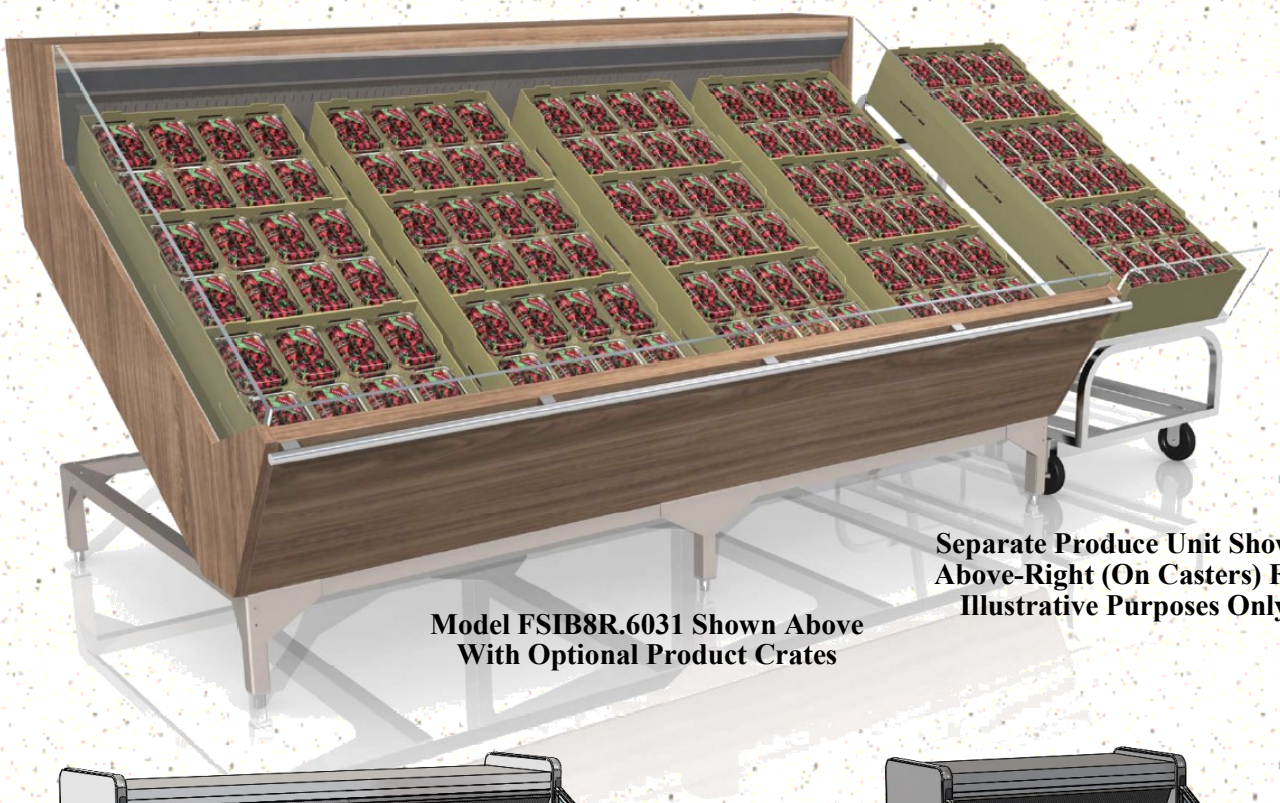
READ AND SAVE THESE INSTRUCTIONS

Oasis MOBILE SERIES

INSTALLATION & OPERATING MANUAL

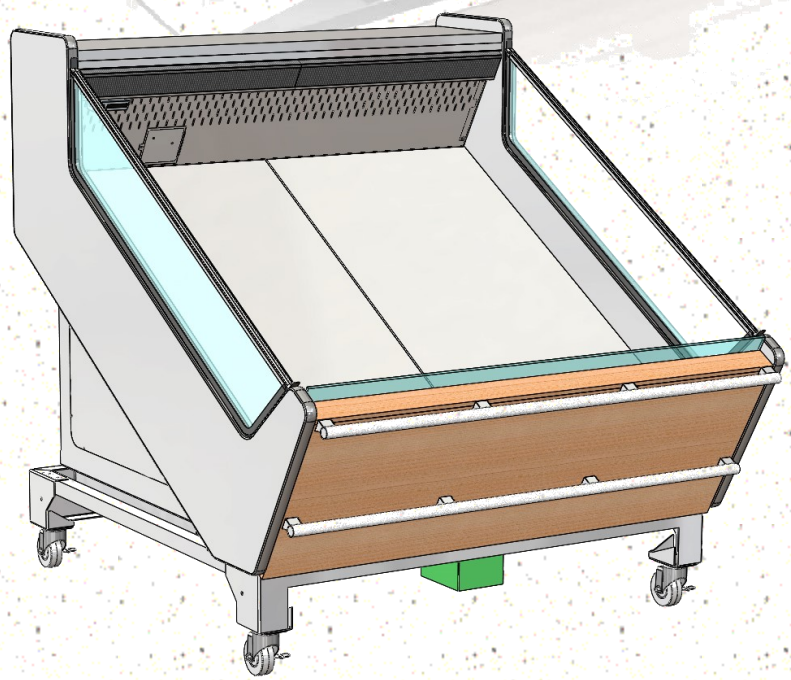
PN 20-45803

SELF-SERVICE REFRIGERATED CASES (BOTH SELF-CONTAINED and REMOTE)
>> DESIGNED FOR BERRY MERCHANDISING
>> MODEL FSIB8R.6031, FSIB4R.6031A and FSIB2R.6031B

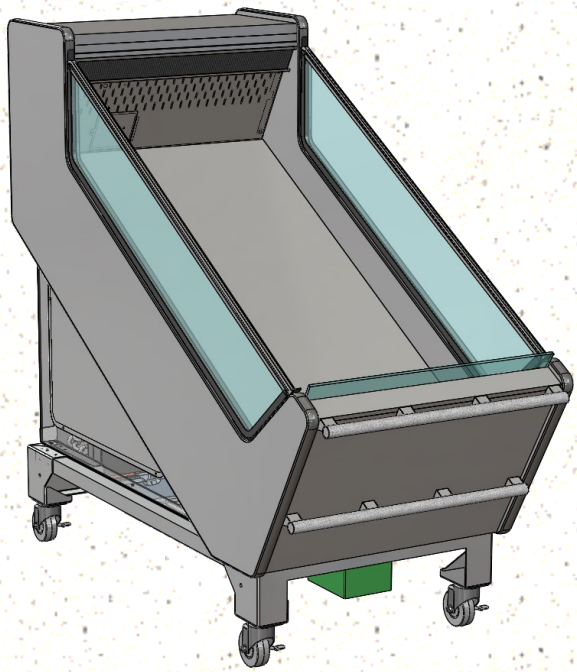


Model FSIB8R.6031 Shown Above With Optional Product Crates

Separate Produce Unit Shown Above-Right (On Casters) For Illustrative Purposes Only



Model FSIB4R.6031A



Model FSIB2R.6031B

Structural Concepts 888 E. Porter Road · Muskegon, MI 49441 Phone: 231.798.8888 Fax: 231.798.4960 www.structuralconcepts.com

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OVERVIEW

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

TYPE 1 DISPLAY CONDITIONS

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

- Type I display refrigerators (these units) are intended for use in an area where environmental conditions are controlled and maintained so that the ambient temperature does not exceed 75 °F (24 °C) and 55% maximum humidity.

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

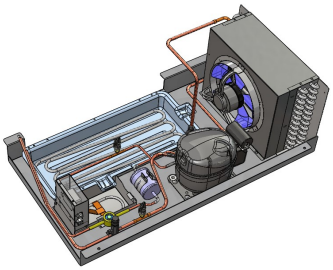
This equipment MUST be installed in compliance with all applicable NEC, federal, state and local electrical and plumbing codes.

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.



CAUTION! CHECK CONDENSATE PAN POSITION AND PLUG

Water on flooring can cause extensive damage!

Before powering up unit, check the following:

- **Condensate pan MUST BE positioned directly under condensate drain.**
- **Condensate overflow pan plug MUST BE plugged into receptacle.**

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

PRECAUTIONS

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

WIRING DIAGRAM

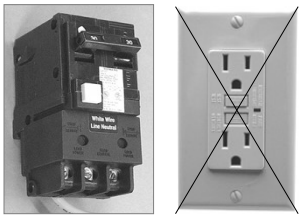
- Each case has its own wiring diagram folded and in its own packet.
- Wiring diagram placement may vary; it may be placed near ballast box, field wiring box, raceway cover, or other related location.

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!
DO NOT RELY ON THERMOMETERS OR THERMOSTATS FOR ACTUAL PRODUCT (FOOD) TEMPERATURES.

- **Thermometers and thermostats reflect air temperatures ONLY.**
- **For ACTUAL food temperatures, use a calibrated food thermometer.**

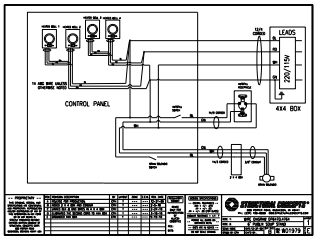


CAUTION! GFCI BREAKER USE REQUIREMENT

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

CAUTION! ADVERSE CONDITIONS / SPACING ISSUES

- **Performance issues caused by adverse conditions are NOT covered by warranty.**
- **Unit must be kept at least <u>15-feet</u> from exterior doors, overhead HVAC vents or any air curtain disruption to maintain proper temperatures.**
- **Unit must not be exposed to direct sunlight or any heat source (ovens, fryers, etc.).**



WIRING DIAGRAM FORMAT & LOCATION

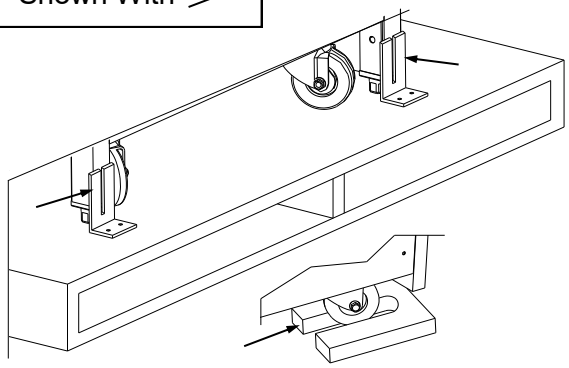
- **Each case has its own wiring diagram folded and in its own packet.**
- **Wiring diagram placement may vary; it may be placed near ballast box, field wiring box, raceway cover, or other related location.**

SHIPPING BRACKETS / CASE REMOVAL FROM SKID - REMOTE UNITS

1. Removing Case Shipping Brackets That Are Attached To Skid

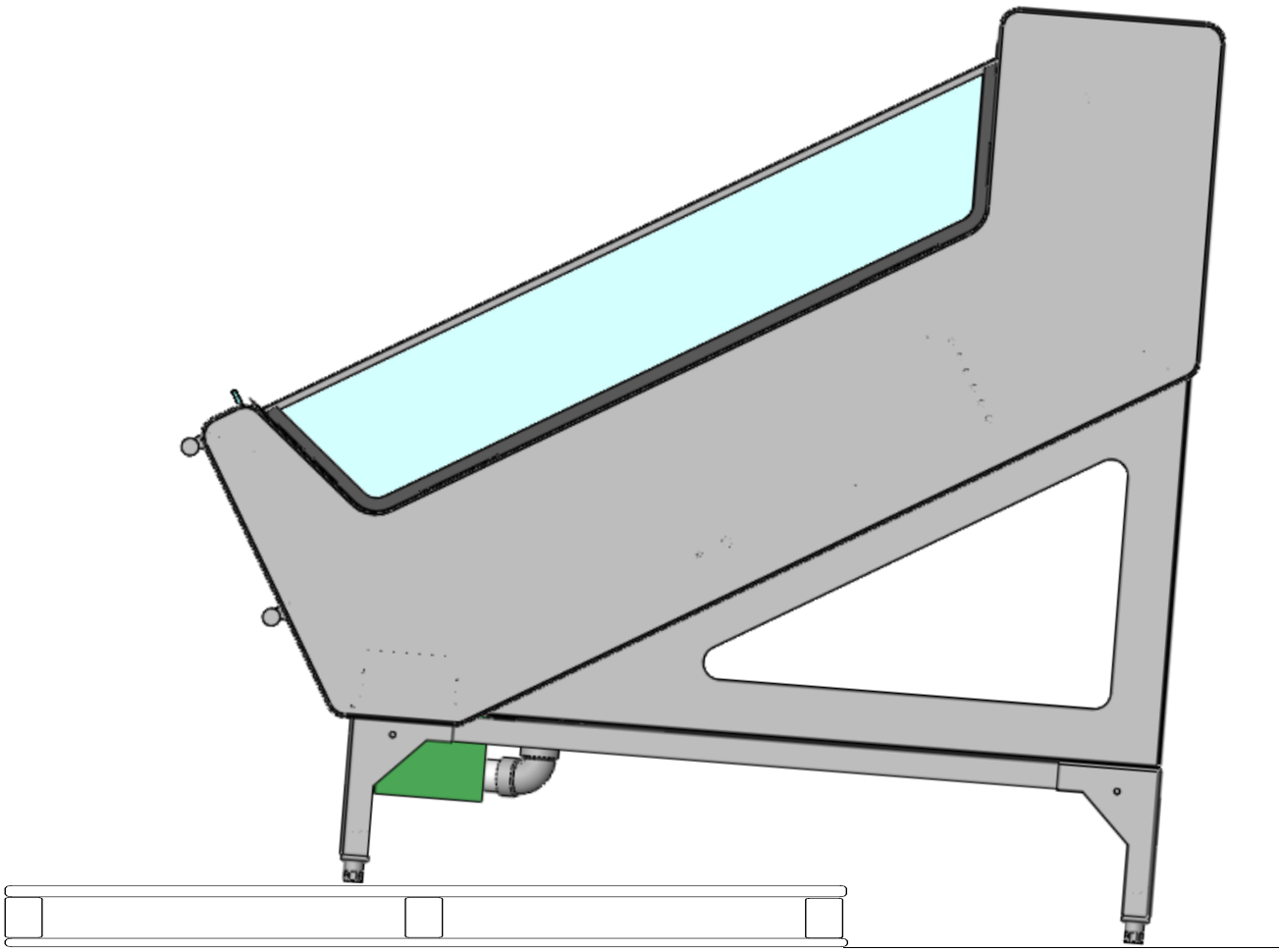
- Remove screws holding case shipping brackets to skid.
- Remove case shipping brackets from skid.
- Note: Shipping brackets will vary in size, shape, material and location depending upon case type and model. See illustration at right.

Various Types Of Shipping Brackets Shown With →



2. Remove Case From Skid - Remote Units

- 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.
- See next page for instructions on self-contained unit skid removal.

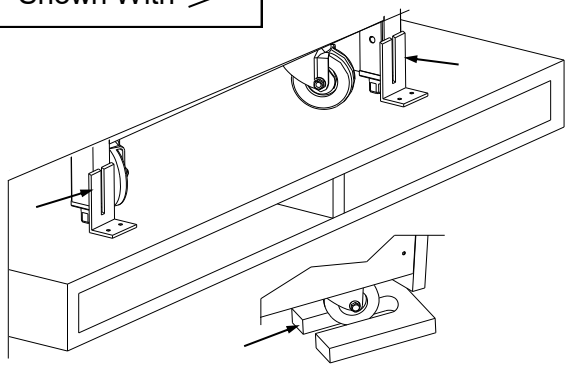


SHIPPING BRACKETS / CASE REMOVAL FROM SKID - SELF-CONTAINED UNITS

1. Removing Case Shipping Brackets That Are Attached To Skid

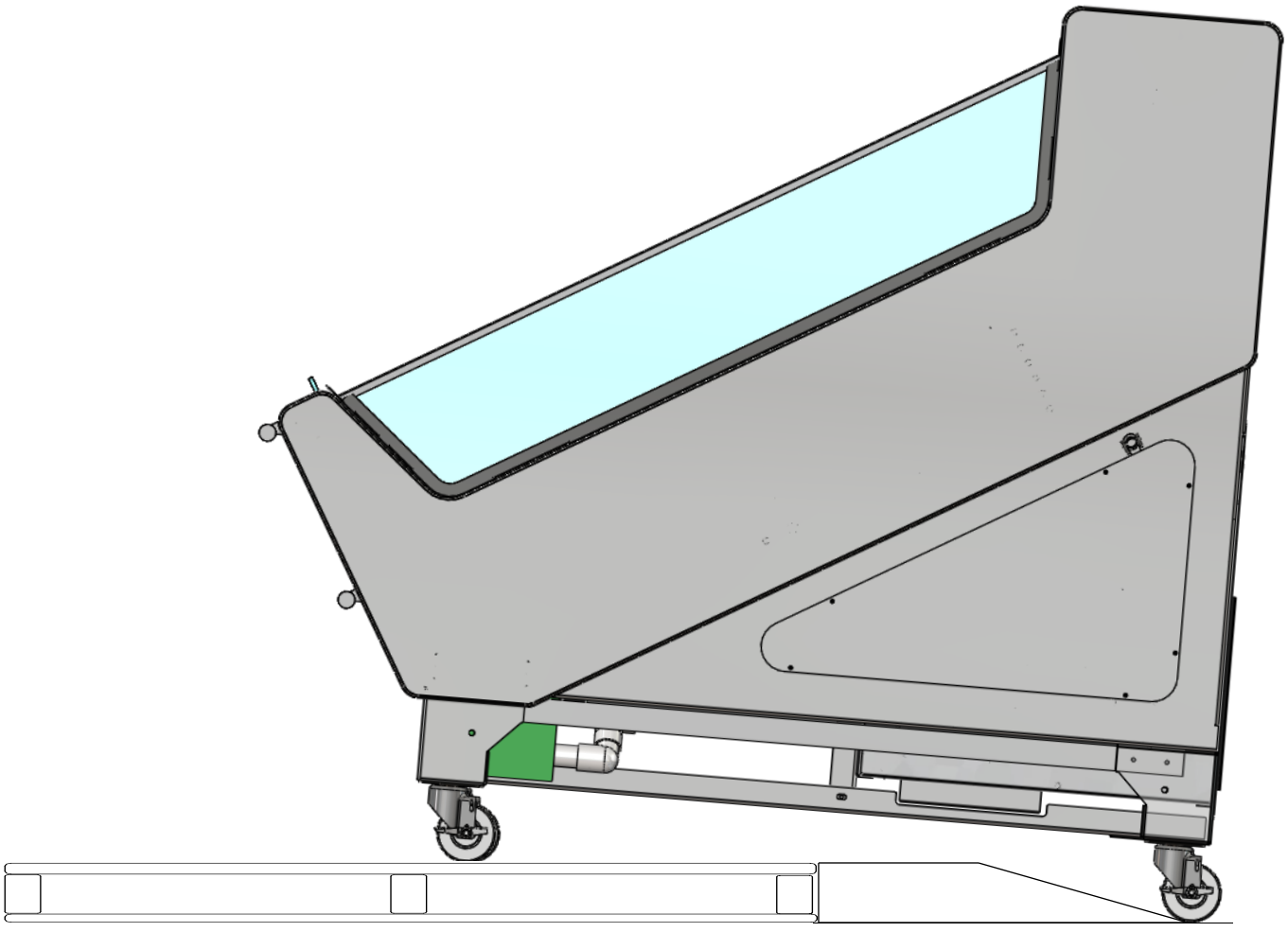
- Remove screws holding case shipping brackets to skid.
- Remove case shipping brackets from skid.
- Note: Shipping brackets will vary in size, shape, material and location depending upon case type and model. See illustration at right.

Various Types Of Shipping Brackets Shown With →



2. Remove Case From Skid - Self-Contained Units

- To prevent damage, support case while sliding it toward edge of skid.
- When case is at edge of skid, carefully slide down ramp to floor so that two casters rest on floor.
- Carefully slide unit the rest of the way, down ramp and onto the floor
- skid out from under case.
- After case is off skid, roll into position.
- Lock casters in place.



POSITIONING & ALIGNING / ADJUSTING LEVELERS / LOCKING CASTERS IN PLACE

1. Position & Align Case Alongside Others

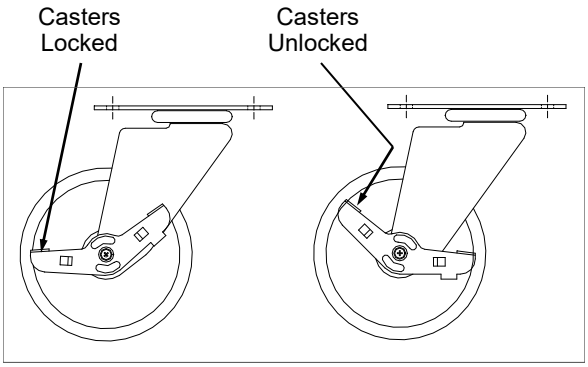
- Before adjusting levelers, make certain that the case is in proper position and, if required, aligned with adjoining case.
- This may require the repositioning of case you are installing or the already positioned case.

2. Adjust Levelers

- After case is in position, adjust case so it is level and plumb.
- Use adjustable wrench (and/or a pry bar) to adjust leveler.
- Do not use pry bar on end panel. It may chip.
- Use pry bar ONLY on base frame to avoid damaging case.

3. Caster Locking / Unlocking Operation

- To lock casters (from the unlocked position), press down on each RAISED caster lever (as shown top-right). Casters are now locked.
- To unlock casters (from the locked position), press down on the RAISED caster lever (as shown in illustration below).
- Casters are now in unlocked position.



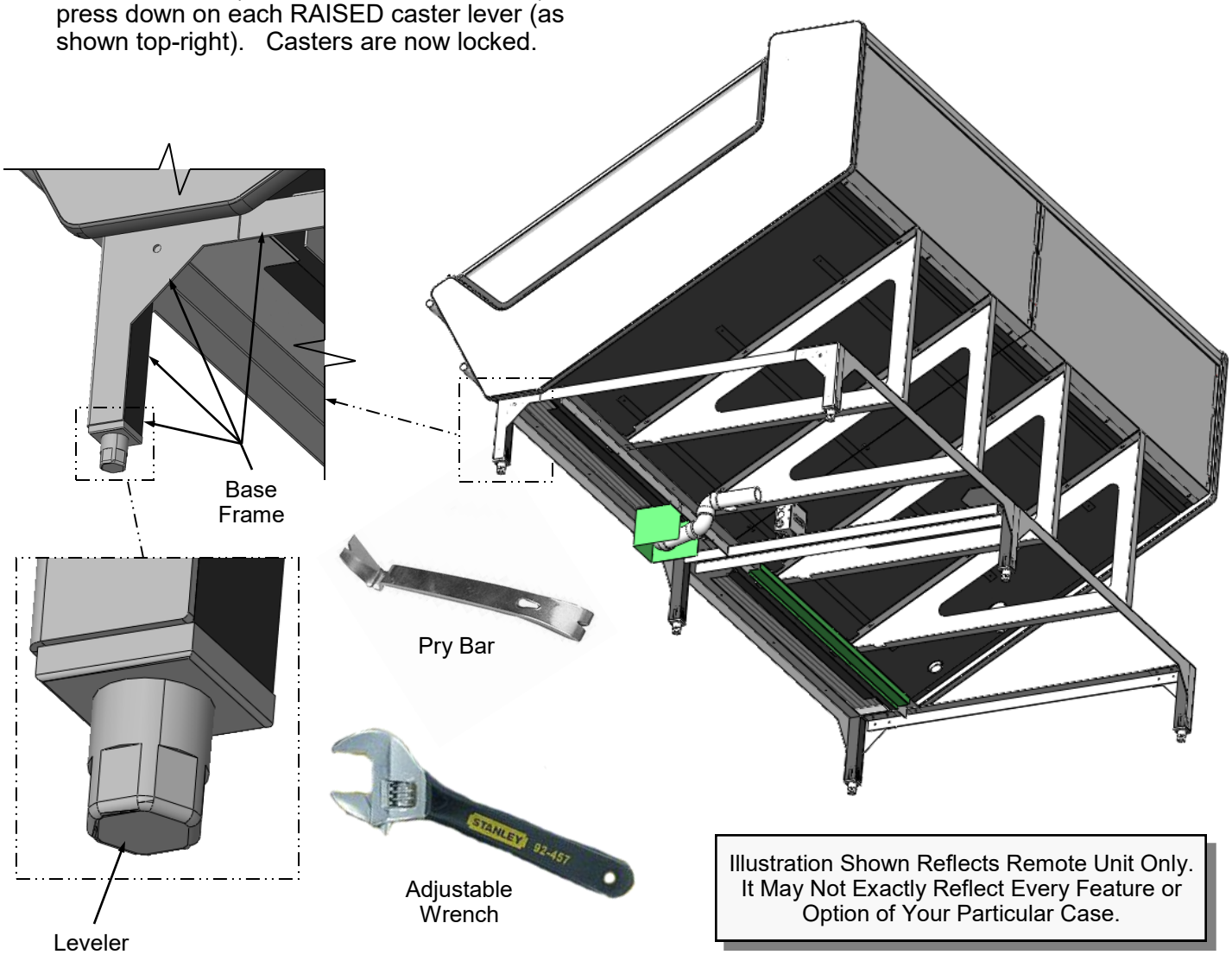


Illustration Shown Reflects Remote Unit Only. It May Not Exactly Reflect Every Feature or Option of Your Particular Case.

1. Start-Up

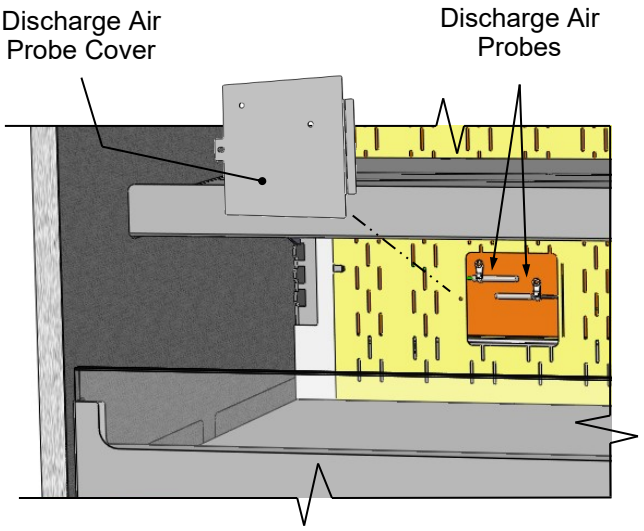
- When case is properly field wired, it will start operating.
- Supply power will start evaporator coil fans and the compressor motor.
- From the front of the case, raise the deck pans and check to see that the evaporator coil fans are all functioning properly (see next page).
- *When the case is in a start up mode (or has been idle for a long period of time), the unit will require approximately 30 minutes runtime in order to pull down temperature.*

2. Thermometer

- Thermometer is located at rear plenum for monitoring warmest air temperature.
- Probe must be used to determine actual product temperature.
- See illustration below.

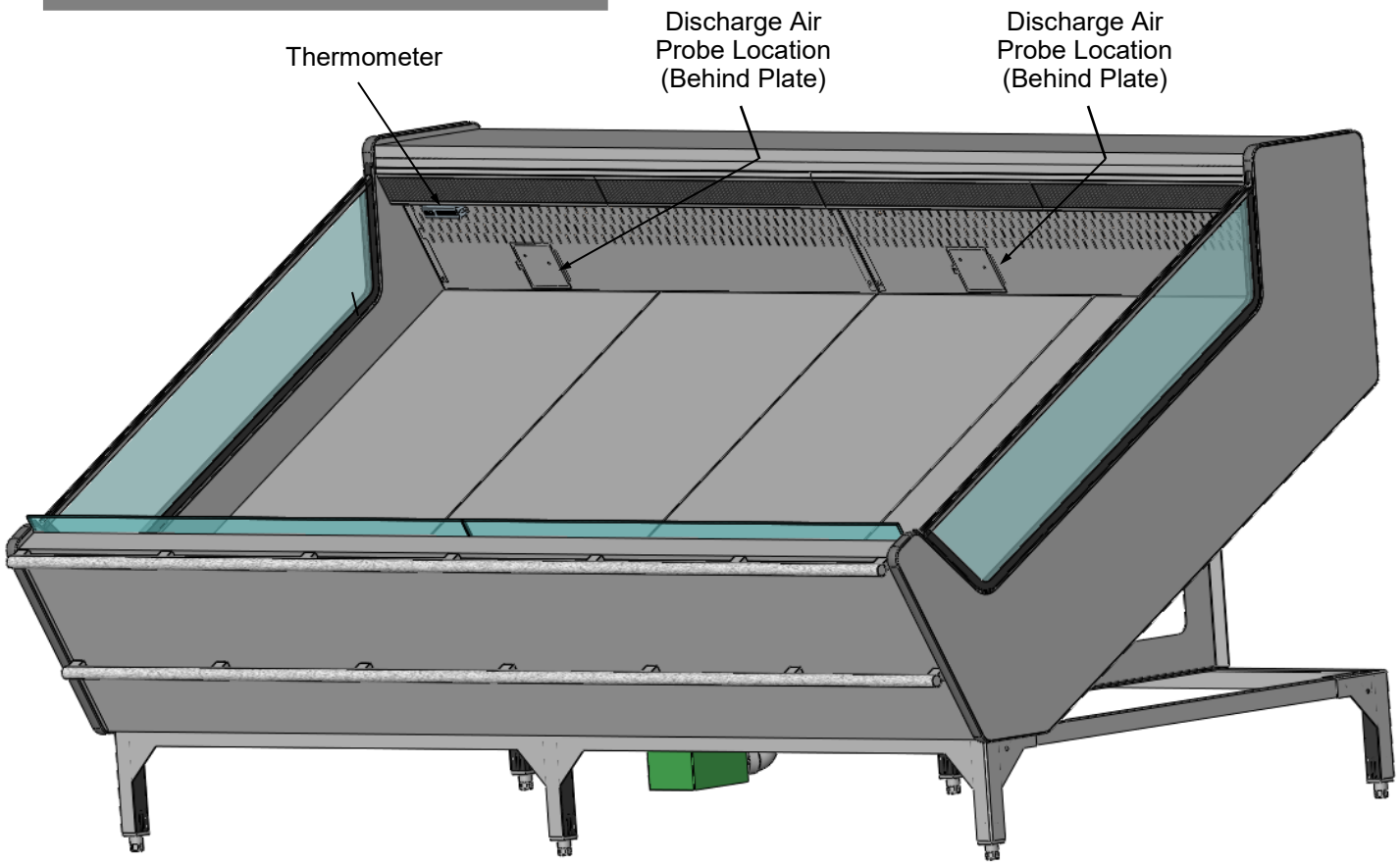
3. Discharge Air Probes

- Remove cover to access discharge air probes.
- General illustration of similar model shown below.
- Your model may differ in layout.



--- Discharge Air Probes - Sample Layout ---

Illustration Shown Reflects Remote Unit Only. It May Not Exactly Reflect Every Feature or Option of Your Particular Case.



HONEYCOMB AIR DIFFUSER / AIR RETURN DUCT / REFRIGERATED AIRFLOW PATH

1. Honeycomb Air Diffuser

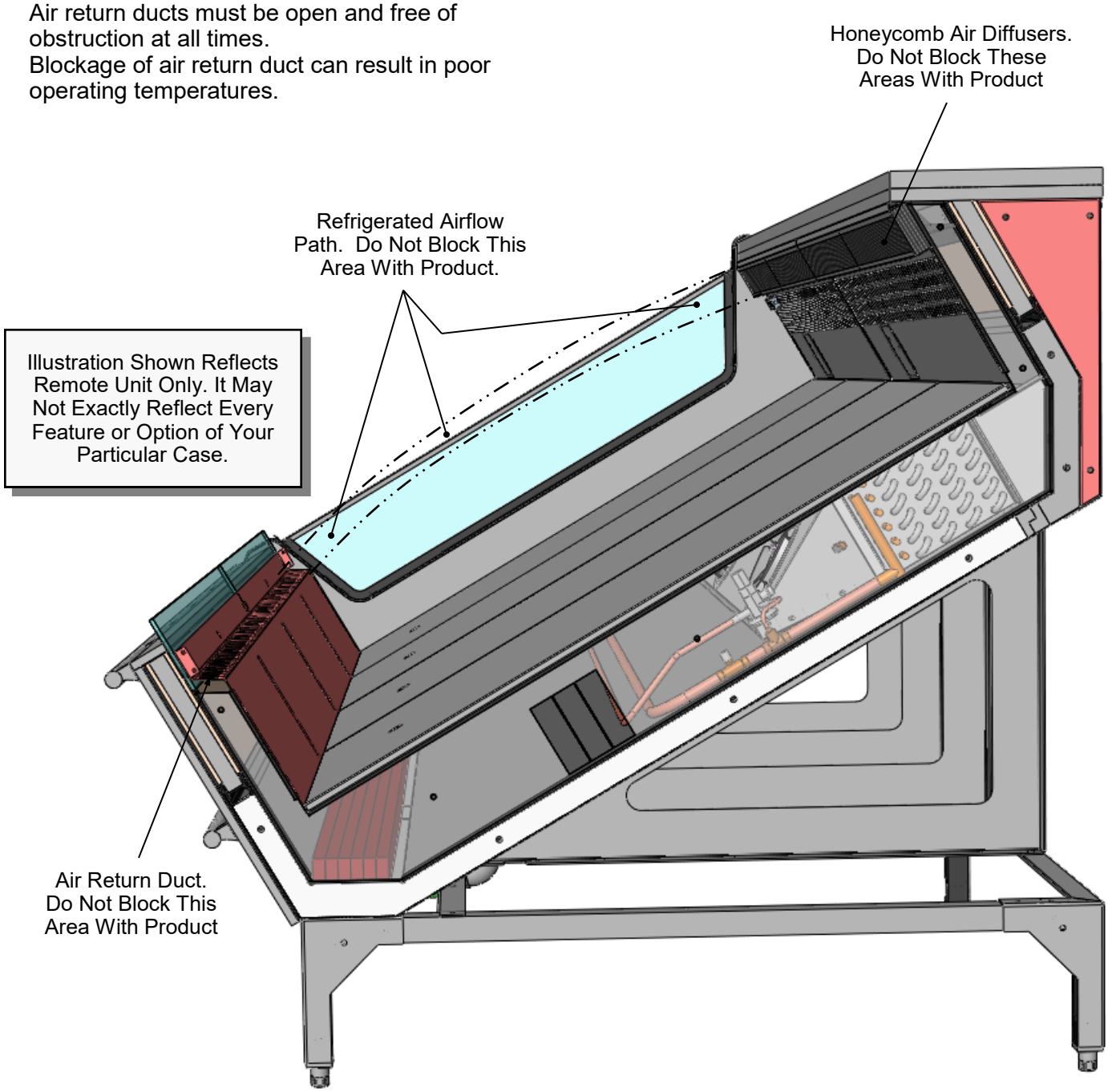
- Honeycomb air diffuser must remain unobstructed at all times.
- Blockage of air discharge can result in poor operating temperatures.
- See ***PREVENTIVE MAINTENANCE - HONEYCOMB AIR DIFFUSERS*** section in this manual for additional honeycomb information.

2. Air Return Duct

- Air return ducts must be open and free of obstruction at all times.
- Blockage of air return duct can result in poor operating temperatures.

3. Refrigerated Airflow Path

- Refrigerated airflow from honeycomb air diffuser to air return duct passes over product.
- Caution! DO NOT STACK PRODUCT to height that will impede this airflow path!
- Doing so will prevent case from keeping product at proper temperature.



EVAPORATOR AREA: DECK PAN REMOVAL / REFRIGERANT COMPONENTS FOR FSIB8R.6031 ONLY

***Caution!* Hazardous moving parts.**

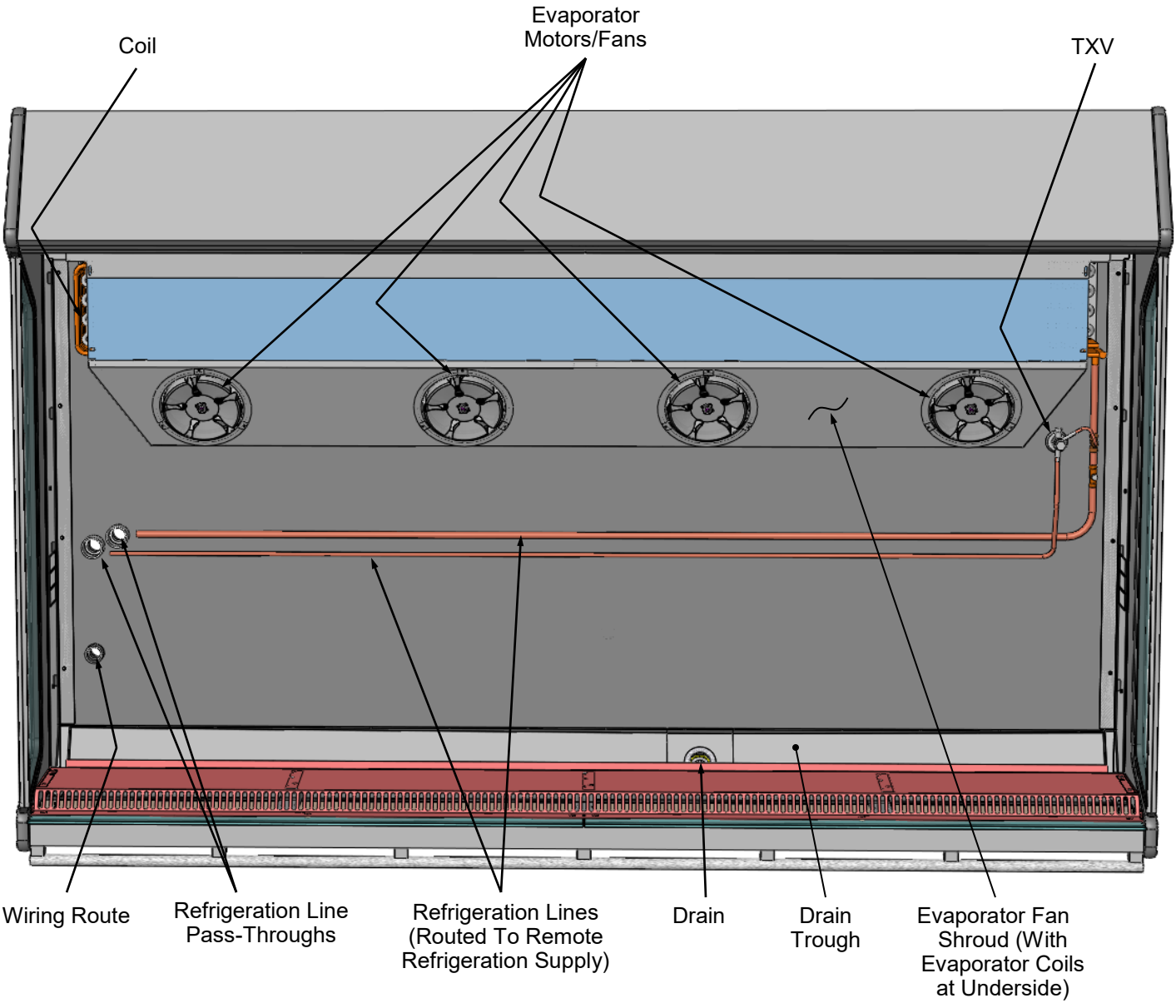
- **Authorized service personnel ONLY should access this area.**
- **Do not operate unit with covers removed.**
- **Fan blades may be exposed when deck panel is removed.**
- **Disconnect power before removing deck panel.**

1. Deck Pan Removal

- Illustration below shows merchandiser after deck pans have been removed.
- Store in safe place out of foot traffic while removed from case.

2. Components / Routes

- Illustration below shows components such as refrigeration lines, TXV, drain, drain trough, motors and fans, etc.
- Illustration below shows general layout.



EVAPORATOR AREA: DECK PAN REMOVAL / REFRIG. COMPONENTS FOR FSIB2R.6031B ONLY

Caution! ***Hazardous moving parts.***

- **Authorized service personnel ONLY should access this area.**
- **Do not operate unit with covers removed.**
- **Fan blades may be exposed when deck panel is removed.**
- **Disconnect power before removing deck panel.**

1. Deck Pan Removal

- Illustration below shows merchandiser after deck pan has been removed.
- Store in safe place out of foot traffic while removed from case.

2. Components / Routes

- Illustration below shows components such as refrigeration lines, TXV, drain, drain trough, motors and fans, etc.
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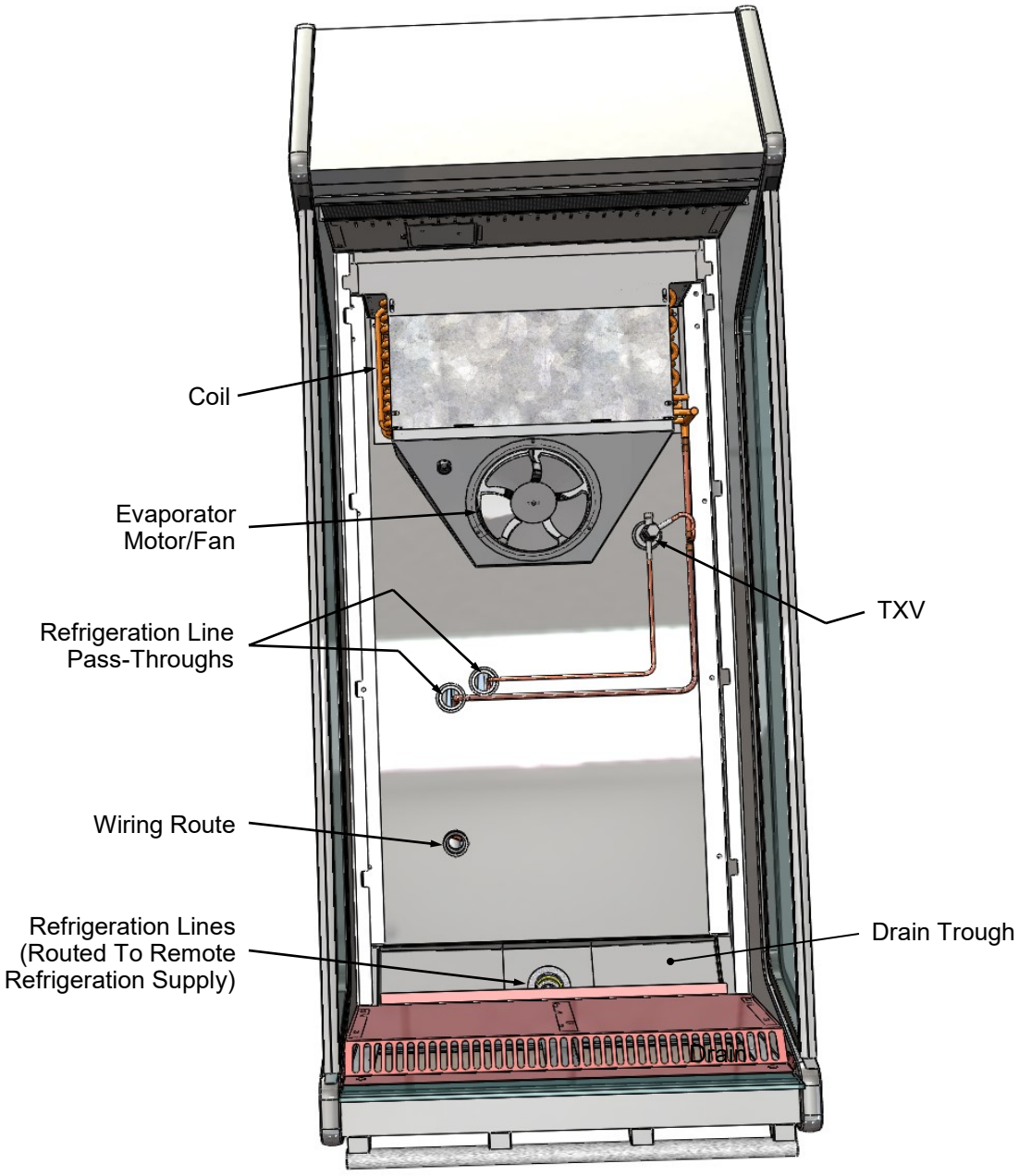
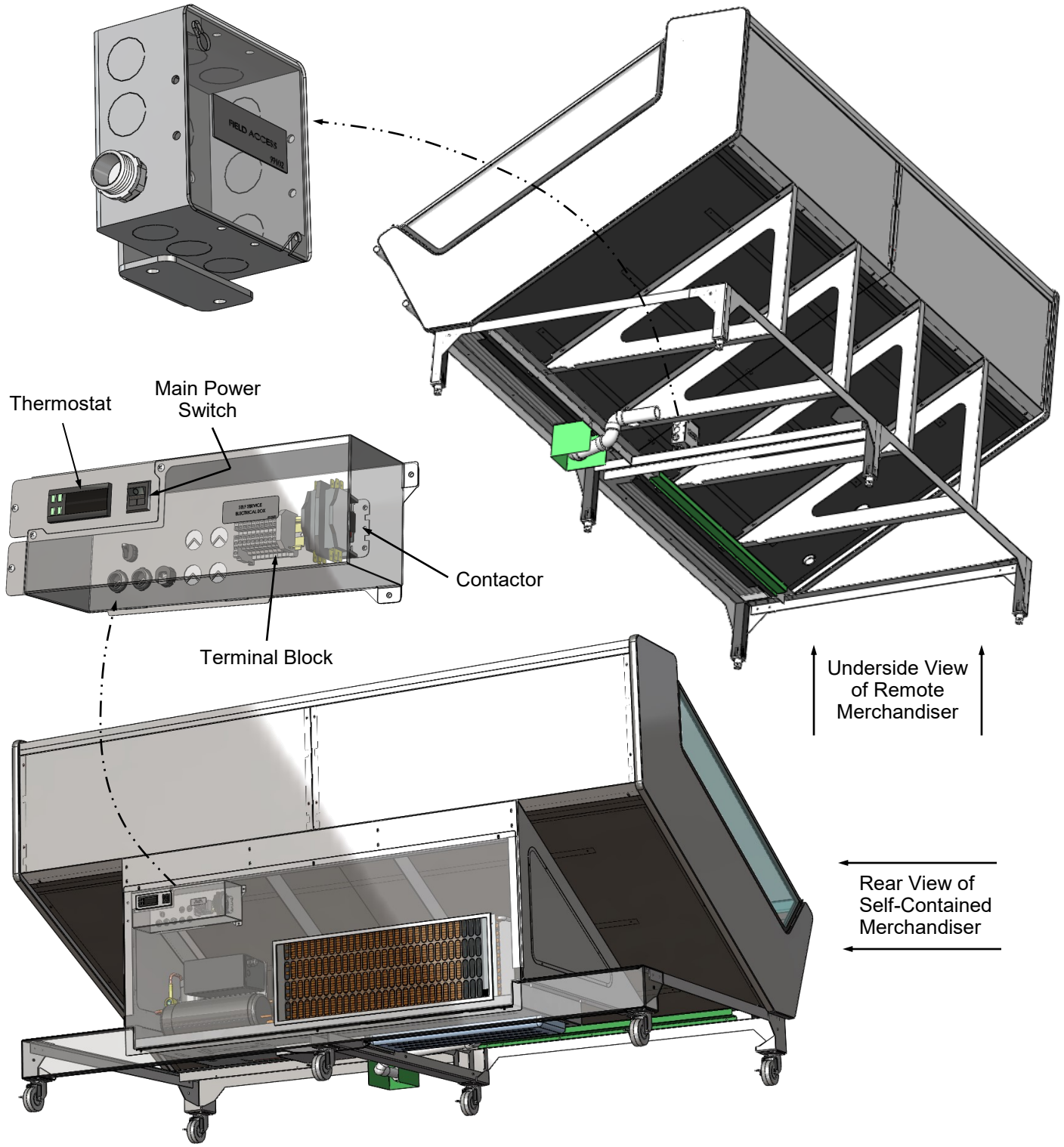


Caution! **Authorized service personnel ONLY should access this area.**

Field Access Box

- Illustration below shows field access box for both remote and self-contained units.
- Caution! Authorized service personnel ONLY should access this area.

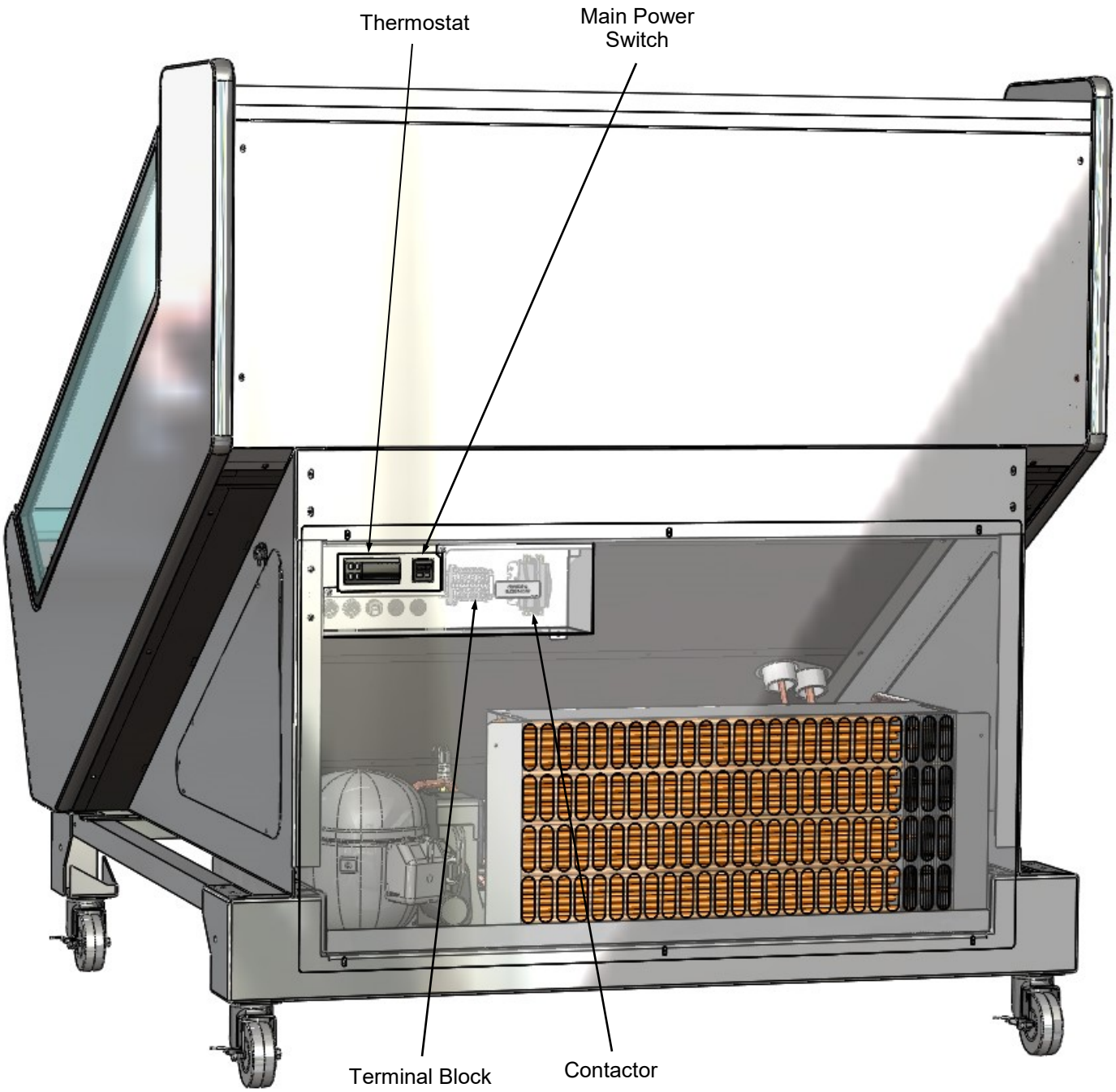


ELECTRICAL LAYOUT: MODEL FSIB4R.6031A SELF-CONTAINED UNITS ONLY

Caution! **Authorized service personnel ONLY should access this area.**

Self-Service Access Box

- Illustration below shows field access box for both remote and self-contained units.
- Caution! Authorized service personnel ONLY should access this area.

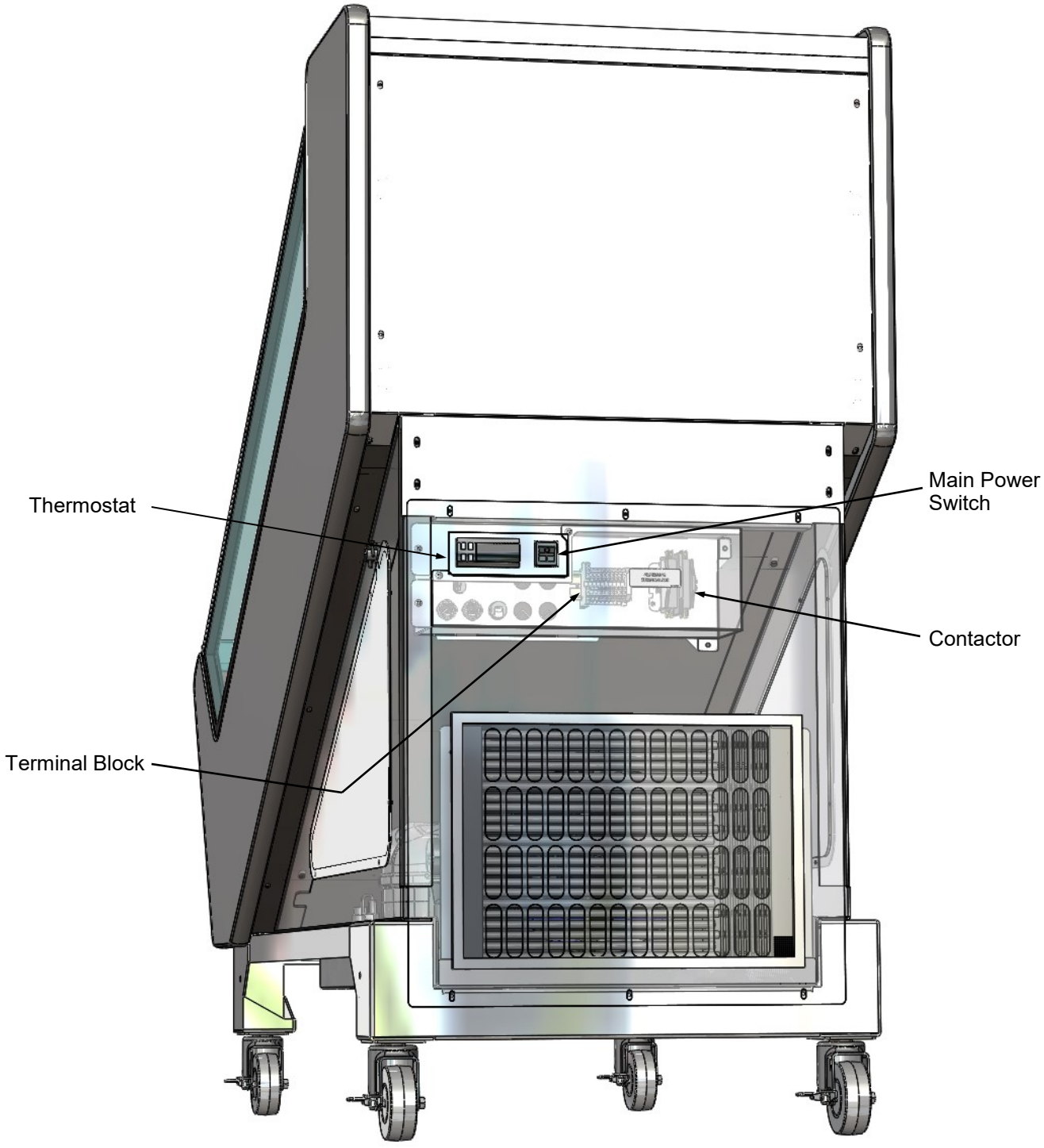


ELECTRICAL LAYOUT: MODEL FSIB2R.6031B SELF-CONTAINED UNITS ONLY

Caution! **Authorized service personnel ONLY should access this area.**

Self-Service Access Box

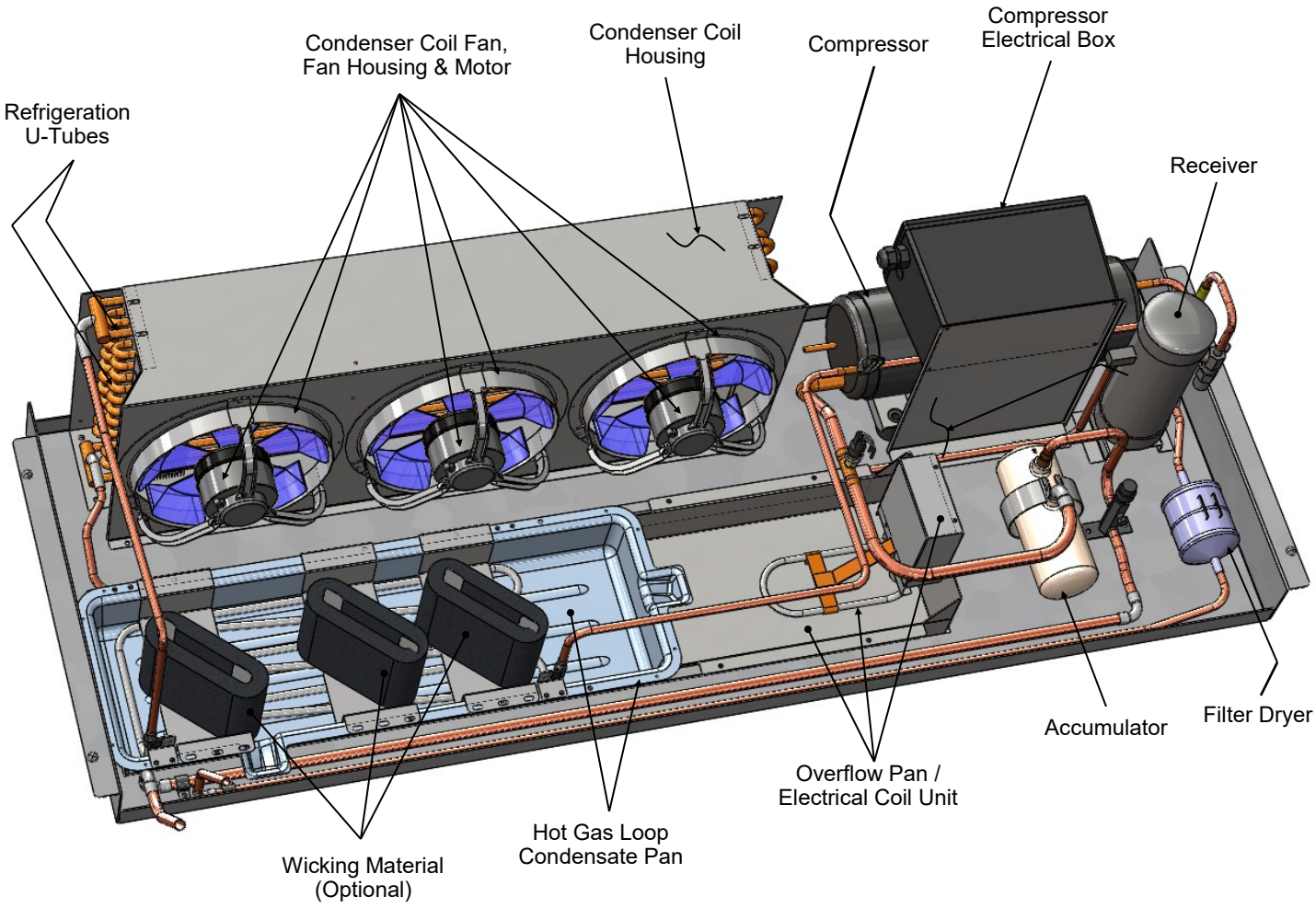
- Illustration below shows field access box for both remote and self-contained units.
- Caution! Authorized service personnel ONLY should access this area.



CONDENSER PACKAGE LAYOUT: MODEL FSIB8R.6031 SELF-CONTAINED UNITS ONLY

Refrigeration Package Layout

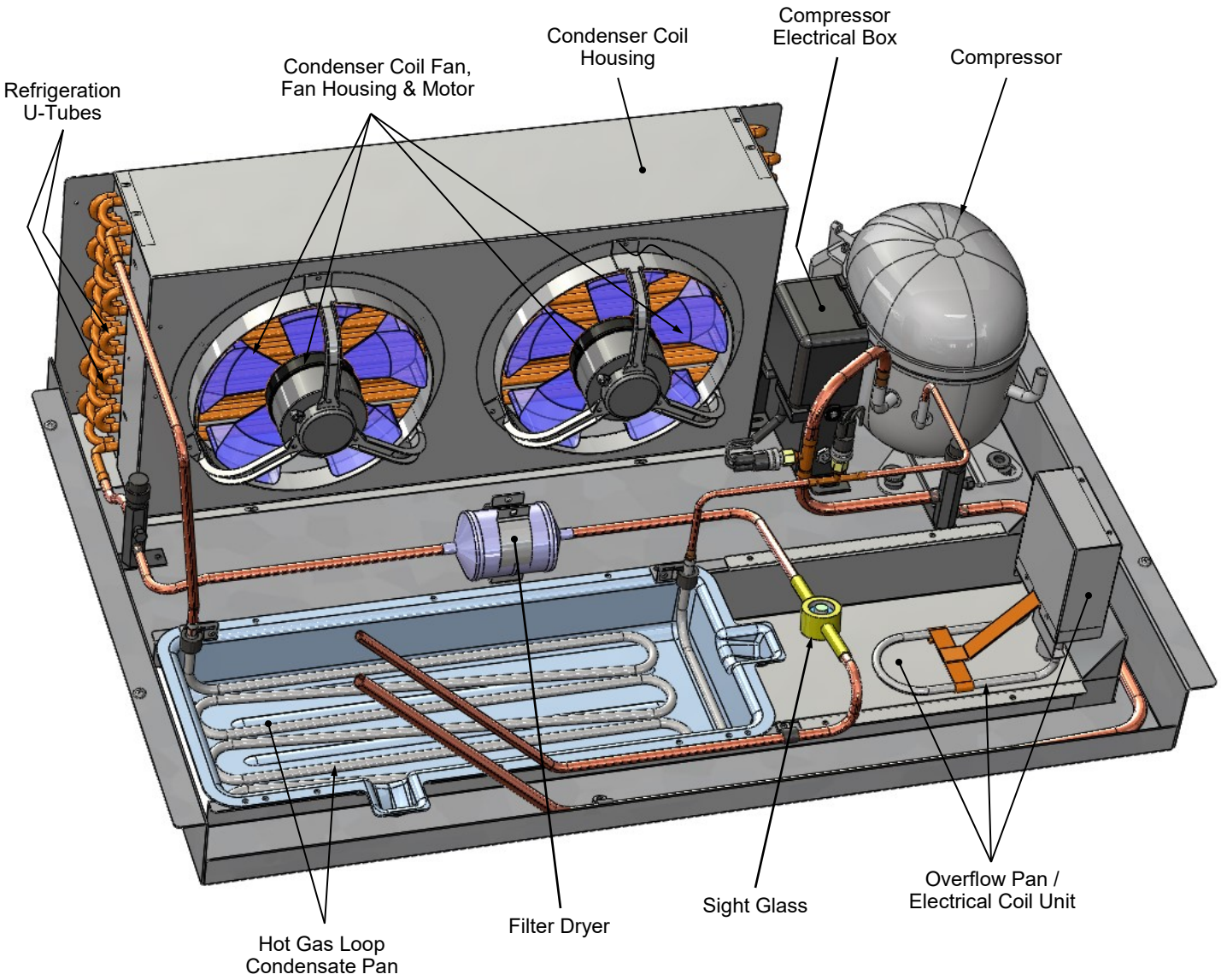
- ***Note*: Due to design variables, refrigeration package component layout can vary in location.**
- Illustration below may not reflect every feature or option of your particular case.



CONDENSER PACKAGE LAYOUT: MODEL FSIB4R.6031A SELF-CONTAINED UNITS ONLY

Refrigeration Package Layout

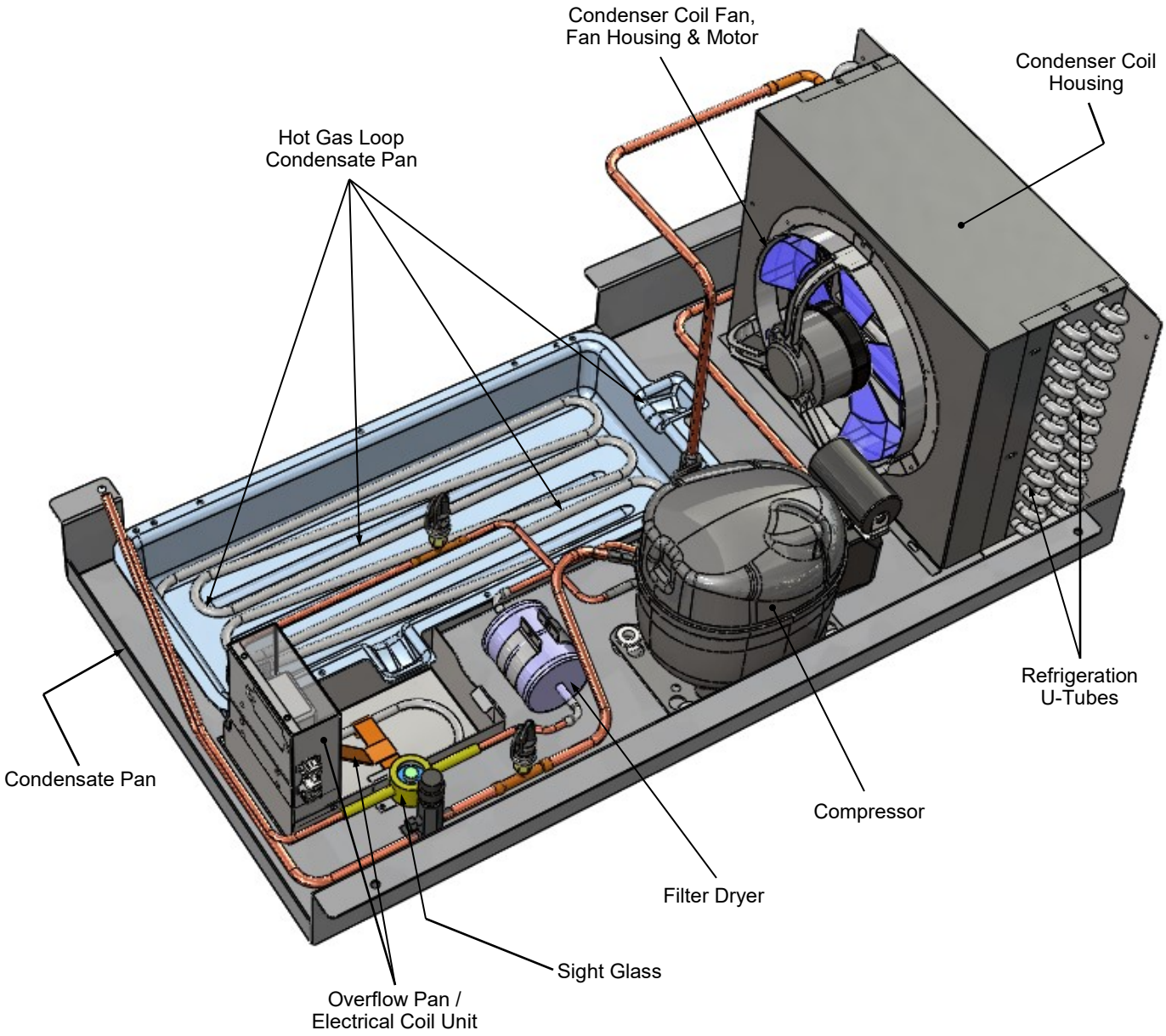
- ***Note*: Due to design variables, refrigeration package component layout can vary in location.**
- Illustration below may not reflect every feature or option of your particular case.



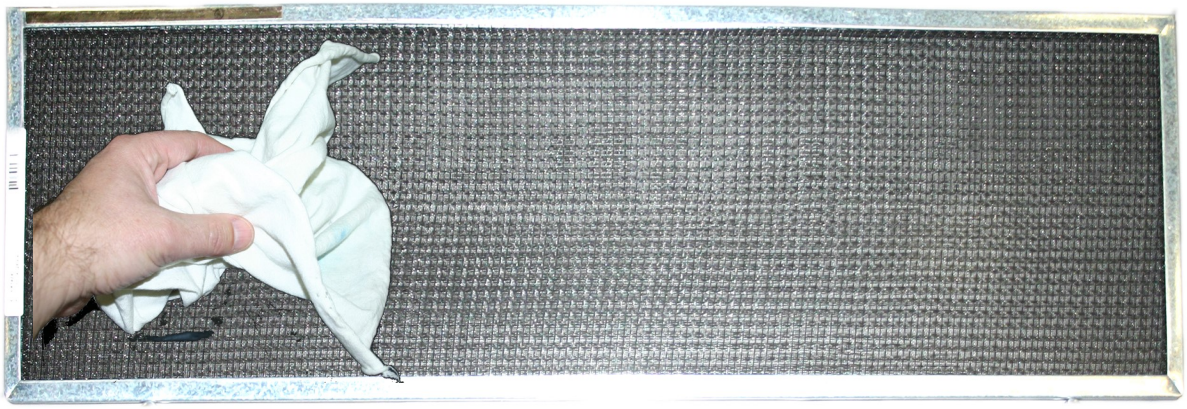
CONDENSER PACKAGE LAYOUT: MODEL FSIB2R.6031B SELF-CONTAINED UNITS ONLY

Refrigeration Package Layout

- ***Note: Due to design variables, refrigeration package component layout can vary in location.***
- Illustration below may not reflect every feature or option of your particular case.



GENERAL CLEANING SCHEDULE - TO BE PERFORMED BY STORE PERSONNEL (EXTERIOR)

FREQ.	INSTRUCTIONS
Daily	**Acrylic:** Acrylic sneeze guard must be cleaned with a mild soap and water solution and a soft cloth. ***Caution! Never use ammonia-based cleaners on acrylic. Incorrect cleaning agents or abrasive cleaning cloths cause surface to 'cloud' over time.***
Daily	**Sides, Top, Rear Plenum, etc.:** Clean with a warm soap and water solution and soft cloth.
Weekly	**Magnetic Condenser Coil Filter (Self-Contained Units Only):** • This filter helps prevent dust particles from entering condenser coil. • It is accessible at case rear. • 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. 3. Dry with soft cloth or paper towel (as shown below) or allow to air dry. Replace. 

GENERAL CLEANING SCHEDULE - TO BE PERFORMED BY STORE PERSONNEL (INTERIOR)

FREQ.	INSTRUCTIONS
Weekly	**<u>Decks</u>:** • Clean with a warm soap and water solution and soft cloth. • If necessary, entirely remove from case, and submersed in warm, soapy water. Use soft-bristled brush to remove food particles, dust, grease or grime. Rinse thoroughly. Dry. Return to case.

GENERAL CLEANING SCHEDULE - TO BE PERFORMED BY TRAINED SERVICE PROVIDERS ONLY

FREQ.	INSTRUCTIONS
Weekly	**Drains:** Keep drains clean and free of debris which could clog the drain and rob the case of needed refrigeration. After removing decks, vacuum tub under deck or flush with water if necessary.
Monthly	**Evaporator Fan Shroud Area (Under Decking):** ***Caution! Due to rotating fans in area, turn off case and disconnect power (or remove plug from wall outlet) before beginning.*** 1) Turn off power. 2) Remove product from case. 3) Remove decking from case. 4) Wipe down fan shroud, evaporator fan blades, TXV, refrigeration lines, tub, drain trough and drain with cloth dipped in warm soap and water solution. 5) Return decking to case. 6) Return product to case. 7) Restore power to case.
Quarterly	**Condensing Coil (Self-Contained Units Only):** • Remove magnetic condenser coil filter. • Remove rear panel (by lifting it up and off). • Condenser coil brush may be used to dislodge dust, dirt and debris from condenser coil. • Slide condensing package out from underside of case (taking care to NOT slide out too far and damage hoses). • Use air pressure or industrial strength vacuum; clean dust and dirt that may collect on condenser coil. DO NOT allow dust to become airborne. Use wet cloths or paper towels to cover area where dust will fly when air pressure is applied. • *Caution! Coil fins are sharp. Handle with care!* • Replace lower panel in reverse order it was removed. • See sample condenser coil cleaning brushes at right. 
Quarterly	**Honeycomb Air Diffuser (Service Technicians Only):** • See next page in this operating manual for cleaning specifics.

1. Honeycomb Air Diffuser Removal

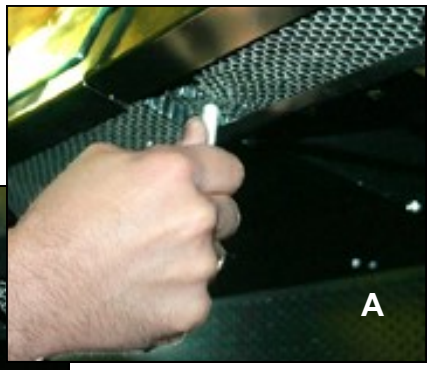
- Honeycomb air diffuser cleaning is to be performed quarterly.

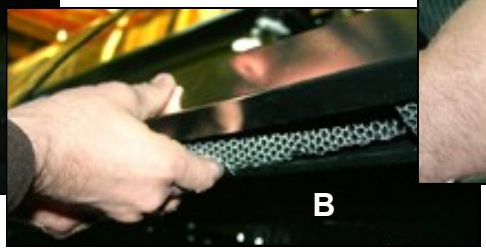
A. Wedge a non-metallic device of suitable strength (such as a ballpoint pen) between the honeycomb and the end panel.
Caution! Use care not to dislodge the heating wire (that prevents condensation on the lamp assembly).
B. Apply pressure to collapse the honeycomb to allow it to be pulled out of honeycomb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

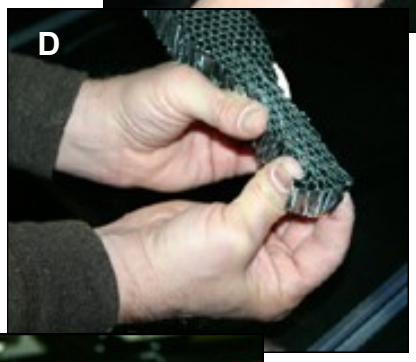
2. Honeycomb Air Diffuser Installation

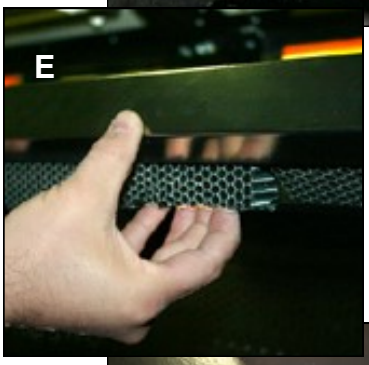
D. Squeeze honeycomb to allow it to fit into the honeycomb retainer.
E. Carefully slide honeycomb into place.
F. Adjust honeycomb so that it fits flat against retainer. It must not be wavy or out of position.

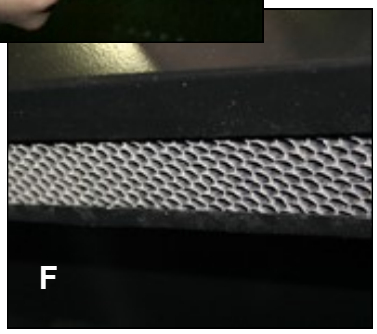
Note: For honeycomb air diffusers in other locations, these same general instructions apply.











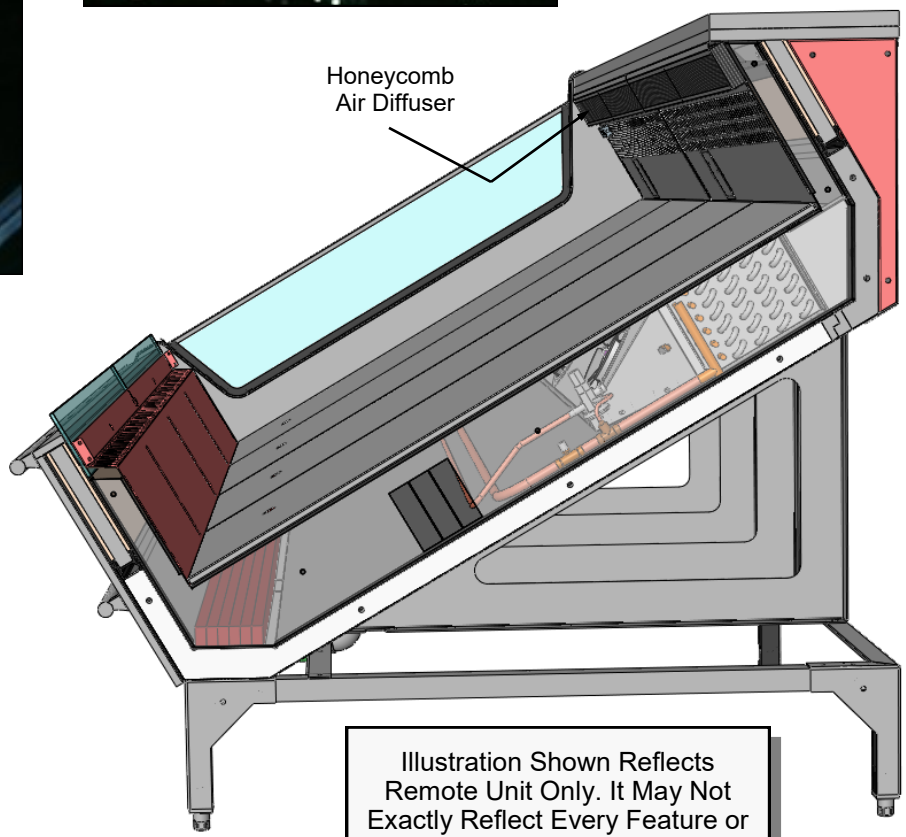


Illustration Shown Reflects Remote Unit Only. It May Not Exactly Reflect Every Feature or Option of Your Particular Case.

TROUBLESHOOTING - TO BE PERFORMED BY TRAINED SERVICE PROVIDERS ONLY

CONDITION	TROUBLESHOOTING
Case Not Lining Up	See ***POSITIONING & ALIGNING / ADJUSTING LEVELERS / LOCKING CASTERS IN PLACE*** section in this manual for instructions on properly aligning case (alongside other cases) and adjusting levelers.
Water Is On The Floor	***Caution!*** Water on flooring can cause much damage! Until cause is determined (and repaired), follow these procedures: • 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 drained. • When power to case is restored, condensate pan should function properly and water will no longer overflow onto flooring. • ***Note:*** See *Drain, Hose and Bracket Placement Illustrations* sheet in this manual for views of different condensate systems used in display cases.
	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 I environments, maximum conditions are to be 55% humidity / 75° Fahrenheit. For Type II environmants, maximum conditions are to be 55% humidity / 80° Fahrenheit. See serial label (at case rear near main power switch) for NSF® Type of your case.
	Check condensate pan float for proper operation (electric condensate trays).
	Check that condensate pan is properly plugged in or connected.
	Caution! Wicking material (if any) on your particular hot gas loop condensate tray may be dirty or worn and need replacement. • Slide condensate package out from under unit. • After refrigeration system has been carefully slid out, 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. • See ***CONDENSER PACKAGE LAYOUT (SELF-CONTAINED UNITS ONLY)*** section in manual for wicking material illustration.

CONDITION	TROUBLESHOOTING
Fan Emits Loud Noise	Check that the case is aligned, level and plumb.
	Check evaporator fans for cleanliness.
	Unplug/power off fan motors. Check motor shaft for bearing wear.
	Check that fan motors are securely mounted in brackets.
	Verify that fan blades are securely mounted to fan motor.
	Check that nothing is preventing blade rotation.
	Check that the fan shroud is properly secured.
Fans Are Not Working	Check that the MAIN power switch is on (self-contained units).
	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 to terminal blocks

CONDITION	TROUBLESHOOTING
Digital Control Display Is Blank	Check that the MAIN power switch is on (self-contained units only).
	Check the circuit breaker box for tripped circuits.
System Is Not Operating	Check that the utility power is on.
	Check that the MAIN power switch is on (self-contained units only).
	Check the circuit breaker box for tripped circuits.
Control Display Is Flashing	See your case's thermostat label (near temperature controller) for your model's required settings.
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.
	If case is located near outside doors, temperature fluctuation can hinder unit's ability to maintain temperature. See ***OVERVIEW / TYPE / COMPLIANCE / WARNINGS / PRECAUTIONS / WIRING / PLUGS - PAGE 2 of 2*** in manual for adverse conditions/spacing issue parameters.
	Check that condenser coil has been cleaned.
	Check that magnetic air filter (attached to rear grille) has been cleaned. See ***GENERAL CLEANING SCHEDULE - TO BE PERFORMED BY STORE PERSONNEL)*** section in operating manual for instructions.
	Check return air grilles for obstructions.
	Check sight glass for flashing and/or low charge.
	Check set point temperature; it may be adjusted too high.
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)

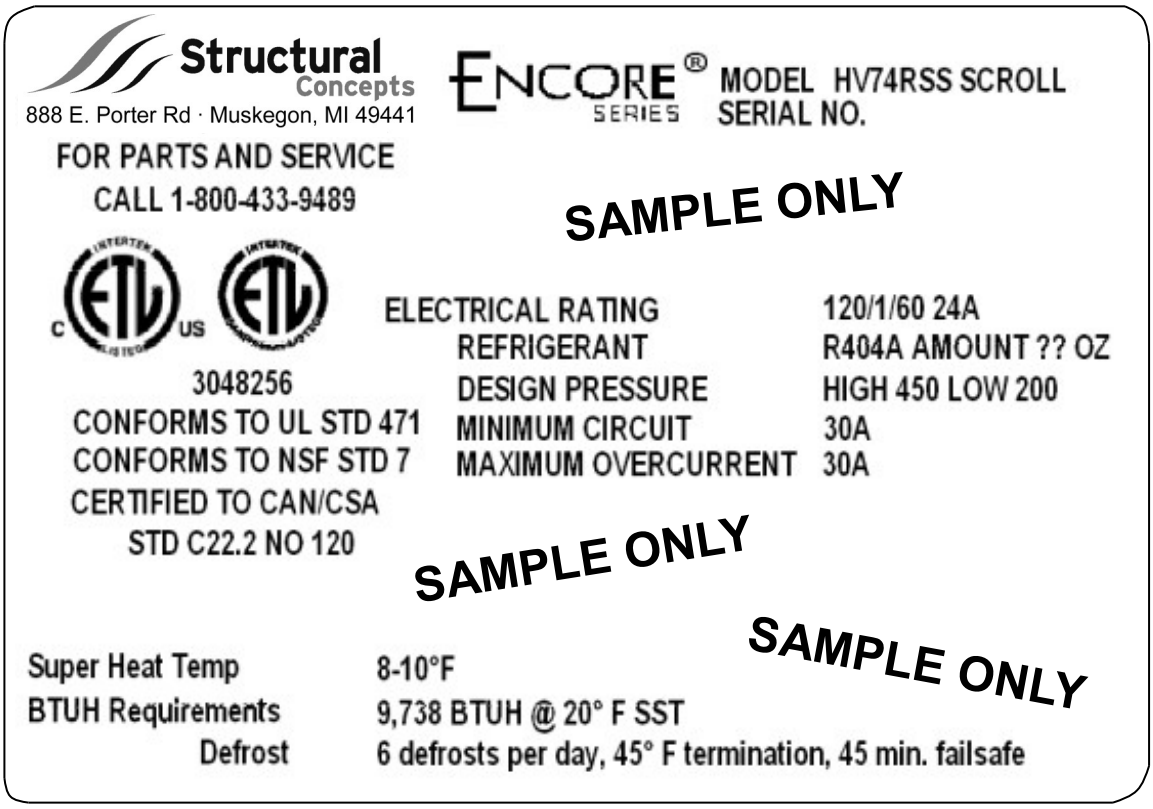
CONDITION	TROUBLESHOOTING
Head Pressure Too High	Check that the condensing coil is not dirty or covered.
	Check that condensing fans are working.
	Check that refrigerant is not overcharged.
	Perform sub-cooling check and verify that no contaminates are in system.
	Check that liquid line filter dryer is not plugged.
	Check that close-offs are intact (around condensing coil) and that air is not recirculate.
	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 - EVAPORATOR SYSTEM (BY TRAINED SERVICE PROVIDERS ONLY)

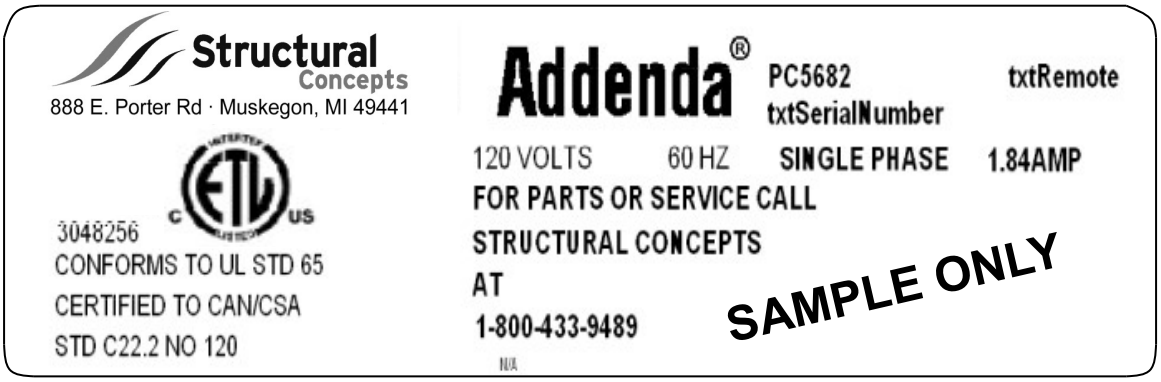
CONDITION	TROUBLESHOOTING
Low Suction Pressure	Check if sight glass is flashing or showing low charge.
	Check that expansion valve (TXV) isn't restricted. Check element charge.
	Check that liquid line or filter isn't restricted. Check that refrigeration lines and/or hoses are not kinked on either high 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 15-feet 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 a. Poor thermal contact. b. Warm location.

Serial Label Location & Information Listed / Technical Information & Service

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



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



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

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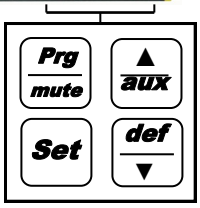
Programming The Instrument



To Modify The Setpoint

Set 1. Press and hold the "SET" key for at least 1 second.

▲ aux def ▼ 2. Use arrow keys ▲ ▼ on temperature controller to increase (or decrease) the setpoint.

Set 3. Quickly press and release the "SET" key again.

To Modify Defrost, Differential, Other Parameters

Prg mute Set 1. Press & hold "Prg" & "SET" keys together for five (5) seconds; display will flash "0", representing password prompt.

Set 2. Confirm by pressing "SET" key.

▲ aux def ▼ 3. Press ▲ or ▼ to reach the category to be modified.

Set 4. Press "SET" to modify this selected parameter.

▲ aux def ▼ 5. Increase or decrease the value using the ▲ or ▼ button respectively.

Set 6. Press the "SET" key to temporarily save the new value and return to the display of the parameter.

Prg mute 7. Press & hold the "Prg" key for at least 5 seconds to save changes. This action will also mute the audible alarm (buzzer) & deactivate the alarm relay.

How To Change Reading From Fahrenheit (°F) To Celsius (°C)

Prg mute Set 1. Press and hold "Prg" and "SET" keys together for at least 5 seconds; display will show "0" (password prompt).

Set 2. Confirm by pressing "SET" key.

▲ aux def ▼ 3. Press ▲ or ▼ until reaching the parameter "/ 5".

Set 4. Press "SET" to modify this selected parameter.

▲ aux def ▼ 5. Press ▲ or ▼ to change value to desired setting: "0" for Celsius (°C) or "1" for Fahrenheit (°F).

Set 6. Press "SET" key to temporarily save the new value and return to the display of the parameter.

Prg mute 7. Press & hold "Prg" key for at least 5 seconds to save changes. ***Note!*** ***All values will automatically convert to new scale. No conversion is required.***

Warning! Save Your Parameter Settings!

1. To store the new parameter values, PRESS and HOLD the "Prg" key for at least 5 seconds.
2. All modifications made to parameters will be lost if you do NOT press a button within 60 seconds. Should this "timeout" occur, normal operational settings (prior to modifications being made) will resume.
3. If the instrument is switched off before pressing the "Prg" key, all modifications to parameters will be lost.

def ***To Activate Manual Defrost***

Press and hold "def" key for at least 5 seconds.

▲ aux ***To Activate / Deactivate Auxiliary Output***

Press and hold the "aux" key for 1 second.

Prg mute ▲ aux ***To Reset Any Alarms With Manual Reset***

Press and hold the "Prg" and "aux" key for at least 1 second.

Oper Manuals - PUB\Templates\Carel Controller\Carel Controller IR33.pub
This data derived from Carel Material: ir33 +030220441 - rel. 2.0 - 01.05.2006

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User Interface - Display

ICON	FUNCTION	DESCRIPTION	Normal operation			Start up
			ON	OFF	BLINK	
	COMPRESSOR	ON when the compressor starts. Flashes when the activation of the compressor is delayed by safety times.	Compressor on	Compressor off	awaiting activation	
	FAN	ON when the fan starts.Flashes when the activation of the fan is prevented due to external disabling or procedures in progress.	Fan on	Fan off	awaiting activation	
	DEFROST	ON when the defrost is activated. Flashes when the activation of the defrost is prevented due to external disabling or procedures in progress.	Defrost in progress	Defrost not in progress	awaiting activation	
AUX	AUX	Flashes if the anti-sweat heater function is active, ON when the auxiliary output (1 and/or 2) selected as AUX (or LIGHT in firmware version 3.6) is activated.	AUX auxiliary output active(version 3.6 light auxiliary output active)	AUX auxiliary output not active	Anti-sweat heater function active	
	ALARM	ON following pre-activation of the delayed external digital input alarm. Flashes in the event of alarms during normal operation (e.g. high/low temperature) or in the event of alarms from an immediate or delayed external digital input.	Delayed external alarm (before the time 'A7' elapses)	No alarm present	Alarms in norm. operation (e.g. High/low temperature) or immediate or delayed alarm from external digital input	
	CLOCK	ON if at least one timed defrost has been set.At start-up, comes ON for a few seconds to indicate that the Real Time Clock is fitted.	If at least 1 timed defrost event has been set	No timed defrost event set	Alarm clock	ON if real-time clock present
	LIGHT	Flashes if the anti-sweat heater function is active, ON when the auxiliary output (1 and/or 2) selected as LIGHT is activated (in firmware version 3.6 it does not flash in anti-sweat heater mode and comes on when the dead band output is active).	Light auxiliary output on(version 3.6 dead band auxiliary output active)	Light auxiliary output off	Anti-sweat heater function active(version 3.6 does not flash in anti-sweat heater mode)	
	SERVICE	Flashes in the event of malfunctions, for example E2PROM errors or probe faults.		No malfunction	Malfunction (e.g. E2PROM error or probe fault). Contact service	
	CONTINUOUS CYCLE	ON when the CONTINUOUS CYCLE function is activated. Flashes if the activation of the function is prevented due to external disabling or procedures in progress (E.g.: minimum compressor OFF time).	CONTINUOUS CYCLE operation activated	CONTINUOUS CYCLE function not activated	CONTINUOUS CYCLE operation requested	

Summary Table of Alarm and Signals: Display, Buzzer and Relay

Code	Icon on the display	Alarm relay	Buzzer	Reset	Description
rE	flashing	on	on	automatic	virtual control probe fault
E0	flashing	off	off	automatic	room probe S1 fault
E1	flashing	off	off	automatic	defrost probe S2 fault
E2	flashing	off	off	automatic	probe S3 fault
E3	flashing	off	off	automatic	probe S4 fault
E4	flashing	off	off	automatic	probe S5 fault
' '	No	off	off	automatic	probe not enabled
LO	flashing	on	on	automatic	low temperature alarm
HI	flashing	on	on	automatic	high temperature alarm
AFr	flashing	on	on	manual	antifreeze alarm
IA	flashing	on	on	automatic	immediate alarm from external contact
dA	flashing	on	on	automatic	delayed alarm from external contact
dEF	on	off	off	automatic	defrost running
Ed1	No	off	off	automatic/manual	defrost on evaporator 1 ended by timeout
Ed2	No	off	off	automatic/manual	defrost on evaporator 2 ended by timeout
Pd	flashing	on	on	automatic/manual	maximum pump down time alarm
LP	flashing	on	on	automatic/manual	low pressure alarm
AtS	flashing	on	on	automatic/manual	autostart in pump down
cht	No	off	off	automatic/manual	high condenser temperature pre-alarm
CHT	flashing	on	on	manual	high condenser temperature alarm
dor	flashing	on	on	automatic	door open too long alarm
EE	flashing	off	off	automatic	E²prom error, unit parameters
EF	flashing	off	off	automatic	E²prom error, operating parameters
ccb	Signal				start continuous cycle request
ccE	Signal				end continuous cycle request
dFb	Signal				start defrost call
dFE	Signal				end defrost call
On	Signal				switch ON
off	Signal				switch OFF
rES	Signal				reset alarms w/manual reset / reset HACCP alarms / reset temp. monitoring

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Summary Table of Operating Parameters

CODE	PARAMETER	UOM*	TYPE	MINIMUM	MAXIMUM	DEFAULT
/5	Select Celsius (°C) or Fahrenheit (°F)	flag	C	0	1	For Case Specific Defaults See Serial Label Located Near Electrical Access On Your Case. For Additional Technical Information Call Structural Concepts Technical Service Dept. at 1(800) 433.9489
/c1	Calibration of probe 1	°C/°F	C	-20	20	
/c2	Calibration of probe 2	°C/°F	C	-20	20	
St	Temperature set point	°C/°F	F	r2	r1	
rd	Control delta	°C/°F	F	20	0.1	
dI	Interval between defrosts	hours	F	0	250	
dt1	End defrost temperature, evaporator	°C/°F	F	-50	200	
dP1	Maximum defrost duration, evaporator	min	F	1	250	
d6	Display on hold during defrost	-	C	0	2	
dd	Dripping time after defrost	min	F	0	15	
d/1	Display of defrost probe 1	°C/°F	F	-	-	

* Unit Of Measure

STRUCTURAL CONCEPTS TECHNICAL SERVICE CONTACT INFORMATION & LIMITED WARRANTY

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

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

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

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

LIMITED WARRANTY

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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