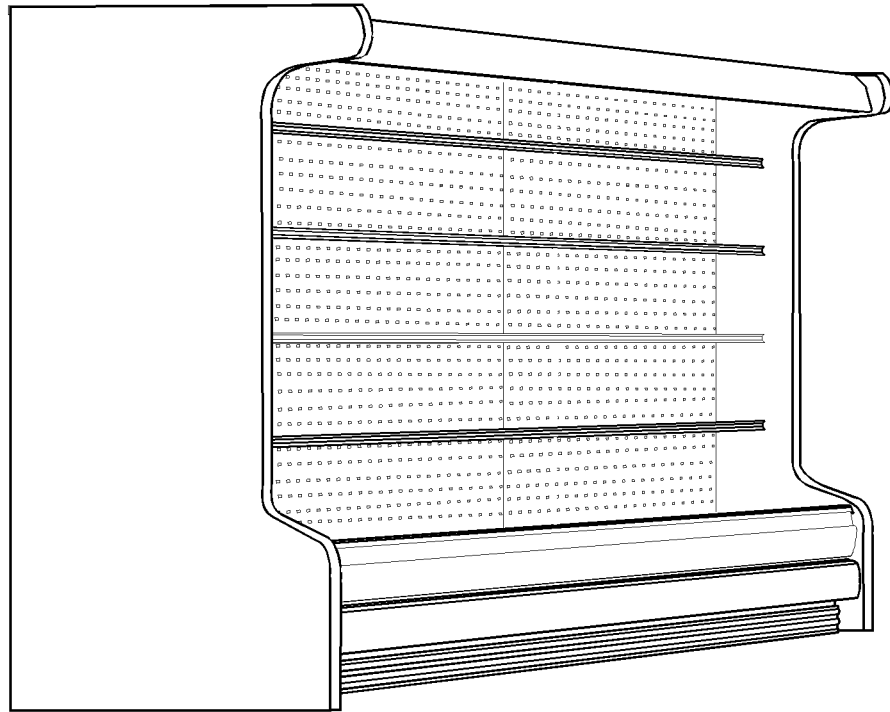


TYLER



Installation & Service Manual



L6DLA, L6DMA, L6DHA, L6DLRA, L6DMRA

**MULTI-SHELF DAIRY/DELI MERCHANDISER
Medium Temperature Self Serve Display Cases**

This manual has been designed to be used in conjunction with the General Installation & Service Manual.

Save the Instructions in Both Manuals for Future Reference!!

This merchandiser conforms to the Commercial Refrigeration Manufacturers Association Health and Sanitation standard CRS-S1-96.

PRINTED IN U.S.A.	Specifications subject to change without notice.	REPLACES EDITION	3/99	ISSUE DATE	7/99	PART NO.	9027541	REV. D
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The following Medium Temperature, Multi-Shelf Dairy and Deli Merchandiser models are covered in this manual:

MODEL	DESCRIPTION
L6DLA	6', 8' & 12' DAIRY/DELI MERCHANDISER WITH 18" FRONT
L6DMA	6', 8' & 12' DAIRY/DELI MERCHANDISER WITH 22" FRONT
L6DHA	6', 8' & 12' DAIRY/DELI MERCHANDISER WITH 26" FRONT
L6DLRA	8' & 12' DAIRY/DELI MERCHANDISER WITH 18" FRONT & REAR DOORS
L6DMRA	8' & 12' DAIRY/DELI MERCHANDISER WITH 22" FRONT & REAR DOORS

SPECIFICATIONS

L6D(L, M, H, LR, MR)A Dairy/Deli Merchandiser Specification Sheets

MODEL	L6DL(R)A	L6DM(R)A	L6DHA
USAGE	DAIRY/DELI	DAIRY/DELI	DAIRY/DELI
CAPACITY (BTUH/FT)*	1492	1442	1392
EVAPORATOR ***	+23F	+23F	+23F
ENTER AIR°	+34F	+34F	+34F

NOTES:

* Capacity data listed is for cases with optional 2-rows of T-8 canopy lights and 4 rows of optional T-8 lighted 22" deep shelves. Adjustments must be made to this base rating for each option installed on the case. See CAPACITY ADJUSTMENTS below.

** Evaporator temperature is defined as the saturated suction temperature leaving the case.

NOTE: COMPRESSOR SIZING SHOULD ALLOW FOR SUCTION LINE PRESSURE DROP.

THE ABOVE RATINGS ARE FOR COMPRESSOR SELECTION ONLY. FOR ENERGY CALCULATION DATA REFER TO THE ENERGY SECTION. FOR COMPRESSOR SIZING INFORMATION REFER TO THE "GOLD" SECTION & FOR LINE SIZING INFORMATION REFER TO THE "BUFF" SECTION OF THE TYLER SPECIFICATION GUIDE.

CAPACITY ADJUSTMENTS:

ADD 10 BTUH/FT for 1 Row or 20 BTUH/FT for Opt. 2 Rows of 800MA Canopy Lights.

DEDUCT 80 BTUH/FT when **NOT** using Lighted Shelves. **NOTE:** No deduction in BTUHs is allowed when using unlighted 15" shelves (max. 2 rows in upper position).

ADD 20 BTUH/FT for Opt. 5th Row of Lighted Shelves.

ADD 10 BTUH/FT for 1 Row of T-8 Nose Lights. **ADD** 40 BTUH/FT for 1 Row of 800MA Nose Lights.

ADD 411 BTUH/FT for Peg Bars. **NOTE:** Baffles are required above each peg bar row to provide proper air flow around the food products.

ADD 74 BTUH/FT for Produce Rack Inserts.

DEFROST CONTROL				PRESSURE SETTINGS			EPR SETTINGS	
PER DAY	MODE	TIME	TERM.		CUT IN	CUT OUT	R22	R404A
4	ELECT	36 MIN.	50F	DAIRY/DELI	46 PSIG	36 PSIG	46	---
4	HOT GAS	15-20 MIN.	55F	DAIRY/DELI	59 PSIG	49 PSIG	---	59
4	TIME OFF	36 MIN.	---					

CASE-TO-CASE SUCTION LINE SUB-FEED BRANCH LINE SIZING													
	8'	12'	16'	20'	24'	28'	32'	36'	40'	44'	48'	52'	56'
R22 DAIRY/DELI	7/8"	7/8"	7/8"	1 1/8"	1 1/8"	1 1/8"	1 1/8"	1 3/8"	1 3/8"	1 3/8"	1 3/8"	1 3/8"	1 3/8"

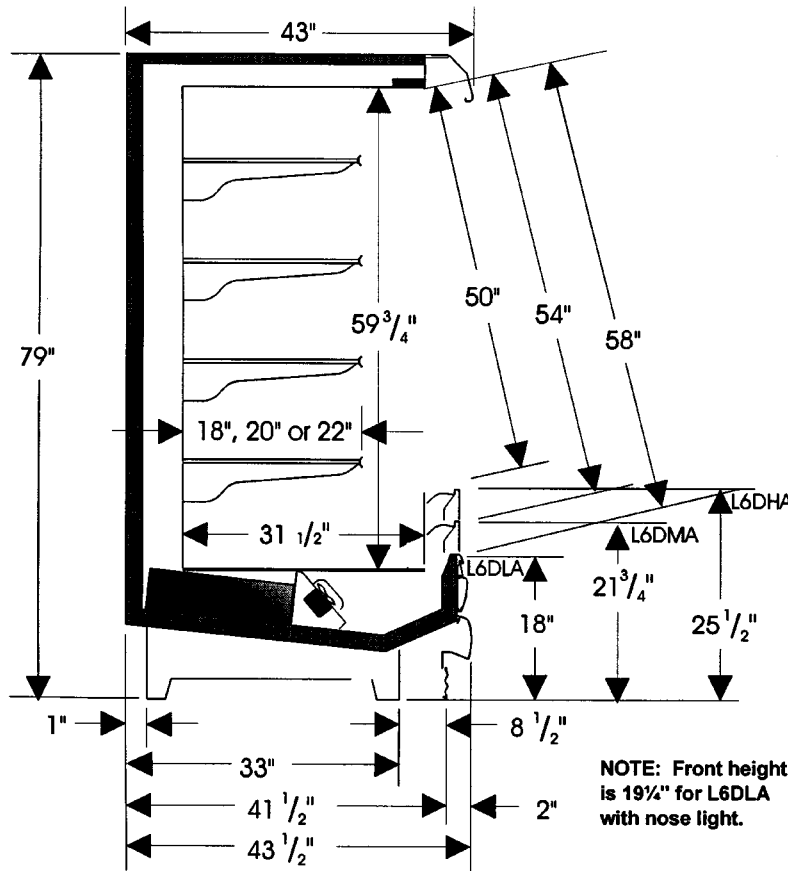
SHELVING NOTES: Shelving widths available for these cases are 15", 18", 20", and 22". When two sizes are used, the smaller must be used on top.

OPTIONAL ELECTRIC DEFROST 208-1-60 - 6' = 6.5 AMPS - 8' = 6.9 AMPS - 12' = 10.3 AMPS

CASE BTUH REQUIREMENTS are calculated to produce approximately the indicated entering air temperature with absolute maximum operating ambient limits of **75F & 55RH**.

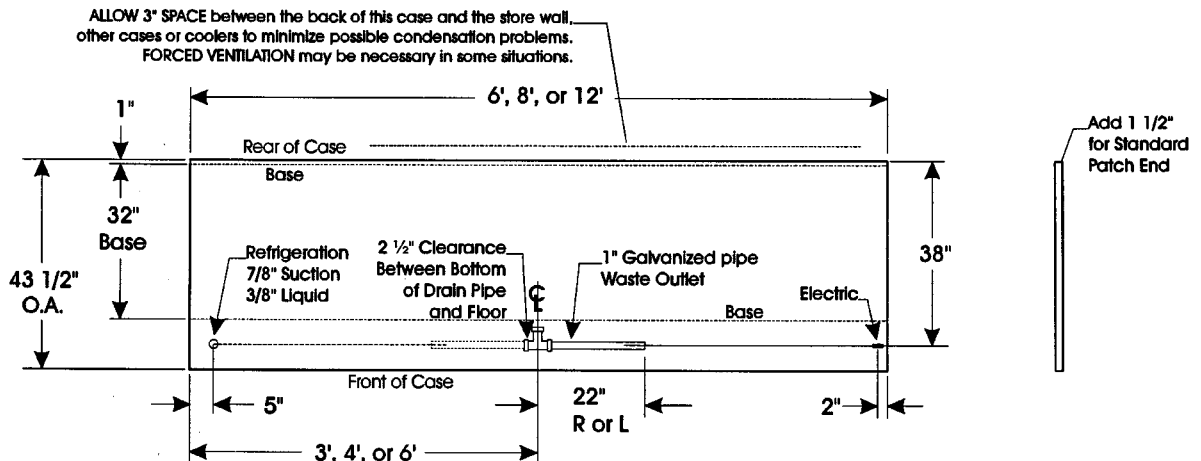
The information contained herein is based on technical data and tests which we believe to be reliable and is intended for use by persons having technical skill, at their own discretion and risk. Since conditions of use are outside Tyler's control, we can assume no liability for results obtained or damages incurred through the applications of the data presented. SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

L6D(L, M, H)A Dairy/Deli Merchandiser

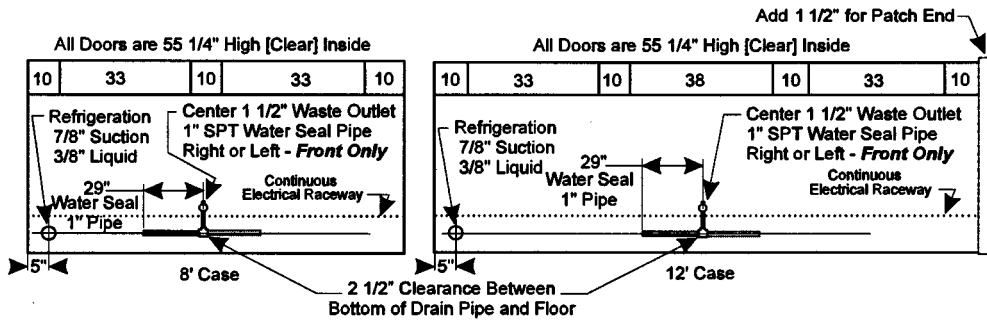
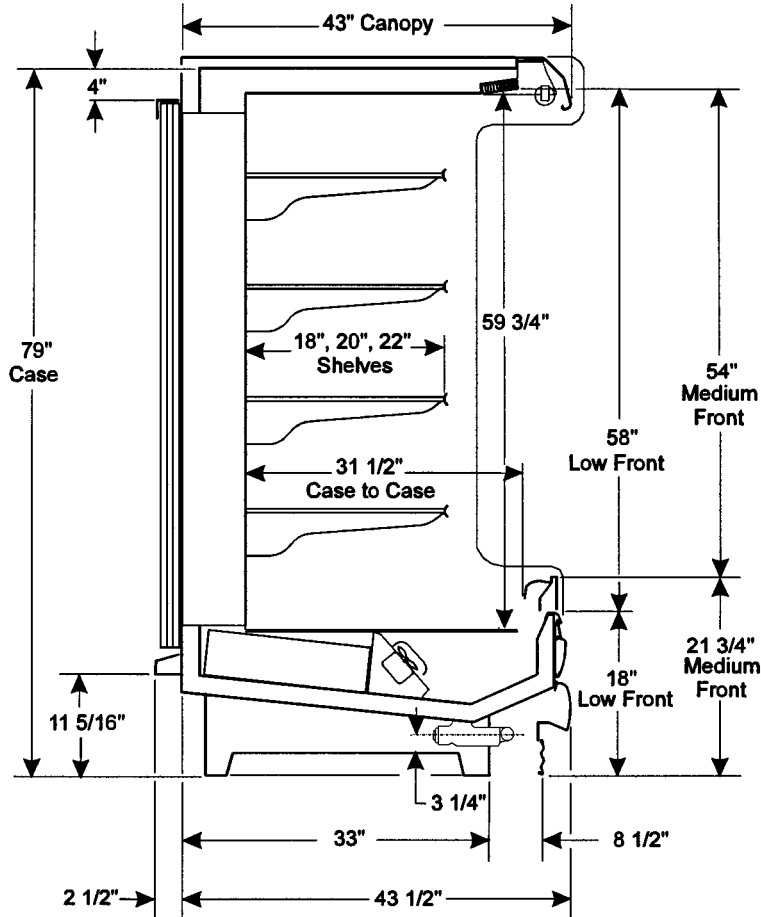


STANDARD 120 VOLT LIGHTING (AMPS) HIGH OUTPUT 800MA (CANOPY)			
ROW	6'	8'	12'
1	1.3	1.3	2.1
OPTIONAL 120 VOLT LIGHTING (AMPS) HIGH OUTPUT 800MA (CANOPY)			
2	2.1	2.1	3.4
OPTIONAL 120 VOLT LIGHTING (AMPS) HIGH OUTPUT 800MA (2 CANOPY/ 1 NOSE)			
3	2.4	3.4	6.3

OPTIONAL 120 VOLT LIGHTING (AMPS) T-8/ ELECTRONIC BALLASTS (SHELVES)		
ROWS	6' 8'	12'
1	1.4	2.1
2	1.4	2.1
3	1.9	2.9
4	2.2	3.3
5	2.8	4.2
T-8/ ELECTRONIC BALLASTS (CANOPY)		
1	.6	.9
T-8/ ELECTRONIC BALLASTS (1-CANOPY/1-NOSE OR 2-CANOPY)		
2	1.1	1.8
T-8/ ELECTRONIC BALLASTS (2-CANOPY/1-NOSE)		
3	1.8	2.6
120 VOLT ELECTRICAL DATA (AMPS)		
LENGTH	STD. FANS	ECM FANS
6'	1.2	.6
8'	1.2	.6
12'	1.8	.9



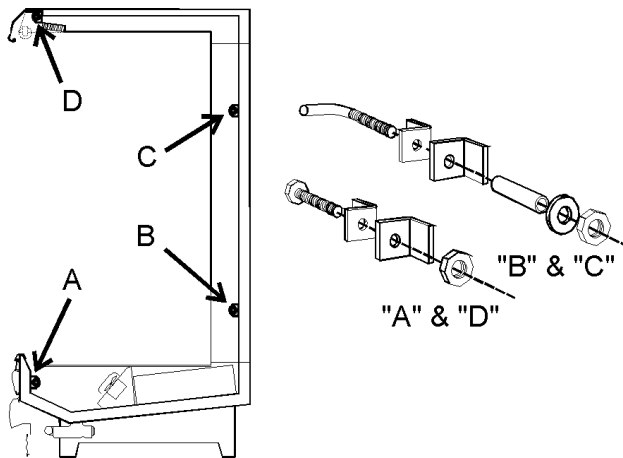
L6D(LR, MR)A Dairy/Deli Merchandiser



INSTALLATION PROCEDURES

Carpentry Procedures

Case Pull-Up Locations



All L6DA models have four pull-ups at each end of the case. Pull-ups A, B, C and D are located as shown and should be installed and tightened starting with A and finishing with D.

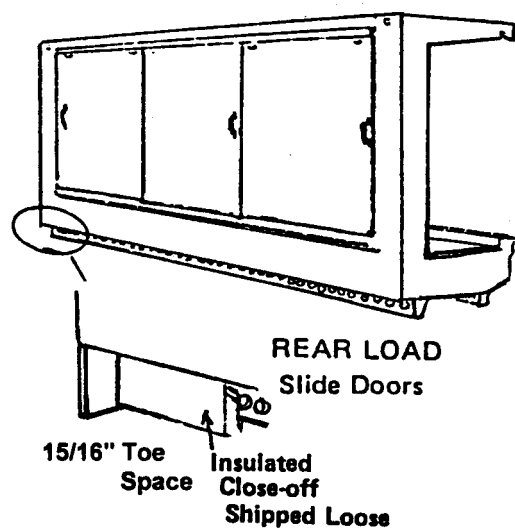
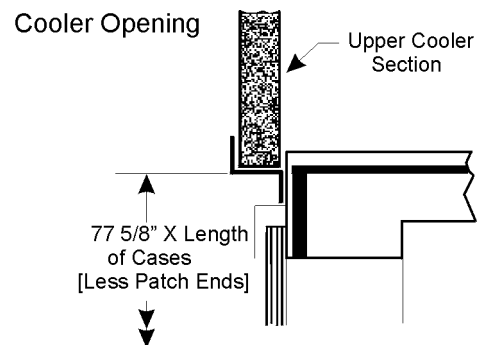
See "General I&S Manual" for line-up assembly instructions.

Joining Rear Load Cases to Coolers (L6DLRA and L6DMRA only)

For U.L. and temperature performance requirements, L6DLRA and L6DMRA cases must be backed by a refrigerated area. TYLER walk-in coolers are available with the necessary special parts and instructions to make the installation.

NOTE

Please ensure that the cooler opening is insulated and sealed completely to the rear of the display case.



Electric	4	36	50°F
Gas	4	12-15	55°F

Electrical Procedures

Electrical Considerations

CAUTION

Make sure all electrical connections at components and terminal blocks are tight. This will prevent burning of electrical terminals and/or premature component failure.

NOTE

Raceway covers will be shipped loose. See the "General I&S Manual" for raceway cover installation and removal instructions.

Case Fan Circuit

This circuit is to be supplied by an uninterrupted, protected 120V circuit. The case fan circuit is not cycled, except when equipped for gas defrost. On gas defrost cases the fan circuit is controlled by a klixon.

NOTE

With gas defrost, the fans will not restart until the coil temperature reaches the appropriate temperature.

Fluorescent Lamp Circuit

The standard case lighting system is 800MA T-12 high output (HO) lamps. The standard lighting is 1-row of horizontal canopy lights.

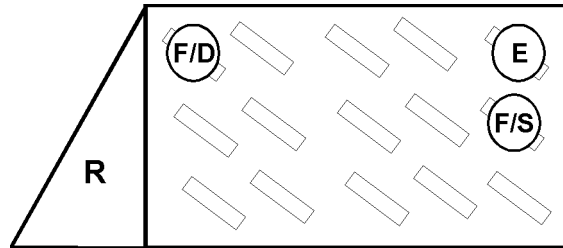
Defrost Information

See "General I&S Manual" for operational descriptions for each type of defrost control.

Defrost Control Chart

Defrost Type	Defrosts Per Day	Defrost Duration (Min)	Term. Temp.
Off Time	4	36	-----

Most klixons are located on the right



E = Electric Defrost Termination
F/D = Gas Defrost (Fan Delay)
F/S = Electric Defrost Failsafe (Opt.)

end of the evaporator coil. The diagram shows the location for each defrost type that uses a klixon.

NOTE

The Gas Defrost Termination klixon is located at the by-pass check valve.

CAUTION

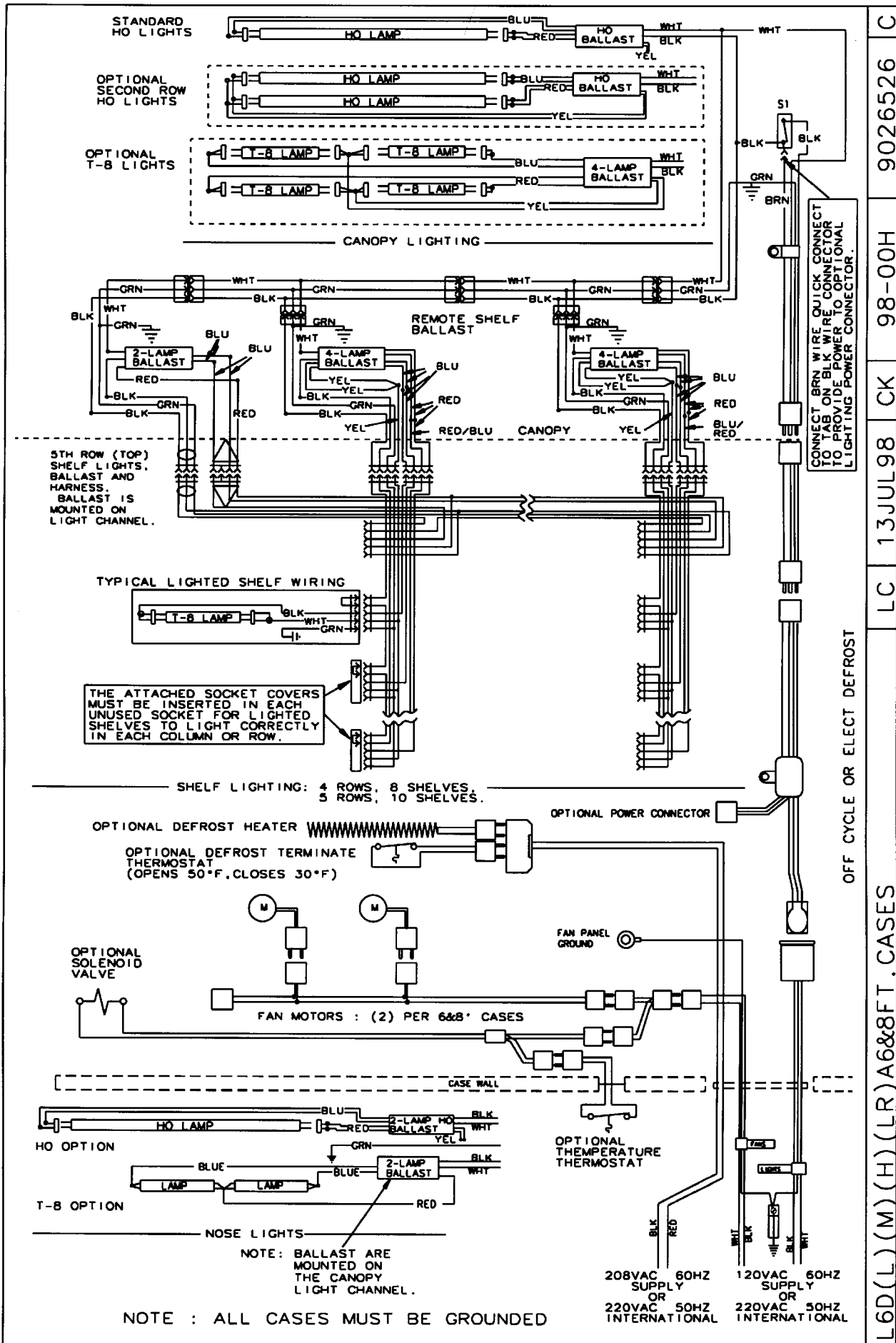
If electronic sensors are used in place of the klixons, the sensors must be located in the same location as the klixons for that defrost type. Any other locations will effect the refrigeration efficiency of the case.

WIRING DIAGRAMS

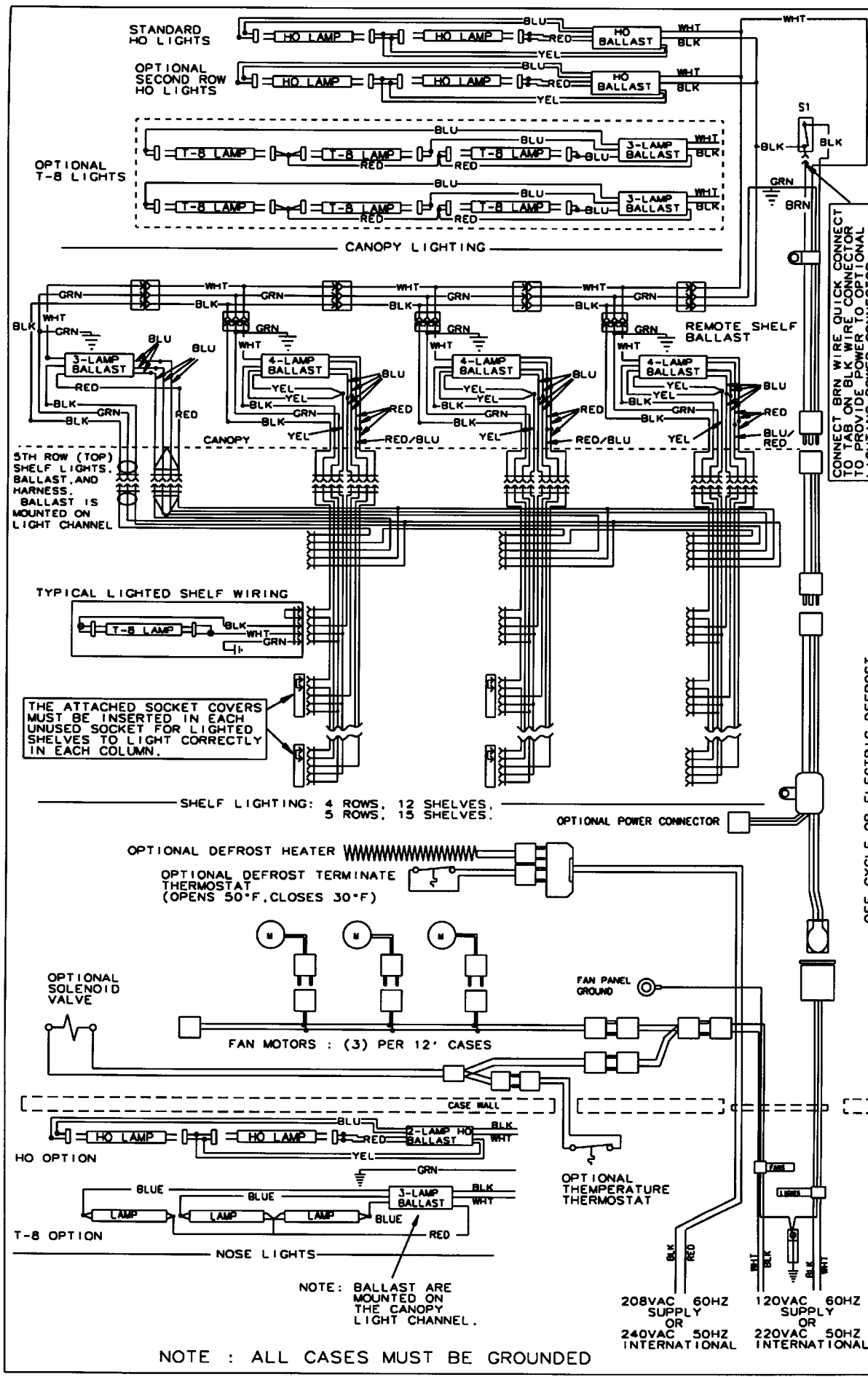
ELECTRICIAN NOTE - OVERCURRENT PROTECTION

120V circuits should be protected by 15 or 20 Amp devices per the requirements noted on the cabinet nameplate or the National Electrical Code, Canadian Electrical Code - Part 1, Section 28. 208V defrost circuits employ No. 12 AWG field wire leads for field connections. On remote cases intended for end to end line-ups, bonding for ground may rely upon the pull-up bolts.

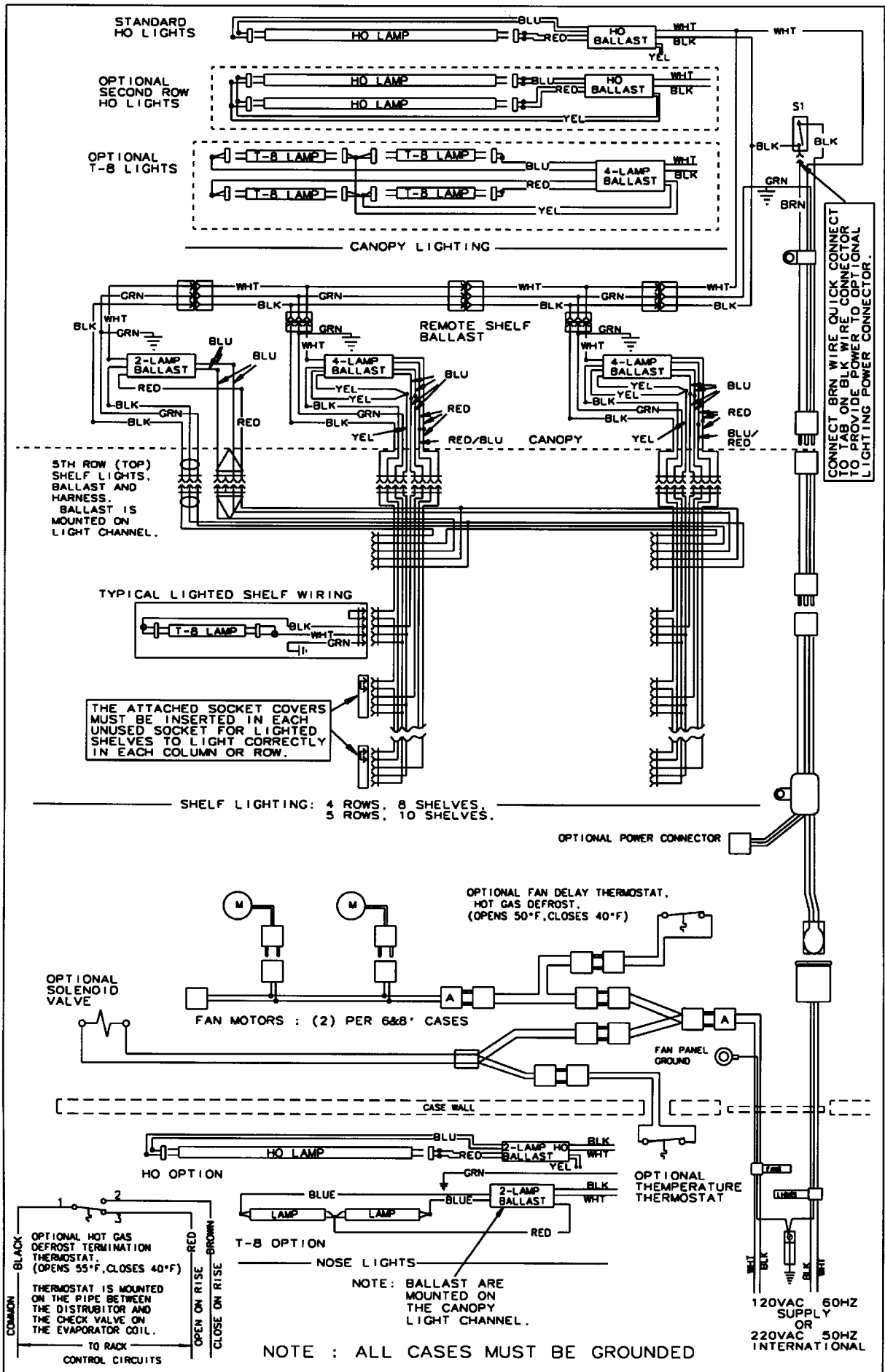
The following wiring diagrams on pages 9 thru 13 will cover the L6DA case circuits, electric defrost circuit and gas defrost circuit. The lighting circuit are covered in the case circuit diagrams.



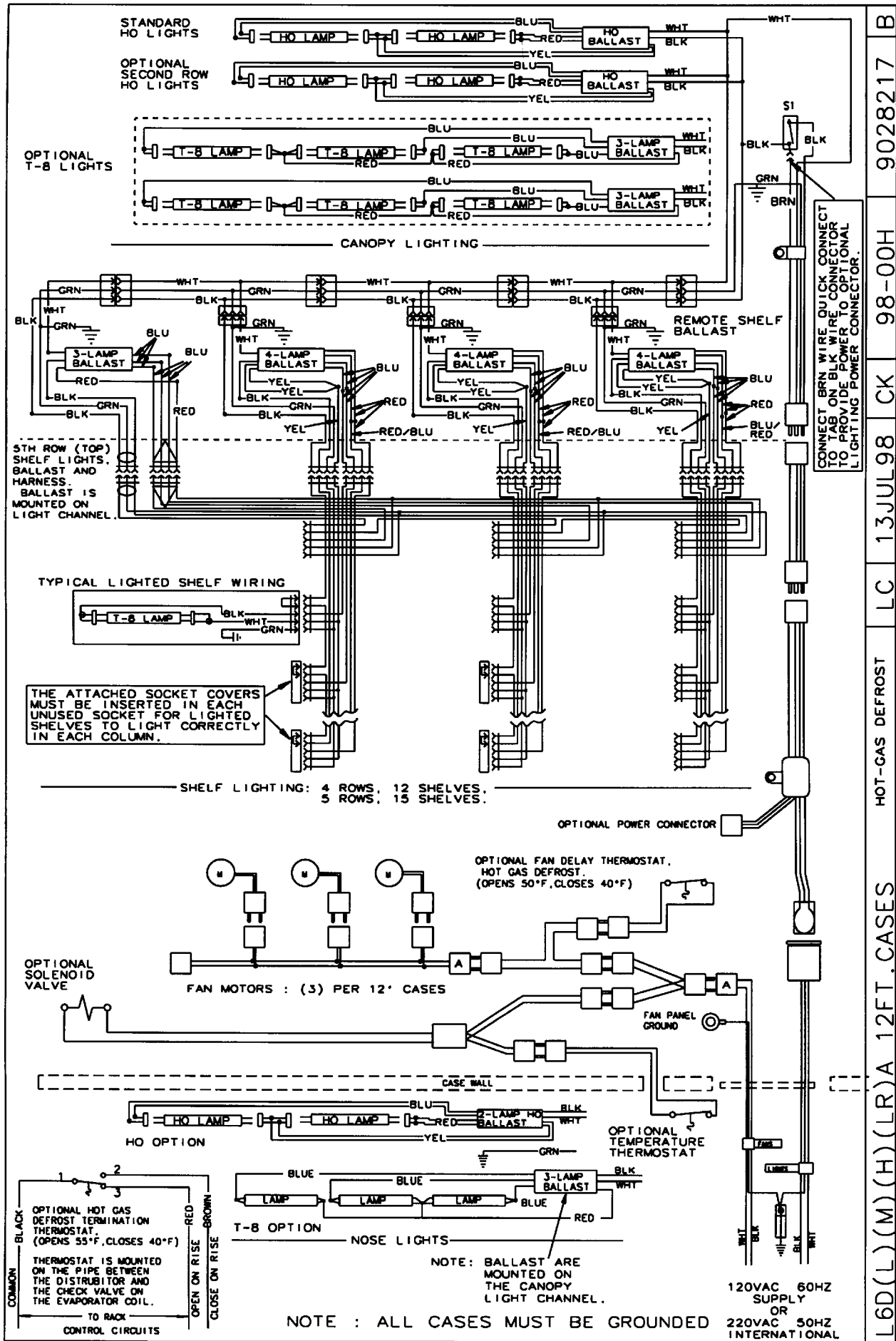
LC 13JUL98 CK 98-00H 9026526 C
 L6D(L)(M)(H)(LR)A6&8FT. CASES



LC 13JUL98 CK 98-00H 9026527 C
 L6D(L)(M)(H)(LR)A 12FT. CASES.

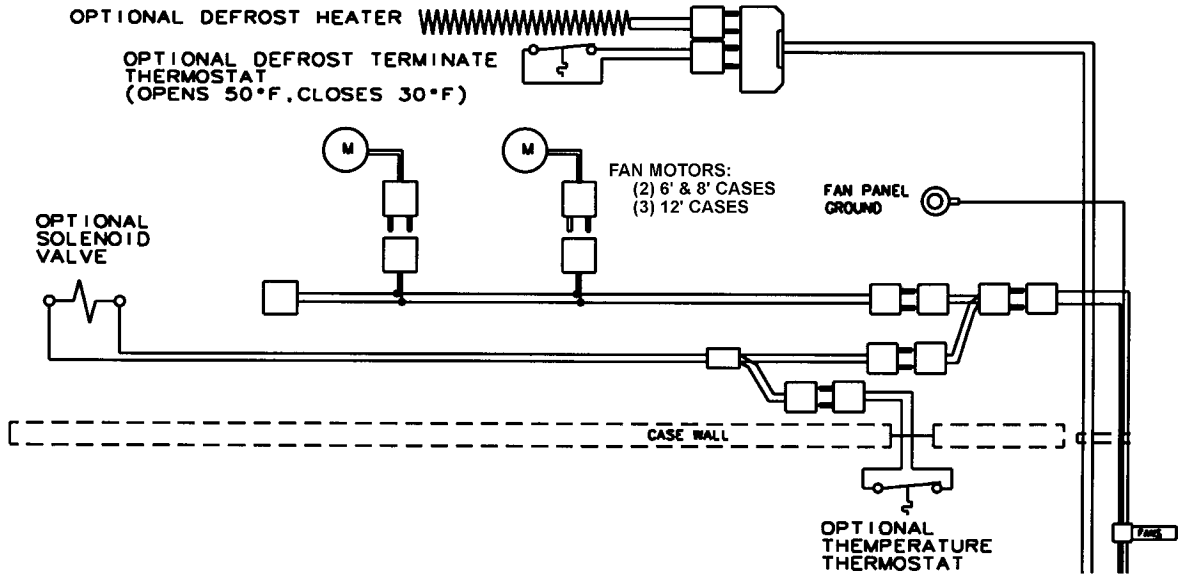


B 9028218
 CK 98-00H
 LC 13JUL98
 L6D(L)(M)(H)(LR)A 6&8FT. CASES HOT GAS DEFROST
 B

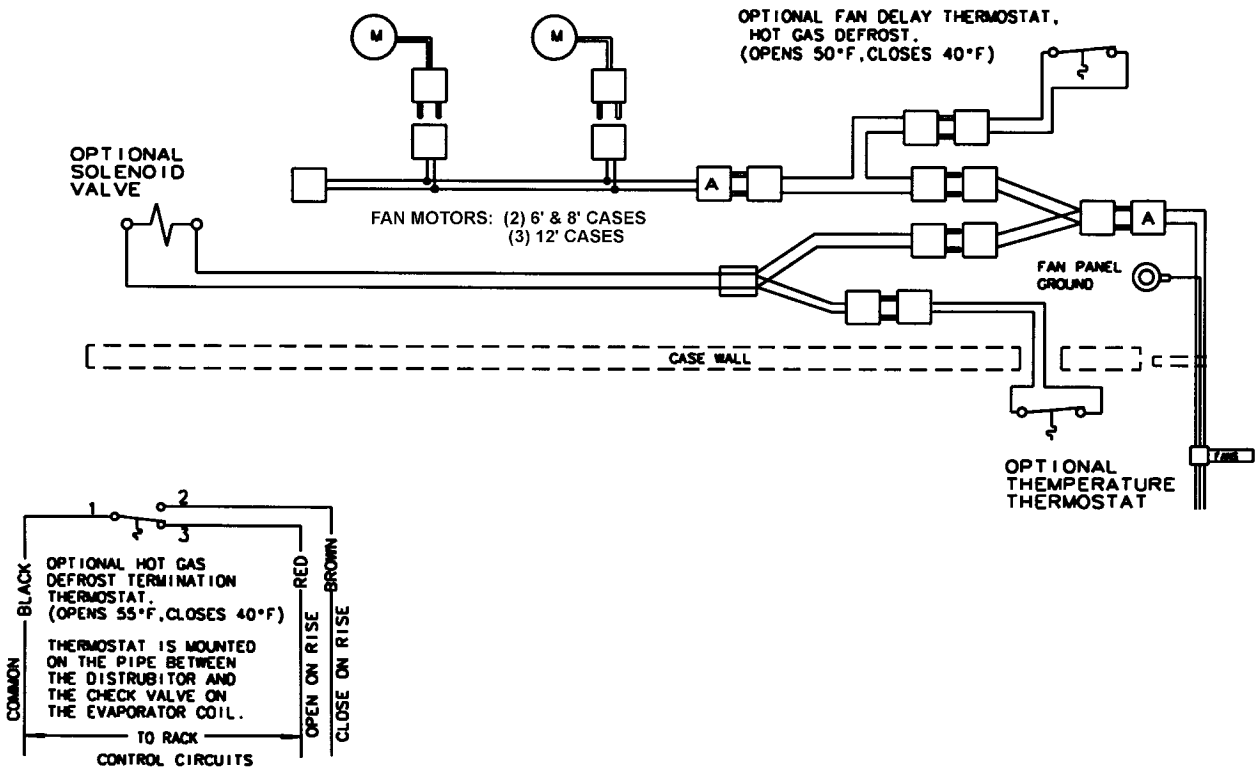


L6D(L)(M)(H)(LR)A 12FT. CASES HOT-GAS DEFROST LC 13JUL98 CK 98-00H 9028217 B

Optional Electric Defrost Circuit

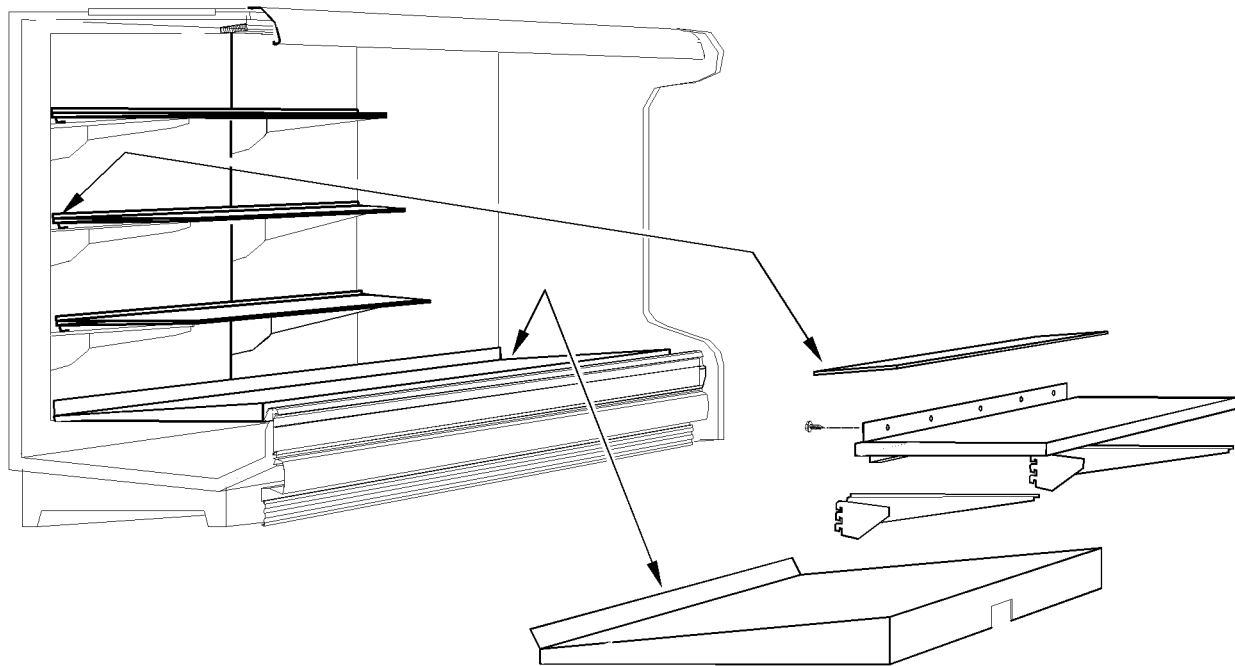


Optional Gas Defrost Circuit



GENERAL INFORMATION

Egg Merchandiser Kit Instruction



All egg shelves come galvanized or stainless steel. The upper egg shelves are 15" x 48" and come with 82 degree fixed white brackets. The brackets are available in one position only. The upper egg shelves assemblies include a rear air close-off.

Tilted base egg shelves come in 4' modules. They are designed and notched to fit inside the existing 2' bottom trays.

NOTE

Egg shelves are designed to catch and hold spilled liquids so they can be cleaned up before getting further into the case. If the tilted base shelves are used upside down, improper shelf support will result causing the middle of each shelves to sag. Upside down usage also allows drippage to get into the case making cleaning very difficult. Good sanitation is essential for egg merchandising.

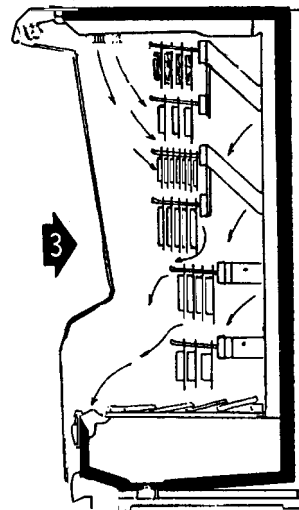
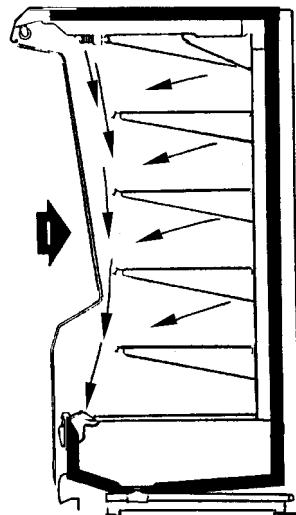
Peg Bar Information

The hang up blister pack has become a standard means of marketing sliced luncheon meats and other delicacies. It appears that all that is needed to adapt multi-shelf cases for these packages is to add peg bars and pegs. However, it isn't quite that simple, because the removal of shelves changes more than the appearance of the case.

CAUTION

Always use two shelves or baffles in cases using peg bags. This provides and maintains the protective air flow in the case and proper product cooling and storage.

Figure 1 shows the air flow in a Multi-Deck display merchandiser with shelves. Air flow from the top and back forms a protective barrier to ambient air. This is where the name "Air Skreen" comes from.



minimized, but product temperatures will not be as good as they could be. Sweating may be noticed on the top duct above the bars. The coil will also frost faster, requiring more frequent defrosts.

Figure 2 shows what happens to the air flow when the shelves are removed. The air drifts back to the rear duct and swirls about. This breaks the "Air Skreen", causing the case air to mix with ambient air to a great extent.

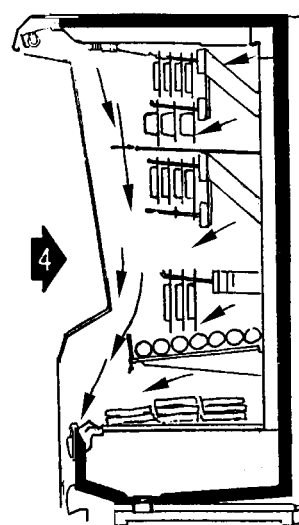


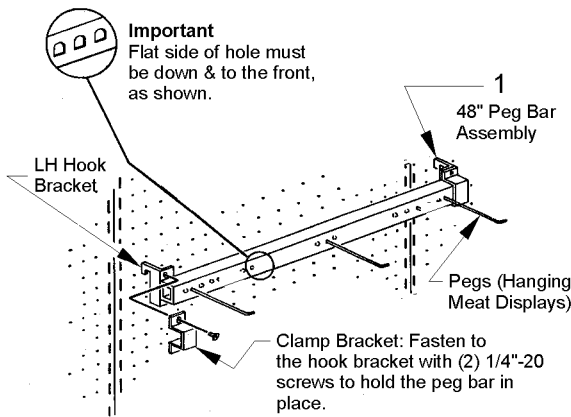
Figure 4 shows the proper air flow for cases with peg bars. The addition of either a shelf or a baffle between tiers of peg bars maintain proper air flows and temperatures in the case. Two shelves or baffles or a shelf and a baffle as shown will keep the air flow out

Figure 3 depicts what happens to the air flow in a case full of peg bars. The air falls through openings between packages and fails to maintain a protective "Air Skreen". When the bars are fully stocked, the effect is

to the front of the cases. The top baffle or shelf must be about 18" from the top. No baffles are required when two shelves are used below the peg bars. Shelves and/or baffles should extend across the full width of the case.

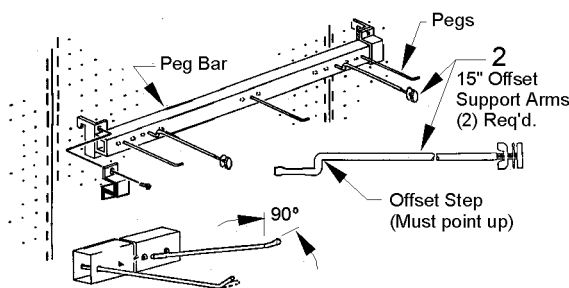
Shelf Air Baffle Information

Air baffle shelves should always be used with peg bars for hanging meat displays. Air baffle shelves are non-load bearing and are used only to help direct the air flow. The baffles should be installed between two rows of peg bars, approximately 18" down from the top of the case interior. Baffles and/or baffle shelves can be made of plexiglass or sheet metal.



1. 48" peg bar with 52 holes to accept pegs.

Flat side of holes in peg bar must be down and to the front of the bar. Attach two hook brackets to peg bar with two clamp brackets and four screws. Position and install peg bar in slotted holes in back of case.



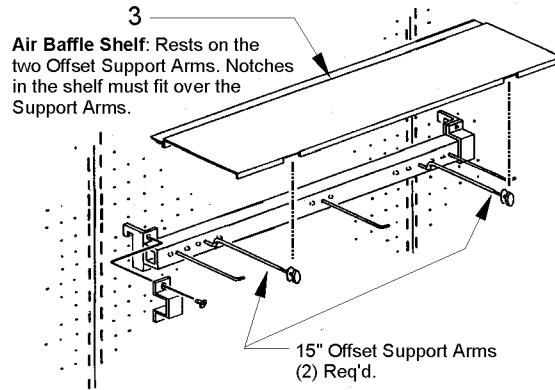
Pegs: After marking the desired locations for the Pegs on the Peg Bar, insert the Pegs by holding them at 90°, and insert into the holes so Peg points are up. Pull out Peg to seat properly on the Peg Bar.

2. 15" pegs and offset support arms lock in place on the peg bar.

After marking the desired locations in the peg bar, install the pegs into peg bar holes. Hold peg at 90° angle to peg bar. Insert peg into hole in peg bar. Rotate peg until angled end points up. Pull peg out until peg sits properly

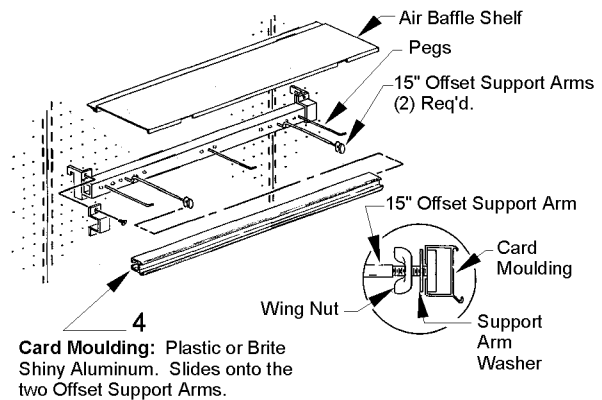
in the peg bar.

Offset support arms must be installed in the peg bar so the notches in the air baffle shelf can fit over them. Install support arms in the same manner as the pegs (with offset up).



3. Non-load bearing air baffle shelf runs the entire length of the case.

Air baffle shelf rests on the two offset support arms. The notches in the shelf must fit over the support arms.



4. Card moulding is offset 2" in front and 3/4" above the pegs.

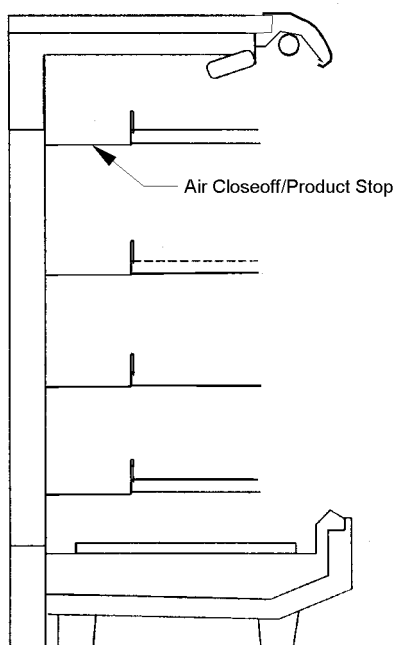
Slide the card moulding onto the two offset support arms. The support arm washers should be positioned on the outside of the card moulding. Center the card moulding so it is aligned with the peg bar. Tighten the wing nuts to secure the card moulding to the support arms. To remove card moulding as an assembly; loosen the wing nuts, rotate the support arms 90°, and remove the entire assembly.

Rear Load Baffle Information

NOTE

The air close-off/product stops are attached to the shelves at the factory.

- 8' cases use 32 1/2" air close-offs.
- 12' cases use 32 1/2" RH & LH side air close-offs and 37 1/4" center air close-offs.

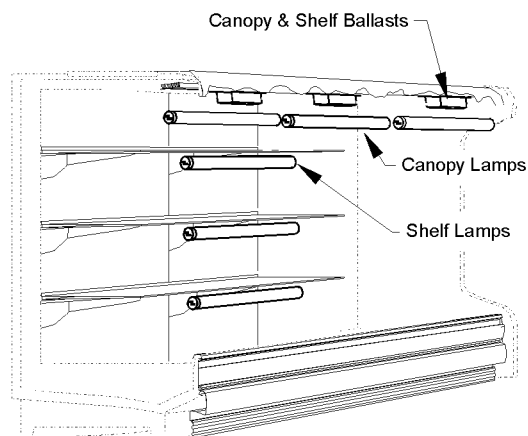


Shelves are shipped in the proper position. If shelves are removed, be sure they are replaced in the proper order. It is necessary for proper air flow in the case. Omit shelf shown by dotted line for cases with only three rows of shelves

SERVICE INSTRUCTIONS

See "General I&S Manual" for T-8 and 800MA T-12 lamp, canopy ballast, fan blade and motor, and color band and bumper replacement instructions.

Ballast and Lighting Locations

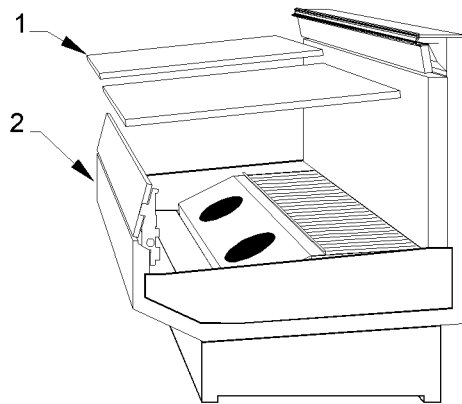


All light ballasts are located under the canopy and mounted above or on the top of the canopy light channel. This includes remote ballasts for optional shelf lights and optional nose lights. The canopy light(s) are under the canopy light channel in the top of the case. The optional shelf lights are mounted under the top interior liner above each shelf section.

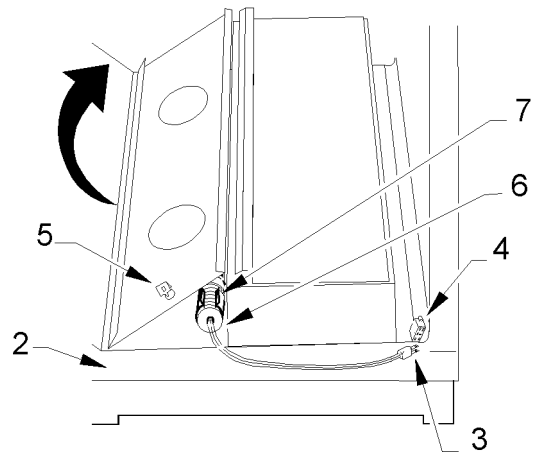
Defrost Heater Replacement

WARNING

Always shut off electricity to the entire case before replacing a defrost heater. Automatic cycling of fans or electrical power to wire ends could cause personal injury and/or death.



1. Remove bottom trays (1) from case (2).



2. Disconnect defrost heater plug (3) from junction block (4).
3. Remove mounting screws and lift up fan plenum (5).
4. Remove defrost heater (6) from mounting clips (7) and case (2).
5. Install new defrost heater (6) in reverse order.
6. Restore electrical power to case.

PARTS INFORMATION**Operational Parts List**

Case Usage	Domestic			Export	
	115 Volt 60 Hertz			220 Volt 50 Hertz	
Case Size	6'	8'	12'	8'	12'
Fan Motors	5243498 9 Watt	5243498 9 Watt	5243498 9 Watt	5223696 18.3 Watt	5223696 18.3 Watt
Fan Motor Brackets	5205112	5205112	5205112	5205112	5205112
Fan Blades (8.75" 35° 5B)	5643563	5643563	5643563	-	-
Fan Blades (8.75" 26° 5B)	-	-	-	5054140	5054140
800MA Ballast (one lamp)	5049140	5049140	5049140	5204859	5204859
800MA Ballast (two lamp)	5049140	5204769	5049140	5204859	5204859
Opt. Ballast (T-8 shelf lamps)	5966635	5966635	5966635	9028439	9028439
Opt. Ballast (5th row shelf lamp)	5991029	5991029	5991030	9028437	9028438
T-8 Shelf Lampholder	5232279	5232279	5232279	5232279	5232279
800MA Lampholder (telescoping)	5614628	5614628	5614628	5614628	5614628
(stationary)	5614629	5614629	5614629	5614629	5614629
Light Switch	5100565	5100565	5100565	5100565	5100565
Opt. Elec. Defrost Heater	9310403	5124521	5124522	5124521	5124522
Opt. Elec. Defrost Term. Klixon	5125211	5125211	5125211	5125211	5125211
Opt. Gas Defrost Term. Klixon	9023508	9023508	9023508	9023508	9023508
Opt. Gas Fan Delay Klixon	9023503	9023503	9023503	9023503	9023503

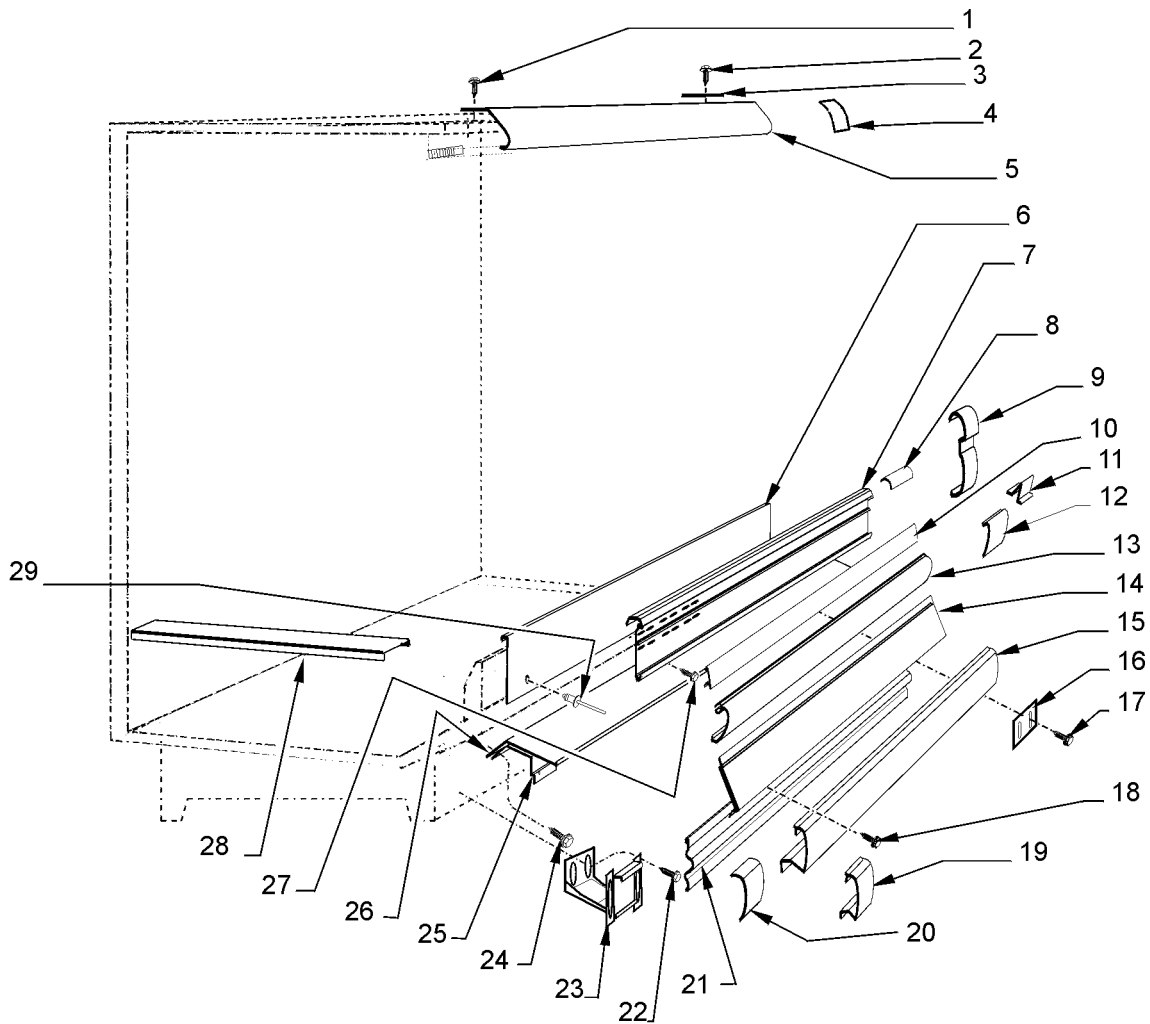
For information on operational parts not listed above contact the TYLER Service Parts

Department.

Cladding and Trim Parts List

<u>Item</u>	<u>Description</u>	<u>6'</u>	<u>8'</u>	<u>12'</u>
1	Screw	5183536 (4)	5183536 (6)	5183536 (8)
2	Screw	5183536 (8)	5183536 (8)	5183536 (8)
3	End Cover	9026103 (2)	9026103 (2)	9026103 (2)
4	Canopy Backer, Ptd. -or-	9025983	9025983	9025983
	Canopy Joint Trim	9029422	9029422	9029422
5	Canopy Hood, Painted	9025222	9025223	9025224
6	Front Panel	5636774	5203468	5203469
7	Hand Rail/Bumper Retainer	-----	color per order	-----
8	Hand Rail Backer	9025316	9025316	9025316
9	Bumper End Trim	-----	color per order	-----
10	Color Band, Painted	9023795	9023798	9023800
11	Color Band Backer, Painted	9040223	9040223	9040223
12	Bumper Backer	-----	color per order	-----
13	Bumper	-----	color per order	-----
14	Front Cladding, Painted			
	L6DLA	9025135	9025136	9025137
	L6DMA	9025647	9025648	9025649
	L6DHA	9300395	9025650	9025651
15	Raceway Cover	-----	color per order	-----
16	Raceway Cover Retainer	9023841 (2)	9023841 (4)	9023841 (6)
17	Screw (per retainer)	5183536 (2)	5183536 (2)	5183536 (2)
18	Screw	5183536 (4)	5183536 (6)	5183536 (8)
19	Raceway Cover End Trim	-----	color per order	-----
20	Raceway Cover Backer	-----	color per order	-----
21	Kickplate	-----	color per order	-----
	Kickplate Backer	9041790	9041790	9041790
22	Shoulder Screw	9025833 (6)	9025833 (8)	9025833 (8)
23	Kickplate Support Assy.	9042341 (3)	9042341 (4)	9042341 (4)
24	Screw	5183536 (8)	5183536 (12)	5183536 (16)
25	Raceway Support	9041322 (4)	9041322 (6)	9041322 (8)
26	Raceway	9300242	9300243	9300244

<u>Item</u>	<u>Description</u>	<u>6'</u>	<u>8'</u>	<u>12'</u>
28	Horizontal End Trim	5211585	5211585	5211585
29	Pop Rivet	5105037 (5)	5105037 (10)	5105037 (14)



L6DMA ILLUSTRATED