



DISSOLVED OXYGEN TEMPERATURE



Quick Reference Procedure Checklist

Please Note

This document is an abbreviated form of the full Dissolved Oxygen/Temperature Monitoring Procedures. We recommended that you read the full procedures at least once at the beginning of each field season. Full procedures are found in the CLMP Manual found here:

<https://micorps.net/lake-monitoring/clmp-documents/>

Equipment Checklist

- Boating safety equipment* and anchor* *provided by volunteer
- DO/Temperature meter and cable/probe
- Probe cable weight
- Safety lanyard
- Quick-reference DO calibration card
- Equipment storage box and supplies
- Secchi disk*
- Weighted measured line*
- Pencil* or indelible ink pen*
- DO/temperature data form(s)
- Copy of full monitoring procedures or this quick reference checklist

Data Collection

A. Sampling location, frequency, and timing

- 1. Conduct the DO/Temp monitoring every other week from mid-May through mid-September in calm water.

B. Prepare for monitoring (on shore)

- 1. If it is not already done, connect the probe cable to the handheld meter cable at the bayonet connectors.
- 2. Turn the meter on and wait 15 minutes for the meter to warm up.
- 3. Calibrate the meter according to the "Quick Start Guide" that is included in the DO equipment box. If the "Quick Start Guide" is missing you can also find the calibration instructions in the full monitoring procedures.

Users of the Pro20 meter can disregard the next two steps.

- 4. Record the DO calibration (% air saturation) reading (main display), and the lake altitude value on the DO/temperature data form.
- 5. If the DO Calibration reading is not between 93-103%, then recalibrate the meter. If it still does not work, the membrane may need to be replaced. Troubleshooting contact:
Tamara Lipsey, Michigan EGLE, 517-342-4372, lipseyt@michigan.gov

C. Proceed to your monitoring location

- 1. Travel to the sampling location; anchoring will be necessary as the monitoring process can take 30 minutes or longer.

D. Measure the DO/Temperature profile using the meter

- 1. Make sure that the DO readout is in mg/L and not %. Hit MODE to switch between these measurements
- 2. Determine the lake depth using Secchi disk or weighted measured line; note the depth on the data sheet
- 3. Lower the probe 1 ft below the lake surface. Slightly jig the probe up and down until the meter mostly stabilizes; it is unlikely to stabilize completely so you have to use best judgment. Record the DO (mg/L) and the temperature (°C).
- 4. Lower the probe to the next depth shown on the data sheet; repeat the process for every depth on the data sheet.
- 5. Your final DO/Temp measurement will be about 1 foot above the lake bottom; do not allow the probe to touch the lake bottom.

Reporting Your Results

1. If you can, **please enter your data into the MiCorps Data Exchange found at MiCorps.net.**
If you are unable to enter your own data into the MiCorps Data Exchange, MiCorps staff will enter your data for you after we receive a copy of your data sheets in the mail or via email at MiCorps@msu.edu.

2. **Whether you entered your data online or not, mail or email a copy of your data sheet at the end of the season.**

Mail a copy to:

Michigan Lakes and Streams Association, Inc.
P. O. Box 303
Long Lake, MI 48743

For electronic submission, send to: MiCorps@msu.edu

All data must be entered into the database and the hard copies mailed or emailed by **October 31st**.

Questions?

Contact: Tamara Lipsey, lipseyt@michigan.gov, 517-342-4372