

2014

TEST & MEASUREMENT INSTRUMENTS

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

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



 **AEMC**[®]
INSTRUMENTS
CHAUVIN ARNOUX GROUP

Our products are backed by over 100 years of experience in test and measurement equipment, and encompass the latest international standards for quality and safety.



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 for a distributor in your area by clicking on the "Where to Order" 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
customerservice@aemc.com

Export Department:

(603) 749-6434 ext. 520 • Fax (603) 742-2346
export@aemc.com

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

Example:

Quantity	Catalog #	Description
1	2141.02	Ground Resistance Tester Model 6417 (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



WWW.
AEMC
.COM

Chauvin Arnoux®, Inc.
d.b.a. AEMC® Instruments

Chauvin Arnoux One Source®

950.CAT-MASTER-2014

Printed in the USA

Rev.00 05/14

Detailed product brochures available on the web!

CONTENTS

Megohmmeters	2
Power Quality Analyzers, Meters & Loggers	14
Ground Resistance Testers	27
Cable Testers	41
Data Loggers	44
Environmental Testers	61
Clamp-On Meters	66
Leakage Current Meters and Probes	72
Digital Multimeters	75
Handheld Oscilloscopes	76
Current Measurement Probes	79
DC Power Supplies & Decade Boxes	88
Electrical Test Tools	89
High Voltage Detectors	91
Micro-Ohmmeters	92
Transformer Ratiometers	95
Other Products from Chauvin Arnoux® Group	97
Catalog Cross Reference Index	106
Training Seminars	108

AEMC MODEL NUMBER	AEMC CATALOG NUMBER	TEST VOLTAGE	INSULATION RANGE	RESISTANCE RANGE	CONTINUITY RANGE	CAPACITANCE RANGE	VOLTAGE DETECTION	POWER SOURCE	DISPLAY
1030	2116.89	250V 500V	50kΩ to 2GΩ 100kΩ to 2GΩ	—	0.00 to 19.99Ω	—	0 to 600Vac/dc	Battery	Digital/ Analog
1035	2116.90	50V 100V 250V 500V	10kΩ to 2GΩ 20kΩ to 2GΩ 50kΩ to 20GΩ 100kΩ to 20GΩ	0.0 to 400kΩ	—	—	0 to 600Vac/dc	Battery	Digital/ Analog
1035 Field Kit	2115.42	50V 100V 250V 500V	10kΩ to 2GΩ 20kΩ to 2GΩ 50kΩ to 20GΩ 100kΩ to 20GΩ	0.0 to 400kΩ	—	—	0 to 600Vac/dc	Battery	Digital/ Analog
1039	2116.91	50V 100V	10kΩ to 400MΩ 20kΩ to 400MΩ	0.0 to 40.0kΩ	—	0 to 4000nF	0 to 600Vac/dc	Battery	Digital/ Analog
1040	2116.92	500V 1000V	100kΩ to 2GΩ 200kΩ to 2GΩ	0.0 to 400kΩ	0.00 to 19.99Ω	—	0 to 600Vac/dc	Battery	Digital/ Analog
1045	2116.93	250V 500V 1000V	50kΩ to 2GΩ 100kΩ to 2GΩ 200kΩ to 2GΩ	0.0 to 400kΩ	0.00 to 19.99Ω	—	0 to 600Vac/dc	Battery	Digital/ Analog
1040 Field Kit	2117.30	500V 1000V	100kΩ to 2GΩ 200kΩ to 2GΩ	0.0 to 400kΩ	0.00 to 19.99Ω	—	0 to 600Vac/dc	Battery	Digital/ Analog
1045 Field Kit	2117.31	250V 500V 1000V	50kΩ to 2GΩ 100kΩ to 2GΩ 200kΩ to 2GΩ	0.0 to 400kΩ	0.00 to 19.99Ω	—	0 to 600Vac/dc	Battery	Digital/ Analog
1050	2130.01	50V 100V 250V 500V 1000V	2kΩ to 200GΩ 4kΩ to 4000GΩ 10kΩ to 1TΩ 20kΩ to 2TΩ 40kΩ to 4TΩ	0.01 to 400kΩ	0.01 to 39.99Ω	0.005 to 4.999μF	0 to 1000Vac/dc	Battery	Digital/ Analog
1060	2130.03	50V 100V 250V 500V 1000V	2kΩ to 200GΩ 4kΩ to 4000GΩ 10kΩ to 1TΩ 20kΩ to 2TΩ 40kΩ to 4TΩ	0.01 to 400kΩ	0.01 to 39.99Ω	0.005 to 4.999μF	0 to 1000Vac/dc	Rechargeable NiMH Battery	Digital/ Analog
6505	2130.18	500V 1000V 2500V 5000V	30kΩ to 2000GΩ 100kΩ to 4000GΩ 100kΩ to 10,000GΩ 300kΩ to 10,000GΩ	—	—	0.005 to 49.99μF	2500Vac 4000Vdc	Rechargeable NiMH Battery	Digital/ Analog
5050	2130.20	500V 1000V 2500V 5000V	30kΩ to 2TΩ 100kΩ to 4TΩ 100kΩ to 10TΩ 300kΩ to 10TΩ	—	—	0 to 49.99μF	2500Vac 4000Vdc	Rechargeable NiMH Battery	Digital/ Analog
5060	2130.21	500V 1000V 2500V 5000V	30kΩ to 2TΩ 100kΩ to 4TΩ 100kΩ to 10TΩ 300kΩ to 10TΩ	—	—	0 to 49.99μF	2500Vac 4000Vdc	Rechargeable NiMH Battery	Digital/ Analog
5070	2130.30	500V 1000V 2500V 5000V	30kΩ to 2TΩ 100kΩ to 4TΩ 100kΩ to 10TΩ 300kΩ to 10TΩ	—	—	0 to 49.99μF	2500Vac 4000Vdc	Rechargeable NiMH Battery	Graphic/ Digital
6501	2126.51	500V	0.5 to 200MΩ	0 to 500kΩ	0 to 100Ω	—	0 to 600Vac	Hand-cranked	Analog
6503	2126.52	250V 500V 1000V	1 to 500MΩ 1 to 500MΩ 10 to 5000MΩ	—	—	—	0 to 600Vac	Hand-cranked	Analog
6527	2126.53	250V 500V 1000V	1kΩ to 4GΩ 1kΩ to 4GΩ 1kΩ to 4GΩ	0.0 to 400.0kΩ	0.00 to 400Ω	—	0 to 600Vac 0 to 1000Vdc	Battery	Digital/ Analog
6550	2130.31	500V 1000V 2500V 5000V 10,000V	10kΩ to 2000GΩ 10kΩ to 4000GΩ 10kΩ to 10,000GΩ 10kΩ to 15,000GΩ 10kΩ to 25,000GΩ	—	—	0.001 to 9999μF 10.00 to 49.99μF	0 to 2500Vac 0 to 4000Vdc	Rechargeable NiMH Battery	Digital/ Analog
6555	2130.32	500V 1000V 2500V 5000V 10,000V 15,000V	10kΩ to 2000GΩ 10kΩ to 4000GΩ 10kΩ to 10,000GΩ 10kΩ to 15,000GΩ 10kΩ to 25,000GΩ 10kΩ to 30,000GΩ	—	—	0.001 to 9999μF 10.00 to 49.99μF	0 to 2500Vac 0 to 4000Vdc	Rechargeable NiMH Battery	Digital/ Analog

Models 6501 & 6503

Designed for acceptance testing and preventive maintenance of wiring, cables, switchgear and motors



► FEATURES

- True Megohmmeter®
- Test voltages of 250V, 500V and 1000V (model dependent)
- Insulation measurements to 200MΩ and 5000MΩ (model dependent)
- LED indicates constant voltage output and proper cranked speed controlled by voltage regulator
- Automatic discharge when measurement is finished
- Auto-Ranging – dual scale operation for better sensitivity and easier readings
- Compact self-contained package; folded crank
- Voltage displayed prior to, during and at the end of test
- Large direct reading scale
- EN 61010-1, 600V CAT II, 300V CAT III

► SPECIFICATIONS

MODELS	6501	6503
INSULATION TESTS		
Test Ranges*	250V – 500V 0.5 to 5.5MΩ; 5.5 to 200MΩ 1000V –	1 to 11MΩ; 11 to 500MΩ 1 to 11MΩ; 11 to 500MΩ 10 to 110MΩ; 110 to 5000MΩ
Short Circuit Current	5mA (max)	
Voltage Measurement/ Safety Check	0 to 600Vac	
Accuracy (MΩ)	2.5% of Full Scale Length	
Automatic Discharge	5s/μF	8s/μF
Charge Time	250V – 500V 0.5s/μF 1000V –	0.2s/μF 0.5s/μF 0.5s/μF
RESISTANCE TESTS		
Measurement Range	0 to 45kΩ; 45 to 500kΩ	–
Test Current	1mA _{DC}	–
Accuracy	2.5% of Full Scale Length	–
CONTINUITY TESTS		
Measurement Range	0 to 9Ω; 10 to 100Ω	–
Test Voltage	5mA _{DC} (10V max)	–
Accuracy	2.5% of Full Scale Length	–

*DC test voltage generated 5.5 to 200MΩ in full across the entire measurement range.

► PRODUCT INCLUDES



Soft carrying case, test leads, blue lead (for use with Model 6503), alligator clips, test probe, and user manual.



CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2126.51	Megohmmeter Model 6501 (Hand-cranked, 500V, 500kΩ, Resistance, Continuity)	\$495.00	\$94.00
2126.52	Megohmmeter Model 6503 (Hand-cranked, 250V, 500V, 1000V)	\$595.00	\$94.00

MEGOHMMETERS

Digital/Analog & Multi-Function Voice, Data, Video Cable Testing

Models 1030, 1040 & 1045

For motors, cables, switchgear and general applications



Learn how to measure insulation on telephone cables



SPECIFICATIONS

MODELS	1030	1040	1045
INSULATION TESTS			
Test Voltage	250V 500V 1000V	50kΩ to 2000MΩ (2GΩ) 100kΩ to 2000MΩ (2GΩ) -	- 100kΩ to 2000MΩ (2GΩ) 200kΩ to 2000MΩ (2GΩ)
Short Circuit Current	≤3mA		
Accuracy	<40MΩ ≥40MΩ	3% of Reading ± 5cts 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		
ELECTRICAL			
Power Source	Six 1.5V AA Alkaline batteries (included)		

PRODUCT INCLUDES

1040 & 1045 Field Kit

Megohmmeter, soft carrying case, field case, two color-coded leads, two alligator clips, black test probe, remote test probe, batteries and user manual.



1035 Field Kit

Megohmmeter, soft carrying case, field case, color-coded leads, alligator clips, black test probe, two grip probes, remote test probe, batteries, and user manual.



Soft carrying case
Included with all Models



Hands-free carrying case
Catalog #2118.99 (optional)



Models 1035 & 1039

For voice, data and video cable 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
- Includes test leads and soft carrying case
- Test voltage combinations of 50V, 100V, 250V and 500V (Model 1035)
- 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
- Backlit display (Models 1035, 1039, 1040 & 1045)



► SPECIFICATIONS

MODELS	1035	1039	
INSULATION TESTS			
Test Voltage	50V 100V 250V 500V	10kΩ to 2000MΩ (2GΩ) 20kΩ to 2000MΩ (2GΩ) 50kΩ to 20,000MΩ (20GΩ) 100kΩ to 20,000MΩ (20GΩ)	10kΩ to 400MΩ 20kΩ to 400MΩ - -
Open Circuit Voltage	<75V @ 50V, <150V @ 100V, <375V @ 250V, <750V @ 500V		
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		
Test Current	600μA < 400Ω; 6μA > 40Ω		
Accuracy	>400kΩ ±3% of Reading ± 1ct	±3% of Reading ± 1ct	
CURRENT TESTS			
AC/DC 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	
ELECTRICAL			
Power Source	Six 1.5V AA Alkaline batteries (included)		

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2116.89	Megohmmeter Model 1030 (Digital w/Analog Bargraph, 250V, 500V)	\$ 549.00	\$75.00
2116.92	Megohmmeter Model 1040 (Digital w/Analog Bargraph, Alarm, Backlight, 500V, 1000V, 400kΩ, Continuity)	\$ 599.00	\$94.00
2116.93	Megohmmeter Model 1045 (Digital w/Analog Bargraph, Alarm, Timer, Backlight, 250V, 500V, 1000V, 400kΩ, Continuity)	\$ 669.00	\$94.00
2117.30	Megohmmeter Model 1040 Field Kit (Model 1040, Remote Test Probe & Field Case)	\$ 959.00	\$94.00
2117.31	Megohmmeter Model 1045 Field Kit (Model 1045, Remote Test Probe & Field Case)	\$1,029.00	\$94.00
2116.90	Megohmmeter Model 1035 (Digital w/Analog Bargraph, Alarm, Backlight, 50V, 100V, 250V, 500V, 400kΩ)	\$ 699.00	\$94.00
2116.91	Megohmmeter Model 1039 (Digital w/Analog Bargraph, Alarm, Timer, ΔRel, Backlight, 50V, 100V, mA, nF, km)	\$ 799.00	\$94.00
2115.42	Megohmmeter Model 1035 Field Kit (Model 1035, Remote Test Probe & Field Case)	\$1,059.00	\$94.00
Accessories (Optional)			
2118.97	Remote Test Probe	\$ 199.00	-
2118.98	Field Case (Waterproof)	\$ 180.00	-
2118.99	Hands-Free Carrying Case	\$ 77.00	-



Model 6527

Specially designed for testing installations and equipment

► SPECIFICATIONS

MODEL	6527	
INSULATION TESTS		
Test Voltage	250V 500V 1000V	1kΩ to 4000MΩ (4GΩ) 1kΩ to 4000MΩ (4GΩ) 1kΩ to 4000MΩ (4GΩ)
Accuracy	4MΩ/40MΩ 400MΩ 4000MΩ (4GΩ)	2% of Reading ± 10cts 3% of Reading ± 5cts 4% of Reading ± 5cts
VOLTMETER		
V AC/DC	600V/1000V	
Accuracy	DC AC	0.8% of Reading ± 3cts 1.2% of Reading ± 10cts
RESISTANCE TESTS - OHMMETER		
Range	0.0 to 400.0kΩ	
Accuracy	1.2% of Reading ± 3cts	
CONTINUITY TESTS		
Range	0.00 to 400Ω	
Accuracy	1.2% of Reading ± 3cts	
Test Current	>200mA (0.2Ω/2Ω)	
Test Lead Compensation	Yes – dedicated push-button	
Beeper	Yes – <35Ω ± 3Ω	
ELECTRICAL		
Power Supply	Six 1.5V AA batteries – Alkaline recommended (included)	



► FEATURES

- True Megohmmeter®
- Insulation test voltage selections of 250V, 500V and 1000V
- Measure insulation to 4000MΩ (4GΩ)
- TEST LOCK feature for time sensitive measurements up to 15 minutes
- Auto discharge after insulation test
- AC/DC voltmeter to 600V_{ac}/1000V_{dc}
- Ohmmeter to 400kΩ
- Continuity meter up to 200mA test current
- Test lead resistance compensation for accurate low resistance measurements
- Auto HOLD function to “freeze” readings
- Large and bright dual display with blue backlight
- Auto Power OFF feature
- Ergonomic over-molded case with back-stand
- Complies with International Insulation Testing Standards including EN61557

► PRODUCT INCLUDES

Soft carrying case, set of two 5 ft color-coded test leads, alligator clips, one black test probe and user manual.



CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2126.53	Megohmmeter Model 6527 (Digital, 250V, 500V, 1000V, Continuity, 400kΩ, V)	\$ 269.00	\$ 94.00

Models 1050 & 1060

Test insulation on cables, transformers, motors and wiring installations

SPECIFICATIONS

MODELS	1050	1060
INSULATION TESTS		
Test Voltage	50V 100V 250V 500V 1000V	2kΩ to 200GΩ 4kΩ to 400GΩ 10kΩ to 1000GΩ (1TΩ) 20kΩ to 2000GΩ (2TΩ) 40kΩ to 4000GΩ (4TΩ)
Accuracy	2kΩ to 40GΩ 40GΩ to 4TΩ	5% of Reading ± 3cts 15% of Reading ± 10cts
Voltage Test/Safety Check		0 to 1000VAC/DC
Voltage Warning Indicator		>25V
Test Inhibition		Yes >25V
Smooth Function		Yes
RESISTANCE TESTS		
Measurement Range		0.01Ω to 400kΩ
Test Voltage		12.4Vdc max
Test Current		<6mAac
Accuracy	>4kΩ	±3% of Reading ± 3cts
CONTINUITY TESTS		
Measurement Range		0.01 to 39.99Ω
Test Current		≥200mA from 0.01 to 20.00Ω
Accuracy		±3% of Reading ± 4cts
COMMUNICATION		
Memory of Reading over Time R(t)	Yes (20 Readings)	Yes (128kB memory)
Memory of Test Results in Files	No	128kB memory with RS-232 to USB adapter (included)
PC Software/Report Generation	No	DataView® (included)
ELECTRICAL		
Power Source	Eight 1.5V C Cells (included)	9.6V NiMH Battery Pack (included) 85 to 256V (50/60Hz)

PRODUCT INCLUDES

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 RS-232 to USB adapter, DB9 F/F 6 ft null modem cable, rechargeable battery, US 120V power cord, and USB stick supplied with DataView® software and user manual.



FEATURES

- True Megohmmeter®
- Test voltage selections of 50V, 100V, 250V, 500V and 1000V
- Insulation measurements to 4000GΩ (4TΩ)
- 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 OFF 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 with USB 2.0 cable for DataView® easy report printing
- 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



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)	\$1,519.00	\$98.00
2130.03	Megohmmeter Model 1060 (Digital, with Analog Bargraph, Backlight, Alarm, Timer, 50V, 100V, 250V, 500V, 1000V, Auto DAR/PI, Resistance, Continuity, USB Sitck w/ DataView® software, 128kB Memory)	\$1,899.00	\$98.00
2118.97	Remote Test Probe	\$ 199.00	-

Model 6505

Contributes to the safety of electrical installations and equipment

► SPECIFICATIONS

MODEL	6505	
INSULATION TESTS		
Test Voltage/Range		
500V	30kΩ to 2000GΩ (2TΩ)	
1000V	100kΩ to 4000GΩ (4TΩ)	
2500V	100kΩ to 10,000GΩ (10TΩ)	
5000V	300kΩ to 10,000GΩ (10TΩ)	
User Programmable Test	40 to 1000V: 10V increments 1000 to 5100V: 100V increments	
Short Circuit Current	<1.6mA ± 5%	
Accuracy	10kΩ to 40GΩ	±5% of Reading ± 3cts
	40GΩ to 10TΩ	±15% of Reading ± 10cts
DAR (1 min/30 sec)	0.02 to 50.00	
PI (10 min/1 min & user programmable)	0.02 to 50.00	
Capacitance Measurement	0.005 to 49.99μF; Max resolution 1nF	
Leakage Current Measurement	0.00nA to 3mA; Max resolution 1pA	
Programmable Run Time R(t)	1 to 60 minutes	
Discharge After Test	Yes, automatic	
Discharge Voltage Display	Yes	
Voltage Test/Safety Check	2500VAC/4000VDC (16 to 420Hz); 1V Resolution	
Voltage Warning Indicator	Yes >25V	
Test Inhibition*	Yes >25V	
Guard Terminal	Yes	
ELECTRICAL		
Power Source	One 9.6V NiMH battery pack (included); Line power: 85 to 256VAC (50/60Hz)	

*Inhibit voltage is selectable at 3, 10 or 20% of test voltage

► PRODUCT INCLUDES

Extra large classic tool bag, three color-coded leads, one blue jumper lead for use with guard terminal, three alligator clips (600V CAT IV), US 115V power cord, rechargeable battery pack and user manual.



► FEATURES

- True Megohmmeter®
- Simple operation
- Test voltage selections of 500V, 1000V, 2500V and 5000V
- Insulation measurements from 30kΩ to 10TΩ (10,000GΩ)
- Adjustable and programmable test voltage (40 to 5100V)
- Automatic calculation of DAR and PI values
- Direct measurement and display of Capacitance and Leakage Current
- Display resistance, test voltage and run time
- Programmable test run times and PI ratio times
- Automatic test inhibition (if live sample >25V)
- Automatic discharge and display of discharge voltage
- Large backlight LCD dual-display with time, voltage and measurements shown
- Rugged, dual wall, weatherproof field case
- Designed and built to IEC safety standards
- EN 61010-1, 1000V CAT III

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2130.18	Megohmmeter Model 6505 (Digital, with Analog Bargraph, Backlight, 500V, 1000V, 2500V, 5000V, Auto DAR/PI)	\$2,495.00	\$142.00
Accessories (Optional)			
2119.76	Lead – Set of 3, Color-coded 10ft 5kV Safety w/3 Color-coded Alligator Clips (1000V CAT IV) 15A for use with Megohmmeter Models 5050/5060/5070/6505	\$ 369.00	–
2119.77	Lead – Replacement, Set of 3, Color-coded 6ft 5kV safety for Megohmmeter Model 6505	\$ 309.00	–
2119.85	Lead – Set of 3, Color-coded 10ft 5kV Safety with Integral Hippo Clips, and jumper lead for use with Megohmmeter Model 6505 (replacement for 5050/5060/5070)	\$ 483.00	–
2119.86	Lead – Set of 3, Color-coded 25ft 5kV Safety with Integral Hippo Clips for use with Megohmmeter Models 5050/5060/5070/6505 [Jumper lead not included]	\$ 648.00	–
2119.87	Lead – Set of 3, Color-coded 45ft 5kV Safety with Integral Hippo Clips for use with Megohmmeter Models 5050/5060/5070/6505 [Jumper lead not included]	\$ 975.00	–

Models 5050 & 5060

Designed with the highest level of safety features built in

PLAY VIDEO



SPECIFICATIONS

MODELS	5050	5060
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		—
Accuracy	1kΩ to 40GΩ 40GΩ to 10TΩ	±5% of Reading ± 3cts ±15% of Reading ± 10cts
Voltage Test/Safety Check		2500VAC/4000Vdc
Voltage Warning Indicator		Yes >25V
Test Inhibition*		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
Storage of Test Results	20 Readings	Stores over 1500 test results
Communication Port	—	Serial and RS-232 to USB adapter (included)
PC Software/Report Generation	No	DataView® (included)
ELECTRICAL		
Power Source		One 9.6V NiMH battery pack (included) Line power: 85 to 256V (50/60Hz)

*Inhibit voltage is selectable at 3, 10 or 20% of test voltage



DataView®
See page 13 for details

Print measurement reports directly from your computer using DataView® software (Models 5060 & 5070)

PRODUCT INCLUDES

5050, 5060 & 5070

Extra large classic tool bag, one red, one blue and one black lead with integral 5kV rated hippo clips, one jumper lead for use with guard terminal, 120V power cord, rechargeable battery and user manual.

PC RS-232 Cable

Catalog #2119.45
DB9 F/F 6 ft null modem cable
Catalog #5000.60
RS-232 to USB adapter



USB Stick

Supplied with DataView® software and user manual (Models 5060 & 5070)



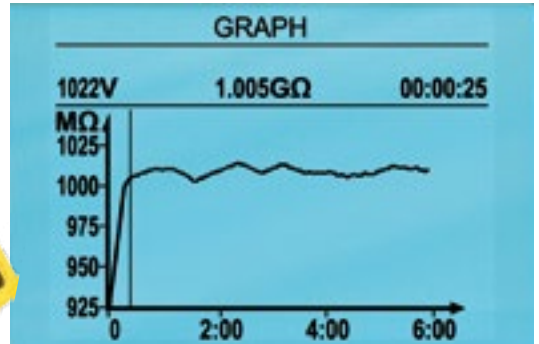
CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2130.20	Megohmmeter Model 5050 (Digital, with Analog Bargraph, Backlight, Alarm, Timer, 500V, 1000V, 2500V, 5000V, Auto DAR/PI/DD)	\$2,795.00	\$ 142.00
2130.21	Megohmmeter Model 5060 (Digital, with Analog Bargraph, Backlight, Alarm, Timer, 500V, 1000V, 2500V, 5000V Auto DAR/PI/DD, USB Stick w/DataView® software)	\$3,195.00	\$ 142.00

MEGOHMMETERS

5000V Graphical

Model 5070

Offers real-time graphic plot of measurements and digital presentation of test results



Insulation resistance measurement graphically displayed at the completion of the test at the push of a button.

► SPECIFICATIONS



MODEL	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	2500VAc/4000Vdc	
Voltage Warning Indicator	Yes >25V	
Test Inhibition*	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)	128kB memory	
Storage of Test Results	Stores over 1500 test results	
Communication Port	Serial and RS-232 to USB adapter (included)	
PC Software/ Report Generation	DataView® (included)	
ELECTRICAL		
Power Source	One 9.6V NiMH battery pack (included) Line power: 85 to 256V (50/60Hz)	

*Inhibit voltage is selectable at 3, 10 or 20% of test voltage

► FEATURES

- True Megohmmeter®
- Test voltage selections 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
- Graphic and digital display of test voltage, resistance and more
- Bright blue electroluminescent backlight
- Programmable temperature compensation
- Programmable test voltage lock-out
- Programmable alarm setting
- Auto Power OFF 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
- Includes DataView® software for data storage, real-time display, analysis and report generation (Model 5070)
- EN 61010-1, 1000V CAT III

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2130.30	Megohmmeter Model 5070 (Graphical, Analog Bargraph, Backlight, Alarm, Timer, 500V, 1000V, 2500V, 5000V, Ramp, Auto DAR/PI/DD, USB Stick w/DataView® software)	\$3,995.00	\$142.00
Accessories (See page 9 for optional accessories)			
2119.45	Cable, PC RS-232, DB9 F/F 6 ft Null Modem Cable (for use with Models 1060, 5060 & 5070)	\$ 16.95	-

Models 6550 & 6555

Expert tools for testing insulation safely and accurately; ideal for use on rotating machinery and cables operating at higher voltages

PLAY VIDEO



► FEATURES

- True Megohmmeter®
- Fixed or programmable test voltage from 40V to 10kV/15kV
- Wide measurement range from 10kΩ to 30TΩ
- 5mA charging current
- Step voltage testing
- Ramp voltage testing
- Automatic calculation of DAR / PI / DD / ΔR (ppm/V) ratios
- Large, backlit graphical LCD screen with digital display, bargraph and R(t)+V(t), I(t) and I(V) graphs
- Multiple test modes: voltage ramp and step with “Burn-In”, “Early-Break” and “I-Limit” modes
- Three filter settings to optimize measurement stability
- Calculation of R at a reference temperature
- Storage of 80,000 measurements
- Includes DataView® software for data storage, real-time display, analysis and report generation
- Optically-isolated USB communication for transfer onto PC and report generation with DataView® software

► SPECIFICATIONS

MODELS	6550	6555
INSULATION TESTS		
Test Voltage	500V 1000V 2500V 5000V 10,000V 15,000V	10kΩ to 2000GΩ (2TΩ) 10kΩ to 4000GΩ (4TΩ) 10kΩ to 10,000GΩ (10TΩ) 10kΩ to 15,000GΩ (15TΩ) 10kΩ to 25,000GΩ (25TΩ)
Fixed Test Voltages	500/1000/2500/5000/ 10,000V	500/1000/2500/5000/ 10,000/15,000V
Variable Voltages	Variable: 40 to 10kV Three user programmable voltage schemes	Variable: 40 to 15kV Three user programmable voltage schemes
Ramp Mode	Programmable ramps: start voltage/end voltage/duration	
Ramp Configuration Range	40 to 1100V/500 to 10,000V	40 to 1100V/500 to 15,000V
Step Mode	Up to 10 steps (voltage and duration configurable for each step)	
Voltage Measurement After Test	0 to 2500Vac; 0 to 4000Vdc	
Capacitance Measurement	0.05 to 9.999μF/10.00 to 49.99μF	
Leakage Current Measurement	0 to 8mA	
Discharge After Test	Yes/Automatic	
Additional Test Stop Modes	I-Limit Programmable: 0.2 to 5mA Early-Break di/dt Timer Up to 99 minutes 59 seconds	
Burn Mode	Constant testing	
Ratio Calculation	PI, DAR, DD	
Calculation of R at ref. T°	Yes	
Measurement Display Filter	3 filters with 3 possible time-constants	
Graphs on Display	R(t)+V(t); I(t); I(V)	
Storage	256 registers, stores 80,000 points: R, V, I and date	
Communication	USB optically-isolated port	
PC Software	DataView®	
Power Supply	NiMH rechargeable batteries, two 9.6V 4Ah battery packs charging by external voltage: 90 to 260V; 50/60Hz	
Battery Charging	Battery charging allowed while performing insulation measurements	
Electrical Safety	1000V CAT IV; IEC61010-1 and IEC 61557	
EMC, Mechanical Protection, Altitude	EN 61326-1, IP54, 3000m	
Dimensions / Weight	13.39 x 11.81 x 7.87" (340 x 300 x 200mm)/approx. 6.2kg (13.7lb)	

See page 12 for ordering information

► PRODUCT INCLUDES

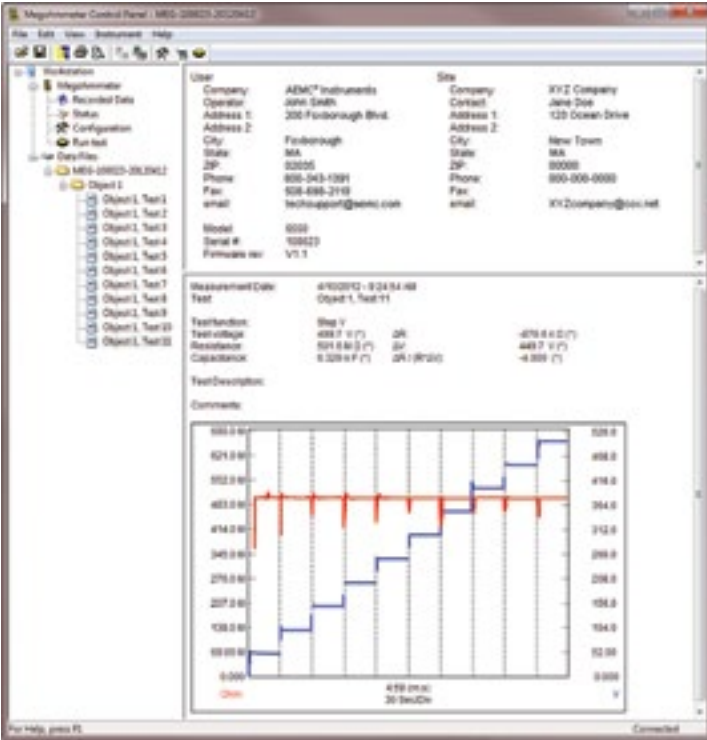


► **USB Stick**
Quick start user guide, and USB stick supplied with DataView® software and user manual.

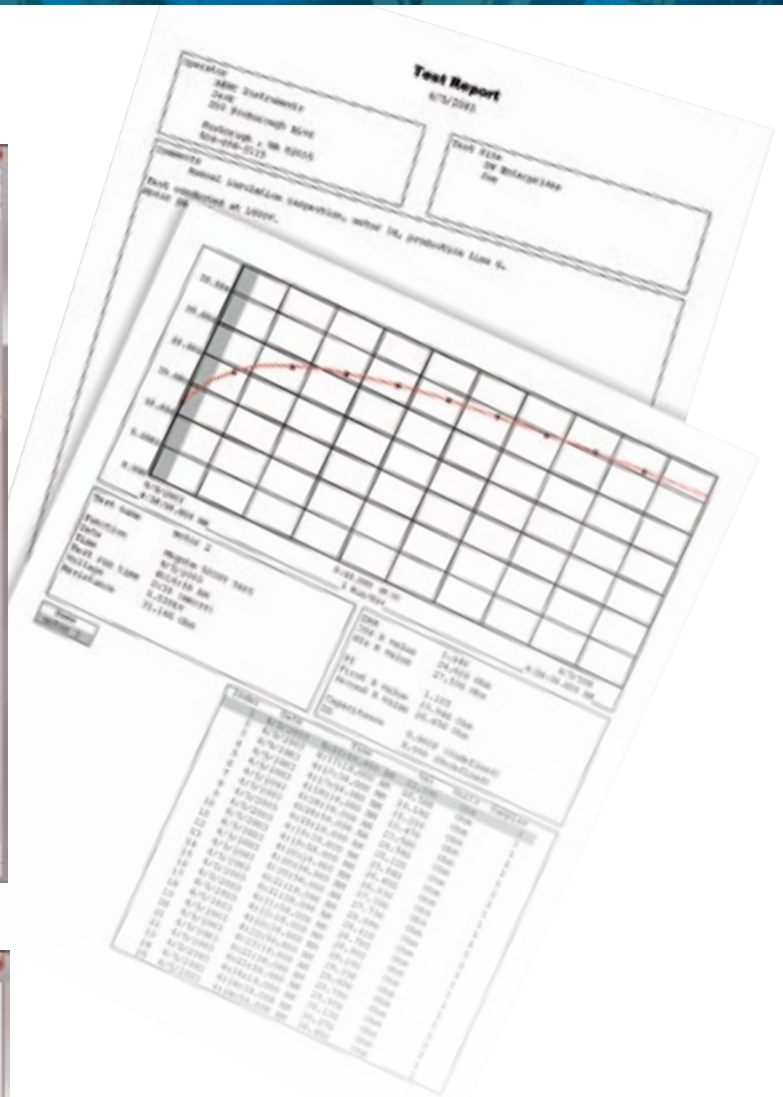


Small classic tool bag, set of color-coded (red/blue/black) 9 ft (15kV) integral leads and alligator clips (1000V CAT IV), one 15kV jumper lead (blue), set of two color-coded test probes (red/black-1000V CAT IV), optical USB cable, 115V US power cord, 9.6V rechargeable NiMH batteries.

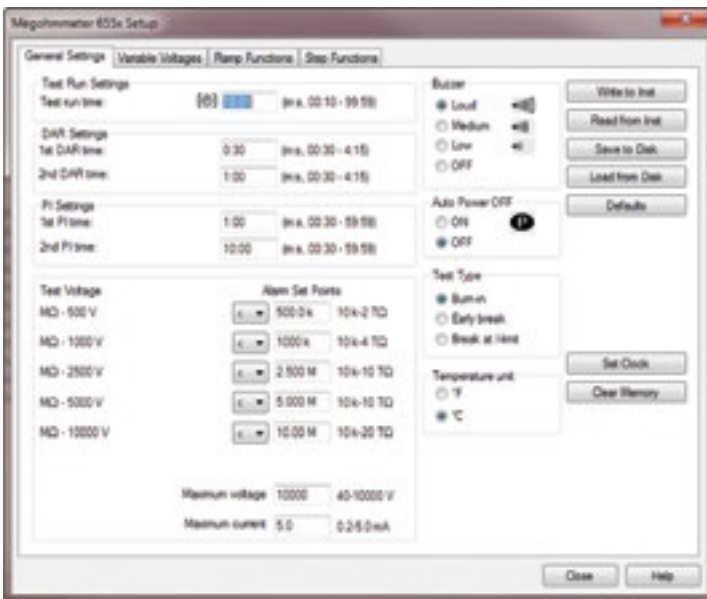
DataView® Displays



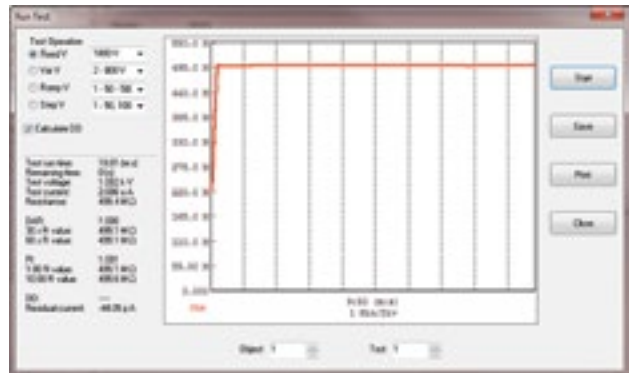
All stored test results presented on screen.



Typical and customized reports generated from DataView® software.



Clear and straight forward set up of parameters.



Real-time display of measurement results.

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2130.31	Megohmmeter Model 6550 (Graphical, Analog Bargraph, Backlight, Alarm, Timer, 500V, 1000V, 2500V, 5000V, 10kV, Ramp, StepV, Variable, Auto DAR/PI/DD, USB Stick w/DataView® software)	\$4,995.00	\$250.00
2130.32	Megohmmeter Model 6555 (Graphical, Analog Bargraph, Backlight, Alarm, Timer, 500V, 1000V, 2500V, 5000V, 10kV, 15kV, Ramp, StepV, Variable, Auto DAR/PI/DD, USB Stick w/DataView® software)	\$5,995.00	\$250.00

DataView®

Data Analysis and Reporting Software for Megohmmeters

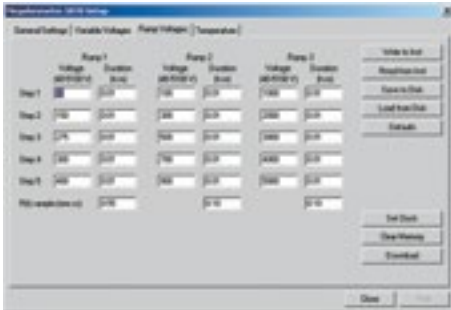


Configure all functions of the Megohmmeter Models 1060, 5060, 5070, 6550 & 6555



- 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
- Free updates are available on our website www.aemc.com

Typical DataView® Functional Displays



Model 5070 includes Ramp Function which allows programming of three different ramp test profiles, each containing up to five voltage steps between 40 and 5100V and time per step of up to 10 hours.



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.

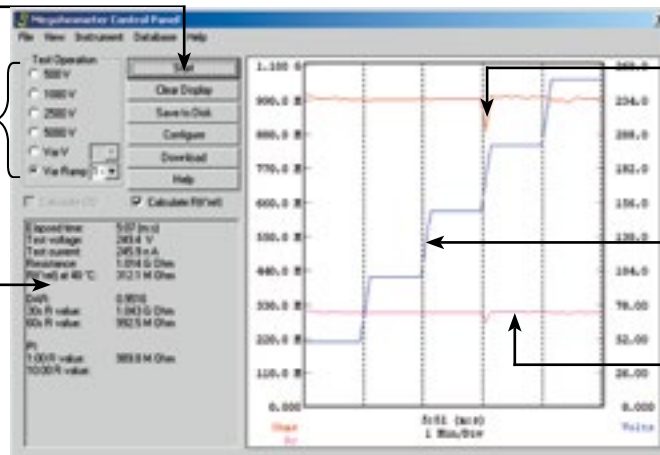


Clear and easy setup from one dialog box for Model 5060.

One button operation starts test and graphs results

Test voltage selection

Test result status box displays complete test results in real-time



Insulation resistance during the test run

Step voltage during the test run

Insulation resistance with temperature compensation

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



Model 8220

A measurement tool for electrical parameters and distribution network disturbances

SPECIFICATIONS

MODEL	8220
ELECTRICAL	
Voltage (TRMS)	Phase-to-Phase: 660V; Phase-to-Neutral: 600V
Current (TRMS)	MN Clamp: 5mA to 6A/120A or 2 to 240A MR Clamp: 10 to 1000A _{AC} , 10 to 1400A _{DC} SR Clamp: 3 to 1200A MiniFlex [®] : 10 to 1000A AmpFlex [®] : 10 to 6500A ⁽¹⁾
Frequency (Hz)	40 to 70Hz
Other Measurements	kW, kVAR, PF, DPF, VA, kWh, kVARh, VAh, Phase Rotation, Temperature, RPM, Resistance, Continuity, Diode Test
Harmonics	1 st to 50 th
Sampling Frequency	256 samples / cycle
Data Storage	Stores nine sets of readings totaling up to 99 snapshots for volts, amps, power and harmonics
Power Source	Six 1.5V AA Alkaline batteries (included)
Battery Life	≥8 hrs with display on ≥40 hrs with display off (recording mode)
MECHANICAL	
Communication Port	Optically isolated USB
Display	Three-line backlit color LCD digital display with custom icons and adjustable brightness & contrast
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, IP54, Pollution Degree 2

⁽¹⁾Crest factor at 6500 = 1

PRODUCT INCLUDES

8220 Kit

One user selectable 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, carrying bag, and USB stick supplied with DataView[®] software and user manual.



8230 Kit (Model 8230 product details on p.15)

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, carrying bag, and USB stick supplied with DataView[®] software and user manual.



See pages 24 & 25 for optional accessories

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2130.90	Power Quality Meter Model 8220 (no probes)	\$ 979.00	\$98.00
2130.91	Power Quality Meter Model 8220 w/MN93-BK	\$1,109.00	\$98.00
2130.92	Power Quality Meter Model 8220 w/SR193-BK	\$1,219.00	\$98.00
2130.93	Power Quality Meter Model 8220 w/24" 193-24-BK (AmpFlex [®])	\$1,229.00	\$98.00
2130.96	Power Quality Meter Model 8220 w/MN193-BK	\$1,169.00	\$98.00
2130.97	Power Quality Meter Model 8220 w/MA193-10-BK	\$1,179.00	\$98.00



FEATURES

- Measures up to 660Vrms or V_{DC}
- Measures up to 6500A_{AC} or 1400A_{DC} (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
- Measures and records power systems (kW, VA, kVAR)
- Energy metering (kAh, VARh, kWh)
- Displays total harmonic distortion (THD-F and THD-R) for voltage and current
- Displays individual harmonic values and % for volts and amps through the 50th harmonic
- The Max and Min RMS measurements are calculated every half-period
- Captures and displays inrush current
- Calculates and displays phase rotation and RPM
- Displays temperature in both °F and °C
- Displays resistance up to 2000Ω
- Conducts continuity and diode tests
- Stores up to nine complete sets of readings for all volt, amp, power and harmonic measurements
- Operates on batteries or optional power adapter
- Download stored data snapshots to DataView[®] software via optical USB port (included)
- Includes FREE DataView[®] software for configuring data storage, real-time waveform display, analysis and report generation



PowerPad® Jr. Model 8230

Measure and carry out diagnostic work and power quality work on single- or three-phase balanced load networks

SPECIFICATIONS

MODEL	8230
ELECTRICAL	
Voltage (TRMS)	Phase-to-Phase: 660V; Phase-to-Neutral: 600V
Current (TRMS)	MN Clamp: 5mA to 6A/120A or 2 to 240A MR Clamp: 10 to 1000Aac, 10 to 1400Aac SR Clamp: 3 to 1200A MiniFlex®: 10 to 1000A AmpFlex®: 10 to 6500A ⁽¹⁾
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 st to 50 th , Direction, Sequence
Sampling Frequency	256 samples/cycle
Data Storage	1.5MB partitioned for waveforms, alarms and trend recording
Power Source	NiMH rechargeable battery pack (included) AC Supply: 120/230VAc (50/60Hz)
Battery Life	≥8 hrs with display on ≥40 hrs with display off (recording mode)
MECHANICAL	
Communication Port	Optically isolated USB
Display	¼ VGA (320 x 240) color LCD digital & graphical display with adjustable brightness & contrast
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, IP54, Pollution Degree 2

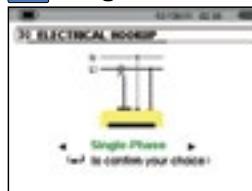
⁽¹⁾Crest factor at 6500 = 1



FEATURES

- Measures up to 660Vrms or Vdc
- Measures up to 6500Aac or 1400Aac (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
- Measures and records power systems (kW, VA, kVAR)
- Energy metering (kAh, VARh, kWh)
- Displays total harmonic distortion (THD-F and THD-R) for voltage and current
- Displays individual harmonic values and % for Volts and Amps through the 50th 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 (included)
- Captures up to 4096 alarm events from up to 10 different thresholds
- Displays and records up to 17 different power quality parameters
- Includes FREE DataView® software for configuring data storage, real-time waveform display, analysis and report generation
- The Max and Min RMS measurements are calculated every half-period

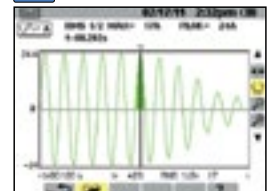
Configuration



Recording Setup



Inrush Mode



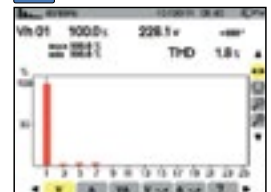
Waveform Mode



Trend Recording



Harmonics Mode



CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2130.81	PowerPad® Jr. Model 8230 (no probes)	\$1,749.00	\$98.00
2130.82	PowerPad® Jr. Model 8230 w/MN193-BK	\$1,895.00	\$98.00
2130.83	PowerPad® Jr. Model 8230 w/SR193-BK	\$1,995.00	\$98.00
2130.84	PowerPad® Jr. Model 8230 w/24" 193-24-BK (AmpFlex®)	\$1,995.00	\$98.00
2130.87	PowerPad® Jr. Model 8230 w/MN193-BK	\$1,949.00	\$98.00
2130.88	PowerPad® Jr. Model 8230 w/MA193-10-BK	\$1,959.00	\$98.00



Models PEL 102 & PEL 103

Monitor your energy usage & costs locally or from anywhere in the world!



Visit the PEL 100 Series website for more information on software, specifications and more!

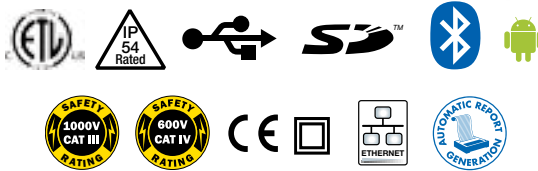
SPECIFICATIONS

MODELS		PEL 102 & PEL 103		
GENERAL				
Sampling Frequency	128 samples per cycle; 50/60Hz (16 samples/cycle 400Hz)			
Data Storage Rate	1 per second			
Demand Period Storage Rate	User selectable (1, 2, 3, 4, 5, 6, 10, 12, 15, 20, 30 and 60 minutes)			
Recorded Parameters (Single- and Poly-Phase)	V, I, W, VA, var, PF, Tan, Wh, VAh, VARh, THD (V and I), Individual harmonics (from 1 through 50 per phase); Crest Factor (CF), Cos ϕ / DPF			
Event Log	Tracks and records status changes and error messages along with recorded data			
Front Panel Indicator LEDs	Bluetooth active, recording in progress, phase connection reversal, overload, battery charging and SD Card status			
Storage Capacity	2GB SD card (included) is used for storage. SD cards (up to 2GB); SDHC cards (4 to 32GB) formatted FAT32 are supported			
INPUTS	Voltage	3 voltage input channels via 4mm safety banana jacks		
	Current	3 current input channels via custom 4 pin jacks that accept AEMC® probes and sensors		
ELECTRICAL				
VOLTAGE MEASUREMENT	RANGE	RESOLUTION	* ACCURACY (% of Reading)	
	50/60Hz	42.5 to 69Hz	–	±0.1Hz
Single-Phase RMS Voltages		10 to 1000Vrms	0.1V	±0.2% Rdg ± 0.2V
Phase-to-Phase RMS Voltages		17 to 1700Vrms	0.1 to 1V	±0.2% Rdg ± 0.4V
	400Hz	340 to 460Hz	–	–
Single-Phase RMS Voltages		10 to 600Vrms	0.1V	±1% Rdg ± 1V
Phase-to-Phase RMS Voltages		17 to 1200Vrms	0.1 to 1V	±1% Rdg ± 1V
	DC	100 to 1000V	0.1V	±1% Rdg ± 3V (typical)
PT Ratios		Programmable from 50V to 65,0000V	0.01V to 0.1V	–
CURRENT MEASUREMENT				
Current Probe: MiniFlex® Sensor MA193***		200mA to 100Arms	1 to 100mA	±1.2% ± 50mA
		0.8A to 400Arms	10 to 100mA	±1.2% ± 0.2A
		4A to 2000Arms	0.1 to 1A	±1.2% ± 1A
		20A to 10,000Arms	0.1 to 10A	±1.2%
CT Ratios		Programmable from 1:1 to 25,000:1 (probe dependent)		
POWER MEASUREMENTS				
Active Power (P)*		-2 to 2GW	0.001W	±0.5% Rdg ± 0.005% Pnom
Reactive Power (Q)*		-2 to 2Gvar	0.001var	±1% Rdg ± 0.01% Qnom
Apparent Power (S)*		0 to 2GVA	0.001VA	±0.5% Rdg ± 0.005% Snom
Power Factor		-1 to +1	0.001	± 0.05
Tangent ϕ (active/reactive power ratio)		-3.2 to +3.2	0.001	± 0.02
ENERGY MEASUREMENTS				
Active Energy (EP)		0 to 4 x 10 ¹⁸	1Wh	±0.5% Rdg
Reactive Energy (EQ)		0 to 4 x 10 ¹⁸	1varh	±2% Rdg
Apparent Energy (ES)		0 to 4 x 10 ¹⁸	1Vah	±0.5% Rdg
THD			± 655%	
Individual Harmonics		1 to 50 displayed in percentage; 1 to 7 at 400Hz		
External Supply		110V/250V (10%) @ 50/60Hz; 400Hz		
Back-Up Power Source/Charge Time		Rechargeable 8.4V NiMH battery pack / Approximately 5 hours		
Battery Life		30 minutes minimum, 60 minutes typical		
MECHANICAL				
Communication Ports		USB 2.0, Ethernet (RJ45), Wireless Bluetooth Class 1 **		
Dimension/Weight		10.08 x 4.92 x 1.46" (256 x 125 x 37mm) / <1kg		
Case/Index of Protection		Double insulated, rubber over-molded, polycarbonate UL94 V1 rated / IP54 non operating		
Mounting/Security		Embedded magnets on back side, keyhole slot on back side / Kensington anti-theft system		
DISPLAY				
Display Type for Model PEL 103		2.63 x 2.16" (67 x 55mm), four line, monochrome, backlit LCD with adjustable brightness and contrast		
ENVIRONMENTAL / SAFETY				
Operating Temperature/Relative Humidity		50° to 122°F (10° to 50°C) / up to 85%		
Storage Temperature		-4° to 122°F (-20° to 50°C) with batteries; -4° to 158°F (-20° to 70°C without batteries)		
Safety Rating/CE Rating		Complies with IEC 61010-1:Ed3, and IEC 61010-2-030:Ed1 for 1000V CAT III / 600V CAT IV, Pollution Degree 2 / Yes		

* Maximum value is current probe dependent.

** Computers with Class II Bluetooth will restrict range to 40 ft. Computers without Bluetooth will require a Class I or Class II Bluetooth radio adapter.

*** Maximum current reduced by a factor of 2 for 400Hz fundamental frequency.



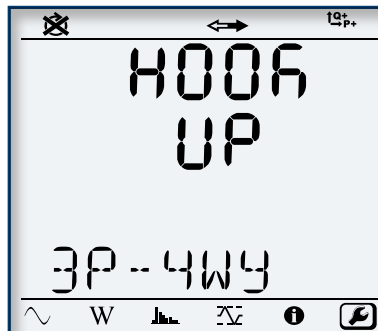
► FEATURES

- Simple to use, single-, dual (split-phase) and three-phase (Y, Δ) power & energy loggers
- Designed to work in 1000V CAT III and 600V CAT IV environments and fits in many distribution panels
- Power measurements: VA, W and var
- Energy measurements: VAh, Wh (source, load) and VARh (4 quadrants)
- DataView® software for configuring real-time communication with a PC and report generation with pre-defined or user defined templates
- Ethernet compatible
- Minimal programming required
- Displays stored measurements display or via Bluetooth (Class 1 - communicates up to 300 ft) to a PC or the Android™ based mobile application
- Satisfies the requirements of NEC Code 220.87
- Measures AC/DC (current probe dependent)

Models PEL 102 & PEL 103

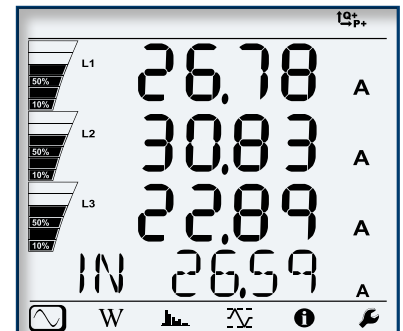
Large Functional Displays

Information Mode



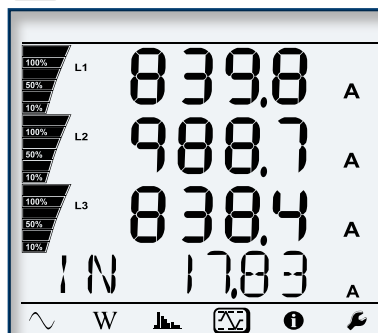
Hook up, voltage and current ratios and aggregation period can be configured from the front panel of the PEL 103.

Measurement Mode



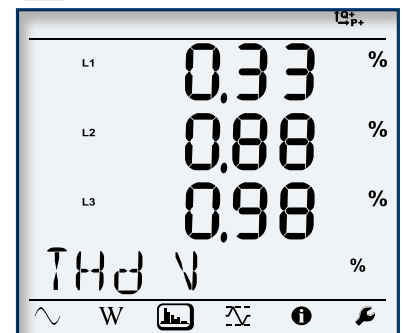
Real-time updates are displayed for voltage, current, power, frequency, power factor and tangent.

Max Mode



Max values for voltage, current (including neutral current), power and harmonics.

Harmonic Mode



Total Harmonic Distortion (THD) can be displayed by phase or phase to phase. Neutral current THD can also be displayed.

Android™ App Available!



- Configure Measurements and Recordings
- Display Data in Real-Time
- For Use on any Device with an Android Platform

► PRODUCT INCLUDES

PEL 102 & PEL 103 Kit

Small classic tool bag, three MiniFlex® MA193-10-BK sensors, 5 ft USB cable, four black test leads and alligator clips, power cord, 12 color-coded ID markers, Multifix mounting system, safety card, sensor compliance sheet, 2GB SD-Card with USB-SD-Card reader, quick start user guide, and USB stick supplied with DataView® software and user manual.



CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2137.51	Power & Energy Logger Model PEL 102 (no LCD w/3 MA193-10-BK Sensors)	\$1,695.00	-
2137.52	Power & Energy Logger Model PEL 103 (with LCD w/3 MA193-10-BK Sensors)	\$1,995.00	-
2137.61	Power & Energy Logger Model PEL 102 (no LCD or Sensors)	\$1,195.00	-
2137.62	Power & Energy Logger Model PEL 103 (with LCD, no Sensors)	\$1,495.00	-

PowerPad® III Model 8435

Memory capacity of 2GB for trend data storage: Up to 50 captured snapshots, 210 captured transients, 1 inrush and 10,000 alarm events



(upon registering)



cover closed

Four current and four voltage input terminals

► SPECIFICATIONS

MODEL	8435
ELECTRICAL	
Sampling Frequency	256 samples/cycle
Data Storage	2GB SD Card for trend recording; Additional separate 12.5MB partitioned memory for snapshots, transient/inrush & alarms
Voltage (TRMS)	Phase-to-Phase: 2000V Phase-to-Neutral: 1000V Voltage Ratio: up to 500kV
Current (TRMS)	MN Clamp: 0 to 6A/120A or 0 to 240A SR Clamp: 0 to 1200A MR Clamp: 0 to 1000Aac, 0 to 1400Aac MiniFlex®: 10 to 6500A AmpFlex®: 10 to 6500A ⁽¹⁾ SL261 Clamp: 50mA to 100Aac/dc Current Ratio: 10mA to 50kA
Frequency (Hz)	40 to 69Hz
Other Measurements	kW, kVAR, kVA, PF, DPF, kWh, kVARh, kVAh, K-Factor, Flicker
Harmonics	1 st to 50 th , Direction, Sequence
Power Source	9.6V NiMH rechargeable battery pack (included) External AC supply: 110/230Vac ±10% (50/60Hz)
Battery Life	≥8 hours with display on; ≤35 hours with display off (record mode)
MECHANICAL	
Communication Port	Optically isolated USB
Display	¼ VGA (320 x 240) color LCD display with adjustable brightness & contrast
Dimensions	9.8 x 7.8 x 2.6" (250 x 200 x 67mm)
Weight	4.3 lbs (1.95kg)
Safety Rating	EN 61010, 600V CAT IV ⁽²⁾ , 1000V CAT III, Pollution Degree 2

⁽¹⁾Crest factor at 6500 = 1

⁽²⁾When used with SR193 or AmpFlex® probes. 600V CAT III with MN193 or MR193 probes.

► PRODUCT INCLUDES

8435 Kit

Extra large tool bag, accessory pouch, 5 ft USB cable, five 10 ft black voltage leads with alligator clips, 110V US power cord, four water-tight AmpFlex® A196-18-BK (included with Cat. #2136.42 only), NiMH battery, SD-Card (2GB), twelve color-coded input ID markers, quick start guide, and a USB stick containing DataView® software and user manual.



► FEATURES

- Measurement of TRMS voltages up to 1000Vrms AC/DC for two-, three-, four- or five-wire systems
- Measurement of TRMS currents up to 6500Arms (sensor dependent)
- Direct measurement of neutral current & voltage
- Frequency measurement (40 to 69Hz systems)
- Record and display trend data as fast as once per second for one month for up to 25 variables
- Transient detection on all V and I inputs (up to 210)
- Selectable PT and CT ratios
- Inrush current measurement
- Calculation of Crest Factors for V and A
- Calculation of the K-Factor for transformers
- Calculation of short-term flicker and three-phase voltage unbalance
- Measures harmonics (referenced to the fundamental or RMS value) for voltage, current or power, up to 50th harmonic
- Displays of harmonic sequencing and direction and calculation of overall harmonics
- Real-time display of Phasor diagrams including values and phase angles
- Measurement of active, reactive and apparent power per phase and their respective sum total
- Calculation of power factor, displacement power factor and tangent factor
- Recording, time stamping and characterization of disturbance (swells, sags and interruptions, exceedence of power and harmonic thresholds)
- 2GB internal Trend Recording memory; Alarm, Snapshot and Transient/Inrush memories are separate
- Measurement of energy VAh, VARh & Wh
- The Max and Min RMS measurements are calculated every half-period
- Includes DataView® software for configuring, real-time display, analysis and report generation
- 65µs/sample transient recording

PowerPad® III Model 8435

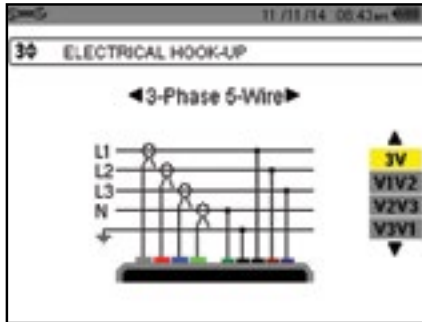
Large Color Functional Displays

Installation of the Leads and Current Sensors

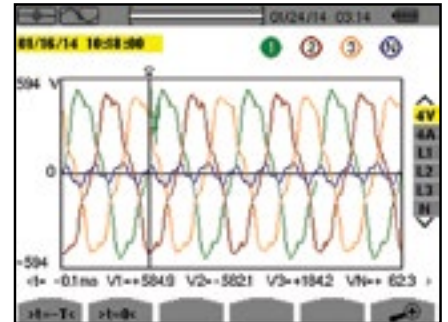
Color-coded ID markers are supplied with the PowerPad® III to identify the leads and input terminals.



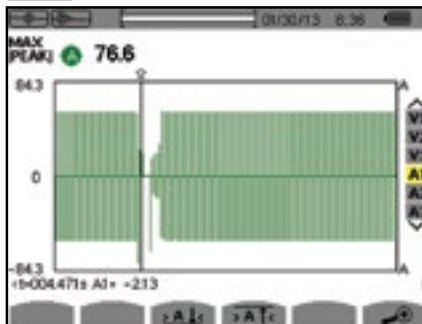
Configuration



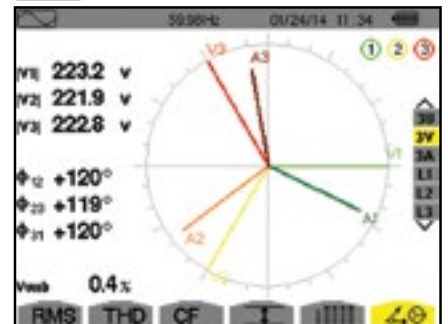
Transient Mode



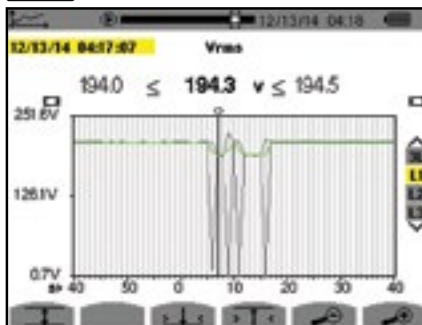
Inrush Peak



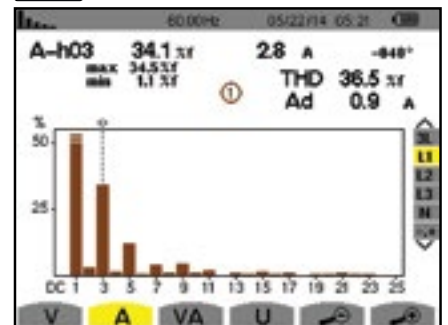
Phasor Diagram



Trend Analyze



Harmonics Mode



CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2136.41	PowerPad® III Model 8435 (No Sensors - Waterproof IP67)	\$5,595.00	\$150.00
2136.42	PowerPad® III Model 8435 w/4 A196-18-BK (AmpFlex® - Waterproof IP67)	\$6,095.00	\$190.00
Accessories (Optional)			
2133.73	Extra Large Classic Tool Bag	\$ 44.00	-
2140.72	Replacement accessory pouch (accessories not included)	\$ 19.95	-
2140.19	Replacement – Battery 9.6V NiMH	\$ 199.50	-
2140.28	AC Current Probe Model MR193-BK	\$ 394.00	\$ 78.00
2140.32	AC Current Probe Model MN93-BK	\$ 185.00	\$ 78.00
2140.33	AC Current Probe Model SR193-BK	\$ 299.00	\$ 78.00
2140.35	AmpFlex® Sensor 36" Model 193-36-BK	\$ 319.00	\$ 78.00
2140.36	AC Current Probe Model MN193-BK	\$ 249.00	-
2140.45	Replacement – Set of 12, Color-coded Input ID Markers	\$ 20.75	-
2140.46	Replacement – 5 ft USB Cable	\$ 10.95	-
2140.48	MiniFlex® Sensor 10" Model MA193-10-BK	\$ 259.00	\$ 78.00
2140.73	Lead – One 10 ft (3M) Black Lead (Waterproof cap) [Rated 1000V CAT IV] & one Black Alligator Clip [Rated 1000V CAT IV, 15A, UL]	\$ 26.95	-
2140.74	AmpFlex® Sensor 18" (Waterproof - IP67) Model A196-18-BK	\$ 289.00	-

PowerPad® III Model 8333

Memory partitioned for trend recordings, and up to 12 snapshot, 51 captured transients and 4000 alarm events



(upon registering)

Four voltage and three current input terminals

SPECIFICATIONS

MODEL	8333
Input Terminals	4 voltage / 3 current
Inputs	3 voltage / 3 current
Voltage (TRMS AC+DC)	2 to 1000V
Voltage Ratio	up to 500kV
Current (TRMS AC+DC)	MN93: 500mA to 200Aac; MN193: 0.005 to 100Aac SR193 Clamp: 1A to 1000Aac AmpFlex® or MA193 Clamps: 100mA to 10000Aac MR193 Clamp: 1A to 1300Aac/dc SL261 Clamp: 50mA to 100Aac/dc Current Ratio: up to 60kA
Frequency (Hz)	40 to 69Hz
Distribution Systems	1P 2W, 1P 3W, 2P 2W, 2P 3W, 2P 4W, 3P 3W, 3P 4W and 3p 5W, 2 ½ Element & Aron meters
Power Values	W, VA, var, VAD, PF, DPF, cos φ, tan φ
Energy Values	Wh, VARh, VAh, VADh
Harmonics	1 st to 50 th , Direction, Sequence; THD: 0 to 50, phase
Transients	up to 51
Flicker (Pst)	Yes
Unbalance	Yes
Recording	Yes
Alarm Mode	10 types; 4000 recorded
Peak	Yes
Phasor Display	Automatic
Display	Color ¼ VGA TFT screen (320 x 240) diagonal 148mm
Snapshots	12
Electrical Safety	IEC 61010, 1000V CAT III / 600V CAT IV
Protection	IP50
Languages	more than 27
Communication Interface	USB
Battery Life	>13 hrs, 25 hrs in Record Mode
Power Supply	9.6V NiMH rechargeable battery pack (included) External AC supply: 110/230VAC ±10% (50/60Hz)
Dimensions / Weight	9.8 x 7.8 x 2.6" (240 x 180 x 55mm) / 4.3 lbs (1.95kg)



PRODUCT INCLUDES

8333 Kit

Three current probes (AmpFlex® example shown), four black 10 ft voltage leads, four black alligator clips, twelve color-coded input ID markers, NiMH battery, 110/240V power adapter with US power cord, carrying bag, soft carrying pouch, and USB stick supplied with product user manual and DataView® software (See pages 24 and 25 for optional current probes).



OPTIONAL ACCESSORIES

AmpFlex® 193 flexible current probe (6500A)
Color-coded, 24", rated 600V CAT IV



MN193 current probe (5A/100A)
Color-coded, rated 600V CAT III



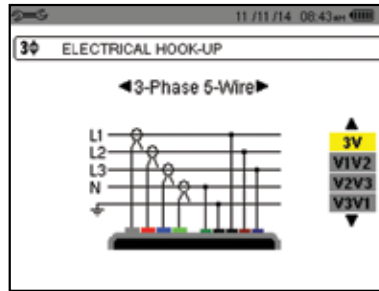
PowerPad® III Model 8333

Large Color Functional Displays

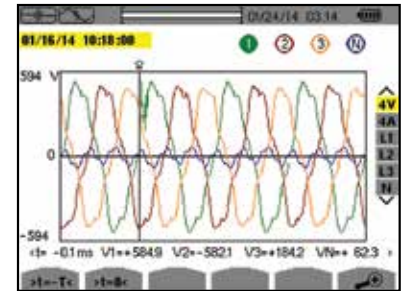
FEATURES

- 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
- Displays and captures voltage, current and power harmonics to 50th order, including direction, in real-time
- Captures transients down to 1/256th 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 calculated and displayed for three-phase
- Transformer K-factor display
- Power Factor, displacement PF display
- Captures up to 51 transients
- Short flicker display
- Phase unbalance (current and voltage)
- Harmonic Distortion (total and individual) from 1st to 50th
- Alarms, surges and sags
- Screen snapshot function captures waveforms or other information on the display
- Includes FREE DataView® software for configuring data storage, real-time display, analysis and report generation

Configuration



Transient Mode



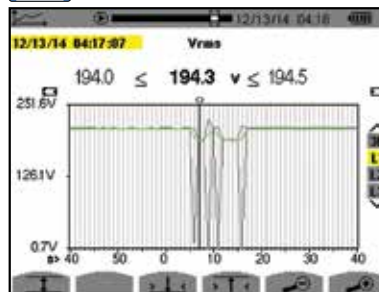
Power and Energy Mode



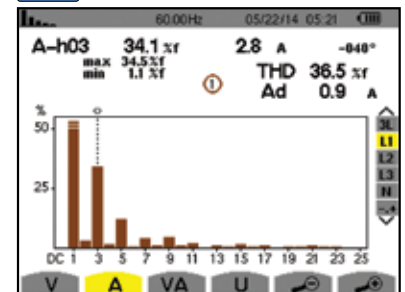
Phasor Diagram



Recording Mode



Harmonics Mode



CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2136.10	PowerPad® III Model 8333 (no probes)	\$ 3,545.00	\$150.00
2136.11	PowerPad® III Model 8333 w/3 193-24-BK AmpFlex® Sensors	\$ 4,295.00	\$190.00
2136.12	PowerPad® III Model 8333 w/3 MN193-BK Probes	\$ 4,195.00	\$190.00
Accessories (Optional)			
2140.28	AC Current Probe Model MR193-BK	\$ 394.00	\$ 78.00
2140.32	AC Current Probe Model MN93-BK	\$ 185.00	\$ 94.00
2140.33	AC Current Probe Model SR193-BK	\$ 299.00	\$ 94.00
2140.34	AmpFlex® Sensor 24" Model 193-24-BK	\$ 269.00	\$ 94.00
2140.35	AmpFlex® Sensor 36" Model 193-36-BK	\$ 319.00	\$ 94.00
2140.36	AC Current Probe Model MN193-BK	\$ 249.00	\$ 94.00
2140.17	5A Adapter Box (<i>special order only</i>)	\$ 1,199.00	\$ 94.00
2140.48	MiniFlex® Sensor 10" Model MA193-10-BK	\$ 259.00	\$ 78.00

PowerPad® III Model 8336

2GB of memory for trend data storage and additional memory for: up to 50 snapshots, 210 captured transients/inrush and 10,000 alarm events

NEW!

Captures & records transients, events & waveforms simultaneously!



(upon registering)

Five voltage and four current input terminals

SPECIFICATIONS

MODEL	8336
Input Terminals	5 voltage / 4 current
Inputs	4 voltage / 4 current
Voltage (TRMS AC+DC)	2 to 1000V
Voltage Ratio	up to 500kV
Current (TRMS AC+DC)	MN93: 500mA to 200Aac; MN193: 0.005 to 100Aac SR193 Clamp: 1A to 1000Aac AmpFlex® or MA193 Clamps: 100mA to 10000Aac MR193 Clamp: 1A to 1300Aac/dc SL261 Clamp: 50mA to 100Aac/dc Current Ratio: up to 60kV
Frequency (Hz)	40 to 69Hz
Distribution Systems	1P 2W, 1P 3W, 2P 2W, 2P 3W, 2P 4W, 3P 3W, 3P 4W and 3p 5W, 2 ½ Element & Aron meters
Power Values	W, VA, var, VAD, PF, DPF, cos φ, tan φ
Energy Values	Wh, VARh, VAh, VADh
Harmonics	1 st to 50 th , Direction, Sequence; THD: 0 to 50, phase
Transients	up to 210
Flicker (Pst & Plt)	Yes
Inrush Mode	Yes, >10 min
Unbalance	Yes
Recording	Yes
Alarm Mode	40 types; 10,000 recorded
Peak	Yes
Phasor Display	Automatic
Display	Color ¼ VGA TFT screen (320 x 240) diagonal 148mm
Snapshots	50
Electrical Safety	IEC 61010, 1000V CAT III / 600V CAT IV
Protection	IP50
Languages	more than 27
Communication Interface	USB
Battery Life	>13 hrs, 25 hrs in Record Mode
Power Supply	9.6V NiMH rechargeable battery pack (included) External AC supply: 110/230VAC ±10% (50/60Hz)
Dimensions / Weight	9.8 x 7.8 x 2.6" (240 x 180 x 55mm) / 4.3 lbs (1.95kg)



PRODUCT INCLUDES

8336 Kit

Four current probes (AmpFlex® example shown), five black 10 ft voltage leads, five black alligator clips, twelve color-coded input ID markers, USB cable, NiMH battery, 110/240V power adapter with US power cord, large classic tool bag, soft carrying pouch, quick start user guide, and USB stick supplied with product user manual and DataView® software (See pages 24 and 25 for optional current probes).



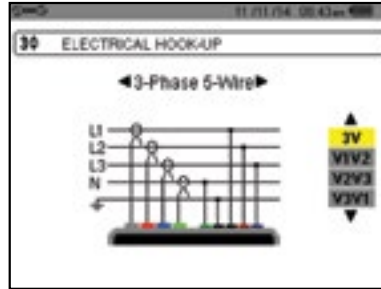
PowerPad® III Model 8336

Large Color Functional Displays

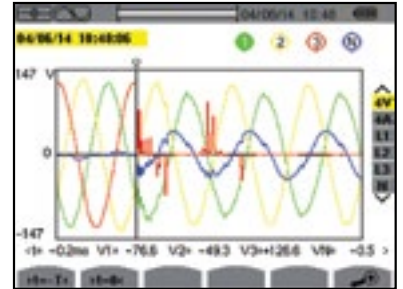
FEATURES

- Measurement of TRMS voltages up to 1000Vrms AC/DC for two-, three-, four- or five-wire systems
- Measurement of TRMS currents up to 6500Arms (sensor dependent)
- Direct measurement of neutral current & voltage
- Frequency measurement (40 to 69Hz systems)
- Record and display trend data as fast as once per second for one month for up to 25 variables
- Transient detection on all V and I inputs (up to 210)
- Selectable PT and CT ratios
- Inrush current measurement
- Calculation of Crest Factors for V and A
- Calculation of the K-Factor for transformers
- Calculation of short-term and long-term flicker
- Calculation of the Three-Phase voltage unbalance
- Harmonic measurements (referenced to the fundamental or RMS value) for voltage, current or power, up to 50th harmonic
- Displays of harmonic sequencing and direction and calculation of overall harmonics
- Real-time display of Phasor diagrams including values and phase angles
- Monitors the average value of any parameter, calculated for a period from 1 sec to 2 hrs
- Measurement of active, reactive and apparent power per phase and their respective sum total
- Calculation of power factor, displacement power factor and tangent factor
- Recording, time stamping and characterization of disturbance (swells, sags and interruptions, exceedence of power and harmonic thresholds)
- 2GB internal Trend Recording memory; Alarm, Photo and Transient Inrush memories are separate
- Measurement of energy VAh, VARh, Wh & VADh
- The Max and Min RMS measurements are calculated every half-period
- Includes FREE DataView® software for configuring data storage, real-time display, analysis and report generation
- 65µs/sample trend recording

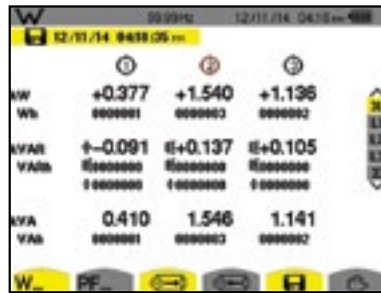
Configuration



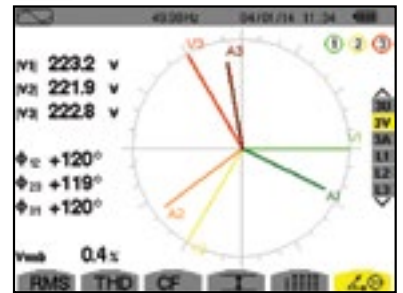
Transient Mode



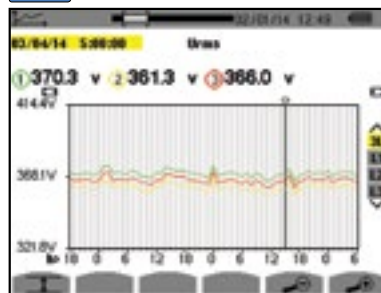
Power and Energy Mode



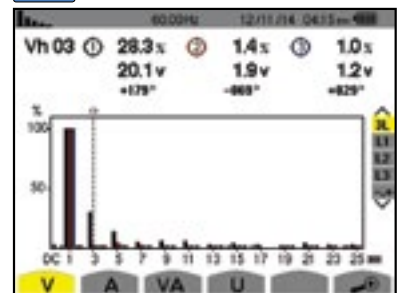
Phasor Diagram



Recording Mode






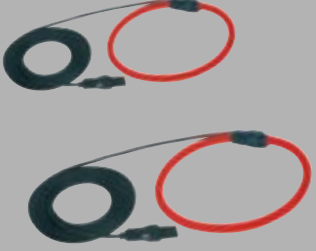


Harmonics Mode







CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2136.30	PowerPad® III Model 8336 (no probes)	\$5,195.00	\$150.00
2136.31	PowerPad® III Model 8336 w/4 193-24-BK Sensors	\$5,895.00	\$190.00
2136.32	PowerPad® III Model 8336 w/4 MN193-BK Probes	\$5,795.00	\$190.00
Accessories (Optional)			
2133.73	Extra Large Classic Tool Bag	\$ 44.00	-
2140.15	Replacement – Soft Carrying Pouch	\$ 19.00	-
2140.17	5A Adapter Box (<i>special order only</i>)	\$1,199.00	\$ 94.00
2140.19	Replacement – Battery 9.6V NiMH	\$ 199.50	-
2140.28	AC Current Probe Model MR193-BK	\$ 394.00	\$ 78.00
2140.32	AC Current Probe Model MN93-BK	\$ 185.00	\$ 78.00
2140.33	AC Current Probe Model SR193-BK	\$ 299.00	\$ 78.00
2140.34	AmpFlex® Sensor 24" Model 193-24-BK	\$ 269.00	\$ 78.00
2140.35	AmpFlex® Sensor 36" Model 193-36-BK	\$ 319.00	\$ 78.00
2140.36	AC Current Probe Model MN193-BK	\$ 249.00	\$ 78.00
2140.43	Replacement – Set of 5, 10 ft (3m) black leads w/5 black alligator clips	\$ 99.00	-
2140.44	Lead, 1 10 ft (3m) black lead w/black alligator clip	\$ 22.50	-
2140.45	Replacement – Set of 12, Color-coded Input ID Markers	\$ 20.75	-
2140.46	Replacement – 5 ft USB Cable	\$ 10.95	-
2140.48	MiniFlex® Sensor 10" Model MA193-10-BK	\$ 259.00	\$ 78.00

POWER QUALITY ANALYZERS, METERS & LOGGERS

Optional Accessories

SENSOR TYPE	CURRENT RANGE		ACCURACY (TYPICAL)	TYPICAL ERROR ON Φ AT 50/60HZ	MAX CONDUCTOR SIZE	USED WITH MODEL	LIMITED RANGE IF USED WITH MODEL
 MiniFlex® MA193 *	100mA to 3000Aac		±1%	0°	2.75" (70mm)	PEL 102 PEL 103 8333 8336	8220 8230 8435
 MR193 Battery operated	1 to 1000Aac 1 to 1300Aac		±2.5%	-0.80°	1.6" (41mm)	PEL 102 PEL 103 8333 8336	8220 8230 8435
 SR193	1 to 1200Aac		±0.3%	+0.2°	2.05" (52mm)	PEL 102 PEL 103 8333 8336	8220 8230 8435
 AmpFlex® 193 * 24" or 36" sensor	100mA to 12,000Aac		±1%	0°	7.64" (190mm) or 11.46" (290mm)	PEL 102 PEL 103 8333 8336	8220 8230 8435
 MN93	0.5 to 240Aac		±1%	+0.8°	0.78" (20mm)	PEL 102 PEL 103 8333 8336	8220 8230 8435
 MN193	100A	200mA to 120Aac	±1%	+0.75°	0.78" (20mm)	PEL 102 PEL 103 8333 8336	8220 8230 8435
	5A	5mA to 6Aac	±1%	+1.7°			

SENSOR TYPE	CURRENT RANGE		ACCURACY (TYPICAL)	TYPICAL ERROR ON Φ AT 50/60HZ	MAX CONDUCTOR SIZE	USED WITH MODEL	LIMITED RANGE IF USED WITH MODEL
SL261 **  Battery operated	100A	5 to 100A _{AC/DC}	±4%	±0.5°	0.46" (11.8mm)	PEL 102 PEL 103 8333 8336	8220 8230 8435
	10A	50mA to 10A _{AC/DC}	±3%	±1°			
J93  Battery operated	50 to 3500A _{AC} 50 to 5000A _{DC}		±1%	±1°	2.83" (72mm) Busbar: 5 x 1.69" (127 x 43mm)	PEL 102 PEL 103 8333 8336 8435	N/A
J193  Powered by meter	50 to 3500A _{AC} 50 to 5000A _{DC}		±1%	±1°	2.83" (72mm) Busbar: 5 x 1.69" (127 x 43mm)	PEL 102 PEL 103	N/A
A196-18  18" sensor IP67	10 to 10,000A _{AC}		±2%	0°	5.73" (145mm)	8435	N/A

* Maximum current reduced by a factor of 2 for 400Hz fundamental frequency.

Note: Refer to the power meter's product user manual for complete specifications.

** AC/DC Current Probe BNC Adapter for Model SL261 only
Catalog #2140.40



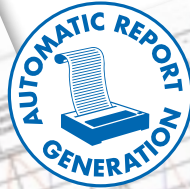
CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
1201.51	AC/DC Current Probe Model SL261 (BNC)	\$ 449.00	\$94.00
2137.78	AC/DC Current Probe Model J193-BK	\$2,250.00	-
2140.37	Adapter – US 110V Power Adapter (eliminates need for batteries) 8220 & 8230 only	\$ 135.00	-
2140.28	AC Current Probe Model MR193-BK	\$ 379.00	\$78.00
2140.32	AC Current Probe Model MN93-BK	\$ 189.00	\$78.00
2140.33	AC Current Probe Model SR193-BK	\$ 299.00	\$78.00
2140.34	AmpFlex® Sensor 24" Model 193-24-BK	\$ 269.00	\$78.00
2140.35	AmpFlex® Sensor 36" Model 193-36-BK	\$ 319.00	\$78.00
2140.36	AC Current Probe Model MN193-BK	\$ 254.00	\$78.00
2140.48	MiniFlex® Sensor 10" Model MA193-10-BK	\$ 259.00	\$78.00
2140.49	AC/DC Current Probe Model J93-BK	\$2,450.00	-
2140.74	AmpFlex® Sensor 18" (Waterproof - IP67) Model A196-18-BK	\$ 289.00	-

DataView®

Data Analysis and Reporting Software for Power Quality Meters

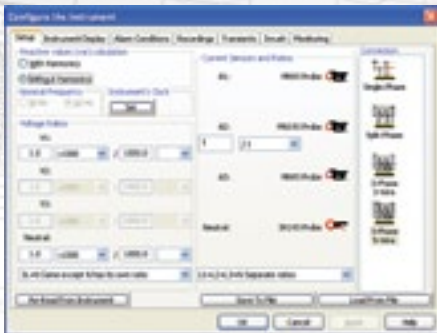


Configure all functions of the Power Quality Meters

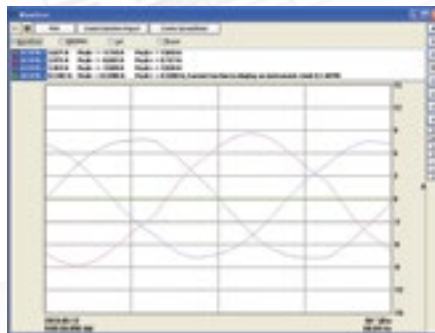
**PLAY VIDEO**

- Display and analyze real-time data on your PC
- Configure 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 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
- Free updates are available on our website www.aemc.com

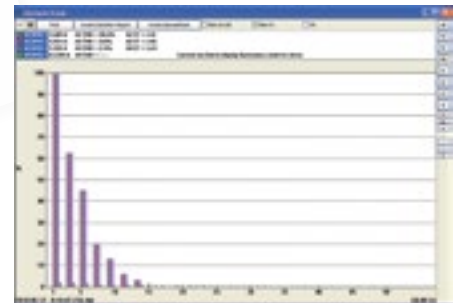
Typical DataView® Functional, Digital & Graphical Displays



Clear and easy setup of all functions from one tabbed dialog box.



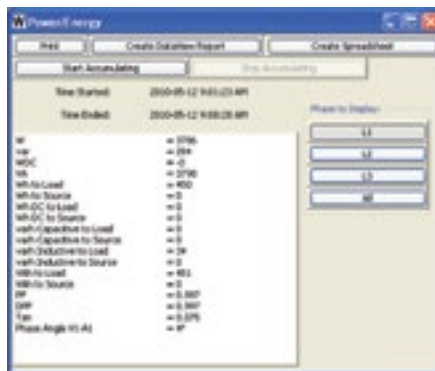
Display real-time waveforms by phase, parameter or total.



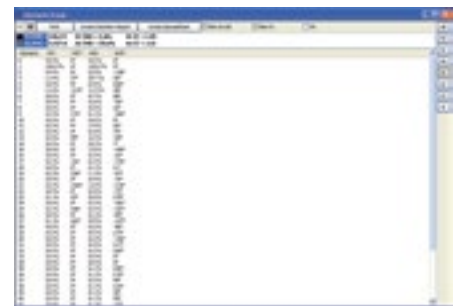
Display all harmonics from 1st to 50th in bargraph form for voltage, current and power.



Display real-time Phasor diagrams. Includes unbalance for both voltage and current.



Display power and energy parameters – both instantaneous and total.



Display harmonics in a text table from harmonic 0 (DC) through the 50th.

Models 3620 & 3640

Performs ground resistance measurement with speed and accuracy



► FEATURES

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

► SPECIFICATIONS

MODELS	3620	3640		
Types of Measurements	2- and 3-Point			
Display	Analog	Digital		
Soil Resistivity Test	No			
Measurement Ranges	0.5 to 1000Ω	20Ω: 0.00 to 19.99Ω	200Ω: 20.0 to 199Ω	2000Ω: 200 to 1999Ω
Resolution	10mΩ	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		3% of Reading ± 3cts; 5% of Reading ± 3cts	
Interference	All models reject high levels of interference voltage (DC, 50 to 60Hz, harmonics)			
Power Source	Eight 1.5V AA batteries (included)			
Battery Life	Approx. 1680 15-second measurements		Approx. 1800 15-second measurements	
Low Battery Indication	Yes			
Fuse Protection	High breaking capacity, 0.1A, >250V			



Model 3640 Kit – 300 ft shown

Please refer to page 38 for Test Kit descriptions

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2114.90	Ground Resistance Tester Model 3620 (Analog, 3-Point)	\$ 825.00	\$ 94.00
2114.92	Ground Resistance Tester Model 3640 (Digital, 3-Point)	\$ 795.00	\$ 94.00
2135.10	Ground Resistance Tester Model 3620 Kit – 150 ft (Model 3620 and Catalog #2135.35)	\$1,229.00	\$105.00
2135.11	Ground Resistance Tester Model 3620 Kit – 300 ft (Model 3620 and Catalog #2135.36)	\$1,329.00	\$105.00
2135.13	Ground Resistance Tester Model 3640 Kit – 150 ft (Model 3640 and Catalog #2135.35)	\$1,219.00	\$105.00
2135.14	Ground Resistance Tester Model 3640 Kit – 300 ft (Model 3640 and Catalog #2135.36)	\$1,319.00	\$105.00
2130.59	Calibration Checker – 25Ω for Models 3620, 3640, 4620 and 4630	\$ 62.95	-

GROUND RESISTANCE TESTERS

Digital Tester

Models 4620 & 4630

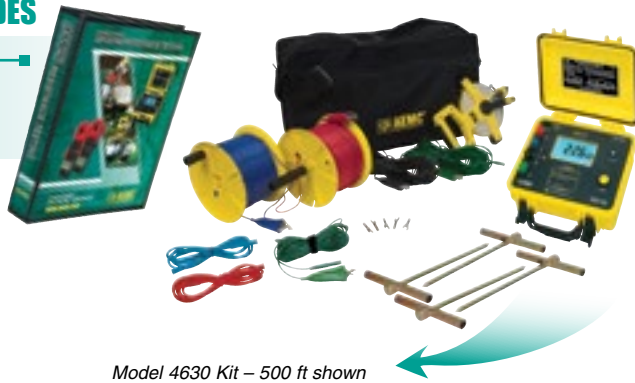
Both models will perform over 2000 measurements for the 15 second tests between recharging or battery replacement

► SPECIFICATIONS

MODELS	4620	4630	
ELECTRICAL			
Range	20Ω	200Ω	2000Ω
Measurement Range	0.00 to 19.99Ω	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	5% of Reading ± 3cts
Auxiliary Electrode Influence Max Res. in Current Circuit Max Res. in Voltage Circuit	3kΩ 50kΩ	30kΩ 50kΩ	50kΩ 50kΩ
Response Time	Approximately four to eight seconds for a stabilized measurement		
Withstanding Voltage	250Vac or 100Vdc		
Power Source	Eight C cell batteries (included); Alkaline recommended	120/230V 50/60Hz Rechargeable 9.6V, 3.5 Ah NiMH battery pack (included)	
Battery Life	>2000 15-second measurements; LO BAT indication on LCD		
Fuse Protection	0.1A, >250V, 0.25 x 1.25"; 30kA Interrupt Capacity		

► PRODUCT INCLUDES

User manual and USB stick supplied with ground tester workbook.



Model 4630 Kit – 500 ft shown

Please refer to page 38 for Test Kit descriptions



cover closed

► 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 - hold - 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

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2130.43	Ground Resistance Tester Model 4620 (Digital, 4-Point, Battery Powered)	\$ 995.00	\$ 94.00
2130.44	Ground Resistance Tester Model 4630 (Digital, 4-Point, Rechargeable Battery)	\$1,495.00	\$ 94.00
2135.19	Ground Resistance Tester Model 4620 Kit – 150 ft (Model 4620 and Catalog #2135.35)	\$1,399.00	\$105.00
2135.20	Ground Resistance Tester Model 4620 Kit – 300 ft (Model 4620 and Catalog #2135.36)	\$1,499.00	\$105.00
2135.21	Ground Resistance Tester Model 4620 Kit – 500 ft (Model 4620 and Catalog #2135.37)	\$1,599.00	\$105.00
2135.22	Ground Resistance Tester Model 4630 Kit – 150 ft (Model 4630 and Catalog #2135.35)	\$1,799.00	\$105.00
2135.23	Ground Resistance Tester Model 4630 Kit – 300 ft (Model 4630 and Catalog #2135.36)	\$1,899.00	\$105.00
2135.24	Ground Resistance Tester Model 4630 Kit – 500 ft (Model 4630 and Catalog #2135.37)	\$1,999.00	\$105.00
Accessories (Optional)			
2130.60	Tape Measure (100 ft)	\$ 34.95	–
2135.35	Test Kit for 3-Point Testing – 150 ft (see page 38 for descriptions)	\$ 479.00	–
2135.36	Test Kit for 4-Point Testing – 300 ft (see page 38 for descriptions)	\$ 579.00	–
2135.37	Test Kit for 4-Point Testing – 500 ft (see page 38 for descriptions)	\$ 679.00	–
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)	\$ 249.00	–
2130.59	Calibration Checker – 25Ω for Models 3620, 3640, 4500, 4610, 4620 and 4630	\$ 62.95	–



Models 3711 & 3731

Measures ground rod and small grid resistance through any season, without the use of auxiliary ground rods



► FEATURES & FUNCTIONS

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

► SPECIFICATIONS

MODELS	3711 & 3731		
ELECTRICAL			
Ground Resistance	Measurement Range	Resolution	Accuracy (% of Reading)
	0.1 to 1.0Ω	0.01Ω	±(2% ± 0.02Ω)
	1.0 to 50.00Ω	0.1Ω	±(1.5% ± 0.1Ω)
	Auto-Ranging 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 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 (included); Battery life: Eight hours or approximately 1000 measurements of 30 seconds		



#E192383



► 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 Power OFF feature
- 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)
- Noise icon and buzzer alert user to presence of dangerous voltage and current levels
- Designed to EN 61010-1, 150V CAT III, 300V CAT II safety standards
- US Patented design No. 362,639

► PRODUCT INCLUDES



Hard carrying case, calibration loop, battery, USB stick supplied with ground tester workbook and user manual.

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2117.60	Ground Resistance Tester Model 3711 (Clamp-On)	\$1,425.00	\$98.00
2117.61	Ground Resistance Tester Model 3731 (Clamp-On with memory and alarm)	\$1,625.00	\$98.00

Models 6416 & 6417

Provides high safety level with new ground voltage indication feature



SPECIFICATIONS

MODELS	6416 & 6417		
ELECTRICAL			
Ground Resistance	Measurement Range	Resolution	Accuracy (% of Reading)
Auto-Ranging 1 to 199Ω	0.010 to 0.099Ω	0.001Ω	±1.5% ±0.01Ω
	0.10 to 0.99Ω	0.01Ω	±1.5% ±0.01Ω
	1.0 to 49.9Ω	0.1Ω	±1.5% ±0.1Ω
	50.0 to 99.5Ω	0.5Ω	±2% ±0.5Ω
	100 to 199Ω	1Ω	±3% ±1Ω
	200 to 395Ω	5Ω	±5% ±5Ω
	400 to 590Ω	10Ω	±10% ±10Ω
	600 to 1150Ω	50Ω	20% approx
Current Measurement	0.200 to 0.999mA	1μA	±2% ±50μA
	1.000 to 2.990mA 3.00 to 9.99mA	10μA	±2% ±50μA
	10.00 to 29.90mA 30.0 to 99.9mA	100μA	±2% ±100μA
	100.0 to 299.0mA 0.300 to 0.990A	1mA	±2% ±1mA
	1.000 to 2.990A 3.00 to 39.99A	10mA	±2% ±10mA
Resistance Measurement Frequency	2083Hz		
Current Measurement Frequency	47 to 800Hz		
Loop Impedance Measurement	10 to 100μH; 100 to 500μH		
Current Overload	OL displayed above 39.99Arms		
Communication	Bluetooth connection (Model 6417 only)		
Power Source	4x1.5V LR6 (AA) Alkaline batteries or 4 NiMH batteries; Battery life: 12 hours, or 1440 30-second measurements approx.		



*Model 6417 only

FEATURES

- Ground voltage indication (warns of possible unsafe conditions)
- Large multi-function bright yellow organic LED display (OLED)
- Selectable test frequency (improves accuracy in inductive environments)
- Clamping diameter of 35mm with large jaw design
- Storage of measurements (Ω and/or A, with time-stamping)
Model 6416: up to 300 measurements stored
Model 6417: up to 2000 measurements stored
- Displays stored measurements on the OLED display or via *Bluetooth* (Class 2 - communicates up to 30 ft) to a PC or the Android™ based mobile application (Model 6417)
- Auto Power OFF function
- Alarm function with adjustable set point and buzzer for quick field checks for volts, amps and ohms
- Rugged Lexan® head and body construction resists breakage
- Alarm settings and stored memory information saved during shutdown
- Includes DataView® software for data storage, real-time display, analysis, report generation and system configuration (Model 6417)
- Noise icon and buzzer alert user to presence of dangerous voltage and current levels
- Designed to EN 61010-1, 600V CAT IV safety standards

PRODUCT INCLUDES

Model 6416 includes a hard carrying case, calibration loop, four 1.5V AA batteries and a user manual.

Model 6417 also includes a Bluetooth USB adapter, quick start guide, and a USB stick with DataView® software and user manual.



Models 6416 & 6417

Functional Displays

Disturbance indicator (current) in the loop
 HOLD Function
 Buzzer is displayed when active
 Measurement date/time display
 Advanced Mode selection
 Indicates when the inductive component is negligible in Advanced Mode
 Main display
 Symbols identify the value displayed in Advanced Mode
 Data Storage Mode
 Memory Recall Mode
 Memory index display
 Bluetooth connection indicator (active for 6417 only)

Incorrect jaw closing indicator
 Auto Power OFF displayed
 Battery charge indicator
 4000-count upper measurement display
 Upper display measurement unit
 Main display measurement unit
 Signal for hazardous voltage
 Alarm measurement display unit
 Alarm threshold display
 Alarm threshold indicator

Note: Display shown larger than real size.

Measurement Results



Displays the leakage current and loop impedance at the test frequency

Memory Recall Mode



Measurement storage date-time screen

Alarm



Indicates voltage/current alarm threshold along with the direction of impedance

Ground Voltage



Indicates voltage potential at the point of measurement

Current Disturbance



Indicates that the current is greater than 10A

Impedance Over Range



Indicates that the impedance is greater than 1500Ω

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2141.01	Ground Resistance Tester Model 6416 (Clamp-On, Alarm, Memory)	\$1,325.00	\$98.00
2141.02	Ground Resistance Tester Model 6417 (Clamp-On, Bluetooth, Alarm, Memory)	\$1,625.00	\$98.00



Model 6471

Test ground resistance without the need of auxiliary rods!



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



AC Current Probes
Model SR182



SPECIFICATIONS

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

TEST KITS

300 ft Kit: Catalog #2135.50

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



ACCESSORIES

MN82 current probe (2mA to 10Arms)

Catalog #2135.71 (optional)



Reel Caddy

Catalog #2135.85 (optional)

Set of two, for use with ground kit spools



PRODUCT INCLUDES

SR182 current probe (0.5mA to 40Arms)

Catalog #2135.72



Model 6471

Large Functional Displays

► FEATURES

- Ground Resistance testing using the 2 clamp method (no auxiliary rods needed)
- 2- and 4-Point Bond Resistance/Continuity measurement (DC Resistance) with automatic polarity reversal
- 3-Point Fall-of-Potential measurement with manual or automatic frequency selection
- 4-Point Soil Resistivity measurement with automatic calculation of Rho (ρ) and user selection of the Wenner or Schlumberger test method
- 3-Point Earth Coupling measurement
- Manual and Automatic frequency scan from 41 to 513Hz for optimum test accuracy in electrically noisy environments
- Selectable test voltage of 16 or 32V up to 250mA of test current
- Auto Power OFF feature
- Automatic recognition of all electrode connections and their resistance value
- Stores up to 512 complete test results in internal memory
- Display with automatic backlight when entering a function
- Optically isolated USB communication cable included
- Rechargeable NiMH batteries from wall charger or vehicle power
- Rugged dustproof and rainproof field case – IP53 rated in closed position
- Grounding standards IEC 61557 parts 4 and 5 compliant
- Includes DataView® software for set up, data storage, real-time display, analysis, report generation and system configuration

4-Point Bond Test



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

3-Point Fall-of-Potential Test



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

Schlumberger Test



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

Two Clamp Test



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

Data Storage



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

Wenner Test



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

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

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2135.48	Ground Resistance Tester Model 6471 (2-Point, 3-Point, 4-Point, Bond Test, Digital, Rechargeable Battery, DataView® software)	\$2,250.00	\$99.00
2135.49	Ground Resistance Tester Model 6471 (set of two SR182 current probes, 2-Point, 3-Point, 4-Point, Bond Test, Digital, Rechargeable Battery, DataView® software)	\$2,795.00	\$99.00
2135.50	Ground Resistance Tester Model 6471 Kit – 300 ft (Catalog #2135.49 and Catalog #2135.36)	\$3,295.00	\$99.00
2135.60	Ground Resistance Tester Model 6471 Kit – 300 ft (Catalog #2135.48 and Catalog #2135.36)	\$2,779.00	\$99.00
2135.61	Ground Resistance Tester Model 6471 Kit – 500 ft (Catalog #2135.48 and Catalog #2135.37)	\$2,879.00	\$99.00
Accessories (Optional)			
2135.71*	AC Current Probe Model MN82 for use with Model 6471	\$ 299.00	\$78.00
2135.72*	AC Current Probe Model SR182 for use with Model 6471	\$ 369.00	\$78.00
2135.85	Caddy – Set of 2, Reel Caddy for use w/Ground Kit Spools (available on website storefront)	\$ 69.00	–

*2 probes required for two clamp testing method.

GROUND RESISTANCE TESTERS

Tower Ground Resistance Testers

GroundFlex® Field Kit Models 6472 & 6474

Test active towers safely without de-energizing or disconnecting any cables

PLAY VIDEO



SPECIFICATIONS

MODELS	6472 & 6474						
ELECTRICAL	3-POINT METHOD	4-POINT SELECTIVE METHOD	EARTH MEASUREMENT WITH 2 CLAMPS	SOIL RESISTIVITY	EARTH POTENTIAL MEASUREMENT	DC RESISTANCE MEASUREMENT	MEASUREMENTS WITH 6474
Range (Auto-Ranging)	0.01Ω to 99.9kΩ	0.001 to 99.99Ω	0.01 to 500Ω	0.01kΩ to 99.9Ω	0.01mV to 65.00V	0.001Ω to 99.9kΩ	0.001Ω to 99.99kΩ
Resolution	0.01 to 100Ω	0.001 to 10Ω	0.01 to 1Ω	0.01 to 100Ω	0.01 to 10mV	2 wires: 0.01 to 100Ω/ 4 wires: 0.001 to 10Ω	0.001 to 10Ω
Accuracy	± (2% + 1 count)	± (2% + 1 count)	± (10% + 1 count)	± (2% + 1 count)	± (5% + 1 count)	± (2% + 2 counts)	± (5% + 1 count)
No-Load Voltage	16 or 32Vrms	16 or 32Vrms	16 or 32Vrms	16 or 32Vrms	16 or 32Vrms	± 16Vdc	16 or 32Vrms
Measurement Frequency	41 to 5078Hz	41 to 5078Hz	Auto: 1611 Hz Manual: 128 Hz, 1367 Hz, 1611 Hz, 1758 Hz	41 to 128Hz	41 to 128Hz	DC	41 to 5078Hz
Coupling Measurement	Yes	–	–	–	–	–	–
Auxiliary Rod Resistance Measurement	0.1Ω to 100kΩ	0.01Ω to 100kΩ	–	–	–	–	0.01Ω to 100kΩ
Voltage Interference	Maximum 60Vpeak						
Soil Resistivity	–	–	–	Wenner and Schlumberger	–	–	–
Type of Measurement	3 wires	4 wires	–	4 wires	3 wires	2 wires or 4 wires	–
Measurement Current	–	–	–	–	–	> 200mA DC	–
MECHANICAL							
Memory/Communication	512-record memory / optical link/USB						
Dimensions/Weight	10.7 x 9.84 x 5.04" (272 x 250 x 128mm) / Model 6472: 3.2 kg / Model 6474: 2.3 kg						
Protection Safety	IP53 (cover closed)						
Electrical Safety	50V CAT IV, complies with IEC 61326-1 / IEC 61010 / IEC 61557-1-4-5						

TEST KITS

Ground Tester Model 6472 Kit-500 ft

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, one 100 ft AEMC® tape measure, DataView® software, ground tester workbook and user manual on USB stick, carrying bag for meter and carrying bag for kit. **Catalog #2135.54**

GroundFlex® Adapter Model 6474

Includes GroundFlex® Adapter Model 6474, four GroundFlex® sensors (5m) with twelve color-coded rings, connection lead, two extension leads on H reel (black/green) with color-coded alligator clips, one extra black and green alligator clip, six BNC extension leads, calibration loop, three C-clamps, carrying case with wheels and handle for meters, one inverter 12Vdc to 120Vac 200 watt (vehicle use) and user manual. **Catalog #2136.03 (includes Cat. #2135.54)**



GroundFlex® Field Kit Models 6472 & 6474

► FEATURES

- 3- and 4-Point Fall-of-Potential measurement with manual or automatic frequency selection
- 4-Point soil resistivity measurement with automatic calculation of Rho (ρ) and user selection of the Wenner or Schlumberger test method
- 2- and 4-Wire DC resistance measurement (Bond testing) with automatic polarity reversal
- 3-Point earth coupling measurement
- Automatic frequency scan from 40 to 5078Hz for optimum test accuracy in electrically noisy environments
- Selectable test voltage limit of 16 or 32V with up to 250mA of test current
- Automatic recognition of all electrode connections and measurement of their resistance value
- Determines bonding condition of overhead ground conductors
- Auto Power OFF management
- Optically isolated USB communication
- Remote set up and operation of all measurements using DataView® software supplied
- Automatic report generation
- Rechargeable NiMH batteries from wall charger or vehicle power
- Rugged dustproof and rainproof field case — IP53 rated in closed position
- IEC 61557 parts 4 and 5 compliant
- Includes DataView® software for data storage, real-time display, analysis, report generation and system configuration

Ground measurement on pylons with ground cable

High-voltage lines are usually equipped with a ground cable to allow lightning to discharge to earth via the pylon. As all the pylons are all connected to this conductor, all the tower's resistances are in parallel. This means it is impossible to measure tower resistance using traditional 3-Point methods unless the earth cable is disconnected, which is a dangerous and time-consuming operation.

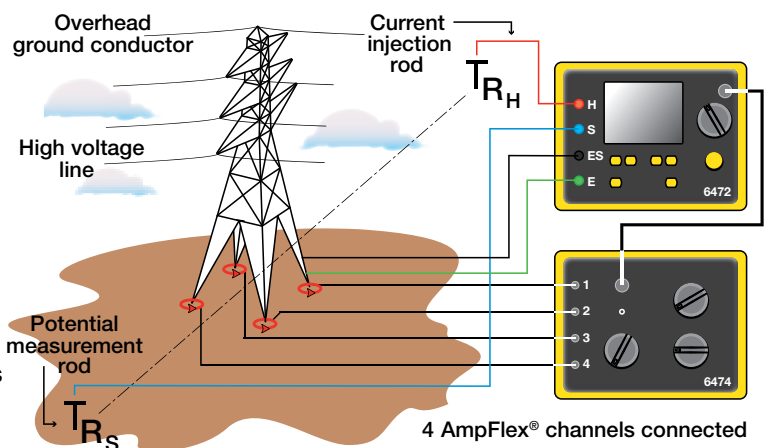
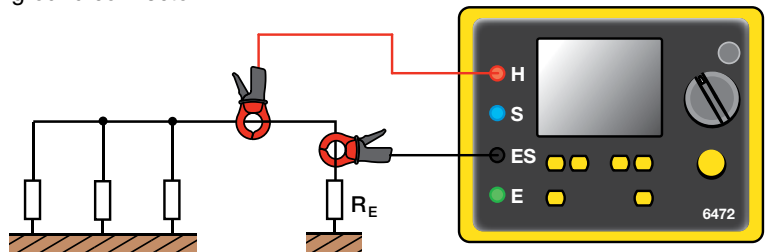
Automatic recognition and display of input connections to match test

The connections are displayed and flash if incorrect or absent for the test selected.



Ground resistance measurement using 2 Clamps

In the event of a system with parallel ground connections, the Model 6472 is capable of accurately measuring a ground resistance using clamps only. The principle of this method involves placing 2 clamps around the ground conductor to be tested and connecting them each to the instrument. One clamp injects a known signal (32V/1367Hz) while the other clamp measures the current circulating in the loop. This method saves considerable time when ground testing because it is no longer necessary to set up auxiliary rods or to disconnect the ground connector.



CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2135.54	Ground Resistance Tester Model 6472 Kit – 500 ft (Model 6472 and Cat. #2135.37)	\$ 4,395.00	\$ 99.00
2136.03	GroundFlex® Field Kit Model 6474 (Includes Cat. #2135.54)	\$12,395.00	\$220.00
2136.04	GroundFlex® Adapter Model 6474 w/{1} 10 m GroundFlex® Sensor	\$ 7,495.00	–
2136.05	GroundFlex® Adapter Model 6474 w/{1} 10 m GroundFlex® Sensor (Includes Cat. #2136.04 & Cat. #2135.54)	\$10,395.00	\$220.00

Model 6472

Used under difficult conditions such as the presence of high stray currents that normally affect accuracy



Have a better understanding about Ground Resistance Testing



The Model 6472 provides an automated way to measure the value of the earth/ground using the Fall-of-Potential method and storing measurements.



TEST KITS

300 ft Kit: Catalog #2135.53
500 ft Kit: Catalog #2135.54

Refer to page 38 for Model 6472 Kit descriptions Catalog #2135.35, #2135.36 & #2135.37

ACCESSORIES

MN82 current probe (2mA to 10Arms)
Catalog #2135.71 (optional)



SR182 current probe (0.5mA to 40Arms)
Catalog #2135.72 (optional)



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



cover closed

SPECIFICATIONS

MODEL	6472
ELECTRICAL	
3-Point Measurement	
Range (Auto-Ranging)	0.09Ω to 99.9kΩ
Resolution	0.01Ω to 100Ω
Test Voltage	Nominal 16 or 32Vrms user selectable
Resistance Measurement Frequency	41 to 5078Hz automatic or user selectable
Test Current	Up to 250mA
Accuracy	±2% of Reading + 1ct @ 128Hz
2 Clamp Measurement	
Range	0.1 to 500Ω
Resolution	0.01 to 1Ω
Measurement Frequency	Auto: 1367Hz Manual: 128Hz-1367Hz-1611Hz-1758Hz
Soil Resistivity 4-Point Measurement	
Test Method	Wenner or Schlumberger selectable with automatic calculation of test results in Ω-meters
Range (Auto-Ranging)	0.01 to 99.99kΩ; ρ max: 999kΩm
Resolution	0.01 to 100Ω
Test Voltage	16 or 32V user selectable
Frequency	From 41 to 128Hz selectable
External Voltage Measurement	
Range (Auto-Ranging)	0.1 to 65.0VAc/dc – DC to 440Hz
Accuracy	±2% of Reading + 1ct
Resistance Measurement (Bond Testing)	
Measurement Type	2-Pole (with lead resistance compensation) or 4-Pole (Kelvin sensing) user selectable
Range (Auto-Ranging)	2-Pole 0.02Ω to 99.99kΩ; 4-Pole 0.02Ω to 99.99kΩ
Accuracy	±2% of Reading + 2cts
Test Voltage	16Vdc (+, - or auto polarity)
Test Current	Up to 250mA max
Data Storage	
Memory Capacity	512 test results (64KB)
Power Source	
Recharging Source	9.6V rechargeable battery pack (included) 110/220 50/60Hz external charger with 18Vdc, 1.9A output

Model 6472

Large Functional Displays

► FEATURES

- Ground Resistance testing using the 2 clamp method (no auxiliary rods needed) using optional current probes
- 2- and 4-Wire Bond Resistance/Continuity Measurement (DC Resistance) with automatic polarity reversal
- 3-Point Fall-of-Potential measurement with manual or automatic frequency selection
- 4-Point soil resistivity measurement with automatic calculation of Rho (ρ) and user selection of the Wenner or Schlumberger test method
- 3-Point earth coupling measurement
- Measures Ground Impedance at frequencies up to 5kHz to test lightning strike protection
- Manual and automatic frequency scan from 41 to 5078Hz for optimum test accuracy in electrically noisy environments
- Selectable test voltage of 16 or 32V up to 250mA of test current
- Auto Power OFF feature
- Automatic recognition of all electrode connections and their resistance value
- Stores up to 512 complete test results
- Display with automatic backlight when entering a function
- Optically isolated USB communication cable included
- Automatic report generation including the fall of potential plot
- Rechargeable NiMH batteries from wall charger or vehicle power
- Rugged dustproof and rainproof field case – IP53 rated in closed position
- Includes DataView® software for data storage, real-time display, analysis, report generation and system configuration

4-Point Bond Test



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

3-Point Fall-of-Potential Test



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

Schlumberger Test



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

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.

Wenner Test



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

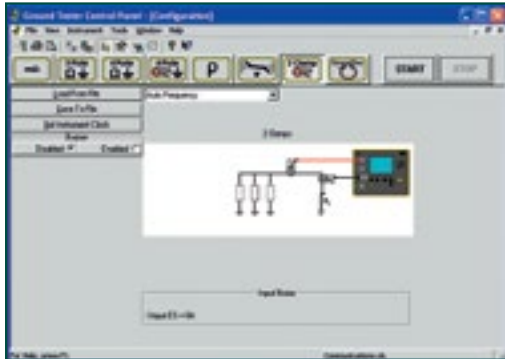
CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2135.51	Ground Resistance Tester Model 6472 (2-Point, 3-Point, 4-Point, Bond Test, Digital, Rechargeable Battery, DataView® software)	\$3,795.00	\$99.00
2135.53	Ground Resistance Tester Model 6472 Kit – 300 ft (Model 6472 and Catalog #2135.36)	\$4,295.00	\$99.00
2135.54	Ground Resistance Tester Model 6472 Kit – 500 ft (Model 6472 and Catalog #2135.37)	\$4,395.00	\$99.00
Accessories (Optional)			
2135.71*	AC Current Probe Model MN82 for use with Model 6472	\$ 299.00	\$78.00
2135.72*	AC Current Probe Model SR182 for use with Model 6472	\$ 369.00	\$78.00
2135.85	Caddy – Set of 2, Reel Caddy for use w/Ground Kit Spools (<i>available on website storefront</i>)	\$ 69.00	–

*2 probes required for two clamp testing method.

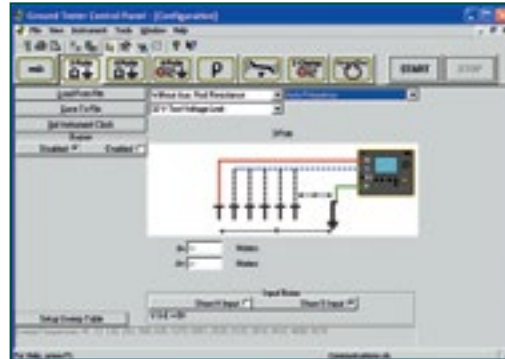
Ground Testers Models 6471 & 6472

Typical DataView® Functional Displays

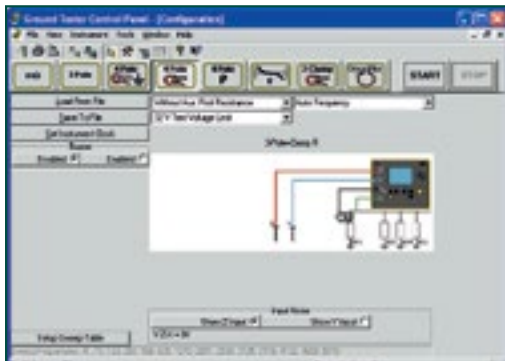
2 Clamp Method Setup



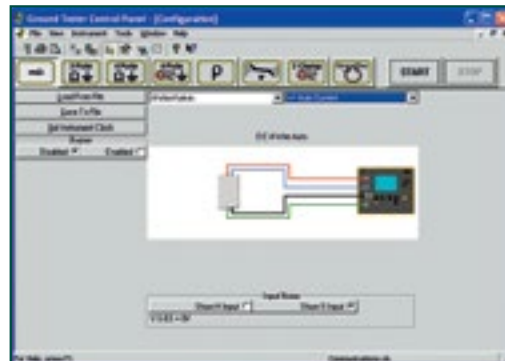
Fall-of-Potential, Step-Touch Potential



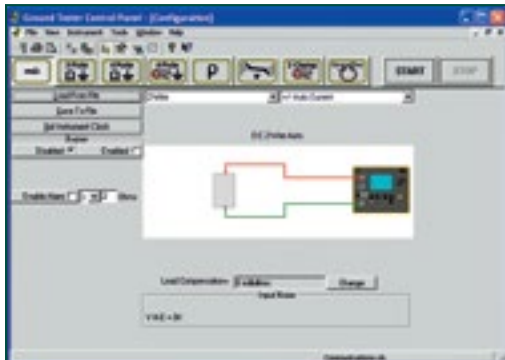
Selective 3-Point Testing of Multiple Rods



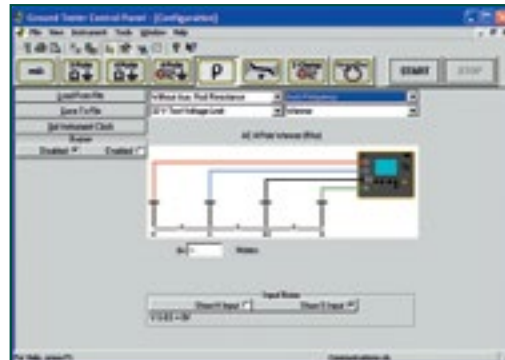
4-Point Bonding For Very Low Resistance



Bonding



Soil Resistivity



▶ OPTIONAL KITS

150 ft Kit

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



300 ft Kit

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



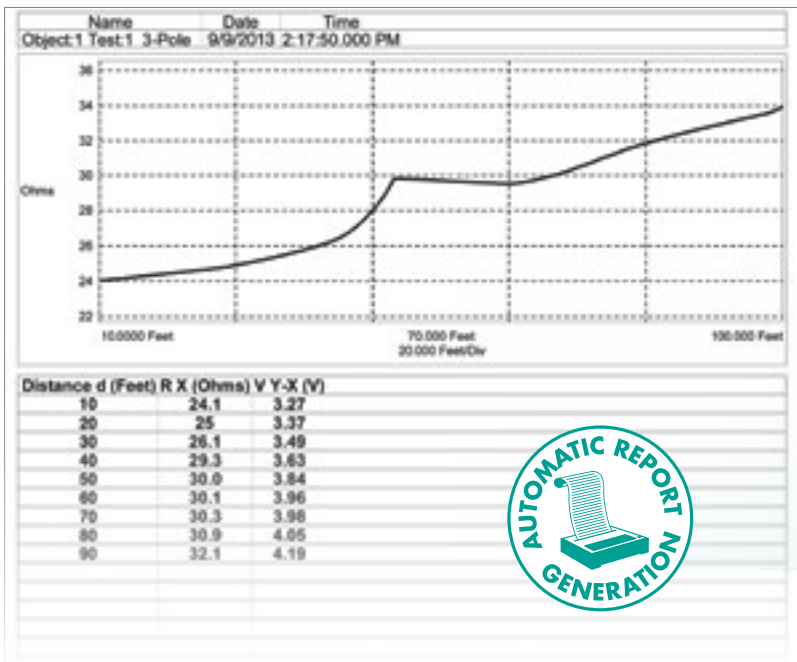
500 ft Kit

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



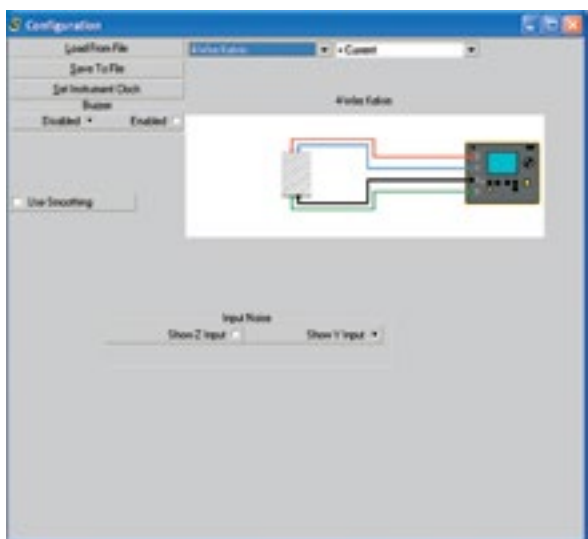
DataView®

Data Analysis and Reporting Software for Ground Testers



Configure all functions of the Models 6417, 6471 & 6472

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



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



GROUND RESISTANCE TESTER

Selection Chart

AEMC MODEL NUMBER	AEMC CATALOG NUMBER	RESISTANCE RANGE	POWER SOURCE	2 POINT TEST	3 POINT TEST	4 POINT/ SELECTIVE	SOIL RESISTIVITY TEST	EARTH COUPLING	2 CLAMP	BONDING	DISPLAY	VOLTAGE INDICATION	INDUCTANCE INDICATION	SWEEP FREQUENCY
6416	2141.01	0.01 to 1500Ω	Battery	Clamp-On Ground Resistance Tester				—	—	✓**	Digital	Voltage Displayed (noise icon, buzzer)	✓	—
6417	2141.02	0.01 to 1500Ω	Battery	Clamp-On Ground Resistance Tester w/Alarm, Memory & Bluetooth communication				—	—	✓**	Digital	Voltage Displayed (noise icon, buzzer)	✓	—
GroundFlex® Field Kit Models 6472 & 6474	2136.03	0.001Ω to 99.99kΩ	Rechargeable Battery	—	✓	✓	✓	✓	—	✓	Digital	Value Displayed	—	✓
6471	2135.49	0.01 to 99.99kΩ	Rechargeable Battery	✓	✓	✓	✓	✓	✓	✓	Digital	Value Displayed	—	—
6471 Kit 300FT	2135.50	0.01 to 99.99kΩ	Rechargeable Battery	✓	✓	✓	✓	✓	✓	✓	Digital	Value Displayed	—	—
6472	2135.51	0.01 to 99.99kΩ	Rechargeable Battery	✓	✓	✓	✓	✓	✓	✓	Digital	Value Displayed	—	✓
6472 Kit 300FT	2135.53	0.01 to 99.99kΩ	Rechargeable Battery	✓	✓	✓	✓	✓	✓	✓	Digital	Value Displayed	—	✓
6472 Kit 500FT	2135.54	0.01 to 99.99kΩ	Rechargeable Battery	✓	✓	✓	✓	✓	✓	✓	Digital	Value Displayed	—	✓
4620	2130.43	0.0 to 1999Ω	Battery	✓	✓	—	✓	—	—	—	Digital	LED/Buzzer	—	—
4620 Kit 150FT	2135.19	0.0 to 1999Ω	Battery	✓	✓	—	✓*	—	—	—	Digital	LED/Buzzer	—	—
4620 Kit 300FT	2135.20	0.0 to 2000Ω	Battery	✓	✓	—	✓	—	—	—	Digital	LED/Buzzer	—	—
4620 Kit 500FT	2135.21	0.0 to 1999Ω	Battery	✓	✓	—	✓	—	—	—	Digital	LED/Buzzer	—	—
4630	2130.44	0.0 to 1999Ω	Rechargeable Battery	✓	✓	—	✓	—	—	—	Digital	LED/Buzzer	—	—
4630 Kit 150FT	2135.22	0.0 to 1999Ω	Rechargeable Battery	✓	✓	—	✓*	—	—	—	Digital	LED/Buzzer	—	—
4630 Kit 300FT	2135.23	0.0 to 1999Ω	Rechargeable Battery	✓	✓	—	✓	—	—	—	Digital	LED/Buzzer	—	—
4630 Kit 500FT	2135.24	0.0 to 1999Ω	Rechargeable Battery	✓	✓	—	✓	—	—	—	Digital	LED/Buzzer	—	—
3620	2114.90	0.50 to 1000Ω	Battery	✓	✓	—	—	—	—	—	Analog	LED	—	—
3620 Kit 150FT	2135.10	0.50 to 1000Ω	Battery	✓	✓	—	—	—	—	—	Analog	LED	—	—
3620 Kit 300FT	2135.11	0.50 to 1000Ω	Battery	✓	✓	—	—	—	—	—	Analog	LED	—	—
3640	2114.92	0.0 to 1999Ω	Battery	✓	✓	—	—	—	—	—	Digital	LED	—	—
3640 Kit 150FT	2135.13	0.0 to 1999Ω	Battery	✓	✓	—	—	—	—	—	Digital	LED	—	—
3640 Kit 300FT	2135.14	0.0 to 1999Ω	Battery	✓	✓	—	—	—	—	—	Digital	LED	—	—
3711	2117.60	0.01 to 1200Ω	Battery	Clamp-On Ground Resistance Tester				—	—	✓**	Digital	Noise Icon	—	—
3731	2117.61	0.01 to 1200Ω	Battery	Clamp-On Ground Resistance Tester w/Alarm & Memory				—	—	✓**	Digital	Noise Icon	—	—

* Performing soil resistivity tests with this kit requires two additional auxiliary electrodes not supplied in the 150 ft kit and one additional test lead.

** Clamp-on Ground Resistance Tester can measure system continuity inclusive of all bonding points.



Model CA7024

Finds opens, shorts and cable length

► 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 (included)
Auto Power OFF	After three minutes
Weight	12 oz (350g)



► FEATURES

- Hand-held Cable Length Meter and Fault Locator for multiple conductor cables
- 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 (optional):

- Compatible with Models CA7024, CA7027 and CA7028
- One button operation
- Volume control
- Audio output



◀ Tone Receiver Cable Tracer

Model TR03
available as an accessory



► PRODUCT INCLUDES

Soft carrying case, BNC pigtail cable with alligator clips, four 1.5V AA batteries and user manual.

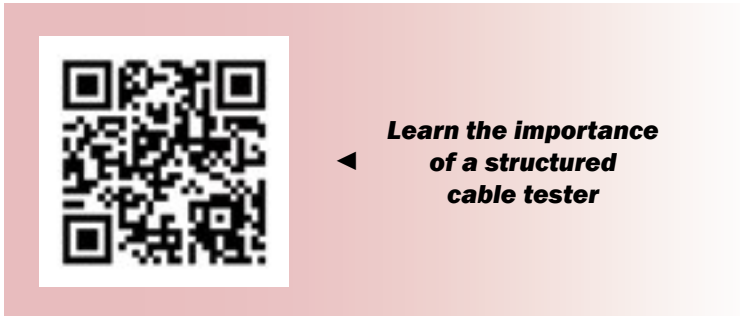
CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2127.80	Fault Mapper Model CA7024 (Cable Length Meter & Fault Locator – Alphanumeric TDR)	\$525.00	–
Accessories (Optional)			
2127.76	Tone Receiver/Cable Tracer Model TR03	\$ 59.00	–

CABLE TESTERS

Fault Mapper Pro® Telephone Cable Tester / Graphical TDR

Model CA7027

Maps and pinpoints the locations of faults on power and communication cables



Learn the importance of a structured cable tester



SPECIFICATIONS

MODEL	CA7027
MEASUREMENTS	
Range @ Vp = 70%	23, 49, 98, 197, 394, 820, 1640, 3280, 6560, 9850, 19000 ft
Range Selection	Manual range control
Accuracy	±1% of range
Resolution	Approximately 1% of selected range
Minimum Cable Length	5 ft (1.5m)
Sensitivity	Minimum 3 pixel return on a fault at 4km on 0.6mm O, PE, TP
Velocity of Propagation (Vp)	Adjustable from 1% to 99%
Output Pulse	+5V peak to peak into an open circuit
Output Impedance	Selectable between 25, 50, 75 & 100Ω
Output Pulse Width	3 ns to 3 ms, Automatic with range
Scan Rate	2 scans / second or scan held
Tone Generator	Oscillating tone 810 to 1110Hz
Voltage Protection	250VAc
Power Supply	Four 1.5V AA alkaline batteries
Battery Life	60 hours continuous scanning
Auto Power OFF	Selectable 1, 2, 3, 5 minutes or disabled
Weight (with battery)	12oz (350g)

PRODUCT INCLUDES

Soft carrying case, 4mm color-coded banana plugs with alligator clips, four 1.5V AA batteries and user manual.

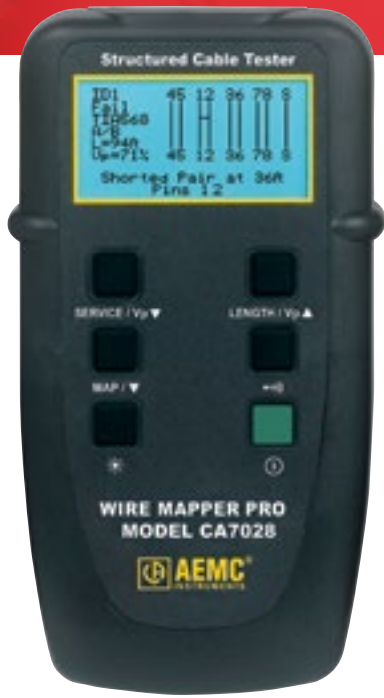


Tone Receiver/Cable Tracer Model TR03 is available as an accessory (see page 41)

FEATURES

- 11 range scales indicating cable faults and terminations up to 19,000 ft (6000m) in feet or meters
- Unique graphical and digital display of fault information and length
- Detects opens, shorts, taps, faulty taps, bridge taps, splitters, high resistance, wet cables, splices and more
- Identifies impedance mismatches
- Works with twisted pair, parallel and coaxial cable
- Dead band less than 9 ft
- Selectable cable impedance (25Ω, 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
- Large high-visibility blue electroluminescent backlit display

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2127.84	Fault Mapper Pro® Model CA7027 (Telephone Cable Tester / Graphical TDR)	\$995.00	-
Accessories (Optional)			
2127.76	Tone Receiver/Cable Tracer Model TR03	\$ 59.00	-



Model CA7028

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



► SPECIFICATIONS

MODEL	CA7028
MEASUREMENTS	
Range	500 ft or 150m (selectable)
Accuracy	±5% of Reading
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 (included)
Display Backlight	Blue electroluminescent
Remote Display	Green/Red Pass/Fail LED
Auto Power OFF	After three minutes
Weight	Main unit: 12 oz (350g); Remote unit: 1.5 oz (40g)

► 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 at remote end 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
- Works with TIA 568A/B, USOC and ISDN wiring schemes

► PRODUCT INCLUDES



Soft carrying case, remote ID (#1), two patch cords, four 1.5V AA batteries, remote unit and user manual.

Tone Receiver/Cable Tracer Model TR03 is available as an accessory (see page 41)

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2127.82	Wire Mapper Pro Model CA7028 (LAN Cable Tester)	\$525.00	-
Accessories (Optional)			
2127.76	Tone Receiver/Cable Tracer Model TR03	\$ 59.00	-



DATA LOGGERS

Simple Logger® II TRMS Clamp-On Current

Model CL601

Designed for plant and field service applications and for use in harsh environments

SPECIFICATIONS

MODEL	CL601
ELECTRICAL	
Channels	One
Input	Split CT – AC Current
Measurement Range	0 to 600Aac
Resolution	0.1A
Accuracy (50/60Hz)	0 to 5A: unspecified 5 to 50A: ±(1% of Reading + 1A) 50 to 400A: ±(1% of Reading + 0.5A) 400 to 600A: ±(3% of Reading + 1A)
Sample Rate	64 samples/cycle
Storage Rate	Programmable from 8 every second to 1 every day
Storage Modes	Start/Stop, FIFO, Extended Recording Mode (XRM™)* and Alarm
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 (included)
Battery Life	100 hours to >45 days (dependent on sample rate and recording length)
MECHANICAL	
Dimensions	9.25 x 4.0 x 1.63" (235 x 102 x 41mm)
Max Conductor Size	1 conductor - Ø 1.42" (36mm) 2 conductor - Ø 1.00" (25mm) ea
Weight (with battery)	17.1 oz (485g)
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)

***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.



See p.56 & 57 for New Products!



FEATURES

- 0 to 600Arms
- True RMS measurements
- Self contained, no exposed connections
- Overload indication
- Optically isolated USB 2.0 communication cable included
- One button operation
- Alarm function
- 5 LED indicators quickly and clearly display logger status
- Powered by standard Alkaline batteries
- Includes FREE DataView® software for data storage, real-time display, analysis and report generation
- EN 61010-1; 300V CAT IV, 600V CAT III

APPLICATIONS

- Machine load monitoring
- HVAC troubleshooting
- Load profiling
- Electrical troubleshooting
- Start-Stop time stamping

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2126.01	Simple Logger® II Model CL601 (1-Channel, TRMS Clamp-On, 600Aac, DataView® software)	\$489.00	\$72.00

Models L101, L102 & L111

One channel loggers with the ability to perform a variety of recording tasks

► FEATURES

- Compatible standard current probes with voltage output and BNC connection (Models L101 & L102) (see page 58 & 59 - sold separately)
- Fused input (Model L111)
- Compatible with standard AC current probes with current output and banana plug connection (Model L111)
- 2 inputs (Model L102)
- 64 samples per cycle
- Programmable storage rates from 8 every second to 1 every day
- 4 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 FREE DataView® software for data storage, real-time display, analysis and report generation
- Optically isolated USB 2.0 communication cable included
- EN 61010-1; 50V CAT III

► APPLICATIONS (MODELS L101 & L111)

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

► APPLICATIONS (MODEL L102)

- Split phase load monitoring
- Neutral & ground current monitoring
- Intermittent problem detection
- Harmonic current monitoring using DataView® software
- Machine load monitoring
- Start-Stop time stamping



► SPECIFICATIONS

MODELS	L101	L102	L111
ELECTRICAL			
Channels	One	Two	One
Input Connection	BNC	One BNC connector per channel	Two recessed banana jacks
Measurement Range	0 to 1V _{AC} (probe dependent)		0 to 1A _{AC} (probe dependent)
Resolution	0.1mV		0.1mA
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 10mA: unspecified 10 to 50mA: ±(0.5% of Reading + 1mA) 50 to 1000mA: ±(0.5% of Reading + 0.5mA)
Input Impedance	800kΩ		1Ω
Sample Rate	64 samples/cycle		
Storage Rate	Programmable from 8 every second to 1 every day		
Storage Modes	Start/Stop, FIFO, Extended Recording Mode (XRM™) and Alarm		
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 (included)		
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)	5.18 x 2.75 x 1.28" (132 x 70 x 32mm)	
Max Conductor Size	Current probe dependent		
Weight (with battery)	6.4 oz (181g)	6.64 oz (188g)	
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)		

See pages 58 & 59 for current probe selection

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2126.02	Simple Logger® II Model L101 (1-Channel, TRMS, 0 to 1V _{AC} , DataView® software)	\$379.00	\$72.00
2126.03	Simple Logger® II Model L102 (2-Channel, TRMS, 0 to 1V _{AC} , DataView® software)	\$399.00	\$72.00
2126.04	Simple Logger® II Model L111 (1-Channel, TRMS, 0 to 1A _{AC} , DataView® software)	\$379.00	\$72.00



DATA LOGGERS

Simple Logger® II TRMS Voltage

600Vac/dc Model L261 & ±850Vdc Model L481

One channel loggers for voltage measuring, monitoring and troubleshooting

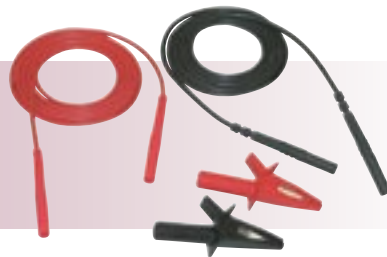


► SPECIFICATIONS

MODELS	L261	L481
ELECTRICAL		
Channels	One	
Input Connection	Two recessed 4mm safety banana jacks	
Measurement Range	0 to 600Vac/dc	-850 to ±850Vdc
Resolution	0.1V	
Accuracy (50/60Hz)	0 to 5V: unspecified 5 to 50V: ± (0.5% of Reading + 1V) 50 to 600V: ± (0.5% of Reading + 0.5V)	0 to 5V: unspecified 5 to 50V: ± (0.5% of Reading + 1V) 50 to 850V: ± (0.5% of Reading + 0.5V)
Input Impedance	40MΩ	
Sample Rate	64 samples/cycle	Maximum of 8 per second
Storage Rate	Programmable from 8 every second to 1 every day	
Storage Modes	Start/Stop, FIFO, Extended Recording Mode (XRM™) and Alarm	
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 (included)	
Battery Life	100 hours to >45 days (dependent on sample rate and recording length)	
MECHANICAL		
Dimensions	4.94 x 2.75 x 1.28" (125 x 70 x 32mm)	
Weight (with battery)	6.4 oz (181g)	
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)	

► PRODUCT INCLUDES

Set of two color-coded 5 ft voltage leads, color-coded alligator clips (red/black), USB type A to 5 pin Mini-B, and USB stick supplied with DataView® software and user manual.



► FEATURES

- TRMS voltage recording up to 600Vac/dc (Model L261)
- Bipolar voltage recording up to ±850Vdc (Model L481)
- AC: 64 samples per cycle and DC: 8 samples per sec (Model L261)
- Programmable storage rates from 8 every second to 1 every day
- 4 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 FREE DataView® software for data storage, real-time display, analysis and report generation
- Optically isolated USB 2.0 communication cable included
- EN 61010-1; 300V CAT IV; 600V CAT III

► APPLICATIONS (MODEL L261)

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

► APPLICATIONS (MODEL L481)

- Rail voltage monitoring
- Long term supply monitoring
- Find intermittent voltage problems
- Machine monitoring
- Windmill monitoring

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2126.05	Simple Logger® II Model L261 (1-Channel, TRMS, 600Vac/dc, DataView® software)	\$379.00	\$72.00
2126.25	Simple Logger® II Model L481 (1-Channel, ±850Vdc, DataView® software)	\$379.00	\$72.00

Model L562

Two input channel logger capable of recording Arms, Vrms and VA



► FEATURES

- 2 input channels
- Voltage: 0 to 600V_{AC} TRMS
- Current: compatible with voltage output AC current probes with voltage outputs (see page 58 & 59 - sold separately)
- 64 samples per cycle
- Records Arms, Vrms & VA (VA displays in DataView® software)
- 4 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 FREE DataView® software for data storage, real-time display, analysis and report generation
- Optically isolated USB 2.0 communication cable included
- Complies with EN 61010-1; 300V CAT IV; 600V CAT III (a safety rated current probe is required)

► APPLICATIONS

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

► SPECIFICATIONS

MODEL	L562	
ELECTRICAL		
Channels	Two	
Connection	Current Channel	Voltage Channel
Input Connection	BNC	Two recessed banana jacks
Input Range*	0 to 1V _{AC} (for use with current probes with a voltage output)	0 to 600V _{AC}
Resolution	0.1mV	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)
Input Impedance	800kΩ	40MΩ
Maximum Input Voltage***	5V _{rms} or ± 7.07V peak	1.2 x 600V
Sample Rate	64 samples/cycle	
Storage Rate	Programmable from 8 every second to 1 every day	
Storage Modes	Start/Stop, FIFO, Extended Recording Mode (XRM™) and Alarm	
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 (included)	
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 (181g)	
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)	

*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.

***Input level beyond this range may damage the instrument.

► PRODUCT INCLUDES



Set of two color-coded 5 ft voltage leads, color-coded alligator clips (red/black), USB type A to 5 pin Mini-B, and USB stick supplied with DataView® software and user manual.

See pages 58 & 59 for compatible current probes (sold separately)

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2126.35	Simple Logger® II Model L562 (2-Channel, TRMS, Voltage & Current, DataView® software)	\$429.00	\$72.00



DATA LOGGERS

Simple Logger® II TRMS Current

Dual Channel MiniFlex® Model ML912

Two channel AC recording logger incorporates two selectable measurement ranges



► SPECIFICATIONS

MODEL	ML912	
ELECTRICAL		
Channels	Two	
Input	Captive MiniFlex® AC Current Flexible Sensors	
Range	0.5 to 100Aac	5 to 1000Aac
Accuracy (50/60Hz)	0 to 1A unspecified 1 to 100A: ±(1% of Reading + 0.5A)	0 to 5A unspecified 5 to 1000A: ±(1% of Reading + 1A)
Resolution	0.1A	
Sample Rate	64 samples/cycle	
Storage Rate	Programmable from 8 every second to 1 every day	
Storage Modes	Start/Stop, FIFO, Extended Recording Mode (XRM™) and Alarm	
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 (included)	
Battery Life	100 hrs to >45 days (dependent on storage rate/recording length)	
MECHANICAL		
Dimensions	4.95 x 2.75 x 1.28" (136 x 70 x 32mm) w/o Sensor	
Max Conductor Size	Sensor: 6" (152mm)/Cable: 6 ft (2m)	
Weight (with battery)	8.67 oz (245g)	
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)	



► FEATURES

- Includes two integral MiniFlex® flexible current probes that will measure from 0.5A to 1000A TRMS with 0.1A resolution
- Dual range 100/1000A user selectable per channel in software
- 64 samples per cycle
- Programmable storage rates from 8 every second to 1 every day
- 4 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 FREE DataView® software for data storage, real-time display, analysis and report generation
- Optically isolated USB 2.0 communication cable included
- EN 61010-1; 600V CAT IV, 1000V CAT III

► APPLICATIONS

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

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2126.37	Simple Logger® II Model ML912 (2-Channel, TRMS, MiniFlex®, 100/1000Aac, DataView® software)	\$699.00	\$72.00



4 to 20mA_{DC} Current Model L322 & DC Voltage Model L432

Two channel logger has the ability to perform a variety of recording tasks with easy and intuitive setup



► FEATURES

- 2 independent input channels
- -20 to +20mA_{DC} (Model L322)
- User-selectable ranges of ± 100mV; ± 1V and ± 10V_{DC} per channel (Model L432)
- Programmable storage rates from 8 every second to 1 every day
- 4 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 FREE DataView® software for data storage, real-time display, analysis and report generation
- Optically isolated USB 2.0 communication cable included
- EN 61010-1; 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
- And many more

► SPECIFICATIONS

MODELS	L322	L432
ELECTRICAL		
Channels	Two	
Input Connection	One 4-position removable screw-type terminal block	
Measurement Range	-20 to +20mA _{DC}	±100mV/1V/10V _{DC} (selectable through DataView® software)
Resolution	0.01mA	0.1mV - 1mV - 10mV
Accuracy (DC and 50/60Hz)		
Range 1	(0.25% of Reading +0.05mA)	±(0.5% of Reading +1mV)
Range 2	–	±(0.5% of Reading +1mV)
Range 3	–	±(0.5% of Reading +10mV)
Input Impedance	50Ω	100mV/1V: 80kΩ 10V: 800kΩ
Sample Rate	8 samples taken at storage interval	
Storage Rate	Programmable from 8 every second to 1 every day	
Storage Modes	Start/Stop, FIFO, Extended Recording Mode (XRM™) and Alarm	
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 (included)	
Battery Life	100 hours to >45 days (dependent on sample rate and recording length)	
MECHANICAL		
Dimensions	5.45 x 2.75 x 1.28" (136 x 70 x 32mm)	
Weight (with battery)	6.4 oz (181g)	
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 (2-Channel, 4 to 20mA _{DC} Current, DataView® software)	\$379.00	\$72.00
2126.07	Simple Logger® II Model L432 (2-Channel, DC ±100mV/1V/10V _{DC} , DataView® software)	\$379.00	\$72.00



DATA LOGGERS

Simple Logger® II Thermocouple & 4-Channel Event

Models L404 & L642

2 and 4 channel specialty loggers for recording temperature from thermocouple inputs and events from pulse inputs

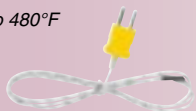
► SPECIFICATIONS

MODELS	L404	L642
ELECTRICAL		
Channels	Four	Two
Input Connection	One 8-position removable screw-type terminal block	Two miniature, thermocouple connectors
Measurement Range:		°F (°C)
J	—	-346 to +2192 (-210 to +1200)
K	—	-328 to +2501 (-200 to +1372)
T	—	-328 to +752 (-200 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)
Voltage Range	0 to 5Vdc or contact closure	
Input Impedance	<150kΩ	
Resolution	—	0.1° C/F < 1000° C/F; 1° ≥ 1000° C/F
Accuracy	—	±(0.1% to 0.2% of Reading + 0.6° to 1°) depending on the range and T/C type
Sample Rate	Maximum of 8 per second	8 samples taken at storage interval
Storage Rate	Event triggered (maximum once every two sample periods)	Programmable from 5s to 1 per day
Storage Modes	Event recording	Start/Stop, FIFO, Extended Recording Mode (XRM™) and Alarm
Recording Length	15 minutes to 8 weeks, programmable using DataView®	
Memory	L404 50,000 events (512KB); L642 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 (included)	
Battery Life	100 hours to >45 days (dependent on sample rate and recording length)	
MECHANICAL		
Dimensions	5.06 x 2.75 x 1.28" (129 x 70 x 32mm)	4.94 x 2.75 x 1.28" (125 x 70 x 32mm)
Weight (with battery)	6.4 oz (18g)	7 oz (200g)
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)	

► PRODUCT INCLUDES (MODEL L642)

Thermocouple-Flexible

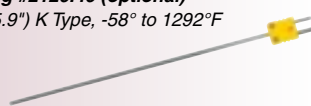
Catalog #2126.47
(1m) K Type, -58° to 480°F



► ACCESSORY (MODEL L642)

Thermocouple-Needle

Catalog #2126.46 (optional)
(12 x 5.9") K Type, -58° to 1292°F



► FEATURES

- 2 input channels (Model L642)
- 4 input channels (Model L404)
- User-selectable thermocouple types J, K, T, N, E, R, and S (not included) (Model L642)
- Programmable storage rates from 1 every 5 seconds to 1 every day (Model L642)
- 4 user selectable storage modes (Model L642)
- Records on event only (Model L404)
- Stores up to 240,000 measurements in non-volatile memory (Model L642)
- Stores up to 50,000 events in non-volatile memory (Model L404)
- Powered by standard Alkaline batteries
- 5 LED indicators quickly and clearly display logger status
- Includes FREE DataView® software for data storage, real-time display, analysis and report generation
- Optically isolated USB 2.0 communication cable included
- EN 61010-1; 50V CAT III

► APPLICATIONS (MODEL L404)

- Determine machinery run/down times
- Determine event sequencing
- Count events and record
- Record event duration
- Accumulate rainfall data

► APPLICATIONS (MODEL L642)

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

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2126.29	Simple Logger® II Model L404 (4-Channel, Event, DataView® software)	\$399.00	N/A
2126.08	Simple Logger® II Model L642 (2-Channel, Temperature Thermocouple, DataView® software)	\$439.00	\$72.00
Accessories (Optional)			
2126.46	Thermocouple-Needle (12 x 5.9", K Type, -58° to 1292°F)	\$ 20.95	N/A

Model L104

Four channel logger provides a wide range of current measurements using specified current probes



cover closed

► FEATURES

- TRMS current recording up to 1200A (probe dependent)
- 64 samples per cycle
- Programmable storage rates from 8 per second to 1 every day
- Four user selectable storage modes
- Stores up to 1,000,000 measurements in non-volatile memory
- Powered by standard Alkaline batteries for a period of up to 180 days
- Lightweight, compact, fits anywhere
- Six LED indicators quickly and clearly display logger status
- Includes FREE DataView® software for data storage, real-time display, analysis and report generation
- Wireless *Bluetooth* data communication (Class 2 *Bluetooth* module included)
- 600V CAT IV; 1000V CAT III

► APPLICATIONS

- Single-phase or poly-phase load monitoring
- Neutral and ground current monitoring
- Harmonic current monitoring using DataView® software
- Intermittent problem detection
- Current load monitoring

► SPECIFICATIONS

MODEL	L104
ELECTRICAL	
Channels	Four
Input Connection	One 3 pin connector per channel
Input Range	0 to 1Vac
Accuracy (50/60Hz)	0 to 10mV unspecified 10 to 50mV: ±(0.5% of Reading + 1mV) 50 to 1000mV: ±(0.5% of Reading + 0.5mV)
Input Impedance	100kΩ
Sample Rate	64 samples/cycle
Storage Rate	Programmable from 125ms to 1 per day
Storage Mode	Start/Stop, FIFO, Extended Recording Mode (XRM™) and Store on Alarm
Recording Length	15 minutes to 8 weeks, programmable using DataView®
Memory	1,000,000 measurement (2MB) The recorded data is stored in non-volatile memory and retained even if the battery is low or removed.
Communication	<i>Bluetooth</i> connection (communicates up to 30 ft)
Power Source	4 x 1.5V C-cell Alkaline batteries
Battery Life	Up to > 180 days (dependent on storage rate and recording length)
MECHANICAL	
Dimensions	5.904 x 5.904 x 3.568" (150 x 150 x 91mm)
Weight (with battery)	2.1 lbs (0.95kg)
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)

For use with current probes with voltage output

► ACCESSORIES

AC Current Probe Model MN93-BK
Catalog #2140.32



AC Current Probe Model SR193-BK
Catalog #2140.33



AC Current Probe Model MN193-BK
Catalog #2140.36



► PRODUCT INCLUDES

Bluetooth USB adapter, twelve color-coded input ID markers, mounting hardware, 4 x 1.5V C-Cell alkaline batteries, USB cable for firmware updates, and USB stick supplied with DataView® software and user manual.



CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2126.10	Simple Logger® II Model L104 (4-Channel, TRMS, <i>Bluetooth</i> , 1Vac, DataView® software)	\$795.00	\$ 72.00

DATA LOGGERS

Simple Logger® II 4-Channel *Bluetooth* Edition

4-Channel AmpFlex® Model AL834

Four channel logger with 24" long flexible current sensors capable of wrapping around an 8" conductor



► SPECIFICATIONS

MODEL	AL834	
ELECTRICAL		
Channels	Four	
Input	Captive AmpFlex® AC Current Flexible Sensors	
Range	5 to 300AAC	15 to 3000AAC
Accuracy (50/60Hz)	0 to 5A unspecified 5 to 300A: ±(1% of Reading + 0.5A)	0 to 15A unspecified 15 to 3000A: ±(1% of Reading + 1A)
Resolution	0.1AAC	0.5AAC
Sample Rate	64 samples/cycle	
Storage Rate	Programmable from 125ms to 1 per day	
Storage Modes	Start/Stop, FIFO, Extended Recording Mode (XRM™), Store on Alarm	
Recording Length	15 minutes to 8 weeks, programmable using DataView®	
Memory	1,000,000 measurements (2MB) The recorded data is stored in non-volatile memory and will be retained even if the battery is low or removed.	
Communication	Bluetooth connection (communicates up to 30 ft)	
Power Source	4 x 1.5V C-cell Alkaline batteries (included)	
Battery Life	Up to 180 days (dependent on storage rate/recording length)	
MECHANICAL		
Dimensions	5.904 x 5.904 x 3.568" (150 x 150 x 91mm) w/o Sensor	
Max Conductor Size	Ø 8" (203mm)	
Weight (with battery)	3.9 lbs (1.77kg)	
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)	



cover closed

► FEATURES

- Includes four integral AmpFlex® flexible current probes that will measure up to 3000A TRMS with 0.5A resolution
- Dual range 300/3000A user selectable per channel
- 64 samples per cycle
- Programmable storage rates from 125ms to 1 per day
- 4 user selectable storage modes
- Stores up to 1,000,000 measurements in non-volatile memory
- Powered by standard Alkaline batteries for a period of up to 180 days
- Lightweight, compact and weatherproof
- 6 LED indicators quickly and clearly display logger status
- Wireless *Bluetooth* data communication (Class 2 *Bluetooth* module included)
- Includes FREE DataView® software for data storage, real-time display, analysis and report generation
- EN 61010-1; 600V CAT IV, 1000V CAT III

► APPLICATIONS

- Single/Split-phase and 3-phase load monitoring
- Neutral and ground current monitoring
- Intermittent problem detection
- Harmonic current monitoring using DataView® software
- Machine load monitoring
- Fault current detection
- Load profiling

► PRODUCT INCLUDES

Bluetooth USB adapter, twelve color-coded input ID markers, mounting hardware, 4 x 1.5V C-Cell Alkaline batteries, USB cable for firmware updates, and USB stick supplied with DataView® software and user manual.



CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2126.14	Simple Logger® II Model AL834 (4-Channel, TRMS, <i>Bluetooth</i> , AmpFlex® 300/3000AAC, DataView® software)	\$1,369.00	\$72.00



cover closed

4-Channel MiniFlex® Model ML914

Four channel logger includes four integral 6" flexible current probes

► SPECIFICATIONS

MODEL	ML914	
ELECTRICAL		
Channels	Four	
Input	6" Captive AC MiniFlex® Flexible Sensors	
Range	1 to 100Aac	5 to 1000Aac
Accuracy (50/60Hz)	0 to 1A unspecified 1 to 100A: ±(1% of Reading + 0.5A)	0 to 5A unspecified 5 to 1000A: ±(1% of Reading + 1A)
Resolution	0.1A	
Sample Rate	64 samples/cycle	
Storage Rate	Programmable from 125ms to 1 per day	
Storage Modes	Start/Stop, FIFO, Extended Recording Mode (XRM™)	
Recording Length	15 minutes to 8 weeks, programmable using DataView®	
Memory	1,000,000 measurements (2MB) The recorded data is stored in non-volatile memory and will be retained even if the battery is low or removed.	
Communication	Bluetooth connection (communicates up to 30 ft)	
Power Source	4 x 1.5V C-Cell Alkaline batteries (included)	
Battery Life	Up to 180 days (dependent on storage rate/recording length)	
MECHANICAL		
Dimensions	5.904 x 5.904 x 3.568" (150 x 150 x 91mm) w/o Sensor	
Max Conductor Size	1.77" (45mm) diameter	
Weight (with battery)	2.4 lbs (1.1kg)	
Case	UL94-V0	
Vibration	IEC 68-2-6 (1.5mm, 10 to 55Hz)	
Shock	IEC 68-2-27 (30G)	

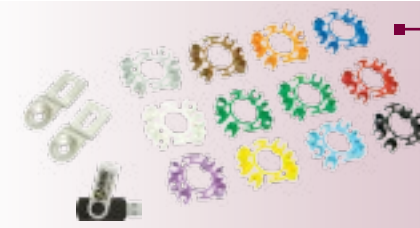
► FEATURES

- Includes four integral MiniFlex® flexible current probes that will measure up to 1000A TRMS with 0.1A resolution
- Dual range 100/1000A user selectable per channel
- 64 samples per cycle
- Programmable storage rates from 125ms to 1 per day
- 4 user selectable storage modes
- Stores up to 1,000,000 measurements in non-volatile memory
- Powered by standard Alkaline batteries for a period of up to 180 days
- Lightweight and compact
- 6 LED indicators quickly and clearly display logger status
- Wireless *Bluetooth* data communication (Class 2 *Bluetooth* module included)
- Includes FREE DataView® software for data storage, real-time display, analysis and report generation
- EN 61010-1; 600V CAT IV, 1000V CAT III

► APPLICATIONS

- Single/Split phase and 3 phase load monitoring
- Neutral and ground current monitoring
- Intermittent problem detection
- Harmonic current monitoring using DataView® software
- Machine load monitoring
- Fault current detection
- Load profiling

► PRODUCT INCLUDES



Bluetooth USB adapter, twelve color-coded input ID markers, mounting hardware, 4 x 1.5V C-Cell Alkaline batteries, USB cable for firmware updates, and USB stick supplied with DataView® software and user manual.

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2126.40	Simple Logger® II Model ML914 (4-Channel, TRMS, <i>Bluetooth</i> , MiniFlex® 100/1000Aac, DataView® software)	\$1,239.00	\$72.00

DATA LOGGERS

Simple Logger® II 4-Channel *Bluetooth* Edition

Model L264

Four channel logger with AC/DC voltage inputs that directly measure and record up to 600V

► SPECIFICATIONS

MODEL	L264
ELECTRICAL	
Channels	Four
Input Connection	Five recessed 4mm banana jacks
Input Range	0 to 600Vac/dc
Accuracy (50/60Hz)	0 to 5V unspecified 5 to 50V: ±(0.5% of Reading + 1V) 50 to 600V: ±(0.5% of Reading + 0.5V)
Input Impedance	16MΩ
Sample Rate	64 samples/cycle
Storage Rate	Programmable from 125ms to 1 per day
Storage Modes	Start/Stop, FIFO, Extended Recording Mode (XRM™) and Store on Alarm
Recording Length	15 minutes to 8 weeks, programmable using DataView®
Memory	1,000,000 measurements (2MB). The recorded data is stored in non-volatile memory and will be retained even if the battery is low or removed.
Communication	<i>Bluetooth</i> connection (communicates up to 30 ft)
Power Source	4 x 1.5V C-cell Alkaline batteries (included)
Battery Life	Up to 180 days (dependent on storage rate/recording length)
MECHANICAL	
Dimensions	5.904 x 5.904 x 3.568" (150 x 150 x 91mm)
Weight (with battery)	2.1 lbs (0.95kg)
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)

► PRODUCT INCLUDES

Bluetooth USB adapter, set of 5 color-coded (4 red/1 black) 5 ft leads with color-coded alligator clips, twelve color-coded input ID markers, mounting hardware, 4 x 1.5V C-Cell Alkaline batteries, USB cable for firmware updates, and USB stick supplied with DataView® software and user manual.



cover closed

► FEATURES

- TRMS voltage recording up to 600Vac/dc
- 64 samples per cycle
- Programmable storage rates from 8 per second to 1 every day
- 4 user selectable storage modes
- Stores up to 1,000,000 measurements in non-volatile memory
- Powered by standard Alkaline batteries for a period of up to 180 days
- Lightweight, compact, fits anywhere
- 6 LED indicators quickly and clearly display logger status
- Includes FREE DataView® software for data storage, real-time display, analysis and report generation
- Includes set of 5 color-coded (4 red/1 black) 5 ft leads with color-coded alligator clips
- Wireless *Bluetooth* data communication (Class 2 *Bluetooth* module included)
- Safety Ratings 600V CAT IV; 1000V CAT III

► APPLICATIONS

- Single/split phase and poly phase voltage monitoring
- Neutral and ground voltage monitoring
- Intermittent problem detection
- Harmonic voltage monitoring using DataView® software
- Residential power monitoring
- DC voltage monitoring

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2126.23	Simple Logger® II Model L264 (4-Channel, TRMS, <i>Bluetooth</i> , 600Vac/dc, DataView® software)	\$795.00	\$72.00

Model L564

Four channel logger with two AC voltage and two AC current inputs that directly measure and record up to 600V



cover closed

► FEATURES

- Four input channels (2 voltage & 2 current)
- User programmable recording modes: Start/Stop, FIFO, Extended Recording Mode (XRM™) and Alarm Recording
- Powered by standard Alkaline batteries for a period of up to 180 days
- Stores 1,000,000 measurements
- Includes FREE DataView® software for data storage, real-time display, analysis and report generation
- Includes set of 3 color-coded (1 red/1 black/1 white) 5 ft leads with color-coded alligator clips
- Wireless *Bluetooth* data communication (Class 2 *Bluetooth* module included)
- Safety Ratings 600V CAT IV; 1000V CAT III

► APPLICATIONS

- Single/split phase and 2 phase load monitoring
- Neutral and ground voltage/current, current monitoring
- Intermittent problem detection
- Harmonic voltage and current monitoring using DataView® software
- Residential power monitoring
- Fault voltage detection
- Load profiling

► SPECIFICATIONS

MODEL	L564	
ELECTRICAL		
Channels	Four (two voltage & two current)	
Connection	Current Channel	Voltage Channel
Input Connection	Two 3 pin connector	Three recessed 4mm banana jacks
Input Range	0 to 1VAc (for use with iron core current probes with a voltage output)	0 to 600VAc
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)
Input Impedance	100kΩ	16MΩ
Sample Rate	64 samples/cycle	
Storage Rate	Programmable from 125ms to 1 per day	
Storage Modes	Start/Stop, FIFO, Extended Recording Mode (XRM™) and Store on Alarm	
Recording Length	15 minutes to 8 weeks, programmable using DataView®	
Memory	1,000,000 measurements (2MB). The recorded data is stored in non-volatile memory and will be retained even if the battery is low or removed.	
Communication	<i>Bluetooth</i> connection (communicates up to 30 ft)	
Power Source	4 x 1.5V C-cell Alkaline batteries (included)	
Battery Life	Up to 180 days (dependent on storage rate/recording length)	
MECHANICAL		
Dimensions	5.904 x 5.904 x 3.568" (150 x 150 x 91mm)	
Weight (with battery)	2.1 lbs (0.95kg)	
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)	

► PRODUCT INCLUDES



Bluetooth USB adapter, set of 3 color-coded (1 red/1 black/1 white) 5 ft leads with color-coded alligator clips, twelve color-coded input ID markers, mounting hardware, 4 x 1.5V C-Cell Alkaline batteries, USB cable for firmware updates, and USB stick supplied with DataView® software and user manual.

See page 58 & 59 for optional probes

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2126.36	Simple Logger® II Model L564 (4-Channel, TRMS, <i>Bluetooth</i> , Voltage & Current, DataView® software)	\$835.00	\$72.00



DATA LOGGERS

8 to 16 Channel Logger

Models DL-1080 & DL-1081

Versatile, powerful and cost effective data loggers handling analog, digital and other types of variables with high resolution and speed

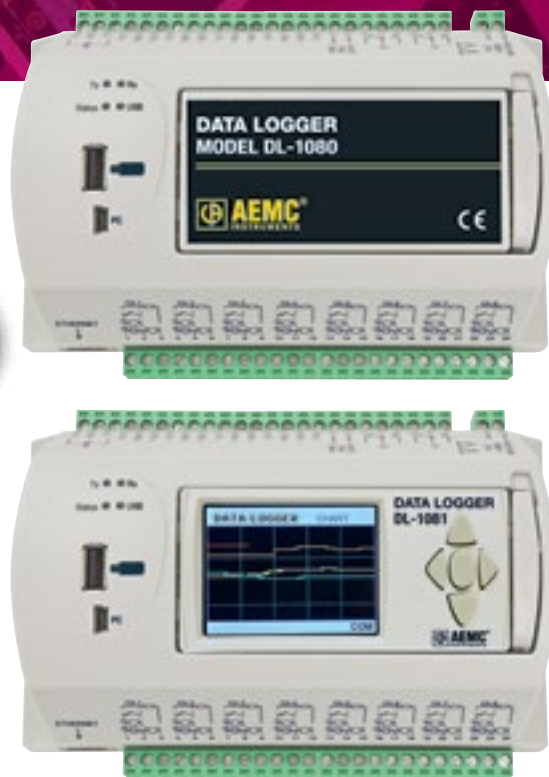
NEW!

► SPECIFICATIONS

MODELS	DL-1080 & DL-1081		
ELECTRICAL			
Input Type	Measuring Range:	Accuracy:	
J	-184° to 1832°F (-120 to 1000°C)	± 0.2% (F.R.) ± 1°C	
K	-202° to 2501.6°F (-130 to 1372°C)		
T	-202° to 752°F (-130 to 400°C)		
E	-202° to 1436°F (-130 a 780°C)		
N	-202° to 2372°F (-130 to 1300°C)		
R	68° to 3214.4°F (20 to 1768°C)	± 0.2% (F.R.) ± 3°C	
S	68° to 3214.4°F (20 to 1768°C)		
B	212° to 3308°F (100 to 1820°C)		
Pt100	-328° to 1562°F (-200 to 850°C)	± 0.15% (F.R.)	
Pt1000	-328° to 1562°F (-200 to 850°C)		
Linear 0 to 20mA	User Programmable	± 0.15% (F.R.)*	
Linear 4 to 20mA			
Linear 0 to 20mV			
Linear 0 to 50mV			
Linear 0 to 60mV			
Linear -20 to 20mV			
Linear 0 to 5V			
Linear 0 to 10V			
Digital Inputs			Logic level "0": from 0 to 0.8Vdc Logic level "1": from 3 to 30Vdc
Internal Memory			2MB
Excitation Current	Pt100s: 360µA; ; Pt1000s: 320µA		
Maximum Pt100/Pt1000 Compensated Cable Resistance	40Ω		
Maximum Input Voltage	30Vdc		
Input Current @ 30Vdc (typical)	3mA		
Digital Outputs	Maximum output voltage: 30Vdc Maximum output current: 200mA Maximum relay current: 3A @ 250Vac; 3A @ 30Vdc		
Storage Rate	from 1ms to 24 hours		
Maximum Channel Logged	100		
Supported Modbus Commands	Read Coil Status (01h) Read Holding Registers (03h) Write Single Coil (05h) Write Single Register (06h) Write Multiple Registers (0Fh)		
Power Supply	100 to 240Vac, 50/60Hz. 20VA (max)		
ENVIRONMENTAL			
Operating Temperature	32° to 122°F (0 to 50°C)		
Relative Humidity	80% up to 85°F (30°C) For temperatures higher than 85°F (30°C), decrease 3% per °C		
Altitude	< 2000m		
Protection	IP20		

F.R. = Full Range = Span

*The full scale refers to the input of the sensor signal and not the range of configured indication.



Inputs rated CAT II



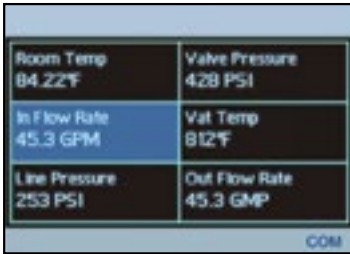
► FEATURES

- 8 universal analog input channels
- 8 digital I/Os (individually configured as inputs or outputs)
- 2 relay outputs (NO, NC and common)
- RS485 interface (Modbus master or slave)
- 24Vdc output to power up to eight 4 to 20mA transmitters
- Ethernet interface for LAN and internet use
- USB-device interface for configuring, monitoring and download
- USB-host interface for logged data retrieval through a USB flash drive
- Up to 32 configurable alarms
- Up to 128 virtual channels
- Detachable display (optional)
- Up to 100 channels can be logged at a configurable rate
- Data downloading through the configuration software or through the freely distributed download DLL
- 4 input channel types: analog, digital, remoted and virtual
- 16GB SD card interface

Model DL-1081

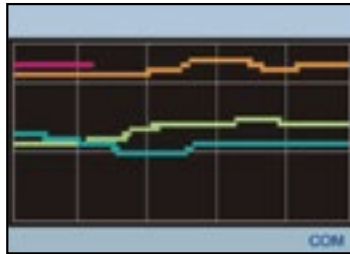
Color Functional Displays

"FAVORITES" Screen



Shows a six-position grid where you can assign a channel to be displayed real-time in each position.

"CHART" Screen



Displays a plot of the favorite channels values.

Software Screens



"CONFIGURATION" Screen



Data logger and display parameters can be changed and viewed on this screen.

"ALARMS" Screen



A 32-position grid where each numbered position is related to its equivalent alarm or event. When an alarm is active, its number will be displayed in red on this screen.



▶ PRODUCT INCLUDES

▶ DL-1080 & DL-1081 software
User manual and drivers also available on USB stick

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2134.61	Data Logger Model DL-1080 (8 Analog to 8 Digital Channel, no LCD)	\$1,575.00	—
2134.62	Data Logger Model DL-1081 (8 Analog to 8 Digital Channel, LCD)	\$1,795.00	—



DATA LOGGERS

Probe Selection Chart

AEMC MODEL NUMBER	AEMC CATALOG NUMBER	PROBE OUTPUT	PROBE RANGE	MAX RANGE FOR SLII	CABLE DIAMETER	BUS BAR SIZE	OUTPUT CONNECTION	USED WITH LOGGER MODEL	NOTES
MN261	2115.82	100mV/AAC 10mV/AAC	0.1 to 24AAC 0.5 to 240AAC	10AAC 100AAC	0.78"	N/A	Lead w/BNC	L101 L102 L562	—
JM830A	2110.83	0.333mA/AAC	1 to 2400A	2400A	2.52"	1.97 x 5.31"	Lead	L111	—
JM861	2110.90	10mV/AAC 1mV/AAC 0.1mV/AAC	1 to 30AAC 1 to 300AAC 1 to 3000AAC	30AAC 300AAC 3000AAC	2.52"	1.97 x 5.31"	Lead w/BNC	L101 L102 L562	—
MF 300-6-2-10	2126.81	100mV/AAC 10mV/AAC	30AAC 300AAC	10AAC 100AAC	1.77"	2.25 x 3/4"	Sensor w/BNC	L101 L102 L562	—
300-24-2-1	2112.88	100mV/AAC 10mV/AAC	5 to 30A 5 to 300A	10A 100A	8"	N/A	Sensor w/Banana Plugs	L101 L102 L562	Must use adapter # 2118.46
1000-24-1-1	2112.39	1mV/AAC	5 to 1000A	1000A	8"	N/A	Sensor w/Banana Plugs	L101 L102 L562	Must use adapter # 2118.46
1000-24-2-1	2112.98	10mVAC 1mV/AAC	5 to 100A 5 to 1000A	100A 1000A	8"	N/A	Sensor w/Banana Plugs	L101 L102 L562	Must use adapter # 2118.46
1000-36-2-1	2113.00	10mVAC 1mV/AAC	5 to 100A 5 to 1000A	100A 1000A	11"	N/A	Sensor w/Banana Plugs	L101 L102 L562	Must use adapter # 2118.46
3000-24-2-0.3	2114.87	3.3mV/AAC 0.3mV/AAC	5 to 300A 5 to 3000A	300A 3000A	8"	N/A	Sensor w/Banana Plugs	L101 L102 L562	Must use adapter # 2118.46
6000-36-2-0.1	2113.21	1mV/AAC 0.1mV/AAC	5 to 600A 5 to 6000A	600A 6000A	11"	N/A	Sensor w/Banana Plugs	L101 L102 L562	Must use adapter # 2118.46
30000-24-2-0.1	2113.33	1mV/AAC 0.1mV/AAC	5 to 3000A 5 to 30,000A	1000A 10000A	8"	N/A	Sensor w/Banana Plugs	L101 L102 L562	Must use adapter # 2118.46
MN01	2129.17	1mA/AAC	2 to 150A	150A	0.39"	N/A	Lead	L111	—
MN02	2129.20	1mA/AAC	50mA to 100A (1Ω) 50mA to 90A (10Ω)	100AAC	0.39"	N/A	Lead	L111	—
MN03	2129.18	1mV/AAC	2 to 100AAC	100AAC	0.47"	N/A	Lead w/Banana Plug	L101 L102 L562	Must use adapter # 2118.46
MN93-BK	2140.32	5mV/AAC	2 to 240AAC	200AAC	0.8"	N/A	Proprietary	L104 L564	—
MN193-BK	2140.36	200mV/AAC 10mV/AAC	5 to 100AAC	5A 100A	0.8"	N/A	Proprietary	L104 L564	—
MN251	2115.77	1mV/AAC	0.5 to 240A	240AAC	0.78"	N/A	Lead w/Banana Plug	L101 L102 L562	Must use adapter # 2118.46
MN255	2115.81	100mV/AAC 10mV/AAC	0.1 to 24AAC 0.1 to 240AAC	10AAC 100AAC	0.78"	N/A	Lead w/Banana Plug	L101 L102 L562	Must use adapter # 2118.46

AEMC MODEL NUMBER	AEMC CATALOG NUMBER	PROBE OUTPUT	PROBE RANGE	MAX RANGE FOR SLII	CABLE DIAMETER	BUS BAR SIZE	OUTPUT CONNECTION	USED WITH LOGGER MODEL	NOTES
MN313	2116.25	1mA/Aac	0.1 to 200A	200Aac	0.78"	0.79 x 0.2"	Lead	L111	—
MN353	2116.27	10mV/Aac	0.1 to 150A	100Aac	0.78"	N/A	Lead w/Banana Plug	L101 L102 L562	Must use adapter # 2118.46
MN373	2116.28	1000mV/Aac 10mV/Aac	0.01 to 2.4Aac 0.1 to 200Aac	1Aac 100Aac	0.78"	N/A	Lead w/Banana Plug	L101 L102 L562	Must use adapter # 2118.46
MN375	2115.41	100mV/Aac	0.1 to 10A	10Aac	0.78"	N/A	Lead w/Banana Plug	L101 L102 L562	Must use adapter # 2118.46
MN379	2153.01	200mV/Aac 10mV/Aac	5Aac 100Aac	5Aac 100Aac	0.78"	N/A	Lead w/Banana Plug	L101 L102 L562	Must use adapter # 2118.46
SR193-BK	2140.33	1mV/Aac	1 to 1200A	1000Aac	2"	N/A	Proprietary	L104 L564	—
SR604	2113.44	1mA/Aac	0.1 to 1000A	1000Aac	2.05"	N/A	Lead	L111	—
SR661	2113.49	1mV/Aac 10mV/Aac 100mV/Aac	1000Aac 100Aac 10Aac	1000Aac 100Aac 10Aac	2.13"	N/A	BNC	L101 L102 L562	—
SR752	2116.32	1mV/Aac	0.1 to 1000A	1000Aac	2.05"	1.96 x 0.19"	Lead w/Banana Plug	L101 L102 L562	Must use adapter # 2118.46
SR759	2116.33	1000mV/Aac 100mV/Aac 10mV/Aac 1mV/Aac	1mA to 1Aac 10mA to 10Aac 0.1 to 100Aac 1 to 1000Aac	1Aac 10Aac 100Aac 1000Aac	2.05"	1.96 x 0.19"	Lead w/Banana Plug	L101 L102 L562	Must use adapter # 2118.46

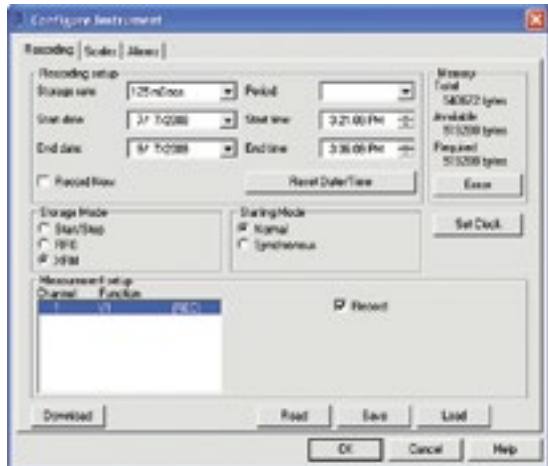
Simple Logger® II Data Loggers
AC Volt/Amp • DC Amps
Events & *MORE!*
DataView®

DataView®

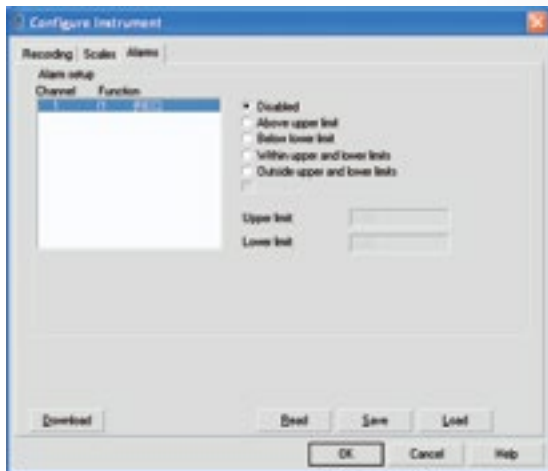
Data Analysis and Reporting Software for Data Loggers



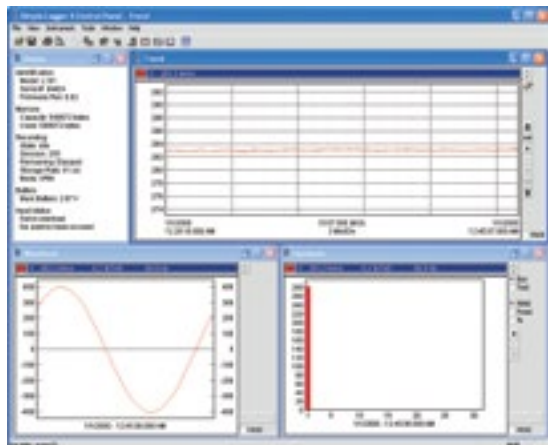
Typical DataView® Functional Displays



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



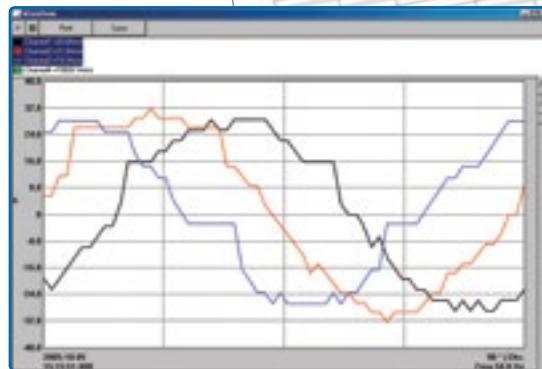
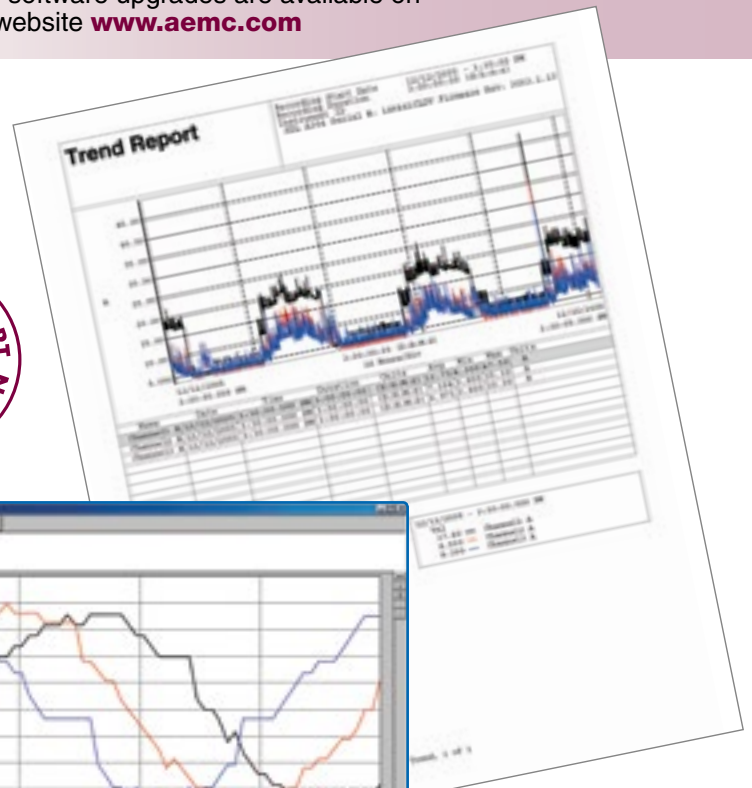
Configure all alarm functions with straightforward selections.



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

Configure all data logger functions of the Simple Logger® II Models

- 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 are available on our website www.aemc.com



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



Models CA811 & CA813

Features optical sensors that are designed to match the response of the human eye

► SPECIFICATIONS

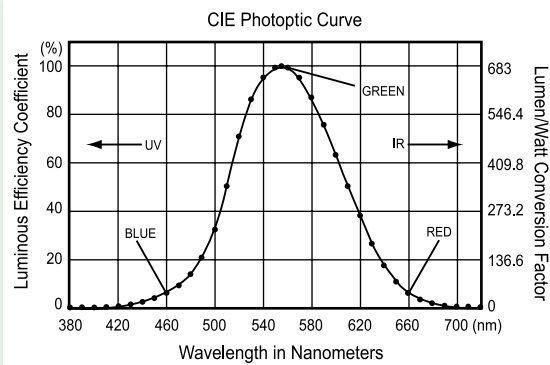
MODELS	CA811	CA813*
Range	20fc, 200fc, 2000fc, 20kfc 20lux, 200lux, 2000lux, 20k lux	20fc, 200fc, 2000fc, 20kfc, 200kfc 20lux, 200lux, 2000lux, 20k lux, 200k lux
Display Resolution	0.01fc or 0.01lux	
Sensor	Silicon photodiode	
Spectral Response	CIE Photopic Curve	
Accuracy	2856K Light Source Common Light Source	
	±5% of Reading ± 10cts ±18% of Reading ± 2cts	±5% 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	One 9V Alkaline battery (included)	
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

► 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
- Measures incandescent lighting
- 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 and 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




*Note: Model CA813 offers higher sensitivity (200klux) and has a better spectral response to common light sources. Model CA811 is used to measure incandescent lighting.

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2121.20	Lightmeter Model CA811	\$119.00	N/A
2121.21	Lightmeter Model CA813	\$179.00	N/A

Model CA832

Designed to assess sound ambiances or nuisances in accordance with international safety and quality standards

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	±1.5dB (ref. 94dB@1kHz)
Resolution	0.1dB
Precision	±2.0dB
Display	2000-count
Sensor Type	0.5" electric (pre-polarized) 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 – 50Ω AC output: 1.0Vrms – 600Ω
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	One 9V Alkaline battery (included)
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



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 ±1.5dB (ref. 94dB@1kHz)
- 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 and dirt resistant gray holster

APPLICATIONS

- Factories
- Schools and Libraries
- Airports
- Office environments and Studios
- Auditoriums
- Hospitals

PRODUCT INCLUDES

Shockproof holster, protective foam microphone cap, screwdriver, male jack connector, assembly screw for camera type tripod, 9V battery and user manual.

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



CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2121.23	Sound Level Meter Model CA832	\$199.00	\$295.00

Model CA846

Provides excellent response time to changes in temperature, good repeatability and accurate readings



Discover how to maintain an appropriate humidity level



► 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 and dirt resistant gray holster

► APPLICATIONS

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

► 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	One 9V Alkaline battery (included)
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



CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2121.24	Thermo-Hygrometer Model CA846 (NTC)	\$159.00	\$350.00



Model CA863

Offers the ability to easily switch between temperature readings on both channels (T1 & T2) and differential (DT)

► SPECIFICATIONS

MODEL	CA863
MEASUREMENTS	
Input	Dual K-type thermocouple
Temperature Scale	Fahrenheit or Celsius user selectable
Measurement Range	-58° to 1999°F or -50° to 1300°C
Display Resolution	1°F or 1°C, 0.1°F or 0.1°C
Sensor	K-type thermocouple dual input (included)
Accuracy (Instrument)	-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
Input Protection	24Vdc or 24Vrms
Sample Rate	2.5 times per second
Input Connector	Accepts two standard miniature K-type thermocouple plugs
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	One 9V Alkaline battery (included)
Low Battery Indication	is displayed when battery voltage is low

Model CA876

Features a laser guide for precise infrared temperature measurement

► SPECIFICATIONS

MODEL	CA876
MEASUREMENTS — INFRARED	
Temperature Range	-4° to 1022°F or -20° to 550°C
Display Resolution	1°F or 1°C
Accuracy	±2% of Reading or ± 6°F (3°C)
Response Time	One second
Emissivity	Adjustable 0.10 to 1.00
Sensor	Thermopile
Optical Lens	Fresnel Lens
Laser	<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-type thermocouple (included)
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	One 9V Alkaline battery (included)
Low Battery Indication	is displayed when battery voltage is low

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2121.27	Thermometer Model CA863 (Dual K-type Thermocouple)	\$ 99.00	\$78.00
2121.34	Infrared Thermometer Model CA876 (Laser, var E, K-type Thermocouple, -4° to 1022°F)	\$179.00	N/A

► FEATURES

- Easy one-hand operation
- Dual K-type thermocouple included
- Measures temperature in °F and °C
- 0.1° resolution
- Max and hold functions
- 2000-count backlit LCD
- Lightweight and compact
- Includes rugged, shockproof, protective and 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
- Indoor/outdoor differential temperature measurements
- Plastics



► FEATURES

- Easy one-hand operation
- Non-contact infrared sensor
- Laser guide for precise aim
- Measures temperature in °F and °C
- High 1022°F/550°C measurement
- Adjustable emissivity 0.1 to 1.00
- Auto-Hold function
- 2000-count backlit LCD
- Lightweight and compact
- Removable protective laser cover
- Includes rugged, shockproof, protective and 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

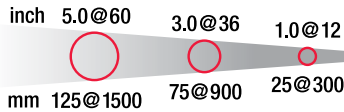


Model CA879



Field of Vision Ratio

Distance (D) to Spot Size (S)
D:S=12:1



-58.0 to 1022°F (-50.0 to 550°C)

Provides precision measurement with its laser target feature



SPECIFICATIONS

MODEL	CA879
ELECTRICAL	
Measuring Range	-58° to 1022°F (-50° to 550°C)
Resolution	0.1°F from -58° to 200°F, 1°F beyond this range 0.1°C from -50° to 200°C, 1°C beyond this range
Polarity	Automatic (minus only)
Accuracy	±1.5% of Reading ±4°F from -4° to +1022°F / ±9°F of -58° to -4°F ±1.5% of Reading ±2°C from -20° to +550°C / ±5°C of -50° to -20°C
Emissivity	Preset at 0.95
Spectral Response	6 to 14µm
Response Time	400ms
Laser Target	1mW (670nm type)
Power Source	One 9V Alkaline battery included (6LR61 or 6LF22)
MECHANICAL	
Dimensions	9.05 x 3.93 x 2.20" (230 x 100 x 56mm)
Weight	290g
ENVIRONMENTAL	
Operating: Temperature Humidity	32° to 122°F (0° to 50°C) 10 to 90% RH
Storage: Temperature Humidity	-4° to 140°F (-20° to 60°C) without battery < 80% RH
SAFETY	
Electromagnetic Compatibility	EN 50081-1 Ed. 1992: EN 55022 EN 50082-1 Ed. 1997: EN 55024

FEATURES

- Easy one-hand operation
- Non-contact infrared sensor
- Laser guide for precise aim
- 12:1 Field of Vision Ratio
- Measures temperature in °F and °C
- Fixed 0.95 emissivity
- Auto-HOLD function
- 2000-count backlit LCD

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



PRODUCT INCLUDES

Soft carrying case, 9V battery and user manual

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2121.37	Infrared Thermometer Model CA879 (-58° to 1022°F)	\$199.00	N/A

CLAMP-ON METERS

400 & 600 Series General Purpose Meters

Models 401/601, 403/603 & 405/605

Users can be sure of working in a higher degree of safety with 1000V CAT IV rated meters

SPECIFICATIONS



MODELS	401/601 TRMS	403/603 TRMS	405/605 TRMS
ELECTRICAL			
Current AC (rms)	1000/2000A	1000/2000A	1000/2000A
Current DC	-	1500/3000A	1500/3000A
Current AC+DC	-	-	1500/3000A
Voltage AC (rms)	1000/1000V	1000/1000V	1000/1000V
Voltage DC	1000/1000V	1000/1000V	1000/1000V
Voltage AC+DC	-	-	1000/1000V
Ohms	100/100kΩ	100/100kΩ	100/100kΩ
Continuity (Buzzer)	Yes (< 40Ω)	Yes (< 40Ω)	Yes (< 40Ω)
Diode Test	Yes	Yes	Yes
Total Harmonic Distortion	-	-	Yes
Single- and 3-Phase Real Power (AC, DC, AC/DC)*	-	-	1000/2000kW 3000/6000kW
Single- and 3-Phase Reactive Power (AC, DC, AC/DC)*	-	-	1000/2000kvar 3000/6000kvar
Single- and 3-Phase Apparent Power (AC, DC, AC/DC)*	-	-	1000/2000kVA 3000/6000kVA
Temperature (int., ext., C°, F°)	Yes	Yes	-
Voltage Frequency (Hz)	20kHz	20kHz	20kHz
Current Frequency (Hz)	2kHz	2kHz	2kHz
Power Function (W, var, VA)	-	-	Yes
Power Factor	-	-	Yes
THD-r/THD-f	-	-	Yes
Adapter (AC/DC)	-	0 to 10V	-
Phase Rotation	-	-	Yes (2 threads)
Auto AC/DC	Yes (V)	Yes (V & A)	Yes (V & A)
Auto Power OFF	Yes	Yes	Yes
Hold Button	Yes	Yes	Yes
Backlight Button	Yes	Yes	Yes
Min/Max Button	Yes	Yes	Yes
True InRush® Function	Yes	Yes	Yes
Relative Function	-	Yes	Yes
Peak ± Function	-	-	Yes
Hz Button	Yes	Yes	Yes
Jaw Opening Size (Diameter)	1.89"/2.36"	1.89"/2.36"	1.89"/2.36"

*3-phase measurements assume balanced load



FEATURES

- 1000V CAT IV Rated
- UL 94 VI flame retardant self-extinguishing
- IP54 Rated
- 10,000 count blue electroluminescent backlit display
- Measures up to 1000VAC (1400V peak), 1000VDC and AC+DC with resolution to 10mV
- Measures up to 2000Aac and 3000Adc (model dependent)
- Measures single- and three-phase power (real, reactive and apparent) up to 3MW with resolution to 1W (model dependent)
- Measures W, VA, var and PF for 1Φ & 3Φ balanced systems (Models 405 & 605)
- Measures frequency to 20kHz with 0.1Hz resolution
- Auto selects AC or DC measurement voltage
- True InRush® current measurement with 1mS capture
- Jaw opening up to 1.89" (400 series) and up to 2.36" (600 series)
- Leads are constructed with a flexible silicone material

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2139.20	Clamp-On Meter Model 401 (TRMS, 1000VAc/dc, 1000Aac, Ohms, Continuity, Temperature)	\$309.00	\$ 72.00
2139.21	Clamp-On Meter Model 403 (TRMS, 1000VAc/dc, 1000Aac/1500Adc, Ohms, Continuity, Temperature)	\$329.00	\$ 72.00
2139.50	Power Clamp-On Meter Model 405 (TRMS, 1000VAc/dc, 1000Aac/1500Adc, Phase Rotation, Ohms, Continuity, Power, THD)	\$350.00	\$ 72.00
2139.30	Clamp-On Meter Model 601 (TRMS, 1000VAc/dc, 2000Aac, Ohms, Continuity, Temperature)	\$411.00	\$ 72.00
2139.31	Clamp-On Meter Model 603 (TRMS, 1000VAc/dc, 2000Aac/3000Adc, Ohms, Continuity, Temperature)	\$450.00	\$ 72.00
2139.60	Power Clamp-On Meter Model 605 (TRMS, 1000VAc/dc, 2000Aac/3000Adc, Phase Rotation, Ohms, Continuity, Power, THD)	\$490.00	\$ 72.00

Models 407 & 607

Now available with
Android™ mobile application



► FEATURES

- 1000V CAT IV Rated
- UL 94 VI flame retardant self-extinguishing
- IP54 Rated
- 10,000 count blue electroluminescent backlit display
- Measures up to 1000VAC (1400V peak), 1000VDC and AC+DC with resolution to 10mV
- Measures up to 2000AAC and 3000ADc (Model 607)
- Measures W, VA, var and PF for 1Φ & 3Φ balanced systems
- Measures single- and three-phase power (real, reactive and apparent) up to 3MW with resolution to 1W
- Measures frequency to 20kHz with 0.1Hz resolution
- Auto selects AC or DC measurement
- True *InRush*® current measurement with 1mS capture
- Measures harmonics up to the 25th
- Records up to 1000 measurements
- *Bluetooth* communication (communicates up to 30 ft)
- Includes FREE DataView® software for download and report generation
- Jaw opening up to 1.89" (400 series) and up to 2.36" (600 series)
- Leads are constructed with a flexible silicone material

► SPECIFICATIONS

MODELS	407 TRMS	607 TRMS
ELECTRICAL		
Current AC (rms)	1000A	2000A
Current DC	1500A	3000A
Current AC+DC	1500A Peak	3000A Peak
Voltage AC (rms)	1000V	1000V
Voltage DC	1000V	1000V
Voltage AC+DC	1000V	1000V
Ohms	100kΩ	100kΩ
Continuity (Buzzer)	Yes (< 40Ω)	Yes (< 40Ω)
Total Harmonic Distortion	Yes	Yes
Individual Harmonics (to 25 th)	Yes	Yes
Single- and 3-Phase Real Power (AC, DC, AC/DC)*	1000kW 3000kW	2000kW 6000kW
Single- and 3-Phase Reactive Power (AC, DC, AC/DC)*	1000kvar 3000kvar	2000kvar 6000kvar
Single- and 3-Phase Apparent Power (AC, DC, AC/DC)*	1000kVA 3000kVA	2000kVA 6000kVA
Voltage Frequency (Hz)	20kHz	20kHz
Current Frequency (Hz)	2kHz	2kHz
Power Function (W, var, VA)	Yes	Yes
Power Factor	Yes	Yes
THD-r/THD-f	Yes	Yes
Auto AC/DC	Yes (V & A)	Yes (V & A)
Auto Power OFF	Yes	Yes
Hold Button	Yes	Yes
Backlight Button	Yes	Yes
Min/Max Button	Yes	Yes
True <i>InRush</i> ® Function	Yes	Yes
Peak ± Function	Yes	Yes
Harmonics Function	Yes	Yes
Rec (Record) Function	Yes	Yes
Wireless BT (<i>Bluetooth</i>) Function	Yes	Yes
Record (Recordings)	1000	1000
Hz Button	Yes	Yes
Jaw Opening Size (Diameter)	1.89"	2.36"

*3-phase measurements assume balanced load



► PRODUCT INCLUDES

Models 407 & 607

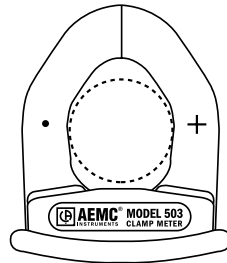
Hard carrying case, set of two color-coded, silicone test leads, test probes and alligator clips, *Bluetooth* USB adapter, four 1.5V AA batteries, safety information sheet, and USB stick supplied with DataView® software and user manual.

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2139.51	Power Clamp-On Meter Model 407 (TRMS, 1000VAC/dc, 1000AAC/1500ADc, Ohms, Continuity, Energy, Harmonics, Power, THD, Recording)	\$450.00	\$95.00
2139.61	Power Clamp-On Meter Model 607 (TRMS, 1000VAC/dc, 2000AAC/3000ADc, Ohms, Continuity, Energy, Harmonics, Power, THD, Recording)	\$550.00	\$95.00



Models 500, 502 & 503

Small compact size clamp-meter that fits comfortably in a tool bag



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



SPECIFICATIONS

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



FEATURES

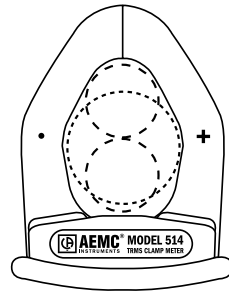
- Compact size - fits into your pocket
- 400AAC or 400AAC/DC current measurements
- 600VAC/DC volts measurements
- TRMS measurements (Model 502)
- Resistance measurements to 400Ω
- Continuity with beeper below 40Ω
- Frequency measurements from V and A (Model 502)
- Hold function to “freeze” readings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

PRODUCT INCLUDES

Soft carrying case, set of two test leads, two 1.5V AAA batteries and user manual.



CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2117.54	Clamp-On Meter Model 500 (AC, 400AAC, 600VAC, Ohms, Continuity)	\$ 69.00	\$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)	\$159.00	\$68.00



Jaw Opening: 1.575" (40mm)
Conductor Size: one 750kcmil cable
or two 350kcmil cables

Models 511, 512 & 514

Full ranges and compliance to international safety and quality standards ensure a professional and reliable tool



FEATURES

- Standard size, full function clamp-on meter
- 1000AAC or 1000AAC/DC current measurements
- 750VAC or 1000VDC volt measurements
- TRMS measurements (Models 512 & 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 ADC zeroing
- Large, easy-to-read, 4000-count display
- 42-segment analog bargraph
- Includes test leads, soft carrying pouch and batteries

SPECIFICATIONS

MODELS	511	512 TRMS	514 TRMS
AC Current (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	1.9% of Reading ± 5cts 1.9% of Reading ± 5cts	1.9% of Reading ± 5cts 2.5% of Reading ± 5cts
AC Voltage (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	1.2% of Reading ± 5cts	1.5% of Reading ± 5cts
Input Impedance	10MΩ	10MΩ	10MΩ
DC Current (Auto-Ranging)	–	–	1A to 1000A
Resolution	–	–	0.01A, 0.1A and 1A
Accuracy	–	–	±2.5% of Reading ± 10cts
DC Voltage (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
Resistance	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
Diode Test	0.6mA	0.6mA	1.7mA
Open Circuit Voltage	3Vdc	3Vdc	3Vdc
Continuity	<40Ω	<40Ω	<40Ω
Max Test Voltage	3Vdc	3Vdc	3Vdc
Frequency (Auto-Ranging)			
CURRENT INPUT			
Range	4kHz 10kHz	1Hz Resolution –	1Hz Resolution 10Hz Resolution
Accuracy	20Hz to 10kHz	0.1% of Reading ± 1ct	0.1% of Reading ± 1ct
Min Input Signal	4kHz 10kHz	2Arms –	2Arms 5Arms
VOLTAGE INPUT			
Range	4kHz 10kHz	1Hz Resolution 10Hz Resolution	1Hz Resolution 10Hz Resolution
Accuracy	10Hz to 10kHz	0.1% of Reading ± 1ct	0.1% of Reading ± 1ct
Min Input Signal	4kHz 10kHz	5Vrms 5Vrms	5Vrms 10Vrms
Power Source	9V Alkaline battery (included)		
ENVIRONMENTAL			
Operating Temperature	32° to 104°F (0° to 40°C) < 80% RH, non-condensing	32° to 104°F (0° to 40°C) < 80% RH, non-condensing	*-14° to 122°F (-25° to 50°C), 80% RH, non-condensing

*Note: If Model 514 is to be used below 32°F (0°C), we suggest that the battery be replaced to ensure proper results.



PRODUCT INCLUDES

Soft carrying case, a pair of test leads, 9V battery and user manual.

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2117.67	Clamp-On Meter Model 511 (AC, 1000AAC, 750VAC/1000VDC, Ohms, Continuity, Hz)	\$159.00	\$68.00
2117.68	Clamp-On Meter Model 512 (TRMS, 1000AAC, 750VAC/1000VDC, Ohms, Continuity, Hz)	\$169.00	\$68.00
2117.70	Clamp-On Meter Model 514 (AC/DC, TRMS, 1000AAC/DC, 750VAC/1000VDC, Ohms, Continuity, Hz)	\$199.00	\$72.00

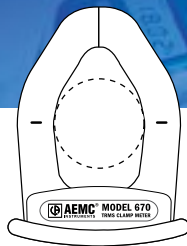


CLAMP-ON METERS

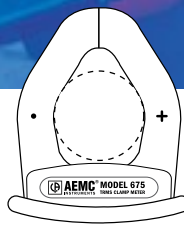
670 Series

Models 670 & 675

Dual display simultaneously measures and displays voltage and current!



Model 670
Jaw Opening: 1.65" (42mm)
Conductor Size: one 750kcmil cable or two 350kcmil cables



Model 675
Jaw Opening: 1.58" (40mm)
Conductor Size: one 750kcmil cable or two 350kcmil cables



SPECIFICATIONS

MODELS	670 TRMS			675 TRMS		
ELECTRICAL						
AC Current						
Measuring Range	0.00 to 99.99A	100 to 1000A	0.00 to 99.99A	100 to 1000A		
Resolution	0.01A	0.1A	0.01A	0.1A		
Accuracy	1.5% of Reading ± 5cts (50 to 60Hz) 2.0% of Reading ± 5cts (50 to 500Hz) 4.5% of Reading ± 5cts (500Hz to 3kHz)		1.5% of Reading ± 5cts (50 to 60Hz) 2.0% of Reading ± 5cts (50 to 500Hz) 4.5% of Reading ± 5cts (500Hz to 3kHz)			
DC Current						
Measuring Range	—		0.00 to 99.99A	100.0 to 999.9A	1000 to 1400A	
Resolution	—		0.01A	0.1A	1A	
Accuracy	—		1.2% of Reading ± 5cts	2.5% of Reading ± 5cts	2.5% of Reading ± 5cts	
AC Voltage						
Measuring Range	0.0 to 999.9V			0.0 to 999.9V		
Resolution	0.1V			0.1V		
Accuracy	1.0% of Reading ± 5cts (50 to 60Hz) 1.2% of Reading ± 5cts (50 to 500Hz) 2.5% of Reading ± 5cts (500Hz to 3kHz)			1.0% of Reading ± 5cts (50 to 60Hz) 1.2% of Reading ± 5cts (50 to 500Hz) 2.5% of Reading ± 5cts (500Hz to 3kHz)		
Input Resistance	1MΩ			1MΩ		
DC Voltage						
Measuring Range	0.0 to 999.9V	1000 to 1400V	0.0 to 999.9V	1000 to 1400V		
Resolution	0.1V	1V	0.1V	1V		
Accuracy	1% of Reading ± 2cts		1% of Reading ± 2cts			
Input Resistance	1MΩ		1MΩ			
Resistance-Ohms (Ω)						
Measuring Range	0.0 to 999.9Ω	1000 to 9999Ω	0.0 to 999.9Ω	1000 to 9999Ω		
Resolution	0.1Ω	1Ω	0.1Ω	1Ω		
Accuracy	1% of Reading ± 3cts, 3.3Vdc (Vmax)		1% of Reading ± 3cts, 3.3Vdc (Vmax)			
Continuity (••••)						
Beeper Activation	< 35Ω			< 35Ω		
Accuracy	1% of Reading ± 3cts, 3.3Vdc (Vmax)			1% of Reading ± 3cts, 3.3Vdc (Vmax)		
Frequency (Hz)						
Function	A - Hz	V - Hz	A - Hz	V - Hz		
Range	1000Hz	10,000Hz	1000Hz	10,000Hz		
Resolution	0.1Hz	1Hz	0.1Hz	1Hz		
Accuracy	1.0% of Reading ± 2cts			1.0% of Reading ± 2cts		
Temperature (°C/°F)						
Measuring Range	-40 to 999.5°C	1000 to 1200°C	-40 to 2192°F	-40 to 999.5°C	1000 to 1200°C	-40 to 2192°F
Resolution	0.5°C	1°C	1°F	0.5°C	1°C	1°F
GENERAL						
Power Supply	One 9V, NEDA 1604 (6F22) Alkaline battery (included)					
Battery Life	(no buzzer or backlight) 35 hours			(no buzzer or backlight) 30 hours		
MECHANICAL						
Digital Display	3 ¾ digits LCD dual display (max reading 9999)			3 ¾ digits LCD dual display (max reading 9999)		
Jaw Opening	1.65" (42mm)			1.58" (40mm)		
ENVIRONMENTAL						
Operating Temperature	*-14° to 122°F (-25 to 50°C), 80% RH, non-condensing			*-14° to 122°F (-25 to 50°C), 80% RH, non-condensing		



FEATURES

- Dual display
- Standard size, full function clamp-on meter
- 1000Aac/dc current measurements (DC current on Model 675 only)
- 1400Vdc volt measurements
- TRMS measurements
- Resistance measurement to 10,000Ω
- Continuity with beeper below 35Ω
- Frequency measurements from V and A inputs
- 1ms peak function for fast capture of signals
- Hold function to "freeze" readings
- Designed to measure amps and volts at the same time
- Push-button for easy ADC zeroing
- Large, easy-to-read 9999-count, backlit LCD display
- Includes test leads and soft carrying case

*Note: If the meter is to be used below 32°F (0°C), we suggest that the battery be replaced to ensure proper results.

PRODUCT INCLUDES

Soft carrying case, set of test leads (red/black with safety needle tips), K-type thermocouple, one 9V battery and a user manual.



CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2117.49	Clamp-On Meter Model 670 (Dual Display, TRMS, AC Amps, AC/DC Volts, Ohms, Continuity, Frequency, & Temperature)	\$ 229.00	\$ 68.00
2117.50	Clamp-On Meter Model 675 (Dual Display, TRMS, AC/DC Amps & Volts, Ohms, Continuity, Frequency & Temperature)	\$ 289.00	\$ 68.00



Model CM605

For general industrial monitoring and troubleshooting

SPECIFICATIONS

MODEL	CM605
ELECTRICAL	
AC Current	
Measurement Ranges	2 Ranges: 10A, 100A
Accuracy & Resolution	10A: 2.0% of Reading \pm 10cts - 1mA Resolution 80A: 2.0% of Reading \pm 10cts - 10mA Resolution > 80A: 3.5% of Reading \pm 10cts - 10mA Resolution
Frequency Range	2 Ranges: 50 to 500Hz
DC Current (positive only)	
Measurement Ranges	2 Ranges: 10A, 100A
Accuracy & Resolution	10A: 2.5% of Reading \pm 10cts - 1mA Resolution 80A: 2.5% of Reading \pm 10cts - 10mA Resolution > 80A: 4.5% of Reading \pm 10cts - 10mA Resolution
AC Volts	
Measurement Ranges	600Vrms
Accuracy & Resolution	1.5% of Reading \pm 5cts - 100mV Resolution
Frequency	40 to 500Hz
Input Impedance	10M Ω , < 50pF
DC Volts (positive only)*	
Measurement Ranges	600V
Accuracy & Resolution	1.0% of Reading \pm 2cts - 100mV Resolution
Input Impedance	10M Ω
Resistance (Ohms)	
Measurement Ranges	10k Ω (9999 Ω)
Accuracy & Resolution	1.0% of Reading \pm 3cts - 1 Ω Resolution
Test Voltage	< 3.0Vdc
Continuity	
Measurement Ranges	Buzzer < 100 Ω \pm 25 Ω
Resolution	1 Ω
Test Voltage	< 3.0Vdc
Analog Output	
Output	10mV/Aac & Adc through front banana jacks
Frequency	0 to 20kHz @ \pm 3db
Output Impedance	3k Ω , < 50pF
Other Functions	
Adc Zero & Relative Function	One touch push button (Δ ZERO Button) to Zero Adc, or other readings. Relative function also used in the other ranges to compare two measurements.
HOLD Function	Holds A & V measurements when pressed (HOLD button)
PEAK Function	Captures PEAK (1ms) V or A measurement when activated (PEAK Button)
Auto-Ranging	"AUTO" displayed on LCD
Over Range	"OL" displayed on LCD for all measurements
Auto Power OFF	Auto Power OFF after approx 10 minute with Over-Ride
Low Battery	Low Battery indication on LCD
MECHANICAL	
Max. Cable Diameter	\varnothing 0.45" (12mm)
Max. Jaw Opening	\varnothing 0.60" (15mm)
Power Source	Two 1.5V AAA (LR03) batteries (included)
Dimensions & Weight	7.95 x 2.76 x 1.33" (202 x 70 x 34mm) – 6.5 oz (180g)
Safety Standards	IEC/EN 61010-1 and 2-032 – 600V CAT II and 300V CAT III – Pollution Degree 2 Class 2 – Double or reinforced insulation, CE mark

*For negative measurement, add 2cts to the accuracy



FEATURES

- 10,000-count LCD display - excellent resolution
- 100Ac/dc Ammeter with low 10A range (1mA resolution)
- Tapered jaws for crowded wiring areas (\varnothing .60" - 15mm Jaw opening) (\varnothing .45" - 12mm Cable diameter)
- 600VAc/dc voltmeter
- Analog output in AAc/dc to data loggers, etc
- Auto-ranging & Adc zero push-button
- Data HOLD & PEAK functions
- Relative function to compare two measurements
- Ohm range & continuity test with beeper
- Auto Power OFF and low battery indicator
- IEC/EN 61010 safety rated & CE mark
- 600Vrms overload protection



PRODUCT INCLUDES



Soft carrying case, test leads, two 1.5V AAA batteries and user manual.

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
7000.02	Clamp-On Meter Model CM605 (100Ac/dc, Low Current)	\$249.00	\$65.00

LEAKAGE CURRENT METERS AND PROBES

Artificial Neutral & Leakage Current Probe

Model AN-1

Generates a momentary grounded artificial neutral to allow the measurement of fault currents on ungrounded three-phase systems

► SPECIFICATIONS

MODEL	AN-1
ELECTRICAL	
Working Voltage	30 to 600V
Frequency	45 to 65Hz
Resistance Per Phase	3.9kΩ ± 5%
Relay Duty Time	Slow position: 500mS / Fast position: 2.3 seconds
Power Source	12V _{DC} – Eight 1.5V AA batteries (included)
Power Consumption	180mA
Battery Life	Approx. 40 hours of use
MECHANICAL	
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
ENVIRONMENTAL	
Reference Temperature	73.4° ± 5°F (23° ± 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)



► 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

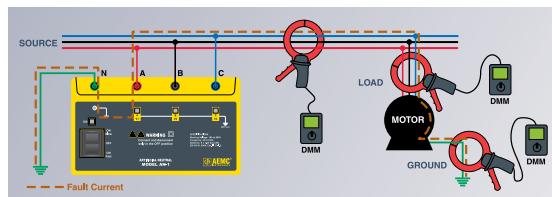


Model 2620

Check for leakage and locate insulation breakdowns on live circuits

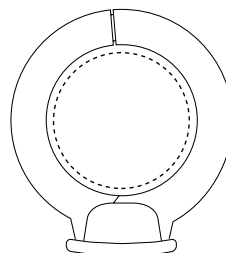
► SPECIFICATIONS

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)	
Weight	2.87 lbs (1300g)	



► FEATURES

- Very high sensitivity
- Differential or leakage current from 500μA
- Current up to 400A
- Two switch-selectable measurement ranges: 4AAC/400AAC
- 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 VAC range



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

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
1971.01	Artificial Neutral Model AN-1	\$699.00	–
Accessories (Optional)			
2125.52	Leakage Current Probe Model 2620 (4A-1V/A, 400A-1mV/A output)	\$549.00	\$72.00

LEAKAGE CURRENT METERS AND PROBES

TRMS Clamp-On Leakage Current Meter

Special product features

10µA
R
RESOLUTION

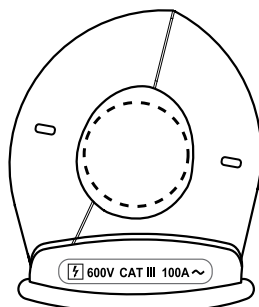
MEASURES
V A & Ω

MEASURES FREQUENCY
& CONTINUITY

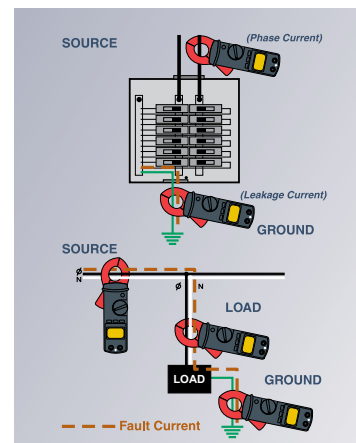


Model 565

Designed to measure low AC currents, which are typically leakage currents in ground conductors



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



► FEATURES

- Check for leakage and locate insulation breakdowns on live circuits
- Measures leakage current down to 0.1mA with up to 10µA resolution
- Measures current up to 100Arms
- Measures up to 600V_{AC/DC}
- 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
- Backlight display

► SPECIFICATIONS

MODEL	565 TRMS	
mA AC Current (TRMS, Auto-Ranging)	0 to 600mA	
Resolution	60mA	0.01mA (10µA)
	600mA	0.1mA (100µA)
Accuracy	50 to 60Hz	1.2% of Reading ± 5cts
	50 to 500Hz	2.5% of Reading ± 5cts
	500Hz to 3kHz	3.5% of Reading ± 10cts
AC Current (TRMS, Auto-Ranging)	10 to 100A	
Resolution	10A	0.001A (1mA)
	100A	0.01A (10mA)
Accuracy	50 to 60Hz	1.0% of Reading ± 5cts
	50 to 500Hz	1.2% of Reading ± 5cts
	500Hz to 3kHz	2.5% of Reading ± 10cts
AC Voltage (TRMS)	0 to 600V	
Accuracy	50 to 60Hz	1.0% of Reading ± 5cts
	50 to 500Hz	1.2% of Reading ± 5cts
	500Hz to 3kHz	2.5% of Reading ± 10cts
DC Voltage	0 to 600V	
Resolution	0.1V	
Accuracy	1.0% of Reading ± 3cts	
Resistance	0 to 1kΩ	
Accuracy	1.0% of Reading ± 3cts	
Continuity	Buzzer activates <35Ω (0 to 1kΩ)	
Frequency (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 ± 2cts	
Filter	On (50/60Hz only); Off (Full frequency range)	
In-Rush	Max 100mS sample time	
Power Source	Two 1.5V AAA batteries (included)	



► PRODUCT INCLUDES

Two color-coded 5 ft test leads, carrying case, batteries and user manual.

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2117.56	Clamp-On Leakage Current Meter Model 565 (TRMS, 60mA, 600mA, 10A, 100A, 600V _{ac/dc} , Hz, Ohms, Continuity)	\$ 269.00	\$72.00



Technical Assistance (800) 343-1391

www.aemc.com 73

LEAKAGE CURRENT METERS AND PROBES

AC Current Probes

Model SR759

Range selectable probe that offers four switch selectable ranges: 1, 10, 100 or 1000A



► SPECIFICATIONS

MODEL	SR759
MEASUREMENTS	
Measurement Range	1mA to 1Aac 10mA to 10Aac 0.1 to 100Aac 1 to 1000Aac
Output Signal	1000mVAc/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
- Designed for DMMs, recorders, loggers, oscilloscopes, power and harmonic meters
- Output terminated with 4mm safety shrouded banana plugs on 5 ft (1.5m) leads
- EN 61010, 600V CAT III safety standard

Models MN05 & MN114

Provides AC current measuring capabilities to instruments with mV inputs



► SPECIFICATIONS

MODELS	MN05	MN114
MEASUREMENTS		
Measurement Range	5mA to 10Aac 1A to 100Aac	1mA to 10Aac
Output Signal	1mVAc/mAac (100mV @ 100A)	100mVAc/Aac (1V @ 10A)
MECHANICAL		
Maximum Conductor Size	0.39"Ø (10mm)	0.47"Ø (12mm)
Output Termination	5 ft (1.5m) Lead	5 ft (1.5m) Lead
Security Rating	600V CAT III; CE approved	250V max.; Not CE approved

► 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 5mA to 100Aac (Model MN05)
- Measurements from 1mA to 10Aac (Model MN114)
- Excellent companion to all DMMs
- Permits very low AC current measurements

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2116.33	AC Current Probe Model SR759 (1/10/100/1000A, mV/A, High Accuracy, Lead)	\$299.00	\$75.00
2129.19	AC Current Probe Model MN05 (1mV/mA – 10A max & 1mV/A – 100A max, Lead)	\$ 99.00	\$65.00
2110.71	AC Current Probe Model MN114 (100mV/A – 10A max, Lead)	\$184.00	\$65.00

Models 5231 & 5233

Compact and simple, these multimeters with a large backlit display and non-contact voltage detection are exceptional products and a great value for today's market

SPECIFICATIONS

MODELS	5231	5233
Display	6000-count backlit display + 61-segment bargraph	
Acquisition	True RMS	
Autorange or Manual	Yes	
Bandwidth	3kHz (V) / 1kHz (A)	
Best Accuracy	0.2%	
AC Voltage	6 ranges / 60mV to 1000V Resolution: 0.01mV	6 ranges / 60mV to 1000V Resolution: 0.01mV
AC LowZ Voltage	4 ranges / 60mV to 1000V Resolution: 0.01mV	4 ranges / 60mV to 1000V Resolution: 0.01mV
DC Voltage	6 ranges / 600mV to 1000V Resolution: 0.01mV	6 ranges / 600mV to 1000V Resolution: 0.01mV
AC Current / DC Current	With 1mV/A clamp: 1 range / 600A Resolution: 0.1A	2 ranges / 6 to 10A Resolution: 0.001A
Resistance Measurement	6 ranges / 60MΩ - Resolution: 0.1Ω	
Audible Continuity/Diode Test	Yes	
Frequency/Duty Cycle	—	3 ranges: up to 3kHz / Yes
Capacitance	6 ranges / 1000μF - Resolution: 0.01nF	
Temperature (with external K thermocouple)	—	1 range: -20° to +760°C / 4° to +1400°F / Resolution: 1°
Non-contact Voltage Detection (NCV)	Yes	
Display Hold Function	Yes	
Relative Mode	—	Yes
Min-Max	—	Yes
Power Supply	9V Alkaline battery (6LF22)	
Protection Rating	IP54	
Dimensions	6.1 x 2.9 x 2.17" (155 x 75 x 55mm)	
Weight	.70 lb (320g)	
Safety Rating	600V CAT IV / 1000V CAT III	600V CAT IV / 1000V CAT III



FEATURES

- Non-contact detection of network voltage (NCV Function-AC only)
- AC/DC current up to 10A or 600A with a current clamp giving direct readings (Model 5231)
- High sensitivity with a resolution of 0.01mV
- Their protection enables them to withstand overloads up to 8000V
- V_{LowZ} function detect the presence of ghost voltage by placing a burden on the circuit
- Multi-position mounting
- 2-Off positions

PRODUCT INCLUDES



Soft carrying case, set of two 5 ft color-coded test leads and user manual.

Thermocouple

Included with Model 5233



CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2125.64	Digital Multimeter Model 5231 (TRMS, 6000-cts, V, AC/DC, Ohm, CT, NCV)	\$79.00	\$49.00
2125.65	Digital Multimeter Model 5233 (TRMS, 6000-cts, V, A, AC/DC, CAP, Ohm, T, NCV)	\$99.00	\$49.00

Models OX7102^{III} & OX7104^{III}

Rugged, self-contained, handheld oscilloscope with 100MHz bandwidth



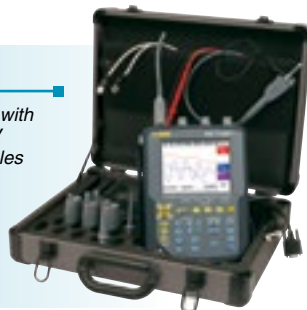
SPECIFICATIONS

MODELS	OX7102 ^{III}	OX7104 ^{III}
INTERFACE		
Screen Specifications	Color 5.7" LCD (115 x 86mm) 320 x 240 – CCFL backlighting	
Display Mode	Vectors with interpolation	
No. of Traces 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	
VERTICAL		
Vertical Sensitivity	16 ranges from 2.5mV – 200V/div and up to 156µV/div in verticle zoom mode (12-bit converter) – Accuracy ± 1% of Reading	
Bandwidth	100MHz	
Channels	Two isolated channels	Four isolated channels
Accuracy	±0.1% of Reading	
Input Impedance	1MΩ ± 0.5%	
Max Input Voltage	600Vdc, 600Vrms, 850Vpk (DC + peak AC at 1kHz) without 10/1 probe 1000Vrms with 10/1 probe derating -20 dB/decade from 100kHz to 100MHz	
Vertical Zoom	Zoom factor: from 1 to x 100	
HORIZONTAL		
Time Base Speed	35 ranges from 1ns/div to 200s/div	
Accuracy	± 0.1% – Roll mode from 100ms to 200s/div	
Horizontal Zoom	x100 maximum	
DIGITAL MEMORY		
Max. Sampling Speed	100GS/s in ETS – 2.5GS/s in Single Shot Mode on each channel	
Vertical Resolution	12 bits	
Memory Capacity per Channel	"TRC" approx. 10kB, "TXT" approx. 20kB	
User Memory	2MB	
Other Modes	Envelope mode (Factors from 2 to 64)	
XY Mode	Between two from the four traces – math functions and cursors	
OTHER FUNCTIONS		
Autoset	Complete autoset < 3s with recognition of channels, Frequency >30Hz	
Trigger Mode	Automatic Triggered, Single shot, Auto Level 50%	
FT Analyzer & 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 (included)	
Battery Life	Four hour operation when fully charged	
Communication	Ethernet, RS-232, Web Server	

PRODUCT INCLUDES

OX7102^{III} & OX7104^{III} Kit

Aluminum carrying case, two red and black 1.5m color-coded leads with needle probe tips, two PROBIX PRHX1 1/10 Probes 250MHz (600V CAT III), two red and black grip probes, two stylus, two Ethernet cables (one straight/one crossover), two for OX7102 & four for OX7104 PROBIX 4mm banana plug adapters; one US power adapter (115/230V), one 110V US power cord, one NiMH 9.6V battery pack, SX-METRO software on CD-ROM, Recorder/Harmonic/Power/50K memory option (installed) and user manual on CD-ROM.



FEATURES

- 5 complementary tools in a single instrument: oscilloscope, FFT analyzer, multimeter/wattmeter, harmonic analyzer on voltage/current/power and recorder
- Sampling rate 2.5GS/s in one-shot mode and 100GS/s in ETS mode (repetitive signals)
- 2 or 4 isolated measurement channels (600V CAT III) and up to 8 traces on screen
- 2 or 4 independent TRMS digital multimeters (8000 counts, 200kHz)
- LCD touch screen and Windows-like menus on screen
- Probix "plug & play" input terminals and smart sensors
- Standard "real-time" FFT analysis and calculation functions on channels
- Multi-interface communication connectors: USB, Centronics and Ethernet
- Memory depth of up to 50,000 points per channel (oscilloscope and recorder modes)
- Triggering on measurement thresholds in oscilloscope and multimeter modes
- Adapter for measuring up to 700VAC RMS 1000Vdc in meter mode
- Web Server (FTP server/client) with cursors and automatic measurements
- MiniFlex[®] sensors, powered by the instrument (sold as accessory)
- Power measurement option included for power measurements

Models OX7202^{III} & OX7204^{III}

**Rugged, self-contained,
handheld oscilloscope with
200MHz bandwidth**



► FEATURES

- 5 complementary tools in a single instrument: oscilloscope, FFT analyzer, multimeter/wattmeter, harmonic analyzer on voltage/current/power and recorder
- Sampling rate 2.5GS/s in one-shot mode and 100GS/s in ETS mode (repetitive signals)
- 2 or 4 isolated measurement channels (600V CAT III) and up to 8 traces on screen
- 2 or 4 independent TRMS digital multimeters (8000 counts, 200kHz)
- LCD touch screen and Windows-like menus on screen
- Probix “plug & play” input terminals and smart sensors
- Standard “real-time” FFT analysis and calculation functions on channels
- Multi-interface communication connectors: USB, Centronics and Ethernet
- Memory depth of up to 50,000 points per channel (oscilloscope and recorder modes)
- Triggering on measurement thresholds in oscilloscope and multimeter modes
- Adapter for measuring up to 700VAC RMS 1000Vdc in meter mode
- Web Server (FTP server/client) with cursors and automatic measurements
- MiniFlex[®] sensors, powered by the instrument (sold as accessory)
- Power measurement option included for power measurements

► SPECIFICATIONS

MODELS	OX7202 ^{III}	OX7204 ^{III}
INTERFACE		
Screen Specifications	Color 5.7" LCD (115 x 86mm) 320 x 240 – CCFL backlighting	
Display Mode	Vectors with interpolation	
No. of Traces 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	
VERTICAL		
Vertical Sensitivity	16 ranges from 2.5mV – 200V/div and up to 156µV/div in verticle zoom mode (12-bit converter) – Accuracy ± 1% of Reading	
Bandwidth	200MHz	
Channels	Two isolated channels	Four isolated channels
Accuracy	±0.1% of Reading	
Input Impedance	1MΩ ± 0.5%	
Max Input Voltage	600Vdc, 600Vrms, 850Vpk (DC + peak AC at 1kHz) without 10/1 probe, 1000Vrms with 10/1 probe derating -20 dB/decade from 100kHz to 200MHz	
Vertical Zoom	x5 maximum	
HORIZONTAL		
Time Base Speed	35 ranges from 1ns/div to 200s/div	
Accuracy	± 0.1% - Roll mode from 100ms to 200s/div	
Horizontal Zoom	x100 maximum	
DIGITAL MEMORY		
Max. Sampling Speed	100GS/s in ETS – 2.5GS/s in Single Shot Mode on each channel	
Vertical Resolution	12 bits	
Memory Capacity per Channel	“TRC” approx. 10kB, “TXT” approx. 20kB	
User Memory	2MB	
Other Modes	Envelope mode (Factors from 2 to 64)	
XY Mode	Between two from the four traces – math functions and cursors	
OTHER FUNCTIONS		
Autoset	Complete autoset < 3s with recognition of channels, Frequency >30Hz	
Trigger Mode	Automatic Triggered, Single shot, Auto Level 50%	
FT Analyzer & 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 (included)	
Battery Life	Four hour operation when fully charged	
Communication	Ethernet, RS-232, Web Server	

► PRODUCT INCLUDES

OX7202^{III} & OX7204^{III} Kit

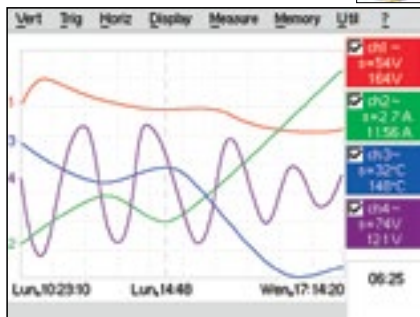
Aluminum carrying case, two PROBIX PRHX1 1/10 Probes 250MHz (600V CAT III), two red and black 1.5m color-coded leads with needle probe tips, two red and black grip probes, two stylus, two Ethernet cables (one straight/one crossover), two for OX7202 & four for OX7204 PROBIX 4mm banana plug adapters, one US power adapter (115/230V), one 110V US power cord, one NiMH 9.6V battery pack, one 512MB SD memory card, SX-METRO software on CD-ROM, Recorder/Harmonic/Power/50K memory option (installed) and user manual on CD-ROM.



Models OX7102^{III}, OX7104^{III}, OX7202^{III} & OX7204^{III}

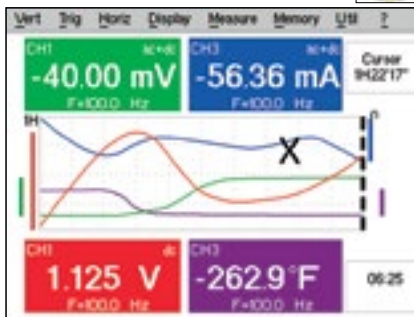
Four Tools in One!

Recorder



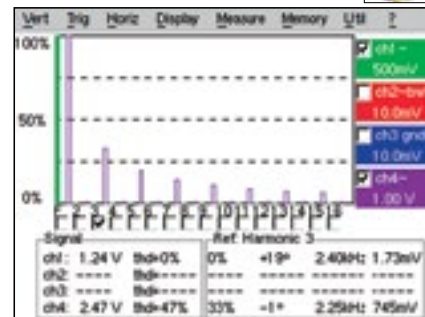
The OX^{III} Series supports a great variety of sensors (voltage, current, temperature, 0 to 10V, 4 to 20mA, etc) and displays them in their original physical scale and units.

Multimeter



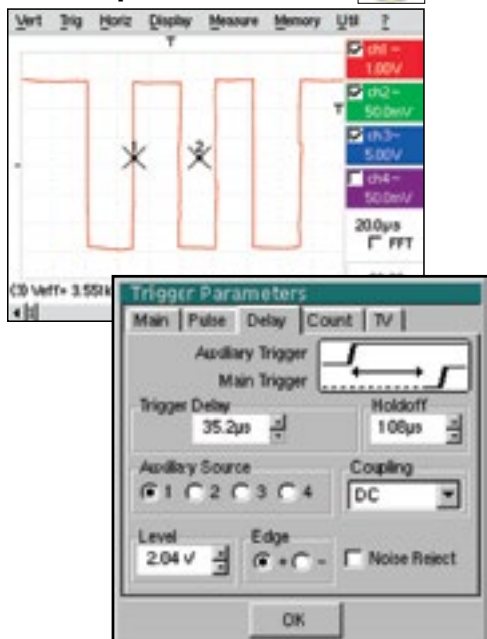
Automatic recording of the measured values are stored in memory on all active channels allowing review of periods lasting from five minutes to 24 hours.

Analyzer



Harmonic analysis results are displayed in bargraph form.

Oscilloscope



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

OPTIONAL ACCESSORIES

Probe options for Models OX^{III} Series Oscilloscopes

AmpFlex® 0.5A to 3kA, 200kHz
Catalog #2124.91



MiniFlex® 0.5A to 300A, 3MHz
Catalog #2124.92



PROBIX PRHX5 50Ω Adapter
Catalog #2124.75



PROBIX 4 to 20mA Adapter
Catalog #2124.99



PROBIX 20mA to 20A Current Probe
Catalog #2124.77



Visit our storefront for complete list of accessories www.aemc.com/store

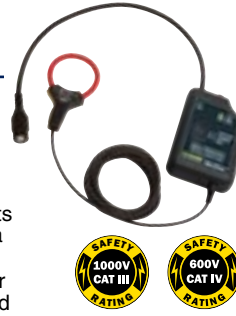
CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2124.58	Handheld Oscilloscope Model OX7102 ^{III} 100MHz (2 x 100MHz, Color, 50k memory, Harmonics, Recorder, Power)	\$4,595.00	\$142.00
2124.59	Handheld Oscilloscope Model OX7202 ^{III} 200MHz (2 x 200MHz, Color, 50k memory, Harmonics, Recorder, Power)	\$5,395.00	\$142.00
2124.67	Handheld Oscilloscope Model OX7104 ^{III} 100MHz (4 x 100MHz, Color, 50k memory, Harmonics, Recorder, Power)	\$5,595.00	\$162.00
2124.68	Handheld Oscilloscope Model OX7204 ^{III} 200MHz (4 x 200MHz, Color, 50k memory, Harmonics, Recorder, Power)	\$6,695.00	\$162.00
Accessories (Optional)			
2124.75	PROBIX PRHX5, 50Ω Adapter	\$ 109.00	-
2124.91	AmpFlex® 0.5A to 3kA, 200kHz for use with Oscilloscope OX Series	\$ 499.00	-
2124.92	MiniFlex® 0.5A to 300A, 3MHz for use with Oscilloscope OX Series	\$ 559.00	-

Learn more on how to select a proper **Clamp-On Current Probe** for your specific needs



MiniFlex® Series

- Measures from 0.5 to 3000Arms
- Accuracy 1% of Reading \pm from 0.2 to 0.25A
- TRMS measurements when connected to a TRMS instrument
- No core saturation or damage if overloaded
- Low phase shift for power measurements
- Measures only AC
- High frequency models available for oscilloscopes
- Excellent linearity
- CE Mark



DC/AC MicroProbes

- Measures extremely low level DC from 100 μ 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



MN200 & MN300 Series AC Current Probes

- Small, compact size
- Measurement range of 5mA to 240AAC
- Jaw opening accommodates conductors up to 250kcmil
- 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
- 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
- CE Mark



SR Series Current Probes

- Measurement range of 100mA 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
- CE Mark, UL approved



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
- 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 500kcmil
- Works as a traditional current transformer with ratio of 1000:1
- AC/DC outputs available
- CE Mark



JM Series AC Current Probes

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



MN01 to MN05 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
- 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



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









Note: Product image size not proportionate. Not all models are CE and UL approved; please consult factory.

CURRENT MEASUREMENT PROBES

Oscilloscope/BNC Terminated Probes Selection Chart

Oscilloscope & BNC Terminated Probes

Oscilloscope current probes expand oscilloscope applications in industrial or power measurement environments, and are ideal for analysis and measurement of distorted current waveforms and harmonics

MODEL	MEASUREMENT RANGE		OUTPUT SIGNAL	PHASE SHIFT*	MAXIMUM CONDUCTOR SIZE		OUTPUT CONNECTION
	AC	DC	VOLTAGE		Ø CABLE	BUS BAR	
 SL261	100mA to 10A 1 to 100A	100mA to 10A 1 to 100A	100mV/Ac/Dc 10mV/Ac/Dc	<1.5°	0.46" (11.8mm)	N/A	Lead w/BNC UL
 MN261	0.1 to 24A 0.5 to 240A	—	100mV/Ac/Aac 10mV/Ac/Aac	<2.5°	0.78" (19.8mm)	N/A	Lead w/BNC UL
 MR461	0.2 to 40A 0.5 to 400A	0.4 to 60A 0.5 to 600A	10mV/Ac/Dc 1mV/Ac/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/Ac/Dc 1mV/Ac/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	—	100mV/Ac/Aac 10mV/Ac/Aac 1mV/Ac/Aac	<1°	2.05" (52mm)	1.96 x 0.19" (50 x 5mm)	Lead w/BNC UL
 JM861	1 to 30A 1 to 300A 1 to 3000A	—	10mV/Ac/Aac 1mV/Ac/Aac 0.1mV/Ac/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.

Note: All probes are rated 600V CAT III and CE compliant. Not all models are UL approved; please consult factory.

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
1201.51	AC/DC Current Probe Model SL261 (10A-100mV/A, 100A-10mV/A, BNC)	\$449.00	\$94.00
2115.82	AC Current Probe Model MN261 (24A-100mV/A, 240A-10mV/A, BNC)	\$184.00	\$65.00
1200.72	AC Current Probe Model MR461 (60A-10mV/A, 600A-1mV/A, BNC)	\$384.00	\$65.00
1200.73	AC Current Probe Model MR561 (150A-10mV/A, 1500A-1mV/A, BNC)	\$414.00	\$65.00
2113.49	AC Current Probe Model SR661 (10A-100mV/A, 100A-10mV/A, 1000A-1mV/A, BNC)	\$299.00	\$75.00
2110.90	AC Current Probe Model JM861 (30A-10mV/A, 300A-1mV/A, 3000A-0.1mV/A, BNC)	\$520.00	\$98.00

CURRENT MEASUREMENT PROBES

General Purpose Probes Selection Chart



General Purpose Probes

The most complete line of current probes offering a variety of output options and terminations for recorders, data loggers, oscilloscopes, DMMs and other instruments

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			
	MN01	—	2 to 150A	—	1mAac/Aac	—	N/A	0.39" (12mm)	N/A	Lead	2129.17	\$79.00
	MN02	1000:1	50mA to 100A 50mA to 90A	—	1mA/A	—	N/A	0.39" (10mm)	N/A	Lead	2129.20	\$109.00
	MN03	—	2 to 100A	—	—	1mV/A	N/A	0.39" (12mm)	N/A	Lead	2129.18	\$89.00
	MN05	—	5mAac to 10Aac 1 to 100Aac	—	—	1mVac/mAac 1mVac/Aac	N/A	0.39" (10mm)		Lead	2129.19	\$99.00
MN103	—	1mA to 10A 1 to 100A	—	—	1mVac/mAac 1mVac/Aac	N/A	0.47" (12mm)	Lead		1031.02	\$189.00	
MN106	1000:1	2 to 150A	—	1mAac/Aac	—	<10°		Lead		1031.17	\$159.00	
MN114	—	1mA to 10A	—	—	100mVac/Aac	<8°		Lead	2110.71	\$184.00		
MN185	1000:1	50mA to 120A	—	1mAac/Aac	—	<3.5°		Jack	100.185	\$129.00		
	MN213	1000:1	0.5 to 240A	—	1mAac/Aac*	—	<2.5°	0.78" (19.8mm)	N/A	Lead	2115.75	\$129.00
	MN251	—	0.5 to 240A	—	—	1mVac/Aac	<2.5°			Lead	2115.77	\$149.00
	MN253	—	0.5 to 240A	—	—	10mVac/Aac	<2.5°			Lead	2115.79	\$149.00
	MN255	—	0.1 to 24A 0.1 to 240A	—	—	100mVac/Aac 10mVac/Aac	<2.5°			Lead	2115.81	\$154.00
	MN291	—	0.5 to 240A	—	—	100mVdc/Aac	N/A			Lead	2115.84	\$149.00
	MN307	—	10mA to 12A	—	—	100mV/Aac	<2.5°	0.78" (19.8mm)	N/A	Lead	2116.23	\$199.00
	MN312	1000:1	0.1 to 200A	—	1mAac/Aac	—	<2.5°			Jack	2116.24	\$164.00
	MN313	1000:1	0.1 to 200A	—	1mAac/Aac	—	<2.5°			Lead	2116.25	\$174.00
	MN352	—	0.1 to 150A	—	—	10mV/Aac	<2.5°			Jack	2116.26	\$169.00
	MN353	—	0.1 to 150A	—	—	10mV/Aac	<2.5°			Lead	2116.27	\$189.00
	MN373	—	0.01 to 2.4A 0.1 to 200A	—	—	1000mV/Aac 10mV/Aac	<3°			Lead	2116.28	\$199.00
	MN375	—	0.1 to 10A	—	—	100mV/Aac	<1.5°			Lead	2115.41	\$224.00
	MN379	—	5 to 100A	—	—	200mV/Aac 10mV/Aac	<1.5°			Lead	2153.01	\$229.00
	SL206	—	10mA to 1.5A 50mA to 60A	10mA to 2A 50mA to 80A	—	1mV/mAac/dc 10mV/Aac/dc	<1°	0.46" (11.8mm)	N/A	Lead	1201.45	\$389.00
	MD301	1000:1	2 to 500A	—	—	1mVdc/Aac	N/A	1.18" (30mm) 2 x 500kcmil	2.48 x 0.20" (63 x 5mm)	Lead	1201.07	\$175.00
	MD304	100:1	1 to 600A	—	10mAac/Aac	—	<3°			Lead	1201.37	\$285.00
	MD305	1000:1	1 to 600A	—	1mAac/Aac	—	<1°			Lead	1201.36	\$269.00

*Diode Protection for open secondary (Output)

**Phase shift indicated at maximum rating

***Consult factory for NIST Calibration price

Note: Models MN103, MN106, MN114 & MN185 are not CE compliant. MN200 & MN300 series probes are UL approved.



CURRENT MEASUREMENT PROBES

General Purpose Probes Selection Chart

General Purpose Probes



The most complete line of current probes offering a variety of output options and terminations for recorders, data loggers, oscilloscopes, DMMs and other instruments

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
	SR632	1000:5	0.1 to 1000A	-	5mAac/Aac*	-	<1°			Lead	2114.79	\$239.00
	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	\$249.00
	SR651	-	0.1 to 1000A	-	-	1mVAc/Aac	<0.5°			Jack	2113.45	\$179.00
	SR701	1000:1	1mA to 1000A	-	1mAac/Aac*	-	<0.5°	2.05" (52mm)	1.96 x 0.19" (50 x 5mm)	Jack	2116.29	\$249.00
	SR704	1000:1	1mA to 1000A	-	1mAac/Aac*	-	<0.5°			Lead	2116.30	\$259.00
	SR752	-	100mA to 1000A	-	-	1mVAc/Aac	<0.7°			Lead	2116.32	\$299.00
	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	\$299.00
	JM810A	2000:2	1 to 2000A	-	1mAac/Aac	-	<0.5°	2.52" (64mm)	1.97 x 5.31" (50 x 135mm) 2.52 x 3.94" (64 x 100mm)	Lead	2110.80	\$499.00
	JM813	3000:3	1 to 2400A	-	1mAac/Aac	-	<0.5°			Jack	2110.93	\$489.00
	JM830A	3000:1	1 to 2400A	-	.333mAac/Aac	-	<0.5°			Lead	2110.83	\$474.00
	JM850A	1000:1 2000:1 3000:1	1 to 1000A 1 to 2000A 1 to 2400A	-	1mAac/Aac .5mAac/Aac .333mAac/Aac	-	<0.5°			Jack	2110.87	\$520.00
	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	\$520.00

*Diode Protection for open secondary (Output)
 **Phase shift indicated at maximum rating
 ***Consult factory for NIST Calibration price
 Note: SR series probes are UL approved.

▶ OUTPUT TERMINATIONS

Lead with BNC

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



Jack

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



CURRENT MEASUREMENT PROBES

Digital FlexProbe®

Special product features



Model 4000D (14" probe)

Model 400D (10" probe)

Models 400D & 4000D

Provide a welcomed solution when accessing electrical conductors is difficult in tight places



► FEATURES

- Easy access and measurement, even in confined spaces where access is difficult
- Measurement from 20mAac to 4000A (model dependent)
- Available with 6", 10" and 14" sensor lengths
- Sensor diameter 1.77" to 3.94" (sensor dependent)
- Resolution down to 1mA (model dependent)
- HOLD feature
- Direct reading
- Compact and simple to use
- Flexible current sensor
- True RMS
- Safety rating of 600V CAT IV

► SPECIFICATIONS

MODEL	400D		
ELECTRICAL			
Display Range	4Aac	40Aac	400Aac
Measurement Range	0.100 to 3.999A	4.00 to 39.99A	40.0 to 399.9A
Resolution	1mA	10mA	100mA
Accuracy	±(2% + 10cts)	±(1.5% + 2cts)	±(1.5% + 2cts)
Sensor Diameter	400D-6: Ø 1.77" (45mm) / 400D-10: Ø 2.75" (70mm)		
Sensor Length	400D-6: 6" (170mm) / 400D-10: 10" (250mm)		
Bandwidth	10Hz to 3kHz		
MODEL	4000D		
Display Range	40Aac	400Aac	4000Aac
Measurement Range	0.1 to 39.99A	40.0 to 399.9A	400 to 3999A
Resolution	10mA	100mA	1A
Accuracy	±(2% + 10cts)	±(1.5% + 2cts)	±(1.5% + 2cts)
Sensor Diameter	Ø 3.94" (100mm)		
Sensor Length	14" (350mm)		
Bandwidth	10Hz to 3kHz		
MECHANICAL			
Power Supply	2 x 1.5V AAA / LR3 batteries		
Safety	IEC 61010, 600V CAT IV		
Operating Temperature	32° to 122°F (0° to 50°C)		
Weight	Approx. 130g		
Casing Dimensions	3.94 x 2.36 x 0.79" (100 x 60 x 20mm)		
Connection Cable Length	2.62 ft (0.8 m)		

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2153.21	Digital FlexProbe® Model 400D-6 (TRMS, 4Aac, 40Aac, 400Aac)	\$299.00	\$67.00
2153.22	Digital FlexProbe® Model 400D-10 (TRMS, 4Aac, 40Aac, 400Aac)	\$309.00	\$67.00
2153.23	Digital FlexProbe® Model 4000D-14 (TRMS, 40Aac, 400Aac, 4000Aac)	\$319.00	\$67.00
Accessories (Optional)			
5000.44	Multiflex Multi-Position Magnetic Accessory (available on website storefront)	\$ 15.95	-



High Frequency Oscilloscope Compatible MiniFlex® Probes

A compact AC current measurement device composed of a flexible sensor and an electronic module designed to measure frequency response up to 1MHz



Model MF 300-6-2-10-HF (6" probe)

Model MF 300-10-2-10-HF (10" probe)

► SPECIFICATIONS

MODELS	MF 300-6-2-10-HF	MF 300-10-2-10-HF
ELECTRICAL		
Range	30/300A	
Signal Output	100mV/10mV/A	
Frequency Range	5 to 1MHz @ -3db	
Influence of Conductor Positioning	1.5% typical, 3% max	
Influence of Conductor Positioning in Sensor Against Handle	4% typical, 6% max	
External Conductor Influence	35dB to 40dB on contact	
Power Source	9V Alkaline battery (6LF22)	
MECHANICAL		
Sensor Diameter	5mm Ø	
Sensor Length	6" (152mm)	10" (250mm)
Max Conductor Size	1.77" (45mm)	2.95" (70mm)
Connection Cable Length	6.5 ft (2m)	
Drop Test	Per IEC 68-2-32	
Vibration	Per IEC 68-2-6	
Mechanical Shock	Per IEC 68-2-27	
Weatherproofing	IP 50	
ENVIRONMENTAL		
Operating Temperature Range	14° to 131°F (-10° to +55°C)	
Storage Temperature Range	-40° to 158°F (-40° to +70°C)	
Altitude	Operating: 0 to 2000m, working voltage derating above; Non-operating: 0 to 12,000m	
SAFETY		
Safety Rating	EN 61010, 1000V CAT III; 600V CAT IV	



► FEATURES

- Measures from 0.5 to 300Arms
- Accuracy 1% of Reading ± 0.2A
- TRMS measurements when connected to a TRMS instrument
- No core saturation or damage if overloaded
- 9V battery for typical 140 hours continuous operation
- 1MHz frequency response
- Low phase shift for power measurements
- Insensitive to DC, measures only AC component on DC + AC signals
- Excellent linearity
- Lightweight
- Sensor is resistant to oils and aliphatic hydrocarbons
- Perfect accessory for all oscilloscopes

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2126.83	MiniFlex® Model MF 300-6-2-10-HF	\$569.00	N/A
2126.84	MiniFlex® Model MF 300-10-2-10-HF	\$599.00	N/A



MiniFlex® Flexible Current Probes for General Use

A flexible sensor equipped with banana or BNC connector and can be connected directly to any multimeter, wattmeter or logger for effective measurements at the standard frequencies



Model MF 300-6-2-10 (6" probe)



Model MF 3000-10-2-1 (10" probe)



► FEATURES

- Measures from 0.5 to 3000Arms
- Accuracy 1% of Reading ± 0.25A
- TRMS measurements when connected to a TRMS instrument
- No core saturation or damage if overloaded
- Overrange LED for measurement circuitry
- 20kHz frequency response
- Low phase shift for power measurements
- Insensitive to DC, measures only AC component on DC + AC signals
- Excellent linearity
- 9V Alkaline battery, provides typical 150 hours of continuous operation
- EN 61010; 1000V CAT III; 600V CAT IV

► SPECIFICATIONS

MODELS	MF 300-6-2-10	MF 3000-10-2-1
ELECTRICAL		
Range	30/300A	300/3000A
Signal Output	100mV/10mV/A	10mV/1mV/A
Frequency Range	10 to 20kHz with current derating	
Influence of Conductor Positioning	1.5% typical, 3% max	
Influence of Conductor Positioning in Sensor Against Handle	4% typical, 5% max	
External Conductor Influence	35dB to 40dB on contact	
Power Source	9V Alkaline battery (included)	
MECHANICAL		
Sensor Diameter	5mm Ø (vs 12.5 for AmpFlex®)	
Sensor Length	6" (152mm)	10" (250mm)
Max Conductor Size	1.77" (45mm)	2.95" (74.9mm)
Connection Cable Length	6.5 ft (2m)	
Drop Test	Per IEC 68-2-32	
Vibration	Per IEC 68-2-6	
Mechanical Shock	Per IEC 68-2-27	
ENVIRONMENTAL		
Operating Temperature Range	14° to 131°F (10° to +55°C)	
Storage Temperature Range	-40° to 158°F (-40° to +70°C)	
Altitude	Operating: 0 to 2000m, working voltage derating above; Non-operating: 0 to 12,000m	
SAFETY		
Safety Rating	EN 61010, 1000V CAT III; 600V CAT IV; Pollution Degree II	

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2126.81	MiniFlex® Model MF 300-6-2-10	\$369.00	\$67.00
2126.82	MiniFlex® Model MF 3000-10-2-1	\$389.00	\$67.00
Accessories (Optional)			
2119.94	Adapter – BNC (Female) to 4mm Banana (Male)	\$ 13.50	–



CURRENT MEASUREMENT PROBES

Flexible Current Probes

AmpFlex® Flexible Current Probes

Flexible AC current probe composed of a flexible sensor and an electronic module



Model	Measurement Range	Output	Sensor Length inches (mm*)	Max Conductor Size inches (mm*)	Catalog No.	Price**
300-24-2-10	30/300A	100/10mV/A	24 (610)	8 (190)	2112.88	\$349.00
1000-24-1-1	1000A	1mV/A	24 (610)	8 (190)	2112.39	\$359.00
1000-24-2-1	100/1000A	10/1mV/A	24 (610)	8 (190)	2112.98	\$369.00
1000-36-2-1	100/1000A	10/1mV/A	36 (910)	11 (290)	2113.00	\$399.00
3000-24-2-0.3	300/3000A	3.3/0.3mV/A	24 (610)	8 (190)	2114.87	\$409.00
3000-24-1-1	3000A	1mV/A	24 (610)	8 (190)	2112.46	\$379.00
3000-36-1-1	3000A	1mV/A	36 (910)	11 (290)	2112.48	\$409.00
3000-24-2-1	300/3000A	10/1mV/A	24 (610)	8 (190)	2113.05	\$389.00
3000-36-2-1	300/3000A	10/1mV/A	36 (910)	11 (290)	2112.00	\$419.00
3000-48-2-1	300/3000A	10/1mV/A	48 (1220)	15 (390)	2112.01	\$459.00
6000-36-2-0.1	600/6000A	1/0.1mV/A	36 (910)	11 (290)	2113.21	\$519.00
30000-24-2-0.1	3000/30,000A	1/0.1mV/A	24 (610)	8 (190)	2113.33	\$689.00

*Dimensions rounded off

**Consult factory for NIST Calibration prices

Consult factory for special offers and ranges/lengths not shown here.

Note: Output is safety shrouded 4mm male banana plug

► FEATURES

- Models ranging from 0.5 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 (battery included)
- Shape memory for custom pre-shaping of sensor before use (no drooping)
- Very high frequency response
- Low phase shift for power measurements of <math><1.3^\circ</math>, 0.7° typical
- Insensitive to DC, measures only AC component on DC + AC signals
- Excellent linearity
- Lightweight

FlexProbe® Flexible Current Probe Model 24-3001

Low cost AC current measurement probe designed to plug into digital multimeters, oscilloscopes and power recorders



► SPECIFICATIONS

MODEL	24-3001
ELECTRICAL	
Current Range	300/3000Aac
Output Signal	mV output (4000mV peak max)
Three Position Slide Switch	10mV/A 1mV/A ON/OFF
Power Source	9V Alkaline battery (included)
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

► 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 ± 500mA
- 4% influence of conductor position in jaw
- Up to 150 hours of battery life
- Dual banana plug termination for direct input into DMMs
- Flashing LED low battery indicator
- 9V Alkaline battery, provides typical 150 hours of continuous operation (battery included)



► ACCESSORIES

Banana (female)
BNC (male) (XM-BB)

Catalog #2118.46
(optional for AmpFlex® & FlexProbe® Flexible Current Probes)



CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2120.81	FlexProbe® Model 24-3001 (300/3000Aac, 24", 10mV/A/1mV/A, Lead)	\$349.00	\$61.00
Accessories (Optional)			
2118.46	Adapter - Banana (Female) - BNC (Male) (XM-BB)	\$ 42.75	-

MR400 & MR500 Series



AC/DC current probes designed to extend current measuring capabilities of DMMs, oscilloscopes and other instruments



► 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

► SPECIFICATIONS

MODELS	MR411	MR521
Measurement Range AC	0.5 to 40A 0.5 to 400A	0.5 to 100A 0.5 to 1000A
Measurement Range DC	0.5 to 60A 0.5 to 600A	0.5 to 150A 0.5 to 1500A
Output Signal Voltage (mV) <small>(AC in AC, DC in DC)</small>	10mV/A 1mV/A	10mV/A 1mV/A
Maximum Conductor Size & Cable	One 1.18" (30mm) Two 0.95" (24mm) Two x 500kcmil	One 1.5" (39mm) Two 0.98" (25mm)
Bus Bar	Two 1.2 x 0.4" (31.5 x 10mm)	Two 1.96 x 0.19" (50 x 5mm)
Output Connection	Lead with safety banana plug	Lead with safety banana plug
Power Source	One 9V Alkaline battery (included)	

Models K100 & K110



Model K100

Very small and compact, our microprobes are designed for accurate measurements of very low currents with 50µA_{DC} sensitivity



► FEATURES

- Measures extremely low level DC from 100µA
- 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
- Red LED indicates momentary or continuous overload
- Green LED indicates power and battery condition

► SPECIFICATIONS

MODELS	K100	K110
Current Range	0 to ± 4.5A _{DC} 0 to 3Arms	0 to ± 450mA _{DC} 0 to 300mA _{Arms}
Output (Vout)	1mV/mA	10mV/mA
Resolution	DC: 50µA typical, AC: 100µA typical	DC: 50µA typical, AC: 100µA typical
Accuracy	DC: ±1% of Reading ± 200µA, AC: ±2% of Reading, ± 200µA	DC: ±0.5% of Reading ± 150µA, AC: ±0.8% of Reading, ± 200µA
Output Noise	<100µV, DC to 3kHz	<100µV, DC to 3kHz
Frequency Response	DC to 2kHz (@ -3dB sine)	DC to 1.5kHz (@ -3dB sine)
Power Source	One 9V Alkaline battery (included)	
Battery Life	20 hours	

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
1200.68	AC/DC Current Probe Model MR411 (10mV/A – 60A max & 1mV/A – 600A max, Lead)	\$379.00	\$65.00
1200.69	AC/DC Current Probe Model MR521 (10mV/A – 150A max & 1mV/A 1500A – max, Lead)	\$409.00	\$65.00
1200.67	DC/AC MicroProbe Model K100 (1mV/mA – 4.5A max)	\$679.00	\$65.00
2111.73	DC/AC MicroProbe Model K110 (10mV/mA – 450mA max)	\$699.00	\$65.00

Models AX502 & AX503



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

Catalog #2117.78

SPECIFICATIONS

MODELS	AX502	AX503
Number of Outputs	2	3
VOLTAGE		
Output 1 & 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 & 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

- 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

Models BR07 & BC05



SPECIFICATIONS

DECADE	1	2	3	4	5	6	7
BR07	1 to 10Ω; Max current: 700mA	10 to 100Ω; Max current: 200mA	100Ω to 1kΩ; Max current: 70mA	1 to 10kΩ; Max current: 20mA	10 to 100kΩ; Max current: 7mA	100kΩ to 1MΩ; Max current: 1mA	1 to 10MΩ; Max current: 0.1mA
BC05	0.1 to 1nF	1 to 10nF	10 to 100nF	100nF to 1μF	1 to 10μF	–	–
MODELS			BR07		BC05		
Accuracy	1%		3% (low residual capacitance)				
Residual Capacitance	–		25pF (approx.)				
Max Operating Voltage	–		300Vdc, 230Vac (50Hz)				

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 61010-2-03, 150V CAT II, 50V CAT III, Pollution Degree 2
- Resistance ranges are 1Ω to 11.11111MΩ for BR07 and 0.1nF to 11.1111μF for BC05

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2130.06	DC Power Supply Model AX502 (Dual outputs, 0 to 2.5A; 0 to 30Vdc)	\$839.00	\$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)	\$939.00	\$72.00
2131.25	Resistance Decade Box Model BR07 (x1Ω, x10Ω, x100Ω, x1kΩ, x10kΩ, x100kΩ, x1MΩ, 1%)	\$180.00	\$68.00
2131.26	Capacitance Decade Box Model BC05 (x0, 1nF, x1nF, x10nF, x100nF, x1kNF, 3%)	\$199.00	\$68.00
Accessories (Optional)			
2117.78	Lead – Set of 3, (2 Color-coded Safety Leads, 1 Ground Lead, 2 Color-coded Alligator Clips and 2 Color-coded Grip Probes) for Power Supply Models AX501-AX503	\$119.00	–
2131.35	Lead – Replacement, 6 ft. Safety Lead, 4mm Female to Female for use with Decade Boxes	\$ 17.95	–

Models 6608, 6609 & 6610

Ideal for installing rotating machinery or motors, and for checking generator output phase direction



(Model 6610 only)



(Models 6608 & 6609 only)



► FEATURES

- Voltage sensing detector clips – no metal contact points to promote greater safety (Model 6610)
- Indication of live phase presence or phase absence
- Designed for checking a wider range of 3-phase power source from 75V to 1000VAC (Model 6610)
- Determination of a motor's rotation direction (Model 6609)
- Automatic testing as soon as the instrument is connected
- Terminals and cables identified by color-coding to simplify connection (test leads are attached to Model 6610)
- Phase rotation indicators (Model 6608)
- Phase and motor rotation indicators (Models 6609 & 6610)
- Color-coded leads (red, black, blue) and alligator clips (black)
- Color-coded jacks for common U.S. phase colors
- Line supplied - no battery needed (Model 6608)
- Protected internally by high impedance circuit to limit the current to user safe limits

► SPECIFICATIONS

MODELS	6608	6609	6610
ELECTRICAL			
Operating Voltage	40 to 850VAC between phases	With leads connected: 40 to 600VAC between phases	Static induction
Frequency Range	15 to 400Hz		45 to 65Hz
Power Supply	Self-powered via the measurement inputs	9V Alkaline battery (included)	One 9V Alkaline battery (included)
MECHANICAL			
Dimensions	5.1 x 2.7 x 1.3" (130 x 69 x 32mm)		5.0 x 2.8 x 1.8" (128 x 72 x 44mm)
Weight	4.5 oz (130g)	6 oz (170g)	.82 lbs (380g) battery included
ENVIRONMENTAL			
Operating Temperature	32° to 104°F (0° to 40°C)		14° to 122°F (-10° to 50°C); max. 80% R.H.
Storage Temperature	-4° to 122°F (-20° to 50°C); RH < 80%		-4° to 140°F (-20°C to 60°C); max. 80% R.H.
SAFETY			
Safety Ratings	IEC 61010-1, DIN VDE 0411; IEC 61557-7, DIN VDE 0413-7; Tightness: IP 40 (as per IEC 60529 Ed.92)		EN 61010-1, EN 61326-1
Electrical Safety	600V CAT III		1000V CAT III; 600V CAT IV

► PRODUCT INCLUDES

6608 & 6609

Carrying case, three test leads (4 ft), three alligator clips and a user manual.



6610

Soft carrying case, meter with attached test leads (black, red & blue) with alligator clips, 9V battery and user manual.



CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2121.10	Phase Rotation Meter Model 6608	\$ 69.00	–
2121.11	Phase & Motor Rotation Meter Model 6609	\$ 99.00	–
2121.12	Phase Rotation Meter Model 6610 (Non-contact)	\$169.00	–

Outlet Tester Model OT-2



► FEATURES

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

► APPLICATIONS

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

AC Line Splitter Model ALS-1

For use with clamp-on meters & multimeters using current probes



► FEATURES

- 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

Non-Contact AC Voltage Detector 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 Alkaline (included)
Safety	For indoor use and in accordance with over voltage 600V CAT III, Pollution Degree 2

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2121.03	Outlet/GFCI Tester Model OT-2 (110V US)	\$ 7.95	–
2121.05	AC Line Splitter Model ALS-1	\$ 14.95	–
2121.09	Non-Contact AC Voltage Detector Model NC-1	\$ 9.95	–

HIGH VOLTAGE DETECTORS

Non-Contact AC High Voltage Detector

Special product features

Model 275HVD

Warns the operator of live conductors with the use of its detection sensor



► 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 (LED) 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 (included)
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)

► PRODUCT INCLUDES

Hard carrying case, three C cell batteries, shotgun adapter and user manual.



Note: Not designed to work on shielded cable or enclosure.

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



Technical Assistance (800) 343-1391

www.aemc.com 91

Model 6240

Auto calculates resistance from 5μΩ to 400Ω with resolutions down to 1μΩ

► SPECIFICATIONS

MODEL	6240					
Range	4000μΩ	40mΩ	400mΩ	4000mΩ	40Ω	400Ω
Accuracy	0.25% of Reading ± 2cts	0.25% of Reading ± 2cts	0.25% of Reading ± 2cts	0.25% of Reading ± 2cts	0.25% of Reading ± 2cts	0.25% of Reading ± 2cts
Resolution	1μΩ	10μΩ	0.1mΩ	1mΩ	10mΩ	100mΩ
Test Current	10A	1A	1A	100mA	10mA	10mA
Max. Inductive Load	0 to 5 H					
Memory	Stores up to 99 test results					
Power Source	Rechargeable 6V, 8.5Ah NiMH battery pack (included)					

► ACCESSORIES

Kelvin clips, set of two

Catalog #1017.84 (included)

(10A – Hippo) 10 ft

Catalog #2118.70 (optional)

(10A – Hippo) 20 ft

Kelvin probes, set of two (optional)

Catalog #2118.73

(1A – spring loaded) 10 ft

Catalog #2118.74

(1A – spring loaded) 20 ft

Kelvin clips, set of two (optional)

Catalog #2118.79

(1-10A) 10 ft

Catalog #2118.80

(1-10A) 20 ft

Kelvin probes, set of two (optional)

Catalog #2118.77

(10A – spring loaded) 10 ft

Catalog #2118.78

(10A – spring loaded) 20 ft

Kelvin probes pistol grip, set of two (optional)

Catalog #2118.75

(10A – spring loaded) 10 ft

Catalog #2118.76

(10A – spring loaded) 20 ft

USB Stick

Supplied with DataView® software and user manual



cover closed

► FEATURES

- Reliable low resistance measurements from 1μΩ to 400Ω
- Four-terminal Kelvin resistance measurement eliminates test lead resistance
- 10A test current 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 spaded lugs
- Rechargeable NiMH battery with internal charger (110/220V)
- Large multifunctional backlit display
- Includes power cord and isolated USB cable
- Includes FREE DataView® software for data storage, real-time display, analysis and report generation

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2129.80	Micro-Ohmmeter Model 6240	\$2,895.00	\$96.00
Accessories (Optional)			
1017.84	Kelvin Clips 10 ft (10A – Hippo)	\$ 199.00	–
2118.70	Kelvin Clips 20 ft (10A – Hippo)	\$ 229.00	–
2118.73	Kelvin Probes 10 ft (1A, Spring Loaded)	\$ 99.00	–
2118.74	Kelvin Probes 20 ft (1A, Spring Loaded)	\$ 149.00	–
2118.75	Kelvin Probes Pistol Grip (10A – spring loaded), set of two, 10 ft	\$ 639.00	–
2118.76	Kelvin Probes Pistol Grip (10A – spring loaded), set of two, 20 ft	\$ 699.00	–
2118.77	Kelvin Probes (10A – spring loaded), set of two, 10 ft	\$ 569.00	–
2118.78	Kelvin Probes (10A – spring loaded), set of two, 20 ft	\$ 629.00	–
2118.79	Kelvin Clips 10 ft (1-10A) Replacement for Cat #2118.71	\$ 99.00	–
2118.80	Kelvin Clips 20 ft (1-10A) Replacement for Cat #2118.72	\$ 149.00	–



Model 6250

Accurate with results within 0.05%

SPECIFICATIONS

MODEL	6250						
Range	5.0000 mΩ	25.000 mΩ	250.00 mΩ	2500.0 mΩ	25.000 Ω	250.00 Ω	2500.0 Ω
Accuracy	0.15% of Reading + 1.0μΩ	0.05% of Reading + 3μΩ	0.05% of Reading + 30μΩ	0.05% of Reading + 0.3mΩ	0.05% of Reading + 3mΩ	0.05% of Reading + 30mΩ	0.05% of Reading + 300mΩ
Resolution	0.1μΩ	1μΩ	10μΩ	0.1mΩ	1mΩ	10mΩ	100mΩ
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 2500.0Ω						
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 battery pack (included)						
Battery Life	Approximately 5000 10A tests						

FEATURES



cover closed

- Measure from 1μΩ (0.1μΩ resolution) to 2500.0Ω
- 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
- Internal rechargeable batteries conduct up to 5000 – 10A tests
- Rugged, double insulated waterproof case
- Includes RS-232 to USB 2.0 cable and AC line cord
- Includes FREE DataView® software for data storage, real-time display, analysis and report generation

ACCESSORIES

Kelvin clips, set of two

Catalog #1017.84 (included)

(10A – Hippo) 10 ft

Catalog #2118.70 (optional)

(10A – Hippo) 20 ft

Kelvin clips, set of two (optional)

Catalog #2118.79

(1-10A) 10 ft

Catalog #2118.80

(1-10A) 20 ft

Kelvin probes, set of two (optional)

Catalog #2118.77

(10A – spring loaded) 10 ft

Catalog #2118.78

(10A – spring loaded) 20 ft

Kelvin probes pistol grip, set of two (optional)

Catalog #2118.75

(10A – spring loaded) 10 ft

Catalog #2118.76

(10A – spring loaded) 20 ft

Kelvin probes, set of two (optional)

Catalog #2118.73

(1A – spring loaded) 10 ft

Catalog #2118.74

(1A – spring loaded) 20 ft



RTD Temperature Probe (optional)

Catalog #2129.95

RTD probe plugs into faceplate

Catalog #2129.96

RTD probe w/7 ft extension cable

USB Stick

Supplied with DataView® software and user manual

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2129.81	10A Micro-Ohmmeter Model 6250	\$3,895.00	\$ 120.00
Accessories (Optional)			
1017.84	Kelvin Clips 10 ft (10A – Hippo)	\$ 199.00	–
2118.70	Kelvin Clips 20 ft (10A – Hippo)	\$ 229.00	–
2118.73	Kelvin Probes 10 ft (1A, Spring Loaded)	\$ 99.00	–
2118.74	Kelvin Probes 20 ft (1A, Spring Loaded)	\$ 149.00	–
2118.75	Kelvin Probes Pistol Grip (10A – spring loaded), set of two, 10 ft	\$ 639.00	–
2118.76	Kelvin Probes Pistol Grip (10A – spring loaded), set of two, 20 ft	\$ 699.00	–
2118.77	Kelvin Probes (10A – spring loaded), set of two, 10 ft	\$ 569.00	–
2118.78	Kelvin Probes (10A – spring loaded), set of two, 20 ft	\$ 629.00	–
2118.79	Kelvin Clips 10 ft (1-10A) Replacement for Cat #2118.71	\$ 99.00	–
2118.80	Kelvin Clips 20 ft (1-10A) Replacement for Cat #2118.72	\$ 149.00	–
2119.45	Cable, PC RS-232, DB9 F/F 6 ft Null Modem Cable	\$ 16.95	–
2129.95	RTD Temperature Probe (plug into faceplate for ambient temperature)	\$ 174.00	–
2129.96	RTD Temperature Probe with 7 ft extension cable	\$ 289.00	–

Model 6292

Programmable test currents and test duration with data storage and report generation using included application software

► SPECIFICATIONS

MODEL	6292
ELECTRICAL	
Test Current Range	Adjustable from 20 to 200A (True DC)
Resistance Range	0.1μΩ to 2mΩ 2 to 200mΩ 200mΩ to 1Ω
Accuracy	± 1% of reading from 50μΩ to 1Ω
Resolution	0.1μΩ to 2mΩ: 0.1μΩ (20 to 200A) 2 to 200mΩ: 10μΩ (25A @ 200mΩ) 200mΩ to 1Ω: 1mΩ (5A @ 1Ω)
Output Voltage	100Vac: 4.2V @ 200A 220Vac: 8.6V @ 200A
Max. Load Resistance	100Vac: 20mΩ @ 200A 220Vac: 42mΩ @ 200A
Measurement Method	Four-terminal, Kelvin-type
Adjustable Test Time	5 to 120 seconds or unlimited
Memory	Stores up to 8000 measurements
Power Supply	100 to 240Vac, 50/60Hz



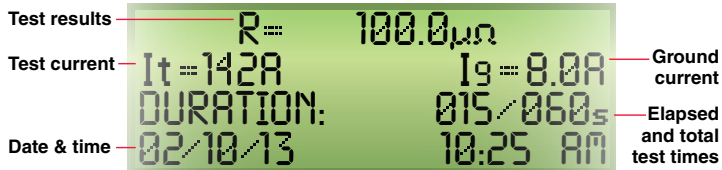
PLAY VIDEO



cover closed

► FEATURES

- Adjustable test currents from 5 to 200A
- Programmable test duration from 5 to 120 sec
- BSG Ground Test with optional current probe
- Accurately measures low contact resistance with test currents up to 200A
- Measures resistances from 0.1μΩ to 1Ω
- Low resolution of 0.1μΩ
- Cooling system to improve the number of sequential tests that can be performed
- Backlit display
- Measures objects with both sides grounded
- Stores up to 8000 test results
- Direct printout of measurement results using DataView® software and a PC
- Rugged and water-resistant case



► PRODUCT INCLUDES

Set of 20 ft Kelvin test leads w/C clamp, ground lead (green) with clamp, 5 ft USB cable, 110V US power cord and 12A fuse (5x20mm)

USB Stick

Quick start user guide, and USB stick supplied with DataView® software and user manual



► ACCESSORIES

► **Current Probe Model MR6292**
Catalog #2129.86 (optional)



CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2129.83	Micro-Ohmmeter Model 6292 (200A, 120/230V, DataView® software)	\$6,395.00	\$ 96.00
Accessories (Optional)			
2129.86	Current Probe Model MR6292	\$ 295.00	-
2129.87	Lead – Set of 2, 50 ft., Color-coded Kelvin Leads w/C-clamp	\$1,249.00	-



Quick Tester Model 8505

Designed to check the basic integrity of power transformers and capacitors



► FEATURES

- Checks transformer coil continuity
- Checks capacitor functionality
- Detects open or shorted coils and capacitor
- Automatically identifies device as a transformer or capacitor
- Single button operation
- Bright LED indicators and buzzer for L, C, open and short
- Coiled captive test lead expand up to 6 ft each
- Test probe with 5.75" (146mm) shaft used for insertion into protective shroud to reach test point
- Multi-frequency source signals improves test reliability and accuracy
- Microprocessor based design for control, stability and repeatability
- Built-in self-test for inductance and capacitance
- Fuse protected
- Battery operated; more than 2500 tests on a full charge
- Low battery indicator begins to blink when capacity of ~100 tests remain

► SPECIFICATIONS

MODEL	8505
ELECTRICAL	
Short	<20Ω
Open	>20Ω
Transformer	>1mH
Capacitor	0.5uF; <1mF
Power Source	4 x 1.5V AA (LR6) Alkaline batteries
Battery Life	More than 2500 ten second tests on a full charge
Low Battery Indicator	Red LED blinks; approximately 100 tests can be conducted when LED starts to blink
MECHANICAL	
Dimensions	7.2" x 3.65" x 1.26" (182.9 x 92.7 x 32mm) w/o leads
Weight (with battery)	14.4 oz. (408 grams)
Case	UL94
Vibration	IEC 68-2-6 (1.5mm, 10 to 55Hz)
Shock	IEC 68-2-6 (1.5mm 10 to 55Hz)
Drop	IEC 68-2-32 (1m)
ENVIRONMENTAL	
Operating Temperature	14° to 122°F (-10° to 50°C)
Storage Temperature	-4° to 140°F (-20° to 60°C)
Relative Humidity	0 to 85% @ 95°F (35°C), non-condensing
Altitude	2000m
SAFETY	
Safety Rating	EN61010-1
Environmental	IP30
CE Approved	Pending

Reference Conditions: 23°C ± 3°C, 30-50% RH, battery voltage: 4.5V ± 10%.

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2136.51	Quick Tester Model 8505	\$ 459.00	N/A



DTR® Model 8510

Designed for on-site testing of power, potential and current transformers

SPECIFICATIONS

MODEL	DTR® 8510
VT/PT Ratio Range	Auto-Ranging 0.8000:1 to 8000:1
CT Ratio Range	Auto-Ranging 0.8000 to 1000.0
Accuracy*	Ratio <10 to 1: ±0.2% of Reading Ratio 0 to 1000 to 1: ±0.1% of Reading Ratio >1000 to 1: ±0.2% of Reading Ratio 5000 to 8000.0: ±0.25% of Reading
Excitation Signal	VT/PT Mode: 32Vrms maximum CT Mode: 0 to 1A, 0.1 to 4.5Vrms
Excitation Current Display	Range: 0 to 1000mA; Accuracy: ±2% of Reading ± 2mA
Excitation Frequency	70Hz
Measurement Method	In accordance with ANSI/IEEE C57.12.90™-2006
Display	LCD 16 character, 2 line, large format, LED backlight, day/night visible
Languages Supported	English, Spanish, French, Italian, German, Portuguese
Communication	Optically isolated USB 2.0
Data Storage	Stores up to 10,000 complete measurements
Power Source	Two rechargeable 12V NiMH batteries (included)
External Charger	90/240V, 50/60Hz (smart charger)
Battery Life	Up to 10 hours continuous operation; May not be used while recharging; Low battery LED/LCD indication
Charging Time	<4 hours

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

PRODUCT INCLUDES

NiMH batteries (installed), 115V power cord, set of two 15 ft leads, 10 ft USB cable, external battery charger (90-264Vac 50/60Hz) and soft carrying case.



USB Stick

Supplied with DataView® software and user manual.



cover closed

FEATURES

- Measures power transformers, VT/PTs and current transformer CT turns ratios
- Displays turn ratio, excitation current, winding polarity and % deviation from the nameplate values
- Universal voltage (90-240V supply, 50-60Hz) via external smart/fast battery charger; complete charge in less than 4 hours
- Two internal NiMH batteries provide up to 10 hours of continuous operation
- Tests performed by exciting the primary and reading the secondary; provides safer conditions for the operator
- Display warns of incorrect lead connection, reverse polarity, open and short circuits
- Easy connection and test setup; no calibration or balancing required
- Large dual display with adjustable contrast ensures clearer visibility in any lighting environment day or night
- Low battery indicator
- Includes 15 foot lead set and soft carrying bag
- Stores up to 10,000 test results in internal memory
- USB port facilitates configuring the instrument and downloading test results
- Includes FREE DataView® analysis software for programming, downloading, storing and report generation of test data
- EN 61010-1; 50V CAT IV

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2136.50	Digital Transformer Ratio Meter DTR® Model 8510	\$ 2,995.00	\$120.00
Accessories (Optional)			
2136.76	Lead-Set of 2, 30 ft for use with DTR® Models 8500 & 8510	\$ 499.00	—
2136.77	Lead-Replacement set of 2, 15 ft for use with DTR® Models 8500 & 8510	\$ 399.00	—

The Chauvin Arnoux Group is a worldwide company organized into activity-based divisions around its traditional areas of expertise

Take a look at Chauvin Arnoux's website for more product selections



Portable Test & Measurement instruments for electrical and environmental parameters (Chauvin Arnoux[®], Metrix & Multimetrix[®] brandnames):

Whatever your application, on site or in the laboratory, the Test & Measurement division can provide professional electricians and electronic engineers with hand-held instruments from the Chauvin Arnoux[®] and Metrix brands. Multimetrix[®] offers an economical product line of clamp-on meters, power supplies and digital multimeters.



Power Measurement & Control instruments for measurement, metering and supervision of electrical networks:

Enerdis[®] is an acknowledged expert in energy management. Today, Enerdis[®] is also a key player in the field of electrical network quality analysis and service. Enerdis[®] service: Quality (ISO 9001:2009/12).



Thermosensors and temperature measurement, control and supervisory instruments:

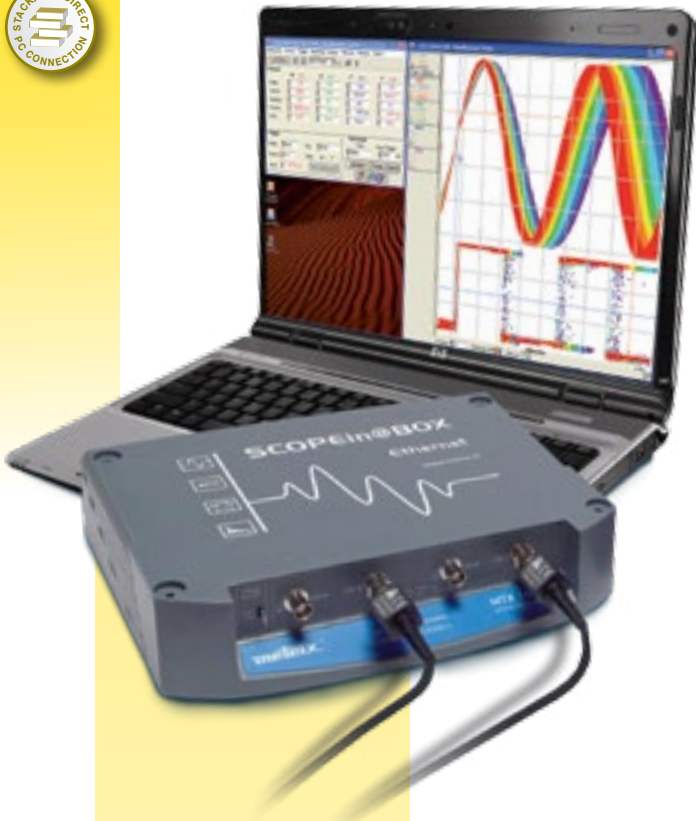
Pyro-Contrôle[®] provides temperature measurement, control and calibration solutions for the most demanding process industry requirements, serving industry partners in the chemical, nuclear, metallurgy, glass-making and semiconductor industries. Pyro-Contrôle[®] has implemented a rigorous (ISO 9001:2009/12) certified Quality Assurance system.

The following pages detail some of the products available from the group.

PC Oscilloscopes

Model MTX 162

Compact, lightweight and stackable, these instruments can be connected directly to a PC via USB or Ethernet

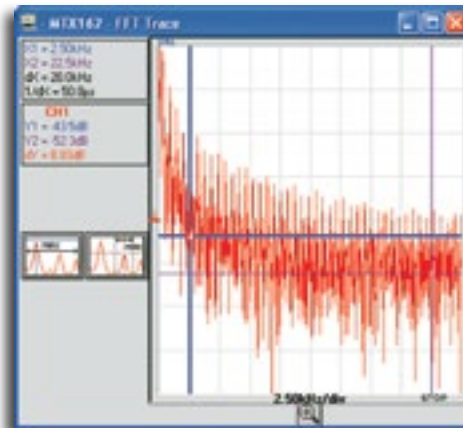


▲
Connect and view results directly from your PC computer

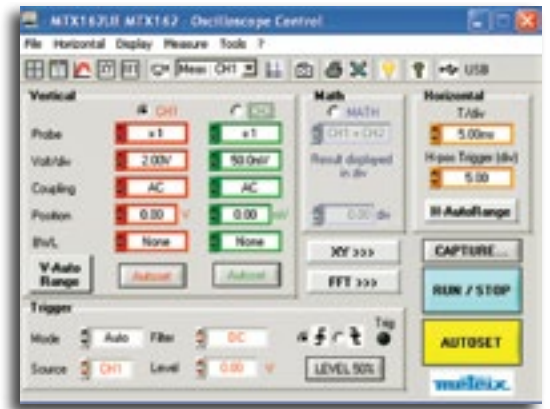


► SPECIFICATIONS

MODEL	MTX 162
INTERFACE	
Screen Specifications	Color PC screen (min. resolution: 1024 x 768)
Display Mode	8 x 10 div.- Multi-windowing (control panel, trace, zoom, FFT, etc.)
Traces on Screen	4 traces + 4 references
Screen Control	Windows-like & online help; All commands available via mouse
VERTICAL	
Vertical Sensitivity	5mV to 100V/div
Bandwidth	60MHz (bandwidth limiter: 15MHz, 1.5MHz or 5kHz)
Channels	2 channels, class 1, common ground
HORIZONTAL	
Time Base Speed	32 ranges from 5ns to 100s/div
TRIGGER	
Mode	Auto, Triggered, One-shot ROLL, Auto-level at 50%
Source	CH1, CH2, Line
Type	Rising or falling edge, adjustable pretriggering from 0 to 100%
DIGITAL MEMORY	
Max. Sampling Speed	Repetitive = 20GS/s; One-shot = 50MS/s
Vertical Resolution	8 bits
Memory Capacity	Depth = 50,000 points – storage capacity depends on PC configuration used
COMMUNICATION	
Software	PC operating software and LabWindows/LabView drivers (included)
SPO (SMART PERSISTENCE OSCILLOSCOPE)	
Duration of Persistence	Analog remanent mode
MEASUREMENT PROCESSING	
FFT Analyzer/MATH Functions	FFT, +, -, x, /
Manual Cursors	dv, dt, 1/dt, phase – cursors linked or unlinked to trace
Automatic Measurements	2 or 19 measurements out of 19 + automatic phase on/any type of curve markers and limits
RECORDER MODE	
Duration/Sampling	Dedicated ROLL mode from 2s to 33min



Real-time trace



Typical PC setup screen

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2150.14	PC Scope Module Model MTX 162UE (2-Channel, 60MHz)	\$1,245.00	\$95.00
2150.15	PC Scope Module Model MTX 162UEW (2-Channel, WiFi, 60MHz)	\$1,595.00	\$95.00



Models MTX 1052 & MTX 1054

Browse through
Chauvin Arnoux's
Metrix® Test &
Measurement Catalog



► FEATURES

- 2-channel/60MHz (Model MTX 162 software only)
- 2- & 4-channel models/150MHz (Models MTX 1052 & MTX 1054)
- Oscilloscope with FFT and recorder
- Harmonic analyzer (Models MTX 1052 & MTX 1054)
- Sampling rate 50MS/s in one-shot mode and 20GS/s in ETS mode (Model MTX 162)
- Sampling rate 200MS/s in one-shot mode and 100GS/s in ETS mode (Models MTX 1052 & MTX 1054)
- Detects 10ns transients
- 8-bit (Model MTX 162) and 10-bit (Models MTX 1052 & MTX 1054) A/D converter
- Vertical sensitivities of 250 μ V-100V/div (300V CAT II)
- Advanced trigger modes and SPO (Smart Persistence Oscilloscope) analysis
- Stackable with direct PC connection via USB or Ethernet
- PC operating software (included) and LabWindows/LabView drivers with Windows-like environment (printing, standard files, etc.)
- Local or remote Ethernet universal communication

► SPECIFICATIONS

MODELS	MTX 1052 / MTX 1054
INTERFACE	
Screen Specifications	Color PC screen (min. resolution: 1024 x 768)
Display Mode	8 x 10 div.- Multi-windowing (control panel, trace, zoom, FFT, etc.)
Traces on Screen	4 traces + 4 references
Screen Control	Windows-like & online help – all commands available via mouse
VERTICAL	
Vertical Sensitivity	2.5mV – 100V/div, up to 250 μ V/div with vertical expansion
Bandwidth	150MHz (bandwidth limiter: 15MHz, 1.5MHz or 5kHz)
Channels	2 or 4 channels, class 1, common ground
HORIZONTAL	
Time Base Speed	35 ranges from 1ns to 200s/div
TRIGGER	
Mode	Auto, Triggered, One-shot ROLL, Auto-level at 50%
Source	CH1, CH2, EXT, Line or CH1 to CH4, Line
Type	Edge, Pulse Width or Delay (40ns to 10.5s), counting (2 to 16,384 events), TV (525 = NTSC, 625 = PAL/SECAM), Pre-trigger adjustable from 0 to 100%, Hold-off (40ns to 10.5s)
DIGITAL MEMORY	
Max. Sampling Speed	Repetitive = 100GS/s; One-shot = 200MS/s
Vertical Resolution	10 bits (9 bits used)
Memory Capacity	Depth = 50,000 points – storage capacity depends on PC configuration used
COMMUNICATION	
Software	PC operating software and LabWindows/LabView drivers included
SPO (SMART PERSISTENCE OSCILLOSCOPE)	
Duration of Persistence	100ms, 200ms, 500ms, 1s, 2s, 5s, 10s and infinite
Performance	Acquisition rate 50k waveforms/s/channel, no. of samples acquired: 19MS/s/channel
MEASUREMENT PROCESSING	
FFT Analyzer/MATH Functions	FFT (calculation over 2048 points), +, -, x, / – "Made-to-measure" function editor
Manual Cursors	dv, dt, 1/dt, phase – cursors linked or unlinked to trace
Automatic Measurements	2 or 19 measurements out of 19 + automatic phase on any type of curve markers and limits
RECORDER MODE	
Duration/Sampling	Duration: 2s to 31 days / Sampling interval: 40 μ s to 53.57s
HARMONIC ANALYZER	
Analysis Range	Fundamental from 40Hz to 1kHz + 31 orders on 1 to 4 channels
Processing	Total RMS value, THD and selected order (%F, phase, frequency, Vrms)

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2150.10	PC Scope Module Model MTX 1052B-PC (2-Channel, 150MHz)	\$1,675.00	\$95.00
2150.11	PC Scope Module Model MTX 1052BW-PC (2-Channel, WiFi, 150MHz)	\$2,075.00	\$95.00
2150.12	PC Scope Module Model MTX 1054B-PC (4-Channel, 150MHz)	\$2,375.00	\$95.00
2150.13	PC Scope Module Model MTX 1054BW-PC (4-Channel, WiFi, 150MHz)	\$2,975.00	\$95.00



Handscope

Models OX5022 & OX5042

The only oscilloscopes, on the market, with isolated channels that fit into one hand



► SPECIFICATIONS



MODELS	OX5022	OX5042
INTERFACE		
Display	3.5" color TFT LCD screen; Resolution 320x240 – LED backlighting	
Commands	Direct adjustments on front panel & on-screen menus via browser (principal & secondary without "hidden menus")	
Display Mode	2500 real acquisition points on screen	
Display of Curves on Screen	2 curves + 2 references + memory trace or mathematical calculation	
Integrated Interactive Help Function	11 languages: French, English, German, Spanish, Italian, Swedish, Romanian, Russian, Finnish, Polish, Dutch	
OSCILLOSCOPE MODE		
Vertical Deflection		
Bandwidth	20MHz	40MHz
Bandwidth Limiter	1.5MHz, 5kHz	
Number of Channels	2 totally isolated channels	
Input Impedance	1MΩ ±0.5%, approx. 17pF	
Maximum Input Voltage	600V CAT III – Derating -20dB per decade from 100kHz	
Vertical Sensitivity	5mV to 200V/div	
Horizontal Deflection		
Sweep Speed	25ns/div to 200s/div – Roll Mode from 100ms to 200s/div	
Horizontal Zoom	Zoom factor: x1, x2, x5	
Triggering		
Mode	Automatic, triggered, one-shot & triggered Roll	
Type	Edge, pulse width (20ns – 20s)	
Coupling	AC or DC (depending on the coupling of the triggering channel) HF, LF or noise rejection	
Sensitive	≤ 1.2 divisions p-p up to 20MHz	≤ 1.2 divisions p-p up to 40MHz
Digital Memory		
Maximum Sampling Rate	2GS/s in ETS mode – 50MS/s in one-shot mode on each channel	
Vertical Resolution	9 bits	
Memory Depth	2500 points per channel	
User Storage	2MB for storing files: trace (.trc), text (.txt), configuration (.cfg), image files (.bmp)	
Glitch Mode	Duration ≥ 20ns – 1250 min/max pairs	
Display Modes	Envelope, Averaging (factors 2 to 64) and XY (vector)	
Other Functions		
Math Functions	Channel inversion, addition, subtraction, multiplication and division (adjustable scaling)	
Cursor Measurement	2 cursors: V, T, dV, dt simultaneously – 4-digit display resolution	
Automatic Measurement	18 time or level measurements and phase measurement	
MULTIMETER MODE		
General Specifications	2 channels, 8000-count display + min/max bargraph – Graphic recording of 2700 measurements (5min to 1 month)	
Operating Modes	Absolute or relative display (absolute, deviation, ref, ref%) – Monitoring (instantaneous, min, max, Avg)	
AC, DC & AC+DC Voltages	Ranges from 600mV to 600Vrms, 800mV to 800Vdc – accuracy for Vdc 1% reading+20D –50kHz bandwidth	
Resistance	Range from 80Ω to 32MΩ - accuracy 2% reading + 10D –10ms quick continuity test	
Capacitance	Ranges from 5nF to 5mF – basic accuracy 2% reading + 10D	
Other Measurements	Frequency, rotation speed, 3.3V diode test, temperature measurement (with K-type thermocouple or infrared probe)	
POWER		
Measurements	Single-phase and balanced three-phase active power values (with or without neutral), simultaneous display of current	
HARMONIC ANALYZER MODE		
Multi-Channel Analysis	2 channels, 31 orders, fundamental frequency from 40 to 450Hz	
Simultaneous Measurements	Total VRMS, THD and selected order (% fundamental, phase, frequency, VRMS)	
GENERAL SPECIFICATIONS		
Screenshots	Up to 100 files in standard ".bmp" format, viewable on the instrument	
PC Communication	Isolated optical USB interface "SX-Metro" PC application software (included)	
Power Supply	6 LR6 or 6AA NiMH batteries – Battery life up to 8hrs 30min Universal line adapter isolated from the channels – Quick charging in 2hrs 30min	
Safety/EMC	Safety according to IEC61010-1 Ed3 – 600V CAT III, EMC according to EN61000-3, 2001 & EN61326-1, 2006	

Models OX5022 & OX5042

Functional Displays

► FEATURES

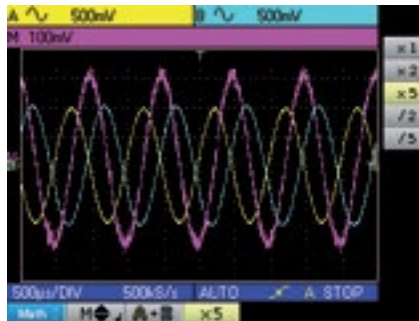
- Two isolated channels
- Three instruments in one
 - 20 or 40MHz oscilloscope
 - Double 8000-count TRMS multimeter / Power analyzer
 - Harmonic analyzer
- 3.5" color LCD screen
LED backlighting technology
- Integrated interactive multilingual help function
- 2MB recording data
- Store graphic recordings of 2700 measurements (5min to 1 month)
- Communication via isolated USB SCPI protocol

► PRODUCT INCLUDES

"Hands-free" soft carrying case, set of 2 color-coded (red/black) 5 ft silicone leads, set of 2 color-coded (red/black) alligator clips, set of 2 color-coded (red/black) needle tip probes, two 10:1 600V/BNC-M probes, one 100 to 240V power supply (12V output), one US power plug adapter (115/230V), one 4mm banana plug adapter, optical USB cable, six NiMH 1.2V rechargeable batteries, SX-METRO software on CD-ROM, user manual on CD-ROM.

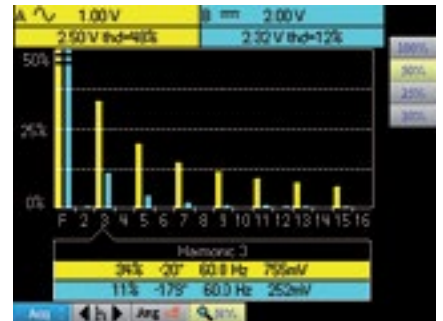


High Performance



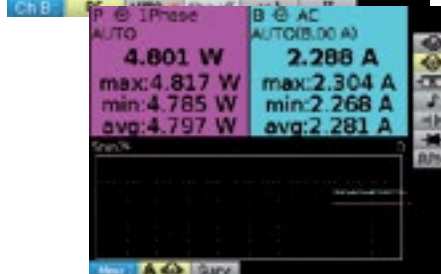
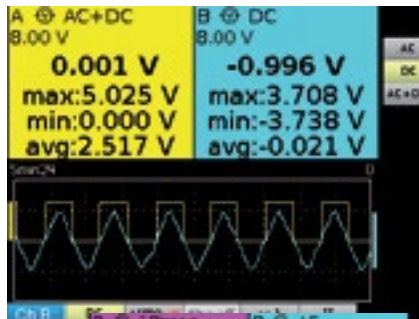
Automatically displays measurements for both isolated channels from your choice of 19 measurement types.

Harmonic Analyzer



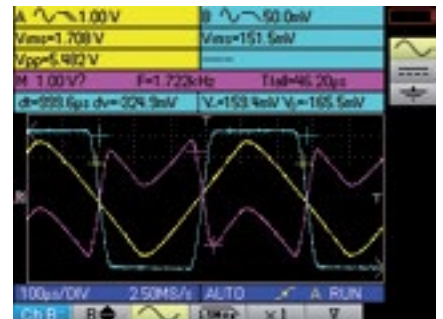
Measures two channels of individual harmonic content up to the 31st harmonic.

Two Independent 8000-count TRMS Digital Multimeters



Instantly displays measurements in multimeter mode at the press of a button.

Storage Communication & PC Software



View real-time measurements on your PC, configure the Handscope, export data to spreadsheet using the SX-Metro included software.

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2150.20	Handscope Portable Oscilloscope Model OX5022-CK (2-Channel, 20MHz)	\$2,095.00	\$ 95.00
2150.21	Handscope Portable Oscilloscope Model OX5042-CK (2-Channel, 40MHz)	\$2,395.00	\$ 95.00



Model GX320

Cascade arrangement for simulating complex signals with 20MHz and integrated external frequency meter



► SPECIFICATIONS

MODEL	GX320	
INTERFACE		
Display	LCD (125 x 45mm) – Adjustable brightness Display of frequency on 5 digits 20mm high	
Commands	19 direct-access commands (9 backlit and adjustable) 1 Line Out On/Off key – 1 digital encoder wheel	
Adjustment of Signal Parameters	Continuous by the encoder, automatic frequency and level ranges, selection of the increment digit (F,P,N...)	
BNC Output Terminals	TTL, Sweep, Clock and Synch outputs	
BNC Input Terminals	VCG, Gate, Clock and Synch inputs	
CONTINUOUS SIGNAL GENERATION		
Frequency	0.001Hz to 20.000MHz (11 ranges)	
Resolution/Accuracy	5-digit display – resolution from 1mHz to 1kHz according to frequency range, ± 20ppm for F > 10kHz, ± 30ppm for F < 10kHz	
Amplitude	1mV to 20.0Vpp with open circuit in 3 automatic ranges – 3-digit Vpp or Vrms display	
Flatness	± 1dB up to 20MHz (specs. for level from 0.1Vpp to 20Vpp)	
Vdc Offset	± 10Vdc with open circuit – accuracy ± 5% ± 5mV	
Waveforms	Sine/Triangle (max frequency 2MHz)/Square & "LOGIC"/TTL output	
FREQUENCY		
Modes	LIN (linear) or LOG (logarithmic)	
"INT" internal sweep	"Sawtooth" or "Triangle" mode Unlimited excursion between "F Start" & "F Stop" (256 steps) Sweep time adjustable from 10ms to 100s	
"EXT" internal sweep	Sweep by signal < 15kHz, amplitude ± 10V VCF IN input impedance 10kΩ approx.	
MODULATIONS		
Internal AM	Modulation by a sine signal with a frequency of 1kHz Modulation rate 20% or 80%	
External AM	Modulation by a signal with a frequency < 15kHz	
Internal FM	Modulation by a sine signal with a frequency of 1kHz	
External FM	Modulation by a signal with a frequency < 15kHz	
FUNCTIONS		
Shift K	FSK (Internal/External) = switching between F start & F stop PSK (Internal/External) = phase switching ± 180°	
Burst	Internal External	1 to 65,535 impulsions pulse train period from 10ms to 100s 1 to 65,535 impulsions – Synch/Period by a TTL signal with a frequency < 200 kHz (VCG IN input)
Gate	Validation of the AC component of "Line Out" by a TTL signal with a frequency < 2MHz (GATE IN input)	
Synch	Maximum frequency of signals generated 100kHz Adjustment of phase shift across ± 180° (resolution 1°)	
EXTERNAL FREQUENCYMETER		
Measurement Range	5Hz to 100MHz	
Accuracy	± 0.05% + 1 count	
Safety/Max Acceptable Voltage	300V CAT I/300VRMS	
GENERAL SPECIFICATIONS		
Configuration Memories	Storage/Recall of 15 complete instrument configurations	
Communication Interface	"USB A/B" link for the programmable versions and Ethernet interface	
Power Supply	115V ± 10% or 230V ± 10%; 50/60Hz – 20VA max. – Internal selection	
Safety/EMC	Safety as per IEC 61010-1 (2001) – EMC as per EN 61326-1 (2004)	

► FEATURES

- Frequency range from 20MHz
- DDS technology and frequency accuracy of ±20ppm
- Frequency adjustment stable to the nearest digit
- "LOGIC signal" function for direct adjustment of high and low levels
- LIN or LOG sweep, triangle or sawtooth, with adjustable duration from 10ms to 100s
- Internal and external AM & FM modulation, GATE, BURST, FSK and PSK functions
- Adjustable phase synchronization of several generators in a cascade arrangement
- 100MHz frequency meter, 300V CAT I
- Storage of 15 complete instrument configurations
- Versions programmable via USB link and Ethernet with standard SCPI protocol

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2138.02	Function Generator Model GX320 (DDS, 20MHz, USB)	\$1,149.00	\$ 95.00



OTHER PRODUCTS FROM CHAUVIN ARNOUX® GROUP

Intrinsically Safe Digital Multimeter

Special product features



Model MX 57EX TRMS

An intrinsically safe multimeter for use in dangerous or explosive atmospheres



SPECIFICATIONS

MODEL	MX 57EX IECEx TRMS					
	500µA	5mA	50mA	500mA		
AC Current	500µA	5mA	50mA	500mA		
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		
AC Voltage	500mV	5V	50V	500V*	600V*	
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	
DC Current	500µA	5mA	50mA	500mA		
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		
DC Voltage	500mV	5V	50V	500V*	600V*	
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	10MΩ/1GΩ**	11MΩ	10MΩ	10MΩ	10MΩ	
Protection	1100Vpk	1100Vpk	1100Vpk	1100Vpk	1100Vpk	
Resistance	500Ω	5kΩ	50kΩ	500kΩ	5MΩ	50MΩ
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					
Protection	600V					
Continuity	10 to 20Ω					
Response Time	1ms					
Diode Test	0 to 2V					
Test Current	1mA ± 20%					
Capacitance	50nF to 50mF					
Accuracy	1% of Reading ± 2cts					
Frequency	0.62Hz to 500kHz					
Accuracy	0.03% of Reading ± 2cts					
Temperature						
Range (User selectable in °F or °C)	-328° to 1472°F (-200° to 800°C)					
Sensor	PT100/PT1000					
Digital Display	50,000-count					
Analog Bargraph	One 9V Alkaline battery (included)					
Power Source	34-segment					
Safety Rating	NF EN 50014, EN 50014: 1992; NF EN 50020, EN 50020: 1994					
Agency Approval	Agency Approval: IECEx LC107.0010 X, LCIE 02 ATEX 6005 X, ExII 2 G D or ExI 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
 **User selectable

• 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, ExII 2 G D or ExI 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

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2130.66	Digital Multimeter Model MX 57EX TRMS (IECEx LCIE 07.0010 X, LCIE 02 ATEX 6005 X, Intrinsically Safe, TRMS, 50,000-count, 0.025%)	\$895.00	\$98.00



Technical Assistance (800) 343-1391

www.aemc.com 103

Models MTX3281B-COMCM, MTX3282B-COMCM & MTX3283B-COMCM

Offers a resolution of 100,000 counts, 0.02% basic accuracy, 200kHz bandwidth and Bluetooth* communication technology



Model MTX3283B-COMCM

► SPECIFICATIONS

MODELS	MTX3281B-COMCM	MTX3282B-COMCM	MTX3283B-COMCM
ELECTRICAL			
Display	Multidirectional graphic LCD (58 x 58mm) Adjustable contrast - LED backlighting, Graphic resolution 160 x 160 100,000-count digital display, main display + bargraph + (graphic or selection of 3 secondary displays)		
Measurement Connections	3 measurement terminals (V, A, COM) Automatic detection and selection of VAC+DC or IAC+DC		
Controls	Virtual measurement selector with 8 "one-handed" direct access keys – "Favorite function" key		
Languages	(English, French) – Configuration menu & browser online help		
DC, AC and AC+DC Voltages	5 Automatic or Manual Ranges from 100.000mV to 1000.00V		
DC Basic Accuracy	0.1% of Reading + 8cts		
AC and AC+DC Basic Accuracy	0.7% of Reading + 40cts	0.3% of Reading + 40cts	0.3% of Reading + 40cts
Specified Bandwidth	DC at 50kHz	DC at 100kHz	DC at 200kHz
DC, AC and AC+DC Currents	6 Automatic or Manual Ranges from 1000.00µA to 20.000A (max. 30s)		
DC Basic Accuracy	0.08% of Reading + 8cts	0.08% of Reading + 8cts	0.08% of Reading + 8cts
AC and AC+DC Basic Accuracy	1.0% of Reading + 30cts	0.3% of Reading + 30cts	0.3% of Reading + 30cts
Specified Bandwidth	DC at 20kHz	DC at 50kHz	DC at 50kHz
Frequency & Period	7 Automatic or Manual Ranges from 10.0000Hz to 2.0000MHz Basic Accuracy 0.02% of Reading + 8cts		
Duty Cycle	Rated range 5 to 95% - Resolution 0.01%		
Positive and Negative Pulses	Counting of up to 99.999 pulses, measurement of duration from 100µs to 12.5s		
Elapsed Time	Graph of events with zoom and measurement cursors: Relative mode (1) or Date/Time		
Resistance & Continuity	6 Automatic or Manual Ranges from 1000.00Ω to 50.000MΩ		
Basic Accuracy	0.1% of Reading + 8cts	0.07% of Reading + 8cts	0.07% of Reading + 8cts
Audible Continuity Detection	Range 1000.00Ω - response time 5ms		
Diode Test	0 to 2.6000V – Accuracy 2% of Reading + 30cts Measurement current approx. 1mA		
Capacitance	Automatic or manual ranges from 10.00nF to 10.00mF 1% of Reading + 5cts / Measurement time < 2s (for C < 100µF)		
V Peak > 250µs and Crest Factor	Valid for one-off or periodic phenomena		
Measurement in dBm	Resolution 0.01dBm - Adjustable reference from 1 to 10,000Ω		
Resistive Power U²/R or R x I²	Resolution 100µW - Adjustable reference from 1 to 10,000Ω		
GENERAL			
Communication (model dependent)	USB adapter – Bluetooth wireless link Bluetooth connection (communicates up to 30 ft)		
EMC/Safety	Emissions and immunity as per NF EN 61326-1, 1998/IEC 61010, 2001 – 600V CAT IV or 1000V CAT III		
Power Supply/Battery Life	3 LR6 batteries or AA NiMH rechargeable batteries / approx. 80h (LR6 batteries) or 65h (NiMH rechargeable batteries) depending on use		
Power Supply	Multi-voltage switching power supply, 100-240V ± 10%, 50-60Hz, 0.3A Full charge time 7hrs 30min (2600mAh rechargeable batteries)		
Casing	ABS V0 – Dimensions when closed: 1.73 x 3.35 x 7.09" (44 x 85 x 180mm)/Weight: 400g (88lbs)/Protection rating IP51		

*Model dependent

► FEATURES

- TRMS voltage and current (AC)
- Large graphic LCD display, bilingual menus (English/French)
- LED backlighting for easier reading in dark areas and lower power consumption
- Four 100,000-count digital displays, bargraph and graphic measurement log
- Basic accuracy 0.02%, specified bandwidth 200kHz
- 8-key "virtual" measurement selector with "one-handed" direct access
- Frequency measurements up to 2MHz, durations, duty cycle, counting of events
- Temperature measurements with Pt 100 or Pt 1000 probes and J or K thermocouples
- Storage of 6500 measurements with date and time (up to 4 simultaneous parameters)
- USB or Bluetooth communication (model dependent)



CATALOG NO. DESCRIPTION

CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
2125.74	DMM Model MTX3281B-COMCM (TRMS, 100,000-count, Graphical, Communication, BW 50kHz, UL & CUL)	\$ 549.00	\$ 98.00
2125.75	DMM Model MTX3282B-COMCM (TRMS, 100,000-count, Graphical, Communication, Auto, Auto Peak, BW 100kHz, UL & CUL)	\$ 649.00	\$ 98.00
2125.76	DMM Model MTX3283B-COMCM (TRMS, 100,000-count, Graphical, Communication, Auto, Auto Peak, Rel, BW 200kHz, UL & CUL)	\$ 749.00	\$ 98.00
2125.79	DMM Model MTX3283B-BTCOMCM (TRMS, 100,000-count, Bluetooth, Graphical, Communication, Auto, Auto Peak, Rel, BW 200kHz, UL & CUL)	\$ 949.00	\$ 98.00



Models CA1725 & CA1727

Simple to use and offers numerous measurement possibilities with or without contact

► SPECIFICATIONS

MODELS	CA1725 & CA1727
MEASUREMENTS	
Rotational Speed Function	Range: 6 to 100,000rpm Resolution: 0.0006 to 6rpm depending on range Accuracy: 1×10^{-4} of Reading ± 6 counts
Linear Speed Function	Range: 0.1 to 10,000m/min or ft/min Resolution: 0.0006 to 6m/min depending on range Accuracy: 1×10^{-4} of Reading ± 1 increment
Frequency Function	Range: 0.1 to 10,000Hz Resolution: 0.0004 to 0.4Hz depending on range Accuracy: 4×10^{-5} of Reading ± 4 counts
Period Function	Range: 0.1 to 10,000ms Resolution: 0.0003 to 0.3ms depending on range Accuracy: 1×10^{-4} of Reading ± 5 counts
Duty Cycle Function	Range: 10 to 10,000% Resolution: 0.1 to 1% depending on range Accuracy: 0.1% of scale from 0.2 to 50Hz 0.2% of scale from 50 to 125Hz / 1% of scale otherwise
Count function	Range: 0 to 99,999 events; Accuracy: ± 1 event (Model CA1727)
GENERAL	
Power Source	9V battery Alkaline (included)
Battery life	250 x 5 min measurements with optical sensor; 600 x 5 min measurements with external sensor
Data Storage	4000 measurements (Model CA1727)
Dimensions	8.5 X 2.83" (216 x 72 x 47mm)
Weight	8.8 oz (250g)
Weatherproofing	IP51
Environment	Storage: -4 to +158°F (-20 to +70°C) 95% RH; Operation: 32 to 131°F (0 to 55°C) 90% RH
SENSOR	
Optical	Reflective area: 10 to 90% of the target area. Measurement distance: 1 to 50cm. The maximum distance is given for a reflective adhesive strip with a minimum area of 10cm ² . Measurement angle: $\pm 15^\circ$ in relation to the perpendicular of the reflective surface.
Mechanical	Mechanical adapter: End-fittings: elastomer with a durometer hardness of 80 Pressure on moving part: between 2 and 40N; maximum speed: 10,000rpm Service life: approx. 1000 hours at 3000rpm with a pressure of 20N Conical end-fitting accessory: Minimum diameter of measurement shaft: 5mm Cylindrical end-fitting accessory: Speed measurements on shafts with a diameter greater than 5mm or flat-ended shafts End-fitting accessory with wheel; Wheel diameter: 30.183mm; Wheel development: 10cm \pm 0.1mm



► FEATURES

- Measurements up to 100,000rpm
- Multiple functions and automatic routines for data acquisition and storage: measurement of rotational speed, linear speed, count, frequency and period
- Extensive programming possibilities
- Digital display with analog bargraph
- USB interface for processing results on a PC (Model CA1727)
- Includes TachoGraph software on CD-ROM (Model CA1727) download memory only
- Stores up to 4000 measurements results

► PRODUCT INCLUDES

Hard case, FRB F connector, 9V battery, a set of 15 reflective strips, USB cable & TachoGraph software on CD-ROM (CA1727 only), quick start guide and user manual.

► ACCESSORY

Mechanical Accessories Kit

Catalog #1749.02

Mechanical adapter, calibrated wheel, conical end fitting and cylindrical end fitting



CATALOG NO.	DESCRIPTION	PRICE	NIST CALIBRATION
1748.10	Tachometer Model CA1725	\$499.00	\$94.00
1748.30	Tachometer Model CA1727	\$599.00	\$94.00
1749.02	Mechanical accessories kit	\$108.80	-



CATALOG CROSS REFERENCE INDEX



Cat. No.	Model No.	Page No.	Cat. No.	Model No.	Page No.	Cat. No.	Model No.	Page No.	Cat. No.	Model No.	Page No.
100.185	AC Current Probe Model MN185	81	2114.79	AC Current Probe Model SR632	82	2118.70	Kelvin Clips 20 ft (10A – Hippo)	92, 93		Model CA879	65
1017.84	Kelvin Clips 10 ft (10A – Hippo)	92, 93	2114.87	AmpFlex® Flexible Current Probe Model 3000-24-2-0.3	58, 86	2118.73	Kelvin Probes 10 ft (1A, Spring Loaded)	92, 93	2124.58	Handheld Oscilloscope Model OX7102 ^{III} 100MHz	78
1031.02	AC Current Probe Model MN103	81	2114.90	Ground Resistance Tester Model 3620 (Analog, 3-Point)	27, 40	2118.74	Kelvin Probes 20 ft (1A, Spring Loaded)	92, 93	2124.59	Handheld Oscilloscope Model OX7202 ^{III} 200MHz	78
1031.17	AC Current Probe Model MN106	81	2114.92	Ground Resistance Tester Model 3640 (Digital, 3-Point)	27, 40	2118.75	Kelvin Probes Pistol Grip (10A – spring loaded), set of two, 10 ft	92, 93	2124.67	Handheld Oscilloscope Model OX7104 ^{III} 100MHz	78
1200.67	DC/AC MicroProbe Model K100	87	2115.41	AC Current Probe Model MN375	59, 81	2118.76	Kelvin Probes Pistol Grip (10A – spring loaded), set of two, 20 ft	92, 93	2124.68	Handheld Oscilloscope Model OX7204 ^{III} 200MHz	78
1200.68	AC/DC Current Probe Model MR411	87	2115.42	Megohmmeter Model 1035 Field Kit	2, 5	2118.77	Kelvin Probes (10A – spring loaded), set of two, 10 ft	92, 93	2124.75	PROBIX PRHX5 50Ω Adapter	78
1200.69	AC/DC Current Probe Model MRS21	87	2115.75	AC Current Probe Model MN213	81	2118.78	Kelvin Probes (10A – spring loaded), set of two, 20 ft	92, 93	2124.77	PROBIX 20mA to 20A Current Probe	78
1200.72	AC Current Probe Model MR461	80	2115.77	AC Current Probe Model MN251	58, 81	2118.79	Kelvin Clips 10 ft (1-10A) Replacement for Cat. #2118.71	92, 93	2124.91	AmpFlex® 0.5A to 3kA, 200kHz	78
1200.73	AC Current Probe Model MR561	80	2115.79	AC Current Probe Model MN253	81	2118.80	Kelvin Clips 20 ft (1-10A) Replacement for Cat. #2118.72	92, 93	2124.92	MiniFlex® 0.5A to 300A, 3mHz	78
1201.07	AC Current Probe Model MD301	81	2115.81	AC Current Probe Model MN255	58, 81	2118.87	Remote Test Probe	5, 7	2124.99	PROBIX 4 to 20mA Adapter	78
1201.36	AC Current Probe Model MD305	81	2115.82	AC Current Probe Model MN261	58, 80	2118.97	Field Case (Waterproof)	5	2125.52	Leakage Current Probe Model 2620	72
1201.37	AC Current Probe Model MD304	81	2115.84	AC Current Probe Model MN291	81	2118.98	Hands-Free Carrying Case	5	2125.64	Digital Multimeter Model 5231	75
1201.45	AC Current Probe Model SL206	81	2116.23	AC Current Probe Model MN307	81	2118.99	Cable, PC RS-232, DB9 F/F 6 ft Null Modem Cable	10, 93	2125.65	Digital Multimeter Model 5233	75
1201.51	AC/DC Current Probe Model SL261	25, 80	2116.24	AC Current Probe Model MN312	81	2119.45	Lead – Set of 3, Color-coded 10ft 5kV Safety w/3 Color-coded Alligator Clips (1000V CAT IV, 15A)	8	2125.74	DMM Model MTX3281B-COMCM	104
1748.10	Tachometer Model CA1725	105	2116.25	AC Current Probe Model MN313	59, 81	2119.76	Lead – Replacement, Set of 3, Color-coded 6 ft 5kV safety for Megohmmeter Model 6505	8	2125.75	DMM Model MTX3282B-COMCM	104
1748.30	Tachometer Model CA1727	105	2116.26	AC Current Probe Model MN352	81	2119.77	Lead – Set of 3, Color-coded 25 ft 5kV Safety with Integral Hippo Clips [Jumper lead not included]	8	2125.76	DMM Model MTX3283B-COMCM	104
1749.02	Mechanical accessories kit	105	2116.27	AC Current Probe Model MN353	59, 81	2119.85	Lead – Set of 3, Color-coded 45 ft 5kV Safety with Integral Hippo Clips [Jumper lead not included]	8	2125.79	DMM Model MTX3283B-BTCOMCM	104
1971.01	Artificial Neutral Model AN-1	72	2116.28	AC Current Probe Model MN373	59, 81	2119.86	Adapter – BNC (Female) to 4mm Banana (Male)	85	2126.01	Simple Logger® II Model CL601	44
2110.71	AC Current Probe Model MN114	74, 81	2116.29	AC Current Probe Model SR701	82	2119.87	Outlet/GFCI Tester Model OT-2 (110V US)	90	2126.02	Simple Logger® II Model L101	45
2110.80	AC Current Probe Model JM810A	82	2116.30	AC Current Probe Model SR704	82	2119.94	AC Line Splitter Model ALS-1	90	2126.03	Simple Logger® II Model L102	45
2110.83	AC Current Probe Model JM830A	58, 82	2116.32	AC Current Probe Model SR752	59, 82	2120.81	Non-Contact AC Voltage Detector Model NC-1	90	2126.04	Simple Logger® II Model L111	45
2110.87	AC Current Probe Model JM850A	82	2116.33	AC Current Probe Model SR759	59, 74, 82	2121.03	Phase Rotation Meter Model 6608	89	2126.05	Simple Logger® II Model L261	46
2110.88	AC Current Probe Model JM865A	82	2116.89	Megohmmeter Model 1030	2, 5	2121.10	Phase Rotation Meter Model 6609	89	2126.06	Simple Logger® II Model L322	49
2110.90	AC Current Probe Model JM861	58, 80	2116.90	Megohmmeter Model 1035	2, 5	2121.11	Phase & Motor Rotation Meter Model 6609	89	2126.07	Simple Logger® II Model L432	49
2110.93	AC Current Probe Model JM813	82	2116.91	Megohmmeter Model 1039	2, 5	2121.12	Phase Rotation Meter Model 6610 (Non-contact)	89	2126.08	Simple Logger® II Model L642	50
2111.73	DC/AC MicroProbe Model K110	87	2116.92	Megohmmeter Model 1040	2, 5	2121.20	Lightmeter Model CA811	61	2126.10	Simple Logger® II Model L104	51
2112.00	AmpFlex® Flexible Current Probe Model 3000-36-2-1	86	2116.93	Megohmmeter Model 1045	2, 5	2121.21	Lightmeter Model CA813	61	2126.14	Simple Logger® II Model AL834	52
2112.01	AmpFlex® Flexible Current Probe Model 3000-48-2-1	86	2117.22	Clamp-On Meter Model 503	68	2121.23	Sound Level Meter Model CA832	62	2126.23	Simple Logger® II Model L264	54
2112.39	AmpFlex® Flexible Current Probe Model 1000-24-1-1	58, 86	2117.30	Megohmmeter Model 1040 Field Kit	2, 5	2121.24	Thermo-Hygrometer Model CA846	63	2126.25	Simple Logger® II Model L481	46
2112.46	AmpFlex® Flexible Current Probe Model 3000-24-1-1	86	2117.31	Megohmmeter Model 1045 Field Kit	2, 5	2121.27	Thermometer Model CA863	64	2126.29	Simple Logger® II Model L404	50
2112.48	AmpFlex® Flexible Current Probe Model 3000-36-1-1	86	2117.49	Clamp-On Meter Model 670	70	2121.34	Infrared Thermometer Model CA876 (Laser, var e, K Thermocouple)	64	2126.35	Simple Logger® II Model L562	47
2112.88	AmpFlex® Flexible Current Probe Model 300-24-2-1	58, 86	2117.50	Clamp-On Meter Model 675	70	2121.37	Infrared Thermometer		2126.36	Simple Logger® II Model L564	55
2112.98	AmpFlex® Flexible Current Probe Model 1000-24-2-1	58, 86	2117.54	Clamp-On Meter Model 500	68				2126.37	Simple Logger® II Model ML912	48
2113.00	AmpFlex® Flexible Current Probe Model 1000-36-2-1	58, 86	2117.56	Clamp-On Leakage Current Meter Model 565	73				2126.40	Simple Logger® II Model ML914	53
2113.05	AmpFlex® Flexible Current Probe Model 3000-24-2-1	86	2117.60	Ground Resistance Tester Model 3711	29, 40				2126.46	Thermocouple-Needle	50
2113.21	AmpFlex® Flexible Current Probe Model 6000-36-2-0.1	58, 86	2117.61	Ground Resistance Tester Model 3731	29, 40				2126.47	Thermocouple-Flexible	50
2113.33	AmpFlex® Flexible Current Probe Model 30000-24-2-0.1	58, 86	2117.66	Clamp-On Meter Model 502	68				2126.51	Megohmmeter Model 6501	2, 3
2113.42	AC Current Probe Model SR600	82	2117.67	Clamp-On Meter Model 511	69				2126.52	Megohmmeter Model 6503	2, 3
2113.43	AC Current Probe Model SR601	82	2117.68	Clamp-On Meter Model 512	69				2126.53	Megohmmeter Model 6527	2, 6
2113.44	AC Current Probe Model SR604	59, 82	2117.70	Clamp-On Meter Model 514	69				2126.81	MiniFlex® Model MF 300-6-2-10	58, 85
2113.45	AC Current Probe Model SR651	82	2117.78	Lead – Set of 3, (2 Color-coded Safety Leads, 1 Ground Lead, 2 Color-coded Alligator Clips and 2 Color-coded Grip Probes) for Power Supply Models AX501-AX503	88				2126.82	MiniFlex® Model MF 3000-10-2-1	85
2113.48	AC Current Probe Model SR634	82	2118.46	Adapter – Banana (Female) – BNC (Male) (XM-BB)	86				2126.83	MiniFlex® Model MF 300-6-2-10-HF	84
2113.49	AC Current Probe Model SR661	59, 80							2126.84	MiniFlex® Model MF 300-10-2-10-HF	84

TRAINING SEMINARS

AEMC® One-Day Training Seminars

Offered 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, visit our website at 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 (Future)



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 (Future)



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 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 ext. 351.

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 repair, normal recalibration, and calibration traceable to NIST are available. NIST calibration pricing is listed within each product ordering chart. All customers must call for an authorization number (CSA#) 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 (product dependent) of original date of purchase when inspection proves the fault to be one of manufacturing. Detailed warranty coverage is 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
customerservice@aemc.com • 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

**Power & Energy
Logger
Models PEL 102
& PEL 103
p. 16-17**



**Power Quality
Analyzer
PowerPad® III
Model 8435
p. 18-19**



**Power Quality Analyzer
PowerPad® III
Models 8333 & 8336
p. 20-23**



**Ground Resistance
Tester Models
6416 & 6417
p. 30-31**



**GroundFlex®
Field Kit
Models
6472 & 6474
p. 34-35**



**Data Logger
Models DL-1080
& DL-1081
p. 56-57**



**Digital FlexProbe®
Models 400D & 4000D
p. 83**



**200 Amp
Micro-Ohmmeter
Model 6292
p. 94**



**Quick Tester
Model 8505
p. 95**



Your authorized AEMC® Instruments distributor is:

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
Export Department (603) 749-6434 ext. 520 • Fax (603) 742-2346 • export@aemc.com



VISIT US

