

Freeze Dryer Instructions

To start the freeze dryer

- 1) Check pump oil, if dirty or low, replace following directions below



- 2) Drain water if unit is not cold and water is present in the condenser basin

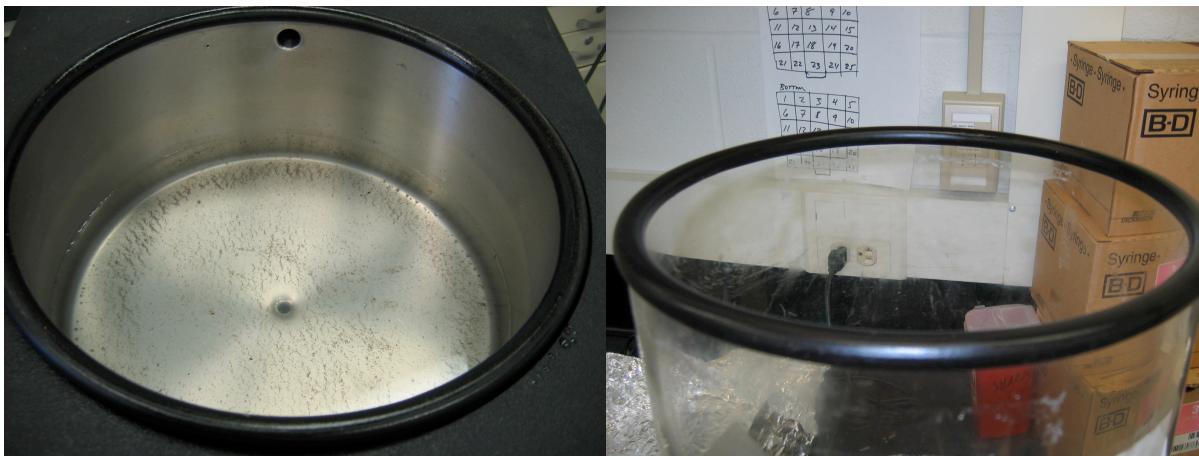


After using the freeze drier, you may speed up the melting process of ice in the condenser basin by pouring in a bucket or two worth of hot tap water. **DO NOT USE THE HEAT GUN TO MELT ICE IN THE CONDENSER**

- 3) Turn on the condenser by pressing the "Condenser" button. This is the only button that does anything on the control panel.

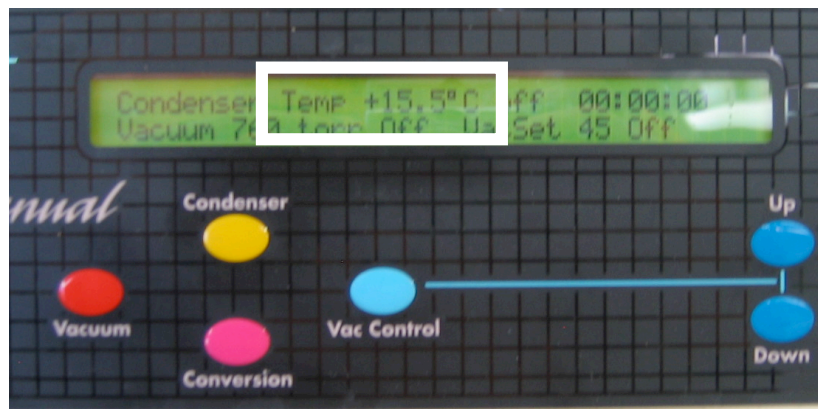


- 4) Plug in, and turn on heating trays (these are broken as of 5/15/09, so unless they have been fixed, do not do this step)
- 5) Check rubber seals on Plexiglas cover. If they are dry, apply a SMALL amount of Dow Corning lubricant to the seals



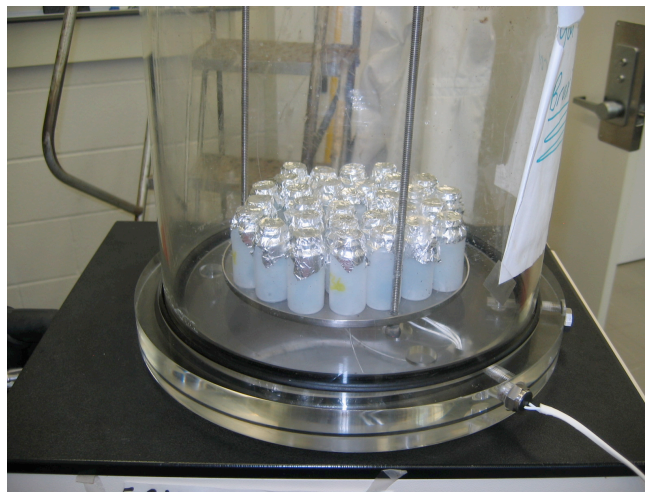


6) Make sure that condenser is at -40°C before you load your samples

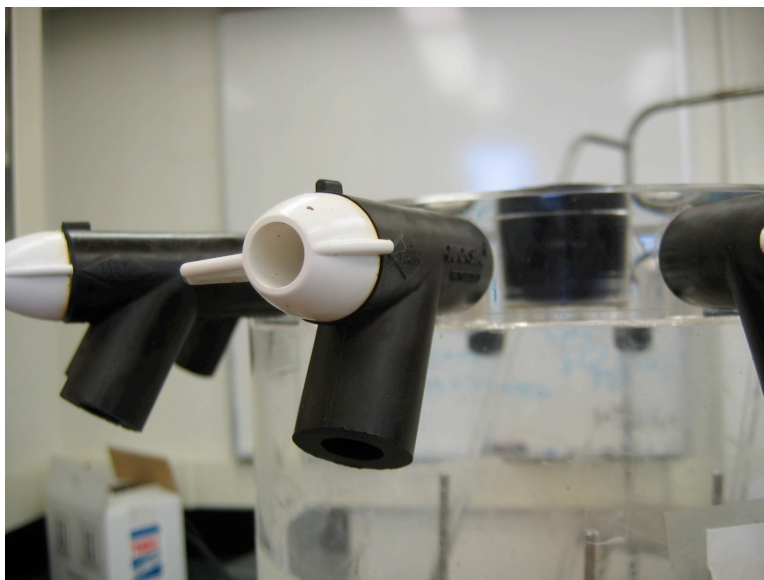


7) Load your pre-frozen samples onto the trays

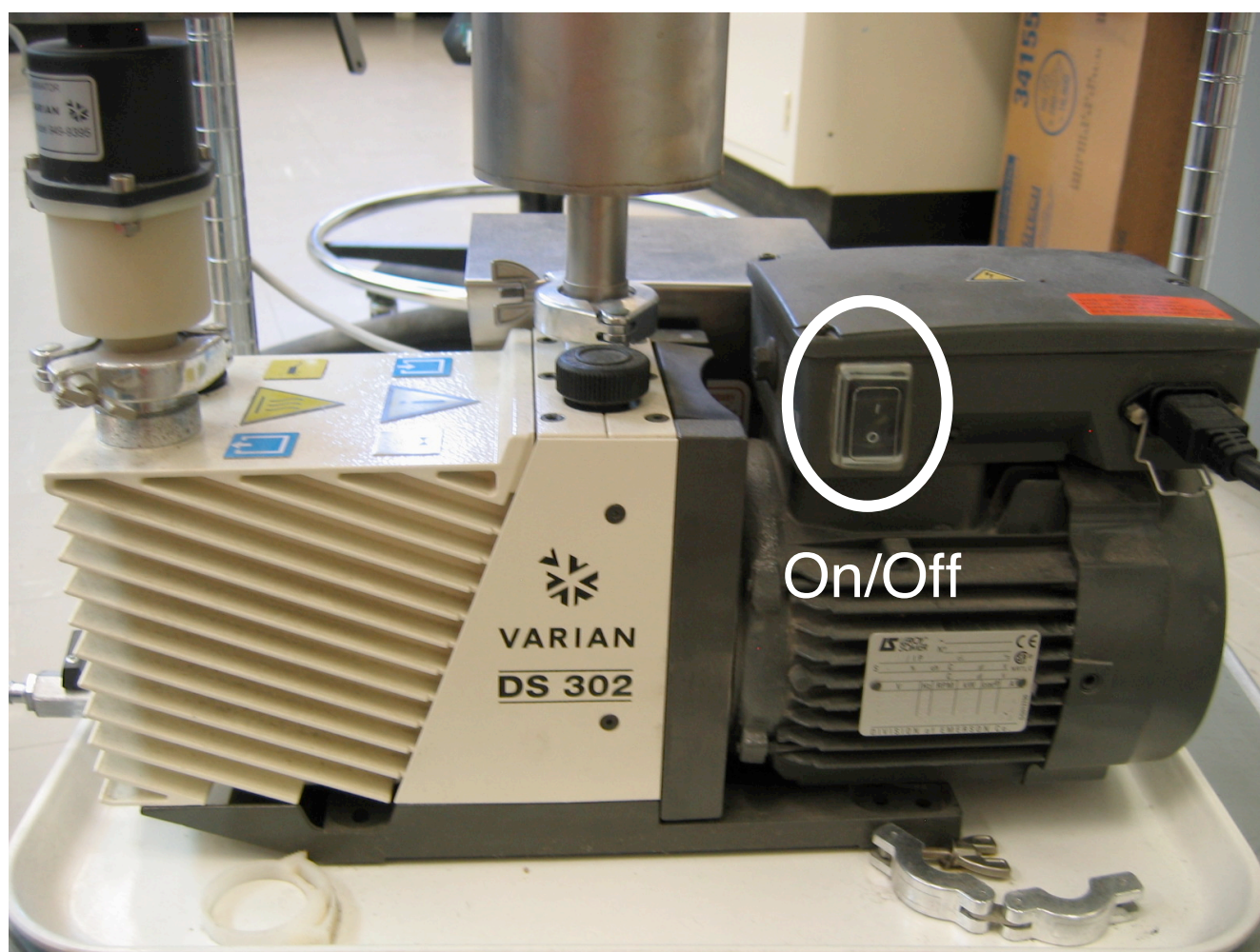
8) Replace the Plexiglas cover



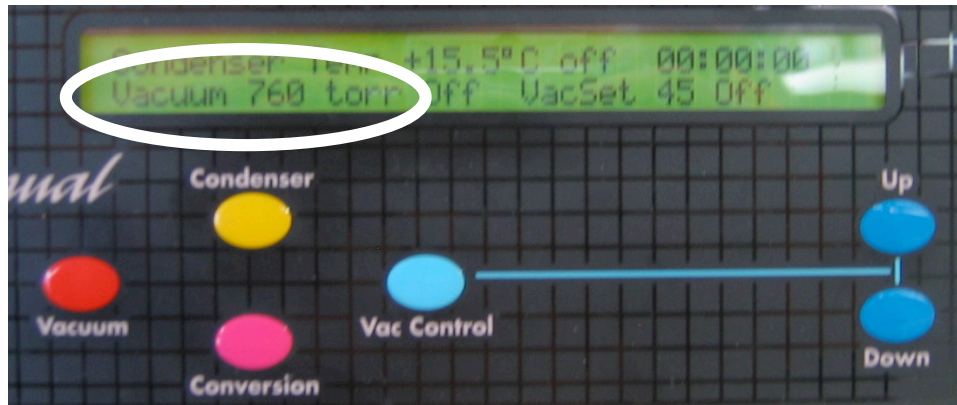
9) Make sure that all vents are closed



10) Turn on vacuum (MAKE SURE THAT THE CONDENSER IS AT -40°C OR LOWER BEFORE YOU TURN ON THE VACUUM)



11) Stay and watch to make sure that the vacuum pressure drops to at least 100 mtorr



- 12) If the vacuum is not dropping to an appropriate level, there may be a leak. STOP and find someone who knows how to trouble shoot the freeze dryer

To stop the freeze dryer

- 1) Turn off the vacuum
- 2) Turn off the condenser
- 3) Break the seal SLOWLY by edging open one of the seals
- 4) Once the pressure reaches 760 torr, remove the Plexiglas cover
- 5) Place Plexiglas cover upside down on work bench and cover with aluminum foil