

## OUR PROCEDURE

1. Remove the sensor from its mounting.



## THEIR PROCEDURE

MODEL 430 DO

SECTION 3.0  
MAINTENANCE

### SECTION 3.0 MAINTENANCE

**3.1 GENERAL.** Sensor maintenance consists of keeping the sensor clean, recharging the sensor and replacing the membrane. The sensor should be cleaned with clean water and a soft cloth. Make sure the membrane area is kept clean and free of any accumulation of dirt, algae, fungus, hair, etc.

**3.2 RECHARGING THE SENSOR.** A recharge kit (Rosemount analytical P/N 2002473) is required to service the sensor.

Recharge the sensor as follows (see Figure 5-2):

1. Remove the sensor from its mounting. Loosen the vent screw approximately 1/4 turn.
2. Unscrew and remove the reservoir retainer from the base. Use a strap wrench if the retainer is too tight to remove by hand.
3. Pull the reservoir housing assembly from the base WITHOUT rotating it. Hold sensor in a base-up position to keep electrolyte from spilling out. If the reservoir housing assembly is locked onto the base, use a screwdriver at the parting lines to dislodge the base from the reservoir housing assembly. Do not damage the mating surfaces with the screwdriver while separating the base from the reservoir housing assembly.

#### CAUTION

The electrolyte (KCl) is a corrosive liquid which could damage some materials and may irritate the skin or eyes. If the electrolyte comes in contact with the skin or eyes, wash immediately with clean water.

5. Discard the O-ring, electrolyte, and reservoir housing assembly.
6. Prepare the electrolyte solution as follows:
  - a. Pour electrolyte crystals into a beaker containing 100 milliliters of distilled or demineralizer water. Stir until crystals are dissolved.
  - b. If it is desired to forego the stabilization period of two hours, a dilution of the electrolyte may be done by adding NaOH or KOH to adjust the pH of the solution to 12 or greater.
  - c. The unused electrolyte solution can be saved for future use. The pH should be rechecked prior to use if the solution has been stored.

7. Fill the new reservoir housing assembly with electrolyte to the hole in the inner wall of the reservoir (approximately 3/4 full). Tap the reservoir lightly to remove any air bubbles.

8. Rinse all parts of the base in distilled or deionized water. To remove silver chloride from the silver anode, use a fine grit sandpaper or a pencil eraser and rub lightly until the coating is removed. Rinse the silver anode in distilled water until all traces of grit are removed.

9. Lightly lubricate the O-rings with O-ring lube and install the O-ring in the groove of the base.

10. Hold the reservoir housing assembly in an upright position and carefully slide the base into the reservoir housing assembly, making sure the tip of the post enters the membrane retainer. Some electrolyte should seep out through the vent screw while the reservoir housing assembly is being pushed onto the base. Do not grip the pressure compensator while pushing the reservoir housing assembly onto the base.

#### CAUTION

In the following step, do not push the reservoir housing assembly onto the base too fast. The orifices in the base vent screw are very small and a quick surge of pressure could damage the membrane. A stream of electrolyte solution could be forced through the vent screw while the reservoir housing assembly is being installed.

11. Push the reservoir housing assembly onto the base until the threads of the base and the reservoir retainer can be engaged. After the threads are engaged, turn the reservoir retainer until it is finger-tight. Caution, over finger-tight may damage membrane or base post.

#### NOTE

Do not touch or apply pressure to the membrane.

12. Tighten the vent screw. Rinse the sensor with clean water and dry with a lint-free cloth or towel.

13. The sensor is now ready for use.

9

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