

Calibration of the CO₂ probe for Pacific, Marlin⁺ & Marlin systems

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

Required Equipment

To calibrate the CO₂ probe, you will need a **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
- Battery charger (100 - 240 V AC)
- Adjustment screwdriver



Precautions

- **Stabilization requirement**
 - Keep the meter on for at least 10 minutes before and after performing calibration.
 - Failure to do so may damage the sensor.
- **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.

Calibration steps

Note! If you are using an original Marlin (without⁺), you need to download the Cobália Sync App.

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 is spinning.

Step 3: Access the Calibration Menu (**Note:** different methods for Pacific, Marlin+ and Marlin)

- **Pacific & Marlin+:** Choose the CO₂ probe on your screen, and the system will guide you on-site.
- **Marlin:** Access the Calibration menu in the Cobália Sync App, find your device → Calibration.

Step 4: Pour demineralized water into the beaker

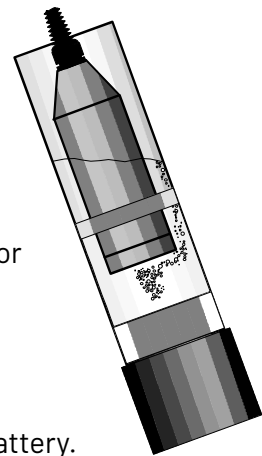
Important! Precise dosing is essential. Incorrect dosing leads to inaccurate calibration.

- 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 power on the battery pack and **carefully** insert the probe into the beaker while tilting the chamber to avoid bubbles, prevent a vacuum and minimize splashing.
- 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 continue on the Pacific/Marlin+ screen or on the Cobália Sync App (Marlin).

NB to remove bubbles stop stirrer and tilt.



Step 6: Add calibration fluid

- When the unit 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 battery.
- Reinsert the probe gently (avoid bubbles), turn the battery back on, and press OK on your unit.
- 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 unit 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 battery off.
- Reinsert the probe (avoid bubbles as in steps 5-6), turn the battery back on, and press OK on the Pacific/Marlin+ screen or on the Cobália Sync App (Marlin) 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 unit 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 and wipe the probe dry.
- Put the black protector back on the probe when not in use.
- Keep the calibration fluid and pH conditioner at room temperature when stored.