

FIRST TIME USE

Download the latest version of **WitroxView** from our website:

www.loligosystems.com/downloads

Run the WitroxView installation program. Follow the instructions on the screen and then restart the PC.

Connect the recommended **long-range Bluetooth adapter** to a USB port on the same PC and let Windows initialize it. Disable any built-in/other Bluetooth radios on your PC.

- Connect the power adapter for the Witrox instrument to a wall outlet and then the USB cable to the backside socket (3).
- Connect the PT1000 temperature sensor to the socket labelled **Temp** on the front of the Witrox instrument.
- Connect the fiber optic oxygen sensor(s) to the SMA ports labelled **CH1-CH4** on the front of the Witrox instrument.
- Turn on the Witrox instrument by pressing the POWER BUTTON (4). Notice that the instrument will time out after 300 seconds of inactivity (**ERROR ICON** (4) will light red).

Make sure that all Witrox instruments are turned ON (POWER BUTTON lighting green). The SIGNAL ICON (4) will blink blue until measurements start or until the Witrox becomes inactive. The SIGNAL ICON will light blue when the Witrox instrument is connected and measuring.

Open the WitroxView program. Choose **Scan for new devices** and let WitroxView find the instruments. This might take several minutes. When the scan is finished, all connected Witrox instruments are shown.

Please do not use any other Loligo® software simultaneously with the WitroxView software.

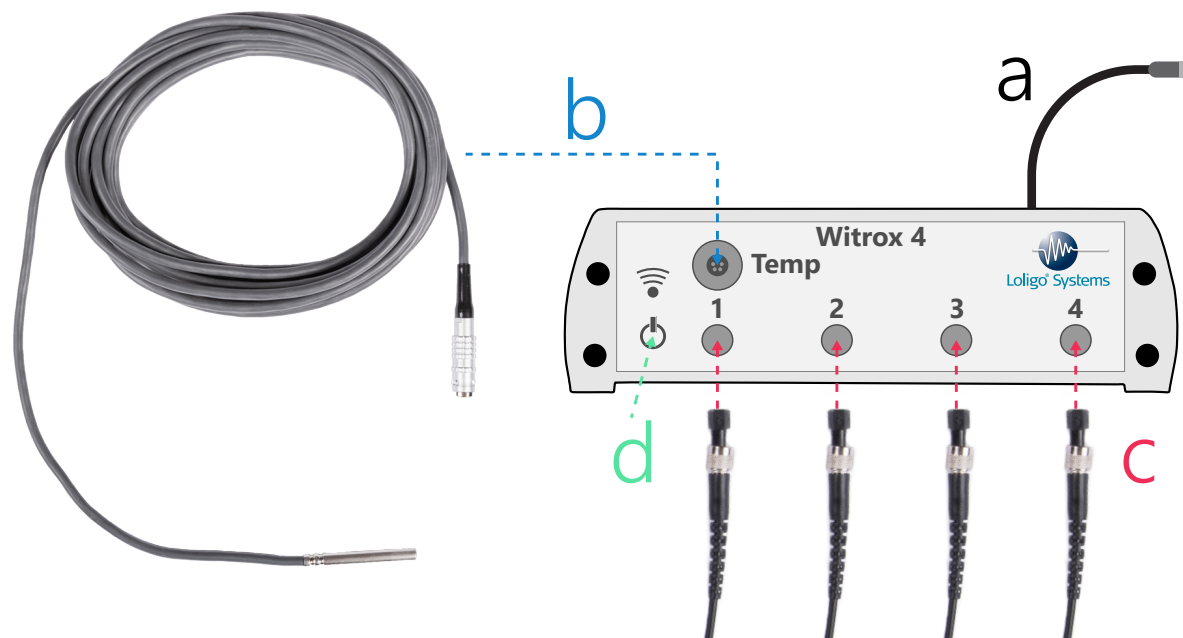
FOR EACH TRIAL

Make sure that all the instruments are switched on. Start WitroxView and choose **Use current configuration** to work with the saved configuration.

Click **Calibration** to calibrate the oxygen sensor(s) or to verify current calibration values (go to step 10).

Click **Experiment** to see real-time data. Click on each channel to change setpoint, hysteresis, regulation type etc. Choose between these four types of regulation (Off, Manual, Automated or File).

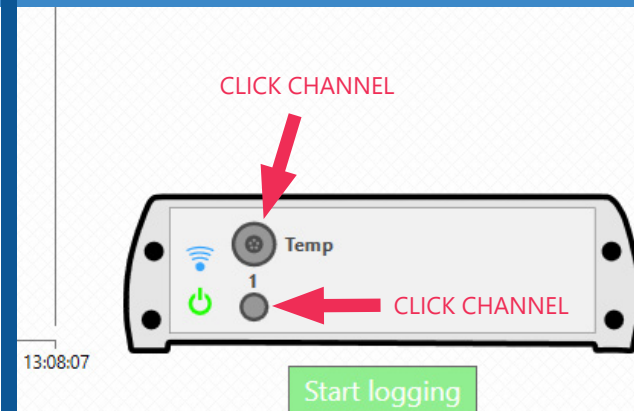
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4



7



FOR EACH TRIAL

8

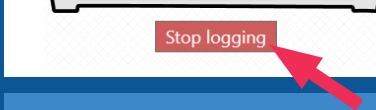
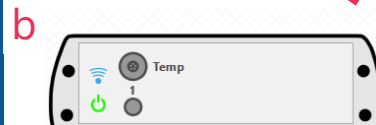
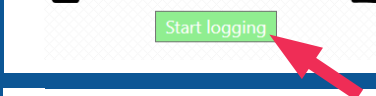
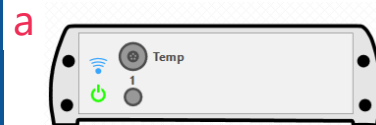
Click **Start logging** (8a) to create a data file and save temperature and oxygen data from the Witrox instrument.

Notice that data from each Witrox instrument is logged to a separate file.

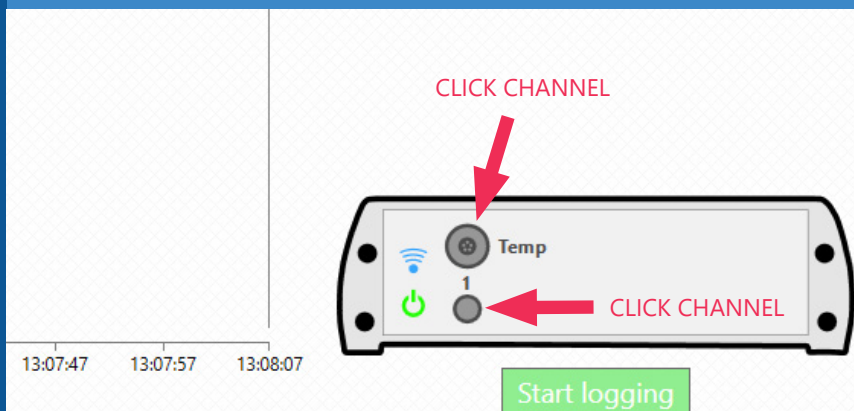
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Click **Stop logging** (8b) when the experiment is over. Power off the Witrox instrument (press POWER BUTTON) when not in use.

8



10



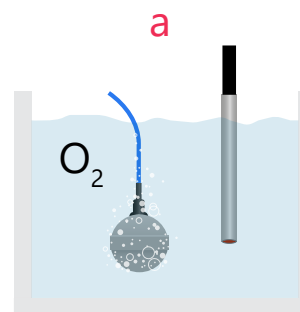
CALIBRATION, SERVICE & MAINTENANCE

10

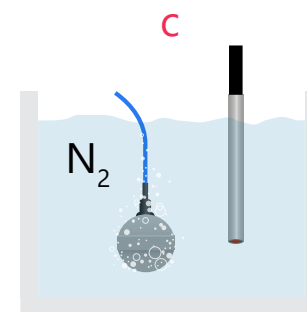
Choose **Calibration** to calibrate oxygen sensor(s). Click on the relevant channel (CH1-CH4) to open the channel calibration menu (10). Select the type of temperature input (Witrox controlled or User controlled) and then perform a **Manual** (user-defined) 2-point calibration (10.1 and 10.2):

- Place the sensor tip in a mixed air-equilibrated water sample. This can be achieved by purging atmospheric air into sample water, e.g. with an air pump.
- Wait for the phase readings (sensor signal) to stabilize and then click **Read current values** to save the current value as the HIGH calibration value (100 % air saturation).
- Transfer the sensor to an oxygen free water sample, e.g. by purging nitrogen gas into sample water or by dissolving ~10 grams of Na_2SO_3 in 500 ml of distilled water.
- Wait for the phase reading to stabilize and then click **Read current values** to save the current sensor signals as the LOW calibration value (0 % air saturation).

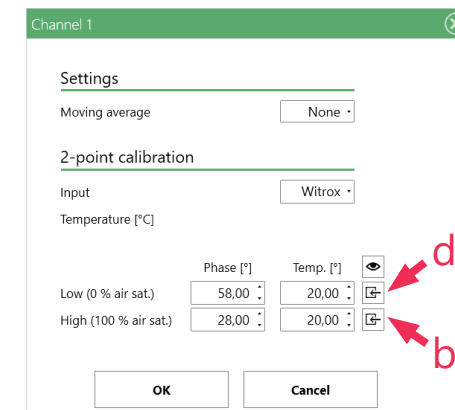
10.1



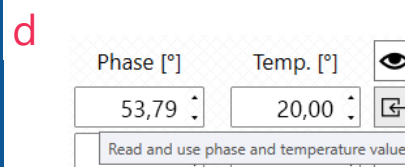
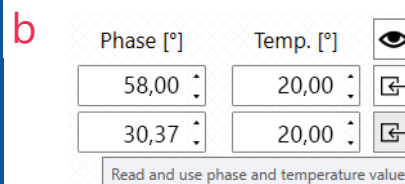
100 % air sat.



0 % air sat.



10.2

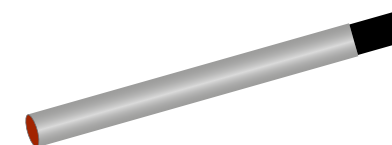
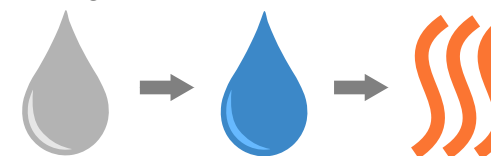


11

MILD SOAP/
BLEACH

WATER

DRY



11

To clean the oxygen sensor(s), use a mild soap solution or bleach, and rinse with demi water. Then dry.

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Store oxygen sensors in a dark place between trials to avoid exposing the fluorescent dye to UV light. UV light will bleach the sensor dye and decrease the signal strength (amplitude).