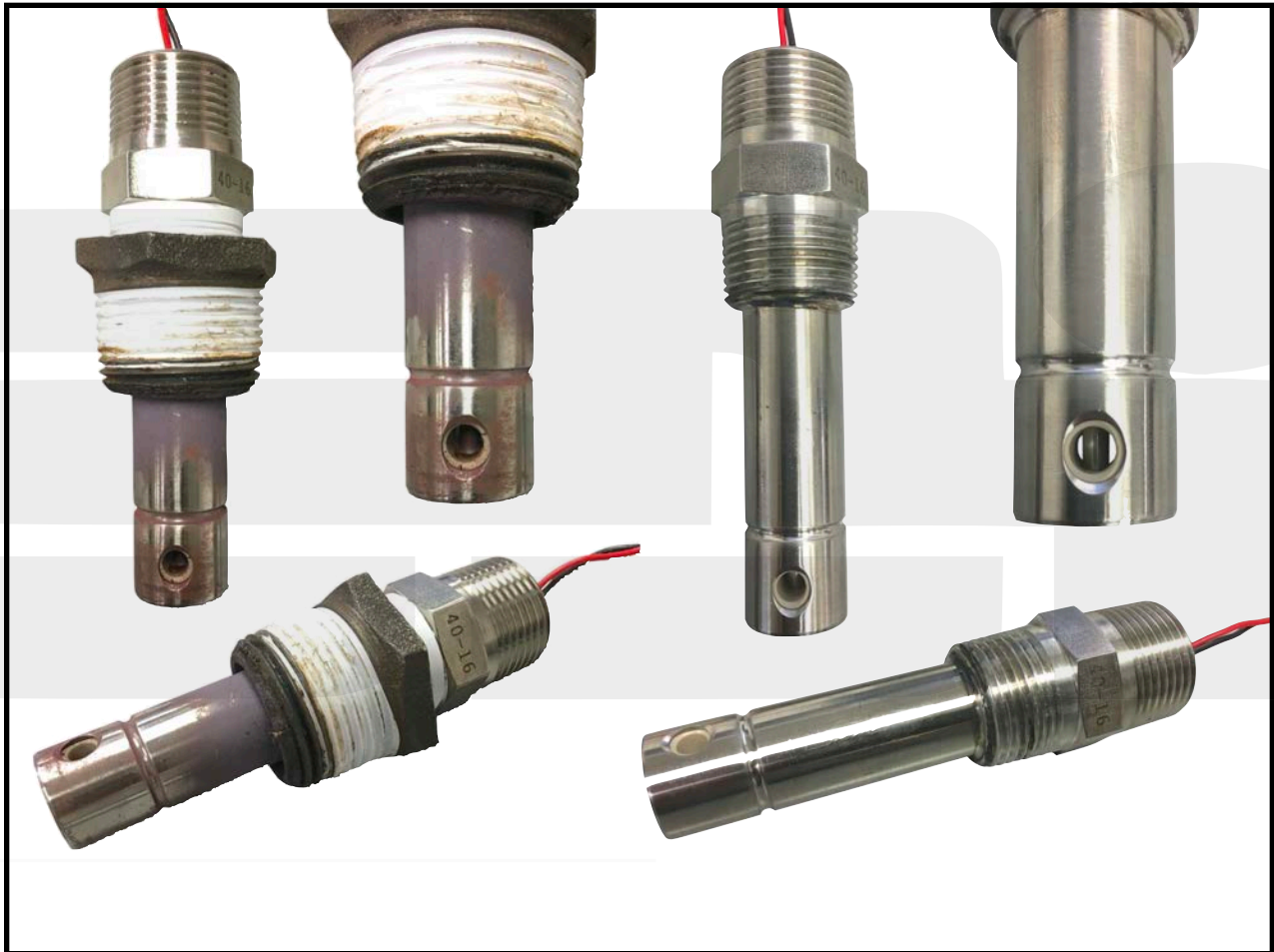


CLEANING CONTAMINATED ELECTRODES



SENSOR DEVELOPMENT, INC.
SANTA ANA, CALIF

TITLE			
ROUTINE CLEANING PROCEDURE			
SIZE	PROJECT / SO#	DRAWING NO.	REV
A	CLEANING	2003121	A
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While in service sensors can become contaminated, or coated with a foreign substance. When this happens it negatively impacts the accuracy and repeatability of the conductivity readings. Implementing a routine cleaning procedure will remove any contaminants and significantly extend the service life of the sensor. At the same time it will help to ensure the accuracy of and repeatability of the readings. The cleaning procedure explained in this document was used to clean all sensors shown below and on the cover. The results speak for themselves.

The sensor passed visual inspection. With no signs of corrosion or damage to the electrodes. The outer and inner electrodes were contaminated with a foreign substance. After it passed visual inspection the sensor was wet tested "as is" to see where the readings were coming in at. The sensors conductivity readings were off almost 20% from the nominal cell constant value. The lower than expected readings indicate contaminated, aka "dirty" electrodes.



Following the wet test the sensor was put through a cleaning procedure that consisted of a 30 minute soak in distilled white vinegar. The body and inner electrode were wiped down with a paper towel, pipe cleaner and q-tip.




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Next, the sensor was soaked in a solution of hot water and a small amount of detergent (Alconox). After the hot soak, the body and inner electrode were wiped down again with a paper towel, pipe cleaner and q-tip.



Once the cleaning procedure was completed the sensor was rinsed with fresh distilled water and wet tested again to see if the readings improved. This time the sensor tested as expected and came back with almost perfect results. Testing within 1% of the nominal cell constant value. Implementing a routine cleaning procedure following these steps could extend the service life significantly.



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