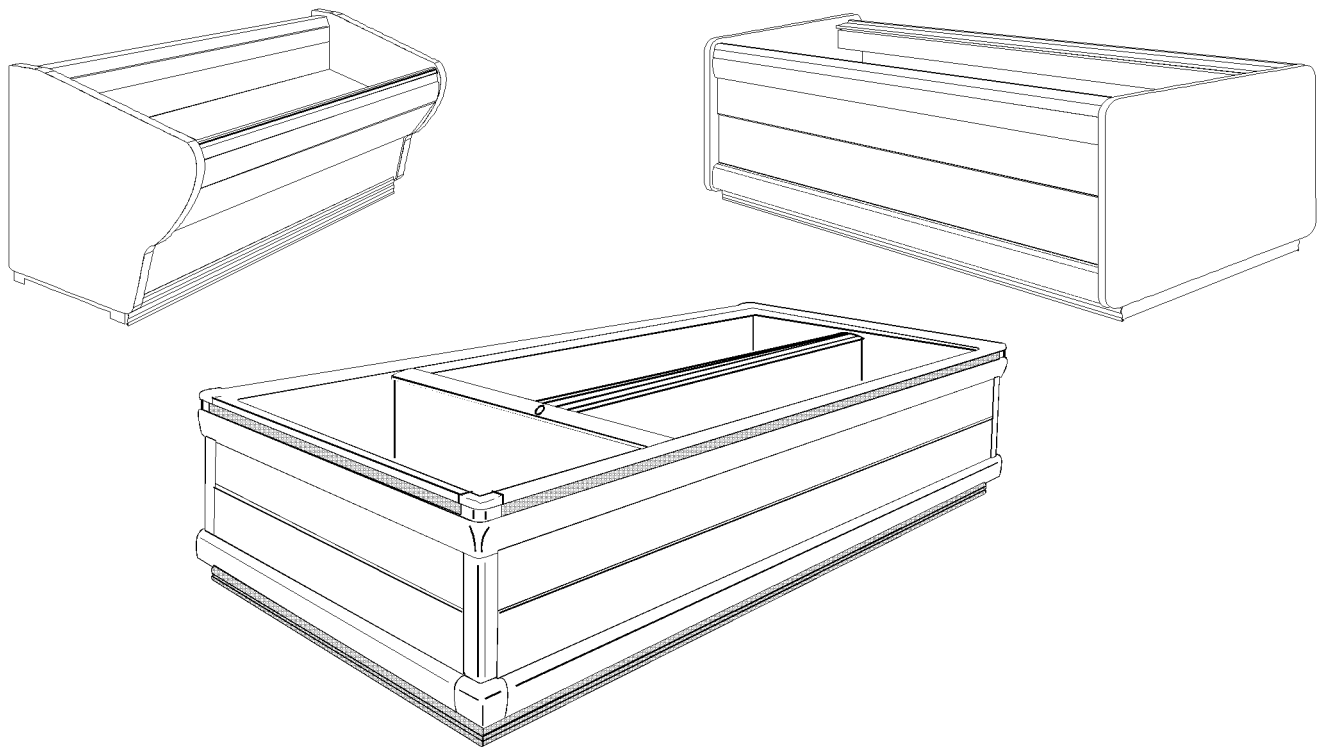


# TYLER



## Installation & Service Manual



LMF(G), LF, LFS, LCS, LFN(G), LCN(G), LFB(G), LCB(G),  
LFW(G), LCW(G), LF(G)EA, LC(G)EA, LFWEA, LCWEA

### FROZEN FOOD & ICE CREAM MERCHANDISERS Low 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	7/99	ISSUE DATE	8/99	PART NO.	9027526	REV.	D
-------------------	--	------------------	------	------------	------	----------	---------	------	---

## CONTENTS

	<u>Page</u>
<b>Specifications</b>	
LMF/LMFG Specification Sheets . . . . .	4
LF/LFS/LCS Specification Sheets . . . . .	6
LFN/LCN/LFB/LCB/LFEA/LCEA Specification Sheets . . . . .	8
LFW/LCW/LFWEA/LCWEA Specification Sheets . . . . .	11
Line Sizing Requirements . . . . .	(See General I&S Manual)
<b>Pre-Installation Responsibilities . . . . .</b>	<b>(See General I&amp;S Manual)</b>
<b>Installation Procedures</b>	
<b>Carpentry Procedures . . . . .</b>	<b>13</b>
Case Pull-Up Locations . . . . .	13
1" Solid Partition . . . . .	13
Plexiglas Partition . . . . .	13
Superstructure Installation . . . . .	14
Trim Installation/Alignment . . . . .	18
<b>Plumbing Procedures . . . . .</b>	<b>(See General I&amp;S Manual)</b>
<b>Refrigeration Procedures . . . . .</b>	<b>18</b>
Optional Dual Temperature Control . . . . .	18
<b>Electrical Procedures . . . . .</b>	<b>18</b>
Electrical Considerations . . . . .	18
<b>Defrost Information . . . . .</b>	<b>19</b>
Defrost Control Chart . . . . .	19
<b>Installation Procedure Check Lists . . . . .</b>	<b>(See General I&amp;S Manual)</b>
<b>Wiring Diagrams . . . . .</b>	<b>19</b>
LMF/LMFG Domestic & Export (50Hz) Case Circuits . . . . .	20
LF/LFS/LCS Domestic & Export (50Hz) Case Circuits . . . . .	22
LFN/LCN/LFB/LCB/LFW/LCW Domestic & Export (50Hz) Case Circuits . . . . .	24
LFEA/LCEA/LFWEA/LCWEA Domestic & Export (50Hz) End Case Circuits . . . . .	26
Dual Temperature Control Circuits . . . . .	27
<b>Cleaning and Sanitation . . . . .</b>	<b>(See General I&amp;S Manual)</b>

	<b><u>Page</u></b>
<b>Service Instructions</b>	
Preventive Maintenance . . . . .	(See General I&S Manual)
Fan Blade and Motor Replacement . . . .	(See General I&S Manual)
Color Band and Bumper Replacement .	(See General I&S Manual)
Corner Trim Replacement . . . . .	28
Defrost Heater Replacement . . . . .	28
Anti-Sweat Replacement . . . . .	29
Perimeter Glass Replacement . . . . .	31
<b>Parts Information</b>	
Operational Parts List . . . . .	32
Cladding and Optional Trim Parts List . . . . .	34
LMF and LMFG . . . . .	34
LF, LFS and LCS . . . . .	36
LFN(G), LCN(G), LFB(G) and LCB(G) . . . . .	38
LFW(G) and LCW(G) . . . . .	40
LF(G)EA, LC(G)EA, LFWEA and LCWEA . . . . .	42
<b>TYLER Warranty</b> . . . . .	(See General I&S Manual)

The following Low Temperature Frozen Food and Ice Cream Merchandiser models are covered in this manual:

<b>MODEL</b>	<b>DESCRIPTION</b>
<b>LMF/LMFG</b>	<b>6', 8' &amp; 12' FROZEN FOOD MEAT MERCHANDISER</b>
<b>LF/LFS</b>	<b>8' &amp; 12' OPEN WELL FROZEN FOOD MERCHANDISER</b>
<b>LCS</b>	<b>8' &amp; 12' OPEN WELL ICE CREAM MERCHANDISER</b>
<b>LFN/LCN</b>	<b>8' &amp; 12' NARROW ISLAND FROZEN FOOD &amp; ICE CREAM MERCHANDISER</b>
<b>LFB/LCB</b>	<b>8' &amp; 12' BACK-TO-BACK FROZEN FOOD &amp; ICE CREAM MERCHANDISER</b>
<b>LFEA/LCEA</b>	<b>BACK-TO-BACK FROZEN FOOD &amp; ICE CREAM END MERCHANDISER</b>
<b>LFW/LCW</b>	<b>8' &amp; 12' WIDE ISLAND FROZEN FOOD &amp; ICE CREAM MERCHANDISER</b>
<b>LFWEA/ LCWEA</b>	<b>WIDE ISLAND FROZEN FOOD &amp; ICE CREAM END MERCHANDISER</b>

## SPECIFICATIONS

### LMF/LMFG Frozen Food Meat Merchandiser Specification Sheets

<b>MODEL</b>	LMF/LMFG
<b>USAGE</b>	FROZEN FOOD
<b>BTUH/FT</b>	375
<b>SUCTION°</b>	-25F
<b>ENTER AIR°</b>	-15F

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.

208 VOLT DEFROST (AMPS)														
FT	6	8	12	16	20	24	28	32	36	40	44	48	52	56
1 PH	6.5 TG-30	6.9 TG-30	10.3 TG-30	13.8 TG-30	17.2 TG-30	20.6 TG-30	24.1 TG-40	27.5 TG-40	30.9 TG-40	34.3 TG-50	37.8 TG-50	41.2 TG-50	44.6 TG-50	N/A
3 PH	N/A	N/A	N/A	12.0 TG-3 -30	15.0 TG-3 -30	18.0 TG-3 -30	15.0 TG-3 -30	18.0 TG-3 -30	18.0 TG-3 -30	21.0 TG-3 -30	25.0 TG-3 -40	28.0 TG-3 -40	30.0 TG-3 -40	33.0 TG-3 -50
CASE-TO-CASE SUCTION LINE SUB-FEED BRANCH LINE SIZING														
R404A	1/2"	5/8"	7/8"	7/8"	7/8"	11/8"	11/8"	11/8"	11/8"	11/8"	11/8"	11/8"	11/8"	11/8"

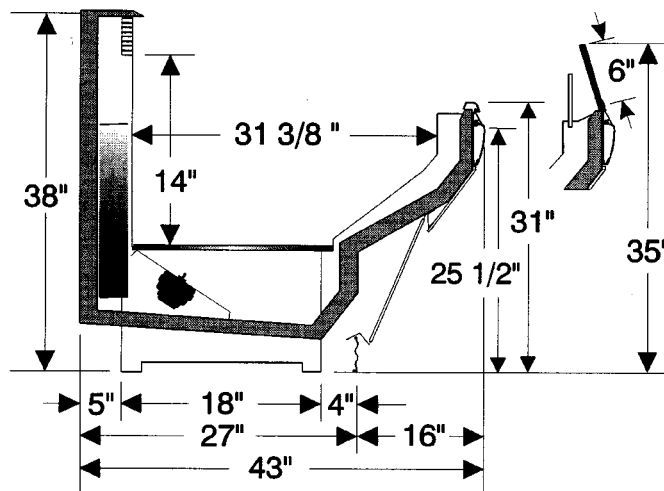
DEFROST CONTROL				PRESSURE SETTINGS		EPR SETTINGS	
PER DAY	MODE	TIME	TERM.	CUT IN	CUT OUT	R22	R404A
1	ELECT	60 MIN.	50F	15-22# @ R22	4-8# @ R22	1#	---
2	HOT GAS	16-20 MIN.	55F	22-30# @ R404A	9-14# @ R404A	---	12#

**CASE CIRCUITS:** In addition to the 208V Defrost Circuit, there is the 120V Case Fan Circuit plus the 120V Case Anti-Sweat Heater Circuit. Anti-Sweat Circuit includes allowance for Rub Rail heater, Lower Glass Retainer Heater and Heated Glass. Anti-Sweat is not required 100% of the time in most stores, and the use of a Tyler ES-2 Energy Saver control to cycle this circuit, as required, is strongly recommended. Shelf or Canopy lights require a separate 120V circuit which can be switched at the back room for convenience in controlling the lights.

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

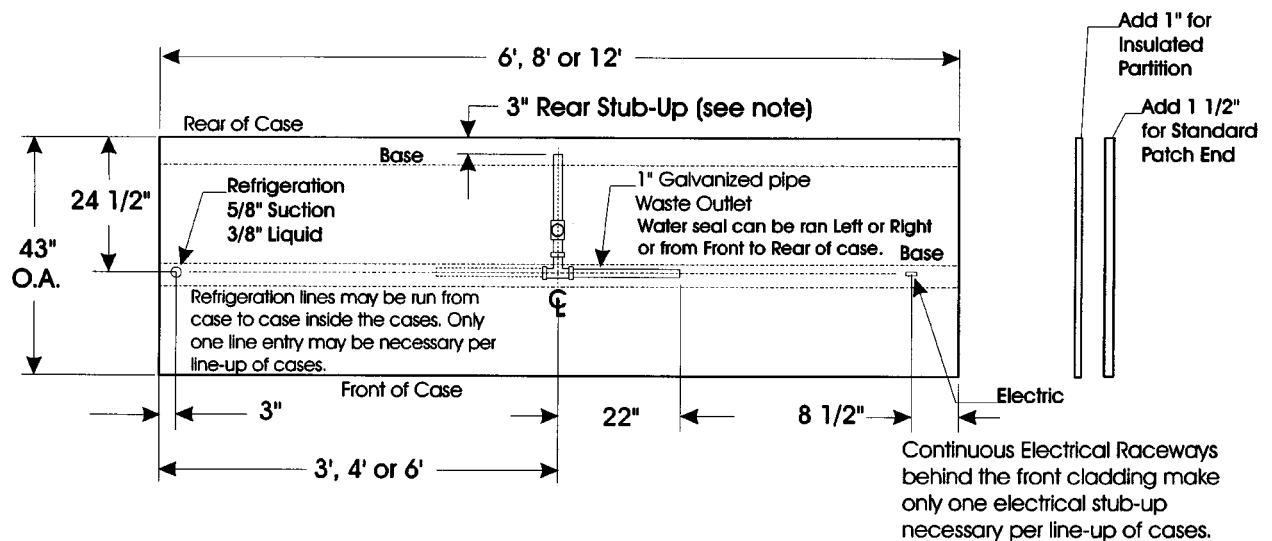
The information contained herein is based on technical data and tests which we believe to be reliable and is intended for use by persons having technical skill, at their own discretion and risk. Since conditions of use are outside Tyler's control, we can assume no liability for results obtained or damages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

## LMF/LMFG Frozen Food Meat Merchandisers



120 VOLT ELECTRICAL DATA (AMPS)			
FT	STD. FANS	ECM FANS	ANTI-SWT
6	1.2	.4	.9
8	1.2	.4	1.2
12	1.8	.6	1.7

120 VOLT LIGHTING DATA (AMPS)			
FT	OPT. CANOPY LIGHTS	SHELF LIGHTS PER ROW	MAX. LIGHTS
6	.8	1.0	1.8
8	.8	1.0	1.8
12	1.3	1.5	2.8



## LF/LFS/LCS Open Well Frozen Food & Ice Cream Merchandisers

MODEL	LF/LFS	LCS	LF/LFS	LF/LFS
USAGE	FROZEN FOOD	ICE CREAM	MEAT	DAIRY
BTUH/FT	360	460	338	320
SUCTION °	-25F	-35F	+15F	+25F
ENTER AIR°	-15F	-25F	+24F	+35F

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.

208 VOLT DEFROST (AMPS)														
FT	8	12	16	20	24	28	32	36	40	44	48	52	56	60
FF 1 PH	6.9 TG-30	10.3 TG-30	13.8 TG-30	17.2 TG-30	20.6 TG-30	24.1 TG-40	27.5 TG-40	30.9 TG-40	34.3 TG-50	37.8 TG-50	41.2 TG-50	44.6 TG-50	N/A	N/A
FF 3 PH	N/A	N/A	12.0 TG-3-30	15.0 TG-3-30	18.0 TG-3-30	15.0 TG-3-30	18.0 TG-3-30	18.0 TG-3-30	21.0 TG-3-30	25.0 TG-3-40	28.0 TG-3-40	30.0 TG-3-40	33.0 TG-3-50	36.0 TG-3-50
IC 1 PH	13.8 TG-30	20.6 TG-30	27.6 TG-40	34.4 TG-50	41.2 TG-50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
IC 3 PH	N/A	N/A	42.0 TG-3-30	30.0 TG-3-40	36.0 TG-3-50	30.0 TG-3-40	36.0 TG-3-50	36.0 TG-3-50	43.0 TG-3-50	30/36 TG-3-50-50	36/36 TG-3-50-50	36/30 TG-3-50-50	36/36 TG-3-50-50	36/36 TG-3-50-50
CASE-TO-CASE SUCTION LINE SUB-FEED BRANCH LINE SIZING														
R404A FF	5/8"	7/8"	7/8"	7/8"	7/8"	7/8"	11/8"	11/8"	11/8"	11/8"	11/8"	11/8"	13/8"	13/8"
R404A IC	7/8"	7/8"	7/8"	11/8"	11/8"	11/8"	11/8"	11/8"	13/8"	13/8"	13/8"	13/8"	13/8"	13/8"

DEFROST CONTROL				PRESSURE SETTINGS			EPR SETTINGS	
PER DAY	MODE	TIME	TERM.		CUT IN	CUT OUT	R22	R404A
1	ELECT / FF	60 MIN.	50F	FF	15-22# @ R22	4-8# @ R22	7#	---
1	ELECT / IC	36 MIN.	50F	IC	9-15# @ R22	1-5# @ R22	2#	---
2-3	HOT GAS / FF	16-20 MIN.	55F	FF	22-31# @ R404A	9-14# @ R404A	---	12#
2-3	HOT GAS / IC	16-20 MIN.	55F	IC	15-22# @ R404A	5-10# @ R404A	---	7#

CASE BTUH REQUIREMENTS are calculated to produce approximately the indicate' lentering 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.

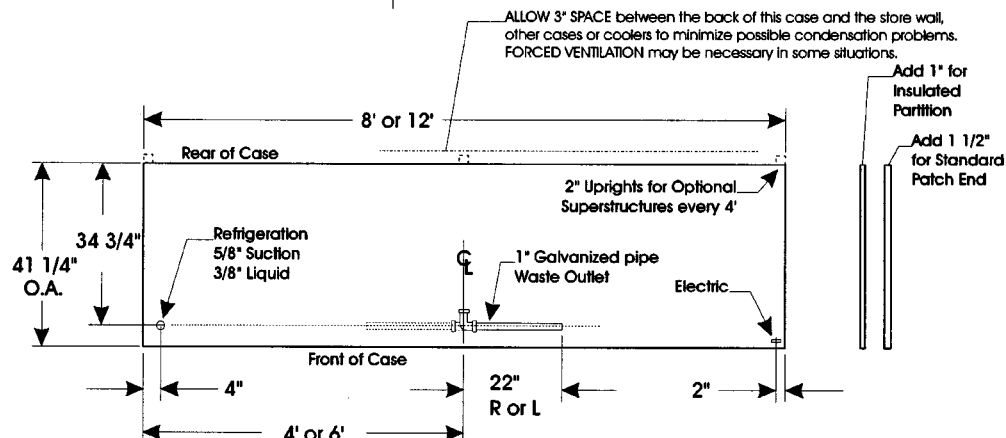
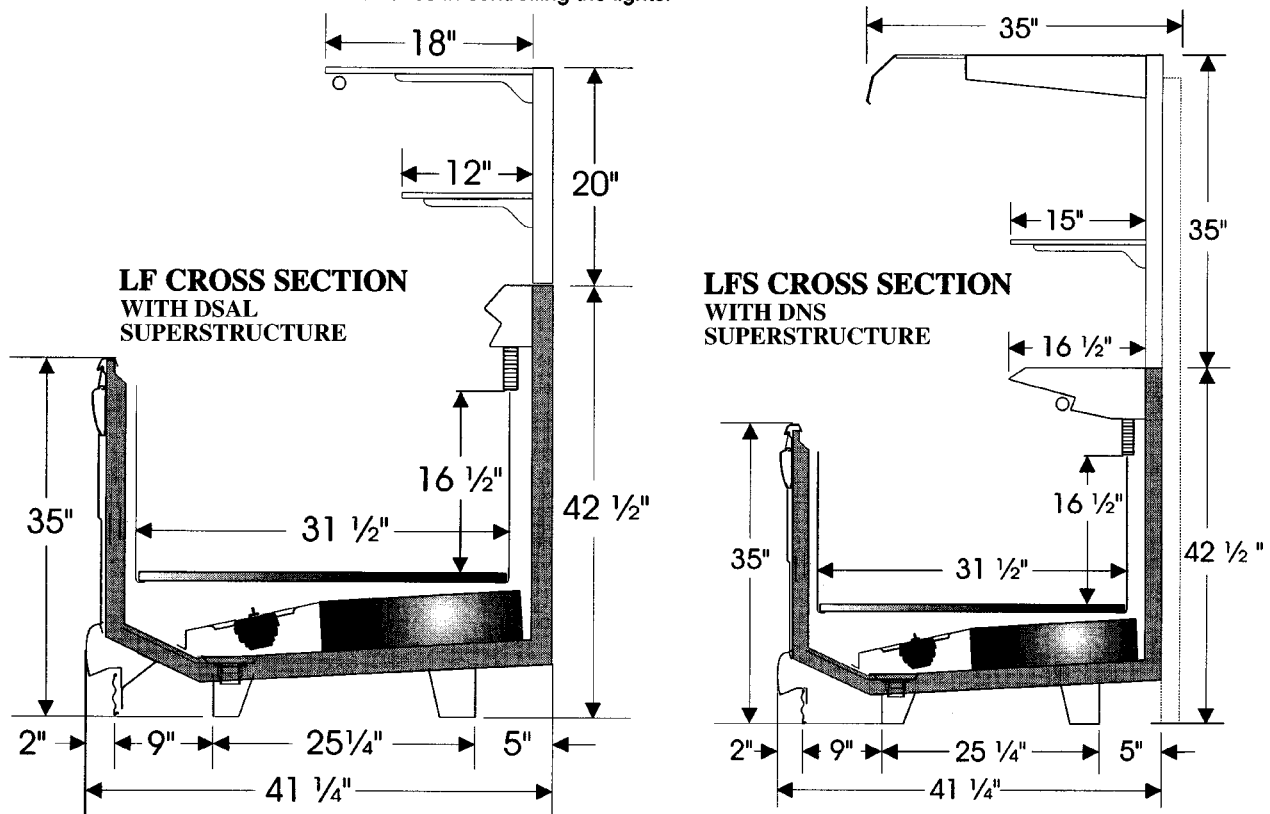
## LF/LFS/LCS Open Well Frozen Food & Ice Cream Merchandisers

**NOTE:** Optional shelving superstructures with lights have the same electrical requirements per row of lights as shown on the chart. A separate electrical supply for the superstructure lights must be provided since there is no plug in from the superstructure to the case.

120 VOLT DATA (AMPS)				
FT	LF-A/S ANTI-SWT	LFS/LC ANTI-SWT	LFS/LC AS/LIGHT	LIGHT AMPS CANOPY ONLY
8	.9	2.1	3.3	.8
12	1.2	2.8	4.4	1.3

120 VOLT ELECTRICAL DATA (AMPS)		
FT	STD. FANS	ECM FANS
8	1.0	.4
12	1.5	.6

**CASE CIRCUITS:** In addition to the 208V Defrost Circuit, there is the 120V Case Fan Circuit plus the 120V Case Anti-Sweat Heater Circuit. Anti-Sweat is not required 100% of the time in most stores, and the use of a Tyler ES-2 Energy Saver control to cycle this circuit, as required, is strongly recommended. Shelf or Canopy lights require a separate 120V circuit which can be switched at the back room for convenience in controlling the lights.



**LFN/LCN Narrow Island Frozen Food & Ice Cream Merchandisers**  
**LFB/LCB Back-To-Back Frozen Food & Ice Cream Merchandisers**  
**LFEA/LCEA Back-To-Back Frozen Food & Ice Cream End Merchandisers**

MODEL	LFN/LFB	LCN/LCB	LFN/LFB	LFN/LFB	LFEA	LCEA
USAGE	FROZEN	ICE CREAM	MEAT	DAIRY	FROZEN	ICE CREAM
BTUH/FT	360	460	380	320	371	486
SUCTION°	-25F	-35F	+15F	+25F	-25F	-35F
ENTER AIR°	-15F	-25F	+24F	+35F	-15F	-25F

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.

208 VOLT DEFROST (AMPS)															
FT	8	12	16	20	24	28	32	36	40	44	48	52	56	60	64
FF 1 PH	6.6 TG- 30	10.3 TG- 30	13.8 TG- 30	17.2 TG- 30	20.6 TG- 30	24.1 TG- 40	27.5 TG- 40	30.9 TG- 40	34.3 TG- 50	37.8 TG- 50	41.2 TG- 50	44.6 TG- 50	N/A	N/A	N/A
FF 3 PH	N/A	N/A	12.0 TG-3 -30	15.0 TG-3 -30	18.0 TG-3 -30	15.0 TG-3 -30	18.0 TG-3 -30	18.0 TG-3 -30	21.0 TG-3 -30	25.0 TG-3 -40	28.0 TG-3 -40	30.0 TG-3 -40	33.0 TG-3 -50	36.0 TG-3 -50	33.0 TG-3 -50
IC 1 PH	13.8 TG- 30	20.6 TG- 30	27.6 TG- 40	34.4 TG- 50	41.2 TG- 50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
IC 3 PH	N/A	N/A	42.0 TG-3 -30	30.0 TG-3 -40	36.0 TG-3 -50	30.0 TG-3 -40	36.0 TG-3 -50	36.0 TG-3 -50	43.0 TG-3 -50	30/36 TG-3 -50	36/36 TG-3 -50	36/30 TG-3 -50	36/36 TG-3 -50	N/A	N/A
CASE-TO-CASE SUCTION LINE SUB-FEED BRANCH LINE SIZING															
R404A FF	5/8"	7/8"	7/8"	7/8"	7/8"	7/8"	1 1/8"	1 1/8"	1 1/8"	1 1/8"	1 1/8"	1 1/8"	1 3/8"	1 3/8"	1 3/8"
R404A IC	7/8"	7/8"	7/8"	1 1/8"	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"	1 5/8"

DEFROST CONTROL				PRESSURE SETTINGS			EPR SETTINGS	
PER DAY	MODE	TIME	TERM.		CUT IN	CUT OUT	R22	R404A
1	ELECT / FF	60 MIN.	50F	FF	15-22# @ R22	4-8# @ R22	7#	---
1	ELECT / IC	36 MIN.	50F	IC	9-15# @ R22	1-5# @ R22	2#	---
2-3	HOT GAS / FF	16-22 MIN.	55F	FF	22-30# @ R404A	9-14# @ R404A	---	12#
2-3	HOT GAS / IC	16-20 MIN.	55F	IC	15-22# @ R404A	5-10# @ R404a	---	7#

**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.



## LFB/LCB Back-To-Back Frozen Food & Ice Cream Merchandisers LFEA/LCEA Back-To-Back Frozen Food & Ice Cream End Merchandisers

208 VOLT DEFROST (AMPS) FOR END CASE		
FT	7	14
FF 1 PH	8.6 TG-30	17.2 TG-30
IC 1 PH	17.2 TG-30	34.4 TG-30
SUCTION LINE STEP SIZING @ 50' FOR END		
R404A FF	5/8"	7/8"
R404A IC	5/8"	7/8"

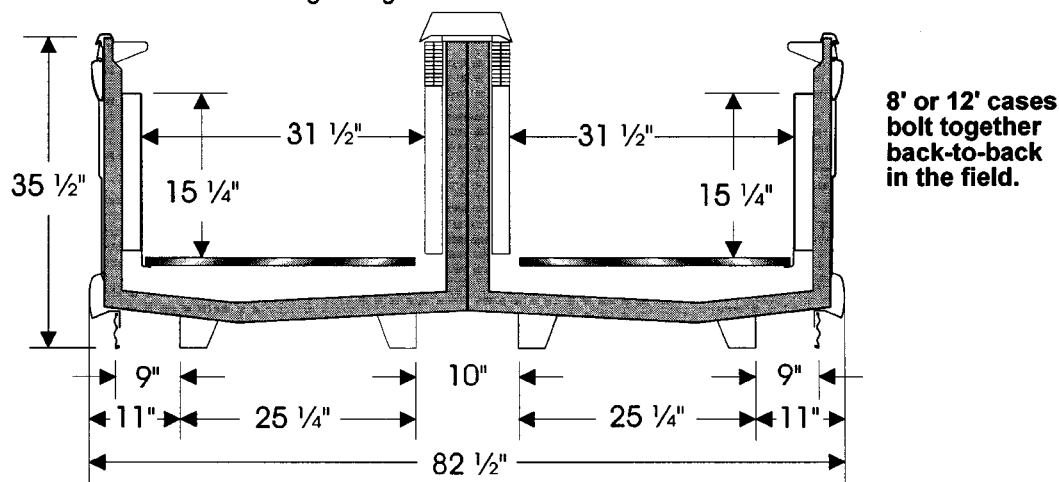
120 VOLT ELECTRICAL DATA (AMPS)				
FT	STD. FANS	ECM FANS	ANTI-SWT w/o SHELVES	ANTI-SWT W/SUPER STRUCTR
8	1.0	.4	1.8	2.4
12	1.5	.6	2.4	3.3
END	1.0	.4	1.6	---

Add .3A to case amps and .3A to case light amps for each AWA shelving arrangement over 7' End Case (LFEA/LCEA)

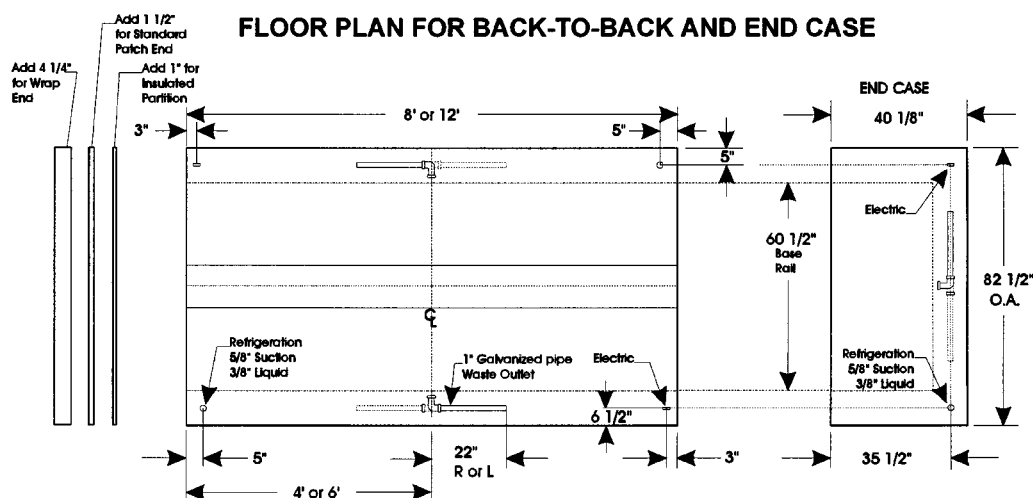
**STUB-UP NOTES:** One floor drain can serve up to two cases per drain. One electrical stub-up can serve a number of cases depending on the circuits required - utilizing the continuous wire raceway(s) on the front of the cases. One refrigeration stub-up can serve several or all cases on a line-up with case-to-case piping. Maximum 1 5/8" for case-to-case piping.

120V LIGHTING DATA (AMPS)	
FT	SHELF LIGHT ON OPT. CANOPY
8	1.2
12	1.8

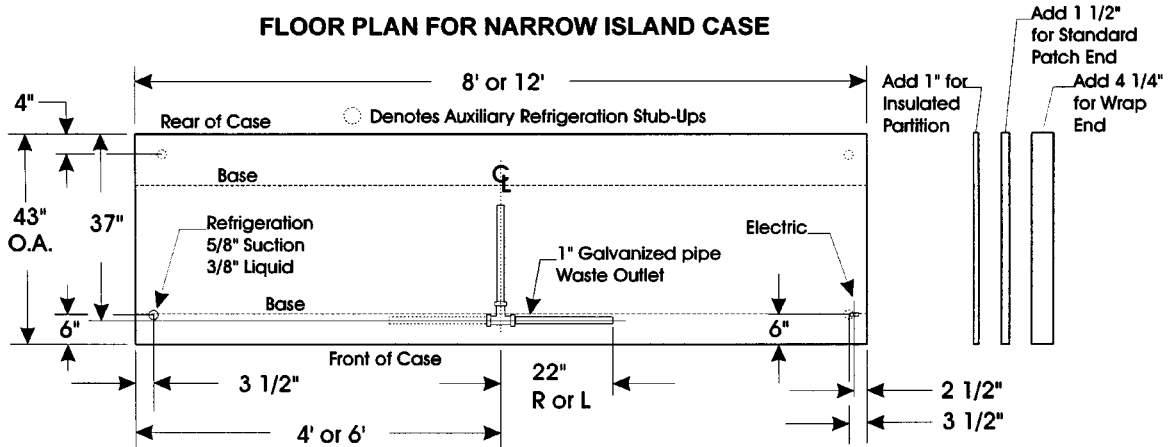
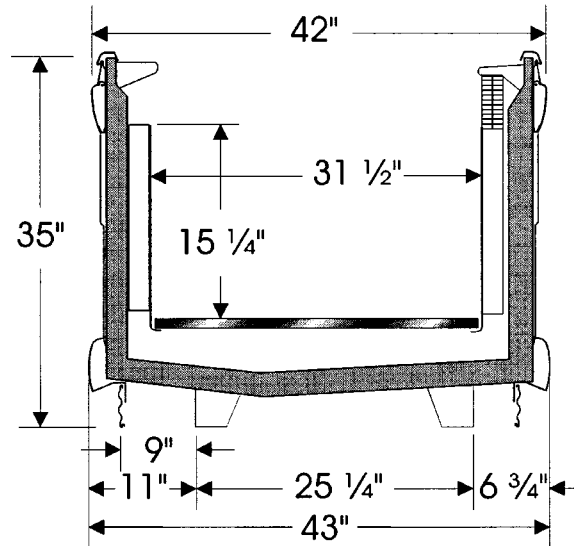
**CASE CIRCUITS:** In addition to the 208V defrost circuit, there is the 120V case Fan circuit plus the 120V case anti-sweat heater circuit. Anti-sweat is not required 100% of the time in most stores and the use of a Tyler ES-2 Energy Saver control to cycle this circuit as required is strongly recommended. Shelf or canopy lights require a separate 120V circuit which can be switched at the back room for convenience in controlling the lights.



Refrigeration lines can be run through 8' & 12' cases (in lin) through holes drilled in the backs of these cases to minimize tubing lengths. Punched holes in the metal backs of the cases serve as locators. Drill through the foam body and drain pan. The 7' end case can also be drilled through for making refrigerant connections.



## LFN/LCN Narrow Island Frozen Food & Ice Cream Merchandisers



**STUB-UP NOTES:** One floor drain can serve up to two cases per drain. One electrical stub-up can serve a number of cases depending on the circuits required - utilizing the continuous wire raceway(s) on the front of the cases. One refrigeration stub-up can serve several or all cases on a line-up with case-to-case piping. Maximum 1 5/8" for case-to-case piping.

## Installation & Service Manual

### LFW/LCW Wide Island Frozen Food & Ice Cream Merchandisers LFWEA/LCWEA Wide Island Frozen Food & Ice Cream End Merchandisers

MODEL	LFW	LCW	LFW	LFW	LFWEA	LCWEA	LFWEA
USAGE	FROZEN	ICE CREAM	MEAT	DAIRY	FROZEN	ICE CREAM	MEAT
BTUH/FT	450	550	423	410	402	557	321
SUCTION°	-25F	-35F	+15F	+25F	-25F	-35F	+15F
ENTER AIR°	-15F	-25F	+24F	+25F	-15F	-25F	+24F

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.

208 VOLT DEFROST (AMPS)														
FT	8	12	16	20	24	28	32	36	40	44	48	52	56	60
FF/IC 1 PH	13.8 TG-30	20.6 TG-30	27.6 TG-40	34.4 TG-50	41.2 TG-50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FF/IC 3 PH	N/A	N/A	24.0 TG-3- 30	30.0 TG-3- 40	36.0 TG-3- 50	30.0 TG-3- 40	36.0 TG-3- 50	36.0 TG-3- 50	42.0 TG-3- 50	30/36 TG-3- 50-50	36/36 TG-3- 50-50	36/36 TG-3- 50-50	36/36 TG-3- 50-50	36/36 TG-3- 50-50
CASE-TO-CASE SUCTION LINE SUB-FEED BRANCH LINE SIZING														
R404A FF	5/8"	7/8"	7/8"	7/8"	1 1/8"	1 1/8"	1 1/8"	1 1/8"	1 1/8"	1 1/8"	1 3/8"	1 3/8"	1 3/8"	1 3/8"
R404A IC	7/8"	7/8"	7/8"	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"	1 5/8"	1 5/8"

DEFROST CONTROL				PRESSURE SETTINGS			EPR SETTINGS	
PER DAY	MODE	TIME	TERM.		CUT IN	CUT OUT	R22	R404A
1	ELECT / FF	46 MIN.	50F	FF	15-22# @ R22	4-8# @ R22	7#	---
1	ELECT / IC	46 MIN.	50F	IC	9-15# @ R22	1-5# @ R22	2#	---
2-3	HOT GAS / FF	16-20 MIN.	55F	FF	22-31# @ R404A	9-14# @ R404A	---	12#
2-3	HOT GAS / IC	16-20 MIN.	55F	IC	15-22# @ R404A	5-10# @ R404A	---	7#

NOTE: ALFS, AHFS & A2LFS are designations for shelving superstructures which may have 1,2 or 3 rows of 30w lamps.

**CASE CIRCUITS:** In addition to the 208v defrost circuit, there is the 120v case fan circuit plus the 120v case anti-sweat heater circuit. Anti-sweat heat is not required 100% of the time in most stores and the use of a Tyler ES-2 Energy Saver control to cycle this circuit as required is strongly recommended. Shelf or canopy lights require a separate 120v circuit which can be switched at the back room for convenience in controlling the lights.

**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.

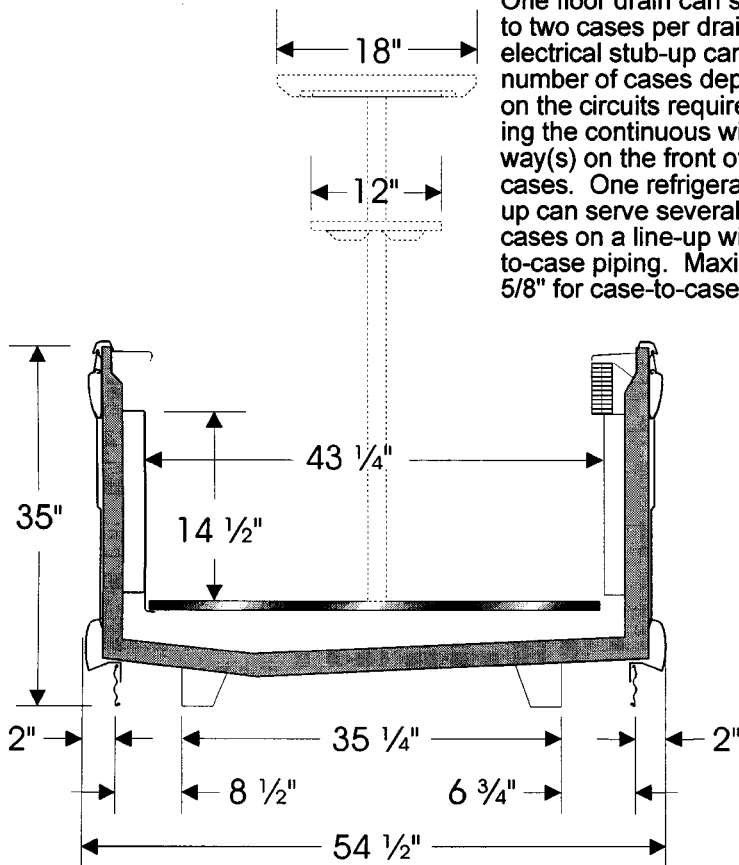
**LFW/LCW Wide Island Frozen Food & Ice Cream Merchandisers**  
**LFWEA/LCWEA Wide Island Frozen Food & Ice Cream End Merchandisers**

120 VOLT LIGHTING DATA (AMPS)	
FT	SUPERSTRUCTURE SHELF LIGHTS PER ROW
8	1.2
12	1.8

120 VOLT ELECTRICAL DATA (AMPS)				
FT	STD. FANS	ECM FANS	ANTI- SWEAT	ANTI-SWEAT W/ SUPER STRUCTURE
8	1.0	.4	1.8	2.4
12	1.5	.6	2.4	3.3

**STUB-UP NOTES:**

One floor drain can serve up to two cases per drain. One electrical stub-up can serve a number of cases depending on the circuits required - utilizing the continuous wire raceway(s) on the front of the cases. One refrigerator stub-up can serve several or all cases on a line-up with case-to-case piping. Maximum 1 5/8" for case-to-case piping

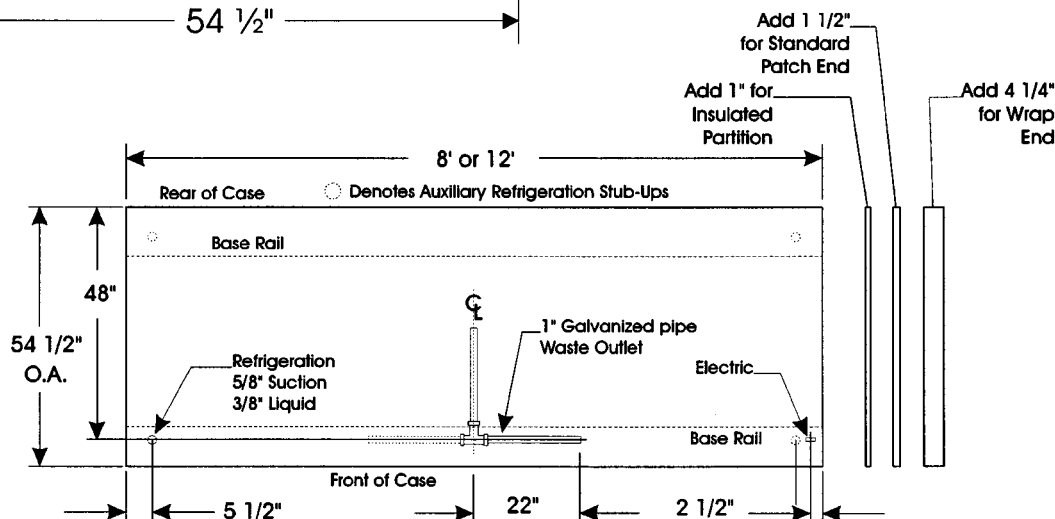
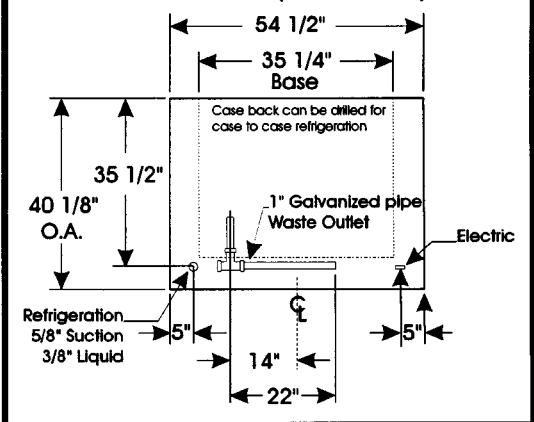


**END CASE DATA**

**Case amps (1ph 60 Cycle)**

120v Data	A.S. Heater Case Fans Drain Heater	.6A .5A .03A
208v Data	Defrost Heater	6.9A
Per Day	Defrost Mode	Failsafe
1	Electric	46
2	Hot Gas	16-20

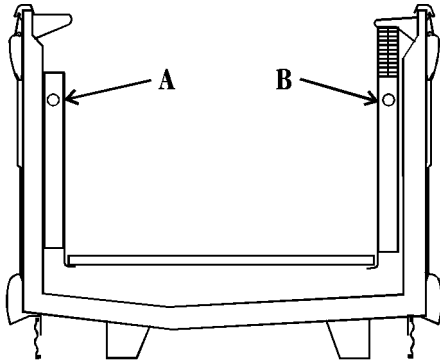
**FLOOR PLAN (END CASE)**



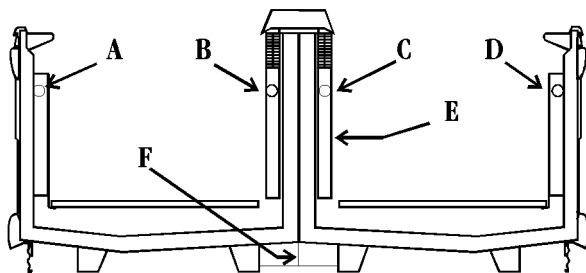
## INSTALLATION PROCEDURES

### Carpentry Procedures

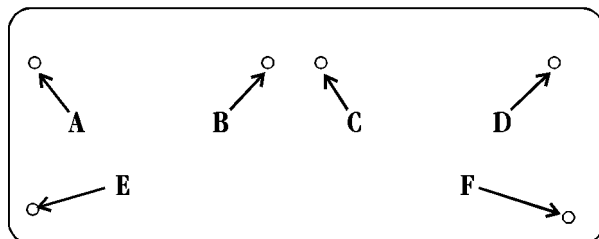
#### Case Pull-Up Locations



The LMF/LF/LFS/LCS/LFN/LCN/LFW/LCW models have two pull-ups at each end of the case. Pull-ups A and B are located as shown and used for joining all cases.



The LFB and LCB models have four pull-ups at each end of the case plus bolts thru the rear risers and the inner base rails. Pull-ups A, B, C, D, E and F are located as shown and used to join the cases together.



The LFEA/LCEA/LFWEA/LCWEA models have six pull-ups at the rear of the case. Pull-ups A, B, C, D, E and F are located as shown and used for joining end cases. All pull-ups should be installed and tightened starting with A and finishing with B or F.

### 1" Solid Partition

A 1" insulated partition is required between adjacent gas defrost cases that are on different refrigeration systems. 1" partitions are shipped installed as specified in the case order. Make sure the partitioned case is being installed in the proper location in the case line-up. This assures proper refrigeration to all parts of the case line-up.

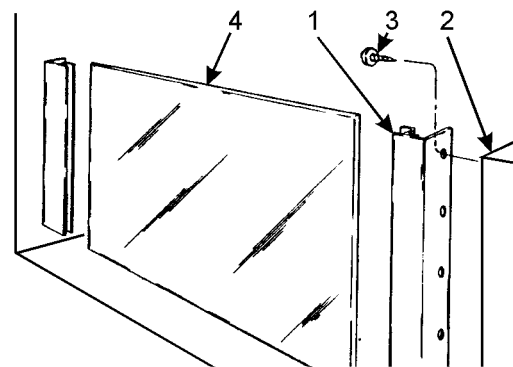
Apply sealant to outside surface of partition where the two surfaces of the adjoining case will contact the partition.

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

After all case pull-ups have been secured, all interior wall joint seams should be sealed with duct tape.

### Plexiglas Partition

A plexiglas plug partition is required on adjacent electric defrost cases that are on different refrigeration systems. These partitions can be installed after the cases have been joined.



1. Install partition brackets (1) at case joint on front, center and/or rear case wall (2) with screws (3)
2. Slide plexiglas partitions (4) into partition brackets (1).

## Superstructure Installation

### LFW/LCW Merchandising Shelf Superstructures

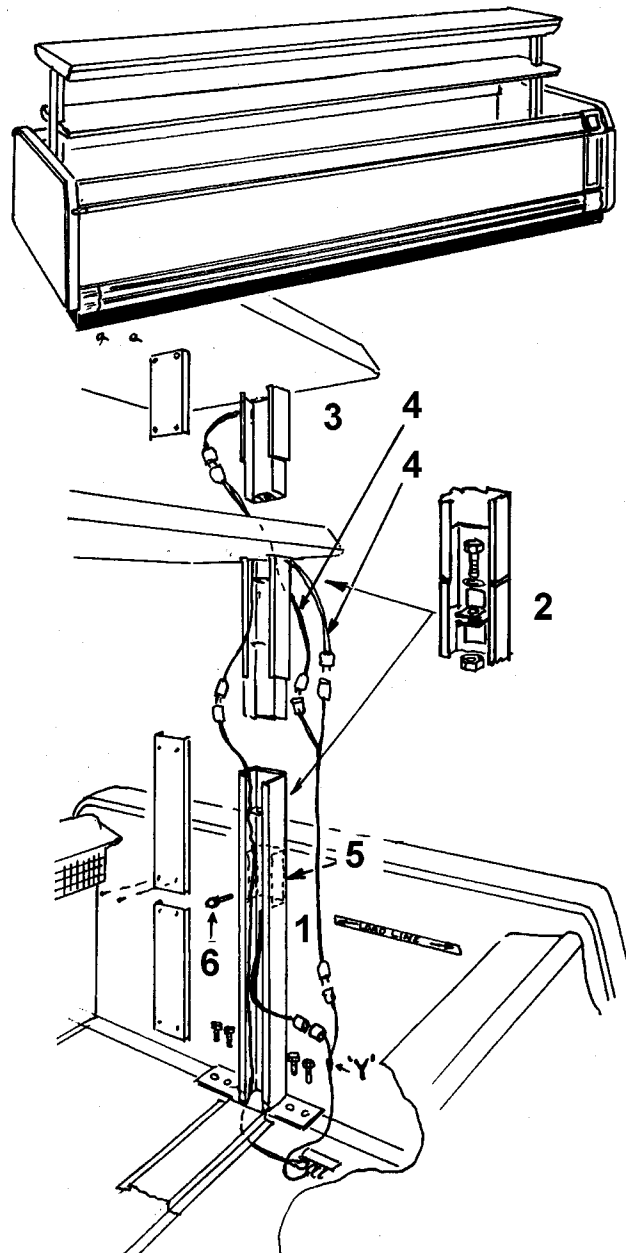
Model	Length	Depth	Lights	Display Area	Height off Floor
D8LFS	8'	12"	Std	8 sq ft	48"
D12LFS	12'	12"	Std	12 sq ft	48"
D8HFS	8'	18"	Std	12 sq ft	55"
D12HFS	12'	18"	Std	18 sq ft	55"
D82FSL	8'	1-12" & 1-18"	*	20 sq ft	58"
D122FSL	12'	1-12" & 1-18"	*	30 sq ft	58"

\*12" shelf standard with lights. 18" shelf lights are optional.

### IMPORTANT

Follow instructions in the numbered order.

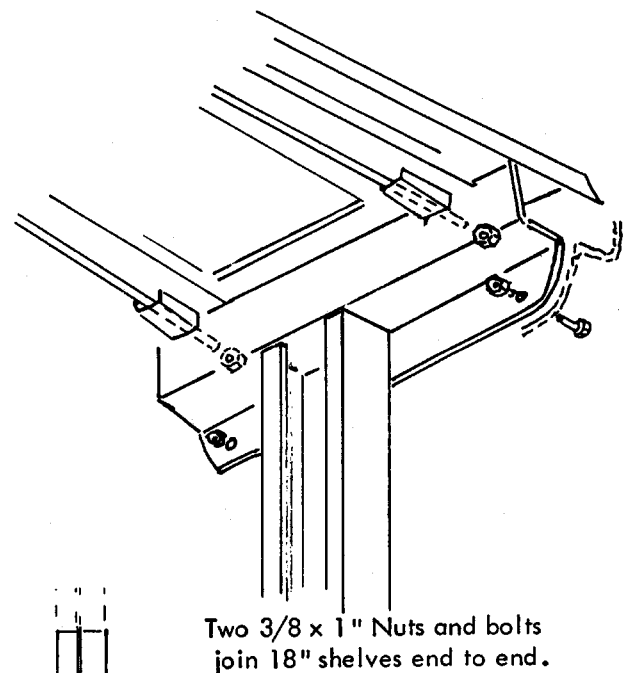
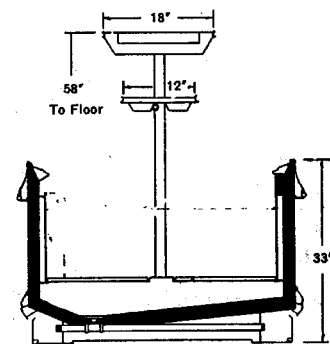
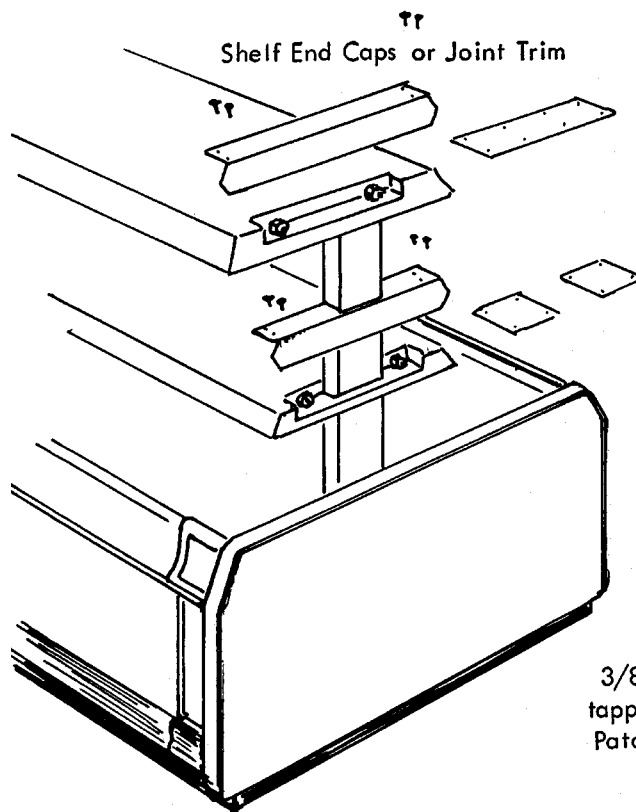
1. Install lower uprights (1) on end of case and secure with 3/8-16 x 1 1/4" bolts provided.
2. After uprights are installed and secured, install lower shelf (2) by inserting shelf uprights into lower upright sections (1) and securing with 3/8-16 x 1 1/2" screws, washers and nuts.
3. When furnished, the upper shelf (3) is installed and secured in the same manner as the lower shelf (2).
4. The internal wiring of the shelving and uprights is factory installed. It is necessary to connect the provided harnesses (4) to supply power to the shelves (2 & 3). Post heater pads (5) must be located even with the load lines of the case to provide a heat barrier to prevent sweating. Their pressure sensitive backs make installation easy.
5. The light and heater harness wires in the lower upright must be inserted underneath the tray support and plugged into the proper receptacles.
6. Secure the lower uprights (1) to the patch ends with 3/8-16 x 1" screws (6) for additional support. In a continuous line-up, the ends of the shelves can be bolted together.
7. Before inserting the wires into the upright posts, transfer drill 7/64 thru the covers and into the posts. This will prevent accidental drilling into the wires. Use #6 SMS to fasten the covers over the wires.



## Truss Rod Adjustment Instructions

The 8' or 12' span of these shelves is made possible by the use of truss rod construction.

1. Remove joint trim or shelf end caps to obtain access to truss rod adjustments.
2. The truss rods on these shelves may require adjusting for maximum load conditions. For heavier loads, tighten the truss rod nuts. For lighter loads, loosen the truss rod nuts. This will prevent bowing and/or sagging in the shelving.



3/8 Bolt  
tapped into  
Patch End

OR  
Join to  
next up-  
right with  
Nut & Bolt

Bolt Uprights to Patch End or next Upright

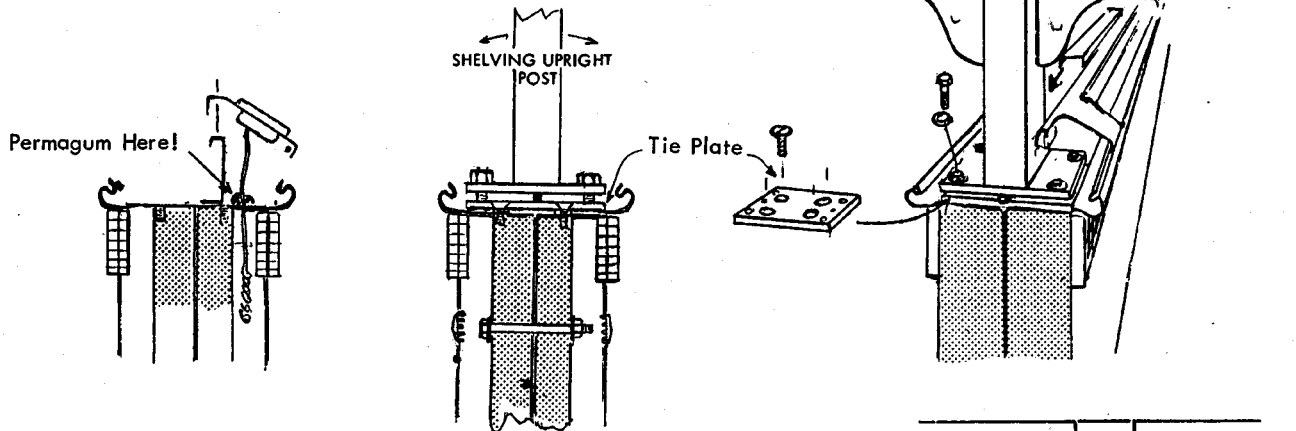
Case Joint

## DXS Shelving Instructions

### NOTE

Risers are shipped loose when shelving is ordered. Be sure to caulk around thermometer tubing after placing in duct.

After the cases are pulled back-to-back, locate the filler parts kit with the mounting hardware for the uprights. Mount tie plates securely, then proceed as outlined below.



1. Bolt end uprights into taped holes in plates. Use the 3/8-16 x 1 1/4" capscrews and 3/8" lockwashers. **Do not tighten capscrews.**
2. Evenly tighten the 3/8" capscrews to make sure the uprights are plumb.

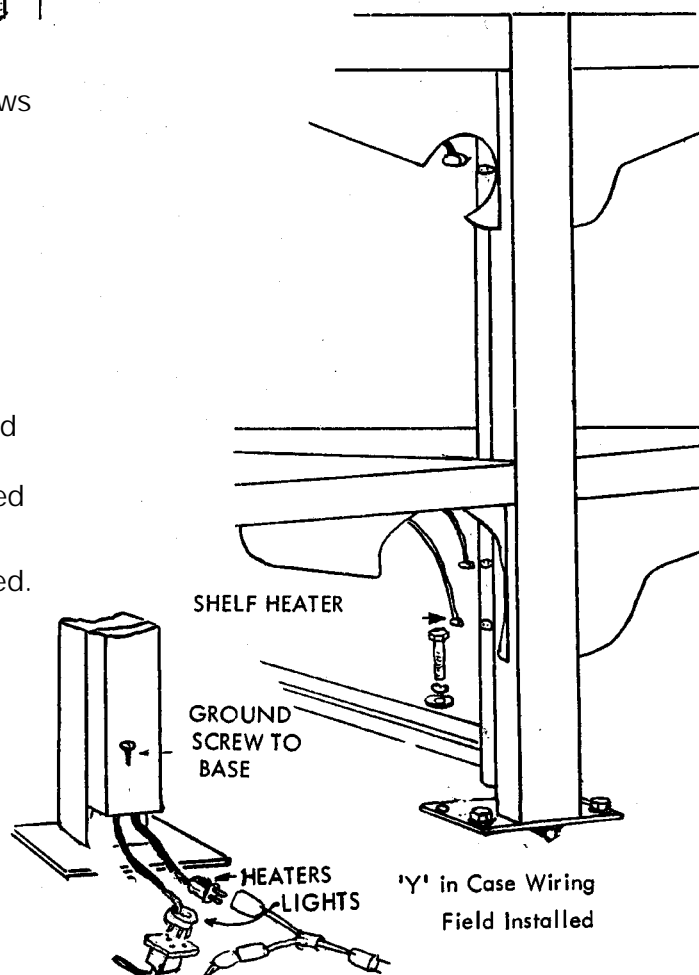
### Electrical Hook-Up

The three prong plug (lights) goes to the white receptacle taped down on the right hand end of the rear case. A "Y" is provided to insert into one of the anti-sweat heater plugs. This provides the extra outlet required for the heaters in the lower shelf.

Hang the brackets on the uprights as desired.

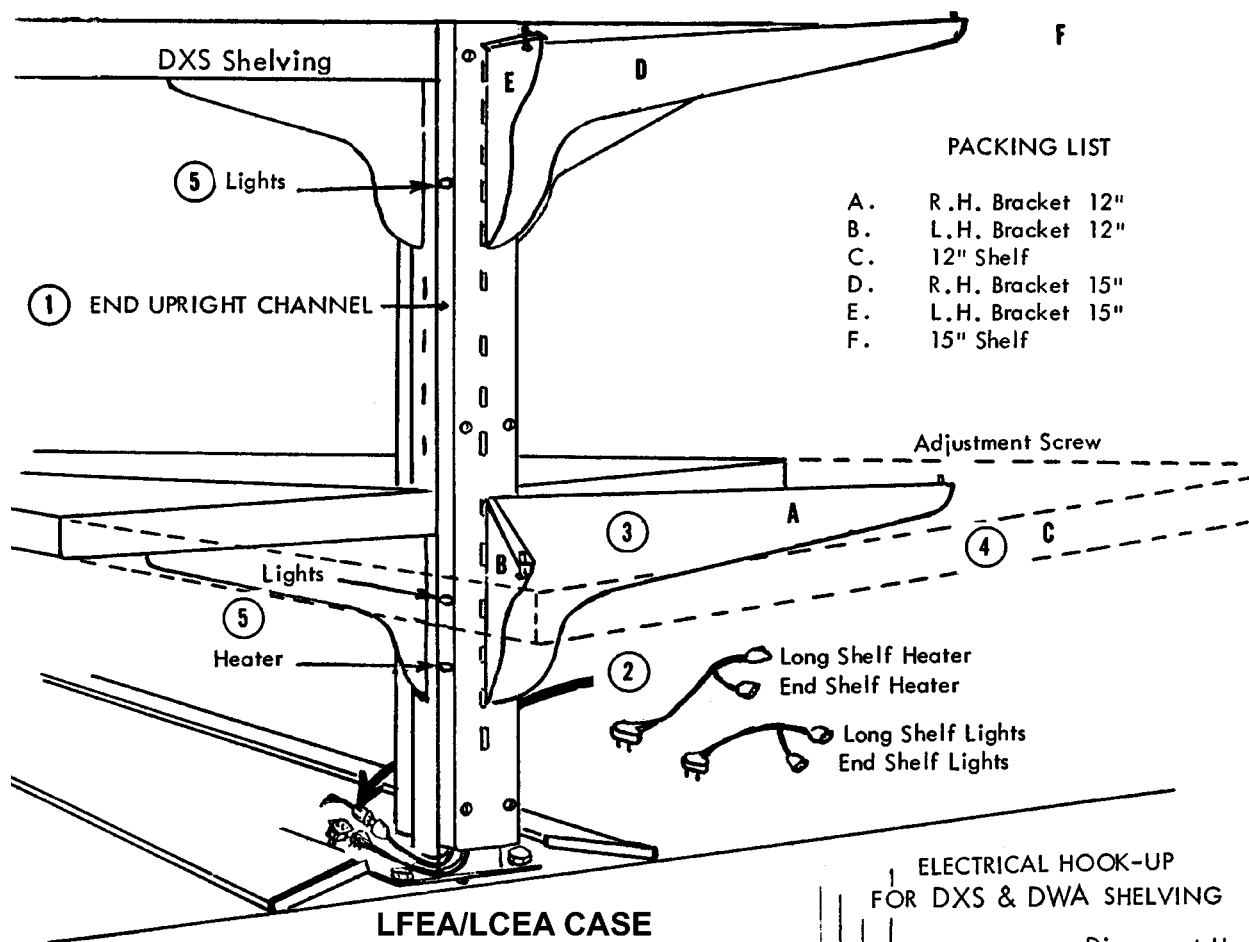
Carefully place the shelves on the brackets. Screw the 5/16-18 x 1 1/4" screws in the bracket ends to level the shelves.

Complete the electrical connections by inserting plugs in the receptacles. Bottom shelf heater plug goes in the lowest receptacle on the upright. Other two receptacles are for lights.

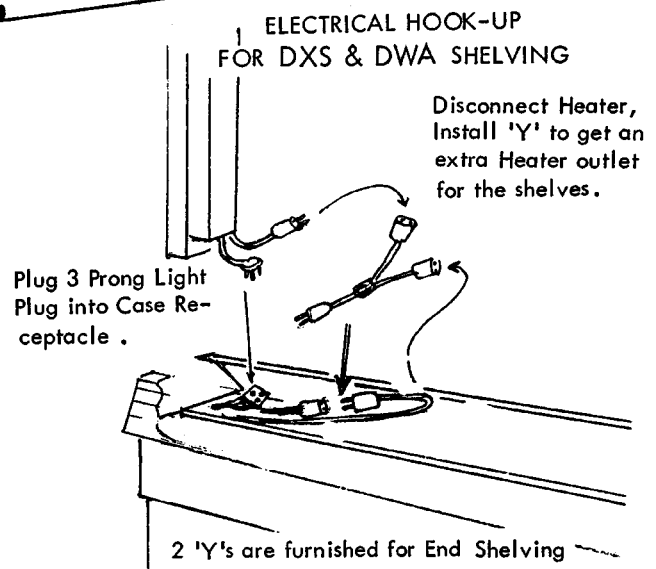




## End Shelf (DWA) Installation - Back-To-Back With End Case (LFEA/LCEA)



1. If the end shelving is being added to the existing shelving, it will be necessary to attach the end upright channel to the end post of the DXS shelving. Transfer drill and fasten securely with six #8 x 1 1/2" sheet metal screws.
2. Plug the "Y" harnesses into the wiring on 8' or 12' case to get the extra receptacles required.
3. Engage the right and left brackets in the slots to conform with the long shelves.
4. Place shelves on the brackets, engaging brackets in channels under the shelves.
5. Complete wiring by inserting lower shelf heater plug into lowest receptacle. The other two receptacles are for lights.

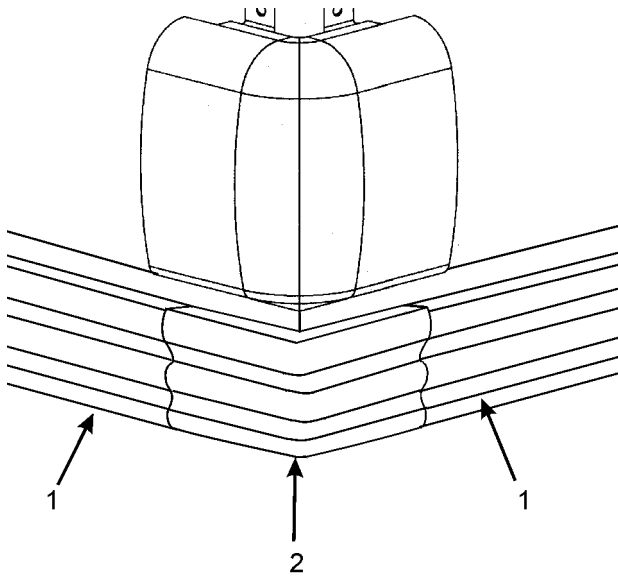


## Trim Installation/Alignment

See "General I&S Manual" for bumper, color band, raceway and kickplate installation.

### Corner Trim Installation

Most corner trim on these cases comes factory installed. The kickplate corner trim requires field installation.



After kickplates (1) have been installed, slide kickplate corner trim (2) into both ends of the kickplates (1).

## Refrigeration Procedures

See "General I&S Manual" for general system, control and superheat information.

### Optional Dual Temperature Control

The dual temperature control unit is a factory installed option. This control allows the user to easily switch from medium to low temperature operation by flipping a switch. The dual temperature control consists of an EPR valve

in the suction line coming off the evaporator. The EPR valve can be bypassed with a solenoid controlled bypass line around it. The toggle switch opens or closes this solenoid.

When the solenoid is open, the evaporator is connected directly to the compressor suction that allows for low temperature operation. When the solenoid is closed, the evaporator must operate through the EPR valve which has been preset to the desired medium temperature.

**EXAMPLE: R-404A system with 12 psig of suction pressure.** With the suction line solenoid open, the coil pressure operates at 12 psig with a temperature of -29°F. When the toggle switch is flipped, the solenoid closes directing the flow through the EPR valve. If the EPR valve is set for 48 psig, the evaporator will see a coil temperature of 12°F and will operate at a discharge air temperature of about 22°F.

When gas defrost is used, an additional check valve is mounted around the EPR valve to allow reverse flow for the defrosting gas. A fan delay is also connected with gas defrost to cycle the fans off, but only during the medium temperature mode.

## Electrical Procedures

### Electrical Considerations

#### CAUTION

Make sure all electrical connections are tight. This prevents burning of electrical terminals and/or premature component failure.

#### NOTE

The raceway houses the electrical wiring and components for the case. All raceway covers will be shipped loose.

# Installation & Service Manual

LMF(G), LF, LFS, LCS, LFN(G), LCN(G),  
LFB(G), LCB(G), LFW(G), LCW(G),  
LF(G)EA, LC(G)EA, LFWEA, LCWEA

## 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 50/40 klaxon when used for medium temperatures.

### NOTE

With gas defrost, the fans will not start until the coil temperature reaches 40°F at the fan delay klaxon.

## Anti-Sweat Circuit

All cases have at least one anti-sweat heater in each discharge air grid and return air grid. When cases are equipped with an optional superstructure, there is an anti-sweat heater on the superstructure. Anti-sweat heaters are wired directly to the main power supply so they can operate at all times.

## Defrost Information

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

## Defrost Control Chart

### LMF(G)

Defrost Type	Defrosts Per Day	Defrost Duration (Min)	Term. Temp.
Electric	1	60	50°F
Gas	2	16-20	55°F

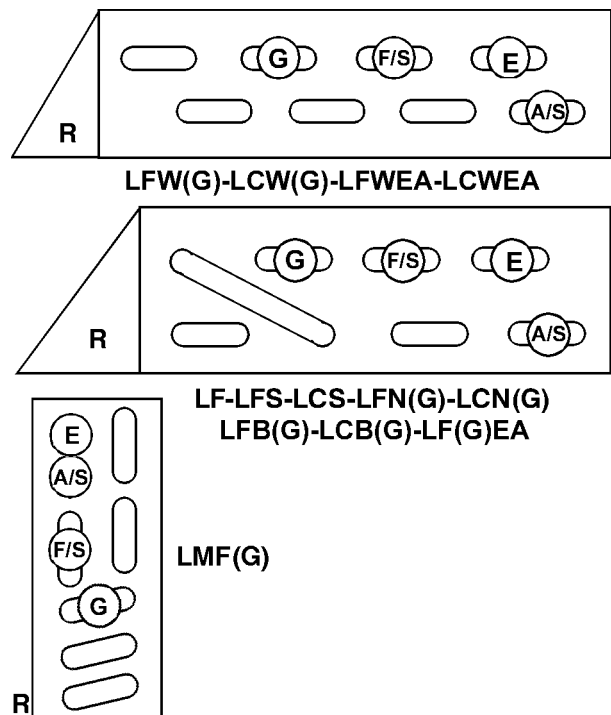
### LFW(G)/LCW(G)/LFWEA/LCWEA

Defrost Type	Defrosts Per Day	Defrost Duration (Min)	Term. Temp.
Electric/FF	1	46	50°F
Electric/IC	1	46	50°F
Gas/FF	2-3	16-20	55°F
Gas/IC	2-3	16-20	55°F

### LF/LFS/LCS/LFN(G)/LCN(G)/LFB(G)/LCB(G)/LF(G)EA/LC(G)EA

Defrost Type	Defrosts Per Day	Defrost Duration (Min)	Term. Temp.
Electric/FF	1	60	50°F
Electric/IC	1	36	50°F
Gas/FF	2-3	16-20	55°F
Gas/IC	2-3	16-20	55°F

March, 1999



E = Electric Defrost Termination

F/S = Electric Defrost Failsafe (Opt.)

G = Gas Defrost Fan Delay (Dual Temp)

A/S = Glass Anti-Sweat (Dual Temp)

Most klaxons are located on the end of the evaporator coil. The diagram shows the location for each defrost type that uses a klaxon.

### NOTE

The defrost termination klaxon for gas defrost is located at the bypass check valve.

### CAUTION

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

## WIRING DIAGRAMS

### ELECTRICIAN NOTE - OVERCURRENT PROTECTION

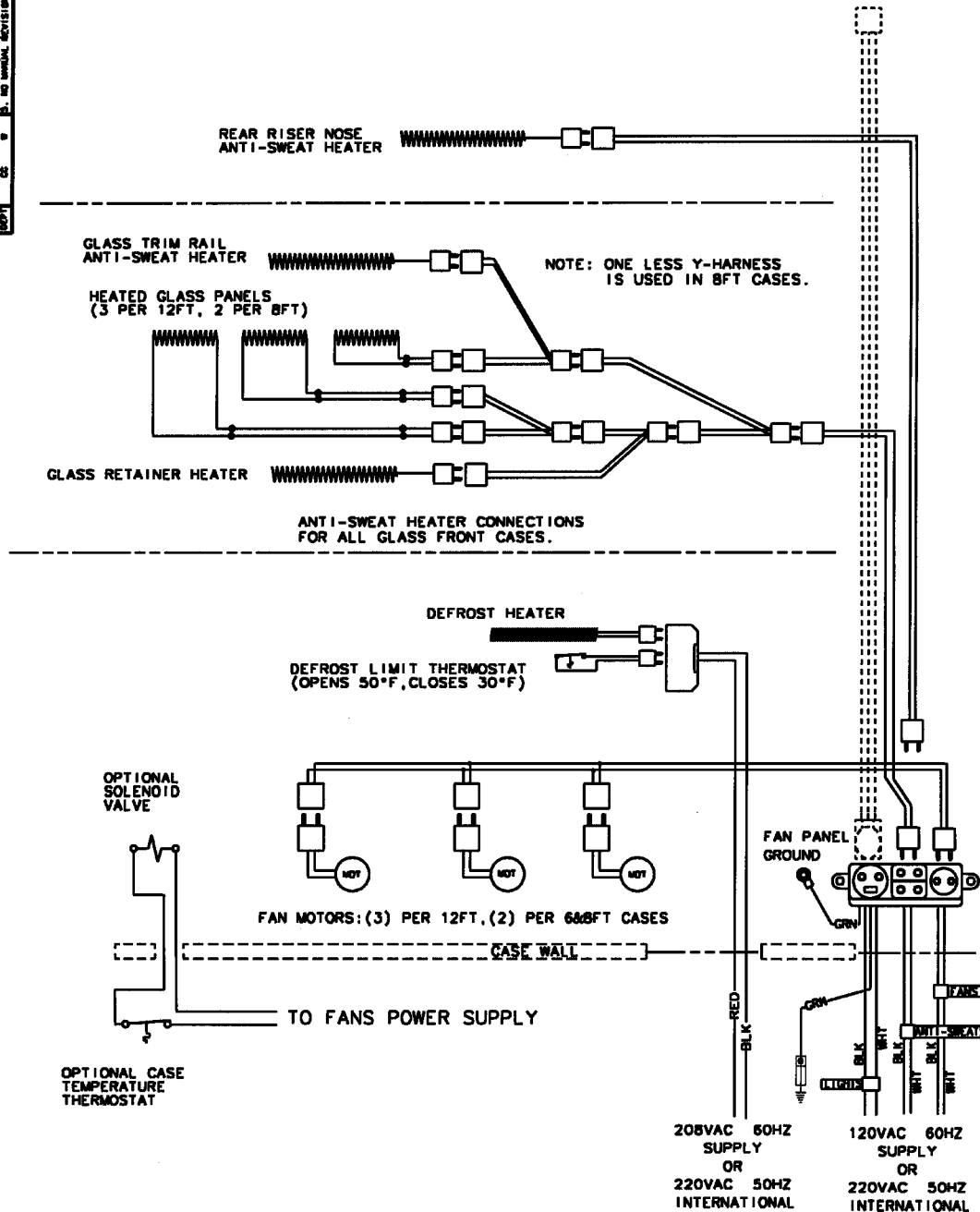
120V circuits should be protected by 15 or 20 Amp devices per the requirements noted on the cabinet nameplate or the National Electrical Code, Canadian Electrical Code - Part 1, Section 28. 208V defrost circuits employ No. 12 AWG field wire leads for field connections. On remote cases intended for end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

**TYLER**

1. TYLER REPLICANT AND COPY CLAIM RIGHTS  
2. INFORMATION IS FOR DESIGNING USER ONLY  
3. ALL DIMENSIONS ARE IN INCHES UNLESS NOTED  
4. UNLESS OTHERWISE NOTED, FINISHED PART AFTER  
5. ANY TOLERANCES ALLOWED.

PART TYPE M T S  
MODEL X  
FABRICATED  
PURCHASED  
REV

OPTIONAL SUPERSTRUCTURE LIGHTING  
POWER HARNESS CONNECTION.  
(SEE INSTALLATION MANUAL FOR  
SUPERSTRUCTURE WIRING)



NOTE: ALL CASES MUST BE GROUNDED

19SEPT96	LC	CK	100%	9028664	A
DATE	DATE	DATE	DATE	DATE	DATE
2345	2345	2345	2345	2345	2345
DESCRIPTION	DESCRIPTION	DESCRIPTION	DESCRIPTION	DESCRIPTION	DESCRIPTION
REWORK NEW BOMBER	REWORK NEW BOMBER	REWORK NEW BOMBER	REWORK NEW BOMBER	REWORK NEW BOMBER	REWORK NEW BOMBER
REV	REV	REV	REV	REV	REV

[illegible]

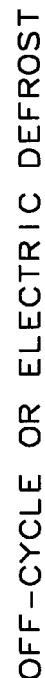
### OPTIONAL TB CANOPY LIGHTING

[illegible]

### OPTIONAL TB CANOPY LIGHTING



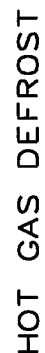
DECIMALS +/- .030 ANGLES +/- 1 DEG		-		E -	
				15 JUL 97	
				LC	
				CK	
				192-0527	
				DATE	
				TIME/ZONE	
				COORDINATION	
B	B	NEW BOARDER & HC SYN	23345	DAMAGED	LC
DIA. WIRING LF-S-C					
8&12FT. -HG DEFR					
				9028667	B



NOTE: ALL CASES MUST BE GROUNDED

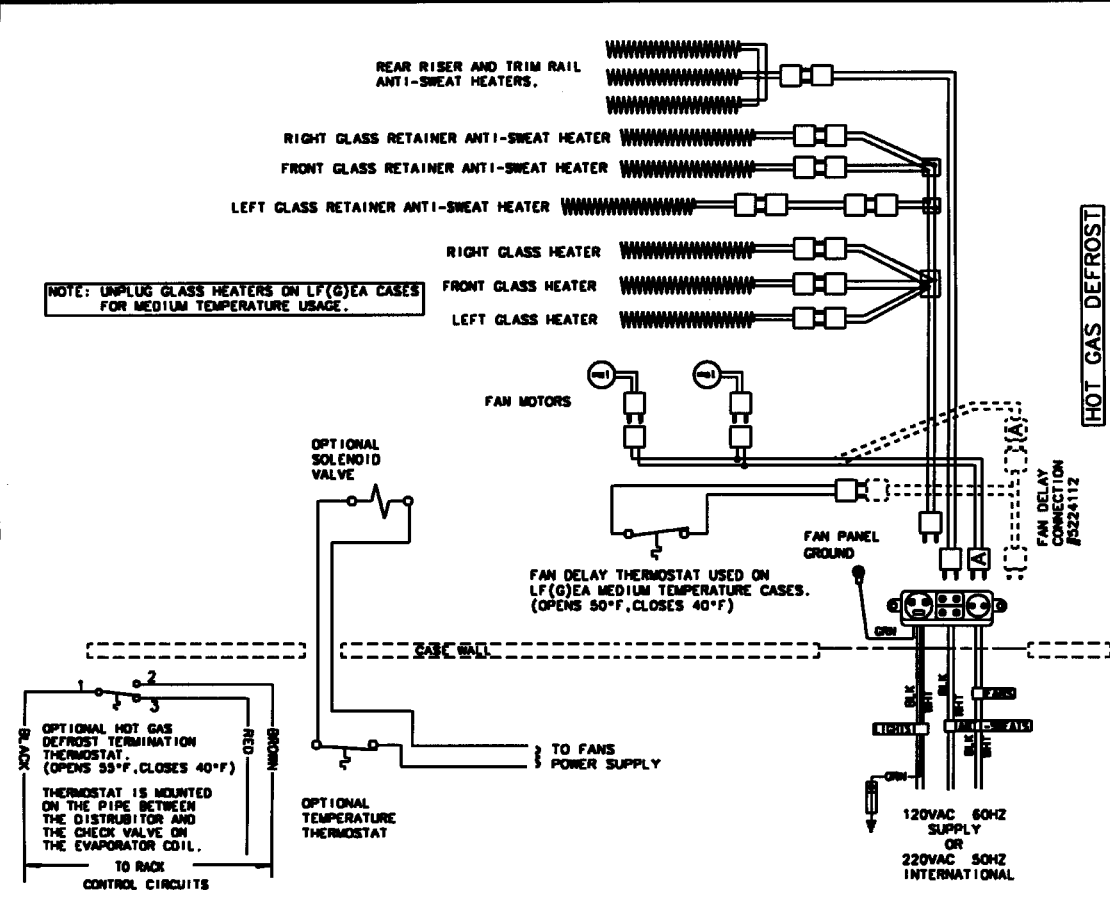
[illegible]



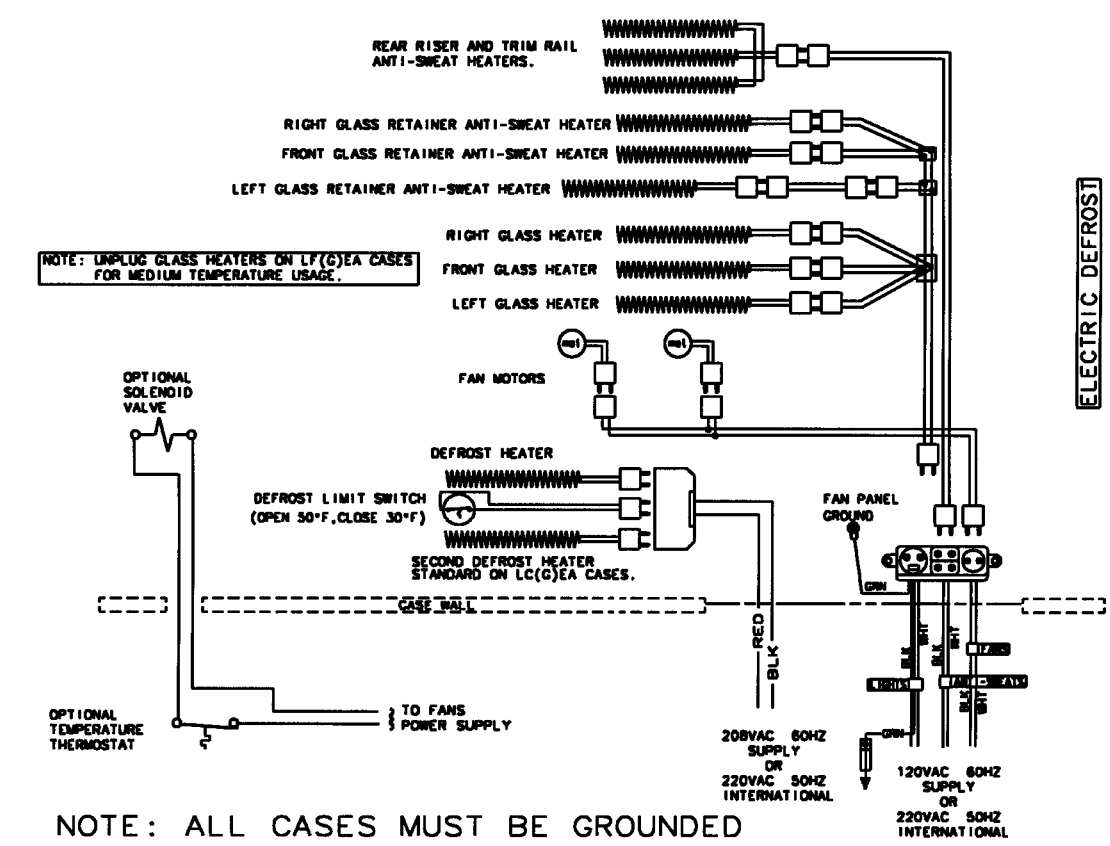
[illegible]

NOTE: ALL CASES MUST BE GROUNDED

PART TYPE N T S  
 MODEL 2  
 MANUFACTURED BY TYLER ELECTRIC CO.  
 PURCHASED BY  
 DATE  
 TO RACK, REPAIRS ALLOWED.



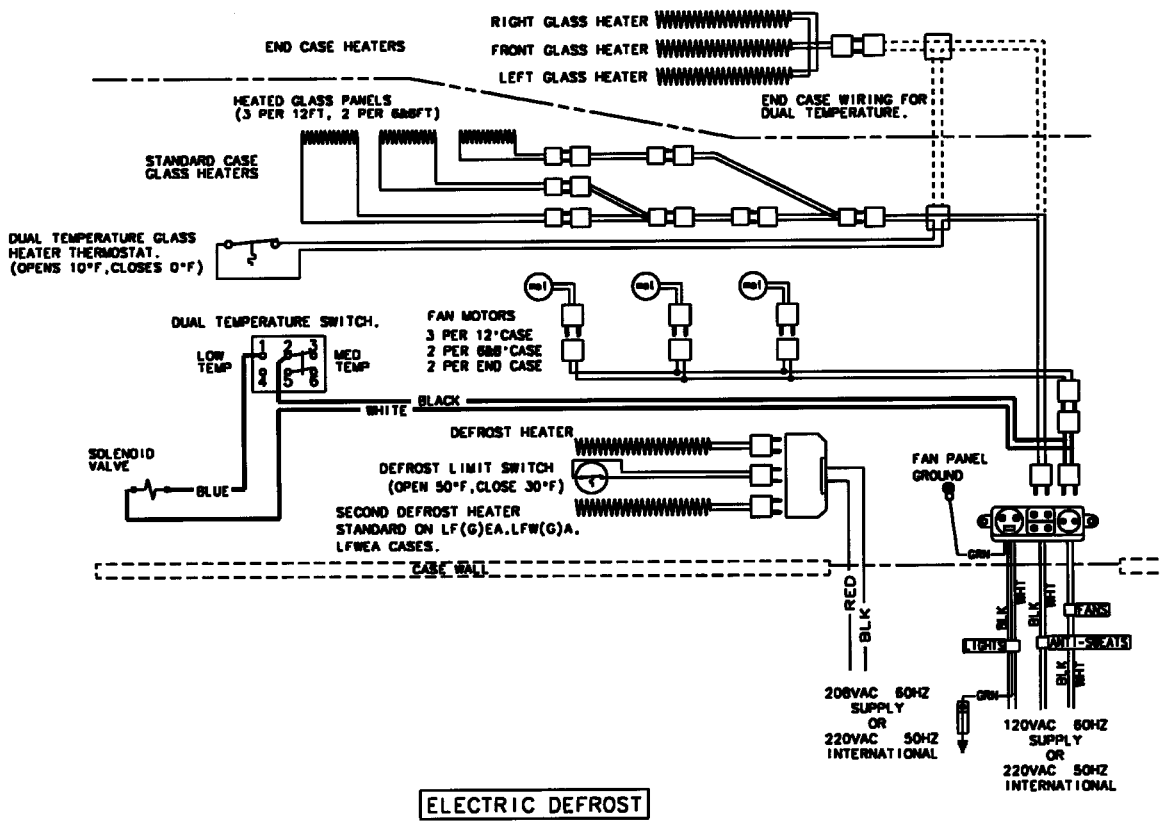
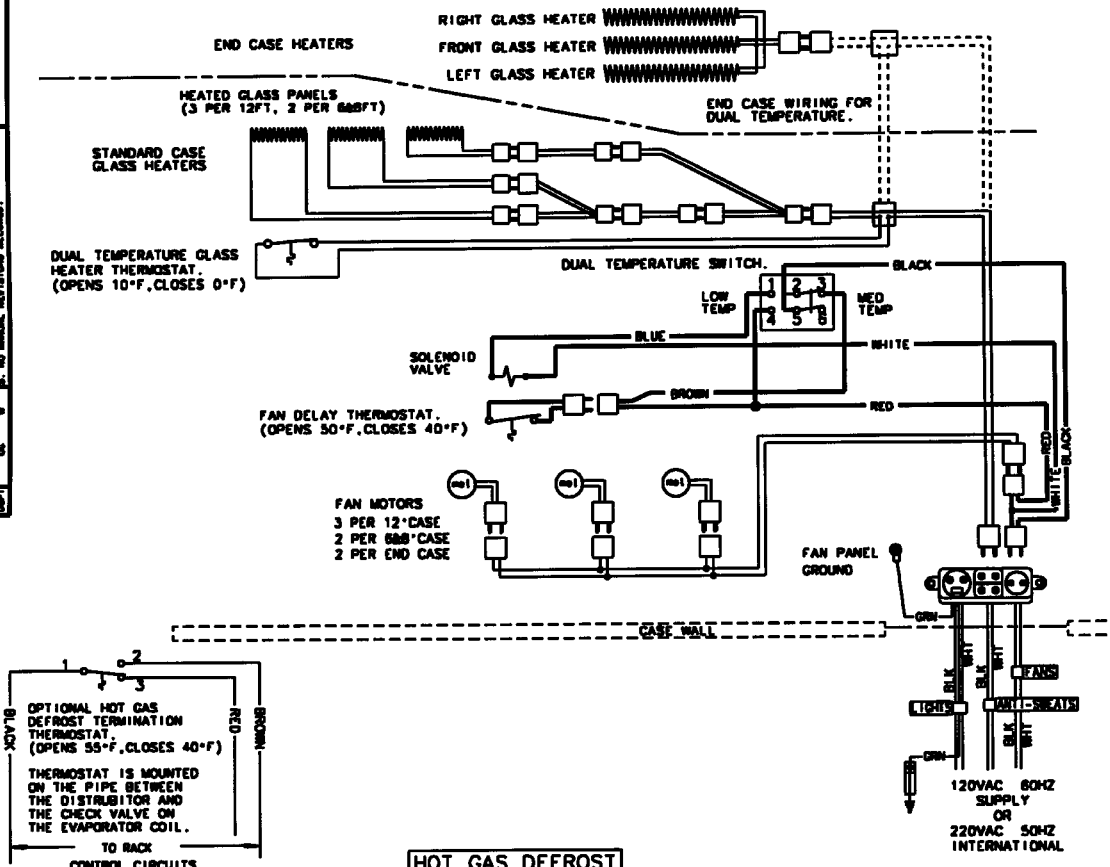
23JUL97	LC	CK	79-054	9028670	B
DIA WIRING LF(G)EA					
LC(G)EA, LFWEA, LWEA					
23345	DAMAR99	LC	CK		
D NEW BOARDER-HC SYM					
RELEASE	DATE	BY	CHK		
800317108					



NOTE: ALL CASES MUST BE GROUNDED

**TYLER**

1. TYPICAL WIRING FOR CASES WITH  
2. TYPICAL WIRING FOR CASES WITH  
3. TYPICAL WIRING FOR CASES WITH  
4. TYPICAL WIRING FOR CASES WITH  
5. TYPICAL WIRING FOR CASES WITH  
6. TYPICAL WIRING FOR CASES WITH  
7. TYPICAL WIRING FOR CASES WITH  
8. TYPICAL WIRING FOR CASES WITH  
9. TYPICAL WIRING FOR CASES WITH  
10. TYPICAL WIRING FOR CASES WITH



LF(G)E.LFW(G).LFWEA--DUAL TEMPERATURE CASES	
150CT96	150CT96
LC	LC
CK	CK
23445	23445
DATE	DATE
96-104	96-104
9028671	9028671
A	A

## SERVICE INSTRUCTIONS

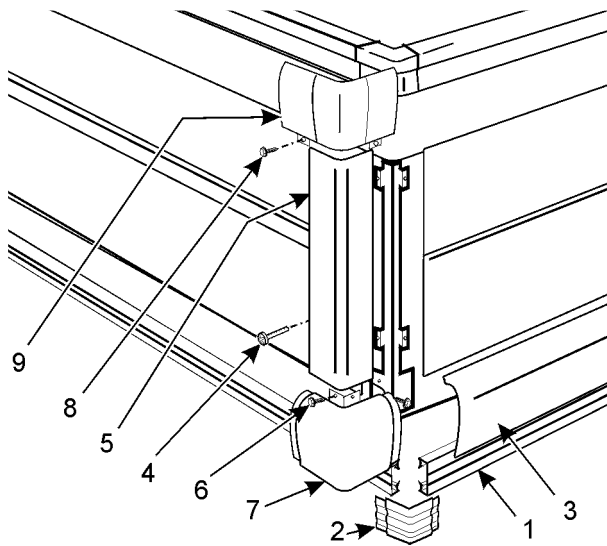
See "General I&S Manual" for fan blade and motor replacement, color band and bumper replacement and raceway cover removal instructions.

### Corner Trim Replacement

(LFN/LCN/LFB/LCB/LFW/LCW w/wrap ends)

(LFEA/LCEA/LFWEA/LCWEA end cases)

Since some of the corner trim fasteners are hidden, remove the trim and hardware in the following sequence.



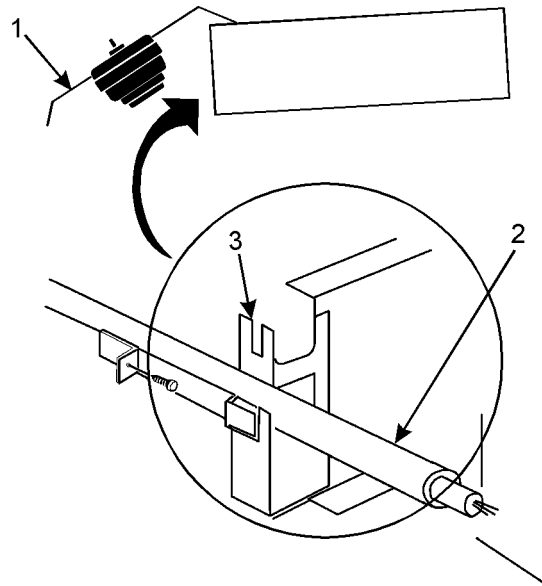
1. Remove kickplates (1) and kickplate corner trim (2).
2. Remove raceway covers (3) from both sides of the corner trim.
3. Remove four screws (4) and cladding corner trim (5).
4. Remove two top screws (6) from raceway corner trim (7), then lift and remove the raceway corner trim (7) from the retainers in the bottom slots.
5. Remove two bottom screws (8) and lift off the bumper corner trim (9).
6. Replace bumper corner trim, raceway corner trim, corner cladding trim, raceway covers and kickplates in reverse order.

## Defrost Heater Replacement

### WARNING

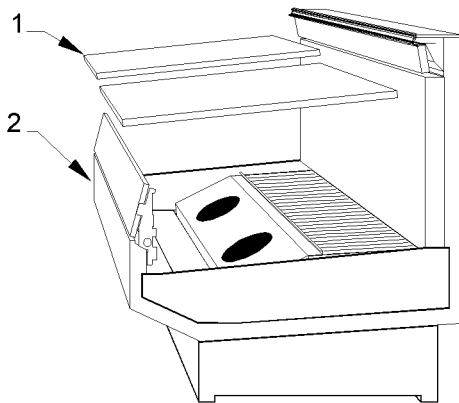
Always shut off electricity to case before replacing a defrost heater. Automatic cycling of fans or electrical power to wire ends could cause personal injury and/or death.

Models LF/LFS/LCS/LFN(G)/LCN(G)/LFB(G)/LCB(G)

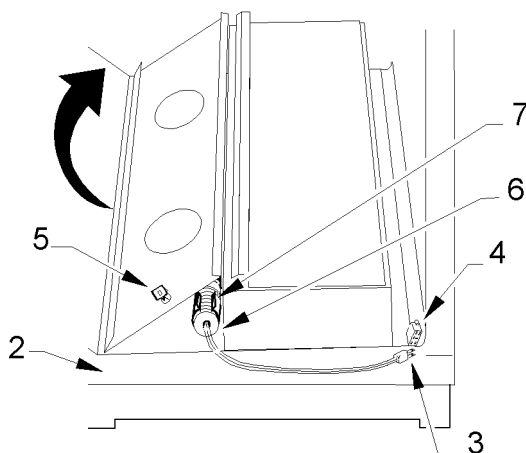


1. Remove bottom trays from case.
2. Unclip and lift up fan plenum (1).
3. Disconnect defective defrost heater (2) and remove from mounting clips (3) and case.
4. Install new defrost heater (4) in reverse order.
5. Restore electrical power to case.

## Models LMF(G)/LFW(G)/LCW(G)/ LF(G)EA/LC(G)EA/LFWEA/LCWEA



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



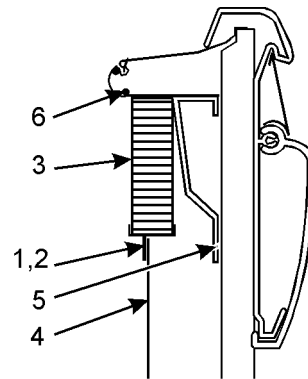
2. Disconnect defrost heater plug (3) from junction block (4).
3. Unclip and lift up fan plenum (5).
4. Remove defrost heater (6) from mounting clips (7) and case (2).
5. Install new defrost heater (6) in reverse order.
6. Restore electrical power to case.

## Anti-Sweat Replacement

### WARNING

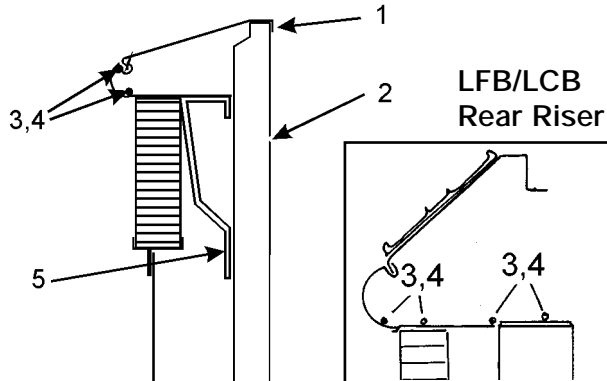
Shut off or disconnect power supply to case before changing an anti-sweat. Electrical power from wire ends could damage other components and/or cause personal injury or death.

### Discharge Air Grid Anti-Sweat (LFN/LCN/LFW/LCW)



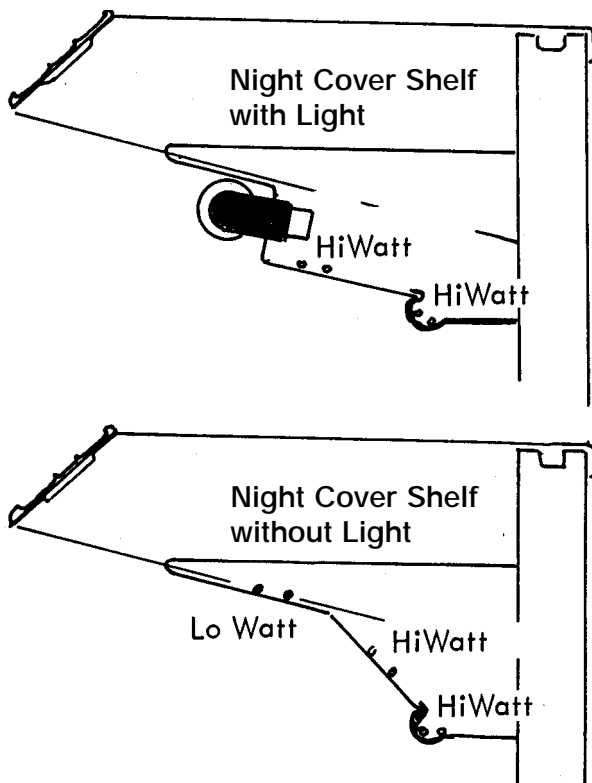
1. Remove screws (1) retainer strip (2) and discharge air grid (3) from interior of the front case wall (4).
2. Remove mounting screws and support assembly (5) from air grid opening.
3. Disconnect or cut the defective anti-sweat wire (6) from the case wires.
4. Remove and replace the aluminum tape and defective anti-sweat wire (6) from top of support assembly (5).
5. Reconnect the anti-sweat wires and replace the support assembly, discharge air grid and mounting hardware.

### Discharge Air Grid Anti-Sweat (LMF/LF/LFB/LCB/LFEA/LCEA/LFWEA/ LCWEA)



1. Drill out rivets and remove rear guard trim (1) from top of rear case wall (2).
2. Disconnect or cut the defective anti-sweat wire (3) from the case wires.
3. Remove and replace the aluminum tape (4) and defective anti-sweat wire (3) from top of rail and wire trim assembly (5).
4. Reconnect anti-sweat wires to case wires and reinstall rear guard trim with new rivets.

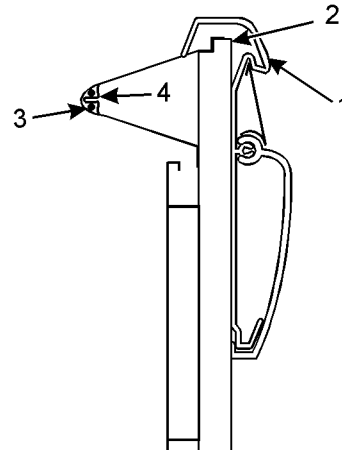
### Canopy Anti-Sweat Locations (LFS/LCS)



### Return Air Duct Anti-Sweat (LFEA/LCEA/LFWEA/LCWEA)

#### NOTE

All kickplates, raceway covers, cladding, corner trim, bumpers and the front bumper retainer must be removed from the end case.

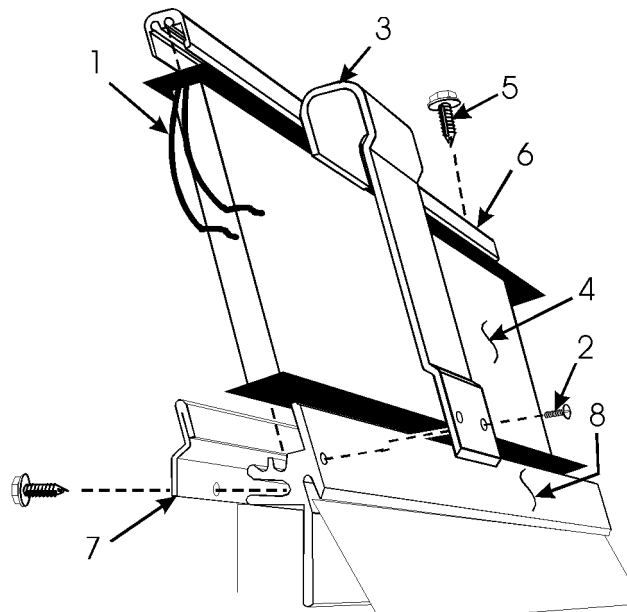


1. Drill out rivets and remove front trim assembly (1) from top of front case wall (2).
2. Disconnect or cut the defective anti-sweat wire (3) from the case wires.
3. Remove and replace the aluminum tape (4) and defective anti-sweat wire (3) from inside of front trim assembly (1).
4. Reconnect anti-sweat wires to case wires and reinstall front trim assembly with new rivets.
5. Install front bumper retainer and all other trim and cladding on the end case.

## Perimeter Glass Replacement (Glass Front Models Only)

### NOTE

End cases require corner trim removal before replacing the glass. See "Corner Trim Replacement" in this manual.



1. Unplug glass anti-sweat wires (1).
2. Remove two screws (2) and glass joint trim (3) from both joints of the broken glass (4).

3. Remove screws (5) and glass trim rail (6) from top of glass (4).
4. Loosen rear retainer (7) and remove broken glass (4) from glass retainer assembly (8).

### NOTE

Inspect the anti-sweat wire in glass retainer assembly. If wire is damaged or broken, replace it before replacing the front glass.

5. Apply sealant tape to top and bottom edge of new glass (4).
6. Position new glass (4) in glass retainer assembly (8) and secure by tightening rear retainer (7).
7. Install glass trim rail (7) with screws (6) over top edge of new glass (4).
8. Install glass joint trim (3) with two screws (2) over the joint areas of glass (4).
9. Reconnect the anti-sweat wires (1).

## PARTS INFORMATION

### Operational Parts List

(Models LMF(G)/LF/LFS/LCS/LFN(G)/LCN(G)/LFB(G)/LCB(G))

Case Usage	Domestic			Export		
Electrical Circuit	115 Volt 60 Hertz			220 Volt 50 Hertz		
Case Size	6'	8'	12'	6'	8'	12'
Fan Motor (LMF/LMFG)	5125532 5 Watt	5125532 5 Watt	5125532 5 Watt	5202538 5 Watt	5202538 5 Watt	5202538 5 Watt
(all other models)	----	5125532 5 Watt	5125532 5 Watt	----	5202538 5 Watt	5202538 5 Watt
Fan Motor Brackets	5213132	5213132	5213132	5213132	5213132	5213132
Fan Blades (6" 21° 3B)	5105621	5105621	5105621	----	----	----
(6" 27° 3B)	----	----	----	5104294	5104294	5104294
Anti-Sweat Heater Wire (Hi-Watt)	----	5124818	5124819	----	5081149	5081150
(Lo-Watt)	----	5124216	5124217	----	5081147	5081148
Electric Def. Heater (LMF/LMFG)	----	5124521	5124522	----	5124521	5124522
(all other models)	----	5960934	5960935	----	5088278	5088279
Electric Def. Term. Klixon	5125211	5125211	5125211	5125211	5125211	5125211
Opt. Gas Def. Fan Delay Klixon	9023503	9023503	9023503	9023503	9023503	9023503
Opt. Gas Def. Term. Klixon	9023508	9023508	9023508	9023508	9023508	9023508
T-8 Electronic Ballast (LFS/LCS)(rear shelf)	----	5991029	5991030	----	9028437	9028438
T-8 Lampholder	----	5092414	5092414	----	5092414	5092414
Light Switch (SPST)	----	5100565	5100565	----	5100565	5100565

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



# *Installation & Service Manual*

LMF(G), LF, LFS, LCS, LFN(G), LCN(G),  
LFB(G), LCB(G), LFW(G), LCW(G),  
LF(G)EA, LC(G)EA, LFWEA, LCWEA

## **(Models LFW(G)/LCW(G))**

<b>Case Usage</b>	<b>Domestic</b>		<b>Export</b>	
Electrical Circuit	115 Volt 60 Hertz		220 Volt 50 Hertz	
Case Size	8'	12'	8'	12'
Fan Motor (LFW(G)/LCW(G))	5125532 5 Watt	5125532 5 Watt	5202538 5 Watt	5202538 5 Watt
Fan Motor Brackets	5213132	5213132	5213132	5213132
Fan Blades (6" 27° 3B)	5104294	5104294	5104294	5104294
Anti-Sweat Heater Wire (Hi-Watt)	5124818	5124819	5081149	5081150
(Lo-Watt)	5124216	5124217	5081147	5081148
Electric Def. Heater	5124521	5124522	5124521	5124522
Electric Def. Term. Klixon	5125211	5125211	5125211	5125211
Opt. Gas Def. Fan Delay Klixon	9023503	9023503	9023503	9023503
Opt. Gas Def. Term. Klixon	9023508	9023508	9023508	9023508

## **(Models LF(G)EA/LC(G)EA/LFWEA/LCWEA)**

<b>Case Usage</b>	<b>Domestic</b>	<b>Export</b>
Electrical Circuit	115 Volt 60 Hertz	220 Volt 50 Hertz
Case Size	End Case	End Case
Fan Motor	5125532 5 Watt	5202538 5 Watt
Fan Motor Brackets	5213132	5213132
Fan Blades (LF(G)EA/LC(G)EA) (6" 21° 3B)	5105621	5105621
(LFWEA/LCWEA) (6" 27° 3B)	5104294	5104294
Anti-Sweat Heater Wire (74" long)	5028893	5081271
(73" long)	5080970	5081201
Electric Def. Heater (LF(G)EA/LC(G)EA)	5195710	5195710
(LFWEA/LCWEA)	5225840	5225840
Electric Def. Term. Klixon	5125211	5125211
Opt. Gas Def. Fan Delay Klixon	9023503	9023503
Opt. Gas Def. Term. Klixon	9023508	9023508

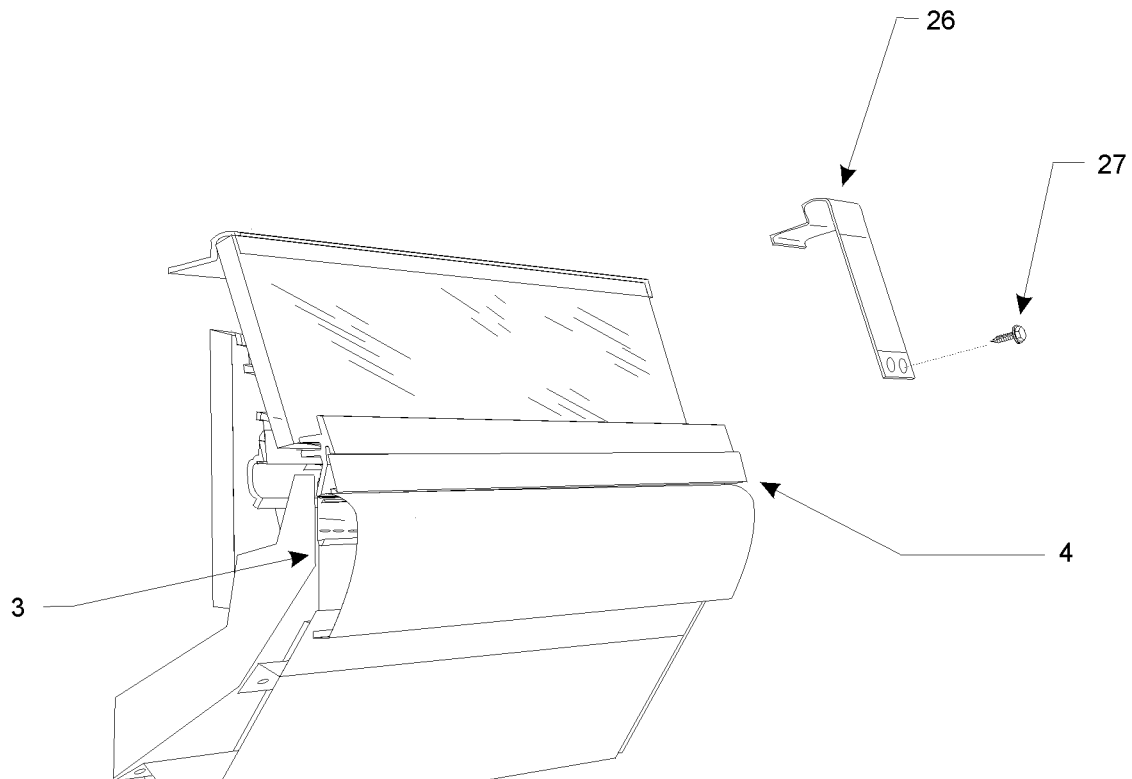
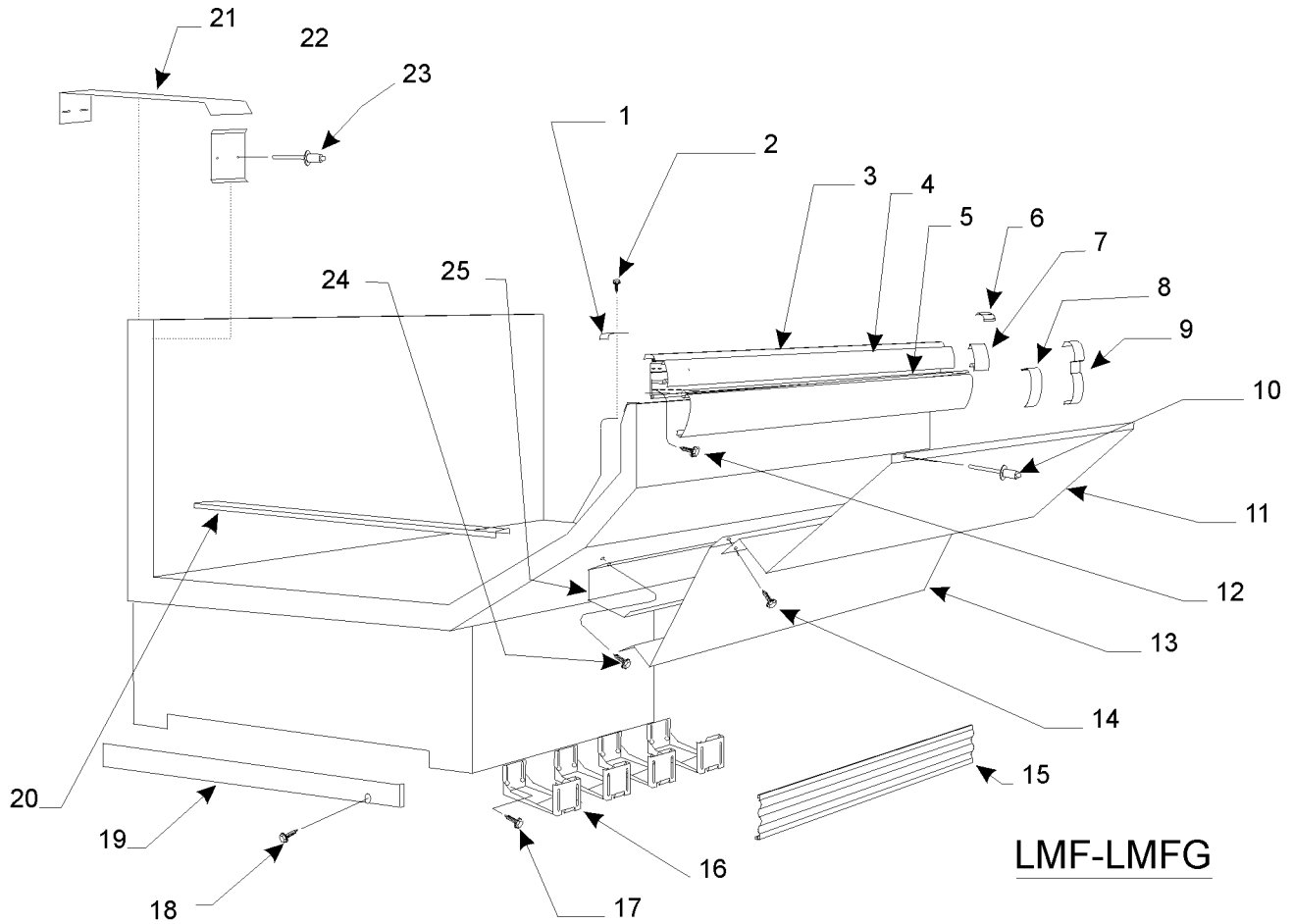
**For information on operational parts not listed above contact the TYLER Service Parts Department.**

## Cladding and Optional Trim Parts List

Item	Description	LMF and LMFG		
		6'	8'	12'
1	Return Air Duct Joint Trim	5207497	5207497	5207497
2	Screw	5205439 (2)	5205439 (2)	5205439 (2)
3	Bumper Retainer/Hand Rail (LMF)	-----	color per order	-----
	Bumper Retainer (LMFG)	9025052	9025058	9025061
4	Color Band, Painted (LMF)	9020978	9020981	9020982
	(LMFG)	9020968	9020971	9020972
5	Bumper	-----	color per order	-----
6	Hand Rail Backer, Painted (LMF)	9025316	9025316	9025316
7	Color Band Backer, Painted	9025982	9025982	9025982
8	Bumper Backer	-----	color per order	-----
9	Bumper End Trim	-----	color per order	-----
10	Rivet (LMF)	5104702 (3)	5104702 (3)	5104702 (3)
	(LMFG)	5104702 (4)	5104702 (4)	5104702 (4)
11	Upr. Frt. Cladding, Painted (LMF)	9025244	9025201	9025202
	(LMFG)	9025245	9025205	9025206
12	Screw	5183536 (14)	5183536 (18)	5183536 (26)
13	Lwr. Frt. Cladding, Painted	9025246	9025203	9025204
14	Screw	5183536 (6)	5183536 (6)	5183536 (6)
15	Kickplate	-----	color per order	-----
16	Kickplate Support Assy.	9042340 (3)	9042340 (3)	9042340 (4)
17	Shoulder Screw	9025833 (6)	9025833 (8)	9025833 (8)
18	Binding Screw	5048626 (6)	5048626 (6)	5048626 (6)
19	LH End Close-off, Painted	9022459	9022459	9022459
	RH End Close-off, Painted	9022466	9022466	9022466
20	Horizontal Joint Trim	5201252	5201252	5201252
21	Rear Riser Joint Trim	5199829	5199829	5199829
	Screw	5619204 (2)	5619204 (2)	5619204 (2)
22	Rear Joint Trim	5202428	5202428	5202428
23	Rivet	5104702 (2)	5104702 (2)	5104702 (2)
24	Screw	5183536 (6)	5183536 (8)	5183536 (10)
25	Raceway	9025126	9025127	9025128
26	Glass Joint Trim	9025959	9025959	9025959
27	Screw	5048626 (2)	5048626 (2)	5048626 (2)

# *Installation & Service Manual*

LMF(G), LF, LFS, LCS, LFN(G), LCN(G),  
LFB(G), LCB(G), LFW(G), LCW(G),  
LF(G)EA, LC(G)EA, LFWEA, LCWEA



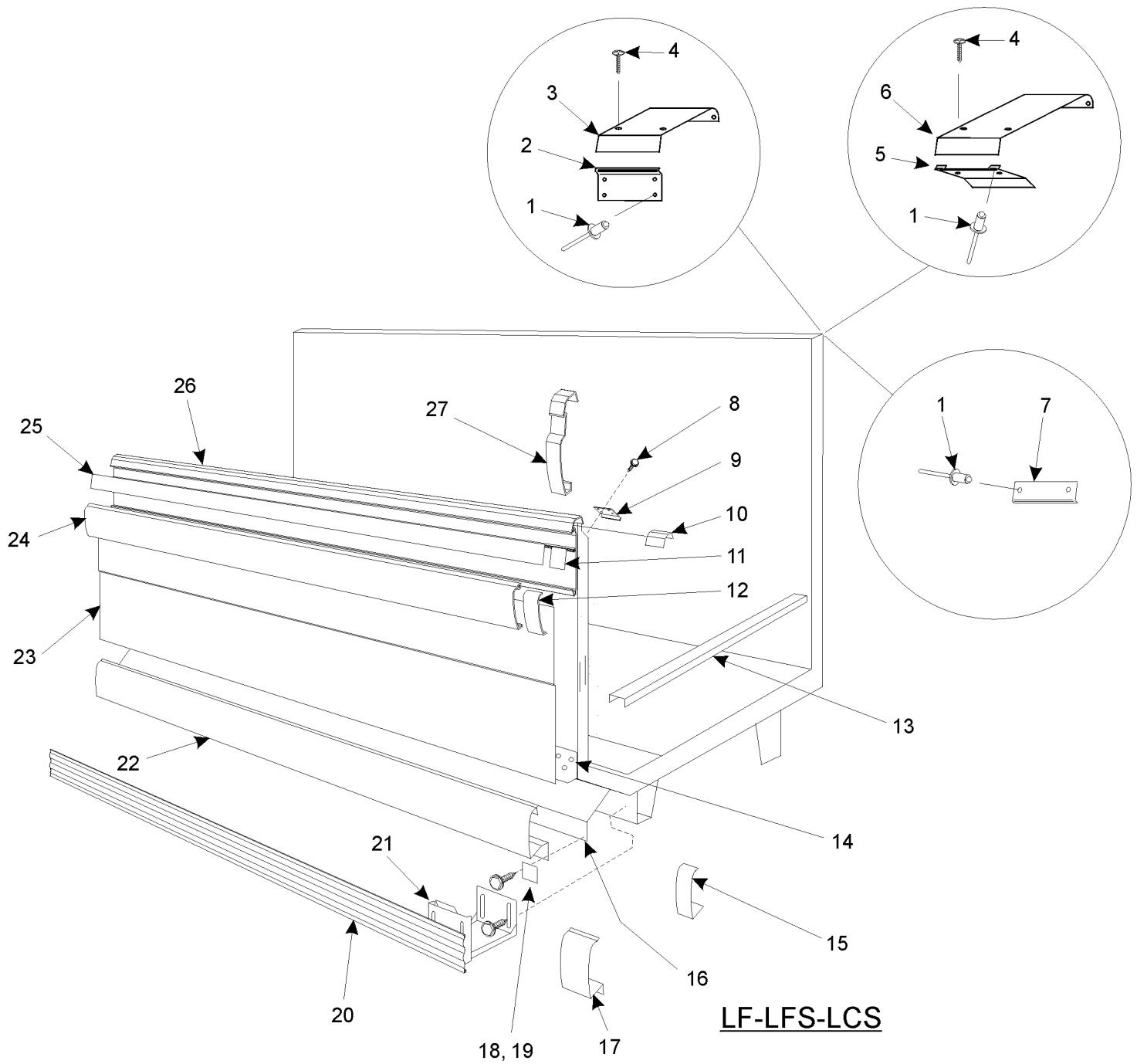
LMF(G), LF, LFS, LCS, LFN(G), LCN(G),  
 LFB(G), LCB(G), LFW(G), LCW(G),  
 LF(G)EA, LC(G)EA, LFWEA, LCWEA

## Tyler Refrigeration

		LF, LFS and LCS	
Item	Description	8'	12'
1	Rivet	5104702 (4)	5104702 (4)
2	Lower Rear Riser Joint Trim (LF)	5182434	5182434
3	Screw	5058099 (4)	5058099 (4)
4	Top Rear Riser Joint Trim (LF)	5629361	5629361
5	Lower Top Shelf Joint Trim (LFS/LCS) (without light)	5182435	5182435
6	Top Shelf Joint Trim (LFS/LCS)	5629360	5629360
7	Lower Top Shelf Joint Trim (LFS/LCS) (with light)	5128761	5128761
8	Screw	5145037 (4)	5105037 (4)
9	Return Air Duct Joint Trim	5203017	5203017
10	Hand Rail Backer	9025316	9025316
11	Color Band Backer, Painted	9025982	9025982
12	Bumper Backer	---- color per order ----	----
13	Horizontal Joint Trim	5127503	5127503
14	Cladding Retainer	9300197 (4)	9300197 (4)
	Screw	5183536 (8)	5183536 (8)
15	Raceway Cover Backer	---- color per order ----	----
16	Raceway	9300218	9300219
	Screw	5183536 (18)	5183536 (18)
	Raceway Support	9041321 (6)	9041321 (8)
	Screw	5183536 (12)	5183536 (16)
17	Raceway Cover End Trim	---- color per order ----	----
18	Raceway Cover Retainer	9023841 (4)	9023841 (6)
19	Screw	5183536 (8)	5183536 (12)
20	Kickplate	---- color per order ----	----
21	Kickplate Support Assy.	9042341 (3)	9042341 (4)
	Shoulder Screw	9025833 (8)	9025833 (8)
22	Raceway Cover	---- color per order ----	----
23	Front Cladding, Painted	9025209	9025210
24	Bumper	---- color per order ----	----
25	Color Band, Painted	9020981	9020982
26	Bumper Retainer/Hand Rail	---- color per order ----	----
	Screw	9025833 (18)	9025833 (26)
27	Bumper End Trim	---- color per order ----	----

# Installation & Service Manual

LMF(G), LF, LFS, LCS, LFN(G), LCN(G),  
LFB(G), LCB(G), LFW(G), LCW(G),  
LF(G)EA, LC(G)EA, LFWEA, LCWEA



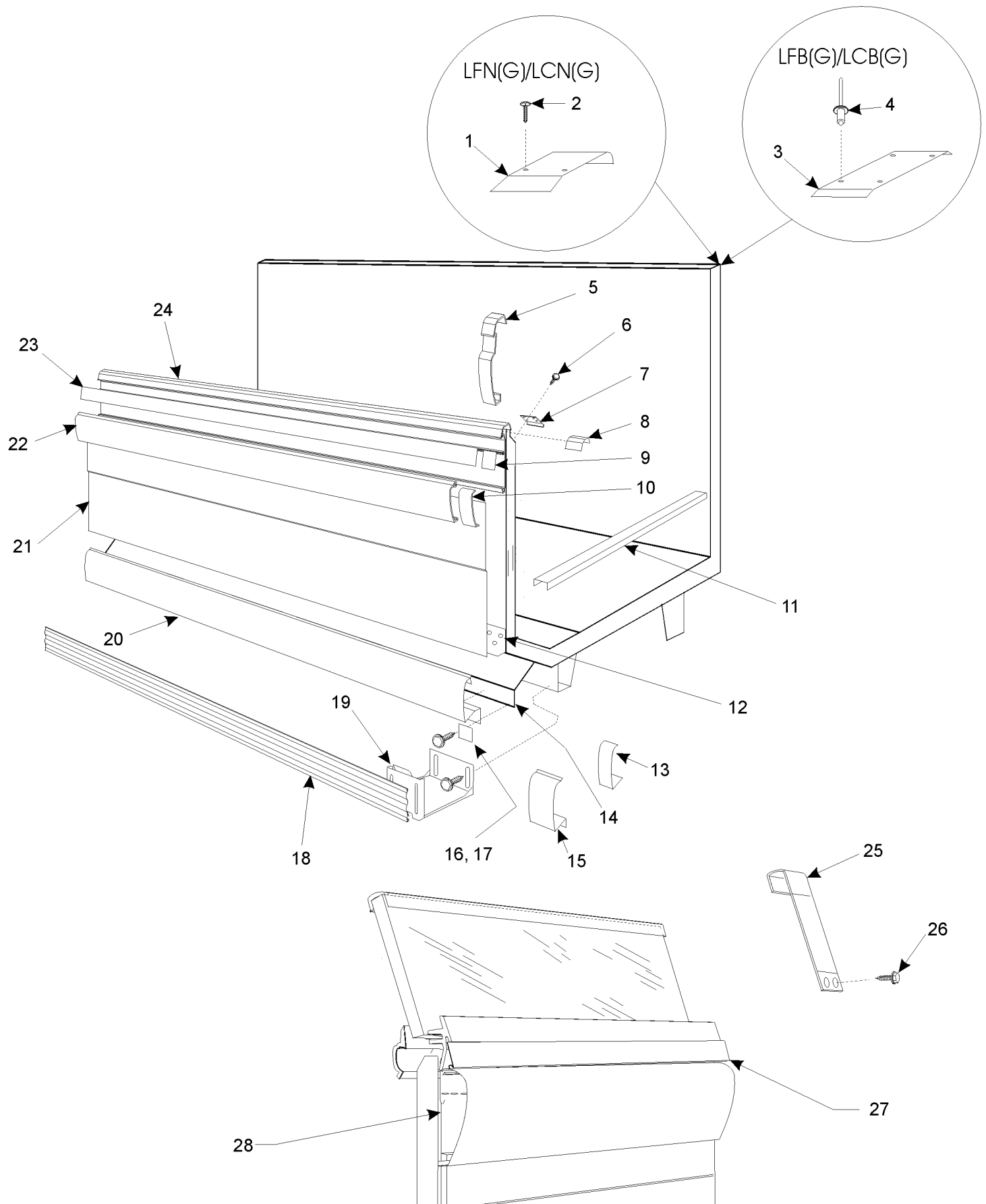
LMF(G), LF, LFS, LCS, LFN(G), LCN(G),  
LFB(G), LCB(G), LFW(G), LCW(G),  
LF(G)EA, LC(G)EA, LFWEA, LCWEA

## Tyler Refrigeration

Item Description	LFN(G), LCN(G), LFB(G), LCB(G)	
	8'	12'
1 Top Rr. Riser Joint Trim (LFN(G)/LCN(G))	5207489	5207489
2 Screw LFN(G)/LCN(G))	5205439 (4)	5205439 (4)
3 Top Center Joint Trim (LFB(G)/LCB(G))	5617381	5617381
4 Rivet (LFB(G)/LCB(G))	5104702 (4)	5104702 (4)
5 Bumper End Trim (per patch end)	---- color per order ----	
6 Screw (per trim)	5205439 (4)	5205439 (4)
7 Return Air Duct Joint Trim (per duct)	5207491	5207491
8 Hand Rail Backer (LFN/LCN/LFB/LCB)	9025316 (2)	9025316 (2)
9 Color Band Backer, Painted	9025982 (2)	9025982 (2)
10 Bumper Backer (per bumper)	---- color per order ----	
11 Horizontal Joint Trim	5127503	5127503
12 Cladding Retainer (per case)	9300197 (8)	9300197 (8)
Screw (per case)	5183536 (16)	5183536 (16)
13 Raceway Cover Backer (per cover)	---- color per order ----	
14 Raceway (LFN(G)/LCN(G))	9300218	9300219
(LFB(G)/LCB(G))	9300218 (2)	9300219 (2)
Screw (per raceway)	5183536 (18)	5183536 (18)
Raceway CVR Support - front(LFN(G)/LCN(G))	9041321 (6)	9041321 (8)
(LFB(G)/LCB(G))	9300210 (12)	9300210 (16)
Raceway CVR Support - rear(LFN(G)/LCN(G))	9041325 (6)	9041325 (8)
Screw (per case)	5183536 (24)	5183536 (32)
15 Raceway Cover End Trim (per patch end)	---- color per order ----	
16 Raceway Cover Retainer (per side)	9023841 (4)	9023841 (6)
17 Screw (per side)	5183536 (8)	5183536 (12)
18 Kickplate (per side)	---- color per order ----	
19 Kickplate Support Assy. - front	9042341 (3)	9042341 (4)
Shoulder Screw	9025833 (8)	9025833 (8)
Kickplate Support Assy. - rear	9042417 (3)	9042417 (4)
Shoulder Screw	9025833 (8)	9025833 (8)
20 Raceway Cover (per side)	---- color per order ----	
21 Front Cladding, Painted	9025637 (2)	9025638 (2)
22 Bumper (per side)	---- color per order ----	
23 Color Band, Painted (LFN/LCN/LFB/LCB)	9020981 (2)	9020982 (2)
24 Bumper Retainer/Hand Rail (per side)		
(LFN/LCN/LFB/LCB)	---- color per order ----	
Screw (per case)	5183536 (36)	5183536 (52)
25 Glass Joint Trim (LFNG/LCNG/LFBG/LCBG)	9025956 (2)	9025956 (2)
26 Screw (LFNG/LCNG/LFBG/LCBG)	5048626 (4)	5048626 (4)
27 Color Band, Painted (LFNG/LCNG/LFBG/LCBG)	9020971 (2)	9020972 (2)
28 Bumper Retainer (LFNG/LCNG/LFBG/LCBG)	9025058 (2)	9025061 (2)
Screw (per case)	5183536 (36)	5183536 (52)

# Installation & Service Manual

LMF(G), LF, LFS, LCS, LFN(G), LCN(G),  
LFB(G), LCB(G), LFW(G), LCW(G),  
LF(G)EA, LC(G)EA, LFWEA, LCWEA

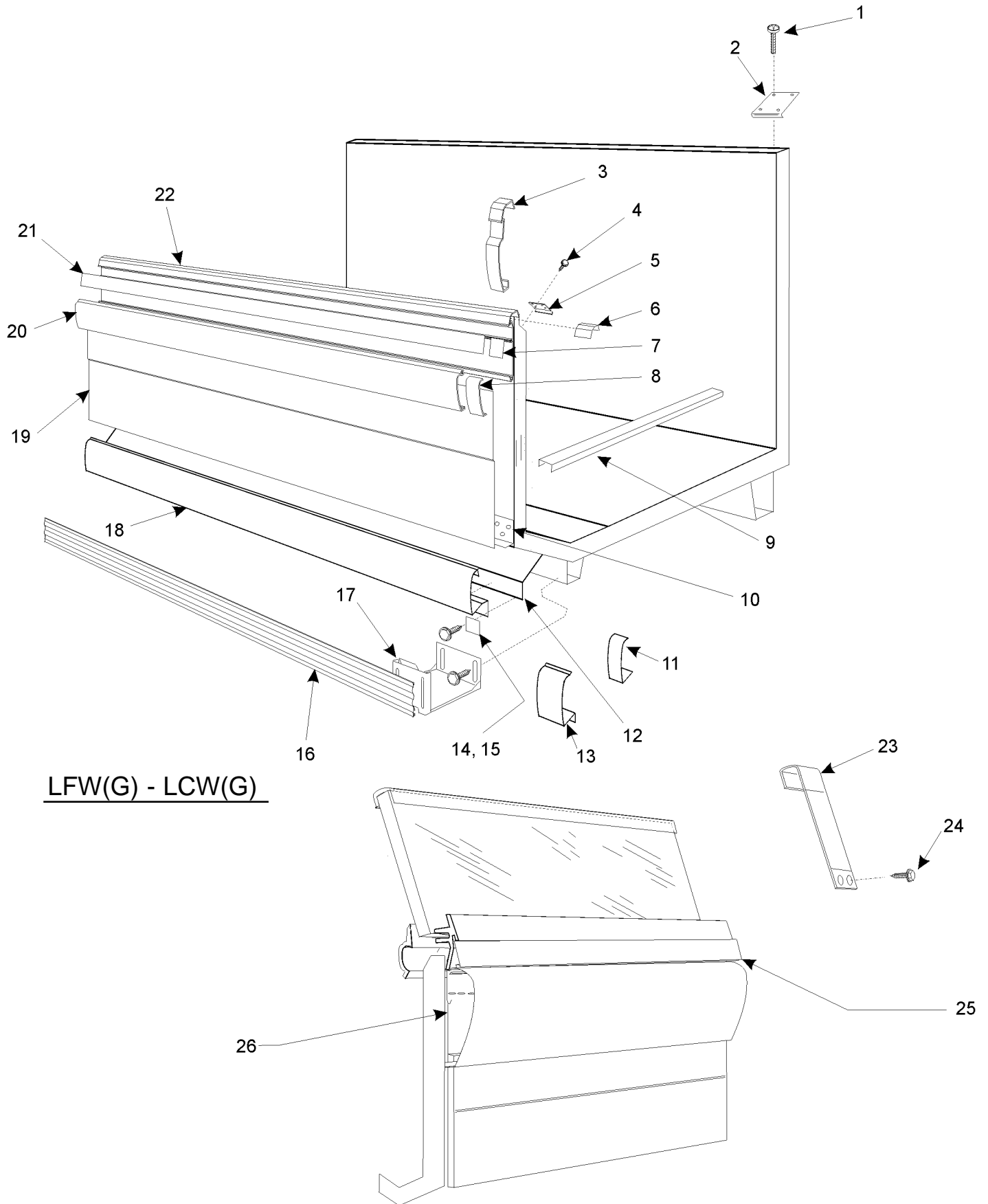


Item Description	LFW(G), LCW(G)	
	8'	12'
1 Screw	5145037 (4)	5145037 (4)
2 Top Rear Riser Joint Trim	5203016	5203016
3 Bumper End Trim (per patch end)	---- color per order ----	
4 Screw (per trim)	5145037 (4)	5145037 (4)
5 Return Air Duct Joint Trim (per duct)	5203017	5203017
6 Hand Rail Backer (LFW/LCW)	9025316 (2)	9025316 (2)
7 Color Band Backer, Painted	9025982 (2)	9025982 (2)
8 Bumper Backer (per bumper)	---- color per order ----	
9 Horizontal Joint Trim	5128700	5128700
10 Cladding Retainer (per case)	9300197 (8)	9300197 (8)
Screw (per case)	5183536 (16)	5183536 (16)
11 Raceway Cover Backer (per cover)	---- color per order ----	
12 Raceway	9300218 (2)	9300219 (2)
Screw (per raceway)	5183536 (18)	5183536 (18)
Raceway CVR Support - front	9041321 (6)	9041321 (8)
Raceway CVR Support - rear	9041325 (6)	9041325 (8)
Screw (per case)	5183536 (24)	5183536 (32)
13 Raceway Cover End Trim (per patch end)	---- color per order ----	
14 Raceway Cover Retainer (per side)	9023841 (4)	9023841 (6)
15 Screw (per side)	5183536 (8)	5183536 (12)
16 Kickplate (per side)	---- color per order ----	
17 Kickplate Support Assy.- front	9042341 (3)	9042341 (4)
Shoulder Screw	9025833 (8)	9025833 (8)
Kickplate Support Assy.- rear	9042416 (3)	9042416 (4)
Shoulder Screw	9025833 (8)	9025833 (8)
18 Raceway Cover (per side)	---- color per order ----	
19 Front Cladding, Painted	9025637 (2)	9025638 (2)
20 Bumper (per side)	---- color per order ----	
21 Color Band, Painted (LFW/LCW)	9020981 (2)	9020982 (2)
22 Bumper Retainer/Hand Rail (per side) (LFW/LCW)	---- color per order ----	
Screw (per case)	5183536 (36)	5183536 (52)
23 Glass Joint Trim (LFWG/LCWG)	9025956 (2)	9025956 (2)
24 Screw (LFWG/LCWG)	5048626 (4)	5048626 (4)
25 Color Band, Painted (LFWG/LCWG)	9020971 (2)	9020972 (2)
26 Bumper Retainer (LFWG/LCWG)	9025058 (2)	9025061 (2)
Screw (per case)	5183536 (36)	5183536 (52)



# Installation & Service Manual

LMF(G), LF, LFS, LCS, LFN(G), LCN(G),  
LFB(G), LCB(G), LFW(G), LCW(G),  
LF(G)EA, LC(G)EA, LFWEA, LCWEA



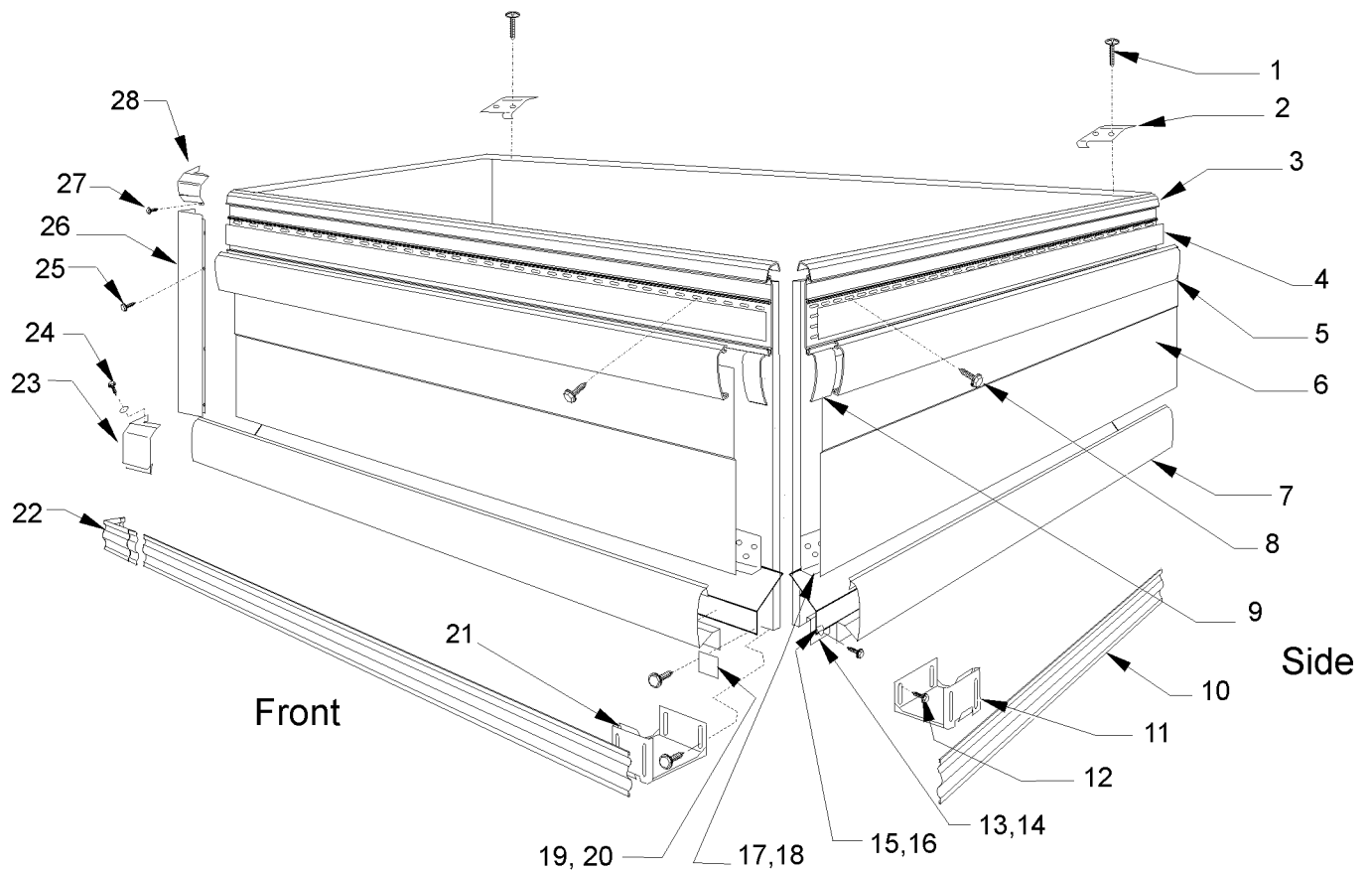
LFW(G) - LCW(G)

LMF(G), LF, LFS, LCS, LFN(G), LCN(G),  
LFB(G), LCB(G), LFW(G), LCW(G),  
LF(G)EA, LC(G)EA, LFWEA, LCWEA

## Tyler Refrigeration

Item	Description	LF(G)EA, LC(G)EA		LFWEA, LCWEA	
		Front	Side	Front	Side
1	Screw	----	5183536 (2)	----	5183536 (2)
2	LH Joint Riser Trim	----	5216949	----	5216949
	RH Joint Riser Trim	----	5216948	----	5216948
3	Bumper Retainer/Hand Rail (LFEA/LCEA/LFWEA/LCWEA)	color per order		color per order	
	Bumper Retainer (LFG EA/LCG EA)	9025868	9025866 (2)	NA	NA
4	Color Band, Painted (LFEA/LCEA/LFWEA/LCWEA)	9020980	9020974 (2)	9020975	9020974 (2)
	(LFG EA/LCG EA)	9020969	9027329 (2)	NA	NA
5	Bumper	color per order		color per order	
6	Side Cladding, Painted (LFEA/LCEA/LFWEA/LCWEA)	----	9025640 (2)	----	9025640 (2)
	(LFG EA/LCG EA)	----	9025768 (2)	----	NA
	Front Cladding, Painted (LFEA/LCEA/LFWEA/LCWEA)	9025639	----	9025641	----
	(LFG EA/LCG EA)	9025770	----	NA	----
7	Raceway Cover	color per order		color per order	
8	Shoulder Screw	5183536 (10)	5183536 (16)	5183536 (10)	5183536 (16)
9	Bumper Backer (4 per end case)	color per order		color per order	
10	Kickplate	color per order		color per order	
11	Kickplate Support Assy. - side	9042414 (2)	9042414 (2)	9042414 (2)	9042414 (2)
12	Shoulder Screw	9025833 (4)	9025833 (4)	9025833 (4)	9025833 (4)
13	Raceway CVR Support - front	9041324 (4)	9041324 (4)	9041324 (4)	9041324 (4)
	Raceway CVR Support - side	9041327 (4)	9041327 (4)	9041327 (4)	9041327 (4)
14	Screw	5183536 (8)	5183536 (8)	5183536 (8)	5183536 (8)
15	Raceway	9301365	9300267 (RH) 9300268 (LH)	9301367	9300267 (RH) 9300268 (LH)
16	Screw	5120943 (10)	5120943 (16)	5120943 (10)	5120943 (16)
17	Cladding Retainer	9300197 (4)	9300197 (4)	9300197 (4)	9300197 (4)
18	Screw	5183536 (8)	5183536 (8)	5183536 (8)	5183536 (8)
19	Raceway Cover Retainer (per side)	9023841 (3)	9023841 (2)	9023841 (3)	9023841 (2)
20	Screw (per side)	5183536 (6)	5183536 (4)	5183536 (6)	5183536 (4)
21	Kickplate Support Assy. - front	9042341 (4)	9042341 (4)	9042341 (4)	9042341 (4)
	Shoulder Screw	9025833 (8)	9025833 (8)	9025833 (8)	9025833 (8)
22	Kickplate Corner Trim (per end case)	color per order		color per order	
23	Raceway Corner Trim (2 per end case)	color per order		color per order	
24	Screw (per corner trim)	9025833 (2)		9025833 (2)	
25	Screw (per corner cladding)	5048626 (4)		5048626 (4)	
26	Corner Cladding (per end case)	9041336 (2)		9041336 (2)	
27	Screw (per corner trim)	9025833 (2)		9025833 (2)	
28	Bumper Corner Trim (2 per end case) (LFEA/LCEA/LFWEA/LCWEA)	color per order		color per order	
	(LFG EA/LCG EA)	color per order		color per order	

NOTE: Glass joint trim parts are not released for the end cases. The glass joint trim parts are listed under the straight case models with glass fronts.



LF(G)EA-LCF(G)EA-LFWEA-LCWEA