



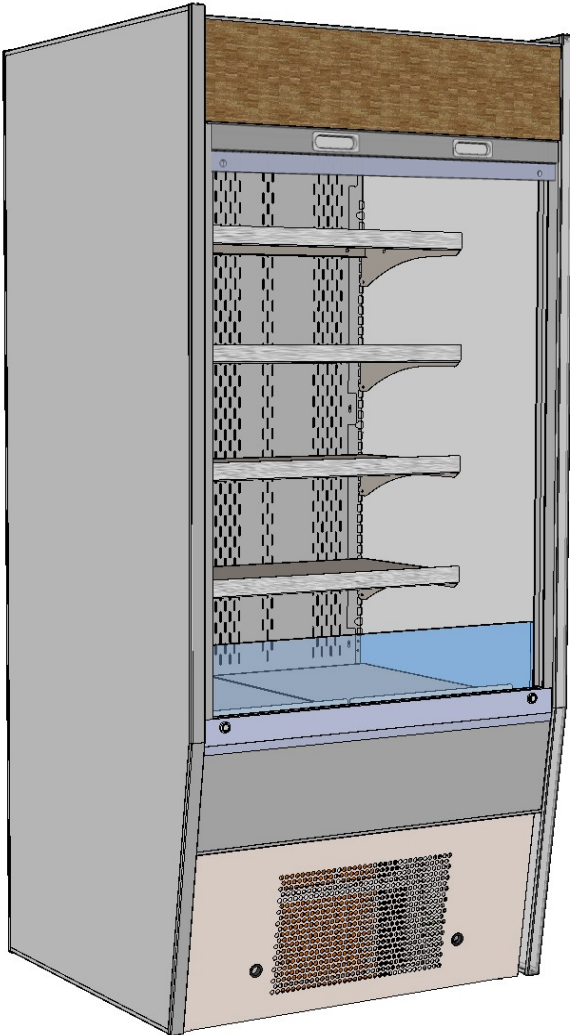
INSTALLATION & OPERATING MANUAL

P/N 21-20006

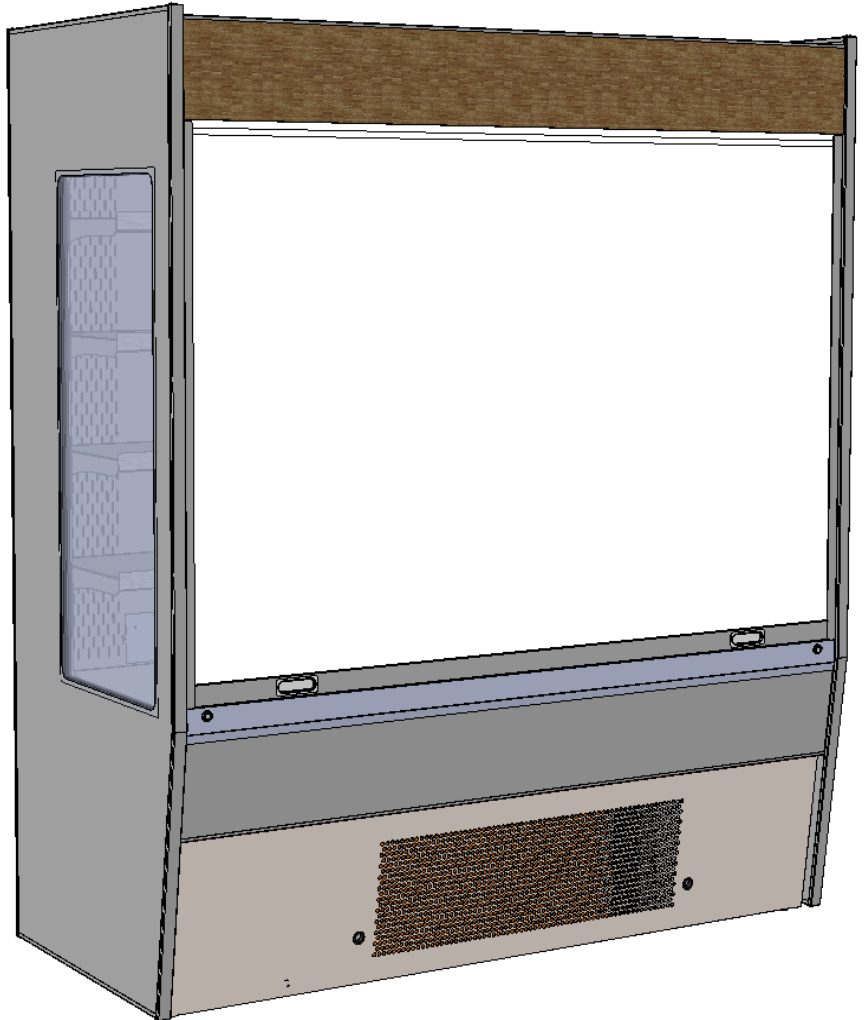
HIGH ENVIRONMENT MOBILE REFRIGERATED SELF-SERVICE MERCHANDISER

- > ROLL-DOWN SECURITY DOOR
- > SELF-CONTAINED UNITS ARE STANDARD
- > CLEAN SWEEP FOR SELF-CONTAINED UNITS (OPTIONAL)

See SCC P/N 21-20628 For These Models' Field Service Parts List.



Model HECO37R Shown With Roll-Down Security Door Up (Similar Design to Models HECO47R, HECO57R and HECO67R)



Model HECO57R Shown With Roll-Down Security Door Down (Similar Design to Models HECO37R, HECO47R and HECO67R)

MODEL HECO37R - 36 1/4"L* x 33 1/4"D x 82 1/8"H^
MODEL HECO47R - 47 1/4"L* x 33 1/4"D x 82 1/8"H^



MODEL HECO57R - 59 1/4"L* x 33 1/4"D x 82 1/8"H^
MODEL HECO67R - 71 1/4"L* x 33 1/4"D x 82 1/8"H^

*Includes End Panels. ^With Levelers Extended 1 1/4" From Base Frame



Structural
Concepts

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

TABLE OF CONTENTS

OVERVIEW / ENVIRONMENTAL CONDITIONS / COMPLIANCE / WARNINGS / PRECAUTIONS / WIRING	3-4
CASE REMOVAL FROM SKID (LEVELERS/CASTERS)	5
INSTALLATION: MERCHANDISER SET-UP / ELECTRICAL SET-UP	6
INSTALLATION, CONTINUED: SYNCHRONOUS DEFROST CONNECTION (OPTIONAL)	7
ROLL-DOWN SECURITY DOOR - EXTENDED	8
ROLL-DOWN SECURITY DOOR - RETRACTED	9
MAINTENANCE FUNDAMENTALS: LED LIGHT FIXTURES	10
MAINTENANCE FUNDAMENTALS: FANS	11
MAINTENANCE FUNDAMENTALS, CONT'D: HONEYCOMB AIR DIFFUSERS	12
MAINTENANCE FUNDAMENTALS, CONT'D: SHELF ASSEMBLY / SHELVES / LIGHTS / FAN SWITCH	13
MAINTENANCE FUNDAMENTALS, CONT'D: BALLAST ACCESS	14
MAINTENANCE, CONT'D - EVAPORATOR COIL / FAN / TUB / DRAIN / TROUGH / TXV, ETC.....	15
CONDENSER PACKAGE LAYOUT: MODELS HECO37R ONLY	16
CONDENSER PACKAGE LAYOUT: MODELS HECO47R ONLY	17
CONDENSER PACKAGE LAYOUT: MODELS HECO57R ONLY	18
CONDENSER PACKAGE LAYOUT: MODELS HECO67R ONLY	19
SERIAL LABEL & LOCATION / TECHNICAL INFORMATION / ADDITIONAL INFORMATION	20
CLEANING SCHEDULE (PERFORMED BY STORE PERSONNEL & TRAINED SERVICE PROVIDERS)	21
PREVENTIVE MAINTENANCE (TO BE PERFORMED BY TRAINED SERVICE PROVIDERS)	22-23
TROUBLESHOOTING (TO BE PERFORMED BY STORE PERSONNEL)	24
TROUBLESHOOTING (TO BE PERFORMED BY TRAINED SERVICE PROVIDERS ONLY)	25-27
CAREL® TEMPERATURE CONTROLLER INFORMATION	28-30
TECHNICAL SERVICE CONTACT INFORMATION & WARRANTY INFORMATION	31

OVERVIEW

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

ENVIRONMENTAL CONDITIONS

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

- These display refrigerators are intended for use in an area where environmental conditions are controlled and maintained so that the ambient temperature does not exceed 85 °F (29.4 °C) and 60% 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.

PRECAUTIONS and WIRING DIAGRAMS

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

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.



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.



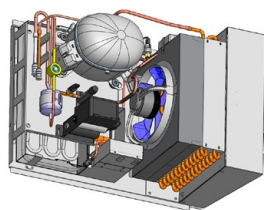
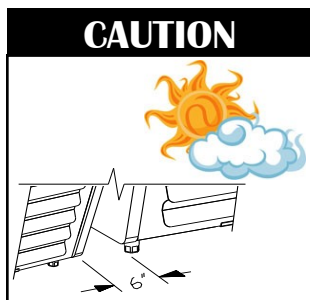
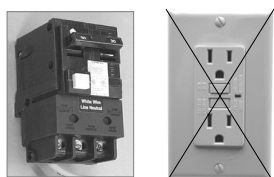
WARNING
Condensate Pan is Hot!
Disconnect and allow to cool before cleaning or removing from case.



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

PRECAUTIONS

- This sheet contains important precautions to prevent damage to unit or merchandise.
- Please 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.
- Wiring diagram placement may vary; it may be placed near ballast box, field wiring box, raceway cover, or other related location.

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

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

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

CAUTION! ADVERSE CONDITIONS / SPACING ISSUES

- Performance issues caused by adverse conditions are **NOT** warranted.
- End panels must be tightly joined or kept at least **6-inches** away from any structure to prevent condensation.
- Unit must be kept at least **15-feet** from exterior doors, overhead HVAC vents or any air curtain disruption to maintain proper temperatures.
- Unit must not be exposed to direct sunlight or any heat source.
- Self-Contained Units: Keep 4" min. air intake / 4" min. air discharge clearance.

CAUTION! CHECK EVAPORATOR PAN POSITIONS AND PLUG
Water on flooring can cause extensive damage!
Before powering up unit, check the following:

- Hot gas evap. pan **MUST BE** positioned directly under condensate drain.
- Overflow evap. pan plug **MUST BE** securely plugged into receptacle.

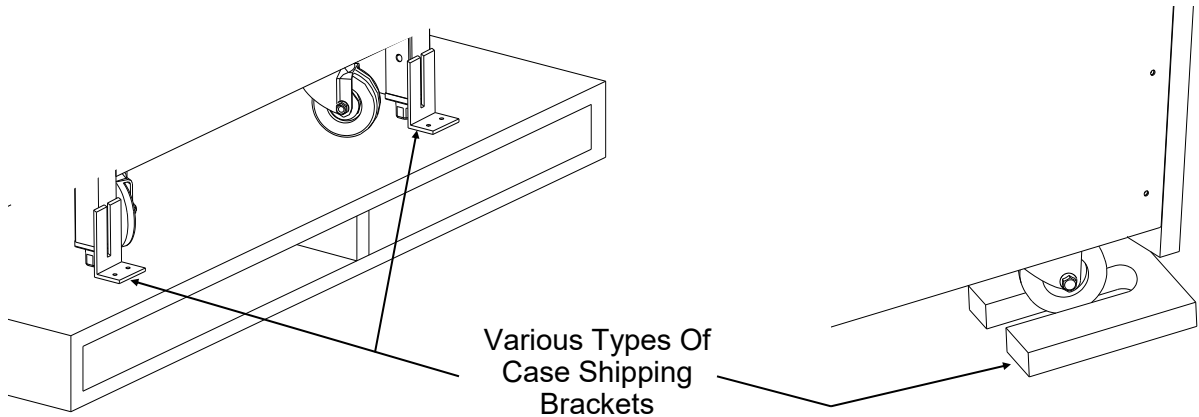
CAUTION!
DO NOT RELY ON THERMOMETERS OR THERMOSTATS FOR ACTUAL PRODUCT (FOOD) TEMPERATURES.

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

CASE REMOVAL FROM SKID (LEVELERS/CASTERS)

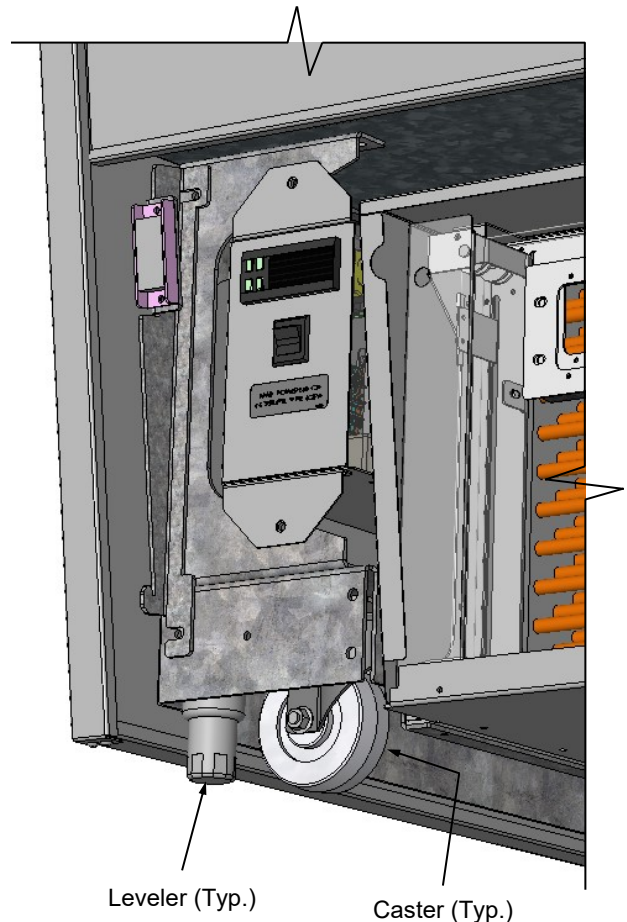
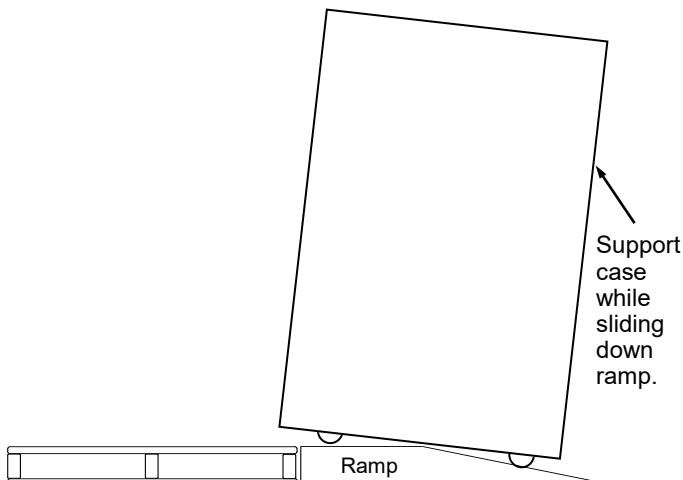
1. Removing Case Shipping Brackets That Are Attached To Skid

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



2. Removing Case From 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.
 - Slide unit to rear of skid. Slide down ramp and off from skid.
 - After case is in proper position, lower levelers (by rotating counter-clockwise) so casters are raised off floor until case is securely in place.
 - To relocate case, raise levelers (by rotating clockwise) so casters are lowered onto floor and unit can be easily moved.
- Note: Illustration below reflects general outline of sample case and may not reflect your particular model or options).



INSTALLATION: MERCHANDISER SET-UP / ELECTRICAL SET-UP

1. Merchandiser Set-Up

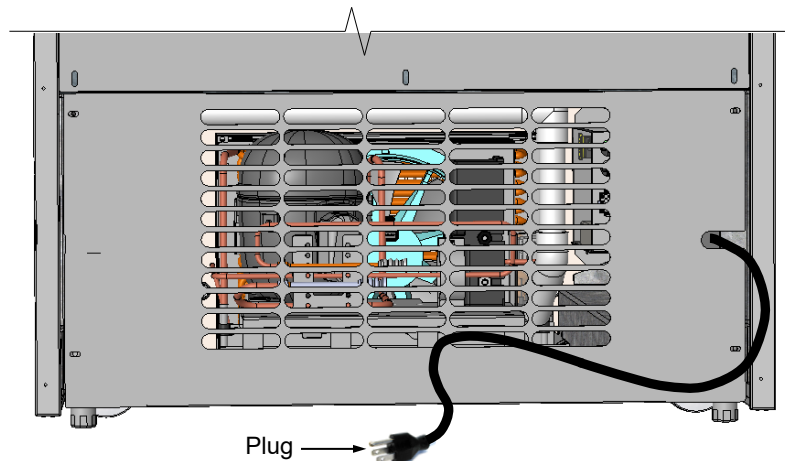
- Remove the rear lower grille.
- Ensure that the manufacturer provided hot gas evaporator pan is installed under the condensate drain.
- Ensure that overflow evaporator pan is plugged into the receptacle inside base.
- Reinstall the rear grille after confirming the above.

2. Electrical Set-Up

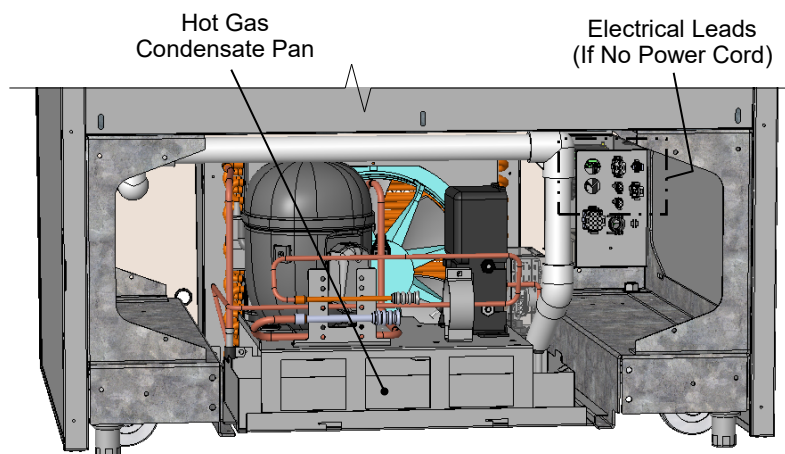
- **With Power Cord:**
 - ***For your safety, equipment is furnished with a properly grounded cord connector. Do not attempt to defeat the grounded connector!***
- Plug cord into certified electrical outlet with ground. See Overview/Warnings sheet for more specifics.
- **Without Power Cord:**

Note: Servicing to be accomplished by certified electrical contractor.

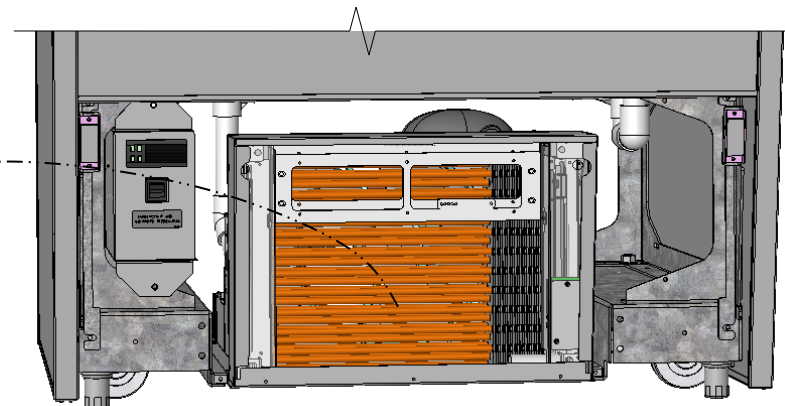
 - **Electrical Leads**
 - Remove cover from the left lower rear of the unit.
 - Electrical leads connections are provided in the junction box.



Rear Refrigeration Access After Rear Grille Removed
(Model HECO37R Shown. Your Unit May Not Reflect Every Feature Or Option Of Your Particular Case)



Rear Refrigeration Access After Rear Grille Removed
(Model HECO37R Shown. Your Unit May Not Reflect Every Feature Or Option Of Your Particular Case)



Front Refrigeration Access After Front Grille Removed
(Model HECO37R Shown Above)

1. Main Power Switch - Start-Up

- Remove the front grille simply by lifting up and off (no screw removal required).
- Turn on the main power switch. Main power switch is on the left hand side of unit (accessible after front grille has been removed). Evaporator coil fans, and compressor motor (for units with self contained refrigeration) will energize.
- From the front of the case, raise the deck pans and check to see that the coil fans are all functioning properly. Caution! Rotating fan blades are sharp. Do not place fingers near rotating blades!
- Replace front grille in reverse order it was removed.

2. Temperature Controller

- The case temperature is set at the factory, (supply air is set for a case temp at 5 °C / 41 °F as determined by the case size).
- The temperature is controlled by a thermostat.
- See illustration at right for thermostat location.
- If a temperature setting change is required, refer to the **CAREL® TEMPERATURE CONTROLLER INFORMATION** section of this operating manual.

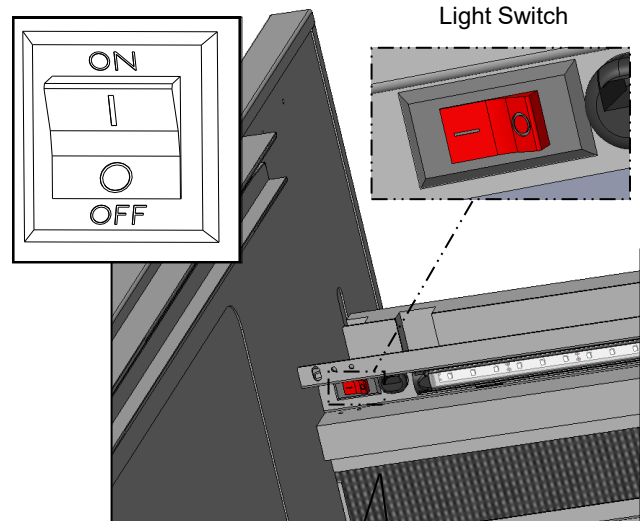
--- Carel Temperature Controller ---



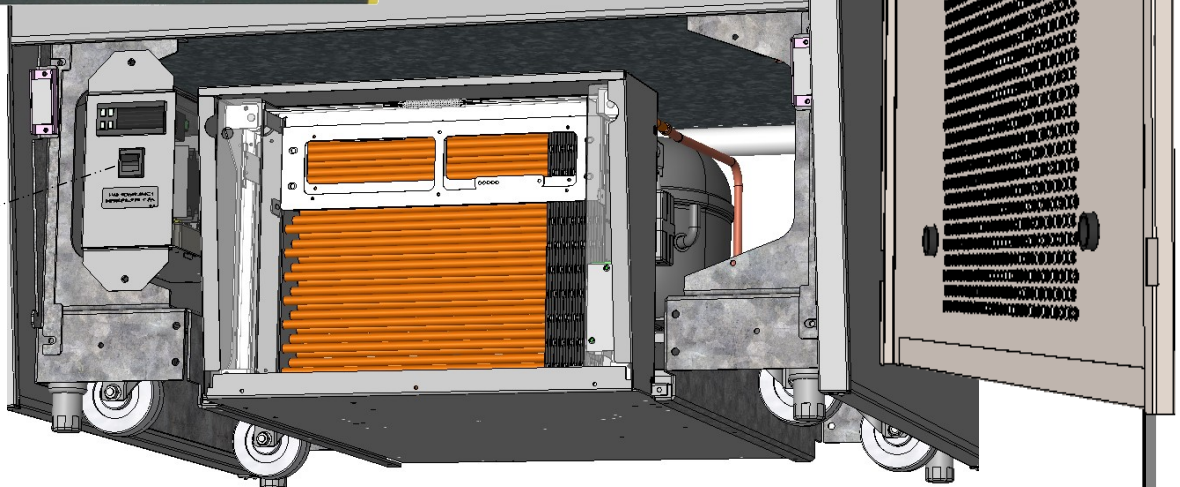
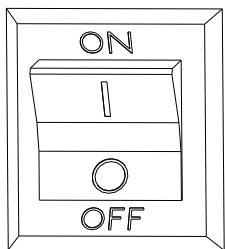
3. Light Switch At Header, Upper-Left

- Whether fluorescent or LED lights are used on case, switch is at header, upper-left (as shown immediately below).
- Turn on light switch.
- All lights should come on at the same time.
- Fluorescent bulbs may require a short warm-up period; initially, new fluorescent bulbs may be slightly dim or flicker.
- Whether fluorescent or LED, if lights do not turn on, check plug connections

--- View of Upper Left Header ---



Main Power Switch

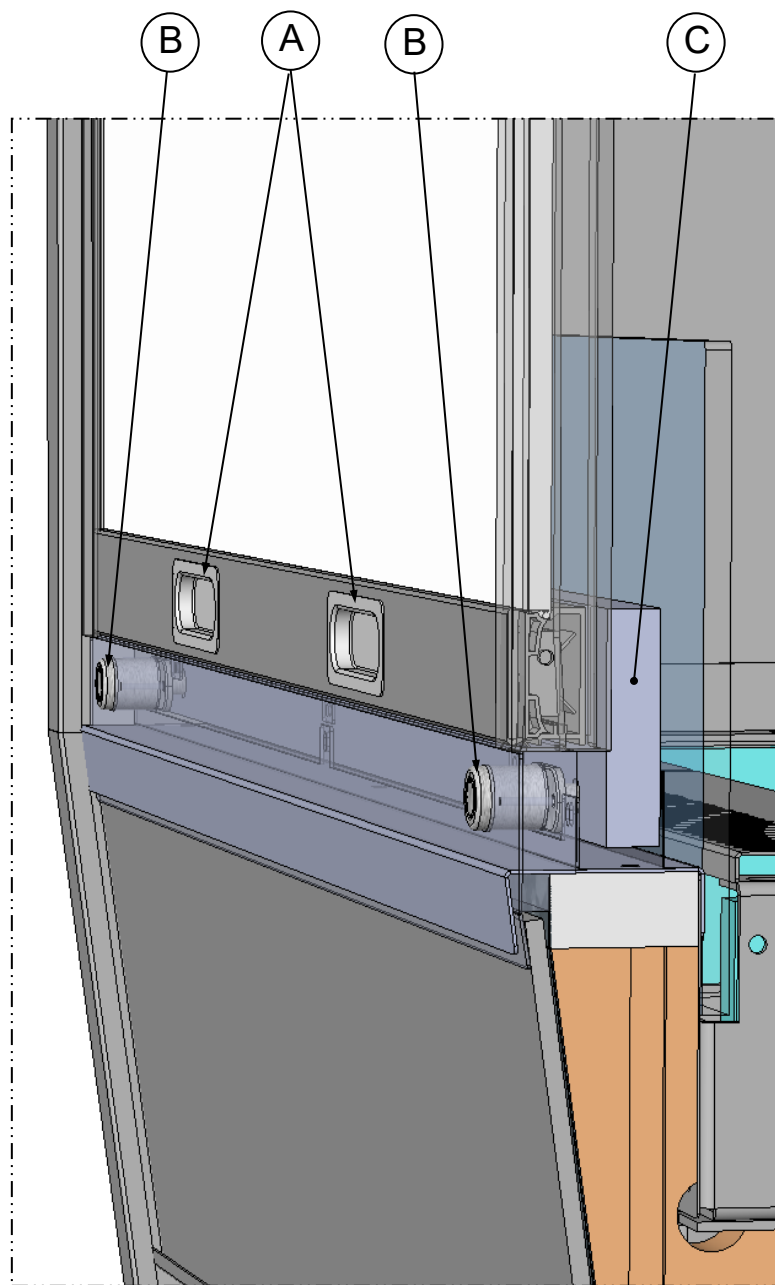


--- Case Front Access After Front Grille Removed (Model HECO37R) ---

ROLL-DOWN SECURITY DOOR - EXTENDED

Roll-Down Security Door: Shown Extended

- Roll-down security door has two handles (“A”) for grasping, lowering and raising.
- After door is lowered, use key to turn lock (“B”) clockwise to insert the “plunger rod” into lock plate (“C”);
Note: Lock plate is part of roll-down security door assembly.
- Turn counter-clockwise to unlock.
- Keep keys in safe and secure place.
- See next page for view of case with roll-down security door in retracted (raised) position.



Enlarged View of Model HECO37R With Roll-Down Security Door. Partially Disassembled and Transparent For Illustrative Purposes Only.

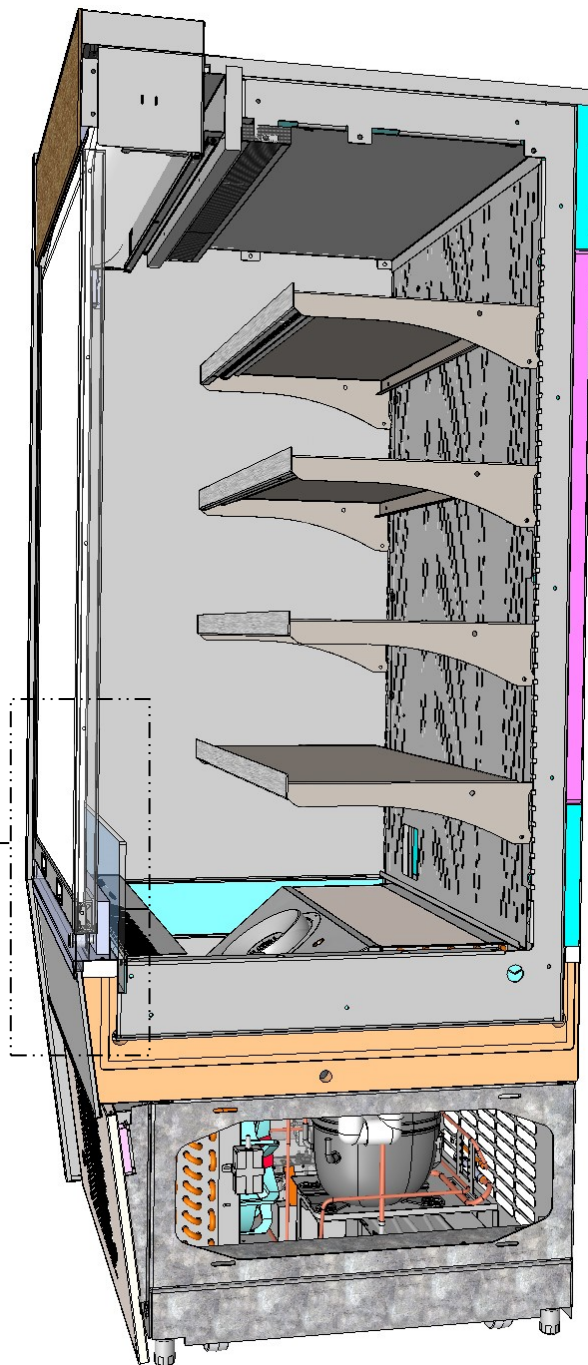
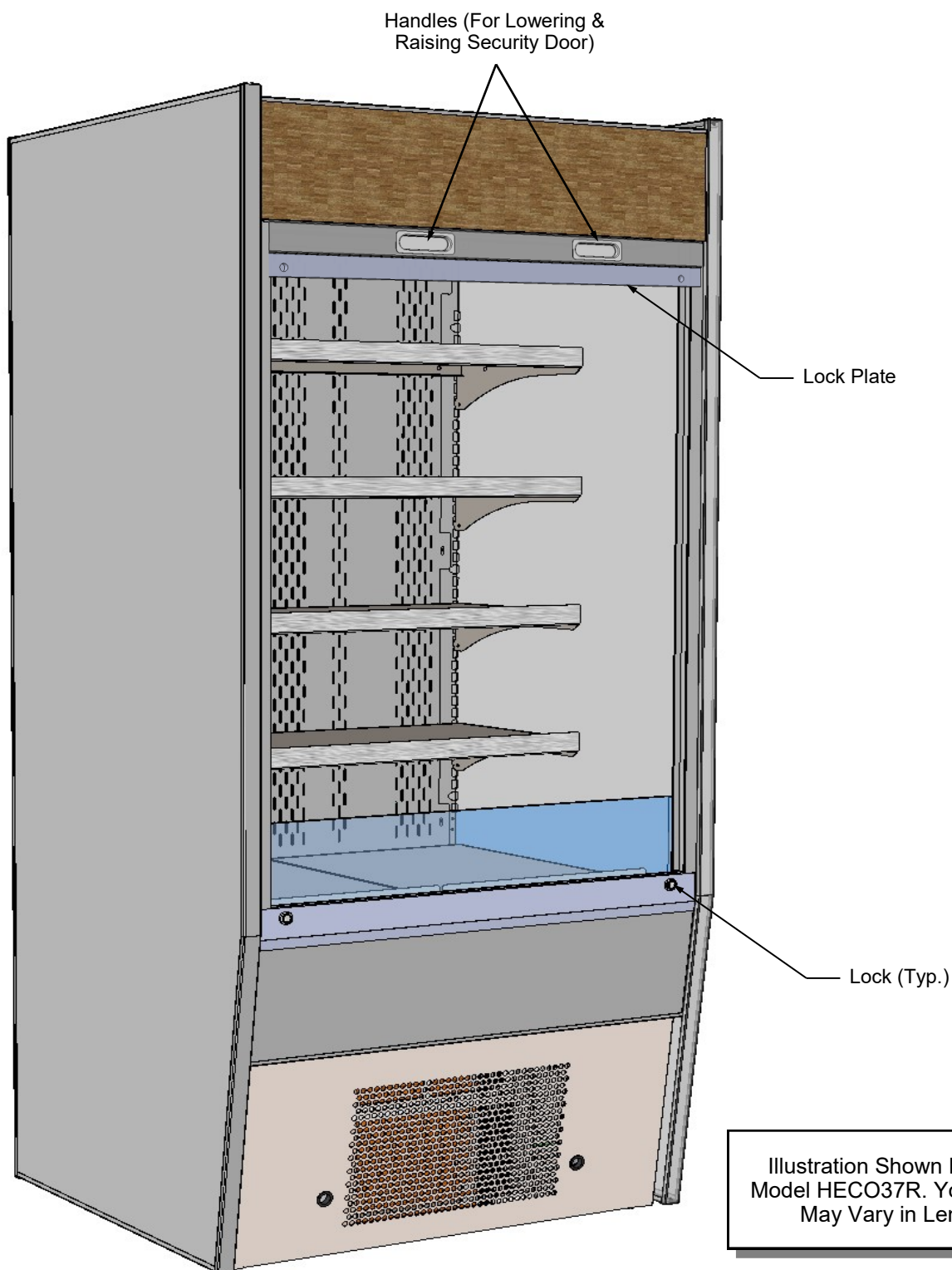


Illustration Shown Reflects Model HECO37R With Roll-Down Security Door. Your Model May Vary in Length.

ROLL-DOWN SECURITY DOOR - RETRACTED

Roll Down Security Door: Shown Retracted (Raised)

- Roll down security door has two handles for grasping, lowering and raising.
- After door is lowered, key may be turned clockwise to lock latch into strike bracket.
- Turn counter-clockwise to unlock.
- Keep keys in safe and secure place.



LED Style Light Fixtures

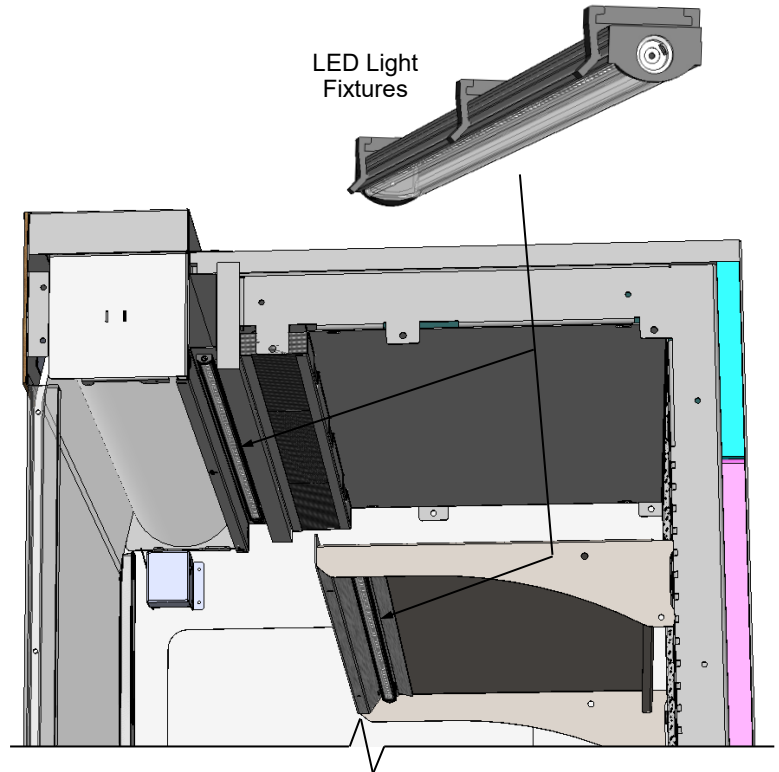
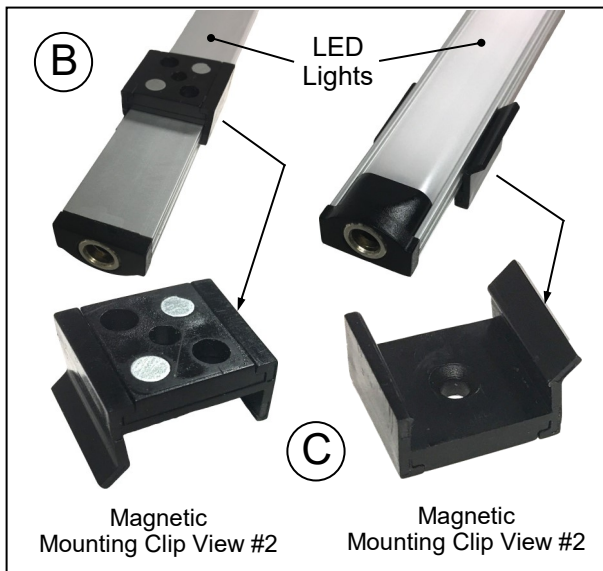
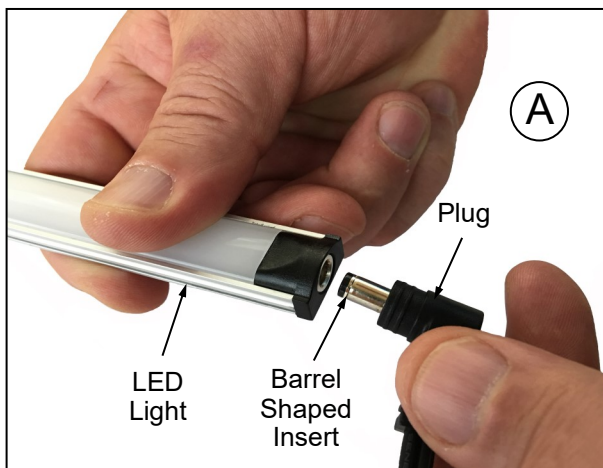
Removal of Faulty LED Lights:

- 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.

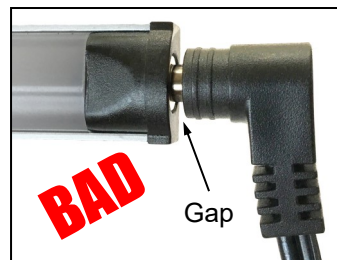
>> Note: Mounting clips MAY be riveted to shelf or header. In such instances, simply remove LED light from mounting clips by pressing against flange part of clips with thumb.

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-right.
 - Turn LED light switch back on.



--- Random, Partially Disassembled Model Shown Above ---



Fans Atop Case

- Fans help case maintain proper airflow to prevent condensation from forming in roll-down security door.
- See **MAINTENANCE FUNDAMENTALS, CONT'D: SHELF ASSEMBLY / SHELVES / LIGHTS / FAN SWITCH** section in manual for switch location.

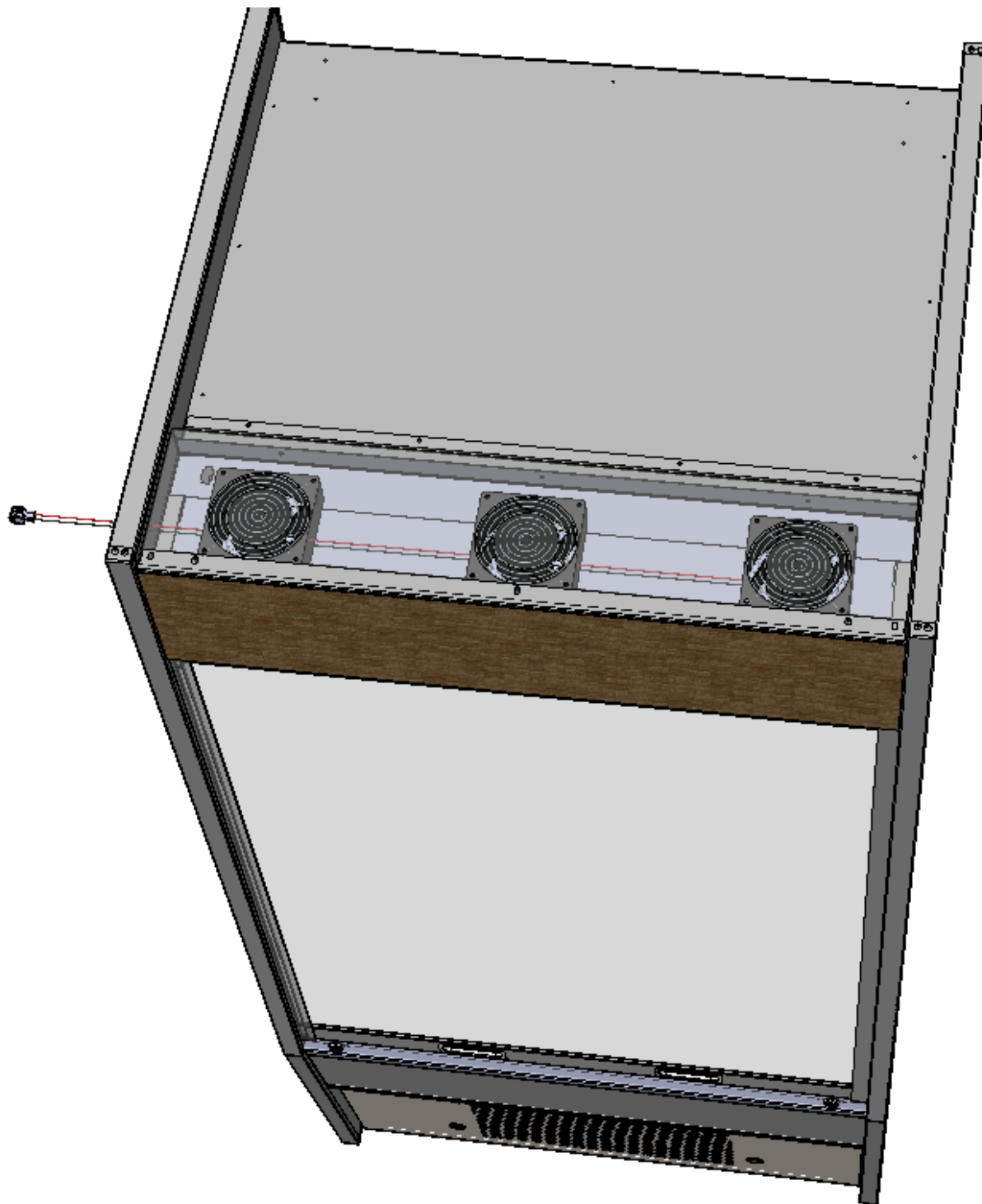


Illustration Shown Reflects Model HECO37R
With Roll-Down Security Door.
Your Model May Vary in Length.

Preventive maintenance should be performed every 30 days unless conditions warrant a more frequent replacement cycle.

1. Honeycomb Air Diffuser Removal

Honeycomb is located in discharge air duct.

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. Pry downward and away from honeycomb retainer.

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

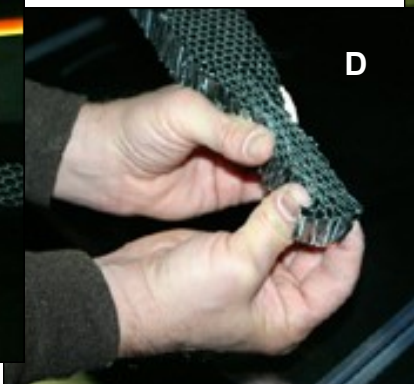
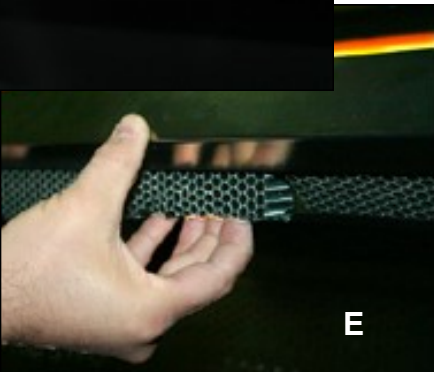
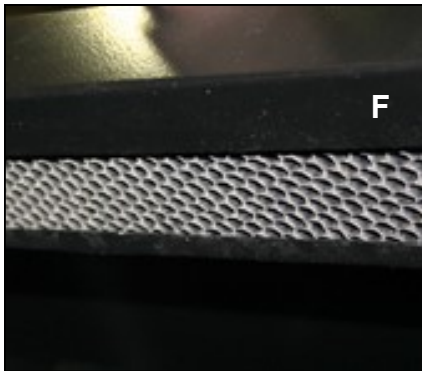
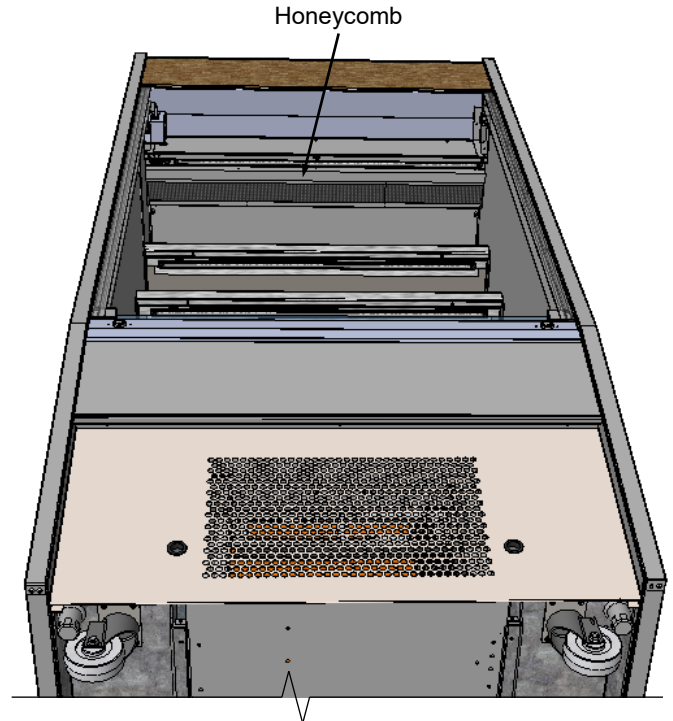
2. Honeycomb Air Diffuser Installation

D. Squeeze honeycomb to allow it to fit into 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.



1. Shelf Assembly Removal

- Shelves can be removed for maintenance, cleaning or adjustments
- Slide shelf back about 1/8 inch and rotate front up while lifting shelf assembly.
- For lighted shelving, unplug the light cord.
- Slide light assembly back about 1/8 inch and rotate front up while lifting light assembly.
- Remove brackets. Note it may be necessary to remove the nylon shipping bracket retainer. Pliers will be required to accomplish this task.

2. Adjustable Shelves

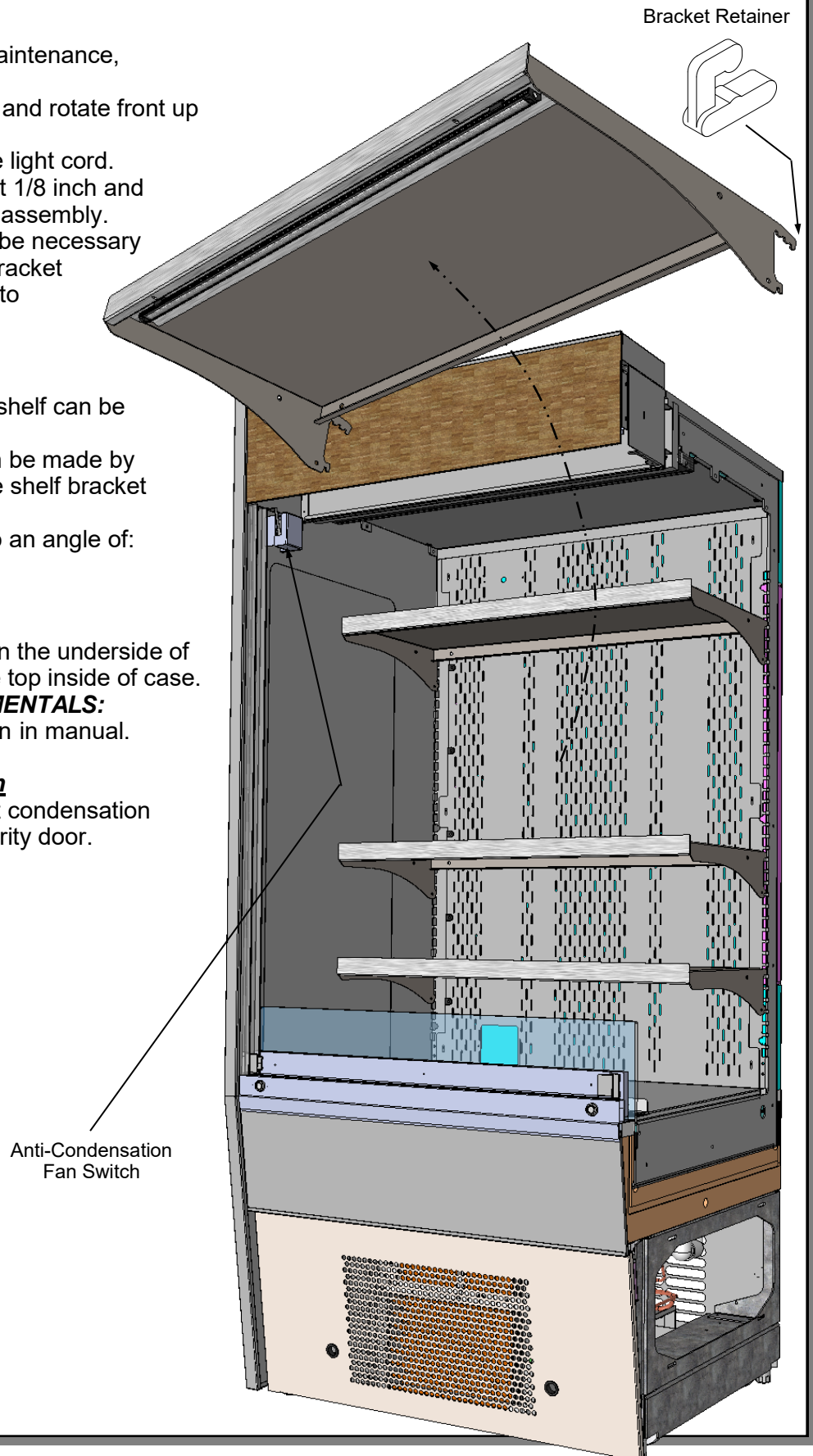
- Adjustment of the angle of the shelf can be made, not the position.
- Adjustments to the shelves can be made by pivoting the lower portion of the shelf bracket in the upright.
- The shelves can be adjusted to an angle of: 0, 5, and 10 degrees.

3. LED Light Fixtures

- LED light fixtures are located on the underside of each shelf assembly and at the top inside of case.
- See **MAINTENANCE FUNDAMENTALS: LED LIGHT FIXTURES** section in manual.

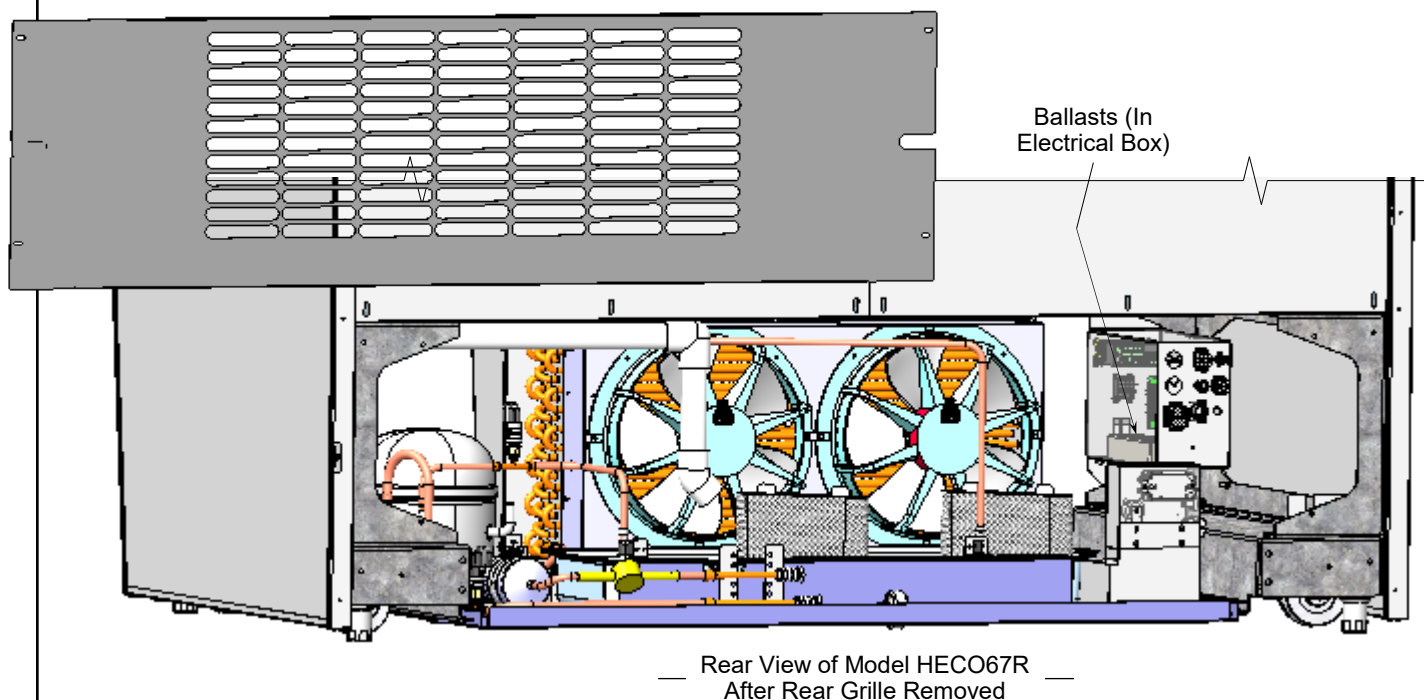
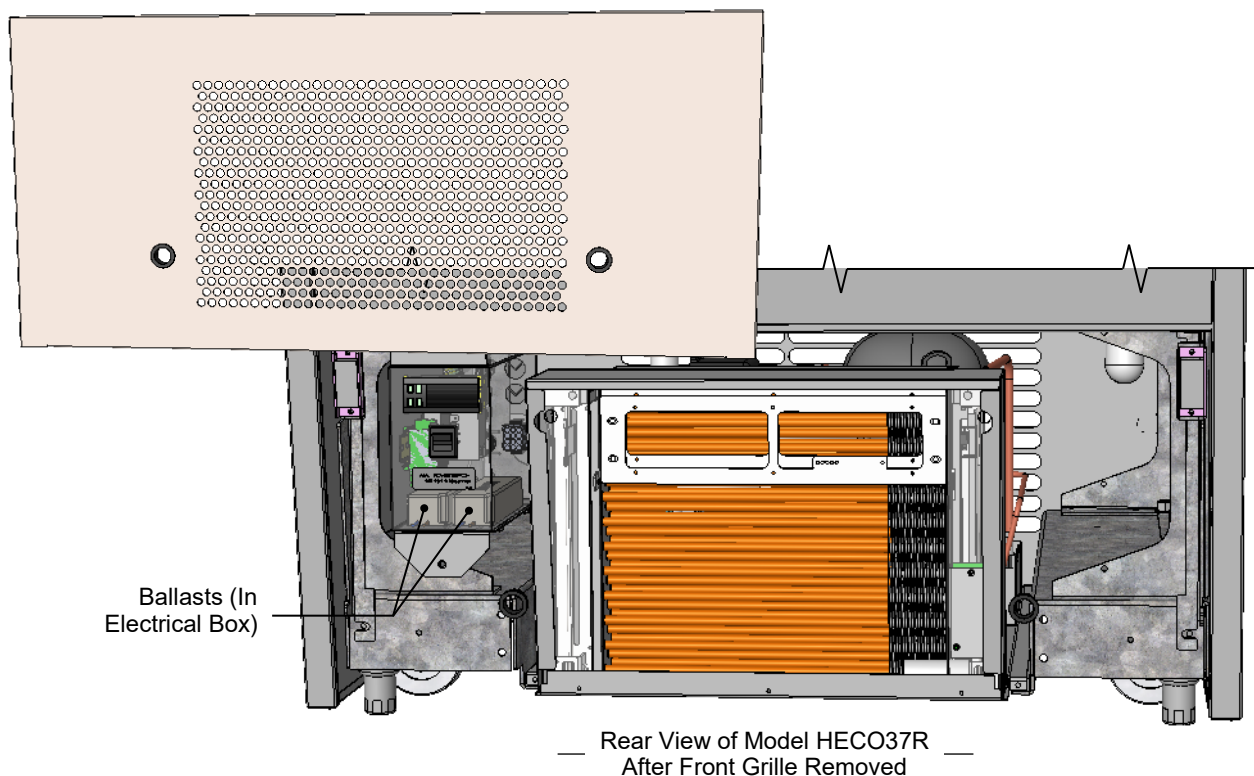
4. Anti-Condensation Fan Switch

- Anti-condensation fans prevent condensation from forming on roll-down security door.
- See illustration at right.



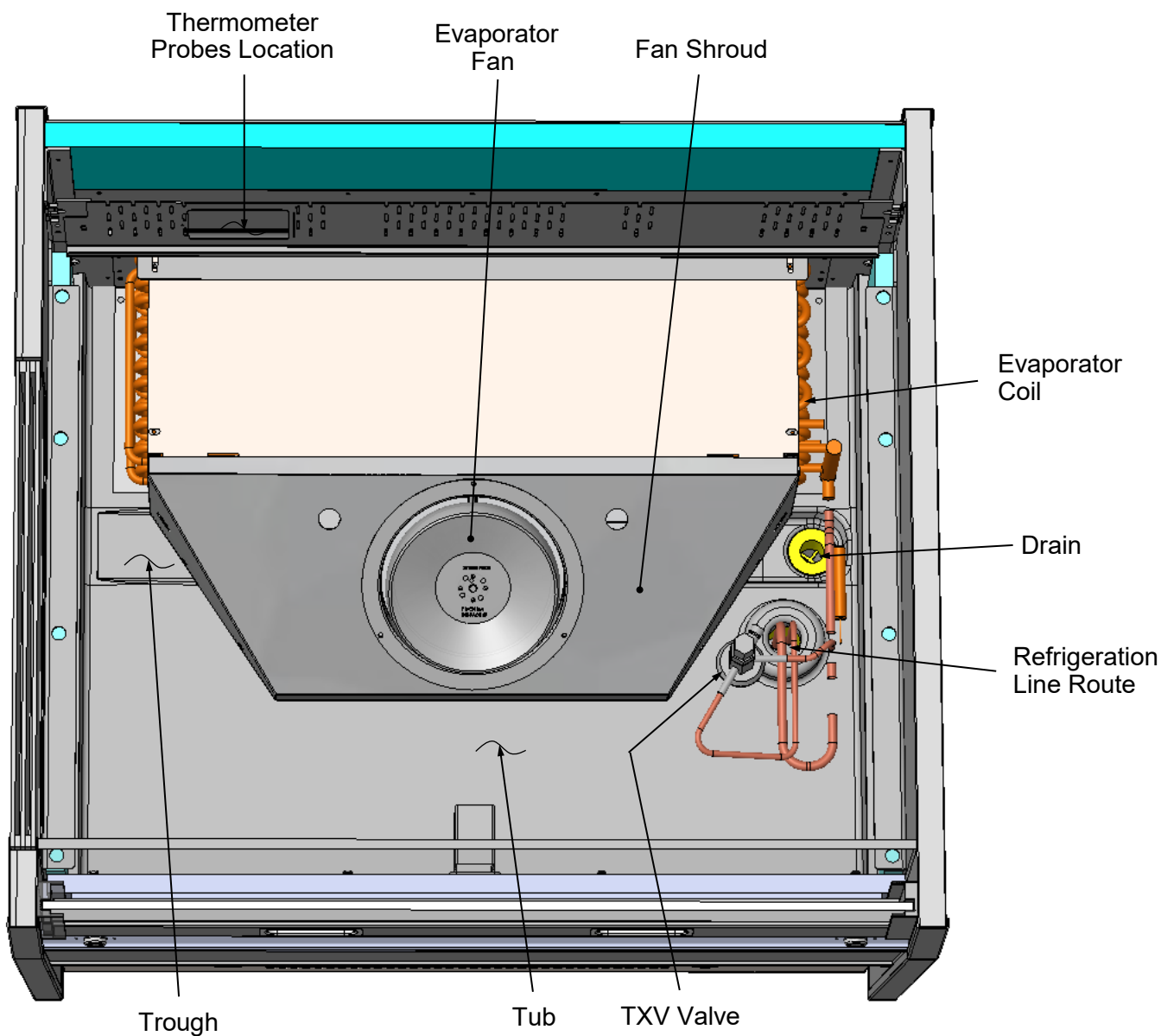
Ballast Access

- ***Assembly or disassembly and servicing is to be accomplished by a licensed electrical contractor.***
- Remove rear grille by lifting up and off.
- Ballast are mounted inside the electrical box.
- Illustrations shown reflect models HECO37R and HECO67R. Your model may slightly vary.



Evaporator Coil Fan

- **Caution! Turn off main power before accessing the evaporator coil / deck pan area. Rotating blades can cause severe injury!**
- To access, remove all product.
- Remove display steps (if any).
- Remove deck pan for coil fans access.
- After cleaning or servicing, return case components in reverse order they were removed.
- Restore power to case.



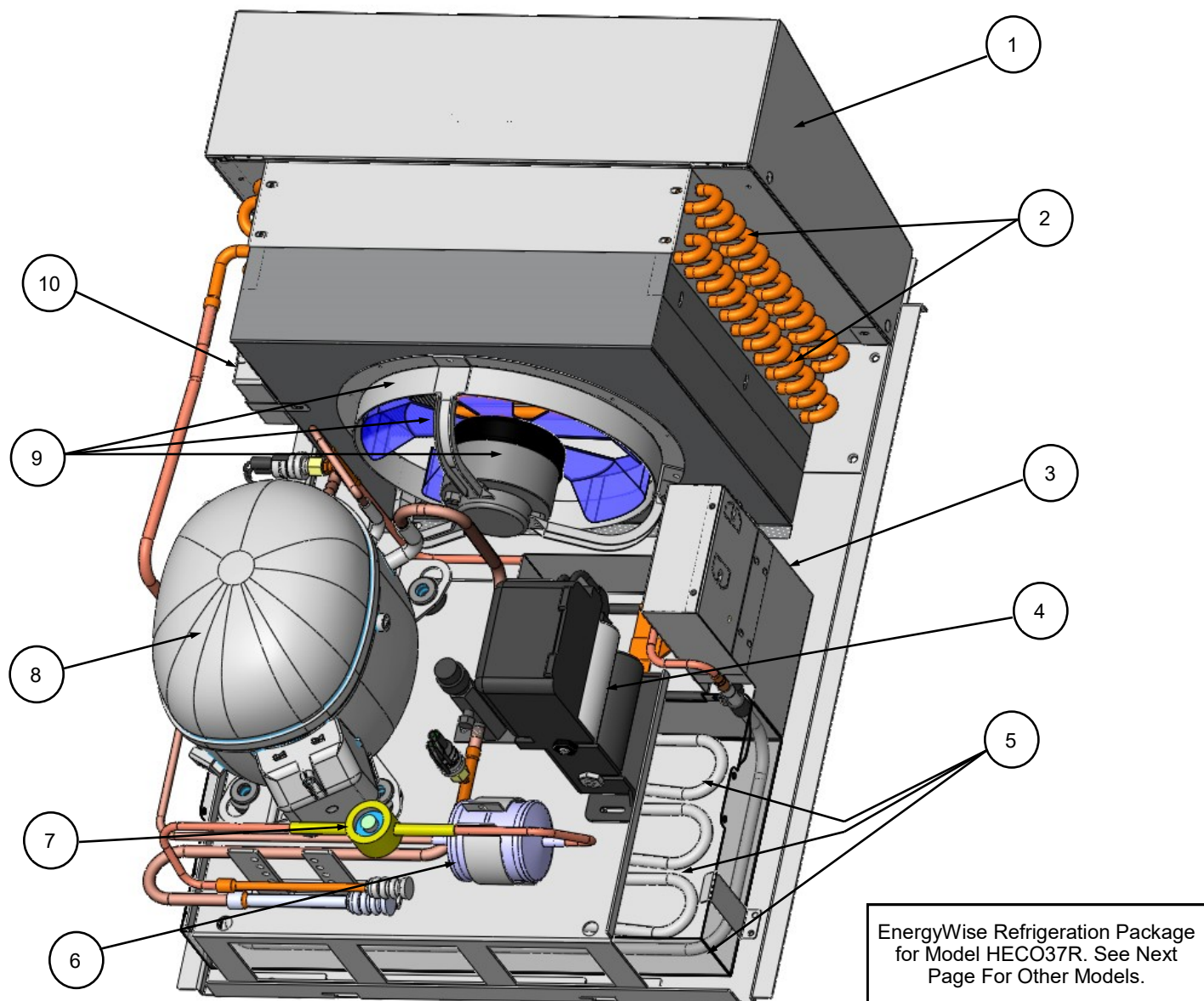
Model HECO37R Shown Above.
Your Model May Differ.

CONDENSER PACKAGE LAYOUT: MODELS HECO37R ONLY

Typical Configurations, Continued

- **Note:** Unit shown below is for models HECO37R only. Your condenser package layout may vary.
- **Caution:** Only certified refrigeration/electrical engineers or contractors are to access condenser unit.
- **Access:** Remove front grille by lifting up and off (no screw removal required). Slide out.

1	Condenser Coil Shroud (Optional: May House Clean Sweep™ Automatic Condenser Coil Cleaner)	6	Filter / Drier
2	Condenser Coil Tubing	7	Sight Glass
3	Electrical Coil Overflow Condensate Pan	8	Refrigeration Pump
4	Embraco® Start Components	9	Fan Motor & Fan Shroud
5	Hot Gas Condensate Pan & Serpentine Rods	10	Automatic Condenser Coil Cleaner Driver

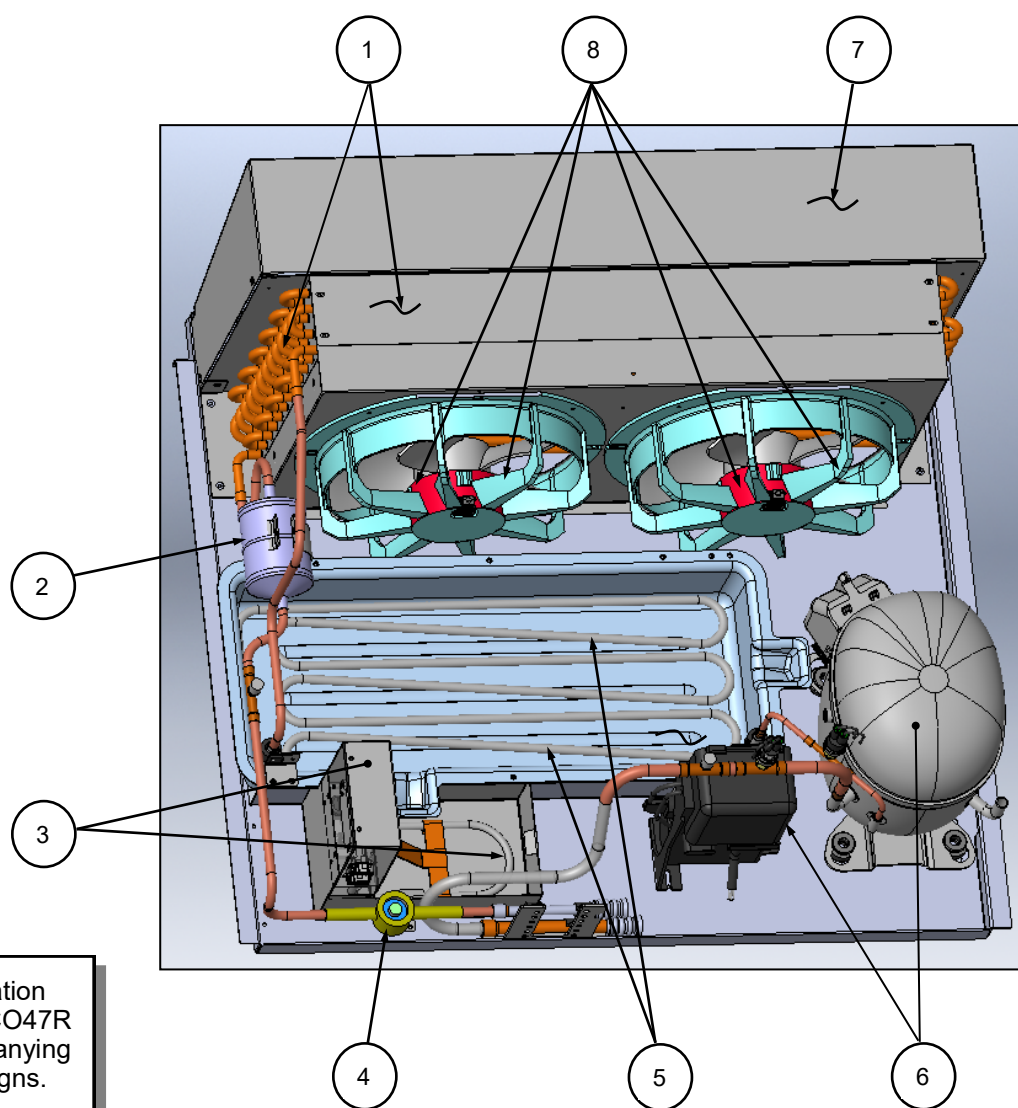


CONDENSER PACKAGE LAYOUT: MODELS HECO47R ONLY

Typical Configurations, Continued

- Note: Unit shown below is for Model HECO47R only. Your model's condenser package layout may vary.
- Caution: Only certified refrigeration/electrical engineers or contractors are to access condenser unit.
- Access: Remove front grille by lifting up and off (no screw removal is required). Slide out.

1	Coil and Coil Cover	5	Hot Gas Condensate Pan, Serpentine Rods
2	Filter / Drier	6	Refrigeration Pump and Embraco® Compressor Start Components
3	Electrical Coil Overflow Condensate Pan	7	Condenser Coil Fan Shroud (Optional: May Include Clean Sweep™ Automatic Condenser Coil Cleaner)
4	Sight Glass	8	Fan Motors & Fan Shroud



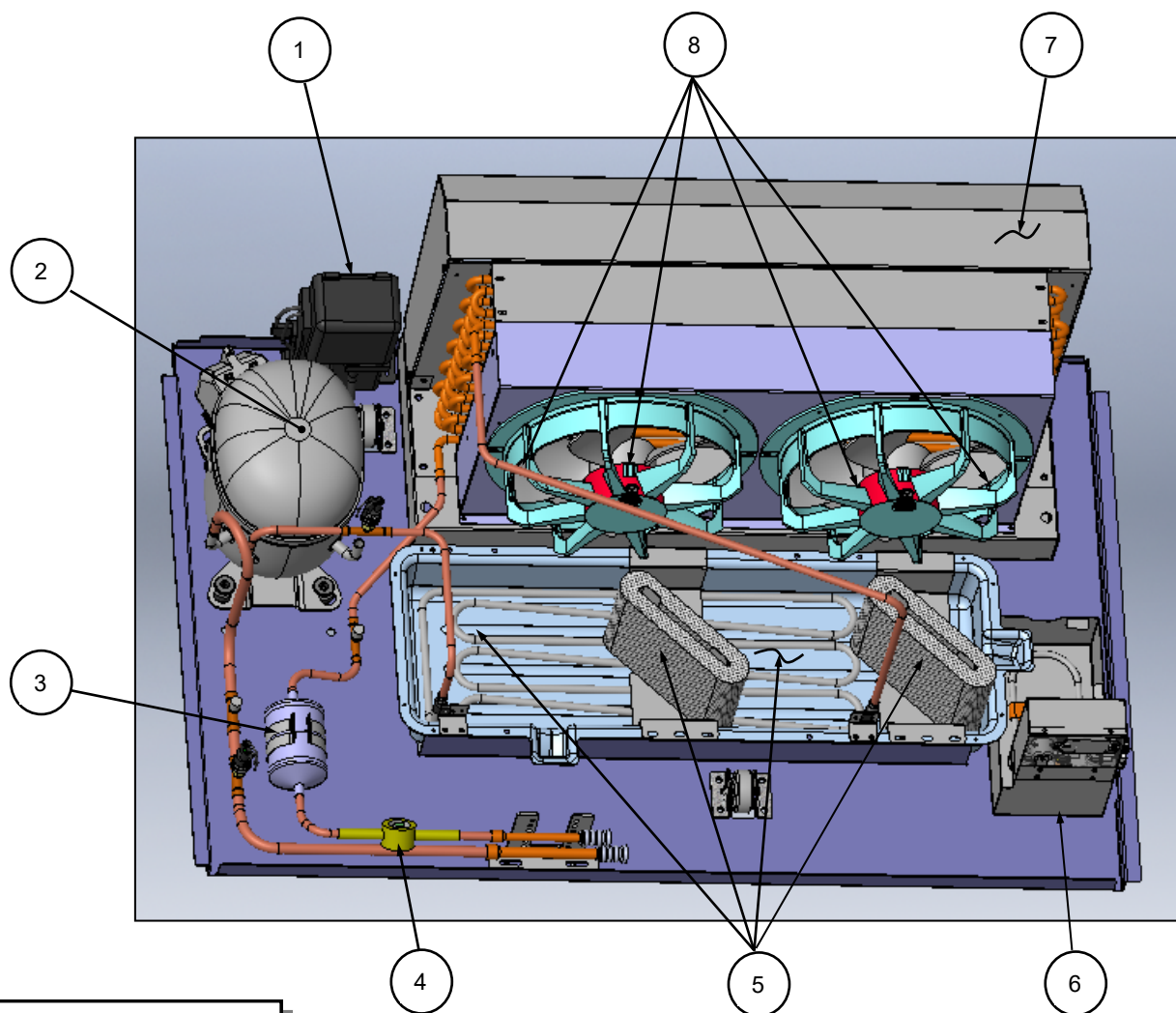
EnergyWise Refrigeration Package for Model HECO47R Is Shown. See Accompanying Sheets for Other Designs.

CONDENSER PACKAGE LAYOUT: MODELS HECO57R ONLY

Typical Configurations, Continued

- Note: Unit shown below is for Model HECO57R only. Your model's condenser package layout may vary.
- Caution: Only certified refrigeration/electrical engineers or contractors are to access condenser unit.
- Access: Remove front grille by lifting up and off (no screw removal is required). Slide out.

1	Embraco® Compressor Start Components	5	Hot Gas Condensate Pan, Serpentine Rods and Wicking Material
2	Refrigeration Pump	6	Electrical Coil Overflow Condensate Pan
3	Filter / Drier	7	Condenser Coil Fan Shroud (Optional: May Include Clean Sweep™ Automatic Condenser Coil Cleaner)
4	Sight Glass	8	Fan Motors & Fan Shroud



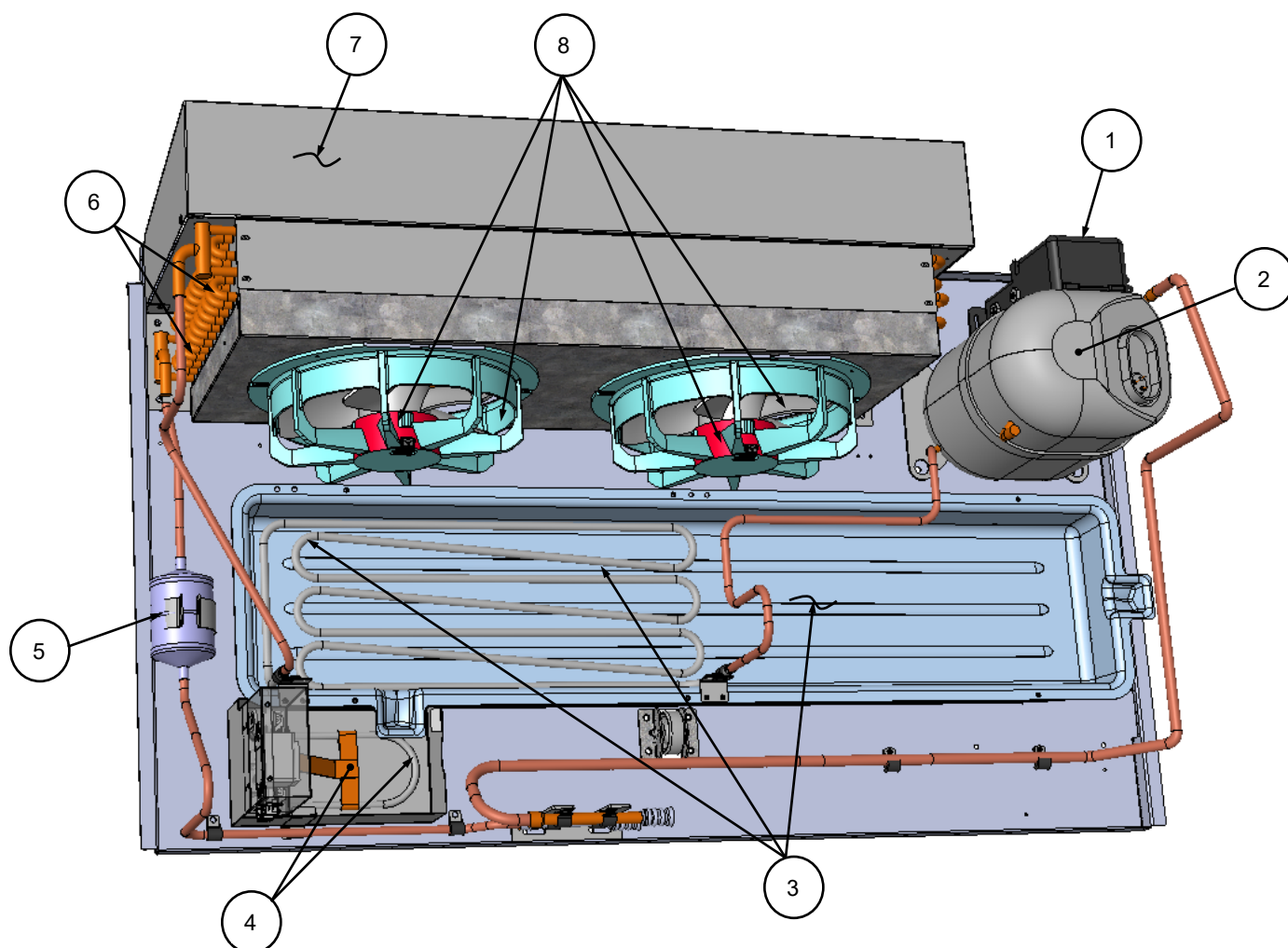
EnergyWise Refrigeration
Package for Model HECO57R
Is Shown. See Accompanying
Sheets for Other Designs.

CONDENSER PACKAGE LAYOUT: MODELS HECO67R ONLY

Typical Configurations, Continued

- Note: Unit shown below is for Model HECO67R only. Your model's condenser package layout may vary.
- Caution: Only certified refrigeration/electrical engineers or contractors are to access condenser unit.
- Access: Remove front grille by lifting up and off (no screw removal is required). Slide out.

1	Embraco® Compressor Start Components	5	Filter / Drier
2	Refrigeration Pump	6	Condenser Coil Tubing
3	Hot Gas Condensate Pan & Serpentine Rods	7	Condenser Coil Shroud (Optional: May Include Clean Sweep™ Automatic Condenser Coil Cleaner)
4	Electrical Coil Overflow Condensate Pan	8	Fan Motors & Fan Shroud



EnergyWise Refrigeration Package for Model HECO67R Is Shown. See Accompanying Sheets for Other Designs.

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.



Structural Concepts
888 E. Porter Rd · Muskegon, MI 49441

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




3048256
CONFORMS TO UL STD 471
CONFORMS TO NSF STD 7
CERTIFIED TO CAN/CSA
STD C22.2 NO 120

ENCORE[®] MODEL HV74RSS SCROLL
SERIES SERIAL NO.

SAMPLE ONLY

ELECTRICAL RATING	120/1/60 24A
REFRIGERANT	R404A AMOUNT ?? OZ
DESIGN PRESSURE	HIGH 450 LOW 200
MINIMUM CIRCUIT	30A
MAXIMUM OVERCURRENT	30A

SAMPLE ONLY

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

SAMPLE ONLY

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



Structural Concepts
888 E. Porter Rd · Muskegon, MI 49441



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

Addenda[®] PC5682 txtRemote
txtSerialNumber

120 VOLTS 60 HZ SINGLE PHASE 1.84AMP

FOR PARTS OR SERVICE CALL
STRUCTURAL CONCEPTS
AT
1-800-433-9489

SAMPLE ONLY

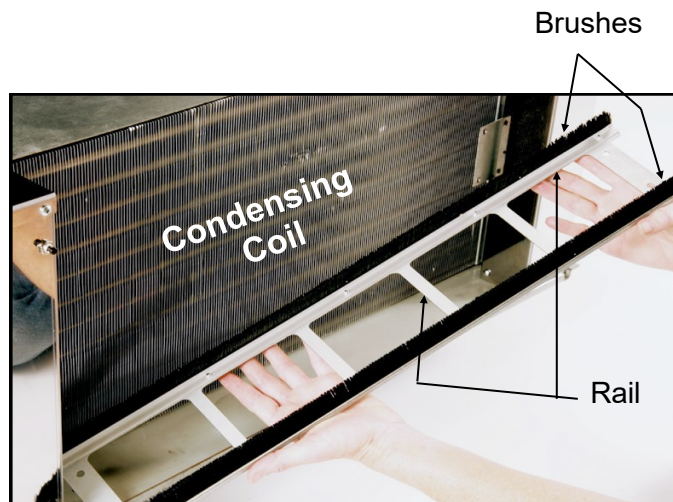
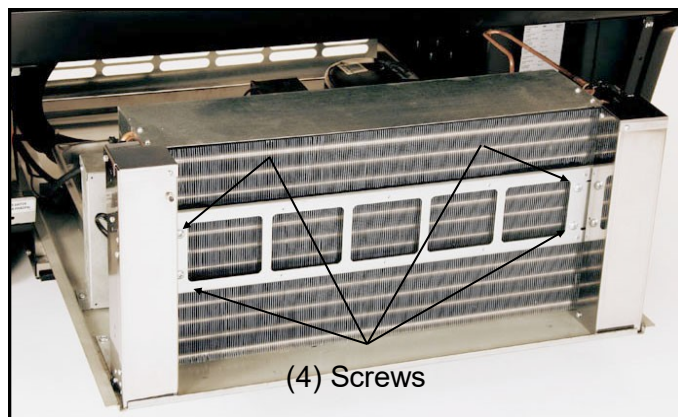
----- Sample Serial Label For Non-Refrigerated Case -----

CLEANING SCHEDULE (PERFORMED BY STORE PERSONNEL & TRAINED SERVICE PROVIDERS)

Cleaning	D*	W*	M*	Q*	Task
Clean Case Exterior	X				Acrylic must be cleaned with a mild soap and water solution and a soft cloth (<i>Never use a household cleaner on acrylic.</i>)
Clean Case Interior	X				Shelves and decks can be cleaned with a warm soap and water solution.
		X			Remove decks. Clean with soap and water.
		X			Vacuum tub under deck. Clean with soap and water. Wipe dry with clean cloth.
		X			Keep drains clean and free of debris which could clog the drain and rob the case of needed refrigeration.
Clean Condensing Coil		X			Clean the condenser coil. Using air pressure if available, or an industrial strength vacuum, clean the dust and dirt that collects on condenser coil. Be careful not to damage the fins on the coil.
Magnetic Condenser Coil Filter		X			Magnetic Condenser Coil Filter (Self-Contained Units Only): - This filter prevent dust particles from entering condenser coil. - It is accessible at case rear. - Clean magnetic condenser coil filter by following either step 1 or 2; then follow step 3: - 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 / paper towel. Return to case. - 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. Submerge in warm, soapy water. Use soft-bristled brush to remove dust, dirt, grease and grime that collects on filter. Rinse thoroughly. - Dry with soft cloth or paper towel or allow to air dry. Replace.
Evaporator Fan Shroud Area (Trained Svc. Providers Only)			X		<u>Evaporator Fan Shroud Area (Under Decking):</u> Caution! Due to rotating fans in area, turn off case and disconnect plug from wall outlet before beginning fan shroud / tub area cleaning! 1) Turn off power. 2) Remove decks from case. 3) Clean fan shroud area (and surrounding tub area) with moist cloth.
Tub & Drain (Trained Service Providers Only)				X	<u>Tub & Drain:</u> Caution! Due to rotating fans, turn off case. Disconnect plug from wall outlet before beginning tub & drain cleaning! Vacuum tub under decks. Clean with soap and water solution. Wipe dry with clean cloth. Keep drain free of debris to prevent clogging.

*D = Daily / *W = Weekly / *M = Monthly / *Q = Quarterly

Preventive Maintenance	Freq.	Instructions
Case Exterior	Monthly	Condensing Coil: - To remove rear grille, lift slots up and off hooks (no screw removal required). - Use air pressure or industrial strength vacuum; clean dust and dirt that may collect on the Condenser Coil. See illustration below. Caution! Coil fins are sharp. Handle with care! - Replace rear grille to case (no screws required). - See illustration below.
	Qtly.	Clean Sweep™ Condensing Coil (Optional): <i>Disconnect power from case before cleaning Clean Sweep™ Condenser Coil!</i> - Remove front grille (no screw removal required). - Slide/roll out condensing unit assembly (at case front). - Remove the four (4) screws holding the Clean Sweep™ rails intact. - Remove the Clean Sweep™ rail. - Wash rails' brushes in hot water and mild soap solution. - If brushes are worn, they must be replaced. Call Technical Service Department to replace. Toll-Free number is listed at end of manual. - Clean Condensing Coil: Use air pressure or industrial strength vacuum; clean the dust and dirt that may collect on the Condenser Coil. Caution! Coil fins are sharp. Handle with care! - Reattach Clean Sweep™ rail to condensing unit (4 screws). - Slide/Roll Condensing Unit Assembly back under case. - Replace Rear Grille to case (4 screws). - See illustration below.



--- Above photos are taken after front has been removed from case ---

WARNING! TURN OFF CASE BEFORE PERFORMING PREVENTIVE MAINTENANCE!

Preventive Maintenance	Frequency	Instructions
Case Exterior	Quarterly	<u>Compressor Area:</u> <i>Disconnect power from case before cleaning condenser coil!</i> • Slide/Roll out from under case. • Use moist cloth to wipe off dust & debris that collects on various parts.
	Quarterly	<u>Hot Gas Condensate Pan:</u> Use a de-scaling solution (such as CLR®) that will prevent corrosion, lime and rust, to clean pan. Use spray bottle to evenly spread solution throughout. Rinse thoroughly with spray bottle filled with clean water and sponge.
	Quarterly	<u>Under Case Cleaning:</u> Once condenser package is clear of unit, vacuum under case to remove all dust and dirt that may collect under case.
Case Interior	Quarterly	<u>Tub, Coil, Drain, Fan Blades, Motors, Brackets:</u> <i>Caution! Disconnect power from the case before cleaning the Tub, Coil, Fan, Motor and Drain Area!</i> • Remove Decking, Sub-Deck and Fan Shroud. • Use vacuum to clean Evaporator Coils. • Clean Tub, Coil and Drain with warm water, clean cloth, brush and mild soap solution. • Remove any debris that may clog drain. • Clean Fan Blades, Motors and Brackets by wiping down with moist cloth.
	Quarterly	<u>Honeycomb:</u> See MAINTENANCE FUNDAMENTALS: HONEYCOMB AIR DIFFUSERS section in this manual for cleaning specifics.

TROUBLESHOOTING (TO BE PERFORMED BY STORE PERSONNEL)

Condition	Troubleshooting
Product is Drying Out	Check the relative humidity in the store.
Water Is On The Floor	Call service provider.
Fan Emits Excessive Noise	Call service provider.
Case Lights Are Not Working	Check that light switch is in the <i>on</i> position.
	Check that ALL of the light cords and plugs are properly connected. See <i>MAINTENANCE FUNDAMENTALS: SHELF ASSEMBLY / SHELVES / CASTER LOCKING OPERATION</i> section in this manual for specifics.
	LED Lights: check that plugs are properly inserted into LED light orifices. See <i>MAINTENANCE FUNDAMENTALS: LIGHT FIXTURES</i> section of manual.
	If case lights still do NOT come on, call service provider.
Case is Not Holding Proper Temperature	If a large amount of warm product was added to the case, it will take time for the temperature to adjust. Product must be pre-chilled before placing in case.
	Check that the case is not in the sun or near a heat or air-conditioning vent. See <i>OVERVIEW / CONDITION / COMPLIANCE / WARNINGS / PRECAUTIONS / WIRING</i> section in this manual for specifics.
	If case is located near front doors, temperature fluctuation can hinder unit's ability to maintain temperature.
	Check that condenser coil air filter and condenser coil has been cleaned. See <i>CLEANING SCHEDULE (PERFORMED BY STORE PERSONNEL & TRAINED SERVICE PROVIDERS)</i> section in this manual for specifics.
	Check air return grilles (area at front of decking) for obstructions. DO NOT set product on air grilles as this will prevent proper airflow!
	If case still is not holding proper temperature, call service provider.
Condensation Is Forming On Roll-Down Security Door	Turn on anti-condensation fan switch. See <i>MAINTENANCE FUNDAMENTALS, CONT'D: SHELF ASSEMBLY / SHELVES / LIGHTS / FAN SWITCH</i> for switch location.

Condition	Troubleshooting
Case Not Lining Up	See Installation Section for instructions on properly aligning case (alongside other cases) and adjusting levelers.
Water Is On 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 completely drained.
	Check that the drain trap is free of debris.
	Check that the drain hose is correctly positioned over evaporator pan (or floor drain, for remote units).
	Check store conditions. To prevent condensation in Type 1 environments, maximum conditions are to be 55% humidity / 75° Fahrenheit. For Type 2, maximum conditions are to be 55% humidity / 80° Fahrenheit. See serial label (at case rear near main power switch) for condition Type of your case.
	Check that hot gas condenser pan is operating properly.
	Check that overflow condenser pan is properly plugged in or connected.
	Caution! Disruption of power can cause water to overflow pan and seep onto flooring causing damage! Check that power to case is constant. Until power is restored, follow these procedures: • Use wet-dry vacuum (or mop & bucket) to remove standing water. • Use 'catch pans' for water to drainage. Swap out regularly until evaporation of case is complete (or until power is restored). • When power to case is restored, evaporator pan should function properly and water will no longer overflow onto flooring.
	Caution! Wicking material (if any on your particular hot gas loop system) may be dirty or worn and need replacement. • Slide refrigeration system out from under unit. • After refrigeration system has been carefully slid out from under unit, replace wicking material with new. If wicking material is not available, contact Structural Concepts®. See toll-free number at last page of this operating manual.

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

Condition	Troubleshooting
Case Lights Are Not Working	Check that light switch is in the <i>on</i> position.
	Check that ALL of the light cords and plugs are properly connected. See MAINTENANCE FUNDAMENTALS: LED LIGHT FIXTURES section in this manual for specifics.
	Service Technicians Only: Check voltage at LED drivers. If voltage is entering but not exiting, LED driver may be faulty.
	If case lights still do NOT come on, call service provider.
Control Display Is Flashing	See your case's serial label for your model's specified settings. See SERIAL LABEL LOCATION & INFORMATION LISTED / TECH INFO & SERVICE for label location, etc.
Case Is Not Holding Temperature	If a large amount of warm product was added to the case, it will take time for the temperature to adjust. Unit needs product to be pre-chilled.
	Temperature changes during defrost mode but will return to normal. Fourth LED will indicate defrost cycle in progress.
	Check that case is not in sun or near a heat or air-conditioning vent. See OVERVIEW / CONDITION / COMPLIANCE / WARNINGS / PRECAUTIONS / WIRING section in manual for adverse conditions/spacing issue parameters.
	If case is located near front doors, temperature fluctuation can hinder unit's ability to maintain temperature. See OVERVIEW / CONDITION / COMPLIANCE / WARNINGS / PRECAUTIONS / WIRING section in manual for adverse conditions/spacing issue parameters.
	Check that condenser coil air filter (attached to rear grille) has been cleaned. See GENERAL CLEANING (TO BE PERFORMED BY STORE PERSONNEL) section in operating manual for instructions.
	Check that condenser coil has been cleaned.
	Check air return grilles for obstructions.
	Check sight glass for flashing and/or low charge.
	Check Set Point Temperature; it may be adjusted too high.
Condensing Unit Is Not Operating	Check that the power is turned on.
	Determine if temperature controller settings are properly set. See your case's serial label for your model's specified settings. See SERIAL LABEL LOCATION & INFORMATION LISTED / TECH INFO & SERVICE section in manual for label location, etc.

CAREL

ir33 platform

Integrated Electronic
Microprocessor Controller



Programming The Instrument

To Modify Defrost, Differential and Other Parameters

Prg
mute

Set

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

▲
aux

2. Press ▲ until password "22" is reached.

Set

3. Press "SET" key to confirm password.

▲
aux

def
▼

4. Press ▲ or ▼ to reach a category to be modified.

Set

5. Press "SET" to modify selected parameter.

▲
aux

def
▼

6. Increase or decrease the value using the ▲ or ▼ button respectively.

Set

7. Press the "SET" key to temporarily save the new value and return to the parameter display.

Prg
mute

8. Press & hold the "Prg" key for 5 full seconds to save changes. This will also mute the audible alarm (buzzer) and deactivate the alarm relay.

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.

To Activate Manual Defrost

def
▼

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

To Activate / Deactivate Auxiliary Output

▲
aux

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

Prg
mute

▲
aux

Set

def
▼

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).

▲
aux

2. Press ▲ until password "22" is reached.

Set

3. Confirm by pressing "SET" key.

▲
aux

def
▼

4. Press ▲ or ▼ until reaching the parameter "/ 5."

Set

5. Press "SET" to modify this selected parameter.

▲
aux

def
▼

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

Set

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

Prg
mute

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

To Reset Any Alarms With Manual Reset

Prg
mute

▲
aux

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

This data derived from Carel® Controller Material:
ir33 +030220441 - rel. 2.0 - 01.05.2006.
Structural Concepts Document - Revision B Date: 4/25/2019

CAREL

ir33 platform**Integrated Electronic
Microprocessor Controller**

User Interface - Display

ICON	FUNCTION	DESCRIPTION	ON	Normal operation OFF	BLINK	Start up
	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	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

This data derived from Carel® Controller Material:
ir33 +030220441 - rel. 2.0 - 01.05.2006.
Structural Concepts Document - Revision B Date: 4/25/2019

CAREL**ir33 platform**Integrated Electronic
Microprocessor Controller**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) 433.9490 Ext. 1
/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	
dl	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

This data derived from Carel® Controller Material:
ir33 +030220441 - rel. 2.0 - 01.05.2006.
Structural Concepts Document - Revision B Date: 4/25/2019

STRUCTURAL CONCEPTS TECHNICAL SERVICE CONTACT INFORMATION & LIMITED WARRANTY

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

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

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

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

LIMITED WARRANTY

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

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

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

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

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

Except as expressly stated herein, SCC makes no warranty, express, implied, statutory or otherwise as to any parts or goods not manufactured by SCC. SCC shall warrant such parts or Goods only (I) against such defects, (II) for such periods of time, and (III) with such remedies, as are expressly warranted by the manufacturer of such parts or 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.