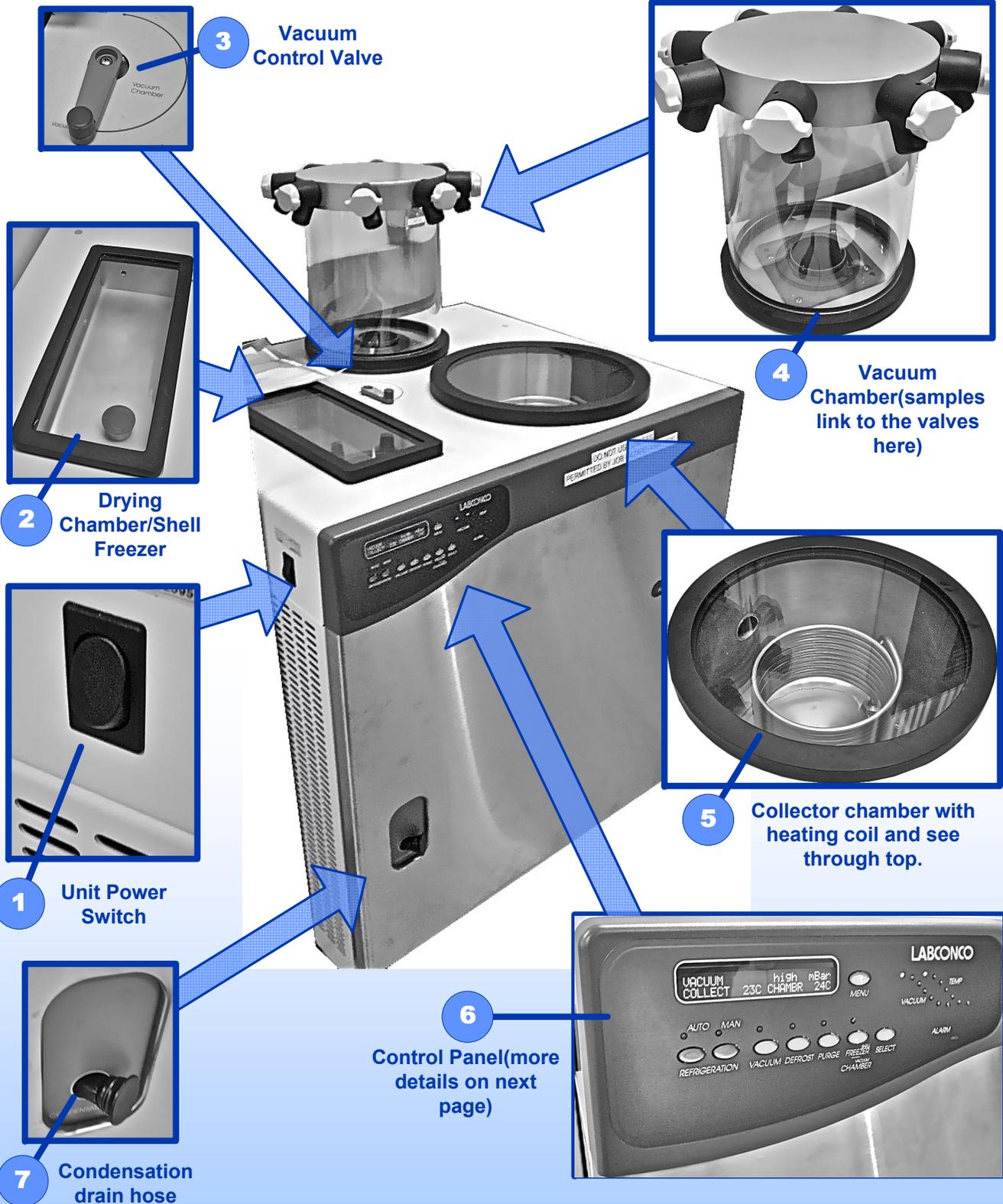
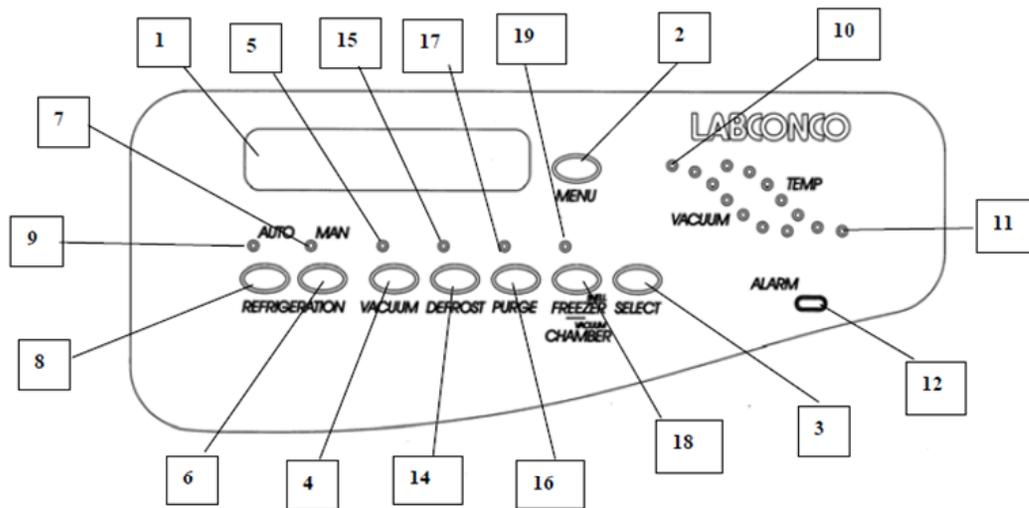


Labconco Freezezone 6 Liter Freeze Dryer with Purge Valve and Mini Chamber Model : 7753026



CONTROL PANEL



1 LCD Display

2 Menu Switch

3 Select Switch

4 Vacuum Switch

5 Vacuum Indicator

6 Manual Refrigeration Switch

7 Manual Operation Indicator

8 Auto Mode Switch

9 Auto Mode Indicator

10 Vacuum Graph Display

11 Collector Temperature Graph Display

12 Alarm Indicator

13 Main Power Switch(see first page)

14 Defrost Switch

15 Defrost Indicator

16 Purge Valve Switch

17 Purge Valve Indicator

18 Shell Freezer/Vacuum Chamber Switch

19 Shell Freezer/Vacuum Chamber Indicator

SETUP

CONFIGURATION

- 1** Turn Power Switch on.
- 2** Press MENU. The LCD will display Vacuum Units.
- 3** Press the SELECT button until the units desired are flashing.
- 4** Press MENU. The LCD will display Vacuum operating level.
- 5** Press the SELECT button until the units desired are flashing.
- 6** Continue using SELECT and MENU to adjust Temperature units, Drying Chamber setpoint, service hours, and RS-232 data rate(if connected to a computer).
- 7** After setting, press SELECT and allow for a short delay. Display will automatically switch to show operating parameters.
- 8** Proceed to Auto Start (recommended) or Manual Start.

DEFROSTING

- 1** Pull out drain hose and remove plug.
- 2** Place hose in appropriate container. Press DEFROST. When ice block is loose, remove from chamber.
- 3** Flush chamber with water and wipe dry.

AUTO START

- 1** Press REFRIGERATION AUTO. Green LED above will illuminate.
- 2** Green LEDs above vacuum and purge switches will illuminate.
- 3** Refrigeration system and vacuum pump will start. Purge valve will close.
- 4** When collector reaches -40deg. Celsius, the purge valve will open.
- 5** When vacuum is at 5 mBar, it will display "Hi". When between .45 and .133 mBar, the lower green vacuum graph display light will flash. When less, it will light steadily. Samples can be added when lit steadily.

MANUAL START

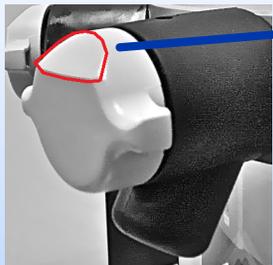
- 1** Press REFRIGERATION MANUAL. Green LED above will illuminate.
- 2** Close purge valve and press VACUUM switch.
- 3** When collector temperature reaches -40 deg. Celsius or colder, close PURGE valve.
- 4** Add samples as with AUTO.

For additional help contact the Lab Space Manager

SAMPLES

A FEW NOTES ABOUT SAMPLES BEFORE PLACING THEM IN THE UNIT

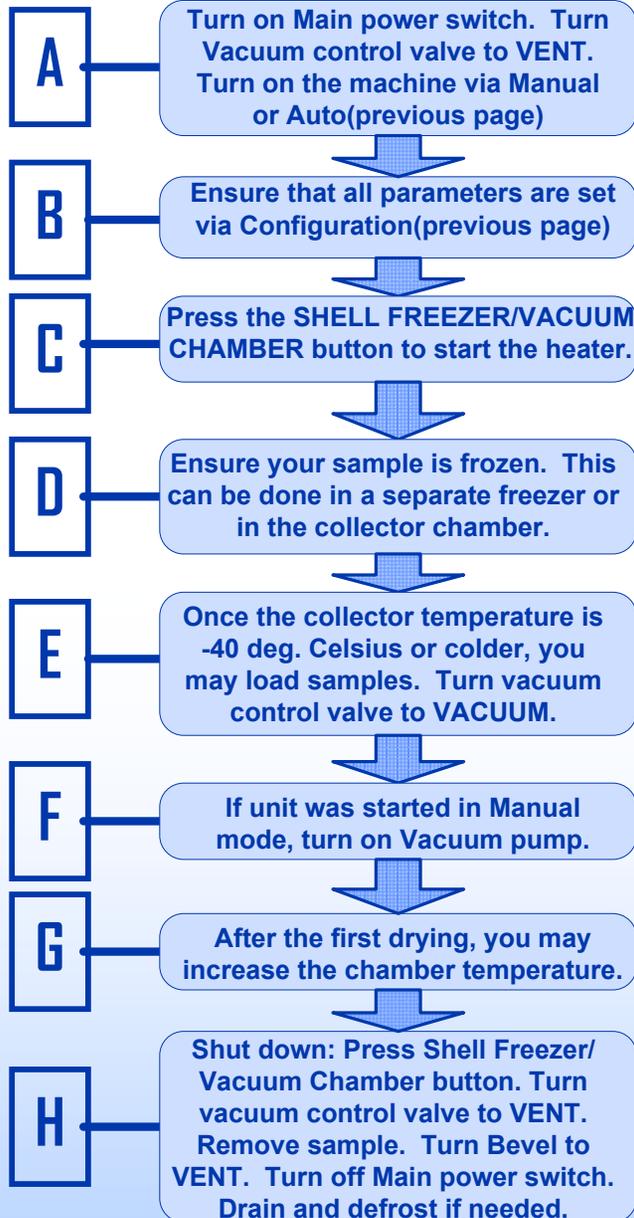
- The larger the surface area of the sample, the faster the drying rate.
- The thicker the sample, the slower the drying rate.
- If sample is larger than a few mL, it should be shell frozen first(see User's manual).
- Vacuum should be at 0.133 mBar or less when sample is placed(lower vacuum graph light will be lit steadily).
- The collector's temperature should be 15-20 deg. Celsius colder than the sample's melting temp.
- If sample tends to melt, diluting with water may help.



4

When the BEVEL on the vacuum port is facing away from the opening for the sample, it is on VENT. When it is facing the sample connection, it is on VACUUM.

OPERATION



HAZARDS



ELECTRICAL HAZARD

This equipment contains liquid near electrical connections.



HEAT HAZARD

This equipment heats up and may cause burns.



COLD HAZARD

This equipment contains freezer units which may cause cold related injuries.



VACUUM HAZARD

This unit operates at a negative pressure and can create a vacuum hazard if improperly used.



SLIP HAZARD

Liquids from the unit may fall on the floor, causing slippery conditions.

PREVENTION



EYE PROTECTION

Wear safety glasses while operating.



PROTECTIVE GLOVES

Wear appropriate gloves for heat and chemical usage.



NON-SLIP, CLOSED SHOES

Wear non-slip, closed shoes to avoid spills.



READ MANUAL

Become familiar with this guide before operating.

For additional help contact the Lab Space Manager