurements in non-volatile memory
- Powered by standard Alkaline batteries
- Lightweight, compact, fits anywhere
- 5 LED indicators quickly and clearly display Logger status
- Includes DataView® software FREE for data storage, real-time waveform display, analysis and report generation
- Isolated USB communication
- 50V Cat III

## Applications (Model L101)

- Load profiling
- Fault current detection
- Intermittent problem detection
- Demand recording
- Neutral current monitoring
- Harmonic current recording using DataView® software
- Metering CT resizing

## Applications (Model L102)

- Split phase load monitoring
- Neutral and ground current monitoring
- Intermittent problem detection
- Harmonic current monitoring using DataView® software
- Machine load monitoring



Models L101 & L102

## SPECIFICATIONS

MODELS	L101	L102
ELECTRICAL		
Channels	One	Two
Input Connection	BNC	One BNC connector per channel
Measurement Range	0 to 1V (See page 57 for compatible Current Probes)	
Resolution	0.1mV	
Accuracy (50/60Hz)	0 to 10mV: unspecified 10 to 50mV: ±(0.5% of Reading + 1mV) 50 to 1000mV: ±(0.5% of Reading + 0.5mV)	
Sample Rate	64 samples/cycle	
Storage Rate	Programmable from 125ms to 1 day	
Storage Modes	Start/Stop, FIFO and Extended Recording Mode (XRM™)	
Recording Length	15 minutes to 8 weeks, programmable using DataView®	
Memory	240,000 measurements (512KB) - The recorded data is stored in non-volatile memory and will be retained even if the battery is low or removed.	
Communication	USB 2.0 optically isolated	
Power Source	2 x 1.5V AA-cell alkaline batteries	
Battery Life	100 hours to >45 days (dependent on sample rate and recording length)	
MECHANICAL		
Dimensions	5.38 x 2.75 x 1.28" (136 x 70 x 32mm)	
Max Conductor Size	Current probe dependent	
Weight (with battery)	6.4 oz (181 grams)	
Case	UL94-V0	
Vibration	IEC 68-2-6 (1.5mm, 10 to 55Hz)	
Shock	IEC 68-2-27 (30G)	
Drop	IEC 68-2-32 (1m)	

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2126.02	Simple Logger® II Model L101 (1-Channel, TRMS 0 to 1VAc)	\$329.00	\$98.00
2126.03	Simple Logger® II Model L102 (2-Channel, TRMS 0 to 1VAc)	\$369.00	\$98.00

# Simple Logger® II

## TRMS 600VAC/DC

### Model L261



Model L261

**NEW!**

## Features

- TRMS voltage recording up to 600VAC/DC
- 64 samples per cycle
- Programmable storage rates from 8 every second to 1 every day
- 3 user selectable storage modes
- Stores up to 240,000 measurements in non-volatile memory
- Powered by standard Alkaline batteries
- Lightweight, compact, fits anywhere
- 5 LED indicators quickly and clearly display Logger status
- Includes DataView® software FREE for data storage, real-time waveform display, analysis and report generation
- Isolated USB communication
- 300V Cat IV; 600V Cat III

## Applications

- Surge and Sag recording
- Long term supply monitoring
- Industrial, commercial, residential monitoring
- Monitor voltage harmonics
- Find intermittent voltage problems
- Machine monitoring

## SPECIFICATIONS

<b>MODEL</b>	<b>L261</b>
<b>ELECTRICAL</b>	
<b>Channels</b>	One
<b>Input Connection</b>	Two Recessed 4mm Banana Jacks
<b>Measurement Range</b>	0 to 600V
<b>Resolution</b>	0.1V
<b>Accuracy (50/60Hz)</b>	0 to 5V: unspecified 5 to 50V: $\pm (0.5\% \text{ of Reading} + 1V)$ 50 to 600V: $\pm 0.5\% \text{ of Reading} + 0.5V$
<b>Sample Rate</b>	64 samples/cycle
<b>Storage Rate</b>	Programmable from 125ms to 1 day
<b>Storage Modes</b>	Start/Stop, FIFO and Extended Recording Mode (XRM™)
<b>Recording Length</b>	15 minutes to 8 weeks, programmable using DataView®
<b>Memory</b>	240,000 measurements (512KB) - The recorded data is stored in non-volatile memory and will be retained even if the battery is low or removed.
<b>Communication</b>	USB 2.0 optically isolated
<b>Power Source</b>	2 x 1.5V AA-cell alkaline batteries
<b>Battery Life</b>	100 hours to >45 days (dependent on sample rate and recording length)
<b>MECHANICAL</b>	
<b>Dimensions</b>	4.94 x 2.75 x 1.28" (125 x 70 x 32mm)
<b>Weight (with battery)</b>	6.4 oz (181 grams)
<b>Case</b>	UL94-V0
<b>Vibration</b>	IEC 68-2-6 (1.5mm, 10 to 55Hz)
<b>Shock</b>	IEC 68-2-27 (30G)
<b>Drop</b>	IEC 68-2-32 (1m)



Model L261 includes set of two color-coded 5 ft Voltage Leads and color-coded Alligator clips (red/black)  
Cat. #2140.62

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2126.05	Simple Logger® II Model L261 (1-Channel, TRMS 600VAC)	\$349.00	\$98.00

## Features

- 2 input channels
- Voltage: 0 to 600V<sub>AC/DC</sub> TRMS
- Current: compatible with Voltage output current probes with voltage outputs (shown on page 57)
- 64 samples per cycle
- 3 user selectable storage modes
- Programmable storage rates from 8 every second to 1 every day
- Stores up to 240,000 measurements in non-volatile memory
- Powered by standard Alkaline batteries
- Lightweight, compact, fits anywhere
- 5 LED indicators quickly and clearly display Logger status
- Includes DataView® software FREE for data storage, real-time waveform display, analysis and report generation
- 300V Cat IV; 600V Cat III with a safety rated current probe attached

# Simple Logger® II TRMS Voltage & Current Model L562



Model L562

## SPECIFICATIONS

MODEL	L562	
ELECTRICAL		
Channels	Two	
Connection	Current Channel	Voltage Channel
Input Connection	BNC	Two Recessed Banana Jacks
Input Range*	0 to 1V (for use with current probes with a voltage output)	0 to 600V <sub>AC/DC</sub>
Resolution	0.1mA	0.1V
Accuracy (50/60Hz)	0 to 10mV unspecified 10 to 50mV: ±(0.5% of Reading + 1mV) 50 to 1000mV: ±(0.5% of Reading + 0.5mV)	0 to 5V unspecified 5 to 50V: ±(0.5% of Reading + 1V) 50 to 600V: ±(0.5% of Reading + 0.5V)
Measurement Input Voltage	5V <sub>rms</sub> (-7.07V peak to + 7.07V peak max)	1000V
Sample Rate	64 samples/cycle	
Storage Rate	Programmable from 125ms to 1 day	
Storage Technique	Stop when full, FIFO and Extended Recording Mode (XRM™)	
Recording Length	15 minutes to 8 weeks, programmable using DataView®	
Memory	240,000 measurement (512KB). The recorded data is stored in non-volatile memory and will be retained even if the battery is low or removed.	
Communication	USB 2.0 optically isolated	
Power Source**	2 x 1.5V AA-cell alkaline batteries	
Battery Life	100 hours to > 45 days (dependent on sample rate and recording length)	
MECHANICAL		
Dimensions	5.38 x 2.75 x 1.28" (136 x 70 x 32mm)	
Max Conductor Size	Current probe dependent	
Weight (with battery)	6.4 oz (181 grams)	
Case	UL94-V0	
Vibration	IEC 68-2-6 (1.5mm, 10 to 55Hz)	
Shock	IEC 68-2-27 (30G)	
Drop	IEC 68-2-32 (1m)	

## Applications

- Single phase power monitoring
- Residential, commercial, industrial, troubleshooting
- Find sags and surges
- Track energy usage



Model L261 includes set of two color-coded 5 ft Voltage Leads and color-coded Alligator clips (red/black)  
Cat. #2140.62

\*The native measurement of the instrument is voltage. This voltage is scaled to display current corresponding to the users probe selection. This accuracy specification does not account for probe errors.

\*\*A memory backup provides backup power while the batteries are being changed.

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2126.35	Simple Logger® II Model L562 (TRMS Voltage & Current Module)	\$369.00	\$98.00



# Simple Logger® II

## 4 to 20mA DC Current Model L322

## DC Voltage Model L432



Model L322

Model L432

Available  
Fall 2008

**NEW!**

### Features

- 2 independent input channels
- 0 to 25mA DC (Model L322)
- User-selectable ranges of 0 to 100mV; 0 to 1V and 0 to 10VDC per channel (Model L432)
- Programmable storage rates from 8 every second to 1 every day
- 3 user selectable storage modes
- Stores up to 240,000 measurements in non-volatile memory
- Powered by standard Alkaline batteries
- Lightweight, compact, fits anywhere
- 5 LED indicators quickly and clearly display Logger status
- Includes DataView® software FREE for data storage, real-time display, analysis and report generation
- 50V Cat III

### Applications (Model L322)

- Process control monitoring and troubleshooting
- Profile temperature, pressure, flow and other parameters directly
- General purpose DC current monitoring
- And many more

### Applications (Model L432)

- Circuit design troubleshooting
- Sensor monitoring
- Battery testing
- Power supply profiling

### SPECIFICATIONS

MODELS	L322	L432
<b>ELECTRICAL</b>		
Channels	Two	
Input Connection	Detachable terminal strip	
Measurement Range	0 to 25mA DC	±100mV/1V/10Vdc (selectable through DataView® software)
Resolution	0.1mA	0.1mV - 1mV - 10mV
Accuracy (DC and 50/60Hz)	0 to 1mA: unspecified 1mA to 30mA: ±(0.25% of Reading + 100µA) — —	0 to 1mV: unspecified 10 to 100mV: ±(0.5% of Reading + 1mV) 0 to 10mV: unspecified 10 to 1000mV: ±(0.5% of Reading + 1mV) 0 to 100mV: unspecified 100mV to 10.00V: ±(0.5% of Reading + 10mV)
Sample Rate	8 samples taken at storage interval	
Storage Rate	Programmable from 125ms to 1 day	
Storage Modes	Start/Stop, FIFO and Extended Recording Mode (XRM™)	
Recording Length	15 minutes to 8 weeks, programmable using DataView®	
Memory	240,000 measurements (512KB) - The recorded data is stored in non-volatile memory and will be retained even if the battery is low or removed.	
Communication	USB 2.0 optically isolated	
Power Source	2 x 1.5V AA-cell alkaline batteries	
Battery Life	100 hours to >45 days (dependent on sample rate and recording length)	

MODELS	L322	L432
<b>MECHANICAL</b>		
Dimensions	5.43 x 2.75 x 1.28" (138 x 70 x 32mm)	
Weight (with battery)	6.4 oz (181 grams)	
Case	UL94-V0	
Vibration	IEC 68-2-6 (1.5mm, 10 to 55Hz)	
Shock	IEC 68-2-27 (30G)	
Drop	IEC 68-2-32 (1m)	

### CATALOG NO. DESCRIPTION

		PRICE	NIST CALIBRATION
2126.06	Simple Logger® II Model L322 (4 to 20mA DC Current Module)	\$329.00	\$98.00
2126.07	Simple Logger® II Model L432 (2-Channel, DC ±100mV/1V/10Vdc)	\$329.00	\$98.00

# DataView® Software for Simple Logger® II

## Features

- Display and analyze real-time data on your PC
- Configure all data logger functions and parameters from your PC including sample rate, recording length, channel configuration and more
- Create and store a complete library of configurations that can be uploaded to the logger as needed
- Zoom in and out and pan through sections of the graph to analyze the data
- Download, display and analyze recorded data
- Display waveforms, trend graphs, harmonics (AC models) and text summaries
- Create custom views and reports
- Print reports using standard or custom templates you design
- Free software upgrades

## Minimum System Requirements:

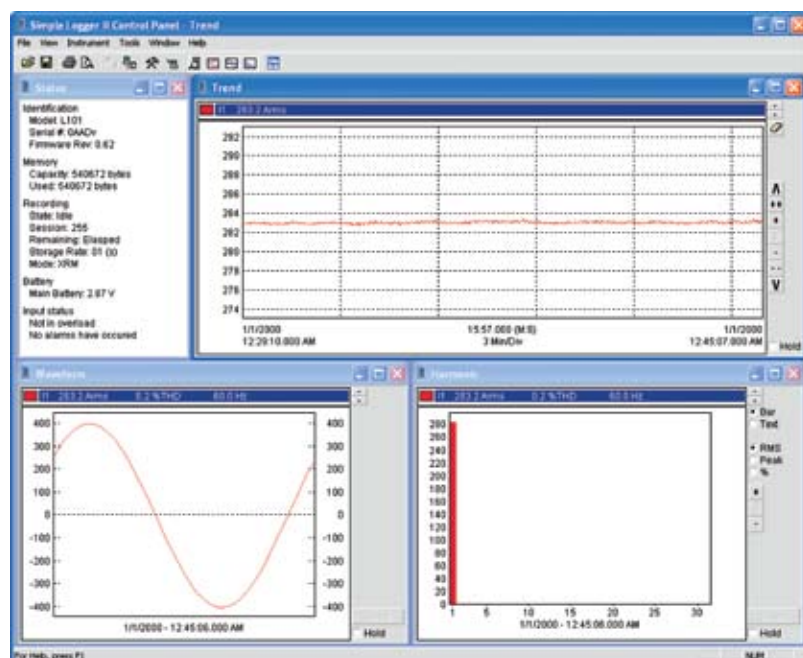
- Windows® 2000/XP/Vista
- 128MB of RAM for Windows® 2000 (256MB of RAM recommended)
- 256MB of RAM for Windows® XP
- 512MB of RAM for Windows® Vista
- 35MB of hard disk space (200MB recommended)
- CD-ROM drive



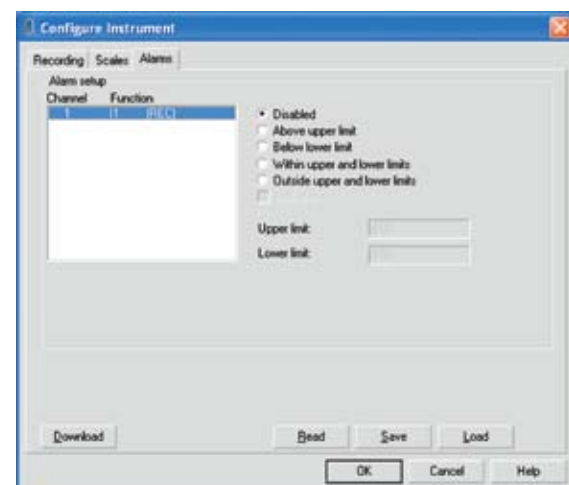
DataView® is included  
with all Simple Logger® II Models.



Quick and simple configuration of all functions and settings from one dialog box.



Real-time view of trend, waveform and status screens.



Configure all alarm functions with straightforward selections.

# Simple Logger® II Thermocouple Model L642



Model L642



## Features

- 2 input channels
- User-selectable thermocouple types J, K, T, N, E, R, and S
- Programmable storage rates from 1 every 5 seconds to 1 every day
- 3 user selectable storage modes
- Stores up to 240,000 measurements in non-volatile memory
- Powered by standard Alkaline batteries
- Lightweight, compact, fits anywhere
- 5 LED indicators quickly and clearly display Logger status
- Includes DataView® software FREE for data storage, real-time display, analysis and report generation
- 50V Cat III

## Applications

- HVAC monitoring
- Process monitoring
- Refrigeration monitoring
- And many more

## Optional Thermocouple Sensors

Please consult factory for more information on available thermocouples.



J Thermocouple



K Thermocouple



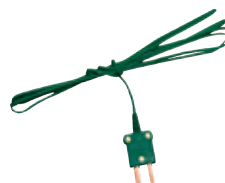
T Thermocouple



N Thermocouple



E Thermocouple



R &amp; S Thermocouple

## SPECIFICATIONS

<b>MODEL</b>	<b>L642</b>
<b>ELECTRICAL</b>	
<b>Channels</b>	Two
<b>Input Connection</b>	Two miniature, thermocouple connectors
<b>Measurement Range:</b>	°F (°C)
J	-346 to +2192 (-210 to + 1200)
K	-328 to +2501 (-200 to + 1372)
T	-418 to +752 (-250 to + 400)
N	-328 to +2372 (-200 to + 1300)
E	-238 to 1742 (-150 to + 950)
R	32 to 3212 (0 to 1767)
S	32 to 3212 (0 to 1767)
<b>Resolution</b>	0.1° C/F up to 1000° C/F, 1° above 1000° C/F
<b>Accuracy</b>	0.1% to 0.2% + 0.6° to 1°, depending on the range and T/C type
<b>Sample Rate</b>	8 samples taken at storage interval
<b>Storage Rate</b>	Programmable from 5s to 1 day
<b>Storage Modes</b>	Start/Stop, FIFO and Extended Recording Mode (XRM™)
<b>Recording Length</b>	15 minutes to 8 weeks, programmable using DataView®
<b>Memory</b>	240,000 measurements (512KB) - The recorded data is stored in non-volatile memory and will be retained even if the battery is low or removed.
<b>Communication</b>	USB 2.0 optically isolated
<b>Power Source</b>	2 x 1.5V AA-cell alkaline batteries
<b>Battery Life</b>	100 hours to >45 days (dependent on sample rate and recording length)
<b>MECHANICAL</b>	
<b>Dimensions</b>	4.94 x 2.75 x 1.28" (125 x 70 x 32mm)
<b>Weight (with battery)</b>	7 oz (200 grams)
<b>Case</b>	UL94-V0
<b>Vibration</b>	IEC 68-2-6 (1.5mm, 10 to 55Hz)
<b>Shock</b>	IEC 68-2-27 (30G)
<b>Drop</b>	IEC 68-2-32 (1m)

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2126.08	Simple Logger® II Model L642 (Temperature Thermocouple Module)	\$349.00	\$98.00



# Flexible Current Probe Logger Model AL24-2500

## Features

- True RMS measurements
- Self contained, no exposed connections
- Stores up to 8,000 measurements
- Weatherproof NEMA 4X, IP65 rated
- Flexible sensor - fits anywhere
- Scale automatically selected in software
- RS-232 isolated output
- Includes Simple Logger® software

## Applications

- Load profiling
- Machine load monitoring
- Substation monitoring



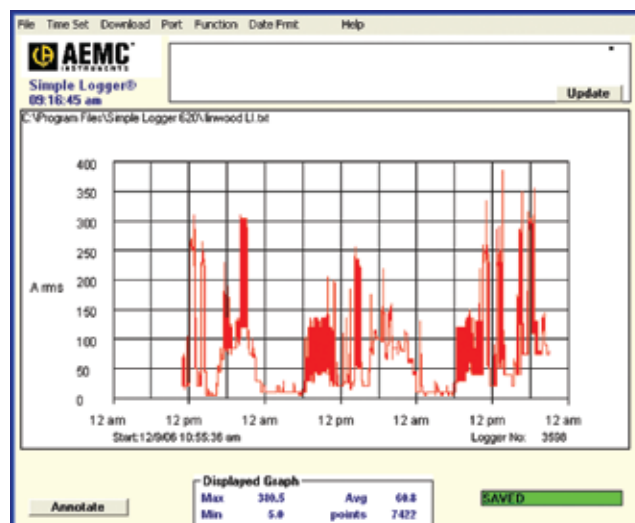
Model AL24-2500



## SPECIFICATIONS

MODEL	AL24-2500
ELECTRICAL	
Number of Channels	One
Input (switchable)	5 to 250 or 2500Arms
Input Sensor (flexible current sensor)	24" (610mm)
Resolution	250A range: 1A max 2500A range: 10A max
Accuracy	1% of Reading + Resolution
Battery Life	Up to six months recording @ 25°C
Working Voltage	600VAC
MECHANICAL	
Dimensions	Sensor: Diameter 0.5" (12.5mm) Logging Module: 1.56 x 2.5 x 4.5" (41 x 64 x 114mm)
Weight	15.5 oz (439.3g) including battery
Max Conductor Size* (flexible current sensor)	8" (190mm)

\*Dimensions rounded off



Quickly and easily view and print recorded data with software provided.

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2113.72	Simple Logger® Model AL24-2500 (RMS Current, 250/2500A, 24" AmpFlex®)	\$499.00	\$98.00



Technical Assistance (800) 343-1391

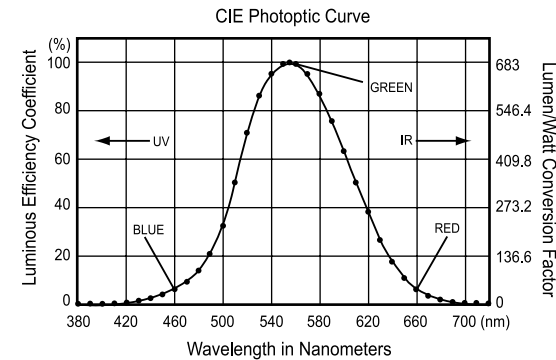
www.aemc.com 37

Lightmeter  
Models CA811 & CA813



Model CA811

Model CA813



Features

- Easy one-hand operation
- Designed to measure a wide range of lighting types
- Removable sensor for remote reading
- Measures in footcandles (fc) or lux
- Cosine corrected
- Hold function
- Max function (Model CA811)
- Peak function (Model CA813)
- CIE photopic (human eye) response
- 2000-count backlit LCD
- Lightweight and compact
- Removable protective sensor cover
- Includes rugged, shockproof, protective, dirt resistant gray holster

Applications

- Testing for OSHA compliance in workplace, cleanroom and industrial settings
- Ambient testing for light-sensitive displays and archives in museums and art galleries

SPECIFICATIONS

MODELS	CA811	CA813*
Range	20fc, 200fc, 2000fc, 20kfc 20lux, 200lux, 2000lux, 20k lux	20fc, 200fc, 2000fc, 20kfc 20lux, 200lux, 2000lux, 20k lux, 200k lux
Display Resolution	0.01fc or 0.01lux	0.01fc or 0.01lux
Sensor	Silicon photodiode	Silicon photodiode
Spectral Response	CIE Photopic Curve	CIE Photopic Curve
Accuracy	2856K Light Source Common Light Source	2856K Light Source Common Light Source
	±3% of Reading ± 10cts ±18% of Reading ± 2cts	±3% of Reading ± 10cts ±11% of Reading ± 2cts
Sample Rate	2.5 times per second, nominal	2.5 times per second, nominal
GENERAL		
Display	3½ digit liquid crystal display (LCD), 2000-count	
Operating Temperature	32° to 122°F (0° to 50°C), <80% RH	
Storage Temperature	-4° to 140°F (-20° to 60°C), 0 to 80% RH without battery	
Polarity	Automatic	
Power Source	9V Alkaline battery	
Low Battery Indication	[- +] is displayed when battery voltage is low	
Dimensions	6.81 x 2.38 x 1.5" (173 x 60.5 x 38mm)	
Weight	Approx. 7.55 oz (214g) including battery	Approx. 7.9 oz (224g) including battery

\*Note: Model CA813 offers higher sensitivity (200klux) and has a better spectral response to common light sources

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2121.20	Lightmeter Model CA811	\$119.00	\$350.00
2121.21	Lightmeter Model CA813	\$165.00	\$350.00

# Sound Level Meter Model CA832


## Features

- Easy one-hand operation
- Measures sound according to the sensitivity of the human ear
- Max function
- Three measurement ranges from 35 to 130dB
- Accuracy  $\pm 1.5$ dB
- Two time weighting curves: S (slow) - 550ms and F (fast) - 55ms
- Two frequency weighting curves: A and C
- Auxiliary output for recording
- Tripod mountable
- 2000-count backlit LCD
- Lightweight and compact
- Includes rugged, shockproof, protective, dirt resistant gray holster

## Applications

- Factories
- Schools, Libraries
- Airports
- Office environments & Studios
- Auditoriums
- Hospitals

## SPECIFICATIONS

MODEL	CA832
MEASUREMENTS	
Measurement Range	35 to 80dB 50 to 100dB 80 to 130dB
Measurement Rate	2.5 times per second
Dynamic Range	50db
Frequency Range	31.5 to 8000Hz
Accuracy	$\pm 1.5$ dB
Resolution	0.1dB
Precision	$\pm 2.0$ dB
Display	2000-count
Sensor Type	0.5" electric (prepolarized) condenser microphone True RMS measurement with independent frequency weighting
Applicable Standard	IEC 651 type 2/ANSI S 1.4 type 2/JIS C 1502
Auxiliary Output	DC output: 10mV/dB – 50 $\Omega$ AC output: 1.0Vrms – 600 $\Omega$
Frequency Weighting	Curves A and C
Time Weighting	S (slow) and F (fast)
GENERAL	
Display	3½ digit liquid crystal display (LCD), 2000-count
Operating Temperature	32° to 122°F (0° to 50°C), 80% RH without condensation
Storage Temperature	-4° to 140°F (-20° to 60°C), 0 to 80% RH without battery
Power Source	9V Alkaline battery
Low Battery Indication	 is displayed when battery voltage is low
Dimensions	9.33 x 2.38 x 1.5" (237 x 60.5 x 38mm)
Weight	8.11 oz (230g) including battery



Model CA832



Tripod mounting screw allows for mounting on a standard tripod stand. (Tripod not included)



Tripod mounting screw, auxiliary output plug and calibration screwdriver included.

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2121.23	Sound Level Meter Model CA832	\$199.00	\$350.00



# Thermo-Hygrometer Model CA846



Model CA846



SPECIFICATIONS	
MODEL	CA846
MEASUREMENTS — TEMPERATURE	
Measurement Range	-4° to 140°F or -20° to 60°C
Display Resolution	0.1°F or 0.1°C
Sensor	NTC Temperature Sensor
Accuracy	-4° to 32°F: ±2°F or -20° to 0°C: ±1°C 32° to 140°F: ±1°F or 0° to 60°C: ±0.5°C
MEASUREMENTS — RELATIVE HUMIDITY	
Measurement Range	0 to 100% RH
Display Resolution	0.1% RH
Sensor	Capacitive Humidity Sensor
Accuracy	±5.0%, 25°C, 10% to 90% RH ±10.0%, 25°C, 0% to 10% RH, 90% to 100% RH
GENERAL	
Display	3½ digit liquid crystal display (LCD), 2000-count
Operating Temperature	32° to 122°F (0° to 50°C), 80% RH
Storage Temperature	-4° to 140°F (-20° to 60°C), 0 to 80% RH without battery
Polarity	Automatic
Power Source	9V Alkaline battery
Low Battery Indication	is displayed when battery voltage is low
Dimensions	6.81 x 2.38 x 1.5" (173 x 60.5 x 38mm)
Weight	Approx. 7 oz (197g) including battery

## Features

- Easy one-hand operation
- Measures temperature in °F and °C
- Accurate NTC sensor
- Quick response RH sensor
- Max and Hold functions
- 2000-count backlit LCD
- Lightweight and compact
- Removable protective sensor cover
- Includes rugged, shockproof, protective, dirt resistant gray holster

## Applications

- Greenhouses
- HVAC installation and maintenance
- Office environments
- Labs
- Environmental studies
- Weather monitoring
- Food distribution and storage
- Blood banks

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2121.24	Thermo-Hygrometer Model CA846 (NTC)	\$149.00	\$350.00

# Moisture Meter Model CA847



Model CA847



SPECIFICATIONS	
MODEL	CA847
MEASUREMENTS — % H2O	
Measurement Range	0 to 100%
Display Resolution	6 to 23% and 24 to 100% RH
Sensor	Capacitive Humidity Sensor
Accuracy	±1 LED from 6 to 30% RH ±2 LEDs above 30% RH
GENERAL	
Display	20 LEDs on 2 scales
Operating Temperature	32° to 122°F (0° to 50°C), 80% RH
Storage Temperature	-4° to 140°F (-20° to 60°C), 0 to 80% RH without battery
Power Source	9V Alkaline battery
Low Battery Indication	LED lights up when battery voltage is low
Dimensions	7.68 x 2.38 x 1.5" (195 x 60.5 x 38mm)
Weight	Approx. 5.6 oz (160g) including battery

## Features

- Easy one-hand operation
- Measurement range: to 100% of H<sub>2</sub>O
- Two 20-LED display scales: from 6 to 23% and 24 to 100%
- Replaceable electrodes
- Power ON/OFF automatically activated when protective cover is removed/installed
- Lightweight and compact
- Removable protective sensor cover
- Includes rugged, shockproof, protective, dirt resistant gray holster

## Applications

- Measure moisture in wood products
- Plastic, sheetrock and concrete curing

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2121.25	Moisture Meter Model CA847	\$99.00	—

# Thermometer Models CA861, CA863 & CA865

## Features

- Easy one-hand operation
- K thermocouple(s) included (Models CA861 and CA863)
- Accurate RTD sensor (Model CA865)
- Measures temperature in °F and °C
- 0.1° Resolution
- Max and Hold functions
- 2000-count backlit LCD
- Lightweight and compact
- Includes rugged, shockproof, protective, dirt resistant gray holster

## Applications

- Process control monitoring and troubleshooting
- HVAC installation and maintenance
- Chemical processing
- Food processing
- Mold injecting and HVAC for temperature rise and fall (Model CA863)
- Indoor/outdoor differential temperature measurements (Model CA863)
- Plastics



Models CA861, CA863 &amp; CA865



RTD sensor included with Model CA865



K thermocouples included with Models CA861 and CA863

## SPECIFICATIONS

MODELS	CA861	CA863	CA865
<b>MEASUREMENTS</b>			
<b>Input</b>	Single K thermocouple	Dual K thermocouple	RTD Sensor
<b>Temperature Scale</b>	Fahrenheit or Celsius user-selectable	Fahrenheit or Celsius user-selectable	Fahrenheit or Celsius user-selectable
<b>Measurement Range</b>	-40° to 1999°F or -40° to 1350°C	-58° to 1999°F or -50° to 1300°C	-58° to 199.9°F or -50° to 199.9°C
<b>Display Resolution</b>	1°F or 1°C, 0.1°F or 0.1°C	1°F or 1°C, 0.1°F or 0.1°C	0.1°F or 0.1°C
<b>Sensor</b>	K thermocouple	K thermocouple Dual Input	Pt385/100Ω RTD Temperature sensor (alpha 0.00385)
<b>Accuracy (Instrument)</b>	-40° to 1999°F: ±0.1% of Rdg ± 2°F -40° to 1350°C: ±0.1% of Rdg ± 1°C	-58° to 1999°F: ±0.3% of Rdg ± 2°F -50° to 1000°C: ±0.3% of Rdg ± 1°C 1000° to 1300°C: ±0.5% of Rdg ± 1°C	±1°F (±0.05°C)
<b>Input Protection</b>	24Vdc or 24Vrms	24Vdc or 24Vrms	24Vdc or 24Vrms
<b>Sample Rate</b>	2.5 times per second	2.5 times per second	2.5 times per second
<b>Input Connector</b>	Accepts one standard miniature K thermocouple plug	Accepts two standard miniature K thermocouple plugs	Accepts standard 3-prong RTD plug
<b>GENERAL</b>			
<b>Display</b>	3½ digit liquid crystal display (LCD), 2000-count		
<b>Operating Temperature</b>	32° to 122°F (0° to 50°C), 80% RH		
<b>Storage Temperature</b>	-4° to 140°F (-20° to 60°C), 0 to 80% RH without battery		
<b>Polarity</b>	Automatic		
<b>Power Source</b>	9V Alkaline battery		
<b>Low Battery Indication</b>	[ - ] is displayed when battery voltage is low		
<b>Dimensions</b>	6.81 x 2.38 x 1.5" (173 x 60.5 x 38mm)		
<b>Weight</b>	Approx. 6.5 oz (185g) including battery	Approx. 6.4 oz (181g) including battery	Approx. 6.2 oz (175g) including battery

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2121.26	Thermometer Model CA861 (K thermocouple)	\$79.00	\$78.00
2121.27	Thermometer Model CA863 (Dual K thermocouple)	\$99.00	\$78.00
2121.28	Thermometer Model CA865 (RTD)	\$89.00	\$78.00

# Infrared Thermometer

## Models CA870, CA872 & CA876



Models CA870, CA872 &amp; CA876



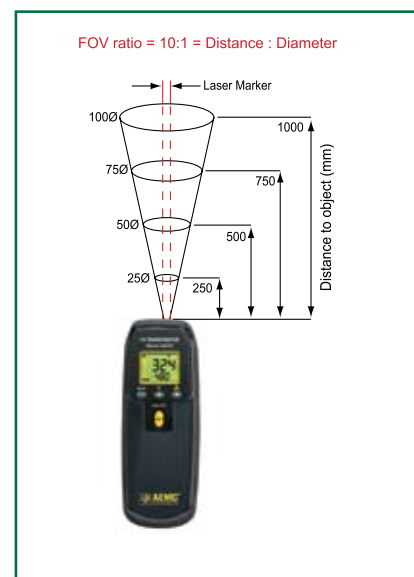
### Features

- Easy one-hand operation
- Non-contact infrared sensor
- Laser guide for precise aim (Models CA872 and CA876)
- Measures temperature in °F and °C
- High 1022°F/550°C measurement (Model CA876)
- Fixed 0.95 emissivity (Models CA870 and CA872)
- Adjustable emissivity 0.1 to 1.00 (Model CA876)
- Auto-Hold function
- 2000-count backlit LCD
- Lightweight and compact
- Removable protective laser cover (Models CA872 and CA876)
- Includes rugged, shockproof, protective, dirt resistant gray holster

### Applications

- Electrical troubleshooting
- Food safety and processing
- Automotive repair and maintenance
- Marine maintenance and repairs
- Test faulty motor winding insulation
- Test overheated high voltage transformers
- Test terminals on circuit breaker panels
- Perform HVAC energy audits

SPECIFICATIONS			
MODELS	CA870	CA872	CA876
MEASUREMENTS — INFRARED			
Temperature Range	-4° to 500°F or -20° to 260°C	-4° to 500°F or -20° to 260°C	-4° to 1022°F or -20° to 550°C
Display Resolution	1°F or 1°C	1°F or 1°C	1°F or 1°C
Accuracy	±2% of Reading or ± 6°F (3°C)	±2% of Reading or ± 6°F (3°C)	±2% of Reading or ± 6°F (3°C)
Response Time	One second	One second	One second
Emissivity	Preset 0.95	Preset 0.95	Adjustable 0.10 to 1.00
Sensor	Thermopile	Thermopile	Thermopile
Optical Lens	Fresnal Lens	Fresnal Lens	Fresnal Lens
Laser	—	<0.5mW (670nm)	<0.5mW (670nm)
MEASUREMENTS — K TYPE			
Temperature Range	—	—	-40° to 2000°F or -40° to 1350°C
Display Resolution	—	—	1°F or 1°C or 0.1°F or 0.1°C (Auto)
Sensor	—	—	K thermocouple
Accuracy	—	—	-40° to 2000°F: ±0.1% of Reading ± 2°F -40° to 1350°C: ±0.1% of Reading ± 1°C
GENERAL			
Display	3½ digit liquid crystal display (LCD), 2000-count		
Operating Temperature	32° to 122°F (0° to 50°C), 80% RH		
Storage Temperature	-4° to 140°F (-20° to 60°C), 0 to 80% RH without battery		
Polarity	Automatic		
Power Source	9V Alkaline battery		
Low Battery Indication	[- +] is displayed when battery voltage is low		
Dimensions	6.81 x 2.38 x 1.5" (173 x 60.5 x 38mm)		
Weight	Approx. 6.5 oz (185g) including battery	Approx. 6.4 oz (181g) including battery	Approx. 9 oz (255g) including battery



CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2121.30	Infrared Thermometer Model CA870	\$139.00	—
2121.31	Infrared Thermometer Model CA872 (Laser)	\$159.00	—
2121.34	Infrared Thermometer Model CA876 (Laser, VAR, K thermocouple)	\$179.00	—



# Clamp-On Meter Models 500, 501, 502 & 503

## Features

- Compact size - fits into your pocket
- 400AAC or 400AAC/DC current measurements
- 600VAC/DC volts measurements
- TRMS measurements (Model 502)
- Resistance measurements to 400Ω
- Continuity with beeper below 40Ω
- Frequency measurements from V and A (Models 501 and 502)
- Hold function to “freeze” readings
- Push-button for easy A<sub>DC</sub> zeroing (Model 503)
- Large, easy-to-read 4000-count display
- 42-segment analog bargraph
- Includes test leads and soft carrying pouch



Models 500, 501, 502 &amp; 503

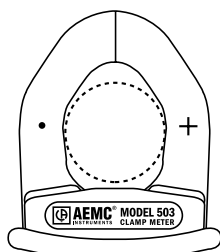


## SPECIFICATIONS

MODELS	500	501	502 TRMS	503
<b>AC Current</b> (Auto-Ranging)	0.05 to 400A	0.05 to 400A	0.05 to 400Arms	0.05 to 400A
Resolution	0.1A	0.01A and 0.1A	0.01A and 0.1A	0.01A and 0.1A
Accuracy	50 to 60Hz ±2% of Reading ± 5cts 60 to 500Hz ±2.8% of Reading ± 5cts	±1.9% of Reading ± 5cts ±2.5% of Reading ± 5cts	±1.9% of Reading ± 5cts ±2.5% of Reading ± 5cts	±1.5% of Reading ± 10cts ±2.5% of Reading ± 10cts
<b>AC Voltage</b> (Auto-Ranging)	0.5 to 600V	0.5 to 600V	0.5 to 600Vrms	0.5 to 600V
Resolution	0.1V and 1V	0.1V and 1V	0.1V and 1V	0.1V and 1V
Accuracy	50 to 60Hz ±1.0% of Reading ± 5cts 60 to 500Hz ±1.5% of Reading ± 5cts	±0.8% of Reading ± 5cts ±1.5% of Reading ± 5cts	±1.5% of Reading ± 5cts ±1.5% of Reading ± 5cts	±0.8% of Reading ± 5cts ±1.5% of Reading ± 5cts
Input Impedance	1MΩ	1MΩ	1MΩ	10MΩ
<b>DC Current</b> (Auto-Ranging)	—	—	—	0.10 to 400A
Resolution	—	—	—	0.01A and 0.1A
Accuracy	—	—	—	±2.5% of Reading ± 10cts
<b>DC Voltage</b> (Auto-Ranging)	—	0.2 to 600V	0.2 to 600V	0.2 to 600V
Resolution	—	0.1V and 1V	0.1V and 1V	0.1V and 1V
Accuracy	—	±1% of Reading ± 2cts	±1% of Reading ± 2cts	±1% of Reading ± 2cts
Input Impedance	—	1MΩ	1MΩ	10MΩ
<b>Resistance</b>	0.3 to 400Ω	0.2 to 400Ω	0.2 to 400Ω	0.2 to 400Ω
Accuracy	±1.9% of Reading ± 3cts	±1% of Reading ± 2cts	±1% of Reading ± 2cts	±1% of Reading ± 2cts
Max Test Voltage	-1.6Vdc	1.5Vdc	1.5Vdc	1.5Vdc
<b>Continuity</b>	<35Ω	<40Ω	<40Ω	<40Ω
Max Test Voltage	1.5Vdc	1.5Vdc	1.5Vdc	1.5Vdc
<b>Frequency</b> (Auto-Ranging)				
CURRENT INPUT				
Range	20Hz to 4kHz >4kHz to 10kHz	1Hz Resolution 10Hz Resolution	1Hz Resolution 10Hz Resolution	—
Accuracy	—	±0.1% of Reading ± 1ct	±0.1% of Reading ± 1ct	—
Min Input Signal	—	2Arms	2Arms	—
Input Impedance	—	1MΩ	1MΩ	—
Overload Protection	—	600Arms	600Arms	—
VOLTAGE INPUT				
Range	10Hz to 4kHz >4kHz to 40kHz >40kHz to 400kHz	1Hz Resolution 10Hz Resolution 100Hz Resolution	1Hz Resolution 10Hz Resolution 100Hz Resolution	—
Accuracy	—	±0.1% of Reading ± 1ct	±0.1% of Reading ± 1ct	—
Min Input Signal	4kHz 40kHz 400kHz	5Vrms 5Vrms 5Vrms	5Vrms 5Vrms 5Vrms	—
Input Impedance	—	1MΩ	1MΩ	—
Overload Protection	—	600Vrms	600Vrms	—
<b>Power Source</b>	Two 1.5V AAA batteries	Two 1.5V AAA batteries	Two 1.5V AAA batteries	Two 1.5V AAA batteries



Models 500, 501, 502 and 503 include a pair of test leads, soft carrying pouch and user manual.

Jaw Opening: 1.1" (28mm)  
Conductor Size:  
one 500kcmil cable

## CATALOG NO. DESCRIPTION

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2117.54	Clamp-On Meter Model 500 (AC, 400AAC, 600VAC, Ohms, Continuity)	\$ 69.00	\$65.00
2117.21	Clamp-On Meter Model 501 (AC, 400AAC, 600VAC/DC, Ohms, Continuity)	\$ 99.00	\$68.00
2117.66	Clamp-On Meter Model 502 (TRMS, 400AAC, 600VAC/DC, Ohms, Continuity)	\$119.00	\$68.00
2117.22	Clamp-On Meter Model 503 (AC/DC, 400AAC/DC, 600VAC/DC, Ohms, Continuity)	\$149.00	\$65.00

# Clamp-On Meter Models 511, 512 & 514



Models 511, 512 &amp; 514



## Features

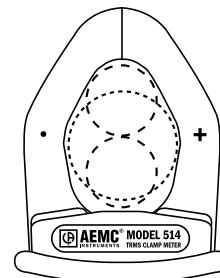
- Standard size, full function clamp-on meters
- 1000A<sub>AC</sub> or 1000A<sub>AC/DC</sub> current measurements
- 750V<sub>AC</sub> or 1000V<sub>DC</sub> volt measurements
- TRMS measurements (Models 512 and 514)
- Resistance measurements to 4000Ω
- Continuity with beeper below 40Ω
- Frequency measurements from V and A
- Diode test
- 1ms Peak function for fast capture of signals
- Hold function to “freeze” readings
- Push-button for easy A<sub>DC</sub> zeroing
- Large, easy-to-read 4000-count display
- 42-segment analog bargraph
- Includes test leads and soft carrying pouch

## SPECIFICATIONS

MODELS	511	512 TRMS	514 TRMS
<b>AC Current</b> (Auto-Ranging)	0.05 to 1000A	0.05 to 1000Arms	0.05 to 1000Arms
Resolution	0.01A, 0.1A and 1A	0.01A, 0.1A and 1A	0.01A, 0.1A and 1A
Accuracy	50 to 60Hz ±1.9% of Reading ± 5cts 60 to 500Hz ±1.9% of Reading ± 5cts	50 to 60Hz ±1.9% of Reading ± 5cts 60 to 500Hz ±1.9% of Reading ± 5cts	50 to 60Hz ±1.9% of Reading ± 5cts 60 to 500Hz ±2.5% of Reading ± 5cts
<b>AC Voltage</b> (Auto-Ranging)	0.5 to 750V	0.5 to 750Vrms	0.5 to 750Vrms
Resolution	0.1V and 1V	0.1V and 1V	0.1V and 1Vrms
Accuracy	60 to 500Hz ±1.2% of Reading ± 5cts	60 to 500Hz ±1.2% of Reading ± 5cts	60 to 500Hz ±1.2% of Reading ± 5cts
Input Impedance	1MΩ	1MΩ	10MΩ
<b>DC Current</b> (Auto-Ranging)	—	—	1A to 1000A
Resolution	—	—	0.01A, 0.1A and 1A
Accuracy	—	—	±2.5% of Reading ± 10cts
<b>DC Voltage</b> (Auto-Ranging)	0.2 to 1000V	0.2 to 1000V	0.2 to 1000V
Resolution	0.1V and 1V	0.1V and 1V	0.1V and 1Vrms
Accuracy	±0.75% of Reading ± 2cts	±0.75% of Reading ± 2cts	±1% of Reading ± 2cts
Input Impedance	10MΩ	10MΩ	10MΩ
<b>Resistance</b>	0.2 to 4000Ω	0.2 to 4000Ω	0.2 to 4000Ω
Accuracy	±1% of Reading ± 2cts	±1% of Reading ± 2cts	±1% of Reading ± 2cts
Max Test Voltage	3Vdc	3Vdc	3Vdc
<b>Diode Test</b>	0.6mA	0.6mA	0.6mA
Open Circuit Voltage	3Vdc	3Vdc	3Vdc
<b>Continuity</b>	<40Ω	<40Ω	<40Ω
Max Test Voltage	3Vdc	3Vdc	3Vdc
<b>Frequency</b> (Auto-Ranging)			
<b>CURRENT INPUT</b>			
Range	4kHz	1Hz Resolution	1Hz Resolution
	10kHz	—	1Hz Resolution
Accuracy	20Hz to 10kHz	—	±0.1% of Reading ± 1ct
Min Input Signal	4kHz	2Arms	2Arms
	10kHz	—	5Arms
<b>VOLTAGE INPUT</b>			
Range	4kHz	1Hz Resolution	1Hz Resolution
	10kHz	10Hz Resolution	10Hz Resolution
Accuracy	—	±0.1% of Reading ± 1ct	±0.1% of Reading ± 1ct
Min Input Signal	4kHz	5Vrms	5Vrms
	10kHz	5Vrms	10Vrms
<b>Power Source</b>	9V Alkaline battery	9V Alkaline battery	9V Alkaline battery



Models 511, 512 and 514 include a pair of test leads, soft carrying pouch and user manual.

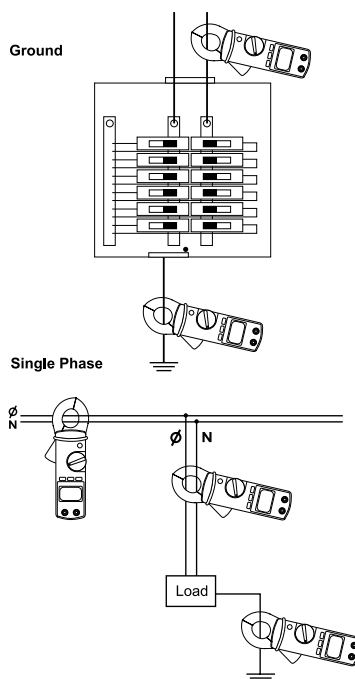
Jaw Opening: 1.575" (40mm)  
Conductor Size: one 750kcmil cable or  
two 500kcmil cables

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2117.67	Clamp-On Meter Model 511 (AC, 1000A <sub>AC</sub> , 600V <sub>AC/DC</sub> , Ohms, Continuity, Hz)	\$ 149.00	\$65.00
2117.68	Clamp-On Meter Model 512 (TRMS, 1000A <sub>AC</sub> , 600V <sub>AC/DC</sub> , Ohms, Continuity, Hz)	\$ 159.00	\$65.00
2117.70	Clamp-On Meter Model 514 (AC/DC, TRMS, 1000A <sub>AC/DC</sub> , 600V <sub>AC/DC</sub> , Ohms, Continuity, Hz)	\$ 199.00	\$65.00

# TRMS Leakage Current Meter Model 565

## Features

- Check for leakage and locate insulation breakdowns on live circuits
- Measures leakage current down to 0.1mA with up to 10 $\mu$ A resolution
- Measures current up to 100Arms
- Measures up to 600V<sub>AC/DC</sub>
- Measures Hz on either V or A inputs
- Measures Resistance and Continuity
- Hold feature freezes Value
- Max feature keeps track of highest measured In-rush value
- Zero button ideal for measuring relative values
- Filter to isolate 50/60Hz fundamental from harmonics
- Compatible with VDE 0404



Model 565

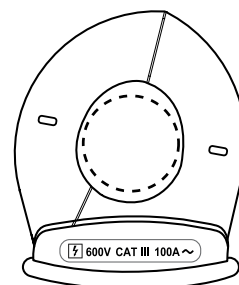


## SPECIFICATIONS

MODEL	565	
<b>mA AC Current</b> (TRMS, Auto-Ranging)	0 to 600mA	
Resolution	60mA	0.01mA (10 $\mu$ A)
	600mA	0.1mA (100 $\mu$ A)
Accuracy	50 to 60Hz	1.2% of Reading $\pm$ 5cts
	50 to 500Hz	2.5% of Reading $\pm$ 5cts
	500Hz to 3kHz	3.5% of Reading $\pm$ 10cts
<b>AC Current</b> (TRMS, Auto-Ranging)	10 to 100A	
Resolution	10A	0.001A (1mA)
	100A	0.01A (10mA)
Accuracy	50 to 60Hz	1.2% of Reading $\pm$ 5cts
	50 to 500Hz	2.5% of Reading $\pm$ 5cts
	500Hz to 3kHz	3.5% of Reading $\pm$ 10cts
<b>AC Voltage</b> (TRMS)	0 to 600V	
Accuracy	50 to 60Hz	1.0% of Reading $\pm$ 5cts
	50 to 500Hz	1.2% of Reading $\pm$ 5cts
	500Hz to 3kHz	2.5% of Reading $\pm$ 10cts
<b>DC Voltage</b>	0 to 600V	
Resolution	0.1V	
Accuracy	1.0% of Reading $\pm$ 3cts	
<b>Resistance</b>	0 to 1k $\Omega$	
Accuracy	1.0% of Reading $\pm$ 3cts	
<b>Continuity</b>	Buzzer activates <35 $\Omega$ (0 to 1k $\Omega$ )	
<b>Frequency</b> (Auto-Ranging)		
Function	A-Hz	V-Hz
Resolution	0 to 100Hz	0.1Hz
	100Hz to 1kHz	1Hz
Sensitivity	10mArms min	5Vrms min
Accuracy	0.5% of Reading $\pm$ 2cts	
<b>Filter</b>	On (50/60Hz only); Off (Full frequency range)	
<b>In-Rush</b>	Max 100mS sample time	
<b>Power Source</b>	Two 1.5V AAA batteries	



Model 565 includes two color-coded 5 ft test leads, batteries, soft carrying case and user manual.



Jaw Opening: 1.10" (28mm)  
Conductor Size: 1" (26mm)

## CATALOG NO. DESCRIPTION

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2117.56	TRMS Clamp-On Leakage Current Meter Model 565 (TRMS, 100A, 600V <sub>ac/dc</sub> , Hz, Ohms, Continuity)	\$269.00	\$72.00



# AC Leakage Current Probe Model 2620

Check for leakage and locate  
insulation breakdowns on  
live circuits

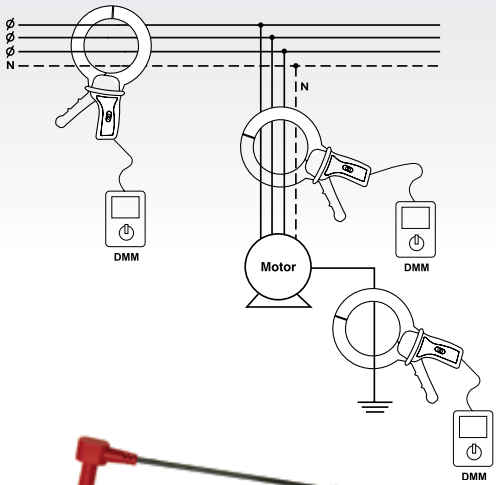


Model 2620

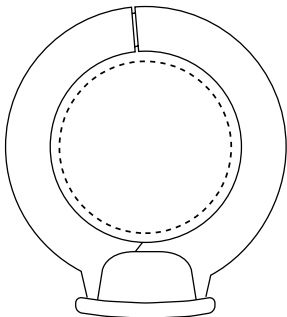


## Features

- Very high sensitivity
- Differential or leakage current from 500µA
- Current up to 400A
- Two switch-selectable measurement ranges: 4A<sub>AC</sub>/400A<sub>AC</sub>
- Large inside jaw diameter allows use on large or multiple conductors
- Works with single-, dual- and three-phase systems
- Connect directly to DMMs on mV or V<sub>AC</sub> range



Model 2620 includes double reinforced  
5 ft (1.5m) leads with  
4mm safety banana plugs



Jaw Opening: 4.4" (112mm)  
Conductor Size: 4.4" (112mm)

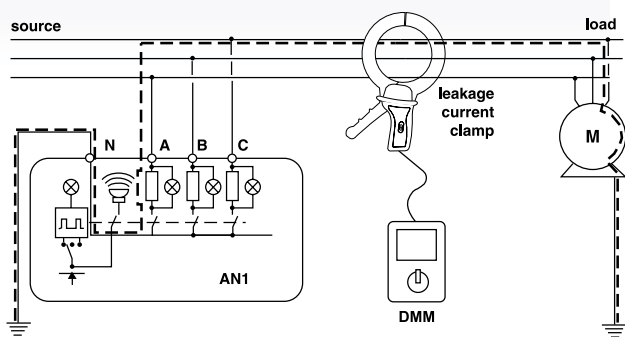
SPECIFICATIONS		
MODEL	2620	
ELECTRICAL		
	4A Range	400A Range
Current Range	500µA to 4A	500mA to 400A
Output Signal	1mV/mA (4V max)	1mV/A (400mV max)
Accuracy		
500µA to 10mA	3% of Reading ± 1mV	—
10mA to 100mA	0.5% of Reading ± 0.5mV	—
100mA to 4A	0.5% of Reading ± 0.5mV	—
500mA to 10A	—	0.5% of Reading ± 0.5mV
10A to 100A	—	0.35% of Reading ± 0.5mV
100A to 400A	—	0.35% of Reading ± 1mV
Phase Shift		
500µA to 10mA	<15°	—
10mA to 100mA	<10°	—
100mA to 4A	—	<1°
500mA to 10A	—	<0.6°
Load Impedance	1MΩ min	1MΩ min
Frequency Range	48 to 1000Hz	48 to 1000Hz
MECHANICAL		
Dimensions	11.22 x 6.89 x 1.77" (285 x 175 x 45mm)	
Power Source	2.87 lbs (1300g)	

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2125.52	AC Leakage Current Probe Model 2620 (4A-1V/A, 400A-1mV/A output)	\$499.00	\$72.00
Accessories (Optional)			
1971.01	Artificial Neutral Model AN-1	\$649.00	—

# Artificial Neutral Model AN-1

## Features

- Designed for ungrounded networks - provides intermittent path to ground for leakage current measurements
- Works from 30 to 600VAC
- Red LED phase voltage indicators
- Switch selectable ground fault cycling of 500mS or 2.3 seconds
- Buzzer alerts each momentary fault
- Battery operated
- Double insulated, fire retardant case
- Four color-coded 5 ft 1000V rated leads supplied with alligator clips
- Works with Model 2620 and other leakage current probes



## SPECIFICATIONS

MODEL	AN-1
<b>ELECTRICAL</b>	
Working Voltage	30 to 600V
Frequency	45 to 65Hz
Resistance Per Phase	3.9k $\Omega$ $\pm$ 5%
Relay Duty Time	Slow position: 500mS / Fast position: 2.3 seconds
Power Source	12V <sub>DC</sub> – Eight 1.5V AA batteries
Power Consumption	180mA
Battery Life	Approx. 40 hours of use
<b>MECHANICAL</b>	
Dimensions	8.7 x 5.4 x 5.9" (220 x 136 x 150mm)
Weight	2.9 lbs (1.3kg)
Case	Fire resistant polycarbonate UL94 V0
<b>ENVIRONMENTAL</b>	
Reference Temperature	73.4° $\pm$ 5°F (23° $\pm$ 3°C)
Operating Temperature	32° to 122°F (0° to 50°C); 10 to 90% RH (non-condensing)
Storage Temperature	-40° to 158°F (-40° to 70°C); 10 to 90% RH (non-condensing)

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
1971.01	Artificial Neutral Model AN-1	\$ 649.00	—
<b>Accessories (Optional)</b>			
2125.52	Leakage Current Probe Model 2620 (4A-1V/A, 400A-1mV/A output)	\$ 499.00	\$72.00

## AC Current Probe Model SR759



Model SR759



### SPECIFICATIONS

MODEL	SR759
MEASUREMENTS	
Measurement Range	1mA to 1Aac 10mA to 10Aac 0.1 to 100Aac 1 to 1000Aac
Output Signal	100mVAc/Aac (1V @ 1A) 100mVAc/Aac (1V @ 10A) 10mVAc/Aac (1V @ 100A) 1mVAc/Aac (1V @ 1000A)
MECHANICAL	
Maximum Conductor Size	2.05"Ø (52mm)
Maximum Bus Bar Size	One 1.95 x 0.19" (50 x 5mm)
Output Termination	5 ft (1.5m) Lead

### Features

- Measurement range of 1mA to 1200Aac
- Large jaw opening accommodates up to two 500kcmil conductors
- Ergonomic design and easy operation
- Low phase shift for power measurements
- Available with mA or mV output signals
- Designed for DMMs, recorders, loggers, oscilloscopes, power and harmonic meters
- Output terminated with 4mm safety shrouded banana plugs on 5 ft (1.5m) leads
- Designed to EN 61010, 600V Cat. III safety standard

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2116.33	AC Current Probe Model SR759 (Lead – 1/10/100/1000A)	\$279.00	\$72.00

## AC Current Probe Models MN103 & MN114



Models MN103 &amp; MN114

### SPECIFICATIONS

MODELS	MN103	MN114
MEASUREMENTS		
Measurement Range	1mA TO 10Aac 1A TO 100Aac	1mA TO 10Aac
Output Signal	1mVAc/mAac (100mV @ 100A)	100mVAc/Aac (1V @ 10A)
MECHANICAL		
Maximum Conductor Size	0.47"Ø (12mm)	0.47"Ø (12mm)
Output Termination	5 ft (1.5m) Lead	5 ft (1.5m) Lead

### Features

- Small, compact and durable AC probes
- “Clothes pin” shape makes them ideal for use in tight areas, such as breaker panels, controller panels, or outlets
- Measurements from 1mA to 100Aac (Model MN103)
- Measurements from 1mA to 10Aac (Model MN114)
- Excellent companion to all DMMs. Permits very low AC current measurements.

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
1031.02	AC Current Probe Model MN103 (Lead – 1mV/mA – 10A max & 1mV/A – 100A max)	\$179.00	\$65.00
2110.71	AC Current Probe Model MN114 (Lead – 100mV/A – 10A max)	\$149.00	\$65.00

## Features

- Capacitance and Resistance Decade Boxes
- Rotary switch selector
- Stop position to prevent accidental switching from 10 to 0
- Male ground (earth) terminal with safety jack
- Outputs on Ø 4mm safety terminals
- Ground jumper lead EN 61010-2-031, 150V Cat. II, 50V Cat. III, Pollution Degree 2
- Accuracy 1% (Resistance), 3% (Capacitance)

## Inductance Decade Box

SPECIFICATIONS			
MODEL	BL07		
RANGE			
Decade	Range	I <sub>dc</sub> Q	Resistance
1	1 to 10μH	300mA	2Ω
2	10 to 100μH	200mA	5Ω
3	100μH to 1mH	100mA	13Ω
4	1 to 10mH	100mA	34Ω
5	10 to 100mH	70mA	55Ω
6	100mH to 1H	50mA	220Ω
7	1 to 10H	40mA	1500Ω

## Resistance Decade Boxes

SPECIFICATIONS				
MODELS	BR04	BR05	BR06	BR07
RANGE				
Decade	1	2	3	4
1	1 to 10Ω	1 to 10Ω	1 to 10Ω	1 to 10Ω
2	10 to 100Ω	10 to 100Ω	10 to 100Ω	10 to 100Ω
3	100Ω to 1kΩ	100Ω to 1kΩ	100Ω to 1kΩ	100Ω to 1kΩ
4	1 to 10kΩ	1 to 10kΩ	1 to 10kΩ	1 to 10kΩ
5	–	10 to 100kΩ	10 to 100kΩ	10 to 100kΩ
6	–	–	100kΩ to 1MΩ	100kΩ to 1MΩ
7	–	–	–	1 to 10MΩ
MAX CURRENT (mA <sub>DC</sub> )				
Decade	1	2	3	4
1	700mA	700mA	700mA	700mA
2	200mA	200mA	200mA	200mA
3	70mA	70mA	70mA	70mA
4	20mA	20mA	20mA	20mA
5	–	7mA	7mA	7mA
6	–	–	1mA	1mA
7	–	–	–	0.1mA
GENERAL				
Resistance Range	1Ω to 11.11kΩ	1Ω to 111.11kΩ	1Ω to 1.1111MΩ	1Ω to 11.1111MΩ
Accuracy	1%	1%	1%	1%

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2131.22	Resistance Decade Box Model BR04 (x1Ω, x10Ω, x100Ω, x1kΩ, 1%)	\$150.00	\$98.00
2131.23	Resistance Decade Box Model BR05 (x1Ω, x10Ω, x100Ω, x1kΩ, x10kΩ, 1%)	\$168.00	\$98.00
2131.24	Resistance Decade Box Model BR06 (x1Ω, x10Ω, x100Ω, x1kΩ, x10kΩ, x100kΩ, 1%)	\$177.00	\$98.00
2131.25	Resistance Decade Box Model BR07 (x1Ω, x10Ω, x100Ω, x1kΩ, x10kΩ, x100kΩ, x1MΩ, 1%)	\$180.00	\$98.00
2131.26	Capacitance Decade Box Model BC05 (x0.1nF, x1nF, x10nF, x100nF, x1kF, 3%)	\$192.00	\$98.00
2131.27*	Inductance Decade Box Model BL07 (x1µH, x10µH, x100µH, x1kµH, x10kµH, x100µH, x1MµH, 5%)	\$192.00	–

\*Consult factory for availability



# Decade Box Models BR04, BR05, BR06, BR07 & BC05



Models BR04, BR05, BR06,  
BR07, BC05 & BL07



## Capacitance Decade Box

SPECIFICATIONS	
MODEL	BC05
RANGE	
Decade	1
1	0.1 to 1nF
2	1 to 10nF
3	10 to 100nF
4	100nF to 1µF
5	1 to 10µF
GENERAL	
Total Capacitance	11.111µF
Residual Capacitance	25pF (approx.)
Accuracy	3% (low residual capacitance)
Max Operating Voltage	300V <sub>dc</sub> , 230V <sub>ac</sub> (50Hz)



# Portable Oscilloscope Model OX 7104-C

**Four isolated input channels!**

**Built-in web server!**

**12-bit resolution!**



Model OX 7104-C



## SPECIFICATIONS

MODEL	OX 7104-C
<b>INTERFACE</b>	
Screen Specifications	Color 5 x 7" LCD (115 x 86mm) 320 x 240 – CCFL backlighting
Display Mode	Vectors with interpolation
No of Curves on Screen	Four traces and four references Split screen and full screen modes (tracing zone 110 x 74)
Front Panel Control	32 direct shortcuts
Screen Control	Touch screen – “Windows-like” menus and graphic commands
<b>VERTICAL</b>	
Bandwidth	100MHz
Channels	Four isolated channels
Accuracy	±0.1%
Input Impedance	1MΩ ± 0.5%
Max. Input Voltage	600V Cat. III – derating -20dB/decade at 100kHz
Vertical Zoom	x5 maximum
<b>HORIZONTAL</b>	
Time Base Speed	35 ranges from 1ns/div to 200s/div
Accuracy	±1.5%
Horizontal Zoom	x10 maximum

**Model OX 7104-C Kit includes:** Oscilloscope; two PROBIX PRHX1, 1/10 Probe, 250 MHz, 600V Cat. III; two PROBIX BNC Adapters; one PROBIX 4mm Banana Plug Adapter; one US power adapter (115V, 60Hz); one battery pack, NiMH 9.6V, 3.8Ah; one set-of-two color-coded test leads, 1.5m (red/black) with needle probe tips; one crossed Ethernet cable; one straight Ethernet cable; SX-METRO data processing and analysis software; one RS-232/9-pin D-SUB cable; one set-of-two grip probes (red/black); set of two stylus; aluminum carrying case, three-year product warranty and registration card and user manual on CD-ROM

**Model OX 7104-C Power Kit includes:** AEMC® Cat. #2124.54 (above), plus the OX Power Kit (Cat. #2124.88) which includes two PROBIX PRHX1, 1/10 Probe, 250MHz, 600V Cat. III; two PROBIX 4mm banana plug adapters; three PROBIX current probes, 20mA to 20A, 100kHz; one PROBIX PRHX7, K thermocouple adapter; three set-of-two color-coded 1.5m leads and clips (red/black 4mm straight, 4mm right angle); small classic tool bag

## Features

- Five complementary tools in one: Oscilloscope, Multimeter, FFT Analyzer, Harmonic Analyzer and Recorder
- Sampling rate 1 GS/s in one-shot mode and 25 GS/s in ETS – memory depth of 2.5k per channel in “oscilloscope” mode
- Four isolated measurement channels, 600V Cat III with up to eight traces on screen
- 12-bit resolution provides deeper accurate zooming
- Real-time FFT analysis standard and calculation functions on the channels
- Four independent, 4000-count, TRMS, 45kHz, digital multimeters
- Color LCD touch screen
- 33 direct command keys and “Windows-like” menus on screen
- Multi-interface communication connector: RS-232, Centronics and Ethernet with web server
- Stylus for touch screen menu/function access and manipulating graphic elements on screen
- PROBIX smart probes with user-definable control buttons

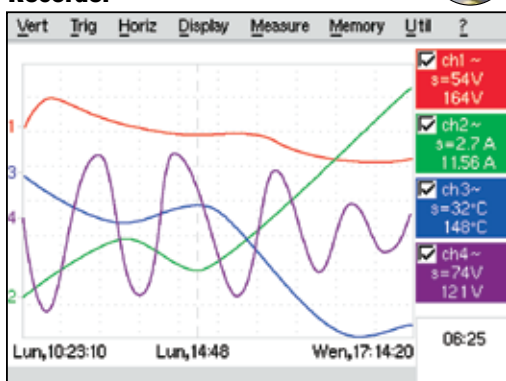
MODEL	OX 7104-C
<b>DIGITAL MEMORY</b>	
Max. Sampling Speed	25GS/s in ETS – 1GS/s on each channel
Vertical Resolution	12 bits
Memory Capacity per Channel	“TRC” approx. 10kB, “TXT” approx. 20kB
User Memory	1MB
Other Modes	Envelope mode (Factors from 2 to 64)
XY Mode	Between two from the four traces – math functions and cursors
<b>OTHER FUNCTIONS</b>	
Autoset	Complete autoset at less than 3s with recognition of channels Frequency >30Hz
FFT Analyzer and Math Functions	FT, +, -, x, / – Editor of mathematical functions
Cursors	Two or three cursors: V and T simultaneous or Phase Resolution 12 bits, display four digits
Power Source	Rechargeable 9V 3.8Ah battery
Battery Life	Four hour operation when fully charged
Communication	Ethernet, RS-232, Web Server

Model OX 7104-C includes metallic carrying case and user manual.



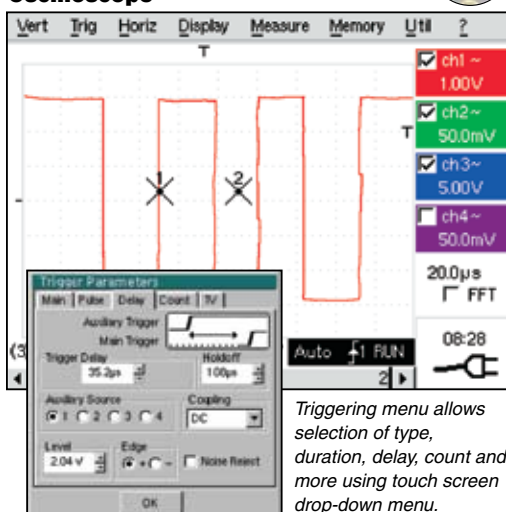
## Four Tools in One!

### Recorder



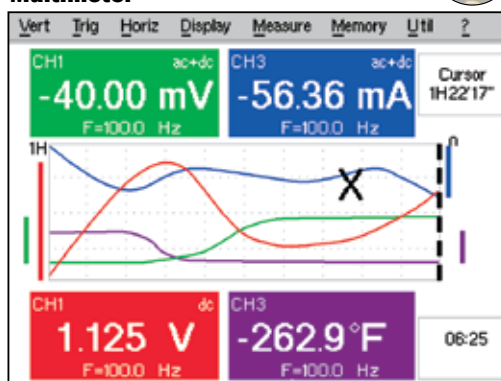
The Model OX 7104-C supports a great variety of sensors (voltage, current, temperature, 0 to 10V, 4 to 20mA, etc) and displays them in their original physical scale and units.

### Oscilloscope



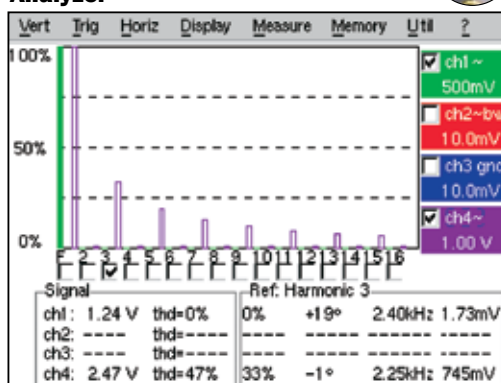
Triggering menu allows selection of type, duration, delay, count and more using touch screen drop-down menu.

### Multimeter



Automatic recording of the measured values are stored in memory on all active channels allowing review of periods lasting from five minutes to 24 hours.

### Analyzer



Harmonic analysis results are displayed in bargraph form.

**See detailed brochure available on the Web!**

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2124.54	Portable Oscilloscope Model OX 7104-C Kit (4x100MHz, Color – Kit)	\$5,995.00	\$162.00
2124.63	Portable Oscilloscope Model OX 7104-C Power Kit (4x100MHz, Color – Power Kit)	\$7,995.00	\$192.00
<b>Accessories (Optional)</b>			
2124.70	Software, Data Retrieval Processing	\$ 299.00	–
2124.71	Harmonic Analyz er, Firmware upgrade	\$ 269.00	–
2124.72	Recorder Function, Firmware upgrade	\$ 329.00	–
2124.73	PROBIX PRHX1, 1/10 Probe, 250MHz, 1000V Cat. II (600V Cat. III)	\$ 269.00	–
2124.74	PROBIX PRHX4, BNC Adapter	\$ 49.00	–
2124.75	PROBIX PRHX5, 50Ω Adapter	\$ 109.00	–
2124.76	PROBIX Banana Plug (4mm) Adapter	\$ 49.00	–
2124.77	PROBIX Current Probe, 20mA to 20A, 100kHz	\$ 389.00	–
2124.78	PROBIX PRH7, K thermocouple Adapter	\$ 119.00	–
2124.79	Carrying Case, Aluminum with foam cut-outs	\$ 299.00	–
2124.80	Straight Ethernet Cable	\$ 69.00	–
2124.81	Crossed Ethernet Cable	\$ 69.00	–
2124.82	RS-232 Adapter/CENTRONICS	\$ 189.00	–
2124.83	RS-232 Cable/9-pin D-SUB cable	\$ 79.00	–
2124.84	Set of two color-coded leads (1.5m) (red and black, 4mm straight, 4mm right angle) with color-coded safety alligator clips (red and black)	\$ 59.95	–
2124.88	OX Power Kit	\$2,100.00	–

Contact AEMC® for information for new 2 Channel Oscilloscopes to be available in the Fall

# DC Power Supply Models AX502 & AX503



Models AX502 &amp; AX503



## SPECIFICATIONS

MODELS	AX502	AX503
Technology	Linear	Linear
Number of Outputs	2	3
VOLTAGE		
Output 1	0 to 30Vdc	0 to 30Vdc
Output 2	0 to 30Vdc	0 to 30Vdc
Output 3 (No display)	—	2.7 to 5.5Vdc
Display Resolution	100mV	100mV
Basic Accuracy	±0.5% of Reading ± 1ct	±0.5% of Reading ± 1ct
Residual Ripple	±1mVrms	±1mVrms
LINE REGULATION		
±10% Line Voltage	±0.03% of Reading ± 2mV	
LOAD REGULATION		
0 to 2.5A	±0.02% of Reading ± 5mV	
0 to 5A	—	±0.2% Reading ±10mV
CURRENT		
Output 1	0 to 2.5A	0 to 2.5A
Output 2	0 to 2.5A	0 to 2.5A
Output 3	—	5A max (no adjustment)
Resolution	10mA	10mA
Basic Accuracy	±0.5% of Reading ± 1ct	±0.5% of Reading ± 1ct
Limit Indicator	LED, Outputs 1 and 2	LED, Outputs 1, 2 and 3
Short-circuit Protection	Electronic current limitation with voltage shutdown	
Overheating Protection	Thermal protection	
OUTPUT COUPLING		
Tracking	Output 1: Master/Output 2: Slave Proportional Slave tracking (0 to 100% of Master)	
Series Mode	0 to 60Vdc/0 to 2.5A	
Parallel Mode	0 to 30Vdc/0 to 5A	

## Features

- Single and Dual 0 to 30Vdc/ 0 to 2.5A outputs
- 5.5V/5A output (Model AX503)
- Series and Parallel operation permit 0 to 60V or 0 to 5A output
- Low noise (<1mV Ripple) and stable linear technology for clean output
- High efficiency toroidal transformers: no fan and low electromagnetic emissions
- Active protection against overloads, short circuits and overheating
- Unique variable tracking mode for Master/ Slave operation: Slave or Master track proportionally to the original setting
- Simultaneous display of Voltage and Current
- Highly visible Green (V) and Red (A) LED displays
- Compact design for bench tops
- Designed to EN 61010-1 safety standards



Optional lead set includes two color-coded leads, one ground lead (stripped), two alligator clips and two grip probes  
Catalog #2117.78

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
		PRICE	NIST CALIBRATION
2130.06	DC Power Supply Model AX502 (Dual outputs, 0 to 2.5A; 0 to 30Vdc)	\$695.00	\$72.00
2130.07	DC Power Supply Model AX503 (Triple outputs, two 0 to 2.5A; 0 to 30Vdc; 5A; 2.7 to 5.5Vdc)	\$795.00	\$72.00
<b>Accessories (Optional)</b>			
2117.78	Lead, set of three (Two color-coded safety leads, one ground lead, two color-coded alligator clips and two color-coded grip probes)	\$ 97.80	—

# Current Measurement Probes



## Five questions for selecting the proper Current Measurement Probe

- Do you need to measure AC or DC current or both?
- What is the maximum current you want to measure?
- What is the largest size of the conductor you need to clamp on to?
- Do you need a mV or mA output from the probe?
- What output termination is required (lead with BNC, lead with 4mm safety banana plugs or jacks to accept 4mm leads)?

### DC/AC MicroProbes



- Measures extremely low level DC from 100 $\mu$ A
- Outputs signal proportional to total current (DC + AC)
- Low noise
- Ultra-compact size and non-contact clamp-on convenience
- Simple plug-in operation
- Designed for use with digital multimeters and oscilloscopes
- No range or mode (AC/DC) switching required
- CE Mark

### Flexible Current Probes



- Models ranging from 30 to 30,000Arms
- Accuracy 1% of Reading
- TRMS measurements when connected to a TRMS instrument
- No core saturation or damage if overloaded
- Overrange LED for measurement circuitry
- EN 61010, 1000V Cat. III, 600V Cat. IV, Pollution Degree 2
- CE Mark

### JM Series AC Current Probes



- Current range: up to 3000AAC (continuous cycle for the full temperature range)
- Output: 1mA/A to 100mVAC/AAC
- Designed for use on DMMs, power and harmonic meters, recorders of instruments with AC current ranges
- CE Mark

### MD Series AC Current Probes



- 600A Range with mA or mV output
- Unique hook-shaped jaws that enable the user to "pry" into or "hook" onto cables
- Maximum conductor size is 2 x 500MCM
- Works as a traditional current transformer with ratio of 1000:1
- CE Mark

### MN100 Series AC Current Probes



- Small, compact and very tough AC probes
- "Clothes pin" shape makes them ideal for use in tight areas, such as breaker panels, controller panels, or outlets
- Measurements from 1mA to 150AAC
- Excellent companions to all DMMs. Permits very low AC current measurements

### MN200 & MN300 Series AC Current Probes



- Small, compact size
- Measurement range of 100mA to 240AAC
- Jaw opening accommodates conductors up to 250MCM
- Designed for DMMs, loggers, recorders and oscilloscopes
- 40Hz to 10kHz response
- Available with mA or mV output signals
- Available with jack outputs, integral leads with shrouded safety banana plugs or BNC terminated lead
- Designed to EN 61010, 600V Cat. III safety standards
- CE Mark, UL approved

### MR400 & MR500 Series AC/DC Current Probes



- Measurement range of 400AAC/600ADC (MR400 Series)
- Measurement range of 1000AAC/1500ADC (MR500 Series)
- Two distinct jaw shapes to be used for hooking or prying around the conductor
- Low phase shift for power measurements
- Designed for DMMs, recorders, oscilloscopes, power and harmonic meters
- EN 61010, 600V Cat. III, 300V Cat. IV, Pollution Degree 2
- CE Mark

### SL Series AC/DC Current Probes



- Low AC and DC measurements
- 50mA to 120AAC/150ADC
- Unique design for probing in crowded wiring in industrial and automotive environments
- Hall effect sensor technology
- Use with DMMs, voltmeters and other voltage measuring instruments
- CE Mark

### SR Series Current Probes



- Measurement range of 100mA to 1200AAC
- Large jaw opening accommodates up to two 500MCM conductors
- Ergonomic design and easy operation
- Low phase shift for power measurements
- Available with mA or mV output signals
- Designed for DMMs, recorders, loggers, oscilloscopes, power and harmonic meters
- Designed to EN 61010, 600V Cat. III safety standards
- CE Mark, UL approved





Note: Product image size not proportionate.

Not all models are CE and UL approved; please consult factory.





# General Purpose Probes

Series	Model	Ratio	Measurement Range		Output Signal		Phase Shift**	Maximum Conductor Size		Output Connection	Catalog No	Price
			AC	DC	Current	Voltage		Ø Cable	Bus Bar			
	MN103	—	1mA to 10A 1 to 100A	—	—	1mVAC/mAac 1mVAC/Aac	N/A	0.47" (12mm)	N/A	Lead	1031.02	\$179.00
	MN106	1000:1	2 to 150A	—	1mAac/Aac	—	<10°			Lead	1031.17	\$119.00
	MN114	—	1mA to 10A	—	—	100mVAC/Aac	<8°			Lead	2110.71	\$149.00
	MN185	1000:1	50mA to 150A	—	1mAac/Aac	—	<3.5°			Jack	100.185	\$109.00
	MN210	1000:1	0.5 to 240A	—	1mAac/Aac	—	<2.5°	0.78" (19.8mm)	N/A	Jack	2115.72	\$89.00
	MN211	1000:1	0.5 to 240A	—	1mAac/Aac	—	<2.5°			Lead	2115.73	\$99.00
	MN212	1000:1	0.5 to 240A	—	1mAac/Aac*	—	<2.5°			Jack	2115.74	\$99.00
	MN213	1000:1	0.5 to 240A	—	1mAac/Aac*	—	<2.5°			Lead	2115.75	\$109.00
	MN250	—	0.5 to 240A	—	—	1mVAC/Aac	<2.5°			Jack	2115.76	\$99.00
	MN251	—	0.5 to 240A	—	—	1mVAC/Aac	<2.5°			Lead	2115.77	\$109.00
	MN252	—	0.5 to 240A	—	—	10mVAC/Aac	<2.5°			Jack	2115.78	\$119.00
	MN253	—	0.5 to 240A	—	—	10mVAC/Aac	<2.5°			Lead	2115.79	\$129.00
	MN254	—	0.1 to 24A 0.1 to 240A	—	—	100mVAC/Aac 10mVAC/Aac	<2.5°			Jack	2115.80	\$129.00
	MN255	—	0.1 to 24A 0.1 to 240A	—	—	100mVAC/Aac 10mVAC/Aac	<2.5°			Lead	2115.81	\$139.00
	MN290	—	0.5 to 240A	—	—	100mVdc/Aac	N/A	0.78" (19.8mm)	N/A	Jack	2115.83	\$109.00
	MN291	—	0.5 to 240A	—	—	100mVdc/Aac	N/A			Lead	2115.84	\$119.00
	MN306	—	10mA to 12A	—	—	100mV/Aac	<2.5°			Jack	2116.22	\$139.00
	MN307	—	10mA to 12A	—	—	100mV/Aac	<2.5°			Lead	2116.23	\$149.00
	MN312	1000:1	0.1 to 200A	—	1mAac/Aac*	—	<2.5°			Jack	2116.24	\$139.00
	MN313	1000:1	0.1 to 200A	—	1mAac/Aac*	—	<2.5°			Lead	2116.25	\$149.00
	MN352	—	0.1 to 150A	—	—	10mV/Aac	<2.5°			Jack	2116.26	\$139.00
	MN353	—	0.1 to 150A	—	—	10mV/Aac	<2.5°			Lead	2116.27	\$149.00
	MN373	—	0.01 to 2.4A 0.1 to 200A	—	—	1000mV/Aac 10mV/Aac	<3°			Lead	2116.28	\$159.00
	MN375	—	0.1 to 10A	—	—	100mV/Aac	<1.5°			Lead	2115.41	\$199.00
	SL201	—	50mA to 1.5A 500mA to 120A	50mA to 2A 500mA to 150A	—	1mV/mAac/dc 1mV/Aac/dc	<3°	0.46" (11.8mm)	N/A	Lead	1201.40	\$344.00
	SL206	—	10mA to 1.5A 50mA to 60A	10mA to 2A 50mA to 80A	—	1mV/mAac/dc 10mV/Aac/dc	<1°			Lead	1201.45	\$359.00
	MD301	—	2 to 500A	—	—	1mVdc/Aac	N/A	1.18" (30mm) 2 x 500kcml	2.48 x 0.20" (63 x 5mm)	Lead	1201.07	\$149.00
	MD303	1000:1	4 to 500A	—	1mAac/Aac	—	<7°			Lead	1201.21	\$139.00
	MD304	100:1	1 to 600A	—	10mAac/Aac	—	<3°			Lead	1201.37	\$199.00
	MD305	1000:1	1 to 600A	—	1mAac/Aac	—	<1°			Lead	1201.36	\$199.00
	MD314	—	4 to 500A	—	—	1mVAC/Aac	<7°			Lead	2110.75	\$139.00



\*\*Phase shift indicated at maximum rating

\*\*\*Consult factory for NIST Calibration price

Not all models are CE and UL approved; please consult factory.

# General Purpose Probes



Series	Model	Ratio	Measurement Range		Output Signal		Phase Shift**	Maximum Conductor Size		Output Connection	Catalog No	Price
			AC	DC	Current	Voltage		Ø Cable	Bus Bar			
	SR600	1000:1	0.1 to 1000A	—	1mAac/Aac	—	<0.5°	2.05" (52mm)	1.96 x 0.19" (50 x 5mm)	Jack	2113.42	\$159.00
	SR601	1000:1	0.1 to 1000A	—	1mAac/Aac*	—	<0.5°			Jack	2113.43	\$179.00
	SR604	1000:1	0.1 to 1000A	—	1mAac/Aac*	—	<0.5°			Lead	2113.44	\$189.00
	SR631	1000:5	0.1 to 1000A	—	5mAac/Aac*	—	<1°			Jack	2113.47	\$219.00
	SR632	1000:5	0.1 to 1000A	—	5mAac/Aac*	—	<1°			Lead	2114.79	\$229.00
	SR634	250:5 500:5 1000:5	1 to 250A 1 to 500A 1 to 1000A	—	20mAac/Aac 10mAac/Aac 5mAac/Aac*	—	<1°			Jack	2113.48	\$239.00
	SR651	—	0.1 to 1000A	—	—	1mVac/Aac	<0.5°			Jack	2113.45	\$179.00
	SR652	—	0.1 to 1000A	—	—	1mVac/Aac	<0.5°			Lead	2113.46	\$189.00
	SR701	1000:1	1mA to 1000A	—	1mAac/Aac*	—	<0.5°	2.05" (52mm)	1.96 x 0.19" (50 x 5mm)	Jack	2116.29	\$209.00
	SR704	1000:1	1mA to 1000A	—	1mAac/Aac*	—	<0.5°			Lead	2116.30	\$219.00
	SR751	—	0.1 to 1000A	—	—	1mVac/Aac	<0.7°			Jack	2116.31	\$209.00
	SR752	—	0.1 to 1000A	—	—	1mVac/Aac	<0.7°			Lead	2116.32	\$219.00
	SR759	—	1mA to 1A 10mA to 10A 0.1 to 100A 1 to 1000A	—	—	1000mVac/Aac 100mVac/Aac 10mVac/Aac 1mVac/Aac	<1°			Lead	2116.33	\$279.00
	JM800A	1000:1	1 to 1000A	—	1mAac/Aac	—	<1°	2.52" (64mm)	1.97 x 5.31" (50 x 135mm) 2.52 x 3.94" (64 x 100mm)	Lead	2110.79	\$350.00
	JM810A	2000:2	1 to 2000A	—	1mAac/Aac	—	<0.5°			Lead	2110.80	\$350.00
	JM813	3000:3	1 to 2400A	—	1mAac/Aac	—	<0.5°			Jack	2110.93	\$395.00
	JM815A	1000:5	1 to 1000A	—	5mAac/Aac	—	<0.5°			Lead	2110.81	\$350.00
	JM830A	3000:1	1 to 2400A	—	.33mAac/Aac	—	<0.5°			Lead	2110.83	\$395.00
	JM835A	3000:5	1 to 3000A	—	1.6mAac/A	—	<1°			Lead	2110.84	\$395.00
	JM840A	500:1 1000:1 1500:1	1 to 500A 1 to 1000A 1 to 1500A	—	2mAac/Aac 1mAac/Aac .66mAac/Aac	—	<0.5°			Jack	2110.85	\$395.00
	JM850A	1000:1 2000:1 3000:1	1 to 1000A 1 to 2000A 1 to 2400A	—	1mAac/Aac .5mAac/Aac .33mAac/Aac	—	<0.5°			Jack	2110.87	\$395.00
	JM865A	1000:5 2000:5 3000:5	1 to 1000A 1 to 2000A 1 to 2400A	—	5mAac/Aac 2.5mAac/Aac 1.67mAac/Aac	—	<0.5°			Jack	2110.88	\$395.00
	JM875	—	100mA to 30A 1 to 300A 1 to 2000A	—	—	100mVac/Aac 10mVac/Aac 1mVac/Aac	<0.5°			Jack	2110.89	\$395.00

\*\*Phase shift indicated at maximum rating

\*\*\*Consult factory for NIST Calibration price

Not all models are CE and UL approved; please consult factory.

## Output Terminations



**Lead with BNC:**  
Insulated 6.5 ft (2m) coaxial cable with insulated BNC connector rated 600Vrms



**Jacks:**  
Two standard safety banana jacks (4mm)



**Leads:**  
Double/reinforced 5 ft (1.5m) lead with 4mm safety banana plug



**Shrouded Banana Plugs:**  
Two 4mm safety banana plugs; standard 3/4" (19mm) spacing

# AC/DC Current Probe MR400 & MR500 Series



SPECIFICATIONS				
MODELS	MR410	MR411	MR520	MR521
Measurement Range AC	1 to 400A	0.2 to 40A 0.5 to 400A	1 to 1000A	0.2 to 100A 0.5 to 1000A
Measurement Range DC	1 to 600A	0.4 to 60A 0.5 to 600A	1 to 1500A	0.4 to 150A 0.5 to 1500A
Output Signal Voltage (mV) (AC in AC, DC in DC)	1mV/A	10mV/A 1mV/A	1mV/A	10mV/A 1mV/A
Maximum Conductor Size Ø Cable	One 1.18" (30mm) Two 0.95" (24mm) Two x 500kcmil		One 1.5" (39mm) One 1.5" (39mm)	
Bus Bar	Two 1.2 x 0.4" (31.5 x 10mm)		One 1.96 x 0.49" (50 x 12.5mm) Two 1.96 x 0.19" (50 x 5mm)	
Output Connection	Lead with safety banana plug	Lead with safety banana plug	Lead with safety banana plug	Lead with safety banana plug

## Features

- MR400 Series has a measurement range of 400AAC/600ADC
- MR500 Series has a measurement range of 1000AAC/1500ADC
- Two distinct jaw shapes to be used for hooking or prying around the conductor
- Low phase shift for power measurements
- Designed for DMMs, recorders, oscilloscopes, power and harmonic meters
- EN 61010, 600V Cat. III, 300V Cat. IV, Pollution Degree 2

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
1200.70	AC/DC Current Probe Model MR410 (Lead – 1mV/A – 600A max)	\$199.00	\$65.00
1200.68	AC/DC Current Probe Model MR411 (Lead – 10mV/A – 60A max & 1mV/A – 600A max)	\$289.00	\$65.00
1200.71	AC/DC Current Probe Model MR520 (Lead – 1mV/A – 1500A max)	\$249.00	\$65.00
1200.69	AC/DC Current Probe Model MR521 (Lead – 10mV/A – 150A max & 1mV/A 1500A – max)	\$299.00	\$65.00

# DC/AC MicroProbe Models K100 & K110



SPECIFICATIONS		
MODELS	K100	K110
Current Range	0 to $\pm 4.5\text{A}_{\text{ac}}$ 0 to 3Arms	0 to $\pm 450\text{mA}_{\text{ac}}$ 0 to 300mArms
Output (Vout)	1mV/mA	10mV/mA
Resolution	DC: 50 $\mu\text{A}$ typical, AC: 100 $\mu\text{A}$ typical	DC: 50 $\mu\text{A}$ typical, AC: 100 $\mu\text{A}$ typical
Accuracy	DC: $\pm 1\%$ of Reading $\pm 200\mu\text{A}$ , AC: $\pm 2\%$ of Reading, $\pm 200\mu\text{A}$	DC: $\pm 0.5\%$ of Reading $\pm 150\mu\text{A}$ , AC: $\pm 0.8\%$ of Reading, $\pm 200\mu\text{A}$
Output Noise	<100 $\mu\text{V}$ , DC to 3kHz	<100 $\mu\text{V}$ , DC to 3kHz
Frequency Response	DC to 2kHz (@ -3dB sine)	DC to 1.5kHz (@ -3dB sine)

## Features

- Measures extremely low level DC from 100 $\mu\text{A}$
- Outputs signal proportional to total current (DC + AC)
- Low noise
- Ultra-compact size and non-contact clamp-on convenience
- Simple plug-in operation
- Designed for use with digital multimeters and oscilloscopes
- Accurate display of waveforms
- No range or mode (AC/DC) switching required
- Extended battery life
- Red LED indicates momentary or continuous overload
- Green LED indicates power and battery condition

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
1200.67*	DC/AC MicroProbe Model K100 (1mV/mA – 4.5A max)	\$599.00	\$60.00
2111.73*	DC/AC MicroProbe Model K110 (10mV/mA – 450mA max)	\$639.00	\$60.00

\*Consult factory for availability

# Oscilloscope & BNC Terminated Probes



Model SL261



Model MN261



Model MR461



Model MR561



Model SR661



Model JM861

Model	Measurement Range		Output Signal	Phase Shift**	Maximum Conductor Size		Output Connection
	AC	DC			Ø Cable	Bus Bar	
SL261	100mA to 10A 1 to 100A	100mA to 10A 1 to 100A	100mV/AAC/DC 10mV/AAC/DC	<1.5°	0.46" (11.8mm)	N/A	Lead w/BNC
MN261	0.1 to 24A 0.1 to 240A	—	100mVAC/AAC 10mVAC/AAC	<2.5°	0.78" (19.8mm)	N/A	Lead w/BNC
MR461	0.2 to 40A 0.5 to 400A	0.4 to 60A 0.5 to 600A	10mV/AAC/DC 1mV/AAC/DC	<1.5°	One 1.18" (30mm) Two 0.95" (24mm) 2 x 500kcmil	Two 1.2 x 0.4" (31.5 x 10mm)	Lead w/BNC
MR561	0.2 to 100A 0.5 to 1000A	0.4 to 150A 0.5 to 1500A	10mV/AAC/DC 1mV/AAC/DC	<1.5°	One 1.5" (39mm) Two 0.98" (25mm)	One 1.96 x 0.49" (50 x 12.5mm) Two 1.96 x 0.19" (50 x 5mm)	Lead w/BNC
SR661	0.1 to 12A 0.1 to 120A 1 to 1200A	—	100mVAC/AAC 10mVAC/AAC 1mVAC/AAC	<1°	2.05" (52mm)	1.96 x 0.19" (50 x 5mm)	Lead w/BNC
JM861	1 to 30A 1 to 300A 1 to 3000A	—	10mVAC/AAC 1mVAC/AAC 0.1mVAC/AAC	<1°	2.52" (64mm) 2.52 x 3.94" (64 x 100mm)	1.97 x 5.31" (50 x 135mm)	Lead w/BNC

\*\*Phase shift indicated at maximum rating

Not all models are CE and UL approved; please consult factory.

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
1201.51	AC/DC Current Probe Model SL261 (BNC – 100mV/A – 10A & 10mV/A – 100A)	\$429.00	\$94.00
2115.82	AC Current Probe Model MN261 (BNC – 100mV/A – 24A; 10mV/A – 240A)	\$169.00	\$65.00
1200.72	AC Current Probe Model MR461 (BNC – 10mV/A – 60A max & 1mV/A – 600A max)	\$319.00	\$65.00
1200.73	AC Current Probe Model MR561 (BNC – 10mV/A – 150A max & 1mV/A – 1500A max)	\$359.00	\$65.00
2113.49	AC Current Probe Model SR661 (BNC – 100mV/A – 10A; 10mV/A – 100A; 1mV/A – 1000A max)	\$299.00	\$75.00
2110.90	AC Current Probe Model JM861 (BNC – 90A – 10mV/A, 900A – 1mV/A, 9000A – 0.1mV/A)	\$395.00	\$98.00



# AmpFlex® Flexible Current Probes



## Features

- Models ranging from 30 to 30,000Arms
- Accuracy 1% of Reading
- TRMS measurements when connected to a TRMS instrument
- No core saturation or damage if overloaded
- Overrange LED for measurement circuitry
- Waterproof sensor
- 9V Alkaline battery, provides typical 150 hours of continuous operation
- Shape Memory for custom pre-shaping of sensor before use (no drooping)
- Very high frequency response
- Low phase shift for power measurements of  $<1.3^\circ$ ,  $0.7^\circ$  typical
- Insensitive to DC, measures only AC component on DC + AC signals
- Excellent linearity
- Lightweight
- EN 61010, 1000V Cat. III, 600V Cat IV, Pollution Degree 2

Model	Measurement Range	Output	Sensor Length inches (mm*)	Max Conductor Size inches (mm*)	Catalog No.	Price
300-24-1-10	300A	10mV/A	24 (610)	8 (190)	2112.29	\$299.00
300-24-1-1	300A	1mV/A	24 (610)	8 (190)	2112.24	\$299.00
1000-24-1-1	1000A	1mV/A	24 (610)	8 (190)	2112.39	\$299.00
1000-36-1-1	1000A	1mV/A	36 (910)	11 (290)	2112.41	\$349.00
1000-24-2-1	100/1000A	10/1mV/A	24 (610)	8 (190)	2112.98	\$319.00
1000-36-2-1	100/1000A	10/1mV/A	36 (910)	11 (290)	2113.00	\$369.00
3000-24-1-1	3000A	1mV/A	24 (610)	8 (190)	2112.46	\$319.00
3000-36-1-1	3000A	1mV/A	36 (910)	11 (290)	2112.48	\$369.00
3000-24-2-0.3	300/3000A	3.3/0.3mV/A	24 (610)	8 (190)	2114.87	\$329.00
3000-36-2-0.3	300/3000A	3.3/0.3mV/A	36 (910)	11 (290)	2114.88	\$379.00
3000-24-2-1	300/3000A	10/1mV/A	24 (610)	8 (190)	2113.05	\$339.00
3000-36-2-1	300/3000A	10/1mV/A	36 (910)	11 (290)	2112.00	\$389.00
3000-48-2-1	300/3000A	10/1mV/A	48 (1220)	15 (390)	2112.01	\$439.00
6000-24-1-0.1	6000A	0.1mV/A	24 (610)	8 (190)	2112.62	\$469.00
6000-24-2-0.1	600/6000A	1/0.1mV/A	24 (610)	8 (190)	2113.19	\$469.00
6000-36-2-0.1	600/6000A	1/0.1mV/A	36 (910)	11 (290)	2113.21	\$519.00
6000-48-2-0.1	600/6000A	1/0.1mV/A	48 (1220)	15 (390)	2113.22	\$569.00
10000-36-2-0.1	1000/10,000A	1/0.1mV/A	36 (910)	11 (290)	2112.02	\$539.00

\*Dimensions rounded off

Note: Output is safety shrouded 4mm male banana plug

\*\*Consult factory.

Ranges/lengths not shown are available as special orders.

\*\*\*Consult factory for NIST Calibration prices



Banana (female) – BNC (male) (XM-BB)  
Catalog #2118.46 (optional)

## LongLife AmpFlex® Flexible Current Probes

### Features

- Single or dual range to measure up to 3000A
- TRMS measurements when connected to a TRMS instrument
- No core saturation or damage if overloaded
- Waterproof sensor
- 9V Alkaline battery for typical use of 2000 hours continuous operation
- Shape Memory for pre-shaping of sensor before use
- Insensitive to DC, measures only AC component on DC + AC
- Excellent linearity
- EN 61010, 1000V Cat. III, 600V Cat. IV, Pollution Degree 2

### SPECIFICATIONS

MODELS	LGLF 1000-24-2-1	LGLF 3000-36-1-1	LGLF 3000-36-2-1
<b>ELECTRICAL</b>			
Current Range	5 to 100A; 50 to 1000A	5 to 3000A	5 to 300A; 50 to 3000A
Output Signal	10mV/A and 1mV/A	0.333mV/A	3.33mV/A and 0.333mV/A
Residual Current	200mArms	500mArms	200mArms
<b>MECHANICAL</b>			
Maximum Conductor Size	24": 7.6" (193mm) 36": 11.5" (292.1mm)		
Sensor Length	24" (609mm)	36" (914mm)	36" (914mm)
Cable Length	6.5 ft (2m) sensor to case		
Output Connection	Double insulated 14" (355mm) lead with safety banana plugs		



Model LGLF 1000-36-1-1



CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2120.67	LongLife AmpFlex® Model LGLF 1000-24-2-1 (100/1000A, 24", 10mV/1mV/A)	\$399.00	\$94.00
2120.68	LongLife AmpFlex® Model LGLF 3000-36-1-1 (3000A, 36", 0.3mV/A)		<i>Discontinued</i>
2120.69	LongLife AmpFlex® Model LGLF 3000-36-2-1 (300/3000A, 36", 0.3mV/3.3mV/A)	\$469.00	\$94.00

## FlexProbe® Flexible Current Probe Models 24-3001 & 24-3002

### Features

- 24" flexible sensor fits around conductors up to 7.6" in diameter
- Dual measurement ranges of 300A and 3000AAC
- Read amperage directly on DMM display
- mV output directly proportional to the AC current measured
- Output is 10mV/A on 300A range and 1mV/A on 3000A range
- Accuracy of 1% of Reading  $\pm$  500mA
- 4% influence of conductor position in jaw
- Up to 300 hours of battery life with Lithium battery
- Dual banana plug termination for direct input into DMMs (Model 24-3001)
- Electronic module with 4mm safety banana plugs with 3/4" spacing (Model 24-3002)
- Flashing LED low battery indicator
- EN 61010, 1000V Cat. III, 600V Cat IV, Pollution Degree 2

### SPECIFICATIONS

MODELS	24-3001	24-3002
ELECTRICAL		
Current Range	300/3000Aac	
Output Signal	mV output (4000mV peak max)	
Three Position Slide Switch	10mV/A 1mV/A ON/OFF	5A to 300Arms 50A to 3000Arms
MECHANICAL		
Maximum Conductor Size	7.6" (193mm)	
Sensor Length	24" ± 1" (610mm ± 25.4mm)	
Cable Length	6.5 ft (2m)	
Output Connection	Double insulated 14" (355mm) lead with safety banana plugs	4mm safety banana plugs (red and black)



Banana (female) – BNC (male) (XM-BB)  
Catalog #2118.46 (optional)



Model 24-3001



Model 24-3002



CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2120.81	FlexProbe® Model 24-3001 (300/3000AAC, 24", 10mV/A /1mV/A, with lead)	\$249.00	\$61.00
2120.82	FlexProbe® Model 24-3002 (300/3000AAC, 24", 10mV/A /1mV/A)	\$249.00	\$61.00
<b>Accessories (Optional)</b>			
2118.46	Adapter (XM-BB) Banana (Female) – BNC (Male)	\$ 37.95	–

# Phase & Motor Rotation Tester Model PMR-1



Model PMR-1



Model PMR-1 includes 4 ft test leads (black, red and blue) with large alligator clips, soft carrying case and user manual.

## SPECIFICATIONS

MODEL	PMR-1
Input Voltage	100V to 600VAC max
Frequency	45 to 70Hz
Power Source	9V Alkaline battery
Phase Motor Indication	ABC or BAC
Motor Rotation Indication	ABC or BAC
Open Phase Indication	A, B, C

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2121.04	Phase & Motor Rotation Tester Model PMR-1	\$99.00	—

# Phase Rotation Meter Model PR-1



Model PR-1



Lead separator to prevent tangled leads



Large color-coded clips (attached)

## SPECIFICATIONS

MODEL	PR-1
Input Voltage	100V to 600VAC max
Frequency	45 to 70Hz
Power Source	Circuit under test
Live/Open Phase Indication	A, B, C
Phase Rotation Indication	ABC or BAC
Leads	Attached 5 ft, terminated with insulated alligator clips



Model PR-1 includes meter with attached 5 ft color-coded leads and alligator clips, soft carrying case and user manual.

## Features

- Three functions in one unit
  1. Phase rotation tester
  2. Motor rotation tester
  3. Open phase indication
- Fused phase rotation inputs
- Battery operated (motor rotation)
- Includes three 4 ft leads with alligator clips and soft carrying case

## Features

- Phase rotation (ABC or BAC) LED indicators
- Bright LED indication of Live or Open Phase (A, B, C)
- Fuse protected inputs
- Double insulated case
- Color-coded 5 ft leads and alligator clips
- Permanently attached loss-proof leads
- Tangle proof lead separator
- Simple operation
- Line powered - no battery

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2121.06	Phase Rotation Meter Model PR-1	\$69.00	—

## Circuit Breaker Identifier Model CBI-1

- Quickly identifies and pinpoints 120VAC circuit breakers and fuses
- Self-calibrating - no thumbwheels to adjust
- No need to interrupt power
- Audible tone generated when matching breaker is located



Model CBI-1

### SPECIFICATIONS

MODEL	CBI-1
Operating Voltage	90 to 120VAC
Operating Frequency	50 to 60Hz
Calibration	Automatic
Transmitter Power	Powered by wall outlet
Receiver Power	9V Alkaline battery

## AC Line Splitter Model ALS-1

**For use with Clamp-On Meters & Multimeters using Current Probes**

- Avoids splitting lines - makes reading current easy
- Increases sensitivity of clamp-on current probes and clamp-on meters ten times in X10 mode
- Direct reading X1 mode
- Voltmeter input jacks
- Integral ground conductor
- Facilitates reading current draw of device plugged into it
- Facilitates reading current draw through extension cords
- 120V, 15A capacity



Model ALS-1

## Outlet Tester Models OT-1 & OT-2

- Detects faulty wiring in three-wire receptacles
- Detects open grounds and neutrals
- Detects reversed hot/ground connections
- Simply plug in and watch red and amber indicators
- For use on 100 to 125VAC



Model OT-1



Model OT-2

### Model OT-2

- Test GFCI for proper operation
- 120V - three-wire US



## Voltage Tester Model NC-1



Model NC-1



### SPECIFICATIONS

MODEL	NC-1
Voltage Sensitivity	100 to 240VAC
Frequency	50/60Hz
Detection Distance	<5mm
Over Voltage	600V Cat. III
Battery	2 x 1.5V AAA
Safety	For indoor use and in accordance with over voltage 600V Cat. III, Pollution Degree 2

### CATALOG NO. DESCRIPTION

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2115.49	Circuit Breaker Identifier Model CBI-1		<b>Discontinued</b>
2121.02	Outlet Tester Model OT-1 (110V US)	\$ 7.95	—
2121.03	Outlet/GFCI Tester Model OT-2 (110V US)	\$ 7.95	—
2121.05	AC Line Splitter Model ALS-1	\$14.95	—
2121.09	AC Voltage Detector Model NC-1	\$ 9.95	—



# Non-Contact AC High Voltage Detector

## Model 275HVD



Model 275HVD



### Features

- Non-contact high voltage detector
- Wide range of detection; 80V to 275kV; one instrument fits all applications
- Eight switch-selectable voltage sensitivity ranges
- Lightweight, minimizes sway at the end of long hot sticks
- Audible and visual indication of live voltage
- Self-test ensures that all system functions and indicators are working properly by energizing the complete system
- Designed for use with hot sticks incorporating a shotgun adapter

SPECIFICATIONS	
MODEL	275HVD
ELECTRICAL	
Detection Frequency	45 to 70Hz
Ranges	240V, 2kV, 6kV, 11kV, 22kV, 33kV, 132kV, 275kV
Detection	Selection range is detected at approximately 10" (25cm) from the voltage Greater detection distances can be obtained at lower voltage positions
Power Source	Three 1.5V C cell batteries
Low Battery Indication	—
MECHANICAL	
Self Test	User selectable
Indicators	Bright red LED and audible buzzer
ENVIRONMENTAL	
Operating Temperature	5° to 130°F (-15° to 55°C)
Storage Temperature	-4° to 150°F (-20° to 65°C)
Humidity	0 to 93% RH @ 104°F (40°C)



Model 275HVD includes three C cell batteries, shotgun adapter, a hard carrying case and user manual.

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2131.12	Non-Contact High Voltage Detector Model 275HVD (240V to 275kV) Manual self-test	\$359.00	—

# Digital Transformer Ratiometer DTR® Model 8500

## Features

- Designed for Power Transformers, VTs, PTs and CTs
- Direct Turns Ratio readings from 0.8000:1 to 1500.0:1
- Display Turns Ratio, Polarity and Excitation Current simultaneously
- Dual power supply and operation: integrated rechargeable NiCD battery and AC supply
- Display warnings of incorrect lead connections, reverse polarity, open and short circuits
- Easy connection and test setup: no calibration or balancing required
- Large dual line display with adjustable contrast and backlight ensures clear day/night visibility
- Low battery indicator
- Includes 15 ft leads in soft carrying bag



DTR® Model 8500



Test lead set (30 ft) in a  
soft carrying bag  
Catalog #2118.47

## SPECIFICATIONS

MODEL	DTR® 8500
Ratio Range	Auto-Ranging, 0.8000:1 to 1500.0:1
Accuracy*	Ratio <10 to 1: ±0.2% of Reading Ratio ≤10 to 1000 to 1: ±0.1% of Reading Ratio >1000 to 1: ±0.2% of Reading
Excitation Signal	PT/VT Mode: 44Vrms maximum CT Mode: 0 to 1A Auto Level, 0.1 to 5Vrms
Excitation Current Display	Range: 0 to 1000mA; Accuracy: ±2% of Reading ± 2mA
Excitation Frequency Display	70Hz LCD Character, 20 x 2, large format, LED backlight, day/night visible
Mesurement Method	In accordance with ANSI/IEEE C57.12.90
Power Source	Dual operation; rechargeable NiCD battery and 115/230V, 50/60Hz line supply. DTR® may be changed from 115/230V by internal switch at any time. Units available with factory presetting of 115 or 230V.
Batteries	12V, 5 x 2 NiCD packs, 1300MAH, Panasonic P-130SCR or equivalent
Battery Life	Up to 10 hours continuous operation. May be used while recharging Low battery LCD indication
Charging Time	14 hours typical, C/10 rate
Line Fuse	115V: 1.0A, 5 x 20mm, slow acting 230V: 0.5A, 5 x 20mm, slow acting

\*23°C ± 5°C, 50 to 70% RH, full battery charge, no external fields or noise.

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2111.80	Digital Transformer Ratiometer DTR® Model 8500 (110V)	\$2,995.00	\$120.00
2116.21	Digital Transformer Ratiometer DTR® Model 8500 (220V)	\$2,995.00	\$120.00
<b>Accessories (Optional)</b>			
2118.47	Test lead, set of two (30 ft) in a carrying bag	\$ 439.00	—

# 10A Micro-Ohmmeter Model 6240



Model 6240  
(replaces Model 5600)



DataView® is included  
with the Model 6240

## Features

- Reliable low resistance measurements
- Four-terminal Kelvin resistance measurement eliminates test lead resistance
- 10A test current at up to 4000μΩ
- 0.25% basic accuracy
- 1μΩ resolution
- Direct reading, easy to operate
- Six selectable resistance ranges
- Reverse polarity switch
- Overload and input fuse protection
- Manufactured to international safety and environmental standards
- Automatic decimal point and zeroing
- Large terminals accept banana plugs and spade lugs
- Rechargeable NiMH battery with internal charger (110/220V)
- Includes DataView® software for data storage, real-time display, analysis and report generation

## Minimum System Requirements:

- Windows® 2000/XP/Vista
- 128MB of RAM for Windows® 2000 (256MB of RAM recommended)
- 256MB of RAM for Windows® XP
- 512MB of RAM for Windows® Vista
- 35MB of hard disk space (200MB recommended)
- CD-ROM drive

## SPECIFICATIONS

MODEL	6240					
Range	4000μΩ	40mΩ	400mΩ	4000mΩ	40Ω	400Ω
Accuracy	0.25% ± 2cts	0.25% ± 2cts	0.25% ± 2cts	0.25% ± 2cts	0.25% ± 2cts	0.25% ± 2cts
Resolution	1μΩ	10μΩ	0.1mΩ	1mΩ	10mΩ	100mΩ
Test Current	10A	1A	1A	100mA	10mA	10mA
Memory	Stores up to 99 test results					
Power Source	Rechargeable 6V, 8.5Ah NiMH batteries					



Kelvin clips, set of two,  
(10A – Hippo) 10 ft  
Catalog #1017.84  
(10A – Hippo) 20 ft  
Catalog #2118.70



Kelvin probes, set of two  
(1A – spring loaded) 10 ft  
Catalog #2118.73  
(1A – spring loaded) 20 ft  
Catalog #2118.74



Kelvin clips, set of two,  
(1-10A) 10 ft  
Catalog #2118.71  
Kelvin clips, set of two,  
(1-10A) 20 ft  
Catalog #2118.72

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2129.80	10A Micro-Ohmmeter Model 6240 (includes one set of 10A Kelvin clips – Catalog #1017.84)	\$2,695.00	\$96.00
<b>Accessories (Optional)</b>			
1017.84	Kelvin Clips (10A – Hippo), set of two, 10 ft	\$ 199.00	–
2118.70	Kelvin Clips (10A – Hippo), set of two, 20 ft	\$ 229.00	–
2118.71	Kelvin Clips (1-10A), set of two, 10 ft	\$ 99.00	–
2118.72	Kelvin Clips (1-10A), set of two, 20 ft	\$ 149.00	–
2118.73	Kelvin Probes (1A – spring loaded), set of two, 10 ft	\$ 99.00	–
2118.74	Kelvin Probes (1A – spring loaded), set of two, 20 ft	\$ 149.00	–

# 10A Micro-Ohmmeter Model 6250

## Features

- Measure from  $100\mu\Omega$  ( $0.1\mu\Omega$  resolution) to  $2500.0\Omega$
- Test current selection of 1mA, 10mA, 100mA, 1A and 10A
- RTD temperature probe to check tested sample (optional)
- Selectable metal types
- Automatic and manual temperature correction
- Two programmable alarm set points
- Stores up to 1500 test results
- Selectable Inductive or Resistive test modes
- Automatic multiple test mode (multiple tests without pressing the test button)
- Large multi-line electroluminescent display
- Local or remote test setup and control
- Direct printout to serial printer
- Internal rechargeable batteries - conduct up to 5000 10A tests
- Rugged, double insulated waterproof case
- Software included for data storage, real-time display, analysis and report generation



DataView® is included with the Model 6250



Model 6250



Kelvin clips, set of two,  
(1-10A) 10 ft  
Catalog #2118.71

Kelvin clips, set of two, (1-10A) 20 ft  
Catalog #2118.72



Kelvin probes,  
set of two, spring loaded  
(1A) 10 ft Catalog #2118.73  
(1A) 20 ft Catalog #2118.74



Kelvin clips, set of two,  
(10A - Hippo) 10 ft are included with  
Model 6250 Catalog #1017.84



RTD Temperature Probe with  
7 ft extension cable  
Catalog #2129.96

## SPECIFICATIONS

MODEL	6250						
Range	5.0000m $\Omega$	25.000m $\Omega$	250.00m $\Omega$	2500.0m $\Omega$	25.000 $\Omega$	250.00 $\Omega$	2500.0 $\Omega$
Accuracy	0.15% + 1 $\mu\Omega$	0.05% + 3 $\mu\Omega$	0.05% + 30 $\mu\Omega$	0.05% + 0.3m $\Omega$	0.05% + 3m $\Omega$	0.05% + 30m $\Omega$	0.05% + 300m $\Omega$
Resolution	0.1 $\mu\Omega$	1 $\mu\Omega$	10 $\mu\Omega$	0.1m $\Omega$	1m $\Omega$	10m $\Omega$	100m $\Omega$
Test Current	10A	10A	10A	1A	100mA	10mA	1mA
Measurement Mode	Selectable: Inductive (continuous test), Resistive (instantaneous test) or Auto (multiple tests)						
Metal Type Alpha	Selectable: Copper, Aluminum or Other Metal Programmable from 000.00 to 99.99						
Alarms	Two – programmable set points from 0.0 to 2500.0 $\Omega$						
Memory	Stores up to 1500 test results. Data in memory can be reviewed on the instrument display, on a PC or via direct printout						
Power Source	Rechargeable 6V, 8.5Ah NiMH batteries						
Battery Life	Approximately 5000 10A tests						

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2129.81	10A Micro-Ohmmeter Model 6250 (includes one set of 10A Kelvin clips – Catalog #1017.84)	\$3,595.00	\$142.00
<b>Accessories (Optional)</b>			
1017.84	Kelvin Clips (10A – Hippo), set of two, 10 ft	\$ 199.00	–
2129.95	RTD Temperature Probe (plug into faceplate for ambient temperature)	\$ 130.00	–
2129.96	RTD Temperature Probe with 7 ft extension cable	\$ 228.00	–
2118.70	Kelvin Clips (10A – Hippo), set of two, 20 ft	\$ 229.00	–
2118.71	Kelvin Clips (1-10A), set of two, 10 ft	\$ 99.00	–
2118.72	Kelvin Clips (1-10A), set of two, 20 ft	\$ 149.00	–
2118.73	Kelvin Probes (1A – spring loaded), set of two, 10 ft	\$ 99.00	–
2118.74	Kelvin Probes (1A – spring loaded), set of two, 20 ft	\$ 149.00	–





# Intrinsically Safe Digital Multimeter

## Model MX 57EX



Model MX 57EX

**An intrinsically safe  
multimeter for use  
in dangerous or  
explosive atmospheres**

- IECEx
- ATEX



### Features

- TRMS measurements
- LCI 07: 0010X
- Safety rating: IEC 61010-1: 2001
- Agency Approval: IECEx LC107.0010 X, LCIE 02 ATEX 6005 X, II 2 G D or I M2, Ex ib I, Ex ib IIC T5 or T4 or T3, Ex ibD 21 T
- Logic signal measurement and ADP input
- Min/Max/Avg functions
- Bargraph with zoom (x5) and center zero
- Rugged design - IP67 rating
- Protection by 500mA intrinsic safety fuse for the current range
- Includes test leads

### SPECIFICATIONS

MODEL	MX 57EX IECEx TRMS					
<b>AC Current</b>	<b>500µA</b>	<b>5mA</b>	<b>50mA</b>	<b>500mA</b>		
Resolution	10nA	100nA	1µA	10µA		
Bandwidth	DC to 5kHz	DC to 5kHz	DC to 5kHz	DC to 5kHz		
Accuracy	±0.75% of Reading ± 30cts	±0.6% of Reading ± 30cts	±0.6% of Reading ± 30cts	±0.7% of Reading ± 30cts		
Protection	600Vrms	600Vrms	600Vrms	600Vrms		
<b>AC Voltage</b>	<b>500mV</b>	<b>5V</b>	<b>50V</b>	<b>500V*</b>	<b>1000V*</b>	
Resolution	10µV	100µV	1mV	10mV	100mV	
Bandwidth	40Hz to 1kHz	1kHz to 4kHz	4kHz to 10kHz	10kHz to 30kHz	30kHz to 50kHz	
Accuracy	±0.3% of Reading ± 30cts	1% of Reading ± 30cts	±2% of Reading ± 30cts	±2% of Reading ± 30cts	±3% of Reading ± 30cts	
Input Impedance	11MΩ	11MΩ	10MΩ	10MΩ	10MΩ	
Protection	1100Vpk	1100Vpk	1100Vpk	1100Vpk	1100Vpk	
<b>DC Current</b>	<b>500µA</b>	<b>5mA</b>	<b>50mA</b>	<b>500mA</b>		
Resolution	10nA	100nA	1µA	10µA		
Accuracy	±0.2% of Reading ± 5cts	±0.2% of Reading ± 2cts	±0.05% of Reading ± 2cts	±0.2% of Reading ± 2cts		
Protection	600Vrms	600Vrms	600Vrms	600Vrms		
<b>DC Voltage</b>	<b>500mV</b>	<b>5V</b>	<b>50V</b>	<b>500V*</b>	<b>1000V*</b>	
Resolution	10µV	100µV	1mV	10mV	100mV	
Accuracy	±0.025% of Reading ± 2cts	±0.025% of Reading ± 2cts	±0.025% of Reading ± 2cts	±0.025% of Reading ± 2cts	±0.2% of Reading ± 2cts	
Input Impedance	11MΩ	11MΩ	10MΩ	10MΩ	10MΩ	
Protection	1100Vpk	1100Vpk	1100Vpk	1100Vpk	1100Vpk	
<b>Resistance</b>	<b>500Ω</b>	<b>5kΩ</b>	<b>50kΩ</b>	<b>500kΩ</b>	<b>5MΩ</b>	<b>50MΩ</b>
Resolution	10mΩ	100mΩ	1Ω	10Ω	100Ω	1kΩ
Accuracy	±0.07% of Reading ± 5cts	±0.07% of Reading ± 2cts	±0.07% of Reading ± 2cts	±0.07% of Reading ± 2cts	±0.3% of Reading ± 2cts	±1% of Reading ± 2cts
Max Open-Circuit Voltage	7V	7V	7V	7V	7V	7V
Protection	600V	600V	600V	600V	600V	600V
<b>Continuity</b>	<b>10 to 20Ω</b>					
Response Time	1ms					
<b>Diode Test</b>	<b>0 to 2V</b>					
Test Current	1mA ± 20%					
<b>Capacitance</b>	<b>50nF to 50mF</b>					
Accuracy	1% of Reading ± 2cts					
<b>Frequency</b>	<b>0.62Hz to 500kHz</b>					
Accuracy	0.03% of Reading ± 2cts					
<b>Temperature</b>						
Range (User selectable in °F or °C)	-328° to 1472°F (-200° to 800°C)					
Sensor	PT100/PT1000					
<b>Digital Display</b>	50,000-count					
<b>Analog Bargraph</b>	34-segment					
<b>Safety Rating</b>	NF EN 50014, EN 50014: 1992; NF EN 50020, EN 50020: 1994					
<b>Agency Approval</b>	Agency Approval: IECEx LC107.0010 X, LCIE 02 ATEX 6005 X, Ex II 2 G D or Ex I M2, Ex ib I, Ex ib IIC T5 or T4 or T3, Ex ibD 21 T					

\*Operating voltages are limited to 60V peak value or currents to 500mA for intrinsically safe operation

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2130.66	DMM Model MX 57EX IECEx (Intrinsically Safe, 50,000-count, TRMS, 0.025% Accuracy)	\$895.00	\$98.00

# Professional High Performance TRMS Clamp-On Meter Models F01, F03, F05, F07 & F09

## Features

- Hand-held size, ultra practical and ergonomic
- True RMS measurement through fast sampling - accurate on non-linear waveforms
- 4kHz Bandwidth
- 3.5 Crest Factor @ 600Arms and 900Vrms
- Peak function captures 500µs signals
- Measure Inrush Current on 0.5, 1, 2.5, 5 and 10 cycles (15 to 70Hz) (model dependent)
- Min/Max for automatic capture of extreme values on 100ms samples
- Measure V, A, Ohms, kW, PF, VAR, VA, Hz, Phase Rotation, Temperature, AC + DC (model dependent)
- Temperature measurement up to 1832°F (1000°C) via standard K thermocouple (model dependent)
- Continuity at programmable buzzer threshold from 1 to 40Ω (model dependent)
- Selectable V-Live™ function (buzzer) warns of live circuit
- Battery life displays directly in hours at the push of a button (Models F03, F05, F07 and F09)
- Automatically detects AC or DC and is auto-ranging
- Automatic DC current zeroing
- Backlit LCD
- EN 61010-1, EN 61010-2-032, 600V Cat. III
- Includes test leads and soft carrying case

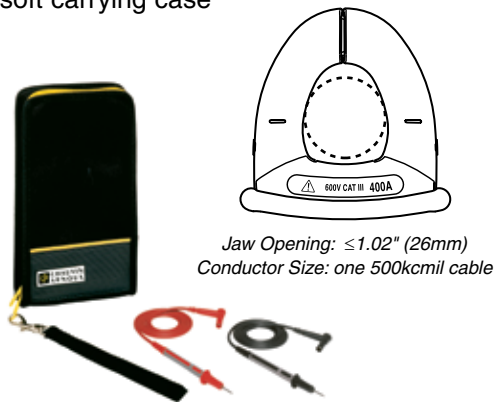


## SPECIFICATIONS

MODELS	F01 TRMS	F03 TRMS	F05 TRMS	F07 TRMS	F09 TRMS
AC Current (Auto-Ranging)	0.2 to 400A	0.2 to 400A	0.2 to 400A	0.2 to 400A	0.2 to 400A
AC Voltage (Auto-Ranging)	0.2 to 600V	0.2 to 600V	0.2 to 600V	0.2 to 600V	0.2 to 600V
DC Current (Auto-Ranging)	—	0.2 to 400A	0.2 to 400A	0.2 to 400A	0.2 to 400A
DC Voltage (Auto-Ranging)	0.2 to 600V	0.2 to 600V	0.2 to 600V	0.2 to 600V	0.2 to 600V
AC + DC Current (Auto-Ranging)	—	—	—	0.2 to 400Arms	0.2 to 400Arms
AC + DC Voltage (Auto-Ranging)	—	—	—	600Vrms	600Vrms
Resistance	400Ω	4000Ω	40kΩ	40kΩ	40kΩ
Diode Test	—	Yes	Yes	Yes	Yes
Continuity (Beeper)	Yes	Yes	Yes (w/adjustable threshold)	Yes (w/adjustable threshold)	Yes (w/adjustable threshold)
Frequency	—	—	20kHz	20kHz	20kHz
Power	—	—	240kW	—	5W to 240kW
Power Factor	—	—	-1.00 to 1.00	—	-1.00 to 1.00
Phase Rotation	—	—	Yes	—	Yes
Temperature (int or ext)	—	-50° to 1832°F (-10° to 1000°C)	—	-50° to 1832°F (-10° to 1000°C)	—
Adapter (AC/DC)	—	—	—	0 to 4000mV	—
Min/Max/Peak	—	Yes	Yes	Yes	Yes
Hold	Yes	Yes	Yes	Yes	Yes
Inrush Current	—	—	0.5 to 10 cycles selectable	0.5 to 10 cycles selectable	0.5 to 10 cycles selectable
V-Live™ Hazardous Voltage Indicators <sup>(1)</sup>	45Vp	45Vp	45Vp	45Vp	45Vp
Auto-Off	Yes	Yes	Yes	Yes	Yes
Backlight	—	Yes	Yes	Yes	Yes
Battery Indicator <sup>(2)</sup>	Yes	Yes	Yes	Yes	Yes
Buzzer for Overrange	Yes	Yes	Yes	Yes	Yes
Power Source	9V Alkaline battery	9V Alkaline battery	9V Alkaline battery	9V Alkaline battery	9V Alkaline battery

<sup>(1)</sup>Indicates voltage higher than instrument rating

<sup>(2)</sup>Remaining time expressed in hours on Models F03, F05 and F07



Models F01, F03, F05, F07 and F09 include test leads, soft carrying case and user manual.

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2129.51	Clamp-On Meter Model F01 (TRMS, 400AAC, 600VAC/DC, Ohms, Continuity)	\$229.00	\$61.00
2129.52	Clamp-On Meter Model F03 (TRMS, 400AAC/DC, 600VAC/DC, Ohms, Continuity, Temperature)	\$259.00	\$61.00
2129.53	Clamp-On Meter Model F05 (TRMS, 400AAC/DC, 600VAC/DC, Hz, Power (kW), Phase Rotation, Ohms, Continuity)	\$299.00	\$61.00
2129.54	Clamp-On Meter Model F07 (TRMS, 400AAC/DC, 600VAC/DC, Hz, Ohms, Continuity, Temperature)	\$259.00	\$61.00
2129.50	Clamp-On Meter Model F09 (TRMS, 400AAC/DC, 600VAC/DC, Hz, Power (kW), Phase Rotation, Ohms, Continuity)	\$329.00	\$61.00

# MEGOHMMETER SELECTION CHART

AEMC MODEL NUMBER	AEMC CATALOG NUMBER	TEST VOLTAGE	INSULATION RANGE	RESISTANCE RANGE	CONTINUITY RANGE	CAPACITANCE RANGE	VOLTAGE TEST	POWER SOURCE	DISPLAY	CATALOG PAGE
1030	2116.89	250V 500V	50k to 2GΩ 100k to 2GΩ	N/A	0.00 to 19.99Ω	N/A	0 to 600VAC/DC	Battery	Digital/ Analog	2
1040	2116.92	500V 1000V	100k to 2GΩ 200k to 2GΩ	0.0 to 400kΩ	0.00 to 19.99Ω	N/A	0 to 600VAC/DC	Battery	Digital/ Analog	2
1045	2116.93	250V 500V 1000V	50k to 2GΩ 100k to 2GΩ 200k to 2GΩ	0.0 to 400kΩ	0.00 to 19.99Ω	N/A	0 to 600VAC/DC	Battery	Digital/ Analog	2
1040 Field Kit	2117.30	500V 1000V	100k to 2GΩ 200k to 2GΩ	0.0 to 400kΩ	0.00 to 19.99Ω	N/A	0 to 600VAC/DC	Battery	Digital/ Analog	2
1045 Field Kit	2117.31	250V 500V 1000V	50k to 2GΩ 100k to 2GΩ 200k to 2GΩ	0.0 to 400kΩ	0.00 to 19.99Ω	N/A	0 to 600VAC/DC	Battery	Digital/ Analog	2
1035	2116.90	50V 100V 250V 500V	10k to 2GΩ 20k to 2GΩ 50k to 2GΩ 100k to 2GΩ	0.0 to 400kΩ	N/A	N/A	0 to 600VAC/DC	Battery	Digital/ Analog	3
1039	2116.91	50V 100V	10k to 400MΩ 20k to 400MΩ	0.0 to 40.0kΩ	N/A	0 to 4000nF	0 to 600VAC/DC	Battery	Digital/ Analog	3
1035 Field Kit	2115.42	50V 100V 250V 500V	10k to 2GΩ 20k to 2GΩ 50k to 2GΩ 100k to 2GΩ	0.0 to 400kΩ	N/A	N/A	0 to 600VAC/DC	Battery	Digital/ Analog	3
1039 Field Kit	2115.43	50V 100V	10k to 400MΩ 20k to 400MΩ	0.0 to 40.0kΩ	N/A	0 to 4000nF	0 to 600VAC/DC	Battery	Digital/ Analog	3
1050	2130.01	50V 100V 250V 500V 1000V	2k to 200GΩ 4k to 4000GΩ 10k to 1TΩ 20k to 2TΩ 40k to 4TΩ	0.01 to 400kΩ	0.01 to 39.99Ω	N/A	0 to 1000VAC/DC	Battery	Digital/ Analog	4
1060	2130.03	50V 100V 250V 500V 1000V	2k to 200GΩ 4k to 4000GΩ 10k to 1TΩ 20k to 2TΩ 40k to 4TΩ	0.01 to 400kΩ	0.01 to 39.99Ω	N/A	0 to 1000VAC/DC	Rechargeable NiMH Battery	Digital/ Analog	4
5050	2130.20	500V 1000V 2500V 5000V	30k to 2TΩ 100k to 4TΩ 100k to 10TΩ 300k to 10TΩ	N/A	N/A	0 to 49.99μF	0 to 1000VAC/DC	Rechargeable NiMH Battery	Digital/ Analog	6
5060	2130.21	500V 1000V 2500V 5000V	30k to 2TΩ 100k to 4TΩ 100k to 10TΩ 300k to 10TΩ	N/A	N/A	0 to 49.99μF	0 to 1000VAC/DC	Rechargeable NiMH Battery	Digital/ Analog	6
5070	2130.30	500V 1000V 2500V 5000V	30k to 2TΩ 100k to 4TΩ 100k to 10TΩ 300k to 10TΩ	N/A	N/A	0 to 49.99μF	0 to 1000VAC/DC	Rechargeable NiMH Battery	Digital/ Analog	6
1210N	1326.01	500V	5.5 to 200MΩ	0 to 500kΩ	0 to 100Ω	N/A	0 to 600VAC	Hand-cranked	Analog	9
1250N	1326.02	250V 500V 1000V	1 to 500MΩ 1 to 500MΩ 10 to 5000MΩ	N/A	N/A	N/A	0 to 600VAC	Hand-cranked	Analog	9
1026	2117.72	250V 500V 1000V	1k to 4000MΩ 1k to 4000MΩ 1k to 4000MΩ	400 to 4000Ω	≤40	N/A	0 to 600VAC	Battery	Digital/ Analog	10
1015	1403.01	500V 1000V	0.1 to 1000MΩ 0 to 1000MΩ	0 to 1000Ω	0 to 10.0Ω±	N/A	0 to 600VAC	Battery	Analog	11

AEMC MODEL NUMBER	AEMC CATALOG NUMBER	RESISTANCE RANGE	POWER SOURCE	2 POINT TEST	3 POINT TEST	SOIL RESISTIVITY TEST	BOUNDING	DISPLAY	CATALOG PAGE
6472	2135.51	0.01 to 99,000Ω	Rechargeable Battery	X	X	X	X	Digital	18
6472KIT-150FT	2135.52	0.01 to 99,000Ω	Rechargeable Battery	X	X	X*	N/A	Digital	18
6472KIT-300FT	2135.53	0.01 to 99,000Ω	Rechargeable Battery	X	X	X	X	Digital	18
6472KIT-500FT	2135.54	0.01 to 99,000Ω	Rechargeable Battery	X	X	X	X	Digital	18
6470	2135.01	0.01 to 99,000Ω	Rechargeable Battery	X	X	X	X	Digital	20
6470KIT-150FT	2135.02	0.01 to 99,000Ω	Rechargeable Battery	X	X	X*	N/A	Digital	20
6470KIT-300FT	2135.03	0.01 to 99,000Ω	Rechargeable Battery	X	X	X	X	Digital	20
6470KIT-500FT	2135.04	0.01 to 99,000Ω	Rechargeable Battery	X	X	X	X	Digital	20
4620	2130.43	0.0 to 1.999KΩ	Battery	X	X	X	N/A	Digital	22
4620KIT-150FT	2135.19	0.0 to 1.999KΩ	Battery	X	X	X*	N/A	Digital	22
4620KIT-300FT	2135.20	0.0 to 1.999KΩ	Battery	X	X	X	N/A	Digital	22
4620KIT-500FT	2135.21	0.0 to 1.999KΩ	Battery	X	X	X	N/A	Digital	22
4630	2130.44	0.0 to 1.999KΩ	Rechargeable Battery	X	X	X	N/A	Digital	22
4630KIT-150FT	2135.22	0.0 to 1.999KΩ	Rechargeable Battery	X	X	X*	N/A	Digital	22
4630KIT-300FT	2135.23	0.0 to 1.999KΩ	Rechargeable Battery	X	X	X	N/A	Digital	22
4630KIT-500FT	2135.24	0.0 to 1.999KΩ	Rechargeable Battery	X	X	X	N/A	Digital	22
3620	2114.90	0.50 to 1000Ω	Battery	X	X	N/A	N/A	Analog	23
3620KIT-150FT	2135.10	0.50 to 1000Ω	Battery	X	X	N/A	N/A	Analog	23
3620KIT-300FT	2135.11	0.50 to 1000Ω	Battery	X	X	N/A	N/A	Analog	23
3620KIT-500FT	2135.12	0.50 to 1000Ω	Battery	X	X	N/A	N/A	Analog	23
3640	2114.92	0.0 to 1.999KΩ	Battery	X	X	N/A	N/A	Digital	23
3640KIT-150FT	2135.13	0.0 to 1.999KΩ	Battery	X	X	N/A	N/A	Digital	23
3640KIT-300FT	2135.14	0.0 to 1.999KΩ	Battery	X	X	N/A	N/A	Digital	23
3640KIT-500FT	2135.15	0.0 to 1.999KΩ	Battery	X	X	N/A	N/A	Digital	23
4610	2114.94	0.0 to 1.999KΩ	Battery	X	X	X	N/A	Digital	23
4610KIT-150FT	2135.16	0.0 to 1.999KΩ	Battery	X	X*	X*	N/A	Digital	23
4610KIT-300FT	2135.17	0.0 to 1.999KΩ	Battery	X	X	X	N/A	Digital	23
4610KIT-500FT	2135.18	0.0 to 1.999KΩ	Battery	X	X	X	N/A	Digital	23
3711	2117.60	0.0 to 1200Ω	Battery	Clamp-On Ground Resistance Tester			X**	Digital	24
3731	2117.61	0.0 to 1200Ω	Battery	Clamp-On Ground Resistance Tester w/Alarm & Memory			X**	Digital	24

\* 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.



# CATALOG CROSS REFERENCE INDEX

Cat. No.	Model No.	Page No.
100.185	AC Current Probe Model MN185	54
1017.84	Kelvin Clips (10A) 10 ft	64, 65
1031.02	AC Current Probe Model MN103	29, 48, 54
1031.17	AC Current Probe Model MN106	54
1200.67	DC/AC MicroProbe Model K100	56
1200.68	AC/DC Current Probe Model MR411	56
1200.69	AC/DC Current Probe Model MR521	56
1200.70	AC/DC Current Probe Model MR410	56
1200.71	AC/DC Current Probe Model MR520	56
1200.72	AC Current Probe Model MR461	29, 57
1200.73	AC Current Probe Model MR561	29, 57
1201.07	AC Current Probe Model MD301	29, 54
1201.21	AC Current Probe Model MD303	54
1201.36	AC Current Probe Model MD305	54
1201.37	AC Current Probe Model MD304	54
1201.40	AC/DC Current Probe Model SL201	29, 54
1201.45	AC/DC Current Probe Model SL206	29, 54
1201.51	AC/DC Current Probe Model SL261	29, 57
1326.01	Hand-cranked Megohmmeter Model 1210N	9, 72
1326.02	Hand-cranked Megohmmeter Model 1250N	9, 68
1403.01	Megohmmeter Model 1015	11, 68
1971.01	Artificial Neutral Model AN-1	46, 47
2110.71	AC Current Probe Model MN114	29, 48, 54
2110.75	AC Current Probe Model MD314	29, 54
2110.79	AC Current Probe Model JMR800A	55
2110.80	AC Current Probe Model JMR810A	55
2110.81	AC Current Probe Model JMR815A	55
2110.83	AC Current Probe Model JMR830A	55
2110.84	AC Current Probe Model JMR835A	55
2110.85	AC Current Probe Model JMR840A	55
2110.87	AC Current Probe Model JMR850A	55
2110.88	AC Current Probe Model JMR865A	55
2110.89	AC Current Probe Model JMR875	55
2110.90	AC Current Probe Model JMR861	57
2110.93	AC Current Probe Model JMR813	55
2111.73	DC/AC MicroProbe Model K110	56
2111.80	Digital Transformer Ratiometer DTR® Model 8500	63
2112.00	AmpFlex® Model 3000-36-2-1	58
2112.01	AmpFlex® Model 3000-48-2-1	58

Cat. No.	Model No.	Page No.
2112.02	AmpFlex® Model 10000-36-2-0.1	58
2112.24	AmpFlex® 200A Model 300-24-1-1	58
2112.29	AmpFlex® Model 300-24-1-10	58
2112.39	AmpFlex® Model 1000-24-1-1	58
2112.41	AmpFlex® Model 1000-36-1-1	58
2112.46	AmpFlex® Model 3000-24-1-1	58
2112.48	AmpFlex® Model 3000-36-1-1	58
2112.62	AmpFlex® Model 6000-24-1-0.1	58
2112.98	AmpFlex® Model 1000-24-2-1	58
2113.00	AmpFlex® Model 1000-36-2-1	58
2113.05	AmpFlex® Model 3000-24-2-1	58
2113.19	AmpFlex® Model 6000-24-2-0.1	54
2113.21	AmpFlex® Model 6000-36-2-0.1	54
2113.22	AmpFlex® Model 6000-48-2-0.1	54
2113.42	AC Current Probe Model SR600	55
2113.43	AC Current Probe Model SR601	55
2113.44	AC Current Probe Model SR604	55
2113.45	AC Current Probe Model SR651	55
2113.46	AC Current Probe Model SR652	29, 55
2113.47	AC Current Probe Model SR631	55
2113.48	AC Current Probe Model SR634	55
2113.49	AC Current Probe Model SR661	29, 57
2113.72	Simple Logger® Model AL24-2500	37
2114.79	AC Current Probe Model SR632	55
2114.87	AmpFlex® Model 3000-24-2-0.3	58
2114.88	AmpFlex® Model 3000-36-2-0.3	58
2114.90	Ground Resistance Tester Model 3620	23, 69
2114.92	Ground Resistance Tester Model 3640	23, 69
2114.94	Ground Resistance Tester Model 4610	23, 69
2115.41	AC Current Probe Model MN375	29, 58
2115.42	Megohmmeter Field Kit Model 1035	3, 68
2115.43	Megohmmeter Field Kit Model 1039	3, 68
2115.49	Circuit Breaker Identifier Model CBI-1	61
2115.72	AC Current Probe Model MN210	54
2115.73	AC Current Probe Model MN211	3, 54
2115.74	AC Current Probe Model MN212	54
2115.75	AC Current Probe Model MN213	54
2115.76	AC Current Probe Model MN250	54
2115.77	AC Current Probe Model MN251	29, 54
2115.78	AC Current Probe Model MN252	54
2115.79	AC Current Probe Model MN253	54
2115.80	AC Current Probe Model MN254	54
2115.81	AC Current Probe Model MN255	54
2115.82	AC Current Probe Model MN261	29, 57
2115.83	AC Current Probe Model MN290	54
2115.84	AC Current Probe Model MN291	54

Cat. No.	Model No.	Page No.
2116.21	Digital Transformer Ratiometer DTR® Model 8500	63
2116.22	AC Current Probe Model MN306	54
2116.23	AC Current Probe Model MN307	29, 54
2116.24	AC Current Probe Model MN312	54
2116.25	AC Current Probe Model MN313	54
2116.26	AC Current Probe Model MN352	54
2116.27	AC Current Probe Model MN353	54
2116.28	AC Current Probe Model MN373	54
2116.29	AC Current Probe Model SR701	55
2116.30	AC Current Probe Model SR704	55
2116.31	AC Current Probe Model SR751	55
2116.32	AC Current Probe Model SR752	29, 55
2116.33	AC Current Probe Model SR759	29, 48, 55
2116.89	Megohmmeter Model 1030	2, 68
2116.90	Megohmmeter Model 1035	3, 68
2116.91	Megohmmeter Model 1039	3, 68
2116.92	Megohmmeter Model 1040	2, 68
2116.93	Megohmmeter Model 1045	2, 68
2117.21	Clamp-On Meter Model 501	43
2117.22	Clamp-On Meter Model 503	43
2117.30	Megohmmeter Model 1040 Field Kit	2, 68
2117.31	Megohmmeter Model 1045 Field Kit	2, 68
2117.54	Clamp-On Meter Model 500	43
2117.56	TRMS Leakage Current Meter Model 565	45
2117.60	Ground Resistance Tester Model 3711 (Clamp-On)	24, 69
2117.61	Ground Resistance Tester Model 3731 (Clamp-On)	24, 69
2117.66	Clamp-On Meter Model 502	43
2117.67	Clamp-On Meter Model 511	44
2117.68	Clamp-On Meter Model 512	44
2117.70	Clamp-On Meter Model 514	44
2117.72	Megohmmeter Model 1026	10, 68
2117.78	Lead – Set of three	52
2118.47	Test lead, set of two (30 ft) in carrying bag	63
2118.70	Kelvin Clips (10A – Hippo), set of two, 20 ft	64, 65
2118.71	Kelvin Clips (1A – spring loaded), set of two, 10 ft	64, 65
2118.72	Kelvin Clips (1-10A), set of two, 20 ft	64, 65
2118.73	Kelvin Probes (1A – spring loaded), set of two, 10 ft	64, 65
2118.74	Kelvin Probes (1A – spring loaded), set of two, 20 ft	64, 65
2118.97	Remote Test Probe	2, 3, 4
2118.98	Field Case (Waterproof)	2, 3
2118.99	Hands-Free Carrying Case	2, 3
2119.45	Cable, PC RS-232, DB9 F/F 6 ft Null Modem Cable	7
2119.76	Lead, set of three, 10 ft color-coded with color-coded alligator clips; one black and one red test probe (rated 5000V)	7
2119.85	Leads, set of three, 10 ft color-coded with color-coded clips; one red, one blue and one black with integral 5kV hippo clips (rated 5000V)	7
2119.86	Leads, set of three, 25 ft color-coded with color-coded clips; one red, one blue and one black with integral 5kV hippo clips (rated 5000V)	7
2119.87	Leads, set of three, 45 ft color-coded with color-coded clips; one red, one blue and one black with integral 5kV hippo clips (rated 5000V)	7

Cat. No.	Model No.	Page No.
2120.67	LongLife AmpFlex® Model LGLF 1000-24-2-1	59
2120.68	LongLife AmpFlex® Model LGLF 3000-36-1-1	59
2120.69	LongLife AmpFlex® Model LGLF 3000-36-2-1	59
2120.81	FlexProbe® Model 24-3001	59
2120.82	FlexProbe® Model 24-3002	59
2121.02	Outlet Tester Model OT-1	61
2121.03	Outlet/GFCI Tester Model OT-2	61
2121.04	Phase & Motor Rotation Meter Model PMR-1	60
2121.06	Phase Rotation Meter Model PR-1	60
2121.09	Voltage Tester Model NC-1	61
2121.20	Lightmeter Model CA811	38
2121.21	Lightmeter Model CA813	38
2121.23	Sound Level Meter Model CA832	39
2121.24	Thermo-Hygrometer Model CA846	40
2121.25	Moisture Meter Model CA847	40
2121.26	Thermometer Model CA861 (K Thermocouple)	41
2121.27	Thermometer Model CA863 (Dual K Thermocouple)	41
2121.28	Thermometer Model CA865 (RTD)	41
2121.30	Infrared Thermometer Model CA870	42
2121.31	Infrared Thermometer Model CA872 (Laser)	42
2121.34	Infrared Thermometer Model CA876 (Laser, Var ε, K Thermocouple)	42
2124.54	Oscilloscope Model OX 7104-C Kit	49
2124.63	Oscilloscope Model OX 7104-C Power Kit	49
2124.70	Software, Data Retrieval Processing	50
2124.71	Harmonic Analyzer, Firmware – upgrade on CD-ROM	50
2124.72	Recorder Function, Firmware – upgrade on CD-ROM	50
2124.73	PROBIX PRHX1, 1/10 Probe, 250MHz, 1000V Cat. II (600V Cat. II)	50
2124.74	PROBIX PRHX4, BNC Adapter	50
2124.75	PROBIX PRHX5, 50Ω Adapter	50
2124.76	PROBIX Banana Plug (4mm) Adapter	50
2124.77	PROBIX Current Probe, 20mA to 20A, 100kHz	50
2124.78	PROBIX PRH7, K Thermocouple Adapter	50
2124.79	Carrying Case, Aluminum with foam cut-outs	50
2124.80	Straight Ethernet Cable	50
2124.81	Crossed Ethernet Cable	50
2124.82	RS-232 Adapter/CENTRONICS	50
2124.83	RS-232 Cable/9-pin Sub-D cable	50
2124.84	Set of two color-coded leads (1.5m) (red and black, 4mm straight, 4mm right angle) with color-coded safety alligator clips (red and black)	50
2124.88	OX Power Kit	50
2125.52	AC Leakage Current Probe Model 2620	46, 47
2126.01	Simple Logger® II Model CL601	30
2126.02	Simple Logger® II Model L101	31
2126.03	Simple Logger® II Model L102	31

Cat. No.	Model No.	Page No.	Cat. No.	Model No.	Page No.	Cat. No.	Model No.	Page No.
2126.05	Simple Logger® II Model L261	32	2131.12	Non-Contact High Voltage Detector Model 275HVD	62	2135.24	Ground Resistance Tester Model 4630 Kit – 500 ft	22, 69
2126.06	Simple Logger® II Model L322	34	2131.22	Resistance Decade Box Model BR04	49	2135.35	Test Kit for 3-Point Testing	22
2126.07	Simple Logger® II Model L432	34	2131.23	Resistance Decade Box Model BR05	49	2135.36	Test Kit for 4-Point Testing	22
2126.08	Simple Logger® II Model L642	36	2131.24	Resistance Decade Box Model BR06	49	2135.37	Test Kit for 4-Point Testing	22
2126.35	Simple Logger® II Model L562	33	2131.25	Resistance Decade Box Model BR07	49	2135.38	Test Kit for 3-Point Testing	22
2127.76	Tone Receiver/Cable Tracer Model TR03	25, 26, 27	2131.26	Capacitance Decade Box Model BC05	49	2135.51	Ground Resistance Tester Model 6472	18, 69
2127.80	Fault Mapper® Model CA7024	26	2131.27	Inductance Decade Box Model BL07	49	2135.52	Ground Resistance Tester Model 6472 Kit – 150 ft	18, 69
2127.81	Fault Mapper Pro® Model CA7026	27	2134.10	Sentinel® Voltage Logger Model SDL V301	28	2135.53	Ground Resistance Tester Model 6472 Kit – 300 ft	18, 69
2127.82	Wire Mapper Pro® Model CA7028	25	2134.11	Sentinel® Voltage Logger Model SDL V401	28	2135.54	Ground Resistance Tester Model 6472 Kit – 500 ft	18, 69
2127.90	Wire Mapper Pro® Remote ID's (2 – 5)	25	2134.15	Sentinel® Current Logger Model SDL A301	28	2135.71	AC Current Probe Model MN82	18
2127.91	Wire Mapper Pro® Remote ID's (6 – 9)	25	2134.16	Sentinel® Current Logger Model SDL A302	28	2135.72	AC Current Probe Model SR182	18
2129.50	TRMS Clamp-On Meter Model F09	67	2134.17	Sentinel® Current Logger Model SDL A303	28	2140.09	Set of three color-coded MN93 probes (240A) with 10 ft leads	13
2129.51	TRMS Clamp-on Meter Model F01	67	2134.18	Sentinel® Current Logger Model SDL A304	28	2140.10	Set of three color-coded SR193 probes (1200A) with 10 ft leads	13
2129.52	TRMS Clamp-on Meter Model F03	67	2134.19	Sentinel® Current Logger Model SDL A401	28	2140.11	Set of three color-coded 24" AmpFlex® 193-24 probes (6500A) with 10 ft leads	13
2129.53	TRMS Clamp-on Meter Model F05	67	2134.20	Sentinel® Current Logger Model SDL A402	28	2140.12	Set of three color-coded 36" AmpFlex® 193-36 probes (6500A) with 10 ft leads	13
2129.54	TRMS Clamp-on Meter Model F07	67	2134.21	Sentinel® Current Logger Model SDL A401 Kit (4-Channel, three 1000A 24" AmpFlex® w/BNC Input, rechargeable NiMH batteries, 120V US wall charger, carrying bag)	28	2140.13	Set of three color-coded MR193 probes (1000Aac/ 1400Aac) with 10 ft leads	13
2129.80	10A Micro-Ohmmeter Model 6240	64	2134.22	Sentinel® Current Logger Model SDL A401 Kit (4-Channel, four 1000A 24" AmpFlex® w/BNC Input, rechargeable NiMH batteries, 120V US wall charger, carrying bag)	28	2140.14	Set of three color-coded MN193 probes (6A/120Aac) with 10 ft leads	13
2129.81	10A Micro-Ohmmeter Model 6250	65	2134.23	Sentinel® Current Logger Model SDL A401 Kit (4-Channel, three 3000A 36" AmpFlex® w/BNC Input, rechargeable NiMH batteries, 120V US wall charger, carrying bag)	28	2140.17	5A Adapter box	13
2129.95	RTD Temperature Probe for Micro-Ohmmeter Model 6250	65	2134.24	Sentinel® Current Logger Model SDL A401 Kit (4-Channel, four 3000A 36" AmpFlex® w/BNC Input, rechargeable NiMH batteries, 120V US wall charger, carrying bag)	28	2140.24	Set of three color-coded MN93-30 probes (240A) with 30 ft leads	13
2129.96	RTD Temperature Probe w/7 ft extension cable	65	2135.01	Ground Resistance Tester Model 6470	20, 69	2140.25	Set of three color-coded SR193-30 probes (1200A) with 30 ft Leads	13
2130.01	Megohmmeter Model 1050	4, 68	2135.02	Ground Resistance Tester Model 6470 Kit – 150 ft	20, 69	2140.26	Set of three color-coded 24" AmpFlex® 193-24-30 probes (6500A) with 30 ft leads	13
2130.03	Megohmmeter Model 1060	4, 68	2135.03	Ground Resistance Tester Model 6470 Kit – 300 ft	20, 69	2140.27	Set of three color-coded 36" AmpFlex® 193-36-30 probes (6500A) with 30 ft leads	13
2130.06	DC Power Supply Model AX502	52	2135.04	Ground Resistance Tester Model 6470 Kit – 500 ft	20, 69	2140.28	One AC/DC Current Probe Model MR193-BK (black connector) (1000Aac/1400Aac)	13, 15
2130.07	DC Power Supply Model AX503	52	2135.10	Ground Resistance Tester Model 3620 Kit – 150 ft	23, 69	2140.29	Set of three color-coded MN193-30 probes (6A/120A) with 30 ft leads	13
2130.20	Megohmmeter Model 5050	6, 68	2135.11	Ground Resistance Tester Model 3620 Kit – 300 ft	23, 69	2140.30	Set of three color-coded MR193-30 probes (1000Aac/ 1400Aac) with 30 ft leads	13
2130.21	Megohmmeter Model 5060	6, 68	2135.12	Ground Resistance Tester Model 3620 Kit – 500 ft	23, 69	2140.61	Set of four color-coded 30 ft voltage leads (rated 600V Cat.IV 10A)	13
2130.30	Megohmmeter Model 5070	6, 68	2135.13	Ground Resistance Tester Model 3640 Kit – 150 ft	23, 69	2140.62	Lead-Set of 2, color-coded 5 ft (1.5M) w/color-coded alligator clips (red/black)	32
2130.43	Ground Resistance Tester Model 4620	22, 69	2135.14	Ground Resistance Tester Model 3640 Kit – 300 ft	23, 69			
2130.44	Ground Resistance Tester Model 4630	22, 69	2135.15	Ground Resistance Tester Model 3640 Kit – 500 ft	25, 73			
2130.60	Tape Measure (100 ft)	22	2135.16	Ground Resistance Tester Model 4610 Kit – 150 ft	23, 69			
2130.66	DMM Model MX 57EX IECEx	66	2135.17	Ground Resistance Tester Model 4610 Kit – 300 ft	23, 69			
2130.75	PowerPad® Model 3945-B w/MN93 (200A)	12	2135.18	Ground Resistance Tester Model 4610 Kit – 500 ft	23, 69			
2130.76	PowerPad® Model 3945-B w/SR193 (1200A)	12	2135.19	Ground Resistance Tester Model 4620 Kit – 150 ft	22, 69			
2130.77	PowerPad® Model 3945-B w/24" 6500A AmpFlex® 193-24	12	2135.20	Ground Resistance Tester Model 4620 Kit – 300 ft	22, 69			
2130.78	PowerPad® Model 3945-B w/36" 6500A AmpFlex® 193-36	12	2135.21	Ground Resistance Tester Model 4620 Kit – 500 ft	22, 69			
2130.79	PowerPad® Model 3945-B w/MR193	12	2135.22	Ground Resistance Tester Model 4630 Kit – 150 ft	22, 69			
2130.80	PowerPad® Model 3945-B w/MN193	12	2135.23	Ground Resistance Tester Model 4630 Kit – 300 ft	22, 69			

# Training Seminars

AEMC offers one-day training seminars throughout the USA on Ground Resistance Testing, Insulation Resistance Testing and Power Quality. Public and private courses are available.

For the schedule of upcoming training seminars contact [seminars@aemc.com](mailto:seminars@aemc.com), visit our website at [www.aemc.com](http://www.aemc.com) or call (800) 343-1391.



## Understanding Ground Resistance Testing

*For field engineers, technicians, utility engineers, supervisors, electricians and inspectors who need or have an interest in testing and certifying electrical power grounding systems.*

### Key topics covered include:

- Soil Resistivity
- Ground Resistance
- 3-Point Measurements
- 4-Point Measurements
- Clamp-On Measurements
- Step and Touch Potential Measurements



## Understanding Insulation Resistance Testing

*For field engineers, technicians, supervisors, electricians, plant maintenance personnel and inspectors who need or have an interest in insulation resistance testing on motors, cables and transformers.*

### Key topics covered include:

- Motor Theory
- Spot Testing
- Timed Tests
- Polarization Index
- Dielectric Discharge Testing
- Temperature correction of test results



## Understanding Power Quality

*For field engineers, technicians, supervisors, electricians, plant maintenance personnel and inspectors who need or have an interest in monitoring, recording and analyzing power quality.*

### Key topics covered include:

- Why power quality is important to you
- Symptoms and problems associated with poor power quality
- Types of disturbances and how to tell them apart
- Harmonic analysis - what, why and how to measure
- THD - what is it and how much is too much
- Power Factor - what is it, why know it and how to measure it



## Technical Sales and Assistance

If you are experiencing any technical problems, or require any assistance with the proper use or application of any AEMC instrument, please call our technical hotline at (800) 343-1391.

Chauvin Arnoux®, Inc. d.b.a. AEMC® Instruments  
200 Foxborough Blvd. • Foxborough, MA 02035 USA  
**Tel: (800) 343-1391 • (508) 698-2115 • Fax: (508) 698-2118**  
**techsupport@aemc.com • www.aemc.com**

## Repair and Calibration

To guarantee that your instrument complies with the factory specifications, we recommend that the product be submitted to our factory service center at one year intervals for recalibration, or as required by other standards.

For instrument repairs and/or calibrations, please call our factory, toll-free, at (800) 945-2362.

Chauvin Arnoux®, Inc. d.b.a. AEMC® Instruments  
15 Faraday Drive • Dover, NH 03820 USA  
**Tel: (800) 945-2362 • (603) 749-6434 • Fax: (603) 749-6309**  
**repair@aemc.com • www.aemc.com**

Costs for repairs, normal recalibration, and calibration traceable to N.I.S.T. are available. N.I.S.T. calibration pricing is listed within each product ordering chart. All customers must call for an authorization number before returning any instrument.

## Warranty

All AEMC® Instruments products carry a warranty against defects of material and workmanship which develop under normal and proper use within one to three years (depending on product) of original date of purchase when inspection proves the fault to be one of manufacturing. A detailed warranty card is available upon request and included with each instrument. Detailed warranty coverage is also located on our website. Products can be registered online at **www.aemc.com**. Specifications and prices are subject to change without notice.

## Corporate and Manufacturing

Chauvin Arnoux®, Inc. d.b.a. AEMC® Instruments  
15 Faraday Drive • Dover, NH 03820 USA  
**Tel: (603) 749-6434 • Fax: (603) 742-2346**  
**Order entry:**  
**Tel: (800) 442-2362 • Fax: (603) 749-9153**  
**www.aemc.com**

## Storefront

The AEMC online store offers the opportunity to purchase replacement parts such as fuses, test leads and other accessory items for your test instruments. The online store also offers refurbished and discontinued items at a reduced price. Product specials also offered. Visit the store at **www.aemc.com/store**.

Find us on the **WEB** at  
**WWW.**  
**AEMC**  
**.COM**



# New Products



**Simple Logger® II  
TRMS Current Module L102**  
Page 31



**Simple Logger® II  
TRMS Voltage Module L261**  
Page 32



**Ground Resistance Tester  
Model 6472**  
Page 18



**Simple Logger® II  
Model L562**  
Page 33



**Simple Logger® II  
Model L642**  
Page 36

**Chauvin Arnoux®, Inc. d.b.a. AEMC® Instruments**  
200 Foxborough Blvd. • Foxborough, MA 02035-2872 • USA  
(508) 698-2115 • (800) 343-1391 • Fax (508) 698-2118  
sales@aemc.com • www.aemc.com



950.CAT-SHORT 2008 Rev. 01 08/08 Printed in the USA

All specifications and prices subject to change without notice.

Your authorized AEMC® Instruments distributor is: