

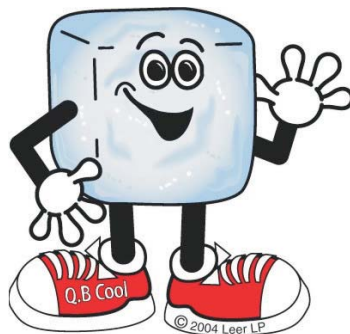


LEER, Inc.

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MERCHANDISER INSTALLATION, OPERATION AND MAINTENANCE MANUAL

230V 50Hz



**Q.B. Says
Please read and retain**

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THINK SAFETY



Read **CAUTION** highlighted statements and merchandiser labels

NOTE: Electrical and refrigeration repair work should be done by licensed electrician or refrigeration company.

Material and product improvement is a continuous commitment at Leer. This manual is subject to modification or change without notice and without incurring responsibility for previously sold merchandisers and components.

I. PACKAGING

All merchandisers are run cycle tested, inspected and carefully packaged to ensure each unit arrives ready for operation. Retain this manual for future reference and required maintenance.

Remove plastic overwrap, banding and corrugation packaging. The wooden skid is removed by unscrewing hex head screws holding the skid. Glass Door Models: Remove glass door support brackets and protective foam blocks.

NOTE: Merchandiser should be in an upright position. If merchandiser is tilted 45° past vertical, it is recommended the unit not be used for a time equal to the time it was not vertical. This will allow the compressor lubricant to return to level for designed operation.

II. INSTALLATION

The merchandiser installation location should have a solid level base. If merchandiser is not level, the self-closing doors on upright models may not close or seal properly. The installation location must also provide good air flow for designed refrigeration system operation. **DO NOT** block refrigeration grill openings. Grill blockage may result in compressor failure.

Outdoor merchandiser locations shaded from sunlight are recommended for more economical operation.

Auto-Defrost Models: Leave sufficient space behind merchandiser to prevent the drain hose from being kinked or obstructed. A blocked hose will not allow unit cooler condensate water to drain.

Indoor merchandisers must have the full top cover area above the cabinet kept clear of storage items or from obstructions. As per above, refrigeration grill openings must be open to provide good air flow for designed refrigeration operation. Auto-Defrost Glass Door Models: Remove condensate evaporator carton from inside merchandiser and install evaporator on back of merchandiser per instruction sheet inside carton.

Position cabinet to allow minimum one inch clearance between condensate evaporator and wall. Route main power cord away from surface of condensate evaporator. **DO NOT** position main power cord so it may become pinched between condensate evaporator and wall.

III. OPERATION

1. Electrical: The electrical voltage and frequency cycle at installation site must coincide with merchandiser decal label. Electrical service connections must be in accordance with the country electrical standards and any local code that may apply. All merchandisers must be wired to a polarized power cord with 3-prong plug.

NOTE: Due to country difference in power cord plug requirements, the Leer power cord and condensate evaporator (when required) are provided with cut wires to allow assembly of correct country standard plug for electrical connection.

The merchandiser must be plugged into a 230 volt 50 Hz grounded receptacle electrical outlet with a circuit fuse or breaker. The condensing unit data plate will indicate the maximum fuse or breaker size. **DO NOT** use extension cords. Extension cords may decrease the voltage to the unit and ultimately cause the compressor to fail.

Plug merchandiser power cord into receptacle of electrical outlet. The condensing unit will start, the light will illuminate on glass door models, and unit cooler evaporator fans will start on auto-defrost models. The condensing unit will continue to run until air temperature in cabinet is approximately -17° C. If merchandiser has a condensate evaporator, the correct country plug must be assembled to power cord. Plug cord into receptacle of electrical outlet and heater rod will heat.

III. OPERATION CONT.

2. Temperature Control: Cabinet temperature is maintained by cycling the condensing unit automatically with a thermostat. On auto-defrost models, the thermostat is located on the left end of unit cooler cover. On cold wall models, the thermostat is located on a bracket under the condensing unit cover. (The thermostat for Low Profile cold wall models is located on bracket at upper rear interior).

The temperature is adjusted by turning the control knob. Turning the control knob fully counter-clockwise will shut off power to compressor. **DO NOT** readjust the internal adjustments of the control without consulting factory representative.

3. Loading Ice: After merchandiser is operating at required temperature, load with packaged ice. Stacked packaged ice should not exceed heights that will cause poor refrigeration efficiency. Approximately 6" needs to be clear from top of stacked ice to top of inside interior for effective refrigerated ice storage. Auto-Defrost units require good fan air flow for effective circulation. **DO NOT** block evaporator assembly fan/grill openings and air channels require unrestricted air flow convection around packaged ice. Cold Wall units should have ice stacked to allow air access to thermostat sensor at upper rear interior.

IV. MAINTENANCE



CAUTION: Disconnect power plug from electrical supply before maintenance on electrical components to avoid risk of electrical shock.

1. Refrigeration: Clean refrigeration cover grill openings, condenser fins, and condenser fan blades at least every 6 months or more often if needed. A dirty condensing unit can cause merchandiser to become less efficient, and may lead to compressor failure.

NOTE: DO NOT place any type of filter media for dust/dirt collection in front of condenser coil. Testing has shown filter media will create restricted air flow and may lead to compressor failure.

2. Defrosting: Frost forms on the evaporator when door is opened and warm air enters merchandiser.
- A. Cold Wall (CW) Evaporator: Cold Wall merchandisers utilize the merchandiser interior walls and ceiling as the refrigeration evaporator and frost will accumulate on all these surfaces. The merchandiser can be defrosted using a wooden paddle, plastic scraper, or hot air. **DO NOT** use a sharp instrument to "chop" the frost as you may penetrate metal surface and refrigerant tubing and do irreparable damage. A drain plug is located under the ice pallet to help allow water to drain.
- B. Auto-Defrost (AD) Evaporator: Auto-Defrost merchandisers utilize a unit cooler evaporator with an electric defrost heating element to melt the frost off the evaporator coil. The defrost cycle is controlled by a defrost timer which energizes a defrost heating element every four (4) hours for 14 to 16 minutes.

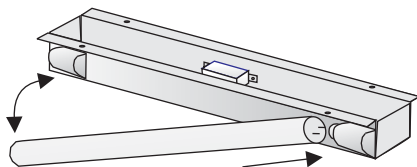
Before each reloading of packaged ice, inspect operation of unit cooler fan motor(s). Replace motor(s) not operating or merchandiser refrigeration will not work effectively. Inspect unit cooler drain hose to be sure it is not kinked or plugged. Water must drain to condensate evaporator for designed operation. (See condensate evaporation maintenance)

IV. MAINTENANCE CONT.

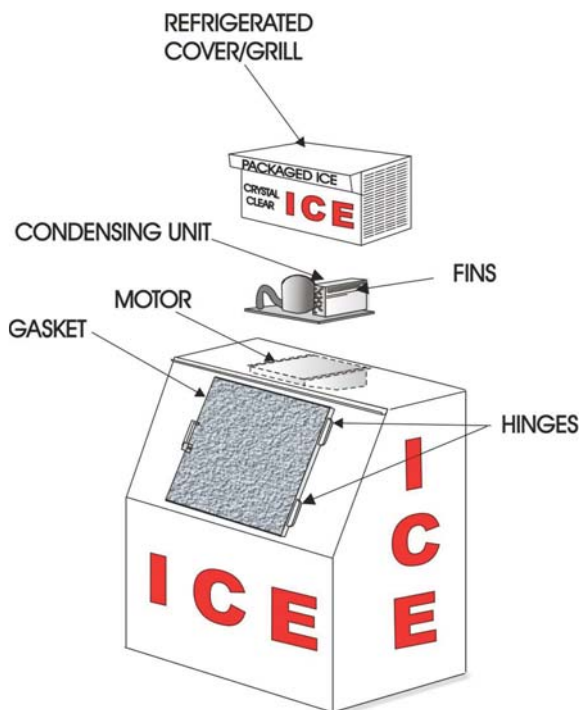
- C. Condensate Evaporator: Inspect operation and condition of evaporator every three (3) months. The heating rod should be heating and examined for excessive corrosion. Failure of the heating rod to heat properly can result in the drain pan water overflowing. Also, accumulative dust buildup may limit proper operation of the unit.
3. Electrical: Inspect each month all power harnesses for cracks, abrasions or connection plug damage.

⚠ CAUTION: Damaged power cord must be replaced with manufacturer cord and installed by a qualified service contractor or similar qualified person in order to avoid an electrical hazard.

Lamp Replacement: Remove lamp by pushing lamp towards spring loaded retainer, rotate opposite end out of retainer. Install lamp by pushing end into spring loaded retainer, rotate opposite end into retainer.

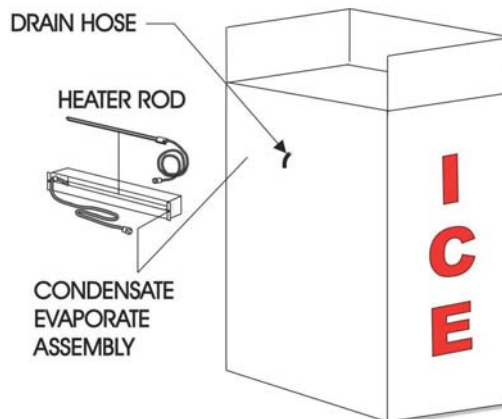
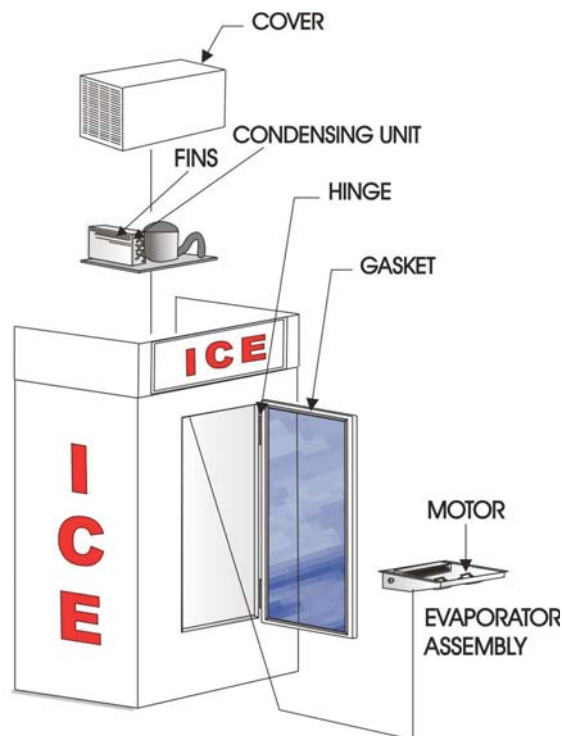


4. Door(s): Inspect each month for component wear, function and secure attachment.
- A. Gasket(s) should be examined for tears or any other problems that would cause loss of seal. Replace torn/worn gaskets to maintain correct temperature and refrigeration efficiency.

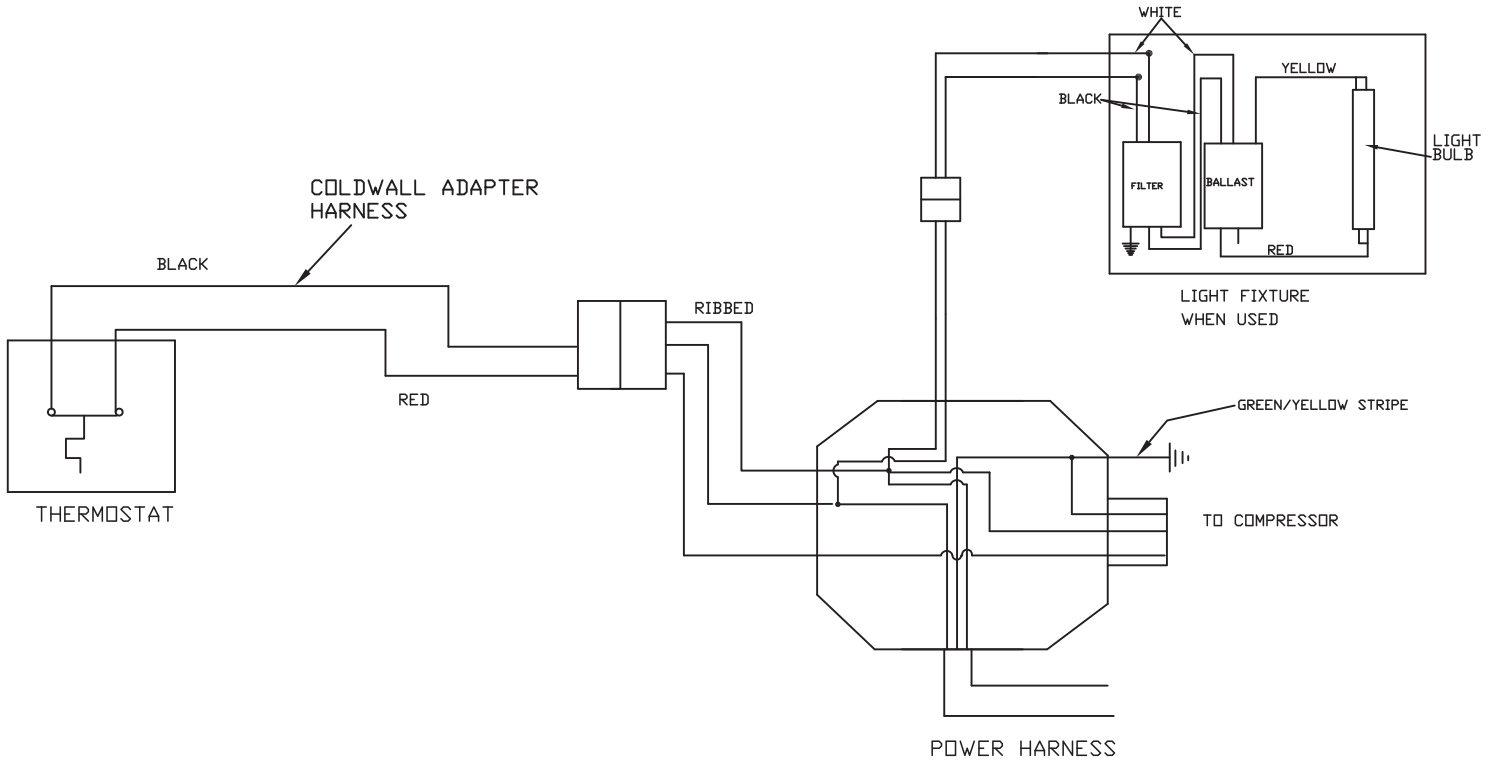


- B. Hinges exposed to harsh environmental conditions may require a lubricant for ease of operation. Spray a light penetrating oil on hinge pivot points to ease the work load and extend life of hinge.

4. Cleaning: Schedule yearly cleaning of merchandiser interior with solution of 8 tablespoons of baking soda to 1 gallon of warm water. **DO NOT** use strong detergents, abrasive cleansers, solvents, wax or polish as they are likely to leave objectionable odors which may be absorbed by the ice. Wash the exterior with warm water and mild soap applied with a soft sponge or cloth. Wax exterior to maintain appearance and extend life of paint.

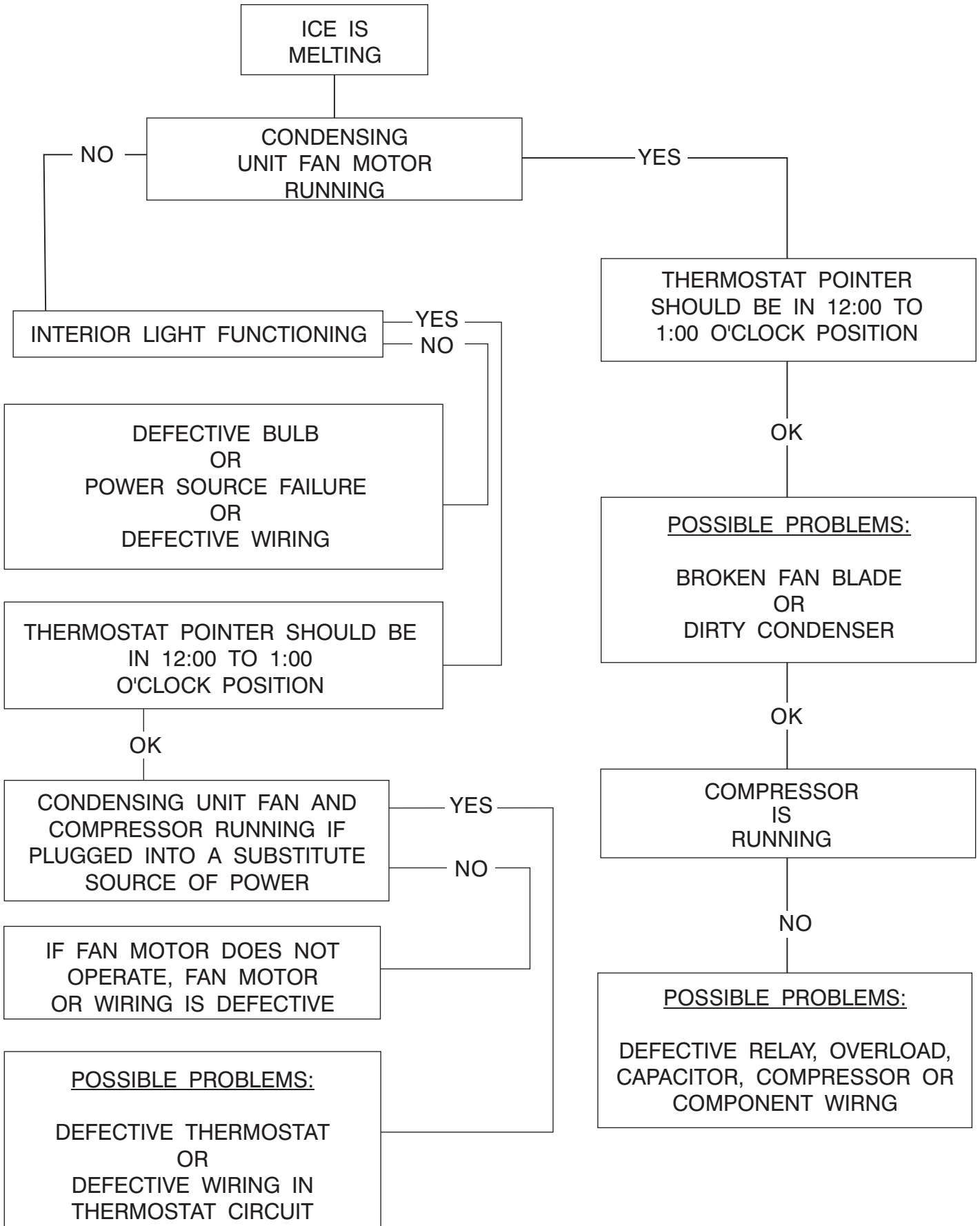


V. COLD WALL WIRING DIAGRAM

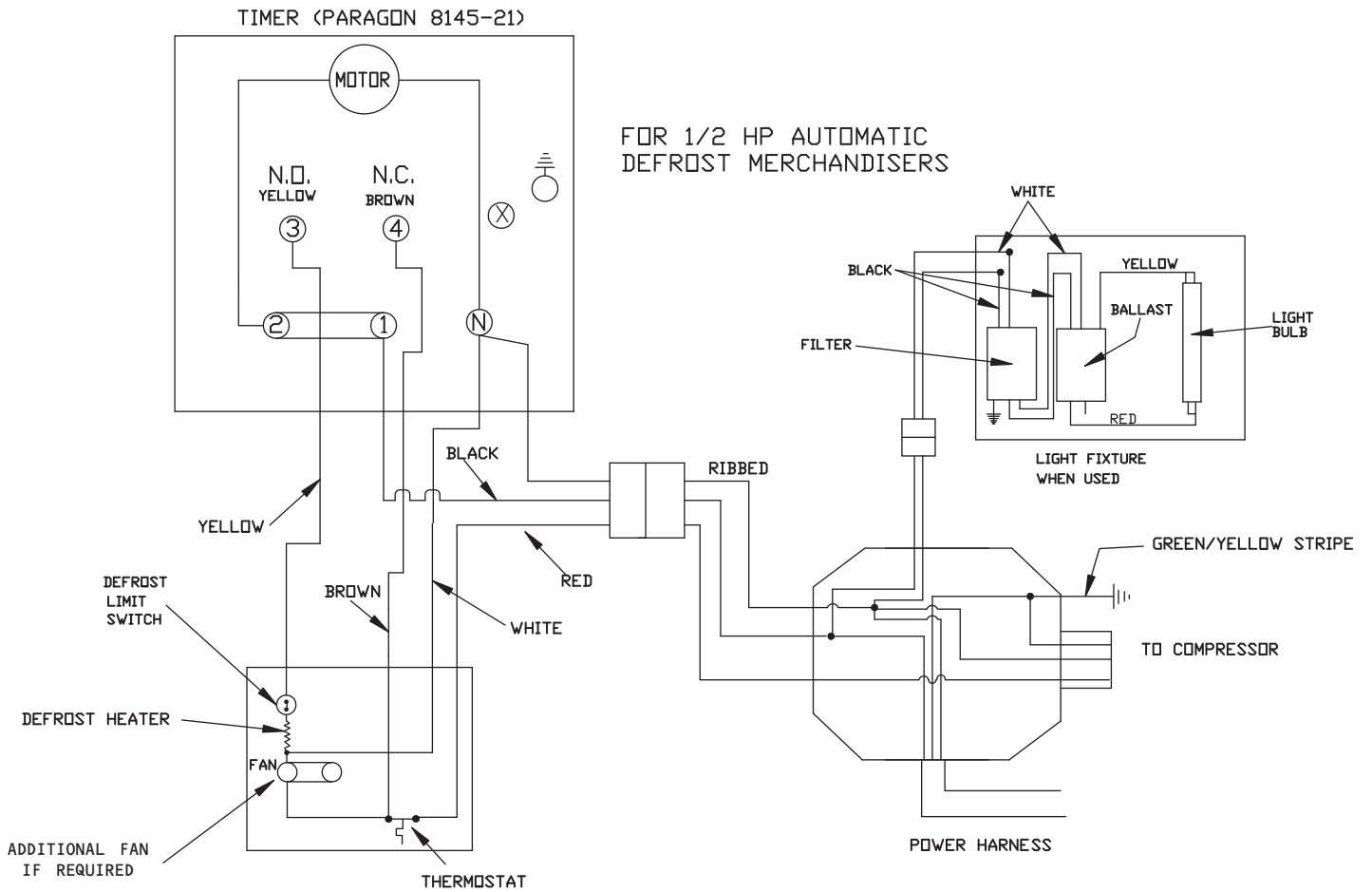
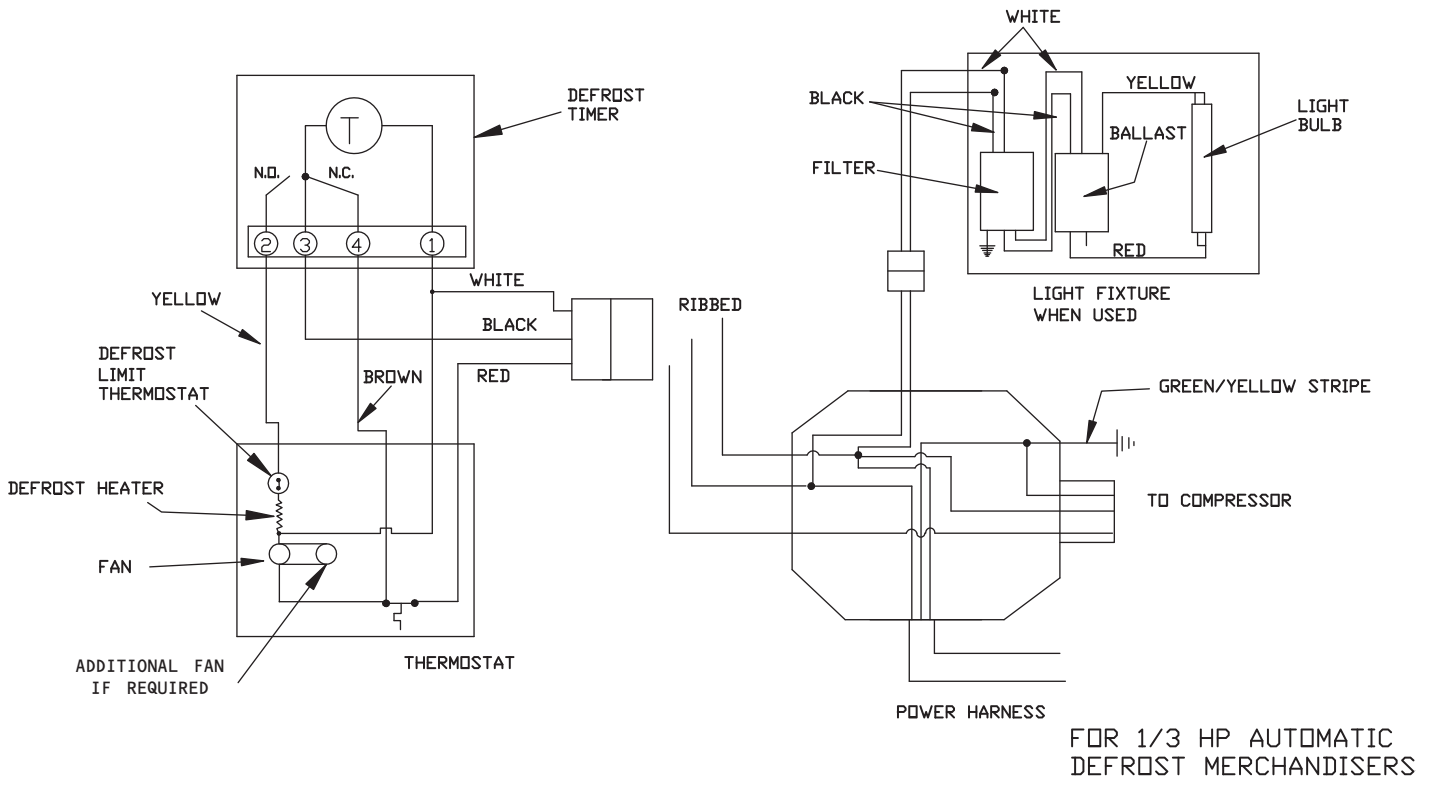


FOR ALL COLD WALL
MERCHANTISERS

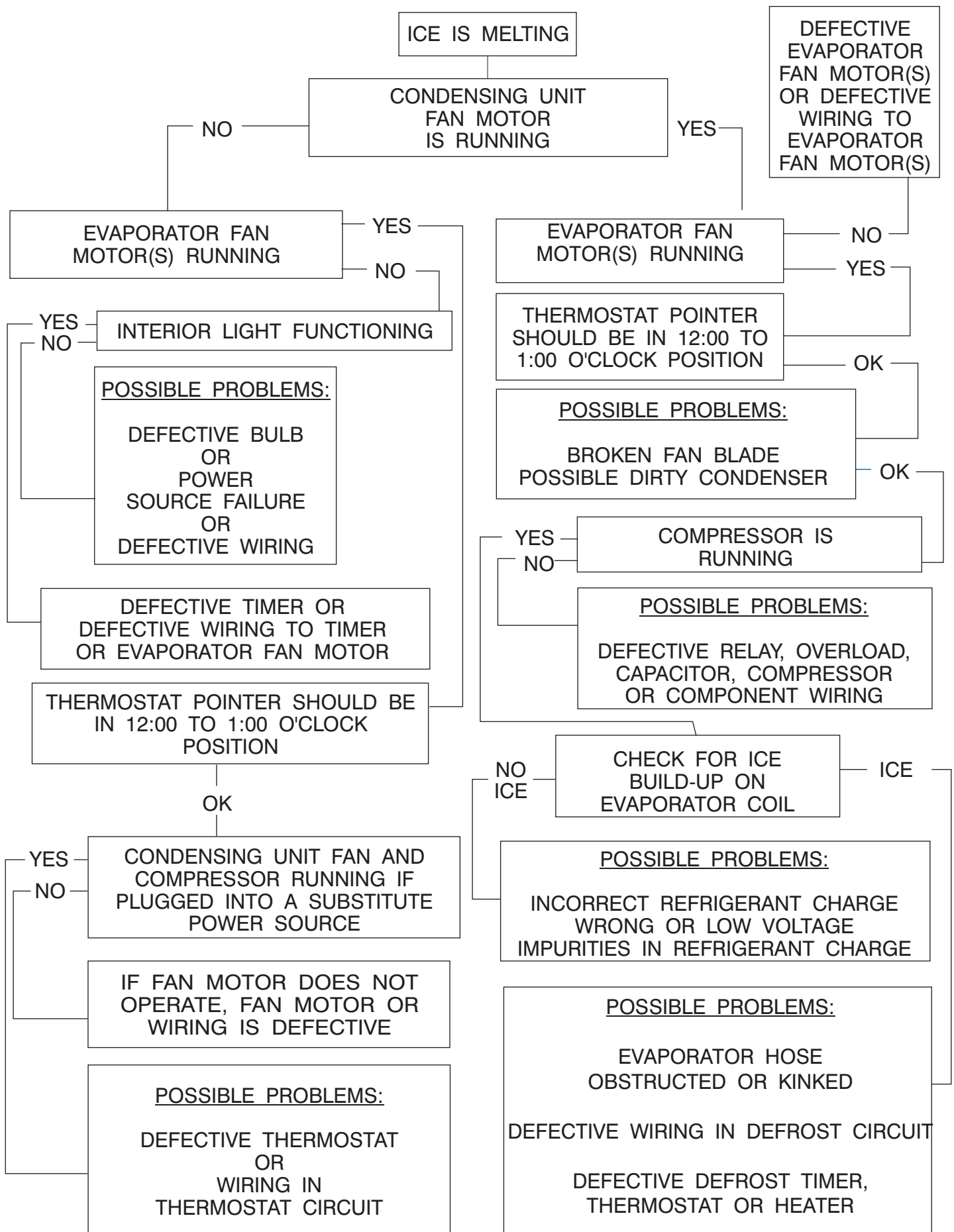
VI. TROUBLESHOOTING FOR COLD WALL MERCHANDISER



VII. AUTO-DEFROST WIRING DIAGRAM



VIII. AUTO-DEFROST TROUBLESHOOTING FLOWCHART

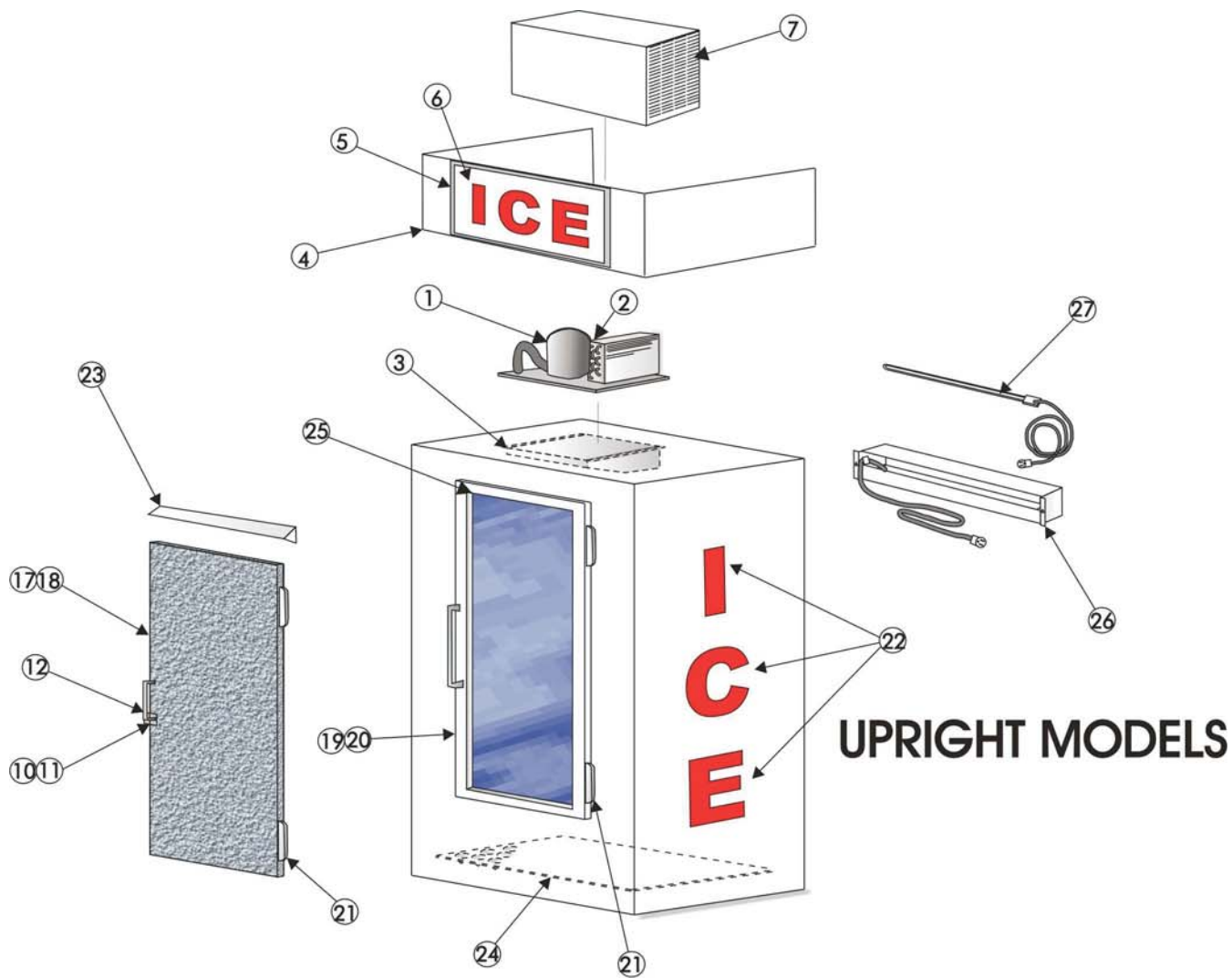


IX. REPLACEMENT PARTS

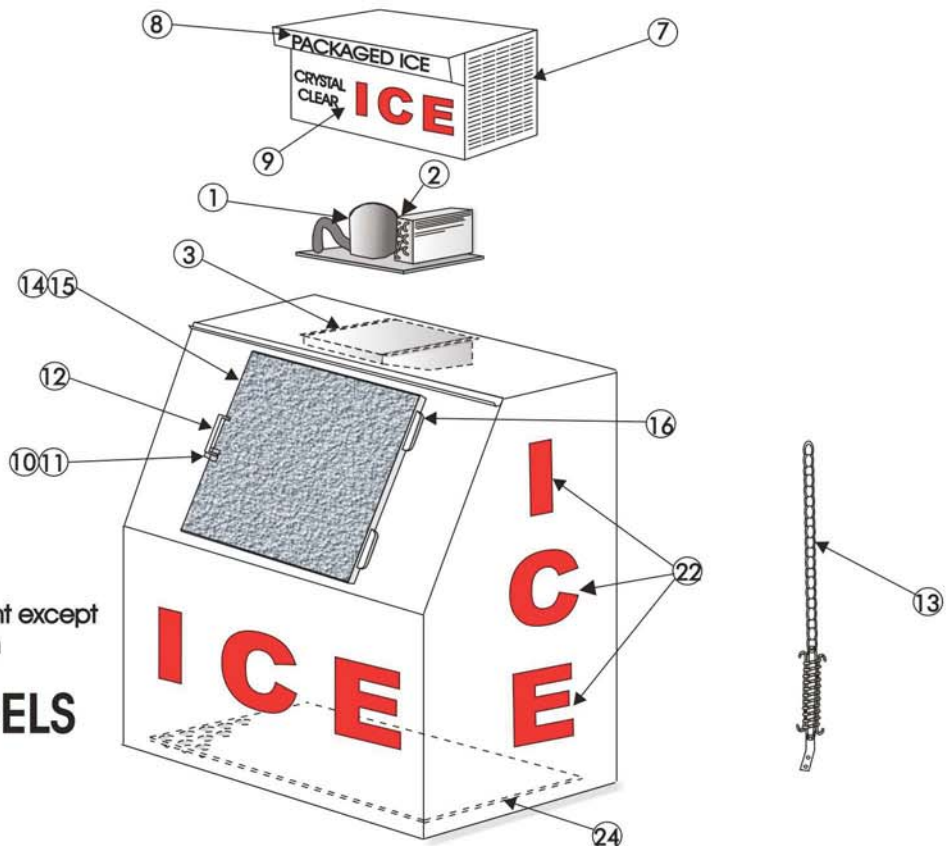
ITEM	DESCRIPTION	PART #	ITEM	DESCRIPTION	PART #
1.	Condensing Unit: Provide condensing unit model number for parts.		14.	Door, Stucco Stainless Steel 27" x 27" with gasket	5580033
2.	Timer (1/4, 1/3 HP)	1328005	15.	Door Gasket for 27" x 27" solid door	1060016
	Timer (1/2 HP)	1328026			
	Thermostat	1328046	16.	Door Hinge with cover for 27" x 27" solid door	1911019
	Power Harness (AD & CW)	1270047			
	Coldwall Adapter Harness	1270043	17.	Door, Stucco Stainless Steel 27" x 46" with gasket	5580017
	Compressor Harness	1270048			
3.	Unit Cooler Evaporator Parts:		18.	Door Gasket for 27" x 46" solid door	1030034
	Harness	1270049			
	Fan Guard	1396023	19.	Glass Door, 28" x 47" Silver Frame	1412012
	Fan Blade	1392008		Glass Door, 28" x 47" Gold Frame	1412013
	Fan Mounting Bracket	1391012	20.	Door Gasket for 28" x 47" glass door	1490007
	Fan Motor	1393030			
	Defrost Limit Thermostat	1328003	21.	Door Hinge for 28" x 47" door:	
	LCL 120 Evaporator Coil	1315002		Silver with spring & cover	1911002
	LCL 170 Evaporator Coil	1315004		Gold with spring & cover	1911022
	LCL 190 Evaporator Coil	1315005		Silver Cover	1990008
	LCL 280 Evaporator Coil	1315006		Gold Cover	1990009
	LCL 120 Defrost Heater	1261012		Spring Kit	1990002
	LCL 170 Defrost Heater	1261013	22.	"ICE" Decals (Red) one set	1070074
	LCL 190/280 Defrost Heater	1261014		"ICE" Decals (Blue) one set	1070069
4.	Full Top Enclosure: Provide merchandiser model number		23.	Rain Shield for 27" x 46" solid door	5120076
5.	Silver Frame for full top	1930017	24.	Ice Pallet 22" x 28"	1050074
	Gold Frame for full top	1930018			
6.	"ICE" sign for full top	5991021	25.	Fluorescent Light Fixture (lamp included)	5239007
7.	Cover without shield and decals	5840035		Fluorescent Lamp	1216005
	Cover with shield and decals	5849000		Ballast	1230004
8.	"Packaged Ice" Decal for cover	1070077		Spring Lampholder	1240008
9.	"Crystal Clear" Decal for cover (Red)	1070075		Solid Lampholder	1240009
	"Crystal Clear" Decal for cover (Blue)	1070071	26.	Condensate Evaporator assembly for AD models (White)	5349040
10.	J-Bolt for all solid doors	5120002	27.	Condensate Evaporator, Heater Rod	1261015
11.	Door Hasp for all solid doors	5120001	28.	Skid Plate (Not Shown)	1050005
12.	Door Handle for all solid doors	1914001	29.	Thermometer (Not Shown)	1951010
13.	Check Chain for 27" x 27" solid door	1030016			

Provide Leer merchandiser Model number and Serial number for accurate processing of part orders.

NOTE: Leer electrical and refrigeration parts are CE rated and certified to comply with CE merchandiser product standards.



UPRIGHT MODELS



Note:
LP models similar to slant except
for refrigeration location

SLANT MODELS

103000-1