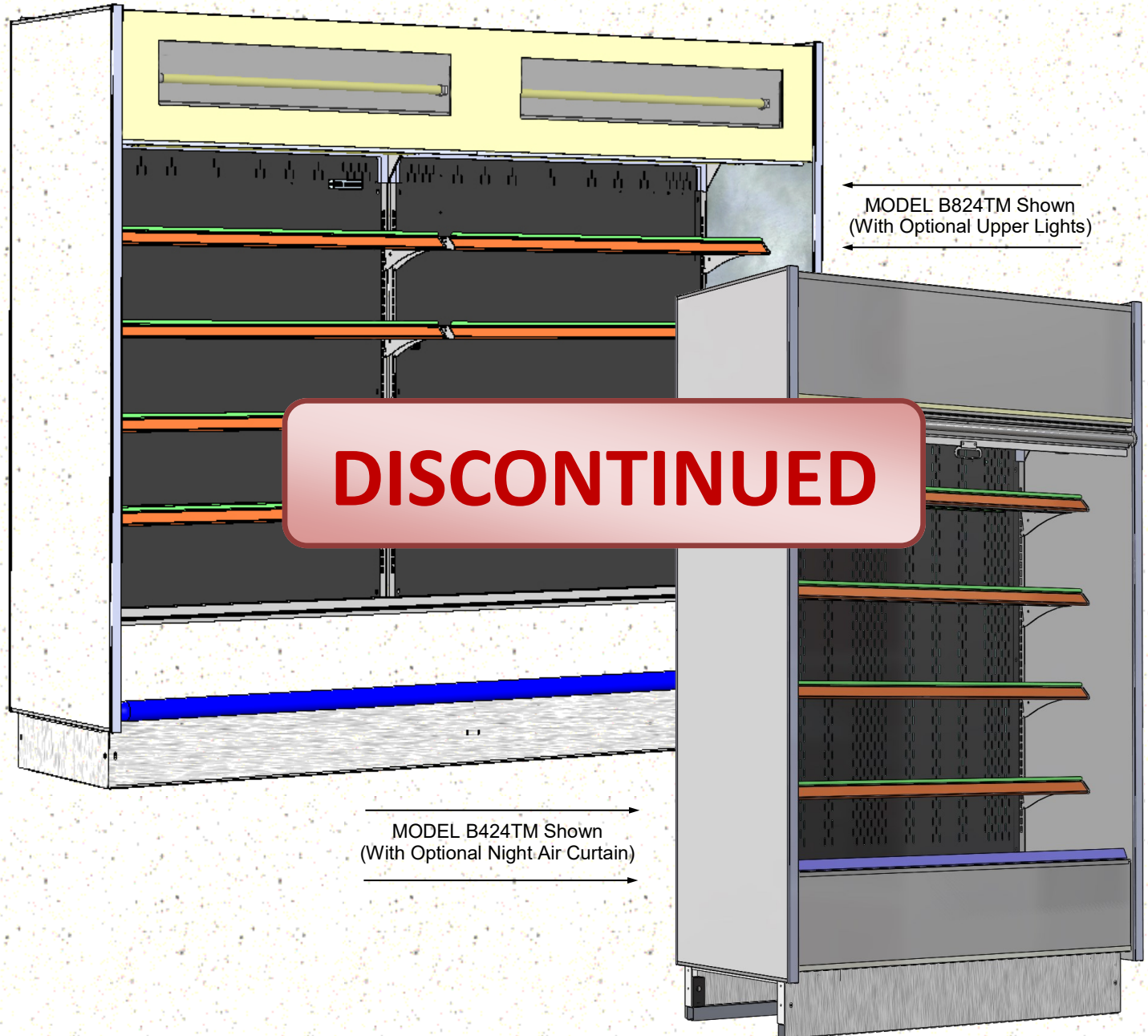


# Oasis<sup>®</sup> USER MANUAL

**SCC P/N  
54298**

**IN AISLE SELF-SERVICE REFRIGERATED CASES WITH TOP MOUNT CONDENSER PACKAGE**



Model B424TM.....	47 1/4"L x 25"D x 84 3/4"H~
Model B424TM.4489.....	47 1/4"L x 25"D x 84 3/4"H~
Model B424TM.4857.....	47 1/4"L x 25"D x 84 3/4"H~
Model B824TM.....	92 1/4"L x 25"D x 84 3/4"H~

**\*Includes End Panels**

**~ Units With Levelers Extended 1 5/8" Below Base Frame To Attain Listed Height**

**Structural Concepts**

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## TABLE OF CONTENTS

<b>OVERVIEW / NSF® TYPE / COMPLIANCE / WARNINGS / PRECAUTIONS .....</b>	<b>3-4</b>
<b>INSTALLERS: FOLLOW THESE INSTRUCTIONS! .....</b>	<b>5</b>
<b>POSITIONING CASE / SHIMMING SUPPORT RAILS / ADJUSTING LEVELERS .....</b>	<b>6</b>
<b>CASE STARTUP &amp; CONDENSER PKG. - MODELS B424TM, B424TM.4489 &amp; B424TM.4857 .....</b>	<b>7</b>
<b>CASE STARTUP &amp; CONDENSER PKG. - MODEL B824TM ONLY / WICKING MATERIAL &amp; INSERTS .....</b>	<b>8</b>
<b>CASE STARTUP &amp; EVAPORATOR PKG. - EVAPORATOR COIL FAN / TXV VALVE .....</b>	<b>9</b>
<b>HONEYCOMB AIR DIFFUSER ACCESS / REMOVAL / INSTALLATION .....</b>	<b>10</b>
<b>LED LIGHT FIXTURES (INCLUDING OPTIONAL LIGHTS IN HEADER) .....</b>	<b>11</b>
<b>FLUORESCENT LIGHT FIXTURES (INCLUDING OPTIONAL LIGHTS IN HEADER) .....</b>	<b>12</b>
<b>CONDENSATE PUMP AND PAN ACCESS .....</b>	<b>13</b>
<b>OPTIONAL NIGHT AIR CURTAIN OPERATING INSTRUCTIONS .....</b>	<b>14</b>
<b>GENERAL CLEANING (TO BE PERFORMED BY STORE PERSONNEL) .....</b>	<b>15</b>
<b>TROUBLESHOOTING (TO BE PERFORMED BY STORE PERSONNEL) .....</b>	<b>16</b>
<b>GENERAL CLEANING (TO BE PERFORMED BY TRAINED SERVICE PROVIDERS ONLY) .....</b>	<b>17</b>
<b>PREVENTIVE MAINTENANCE (TO BE PERFORMED BY TRAINED SERVICE PROVIDERS ONLY) .....</b>	<b>18</b>
<b>TROUBLESHOOTING (TO BE PERFORMED BY TRAINED SERVICE PROVIDERS ONLY) .....</b>	<b>19-20</b>
<b>TROUBLESHOOTING - CONDENSING SYSTEM (TO BE PERFORMED BY TRAINED SERVICE PROVIDERS ONLY) .....</b>	<b>21</b>
<b>TROUBLESHOOTING - EVAPORATOR SYSTEM (TO BE PERFORMED BY TRAINED SERVICE PROVIDERS ONLY) .....</b>	<b>22</b>
<b>SERIAL LABEL LOCATION &amp; INFORMATION LISTED / TECH INFO &amp; SERVICE .....</b>	<b>23</b>
<b>PROGRAMMABLE CONTROLLER INFORMATION.....</b>	<b>24</b>
<b>TECHNICAL SERVICE CONTACT INFORMATION / WARRANTY INFORMATION .....</b>	<b>25</b>

## OVERVIEW

- These Structural Concepts Oasis® self-service cases are designed to merchandise packaged products at 41 °F (5 °C) or less product temperatures (unless custom cases with wire rack shelving).
- Cases should be installed and operated according to this operating manual's instructions to insure proper performance. Improper use will void warranty.

## TYPE I vs. TYPE II ENVIRONMENTAL CONDITIONS

This unit is designed for the display of products in ambient store conditions where temperature and humidity are maintained within a specific range.

- Type I display refrigerators are intended for use in an area where environmental conditions are controlled and maintained so that the ambient temperature does not exceed 75 °F (24 °C) and 55% maximum humidity.

- Type II display refrigerators are intended for use in an area where environmental conditions are controlled and maintained so that the ambient temperature does not exceed 80 °F (27 °C) and 60% maximum humidity.
- If unsure if your unit is Type I or II, see tag next to serial label. See **SERIAL LABEL LOCATION & INFORMATION LISTED / TECH INFO & SERVICE** section in this manual for sample serial labels.

## COMPLIANCE

- Performance issues when in violation of applicable NEC, federal, state and local electrical and plumbing codes are not covered by warranty. See below.

## WARNINGS

- Following are important warnings to prevent injury or death. Please read carefully!



**ATTENTION  
CONTRACTORS**

## COMPLIANCE

**This equipment MUST be installed in compliance with all applicable NEC, federal, state and local electrical and plumbing codes.**

## WARNING

**ELECTRICAL  
HAZARD**



## WARNING

**Risk of electric shock. Disconnect power before servicing unit.  
CAUTION! More than one source of electrical supply is employed with units that have separate circuits.  
Disconnect ALL ELECTRICAL SOURCES before servicing.**

## WARNING

**KEEP  
HANDS  
CLEAR**



## WARNING

**Hazardous moving parts. Do not operate unit with covers removed.  
Fan blades may be exposed when deck panel is removed.  
Disconnect power before removing deck panel.**

## WARNING

**HOT  
SURFACE**



## WARNING

**Condenser Pan / Hot Gas Loop Condensate System is Hot!  
Disconnect & allow to cool before cleaning or removing from case.**



**WARNING: This product can expose you to chemicals, including Urethane (Ethyl Carbamate), which are known to the state of California to cause cancer and birth defects or other reproductive harm. For more information go to [P65Warnings.ca.gov](http://P65Warnings.ca.gov).**

## PRECAUTIONS

- Following are important precautions to prevent damage to unit or merchandise. Read carefully!
- See previous page for specifics on **OVERVIEW, TYPE I AND TYPE II ENVIRONMENTAL CONDITIONS, COMPLIANCE** and **WARNINGS**.

## WIRING DIAGRAM FORMAT & LOCATION

- Each case has its own wiring diagram folded and in its own packet.
- Wiring diagram placement may vary; it may be

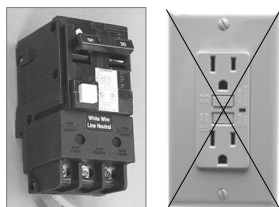
placed near ballast box, field wiring box, raceway cover, or other related location.

## REFRIGERANT DISCLOSURE STATEMENT

- This equipment is prohibited from use in California with any refrigerants on the "List of Prohibited Substances" for that specific end-use, in accordance with California Code of Regulations, title 17, section 95374.
- This disclosure statement has been reviewed and approved by Structural Concepts and Structural Concepts attests, under penalty of perjury, that these statements are true and accurate.



**CAUTION! LAMP REPLACEMENT GUIDELINES**  
LED lamps reflect specific size, shape and overall design.  
Any replacements must meet factory specifications.



**CAUTION! GFCI BREAKER USE REQUIREMENT**  
If N.E.C. (National Electric Code) or your local code requires GFCI (Ground Fault Circuit Interrupter) protection, you **MUST** use a GFCI breaker in lieu of a GFCI receptacle.

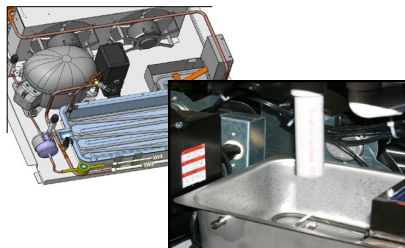


**CAUTION! POWER CORD AND PLUG MAINTENANCE**  
Risk of electric shock. If cord or plug becomes damaged, replace only with cord and plug of same type.



## CAUTION! ADVERSE CONDITIONS / SPACING ISSUES

- Performance issues caused by adverse conditions are **NOT** warranted.
- To prevent damage to end panels due to condensation, apply industrial grade silicone sealant and tightly join to opposite end panels. When not adjoining cases, keep end panels at least 6" away from walls and structures. Rear panels must also be kept at least 6" from walls and structures.
- Case must not be exposed to direct sunlight or any heat source.
- To maintain proper case temperature, keep case at least 15-feet from exterior doors, overhead HVAC vents or any air curtain disruption.
- Self-contained case clearance: 6" min. air intake / 6" min. air discharge.



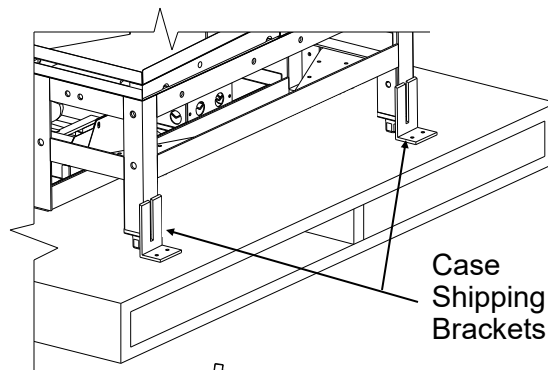
## CAUTION! CHECK CONDENSATE PAN POSITION & PLUG!

Water on flooring can cause extensive damage!

- Before powering up case, check that condensate pan is positioned directly under case's condensate drain.
- Before powering up case, check that condensate pan's electrical plug is **SECURELY** connected to condensate system's receptacle.

### **1. Remove Shipping Brackets Attached to Skid**

- Remove screws holding Case Shipping Brackets to skid.
- Remove Case Shipping Brackets from Skid.
- See illustration at right. Note: Shipping Brackets will vary in size, shape, material and location depending upon case type and model.

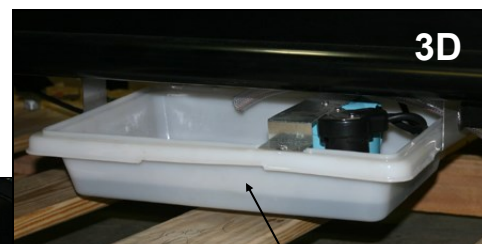
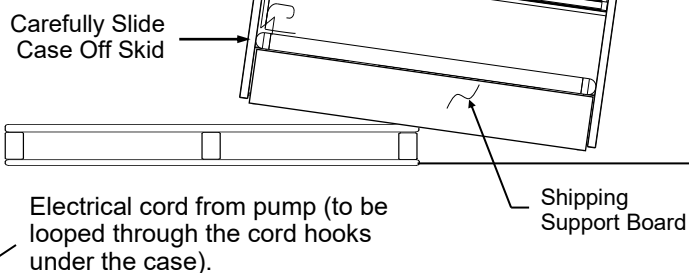
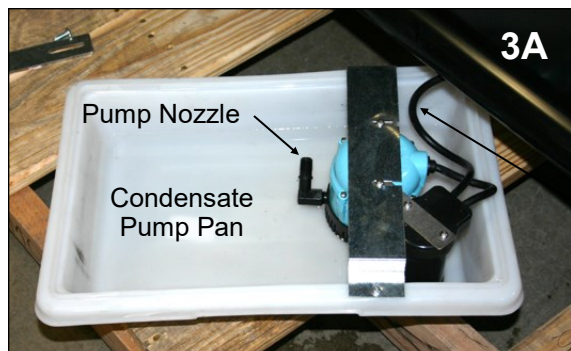


### **2. Remove Unit From Skid**

- While supporting case, carefully slide case off from skid at either left or right side of case (NOT at case rear or front).
- See illustration at mid-right for method.
- Remove Shipping Support Board
- Place into proper position.

### **3. Attach Condensate Pan to Unit**

- Condensate pump pan is shipped separately from case.
- After case is in position, plug cord into electrical box at underside of case, hook condensate hose to pump nozzle.
- Slide into place (at case underside).
- See illustrations 3A through 3D below.
- Note: Images 3A through 3D are for illustrative purposes only. Though images may show condensate pan on skid, case has been removed from skid prior to these steps.
- **Caution!** Be sure to loop the pump's electrical cord through the cord hooks under the case.



Condensate Pump Pan Support Bracket (one at either side)

Condensate Pump Hose

Drain Pipe (to be positioned over condensate pump pan)

View of Condensate Pump Pan (Positioned Properly and Fully Connected)

Sliding Condensate Pump Pan under case

## POSITIONING CASE / SHIMMING SUPPORT RAILS / ADJUSTING LEVELERS

Note: Units shown may not depict an exact representation of your particular unit being installed.

### **1. Position & Align Case Alongside Other Cases**

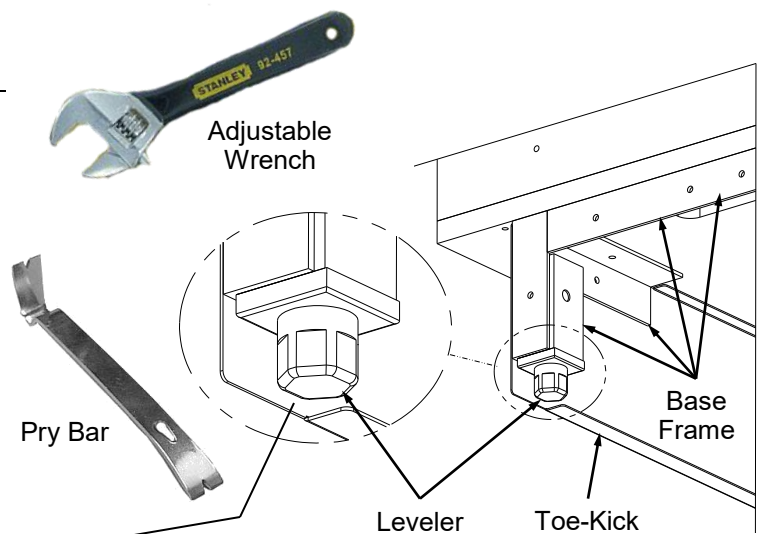
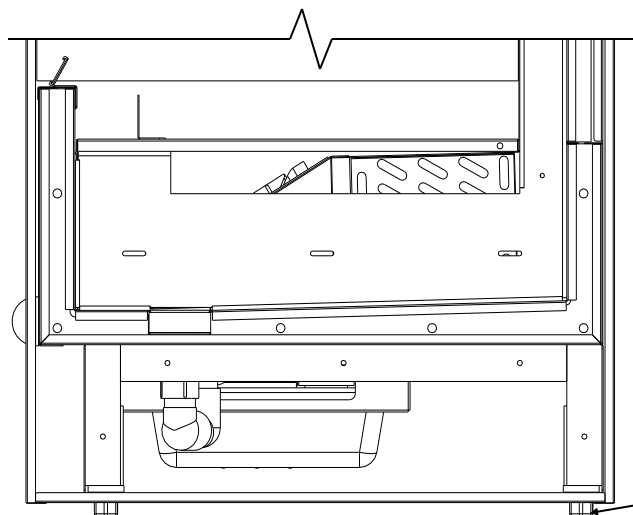
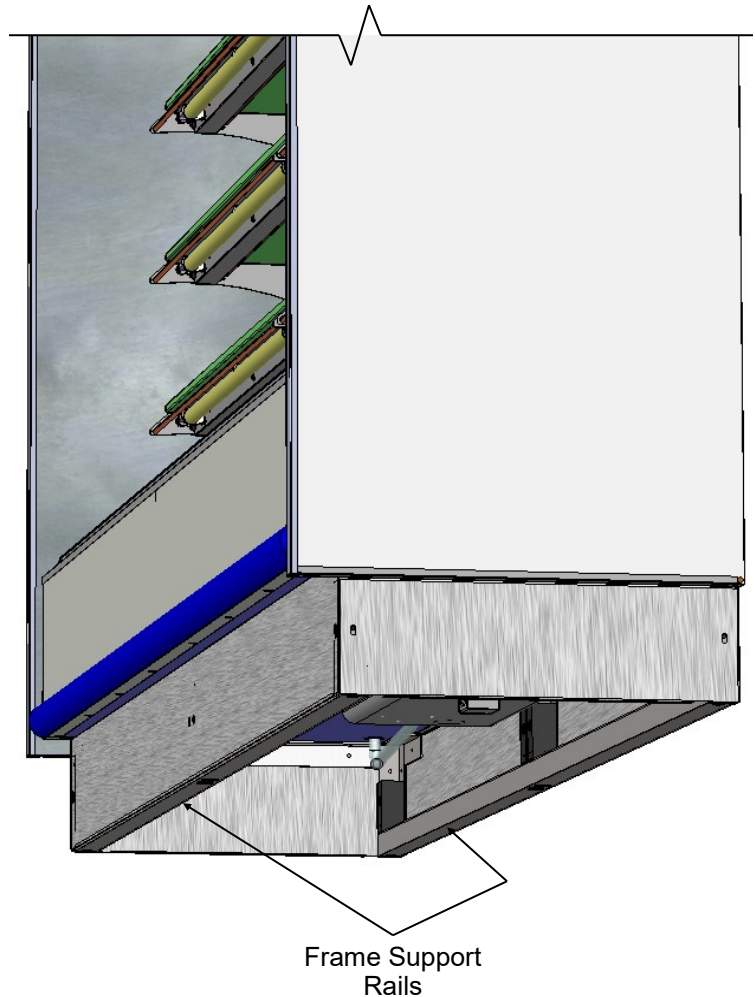
- Before adjusting levelers (or shimming frame support rails), make certain that the case is in proper position and, if required, aligned with adjoining case(s).
- This may require the repositioning of the case you are installing or the already positioned case(s).

### **2. Cases With Frame Support Rails: Shim**

- Illustration at top right shows case with frame support rails.
- Shims will be provided with all cases that have frame support rails.
- Use shims to level case.
- ***Note: After case is in position, it must be sealed to floor to prevent entry or leakage of liquid or moisture.***

### **3. Cases With Levelers: Adjust Levelers**

- After case is in position, adjust case so it is level and plumb (as shown at right).
- You may need to remove front and/or rear toe-kick to access levelers.
- Use adjustable wrench (and possibly a pry bar) to adjust leveler.
- Do not use pry bar on toe-kick as it may buckle.
- Do not use pry bar on end panel; it may chip.
- Use pry bar **ONLY** on base frame to avoid damaging case.
- See illustration and photos at lower right.



### Electrical and Control Access

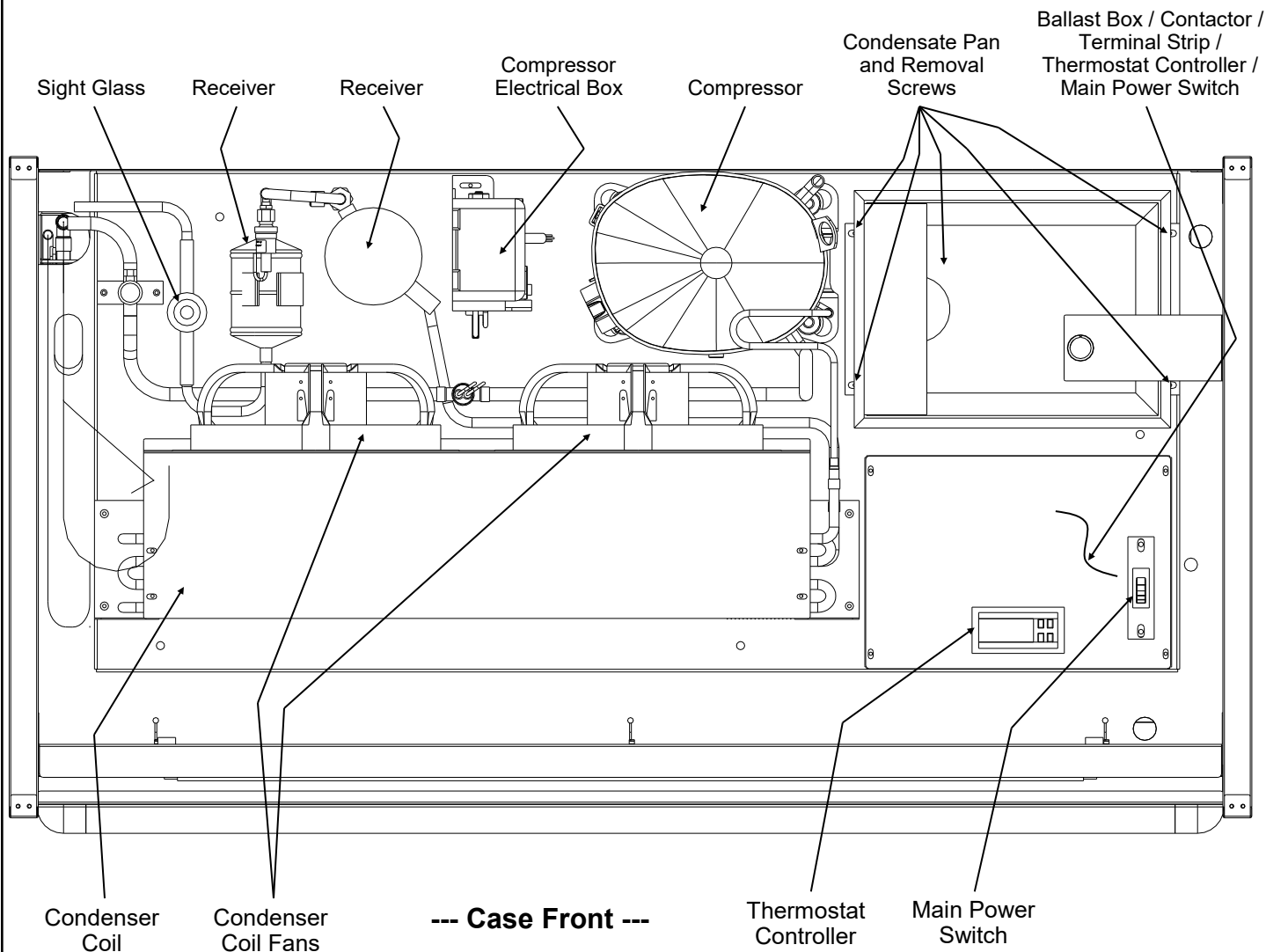
- Main power cord and switch are accessible from the top front right hand side of header assembly.
- Thermostat control settings / refrigeration service ports / evaporator pan are also accessible from top.
- Illustration below provides layout of components.

### Condensate Pan Access

**Warning! Disconnect power before providing maintenance and service to unit.**

- Condensate pan is accessible from the top of the unit.
- Unplug the evaporator pan from its outlet.
- Remove screws holding the condensate pan foot to the compressor pan (see illustration below).

- **Caution!** To avoid injury, check temperature of pan prior to handling condensate pan.
- If condensate pan must be removed from unit (to properly clean), remove carefully by lifting condensate pan up and off base.
- Empty condensate pan contents into suitable container.
- See **PREVENTIVE MAINTENANCE (TO BE PERFORMED BY TRAINED SERVICE PROVIDERS)** section in this manual for cleaning specifics.
- When done servicing or cleaning, return and reconnect in reverse order it was removed.
- Note: See next page for Model B824TM refrigeration package layout & access.



### Electrical and Control Access

- Main power cord and switch are accessible from the top front right hand side of header assembly.
- Thermostat control settings / refrigeration service ports / evaporator pan are also accessible from top.
- Illustration below provides layout of components.

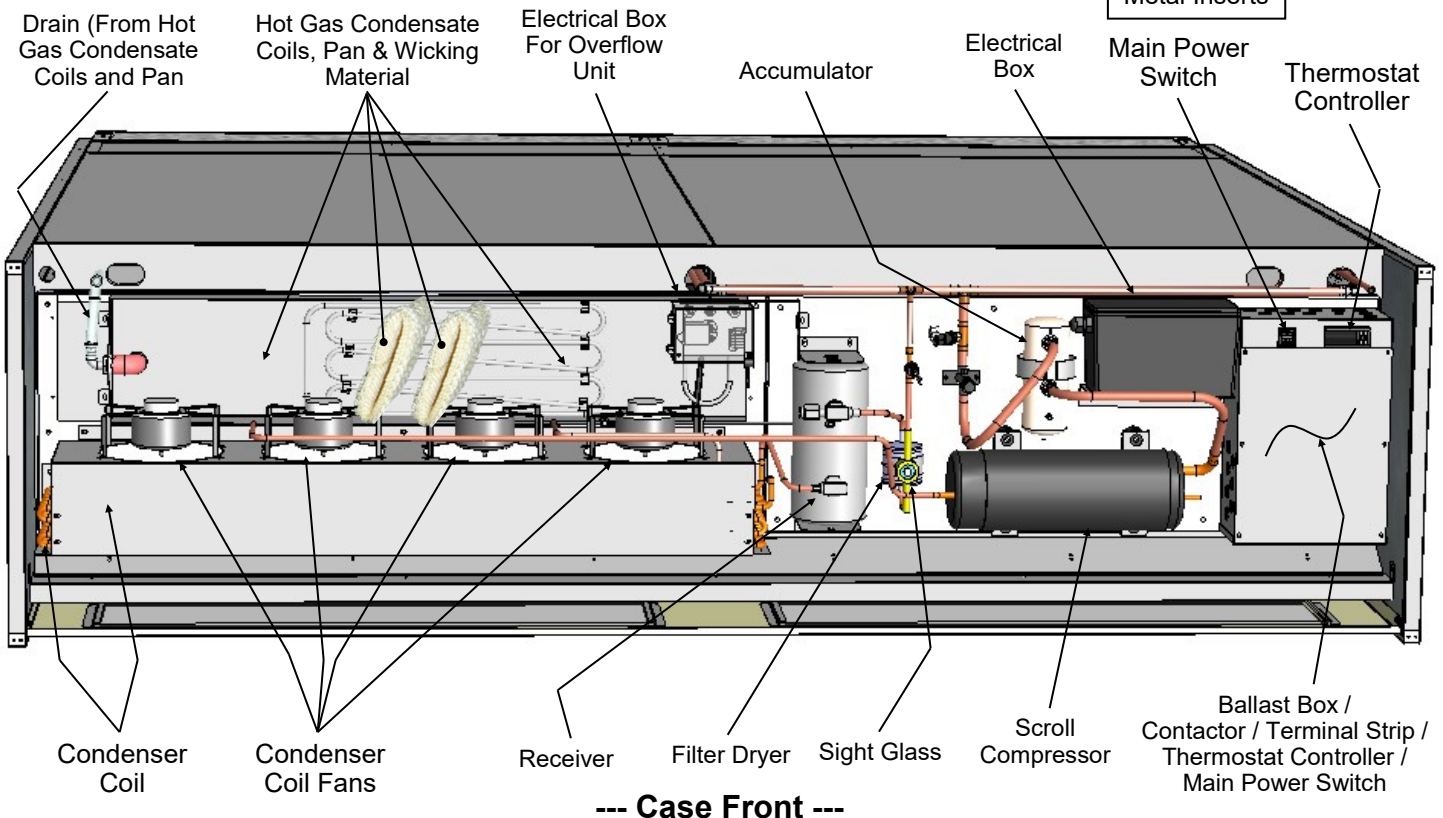
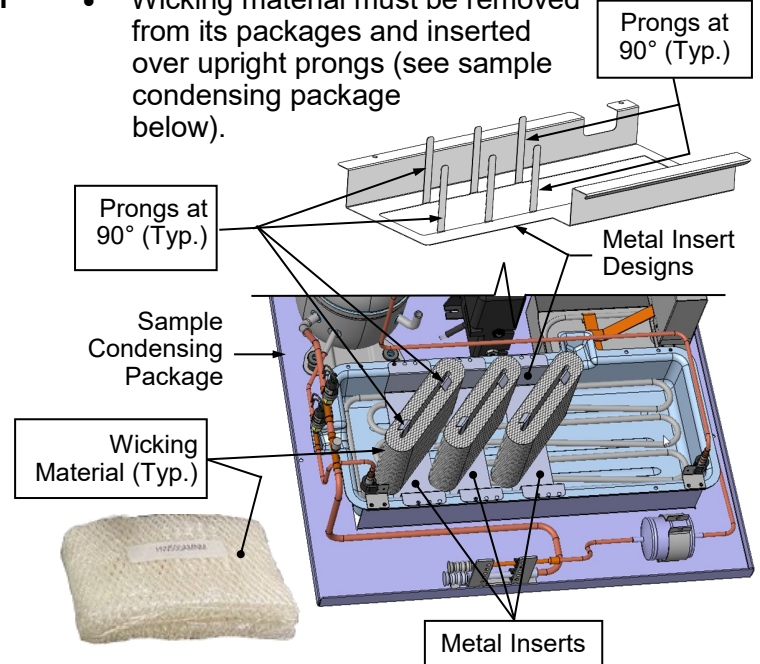
### Hot Gas Loop Condensate Pan (and Electric Coil Overflow Pan) Access

**Warning! Turn off Main Power Switch Before Providing Maintenance or Service to Unit.**

- Both hot loop condensate pan and electric coil overflow pan is accessible from top of unit.
- **Caution! Before accessing pans, turn main power off and allow to cool!**
- To avoid injury, check temperature of pans prior to accessing.
- See **PREVENTIVE MAINTENANCE (TO BE PERFORMED BY TRAINED SERVICE PROVIDERS)** section in this manual for cleaning specifics.
- When done servicing or cleaning, turn main power switch back on.
- Note: See previous page for other models' refrigeration package layout & access.

### Wicking Material, Metal Insert & Upright Prongs

- Metal insert prongs must be positioned 90° upright (to hold wicking material).
- If prongs are NOT bent 90° upright, simply grasp each prong and bend it accordingly (as illustrated immediately below). **Note:** Your insert design may vary from designs shown.
- Wicking material must be removed from its packages and inserted over upright prongs (see sample condensing package below).



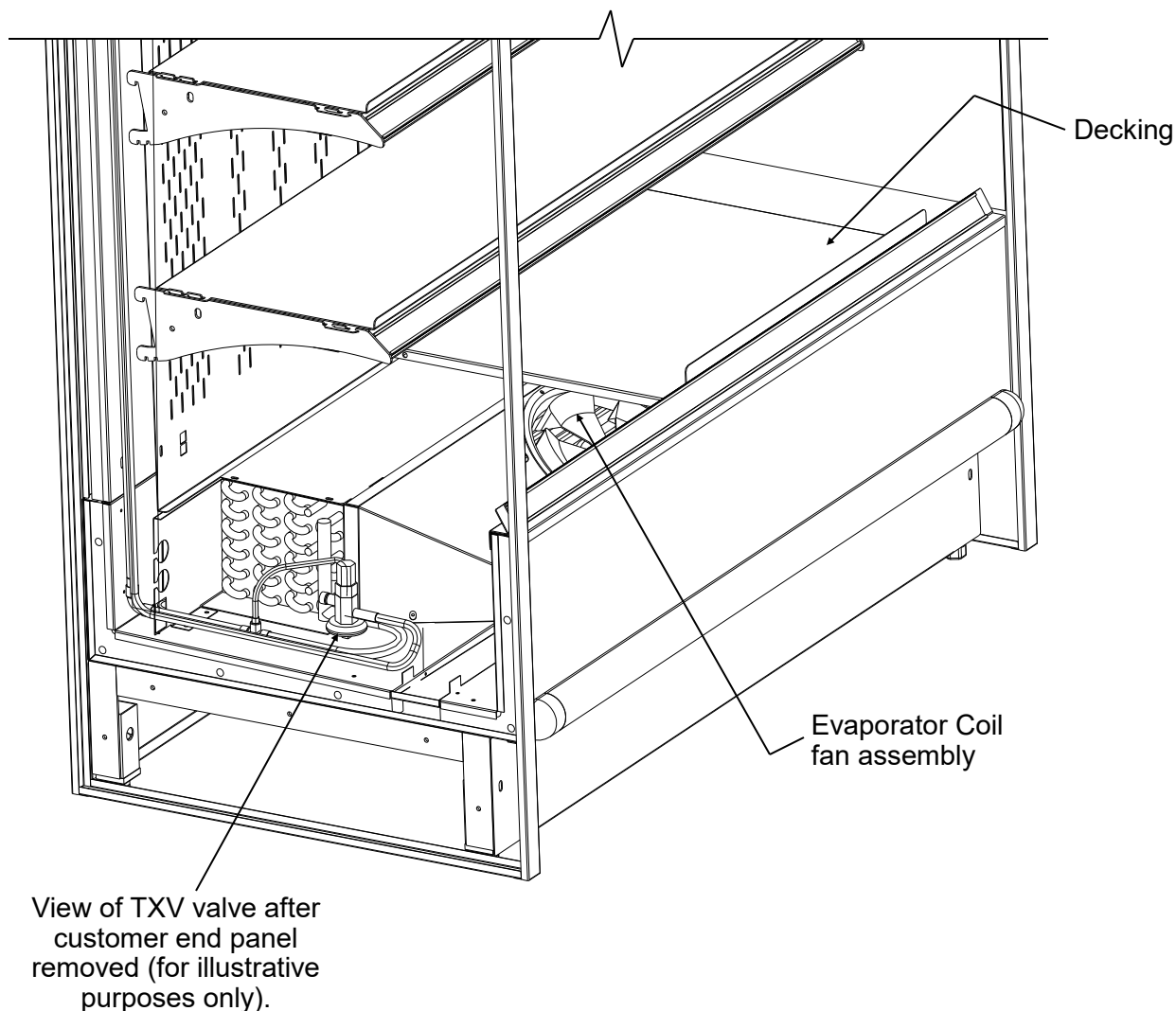
### 1. Evaporator Coil Fan Discharge

When Main Power Switch is turned on, Refrigeration Assembly will energize (see **CASE START-UP & REFRIGERATION ASSEMBLY ACCESS** section).

- Evaporator coil fan should turn on. From inside of the case, check for discharge air from honeycomb discharge duct (see next page for honeycomb location), to confirm that the fan is functioning properly.
- When the case is in a start up mode or has been idle for a long period of time, the unit will require 75 minutes of run time to pull-down temperature.

### 2. TXV Valve

- TXV Valve (at customer front-left of case).
- Decking must be removed for access.
- See illustration below for location.

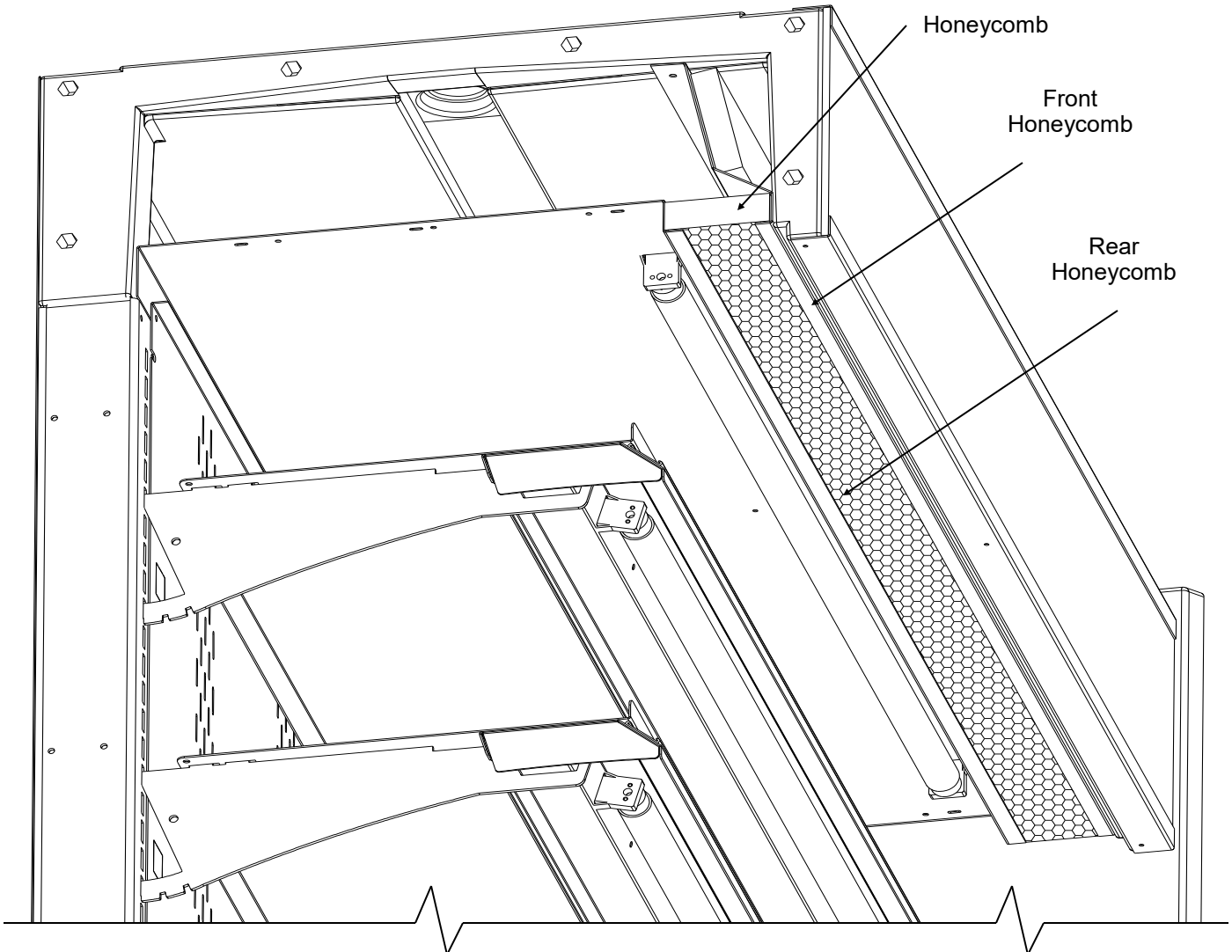


### **1. Honeycomb Air Diffuser Removal**

- Honeycomb is located in discharge air duct.
- Use a device of suitable strength and agility such as a ballpoint pen or long nose pliers.
- Wedge instrument in Honeycomb near the Front Honeycomb Retainer Lip (see illustration below).
- Applying pressure toward case rear, so that Honeycomb will scrunch together; then pry downward and away from the top light and discharge panel.
- Pull honeycomb out fully by grasping with fingers and pulling downward.

### **2. Honeycomb Air Diffuser Installation**

- Insert honeycomb up into Rear Honeycomb Retainer Lip first.
- Apply pressure toward case rear, so that the Honeycomb will 'scrunch' together; then apply pressure to honeycomb, lifting it up past Front Honeycomb Retainer Lip and 'un-scrunch' Honeycomb.
- **Note:** Depending upon model and features, the illustration below may slightly differ from yours.
- **Note:** Illustration below reflects general outline of sample case and does not reflect any particular model or options.



## LED LIGHT FIXTURES (INCLUDING OPTIONAL LIGHTS IN HEADER)

### 1. LED Style Light Fixtures

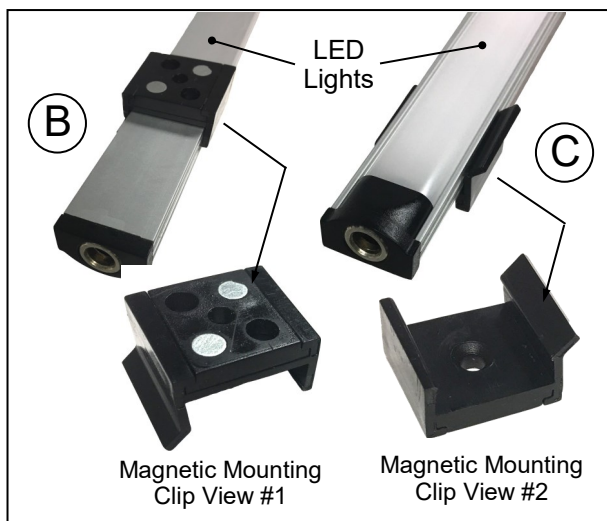
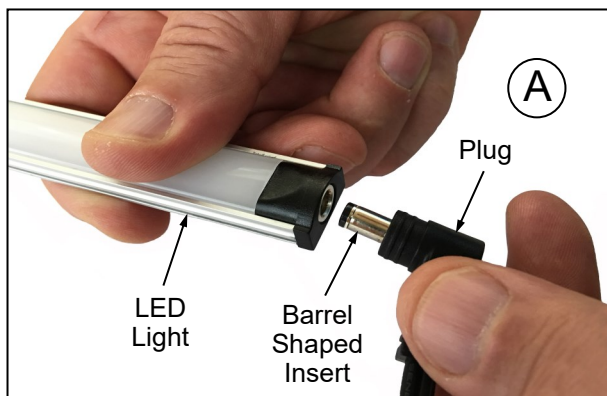
#### Removal of Faulty LED Lights:

- Contact Structural Concepts' Technical Service Department for replacement LED lights.
- Turn off LED light switch.
- To remove faulty LED light, follow these steps:
  - A. Disconnect plug from LED light.
  - B. Using both hands, grasp LED light assembly (with its magnetic mounting clips). Pull downward and off its shelf (or header).
  - C. Remove magnetic mounting clips from LED light by pressing against flange part of clip with thumb.

>> **Note:** Mounting clips MAY be riveted to shelf or header. In such instances, simply remove LED light from mounting clips by pressing against flange part of clips with thumb.

#### Replacement of LED lights:

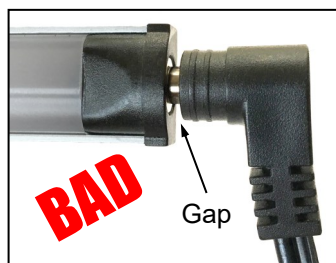
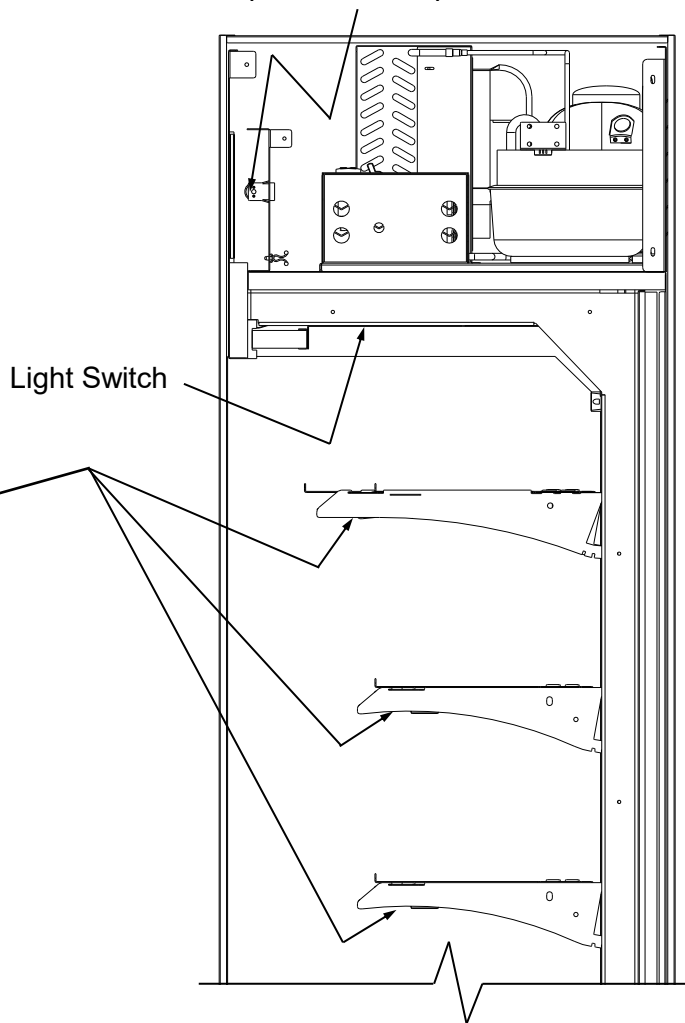
- Attach magnetic mounting clips onto LED light.
- Adjust magnetic mounting clips so they are equally spaced on LED light.
- Reattach LED light assembly to its shelf/header.
- Position properly in shelf/header.



>> **Note:** If mounting clips are riveted to shelf (or header), attach by placing LED in base of clip and then snapping into clip at FLANGE SIDE.

- Press plug's barrel-shaped insert deep into LED light.
- **Important:** If plug is not inserted ALL THE WAY IN the LED light's orifice, the light may not energize. See **"BAD"** vs. **"GOOD"** insertion illustrations below.
- Turn LED light switch back on.

**Optional:** Lights in Headers Are Accessible From Top of Case. Ample Space is Provided For Lamp Removal/Replacement

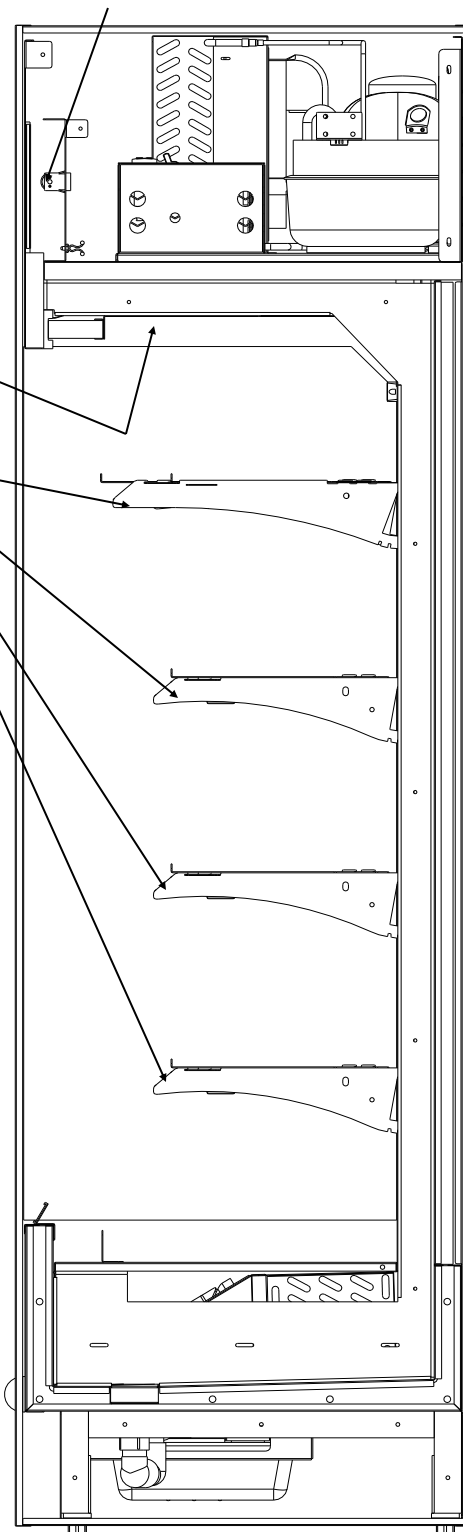


## FLUORESCENT LIGHT FIXTURES (INCLUDING OPTIONAL LIGHTS IN HEADER)



Optional: Lights in Headers Are Accessible From Top of Case. Ample Space is Provided For Lamp Removal/Replacement

Light Switch



### Light Fixtures (Note: Light Fixtures May Not Be on All Cases)

**Warning! Disconnect power before providing maintenance and service to unit.**

**Caution: Lamps have been treated to resist breakage and must be replaced with similarly treated lamps.**

- Note: Light Switch is at underside of header, behind honeycomb. All lights come on at same time when light switch is turned on.

Light fixtures are to be located on underside of shelf assembly, at the top inside of case, and lower front nose of case. Some cases have lights in header. See illustration at right for lamp locations.

#### Removal of lamp:

- Rotate lamp (1/4-turn) either direction to disengage (upper or lower) pins/contacts from lamp-mounting sockets.
- Remove bulb by applying even pressure from back side at the bulb ends and pulling the remaining contact from sockets.

#### Installation of lamp:

- Align pins with slot.
- Insert pins into socket by rotating the bulb 1/4-turn to secure either the (upper or lower) pin contacts into the sockets.
- Rotate remaining bulb contacts (1/4-turn) into remaining lamp mounting socket contacts.

#### Lights in headers:

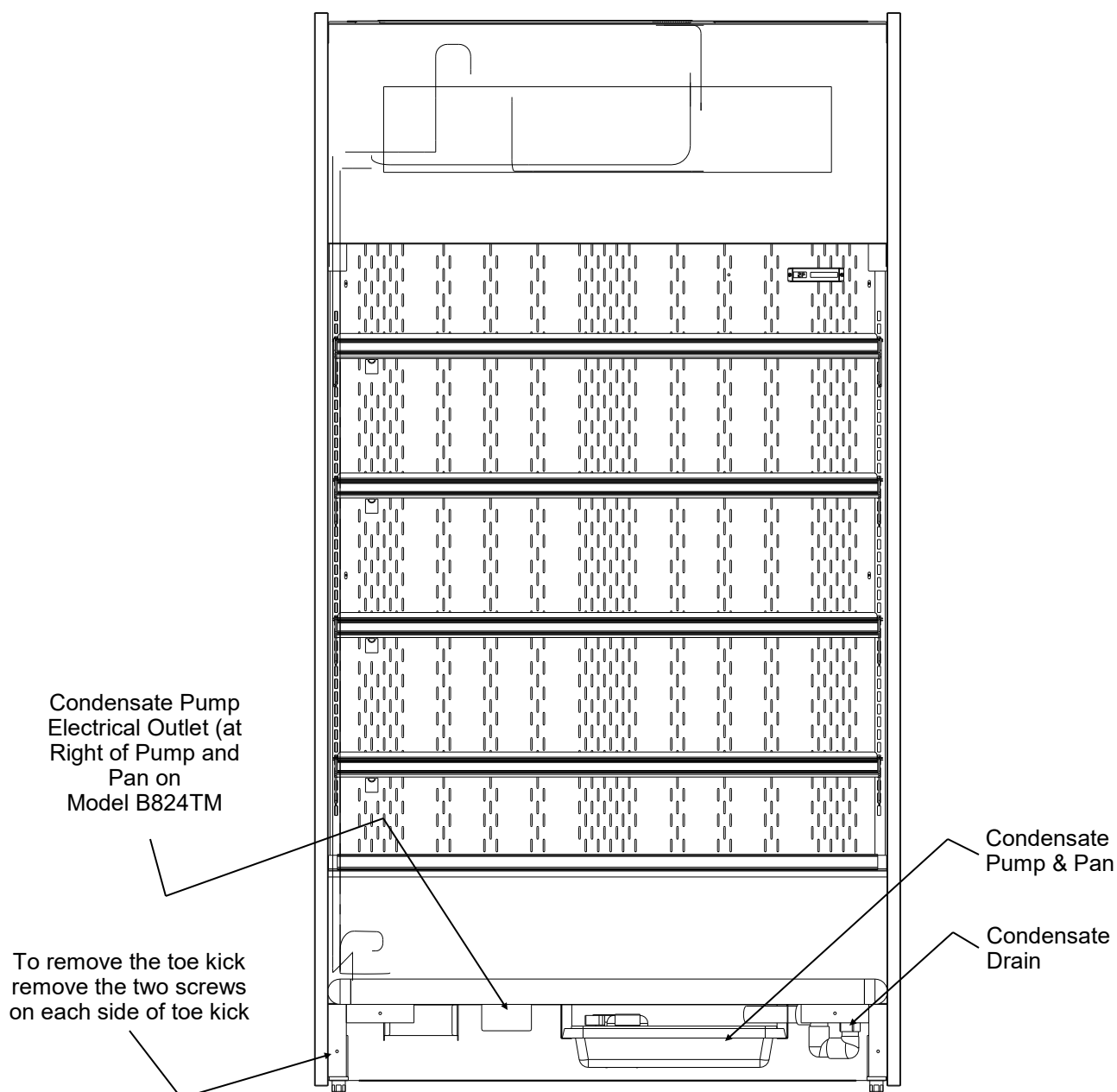
- Lights in headers are optional.
- Lights are accessible from top of case. Ample space is provided for lamp removal and replacement

## CONDENSATE PUMP AND PAN ACCESS

### Condensate Pump Pan Access

**Warning! Disconnect power before providing maintenance and service to unit.**

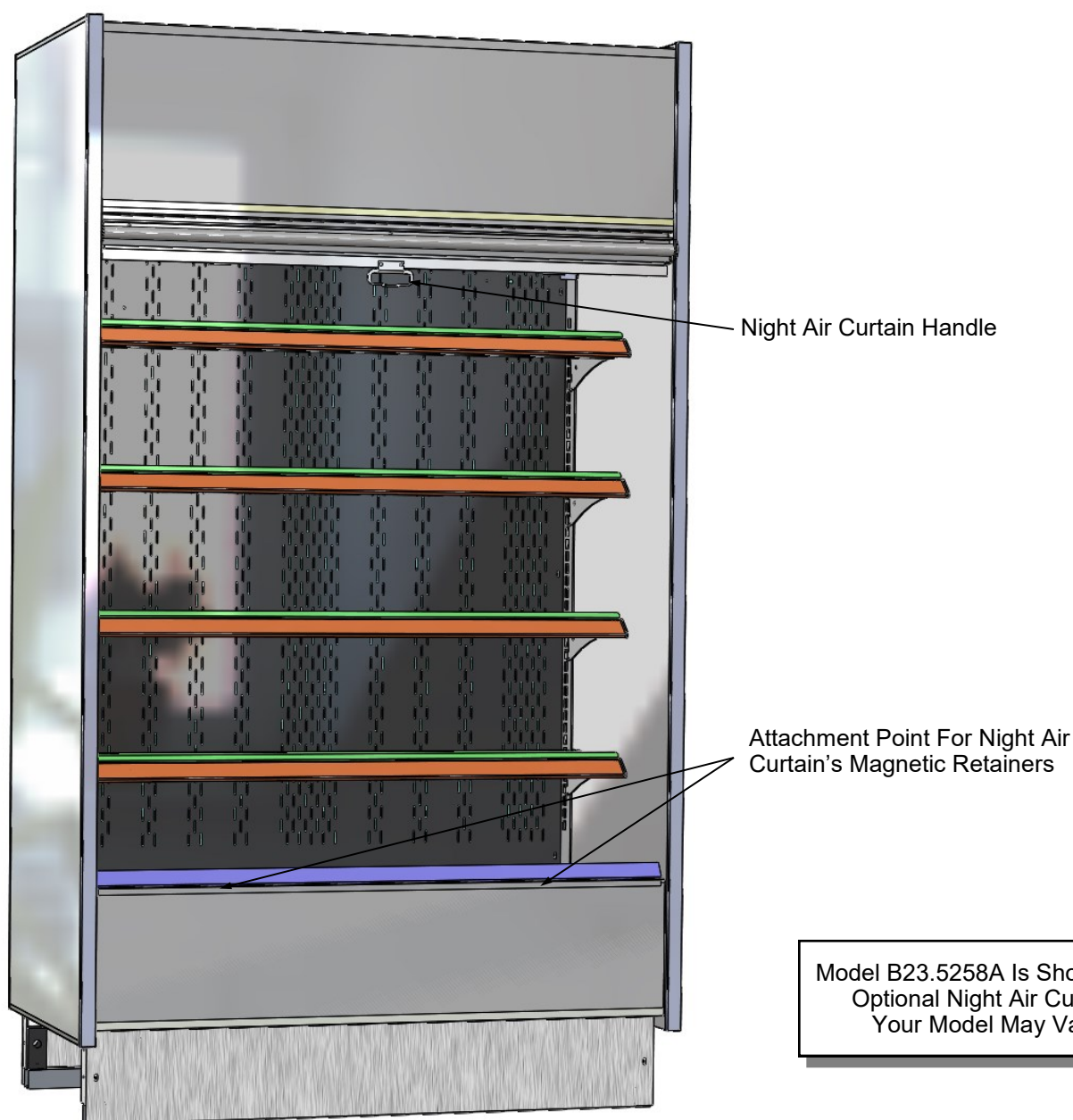
- Remove the two (2) screws holding the toe kick in place. See illustration below.
- The condensate pan is accessible from the bottom of the unit. Unplug the Condensate Pan from its outlet.
- A 1/2" reinforced hose is provided to evacuate condenser water from condensate pump pan to an evaporator pan placed on the top of case.
- Disconnect pump hose from condensate pump. Carefully slide out the Condensate Pan from the Condensate Pump cradle.
- When done servicing or cleaning, return and reconnect in reverse order it was removed.



## OPTIONAL NIGHT AIR CURTAIN OPERATING INSTRUCTIONS

### Optional Night Air Curtain Operating Instructions

1. Use caution when handling Night Air Curtain.
2. Display case may come with Night Curtain already attached. If not, a retrofit kit will be provided. If using SCC-supplied retrofit kit, attach to display case by inserting screws at top-underside of display case.
3. Grasp the handle and pull downward to desired location (see illustration below).
4. Night Air Curtain's Magnets will hold curtain in lowered position (as illustrated below).
5. To return Night Air Curtain to its retracted position, grasp handle, lift up and away from its magnetic attachment plate and carefully wind Night Air Curtain back into roll.
6. **Caution!** Do not allow spring-loaded Night Air Curtain to freely snap back into roll. Doing so can eventually destroy Night Air Curtain's tension and retractability.
7. To entirely detach Night Air Curtain from case, slide Night Air Curtain toward rear of case, freeing it from its 'keyhole' slots. Lift upward and away from case.



Model B23.5258A Is Shown With  
Optional Night Air Curtain.  
Your Model May Vary.

## GENERAL CLEANING (TO BE PERFORMED BY STORE PERSONNEL)

AREA TO CLEAN	FREQ.	INSTRUCTIONS
Case Exterior	Daily	<b>Acrylic (if Any):</b> Clean with a warm water and mild soap solution and soft cloth. Never use ammonia-based cleaners on acrylic.
	Daily to Weekly	<b>Case Front/Sides/Bumper:</b> Use a mild soap and water solution and a soft cloth.
	Weekly to Monthly	<b>Condenser Coil:</b> Vacuum or brush grille condenser coil at case front (on top of case). Use metal or fiber brush to remove dust and dirt that can collect on condenser coils. Be careful not to damage the fins on the coil. See <b>INSTALLATION</b> section in this manual for instructions on side panel removal.
Case Interior	Daily to Weekly	<b>Shelves / Shelf Supports / Air Return Grilles / Decking / Inside End Panels</b> <ul style="list-style-type: none"> <li>• Wipe off shelf supports, air return grilles and decking with moist cloth.</li> <li>• Shelf supports can be removed for more thorough cleaning.</li> <li>• Air return grilles can be removed for more thorough cleaning.</li> <li>• Decking is NOT to be removed.</li> </ul>

## TROUBLESHOOTING (TO BE PERFORMED BY STORE PERSONNEL)

CONDITION	TROUBLESHOOTING
Case Is Not Level	See <b>POSITIONING CASE / SHIMMING SUPPORT RAILS / ADJUSTING LEVELERS</b> section in manual for additional information.
Water Is On The Floor	Call service provider.
Fan Emits Excessive Noise	Call service provider.
Case Lights Are Not Working	Check that light switch is in the <i>on</i> position.
	Check that ALL of the light cords and plugs are properly connected. See <b>LIGHT FIXTURES (INCLUDING OPTIONAL LIGHTS IN HEADER)</b> section in this manual for specifics.
	If case lights still do not come on, call service provider.
Case is Not Holding Proper Temperature	If a large amount of warm product was added to the case, it will take time for the temperature to adjust. Product must be pre-chilled before placing in case.
	Do not rely on thermometers or thermostats for accurate product (food) temperatures. <ul style="list-style-type: none"> <li>• Thermometers &amp; thermostats reflect air temperatures ONLY.</li> <li>• For ACTUAL product (food) temperatures, use a calibrated food probe thermometers ONLY.</li> <li>• DO NOT use infrared food thermometers.</li> </ul>
	Check that the case is not in the sun or near a heat or air-conditioning vent. See <b>OVERVIEW / NSF® TYPE / COMPLIANCE / WARNINGS / PRECAUTIONS</b> section in this manual for specifics.
	If case is located near front doors, temperature fluctuation can hinder unit's ability to maintain temperature.
	Check air return grilles (area at front of decking) for obstructions. DO NOT set product on air grilles as this will prevent proper airflow!
	If case still is not holding proper temperature, call service provider.

**GENERAL CLEANING (TO BE PERFORMED BY TRAINED SERVICE PROVIDERS ONLY)**

**WARNING! TURN OFF CASE BEFORE PERFORMING GENERAL CLEANING!**

AREA TO CLEAN	FREQUENCY	INSTRUCTIONS
Case Interior	Monthly	<b><u>Evaporator Fan Shroud Area (Under Decking):</u></b> <i>Caution! Due to rotating fans in area, turn off case and disconnect plug from wall outlet before beginning fan shroud (and surrounding tub area) cleaning!</i> 1) Turn off power. 2) Remove decks from case. 3) Clean fan shroud area (and surrounding tub area) with moist cloth.
	Monthly	<b><u>Pan For Pumping Condensate to Top of Unit:</u></b> (Located at underside of unit): Remove front toe-kick to access. <ul style="list-style-type: none"> <li>• Check that pump is working correctly.</li> <li>• Check that condensate pan is free of residue, dust or dirt.</li> <li>• If it must be cleaned, slide out from under unit; clean with mild soap and water solution and soft cloth. Rinse. Return to underside of case in reverse order it was removed from case.</li> </ul>
	Quarterly	<b><u>Tub &amp; Drain:</u></b> <i>Caution! Due to rotating fans in area, turn off power to case and disconnect plug from wall outlet before beginning tub &amp; drain cleaning!</i> Vacuum tub under decks. Clean with soap and water solution. Wipe dry with clean cloth. Keep drain free of debris to prevent clogging.

**PREVENTIVE MAINTENANCE (TO BE PERFORMED BY TRAINED SERVICE PROVIDERS)**

**WARNING! TURN OFF CASE BEFORE PERFORMING PREVENTIVE MAINTENANCE!**

PREVENTIVE MAINTENANCE	FREQ.	INSTRUCTIONS
Case Exterior	Quarterly	<b><u>Under Case Cleaning:</u></b> Whenever accessing condensate pump pan at underside of case, vacuum (or use broom) under the case to remove all dust, debris and dirt that may collect.
	Quarterly	<b><u>Condensate Pan (or Hot Gas Loop Condensate Pan):</u></b> <ul style="list-style-type: none"> <li>• <i>Warning! Condensate Pans Are HOT! Disconnect power from case and allow to cool before cleaning!</i></li> <li>• See <b>CASE STARTUP &amp; REFRIGERATION PACKAGE ACCESS</b> section for in-depth instructions on accessing the condensate pans.</li> <li>• <b>Check if wicking material is dirty, worn, tattered or disintegrating. If so, it must be replaced. Contact Structural Concepts for replacement wicking material (toll-free number is listed on the last page of this operating manual).</b></li> <li>• Use a scrub-brush and a de-scaling solution such as CLR® (to prevent corrosion, lime and rust). Follow instructions as to proper dilution, safety precautions and scrubbing method.</li> <li>• If condensate pan can be removed from case (should thorough cleaning require removal), disconnect pan from unit and clean accordingly. <b>Caution! Due to electrical components, do not submerge in water!</b> Reattach to case after cleaning.</li> <li>• Hot gas condensate loop pan (and its accompanying electric coil overflow pan) is not removable from case. After thoroughly cleaning pan with scrub-brush and solution, rinse thoroughly with clean water (using spray bottle) and wipe dry with sponge or paper towel.</li> </ul>
Case Interior	Quarterly	<b><u>Tub, Coil, Drain, Fan Blades, Motors, Brackets:</u></b> <i>Disconnect power from the case before cleaning the Tub, Coil, Fan, Motor and Drain Area!</i> <ul style="list-style-type: none"> <li>• Remove Decking, Sub-Deck (if any) and Fan Shroud.</li> <li>• Use vacuum to clean Evaporator Coils.</li> <li>• Clean Tub, Coil and Drain with warm water, clean cloth, brush and mild soap solution.</li> <li>• Remove any debris that may clog drain.</li> <li>• Wipe down Fan Blades, Motors and Brackets with moist cloth.</li> <li>• Replace Decking, Sub-Deck (if any) and Fan Shroud.</li> </ul>
	Quarterly	<b><u>Honeycomb:</u></b> Check honeycomb air diffuser to determine if it is dirty. If dirty, remove from case. See <b>HONEYCOMB AIR DIFFUSER ACCESS / REMOVAL / INSTALLATION</b> section of this manual for cleaning specifics.

# TROUBLESHOOTING (TO BE PERFORMED BY TRAINED SERVICE PROVIDERS ONLY)

CONDITION	TROUBLESHOOTING
<b>Water Is On The Floor</b>	Check that the drain trap is free of debris.
	Check that the drain hose is correctly positioned over evaporator pan.
	Check store conditions. <ul style="list-style-type: none"> <li>For NSF® Type 1 Conditions (most cases): ambient conditions are to be at 55% max. humidity / 75°F.</li> <li>For NSF® Type 2 Conditions: ambient conditions are to be at 60% maximum humidity / 80°F.</li> </ul>
	Check that the hot gas condensate pan is properly connected.
	Check that evaporator pan is heating properly.
<b>Fan Emits Excessive Noise</b>	Check that the case is aligned, level and plumb.
	Check evaporator fan for cleanliness.
	Unplug/power off fan motors. Check motor shaft for bearing wear.
	Check that fan motors are securely mounted in brackets.
	Verify that fan blades are securely mounted to fan motor.
	Check that nothing is preventing blade rotation.
	Check that the fan shroud is properly secured.
<b>Fans Are Not Working</b>	Check that the MAIN power switch is on.
	Check that fans are plugged in at the fan shroud.
	Check for foreign material obstructing fan performance.
	Check that fan blades freely rotate within fan shrouds
	Check that power is going to fans
	Check that fan wiring is connected on terminal blocks.
<b>Digital Control Display Is Blank.</b>	Check that the MAIN power switch is on.
	Check the circuit breaker box for tripped circuits.
<b>System Is Not Operating</b>	Check that the utility power is on.
	Check that the MAIN power switch is on.
	Check the circuit breaker box for tripped circuits.
<b>Case Lights Are Not Working</b>	Check that light switch is in the <i>on</i> position.
	Check that <b>ALL</b> of the light cords and plugs are properly connected. See <b>LIGHT FIXTURES/LIGHT SWITCH LOCATION</b> section in this manual for specifics.
	Service Technicians Only: Check voltage at ballasts. If voltage is entering but not exiting ballast, ballast is faulty.

# TROUBLESHOOTING (TO BE PERFORMED BY TRAINED SERVICE PROVIDERS ONLY), CONTINUED

CONDITION	TROUBLESHOOTING
<b>Control Display Is Flashing</b>	See your case's serial label for your model's specified settings. See <b>SERIAL LABEL LOCATION &amp; INFORMATION LISTED / TECH INFO &amp; SERVICE</b> section in manual for label location, etc.
<b>Case Is Not Holding Temperature</b>	If a large amount of warm product was added to the case, it will take time for the temperature to adjust. Unit needs product to be pre-chilled.
	Temperature changes during defrost mode but will return to normal. Fourth LED will indicate defrost cycle in progress.
	Check that case is not in sun or near a heat or air-conditioning vent.
	If case is located near front doors, temperature fluctuation can hinder unit's ability to maintain temperature.
	Check that condenser coil has been cleaned.
	Check air grilles for obstructions.
	Check sight glass for flashing and/or low charge.
	Check Set Point Temperature; it may be adjusted too high.
<b>Condensing Unit Is Not Operating</b>	Check that the power is turned on.
	Determine if temperature controller settings are properly set. See your case's serial label for your model's specified settings. See <b>SERIAL LABEL LOCATION &amp; INFORMATION LISTED / TECH INFO &amp; SERVICE</b> section in manual for label location, etc.

## TROUBLESHOOTING - CONDENSING SYSTEM (BY TRAINED SERVICE PROVIDERS ONLY)

CONDITION	TROUBLESHOOTING
<b>Head Pressure Too High</b>	Check that the condensing coil is not dirty or covered.
	Check that condensing fans are working.
	Check that refrigerant is not overcharged.
	Perform sub-cooling check and verify that no contaminants are in system.
	Check that liquid line filter dryer is not plugged.
	Check that close-offs are intact (around condensing coil) and that air is not recirculate.
	Check that store ambient temperature isn't above maximum allowed. See <b>OVERVIEW / TYPE / COMPLIANCE / WARNINGS / PRECAUTIONS / WIRING / PLUGS</b> section in this manual.
<b>Head Pressure Too Low</b>	Check if sight glass is flashing or showing low charge.
	Check that suction pressure isn't too low.
	Check that compressor reed valves aren't bad. Look for high suction/low head pressure. Perform pump-down.

## TROUBLESHOOTING - EVAPORATOR SYSTEM (TRAINED SERVICE PROVIDERS ONLY)



CONDITION	TROUBLESHOOTING
<b>Low Suction Pressure</b>	Check if sight glass is flashing or showing low charge.
	Check that expansion valve (TXV) isn't restricted. Check element charge.
	Check that liquid line or filter isn't restricted. Check that refrigeration lines and/or hoses are not kinked on either high or low sides.
	Check that evaporator fan motors are working.
	Check that superheat is between 6 °F to 8 °F.
	Check that there is no air recirculation around evaporator coil.
	Check that evaporator coil is not iced up.
<b>High Suction Pressure</b>	Check for refrigerant overcharge.
	Check that compressor reed valves aren't bad. Look for high suction/low head pressure. Perform pump down.
	Check that the "cooling load" isn't high. Product must be pre-chilled before placing in refrigerated section of case.
	Check that case is at least <u>15-feet</u> from exterior doors, overhead HVAC vents or any air curtain disruption.
	Check that unit is not exposed to direct sunlight via windows or any other heat source (ovens, fryers, etc.).
	Check that superheat adjustment isn't low.
	Check TXV bulb installation <ul style="list-style-type: none"> <li>a. Poor thermal contact.</li> <li>b. Warm location.</li> </ul>

**Serial Label Location & Information Listed / Technical Information & Service**

- Serial labels are affixed at a wide range of places (on the header, near thermostat, at case rear, behind panels/toe-kicks, on electrical boxes, etc.).
- Serial labels contain electrical, temperature and refrigeration information, as well as regulatory standards to which the case conforms.

- Sample serial label shown below.
- For additional technical information and service, see the *TECHNICAL SERVICE* page in this manual for instructions on contacting Structural Concepts' Technical Service Department.

**Structural Concepts®**  
888 E. Porter Rd - Muskegon, MI 49441

**3048256**  
Conforms to UL Std. 471  
Conforms to NSF/ANSI Stds. 2 & 7  
CERTIFIED TO CAN/CSA  
STD C22.2 NO 120

Super Heat Temp  
Defrost

**Reveal**  
**Blend**  
**Harmony**  
**Impulse**  
**Oasis**

**Addenda**  
**Grocerant**  
**Fusion**

MODEL NRS3648RXV-SAMPLE  
SERIAL NO. 12345X30DZ098765

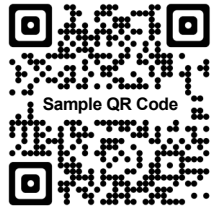
**120/1/60 16 A**  
**R513A AMOUNT 50 OZ**  
**HIGH 186 LOW 88**  
**20A**  
**20A**

ELECTRICAL RATING  
REFRIGERANT  
DESIGN PRESSURE  
MINIMUM CIRCUIT AMPACITY  
MAXIMUM OVERCURRENT

6-8 °F  
6 defrosts per day, 45 °F

FOR PARTS AND SERVICE  
CALL 1-800-433-9490

SCAN FOR PRODUCT LITERATURE



Sample QR Code

SAMPLE ONLY

SAMPLE ONLY

SAMPLE ONLY

SAMPLE ONLY

TYPE II DISPLAY REFRIGERATOR: THIS EQUIPMENT IS INTENDED FOR USE IN AN AREA WHERE THE ENVIRONMENTAL CONDITIONS ARE CONTROLLED AND MAINTAINED SUCH THAT THE AMBIENT TEMPERATURE DOES NOT EXCEED 80 °F (27 °C).

--- Sample Serial Label For Refrigerated Cases ---



**Determine Which Programmable Controller Is On Your Case (Controllers That Are Commonly Used By Structural Concepts Are Shown Below). Your Particular Programmable Controller May Differ.**



**Carel® PJEZ Platform**



**Carel® ir33 Platform**



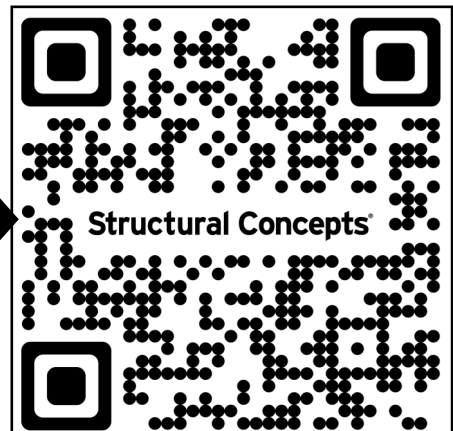
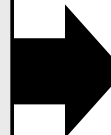
**Carel® iJF Platform**



**Dixell® XM670K-XM679K Platform**

**To Access Information About The Programmable Controller That Is Used On Your Case, Follow These Instructions:**

- > If Viewing This Document on Smart Phone, Tablet or Computer, Select/Click On The QR Code at Right.
- > If Viewing This Document In Print (Hard Copy), Scan The QR Code at Right With Your Smart Phone or Tablet.



## STRUCTURAL CONCEPTS TECHNICAL SERVICE CONTACT INFORMATION & LIMITED WARRANTY

**TECH SERVICE/WARRANTY CONTACT INFO:**  
1 (800) 433-9490 / EXTENSION 1

**DAYS/HOURS AVAILABLE:**  
MONDAY - FRIDAY (CLOSED HOLIDAYS)  
8:00 a.m. TO 5:00 p.m. EST

**YOU MUST HAVE THE FOLLOWING INFO AVAILABLE  
BEFORE CONTACTING STRUCTURAL CONCEPTS:**

SERIAL NO. / MODEL NO. / STORE NO. / STORE  
ADDRESS / DETAILS (PHOTOS, LEAK LOCATIONS,  
DAMAGE, STORE'S AMBIENT CONDITIONS, ETC.)

**To Access The Limited Warranty To Your  
Case, Follow These Instructions:**

- > If Viewing This Document on Smart Phone, Tablet or Computer, Select/Click On The QR Code at Right.
- > If Viewing This Document In Print (Hard Copy), Scan The QR Code at Right With Your Smart Phone or Tablet.

