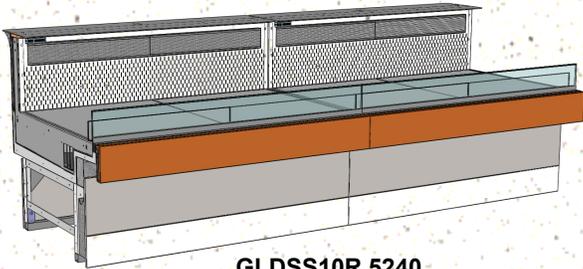


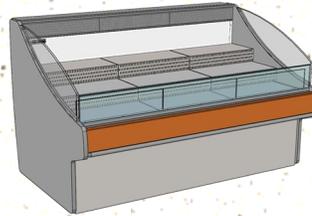
FUSION USER MANUAL

SCC P/N
5-7277

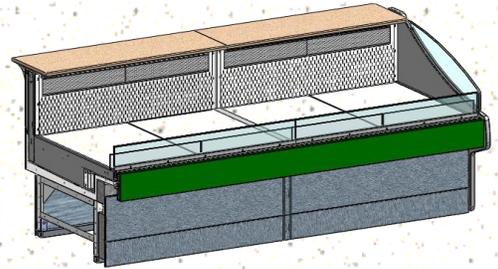
SELF-SERVICE* REFRIGERATED SINGLE DECK MERCHANDISERS



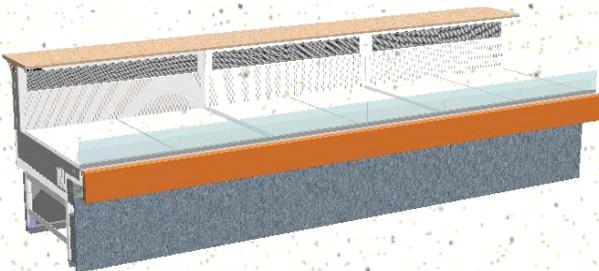
GLDSS10R.5240



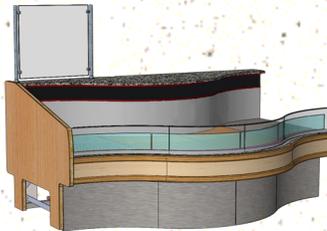
GLDSS6R.5322
(With Optional Risers)



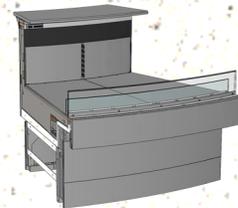
GLSS8R.4960



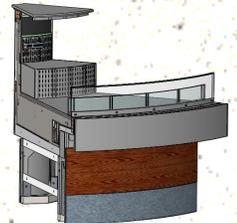
GLSS12R.4935 & GLSS12R.4958



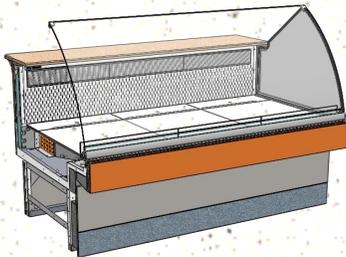
GLDSS9036RG.5655



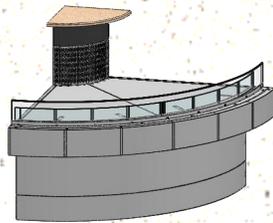
GLDSSX239R



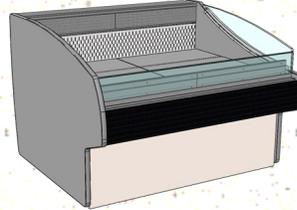
GLDSSX439R.6145
(With Standard Riser)



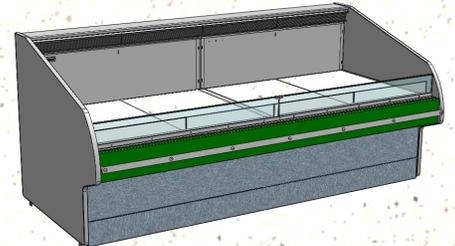
GLSS6R.4957 (*Service Case)



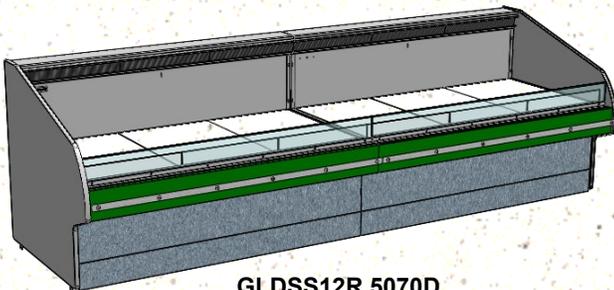
GLSSX9R.4934
& GLSSX9R.4959



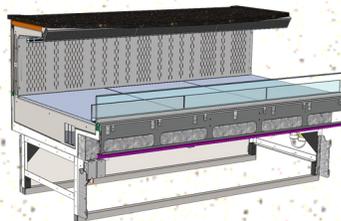
GLDSS4R



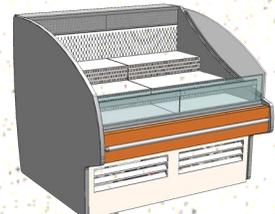
GLDSS8R.5070B



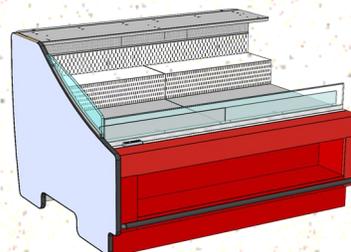
GLDSS12R.5070D



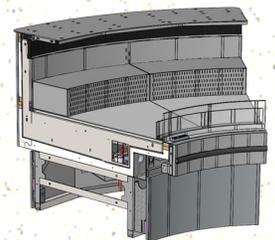
GLDSS6R.5070A



GLDSS443R
(With Optional Risers)



GLDSS539R.6145
(With Optional Risers)



GLDSSN439R.6145

Note: See *MODEL APPLICABILITY* section in this manual for a list of models represented by this manual. This manual may be applicable to models not listed herein.

TABLE OF CONTENTS

TABLE OF CONTENTS	2
MODEL APPLICABILITY	3
OVERVIEW / TYPE / COMPLIANCE / WARNINGS / PRECAUTIONS / WIRING / PLUGS	4-5
SKID REMOVAL	6
INSTALLATION: POSITIONING / ALIGNING / FRAME SUPPORT RAILS / LEVELERS	7
INSTALLATION, CONTINUED: CASE ADJOINMENT INSTRUCTIONS	8
ELECTRICAL CONNECTIONS (SELF-CONTAINED vs. REMOTE UNITS)	9
REFRIGERATED REAR STORAGE AREAS (NOT ON ALL MODELS)	10
OPTIONAL REAR 'PUSH-UP' WORK COUNTER	11
ADJUSTABLE SCALE STAND (GLDSS10R.5255) / REAR OUTLETS (GLDSS443R.5951)	12
START-UP AND OPERATION	13
MAINTENANCE FUNDAMENTALS: EVAP. FANS, TXV, DRAIN ACCESS, RISERS (AKA "STEPS")	14
MAINTENANCE FUNDAMENTALS: TEMPERATURE CONTROLLER, MAIN POWER SWITCH	15
MAINTENANCE FUNDAMENTALS: OPTIONAL CLEAN SWEEP CONDENSER COIL	16
MAINTENANCE FUNDAMENTALS: REFRIG. PKG. LAYOUT (FROM MODEL GLDSS443R)	17
MAINTENANCE FUNDAMENTALS: REFRIG. PKG LAYOUT (FROM MODEL GLDSS1243R)	18
MAINTENANCE FUNDAMENTALS: REFRIG. PKG LAYOUT (SAMPLE ELECTRIC COIL UNIT)	19
HONEYCOMB AIR DIFFUSERS (SERVICE TECHNICIANS ONLY)	20-21
START-UP & OPERATION - THERMO-SIMPLE 2 (TS.2) DIGITAL THERMOMETER ALARM	22-23
SERIAL LABEL INFORMATION & LOCATION	24
CLEANING SCHEDULE (TO BE PERFORMED BY STORE PERSONNEL)	25
AVONITE SURFACE CLEANING, CARE & MAINTENANCE	26
CLEANING SCHEDULE: STAINLESS STEEL (TO BE PERFORMED BY STORE PERSONNEL)	27
BUTCHER BLOCK CLEANING INSTRUCTIONS (TO BE PERFORMED BY STORE PERSONNEL)	28
CAESARSTONE® SOLID SURFACE (TO BE PERFORMED BY STORE PERSONNEL)	29
PREVENTIVE MAINTENANCE (TO BE PERFORMED BY TRAINED SERVICE PROVIDER)	30-31
TROUBLESHOOTING (TO BE PERFORMED BY TRAINED SERVICE PROVIDERS ONLY)	32-34
TROUBLESHOOTING - CONDENSING SYSTEM (BY TRAINED SERVICE PROVIDERS ONLY)	35
TROUBLESHOOTING - EVAPORATOR SYSTEM (BY TRAINED SERVICE PROVIDERS ONLY)	36
PROGRAMMABLE CONTROLLER INFORMATION	37
TECHNICAL SERVICE CONTACT INFORMATION / WARRANTY INFORMATION	38

MODEL APPLICABILITY

This Operating Manual is Generally Applicable To The Following G-Series Self-Service Refrigerated Single Deck Merchandiser Models:

GLDSSN2R GLDSSN4R GLDSSN9R GLDSS23239R GLDSS439R GLDSS443R GLDSS443R.5951
GLDSS543R GLDSS543R.5951A GLDSS639R GLDSS639R.6145 GLDSS643R GLDSS839R
GLDSS839R.6145 GLDSS839R.6851D GLDSS843R.5951C GLDSS9036RG.5655 GLDSS1039R
GLDSS1043R GLDSS1043R.5951D GLDSS1239R GLDSS4R GLDSS4R.5070 GLDSS4R.5322B
GLDSS4R.5454 GLDSS5R GLDSS6R GLSS6R.4933 GLSS6R.4957 GLDSS6R.5069 GLDSS6R.5070
GLDSS6R.5179 GLDSS6R.5238 GLDSS6R.5322 GLDSS6R.5454A GLDSS8R GLDSS8R.5070B
GLDSS8R.5178 GLDSS8R.5245 GLDSS8R.5322A GLDSS8R.5454B GLDSS8R.5454SB
GLDSS8R.6022 GLDSS12R.5070D GLDSS12R.5375 GLDSS12R.5454D GLDSS843R
GLDSS843R.5440 GLDSS1243R GLDSSN439R.6145 GLDSSN943R.5951H GLDSSX2R GLDSSX4R
GLDSSX9R GLDSSX9R.5239 GLDSSX9R.5323 GLSS8R.4960 GLDSS10R.5454C GLSS12R.4935
GLSS12R.4958 GLDSS12R.5454D GLDSSX4R.6024 GLSSX9R.4934 GLSSX9R.4959 GLSSX9R.5177
GLDSSX9R.5239 GLDSSX9R.5454AA GLDSSX9R.6023 GLDSSX239R GLDSSX239R.6145
GLDSSX439R.6145 GLDSSX443R GLDSSX939R.6145 GLDSS336R.6145 GLDSS539R.6145
GLDSSX943R GLDSSX940R.5570 GMDS6R.5241 GMDS10R.5243 GMDS10R.5255 SO96R.5440

OVERVIEW

- These Structural Concepts cases are designed to merchandise packaged products at 41 °F (5 °C) or less product temperatures (unless custom cases with wire rack shelving).
- Product must be pre-chilled to 41 °F (5 °C) or less before being placed in merchandiser.
- Cases should be installed and operated according to this operating manual's instructions to ensure proper performance. Improper use will void warranty.

TYPE 1 vs. TYPE 2 CONDITIONS

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

- Type 1 conditions: ambient conditions are to be 55% max. humidity and 75 °F (24 °C) max. temperature.
- Type 2 conditions: ambient conditions are to be 60% max. humidity and 80 °F (27 °C) max. temperature.

- If unsure if unit is Type 1 or 2, 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 compliance guideline.

WARNINGS

- This page contains important warnings to prevent injury or death. Please read carefully!

PRECAUTIONS and WIRING DIAGRAMS

- See next page for **PRECAUTIONS** and **WIRING DIAGRAM** information.



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



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



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



WARNING
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.



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

PRECAUTIONS

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

WIRING DIAGRAM

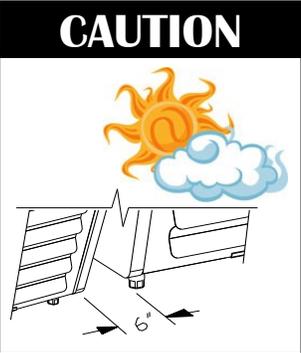
- Each case has its own wiring diagram folded and in its own packet. It may be placed near ballast box, field wiring box, raceway cover, or other related location.

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



CAUTION! ADVERSE CONDITIONS / SPACING ISSUES

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

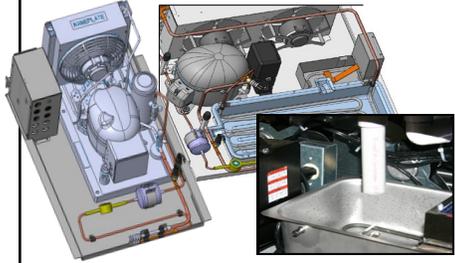


CAUTION! POWER CORD AND PLUG MAINTENANCE
 Risk of electric shock. If cord or plug becomes damaged, replace only with cord and plug of same type.



CAUTION! 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!

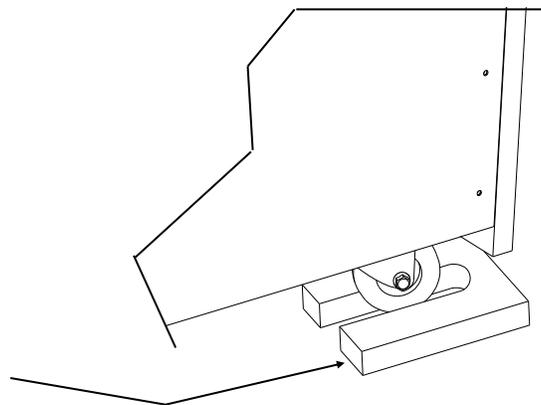
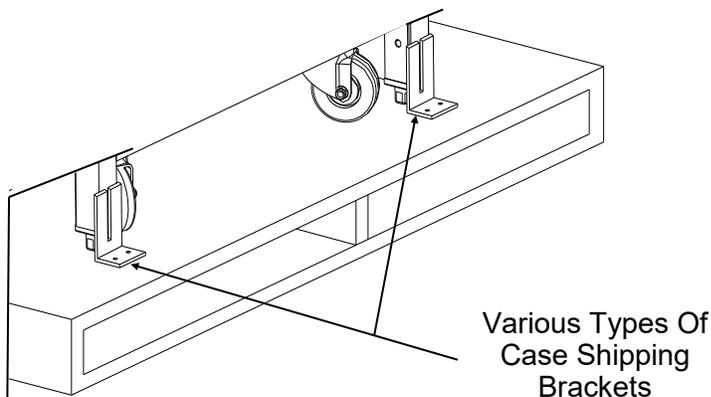
- Before powering up case, check that condensate pan is positioned directly under case’s condensate drain.
- Before powering up case, check that condensate pan’s electrical plug is **SECURELY** connected to condensate system’s receptacle.
- If wicking material is used in condensate pan, check that it is **secure**.

CASE REMOVAL FROM SKID (CASTERS, LEVELERS OR FRAME SUPPORT RAILS)

1. Removing Case Shipping Brackets That Are Attached To Skid

- Remove screws holding Case Shipping Brackets to skid.
- Remove Case Shipping Brackets from Skid.
- See illustrations below.
- **Note:** Shipping Brackets will vary in size, shape, material and location depending upon case type and model.

Note: Units shown may not depict an exact representation of your particular unit being installed.

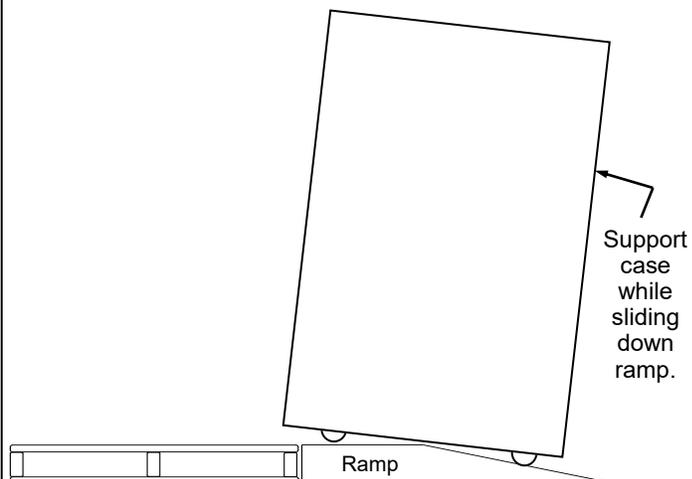
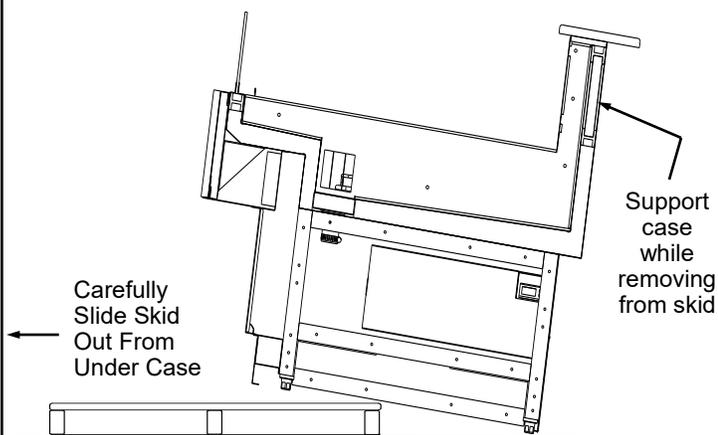


2. Remove Case (With Levelers or Frame Support Rails) From Skid

- To prevent damage, support case while sliding it toward edge of skid.
- When case is at edge of skid, carefully lower to floor so that two levelers (or one frame support rail) rests on floor.
- Carefully slide skid out from under case.
- After case is off skid, place into position.
- **Note:** Illustration below reflects general outline of sample case and does not reflect any particular model or options).

3. Remove Case (With Casters) From Skid

- A. Place ramp up against skid (to allow case to smoothly slide off from skid).
 - B. Maintain support of case at all times or center of gravity may cause case to fall.
 - C. Unlock Casters. Slide unit to rear of skid. Slide down ramp and off from skid.
- **Note:** Illustrations reflect general outline of sample case and may not reflect your particular model or options).



INSTALLATION: POSITIONING / ALIGNING / FRAME SUPPORT RAILS / LEVELERS

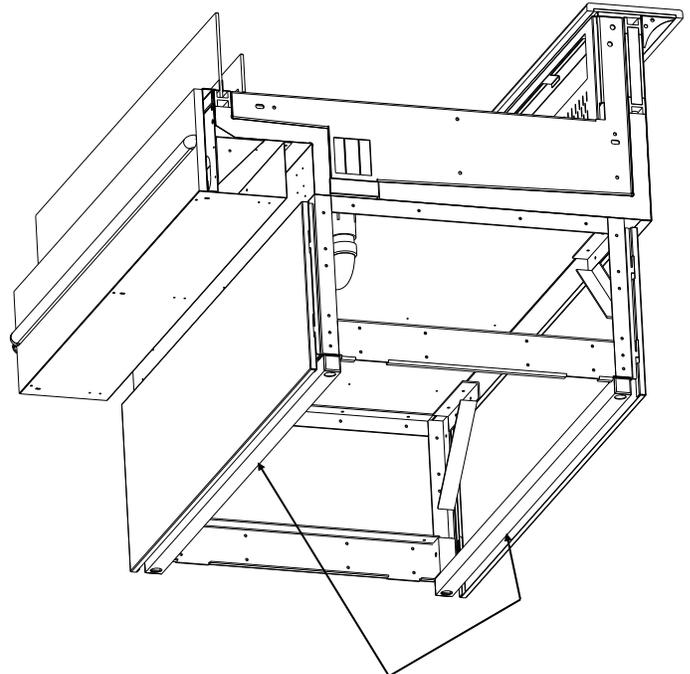
Note: Units shown may not depict an exact representation of your particular unit being installed.

1. Position & Align Case Alongside Other Cases

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

2. Cases With Frame Support Rails: Shim

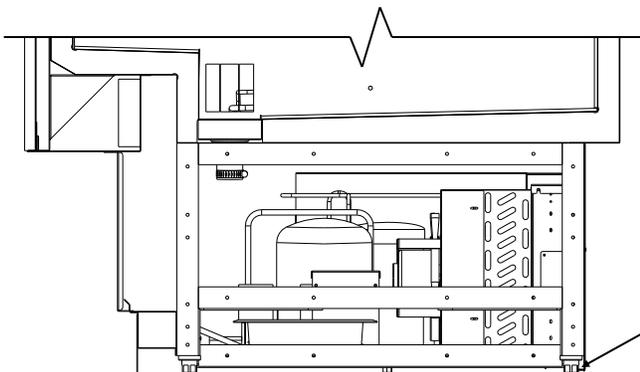
- Illustration at top right shows case with frame support rails.
- Shims will be provided with all cases that have frame support rails.
- Use shims to level case.
- **Note: After case is in position, it must be sealed to floor to prevent entry or leakage of liquid or moisture.**



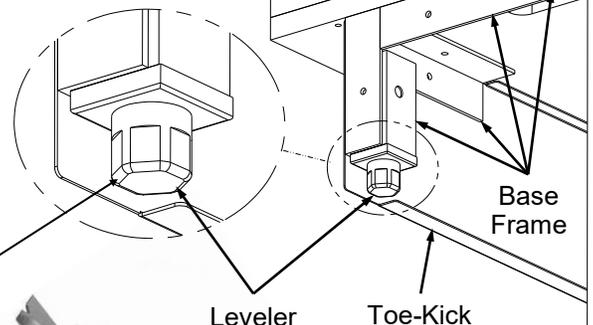
Frame Support Rails

3. Cases With Levelers: Adjust Levelers

- After case is in position, adjust case so it is level and plumb (see illustration at right).
- You may need to remove front and/or rear Toe-Kick to access levelers.
- Use adjustable wrench (and possibly a pry bar) to adjust leveler.
- Do not use Pry Bar on Toe-Kick as it may buckle.
- Do not use Pry Bar on End Panel as it may chip.
- Use Pry Bar **ONLY** on Base Frame to avoid damaging case.
- See illustration and photos below and at lower right.



Adjustable Wrench



Leveler

Toe-Kick

Pry Bar

INSTALLATION, CONTINUED: CASE ADJOINMENT INSTRUCTIONS

4. Case Adjoinment Instructions

- >> Warranty is void if improper caulk/sealant is used.
- >> Lay generous beads of caulk/sealant as specified.

A. Prior To Adjoinment - Apply Industrial Butyl Caulk at Center of Uprights

- Lay a generous bead of industrial grade butyl caulk at center of uprights (in non-visible areas).
- This butyl caulk prevents refrigerated air from escaping between cases (causing condensation and reducing refrigeration efficiency) as well as preventing ants or other insects from entering case.
- See illustration below.

B. Adjoining Cases - Using Bolts and Nuts

- Use appropriately sized nuts and bolts for each hole.
- #1 - Hole is accessible at underside of top surface support.
- #2 - Holes are accessible through rear plenum and behind honeycomb air diffuser.
- #3 - Holes are accessible at underside of decking. Decking must be removed to attach bolts/nuts.

- #4 - Holes are accessible at base frame (through front of case after front toe-kicks have been removed).
- Tighten nuts securely (but do not over-tighten).
 - See accompanying illustration below.

C. After Adjoinment - Apply Food Grade Silicone Sealant To Inner And Outer Seams

- After all nuts/bolts are securely attached to case, apply a generous bead of food grade silicone sealant at both inner and outer adjoinment seams.
- When properly applied, this food grade silicone sealant will prevent water from seeping between cases (into the case or to the floor) as well as crumbs or other residue from entering between case seams.
- See illustrations below.

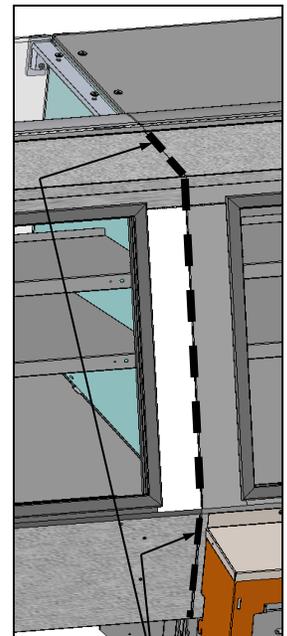
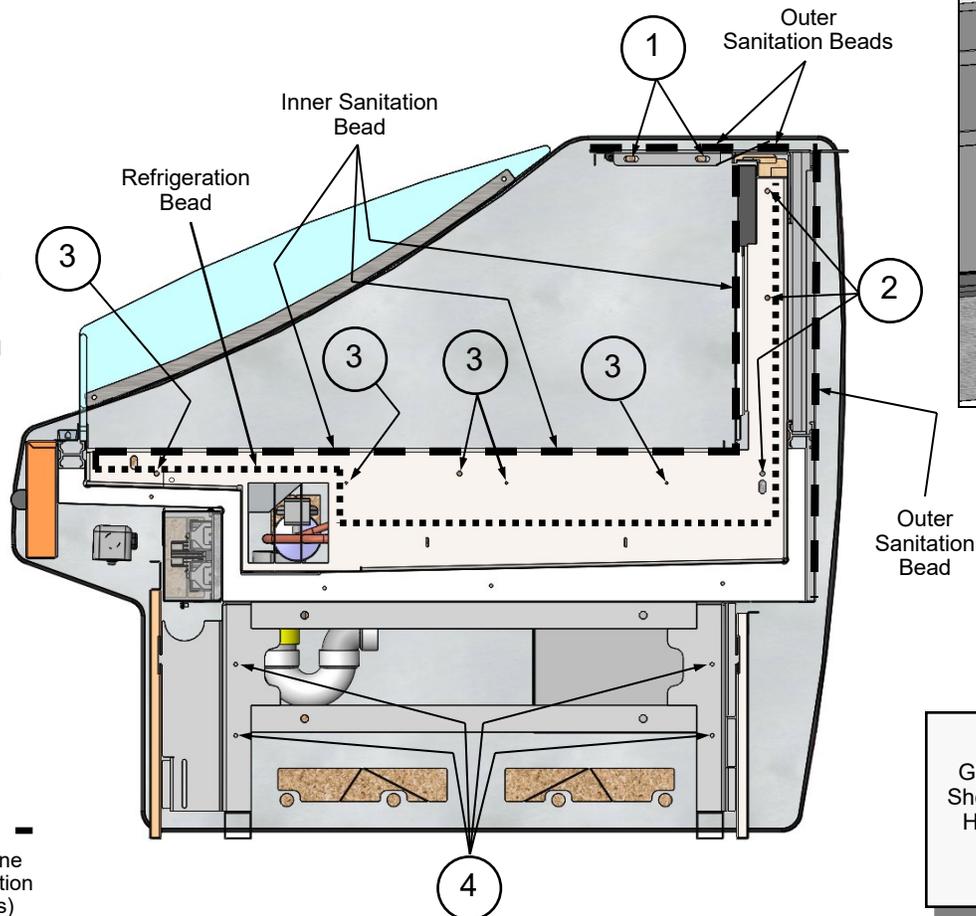
>> You must reattach toe-kick and decking after case adjoinment process is complete.



Industrial Grade Butyl Caulk (For Refrigeration Bead Applications)



Food Grade Silicone Sealant (For Sanitation Bead Applications)



Outer Sanitation Bead To Be Applied At Outer Adjoinment Seams (Shown Above In Random Model)

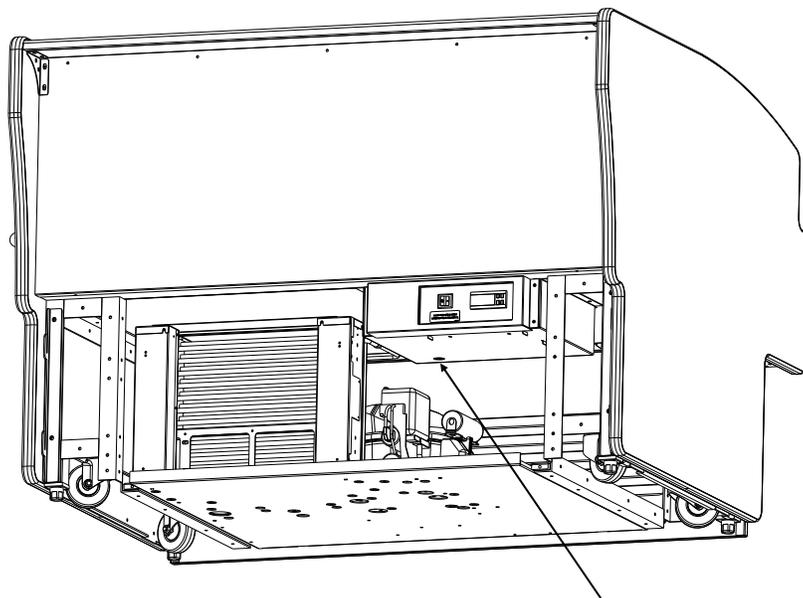
Note: Model GLDSS539R.6145 Is Shown at Left. Decking Has Been Removed For Illustrated Purposes Only.

ELECTRICAL CONNECTIONS (SELF-CONTAINED vs. REMOTE UNITS)

1. Electrical Connections (Self-Contained Units)

Field wiring hook-up/electrical access locations are shown in illustrations below (may not exactly reflect your particular unit).

- Single phase leads are provided.
- See Technical Information Sheet for more information.



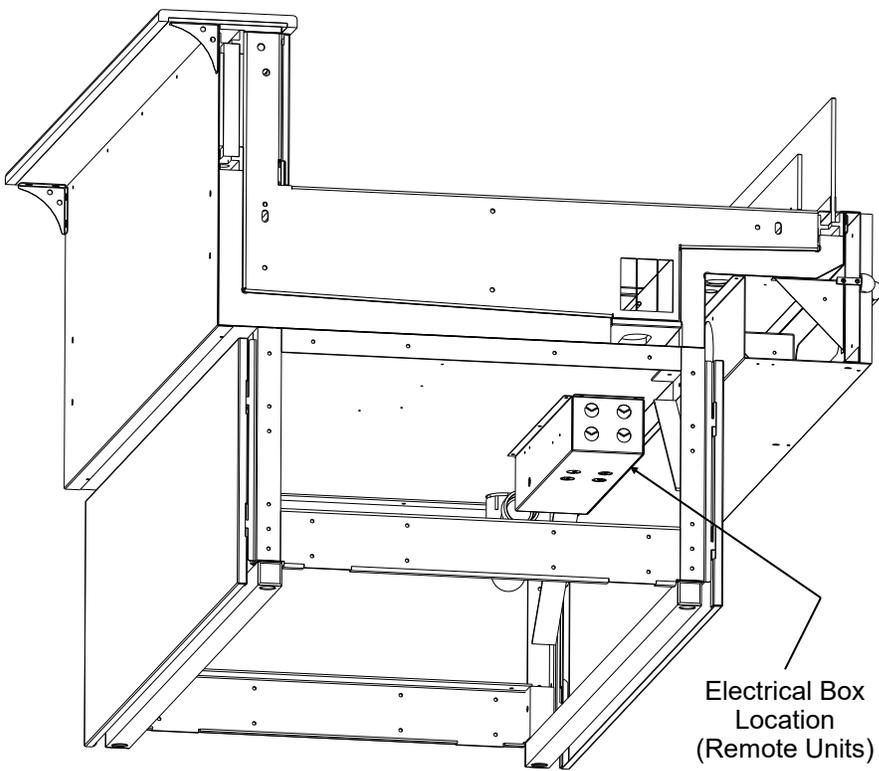
Note: Rear of case is shown with rear grille lifted up and off.

Field Wiring Hookup (for Self-Contained Cases)

2. Electrical Connections (Remote Units)

Field wiring hook-up / electrical access locations are shown in illustrations below (may not reflect your particular unit).

- Single phase leads are provided.
- See Technical Information Sheet for more information.
- Note: Illustration at right may not exactly reflect your particular unit.



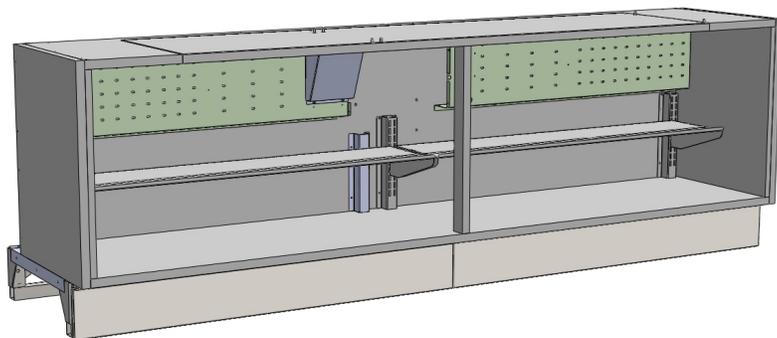
Note: Illustration shown may not exactly reflect every feature or option of your particular case.

Electrical Box Location (Remote Units)

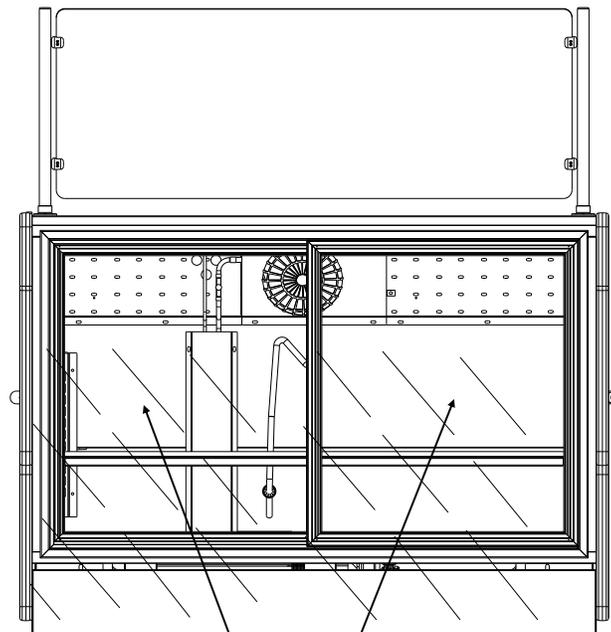
REFRIGERATED REAR STORAGE AREAS (NOT ON ALL MODELS)

Refrigerated Rear Storage Areas (Not on All Models)

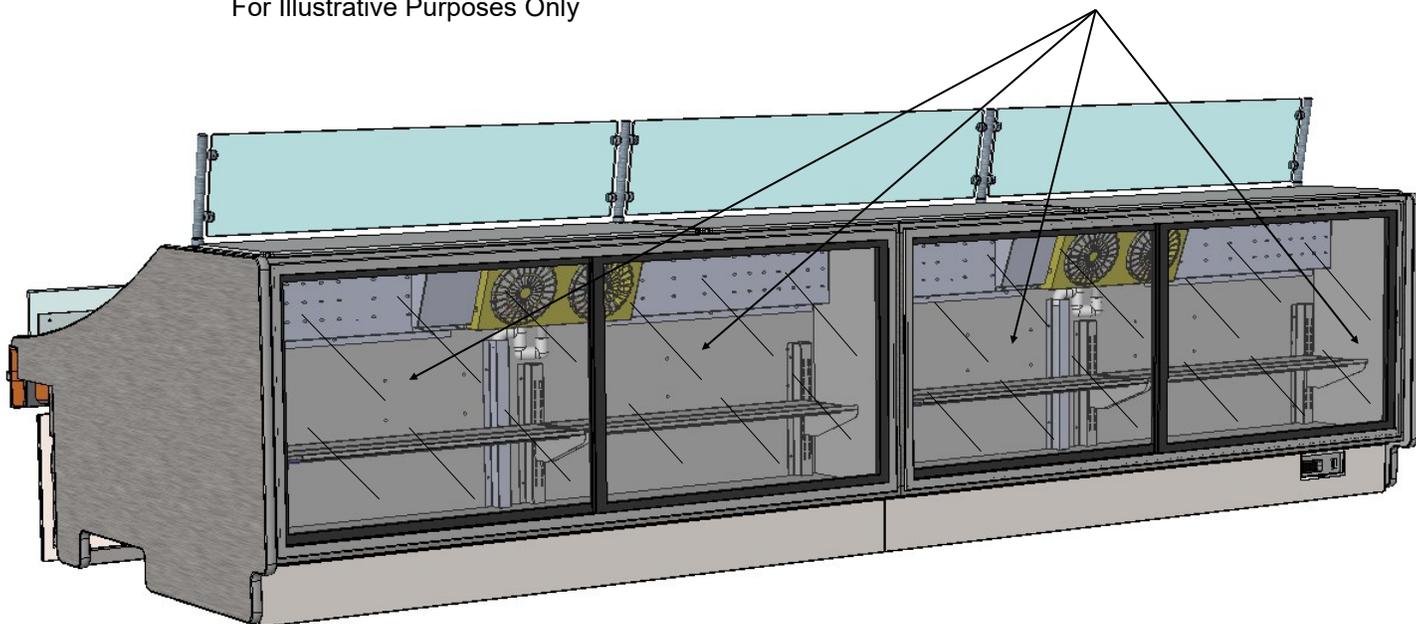
- Refrigerated rear storage area illustrations show transparent doors (or removed doors) for illustrative purpose only.
- Most models have rear refrigerated storage part of standard model.
- Optional: Customer specified rear refrigerated storage units are entirely separate from merchandiser (as shown directly below).
- Adjustable shelves and cooling fan(s) are inside storage area.
- See ***CLEANING SCHEDULE (TO BE PERFORMED BY STORE PERSONNEL)*** section in this manual for cleaning schedule and procedure.



Optional Refrigerated Supplies Organizer (SO96R.5440)
To Attach to Rear of Customer Specific Cases Only
(e.g. GLDSS843R). Rear Sliding Doors Removed
For Illustrative Purposes Only



Sliding doors on these models are shown transparent. Depending upon model, some cases may be opaque.



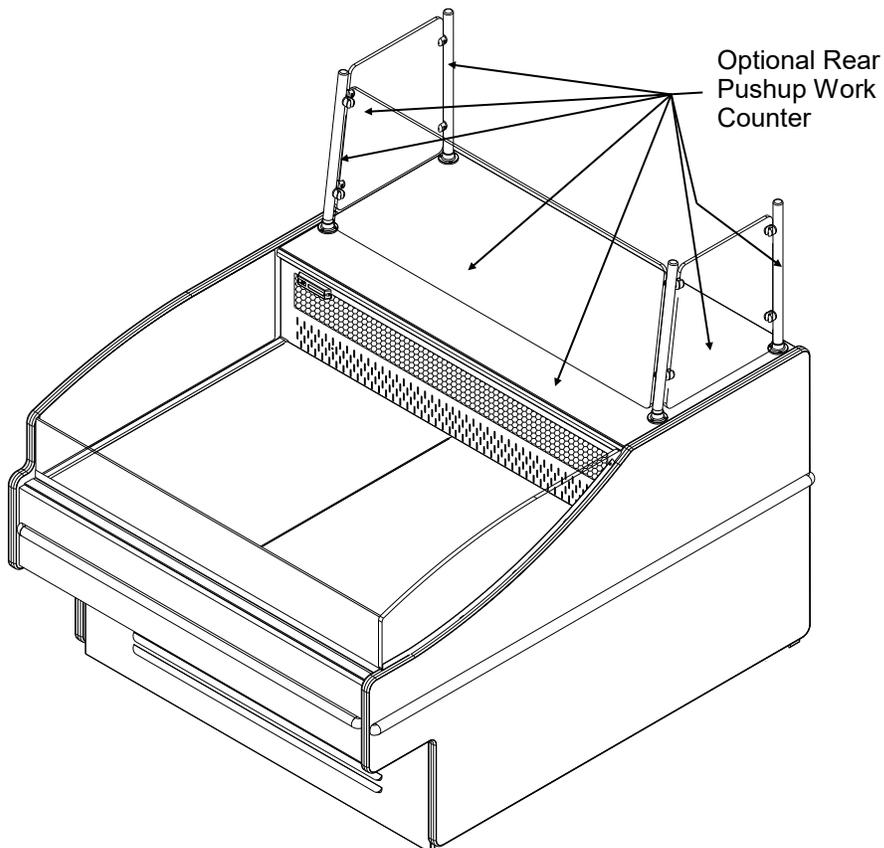
Model GLDSS12R.5375
Is Shown Above

OPTIONAL REAR 'PUSH-UP' WORK COUNTER

Note: Units shown may not depict an exact representation of your particular unit being installed.

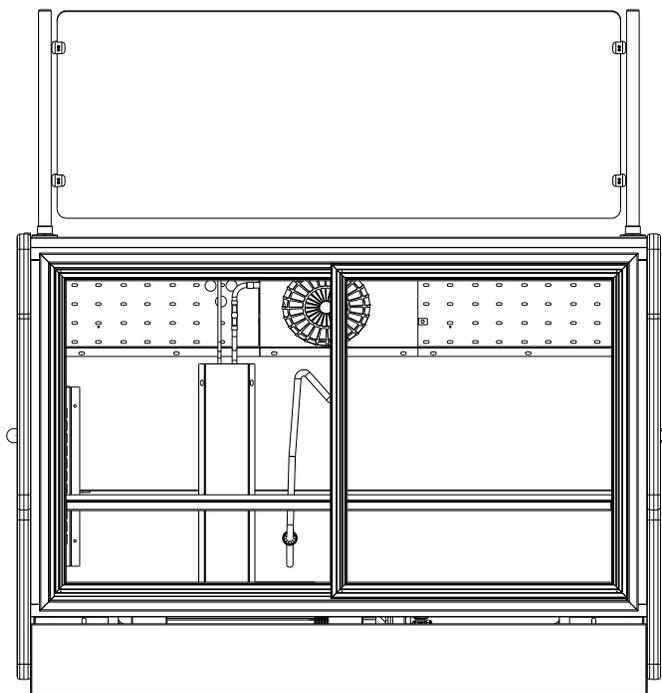
1. Optional Rear 'Push-up' Work Counter (And Its Accompanying Sneeze Guard') - ISO View

- View shown at right is illustrated with optional rear pushup work counter.
- Note: Illustration at right is of sample model. Your model will vary in appearance.



2. Optional Rear 'Push-up' Work Counter (And Its Accompanying 'Sneeze Guard') - Rear View

- View shown at right is of self-contained unit with optional rear 'push-up' work counter in place.
- Sliding doors will allow access to storage shelf and allow for refrigeration maintenance.



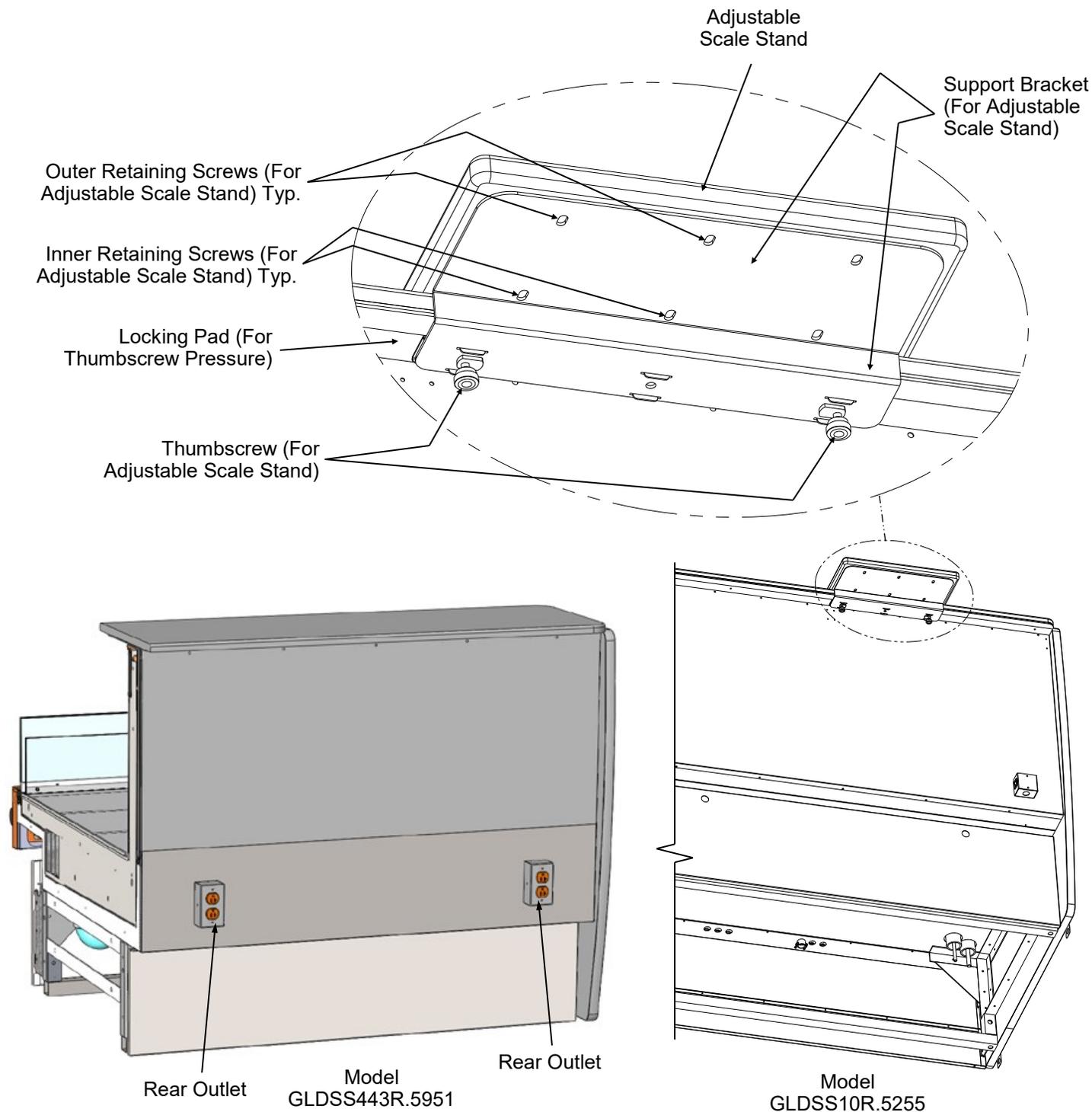
Note: Illustrations shown may not exactly reflect every feature or option of your particular case.

Above view shown with sliding doors transparent (for illustrative purposes only). Sliding doors are not transparent.

Adjustable Scale Stand

- View shown below is illustrated with optional rear pushup work counter.
- Entire adjustable scale stand may be removed from case for cleaning purposes. See **CLEANING SCHEDULE (TO BE PERFORMED**

BY STORE PERSONNEL) for instruction on removing scale stand and cleaning specifics. If adjustable scale stand material is butcher block, see **BUTCHER BLOCK CLEANING INSTRUCTIONS** section in this manual.



START-UP AND OPERATION

1. Merchandiser Refrigeration Assembly Pan Slide-Out Feature

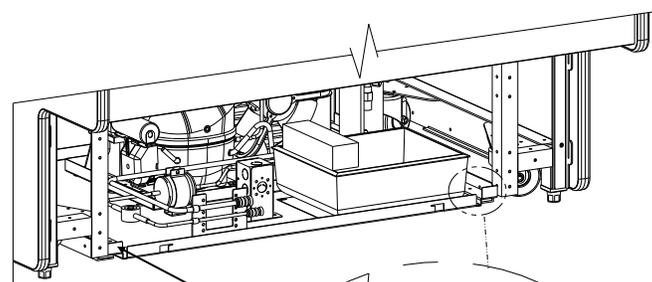
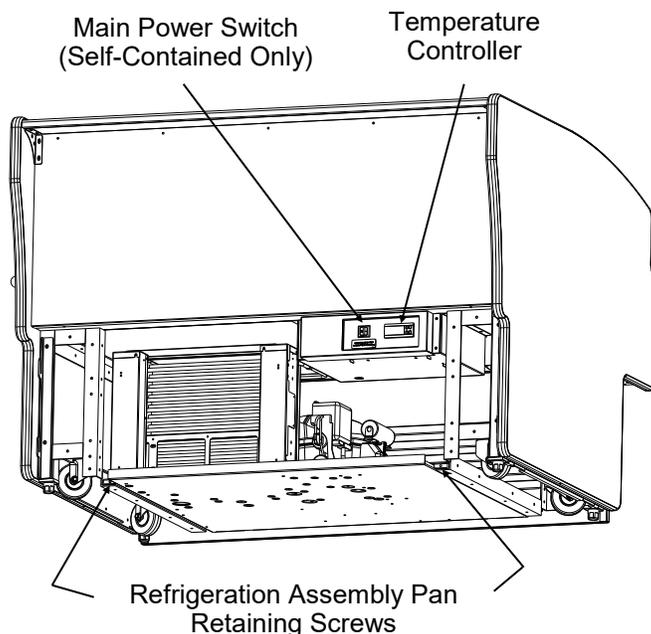
- Retaining screws must be removed to allow refrigeration assembly to be slid out (for servicing and/or cleaning).
- See illustration at top-right.
- **Note:** Two additional screws must be removed from top of rails for pan to slide out allowing refrigeration assembly access. See illustration at mid-right.

2. Merchandiser Start-Up - Refrigeration

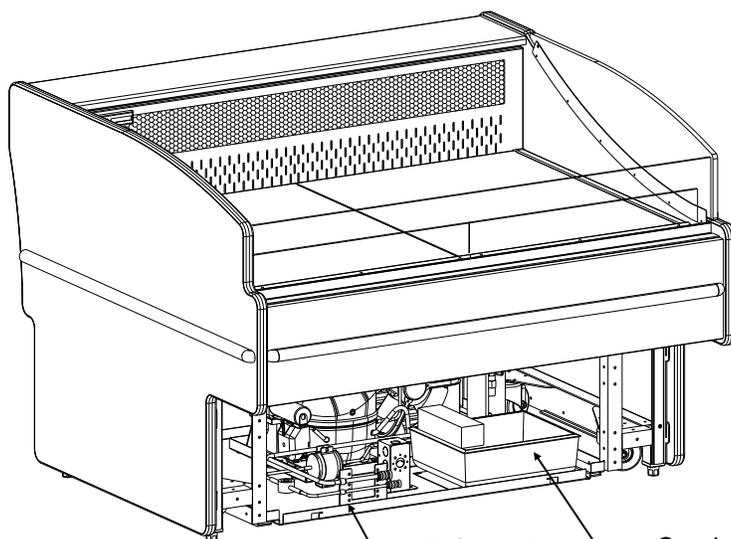
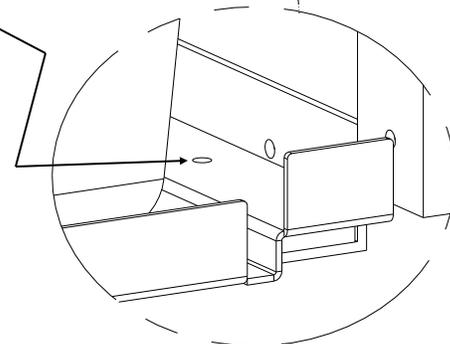
- **Self-Contained Only:** Before turning on Main Power switch, remove front panel (by lifting up and off; no screw removal required).
- **Caution!** Check that the condensate pan is positioned directly under the drain BEFORE turning on Main Power!
- Return front panel to the case in same manner it was removed. See below illustration.

3. Merchandiser Start-Up - Electrical

- **Remote Units:** Case is hard-wired. When power is supplied, case will power-up.
- **Self-Contained:** Main Power switch is located at case rear-right. See illustration at top right (rear panel is removed to show main power switch and temperature controller).
- Rear panel is designed to be lifted up and off without screws.



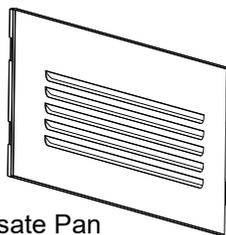
Two additional screws must be removed from top of rails for pan to slide out.



Refrigeration Package

Condensate Pan (Electric Coil Evaporation Units)

View of Case Front



Front Panel (Lift Up and Off). No Screw Removal Required

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

MAINTENANCE FUNDAMENTALS: EVAP. FANS, TXV, DRAIN ACCESS, RISERS (AKA "STEPS")

1. Evaporator Fans, TXV and Drain Access

- Caution! Turn Main Power off and disconnect from outside power source.
- Remove decking and sub-deck.
- Perform maintenance, service or cleaning as required.
- Return decking and sub-deck to unit in reverse order in which they were removed.

2. Evaporator Coil Fan Discharge

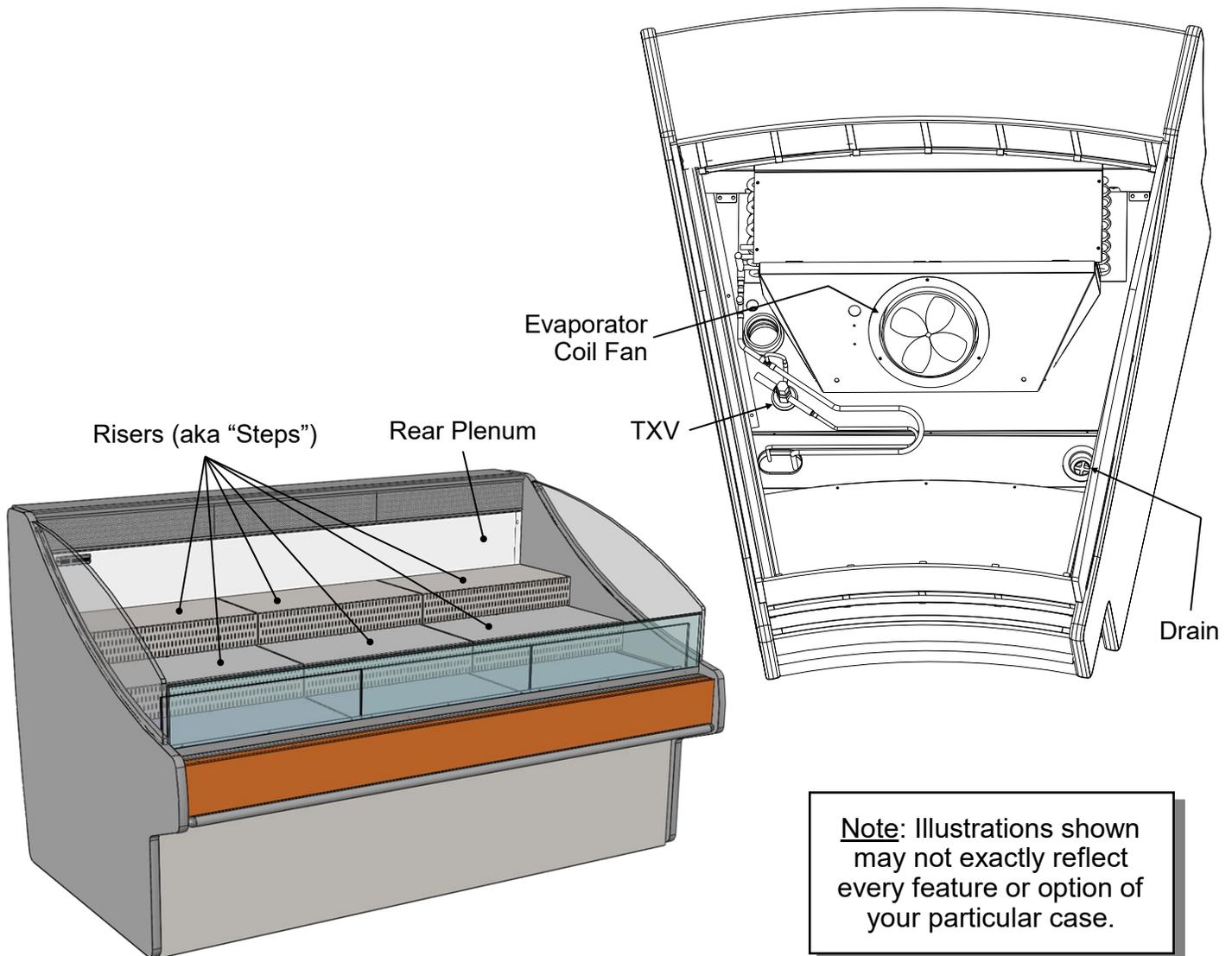
When main power switch is on, refrigeration assembly will energize (see **START-UP AND OPERATION** section in this operating manual).

- Coil fans should turn on. From inside of the case, check for discharge air from front baffle, to confirm that the fans 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.

3. Risers (aka "Steps")

- Risers ("steps") allow product to be more prominently displayed.
- Risers are to rest on decks and be placed as far back as possible (up against rear plenum).
- See **CLEANING SCHEDULE (TO BE PERFORMED BY STORE PERSONNEL)** in manual for instructions on cleaning risers/steps.

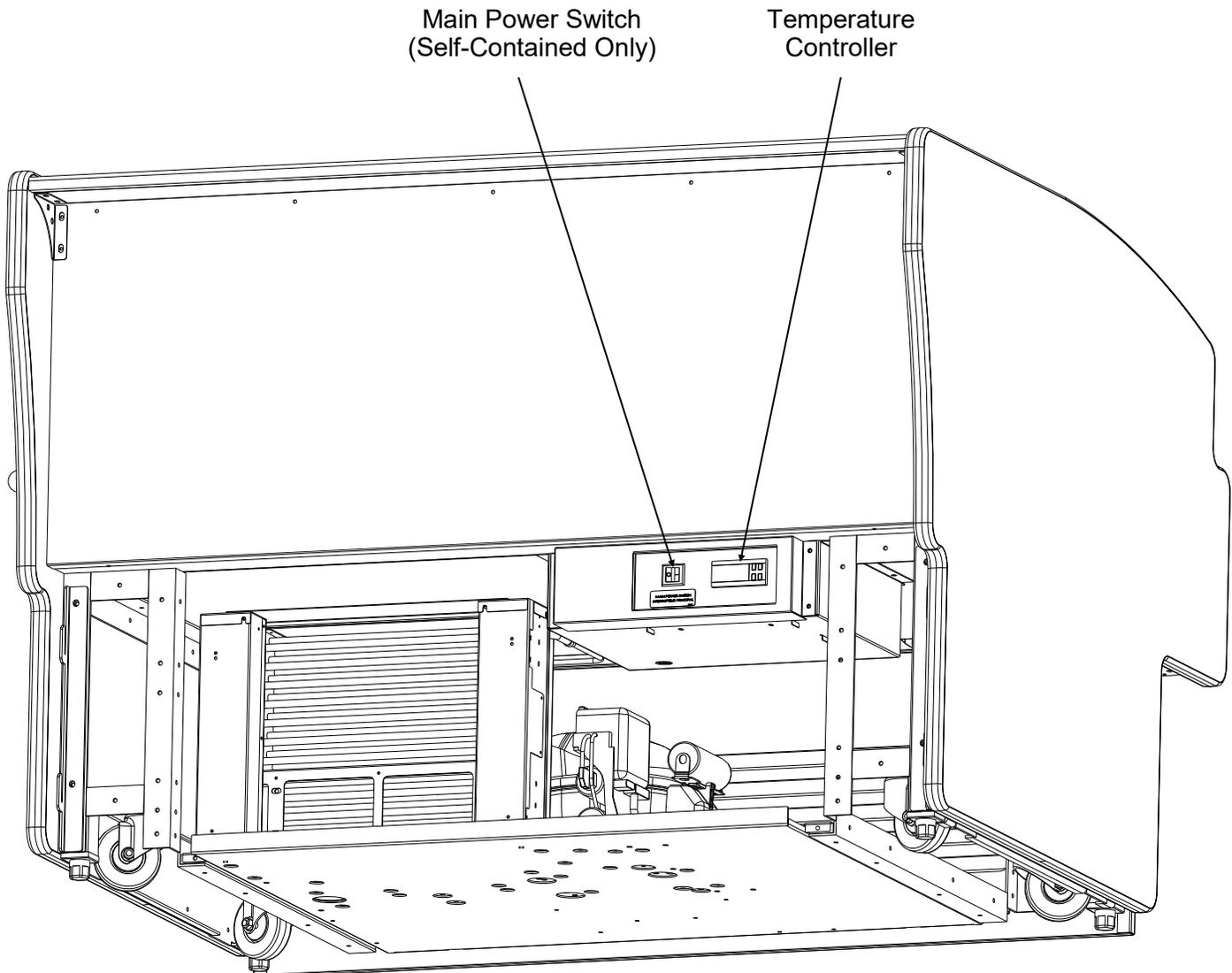


Model GLDSS6R.5322 (With Steps) Shown Above

4. Temperature Controller and Main Power Switch (Self-Contained Units Only)

- Self-Contained units have Temperature Controller in location shown below.
- Access by removing rear panel. Simply lift up and off (no screw removal is required).
- See Temperature Controller section of this manual for specifics on settings & parameters.
- Illustration below has rear panel lifted up and off unit (to allow access to Main Power Switch and Temperature Controller).

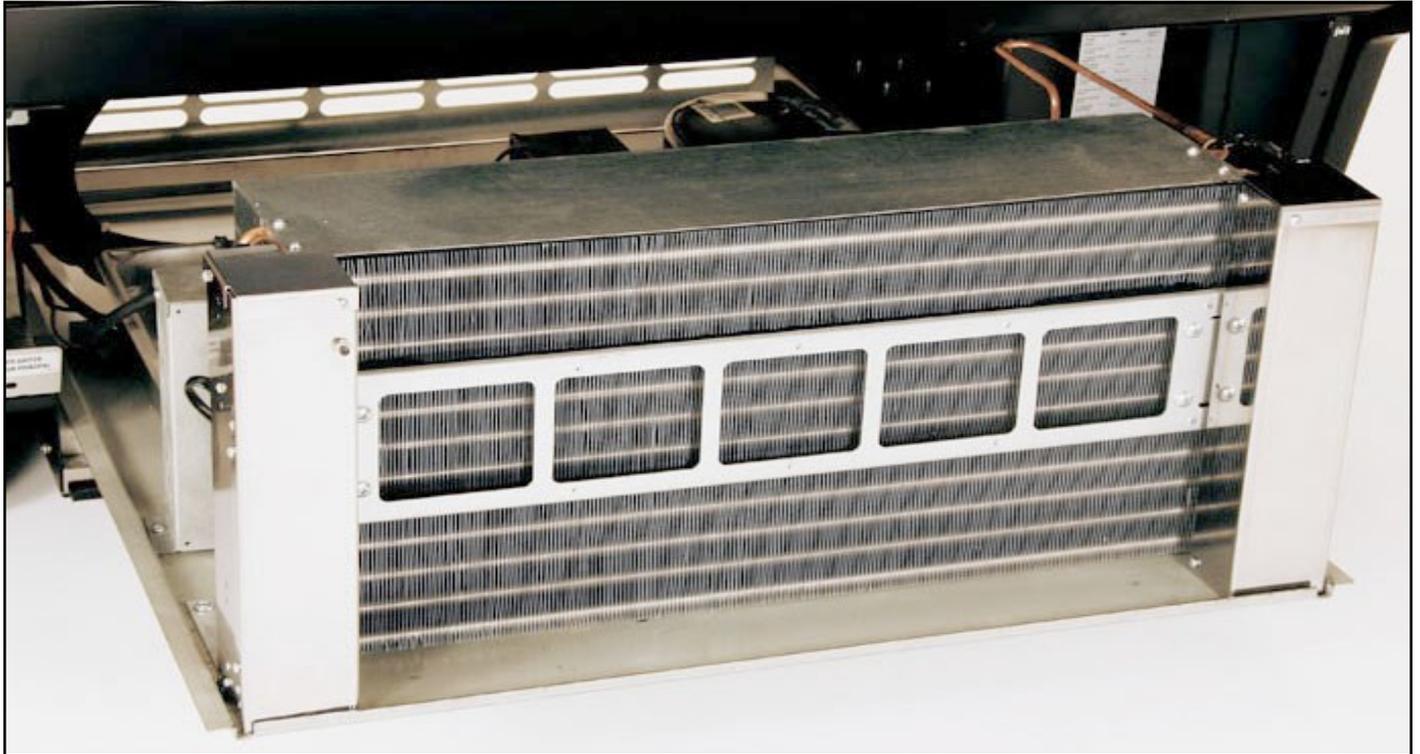
Note: Illustration shown may not exactly reflect every feature or option of your particular case.



Above illustration is shown with rear panel removed for illustrative purposes only.

5. Optional Clean Sweep Condenser Coil (Self-Contained Units Only)

- Clean Sweep Condenser Coil (photo below) is accessible by removing rear grille.
- See *Preventive Maintenance (To Be Performed By Trained Service Provider)* for cleaning instructions.
- Photo below is after rear grille has been removed case

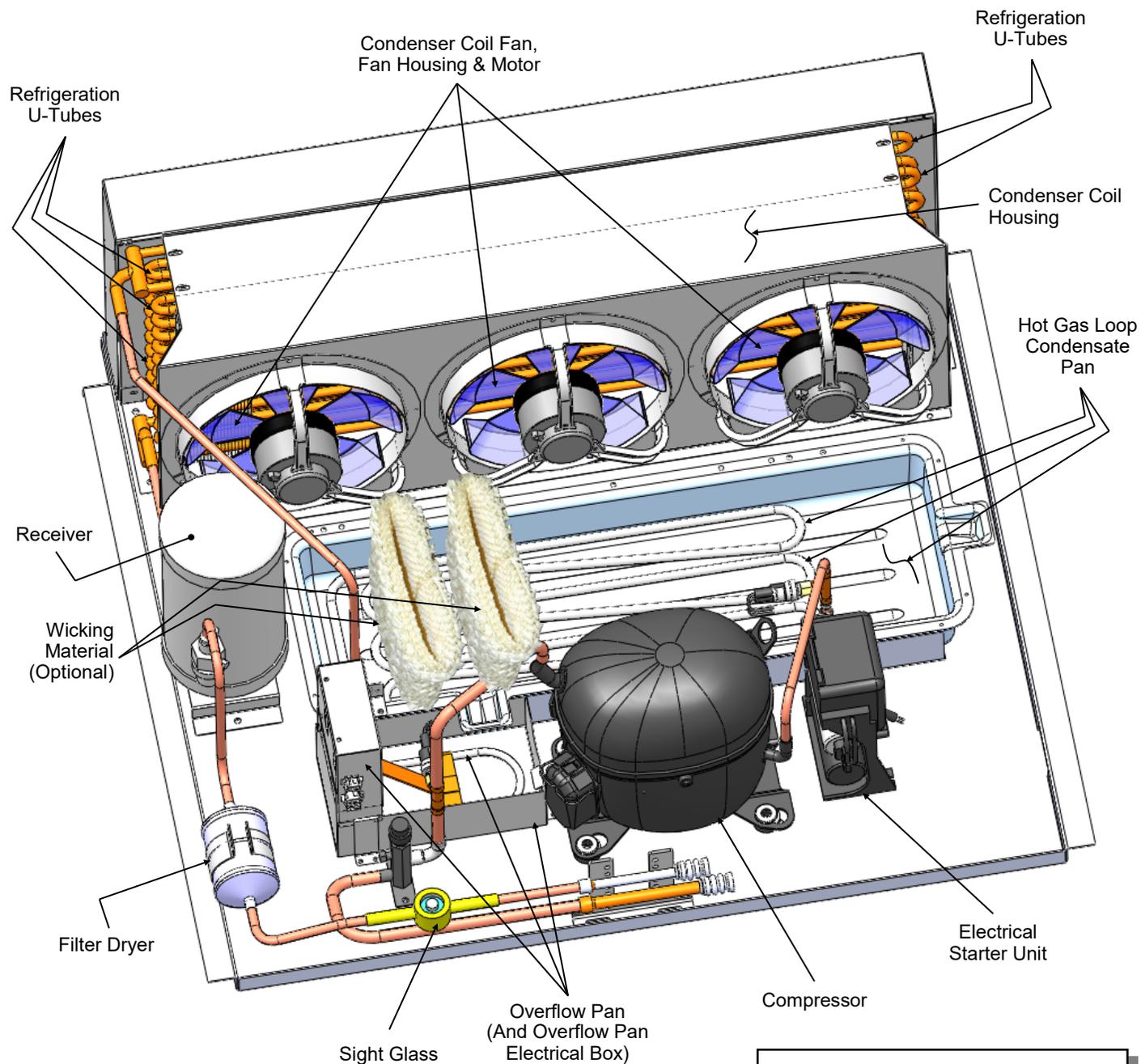


MAINTENANCE FUNDAMENTALS: REFRIGERATION PKG LAYOUT (FROM MODEL GLDSS1243R)

7. Refrigeration Package Layout (Hot Gas Loop) on Model GLDSS443R (and Possibly Others)

- **Note:** Due to design variables, refrigeration package component layout can slightly vary in size and location.

- Refrigeration package shown below reflects model GLDSS1243R (hot gas loop condensate unit).
- See next page for sample illustration of electric coil condensate unit.

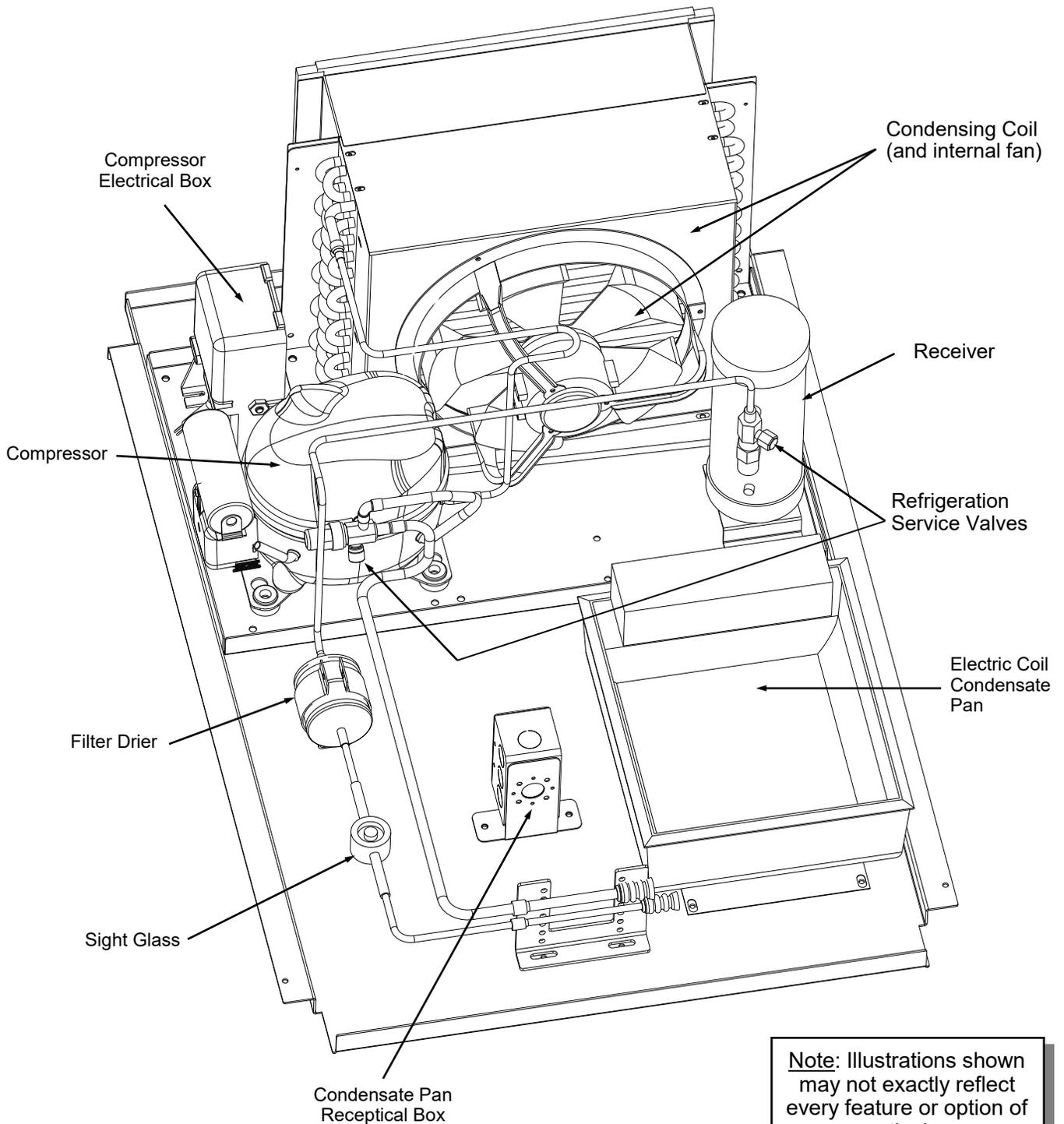


Note: Illustrations shown may not exactly reflect every feature or option of your particular case.

8. Refrigeration Package Layout (Electric Coil)

- **Note:** Due to design variables, refrigeration package component layout can slightly vary in size and location.

- Refrigeration package shown below reflects model MI4R (electric coil condensate unit) for sample illustrative purposes only.
- See previous page for illustration of hot gas loop condensate unit.



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

1. Flat Case 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).

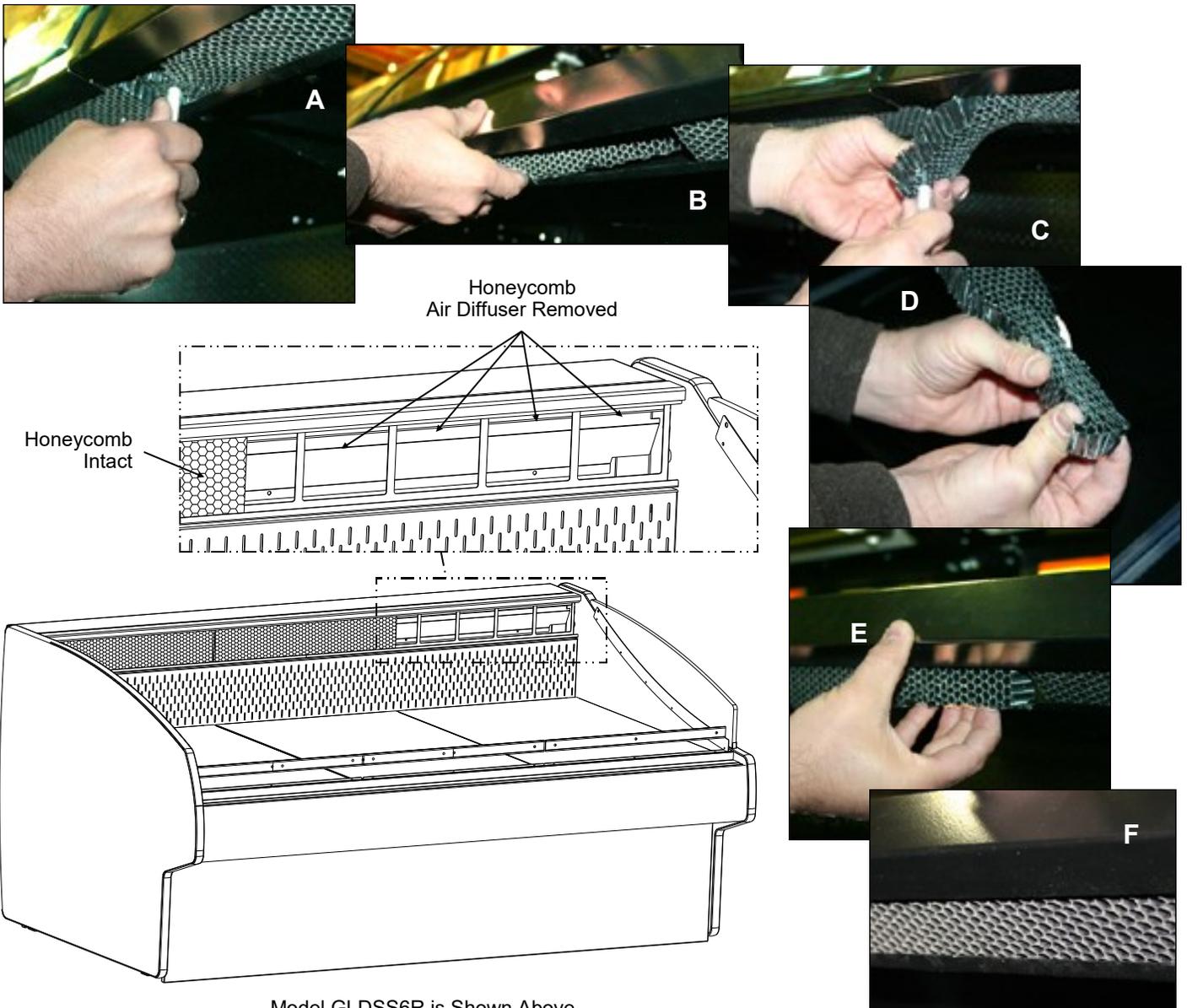
Honeycomb Air Diffuser Installation

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: See next page for honeycomb air diffuser information pertaining to oval cases.



Model GLDSS6R is Shown Above

2. Oval Case 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).

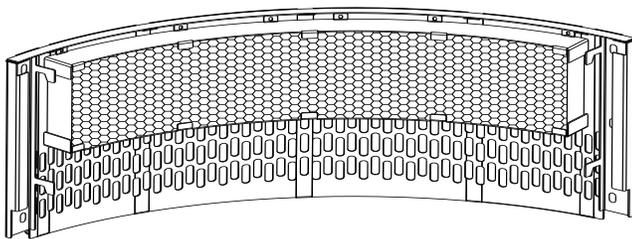
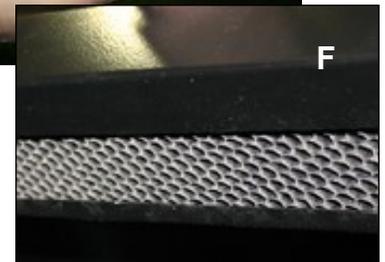
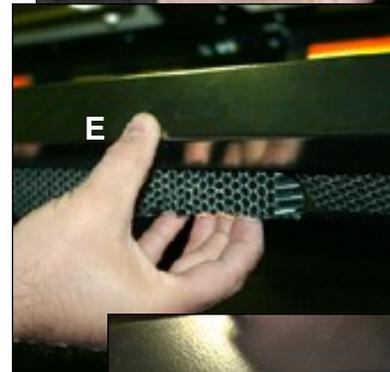
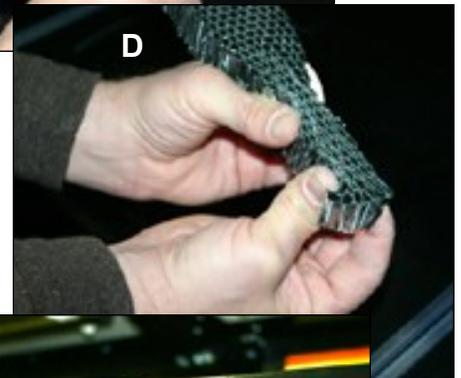
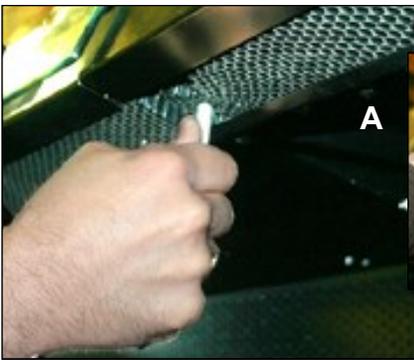
Honeycomb Air Diffuser Installation

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

E. Carefully slide honeycomb into place.

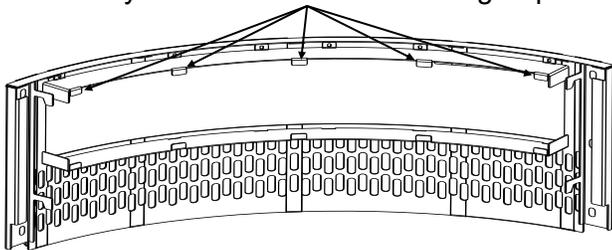
F. Adjust honeycomb so that it fits flat against retainer. It must not be wavy or out of position.

Note: See previous page for honeycomb air diffuser information pertaining to straight/flat cases.

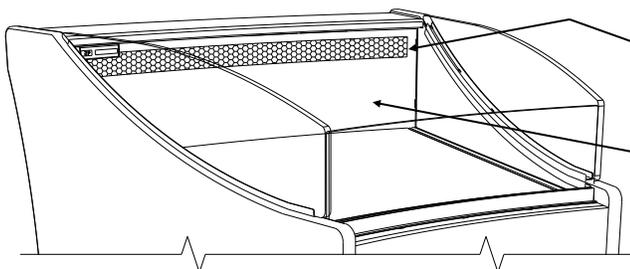


View of Panel Back Assembly with Honeycomb Air Diffuser Intact

Honeycomb Air Diffuser Retaining Clips



View of Panel Back Assembly with Honeycomb Air Diffuser Removed



Honeycomb Air Diffuser

Panel Back Assembly

Thermo-Simple 2 (TS.2)

The Thermo-Simple 2 (TS.2) is an advanced communicating digital thermometer alarm with preprogrammed settings for many low, medium and hot temperature applications. Alert functionality can be as simple as “no light, no problem” to full color display effects for conditions such as defrost, frozen, fresh, normal operation, high temperature alarm, freeze warning and hot food case alarms.

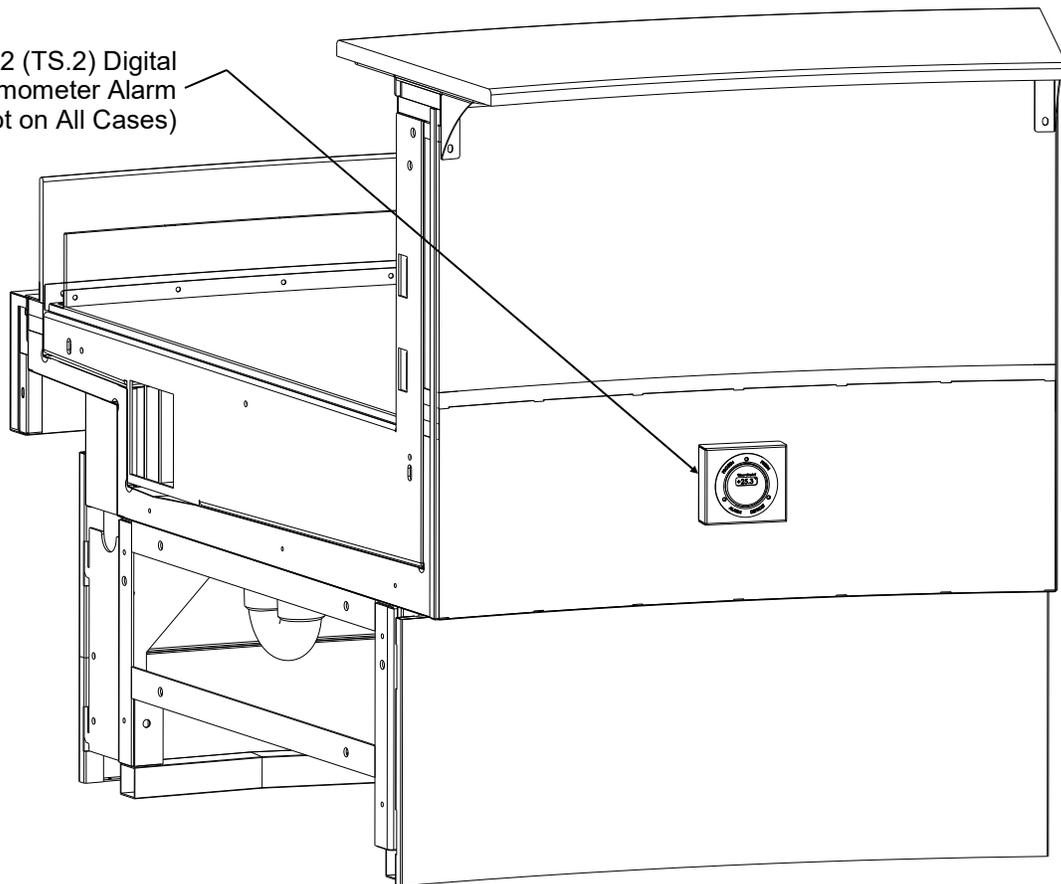
Thermo-Simple 2 (TS.2) Colors Schemes / Flashing / Alarm Status

The general LED states are solid and flashing colors. Please note that there are slight differences in LED color schemes at different set-points. For more detail refer to the Set-points section.

Solid color states mean good status (whether it is for frozen product (Blue) or for fresh product (Green)). Solid color states also indicate the state of the case using various colors (i.e. case in defrost cycle).

Flashing LED states indicate an alarm status, where attention is needed. Flashing blue signifies that the case temperature has dipped below the freezing set point (33.5°F freeze alarm). Flashing amber/yellow signifies that the case has been above set point temperature for at least 60 minutes (70 minutes for walk-in cooler set-points). Flashing red signifies that the case has been above set point temperature for at least 120 minutes (140 minutes on walk-in cooler set-points).

Thermo-Simple 2 (TS.2) Digital
Thermometer Alarm
(Note: Alarm is Not on All Cases)

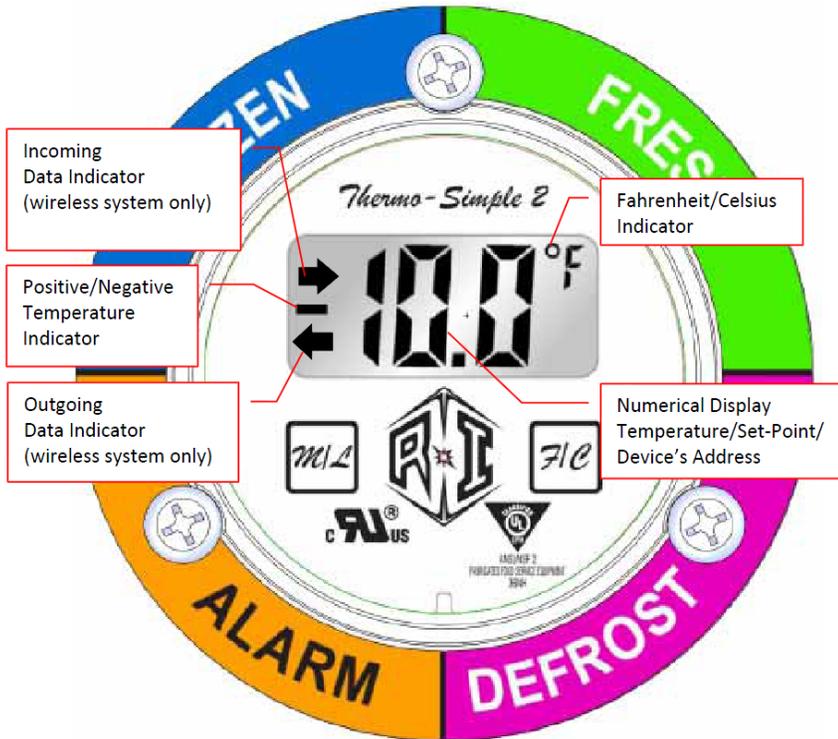


NOTE: THESE
TWO PAGES
PROVIDE A
GENERAL
OVERVIEW OF THE
**Thermo-Simple 2
(TS.2)** DIGITAL
THERMOMETER
ALARM.

SEE THE
**Thermo-Simple 2
(TS.2)** Manual
(SCC P/N 20-16086)
FOR MORE
SPECIFIC
INFORMATION.

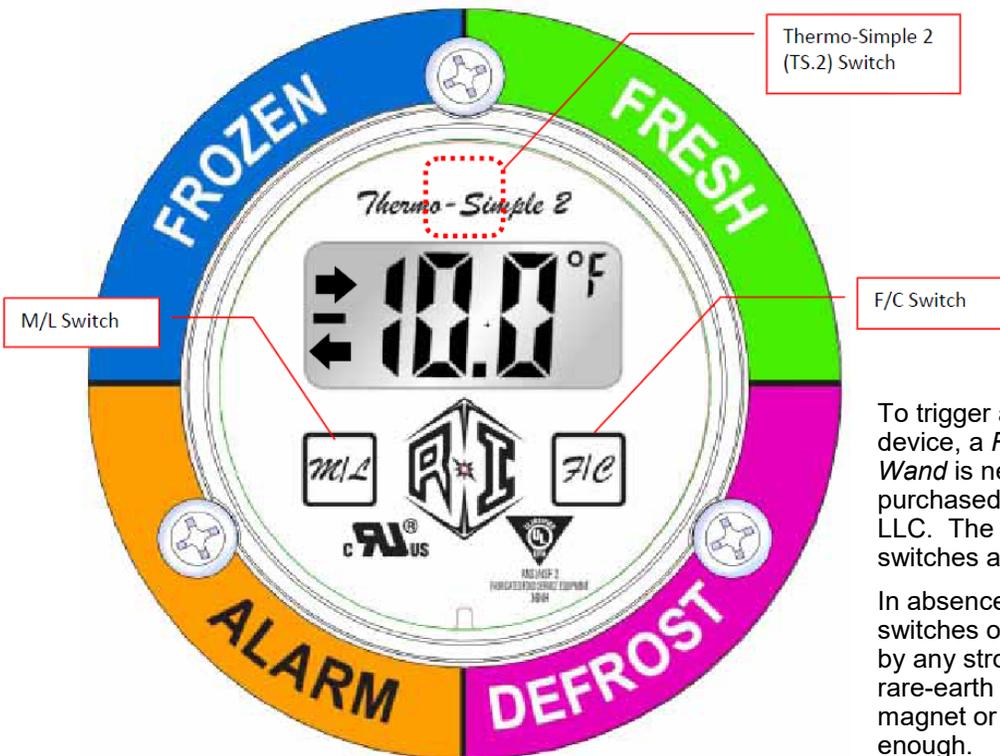
--- Model GLDSSX239R Case Rear Shown Above ---

Thermo-Simple 2 (TS.2) Display



NOTE: THESE TWO PAGES PROVIDE A GENERAL OVERVIEW OF THE *Thermo-Simple 2 (TS.2)* DIGITAL THERMOMETER ALARM. SEE THE *Thermo-Simple 2 (TS.2)* Manual (SCC P/N 20-16086) FOR MORE SPECIFIC INFORMATION.

Thermo-Simple 2 (TS.2) Magnetic Switches



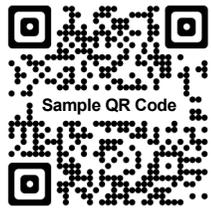
To trigger a magnetic switch on the TS.2 device, a *Refrigeration Innovation Magik Wand* is needed. The Magik Wand can be purchased from Refrigeration Innovation, LLC. The Magik Wand will ensure that the switches are triggered properly.

In absence of a Magik Wand, the magnetic switches on a TS.2 device can be triggered by any strong magnet (Neodymium rare-earth type). A typical refrigerator door magnet or whiteboard magnet is not strong enough.

Serial Label Location & Information Listed / Technical Information & Service

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

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

<p>Structural Concepts® 888 E. Porter Rd - Muskegon, MI 49441</p>		<p>Reveal Blend Harmony Impulse Oasis</p>	<p>Addenda Grocerant Fusion</p>	<p>MODEL NRS3648RXV-SAMPLE SERIAL NO. 12345X30DZ098765</p>
 Intertek	 Intertek	SAMPLE ONLY		
<p>3048256 Conforms to UL Std. 471 Conforms to NSF/ANSI Stds. 2 & 7 CERTIFIED TO CAN/CSA STD C22.2 NO 120</p>	<p>6-8 °F 6 defrosts per day, 45 °F</p>	<p>ELECTRICAL RATING REFRIGERANT DESIGN PRESSURE MINIMUM CIRCUIT AMPACITY MAXIMUM OVERCURRENT</p>	<p>120/1/60 16 A R513A AMOUNT 50 OZ HIGH 186 LOW 88 20A 20A</p>	SAMPLE ONLY
SAMPLE ONLY		<p>FOR PARTS AND SERVICE CALL 1-800-433-9490</p>	<p>SCAN FOR PRODUCT LITERATURE</p>  <p>Sample QR Code</p>	SAMPLE ONLY
<p>TYPE II DISPLAY REFRIGERATOR: THIS EQUIPMENT IS INTENDED FOR USE IN AN AREA WHERE THE ENVIRONMENTAL CONDITIONS ARE CONTROLLED AND MAINTAINED SUCH THAT THE AMBIENT TEMPERATURE DOES NOT EXCEED 80 °F (27 °C).</p>				

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

CLEANING SCHEDULE (TO BE PERFORMED BY STORE PERSONNEL)

AREA	FREQ.	INSTRUCTIONS
Exterior	Daily	Condenser Coil: Vacuum or brush condenser coil at case rear (after removing rear grille).
	Daily	Top Board or Work Counter (Optional in Rear 'Push-Up' Work Counter): Clean with a warm water and mild soap solution and soft cloth.
	Daily	End Glass / Glass Sneeze Guard on Rear 'Push-Up' Work Counter(Optional): Clean with a household or commercial glass cleaner. Wipe dry with clean, dry cloth or paper towel.
	Daily	Butcher Block: See BUTCHER BLOCK CLEANING INSTRUCTIONS (TO BE PERFORMED BY STORE PERSONNEL) for cleaning specifics.
	Daily	Avonite Solid Surface: See AVONITE SURFACE CLEANING, CARE & MAINTENANCE (TO BE PERFORMED BY STORE PERSONNEL) for cleaning specifics.
	Daily	Stainless Steel: CLEANING SCHEDULE: STAINLESS STEEL (TO BE PERFORMED BY STORE PERSONNEL) section in manual for specifics.
	Weekly	Acrylic Sneeze Guard: Clean with a warm water and mild soap solution and soft cloth. Never use ammonia-based cleaners on acrylic.
	Monthly	Rear Sliding Doors (For Storage Area): >> Door: Wipe down with warm water and mild soap solution and soft cloth. >> Door Tracks: Use vacuum to remove dust, dirt and other residue that is in door tracks. Then wipe down with warm water and mild soap solution and soft cloth.
	Quarterly	Adjustable Scale Stand: See ADJUSTABLE SCALE STAND section in manual. <ul style="list-style-type: none"> To clean butcher block, see next page. Remove adjustable scale stand by loosening thumbscrews, loosening all six (6) retaining screws and lifting off merchandiser. Caution! Use only hand-held Phillips™ screw driver to loosen retaining screws (at underside of adjustable scale stand). Do not use power driver! If unable to lift off merchandiser, it may be necessary to entirely remove inner retaining screws. Submersed in warm, soapy water. Use nylon bristled brush and/or soft cloth to remove residue. Rinse. Dry thoroughly before returning to merchandiser.
Interior	Weekly	Decks, Steps and Shelf Area (Optional in Rear 'Push-Up' Work Counter): Wipe off components with moist cloth. For stubborn, hardened residue, remove from case and submerge in warm, soapy water; use soft-bristled brush to remove residue. Rinse. Dry with paper towel or clean cloth. Return to case.
	Monthly	Air Return Grille and Fan Shroud Area: 1) Turn off power. 2) Remove decks from case. 3) Clean with moist cloth. See Maintenance Fundamentals that pertain to Evaporator Fans, TXV and Drain Access for illustration.



Avonite Solid Surfaces Cleaning, Care and Maintenance

Taking into account the fact that there are three types of Avonite countertops finishes, the care and maintenance tips are different.

The Three Finishes are: Satin, Matte and High Gloss

You must determine, based upon appearance, your particular unit's finish.

1. The **Satin** finish Avonite countertops should be cleaned with sponge, water and soap. For special stains you may use a non-abrasive cleanser and a white pad. In order to remove scratches, you should use 400 grit paper and then 600 grit paper. The area should be cleaned then with the white pad and the mentioned cleanser.
2. The **Matte** finish Avonite countertops should be cleaned with sponge, water and soap. Sanding with 240 grit paper and cleaning with a green pad and abrasive cleanser may help in removing scratches. Clean the entire matte surface form time to time in order to obtain the initial finish.
3. The **High Gloss** finish Avonite countertops should be cleaned with sponge, water and soap. For the persistent stains, you should use polishing compound and soft cloth. Sanding with 400 grit paper is helpful in the process of removing scratches. This type of surface may need machine polish and you need to contact the producer, in order to have the original finish of the Avonite countertop.

Additional Maintenance Guidance:

It is highly recommended not to stand on the Avonite countertops and to avoid sliding hard objects across these surfaces. Paint removers and other harsh chemicals should be avoided even if you have stubborn stains.

There are special methods of cleaning these stains and none of them include harsh chemicals. You should use cutting boards and special hot pads as part of your daily routine. Protectors should be used especially in the case of High Gloss finish, in the case of hard objects and pottery.

CLEANING SCHEDULE: STAINLESS STEEL (TO BE PERFORMED BY STORE PERSONNEL)

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.*

Butcher Block Cleaning Instructions

--- Recommended Cleaning Supplies ---

- | | |
|--|---------------------------------------|
| 1. Dishwashing Liquid | 4. Bleach (Optional) |
| 2. Clean Sponge / Cotton Cloth / Paper Towel | 5. Lemon Juice (Optional) |
| 3. Non-Toxic Wood Oil or Cream | 6. Steel Wool or Sandpaper (Optional) |

Please Follow These Instructions To Properly Clean and Care for Your Butcher Block Surface

1. Wash the countertop with mild soap and water. Regular liquid dish washing detergent works well. As little as 2 to 3 drops of liquid dish soap to a quart of warm water is sufficient. Use a clean sponge or dish towel to clean surface. **Caution!**



Never use an abrasive cleaning solution on ANY wood countertop!

2. Kill bacteria (often left behind by raw meat), with bleach. Add one tablespoon of bleach into one gallon of warm water. Do not use a higher concentration of bleach or wood will crack. Immediately rinse the countertop with this solution to kill any bacteria. This will help prevent food borne illnesses.



3. Remove tough stains from butcher block by pouring lemon juice on the surface and letting it soak for several seconds.

4. Dry the butcher block surface with a soft cloth immediately after cleaning. Do not allow standing water or moist surfaces to remain on the butcher block. Also, use the soft cloth to dry moist or wet crevices so that no moisture remains.



5. Varnished countertops do not need oil treatments. Just follow steps 1 through 4 above for varnished countertops. Maintain unvarnished surfaces with a non-toxic oil or warm mineral oil treatments on a weekly basis or whenever you notice the wood drying or color fading. Ironwood® Gourmet Butcher Block Oil (shown at left) is food safe. **Do not use vegetable oil or sunflower seed oil as the oil will become rancid and leave odor.** Apply mineral oil to the butcher block surface in thin coats. Allow the oil to permeate the surface for as little as 5 minutes and as long as six (6) hours. Blot excess oil off the countertop with a soft cloth. Wipe away the remainder with a paper towel or cotton cloth. Wait 12 hours before using the counter.



6. Stains on butcher block can be removed with steel wool or sandpaper. Rub on the surface until stains disappear. Then, coat the surface with mineral oil (see #5 for instructions).

7. Always use a plastic or metal cutting board on a wood surface when cutting. Cutting directly on the butcher block will leave behind knife marks that will be difficult to clean or repair.

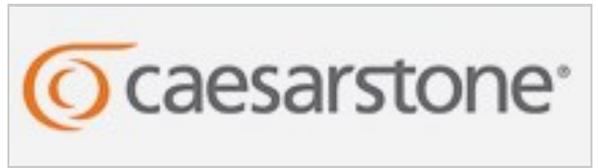


CaesarStone® Care & Maintenance

TAKING CARE OF YOUR QUARTZ SURFACE

CaesarStone quartz surfaces blend modern sophistication and timeless luxury with unbeatable strength and

durability. The ever-lasting finish requires only simple and routine care to maintain its good looks.



MINIMAL MAINTENANCE

Virtually maintenance-free, CaesarStone's hard, non-porous surfaces require no sealing to renew the luster and are simple to clean. In most cases, dip a clean, soft cloth into a solution of water and soap (or mild detergent) solution and wipe away dust, smudges and residue; then rinse with clean water to remove residue. This simple treatment is usually enough to keep your CaesarStone countertop looking like new. If necessary, use a non-abrasive soft soap along with a non-scratch or delicate scrub pad. Afterwards, thoroughly rinse with clean water to remove residue.

STUBBORN STAINS OR DRIED SPILLS

If needed, apply a non-abrasive household cleaners (a non-abrasive cleaner will not dull the surface shine); rinse to remove residue. To remove adhered material such as food, gum, nail polish or even dried paint, first scrape away excess material with a plastic putty knife and then use a damp cloth to remove any marks or residual dirt. For extra-stubborn stains, use a no-scratch Scotch-Brite® pad along with the non-abrasive cleaner recommended by your local CaesarStone® distributor.

HEAT TOLERANCE

CaesarStone is more heat resistant than other stone surfaces including most granite, marble and limestone; it is not affected by temperatures lower than 300 °F (149 °C). However, like all stone material, CaesarStone can be damaged by sudden and rapid temperature changes. Therefore, do not place hot pots or pans directly placed on the surface. Instead place a hot pad or trivet on the surface under cooking units such as electric frying pans, crock pots, or roaster ovens.

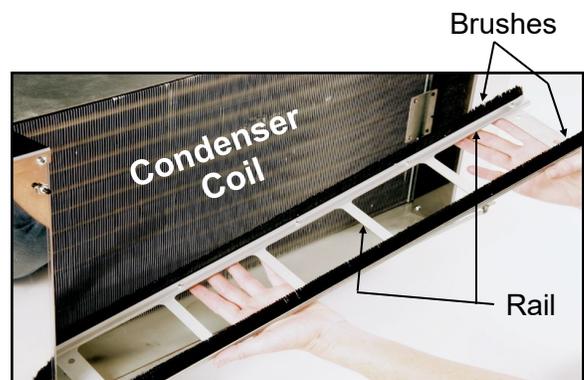
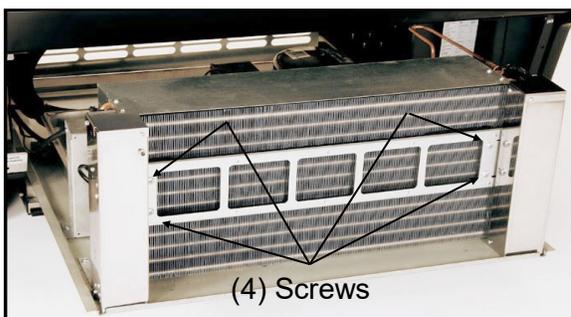
SCRATCH RESISTANT

CaesarStone is a highly scratch resistant surface; however avoid abuse of the surface by refraining from using sharp objects such as sharp knives or screw drivers directly onto the surface.

CLEANING AGENTS TO AVOID

- It's important to be aware that like any other surface, CaesarStone can be permanently damaged if exposed to strong chemicals and solvents that can damage its physical properties.
- Never clean your CaesarStone surface with products that contain Trichlorethane or Methylene chloride, such as paint removers or strippers.
- Avoid the use of highly aggressive cleaning agents such as oven/grill cleaners and dishwasher polishing agents that have high alkaline/pH levels (pH 8.5 or higher).
- Products containing oils or powders may leave a residue and should be rinsed off thoroughly. Should your surface accidentally be exposed to any of these damaging products, rinse immediately with clean water to neutralize the effect.

PREVENTIVE MAINTENANCE	FREQUENCY	INSTRUCTIONS
Case Exterior	Monthly	<p>Condenser Coil: <i>Disconnect power from case before cleaning the Condenser Coil!</i></p> <ul style="list-style-type: none"> • Remove Rear Grille (by removing 4 screws). • Roll / Slide out Refrigeration Assembly. Note: At initial slide-out, it may be necessary to remove two (2) Compressor Pan Shipment Screws for Refrigeration Assembly to slide out. • Use air pressure or industrial strength vacuum; clean dust and dirt that may collect on the Condenser Coil. See illustration below. • Caution! Coil fins are sharp. Handle with care! • Slide/Roll Condenser Unit Assembly back under case. • Replace Rear Grille to case (4 screws). • See illustration below.
	Quarterly	<p>Optional Clean Sweep™ Condenser Coil: <i>Disconnect power from case before cleaning Clean Sweep™ Condenser Coil!</i></p> <ul style="list-style-type: none"> • Remove Rear Grille (by removing 4 screws). • Slide/Roll out condensing unit assembly. • Remove the four (4) screws holding the Clean Sweep™ rails intact. • Remove the Clean Sweep™ rail. • Wash rails' brushes in hot water and mild soap solution. • If brushes are worn, they must be replaced. Call Technical Service Department to replace. Toll-Free number is listed at end of manual. • Clean Condenser Coil: Use air pressure or industrial strength vacuum; clean the dust and dirt that may collect on the Condenser Coil. • Caution! Coil fins are sharp. Handle with care! • Reattach Clean Sweep rail to condensing unit (4 screws). • Slide/Roll Condensing Unit Assembly back under case. • Replace Rear Grille to case (4 screws). • See photos below.



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

PREVENTIVE MAINTENANCE	FREQUENCY	INSTRUCTIONS
Case Exterior	Quarterly	<p>Compressor Area: <i>Warning! Disconnect power from the case before cleaning Condenser Coil!</i></p> <ul style="list-style-type: none"> • Slide/Roll out from under case. • Use moist cloth to wipe off dust & debris that collects on various parts.
	Quarterly	<p>Condensate Pan: Disconnect from receptacle box. Remove mounting screws from base. Use a de-scaling solution (such as CLR® that will prevent corrosion, lime and rust) to clean pan. Rinse thoroughly; do not submerge in water.</p>
	Quarterly	<p>Under Case Cleaning: Once refrigeration package is clear of unit, vacuum under case to remove all dust and dirt that may collect under case.</p>
Case Interior	Quarterly	<p>Tub, Coil and Drain: Remove Evaporator Fan Panel and clean Tub, Coil and Drain with warm water and mild soap solution. Remove any debris that may clog drain.</p>
	Quarterly	<p>Fan Blades, Motor, and Bracket: Wipe down each blade, motor and bracket with moist cloth.</p>
	Quarterly	<p>Honeycomb: Remove the honeycomb. Vacuum, then clean with warm water and soap. See specific instructions in the Maintenance Fundamentals section of this manual.</p>

CONDITION	TROUBLESHOOTING
Case Not Lining Up	See Installation Section for instructions on properly aligning case (alongside other cases) and adjusting levelers.
Water Is On The Floor	<p>Caution! Water on flooring can cause much damage! Until cause is determined (and repaired), follow these procedures:</p> <ul style="list-style-type: none"> • Use wet-dry vacuum (or mop & bucket) to remove standing water. • Use 'catch pans' for water to drain into. Swap out regularly until case has completely drained.
	Check that the drain trap is free of debris.
	Check that the drain hose is correctly positioned over condensate pan (or floor drain, for remote units).
	Check store conditions. To prevent condensation in Type 1 condition environments, maximum conditions are to be 55% humidity / 75 °Fahrenheit. For Type 2 condition environments, maximum conditions are to be 60% humidity / 80 °Fahrenheit. See serial label (at case rear near main power switch) for Type of your case.
	Check condensate pan float for proper operation (heat rod condensate system only).
	Check that condensate pan is properly plugged in or connected.
	<p>Caution! Condensate pan may be malfunctioning (electrical heat rod condensate system). If so, water will overflow pan and seep onto flooring causing damage! Until condensate pan is functioning (or is replaced), follow these procedures:</p> <ul style="list-style-type: none"> • Use wet-dry vacuum (or mop & bucket) to remove standing water. • Use 'catch pans' for water to drain into. Swap out regularly until case has completely drained.
	<p>Caution! Disruption of power can cause water to overflow pan and seep onto flooring causing damage! Check that power to case is constant. Until power is restored, follow these procedures:</p> <ul style="list-style-type: none"> • Use wet-dry vacuum (or mop & bucket) to remove standing water. • Use 'catch pans' for water to drainage. Swap out regularly until evaporation of case is complete (or until power is restored). • When power to case is restored, condensate pan should function properly and water will no longer overflow onto flooring.
	<p>Caution! Wicking material may be dirty or worn and need replacement (hot gas condensate system only).</p> <ul style="list-style-type: none"> • Slide refrigeration system out from under unit. • After refrigeration system has been carefully slid out from under unit, replace wicking material with new. If wicking material is not available, contact Structural Concepts®. See toll-free number at last page of this operating manual.

CONDITION	TROUBLESHOOTING
Fan Emits Excessive Noise	Check that the case is aligned, level and plumb.
	Check evaporator fan for cleanliness.
	Unplug/power off fan motors. Check motor shaft for bearing wear.
	Check that fan motors are securely mounted in brackets.
	Verify that fan blades are securely mounted to fan motor.
	Check that nothing is preventing blade rotation.
	Check that the fan shroud is properly secured.
Fans Are Not Working	Check that the MAIN power switch is on.
	Check that fans are plugged in at the fan shroud.
	Check for foreign material obstructing fan performance.
	Check that fan blades freely rotate within fan shrouds
	Check that power is going to fans
	Check that fan wiring is connected on terminal blocks.
Digital Control Display Is Blank	Check that the MAIN power switch is on.
	Check the circuit breaker box for tripped circuits.
System Not Operating	Check that the utility power is on.
	Check that the MAIN power switch is on.
	Check the circuit breaker box for tripped circuits.

CONDITION	TROUBLESHOOTING
Control Display Is Flashing	See your case's serial label for your model's specified settings. See SERIAL LABEL LOCATION & INFORMATION LISTED / TECH INFO & SERVICE for label location, etc.
	See the Carel® Controller thermostat sheets in this manual for codes that may be displayed on controller identifying problem.
Case Is Not Holding Temperature	If a large amount of warm product was added to the case, it will take time for the temperature to adjust. Unit needs product to be pre-chilled.
	Temperature changes during defrost mode but will return to normal. Fourth LED will indicate defrost cycle in progress.
	Check that case is not in sun or near a heat or air-conditioning vent. See OVERVIEW / TYPE / COMPLIANCE / WARNINGS / PRECAUTIONS / CORDS / WIRING section in manual for adverse conditions/spacing issue parameters.
	If case is located near front doors, temperature fluctuation can hinder unit's ability to maintain temperature. See OVERVIEW / TYPE / COMPLIANCE / WARNINGS / PRECAUTIONS / CORDS / WIRING section in manual for adverse conditions/spacing issue parameters.
	Check that condenser coil air filter (attached to rear grille) has been cleaned. See GENERAL CLEANING (TO BE PERFORMED BY STORE PERSONNEL) section in operating manual for instructions.
	Check that condenser coil has been cleaned.
	Check air return grilles for obstructions.
	Check sight glass for flashing and/or low charge.
	Check Set Point Temperature; it may be adjusted too high.
Condensing Unit Is Not Operating	Check that the power is turned on.
	Determine if temperature controller settings are properly set. See your case's serial label for your model's specified settings. See SERIAL LABEL LOCATION & INFORMATION LISTED / TECH INFO & SERVICE section in manual for label location, etc.

TROUBLESHOOTING - CONDENSING SYSTEM (BY TRAINED SERVICE PROVIDERS ONLY)

CONDITION	TROUBLESHOOTING
Head Pressure Too High	Check that the condensing coil is not dirty or covered.
	Check that condensing fans are working.
	Check that refrigerant is not overcharged.
	Perform sub-cooling check and verify that no contaminants are in system.
	Check that liquid line filter dryer is not plugged.
	Check that close-offs are intact (around condensing coil) and that air is not recirculating.
	Check that store ambient temperature isn't above maximum allowed. See OVERVIEW / TYPE / COMPLIANCE / WARNINGS / PRECAUTIONS / WIRING / PLUGS section in this manual.
Head Pressure Too Low	Check if sight glass is flashing or showing low charge.
	Check that suction pressure isn't too low.
	Check that compressor reed valves aren't bad. Look for high suction/low head pressure. Perform pump-down.

TROUBLESHOOTING (BY TRAINED SERVICE PROVIDERS ONLY) - EVAPORATOR SYSTEM

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



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



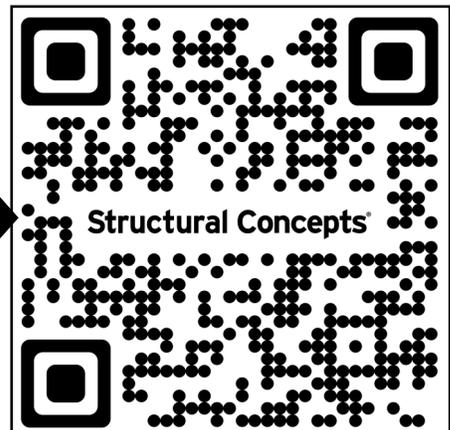
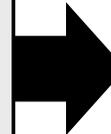
Carel® iJF Platform



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.

