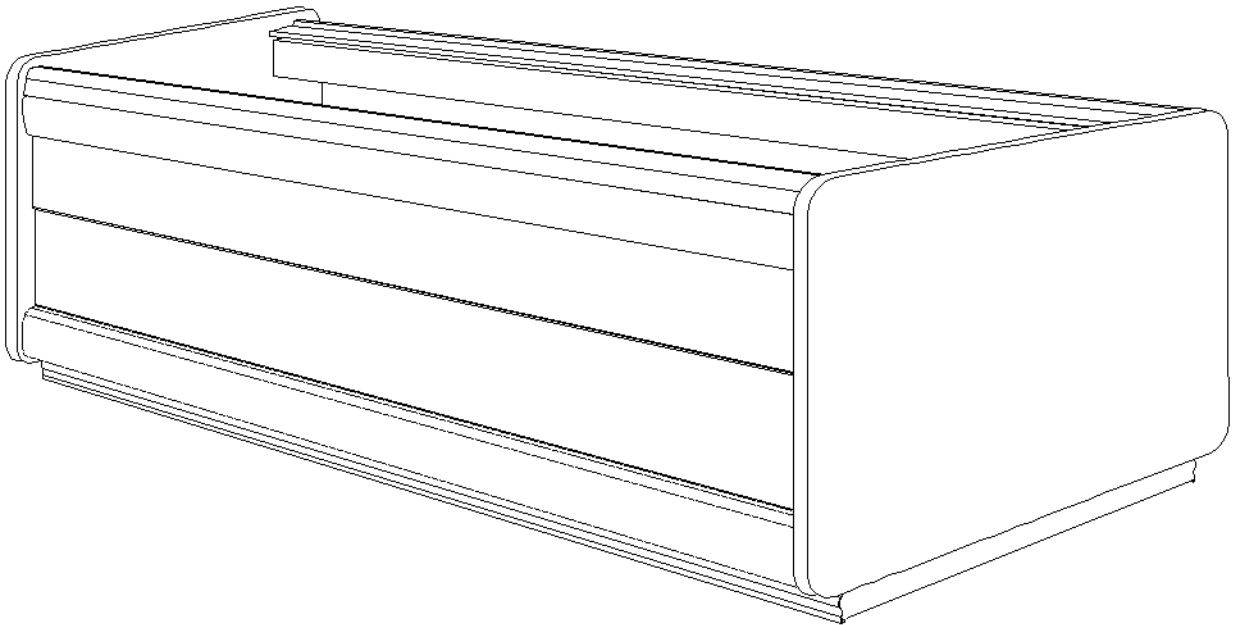


# TYLER

# 1series Advantage

## Installation & Service Manual



**NFW, NCW, NFWG, NCWG,  
NFWE, NCWE**

**WIDE ISLAND FROZEN FOOD & ICE CREAM MERCHANDISERS  
Low Temperature Self Serve Display Cases**

**This manual has been designed to be used in conjunction with the General  
(UL/NSF) Installation & Service Manual.**

**Save the Instructions in Both Manuals for Future Reference!!**

This merchandiser conforms to the American National Standard Institute & NSF International Health and Sanitation standard ANSI/NSF 7 - 1999.

PRINTED IN U.S.A.	Specifications subject to change without notice.	REPLACES EDITION	ISSUE DATE	2/01	PART NO.	9037140	REV.
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The following Low Temperature Wide Island and Wide Island End Frozen Food and Ice Cream Merchandiser models are covered in this manual:

MODEL	DESCRIPTION
NFW	8' & 12' WIDE ISLAND FROZEN FOOD MERCHANDISER
NCW	8' & 12' WIDE ISLAND ICE CREAM MERCHANDISER
NFWG/	8' & 12' GLASS FRONT WIDE ISLAND FROZEN FOOD MERCHANDISER
NCWG	8' & 12' GLASS FRONT WIDE ISLAND ICE CREAM MERCHANDISER
NFWE	WIDE ISLAND FROZEN FOOD END MERCHANDISER
NCWE	WIDE ISLAND ICE CREAM END MERCHANDISER

**SPECIFICATIONS**

**NFW/NCW/NFE/NCWE Wide Island and End FF & IC Merchandiser**

MODEL	NFW	NCW	NFW	NFE	NCWE	NFE
USAGE	FROZEN FOOD	ICE CREAM	MED TEMP	FROZEN FOOD	ICE CREAM	MED TEMP
CAPACITY (BTUH/FT)	450	550	423	402	557	321
EVAPORATOR**	-25F	-35F	+15F	-25F	-35F	+15F
ENTER AIR°	-15F	-25F	+22F	-15F	-25F	+22F

\* 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.

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"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	5/8"	5/8"

DEFROST CONTROL				BACKUP PRESSURE SETTINGS**			EPR SETTINGS***	
PER DAY	MODE	TIME	TERM.		CUT IN	CUT OUT	R22	R404A
1	ELECT (FF)	46 MIN.	50F	FF	12# @ R404A	2# @ R404A	---	14#
1	ELECT (IC)	46 MIN.	50F	IC	6# @ R404A	1# @ R404A	---	8#
2-3	HOT GAS (FF)	16-20 MIN.	55F*	FF	12# @ R404A	2# @ R404A	---	14#
2-3	HOT GAS (IC)	20-26 MIN.	55F*	IC	6# @ R404A	1# @ R404A	---	8#

\* If an Electronic Sensor is used for termination, it should be set at 70°F termination temperature.

\*\* Used with Electronic Thermostat and EPR Control.

\*\*\* Set EPR to give this pressure at the case.

**CASE CIRCUITS:** In addition to the 208V Defrost Circuit, there is the 120V Case Fan Circuit plus the 120V Case Anti-Sweat Heater Circuit. Shelf or Canopy lights require a separate 120V circuit which can be switched at the back room for convenience in controlling the lights.

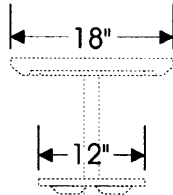
**CASE BTUH REQUIREMENTS** are calculated to produce approximately the indicated performance with absolute maximum operating ambient limits of **75F & 55RH**.

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.

**NFW/NCW/NFWE/NCWE Wide Island and End FF & IC Merchandisers**

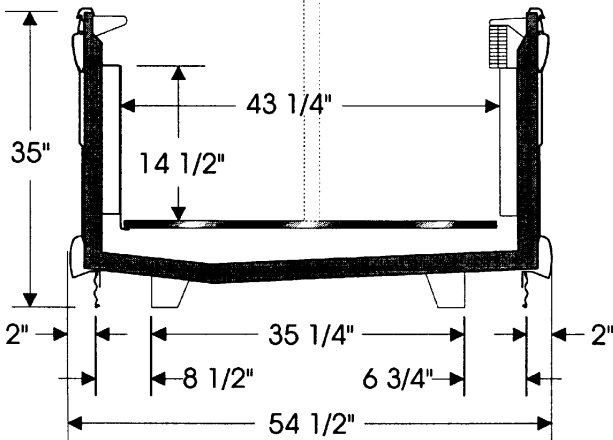
120 VOLT ELECTRICAL DATA (AMPS)				
FT	STD. FANS	ECM FANS	ANTI-SWT	ANTI-SWT W/SUPER STRUCTR
8	1.0	.4	1.8	2.4
12	1.5	.6	2.4	3.3

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

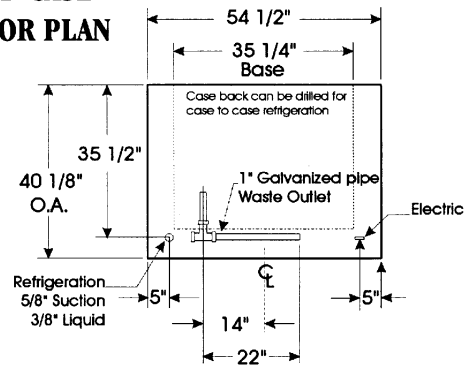


**STUB-UP NOTE:**

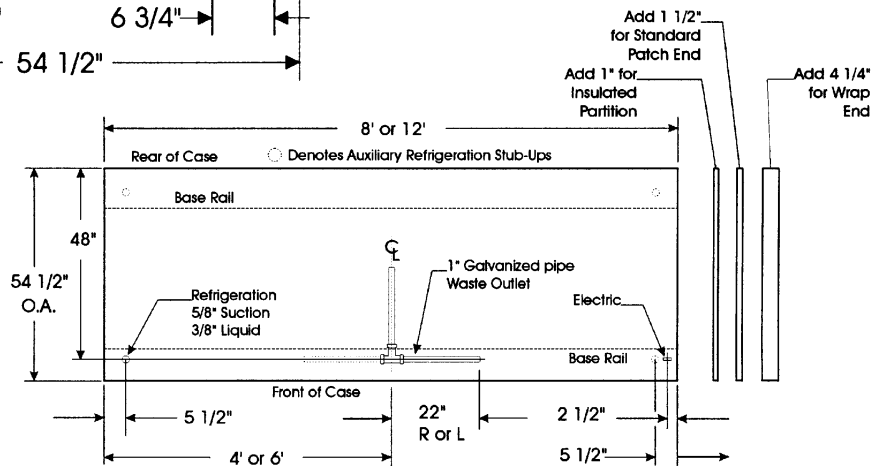
One floor drain can serve up to two cases per drain. One electrical stub-up can serve a number of cases depending on the circuits required - utilizing the continuous wirw raceway(s) on the front of the cases. One refrigeration stub-up can serve several or all cases on a line-up with case-to-case piping.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



**END CASE FLOOR PLAN**



**FLOOR PLAN**



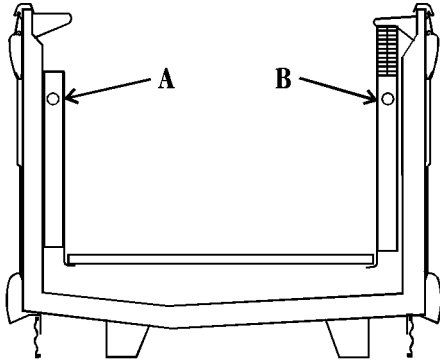
END CASE REFRIGERATION AND ELECTRICAL DATA (AMPS)						
MODEL	USE	BTUH REQUIRED	120V DATA			208V DEFROST HEATER
			STD FANS	ANTI-SWT	DRAIN HEATER	
NFWE	FF	2010 @ -25F	.5	.6	.03	6.9
NCWE	IC	2785 @ -35F	.5	.6	.03	6.9

**ADD 0.4 amps to the adjacent case for the End Case Superstructure Anti-Sweats. If the End Case Superstructure has lights, ADD an additional 0.3 amps per row to the adjacent case.**

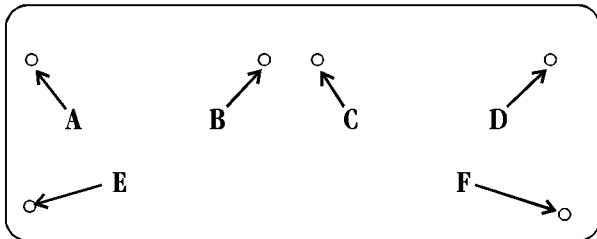
## INSTALLATION PROCEDURES

### Carpentry Procedures

#### Case Pull-Up Locations



The NFW/NCW/NFWG/NCWG 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 NFE/NCWE 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.

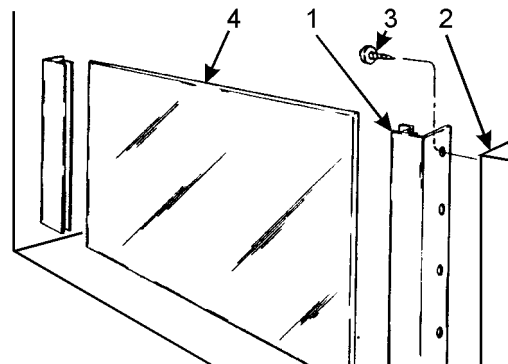
Apply sealant to outside surface of partition where the two surfaces of the adjoining case will contact the partition.

See "General-UL/NSF 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**

**NFW/NCW/NFWG/NCWG Merchandising Shelf Superstructures**

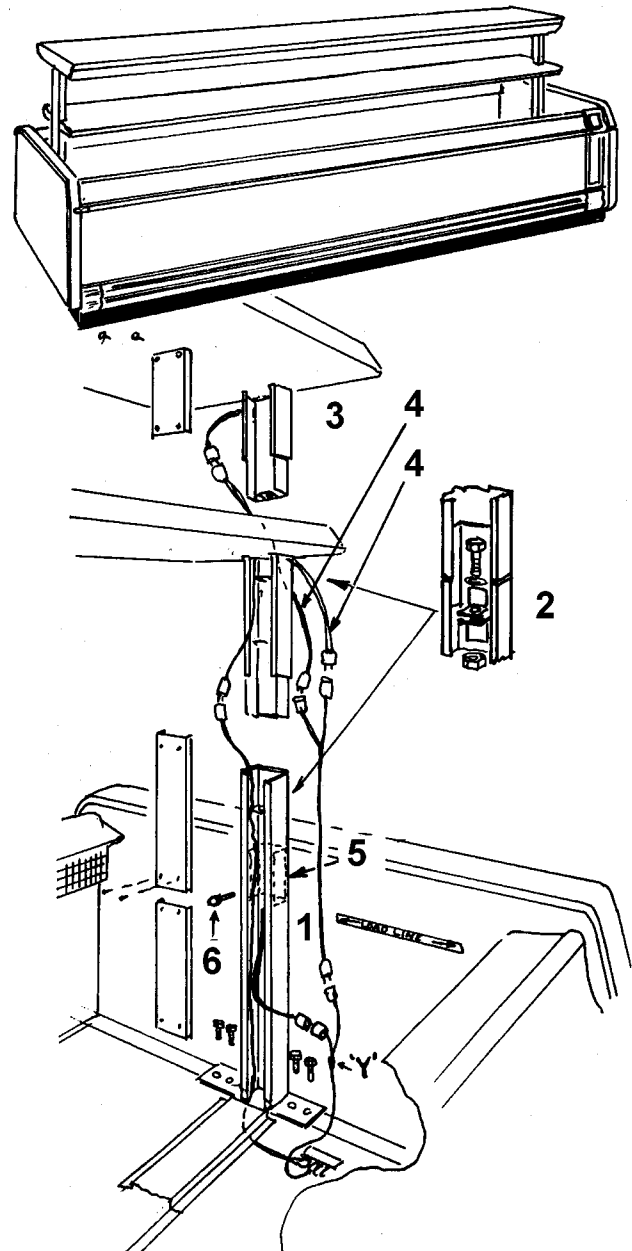
Model	Length	Depth	Lights	Display Area	Height off Floor
D8LFS	8'	12"	Std	8 sq ft	48"
D12LFS	12'	12"	Std	12 sq ft	48"
D8HFS	8'	18"	Std	12 sq ft	55"
D12HFS	12'	18"	Std	18 sq ft	55"
D82FSL	8'	1-12" & 1-18"	*	20 sq ft	58"
D122FSL	12'	1-12" & 1-18"	*	30 sq ft	58"

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

**IMPORTANT**

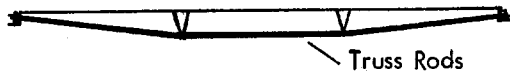
Follow instructions in the numbered order.

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.

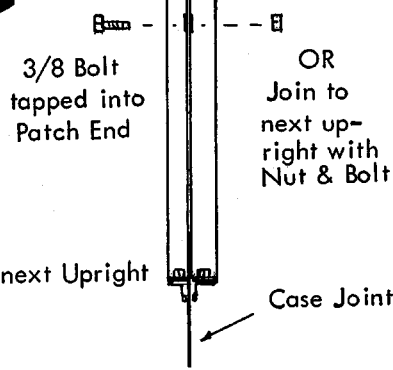
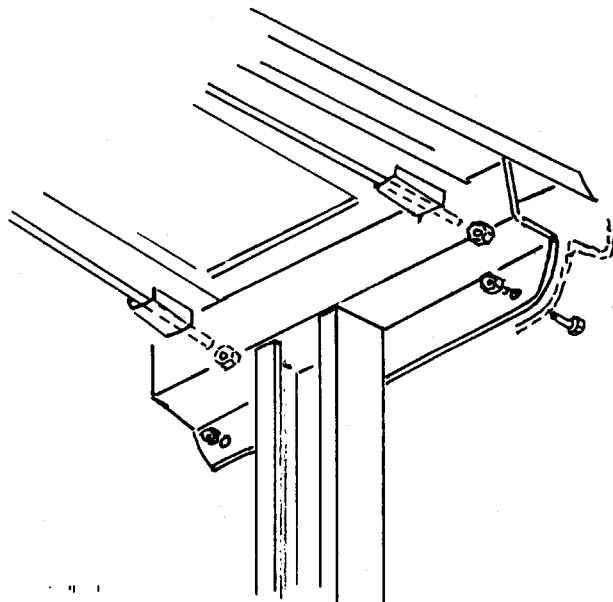
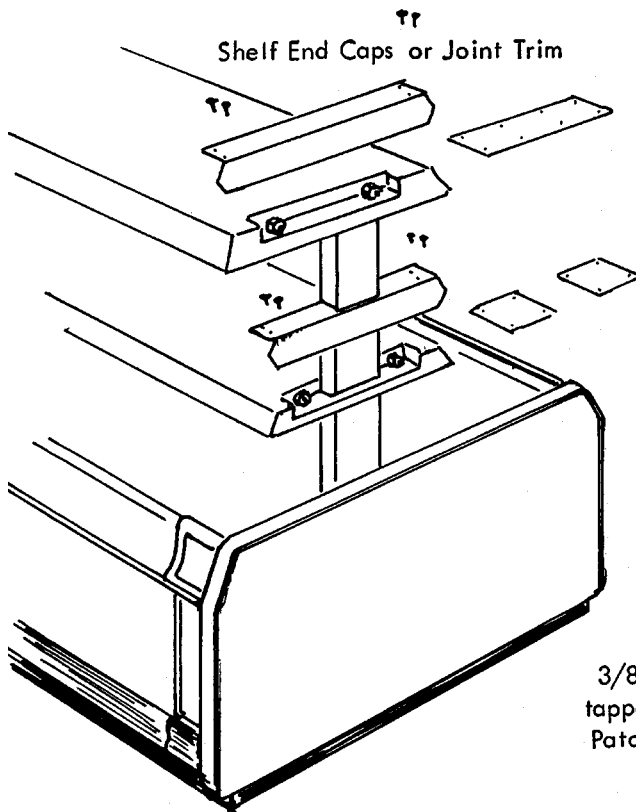
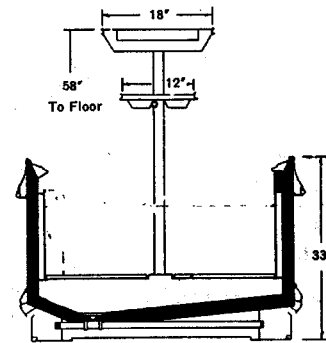


**Truss Rod Adjustment Instructions**

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.



Bolt Uprights to Patch End or next Upright

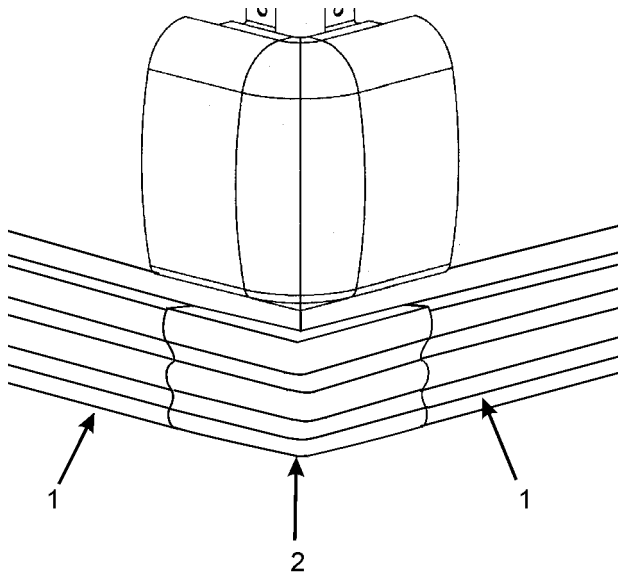


### Trim Installation/Alignment

See "General-UL/NSF 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-UL/NSF 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.

**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 klixon 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 klixon.

**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. Cases with glass fronts have an additional anti-sweat heater under the glass retainer. Anti-sweat heaters are wired directly to the main power supply so they can operate at all times.

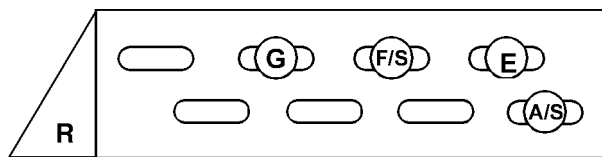
**Defrost Information**

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

**Defrost Control Chart**

**NFW/NCW/NFWG/NCWG/NFWE/NCWE**

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	20-26	55°F



**NFW/NCW/NFWG/NCWG/NFWE/NCWE**

- 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 klixons are located on the end of the evaporator coil. The diagram shows the location for each defrost type that uses a klixon.

**NOTE**

The defrost termination klixon for gas defrost is located at the bypass 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.

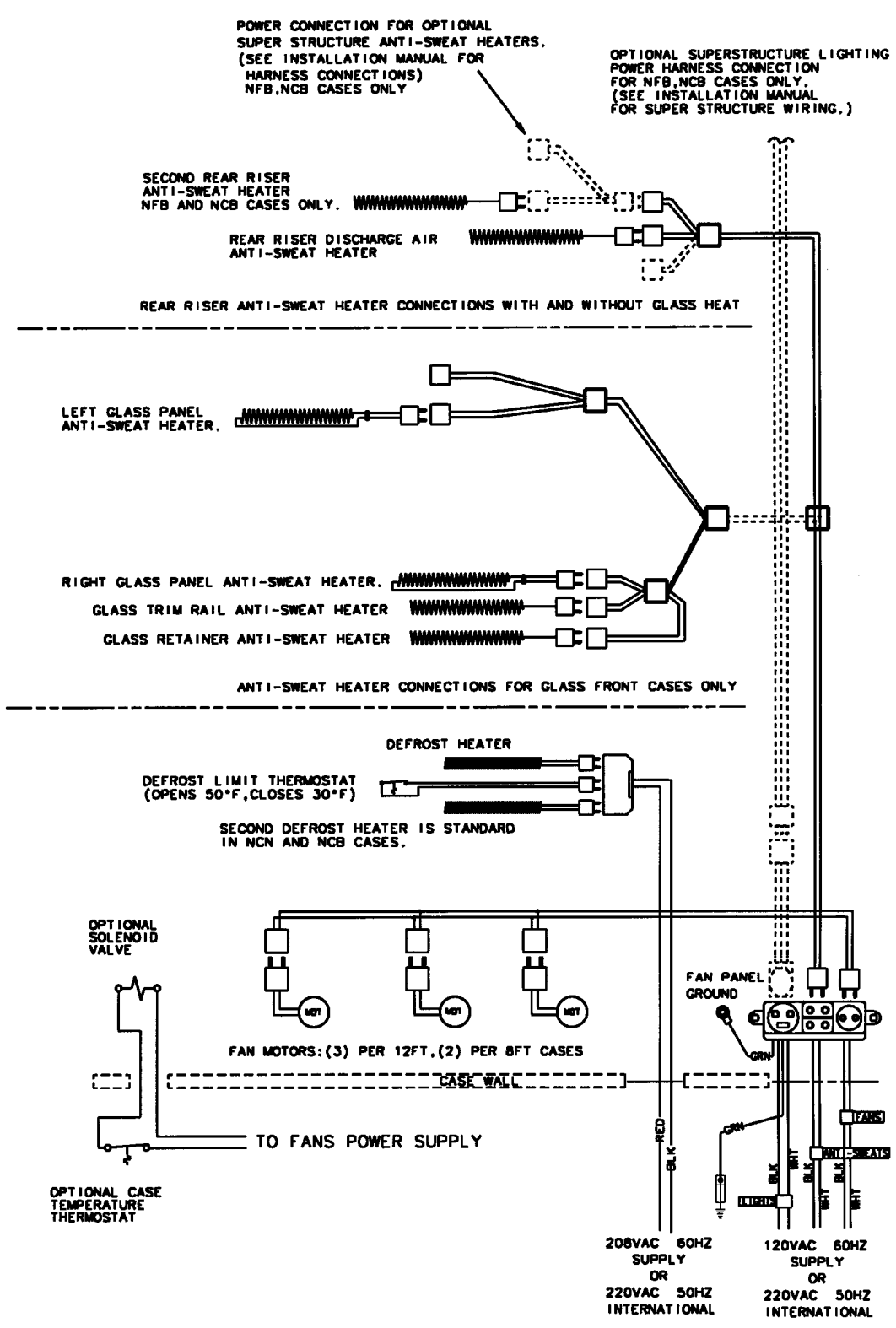
The following wiring diagrams on pages 11 thru 14 will cover the NFW/NCW/NFWG/NCWG/NFWE/NCWE case circuits and dual temp circuits with electric and hot gas defrost options.

# NFW/NCW/NFWG/NCWG Domestic & Export (50Hz) Case Circuits

**TYLER**

1. TO ALL PARTS AND SUPPLIERS: THIS DRAWING IS THE ONLY AUTHORITY FOR THE MANUFACTURE OF THIS CASE. ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED. ALL DIMENSIONS ARE TO UNFINISHED PARTS UNLESS OTHERWISE SPECIFIED. ALL DIMENSIONS ARE TO UNFINISHED PARTS UNLESS OTHERWISE SPECIFIED.

REV. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100



OFF-CYCLE OR ELECTRIC DEFROST

REV	DESCRIPTION	DATE	BY	CHK
0	NEW BOARD	23JAN99	LC	CK
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100				

DECIMALS +/- .030 ANGLES +/- 1 DEG

22JUL97

LC

CK

23JAN99

LC

CK

97-057

DIA. WIRING NFN-NCN(G)  
NFB-NCB(G), NFW-NCW(G)

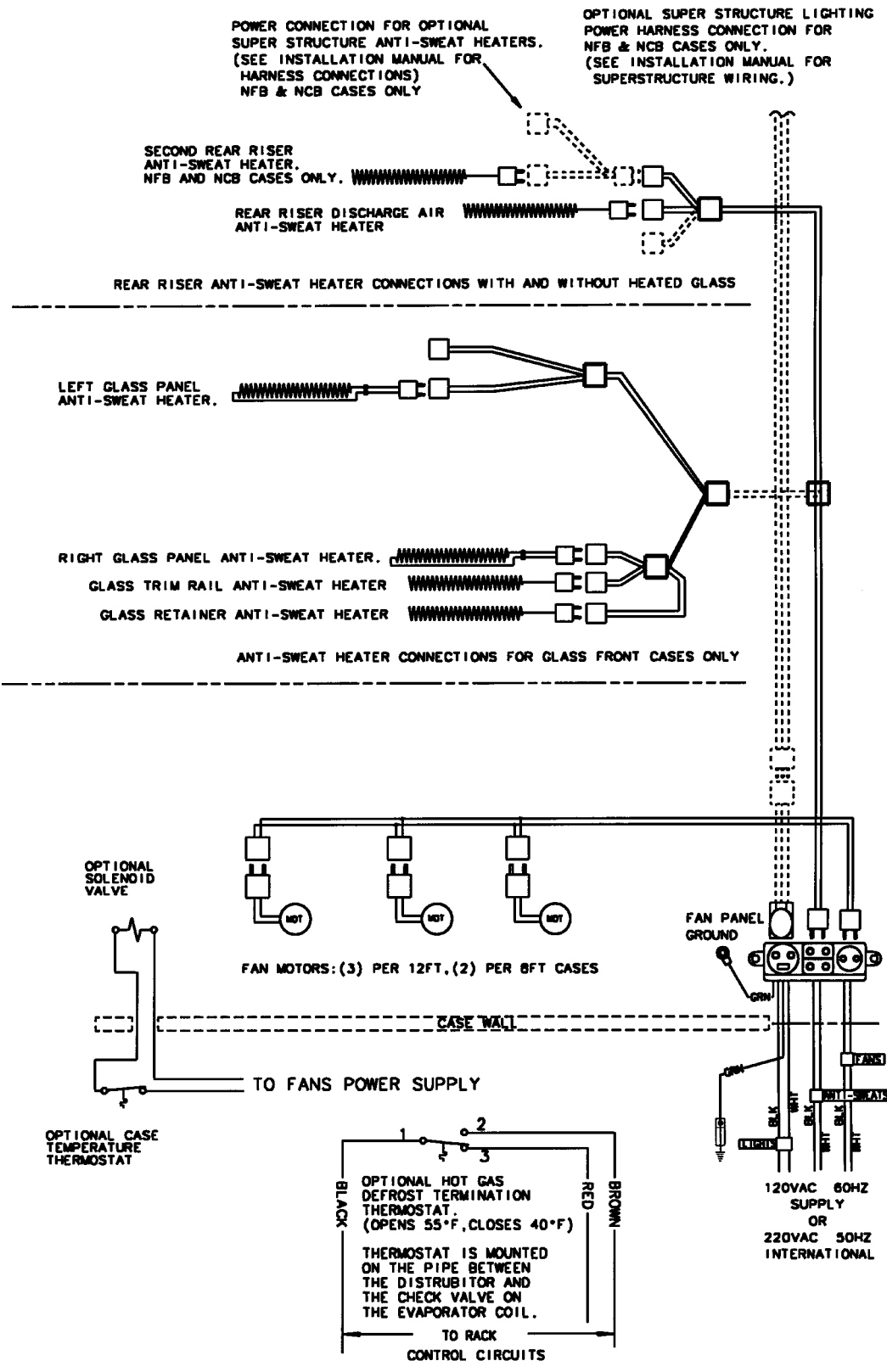
9028668

C

NOTE: ALL CASES MUST BE GROUNDED



PART TYPE B I S  
 MODEL X  
 MANUFACTURED BY TYLER  
 PURCHASED BY  
 DATE OF PURCHASE  
 DATE OF INSTALLATION  
 DATE OF SERVICE  
 DATE OF REPAIR  
 DATE OF REMOVAL  
 DATE OF RE-INSTALLATION  
 DATE OF REPAIR  
 DATE OF REMOVAL  
 DATE OF RE-INSTALLATION

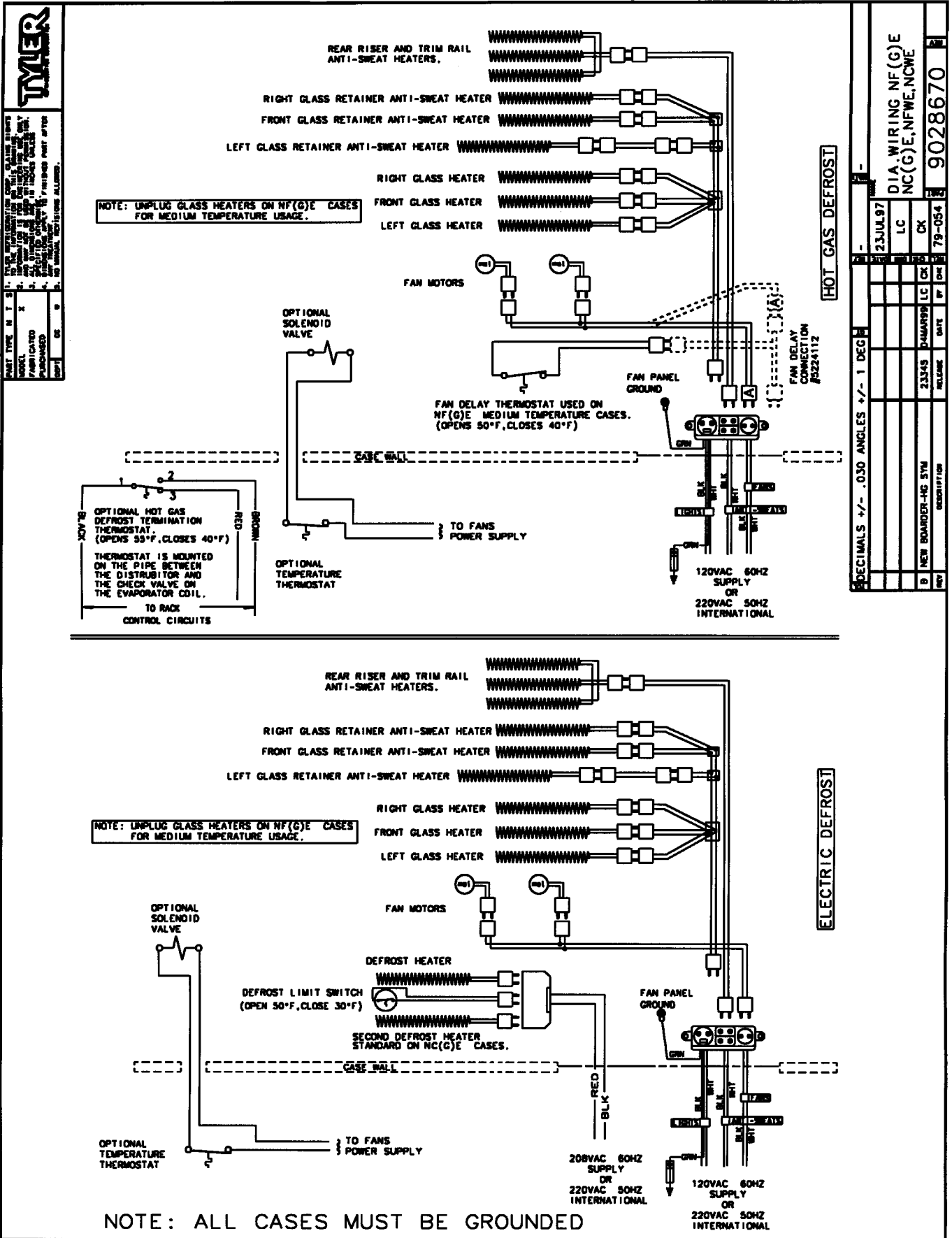


NOTE: ALL CASES MUST BE GROUNDED

HOT GAS DEFROST

DECIMALS +/- .030 ANGLES +/- 1 DEG		22JUL97	LC	CK	97-057	9028669
DIA. WIRING NFN-NCN(G) NFB-NCB(G), NFW-NCW(G)						
B	NEW BOARD-NO SYN	23345	24MAR99	LC	CK	
REP	DESCRIPTION	RELEASE	DATE	BY	CHK	

# NFWE/NCWE Domestic & Export (50Hz) End Case Circuits



UNIT TYPE N T E  
 MODEL X  
 MANUFACTURED  
 CHAS  
 COPY

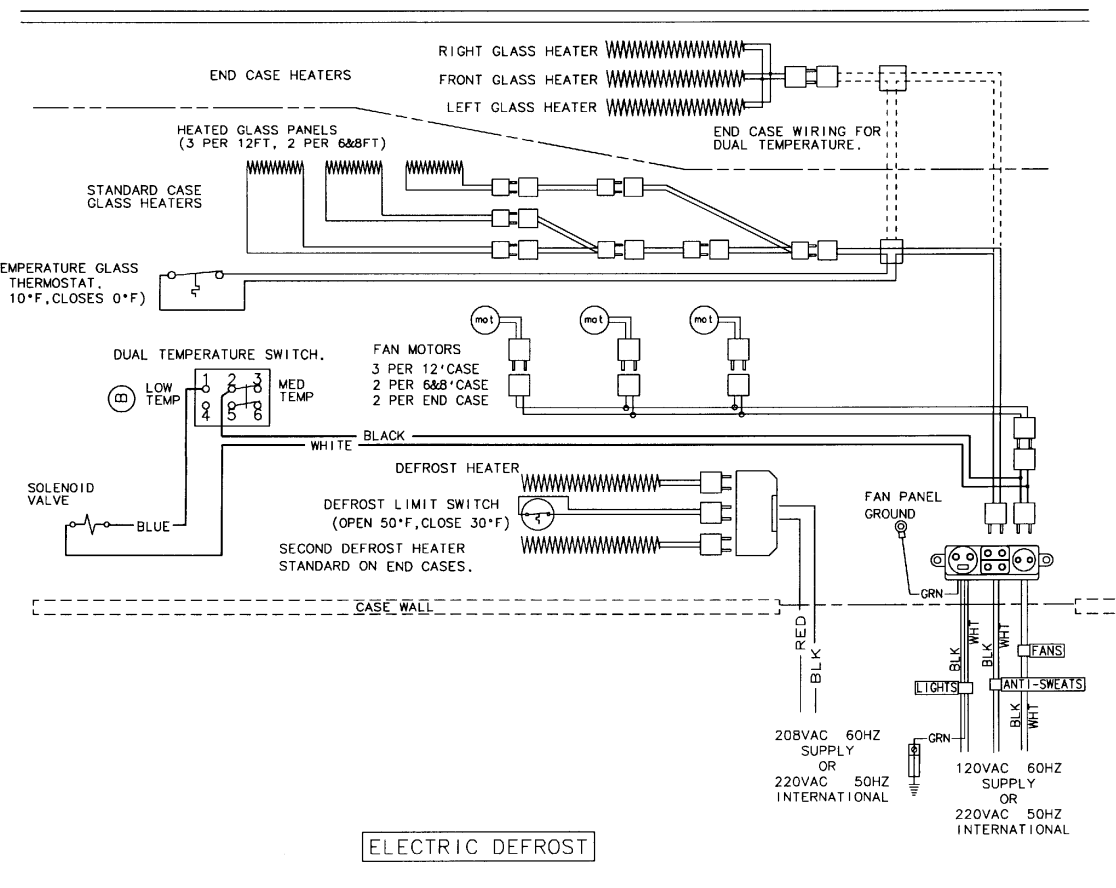
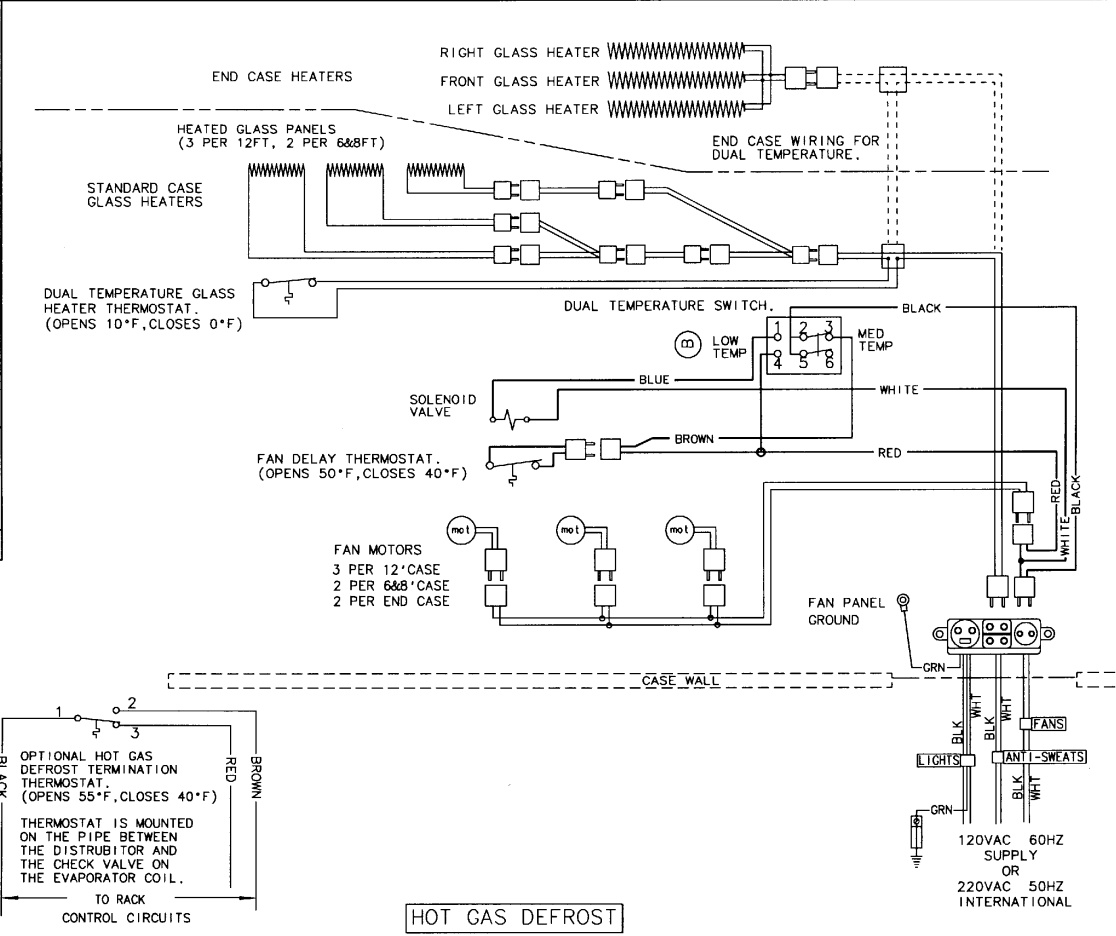
DECIMALS +/- .030 ANGLES +/- 1 DEG		
23JUL97	LC	CK
23JAN99	LC	CK
23JAN99	LC	CK
DATE	BY	CHK
23JAN99	23JAN99	23JAN99
RELEASE	DATE	BY
23JAN99	23JAN99	23JAN99
DESCRIPTION	D NEW BOARDER-HD 5YM	
REV	9028670	
DIA. WIRING NF(G)E NC(G)E, NFWE, NCWE		

# Dual Temperature Control Circuits

**TYLER**  
REFRIGERATION CORPORATION

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MODEL FABRICATED x x  
 PURCHASED  
 DEPT CC W  
 DATE



**DUAL TEMPERATURE CASES**

REV	DATE	BY	CHK	DESCRIPTION
1	15OCT96			
2	23420	31MAR99	POP	DIA WIRING NMF(G) NF(S)NFB(G)NFN(G)
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DECIMALS +/- .030 ANGLES +/- 1 DEG

## **CLEANING AND SANITATION**

### **Component Removal and Installation Instructions for Cleaning**

#### **Bottom Trays**

1. Remove product from bottom of case.
2. Grasp and lift out each of the bottom trays from the case interior and carefully remove through the door openings
3. After cleaning, replace in reverse order.

#### **NSF Product Thermometer**

Remove four screws and product thermometer bracket assembly from right rear location in the case. After cleaning, replace product thermometer bracket assembly and secure with four screws.

#### **Discharge Air Honeycomb**

1. Remove screws and bottom retainer strip from front or rear interior of case.

#### **NOTE**

**Note position of the honeycomb grid during removal so it can be reinstalled the same way.**

2. Remove honeycomb grid sections from the front or rear duct.

#### **CAUTION**

**Improper installation of the honeycomb grid section could result in improper air flow and/or poor refrigeration.**

3. After cleaning, replace honeycomb grid sections as they were removed and secure with the bottom retainer strip and screws.

#### **Rear Air Duct Panels**

1. Remove bottom trays and discharge air honeycomb, see this page.
2. Remove mounting screws from rear duct panel.
3. After cleaning, replace in reverse order.

#### **Front Air Duct Panels**

1. Remove bottom trays, see this page.
2. Remove screws and front air duct panels from case.
3. After cleaning, replace in reverse order.

#### **Corner Trim**

1. See page 16 for corner trim removal instructions.
2. After cleaning trim and cladding components, replace front and rear cladding and corner trim components in reverse order using instructions below and on page 16.

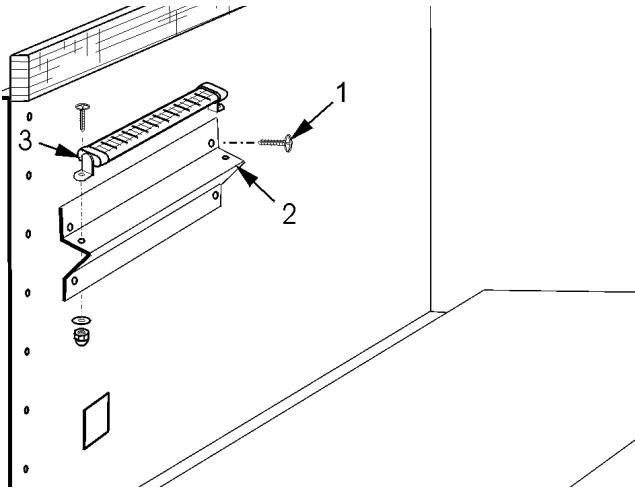
#### **Front & Rear Cladding**

1. Remove kickplates and raceway covers from front and rear of case.
2. Remove screws from bottom and top of front and rear cladding and pull cladding down to remove it from behind the bottom edge of the bumper retainer.
3. After cleaning, replace front and rear cladding and remaining components in reverse order.

## SERVICE INSTRUCTIONS

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

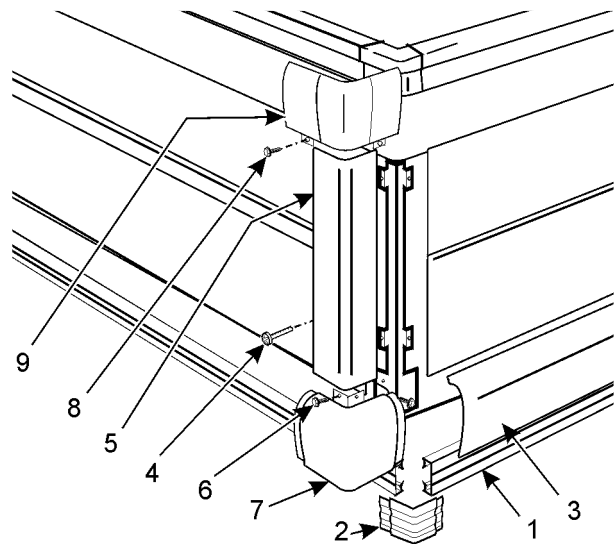
### NSF Product Thermometer Replacement



1. Remove four screws (1) and thermometer bracket (2) from rear of case.
2. Remove two screws, nuts, washers and the product thermometer (3) from the thermometer bracket (2).
3. Install and secure a new product thermometer (3) on the thermometer bracket (2) with two screws, washers and nuts.
4. Install thermometer bracket (2) on rear of case with four screws (1).

### Corner Trim Replacement (NFW/NCW/NFWG/NCWG w/wrap ends) (NFE/NCE 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.
5. Install new defrost heater (6) in reverse order.
6. Restore electrical power to case.

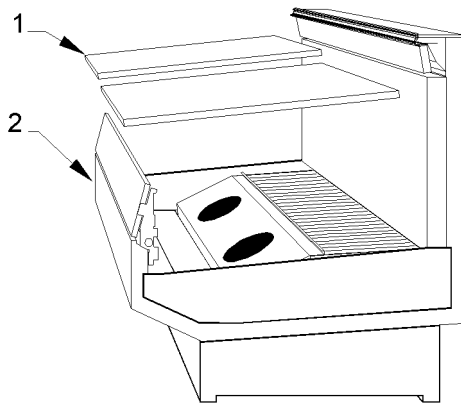


## Defrost Heater Replacement

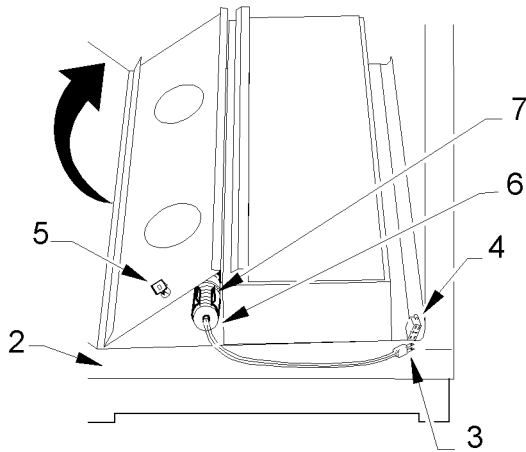
### WARNING

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 NFW/NCW/NFWG/NCWG/  
NFWE/NCWE



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).

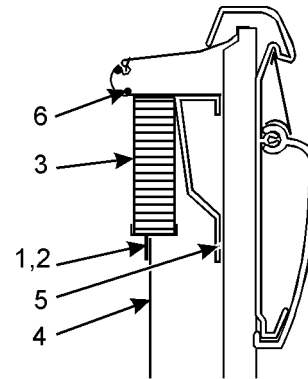
## Anti-Sweat Replacement

### 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.

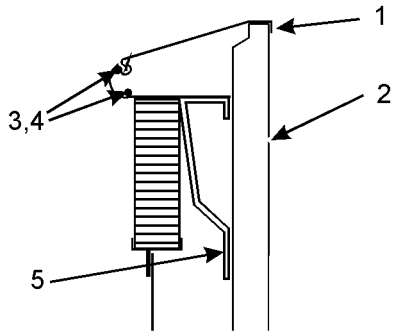
Discharge Air Grid Anti-Sweat  
(NFW/NCW)

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  
(NFE/NCFE)**



1. Remove screws and 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 (1) with screws.

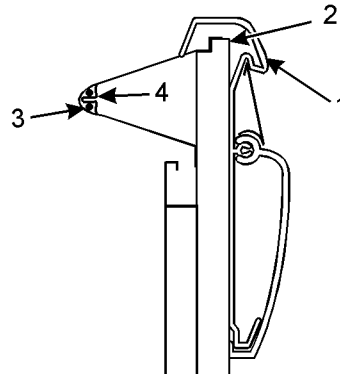
**Front Glass Retainer Anti-Sweat  
(NFWG/NCWG)**

See "Front Glass Replacement" on page 18 for glass removal and glass retainer anti-sweat replacement instructions.

**Return Air Duct Anti-Sweat  
(NFE/NCFE)**

**NOTE**

Cladding corner trim, bumper corner trim, front bumper and front bumper retainer must be removed from the end case.

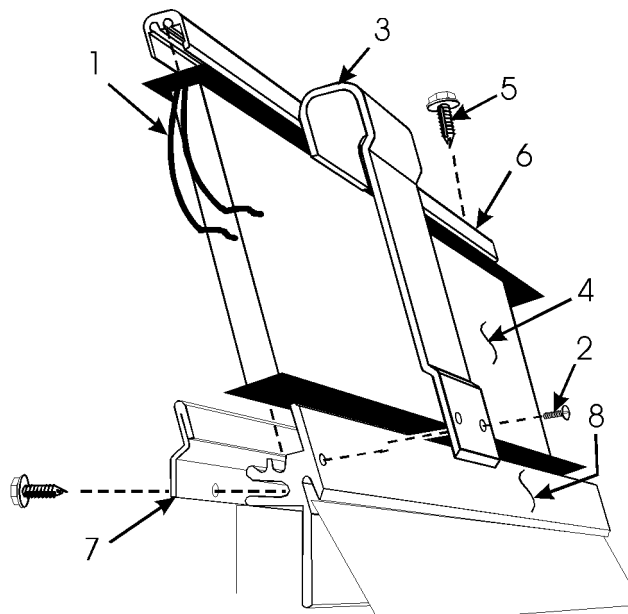


1. Remove screws and front trim assembly (1) from top of front case wall (2).
2. Disconnect or cut the defective anti-sweat wire (3) from the case wires.
3. Remove and replace the aluminum tape (4) and defective anti-sweat wire (3) from inside of front trim assembly (1).
4. Reconnect anti-sweat wires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

## Front Glass Replacement (NFWG/NCWG)

### 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 NFW/NCW/NFWG/NCWG)

Case Usage	Domestic		Export	
	115 Volt 60 Hertz		220 Volt 50 Hertz	
Case Size	8'	12'	8'	12'
Fan Motor	5125532 5 Watt	5125532 5 Watt	5126572 5 Watt	5126572 5 Watt
Fan Motor Brackets	5213132	5213132	5213132	5213132
Fan Bracket Plate	9041077	9041077	9041077	9041077
Fan Blades (6" 27° 3B)	5104294	5104294	5104294	5104294
Opt. ECM Fan Motor	9025022 8 Watt	9025022 8 Watt	-----	-----
Opt. ECM Fan Motor Brackets	5205279	5205279	-----	-----
Opt. ECM Fan Blades (6" 25 1/4° 3B)	9025138	9025138	-----	-----
Anti-Sweat Heater Wire (discharge air)(NFW/NCW)	5124818	5124819	5124216	5124217
(glass retainer) (NFWG/NCWG)	5218331	5218332	5081149	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
NSF Product Thermometer	5967100	5967100	5967100	5967100

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

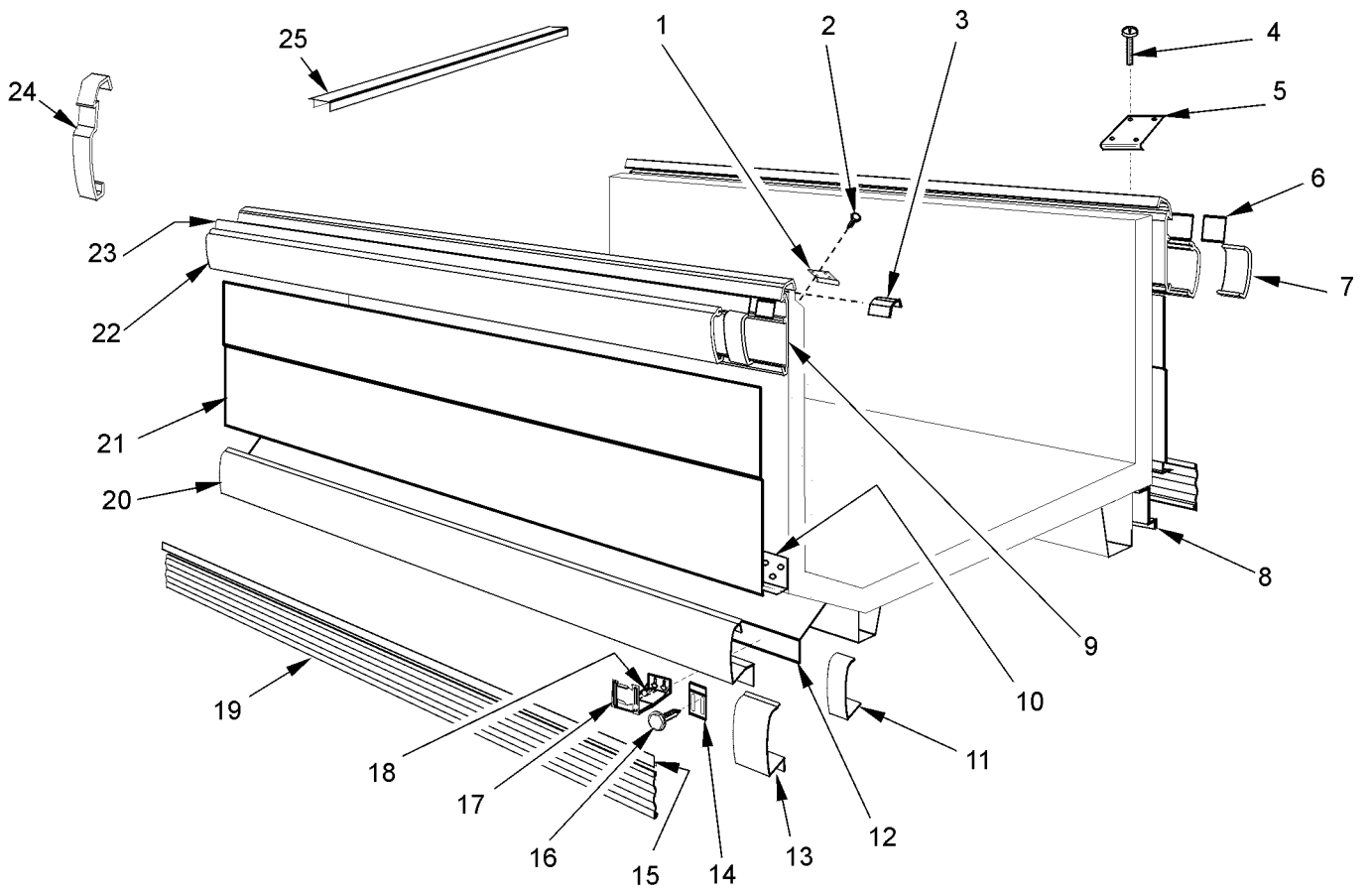
**(Models NFWE/NCWE)**

<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 Bracket Plate	9041077	9041077
Fan Blades (6" 27° 3B)	5104294	5104294
Opt. ECM Fan Motor	9025002 8 Watt	-----
Opt ECM Fan Motor Brackets	5205279	-----
Opt. ECM Fan Blades (6" 25 1/4° 3B)	9025138	-----
Anti-Sweat Heater Wire (discharge air)	5225810	5639012
(return air)	5225805	5639011
Electric Def. Heater	5225840	5225840
Electric Def. Term. Klixon	5125211	5125211
Opt. Gas Def. Fan Delay Klixon	9023503	9023503
Opt. Gas Def. Term. Klixon	9023508	9023508
NSF Product Thermometer	5967100	5967100

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

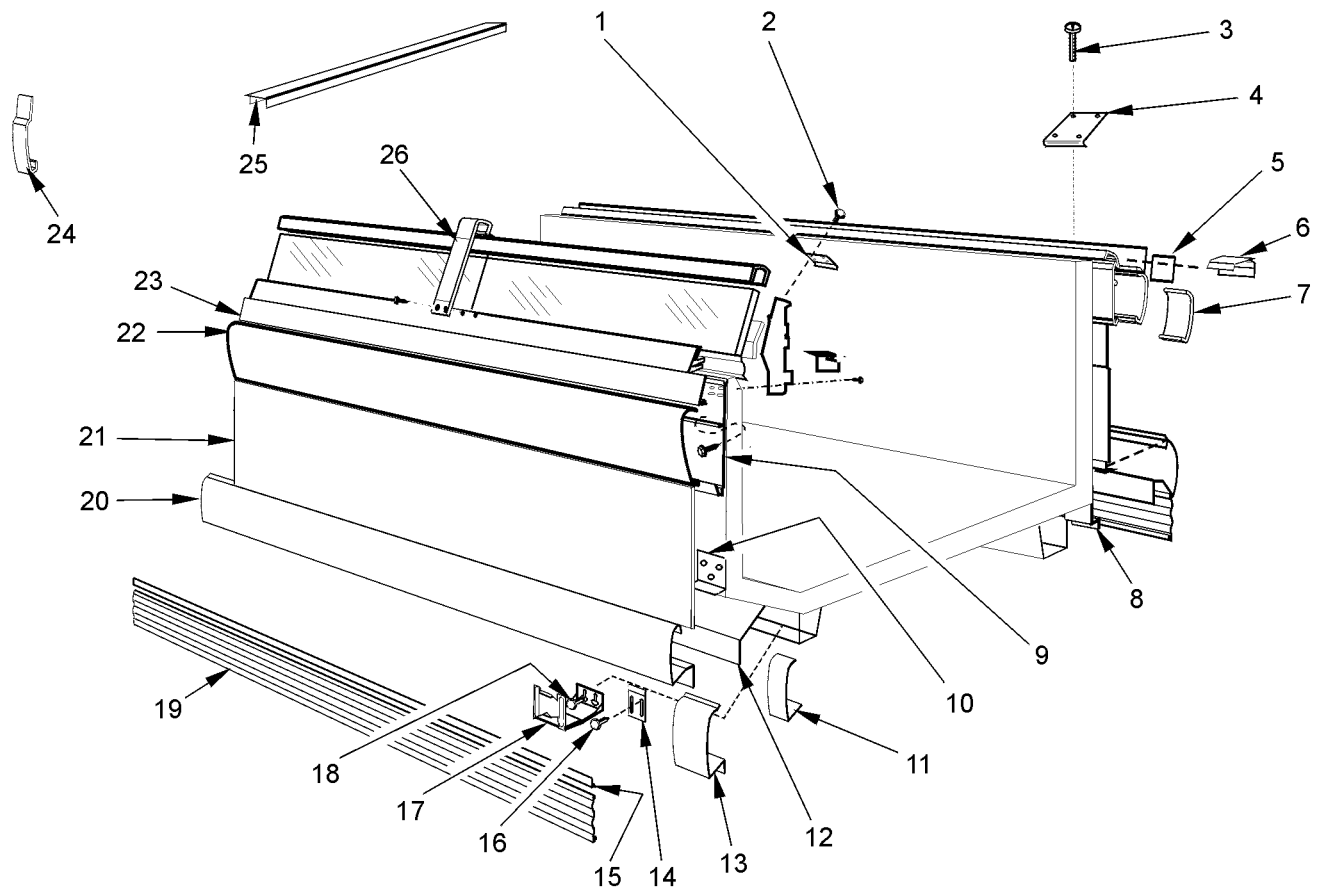
**Cladding and Optional Trim Parts List**

Item	Description	NFW, NCW	
		8'	12'
1	Return Air Duct Trim	5207491	5207491
2	Screw	5145037 (4)	5145037 (4)
3	Handrail Backer	9025316 (2)	9025316 (2)
4	Screw	5145037 (4)	5145037 (4)
5	Top Rear Riser Joint Trim	5203016	5203016
6	Color Band Backer, Ptd.	9040223 (2)	9040223 (2)
7	Bumper Backer	--- color per order ---	---
8	Rear Raceway Cover Support	9041327 (4)	9041327 (4)
	Front Raceway Cover Support	9041324 (4)	9041324 (4)
	Screw (per support)	5183536 (8)	5183536 (8)
9	Bumper Retainer/Handrail	--- color per order ---	---
	Shoulder Screw	9025833 (36)	9025833 (52)
10	Cladding Retainer	9300197 (4)	9300197 (4)
11	Raceway Cover Backer	--- color per order ---	---
12	Raceway	9300218	9300219
13	Raceway Cover End Trim (per patch end)	--- color per order ---	---
14	Raceway Cover Retainer	9023841 (4)	9023841 (6)
15	Kickplate Extension (Opt.)	--- color per order ---	---
16	Screw	5183536 (8)	5183536 (12)
17	Kickplate Support Assembly	9042340 (4)	9042340 (4)
18	Shoulder Screw	9025833 (8)	9025833 (8)
19	Kickplate	--- color per order ---	---
	Kickplate Backer	9041790	9041790
20	Raceway Cover	--- color per order ---	---
21	Front & Rear Cladding, Ptd.	9301351 (2)	9301352 (2)
22	Bumper	--- color per order ---	---
23	Front & Rear Color Band, Ptd.	9020971 (2)	9020972 (2)
24	Bumper End Trim (per patch end)	--- color per order ---	---
25	Horizontal End Trim	5128700	5128700



Item Description	NFWG, NCWG	
	8'	12'
1 Return Air Duct Trim	5207491	5207491
2 Screw	5145037 (4)	5145037 (4)
3 Screw	5145037 (4)	5145037 (4)
4 Top Rear Riser Joint Trim	5203016	5203016
5 Rear Color Band Backer, Ptd.	9040223	9040223
Front Color Band Backer, Ptd.	9025982	9025982
6 Rear Handrail Backer	9025316	9025316
7 Bumper Backer	---- color per order ----	----
8 Rear Raceway Cover Support	9041327 (4)	9041327 (4)
Front Raceway Cover Support	9041324 (4)	9041324 (4)
Screw (per support)	5183536 (8)	5183536 (8)
9 Front Bumper Retainer	9025058	9025061
Rear Bumper Retainer/Handrail	---- color per order ----	----
Shoulder Screw	9025833 (36)	9025833 (52)
10 Cladding Retainer	9300197 (4)	9300197 (4)
11 Raceway Cover Backer	---- color per order ----	----
12 Raceway	9300218	9300219
13 Raceway Cover End Trim (per patch end)	---- color per order ----	----
14 Raceway Cover Retainer	9023841 (4)	9023841 (6)
15 Kickplate Extension (Opt.)	---- color per order ----	----
16 Screw	5183536 (8)	5183536 (12)
17 Kickplate Support Assembly	9042340 (4)	9042340 (4)
18 Shoulder Screw	9025833 (8)	9025833 (8)
19 Kickplate	---- color per order ----	----
Kickplate Backer	9041790	9041790
20 Raceway Cover	---- color per order ----	----
21 Front Cladding, Ptd.	9301351	9301352
Rear Cladding, Ptd.	9025637	9025638
22 Bumper	---- color per order ----	----
23 Front Color Band, Ptd.	9020971	9020972
Rear Color Band, Ptd.	9023798	9023800
24 Bumper End Trim (per patch end)	---- color per order ----	----
25 Horizontal End Trim	5128700	5128700
26 Glass Joint Trim Assembly	9031808	9031808
Screw (per joint trim)	5048626 (2)	5048626 (2)





Item Description	NFW, NCW	
	Front	Side
1 Screw (per trim)	----	5183536 (2)
2 LH Joint Riser Trim	----	5216949
RH Joint Riser Trim	----	5216948
3 Side Bumper Retainer/Handrail	----	color per order
4 Side Color Band, Ptd.	----	9025640 (2)
5 Side Bumper	----	color per order
6 Side Cladding, Ptd.	----	9025640 (2)
7 Side Raceway Cover	----	color per order
8 Shoulder Screw (per side)	----	9025833 (8)
9 Bumper Backer (per end case)	----	color per order
10 Side Kickplate	----	color per order
11 Side Kickplate Extension (Opt.)	----	color per order
12 Shoulder Screw (per kickplate support)	9.25833 (2)	9025833 (2)
13 Kickplate Support Assembly	9042341 (2)	9042341 (4)
14 Raceway Cover Support	----	9041327 (4)
Screw (per support)	----	5183536 (2)
15 Raceway Cover Backer	-----color per order	-----
16 Cladding Retainer	9300197 (4)	9300197 (4)
17 Front Raceway	9301365	----
RH Side Raceway	----	9300267
LH Side Raceway	----	9300268
18 Raceway Cover Support	9041324 (4)	----
19 Raceway Cover Retainer	9023841 (2)	9023841 (4)
Screw	5183536 (4)	5183536 (8)
20 Front Kickplate Extension (Opt.)	color per order	----
21 Shoulder Screw	9025833 (21)	----
22 Front Color Band, Ptd.	9023791	----
23 Front Raceway Cover	color per order	----
24 Front Cladding, Ptd.	9025641	----
25 Front Bumper	color per order	----
26 Front Kickplate	color per order	----
27 Kickplate Corner Trim	color per order	----
28 Corner "L" Bracket	9300456 (2)	----
Screw (per bracket)	5183536 (2)	----
29 Raceway Corner Trim	color per order	----
Screw (per trim)	5183536 (2)	----
Washer (per trim)	5100982 (2)	----
30 Screw (per corner cladding)	5183536 (4)	----
31 Corner Cladding, Ptd.	9026182 (2)	----

Item	Description	Front	Side
32	Bumper Corner Trim	color per order	----
	Screw (per corner trim)	5183536 (2)	----
	Washer (per corner trim)	5100982 (2)	----
33	Front Bumper Retainer/Handrail	color per order	----

