

## LAQUAtwin Conductivity Sensor Maintenance Procedures

Proper usage and maintenance of the LAQUAtwin conductivity meter, especially the conductivity sensor that comes in contact with samples, is important to maintain the accuracy and prolong the life span of the instrument.

### Materials Needed



Conditioning Solution (Part no. 3999960114) - contains 5% surfactant for removing dirt on sensor surface



Clean water (e.g. distilled, deionized, tap)



Soft tissue



Cleaning Solution 220 (Part no. 3014028653) - contains 10% thiourea and 1% hydrochloric acid (HCl) for removing stubborn deposits on sensor surface



Mild detergent solution (5ml liquid detergent diluted to 100ml with water)

### Conditioning

Condition the conductivity sensor before using it for the first time.

1. Place few drops of the conditioning solution onto the conductivity sensor. Make sure that the whole sensor is covered with the solution and there are no bubbles formed or trapped on the sensor.
2. Leave the conditioning solution for 10 to 30 minutes.
3. Rinse the conductivity sensor with water and blot it dry with soft tissue.
4. Perform calibration with fresh conductivity standard solutions prior to sample measurement.

### Cleaning

A clean conductivity sensor is necessary for performing an accurate conductivity measurement. If the meter reading is incorrect or an error appeared on the display, the conductivity sensor requires cleaning.

1. Remove dirt or unwanted sample residues on the sensor by performing the conditioning procedure above. If conditioning solution is not available, a diluted detergent solution (e.g., 5ml liquid detergent diluted to 100ml with water) can be used.
2. If the conditioning procedure failed to restore the sensor performance and there are stubborn deposits on the sensor surface, use a stronger

cleaning solution such as cleaning solution 220 and follow the procedure above.

- Download and read the safety data sheet (SDS) of cleaning solution 220 at [www.horiba-laqua.com](http://www.horiba-laqua.com) before handling.
  - Never use any organic solvent (e.g., acetone, ethanol, etc.) to clean the conductivity sensor as it may cause damage and shorten the sensor lifespan. This usage will also void the sensor warranty.
3. If calibration with fresh conductivity standard solutions failed repeatedly and cleaning did not restore the conductivity sensor performance, replace the sensor with a new one (Model S070, Part no. 3200459672). The conductivity sensor is a consumable product and its performance deteriorates over time even under normal operating condition.
  4. If disinfection is needed, wipe the surface of meter body and sensor with a clean cloth wet with ethanol or use alcohol wipes. For the flat sensor, place drops of 5% sodium hypochlorite (NaClO) solution for 5 to 30 minutes then rinse thoroughly with sterile water.

### Storage

Store the clean conductivity sensor in dry condition.

