BULLETIN #B037

CHEMICAL pumping QUANTITY TEST
In ATL-1, 2, 2 plus, AND 3 processors

The purpose of this bulletin is twofold.

You will be able to verify your AutoLab is pumping the proper volume of liquid and if necessary, be able to make the necessary changes to the volume.

You will need:

1 x Standard blade screwdriver

1 x Small needle-nose pliers

1 x *JOBO Part # 70238* Seal Tape *(Call 800-664-0344 to order)*

Procedure:

1. Completely fill the chemical bottles with rinse water.
2. Measure the temperature of the water currently in the bottles and ENTER this temperature value into the TEMP step in the program.

IMPORTANT! It is critical that the temperature of the water inside the bottles matches the temperature programmed into the processor.

3. Please enter the follow **"wet test program"** into your ATL:

Program Step	Time
LITER	1.00 See NOTE below
TEMP	Match this value to the temperature of the water inside the bottles.
PREWARM	0:00
PREL.RINSE	0:30
CHEMISTRY 1	**0:10**
RINSE 1	0:00

CHEMISTRY 2	**0:10**
RINSE 2	0:00
CHEMISTRY 3	**0:10**
RINSE 3	0:00
CHEMISTRY 4	**0:10**
RINSE 4	0:00
CHEMISTRY 5	**0:10**
RINSE 5	0:00
CHEMISTRY 6	**0:10**
RINSE 6	0:00

NOTE: Enter a "FULL" available chemical quantity amount into the LITER step of the program. For example, enter 1.00 L, or 1.80 L depending upon the ATL model.

4. Set the processor to pump 730 ml by setting the **ml** knob on the front display/keypad panel, then press RESET.
5. Place an empty processing tank onto the lift arm of the processor. The tank should be large enough to contain at least 2.5 L of liquid.
6. Set the SET/RUN knob to RUN.
7. START the program.

OPERATIONAL POINT 1: After starting the program, allow the processor to "auto-start" by allowing the chemical and water bath temperature to equalize.

OPERATIONAL POINT 2: After the "wet test program" has started, individually collect or reclaim all of the chemical and rinse water.

8. Using a 1L graduate, measure the collected quantities.

OPERATIONAL POINT 1: If the collected *chemical* amount is **between** -5% to +10% of the volume requested (694 ml to 803 ml for pumping 730 ml), then the pumping quantities are within the acceptable pumping tolerance.

OPERATIONAL POINT 2: If the collected *chemical* amount is **lower or higher** than -5% to +10% of the volume requested, then an adjustment must be made on the Pumping Quantity Diode circuit board.

OPERATIONAL POINT 3: If your collected *rinse* amount is **greater than** 1 L or 1000 ml, then the rinse water quantity is sufficient.

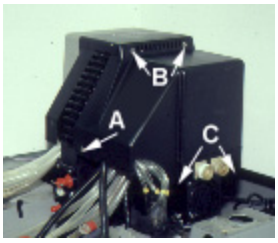
9. If your processor <u>does not</u> pass the Chemical Pumping Quantity Test and you need to make and adjustment to the Pumping Quantity Diode circuit board, please continue with the following steps.

If you own an ATL-3, please continue with Step 10 *(if you own an ATL-1, 2, or 2 PLUS, please skip Step 10 and proceed to Step 11).*

10. Remove the large gray cover (shroud) by removing the six (6) screws located around the perimeter of the cover. Three (3) are located along the front, two (2) in the rear near the plumbing, and one (1) located on the right side near the lift arm. Lift the cover off, being careful not to drag any hoses or wiring.

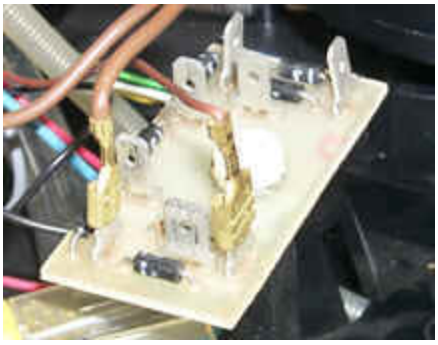
11.Remove the rear cover of the upper mechanical head located directly behind the electronics display panel. To free the cover, five (5) screws must be removed.

A. Locate and remove the standard screw on the right side of the upper head assembly located just behind the lift arm.
B. Locate and remove the two (2) standard screws from the top of the upper head assembly. These screws are inserted from the rear of the processor in the top center of the upper head assembly.
C. Locate and remove the two (2) wing-nut bolts from the rear of the processor.
D. Lift off the rear cover to the upper head assembly.



12. Looking into the upper mechanical assembly from the rear of the processor, locate the Diode PC Board.

Connected to the Diode PC Board, please find two brown-colored wires. One of the brown wires is narrower in diameter than the other wire.



13. If the pumping quantities are *too low*, then move the larger diameter brown wire closer to the narrow brown wire. If the pumping quantities are *too high*, then move the larger diameter brown wire further away from the narrow brown wire.

OPERATIONAL POINT:

When testing the pumping quantities at 730 ml, every wire position point is equal to ±30 ml change depending upon the direction you move the larger diameter brown wire.

14. Test the pumping quantities again to confirm the changes made in the previous step.