■ THERMO-ANEMOMETER DATA LOGGER

1227

ENGLISH   **User Manual**

AEMC® **INSTRUMENTS**

CHAUVIN ARNOUX GROUP

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 N.I.S.T. 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 #: 2121.72

Model #: 1227

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
www.aemc.com

CONTENTS

Thank you for purchasing the Thermo-Anemometer Data Logger Model 1227. For best results from your instrument:

- read these operating instructions carefully,
- comply with the precautions for use.

⚠	WARNING, risk of DANGER! The operator must refer to these instructions whenever this danger symbol appears.
ℹ	Information or useful tip.
🔋	Battery.
🧲	Magnet.
♻	The product has been declared recyclable after analysis of its life cycle in accordance with the ISO14040 standard.
♻	AEMC has adopted an Eco-Design approach in order to design this appliance. Analysis of the complete lifecycle has enabled us to control and optimize the effects of the product on the environment. In particular this appliance exceeds regulation requirements with respect to recycling and reuse.
CE	Indicates conformity with European directives and with regulations covering EMC.
🗑	Indicates that, in the European Union, the instrument must undergo selective disposal in compliance with Directive WEEE 2002/96/EC. This instrument must not be treated as household waste.

ℹ	The Model 1227 is designed to operate with system voltages less than $75V_{DC}$.

Precautions

This instrument is compliant with safety standard IEC 61010-2-030, for voltages up to 5V with respect to ground. Failure to observe the following safety instructions may result in electric shock, fire, explosion, and damage to the instrument and/or the installation in which it is located.

- The operator and/or the responsible authority must carefully read and clearly understand all precautions to be taken prior to using the instrument. Thorough knowledge and awareness of electrical hazards are essential when using this instrument.
- Observe the conditions of use, including temperature, relative humidity, altitude, pollution degree, and location of use.
- Do not use the instrument if it appears damaged, incomplete, or improperly closed.
- Before each use, check the condition of the housing and accessories. Any item on which the insulation is deteriorated (even partially) must be set aside for repair or disposal.
- Always hold the sensor handle, and keep your fingers away from the propeller.
- All troubleshooting and metrological checks must be done by accredited personnel.

Receiving Your Shipment

Upon receiving your shipment, make sure that the contents are consistent with the packing list. Notify your distributor of any missing items. If the equipment appears to be damaged, file a claim immediately with the carrier and notify your distributor at once, giving a detailed description of any damage. Save the damaged packing container to substantiate your claim.

Ordering Information

Thermo-Anemometer Data Logger Model 1227……..……………………………..……….......**Cat. #2121.72**
Includes 6 ft. (1.8m) USB cable, three 1.5V AA alkaline batteries, Quick Start guide, soft carrying pouch,
USB thumb drive with User Manual and DataView® software

Replacement Parts:
Airflow sensor..………………………………………………………….………………….... **Cat. #2122.33**
Cable – replacement 6 ft (1.8m) USB...**Cat. #2138.66**
Pouch – Replacement Carrying Pouch……………….…..…………………….………................ **Cat. #2154.71**

Accessories:
General purpose carrying case …..……………………………………………………….... **Cat. #2118.09**
Adapter – U.S. wall plug to USB………………….…………………….……………..………….....**Cat. #2153.78**
Shock-proof housing ……………………………………………….………….……….…………........ **Cat. #2122.31**
Set of air flow measurement cones……..…………………………………………….…........**Cat. #2122.32**
Multifix Universal Mounting system………………………………..…………….………….…....**Cat. #5000.44**

For the accessories and replacement parts, visit our web site: www.aemc.com

1. GETTING STARTED

1.1. Battery Installation
The instrument accepts three AA or LR6 alkaline batteries.
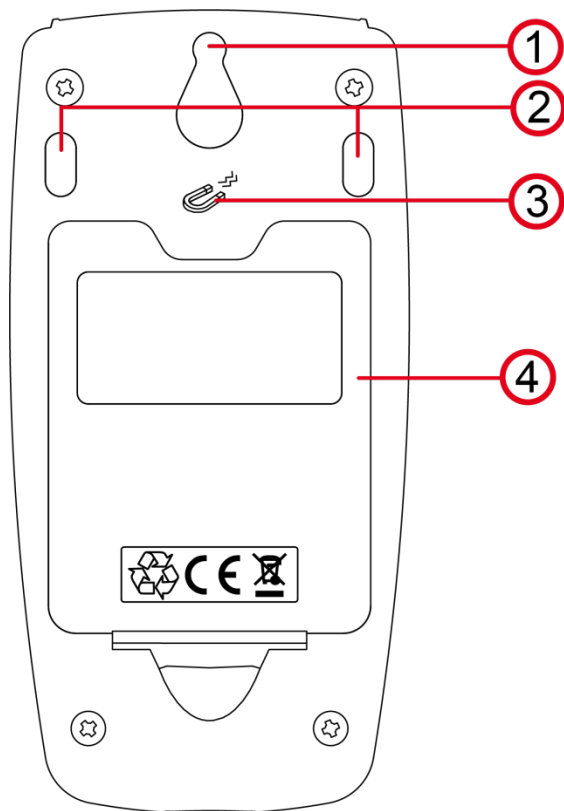
1. "Tear-drop" notch to hang instrument

2. Non-skid pads

3. Magnets for mounting to a metallic surface

4. Battery compartment cover

To change the batteries:

1. Press the tab of the battery compartment cover and lift it clear.
2. Remove the battery compartment cover.
3. Insert the new batteries, ensuring correct polarity.
4. Close the battery compartment cover; ensuring it is completely and correctly closed.

1.2. Instrument Components

1. Sensor handle
2. Propeller
3. Temperature sensor
4. Flow direction arrow
5. Spiral-wound connector cable
6. Four-conductor 3.5mm jack
7. Backlit LCD display
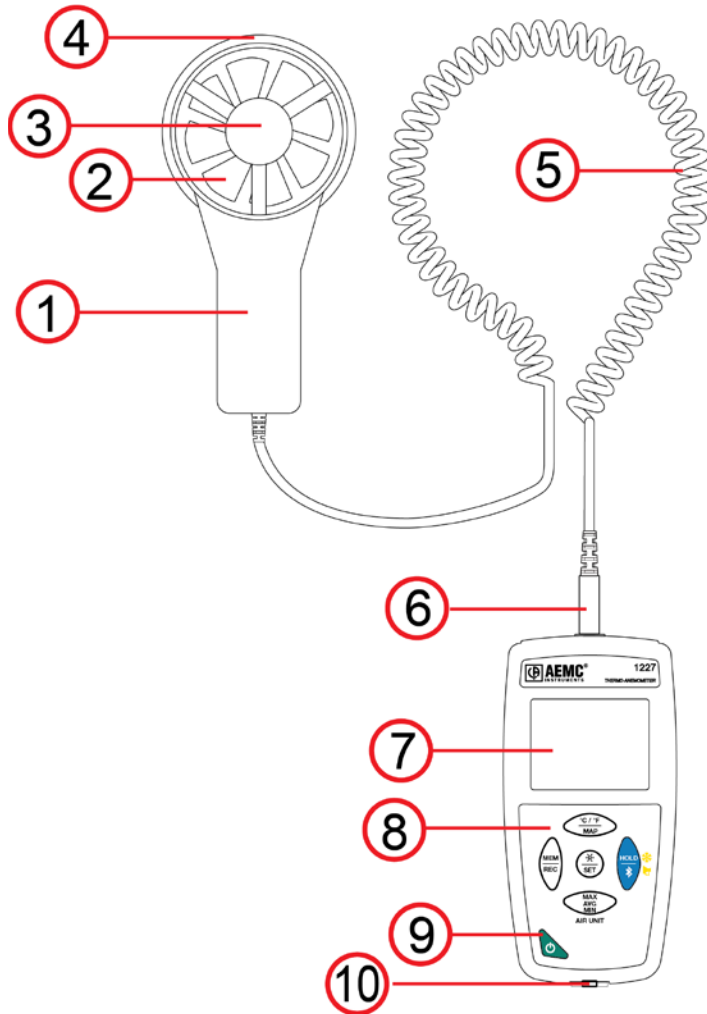8. Keypad
9. ON/OFF button
10. Type B micro-USB connector

1.3. Instrument Functions

The Model 1227 measures air speed from 0.25 to 35m/s, as well as volume flow from 0 to 99.999m3/h. It also measures temperature from 14 to 140°F (-10 to 60°C).

This instrument is easy to use. It has extensive stand-alone capabilities and can:

- Display temperature measurements in °C or °F
- Display air speeds in m/s and km/h or in fpm and mph
- Display volume flows in m^3/s, m^3/h, l/s, or CFM
- Record minimum, average, and maximum measurements in a specified period
- Record minimum, average, and maximum measurements for a location
- Record measurements and store them in memory
- Communicate with a computer via Bluetooth[®] or USB cable

DataView with the Data Logger Control Panel software can be installed on a computer to allow you to configure the instrument, view measurements in real time, download data from the instrument, and create reports.

1.4. Turning the Instrument ON/OFF

REC

End
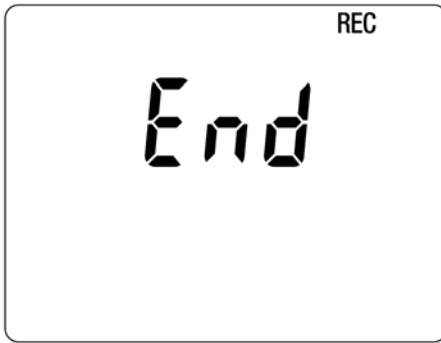
- ON: Press the ⏻ button for >2 seconds.

- OFF: Press the ⏻ button for >2 seconds when the instrument is ON. Note that you cannot turn OFF the instrument when it is in recording or HOLD mode.

If the screen on the left appears during start-up, a recording session was still in progress the last time the instrument lost power. This screen indicates the instrument is saving the recorded data.

Do not turn OFF the instrument while this screen is displayed; otherwise the recorded data will be lost.

1.5. Function Buttons

Key	Function
°C / °F MAP	■ Short press toggles between °C and °F. ■ Long press (>2 seconds) enables MAP mode.
MEM REC	■ Short press records the measurement and date. ■ Long press starts/stops a recording session.
☀ SET	■ Short press turns on the backlight. ■ Press and hold down this button to select measurement parameters. When the ☀ SET button is held down, the HOLD ✱ and AVG MAX MIN buttons perform the following functions: HOLD ✱ cycles through the measurement value options. These include FLOW IN (volume of air flowing into a cone), FLOW OUT (volume of air flowing out of a cone), FLOW CUST (volume of air measured without a cone), and VELOC (air speed). MAX AVG MIN sets the unit of measure for the MAX AVG MIN value selected via the HOLD ✱ button. These include: (air flow values) M^3/S, M^3/H, L/S, CF/M (VELOC) F/M, KM/H, M/H)
HOLD ✱	■ Short press freezes the display. ■ Long press activates/deactivates Bluetooth.
MAX AVG MIN	■ Short press enters MAX AVG MIN mode; the current values continue to be displayed. Second press displays the maximum value measured in MAX AVG MIN mode. Third press displays the average value. Fourth press displays minimum value. Fifth press returns to current values. ■ Long press exits MAX AVG MIN mode. ■ In MAP mode, pressing MAX AVG MIN cycles through the maximum, average (mean), and minimum of the MAP measurements.

1.6. Display

1. Air speed and flow display measurement
2. Temperature measurement/MAP function counter

OL indicates the measurement is outside the instrument limits (positive or negative).

indicates Auto OFF is disabled. This occurs when the instrument is:

- Recording, in MAX AVG MIN mode, in MAP mode, or in HOLD mode
- Connected via the USB cable either to an external power supply or for communication with a computer
- Communicating via Bluetooth
- Set to Auto OFF disabled (see §2.4).

2. SETUP

Before using your instrument, you must set its date and time via DataView. Other basic setup tasks include selecting:

- Bluetooth enabled (can be done on the instrument or via DataView)
- °F or °C for measurement units (can be done on the instrument or via DataView)
- Auto OFF interval (requires DataView)

2.1. DataView Installation

1. Insert the USB drive that comes with the instrument into a USB port on your computer.
2. If Autorun is enabled, an AutoPlay window appears on your screen. Click "Open folder to view files" to display the DataView folder. If Autorun is not enabled or allowed, use Windows Explorer to locate and open the USB drive labeled "DataView."
3. When the DataView folder is open, find the file Setup.exe and double-click it.
4. The Setup screen appears. This enables you to select the language version of DataView to install. You can also select additional install options (each option is explained in the Description field). Make your selections and click Install.
5. The InstallShield Wizard screen appears. This program leads you through the DataView install process. As you complete these screens, be sure to check Data Loggers when prompted to select features to install.
6. When the InstallShield Wizard finishes installing DataView, the Setup screen appears. Click Exit to close. The DataView folder appears on your computer desktop.

2.2. Connecting the Instrument to a Computer

You can connect the instrument to a computer either through the supplied USB cable or Bluetooth®. The first two steps of the connection procedure depend on the connection type:

USB:
1. Connect the instrument to an available USB port using the supplied cable.
2. Turn ON the instrument. If this is the first time this instrument has been connected to this computer, the drivers will be installed. Wait for driver installation to finish before proceeding with step 3 below.

Bluetooth:
Connecting the instrument via Bluetooth requires a Bluegiga BLED112 Smart Dongle (sold separately) installed in your computer. When the dongle is installed, do the following:

1. Turn ON the instrument by pressing the ⏻ button.
2. Activate Bluetooth on the instrument by pressing the ⁀ button until the symbol appears in the LCD.

After the USB cable is connected or Bluetooth is activated, proceed as follows:

3. Open the DataView folder on your desktop. This displays a list of icons for the Control Panel(s) installed with DataView.
4. Open the DataView Data Logger Control Panel by clicking the icon.
5. In the menu bar at the top of the screen, select Help. In the drop-down menu that appears, click the option Help Topics. This opens the Data Logger Control Panel Help system.
6. Use the Contents window in the Help system to locate and open the topic "Connecting to an Instrument." This provides instructions explaining how to connect your instrument to the computer.
7. When the instrument is connected, its name appears in the Data Logger Network in the left side of the Control Panel. A green check mark appears next to the instrument name indicating it is currently connected.

2.3. Instrument Date/Time

1. Select the instrument in the Data Logger Network.

2. In the menu bar, select Instrument. In the drop-down menu that appears, click Set Clock.

3. The Date/Time dialog box appears. Complete the field in this dialog box. If you need assistance, press F1.

4. When you are finished setting the date and time, click OK to save your changes to the instrument.

2.4. Auto OFF

By default, the instrument automatically turns OFF after 3 minutes of inactivity. You can use the Data Logger Control Panel to change the Auto OFF interval, or disable this feature, as instructed by the Help that comes with the software.

When Auto OFF is disabled, the symbol **P** appears in the instrument LCD screen.

2.5. Temperature Units

The $\frac{°C/°F}{MAP}$ button on the instrument front panel allows you to toggle between °C and °F as the temperature measurement unit.

3. STANDALONE OPERATION

The instrument can operate in two modes:
- Stand-alone mode, described in this section
- Remote mode, in which the instrument is controlled by a computer running DataView (see §4)

3.1. Making Measurements

3.1.1. Air Speed

1. Connect the sensor to the instrument.
2. If the instrument is OFF, press and hold down the ⏻ button until it turns ON.
3. Press and hold down the ☀/SET button. While holding this button down, short-press the HOLD/✱ button to cycle through the measurement options until VELOC appears on the LCD.
4. While continuing to hold down ☀/SET, short-press MAX/AVG/MIN to select the air speed units of measure. Options are M/S (meters per second), F/M (feet per minute), KM/H (kilometers per hour), and M/H (miles per hour). When the desired measurement is displayed, release ☀/SET .
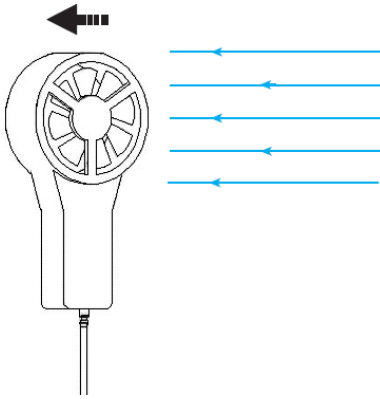5. To change temperature units, short-press °C/°F/MAP .

6. Hold the sensor in the air flow. The arrow on the inside of the propeller must point in the direction of the flow (see illustration to the left). This ensures the temperature sensor faces the incoming air, allowing it to display an accurate value more quickly.

7. The air speed and temperature measurements are displayed on the LCD. (Wait for the measurements to stabilize before accepting the reading.)

ℹ️   Always hold the sensor by its handle. Keep your fingers away from the sensor propeller.

Note that if you turn the instrument OFF, the configuration settings selected in steps 1 through 6 above will still be in effect the next time you turn the instrument ON.

3.1.2. Air Flow (Volume)
The Model 1227 can measure air flow both with and without using an optional air flow cone. Cones are typically used for measuring air flow through grated ventilation registers and other passages where the flow is disrupted and distorted, resulting in inconsistent measurements. The cone can help "normalize" the air flow by directing most or all the air towards the instrument's sensor, providing a more consistent measurement. Two models of cones are available as accessories, one with a round 7.9" (20cm) opening, and the other with a square 13" (33cm) opening.

Before you begin, ensure the instrument is turned ON and connected to the sensor. Then do the following:

1. Press and hold down the ☀/SET button. While holding this button down, short-press the 𝒷/HOLD button to cycle through the measurement options until the desired FLOW setting appears on the LCD. Choices are:
In - measures incoming (blowing) air flow with a cone.
out - measures outgoing (suction) air flow with a cone.
CUSt - measures air flow without a cone. If you select this option, you must enter the area of the ventilation register into the DataView Data Logger Control Panel, as explained in step 4 below. The instrument can then calculate air flow using the speed measurement and ventilation area setting.

2. While continuing to hold down ☀/SET, short-press MAX/AVG/MIN to select the air flow units of measure. Options are M3/S (cubic meters per second), M3/H (cubic meters per hour), L/S (liters per second), and CF/M (cubic feet per minute). When the desired measurement is displayed, release ☀/SET.

3. To change temperature units, short-press °C/°F/MAP.

4. **If you are using an air flow cone:** Skip the remainder of this step and proceed with step 5 below.
If you are not using a cone: Connect the instrument to a computer using DataView (§2.2). Select the instrument in the Data Logger Network and click Instrument -> Configure. Then go to the Anemometer tab, select Custom, and enter the area of the ventilation register. (Consult the DataView Data Logger Help system for assistance.) When finished, place the sensor in front of the ventilation register, and go to step 7 below.

5. Place the air flow measurement cone on the sensor. Depending on the measurement you want to make (flow in or flow out), place the sensor with the arrow pointing towards the cone (outgoing flow) or away from it (incoming flow).

6. Place the cone on the ventilation register. The arrow inside the propeller must point in the direction of the air flow. This will be towards the outside of the cone for a blowing measurement, or towards the inside of the cone for a suction measurement.

1. Sensor	4. Cone
2. Cone handle	5. Ventilation register
3. Air flow direction (in this example, air flow is incoming)	

7. The air flow and temperature measurements are displayed on the LCD. (Wait for the measurements to stabilize before accepting the reading.)

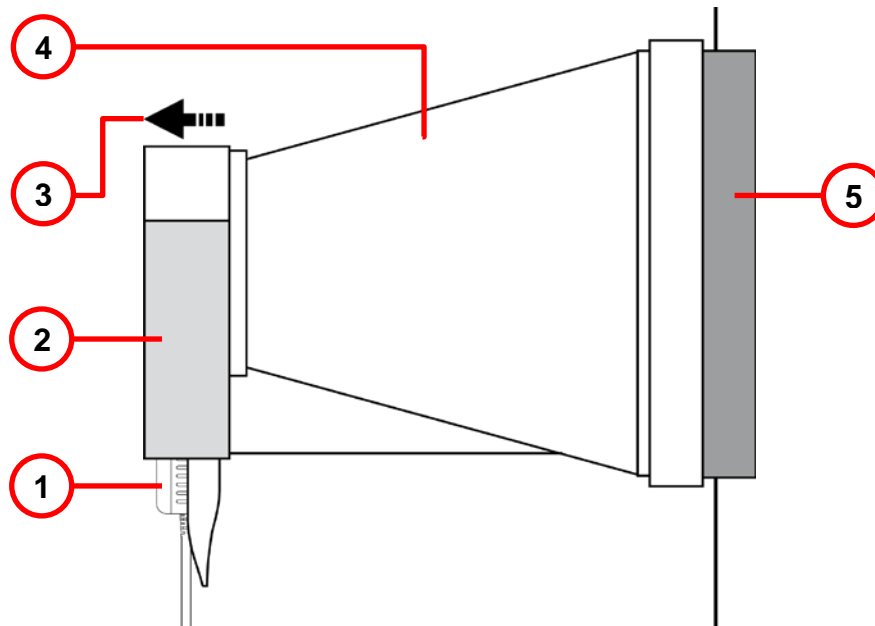ℹ️ Always hold the sensor by its handle. Keep your fingers away from the sensor propeller.

3.1.3. HOLD Function

Pressing the $\overset{\text{HOLD}}{\ast}$ button freezes the display. A second press unfreezes it.

3.1.4. MAX AVG MIN Function

You can monitor the maximum, minimum, and average measurements by pressing the $\overset{\text{MAX}}{\underset{\text{MIN}}{\text{AVG}}}$ button. This displays the words MIN/AVG/MAX at the top of the display (see the following illustration). In this mode, pressing $\overset{\text{MAX}}{\underset{\text{MIN}}{\text{AVG}}}$ once displays the maximum value measured during the current session. A second press displays the average value, and a third displays the minimum. Finally a fourth press restores the normal display. Subsequent presses of $\overset{\text{MAX}}{\underset{\text{MIN}}{\text{AVG}}}$ repeat this cycle.
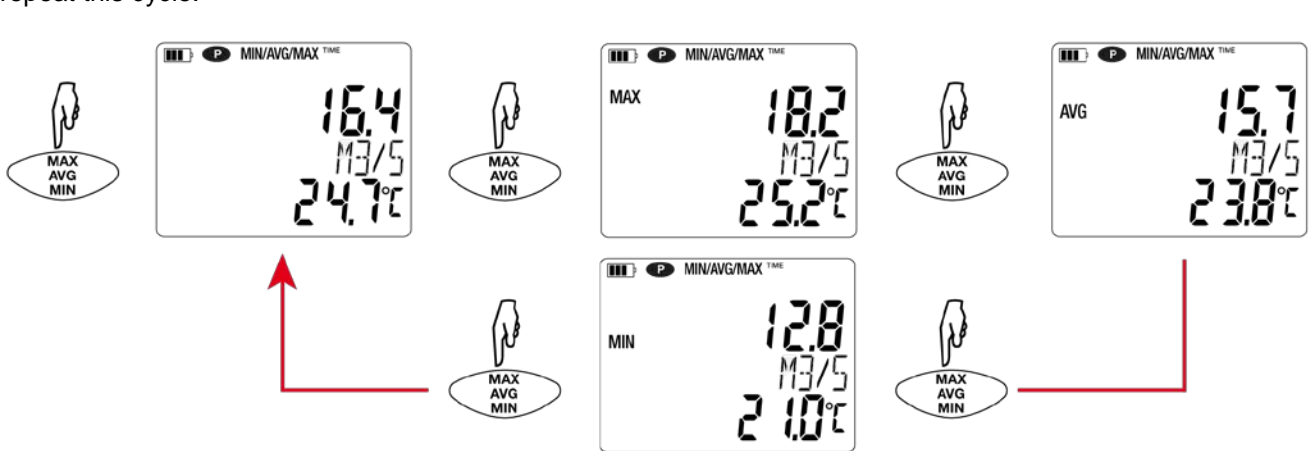
To exit MAX AVG MIN mode, long-press $\overset{\text{MAX}}{\underset{\text{MIN}}{\text{AVG}}}$. Note that when MAX AVG MIN mode is active, the MAP function is deactivated.

3.1.5. MAP Function

The MAP function enables you to map air speed, air flow, or temperature for a 2-dimensional space or surface. For example, in MAP mode you can measure the air speed at specific points within a room. You can then download the recording to a computer running DataView, and display the measurements as a 2-dimensional matrix, creating a "map" of the air speed within the room.

Before mapping an area, it is good practice to create a chart identifying where to make measurements. For instance, the following illustration is an example measurement chart for a room. Each red circle represents a measurement point.
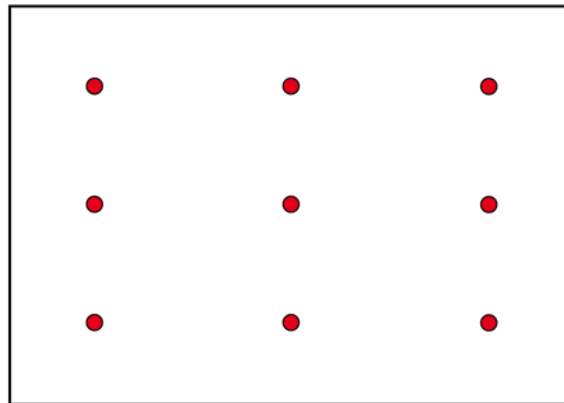
To enter MAP mode, press $\overset{\text{°C / °F}}{\text{MAP}}$ for >2 seconds. Place the sensor at the first measurement point and press $\overset{\text{MEM}}{\text{REC}}$ to record the value in memory. The MAP counter is incremented. Repeat this step for all the other points of the map.
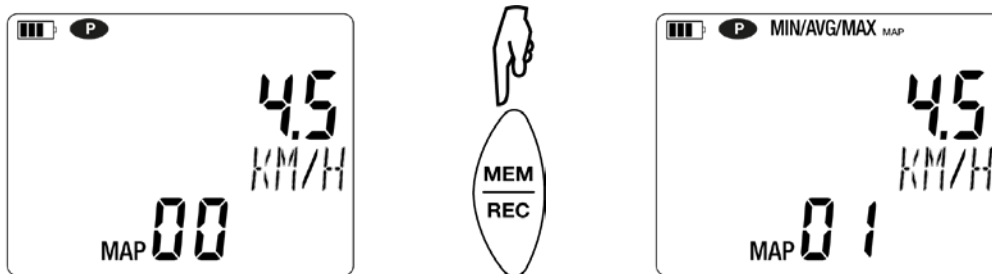
When all points have been measured, you can display the maximum, average, and minimum values. To do this, press ᴹᴬˣ/ᴬⱽᴳ/ᴹᴵᴺ three times to cycle through the maximum, average, and minimum values respectively.

To exit MAP mode, long-press °C / °F / MAP.

For each map, a file is created containing all measurement points. This file can then be downloaded and analyzed.

3.2. Recording Measurements

You can start and stop a recording session on the instrument. Recorded data is stored in the instrument's memory, and can be downloaded and viewed on a computer running the DataView Data Logger Control Panel.

You can record data by pressing the MEM/REC button:

- A short press (MEM) records the current measurement(s) and date.
- A long press (REC) starts the recording session. While the recording is in progress, the symbol REC appears at the top of the display. A second long press of MEM/REC stops the recording session. Note that while the instrument is recording, a short press of MEM/REC has no effect.

To schedule recording sessions, and download and view recorded data, see §4.

3.3. Errors

The instrument detects errors and displays them in the form **Er.XX**:

Er.01   Hardware malfunction detected. The instrument must be sent in for repair.

Er.02   Error in internal memory. Format the memory.

Er.03   Hardware malfunction detected. The instrument must be sent in for repair.

Er.10   The instrument has not been correctly adjusted. The instrument must be sent in for calibration.

Er.11   The firmware is incompatible with the instrument. Install the correct firmware (see §6.3).

Er.12   The firmware version is incompatible with the instrument. Reload the previous firmware version.

Er.13   Recording scheduling error. Ensure that the instrument's time and the time of the DataView Data Logger Control Panel are the same (see §2.3).

4. DATAVIEW

As explained in §2, DataView is required to perform several basic setup tasks including connecting the instrument to a computer, setting the time and date on the instrument, and changing the Auto OFF setting. In addition, DataView allows you to:

- Configure and schedule a recording session on the instrument.
- Download recorded data from the instrument to the computer.
- Generate reports from downloaded data.
- View instrument measurements in real time on the computer.

For information about performing these tasks, consult the DataView Data Logger Control Panel Help.

5. TECHNICAL CHARACTERISTICS

5.1. Reference Conditions

Quantity of influence	Reference values
Temperature	73 ± 3.6°F (23 ± 2°C)
Relative humidity	45% to 75%
Supply voltage	3 to 4.5V
Electric field	< 1V/m
Magnetic field	< 40A/m

The intrinsic uncertainty is the error specified for the reference conditions. It is expressed in the form: % R + b ct, where R = reading (for example ± 3% R ± 4 cts).

5.2. Electrical Specifications

5.2.1. Temperature Measurements

Specified measurement range	-4 to +122°F	-20 to +50°C
Resolution	0.1°F	0.1°C
Intrinsic uncertainty	From 32 to 122°F: ± 1.4°F From -4 to 32°F: ± 2.9°F	from 0 to 50°C: ± 0.8°C from -20 to 0°C: ± 1.6°C

5.2.2. Air Speed Measurements

Specified measurement range	m/s		km/h		
	0.25 to 2.99 m/s	3.0 to 35.0 m/s	0.90 to 2.99 km/h	3.0 to 99.9 km/h	100 to 126 km/h
Resolution	0.01 m/s	0.1 m/s	0.01 km/h	0.1 km/h	1 km/h
Intrinsic uncertainty	± 3% R ± 4 cts	± 3% R ± 4			

Specified measurement range	fpm		mph	
	49.0 to 99.9 fpm	100 to 6,890 fpm	0.56 to 2.99 mph	3.0 to 78.3 mph
Resolution	0.1 fpm	1 fpm	0.01 mph	0.1 mph

5.2.3. Air Flow Measurements

Specified measurement range	m^3/s				
	0.0000 to 0.9999 m^3/s	0.100 to 0.999 m^3/s	1.00 to 2.99 m^3/s	3.0 to 99.9 m^3/s	100 to 99999 m^3/s
Resolution	0.0001 m^3/s	0.001 m^3/s	0.01 m^3/s	0.1 m^3/s	1 m^3/s
Intrinsic uncertainty	± 8% R				

Specified measurement range	m^3/h			R/s
	0.00 to 2.99 m^3/h	3.0 to 99.9 m^3/h	100 to 2999 m^3/h	0.00 to 2.99 R/s
Resolution	0.01 m^3/h	0.1 m^3/h	1 m^3/h	0.01 R/s
Intrinsic uncertainty	± 8% R			± 8% R

Specified measurement range	0.00 to 2.99 cfm	3.0 to 99.9 cfm	100 to 2999 cfm
Resolution	0.01 cfm	0.1 cfm	1 cfm
Intrinsic uncertainty	± 8% R		

5.3. Memory

Parameter	Value
Memory	8MB Flash (non-volatile)
Storage rate	Standalone recordings: 1 s
	Recordings configured via DataView: 1 s, 2 s, 5 s, 10 s, 20 s, 30 s, 1 min, 2 min, 5 min, 10 min, 15 min, 30 min, 1 hour (selectable via Data Logger Control Panel)
Maximum recording length	Dependent on storage rate. For example:
	1 s storage rate = 21 days maximum recording
	1 hour storage rate = multiple years maximum recording

5.4. USB

Protocol: USB Mass Storage
Maximum transmission speed: 12Mbit/s
Type B micro-USB connector

5.5. Bluetooth

Bluetooth 4.0 BLE
Range 33' (10m) typical and up to 100' (30m) in line of sight.
Output power: +0 to -23dBm
Nominal sensitivity: -93dBm
Maximum transfer rate: 10 kbits/s
Average consumption: 3.3µA at 3.3V.

5.6. Power Supply

The instrument is powered by three 1.5V LR6 or AA alkaline batteries. You can replace the batteries with rechargeable NiMH batteries of the same size. But the rechargeable batteries, even when correctly charged, will not reach the voltage of the alkaline batteries and the battery life indicated will be ▮▮▯ or ▮▯.

The voltage range for correct operation is 3 to 4.5V for alkaline batteries and 3.6V for the rechargeable batteries. Below 3V, the instrument stops taking measurements and displays **BAt**. Battery life (with the Bluetooth connection deactivated) is:
- standby mode: 200 hours
- recording mode: 8 days at a rate of one measurement every 15 minutes

The instrument can also be powered via a USB-micro USB cable, connected either to a computer or to a wall outlet via an adapter.

> 110 VAC
< 240 VAC
50 / 60 Hz
2.5 W
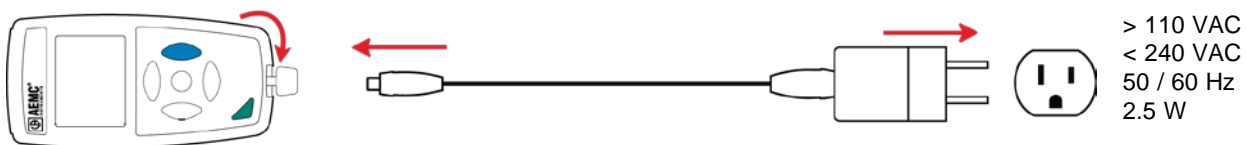
5.7. Environmental Conditions

For use indoors and outdoors.
Operating range: 14 to 140°F (-10 to 60°C) and 10 to 90%RH without condensation
Storage range: -4 to 158°F (-20 to 70°C) and 10 to 95%RH without condensation, without batteries
Altitude: < 6562' (< 2000m), and 32,800' (10,000m) in storage.
Pollution degree: 2

5.8. Mechanical Characteristics

Dimensions (L x W x H):

    Housing: 5.9 x 2.8 x 1.26" (150 x 72 x 32mm)

    Sensor: 6.3 x 3.15 x 1.5" (160 x 80 x 38mm)

    Spiral-wound cable: 9.45 x 47.2" (24 to 120cm)

Mass: approximately 14.1oz (400g)

Inrush protection: IP 50, with the USB connector closed, per IEC 60 529.

Drop impact test: 3.28' (1m) per IEC 61010-1.

5.9. Compliance with International Standards

The instrument is compliant with standard IEC 61010-1.

5.10. Electromagnetic Compatibility (CEM)

The instrument is compliant with standard IEC 61326-1.

6. MAINTENANCE

⚠ **Except for the batteries, the instrument contains no parts that can be replaced by personnel who have not been specially trained and accredited. Any unauthorized repair or replacement of a part by an "equivalent" may gravely impair safety.**

6.1. Cleaning

ℹ To preserve good measurement quality, the sensor propeller must be kept clean.

1. Switch the instrument OFF.

2. Clean instrument with a soft cloth, dampened with soapy water.

3. Rinse with a damp cloth and dry rapidly with a dry cloth or forced air. Do not use alcohol, solvents, or hydrocarbons.

Ensure that nothing interferes with the rotation of the propeller.

6.2. Battery Replacement

The ▥ symbol indicates the remaining battery life. When the ▭ symbol is empty, all of the batteries must be replaced. To do this, turn the instrument OFF and refer to §1.1 for the installation procedure.

🗑 Spent batteries must not be treated as ordinary household waste. Take them to an appropriate recycling collection facility.

6.3. Firmware Update

AEMC may periodically update the instrument's firmware. Updates are available for free download. To check for updates:

1. Connect the instrument to the Data Logger Control Panel.

2. Click Help.

3. Click Update. If the instrument is running the latest firmware, a message appears informing you of this. If an update is available, the AEMC Download page automatically opens. Follow the instructions listed on this page to download the update.

ℹ After firmware updates, it may be necessary to reconfigure the instrument (see §2).

REPAIR AND CALIBRATION

To ensure that your instrument meets factory specifications, we recommend that it be scheduled to be sent 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).

For North / Central / South America, Australia and New Zealand:

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 • (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, fax, or e-mail our technical support team:

Contact: Chauvin Arnoux®, Inc. d.b.a. AEMC® Instruments
Phone: (800) 945-2362 (Ext. 351) • (603) 749-6434 (Ext. 351)
Fax: (603) 742-2346
E-mail: techsupport@aemc.com

LIMITED WARRANTY

Your AEMC instrument is warranted to the owner for a period of two years 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 product registration is available on our website at:

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 two-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.

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 • (603) 749-6309
E-mail: repair@aemc.com

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

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

NOTES:

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