

Merchandising Equipment

FIELD SUPPORT GUIDE

As a leader in retail merchandising selling environments, Structural Concepts can help bring your vision to life with merchandisers that last longer, save energy, and minimize operating costs, by delivering the most attractive, reliable, temperature-controlled display cases making it easier to better display and sell more fresh food with the knowledge and expertise of interior and environmental design with a passion for visual merchandising.

This guide provides important information on the application for Structural Concepts display merchandisers as well as provides troubleshooting solutions for equipment in the field.



FSE660R



B37R, B47R, B57R, & B67R



FSE460R

Equipment Placement and Climate

Optimal performance of your merchandising display case is dependent on where it is placed and the surrounding temperatures of the selling environment.

Placement and Location

Consider the 5'-10'-15' Rule where the display case will be positioned relative to walls, ceilings, HVAC vents, windows and other equipment discharging warm air.

Stay 5' away from an exterior window

Direct sunlight increases the heat load on the front of the display resulting in the refrigeration system having to work harder and possible condensation on the case.

Remain 10' away from HVAC ceiling vents

Air blowing on the front of the display interrupts the air curtain and causes product temperatures to increase. With service display cases that have a glass front, air blowing on the front glass causes condensation to develop.

Position the display 15' away from exterior doors

Air drafts from the front exterior doors interrupt the air curtain, allowing warm air to penetrate the inside of the display, which in turn affects product temperature.

Additional Notes

- Minimum 4" clearance to walls & ceilings.
- Some models can be positioned tight to the wall & ceiling.
- Refer to spec sheets & design guide for further information.

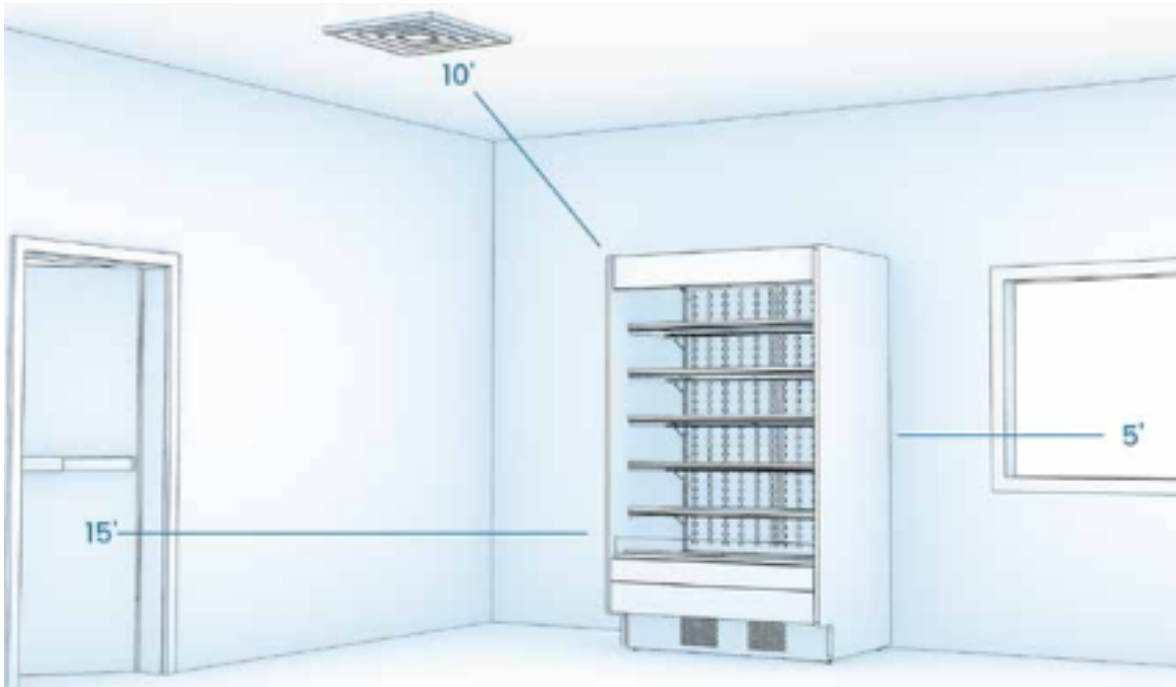
Environmental Temperatures

Consider the temperature and humidity levels of the environment where the display will be operating.

NSF standard for refrigerated display equipment is an environment that maintains 75°F and 55% relative humidity.

If foodservice environments exceed 75°F and 55% relative humidity during some part, if not most, of the day, condensation can develop on the exterior of the display and/or water may overflow onto the floor because the evaporator pan cannot keep up with the moisture load.

Be sure to consider the impact that an energy management system or smart thermostat plays on the temperature and humidity of the environment over a 24-hour period. The display case is running 24/7 and will be affected by temperature adjustments made during the evening and weekends.



Understanding the Air Flow Design And Refrigeration Cycle of Your Structural Concepts Food Display



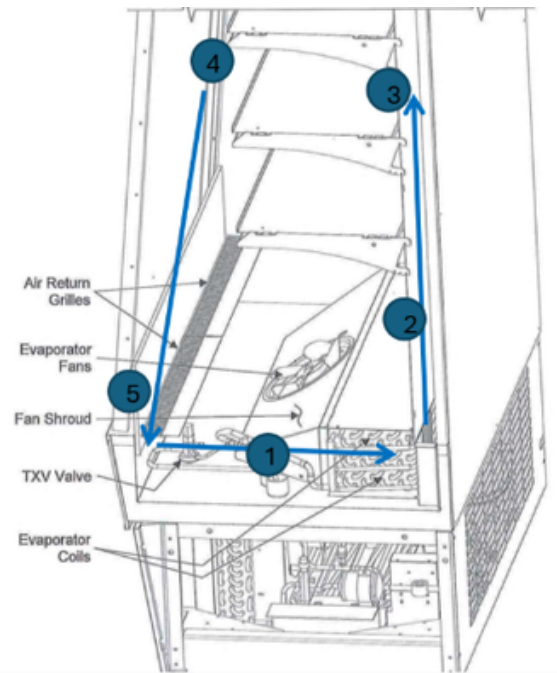
Air travels in a circular fashion inside the grab & go display. **The front air curtain keeps the cold air in and warm air out. It's like an invisible door that can't be broken.**



As the cold air travels up the back of the unit, it is pushed into the display area through the perforated back panel. It travels to the top of the display and then back down into the front air return grill. At this point, the air is at its warmest temperature in the refrigeration cycle.



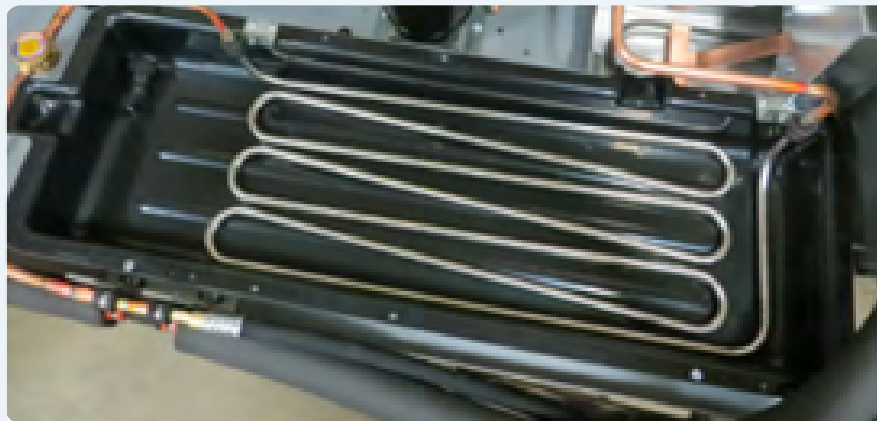
The set point temperature for the refrigeration system is preset at the factory. The controller is positioned behind the lower front panel and will read a temperature in the low 20°F during normal operation. When the unit is in a defrost cycle, you will see a snowflake icon.



When the environment exceeds the conditions, too much water is added to the condensate pan during each defrost cycle and eventually, the pan overflows on the floor.



During the refrigeration cycle, the evaporator coil frosts. The unit will go into defrost every 4 to 6 hours (depending on model) during which the refrigeration system shuts down (except for the fans) and the coil thaws. Water from the coil drains into the heated condensate pan to be dissipated. The size of the condensate pan is designed to hold the amount of water necessary for the unit to operate in the environmental conditions specified, 75°F and 55% relative humidity.



Troubleshooting Structural Concepts Equipment

Consider the following troubleshooting solutions if a problem or difficulty does arise with your merchandiser display case.

	Evidence	Potential Cause	Remedy	Resources
Not holding temperature	- Temperature inside the display area feels warm - Actual product temperature is above 40°F - Temperature on the controller is reading higher than upper teens to low 20s °F	- Exterior filter needs to be cleaned - HVAC vent is blowing into the air curtain - Store's temperature and/or humidity are above equipment specifications - Display is too close to store's entrance-draft is breaking the air curtain	- Remove magnetic filter(s) and clean in dish sink. Turn unit on/off to reset - Add diverter to HVAC vent to redirect away from unit - Adjust temperature and/or humidity in the store and maintain over 24 hours - Move display to another location in the store at least 15' from front entrance	Case Maintenance Video - Diverter: www.1800ceiling.com - SCC 5/10/15 rule
Water on the floor	Water leaking from under the unit	- HVAC vent is blowing into the air curtain - Store's temperature and/or humidity are above equipment specifications - Display is too close to store's entrance-draft is breaking the air curtain - Equipment isn't level	- Add diverter to HVAC vent to redirect away from unit - Adjust temperature and/or humidity in the store to maintain over 24 hours - Move display to another location in the store at least 15' from front entrance - Adjust the leveling feet to level the unit	- Diverter: www.1800ceiling.com - SCC 5/10/15 rule
Controller shows LP error	Controller behind lower panel will show LP code	Exterior filter needs to be cleaned	- Remove magnetic filter(s) and clean in dish sink. Turn unit on/off to reset. - Replace panels with a filter-less design and consider adding Clean Sweep automatic condenser coil cleaner. Contact techsupport@structuralconcepts.com for replacement details.	Case Maintenance Video Troubleshooting LP Errors Guide
Evaporator coil is freezing	Evaporator coil under the interior deck pan is visibly covered with frost/ice	- HVAC vent is blowing into the air curtain - Store's temperature and/or humidity are above equipment specifications - Display is too close to store's entrance-draft is breaking the air curtain	- Add diverter to HVAC vent to redirect away from unit - Adjust temperature and/or humidity in the store to maintain over 24 hours - Move display to another location in the store at least 15' from front entrance	- Diverter: www.1800ceiling.com - SCC 5/10/15 rule
Unit not getting power	Entire display without power	- Limited power provided to the unit - Switch malfunction	- Check electrical connection & power supply - Contact factory for new switch	

For additional technical support, please email techsupport@structuralconcepts.com



888 E Porter
Muskegon, MI 49441
structuralconcepts.com

Structural Concepts®
A HOSHIZAKI COMPANY