



Instructions for the Vion A4003 electronic barometer/barograph

Power

There are 3 ways to power the instrument.

- Batteries. 4 pieces AA alkaline batteries. The batteries will last 2-3 months depending on how much you use the backlight.
- USB. The USB connector is located on the left hand side.
- 12 Volt can be applied through the dedicated 12 Volt connector on the left hand side. A 12 Volt connector with cable is included with the unit. The cord with the white stripe is to be connected to the positive (+) on your power supply. The unit will function if you supply as little as approximately 6 Volt on the 12 Volt input.

When supplying power using the USB or the 12 Volt connector you may leave the batteries inside as backup. If the remaining power in the batteries is low the BATTERY LOW icon will switch on, even if USB or 12 Volt power supply is present.

Connector for alarm output

Alarms can be transferred to external equipment through the alarm output connector on the left hand side.

This output is an electronic switch ("open drain"). So if you want to connect directly to a siren or a lamp you have to supply the power.

The maximum ratings are indicated on the side of the barograph: 12-24 Volts and 0,5 Amps. However we recommend you keep the current below 0,25 Amps.

- Connector type: 3.5 mm mini jack mono or stereo.
- Your external power supply's ground (-) shall be connected to the shield/outer part of the connector.

Initial setup

Switch the instrument on using the on/off switch on the left side.

The unit will automatically start in the menu SETTINGS.

Choose your language, time, date etc.

NEW: The beep and alarm volumes can now be adjusted separately.

If you don't want the buzzer to beep when pressing buttons, go to the MENU by pressing the orange button for a while, choose "settings" and then "buzzer". Here you can switch off the beep volume. Adjust beep volume to zero "0".

Upper screen

MOON PHASE icon shows the current moon phase for approx. 30 seconds, then the symbol “circles” to show you the direction of the changes in the moon phase.

ALARM CLOCK icon is shown, if you have set the alarm clock.

The instrument shifts between showing **time** (approx. 3 seconds) and **date** (approx. 1 second).

If DUAL TIME is activated (in time date): It shifts between showing local time (approx. 3 seconds), date (approx. 1 second), dual time (approx. 3 seconds) and again date (approx. 1 second).

Temperature is shown in °C or Fahrenheit.

Relative humidity shown in percent.

GALE WARNING icon appears when a drop in air pressure of 3 hPa (millibars) or greater over a period of 3 hours or less is detected. This alarm is always set.


An audio alarm will sound unless you deliberately have silenced it in the BUZZER menu.


The alarm will be present at the electronic alarm output connector unless you deliberately have silenced the audio alarm.

Air **pressure** in **hPa** (millibars) or **InHg**.

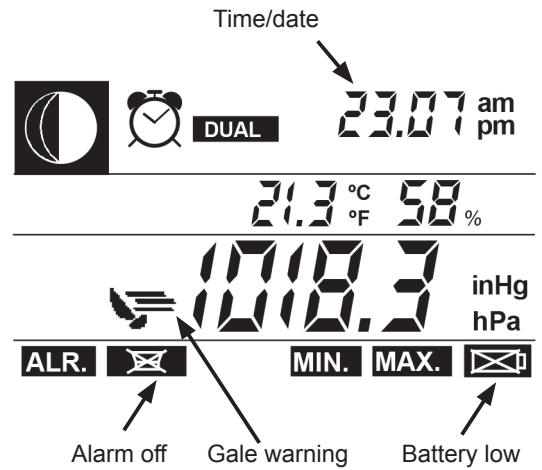
ALR. icon is shown if a pressure alarm has been set.

Alarm off icon is shown if the alarm volume is set to zero - not recommended!

MIN. icon is shown when using  and **OK** buttons (history mode), if a minimum value of pressure is reached during the time period.

MAX. icon is shown when using  and **OK** buttons, if a maximum value of pressure is reached during the time period.

BATTERY LOW icon is shown when the remaining energy in the batteries is low. Replace batteries within a weeks time. This icon will switch on when batteries are low, even if USB or 12 Volt power supply is present.




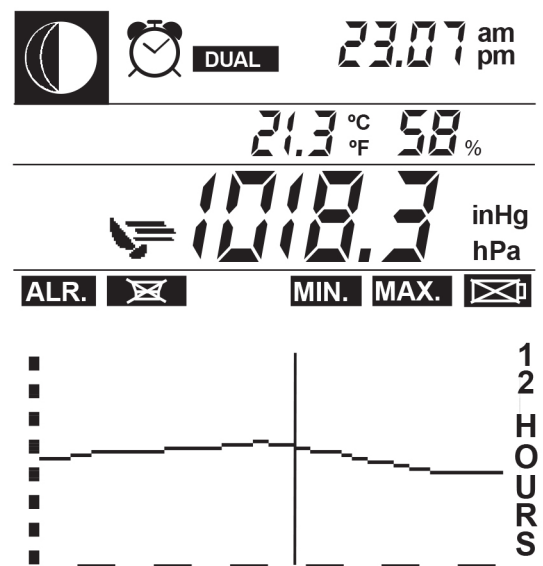
NEW: You don't lose data when you change batteries.

Lower screen (chart display)

A barograph showing the latest 2, 4, 6, 12, 24 or 48 hours of the air pressure. Use the  and  buttons to adjust the chart scale.

On the horizontal time axis one dash or one space corresponds to 1 hour. On the vertical air pressure axis one dash or one space corresponds to 1 hPa (1 millibar).

Use the  and **OK** buttons to enter history mode; a vertical line appears indicating the time position of the pressure readout and the corresponding time and pressure is logged on the upper screen. Press the buttons to move the cursor backwards and forward in time and read the corresponding air pressure.



Menu

Press the orange button for a while and you enter the menu:

MENU

>**pressure alarm**, you can set a drop, increase or target alarm.

alarm clock, you can set the alarm clock

settings, you set language, time date, units, pressure, backlight, buzzer and reset.

SETTINGS

>**language** Choose between English, French, German, Spanish, Italian, Swedish, Dutch or Danish.

time date Choose time format, time, date, year, dual time, +1 hour and -1 hour.

units Choose pressure, altitude and temperature units

pressure Choose altitude

backlight Choose backlight level

buzzer Choose beep and alarm volume

reset Resets to factory default settings

NEW: If you keep pressing the up button the pressure and temperature will be shown in “opposite” units. When you release the button the display returns to the chosen units.

Generally if no button is pressed within 30 seconds the display returns to the barograph display.

Issue we have noticed August 20th 2021:

If the instrument has been turned of and you turn it on and don't initialize the instrument by setting the time the alarm will not work.

When setting the time the alarm will work again.

The quick way of checking the alarm: Go to MENU > pressure alarm > choose target and press OK. The alarm will sound.

Setting the time: Go to MENU > settings > time date > choose time and set the time.

This issue is solved in new software 2203.

Technical specifications

Absolute air pressure accuracy:

$\pm 0,5\text{hPa}$ @ $0\text{-}50^\circ\text{C}$, resolution $0,1\text{ hPa}$ within the working range. Working range is 900 to 1.100 hPa.

Temperature accuracy:

$\pm 0,5^\circ\text{C}$ @ 25°C , resolution $0,1^\circ\text{C}$ within the working range. Working range: 0 to 50°C (32 to 122°F).

Accuracy falls linearly from 25°C to the range boundaries: From $\pm 0,5^\circ\text{C}$ to $\pm 1,25^\circ\text{C}$.

Humidity accuracy:

$\pm 4,5\%$, resolution 1% within the operating range 0 to 100%.

Clock: Accuracy within $\pm 30\text{s}$ per month.

Måløv 23/3-2022

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