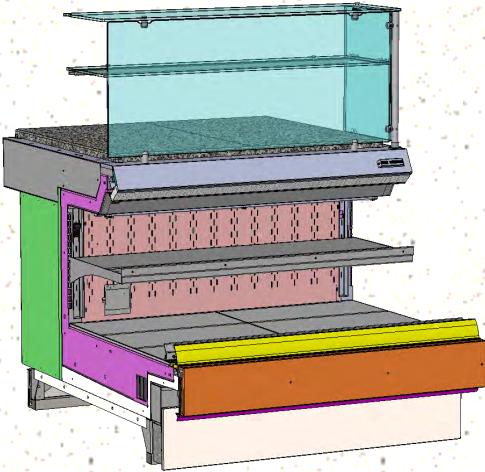


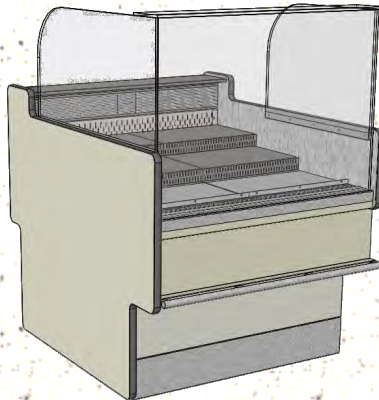
G-SERIES

INSTALLATION AND OPERATING MANUAL P/N 20-00045

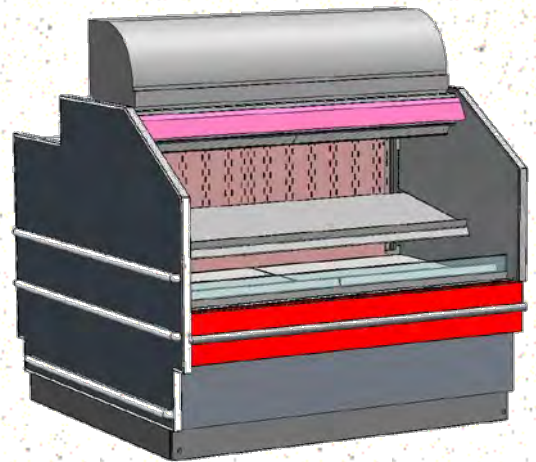
- > REFRIGERATED SELF-SERVICE SALAD/SANDWICH /BEVERAGE (GRAB-N-GO)
- > REFRIGERATED SELF-SERVICE GRAB-N-GO FRONT SECTION WITH HEATED SERVICE PIZZA DISPLAY



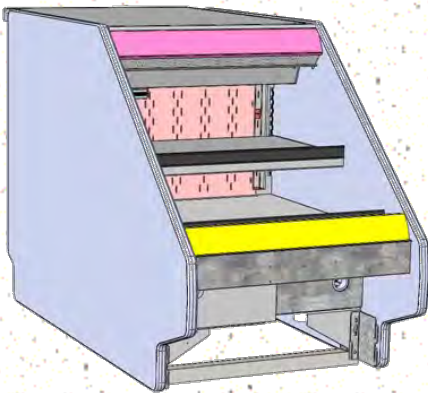
Model GP440RHLB.5574



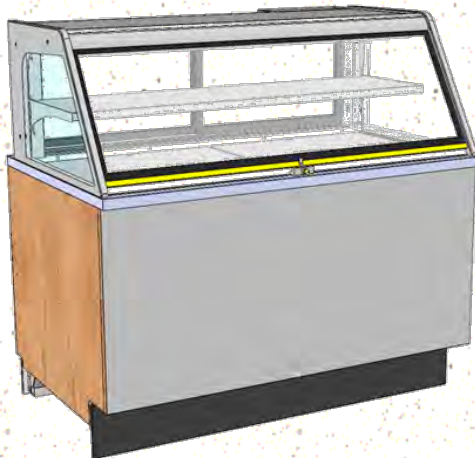
Model GP340DRLB.5580



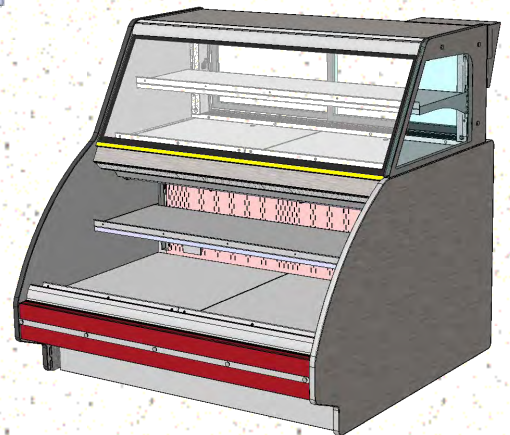
Model GP441RG.6122 /
GP441RRC.6122.6527 (With Upper
Display Refrigeration Unit)



Model GP236DRLB (Front Panel
To Be Attached As Part of Lineup)



Model CDR5745A



Model GP540RRLB.5571B

Note: See MODEL APPLICABILITY section for a list of models represented by this operating manual.



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MODEL APPLICABILITY

THIS OPERATING MANUAL IS APPLICABLE TO THE FOLLOWING MANUALS*

CDR5745	GP540RRLB.5571B
CDR5745A (Service Panini With Dome)	GP540RRLB.5572C
GP236DRLB & GP340DRLB.5580 (Dry Top/ Lower Base)	GP540RRLB.5572CC
GP440RRLB.5571	GP541RR.5692
GP440RHLB.5574	GP640DRLB.5580A (LB = Lower Base)
GP440RRLB.5572DD	GP640RRLB.5572AA
GP441RG.6122 and GP441RRC.6122.6527 (Grab-N-Go Case With Self-Contained Refrigeration Atop)	GP840RRLB.5572BB (LB = Lower Base Units)
GP441RR	GP641RRLB.6807C
	GP84055RLB.6676A
	GP841RRLB.6806D
	GP104055RRLB.6676C

* Please Note: This manual may ALSO be utilized on models that ARE NOT listed on this sheet.

OVERVIEW

- **Front Case Main Display Area:** These cases are designed to merchandise pre-chilled packaged food and beverage products at 41 °Fahrenheit / 5 °Celsius or less product temperatures.
- **Rear Drawers and Condiment Pans:** These areas are *also* designed to merchandise pre-chilled packaged food and beverage products at 41 °Fahrenheit / 5 °Celsius or less product temperatures.
- **Models with temperature variations:** Certain customer-specific models may designate a 38 °F / 3.3 °C or less product temperature (for BOTH front case main display area & rear drawers/condiment pans areas).
- Product must be pre-chilled to your unit's required temperature being placed in refrigerated area of case.
- For heated service display areas, product must be pre-heated to at least 150 °F / 66 °C or higher prior to being placed in unit.
- These units are "barista serve unpackaged food" and "customer self-serve packaged food and drink" cases.

- Cases should be installed and operated according to this operating manual's instructions to ensure proper performance. Improper use will void warranty.
- Merchandising capabilities meet the required standards for maintaining proper refrigerated food temperatures and sanitation.

TYPE 1 Units

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

As this unit is manufactured for Type 1 conditions, ambient conditions are to be at 55% maximum humidity and maximum temperatures of 75 °F (24 °C).

COMPLIANCE

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



**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

**Units With Heated Surface (Stone) Pizza Display Areas Are Hot!
Allow to cool before cleaning.**



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.

PRECAUTIONS

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

WIRING DIAGRAM

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

POWER CORD AND PLUG MAINTENANCE

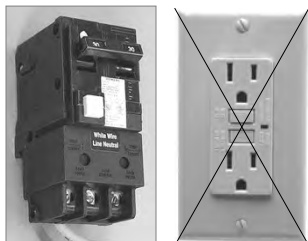
- Caution! Risk of electric shock.
- If cord or plug becomes damaged, replace only with cord and plug of same type.

REFRIGERANT DISCLOSURE STATEMENT

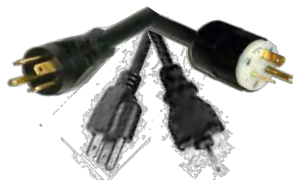
- This equipment is prohibited from use in California with any refrigerants on the "List of Prohibited Substances" for that specific end-use, in accordance with California Code of Regulations, title 17, section 95374.
- This disclosure statement has been reviewed and approved by Structural Concepts and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



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



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



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



CAUTION! ADVERSE CONDITIONS / SPACING ISSUES

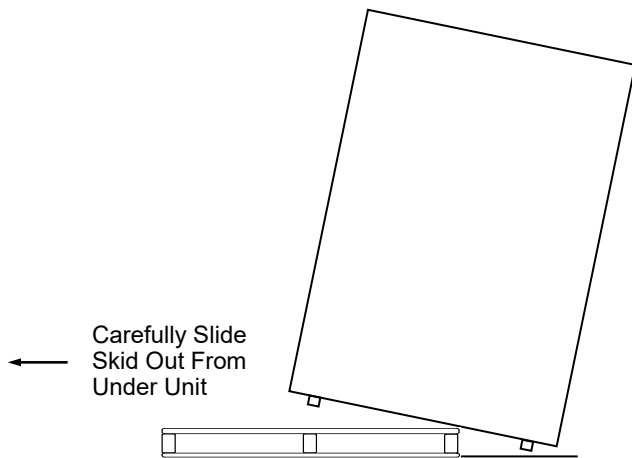
- Performance issues caused by adverse conditions are **NOT** covered by warranty.
- End panels must be tightly joined or kept at least **6-inches** away from any structure to prevent condensation.
- Unit must be kept at least **15-feet** from exterior doors, overhead HVAC vents or any air curtain disruption to maintain proper temperatures.
- Unit must not be exposed to direct sunlight or any heat source, etc.).

**INSTALLATION /
SETUP / STARTUP /
THERMOMETER /
LIGHTING /
EVAPORATOR COIL
FAN DISCHARGE,
TXV LOCATION, ETC.**

INSTALLATION: SKID REMOVAL / ALIGNING CASE / FRAME SUPPORT RAILS

1. Remove Unit From Skid

- **Caution!** To prevent damage, support case while sliding skid out from under case.
- **Note:** Illustration below reflects general outline of sample case and does not reflect any particular model or options).

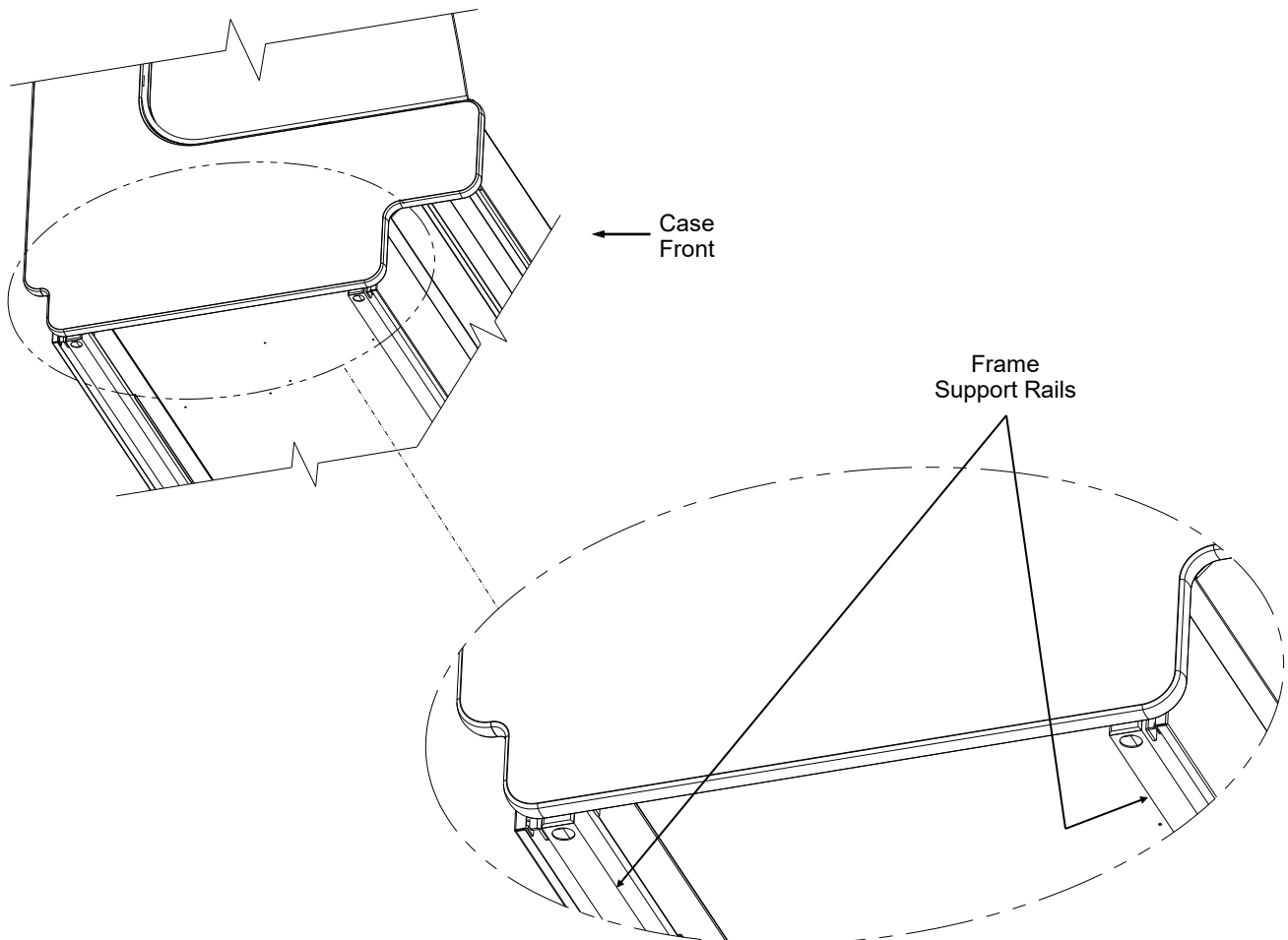


2. Position & Align Case Alongside Others

- Before adjusting levelers, make certain that the case is in proper position and, if required, aligned with adjoining case(s).
- This may require repositioning of the case you are installing or the already positioned case.

3. Frame Support Rails

- Illustration below shows case with frame support rails (sample case - may not exactly reflect your particular model).
- Shims will be provided with all cases that have frame support rails.
- Use shims to level case.
- **Note:** After case is in position, it must be sealed to floor to prevent entry or leakage of liquid or moisture.



CASE START-UP / THERMOMETER FUNCTION & LOCATION

1. Case Start-Up

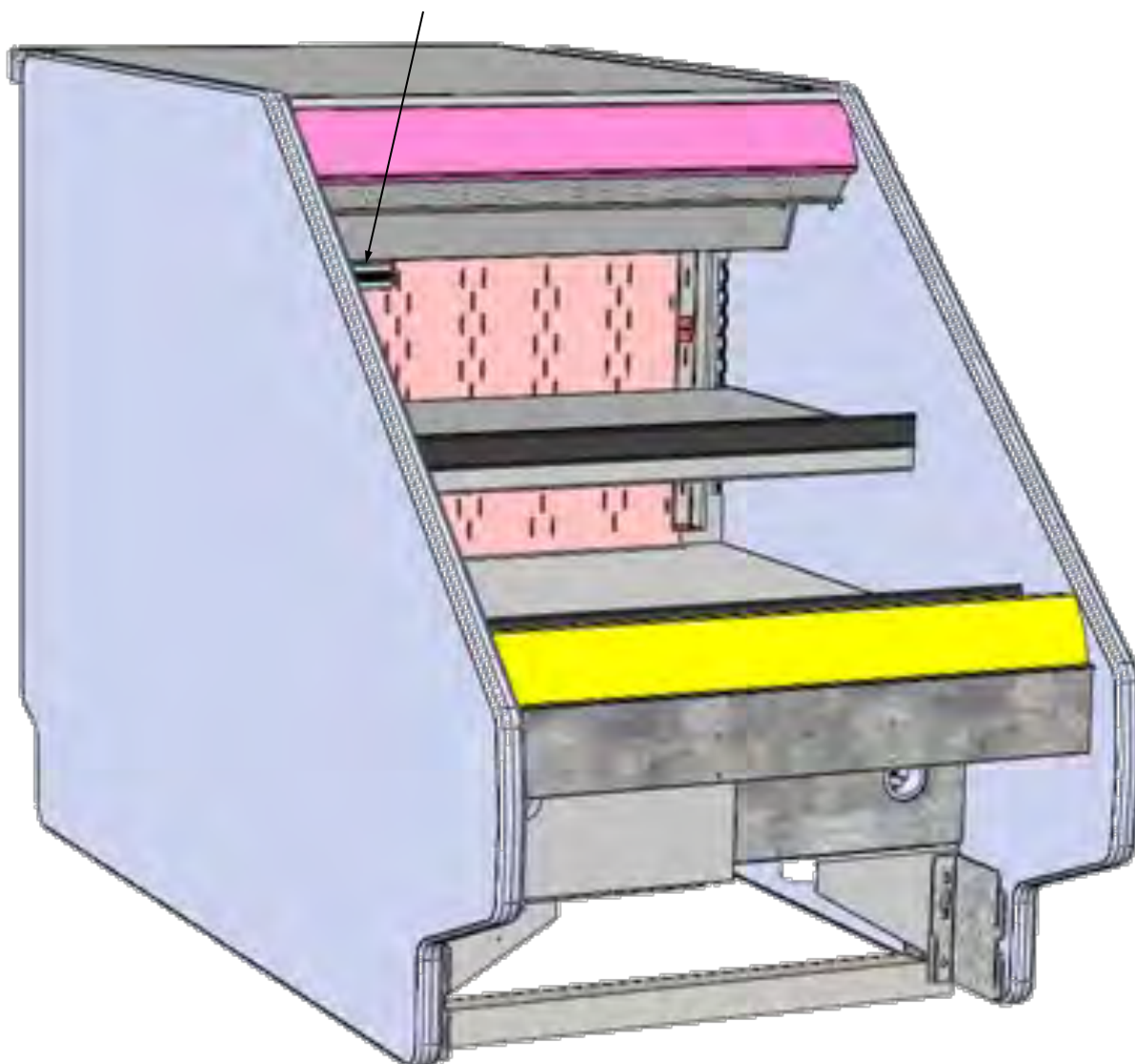
- Case will energize when properly field-wired.
- Refrigeration system will supply cold air to rear drawers, rear door compartment and front grab-n-go section upon being energized.
- Front refrigerated section shown below. Light switch (if any) will turn on light at front of case.
- When properly field-wired, coil fans should turn on. From inside of the case, check for discharge air from the air diffusing honeycomb to confirm that fans are functioning properly. See next page for honeycomb location.
- When case is in start-up mode (or has been idle

for a long period of time), unit requires 75 minutes of run time to pull-down temperature.

2. Thermometer Function & Placement

- A. Thermometers may provide temperature to separate areas in the case.
- B. Thermometers reflect warmest air temperature in merchandiser. They do not provide actual food temperature.
- C. Use probe thermometers to determine actual product temperatures.

Thermometer to
Refrigerated Front
Grab-N-Go Section



LED LIGHT REMOVAL/REPLACEMENT, PLUG/CORD POSITIONING, PROPER PLUG INSERTION

1. LED Style Light Fixtures

Removal of Faulty LED Lights:

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

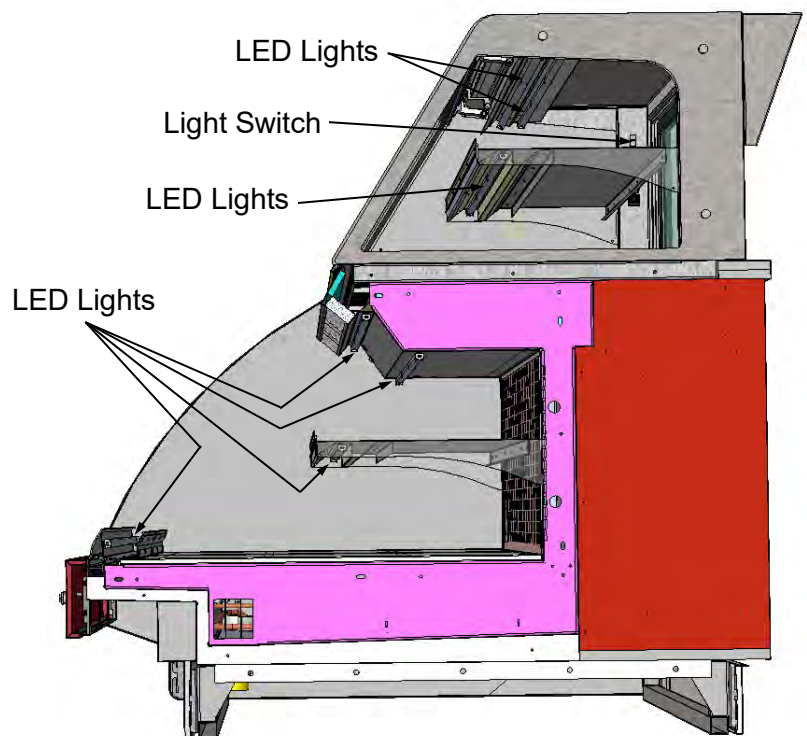
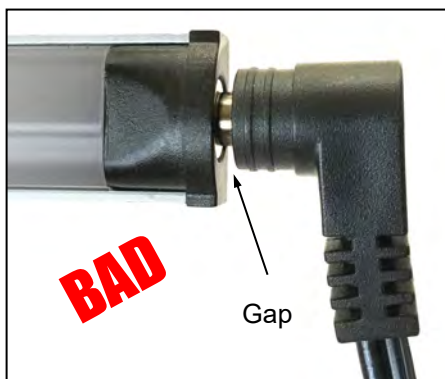
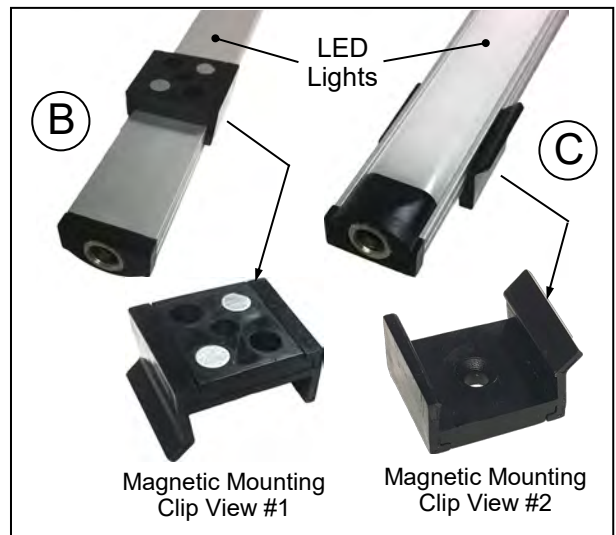
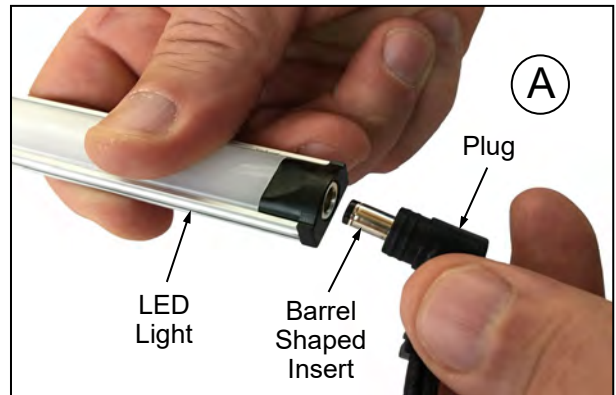
>> **Note:** Mounting clips **MAY** be riveted to shelf or header. In such instances, simply remove LED light from mounting clips by pressing against flange part of clips with thumb.

Replacement of LED lights:

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

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

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



FLUORESCENT LIGHT REMOVAL/REPLACEMENT (FLUORESCENTS ONLY)

Light Fixture

Removal of lamp:

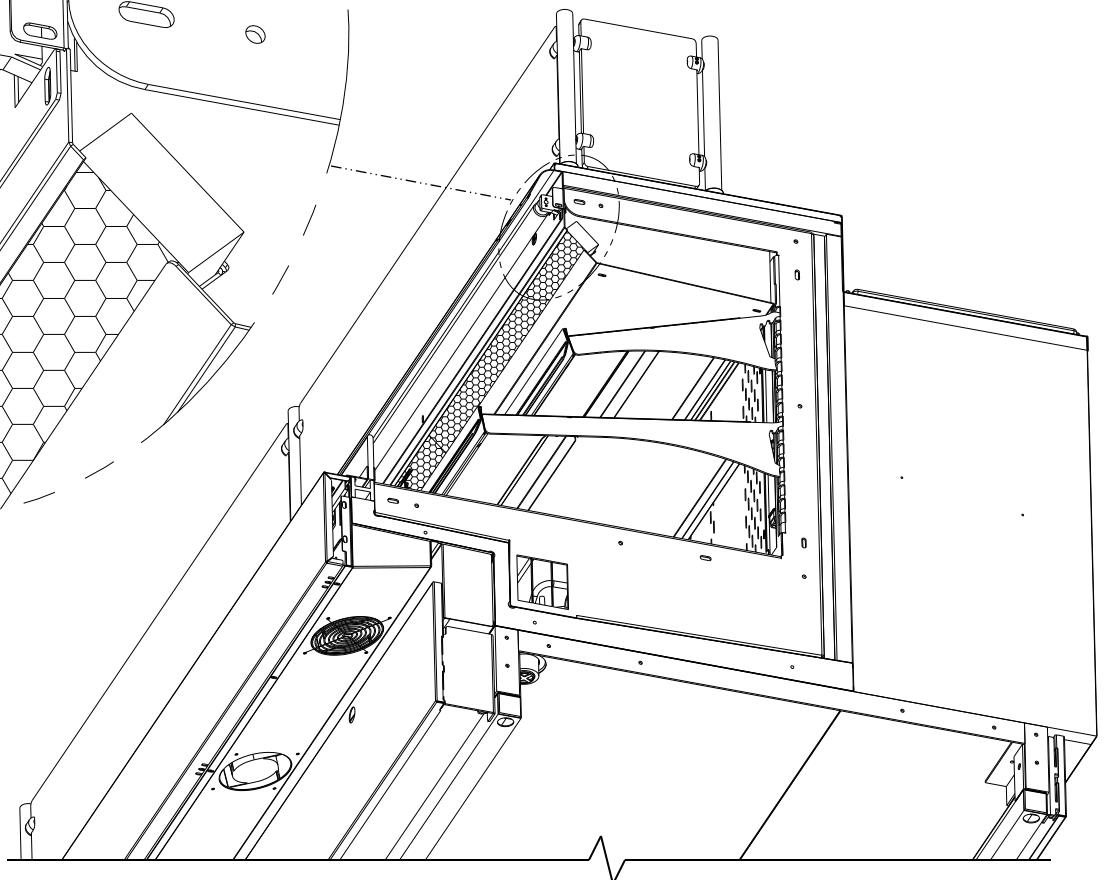
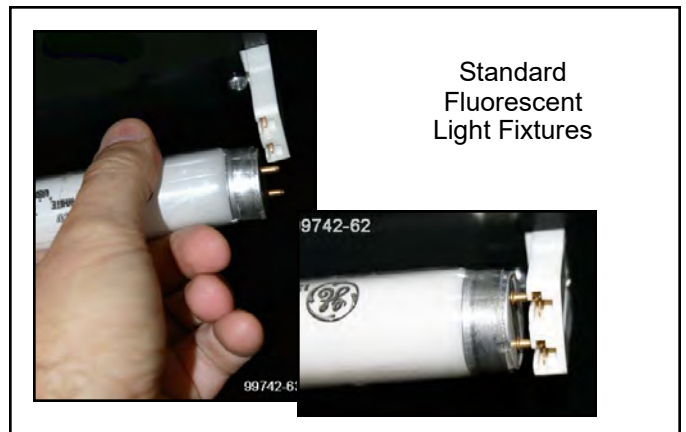
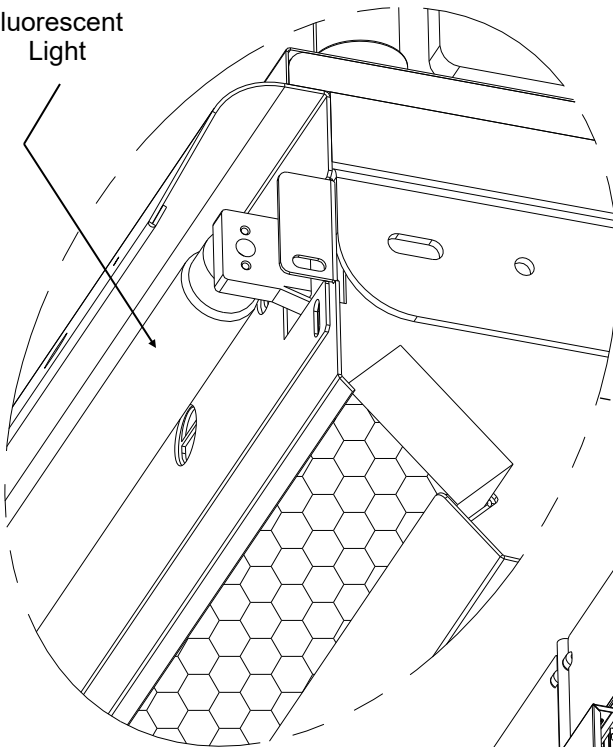
- Rotate lamp (1/4-turn) either direction to disengage (upper or lower) pins/contacts from lamp mounting sockets.
- Remove bulb by applying even pressure from the back side at the bulb ends and pulling the remaining contact from the sockets.
- See illustration at below-left.

Installation of lamp:

- Align pins with slot.
- Insert pins into socket by rotating the bulb 1/4-turn to secure either the (upper or lower) pinned contacts into the sockets.
- Rotate the remaining bulb contacts (1/4 turn) into the remaining lamp mounting socket contacts.
- See illustration below.

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

Fluorescent
Light



DECKING, EVAPORATOR COIL FAN DISCHARGE, TXV LOCATION

1. Coil Fan Discharge

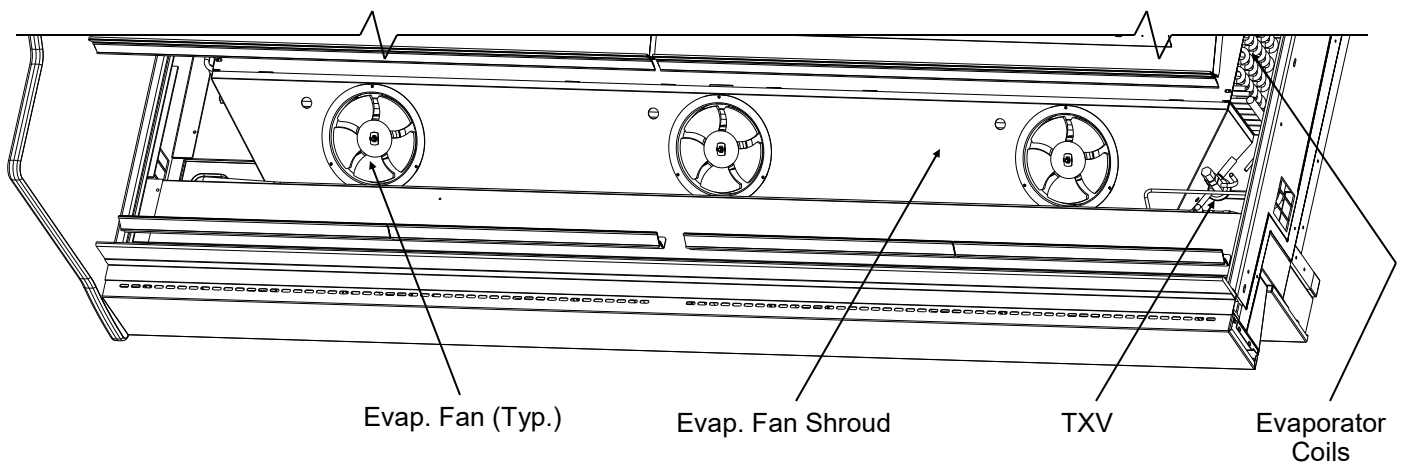
When Main Power Switch is turned on, refrigeration section will energize (see **CASE START-UP** section in this manual).

- Evaporator coil fans should turn on. From inside of the case, check for discharge air from fans to confirm that they are functioning properly.
- When the case is in a start up mode or has been idle for a long period of time, the unit will require 75 minutes of run time to pull-down temperature.
- See below illustration.

2. TXV (Thermostatic Expansion Valve)

- TXV is under access panel (at customer front-right of case).
- Decking must be removed for access.
- See illustration below for location.
- Note: Partially disassembled view below shown for illustrative purposes only.

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



View of Case With Decking and End Panel Removed for Illustrative Purposes Only

**GENERAL LAYOUT OF
VARIOUS MODELS
(WIDE RANGE OF
COMPONENTS,
THERMOSTATS,
THERMOSTAT PROBES,
ELECTRICAL BOXES,
TRANSFORMERS,
THERMOMETER, FIELD
SENSORS, SCALE
STANDS, CAT-5 ETC.)**

1. Thermometer Probe Location - Front Section

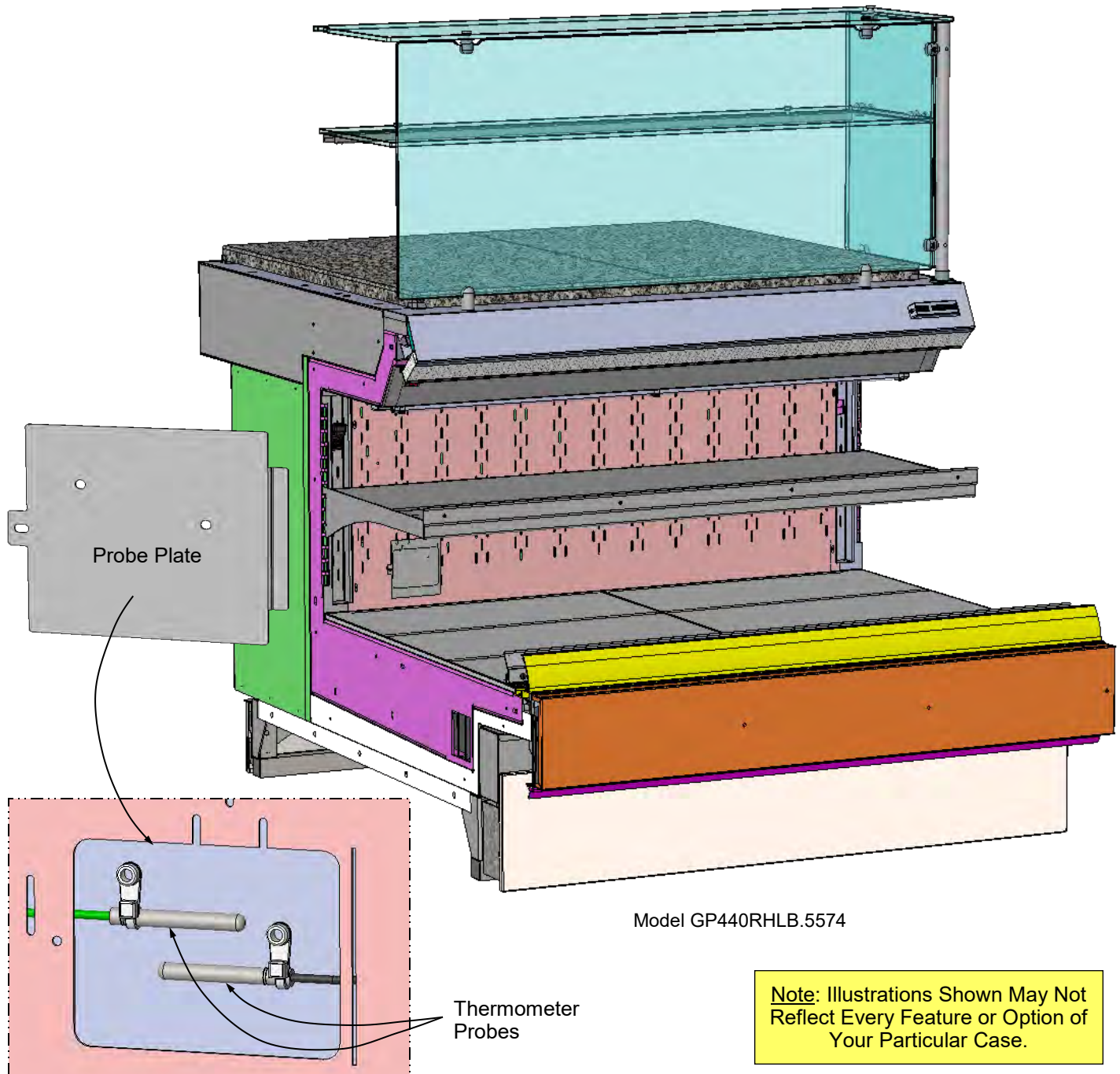
View below reflects partially disassembled case (for illustrative purposes only).

- Thermometer probes are positioned either vertically or horizontally. See approximate location in illustration below.
- Thermometer probe is to be attached by spacer and screw assembly.

- Spacer allows probe to garner accurate temperature readings and transmit to thermometer.

2. Thermometer Notes

- Note 1: Thermometers reflect warmest air temperature in merchandiser. They do not provide actual food temperature.
- Note 2: Use probe thermometers to determine actual product temperatures.

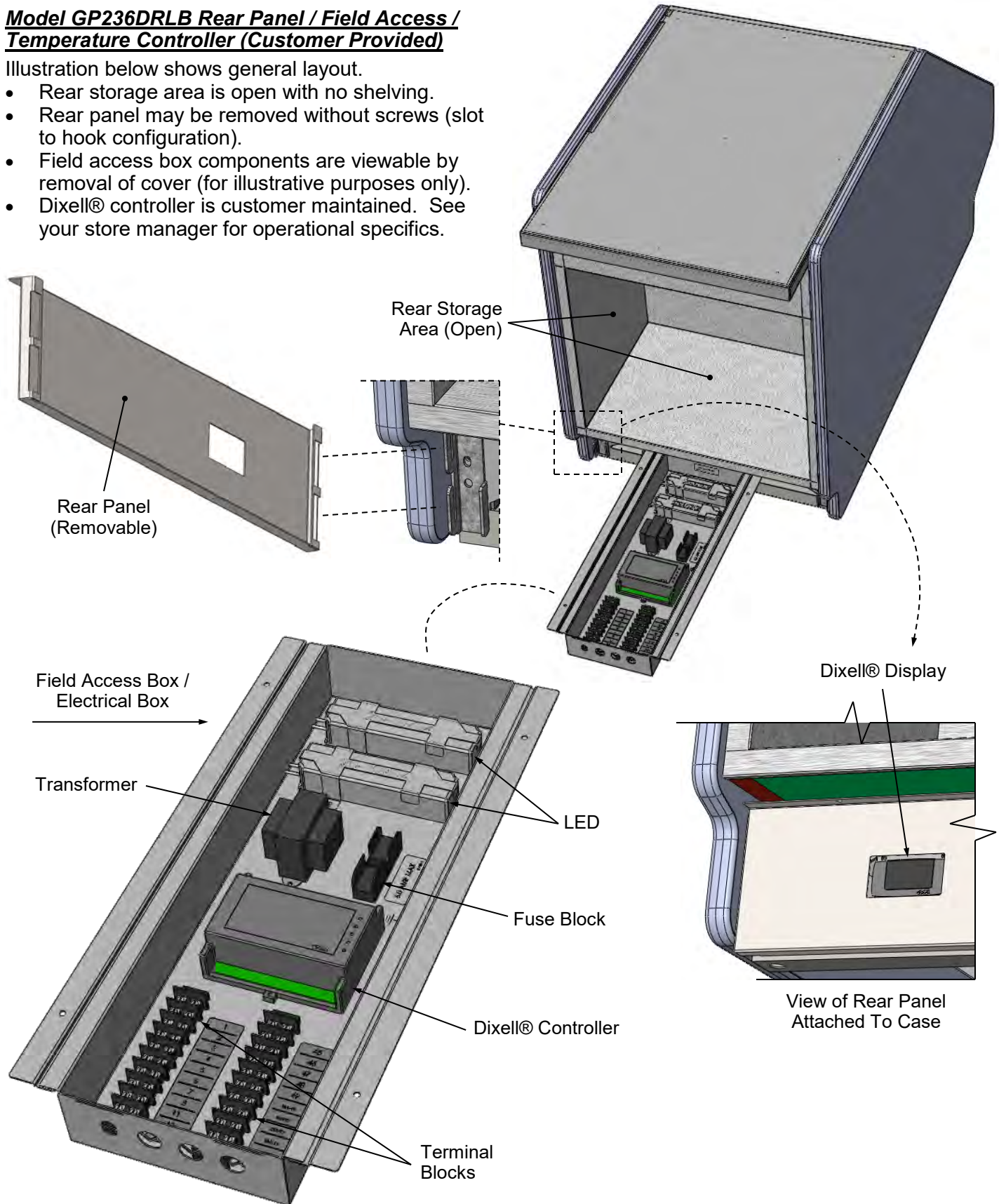


MODEL GP236DRLB (DRY TOP UNIT) - REAR PANEL / FIELD ACCESS BOX / TEMP. CONTROLLER

Model GP236DRLB Rear Panel / Field Access / Temperature Controller (Customer Provided)

Illustration below shows general layout.

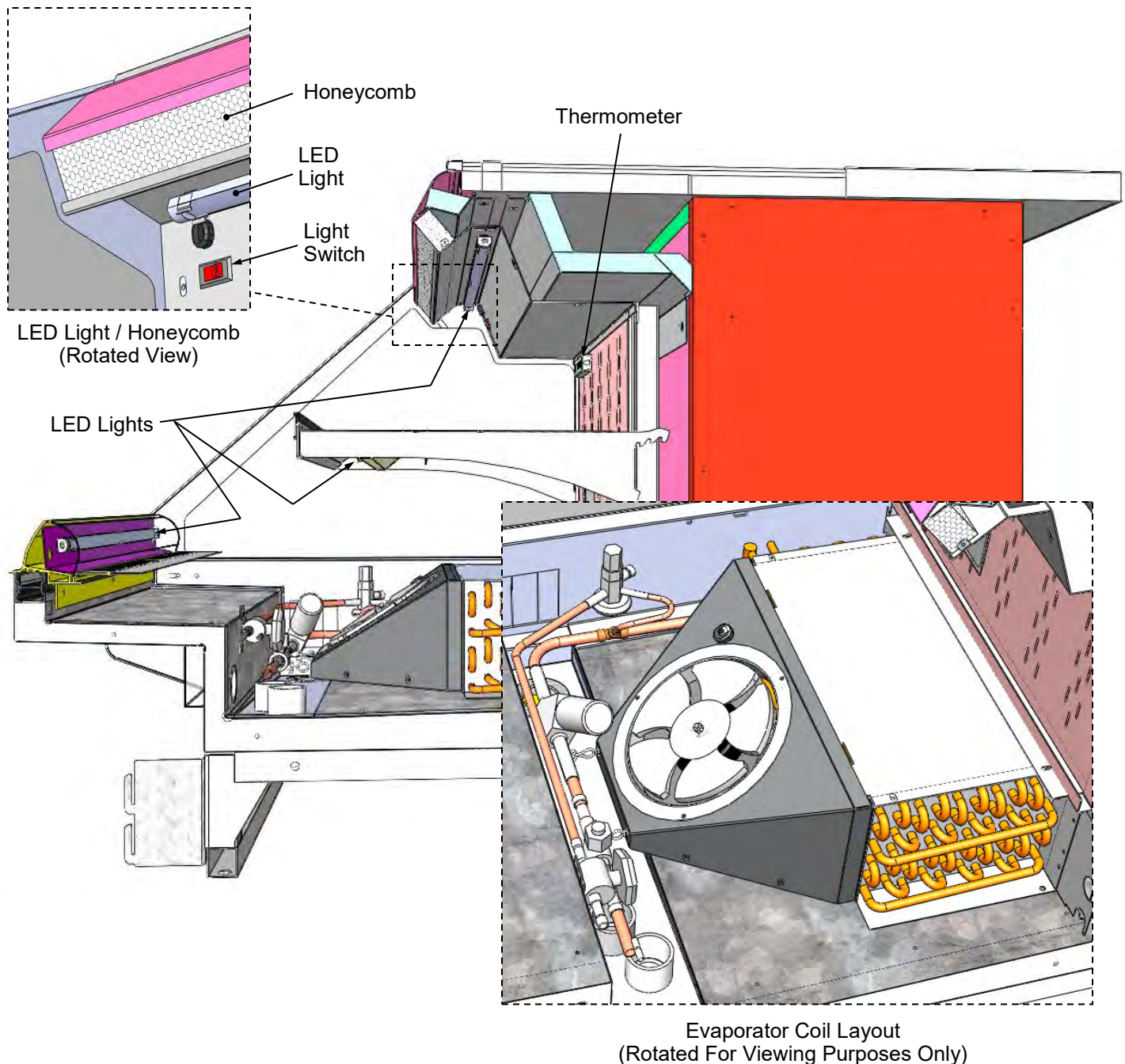
- Rear storage area is open with no shelving.
- Rear panel may be removed without screws (slot to hook configuration).
- Field access box components are viewable by removal of cover (for illustrative purposes only).
- Dixell® controller is customer maintained. See your store manager for operational specifics.



Model GP236DRLB LED Lights / Thermometer / Honeycomb / Evaporator Coil

Illustration below is shown with end panel and deck pan removed for illustrative purposes only.

- LED lights are at nose, shelf and upper section (behind honeycomb).
- Light switch is at upper left below thermometer.
- Thermometer reflects warmest air temperature in merchandiser. They do not reflect actual food temperature. Use probe thermometers to determine actual product temperatures.
- See ***MAINTENANCE FUNDAMENTALS - HONEYCOMB AIR DIFFUSERS*** section in this operating manual for honeycomb cleaning specifics.
- Evaporator coil layout is shown rotated for layout purposes.



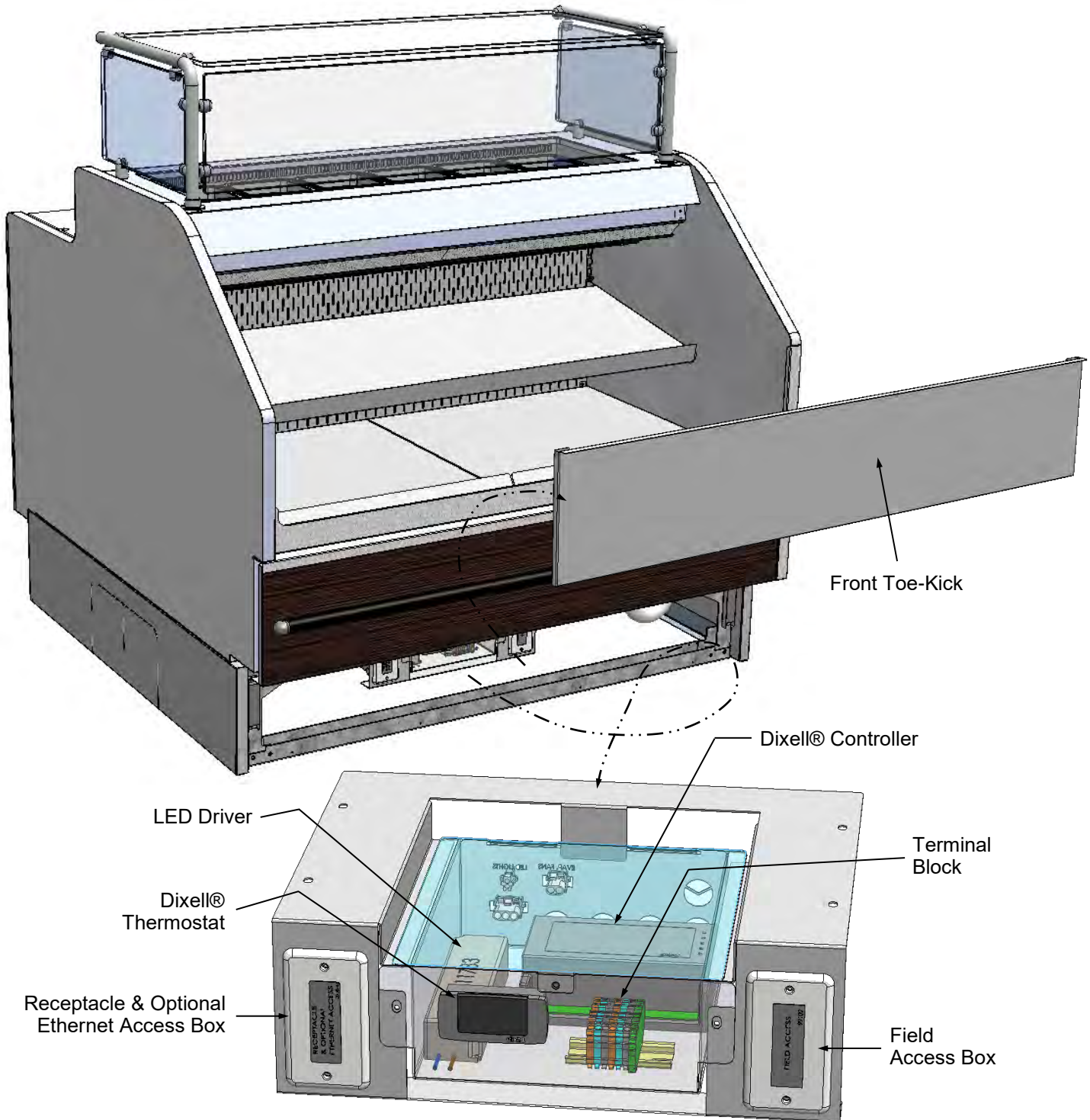
MODEL GP441RRC.6122.6527 - ELECTRICAL BOX (FIELD ACCESS / ETHERNET / THERMOSTAT, ETC.)

Model GP441RRC.6122.6527 Electrical/Field Access / Ethernet Access Box / Thermostat, Etc.

Illustration below shows general layout.

- Front toe-kick (held in place with magnets) may be removed by simply lifting up and off.

- Electrical box contains wide range of electrical components .
- Electrical box may be slid outward (toward front of case) to access electrical components.
- Dixell® controller is customer maintained. See your store manager for operational specifics.



MODEL GP540RRLB.5571B (SIMILAR TO GP440RRLB.5571) - OVERVIEW OF CASE FRONT

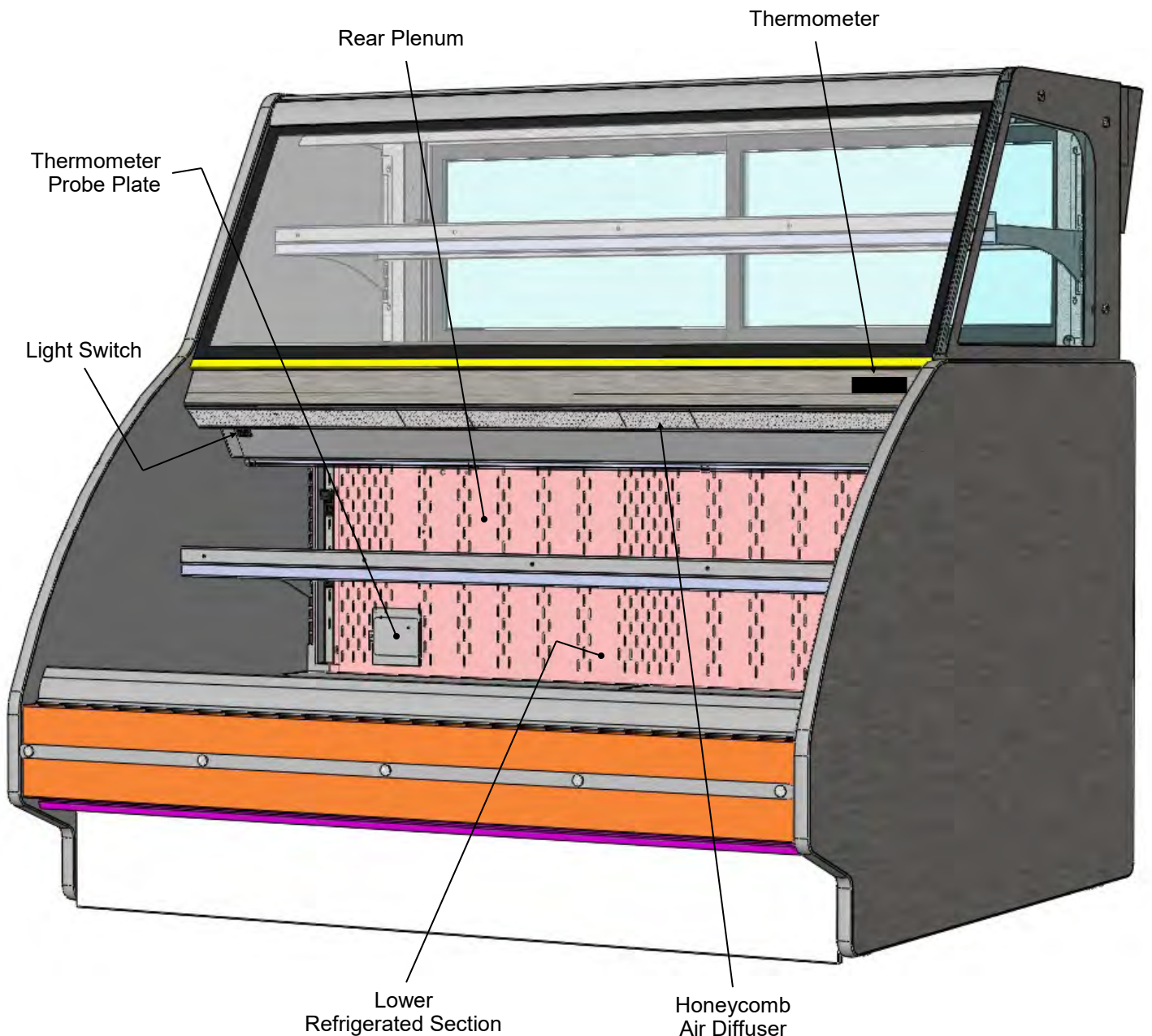
1. Thermometer Probe Location - Front Section

View below shows location of probe plate.

- Probe is positioned behind protective plate.
- See approximate location in illustration below.
- Thermometer probe is attached by spacer and screw assembly.
- Spacer allows probe to garner accurate temperature readings and transmit to thermometer.

2. Thermometer

- Thermometer is located at front-right (as shown in illustration below)
- Note 1: Thermometers reflect warmest air temperature in merchandiser. They do not provide actual food temperature.
- Note 2: Use probe thermometers to determine actual product temperatures.



MODEL GP540RRLB.5571B (SIMILAR TO GP440RRLB.5571) - OVERVIEW OF CASE REAR

1. Scale Stand and Outlet

- Scale stand and outlet provides support and electrical means for scale.
- Caution! Use only approved plug for outlet.

2. Rear Sliding Doors

- Rear sliding doors are removable for cleaning and/or serving.

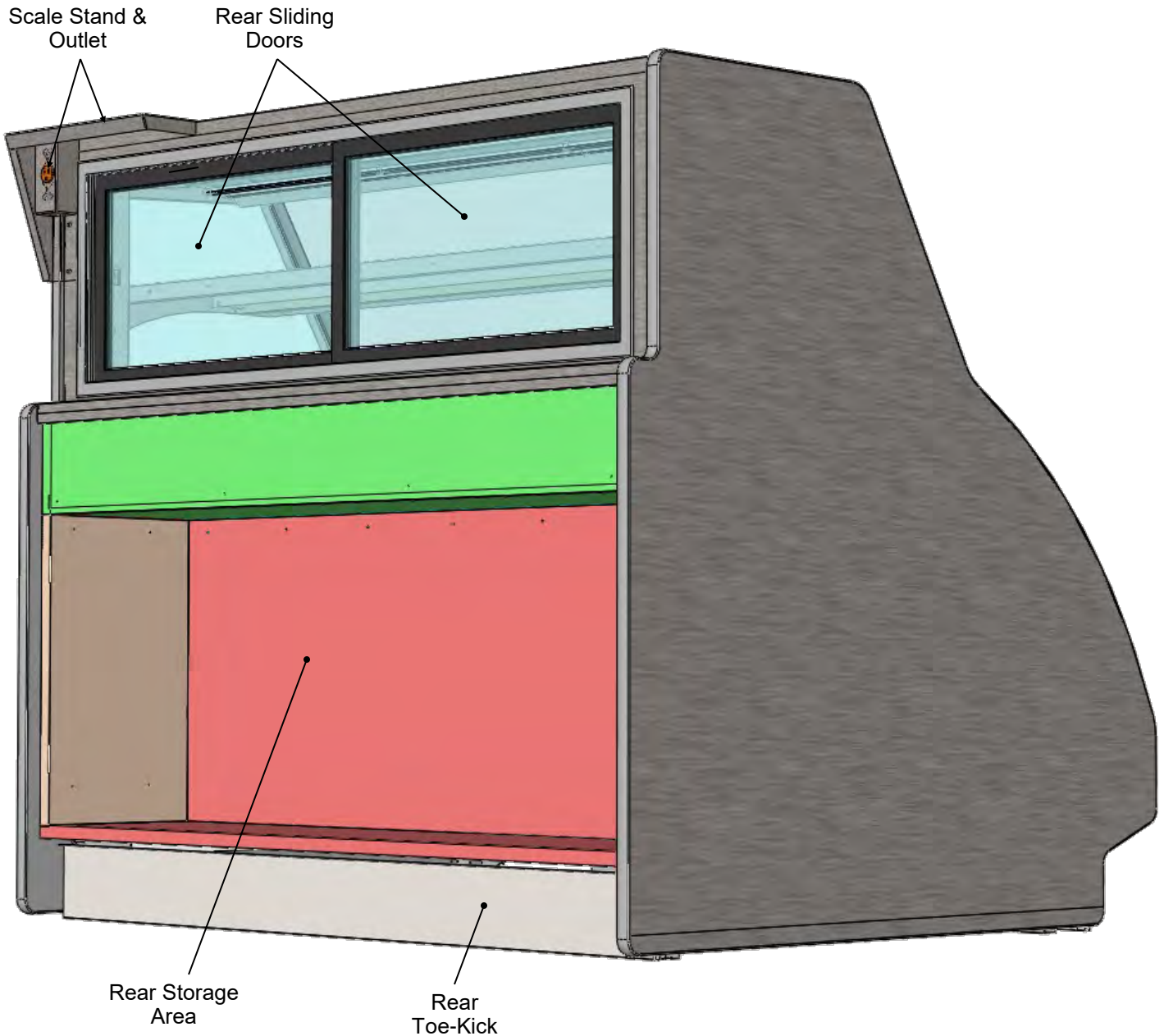
- Use care when removing from case to prevent glass breakage.

3. Rear Storage Area

- Rear storage area may be used for storing store supplies.
- See cleaning section in manual.

4. Rear Toe-Kick

- Rear toe-kick may be removed by lifting up and off.
- No screw removal is required.



1. Adjustable Shelving

- Upper shelving can be tipped downward either 5° or 10° for display purposes.
- Lower shelving may either be tipped downward OR raised or lowered (by simply removing and placing in notches above or below).

2. Air Discharge/Crumb Tray

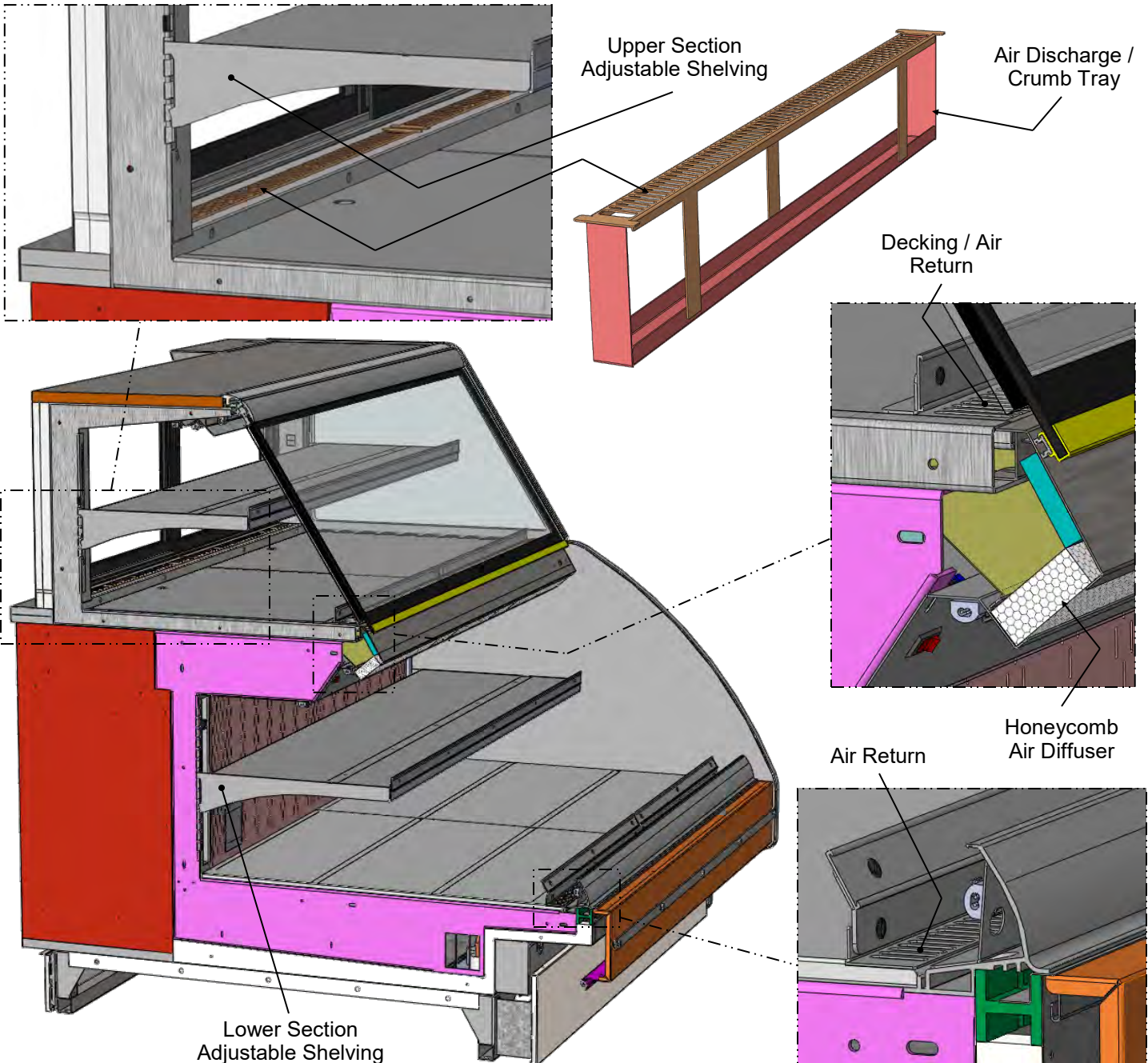
- Air discharge crumb tray can be lifted up and out to empty crumbs and residue.

3. Decking/Air Return

- Decking/Air return must remain free from product.
- Do not place product on this area as it will prevent proper airflow and prevent proper cooling of case.

4. Honeycomb Air Diffuser

- Honeycomb air diffuser can be removed for cleaning and/or replacement.
- See **MAINTENANCE FUNDAMENTALS - HONEYCOMB AIR DIFFUSERS (SERVICE TECHNICIANS ONLY)** section in this manual.



1. LED Lights

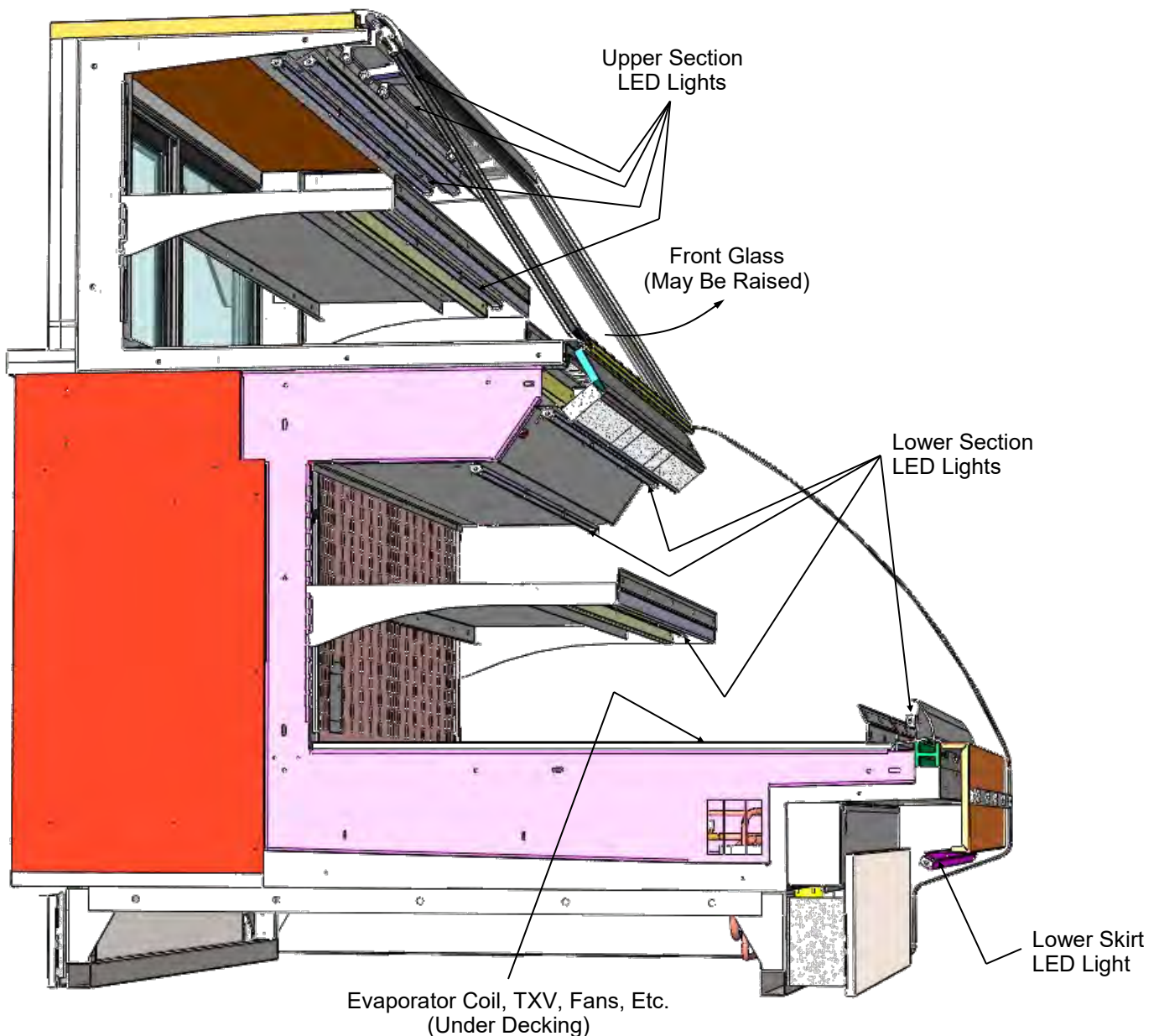
- Model GP540RRLB.5571B has LED lights only (no fluorescent lights).
- Lights may be removed for servicing and/or replacement.
- See **LED LIGHT REMOVAL/REPLACEMENT, PLUG/CORD POSITIONING, PROPER PLUG INSERTION** section in manual for specifics on care and maintenance.

2. Front Glass

- Caution! Only authorized service personnel are to access front glass!
- Front glass may be raised for cleaning or servicing.

3. Evaporator Coil, TXV (Thermostatic Expansion Valve), Fans, Etc.

- Caution! Only authorized service personnel are to access area under deck!
- Rotating fans can cause injury!

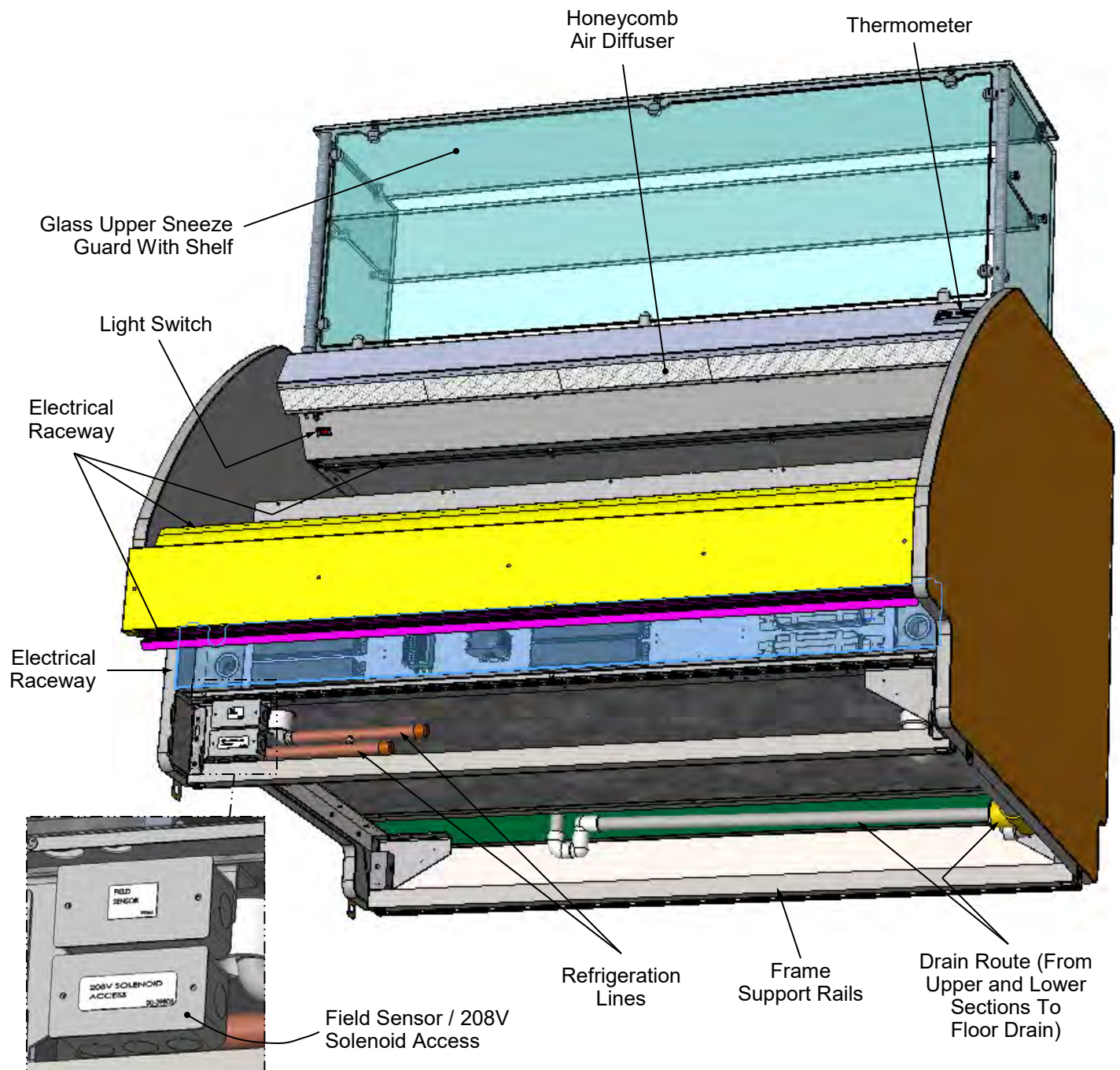


MODEL GP540RRLB.5572C - OVERVIEW OF CASE

Model GP540RRLB.5572C Overview of Case

View below shows general layout of:

- Glass upper sneeze guard (and its glass shelf)
- Thermometer for upper section. Note: Lower section thermometer is located on rear plenum.
- Probe (positioned behind protective plate on rear plenum).
- Light switch (located at front-left, just below honeycomb).
- Frame support rails.
- Field sensor box.
- 208V solenoid access box.
- Floor drain (from both upper and lower sections).
- Electrical raceway.
- Refrigeration lines.



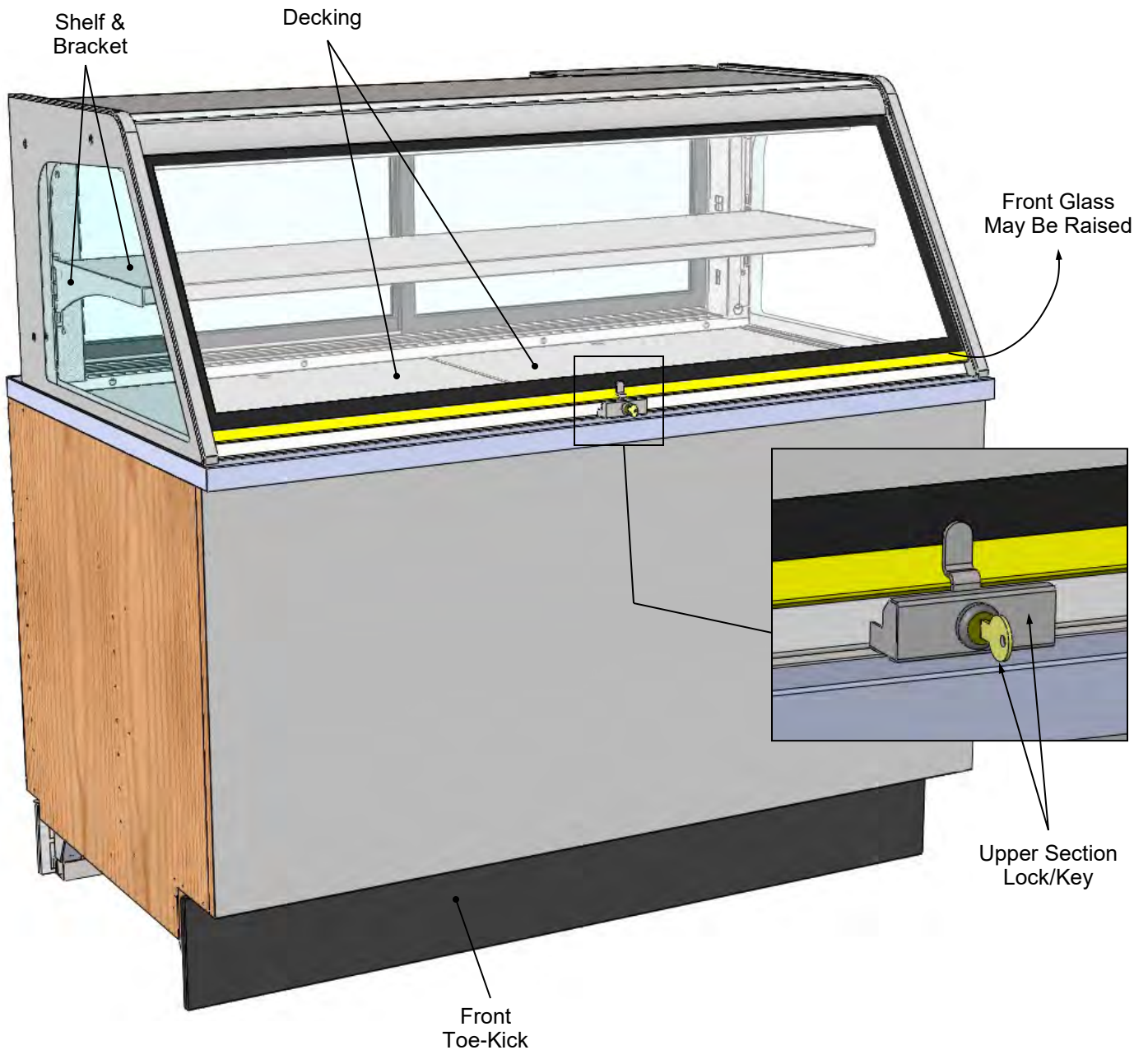
MODEL CDR5745A (SERVICE CASE ONLY) - OVERVIEW OF CASE FRONT

1. Front Glass

- Front glass may be raised for cleaning or service.
- A lock and key prevent front glass from being raised. Store key in safe place.

2. Shelf and Bracket is Adjustable

- As illustrated below, brackets can be adjusted (up or down).



MODEL CDR5745A (SERVICE CASE ONLY) - OVERVIEW OF CASE REAR

1. Scale Stand and Outlet

- Scale stand and outlet provides support and electrical means for scale.
- Caution! Use only approved plug for outlet.

2. Rear Sliding Doors

- Rear sliding doors are removable for cleaning and/or serving.
- Use care when removing from case to prevent glass breakage.

3. Rear Storage Area and Shelves

- Rear storage area and shelves may be used for storing store supplies.
- See cleaning section in manual.

4. Rear Toe-Kick

- Rear toe-kick may be removed by lifting up and off.
- No screw removal is required.

5. Thermometer Bracket

- Digital thermometer is attached to a suspended bracket toward rear of case.
- Rear door may be opened (by sliding right-to-left) to view thermometer's temperature.
- See illustration below-right.
- Note 1: Thermometers reflect warmest air temperature in merchandiser. They do not provide actual food temperature.
- Note 2: Use probe thermometers to determine actual product temperatures.

Scale Stand &
Outlet

Rear Sliding
Doors

Thermometer Bracket
& Thermometer

Rear Storage
Area & Shelves

Rear
Toe-Kick



1. LED Lights

- Model CDR5745A has LED lights only).
- Lights may be removed for replacement.
- See **LED LIGHT REMOVAL/REPLACEMENT, PLUG/CORD POSITIONING, PROPER PLUG INSERTION** section in manual for specifics on care and maintenance.

2. Front Glass

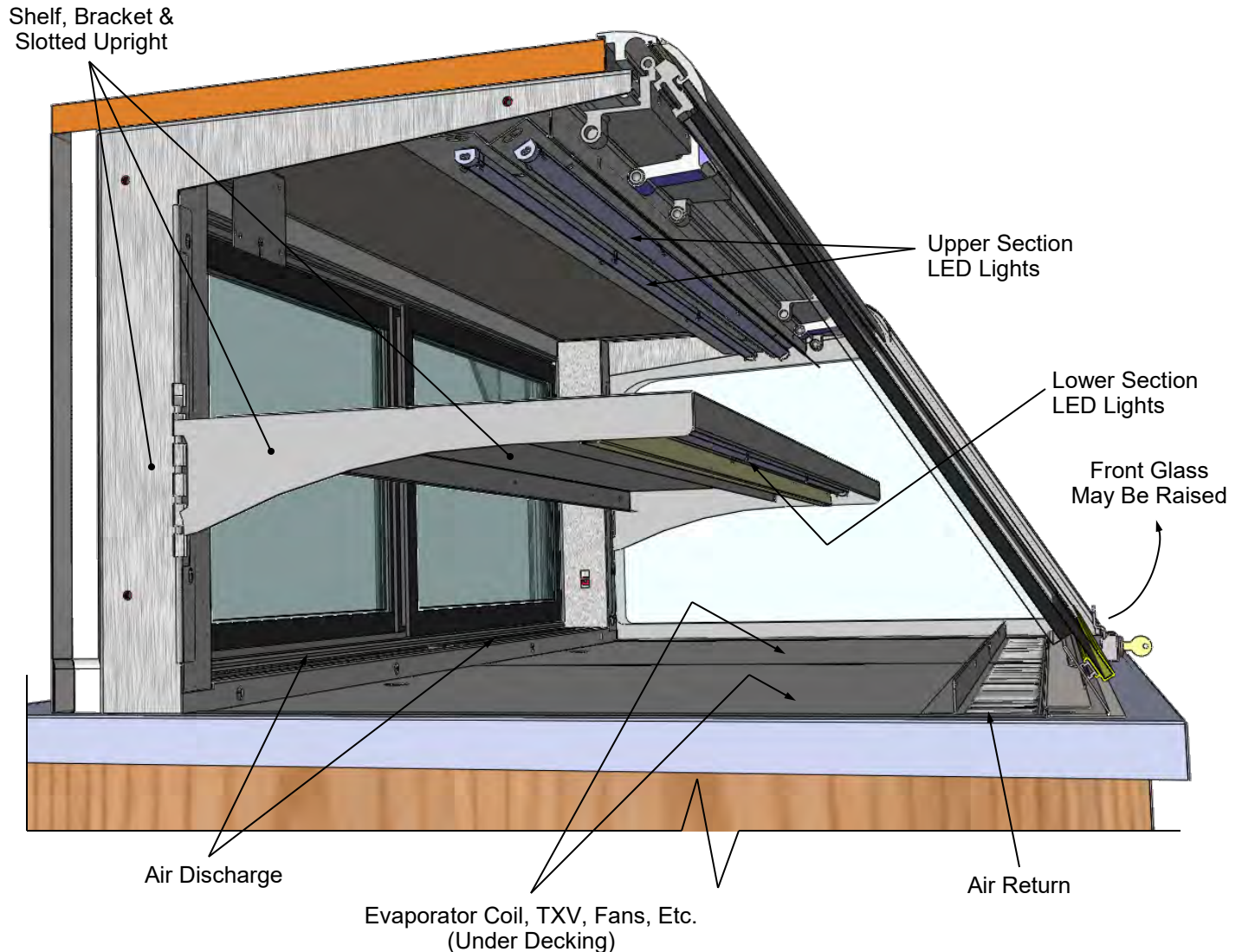
- Front glass may be raised for cleaning or servicing.

3. Shelf and Bracket is Adjustable

- As illustrated below, shelf can be adjusted (up or down).
- Slots in upright allow brackets to be raised or lowered.

4. Air Discharge / Air Return

- As shown below, air discharge is at case rear.
- Air return is at front of case.



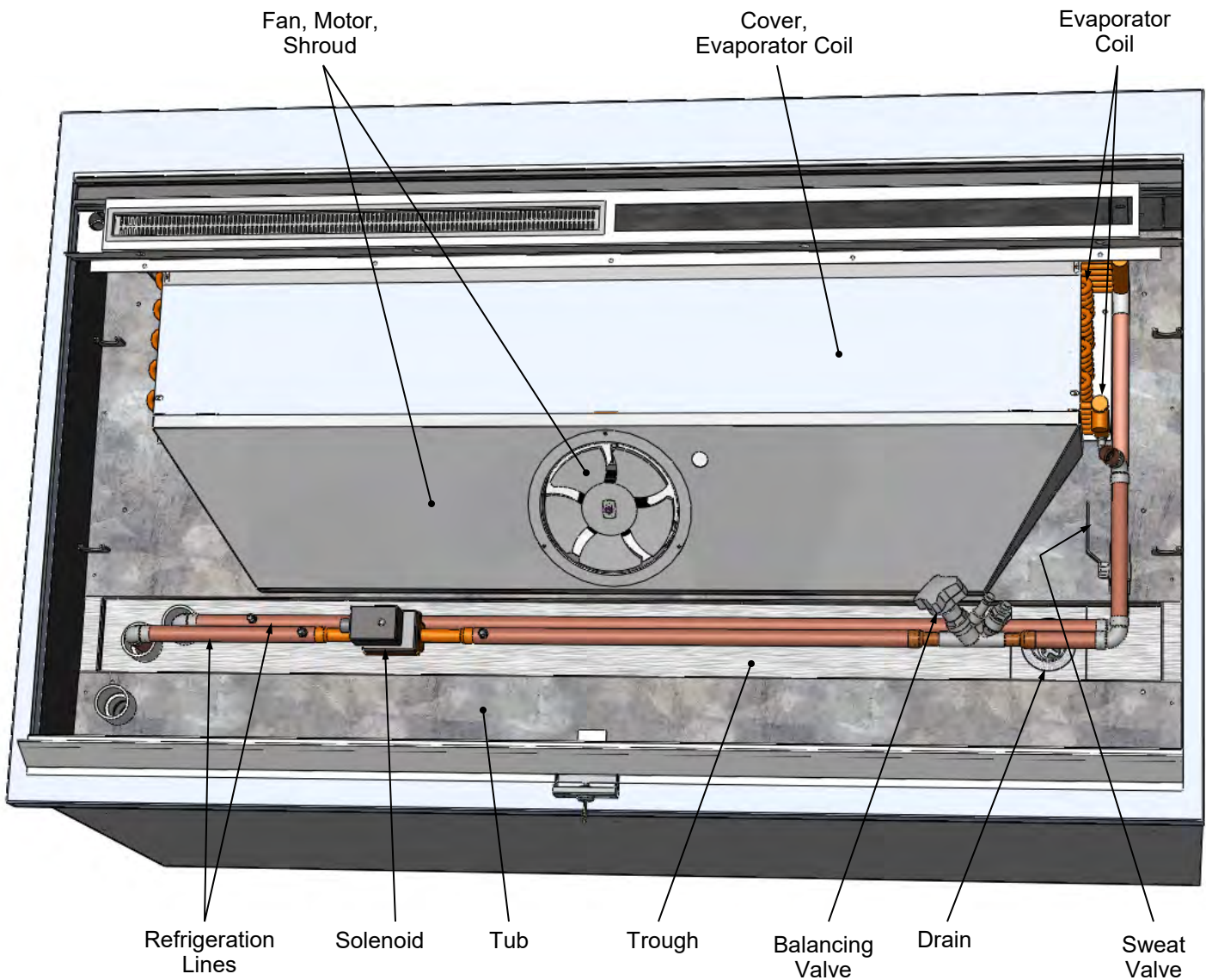
MODEL CDR5745A (SERVICE CASE ONLY) - OVERVIEW OF EVAPORATOR COIL, FAN, DRAIN, ETC.

1. Tub Layout

- Illustration below reflects partially disassembled merchandiser.
- Decking has been removed to show various components.
- Fan, motor, trough, drain, valves, etc., are shown below.

2. Cleaning Schedule

- See **CLEANING SCHEDULE - TO BE PERFORMED BY STORE PERSONNEL** section in this operating manual for cleaning instructions.



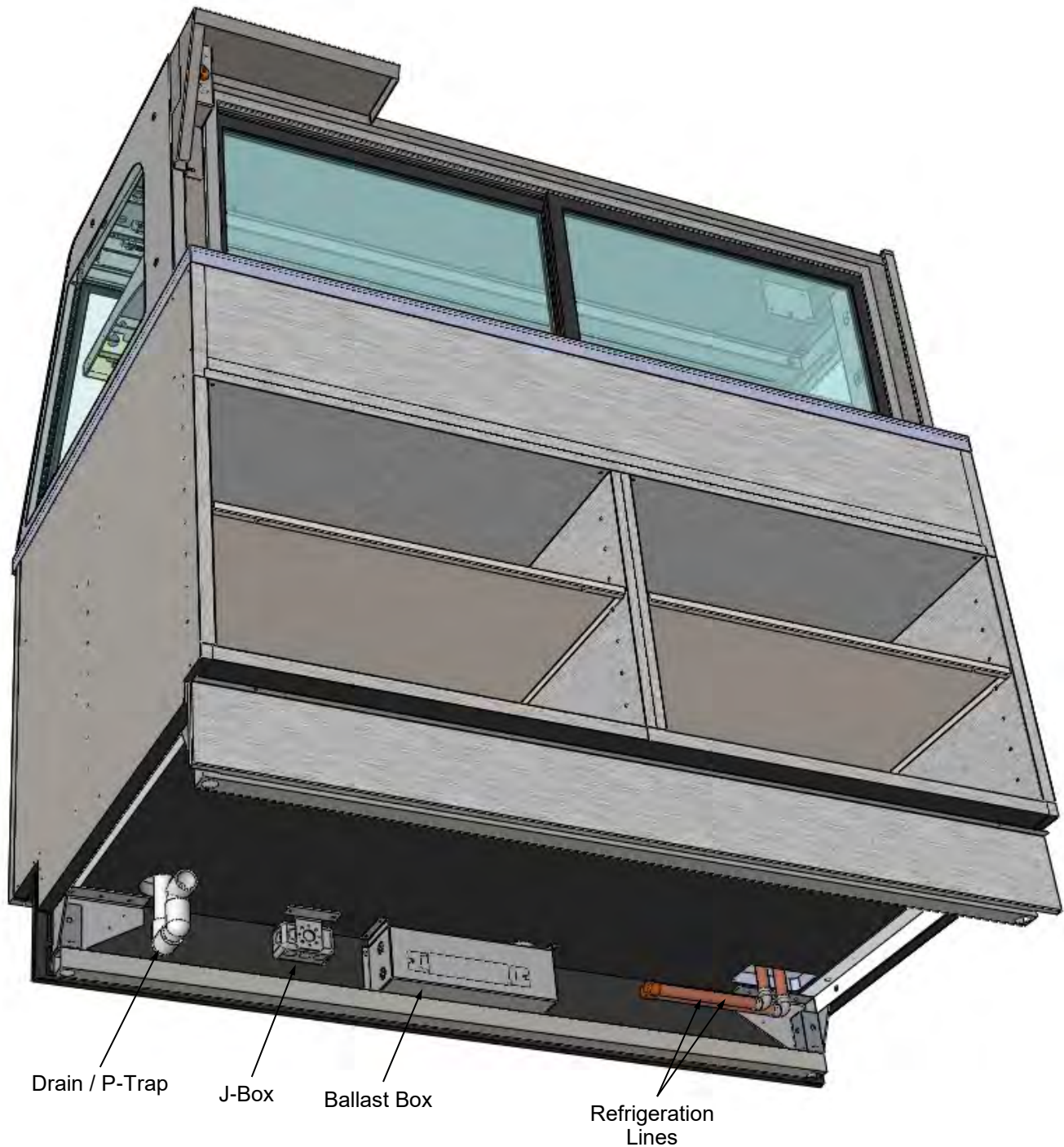
--- Front of Model CDR5745A ---

MODEL CDR5745A (SERVICE CASE ONLY) - OVERVIEW OF UNDERSIDE OF UNIT

Model CDR5745A Underside

- Illustration below reflects view of case underside.

- Drain/P-Trap must be properly connected to floor drain at installation.
- J-box must be field-wired.
- Ballast (as shown outlined below) is in main electrical box.



--- Underside of Model CDR5745A ---

MODEL GP440RHLB.5574 ONLY

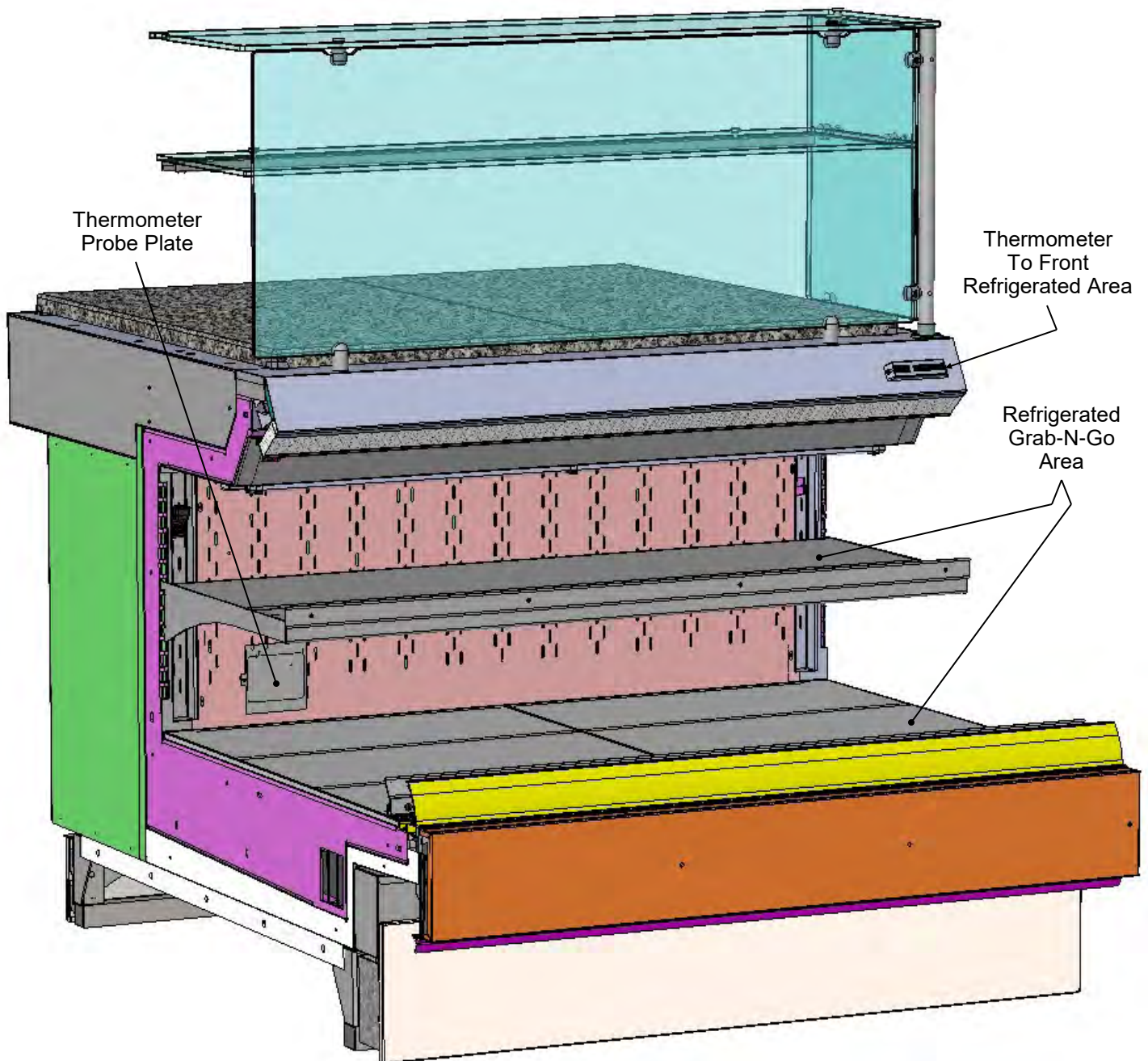
1. Front Area of Case: Refrigerated Grab-N-Go

- View below is partially disassembled for illustrative purposes only.
- Thermometer probe is located behind plate.

2. Thermometer Notes

- Note 1: Thermometers reflect warmest air temperature in merchandiser. They do not provide actual food temperature.
- Note 2: Use probe thermometers to determine actual product temperatures.

>> See next page for continuation...

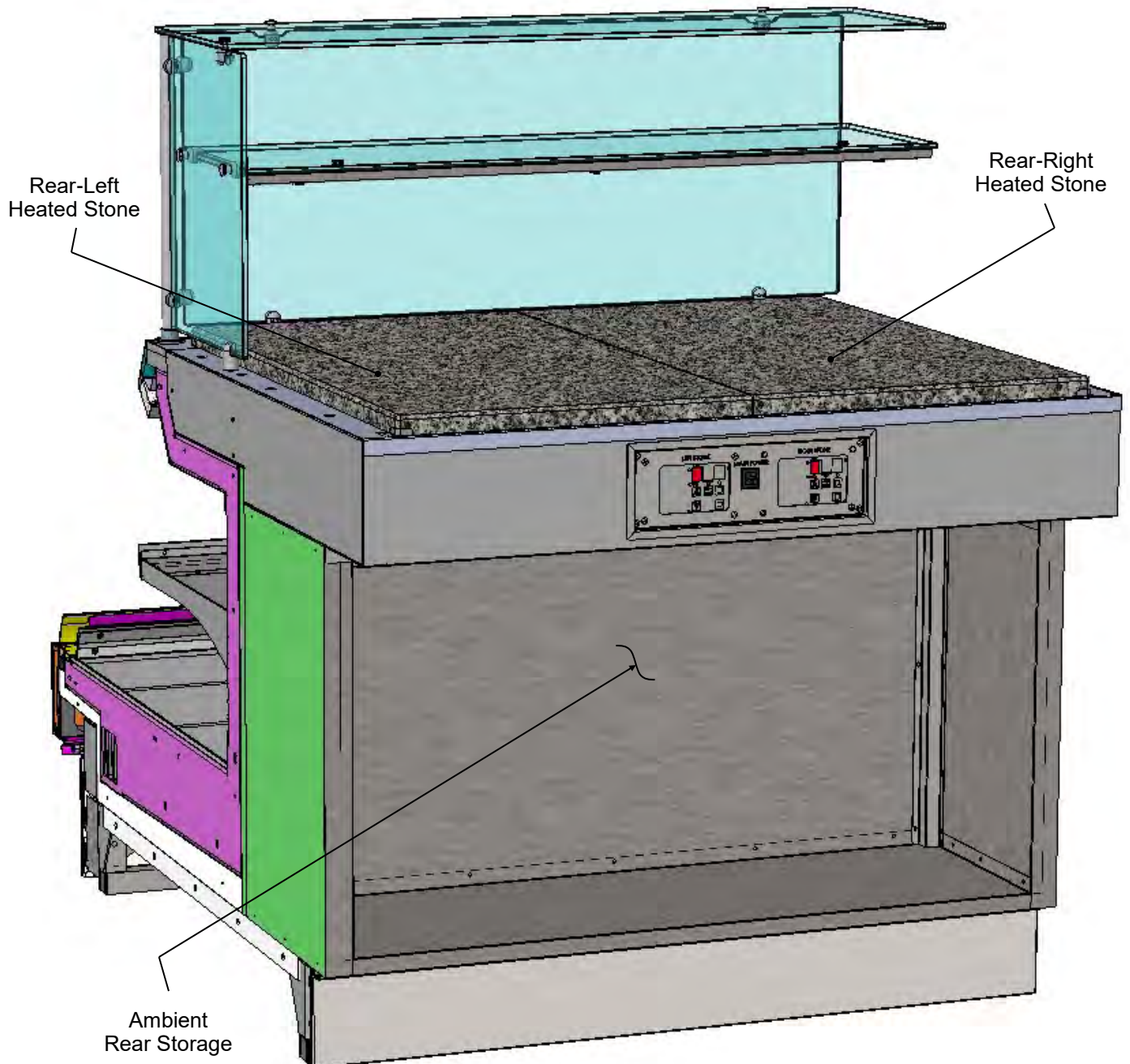


MODEL GP440RHLB.5574 ONLY

3. Rear Area of Case: Heated Service Pizza Display

- View below is partially disassembled for illustrative purposes only.
- Heated areas are separated: Rear-left stone vs. Rear-right stone.
- Ambient rear storage area may be used for various storage purposes.

>> See next page for continuation...



MODEL GP440RHLB.5574 ONLY

4. Main Power Switch / Individual Heated Surface (Stone) Controls

- *Main Power Switch* (at center of thermostats on main control panel) controls power to both heated stones.
- *Note:* The “Pre-Heat” settings button (on each thermostat) does NOT operate on this case.
- Two (2) separate sets of controls operate left and right heated surfaces (as shown in illustration below).

5. SCC Controller Thermostat Settings

- To increase temperature, press the UP key.
- To decrease temperature, press the DOWN KEY.
- **If controllers are set at “0”, relays will be**

de-energized.

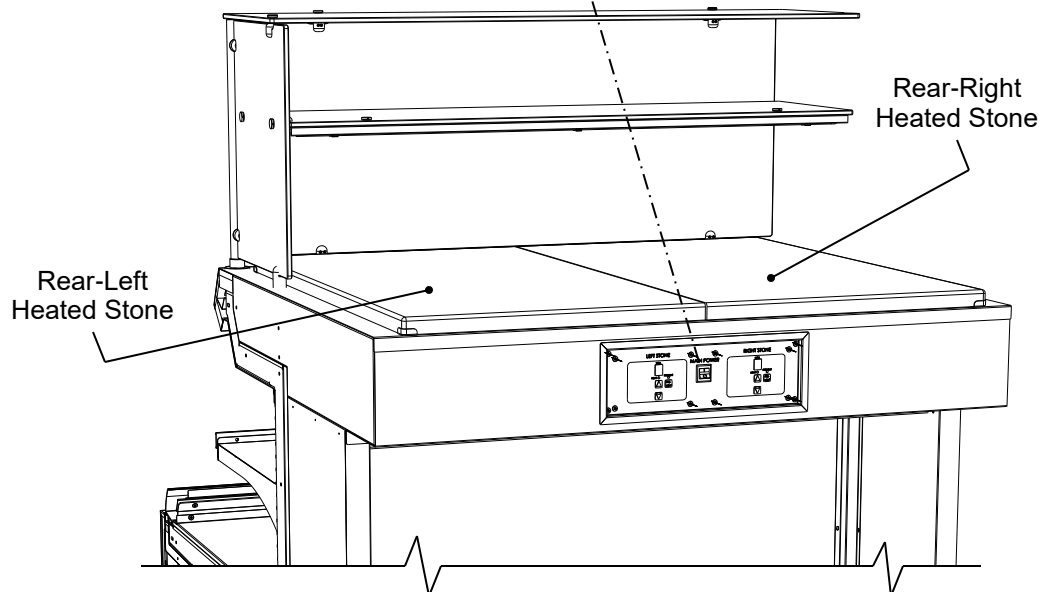
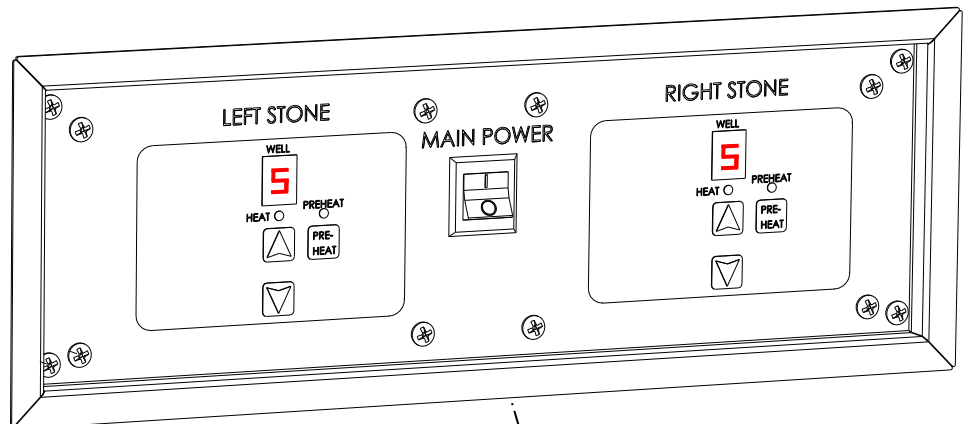
- HEAT LED indicates that the relay is energized and heater is on.
- Setting “1” is minimum heat.
- Setting “5” is medium heat.
- Setting “9” is maximum heat.
- Adjust settings accordingly to reflect your desired food temperatures.
- After unit is adjusted, the control will automatically save the user setting approximately 5 seconds after the user stops adjusting the setting.
- *Note:* Should food temperatures significantly vary from acceptable range, contact SCC Technical Service. See **SCC TECHNICAL SERVICE CONTACT INFORMATION** section of this manual for specifics.

Heated Surface Settings

Setting “1” = Minimum Heat

Setting “5” = Medium Heat

Setting “9” = Maximum Heat



MODEL GP441RG.6122 ONLY

1. Energizing Case

- Case will energize when properly field-wired.
- Upper display unit, has its own on/off switch.
- See wiring diagram that accompanies case.

2. Front Grab-N-Go Section

- Grab-N-Go section is at front of case.
- It consists of decking and shelving.
- See illustration below.

3. Rear Refrigerated Section

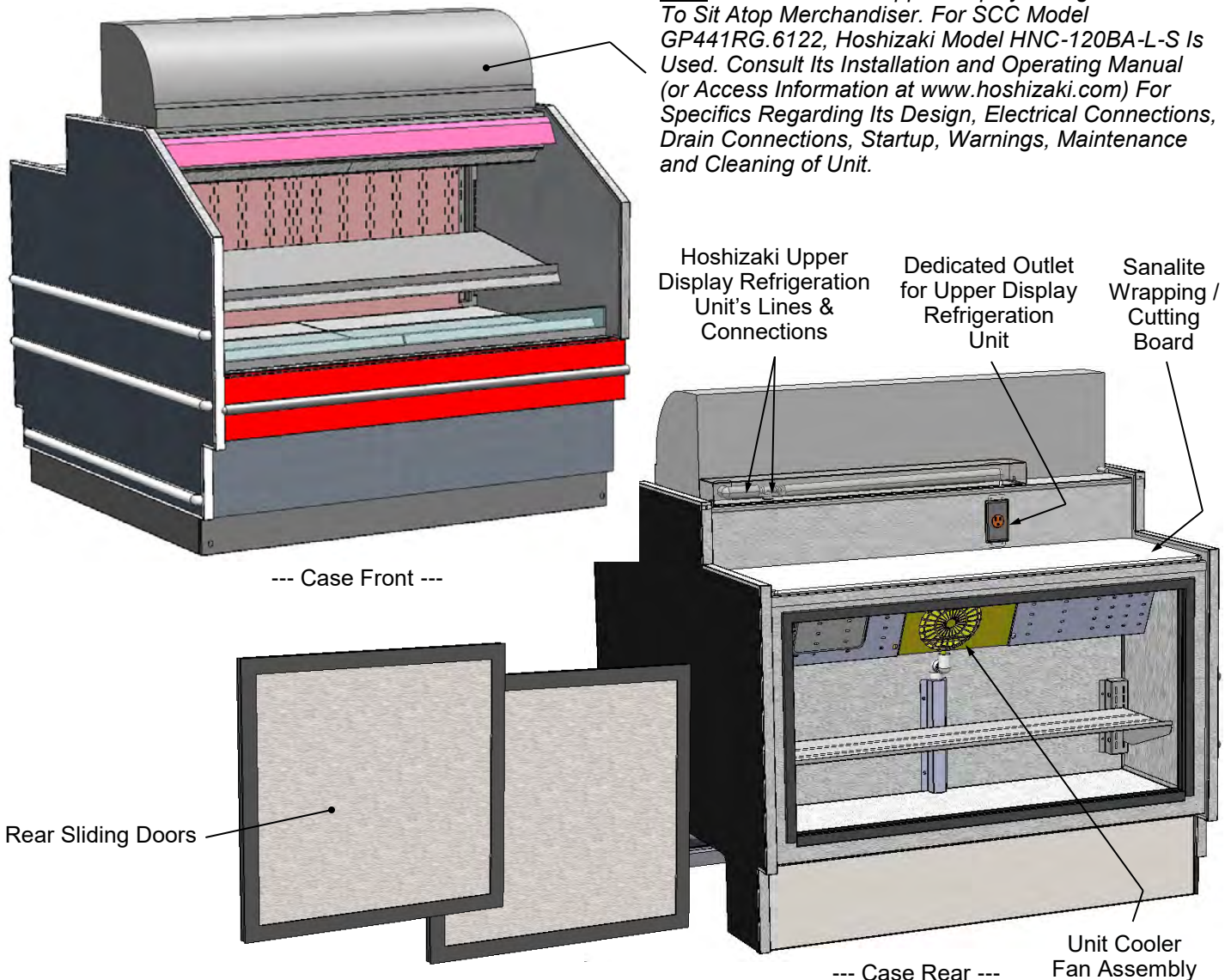
- Rear refrigerated section accessible via sliding doors.
- See illustration below.

4. Upper Display Refrigeration Unit

- Hoshizaki Model HNC-120BA-L-S upper display refrigerated unit is used for this merchandiser.
- Unit is self contained and rests on top of case (as shown in illustration below).
- Unit has its own on/off switch.
- Consult the Hoshizaki operating manual that accompanies upper display refrigeration unit for operational specifics.

> See next page for Model GP441RG.6122 upper display refrigeration unit's power cord route / refrigeration line route.

Note: Self-Contained Upper Display Refrigeration Unit To Sit Atop Merchandiser. For SCC Model GP441RG.6122, Hoshizaki Model HNC-120BA-L-S Is Used. Consult Its Installation and Operating Manual (or Access Information at www.hoshizaki.com) For Specifics Regarding Its Design, Electrical Connections, Drain Connections, Startup, Warnings, Maintenance and Cleaning of Unit.



MODEL GP441RG.6122 UPPER DISPLAY REFRIG. UNIT POWER CORD ROUTE / CONDENSATE LINE

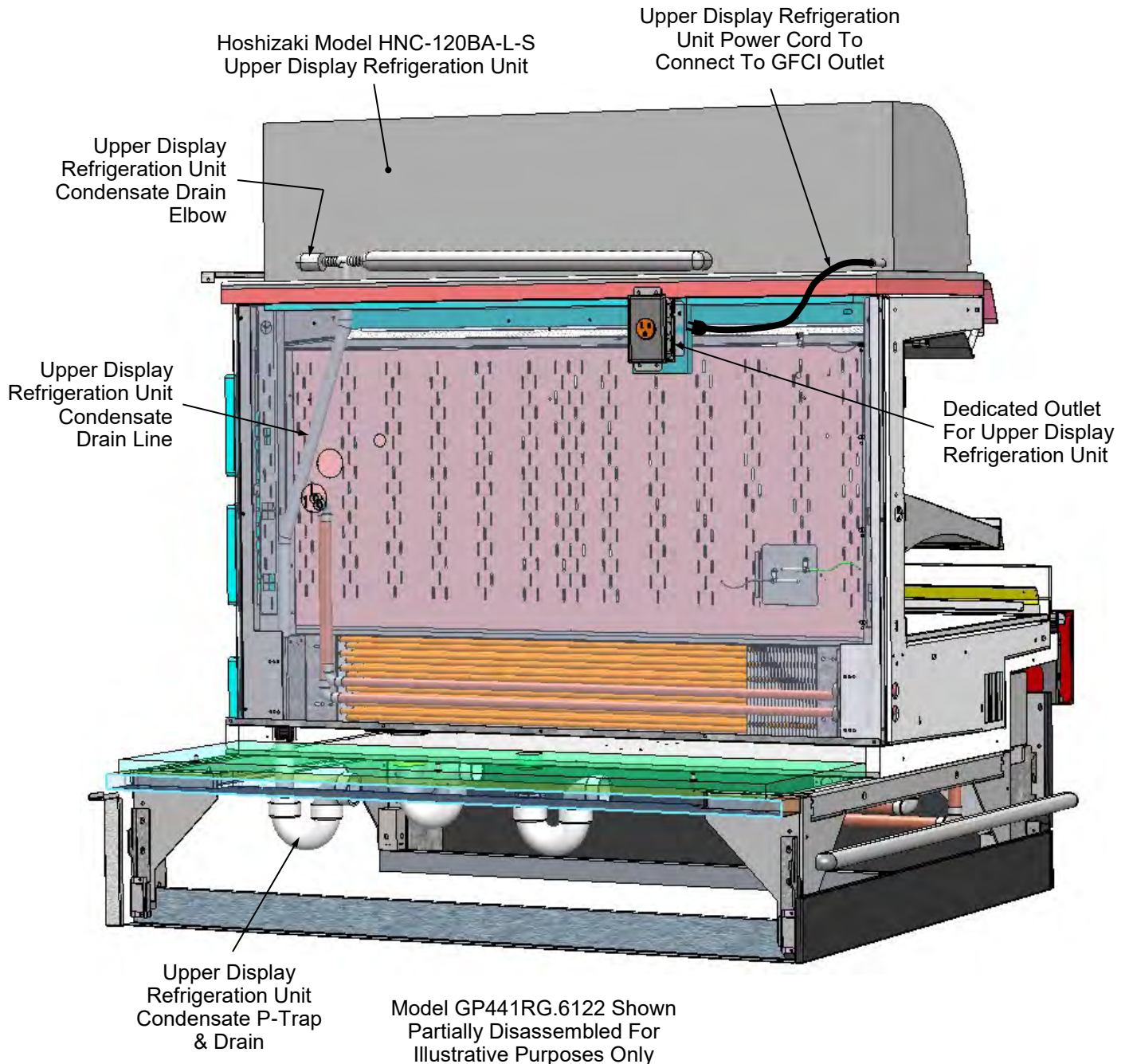
MODEL GP441RG.6122 ONLY

1. Power Cord Route

- Power cord is at rear of upper display refrigeration unit.
- Unit has its own on/off switch.
- Consult the Hoshizaki operating manual that accompanies upper display refrigeration unit for operational, cleaning and maintenance specifics.

2. Condensate Drain Line Route

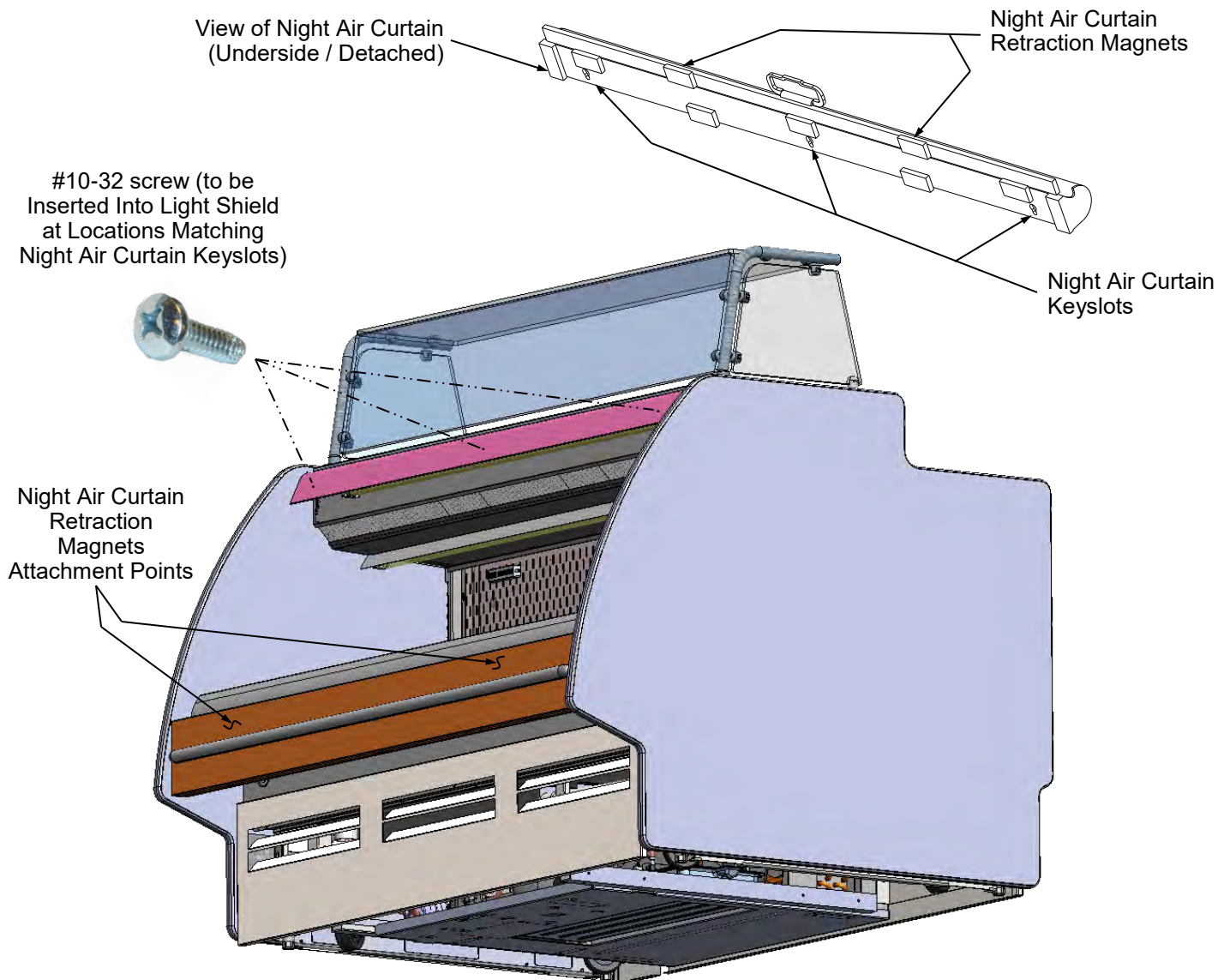
- Upper display refrigeration unit's condensate drain starts at rear of unit.
- It is then routed downward to floor drain.
- See illustration below.



Night Air Curtain Installation & Operating Instructions

1. Use caution when handling Night Air Curtain.
2. Display case may come with Night Curtain already attached. If not, a retrofit kit will be provided.
3. If using SCC-supplied retrofit kit, place night curtain on top of case as shown. Mark "keyslot" locations using underside of night curtain as a template. Drill pilot holes in light shield and screw in #10-32 screws (leaving head exposed to allow "keyslots" to fit over them). Attach Night Air Curtain to unit by #10-32 screws.
4. After Night Air Curtain is firmly attached to case, grasp handle and pull downward to desired location (as shown below).
5. To return Night Air Curtain to its retracted position, grasp handle, lift up and away from its magnetic attachment and carefully wind Night Air Curtain back into roll.
6. **Caution!** Do not allow spring-loaded Night Air Curtain to freely snap back into roll. Doing so can eventually destroy Night Air Curtain's tension and retractability.
7. To entirely detach Night Air Curtain from case, retract curtain (to access keyslots), remove screws. Lift Night Air Curtain upward and away from case.

NOTE: BELOW ILLUSTRATION MAY NOT EXACTLY REFLECT YOUR CASE'S FEATURES OR OPTIONS.

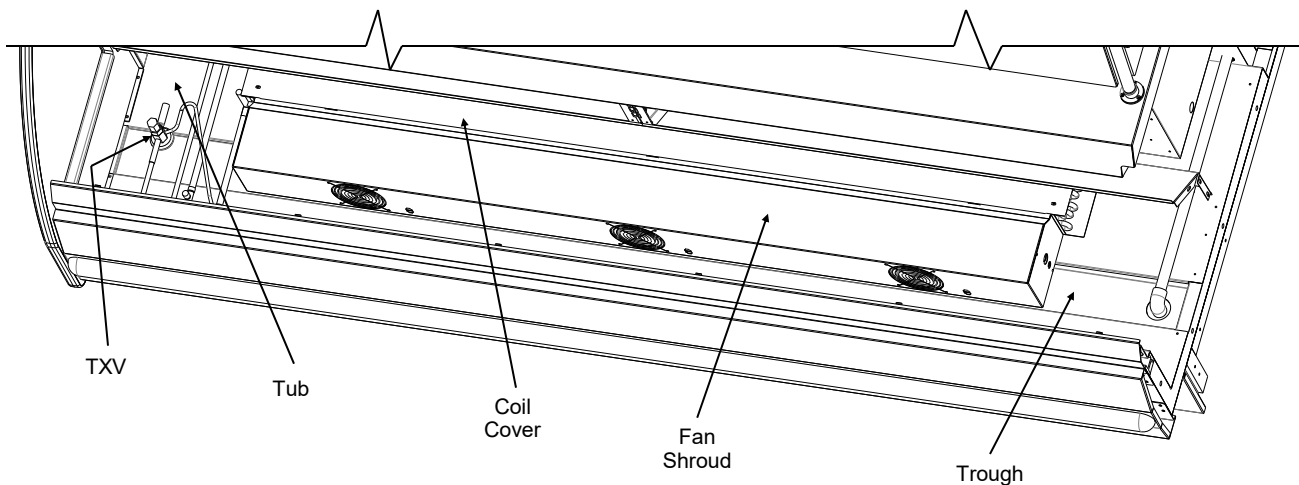


**CLEANING
SCHEDULE /
PREVENTIVE
MAINTENANCE /
TROUBLESHOOTING**

CLEANING SCHEDULE - TO BE PERFORMED BY STORE PERSONNEL

AREA	FREQ.	INSTRUCTIONS
Air Discharge Crumb Tray (On Certain Models Only)	Daily / Weekly	<p>Daily</p> <ul style="list-style-type: none"> • Air discharge crumb tray (MODEL GP540RRLB.5571B only). • Slide rear doors open. Lift air discharge crumb trays up and out. • Empty and return to case. <p>Weekly</p> <ul style="list-style-type: none"> • Perform above steps, but after emptying crumbs, submerge in warm, soapy water, clean with soft-bristled brush. Dry and return to case.
Front Grab-N-Go Area	Daily / Weekly	<p>Daily</p> <ul style="list-style-type: none"> • Wipe down deck pans (deck pans have been removed for illustrative purposes below) with warm, soapy water. Rinse with water-filled spray bottle and sponge or clean cloth. Dry. • For large spills or hardened residue, remove deck pans and submersed in warm soapy water, and clean with sponge or cloth. • Caution! Do not use Brillo® pad or similar abrasive cleaners as they may mar decking finish. Rinse. Dry. Return decking to case. <p>Weekly</p> <ul style="list-style-type: none"> • Remove deck pans (deck pans have been removed for illustrative purposes below). <i>Caution!</i> Due to functioning cooling fans, it is advisable to turn off power to unit at this step. • After pan covers, pans, dividers and pan supports are removed, clean entire area (sides, tub, drain, Coil Cover and TXV) with warm water, mild soap solution and soft cloth. Dry thoroughly. • Replace all items in reverse order in which they were removed.

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



CLEANING SCHEDULE - TO BE PERFORMED BY STORE PERSONNEL, CONTINUED

FREQ.	INSTRUCTIONS
Daily	<u>Sneeze Guard Glass/Supports/Glass Sliding Doors:</u> After removing pans, clean with a household or commercial glass cleaner and a soft cloth or paper towel. Wipe off all residue.
Daily	<u>Acrylic:</u> Acrylic sneeze guards and bins must be cleaned with a mild soap and water solution and a soft cloth. Caution! Never use ammonia-based cleaners on acrylic. Incorrect cleaning agents or abrasive cleaning cloths cause surface to 'cloud' over time.
Daily	<u>Heated Stone Surface:</u> See next page.
Daily	<u>End Panels, Front Panel, Toe-Kick, Sliding Doors (Model GP841R.5184, Etc.), Storage Area, Condiment Covers, etc.:</u> Wipe with warm water & mild soap solution and non-abrasive cloth.
Daily	<u>Stainless Steel Surfaces:</u> See CLEANING SCHEDULE - TO BE COMPLETED BY STORE PERSONNEL, CONT'D: STAINLESS STEEL section in this manual for cleaning specifics.
Daily	<u>Storage Areas, Glove Box Holder, Sanalite Wrapping/Cutting Board:</u> Wipe out with warm water and mild anti-bacterial soap solution and non-abrasive cloth. See illustration below.
Daily	<u>Risers:</u> Wipe down with warm water and mild anti-bacterial soap solution & non-abrasive cloth. For more extensive cleaning (stubborn stain removal), remove from case, submerge in warm, soapy water and use non-abrasive cloth. Note: See PREVENTIVE MAINTENANCE (TO BE PERFORMED BY TRAINED SERVICE PROVIDER) section in manual for sample view of risers.

CLEANING SCHEDULE - TO BE PERFORMED BY STORE PERSONNEL, CONTINUED

AREA TO BE CLEANED	FREQ.	INSTRUCTIONS
Heated Stone Surfaces (Model GP440RHLB.5574 Heated Surface Pizza Display Only)	Daily	<u>See Below</u>

Quartz surfacing is a nearly indestructible material. It is resistant to stains caused by wine, fruit juices, liquid food coloring, tea, nail polish and remover, and felt-tip markers. Its non-porous nature is also extremely hygienic, making it a food-safe choice. Additionally, since it is a non-porous material, quartz polished surfaces do not need to be sealed as do other stones to prevent staining.

Though the quartz surface can briefly tolerate moderate temperatures for a brief time, it can be damaged by high heat and prolonged exposure to heat. Use a hot pad or trivet when placing a hot pan on it.

As with any other stone or surface material, strong chemicals and solvents such as Drano®, Liquid Plummer®, oven cleaners and floor strippers will damage quartz surfaces. The following are tips for cleaning your quartz surface:

Polished Surfaces (high gloss)

Routine cleaning involves little more than soapy water or a mild household cleaner such as Formula 409®, Fantastik® or Windex®.

Honed Surfaces (smooth with more of a matte look)

A honed surface will require more daily maintenance than polished finishes. Since there is more exposed surface area with honed finishes, metal marks, finger prints and other signs of daily living will show on honed material. Most of these marks can be easily removed with little effort and cleaning products such as Soft Scrub™. For tough stains, work the area with a Scotch Brite™ pad.

CLEANING SCHEDULE - TO BE COMPLETED BY STORE PERSONNEL, CONT'D: STAINLESS STEEL

General Stainless Steel Surface Cleaning (To Be Performed As Often As Needed):

- Certain grades of stainless steel, and some are more prone to corrosion than others.
- Stainless steel can become exposed to a wide variety of contaminants, which if left untreated can cause stains and rust.
- Stainless steel requires a specific cleaning procedure to maintain its sheen and remain rust-free.
- Wash with a solution of liquid dishwashing detergent and hot water.
- Rinse with pure hot water from spray bottle. Wipe with clean sponge. This will remove soap residue that can lodge in stainless steel's microscopic grooves, causing rust.
- Dry with clean, soft cloth or paper towel.
- **Caution!** *To prevent rust, you MUST rinse with pure hot water from a spray bottle while wiping with clean sponge after EACH cleaning.*
- **Caution!** *Never clean with scouring powder or steel wool as they can mar, scratch and/or erode the surface of stainless steel. When the surface properties of stainless steel have been compromised, rust can form.*

Brightening:

- **Method 1:** Brighten by polishing with a soft cloth or sponge with a solution of one part vinegar to 2 parts water in a spray bottle.
- **Method 2:** Sprinkle baking soda on sponge and rub gently with soft cloth or sponge.
- **Caution!** *To prevent rust, you MUST rinse with pure hot water from a spray bottle while wiping with clean sponge after EACH cleaning.*
- Dry with clean, soft cloth or paper towel.

Removing Streaks or Stains:

- **Method 1:** Place two teaspoons of rubbing alcohol on a microfiber cloth or pad. Rub the cloth along the grain of the appliance until the entire area has been wiped. The rubbing alcohol will air dry itself.
- **Method 2:** Dip soft cloth or sponge in club soda and rub gently over area of concern.
- **Caution!** *To prevent rust, you MUST rinse with pure hot water from a spray bottle while wiping with clean sponge after EACH cleaning.*
- Dry with clean, soft cloth or paper towel.

Polishing:

- Place a dab of olive oil onto clean soft cloth. Spread over area until a light sheen is observed. Use pressure to "work the oil" into the small grooves in the surface. Apply firm, steady pressure using small circular motions.
 - > **Dry buff:** Remove excess oil with clean cloth or paper towel using small circular motions.
 - > **Wet buff:** Use an ounce or white vinegar with clean cloth or paper towel using small circular motions.
 - > Continue wiping until oily finish has been removed.
- **Caution!** *To prevent rust, you MUST rinse with pure hot water from a spray bottle while wiping with clean sponge after EACH cleaning.*
- Dry with clean, soft cloth or paper towel.

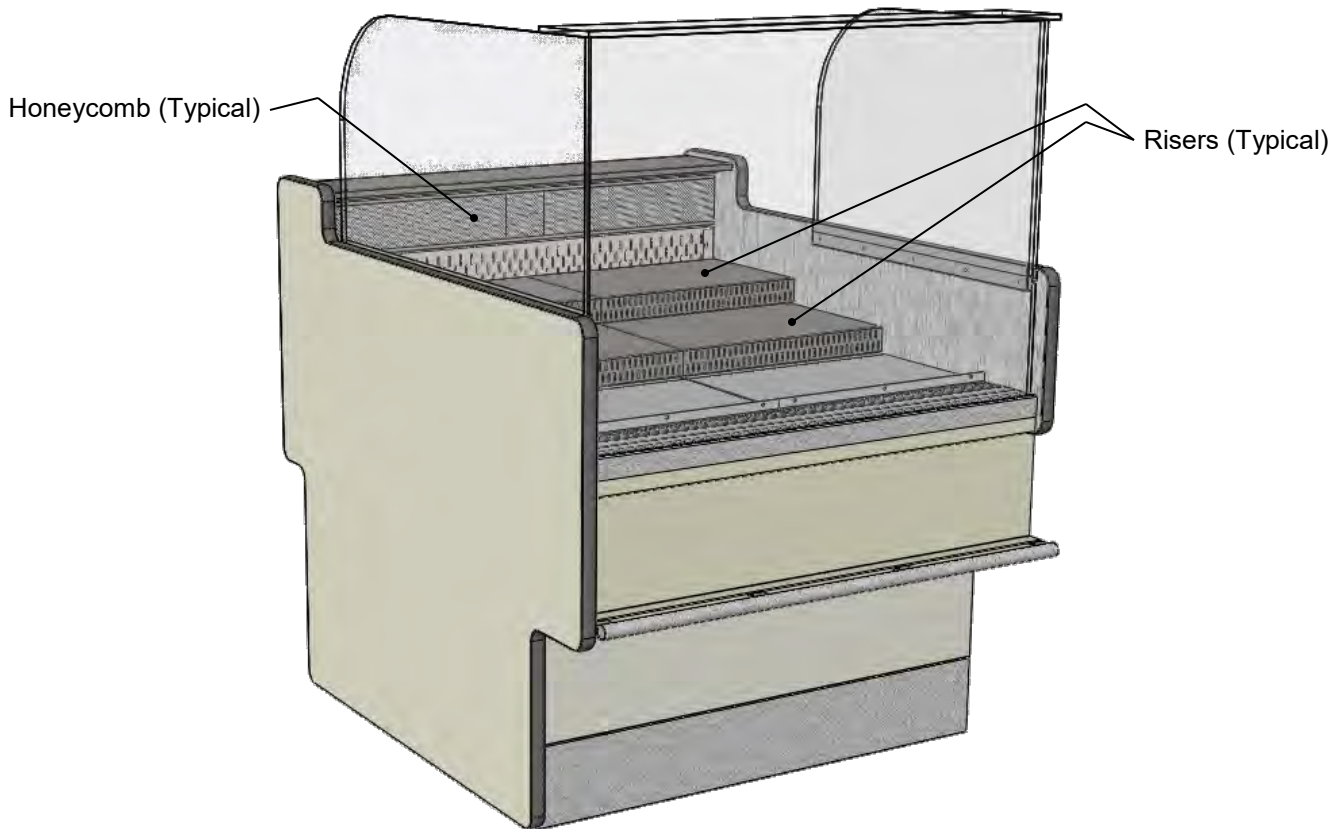
Removing Rust:

- If rust has begun to form, there are a variety of products that can treat it.
- Among these are CLR® (calcium, lime and rust remover) and Chemetall Oakite 33 (rust, oxides and scale remover).
- **Caution!** *To prevent food contamination, personal injury or further corrosion, carefully observe and follow the rust removing product's precautions and instructions.*

PREVENTIVE MAINTENANCE (TO BE PERFORMED BY TRAINED SERVICE PROVIDER)

WARNING! TURN OFF CASE BEFORE PERFORMING PREVENTIVE MAINTENANCE!

PREVENTIVE MAINTENANCE	FREQ.	INSTRUCTIONS
Case Interior	Quarterly	<p><u>Tub Area (Evaporator Coil, Drain, Fans, Brackets):</u></p> <p><i>Caution! Disconnect power from the case before cleaning tub, coil, fan, motor and drain area!</i></p> <ul style="list-style-type: none"> • Use vacuum to clean entire area. • After vacuuming, clean area with warm water, clean cloth, and mild soap solution. • Remove any debris that may clog drain. • Wipe down fan blades, motors and brackets with moist cloth.
	Quarterly	<p><u>Honeycomb:</u> Check honeycomb air diffuser to determine if it is dirty. If it is dirty, remove from case. See <i>MAINTENANCE FUNDAMENTALS - HONEYCOMB AIR DIFFUSERS (SERVICE TECHNICIANS ONLY)</i> section of this manual (next page) for cleaning specifics.</p>



Model GP340DRLB.5580

PREVENTIVE MAINTENANCE (TO BE PERFORMED BY TRAINED SERVICE PROVIDER), CONT'D.

1. Honeycomb Air Diffuser Removal

See **PREVENTIVE MAINTENANCE (TO BE PERFORMED BY TRAINED SERVICE PROVIDER)** section in this manual for cleaning frequency.

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

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

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

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

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

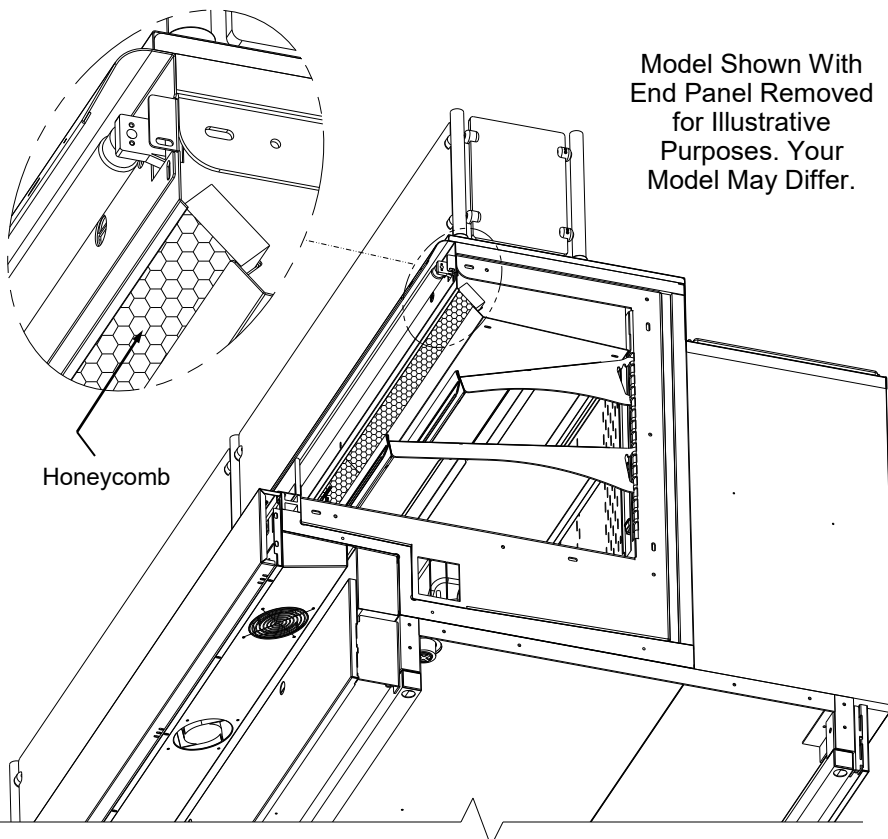
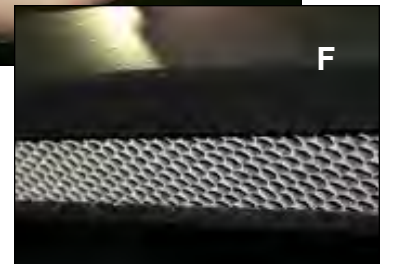
2. Honeycomb Air Diffuser Installation

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

E. Carefully slide honeycomb into place.

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

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



TROUBLESHOOTING (TO BE PERFORMED BY STORE PERSONNEL)

CONDITION	TROUBLESHOOTING
Case Is Not Level	See INSTALLATION section in this manual for additional information.
Case Not Lining Up	See INSTALLATION section in this manual for instructions on properly aligning case (alongside other cases) and adjusting levelers (or rails).
Water Is On The Floor	Call service provider.
Fan Emits Excessive Noise	Call service provider.
Case Lights Are Not Working	Check that light switch is in the <i>on</i> position.
	Turn light switch off and check bulb for proper connection. <ul style="list-style-type: none"> • Check that the light cord is plugged in properly. • <u>Note</u>: LED light and plug must be connected in a specific manner or they will not work. • Make certain flat edge of plug connects to flat edge of LED light. • See LED LIGHT REMOVAL/REPLACEMENT, PLUG/CORD POSITIONING, PROPER PLUG INSERTION section in this manual for illustrations.
	Fluorescent lights: Check bulbs for proper installation and connection. Also, check that bulb connections are free from dust and dirt.
	Fluorescent lights: Check for burned out bulbs.
	If case lights still do not come on, call service provider.
Case is Not Holding Proper Temperature	If a large amount of warm product was added to the case, it will take time for the temperature to adjust. Product must be pre-chilled before placing in case.
	Check that the case is not in the sun or near a heat or air-conditioning vent.
	If case is located near front doors, temperature fluctuation can hinder unit's ability to maintain temperature.
	Check air return grilles (area at front of decking) for obstructions. DO NOT set product on air grilles as this will prevent proper airflow!
	If case still is not holding proper temperature, call service provider.

TROUBLESHOOTING (TO BE PERFORMED BY TRAINED SERVICE PROVIDERS)

CONDITION	TROUBLESHOOTING
Water Is On The Floor	Check that drain trap is free of debris.
	Check that the drain hose is correctly positioned over floor drain.
	Check store conditions. See OVERVIEW / TYPE / COMPLIANCE / WARNINGS / PRECAUTIONS / WIRING / PLUGS pages in this manual for humidity and temperature ranges to prevent condensation.
Fan Emits Excessive Noise	Check that the case is aligned, level and plumb.
	Check evaporator fans for cleanliness.
	Unplug/power off fan motors. Check to determine whether faulty.
	Check that fan motors are securely mounted in brackets.
	Check that the fan shroud is properly secured.
Fans Are Not Working	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 (certified electricians only).
	Check that fan wiring is connected on terminal blocks (certified electricians only).
System Is Not Operating	Check that the utility power is on.
	Check the circuit breaker box for tripped circuits.

**TECHNICAL
INFORMATION
(THERMOSTAT /
SERIAL LABEL /
WARRANTY /
TECHNICAL SERVICE
INFO., ETC.)**

Dixell

Installing and operating instructions

EMERSON

**CONTROLLERS FOR MULTIPLEXED CABINETS
XM670K - XM679K
- MANUAL FOR THE SW REL 3.4 -**

1. GENERAL WARNING

1.1 PLEASE READ BEFORE USING THIS MANUAL

- This manual is part of the product and should be kept near the instrument for easy and quick reference.
- The instrument shall not be used for purposes different from those described hereunder. It cannot be used as a safety device.
- Check the application limits before proceeding.
- Dixell Srl reserves the right to change the composition of its products, even without notice, ensuring the same and unchanged functionality.

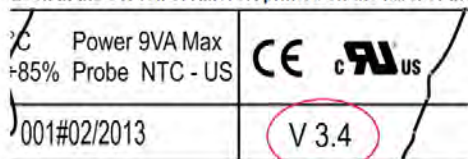
1.2 SAFETY PRECAUTIONS

- Check the supply voltage is correct before connecting the instrument.
- Do not expose to water or moisture: use the controller only within the operating limits avoiding sudden temperature changes with high atmospheric humidity to prevent formation of condensation
- Warning: disconnect all electrical connections before any kind of maintenance.
- Fit the probe where it is not accessible by the End User. The instrument must not be opened.
- In case of failure or faulty operation send the instrument back to the distributor or to "Dixell S.r.l." (see address) with a detailed description of the fault.
- Consider the maximum current which can be applied to each relay (see Technical Data).
- Ensure that the wires for probes, loads and the power supply are separated and far enough from each other, without crossing or intertwining.
- In case of applications in industrial environments, the use of mains filters (our mod. FT1) in parallel with inductive loads could be useful.

2. BEFORE PROCEEDING

2.1 CHECK THE SW REL. OF THE XM679K

1. Look at the SW rel. of XM679K printed on the label of the controller.



2. If the SW release is 3.4 proceed; otherwise, contact Dixell to secure correct manual.

3.0 GENERAL DESCRIPTION

The **XM670K/XM679K** are high level microprocessor-based controllers for multiplexed cabinets suitable for applications on medium or low temperature. It can be inserted in a LAN of up to 8 different sections which can operate (depending on the programming) as standalone controllers or following the commands coming from other sections. The **XM670K/XM679K** have 6 relay outputs to control the solenoid valve, defrost (which can be either electrical or hot gas), evaporator fans, lights, an auxiliary output and an alarm output with one output to drive **pulsed electronic expansion valves (only XM679K)**. The devices are also provided with four probe inputs: 1) temperature control 2) control of defrost end temperature of evaporator 3) display 4) for application with virtual probe or for inlet/outlet air temperature measurement. Model **XM679K** is provided with two other probes to be used for superheat measurement and regulation. Finally, the **XM670K/XM679K** are equipped with three digital inputs (free contact) fully configurable by parameters. Instruments are equipped with the **HOTKEY** connector that permits simple programming. Direct serial output **RS485 ModBUS-RTU** compatibility permits simple XWEB interfacing. **RTC** are available as options. The **HOTKEY** connector can be used to connect **X-REP** display (depending on the model).

3.01 KEYS & FUNCTIONS ON CONTROLLER FRONT PANEL



3.1 KEYS & FUNCTIONS ON CONTROLLER FRONT PANEL








Key	Function
SET	Press to display the target setpoint, to select a parameter in programming mode, or to confirm an operation. Pressing this key for 3 seconds while the minimum or maximum temperature is displayed will erase the temperature currently displayed.
▲	Press this key to browse the parameter codes in programming mode or increases the displayed value. Pressing this key for 3 seconds will give you access to the Section menu.
▼	Press this key to access the fast access menu, browse the parameter codes in programming mode, decrease the displayed value, or activate or deactivate an auxiliary output.
❄️	Starts a defrost when pressed for 3 seconds.
💡	Switches the room light ON and OFF.
⏻	Press for 3 seconds to switch the device ON and OFF.
°C	Measurement unit

Key	Function
°F	Measurement unit
BAR	Measurement unit
PSI	Measurement unit

Key Combinations

▼ + ▲	Locks/Unlocks the keyboard
SET + ▼	Switches mode to programming mode
SET + ▲	Exits the programming mode

3.2 USE OF LEDs

LED	Mode	Function
	ON	Compressor and valve regulation enabled. To see the valve opening percentage, enter the fast access menu.
	Flashing	Anti-short cycle delay enabled
	ON	Defrost enabled
	Flashing	Drip time in progress
	ON	An alarm is occurring
	ON	Energy saving enabled
	ON	Fans enabled (fans are running)
	Flashing	Door opened or delay after defrost
AUX	ON	Auxiliary relay ON
°C/°F/Bar/PSI	ON	Measurement unit
	Flashing	Programming phase
	ON	The controller is working in ALL mode
	Flashing	The controller is working in remote virtual display mode
	Flashing	During the CLOCK modification (if clock is present)

3.3 HOW TO ENTER THE FAST ACCESS MENU

1. Press and release the UP button.
2. The First Label will be displayed. Press the UP or DOWN button to navigate the menu.

3.4 HOW TO SEE MAX AND MIN TEMPERATURE RECORDED

1. Press and release the UP button.
2. The First Label will be displayed. Press the UP or DOWN button to navigate the menu. Search the **L^ot** label and press SET to see minimum temperature; search the **H^ot** label and press SET to see maximum temperature.

3.5 HOW TO SEE AND MODIFY THE SETPOINT

1. Press the SET button for 3 seconds to show the setpoint value.
2. The measurement unit starts blinking.
3. To change the setpoint value, press the UP or DOWN button for 10 seconds.
4. To store the new setpoint value, press the SET key again or wait 10 seconds.

3.6 HOW TO START A MANUAL DEFROST



Press the **DEF** key for more than 3 seconds to start a manual defrost.

3.7 HOW TO ENTER THE PARAMETERS LIST PR1

To enter the parameter list in **Pr1** (user accessible parameters):

1. Enter the programming mode by pressing the SET and DOWN buttons for a few seconds (wait for the measurement unit to start blinking).
2. The controller will show the first parameter present in **Pr1**.

3.8 HOW TO ENTER THE PARAMETERS LIST PR2

To access the parameter list in **Pr2**:

1. Enter the **Pr1** level. Follow the steps in **Section 3.7., How to Enter the Parameters List PR1**.
2. Select **Pr2** parameter and press the SET key.
3. The **PAS** flashing message will display, followed shortly by “0 --” with a flashing zero.
4. Use the UP or DOWN button to input the security code in the flashing digit. Confirm the security code by pressing SET. The security code is **321**.
5. If the security code is correct, the access to **Pr2** is enabled by pressing SET on the last digit.

Another way to enter the programming mode is by pressing the SET and DOWN buttons for 30 seconds immediately after switching the controller ON.



NOTE: Each parameter in Pr2 can be removed or put into Pr1 (user level) by pressing SET + DOWN buttons. When a parameter is present in Pr1, the Alarm LED will be display.

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Installing and operating instructions

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3.9 HOW TO ASSIGN A MODBUS ADDRESS

1. To enter the programming mode, press and hold the SET and DOWN buttons together until the temperature measurements start blinking.
2. Scroll through the parameters using the UP or DOWN button until **Adr** is displayed.
3. Press and hold SET to select **Adr**.
4. Use the arrow keys to choose the address number of the device.
5. Press and hold SET again to select the desired number and save.
6. To exit, press the SET and UP arrow keys together.

3.10 HOW TO CHANGE THE PARAMETER VALUE

1. Enter the programming mode.
2. Select the required parameter using the UP or DOWN button.
3. Press the SET key to display the parameter value (measurement unit starts blinking).
4. Use the UP or DOWN button to change the value.
5. Press SET to store the new value and move to the next parameter.
6. To exit, press SET + UP keys or wait 15 seconds without pressing a key.

3.11 ON/OFF FUNCTION



By pressing the ON/OFF key, the controller shows OFF. During the OFF status, all the relays are switched OFF and the regulations are stopped; if a monitoring system is connected, it does not record the controller data and alarms.



NOTE: During the OFF status, the Light and AUX buttons are active.

4. FAST ACCESS MENU

FAST ACCESS MENU		
HM	Fast Access Menu to Clock Settings	(If present)
An	Fast Access to Analog Output Reading	(If present)
SH	Superheat	Shows the actual superheat value (Only XM679)
oPP	Valve opening percentage	Shows the actual opening percentage of the valve (Only XM679)
dP1	Probe 1 value displaying	Shows the temperature measured by probe 1
dP2	Probe 2 value displaying	Shows the temperature measured by probe 2
dP3	Probe 3 value displaying	Shows the temperature measured by probe 3
dP4	Probe 4 value displaying	Shows the temperature measured by probe 4
dP5	Probe 5 value displaying	Shows the temperature measured by probe 5
dP6	Probe 6 value displaying	Shows the temperature measured by probe 6
dPP	Pressure probe value	Shows the value of pressure measured by pressure transducer (Only XM679)
rPP	Remote pressure probe value	Shows the value of pressure received by remote pressure probe connected to other XM600 device (Only XM679)
L°t	Minimum measured temperature	Shows the minimum temperature read by the regulation probe
H°t	Maximum measured temperature	Shows the maximum temperature read by the regulation probe
dPr	Virtual regulation probe value	Shows the value measured by the virtual regulation probe
dPd	Virtual defrost probe value	Shows the value measured by the virtual defrost probe
dPF	Virtual fans probe value	Shows the value measured by virtual fan probe
rSE	Real setpoint	Shows the setpoint used during the energy saving cycle or during the continuous cycle

5.0 SECTIONS MENU

This menu allows the user to access to a particular feature of the XM series related to the LAN (Local Area Network) of controllers. Depending on the programming of this menu, a single keyboard can control either the module of the local section of the LAN or ALL. The possibilities are: LOC: the keyboard controls and display the value, the status, and the alarms of the local section of the LAN; and ALL: the command given by the keyboard are effective on all the sections of the LAN.

1. Press the UP key for more than 3 seconds.
2. The label corresponding to the section controlled by the keyboard will be displayed.
3. Using the UP or DOWN key, select the section you want to control.
4. Press the SET key to confirm and exit.

5.1 TO SET ENERGY SAVING TIMES

ILE	Energy Saving cycle start during workdays	(0 to 23 h 50 min) During the Energy Saving cycle, the setpoint is increased by the value in HES so that the operation setpoint is SET + HES.
dLE	Energy Saving cycle length during workdays	(0 to 24 h 00 min) Sets the duration of the Energy Saving cycle on workdays.
ISE	Energy Saving cycle start on holidays	(0 to 23h 50 min)
dSE	Energy Saving cycle length on holidays	(0 o 24h 00 min)
HES	Temperature increase during the Energy Saving cycle	(-30 to 30°C/ -54 to 54°F) Sets the increasing value of the setpoint during the Energy Saving cycle.

5.2 TO SET TIMED DEFROST PARAMETERS

Ld1 to Ld6	Workday defrost start	(0 to 23h 50 min) These parameters set the beginning of the eight programmable defrost cycles during workdays. For example, when Ld2=12.4, the second defrost starts at 12.40 during workdays.
Sd1 to Sd6	Holiday defrost start	(0 to 23h 50 min) These parameters set the beginning of the eight programmable defrost cycles during holidays. For example, when Sd2=3.4, the second defrost starts at 3.40 on holidays.



NOTE: To disable a defrost cycle, set it to nu (not used). For example, if Ld6=nu, the sixth defrost cycle is disabled.

6.0 ELECTRONIC EXPANSION VALVE MENU (MODEL XM679 ONLY)

1. Enter the programming mode by pressing the SET and DOWN buttons for a few seconds (measurement unit starts blinking).
2. Press the UP or DOWN key until the controller displays the EEU label.
3. Press SET. You are now in EEV function menu.

7.0 CONTROLLING LOADS / 7.1 SOLENOID VALVE

The regulation is performed based on the temperature measured by the thermostat probe that can be a physical probe or a virtual probe obtained by a weighted average between the two probes (see **Section 8, Parameters List**) with a positive differential from the setpoint. If the temperature increases and reaches setpoint plus the differential, the solenoid valve is opened and then it is closed when the temperature reaches the setpoint value again.

In case of fault in the thermostat probe, the opening and closing time of the solenoid valve are configured by **Con** and **CoF** parameters.

19. USE OF THE PROGRAMMING "HOT KEY"

The XM units can UPLOAD or DOWNLOAD the parameter list from its own E2 internal memory to the "Hot Key" and vice-versa through a TTL connector.

19.1 DOWNLOAD (FROM THE "HOT KEY" TO THE INSTRUMENT)


1. Turn OFF the instrument by means of the ON/OFF key, insert the "Hot Key" and then turn the unit ON.
2. Automatically the parameter list of the "Hot Key" is downloaded into the controller memory, the "doL" message is blinking. After 10 seconds the instrument will restart working with the new parameters. At the end of the data transfer phase the instrument displays the following messages: "end" for right programming. The instrument starts regularly with the new programming. "err" for failed programming. In this case turn the unit off and then on if you want to restart the download again or remove the "Hot key" to abort the operation.

19.2 UPLOAD (FROM THE INSTRUMENT TO THE "HOT KEY")

1. When the XM unit is ON, insert the "Hot key" and push ← key; the "uPL" message appears.
 2. The UPLOAD begins; the "uPL" message is blinking.
 3. Remove the "Hot Key".
- At the end of the data transfer phase the instrument displays the following messages: "end" for right programming. "err" for failed programming. In this case push "SET" key if you want to restart the programming again or remove the not programmed "Hot key".

Serial Label Location & Information Listed / Technical Information & Service

- Serial labels are located near the electrical access on your case.
- Serial labels contain electrical, temperature & refrigeration information, as well as regulatory standards to which the case conforms.
- For additional technical information and service, see the *TECHNICAL SERVICE* page in this manual for instructions on contacting Structural Concepts' Technical Service Department.
- See images below for samples of both refrigerated and non-refrigerated serial labels.





888 E. Porter Rd · Muskegon, MI 49441

ENCORE[®] MODEL HV74RSS SCROLL
SERIES SERIAL NO.

FOR PARTS AND SERVICE
CALL 1-800-433-9489


SAMPLE ONLY

  3048256 CONFORMS TO UL STD 471 CONFORMS TO NSF STD 7 CERTIFIED TO CAN/CSA STD C22.2 NO 120	ELECTRICAL RATING REFRIGERANT DESIGN PRESSURE MINIMUM CIRCUIT MAXIMUM OVERCURRENT	120/1/60 24A R404A AMOUNT ?? OZ HIGH 450 LOW 200 30A 30A
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SAMPLE ONLY

Super Heat Temp	8-10°F	
BTUH Requirements	9,738 BTUH @ 20° F SST	SAMPLE ONLY
Defrost	6 defrosts per day, 45° F termination, 45 min. failsafe	

----- Sample Serial Label For Refrigerated Case -----



888 E. Porter Rd · Muskegon, MI 49441

Addenda[®] PC5682 txtRemote
txtSerialNumber

120 VOLTS 60 HZ SINGLE PHASE 1.84AMP
 FOR PARTS OR SERVICE CALL
 STRUCTURAL CONCEPTS
 AT
 1-800-433-9489

SAMPLE ONLY

|||

3048256
 CONFORMS TO UL STD 65
 CERTIFIED TO CAN/CSA
 STD C22.2 NO 120

----- Sample Serial Label For Non-Refrigerated Case -----

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.)

LIMITED WARRANTY

Overview: All sales by Structural Concepts Corporation (hereafter referred to as "SCC") are subject to the following limited warranty. "Goods" refers to the product or products being sold by SCC.

Warranty Scope: Warranty is for equipment sold in the United States, Canada, Mexico and Puerto Rico. Equipment sold elsewhere may carry modified warranties.

Warranty; Remedies; Limitations: The limit of liability of SCC toward the exchange cost of the original compressor motor (and/or any other components) is one year parts and labor. If any Goods are found to be of faulty material or workmanship within one year of the original F.O.B. (free on board) unit shipment, SCC will, at its option (after inspection by an authorized representative), replace or pay the reasonable cost of replacement of the faulty Goods. If warranty claim is not made within this one year time period, SCC is not bound to warrant Goods. A motor-compressor (and/or any other components) replaced during the warranty shall not exceed manufacturer's current established wholesaler's exchange price. If replacement motor-compressor (and/or other components) is available via storage facility, parts truck, etc., SCC mandates that readily accessible replacement components be used toward repair of Goods; in such instances, SCC will replace such equipment (at its own expense) after confirmation of its use/placement on defective unit. SCC shall not be charged an additional fee, up-charge or expense for such replacement Goods. If SCC is unable to repair or replace the defective Goods, SCC shall issue a credit to the Purchaser for full or partial purchase price, as SCC shall determine. The replacement or payment in the manner described above shall be the sole and exclusive remedy to Purchaser for a breach of this warranty. If any Goods are defective or fail to conform to this warranty, SCC will furnish instructions for their disposition. No Goods shall be returned to SCC without its prior consent.

SCC's liability for any defect in the Goods shall not exceed the purchase price of the Goods. SCC SHALL HAVE NO LIABILITY TO PURCHASER FOR CONSEQUENTIAL DAMAGES OF ANY KIND WHATSOEVER, INCLUDING, BUT NOT LIMITED TO, PERSONAL INJURY, PROPERTY DAMAGE, LOST PROFITS, OR OTHER ECONOMIC INJURY DUE TO ANY DEFECT IN THE GOODS OR ANY BREACH OF SCC, SCC SHALL NOT BE LIABLE TO THE PURCHASER IN TORT FOR ANY NEGLIGENT DESIGN OR MANUFACTURE OF THE GOODS, OR FOR THE OMISSION OF ANY WARNING THEREFROM.

SCC shall have no obligation or liability under this warranty for claims arising from any other party's (including Purchaser's) negligence or misuse of the Goods or environmental conditions. This warranty does not apply to any claim or damage arising from or caused by improper storage, handling, installation, maintenance, or from fire, flood, accidents, structural defects, building settlement or movement, acts of God, or other causes beyond SCC's control.

Except as expressly stated herein, SCC makes no warranty, express, implied, statutory or otherwise as to any parts or goods not manufactured by SCC. SCC shall warrant such parts or Goods only (I) against such defects, (II) for such periods of time, and (III) with such remedies, as are expressly warranted by the manufacturer of such parts of Goods. Notwithstanding the foregoing, any warranty with respect to such parts of Goods and any remedies available as a result of a breach thereof shall be subject to all of the procedures, limitations, and exclusions set forth herein.

THE WARRANTIES HEREIN ARE IN LIEU OF ALL WARRANTIES, EXPRESS, IMPLIED, STATUTORY, OR OTHERWISE. IN PARTICULAR, SCC MAKES NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

No representative, agent or dealer of SCC has authority to modify, expand, or extend this Warranty, to waive any of the limitations or exclusions, or to make any different or additional warranties with respect to Goods.

Period of Limitations: No claim, suit or other proceeding may be brought by Purchaser for any breach of the foregoing warranty or this Agreement by SCC or in any way arising out of this Agreement or relating to the Goods after one year from the date of the breach. In the interpretation of this limitation on action for a breach by SCC, it is expressly agreed that there are no warranties of future performance of the goods that would extend that period of limitation herein contained for bringing an action.

Indemnifications: Purchaser agrees to indemnify, hold harmless, and defend SCC if so requested, from any and all liabilities, as defined herein, suffered, or incurred by SCC as a result of, or in connection with, any act, omission, or use of the Goods by Purchaser, its employees or customers, or any breach of this Agreement by Purchaser. Liabilities shall include all costs, claims, damages, judgments, and expenses (including reasonable attorney fees and costs).

Remedies of SCC: SCC's rights and remedies shall be cumulative and may be exercised from time to time. In a proceeding or action relating to the breach of this Agreement by Purchaser, Purchaser shall reimburse SCC for reasonable costs and attorney's fees incurred by SCC. No waiver by SCC of any breach of Purchaser shall be effective unless in writing nor operate as a waiver of any other breach of the same term thereafter. SCC shall not lose any right because it has not exercised it in the past.

Applicable Law. This Agreement is made in Michigan; it is governed by and interpreted according to Michigan law. Any lawsuit arising out of this Agreement or the Goods may be handled by a federal or state court whose district includes Muskegon County, Michigan, and Purchaser consents that such court shall have personal jurisdiction over Purchaser.

LED Lighting Components Within Lighting System: Supermarket: 5-year LED warranty from date of shipment. **Foodservice:** 2-year LED warranty from date of shipment. After one year, warranty does not include labor or other costs incurred for diagnosing, repairing, removing, installing, shipping, servicing, or handling of either defective part or replacement parts. Remedy of repair or provision of a replacement part without charge shall be the exclusive remedy for any warranty claim. The replacement LED and/or power supply assumes the unused portion of warranty remaining on unit(s). A 90-day warranty will apply for any LED sold as a service part. Warranty claim must include serial and model number of unit as well as date code on defective LED lighting component(s). Manufacturer may request return of defective part(s) at customer's expense to initiate claim.

Glass Material: Glass (UV-bonded glass, glass sneeze guards, glass enclosures, glass held in place via posts, etc.) is only warranted to FIRST POINT OF DELIVERY.

Miscellaneous: If any provision of this Agreement is found to be invalid or unenforceable under any law, the provision shall be ineffective to that extent and for the duration of the illegality, but the remaining provisions shall be unaffected. Purchaser shall not assign any of its rights nor delegate any of these obligations under this Agreement without prior written consent of SCC. This Agreement shall be binding upon and inure to the benefit of SCC and Purchaser and each of their legal representatives, successors and assignees. SCC warrants its products to be free of defects in materials and workmanship under normal use and service for a period of one (1) year from the date of delivery.

This warranty is extended only to the original purchaser for use of the Goods. It does not cover normal wear parts such as plastic tongs, tong holders, tong cables, bag holders, or acrylic dividers.

General Conditions: All service labor and/or parts charges are subject to approval by SCC. Contact Customer Service Dept. in writing, by phone, fax or email.

All claims must contain the following information: (1) model & serial code number of equipment; (2) the date and place of installation; (3) the name and address of the agency which performed the installation; (4) the date of the equipment failure; and (5) a complete description of the equipment failure and all circumstances relating to that failure.

Once the claim has been determined to be a true warranty claim by SCC's Customer Service Department, the following procedure will be taken: (1) replacement parts will be sent at no charge from SCC on a freight prepaid basis; (2) reimbursement for service labor will be paid if the following conditions have been met - (a) prior approval of service agency was awarded from the Customer Service Department; and (b) an itemized statement of all labor charges incurred is received by the Customer Service Department. The cost of the service labor reimbursement will be based on straight time rates and reasonable time for the repair of the defect.

If problems occur with any compressor, notify SCC's Customer Service Department immediately. Any attempt to repair or alter the unit without prior consent from the Customer Service Department will render any warranty claim null and void. This warranty and protection plan does not apply to any condensing unit or any part thereof which has been subject to accident, negligence, misuse, or abuse, or which has not been operated in accordance with the manufacturer's recommendations or if the serial number of the unit has been altered, defaced, or removed.

One Year Limit of Liability: After SCC's one-year parts and labor warranty on the original F.O.B. (free on board) unit has expired, SCC is not liable for either the equipment or labor costs of repairing or replacing the motor compressor, nor any other components that were included in the original F.O.B. (free on board) unit.