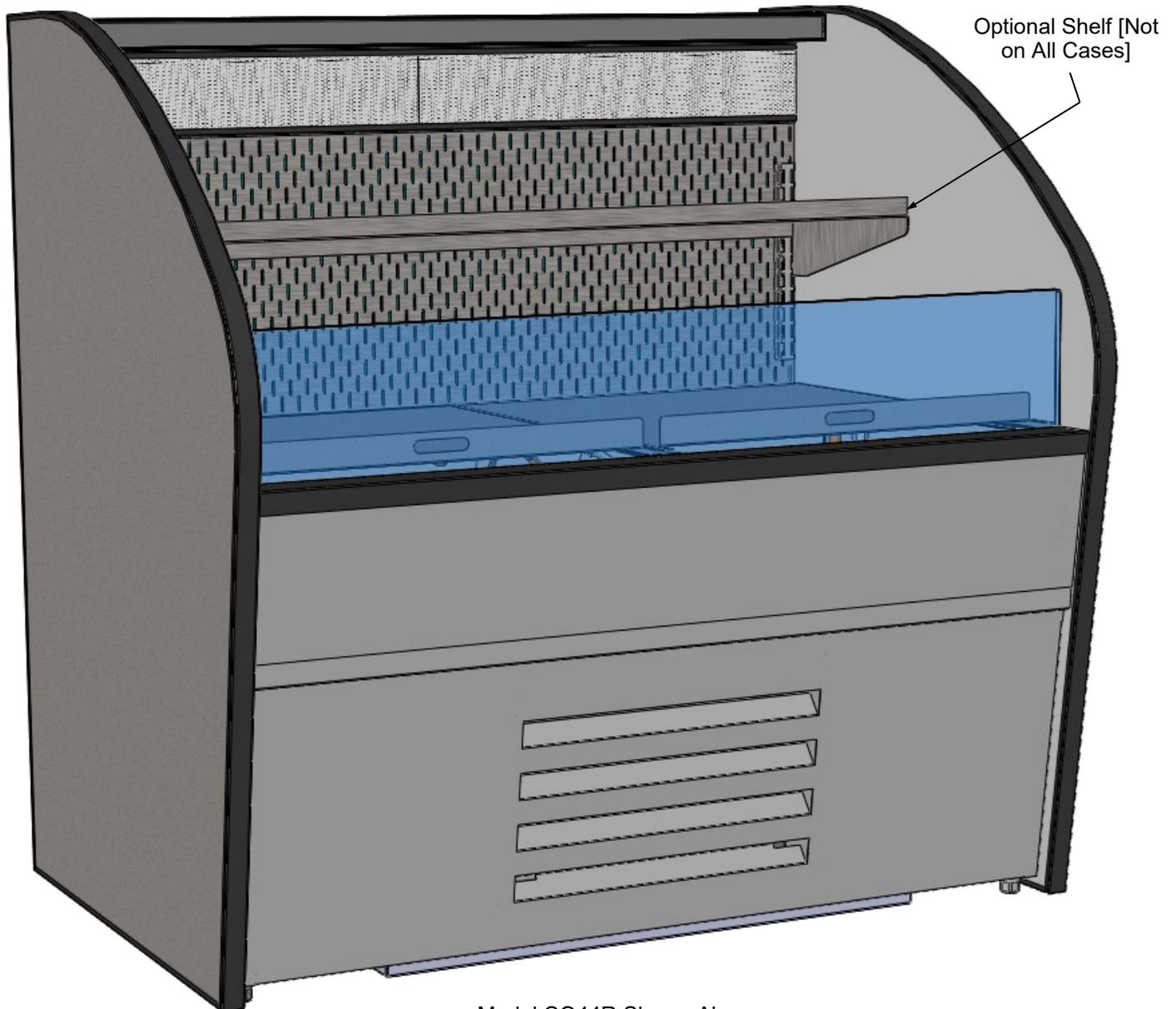


READ AND SAVE THESE INSTRUCTIONS

# Oasis<sup>®</sup> USER MANUAL

SCC P/N  
20-25622

OPEN REFRIGERATED SELF-SERVICE MERCHANDISER



Model CO44R Shown Above

Model CO34R: 45 1/4" L\* x 33 1/4" D x 47" H  
CO44R: 47 1/4" L\* x 33 1/4" D x 47" H

*\*Includes end panels.*

**Structural Concepts<sup>®</sup>**

Structural Concepts Corp. · 888 E. Porter Rd · Muskegon, MI 49441 Phone: 231.798.8888 Fax: 231.798.4960 · www.structuralconcepts.com

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**OVERVIEW**

- These Structural Concepts merchandisers are designed to merchandise packaged products at 41 °F [5 °C] or less product temperatures.
- Cases should be installed and operated according to this operating manual's instructions to insure proper performance.
- Improper use will void warranty.

**TYPE**

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

- For Type 1 Conditions (most cases): ambient conditions are to be at 55% maximum humidity and maximum temperatures of 75 °F [24 °C].

- For Type 2 Conditions: ambient conditions are to be at 60% maximum humidity and maximum temperatures of 80 °F [27 °C].
- If unsure if unit is Type 1 or Type 2, 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 compliance guideline.

**WARNINGS**

- This sheet contains important warnings to prevent injury or death. Please read carefully!



**ATTENTION  
INSTALLER**

**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 is Hot!  
Disconnect and 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**

- This sheet contains important precautions to prevent damage to unit or merchandise.
- Please read carefully!
- See previous page for specifics on **OVERVIEW**, **TYPE**, **COMPLIANCE** and **WARNINGS**.

**WIRING DIAGRAM**

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

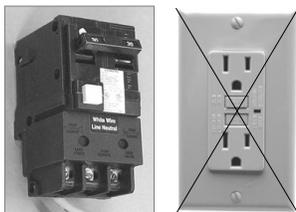
near ballast box, field wiring box, raceway cover, or other related location.

**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. Fluorescent lamps have been treated to resist breakage and must be replaced with similarly treated lamps.



**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.



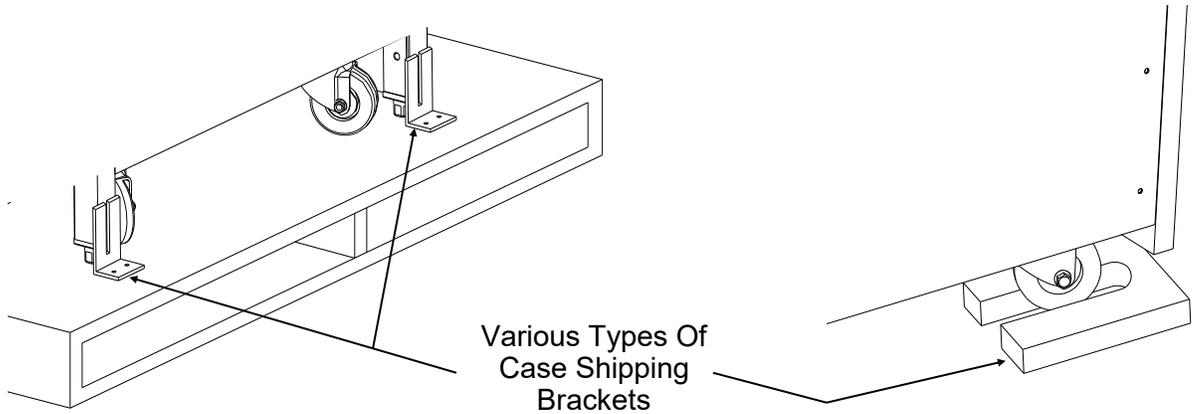
**CAUTION! DO NOT RELY ON THERMOMETERS OR THERMOSTATS FOR PRODUCT (FOOD) TEMPERATURES.**

- Thermometers & thermostats reflect air temperatures **ONLY**.
- For **ACTUAL** product (food) temperatures, use a calibrated food probe thermometers **ONLY**.
- For accurate readings, **DO NOT** use infrared food thermometers.

## CASE REMOVAL FROM SKID [LEVELERS OR CASTERS]

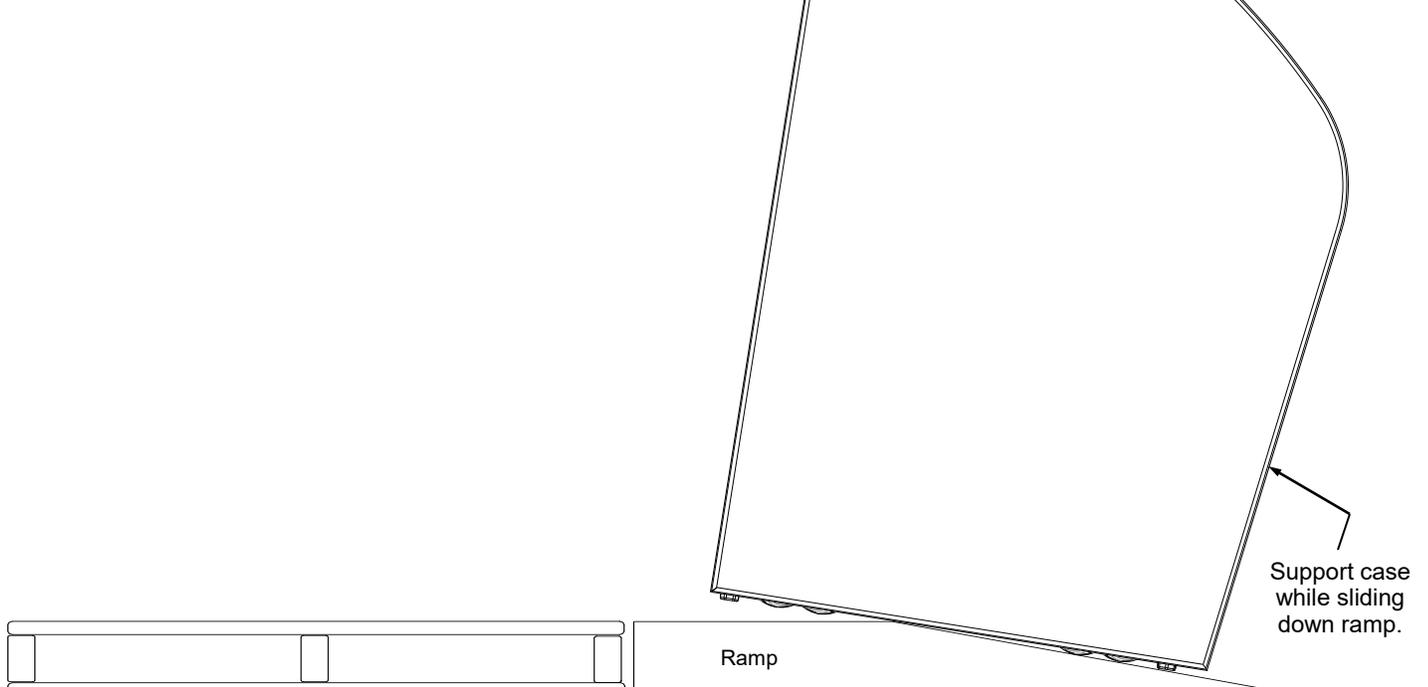
### **1. Removing Case Shipping Brackets That Are Attached To Skid**

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



### **2. Remove Case (With Casters) From Skid**

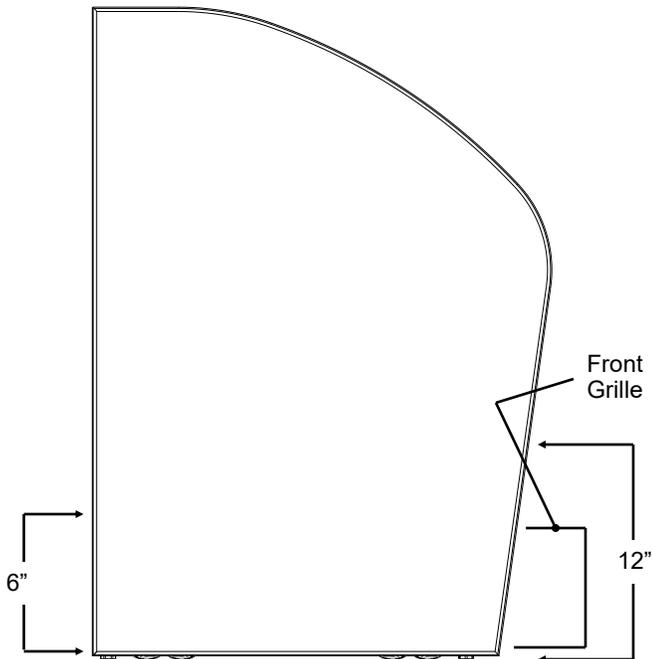
- A. Place ramp up against skid (to allow case to smoothly slide off from skid).
- B. Maintain support of case at all times or center of gravity may cause case to fall.
- C. Unlock Casters. Slide unit to rear of skid. Slide down ramp and off from skid.



## INSTALLATION

### **1. Ventilation and Clearance**

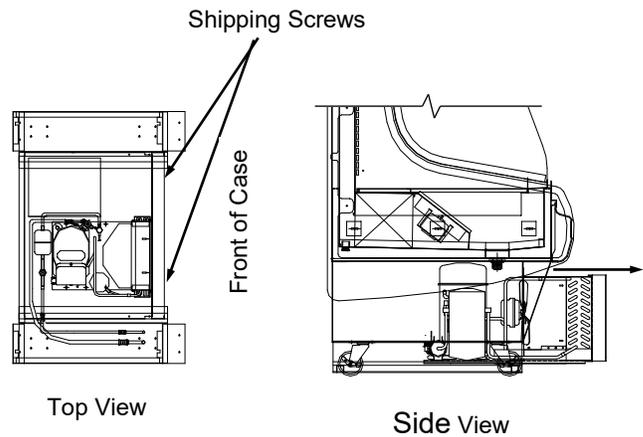
It is recommended that **Self-Contained** refrigerated cases maintain a airflow clearance of approximately 6" at the rear to 12" in the front of the case. Obstruction or restriction of air can void warranty.



### **2. Removing Shipping Screws**

Plastic glides are mounted to the unit base to assist in sliding the condenser out for access.

- Remove the front grille by removing the screws located in each of the corners.
- Remove the shipping screws located at base of condenser frame.



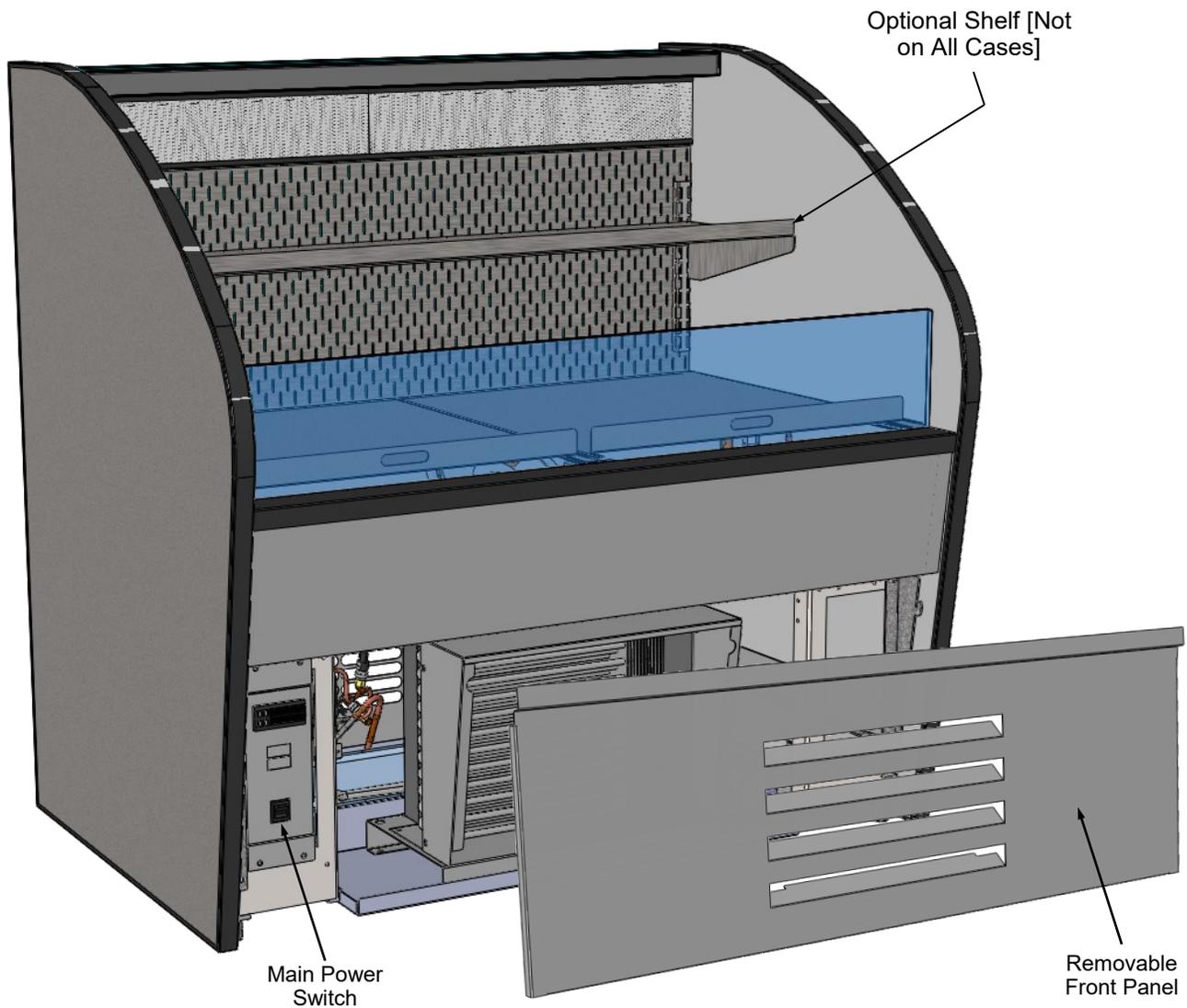
## START-UP AND OPERATION

### **1. Merchandiser Start-Up - Main Power**

- Turn on main power switch located behind the front grille. Main power switch is on left hand side of base. Replace front grille.

>> **Supply power will start evaporator coil fans, and the compressor motor.**

- From front of case, raise deck pans and check to see that the coil fan is functioning properly.
- Replace front grille by inserting screws in locations provided.



### 2. Merchandiser Start-Up/Lights

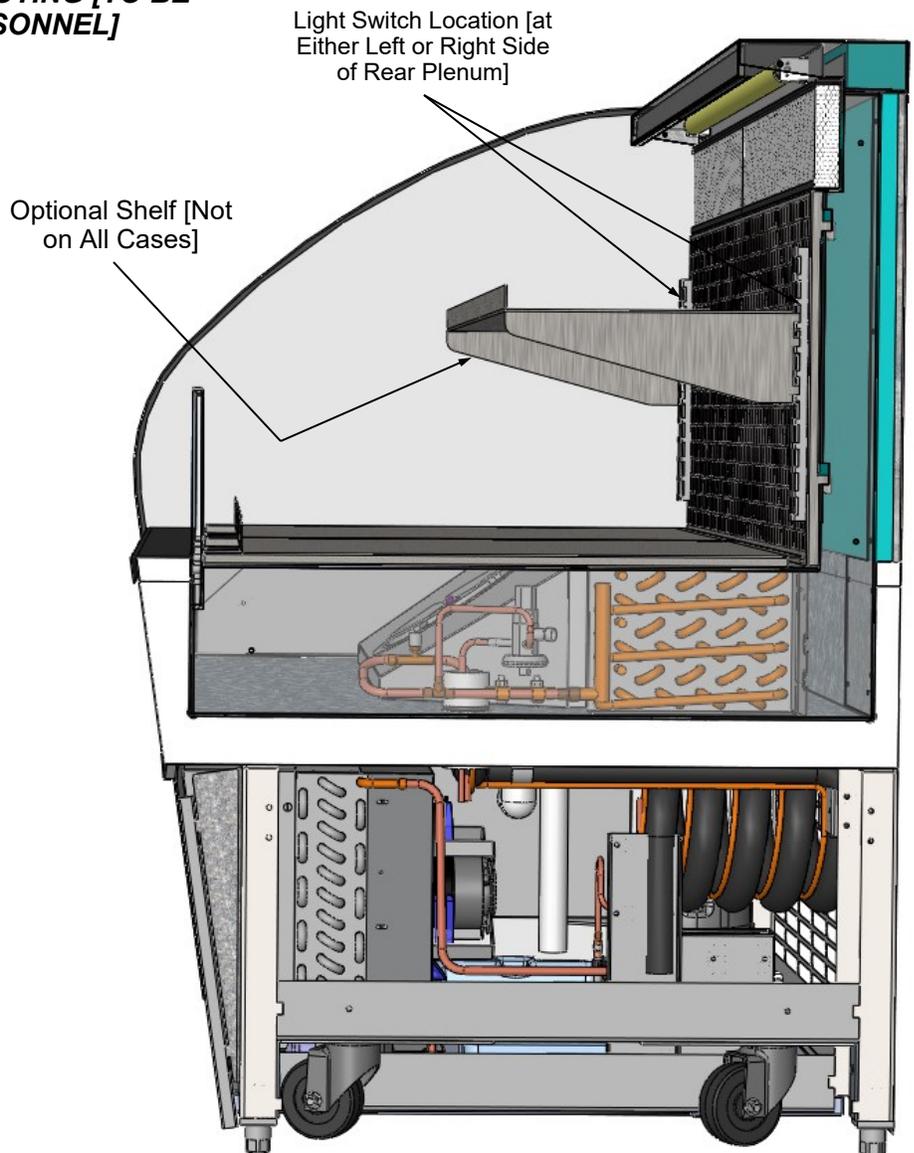
- Turn on the main power. Remove the front grille by removing the screws located in each of the corners. Switch is on the left hand side of base. Supply power will start evaporator coil fans, and the compressor motor. From the front of the case, raise the deck pans and check to see that the coil fans are all functioning properly.
- Replace front grille by inserting screws in locations provided.
- Turn on the lights. Light switch is in the interior of the case. Switch may be above or below the top shelf and to the left or right side [as shown in illustration below]. First time lighting may require a short warm-up period for the bulb. Slightly dim or a flickering of new bulb is normal. If light do not turn on, see **TROUBLESHOOTING [TO BE PERFORMED BY STORE PERSONNEL]** section in this operating manual.

### 3. Temperature Settings

- The case temperature is set at the factory, (supply air 25 °F for a case temp of 41 °F), as determined by the case size.
- The temperature is controlled by a thermostat. If a temperature setting change is required, refer to temperature control access.

### 4. Product Rotation

- To prevent freezing or spoilage of stock, product must be rotated.
- At every re-stocking, rotate old stock to front of shelves and new stock to rear of shelves.



### 1. Shelf Assembly Removal

- Shelf can be removed for cleaning or adjustment.
- For lighted shelving, unplug the light cord.
- Lift shelf straight up to separate from brackets.
- Remove brackets.
- Note: Initially, it may be necessary to remove the nylon shipping bracket retainer. Pliers will be required to accomplish this task.

### 2. Fluorescent Light Fixture

- Fluorescent light fixture is shown at right.
- LED light fixtures are shown on next page.

Removal of lamp:

- Rotate lamp (1/4-turn) so that pins are aligned in slots and remove bulb.

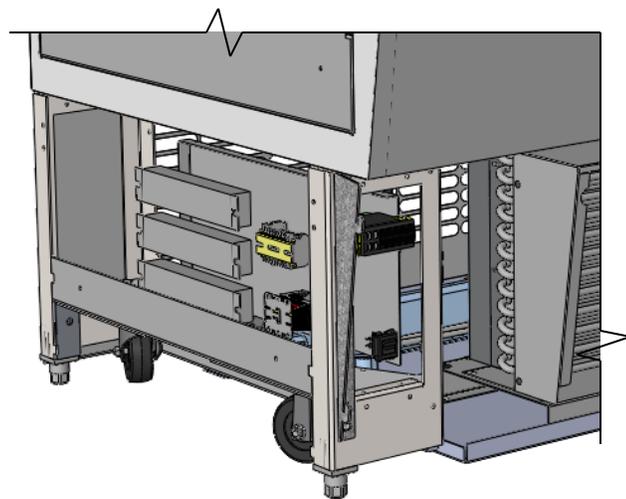
Installation of lamp:

- Align pins with slot.
- Insert pins into socket and rotate 1/4 turn to secure pin contacts in socket.

### 3. Ballast Access

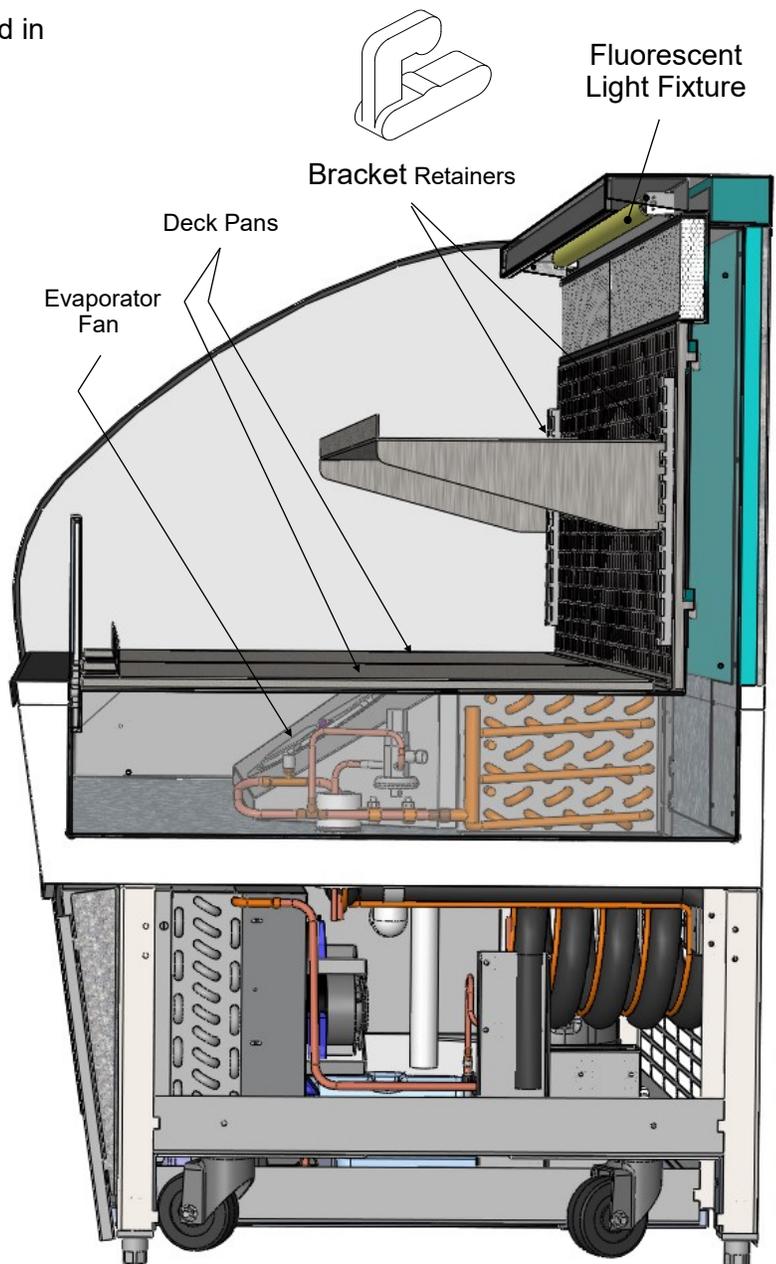
- **Assembly or disassembly and servicing to be accomplished by licensed electrical contractors only.**

- Remove the front grille by lifting up and off.
- **Refrigerant lines are flexible to facilitate maintenance. However, use caution to avoid crimping or kinking copper tubing while sliding condenser unit out from under case!**
- Plastic glides are mounted to the unit base to assist in sliding the condenser out for access.
- Remove shipping retaining screws.
- Slide condenser unit forward approximately twelve inches to access the light ballast.
- Ballast is located on the left side of the condenser in electrical box. See illustration



View of Ballasts (After Removal of Electrical Box Cover)

**Caution! Do not crimp or kink copper tubing while sliding condenser unit out from under case!**



**4. LED Style Light Fixture Component R&R**

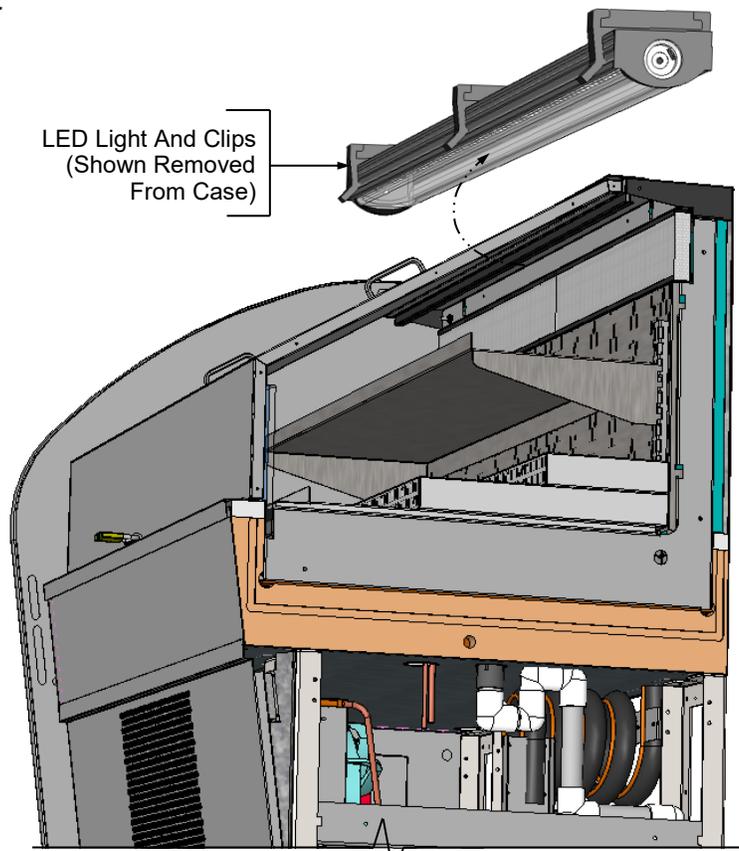
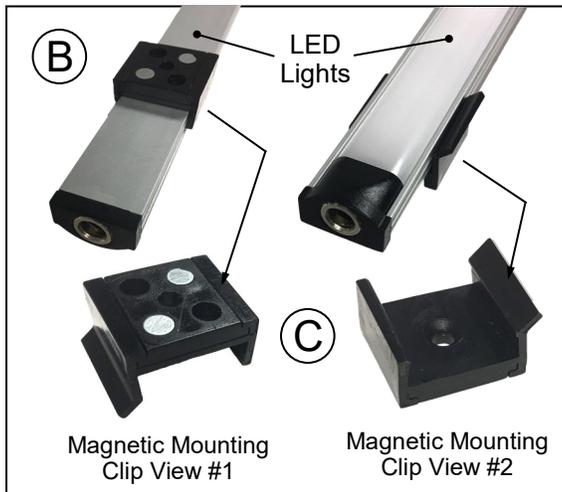
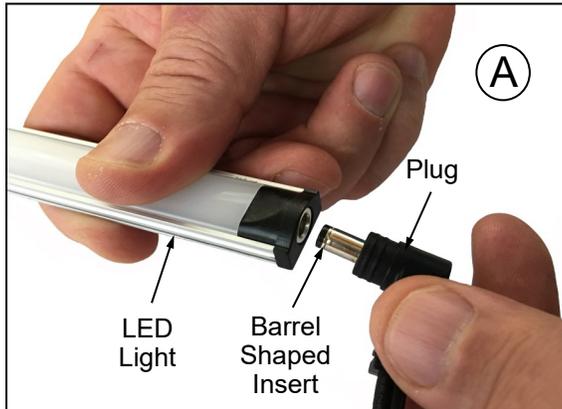
*Removal of Faulty LED Lights or Other Components:*

- LED lights and/or other LED related components rarely require replacement.
- If replacement parts are needed, Contact Structural Concepts' Technical Service Department for parts.
- Turn off LED light switch.
- To remove faulty LED light (or other components), 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 shelf (or header).
  - C. If mounting clips are riveted to shelf or header, simply remove LED light from mounting clips by pressing against flange part of clips with thumb while pulling downward on LED light.

*Replacement of LED Lights or Other Components:*

- Attach magnetic mounting clips onto LED light (if they are not riveted to shelf or header).
- Adjust magnetic mounting clips so they are equally spaced on LED light.

- Reattach LED light assembly to its shelf/header. If mounting clips are riveted to shelf or header, simply remove LED light from mounting clips by pressing against flange part of clips with thumb while pulling downward on LED light..
- Press plug's barrel-shaped insert all the way 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-right.
- Turn LED light switch back on.



--- Model CO47R Partially Disassembled Model Shown Above ---



### 5. Honeycomb Air Diffusers

**Note:** Preventive maintenance should be performed every 30 days unless conditions warrant a more frequent replacement cycle.

#### Honeycomb Air Diffuser Removal

Honeycomb is located in discharge air duct.

A. Wedge a non-metallic device of suitable strength (such as a ballpoint pen) between the honeycomb and the end panel.

**Caution!** Use care not to dislodge the heating wire (that prevents condensation on the lamp assembly).

B. Apply pressure to collapse the honeycomb to allow it to be pulled out of honeycomb retainer.

C. Pry downward and away from honeycomb retainer.

- Clean honeycomb with warm water and soap solution.
- Submerge if necessary.
- Use brush to dislodge stubborn or sticky residue.
- Dry by using vacuum's blow mode (vs. suction mode).

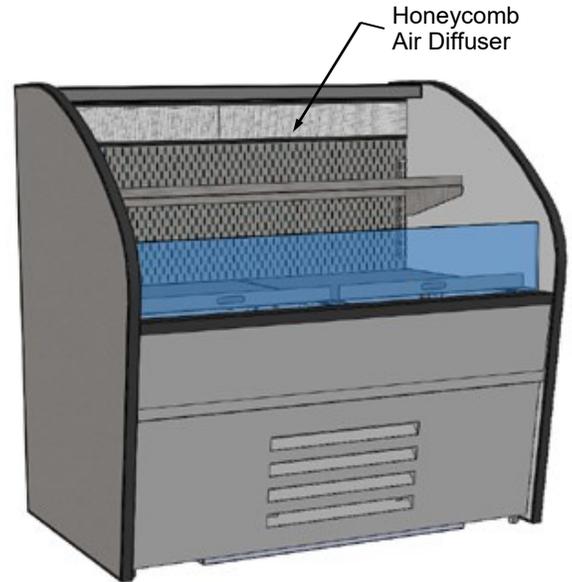
#### Honeycomb Air Diffuser Installation

D. Squeeze honeycomb to allow it to fit into honeycomb retainer.

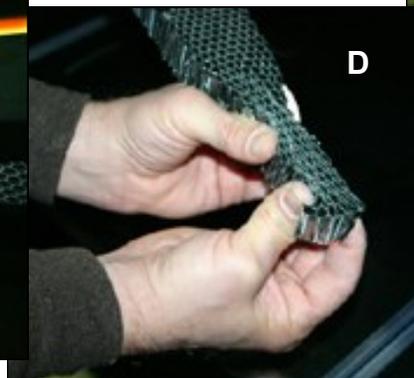
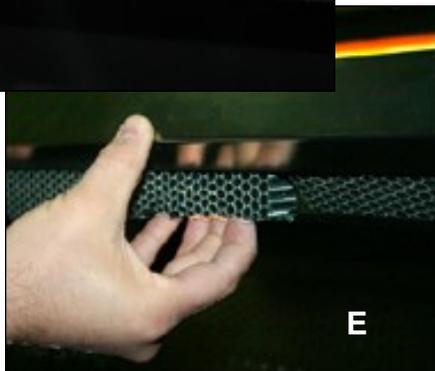
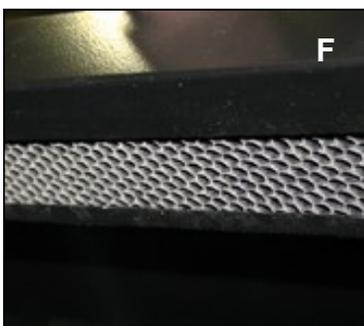
E. Carefully slide honeycomb into place.

F. Adjust honeycomb so that it fits flat against retainer. It must not be wavy or out of position.

**Note:** For honeycomb air diffusers in other locations, these same general instructions apply.



**Note:** Model features and options may vary.



**Temperature Control Access**

- **Assembly or disassembly and servicing to be accomplished by licensed electrical / refrigeration contractor.**
- Temperature control module is located to the left side of the condenser package. See below.
- Follow the **Carel® Temperature Controller** section of this manual for specifics on adjusting temperature settings.

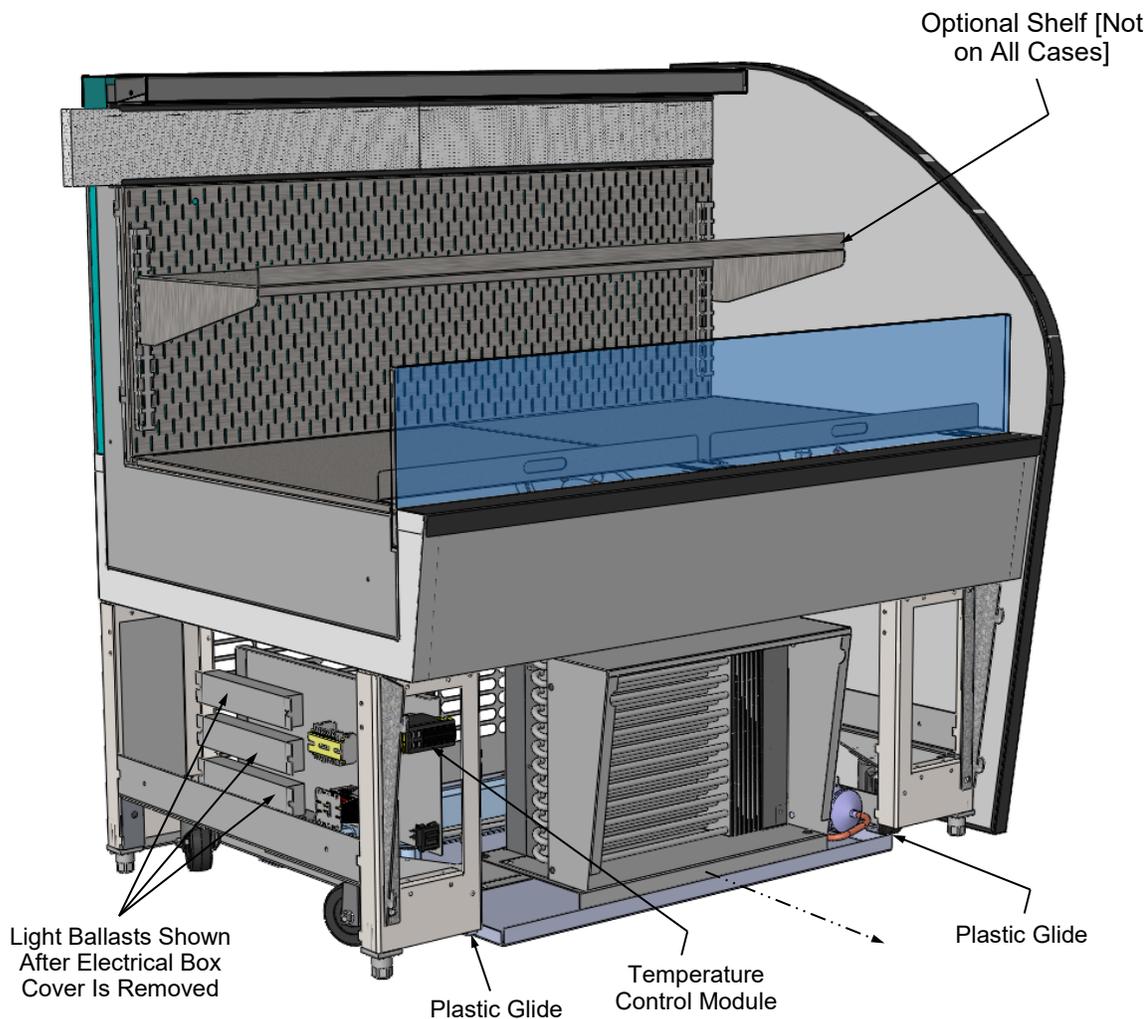
- Servicing refrigerant is accomplished from the rear of the case.
- Note: *Condenser unit does not slide to the rear.*
- Lift front panel up and off hooks to remove.
- Service connections are located to the left of the compressor.

**>> See next page for illustrated parts breakdown of condenser unit.**

**Refrigeration: Access, Connections & Servicing**

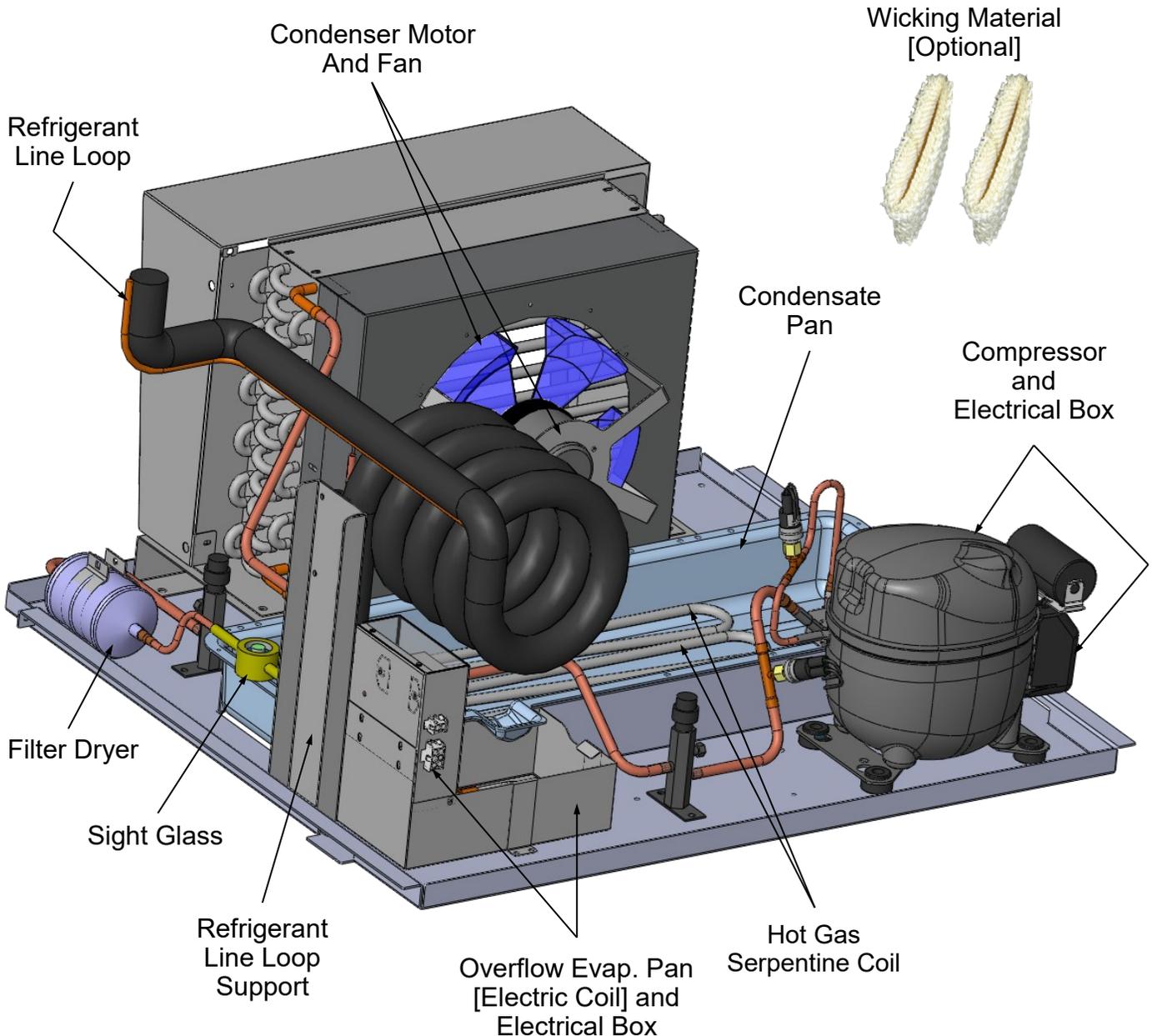
- **Assembly or disassembly and servicing is to be accomplished by licensed refrigeration contractors only.**

**Caution! Do not crimp or kink copper tubing while sliding condenser unit out from under case!**



**Hot Gas Condensate Unit**

- **Assembly or disassembly and servicing must be accomplished by licensed electrical / refrigeration contractor.**
- Remove the front grille by lifting up and off.
- Plastic glides are mounted to the unit base to assist in sliding the condenser out for access.
- Ensure that shipping screws have been removed.
- **Caution! Though refrigerant lines are flexible to facilitate front access maintenance, do not crimp or kink copper tubing while sliding condenser unit out from under case!**
- Slide condenser unit forward approximately 12" to access components.
- Wicking material [optional] may be part of hot gas loop serpentine coil.
- After servicing or cleaning unit, carefully slide condensing unit back under case.
- Return front grille to case.



**CLEANING SCHEDULE [TO BE PERFORMED BY STORE PERSONNEL]**

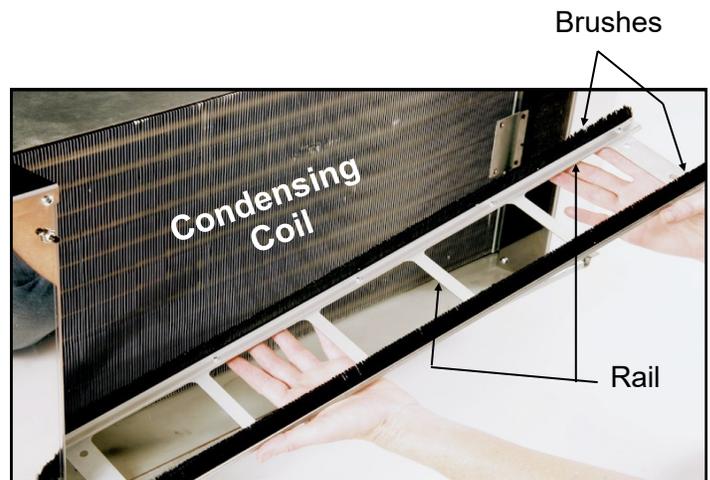
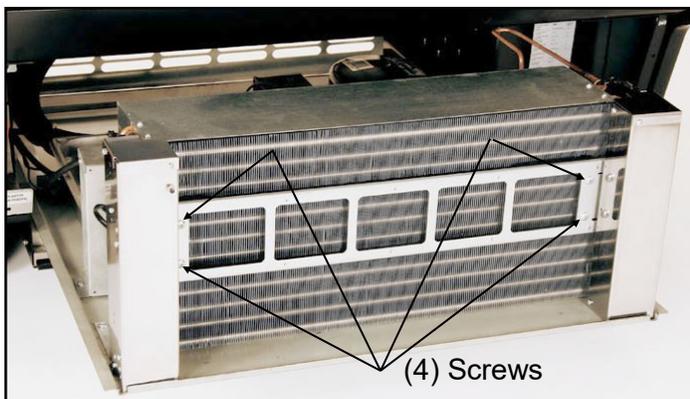
AREA	FREQUENCY	INSTRUCTIONS
Case Exterior	Daily	<b>Acrylic:</b> Clean acrylic sneeze guard with a mild soap and water solution and a soft cloth. <b>Caution! Never use ammonia-based cleaners on acrylic. Incorrect cleaning agents or abrasive cleaning cloths cause acrylic surfaces to ‘cloud’ over time.</b>
	Daily	<b>Stainless Steel “Mirrors” on Each Inside End Panel:</b> <ul style="list-style-type: none"> <li>• Wash with a solution of hand dishwashing liquid detergent and water; or a solution of baking soda and water. Rinse and polish dry with paper towel or soft cloth.</li> <li>• Never use scouring powders or steel wool. It will scratch stainless steel.</li> <li>• Brighten by polishing with cloth dipped in vinegar or in ammonia; sprinkle baking soda on sponge and rub gently; rinse. Polish dry with paper towel.</li> <li>• Remove streaks or heat stains by rubbing with club soda.</li> </ul>
	Daily	<b>End Panels, Front Panel, Toe-Kick, etc.:</b> Wipe off all surfaces with warm water and mild soap solution and non-abrasive cloth.
	Weekly	<b>Wood, Laminate and Painted Surfaces:</b> Clean with mild soap and water solution and a soft cloth.
	Monthly	<b>Under Case:</b> Remove rear panel (and/or front panel). Clean under case with vacuum.
Case Interior	Daily	<b>Decks &amp; Inserts:</b> Wipe down and clean with mild soap, water & soft cloth.
	Daily	<b>Shelves:</b> Shelves can be cleaned with a warm soap and water solution and soft cloth or paper towel. For stubborn stains or residue, shelves can be removed and cleaned with soap and water solution or submersed in hot, soapy water solution. Rinse thoroughly. Dry. Return to case.
	Weekly	<b>Decks &amp; Inserts:</b> Remove and clean with mild soap, water & soft cloth
	Weekly	<b>Shelving Brackets / Air Return Grilles / Decking</b> <ul style="list-style-type: none"> <li>• Wipe off shelving brackets, air return grilles and decking with moist cloth.</li> <li>• Shelving brackets 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 by store personnel.</li> </ul>
	Weekly	<b>Condenser Coil:</b> Vacuum or brush grille condenser coil at case front. 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.

**CLEANING SCHEDULE [TO BE PERFORMED BY TRAINED SERVICE PROVIDERS ONLY]**

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

Maintenance	Freq.	Instructions
<b>Case Exterior</b>	Qtly	<b>Condensing Coil:</b> Using vacuum with soft-bristled brush or air pressure or an industrial strength vacuum, clean the dust and dirt that may collect on the condenser coil. Use the soft-bristled brush to dislodge caked dust and debris that may form on coil.
	Qtly	<b>Under Case Cleaning:</b> Once refrigeration package is clear of unit, vacuum under case to remove all dust and dirt that may collect.
<b>Case Interior</b>	Qtly	<b>Tub, Coil and Drain:</b> Remove evaporator fan panel and clean tub, coil and drain with warm water and mild soap solution. Remove any debris that may clog drain.
	Qtly	<b>Compressor Area:</b> Slide out from case. Wipe off dust & debris w/moist cloth.
<b>Warning: Condensate pan may be hot. Allow pan to cool 30-minutes before cleaning.</b>	Qtly	<b>Hot Gas Loop Condensate Unit:</b> Turn off power. Disconnect case from power source. Remove front panel. Slide out condenser unit. Use a de-scaling solution (such as CLR® that will prevent corrosion, lime and rust) to thoroughly clean condensate pan and overflow electric coil condensate pan. Use wet /dry vacuum to remove all residue. Use clean towel dipped in soap and water solution to wipe down all fans, motor, refrigeration lines, cords, knobs, sight glass, connectors and all other surfaces. Wipe dry. Slide back under case. Replace front panel.
	Qtly	<b>Evaporative Wicking Material [Optional]:</b> Wicking material (if any on your hot gas loop condensate system) may be dirty or worn and need replacement. <ul style="list-style-type: none"> <li>• Slide refrigeration system out from under unit.</li> <li>• After refrigeration system has been carefully slid out from under unit, replace wicking material with new. If wicking material is not available, contact Structural Concepts®. See toll-free number at last page of this operating manual.</li> </ul>
	Qtly	<b>Fan Blades, Shroud, Drain:</b> Wipe down each blade and shroud with moist cloth. Clean out drain. See images #6 and 7 below.
	Qtly	<b>Honeycomb:</b> See <b>PREVENTIVE MAINTENANCE - HONEYCOMB AIR DIFFUSERS [SERVICE TECHNICIANS ONLY]</b> section in this manual for specs.
	Qtly	<b>Upper and Lower Step Inserts:</b> Remove from Case. Clean w/soap and water.

PREVENTIVE MAINTENANCE	FREQUENCY	INSTRUCTIONS
Case Exterior	Monthly	<p><b>Condensing Coil:</b></p> <ul style="list-style-type: none"> <li>Remove front panel.</li> <li>Use vacuum with soft-bristled brush; clean dust and dirt that may collect on the condenser coil. See illustration below.</li> <li><b>Caution! Coil fins are sharp. Handle with care!</b></li> <li>Replace rear grille to case (4 screws).</li> <li>See illustration below.</li> </ul>
	Quarterly	<p><b>Clean Sweep™ Condensing Coil (Optional):</b> <i>Disconnect power from case before cleaning Clean Sweep™ Condenser Coil!</i></p> <ul style="list-style-type: none"> <li>Remove Rear Grille (by removing 4 screws).</li> <li>Slide/Roll out condensing unit assembly.</li> <li>Remove the four (4) screws holding the Clean Sweep™ rails intact.</li> <li>Remove the Clean Sweep™ rail.</li> <li>Wash rails' brushes in hot water and mild soap solution.</li> <li>If brushes are worn, they must be replaced. Call Technical Service Department to replace. Toll-Free number is listed at end of manual.</li> <li>Clean Condensing Coil: Use air pressure or industrial strength vacuum; clean the dust and dirt that may collect on the Condenser Coil.</li> <li><b>Caution! Coil fins are sharp. Handle with care!</b></li> <li>Reattach Clean Sweep rail to condensing unit (4 screws).</li> <li>Slide/Roll Condensing Unit Assembly back under case.</li> <li>Replace Rear Grille to case (4 screws).</li> <li>See photos below.</li> </ul>



--- Above photos are taken after rear grille has been removed from case ---

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

PREVENTIVE MAINTENANCE	FREQUENCY	INSTRUCTIONS
Case Exterior	Quarterly	<p><b>Compressor Area:</b> <i>Disconnect power from case before cleaning Condenser Coil!</i></p> <ul style="list-style-type: none"> <li>• Slide/Roll out from under case.</li> <li>• Use moist cloth to wipe off dust &amp; debris that collects on various parts.</li> </ul>
	Quarterly	<p><b>Condensate Pan:</b> Disconnect from receptacle box. Remove mounting screw(s) from base. Use a de-scaling solution (such as CLR® that will prevent corrosion, lime and rust) to clean pan. Rinse thoroughly; do not submerge in water.</p>
	Quarterly	<p><b>Under Case Cleaning:</b> Once refrigeration package is clear of unit, vacuum under case to remove all dust and dirt that may collect under case.</p>
Case Interior	Quarterly	<p><b>Tub, Coil, Drain, Fan Blades, Motors, Brackets:</b> <i>Disconnect power from the case before cleaning the Tub, Coil, Fan, Motor and Drain Area!</i></p> <ul style="list-style-type: none"> <li>• Remove Decking, Sub-Deck 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>• Clean Fan Blades, Motors and Brackets by wiping down with moist cloth.</li> </ul>
	Quarterly	<p><b>Honeycomb Air Diffuser:</b> Remove the honeycomb. See <b>MAINTENANCE, CONTINUED: HONEYCOMB AIR DIFFUSERS</b> section in this manual for step-by-step instructions.</p>

<b>Product is Drying Out</b>	Check the relative humidity in the store.
<b>Water on the Floor</b>	<p><b>Caution!</b> Water on flooring can cause much damage! Until cause is determined (and unit repaired), follow these procedures:</p> <ul style="list-style-type: none"> <li>• Use wet-dry vacuum (or mop &amp; bucket) to remove standing water.</li> <li>• Use 'catch pans' for water to drain into. Swap out regularly until case has completely drained.</li> </ul>
	<p>Check store conditions.</p> <ul style="list-style-type: none"> <li>• To prevent condensation in Type 1 environments, maximum conditions are to be 55% humidity / 75° Fahrenheit.</li> <li>• For Type 2 environments, maximum conditions are to be 60% humidity / 80° Fahrenheit.</li> <li>• See serial label (at case rear near main power switch) for Type of case.</li> </ul>
	If unable to resolve issue of water on floor, contact technical service. Call toll-free number listed at end of manual.
<b>Excessive Fan Noise</b>	Check that the case is aligned, level and plumb.
<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>Digital Control Display is Blank</b>	Check that the MAIN power switch is on.
	Check the circuit breaker box for tripped circuits.
<b>Fans Not Working</b>	Check that the MAIN power switch is on.
	Check that the case is aligned, level and plumb.
<b>Case Lights Not Working</b>	Check that light is properly installation.
	Check bulb for proper connection.
	Check for burned out bulb.
	Clean dirt and dust from the bulb to prevent flickering.
	Check that light switch is in the <i>on</i> position.

**Improper Food Temperatures**



**CAUTION! DO NOT RELY ON THERMOMETERS OR THERMOSTATS FOR PRODUCT (FOOD) TEMPERATURES.**

- Thermometers & thermostats reflect air temperatures **ONLY**.
- For **ACTUAL** product (food) temperatures, use a calibrated food probe thermometers **ONLY**.
- For accurate readings, **DO NOT** use infrared food thermometers.

**Not Holding Temperature**

- Check that the coil fans are working.
- Check that the discharge air is not disrupted or blocked by product.
- If a large amount of warm product was added to the case, it will take time for the temperature to adjust.
- Check the coil for ice build up.
- Check that the condenser coil is clean.
- Check that the case is not in the sun or near a heat or air conditioning vent.
- Case temperature will rise during defrost mode but will return to normal. Proper product temperature will be maintained.
- See **OVERVIEW / TYPE / COMPLIANCE / WARNINGS / PRECAUTIONS / PLUGS / WIRING** section in this manual for issues pertaining to case location. Wide temperature fluctuation can take place in certain environments.

**Not Holding Temperature**

- If a large amount of warm product was added to the case, it will take time for the temperature to adjust. Unit needs pre-chilled product.
- The temperature will change during defrost cycle but will return to normal when compressor turns on.
- Check to see if the condenser coil has been cleaned.
- Check that the case is not in the sun or near a heat or air-conditioning vent.
- Check *air* grilles for obstruction and remove.
- Ensure that front air grilles are not obstructed by product or other décor.
- Note: Product displayed on Front Air Grilles will cause case to run warm and will negate warranty.**

**Condensing Unit Not Operating**

- Check that the main power switch is turned on.
- Check that case is on and the control display is not blank. If blank, call toll-free number at end of manual.
- Controller may be in defrost mode. Compressor cycling on and off is a normal condition. Carel® Temperature Controller Section in this manual.

CONDITION	TROUBLESHOOTING
<b>Water Is On Floor</b>	<p><b>Caution!</b> Water on flooring can cause much damage! Until cause is determined (and repaired), follow these procedures:</p> <ul style="list-style-type: none"> <li>• Use wet-dry vacuum (or mop &amp; bucket) to remove standing water.</li> <li>• Use 'catch pans' for water to drain into. Swap out regularly until case has completely drained.</li> </ul>
	Check that the drain trap is free of debris.
	Check that all of the hoses are connected.
	Check that condensate pan is properly plugged in or connected.
	Check that condensate pan float is operating properly (electric coil condensate units only).
	Check that the drain hose is correctly positioned over condensate pan (or floor drain, for remote units).
	Check store conditions. To prevent condensation in Type 1 environments, maximum conditions are to be 55% humidity / 75° Fahrenheit. For Type 2 environments, maximum conditions are to be 60% humidity / 80° Fahrenheit. See serial label (at case rear near main power switch) for Type of case.
	<p><b>Caution!</b> Wicking material (if any on your particular hot gas loop system) may be dirty or worn and need replacement.</p> <ul style="list-style-type: none"> <li>• Slide refrigeration system out from under unit.</li> <li>• After refrigeration system has been carefully slid out from under unit, replace wicking material with new. If wicking material is not available, contact Structural Concepts®. See toll-free number at last page of this operating manual.</li> </ul>

CONDITION	TROUBLESHOOTING
<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 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.

CONDITION	TROUBLESHOOTING
<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>MAINTENANCE - LIGHT FIXTURES (LED LIGHT FIXTURES)</b> section.
	Service Technicians Only: Check voltage at LED drivers. If voltage is entering but not exiting, LED driver may be faulty.
<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> 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. See <b>OVERVIEW / NSF® TYPE / COMPLIANCE / WARNINGS / PRECAUTIONS / WIRING / PLUGS</b> section in manual for adverse conditions/spacing issue parameters.
	If case is located near front doors, temperature fluctuation can hinder unit's ability to maintain temperature. See <b>OVERVIEW / NSF® TYPE / COMPLIANCE / WARNINGS / PRECAUTIONS / WIRING / PLUGS</b> section in manual for adverse conditions/spacing issue parameters.
	Check that condenser coil air filter (attached to grille) has been cleaned.
	Check that condenser coil has been cleaned.
	Check air return 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.

**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.

<b>Structural Concepts<sup>®</sup></b>		<b>Reveal</b>	MODEL NRS3648RXV-SAMPLE
888 E. Porter Rd - Muskegon, MI 49441			SERIAL NO. 12345X30DZ098765
		<b>Blend</b>	<b>SAMPLE ONLY</b>
Intertek	Intertek	<b>Harmony</b>	
		<b>Addenda</b>	
		<b>Impulse</b>	
		<b>Oasis</b>	<b>SAMPLE ONLY</b>
		<b>Fusion</b>	
<b>SAMPLE ONLY</b>			
3048256		ELECTRICAL RATING	120/1/60 16 A
Conforms to UL Std. 471		REFRIGERANT	R513A AMOUNT 50 OZ
Conforms to NSF/ANSI Stds. 2 & 7		DESIGN PRESSURE	HIGH 186 LOW 88
CERTIFIED TO CAN/CSA		MINIMUM CIRCUIT AMPACITY	20A
STD C22.2 NO 120		MAXIMUM OVERCURRENT	20A
Super Heat Temp	6-8 °F	FOR PARTS AND SERVICE	
Defrost	6 defrosts per day, 45 °F	CALL 1-800-433-9490	
			SCAN FOR PRODUCT LITERATURE
<b>SAMPLE ONLY</b>		<b>SAMPLE ONLY</b>	
			Sample QR Code
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**



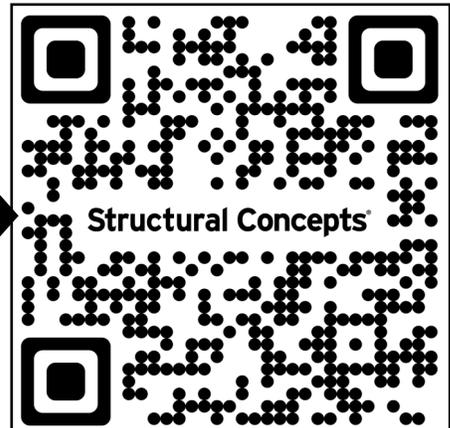
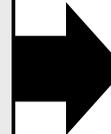
**Carel® iJF Platform**



**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.

