

# SIMPLE LOGGER® II DATA LOGGERS

AC Current • AC Voltage • DC Current  
DC Voltage • Thermocouple

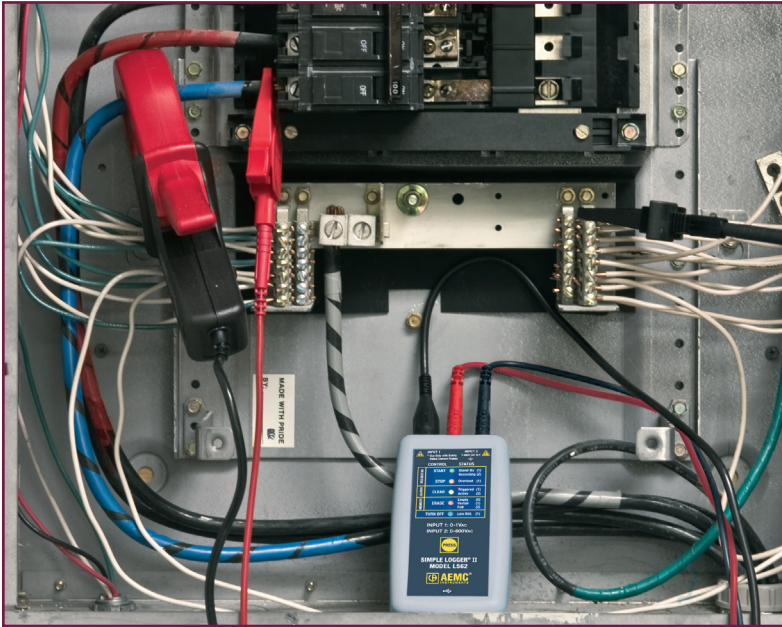


- ▶ Programmable storage modes
- ▶ Programmable storage rates
- ▶ Stores up to 240,000 measurements
- ▶ Runs on Alkaline batteries
- ▶ Optically isolated USB port
- ▶ Includes DataView® graphing, analysis and report generation software
- ▶ Display and analyze real-time data on your PC

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

# DATA LOGGING MADE SIMPLE ...

## Simple Logger® II



L562 monitoring voltage and current in a load center.

The Simple Logger® II data logger family is a cost effective, advanced designed product line incorporating features and functions not found in data loggers costing 2 to 3 times their price.

The choice of data storage modes and storage rates allows the operator to effortlessly configure these loggers to optimize memory usage to the application at hand.

Extended Recording Mode (XRM™) and delayed start time are just two of the many application friendly features in these loggers.

An internal memory of 512kB allows for storing over 240,000 measurements, more than enough for most data collection needs. All AC measurement loggers are True RMS (TRMS) and all DC measurement loggers allow the user to program both scale and engineering units.

A full set of alarm programming tools allows for programming alarm set points and triggering on high, low, inside or outside trigger points.

Their battery operation and compact size allows for installation in tight locations without the need for external power. A series of front panel LEDs provides a quick status of the logger's state and memory usage.

DataView® application software is included, providing real-time viewing of measurement data even while recording. Instrument configuration, data storage and report generation from pre-defined templates or operator custom designed templates are also standard features. Several data loggers can be synchronized to record at the same time intervals using DataView®, as well.

Nine models are available to record various AC, DC or Temperature measurements. The following pages will provide more specific information on each model, available accessories and the DataView® software.

## FEATURES

- ▶ True RMS measurements provide an accurate representation of measured signals for AC models
- ▶ Choice of data storage modes to assist in matching the data collection for the application needs
- ▶ Stores over 240,000 measurements, ensuring that no valuable data is missed; (greater than 8 hours at 8 samples per second; approximately 1 week at one sample every 2 seconds)
- ▶ Compact size and battery operated
- ▶ Easily installed anywhere quickly, operational in seconds
- ▶ Display and analyze real-time data through your PC

## APPLICATIONS

- ▶ DataView® assists the electrician or engineer in finding problems that occur randomly in fault/intermittent current detection
- ▶ Neutral current monitoring, finds unwanted leakage currents
- ▶ Harmonic real-time current monitoring, locates unwanted energy that causes equipment failure
- ▶ Load profiling which sizes loads for proper transformer and meter selection
- ▶ Split phase load monitoring for residential voltage and current
- ▶ Machine load monitoring finds overload conditions that cause premature equipment failure due to overheating
- ▶ Process loop monitoring - finds troubled sensors and controls
- ▶ HVAC and general temperature profiling

# DataView<sup>®</sup>

## Simple Logger<sup>®</sup> II Software

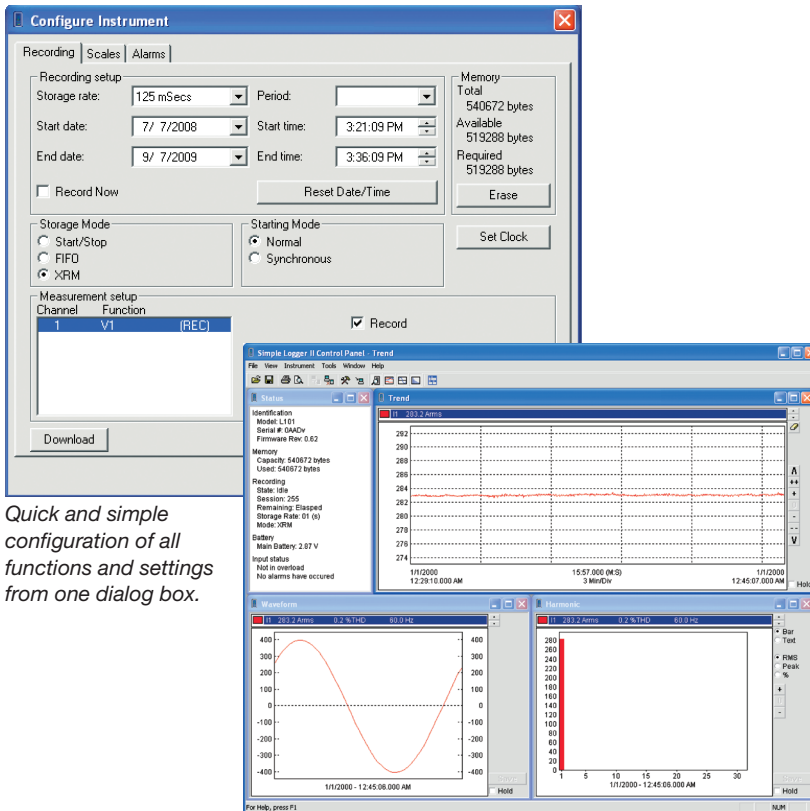
DataView<sup>®</sup> software provides a convenient way to configure and control power analysis tests from your computer. Through the use of clear and easy-to-use tabbed dialog boxes, all Simple Logger<sup>®</sup> II functions can be configured and tests can be initiated. Results can be displayed in real time and stored in your PC or the logger. Reports may be printed along with the operator's comments and analysis.



DataView<sup>®</sup> is included with all Simple Logger<sup>®</sup> II models.

## FEATURES

- ▶ Display and analyze real-time data on your PC
- ▶ Record real-time to 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 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, real-time
- ▶ Create custom views and reports
- ▶ Print reports using standard or custom templates you design
- ▶ Free software upgrades



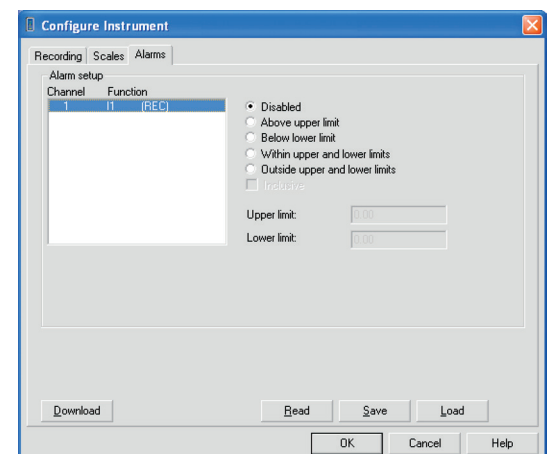
Quick and simple configuration of all functions and settings from one dialog box.

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

## MINIMUM SYSTEM REQUIREMENTS

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

Windows a registered trademark of Microsoft Corporation in the United States and/or other countries.



Configure all alarm functions with straightforward selections.



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



Model CL601 includes type A to 5-pin mini-B USB 2M, DataView® CD, two 1.5V AA-cell Alkaline batteries and user manual.

Model CL601

## FEATURES

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

## SPECIFICATIONS

| MODEL                 | CL601  |
|-----------------------|--|
| <b>ELECTRICAL</b>     |  |
| Channels              | One  |
| Input Connection      | Split CT – AC Current  |
| Current Range         | 0 to 600A <sub>AC</sub>  |
| Resolution            | 0.1A   |
| Accuracy (50/60Hz)    | 0 to 5A: unspecified<br>5 to 50A: ±(1% of Reading + 1A)<br>50 to 400A: ±(1% of Reading + 0.5A)<br>400 to 600A: ±(3% of Reading + 1A) |
| Sample Rate           | 64 samples/cycle   |
| Storage Rate          | Programmable from 125mS to 1 day   |
| Storage Modes         | Start/Stop, FIFO and Extended Recording Mode (XRM™)  |
| Recording Length      | 15 minutes to 8 weeks, programmable using DataView®  |
| Memory                | 240,000 measurements (512KB) The recorded data is stored in non-volatile memory retained even if the battery is low or removed.      |
| Communication         | USB 2.0 optically isolated   |
| Power Source          | 2 x 1.5V AA-cell Alkaline batteries  |
| Battery Life          | 100 hours to >45 days (dependent on storage rate/recording length)   |
| <b>MECHANICAL</b>     |  |
| Dimensions            | 9.25 x 4.0 x 1.63" (235 x 102 x 41mm)  |
| Max Conductor Size    | 1 conductor - Ø 1.65" (42 mm), 2 conductor - Ø 1.00" (25.4 mm) ea  |
| Weight (with battery) | 17.1 oz (485 grams)  |
| Case                  | UL94-V0  |
| Vibration             | IEC 68-2-6 (1.5mm, 10 to 55Hz)   |
| Shock                 | IEC 68-2-27 (30G)  |
| Drop                  | IEC 68-2-32 (1m)   |
| <b>ENVIRONMENTAL</b>  |  |
| Operating Temperature | 14° to 122° F (-10° to 50° C)  |
| Storage Temperature   | -4° to 140° F (-20° to 60° C)  |

## APPLICATIONS

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



Easily log current in power panels.

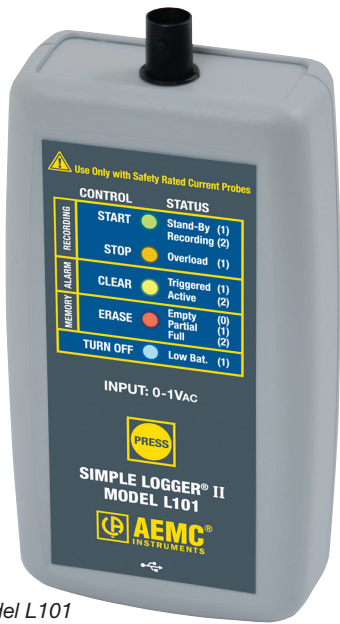
### DESCRIPTION

Simple Logger® II Model CL601 (1-Channel, TRMS Clamp-On, 600A<sub>AC</sub>)

### CATALOG NO.

2126.01

# Simple Logger® II TRMS Current Model L101



Model L101 includes type A to 5-pin mini-B USB 2M, DataView® CD, two 1.5V AA-cell Alkaline batteries and user manual. Probes sold separately.

Model L101

## SPECIFICATIONS

| MODEL                              | L101  |
|------------------------------------|---|
| <b>ELECTRICAL</b>                  |   |
| Channels                           | One   |
| Input Connection                   | BNC   |
| Current Probe Output Voltage Range | 0 to 1V (probe dependent)   |
| Resolution                         | 0.1mV   |
| Accuracy (50/60Hz)                 | 0 to 10mV: unspecified<br>10 to 50mV: ±(0.5% of Reading + 1mV)<br>50 to 1000mV: ±(0.5% of Reading + 0.5mV)                          |
| Sample Rate                        | 64 samples/cycle  |
| Storage Rate                       | Programmable from 125mS to 1 day  |
| Storage Modes                      | Start/Stop, FIFO and Extended Recording Mode (XRM™)   |
| Recording Length                   | 15 minutes to 8 weeks, programmable using DataView®   |
| Memory                             | 240,000 measurements (512KB) The recorded data is stored in non-volatile memory and retained even if the battery is low or removed. |
| Communication                      | USB 2.0 optically isolated  |
| Power Source                       | 2 x 1.5V AA-cell Alkaline batteries   |
| Battery Life                       | 100 hrs to >45 days (dependent on storage rate/recording length)  |
| <b>MECHANICAL</b>                  |   |
| 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 (180 grams)  |
| Case                               | UL94-V0   |
| Vibration                          | IEC 68-2-6 (1.5mm, 10 to 55Hz)  |
| Shock                              | IEC 68-2-27 (30G)   |
| Drop                               | IEC 68-2-32 (1m)  |
| <b>ENVIRONMENTAL</b>               |   |
| Operating Temperature              | 14° to 122°F (-10° to 50°C)   |
| Storage Temperature                | -4° to 140°F (-20° to 60°C)   |

### DESCRIPTION

Simple Logger® II Model L101 (1-Channel, TRMS 0 to 1VAc)

### CATALOG NO.

2126.02

## FEATURES

- ▶ Compatible with standard AC current probes with voltage output and BNC connection (see chart on page 13 for compatible current probes)
- ▶ 64 samples per cycle
- ▶ Programmable storage rates from 8 per second to 1 per day
- ▶ 3 user selectable storage modes
- ▶ Stores up to 240,000 measurements in non-volatile memory
- ▶ Powered by standard Alkaline batteries
- ▶ Lightweight, compact, fits anywhere
- ▶ 5 LED indicators quickly and clearly display logger status
- ▶ Includes FREE DataView® software for data storage, real-time waveform display, analysis and report generation
- ▶ Isolated USB communication
- ▶ USB cable included
- ▶ 50V Cat. III

## APPLICATIONS

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



L101 recording branch circuit current.

# Simple Logger® II TRMS Current Model L102



Model L102 includes type A to 5-pin mini-B USB 2M, DataView® CD, two 1.5V AA-cell Alkaline batteries and user manual. Probes sold separately.

Model L102

## SPECIFICATIONS

| MODEL                              | L102  |
|------------------------------------|---|
| <b>ELECTRICAL</b>                  |   |
| Channels                           | Two   |
| Input Connection                   | One BNC connector per channel   |
| Current Probe Output Voltage Range | 0 to 1V (probe dependent)   |
| Resolution                         | 0.1mV   |
| Accuracy (50/60Hz)                 | 0 to 10mV: unspecified<br>10 to 50mV: $\pm(0.5\%$ of Reading + 1mV)<br>50 to 1000mV: $\pm(0.5\%$ of Reading + 0.5mV)              |
| Sample Rate                        | 64 samples/cycle  |
| Storage Rate                       | Programmable from 125mS to 1 day  |
| Storage Modes                      | Start/Stop, FIFO and Extended Recording Mode (XRM™)   |
| Recording Length                   | 15 minutes to 8 weeks, programmable using DataView®   |
| Memory                             | 240,000 measurements (512KB) The recorded data is stored in non-volatile memory & retained even if the battery is low or removed. |
| Communication                      | USB 2.0 optically isolated  |
| Power Source                       | 2 x 1.5V AA-cell Alkaline batteries   |
| Battery Life                       | 100 hours to >45 days (dependent on storage rate/recording length)  |
| <b>MECHANICAL</b>                  |   |
| 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 (180 grams)  |
| Case                               | UL94-V0   |
| Vibration                          | IEC 68-2-6 (1.5mm, 10 to 55Hz)  |
| Shock                              | IEC 68-2-27 (30G)   |
| Drop                               | IEC 68-2-32 (1m)  |
| <b>ENVIRONMENTAL</b>               |   |
| Operating Temperature              | 14° to 122°F (-10° to 50°C)   |
| Storage Temperature                | -4° to 140°F (-20° to 60°C)   |

### DESCRIPTION

Simple Logger® II Model L102 (2-Channel, TRMS 0 to 1VAc)

### CATALOG NO.

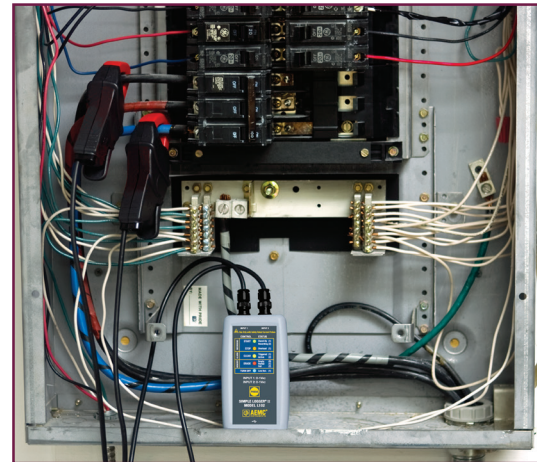
2126.03

## FEATURES

- ▶ Two independent channels
- ▶ Compatible with standard AC current probes with voltage output and BNC connection (see chart on page 13 for compatible current probes)
- ▶ 64 samples per cycle
- ▶ 2 inputs
- ▶ Programmable storage rates from 8 per second to 1 per day
- ▶ 3 user selectable storage modes
- ▶ Stores up to 240,000 measurements in non-volatile memory
- ▶ Powered by standard Alkaline batteries
- ▶ Lightweight, compact, fits anywhere
- ▶ 5 LED indicators quickly and clearly display logger status
- ▶ Includes FREE DataView® software for data storage, real-time waveform display, analysis and report generation
- ▶ Isolated USB communication
- ▶ USB cable included
- ▶ 50V Cat. III

## APPLICATIONS

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



L102 recording two phases of primary feed.

# Simple Logger® II TRMS Current Model L111



Model L111 includes type A to 5-pin mini-B USB 2M, DataView® CD, two 1.5V AA-cell Alkaline batteries and user manual. Probes sold separately.



Model L111

## SPECIFICATIONS

| MODEL                              | L111  |
|------------------------------------|---|
| <b>ELECTRICAL</b>                  |   |
| Channels                           | One   |
| Input Connection                   | Two recessed banana jacks   |
| Current Probe Output Current Range | 0 to 1A (probe dependent)   |
| Resolution                         | 0.1mA   |
| Accuracy (50/60Hz)                 | 0 to 10mA: unspecified<br>10 to 50mA: ±(0.5% of Reading + 1mA)<br>50 to 1000mA: ±(0.5% of Reading + 0.5mA)                        |
| Sample Rate                        | 64 samples/cycle  |
| Storage Rate                       | Programmable from 125mS to 1 day  |
| Storage Modes                      | Start/Stop, FIFO and Extended Recording Mode (XRM™)   |
| Recording Length                   | 15 minutes to 8 weeks, programmable using DataView®   |
| Memory                             | 240,000 measurements (512KB) The recorded data is stored in non-volatile memory & retained even if the battery is low or removed. |
| Communication                      | USB 2.0 optically isolated  |
| Power Source                       | 2 x 1.5V AA-cell Alkaline batteries   |
| Battery Life                       | 100 hrs to >45 days (dependent on storage rate/recording length)  |
| <b>MECHANICAL</b>                  |   |
| Dimensions                         | 5.18 x 2.75 x 1.28" (132 x 70 x 32mm)   |
| Max Conductor Size                 | Current probe dependent   |
| Weight (with battery)              | 6.64 oz (188 grams)   |
| Case                               | UL94-V0   |
| Vibration                          | IEC 68-2-6 (1.5mm, 10 to 55Hz)  |
| Shock                              | IEC 68-2-27 (30G)   |
| Drop                               | IEC 68-2-32 (1m)  |
| <b>ENVIRONMENTAL</b>               |   |
| Operating Temperature              | 14° to 122°F (-10° to 50°C)   |
| Storage Temperature                | -4° to 140°F (-20° to 60°C)   |

### DESCRIPTION

Simple Logger® II Model L111 (1-Channel, TRMS 0 to 1Aac)

### CATALOG NO.

2126.04

## FEATURES

- ▶ Compatible with standard AC current probes with current output and banana plug connection
- ▶ Fused input
- ▶ 64 samples per cycle
- ▶ Programmable storage rates from 8 per second to 1 per day
- ▶ 3 user selectable storage modes
- ▶ Stores up to 240,000 measurements in non-volatile memory
- ▶ Powered by standard Alkaline batteries
- ▶ Lightweight, compact, fits anywhere
- ▶ 5 LED indicators quickly and clearly display logger status
- ▶ Isolated USB communication
- ▶ Includes FREE DataView® software for data storage, real-time waveform display, analysis and report generation
- ▶ USB cable included
- ▶ 50V Cat. III

## APPLICATIONS

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

# Simple Logger® II TRMS 600VAc/AC+DC Model L261



Model L261 includes type A to 5-pin mini-B USB 2M, DataView® CD, two 1.5V AA-cell Alkaline batteries and user manual.

Model L261

## SPECIFICATIONS

| MODELS                | L261  |
|-----------------------|---|
| <b>ELECTRICAL</b>     |   |
| Channels              | One   |
| Input Connection      | Two recessed banana jacks   |
| Voltage Range         | 0 to 600VAc/AC+DC   |
| Resolution            | 0.1V  |
| Accuracy (50/60Hz)    | 0 to 5V: unspecified<br>5 to 50V: ±(0.5% of Reading + 1V)<br>50 to 600V: ±(0.5% of Reading + 0.5V)                                |
| Sample Rate           | 64 samples/cycle  |
| Storage Rate          | Programmable from 125mS to 1 day  |
| Storage Modes         | Start/Stop, FIFO and Extended Recording Mode (XRM™)   |
| Recording Length      | 15 minutes to 8 weeks, programmable using DataView®   |
| Memory                | 240,000 measurements (512KB) The recorded data is stored in non-volatile memory & retained even if the battery is low or removed. |
| Communication         | USB 2.0 optically isolated  |
| Power Source          | 2 x 1.5V AA-cell Alkaline batteries   |
| Battery Life          | 100 hours to >45 days (dependent on storage rate/recording length)  |
| <b>MECHANICAL</b>     |   |
| Dimensions            | 4.94 x 2.75 x 1.28" (125 x 70 x 32mm)   |
| Weight (with battery) | 6.4 oz (180 grams)  |
| Case                  | UL94-V0   |
| Vibration             | IEC 68-2-6 (1.5mm, 10 to 55Hz)  |
| Shock                 | IEC 68-2-27 (30G)   |
| Drop                  | IEC 68-2-32 (1m)  |
| <b>ENVIRONMENTAL</b>  |   |
| Operating Temperature | 14° to 122°F (-10° to 50°C)   |
| Storage Temperature   | -4° to 140°F (-20° to 60°C)   |

## FEATURES

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

## APPLICATIONS

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



Model L261 includes set of two color-coded 5 ft voltage leads, color-coded alligator clips (red/black) Cat. #2140.62

| DESCRIPTION   | CATALOG NO. |
|---|-------------|
| Simple Logger® II Model L261 (1-Channel, TRMS 600VAc/AC+DC)   | 2126.05     |
| Accessory/Replacement   |             |
| Lead set includes 2, color-coded 5 ft (1.5M) w/color-coded alligator clips (red/black), rated 600V Cat. IV, 15A | 2140.62     |



# Simple Logger® II TRMS Voltage/Current Model L562



Model L562



Model L562 includes type A to 5-pin mini-B USB 2M, DataView® CD, two 1.5V AA-cell Alkaline batteries and user manual. Probes sold separately.



## FEATURES

- ▶ 2 input channels
- ▶ Voltage: 0 to 600V<sub>AC/DC</sub> TRMS
- ▶ Current: compatible with current probes with voltage outputs (see page 13)
- ▶ 64 samples per cycle
- ▶ 3 user selectable storage modes
- ▶ Programmable storage rates from 8 per second to 1 per 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 waveform display, analysis and report generation
- ▶ USB cable included
- ▶ 300V Cat. IV; 600V Cat. III with a safety rated current probe attached

## APPLICATIONS

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



Model L562 includes set of two color-coded 5 ft voltage leads, color-coded alligator clips (red/black) Cat. #2140.62 (See page 8 for ordering information)

## SPECIFICATIONS

| MODELS                | L562  |   |
|-----------------------|---|---|
| <b>ELECTRICAL</b>     |   |   |
| Channels              | Two   |   |
| Connection            | Current Channel   | Voltage Channel   |
| Input Connection      | BNC   | Two recessed banana jacks   |
| Input Range           | 0 to 1V <sub>AC</sub> *   | 0 to 600V <sub>AC/DC</sub>  |
| Resolution            | 0.1mA   | 0.1V  |
| Accuracy (50 or 60Hz) | 0 to 10mV unspecified<br>10 to 50mV: ±(0.5% of Reading + 1mV)<br>50 to 1000mV: ±(0.5% of Reading + 0.5mV)                         | 0 to 5V unspecified<br>5 to 50V: ±(0.5% of Reading + 1V)<br>50 to 600V: ±(0.5% of Reading + 0.5V) |
| Sample Rate           | 64 samples/cycle  |   |
| Storage Rate          | Programmable from 125mS to 1 day  |   |
| Storage Technique     | Stop when full, FIFO and Extended Recording Mode (XRM™)   |   |
| Recording Length      | 15 minutes to 8 weeks, programmable using DataView®   |   |
| Memory                | 240,000 measurement (512KB). The recorded data is stored in non-volatile memory & retained even if the battery is low or removed. |   |
| Communication         | USB 2.0 optically isolated  |   |
| Power Source          | 2 x 1.5V AA-cell Alkaline batteries   |   |
| Battery Life          | 100 hours to >45 days (dependent on storage rate/recording length)  |   |
| <b>MECHANICAL</b>     |   |   |
| Dimensions            | 5.38 x 2.75 x 1.28" (136 x 70 x 32mm)   |   |
| Max Conductor Size    | Current probe dependent   |   |
| Weight (with battery) | 6.4 oz (181 grams)  |   |
| Case                  | UL94-V0   |   |
| Vibration             | IEC 68-2-6 (1.5mm, 10 to 55Hz)  |   |
| Shock                 | IEC 68-2-27 (30G)   |   |
| Drop                  | IEC 68-2-32 (1m)  |   |
| <b>ENVIRONMENTAL</b>  |   |   |
| Operating Temperature | 14° to 122°F (-10° to 50°C)   |   |
| Storage Temperature   | -4° to 140°F (-20° to 60°C)   |   |

### DESCRIPTION

Simple Logger® II Model L562 (TRMS Voltage & Current)

### CATALOG NO.

2126.35



# Simple Logger® II

## 4 to 20mA<sub>dc</sub> Current Model L322



Model L322 includes type A to 5-pin mini-B USB 2M, DataView® CD, two 1.5V AA-cell Alkaline batteries and user manual.

Model L322

## FEATURES

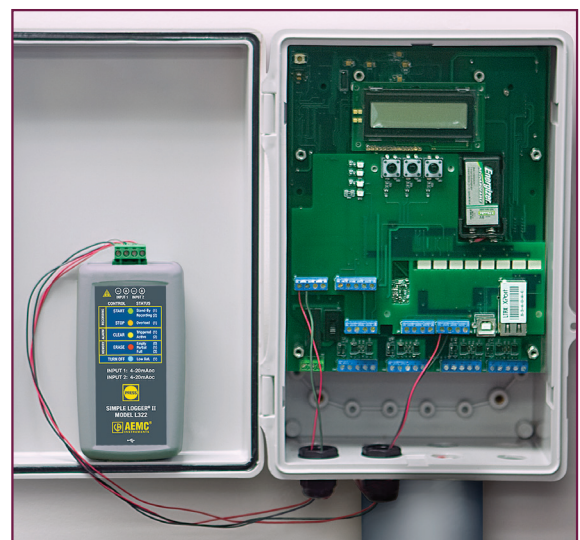
- ▶ 2 independent input channels
- ▶ -20 to +20mA<sub>dc</sub>
- ▶ Programmable storage rates from 8 per second to 1 per day
- ▶ 3 user selectable storage modes
- ▶ Stores up to 240,000 measurements in non-volatile memory
- ▶ Scaling and engineering units inputted through software prior to saving
- ▶ 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
- ▶ USB cable included
- ▶ 50V Cat. III

## SPECIFICATIONS

| MODEL                 | L322   |
|-----------------------|--|
| <b>ELECTRICAL</b>     |  |
| Channels              | Two  |
| Input Connection      | One 4 position removable screw-type terminal block   |
| Measurement Range     | -20 to +20mA <sub>dc</sub>   |
| Resolution            | 0.01mA   |
| Accuracy              | 0.25% of Reading + 0.05mA  |
| Sample Rate           | Maximum of 8 samples taken at storage interval   |
| Storage Rate          | Programmable from 125mS to 1 day   |
| Storage Modes         | Start/Stop, FIFO and Extended Recording Mode (XRM™)  |
| Recording Length      | 15 minutes to 8 weeks, programmable using DataView®  |
| Memory                | 240,000 measurements (512KB)<br>The recorded data is stored in non-volatile memory & retained even if the battery is low or removed. |
| Communication         | USB 2.0 optically isolated   |
| Power Source          | 2 x 1.5V AA-cell Alkaline batteries  |
| Battery Life          | 100 hours to >45 days<br>(dependent on storage rate/recording length)  |
| <b>MECHANICAL</b>     |  |
| Dimensions            | 5.45 x 2.75 x 1.28" (136 x 70 x 32mm)  |
| Weight (with battery) | 6.4 oz (181 grams)   |
| Case                  | UL94-V0  |
| Vibration             | IEC 68-2-6 (1.5mm, 10 to 55Hz)   |
| Shock                 | IEC 68-2-27 (30G)  |
| Drop                  | IEC 68-2-32 (1m)   |
| <b>ENVIRONMENTAL</b>  |  |
| Operating Temperature | 14° to 122°F (-10° to 50°C)  |
| Storage Temperature   | -4° to 140°F (-20° to 60°C)  |

## APPLICATIONS

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



L322 recording loop current in a flow control panel.

### DESCRIPTION

Simple Logger® II Model L322 (4 to 20mA<sub>dc</sub> Current)

### CATALOG NO.

2126.06

# Simple Logger® II DC Voltage Model L432



Model L432 includes type A to 5-pin mini-B USB 2M, DataView® CD, two 1.5V AA-cell Alkaline batteries and user manual.



Model L432

## SPECIFICATIONS

| MODEL                                | L432  |
|--------------------------------------|---|
| <b>ELECTRICAL</b>                    |   |
| Channels                             | Two   |
| Input Connection                     | One 4 position removable screw-type terminal block  |
| Measurement Range (3 ranges/channel) | Range 1: -100mV to 100mVdc<br>Range 2: -1V to 1Vdc<br>Range 3: -10V to 10Vdc  |
| Resolution                           | Range 1: 0.1mV<br>Range 2: 1mV<br>Range 3: 10mV   |
| Accuracy (50/60Hz)                   | Range 1: ±(0.5% of Reading + 1mV)<br>Range 2: ±(0.5% of Reading + 1mV)<br>Range 3: ±(0.5% of Reading + 10mV)                      |
| Sample Rate                          | Maximum of 8 samples taken at storage interval  |
| Storage Rate                         | Programmable from 125mS to 1 day  |
| Storage Modes                        | Start/Stop, FIFO and Extended Recording Mode (XRM™)   |
| Recording Length                     | 15 minutes to 8 weeks, programmable using DataView®   |
| Memory                               | 240,000 measurements (512KB) The recorded data is stored in non-volatile memory & retained even if the battery is low or removed. |
| Communication                        | USB 2.0 optically isolated  |
| Power Source                         | 2 x 1.5V AA-cell Alkaline batteries   |
| Battery Life                         | 100 hours to >45 days (dependent on storage rate/recording length)  |
| <b>MECHANICAL</b>                    |   |
| Dimensions                           | 5.45 x 2.75 x 1.28" (136 x 70 x 32mm)   |
| Weight (with battery)                | 6.4 oz (181 grams)  |
| Case                                 | UL94-V0   |
| Vibration                            | IEC 68-2-6 (1.5mm, 10 to 55Hz)  |
| Shock                                | IEC 68-2-27 (30G)   |
| Drop                                 | IEC 68-2-32 (1m)  |
| <b>ENVIRONMENTAL</b>                 |   |
| Operating Temperature                | 14° to 122°F (-10° to 50°C)   |
| Storage Temperature                  | -4° to 140°F (-20° to 60°C)   |

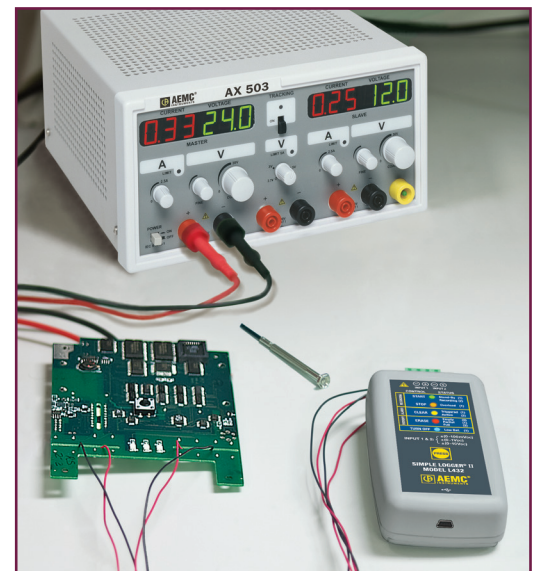
| DESCRIPTION  | CATALOG NO. |
|--|-------------|
| Simple Logger® II Model L432 (2-Channel, DC ±100mV/1V/10Vdc) | 2126.07     |

## FEATURES

- ▶ 2 independent input channels
- ▶ User-selectable ranges of ± 100mV; ± 1V and ± 10Vdc per channel
- ▶ Programmable storage rates from 8 per second to 1 per day
- ▶ 3 user selectable storage modes
- ▶ Stores up to 240,000 measurements in non-volatile memory
- ▶ Powered by standard Alkaline batteries
- ▶ Lightweight, compact, fits anywhere
- ▶ 5 LED indicators quickly and clearly display logger status
- ▶ Includes FREE DataView® software for data storage, real-time display, analysis and report generation
- ▶ USB cable included
- ▶ 50V Cat. III

## APPLICATIONS

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



L432 recording two DC voltage supplies.



# Simple Logger® II Thermocouple Model L642



Model L642 includes type A to 5-pin mini-B USB 2M, DataView® CD, two 1.5V AA-cell Alkaline batteries and user manual. Thermocouples sold separately.

Model L642

## SPECIFICATIONS

| MODEL                 | L642  |
|-----------------------|---|
| <b>ELECTRICAL</b>     |   |
| Channels              | Two   |
| Input Connection      | 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)  |
| Resolution            | 0.1°C/F < 1000°C/F; 1° ≥ 1000°C/F   |
| Accuracy              | 0.1% to 0.2% + 0.6° to 1°, depending on the range and T/C type  |
| Sample Rate           | 8 samples taken at storage interval   |
| Storage Rate          | Programmable from 5 sec to 1 day  |
| Storage Modes         | Start/Stop, FIFO and Extended Recording Mode (XRM™)   |
| Recording Length      | 15 minutes to 8 weeks, programmable using DataView®   |
| Memory                | 240,000 measurements (512KB) - The recorded data is stored in non-volatile memory & retained even if the battery is low or removed. |
| Communication         | USB 2.0 optically isolated  |
| Power Source          | 2 x 1.5V AA-cell Alkaline batteries   |
| Battery Life          | 100 hours to >45 days (dependent on storage rate/recording length)  |
| <b>MECHANICAL</b>     |   |
| Dimensions            | 4.94 x 2.75 x 1.28" (125 x 70 x 32mm)   |
| Weight (with battery) | 7 oz (200 grams)  |
| Case                  | UL94-V0   |
| Vibration             | IEC 68-2-6 (1.5mm, 10 to 55Hz)  |
| Shock                 | IEC 68-2-27 (30G)   |
| Drop                  | IEC 68-2-32 (1m)  |
| <b>ENVIRONMENTAL</b>  |   |
| Operating Temperature | 14° to 122°F (-10° to 50°C)   |
| Storage Temperature   | -4° to 140°F (-20° to 60°C)   |

| DESCRIPTION   | CATALOG NO. |
|---|-------------|
| Simple Logger® II Model L642 (Temperature Thermocouple) | 2126.08     |

## FEATURES

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

## APPLICATIONS

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

### Optional Thermocouple Sensors

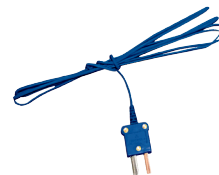
Please consult AEMC® for recommendations on thermocouples.



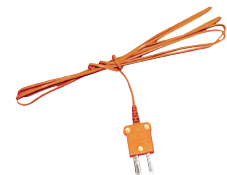
J Thermocouple



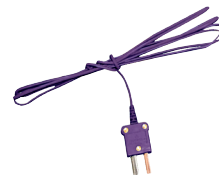
K Thermocouple



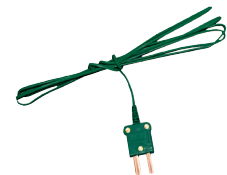
T Thermocouple



N Thermocouple



E Thermocouple



R & S Thermocouple

# ACCESSORIES



## Current Probes Compatible with the Simple Logger® II Series



Model SL261



Model MN261



Model MR461



Adapter, Banana (Female) - BNC (Male) (XM-BB)



Model MR561



Model SR661



Model JM861

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

\* For AC measurements

\*\*Phase shift indicated at maximum rating. Not all models are UL approved; please consult factory. **Note: Maximum input to Simple Logger® II is 1 Volt.**

| DESCRIPTION   | CATALOG NO. |
|---|-------------|
| AC/DC Current Probe Model SL261 (10A-100mV/A, 100A-10mV/A, BNC)   | 1201.51     |
| AC Current Probe Model MN261 (24A-100mV/A, 240A-10mV/A, BNC)  | 2115.82     |
| AC Current Probe Model MR461 (60A-10mV/A, 600A-1mV/A, BNC)  | 1200.72     |
| AC Current Probe Model MR561 (150A-10mV/A, 1500-1mV/A, BNC)   | 1200.73     |
| AC Current Probe Model SR661 (10A-100mV <sub>AC</sub> /A <sub>AC</sub> , 100A-10mV <sub>AC</sub> /A <sub>AC</sub> , 1000A-1mV <sub>AC</sub> /A <sub>AC</sub> , BNC) | 2113.49     |
| AC Current Probe Model JM861 (30A-10mV <sub>AC</sub> /A <sub>AC</sub> , 300A-1mV <sub>AC</sub> /A <sub>AC</sub> , 3000A-0.1mV <sub>AC</sub> /A <sub>AC</sub> , BNC) | 2110.90     |
| Adapter, Banana (Female)-BNC (Male) (XM-BB)   | 2118.46     |



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# INPUTS & RECORDING

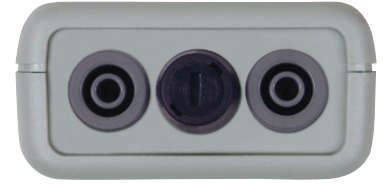
## INPUT CONNECTIONS



Simple Logger® II L101  
Isolated BNC connector accepts current probes with male BNC plugs.



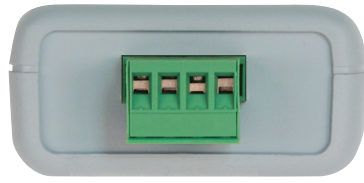
Simple Logger® II L102  
Dual isolated BNC connectors accepts current probes with male BNC plugs.



Simple Logger® II L111  
Recessed 4mm banana jacks & fused input



Simple Logger® II L261  
Recessed safety 4mm banana jacks



Simple Logger® II L322 & L432  
4-pin removable terminal strip



Simple Logger® II L562  
Isolated BNC for current probe. Recessed 4mm banana jacks for voltage accepts current probes with male BNC plugs.



Simple Logger® II L642  
Dual miniature thermocouple connectors



All Simple Logger® II Models  
Mini USB 5-pin connector



Type A to 5-pin mini-B USB 2M  
Cat. #2126.49

## RECORDING MODES

The Simple Logger® II data logger family offers the choice of three modes of recording data.

The first, and most common in the industry, is called *Start/Stop*. In this mode the operator selects a storage rate from the 21 predefined values from as fast as 8 per second (1 every 125mS) to 1 every day. Then a start and stop time is selected. Data is recorded at this rate until the memory is filled or the end recording time and date is reached. The logger then stops recording and goes into a standby mode retaining the recorded data to be downloaded.

The second mode is a variant of *Start/Stop* called *First in First Out (FIFO)*. Here the operator makes the data storage selection and recording length selection as described above however if the memory fills before the end date and time occurs, the logger will discard the oldest stored data point and add a new one. This process will continue until the end recording date and time is reached.

The third storage mode is called *Extended Time Recording (XRM™)*. This unique recording mechanism provides for continuous recording over a longer period of time without the need for operator selection or adjustments to the set up. In this mode the operator selects a starting storage rate from the 21 predefined values from as fast as 8 per second (1 every 125mS) to 1 every day. Recording length is also programmed. The logger will store data at the rate selected until the memory is filled. When the memory is full, the logger will discard every other stored sample beyond the first one, freeing up half the memory for continuous recording. New samples will be stored at half the previous storage rate such that they match the interval for the remaining stored data. This process will repeat each time the memory fills until the operator stops the recording manually, the end recording date and time is reached or the battery runs down.

# TRAINING SEMINARS

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

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



## Understanding Ground Resistance Testing

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

### Key topics covered include:

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



## Understanding Insulation Resistance Testing

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

### Key topics covered include:

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



## Understanding AEMC®'s PowerPad® Quality Analyzer

*For field engineers, technicians, supervisors, electricians, plant maintenance personnel and inspectors who need a more in-depth understanding of how to properly use the PowerPad® three phase power analyzer to monitor, record and analyze power quality including the DataView® software.*

### Key topics covered include:

- How to configure the PowerPad® from the instrument or PC
- How to capture transients and alarms
- How to record to the PowerPad®'s memory or directly to your PC
- How to capture and interpret harmonic data
- How to use DataView®'s data analysis tools
- How to create and customize DataView® reports

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