

Freeze Dryer Quick Guide

1. Make sure the collector chamber is dry
2. Make sure drain plug is securely installed
3. Check that all valves are in the **“VENT/CLOSED”** position, which is beveled edge **UP** (see picture). If the beveled knob needs to be turned, be sure to hold the black part of the valve before turning the knob, as the knob is tough to turn
4. Turn on the black main power switch on the right side of unit, to start the refrigeration system
5. When the collector temperature reaches **-40C**, turn on the green vacuum switch on the front of the unit
6. Once the vacuum reaches **0.133 mBar** or lower, you are ready to connect your sample flask.
Note **Your sample should already be prepared (pre-frozen or not) and inside the flask. The sample flask should always be at least 2-3 times the sample size. Be sure to cover open test tubes or vials with a Kimwipe/elastic or tape, or a loose cap, so that you avoid potential cross contamination during the drying process.
7. Wear the black rubber gloves (for safety) to attach the rubber cover (with glass adaptor) to the flask, and then carefully connect the glass adaptor to the port, while holding the black part of the valve for support
8. Hold the black portion of the valve while turning the beveled edge **DOWN** to the **“VACUUM/OPEN”** position (see picture)
9. If adding another flask, wait until the vacuum returns to **0.133 mBar or lower**. Once at proper vacuum, repeat steps 6-8 for each port addition. Leave samples to dry. Drying time will vary based on sample size, type of solvent, etc.
10. When drying is complete, remove the flasks one by one. Hold the black part of the valve and slowly turn the beveled knob to the **“VENT/CLOSED”** position, and carefully remove the flask while still holding the black part of the valve for support.
11. After all sample flasks have been removed, hold the black part of the valve and turn one of the beveled knobs to the **“VACUUM/OPEN”** position to release the system vacuum. Once vacuum has been released, turn the knob back to the **“VENT/CLOSED”** position.
12. Turn off the green vacuum switch on the front of the unit
13. Turn off the black main power switch on the right side of the unit
14. If the collector chamber has some frost on the coils, wait for it to melt, and wipe the inside of the chamber and coils with a soft white cloth.
If collector chamber has ice build-up, you will need to defrost it at room temp. **NEVER ATTEMPT TO BREAK ICE OFF THE COILS!!** Pull the plug off the end of the black drain hose and let the hose hang into the bucket labeled **“Freeze Dryer Drain Water”**. Once the chamber has been completely defrosted, wipe the inside of the chamber with a soft white cloth. Be sure to put the drain plug back onto the end of the hose when done draining.
15. Leave the collector chamber open to the air after use by removing the 12-port drying chamber and setting on the counter.