



## Rhodamine WT Calibration Video Transcript

### Function

The Rhodamine WT fluorometer emits green light into the water sample which is absorbed by the rhodamine. The rhodamine fluoresces red light in return which is detected by the sensor. The amount of red light detected is proportional to the amount of 'rhodamine' in the sample and can be reported as a scaled voltage from 0 – 5 Volts or as a concentration from 0 – 1000 ppb.

### Maintenance

The only maintenance required for the fluorometers is to keep them clean. As optical sensors, it is very important to give them a clear field of view into the water sample. Before and after each deployment clean the optical lenses with a cotton swab or lint free wipe and soapy water. Rinse with clean fresh water.

Do not use organic solvents such as methanol or acetone to clean the sensor. These chemicals will damage the plastic components of the sensor.

### Calibration

Establish a connection to the sonde with Hydras 3LT. Click the button labeled '**Operate Sonde**'. When the sonde finishes its initialization, click the '**Calibration**' tab, then click the '**Rhodamine [ppb]**' tab. You will see a picture of the fluorometer as well as the current value, the date and time, the current temperature, and the voltage reading of the sensor.

Begin with a clean and dry sonde. Attach the calibration cup and fill it to the threads with de-ionized water. Wait one minute for the readings to stabilize. Type '0' into the box and click '**Calibrate**'. A "Calibration Successful" message will appear.

Empty the storage cup, and dry the sensors. Attach the storage cup. Fill the cup to the threads with a known concentration of rhodamine WT. Wait one minute for the readings to stabilize. Type the value of the concentration into the box and click '**Calibrate**'. A "Calibration Successful" message will appear.

The Rhodamine sensor is now calibrated.

