

**Guildline autosal 8400B cell cleaning solution  
Originated by John Ahern (WHOI) on April 2, 2012**

**Originated by John Ahern (WHOI) on March 30, 2012**

Hello All,

I have a guildline autosal 8400B that I'm prepping for a cruise. I spoke with some people who use them often and got some information re maintenance. One thing that seems pretty critical is eliminating sticky bubbles from the walls of the glass cell and from the conductivity measurement coils and using some diluted triton x works for cleaning and as leaving a residual whetting agent which allows the subsequent samples to wick along the surfaces better eliminating bubbles. But if the cells or coils are dirty then the whetting agent won't work as well and I'm still getting bubbles. And I'm thinking this is because the walls and coils are dirty. I was told about a solution made specifically for cleaning the coils that will remove any scale or corrosion that occurs over time. Does anyone know what this is or have any more tricks/information for me regarding care and maintenance and optimal operation of the autosal.

Also, I have a TTL BCD box for electronic output to a computer but there's only one page on it in the manual which isn't enough for me to figure it out. Does anyone want to give me some advice on how to use this.

Thanks  
John

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**Reply from James Ahern (WHOI) on April 2, 2012**

In case anyone was wondering this is what I got back from a tech from guildline in regards to eliminating bubbles in the cell:

'Sometimes to get rid of some bubbles in the cell is to follow a cleaning procedure, running a half bottle of CLR cleaner and leaving it in the cell for approx. 15 minutes. Then run a half bottle of Isopropanol leaving in the cell the same amount of time. Then running a half bottle of Distilled water also leaving it in the cell. Most of the time this will get rid of minor bubble formation. If there is a lot of bubbles forming around the electrodes then usually something in the electronics is failing most likely the Conductivity board. Hope this helps.

Fred Frizell, Technologists Guildline Instruments.'

CLR: <http://www.jelmar.com/CLRbasic.htm>

some other good advice was clearing the air vent at the top of each segment of the measurement cell. Its narrow so some 22 guage wire or similar may work.

Also, I've heard of some discussion regarding the pooling of autosals and portasals because they are used infrequently for several ships and are very expensive to maintain and to have serviced at the factory = >3k. Also given that Autosals are much more touchy than the portasal, if a scientist does not require the better accuracy of the autosal (0.002 as opposed to 0.004) swapping is a nice option as well.

John

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### **Reply from George Tupper (WHOI) on April 3, 2012**

Hi folks,

I'll throw in my two cents worth here, as i've not seen this discussed as yet. We keep our cells full of distilled water all the time, other than when shipping them to or through a freezing environment.

George

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### **Reply from John Ahern(WHOI) on April 3, 2012**

Some info on autosal alternatives from Tonya on the Ka Imimoana:

Also, one might consider the newest technology in salinometry  
<http://www.rbr-global.com/products/salinometer>

..it utilizes an oil bath instead of a water bath and is WAY more portable (11 lbs and only as big as a portable sewing machine)...and is less touchy with regard to ambient room temps....

It is only a little bit cheaper than an autosal to purchase, but it pays for itself by not needing the annual calibrations and servicing etc after the fact...It has a travel kit that comes with it....and the mandatory two day vender training is part of the purchase price. It was developed by a former employee of Guildline.

The larger labs have already started taking delivery on them....

-Tonya

