



UNDERCOUNTER FREEZER

Installation, Operation and Maintenance Instructions For Edible Arrangements Model: UF182

INSPECTION

When the equipment is received, all items should be carefully checked against the bill of lading to insure all crates and cartons have been received. All units should be inspected for concealed damage by uncrating the units immediately. If any damage is found, it should be reported to the carrier at once, and a claim should be filed with the carrier. This equipment has been inspected and tested in the Nor-Lake Manufacturing Facility and has been crated in accordance with transportation rules and guidelines. Manufacturer is not responsible for freight loss or damage.

INSTALLATION

GENERAL

After the unit crate and base have been removed, locate the legs or casters found in the interior of the cabinet. Attach the legs or casters to the unit base by screwing them into the same threaded fittings that were used to secure the crate base to the cabinet. Insure that they are screwed all the way into the base.

If for some reason the doors are not squared up on the cabinet, the doors can be adjusted. Opening the door(s) and loosening the screws that hold both the top and bottom hinges to the cabinet can accomplish this. After adjusting the door so that it is aligned correctly, tighten the screws to securely hold the hinges in place.

Physical Specifications

<u>Unit Model</u>	<u>Exterior Dimensions Width x Depth x Height*</u>	<u>Refrigerant Type/Amount</u>
UF182	60 X 34 X 36*	See Serial tag

* Note: Height is with 4-1/2" standard casters. Add 4.6" for optional backsplash.

LOCATION

The refrigeration system located at the end of the cabinet requires free air access for proper operation. **Important:** The cabinet may be enclosed on two sides, however, there must be a minimum four inch clearance from the back of the cabinet to a wall, and from the bottom of the cabinet to the floor. **This model cannot be operated without the legs or casters in place, and the bottom of the cabinet cannot be enclosed.** The cabinet should be level when it is placed in its permanent location.

ELECTRICAL

Check the proposed outlet to be used to insure that the voltage, phase, and current carrying capacity of the circuit from the electrical panel correspond to the requirements of the cabinet. **Never** use an extension cord. All inter wiring between the electrical panel and the unit must be done in accordance with the National Electric Code and all state and local codes. See Electrical Data below and the Serial Tag for all pertinent electrical information.

Observe all Warning Labels. Disconnect power supply when servicing equipment to eliminate injury from electrical shock or moving parts.

Electrical Data

<u>Unit Model</u>	<u>Type of Connection</u>	<u>Volt/Hz/Ph</u>
UF182	Cord	115/60/1

OPERATION

The under counter freezer employs a fin and tube type evaporator located inside the cabinet as the heat-removing source. Through the refrigeration process, heat is captured in the evaporator, transferred to the condensing unit located at the end of the cabinet, and expelled to the surrounding outside air. It is extremely important to maintain the minimum four-inch clearance as described in this manual under "Location" for the refrigeration process to function properly. **The cabinet cannot be operated without the legs or casters installed.**

A positive defrost is required to remove frost from the coil in freezer models. This is accomplished by energizing heaters during the defrost cycle that are positioned on the coil surface. The programmable controller is factory set to allow four defrosts per day.

As the preset defrost time is reached, the controller automatically terminates the refrigeration process by turning off the condensing unit and unit cooler fan motors, and energizes the defrost heaters. As the coil temperature increases, the frost begins to melt producing water that runs down the coil to the drain pan. Defrost time will terminate when the coil temperature has become warm enough to ensure that no ice is remaining. The refrigeration process then resumes. In order to insure that any excess water remaining on the coil is not sprayed into the cabinet interior, and all heat generated by the defrost is removed, **the evaporator fan will not operate until the coil temperature reaches approximately 25°.**

MAINTENANCE

PERIODIC CLEANING

Beginning with the initial installation, the interior surfaces of the cabinet should be periodically wiped down with a solution of warm water and baking soda. This solution will remove any odors from spillage that may have occurred. The exterior of the cabinet should also be cleaned frequently with a commercial grade of glass cleaner. **Caution:** Never use an abrasive or alkaline solution to clean these units. Wipe dry after cleaning.

Observe all Warning Labels. Disconnect power supply to eliminate electrical shock and injury from moving parts when servicing equipment.

Important: Monthly cleaning of the condenser coil located at the bottom right side of the cabinet should be done. This cleaning will aid the heat transfer characteristics of the refrigeration system and increase its efficiency. Dust, dirt, and lint will tend to accumulate on the fins of the condensing unit. This obstruction will affect the flow of air through the condenser, thereby lowering the efficiency of the system. A wire brush or a brush with stiff bristles can be used to loosen these particles that are attached to the fins so that they may be removed with a vacuum cleaner. **Failure to keep the condenser coil clean and clear of obstructions could result in temperature loss and damage to the compressor.**

All moving parts have been permanently lubricated and will generally require no maintenance.

SERVICE

Any correspondence pertaining to these cabinets should be directed to the Service Department of Nor-Lake, Incorporated. Be sure to include the **cabinet model number** and **serial number** with any correspondence.

800-388-5253 Parts/Service

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MAINTENANCE SERVICE AND ANALYSIS GUIDE

REFRIGERATION SYSTEM

<u>MALFUNCTION</u>	<u>POSSIBLE CAUSE</u>	<u>SOLUTION</u>
Compressor will not start - no hum	<ol style="list-style-type: none"> 1. Unplugged or power off 2. Fuse blown or removed 3. Overload tripped 4. Control stuck open 5. Wiring incorrect 	<ol style="list-style-type: none"> 1. Plug in service cord or turn on power 2. Replace fuse 3. Determine reasons and correct 4. Repair or replace 5. Check wiring against the diagram
Compressor will not start - hums but trips on overload protector	<ol style="list-style-type: none"> 1. Improperly wired 2. Low voltage to unit 3. Starting capacitor defective 4. Relay failing to close 	<ol style="list-style-type: none"> 1. Check wiring against the diagram 2. Determine reason and correct 3. Determine reason and replace 4. Determine reason, correct or replace
Compressor starts and runs, but short cycles on overload protector	<ol style="list-style-type: none"> 1. Low voltage to unit 2. Overload defective 3. Excessive head pressure 4. Compressor hot -- warm ambient conditions 	<ol style="list-style-type: none"> 1. Determine reason and correct 2. Check current, replace overload protector 3. Check ventilation or restriction in refrigeration system 4. Check refrigerant charge, fix leak if necessary
Compressor operates long or continuously	<ol style="list-style-type: none"> 1. Short of refrigerant 2. Control contact stuck 3. Evaporator coil iced 4. Restriction in refrigeration system 5. Dirty condenser 	<ol style="list-style-type: none"> 1. Fix leak, add charge 2. Repair or replace 3. Determine cause, defrost manually 4. Determine location and remove restriction 5. Clean condenser
Compressor runs fine, but short cycles	<ol style="list-style-type: none"> 1. Overload protector 2. Cold control 3. Overcharge 4. Air in system 5. Undercharge 	<ol style="list-style-type: none"> 1. Check wiring diagram 2. Differential too close - widen 3. Reduce charge 4. Purge and recharge 5. Fix leak, add refrigerant
Starting capacitor open, shorted or blown	<ol style="list-style-type: none"> 1. Relay contacts stuck 2. Low voltage to unit 3. Improper relay 	<ol style="list-style-type: none"> 1. Clean contacts or replace relay 2. Determine reason and correct 3. Replace
Relay defective or burned out	<ol style="list-style-type: none"> 1. Incorrect relay 2. Voltage too high or too low 	<ol style="list-style-type: none"> 1. Check and replace 2. Determine reason and correct
Refrigerated space too warm	<ol style="list-style-type: none"> 1. Control setting too high 2. Refrigerant overcharge 3. Dirty condenser 4. Evaporator coil iced 5. Not operating 6. Air flow to condenser or evaporator blocked 7. Warm ambient conditions 	<ol style="list-style-type: none"> 1. Reset control 2. Purge refrigerant 3. Clean condenser 4. Determine reason and defrost 5. Determine reason, replace if necessary 6. Remove obstruction for free air flow -- no storage on top of walk-in 7. Ambient conditions should be 90° or less
Objectionable noise	<ol style="list-style-type: none"> 1. Fan blade hitting fan shroud 2. Tubing rattle 3. Vibrating fan blade 4. Condenser fan motor rattles 5. General vibration 6. Worn fan motor bearings 	<ol style="list-style-type: none"> 1. Reform or cut away small section of shroud 2. Locate and reform 3. Replace fan blade 4. Check motor bracket mounting, tighten 5. Compressor suspension bolts not loosened on applicable models - loosen them 6. Replace fan motor

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