

Thermometer Data Logger Models 1821, 1822, 1823

Quick Start Guide ENGLISH



Measure up

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 **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 #: _____

Model #: _____

Please fill in the appropriate date as indicated:

Date Received: _____

Date Calibration Due: _____



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

Thank you for purchasing the Model 1821 or Model 1822 thermocouple thermometer data logger, or Model 1823 resistance thermometer data logger:

- **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.
	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.
	
	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.
	

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.
- All troubleshooting and metrological checks must be done by accredited personnel.

INITIAL SETUP

Installing 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.

Connecting to a Computer

The Models 1821, 1822, and 1823 must be connected to DataView[®] for full configuration. (For detailed setup instructions, see the User Manual in the USB drive that comes with the instrument.) To connect the instrument to your computer:

1. Install the DataView[®] software, making sure to select the Data Logger Control Panel as an option (it is selected by default). De-select any Control Panels you do not need.
2. If prompted, restart the computer after installation is complete.
3. Connect the instrument to the computer using a USB cable or pair with Bluetooth.
4. Wait for the drivers to install. The drivers are installed the first time the instrument is connected to the computer. The Windows operating system will display messages indicating when the installation is complete.
5. Start the Data Logger Control Panel by double-clicking the Data Logger shortcut icon  in the DataView folder placed on the desktop during the installation.
6. Click Instrument in the menu bar, and select Add an Instrument.
7. The Add an Instrument Wizard dialog box opens. This is the first of a series of screens that lead you through the instrument connection process. The first screen prompts you to select the connection type (USB or Bluetooth). Choose the connection type and click Next.
8. If the instrument is identified, click Finish. The instrument is now communicating with the Control Panel.
9. When you are finished, the instrument will appear in the Data Logger Network branch in the Navigation frame, with a green check mark indicating a successful connection.

Setting the Instrument's Clock

To ensure an accurate time stamp of measurements recorded in the instrument, set the instrument's clock as follows:

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 fields 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.

INSTRUMENT CONFIGURATION

In addition to setting the instrument's clock, other setup tasks include:

- Enabling Bluetooth (can be done on the instrument or via DataView)
- Setting measurement units to °F or °C (can be done on the instrument or via DataView)
- Changing the Auto OFF interval (requires DataView)

Detailed information for configuring the instrument via the DataView Data Logger Control Panel is available by pressing the **Help** button.

Enabling Bluetooth

Long press (>2 seconds) the  button to enable/disable Bluetooth.

Selecting Temperature Units

Model 1821: Short press  to toggle between °C and °F.

Models 1822 and 1823: Long press  to toggle between °C and °F.

Selecting Sensor Type (Models 1821 and 1822)

After inserting the sensor(s), press and hold down the  button. The LCD cycles through a list of available thermocouple types; when the correct type is displayed release  **TYPE**.

The Model 1823 automatically detects the probe type (RTD100 and RTD1000).

OPERATION

Making Measurements

Temperature:

1. Connect the sensor to the instrument.
2. If the instrument is OFF, press and hold down the  button until it turns ON. The instrument displays the current time, followed by the measurement(s). (Wait for the display to stabilize before reading the measurement.)

Temperature Difference (Model 1822):

When the Model 1822 is connected to two sensors, it displays both measurements, with T1 at the bottom and T2 at the top. You can display the difference between the sensor measurements by pressing the  button. The T2 measurement is replaced by the temperature difference, labeled T1-T2. A second press of  restores the T2 measurement.

MAX MIN:

1. Press the **MAX MIN** button. The words MIN MAX appear at the top of the LCD.
2. Press **MAX MIN** to display the maximum value measured during the current session.
3. Press **MAX MIN** to display the minimum value.
4. Press **MAX MIN** to restore normal display.
5. Subsequent presses of **MAX MIN** repeat this cycle.
6. To exit MAX MIN mode, press the **MAX MIN** button for >2 seconds.

Note that when using the Model 1822 in MAX MIN mode, the  button is disabled.

HOLD:

In normal operation, the display updates measurements in real time. Pressing the **HOLD** button “freezes” the current measurement and prevents the display from updating. Pressing **HOLD** a second time “unfreezes” the display.

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  button:

- A short press () records the current measurement(s) and date/time.
- A long press () 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  stops the recording session. Note that while the instrument is recording, a short press of  has no effect.

To schedule recording sessions, and download and view recorded data, see the Data Logger Control Panel Help.

Alarms

You can program alarm thresholds on each measurement channel via the DataView Data Logger Control Panel. In standalone mode, if an alarm threshold is programmed, the ▲ symbol is displayed. When a threshold is crossed, the ▲ symbol blinks, and one of the following blinking symbols appears to the right of the measurement:

- ▲ indicates measurement is above the high threshold.
- ▼ indicates measurement is below the low threshold.
- ▼▲ indicates the measurement is between the two thresholds.

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.

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.)

Cost 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
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