

READ AND SAVE THESE INSTRUCTIONS

Oasis[®] USER MANUAL

**SCC P/N
99399**

SELF-CONTAINED REFRIGERATED SERVICE/SELF-SERVICE MODEL CO2739R



Model CO2739R Shown With Product For Illustrative Purposes Only

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OVERVIEW

- These Structural Concepts merchandisers are designed to merchandise pre-chilled 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 insure proper performance.
- Improper use will void warranty.

TYPE I vs. TYPE II 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.

- Type I display refrigerators 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.

- Type II display refrigerators are intended for use in an area where environmental conditions are controlled and maintained so that the ambient temperature does not exceed 80 °F (27 °C) and 60% maximum humidity.
- If unsure if your unit is Type I or II, see tag next to serial label. See **SERIAL LABEL LOCATION & INFORMATION LISTED / TECH INFO & SERVICE** section in this manual for sample serial labels.

COMPLIANCE

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

WARNINGS

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



**ATTENTION
CONTRACTORS**

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

WARNING

**ELECTRICAL
HAZARD**



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

WARNING

**KEEP
HANDS
CLEAR**



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

WARNING

**HOT
SURFACE**



WARNING
Condenser 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**, **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

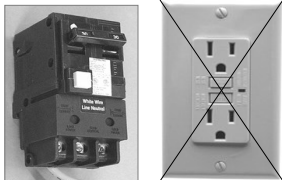
- This equipment is prohibited from use in California with any refrigerants on the "List of Prohibited Substances"

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 PRODUCT (FOOD) TEMPS.

- Thermometers & thermostats reflect air temps ONLY.
- For ACTUAL product (food) temperatures, use a calibrated food probe thermometers ONLY.
- For accurate readings, DO NOT use infrared food thermometers.

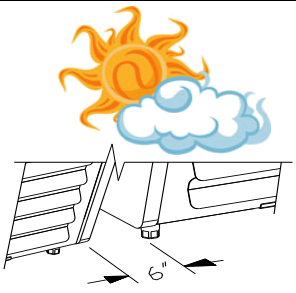


CAUTION! LAMP REPLACEMENT GUIDELINES
LED lamps must reflect specific size, shape and overall design.
Any replacements must meet factory specifications.

CAUTION! GFCI BREAKER USE RECOMMENDATION
If N.E.C. (National Electric Code) or your local code requires GFCI (Ground Fault Circuit Interrupter) protection, the use of a GFCI breaker is strongly recommended.

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



CAUTION! ADVERSE CONDITIONS / SPACING ISSUES

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



CAUTION! CHECK CONDENSATE PAN, ITS POSITION & PLUG!

Water on flooring can cause extensive damage!

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

1. Removing Caster Shipping Support (or Shipping Support Bracket) Attached To Skid

- Remove screws holding shipping supports (or shipping support brackets) to skid. Discard.
- **Note:** Shipping supports and/or brackets will vary in size, shape, material and location depending upon case type and model.
- See illustration below-left.

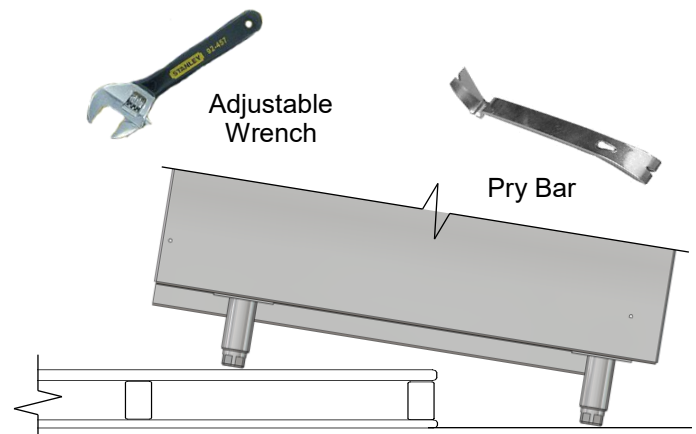
2. Remove Front Grille, Rear Grille and Side Panels Before Removing From Skid

- Grilles and lower side panels may be attached to case during shipment.
- If they are attached to case, they must be removed prior to skid removal.
- Screw removal may be required.
- After case is in position (and level and plumb, if case has levelers), you must reattach these components to case.

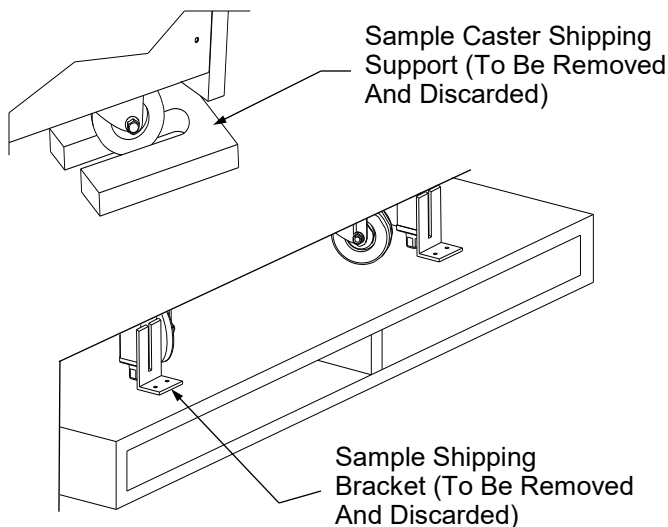
3. Remove Case From Skid

- To prevent damage, support case (while sliding it toward edge of skid).

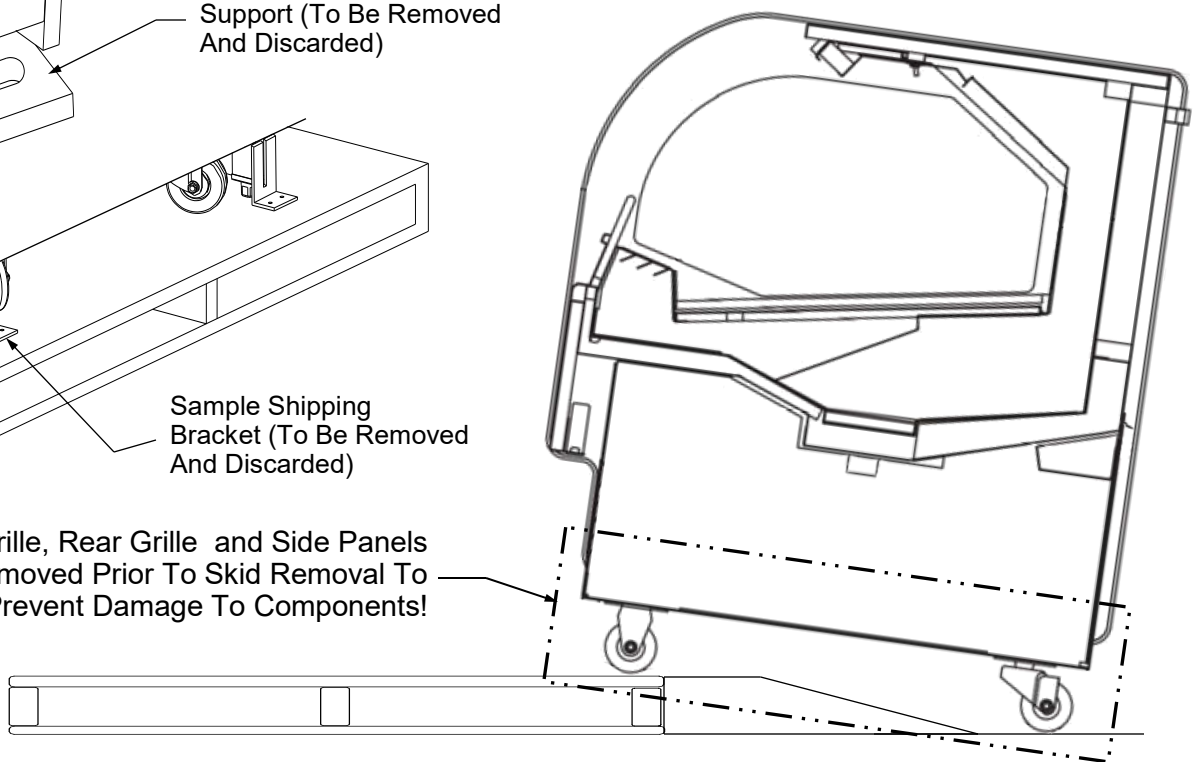
- For units with casters, casemay be rolled off skid via ramp (as shown below-right) and into position.
- For units with legs/levelers, carefully slide case off skid (at one end). Then slide skid out from under case at other end (as shown immediately below).
- Use adjustable wrench and/or pry bar to level.
- Case must be level & plumb after it is in position.



Side View of Case (With End Panel Removed For Illustrative Purposes Only)



Note: Front Grille, Rear Grille and Side Panels Must Be Removed Prior To Skid Removal To Prevent Damage To Components!



1. Caster Locking / Unlocking Operation

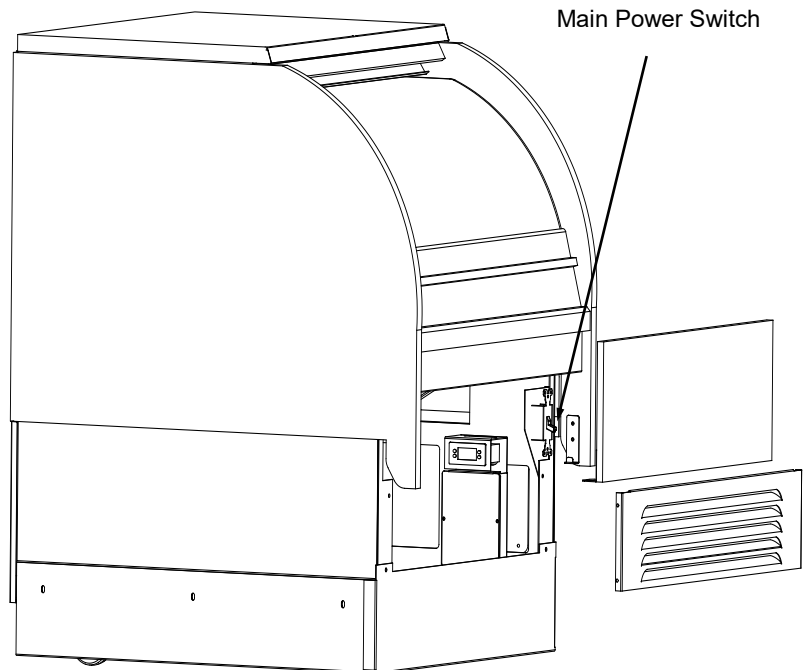
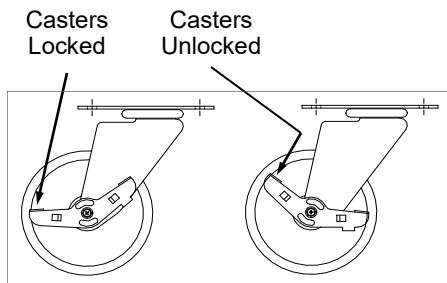
- After case has been moved to proper location, if casters have locking feature, they may be locked to prevent case from moving out of position.
- To lock caster (from the unlocked position), press down on each RAISED caster lever (as shown in illustration below-left). Casters will lock in place.
- To unlock casters (from the locked position), press down on the RAISED caster lever (as shown in illustration below-left). Casters will now be unlocked.

2. Merchandiser Start-Up and Operation

- Do not use an extension cord with this appliance.
- Do not operate this equipment with a damaged cord, plug or outlet.
- Insure the main power switch is off.
- Plug cord into a certified 120V electrical outlet with ground.
- Turn main power on.
 - Remove upper front panel (see maintenance for panel removal). Switch is on the right side of case.
- Coil fan should turn on.
 - From inside of the case, check for discharge air from front baffle, to confirm that the fans are functioning properly.
 - When the case is in a start up mode or has been idle for a long period of time,

the unit will require 75 minutes in order to pull -down temperature.

- The lights should come on at the same time.
 - First time lighting may require a short warm up period for the bulbs. Slightly dim or a flickering of new bulbs is normal.
- It is recommended that the self contained refrigerated cases maintain front and rear airflow clearance of approximately six inches.
- Obstruction or restriction of air can void warranty.
- The interior case temperature reaches 2 °C to 5 °C / 35 °F to 41 °F.
 - **Note:** The case temperature is set at the factory, as determined by the case size. The temperature is controlled by a thermostat. If a temperature setting change is required, refer to the instructions for the Temperature Control Programming operating section of this manual.
- **Note:** Set point should be 4.5 °C / 40 °F. This will maintain the product temperature range. Settings lower than 4.5 °C / 40 °F can cause food items to freeze.



1. Removing the Front Panel

- Lifting the panel from lower edge upward approximately a half inch into a channel lip, disengages the support tabs on the lower edges.
- Pivot out lower edge approximately one inch and lower panel to remove.

2. Removing the Front Grille

- Lifting the grille upward approximately a half inch disengages a top support flange and the support tabs on the back lower side of the grille from the frame.
- Pivot out lower edge and remove grille.

3. Light Fixtures - Fluorescents

Removal of lamp:

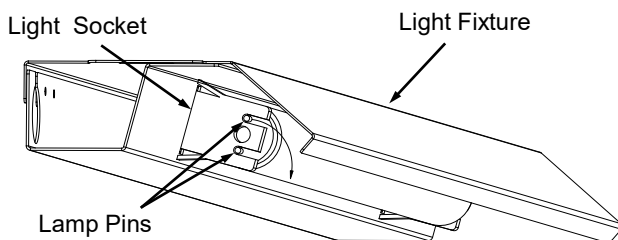
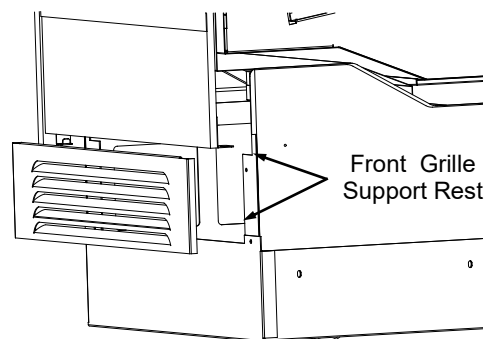
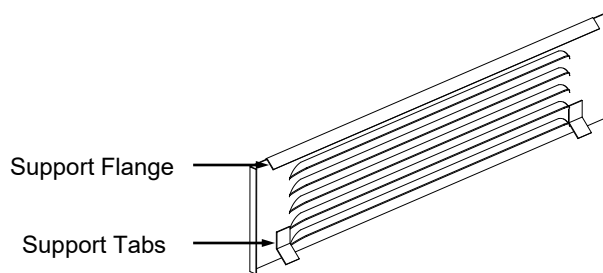
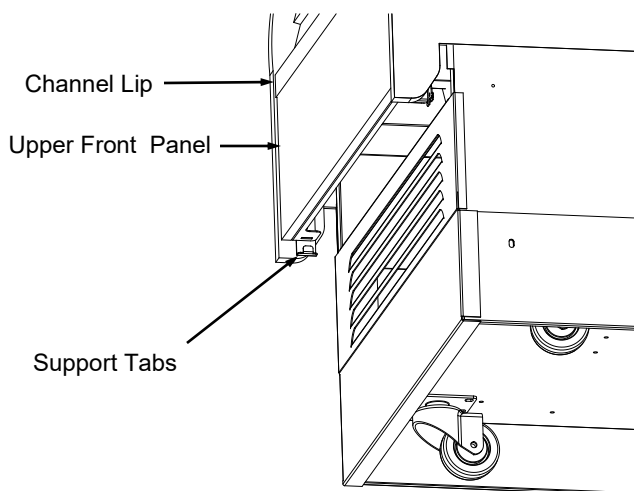
- Rotate lamp (1/4 turn) either direction to disengage (upper or lower) pins/contacts from lamp mounting sockets.
- Remove bulb by applying even pressure from the back side at the bulb ends and pulling the remaining contact from the sockets.

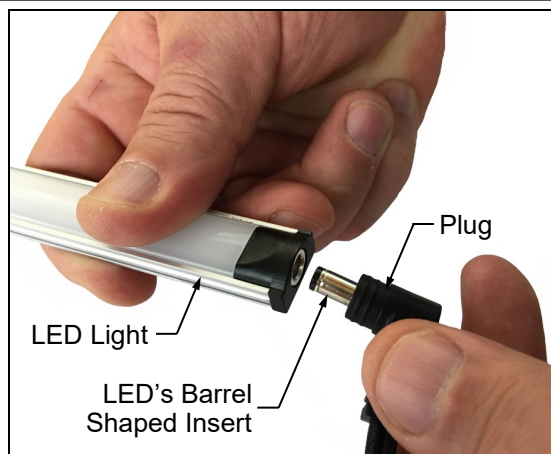
Installation of lamp:

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

4. Light Fixtures - Power Cord & Plug, LEDs, Etc.

- See next page.



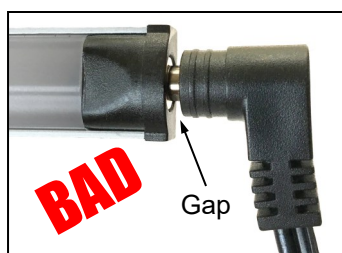


4. Power Cord and Plug

- Power cord and plug (for LED lights) locations vary depending upon model.
- Caution! You must plugged in an approved outlet!

5. LED Lights

- LED lights are located at both header and shelving of case (as shown below).
- Check that ALL of the light plugs are properly connected to the LED light.
- Plug must be inserted ALL THE WAY into the LED light orifice (with no gap) to work properly.
- See **TROUBLESHOOTING** section in manual if LED lights malfunction.



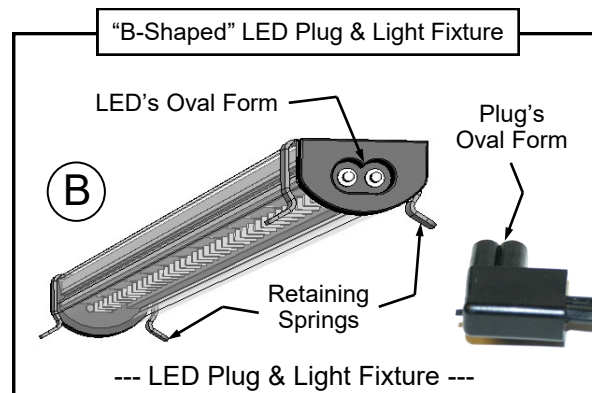
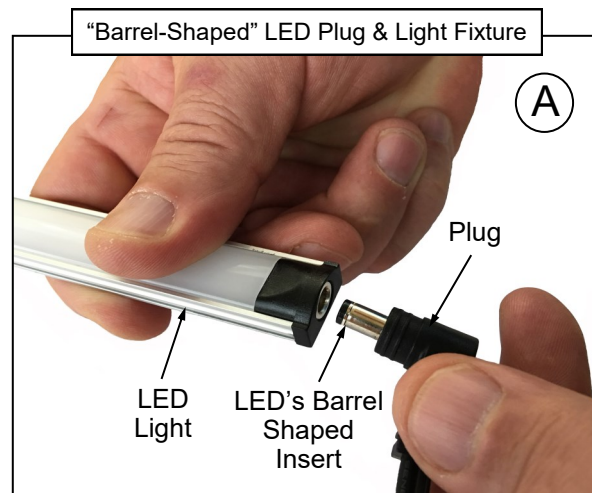
6. LED Style Light Fixtures

Removal of faulty LED light:

- LED lights rarely require change-out.
- To remove faulty LED light, simply grasp light near retaining spring and carefully pull away from its spring. Disconnect plug from LED's socket.
- Contact Structural Concepts' Technical Service Department for replacement parts (see Technical Service section of this manual for information).

Replacement of LED light:

- To replace LED light fixture, simply insert new LED light at proper position (socket must be near plug). Carefully snap into metal springs so LEDs are held firmly in place.
- **Note:** LED light and plug must be connected in a specific manner or they will not work.
- A. Certain plug designs ("barrel type") merely require that plug be pushed all the way in.
- B. Other plugs require "oval edge" of plug to connect to oval edge of LED light.
- See illustrations at right.



7. Honeycomb Maintenance

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

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).

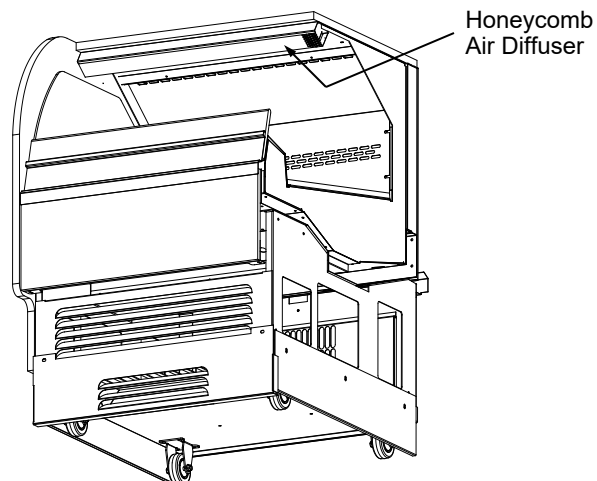
Honeycomb Air Diffuser Installation

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

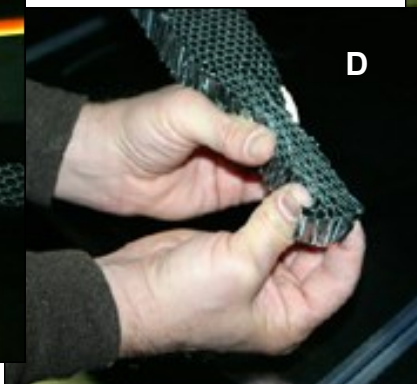
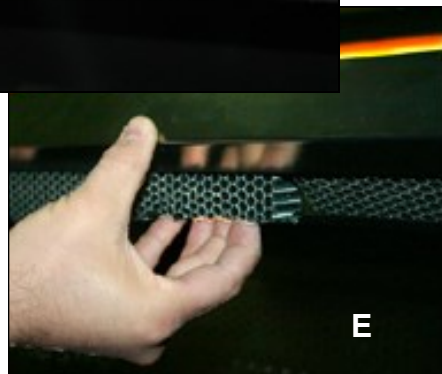
E. Carefully slide honeycomb into place.

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.



Note: Model features and options may vary.

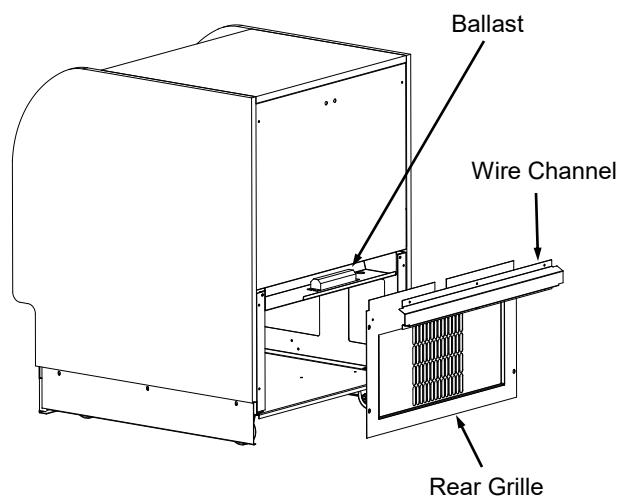


1. Electrical: Access and Connections

Warning, disconnect power before providing maintenance and service to unit.

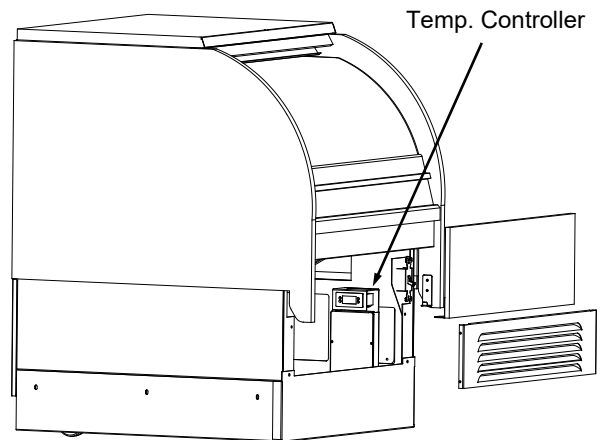
2. Light Ballast Access

- Remove three screws from the rear wire channel.
- Remove four screws from the rear grille.



1. Temperature & Defrost Control

- The case temperature is set at the factory, as determined by the case size. The temperature is controlled by a thermostat. If a temperature setting change is required, follow the instructions for the Temperature Control Programming Steps in the technical information section of this operating manual.
- If service is required to the temperature control unit, call Structural Concepts. This maintenance should be performed by a certified technician.

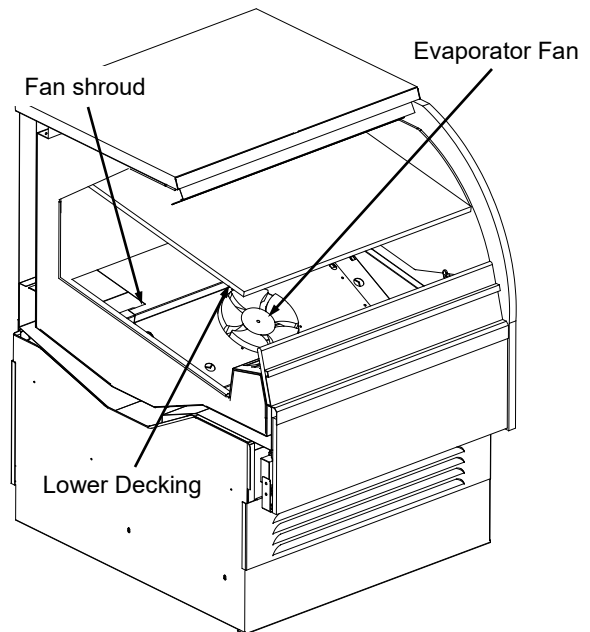


2. Evaporator Fan Access

- Remove lower decking. A finger hole is provided to assist in lifting up and pulling out deck.

3. Expansion Valve Access

- Remove lower decking. A finger hole is provided to assist in lifting up and pulling out deck.
- Remove fan shroud assembly.
 - Unplug the fan at the shroud support.
 - Remove four screw knobs from the fan shroud.
- Carefully remove shroud to avoid damage to mirrors or front air deflector.

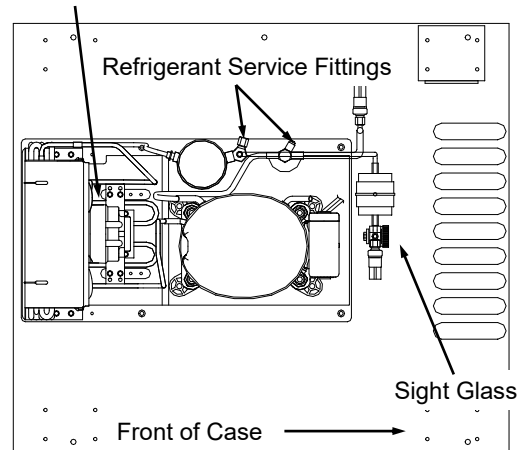


4. Refrigeration:

Access and Connections

- **Assembly or disassembly and servicing to be accomplished by licensed refrigeration contractor.**
- Refer to maintenance fundamentals for access.
 - Remove front panel.
 - Remove front grille.

Hot Gas Evaporator





Serial Label Location & Information Listed / Technical Information & Service

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

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

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

3048256
Conforms to UL Std. 471
Conforms to NSF/ANSI Stds. 2 & 7
CERTIFIED TO CAN/CSA
STD C22.2 NO 120

Super Heat Temp
Defrost

Reveal
Blend
Harmony
Impulse
Oasis

Addenda
Grocerant
Fusion

MODEL NRS3648RXV-SAMPLE
SERIAL NO. 12345X30DZ098765

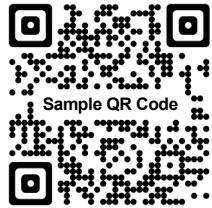
120/1/60 16 A
R513A AMOUNT 50 OZ
HIGH 186 LOW 88
20A
20A

ELECTRICAL RATING
REFRIGERANT
DESIGN PRESSURE
MINIMUM CIRCUIT AMPACITY
MAXIMUM OVERCURRENT

6-8 °F
6 defrosts per day, 45 °F

FOR PARTS AND SERVICE
CALL 1-800-433-9490

SCAN FOR PRODUCT LITERATURE



Sample QR Code

SAMPLE ONLY

SAMPLE ONLY

SAMPLE ONLY

SAMPLE ONLY

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

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

TROUBLESHOOTING - GENERAL

Problem	Solution
Alarm Going Off	See alarm and fault codes of temperature controller.
Product is Drying Out	Check the relative humidity in the store.
Water on the Floor	Check the drain trap is free of debris.
	Check that the condenser hot gas evaporator for cleanliness.
Excessive Fan Noise	Check that the case is aligned, level and plumb.
	Check that nothing is obstructing the blade rotation.
	Check that the fan shroud is properly secured.
System is 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.
Temperature Controller Has No Illumination	Check connections on power supply contactor board.
	Check fuse on power supply contactor board.
Fans Not Working	Check that the power is on.
	Check that fans are plugged in at the fan shroud.
	Faulty motor.
Case Lights Not Working	Check bulbs for proper installation and connection.
	Check for burned out bulbs.
	Clean dirt and dust from the bulbs to prevent flickering.
	Faulty ballast.
Not Holding Temperature	If a large amount of warm product was added to the case, it will take time for the temperature to adjust.
	The temperature will change during defrost mode but will return to normal.
	Check that the case is not in the sun or near a heat or air-conditioning vent.
	Case may be located too near store's outside doors.

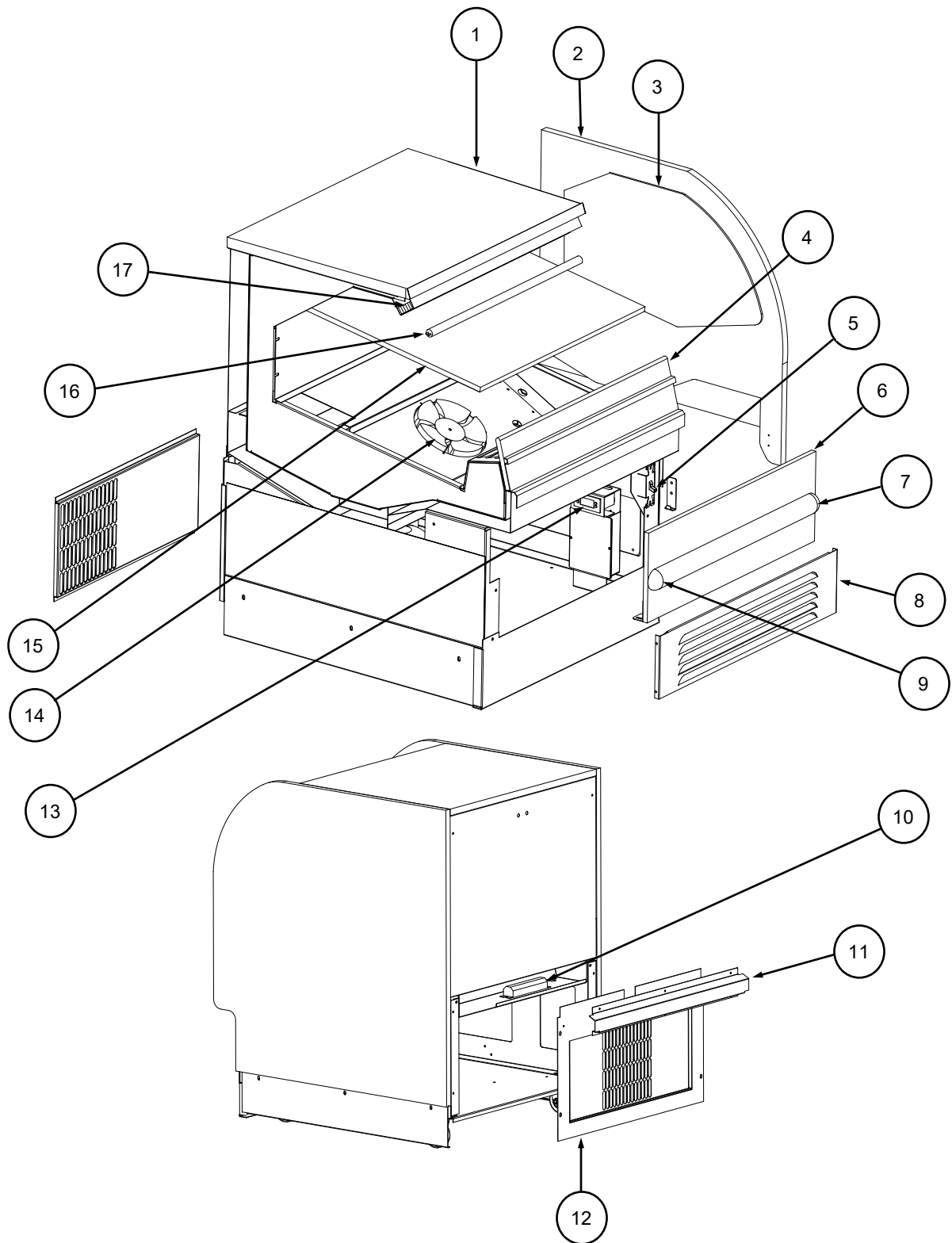
TROUBLESHOOTING - CONDENSING SYSTEM (BY TRAINED SERVICE PROVIDERS ONLY)

CONDITION	TROUBLESHOOTING
Head Pressure Too High	Check that the condensing coil is not dirty or covered.
	Check that condensing fans are working.
	Check that refrigerant is not overcharged.
	Perform sub-cooling check and verify that no contaminants are in system.
	Check that liquid line filter dryer is not plugged.
	Check that close-offs are intact (around condensing coil) and that air is not 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 <u>15-feet</u> from exterior doors, overhead HVAC vents or any air curtain disruption.
	Check that unit is not exposed to direct sunlight via windows or any other heat source (ovens, fryers, etc.).
	Check that superheat adjustment isn't low.
	Check TXV bulb installation <ul style="list-style-type: none"> a. Poor thermal contact. b. Warm location.

ILLUSTRATED PARTS BREAKDOWN



PARTS LIST

1	Top Board	10	Light Ballast
2	End Panel	11	Wire Channel
3	End Panel Mirror	12	Rear Grille
4	Air Deflector Glass	13	Temperature Controller
5	Single Pole Switch	14	Fan Motor, Evaporator
6	Front Panel	15	Deck Pan
7	Bumper Insert	16	Lamp Bulb
8	Front Grille	17	Honeycomb
9	Bumper End Cap		

CLEANING SCHEDULE

Cleaning	Daily	Weekly	Monthly	Task
Clean Case Exterior	X			The 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			Clean glass shelves and mirrors with a household or commercial glass cleaner. The deck can be cleaned with a warm soap and water solution.
		X		Remove the deck and clean with soap and water.
		X		Remove rear doors and clean with a household or commercial cleaner.
		X		Vacuum tub under deck or soap and water if necessary. To flush out the tub, disconnect power to the case. Remove the ABS deck and the fan shroud. <u>Note:</u> Be sure to plug fans back in after cleaning and before installing decks.
		X		Keep drain clean and free of debris which could clog the drain and rob the case of needed refrigeration.
Clean Condensing Coil		X		Vacuum grille area on back of case.
			X	Using air pressure if available, or an industrial strength vacuum, clean the dust and dirt that collects on the condenser coil.



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



Carel® PJEZ Platform



Carel® ir33 Platform



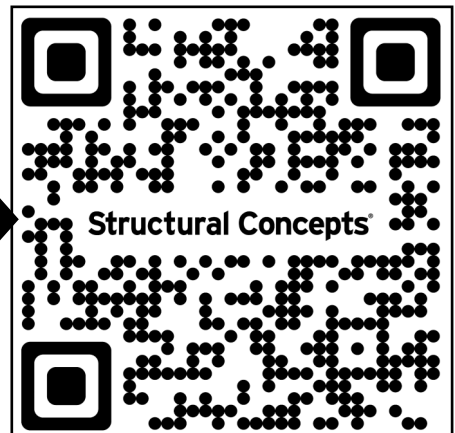
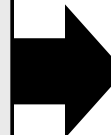
Carel® iJF Platform



Dixell® XM670K-XM679K Platform

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

- > If Viewing This Document on Smart Phone, Tablet or Computer, Select/Click On The QR Code at Right.
- > If Viewing This Document In Print (Hard Copy), Scan The QR Code at Right With Your Smart Phone or Tablet.



STRUCTURAL CONCEPTS TECHNICAL SERVICE CONTACT INFORMATION & LIMITED WARRANTY

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

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

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

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

**To Access The Limited Warranty To Your
Case, Follow These Instructions:**

- > If Viewing This Document on Smart Phone, Tablet or Computer, Select/Click On The QR Code at Right.
- > If Viewing This Document In Print (Hard Copy), Scan The QR Code at Right With Your Smart Phone or Tablet.

