

# Oasis<sup>®</sup> USER MANUAL

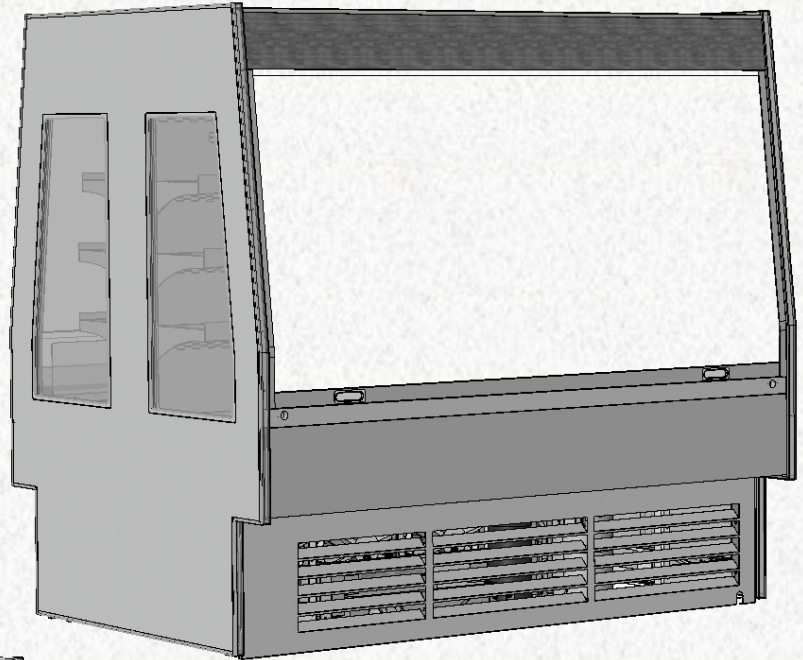
**SCC P/N  
20-22807**

**OPEN REFRIGERATED SELF-SERVICE MERCHANDISER**

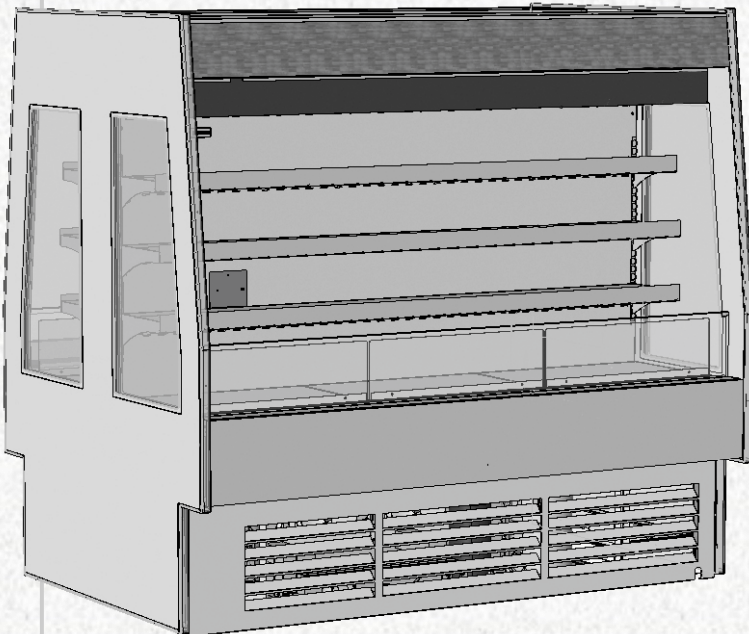
**HIGH ENVIRONMENT REFRIGERATED  
MOBILE GRAB-N-GO UNITS**

- > DUAL ACCESS UNITS
- > TYPE II ENVIRONMENT\*
- > DUAL ROLL-DOWN SECURITY DOORS
- > SELF-CONTAINED & REMOTE UNITS

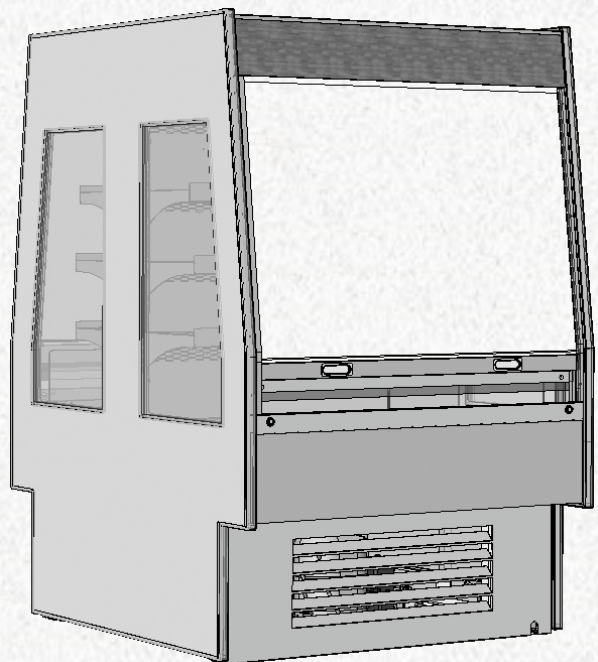
→  
Model HEFSC663R Shown With  
Roll-Down Security Door Fully Extended



↓  
Model HEFSC663R Shown With  
Roll-Down Security Door Retracted



**See SCC P/N 21-22808 For  
Field Service Parts List.**



↑  
Model HEFSC463R Shown With Roll-Down  
Security Door Partially Extended

\*Higher ambient temperature: Not to exceed 85 °F (29.4 °C) / 60% humidity. See page 3.

**Structural Concepts<sup>®</sup>**

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## OVERVIEW

- These Structural Concepts Oasis 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 ensure proper performance. Improper use will void warranty.

## ENVIRONMENTAL CONDITIONS

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

- These display refrigerators are intended for use in environmental conditions up to and above Type II that are controlled and maintained so that the ambient temperature does not exceed 85 °F (29.4 °C) and 60% maximum humidity.

## 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.

## PRECAUTIONS and WIRING DIAGRAMS

- See next page for **PRECAUTIONS** and **WIRING DIAGRAM** information.

## 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.



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



**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**  
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.



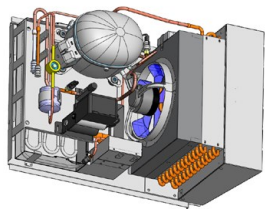
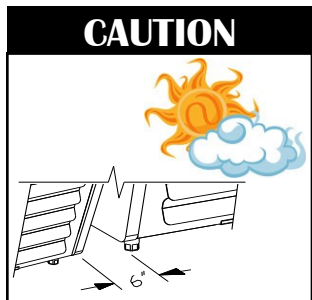
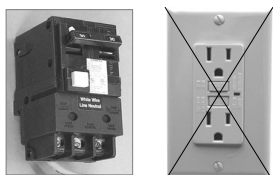
**WARNING**  
Condensate Pan is Hot!  
Disconnect and allow to cool before cleaning or removing from case.



**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**, **CONDITION 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.

**CAUTION! LAMP REPLACEMENT GUIDELINES**  
LED lamps must 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.
- End panels must be tightly joined (and properly sealed) or kept at least **6-inches** away from any structure to prevent condensation.
- Unit must be kept at least **15-feet** from exterior doors, overhead HVAC vents or any air curtain disruption to maintain proper temperatures.
- Unit must not be exposed to direct sunlight or any heat source.
- Self-Contained Units: Keep 4" min. air intake / 4" min. air discharge clearance.

**CAUTION! CHECK EVAPORATOR PAN POSITIONS AND PLUG**  
Water on flooring can cause extensive damage!  
Before powering up unit, check the following:

- Hot gas evap. pan **MUST BE** positioned directly under condensate drain.
- Overflow evap. pan plug **MUST BE** securely plugged into receptacle.

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

- Thermometers and thermostats reflect air temperatures **ONLY**.
- For **ACTUAL** food temperatures, use a calibrated food thermometer.

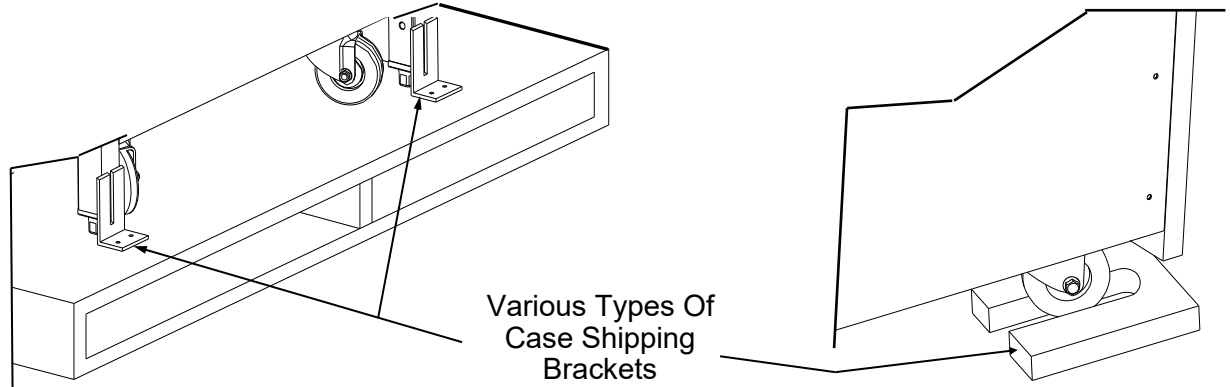
# GENERAL INSTALLATION & OPERATION SECTION



## CASE REMOVAL FROM SKID (LEVELERS/CASTERS)

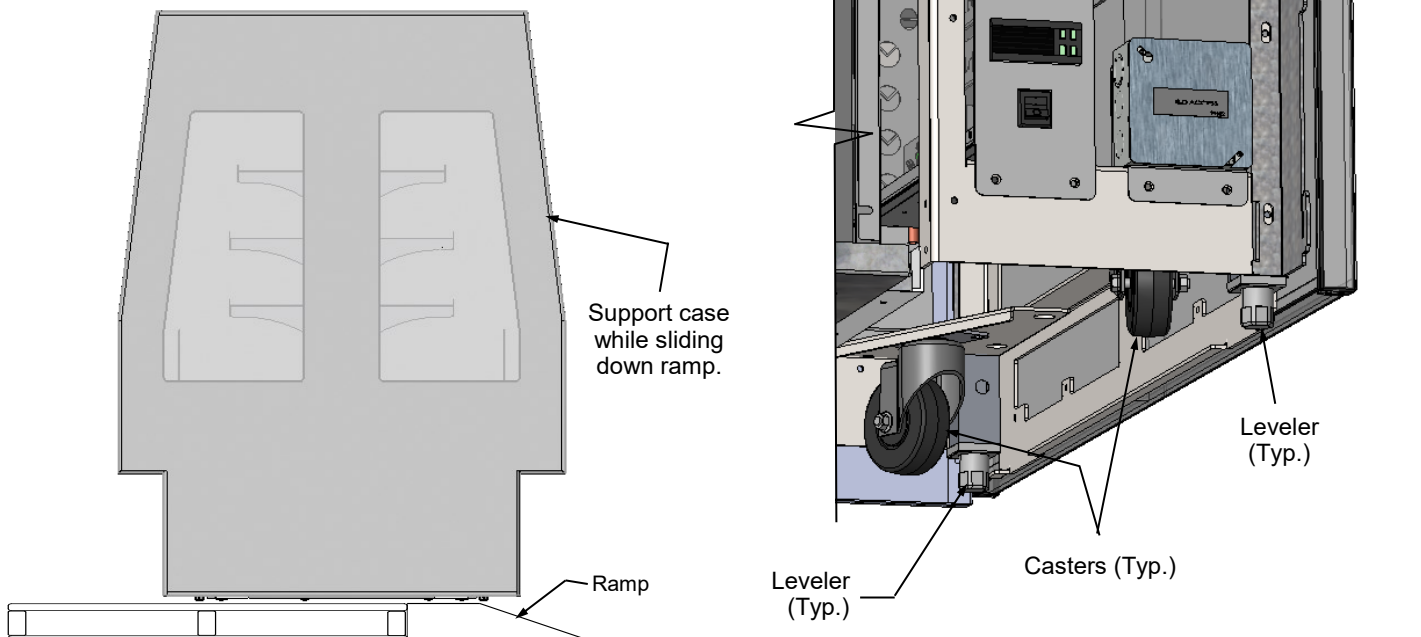
### 1. Removing Case Shipping Brackets That Are Attached To Skid

- 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. Removing Case 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. Slide unit to rear of skid. Slide down ramp and off skid.
  - D. After case is in proper position, lower levelers (by rotating counter-clockwise) so casters are raised off floor until case is securely in place.
  - E. To relocate case, raise levelers (by rotating clockwise) so casters are lowered onto floor and unit can be easily moved.
- Note: Illustration below is general outline of sample case and may not reflect your particular model or options).



## INSTALLATION: MERCHANDISER SET-UP / ELECTRICAL SET-UP

### 1. Merchandiser Set-Up

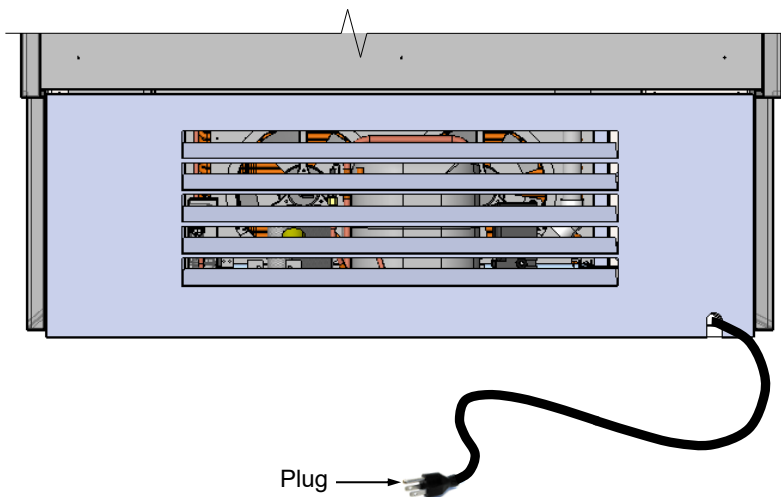
- Remove the rear lower grille.
- Ensure that the manufacturer provided hot gas evaporator pan is installed under the condensate drain.
- Ensure that overflow evaporator pan is plugged into the receptacle inside base.
- Reinstall the rear grille after confirming the above.

### 2. Electrical Set-Up

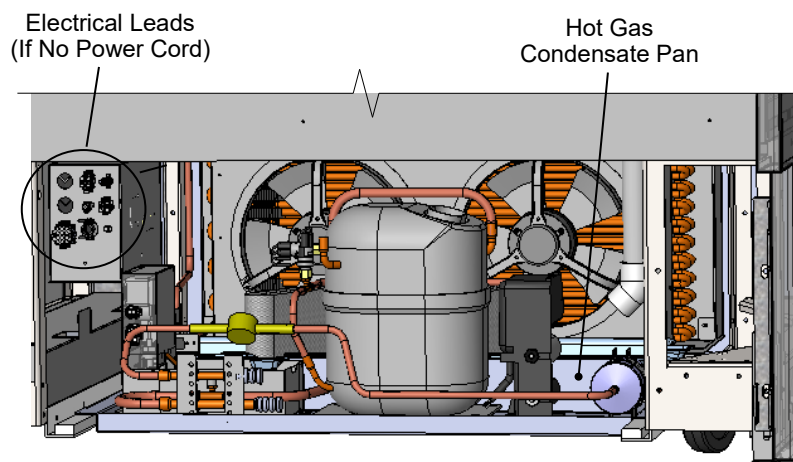
- **With Power Cord:**
  - ***For your safety, equipment is furnished with a properly grounded cord connector. Do not attempt to defeat the grounded connector!***
- Plug cord into certified electrical outlet with ground. See **Overview/Warnings** section for more specifics.
- **Without Power Cord:**

**Note:** Servicing to be accomplished by certified electrical contractor.

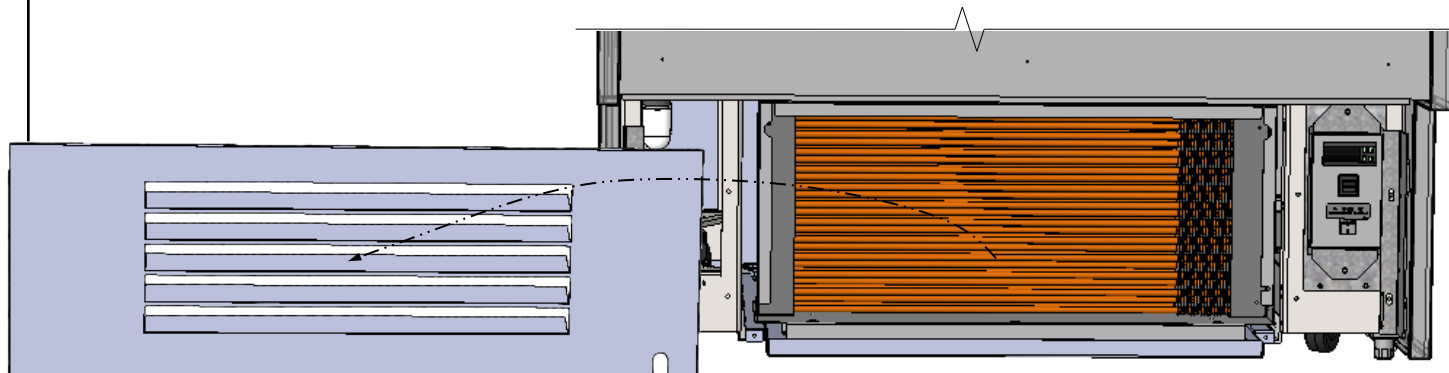
  - **Electrical Leads**
    - Remove cover from the left lower rear of the unit.
    - Electrical leads connections are provided in the junction box.



Rear Refrigeration Access After Rear Grille Removed  
(Model HEFSC463R Shown. Your Unit May Not Reflect Every Feature Or Option Of Your Particular Case)



Rear Refrigeration Access After Rear Grille Removed  
(Model HEFSC463R Shown. Your Unit May Not Reflect Every Feature Or Option Of Your Particular Case)



Front Refrigeration Access After Front Grille Removed  
(Model HEFSC463R Shown Above)

## ADJUSTING LEVELERS

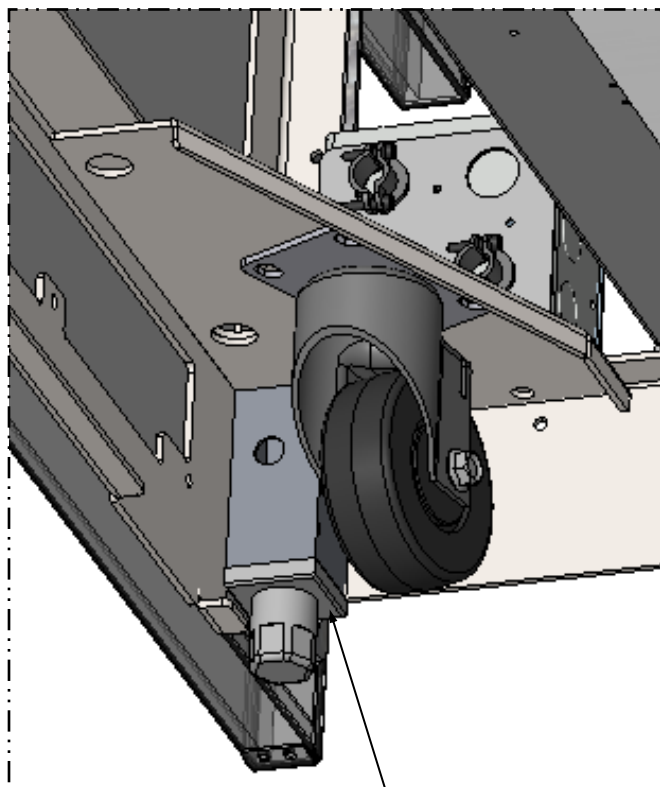
### **Adjust Levelers**

- After case is in position, adjust case so it is level and plumb.
- You may need to remove front and/or rear toe-kick to access levelers.

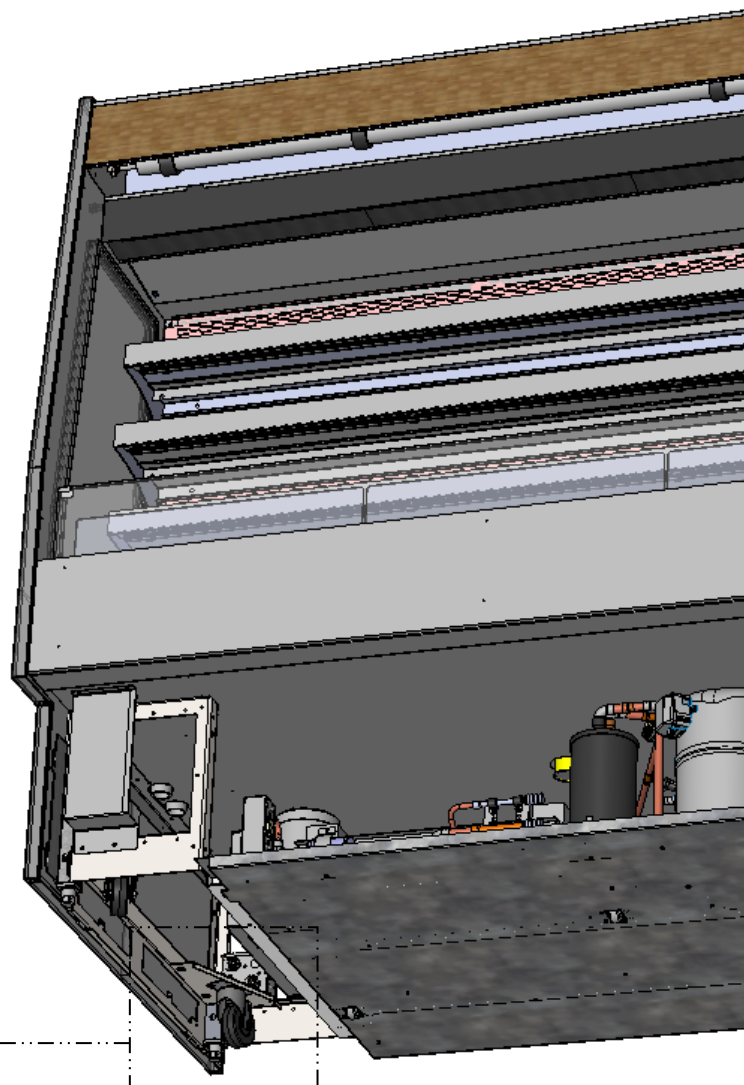
- Use adjustable wrench (and/or a pry bar) to adjust leveler.
- Do not use Pry Bar on Toe-Kick as it will buckle.
- Do not use Pry Bar on End Panel. It may chip.
- Use Pry Bar ONLY on Base Frame to avoid damaging case.



Pry Bar



Apply Pry Bar Here





## 1. Merchandiser Versatility

- Structural Concepts cases can accompany either floor or ceiling-originated electrical and/or refrigeration lines.
- This page shows how ceiling-originated lines are routed into case.

## 2. Ceiling Routed Electrical/Refrigeration. Lines

- A center pass-through protective plate is mounted at top of case over two (2) PVC center pass-throughs.
- If electrical/refrigeration lines are ceiling-originated, remove plate knockouts.
- Electrical and/or refrigeration lines may then be dropped through PVC center pass-throughs.

- **Caution! If ceiling-originated lines are used, you MUST seal both upper and lower PVC center pass-throughs (at entrance points) with expandable foam sealant to prevent condensation in case.**

## 3. Plate Removal

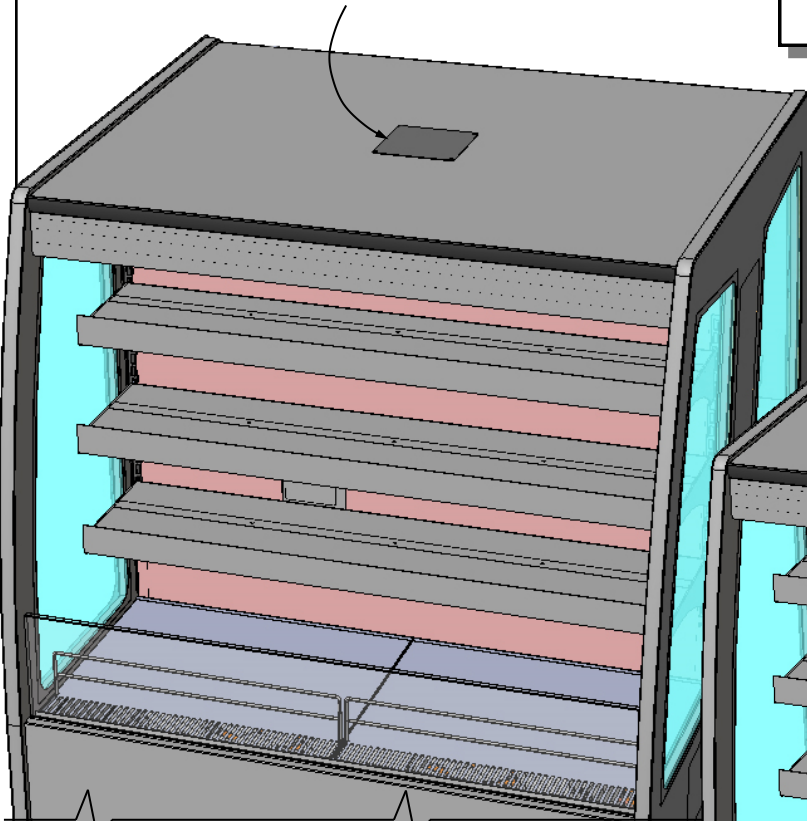
- Note: Though not required, protective plate can be removed from merchandiser via four (4) screws.

## 4. Case Underside

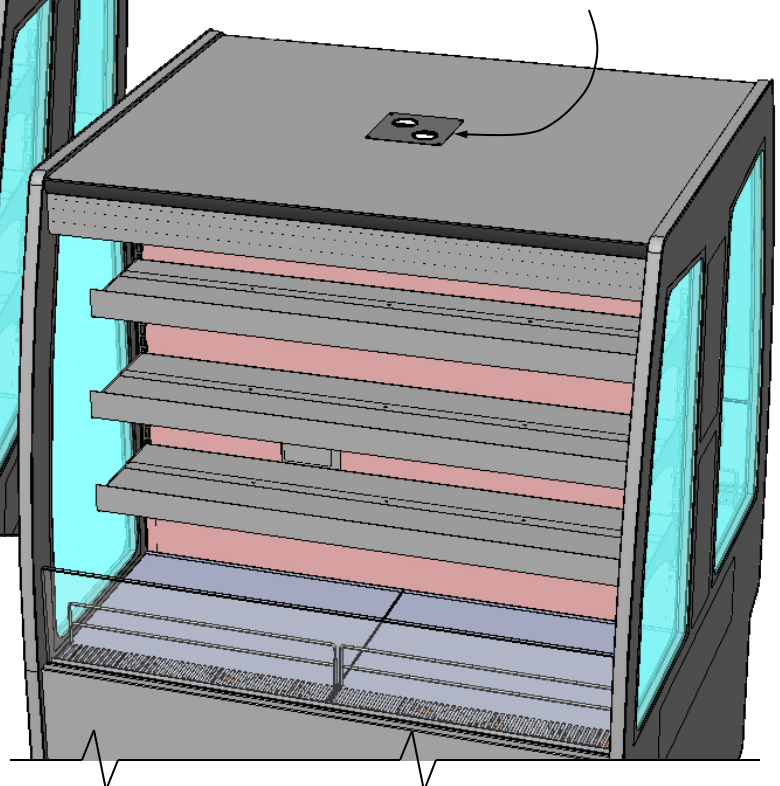
- See **REFRIGERATION FUNDAMENTALS: UNDERSIDE LAYOUT (BOTH SELF-CONTAINED & REMOTE)** section in this manual for location of center pass-throughs at underside of case.

Center Pass-Through Protective Plate Mounted on Merchandiser

Note: Illustrations Shown May Not Exactly Reflect Every Feature or Option of Your Particular Case.



Center Pass-Through Protective Plate Shown After Removal of Knock-Outs



**Caution! If ceiling originated lines are used, you MUST seal both upper and lower PVC center pass-throughs (at entrance points) with expandable foam sealant to prevent condensation in case.**

## 1. Main Power Switch - Start-Up

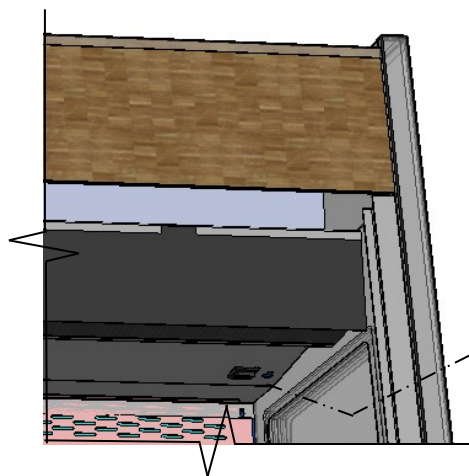
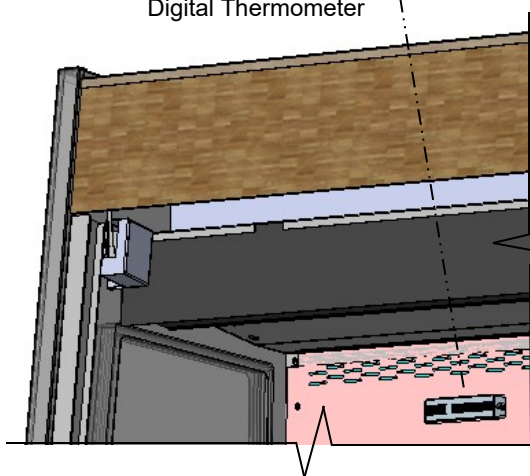
- Remove the front grille simply by lifting up and off (no screw removal required).
- Turn on the main power switch. Main power switch is on the left hand side of unit (accessible after front grille has been removed). Evaporator coil fans, and compressor motor (for units with self contained refrigeration) will energize.
- From the front of the case, raise the deck pans and check to see that the coil fans are all functioning properly. Caution! Do not place fingers near rotating blades!
- Replace front grille in reverse order it was removed.

## 2. Temperature Controller

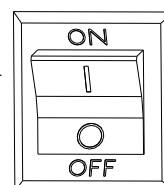
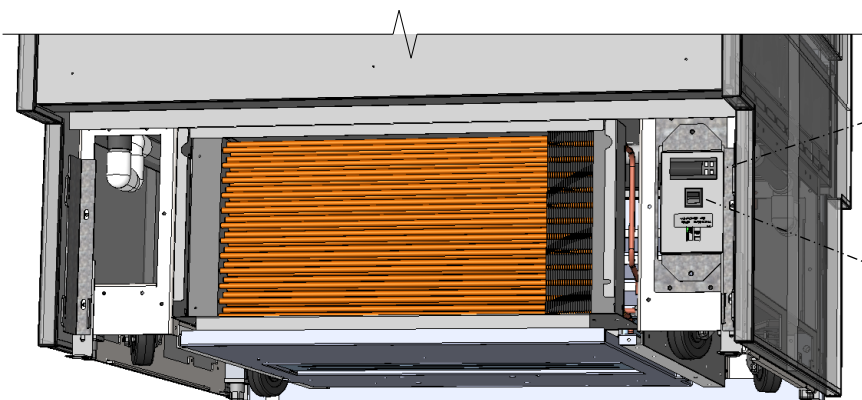
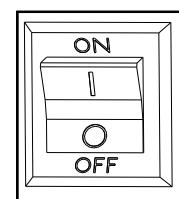
- The case temperature is set at the factory, (supply air is set for a case temp at 5 °C / 41 °F as as determined by the case size.



Digital Thermometer



Light Switch



Main Power Switch

- The temperature is controlled by a thermostat.
- See illustration at right for thermostat location.
- If a temperature setting change is required, refer to the **CAREL® TEMPERATURE CONTROLLER INFORMATION** section of this operating manual.

## 3. Light Switch At Header, Upper-Right

- LED lights are used on case, switch is at header, upper-right (as shown below-right).
- Turn on light switch.
- All lights should come on at the same time.
- Fluorescent bulbs may require a short warm-up period; initially, new fluorescent bulbs may be slightly dim or flicker.
- Whether fluorescent or LED, if lights do not turn on, check plug connections

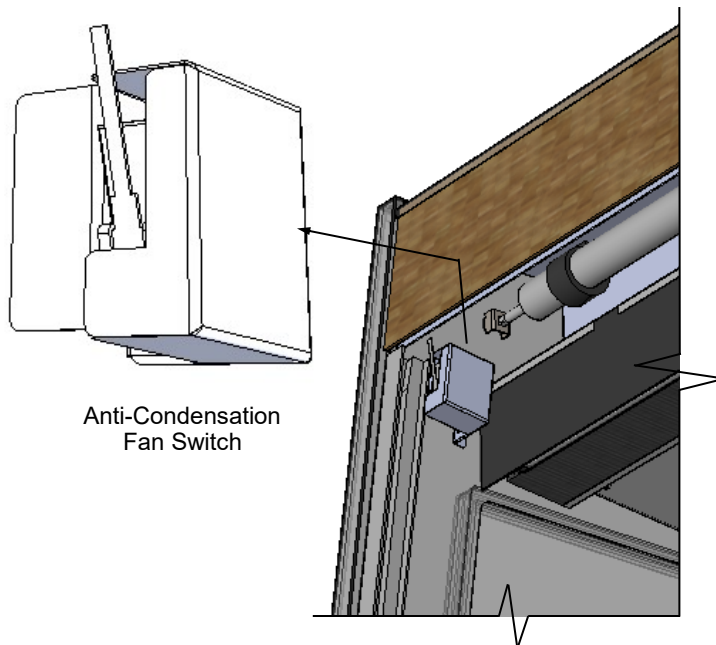
## 4. Digital Thermometers

Digital thermometers are located on rear plenum at upper-left area of case.

- Digital thermometers are on BOTH side of case.
- See enlarged illustration at left.

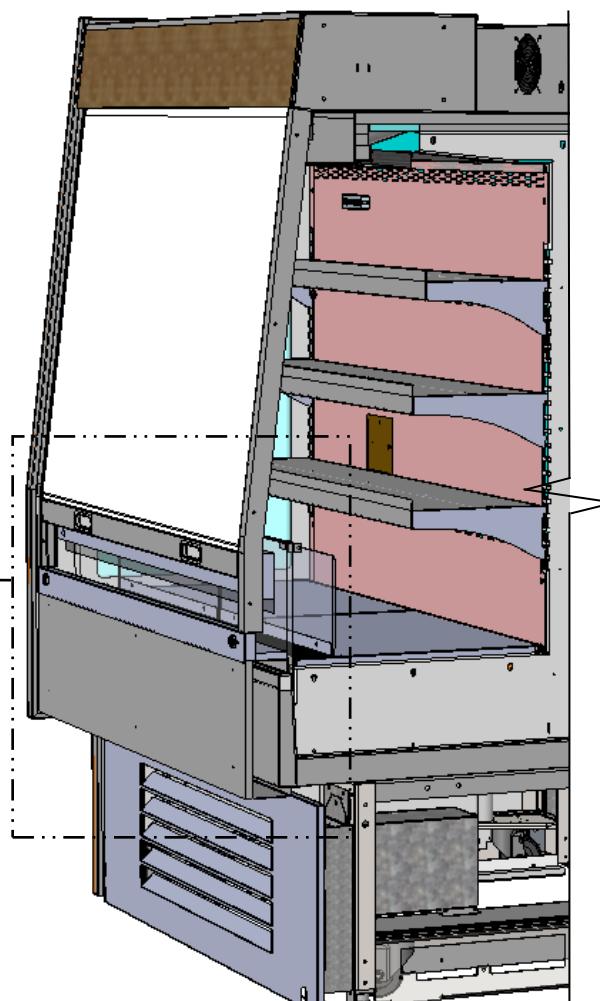
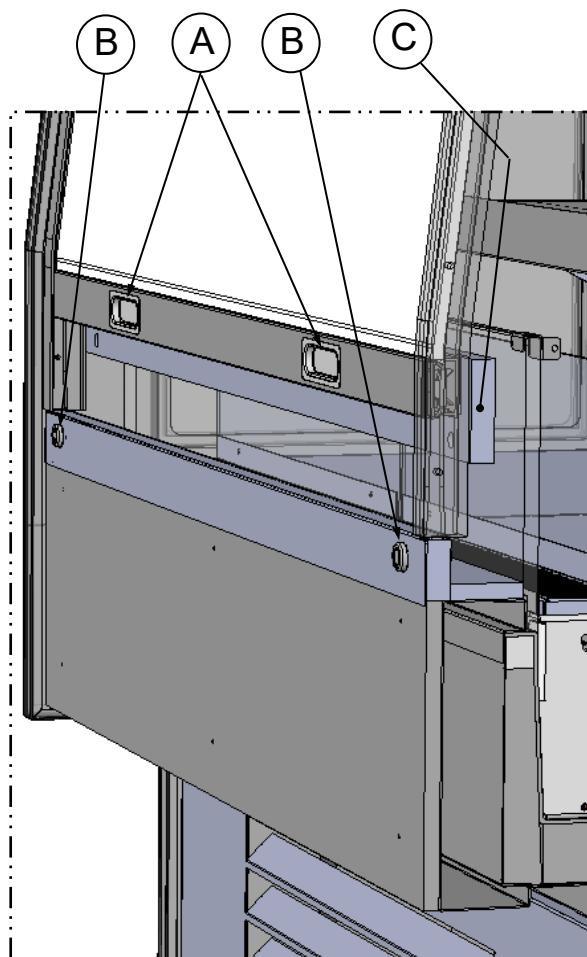
### **1. Roll-Down Security Door: Shown Extended**

- Roll-down security door has two handles (“A”) for grasping, lowering and raising.
- After door is lowered, use key to turn lock (“B”) clockwise to insert the “plunger rod” into lock plate (“C”); Note: Lock plate is part of roll-down security door assembly.
- Turn counter-clockwise to unlock.
- Keep keys in safe and secure place.
- See next page for view of case with roll-down security door in retracted (raised) position.



### **2. Anti-Condensation Fan Switch**

- Anti-condensation fans prevent condensation from forming on roll-down security door.
- See illustration at top right.

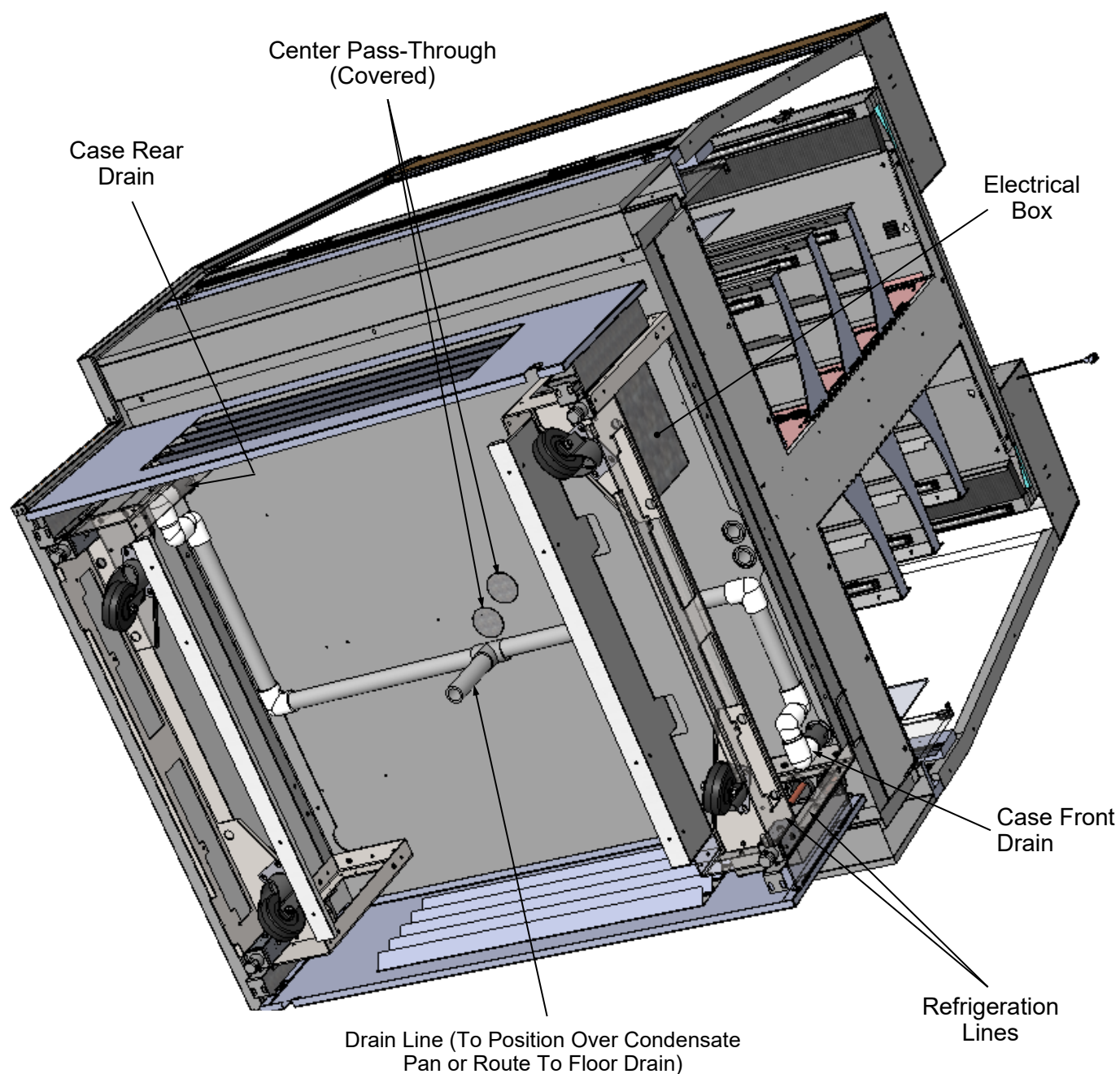


Model HEFSC463R Shown With Roll-Down Security Door Partially Extended

### **Refrigeration Fundamentals: Underside Layout**

**Note:** Self-Contained & remote refrigeration line access, connections & servicing must be accomplished by licensed contractors only.

- Partially-disassembled illustration below shows location of refrigeration lines for self-contained operation.
- Two (2) drains accessible from top of unit by lifting up decking.
- See **MAINTENANCE, FUNDAMENTALS, CONT'D: EVAP. COIL / FAN / TUB / DRAIN / TROUGH / TXV, ETC.** section in this manual for under decking drain illustration.



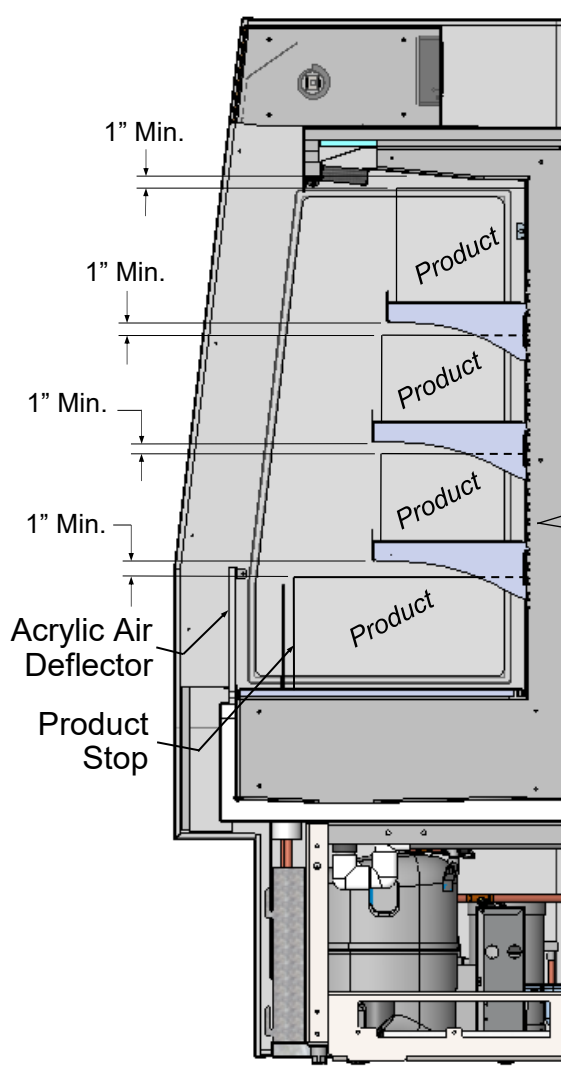
# MAINTENANCE FUNDAMENTALS SECTION



**CAUTION! TO MAINTAIN SAFE PRODUCT TEMPERATURES  
& AIRFLOW CAREFULLY FOLLOW THESE GUIDELINES:**

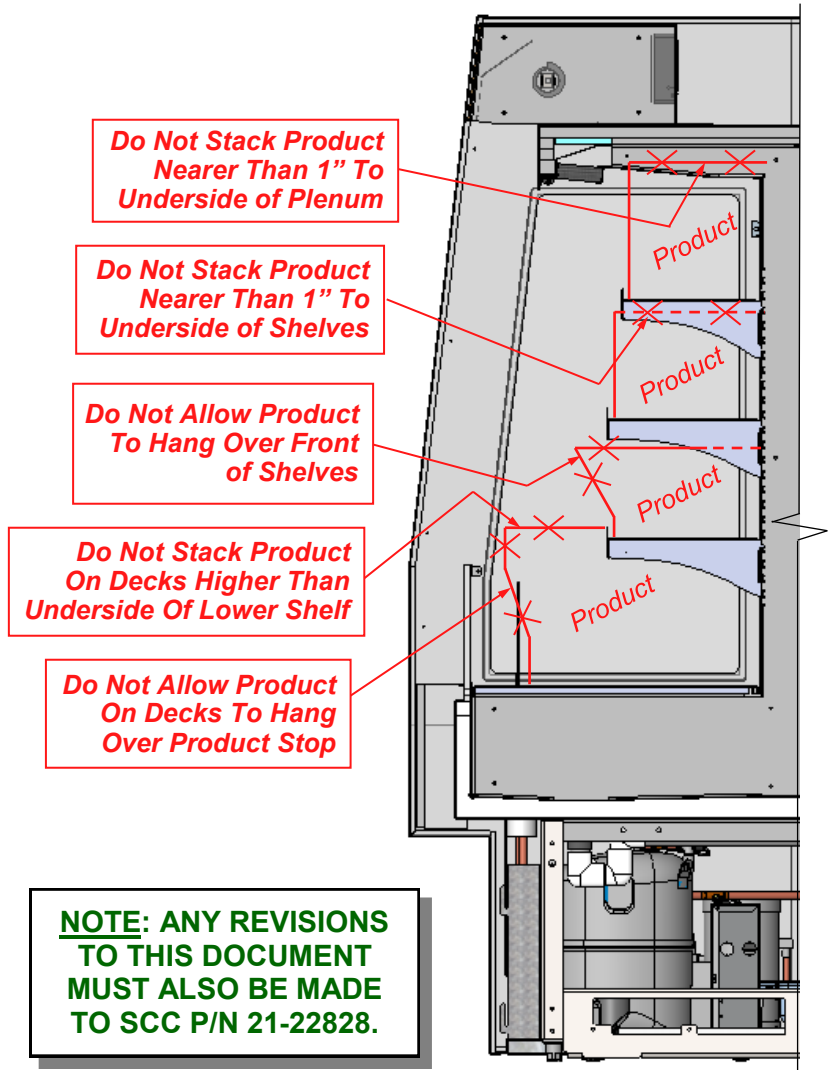
- ♦ DO NOT STACK PRODUCT NEARER THAN 1" TO UNDERSIDE OF PLENUM
- ♦ DO NOT STACK PRODUCT NEARER THAN 1" TO UNDERSIDE OF SHELVES
- ♦ DO NOT ALLOW PRODUCT TO HANG OVER FRONT OF SHELVES
- ♦ DO NOT STACK PRODUCT ON DECKS HIGHER THAN UNDERSIDE OF SHELF
- ♦ DO NOT ALLOW PRODUCT ON DECKS TO HANG OVER PRODUCT STOP

**ACCEPTABLE  
PRODUCT PLACEMENT**



--- SIDE VIEW ---

**UNACCEPTABLE  
PRODUCT PLACEMENT**



--- SIDE VIEW ---

**NOTE: ANY REVISIONS  
TO THIS DOCUMENT  
MUST ALSO BE MADE  
TO SCC P/N 21-22828.**

## LED Style Light Fixtures

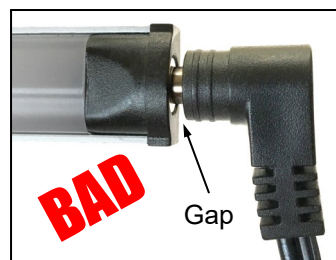
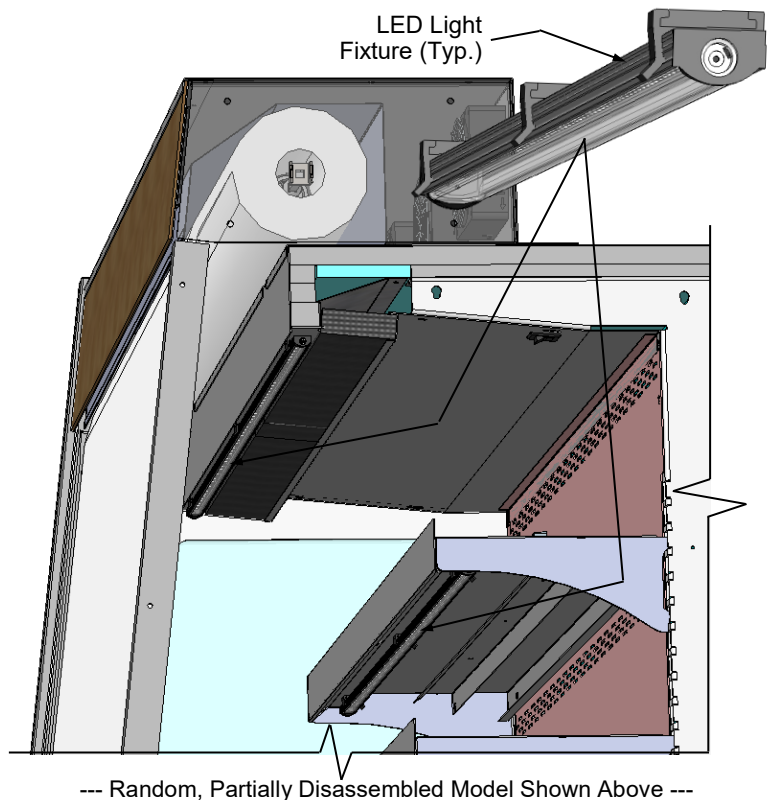
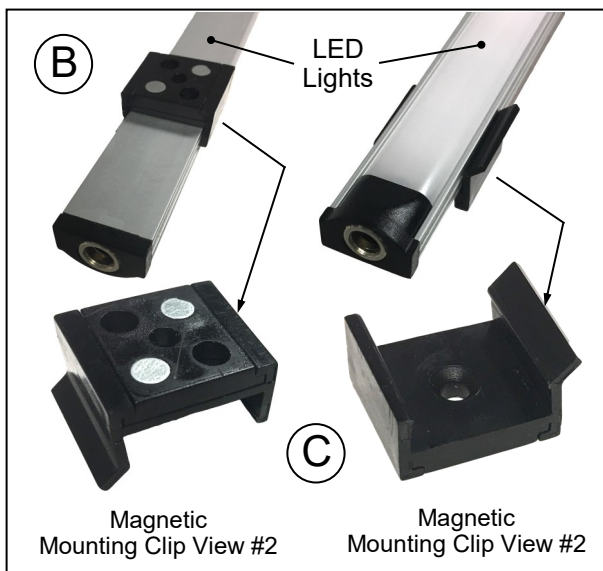
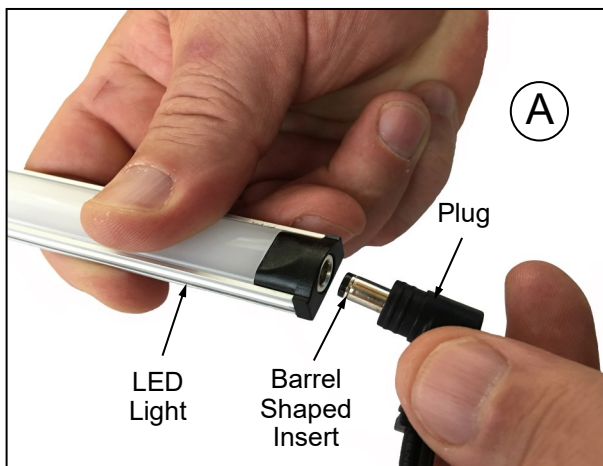
### Removal of Faulty LED Lights:

- LED lights rarely require change-out.
- 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.

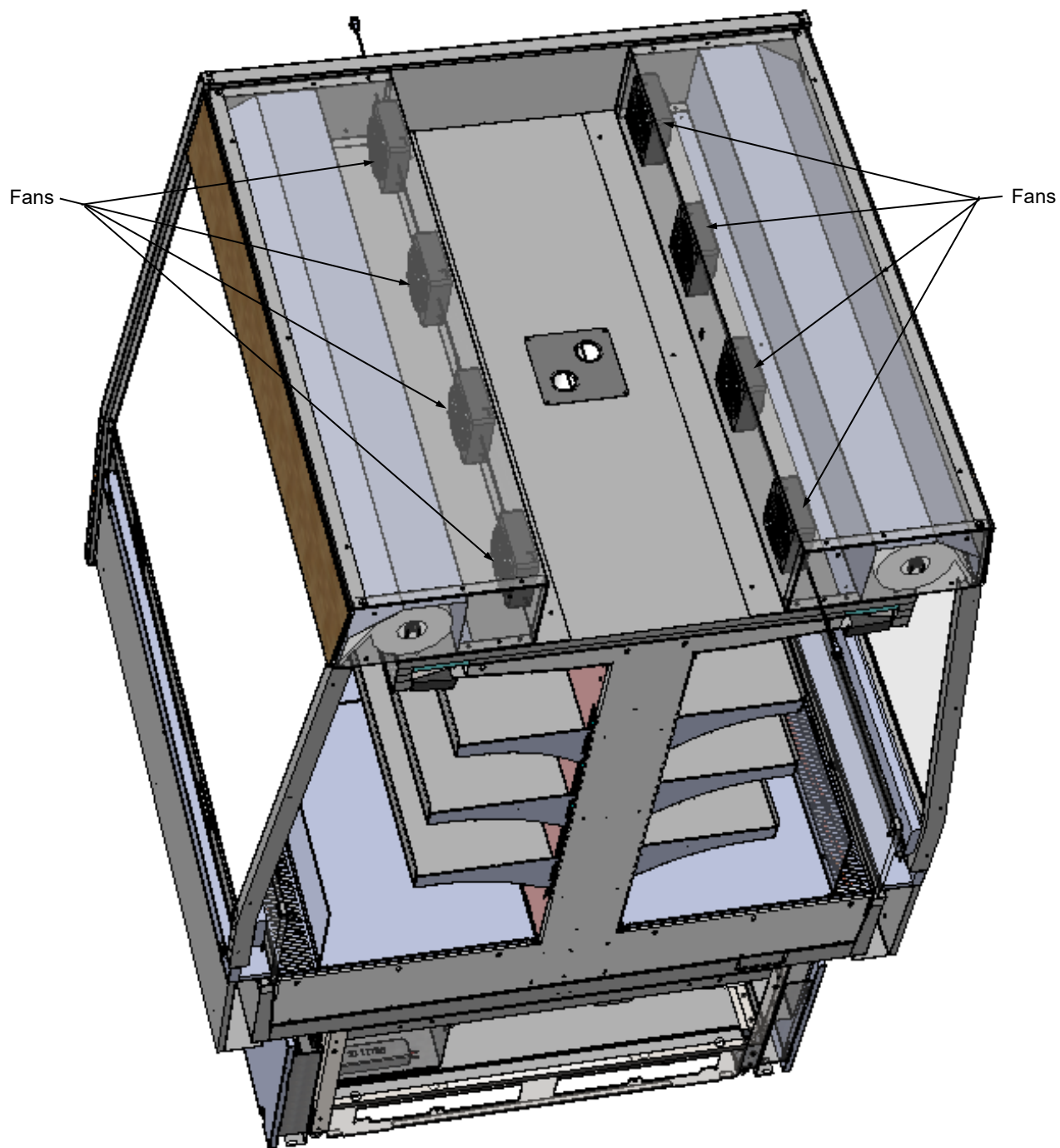
### Replacement of LED lights:

- 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 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.



### **Fans Atop Case**

- Fans help case maintain proper airflow to prevent condensation from forming in roll-down security door.
- See **MAINTENANCE FUNDAMENTALS, CONT'D: SHELF ASSEMBLY / SHELVES / LIGHTS / FAN SWITCH** section in manual for switch location.



Model HEFSC463R Shown Partially Disassembled  
And Certain Components Transparent

**Preventive maintenance is to be performed every 30 days unless conditions warrant a more frequent replacement cycle.**

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

*Honeycomb is located in discharge air duct.*

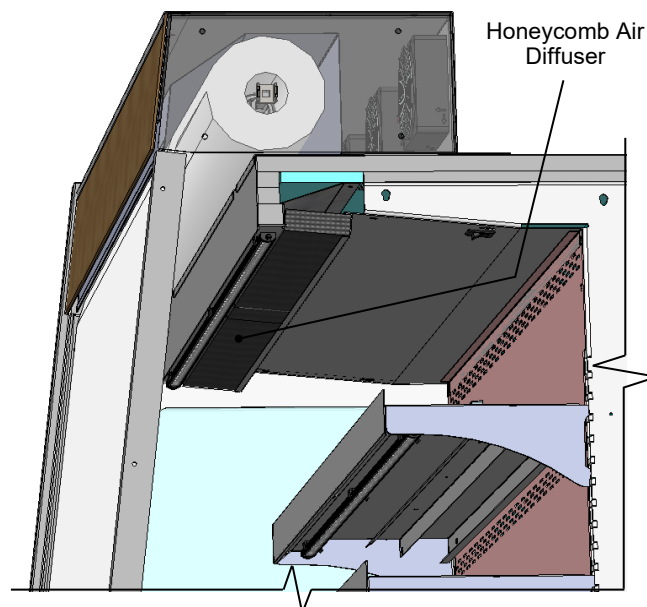
A. Wedge a non-metallic device of suitable strength (such as a ballpoint pen) between the honeycomb and the end panel.

**Caution!** Do not 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/away from honeycomb retainer.

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



--- Partially Disassembled Model HEFSC463R Shown Above ---

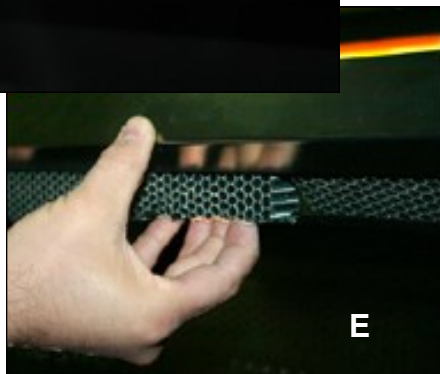
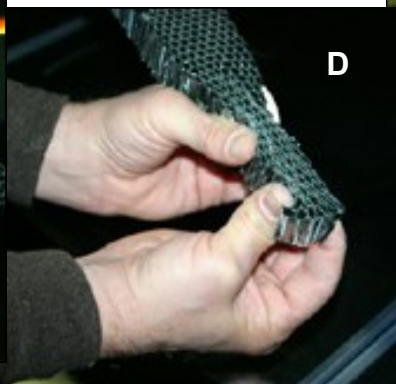
## **2. Honeycomb Air Diffuser Installation**

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.

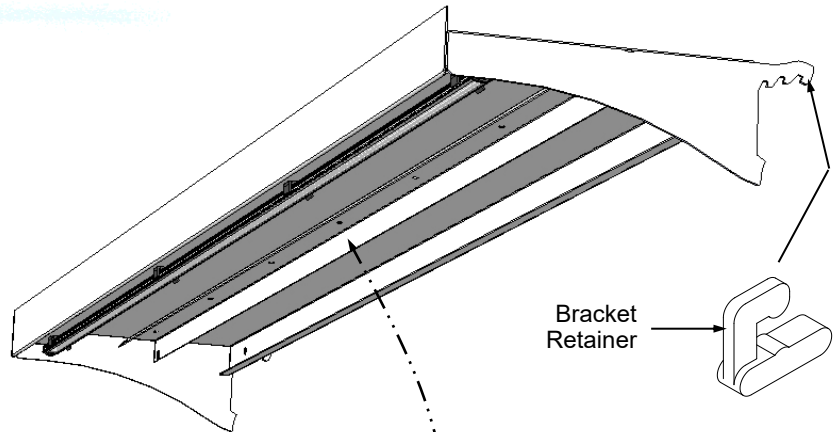
**Note:** For honeycomb air diffusers in other locations, these same general instructions apply.





### **1. Shelf Assembly Removal**

- Shelves can be removed for maintenance, cleaning or adjustments
- Slide shelf back about 1/8 inch and rotate front up while lifting shelf assembly.
- For lighted shelving, unplug the light cord.
- Slide light assembly back 1/8 inch. Rotate front up while lifting light assembly.
- Remove brackets. It may be necessary to remove the nylon shipping bracket retainer. Pliers may be required.

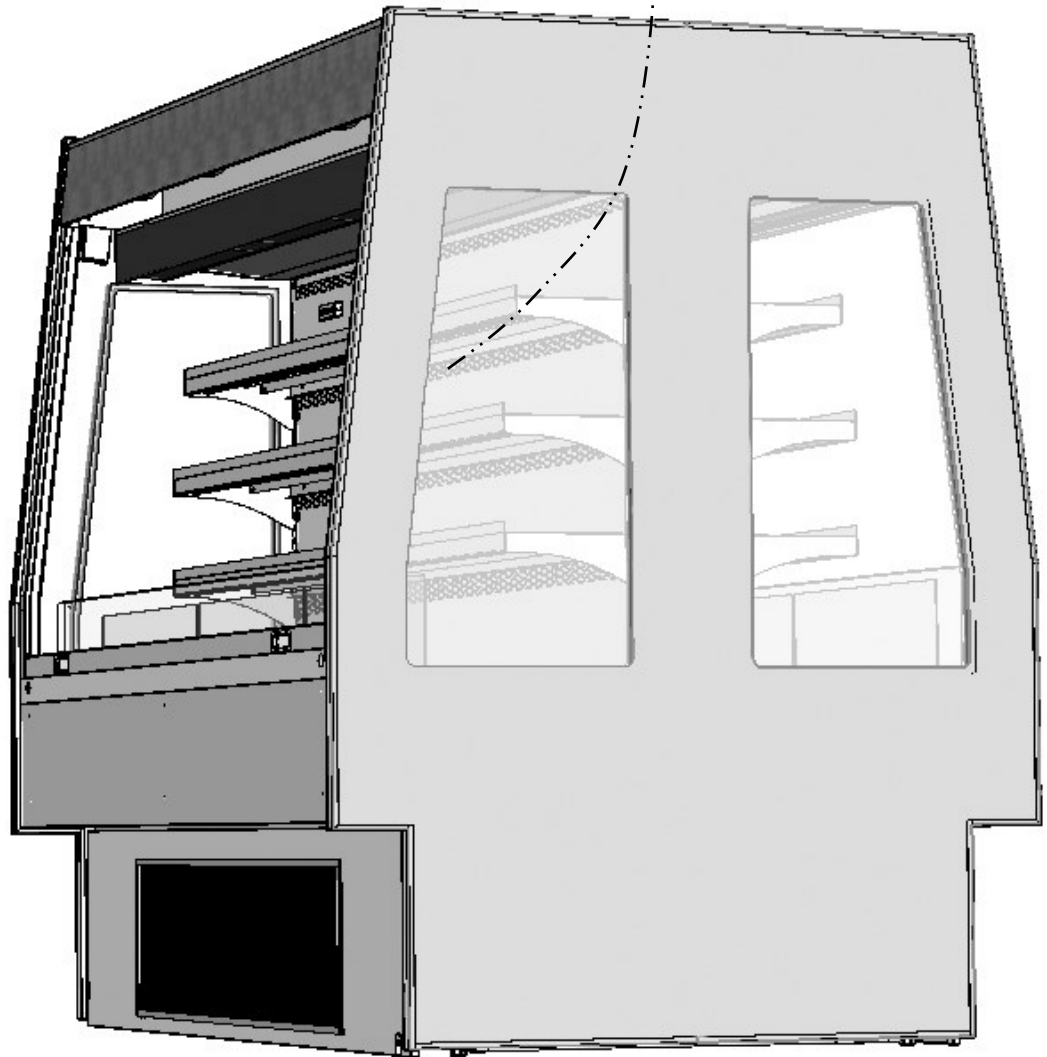


### **2. Adjustable Shelves**

- Adjustment of the angle of the shelf can be made, not the position.
- Adjustments to the shelves can be made by pivoting the lower portion of the shelf bracket in the upright.
- The shelves can be adjusted to an angle of: 0, 5, and 10 degrees.

### **3. LED Light Fixtures**

- LED light fixtures are located on the underside of each shelf assembly and at the top inside of case.
- See **MAINTENANCE FUNDAMENTALS: LED LIGHT FIXTURES** section in manual.

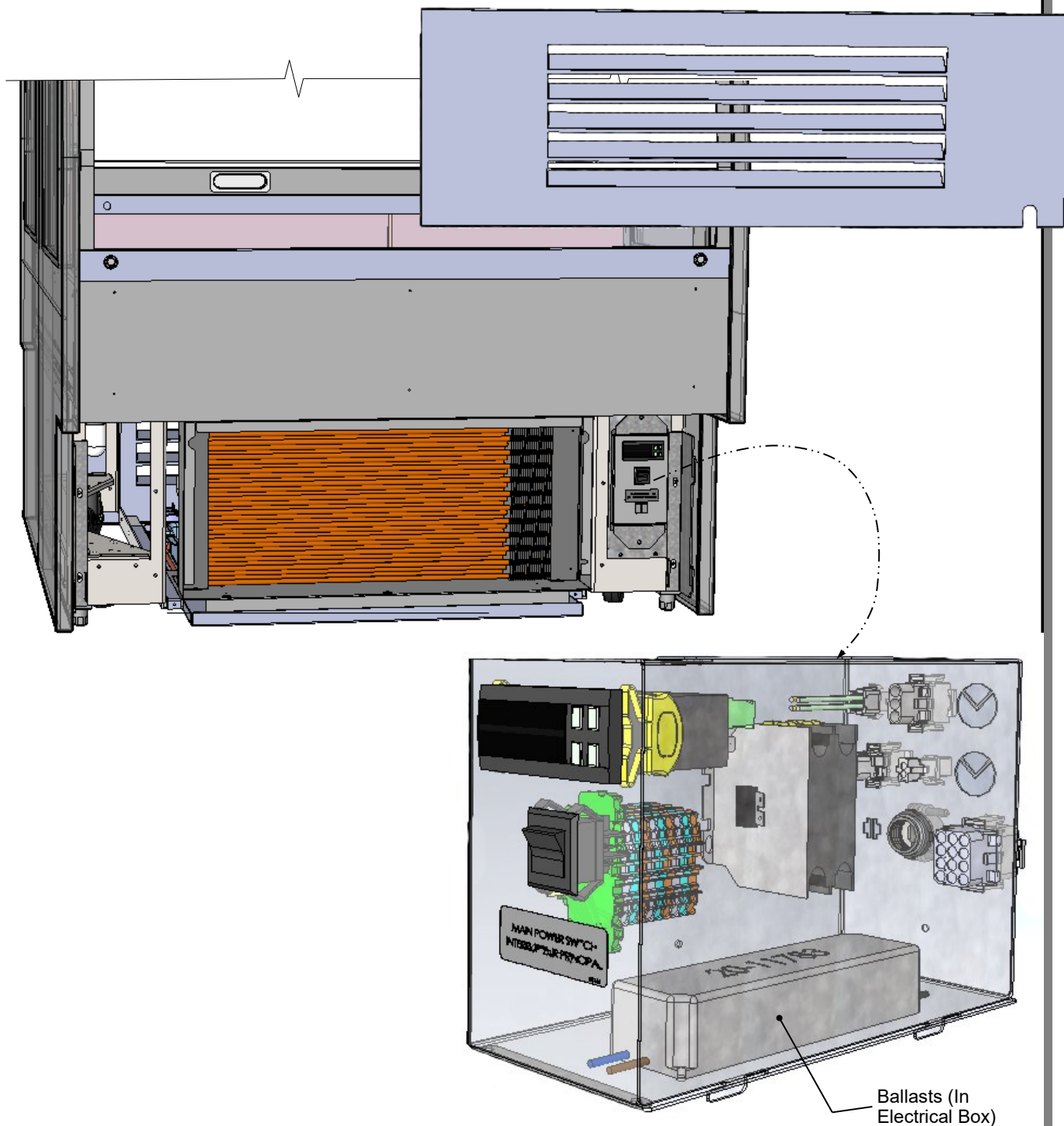


--- Model HEFSC663R Shown Above ---



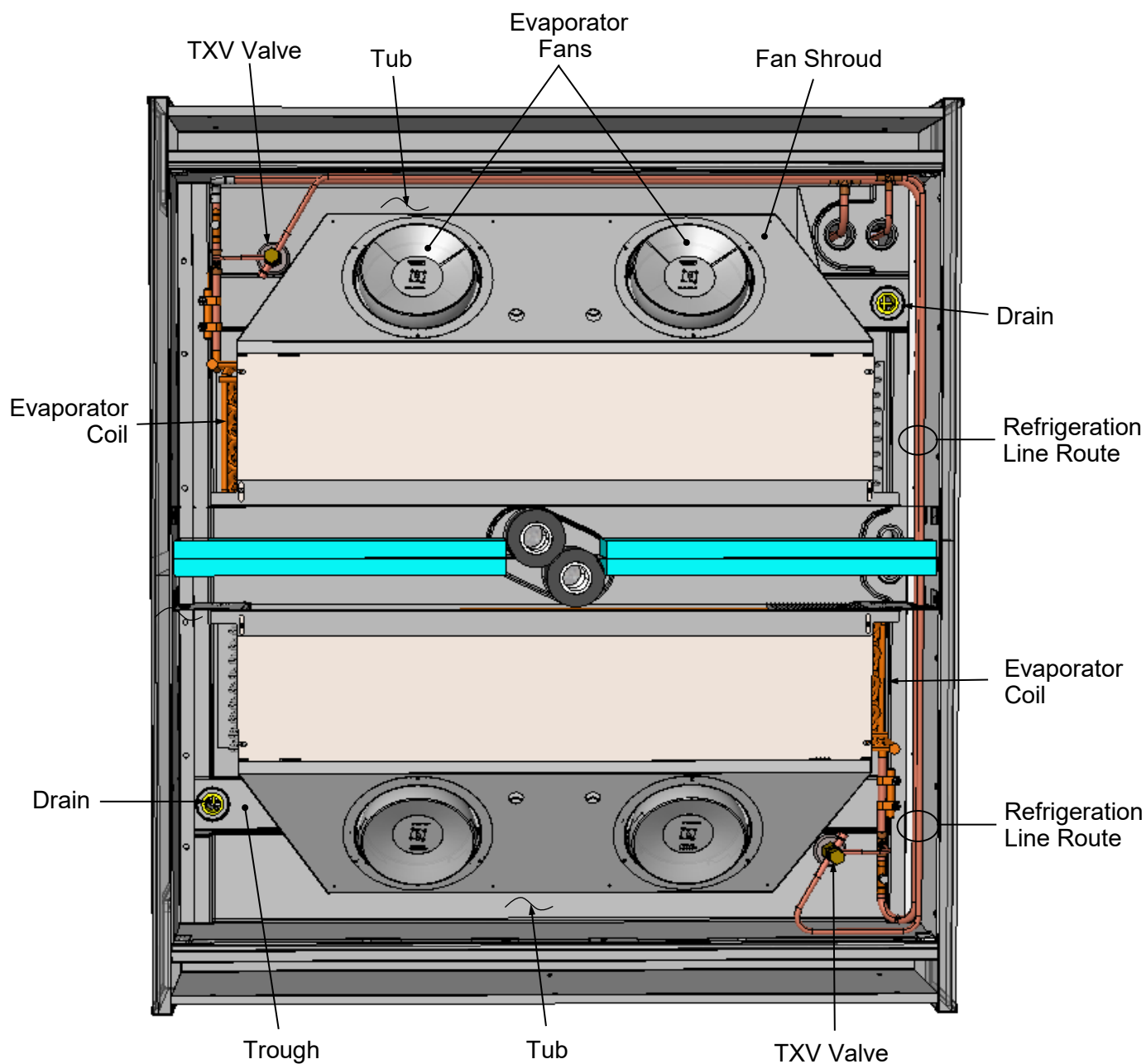
### **Ballast Access**

- ***Assembly or disassembly and servicing is to be accomplished by a licensed electrical contractor.***
- Remove rear grille by lifting up and off.
- Ballast are mounted inside the electrical box.
- Illustrations shown reflect models HEFSC463R. Your model may slightly vary.



### Evaporator Coil Fan

- **Caution! Turn off main power before accessing the evaporator coil / deck pan area. Rotating blades can cause severe injury!**
- Illustrations shown reflect models HEFSC463R. Your model may slightly vary.
- To access, remove all product.
- Remove deck pan for access to coil fans, drain, tub, trough, TXV, refrigeration lines, etc.
- After cleaning or servicing, return case components in reverse order they were removed.
- Restore power to case.

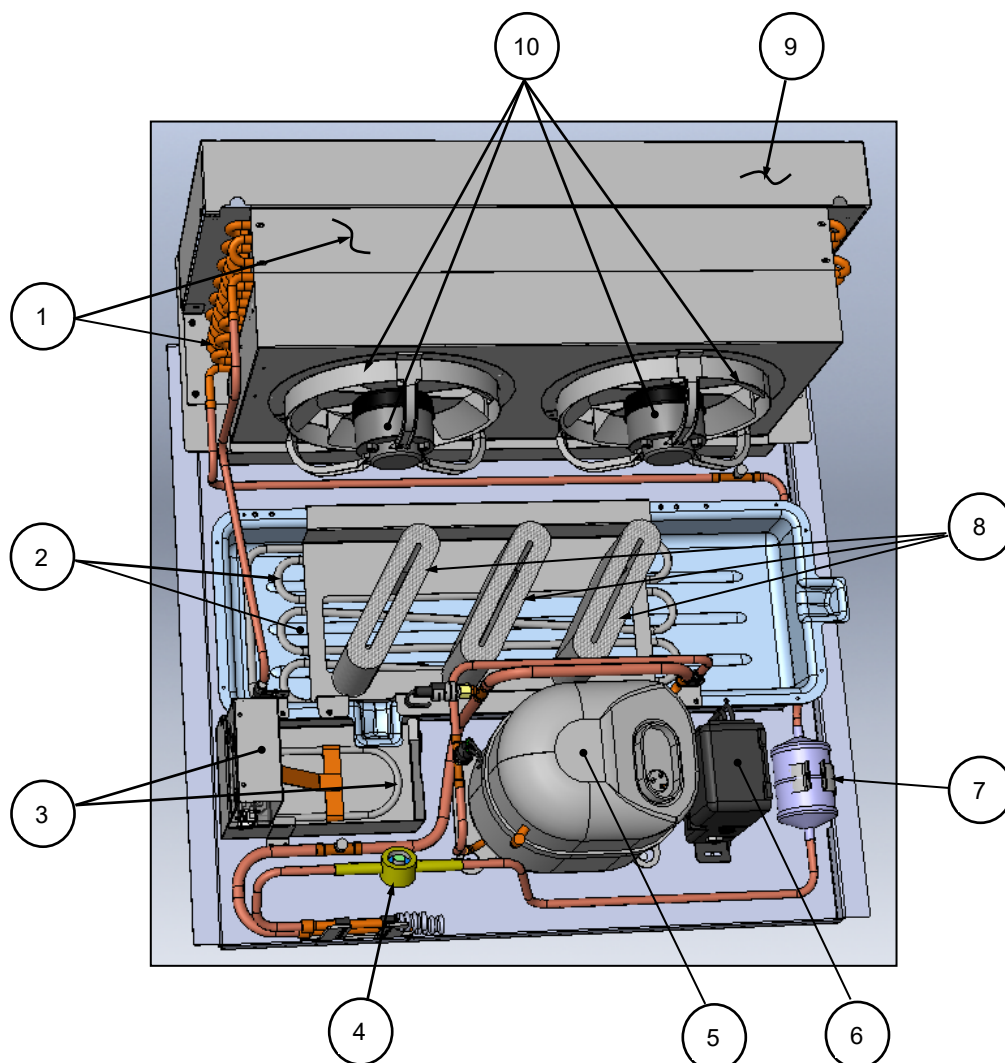


Model HEFSC763R Shown Above.  
Your Model May Differ.

## **Typical Configurations, Continued**

- Note:** Unit shown below is for Model HEFSC463R only. However, due to possible engineering redesigns, it may not exactly reflect your model's exact configuration.
- Caution:** Only certified refrigeration/electrical engineers or contractors are to access condenser unit.

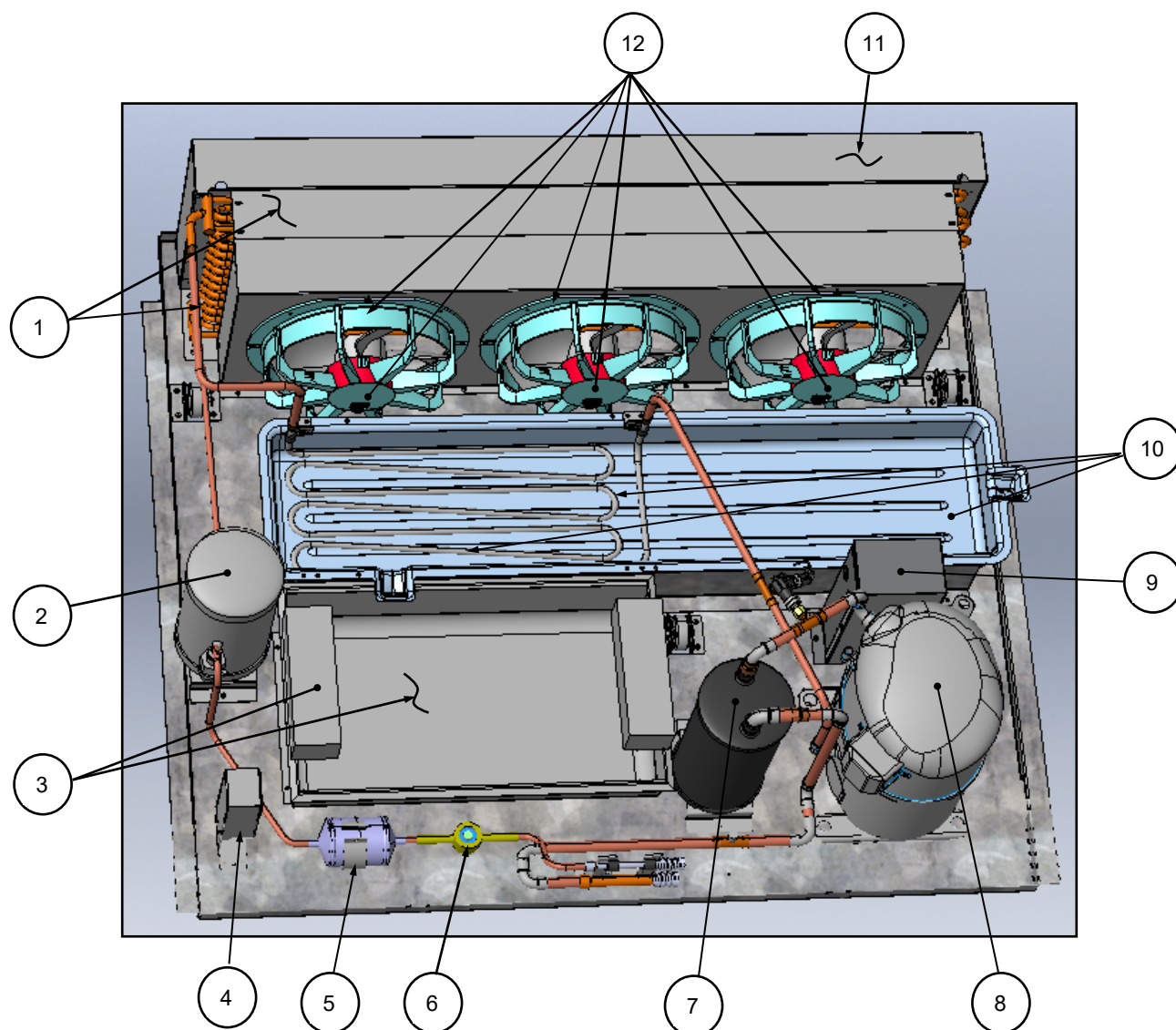
1	Coil and Coil Cover	6	Embraco® Compressor Start
2	Hot Gas Condensate Pan, Serpentine Rods	7	Filter Dryer
3	Electrical Coil Overflow Condensate Pan	8	Wicking Material
4	Sight Glass	9	Condenser Coil Fan Shroud (Optional: May Include Clean Sweep™ Automatic Condenser Coil Cleaner)
5	Refrigeration Pump	10	Fan Motors & Fan Shroud



## Typical Configurations, Continued

- Note:** Unit shown below is for Model HEFSC663R only. However, due to possible engineering redesigns, it may not exactly reflect your model's exact configuration.
- Caution:** Only certified refrigeration/electrical engineers or contractors are to access condenser unit.

1	Coil and Coil Cover	7	Accumulator
2	Receiver	8	Refrigeration Pump
3	1,500 Watt Electrical Coil Overflow Condensate Pan	9	Embraco® Compressor Start Components
4	Receptacle	10	Hot Gas Condensate Pan, Serpentine Rods
5	Filter Dryer	11	Condenser Coil Fan Shroud (Optional: May Include Clean Sweep™ Automatic Condenser Coil Cleaner)
6	Sight Glass	12	Fan Motors & Fan Shroud



**SERIAL LABEL,  
CLEANING,  
PREVENTIVE  
MAINTENANCE,  
TROUBLESHOOTING,  
THERMOSTAT &  
TECHNICAL SERVICE  
INFORMATION  
SECTION**





**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**

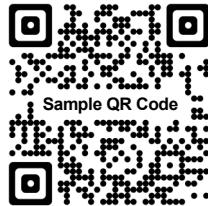
**Addenda**  
**Grocerant**  
**Fusion**

MODEL NRS3648RXV-SAMPLE  
SERIAL NO. 12345X30DZ098765

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

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

SCAN FOR PRODUCT LITERATURE



Sample QR Code

**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).

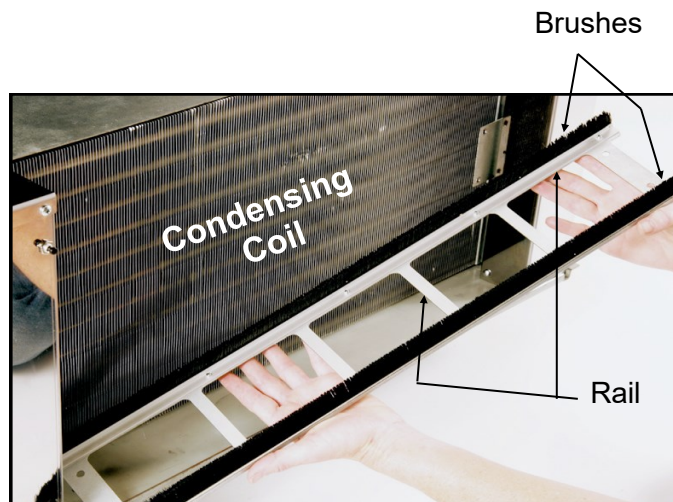
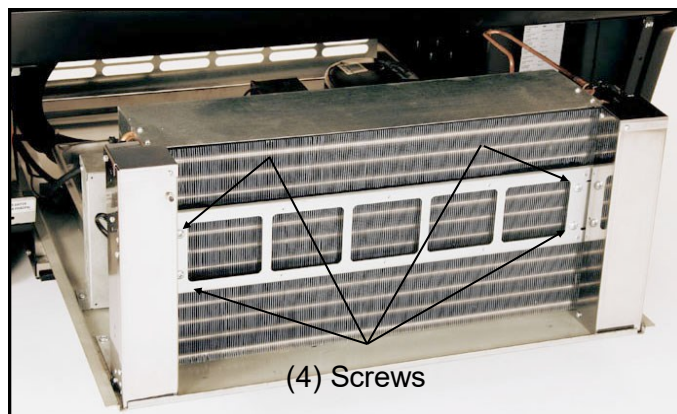
--- Sample Serial Label For Refrigerated Cases ---

# CLEANING SCHEDULE (PERFORMED BY STORE PERSONNEL & TRAINED SERVICE PROVIDERS)

Cleaning	D*	W*	M*	Q*	Task
Clean Case Exterior	X				Acrylic must be cleaned with a mild soap and water solution and a soft cloth ( <b><i>Never use a household cleaner on acrylic.</i></b> ).
Clean Case Interior	X				Shelves and decks can be cleaned with a warm soap and water solution.
		X			Remove decks. Clean with soap and water.
		X			Vacuum tub under deck. Clean with soap and water. Wipe dry with clean cloth.
		X			Keep drains clean and free of debris which could clog the drain and rob the case of needed refrigeration.
Clean Condensing Coil		X			Clean the condenser coil. Using air pressure if available, or an industrial strength vacuum, clean the dust and dirt that collects on condenser coil. Be careful not to damage the fins on the coil.
Magnetic Condenser Coil Filter		X			<p>Magnetic Condenser Coil Filter (Self-Contained Units Only):</p> <ul style="list-style-type: none"> <li>This filter prevent dust particles from entering condenser coil.</li> <li>It is accessible at case rear.</li> <li>Clean magnetic condenser coil filter by following either step 1 or 2; then follow step 3: <ol style="list-style-type: none"> <li>Magnetic condenser coil filter is dishwasher safe. Remove from case (no screw removal required) and use a rag or soft-bristled brush to wipe off excess dust particles from filter. Run in normal dishwasher cycle. Remove from dishwasher. Dry with soft cloth / paper towel. Return to case.</li> <li>If not using dishwasher, remove magnetic condenser coil filter from case. Use a rag or soft-bristled brush to wipe off excess dust particles from filter. Submerge in warm, soapy water. Use soft-bristled brush to remove dust, dirt, grease and grime that collects on filter. Rinse thoroughly.</li> <li>Dry with soft cloth or paper towel or allow to air dry. Replace.</li> </ol> </li> </ul>
Evaporator Fan Shroud Area (Trained Svc. Providers Only)			X		<u>Evaporator Fan Shroud Area (Under Decking):</u> <b>Caution! Due to rotating fans in area, turn off case and disconnect plug from wall outlet before beginning fan shroud / tub area cleaning!</b> 1) Turn off power. 2) Remove decks from case. 3) Clean fan shroud area (and surrounding tub area) with moist cloth.
Tub & Drain (Trained Service Providers Only)				X	<u>Tub &amp; Drain:</u> <b>Caution! Due to rotating fans, turn off case. Disconnect plug from wall outlet before beginning tub &amp; drain cleaning!</b> Vacuum tub under decks. Clean with soap and water solution. Wipe dry with clean cloth. Keep drain free of debris to prevent clogging.

\*D = Daily / \*W = Weekly / \*M = Monthly / \*Q = Quarterly

Preventive Maintenance	Freq.	Instructions
Case Exterior	Monthly	<b>Condensing Coil:</b> <ul style="list-style-type: none"> <li>To remove rear grille, lift slots up and off hooks (no screw removal required).</li> <li>Use air pressure or industrial strength vacuum; 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 (no screws required).</li> <li>See illustration below.</li> </ul>
	Qtly.	<b>Clean Sweep™ Condensing Coil (Optional):</b> <i>Disconnect power from case before cleaning Clean Sweep™ Condenser Coil!</i> <ul style="list-style-type: none"> <li>Remove front grille (no screw removal required).</li> <li>Slide/roll out condensing unit assembly (at case front).</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 illustration below.</li> </ul>



--- Above photos are taken after front has been removed from case ---

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

Preventive Maintenance	Frequency	Instructions
Case Exterior	Quarterly	<p><b><u>Compressor Area:</u></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><u>Hot Gas Condensate Pan:</u></b> Use a de-scaling solution (such as CLR®) that will prevent corrosion, lime and rust, to clean pan. Use spray bottle to evenly spread solution throughout. Rinse thoroughly with spray bottle filled with clean water and sponge.</p>
	Quarterly	<p><b><u>Under Case Cleaning:</u></b> Once condenser 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><u>Tub, Coil, Drain, Fan Blades, Motors, Brackets:</u></b></p> <p><i>Caution! 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><u>Honeycomb:</u></b> See <b>MAINTENANCE FUNDAMENTALS: HONEYCOMB AIR DIFFUSERS</b> section in this manual for cleaning specifics.</p>

## TROUBLESHOOTING (TO BE PERFORMED BY STORE PERSONNEL)

Condition	Troubleshooting
Product is Drying Out	Check the relative humidity in the store.
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>MAINTENANCE FUNDAMENTALS, CONT'D: LED LIGHT FIXTURES</b> section in this manual for specifics.
	<b>LED Lights:</b> check that plugs are properly inserted into LED light orifices. See <b>MAINTENANCE FUNDAMENTALS, CONT'D: LED LIGHT FIXTURES</b> section of manual.
	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.
	Check that the case is not in the sun or near a heat or air-conditioning vent. See <b>OVERVIEW / CONDITION / COMPLIANCE / WARNINGS / PRECAUTIONS / WIRING</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 that condenser coil air filter and condenser coil has been cleaned. See <b>CLEANING SCHEDULE (PERFORMED BY STORE PERSONNEL &amp; TRAINED SERVICE PROVIDERS)</b> section in this manual for specifics.
	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.
Condensation Is Forming On Roll-Down Security Door	Turn on anti-condensation fan switch. See <b>ROLL-DOWN SECURITY DOOR / ANTI-CONDENSATION FAN SWITCH</b> for switch location.



Condition	Troubleshooting
<b>Case Not Lining Up</b>	See Installation Section for instructions on properly aligning case (alongside other cases) and adjusting levelers.
<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 the drain hose is correctly positioned over evaporator pan (or floor drain, for remote units).
	<ul style="list-style-type: none"> <li>• Check store conditions. To prevent condensation ambient temperature of 85 °F (29.4 °C) and 60% maximum humidity must be maintained.</li> </ul>
	Check that hot gas condenser pan is operating properly.
	Check that overflow condenser pan is properly plugged in or connected.
	<p><b>Caution!</b> Disruption of power can cause water to overflow pan and seep onto flooring causing damage! Check that power to case is constant. Until power is restored, 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 drainage. Swap out regularly until evaporation of case is complete (or until power is restored).</li> <li>• When power to case is restored, evaporator pan should function properly and water will no longer overflow onto flooring.</li> </ul>
	<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 ALL of the light cords and plugs are properly connected. See <b>MAINTENANCE FUNDAMENTALS, CONT'D: LED LIGHT FIXTURES</b> section in this manual for specifics.
	Service Technicians Only: Check voltage at LED drivers. If voltage is entering but not exiting, LED driver may be faulty.
	If case lights still do NOT come on, call service provider.
<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 / CONDITION / COMPLIANCE / WARNINGS / PRECAUTIONS / WIRING</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 / CONDITION / COMPLIANCE / WARNINGS / PRECAUTIONS / WIRING</b> section in manual for adverse conditions/spacing issue parameters.
	Check that condenser coil air filter (attached to rear grille) has been cleaned. See <b>GENERAL CLEANING (TO BE PERFORMED BY STORE PERSONNEL)</b> section in operating manual for instructions.
	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.



**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**



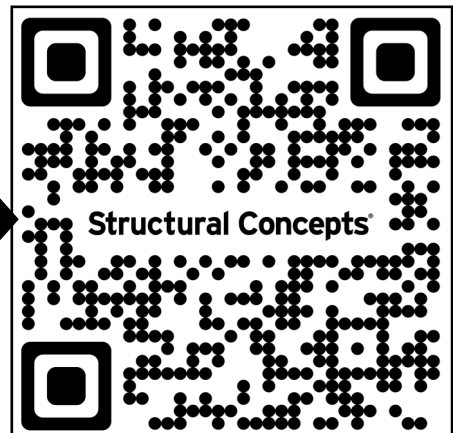
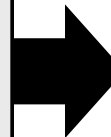
**Carel® iJF Platform**



**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.

