

# Oasis<sup>®</sup>

# USER MANUAL

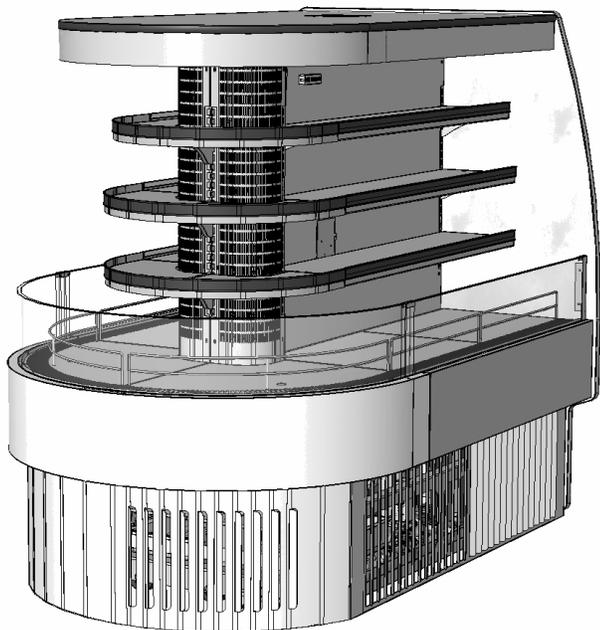
## SCC P/N 20-20438

THIS USER MANUAL IS APPLICABLE TO THE FOLLOWING MODELS:

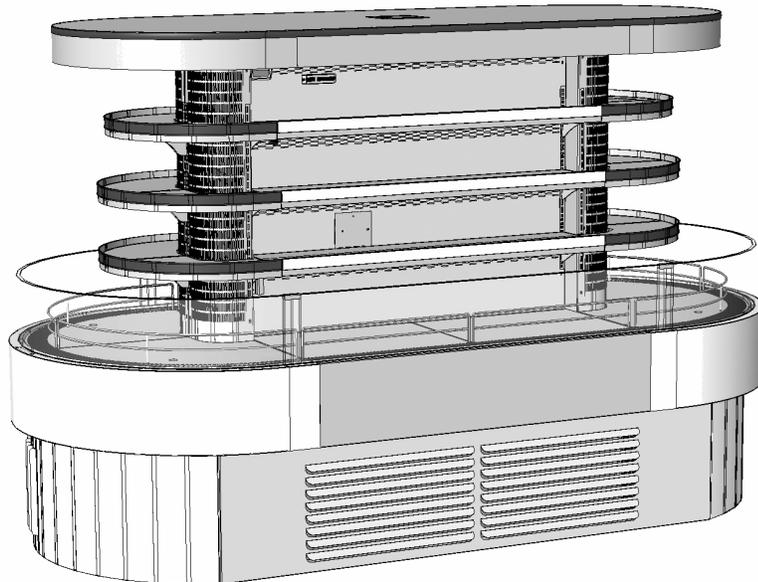
> REFRIGERATED SELF-SERVICE ISLAND - CID MODELS FSI856R, FSI656R, FSI663R and FSI863R

> REFRIGERATED SELF-SERVICE PENINSULA END CAP - CID MODEL FSE663R

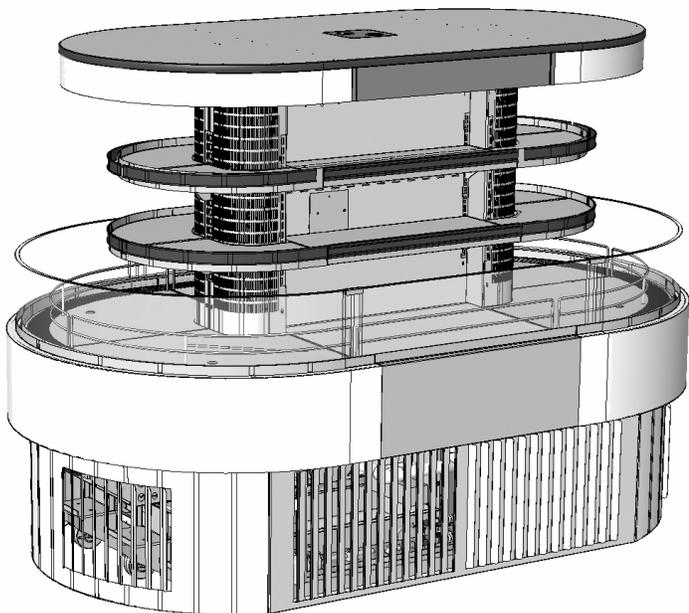
**>> IMPORTANT: IF YOUR UNIT HAS AFTERMARKET PRODUCT BINS, SEE PAGE 20 OF MANUAL FOR PLACEMENT INSTRUCTIONS.**



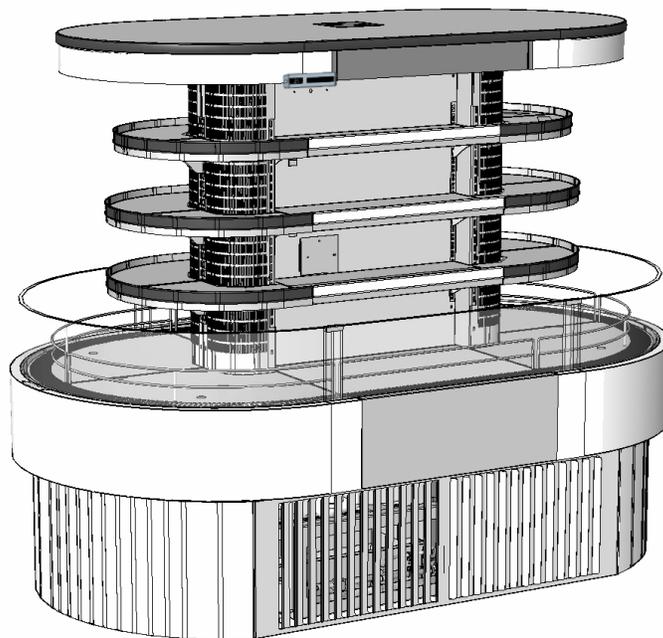
Model FSE663R



Model FSI863R



Model FSI656R



Model FSI663R

**INTERNAL NOTE: ANY REVISIONS TO THIS DOCUMENT MUST BE MADE TO P/N 20-20438**

## Structural Concepts<sup>®</sup>

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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 ensure proper performance.
- Improper use will void warranty.

**CID UNITS - TYPE 2 CONDITIONS**

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

- These CID units are designed for Type 2 conditions.
- Type 2 conditions are ambient conditions of 60% maximum humidity and maximum temperatures of 80 °F (27 °C).

**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!

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



**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**

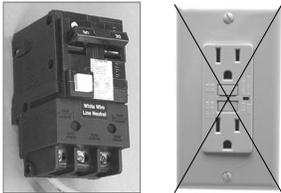
- This sheet contains important precautions to prevent damage to unit or merchandise.
- Please read carefully!
- See previous page for specifics on **OVERVIEW**, **CONDITION TYPE**, **COMPLIANCE** and **WARNINGS**.

**WIRING DIAGRAM**

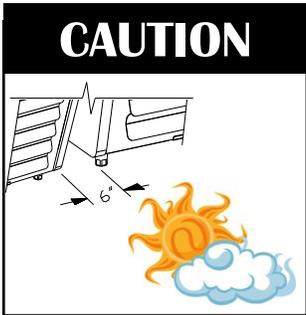
- Each case has its own wiring diagram folded and in its own packet.
- Wiring diagram placement may vary; it may be placed near ballast box, field wiring box, raceway cover, or other related location.



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

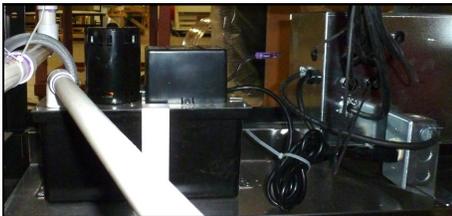


**CAUTION! GFCI BREAKER USE REQUIREMENT**  
 If N.E.C. (National Electric Code) or your local code requires GFCI (Ground Fault Circuit Interrupter) protection, you **MUST** use a GFCI breaker in lieu of a GFCI receptacle.



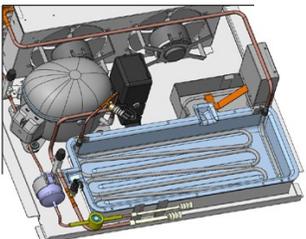
**CAUTION! ADVERSE CONDITIONS / SPACING ISSUES**

- Performance issues caused by adverse conditions are **NOT** warranted.
- Rear panels must 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 PUMP CONNECTIONS**  
 Water on flooring can cause extensive damage!  
 Carefully check the following before powering up case:

- Condensate pump must be plugged into receptacle.
- Condensate lines must be connected to condensate pump.



**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.



**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 probe.

**>> Important! Case Must Be Rolled Off Skid At Exhaust Side of Case!**

**1. Case Received At Shipment**

- Case will be shipped with lower panels attached.

**2. Lower Panel Removal and Storage**

- Remove ramps from skid (to use later in process).
- Remove lower panels by lifting up and off case.
- Place in area away from foot traffic.
- **DO NOT REMOVE SUPPORT BRACE** (at exhaust side of case)!

**3. Metal Shipping Bracket Removal**

- Remove (2) metal shipping brackets at air exhaust side of case.

**4. Wood Shipping Brace Removal**

- Remove all (4) wooden shipping braces. Discard.

**5. Metal Shipping Bracket Removal**

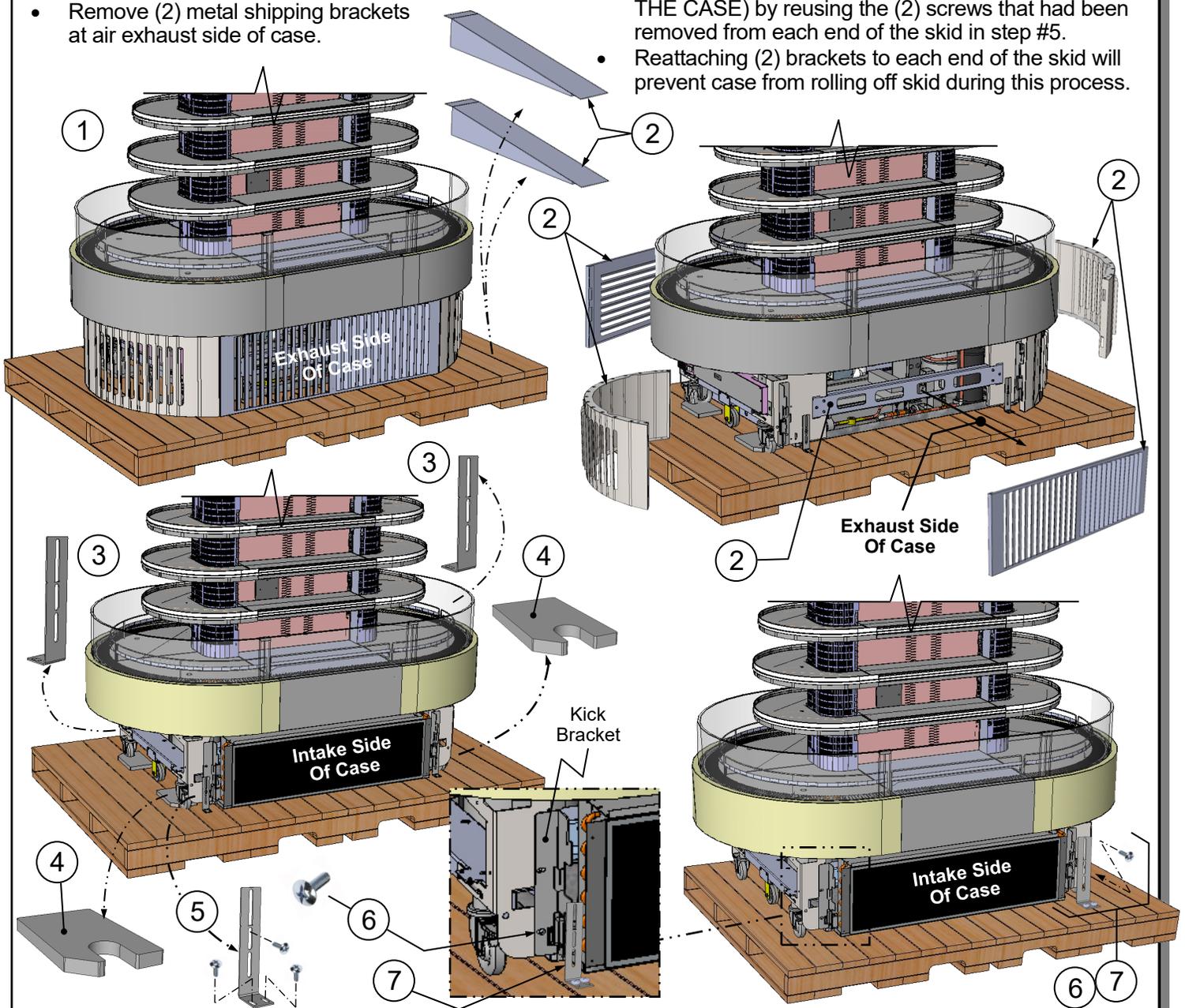
- Remove (1) metal shipping brackets from each end of air intake (coil) side of case by removing (3) screws .

**6. Reattach (2) Screws to The Case**

- Reattach one (1) screw at each end of case (2 screws total) to securely fasten the 'kick brackets' to the base at the intake (coil) side of case.

**7. Metal Shipping Bracket Reattachment**

- Reattach the (2) shipping brackets to the skid (NOT THE CASE) by reusing the (2) screws that had been removed from each end of the skid in step #5.
- Reattaching (2) brackets to each end of the skid will prevent case from rolling off skid during this process.



**>> Important! Case Must Be Rolled Off Skid At Exhaust Side of Case!**

**8. View of Case After Panels & Brackets Removed**

- Case is now ready to remove from skid (without damaging panels or being secured to skid).

**9. View of Caster in Locked Position**

- Important! Case is shipped with casters factory set at **ON** (locked) position (as shown) to help prevent case from rolling during shipment.

**10. Unlock All (4) Casters**

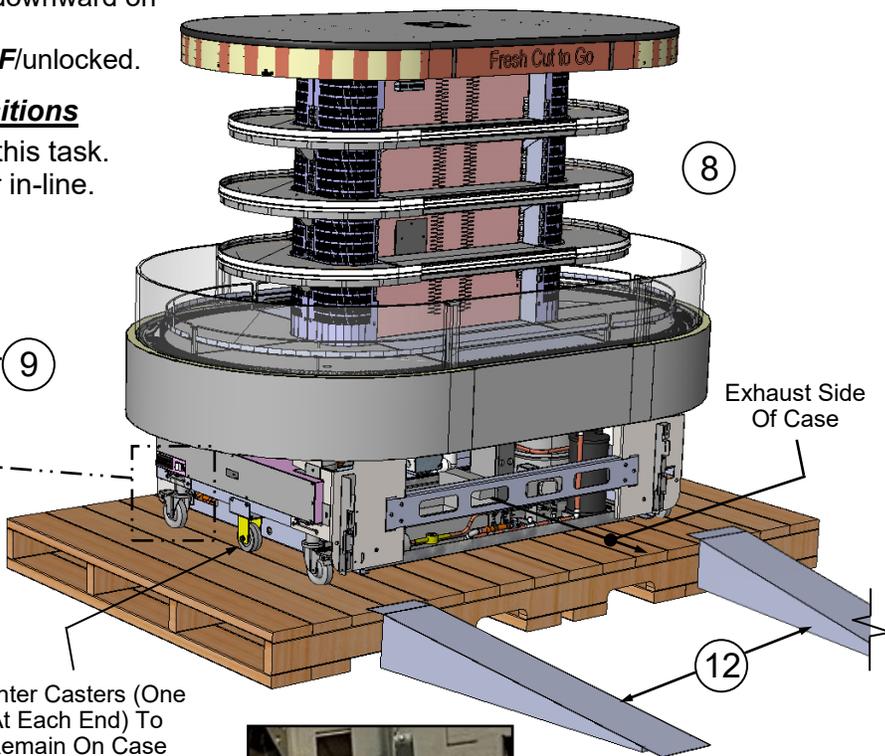
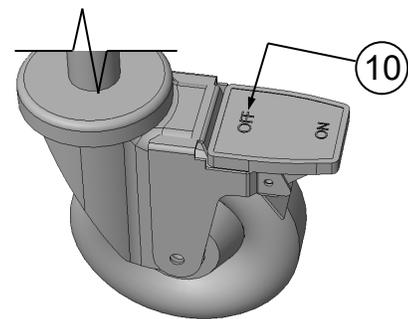
- Unlock casters by forcefully pressing downward on the **OFF** area of each caster lever.
- Lever will be parallel to floor when **OFF/unlocked**.

**11. Use Pry Bar To Adjust Caster Positions**

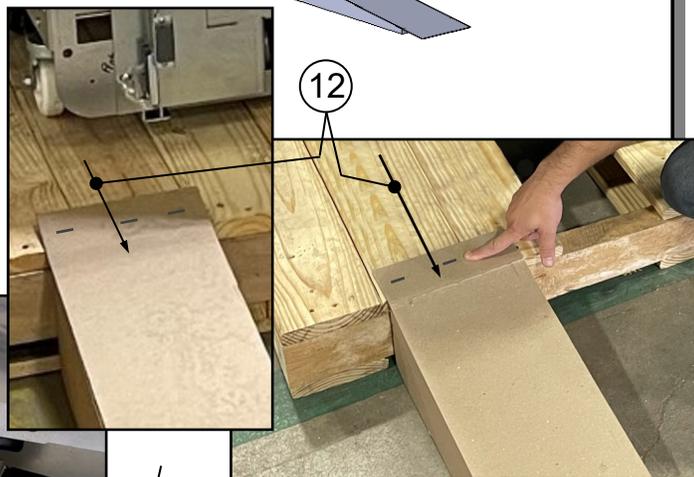
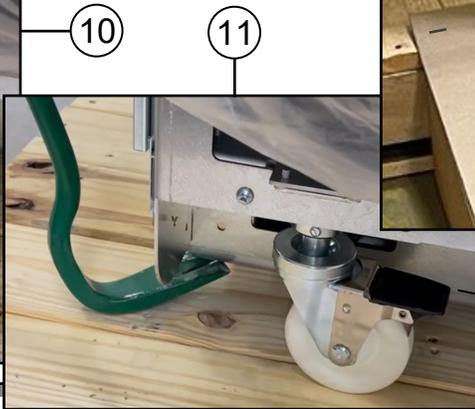
- Two (2) people may be required for this task.
- Press down on pry bar; rotate caster in-line.

**12. Cardboard Ramps To Align With Casters**

- Cardboard ramps are shipped with skid.
- Place cardboard ramp lip atop edge of pallet (aligned with casters) **AT EXHAUST SIDE OF CASE!**
- Use tape measure for exact dimensions at TOP AND BOTTOM OF RAMPS! Do NOT just estimate caster to ramp alignment!
- Screw or staple each ramp in place (in at least two locations per ramp lip). Caution! If using screws, use flat heads so casters will not be obstructed!
- Line up ramps to casters **AT EXHAUST SIDE OF CASE** (as illustrated in item #8 below)!



Center Casters (One At Each End) To Remain On Case During Skid Removal



Lever Will Be Parallel To Floor/Skid When OFF/Unlocked.

**>> Important! Case Must Be Rolled Off Skid At Exhaust Side of Case!**

**13. Slide Case To Edge of Skid/Ramps**

- At least two people are required for steps 13 -15.
- Check that casters are at the center of each ramp PRIOR TO rolling case down ramps.
- If not, remove staples/screws and adjust accordingly.

**14. Begin Rolling Case Down Ramps**

- Begin rolling case down ramps.
- Important! Stop midway down ramps to check that casters are still at center of ramps.
- If not, adjust ramps accordingly!

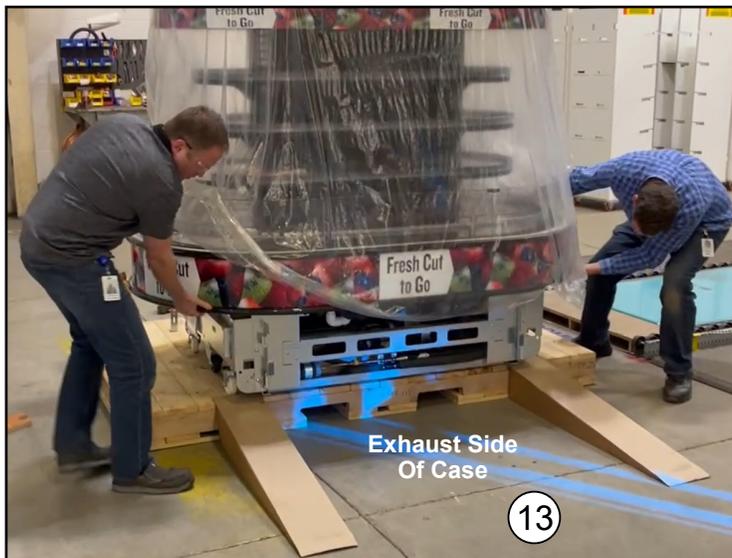
**15. Carefully Slide Down Ramps to Floor**

- Slowly/carefully roll case all the way down ramps to floor.
- Make it a smooth transition from skid to floor.

**>> Note: You man now discard/recycle skid, cardboard ramps and metal shipping brackets!**

**16. Move Case To Desired Location**

- ONE person may move case to desired location in store.
- Due to weight of case, however, it is preferable that TWO persons perform this task (one to move the case while the other 'steers').



**17. Remove Center Casters From Case**

- Once case has been moved to desired location, you may remove center casters.
- Just the removal of (2) horizontal screws will allow caster to drop down and off case.

**18. Caster Position at Shipment**

- Case is shipped from factory with casters RAISED to maximum height.
- This caster height aids in skid removal.

**19. Caster Assembly Operation**

- Image shows caster removed from case (for illustrative purposes only).

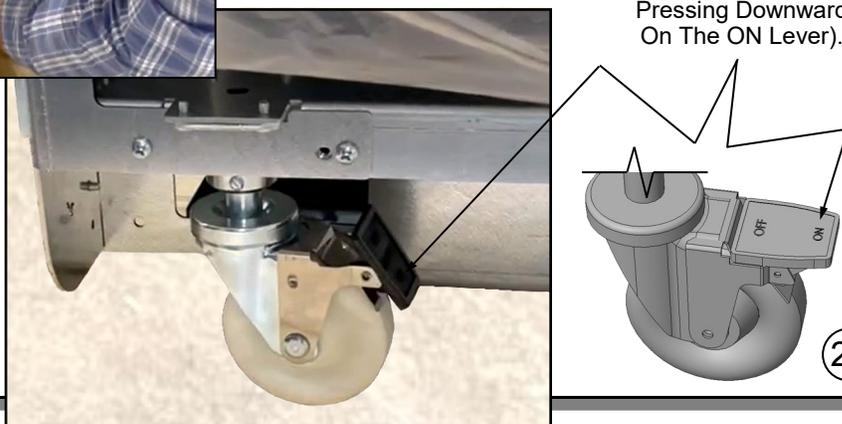
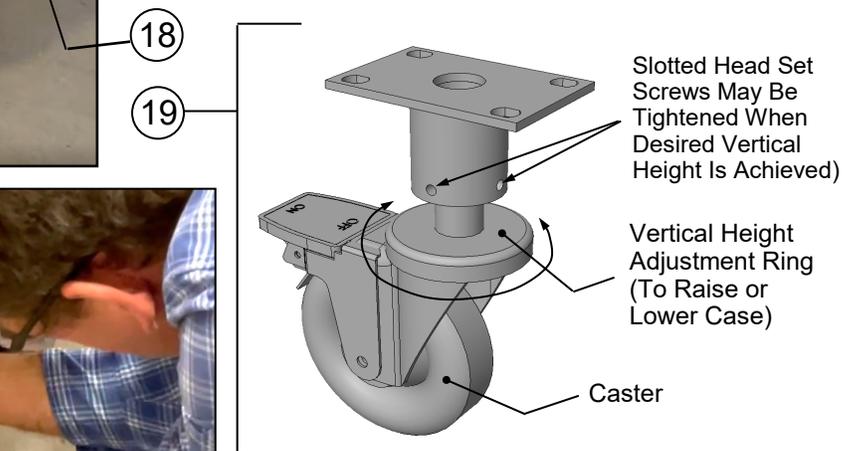
- Vertical height adjustment ring enables case to be raised (or lowered) at each caster.
- Slotted head set screws MAY be tightened when the desired vertical height is achieved.
- They may be loosened to adjust vertical height again.
- Vertical height adjustment ring set screws are NOT tightened at factory.

**20. Adjusting Case So It Is Level & Plumb**

- Case must be in desired location before adjusting.
- Rotating vertical adjustment ring CLOCKWISE will lower caster (raising case height).
- Use leveler on header for true level/plumb check.
- Start by adjusting caster's vertical adjustment ring at highest corner of case; lower it to floor.
- Then lower remaining casters until case is level and plumb.

**21. Locking ALL Casters Into Position**

- To prevent case from moving after it has been moved into position, casters must be locked.
- Lock casters after case is level and plumb.
- Press downward against the **ON** areas of all four (4) caster levers with adequate force to lock them in place!



**22. Return Front and Rear Panels To Case**

- Front and rear panels are to be returned case.
- Attach to case using upper hook, middle bracket protrusion and lower magnet.

**23. Return Left & Right Oval End Panels To Case**

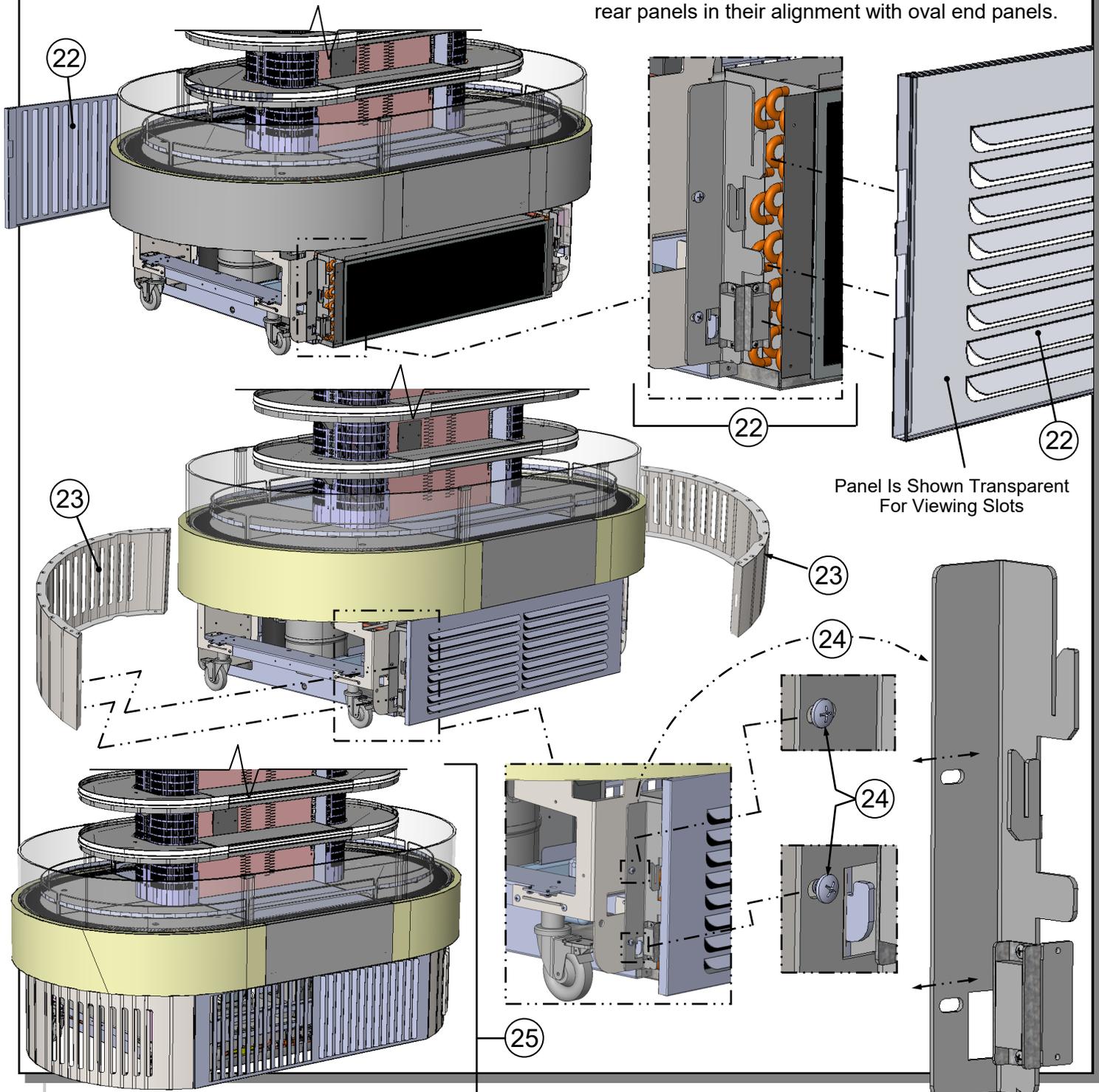
- Oval end panels are to attach to hooks, tabs and magnets.
- They must align with front & rear end panels.

**24. Adjust Left & Right Oval End Panels As Needed**

- Brackets that secure oval end panels are adjustable via obround slots.
- Loosen screws to adjust brackets (which adjusts horizontally) to align oval end panels to front/rear end panels so that space between panels are WITHIN 1/4". Then tighten screws securely.

**25. View of Case - Front/Rear & End Panels Attached**

- There should be NO LARGE GAPS between front/rear panels in their alignment with oval end panels.

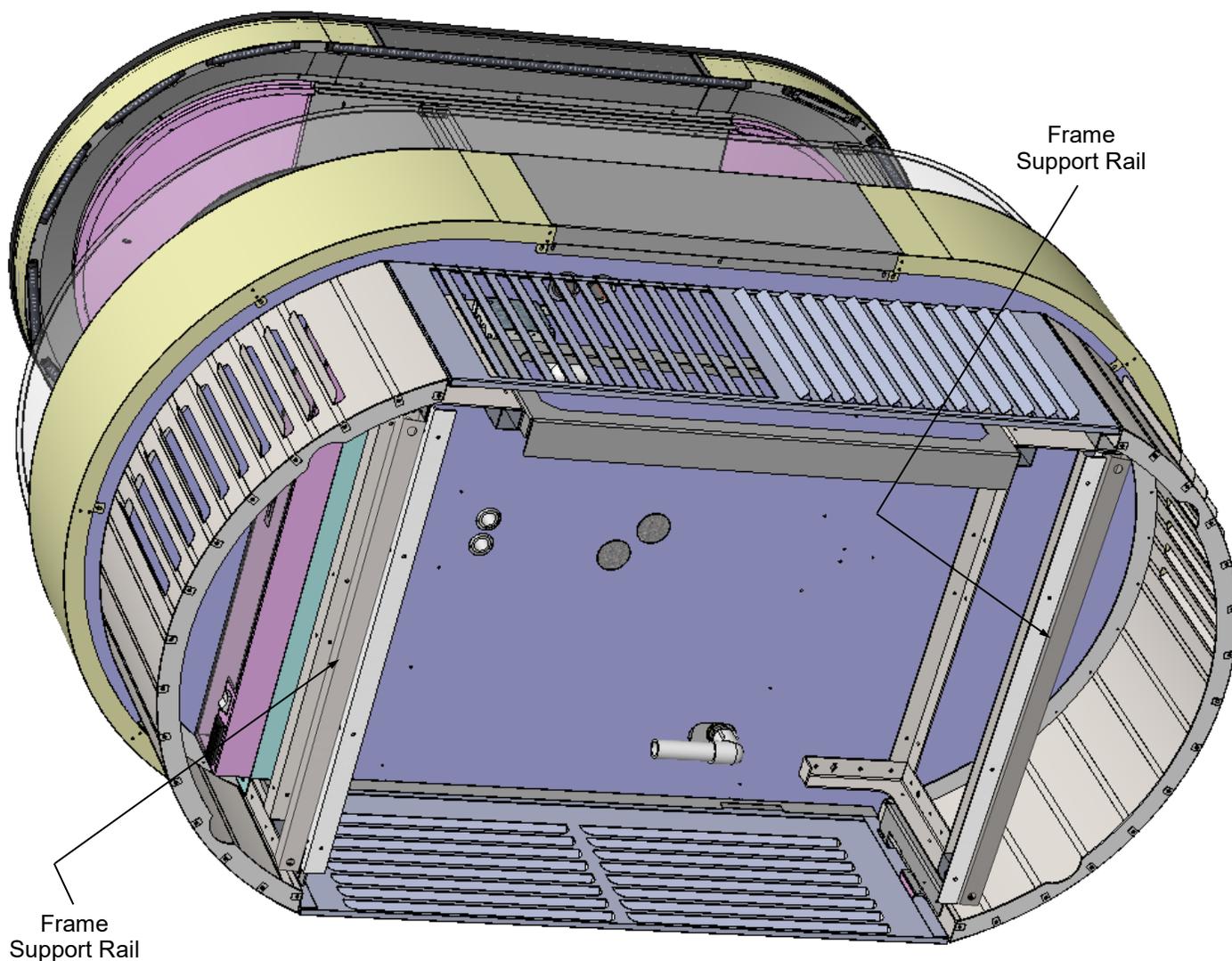


## REMOTE UNITS: LEVELING UNIT VIA FRAME SUPPORT RAILS AND SHIMS

### The Following Pertains To Remote Units

#### Leveling Unit Via Frame Support Rails

- Case must be level to assure proper operation.
  - Case will have frame support rails.
  - Frame support rails will need to be shimmed to level the case.
- SCC P/N 27035 - A packet of (19) 3" x 3" stainless steel, 18 gauge shims will be wrapped and provided with cases with rails.
  - After case has been properly shimmed, attach panels to case (case below is shown with panels for illustrative purposes only).



Model FSI656R Is Shown Above. It May Not Exactly Reflect Every Feature or Option of Your Particular Model.

**The Following Pertains To Self-Contained Units**

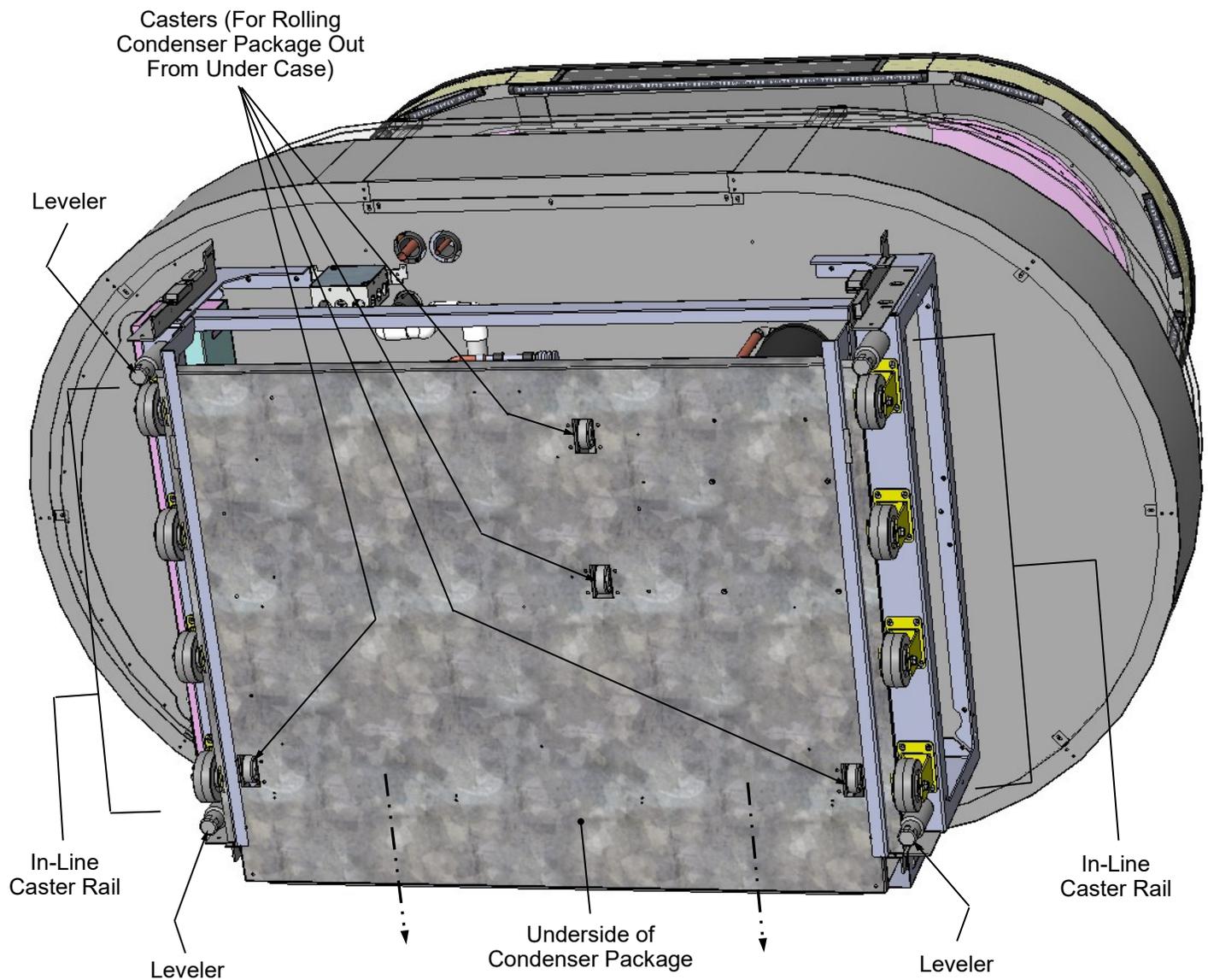
**1. In-Line Caster Rails**

- In-line caster rail allows the case to be moved/rolled to different locations.
- All four (4) levelers must be raised off floor for case to be moved/rolled into new position.
- After case has been moved to desired location, levelers must then be lowered to floor again.
- Case must then be adjusted so that it is level and plumb.

**2. Condenser Package Casters (To Roll Condenser Package Out From Under Case)**

- Due to weight considerations, this unit's condenser package has its own casters to assist in its sliding out from under merchandiser.
- Case slides out at intake side of case.
- See illustration below.

Model FSI863R Is Shown Below. It May Not Exactly Reflect Every Feature or Option of Your Particular Model.



**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.

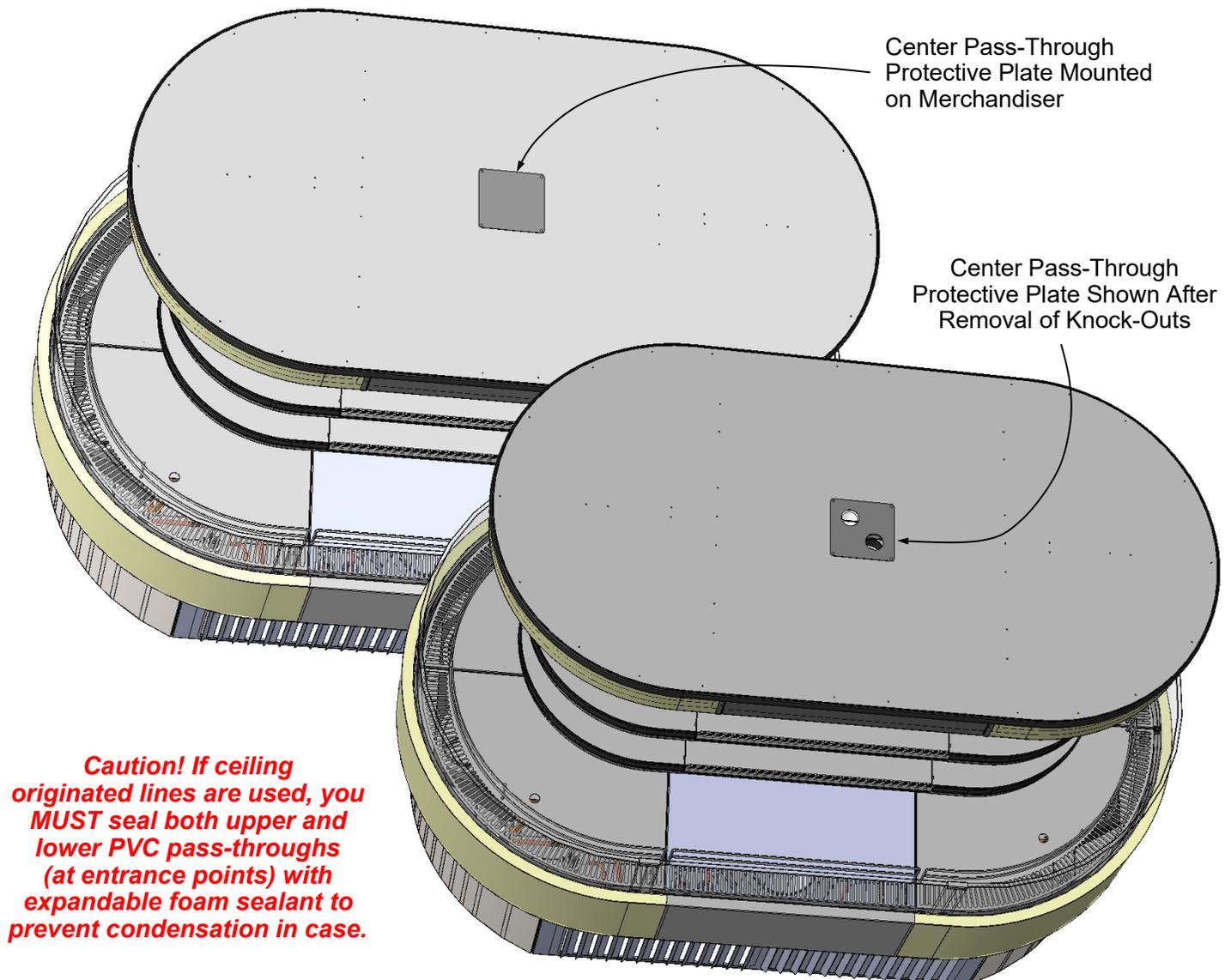
- **Caution! If ceiling originated lines are used, you MUST seal both upper and lower PVC pass-throughs (at entrance points) with expandable foam sealant to prevent condensation in case.**

**3. Plate Removal**

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

**4. Case Underside**

- Depending upon your model, see either **REFRIGERATION FUNDAMENTALS: REMOTE DRAIN LAYOUT** or **REFRIGERATION FUNDAMENTALS: SELF-CONTAINED DRAIN LAYOUT** section in this manual for location of center pass-throughs at underside of case.



## REMOTE CASES: REFRIGERATION LINE FIELD CONNECTION

### 1. Refrigeration Line Field Connection

- **Warning! Turn power off and/or disconnect power before providing maintenance and service to unit.**
- **Assembly/disassembly/servicing is to be performed by licensed refrigeration contractor.**

### 2. Refrigeration Lines at Underside

- Underside refrigeration lines are standard.
- Refrigeration lines are ALWAYS at rear of case.
- See photograph immediately below for illustration.

Note: Illustration Shown May Not Exactly Reflect Every Feature or Option Of Your Particular Case.

Field-Connect  
Refrigeration Lines Are Through  
Underside PVC Tubes



--- View of Remote Case With Underside Refrigeration Lines ---

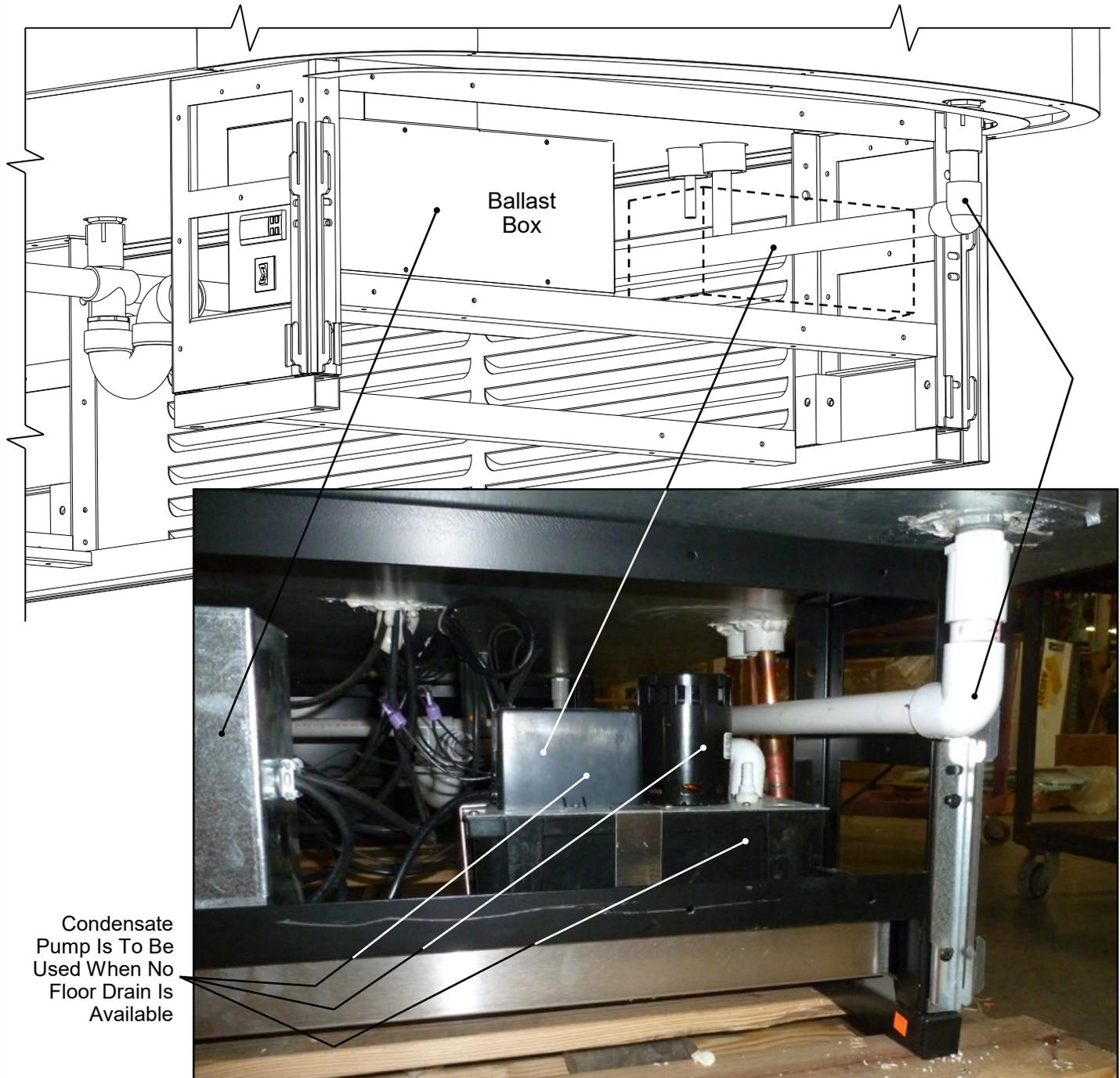
## REMOTE CASES: CONDENSATE PUMP LOCATION AND PURPOSE

### 1. Condensate Pump Location

- **Warning! Turn power off and/or disconnect power before providing maintenance and service to unit.**
- **Assembly/disassembly/servicing to be performed by licensed refrigeration contractor.**
- **Condensate pump is located just behind ballast box (as shown in illustration below).**

### 2. Condensate Pump Purpose

- Condensate pump is to be used when no floor drain is available.
- Condensate pump transfers condensation from lower section of case through top of case and out.



### 1. Field Wiring Box / Data Collection Box Access

- **Warning! Turn power off and/or disconnect power before providing maintenance and service to unit.**
- **Assembly/disassembly/servicing to be performed by licensed electrical contractor.**
- Panel must be removed to access field wiring box and switch.
- Data is collected from thermostat controller and transmitted to designated collector.
- See illustration below.

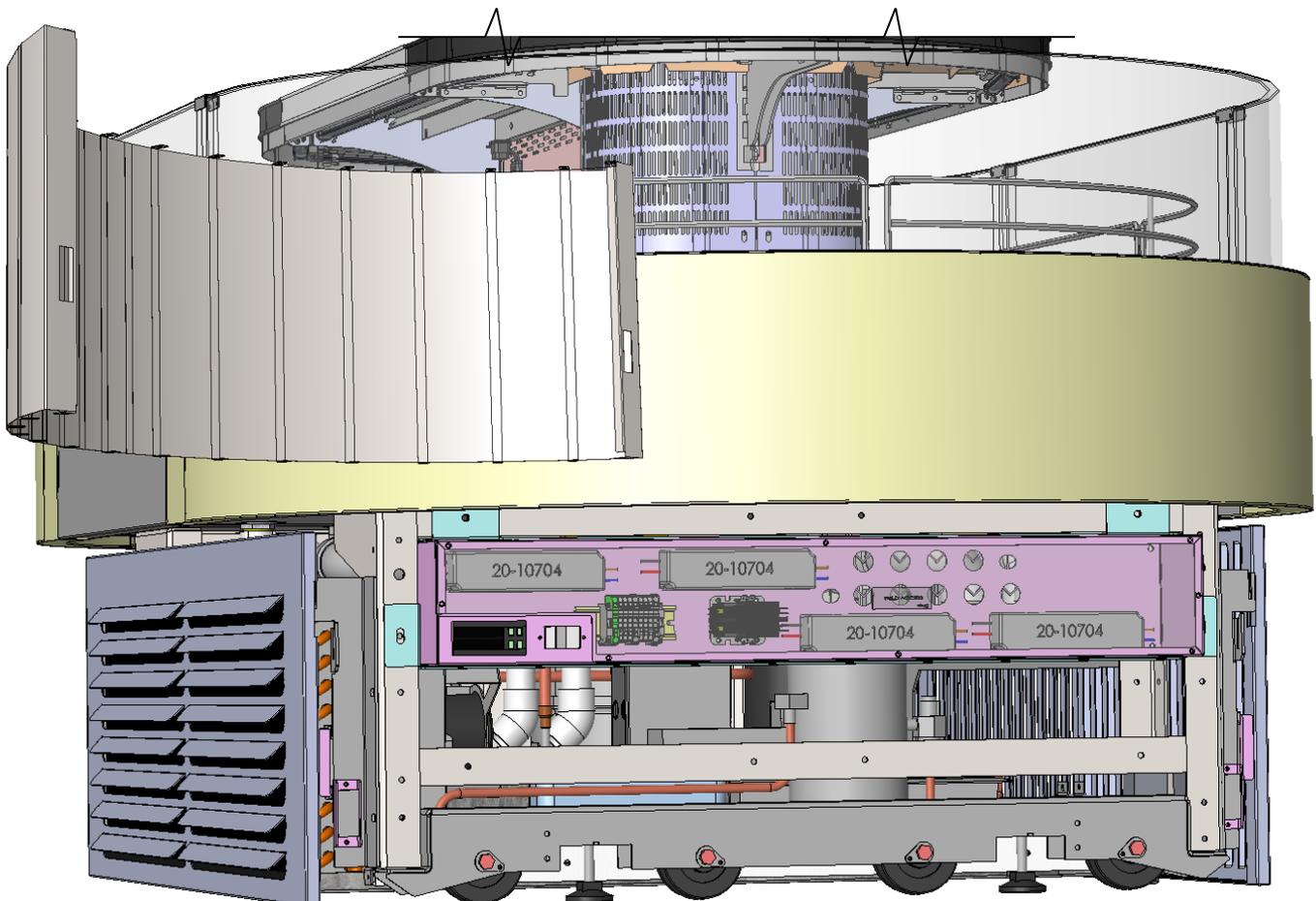
### 2. End Panel Removal

- To remove panel (and access field wiring box), lift panel up and off case hooks by grasping firmly and pulling up and outward (and separating from retaining magnets).

### 3. Self-Contained Cases Only: Main Power Switch

- For self-contained cases, the main power switch controls power to entire case.
- Remote cases energize when properly field wired.
- For self-contained units, If main power switch is not turned on, lights will not turn on NOR will refrigeration components operate.
- See illustration below.

Note: Illustration Reflects Self-Contained Model. Component Layout Differs From Remote Units And May Not Exactly Reflect Every Feature or Option of Your Particular Case

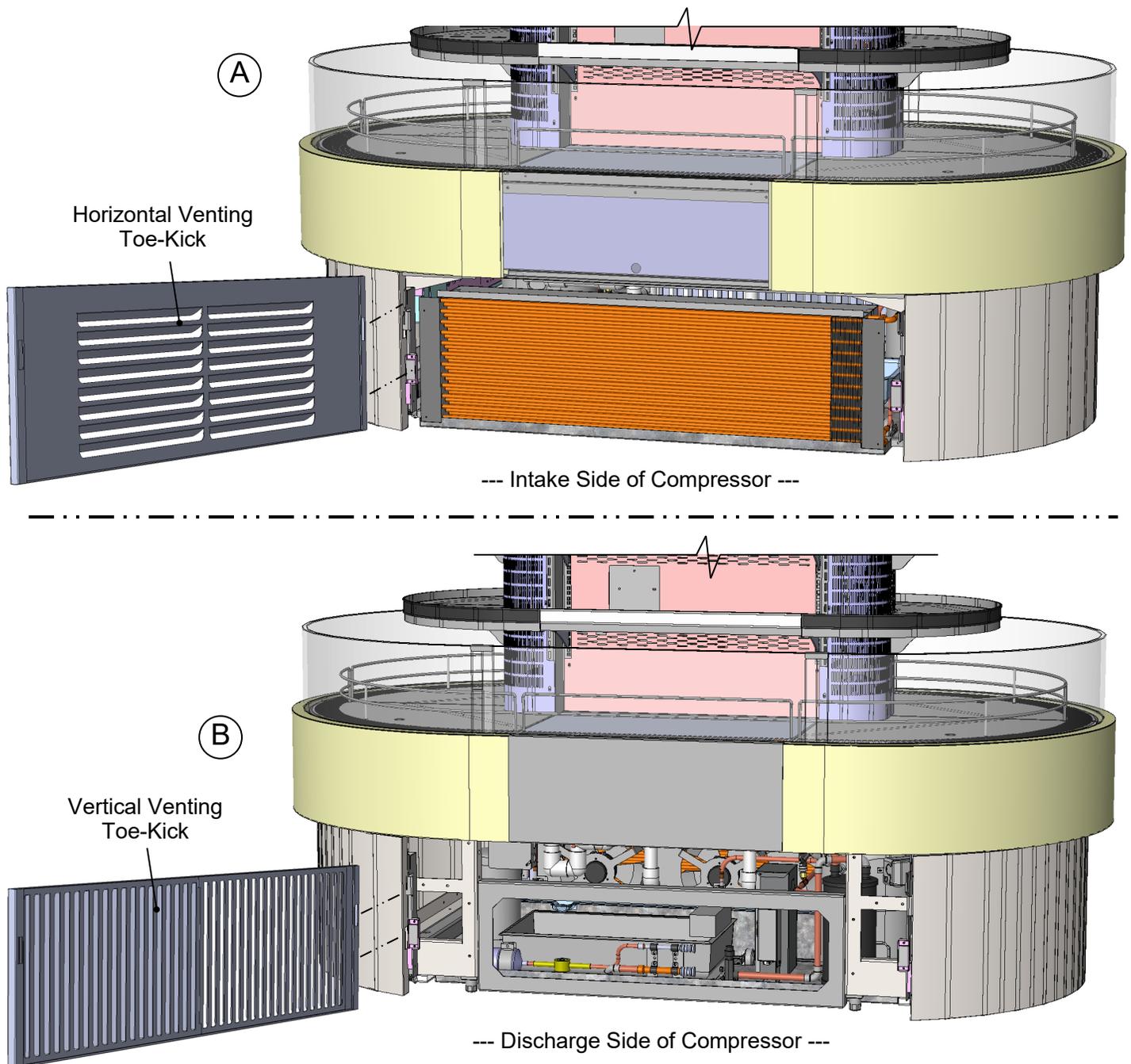


## SELF-CONTAINED UNITS: TOE-KICK ATTACHMENT INSTRUCTIONS (HORIZONTAL vs. VERTICAL)

### ***Self-Contained Units: Toe-Kick Attachment Instructions***

- Toe-kick venting designs vary depending upon whether it is located at intake or discharge side of case.
- Proper airflow will be maintained by following these instructions:
  - A. Horizontally vented toe-kick must be attached to intake side of compressor (as shown in item "A").
  - B. Vertically vented toe-kick must be attached to the discharge side of compressor (as shown in item "B").

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



**Plan-O-Gram (Load Level Guidelines)**

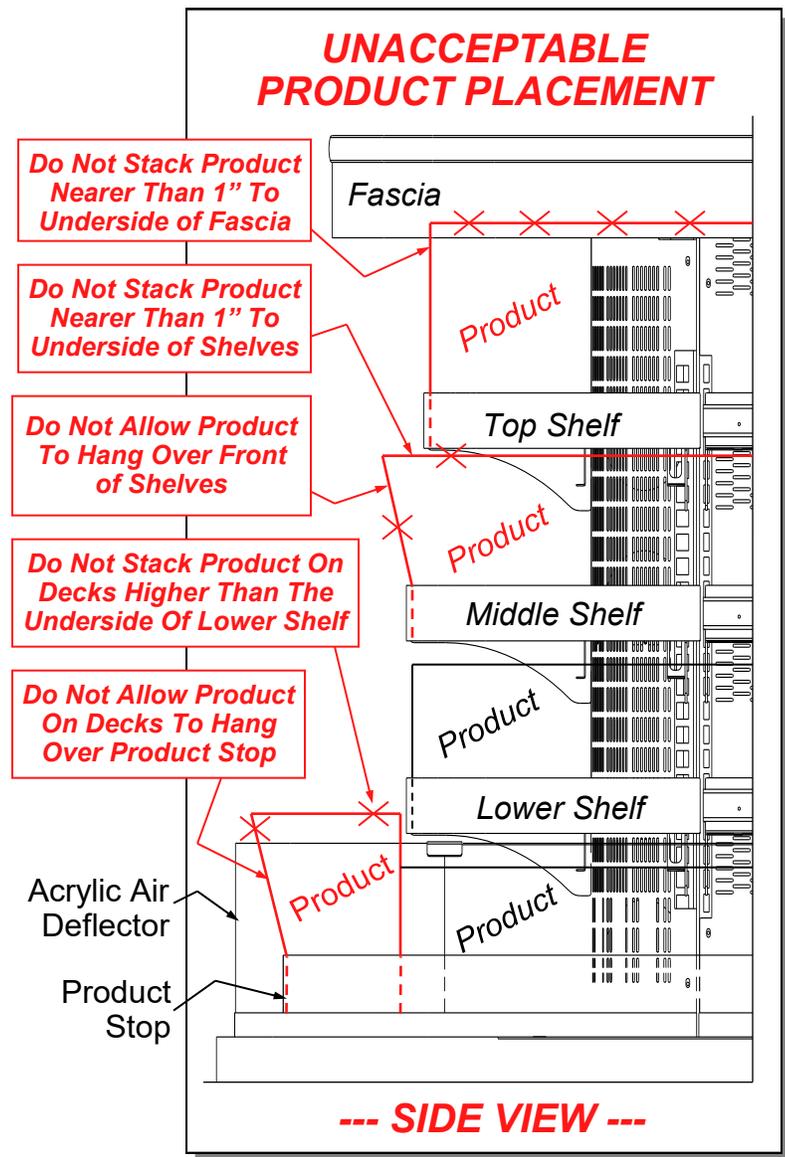
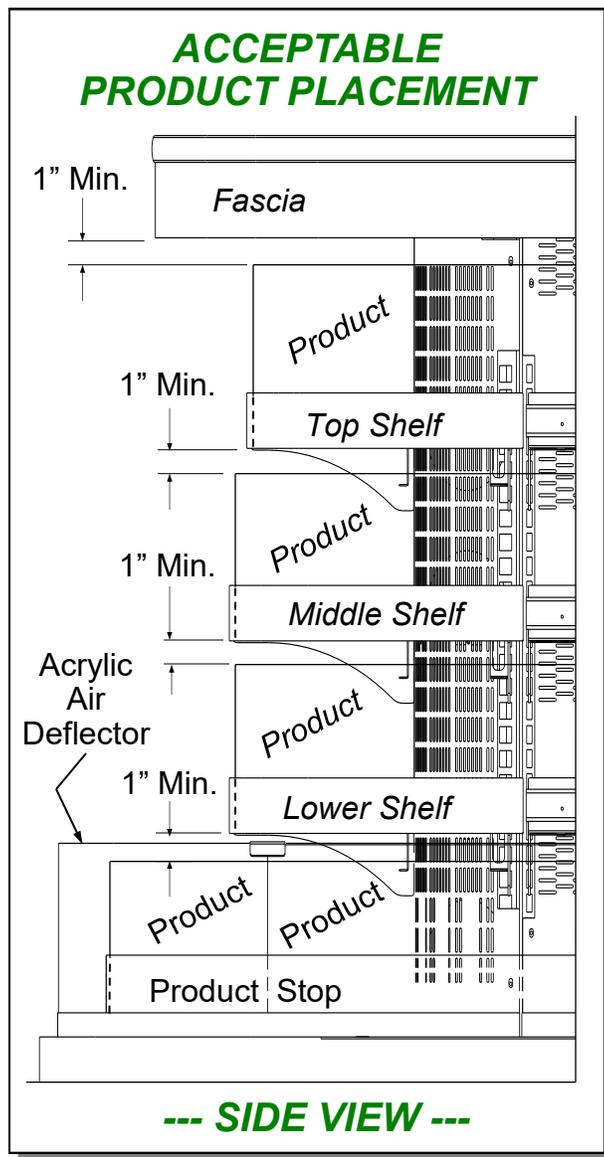
> **Note:** Any changes to this sheet must also be made to SCC P/N 20-24592

**CAUTION! TO MAINTAIN SAFE PRODUCT TEMPERATURES & AIRFLOW:**

- ◆ DO NOT STACK PRODUCT NEARER THAN 1" TO UNDERSIDE OF FASCIA
- ◆ 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

**RESTRICTED FOOD PRODUCTS**

- ◆ SALADS (GARDEN, CHEF, CHICKEN, BLT, ETC.): PLACE ON SIDE DECKS ONLY
- ◆ CHEESE STICKS: PLACE ON SIDE DECKS OR END CAP DECKS



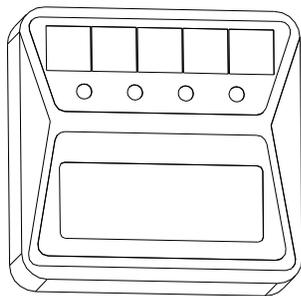
## THERMOMETERS (DIGITAL THERMOMETER & OPTIONAL "CHECK TEMPERATURE")

### Thermometers

Thermometers are located on rear plenum at upper area of case.

- Digital thermometer is on ALL merchandisers.
- The "Check Temperature" thermometer is optional.
- See illustrations below.

Optional "Check  
Temperature"  
Thermometer



Digital  
Thermometer

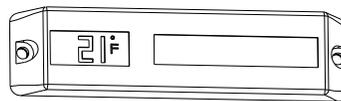
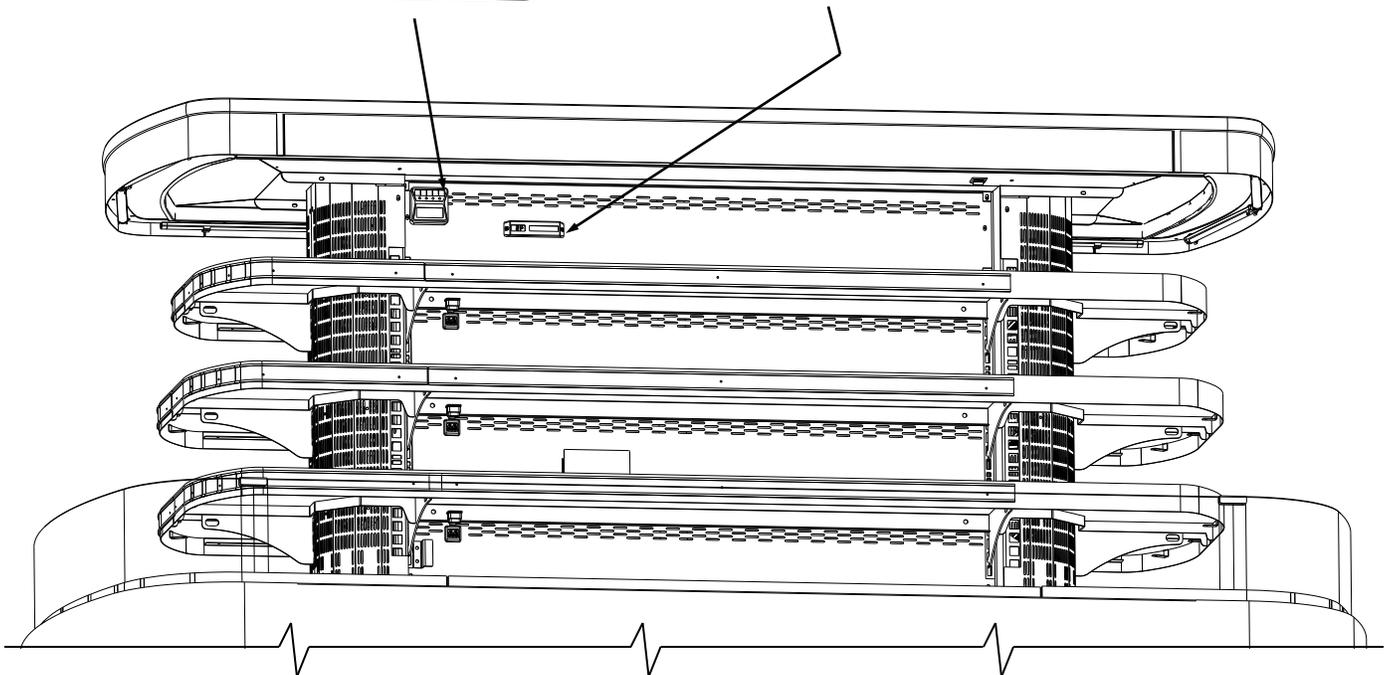


Illustration Shown  
May Not Exactly  
Reflect Every  
Feature or Option  
of Your Particular  
Case



## POWER-UP CHECK (EVAPORATOR FAN AREA)

### Power-Up Check (Evaporator Fan Area)

After power has been supplied, evaporator coil fans will be operational.

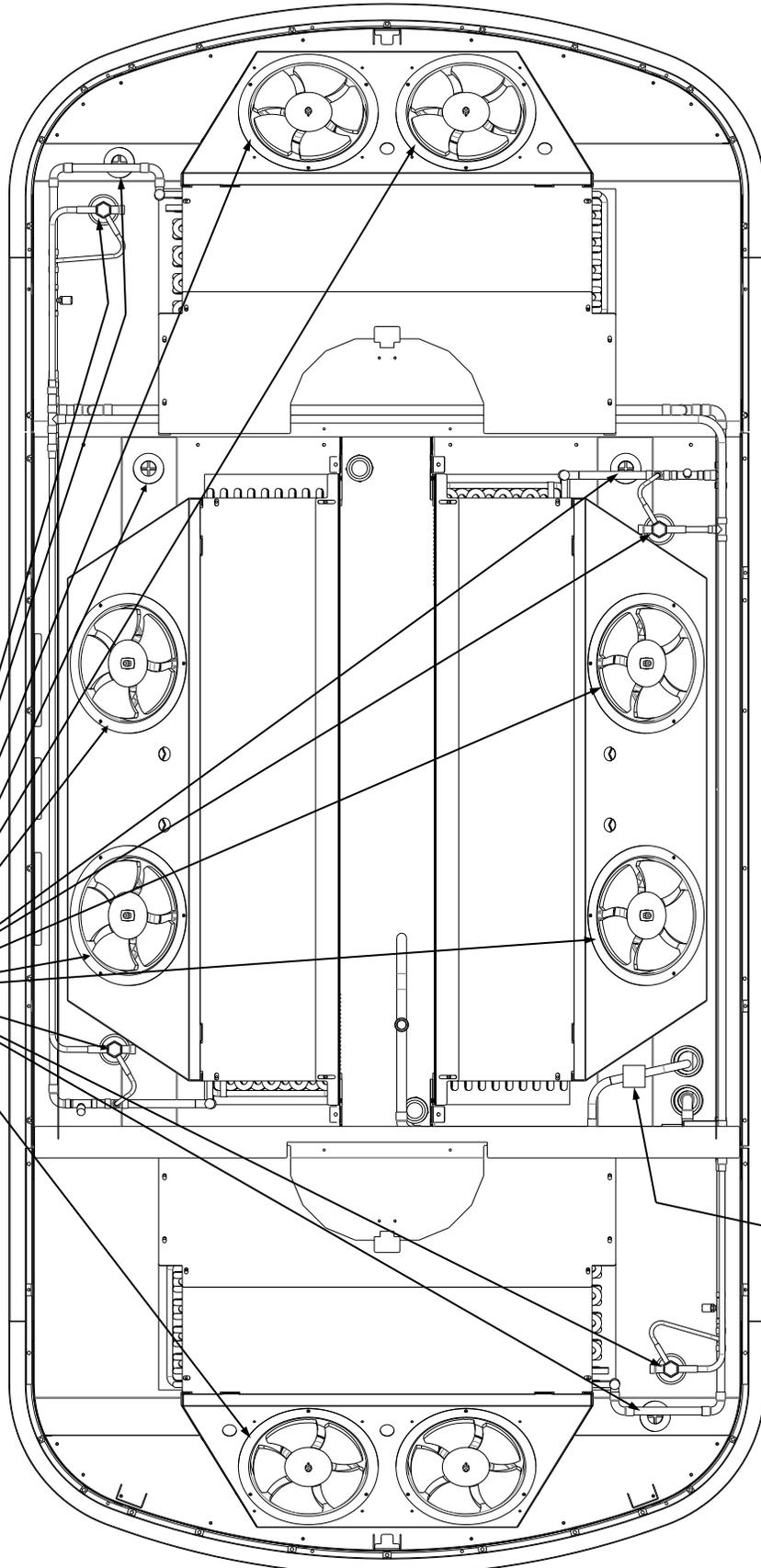
- To verify fans are operational, lift up deck pans; check to see that the coil fans are all functioning properly.
- Solenoid (location shown on illustration) may be on remote cases ONLY).

View of Evaporator  
Coil Fans, TXV and  
Drains After Decks and  
Upper Canopy Have  
Been Removed.

Front of Case  
(Temperature  
Controller Side)

Solenoid  
(May Be  
On  
Remote  
Cases  
Only)

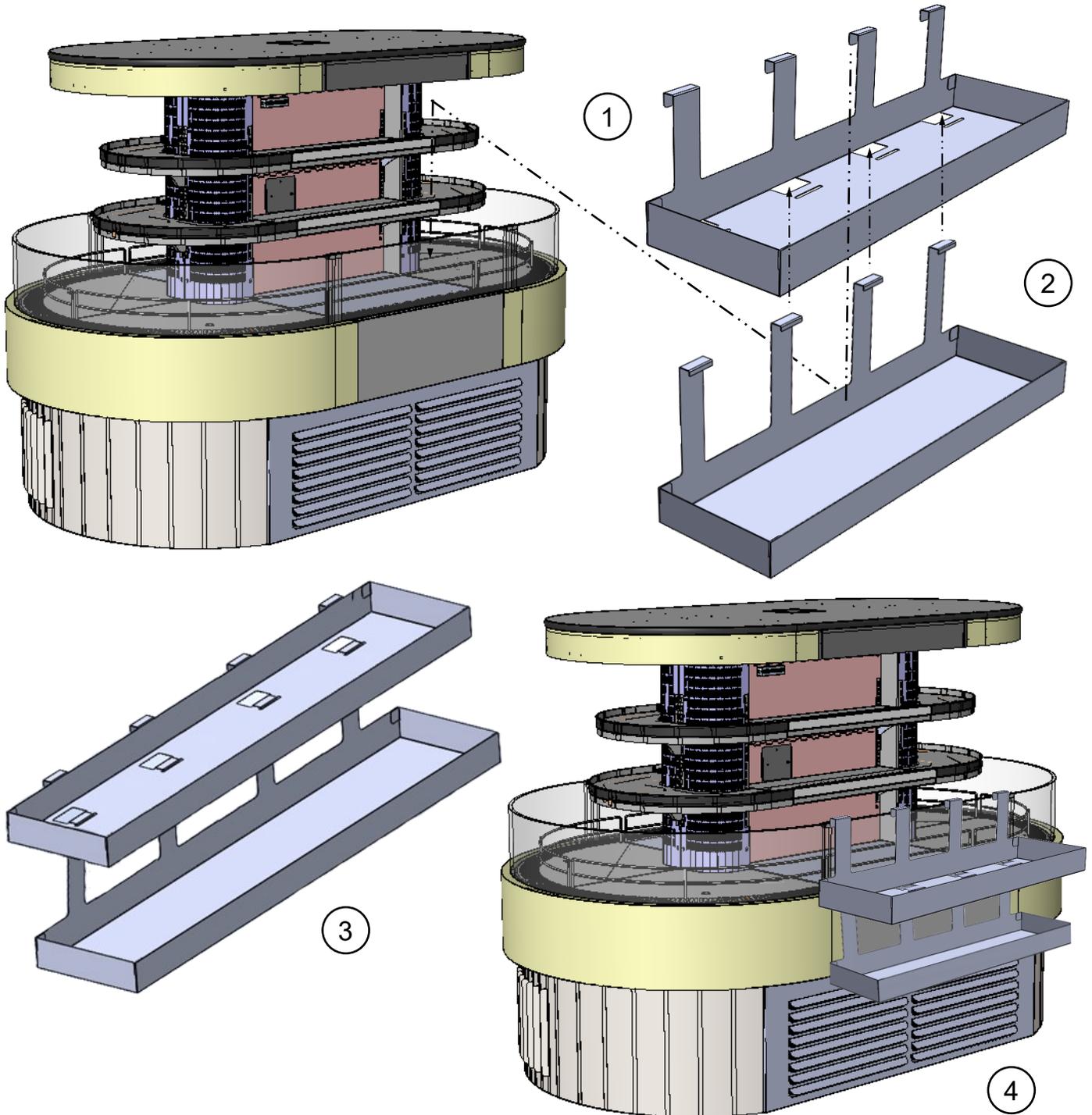
Illustration Shown May  
Not Exactly Reflect  
Every Feature or Option  
of Your Particular Case.



**Aftermarket Product Bin - Placement**

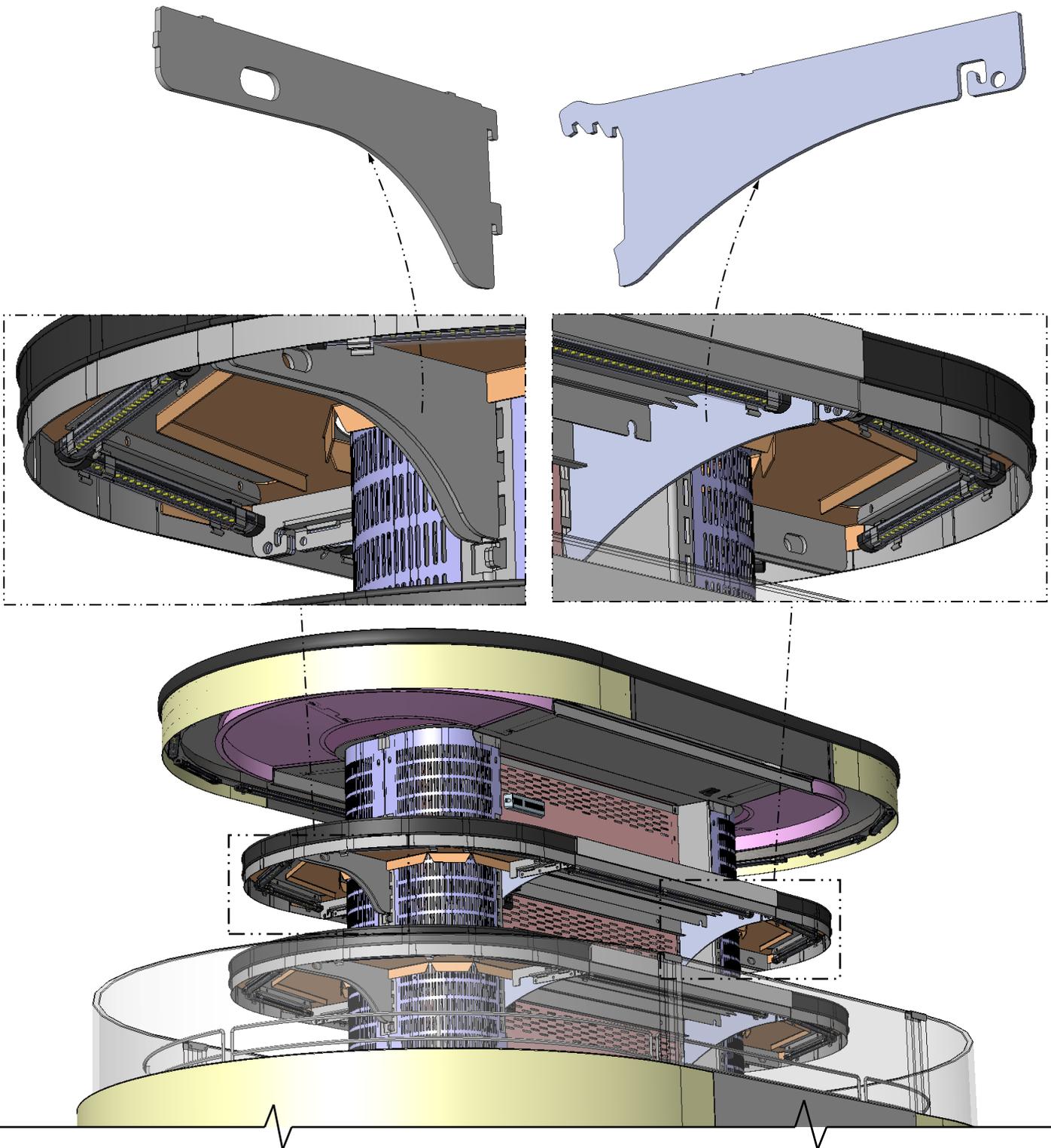
- ModelFSI656R (Shown Below) May Not Reflect Every Feature Or Option Of Your Particular Case.
- Product bin is for placing bagged product such as potato chips, pretzels, crackers, etc.
- Product bin is made of stainless steel.
- Remove product bin (to clean or replace).

1. Upper product bin is to hang on acrylic shield at front of case.
2. Lower product bin prongs are to be inserted into upper bin's cutouts (in base) and hang securely.
3. View of assembled upper and lower product bins.
4. View of assembled upper and lower product bins after being attached to case's acrylic shield at front of case.



**1. Shelf & Bracket Assembly Removal**

- Shelving is fixed; it is not adjustable.
- Screws must be removed to remove shelves.
- See illustrations below.



**LED Style Light Fixtures**

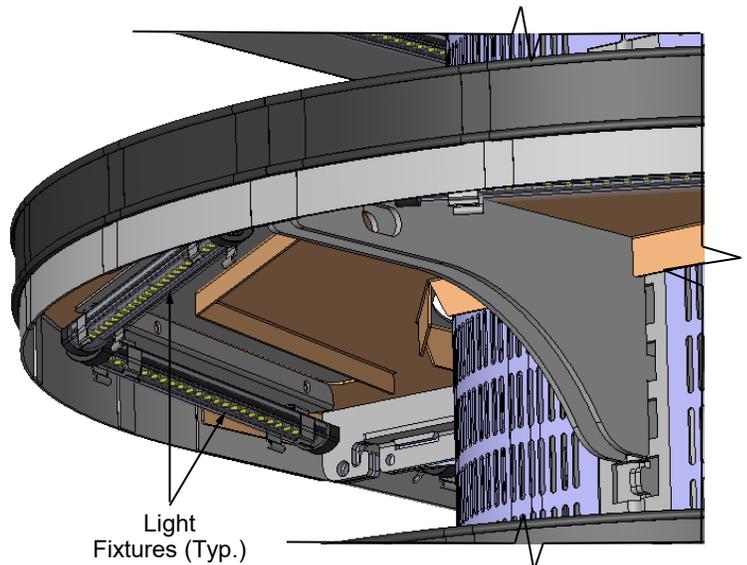
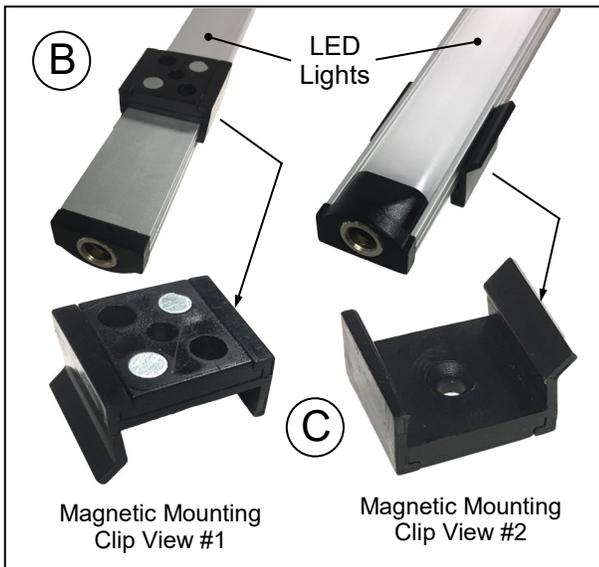
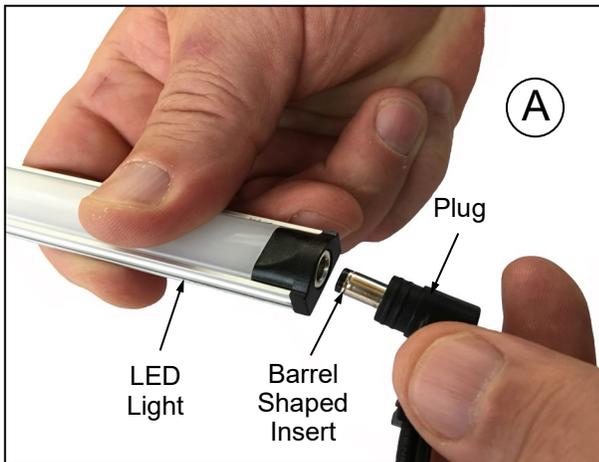
**Removal of Faulty LED Lights:**

- 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.



--- Random Model Shown Above For Illustrative Purpose Only ---

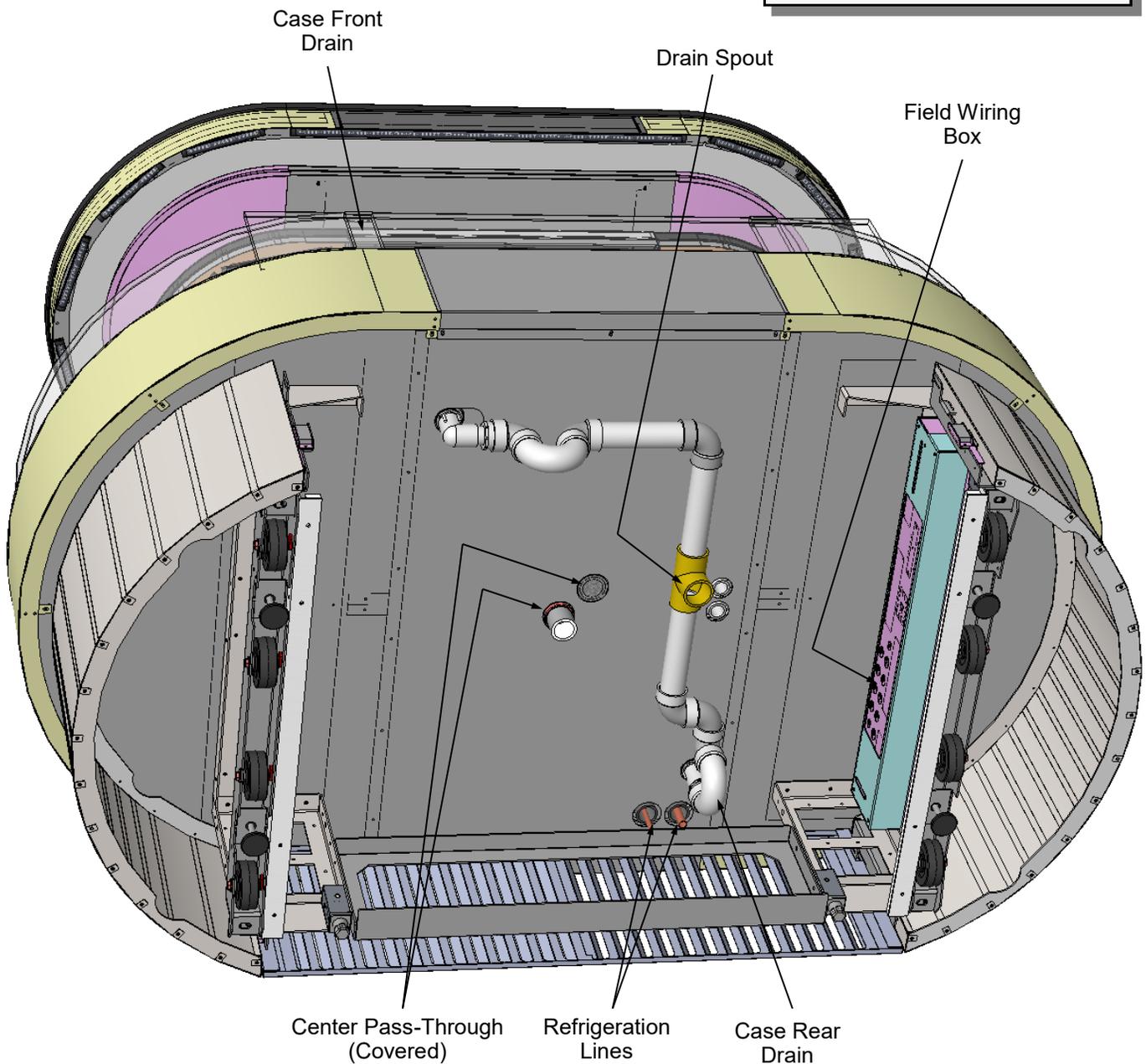


## RERIGERATION FUNDAMENTALS: REMOTE DRAIN LAYOUT

### **Remote Unit Refrigeration Line Access, Connections & Servicing To Be Accomplished By Licensed Contractors Only**

- Illustration below shows location of refrigeration lines for remote connection.
- Two (2) drains accessible from top of unit by lifting up decking.
- See **POWER-UP CHECK (EVAPORATOR FAN AREA)** section in this manual for under decking drain illustration.

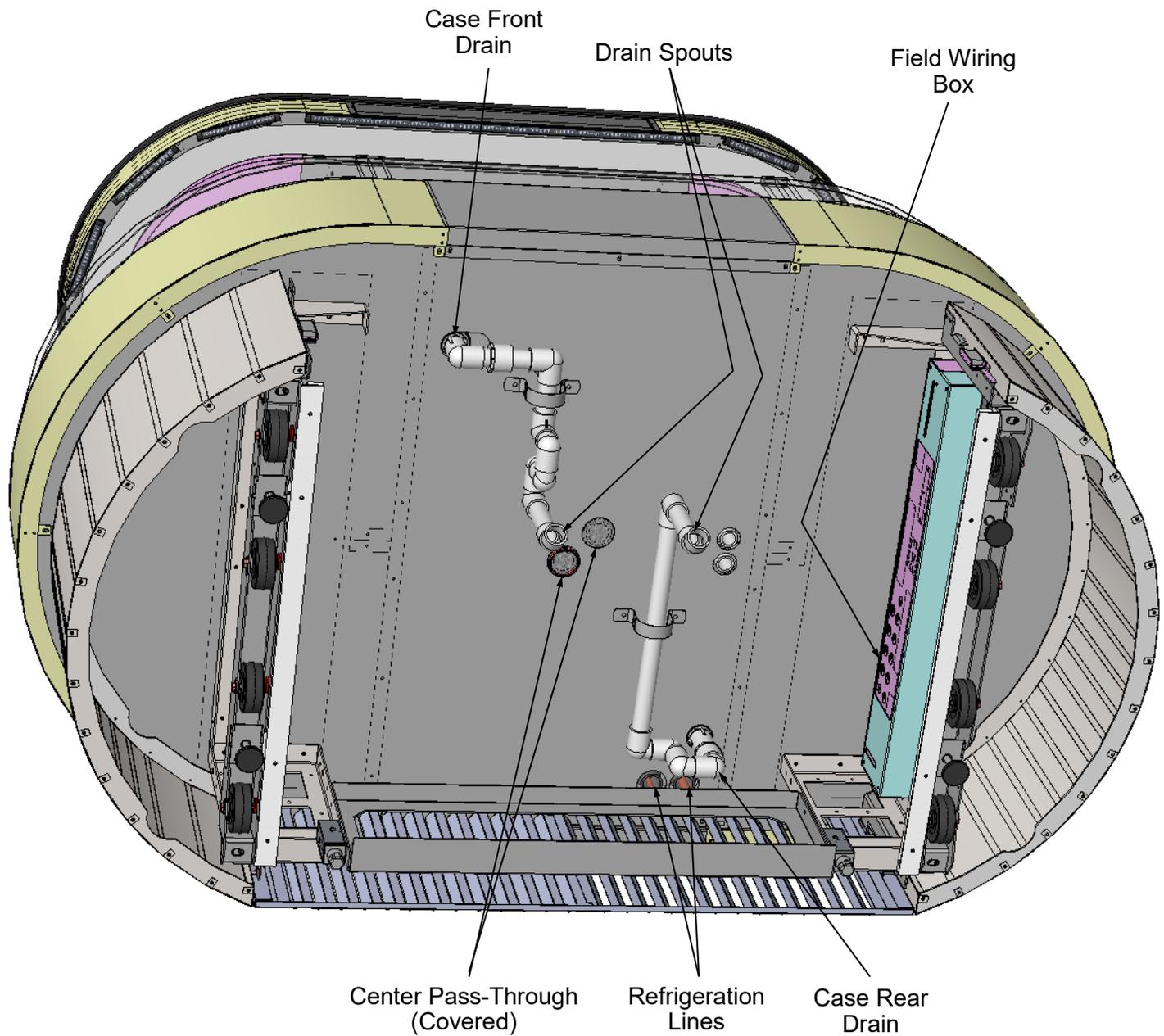
Note: Illustration Shown May Not Exactly Reflect Every Feature or Option Of Your Particular Case.



## REFRIGERATION FUNDAMENTALS: SELF-CONTAINED DRAIN LAYOUT

### ***Self-Contained Refrigeration Line Access, Connections & Servicing To Be Accomplished By Licensed Contractors Only***

- Illustration below shows location of refrigeration lines for self-contained operation.
- Four (4) drains accessible from top of unit by lifting up decking.
- See **POWER-UP CHECK (EVAPORATOR FAN AREA)** section in this manual for under decking drain illustration.



## REFRIGERATION FUNDAMENTALS: CONDENSATE PACKAGE ACCESS

### Self-Contained Units: Access to Condensate Package

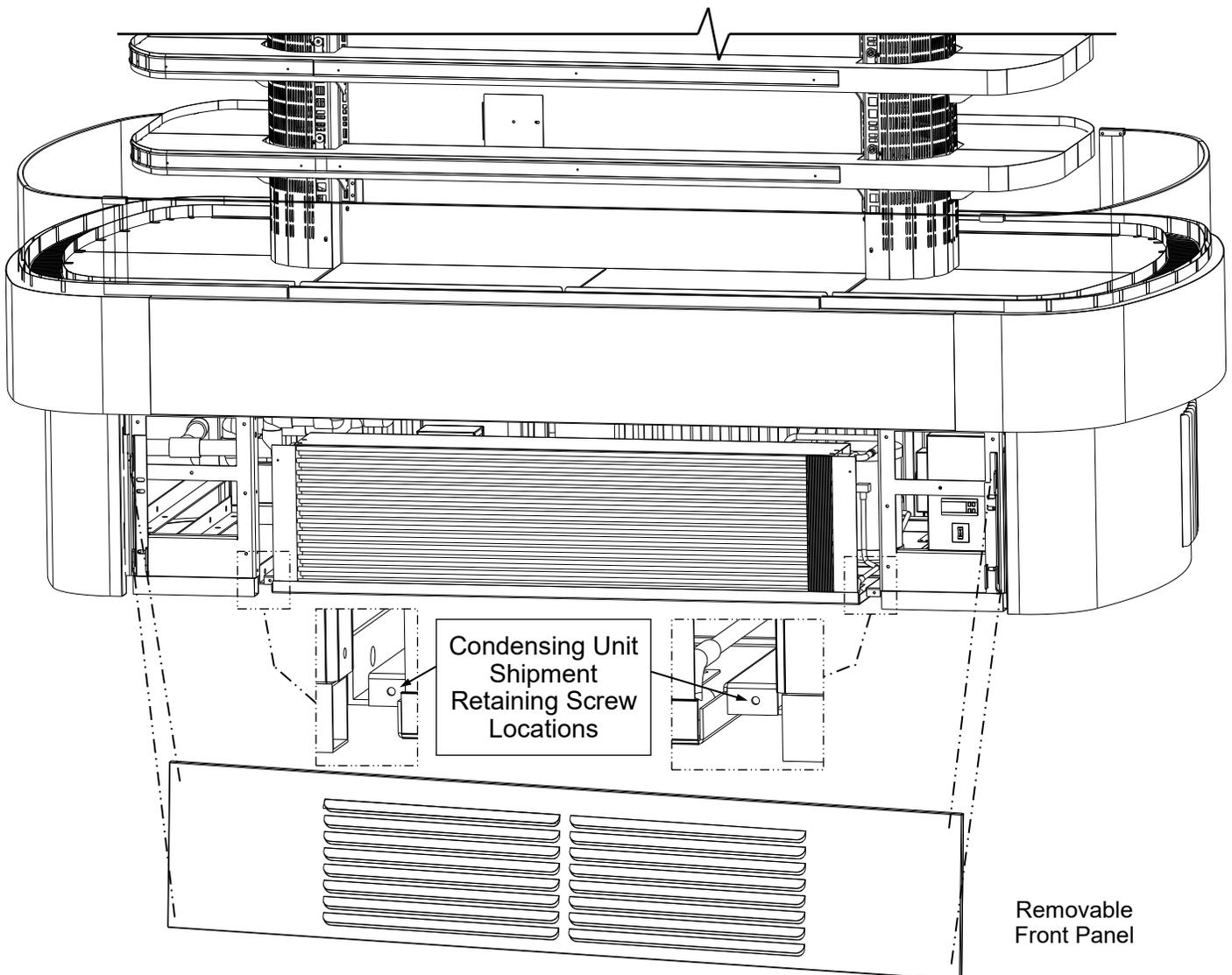
**Assembly/disassembly and servicing to be performed by licensed refrigeration contractor.**

#### Access / Sliding Out Refrigeration Package

- Simply remove panel (no screws required) by lifting up and off.
- Slots at sides of panel will lift off hooks.
- Initial access may require removal of shipment retaining screws (to prevent condensing package from coming loose during transport).

- See illustration below for locations.
- Refrigerant lines are flexible to facilitate condensate package being slid out from case.
- Plastic glides are mounted at base to assist in sliding the condenser out for access.
- Slide condenser unit out 12 to 18 inches to access high pressure service connection.
- Slide refrigeration package back under case after cleaning and/or servicing is complete.
- After servicing or cleaning, return panel to case. Turn case back on.

**>> See next page for complete illustrated parts breakdown of condensate package after removal from underside of case.**



# REFRIGERATION FUNDAMENTALS: CONDENSATE PACKAGE ILLUSTRATED PARTS BREAKDOWN

## Self-Contained Unit's Condensate Package Illustrated Parts Breakdown

**Assembly/disassembly and servicing to be performed by licensed refrigeration contractor.**

## Condensate Package Configuration

- Illustration shown is from model FSI863R. Your unit's component layout may slightly vary.
- Note: As shown in illustration below, condensate package may have wicking material for evaporation purposes.

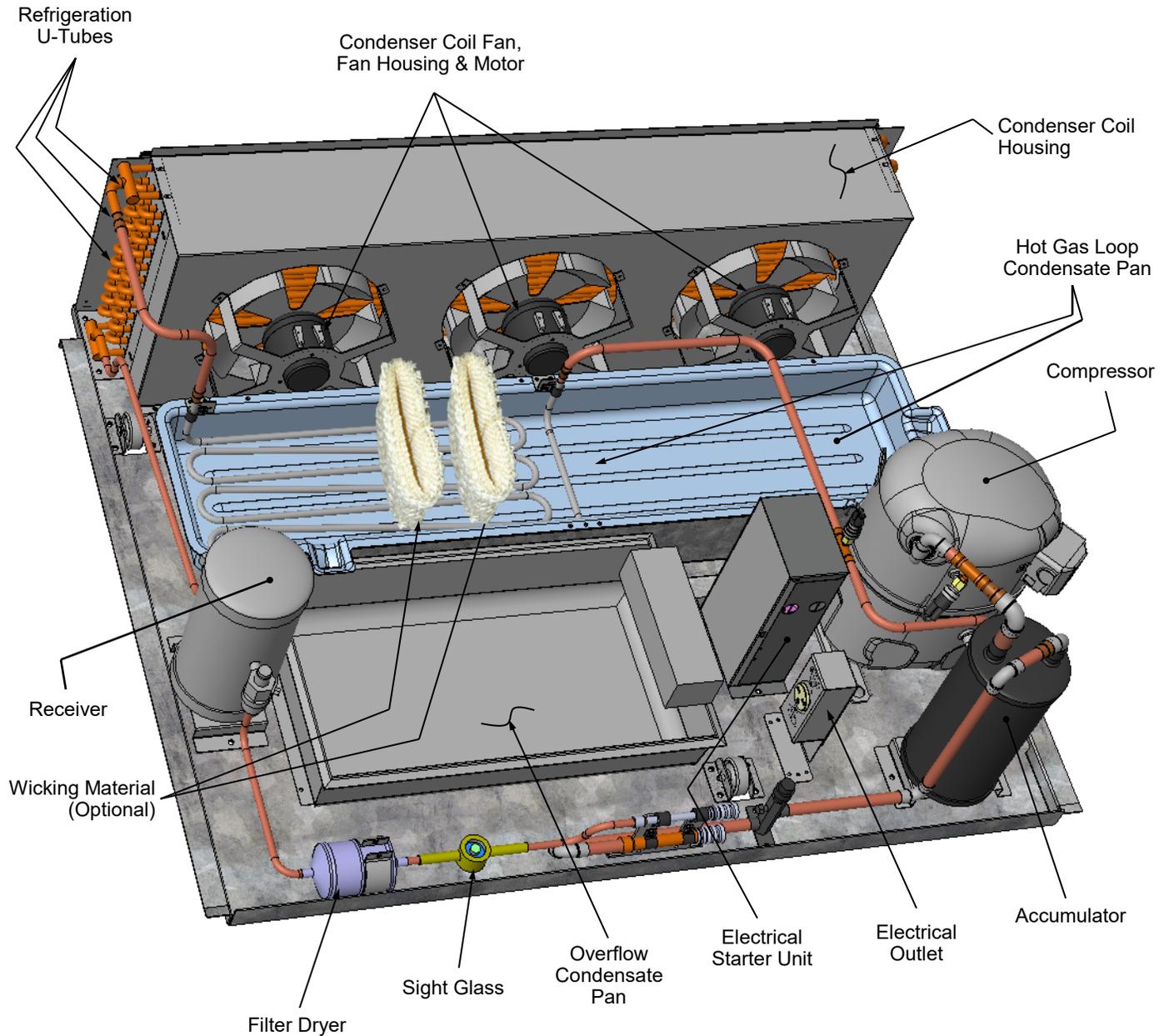


Illustration Shown May Not Exactly Reflect Every Feature or Option of Your Particular Model

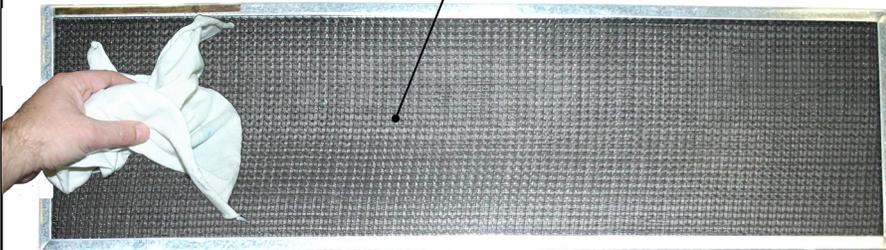
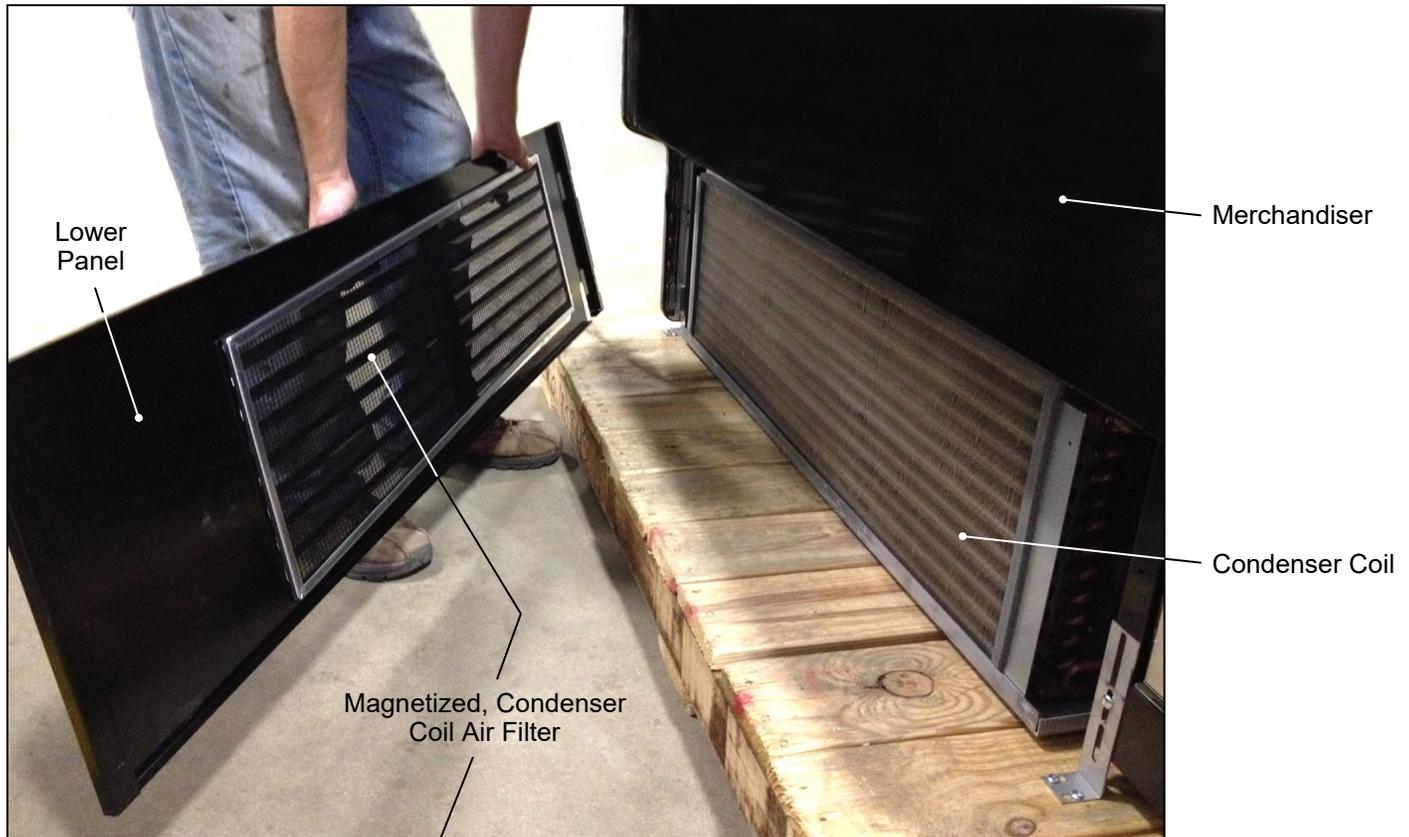
## GENERAL CLEANING (TO BE PERFORMED BY STORE PERSONNEL)

FREQ.	AREA / INSTRUCTIONS
Daily	<p><u>Acrylic Air Deflectors (See Illustration Below):</u></p> <ul style="list-style-type: none"> <li>• Use <b>WASH</b> spray bottle on air deflectors. Wipe off residue with paper towel.</li> <li>• Use <b>RINSE</b> spray bottle on air deflectors. Dry with paper towel.</li> </ul>
Daily	<p><u>Stainless Steel Mirrors:</u> Use stainless steel cleaner or glass cleaner on surface to remove finger prints and smudges. Wipe with paper towel.</p>
Weekly	<p><u>Decks (See Illustration Below):</u></p> <ul style="list-style-type: none"> <li>• Remove product from case.</li> <li>• Use <b>WASH</b> spray bottle on decks. Wipe with paper towel.</li> <li>• Use <b>RINSE</b> spray bottle on decks. Dry with paper towel.</li> <li>• Use <b>SANITIZE</b> spray bottle on decks. Let air dry.</li> <li>• For stubborn stains/residue, remove product from case. TURN MAIN POWER SWITCH OFF. Remove decks from case. Submerge in warm, soapy water solution in back room pot sink. Use spray nozzle on pot sink or use <b>RINSE</b> spray bottle on decks. Dry with paper towel. Return decks to case.</li> <li>• Return product to case. Turn main power switch back on.</li> </ul>
Weekly	<p><u>Shelving/Brackets/Optional Tag Molding (See Illustration Below):</u></p> <ul style="list-style-type: none"> <li>• Remove product from case.</li> <li>• Use <b>WASH</b> spray bottle to spray components. Wipe with paper towel.</li> <li>• Use <b>RINSE</b> spray bottle on components. Dry with paper towel.</li> <li>• Use <b>SANITIZE</b> spray bottle on shelving, brackets and molding.</li> <li>• Let air dry. Return product to case.</li> </ul>
Weekly	<p><u>Exterior Surfaces (Header/Rear Plenum/ Front Panel/Lower Panel/Stainless Mirror):</u></p> <ul style="list-style-type: none"> <li>• Use <b>WASH</b> spray bottle on exterior surfaces. Wipe with paper towel.</li> <li>• Use <b>RINSE</b> spray bottle on exterior surfaces. Dry with paper towel.</li> </ul>
Weekly	<p>Removable, Magnetized Condenser Coil Filter: See next page.</p>
Monthly	<p><u>Condenser Coil:</u></p> <ul style="list-style-type: none"> <li>• See next page for lower panel removal and location of condenser coil.</li> <li>• If using vacuum, use brush attachment to thoroughly clean entire coil.</li> <li>• If using brush, both metal or fiber brush may be used to remove dust and dirt that can collect on condenser coils. Avoid damaging fins on condenser coil. Replace lower panel.</li> </ul>
Monthly	<p><u>Under Case Cleaning:</u> Remove lower panels. Vacuum under case to remove all dust, dirt and debris. Replace lower panels.</p>

## GENERAL CLEANING (TO BE PERFORMED BY STORE PERSONNEL), CONT'D

### Weekly Condenser Coil Air Filter Cleaning:

- A magnetized air filter is attached to the inside of your unit's lower panel (on condenser coil side).
  - Clean the magnetic condenser coil air filter by following these steps:
1. Grasp lower panel. Lift up and off merchandiser (as shown in illustration below). No screw removal is required.
  2. Remove magnetic condenser coil air filter from inside of lower panel.
  3. Use a soft-bristled brush or paper towel to wipe off excess dust particles and debris from filter. DO NOT use rags or cloths.
  4. Submerge filter in warm, soapy water at back room pot sink (DO NOT use hand sink or coffee sink)! Use soft-bristled brush to remove dust, dirt and residue that may collect on magnetized air filter. Rinse with pot sink's spray nozzle (or spray bottle with pure water). Dry with paper towel.
  5. Reattach magnetic condenser coil air filter to inner lower panel (as shown below).
  6. Reattach lower panel to case.



Sample Condenser Coil Cleaning Brush

**Note:** Any revisions to this sheet must also be made to SCC P/N 20-45889

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

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

FREQ.	AREA / INSTRUCTIONS
Quarterly	<p><u>Tub, Coil, Drain, Evaporator Fan Blades, Motors, Brackets:</u></p> <ul style="list-style-type: none"> <li>• <i>Disconnect power from the case before cleaning the tub, coil, fan, motor and drain area!</i></li> <li>• Remove decking, sub-deck (if any) and fan shroud.</li> <li>• Remove any debris that may clog drain.</li> <li>• Use <b>WASH</b> spray bottle on tub, coil, drain, trough, tub, fan blades, motors and other components. Clean with paper towel or wet/dry vacuum to remove residue.</li> <li>• Use <b>RINSE</b> spray bottle on components.</li> <li>• Replace decking.</li> </ul>
Quarterly	<p><u>Condensing Coil (Self-Contained Units Only):</u></p> <ul style="list-style-type: none"> <li>• Remove lower panel (by lifting it up and off).</li> <li>• Condenser coil brush may be used to dislodge dust, dirt and debris from condenser coil.</li> <li>• Slide condensing package out from underside of case (taking care to NOT slide out too far and damage hoses).</li> <li>• Use air pressure or industrial strength vacuum; clean dust and dirt that may collect on condenser coil. DO NOT allow dust to become airborne. Use wet cloths or paper towels to cover area where dust will fly when air pressure is applied.</li> <li>• <i>Caution! Coil fins are sharp. Handle with care!</i></li> <li>• Replace lower panel in reverse order it was removed.</li> <li>• See sample condenser coil cleaning brushes at right.</li> </ul> <div data-bbox="1070 661 1495 1152" style="text-align: right;"> </div>
Quarterly	<p><u>Refrigeration Package/Compressor Components (Self-Contained Units Only):</u></p> <ul style="list-style-type: none"> <li>• <i>Caution! Disconnect power from case before cleaning!</i></li> <li>• <i>Warning! Hot gas loop is HOT! Allow to cool before cleaning evaporator pan and wiping down hot gas loop!</i></li> <li>• Slide/roll compressor package out from under case.</li> <li>• See <b>REFRIGERATION FUNDAMENTALS: SELF-CONTAINED UNIT ILLUSTRATED PARTS BREAKDOWN</b> section in manual for breakdown of condensate package.</li> <li>• Clean evaporator pan with scrub-brush and a de-scaling solution (to prevent corrosion, lime and rust); follow instructions as to proper dilution, safety precautions and scrubbing method. After cleaning pan with scrub-brush and solution, use <b>RINSE</b> spray bottle on evaporator pan.</li> <li>• Use <b>WASH</b> spray bottle on tub, coil, drain, fans, fan blades, sight glass, overflow condensate pan, motors and other components. Wipe down and remove residue with paper towel or wet/dry vacuum. Use <b>RINSE</b> spray bottle on components. Wipe with paper towel.</li> <li>• Slide refrigeration assembly back under case.</li> <li>• Replace side panel.</li> </ul>
Quarterly	<p><u>Under Case Cleaning:</u> Once refrigeration package is clear of unit, vacuum under case to remove all dust and dirt that may collect under case.</p>
Quarterly	<p><u>Honeycomb:</u> See next page for cleaning instructions.</p>

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

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

*If honeycomb is dirty, allow to soak in hot, soapy water in back room pot sink. Use nylon brush to remove dust, debris and stubborn or sticky residue. Use spray nozzle*

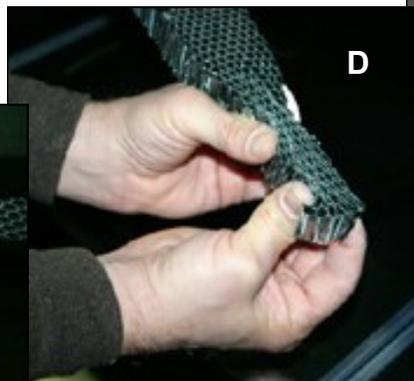
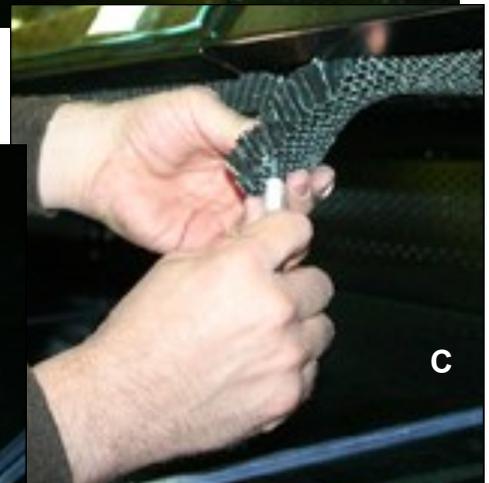
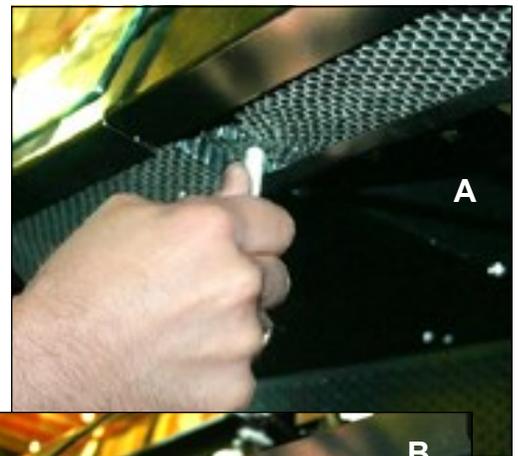
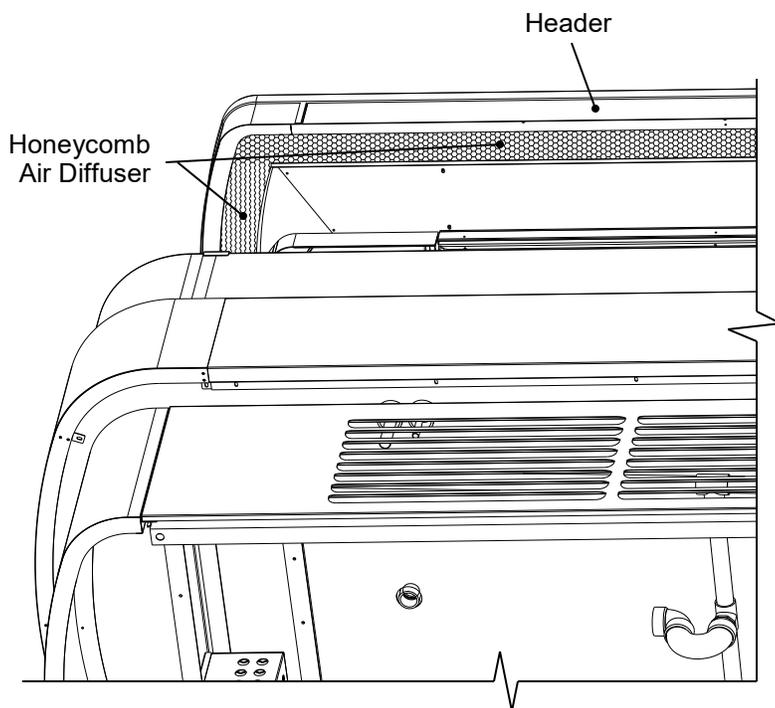
*on pot sink or use RINSE spray bottle on honeycomb. Allow honeycomb to air dry or use vacuum 'blow mode'.*

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

D. Squeeze honeycomb into the honeycomb retainer (behind header).

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.



**TROUBLESHOOTING (TO BE PERFORMED BY STORE PERSONNEL\*)**

CONDITION	TROUBLESHOOTING
<b>Water Is On The Floor</b>	Check that drain at underside of case is properly routed to floor drain (remote cases) or evaporator pan (self-contained units).
	Call service provider.
<b>Fans Emit Excessive Noise</b>	Call service provider.
<b>Case Lights Are Not Working</b>	Check that light switch is on.
	Check that ALL of the light cords and plugs are properly connected. See <b><i>MAINTENANCE FUNDAMENTALS - SHELF &amp; BRACKET ASSEMBLY REMOVAL / LIGHT FIXTURES</i></b> section in this manual for specifics.
	<b><u>Authorized Service Contractors Only:</u></b> Check circuit breaker box for tripped circuit.
	If case lights still do not come on, call service provider.
<b>One (or Several) Case Lights are Not Working</b>	Check that ALL of the light cords and plugs are properly connected. This includes the following items: <ul style="list-style-type: none"> <li>• Oval form of plug must connect to oval form of LED light.</li> <li>• The power end of cord is to connect at the “red dot” marker at the end of the LED lamp.</li> <li>• See <b><i>MAINTENANCE FUNDAMENTALS - SHELF &amp; BRACKET ASSEMBLY REMOVAL / LIGHT FIXTURES</i></b> section in this manual for more specifics including illustrations.</li> </ul>
	If case light still do not come on, call service provider.
<b>Case is Not Holding Proper Temperature</b>	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><i>OVERVIEW / TYPE / COMPLIANCE / WARNINGS / PRECAUTIONS / WIRING DIAGRAM</i></b> section in this manual for specifics.
	If case is located near outside doors, temperature fluctuation can hinder unit’s ability to maintain temperature. See <b><i>OVERVIEW / TYPE / COMPLIANCE / WARNINGS / PRECAUTIONS / WIRING DIAGRAM</i></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.

\* Unless authorized service contractors are specified.

**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 floor drain.
	Remote units condensate pump: Check that unit is operating properly.
	Check store conditions. <ul style="list-style-type: none"> <li>• These CID units are designed for Type 2 conditions.</li> <li>• Type 2 conditions are ambient conditions of 60% maximum humidity and maximum temperatures of 80 °F (27 °C).</li> </ul>
<b>Fans Emit 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.

**TROUBLESHOOTING (TO BE PERFORMED BY TRAINED SERVICE PROVIDERS ONLY), CONT'D**

CONDITION	TROUBLESHOOTING
<b>Case Lights Are Not Working</b>	Follow previous page's <b><i>System Not Operating</i></b> instructions.
	Check voltage at LED driver. If voltage is entering but not exiting, LED driver may be faulty.
	Check connection at front of case (from circuit breaker) for voltage.
	Check connection at case rear (from field wiring box) for voltage.
	If no case light STILL do not come on, call <b><i>SCC Technical Service</i></b> phone number (listed on last page of this operating manual).
<b>One (or Several) Case Lights are Not Working</b>	Follow previous page's <b><i>System Not Operating</i></b> instructions.
	If case light still do not come on, call <b><i>SCC Technical Service</i></b> phone number (listed on last page of this operating manual).
<b>Control Display Is Flashing</b>	See <i>your case's serial label for your model's specified settings. See SERIAL LABEL LOCATION &amp; INFORMATION LISTED / TECH INFO &amp; SERVICE</i> 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 (on temperature controller) 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 air grilles for obstructions.

**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 recirculating.
	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.

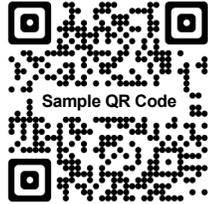
**TROUBLESHOOTING - EVAPORATOR SYSTEM (BY TRAINED SERVICE PROVIDERS ONLY)**

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.

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

--- 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**



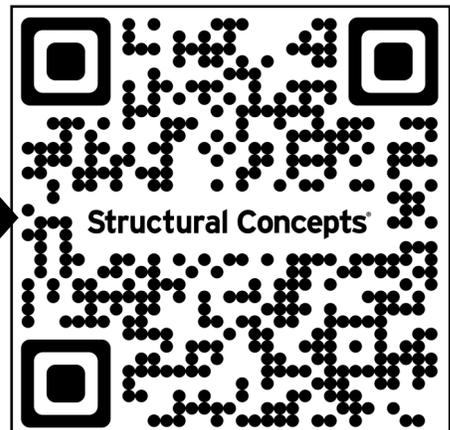
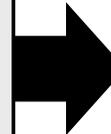
**Carel® iJF Platform**



**Dixell® XM670K-XM679K Platform**

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**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.)

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