

TYLER

REFRIGERATION



Carrier

A United Technologies Company

Advantage^{series}

Installation & Service Manual



N5P

EXTENDED HEIGHT MULTI-SHELF BULK PRODUCE MERCHANDISERS
Medium Temperature Refrigerated 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 Extended Height Multi-Shelf Bulk Produce Merchandiser models are covered in this manual:

| MODELS | DESCRIPTION |
|---------------|--|
| N5P | 8' & 12' EXTENDED HEIGHT BULK PRODUCE MERCHANDISERS |

SPECIFICATIONS

N5P Extended Height Multi-Shelf Bulk Produce 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) | |
| N5P | 8'/12' | BULK PRODUCE | 1,000* | 1,090* | +20** | +18 | +35 | 235*** | 0.44 |

* Capacity data listed for three rows of T-8 canopy lights, a mirror and up to 3 rows of unlighted shelves. ADD 23 BTUH/FT for each row of lighted shelves. For sizing all refrigeration equipment other than TYLER, use conventional BTUH values.

** Evaporator temperature is defined as 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.

Use the N5MG cases for critical temp applications.

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 (120 Volt)

| MODEL | CASE LENGTH | FANS / CASE | TOTAL STANDARD FANS | | TOTAL ECM FANS | |
|-------|-------------|-------------|---------------------|-------|----------------|-------|
| | | | AMPS | WATTS | AMPS | WATTS |
| N5P | 8' | 2 | 0.68 | 60.4 | 0.64 | 34.0 |
| N5P | 12' | 3 | 1.02 | 90.6 | 0.96 | 51.0 |

T-8 Lighting with Electronic Ballasts (120 Volt)

| MODEL | CASE LENGTH | CANOPY LIGHTS - 3-ROWS* | | SHELF LIGHTS - PER ROW | | | | | | MAXIMUM LIGHTING (6 ROWS) | |
|-------|-------------|-------------------------|-------|------------------------|------|------|-------|-------|-------|---------------------------|-------|
| | | AMPS | WATTS | AMPS | | | WATTS | | | AMPS | WATTS |
| | | | | 1 | 2 | 3 | 1 | 2 | 3 | | |
| N5P | 8' | 1.45 | 174.0 | 0.70 | 1.10 | 1.40 | 84.0 | 132.0 | 168.0 | 2.35 | 282.0 |
| N5P | 12' | 2.10 | 252.0 | 1.05 | 1.65 | 2.10 | 126.0 | 198.0 | 252.0 | 3.50 | 420.0 |

Defrost Data:

| DEFROST TYPE | DEFROSTS PER DAY | DURATION TIME (MIN) | TERMINATION (°F) | EPR SETTINGS * | | DEFROST WATER (LB / FT / DAY) |
|--------------|------------------|---------------------|------------------|----------------|--------------|-------------------------------|
| | | | | R22 (PSIG) | R404A (PSIG) | |
| TIME OFF | 3 | 40 | --- | 43 | 56 | N/A |

* Set EPR to give this pressure at the case.

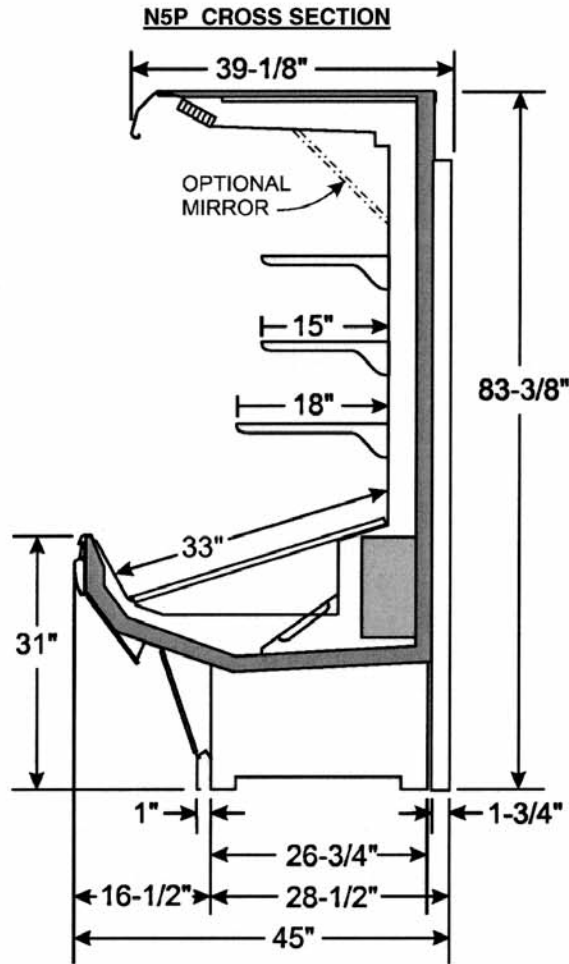
| CASE-TO-CASE SUCTION LINE SUB-FEED BRANCH LINE SIZING | | | | | | | | | | | | | | |
|---|------|------|------|------|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| MODEL | 8' | 12' | 16' | 20' | 24' | 28' | 32' | 36' | 40' | 44' | 48' | 52' | 56' | 60' |
| N5P R22 | 5/8" | 7/8" | 7/8" | 7/8" | 7/8" | 1-1/8" | 1-1/8" | 1-1/8" | 1-1/8" | 1-1/8" | 1-1/8" | 1-3/8" | 1-3/8" | 1-3/8" |

SHELVING AND MIRROR NOTES: 15" and 18" shelves are available for the N5P. When two sizes are used, the smaller must be used on top. Optional 12", 16", 23" or 30" mirrors are available on the N5P.

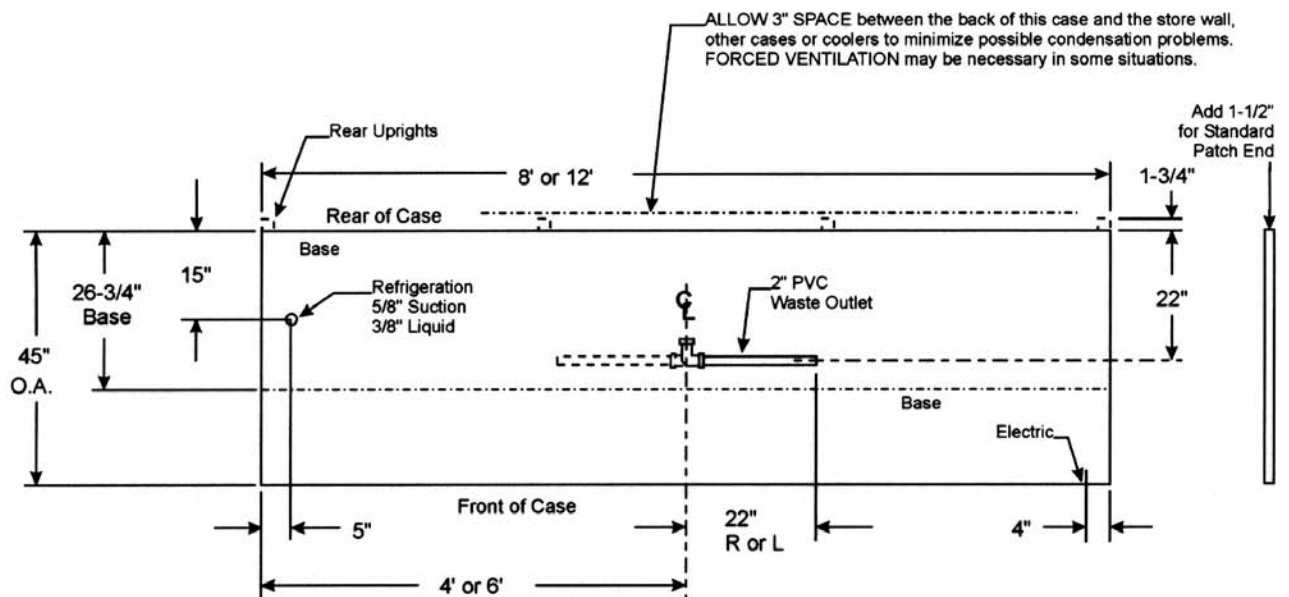
UL SANITATION approved in accordance with ANSI/NSF - 7.

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.



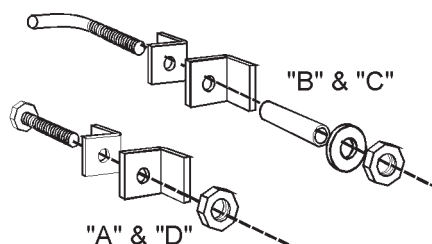
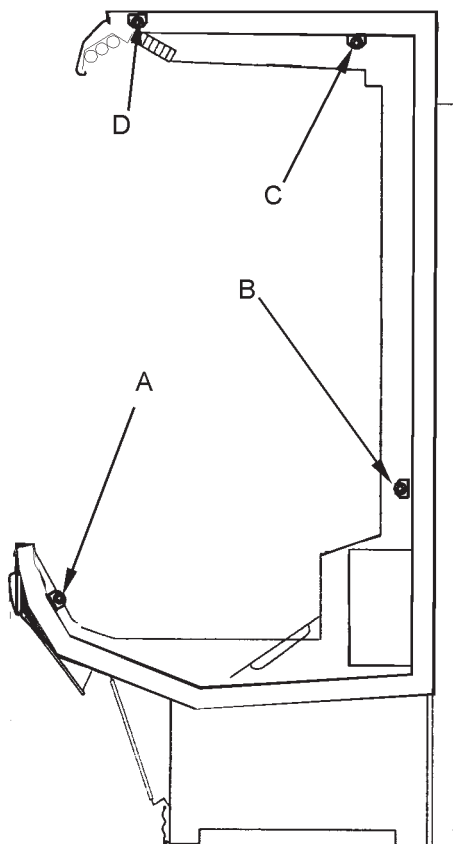
FLOOR PLAN



INSTALLATION PROCEDURES

Carpentry Procedures

Case Pull-Up Locations



The N5P models have four pull-ups at each end of the case. Pull-ups A, B, C and D are located as shown and should be installed and tightened starting with A and finishing with D.

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

Electrical Procedures

Electrical Considerations

CAUTION

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

NOTE

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 during defrost on any of these models.

Fluorescent Lamp Circuit

N5P case lighting is supplied by T-8 electronic ballast lights. It is controlled by a light switch in each case. The standard lighting is 3-row of T-8 canopy lights. The N5P also offers up to 3 rows of optional shelf lights.

Defrost Information

See “General-UL/NSF I&S Manual” for operational descriptions for Off Time defrost control.

Defrost Control Chart

| Defrost Type | Defrosts Per Day | Defrost Duration (Min) | Term. Temp. |
|--------------|------------------|------------------------|-------------|
| Off Time | 3-4 | 40 | ----- |

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.

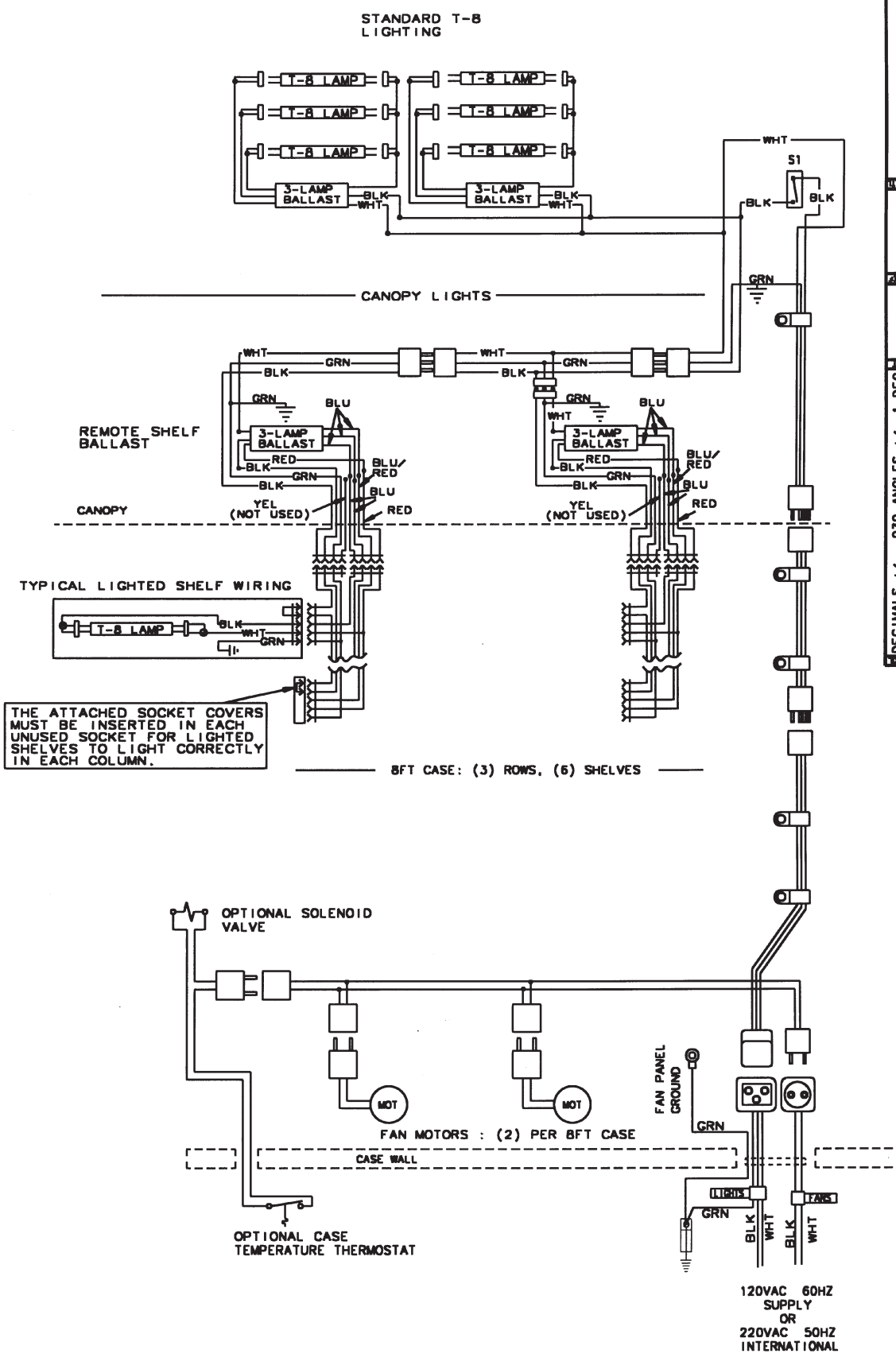
The wiring diagrams on pages 7 thru 9 will cover all N5P case and lighting circuits.

N5P Domestic & Export (50Hz) Case Circuits (8' Cases)

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PART TYPE: N T B
 MODEL: FABRICATED X
 PURCHASED: []
 DATE: []



| | | | | |
|-----|-------------|------|----|-----|
| REV | DESCRIPTION | DATE | BY | CHK |
| 1 | 110CT196 | | | |
| 2 | LC | | | |
| 3 | LC | | | |
| 4 | LC | | | |
| 5 | LC | | | |
| 6 | LC | | | |
| 7 | LC | | | |
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| 99 | LC | | | |
| 100 | LC | | | |

DIAGRAM WRC N5P8

9028827

NOTE : ALL CASES MUST BE GROUNDED

N5P Domestic & Export (50Hz) Case Circuits (12' Cases)

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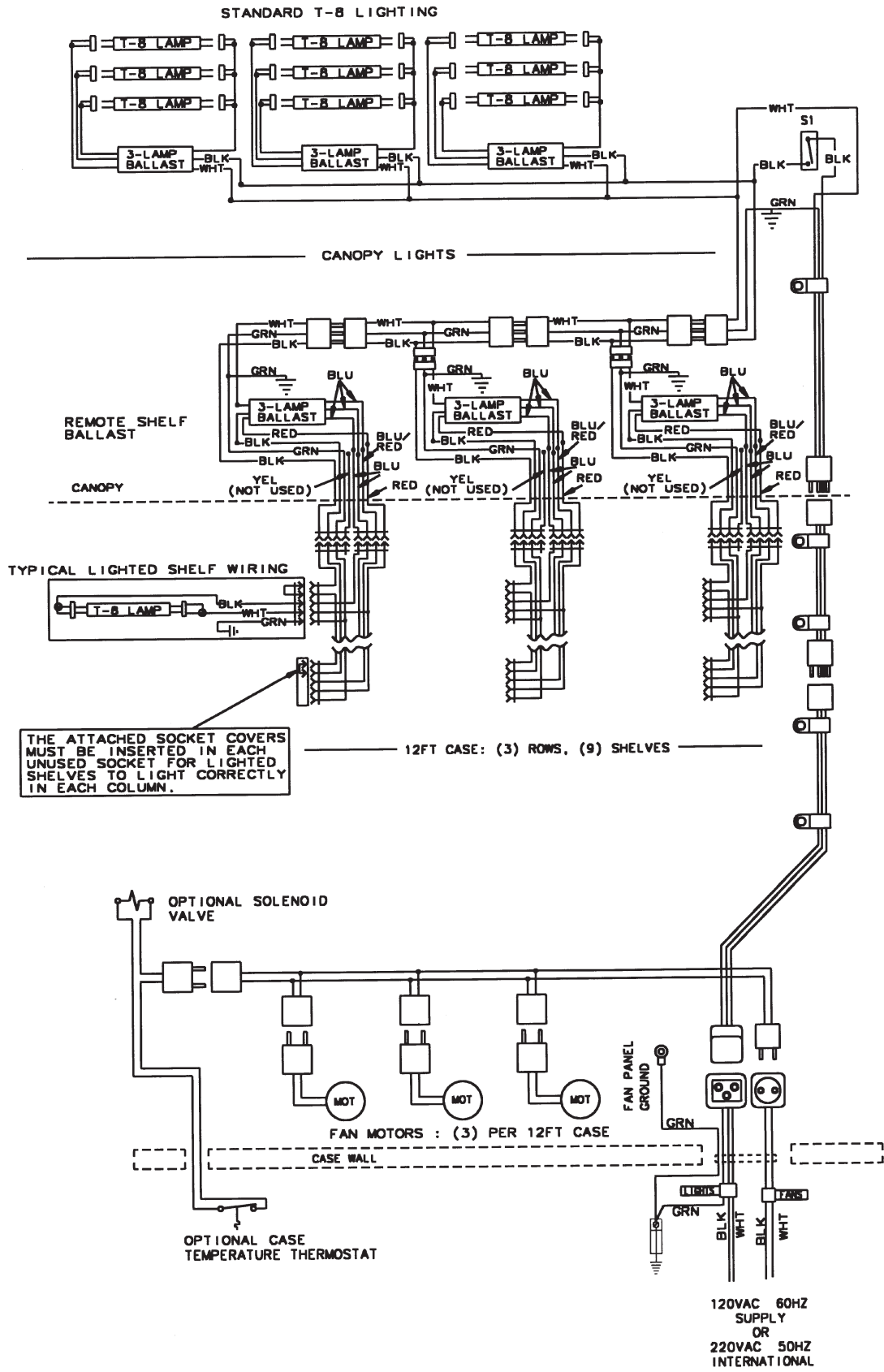
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THE ATTACHED SOCKET COVERS MUST BE INSERTED IN EACH UNUSED SOCKET FOR LIGHTED SHELVES TO LIGHT CORRECTLY IN EACH COLUMN.

NOTE : ALL CASES MUST BE GROUNDED

| | | | | |
|---------|----------------------|-------|---------|-----|
| REV | DESCRIPTION | DATE | BY | CHK |
| A | REDO HARNESS PER ECN | 25253 | 21FEB00 | LC |
| B | CHANGE MODEL TO NSF | 26302 | 13OCT00 | LC |
| C | | | | AZ |
| D | | | | LC |
| E | | | | CK |
| F | | | | CK |
| G | | | | CK |
| H | | | | CK |
| I | | | | CK |
| J | | | | CK |
| K | | | | CK |
| L | | | | CK |
| M | | | | CK |
| NONE | | | | |
| 110CT96 | | | | |

DIAGRAM WRG N5P12

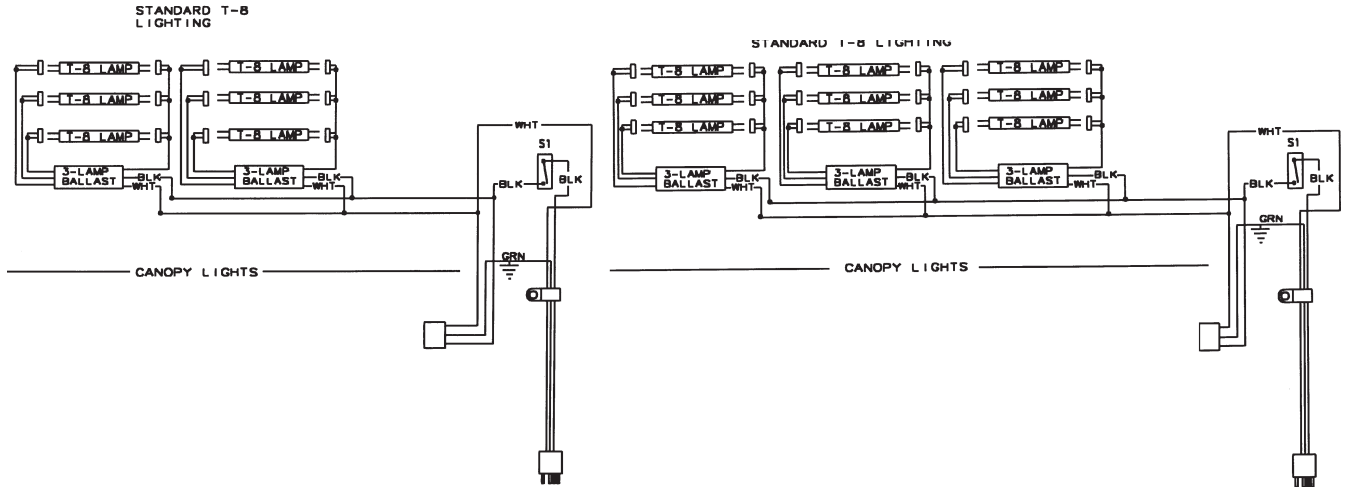
9028826

B

Canopy Lighting Circuits

8' Case

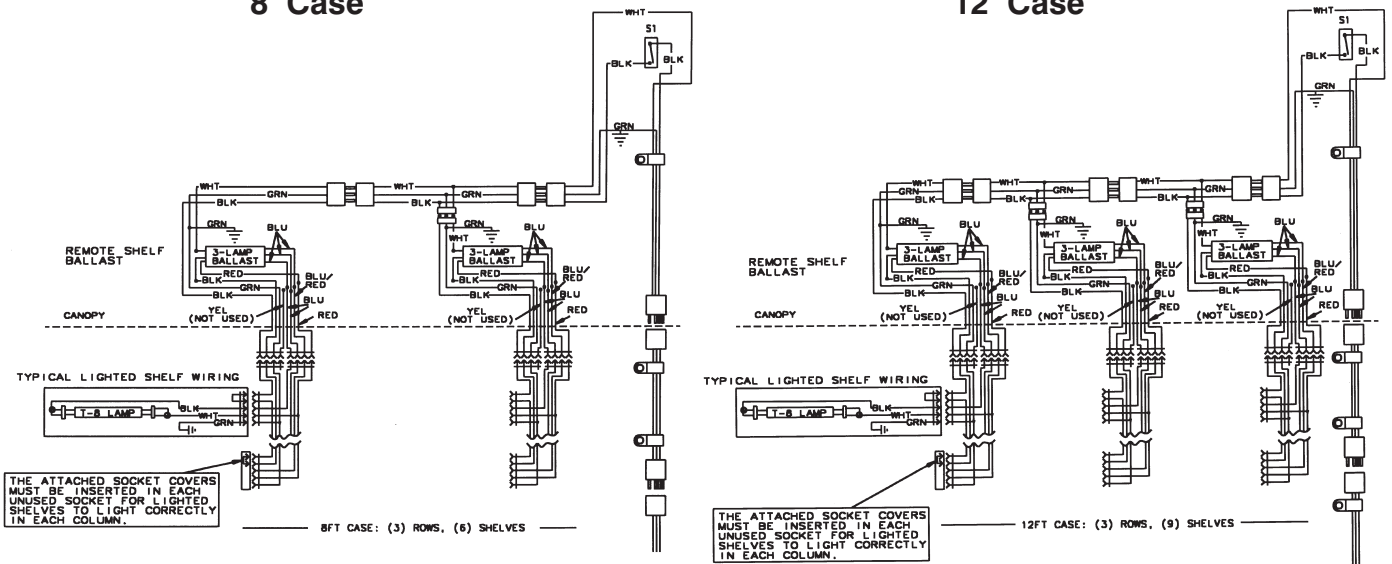
12' Case



Optional Shelf Lighting Circuit

8' Case

12' Case



CLEANING AND SANITATION

Component Removal and Installation Instructions for Cleaning

Mirrors

1. Remove mounting screws and end molding end of mirror line-up.
2. Carefully grasp and lift mirror section until bottom edge clears the lower mirror track.
3. Carefully lower mirror out of upper mirror track and remove from case.
4. After cleaning, replace in reverse order.

Optional Shelves and Shelf Brackets

1. Remove product from shelves.
2. If shelf has a light, unplug the light cord from the socket in the rear duct panel. Completely insert socket cover in the light socket to protect the receptacle.
3. Push shelves back and then lift up and out to remove them from the shelf brackets.
4. Remove shelf brackets from slots in rear uprights.
5. After cleaning, replace in reverse order.

Bottom Trays

1. Remove product from bottom of case.
2. Grasp and lift out each of the bottom trays from the case interior.
3. After cleaning, replace 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

(w/o Shelf Light Sockets)

1. Remove mirrors, shelves and/or 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.

(with Shelf Light Sockets)

1. Remove mirrors, shelves and bottom trays, see above.
2. Remove mounting screws from rear duct panel.
3. Slowly lift out rear duct panel until the shelf harness connector near the top of the panel can be accessed.
4. Disconnect shelf harness connector and complete removing the rear duct panel.

WARNING

Rear duct panels 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.

5. After cleaning, reconnect the shelf harness connector: install the top socket assembly: 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.

Top Duct

1. Remove mirror and/or shelves and shelf brackets, see page 10.
2. Remove screws, rear retainer plate and honeycomb grid sections from top of case.
3. Remove screws and top duct from case.
4. After cleaning, replace top duct and remaining components in reverse order.

Lower Cladding

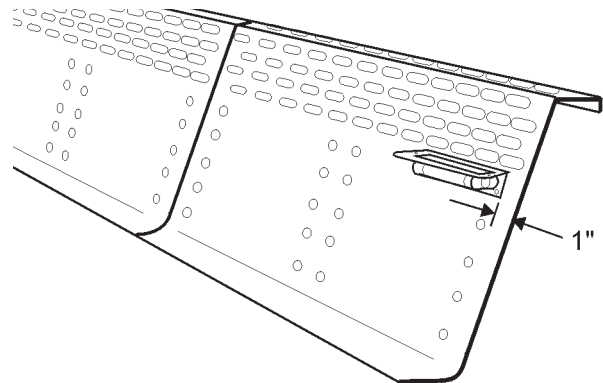
1. Remove kickplate from kickplate supports. (See General-UL/NSF I&S Manual.)
2. Remove mounting screws from top and bottom of lower cladding and remove lower cladding.
3. After cleaning, replace in reverse order.

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.

GENERAL INFORMATION**NSF Product Thermometer Installation**

1. Unwrap the thermometer and bracket assembly shipped loose with the case.
2. Remove left front return air duct.



3. Position bracket 1" in from left edge and just under the bottom return air duct holes.
4. Mount the bracket to the return air duct with two self-tapping screws.
5. Replace the front return air duct.

Mirror Installation

When installing mirrors you must be aware that on longer line-ups it is possible to end up with a gap at the end of the line-up. To help prevent this, leave a gap at the starting end that can be covered by the stainless steel trim. Additional mirror positioning adjustments may be required to make sure the gaps at each end of the line-up don't show when the stainless steel trim is in place. Also make sure all mirrors have a good tight seal between each mirror.

Water Spray Accessories

WARNING

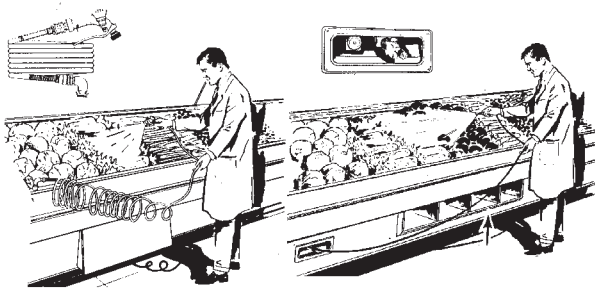
When using water spray accessories it may be necessary to install approved anti-backflow devices in the water supply line. Local codes should be checked in this regards. Installation of this device is the responsibility of the end user and would be performed by plumbers.

CAUTION

Do not spray lighted shelves when using any water spray accessories. Moisture on light fixtures could cause an electrical short and/or damage the case operating system.

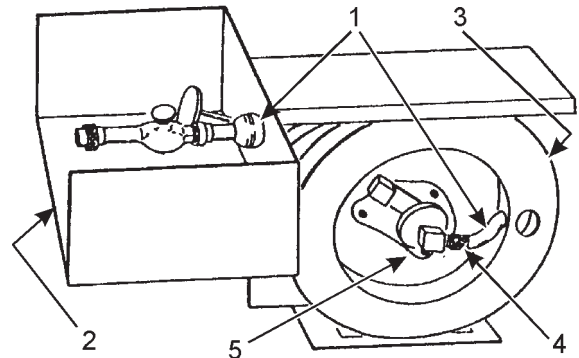
The water supply pressure should not exceed 45 lb to assure proper operation. Water supply pressures above 45 lb should use a pressure reducing valve.

The spring coil spray hose or retractable



spring hose are the two manual systems available for produce cases. To use the retractable spray hose, pull the nozzle and hose out smoothly to the desired length. When the reel ratchet sounds, let the hose back against the ratchet to hold it in place. To rewind, pull hose out slightly to release the reel ratchet, then guide the hose back into the front of the case. Do not allow hose to rewind by itself. Hose jamming and/or reel damage could result.

Retractable Hose Replacement



1. Pull hose (1) completely out of front of case (2) and engage reel ratchet.
2. Fasten locking pliers on the reel edge (3) to prevent the reel from accidentally rewinding. The reel spring is fully wound in this position.
3. Remove hose (1) from hose clamps on the reel (3) and disconnect hose end fitting (4) from swivel assembly (5). Remove hose (1) from reel (3) and front of case (2).

CAUTION

Do not allow the reel to unwind suddenly or attempt to turn reel clockwise. This will damage the spring motor in the reel.

NOTE

If reel spring is unwound, wind the reel 19 complete turns counterclockwise, engage the reel ratchet and install locking pliers on reel edge.

4. Insert hose (1) through the front of the case (2) and the hole in the reel (3).
5. Apply pipe dope to threads of hose end fitting (4). Install hose end fitting (4) in the swivel assembly (5).
6. Attach the hose (1) securely to the reel (3) with the hose clamps on the reel.
7. Retract the hose (1) onto the reel (3).

NOTE

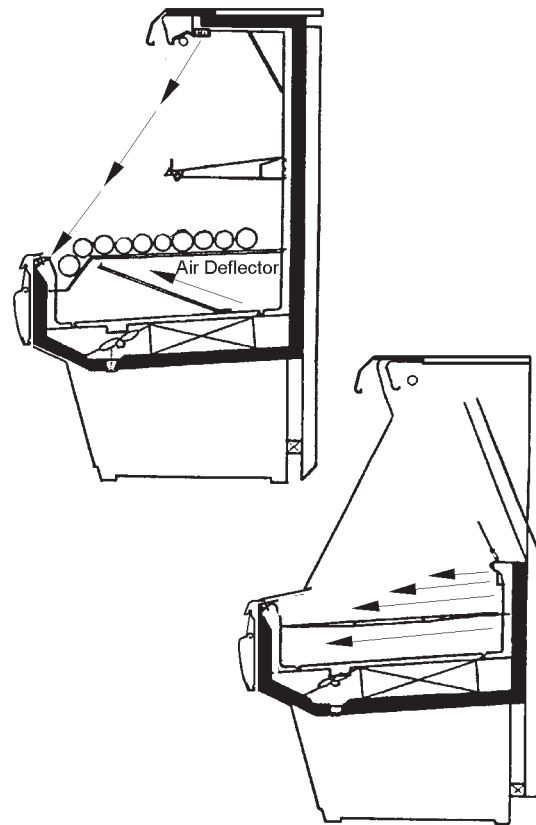
If reel does not work properly after rewinding, replace the reel assembly.

Produce Handling Tips

Fresh fruits and vegetable are living things, even after they have been harvested. They continue the process of respiration and transpiration after harvesting. Respiration is the process of self feeding to provide energy for maintaining life. (EXAMPLE: Asparagus and sweet corn generate heat after they are picked.) Transpiration is the process of water loss through vapor from the plant tissues. Post-harvest life can be maintained by slowing the rate of water loss. Refrigeration lowers the rate of respiration and transpiration. Store most types of produce close to freezing prior to display. There are a number of explanations (ex. Cucumbers can be kept relatively cool by themselves, but could be damaged by temperatures below 40°F). See chart on following pages for specifics.

Non-refrigerated produce cases are called "Dry" cases. They are used to display potatoes, dry onions, bananas, avocados and other products which don't need refrigeration. These cases can also be used with a bed of cracked ice to display perishables.

Refrigerated produce cases displays produce products that require refrigeration. The refrigeration coil is below the display and fans are used to circulate air through the case display. This moving air will pick up moisture from unwrapped produce and carry it to the coil. It is necessary to replace this moisture by using a water spray several times during the day. At night the produce should be covered with a wet cloth. The alternate to sprinkling is to wrap the produce.



In order to maintain case air flow, the return air duct must not be blocked by product. An important aid to improve air circulation is to use air deflectors below the elevated screens in the case. These deflectors will direct the air flow into the display and prevent cool air from "short circuiting" the display. Deflectors are furnished with hump screen option. See illustration.

Produce Handling Chart

| Produce | Ideal Storage Conditions | | Display Rack Care | | | Special Notes |
|-----------------|--------------------------|-----------------------|-------------------------|--------------------|---------------------|--|
| | Temperature (°F) | Relative Humidity (%) | Sell Quickly (1-2 days) | Refrigerate (40°F) | Sprinkle with Water | |
| Apples | 30-32 | 85-95 | | Helpful | No advantage | Avoid bruising |
| Apricots | 31-32 | 85-90 | Yes | Helpful | No | |
| Asparagus | 32-36 | 90-95 | Yes | Profitable | No | Trim butts and stand in ice or shallow water |
| Avocados | 40-55 | 85-90 | Yes | No | No | Display on padded surface |
| Bananas, Ripe | 56-58 | 85-90 | Yes | No | No | Display on padded surface |
| For Ripening | 58-68 | 90-95 | | No | No | Avoid bruising |
| Beans, Lima | 32-40 | 85-90 | Yes | Profitable | No | Shake up to aerate |
| Beans, Snap | 40-45 | 90-95 | Yes | Profitable | Yes | |
| Beets | 32 | 85-95 | Yes | Profitable | Yes | Moisten roots only |
| Berries | 31-32 | 90-95 | Yes | Helpful | No | Keep well ventilated |
| Broccoli | 32-35 | 90-95 | Yes | Profitable | Yes | Keep out of sun |
| Brussel Sprouts | 32-35 | 90-95 | Yes | Profitable | Yes | Remove yellow leaves |
| Cabbage | 32 | 90-95 | | Helpful | Yes | |
| Carrots | 32 | 90-95 | | Profitable | Yes | Moisten roots only of bunches |
| Cauliflower | 32 | 90-95 | Yes | Profitable | Yes | Sprinkle only if refrigerated |
| Celery | 31-32 | 90-95 | Yes | Profitable Yes | | |
| Cherries | 31-32 | 90-95 | Yes | Helpful | No | Keep well ventilated |
| Corn, Sweet | 31-32 | 90-95 | Yes | Profitable | Yes | Keep cold to keep sweetness |
| Cucumbers | 45-50 | 85-90 | Yes | No | No advantage | |
| Eggplants | 45-50 | 85-90 | Yes | No | No advantage | Do not bruise, keep on ice |
| Grapefruit | 50-60 | 85-90 | | Helpful | No advantage | Remove decayed fruit |
| Grapes | 30-32 | 85-95 | Yes | Helpful | No | Keep well ventilated |
| Honeydews | 45-50 | 85-90 | | Helpful | No | Cover cut melons with transparent film |
| Lemons | 38-40 | 85-90 | | Helpful | Yes | Sprinkling may be helpful |
| Lettuce | 32 | 90-95 | Yes | Profitable | Yes | Avoid soaking with water |
| Limes | 48-50 | 85-90 | | Helpful | No advantage | |
| Mushrooms | 32-35 | 80-90 | Yes | Helpful | No | Handle carefully, keep dry |
| Muskmelons | 32-35 | 85-90 | Yes | Helpful | No | Cover cut melons with transparent film |
| Onions, Dry | 32 | 65-70 | | No | No | Remove loose wrappers, keep dry |
| Onions, Green | 32 | 90-95 | Yes | Profitable | Yes | Keep well ventilated |
| Oranges | 34-38 | 85-90 | | Helpful | No advantage | Remove decayed fruit |
| Parsnips | 32 | 90-95 | | Helpful | Yes | Moisten roots only |
| Peaches, Ripe | 31-32 | 90 | Yes | Helpful | No | Ripen at room temperature before storage |
| Pears | 29-31 | 90-95 | Yes | Helpful | No | Display in single or double layer on pads |

| <u>Produce</u> | <u>Ideal Storage Conditions</u> | | <u>Sell Quickly (1-2 days)</u> | <u>Display Rack Care</u> | | <u>Special Notes</u> |
|------------------|---------------------------------|----------------------------------|------------------------------------|-------------------------------|--------------------------------|---|
| | <u>Temperature (°F)</u> | <u>Relative Humidity (%)</u> | | <u>Refrigerate (40°F)</u> | <u>Sprinkle with Water</u> | |
| Peas, Green | 32 | 90-95 | Yes | Profitable | Yes | Shake up to aerate, keep cold |
| Peppers | 45-50 | 90-95 | Yes | Profitable | Yes | |
| Pineapples, Ripe | 45-55 | 85-90 | Yes | No | No | Remove decayed fruit |
| Plums | 31-32 | 90-95 | Yes | Helpful | No | Remove decayed fruit |
| Potatoes | 40-50 | 85-90 | | No | No | Keep out of sun |
| Radishes | 32 | 90-95 | Yes | Profitable | Yes | Keep water off tops, avoid tight packing |
| Rhubarb | 32 | 90-95 | Yes | Profitable | No | Trim thin slice off stems and stand in cold water |
| Squash, Summer | 40-50 | 85-95 | Yes | Helpful | Yes | |
| Winter & Pmpkns | 50-55 | 50-75 | | No | No | |
| Spinach | 32 | 90-95 | Yes | Profitable | Yes | Keep ventilated |
| Sweet Potatoes | 55-60 | 85-90 | | No | No | Keep ventilated |
| Tangerines | 32 | 85-90 | Yes | Profitable | Yes | Remove decayed fruit |
| Tomatoes, Ripe | 45-50 | 85-90 | Yes | Helpful | No | Sell quickly, refrigerate to hold |
| Tomatoes, Green | 55-70 | 85-90 | | No | No | Ripen in back room, sort frequently |
| Turnips | 32 | 90-95 | | Profitable | Yes | Sprinkle roots only |
| Watermelons | 40-45 | 80-85 | | Helpful | No | Cover cut melons with transparent film |

The “Produce Handling Chart” is courtesy of Produce Marketing Association, Inc., Newark, Delaware 19711, from their 1973 Yearbook. This book is published as a service to the Fresh Produce Industry.

For additional information, consult:

“The Commercial Storage of Fruits, Vegetables, and Florist and Nursery Stocks”, USDA Handbook No. 66, 1968.

“The Shelf Life of Fresh Fruits and Vegetables - Retail Store Display Cases”, USDA HT&S Office Report No. 247, October 1951.

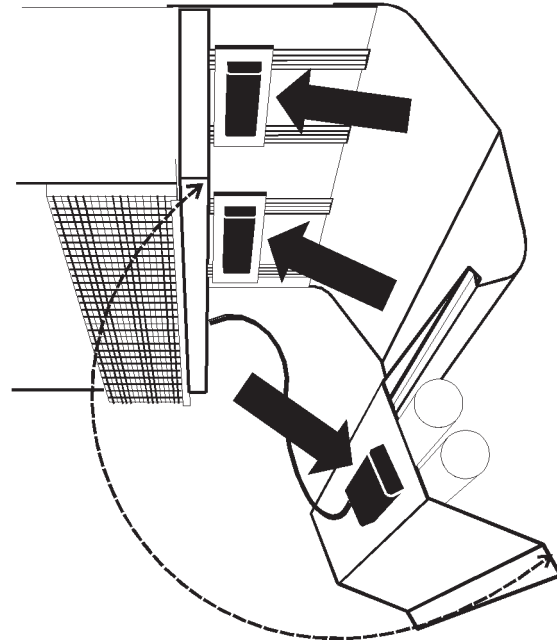
“Fresh Fruits and Vegetables - Handling and Care”, Corporate Extension Service, Michigan State University.

SERVICE INSTRUCTIONS

See “General-UL/NSF I&S Manual” for T-8 lamp, and ballast, fan blade and motor, and color band and bumper replacement instructions.

Ballast and Lighting Locations

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

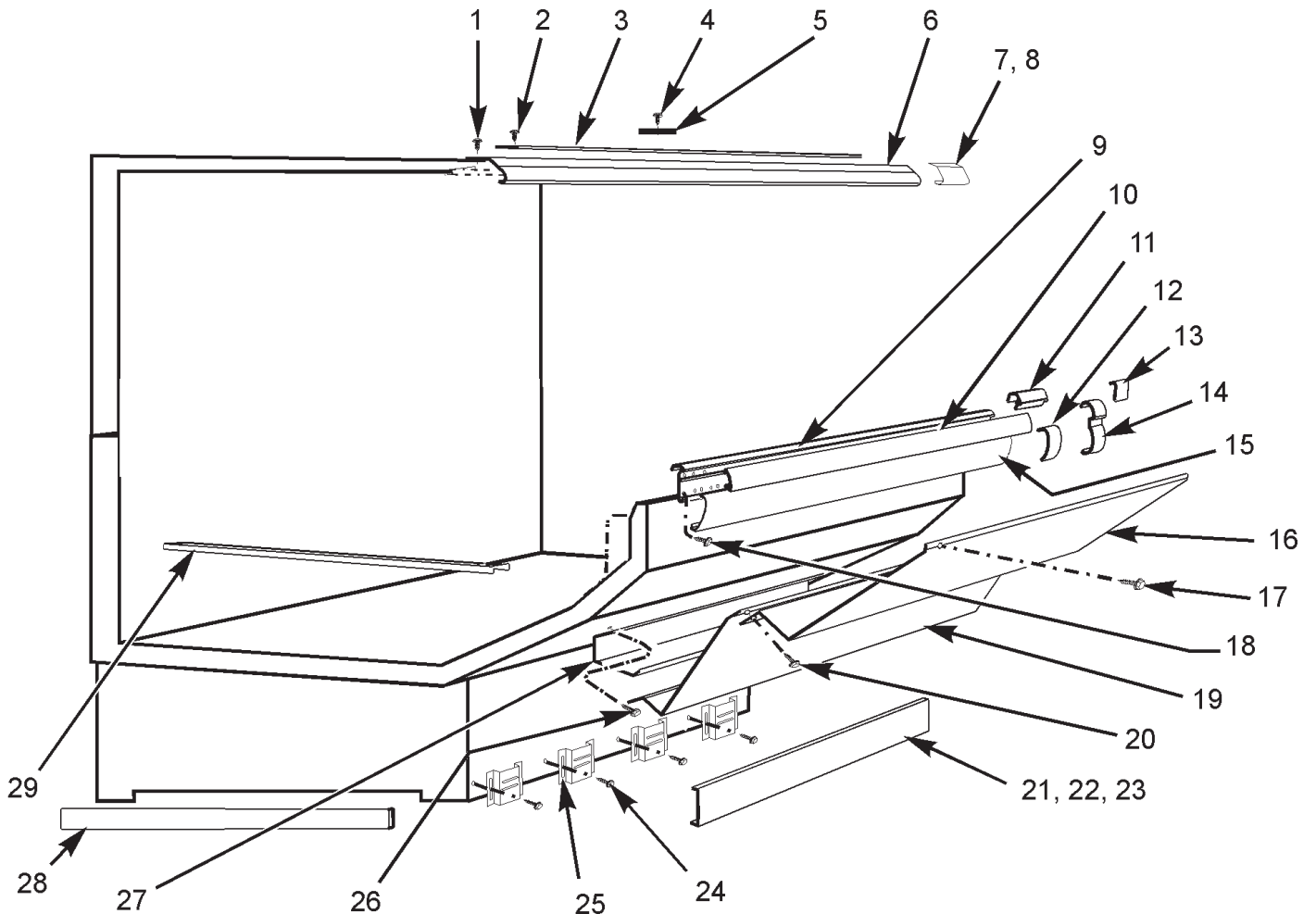


PARTS INFORMATION

Cladding and Trim Parts List

| Item | Description | N5P | |
|------|------------------------------|-----------------|-------------|
| | | 8' | 12' |
| 1 | Screw | 5183536(4) | 5183536(6) |
| 2 | Screw | 5183536(5) | 5183536(7) |
| 3 | Hood Close-off | 9026069 | 9026070 |
| 4 | Screw (per end cover) | 5183536(4) | 5183536(4) |
| 5 | End Cover | 9026103(2) | 9026103(2) |
| 6 | Canopy Hood, Ptd. | 9025223 | 9025224 |
| 7 | Canopy Hood Joint Trim, Ptd. | 9029422 | 9029422 |
| 8 | Screw | 5199134(4) | 5199134(4) |
| 9 | Bumper Retainer / Handrail | color per order | |
| 10 | Color Band, Ptd. | 9023798 | 9023800 |
| 11 | Handrail Backer, Ptd. | 9025316 | 9025316 |
| 12 | Bumper Backer | color per order | |
| 13 | Color Band Backer, Ptd. | 9040223 | 9040223 |
| 14 | Bumper End Trim | color per order | |
| 15 | Bumper | color per order | |
| 16 | Upr. Frt. Cladding, Ptd. | 9025201 | 9025202 |
| 17 | Screw | 5048626(4) | 5048626(6) |
| 18 | Screw, Shoulder | 9025833(16) | 9025833(24) |
| 19 | Lwr. Frt. Cladding, Ptd. | 9025203 | 9025204 |

| Item Description | 8' | 12' |
|-------------------------------|------------|------------|
| 20 Screw | 5183536(6) | 5183538(8) |
| 21 Metal Kickplate, Ptd. | 9039269 | 9039270 |
| 22 Kickplate Joint Trim, Ptd. | 9039020 | 9039020 |
| 23 Screw, Blk. | 9037551(6) | 9037551(6) |
| 24 Screw | 5183536(6) | 5183536(8) |
| 25 Kickplate Support | 9041329(3) | 9041329(4) |
| 26 Screw | 5183536(6) | 5183536(8) |
| 27 Raceway | 9025127 | 9025128 |
| 28 LH End Close-off, Ptd. | 9022459 | 9022459 |
| RH End Close-off, Ptd. | 9022466 | 9022466 |
| 29 Horizontal Joint Trim | 9025959 | 9025959 |



Operational Parts List

| Case Usage | Domestic | | Export | |
|--|--------------------|--------------------|---------------------|---------------------|
| | 8' | 12' | 8' | 12' |
| Electrical Circuit | 115 Volt 60 Hertz | | 220 Volt 50 Hertz | |
| Case Size | 8' | 12' | 8' | 12' |
| Fan Motor | 5125532 5 Watt | 5125532 5 Watt | 5222986 7.5 Watt | 5222986 7.5 Watt |
| Fan Motor Brackets | 5205112 | 5205112 | 5205112 | 5205112 |
| Fan Bracket Plate | 9041077 | 9041077 | 9041077 | 9041077 |
| Fan Blades (8.75" 20° 5B) | 5231809 | 5231809 | 5231809 | 5231809 |
| Opt. ECM Fan Motor | 9025000 12 Watt | 9025000 12 Watt | ----- | ----- |
| Opt. ECM Fan Motor Bracket | 5205112 | 5205112 | ----- | ----- |
| Opt. ECM Fan Blade (8.75" 25° 5B) | 5984399 | 5984399 | ----- | ----- |
| T-8 Lamp Ballast (canopy or shelf) (3 lamp) | 5991030 | 5991030 | 9028438 | 9028438 |
| T-8 Lampholder (canopy) | 5232279 | 5232279 | 5232279 | 5232279 |
| T-8 Lampholder (shelf) | 5092414 | 5092414 | 5092414 | 5092414 |
| T-8 Lampshield (shelf) | 5981622 | 5981622 | 5981622 | 5981622 |
| NSF Product Thermometer | 5967100 | 5967100 | 5967100 | 5967100 |

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