Benchtop XRF Care and Maintenance Troubleshooting & Repair



Never leave filled sample cups in instrument any length of time after analysis is complete. Many have a tendency to leak

Immediately wipe surfaces that become soiled, including keypads, turrets, housing.



If any liquid gets spilled into the instrument

- CAREFULLY remove the cover and dab the area with paper towel to soak up all visible liquid.
- Dab with clean paper towel wetted with water to dilute and absorb any remaining chemical
- Repeat until no discoloration is observed, then dab with dry paper towel,
- Then let air dry prior to replacing the cover.



Run standardization on the machine at the specified frequencies recommended by the instrument vendor or your chemical company representative.

This procedure corrects for any detector drift or xray tube aging effects (this is not the same as a recalibration).

Change the Mylar on the aperture protection cup whenever it becomes soiled or on a regular scheduled routine basis.



Oxford Lab-X Unit

- Aperture Protection Cup
 - Remove plastic cup
 - Separate the two halves, using the Oxford tools provided.
 - Rejoin the two halves with the mylar in between, making sure there are no wrinkles.
 - Re-insert the cup in the machine





Asoma Unit

- The sample aperture window is covered with a sheet of Mylar film.
- This film must be kept clean.
- If it gets punctured or too dirty to clean, it must be replaced.
- Dirty or stained mylar will affect the readings.
- To replace, remove the five screws and then remove aperture ring.
- Replace Mylar film, avoiding any wrinkles and then reinstall the aperture ring, remembering to tighten the five screws opposite each other, to have a wrinkle free window.







OXFORD XRF INSTRUMENTATION TROUBLESHOOTING

- If the x-ray light does not come on.
- Remove the x-ray cover and check the light bulbs
- There are two light bulbs. If both light bulbs are burned out, the unit will not work. These lights are relays for the x-ray detector.
- If the bulbs are burnt then the turret will not work, the printer will not print and the unit will not start.
- Switch off and unplug the unit. Remove the cover by removing the four Allen screws





Oxford XRF Instrumentation TROUBLESHOOTING (cont.)

- Gently lift off the cover
- Remove the ribbon cables.
- Lift back the cover
- Check the fuses. There are three (3) fuses, one ceramic and two glass.
- They are located in the back right hand side of the unit by the coil. If the cover has to be removed, disconnect the cable with the white connector from the board.
 - This connector is 2-prong but the board has three prongs so make sure you note which two prongs the connector is connected to.





Oxford XRF Instrumentation TROUBLESHOOTING CONT'D

– To replace the cover:

- Reconnect the blue cable. Line up all the pins with the connector and the push connector straight down.
- Reconnect the gray cable. Line up pins and push straight down on connectors. The clips will lock in the connector.





Oxford XRF Instrumentation TROUBLESHOOTING CONT'D

- If the unit will not work place a book or note pad under the key relay.
- The relay can come loose. The pressure of the pad can make contact and unit will operate.
- DO NOT REMOVE BOTTOM PLATE OR YOU WILL BE EXPOSED TO THE DETECTOR





Asoma XRF Instrumentation TROUBLESHOOTING

- If the Asoma unit does not come on.
 - Check the on\off switch located on power supply
 - The power supply should be plugged into a surge protector.
 - Verify that the red light next to the turret is on.
 - If the light bulb is burnt the Asoma cannot produce x-rays.





Asoma XRF Instrumentation TROUBLESHOOTING (cont.)



Wood Preservation Canada

- The Asoma unit has a master EPROM memory chip and a working EPROM chip.
- If you lose programming due to power failure or surge.
- The master EPROM has the calibration on it and should be used only to capture the parameters onto a working EPROM chip.

Asoma XRF Instrumentation TROUBLESHOOTING

Do not remove power from unit while changing out the EPROM chip or you will lose all programming.

- The EPROM chip is located on the left hand side of the unit near the back.
- Remove four small screws that secure panel.
- The working EPROM is at the back.
- Make sure to ground yourself by touching unit or metal counter before touching the chip.
- Lift the locking lever on the ZIF block and remove chip



Locking lever



Asoma XRF Instrumentation TROUBLESHOOTING (cont.)



- Then replace the EPROM chip with the notched end pointing up.
- Hold the chip down while pushing the locking lever on the ZIF block to secure the chip.
- Close side panel
- Do not remove power from unit while doing this procedure
- To save the calibration modes to a new working EPROM chip the "capture procedure" must be done.



Asoma XRF Instrumentation

Maintenance



- If the Asoma unit is to be moved or shipped.
- The turret should be locked in the closed position.
- The lock is located at the back of the turret housing.
- You would gently push in lock and close turret by hand until the lock slips into the hole, then you would screw the lock into place.

