230-M2000 Handheld Barometer

Range

The **NovaLynx M2000 Handheld Barometer** is a general-purpose pressure reference with a range of 0 to 30 psi (0 to 206.8 kPa) absolute.

Warnings and Precautions

The barometer should NOT be used in hazardous areas. Do not exceed the specified pressure limit of the sensor. Additional precautions are listed in the complete user manual.

Quick Start Guide

The Quick Start Guide (attached) describes the operation of the keypad and many other features.

User Manual

Download the complete user manual here.

USER MANUAL NOTE: The Altitude specification on page 61 reads "Do not use the M2000 Smart Manometer at an altitude above 2000 m (6561 ft.)". This limitation applies only to the Intrinsically Safe models of the M2000, which are not certified above that elevation.

Pressure Connections

Use two wrenches when connecting to the pressure manifold. Applying torque to the manifold can damage the plastic enclosure and voids the warranty. Do not over tighten.

Batteries / Battery Life

The barometer can be used stand-alone or connected to a computer. While connected via the USB cable, the sensor draws power from the computer, otherwise it runs on the internal batteries. The default operating mode is **Always On**, however the unit can be programmed to **Auto Off** except while logging.

The LCD display includes a backlight, which can be switched off to conserve battery power. The backlight turns off automatically after the unit has been idle for one minute.

Remove the batteries if the barometer will be stored for extended periods of time.

Configuration Software

Download USB Driver Installation Instructions here.

Download meriSuite CG Software Installation Instructions here.

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M2000 Smart Manometer & Sensors

Quick Start Guide

First things first

General purpose use only

⚠ DANGER   **M2000 Smart Manometer**

MST Sensors

These are not intended for hazardous locations.

Steps to get started

Make a connection

- Attach the pressure fittings to the **internal** pressure sensor module.
  - ▫ The threads should be coated with a pipe sealant compound before installation.
  - ▫ Tighten to finger tight plus 1.5 turns to 3 turns using a 19 mm (¾ in.) wrench on the manifold.

NOTICE   Use only a **wrench** on the fitting and the manifold.

- *Optional:* Attach the pressure fittings to the external pressure sensor module.
- *Optional:* Attach the RTD cable and probe to an RTD module.

Carefully equalize the pressure

To avoid damaging **differential sensors:**

1. Make sure you are connecting to the correct pressure port on DN or DI differential pressure modules.
   1. P1 port is high pressure.
   2. P2 port is low pressure.
2. Apply pressure to both differential ports (P1 and P2) at the same time.

Know your batteries

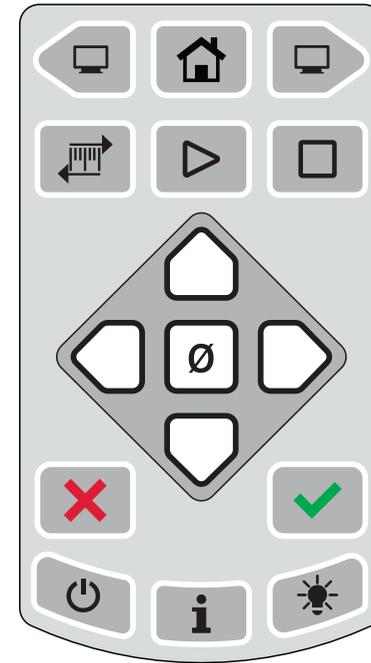The Smart Manometer is powered by four 1.5 volt AA size batteries.

- **Never** mix batteries—not by manufacturer or by size, by capacity, or by chemistry.
- **Never** mix old and new batteries.
- **Remove** all four batteries in the M2000 at the same time.
- **Replace** all four batteries with batteries from the same package or with the same expiration date.

Install the batteries

1. Turn over the Smart Manometer so the display faces down.
2. Remove the two screws on the battery cover with the Phillips head screwdriver by turning them counterclockwise.
3. Insert four AA batteries.
   Note: *Pay attention to the positive (+) and negative (−) battery polarity markings at the bottom of the compartment.*
4. Replace the battery cover. To secure the cover, torque the screws clockwise 2 in. lbs. maximum.

Learn the function keys

The keys from left to right
1. Backward
2. Home
3. Forward
4. Units
5. Start
6. Stop
7. Up arrow
8. Left arrow
9. Zero or Tare
10. Right arrow
11. Down arrow
12. Cancel or Esc or ✗
13. Accept or ✓
14. Power
15. Information
16. Backlight

Meriam Tethered Sensors (MTS)

Optional Meriam Tethered Sensors

- Pressure (Absolute, Compound, Differential).
- Temperature (RTD PT100).

Make an electrical connection

- Align the red dot on the Smart Manometer with the red dot on the Tether cable and push in.
- Align the red dot on the MTS with the red dot on the Tether cable and push in.

USB cable & meriSuite CG

For use only in non-hazardous locations

⚠ WARNING

Connect the USB cable to the Smart Manometer and to your computer to configure the M2000 and sensors using the meriSuite CG application.

Install USB Drivers & meriSuite CG

You must install USB Drivers first then install the meriSuite CG application.

For installation instructions:
https://www.meriam.com/resources/download/

Open meriSuite CG

Use meriSuite CG application to:

- **Sync PC Time to Gauge** for data logging and display.
- Select or deselect the Display functions on each Smart Manometer or Measurement Units that you need on each sensor.
- Select the timeout for the Backlight and for the Auto Off.

Close meriSuite CG

NOTICE

- Do not turn off the power on the M2000 while it is communicating with meriSuite CG.
- Close meriSuite CG first, disconnect the USB, and turn off the Smart Manometer.

FAQs

How often is a new pressure measurement displayed?

The calibrator display updates with a new pressure measurement five times per second.

What are the different Display functions on the calibrator?

The calibrator ships with five functions turned on. They are listed in bold below. Turn functions on or off using meriSuite CG.

1.	*Home* (default)	7.	AVG (Average)
2.	*MIN* (Minimum)	8.	RATE
3.	*MAX* (Maximum)	9.	*DATA LOG*
4.	RELIEF VALVE TEST	10.	Temperature & Time
5.	*+ / -* (Accuracy)	11.	LEAK TEST
6.	*T.OFF, T.ON* (Tare)	12.	LEAK TEST DURATION

What does it mean when the red backlight flashes?

- The flashing red backlight indicates an error condition.
- Possible error conditions are:
  - Pressure has exceeded the stated upper limit of the sensor(s).
  - Pressure has fallen below the stated lower limit of the sensor(s).
- The red backlight overrides the white backlight.

FAQs

What does the Zero (Ø) key do?

Home

- If the sensor is within a tolerance band around zero, press and hold the *Zero* key to zero the pressure measurement and to reset the Min and Max measurements.
- **Note**: The tolerance band is approximately ± 1 % of the Full Scale pressure value of the sensor.
- Absolute sensors have additional functionality.

In Min or Max mode

- Press and hold the *Zero* key to reset the Min and Max measurement. However, this does not zero the pressure measurement.

In Tare mode

- When the Tare is off (T.OFF), press and hold the *Zero* key to turn on Tare (T.ON) and to set the Tare value at the current p ressure measurement.
- Likewise, when the Tare is on (T.ON), press and hold the *Zero* key to turn off the Tare mode.

In Average mode

- Press and hold the *Zero* key to restart the rolling average.

Holding the Zero key

- The key must be held to perform the Zero or Tare mode. The displayed value(s) dashes out during the zero or tare process.

Why are the available units different between a 15 psi and 3 000 psi sensor?

If a given measurement unit cannot display the correct number of digits, the calibrator automatically advances to the next displayable unit.

FAQs

Which version of Data Log is on my calibrator?

1. Turn on the calibrator.
2. Press the Display button until **DATA LOG** appears.
3. Press the Information button. The version appears: **Vers. Pro** or **Vers. Lite**.

How long does the white backlight stay on after the Backlight key is pressed?

- The white backlight has an automatic timeout. If no keys have been pressed, the backlight automatically turns off after 1 minute.
- **Note:** You can configure the backlight timeout with meriSuite CG.

What does the bar graph at the top of the display indicate?

- The bar graph displays a live indication of the current pressure applied to the sensor as a % of Full Scale.
- However, when the battery percentage is displayed, the bar graph follows the large digit display in indicating the remaining state of charge for the batteries.

What does low battery indicator mean?

- Be prepared to change batteries when you see the outline of the battery icon or when the outline of the icon flashes.

FAQs

How long will the calibrator remain on if I leave it unattended?

- The default setting is Always On.
- You can configure the timeout for Auto Off with meriSuite CG.

How to contact us

Contact Sales

If you have any issues, questions, or suggestions, please contact us using one of the following methods.

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