

NEW AQUA TROLL 600 CALIBRATION PROCEDURE

In order to get the most accurate readings possible with your Aqua TROLL 600, we have made some changes to our recommended calibration procedure based upon the most recent laboratory testing, field testing, and usability testing.

1. Flip & Pour



After thoroughly cleaning and rinsing the sonde and sensors, flip the restrictor around so it's in calibration/storage mode.*

Hold the sonde with the sensors pointing up.

Pour the calibration standard directly into the restrictor until the sensors are covered.**

* No cal cup = less equipment to mess with

** This method uses 73% less cal standard

2. Hold & Cal



Keep the sonde oriented with the sensors up.*

Perform the calibration using VuSitu or Win-Situ 5.

**Avoids bubbles on sensor face, providing a fast and accurate calibration*

3. Rinse & Rinse



Between each calibration (including pH cal points), dump the calibration standard, remove the restrictor and rinse everything thoroughly with DI water or tap water.*

For best results, follow the water rinse by rinsing twice with the next calibration standard.

**Avoids cross-contamination*

Details on the back



AQUA TROLL 600 CALIBRATION PROCEDURE

Recommended Calibration Equipment, Accessories and Solutions:

Laboratory/Office Calibration

- Instrument with Restrictor and Cable Connection Protector
- Instrument Calibration Stand
- Calibration Solutions
- RDO Calibration Sponge
- Running water or DI Squirt Bottle
- Sink
- Paper Towels

Field Calibration

- Instrument with Restrictor and Cable Connection Protector
- Instrument Calibration Stand or Bucket to hold instrument
- Calibration Solutions
- RDO Calibration Sponge
- DI Squirt Bottle or Bucket of Water
- Paper Towels

Solution Based Calibrations:

1. Remove the rubber bumper and blue top cap from the restrictor.
2. Remove the restrictor and reattach in storage/calibration mode.
3. Invert the instrument so the sensors are facing up.
4. Ensure the sensor face and inside of restrictor / calibration cell are thoroughly cleaned and free of debris. Rinse the sensor face and inside of the restrictor with DI or tap water.
5. Take the first calibration solution and pour 10-20 mL (1/2" above the sensor face) of the standard on top of the sensors to perform the first rinse.
6. Move the solution in the calibration cell to ensure it has been in contact with the surface of the sensors and the inside of the calibration cell. If necessary, reinstall the blue top cap and gently shake.
7. Discard the rinse calibration solution.
8. Repeat steps 5-7. (Note: for best calibration, it is necessary to rinse twice with the calibration solution to ensure all contaminants have been removed and the solution has wetted the sensor face).
9. With the sonde and sensors still inverted, fill the calibration cell with 40-50mL (to the bottom of the threads inside of the restrictor) of fresh calibration solution. Make sure that the calibration solution is approximately 1 inch above the surface of the sensor face. Check the sensors for bubbles. Gently tap on the surface to remove any bubbles.
10. Perform the sensor calibration using VuSitu Mobile app or Win-Situ 5 software.
11. Repeat rinse procedure between new sensor calibrations or when performing a multi-point user calibration.

i *Not rinsing out all of the previous calibration solution can contaminate the next solution added. This will impact the accuracy of the next calibration and/or cause a much slower sensor response.*

RDO 100% Saturation Calibration:

1. Remove the rubber bumper and blue top cap from the restrictor.
2. Remove the restrictor and thoroughly dry the RDO sensing foil and the temperature sensor.
3. Setup the instrument using one of the following methods:

Option 1

- Make sure the restrictor is in storage/calibration mode.
- Saturate a small sponge with enough water to moisten the entire sponge (sponge does not need to be dripping). Place the sponge in the bottom of the restrictor. Attach the end cap, turning only one rotation - do not fully seal to the bottom of the restrictor.

i *Over sealing the end cap can cause pressure to build up in the calibration cell and provide inaccurate readings. Also, make sure the sensing element and thermistor are free of water droplets as this can also cause a deviation in readings.*

Option 2

- Install the restrictor in deployment mode and attach end cap.
- Fill a 100% saturation bubbler half full with tap water. Turn on the bubbler.
- Wait 5-10 minutes for the bubbler to reach 100% saturation.
- Place the sonde in the bubbler.

4. Perform the sensor calibration using the VuSitu Mobile App or Win-Situ 5 software.