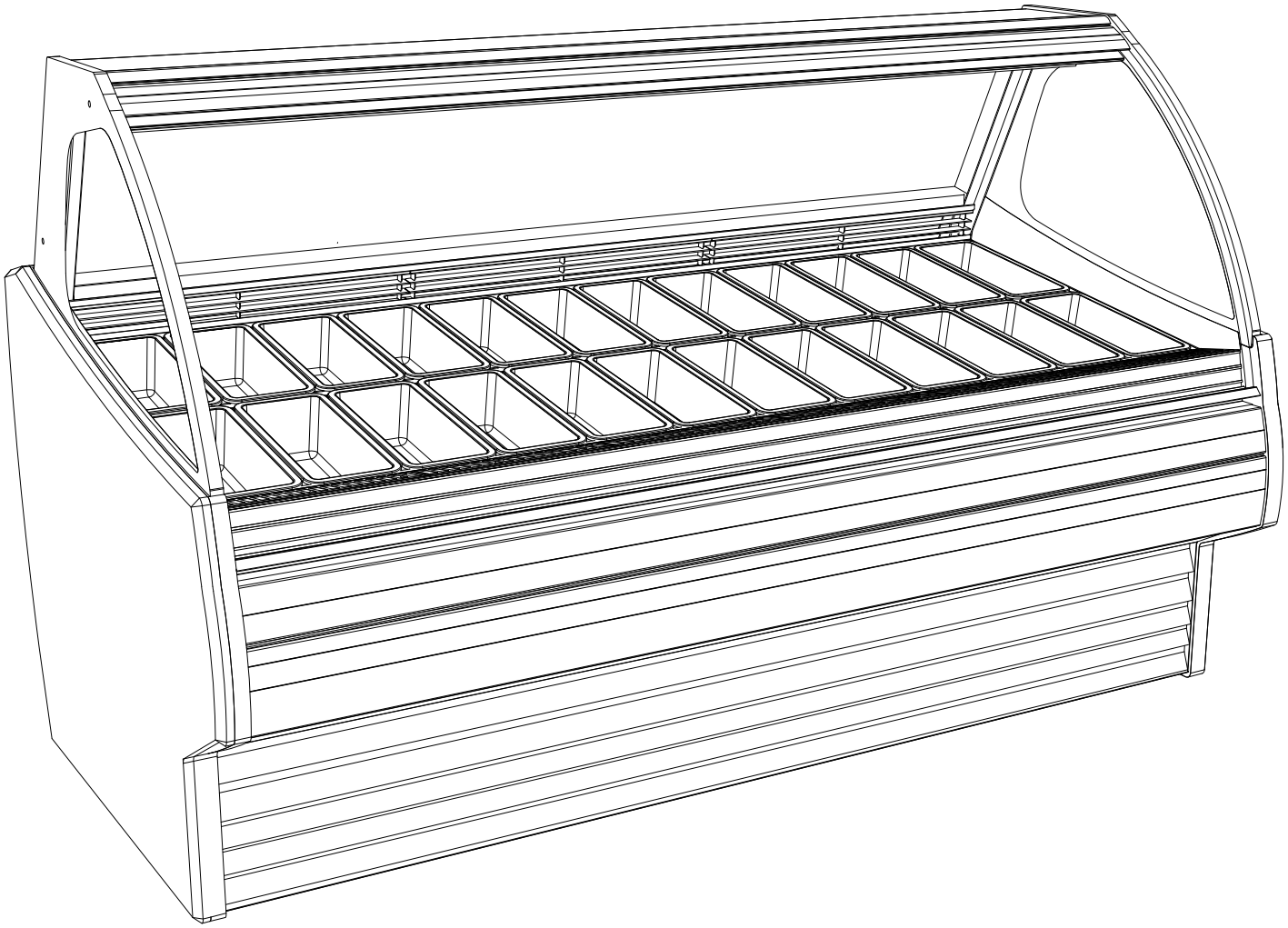
READ AND SAVE THESE INSTRUCTIONS

# ENCORE® SERIES INSTALLATION AND OPERATING MANUAL

**PN 99739**

## SERVICE GELATO DISPLAY CASE - LOW TEMPERATURE



**Model G24F Shown Above**
**(Your Model May Slightly Vary)**

| | |
|---|---|
| **Model G12F** | **47 1/2”L* x 43 3/8”D x 53 3/4”H**** |
| **Model G18F** | **67 1/2”L* x 43 3/8”D x 53 3/4”H**** |
| **Model G24F** | **84 1/2”L* x 43 3/8”D x 53 3/4”H**** |

***Includes 2” End Panels***
****Includes Levelers at 1 1/4” Below 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

- The Structural Concepts® Glass Front, Freezer Service Gelato Display Case is designed to merchandise gelato and/or soft ice cream into cones, containers or dishes.
- The case is designed to maintain product at temperatures of -2° Fahrenheit (–19° Celsius).
- Cases should be installed and operated according to this operating manual's instructions to insure proper performance.
- Improper use will void warranty.

## CASE TYPE

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

- For Type 1 Conditions (most cases): ambient conditions are to be at 55% maximum humidity and maximum temperatures of 75 °F [24 °C].
- For Type 2 Conditions: ambient conditions are to be at 60% maximum humidity and maximum temperatures of 80 °F [27 °C].
- If unsure if unit is designed for Type 1 or 2, see tag next to serial label. See ***SERIAL LABEL LOCATION & INFORMATION LISTED / TECH INFO & SERVICE*** section in this manual for sample serial labels.

## COMPLIANCE

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

## WARNINGS

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

## PRECAUTIONS, CORD/PLUG MAINTENANCE & WIRING DIAGRAM INFORMATION

- See next page for ***PRECAUTIONS, CORD/PLUG MAINTENANCE*** and ***WIRING DIAGRAM*** information.


**COMPLIANCE**

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


**WARNING**

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


**WARNING**

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


**WARNING**

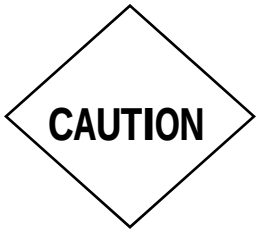
**Condenser Pan is Hot!**
**Disconnect and allow to cool before cleaning or removing from case.**

**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**

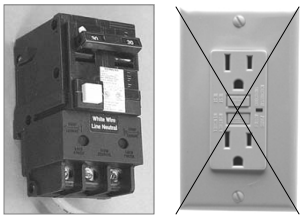
- Each case has its own wiring diagram folded and in its own packet.
- Wiring diagram placement may vary; it may be placed near ballast box, field wiring box, raceway cover, or other related location.




**CAUTION! LAMP REPLACEMENT GUIDELINES**

**Fluorescent lamps have been treated to resist breakage and must be replaced with similarly treated lamps.**

**LED lamps reflect specific size, shape and overall design. Any replacements must meet factory specifications.**

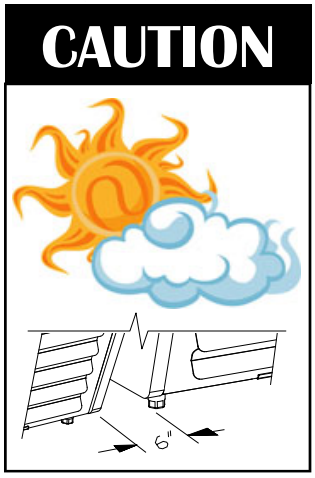


**CAUTION! GFCI BREAKER USE RECOMMENDATION**

**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! 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 (ovens, fryers, etc.).**
- **Tile floors, low ceilings or small rooms increase noise level. Whisper Cool compressor blankets or remote units resolve noise level issues.**
- **Keep at least 8-inch clearance above unit for air discharge (self-contained units only).**

**CAUTION! CHECK EVAPORATOR PAN POSITION AND PLUG**

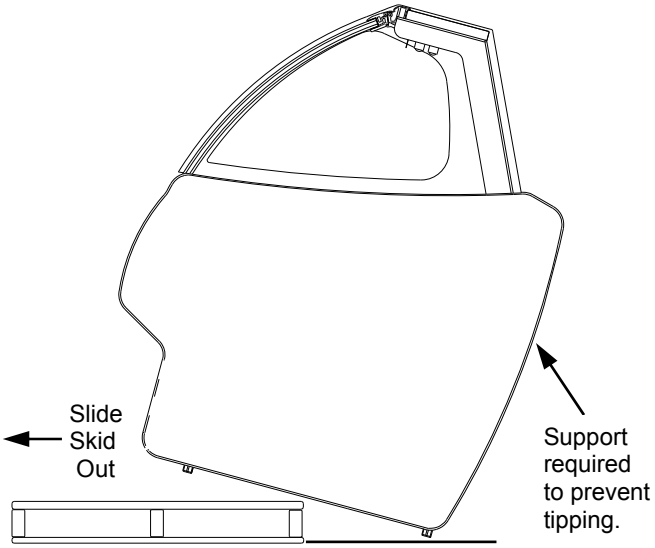
**Water on flooring can cause extensive damage!**

**Before powering up unit, check the following:**

- **Evaporator pan MUST BE positioned directly under condensate drain.**
- **Evaporator pan plug MUST BE securely plugged into receptacle.**

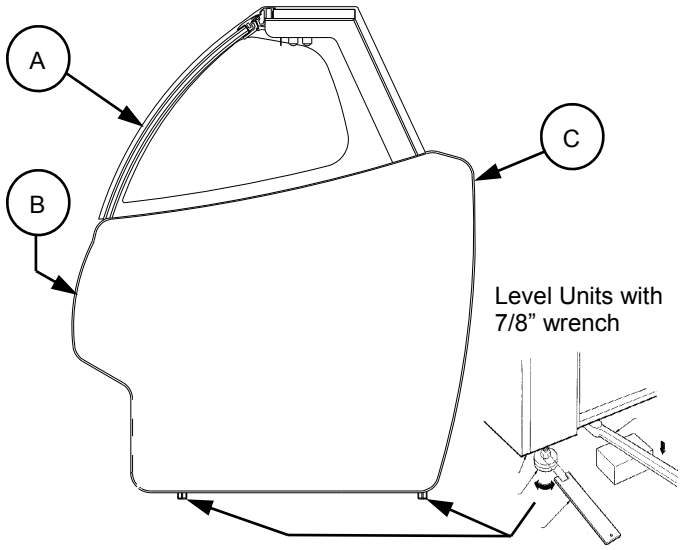
**Installation**

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




***1. Remove Unit From Skid***

Caution: case must always remain supported or center of gravity will allow case to fall. Slide unit to rear of skid and tip backward off skid.



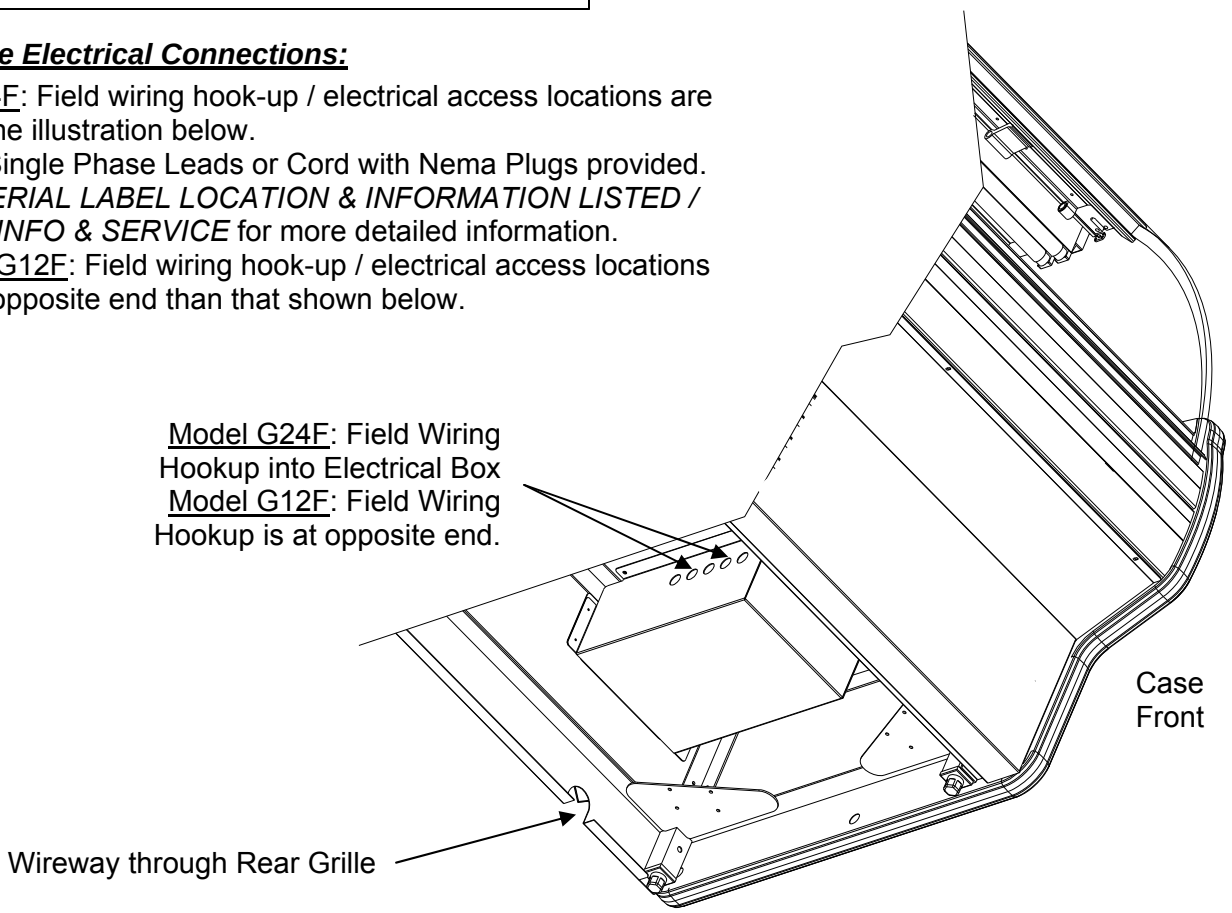

***2. Position and Level Units***

Position Units. Align multiple units carefully in areas A, B, and C.

***3. Remote Electrical Connections:***

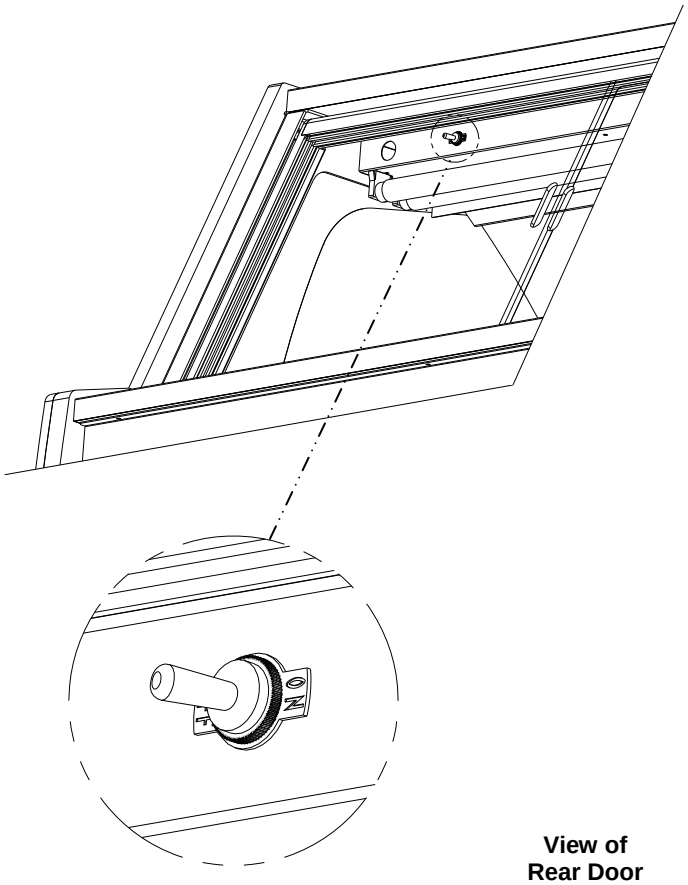
Model G24F: Field wiring hook-up / electrical access locations are shown in the illustration below.

- 220V Single Phase Leads or Cord with Nema Plugs provided.
- See *SERIAL LABEL LOCATION & INFORMATION LISTED / TECH INFO & SERVICE* for more detailed information.
- Model G12F: Field wiring hook-up / electrical access locations are at opposite end than that shown below.



### Merchandiser Start-Up

- Self-Contained: Main Power switch is located at case rear, lower left. See illustration at lower right and lower left.
- Remote Units: Case is hard-wired. When power is supplied, case will power-up.
- Lights: Turn on the lights. Whether Remote or Self-Contained, light switch is located on inside of case at top left, from case rear. See illustration at top right.
- Light Warm-up: All lights should come on at the same time. First time lighting may require a short warm up period for the bulbs. Slightly dim or a flickering of new bulbs is normal.
- Merchandising: ***Please allow unit to run empty for 2 hrs before merchandising.***

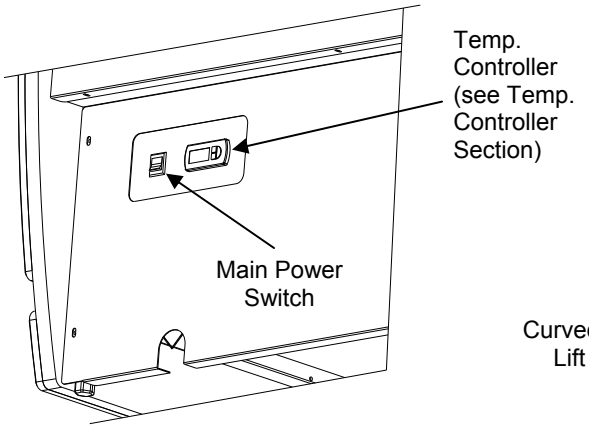


### Raise the Curved Glass

- To raise the curved glass, grasp the lift handle extrusion on the bottom edge of the door and lift up. See illustration below-right.
- **Caution**: Carefully return curved glass to original position.

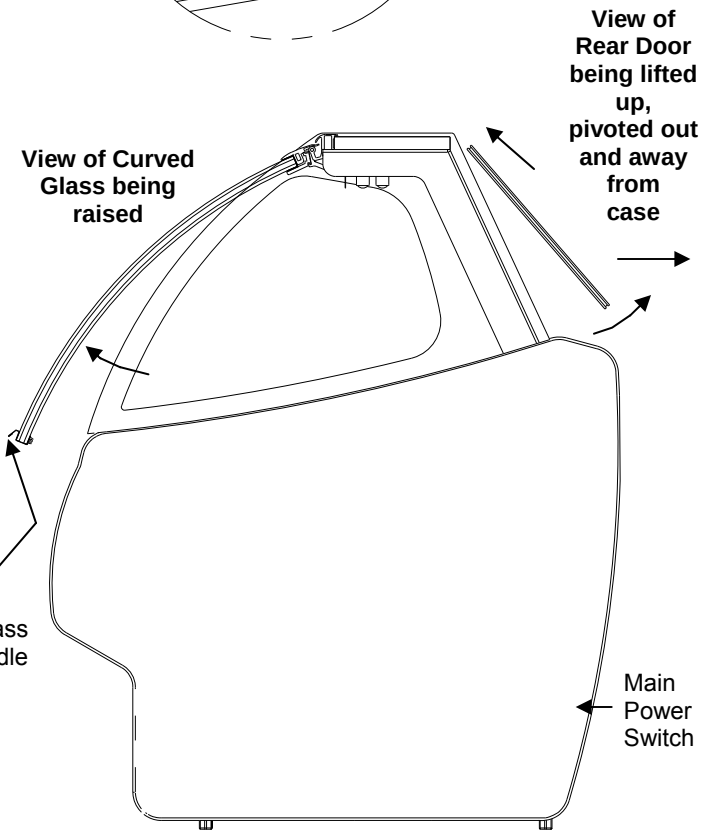
### Removing (Optional) Rear Glass Doors

- Move rear doors toward the case center.
- Individually lift each door up toward top of case and pivot bottom of the door out.
- **Caution**: Gently set doors down to avoid marring, scratching or breakage.




**Temperature Controller Location:**

G24F: At Left Side of Case Rear (as shown above)
G12F: At Right Side of Case Rear

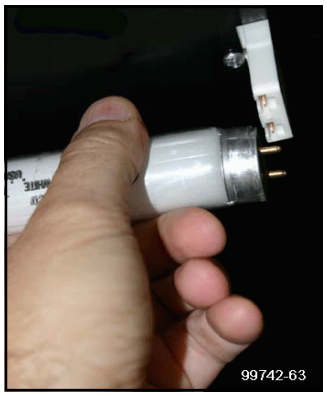


## Light Fixtures

***Warning! Disconnect power before providing maintenance and service to unit.***

***Caution: Lamps have been treated to resist breakage and must be replaced with similarly treated lamps.***

Light fixtures are to be located on underside of shelf assembly, at the top inside of case, and lower front nose of case. See next page for light fixture locations.





Removal of lamp:

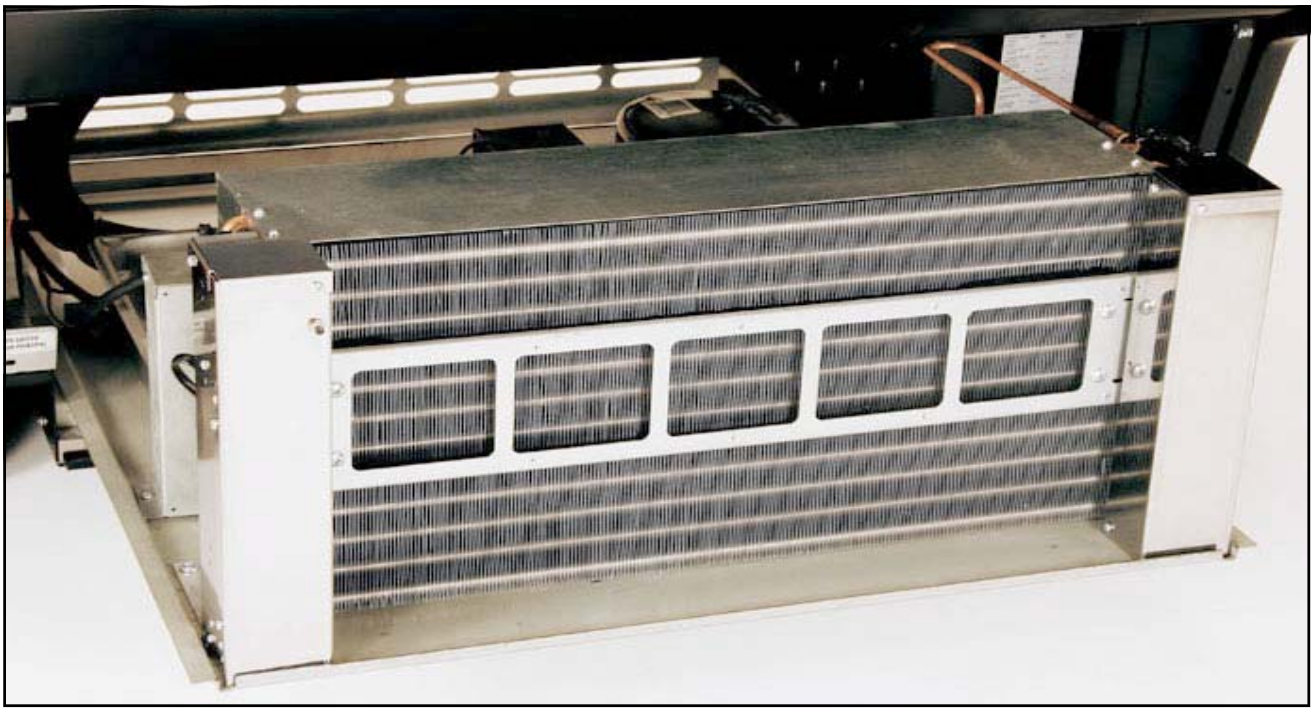
- Rotate lamp (1/4-turn) either direction to disengage (upper or lower) pins/contacts from lamp-mounting sockets.
- Remove bulb by applying even pressure from back side at the bulb ends and pulling the remaining contact from sockets.

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) pin contacts into the sockets.
- Rotate remaining bulb contacts (1/4-turn) into remaining lamp mounting socket contacts.

## Optional Clean Sweep Condensing Coil

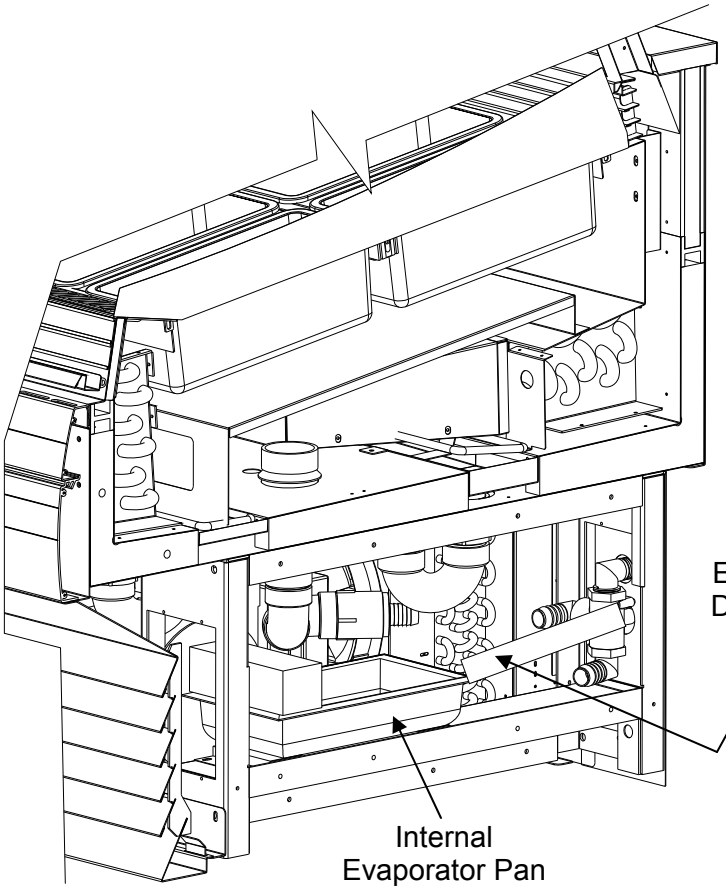
- Clean Sweep Condensing Coil (photo below) is accessible by removing rear grille.
- See *Preventive Maintenance (To Be Performed By Trained Service Provider)* for cleaning instructions.
- Photo below is after rear grille has been removed case

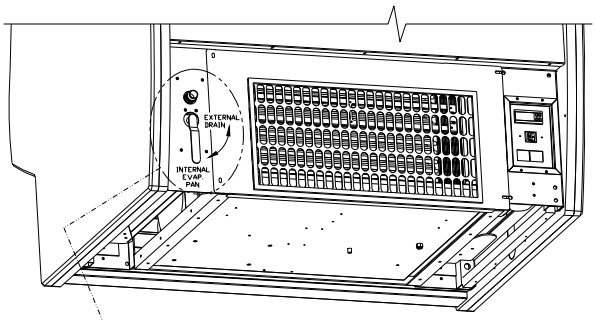


## MODEL G12F DRAIN SYSTEM (Standard Self-Contained Units With Optional Evaporator Pan Only)

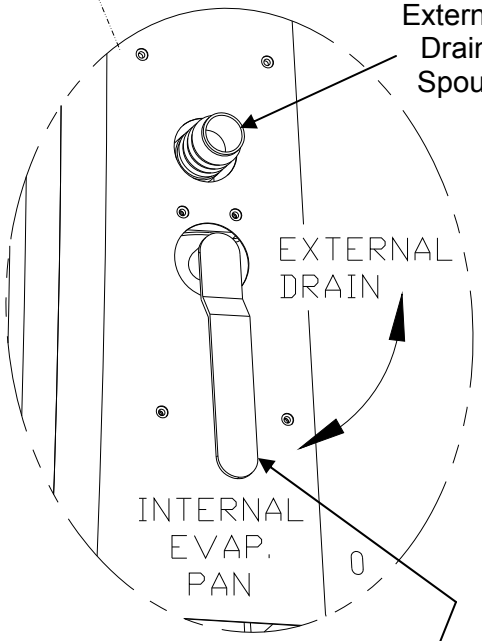
Self-Contained Units have Drain Systems that allow thorough defrost and interior cleaning.

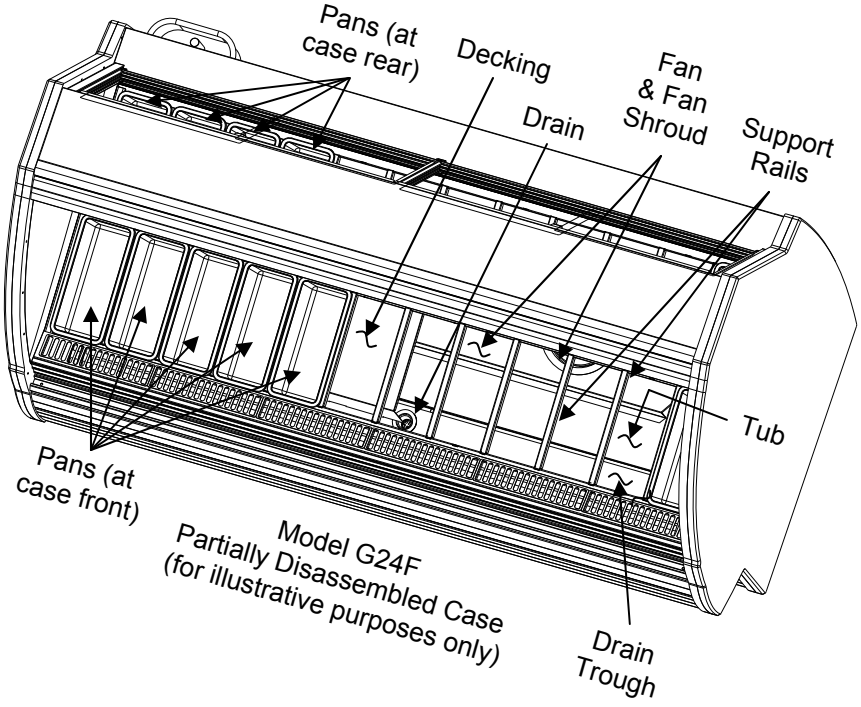
- Default Drain Valve setup (from manufacturer) is with Internal Evaporator Pan being utilized.




Model G12F View of Case
Rear (Your Model May Vary)



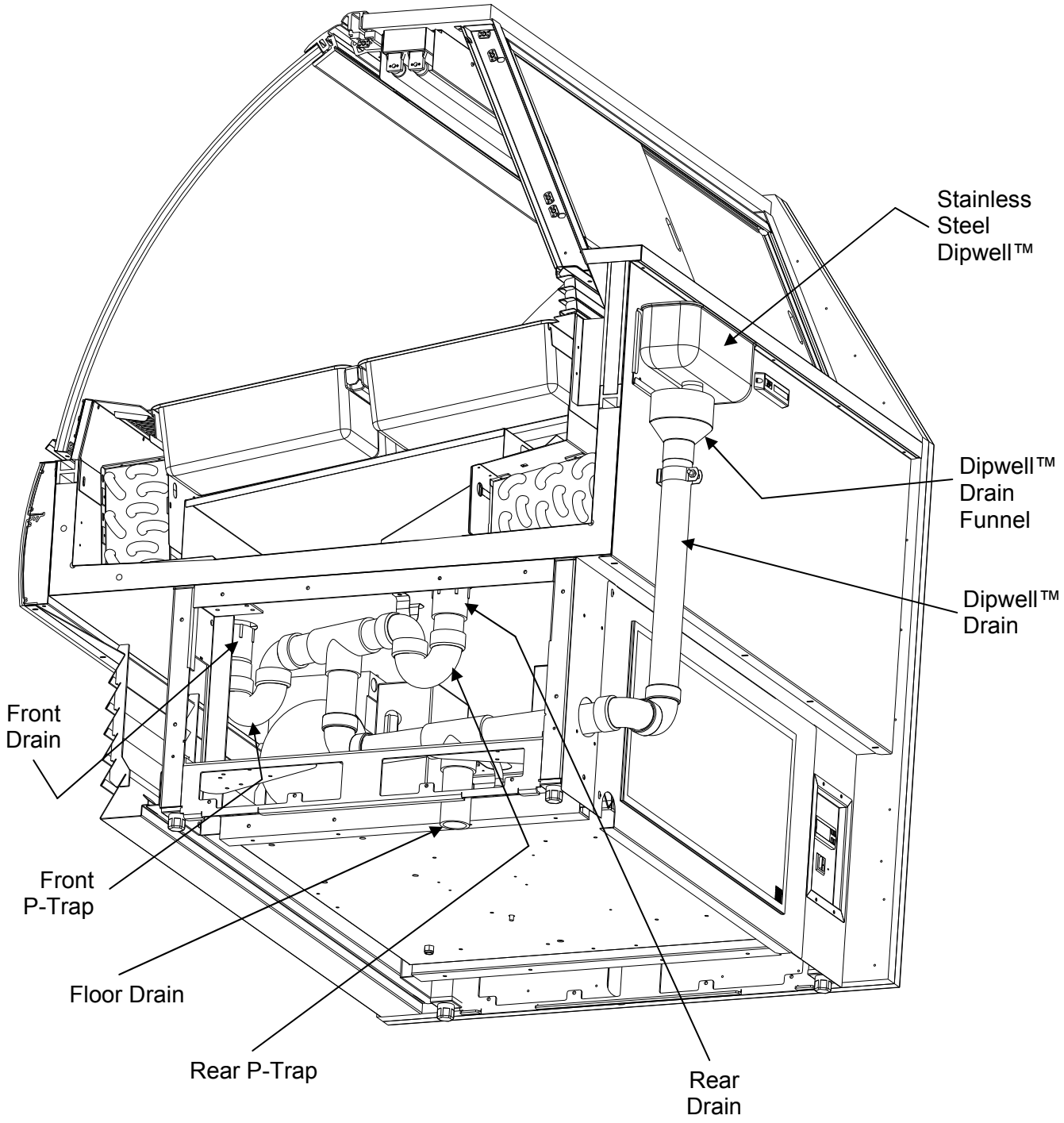




Note : Model and options chosen may affect location of valves, drains, controller, electrical box location, or number of pans shown in these illustrations.

## G12F DRAIN SYSTEM (CDR.4759 / Non-Standard Self-Contained Unit - No Evaporator Pan)

Self-contained are designed to allow thorough defrost and interior cleaning.

- Default system of this unit (from manufacturer) is WITHOUT Internal Evaporator Pan being utilized.
- See ***DIPWELL™ OPERATION AND REMOVAL FOR CLEANING*** for Dipwell™ illustration.

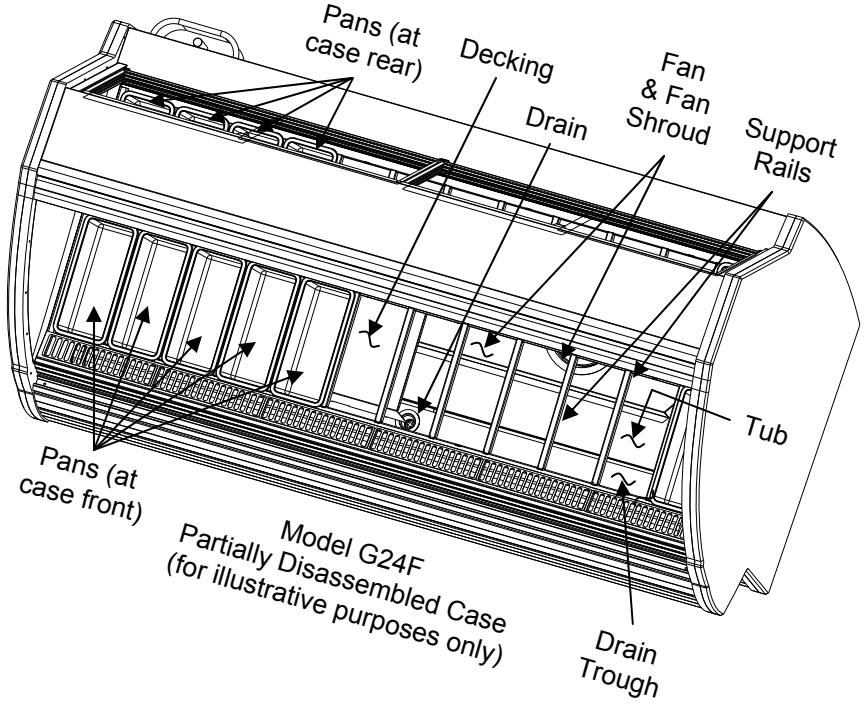


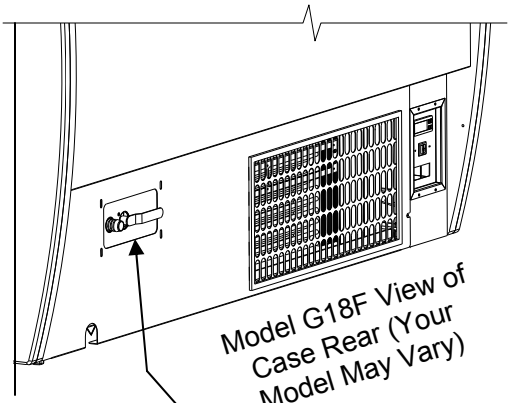

Note : Model and options chosen may affect location of valves, drains, controller, electrical box location, or number of pans shown in these illustrations.

## MODEL G18F DRAIN SYSTEM (Self-Contained Units With Optional Evaporator Pan Only)

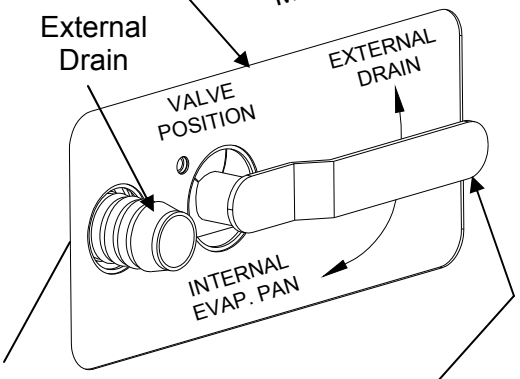
Self-Contained Units have Drain Systems that allow thorough defrost and interior cleaning.

- Default Drain Valve setup (from manufacturer) is with Internal Evaporator Pan being utilized.



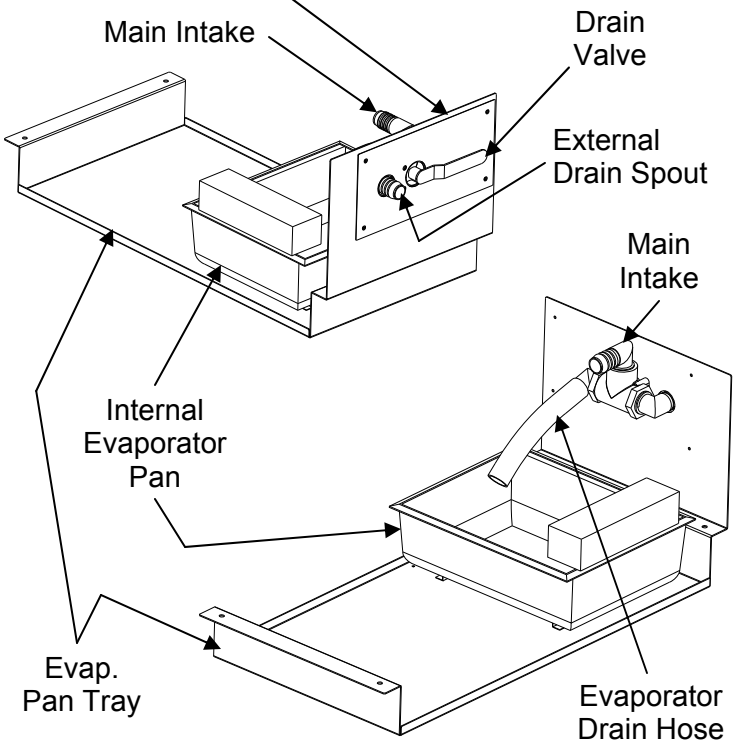



Model G18F View of Case Rear (Your Model May Vary)




Note : Model and options chosen may affect location of valves, drains, controller, electrical box location, or number of pans shown in these illustrations.

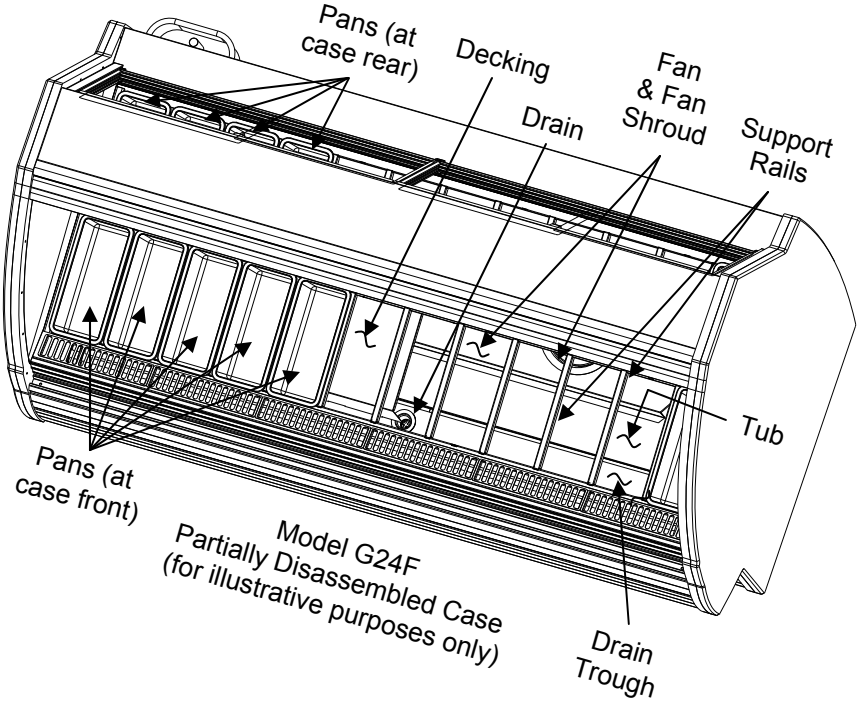
Model G18F Evaporator Pan Setup Shown At Right

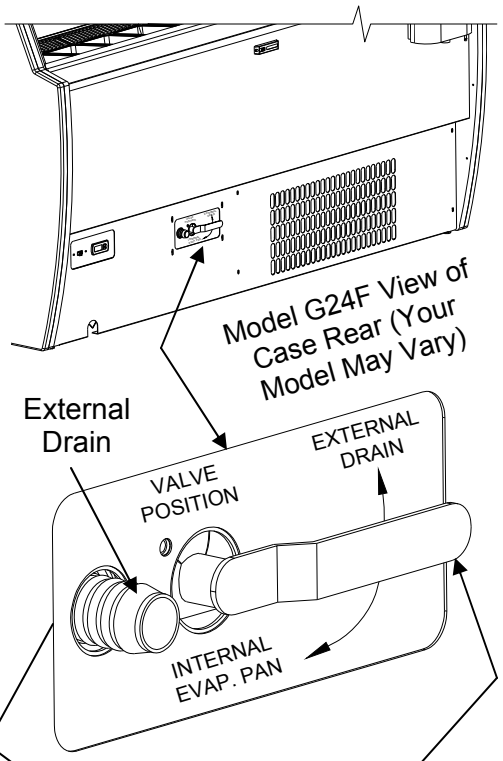


## MODEL G24F DRAIN SYSTEM (Self-Contained Units With Optional Evaporator Pan Only)

Self-Contained Units have Drain Systems that allow thorough defrost and interior cleaning.

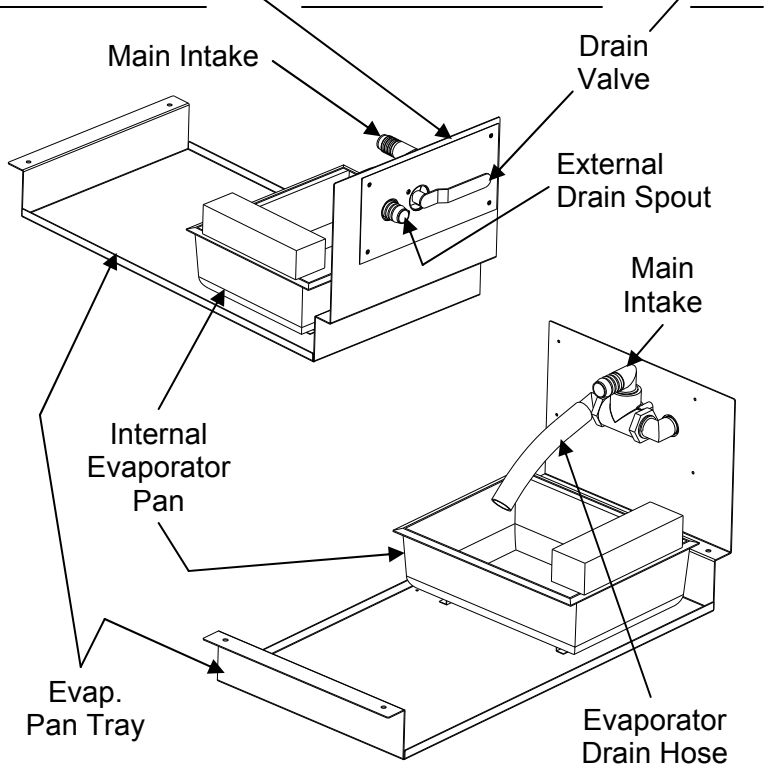
- Default Drain Valve setup (from manufacturer) is with Internal Evaporator Pan being utilized.




Note : Model and options chosen may affect location of valves, drains, controller, electrical box location, or number of pans shown in these illustrations.

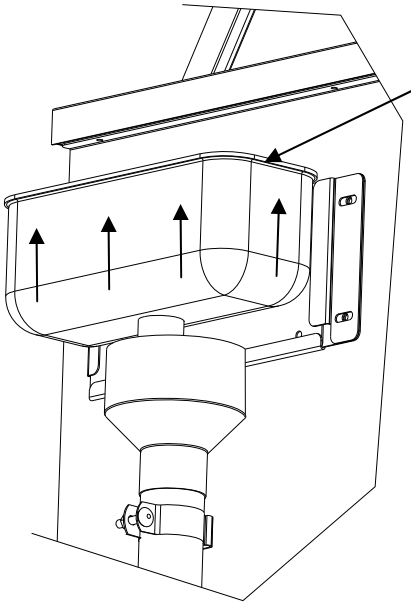
Model G24F Evaporator Pan Setup Shown At Right



## DIPWELL™ OPERATION AND REMOVAL FOR CLEANING

Dipwell™ (shown in both photo and illustration below) is for thawing cold gelato scoops.

- See cleaning schedule for specifics on cleaning Dipwell™.
- See illustration at top-left for instructions on completely removing Dipwell™ from case.
- Photo may not exactly reflect every feature or option of your particular Dipwell™ assembly.



Dipwell™ Illustration Showing Slide-Out Capability

Dipwell™ can be completely removed from case (for cleaning) by simply lifting straight up and out.

| | |
|---|---|
| **Doors/Glass Won't Shut Properly** | Check the case is aligned, level and plumb. |
| **System Is Not Operating** | Confirm the utility power is on. |
| | Check the MAIN power switch is on. |
| | Check the circuit breaker box for tripped circuits. |
| | If used, check the unit is properly plugged in. |
| **Case Lights Are Not Working** | Be sure **ALL** light bulb pins are properly aligned with slots and rotated properly. |
| | Check for burned out bulb(s). |
| | Clean dirt and dust from the bulbs to prevent flickering. |
| | After performing above checkpoints, if lights are still not working, contact your service provider or certified electrician to check for faulty ballast. |

## CLEANING SCHEDULE: DAILY / NIGHTLY / WEEKLY / WEEKLY

| Cleaning | Daily (or Nightly) | Weekly | Task |
|---|---|---|---|
| Clean Case Exterior | X | | Clean side glass, front curved glass and sliding glass rear doors (optional) with a household or commercial glass cleaner. |
| | X | | Remove Dipwell™ simply by lifting up and out (see ***DIPWELL™ OPERATION AND REMOVAL FOR CLEANING*** section in this manual for instructions). Submerse in hot, soapy water and wash with sponge or clean cloth. Rinse, dry, and return to case. |
| Clean Case Interior | X | | As Necessary (Due to Spills or Improper Food Placement): Remove pans & supports (leaving deck pans in). Submerse pans & supports in hot, soapy water and wash with sponge or clean cloth. Rinse, dry, and return to case. |
| | X | | Nightly: Remove all product. Put unit in defrost mode (see Carel® Temperature Controller section in this manual for instructions). Do not turn case off. After case has defrosted, simply wipe down all decks and sides of case.<br>⇨ See Step #1 in ***VIEWS OF CASE DISASSEMBLY STEPS FOR CLEANING PROCESS*** section in manual for specifics. |
| | | X | Remove rear doors (optional) and clean with a household or commercial cleaner (Service Cases Only). |
| | | X | Extended internal cleaning required weekly to ensure proper performance.<br>⇨ See ***WEEKLY CLEANING: FULL DEFROST / POWERING DOWN / CASE DISASSEMBLY*** section in this manual for specifics.<br>⇨ See Step #2 and Step #3 in ***VIEWS OF CASE DISASSEMBLY STEPS FOR CLEANING PROCESS*** section in this manual for specifics. |

## WEEKLY CLEANING: FULL DEFROST / POWERING DOWN / CASE DISASSEMBLY [SCC P/N 55067]

**⇨NOTE! THESE INSTRUCTIONS PERTAIN TO GELATO MODELS G12F, G18F and G24F.**
**⇨Depending upon model chosen, these instructions may not entirely apply to your case.**

**Defrost Preparation A: Remove product from case PRIOR TO defrosting this unit.**

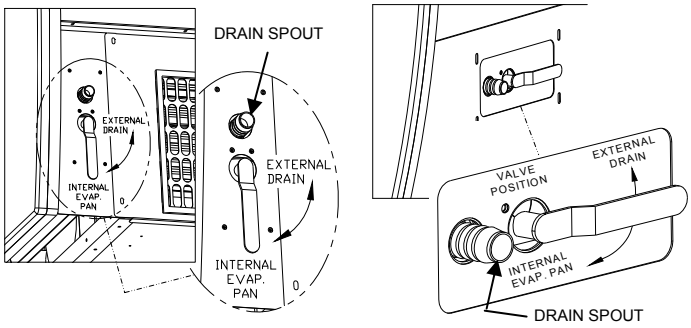
**Defrost Preparation B: Place product in freezer while performing this cleaning process.**

**Defrost Preparation C: Unit is to remain powered off until it is completely free of ice and water (overnight is recommended).**

⇨ This process requires time (approximately 1 hour) for case to return to proper temperature (after turning power back on).
⇨ Thus, it is recommended that this cleaning process be performed at end of day (may also be considered 'nightly cleaning').

Step 1: Determine whether your case has a Drain Spout and Valve (at rear of case).

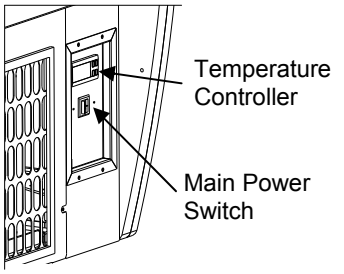
⇨ If your case does NOT have a Drain Spout and Valve, jump to Step 4 in these instructions.
⇨ See below for several valve designs.




Step 2: Connect hose (1" I.D.) to drain spout and run to floor drain or bucket. Or, if no hose is available, place bucket under drain spout.

Step 3: After hose is connected (or bucket is in place), crank drain valve to External Drain position. This will allow the water to drain into floor drain (or bucket) while case is defrosting.

Step 4: Locate Temperature Controller and Main Power Switch (at rear-left or rear-right of your case). See illustration at right.




Step 5: Become familiar with the Temperature Controller. See illustration at top right on sheet.


Step 6: Press and hold the Defrost Key (shown at right) for 5 seconds to defrost case.

Step 7: Defrost Light (shown at left) will come on if Defrost Key has been properly pressed. If Defrost Light is not on, repeat step 6.

Step 8: After 15 to 20 minutes, the Defrost Light will turn off. Turn OFF the Main Power Switch.

Note: Do not be alarmed if, after Defrost Light turns off, Compressor Light (shown at right) comes on. You may still turn off Main Power.

Step 9: The cleaning process may now begin.

A. Remove pans and support rails. Submerse in hot, soapy water solution. Use non-abrasive cloth to clean.
B. Clean fan cover panels with warm soap & water solution & clean cloth. See next page for illustration.
C. *Caution! Make certain unit is turned off before proceeding!* Remove fan cover panels. Wipe down fan shroud and fan blades with warm soap & water solution & clean cloth. See next page for illustration.
D. Remove fan shroud by simply lifting up and out. Wipe down copper tubing, troughs, drains, evaporator coil, TXV's, etc. with warm soap & water solution & clean cloth. See next page for illustration.

*⇨ Caution! Do not splatter water on fans or electrical components!*

E. Replace decking, support rails and other parts that have been removed for cleaning process.
F. Crank drain valve back to the internal evaporator pan position.
G. Disconnect hose from drain spout.
H. Empty bucket (if used in process).

Step 10: Turn power back on.

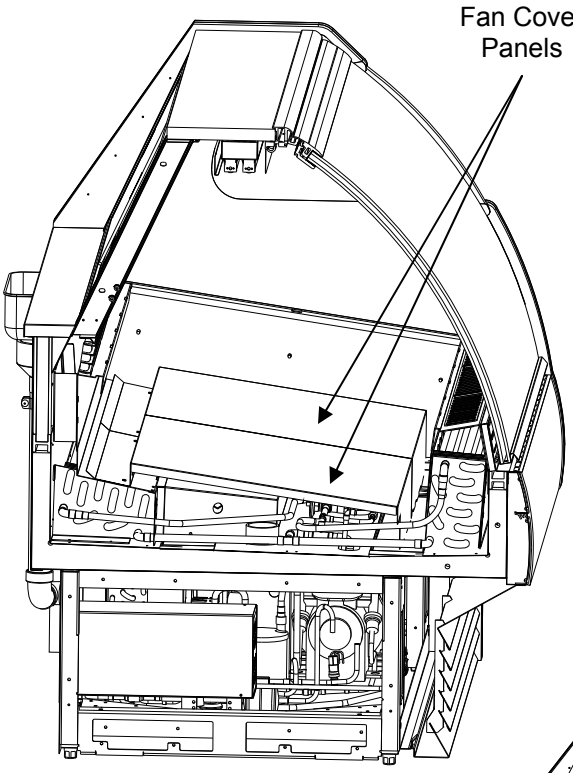
Step 11: Caution! Case must run at least 1 hour to assure proper case temperatures before returning product to case.

Step 12: Return product to the case.

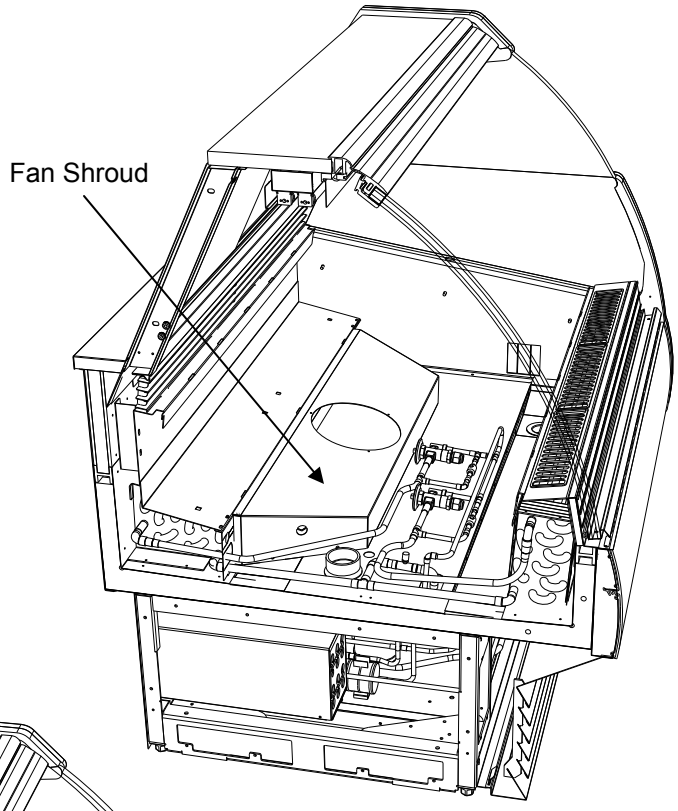
## VIEWS OF CASE DISASSEMBLY STEPS FOR CLEANING PROCESS

Note: All views on this sheet shown with end panel removed for illustrative purposes only.

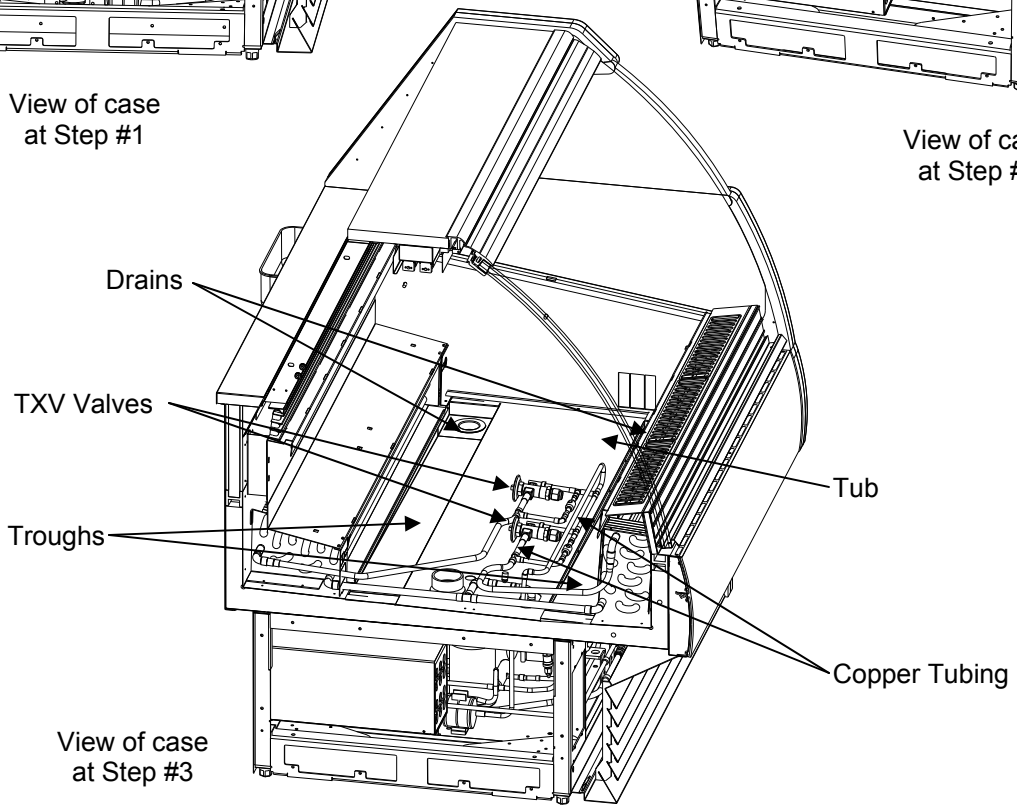
- Step #1: View of case after pans and support rails have been removed.
- Step #2: View of case after fan cover panels have been removed.
- Step #3: View of case after fan shroud has been removed.




View of case
at Step #1



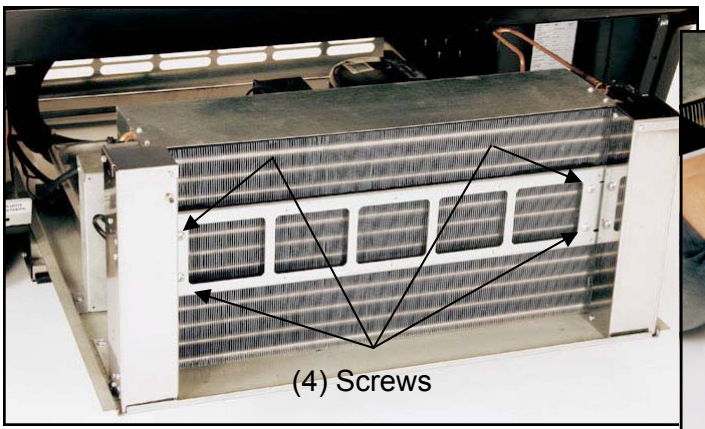

View of case
at Step #2

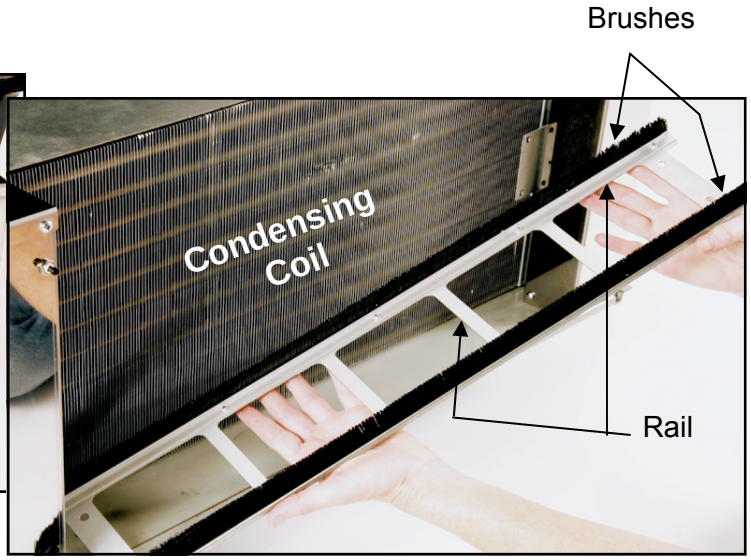



View of case
at Step #3

## PREVENTIVE MAINTENANCE (TO BE PERFORMED BY TRAINED SERVICE PROVIDER ONLY)

| PREVENTIVE MAINTENANCE | FREQUENCY | INSTRUCTIONS |
|---|---|---|
| **Case Exterior** | **Monthly** | **<u>Condensing Coil</u>:** *Disconnect power from case before cleaning Condensing Coil!*<br>• Remove Rear Grille (by removing 4 screws).<br>• Roll / Slide out Refrigeration Assembly. <u>Note</u>: At initial slide-out, it may be necessary to remove two (2) Compressor Pan Shipment Screws for Refrigeration Assembly to slide out.<br>• Use air pressure or industrial strength vacuum; clean dust and dirt that may collect on the Condenser Coil. See illustration below.<br>• ***Caution! Coil fins are sharp. Handle with care!***<br>• Slide/Roll Condensing Unit Assembly back under case.<br>• Replace Rear Grille to case (4 screws).<br>• See illustration below. |
| | **Quarterly** | **<u>Optional Clean Sweep™ Condensing Coil</u>:** *Disconnect power from case before cleaning Clean Sweep™ Condenser Coil!*<br>• Remove Rear Grille (by removing 4 screws).<br>• Slide/Roll out condensing unit assembly.<br>• Remove the four (4) screws holding the Clean Sweep™ rails intact.<br>• Remove the Clean Sweep™ rail.<br>• Wash rails' brushes in hot water and mild soap solution.<br>• If brushes are worn, they must be replaced. Call Technical Service Department to replace. Toll-Free number is listed at end of manual.<br>• Clean Condensing Coil: Use air pressure or industrial strength vacuum; clean the dust and dirt that may collect on the Condenser Coil.<br>• ***Caution! Coil fins are sharp. Handle with care!***<br>• Reattach Clean Sweep rail to condensing unit (4 screws).<br>• Slide/Roll Condensing Unit Assembly back under case.<br>• Replace Rear Grille to case (4 screws).<br>• See photos below. |

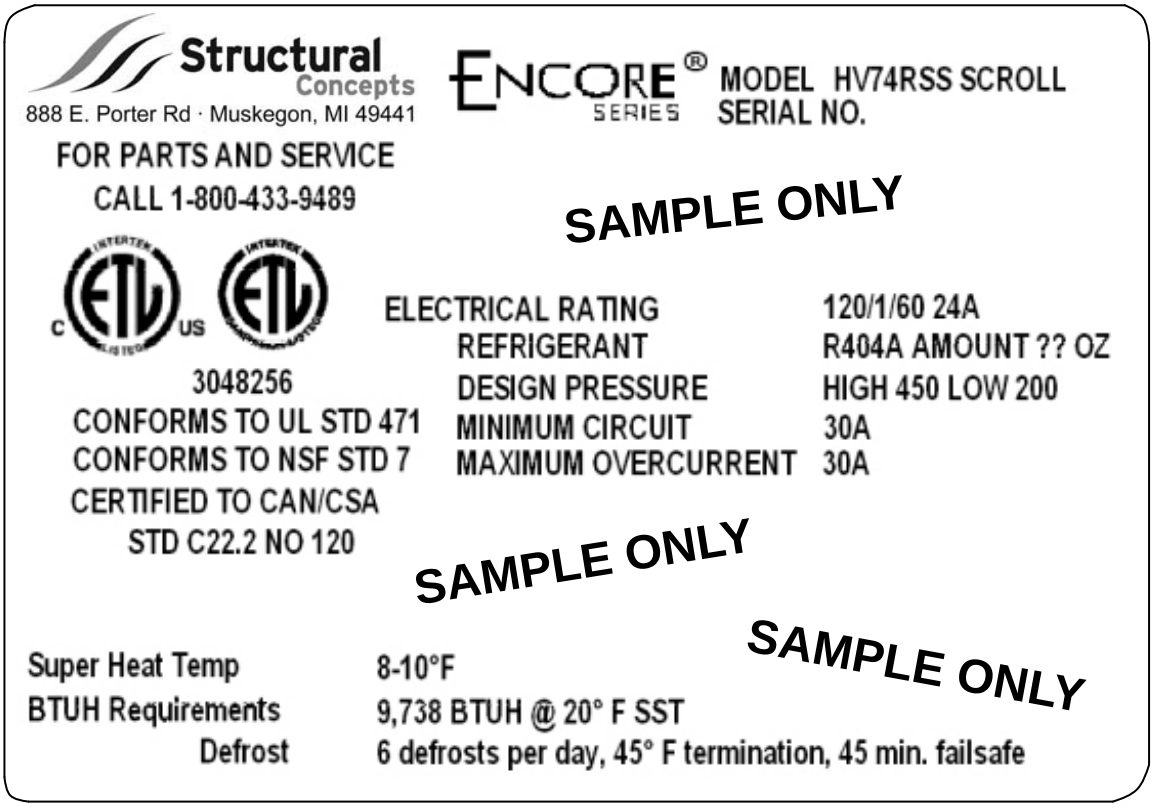


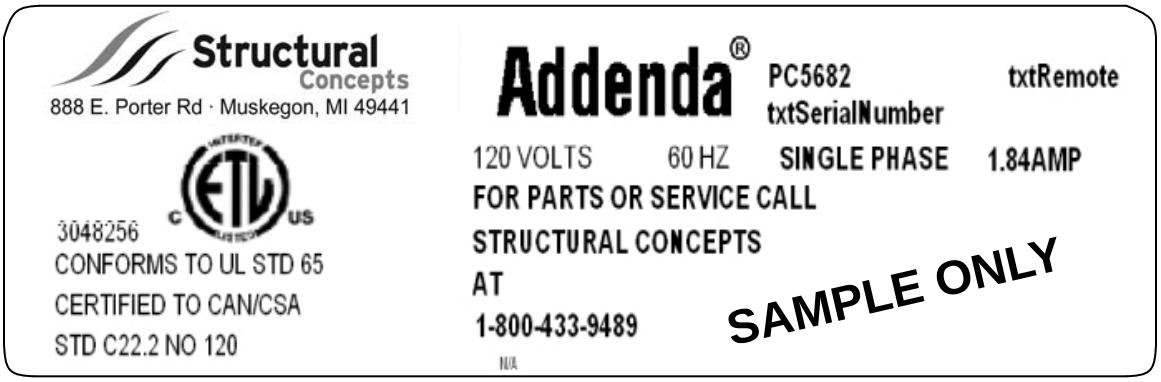

--- Above photos are taken after rear grille has been removed from case ---

## *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 -----

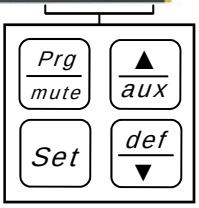



----- Sample Serial Label For Non-Refrigerated Case -----

CAREL

**ir33 platform**

**Integrated Electronic Microprocessor Controller**




## *Programming The Instrument*

### *To Modify The Setpoint*

Set 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

CAREL

**ir33 platform**

**Integrated Electronic Microprocessor Controller**


## *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 |

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.<br><br>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 CORPORATION TECHNICAL SERVICE**
**PHONE NUMBER: 1.800.433.9489 or For Your Master Service Agent See**
**WWW.STRUCTURALCONCEPTS.COM/Contact/Master_Service_Agents.asp**

# LIMITED WARRANTY

All sales by Structural Concepts Corporation (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 warranty.

**Warranty; Remedies; Limitations**. SCC warrants that if any Goods are found by an authorized representative of SCC not to be of good material or workmanship within one year of the date of shipments SCC will, at its option after inspection by an authorized representative, replace any defective Good or pay the reasonable cost of replacement for any such defective Goods, provided that written notice of the defect is given to SCC within 30 days of the appearance of such defect. If notice is not given within such period, any claim for breach of warranty shall be conclusively deemed to have been waived and SCC shall not be liable under this warranty. If SCC is unable to repair or replace the defective Goods, SCC shall issue a credit to the Purchaser for all or part of the purchase price, as SCC shall determine. The replacement or payment in the manner described above shall be the sole and exclusive remedy of 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 PURCHASE 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 and shall be 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.

**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 this obligations under this Agreement without prior written 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 assigns.

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 the Customer Service Department in writing or call 231-798-8888.

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.

**Limit of Liability.** The limit of liability of SCC toward the exchange cost of the original condensing unit, F.O.B. SCC, Norton Shores, MI, of each motor-compressor assembly replaced during the warranty shall not exceed manufacturer's current established wholesaler's exchange price and in no case shall the labor of removing or replacing the motor-compressor or parts thereof be the responsibility of SCC.