

Installation Instructions VV-10BTFN Freezer

Follow the instructions for the correct version of your unit. Installation instructions are included with each glass door freezer. It is important to follow the instructions prior to loading freezer with product:

- 1- Prior to plugging the freezer to a dedicated electrical outlet, read the electrical requirements described in the operations manual for model VV-10BTFN
- 2- Do not install the unit close to a heat source, flammable products, or in direct exposure to sun rays
- 3- Make sure you level the unit correctly. If this is not done correctly, this might cause operational issues not covered under the product warranty
- 4- Once the unit is installed, insure that there is adequate ventilation, around the unit, especially at the back of the unit (4" minimum). This will insure adequate ventilation. If the ventilation is restricted, it might cause the compressor and electrical components to overheat
- 5- Do not block the intake or discharge of air flow cooling the condensing unit
- 6- Adjust the height of the levels to insure that the rollers are suspended and the cabinet is completely level.

Electrical Requirements

There are various factors which could affect the normal operation of the freezer. The electrical installation is the most important and should be reviewed prior to plugging the unit.

- 1- Make sure that you use a dedicated electrical circuit for the freezer. Do not use the same circuit with other units plugged into it. Do not plug more than one unit at a time into the same circuit. Only use the electric cord provided with the unit.
- 2- Insure that the electrical connections meet the local electrical standards and the instructions provided in the manual. This freezer is designed to operate in 115V/60Hz.
- 3- Insure that the proper ground connections are available when unit installed.
- 4- Check that the circuit has the correct voltage in each outlet, +/-10%
- 5- This unit has an average amp consumption of 8.1A under ambient conditions of xxxx F at 55% humidity
- 6- Insure that the wire gauge and fuse box are adequate to meet the voltage changes
- 7- All units are provided with a 6 foot power cord. If the cord is damaged, discard the damage cord and replace it by a UL approved cord with the same specifications as the original one.

Digital Control Functions

- The digital control operates with two temperature probes, one of which is located inside the cabinet and the second probe is positioned between the evaporator fins. The Digital Display indicates the temperature of the cabinet
- The Digital Control operates (3) three relay operations. The first one controls the operation of the evaporator fan motor, the second one serves to operate the defrost cycle through hot gas, and the third one controls the relay G7L which also controls the operation of the condenser
- The digital controller is pre-set to reach a set point temperature of -11°F (-24°C), with a differential of 7°F (4°C), hence the average temperature reached would be -7°F (22°C)
- The digital control manages the defrosting of the evaporator, which operates every 6 hours, with a defrost temperature at the end of each defrost cycle of 90°F (32°F) “as per parameter d2” on the evaporator, and with a duration of 20 minutes. The defrost system, of variable time, allows the length of time for each cycle to be precise for each event. The 6 hours timing starts at the time when the unit is plugged to an electrical outlet, initiating its operation. Upon reaching the 6 hours of operation, the unit will begin the defrost cycle. At the same time, the evaporator fan stops operating, and the solenoid valve is activated, at the same time the temperature reading is locked, showing the same temperature. The temperature shown on the display will not change until the cabinet temperature reaches the same temperature as shown by the display. At this point, the display will show the actual temperature of the cabinet. The reason for not showing the increase temperature caused during the defrost cycle is to eliminate any major concerns by the user.

End of Defrost Cycle: Once the defrost cycle ends. The system goes into a defrost mode for a period of 5 minutes, as indicated by “Parameter d7”, during this period, the condensing unit, the solenoid valve and the evaporator fan motor stop operating. The only element operating is the evaporator cleaning fan. The purpose of the defrost cycle is to reduce the ice built-up from the evaporator.

- The evaporator fan is controlled by the digital controller. The evaporator fan starts when the evaporator reached a temperature of 23°F (-5°C), and it stops when the temperature of the evaporator reached 38°F (3.3°C). This prevents warm air from flowing into the cabinet.

The evaporator fan has a 3 minute delay after the end of the defrost cycle, which is independent to the start of the fan motor 38°C (3.3°F)

Note: 1- The temperature during the end of the defrost cycle and the temperature of the operation of the evaporator fan are tied to the evaporator probe temperature reading
2- The drain heater operates on a continues basis

Version 1 Door

This version covers all units under serial numbers 0714955 to 0725383

This glass door has 3 glass panels. The outer panel is tempered glass and is heated by an electric heater strip. The door frame is aluminum and is also heated. Both heater strips are connected in parallel and operate at 115 Volts.

This door is self-closing by a door spring which can be adjusted. The spring can be replaced if the spring fails. See diagrams below showing the steps to follow:

Step 1:

Hold the $\frac{3}{4}$ " screw with an Allen wrench while loosening the bolt; afterwards rotate the screw clock wise

Step2:

After applying tension, hold the screw while adjusting the bolt

Suggestion:

Verify that the door self closes by itself after opening it halfway. It should close automatically. If the door is not self closing you can provide more tension by further adjusting the torque

Version 2 Door:

This applies to units with the heater **connected to the inside transformer**

This glass door has 3 glass panels. The outer panel is tempered glass and is heated by an electric heater strip. The door frame is aluminum and is also heated. Both heater strips are connected in parallel and operate at 48 Volts.

Note: Do not connect the door heater to a higher voltage to prevent damages to the heater.

The door is self closing and can be adjusted if necessary. See below diagrams describing the steps needed to adjust the door:

Step 1:

Rotate the disk clockwise and remove the pin.

Step 2:

Hold the disk in a fix position while re-installing the pin to a higher position

Suggestion:

Verify that the door self closes on its own after opening it halfway. It should close automatically. If the door is not self closing you can provide more tension by further adjusting the torque

Preventive Maintenance:

Each unit must be properly maintained to insure its performance and its life cycle is maximized.

By following the steps below, the unit(s) will perform more efficiently:

Condenser Maintenance:

Proper maintenance will reduce energy consumption and minimize repairs to the unit. It is important to periodically remove dust and debris from the condenser, a clean condenser will operate at maximum operating efficiency. Cleaning of the condenser is recommended every six months; increase the frequency of cleaning at locations with higher concentrations of dust

ELECTRICAL CONNECTIONS

Electrical connections MUST meet state and local electrical codes. Units must BE PLUGGED INTO a dedicated outlet to insure the units have the minimum required amps to operate. All connections must be grounded according to state and local electrical codes

CLEANING OF THE CABINET:

The inside and outside of the cabinet can be cleaned with a clean cloth by using a mixture of water and dishwasher soap. Do not use abrasive soaps, solvents, or other cleaning chemicals which might cause damages to the finishes

Important Safety Recommendations:

Prior to doing any cleaning or maintenance to the unit, please insure that the unit is completely unplugged from the outlet. Do not use any type of pressure washers to clean the unit. Never try to apply water or cleaning chemicals to the refrigeration system as this will cause damage the electrical components

Load Switch

The load switch is used to eliminate electrical arcing of the electrical cord. Before unplugging the unit, please press the switch to position 0. After plugging the electrical cord to the electric outlet, please press the switch to position 1