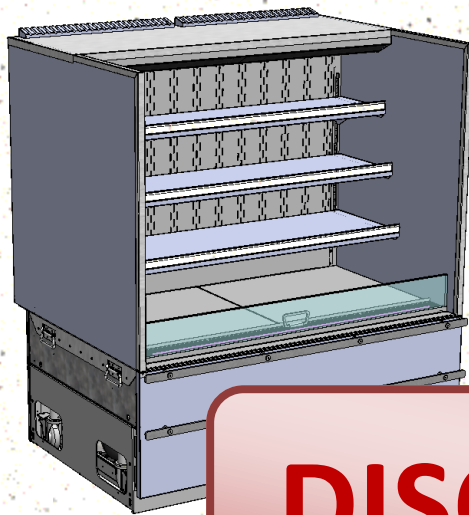


# BLEND® USER MANUAL

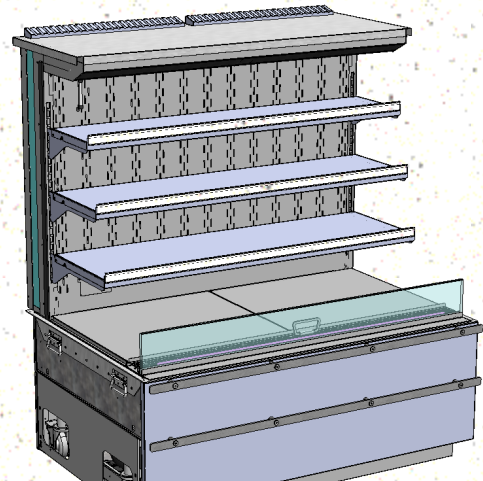
SCC P/N  
21-27933

## BLEND® SELF-SERVICE REFRIGERATED MERCHANDISERS

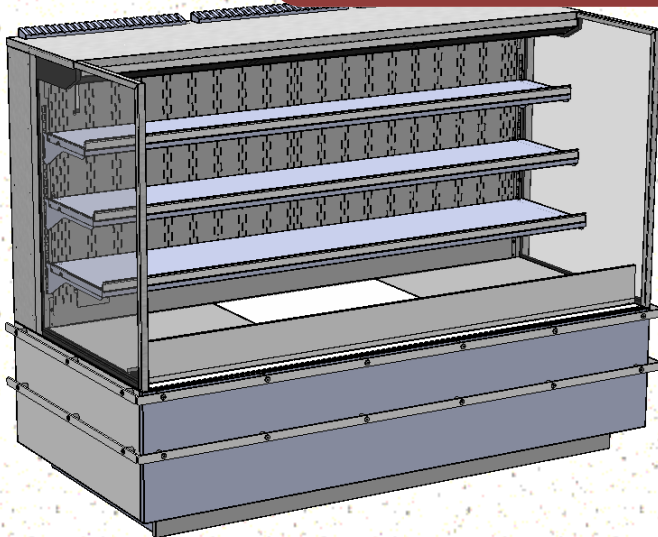
- > SELF-CONTAINED OR REMOTE UNITS
- > LINEUPS (W/NON-TRANSPARENT OR NO END PANELS AND END CAPS W/GLASS END PANELS)
- > **CAUTION! DO NOT PUSH OR PULL ON END PANELS!**
- > **DO NOT USE END PANELS TO PUSH OR PULL CASE INTO POSITION!**
- > SEE PAGE 3 FOR LIST OF MODELS THIS MANUAL IS APPLICABLE TO.



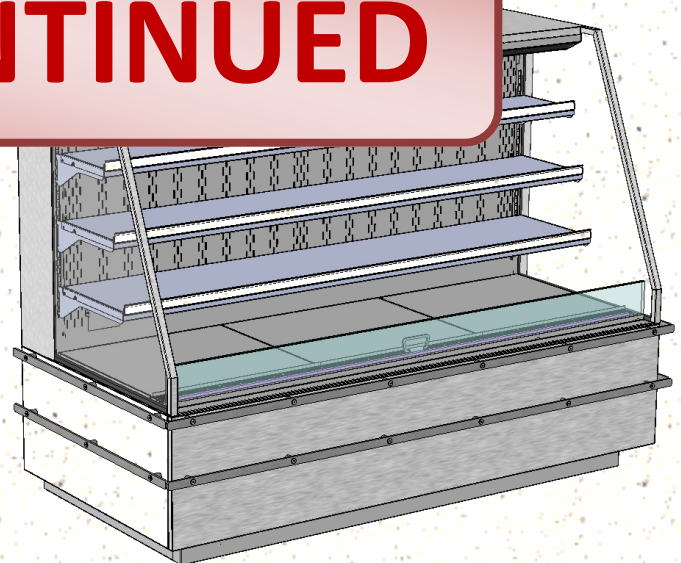
Model NM4855RSSV  
From Lineup (Shown  
With and Without  
Vertical End Panels  
For Illustrative  
Purposes Only)



**DISCONTINUED**



Model NM7255RSSV End Cap (With  
Glass/Vertical End Panels)



Model NM7255RSSA End Cap (With  
Glass / Angled End Panels)

Note: See Blend® Case-To-Case Adjoinment  
Guide P/N 21-26284 For Lineup Options As  
Well As Step-By-Step Lineup Instructions.

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**BLEND® FREE STANDING REFRIGERATED SELF-SERVICE MODEL APPLICABILITY & DIMENSIONS**

<b>Models With Vertical End Panels</b>	<b>Upper Display Case Height</b>	<b>Overall Case Height</b>	<b>Case Depth x Width</b>
NM4855RSSV	35 1/4"	54 5/8"	33"D x 47 3/4"W
NM6055RSSV	35 1/4"	54 5/8"	33"D x 59 3/4"W
NM7255RSSV	35 1/4"	54 5/8"	33"D x 71 3/4"W

<b>Models With Angled End Panels</b>	<b>Upper Display Case Height</b>	<b>Overall Case Height</b>	<b>Case Depth x Width</b>
NM4855RSSA	35 1/4"	54 5/8"	33"D x 47 3/4"W
NM6055RSSA	35 1/4"	54 5/8"	33"D x 59 3/4"W
NM7255RSSA	35 1/4"	54 5/8"	33"D x 71 3/4"W

**OVERVIEW**

- These Structural Concepts BLEND® 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.

**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.

**WARNINGS**

- Please read these important warnings 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.

**WARNING**

**HOT  
SURFACE**

**WARNING**

Condensate pan and overflow condensate pans are **HOT!**  
Disconnect and allow to cool before cleaning or removing from case.



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

## PRECAUTIONS

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

## WIRING DIAGRAM

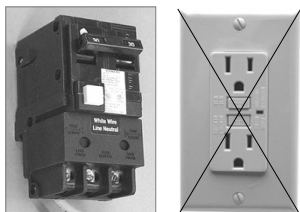
- Each case has its own wiring diagram folded and in its own packet.
- Wiring diagram placement may vary (near ballast box, field wiring box, raceway cover, or other related location).

## REFRIGERANT DISCLOSURE STATEMENT

- This equipment is prohibited from use in California with any refrigerants on the "List of Prohibited Substances" for that specific end-use, in accordance with California Code of Regulations, title 17, section 95374.
- This disclosure statement has been reviewed and approved by Structural Concepts and Structural Concepts attests, under penalty of perjury, that these statements are true and accurate.

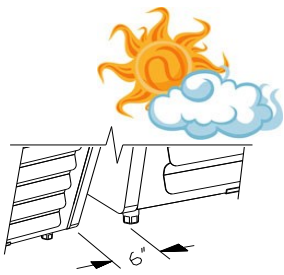
## CAUTION

**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



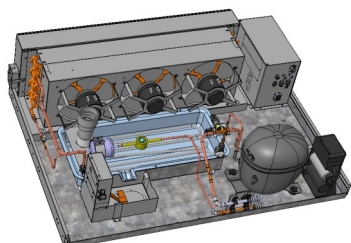
## CAUTION! ADVERSE CONDITIONS / SPACING ISSUES

- 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 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! CHECK CONDENSATE PAN, ITS POSITION & PLUG!

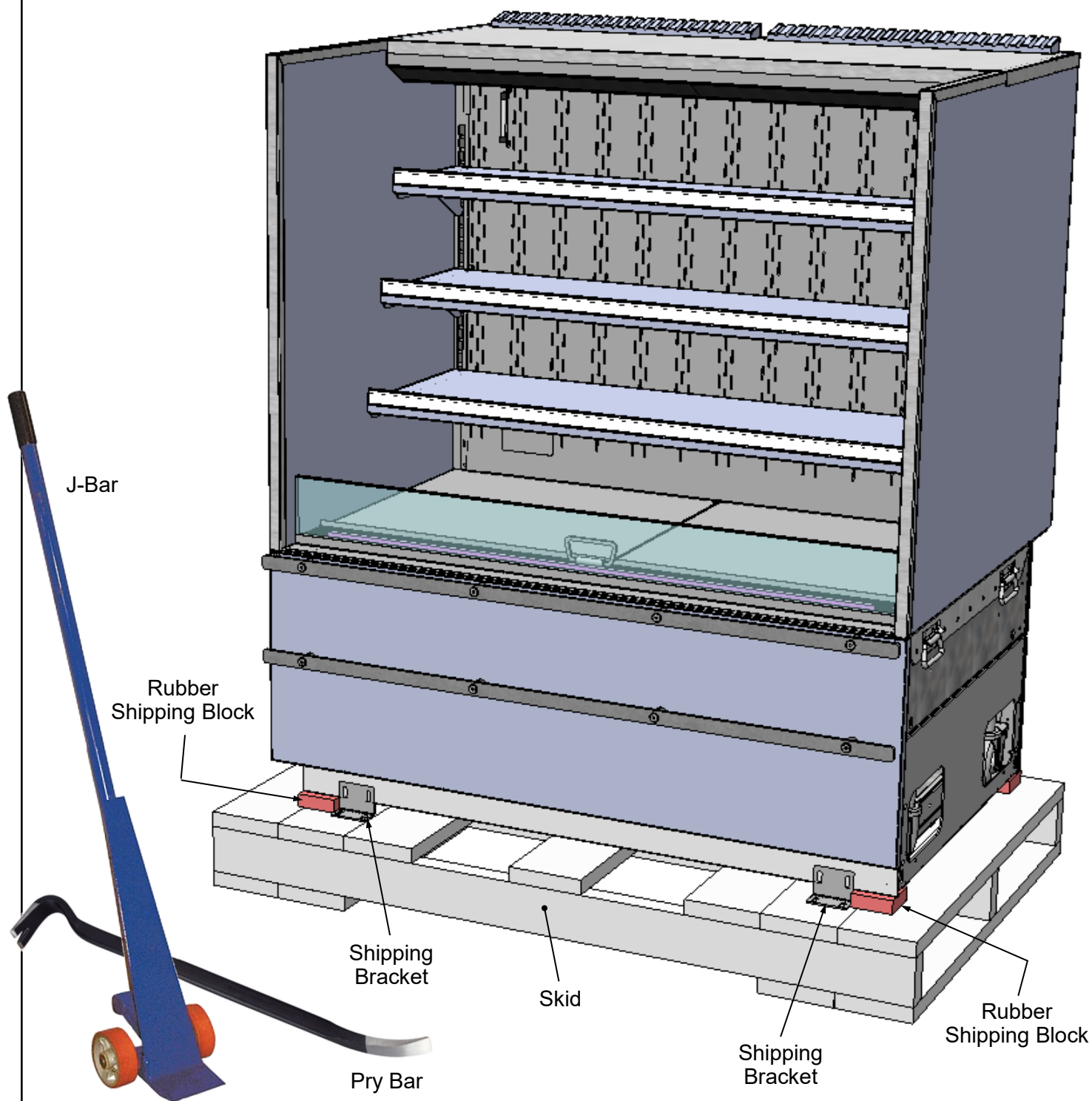
Water on flooring can cause extensive damage!

- 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.
- If wicking material is used in condensate pan, check that it is secure.

## INSTALLATION: TOE-KICK & AIR INTAKE GRILLE REMOVAL / DISCONNECTING CASE FROM SKID

### **1. Disconnect Case From Skid**

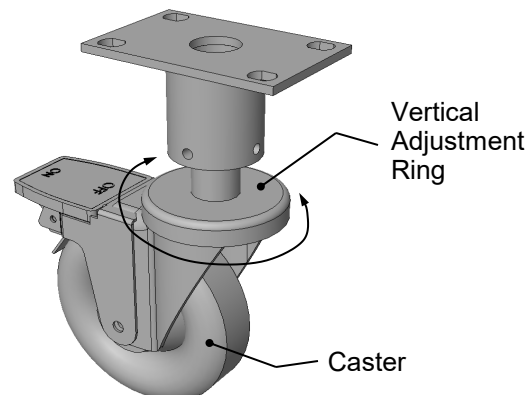
- Use Phillips driver to remove screws from shipping brackets. Remove and discard shipping brackets from skid.
- Place J-bar/pry bar under base frame. Raise case up from skid to take weight off casters.
- With case raised, lower casters all the way down against skid (see next step for detailed instructions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





## 2. Caster Height: Raising and Lowering

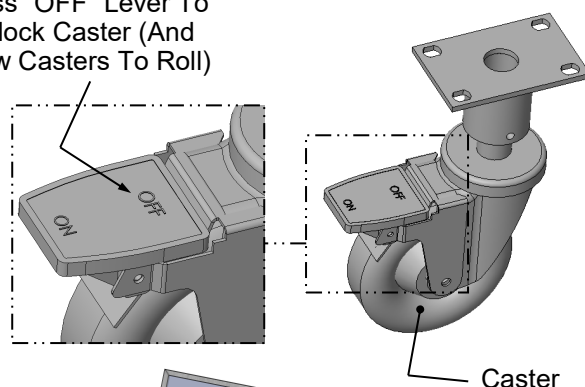
- Raise or lower casters (to adjust case height) by rotating casters' vertical adjustment rings.
  - Rotate vertical adjustment ring clockwise to lower caster (and increase height of case).
  - Rotate vertical adjustment ring counter-clockwise to raise caster (and decrease height of case).



## 3. Caster Rolling Capability: Unlocking

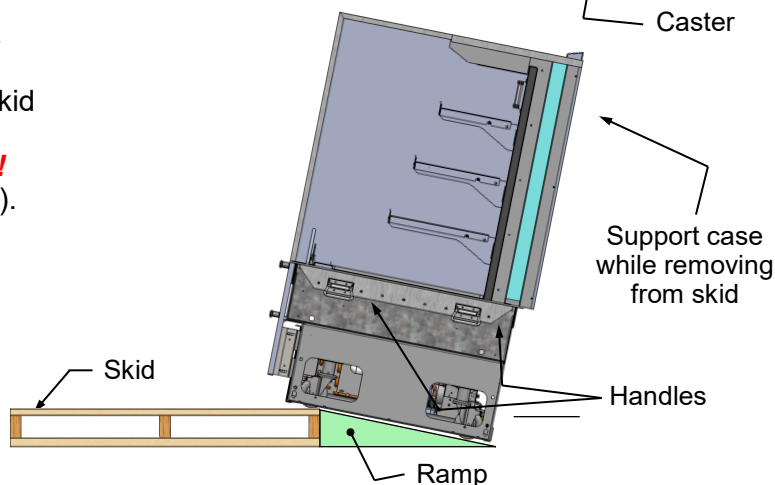
- Important! Case is shipped with caster mechanisms factory set at **ON** (locked) to prevent case from rolling.
- Unlock casters by pressing **OFF** on the caster mechanism.
- See illustration at right.

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



## 4. Carefully Remove Case From Skid

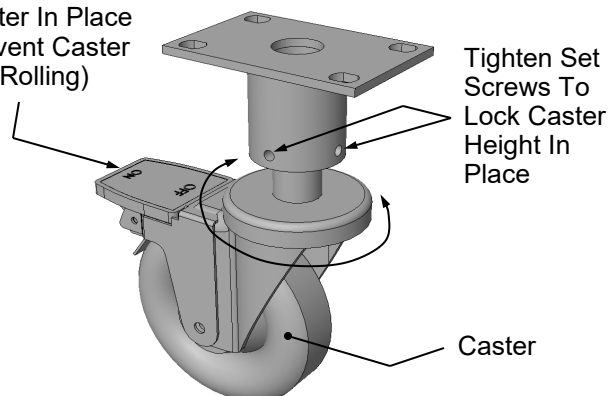
- Check that casters are lowered as far down as they will go (as instructed in step #4).
- Use handles to carefully slide case to rear of skid (see illustration at right).
- **Caution! 4 people are required for this task!**
- Carefully lower to floor (using ramp if available).
- Slide skid from under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



## 5. Casters: Locking

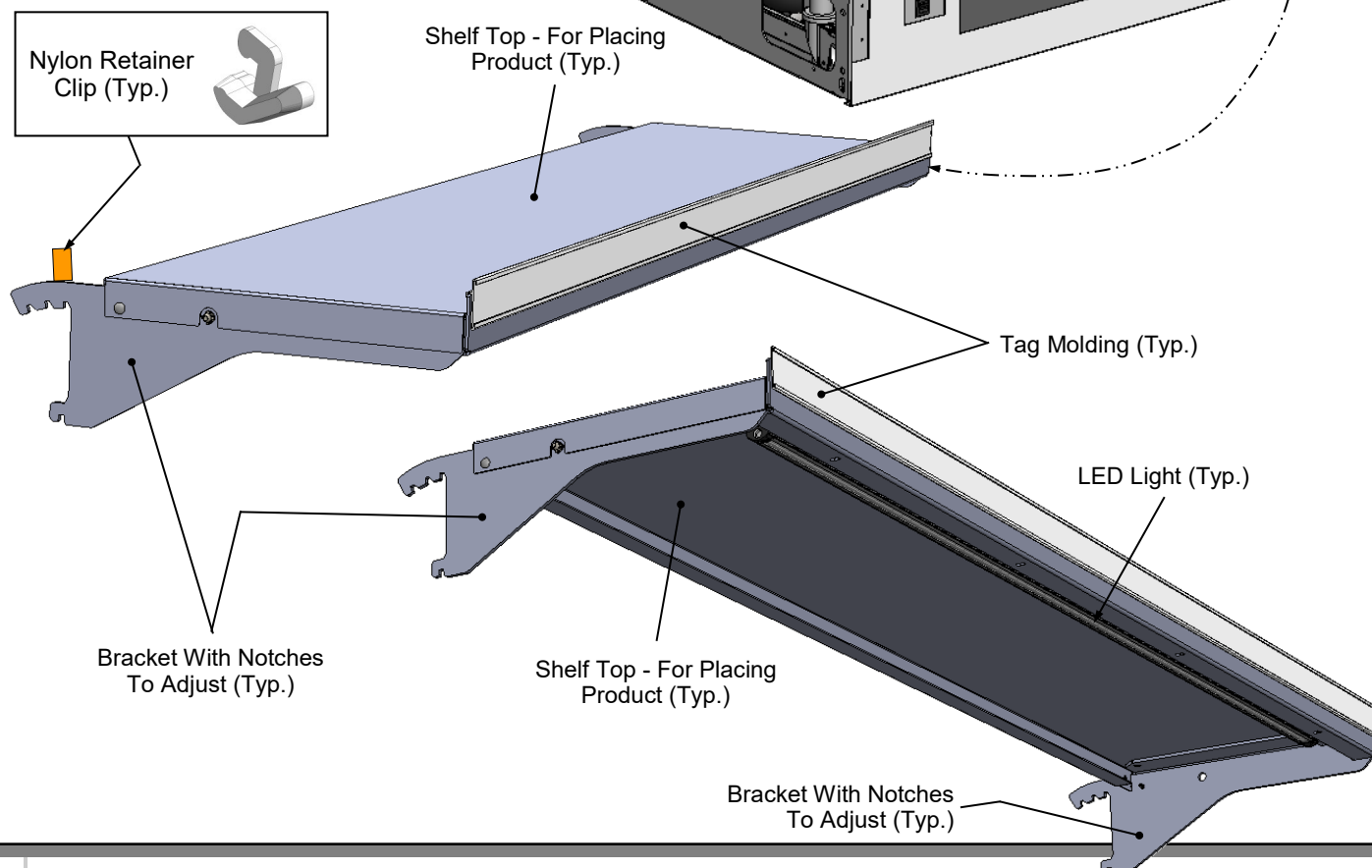
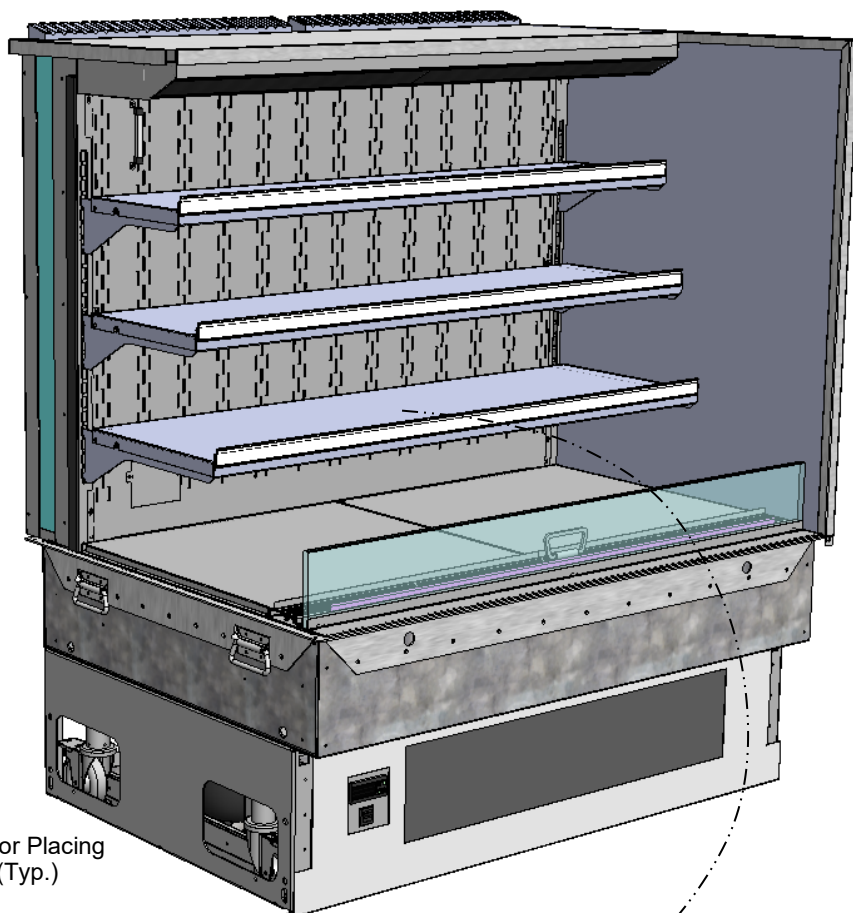
- After case is at desired position (and height), use level to check that case is level and plumb.
- Readjust height as needed (as instructed in step #4).
- Locking Height: After proper height (and positioning) of case is attained, tighten the two (2) set screws to lock each caster's height in place.
- 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 Caster From Rolling)



## 6. Shelving Assembly Components

- Shelves may be adjusted vertically, horizontally or entirely removed from merchandiser.
- See illustrations below for components comprising each shelf assembly.
- 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.
- Check that shelving is in proper position before placing product in case





## 7. Remove Shipping Braces

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

## 8. Plug Case In / Turn Main Power Switch On

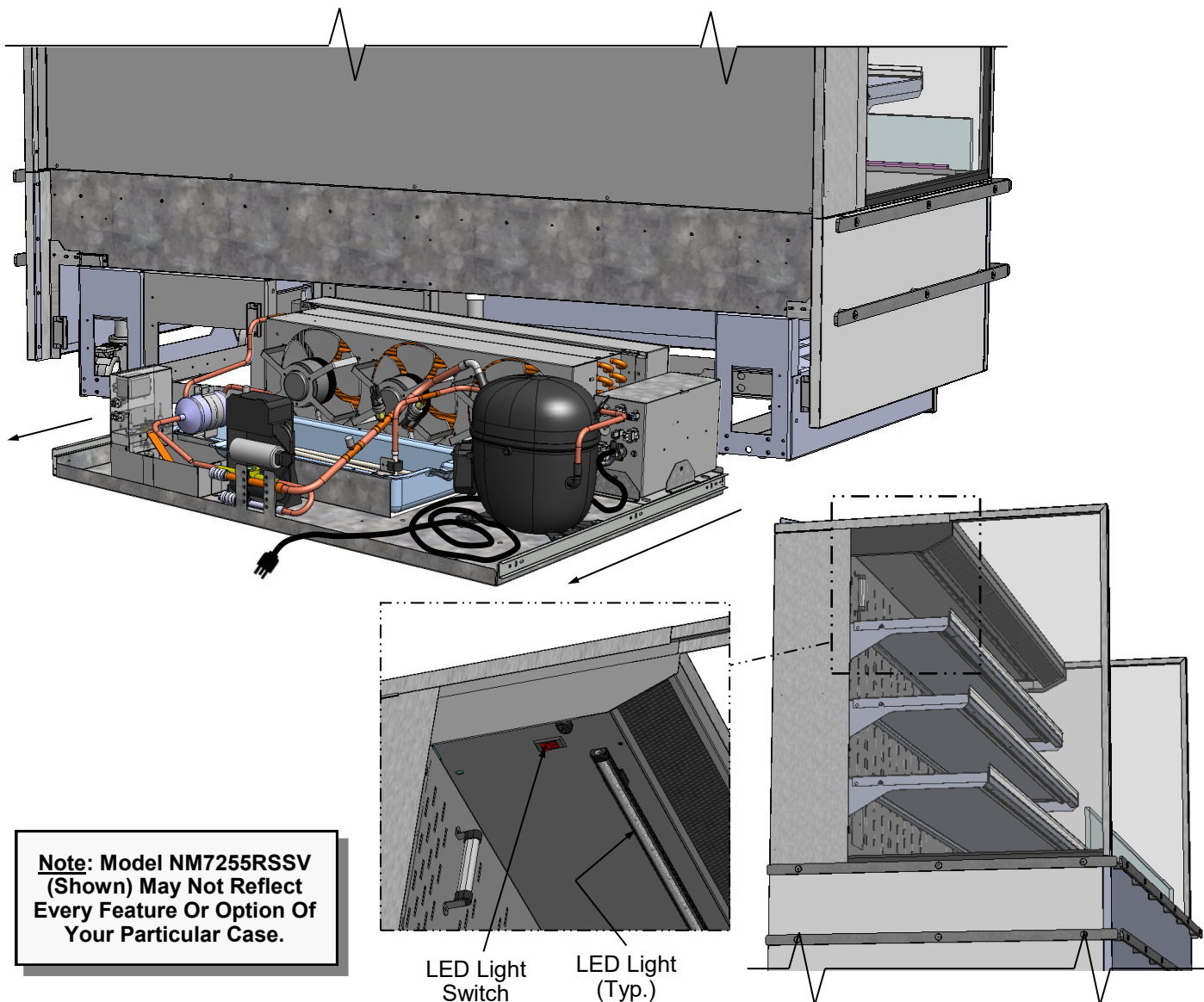
- Power cord with plug is factory-supplied.
- Plug case into customer-supplied electrical outlet.
- **Note:** Due to space constraints, it may be necessary to pull out condenser package to access plug and maneuver power cord around

components and into receptacle. Return the condenser package to its previous position before continuing.

- Turn main power switch on.
- Check that case is energized. Lift deck pans to confirm that fans are rotating).
- Turn on LED light switch at front-left header.
- Note: Illustration shown may not reflect every feature or option of your particular merchandiser.

## 9. Turn On LED Lights

- LED light switch is energized when main power switch has been turned on.
- All LED lights will come on when light switch has been turned on.
- See illustration below for general LED light switch location.



## 10. Handles On Sides of Case

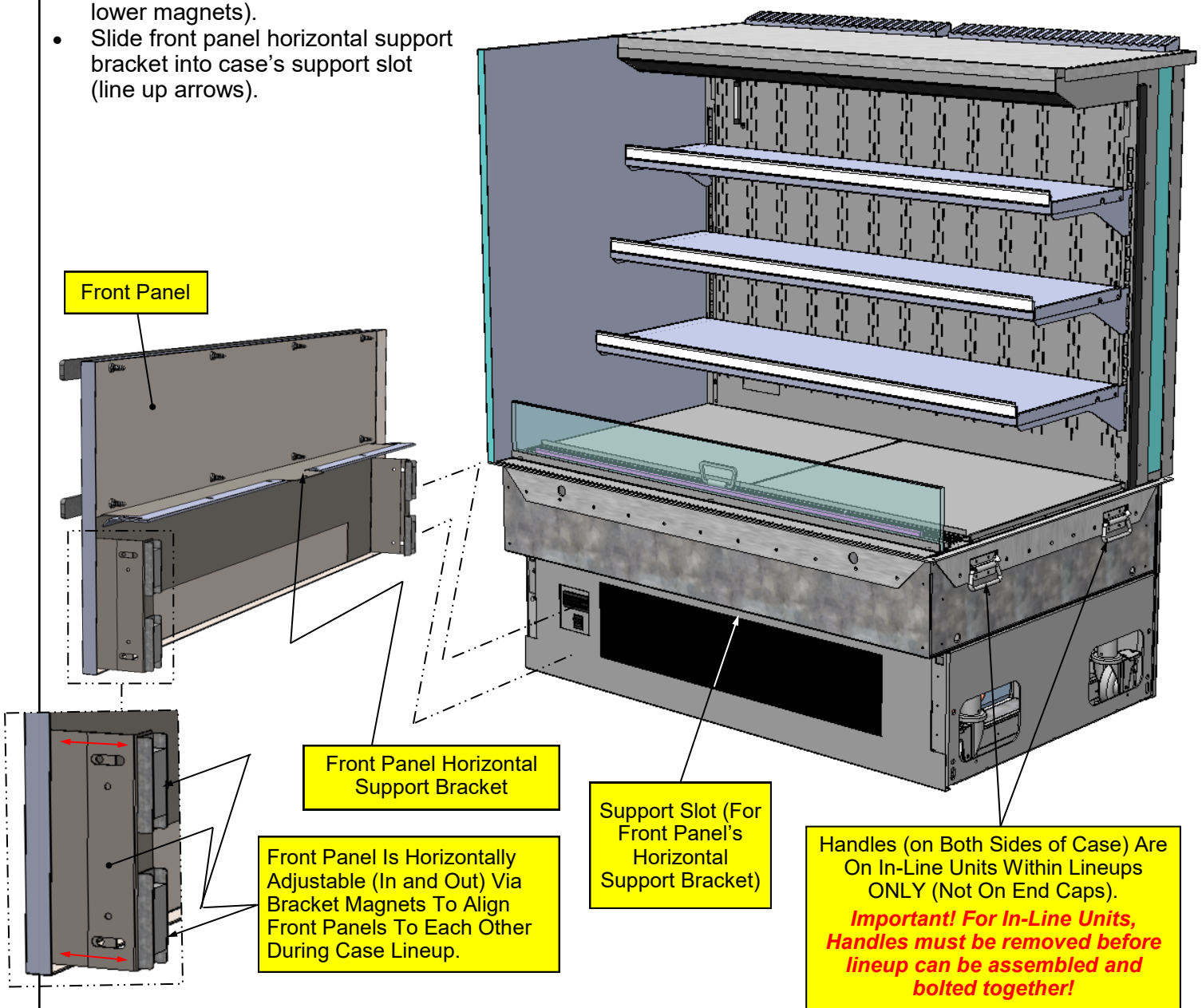
- Handles (on both sides of case) are on in-line units within lineups **ONLY** (not on end caps).
- **IMPORTANT! Handles on in-line units must be removed before lineups can be securely bolted together!**

- **Front panel is horizontally adjustable (in and out) via bracket magnets to align front panels to each other during case lineup.**
- See illustration below-left.

>> See Next Page For Instructions on **OPTIONAL ACRYLIC SECURITY COVER.**

## 11. 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 panel to case (via lower magnets).
- Slide front panel horizontal support bracket into case's support slot (line up arrows).



## 12. Optional Acrylic Security Cover

*Note: Illustrations reflects random model; it may not reflect every feature or option of your case.*

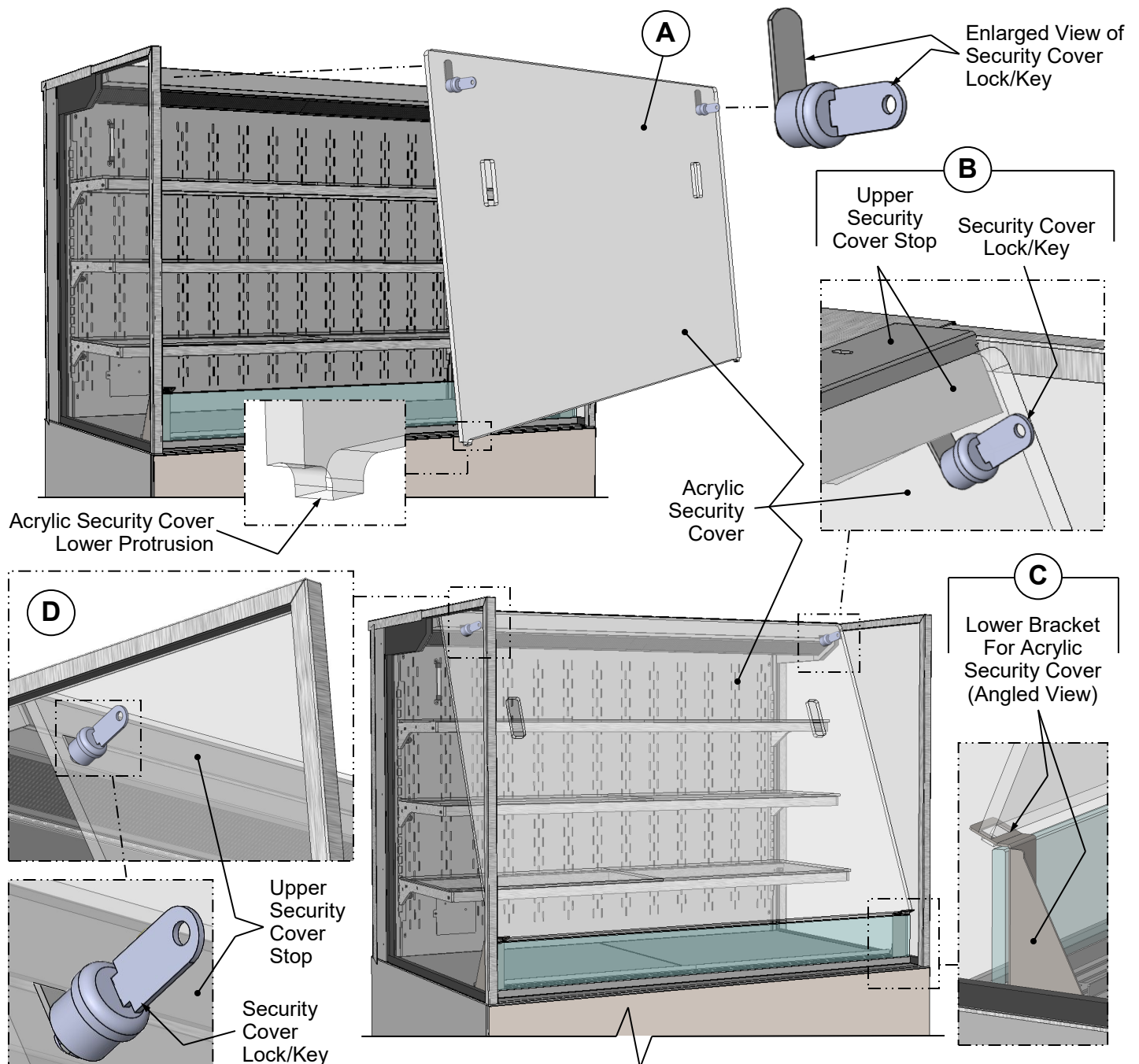
- A. View of optional acrylic security cover with holes for grasping (for removing and replacing), enlarged lock/key and lower protrusion.
- B. Acrylic security cover rests against upper security cover stop.
- C. Acrylic security cover's lower protrusions are to rest in lower bracket slots (one in each bracket).

- D. Upper acrylic security cover must rest against upper security cover stop. Lock at both ends of cover with locking mechanism.

> Important! After locking in place, store keys in safe yet accessible place.

> If removing acrylic security cover, store in safe location away from foot traffic or work areas that could lead to scratching or marring of acrylic surfaces.

> See **CLEANING SCHEDULE (TO BE PERFORMED BY STORE PERSONNEL)** for cleaning information.

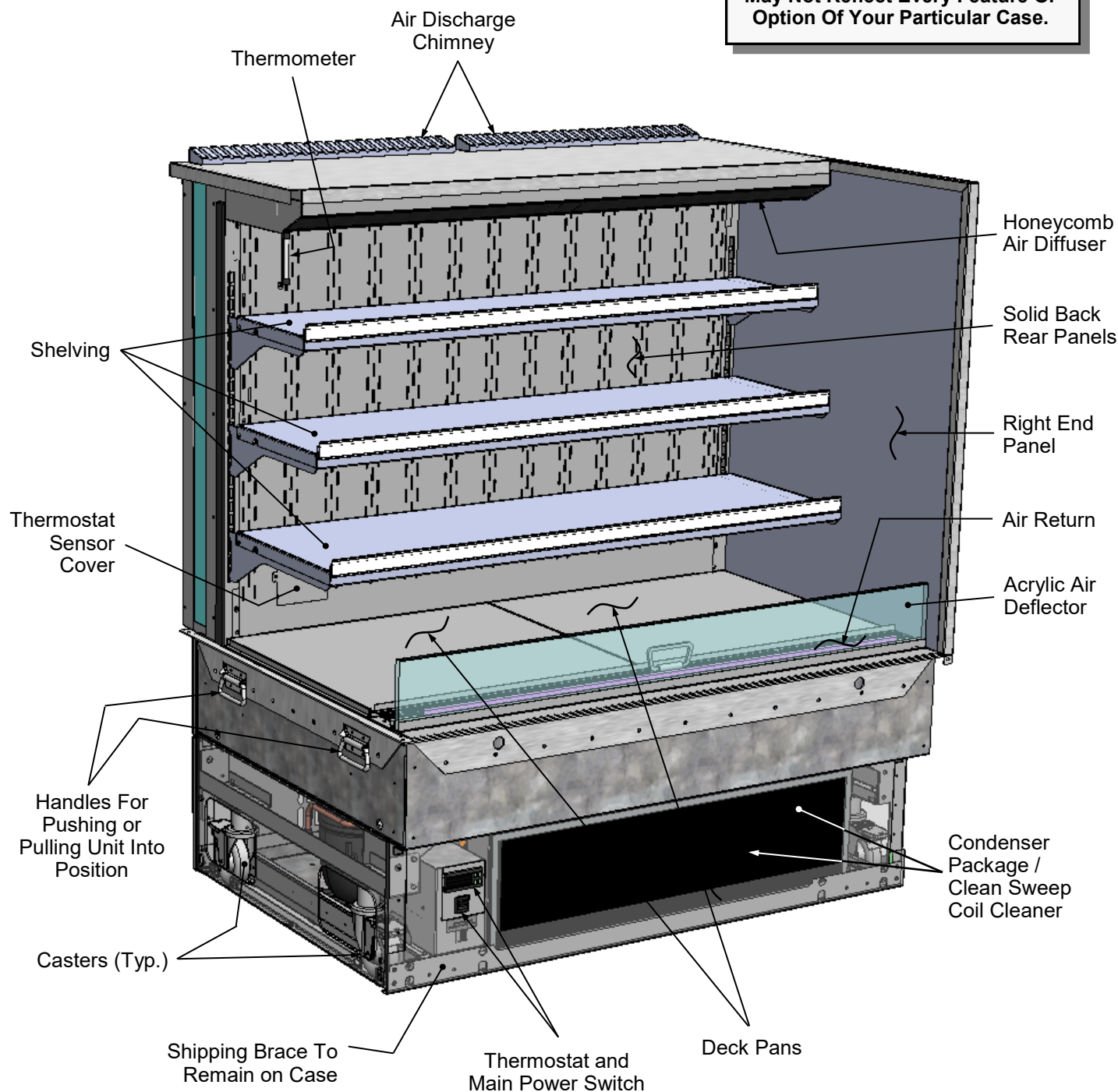


## CASE DESIGN: FRONT VIEW OF MODEL NM4855RSS SELF-SERVICE MERCHANDISER

### 1. Front View Of Model NM4855RSSV Self-Service Merchandisers

- Partially disassembled model illustrated below may not reflect every feature or option of your particular merchandiser.
- Single end panel is shown.
- Lineup will determine end panel configuration.
- See next page for rear view of merchandiser.

**Note: Model NM4855RSSV (Shown)  
May Not Reflect Every Feature Or  
Option Of Your Particular Case.**

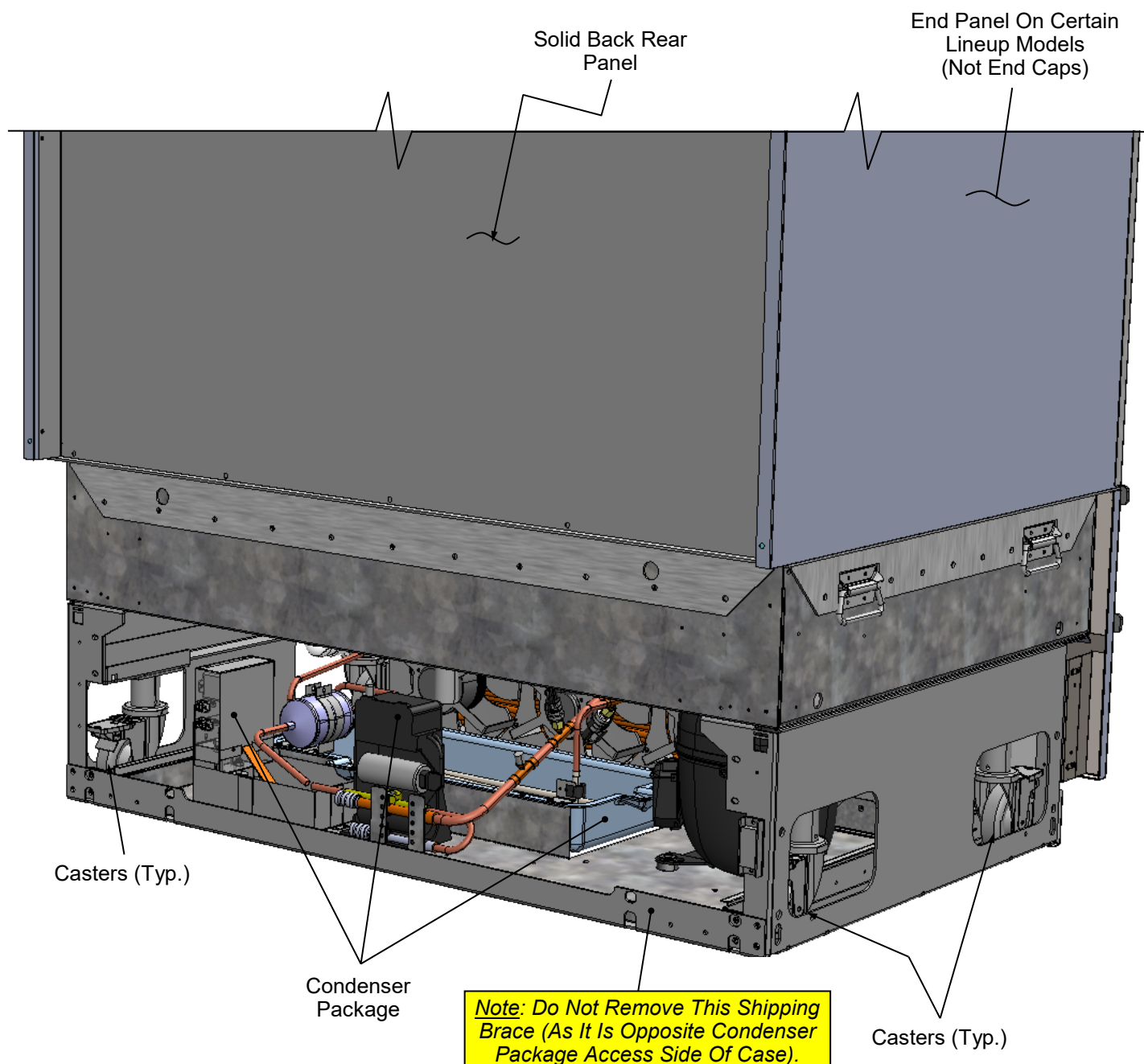




## **2. Rear View Of Model NM4855RSSV Self-Service Merchandisers**

- Model illustrated below may not reflect every feature or option of your particular merchandiser.
- Single end panel is shown.
- Lineup will determine end panel configuration.
- See previous page for front view of merchandiser.

**Note: Model NM4855RSSV (Shown)  
May Not Reflect Every Feature Or  
Option Of Your Particular Case.**

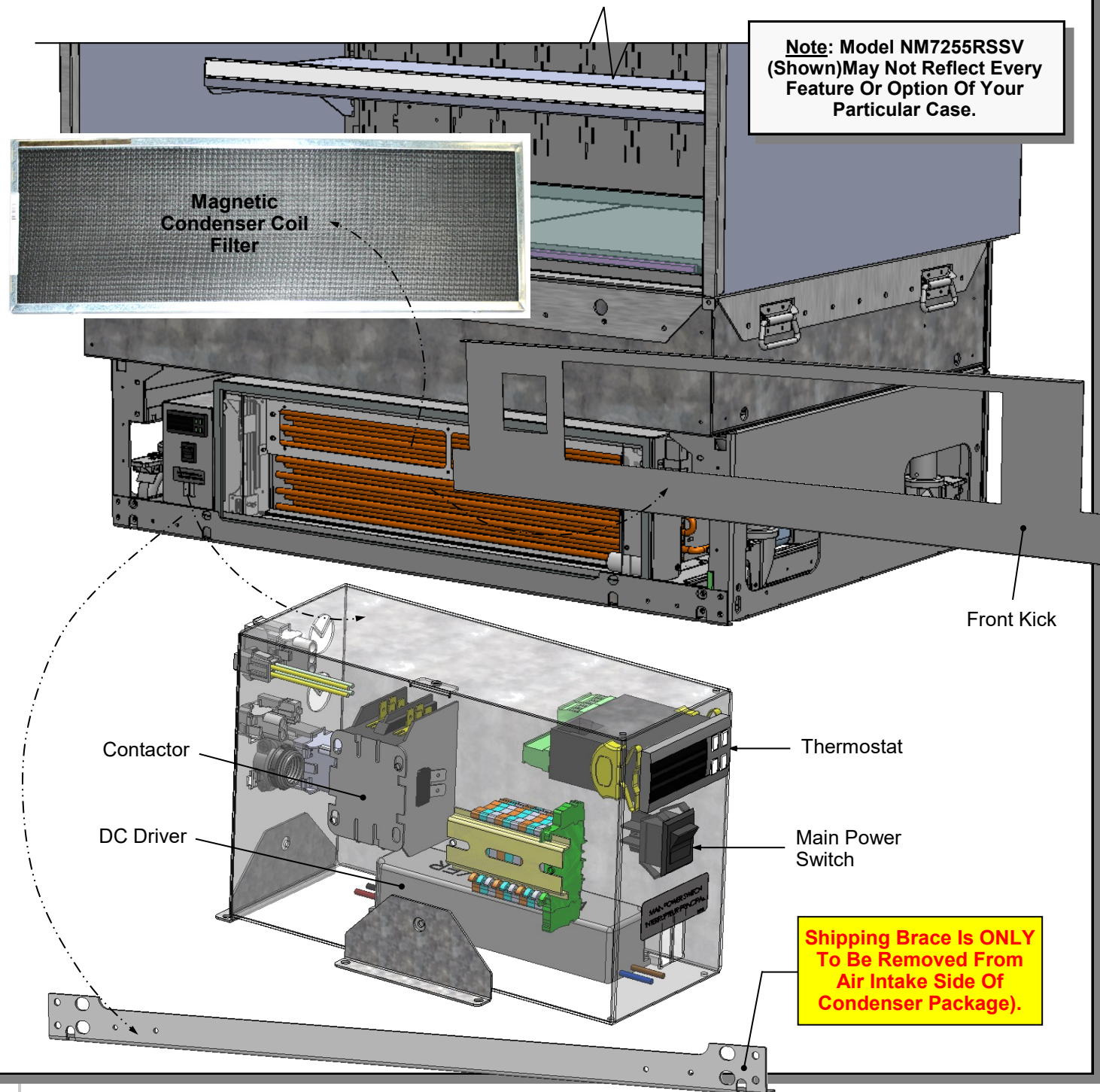


### 3. Controller / DC Driver Access / Components

- Remove front panel with magnet release only; 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 front kick (by pulling away from magnets).
- Remove shipping brace by removing 4 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.

**Note:** Model NM7255RSSV (Shown) May Not Reflect Every Feature Or Option Of Your Particular Case.



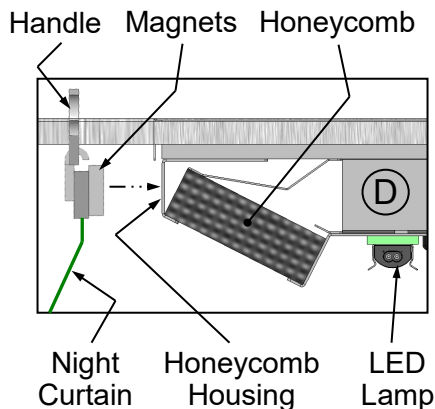
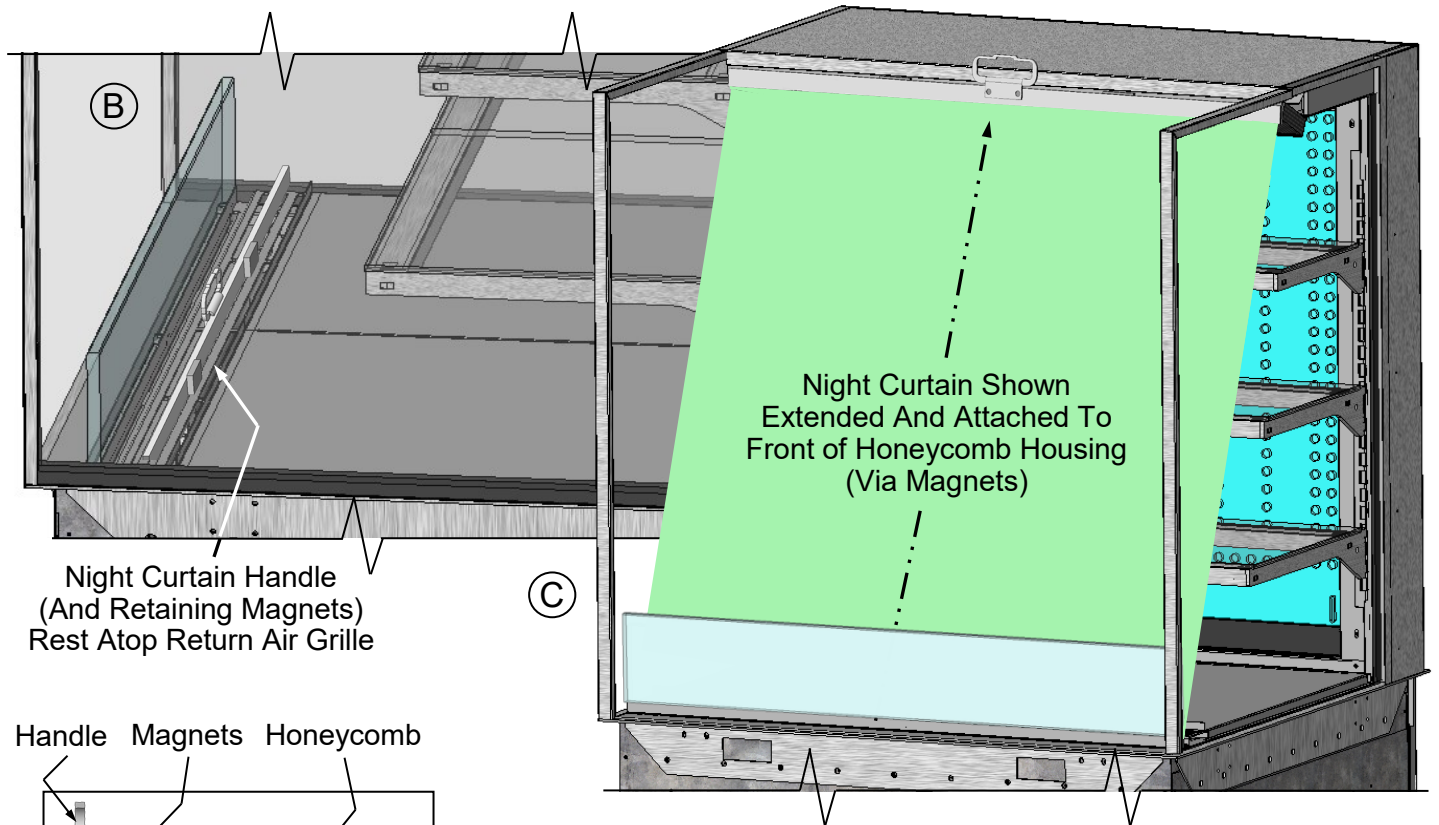
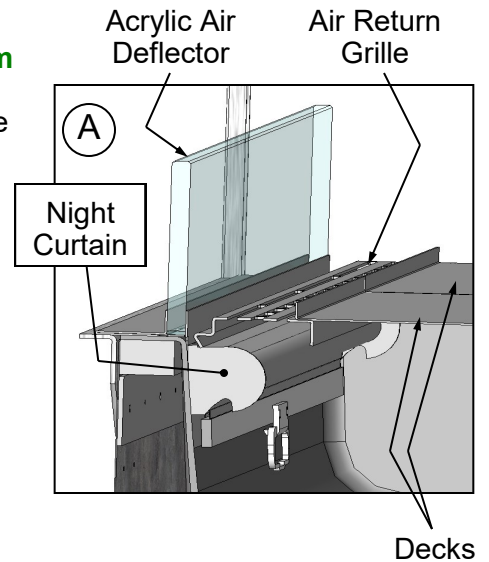


#### 4. Night Curtain Access and Operation

**The night curtain saves energy by preventing outside ambient air from entering case. Use night curtain whenever possible.**

- Night curtain is attached to inside of case at underside of air return grille and decks (at case front).
- Night curtain handle (and retaining magnets) is to rest atop air return grille (as shown). If not, remove decking; remove (2) screws holding return air grille in place. Reach in, grasp handle and pull night curtain upward. Replace grille. Reattach screws.
- Firmly grasp handle and slowly extend night curtain (shown green for illustrative purposes). Attach magnets to front of honeycomb housing.
- Side view of night curtain attachment to honeycomb housing.

>> Caution! To retract curtain, carefully break magnet's hold on front of honeycomb housing; slowly rewind curtain until it rests back on return air grille. If allowed to 'snap back' to return air grille, it could be damaged!



**Note: Model Shown May Not Reflect Every Feature Or Option Of Your Particular Case.**

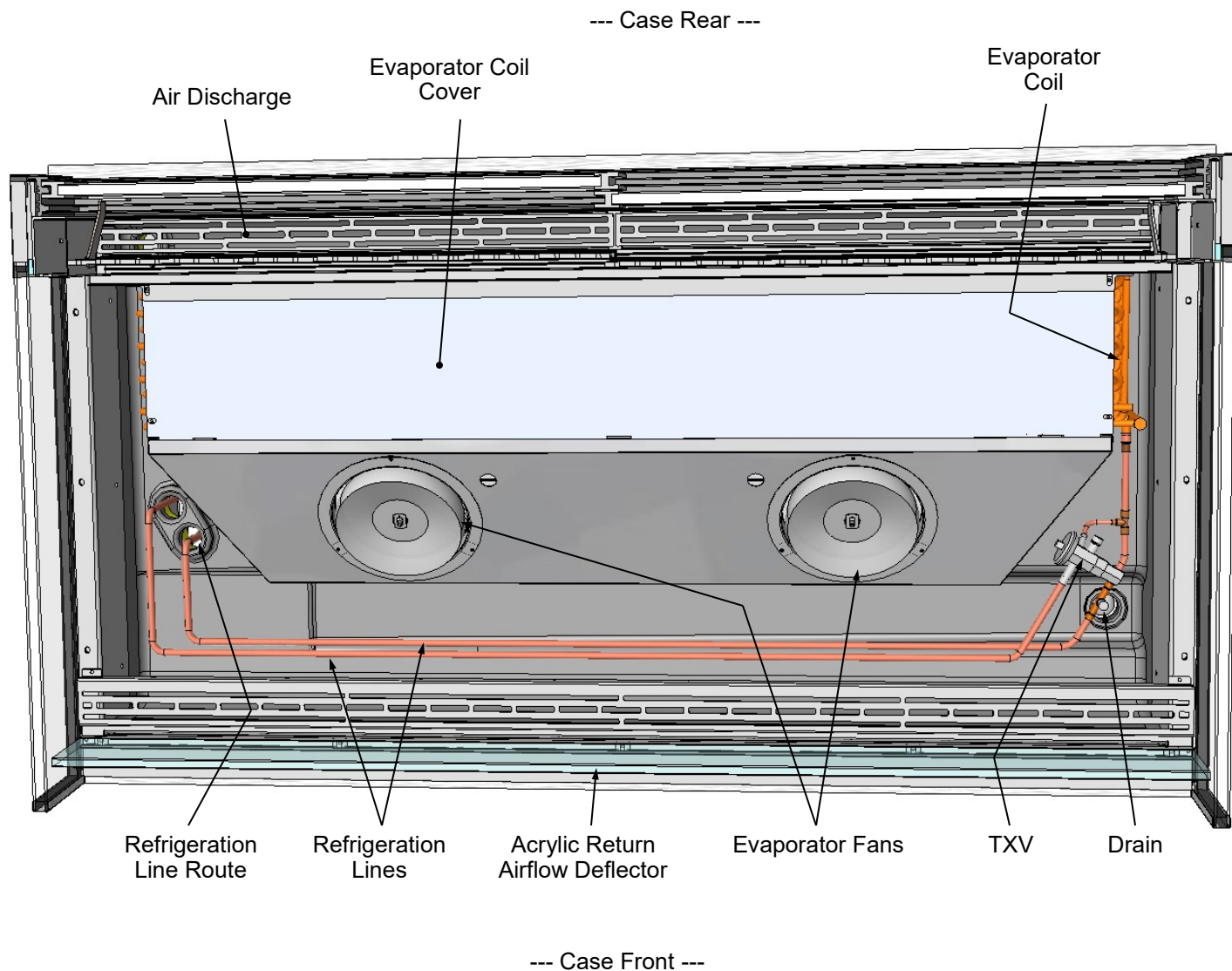
### 5. Tub Area After Deck Pan Removal

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

**Note:** Model Shown May Not Reflect Every Feature Or Option Of Your Particular Case.

**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.

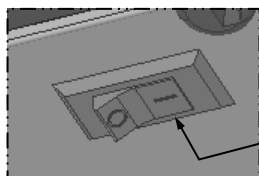


## 6. LED Light Switch Locations

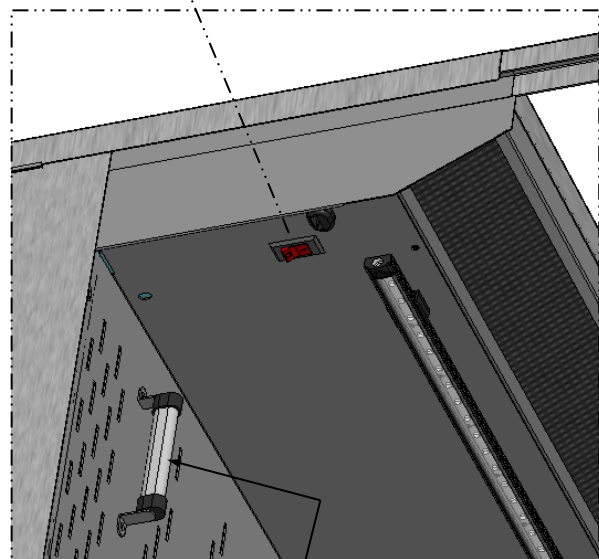
- Cases with rear sliding doors have light switch in column cover (for easy access at case rear).
- Cases with solid back rear plenums have light switch in header.
- See illustrations below.

## 7. 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.



LED Light Switch

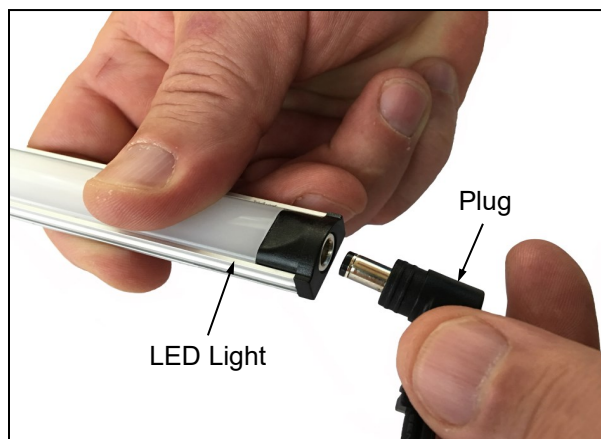


Thermostat

**Note:** Model NM7255RSSV (Shown)  
May Not Reflect Every Feature Or  
Option Of Your Particular Case.

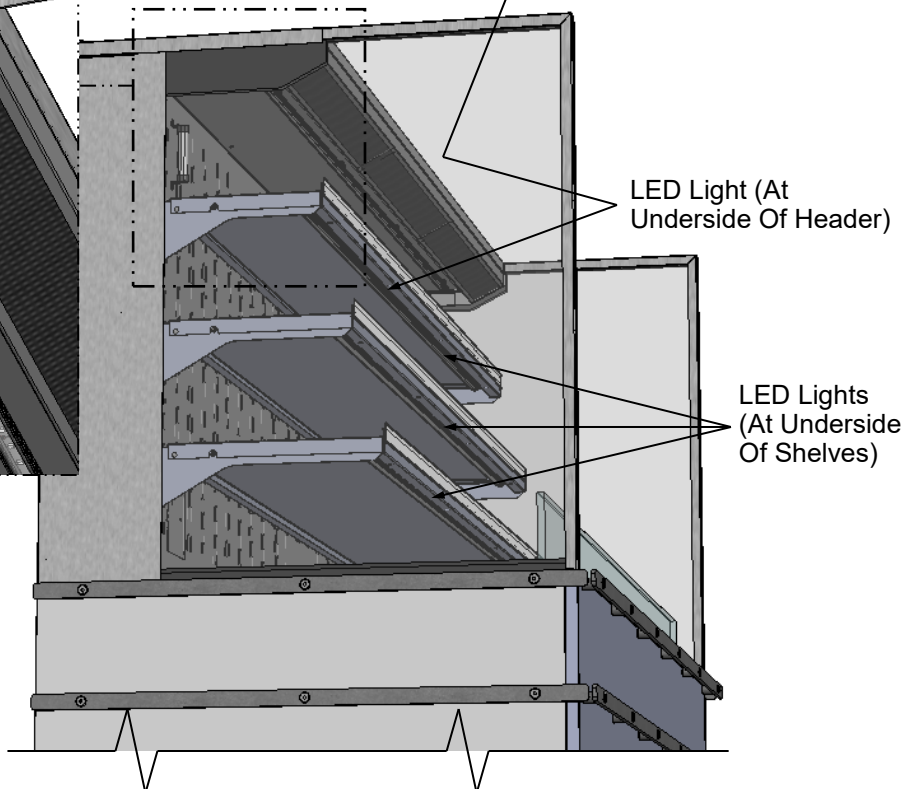
## 8. Thermometer Function & Placement

- Cases with lower rear sliding doors have different thermometer location than units with solid back rear lower plenums (as shown in illustrations below).
- 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.



LED Light

Plug



LED Light (At Underside Of Header)

LED Lights (At Underside Of Shelves)

--- Case With Solid Back Rear Plenum ---

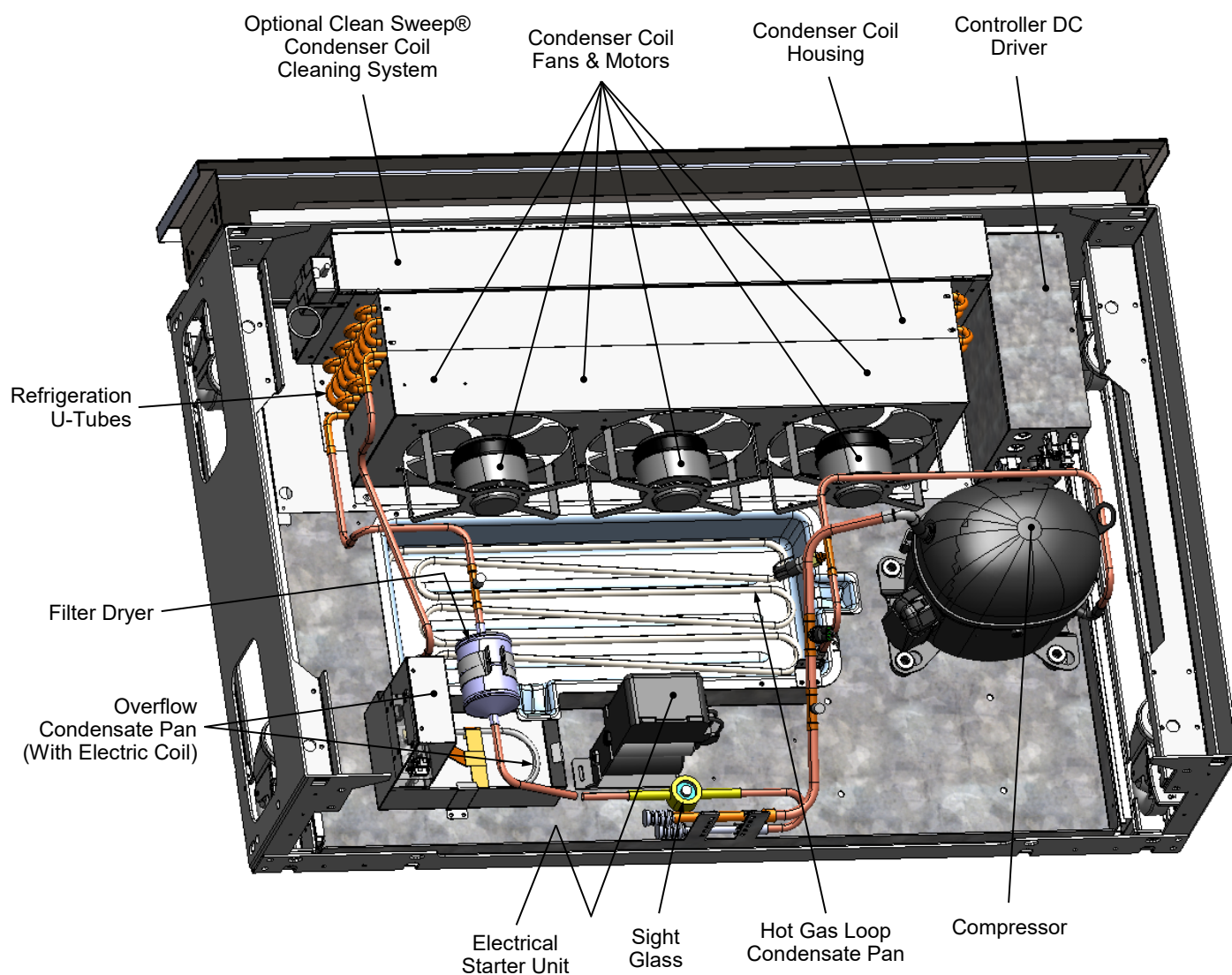
### 9. Condenser Package (Self-Contained Units Only)

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

#### **Condensate Package Configuration**

- Illustration below may not reflect every feature or option of your particular condenser package.

**Note: Model NM4855RSSV (Shown) Is Similar To Model NM7255RSSV. However, It May Not Reflect Every Feature Or Option Of Your Particular Case.**





### 1. Product Placement

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

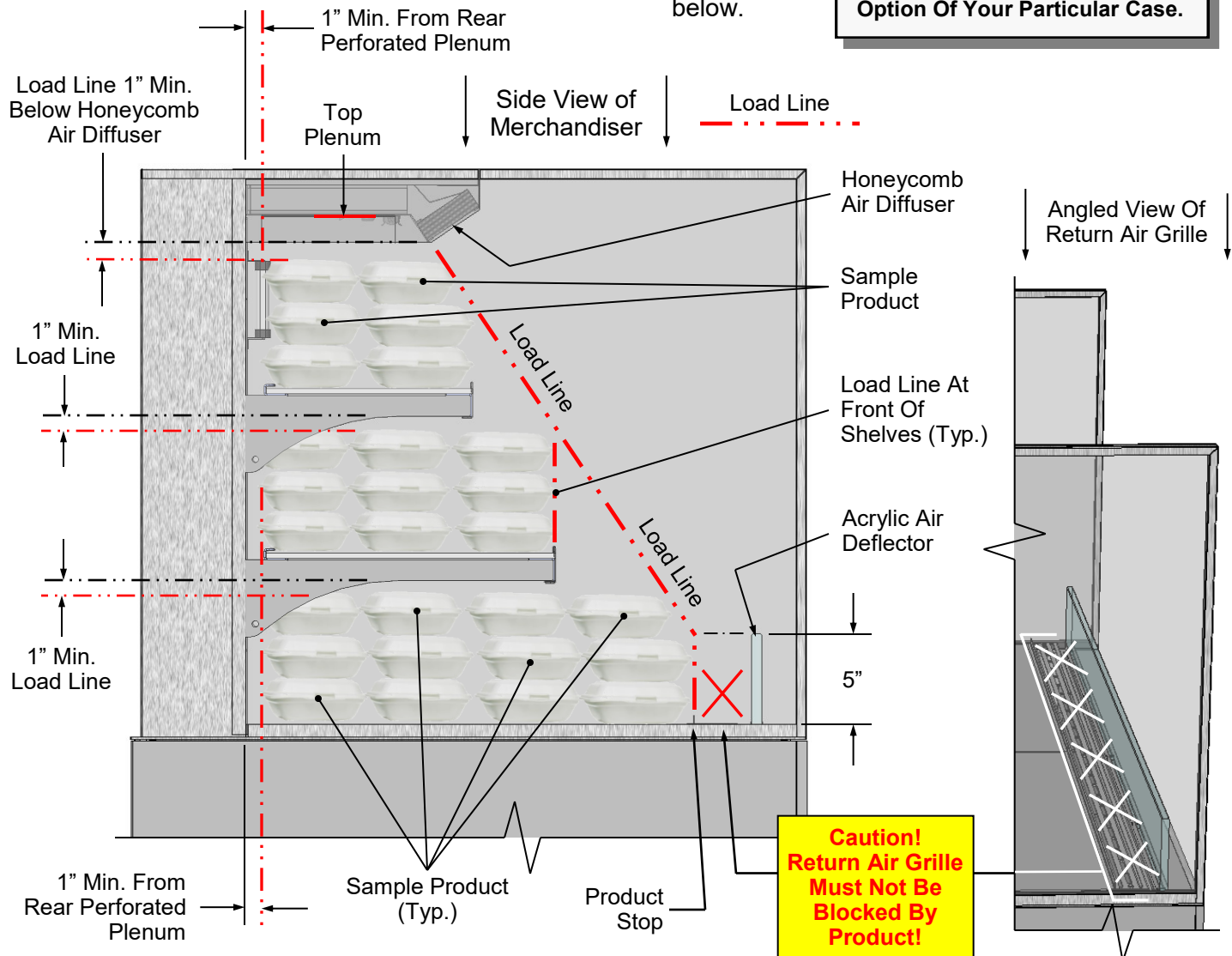
### 2. Honeycomb Airflow Consideration

- Airflow from honeycomb air diffuser is designed to flow over (and around) product to return air grille at case front.
- Caution! You must keep the honeycomb air diffuser unblocked by product for airflow to reach return air grille.
- Caution! You must ALSO keep product OFF return air grill at case front (as illustrated below).

### 3. Load Lines

- Load lines limit where product can be placed and/or stacked in case.
- Do not allow product to break load line between honeycomb air diffuser and return air grille.
- Do not stack product nearer than 1" to underside of honeycomb air diffuser.
- Do not stack product nearer than 1" to underside of shelves.
- Do not stack product nearer than 1" from rear plenum.
- Do not stack product on return air grille.
- Do not allow product to hang over front of shelves.
- Do not allow product on decks to hang over product stop.
- See illustration below.

**Note: Model Shown May Not Reflect Every Feature Or Option Of Your Particular Case.**



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

FREQ.	INSTRUCTIONS
Daily	<b>Glass Surfaces:</b> Clean side glass 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 (Sneeze Guard/Optional Security Cover and/or Perforated Plenums):</b> <ul style="list-style-type: none"> <li>• <b>Clean:</b> 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. To avoid damaging acrylic: <ul style="list-style-type: none"> <li>• <b>NEVER</b> use window or household cleaners (e.g. Windex®, Formula 409®, fantastik®, etc.</li> <li>• <b>NEVER</b> use scouring compounds or solvents such as acetone, gasoline, alcohol, WD-40®, 111 trichloroethylene, or lacquer thinner.</li> <li>• <b>NEVER</b> use cleaner with degreasers!</li> </ul> </li> <li>• <b>Rinse:</b> Use pure water in spray bottle to rinse.</li> <li>• <b>Dry:</b> Use soft, clean cloth (rather than abrasive paper towel).</li> <li>• <b>Polishing:</b> Buff with light coat of automobile paste wax or plastic cleaner/polish.</li> <li>• <b>Scratches:</b> 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; <b>Remote units:</b> Remove lower rear panel (and/or front panel) and clean as directed below.</li> <li>&gt; <b>Self-contained units/moving case:</b> 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 SKID</b> section in manual for instructions. Slide/roll case out of current position. Clean as directed below.</li> <li>&gt; <b>Self-contained units/stationary case:</b> Remove lower grille (at intake side); slide condenser package out from under case. <b>Optional:</b> remove panel that is opposite lower grille. Clean as directed below. <ul style="list-style-type: none"> <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> </li> </ul>



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

FREQ.	INSTRUCTIONS
Quarterly	<p><b>Condensing Coil:</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>Condenser Package:</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><b>Warning! Condensate pan may be HOT! Disconnect power from case and allow to cool before cleaning condensate pan!</b></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>Replace air intake grille to case (no screws required).</li> </ul>
Quarterly	<p><b>Under Case Cleaning:</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>Tub Area (Evaporator Coil, Drain, Fans, Brackets, Etc.):</b>  <b>Caution! Disconnect power from case before cleaning tub, coil, fan, motor and drain area!</b></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>
Quarterly	<p><b>Honeycomb:</b> Check honeycomb air diffuser to determine if it is dirty. If dirty, remove from case. See next page for cleaning specifics.</p>

**NOTE: PREVENTIVE MAINTENANCE IS TO BE PERFORMED BY TRAINED SERVICE PROVIDERS ONLY.**

**Preventive maintenance should be performed quarterly (unless conditions warrant a more frequent replacement cycle).**

### Honeycomb Air Diffuser Removal

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

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

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

C. Pry downward & away from honeycomb retainer.

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

### Honeycomb Air Diffuser Installation

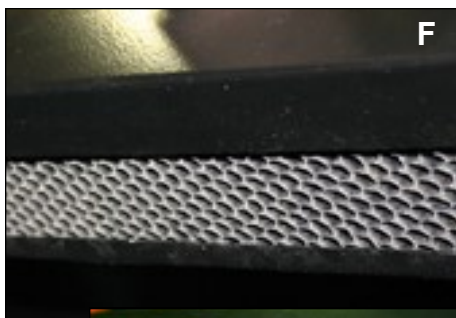
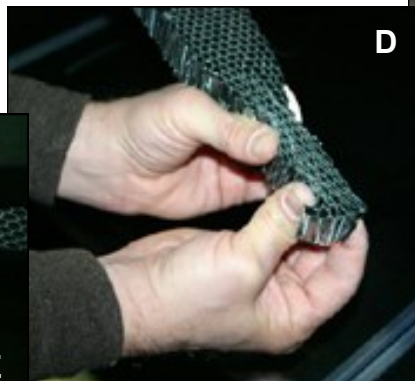
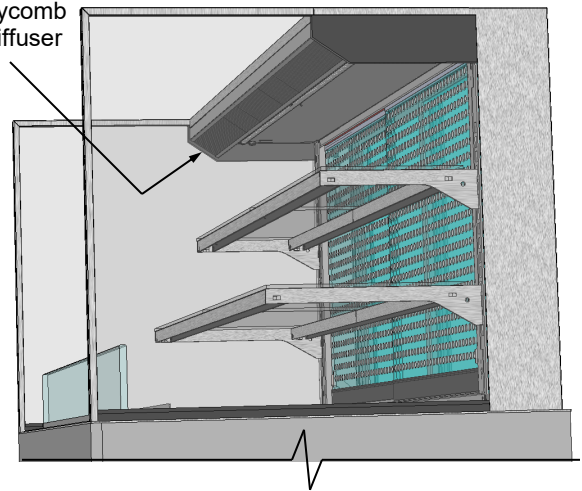
D. Squeeze honeycomb into the honeycomb retainer.

E. Carefully slide honeycomb into place.

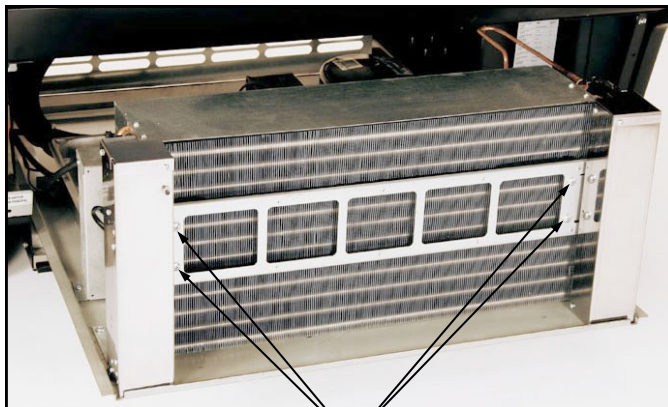
F. Adjust honeycomb so that it fits flat against retainer. It must not be wavy or out of position.

**Note: Model Shown May Not Reflect Every Feature Or Option Of Your Particular Case.**

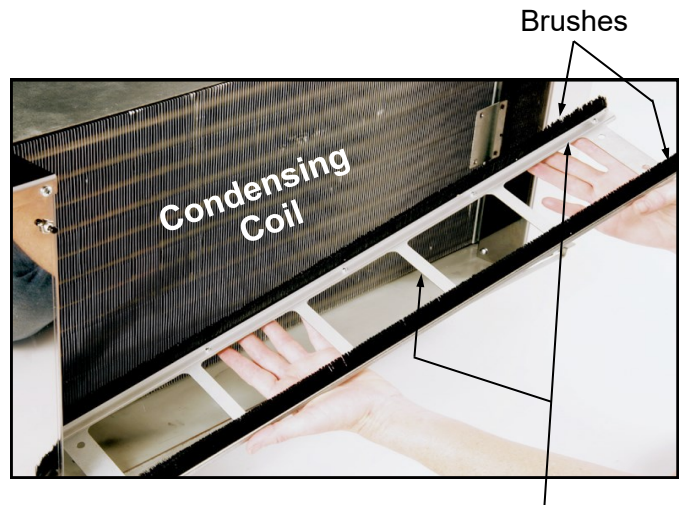
Honeycomb Air Diffuser



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



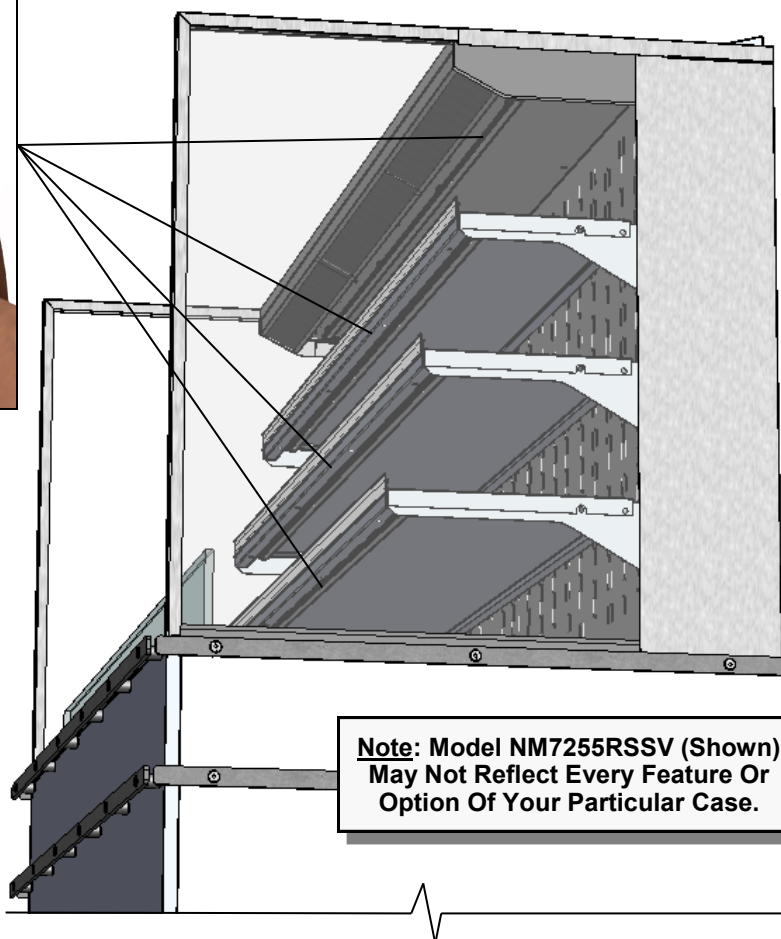
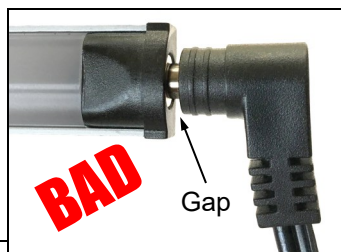
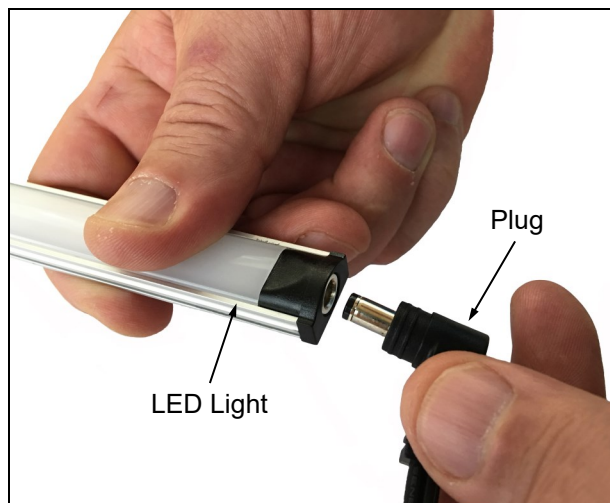
Rail

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

**Note:** Model Shown May Not Reflect Every Feature Or Option Of Your Particular 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 / NSF® TYPE / 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>	Check that light switch is in the <b>ON</b> position. <ul style="list-style-type: none"> <li>See <b>CASE DESIGN, CONT'D: LED LIGHT SWITCH LOCATIONS / 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.
	Check that ALL of the light plugs are properly connected to the LED light. <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>
	Power may not be reaching the case. <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>
	If case light still do not come on, it may need to be replaced. <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.
	Check store conditions. To prevent condensation in Type I environments, maximum conditions are to be 55% humidity / 75° Fahrenheit. For Type II environments, maximum conditions are to be 60% humidity / 80° Fahrenheit. See serial label (at case rear near main power switch) for NSF® Type of your case.
	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><i>TROUBLESHOOTING (TO BE PERFORMED BY STORE PERSONNEL)</i></b> section in manual (previous sheet) for most common troubleshooting solutions.
	<p>Check power.</p> <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 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 outside doors, temperature fluctuation can hinder unit's ability to maintain temperature.
	Check that condenser coil has been cleaned.
	<p>Check that magnetic air filter (attached to air intake grille) has been cleaned.</p> <p>See <b><i>CLEANING SCHEDULE (TO BE PERFORMED BY STORE PERSONNEL)</i></b> section in operating manual for instructions.</p>
	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.

CONDITION	TROUBLESHOOTING
<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. <i>See your case's serial label for your model's specified settings. See <b>SERIAL LABEL LOCATION &amp; INFORMATION LISTED / TECH INFO &amp; SERVICE</b> section in manual for label location, etc.</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

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

Super Heat Temp  
Defrost

**Reveal**  
**Blend**  
**Harmony**  
**Impulse**  
**Oasis**

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

MODEL NRS3648RXV-SAMPLE  
SERIAL NO. 12345X30DZ098765

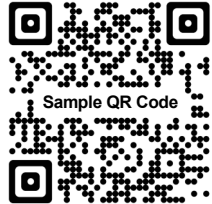
**120/1/60 16 A**  
**R513A AMOUNT 50 OZ**  
**HIGH 186 LOW 88**  
**20A**  
**20A**

ELECTRICAL RATING  
REFRIGERANT  
DESIGN PRESSURE  
MINIMUM CIRCUIT AMPACITY  
MAXIMUM OVERCURRENT

6-8 °F  
6 defrosts per day, 45 °F

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

SCAN FOR PRODUCT LITERATURE



Sample QR Code

SAMPLE ONLY

SAMPLE ONLY

SAMPLE ONLY

SAMPLE ONLY

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

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





**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**



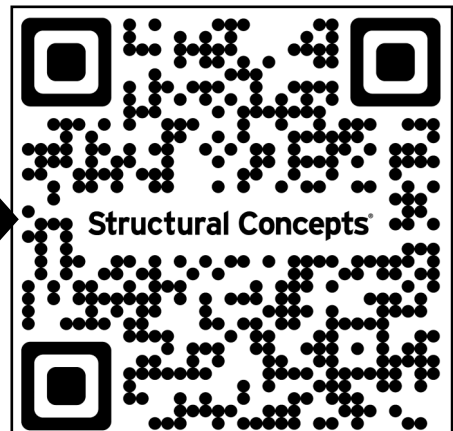
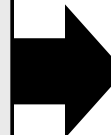
**Carel® iJF Platform**



**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.

