

TYLER
REFRIGERATION



Carrier

A United Technologies Company

A series
Advantage

Installation & Service Manual



NLM, NLF, NLD

LIFT FRONT CURVED GLASS MEAT/SEAFOOD/DELI SERVICE MERCHANDISERS
Medium Temperature Service 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 - 2003.

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Tyler Refrigeration * Niles, Michigan 49120

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The following Medium Temperature Lift Curved Front Glass Meat, Seafood and Deli Service Merchandiser models are covered in this manual:

MODEL	DESCRIPTION
NLM	6', 8' & 12' LIFT GLASS GRAVITY COIL MEAT SERVICE MERCHANDISERS
NLF	4', 6', 8' & 12' LIFT GLASS GRAVITY COIL SEAFOOD SERVICE MERCHANDISERS
NLD	6', 8' & 12' LIFT GLASS FORCED AIR DELI SERVICE MERCHANDISERS

NLM/NLF Lift Front Curved Glass Gravity Service Merchandisers NLD Lift Front Curved Glass Blower Service Merchandisers

Refrigeration Data:

MODEL	CASE LENGTH	CASE USAGE	CAPACITY (BTUH / FT)		EVAPORATOR (°F)	UNIT SIZING (°F)	DISCHARGE AIR		AVG. REF. CHARGE (LBS/FT)
			PARALLEL	CONVENTIONAL			TEMPERATURE (°F)	VELOCITY (FPM)	
NLM	ALL	Meat / Fish	242*	363*	+13**	+11	N/A	N/A	0.83
NLF	ALL	Fish (Iced)	178*	266*	+20**	+18	N/A	N/A	0.40
NLD	ALL	Deli	376*	564*	+15**	+13	30	325***	0.52

* Capacity data listed for cases with 1 row of T-8 top lights. ADD 23 BTUH/FT for each lighted mezzanine shelf.

For sizing all refrigeration equipment other than TYLER, use conventional BTUH values.

** Evaporator temperature is based on the saturated pressure leaving the case.

*** Air velocity measured 1 hour after defrost at the vertical part of the Rear Duct.

FOR SPECIFIC COMPRESSOR SIZING INFORMATION, REFER TO TYLER APPLICATIONS FOR RACK SYSTEM COMPRESSORS AND/OR THE COMPRESSOR MANUFACTURERS FOR SINGLE COMPRESSORS. FOR LINE SIZING INFORMATION, REFER TO THE MISCELLANEOUS SECTION "BUFF" IN THE TYLER SPECIFICATION GUIDE.

Electrical Data:

Fans and Heaters (120 Volt)

MODEL	CASE LENGTH	FANS / CASE	TOTAL STANDARD FANS		TOTAL ECM FANS		FRONT GLASS STOP ANTI-SWEAT	
			AMPS	WATTS	AMPS	WATTS	AMPS	WATTS
NLF	4'	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NLM / NLF	6'	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NLM / NLF	8'	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NLM / NLF	12'	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NLD	6'	2	0.68	60.4	0.44	22.0	0.85	102.0
NLD	8'	2	0.68	60.4	0.44	22.0	0.95	114.0
NLD	12'	3	1.02	90.6	0.66	33.0	1.26	152.0

T8 Lighting with Electronic Ballasts (120 Volt)

MODEL	CASE LENGTH	CANOPY LIGHTS		SHELF LIGHTS - PER ROW				MAXIMUM LIGHTING *	
		AMPS	WATTS	AMPS		WATTS		AMPS (3 ROWS)	WATTS (3 ROWS)
				1 ROW	2 ROWS	1 ROW	2 ROWS		
NLF	4'	0.35	42.0	0.35	0.50	42.0	60.0	0.85	102.0
NL(M/F/D)	6'	0.40	48.0	0.40	0.80	48.0	96.0	1.20	144.0
NL(M/F/D)	8'	0.50	60.0	0.50	1.00	60.0	120.0	1.50	180.0
NL(M/F/D)	12'	0.70	84.0	0.70	1.40	84.0	168.0	2.10	252.0

* For cases with 1 rows of canopy lights and 2 rows of shelf lights.

Defrost Data:

DEFROST TYPE	DEFROSTS PER DAY	DURATION TIME (MIN)	TERMINATION TEMP. (°F)	BACKUP PRESSURE SETTINGS *		EPR SETTINGS **		DEFROST WATER (LB / FT / DAY)
				CUT IN	CUT OUT	R22 (PSIG)	R404A (PSIG)	
TIME OFF - NLM / NLF	1	110	N/A	34# @ R22	24# @ R22	36	47	0.33
TIME OFF - NLD	1	46	N/A	34# @ R22	24# @ R22	36	47	N/A

* Used with electronic thermostat and EPR control.

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

CASE-TO-CASE SUCTION LINE SUB-FEED BRANCH SIZING FOR CASE LINE-UPS (R-22 REFRIGERANT)												
MODEL	4'	6'	8'	12'	16'	20'	24'	28'	32'	36'	40'	44'
NLM	N/A	3/8"	3/8"	1/2"	1/2"	5/8"	5/8"	5/8"	7/8"	7/8"	7/8"	7/8"
NLF	3/8"	3/8"	3/8"	3/8"	3/8"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	5/8"
NLD	N/A	3/8"	3/8"	1/2"	1/2"	5/8"	5/8"	5/8"	5/8"	7/8"	7/8"	7/8"

CONVENIENCE OUTLET CIRCUIT: One single convenience outlet is on the back of the 4' and 6' cases and two single convenience outlets are on the back of the 8' and 12' cases. Plan suitable 15A circuits for these 120V outlets.

An evaporator Pressure Regulator should be installed on each system to aid in temperature control. Set the EPR for 36 PSIG (R22).

Shelves not recommended in gravity coil cases since they disrupt airflow and compromise performance. Blower style cases may use shelving.

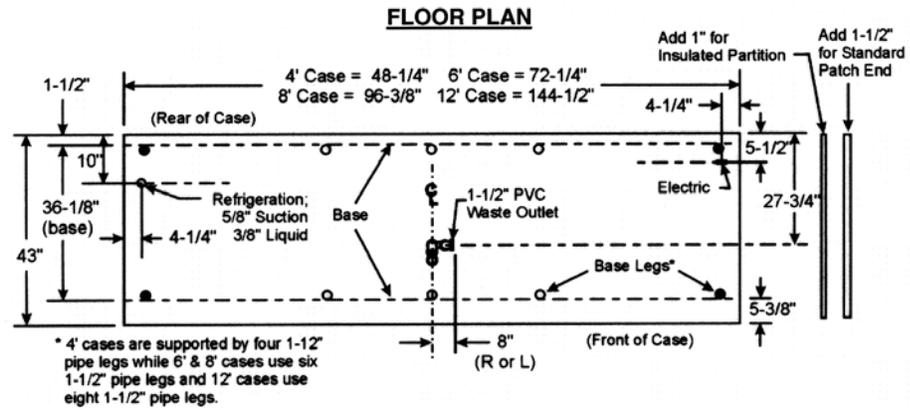
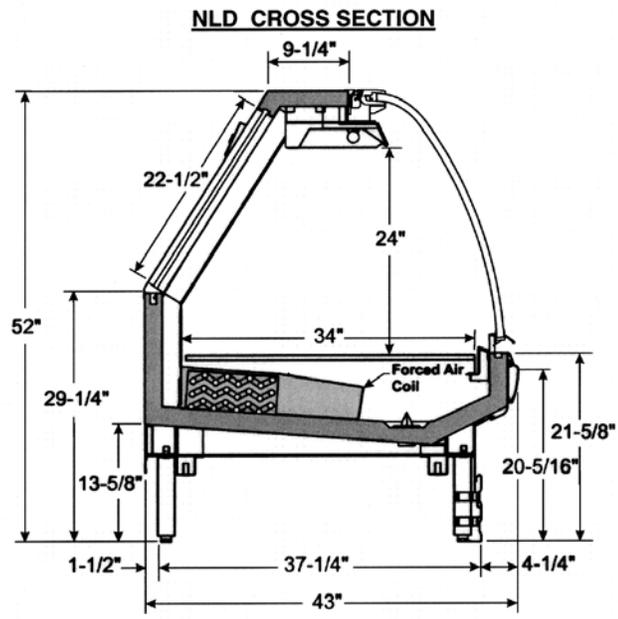
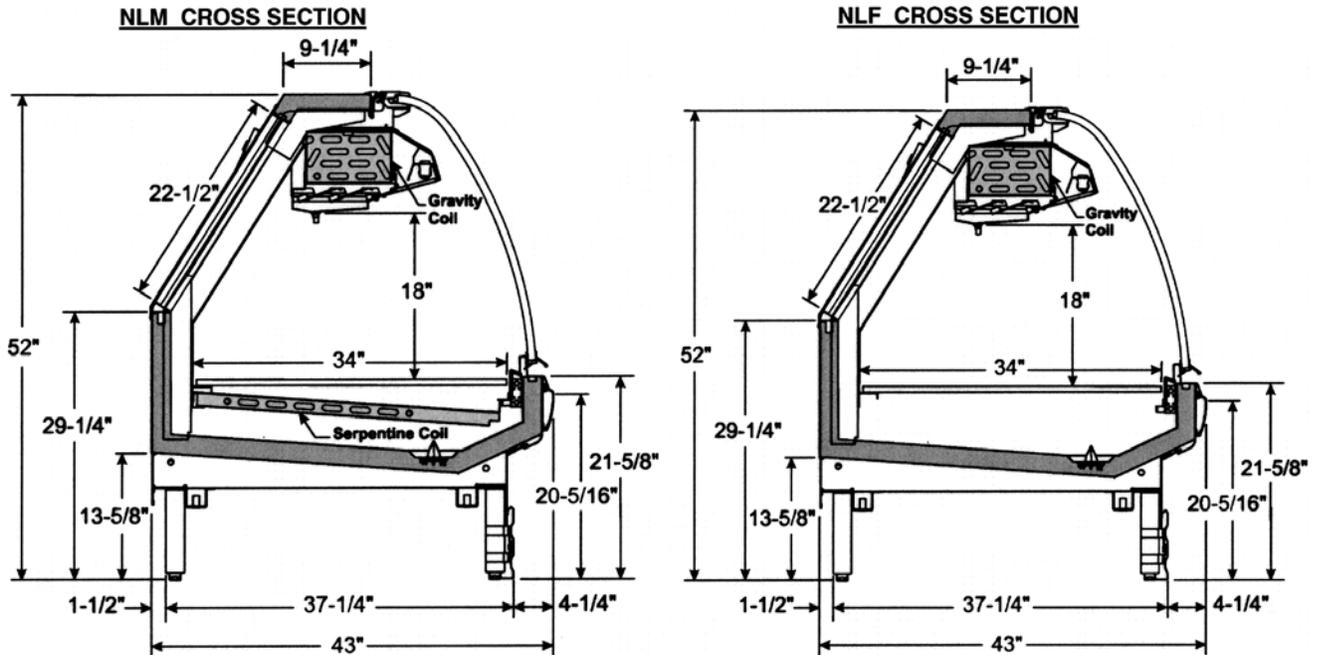
Pressure control settings shown in the above table are for backup purposes only. The actual temperature control should be set by the thermostat.

NLM setting for this case = CUT IN @ 32°F and CUT OUT @ 22°F. NLF setting for this case = CUT IN @ 34°F and CUT OUT @ 33°F. NLD setting for this case = CUT IN @ 31°F and CUT OUT @ 24°F.

NSF CERTIFIED to meet ANSI/NSF - 7.

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

The information contained herein is based on technical analysis and/or tests performed in a controlled lab environment that are consistent with industry practices, and is intended as a reference for system sizing and configuration purposes only and for use by persons having technical skill at their own discretion and risk. Conditions of use are outside of Tyler's control and we do not assume and hereby disclaim any liability for results obtained or damages incurred through application of or reliance on the data presented, including but not limited to specific energy consumption with any particular model or installed application. SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.



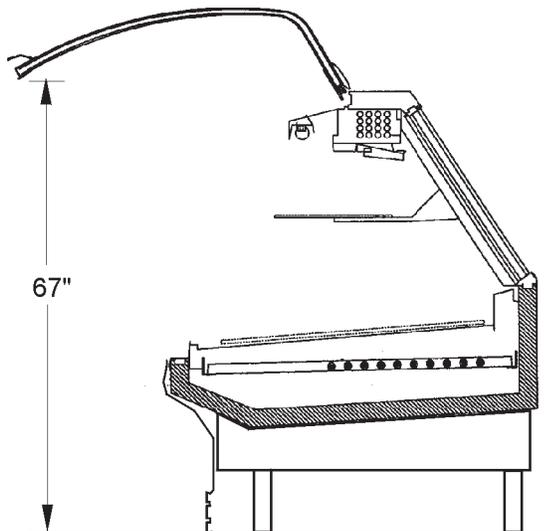
* 4' cases are supported by four 1-1/2" pipe legs while 6' & 8' cases use six 1-1/2" pipe legs and 12' cases use eight 1-1/2" pipe legs.

INSTALLATION PROCEDURES

WARNING

The raised front glass projects in front of the case and could cause personal injury to workers, operators and/or customers.

- Do not remove orange warning tags from front edge of lift glass.
- Do not leave lift glass raised and unattended.
- Know where the front edge of the raised glass is when working near it.



This case is designed so the front glass can be raised for cleaning and merchandising only. It is recommended that any cleaning or merchandising be done when the store is closed. If this is not possible, it should be done at a time when customer traffic is low.

The raised glass should not be left unattended and should be lowered whenever leaving the case.

The glass front is marked with orange warning tags to make it noticeable when in the raised position. **Do not remove the orange warning tags.**

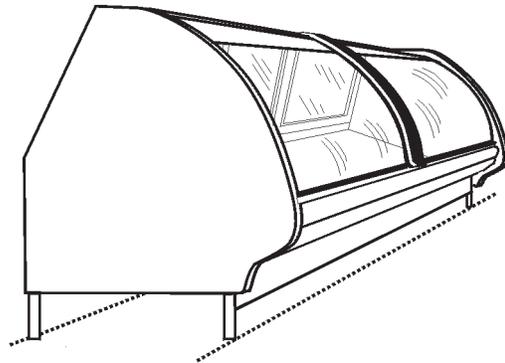
Carpentry Procedures

Case Line-Up

Before starting the case line-up, review the store layout floorplans and survey the areas where case line-ups are going to be installed.

WARNING

These cases are very heavy and require two or more people to move and/or position them. Improper handling of these cases could result in personal injury.



1. Snap chalk lines where the front and rear legs of the cases are to be located for the entire line-up.

NOTE

Front and rear edges of legs should always be used to line-up cases. All case legs have built-in adjustment capabilities.

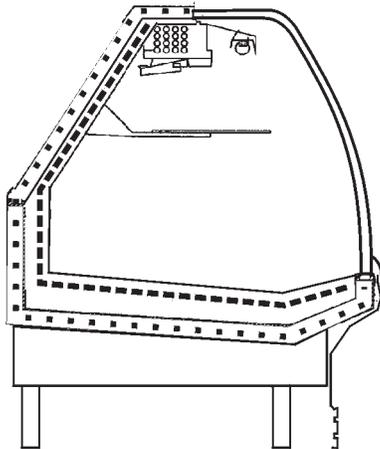
2. After rolling the case to approximate installation location, lift case one end at a time to remove the casters and install the legs. Make sure legs are completely threaded into the base to properly secure them. Thread out bottom leg insert, up to 1 1/2", to level the case. Check leveling across the top of the case and on top of the color band.

CAUTION

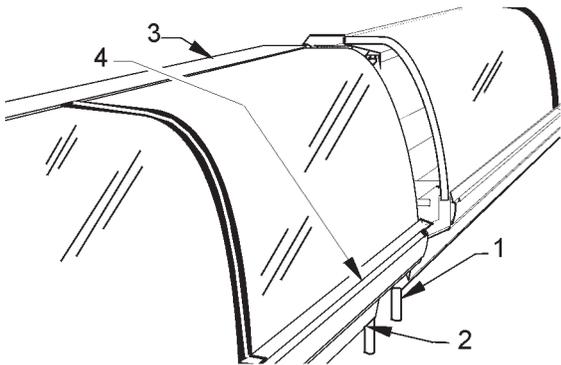
If the base of this case is not sitting evenly on the floor, the case could warp when loaded and possibly break the lift glass.

NOTE

A foam gasket is factory installed on one end of the case. This gasket fits into a groove on the adjoining case when cases are pulled together. Do not depend on the foam gasket alone to make a good seal!



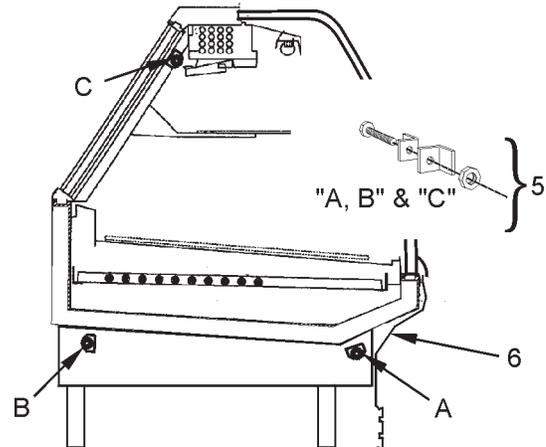
3. Apply two heavy beads of caulking compound from the Filler Kit to the end of case at dotted (. . .) and dashed (- - -) lines. Proper caulking provides good case refrigeration and sanitation.



4. Push cases tightly together making sure the pull-ups are aligned.
5. Adjust legs (1), as required, under the adjoining case ends (2). Check leveling at top of the case (3) and on top of the color band (4).

CAUTION

Do not drill or use other holes through the case end for pull-ups. This may deform the case end and could cause joint leaks and/or poor refrigeration.



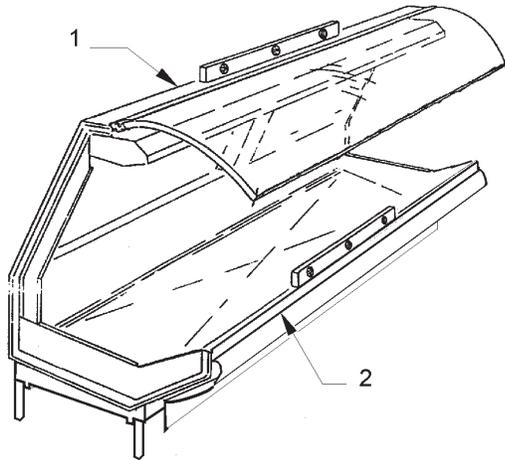
6. Position pull-up bolts and mounting hardware (5) at pull-up locations (A, B and C). Do not tighten any pull-up hardware until all of it has been installed. Tighten all pull-up hardware equally starting at point A and finishing at point C. **Do not overtighten.**
7. Install top tabs on front lower cladding (6) in slots in bottom of front upper cladding and rear tabs in mounting holes in front of frame assembly. Make sure all tabs are securely fit into each slot.

Lift Front Glass Leveling Instructions

Accurate leveling is critical for the proper operation of the lift glass on this case.

In some instances, setting the case on an apparently level floor can cause the lift glass to fit improperly. If there is any twist in the body, it could cause the lift glass not to fit or work properly.

The emphasis when leveling this case must be on making sure the lift glass works and seals properly.



The case should be leveled across the top (1), close to the hinge, and on the color band (2). A 4 foot level is recommended, and **both places should be level!** This will enable the lift glass to fit and work properly.

If the lift glass still doesn't close or line-up properly, adjust the legs at the case corners. Leg adjustment will ensure proper operation and alignment of the lift glass.

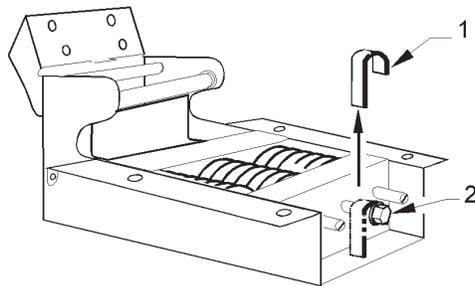
The handle on the lift glass must rest evenly on the color band. Proper lift glass sealing is essential for good product refrigeration.

NOTE

- Do not anchor the case to the floor or enclose the case until the lift glass is fitting properly and working correctly.
- Make sure all lift glass hinge stops have been removed to ensure proper operation.

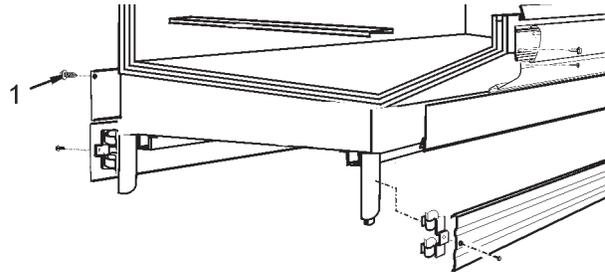
To remove lift glass hinge stops:

1. Open rear of fixture and locate the hinge assemblies (2 on 4' glass and 3 on 6' glass).



2. Remove all hinge stops (1) from the shanks of the hex head bolts (2).

Rear Rail Cover & Close-off Installation



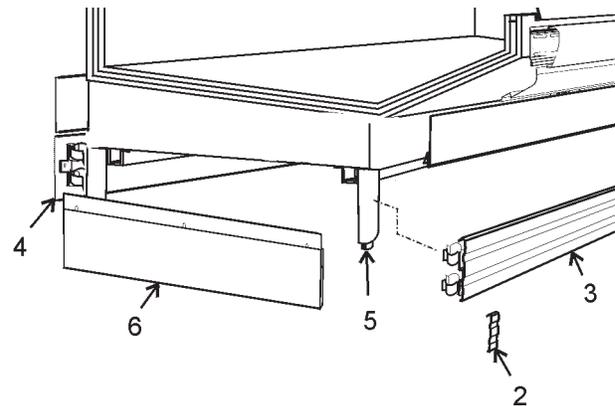
Position rear rail cover (1) over rear raceway opening and secure with screws in every hole.

Bottom and End Close-off Installation

Kickplate, optional rear bottom and end closeoffs have spring clips on their back sides that secure to the pipe legs.

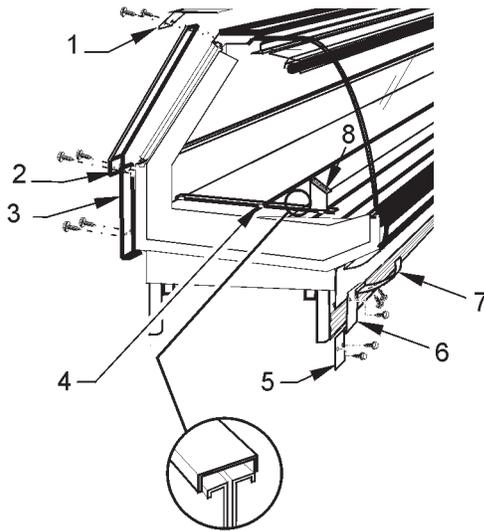
NOTE

Optional rear bottom close-offs do not require joint trim.



1. Before installing kickplates on a multiple case lineup, snap a joint trim (2) over the top and bottom of one end of each kickplate (3).
2. Lineup each kickplate (3) and/or optional rear bottom close-off (4) and push to secure the spring clips to the legs (5).
3. Slide joint trims (2) over the case-to-case joints.
4. Position end close-offs (6) over the end of the kickplate (3) and/or optional rear bottom close-off (4) and push until the spring clips secure to the legs (5).

Trim & NSF Thermometer Installation



The joint trim and mounting hardware are shipped loose. Trim includes top joint trim (1), rear upper joint trim (2), rear lower joint trim (3), horizontal joint trim (4), front kick-plate joint trim (5), front lower cladding joint trim (6), front upper cladding joint trim (7).

Horizontal joint trim covers gaps between the cases. The trim is glued onto the shipping cardboard. Apply trim with notch side towards front of case, after running beads of caulking on the edges of the cases. Sheet metal screws can be used for additional securing.

Patch end trim is shipped factory installed. If field installation is required, be sure the patch end is pulled up enough to fit snugly against the sealing tubing on the inside of the case. The patch end must seal tightly against the lift glass wiper to ensure proper operating temperatures.

The NSF case thermometer and bracket assembly (8) is shipped loose with the case.

After removing the thermometer and bracket assembly from the shipping packaging, position bracket over left horizontal joint trim and case-to-case joint where the joint trim is notched out. Make sure the bracket is positioned to the front of the case, flush with the top and left inside edge of the bottom case end welds. Secure thermometer bracket with two screws in the pre-drilled holes.

See "General (UL/NSF) I&S Manual" for bumper and color band installation and alignment.

Refrigeration Procedures

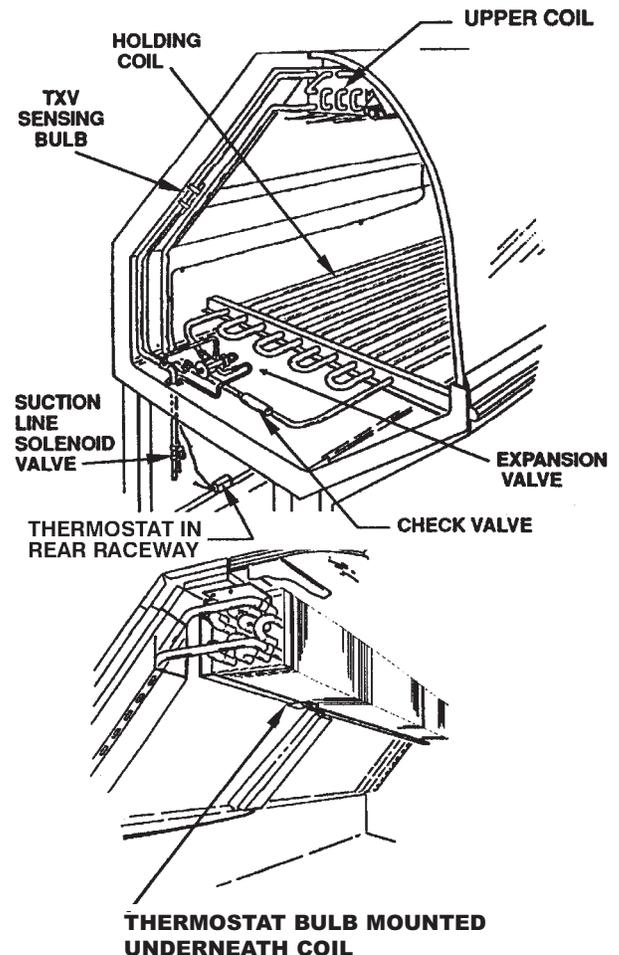
Refrigeration system and superheat instructions can be found in the "General (UL/NSF) I&S Manual". Service case temperature control information is listed below.

Temperature Control

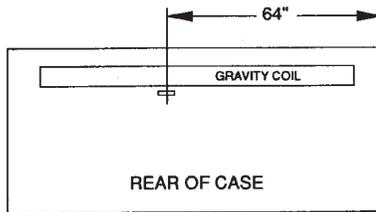
The temperature of each case is controlled with a thermostat and suction line solenoid. One thermostat and one solenoid are required for up to three cases.

The NLM, NLF and NLD cases use an electronic thermostat for improved temperature control.

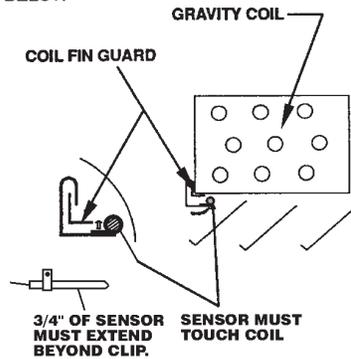
Typical Service Case with Gravity Coil



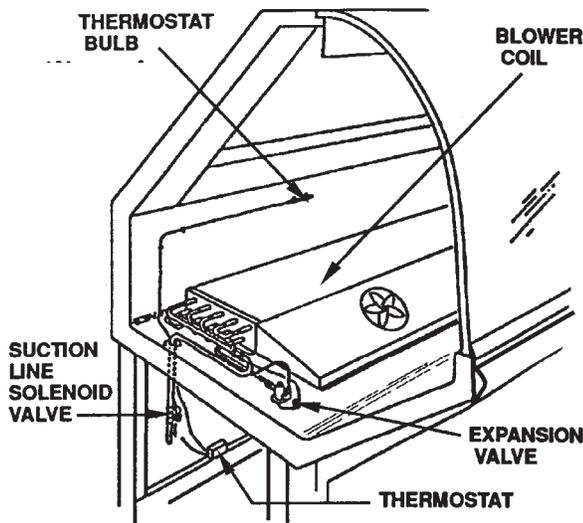
THERMOSTAT BULB PLACEMENT



** 64" APPLIES TO 8 & 12 FOOT CASES ONLY.
LOCATE APPROXIMATELY IN CENTER OF CASE FOR 6 FOOT CASES.
HOOK ONTO COIL FIN GUARD AS SHOWN BELOW



Typical Service Case with Blower Coil

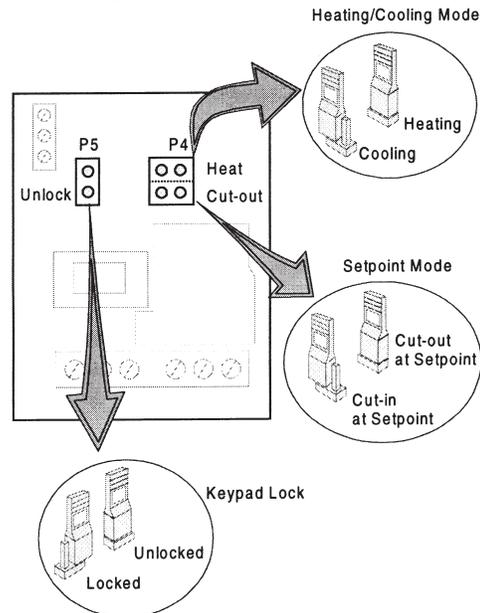


In addition to the thermostat and suction solenoid, a suction stop EPR valve is required in the suction line. The EPR valve acts as a low pressure limit to aid in the overall temperature control. See "Connecting the Refrigeration Piping and Components" on page 24 of this manual.

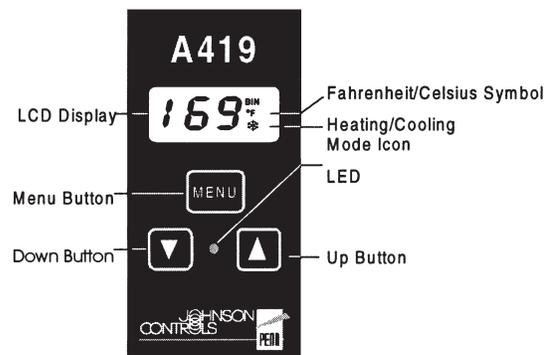
Setting the Electronic Thermostat

1. Remove the four screws and cover from the electronic thermostat.

2. Connect sensor wires to the common (COM) and sensor (SEN) terminals of the terminal strip located at the top left of the printed circuit board. The sensor leads are interchangeable.



3. Set the Heating/Cooling jumper blocks to the "COOL" position.
4. Set the Cut-in at Setpoint/Cut-out at Setpoint jumper blocks to the "Cut-out at Setpoint" position.
5. Set the Keypad Locked/Unlocked jumper blocks to the "Unlocked" position.
6. Replace the electronic thermostat cover and secure with four screws.



7. To adjust the setpoint:
 - a. Push the Menu Button. "SP" will flash on the LCD display.

- b. Push the Menu Button one more time and a setpoint temperature will be displayed.
 - c. Push the Up or Down Button until the desired setpoint is displayed. (NLM = 22°F, NLF = 33°F or NLD = 24°F)
 - d. Push the Menu Button.
8. To adjust the differential:
- a. Push the Menu Button. "SP" will flash on the LCD display.
 - b. Push the Down Button until "DIF" is shown on the LCD display.
 - c. Push the Menu Button one more time and a differential number will be displayed.
 - d. Push the Up or Down Button until the desired differential setting is displayed. (NLM = 10°F, NLF = 1°F or NLD = 7°F)
 - d. Push the Menu Button.

With the cooling mode selected, the differential is ABOVE the setpoint. The relay will be energized and the LED indicator will illuminate when the temperature reaches the differential setting. When the temperature drops to the setpoint, the relay and LED indicator will de-energize and refrigeration will stop.

The settings above are specific to TYLER service cases. Other applications will require different setpoints and differentials.

Electrical Procedures

Electrical Considerations

CAUTION

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

NOTE

The ballast box is located at the lower left rear corner of the case. It houses ballasts and terminal blocks.

Case Fan Circuit (NLD only)

This circuit is to be supplied by an uninterrupted, protected 120V circuit. The case fan circuit is not cycled on this case.

Fluorescent Lamp Circuit

NL(M/F/D) case lighting is supplied by T-8 electronic ballast lights. It is controlled by a light switch in each case. The standard lighting is 1-row of horizontal canopy lights.

Anti-Sweat Circuit (NLD only)

All 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

NLM/NLF Defrost Option Settings

Defrost Type	Defrost		
	Defrosts Per Day	Duration (Min)	Term. Temp.
Off Time	1	110	-----

NLD Defrost Option Settings

Defrost Type	Defrost		
	Defrosts Per Day	Duration (Min)	Term. Temp.
Off Time	1	46	-----

Thermostat and sensor locations are shown on pages 9 and 10 of this manual.

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.

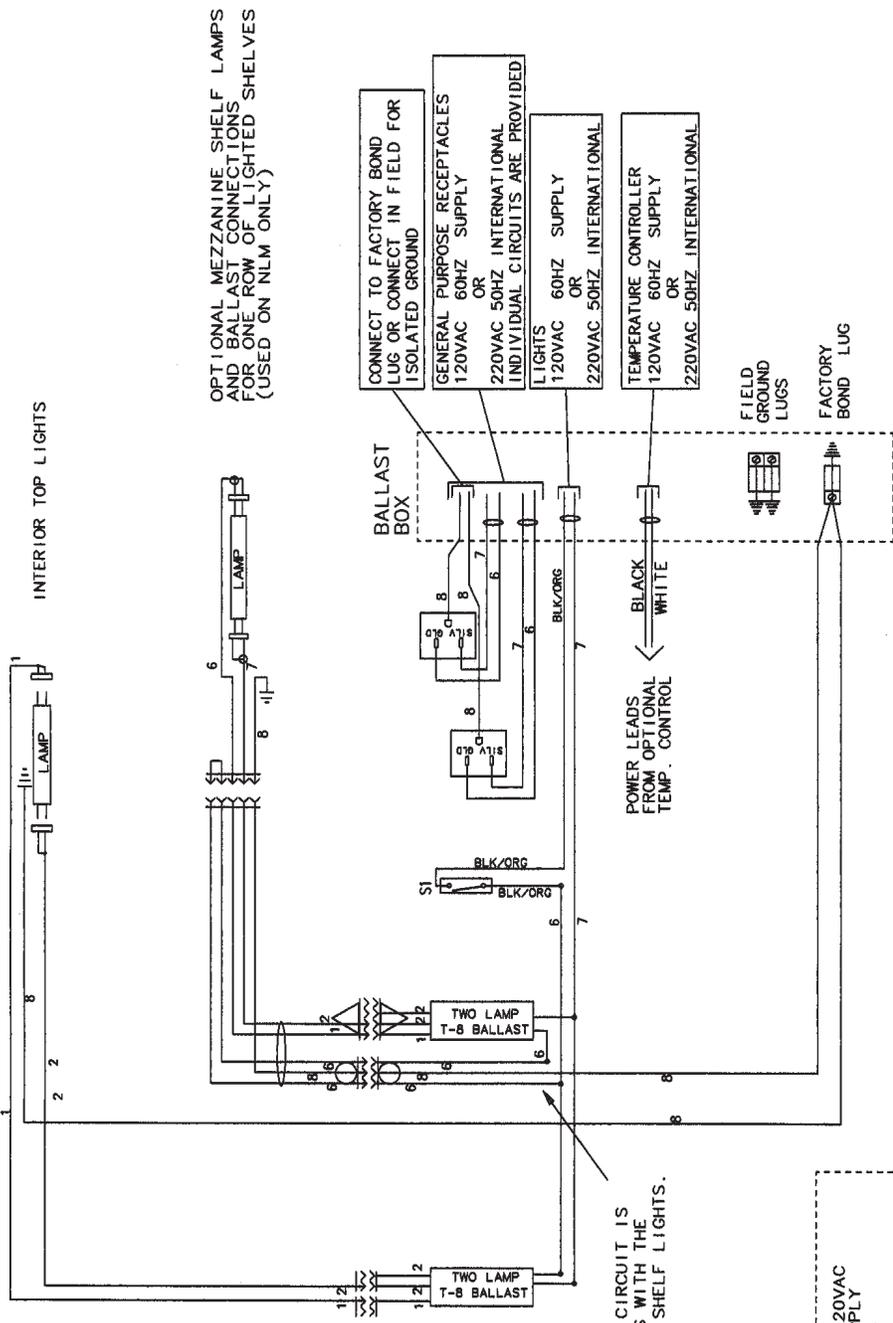
The wiring diagrams on pages 12 thru 18 will cover all NLM, NLF and NLD case circuits.

NLF Domestic & Export (50 Hz) Case Circuits (4' Case)



1. TYLER REFRIGERATION CORP. CLAIMS RIGHTS TO THE INFORMATION ON THIS DRAWING.
2. ANY WORK MUST BE DONE WITHOUT PERMISSION. ANY WORK DONE WITHOUT PERMISSION WILL BE AT THE USER'S RISK.
3. SPECIFIED DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED.
4. DIMENSIONS ARE APPROXIMATE.
5. NO MANUAL REVISIONS ALLOWED.

NO.	COLOR
1	RED
2	BLUE
3	YELLOW
4	PINK
5	ORANGE
6	BLACK
7	WHITE
8	GREEN

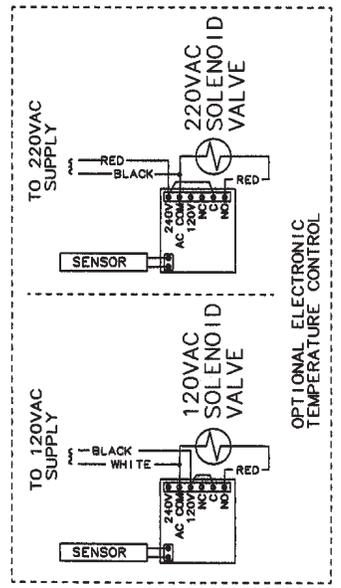


OPTIONAL MEZZANINE SHELF LAMPS AND BALLAST CONNECTIONS FOR ONE ROW OF LIGHTED SHELVES (USED ON NLM ONLY)

- CONNECT TO FACTORY BOND LUG OR CONNECT IN FIELD FOR ISOLATED GROUND
- GENERAL PURPOSE RECEPTACLES 120VAC 60HZ SUPPLY OR 220VAC 50HZ INTERNATIONAL INDIVIDUAL CIRCUITS ARE PROVIDED
- LIGHTS 120VAC 60HZ SUPPLY OR 220VAC 50HZ INTERNATIONAL
- TEMPERATURE CONTROLLER 120VAC 60HZ SUPPLY OR 220VAC 50HZ INTERNATIONAL

NOTE: USE COPPER CONDUCTORS ONLY

THE ANTI-ARC PROTECTION CIRCUIT IS ONLY CONNECTED IN SERIES WITH THE BALLAST THAT POWERS THE SHELF LIGHTS.



NOTE: ALL CASES MUST BE GROUNDED

REV	DESCRIPTION	RELEASE	DATE	BY	CHK	DATE	CHK	DATE	CHK
1									

10NOV05	NAME	DIAGRAM WRC
LC	OR	NFM/NLF 4FT
CEH	OR	
43180	DATE	
9039661	REV	

NLM/NLF Domestic & Export (50 Hz) Case Circuits (6' Cases)

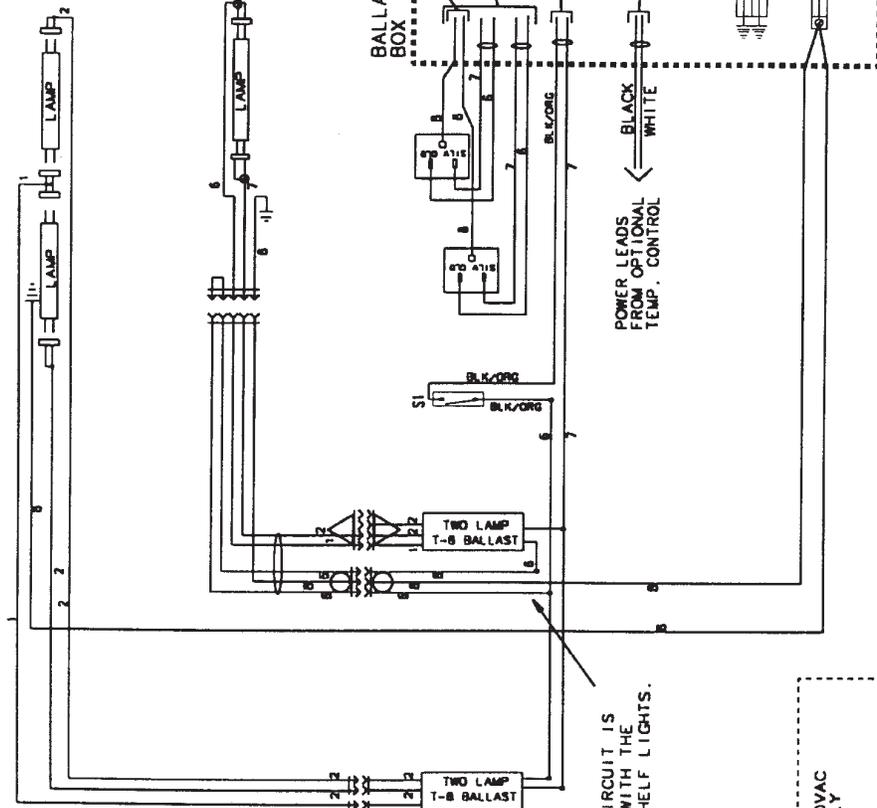


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1. TYLER REFRIGERATION CO., CLAIRS BROS
 2. THE COMPANY IS FOR THE USE OF ONLY
 3. ALL WIRING AND LUGS IN THIS CASE CIRCUIT
 4. SHALL BE MADE IN THE UNITED STATES OF AMERICA
 5. ALL WIRING SHALL BE MADE IN THE UNITED STATES OF AMERICA
 6. ALL WIRING SHALL BE MADE IN THE UNITED STATES OF AMERICA
 7. ALL WIRING SHALL BE MADE IN THE UNITED STATES OF AMERICA
 8. ALL WIRING SHALL BE MADE IN THE UNITED STATES OF AMERICA

NO.	COLOR
1	RED
2	BLUE
3	YELLOW
4	PINK
5	ORANGE
6	BLACK
7	WHITE
8	GREEN

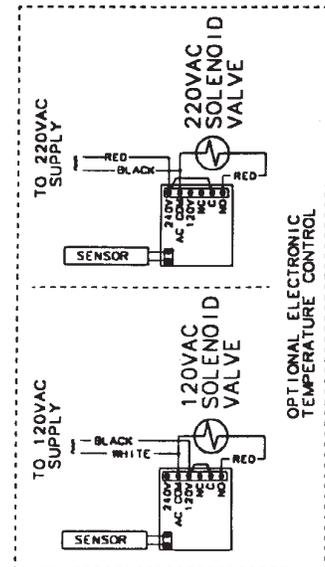
INTERIOR TOP LIGHTS



NOTE: USE COPPER CONDUCTORS ONLY

NOTE: ALL CASES MUST BE GROUNDED

THE ANTI-ARC PROTECTION CIRCUIT IS ONLY CONNECTED IN SERIES WITH THE BALLAST THAT POWERS THE SHELF LIGHTS.



REV	DESCRIPTION	DATE	BY	CHK	APP	DATE
1						
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DECIMALS +/- .030 ANGLES +/- 1 DEGREE
 17 MAR 00
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 CK
 23555
 DIA WIRING NLF/NF (M)
 (F) - 6FT CASES
 9043658

NLD Domestic & Export (50 Hz) Case Circuits (6' Case)

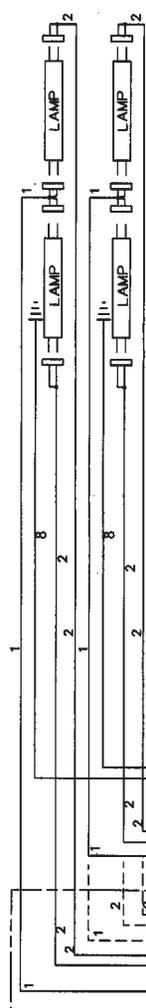


1. TYLER REFRIGERATION CLAIMS RIGHTS TO THE INFORMATION ON THIS DRAWING.
2. ANY PART NOT BE USED WITHOUT PERMISSION.
3. SPECIFICATIONS ARE IN INCHES UNLESS OTHERWISE NOTED.
4. DIMENSIONS APPLY TO FINISHED PART AFTER POLISHING.
5. NO MANUAL REVISIONS ALLOWED.

WIRE LEGEND	NO.	COLOR
	1	RED
	2	BLUE
	3	YELLOW
	4	PINK
	5	ORANGE
	6	BLACK
	7	WHITE
	8	GREEN

OPTIONAL INTERIOR TOP LIGHTS

INTERIOR TOP LIGHTS

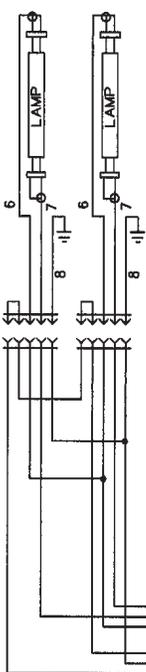


A FOUR LAMP BALLAST IS USED WITH A DUAL ROW OF INTERIOR TOP LIGHTS.

A TWO LAMP BALLAST IS USED WITH ONE ROW OF INTERIOR TOP LIGHTS.

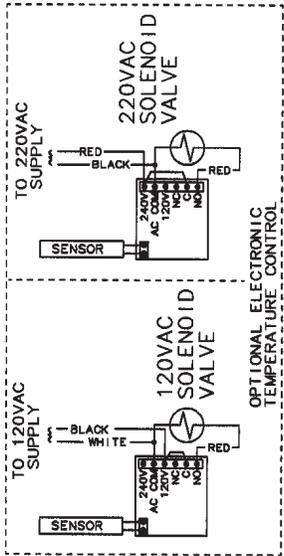
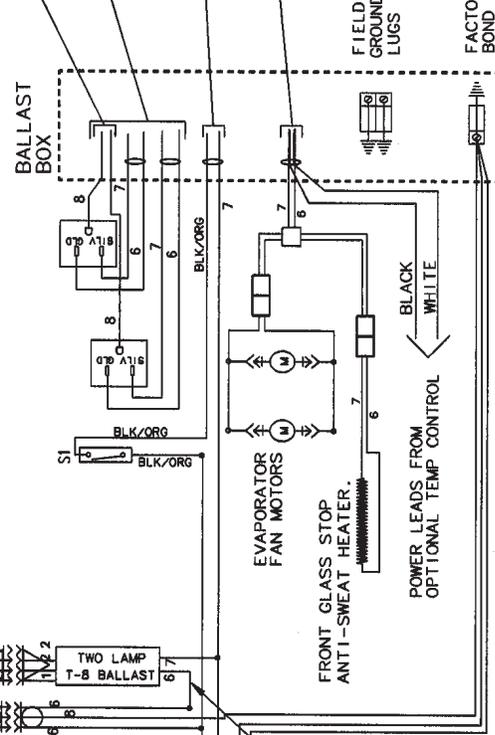
THE ANTI-ARC PROTECTION CIRCUIT IS CONNECTED IN SERIES WITH EACH BALLAST THAT POWERS THE SHELF LIGHTS.

OPTIONAL MEZZANINE SHELF LAMPS AND TWO LAMP BALLAST CONNECTIONS FOR TWO ROWS OF LIGHTED SHELVES.



- CONNECT TO FACTORY BOND LUG OR CONNECT IN FIELD FOR ISOLATED GROUNDING TYPES
- GENERAL PURPOSE RECEPTACLES 120VAC 60HZ SUPPLY OR 220VAC 50HZ INTERNATIONAL INDIVIDUAL CIRCUITS ARE PROVIDED
- LIGHTS 120VAC 60HZ SUPPLY OR 220VAC 50HZ INTERNATIONAL
- FAN MOTORS, ANTI-SWEAT HEATERS, TEMP CONTROLLER 120VAC 60HZ SUPPLY OR 220VAC 50HZ INTERNATIONAL

NOTE: USE COPPER CONDUCTORS ONLY



NOTE: ALL CASES MUST BE GROUNDED

REV	DESCRIPTION	RELEASE	DATE	BY	CHK	DATE	NAME
A	CHANGED THE BORDER AND REMOVED THE HO LIGHTING	45597	01MAY07	GH	LC	17MAR00	17MAR00
REV	DESCRIPTION	RELEASE	DATE	BY	CHK	DATE	NAME

DIAGRAM WRC NL/NF (D)
6FT. CASES

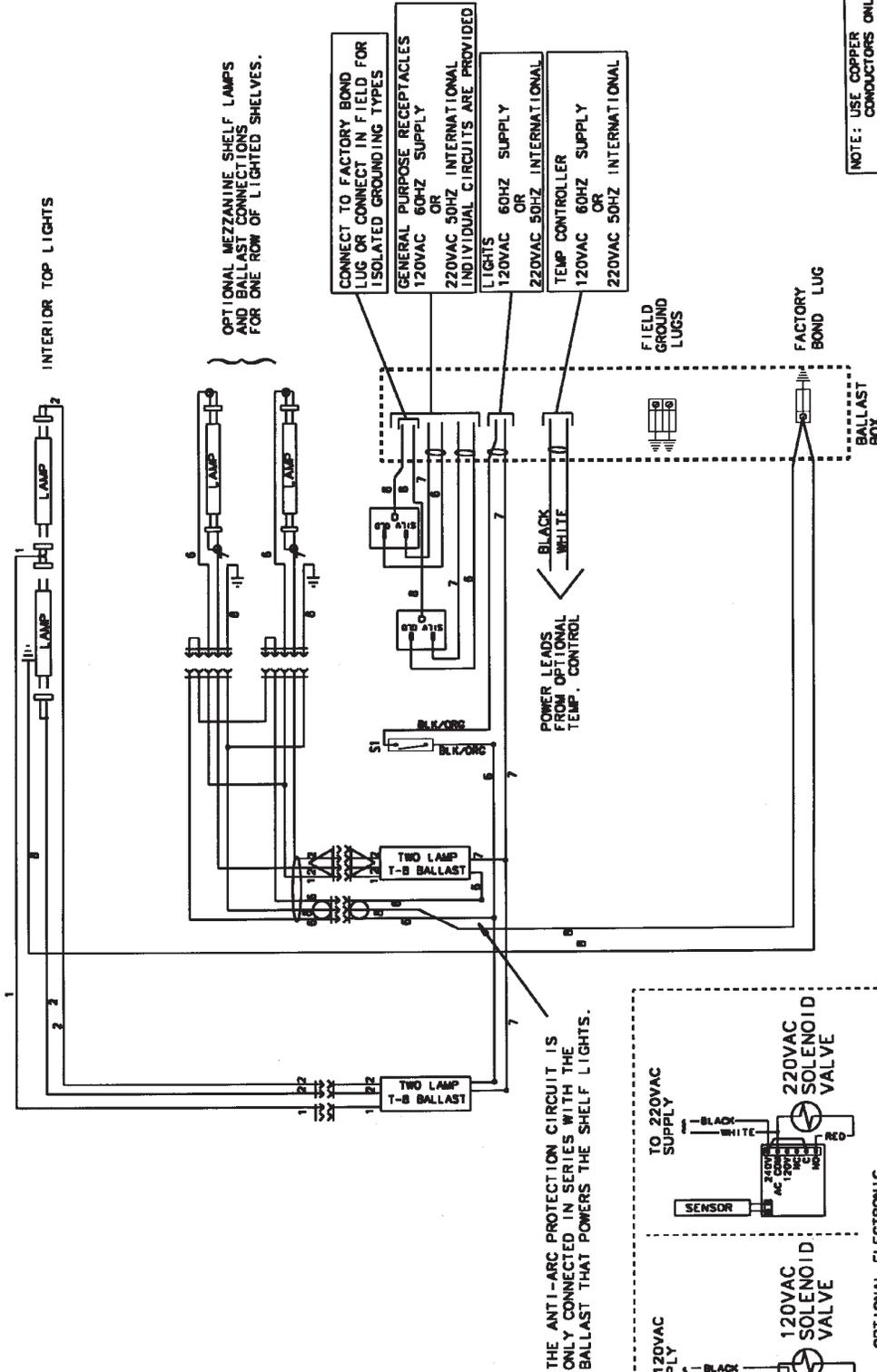
9043660

NLM/NLF Domestic & Export (50 Hz) Case Circuits (8' Cases)



PART TYPE N T S
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 1. TO THE EXTENT PERMITTED BY APPLICABLE LAWS, ALL RIGHTS ARE RESERVED.
 2. THIS DRAWING IS THE PROPERTY OF TYLER ELECTRIC COMPANY.
 3. IT IS TO BE USED ONLY FOR THE PROJECT AND AT THE LOCATION SPECIFIED.
 4. IT IS TO BE KEPT IN THE ORIGINAL UNALTERED FORM.
 5. IT IS TO BE KEPT IN THE ORIGINAL UNALTERED FORM.
 6. IT IS TO BE KEPT IN THE ORIGINAL UNALTERED FORM.
 7. IT IS TO BE KEPT IN THE ORIGINAL UNALTERED FORM.
 8. IT IS TO BE KEPT IN THE ORIGINAL UNALTERED FORM.

NO.	COLOR
1	RED
2	BLUE
3	YELLOW
4	PINK
5	ORANGE
6	BLACK
7	WHITE
8	GREEN



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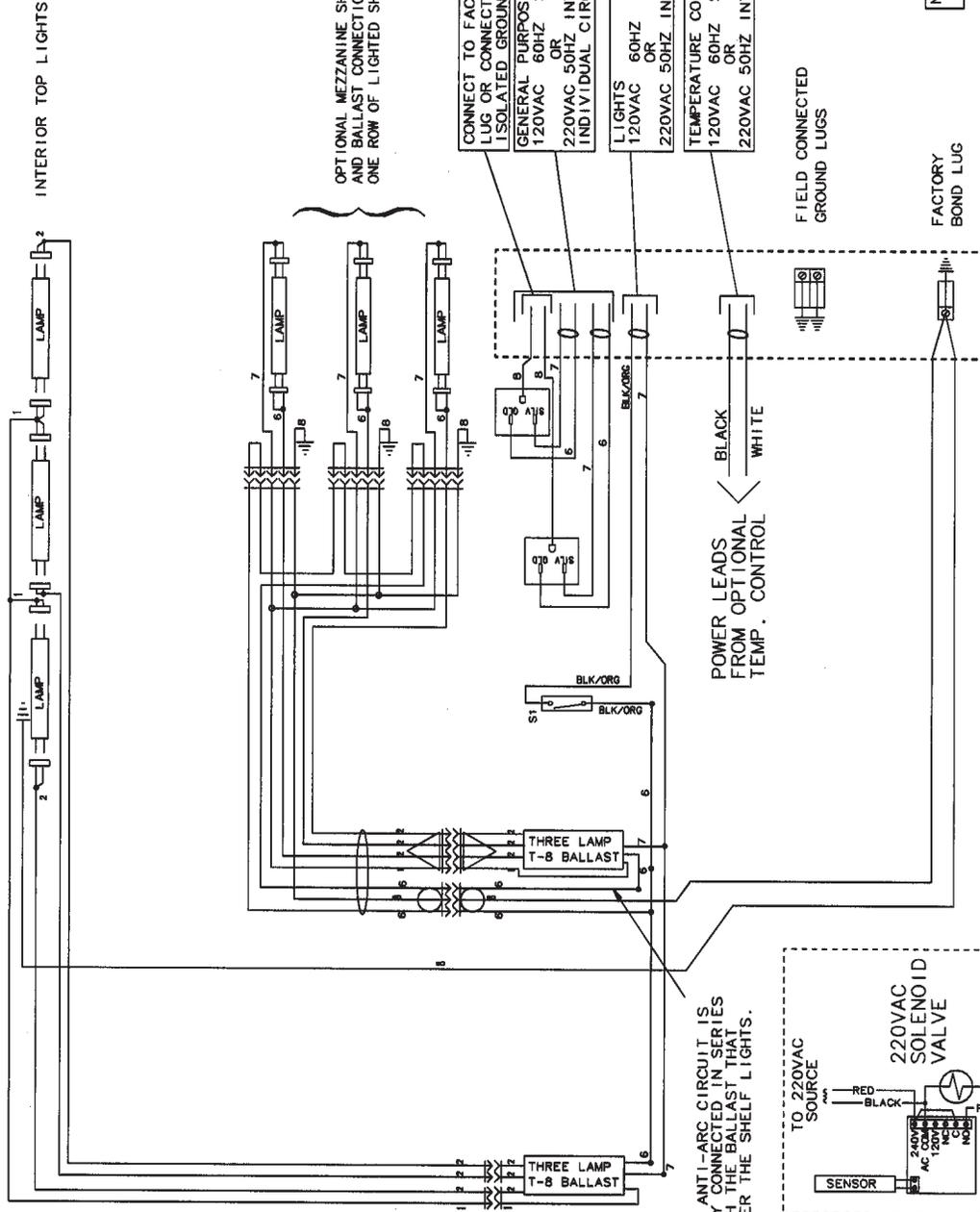
NOTE: ALL CASES MUST BE GROUNDED

NLM/NLF Domestic & Export (50 Hz) Case Circuits (12' Cases)



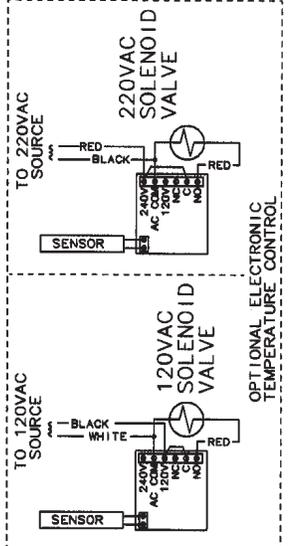
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 PURCHASED
 DEPT CC W
 1. TYPIC REPRESENTATION ONLY. CHANGE RIGHTS TO THE FABRICATOR ON THIS DRAWING.
 2. DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED.
 3. DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED.
 4. DIMENSIONS APPLY TO FINISHED PART AFTER POLISHING.
 5. DIMENSIONAL REVISIONS ALLOWED.

WIRE LEGEND	NO.	COLOR
1	RED	
2	BLUE	
3	YELLOW	
4	PINK	
5	ORANGE	
6	BLACK	
7	WHITE	
8	GREEN	



NOTE: USE COPPER CONDUCTORS ONLY

THE ANTI-ARC CIRCUIT IS ONLY CONNECTED IN SERIES WITH THE BALLAST THAT POWER THE SHELF LIGHTS.



NOTE: ALL CASES MUST BE GROUNDED

REV	DESCRIPTION	RELEASE	DATE	BY	CHK	APP
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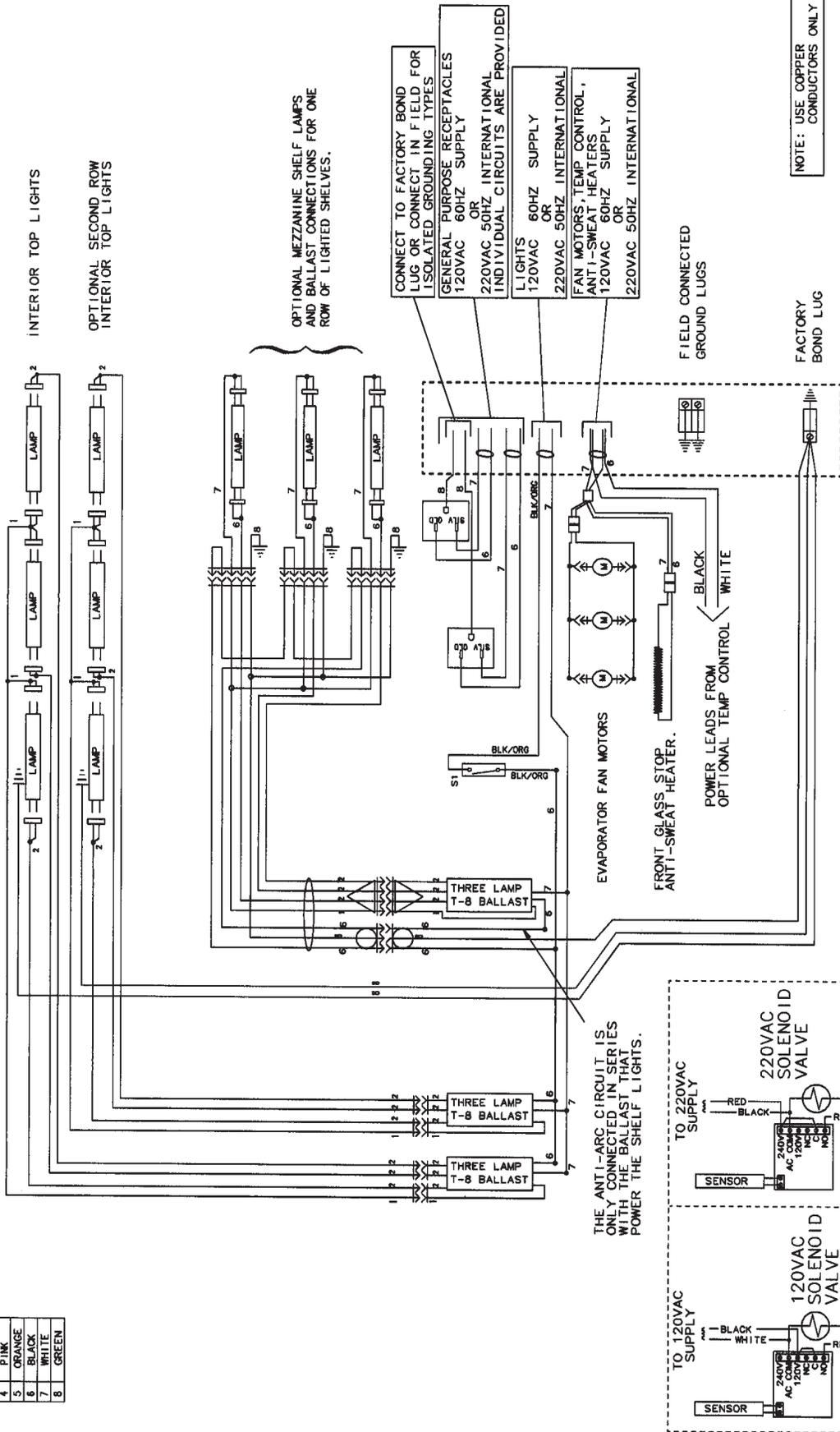
10FEB00
 LC
 CK
 23555
 DIA WIRING-NL/NF (M)
 (F) - 12FT CASES
 9043656

NLD Domestic & Export (50 Hz) Case Circuits (12' Case)



1. TYLER REFERRS TO THE INFORMATION ON THIS DRAWING.
2. DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED.
3. DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED.
4. DIMENSIONS APPLY TO FINISHED PART AFTER FINISHING OPERATIONS.
5. ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED.

NO.	COLOR
1	RED
2	BLUE
3	YELLOW
4	PINK
5	ORANGE
6	BLACK
7	WHITE
8	GREEN



REV	DESCRIPTION	RELEASE	DATE	BY	CHK	DATE	BY	CHK
A	CHANGED THE BORDER AND REMOVED THE HO LIGHTING	45597	01MAY07	GH		17FEB00	LC	OK

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

DIAGRAM WRG NL/NF (D)
12FT CASES

REV 9043657

NOTE: ALL CASES MUST BE GROUNDED

CLEANING AND SANITATION**Component Removal and Installation Instructions for Cleaning****Lower Trays and Screens**

1. Open the front curved glass by lifting the handle at the bottom.
2. Remove product from the case interior.
3. Grasp and lift out each lower tray or screen from the bottom of the case.
4. After cleaning, replace in reverse order.

Front Air Ducts

1. Remove lower trays or screens, see this page.
2. Lift out front air duct sections.
3. After cleaning, replace in reverse order.

Rear Air Ducts

1. Remove lower trays or screens, see this page.
2. Remove mounting screws from rear air duct.
3. Lift out rear air duct sections.
4. After cleaning, replace in reverse order.

Mullion Covers

1. Open the front curved glass by lifting the handle at the bottom.
2. Remove mounting screws from each mullion cover.

WARNING

Mullion covers with electrical receptacles can be cleaned without removing the electrical receptacles. Do not get moisture on electrical wires when cleaning under this cover. Moisture on wires could cause premature product failure and/or personal injury or death from electrical shock.

3. Carefully remove each mullion cover from the rear uprights.
4. After cleaning, replace and secure mullion covers in reverse order.

End Coil Cover (NLM/NLF)

1. Open rear sliding doors at each end.
2. Remove screws and end coil covers from ends of upper coil.
3. After cleaning, replace end coil covers in reverse order.

Refrigeration Line Cover (NLM Only)

1. Open the front curved glass by lifting the handle at the bottom.
2. Remove lower screens, see this page.
3. Remove mounting screws and refrigeration line cover.
4. After cleaning, replace in reverse order.

Electrical Cover (NLM Only)

1. Open the front curved glass by lifting the handle at the bottom.
2. Remove lower screens, see this page.
3. Remove mounting screws and electrical cover.

WARNING

Do not get moisture on electrical wires when cleaning under this cover. Moisture on wires could cause premature product failure and/or personal injury or death from electrical shock.

4. After cleaning, replace in reverse order.

Front Lower Cladding

1. Remove front kickplate.
2. Lift and pull out front lower cladding until rear tabs clear holes in front of frame assembly. After rear tabs are clear, pull down on cladding to clear upper tabs from slots in bottom of upper front cladding and remove cladding from case.
3. After cleaning, replace front lower cladding by inserting top tabs, then rear tabs. Make sure all tabs are securely fit in each slot. Replace front kickplate.

Front Upper Cladding

1. Remove color band, bumper and bumper retainer from the case. See page 28.

2. Remove front kickplate.
3. Remove screws and front lower cladding. See page 19.
4. Remove screws from top and bottom of front upper cladding and remove front upper cladding.
5. After cleaning, replace front upper cladding and remaining front components in the reverse order.

Cleaning Instructions

CAUTION

- **When cleaning this case, try not to introduce water into the case faster than it can be carried away by the waste outlet.**
- **Liquid chlorine bleach is corrosive to metals. The use of bleach or products containing bleach will damage metal surfaces and void the case warranty.**
- **Sanitize the case with Quaternary Ammonium Solutions (ex: KAYQUAT II, J-512 Sanitizer, SANIQUAT 512, etc...) approved per 21CFR 178.1010, followed by adequate draining and air drying. These solutions may be obtained from Kay Chemical Co., Johnson Wax Professional, Coastwide Laboratories, etc....**
- **Always use a soft cloth or sponge with mild detergent and water to clean the front glass. Never use abrasives or scouring pads to clean glass. They can scratch and/or damage the glass.**

WARNING

TYLER Refrigeration does not recommend the use of high pressure cleaning equipment on service style cases!! The sealing of front glass and end joints is critical in these cases and high pressure cleaners can penetrate and/or damage these seals. Damaged seals allow water leaks and/or air leaks that can cause poor case refrigeration.

See “General (UL/NSF) I&S Manual” for case cleaning instructions.

Stainless Steel Cleaning Methods

The cleaning data in the following stainless steel cleaning chart was supplied by AISI. The information was supplied by Prime Metals Division, Alumax Aluminum Corporation.

<u>TYPE OF CLEANING</u>	<u>CLEANING AGENT*</u>	<u>APPLICATION METHOD**</u>	<u>EFFECT ON FINISH</u>
Routine cleaning	Soap, ammonia or detergent and water.	Sponge with cloth, then rinse with clear water and wipe dry.	Satisfactory for use on all finishes.
Smears and fingerprints	Arcal 20, Lac-O-Nu, Lumin Wash O’Cedar Cream Polish, Stainless Shine	Rub with cloth as directed on the package.	Satisfactory for use on all finishes. Provides barrier film
Stubborn spots and stains, baked-on splatter, and other light discolorations	Allchem Concentrated Cleaner	Apply with damp sponge or cloth.	Satisfactory for use on all finishes.
	Samae, Twinkle, or Cameo Copper Cleaner	Rub with damp cloth.	Satisfactory for use on all finishes if rubbing is light.
	Grade FFF Italian pumice, whiting or talc	Rub with damp cloth.	Use in direction of polish lines on No. 4 (polished) finish. May scratch No. 2 (mill) and No. 7 and 8 (polished) finishes.

<u>TYPE OF CLEANING</u>	<u>CLEANING AGENT*</u>	<u>APPLICATION METHOD**</u>	<u>EFFECT ON FINISH</u>
	Liquid NuSteel	Rub with dry cloth. Use a small amount of cleaner.	Use in direction of polish lines on No. 4 (polished) finish. May scratch No. 2 (mill) and No. 7 and 8 (polished) finishes.
	Paste NuSteel or DuBois Temp	Rub with dry cloth. Use a small amount of cleaner.	Use in direction of polish lines on No. 4 (polished) finish. May scratch No. 2 (mill) and No. 7 and 8 (polished) finishes.
	Cooper's Stainless Steel Cleaner, Revere Stainless Steel Cleaner	Apply with damp sponge or cloth.	Use in direction of polish lines on No. 4 (polished) finish. May scratch No. 2 (mill) and No. 7 and 8 (polished) finishes.
	Grade F Italian pumice, Steel Bright, Lumin Cleaner, Zud or Restoro	Rub with a damp cloth.	Use in direction of polish lines on No. 4 (polished) finish. May scratch No. 2 (mill) and No. 7 and 8 (polished) finishes.
	Penny-Brite or Copper-Brite	Rub with a dry cloth. Use a small amount of cleaner.	Use in direction of polish lines on No. 4 (polished) finish. May scratch No. 2 (mill) and No. 7 and 8 (polished) finishes.
Heat tint or heavy discoloration	Penny-Brite or Copper-Brite	Rub with a dry cloth.	Use in direction of polish lines on No. 4 (polished) finish. May scratch No. 2 (mill) and No. 7 and 8 (polished) finishes.
	Paste NuSteel or DuBois Temp	Rub with dry cloth. Use a small amount of cleaner.	Use in direction of polish lines on No. 4 (polished) finish. May scratch No. 2 (mill) and No. 7 and 8 (polished) finishes.
	Revere Stainless Steel Cleaner	Apply with a damp sponge or cloth.	Use in direction of polish lines on No. 4 (polished) finish. May scratch No. 2 (mill) and No. 7 and 8 (polished) finishes.
	Allen Polish, Steel Bright, Wyandotte, Bab-O or Zud	Rub with a damp cloth.	Use in direction of polish lines on No. 4 (polished) finish. May scratch No. 2 (mill) and No. 7 and 8 (polished) finishes.
Burnt-on foods and grease, fatty acids, milkstone (where swabbing or rubbing is not practical)	Easy-Off, De-Grease-It, 4-6% hot solution of such agents as trisodium tripolyphosphate, or 5-15% caustic soda solution	Apply generous coating. Allow to stand for 10-15 min. Repeated application may be necessary.	Excellent removal, satisfactory for use on all finishes.
Tenacious deposits, rusty discolorations, industrial atmospheric stains	Oakite No. 33, Dilac, Texo 12, Texo N.Y., Flash-Klenz, Caddy Cleaner, Turco Scale 4368 or Permag 57.	Swab and soak with clean cloth. Let stand 15 minutes or more according to directions on package. Rinse and dry.	Satisfactory for use on all finishes.
Hard water spots and scale	Vinegar	Swab or wipe with a cloth. Rinse with water and dry.	Satisfactory for use on all finishes.
	5% oxalic acid, 5% sulamic acid, 5-10% phosphoric acid, or Dilac, Oakite No. 33, Texo 12 or Texo N.Y.	Swab or soak with a cloth. Let stand 10-15 minutes. Always follow with neutralizer rinse, and dry.	Satisfactory for use on all finishes. Effective on tenacious deposits or where scale has built up.

<u>TYPE OF CLEANING</u>	<u>CLEANING AGENT*</u>	<u>APPLICATION METHOD**</u>	<u>EFFECT ON FINISH</u>
Grease and oil	Organic solvents such as carbon tetrachloride, trichlorethylene, acetone, kerosene, gasoline, benzene, alcohol and chlorethane n.u.	Rub with a cloth. Organic solvents may be flammable and/or toxic. Observe all precautions against fire. Do not smoke while vapors are present. Be sure area is well ventilated.	Satisfactory for use on all finishes.

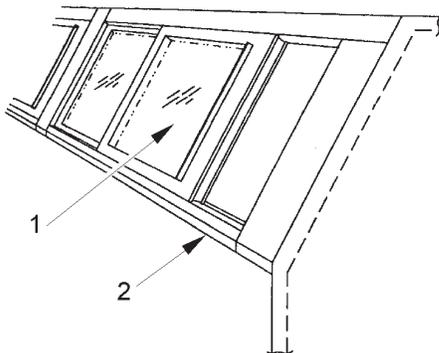
* Use of proprietary names is intended only to indicate a type of cleaner, and does not constitute an endorsement, nor is omission of any proprietary cleanser to imply its inadequacy. It should be emphasized that all products should be used in strict accordance with instructions on package.

** In all applications a sponge or fibrous brush or pad are recommended. DO NOT use ordinary steel wool, steel brushes, chlorine bleach or products containing bleach for cleaning or sanitizing stainless steel.

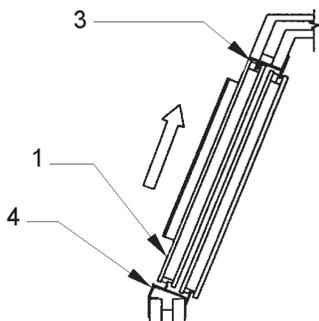
GENERAL INFORMATION

Rear Sliding Door Removal and Installation

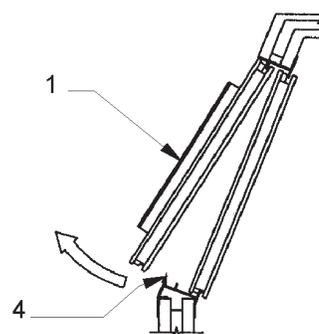
The sliding doors come installed from the factory in the door frame. These doors are removable for cleaning and to aid in case maintenance. **NOTE: DO NOT FULLY IMMERSE DOORS WHEN CLEANING.** The inner and outer doors are marked with labels from the factory. If the doors are not labeled, the inner door can be identified as having the limiter stops on it.



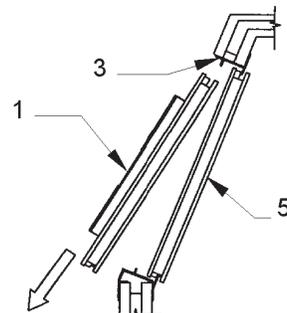
1. Remove the outer door (1) by sliding it to the right end of the door frame (2) (within an inch of being closed).



2. Firmly grasp both sides of the outer door (1) and lift into the upper track (3) until it clears the lower track (4).



3. Tilt out the bottom of the outer door (1) so it can clear the lower track (4).

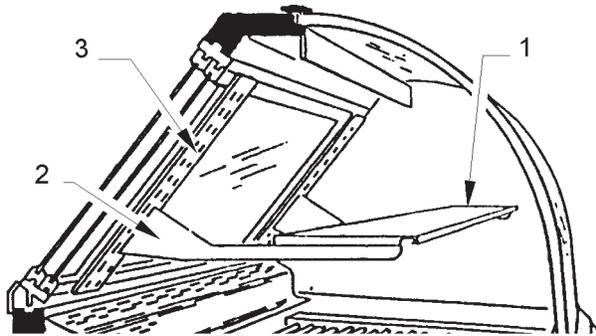


4. Lower the outer door (1) out of the upper track (3) to remove it from the case.
5. Repeat steps 1 thru 4 to remove the inner door (5).
6. Reverse the above steps to replace the inner and outer doors (5 and 1).

Mezzanine Shelving

Mezzanine shelves are available in 10" or 12" widths. One level of shelving is optionally available for NLM and NLF cases, while two levels of shelving is available for NLD cases. The shelves can be moved forward from the mullions in two inch increments and can be locked into three positions.

Price tag moldings will be attached to the front of each mezzanine shelf with screws. To clean the price tag molding, remove screws and molding from shelves. After cleaning, reattach molding to shelves with screws.



To install mezzanine shelving, position and insert the mezzanine shelf (1) and captive shelf brackets (2) into slots in the uprights (3).

NOTE

The brackets can be moved vertically at 1" increments in the uprights.

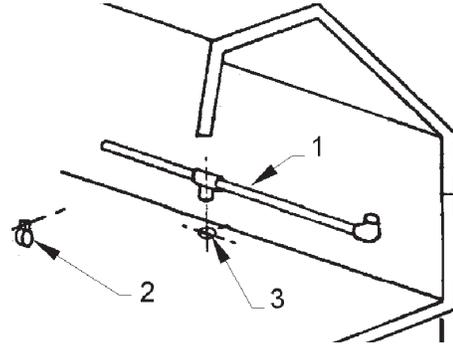
Lighted Shelves

Lights are optional on the 10" and 12" mezzanine shelves. Wiring harnesses for all shelf locations are factory installed. Ballasts are optionally supplied for all shelf light sockets. The ballasts are located in the rear raceway channel behind the rear rail cover.

Service Case Flush System

Flush systems are offered only on NLF cases to provide a convenient and effective means of maintaining case cleanliness. The system may be operated either manually by a hand valve or automatically using a solenoid and a time clock. The flush water is drained from the case via the normal drain path.

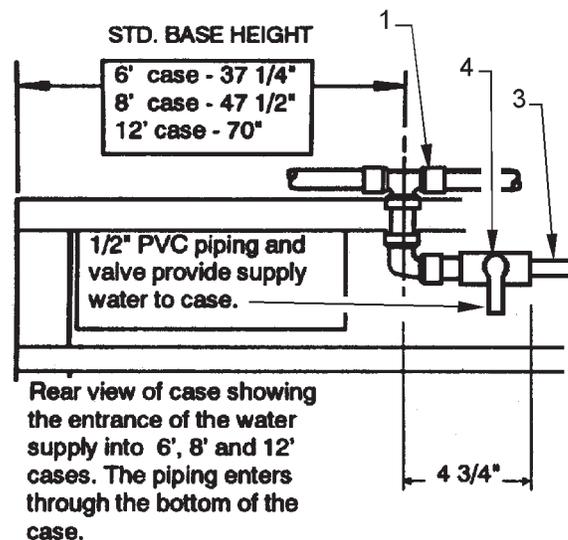
Water is supplied to the system through a pressurized water connection to a domestic water supply. The water is fed to a nozzle array which provides even flushing throughout the case interior. It is recommended to flush cases at least once a day. Flush time varies depending on the specific case needs.



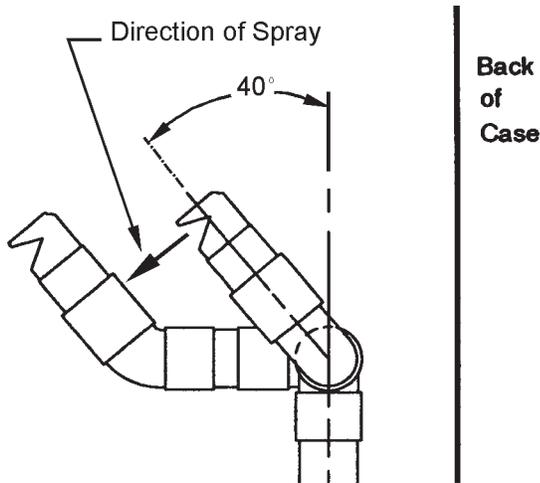
1. Position the manifold (1) near the rear case wall and secure with manifold anchor clamps (2).
2. Cut a hole in the case well just large enough to connect manifold to 1/2" PVC water supply piping (3).

NOTE

A suitable water supply must be downstream of the isolation valve.

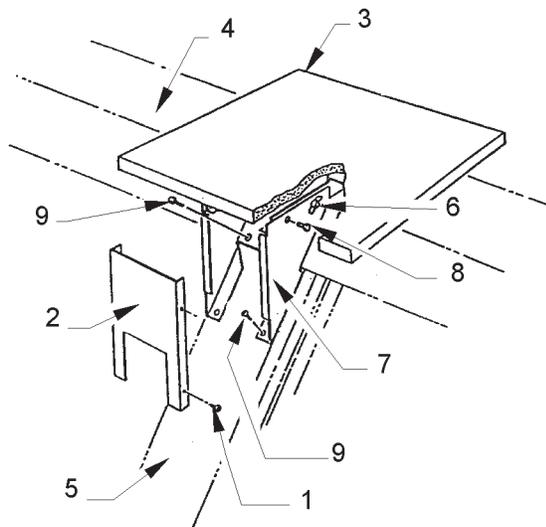


3. Install isolation valve (4) (hand or solenoid) and manifold (1) to water supply piping (3).
4. Caulk the area where the water supply piping (3) enters the case well to prevent water leakage during system flushing.



Top Mounted Scale Shelf Installation

The optional scale shelf is mounted to the mullion on the back of the case. The shelf rests on the flat portion of the top of the case. Use the follow instructions to mount the scale shelf assembly.



1. Remove the screws (1) and rear cover (2) from the scale shelf assembly (3).
2. Center the scale shelf assembly (3) on the top rear of the case (4) at the selected mullion (5) location.
3. Loosen wing nut (6) on the front right side of the lower rear support (7) and the two locking capscrews (8) at the rear.

4. Adjust scale shelf (3) to sit level from front-to-rear and side-to-side. When the shelf is level, retighten the wing nut (6) and the two locking capscrews (8).
5. Drill pilot holes in the top two holes in the lower rear support (7), and start two screws (9). Check for proper shelf alignment, then tighten two screws (9).
6. Drill pilot holes thru lower two holes in lower rear support (7) and secure with two screws (9).
7. Replace rear cover (2) and screws (1) on scale shelf assembly (3).

SERVICE INSTRUCTIONS

Connecting the Refrigeration Piping and Components

WARNING

Be sure to position a flame and heat-resistant shield over the bottom of the case liner. Heat from brazing could damage the liner and/or cause personal injury or death from fire.

1. Remove screws and refrigeration piping cover from the left bottom of the case.
2. Position loose refrigeration piping and/or optional valves between the open lines in the bottom and upright of the case.

NOTE

- **Make sure all sensor and thermostat wires are clear of areas being heated.**
 - **Mount all refrigeration lines off the floor to allow for cleaning access.**
3. Apply flux to all joint ends. Starting at one end, thoroughly heat each new pipe joint and braze it together. Repeat this process until all new pipe joints have been brazed.
 4. After piping has cooled, route and connect thermostat and sensor wires through openings in the bottom of the case.

Light Servicing

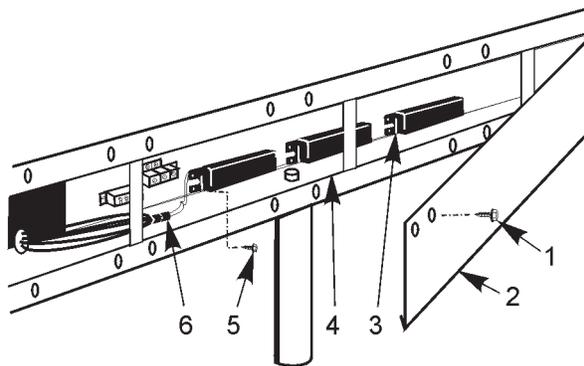
See "General (UL/NSF) I&S Manual" for T-8 lamp and fan blade and motor (NLD only) replacement instructions.

Ballast and Lighting Locations

All light ballasts are located in the rear raceway channel behind the rear rail cover.

In order to retain safety approval with Underwriters Laboratory and the Canadian Standards Association, the mounting of electrical components and interconnecting wires must not deviate from the following instructions. Only qualified personnel are authorized to install the accessory items. TYLER Refrigeration recommends you order all component parts from its Service Parts Department.

Ballast Replacement



1. Remove screws (1) and rear rail cover (2) from rear of case.

NOTE

If tappit screws are not available, a star-washer should be used between the ballast and the heads of the screws.

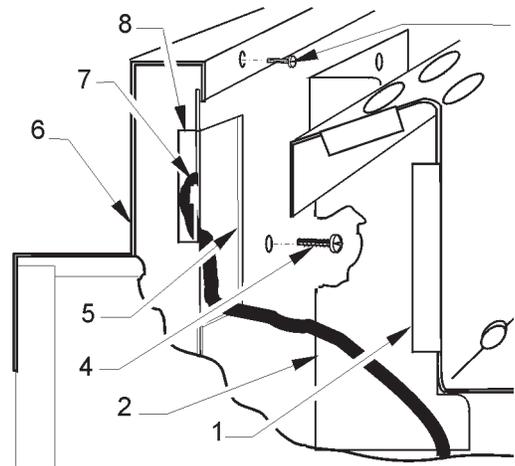
2. Install required number of ballasts (3) in rear electrical raceway (4) with two screws (5) each.
3. Identify and connect required wiring harnesses (upper, lower, etc...) to the ballast connectors (6).
4. Replace rear rail cover (2) and secure with screws (1).

Anti-Sweat Replacement (NLD only)

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.

1. Open the lift glass and remove the bottom screens and/or bottom trays from the case.



2. Remove front ducts (1) and front duct supports (2) from the case.
3. Remove screws (3 & 4) and anti-sweat cover (5) from interior surface of bottom glass support (6).
4. Disconnect or cut the defective anti-sweat wire (7) from the case wires.
5. Remove the aluminum tape (8) and defective anti-sweat wire (7) from the anti-sweat cover (5).
6. Position new anti-sweat wire (7) on anti-sweat cover (5) and secure with new aluminum tape (8).
7. Connect or splice the new anti-sweat wire (7) to case wires.
8. Install anti-sweat cover (5) under bottom glass support (6) and secure with screws (4 & 3).

9. Replace all components that were removed to expose the anti-sweat cover.
10. Close the lift glass and restore the electrical power to case.

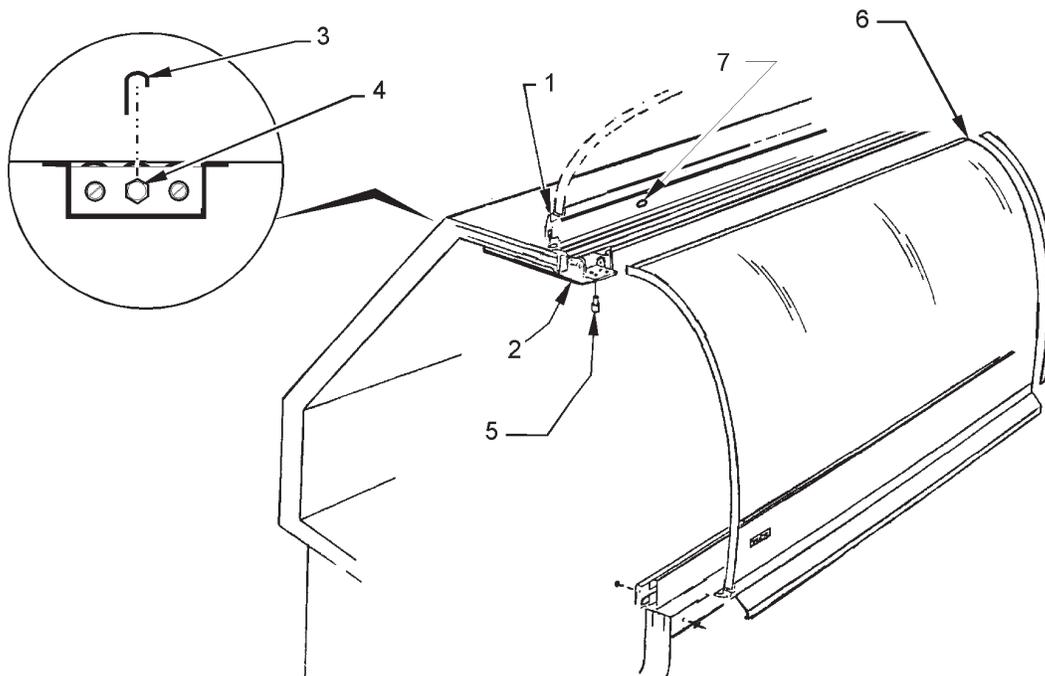
Lift Glass Replacement

NOTE

If lift glass is shattered, start with step 1, otherwise start with step 2 to replace the lift glass.

WARNING

Wear safety glasses and gloves and use at least two people when replacing glass. Glass is heavy and weight distribution is uneven. Mishandling of glass could cause breakage and/or personal injury.



1. Pull down the glass frame clamp (1) by applying significant force at the hinge assemblies (2). The hinge assemblies are located inside the rear at the top of the fixture. Hold hinges down until step 2 is performed.
2. Place the metal hinge stops (3), shipped with the glass, over the shank of the center bolt (4) at the rear of each hinge assembly (2). This prevents the hinges from popping upright when the lift glass is removed.
3. While holding glass, remove screws (5) from hinges (2) and glass frame clamp (1).
4. Replace broken lift glass (6) with new lift glass (6).

5. Install screws (5) in hinges (2) and glass frame clamp (1). Tighten each hinge-screw (5) to 60 lb-in. of torque. **Do not overtighten.**
6. Check torque of glass frame clamp setscrews (7). It should be pre-torqued to 145 lb-in. **Do not overtighten.**

NOTE

Lift glass must seal tightly to ensure proper operating temperatures! 5/8" replacement seals are available through TYLER Service Parts.

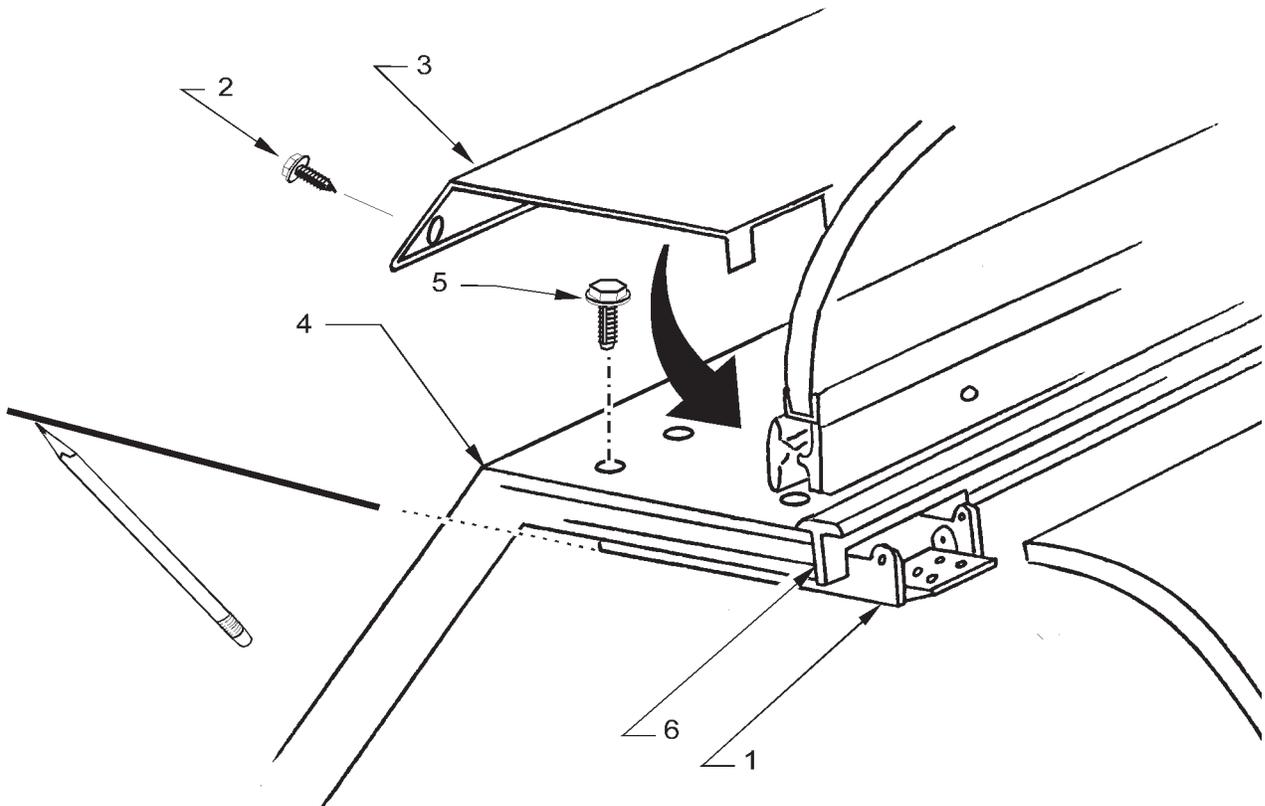
7. After the lift glass has been replaced, remove the metal hinge stops (3). Make sure the lift glass wipers overlap and seals tightly against the color band.

Lift Glass Hinge Replacement**NOTE**

All product should be removed from the case and the surrounding area before making this repair.

WARNING

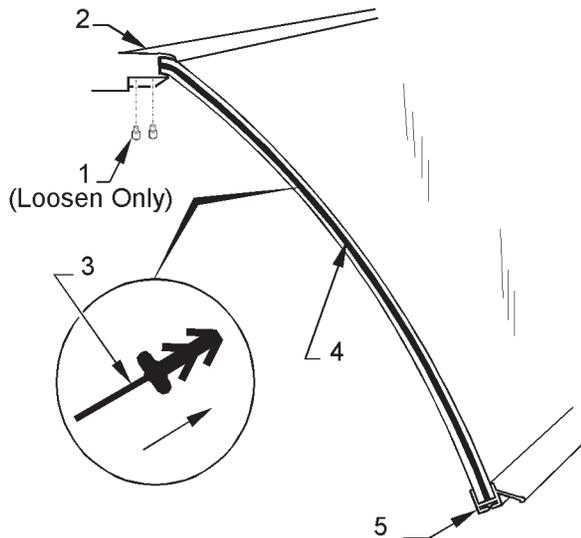
Do not take hinge apart! The glass assembly is extremely heavy and could fall without proper support. Glass breakage and/or personal injury could result.



1. Remove the lift glass by following the instructions on the previous page.
2. Mark the position of the defective hinge (1) on the top interior of the case.
3. Remove screws (2) from back edge of stainless steel top (3). Lift up and pull out on back edge of stainless steel top (3) to remove it from top of case (4).
4. Remove four screws (5) from top of case (4) and remove defective hinge assembly (1) from inside top of case (4).
5. Position new hinge assembly (1) inside top of case (4) as marked during removal and secure with four screws (5). After rechecking the hinge positioning, tighten the four screws (5) to 125 lb-in. of torque.
6. Push front edge of stainless steel top (3) under "T" rail (6) and insert back edge behind door frame trim. Secure stainless steel top (3) with screws (2).
7. Install the lift glass by following the instructions on the previous page.

Lift Glass Edge Seal Replacement

In order to attach the rubber edge seal to the lift glass, **the glass must be clean**. Use rubbing alcohol to clean the glass and the inside of the replacement trim.



1. Loosen two setscrews (1) in the glass frame clamp (2) closest to the edge of the glass. **Do not remove the setscrews.**
2. Remove the defective glass seal (3) by pulling out of the groove (4) in the edge of glass.
3. Clean the groove (4) in the edge of the glass thoroughly.
4. Beginning at the top of the edge of the glass, snap new glass seal (3) into the groove (4) by the pushing small "V"s into the groove (4).
5. Cut off any excess glass seal (3) that extends beyond the handle (5).
6. Retighten and torque the setscrews (1). They should be torqued to 150 lb-in. **Do not overtighten.**

Color Band, Bumper and Bumper Retainer Replacement

NOTE

Color band, bumper and bumper retainer must be removed to access the upper screws in the front upper cladding.

1. Open the lift glass and remove screws, color band and color band backers from bottom glass support.
2. Push in on center of bumper while pulling out on bottom of bumper. This will start to separate bumper from bumper retainer.
3. Make sure the bottom of the bumper is released from the bumper retainer for the full length of the case.
4. After bottom is released, firmly pull out top of bumper to snap it free from bumper retainer.
5. Remove bumper backers from both ends of the bumper
5. Mark position of the bumper retainer on front of case.
6. Remove mounting screws and bumper retainer from front of case.

NOTE

Bumper backer and color band backer must be installed in same position as removed to assure proper fit and alignment during installation.

7. Install bumper retainer on front of case with mounting screws in same position as removed.
8. Position bumper backers in ends of bumper sections still installed, so half of the bumper backers are still exposed.
9. Replace the bumper on the bumper retainer.
10. Position color band backers under ends of color bands still installed, so half if the color band backer is still exposed.
11. Replace color band on bottom glass support and secure with screws

PARTS INFORMATION**Operational Parts List**

Case Usage	Domestic			Export		
	115 Volt 60 Hertz			220 Volt 50 Hertz		
Case Size	6'*	8'	12'	6'	8'	12'
Fan Motor (NLD)	5125532 5 Watt	5125532 5 Watt	5125532 5 Watt	5126572 5 Watt	5126572 5 Watt	5126572 5 Watt
Fan Motor Brackets (NLD)	5962269	5962269	5962269	5962269	5962269	5962269
Fan Bracket Plate (NLD)	9041077	9041077	9041077	9041077	9041077	9041077
Fan Blades (7" 25° 5B) (NLD)	5236974	5236974	5236974	5236974	5236974	5236974
Opt. ECM Fan Motor (NLD)	9025002 8 Watt	9025002 8 Watt	9025002 8 Watt	----	----	----
Opt ECM Fan Brackets (NLD)	9025005	9025005	9025005	----	----	----
Opt ECM Fan Blades (7" 30° 5B)(NLD)	5223370	5223370	5223370	----	----	----
Rocker Switch	5961377	5961377	5961377	5961377	5961377	5961377
Rectangular Outlet	5236335	5236335	5236335	5236335	5236335	5236335
T-8 Lamp Ballast (canopy)(1-row)	5991029	5991029	5991030	9322286	9322286	9322287
(opt. can.)(2-row)(NLD)	5966635	5966635	5991030	9322288	9322288	9322287
(opt. shelf)(per row)	5991029	5991029	5991030	9322286	9322286	9322287
T-8 Lampholder (canopy)	5232279	5232279	5232279	5232279	5232279	5232279
(shelf)	5092414	5092414	5092414	5092414	5092414	5092414
Anti-Sweat Heater Wire (NLD)	5234596	5124818	5124819	5998198	5081149	5081150
Suction Solenoid Valve	5191445	5191445	5191445	5231619	5231619	5231619
Electronic Thermostat	5997588	5997588	5997588	5997588	5997588	5997588
Check Valve (NLM)	5199417	5199417	5199417	5199417	5199417	5199417
NSF Product Thermometer	5967100	5967100	5967100	5967100	5967100	5967100

* NLF is also available as a 4' model. Parts will be the same as the 6' model.

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

Cladding and Trim Parts List

Item	Description	4'	6'	8'	12'
1	Rear Top Cladding, BRT/SS	9048452	5240129	5240130	5240131
2	Edge Seal, Glass	5246375	5246375	5246375	5246375
3	Bumper Retainer	9025045	9025052	9025058	9025061
4	Screw, Shoulder	9025833(8)	9025833(12)	9025833(16)	9025833(24)
5	Color Band, Ptd.	9048447	9025232	9025233	9025234
6	Color Band Backer, Ptd.	9025654	9025654	9025654	9025654
7	Bumper	-----	color per order	-----	-----
8	Bumper Backer	-----	color per order	-----	-----
9	Upr. Frt. Cladding, Ptd.	9037989	9024922	9024923	9024924
	Screw	5183536(6)	5183536(8)	5183536(9)	5183536(11)
10	Upr. Frt. Cladding Joint Trim	9043829	9043829	9043829	9043829
	Screw	9024814(4)	9024814(4)	9024814(4)	9024814(4)
11	Frnt. Kickplate Assembly, Std.	9037933	9024937	9024938	9024939
	Frnt. Kickplate Assembly, Opt.	9050820	9024974	9024975	9024976
12	Kickplate Joint Trim, Std	9043816	9043816	9043816	9043816
	Screw	5619204 (4)	5619204(4)	5619204(4)	5619204(4)
13	Lwr. Frt. Cladding, Std. Ptd.	9037927	9043822	9043823	9043824
	Lwr. Frt. Cladding, Opt. Ptd.	9037934	9043825	9043826	9043827
14	Lwr. Frt. Cladding Joint Trim	9043893	9043893	9043893	9043893
	Opt. Frt. Cladding Joint Trim	9043891	9043891	9043891	9043891
	Screw	9024814(4)	9024814(4)	9024814(4)	9024814(4)
15	Pipe Leg, Std. (2" X 9.75")	9024894(4)	9024894(6)	9024894(6)	9024894(8)
	Pipe Leg, Opt. (2" X 6.00")	9024893(4)	9024893(6)	9024893(6)	9024893(8)
16	Horizontal End Trim	9037279	9037279	9037279	9037279
17	NSF Product Thermometer	5967100	5967100	5967100	5967100
18	RH Base End Close-off, Ptd.	9024986	9024986	9024986	9024986
	(per patch end)				
	LH Base End Close-off, Ptd.	9043066	9043066	9043066	9043066
	(per patch end)				
	Opt. Base End Close-off, Ptd.	9024980	9024980	9024980	9024980
	(per patch end)				
19	Opt. Rear Base Close-off	9039106	9024934	9024935	9024936

Item	Description	4'	6'	8'	12'
20	Rear Rail Cover, Ptd.	9024928	9024929	9024928(2)	9024929(2)
	Screw	9043080(12)	9043080(16)	9043080(24)	9043080(32)
21	Lwr. Rear Shelf Cover	9037948	9024770	9024771	9024772
22	Screw	9024814(5)	9024814(6)	9024814(7)	9024814(12)
23	Top Joint Trim, BRT SST	9037295	9037295	9037295	9037295
24	Screw	5199134(4)	5199134(4)	5199134(4)	5199134(4)
25	Refrig. Line Cover (NLM) (Not Shown)	----	9024864	9024864	9024864
26	Electrical Wire Cover (NLM) (Not Shown)	----	5236336	5236336	5236336

