

A^{series} Advantage

Installation & Service Manual



NHMGHP

**TOP DISPLAY MEAT/DELI/CRITICAL TEMP PRODUCE/
HIGH PERFORMANCE MERCHANDISERS**

Medium 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 - 2003.

| | | | | | | | | | |
|-------------------|--|------------------|------|------------|------|----------|---------|------|---|
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|-------------------|--|------------------|------|------------|------|----------|---------|------|---|

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The following Medium Temperature, Top Display High Performance Merchandiser models are covered in this manual:

| MODEL | DESCRIPTION |
|---------------|--|
| NHMGHP | 6' GLASS FRONT TOP DISPLAY HIGH PERFORMANCE MERCHANDISER |
| NHMGHP | 8' GLASS FRONT TOP DISPLAY HIGH PERFORMANCE MERCHANDISER |
| NHMGHP | 12' GLASS FRONT TOP DISPLAY HIGH PERFORMANCE MERCHANDISER |

SPECIFICATIONS

NHMGHP Top Display High Performance Medium Temp 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) | |
| NHMGHP | 6'/8'/12' | MED TEMP | 305* | 347* | 25** | 23 | 27.5 | 270*** | 0.29 |

* 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 top discharge air duct using an ALNOR JR. velometer with a scoop.

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 | | TOTAL ANTI-SWEATS | | | |
|--------|-------------|-------------|---------------------|-------|----------------|-------|-------------------|-------|-------------|-------|
| | | | AMPS | WATTS | AMPS | WATTS | DISCHARGE AIR | | FRONT GLASS | |
| | | | | | | | AMPS | WATTS | AMPS | WATTS |
| NHMGHP | 6' | 2 | 0.68 | 60.4 | 0.44 | 22.0 | 0.22 | 27.0 | 0.07 | 8.4 |
| NHMGHP | 8' | 2 | 0.68 | 60.4 | 0.44 | 22.0 | 0.30 | 36.0 | 0.10 | 12.0 |
| NHMGHP | 12' | 3 | 1.02 | 90.6 | 0.66 | 33.0 | 0.40 | 48.0 | 0.14 | 16.8 |

Defrost Data:

| DEFROST TYPE* | DEFROSTS PER DAY | DURATION TIME (MIN) | TERM. TEMP. (°F) | ELEK. THERMOSTAT / AIR SENSOR SETTINGS | | | EPR SETTINGS *** | | CONVENTIONAL COMPRESSOR SETTINGS**** | | | | DEFROST WATER (LB / FT / DAY) |
|---------------|------------------|---------------------|------------------|--|--------|---------|------------------|--------------|--------------------------------------|---------|--------------|---------|-------------------------------|
| | | | | USAGE | CUT IN | CUT OUT | R22 (PSIG) | R404A (PSIG) | R22 (PSIG) | | R404A (PSIG) | | |
| | | | | | | | | | CUT-IN | CUT-OUT | CUT-IN | CUT-OUT | |
| TIME OFF | 4 | 44** | ---- | MED TEMP | 28°F | 26°F | 49 | 62 | 47 | 36 | 60 | 47 | 1.5 |
| HOT GAS | 4 | 15 | 45 | MED TEMP | ---- | ---- | 49 | 62 | 47 | 36 | 60 | 47 | 1.5 |

* All high performance cases come with OFF CYCLE defrost.

** NOTE: 44 minutes is for EPR with suction stop for defrost isolation. Defrost times increases by eight minutes (52 min. total) when defrost isolation is by pump down.

*** If EPR is utilized, use the settings shown in the chart. NOTE: The customer will need to set the EPR on the parallel rack or single unit to the appropriate suction temperature and the NM(G)HP cases must be on a separate suction stub with a separate EPR. ADD 0.5# to EPR setting for each 1000 foot rise in elevation.

**** Required setup for a conventional unit uses an electronic thermostat to assure accurate temperature control.

| CASE-TO-CASE SUCTION LINE SUB-FEED BRANCH LINE SIZING | | | | | | | | | | | | |
|---|------|------|------|------|------|------|------|------|------|------|------|------|
| MODEL | 6' | 8' | 12' | 16' | 20' | 24' | 28' | 32' | 36' | 40' | 44' | 48' |
| NHMGHP / R22 | 3/8" | 3/8" | 3/8" | 1/2" | 1/2" | 1/2" | 5/8" | 5/8" | 5/8" | 5/8" | 5/8" | 7/8" |

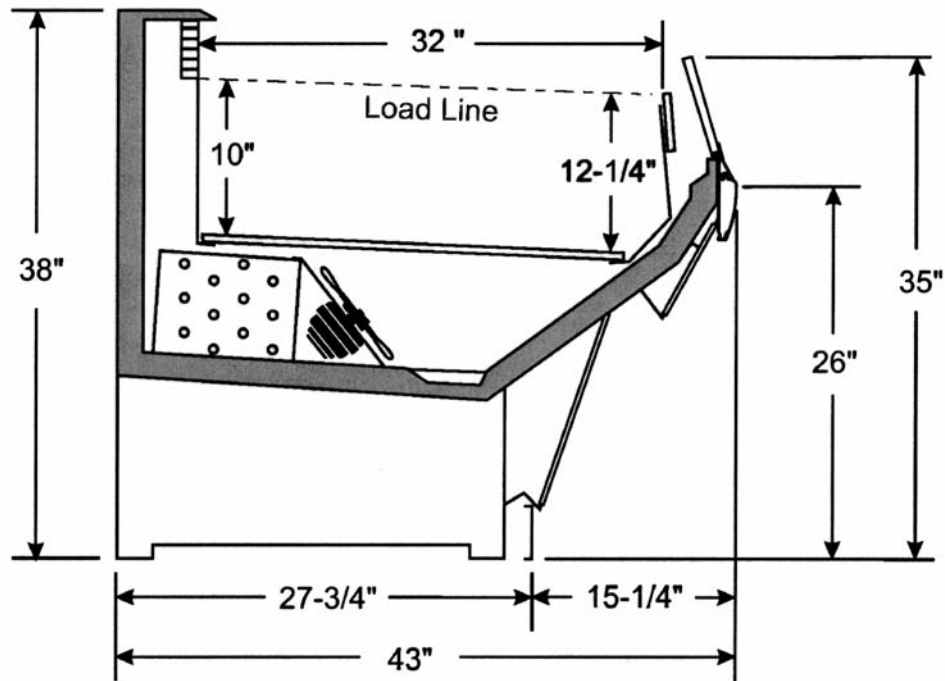
CASE CIRCUITS: This case requires a 120V circuit for fans and anti-sweat heaters.

UL SANITATION approved in accordance with ANSI/NSF - 7.

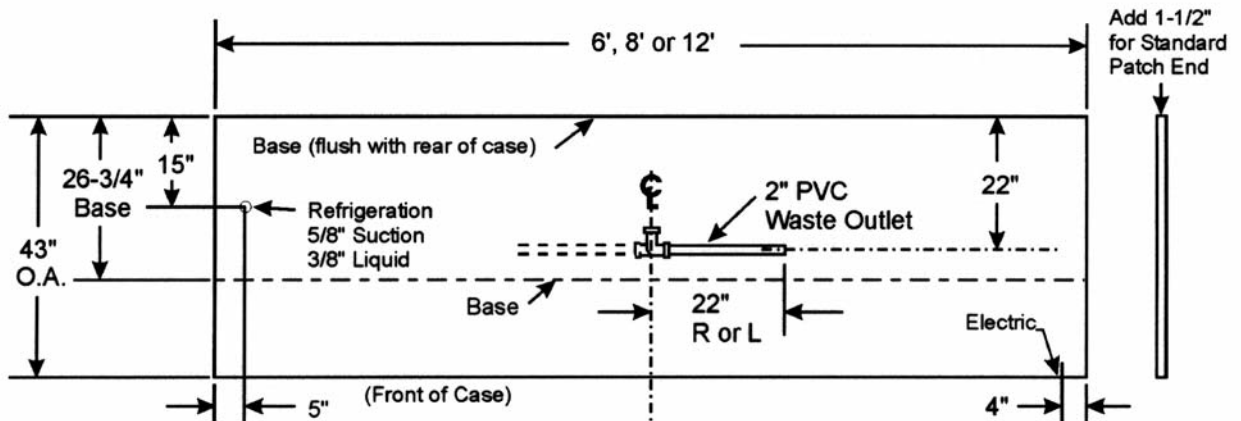
CASE BTUH REQUIREMENTS are calculated to produce approximately the indicated entering-air temperature with absolute maximum operating ambient limits of **75°F & 55RH**.

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.

NHMGHP CROSS SECTION



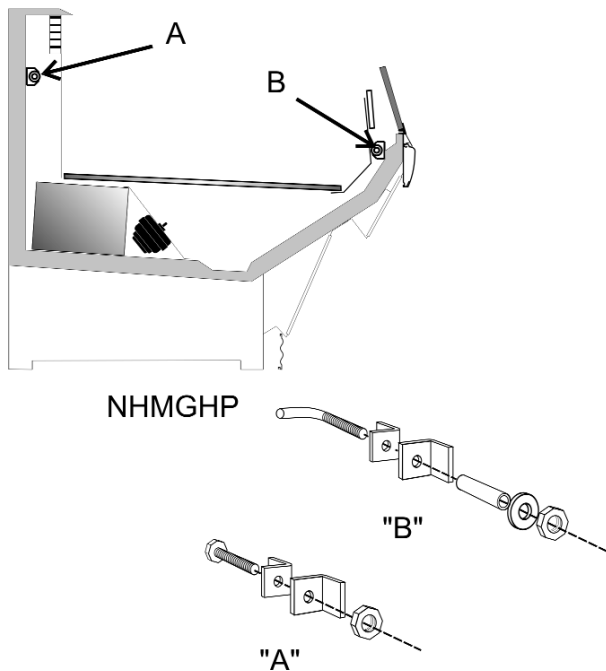
FLOOR PLAN



INSTALLATION PROCEDURES

Carpentry Procedures

Case Pull-Up Locations



The NHMGHP models have two pull-ups at each end of the case. Pull-ups A and B are located as shown and should be installed and tightened starting with A and finishing with B.

See “General-UL/NSF I&S Manual” for line-up assembly instructions.

Refrigeration Procedures

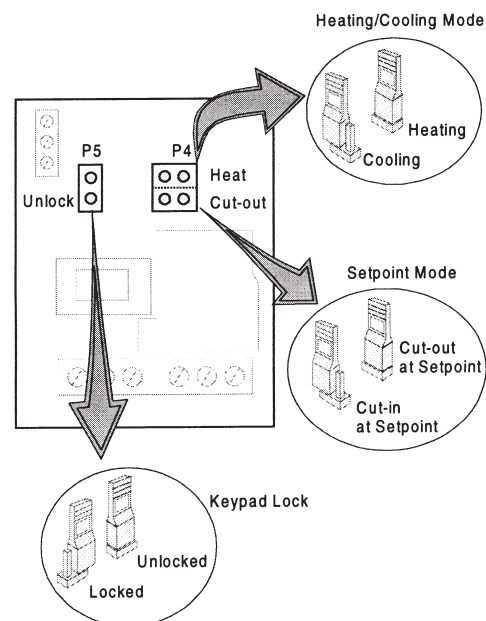
Refrigeration system and superheat instructions can be found in the “General-UL/NSF I&S Manual”. Electronic temperature control information is listed below.

Electronic Temperature Control

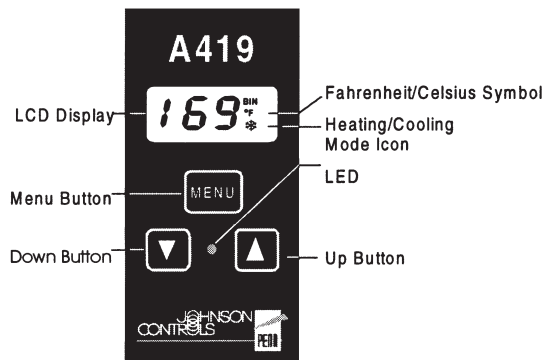
Whenever an NHMGHP uses an electronic thermostat and solenoid valve for temperature control, use the following instructions to properly set-up the electronic thermostat.

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.
NHMGHP = 27°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. NHMGHP (all applications) = 2°F
 - d. Push the Menu Button.

With the cooling mode selected, the differential is ABOVE the setpoint. The relay will energize 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 NHMGHP cases. Other applications will require different setpoints and differentials.

Bottom Trays

All bottom trays should be installed with the lips down. This assures proper case operation and sanitary practices.

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 raceway houses the electrical wiring, components and terminal blocks for the case. Remove the lower front cladding to access the raceway.

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.

NOTE

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

Fluorescent Lamp Circuit

NHMGHP optional canopy lighting is supplied by a single row of T-8 electronic ballast lights. It is controlled by a light switch in each canopy light fixture.

Anti-Sweat Circuit

The NHMGHP cases have two anti-sweat heaters. One in the rear riser for the discharge air and an additional anti-sweat heater for the front glass. All anti-sweat heaters are wired directly to the main power supply so they can operate at all times.

Defrost Information

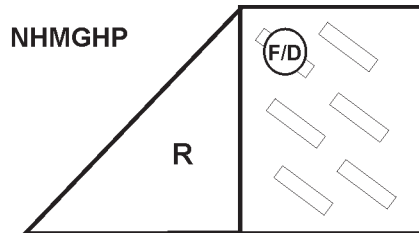
See “General-UL/NSF I&S Manual” for operational descriptions for each type of defrost control.

Defrost Control Chart

NHMGHP Defrost Option Settings

| Defrost Type | Defrosts Per Day | Defrost Duration (Min) | Term. Temp. |
|--------------|------------------|------------------------|-------------|
| Off Time | 4 | 44* | ----- |
| Gas | 4 | 15 | 55°F |

* See specification pages in this manual for pump down adjustment variations.



F/D = Gas Defrost (Fan Delay)

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

NOTE

The termination thermostat for gas defrost is located on 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

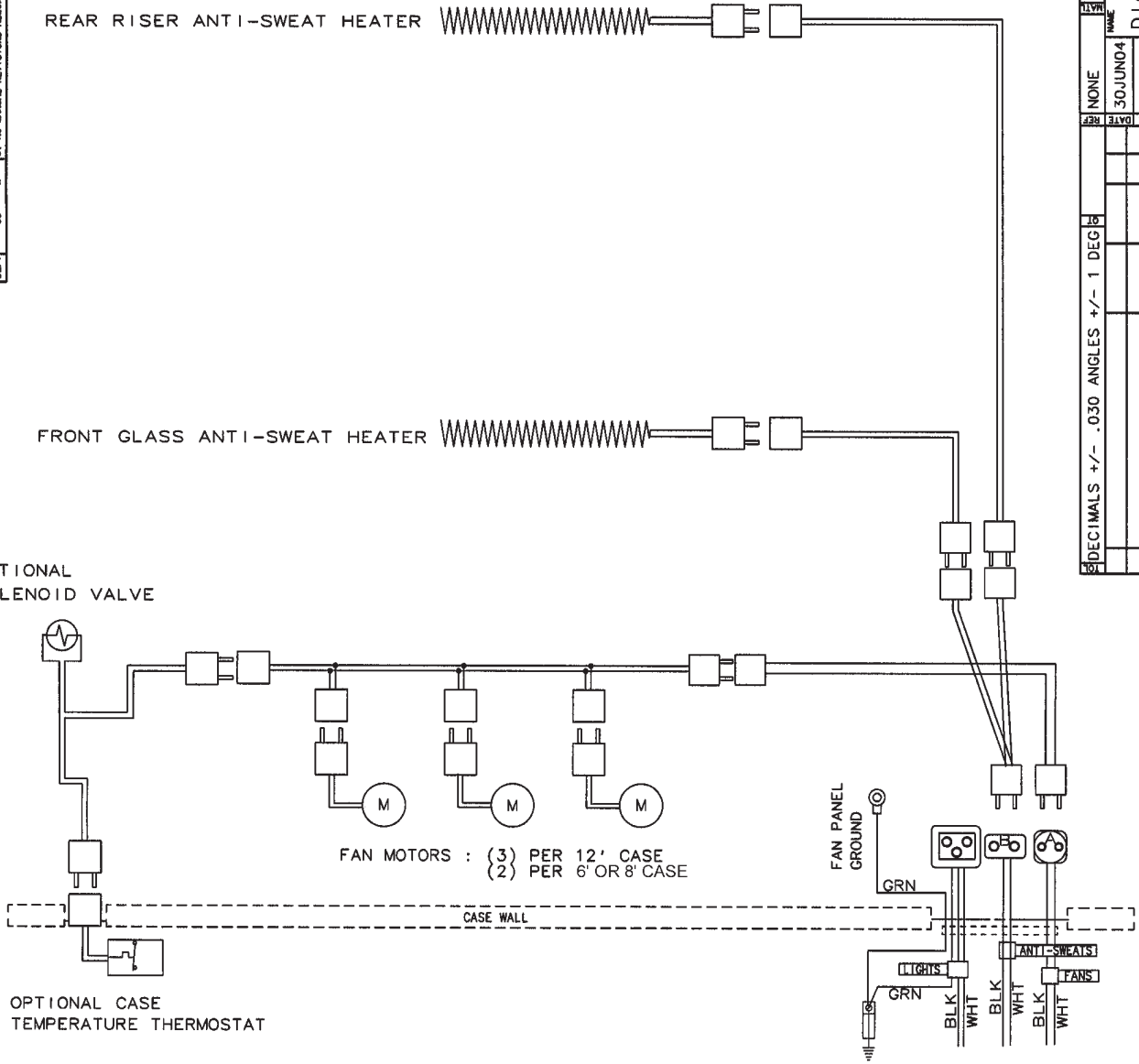
120V circuits should be protected by 15 or 20 Amp devices per the requirements noted on the cabinet nameplate or the National Electrical Code, Canadian Electrical Code - Part 1, Section 28. 208V defrost circuits employ No. 12 AWG field wire leads for field connections. On remote cases intended for end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

The following wiring diagram on page 9 and 10 covers the NHMGHP case circuits and defrost circuits.

NHMGHP Domestic & Export (50 Hz) Case Circuits (6', 8' & 12' Cases)



PART TYPE N T S
 MODEL
 PURCHASED X
 DEPT
 CC
 W
 1. TYLER REFRIGERATION CORP. CLAIMS RIGHTS TO THE INFORMATION ON THIS DRAWING.
 2. ANY COPY NOT BE USED WITHOUT PERMISSION.
 3. ALL DIMENSIONS ARE IN INCHES UNLESS NOTED OTHERWISE.
 4. DIMENSIONS APPLY TO FINISHED PART AFTER PAINTING.
 5. NO MANUAL REVISIONS ALLOWED.



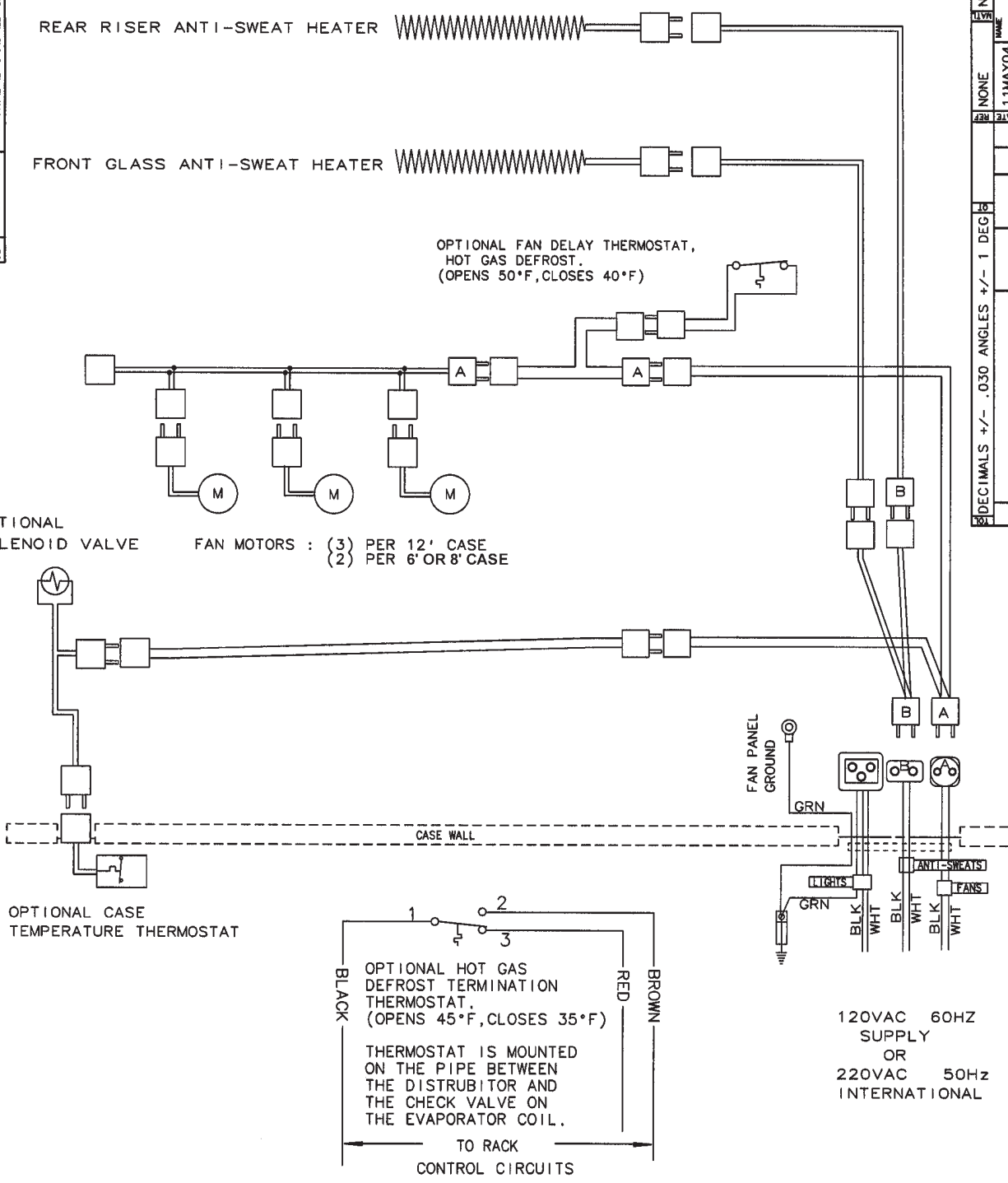
NOTE : ALL CASES MUST BE GROUNDED

| REV | DATE | BY | CHK | RELEASE | DESCRIPTION |
|-----|---------|----|-----|---------|---------------|
| A | 10SEP07 | LC | JL | | Added 6 Model |
| | 40311 | AS | | | |
| | 30JUN04 | LC | | | |
| | NONE | | | | |
| | NONE | | | | |

DECIMALS +/- .030 ANGLES +/- 1 DEG
 NAME
 D I A G R A M W R G O C D F R
 N H M G H P _ 6 _ 8 _ 1 2
 PART
 9 0 3 9 6 0 0
 REV
 A

PART TYPE N T S
MODEL
FABRICATED X
PURCHASED
DEPT
CS
W

1. THE REPRESENTATION OF THIS CLAIM RIGHTS
2. INFORMATION IS FOR ENGINEERS USE ONLY.
3. ALL DIMENSIONS ARE IN INCHES UNLESS
4. DIMENSIONS APPLY TO FINISHED PART AFTER
5. NO AMENDMENTS OR ALTERATIONS PERMITTED.
5. NO AMENDMENTS OR ALTERATIONS PERMITTED.



NOTE : ALL CASES MUST BE GROUNDED

| | | | | | | | | | | | | |
|-----|----------------|---------|---------|----|-----|-----|-----|-------|-----|---------|------|------|
| REV | DESCRIPTION | RELEASE | DATE | BY | CHK | REL | CHK | DATE | REF | DATE | NAME | REV |
| A | Added 6' Model | | 10SEP04 | LC | JL | AS | AS | 40311 | | 11MAY04 | LC | NONE |
| | | | | | | | | | | | | NONE |
| | | | | | | | | | | | | NONE |

DIAGRAM WRG HG DFR
NHMGHP_6_8_12

9039593

CLEANING AND SANITATION

Component Removal and Installation Instructions for Cleaning

Screens and Bottom Trays

1. Remove product from screens or bottom of case.
2. To remove screens, push up on each screen until bottom tabs clear holes in front duct, then remove screen from case.

To remove bottom trays, grasp and lift out each of the bottom trays from the case interior.

3. After cleaning, replace bottom trays with lips down in reverse order.

Front Air Ducts

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

Rear Duct Panels

1. Remove shelves and bottom trays, see above.
2. Remove mounting screws and rear duct panels from case.
3. After cleaning, replace and secure rear duct panels in reverse order.

Discharge Air Honeycomb

1. Loosen screws securing rear retainer plate.

NOTE

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

2. Slide rear retainer plate back until the honeycomb grid sections can be removed from the top 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 rear retainer plate and screws.

Lower Cladding

1. Remove kickplate from kickplate supports. (See General-UL/NSF I&S Manual.)
2. Remove mounting screws from top and bottom of lower cladding and remove lower cladding.
3. After cleaning, replace in reverse order.

Upper Cladding

1. Remove lower cladding, see above.
2. Remove color band, bumper and bumper retainer from case. (See General-UL/NSF I&S Manual.)
2. Remove mounting screws from top and bottom of upper cladding and remove upper cladding.
3. After cleaning, replace upper cladding and remaining components in 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 display cases!! High pressure cleaners can penetrate and/or damage the joint 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. |
| | 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. |

| <u>TYPE OF CLEANING</u> | <u>CLEANING AGENT*</u> | <u>APPLICATION METHOD**</u> | <u>EFFECT ON FINISH</u> |
|---|---|--|--|
| | 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 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 Permagan 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. |
| 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 product containing bleach for cleaning or sanitizing stainless steel.

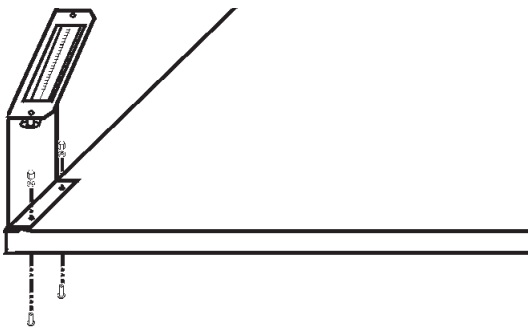
GENERAL INFORMATION

NSF Product Thermometer Installation

1. Unwrap the thermometer and bracket assembly shipped loose with the case.
2. Position bracket in front left corner of the left-most bottom tray. Making sure the bracket is flush with the left edge, use the bracket holes as a template for where to drill the holes.
3. Drill two .196" holes in the bottom tray.

NOTE

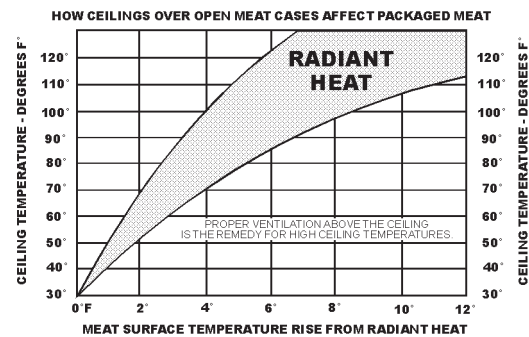
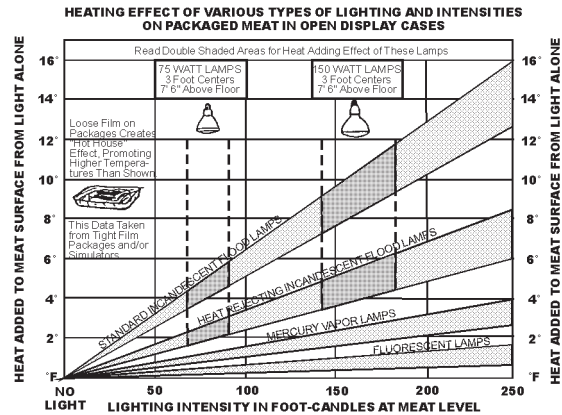
For ease of installation, position the washers and capnuts on the top side of the



bracket and bottom tray.

4. Mount the bracket to the bottom tray with two screws, washers and capnuts.

Radiant Heat Information



A wide temperature range is shown for each type of lighting. This data does not show all situations. Many situations will have higher package warm-up figures than indicated.

It is generally known that the temperature of displayed meat in refrigerated cases will run higher than the circulated air temperature of the cases. A dial thermometer stuck into the center of a piece of meat compared with one in the air stream quickly confirms this fact. Another fact is that the surface temperature of the meat will be higher than the center temperature due to radiant heat. TYLER's ongoing research identifies sources of radiant heat and accurately measures and records it. These charts were developed from the information gathered during this research. Two major sources of radiant heat are from display lights and ceiling surfaces. Additional heat sources come from bad display practices which either overload the case with product or allow voids in the product display.

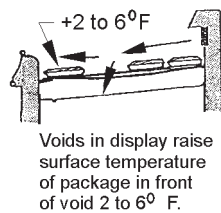
Poor display practices impair the efficiency of the refrigeration, adding to the surface temperature of the meat. Bacteria and molds grow when surface temperatures rise above 45°F. This prematurely discolors displayed meats and causes unnecessary meat department losses.

Radiant Heat Measurement

Place two accurate dial thermometers side by side in a case. Cover one of the thermometer stems with black friction tape. The temperature difference is the approximate amount of radiant heat. A change in display lighting or a reduction of high ceiling temperatures (over 80°F) could reduce the radiant heat in the case.

Display Practices

Encourage butchers to maintain all meat below the case load lines and to eliminate product voids. Case screens could be covered in some instances to keep the refrigerated air over the display.



CAUTION

The quality damage done to meat products by high temperatures and/or contamination during delivery, cooler storage, cutting and wrapping cannot be repaired by placing the products into properly operating display cases.

SERVICE INSTRUCTIONS

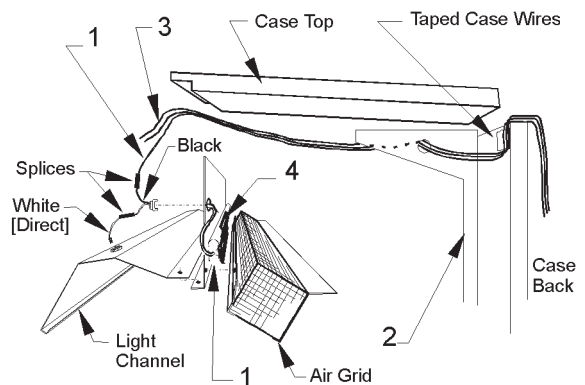
See “General-UL/NSF I&S Manual” for fan blade and motor, and color band and bumper replacement instructions.

Anti-Sweat Replacement

The NHMGHP cases have two anti-sweat heaters. One in the rear riser for the discharge air and an additional anti-sweat heater for the front glass. All anti-sweat heaters are wires that run the length of the above mentioned components. Use the following instructions to replace an anti-sweat heater.

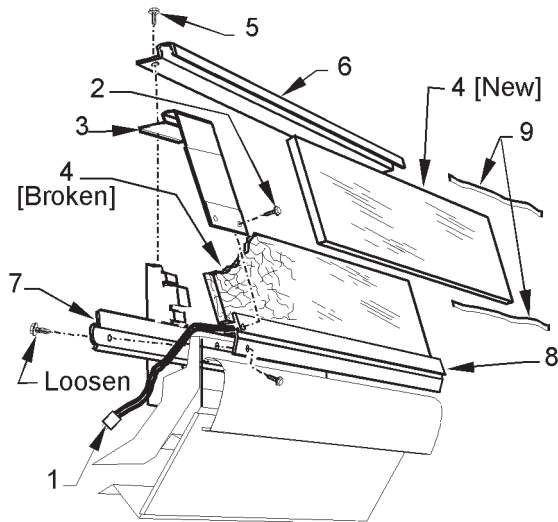
WARNING

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. Expose the full length of the defective anti-sweat wire (1) in the case (2).
2. Disconnect or cut the defective anti-sweat wire (1) from the case wires (3).
3. Remove the aluminum tape (4) and defective anti-sweat wire (1) from the case (2).
4. Position new anti-sweat wire (1) in case (2) and secure with new aluminum tape (4).
5. Connect or splice the new anti-sweat wire (1) to case wires (3).
6. Replace all components that were removed to expose the anti-sweat wire (1).
7. Restore electrical power to case.

Front Glass Replacement



1. Unplug glass anti-sweat wire (1).
3. Remove two screw (2) and glass joint trim (3) from both joints of the broken glass (4).
2. 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 (9) 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 (6) with screws (5) over top edge of new glass (4).
8. Install glass joint trim (3) with screw (2) over the joint areas of glass (4).
9. Reconnect the anti-sweat wire (1).

PARTS INFORMATION

Operational Parts List

| Case Usage | Domestic | | | Export | |
|--------------------------------|-------------------|----------|----------|-------------------|----------|
| | 115 Volt 60 Hertz | | | 220 Volt 50 Hertz | |
| Case Size | 6' | 8' | 12' | 8' | 12' |
| Fan Motor | 5125532 | 5125532 | 5125532 | 5222986 | 5222986 |
| | 5 Watt | 5 Watt | 5 Watt | 7.5 Watt | 7.5 Watt |
| Fan Motor Brackets | 5962268 | 5962268 | 5962268 | 5962268 | 5962268 |
| Fan Bracket Plate | 9041077 | 9041077 | 9041077 | 9041077 | 9041077 |
| Fan Blades | | | | | |
| (7" 25° 5B) | 5962268 | 5236974 | 5236974 | ---- | ---- |
| (7" 30° 5B) | ---- | ---- | ---- | 5223370 | 5223370 |
| Opt. ECM Fan Motors | 9025002 | 9025002 | 9025002 | ---- | ---- |
| | 8 Watt | 8 Watt | 8 Watt | | |
| Opt. ECM Fan Motor Brackets | 9025005 | 9025005 | 9025005 | ---- | ---- |
| Opt. ECM Fan Blades | | | | | |
| (7" 20° 5B) | 5960943 | 5960943 | 5960943 | ---- | ---- |
| Anti-Sweat Heater Wire | | | | | |
| (discharge air) | 5227379 | 5124216 | 5124217 | 5081147 | 5081148 |
| (glass) | 9039375 | 9039374 | 9039373 | ---- | ---- |
| Opt. Gas Def. Fan Delay Klixon | ---- | 9023503 | 9023503 | 9023503 | 9023503 |
| Opt. Gas Def. Term. Klixon | | | | | |
| (45/35) | ---- | 9039592* | 9039592* | 9039592* | 9039592* |
| NSF Product Thermometer | 5967100 | 5967100 | 5967100 | 5967100 | 5967100 |

* Initial build has 55/40 termination klixon (P/N 9023508) to be replaced with 45/35 termination klixon (P/N 9039592) as soon as it is available.

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

Cladding and Trim Parts List

| Item Description | NHMGHP | | |
|----------------------------|-------------|----------------|-------------|
| | 6' | 8' | 12' |
| 1 Bumper Retainer | 9025052 | 9025058 | 9025061 |
| 2 Top Band, Ptd. | 9020968 | 9020971 | 9020972 |
| 3 Color Band Backer, Ptd. | 9025982 | 9025982 | 9025982 |
| 4 Bumper Backer | ----- | color by order | ----- |
| 5 Bumper End Trim | ----- | color by order | ----- |
| 6 Bumper | ----- | color by order | ----- |
| 7 Upr. Frt. Cladding, Ptd. | 9606327 | 9048399 | 9605781 |
| 8 Screw, Shoulder | 9025833(12) | 9025833(12) | 9025833(12) |
| 9 Lwr. Frt. Cladding, Ptd. | 9026381 | 9026382 | 9026383 |
| 10 Screw | 5183536(8) | 5183536(8) | 5183536(10) |
| 11 Screw, Shoulder | 5183536(6) | 5183536(6) | 5183536(6) |
| 12 Kickplate, Ptd. | 9039368 | 9039016 | 9039017 |
| Kickplate Joint Trim, Ptd. | 9039020 | 9039020 | 9039020 |
| 13 Kickplate Support | 9039022(3) | 9039022(3) | 9039022(4) |
| 14 Screw | 5183536(6) | 5183536(6) | 5183536(8) |
| 15 Screw | 5222637(10) | 5222637(11) | 5222637(12) |
| 16 LH End Close-off, Ptd. | 9022459 | 9022459 | 9022459 |
| RH End Close-off, Ptd. | 9022466 | 9022466 | 9022466 |
| 17 Horizontal Joint Trim | 5200936 | 5200936 | 5200936 |
| 18 Raceway | 9025126 | 9025127 | 9025128 |

Front Glass Trim Parts

| Item Description | NHMGHP | | |
|--------------------|------------|------------|------------|
| | 6' | 8' | 12' |
| 1 Glass Joint Trim | 9025959 | 9025959 | 9025959 |
| 2 Screw | 5048626(2) | 5048626(2) | 5048626(2) |

