Quick Start Guide
ENGLISH

AEMC® INSTRUMENTS
CHAUVIN ARNOUX GROUP

PowerPad® III
Model 8336

POWER QUALITY ANALYZER

Measure Up
WITH 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.

Serial #: _____

Catalog #: 2136.30 / 2136.31 / 2136.32

Model #: 8336

Please fill in the appropriate date as indicated:

Date Received: _____

Date Calibration Due: _____

AEMC® INSTRUMENTS
CHAUVIN ARNOUX GROUP

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

PRODUCT PACKAGING

Shipping Contents:

(1) PowerPad® III Model 8336
Cat. #2136.30 / Cat. #2136.31 / Cat. #2136.32

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

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

Also Includes:
- 4 GB USB drive (DataView/User Manual)
- 9.6 V NiMh Battery - installed
- SD-Card - installed
- High Voltage Warning/Caution Card

Kit (Cat. #2136.31) also includes:
- (4) AmpFlex® Model 193-24-BK

Kit (Cat. #2136.32) also includes:
- (4) AC Current Probe Model MN193-BK

(1) Extra Large Classic Tool Bag
Cat. #2133.73

(1) Soft Carrying Pouch
Cat. #2140.15

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

(1) 5 ft USB Cable
Cat. #2140.46

USB DRIVE: DataView® software and complete user manual for the Model 8336 can be located on the USB drive supplied with the instrument.

Thank you for purchasing an AEMC® Instruments **PowerPad® III Model 8336**.

For best results from your instrument and for your safety, read the enclosed operating instructions carefully and comply with the precautions for use. Only qualified and trained operators should use this product.

	Signifies that the instrument is protected by double or reinforced insulation
	**CAUTION - Risk of Danger!** Indicates a WARNING. Whenever this symbol is present, the operator must refer to the user manual before operation
	Risk of electric shock. The voltage at the parts marked with this symbol may be dangerous
	Refers to a type B current sensor. Application or withdrawal not authorized on conductors carrying dangerous voltages. Type B current sensor as per IEC 61010-2-032
	Application or withdrawal authorized on conductors carrying dangerous voltages. Type A current sensor per IEC 61010-2-032.
	Important instructions to read and understand completely
	Important information to acknowledge
	USB socket
	SD Card
	Ground/Earth
	Compliance with the Low Voltage & Electromagnetic Compatibility European directives (73/23/CEE & 89/336/CEE)
	In the European Union, this product is subject to a separate collection system for recycling electrical and electronic components in accordance with directive WEEE 2002/96/EC

Definition of Measurement Categories (CAT)

CAT IV corresponds to measurements performed at the primary electrical supply (< 1000 V).

Example: primary overcurrent protection devices, ripple control units, and meters.

CAT III corresponds to measurements performed in the building installation at the distribution level.

Example: hardwired equipment in fixed installation and circuit breakers.

CAT II corresponds to measurements performed on circuits directly connected to the electrical distribution system.

Example: measurements on household appliances and portable tools.

⚠ Precautions for Use ⚠

This instrument is compliant with safety standard IEC 61010-2-030, the leads are compliant with IEC 61010-031, and the current sensors are compliant with IEC 61010-2-032, for voltages up to 600 V in category IV or 1000 V in category III. Failure to observe the safety instructions may result in electric shock, fire, explosion, and destruction of the instrument and/or other equipment.

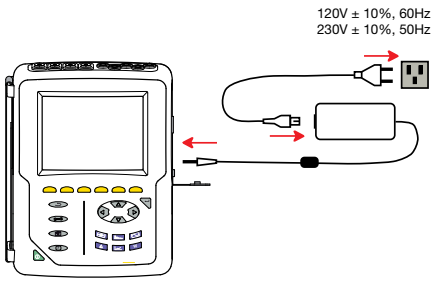
The operator and/or the responsible authority must carefully read and clearly understand the various precautions for use of the instrument. Sound knowledge and a keen awareness of electrical hazards are essential when using this instrument.

- If you use this instrument other than as specified, the protection it provides may be compromised, thereby endangering you.
- Do not use the instrument on networks on which the voltage or category exceeds those mentioned.
- Do not use the instrument if it appears damaged or otherwise compromised.
- Before each use, check the condition of the insulation on the leads, housing, and accessories. Any item on which the insulation is deteriorated (even partially) must be set aside for repair or scrapping.
- Before using your instrument, check that it is perfectly dry. If it is wet, it must be thoroughly dried before being connected or being operated in any way. This includes the terminals and keypad.
- Use only the leads and accessories supplied. Using leads (or accessories) of a lower voltage or category reduces the voltage or category of the combined instrument and leads (or accessories) to that of the leads (or accessories).
- Always use personal protection equipment.
- Keep your hands away from the terminals of the instrument.
- When handling the leads, test probes, and alligator clips, keep your fingers behind the physical guard.
- Use only the AC power cord and battery pack supplied by the manufacturer. They include specific safety features.
- Some current sensors must not be placed on or removed from bare conductors at hazardous voltages: refer to the manual and comply with the handling instructions.

Charging the Battery

Fully charge the battery before the first use.

NOTE: A full recharge of a completely discharged battery takes approximately 5 hr.



To recharge the battery:

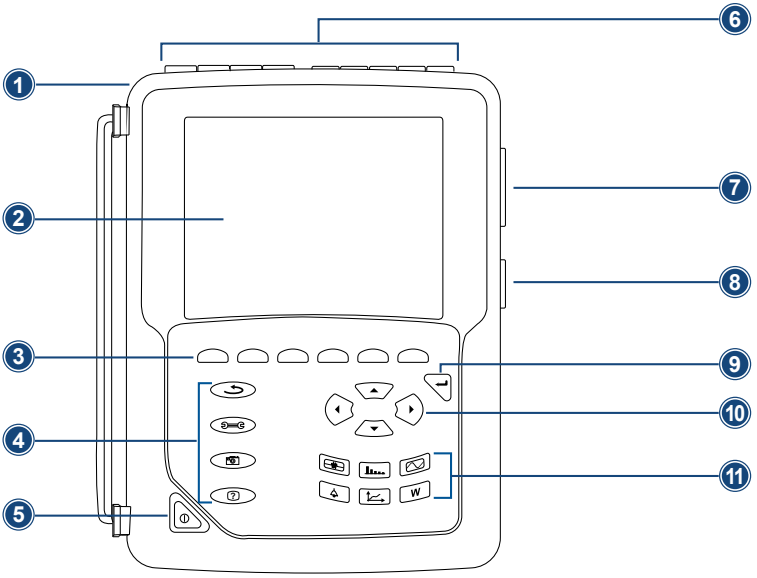
- Remove the cover of the battery charging connector.
- Connect the supplied power cord to the instrument and AC power.
- The button lights and will go out when the power cord is disconnected.

Button Functions

BUTTON	DESCRIPTION
	Returns to previous menu.
	Configures the PowerPad® (SET-UP).
	Takes a snapshot of the current screen or access screens already stored in the memory. Records associated waveform and power measurement data.
	Gets 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.)

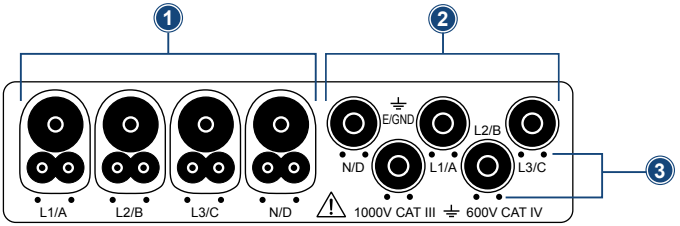
BUTTON	DESCRIPTION
⏜	Power / Energy: • Displays power levels and the associated parameters (power factor, displacement and tangent) • Energy monitoring • Four quadrant measurement to discern source/load active energy and inductive/capacitive reactive energy

Control Features



1. Over molded protective housing
2. LCD Display
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. USB port
8. Input for external power supply and battery charging
9. Confirm/Enter button
10. Navigation buttons
11. Six mode buttons (see chart, left)

Connection Terminals



1. Four (4) current inputs on the top of the instrument to enable the use of current sensors (MN, SR, AmpFlex®, MiniFlex®, MR, SL and J93 probes).
2. Five (5) voltage inputs.
3. Insertion locations for the current and voltage color-coded ID markers.

Instrument Configuration

NOTE: Instrument configuration can also be modified through 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:

- Press the yellow button corresponding to the language to set the display language.
- 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 Hook-up	Determines the type of connection to the network • Single-Phase • Split-Phase • 3-Phase 4-Wire • 3-Phase 5-Wire

PARAMETER	FUNCTION
Probes and Ratios	Defines the type of current probe to connect • MN93: 200 AAC • MN193: 100 A or 5 AAC (with variable ratio) • SR193: 1000 AAC • J93: 3500 AAC/5000 ADC • *AmpFlex® Sensors: 100 A/6500 A/10,000 AAC • *MiniFlex® Sensors: 100 A/6500 AAC • MR193: 1000 A/1200 AAC/DC • SL261: 100 A (sensitivity 10 mV/AAC/DC) 10 A (sensitivity 100mV/AAC/DC) • 5 A three-phase adapter (3-channel only) ** AmpFlex® and MiniFlex® have output voltages that are proportional to the frequency. A high current at high frequency can saturate the instrument's input.*
Capture Mode	Configures the voltage and current thresholds
Trend 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

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.

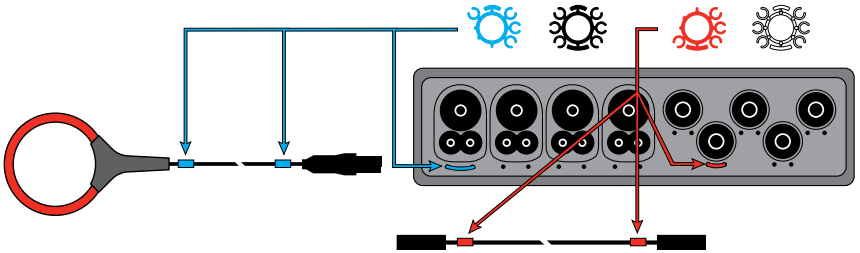
Disconnecting:

- 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.



SD-Card

SD-Cards are supported. Note that the instrument's recording capacity is 2 GB maximum.

To Access the SD-Card:

- Make sure that the instrument is disconnected and off.
- Use a screwdriver or coin to unscrew the two 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.

Replacing the Battery

TO ELIMINATE ALL RISK OF ELECTRIC SHOCK, DISCONNECT THE POWER SUPPLY CORD AND MEASUREMENT LEADS FROM THE INSTRUMENT.

1. Turn the instrument over, raise the stand, and prop it up.
2. Use a coin to unscrew the two quarter-turn screws on the back of the housing.
3. Using a flat screwdriver, remove the cover from the compartment.
4. Turn the instrument over and hold the battery as it slides out of its compartment.
5. Disconnect the battery connector without pulling on the wires.
6. Connect the new battery. The connector is error-proofed to prevent reversals of polarity.
7. Place the battery in its compartment and arrange the wires so that they do not protrude.
8. Put the battery compartment cover back in place and screw the two screws back in.

NOTE: If the battery is disconnected, it must then be fully recharged, even if it is not replaced, so that the instrument will know the battery charge condition (this information is lost when the battery is disconnected).

Installing DataView®

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

1. Insert the USB drive 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 product user manual that is supplied on the USB drive.

Updating Software & Firmware

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

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

UPDATING THE FIRMWARE WILL ERASE ALL STORED DATA IN THE INSTRUMENT. IT IS RECOMMENDED TO DOWNLOAD ALL STORED DATA BEFORE PERFORMING ANY FIRMWARE UPDATES.

Repair and Calibration

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

(Or contact your authorized distributor.)

Contact us for the costs for repair, standard calibration, and calibration traceable to N.I.S.T.

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, e-mail or fax our technical support team.

Limited Warranty

The instrument is warrantied to the owner for a period of two years from the date of original purchase against defects in manufacture, unless the instrument was registered within 30 days of the purchase date (see warranty note below). 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,

IMPORTANT WARRANTY NOTE:

By registering online within 30 days of the purchase date, your warranty will be extended to 3 years.

Please print the online Warranty Coverage Information for your records.

What AEMC® Instruments will do:

If a malfunction occurs within the warranty 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 repair or replace the faulty material at our discretion.

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

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

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