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Access to the full user's manual can be found at labconco.com/extraction or through your Extraction Freeze Dryer supplier.

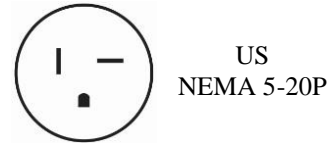
Extraction Freeze Dryer Installation Guide

Note: This Quick Installation Guide may not provide all the information necessary for your particular installation. Refer to the User's Manual for additional details and precautions.

Preparations

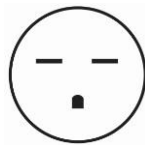
Proper Electrical Supply

- 115V models
 - (2) 20 Amp dedicated single phase circuit.
 - Receptacles must be properly grounded.

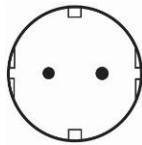


US
NEMA 5-20P

- 230V models
 - (2) 15 Amp dedicated single phase circuit.
 - Properly grounded receptacles that matches the plug supplied with the unit (230V models are supplied with one of the following plugs):



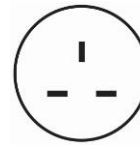
US
(NEMA 6-15P)



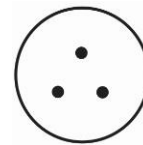
EU



China



UK



India

- If the plug does not match the available receptacle, remove the plug and replace it with a plug of the suitable style rated for 240V 15 A.

- **CAUTION**



- Additional appliances on the same circuit may cause the current to exceed the rating of the circuit breaker or fuse.
- Frequency must agree with the serial tag rating. Improper frequency will damage the compressor.

Location Requirements

- A minimum of 3” must be allowed between the back and sides of the freeze dryer and adjacent walls.

Vacuum Pump Requirements

- 144 liters per minute minimum displacement
 - .007 mbar ultimate vacuum
- Plug Requirements on vacuum pump power cord
 - 115V models – NEMA 5-15P plug
 - 230V models – IEC 320 C14 (“reverse” IEC plug)
- Hose barb connection to fit .75-inch inside diameter hose

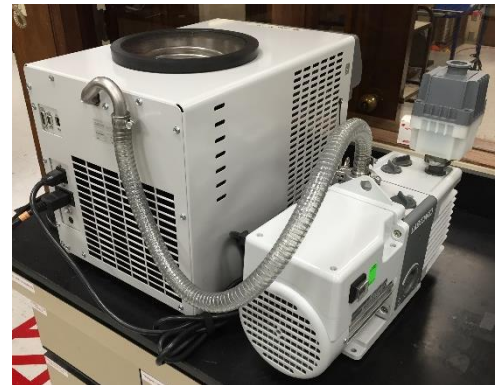
Installation

Vacuum Pump Set Up

Note: Refer to your vacuum pump manufacturer installation guide for proper setup.

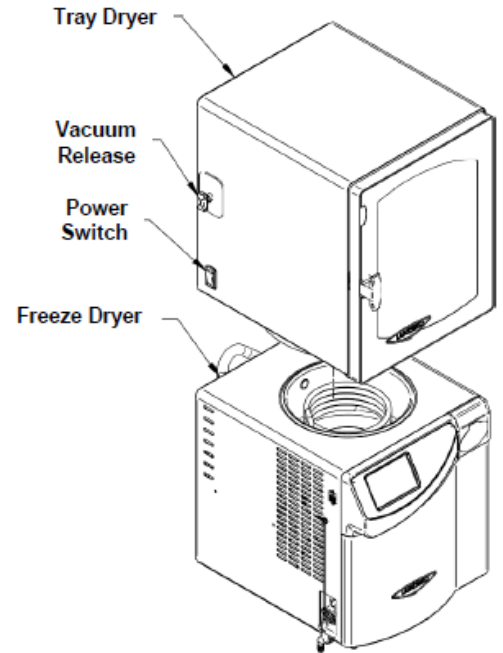
Vacuum Pump Connections

1. Position the vacuum pump near the Freeze Dryer.
2. Attach one end of the vacuum hose to the port on the Freeze Dryer and the other end to the inlet port of the vacuum pump. Clamp both ends securely.
3. Connect the vacuum pump power cord into the receptacle (labeled vacuum pump) on the back of the Freeze Dryer.

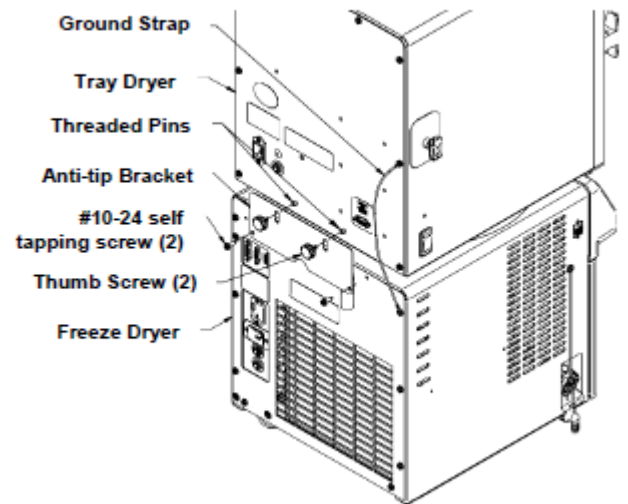


Installing the Tray Dryer

1. Remove shelves. Close and latch the door.
2. With an assistant, lift the tray dryer onto the freeze dryer. Make sure the gasket on the bottom of the tray dryer is resting on the top lip of the freeze dryer chamber.



3. Remove the top two #10-24 self-tapping screws on the freeze dryer as shown in the drawing.
4. Attach the anti-tip bracket to the freeze dryer as shown and replace the two self-tapping screws. The slots in the top of the bracket will line up with the two threaded pins on the back of the tray dryer. Screw the thumb screws into these threaded pins.



5. Remove one of the screws from the back panel of the freeze dryer, insert it through the ring terminal on the other end of the ground strap coming from the tray dryer. Reinstall the screw.
6. Re-insert shelves and connect the sample probes into the receptacles in the front of the shelves. If not already done, remove shipping tape from the shelves.



Communications Cable

The freeze dryer power cord should be unplugged before connecting the communication cable. Connect one end of the communication cable to the port on the back panel of the tray dryer labeled “OUTPUT TO FREEZE DRYER”. Connect the other end of the cable to the port on the freeze dryer labeled “DRYING ACCESSORY”.

Refrigeration & Vacuum Test

1. Connect the power cord supplied with the Freeze Dryer into the receptacle on the back of the Freeze Dryer and insert the other end into a suitable wall receptacle as detailed previously in section *Proper Electrical Supply*.
2. Connect the power cord supplied with the Tray Dryer into the receptacle on the back of the Tray Dryer and insert the other end into a suitable wall receptacle as detailed previously in section *Proper Electrical Supply*.
3. The power switch on the Tray Dryer should be in the on position.
4. Allow the Freeze Dryer’s software to start up (approximately 90 seconds).
5. Make sure the Tray Dryer door is closed and latched, the Vacuum Release Valve on the left side of the Tray Dryer is turned to “Closed”, and the barb fitting is removed from the quick connect drain fitting on the lower, left side of the Freeze Dryer.
6. Press the AUTO button (on Home Screen).
7. The refrigeration system (Collector) and the indicator bar above the collector button will turn ON immediately.
8. When the collector temperature cools to -40°C , the vacuum pump will start automatically and the indicator bar above the vacuum button will turn ON.
9. Collector temperature should reach -50°C within 40 minutes (depending on freeze dryer model and ambient temperature).
10. Vacuum should reach 0.133 mbar or less within 15 minutes from the time that the vacuum pump started (with a clean & dry system).
11. If the Freeze Dryer fails to perform as expected, consult the User’s Manual for troubleshooting information or call Labconco.