



# DISSOLVED OXYGEN TEMPERATURE



## Quick Reference Procedure Checklist

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### Please Note

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

[https://cdn.cloud1.cemah.net/wp-content/uploads/sites/63/2018/03/CLMP\\_Manual\\_2018.pdf](https://cdn.cloud1.cemah.net/wp-content/uploads/sites/63/2018/03/CLMP_Manual_2018.pdf)

### Equipment Checklist

- Boating safety equipment\* and anchor\* \*provided by volunteer
- DO 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), the calibration temperature (°C), 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:

Marcy Knoll Wilmes  
Michigan DEQ  
517-284-5544  
knollM@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; note the depth on the data sheet.
- 3. Lower the probe to 5 feet. 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 measurement will be 1 foot above the lake bottom; do not allow the probe to touch the lake bottom.

**Reporting Your Results**

**Deadline: October 30.**

**1. Enter your data into the MiCorps Data Exchange**

*The data entry web address is: <http://www.micorps.net/data/enter>*

To enter data you will need your own username and password. To receive this, or to ask any questions about data entry, contact:

Michele Leduc-Lapierre, Great Lakes Commission  
Phone: 734-971-9135  
Email: MiData@glc.org

**2. At the end of the season, mail in a copy of your data sheets—whether you entered your data or not.**

Send a copy to:

Michigan Lake and Stream Associations, Inc.  
P. O. Box 303  
Long Lake, MI 48743