



a xylem brand

Pro2030

Quick Start Guide

Item #605057

This Quick Start Guide is meant to serve as a quick reference in calibrating and operating the Pro2030. It is not intended to replace the information found in the Users Manual.

Setting Dissolved Oxygen Sensor & Membrane Type

The instrument's dissolved oxygen (DO) sensor type must be configured for the sensor installed. Failure to do this may result in damage not covered under warranty. The correct DO membrane type must be configured for the membrane in use or the DO readings will be erroneous.

The instrument will step you through an initial configuration when powered on for the first time. This allows you to set the language, sensor and membrane options. Use the up or down arrow keys to highlight the appropriate language, sensor, and membrane, then press enter to confirm. Check the label on the box of the sensor and membrane to determine which option you have. To change the sensor or membrane type after the initial configuration, press the **Menu** key.

Installing the DO Sensor

Prior to use, the dissolved oxygen (DO) sensor must be installed on the Pro2030 cable. Failure to install the DO sensor may cause permanent damage to the cable not covered under warranty.

1. Remove the red plastic plug from the cable's port by pulling it straight out of the port. This can be discarded.
2. Remove the red plastic plug from the DO sensor's connector by pulling it straight off the sensor. This can be discarded.
3. Ensure both the sensor connector and cable connector are clean and dry.
4. Grasp the sensor with one hand and the cable bulkhead in the other.
5. Push the sensor into the connector on the cable until it is firmly seated and only 1 o-ring is visible. Failure to properly seat the sensor may result in damage.
6. Twist the sensor clockwise to engage the threads and finger tighten. **Do NOT use a tool.** This connection is water-tight.

Installing the DO Membrane

The DO sensor is shipped with a red protective cap covering the electrodes. A new cap membrane with electrolyte must be installed on the DO sensor prior to use.

1. Prepare the electrolyte solution according to the instructions on the bottle.
2. Remove and discard the red protective cap or used cap membrane from the sensor.
3. Thoroughly rinse the sensor tip with distilled or deionized water.
4. Fill a new cap membrane with electrolyte solution. Avoid touching the membrane portion of the cap.
5. Thread the cap membrane onto the sensor, moderately tight. A small amount of electrolyte will overflow.
6. Install the probe sensor guard.

Barometer Calibration

The barometer reading must be accurate to ensure accurate DO % calibrations and DO readings. If the instrument's barometer requires an adjustment:

Determine your local barometric pressure (BP) from a barometer, an independent laboratory or from a local weather service. If the BP reading has been corrected to sea level, use the following equation to determine the true BP in mmHg for your altitude:

$$\text{True BP} = (\text{Corrected BP in mmHG}) - \{2.5 * (\text{Local Altitude in feet}/100)\}$$

1. From the Run screen, use the up or down arrow keys to highlight the barometer box then press **Enter**.
2. Use the up or down arrow keys to adjust the barometer reading to the local, true barometric pressure.
3. Press **Enter** to confirm and save the barometer adjustment.

DO Calibration

The Pro2030 can be calibrated in % saturation, mg/L or ppm. Calibration of any option (% , mg/L, or ppm) will automatically calibrate the others. The Pro2030 can be calibrated with the press of a few keys when Quick DO Cal is enabled in the System Setup menu.

The following procedure outlines the % saturation calibration option with and without Quick DO Cal enabled.

1. Moisten the sponge in the cal/transport sleeve with a small amount of water and install it on the probe. **Make sure the DO and temperature sensors are not immersed in the water.**

2. Turn the instrument on. If using a polarographic sensor, wait 10 minutes for the DO sensor to stabilize. Galvanic sensors do not require a warm up time.
3. Ensure the barometer reading along the bottom of the display is accurate.
4. Press and hold the **Cal** key for three seconds.
5. If Quick DO Cal is enabled, highlight **Dissolved Oxygen** and press enter. The instrument will then indicate **Calibrating %DO** on the display and automatically calibrate the sensor to the barometer reading.
6. If Quick DO Cal is not enabled, highlight **%** or **%Local** and press enter. The Pro2030 will display the current DO% and temperature readings along with the % calibration value. Wait at least 3 seconds, then, once the DO% and temperature readings are stable, press **Enter** to complete the calibration.
7. **Calibration Successful** will display for a few seconds to indicate a successful calibration and then the instrument will return to the run screen.
8. If the calibration is unsuccessful, an error message will display on the screen. Press the **Cal** key to exit the error message and return to the run screen.

Conductivity Calibration

The Pro2030 can be calibrated in conductivity, specific conductance or salinity. Calibration of any option will automatically calibrate the others. YSI recommends calibrating specific conductance for both ease and accuracy. The following procedure outlines the specific conductance calibration.

1. Fill a clean container (ie plastic cup or glass beaker) with fresh, traceable conductivity calibration solution and place the sensor into the solution. The solution must cover the holes of the conductivity sensor that are closest to the cable. Ensure the entire conductivity sensor is submerged in the solution or the instrument will read approximately half the expected value. Gently agitate the probe to remove any air bubbles from the conductivity sensor.
2. Turn the instrument on and allow the conductivity and temperature readings to stabilize. Press the **Cal** key. Highlight **Conductivity** and press **Enter**. Next, highlight the desired calibration method **Sp. Conductance** and press **Enter**.
3. Highlight the units you wish to calibrate, either **uS/cm** or **mS/cm**, and press enter. $1 \text{ mS} = 1,000 \text{ uS}$. Next, use the up or down arrow key to enter the value of the conductivity solution as it is listed for 25°C. Specific conductance is temperature compensated conductivity and the instrument uses the default reference temperature of 25° when calibrating specific conductance. Most conductivity solution is labeled with a value at 25°C. Depressing either the up or down arrow key for 5 seconds will move the changing digit one place to the left. The Pro2030 will remember the calibration value and display it the next time a conductivity calibration is performed.

4. Press **Enter** to complete the calibration. Or, press **Cal** to cancel the calibration and return to the Run screen.
5. '**Calibration Successful**' will display for a few seconds to indicate a successful calibration and then the instrument will return to the Run screen.
6. If the calibration is unsuccessful, an error message will display on the screen. Press the **Cal** key to exit the calibration error message and return to the Run screen. See the Troubleshooting guide for possible solutions.

Taking Measurements

1. Before taking measurements, be sure the instrument has been calibrated to ensure the most accurate readings.
2. Turn the instrument on and wait 5-15 minutes if using a polarographic sensor.
3. Install the sensor guard and then insert the probe into the sample.
4. Ensure the conductivity sensor is completely submerged in the sample. The two holes near the cable should be covered by the sample for accurate conductivity readings.
5. Move the probe in the sample at a rate of at least 6 inches (16 cm) per second if using the yellow membrane and 3 inches (7.62 cm) per second if using the blue membrane.
6. While continuing to provide sample movement, wait for the readings to stabilize.
7. Highlight **Save** and press **Enter** to store the reading. The instrument will confirm that the reading was successfully saved.

Contact Information



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Visit [YSI.com/Pro2030](https://www.ysi.com/Pro2030) to find the User Manual, specs, and accessories.

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