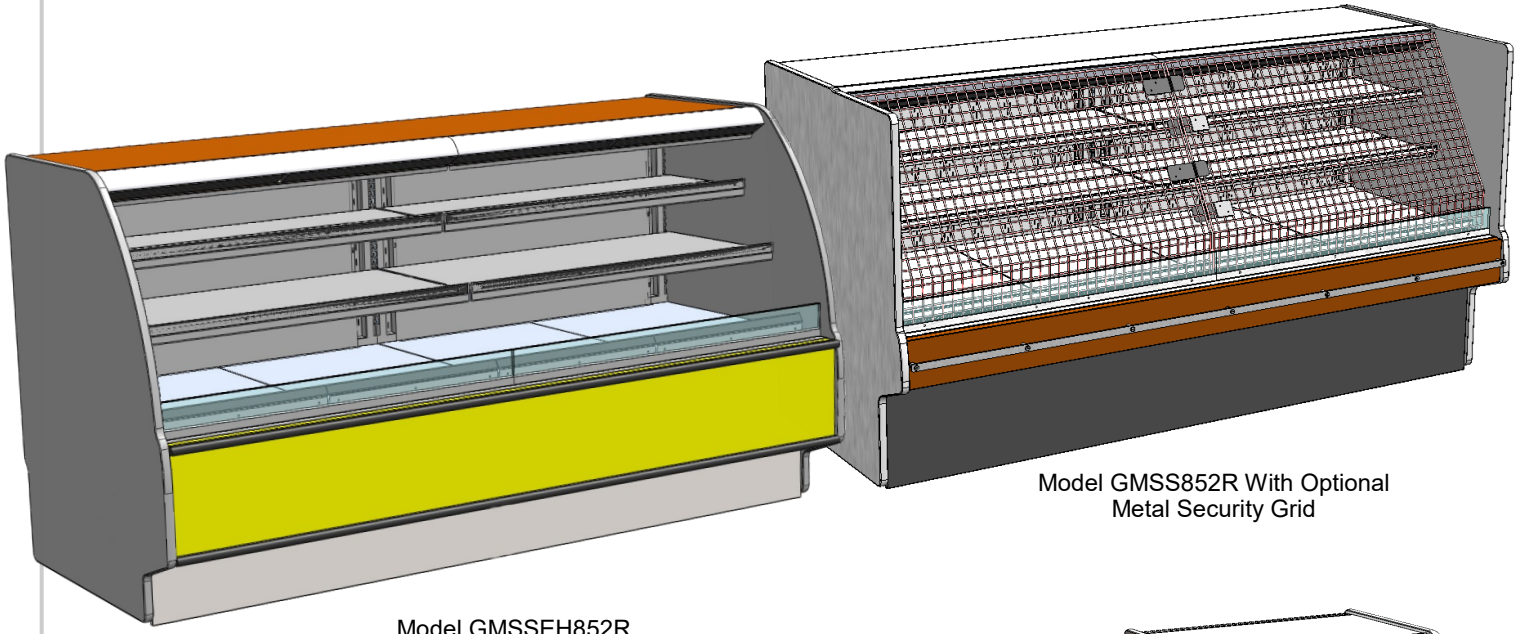
FUSION USER MANUAL

SCC P/N 20-18548

FUSION REFRIGERATED SELF-SERVICE MEDIUM VOLUME MERCHANDISERS*

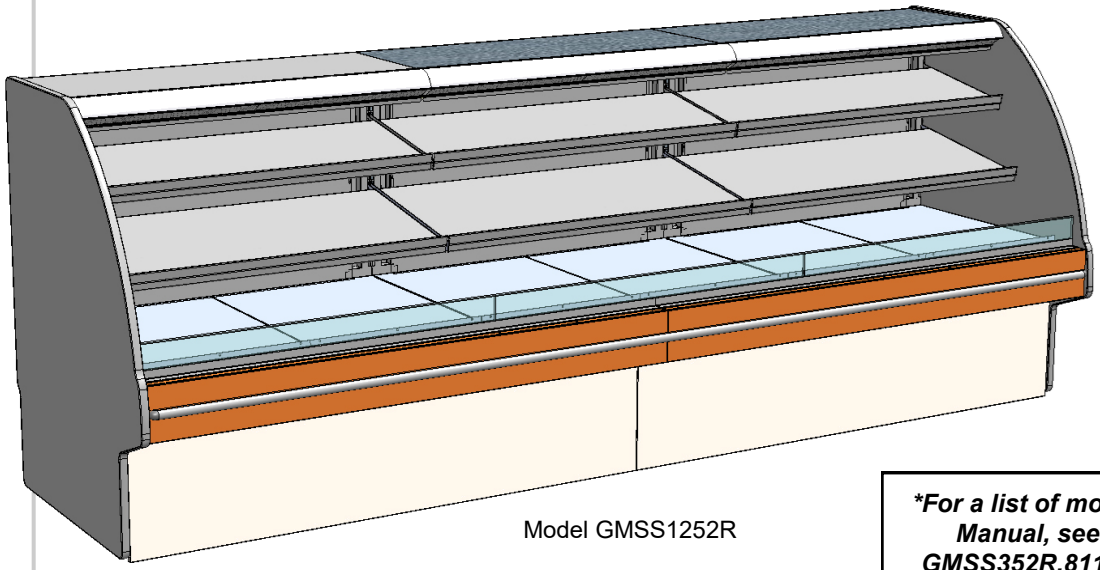
Please Note:

1. **Your specific model number is located on the serial label. 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.).**
2. **See *SERIAL LABEL INFORMATION & LOCATION* in this User Manual for sample serial label.**
3. **Cases shown in this User Manual may differ from models chosen with different features or options.**

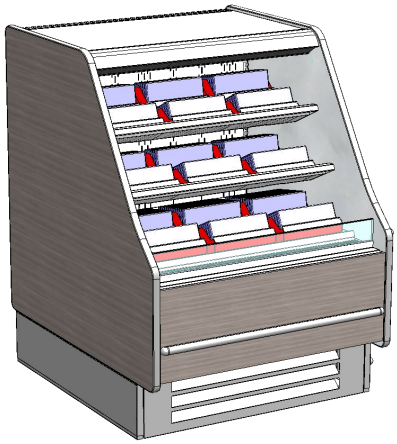


Model GMSS852R With Optional Metal Security Grid

Model GMSSEH852R



Model GMSS1252R



Model GMSS352R.8110**

For a list of models represented by this User Manual, see page 2. **Details of Model GMSS352R.8110's unique shelving, product dispensers & product stops are on page 10.

Structural Concepts®

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The Following Models Are Represented By This Manual:

GMSS352R.8110, GMSS452R, GMSS552R, GMSS652R, GMSS852R, GMSS1052R, GMSSEH852R, GMSS1052R, GMSS1252R, GMSSEH1252R, GMSSV452R GMSSV552R, GMSSV652R, and GMSSV852R.

Note: This manual may also be used for models not listed above.

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 55% 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

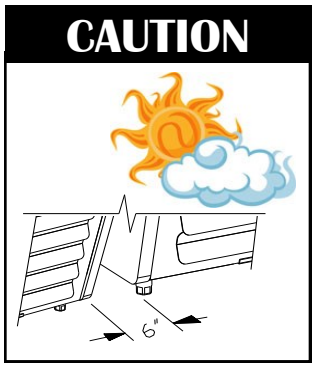
- Each case has its own wiring diagram folded and in its own packet. It may be placed near ballast box, field wiring box, raceway cover, or other related location.

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

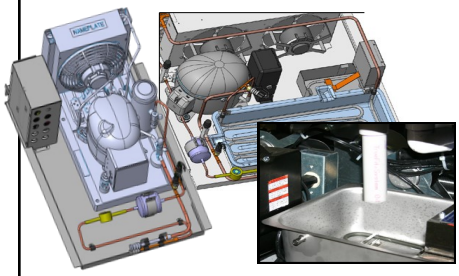
- **Performance issues caused by adverse conditions are NOT warranted.**
- **To prevent damage to end panels due to condensation, apply industrial grade silicone sealant and tightly join to opposite end panels. When not adjoining cases, keep end panels at least 6" away from walls/structures. Rear panels 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!

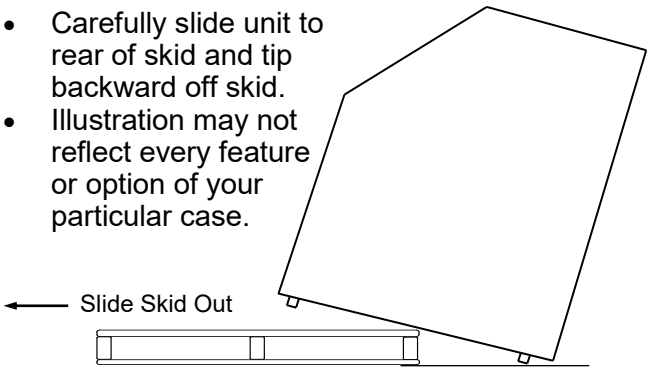
- **Before powering up case, check that condensate pan is positioned directly under case's condensate drain.**
- **Before powering up case, check that condensate pan's electrical plug is SECURELY connected to condensate system's receptacle.**
- **If wicking material is used in condensate pan, check that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

INSTALLATION: SKID REMOVAL, POSITIONING AND LEVELING CASE

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

1. Remove From Skid (Rails or Levelers)

- Remove shipping brace that may be securing case to skid.
- Support case to prevent tipping.
- *Caution! Frame Support Rails (or levelers) can be damaged if case hits floor with heavy force!*
- Carefully slide unit to rear of skid and tip backward off skid.
- Illustration may not reflect every feature or option of your particular case.



Note: Case can be repositioned with pallet truck when front lower panel is removed. Blocking may be necessary to obtain adequate height.

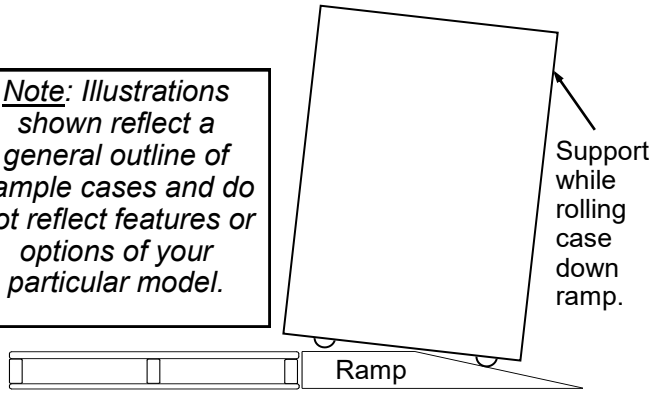
2. Remove Case From Skid (Casters)

Remove shipping brackets that may be securing casters to skid

- Place ramp up against skid (to allow case to smoothly slide off from skid).
- Maintain support of case at all times or center of gravity may cause case to fall.
- Unlock Casters. Roll unit to rear of skid.

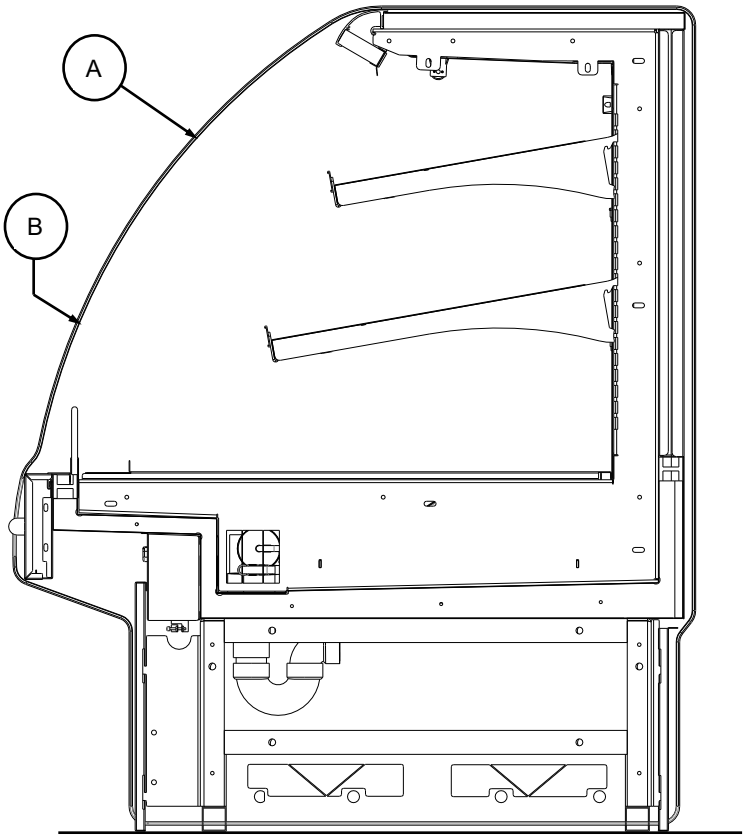
Roll down ramp and off from skid.

Note: Illustrations shown reflect a general outline of sample cases and do not reflect features or options of your particular model.



3. Position and Level Units

- Move case into position. Or, if case has casters, roll into position.
- Align multiple units carefully in areas A & B.
- See next page for bolting and caulking instructions (for case adjoinment purposes).

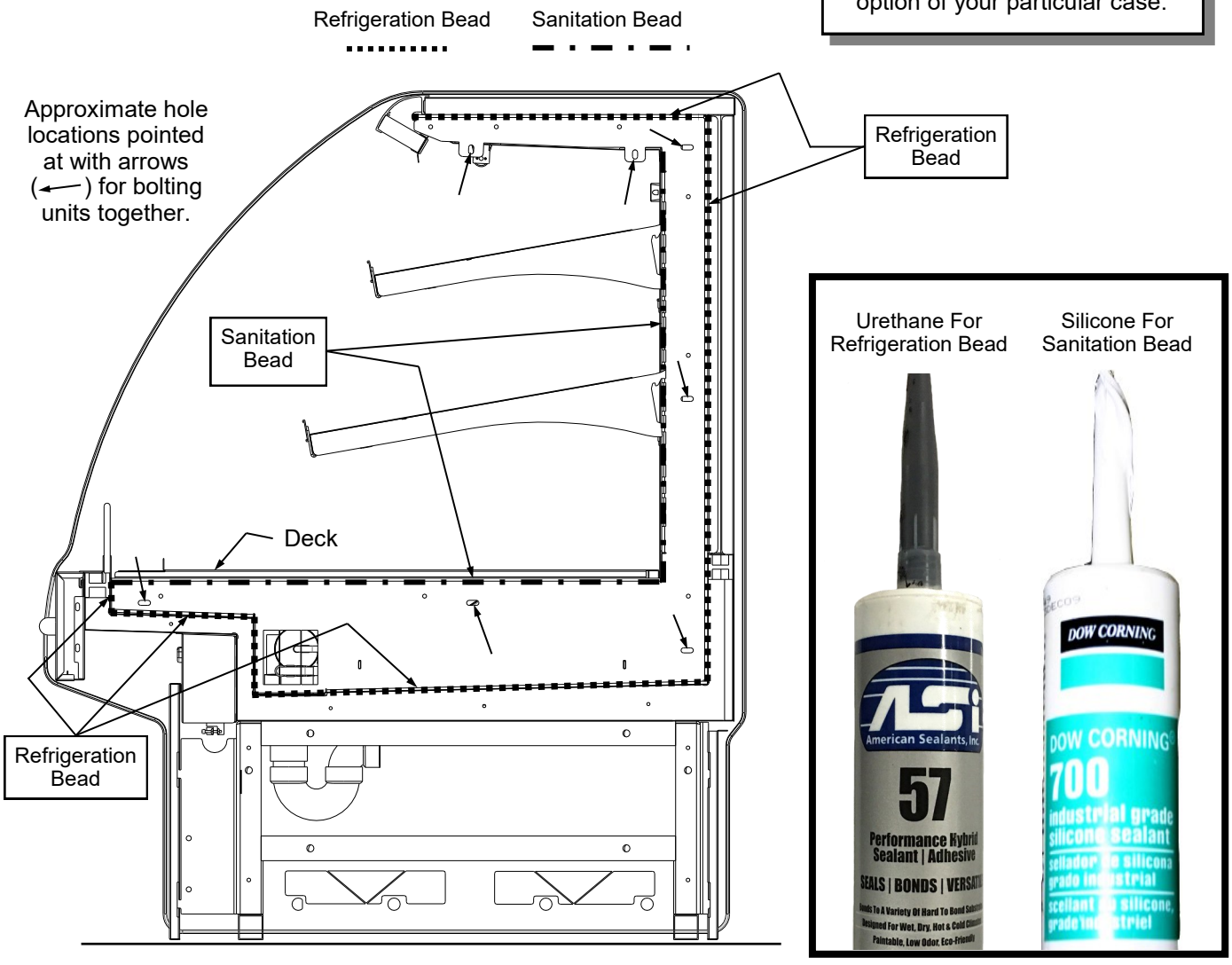


4. Sealing and Bolting Units Together

Follow these steps to assure a secure, level lineup.

A. Begin all lineup leveling from highest point of floor.
B. After the 'first' case is level, check that front and/ or rear doors smoothly open and close.
C. Apply a refrigeration bead of industrial grade urethane adhesive on non-visible areas (at case ends) as illustrated below.
D. Line up 'second' case bolt-hole to bolt-hole to 'first' case.
E. Using SCC-supplied bolts (found in installation packet or inserted in holes); connection points are shown with floating arrowheads below (←). You may need to remove decking, side covers, 'perf' panel, etc. to access certain holes. Insert bolts.
F. Caution! Front of cases MUST be flush with each other! After leveling, all cases to be same height.
G. Using SCC-supplied nuts & bolts, **lightly tighten** each of the 5 to 8 bolts in a cross-wise pattern. Work your way around the pattern, tightening more firmly at each pass. Do not firmly tighten one bolt and then start on the next!
H. After the cases are bolted together, level the 'second' case. Repeat this process for each case to be adjoined.
I. After all lined-up cases are level, apply a sanitation bead of industrial grade silicone sealant (as shown below).

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



INSTALLATION, CONTINUED: FRAME SUPPORT RAIL SHIMMING

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

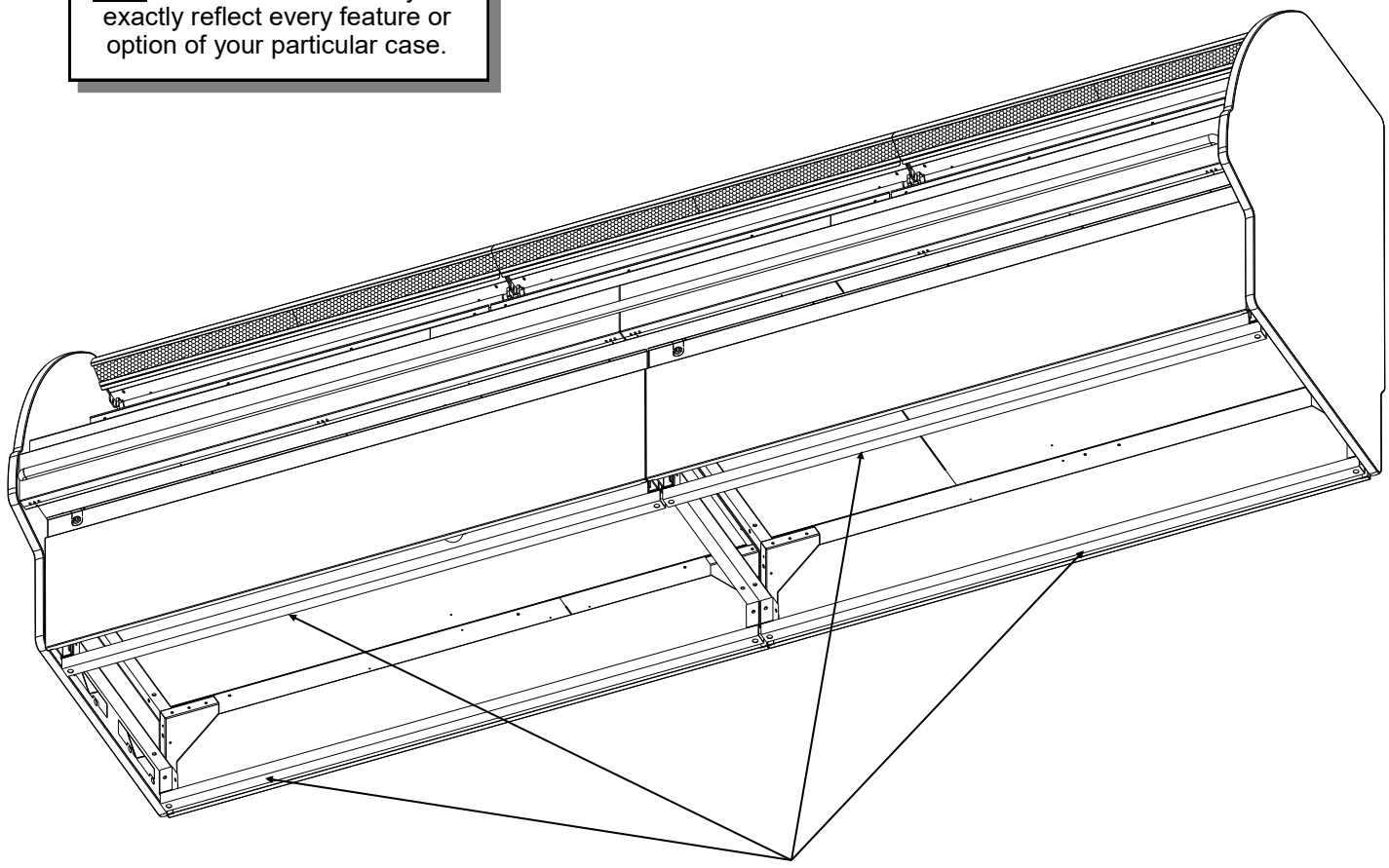
1. Position & Align Case Alongside Other Cases (See Previous Page For Instructions)

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

2. Frame Support Rails Must Be Shimmed

- Illustration below 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.***

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



Frame
Support Rails

--- View of GMSS1252R Shown / Your Model May Vary ---

ELECTRICAL CONNECTIONS / FIELD WIRING BOX / LIGHT BALLASTS / TERMINAL STRIP

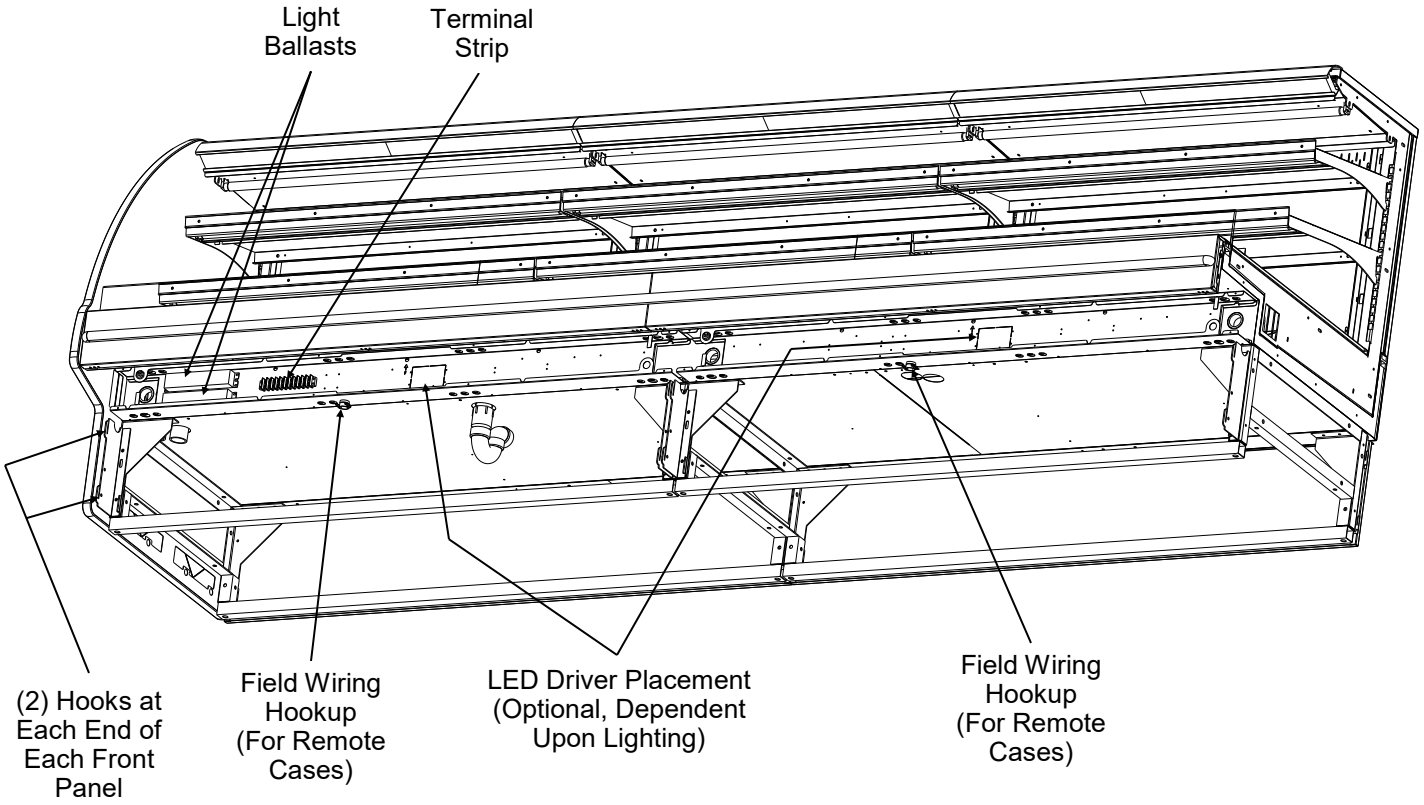
1. Electrical Connections

- Field wiring hook-up / electrical access locations are shown in illustrations below (though they may not exactly reflect your particular unit).
- Single phase leads are provided.
- See Technical Information Sheet for more information.
- Remote Units (Standard Cases): This case is hard-wired. When power is supplied, case will power-up.

2. Field Wiring Box / Light Ballasts / Optional LED Driver Location / Terminal Strip

- Ballast (or optional LED driver) and terminal strip is also located behind front electrical cover (shown removed for illustrative purposes).
- Screws hold front electrical cover in place. Unscrew and drop electrical cover down & out.
- ***Caution! Only certified electricians are to access electrical components!***

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



--- View of GMSS1252R With Front Panel and Electrical Cover Removed ---

REFRIGERATION LINES / STUB-UPS / DRAINS (REMOTE UNITS ONLY)

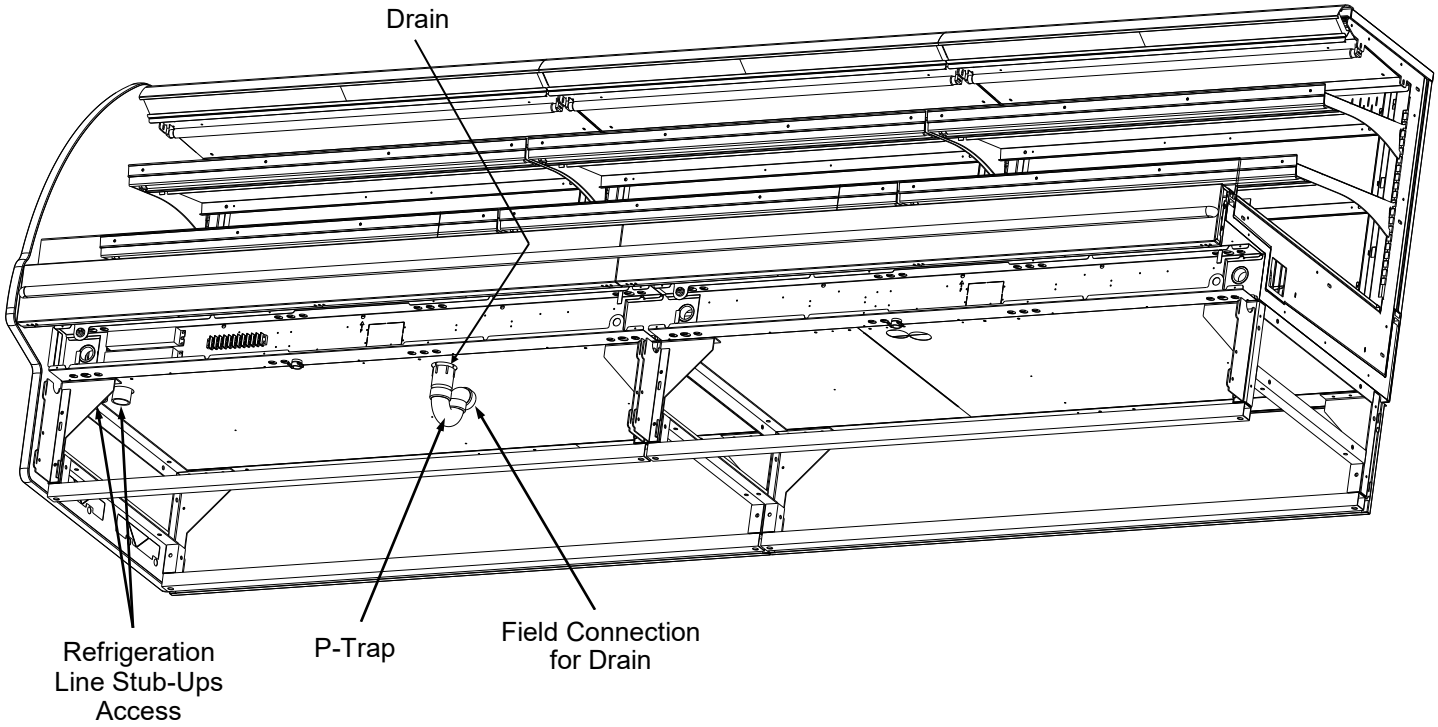
1. Refrigration Line Stub-Up Connections

- Refrigerant stub-up access is at underside of case.
- Stub-up connections are accessed by removing front or rear panel (no screws required).
- Run case-to-case connections through cutouts in base.
- Sweat the high and low pressure connections.
- Fill access hole with suitable filler to insure watertight integrity of tub.
- Note: Illustration below may not reflect every feature or option of your particular case.

2. Drains

- Depending upon model, cases have drains at left and right hand sides.
- Model shown below (GMSS1252R) has a single drain (as shown below).
- Drain field connection is as shown below. See ***MAINTENANCE FUNDAMENTALS - DRAIN / SHUT-OFF VALVE / BALANCE VALVE ACCESS*** section in this manual for illustration of Balance Valve, Shut-Off Valve, Drain, Refrigeration Line Stub-Ups Access, etc.
- Depending upon drain access needs, either front or rear panel may be removed to gain access to drain stub-up.
- 1.5” male PVC stub-up connection is under case.
- Connect tub drain to floor drain. Maintain 1/4”-fall per foot to provide proper drainage.

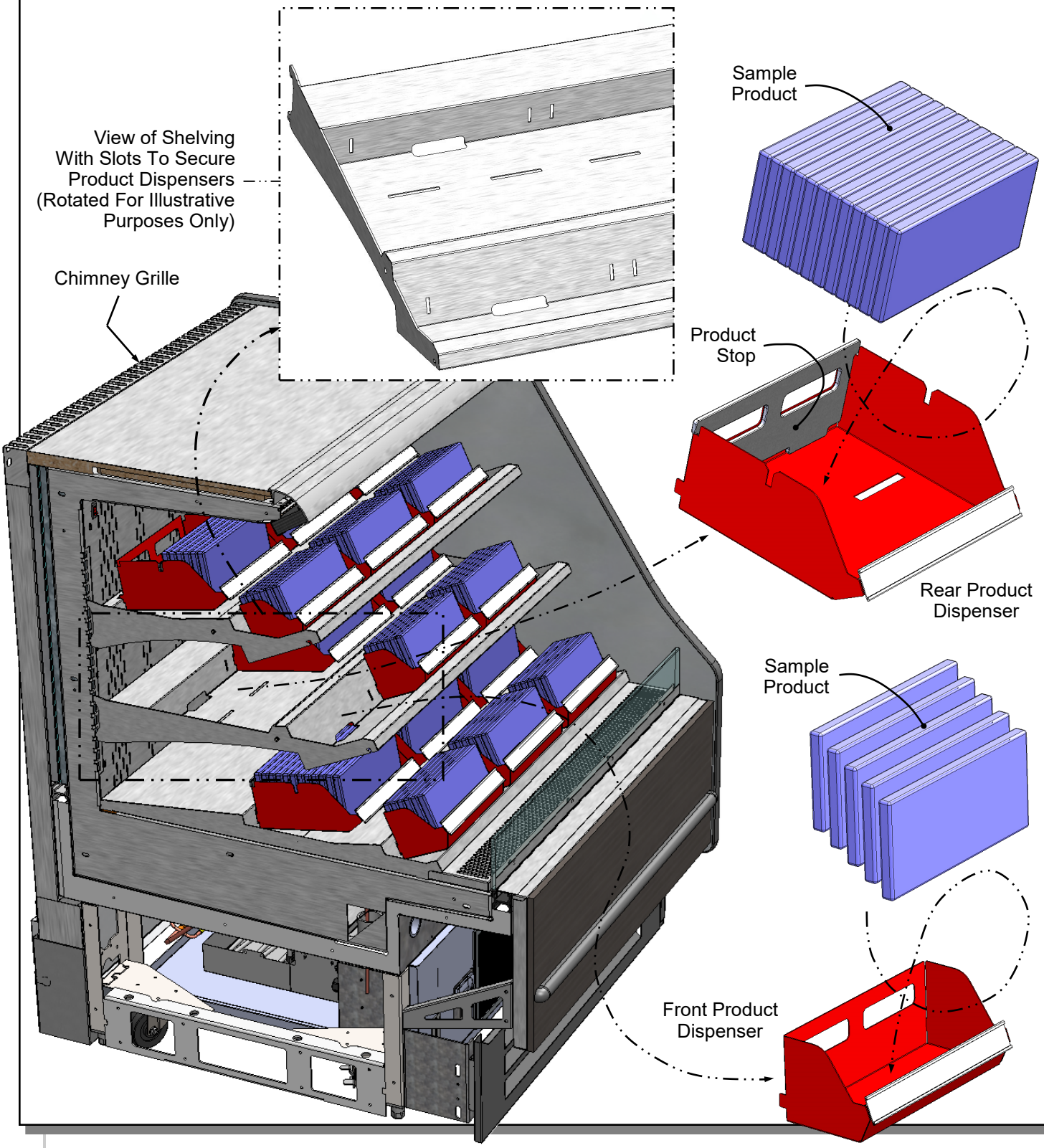
Note: Illustration shown may not exactly reflect every feature or option of your particular case.



Model GMSS1252R is Shown Above.
Your Case May Differ.

Model GMSS352R.8110 Shelving Specifics

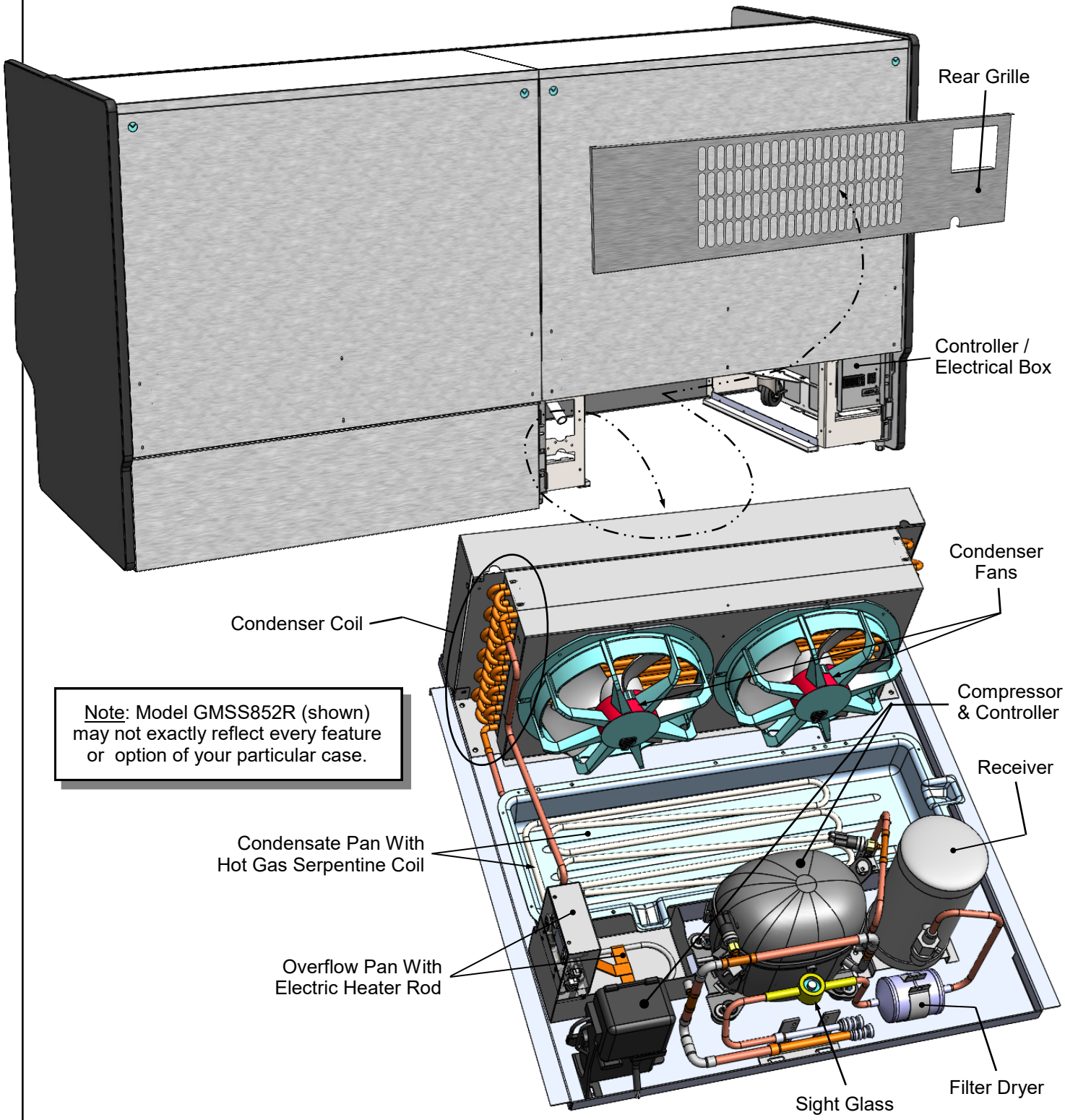
- Illustration shown has end panel removed for illustrative purposes only.
- Shelving is adjustable and removable from case (for cleaning).
- Shelving has slots to secure product dispensers.
- Product dispensers are removable for cleaning.



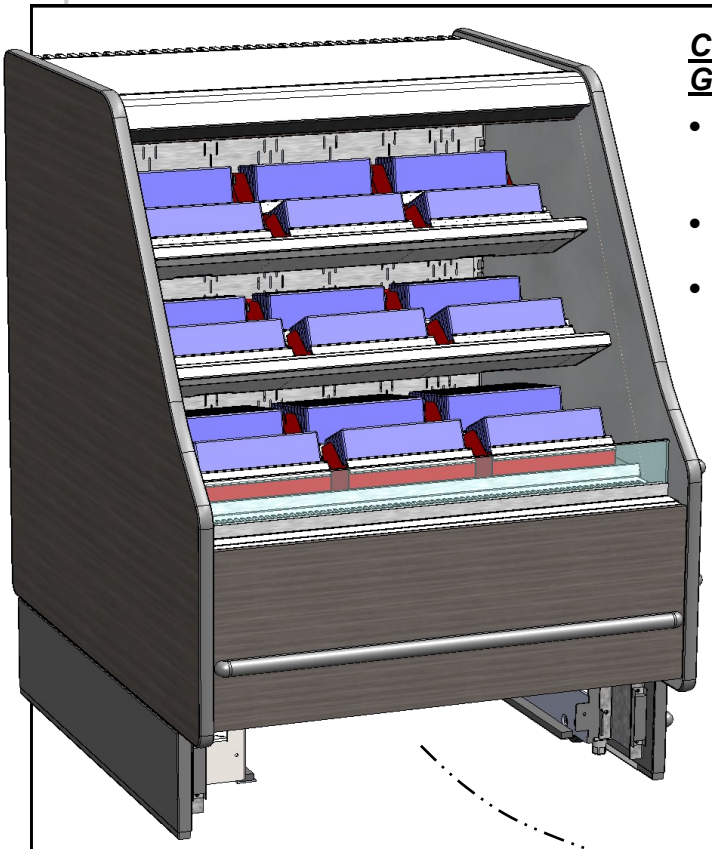
CONDENSER PACKAGE (SELF-CONTAINED UNITS ONLY): MODEL GMSS852R

Condenser Package (Self-Contained Model GMSS852R)

- Illustration below shows rear grille removed; also condenser package is removed & rotated for viewing.
- Condenser package is accessible ONLY at case rear. At initial access, remove shipment screws.
- Caution! Only authorized refrigeration contractors should access condenser package!

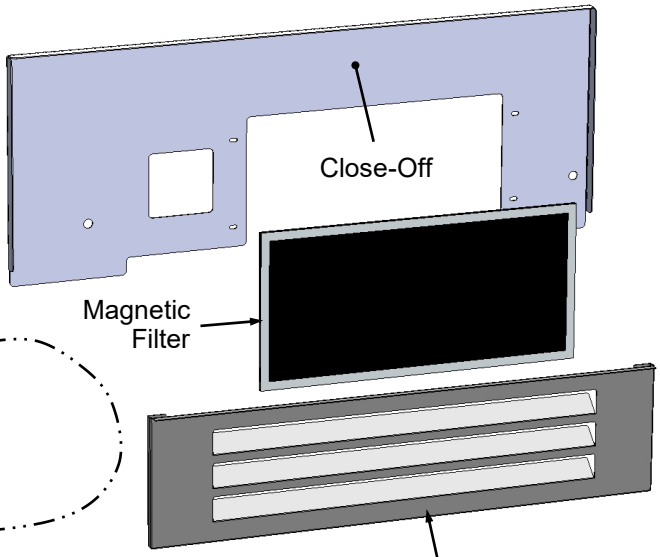


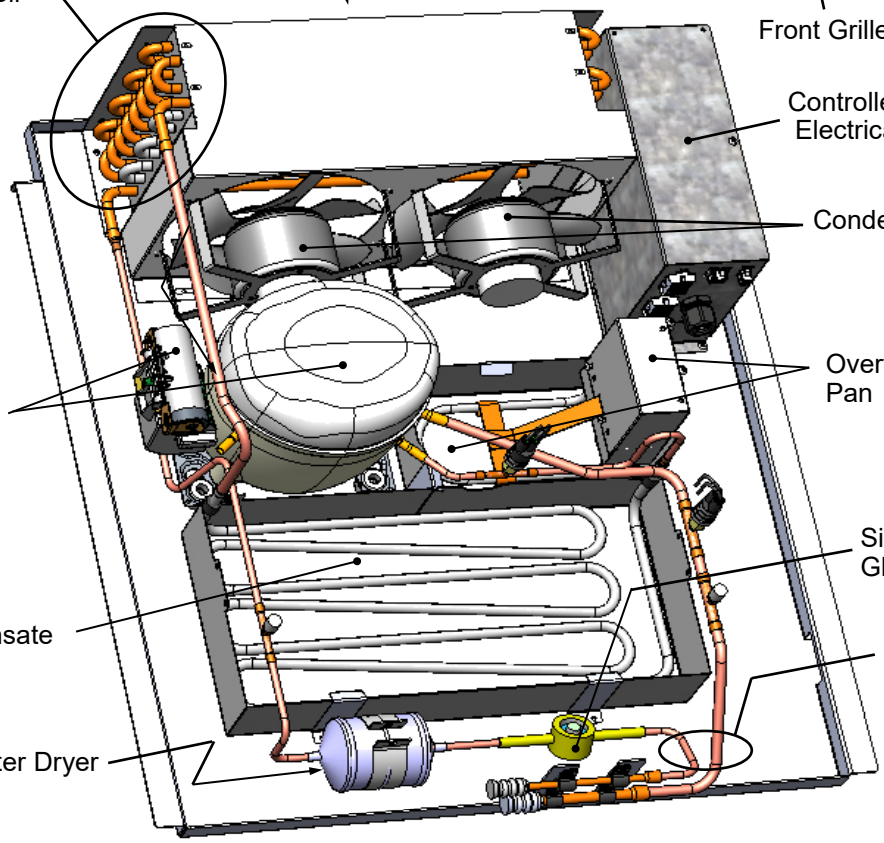
Note: Model GMSS852R (shown) may not exactly reflect every feature or option of your particular case.



Condenser Package (Self-Contained Model GMSS352R.8110)

- Front grille, magnetic filter and close-off must be removed to access condenser package; note that screw removal is required to remove close-off.
- Condenser package is accessible ONLY at case front. At initial access, remove shipment screws.
- Caution! Only authorized refrigeration contractors should access condenser package!





Note: Model GMSS352R.8110 (shown) may not exactly reflect every feature or option of your particular case.

1. Electrical Connections

Field Access Boxes, Electrical Outlets, LED Drivers, Circuit Board, Transformer, Terminal Strips, Programmable Controller, Etc.

> Note: Rear panel is shown transparent.

- Access to field access box is at case rear with rear panel removed (no screw removal required).
- Note: Wiring process must be performed by certified electrician only.

Note: Model GMSSEH852R (shown) may not exactly reflect every feature or option of your particular case.

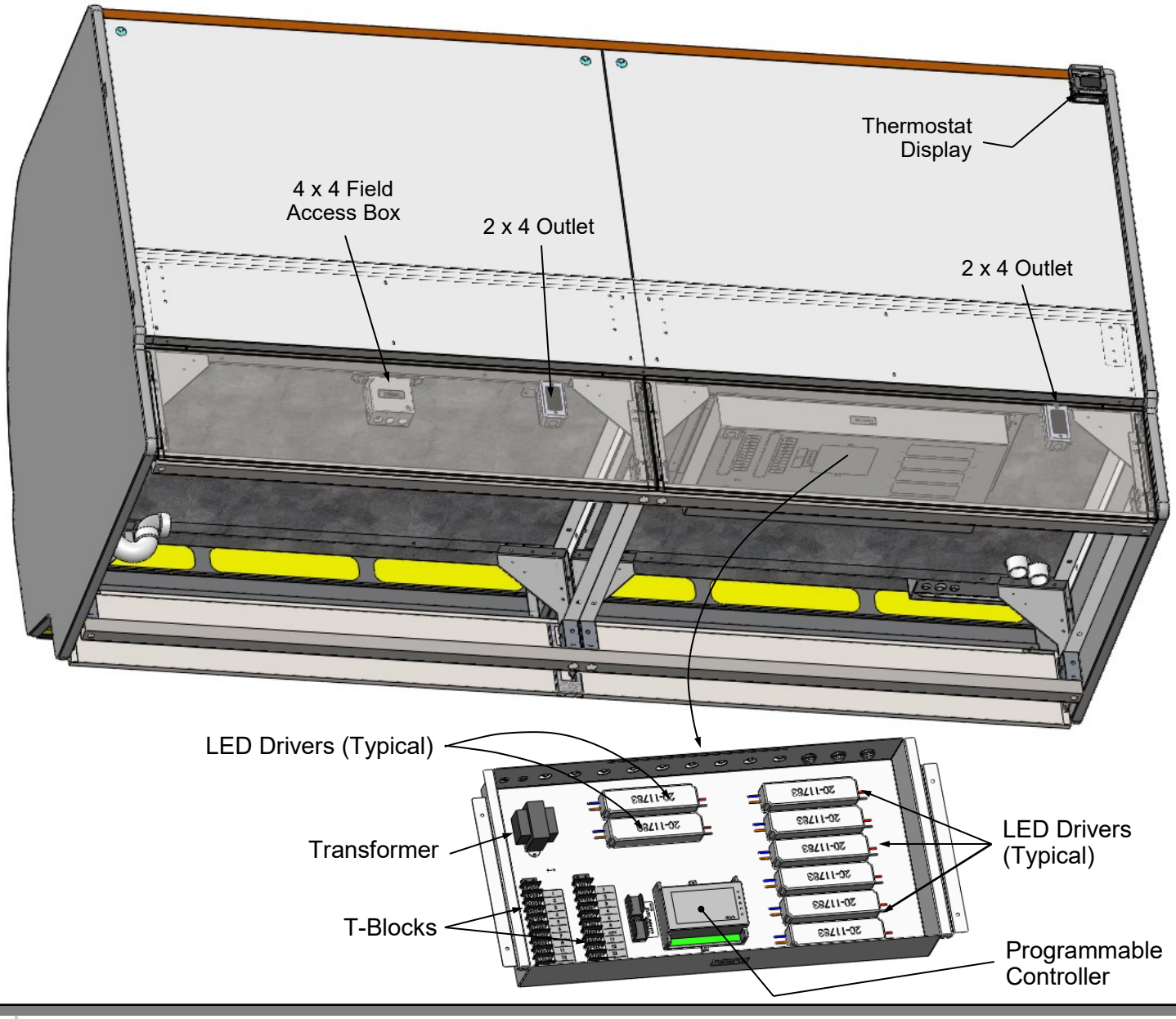
- When case is properly field-wired, it will energize (no main power switch required).

2. Programmable Controller

- Programmable controller is in the pull-out electrical box (accessible at case rear).
- Programmable controller's display is also at case rear (as shown below).
- See your particular programmable controller operating instructions for more information.

3. Model Illustration Compatibility

- Model shown is GMSSEH852R.
- Your model may slightly differ.



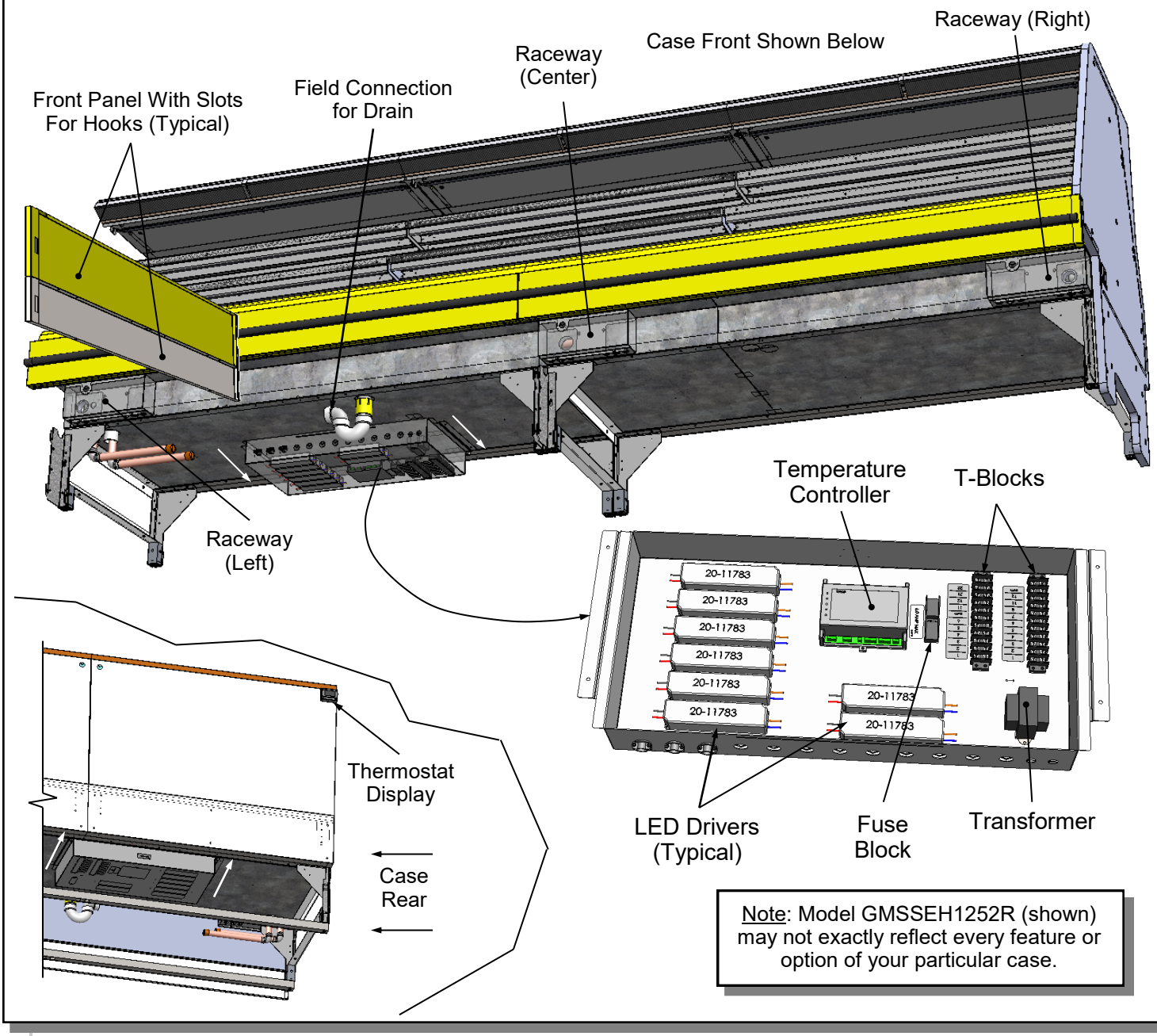
1. Electrical Components

Field Access Box, LED Drivers, Circuit Board, Transformer, Fuse Block, Terminal Strips, Etc.

- ***Important*: Wiring process must be performed by certified electrician only!**
- Note: Front panel is shown lifted up and off (no screw removal required).
- Access to field access box is at case rear with rear panel removed after screw removal (as shown in lower-left breakaway illustration).
- Note: Wiring process must be performed by certified electrician only.
- When case is properly field-wired, it will energize (no main power switch control required).

2. Programmable Controller

- ***Important*: Wiring process must be performed by certified electrician only!**
- Programmable thermostat is in the pull-out electrical box (accessible at case rear).
- Programmable thermostat display is also at case rear (as shown below).
- See your particular programmable controller operating instructions for more information.



Note: Model GMSSEH1252R (shown) may not exactly reflect every feature or option of your particular case.

FIELD ACCESS BOX / ELECTRICAL COMPONENTS / PROGRAM. CONTROLLER, ETC. - GMSS852R

1. Electrical Components

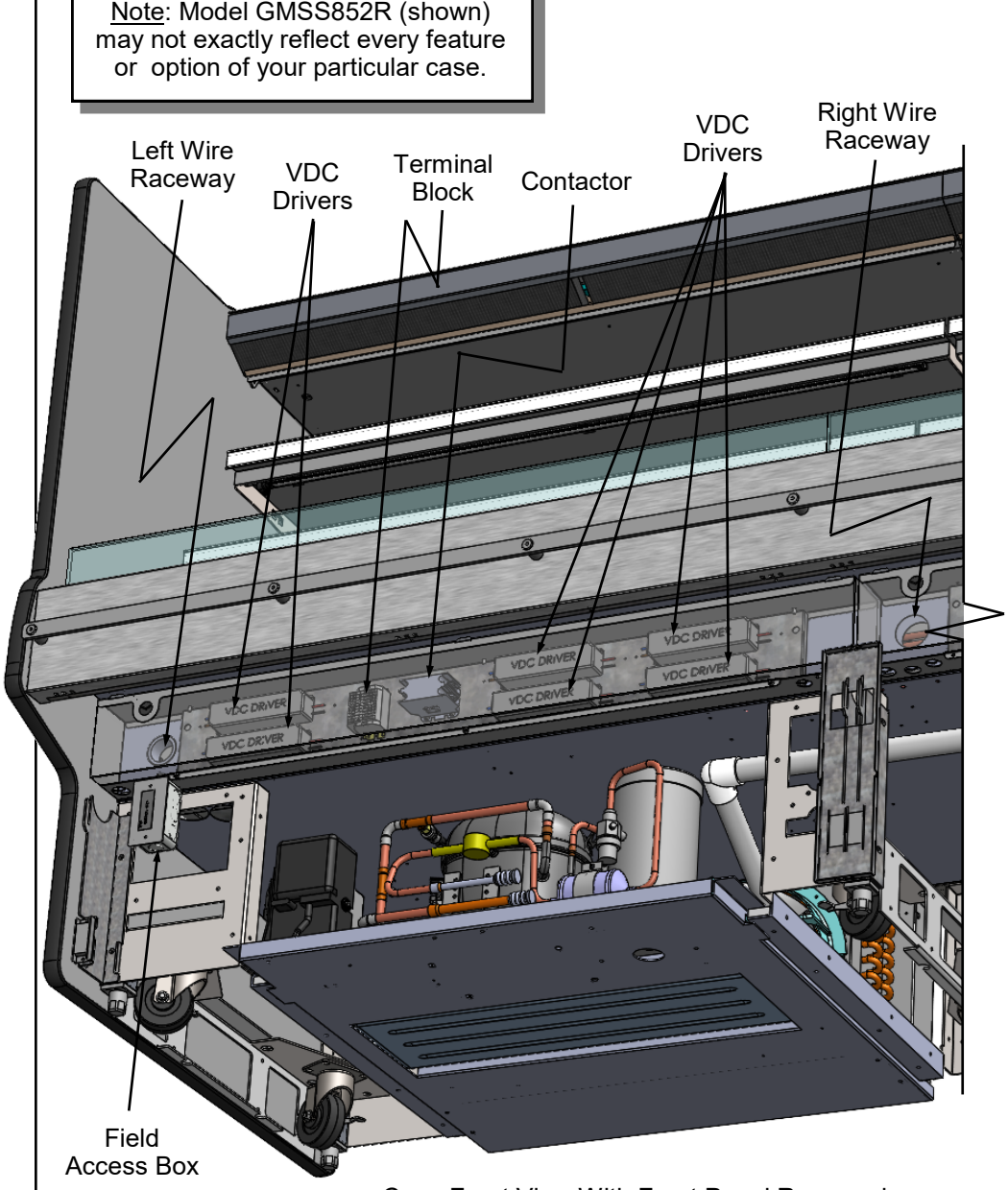
Field Access Box, VCD Drivers, Terminal Block, Contactor, Wire Raceways, Etc.

- ***Important*: Wiring process must be performed by certified electrician only!**
- Front panel is shown removed raceway cover is shown transparent for illustrative purposes only.
- When properly field-wired (or plugged in), case will be energized.
- Field access box is at front-left of case.
- Raceway cover must be removed to access various electrical components (illustrated below).

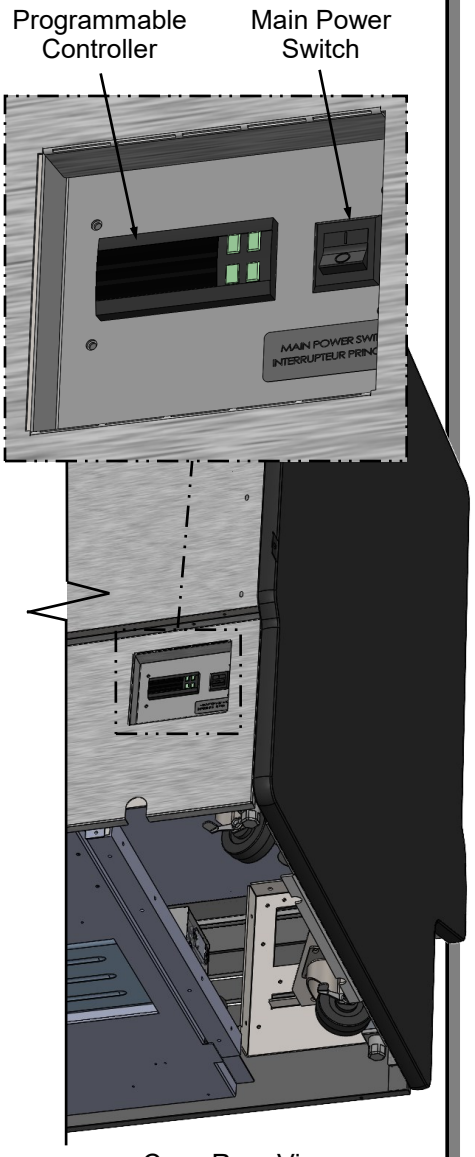
2. Programmable. Controller / Main Power Switch

- ***Important*: Wiring process must be performed by certified electrician only!**
- Programmable controller and main power switch is at case rear.
- When case has been properly connected to power source, main power switch may be turned on; programmable controller will energize.
- See your particular programmable controller operating instructions for more information.

Note: Model GMSS852R (shown) may not exactly reflect every feature or option of your particular case.



--- Case Front View With Front Panel Removed ---



--- Case Rear View ---

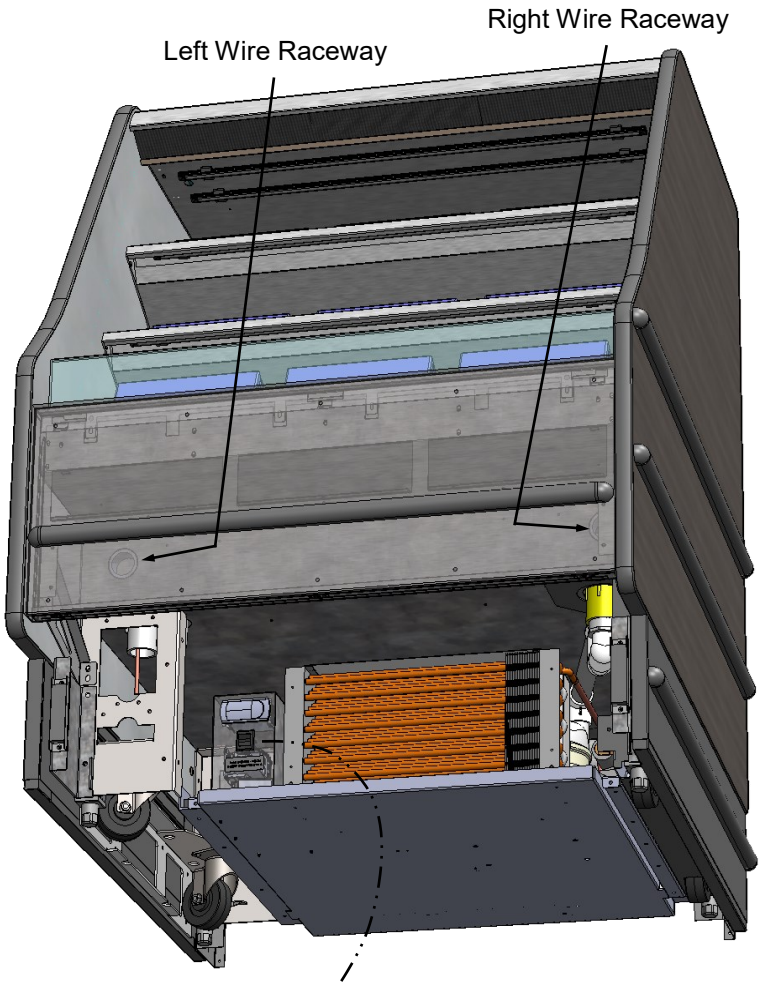
1. Electrical Components

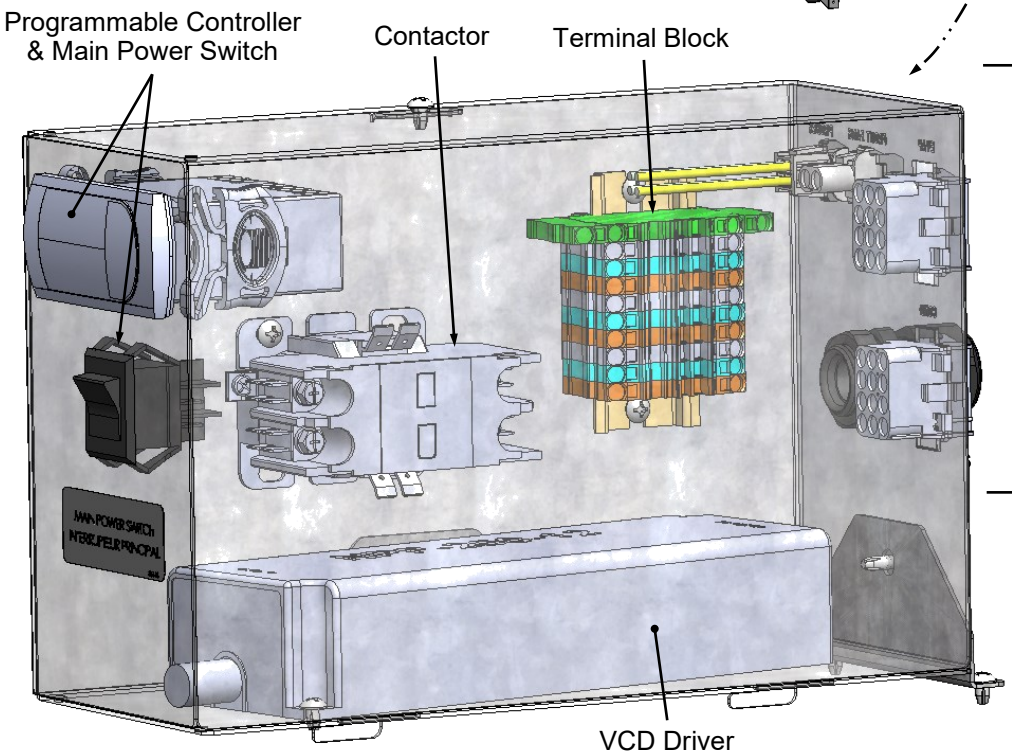
Field Access Box, VCD Driver, Terminal Block, Contactor, Wire Raceways, Etc.

- ***Important*: Wiring process must be performed by certified electrician only!**
- Front panel is shown removed raceway cover is shown transparent for illustrative purposes only.
- Electrical box/field access box is at front-left of case.
- When properly field-wired (or plugged in), case will be energized.
- Raceway cover must be removed to access various electrical components.

2. Program. Controller / Main Power Switch

- ***Important*: Wiring process must be performed by certified electrician only!**
- Programmable controller and main power switch is at case front.
- When case has been properly connected to power source, main power switch may be turned on; programmable controller will energize.
- See your particular programmable controller operating instructions for more information.





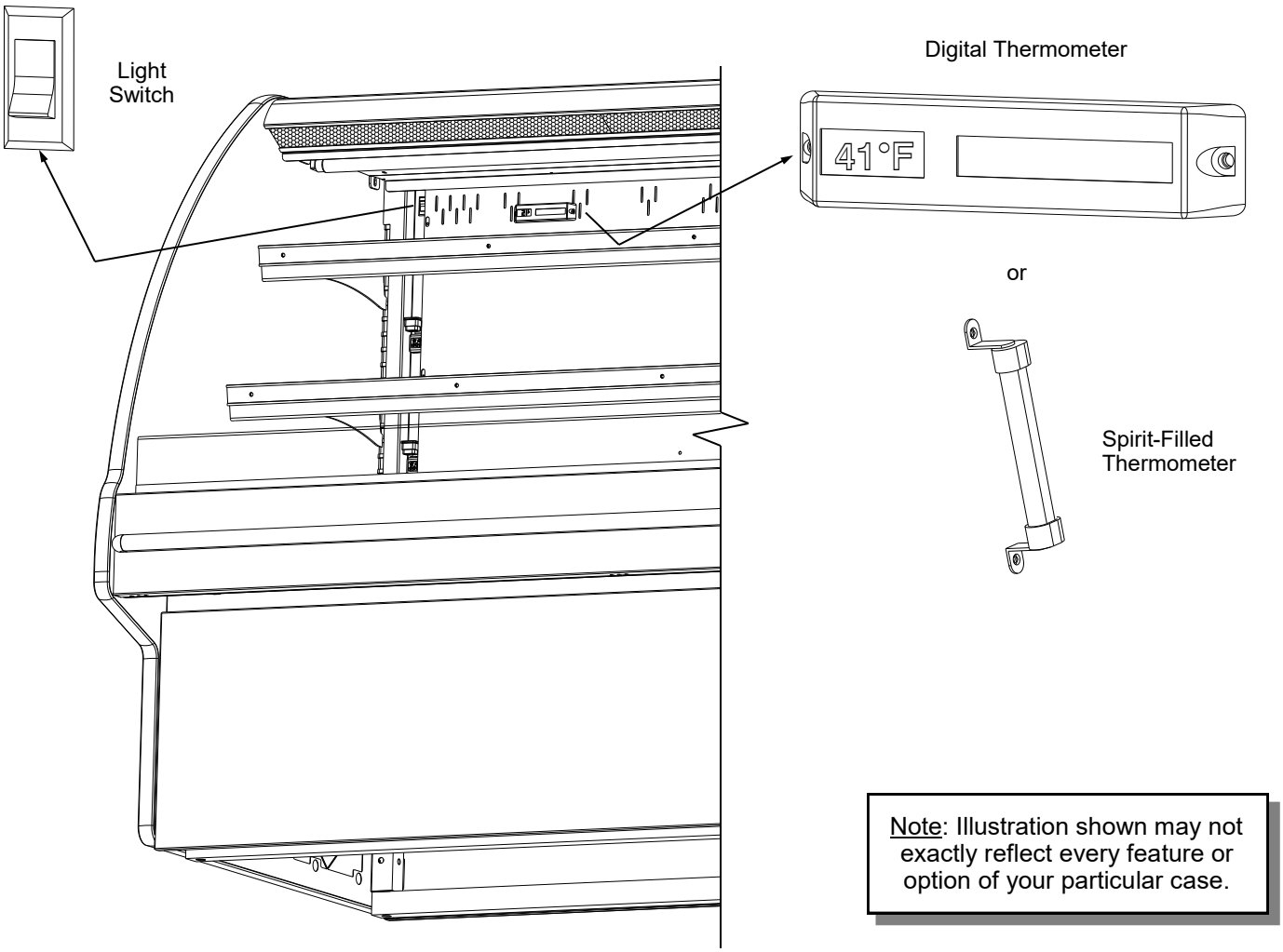
Note: Model GMSS352R.8110 (shown) may not exactly reflect every feature or option of your particular case.

1. Merchandiser Start-Up

- Unit will energize when properly field wired.
- Evaporator coil fans will automatically turn on. From the front of the case, lift glass and remove the decking; check to see that the coil fans are all functioning properly.
- Lights switch is accessible at case front-left, near upright. See illustration below.
- Turn light switch on. All lights should come on at the same time. First time lighting may require a short warm up-period for the bulbs.
- Slightly dim or a flickering of new bulbs is normal.
  - If lights do not turn on, check all raceway plugs. The lighting is wired in series so **all lights must be plugged in or receptacles capped** in order for the case to light.
  - See next page for illustration of scale stand receptacles.

2. Thermometers - Location and Function

- Refrigeration section has been tested to maintain temperature at or below 5° Celsius / 41° Fahrenheit.
- Spirit-filled and/or digital thermometers are usually found at case rear near light switch.
- Thermometers are for monitoring warmest air temperature.
- Thermometers reflect internal air temperature only (not actual food temperature).
- Use probe thermometers to determine actual product temperatures.



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

1. LED Style Light Fixtures

Removal of Faulty LED Lights:

- LED lights rarely require change-out.
- 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.

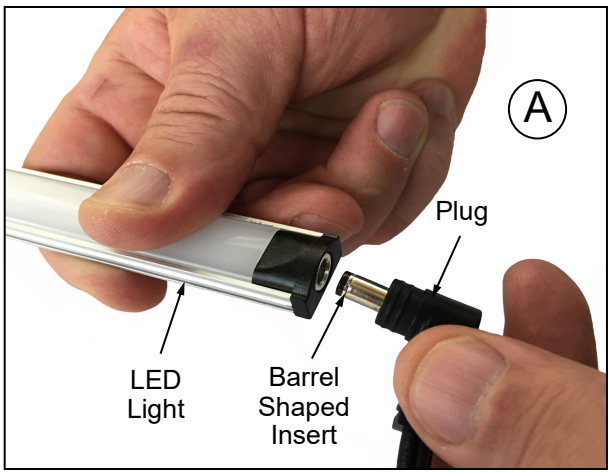
>> Note: Mounting clips MAY be riveted to shelf or header. In such instances, simply remove LED light from mounting clips by pressing against flange part of clips with thumb.

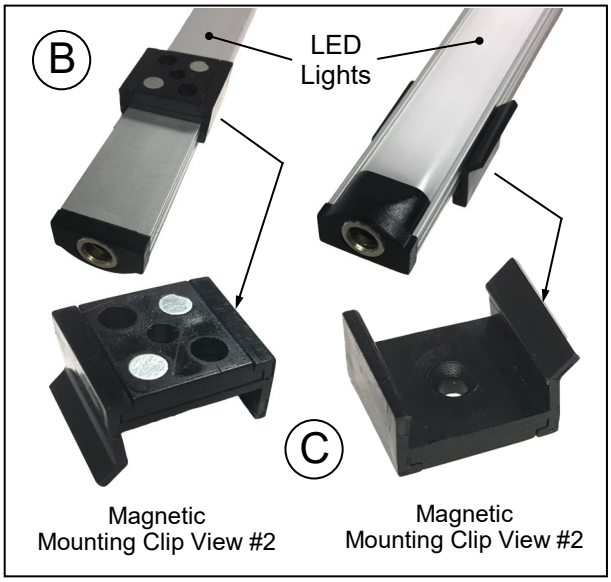
Replacement of LED lights:

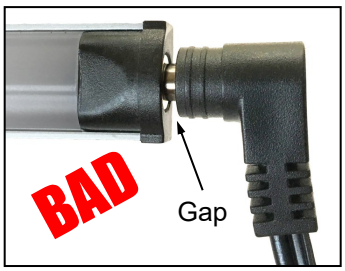
- Attach magnetic mounting clips onto LED light.
- Adjust magnetic mounting clips so they are equally spaced on LED light.
- Reattach LED light assembly to its shelf/header.
- Position properly in shelf/header.

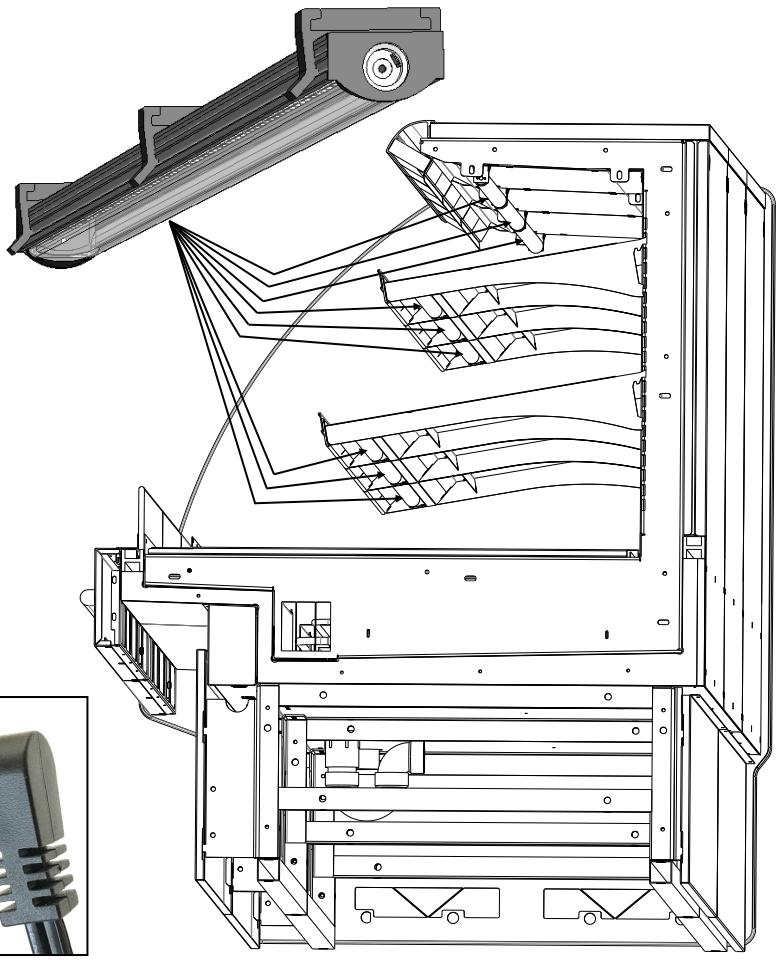
>> Note: If mounting clips are riveted to shelf (or header), attach by placing LED in base of clip and then snapping into clip at FLANGE SIDE.

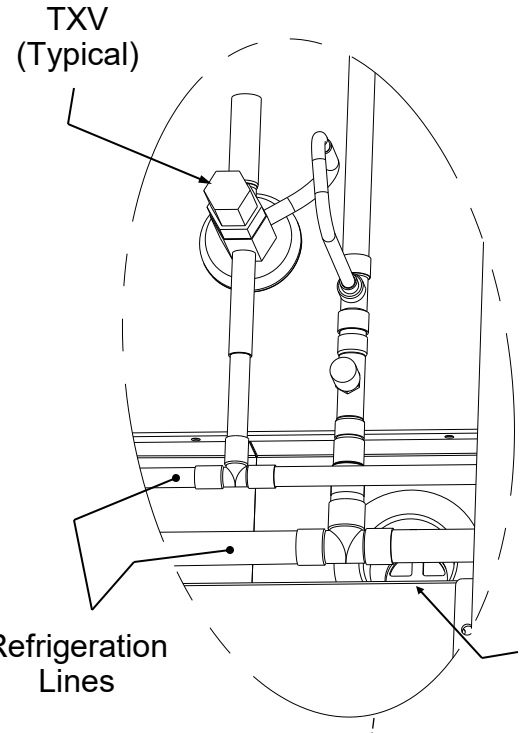
- Press plug's barrel-shaped insert all the way into LED light.
- Important: If plug is not inserted ALL THE WAY IN the LED light's orifice, the light may not energize. See **"BAD"** vs. **"GOOD"** insertion illustrations below.
- Turn LED light switch back on.











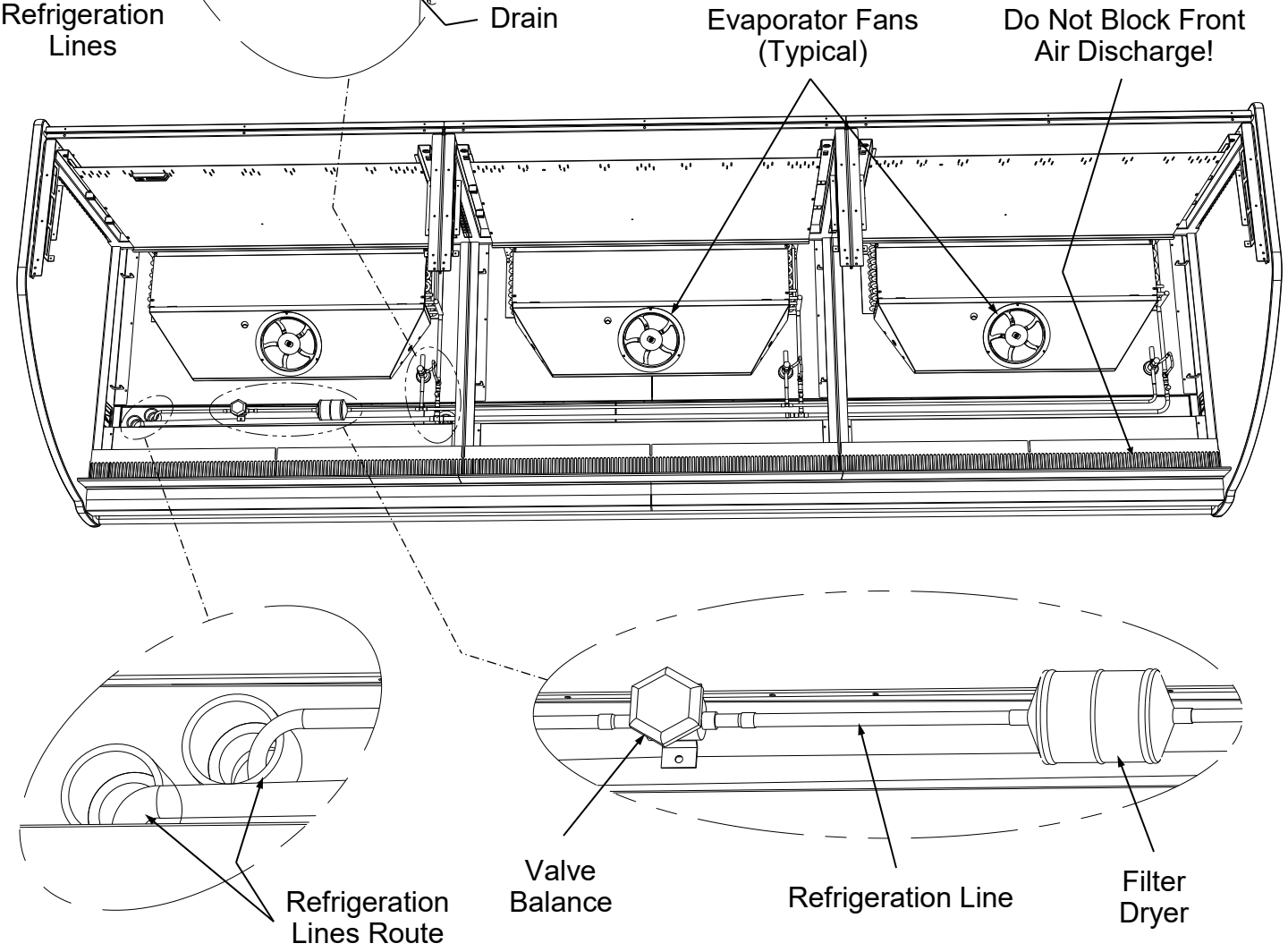
2. Evaporator Fan, Shroud, TXV, Drain, Access

- Caution! Turn main power switch off and/or 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.
- Note: Model GMSS1252R is illustrated below. Your case may not exactly reflect every feature option as unit shown.

3. Front Air Discharge

- Do not set product or utensils on air discharge.
- Proper airflow and temperature will be compromised if airflow is blocked.
- See illustration below.

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



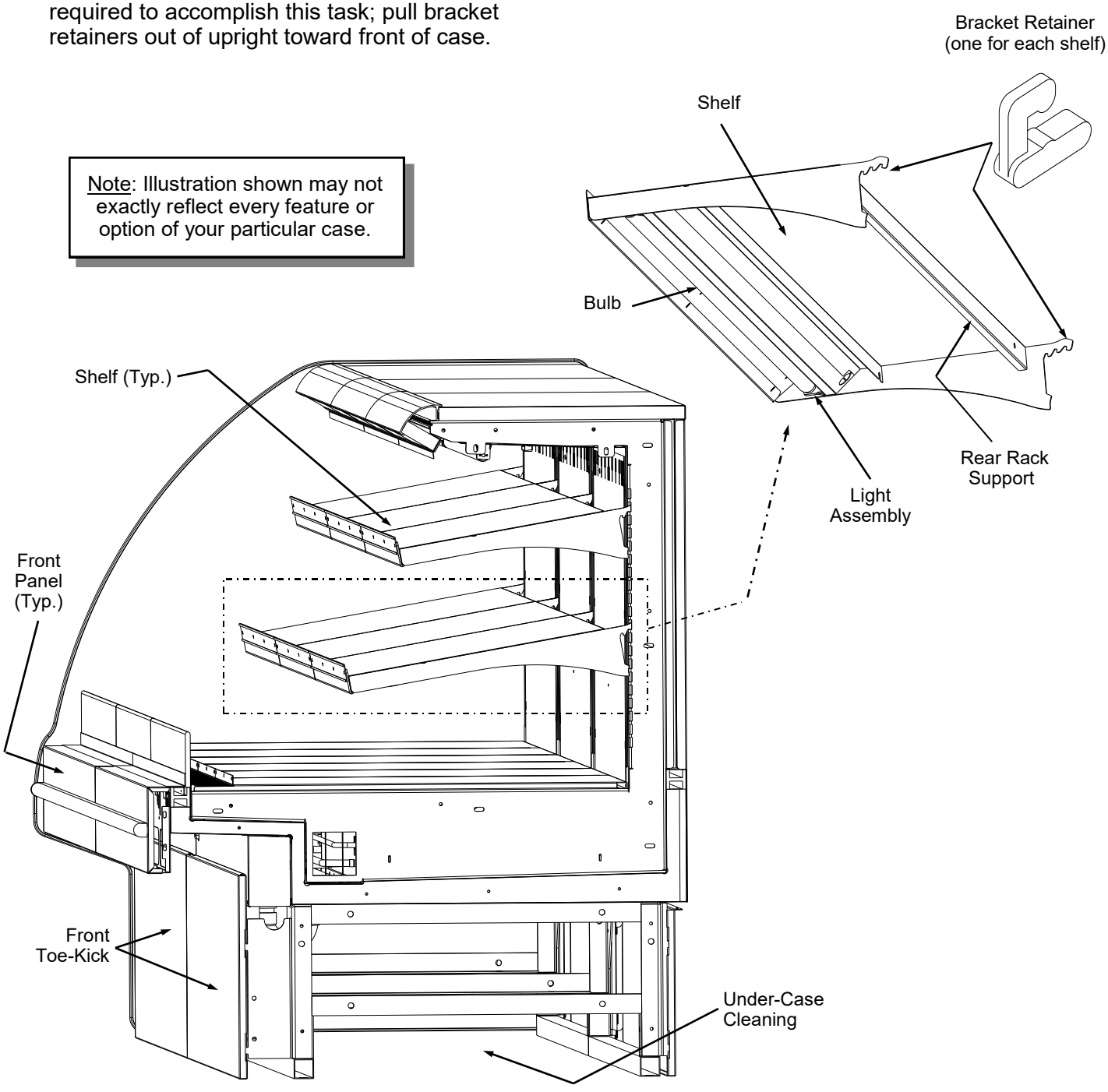
4. Shelf Assembly Removal

- Remove and set aside metal shelves.
- For lighted shelving, unplug the light cord and detach from the rear shelf support.
- Slide light assembly back to unlock, then rotate up to separate from brackets.
- Slide rear support back to unlock and rotate up to separate from brackets.
- Remove brackets. **Note: It may be necessary to remove the bracket retainer.** Pliers will be required to accomplish this task; pull bracket retainers out of upright toward front of case.

5. Under Case Cleaning

- Sufficient under case cleaning is accessible by hand or 1-1/2 inch diameter cleaning tool such as a vacuum hose.
- Extensive cleaning can be done by removing the front panel and / or the rear toe-kick.
  See ***MAINTENANCE FUNDAMENTALS*** section in manual (under *Light Ballast Access/Removal*) for in depth instructions on removing front panel.

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



7. Honeycomb Air Diffuser Removal

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

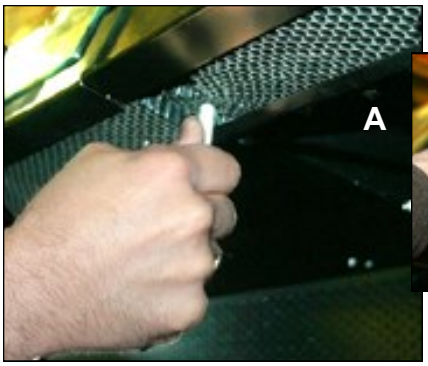
A. Wedge a non-metallic device of suitable strength (such as a ballpoint pen) between the honeycomb and the end panel.
Caution! Use care not to dislodge the heating wire (that prevents condensation on the lamp assembly).
B. Apply pressure to collapse the honeycomb to allow it to be pulled out of honeycomb retainer.
C. Carefully pry downward and away from the honeycomb retainer.

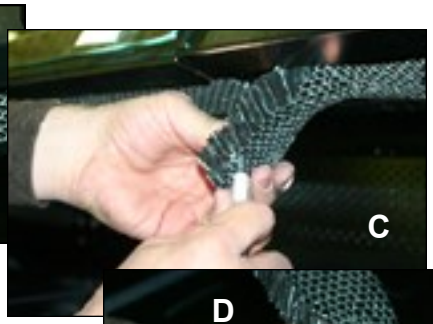
Clean honeycomb with warm water and soap solution. Submerse if necessary. Use brush to dislodge stubborn or sticky residue. Dry by using vacuum's blow mode (vs. suction mode).

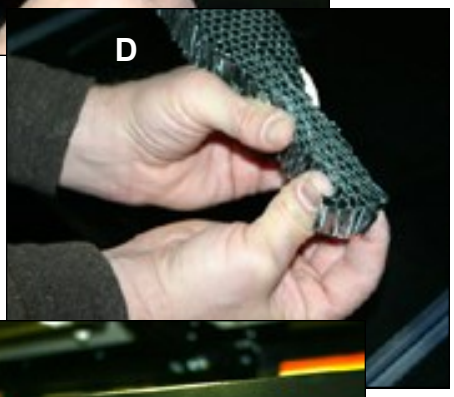
Honeycomb Air Diffuser Installation

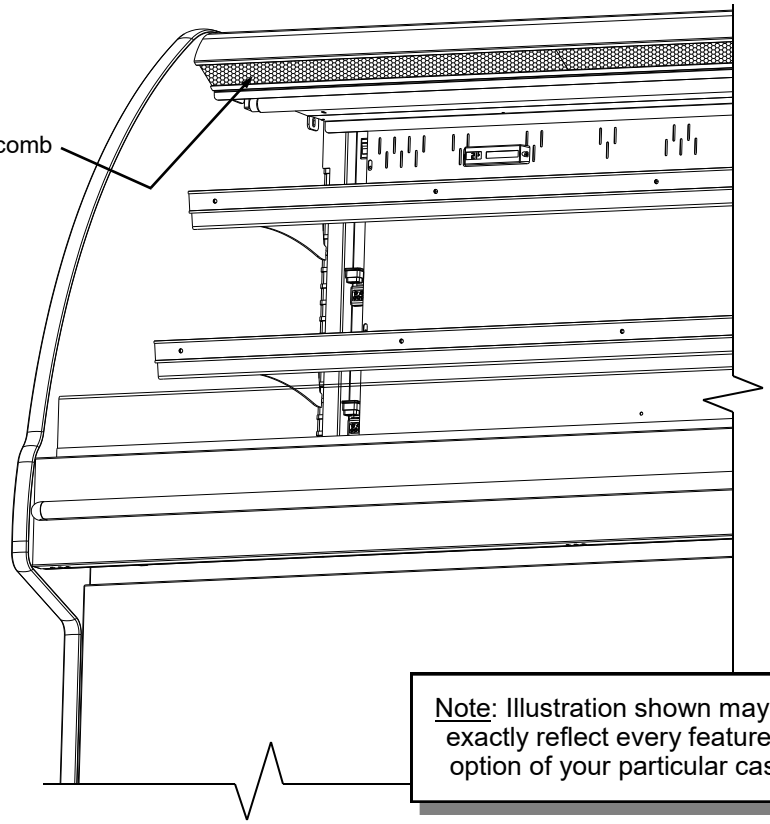
D. Squeeze honeycomb to allow it to fit into the honeycomb retainer.
E. Carefully slide honeycomb into place.
F. Adjust honeycomb so that it fits flat against retainer. It must not be wavy or out of position.

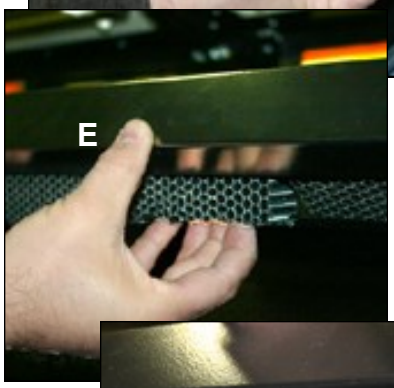
Note: For honeycomb air diffusers in other locations, these same general instructions apply.











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

CLEANING SCHEDULE TO BE PERFORMED BY STORE PERSONNEL* - PAGE 1 of 2

*** UNLESS SPECIFIED OTHERWISE**

FREQ.	INSTRUCTIONS
Weekly	**Decks:** Wipe off decks with moist cloth dipped in mild soap and water solution. • For stubborn or caked on stains, remove decks from case, submerse in warm, soapy water and use soft-bristled brush to remove residue.
Daily	**Acrylic Air Deflector:** Clean with a warm water and mild soap solution and soft cloth. Never use regular glass cleaner or ammonia-based cleaners on acrylic.
Daily	**All Glass / Mirrors:** Clean side glass, front glass and mirrors with household or commercial glass cleaner. Clean out door track with moist cloth.
Daily	**End Panels, Front Panel, Toe-Kicks, etc.:** Wipe with warm water & mild soap solution and non-abrasive cloth. Dry with soft, clean cloth or paper towel.
Weekly	**Stainless Steel Dividers (On Decks):** • Wipe down with warm water and mild soap solution and non-abrasive cloth. • Should additional cleaning be necessary, remove from case and clean thusly: A. As dividers are dishwasher safe, they may be cleaned in store dishwasher. B. Submerse in warm/hot soapy water and wipe down with soft-bristled brush to remove hardened residue.
Weekly	**Wood, Laminate and Painted Surfaces:** Clean with mild soap, water solution and a soft cloth.
Weekly	**Magnetic Condenser Coil Filter (For Self-Contained Units):** • This filter helps prevent dust particles from entering condenser coil. • It is accessible by opening rear hinged door (and is positioned over louvers). • Clean magnetic condenser coil filter by following either of these steps: 1. As magnetic condenser coil filter is dishwasher safe, remove from case (no screw removal required) and use a rag or soft-bristled brush to wipe off excess dust particles from filter. Run in normal dishwasher cycle. Remove from dishwasher. Dry with soft cloth or paper towel. Return to case. 2. If not using dishwasher, remove magnetic condenser coil filter from case. Use a rag or soft-bristled brush to wipe off excess dust particles from filter. Submerse in warm, soapy water. Use soft-bristled brush to remove dust, dirt, grease and grime that may collect on filter. Rinse thoroughly. Dry with soft cloth or paper towel. Replace.
Monthly	***Tub, Drain, Evap. Fans, Fan Brackets, Fan Shroud, Motors, TXV, Filter Dryer, Etc.:** Keep clean and free of debris which could clog tub and drain. To access drain area, remove the deck and fan shroud. • Vacuum tub under deck. • Run hose into drain to flush out debris. Carefully hose out the tub. • Wipe down components (listed above) with moist cloth dipped in mild soap and water solution. • ***Caution! Avoid splattering water over the case and surrounding areas!*** • See ***MAINTENANCE FUNDAMENTALS: EVAPORATOR FANS, REFRIGERATION LINES, TXV & DRAIN ACCESS*** section in operating manual for illustrations.

***This Service Is To Be Performed By Trained Service Providers Only**

*** UNLESS SPECIFIED OTHERWISE**

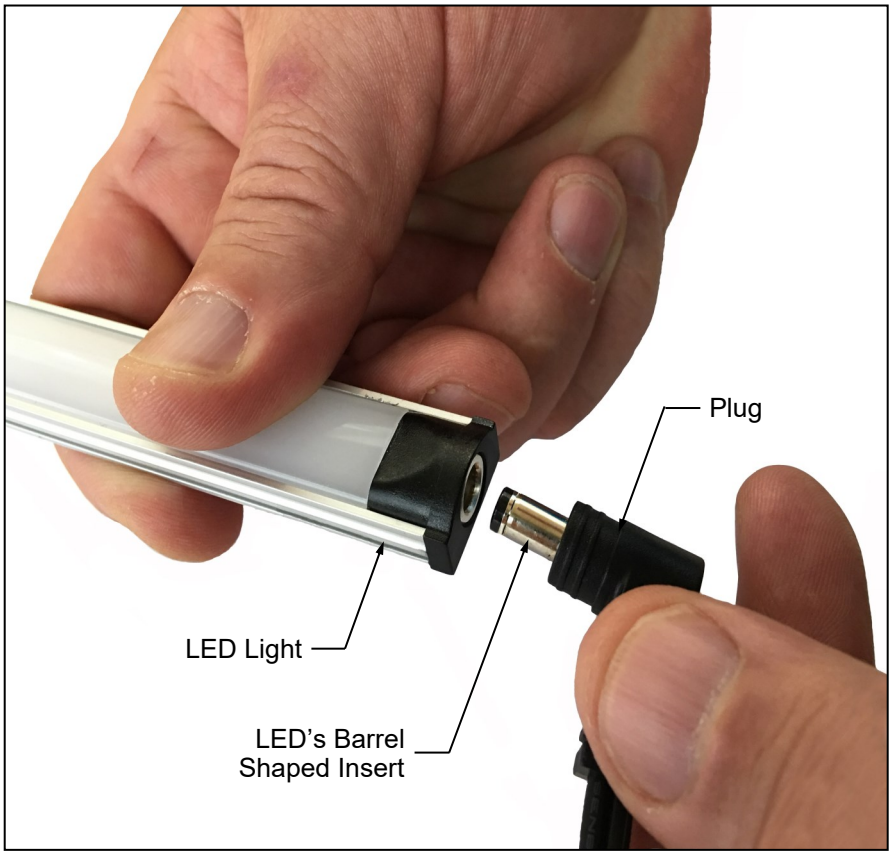
FREQ.	INSTRUCTIONS
Quarterly	**Under Case Cleaning (Remote Units):** Caution! Do not clean flooring in a manner that causes dust to be circulated into the air! Remove rear toe-kick and clean underside of case with broom or vacuum with extended hose. Replace rear toe-kick to case. **Under Case Cleaning (Self-Contained Units):** Caution! Do not clean flooring in a manner that causes dust to be circulated into the air! Remove rear grille. Remove condenser package shipment screws. Carefully slide condenser package out from under case. Remove toe-kick. Clean underside of case with broom or vacuum with extended hose. Carefully slide condenser package back under case. Return rear grille and front toe-kick to case.
Quarterly	**Condenser Coil Cleaning:** Remove rear condenser grille. Using an industrial strength vacuum with bristled brush, clean the dust and dirt that collects on the condenser coil. Caution! Be careful not to damage the fins on the coil.
Quarterly	***Clean Condensing Unit (including Evaporator Pan):** ***Warning! Hot gas loop coil may be hot. Allow to cool 15-minutes before cleaning.*** Note: See ***CONDENSER PACKAGE (SELF-CONTAINED UNITS ONLY)*** section in this manual for illustration. 1. Turn off refrigeration main power switch (or disconnect case from power source). 2. Remove rear grille (by lifting up and off). Remove shipping screws (if still attached). 3. Slide condenser package out from case rear. 4. Thoroughly clean evaporator pan area with de-scaling solution, such as **CLR®**. Rinse thoroughly. 5. Use clean towel dipped in soap and water solution to wipe down fan motor, fan blades, refrigeration lines, cords, knobs, sight glass, filter dryer, receiver, connectors, etc. 6. Wipe dry. 7. Slide condenser package back under case. There is no need to reattach shipping screws (if any). 8. Replace rear grille. 9. Turn power back on (or reconnect power) to merchandiser.
Quarterly	***Honeycomb:** See ***MAINTENANCE FUNDAMENTALS - HONEYCOMB AIR DIFFUSERS*** section in this manual for removal, replacement and cleaning instructions.

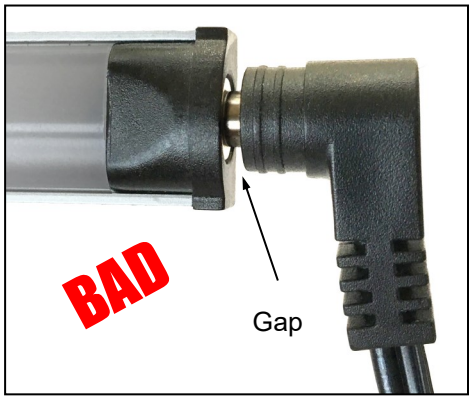
***This Service Is To Be Performed By Trained Service Providers Only**

CONDITION	TROUBLESHOOTING
Case Not Lining Up	See Installation Section for instructions on properly aligning case (alongside other cases) and adjusting levelers.
Product is Drying Out	Check the relative humidity in the store.
Water Is On The Floor	Check that the drain trap is free of debris.
	Check that the drain hose is correctly positioned over the floor drain.
	Check store conditions. Conditions should be 55% humidity / 75° Fahrenheit to prevent condensation.
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 excessive 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 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.
	Check that MAIN power switch (if any) is turned on.
	*Check if there is ice build up blocking the fan.
System Is Not Operating	Check that the utility power is on.
	Check the circuit breaker box for tripped circuits.
	Check that the MAIN power switch (if any) is turned on.
	Check that unit is properly plugged in (self contained units).

***This Service Is To Be Performed By Trained Service Providers Only**

CONDITION	TROUBLESHOOTING
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.
	Check that the discharge air grille is not disrupted or blocked by product.
	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. See ***OVERVIEW / CONDITION TYPE / COMPLIANCE / WARNINGS / PRECAUTIONS / WIRING*** section in this manual for specifics.
Case Lights Are Not Working	Check that light switch is in the *on* position.
	LED Lights: Check plugs and lights for proper connection (illustrated below).
	Check for burned out bulbs. If so, turn lights off & replace.
	Trained Service Providers Only: Check to insure voltage at ballasts. If voltage is entering but not exiting ballast, ballast is faulty.





TROUBLESHOOTING - CONDENSING SYSTEM*

CONDITION	TROUBLESHOOTING
Head Pressure Too High	Check that the condensing coil is not dirty or covered.
	Check that condensing fans are working.
	Check that refrigerant is not overcharged.
	Perform sub-cooling check and verify that no contaminates are in system.
	Check that close-offs are intact (around condensing coil) and that air is not recirculate.
	Check that store ambient temperature isn't above maximum allowed. See ***OVERVIEW / TYPE / WARNINGS / PRECAUTIONS / WIRING DIAGRAM*** section in this manual.
	Liquid line filter dryer may be plugged and need to be replaced.
Head Pressure Too Low	Check if sight glass is flashing or showing low charge.
	Check that suction pressure isn't too low.
	Compressor reed valves may be faulty. Check for high suction pressure /low head pressure. If pressure is out of range, perform pump down.

***This Service Is To Be Performed By Trained Service Providers Only**

TROUBLESHOOTING - 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 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.
	Compressor reed valves may be faulty. Check for high suction pressure / low head pressure. If pressure is out of range, 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 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 a. Poor thermal contact. b. Warm location.

***This Service Is To Be Performed By Trained Service Providers Only**

Serial Label Location & Information Listed / Technical Information & Service

- Serial labels are affixed at a wide range of places (on the header, near thermostat, at case rear, behind panels/toe-kicks, on electrical boxes, etc.).
- Serial labels contain electrical, temperature and refrigeration information, as well as regulatory standards to which the case conforms.
- Sample serial label shown below.
- For additional technical information and service, see the *TECHNICAL SERVICE* page in this manual for instructions on contacting Structural Concepts' Technical Service Department.

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

Fusion

MODEL NRS3648RXV-SAMPLE
SERIAL NO. 12345X30DZ098765

SAMPLE ONLY

C ETL LISTED US Intertek

ETL SANITATION LISTED Intertek

SAMPLE ONLY

SAMPLE ONLY

3048256	ELECTRICAL RATING	120/1/60 16 A
Conforms to UL Std. 471	REFRIGERANT	R513A AMOUNT 50 OZ
Conforms to NSF/ANSI Stds. 2 & 7	DESIGN PRESSURE	HIGH 186 LOW 88
CERTIFIED TO CAN/CSA	MINIMUM CIRCUIT AMPACITY	20A
STD C22.2 NO 120	MAXIMUM OVERCURRENT	20A

Super Heat Temp	6-8 °F	FOR PARTS AND SERVICE
Defrost	6 defrosts per day, 45 °F	CALL 1-800-433-9490

SAMPLE ONLY

SAMPLE ONLY

SCAN FOR PRODUCT LITERATURE

Sample QR Code

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

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

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

Carel® PJEZ Platform

Carel® ir33 Platform

Carel® iJF Platform

Dixell® XM670K-XM679K Platform

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

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

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

Structural Concepts®

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.

Structural Concepts®