

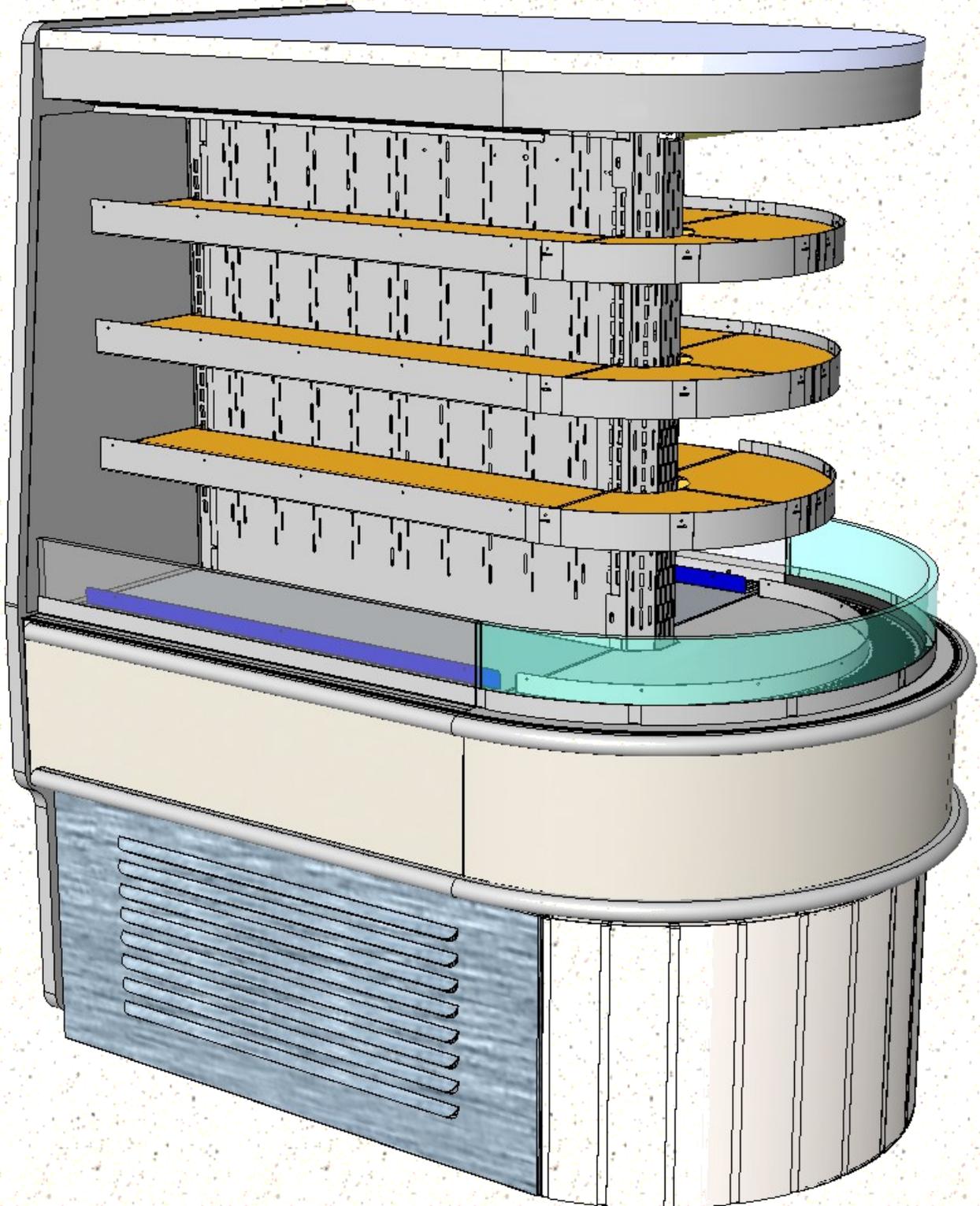
READ AND SAVE THESE INSTRUCTIONS

Oasis[®]

User Manual

SCC P/N
54306

MODEL FSE45R MULTI-PURPOSE SELF-SERVICE REFRIGERATED END CAP CASE



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

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OVERVIEW

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

TYPE I vs. TYPE II ENVIRONMENTAL CONDITIONS

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

- Type I display refrigerators are intended for use in an area where environmental conditions are controlled and maintained so that the ambient temperature does not exceed 75 °F (24 °C) and 55% maximum humidity.
- Type II display refrigerators are intended for use in an area where environmental conditions are controlled and maintained so that the ambient temperature does not exceed 80 °F (27 °C) and 60% maximum humidity.

- If unsure if your unit is Type I or II, see tag next to serial label. See **SERIAL LABEL LOCATION & INFORMATION LISTED / TECH INFO & SERVICE** section in this manual for sample serial labels.

COMPLIANCE

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

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.



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.



ATTENTION CONTRACTORS

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

WARNING

ELECTRICAL HAZARD



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

WARNING

KEEP HANDS CLEAR



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

WARNING

HOT SURFACE



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

PRECAUTIONS

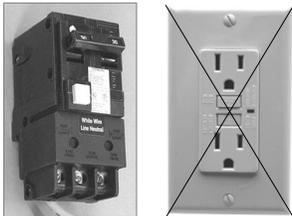
- Following are important precautions to prevent damage to unit or merchandise.
- Please read carefully!
- See previous page for specifics on **OVERVIEW**, **NSF TYPE**, **COMPLIANCE** and **WARNINGS**.

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, they 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.



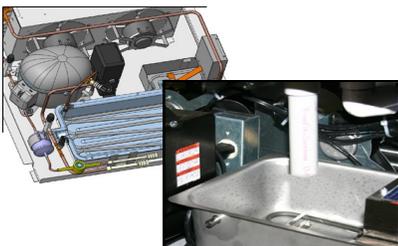
CAUTION! DO NOT RELY ON THERMOMETERS OR THERMOSTATS FOR PRODUCT (FOOD) TEMPERATURES.

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



CAUTION! ADVERSE CONDITIONS / SPACING ISSUES

- Performance issues caused by adverse conditions are **NOT** warranted.
- Keep case at least **6"** from walls and structures.
- Case must not be exposed to direct sunlight or any heat source.
- To maintain proper case temperature, keep case at least **15-feet** from exterior doors, overhead HVAC vents or any air curtain disruption.
- Self-contained case clearance: **6"** min. air intake / **6"** min. air discharge.



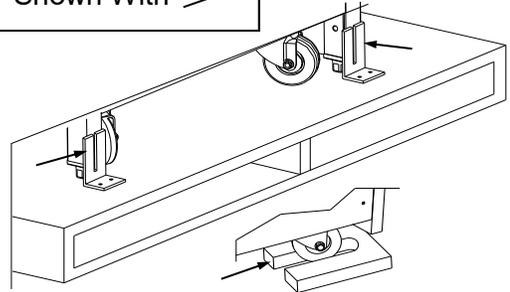
CAUTION! CHECK CONDENSATE PAN POSITION & PLUG!
Water on flooring can cause extensive damage!

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

1. Remove Shipping Brackets From Pallet

- Shipping brackets are designed to secure case as well as condenser package during shipment.
- Remove shipping brackets securing case to pallet (as shown at right).

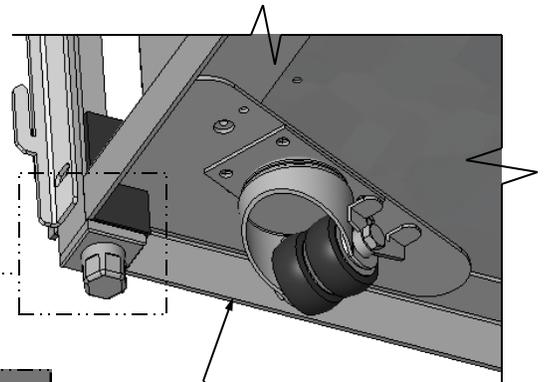
Various Types Of Shipping Brackets Shown With



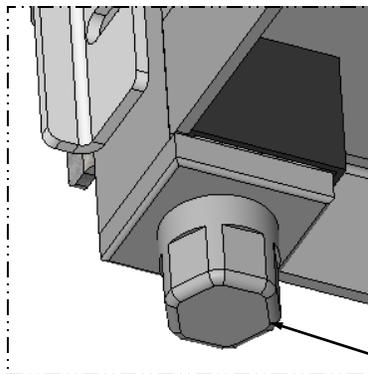
2. Raising Levelers

- **Important! Case is shipped with levelers in the *DOWN* position (for stability). To prevent damage to the case, all levelers must be raised *ALL THE WAY UP* before moving unit off pallet and into position.**
- You will need to remove kick panels to access levelers.
- Use adjustable wrench to adjust leveler.
- Depending upon case weight it may be necessary to use a pry bar to accomplish this task.
- Do not use pry bar on toe-kick as it may buckle.
- Do not use pry bar on end panel as it may chip.
- Use pry bar **ONLY** on base frame to avoid damaging case.
- See illustrations at right.

Adjustable Wrench



Base Frame



Leveler



Pry Bar

3. Caution! Kick Panels Are NOT To Be On Case During Removal From Pallet!

- Kick panels can easily buckle or bend while removing case from pallet.
- If kick panels are on case, remove by lifting up and off. No screw removal is required to remove kick panels.
- After unit is in position, kick panels are to be replaced.

4. Remove Unit From Pallet (With Fork Lift)

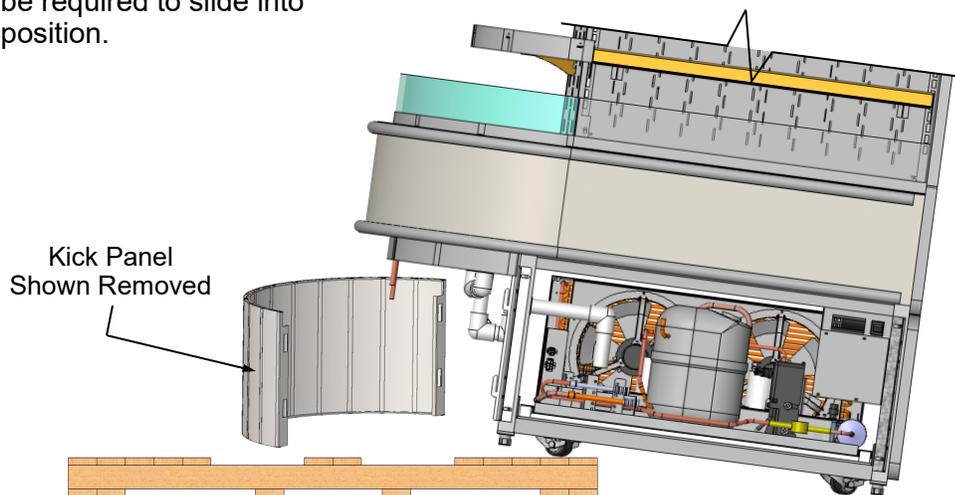
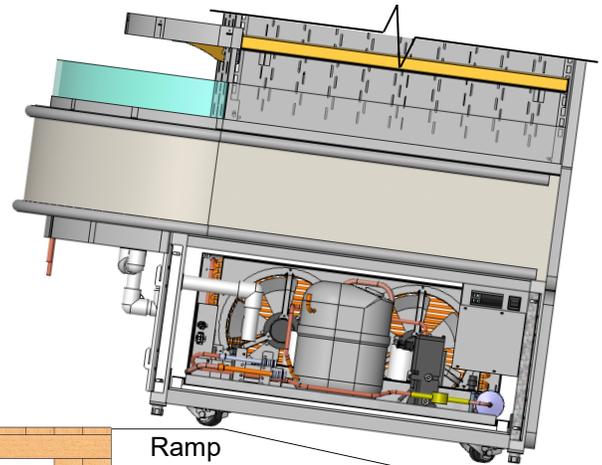
- To lift case up for lift-truck forks to slide into position, use J-Bar lift tab.
- Make certain case is well-supported on lift truck. Move into position.

5. J-Bar or Dolly (Without Fork Lift)

- Slide case to edge of pallet.
- With several people in position, carefully slide frame support rail to edge of pallet.
- With several people in position, slide case several more inches (off pallet) and lower rear frame support to floor.
- Once the rear frame support rail rests on the floor, have several people supporting front of case while pallet is slid out from under case.
- After case is off pallet, several employees may be required to slide into position.

6. Using Ramp

- If ramp is available, after levelers are raised all the way up, place ramp up against pallet (to allow case to smoothly roll off from pallet).
- Maintain support of case at all times or center of gravity may cause case to fall.
- Roll unit to rear of pallet, down ramp and off pallet (as shown in illustration immediately below).



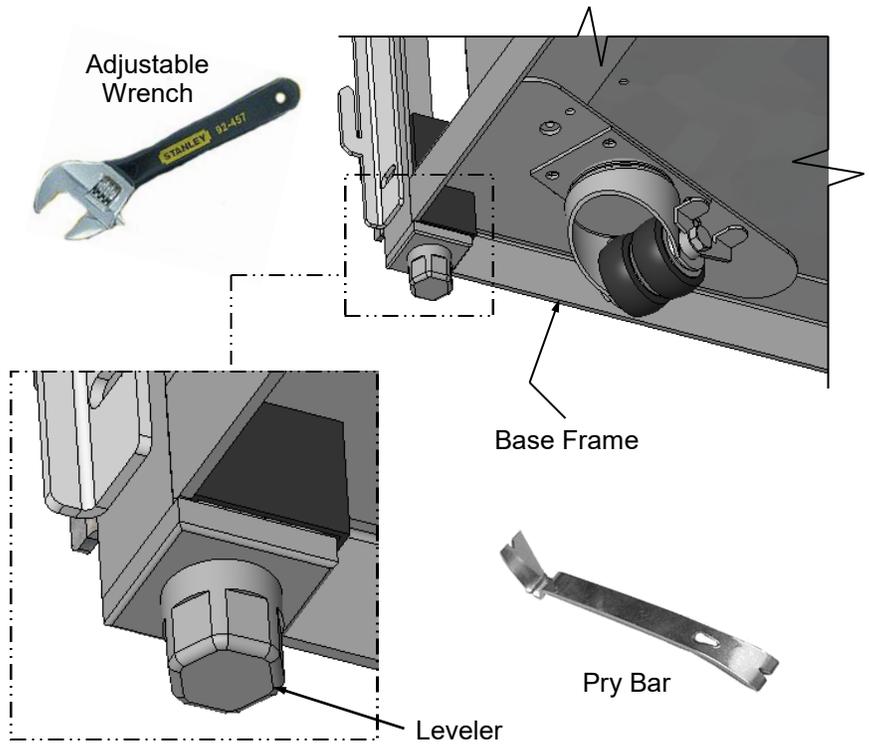
Caution! Kick Panels Are NOT To Be On Case During Removal From Pallet!

7. Positioning Case

- Carefully and slowly move case (on its casters) to its new location in store.

8. Lowering & Adjusting Levelers

- *Important! After case is in proper position, levelers must then be LOWERED to floor.*
- Using adjustable wrench, adjust levelers so the case is level and plumb.
- Depending upon case weight it may be necessary to use a pry bar to accomplish this task.
- Do not use pry bar on e-kick as it may buckle.
- Do not use pry bar on end panel as it may chip.
- Use pry bar ONLY on base frame to avoid damaging case.
- See illustrations at right.



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

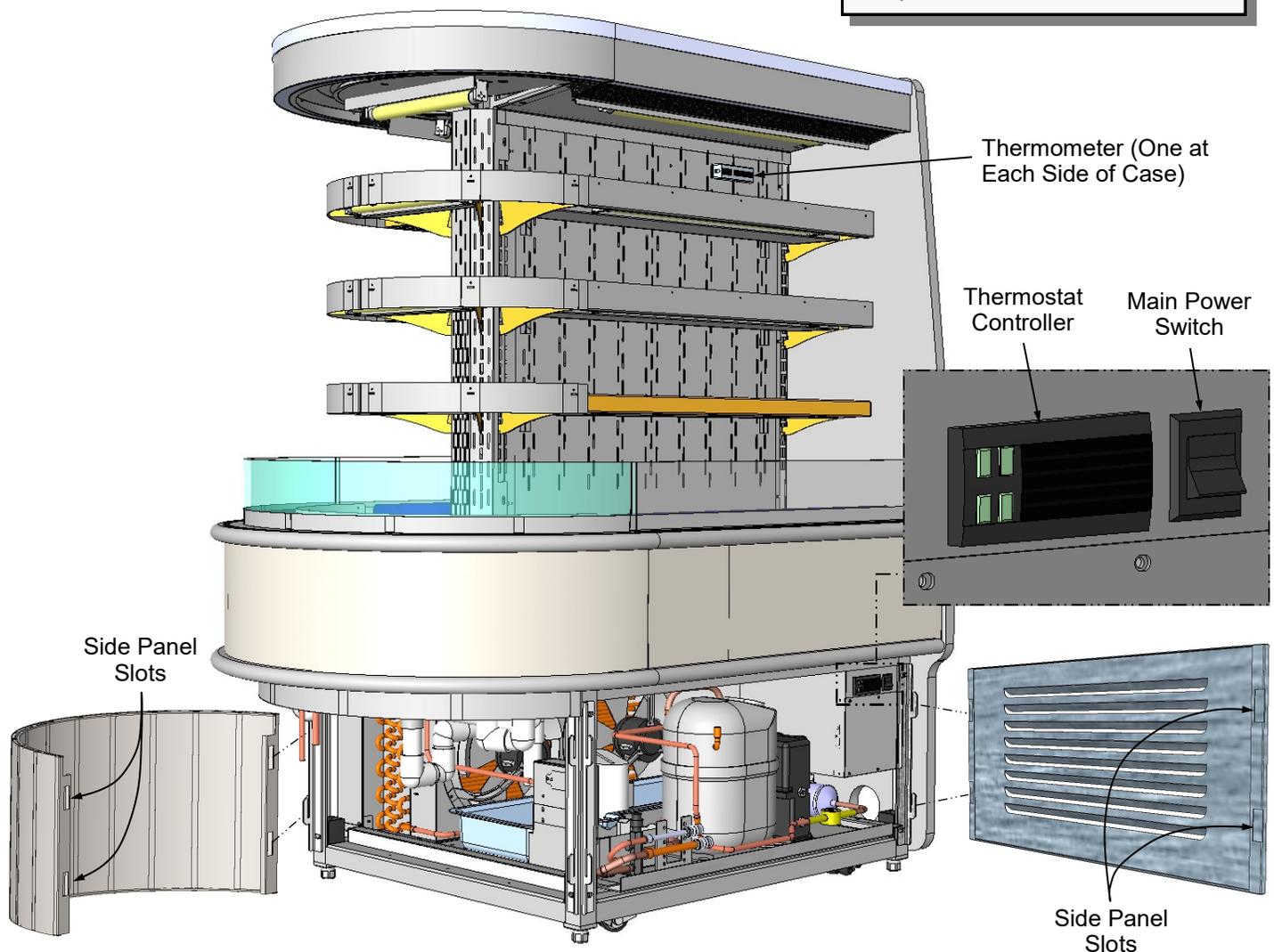
1. Power Cord / Exhaust Grille / Main Power Switch / Thermostat

- Plug power cord into outlet (3-prong plug is provided).
- Lift off exhaust grille on right side of unit. No screw removal required. Simply lift up and off.
- Turn on main power switch at right rear side of case.
- Main power switch will start evaporator coil fans, and the compressor motor.
- Thermostat controls temperature. See **MAINTENANCE - LIGHT BALLASTS / THERMOSTAT** section in this operating manual for more information.
- See illustration below.

2. Thermometers

- Thermometers are located in the side refrigerated compartment.
- They do not measure actual product temperature; they monitor warmest air temperature.
- Use a probe to determine actual product temperature.
- Thermometers are located on BOTH refrigerated sides of case.

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



3. Evaporator Coil Fans

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

- To verify fans are operational, lift up deck pans; check to see that the coil fans are all functioning properly.
- See illustration below.

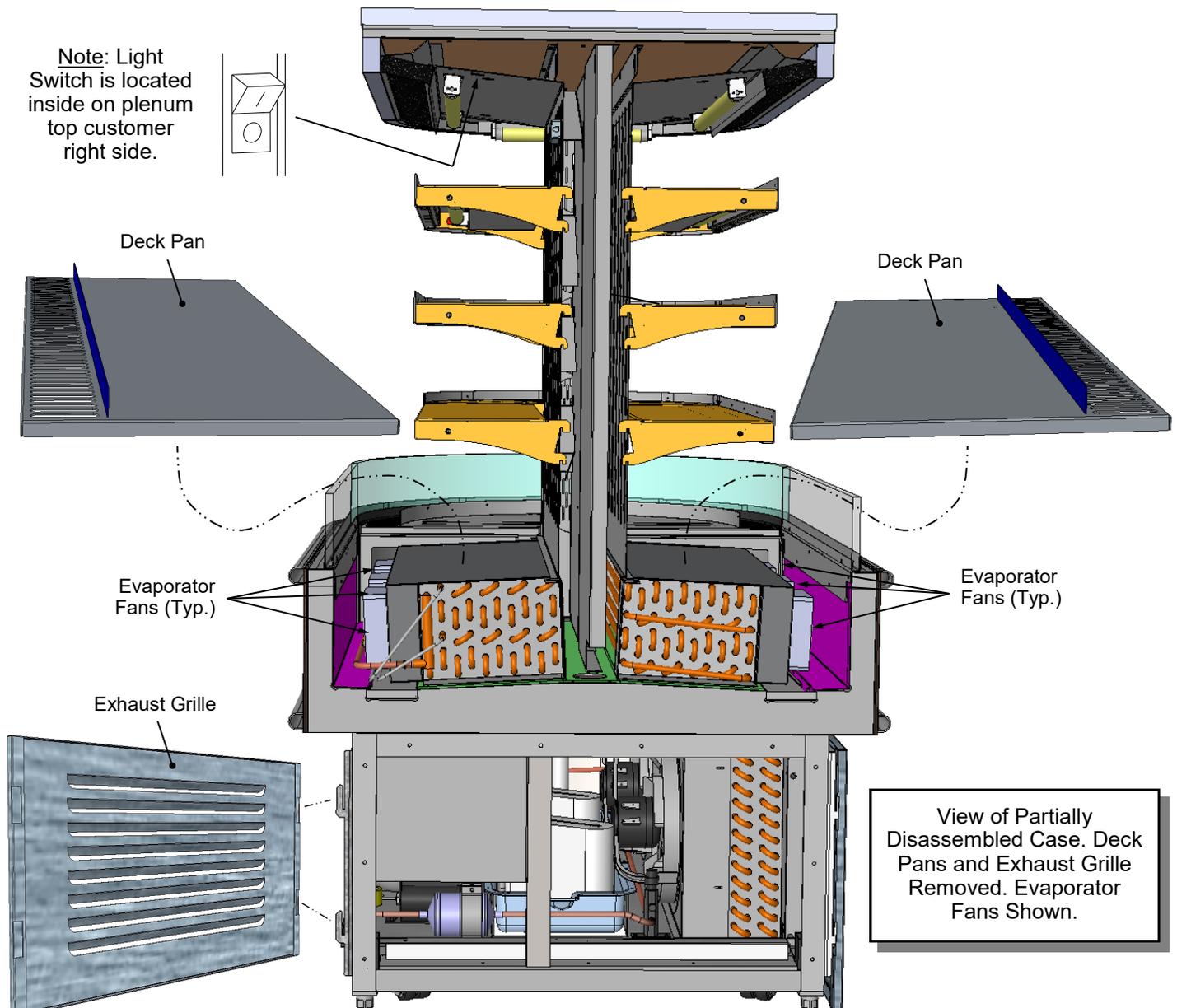
Note: Illustrations Shown May Not Exactly Reflect Every Feature or Option of Your Particular Case.

4. Light Switch Location

- Light switch is located inside on the plenum top toward back of the unit (as shown below).

Note: All lights should come on at the same time. First time lighting may require a short warm up period for the bulbs. Slightly dim or a flickering of new bulbs is normal. If lights do not turn on, check all of the plug connections.

Note: Illustrations shown may not exactly reflect every feature or option of your particular case.

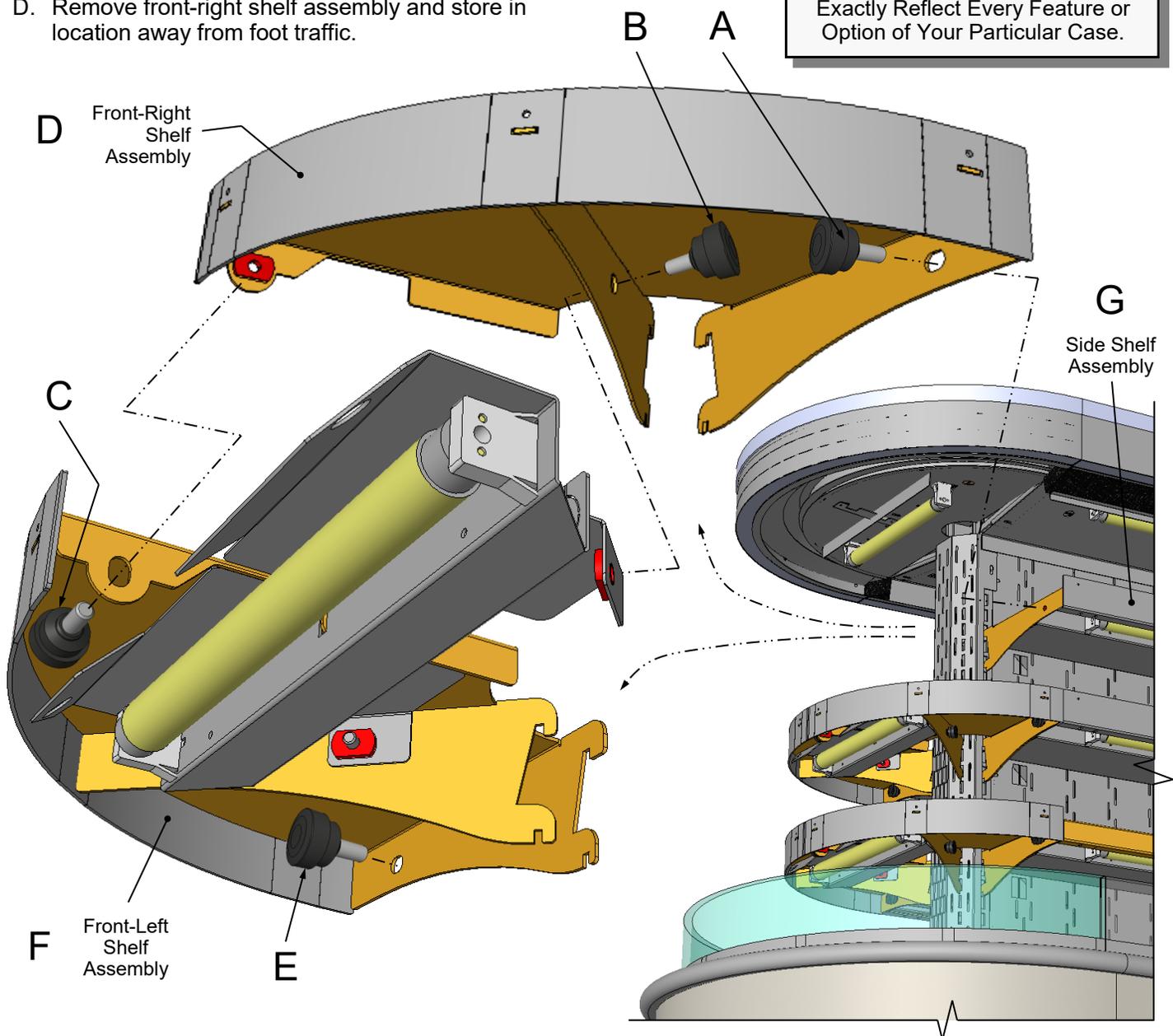


1. Shelving Assembly Removal / Adjustment

- Shelving is vertically adjustable on 1" centers.
 - Due to angled bracketry, shelves must be removed and raised/lowered in a specific order.
 - Thumbscrews allow each shelving assembly to be separated from each other. No tools are required.
 - To remove shelving assemblies, follow these step-by-step instructions.
- A. Remove thumbscrew "A" that connects to side shelf assembly (as shown below).
 - B. Remove thumbscrew "B" that connects to light assembly (as shown below).
 - C. Remove thumbscrew "C" that connects front-left shelf assembly to front-right shelf assembly.
 - D. Remove front-right shelf assembly and store in location away from foot traffic.

- E. Remove thumbscrew "E" that connects front-left shelf assembly to opposite side shelf assembly.
 - F. Remove front-left shelf assembly and store in location away from foot traffic.
 - G. Side shelf assembly may now be removed and/or adjusted to new position. No tools required.
- >> After side shelf assembly (or assemblies) have been move to desired locations, replace front-left and front-right shelf assemblies in reverse order they were removed.
- >> Perform these steps on any shelving assemblies that need to be raised or lowered.

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



2. Light Fixtures (Fluorescent)

Light fixtures are located on the underside of each shelf assembly (at both sides and front).

Removal of lamp:

- Firmly pull one end of lamp outward to disengage pins/contacts from lamp mounting sockets.
- After the one end has been removed, carefully disengage from opposite end of bulb.
- Take care to not bump bulb into shelves or end panels as it is possible to shatter bulb.

Installation of lamp:

- Align pins with slot.
- Insert pins into socket. Press pins firmly into slots. Wiggle back and forth to assure that pins are secure.
- See photos and illustration on this sheet.

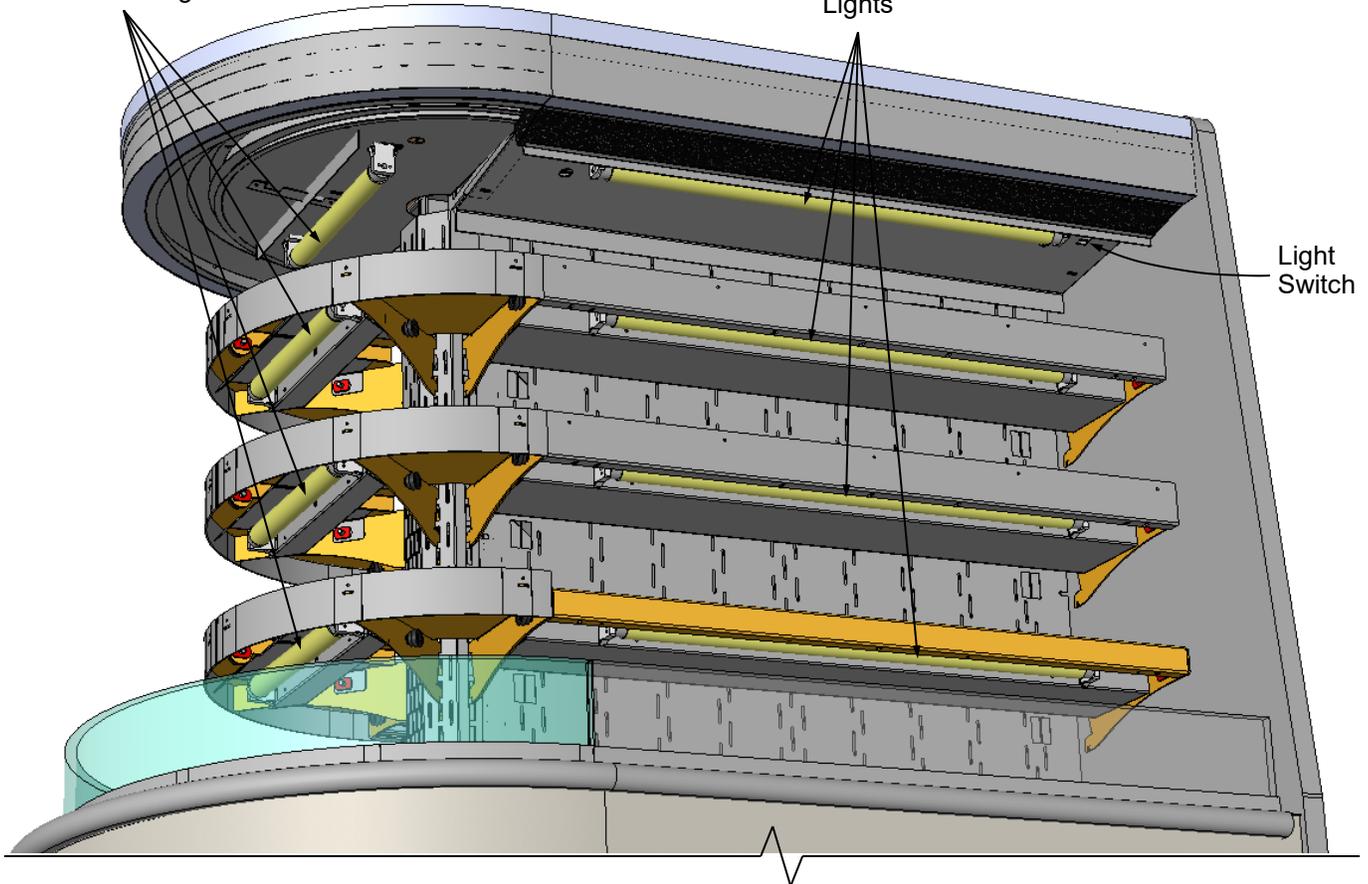


Note: Illustrations Shown May Not Exactly Reflect Every Feature or Option of Your Particular Case.

Fluorescent Lights

Side Fluorescent Lights

Light Switch



3. Light Fixtures (LED)

Removal of Faulty LED Lights:

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

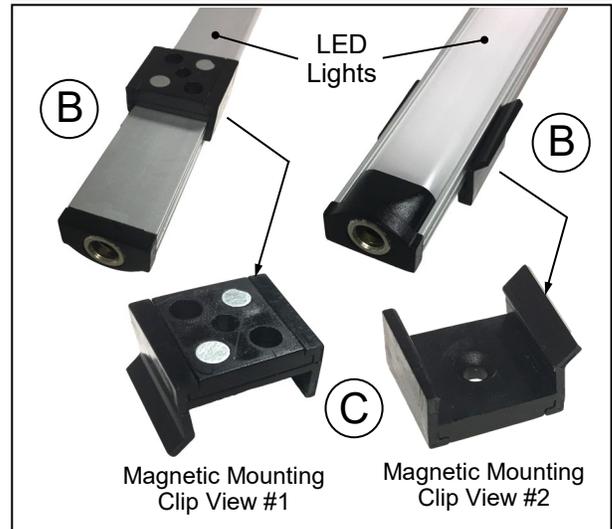
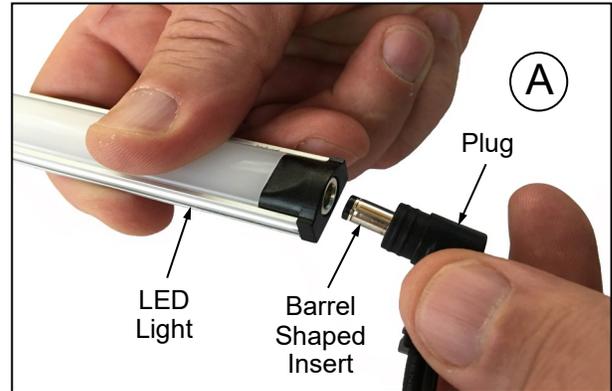
>> **Note:** Mounting clips MAY be riveted to shelf or header. In such instances, simply remove LED light from mounting clips by pressing against flange part of clips with thumb.

Replacement of LED lights:

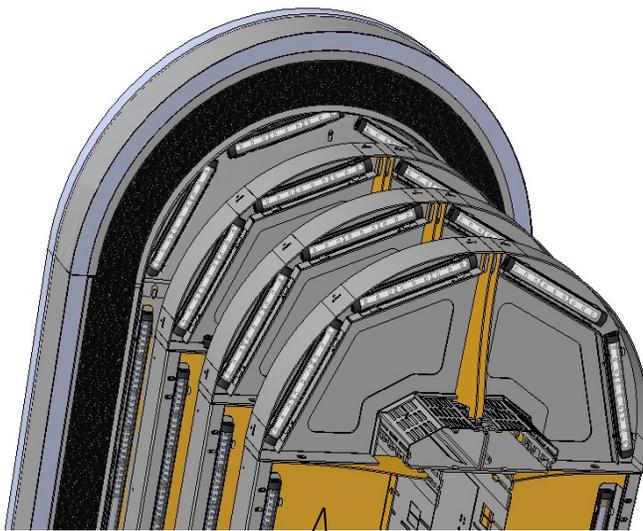
- Attach magnetic mounting clips onto LED light.
- Adjust magnetic mounting clips so they are equally spaced on LED light.
- Reattach LED light assembly to its shelf/header.
- Position properly in shelf/header.

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

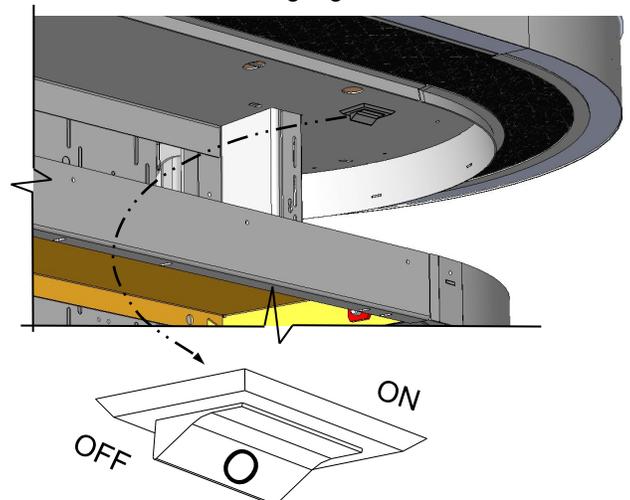
- Press plug's barrel-shaped insert deep into LED light.
- **Important:** If plug is not inserted ALL THE WAY IN the LED light's orifice, the light may not energize. See "**BAD**" vs. "**GOOD**" insertion illustrations below-right.
- Turn LED light switch back on.



LED Shelving Lights



--- Section View of Shelf Assembly Underside ---



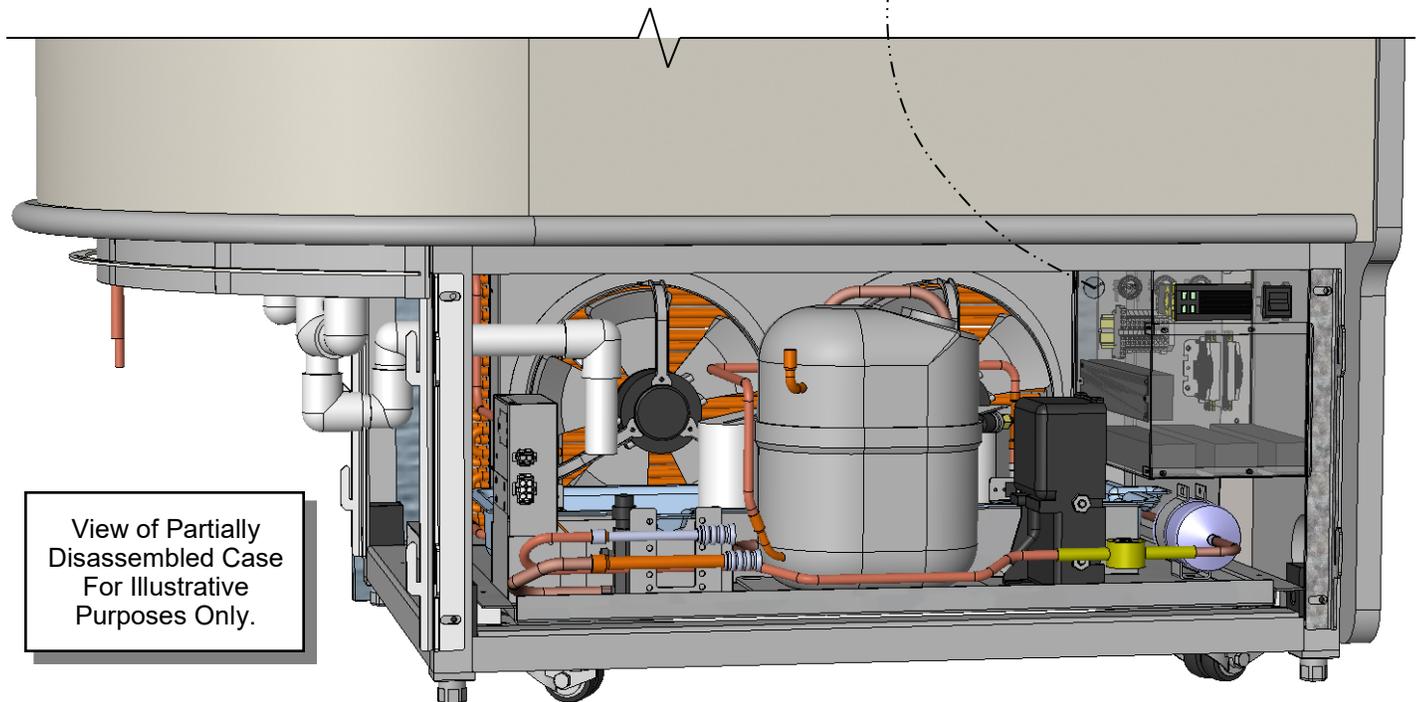
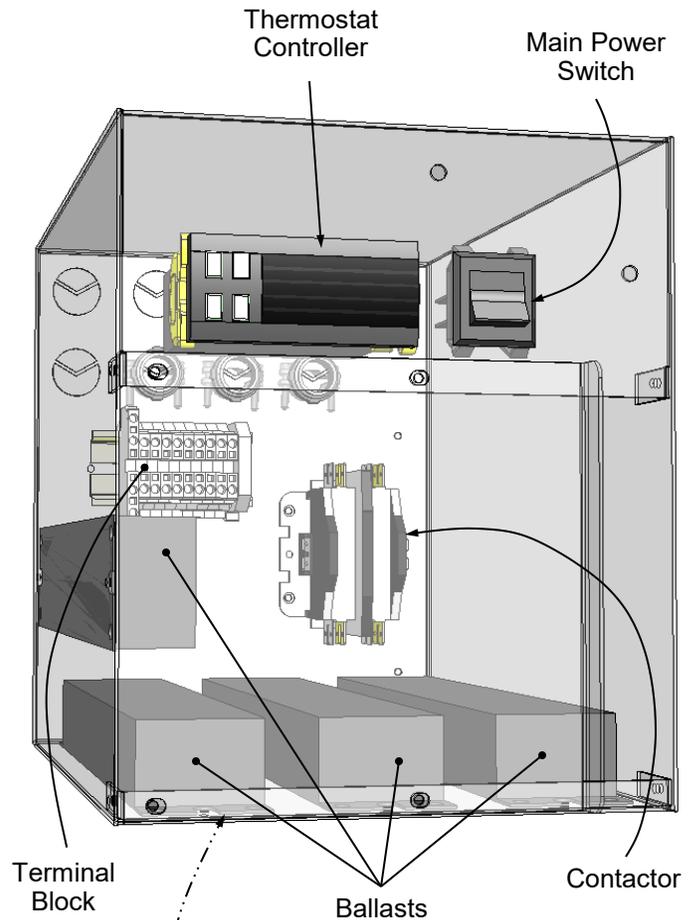
4. Ballast Access

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

- **Assembly or disassembly and servicing is to be accomplished by a licensed electrical contractor.**
- Ballasts are located on the right side of the case (see illustration at top-right)
- Lift off exhaust grille on customer right side of unit. Remove screws to remove the electrical cover. The ballast may be accessed with cover removed.

5. Thermostat

- Thermostat is located in electrical box.
- Thermostat / defrost control settings are programmable from these locations.
- Case temperature set point is set at factory, as determined by case size & sensor probe location.
- Temperature is controlled by thermostat.
- If a temperature setting change is required, follow instructions regarding temperature control programming steps in the technical information section of this operating manual.
- If service is required to the temperature control unit, call Structural Concepts Corporation.
- See Carel® Controller section in this manual.

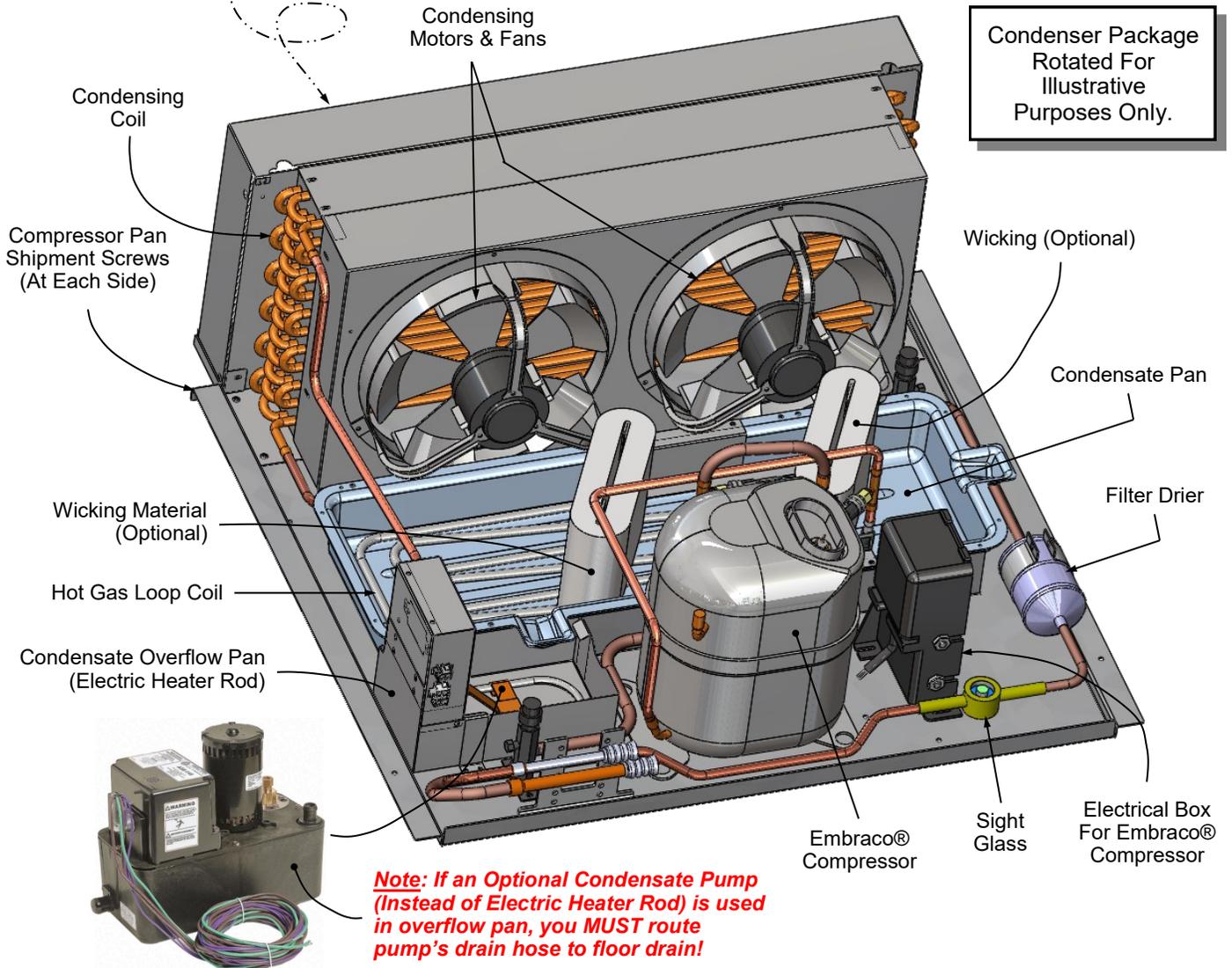
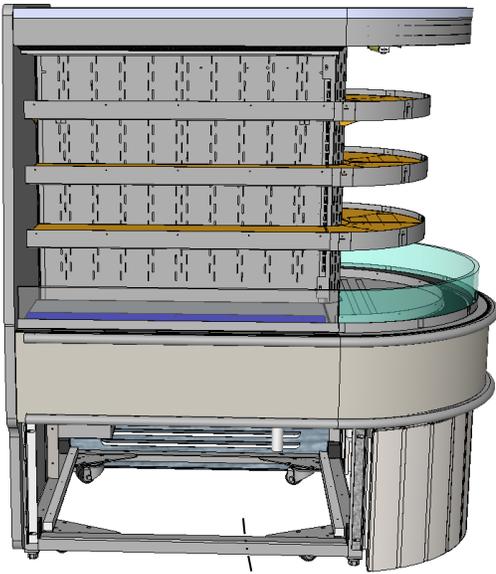


6. Refrigeration: Access, Connections & Servicing

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

Pull Out Condenser Package

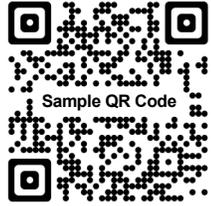
- Remove exhaust side panel. Panel may be lifted up & off hooks.
- **Note:** At initial slide-out, it may be necessary to remove compressor pan shipment screws.
- *Refrigerant lines are flexible to facilitate rear access maintenance.*
- Plastic glides are mounted at base to assist in sliding the condenser out for access.
- Service connections are at the left of compressor.
- Slide condenser package out 12 to 18 inches to access high pressure service connection.
- ***Important Condensate Overflow Pan Note:*** *If an optional condensate pump (instead of electric heater rod) is used in overflow pan, you MUST route pump's drain hose to floor drain or water could overflow, causing damage! See below.*



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>Structural Concepts[®] 888 E. Porter Rd - Muskegon, MI 49441</p>		<p>Reveal Blend Harmony Impulse Oasis</p>	<p>Addenda Grocerant Fusion</p>	<p>MODEL NRS3648RXV-SAMPLE SERIAL NO. 12345X30DZ098765</p>
 Intertek	 Intertek	SAMPLE ONLY		
<p>3048256 Conforms to UL Std. 471 Conforms to NSF/ANSI Stds. 2 & 7 CERTIFIED TO CAN/CSA STD C22.2 NO 120</p>	<p>Super Heat Temp Defrost</p>	<p>6-8 °F 6 defrosts per day, 45 °F</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>
SAMPLE ONLY		FOR PARTS AND SERVICE CALL 1-800-433-9490		
SAMPLE ONLY		SCAN FOR PRODUCT LITERATURE		
SAMPLE ONLY		 Sample QR Code		
TYPE II DISPLAY REFRIGERATOR: THIS EQUIPMENT IS INTENDED FOR USE IN AN AREA WHERE THE ENVIRONMENTAL CONDITIONS ARE CONTROLLED AND MAINTAINED SUCH THAT THE AMBIENT TEMPERATURE DOES NOT EXCEED 80 °F (27 °C).				

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

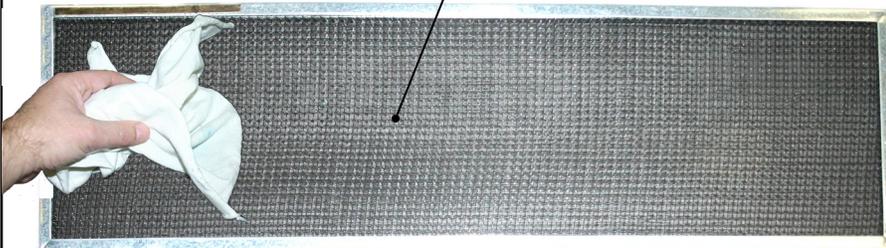
GENERAL CLEANING BY STORE PERSONNEL - ACRYLIC SNEEZE GUARD, FILTER, SHELVES, ETC.

AREA TO CLEAN	FREQUENCY	INSTRUCTIONS
Case Exterior	Daily	<p>Acrylic: Acrylic sneeze guard must be cleaned with a mild soap and water solution and a soft cloth. <i>Never use a household cleaner on acrylic.</i></p>
	Weekly	<p>Condenser Coil Filter (Attached to Exhaust Grille Nearest Condenser Coil):</p> <ul style="list-style-type: none"> • Condenser coil filter must be cleaned weekly. • See next page for step-by-step instructions.
Case Interior	Daily	<p>Shelves/Decks:</p> <ul style="list-style-type: none"> • Shelves and deck can be cleaned with a warm soap and water solution and soft cloth.
	Weekly	<p>Shelf Supports / Air Return Grilles / Decking</p> <ul style="list-style-type: none"> • Wipe off shelf supports, air return grilles and decking with moist cloth. • Shelf supports can be removed for more thorough cleaning. • Air return grilles can be removed for more thorough cleaning. • Decking is NOT to be removed by store personnel.

GENERAL CLEANING BY STORE PERSONNEL - CONDENSER COIL FILTER

Weekly Condenser Coil Air Filter Cleaning **(Self-Contained Units Only):**

- 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 cloth to wipe off excess dust particles and debris from filter.
 4. As magnetic condenser coil filter is dishwasher safe, you may run it in normal dishwasher cycle. Remove from dishwasher. Dry with soft cloth or paper towel. Return to case.
 5. 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 in sink. Use soft-bristled brush to remove dust, dirt, grease and grime that may collect on filter. Rinse thoroughly.
 6. Reattach magnetic condenser coil air filter to inner lower panel (as shown below).
 7. Reattach lower panel to case.



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

TROUBLESHOOTING BY STORE PERSONNEL

CONDITION	TROUBLESHOOTING
Water Is On The Floor	If overflow pan uses condensate pump (rather than electric heater rod), check that its drain hose is properly routed to floor drain. 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. 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 OVERVIEW / TYPE 1 vs. 2 / COMPLIANCE / WARNINGS / PRECAUTIONS / WIRING 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 magnetic condenser coil filter has been cleaned. <ul style="list-style-type: none"> • See GENERAL CLEANING BY STORE PERSONNEL - CONDENSER COIL FILTER 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.

GENERAL CLEANING BY TRAINED SERVICE PROVIDERS ONLY

AREA TO CLEAN	FREQUENCY	INSTRUCTIONS
Case Interior	Monthly	<p><u>Evaporator Fan Shroud Area (Under Decking):</u> <i>Caution! Due to rotating fans in area, turn off case and disconnect plug from wall outlet before beginning fan shroud (and surrounding tub area) cleaning!</i> 1) Turn off power. 2) Remove decks from case. 3) Clean fan shroud area (and surrounding tub area) with moist cloth.</p>
	Quarterly	<p><u>Tub & Drain:</u> <i>Caution! Due to rotating fans in area, turn off case and disconnect plug from wall outlet before beginning tub & drain cleaning!</i> Vacuum tub under decks. Clean with soap and water solution. Wipe dry with clean cloth. Keep drain free of debris to prevent clogging.</p>

WARNING! TURN OFF CASE BEFORE PERFORMING PREVENTIVE MAINTENANCE!

FREQ.	AREA / INSTRUCTIONS
Quarterly	<p><u>Tub, Coil, Drain, Evaporator Fan (Axial) Blades, Motors, Brackets:</u></p> <ul style="list-style-type: none"> • <i>Disconnect power from the case before cleaning the tub, coil, fan, motor and drain area!</i> • Remove decking, sub-deck (if any) and fan shroud. • Remove any debris that may clog drain. • Use spray bottle with mild detergent solution on tub, coil, drain, trough, tub, fan blades, motors and other components. Clean with paper towel or wet/dry vacuum to remove residue. • Use spray bottle with rinse solution on components. • Replace decking.
Quarterly	<p><u>Condensing Coil (Self-Contained Units Only):</u></p> <ul style="list-style-type: none"> • Remove lower panel (by lifting it up and off). • Condenser coil brush may be used to dislodge dust, dirt and debris from condenser coil. • Slide condensing package out from underside of case (taking care to NOT slide out too far and damage lines). • 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. • <i>Caution! Coil fins are sharp. Handle with care!</i> • Replace lower panel in reverse order it was removed. • See sample condenser coil cleaning brushes at right. <div data-bbox="1070 661 1490 1108" style="text-align: right;"> </div>
Quarterly	<p><u>Refrigeration Package/Compressor Components (Self-Contained Units Only):</u></p> <ul style="list-style-type: none"> • <i>Caution! Disconnect power from case before cleaning!</i> • <i>Warning! Hot gas loop is HOT! Allow to cool before cleaning evaporator pan and wiping down hot gas loop!</i> • Remove exhaust panel slide/roll compressor package out from under case. • See REFRIGERATION FUNDAMENTALS section breakdown of condenser package. • Clean condensate pan (and overflow condensate pan, if needed) with scrub-brush and a non-corrosive 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 spray bottle with rinse solution on evaporator pan. • Use spray bottle with mild detergent solution 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 spray bottle with rinse solution on components. Wipe with paper towel. • Slide refrigeration assembly back under case. • Replace exhaust panel.
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

See **PREVENTIVE MAINTENANCE BY TRAINED SERVICE PROVIDERS ONLY** section in this manual for cleaning frequency.

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

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

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

C. Carefully pry downward and away from the honeycomb retainer.

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

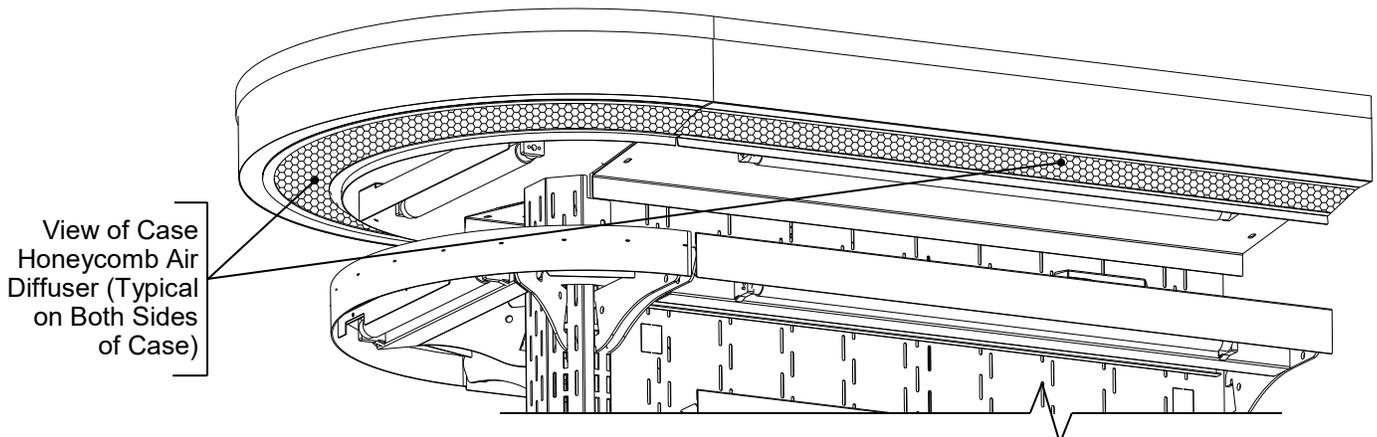
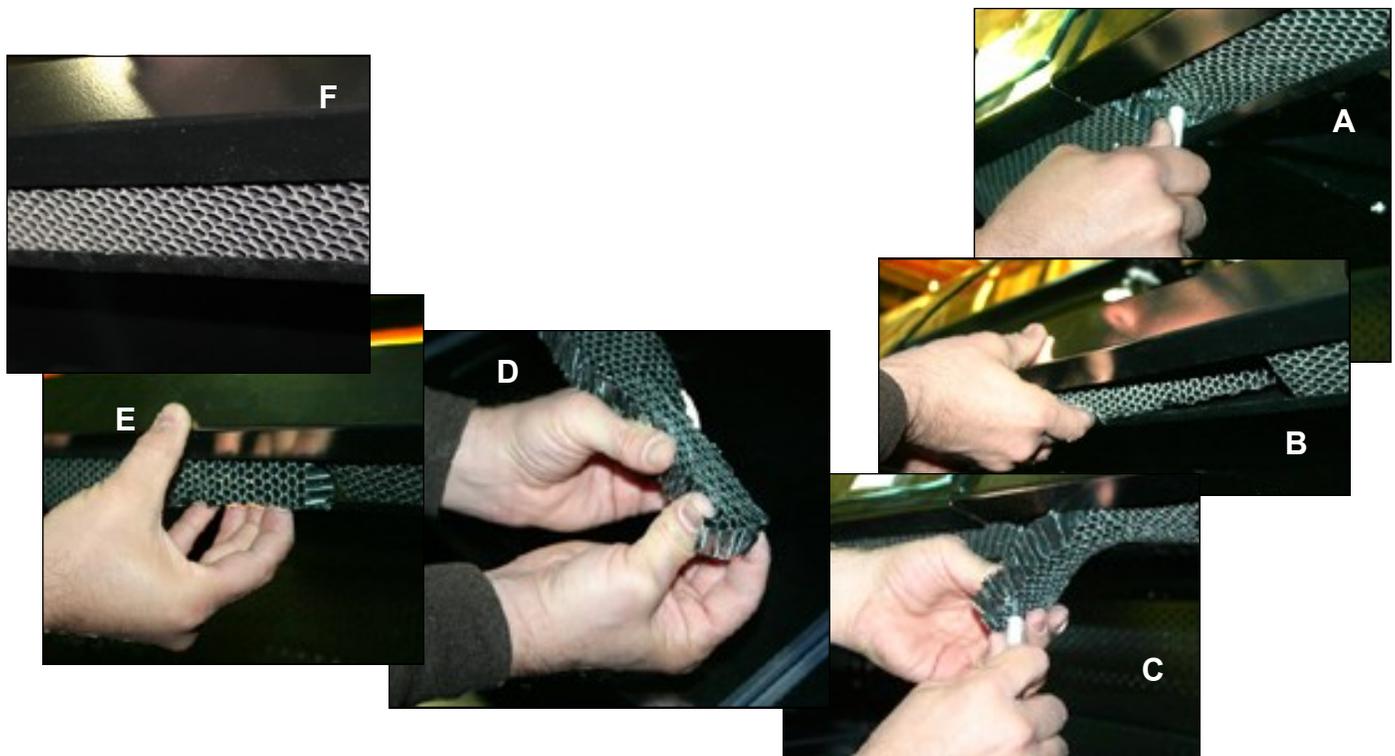
2. Honeycomb Air Diffuser Installation

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



TROUBLESHOOTING BY TRAINED SERVICE PROVIDERS ONLY

CONDITION	TROUBLESHOOTING
Water Is On The Floor	Check that the drain trap is free of debris.
	Check that the drain hose is correctly positioned over evaporator pan.
	Check store conditions. <ul style="list-style-type: none"> • For NSF® Type 1 Conditions (most cases): ambient conditions are to be at 55% max. humidity / 75°F. • For NSF® Type 2 Conditions: ambient conditions are to be at 60% maximum humidity / 80°F.
	Check that condensate pan is properly connected and heating.
Fan Emits Excessive Noise	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.
Fans Are Not Working	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.
Digital Control Display Is Blank.	Check that the MAIN power switch is on.
	Check the circuit breaker box for tripped circuits.
System Not Operating	Check that the utility power is on.
	Check that the MAIN power switch is on.
	Check the circuit breaker box for tripped circuits.

TROUBLESHOOTING BY TRAINED SERVICE PROVIDERS ONLY, CONTINUED

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

TROUBLESHOOTING BY TRAINED SERVICE PROVIDERS ONLY - CONDENSING SYSTEM

CONDITION	TROUBLESHOOTING
Head Pressure Too High	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 OVERVIEW / TYPE 1 vs. 2 / COMPLIANCE / WARNINGS / PRECAUTIONS / WIRING section in this manual.
Head Pressure Too Low	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 BY TRAINED SERVICE PROVIDERS ONLY - EVAPORATOR SYSTEM

CONDITION	TROUBLESHOOTING
Low Suction Pressure	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.
High Suction Pressure	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"> a. Poor thermal contact. b. Warm location.

PREVENTIVE MAINTENANCE BY TRAINED SERVICE PROVIDERS ONLY

WARNING! TURN OFF CASE BEFORE PERFORMING PREVENTIVE MAINTENANCE!

PREVENTIVE MAINTENANCE	FREQUENCY	INSTRUCTIONS
Case Exterior	Quarterly	<p><u>Condensing Coil:</u></p> <ul style="list-style-type: none"> • Remove side panel (by lifting up and off). • Use air pressure or industrial strength vacuum; clean dust and dirt that may collect on condenser coil. • Caution! Coil fins are sharp. Handle with care! • Replace side panel to case.
	Quarterly	<p><u>Refrigeration Package/Compressor Area:</u> <i>Caution! Be certain to disconnect power from case before cleaning Refrigeration Package!</i></p> <ul style="list-style-type: none"> • <i>Warning! Evaporator Pan Is HOT! Disconnect power from case and allow to cool before cleaning evaporator pan!</i> • Slide/Roll compressor package out from under case. • See REFRIGERATION - ACCESS, CONNECTIONS & SERVICING section in this manual for in-depth instructions on accessing the condensate pan. • Use a scrub-brush and a de-scaling solution such as CLR® (to prevent corrosion, lime and rust). Follow instructions as to proper dilution, safety precautions and scrubbing method. • After thoroughly cleaning pan with scrub-brush and solution, rinse thoroughly with clean water (in spray bottle) and wipe dry with sponge or paper towel. • Use moist cloth to wipe off dust & debris that collects on various parts (fans, sight glass, overflow pan, etc.). • Slide refrigeration assembly back under case. • Replace front panel and lower grille via hooks (no screws required).
	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>
Case Interior	Quarterly	<p><u>Tub, Coil, Drain, Fans, Brackets:</u></p> <ul style="list-style-type: none"> • Remove decking. • Use vacuum to clean entire area. • After vacuuming, clean area with warm water, clean cloth, and mild soap solution. • Remove any debris that may clog drain.
	Quarterly	<p><u>Honeycomb:</u> Check honeycomb air diffuser to determine whether it is dirty. If dirty, remove from case. See PREVENTIVE MAINTENANCE BY TRAINED SERVICE PROVIDERS ONLY section of this manual for cleaning specifics.</p>



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



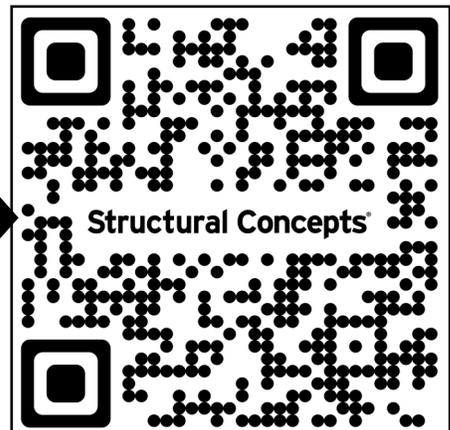
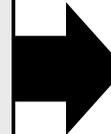
Carel® iJF Platform



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.

