■ QUICK START
USER GUIDE

8435
PowerPad®

AEMC® INSTRUMENTS

Statement of Compliance

Chauvin Arnoux®, Inc. d.b.a. AEMC® Instruments certifies that this instrument has been calibrated using standards and instruments traceable to international standards.

We guarantee that at the time of shipping your instrument has met its published specifications.

An NIST traceable certificate may be requested at the time of purchase, or obtained by returning the instrument to our repair and calibration facility, for a nominal charge.

The recommended calibration interval for this instrument is 12 months and begins on the date of receipt by the customer. For recalibration, please use our calibration services. Refer to our repair and calibration section at **www.aemc.com**.

Serial #: _____

Catalog #: 2136.41

Model #: 8435

Please fill in the appropriate date as indicated:

Date Received: _____

Date Calibration Due: _____

AEMC® INSTRUMENTS

Chauvin Arnoux®, Inc.
d.b.a AEMC® Instruments
www.aemc.com

PRODUCT PACKAGING

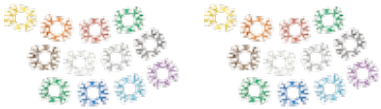
Shipping Contents:

(1) PowerPad® Model 8435
Cat. #2136.41

(1) Large Classic Tool Bag
Cat. #2133.73

(5) Black Test Leads and Alligator Clips
Cat. #2140.43

(1) Power Adapter 110/240V
with Power Cord
Cat. #5000.19



(24) Color-coded ID Markers
Cat. #2140.45

(1) 5 ft USB Cable
Cat. #2140.46

Also Included:
4 GB USB Stick (DataView/User Manual)
NiMh Battery - installed

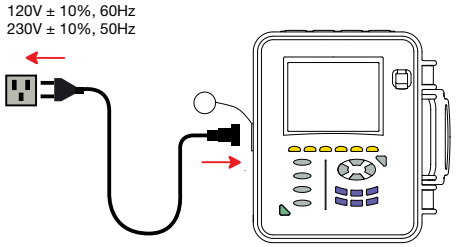
Kit (Cat. #2136.42) also includes:
(4) AmpFlex Model A196

USB STICK: DataView® software and complete user manual for the Model 8435 can be located on the USB stick supplied with the instrument.

Charging the Battery

Fully charge the battery before the first use.

NOTE: A full recharge of a completely discharged battery takes 5 hours approx.



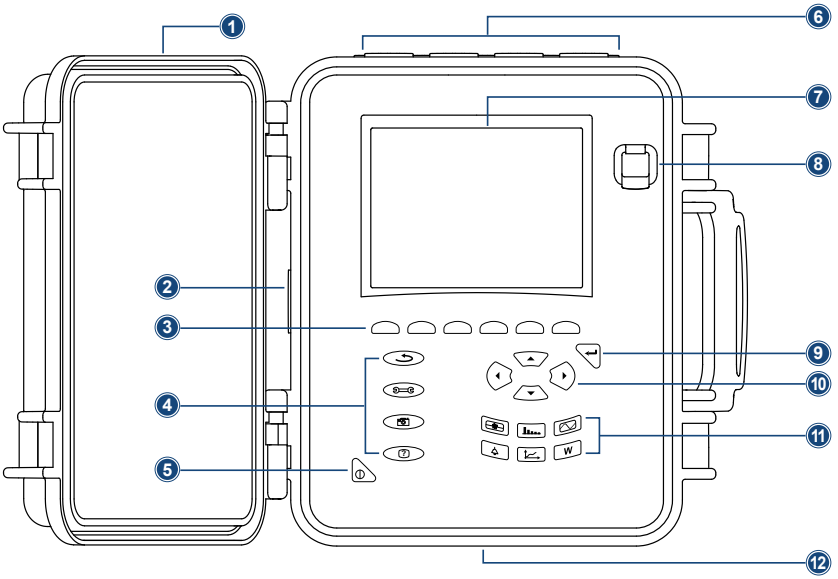
To recharge the battery:

- Unscrew the cover of the battery charging connector.
- Connect the supplied power cord to the instrument and AC power.
- The button lights and will go out when the power cord is disconnected.

Button Functions

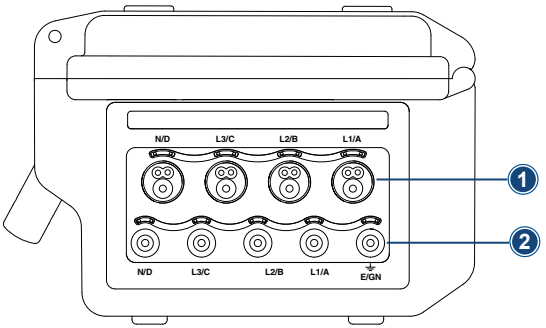
BUTTON	DESCRIPTION
	Return to the choice of measurement view.
	Configure the PowerPad® (SET-UP).
	Take a snapshot of the current screen or access screens already stored in the memory. Record associated waveform and power measurement data.
	Get help on the current display functions, in the language chosen by the user.
	Transients or Inrush Current: • Sets and views transient and inrush current waveforms associated with rapid changes in input
	Harmonics Mode: • Displays the harmonics in percent and value ratios for voltage, current and power for each harmonic through the 50th • Determines harmonic current produced by non-linear loads • Analyzes the problems caused by harmonics according to their order (heating of neutrals, conductors, motors, etc)
	Waveforms Mode: • Displays voltage and current waveforms or vector representation • Identifies signal distortion signatures • Displays of amplitude and phase unbalance for voltage and current • Checks connections for correct phase order
	Alarm Events: • Provides a list of the alarms recorded according to the thresholds programmed during configuration • Logs interruption with half-cycle resolution • Determines energy consumption exceedances • Stores value, duration, date, time and set point for up to 4096 events
	Trend Mode: • Lists all recording trends and views them on the display (Urms, Vrms, Arms, etc)
W	**Power / Energy:** • Displays power levels and the associated parameters (power factor, displacement and tangent) • Energy monitoring • Four quadrant measurement to discern produced/consumed active energies and inductive/capacitive reactive energies

Control Features



1. Protective cover
2. Battery charging connector
3. Six function buttons (yellow)
4. Four function buttons (see chart, left)
5. ON/OFF button
6. Four current inputs and five voltage inputs
7. LCD Display
8. USB port
9. Confirm/Enter button
10. Navigation buttons
11. Six mode buttons (see chart, left)
12. Battery compartment and memory card slot cover

Connection Terminals



1. Four (4) current inputs on the top of the instrument to enable the use of current sensors (MN, SR, AmpFlex®, MiniFlex®, and MR probes).
2. Five (5) voltage inputs.

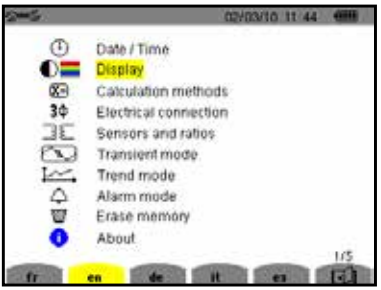
Each terminal is protected by a plug. The plugs must be removed to connect the leads, then stored in the pouch inside the front cover. Leave the plugs on unused terminals to keep the instrument water/air-tight and the terminals clean.

Instrument Configuration

NOTE: The instrument configurations can also be modified through the DataView® software.

NOTE: The instrument must be configured the first time it is used. The configuration is saved in memory when the instrument is turned OFF.

Press the button to configure the unit. The following sub-menus appear:



- Set the display language by pressing the yellow button corresponding to the screen language icons.
- The parameter that is ready to be configured will be highlighted in yellow. To move to a different parameter, use the ▲ and ▼ buttons.
- Press the Enter button to select a parameter.
- Use the ◄ and ► buttons to change a value or setting.
- When finished, return to the Configuration menu by pressing the button.

PARAMETER	FUNCTION
Date / Time	Sets the date and time format
Display	Adjusts the contrast and brightness of the display; Defines the color of the voltage and current curves
Calculation Methods	Determines if harmonics are used or not used in calculations of reactive quantities (power and energy) • **With harmonics:** Harmonics are taken into account when calculating reactive parameters. • **Without harmonics:** Only the fundamental part is used for the calculation of reactive parameters
Electrical Connection	Determines the type of connection to the network • Single-Phase • Split-Phase • 3-Phase 4-Wire • 3-Phase 5-Wire
Sensors & Ratios	Defines the type of current probe to connect • MN93: 200A • MN193: 100A or 5A (with variable ratio) • SR193: 1000A • SL261: 10A and 100A range • AmpFlex® Sensors: 3000A (measures up to 6500Arms) • MiniFlex® Sensors: 1000A • MR193: 1000Aac/1200Adc • 5A three-phase adapter (3-channel only)
Transient Mode	Configures the voltage and current thresholds
Trend (Recording) Mode	Selects the parameters to record (up to 4 configurations)
Alarm Mode	Defines the parameters of an alarm
Erase Memory	Deletes configurations, alarm settings, snapshots and recordings
About	Displays the serial number, software and hardware version

SD-Card

SD-Cards (up to 2GB) and SDHC-Cards (4GB up to 32GB) are supported.

To access the SD-Card:

- Make sure that the instrument is disconnected and off.
- Use a screwdriver to unscrew the 6 screws of the battery compartment cover.
- Remove the cover and withdraw the battery from its compartment without disconnecting it.
- Press on the SD-Card to release it then press on the protecting tab to withdraw it from its slot.
- When replacing the SD-Card, the contacts must be on the left side, and the locator down.
- Slide it into its slot until it snaps into place. The protecting tab is at the top of the card.
- Put the battery back in its compartment and screw the cover back on.

Getting Started

NOTE: Make sure the PowerPad® is fully charged before use.

Connecting:

- Start the instrument by pressing the button.
- Configure the instrument to obtain the required results and type of network.
- Connect the current leads and sensors to the PowerPad®.
- Connect the ground and/or neutral lead to the network ground and/or neutral (when distributed), as well as the corresponding current sensor.
- Connect the L1 phase lead to the network L1 phase, as well as the corresponding current sensor.
- Repeat the procedure for phases L2, L3 and N.

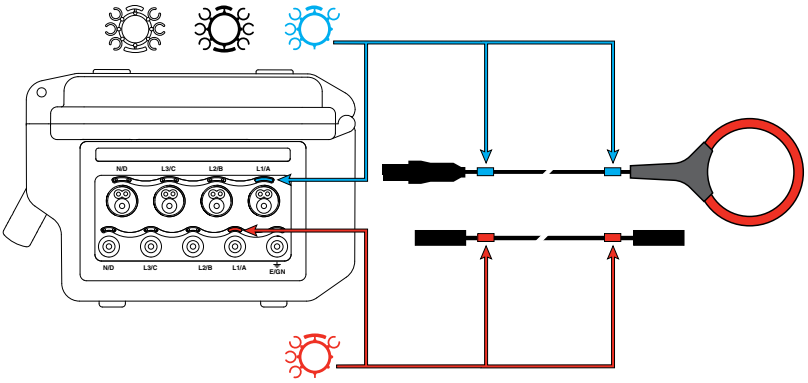
Disconnecting:

- Proceed in the reverse order to connecting, always finishing by disconnecting the ground and/or neutral (when distributed).
- Disconnect the leads and press the button to turn the instrument off.
- Recharge the battery, if necessary.

Installation of the Leads and Current Sensors

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

- Detach the appropriate inserts from the color-coded marker and place them in the holes provided under the terminals (larger inserts for current terminals, smaller inserts for voltage terminals).
- Clip the rings of the same color to the ends of the lead that will connect to the terminal.



Installing DataView®

DO NOT CONNECT THE INSTRUMENT TO THE PC BEFORE INSTALLING THE SOFTWARE AND DRIVERS.

1. Insert the USB stick into an available USB port (wait for driver to be installed).
2. If Autorun is enabled, an AutoPlay window should appear. If Autorun is disabled, it will be necessary to open Windows Explorer, then locate and open the USB stick drive labeled "DataView" to view the files on the drive.
3. In the AutoPlay window, select "Open folder to view files".
4. Double-click on ***Setup.exe*** from the opened folder view to launch the Dataview® setup program.

NOTE: For more information on using DataView®, refer to the Model 8435 user manual that is supplied on the USB stick.

Updating Software & Firmware

To provide our customers the best possible service in terms of performance and technical upgrades, AEMC® offers free software and firmware updates on our website.

- Visit us at: **www.aemc.com**
- Click on the Tech Info tab and choose the desired software or firmware download.

DataView® can also be updated by selecting "Update" from the Help menu within the software.

NOTE: Updating embedded software or firmware may reset the configuration, but stored data should be retained. As a precaution, always save stored data to a PC before performing any software or firmware updates.

Repair and Calibration

To ensure that your instrument meets factory specifications, we recommend that it be scheduled back to our factory Service Center at one-year intervals for recalibration, or as required by other standards or internal procedures.

For instrument repair and calibration:

You must contact our Service Center for a Customer Service Authorization Number (CSA#). This will ensure that when your instrument arrives, it will be tracked and processed promptly. Please write the CSA# on the outside of the shipping container. If the instrument is returned for calibration, we need to know if you want a standard calibration, or a calibration traceable to N.I.S.T. (Includes calibration certificate plus recorded calibration data).

Ship To: Chauvin Arnoux®, Inc. d.b.a. AEMC® Instruments
15 Faraday Drive
Dover, NH 03820 USA
Phone: (800) 945-2362 (Ext. 360)
(603) 749-6434 (Ext. 360)
Fax: (603) 742-2346 or (603) 749-6309
E-mail: repair@aemc.com

(Or contact your authorized distributor)

Costs for repair, standard calibration, and calibration traceable to N.I.S.T. are available.

NOTE: You must obtain a CSA# before returning any instrument.

Technical and Sales Assistance

If you are experiencing any technical problems, or require any assistance with the proper operation or application of your instrument, please call, mail, fax or e-mail our technical support team:

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

NOTE: Do not ship Instruments to our Foxborough, MA address.

Limited Warranty

The Model 8435 is warranted to the owner for a period of one year from the date of original purchase against defects in manufacture. This limited warranty is given by AEMC® Instruments, not by the distributor from whom it was purchased. This warranty is void if the unit has been tampered with, abused or if the defect is related to service not performed by AEMC® Instruments.

Full warranty coverage and registration is available on our website: www.aemc.com/warranty.html.

Please print the online Warranty Coverage Information for your records.

What AEMC® Instruments will do:
If a malfunction occurs within the one-year period, you may return the instrument to us for repair, provided we have your warranty registration information on file or a proof of purchase. AEMC® Instruments will, at its option, repair or replace the faulty material.

Register your product online at www.aemc.com

Warranty Repairs

What you must do to return an Instrument for Warranty Repair:

First, request a Customer Service Authorization Number (CSA#) by phone or by fax from our Service Department (see address below), then return the instrument along with the signed CSA Form. Please write the CSA# on the outside of the shipping container. Return the instrument, postage or shipment pre-paid to:

Ship To: Chauvin Arnoux®, Inc. d.b.a. AEMC® Instruments
15 Faraday Drive
Dover, NH 03820 USA
Phone: (800) 945-2362 (Ext. 360)
(603) 749-6434 (Ext. 360)
Fax: (603) 742-2346 or (603) 749-6309
E-mail: repair@aemc.com

Caution: To protect yourself against in-transit loss, we recommend you insure your returned material.

You must obtain a CSA# before returning any instrument.

NOTES:

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Chauvin Arnoux®, Inc. d.b.a. AEMC® Instruments
15 Faraday Drive • Dover, NH 03820 USA • Phone: (603) 749-6434 • Fax: (603) 742-2346
www.aemc.com