

Calibration of the Polaris C CO₂ probe

You must calibrate the Polaris C CO₂ probe to ensure accurate measurements. Calibration is required before the first use and approximately once a month.

Important! Precise dosing is essential. Incorrect dosing leads to inaccurate calibration. **Avoid bubbles!** Turn off the stirrer battery and tilt the beaker while inserting the probe every time.

Stabilization requirement: Keep the meter on for at least 10 minutes before/after calibration. Failure to do so may damage the sensor.

Required Equipment

To calibrate the Polaris C CO₂ probe, you will need the Calibration Kit (Item no. G10CALPM) and demineralized or distilled water (not included in the kit).

The Calibration Kit contains:

- Calibration Beaker with stirrer
- Calibration fluid (100 ml) and dosing syringe
- pH conditioner (75 g) and dosing spoon
- Battery pack and charger (100 - 240 V AC)



See the picture for a visual overview of the included components.

Step 1: Prepare the probe

- Remove the yellow cap and the black protector from the probe.
- Allow the probe to stabilize before calibration: Turn on the meter at least 10 minutes before use. If the probe is wet, gently dab the membrane dry first.

Step 2: Prepare the beaker

- Connect the beaker to the battery pack and check that the stirrer at the bottom of the chamber is working properly.

Step 3: Access the calibration menu

- Press OK on your meter, and the menu appears:

Cobália sync.

Calibrate

Set salinity

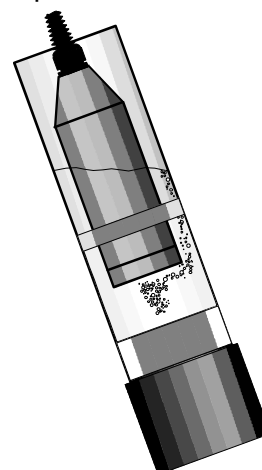
View log

Log mode

Setup

- Press OK to confirm.

**NB to remove bubbles
stop stirrer and tilt.**



Step 4: Pour demineralized water into the beaker

- Pour 199 ml of demineralized or distilled water into the beaker (until it just covers the black ring located midway up the chamber). The demineralized water should be at room temperature.
- Turn on the battery pack to start the stirrer and let it run for approximately 30 seconds.

Step 5: Insert the probe without bubbles

- Turn off the stirrer battery and insert the probe while tilting the chamber to avoid bubbles.
- Check that there are no bubbles below the probe. If bubbles are present, tilt the chamber and rotate the probe to release them. This goes for steps 5, 6 & 7.
- Turn the battery back on and press OK on the meter to continue.

Step 6: Add calibration fluid

- When the meter tells you to add calibration fluid, remove the probe carefully.
- Add 1 ml of the calibration fluid using the dosing syringe and turn off the stirrer's battery.
- Reinsert the probe gently (avoid bubbles as in step 5), turn the battery back on, and press OK on the meter to continue.
- Note that it is very important that the cap of the calibration fluid bottle is kept tightly closed.

Step 7: Add pH conditioner

- When the meter tells you to add pH conditioner, remove the probe carefully.
- Add one spoonful (0.3 g) of pH conditioner to the beaker and turn the stirrer's battery off.
- Reinsert the probe (avoid bubbles as in step 5), turn the stirrer's battery back on, and press OK on the meter to continue.

Step 8: Calibration process

- Allow the calibration to complete. Don't move the probe during the calibration. This typically takes about 15 minutes. The meter will display progress for this step and in total.
- **After calibration, keep the meter powered on for at least 10 minutes before turning it off.**

Step 9: Calibration results

- Check the meter display for the value of a successful calibration.
- If calibration fails, repeat the process from Step 3 using fresh fluid and conditioner.

Step 10: Clean and store the probe

- Rinse the probe and beaker with tap water, wipe the probe dry.
- Put the black protector back on the probe and store your meter in the pouch when not in use.
- Keep the calibration fluid and pH conditioner at room temperature when stored.

Precautions

- **Avoid Bubbles**
 - Gently tilt the chamber while inserting the probe to minimize bubble formation.
 - Rotate and move the probe slowly in the chamber to release trapped bubbles.
- **Contamination Prevention**
 - Handle the probe with clean hands or use gloves.
 - If contamination occurs, restart the calibration process from step 3.
- **Handling the Sensor**
 - Be cautious to avoid rough handling of the sensor at the probe's base.
- **Frequency**
 - Calibrate approximately once per month to ensure accuracy.
- **Personal Settings**
 - Adjust calibration settings to match your specific environment. See the manual's 'Setup - Configuring your personal settings' section for guidance.