

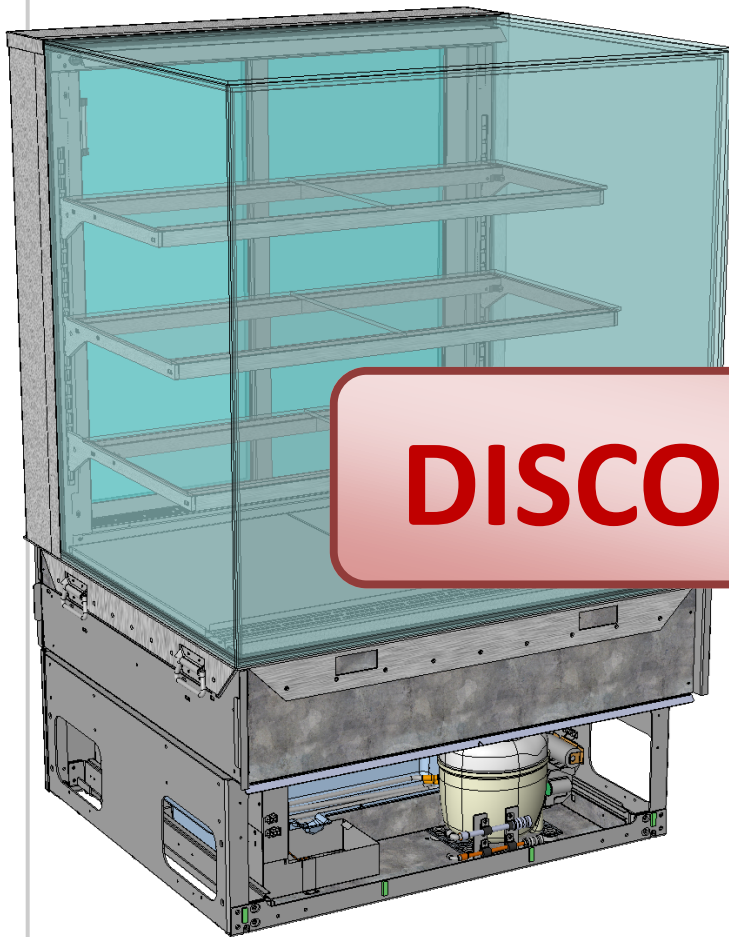
# Reveal<sup>®</sup> User Manual

SCC P/N  
20-80692

## REVEAL<sup>®</sup> FREE STANDING SERVICE REFRIGERATED MERCHANDISERS

- > REAR SLIDING DOORS
- > SELF-CONTAINED OR REMOTE UNITS
- > **CAUTION! DO NOT PUSH OR PULL ON UPPER GLASS ENCLOSURE!**
- > **ONLY USE HANDLES (AT EACH END OF CASE) TO PUSH OR PULL CASE INTO POSITION!**
- > SEE PAGES 10-11 FOR PANEL, GRILLE & TOE-KICK ATTACHMENT INSTRUCTIONS
- > **SEE PAGES 12-15 FOR CASE ADJOINMENT INSTRUCTIONS.**

Models Are Shipped WITHOUT Panels and Cladding Attached. See Page 10 and 11 For Component Attachment Instructions.



Model NR3655RSV Free Standing Unit Shown  
Before Front/Side Cladding and Toe-Kick  
Have Been Attached



Model NR3655RSV Free Standing Unit  
Shown After Front/Side Cladding and

**Structural Concepts<sup>®</sup>**

DELIVERING FRESH. ALWAYS.™

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**REVEAL® FREE STANDING REFRIGERATED SERVICE MODEL APPLICABILITY & DIMENSIONS**

<b>Model</b>	<b>Upper Display Height</b>	<b>Overall Height</b>	<b>Case Depth x Length</b>
NR3633RSV	13 5/8"UDH	32 7/8"OH	33"D x 35 3/4"L
NR3640RSV	20 3/8"UDH	39 5/8"OH	33"D x 35 3/4"L
NR3647RSV	27 7/8"UDH	47 1/8"OH	33"D x 35 3/4"L
NR3655RSV	35 1/4"UDH	54 5/8"OH	33"D x 35 3/4"L
NR4833RSV	13 5/8"UDH	32 7/8"OH	33"D x 47 3/4"L
NR4840RSV	20 3/8"UDH	39 5/8"	33"D x 47 3/4"L
NR4847RSV	27 7/8"UDH	47 1/8"OH	33"D x 47 3/4"L
NR4855RSV	35 1/4"UDH	54 5/8"OH	33"D x 47 3/4"L
NR6033RSV	13 5/5"UDH	32 7/8"OH	33"D x 59 3/4"L
NR6040RSV	20 3/8"UDH	39 5/8"OH	33"D x 59 3/4"L
NR6047RSV	27 7/8"UDH	47 1/8"OH	33"D x 59 3/4"L
NR6055RSV	35 1/4"UDH	54 5/8"OH	33"D x 59 3/4"L
NR7233RSV	13 5/8"UDH	32 7/8"OH	33"D x 71 3/4"L
NR7240RSV	20 3/8"UDH	39 5/8"OH	33"D x 71 3/4"L
NR7247RSV	27 7/8"UDH	47 1/8"OH	33"D x 71 3/4"L
NR7255RSV	35 1/4"UDH	54 5/8"OH	33"D x 71 3/4"L

**OVERVIEW**

- These Structural Concepts Reveal® cases are designed to merchandise packaged products at 40°F (4 °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.

**NSF/ANSI TYPE I vs. II ENVIRONMENTAL CONDITIONS**

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

- NSF/ANSI Type I Conditions: Product is displayed in store conditions with maximum ambient temperature of 75 °F (24 °C) and maximum relative humidity of 55%.

- NSF/ANSI Type II Conditions: Product is displayed in store conditions with maximum ambient temperature of 80 °F (27 °C) and maximum relative humidity of 55%.
- If you are unsure if your unit is classified as NSF/ANSI Type I or Type II, see tag next to serial label on your case.

**COMPLIANCE**

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

**WARNINGS**

- Please read the important warnings in this document carefully as they can prevent injury or death.



**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**

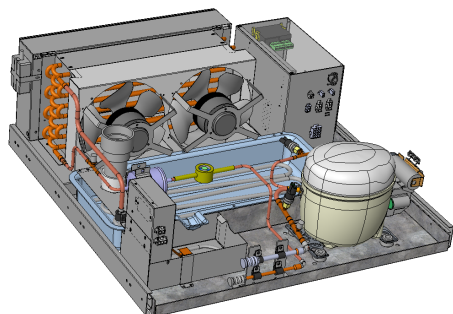
**Risk of electric shock. Disconnect power before servicing unit.  
CAUTION! More than one source of electrical supply is employed with units that have separate circuits.  
Disconnect ALL ELECTRICAL SOURCES before servicing.**

**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.**

**CAUTION! IF YOUR UNIT IS SELF-CONTAINED, YOU MUST CHECK CONDENSATE PAN POSITION & PLUG!**

**Water on flooring can cause extensive damage!**

**Before powering up unit, check and confirm that:**

- Condensate pan is **DIRECTLY UNDER** condensate drain.
- Condensate pan plug is securely plugged into receptacle.
- Overflow pan has plug connected to its box. Units with optional Clean Sweep® **MUST HAVE** two plugs connected.



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



## PRECAUTIONS

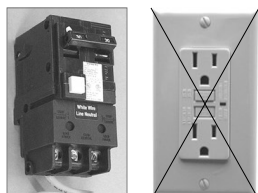
- Following are important precautions to prevent damage to unit or merchandise. Read carefully!

## REFRIGERANT DISCLOSURE STATEMENT

- This equipment is prohibited from use in California with any refrigerants on the "List of Prohibited

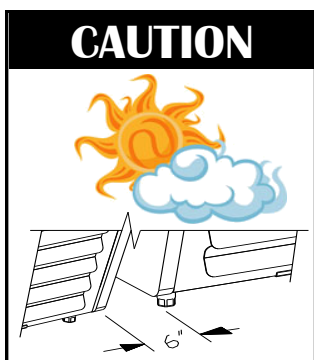
Substances" for that specific end-use, in accordance with California Code of Regulations, title 17, section 95374.

- This disclosure statement has been reviewed and approved by Structural Concepts and Structural Concepts attests, under penalty of perjury, that these statements are true and accurate.



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

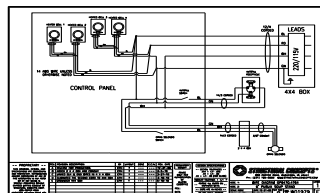
**CAUTION! GFCI BREAKER USE REQUIREMENT**  
If N.E.C. (National Electric Code) or your local code requires GFCI (Ground Fault Circuit Interrupter) protection, you **MUST** use a GFCI breaker in lieu of a GFCI receptacle.



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



- CAUTION!**  
**DO NOT RELY ON THERMOMETERS OR THERMOSTATS FOR ACTUAL PRODUCT (FOOD) TEMPERATURES.**
- Thermometers and thermostats reflect air temperatures **ONLY**.
  - For **PRECISE** food temperatures, use a calibrated food



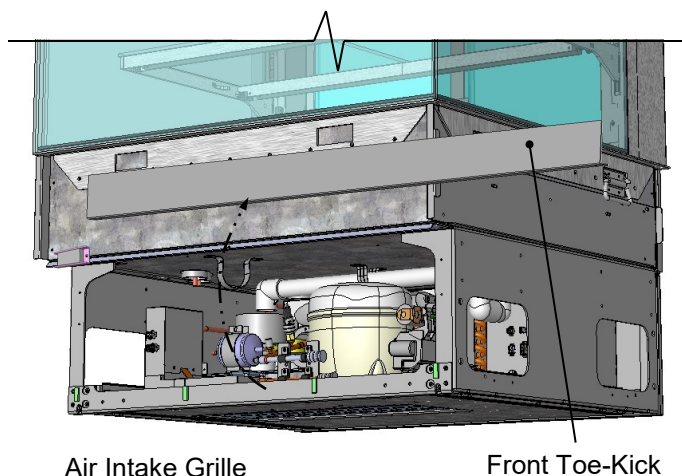
- WIRING DIAGRAM FORMAT & LOCATION**
- Each case has its own wiring diagram folded & in its own packet.
  - Wiring diagram placement may vary; it may be placed near field wiring box, raceway, or other related location.



- CAUTION!**
- To prevent sagging or breakage, do not exceed 5 LBS (2.3 KG) weight load per top glass section (between vertical supports).
  - To prevent scratching or marring, do not place **ANY** items on glass.

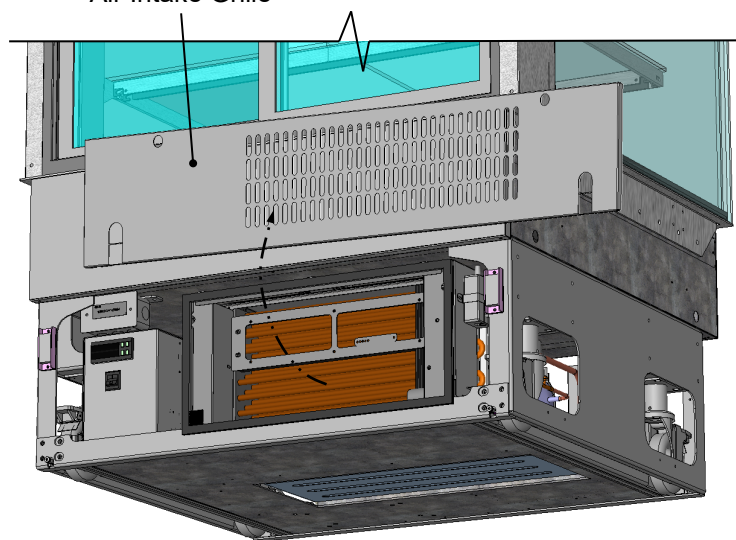
## 1. Remove Front Toe-Kick From Case

- To prevent damage to case, remove front toe-kick from case before removing from pallet.
- Toe-kick is held in place by magnets only. No screw removal is required.
- Place front toe-kick in secure location while removing case from pallet.



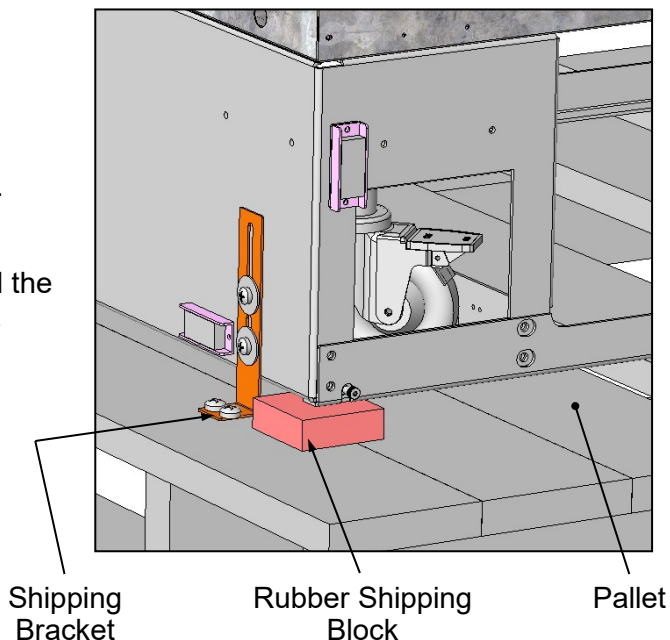
## 2. Remove Air Intake Grille From Case

- To prevent damage to case, if air intake grille is on the case, lift it **UP and OFF**.
- Air intake grille is held in place by magnets. No screw removal is required.
- Place air intake grille in secure location while removing case from pallet.



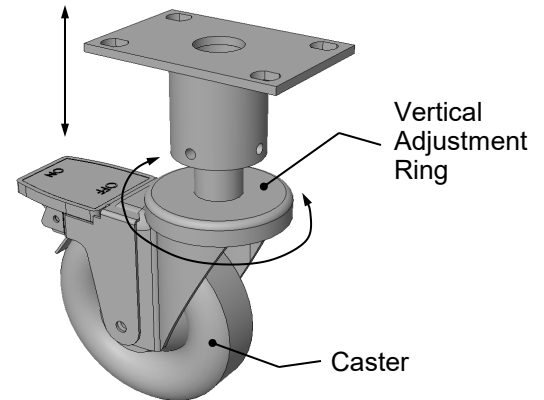
## 3. Disconnect Case From Pallet

- Remove screws from shipping brackets. Remove and discard shipping brackets from pallet.
- Place J-bar/pry under base frame. Raise case up from pallet to take weight off casters.
- With case raised, lower casters all the way down against pallet (see next step for detailed instructions on lowering or raising casters).
- Remove rubber shipping blocks.



#### 4. Caster Height: Raising and Lowering

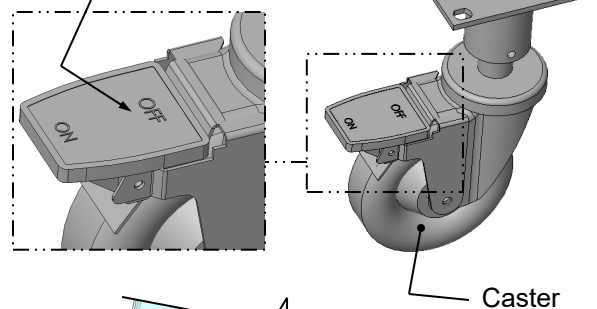
- Raise or lower casters (to adjust case height) by rotating casters' vertical adjustment rings.
  - Rotate vertical adjustment ring clockwise to lower caster (and increase height of case).
  - Rotate vertical adjustment ring counter-clockwise to raise caster (and decrease height of case).



#### 5. Caster Rolling Capability: Unlocking

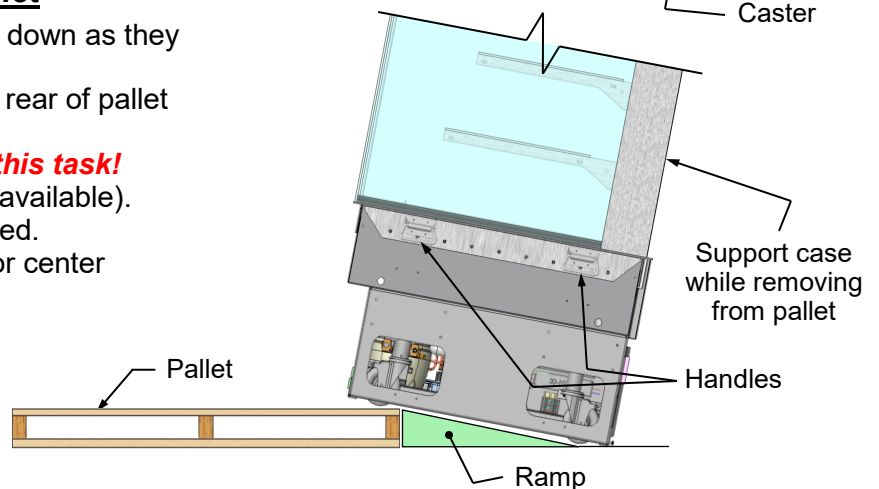
- Important! Case is shipped with caster mechanisms factory set at **ON** (locked) to prevent case from rolling.
- Unlock casters by pressing **OFF** on the caster mechanism.
- See illustration at right.

Press "OFF" Lever To Unlock Casters (And Allow Casters To Roll)



#### 6. Carefully Remove Case From Pallet

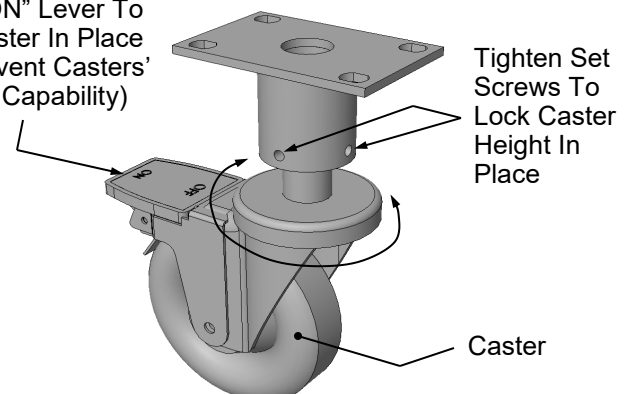
- Check that casters are lowered as far down as they will go (as instructed in step #4).
- Use handles to carefully slide case to rear of pallet (see illustration at right).
- **Caution! 4 people are required for this task!**
- Carefully lower to floor (using ramp if available).
- Slide pallet from under case as required.
- Maintain support of case at all times or center of gravity may cause case to fall.
- See illustration at right.



#### 7. Casters: Locking

- After case is at desired position (and height), use level to check that case is level and plumb.
- Readjust height as needed (as instructed in step #4).
- Locking Height: After proper height (and positioning) of case is attained, tighten the two (2) set screws to lock each caster's height in place.
- Locking Movement: Then, to prevent casters' rolling capability, lock casters by pressing ON atop the "ON" and "OFF" lever mechanism (shown at right). Case will now be secured at its new location.

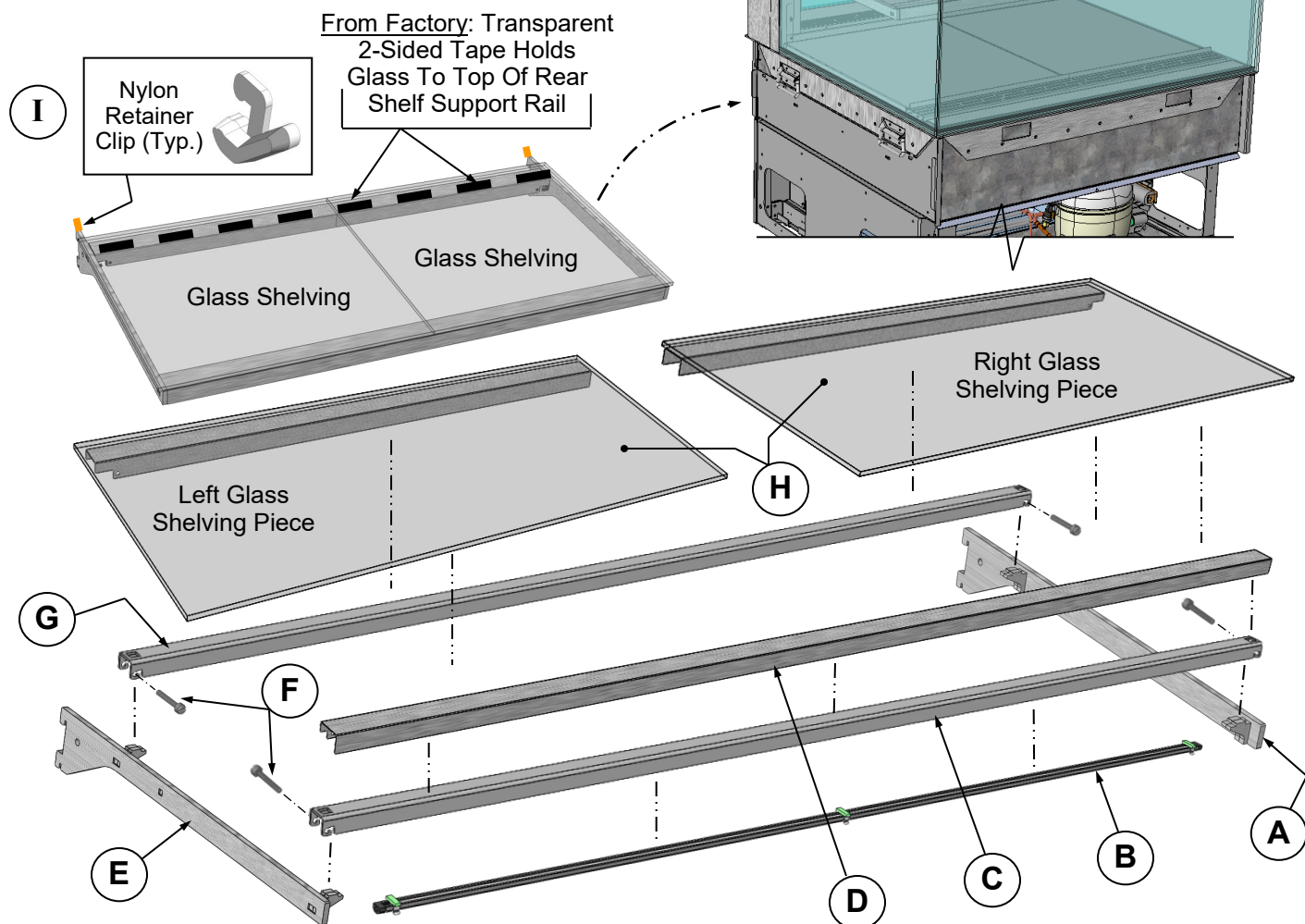
Press "ON" Lever To Lock Caster In Place (And Prevent Casters' Rolling Capability)



## 8. Shelving Assembly Components

- Check that glass shelving is in proper position before placing product in case
  - Shelves may be adjusted vertically or entirely removed from merchandiser.
  - Metal shelving brackets ARE NOT able to be angled. They are at a fixed 90° position.
  - There are 12 components comprising each shelf assembly:
- Right bracket (with hooks to attach to slots in upright)
  - LED light with magnets
  - Front shelf support rail (LED light attaches to its inner cavity via magnets)
  - Cover (rests atop front shelf support rail)
  - Left bracket (hooks to attach to slots in upright)
  - Nylon thumb screws (4 per shelf) secure shelving during shipment. Note: Remove (using pliers, if necessary) and discard thumbscrews after case is installed so shelves can be disassembled (to clean or service).

- Rear shelf support rail
- Left and right glass shelf/cover assemblies (glass is affixed to covers with 2-sided tape from factory). Caution! Glass pieces ARE NOT IDENTICAL! Notches on underside metal covers determine placement in case.
- Nylon retainer clips (2 per shelf) secure brackets during shipment. Note: To adjust or remove shelves, you must remove retainers; pliers may be required to accomplish this task.



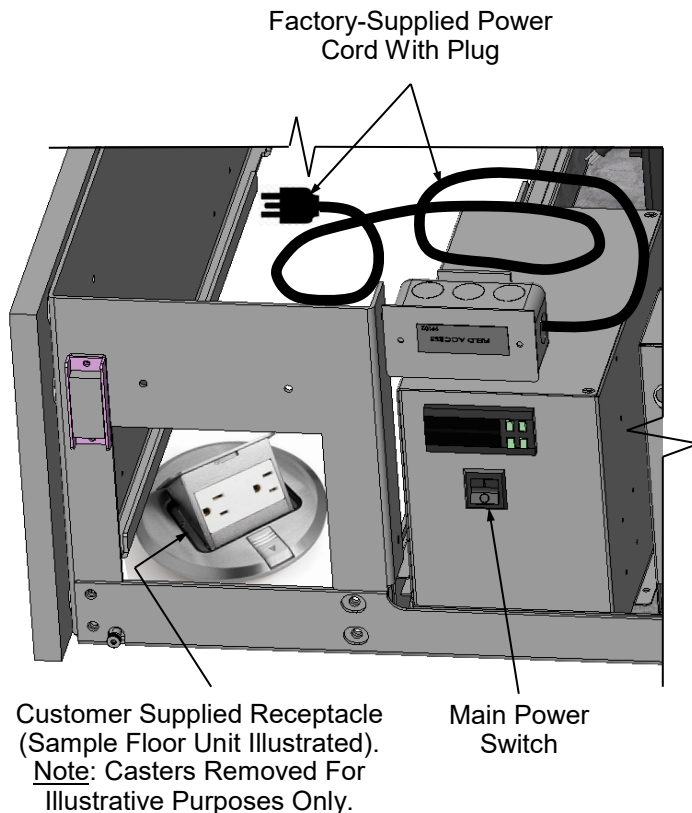
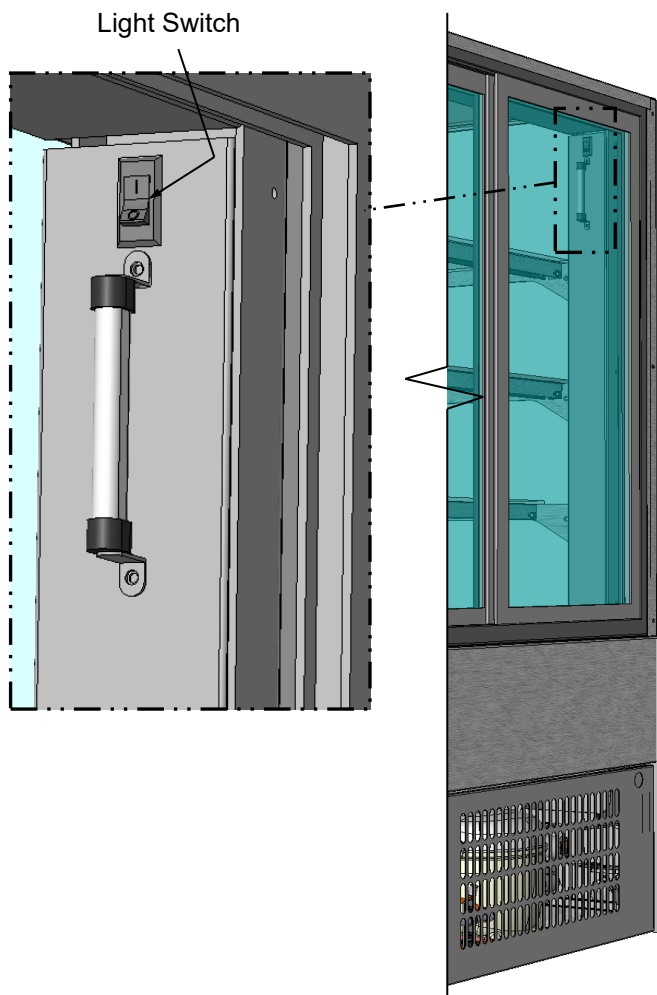


### **9. Plug Case In / Turn On Main Power Switch**

- Power cord with plug is factory-supplied.
- Plug case into customer-supplied electrical outlet.
- **Note 1:** Partially-disassembled view at right is shown with casters removed for illustrative purposes only. View/location of floor receptacle is for illustrative purposes only.
- **Note 2:** Due to space constraints, it may be necessary to pull out condenser package to maneuver power cord plug around components and into receptacle.
- Turn main power switch on.
- Check that case is energized. Lift deck pans to confirm that evaporator fans are rotating).

### **10. Turn On LED Light Switch**

- LED light switch is accessible at case rear upright (after opening rear sliding door).
- See illustration below.



### 11. Remove Shipping Brace

- Shipping brace keeps condenser package secure during shipment and while positioning case.
- After case has been moved into position, remove shipping brace at air intake side of condenser package only (opposite end of that shown below).
- **Note:** Shipping Brace Is ONLY To Be Removed From Air Intake Side of Condenser Package!

### 12. Attaching Front Panel Components

- Carefully remove components from packaging.
- **Note:** All front panel components may be attached to case via magnets (WITHOUT screw attachments).

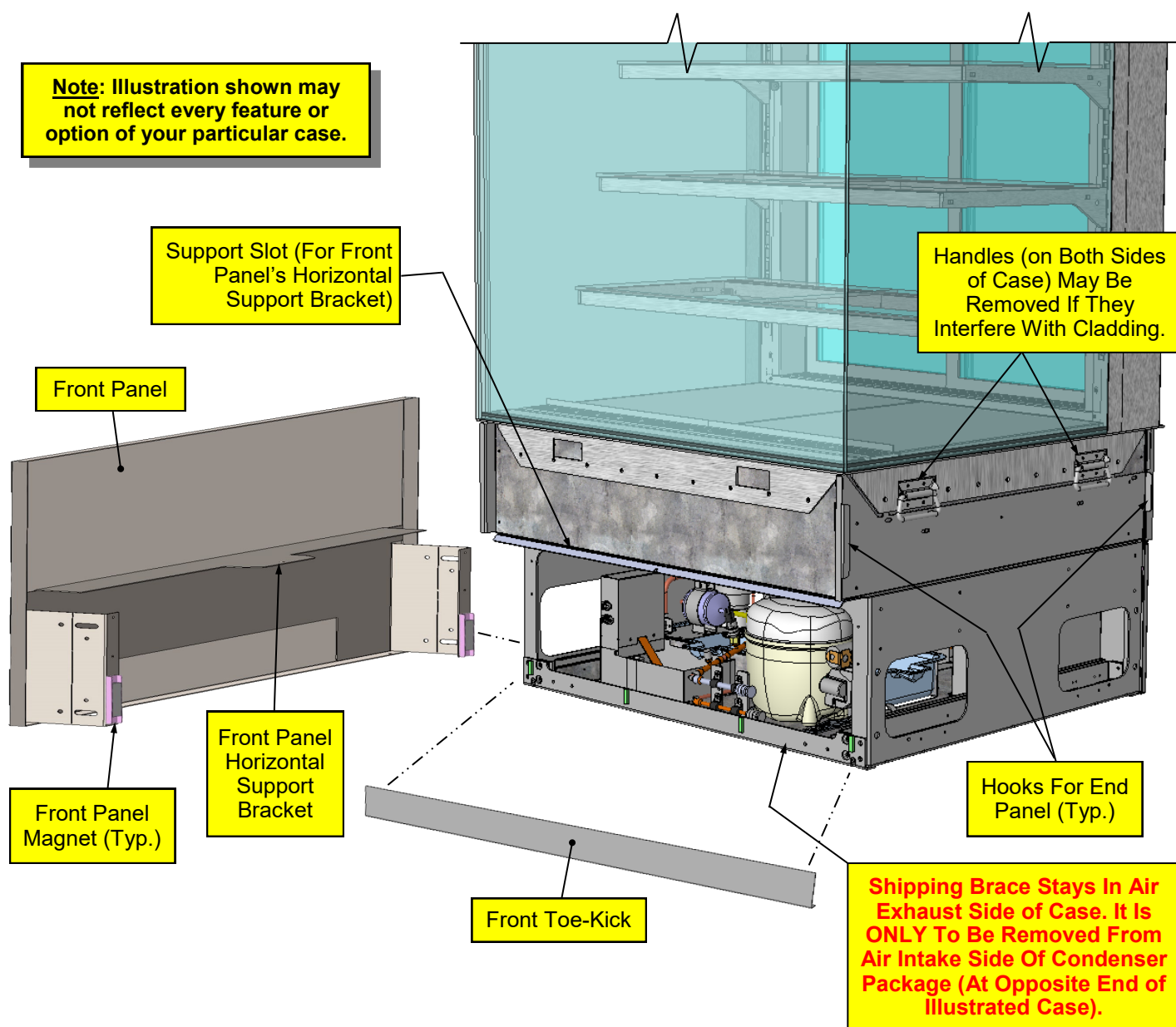
- Attach front toe-kick to case (via lower magnets).
- Slide front panel horizontal support bracket into case's support slot (line up arrows).
- Then, slide front panel into case until it attaches to case via lower magnets.
- See illustration below.

### 13. Handles On Sides of Case

- Handles may remain on case after it has been moved into position and cladding is attached.
- However, if handles interfere with the placement of cladding, they may be removed.

>> See Next Page For Instructions on **ATTACHING SIDE PANELS, REAR PANEL AND GRILLE.**

**Note:** Illustration shown may not reflect every feature or option of your particular case.



## 14. Attaching Side Panels

- Attach side panels to case using slot/hook method.
- Use latches at case rear to firmly attach side panels to case.
- See illustrations below.

## 15. Attaching Rear Upper Panel

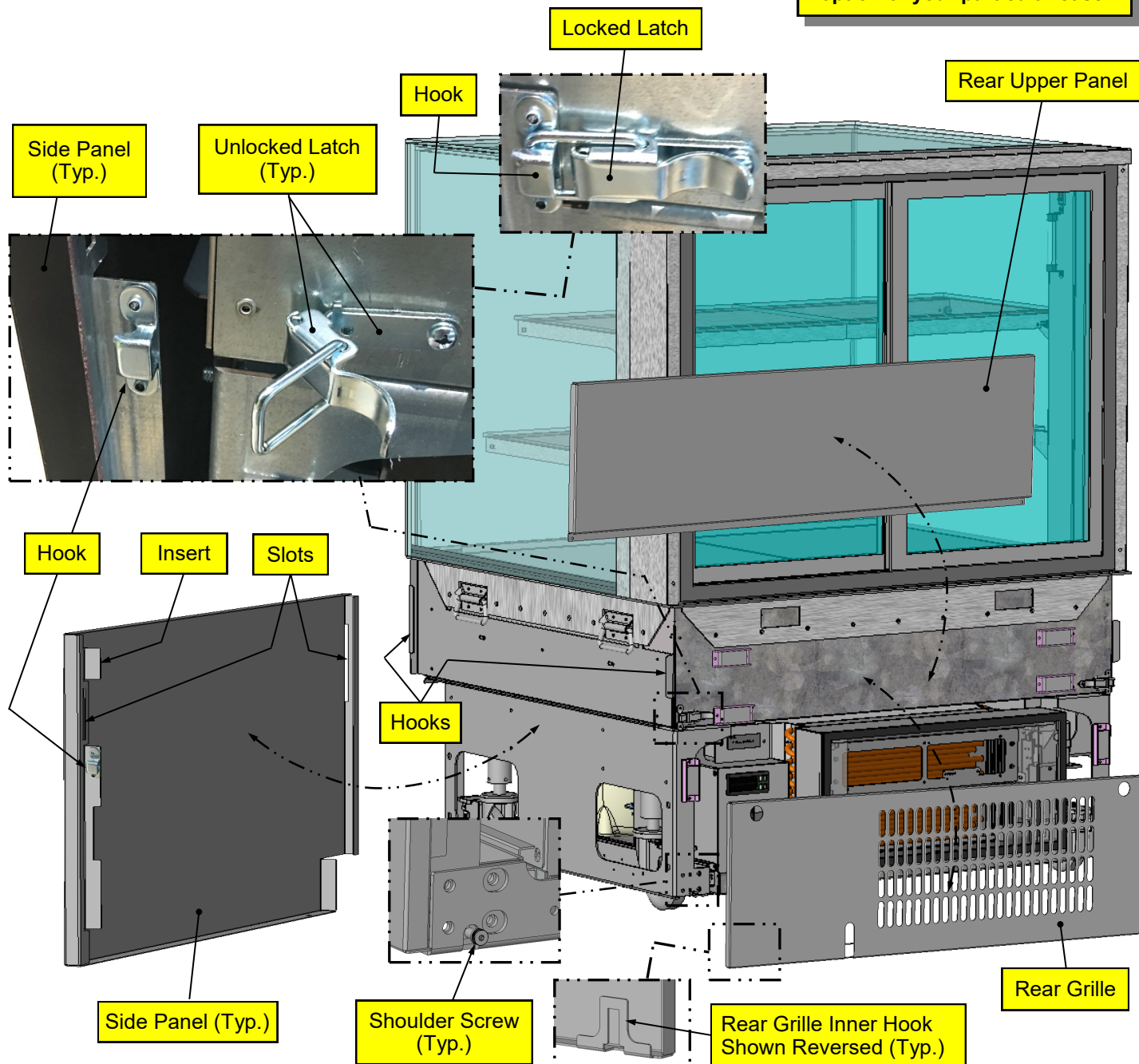
- Place rear upper panel onto case rear.
- Four (4) magnets will hold it firmly in place.
- See illustration below

## 16. Attaching Rear Grille

- Use finger holes to place rear grille's inner hooks onto case rear's lower shoulder screws.
- Snap onto case's two (2) rear vertical magnets.

>> **Note:** Components may be removed in reverse order they were shown being attached on this sheet.

**Note:** Illustration shown may not reflect every feature or option of your particular case.





## Case Adjoinment Overview

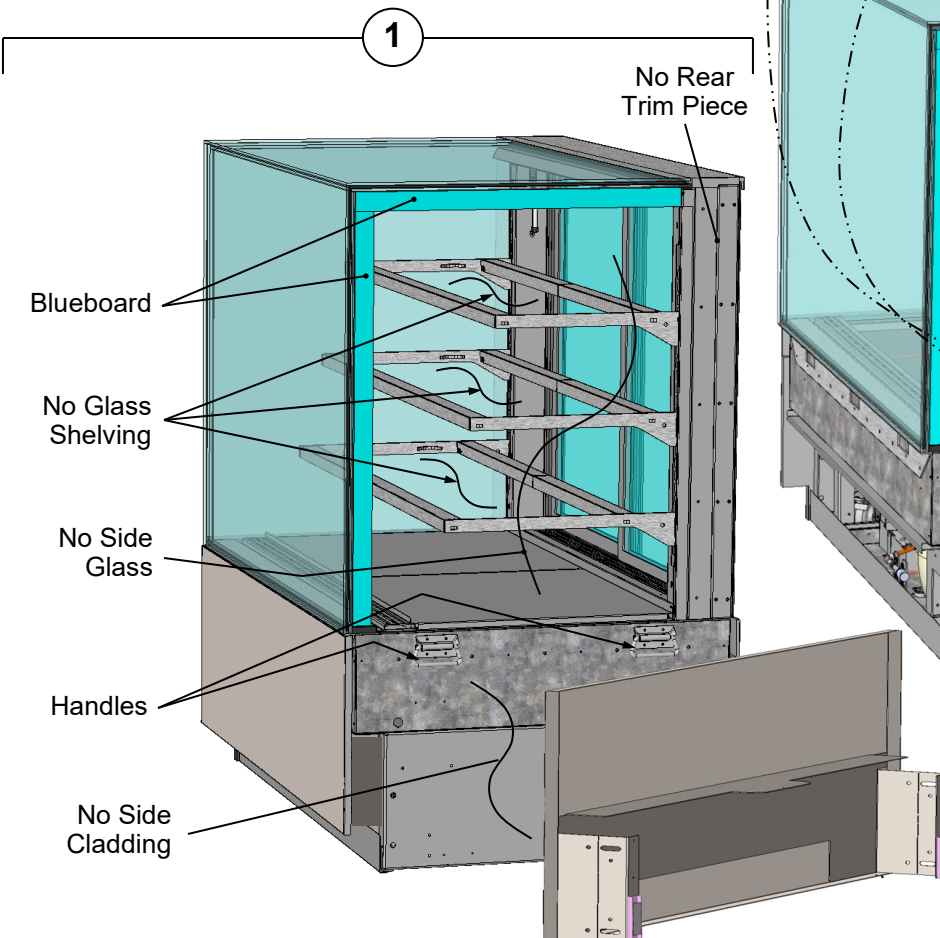
>> Carefully follow these step-by-step case adjoinment instructions.

>> Warranty is void if unapproved urethane/sealant is used in case adjoinment process.

>> Move cases into position before beginning this adjoinment process.

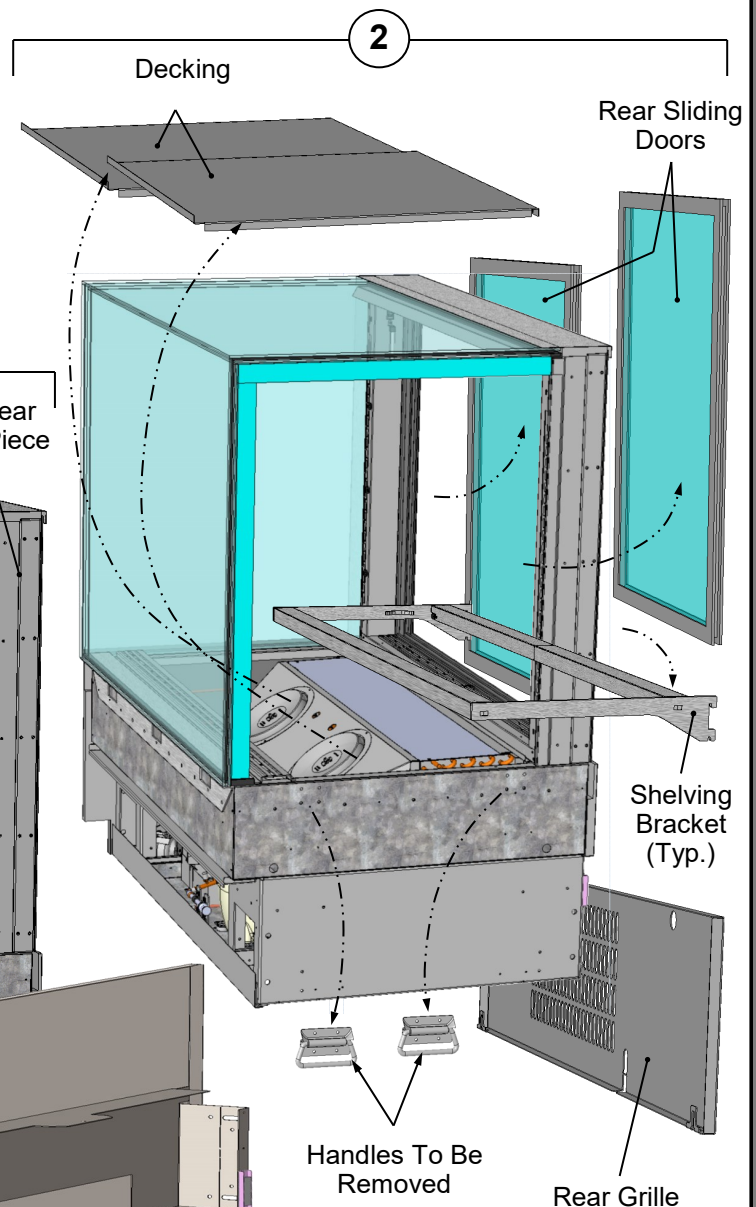
## 1. Case Arrival From Factory

- Adjoined cases will NOT have side cladding on adjoinment side.
- There is no rear trim piece on adjoinment side.
- Glass shelving is shipped separately; it is bubble-wrapped and is on decking from factory.
- There is no side glass on adjoinment side.
- Handles are still attached.
- Blueboard will be intact (for future application of urethane).
- See below-left illustration.



## 2. Case Preparation Prior To Adjoinment

- Remove front panel.
  - Remove rear grille.
  - Remove rear sliding doors.
  - Remove decking.
  - Remove handles.
  - Remove ALL shelving brackets.
- Note:** Each shelving bracket has a different depth and must be returned to case accordingly!
- Store components in safe and secure location away from foot traffic.
  - See below-right illustration.
  - >> Adjoinment instructions continue on next page.



### 3. Industrial Grade Urethane Application

- Lay a generous, CONTINUOUS bead of SCC-provided urethane adhesive (as identified with — — — line pattern shown below).
- Lay a generous bead of industrial grade urethane adhesive at center of uprights (in non-visible areas).
- This urethane prevents refrigerated air from escaping between cases (causing condensation and reducing refrigeration efficiency) as well as preventing ants or other insects from entering case.
- See illustration below.

### 4. Case Adjoinment w/SCC-Provided Screws

- Note: Cases in this adjoinment have a wide range of surfaces (metal, foam board, blueboard, etc.).
- A variety of SCC-provided wood screws, bolts, washers and nuts are provided in adjoinment kit.
- Due to wide range of hole locations, you must access adjoinment points through rear door, rear grille, decking, front panel and rear grille areas.
- Firmly tighten all screws!

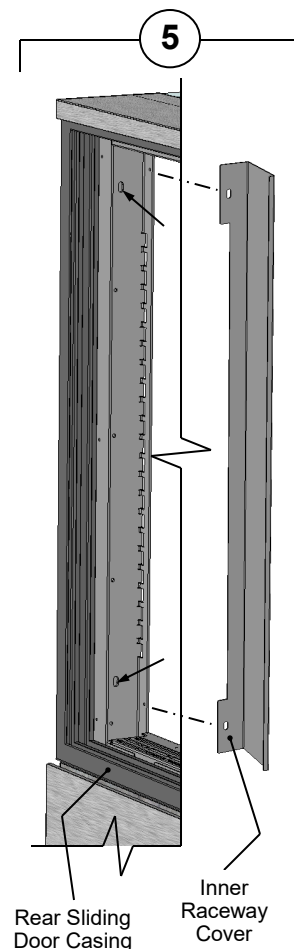
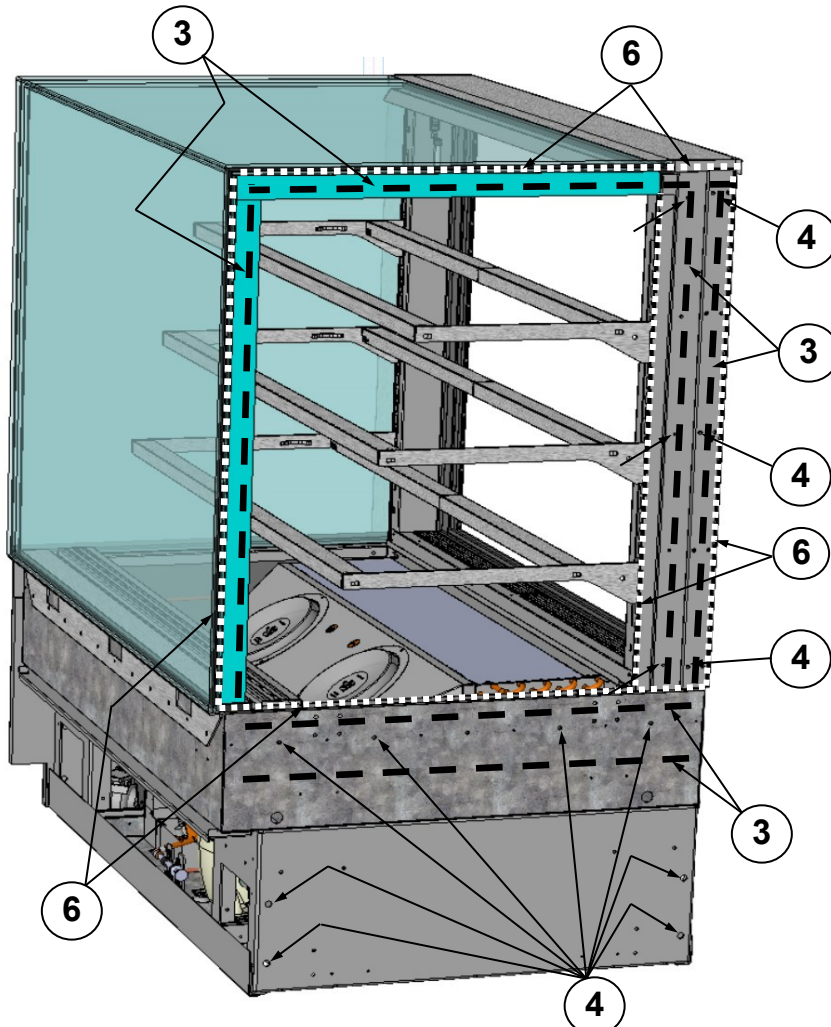
### 5. Inner Raceway Adjoinment

- Inner raceway cover must be removed (by removing 2 screws).
- Use 1/4-20 bolts, nuts and washers to attach inner raceway upright to adjoining case.
- Then, reattach inner raceway cover.

### 6. Silicone Sealant Application

- After case is adjoined, apply a generous, CONTINUOUS bead of silicone sealant (as identified with ..... line pattern shown below) at both inner and outer adjoinment seams.
- When properly applied, this sealant will prevent water from seeping between cases (into the case or to the floor) as well as prevent crumbs or other residue from entering between case seams.

>> Adjoinment instructions continue on next page.



Industrial Grade  
Urethane Adhesive  
(For Refrigeration  
Bead Applications)



Silver, Black or Clear  
Silicone Sealant  
Conforming To  
NSF/ANSI 51  
Specifications  
(For Sanitation  
Bead Applications)

### 7. C-Bracket Attachment

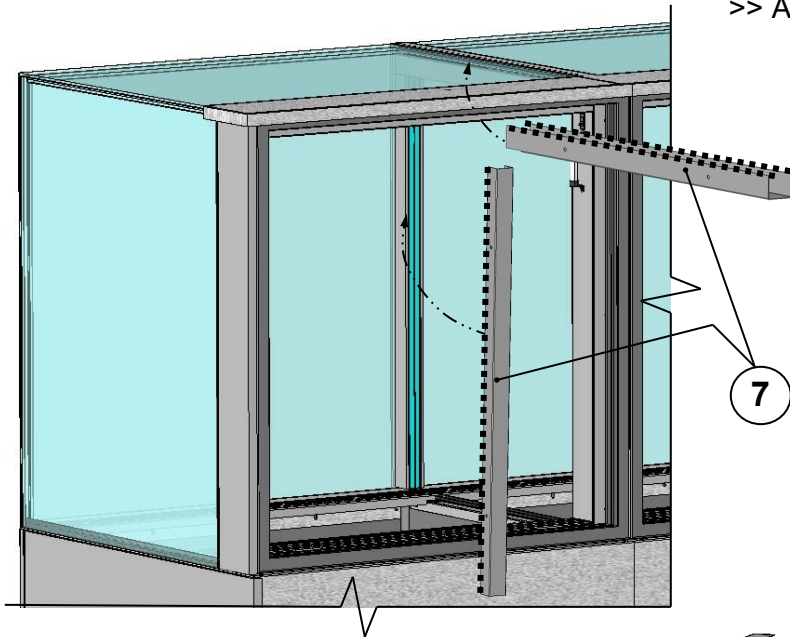
- After cases are attached, place vertical and horizontal C-brackets at inner case.
- Use SCC-provided screws to attach to Celtec/blueboard. Two holes at each side of both C-brackets are provided for screws.
- After C-brackets are adjoined, apply a generous, CONTINUOUS bead of silicone sealant (as identified with ..... line pattern shown).

- Note: Illustration below shows silicone bead applied at required spot on C-brackets PRIOR to attachment to case for illustrative purposes only.

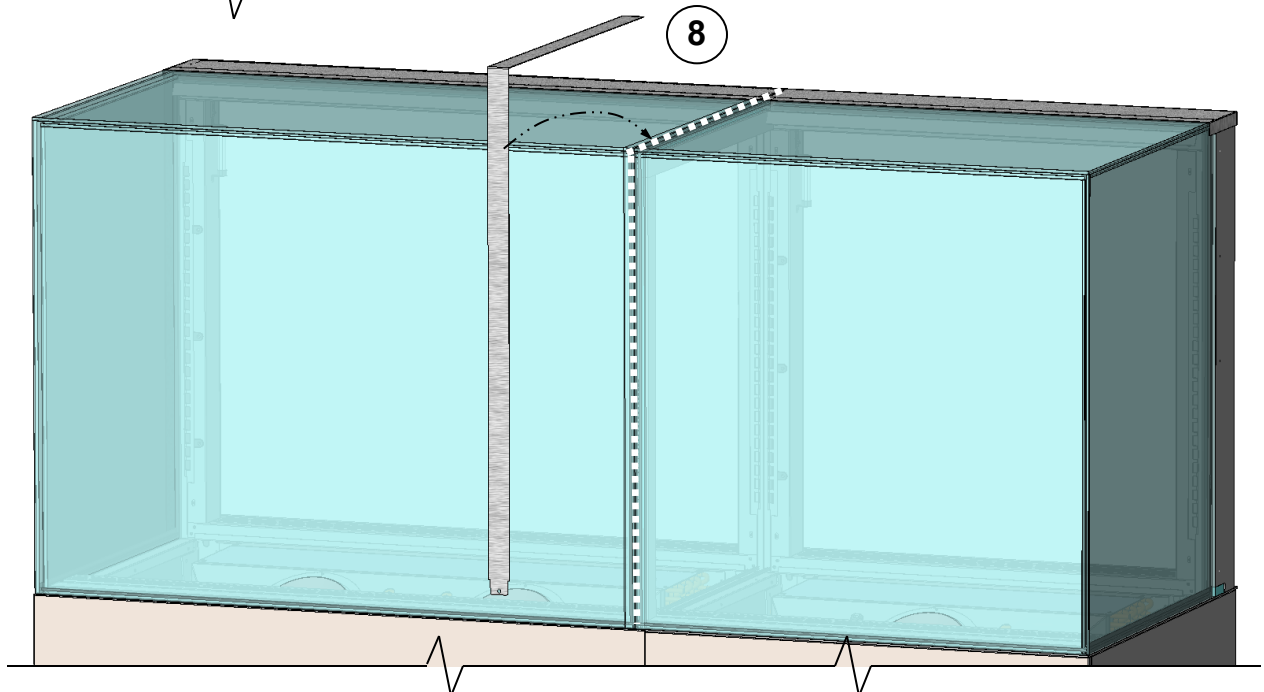
### 8. Middle Trim Attachment

- After placing generous, CONTINUOUS bead of silicone sealant (as identified with ..... line pattern shown) middle trim may be attached to case.
- Apply a generous bead of silicone at underside of trim piece and attach at seam.

>> Adjoinment instructions continue on next page.

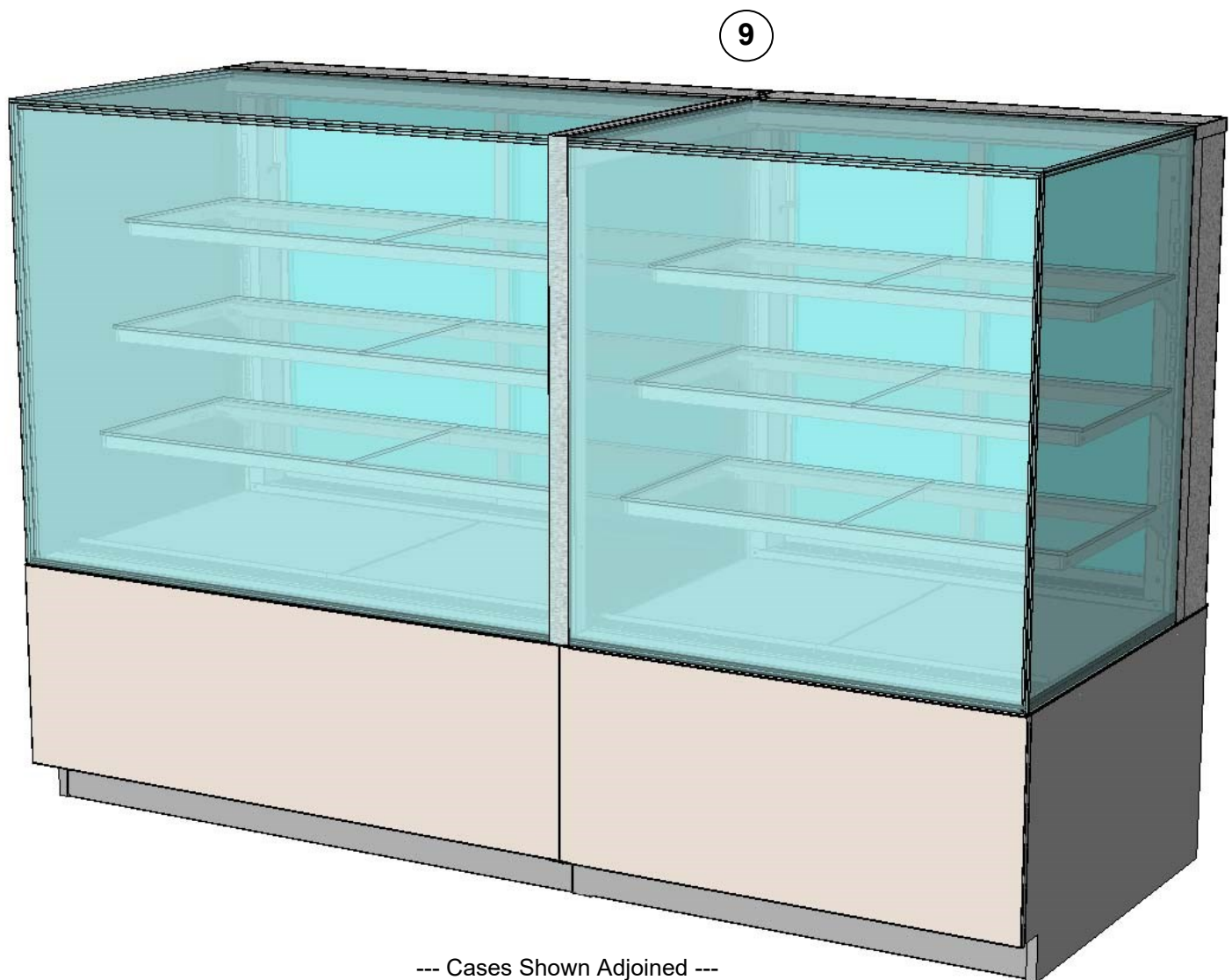


Silver, Black or Clear  
Silicone Sealant  
Conforming To  
NSF/ANSI 51  
Specifications  
(For Sanitation  
Bead Applications)



**9. Case Adjoinment Complete / Component Replacement**

- After case adjoinment is complete, replace decking, shelving, front panel, rear grille, and rear sliding doors in reverse order they were removed.
- Glass may now be removed from protective bubble-wrap and placed on shelving brackets.
- Discard handles that had been removed.
- See illustration below.



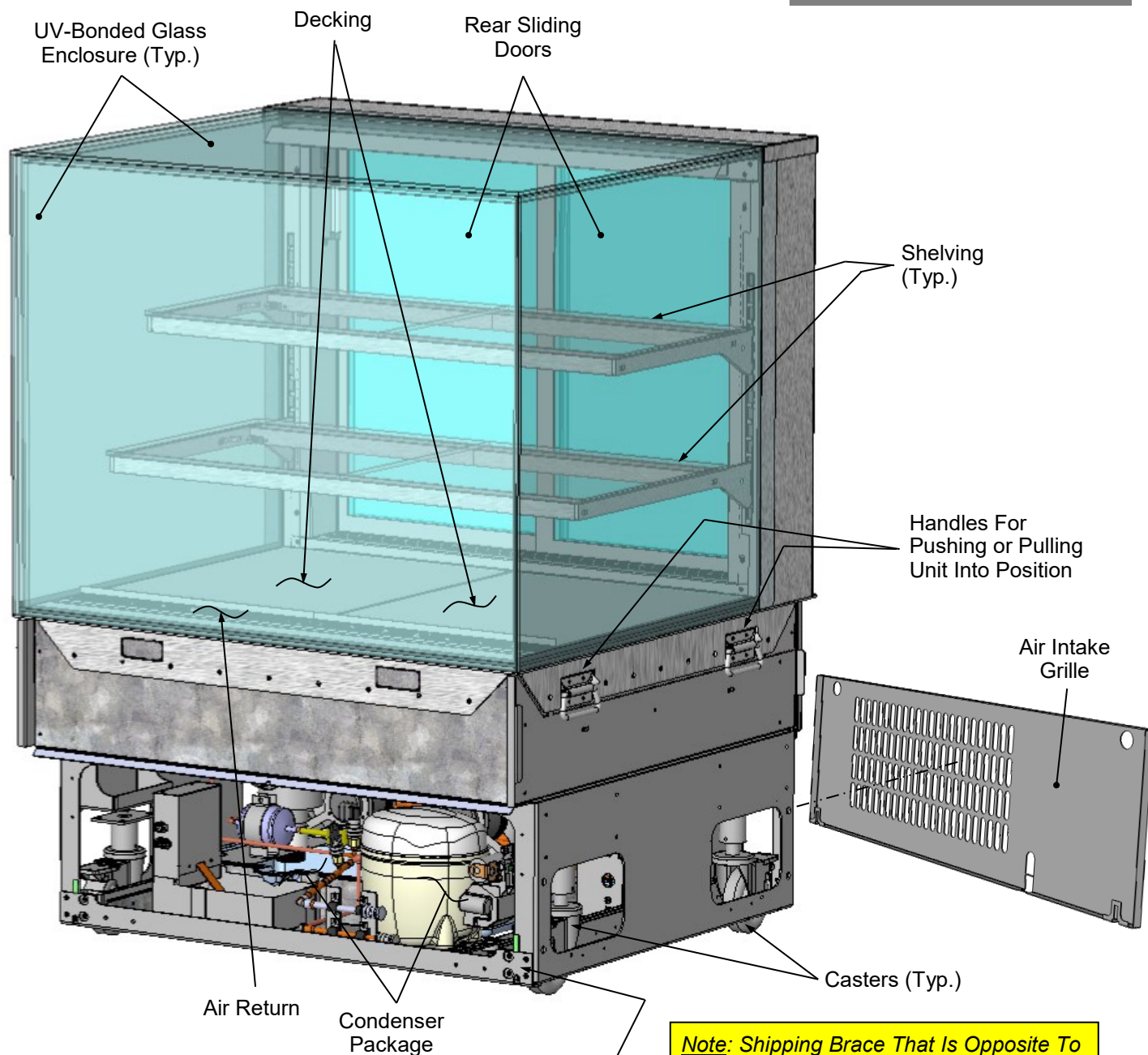


## CASE DESIGN: FRONT VIEW OF FREE STANDING, SERVICE MERCHANDISERS

### 1. Front View Of Free Standing, Service Merchandisers

- Model NE3635RSV is illustrated below.
- Air intake grille, side cladding, front base kick & front panel have been removed for illustrative purposes only.
- See next page for rear view.

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

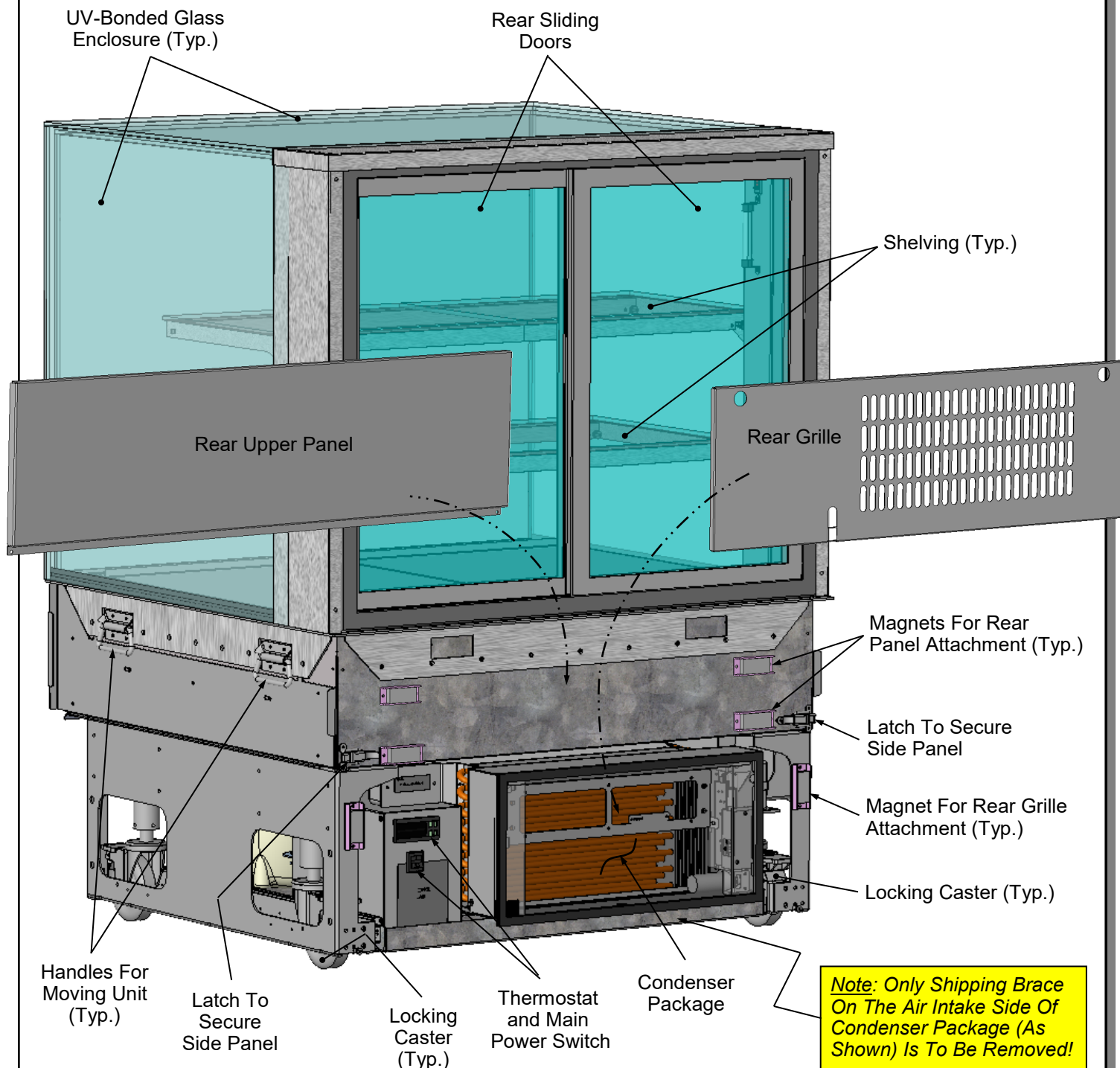


**Note:** Shipping Brace That Is Opposite To Air Intake Side Of Condenser Package (Shown) Is Not To Be Removed.

## 2. Rear View Of Free Standing, Service Merchandisers

- Model NR4855RSV free standing unit is illustrated below.
- Air intake grille, rear panel, side cladding & shipping brace are removed for illustrative purposes only.

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

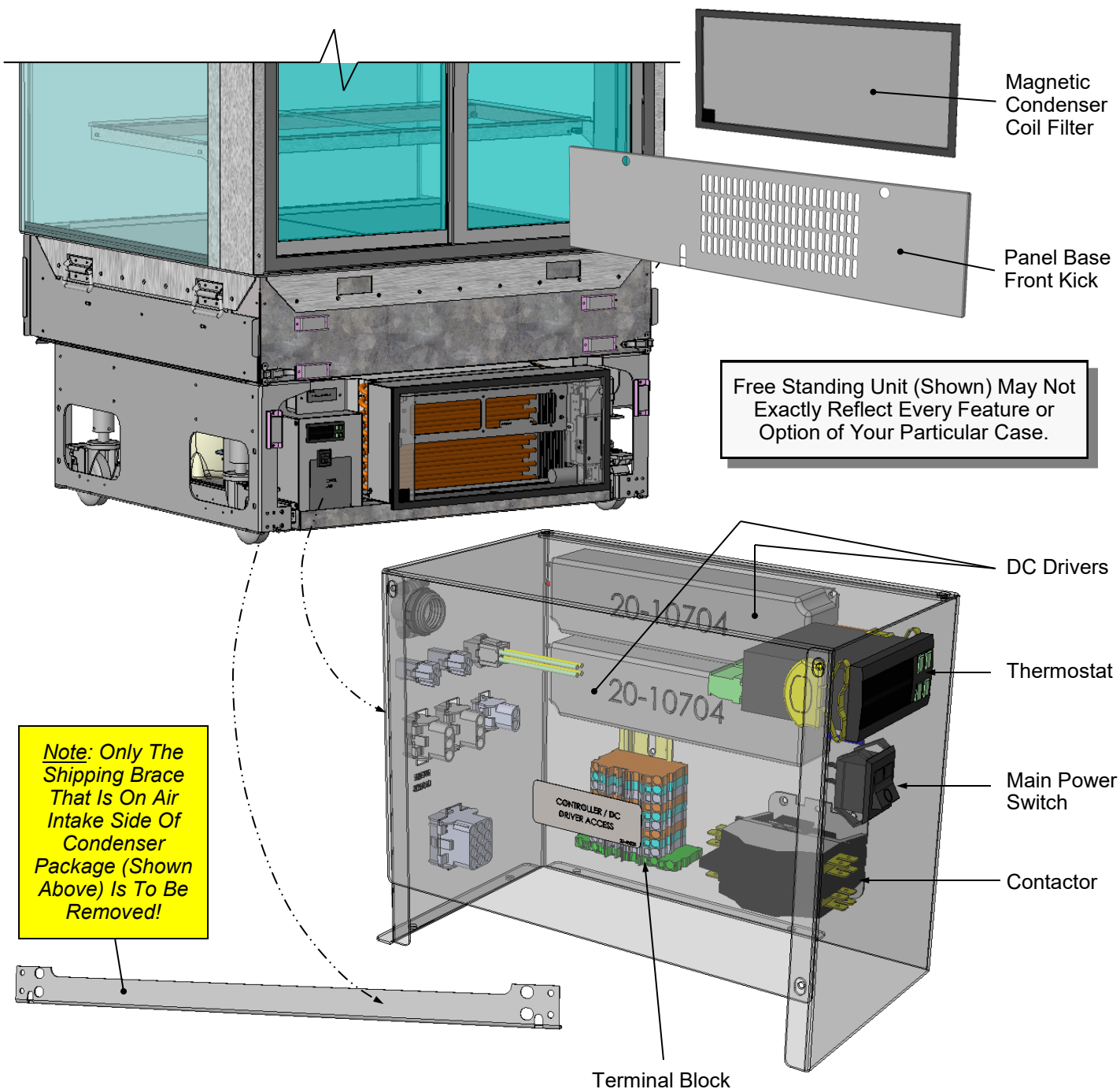


### 3. Controller / DC Driver Access / Components

- Remove front panel by lifting up and off; no screw removal is required.
- Magnetic condenser coil filter is directly accessible. See **CLEANING SCHEDULE (TO BE PERFORMED BY STORE PERSONNEL)** for cleaning instructions.
- Remove shipping brace by loosening two (2) shoulder screws.
- Remove 4 screws from the controller/DC driver box

cover to access electrical components.

- **Note:** Only certified electricians are to access electrical components in case.
- After accessing controller and/or DC drivers, return components to case in reverse order they were removed.



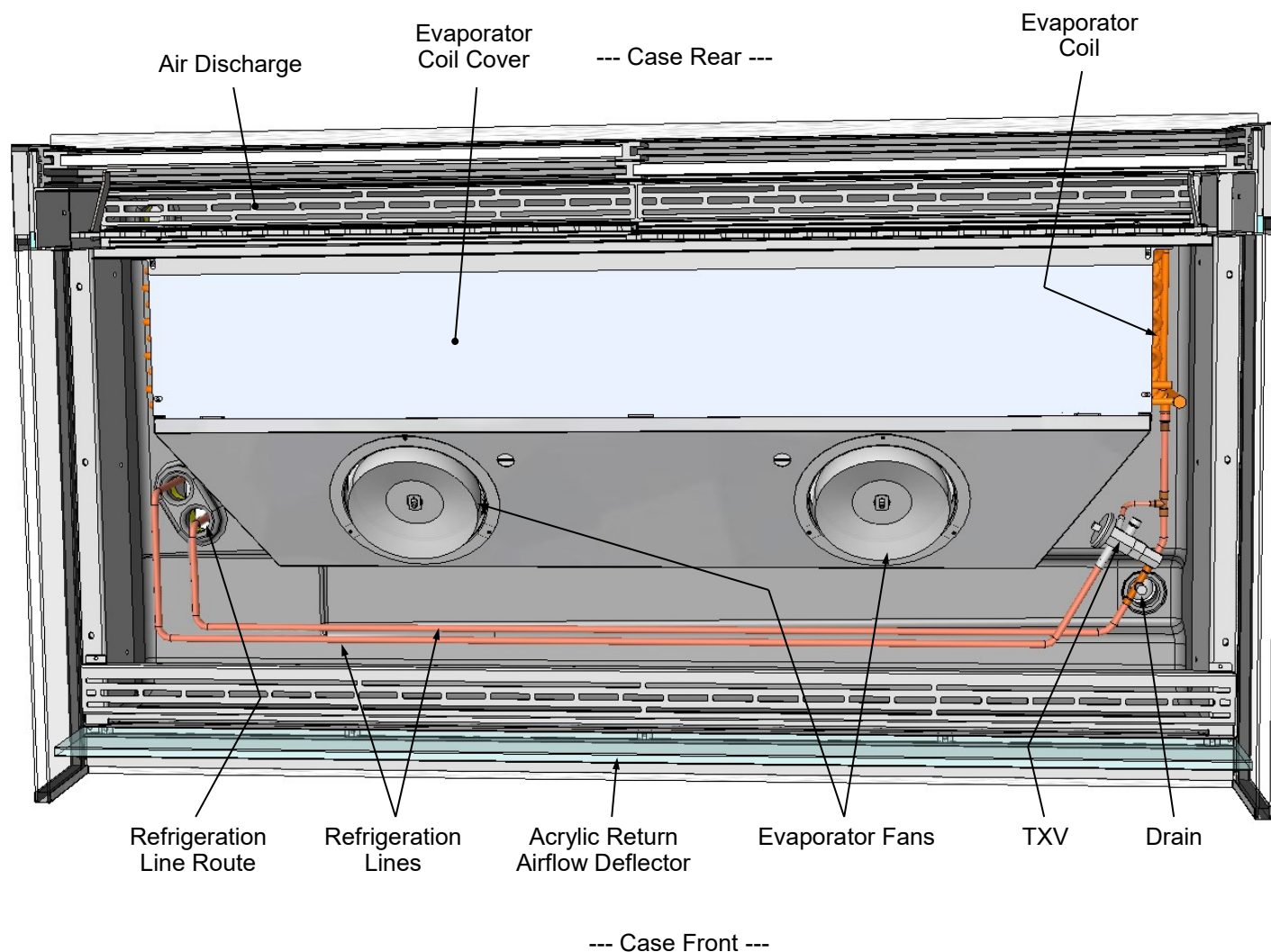


#### 4. Tub Area (After Deck Pan Removal)

**Note:** Refrigeration service to be accomplished by refrigeration/electrical contractors only.

**Caution!** Turn main power off before accessing tub area.

- Illustration below shown after removal of deck pans.
- After cleaning or servicing in tub area, return deck pans to case and return power to case.



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

### 5. LED Light Switch Location

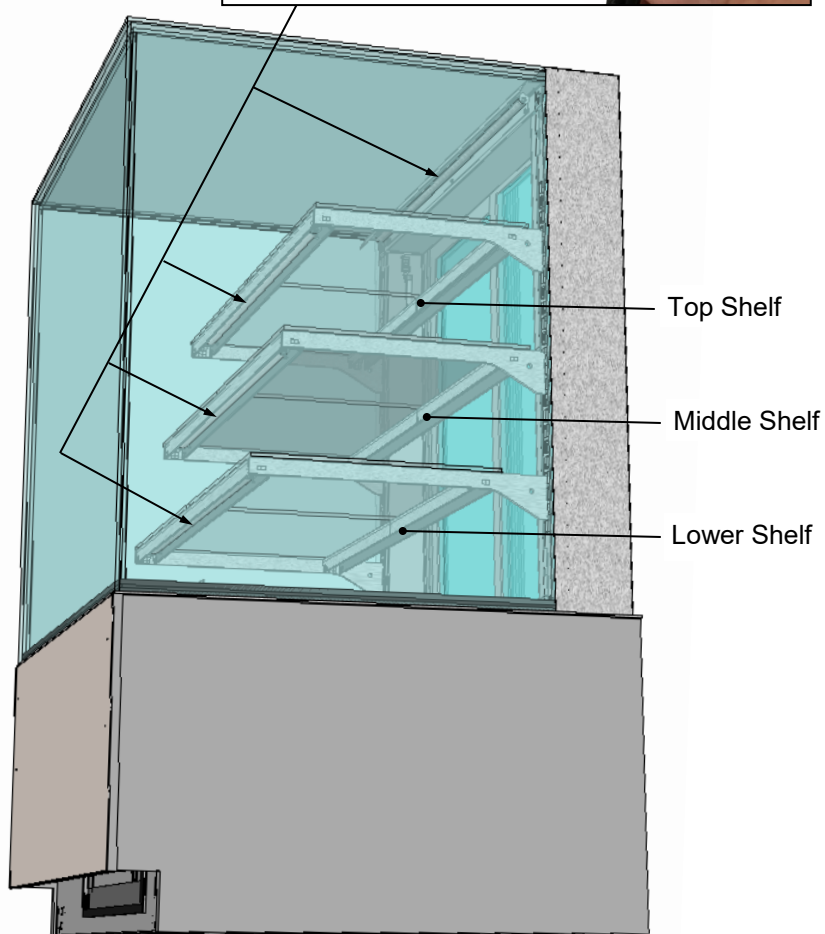
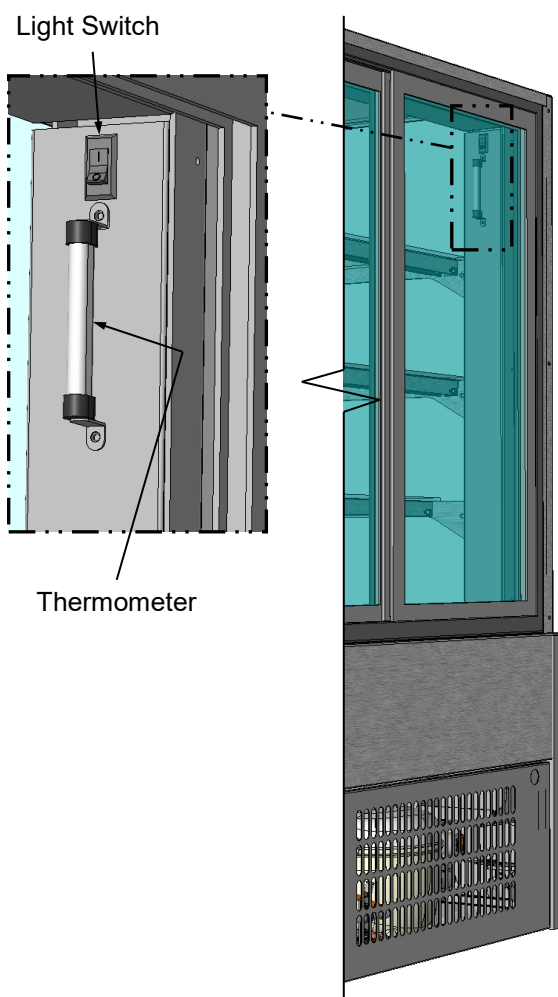
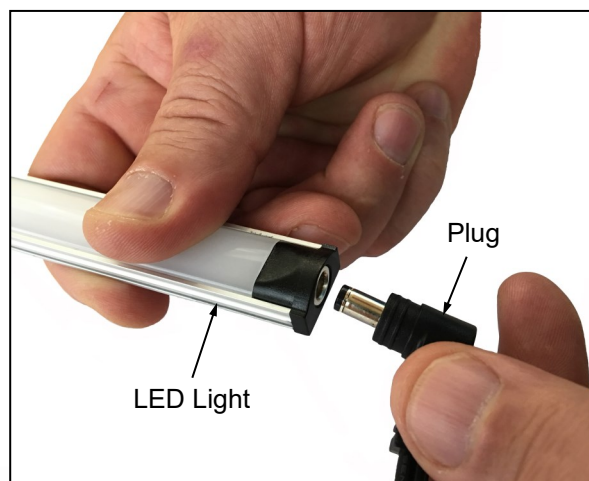
- Light switch is in column cover (accessible by sliding open door at case rear).
- See illustrations below-right.

### 6. LED Lights

- LED lights are located at both header and shelving of case (as shown below).
- Check that ALL of the light plugs are properly connected to the LED light.
- Plug must be inserted ALL THE WAY into the LED light orifice (with no gap) to work properly.
- See **TROUBLESHOOTING** section in manual if LED lights malfunction.

### 7. Thermometer Function & Placement

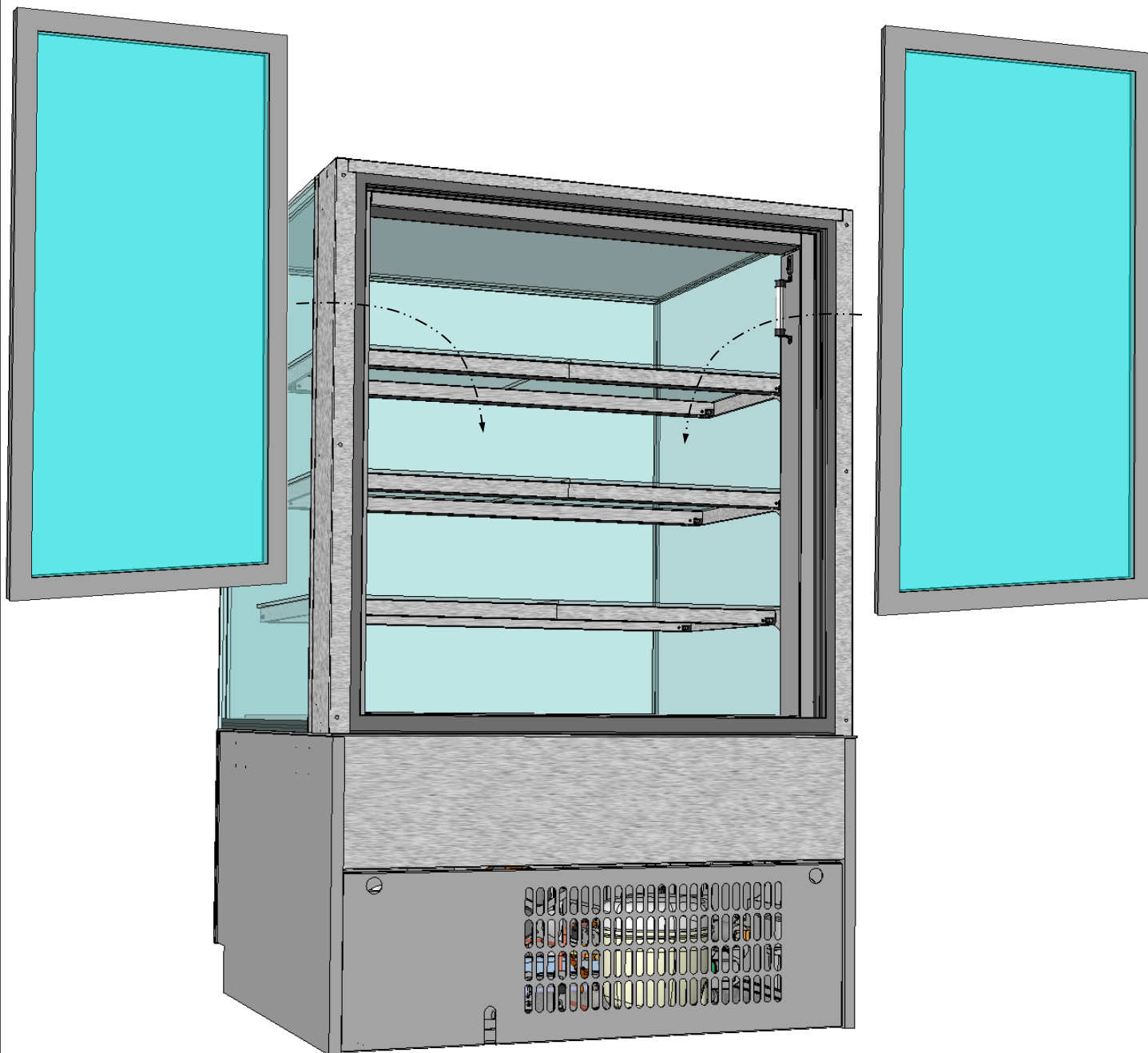
- Thermometer provides temperature of refrigerated section of case.
- Thermometers reflect warmest air temperature in merchandiser. They do not provide actual food temperature.
- Use probe thermometers to determine actual product temperatures.



**8. Rear Sliding Door Removal / Replacement**

- To remove rear sliding doors, move rear doors toward center of the case.
- Individually lift each door up toward the top of the case; pivot the bottom of the door out.
- Return doors to case in reverse order they were removed.

Model NR3635RSV Free Standing Unit (Shown) May Not Exactly Reflect Every Feature or Option of Your Particular Case.

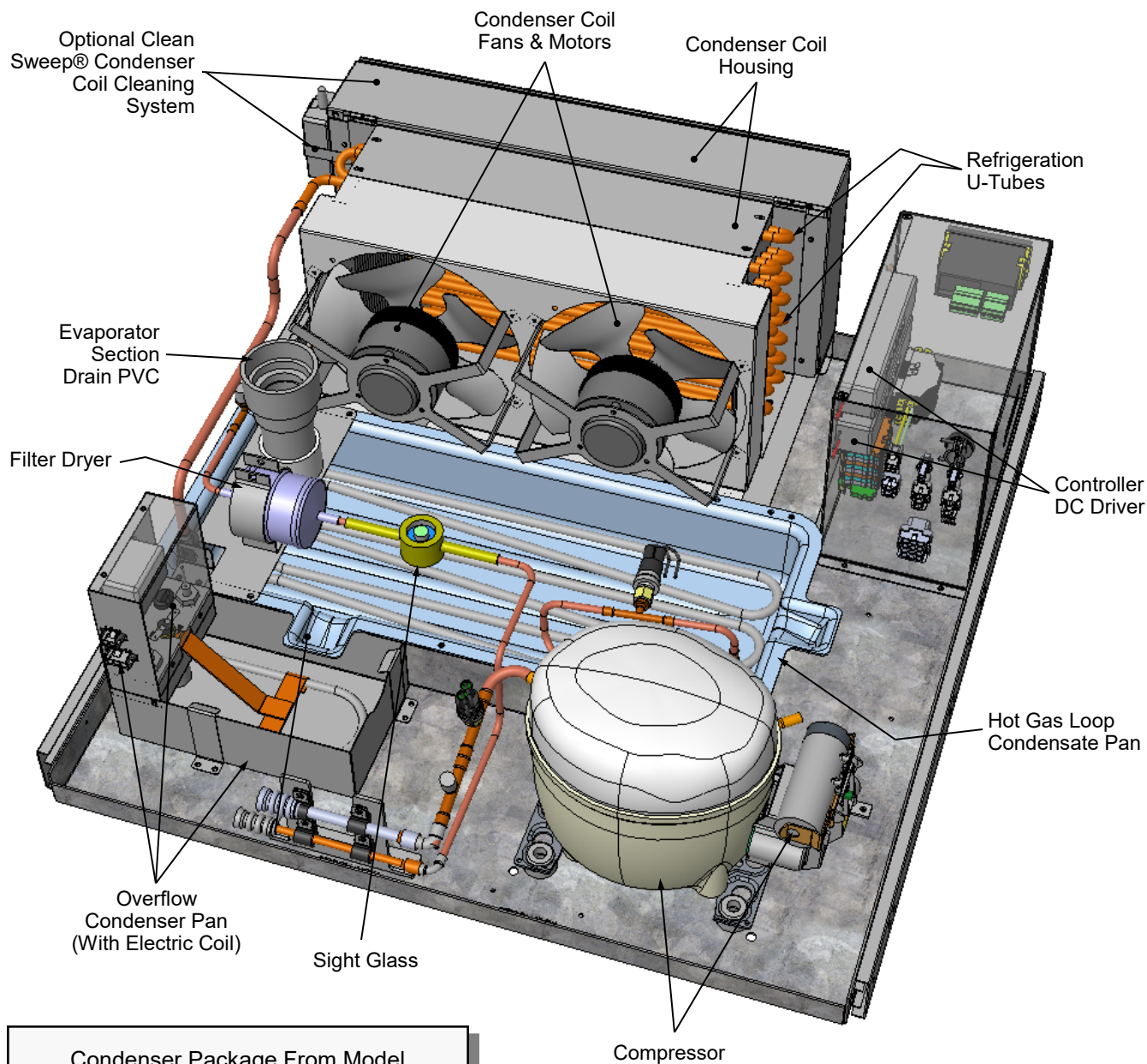


**9. Condenser Package (Self-Contained Units Only)**

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

**Condensate Package Configuration**

- Illustration shown is from model NR3635RSV. Your unit's component layout may slightly vary.



Condenser Package From Model NR3635RSV Free Standing Unit (Shown)  
May Not Exactly Reflect Every Feature or Option of Your Particular Case.



### 1. Product Placement

- Product can be placed on decking or steps (risers) within the service display area.
- A wide range of product may be displayed.

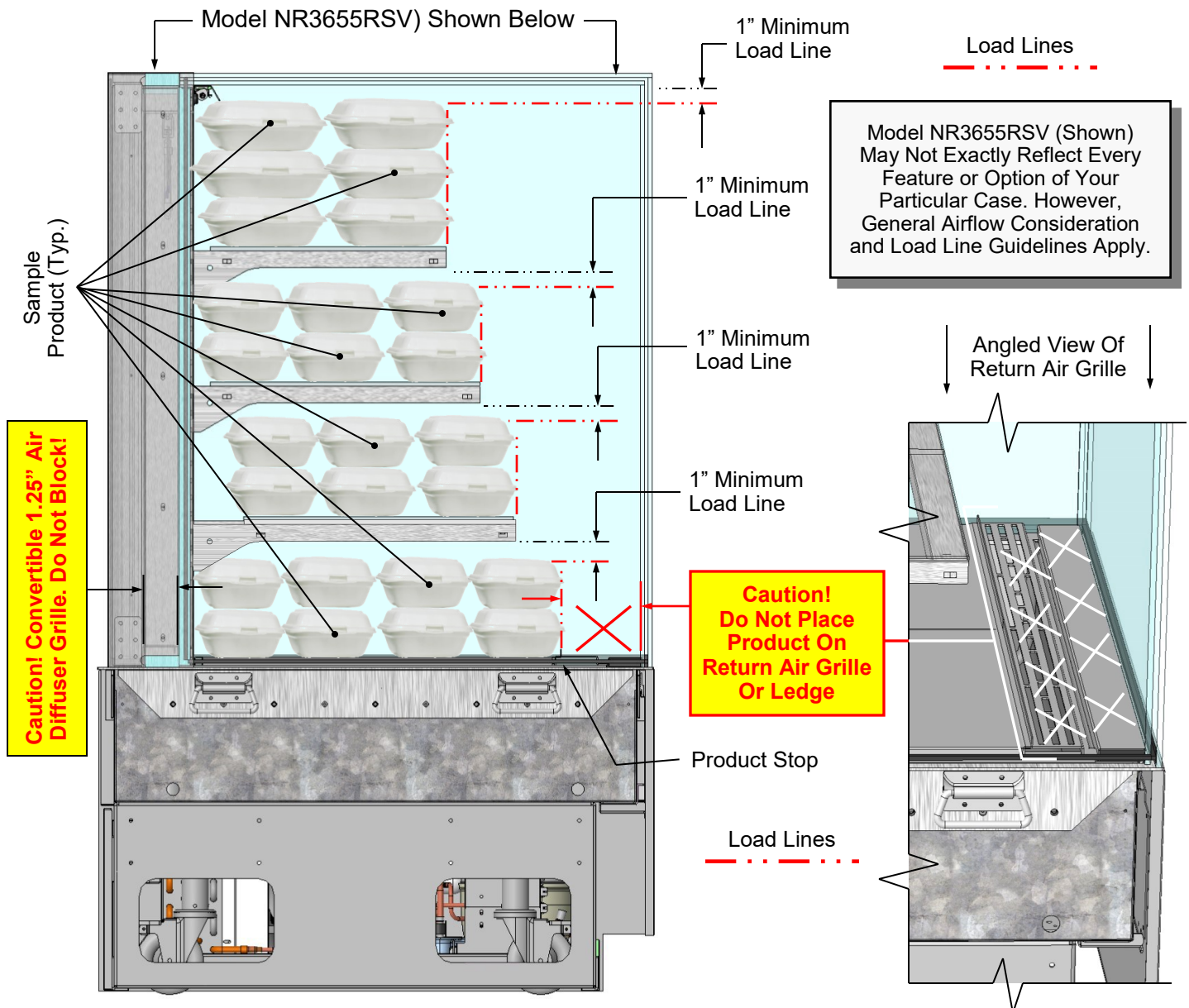
### 2. Air Diffuser Grille & Return Air Grille Considerations

- Proper airflow is critical to maintain proper product temperature.
- Proper product placement will allow rear air to flow over (and around) product to return air grille at case front. See illustration below for specifics.

- Caution! For airflow to reach return air grille, you must not block front or rear grilles with product.
- Do not place product on front ledge of case.

### 3. Load Lines

- Load lines represent the limit that product can be placed (either horizontally or vertically) and/or stacked in case.
- Keep product at or under load lines to assure that refrigerated airflow is properly cycled from air diffuser through return air grille.
- Proper product placement will maintain acceptable product temperature.
- See illustration below.



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

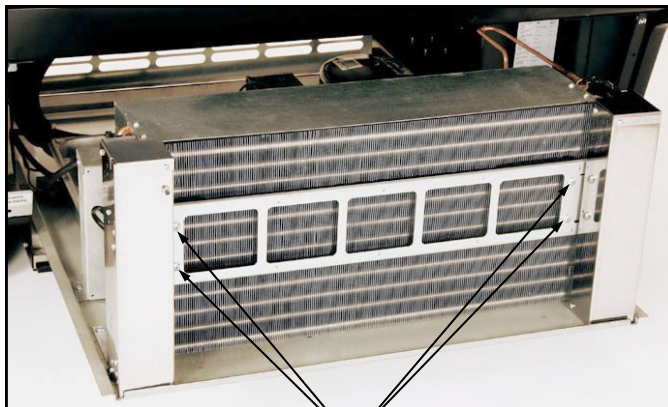
FREQ.	INSTRUCTIONS
Daily	<b>Glass Surfaces:</b> Clean glass surfaces and shelves with household or commercial glass cleaner.
Daily	<b>Rear Sliding Door Exterior Glass:</b> Clean with household or commercial glass cleaner. Clean out rear door track with moist cloth.
Daily	<b>End Panels, Front Panel, Toe-Kick, etc.:</b> Wipe off all surfaces with warm water and mild soap solution and non-abrasive cloth.
Daily	<b>Decks:</b> Wipe off decks with moist cloth dipped in mild soap and water solution.
Daily	<b>Acrylic Surfaces (Rear Perforated Plenums):</b> <ul style="list-style-type: none"> <li>• <u>Clean:</u> Use soft, clean cloth dipped in solution of warm water and small amount of mild, liquid soap. Apply light pressure while wiping away all smudges and residue.</li> <li>• <u>Rinse:</u> Use pure water in spray bottle to rinse.</li> <li>• <u>Dry:</u> Use soft, clean cloth (rather than abrasive paper towel).</li> <li>• <u>Avoid:</u> Never use window or household cleaners such as Windex®, Formula 409®, or fantastik®. Never use scouring compounds or solvents such as acetone, gasoline, alcohol, 111 trichloroethylene, WD-40® or lacquer thinner.</li> <li>• <u>Polishing:</u> Buff with light coat of automobile paste wax or plastic cleaner/polish.</li> <li>• <u>Scratches:</u> Use high quality buffing compound. Carefully follow instructions.</li> </ul>
Daily	<b>Stainless Steel Surfaces:</b> <ul style="list-style-type: none"> <li>• Wash with a solution of hand dishwashing liquid detergent and water or a solution of baking soda and water. Rinse and polish dry with paper towel or soft cloth.</li> <li>• Never use scouring powders or steel wool as they will scratch stainless steel.</li> <li>• Brighten by polishing with a cloth dipped in vinegar or in ammonia; sprinkle baking soda on sponge and rub gently; rinse. Polish dry with paper towel.</li> <li>• Remove streaks or heat stains from stainless steel by rubbing with club soda.</li> </ul>
Weekly	<b>Magnetic Condenser Coil Filter (Self-Contained Units Only):</b> <ul style="list-style-type: none"> <li>• This filter helps prevent dust particles from entering condenser coil.</li> <li>• It is accessible at air intake side of case.</li> <li>• Clean magnetic condenser coil filter by following either step 1 or 2; then follow step 3: <ol style="list-style-type: none"> <li>1. Magnetic condenser coil filter is dishwasher safe; remove from case (no screw removal required) and use a rag or soft-bristled brush to wipe off excess dust particles from filter. Run in normal dishwasher cycle. Remove from dishwasher. Dry with soft cloth or paper towel. Return to case.</li> <li>2. If dishwasher is used, remove magnetic condenser coil filter from case. Use a rag or soft-bristled brush to wipe off excess dust particles from filter. Submerge in warm, soapy water. Use soft-bristled brush to remove dust, dirt, grease and grime that may collect on filter. Rinse thoroughly.</li> <li>3. Dry with soft cloth or paper towel (as shown below) or allow to air dry. Replace.</li> </ol> </li> </ul>
Quarterly	<b>Under Case Cleaning:</b> <ul style="list-style-type: none"> <li>&gt; <u>Remote units:</u> Remove lower rear panel (and/or front panel) and clean as directed below.</li> <li>&gt; <u>Self-contained units/moving case:</u> Remove lower grille and opposite side (front or rear panel) panel. Unlock casters and lower casters to floor. See <b>INSTALLATION, CONT'D.: CASTER ADJUSTMENT / LOCK / UNLOCK / CASE REMOVAL FROM PALLET</b> section in manual for instructions. Slide/roll case out of current position. Clean as directed below.</li> <li>&gt; <u>Self-contained units/stationary case:</u> Remove lower grille (at intake side); slide condenser package out from under case. <u>Optional:</u> remove panel that is opposite lower grille. Clean as directed below.</li> <li>• Use vacuum with brush to remove all dust, dirt, food particles or residue from underside of case.</li> <li>• Replace lower grille (and/or panel that is opposite lower grille) when cleaning is complete.</li> </ul>

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

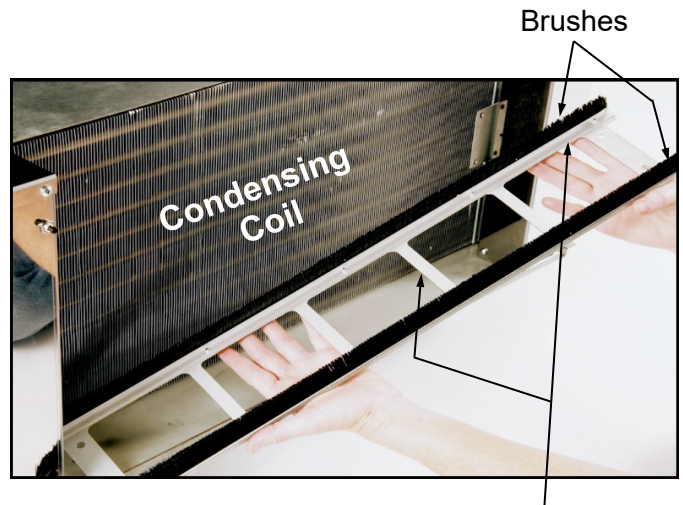
FREQ.	INSTRUCTIONS
Quarterly	<p><b><u>Condensing Coil:</u></b></p> <ul style="list-style-type: none"> <li>Remove air intake grille to access area. Simply lift up and off.</li> <li>Roll/slide out condenser package. <b>Note:</b> At initial slide-out, it may be necessary to remove two (2) compressor pan shipment screws to slide it out from under case.</li> <li><b>Warning! Coil fins are sharp. Handle with care!</b></li> <li><b>Caution! Airborne dust can contaminate food!</b> Use wet rags to cover area where air pressure is blowing.</li> <li>Use air pressure or industrial strength vacuum; clean dust and dirt that may collect on condenser coil.</li> <li>Slide/roll condensing package back under case.</li> <li>Return air intake grille to case.</li> </ul>
Quarterly	<p><b><u>Condenser Package:</u></b> <i>Caution! Disconnect power from case before cleaning!</i></p> <ul style="list-style-type: none"> <li>See <b>CASE DESIGN, CONT'D: CONDENSER PACKAGE (SELF-CONTAINED UNITS ONLY)</b> section in manual for illustrations.</li> <li><i>Warning! Condensate pan may be HOT! Disconnect power from case and allow to cool before cleaning condensate pan!</i></li> <li>Remove air intake grille from case (no screw removal is required).</li> <li>Slide/roll condenser package out from under case.</li> <li>Use a scrub-brush and a de-scaling solution such as CLR® (to prevent corrosion, lime and rust). Follow instructions as to proper dilution, safety precautions and scrubbing method.</li> <li>If electric coil overflow condensate pan is dirty, clean it (and in same manner) while cleaning rest of condenser package.</li> <li>After thoroughly cleaning condensate pan with scrub-brush and solution, rinse thoroughly with clean water (in spray bottle) and wipe dry with sponge or paper towel.</li> <li>Use moist cloth to wipe off dust &amp; debris that collects on various parts (fans, sight glass, overflow pan, etc.).</li> <li>Slide condenser package back under case.</li> <li>Return air intake grille to case (no screws required).</li> </ul>
Quarterly	<p><b><u>Under Case Cleaning:</u></b> Once refrigeration package is clear of unit, vacuum under case to remove dust and dirt that may collect under case.</p>
Quarterly	<p><b><u>Tub Area (Evaporator Coil, Drain, Fans, Brackets, Etc.):</u></b></p> <p><i>Caution! Disconnect power from case before cleaning tub, coil, fan, motor and drain area!</i></p> <ul style="list-style-type: none"> <li>See <b>CASE DESIGN, CONT'D: TUB AREA (AFTER DECK PAN REMOVAL)</b> section in manual for illustration.</li> <li>Use vacuum to clean entire area.</li> <li>After vacuuming, clean area with warm water, clean cloth, and mild soap solution.</li> <li>Remove any debris that may clog drain.</li> <li>Wipe down fan blades, motors and brackets with moist cloth.</li> </ul>



FREQUENCY	INSTRUCTIONS
Quarterly	<p><b>Optional Clean Sweep™ Condensing Coil Cleaner:</b> <i>Disconnect power from case before servicing the Clean Sweep™ Condenser Coil Cleaner!</i></p> <ul style="list-style-type: none"> <li>• Remove air intake grille (by lifting up and off); no screw removal is required.</li> <li>• Slide/roll out condensing package from underside of case assembly.</li> <li>• Remove the four (4) screws holding the Clean Sweep™ rail intact.</li> <li>• Remove the Clean Sweep™ rail.</li> <li>• Wash rails' brushes in hot water and mild soap solution.</li> <li>• If brushes are worn, they must be replaced. Call Technical Service Department to replace. Toll-Free number is listed at end of manual.</li> <li>• Clean condensing coil: Use air pressure or industrial strength vacuum; clean the dust and dirt that may collect on the condenser coil.</li> <li>• <b>Caution! Coil fins are sharp. Handle with care!</b></li> <li>• Reattach Clean Sweep™ rail to condensing unit (4 screws).</li> <li>• Slide/roll condensing package back under case.</li> <li>• Replace air intake grille to case (4 screws).</li> <li>• See photos below.</li> </ul>



(4) Screws

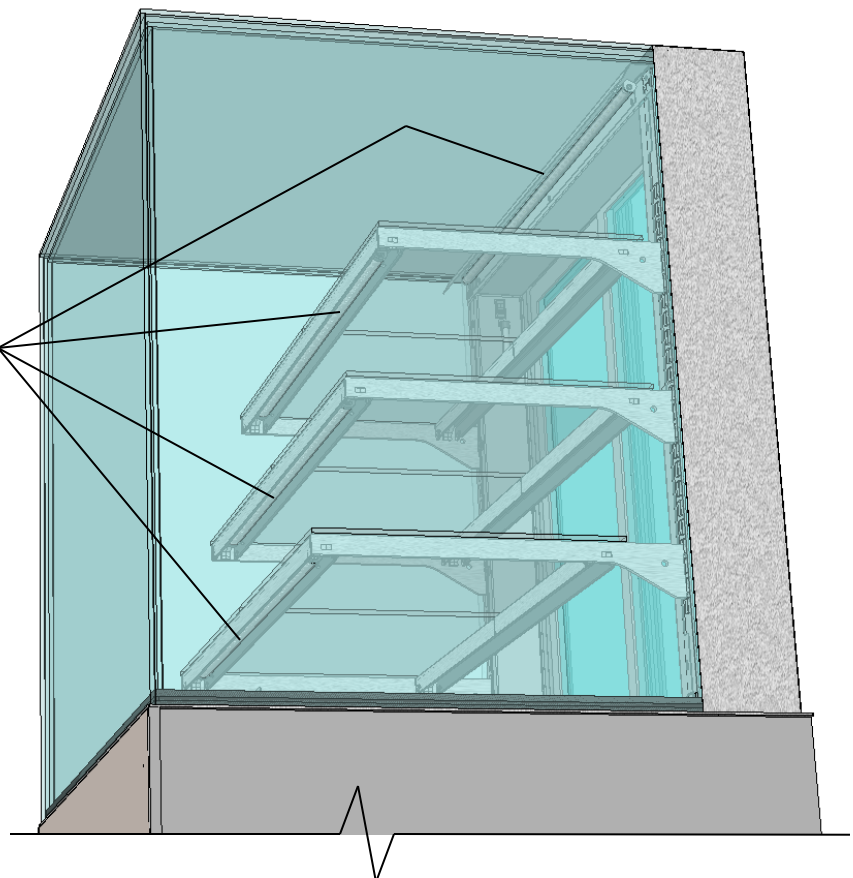
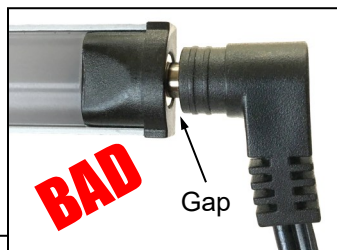
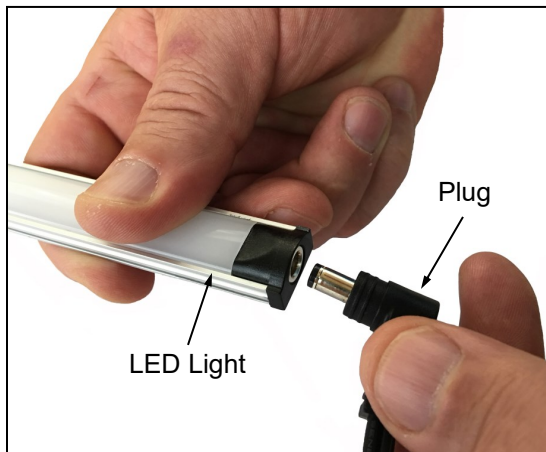


Rail

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

CONDITION	TROUBLESHOOTING
Water Is On The Floor	Call service provider.
Fan Emits Excessive Noise	Call service provider.
Case is Not Holding Proper Temperature	If a large amount of warm product was added to the case, it will take time for the temperature to adjust. Product must be pre-chilled before placing in case.
	Check that the case is not in the sun or near a heat or air-conditioning vent. See <b>OVERVIEW / DISPLAY TYPE I vs. II / COMPLIANCE / WARNINGS / PRECAUTIONS</b> section in this manual for specifics.
	If case is located near outside doors, temperature fluctuation can hinder unit's ability to maintain temperature.
	<ul style="list-style-type: none"> <li>• Check air return grilles (area at front of decking) for obstructions.</li> <li>• DO NOT set product on air grilles as this will prevent proper airflow!</li> </ul>
	If case still is not holding proper temperature, call service provider.

CONDITION	TROUBLESHOOTING
<b>Case Lights Not Working</b>	<p>Check that light switch is in the ON position.</p> <ul style="list-style-type: none"> <li>See <b>CASE DESIGN, CONT'D: LED LIGHT SWITCH LOCATION / LED LIGHTS / THERMOMETER</b> section in manual for switch location (regardless of case design).</li> </ul>
	If case is not hard-wired, check that power cord is properly connected to wall outlet.
	<p>Check that ALL of the light plugs are properly connected to the LED light.</p> <ul style="list-style-type: none"> <li>Plug must be inserted ALL THE WAY into the LED light orifice (with no gap).</li> <li>See illustrations below-left.</li> </ul>
	<p>Power may not be reaching the case.</p> <ul style="list-style-type: none"> <li>Contact store management to have trained service provider perform troubleshooting.</li> <li>Troubleshooting to be performed by trained service providers only is on next page.</li> </ul>
	<p>If case light still do not come on, it may need to be replaced.</p> <ul style="list-style-type: none"> <li>Contact Structural Concepts' Technical Service Department for replacement light (see <b>TECHNICAL SERVICE</b> section of this manual for contact information).</li> <li>To replace, disconnect plug from existing LED light. Disconnect LED light from its brackets. Replace with new LED light. Insert plug ALL THE WAY into LED light orifice.</li> </ul>



CONDITION	TROUBLESHOOTING
<b>Water Is On The Floor</b>	<p><b>Caution!</b> Disruption of power or malfunctioning condensate pan (or electric coil overflow condensate pan) may cause water to overflow pan and seep onto flooring causing damage! Until condensate pan(s) are functioning (or are replaced), follow these procedures:</p> <ul style="list-style-type: none"> <li>• Use wet vacuum (or mop &amp; bucket) to remove standing water.</li> <li>• Use 'catch pans' for water to drain into. Swap out regularly until case has completely drained.</li> <li>• When power to case is restored, condensate pan should function properly and water will no longer overflow onto flooring.</li> </ul>
	Check that the drain trap is free of debris.
	Check that the drain PVC is correctly positioned over condensate pan.
	<p>Check store conditions.</p> <ul style="list-style-type: none"> <li>• To prevent condensation in NSF/ANSI Type I environments, maximum conditions are to be 55% relative humidity / 75° Fahrenheit. For NSF/ANSI Type II environments, maximum conditions are to be 55% relative humidity / 80° Fahrenheit.</li> <li>• If you are unsure if your unit is classified as NSF/ANSI Type I or Type II, see tag next to serial label on your case.</li> </ul>
	Check that electric coil overflow condensate pan is properly plugged in or connected.

CONDITION	TROUBLESHOOTING
<b>Fans Emit Excessive Noise</b>	Check that the case is aligned, level and plumb.
	Check evaporator fans 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>System Not Operating</b>	Check that the utility power is on.
	Check that the MAIN power switch is on.
	Check the circuit breaker box for tripped circuits.

CONDITION	TROUBLESHOOTING
<b>Case Lights Are Not Working</b>	See <b>TROUBLESHOOTING (TO BE PERFORMED BY STORE PERSONNEL)</b> section in manual for most common troubleshooting solutions.
	Check power. <ul style="list-style-type: none"> <li>If power is not supplied to the case, facility may have faulty power distribution.</li> <li>If power is supplied to the case but lights are not energized, case's power supply may be faulty.</li> </ul>
<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 should return to normal.
	Check that case is not in sun or near a heat or air-conditioning vent.
	If case is located near outside doors, temperature fluctuation can hinder unit's ability to maintain temperature.
	Check that condenser coil has been cleaned.
	Check that magnetic air filter (attached to air intake grille) has been cleaned. See <b>CLEANING SCHEDULE (TO BE PERFORMED BY STORE PERSONNEL)</b> section in operating manual for instructions.
	Check return air grilles for obstructions.
	Check sight glass for flashing and/or low charge.
	Check set point temperature; it may be adjusted too high.
<b>Digital Control Display Is Blank</b>	Check that the MAIN power switch is on.
	Check the circuit breaker box for tripped circuits.
<b>System Is Not Operating</b>	Check that the utility power is on.
	Check that the MAIN power switch is on.
	Check the circuit breaker box for tripped circuits.
<b>Condensing Unit Is Not Operating</b>	Check that the power is turned on.
	Determine if temperature controller settings are properly set. See <i>your case's serial label for your model's specified settings. See <b>SERIAL LABEL LOCATION &amp; INFORMATION LISTED / TECH INFO &amp; SERVICE</b> section in manual for specifics.</i>

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

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 (BY TRAINED SERVICE PROVIDERS ONLY) - EVAPORATOR SYSTEM

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

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


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


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

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

Reveal

MODEL NRS3648RXV-SAMPLE  
SERIAL NO. 12345X30DZ098765

  
 Intertek

  
 Intertek

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

Super Heat Temp  
Defrost

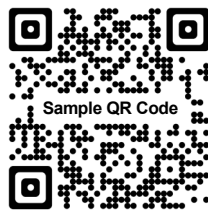
**ELECTRICAL RATING**  
**REFRIGERANT**  
**DESIGN PRESSURE**  
**MINIMUM CIRCUIT AMPACITY**  
**MAXIMUM OVERCURRENT**

6-8 °F  
6 defrosts per day, 45 °F

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

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

SCAN FOR PRODUCT LITERATURE



Sample QR Code

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

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



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



**Carel® PJEZ Platform**



**Carel® ir33 Platform**



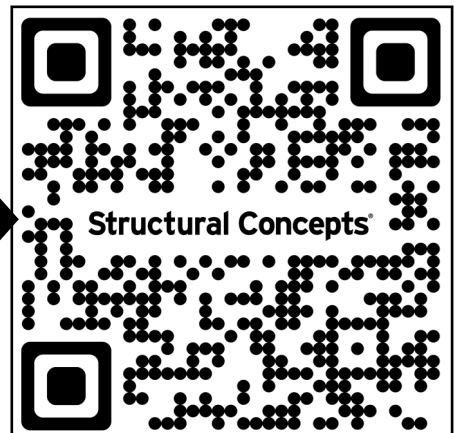
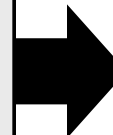
**Carel® iJF Platform**



**Dixell® XM670K-XM679K Platform**

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

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



## STRUCTURAL CONCEPTS TECHNICAL SERVICE CONTACT INFORMATION & LIMITED WARRANTY

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

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

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

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

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

> If Viewing This Document on Smart Phone,  
Tablet or Computer, Select/Click On The QR  
Code at Right.

> If Viewing This Document In Print (Hard  
Copy), Scan The QR Code at Right With Your  
Smart Phone or Tablet.

