



HOSHIZAKI

Instruction Manual

Refrigerated Kitchen Equipment
Steelheart

Models
Refrigerated Prep Table with
Raised Rail Series



hoshizakiamerica.com

Issued: 4-22-2026
Revised: 9-22-2026

WARNING

Only qualified service technicians should install and service the appliance. To obtain the name and phone number of your local Hoshizaki Certified Service Representative, visit www.hoshizakiamerica.com. No installation, operation, or maintenance should be undertaken until the technician has thoroughly read this Instruction Manual. No service should be undertaken until the technician has thoroughly read the service manual available at www.hoshizakiamerica.com. Likewise, the owner/manager should not proceed to operate the appliance until the installer has instructed them on its proper operation. Failure to install, operate, and maintain the appliance in accordance with this manual may adversely affect safety, performance, component life, and warranty coverage. Proper installation is the responsibility of the installer. Product failure or property damage due to improper installation is not covered under warranty.

Hoshizaki provides this manual primarily to assist qualified service technicians in the installation, operation, maintenance, and service of the appliance.

Should the reader have any questions or concerns which have not been satisfactorily addressed, please call, send an e-mail message, or write to the Hoshizaki Technical Support Department for assistance.

Phone: 1-800-233-1940; (770) 487-2331

E-mail: tech-support@hoshizaki.com

HOSHIZAKI AMERICA, INC.

618 Highway 74 South

Peachtree City, GA 30269

Attn: Hoshizaki Technical Support Department

NOTE: To expedite assistance, all correspondence/communication **MUST** include the following information:

- Model Number _____
- Serial Number _____
- Complete and detailed explanation of the problem.

IMPORTANT

This manual should be read carefully before the appliance is installed and operated. Read the warnings and guidelines contained in this manual carefully as they provide essential information for the continued safe use and maintenance of the appliance. Retain this manual for any further reference that may be necessary.

CONTENTS

Important Safety Information	4
I. Specifications.....	10
A. Construction.....	10
B. Electrical and Refrigerant Data	11
II. Installation Instructions	12
A. Location	12
B. Checks Before Installation.....	14
C. Setup.....	14
1. Remove the Appliance from the Pallet	14
2. Check the Refrigeration Circuit.....	15
3. Position the Appliance and Lock the Front Casters	15
4. Install the Shelves.....	15
5. Properly Align Pans and Rail Dividers.....	16
6. Confirm Rail Cover and Catch Tray Positions	18
D. Door Reversal.....	19
E. Electrical Connection	23
F. Final Checklist.....	24
III. Operating Instructions.....	25
A. Important Notes About Usage	25
B. Startup	28
C. Control Module Temperature Control	30
1. Rail/Refrigeration Temperature Control Module Adjustment.....	30
2. Cabinet Control Module Adjustment	35
3. Control Module Temperature Display Scale (°F or °C)	36
D. Defrost.....	37
E. Control Module Alarm Safeties.....	39
F. Daily Operation	41
G. Food Storage	42
H. Safety Devices	43
I. Cooling Performance	43
J. Cabinet Condensation	43
IV. Maintenance	44
A. Maintenance Schedule.....	44
B. Cleaning	46
V. Preparing the Appliance for Periods of Non-Use	49
VI. Decommissioning and Disposal	50

Important Safety Information

Throughout this manual, notices appear to bring your attention to situations which could result in death, serious injury, damage to the appliance, or damage to property.

	R-290 Class A3 Flammable Refrigerant Used
⚠ DANGER	Indicates a hazardous situation that, if not avoided, will result in death or serious injury.
⚠ WARNING	Indicates a hazardous situation that, if not avoided, could result in death or serious injury.
NOTICE	Indicates a situation that, if not avoided, could result in damage to the appliance or property.
IMPORTANT	Indicates important information about the use and care of the appliance.
⚠ DANGER	
<u>Risk of Fire or Explosion</u> <u>Flammable Refrigerant Used</u> • Only qualified service technicians should install and service the appliance. • No installation, operation, or maintenance should be undertaken until the technician has thoroughly read this Instruction Manual. All safety precautions must be followed. • No service should be undertaken until the technician has thoroughly read the Service Manual available at www.hoshizakiamerica.com. All safety precautions must be followed. • This appliance to be installed in accordance with the Safety Standard for Refrigeration Systems ANSI/ASHRAE 15. • Follow handling instructions carefully in compliance with national regulations. • Do not use mechanical devices or other means to accelerate the defrosting process or to clean, other than those recommended by the manufacturer. • Do not puncture refrigerant tubing. Risk of fire or explosion due to puncture of refrigerant tubing; follow handling instructions carefully.	
• Servicing shall be done by trained service personnel with certified competence in handling flammable refrigerants to minimize the risk of possible ignition due to incorrect parts or improper service. • Component parts shall be replaced with like components. So as to minimize the risk of possible ignition due to incorrect parts. • Dispose of properly in accordance with federal or local regulations. • Do not pierce or burn. • Be aware that refrigerants may not contain an odor. • Do not damage the refrigeration circuit. • See nameplate for R-290 refrigerant charge: • If greater than 114 g (4 oz.), do not install in public corridor or lobby. • If greater than 152 g (5.3 oz.), do not install within 6 m (20 ft) of open flame.	

⚠ DANGER continued

- The appliance shall be stored in a room without continuously operating ignition sources (for example: open flames, an operating gas appliance, or an operating electric heater).
- Do not place any potential ignition sources in or near the appliance.
- Keep clear of obstruction all ventilation openings in the appliance enclosure or in the structure for building-in.
- No potential sources of ignition are to be used in the searching for or detection of refrigerant leaks.
- Do not use electrical appliances inside the appliance unless they are of the type recommended by the manufacturer.
- Do not store explosive substances such as aerosol cans with a flammable propellant in this appliance.
- Check that cabling will not be subject to wear, corrosion, excessive pressure, vibration, sharp edges, or any other adverse environmental effects. The check shall also take into account the effects of aging or continual vibration from sources such as compressors or fans.
- Ensure that the area is in the open or that it is adequately ventilated before breaking into the system or conducting any hot work. A degree of ventilation shall continue during the period that the work is carried out. The ventilation should safely disperse any released refrigerant and preferably expel it externally into the atmosphere.

Risque D'Incendie ou D'Explosion
Fluide Frigorigène Inflammable Utilisé

- Seuls des techniciens de service qualifiés doivent installer et entretenir l'appareil.
- Aucune installation, opération ou maintenance ne doit être entreprise avant que le technicien n'ait lu attentivement ce manuel d'instructions. Toutes les précautions de sécurité doivent être suivies.
- Aucune opération d'entretien ne doit être entreprise avant que le technicien n'ait lu attentivement le manuel d'entretien disponible sur le site www.hoshizakiamerica.com. Toutes les précautions de sécurité doivent être suivies.
- Cet appareil doit être installé conformément à la norme de sécurité pour les systèmes de réfrigération ANSI/ASHRAE 15.
- Suivez attentivement les instructions de manutention conformément aux règlements nationaux.
- Ne pas utiliser de dispositifs mécaniques ou d'autres moyens pour accélérer le processus de dégivrage ou pour nettoyer, autres que ceux recommandés par le fabricant.
- Ne pas perforer la conduite de fluide frigorigène. Risque d'incendie ou d'explosion en cas de perforation d'une canalisation de fluide frigorigène; suivez attentivement les instructions de manutention.
- L'entretien doit être effectué par du personnel formé et certifié pour la manipulation de réfrigérants inflammables afin de réduire au minimum le risque d'inflammation dû à des pièces incorrectes ou à un entretien inadéquat.

DANGER Continué

- Les pièces doivent être remplacées par des pièces similaires, de manière à réduire au minimum le risque d'inflammation dû à des pièces incorrectes.
- Mettre au rebut conformément aux règlements fédéraux ou locaux.
- Ne pas percer ou brûler.
- Attention, les fluides frigorigènes peuvent ne pas dégager d'odeur.
- Ne pas endommager les composants du circuit de réfrigération.
- Voir plaque signalétique pour la charge de réfrigérant R-290:
 - Si elle est supérieure à 114 g (4 oz.), ne pas l'installer dans un couloir public ou un hall d'entrée.
 - Si elle est supérieure à 152 g (5,3 oz.), ne pas l'installer à moins de 6 m (20 pi) d'une flamme nue.
- L'appareil doit être entreposé dans un local ne contenant pas de sources d'inflammation permanentes (flammes nues, appareil à gaz ou dispositif de chauffage électrique en fonctionnement, par exemple).
- Ne placer aucune source d'inflammation potentielle à l'intérieur ou à proximité de l'appareil.
- Ne pas obstruer les ouvertures de ventilation dans l'enceinte de l'appareil ou dans la structure d'encastrement.
- Aucune source potentielle d'inflammation ne doit être utilisée pour rechercher ou détecter des fuites de réfrigérant.
- Ne pas utiliser d'appareils électriques à l'intérieur de l'appareil, sauf s'ils sont du type recommandé par le fabricant.
- Ne pas entreposer dans cet appareil des substances explosives telles que des bombes aérosols contenant un gaz propulseur inflammable.
- Vérifier que le câblage ne sera pas soumis à l'usure, à la corrosion, à une pression excessive, à des vibrations, à des arêtes vives ou à tout autre effet environnemental négatif. Le contrôle doit également prendre en compte les effets du vieillissement ou des vibrations continues provenant de sources telles que les compresseurs ou les ventilateurs.
- S'assurer que la zone est à l'air libre ou qu'elle est correctement ventilée avant de pénétrer dans le système ou d'effectuer un travail à chaud. Une certaine ventilation doit être maintenue pendant la durée des travaux. La ventilation doit permettre de disperser en toute sécurité tout réfrigérant libéré et, de préférence, de l'expulser dans l'atmosphère.

WARNING

- The appliance should be destined only to the use for which it has been expressly conceived. Any other use should be considered improper and therefore dangerous. The manufacturer cannot be held responsible for injury or damage resulting from improper, incorrect, and unreasonable use. Failure to install, operate, and maintain the appliance in accordance with this manual will adversely affect safety, performance, component life, and warranty coverage and may result in costly water damage.
To reduce the risk of death, electric shock, serious injury, or fire, follow basic precautions including the following:
- This appliance is intended for use at altitudes up to 7,000 m (22,965 ft). Installation above 7,000 m (22,965 ft) may adversely affect safety, performance, and component life.
- Wear appropriate personal protective equipment (PPE) when servicing the appliance.
- The appliance must be installed in accordance with applicable national, state, and local codes and regulations.
- Appliance is heavy. Use care when lifting or positioning. Work in pairs when needed to prevent injury or damage. Do not lift using the top section or the doors/drawers.
- The appliance requires an independent power supply of proper capacity. See the nameplate for electrical specifications. Failure to use an independent power supply of proper capacity can result in a tripped breaker, blown fuse, damage to existing wiring, or component failure. This could lead to heat generation or fire.
- **115VAC Models: THIS APPLIANCE MUST BE GROUNDED.** The appliance is equipped with a NEMA 5-15 three-prong grounding plug  to reduce the risk of potential shock hazards. It must be plugged into a properly grounded, independent 3-prong wall outlet. If the outlet is a 2-prong outlet, it is your personal responsibility to have a qualified electrician replace it with a properly grounded, independent 3-prong wall outlet. Do not remove the ground prong from the power cord and do not use an adapter plug. Failure to follow these instructions may result in death, electric shock, or fire.
- To reduce the risk of electric shock, do not touch the control module or plug with damp hands.
- To reduce the risk of electric shock, make sure the appliance is off before plugging in or unplugging the appliance.
- Unplug the appliance before servicing.
- Do not use an appliance with a damaged power cord. The power cord should not be altered, jerked, bundled, weighed down, pinched, or tangled. Such actions could result in electric shock or fire. To unplug the appliance, be sure to pull the plug, not the cord, and do not jerk the cord.
- Do not use an extension cord.
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent, or similarly qualified persons in order to avoid a hazard. Upon replacement, the GREEN ground wire in the power cord must be connected to the designated grounding screw.
- Do not make any alterations to the appliance. Alterations could result in electric shock, injury, fire, or damage to the appliance.

⚠ WARNING continued

- The appliance is not intended for use by persons (including children) with reduced physical, sensory, or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- Do not splash, pour, or spray water directly onto or into the appliance. This might cause short circuit, electric shock, corrosion, or failure.
- Children should be supervised to ensure that they do not play with the appliance.
- Do not climb, stand, or hang on the appliance or allow children or animals to do so. Serious injury could occur or the appliance could be damaged.
- Be careful not to pinch fingers when opening and closing the door. Be careful when opening and closing the door when children are in the area.
- Open and close the doors with care. Opening the doors too quickly or forcefully may cause injury or damage to the appliance or surrounding equipment.
- Do not use combustible spray or place volatile or flammable substances in or near the appliance. They might catch fire.
- Do not throw anything onto the shelves or load any single shelf with more than 120 lb. (54.5 kg) of product. They might fall off and cause injury.
- The appliance is designed only for temporary storage of food. Employ sanitary methods. Use for any other purposes (for example, storage of chemicals or medical supplies such as vaccine and serum) could cause deterioration of stored items.
- Do not place any product on the floor of the cabinet. All product must be placed on properly installed shelves.
- Do not block air inlets or outlets, otherwise cooling performance may be reduced.
- Do not tightly pack the cabinet. Allow some space between items to ensure good air flow. Also allow space between items and interior surfaces.
- Do not put warm or hot foods in the cabinet. Let them cool first, or they will raise the cabinet temperature and could deteriorate other foods in the cabinet or overload the appliance.
- Food storage and handling must comply with applicable codes and regulations.
- All foods should be wrapped in plastic film or stored in sealed containers. Otherwise foods may dry up, pass their smells onto other foods, cause frost to develop, result in poor appliance performance, or increase the likelihood of cross-contamination. Certain dressings and food ingredients, if not stored in sealed containers, may accelerate corrosion of the evaporator, resulting in failure.
- Do not store items near air outlets. Otherwise, items may freeze up and crack or break causing a risk of injury or contamination of other food.
- Do not place more than 20 lb. (9 kg) on the top panel. Items must be stable and secure to prevent items from falling off of the appliance.
- Care should be used when placing items on top of the appliance. Do not store liquid containers or items that could fall through the louvers on top of the appliance. This could cause electric shock or fire.
- The entire rail must always be covered by rail dividers and pans. Otherwise, the appliance will not cool properly. Use only pans up to 6" (15 cm) deep. Do not use damaged rail dividers or pans. For rail divider and pan combinations, see "II.C.5. Properly Align Pans and Rail Dividers."
- Ingredients must be pre-chilled to 37°F (3°C) or less before placing in rail.

⚠ WARNING continued

- Keep the rail cover closed when not actively preparing food.
- The rail is for keeping ingredients cool while preparing food. If not actively preparing food for a long period such as overnight, seal pans with plastic wrap in addition to closing the rail cover.

NOTICE

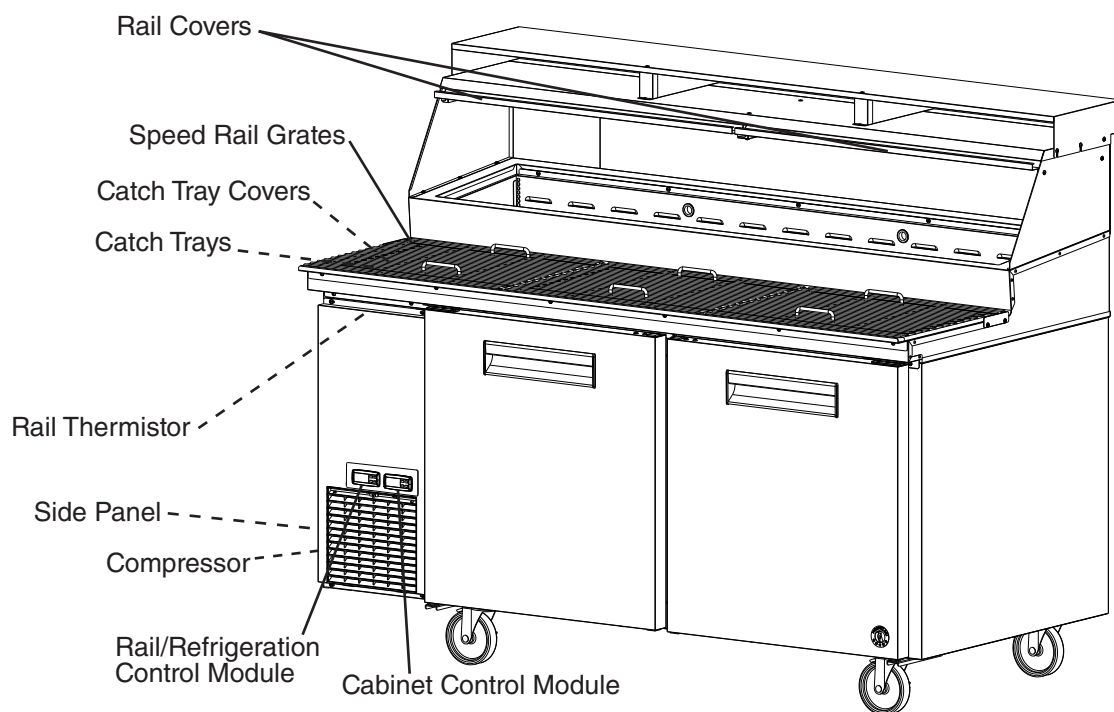
- Install the appliance in a location that stays above freezing. Normal operating ambient temperature must be within 45°F to 100°F (7°C to 38°C).
- Do not leave the appliance on during extended periods of non-use, extended absences, or in sub-freezing temperatures. To properly prepare the appliance for these occasions, follow the instructions in "V. Preparing the Appliance for Periods of Non-Use."
- Keep ventilation openings, in the appliance enclosure or in the built-in structure, clear of obstruction.
- Protect the floor when moving the appliance to prevent damage to the floor.
- Keep ventilation openings clear of obstruction.
- The factory-installed rear bumpers must be in place to ensure proper rear clearance. Blockage of airflow could negatively affect performance and damage the appliance.
- Do not allow the appliance to bear any outside weight.
- To prevent deformation or cracks, do not spray insecticide onto the plastic parts or let them come into contact with oil.
- To avoid damage to the gasket, use only the door/drawer handle when opening and closing.
- Do not leave the doors/drawers open.
- To avoid damage to the top seal, do not lift the appliance by the top section or remove the top section.

NOTICE continued

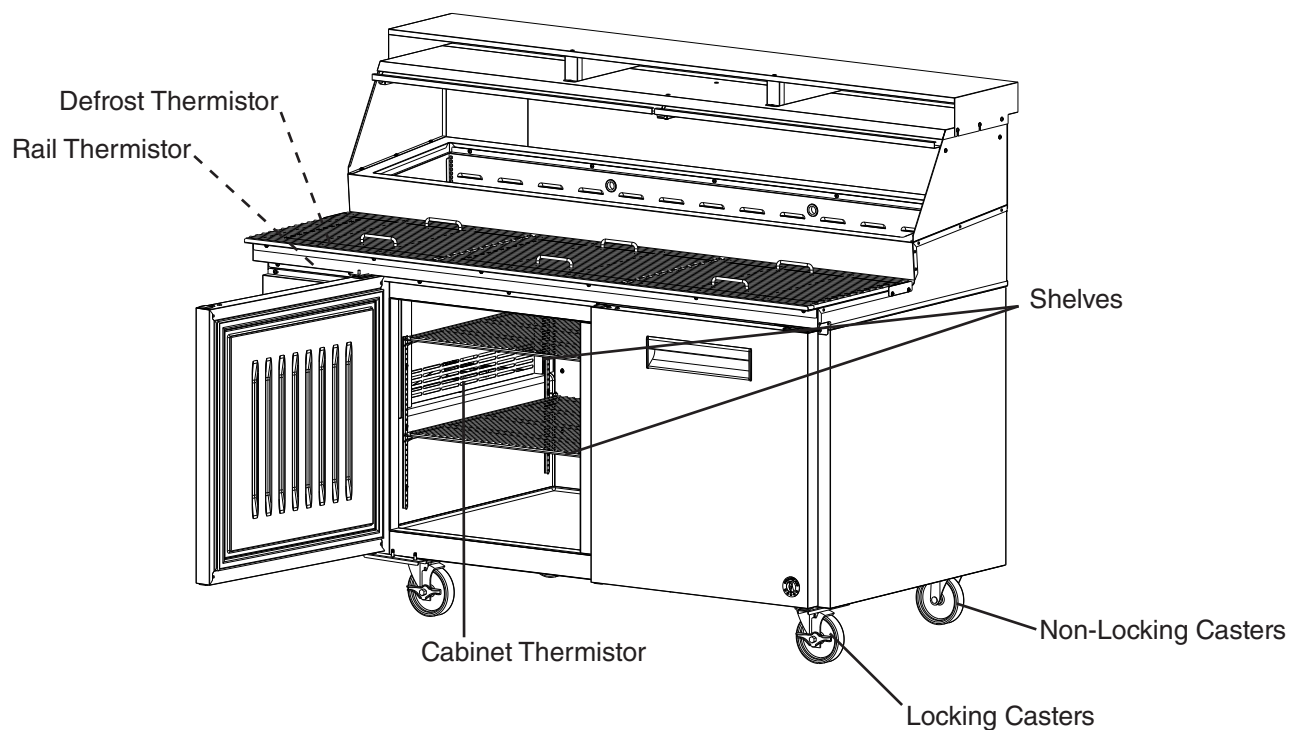
- Do not place anything on top of the rail cover. The rail cover is not designed to bear any outside weight.
- Do not place anything on the air duct panels beneath the pans in the rail. The air duct panels are not load-bearing.

I. Specifications

A. Construction



Model Shown: PR67B-Z



Model Shown: PR67B-Z

B. Electrical and Refrigerant Data

The nameplate provides electrical and refrigerant data and Year of Manufacture (YOM). The nameplate is located inside the cabinet on right side panel. For certification marks, see the nameplate.

We reserve the right to make changes in specifications and design without prior notice.

Model Number	PR46B-Z	PR67B-Z
AC SUPPLY VOLTAGE	~115/60/1	~115/60/1
AMPERES	4	6
DESIGN PRESSURE kPa (PSI)	HI-2482 (360) LO-1310 (190)	HI-2482 (360) LO-1310 (190)
REFRIGERANT g (oz.)	R-290 68 (2.4)	R-290 76 (2.7)
CLIMATIC CLASS	5	5
INSULATION BLOWING GAS	HFO 1233zd(E)	HFO 1233zd(E)
MINIMUM ROOM FLOOR AREA m ² (ft ²)	3.3 (35)	3.6 (39.1)

Note: Climatic Class 5: This appliance electrical safety tested for operation in maximum ambient temperature of 104°F (40°C) with 40% relative humidity. However, normal operating ambient temperature for refrigerator must be within 45°F to 86°F (7°C to 30°C). Operation of the appliance, for extended periods, outside of these normal temperature ranges may affect appliance performance.

II. Installation Instructions

A. Location

This appliance is approved for indoor use.

This appliance uses an A3 flammable refrigerant. For refrigerant charge and minimum room floor area, see the table below.

⚠ DANGER		
	R-290 Class A3 Flammable Refrigerant Used	
Model	R-290 Refrigerant Charge g (oz.)	Minimum Room Floor Area (operating or storage) Superficie Minimale du Local (service ou stockage) m² (ft²); m² (pi²)
PR46B-Z	68 (2.4)	3.3 (35)
PR67B-Z	76 (2.7)	3.6 (39.1)
 ≥ Area m² (ft²) (see "Minimum Room Floor Area" above) ≥ Superficie m² (pi²) (voir « Superficie Minimale du Local » ci-dessus)		
⚠ DANGER continued		
R-290 Refrigerant Charge: • If greater than 114 g (4 oz.), do not install in public corridor or lobby. • If greater than 152 g (5.3 oz.), do not install within 6 m (20 ft) of open flame. Charge de réfrigérant R-290: • Si elle est supérieure à 114 g (4 oz.), ne pas l'installer dans un couloir public ou un hall d'entrée. • Si elle est supérieure à 152 g (5,3 oz.), ne pas l'installer à moins de 6 m (20 pi) d'une flamme nue.		
This appliance is intended for use at altitudes up to 7,000 m (22,965 ft). Installation above 7,000 m (22,965 ft) may adversely affect safety, performance, and component life.		

WARNING

- The appliance must be installed in accordance with applicable national, state, and local regulations.
- Appliance is heavy. Use care when lifting or positioning. Work in pairs when needed to prevent injury or damage. Do not lift using the top section or the drawers.
- Do not tilt the appliance more than 45°.
- The appliance is not intended for outdoor use.
- This appliance to be installed in accordance with the Safety Standard for Refrigeration Systems ANSI/ASHRAE 15
- Normal operating ambient temperature for refrigerator must be within 45°F to 86°F (7°C to 30°C). Operation of the appliance, for extended periods, outside of this normal temperature range may affect appliance performance.

For best operating results:

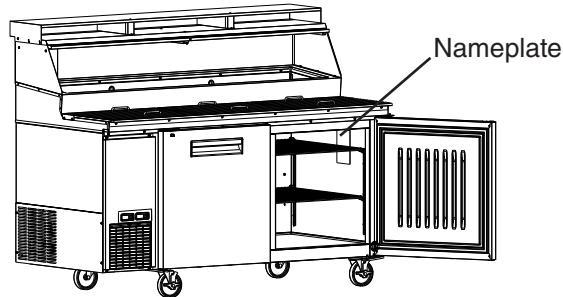
- The appliance must not be located next to ovens, grills, or other high heat producing equipment.
- The location must provide a firm and level foundation for the appliance.
- The appliance should not be located in a corrosive environment.
- Minimum Clearance:

Models	Sides	Top	Rear
PR46B-Z, PR67B-Z	0" (0 cm)	0" (0 cm)	3" (8 cm)

B. Checks Before Installation

⚠ WARNING

Refer to the nameplate for electrical specifications. The nameplate is located on the right side wall of the cabinet interior. For more electrical connection details, see "II.E. Electrical Connection." We reserve the right to make specification and design changes without prior notice.



- Visually inspect the exterior of the shipping package and immediately report any damage to the carrier. Upon opening the package, any concealed damage should also be immediately reported to the carrier.
- Remove the shipping carton, tape, and packing material. Also remove the protective plastic film from both the exterior panels. If the appliance is exposed to the sun or to heat, remove the film after the appliance cools.
- Remove all accessory containers before discarding the packing materials. Dispose of all packing materials in a proper and environmentally responsible manner.
- Check for missing or damaged accessories.

C. Setup

1. Remove the Appliance from the Pallet

- 1) Move as close to the final location as possible.
- 2) Remove the 2 bolts securing the appliance to the pallet, then remove the appliance from the pallet. Block the appliance securely at a height of 8" (20 cm) off the floor.

NOTICE! Do not place blocks under the refrigeration area or doors/drawers of the appliance. Do not lay the appliance down.

- 3) Attach the casters to the bottom of the appliance. Locking casters should be attached to the front of the appliance. **NOTICE! Do not place blocks under the refrigeration area or doors/drawers of the appliance. Do not lay the appliance down.**

PR67B-Z: Attach the 4 casters under the cabinet area.

See Fig. 1. **WARNING! On PR67B-Z models, do not attach the casters under the compressor area in the outer left inserts. NOTICE! Ensure casters are completely threaded into appliance and tight.**

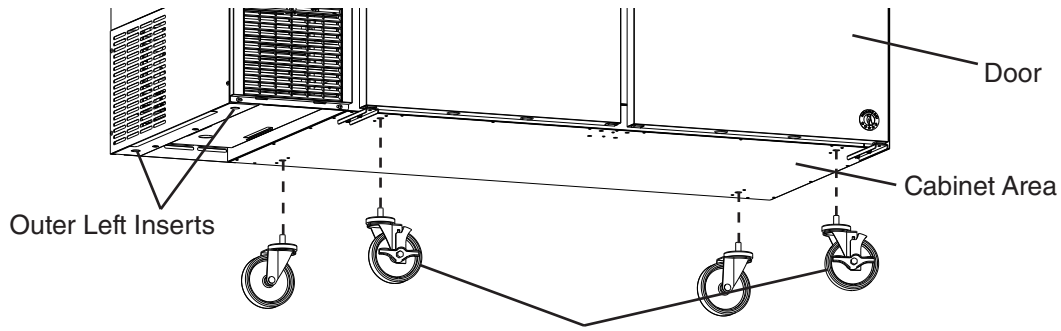


Fig. 1

Model Shown: PR67B-Z

2. Check the Refrigeration Circuit

Visually check that the refrigerant lines do not rub or touch other lines or surfaces and that the condenser fan blade turns freely.

3. Position the Appliance and Lock the Front Casters

The front casters on the appliance are lockable. After positioning the appliance in its final location, lock the front casters.

4. Install the Shelves

- 1) For each shelf, place the shelf support clips into the pilasters at the desired height (4 shelf support clips per shelf). See Fig. 2.
- 2) Place the shelves in position on the support clips.

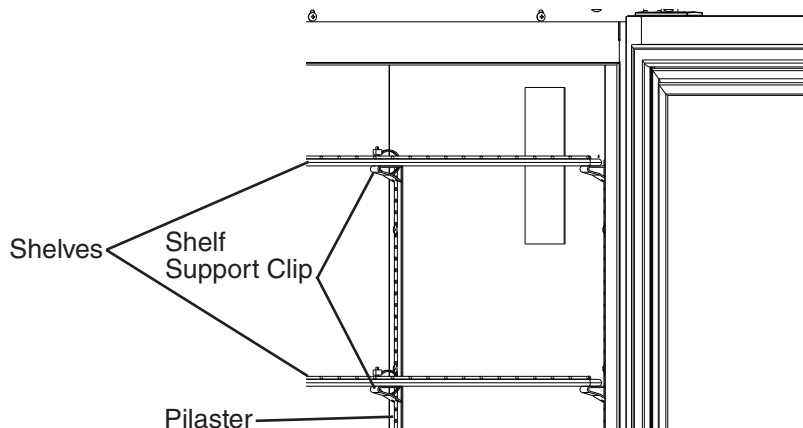


Fig. 2

5. Properly Align Pans and Rail Dividers

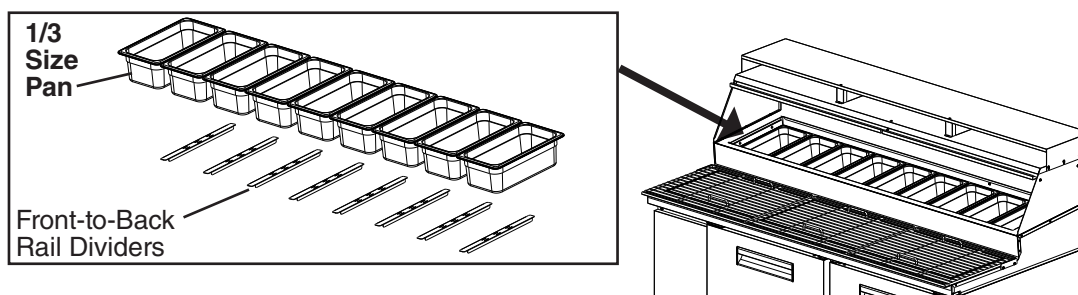
NOTICE

The entire rail must be covered by rail dividers and pans (up to 6" (15 cm) deep) to avoid condensation issues and poor cooling performance.

Confirm rail dividers and pans are in place. See Fig. 3. For pan size other than 1/3, see "II.C.5.b) Alternative Pan Sizes" below.

a) Factory Shipped with 1/3 Size Pan and Front-to-Back Rail Dividers

Model Number	Pan Size	Pan Qty	Rail Divider	Rail Divider Qty
PR46B-Z	1/3	6	Front-to-Back	7
PR67B-Z	1/3	9	Front-to-Back	10



Model Shown: PR67B-Z

Fig. 3

- Wash the pans before use.
- The entire rail must always be covered by rail dividers and pans to avoid condensation issues and poor cooling performance.
- Use only pans up to 6" (15 cm) deep. Do not use damaged rail dividers or pans.
- At startup, leave the pans empty and the rail covers closed until the appliance cools down.
- An extra front-to-back rail divider is included. Use the extra front-to-back rail divider if a gap remains after all pans and all other rail dividers are in place.

NOTICE! The entire rail must be covered by rail dividers and pans (up to 6" (15 cm) deep)) and the rail covers must be closed at startup. Otherwise, the appliance will not cool down properly.

b) Alternative Pan Sizes:

For alternative pan sizes, additional center and outer side-to-side rail dividers are required. See Fig. 4. **NOTICE!** The entire rail must be covered by rail dividers and pans (up to 6" (15 cm) deep). Confirm all rail divider hooks are properly placed into the front-to-back rail dividers and pans are level. Note: The extra front-to-back rail divider provided with the appliance may be required in some pan size combinations to assure that the rail area is fully covered.

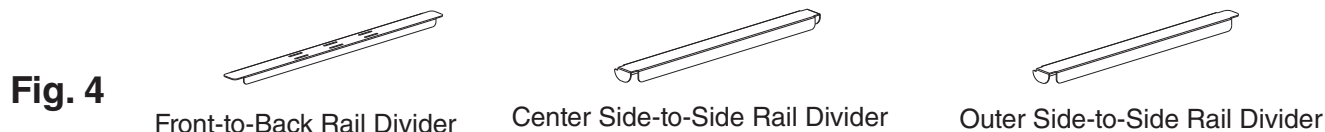


Fig. 4

Front-to-Back Rail Divider

Center Side-to-Side Rail Divider

Outer Side-to-Side Rail Divider

For alternative pan size combinations, see the table and examples in Figs. 5, 6, and 7 below.

HS Kit	Pan Size	Rail Divider Type	Qty per Kit
HS-5534	All Sizes	Front-to-Back	1
HS-5536	1/9 or 1/6	Outer Side-to-Side	1
HS-5535	1/4	Outer Side-to-Side	1
HS-5538	1/9 or 1/6	Center Side-to-Side	1
HS-5537	1/4	Center Side-to-Side	1

Note: Rail divider quantities vary depending on the pan size combination

1/9 Size Pan

Front-to-Back Rail Divider (HS-5534)
Center Side-to-Side Rail Divider (HS-5538)
Outer Side-to-Side Rail Divider (HS-5536)

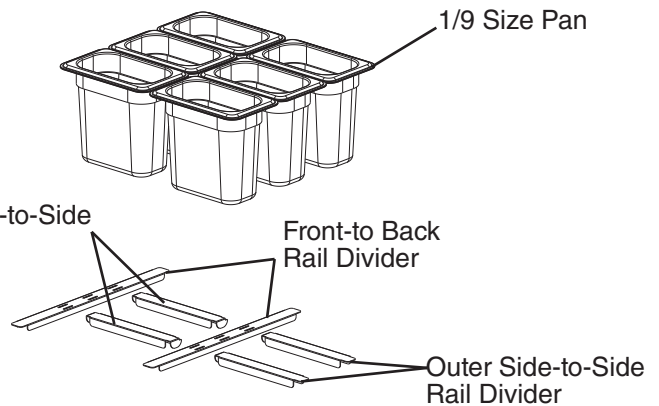


Fig. 5

1/6 Size Pan

Front-to-Back Rail Divider (HS-5534)
Center Side-to-Side Rail Divider (HS-5538)
Outer Side-to-Side Rail Divider (HS-5536)

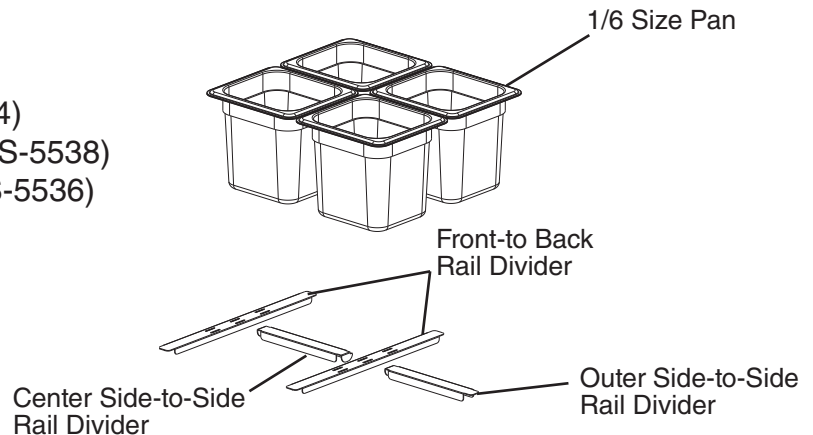


Fig. 6

1/4 Size Pan

Front-to-Back Rail Divider (HS-5534)
Center Side-to-Side Rail Divider (HS-5537)
Outer Side-to-Side Rail Divider (HS-5535)

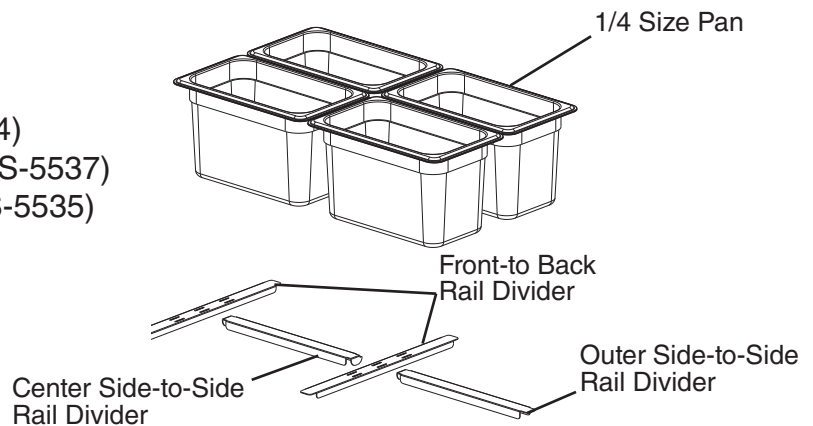


Fig. 7

6. Confirm Rail Cover and Catch Tray Positions

- 1) After the rail dividers and pans are in their correct positions, close the rail covers.
- 2) Place the speed rail grates in the middle storage bin above the rail. See Fig. 8.
- 3) Lift the catch tray covers and confirm that the catch trays are in their correct positions. See Fig. 8.

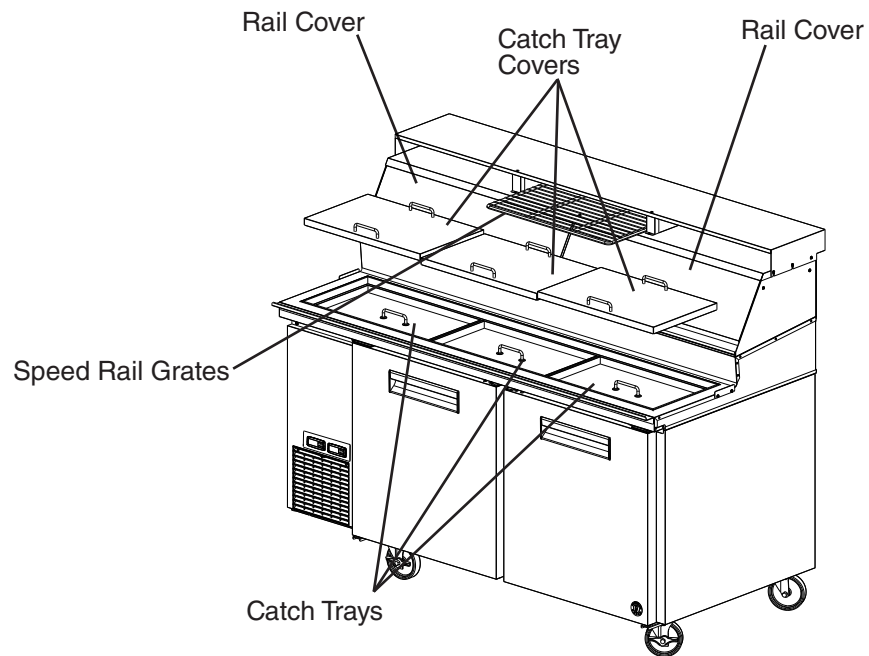


Fig. 8

- 4) Once confirmed, place the catch tray covers in their correct positions. See Fig. 9.

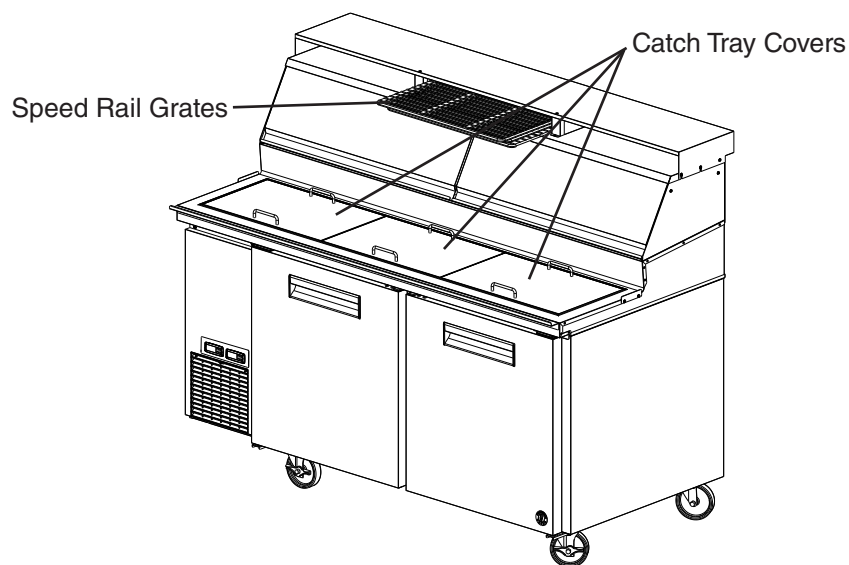


Fig. 9

D. Door Reversal

The appliance is provided with a cabinet design which, after being delivered to the installation location, permits changing of the door swing from left to right or right to left. To change the door swing, follow the steps below. Example shows change from right hinged to left hinged.

⚠ WARNING

- Wear proper PPE (personal protection equipment) when executing these procedures (safety glasses and gloves).
- Keep fingers away from edge of upper hinge bracket. Spring cartridge can cause the upper hinge bracket to move suddenly with extreme force.

Door and Lower Hinge Removal and Relocation

- 1) Remove all items from the appliance. Make sure the appliance is unplugged from the electrical outlet. Move the appliance out for ease of access then lock the casters.
- 2) With the door closed, loosen, but do not remove, the upper hinge bracket outer screw. See Fig. 10. Next, open the door to the fully open position and remove the upper hinge bracket inner screw. See Fig. 11.
- 3) Slide the upper hinge bracket out from under the outer screw and remove the door.
WARNING! Keep away from upper hinge bracket. Upper hinge bracket may spring closed.
- 4) Replace the upper hinge bracket inner screw in its original position and tighten, then tighten the upper hinge bracket outer screw.

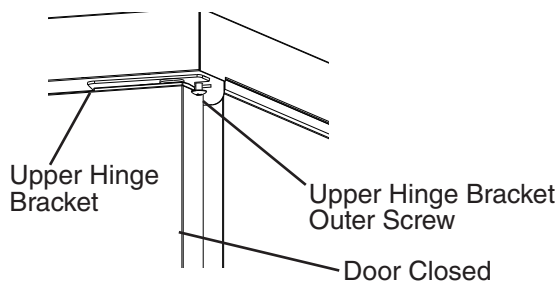


Fig. 10

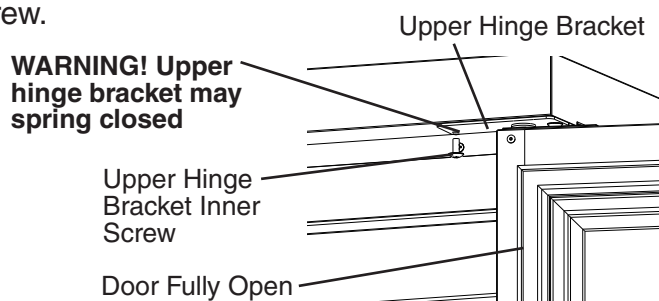


Fig. 11

- 5) Remove the lower hinge bracket. See Fig. 12. Be sure to leave the thrust washer in place.
- 6) Clear the foam from the lower hinge bracket mounting holes prior to securing lower hinge bracket in its new location. Install the lower hinge bracket in its new location. Be sure the lower hinge bracket is pushed all the way in and the thrust washer is in its original position. See Fig. 13.

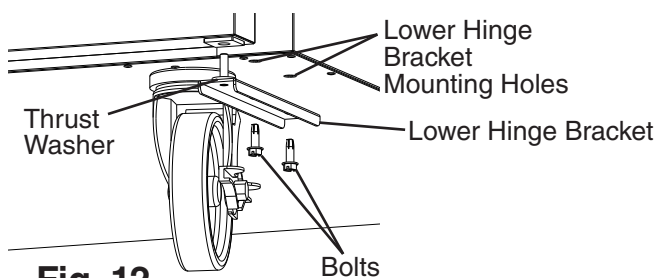


Fig. 12

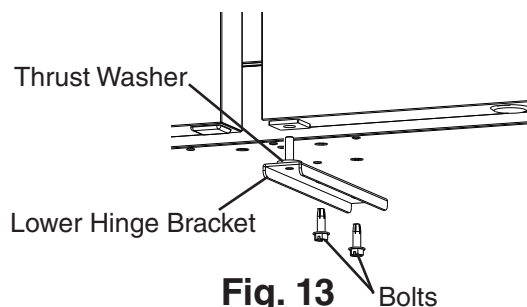


Fig. 13

Upper Hinge Bracket Removal and Spring Cartridge Relocation

- 7) While preventing the upper hinge bracket from rotating, remove the upper hinge bracket from the spring cartridge. See Fig. 14. Note which side of the upper hinge bracket is facing up.
- 8) Remove the filler cap, filler screws, and spring cartridge. See Fig. 15. Leave the thrust washers in place on the spring cartridge. **NOTICE! Spring cartridge may be difficult to remove. Be careful not to damage the finish.**

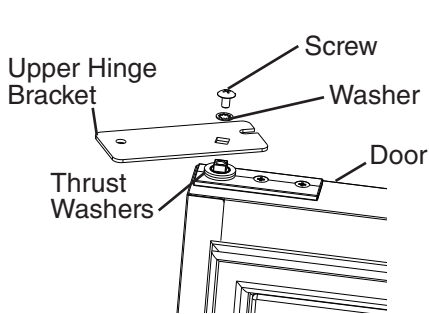


Fig. 14

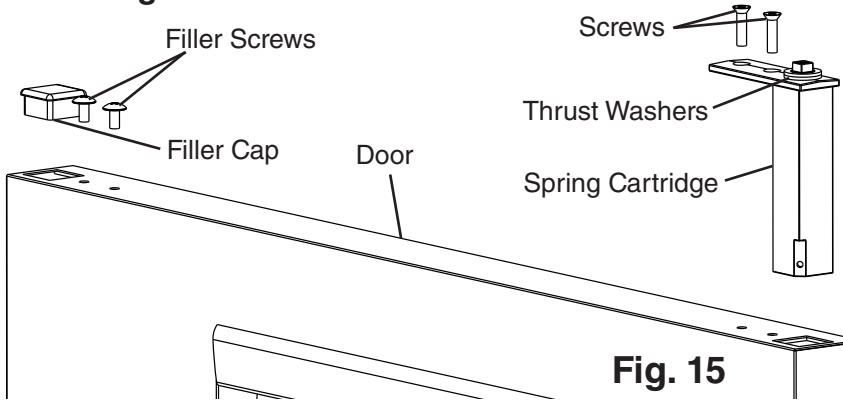


Fig. 15

- 9) Clear foam from the spring cartridge hole to allow for spring cartridge installation. See Fig. 16. Install the spring cartridge in its new location. Reinstall the filler cap and filler screws on the opposite side of the door.

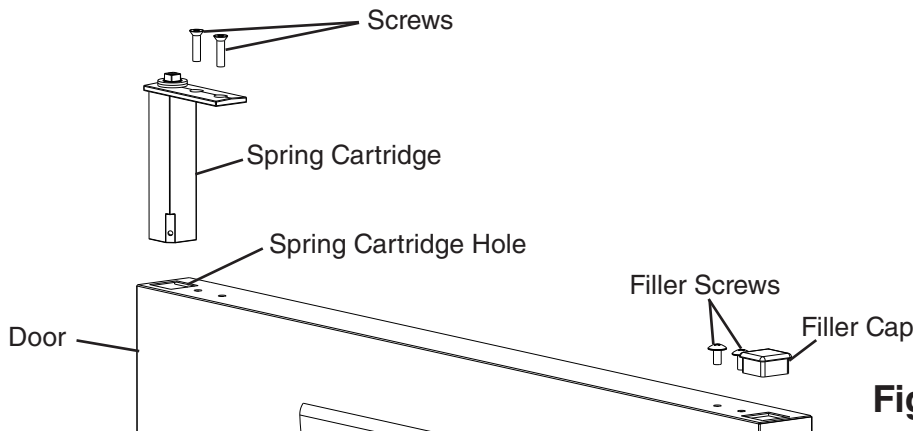


Fig. 16

Lower Door Prep and Upper Hinge Bracket Relocation

- 10) Remove the filler cap and nylon bearing from the bottom of the door. See Fig. 17. Reinstall on the opposite side.
- 11) Make sure the thrust washers are in place on the spring cartridge, then flip the upper hinge bracket over from its original position and install onto the spring cartridge in the door open position. See Fig. 18. The upper hinge bracket should be positioned as shown.

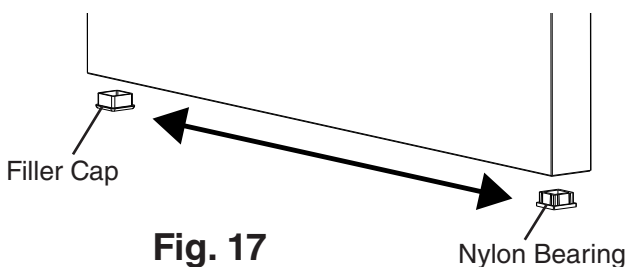


Fig. 17

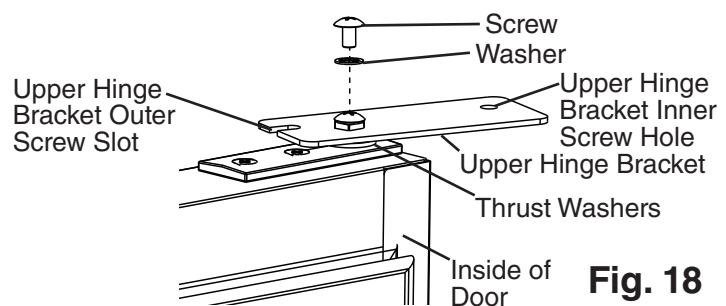
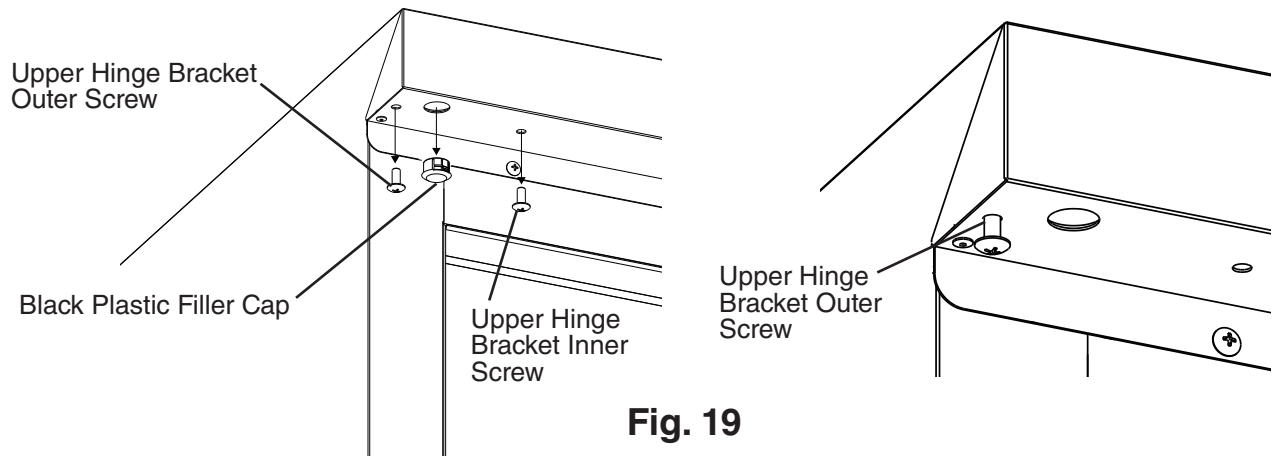


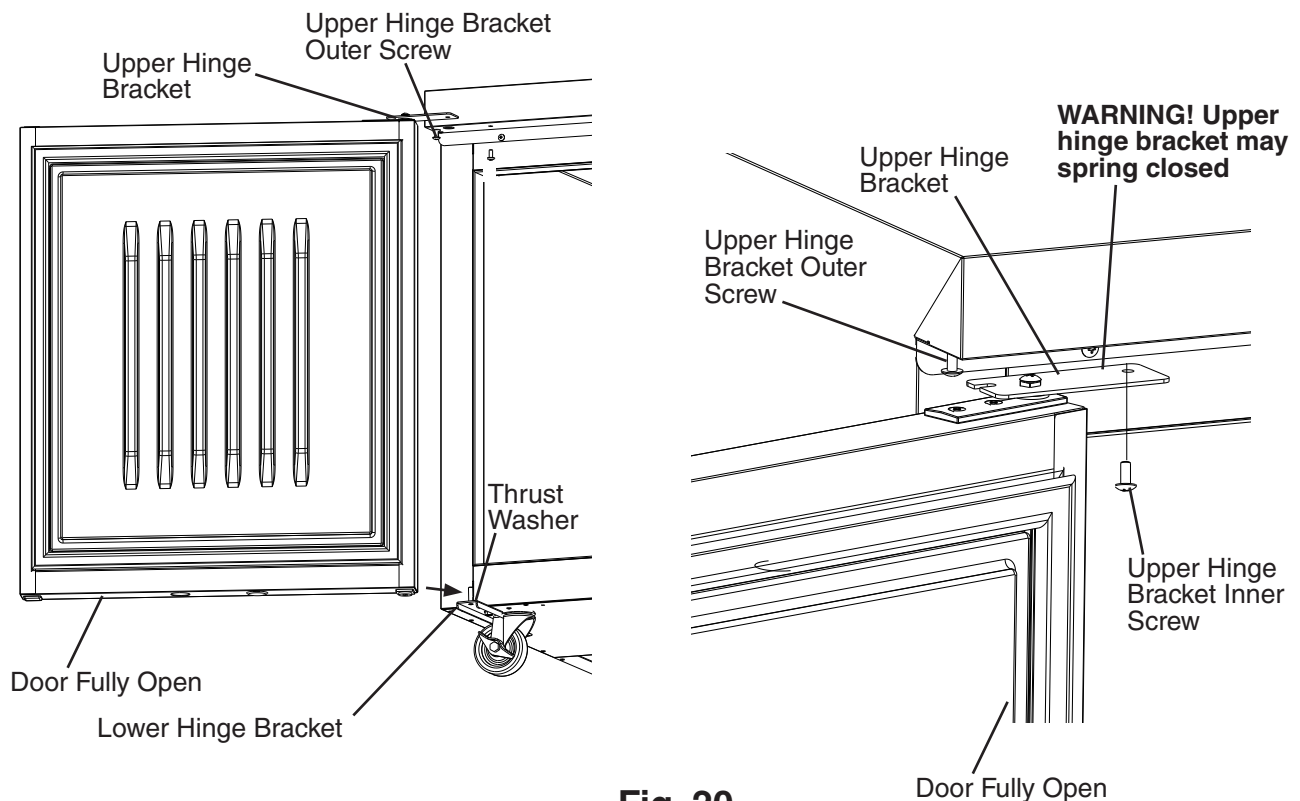
Fig. 18

Door Installation

- 12) Remove the black plastic filler cap located from the hole above where the spring cartridge screw will line up. Note: The black plastic filler cap is not reusable.
- 13) Remove the upper hinge bracket screws from the new location and apply Loctite Threadlocker Blue 242 or 243 to the threads. Next, start the upper hinge bracket outer screw into the appliance. Rotate a few threads into the appliance; do not tighten the screw. See Fig. 19.



- 14) Be sure the lower hinge bracket thrust washer is in place, then place the door on the lower hinge bracket in the fully open position. Slide the door upper hinge bracket outer slot onto the upper hinge bracket outer screw. See Fig. 20
- 15) Install the upper hinge bracket inner screw and tighten.



- 16) Close the door and tighten the upper hinge bracket outer screw.
See Fig. 21.

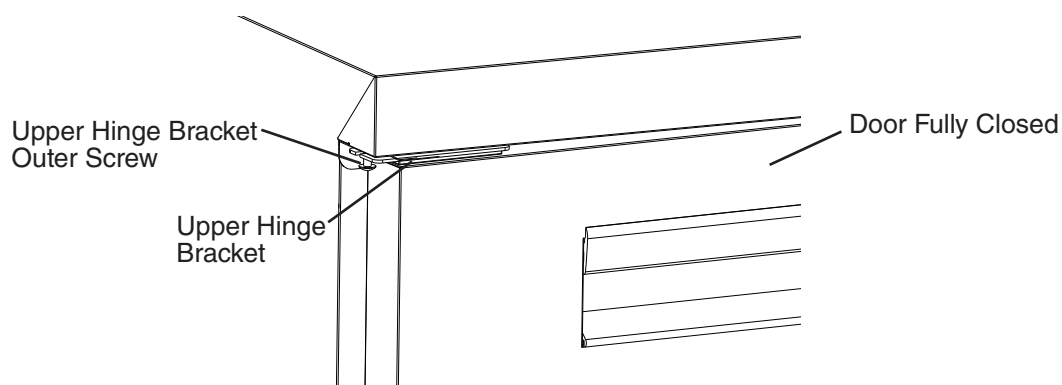


Fig. 21

- 17) Check the door operation to assure it opens and closes properly. Note: Hold door at 45° angle from closed position and release. Door should close on its own. If not, adjust hinge bracket.
- 18) Unlock the casters and move the appliance back into its original position. Lock the casters once in position, then plug the appliance back into the electrical outlet. Allow the appliance to cool down prior to putting product back in.

E. Electrical Connection

WARNING

- Electrical connection must meet national, state, and local electrical code requirements. Failure to meet these code requirements could result in death, electric shock, serious injury, fire, or severe damage to equipment.
 - The appliance requires an independent power supply of proper capacity. See the nameplate for electrical specifications. Failure to use an independent power supply of proper capacity can result in a tripped breaker, blown fuse, damage to existing wiring, or component failure. This could lead to heat generation or fire.
 - **THE APPLIANCE MUST BE GROUNDED.** The appliance is equipped with a NEMA 5-15 three-prong grounding plug  to reduce the risk of potential shock hazards. It must be plugged into a properly grounded, independent 3-prong wall outlet. If the outlet is a 2-prong outlet, it is your personal responsibility to have a qualified electrician replace it with a properly grounded, independent 3-prong wall outlet. Do not remove the ground prong from the power cord and do not use an adapter plug. Failure to follow these instructions may result in death, electric shock, or fire.
 - To reduce the risk of electric shock, do not touch the plug with damp hands.
 - Press and hold the control module "U" button to turn "OFF" before unplugging the appliance to reduce the risk of electric shock.
 - Do not use an extension cord.
 - Do not use an appliance with a damaged power cord. The power cord should not be altered, jerked, bundled, weighed down, pinched, or tangled. Such actions could result in electric shock or fire. To unplug the appliance, be sure to pull the plug, not the cord, and do not jerk the cord.
 - If the supply cord is damaged, it must be replaced by the manufacturer, its service agent, or similarly qualified persons in order to avoid a hazard. Upon replacement, the GREEN ground wire in the power cord must be connected to the designated grounding screw.
- Usually an electrical permit and services of a licensed electrician are required.
 - The maximum allowable voltage variation is ± 10 percent of the nameplate rating.

F. Final Checklist

- 1) Is the appliance level?
- 2) Have the casters been properly installed and have the front casters been locked?
- 3) Is the appliance in a site where the ambient temperature is constantly within 45°F to 86°F (7°C to 30°C)?
- 4) Have the shipping carton, tape, and packing material been removed from the appliance? Has the protective plastic film been removed from both the exterior panels and the interior door/drawer panel?
- 5) Have the appliance and accessories been checked for shipping damage?
- 6) Is there at least 1" (3 cm) clearance at sides for proper air circulation? Are the factory-installed rear bumpers in place to ensure proper rear clearance?
- 7) Have the pans and rail dividers been cleaned and properly installed? Have any gaps in the rail area been properly addressed with rail dividers? Are the rail covers closed?
- 8) Has the power supply voltage been checked or tested against the nameplate rating? Is the power supply a properly grounded, independent wall outlet? Does the electrical connection meet all national, state, and local code and regulation requirements.
- 9) Have the refrigerant lines been checked to make sure they do not rub or touch other lines or surfaces? Has the condenser fan blade been checked to make sure it turns freely? Is the compressor securely attached?
- 10) Have the shelves been adjusted to the desired height?
- 11) Has the end user been given the instruction manual, and instructed on how to operate the appliance and the importance of the recommended periodic maintenance?
- 12) Has the end user been given the name and telephone number of an authorized service agent?
- 13) Has the warranty card been filled out and forwarded to the factory for warranty registration?

III. Operating Instructions



R-290 Class A3 Flammable Refrigerant Used

⚠ DANGER

Risk of Fire or Explosion. Flammable Refrigerant Used.

- Be sure to follow all Important Safety Information located at the beginning of this manual.
- Failure to install, operate, and maintain the appliance in accordance with this manual will adversely affect safety, performance, component life, and warranty coverage.
- Keep clear of obstruction all ventilation openings in the appliance enclosure or in the structure for building-in.

Risque D'Incendie ou D'Explosion. Fluide Frigorigène Inflammable Utilisé.

- Veuillez à respecter toutes les consignes de sécurité importantes figurant au début de ce manuel.
- Le fait de ne pas installer, utiliser et entretenir l'appareil conformément à ce manuel aura des conséquences négatives sur la sécurité, les performances, la durée de vie des composants et la couverture de la garantie.
- Ne pas obstruer les ouvertures de ventilation dans l'enceinte de l'appareil ou dans la structure d'encastrement.

A. Important Notes About Usage

⚠ WARNING

- Failure to install, operate, and maintain the appliance in accordance with this manual may adversely affect safety, performance, component life, and warranty coverage.
- Only qualified service technicians should install and service the appliance.
- To reduce the risk of electric shock, do not touch the plug with damp hands.
- Do not use combustible spray or place volatile or flammable substances in or near the appliance. They might catch fire.
- Do not splash, pour, or spray water directly onto or into the appliance. This might cause short circuit, electric shock, corrosion, or failure.
- Wear appropriate personal protective equipment (PPE) when servicing the appliance.
- Food storage and handling must comply with applicable codes and regulations.
- Keep the area around the appliance clean. Dirt, dust, or insects in the appliance could cause harm to individuals or damage to the equipment.
- The appliance is designed only for temporary storage of food. Employ sanitary methods. Use for any other purposes (for example, storage of chemicals or medical supplies such as vaccine and serum) could cause deterioration of stored items.

⚠ WARNING continued

- The entire rail must always be covered by rail dividers and pans. Otherwise, the appliance will not cool properly. Use only pans up to 6" (15 cm) deep. Do not use damaged rail dividers or pans. For rail divider and pan combinations, see "II.C.5. Properly Align Pans and Rail Dividers."
- Ingredients must be pre-chilled to 37°F (3°C) or less before placing in rail.
- Keep the rail cover closed when not actively preparing food.
- The rail is for keeping ingredients cool while preparing food. If not actively preparing food for a long period such as overnight, seal pans with plastic wrap in addition to closing the rail cover.
- During daytime operation with one or both of the rail cover(s) open, be sure one of the day mode switches is engaged (closed). With both day mode switches not engaged (open), night mode operation initiated. For details, see "III.C.b) Day Mode: Left or Right Rail Cover Open."
- Do not place anything on top of the rail covers and do not lift the appliance by the rail covers. The rail covers are not designed to bear any outside weight.
- Do not store items near air outlets. Otherwise, items may freeze up and crack or break causing a risk of injury or contamination of other food.
- Do not put warm or hot foods in the cabinet. Let them cool first, or they will raise the cabinet temperature and could deteriorate other foods in the cabinet or overload the appliance.
- All foods should be wrapped in plastic film or stored in sealed containers. Otherwise foods may dry up, pass their smells onto other foods, cause frost to develop, result in poor appliance performance, or increase the likelihood of cross-contamination. Certain dressings and food ingredients, if not stored in sealed containers, may accelerate corrosion of the evaporator, resulting in failure.
- Do not block air inlets or outlets, otherwise cooling performance may be reduced.
- Do not tightly pack the cabinet. Allow some space between items to ensure good air flow. Also allow space between items and interior surfaces.
- Do not throw anything onto the shelves or load any single shelf with more than 120 lb. (54.5 kg) of product. They might fall off and cause injury.
- Open and close the doors with care. Opening the doors too quickly or forcefully may cause injury or damage to the appliance or surrounding equipment.
- Be careful not to pinch fingers when opening and closing the doors. Be careful when opening and closing the doors when children are in the area.
- The appliance is not intended for use by persons (including children) with reduced physical, sensory, or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- Children should be properly supervised around the appliance.
- Do not climb, stand, or hang on the appliance or doors or allow children or animals to do so. Do not climb into the appliance or allow children or animals to do so. Death or serious injury could occur or the appliance could be damaged.

NOTICE

- Protect the floor when moving the appliance to prevent damage to the floor.
- Keep ventilation openings, in the appliance enclosure or in the built-in structure, clear of obstruction. Blockage of airflow could negatively affect performance and damage the appliance.
- Do not allow the appliance to bear any outside weight.
- To prevent deformation or cracks, do not spray insecticide onto the plastic parts or let them come into contact with oil.
- To avoid damage to the gasket, use only the door handle when opening and closing.
- Do not leave the doors open.
- The factory-installed rear bumpers must be in place to ensure proper rear clearance. Blockage of airflow could negatively affect performance and damage the appliance.
- Do not place anything on the air duct panels beneath the pans in the rail. The air duct panels are not load-bearing.

B. Startup

⚠ WARNING

All parts are factory-adjusted. Improper adjustments may adversely affect safety, performance, component life, and warranty coverage.

1. Startup:

Confirm the rail pans and catch trays are clean and the rail pans and dividers are in their correct positions. Next, confirm the rail covers are closed and the catch tray covers are in place over the catch trays. See Fig. 22. **NOTICE! The entire rail must be covered by rail dividers and pans (up to 6" (15 cm) deep)).** See "II.C.5. Properly Align Pans and Rail Dividers" for details. Leave the pans empty until the appliance cools down. Rail covers must be closed and catch tray covers must be in place over catch trays at startup. Otherwise, the appliance will not cool down properly.

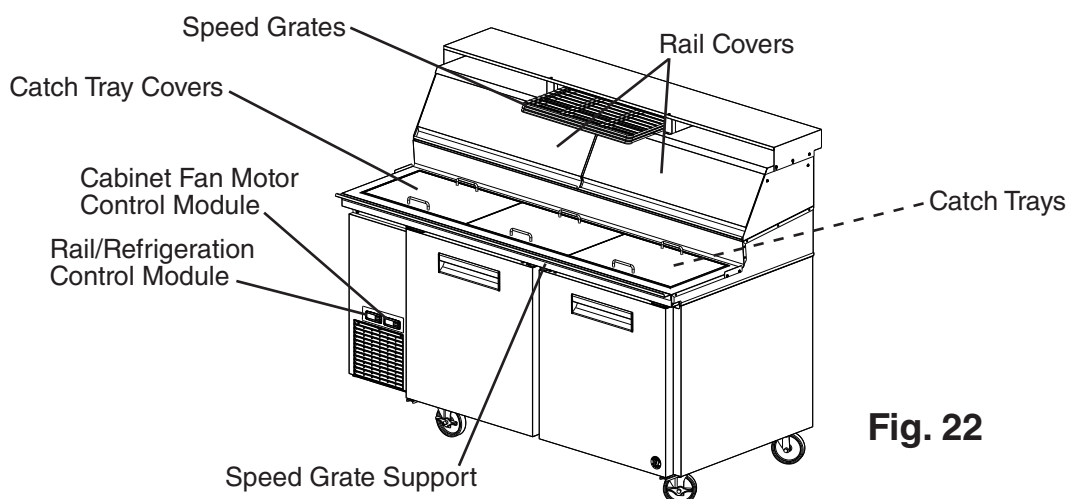


Fig. 22

1) Plug the appliance into the electrical outlet. **WARNING! To reduce the risk of electric shock, do not touch the plug with damp hands.**

2) Confirm the rail/refrigeration control module and the cabinet fan motor control module setpoints. Press the up arrow key and release.

Note: With rail covers closed and day mode switches disengaged (open), night mode setting is viewed on rail/refrigeration control module display.

Control Module	Temperature Setpoint Range	Factory Default Temperature Setting
Rail/Refrigeration	16°F to 36°F (-8.8°C to 2.2°C)	Day Mode: 28°F (-2.2°C) Night Mode: 34°F (1.1°C)
Cabinet	28°F to 40°F (-2.2°C to 4.4°C)	35°F (1.7°C)

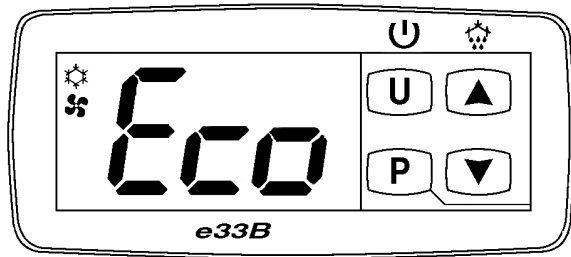
The setpoint flashes. If not set to desired temperature, see "III.C.1. Rail/Refrigeration Control Module Adjustment" or "III.C.2. Cabinet Control Module Adjustment."

NOTICE! Rail/Refrigeration control module controls rail fan motors and refrigeration (compressor). See "III.C.1. Rail/Refrigeration Control Module Adjustment." Cabinet fan motor control module does not control refrigeration operation. Only cabinet fan motor operation. See "III.C.2. Cabinet Fan Motor Control Module Adjustment."

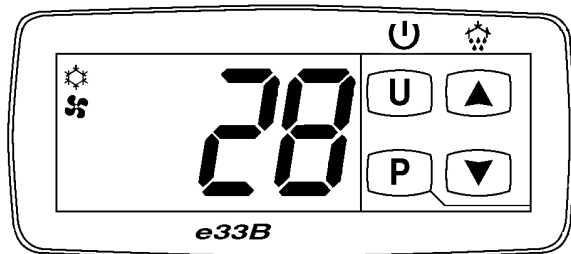
- 3) Allow the appliance to cool down prior to loading it with food products.
- 4) The rail/refrigeration control module displays "Eco" until one or both of the rail covers are open and engage a day mode switch (closed). The cabinet control module displays cabinet temperature. See Fig. 23.

Rail/Refrigeration Display at Startup

Both Rail Covers Closed



Either or Both Rail Covers Opened



Cabinet Display at Startup

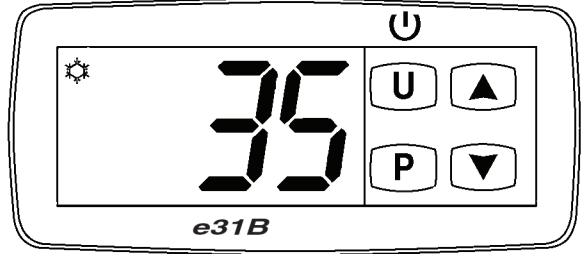
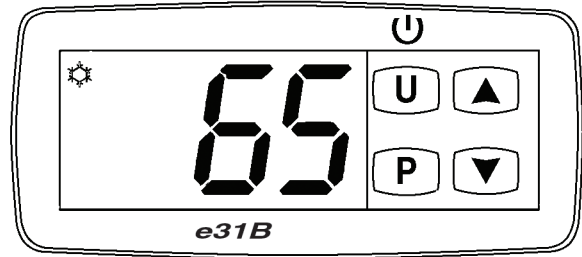


Fig. 23

C. Control Module Temperature Control

This appliance utilizes a rail/refrigeration control module and a cabinet control module. See Fig. 24.

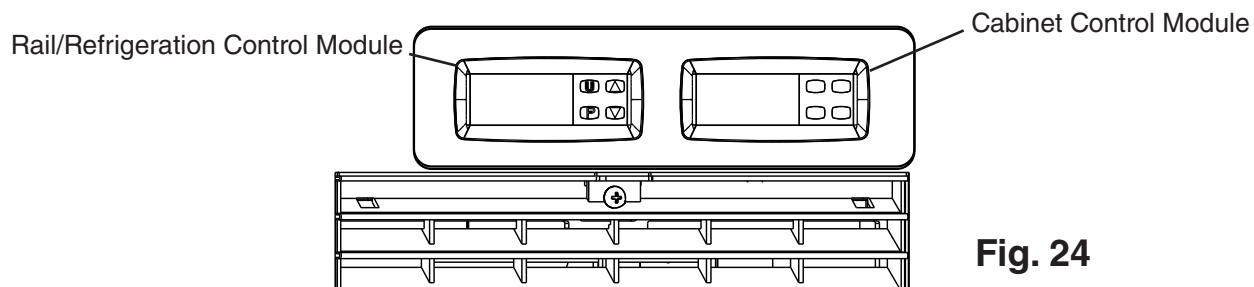


Fig. 24

1. Rail/Refrigeration Temperature Control Module Adjustment

The rail/refrigeration temperature control module controls evaporator fan motor (rail area) and refrigeration system (compressor and condenser fan motor) operation.

NOTICE! Cabinet fan motor operation control is separate; see "III.C.2. Cabinet Control Module Adjustment."

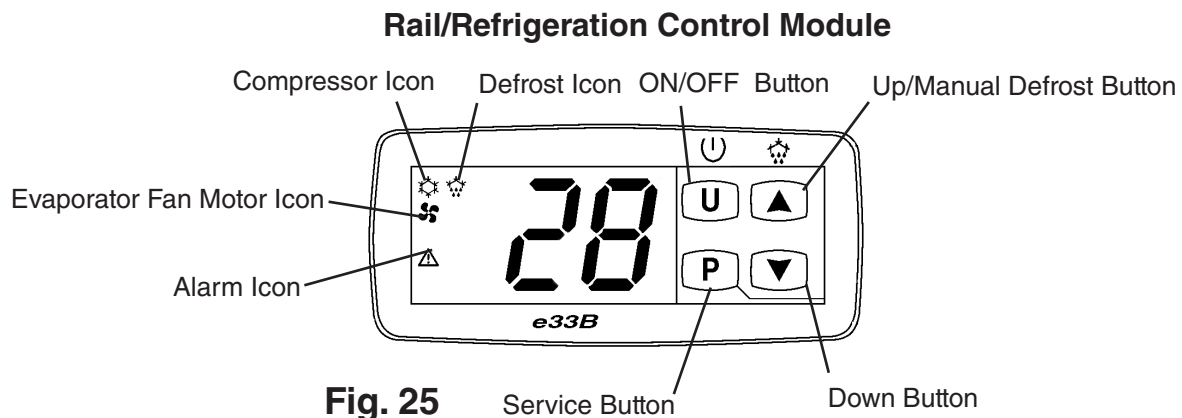
- Note:
- The temperature differential for the compressor to turn on or off is $\pm 1.8^{\circ}\text{F}$ (1°C) of the rail/refrigeration temperature control module temperature setpoints. For example, with a temperature setpoint of 28°F (-2.2°C), the compressor turns on at 29.8°F (-1.2°C) and the compressor turns off at 26.2°F (-3.2°C).
 - Day mode (one or both rail covers open) and night mode (both rail covers closed) temperature setpoint settings are independent. The default temperature setpoints are 28°F (-2.2°C) for day mode and 34°F (1.1°C) for night mode and the setpoints can be adjusted independently.
 - The day mode temperature setpoint cannot be set higher than the night mode setpoint and the night mode temperature setpoint cannot be set lower than the day mode setpoint. For details on setting the rail/refrigeration temperature control module temperature setpoints, see "III.C.a) Day Mode Rail/Refrigeration Temperature Setpoint Adjustment" or "III.C.c) Night Mode Rail/Refrigeration Temperature Setpoint Adjustment."

- a) **Day Mode Rail/Refrigeration Setpoint Adjustment.** During day mode operation (one or both rail covers open) the rail temperature is displayed on the rail/refrigeration control module.

If necessary, adjust the temperature setpoint as follows:

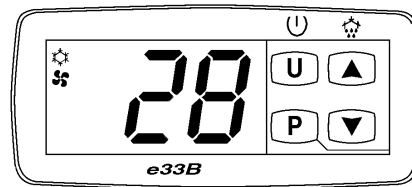
- 1) Press the down button briefly and release. See Fig. 25. SP1 flashes for a few sec., then the current rail day mode temperature setting appears.
- 2) Press the up or down arrow button to adjust the rail day mode temperature setpoint.
- 3) If no button is pressed for 5-sec. or if the "P" button is pressed, the rail day mode temperature setpoint is saved and the display returns to normal rail temperature display.

NOTICE! Do not adjust the temperature setpoint more than 2°F (1.1°C) at a time. Allow the temperature to stabilize for a minimum of 8 hours before making further temperature setpoint adjustments.



- b) **Day Mode Operation: Either One or Both Rail Covers Open;** With either one or both rail covers open, the rail day mode starts. The rail thermistor communicates to the rail/refrigeration control module to maintain the rail day mode temperature setting. See Fig. 26. **WARNING! To prevent night mode from engaging during day mode operation, make sure at least one of the rail covers (left or right) is open.**
 Note: At least one of the rail covers (right or left) must be open to view the rail day mode temperature. See Fig. 27.

Model	Factory Day Mode Default Temperature Setting
PR46B-Z, PR67B-Z	28°F (-2.2°C)



Day Mode: Rail Covers, Catch Tray Covers, and Speed Grates Placement

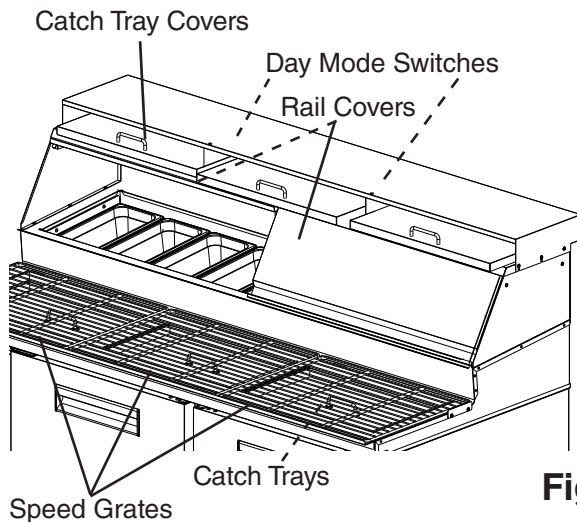
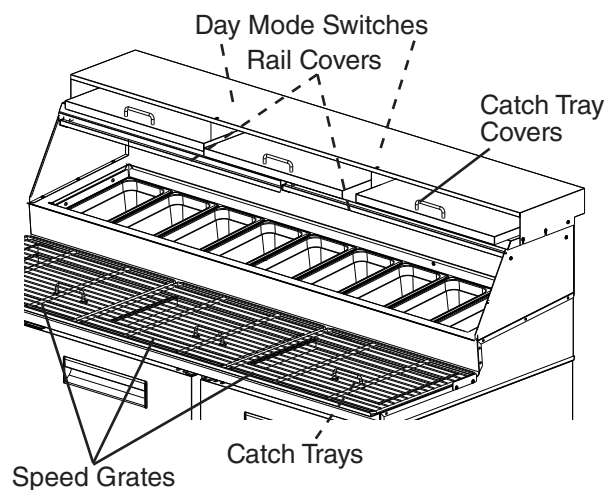


Fig. 26



Day Mode Switches

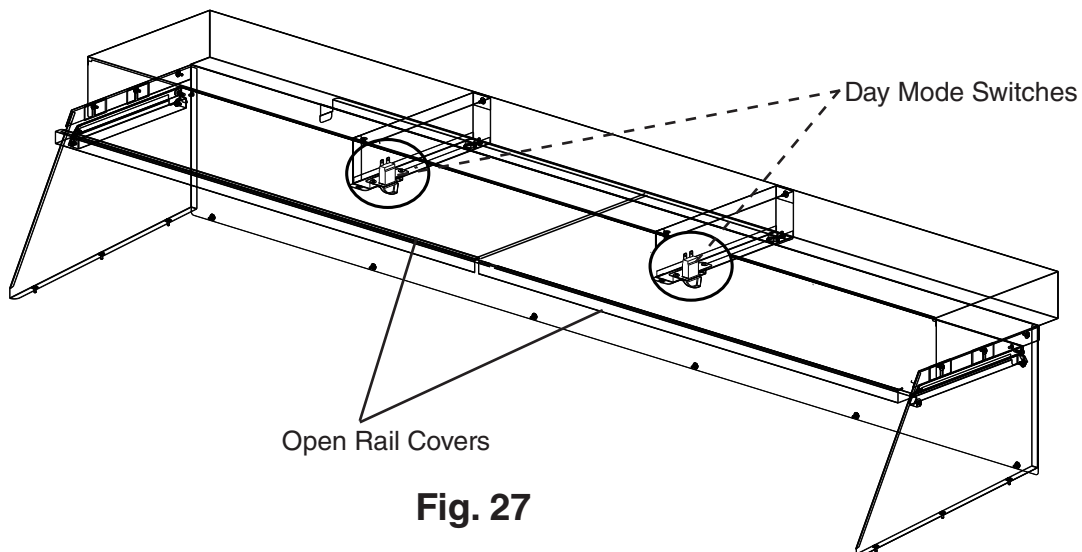


Fig. 27

c) **Night Mode Rail/Refrigeration Setpoint Adjustment.**

During night mode operation (both rail covers closed). "Eco" is displayed on the control module. To see the rail night mode temperature, press the up or down button and the current rail temperature is displayed. Note: Both rail covers must be closed to view the "night mode" temperature.

If necessary, adjust the temperature setpoint as follows:

- 1) Ensure both rail covers are closed.
- 2) Press and hold "U" and "P" buttons for 5 sec. until "S.P.E" is displayed.
- 3) Press and release "P" button, then the current rail night mode temperature setting appears.
- 4) Press the up or down arrow button until the desired rail night mode temperature setpoint is displayed.
- 5) Press and release "P" button to save the new temperature setting.

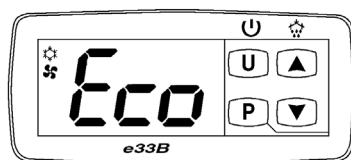
Note: If no selection is saved within 30 sec., the display returns to "ECO" and the rail night mode temperature setpoint remains unchanged.

NOTICE! Do not adjust the temperature setpoint more than 2°F (1.1°C) at a time. Allow the temperature to stabilize for a minimum of 8 hours before making further temperature setpoint adjustments.

- d) **Night Mode Operation: Both Left and Right Rail Covers Closed;** With both the left and right rail covers closed, the rail night mode starts. Place catch tray covers over catch trays and place the speed grates in the holding area above the rail. See Fig. 28. **WARNING! To prevent day mode from engaging during night mode operation, make sure both of the rail covers (left and right) are closed.**

Note: Both rail covers must be closed to view the rail night mode temperature. See Fig. 28.

Model	Temperature Setpoint Range	Factory Night Mode Default Temperature Setting
PR46B-Z, PR67B-Z	16°F to 36°F (-8.8°C to 2.2°C)	34°F (1.1°C)



Night Mode Rail Covers, Catch Tray Covers, and Speed Grates Placement

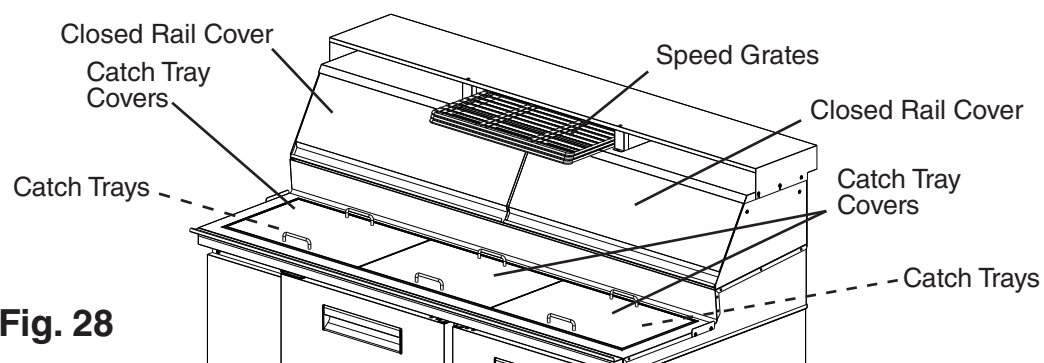


Fig. 28

e) Rail/Refrigeration Control Module Display Icons

Control module icons inform you of energized components and if the appliance is in alarm.

Control Module Icons	
Icon	Meaning
	Compressor Flashing: Compressor waiting for 2-min. compressor delay timer to terminate. Solid: Compressor energized.
	Defrost Flashing: Drip Time (compressor delay) Solid: Appliance is in defrost cycle. See "III.D. Defrost" for details.
	Evaporator Fan Motor Flashing: Evaporator fan motor waiting for 2-min. evaporator fan motor delay timer to terminate. Solid: Evaporator fan motor energized.
	Alarm Appliance is in alarm. See "III.E. Control Module Alarm Safeties" for details.

2. Cabinet Control Module Adjustment

The cabinet control module works in conjunction with the rail/refrigeration control module, and cabinet fan relay. The cabinet control module energizes the cabinet fan motors when cabinet cooling is required.

WARNING! Adjusting the cabinet temperature setpoint only affects cabinet fan motor operation. The cabinet control module does not energize or de-energize the refrigeration circuit (compressor) or rail fan motors.

- a) **Cabinet Temperature Setpoint Adjustment:** The cabinet temperature is displayed on the control module. To change the cabinet temperature setpoint, press the up arrow and release. See Fig. 29. SP1 and the cabinet setting flashes. Press the up or down arrow button to the desired temperature setpoint. 5-sec. later, the temperature setpoint is saved and the display returns to normal display. **NOTICE! Do not adjust the temperature setpoint more than 2°F (1.1°C) at a time. Allow the temperature to stabilize for a minimum of 8 hours before making further temperature setpoint adjustments.**

Factory Default: 35°F (1.7°C)

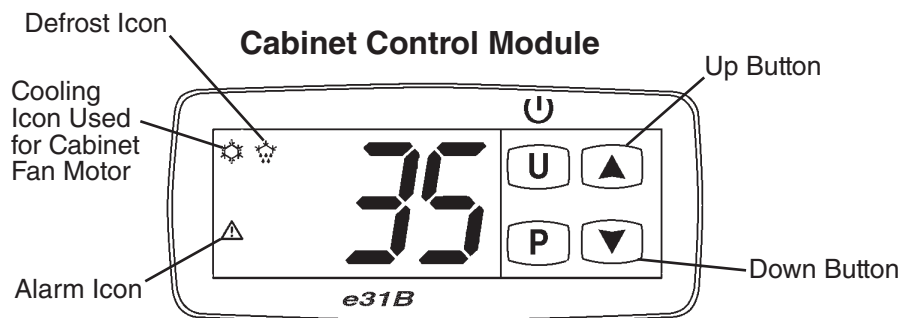


Fig. 29

b) Cabinet Fan Motor Control Module Display Icons

Control module icons inform you of energized components and if the appliance is in alarm. Note: Cooling icon used for cabinet fan motor operation.

Cabinet Fan Motor Control Module Icons	
Icon	Meaning
	Cooling icon used for Cabinet Fan Motor Cabinet thermistor calling for cooling. Cabinet fan motor energized if compressor energized. Note: Control module cooling icon used for cabinet fan motor operation.
	Defrost Appliance is in defrost cycle. See "III.D. Defrost" for details.
	Alarm Appliance is in alarm. See "III.E. Control Module Alarm Safeties" for details.

3. Control Module Temperature Display Scale (°F or °C)

Rail/Refrigeration and Cabinet Fan Motor Control Module:

There are 4 temperature display settings from which to choose.

The factory temperature display default is F0 for °F whole number.

For a whole number temperature display scale value, select F0 or C0.

For a temperature display scale value to one decimal point, select F1 or C1.

Display Scale	Temperature Display Style
F0 - Factory Default	35°F
C0	2°C
F1	35.0°F
C1	1.7°C

To change the temperature display scale value, follow the steps below:

- 1) Press the "U" and "P" buttons together for 5 sec. SP.E is displayed. Press the down button until i.uP is displayed.
- 2) Press the "P" button. The current display setting (F0, F1, C0, or C1) and i.uP start flashing.
- 3) Press the up or down button until the desired temperature display style is displayed.
- 4) Press the "P" button to save the selection. i.uP is displayed. To return to normal display mode, press and hold the "U" button for 5 sec. Display returns to normal display mode. If no other button is pressed after pressing the "P" button, 25 sec. later, display returns to normal display mode. See Fig. 30.

Note: If no selection is saved within 30 sec., the display returns to normal mode and the temperature display scale remains unchanged.

Control Module Shown: Cabinet Fan Motor Control Module

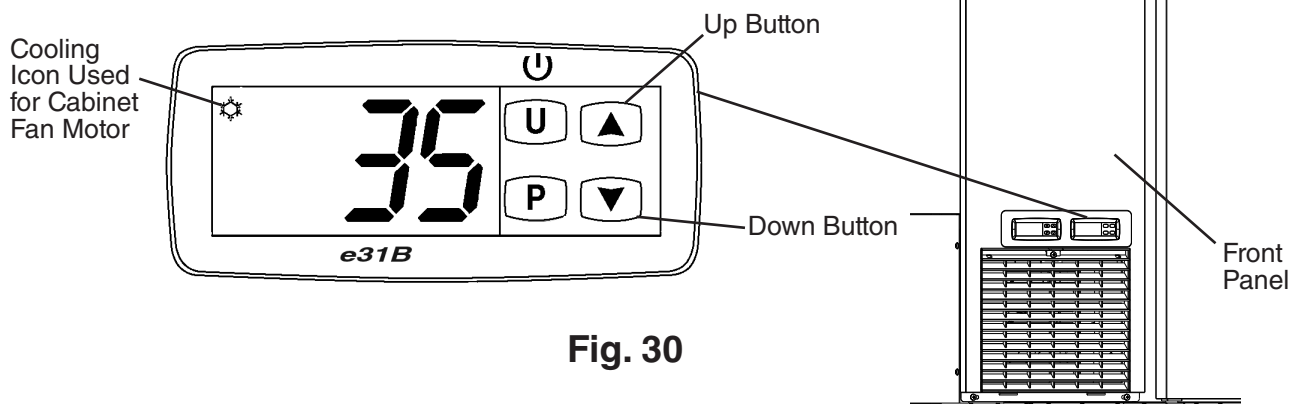


Fig. 30

D. Defrost

DANGER

Risk of Fire or Explosion. Flammable Refrigerant Used.

- Do not use mechanical devices to defrost.
- Do not puncture refrigerant tubing. Risk of fire or explosion due to puncture of refrigerant tubing; follow handling instructions carefully.

Risque D'Incendie ou D'Explosion. Fluide Frigorigène Inflammable Utilisé.

- Ne pas utiliser d'appareils mécaniques pour dégivrer le réfrigérateur.
- Ne pas perforer la tubulure contenant le frigorigène. Risque de feu ou d'explosion si la tubulure contenant le frigorigène est perforée; suivre les instructions de manutention avec soin.

1. Rail/Refrigeration Automatic Defrost

Heated Defrost: Refrigerators have a temperature or time initiated heated defrost cycle.

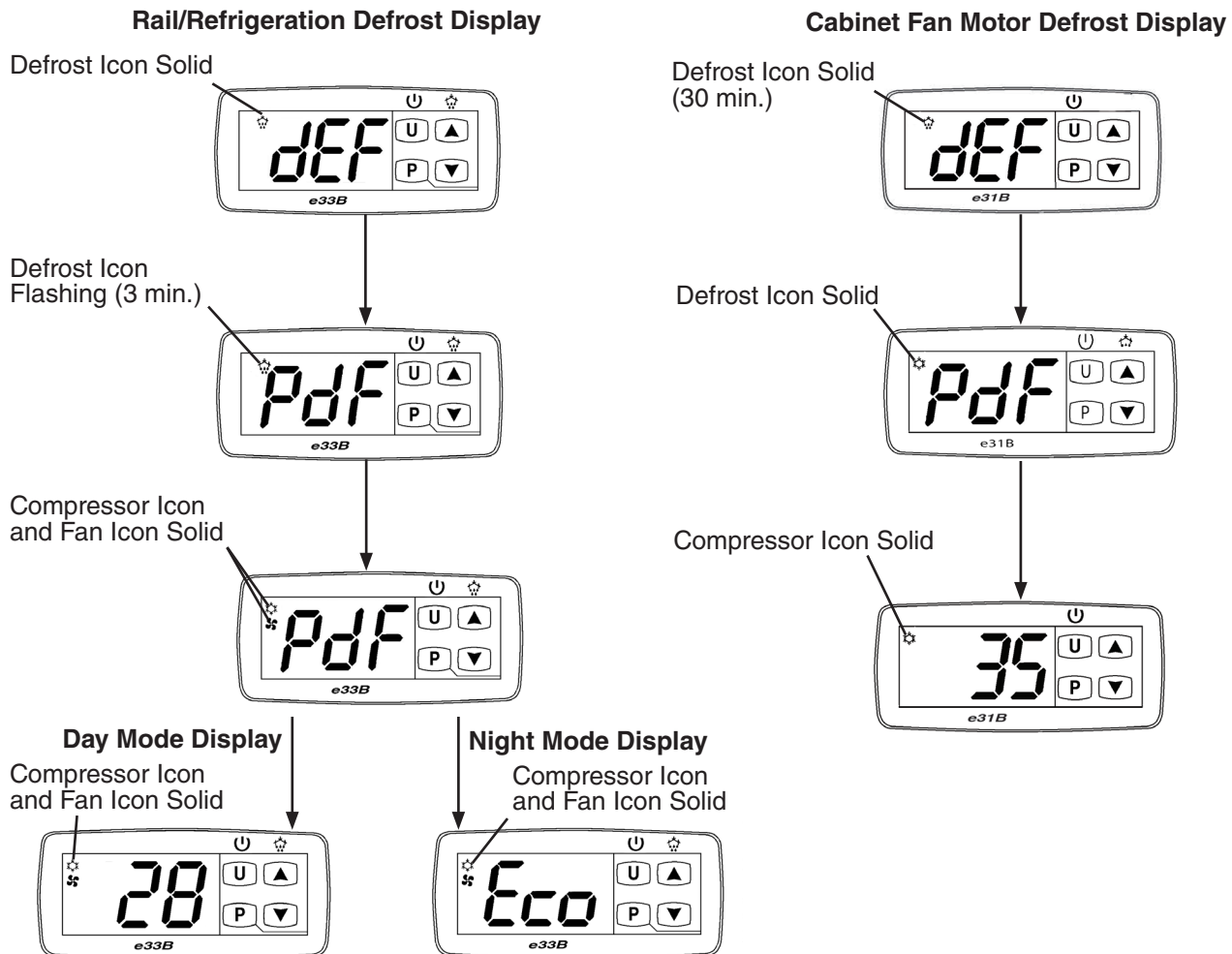
Note: There is a 1-hr. defrost lock-out after a defrost cycle terminates. This may be bypassed by initiating a manual defrost or unplugging and plugging back in to the electrical outlet.

- Temperature Initiated: When the defrost thermistor is at or below -31°F (-35°C), defrost starts.
- Time Initiated:
 - a) Power On Time: Once the 6-hr. "ON" Timer terminates, defrost starts.
 - b) Continuous Compressor Run Time: Once the 4hr. Continuous Compressor Run Timer terminates, defrost starts.

The maximum defrost time is 1 hr.

- When defrost initiates, the maximum 1-hr. defrost timer starts. Compressor and condenser fan motor de-energize. Defrost heater energizes.
 - When the defrost thermistor reaches 41°F (5°C), or the maximum 1-hr. defrost timer terminates, defrost terminates. Evaporator/Rail fan motors remain energized and compressor and condenser fan motor energize.
- a) **Rail/Refrigeration Control Module Defrost:** During defrost, "dEF" is displayed along with the defrost icon. The compressor and fan motor icons turn off. Once defrost termination temperature is achieved or the maximum timer times out, defrost terminates. The display changes from dEF to PdF and the defrost icon flashes for 3 min. Once the 3-min. timer terminates, the compressor and evaporator/rail fan motors icons turn on and PdF is remains displayed. PdF continues until the rail temperature achieves 1.8°F (1°C) above temperature setpoint or the 15-min. timer terminates. Once 1.8°F (1°C) above temperature setpoint is achieved or the 15-min. timer terminates, the rail temperature returns to display.
- b) **Defrost Termination**
Defrost Termination Temperature: 41°F (5°C).

2. Defrost Display Sequence



3. Manual Defrost

To initiate a manual defrost, on the rail/refrigeration control module;

Press and hold the rail/refrigeration control module up button for 5 sec.

To terminate a defrost, on the rail/refrigeration control module;

Press and hold the rail/refrigeration control module up button for 5 sec. Note: Manual defrost only initiates when evaporator temperature (defrost thermistor) is at or below 41°F (5°C).

E. Control Module Alarm Safeties

1. Rail/Refrigeration Control Module Alarm Safeties

Alarm signals are designed to protect the appliance and food product. These alarms give information or warnings in the event the appliance is operating out of acceptable parameters. Should one of the alarms occur, follow the instructions in the table below to address the alarm. The alarm code and alarm icon flash with audible alarm.

Alarm Signals		
Alarm Code	Problem	Corrective Action/Reset Details
(-)E1	Rail Thermistor Malfunction Alarm	Call a qualified service technician.
	Rail thermistor has failed.	Steady tone. To silence the alarm, press and release any button. Appliance cycles 5 min. on, 5 min. off. -E1 - Cabinet thermistor out of place or open. E1 - Cabinet thermistor shorted.
(-)E2	Defrost Thermistor Malfunction Alarm	Call a qualified service technician.
	Defrost thermistor has failed.	Steady tone. To silence the alarm, press and release any button. Appliance defrost 20 min. every 6 hrs. -E2 - Rail thermistor out of place or open. E2 - Rail thermistor shorted.
Hi	High Temperature Alarm	If obvious corrections such as closing doors/drawers and cleaning the air filter and/or condenser do not bring temperature back in range, call a qualified service technician.
	Rail temperature has remained above 57°F (13.9°C) for more than 1 hour.	Steady tone. To silence the alarm, press and release any button. The alarm icon stays on. Automatically resets when temperature returns to normal.
Lo	Low Temperature Alarm	If obvious corrections do not bring the temperature back in range, call a qualified service technician.
	Rail temperature has remained below 10°F (-12°C) for more than 1 hour.	Steady tone. To silence the alarm, press and release any button. The alarm icon stays on. Automatically resets when temperature returns to normal.

2. Cabinet Fan Motor Control Module Alarm Safeties

Alarm signals are designed to protect the appliance and food product. These alarms give information or warnings in the event the appliance is operating out of acceptable parameters. Should one of the alarms occur, follow the instructions in the table below to address the alarm. The alarm code and alarm icon flash with audible alarm.

Alarm Signals		
Alarm Code	Problem	Corrective Action/Reset Details
(-)E1	Cabinet Thermistor Malfunction Alarm Cabinet thermistor has failed.	Call a qualified service technician. Steady tone. To silence the alarm, press and release any button. Appliance cycles 5 min. on, 5 min. off. -E1 - Cabinet thermistor out of place or open. E1 - Cabinet thermistor shorted.
Hi	High Temperature Alarm Cabinet temperature has remained above 57°F (13.9°C) for more than 1 hour.	If obvious corrections such as closing doors/drawers and cleaning the air filter and/or condenser do not bring temperature back in range, call a qualified service technician. Steady tone. To silence the alarm, press and release any button. The alarm icon stays on. Automatically resets when temperature returns to normal.
Lo	Low Temperature Alarm Cabinet temperature has remained below 20°F (-6.6°C) for more than 1 hour.	If obvious corrections do not bring the temperature back in range, call a qualified service technician. Steady tone. To silence the alarm, press and release any button. The alarm icon stays on. Automatically resets when temperature returns to normal.

F. Daily Operation

WARNING

Failure to close the rail covers during non-active times may keep the rail/refrigeration control module in day mode program. This could lead to frozen product over night.

1. Daily Starting Procedure, Active Time:

- a) Open rail covers.
- b) Remove the speed grates from the storage area above the rail (if applicable). If the speed grates are located over catch tray covers, remove speed grates.
- c) Remove the catch tray covers. Place the catch tray covers in the storage bin above the rail or in another safe location. Place the speed grates back in their correct positions over the catch trays.
- d) Load rail pans with produce.

2. Non-Active Time

- a) Wrap all rail pans with produce.
- b) Remove the speed grates. Next, remove and empty the catch trays. Clean the catch trays and place them back in their correct positions.
- c) Place the catch tray covers in their correct position over the catch trays.
- d) Place the speed grates in the storage area over the rail.
- e) Close the rail covers. This disengages the day mode switches and initiates rail/refrigeration control module night mode program.
- f) Wipe down all of the appliance work area.

G. Food Storage

WARNING

- The appliance is designed only for temporary storage of food. Employ sanitary methods. Use for any other purposes (for example, storage of chemicals or medical supplies such as vaccine and serum) could cause deterioration of stored items.
- Do not tightly pack the cabinet. Allow some space between items to ensure good air flow. Also allow space between items and interior surfaces.
- Do not put warm or hot foods in the cabinet. Let them cool first, or they will raise the cabinet temperature and could deteriorate other foods in the cabinet or overload the appliance.
- All foods in the cabinet should be wrapped in plastic film or stored in sealed containers. Otherwise foods may dry up, pass their smells onto other foods, cause frost to develop, result in poor appliance performance, or increase the likelihood of cross-contamination. Certain dressings and food ingredients, if not stored in sealed containers, may accelerate corrosion of the evaporator, resulting in failure.
- Do not store items near air outlets in the cabinet. Otherwise, items may freeze up and crack or break causing a risk of injury or contamination of other food.
- The entire rail must always be covered by rail dividers and pans. Otherwise, the appliance will not cool properly. Use only pans up to 6" (15 cm) deep. Do not use damaged rail dividers or pans.
- Ingredients must be pre-chilled to 37°F (3°C) or less before placing in rail.
- Keep the rail cover closed when not actively preparing food.
- The rail is for keeping ingredients cool while preparing food. If not actively preparing food for a long period such as overnight, seal pans with plastic wrap in addition to closing the rail cover. Depending on conditions, the cabinet temperature setting may need to be adjusted to prevent items from freezing. Alternatively, seal ingredients and store them in a refrigerator or freezer.

H. Safety Devices

1. Compressor External Protector

If combined temperature/amperage value is above the limit specified by the compressor manufacturer, the compressor protector operates independently to turn off the compressor. The compressor protector de-energizes the compressor until the temperature/amperage value returns to an acceptable level.

2. Short-Cycle Protection

There is a 2-minute minimum off-time and on-time for the compressor.

Note: Time may vary with compressor overload activation.

I. Cooling Performance

Be sure the appliance is properly installed and located for optimum cooling performance. If cooling performance is not at its optimum level, check the following items:

- Doors/drawers opened too often.
- Doors/drawers left open. Close.
- Cabinet too tightly packed or air inlets/outlets blocked. Allow some space between items to ensure good air flow.
- Warm or hot foods inside the cabinet or rail area. Take them out until they cool down more.
- Ambient temperature too high. Avoid installation near high heat producing equipment or exposure to direct sunlight.
- Temperature setpoint not cold enough. Adjust to a colder setting. See "III.C. Control Module Temperature Control" for details.
- Appliance in defrost cycle. The cabinet temperature may rise temporarily during the defrost cycle, but this will not affect the food inside.
- Pans and rail dividers not in place. The entire rail must always be covered by rail dividers and pans (up to 6" (15 cm) deep) or the appliance will not cool properly.
- Warm or hot ingredients inside rail. Only load ingredients that have been pre-chilled to 37°F (3°C) or less.
- Rail cover open when not actively preparing food. When not actively preparing food, close the rail cover.

J. Cabinet Condensation

In the event condensation develops on the cabinet exterior, check the following items:

- Doors/drawers left open. Close.
- Ambient humidity too high. In high humidity areas it may be necessary to wipe off the cabinet frame occasionally.

IV. Maintenance

This appliance must be maintained in accordance with the instruction manual and labels provided with the appliance. Consult with your local Hoshizaki Certified Service Representative about maintenance service. To obtain the name and phone number of your local Hoshizaki Certified Service Representative, visit www.hoshizakiamerica.com.

⚠ WARNING

- Only qualified service technicians should service the appliance.
- Before starting a maintenance procedure, press the "U" button to turn "OFF" the appliance and unplug the appliance, to prevent electric shock or injury by moving parts. To reduce the risk of electric shock, do not touch the plug with damp hands.
- Before cleaning the appliance, move all foods into another clean refrigerator or freezer.

A. Maintenance Schedule

The maintenance schedule below is a guideline. More frequent maintenance may be required depending on the appliance's environment, and local sanitation regulations.

Maintenance Schedule		
Frequency	Area	Task
Bi-Weekly	Air Filters	Inspect. Wash with warm water and neutral cleaner if dirty.
Bi-Yearly	Condenser	Inspect. Clean if necessary by using a brush or vacuum cleaner. More frequent cleaning may be required depending on location.

1. Air Filter

Remove the louver screw and check the air filter at least twice a month. When clogged, remove the air filter. Use warm water and a neutral cleaner to wash the filter. Replace the air filter in its correct position. See Fig. 31.

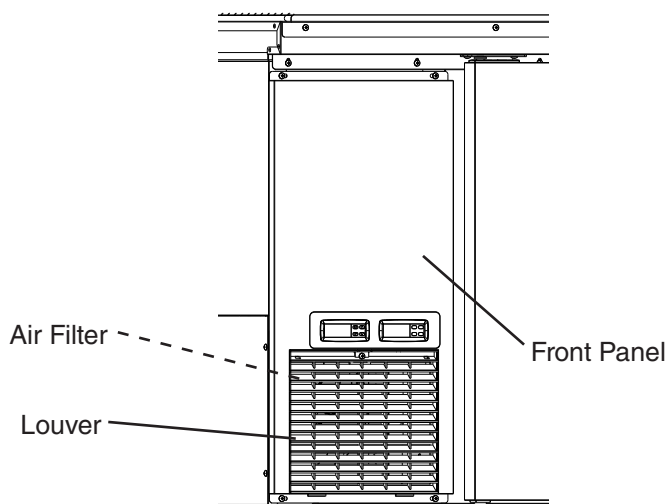


Fig. 31

2. Condenser

Check the condenser once a year and use a brush or vacuum cleaner to clean the condenser as required. More frequent cleaning may be required depending on conditions.

3. Condensate Drain Hose

Clean the condensate drain as often as necessary to maintain proper flow. Follow the steps below.

- 1) Unplug the appliance from the electrical outlet. **WARNING! To reduce the risk of electric shock, do not touch the plug with damp hands.**
- 2) Remove the left side panel.
- 3) Remove the condensate drain hose.
- 4) Clean the condensate drain hose.
- 5) Replace the condensate drain hose in its correct position.
- 6) Replace the left side panel in its correct position.
- 7) Plug the appliance back into the electrical outlet.

4. Power Supply Connection

If the plug or power cord is damaged, contact your local Hoshizaki service representative or local Hoshizaki distributor immediately and ask for repairs.

All other maintenance or service on the appliance should be performed in accordance with the Hoshizaki Service Manual by a qualified service technician.

B. Cleaning

WARNING

- Unplug the appliance before cleaning to prevent electric shock by unexpected entrance of water into the appliance or injury by moving parts. To reduce the risk of electric shock, do not touch the plug with damp hands.
- Before cleaning the appliance, move all foods into another clean refrigerator or freezer.
- Do not splash, pour, or spray water directly onto or into the appliance. This might cause short circuit, electric shock, corrosion, or failure.
- Carefully follow instructions provided with cleaning and sanitizing products.

NOTICE

- To prevent damage to the plastic surfaces, do not use the following: hot water, thinner, benzine, alcohol, petroleum, soap powder, polishing powder, alkaline cleaner, acid, scouring pad and especially those strong cleaners for use on a ventilating fan or a cooking range.
- To prevent corrosion and damage to stainless steel surfaces, use only products formulated for use on stainless steel appliances. Do not use steel wool, abrasive products, or products containing sodium hypochlorite (chlorine bleach).
- Use a clean cloth for cleaning.

1. Exterior

Wipe the exterior occasionally with a clean, soft cloth. Use a damp cloth containing a neutral cleaner to wipe off oil or dirt buildup. Clean any rust colored spots using a non-abrasive cleanser.

2. Cabinet Interior

Spills should be wiped up promptly to avoid unpleasant odors. The cabinet interior should be cleaned periodically with a mild soap or detergent and warm water.

3. Door/Drawer Gaskets

Door/drawer gaskets should be cleaned regularly with mild soap and warm water to remove dirt and grease.

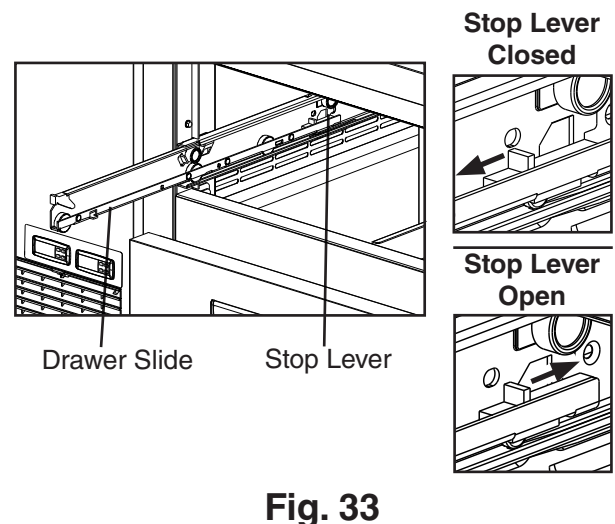
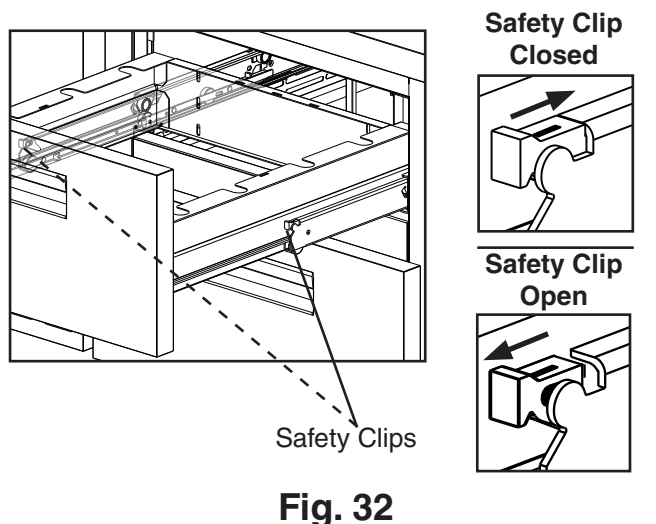
4. Shelves

Remove and clean regularly.

5. Drawers

Drawers and drawer slides are removable.

- **To remove a drawer:** Remove all items from the drawer. Pull the drawer out to its fully extended position. Open the safety clips (one on each side) by sliding them forward. See Fig. 32. Lift up on the handle slightly, then pull to disengage the drawer. Be sure to support the rear and front of the drawer while removing it. **WARNING! Be sure to close the safety clips when reinstalling the drawer.**
- **To remove a drawer slide (center slide containing rollers):** Open the stop levers (one on each side) by sliding them to the rear. See Fig. 33. Lift up on the drawer slide slightly, then pull to disengage the drawer slide. **WARNING! Be sure to close the stop levers when reinstalling the drawer.** Drawer slides do not require lubrication, but drawer slides should be kept clean and free of food.
Note: Drawer slides are dishwasher safe.



6. Pans

Wash pans as often as necessary to maintain clean, sanitary conditions.

7. Rail, Rail Dividers, and Rail Cover

Spills and splashes should be wiped up promptly to avoid unpleasant odors. Wipe the rail area, rail dividers, and rail cover occasionally with a clean, damp sponge or cloth containing a neutral cleaner. Clean any rust colored spots using a non-abrasive cleanser. Do not pour or spray water into the rail area.

WARNING!

- **Support the rail cover when cleaning. Otherwise, the rail cover could close suddenly and cause injury.**
- **Metal edges can cause cuts. Use care and wear protective gloves when cleaning.**

8. Rail Air Duct

- 1) Move all foods into another clean refrigerator.
- 2) Unplug the appliance. **WARNING! To reduce the risk of electric shock, do not touch the plug with damp hands.**
- 3) Remove the pans and rail dividers from the rail. **WARNING! Support the rail cover when cleaning. Otherwise, the rail cover could close suddenly and cause injury.**
- 4) Air Duct Panel and Rail Area Cleaning: **WARNING! Metal edges can cause cuts. Use care and wear personal protective equipment (gloves and goggles) when cleaning.**
 - a) **Daily:** Remove the pans and rail dividers. Wipe the air duct panel and rail area with a mild soap or detergent and warm water. After cleaning, wipe the air duct panel with water.
 - b) **Weekly:** Follow the steps below to remove and clean the air duct panel and rail area.
 - (1) Remove the thumbscrews and front and back mounting screws, then remove the air duct. See Fig. 33.
 - (2) Wipe the air duct panel (top and bottom), rail area (sides and top), and surrounding mounting area with mild soap or detergent and warm water. Clean any rust colored spots using a non-abrasive cleanser. After cleaning, wipe the air duct panel with water.
 - (3) Replace and secure the air duct panel in its correct position. Be sure the thumbscrews and mounting screws are installed and tightened. **NOTICE! Air duct panels must be replaced in the proper location and orientation. See Fig. 34. Otherwise, cooling performance will be reduced.**
- 5) Place the rail dividers and pans (up to 6" (15 cm) deep) into their correct positions. Leave the pans empty until the appliance cools down.
- 6) Close the rail cover. Plug the appliance into the electrical outlet.

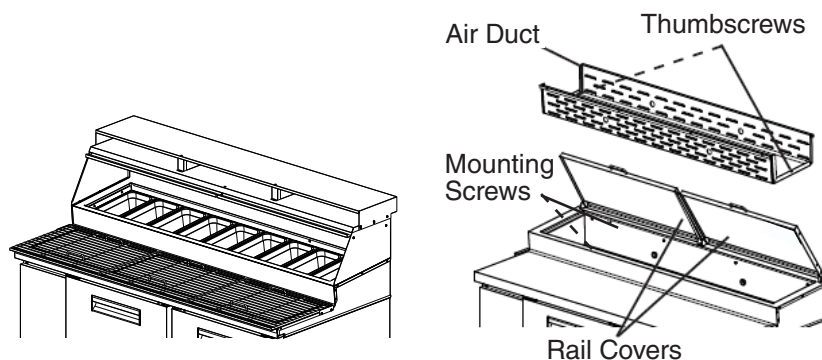


Fig. 34

- 7) Allow the appliance to cool down prior to loading it with food products. The entire rail must be covered by rail dividers and pans and the rail cover must be closed. Otherwise, the appliance will not cool properly. Leave the pans empty until the appliance cools down.

V. Preparing the Appliance for Periods of Non-Use

When shutting down the appliance for periods of non-use, follow the instructions below.

⚠ WARNING

- | |
|---|
| <ul style="list-style-type: none">• When preparing the appliance for long storage, prevent the doors or drawers from closing to reduce the risk of children getting trapped.• Risk of electric shock. Appliance in the off position does not de-energize all loads. Use extreme caution and exercise safe electrical practices.• To reduce the risk of electric shock, do not touch the plug with damp hands. |
|---|

NOTICE

When preparing the appliance for long storage, clean the appliance. See "IV.B. Cleaning" for details.

- 1) Before shutting down the appliance, move the stored food into another refrigerator.
- 2) Unplug the appliance. **WARNING! To reduce the risk of electric shock, do not touch the plug with damp hands.**

VI. Decommissioning and Disposal



R-290 Class A3 Flammable Refrigerant Used

⚠ DANGER

Risk of Fire or Explosion. Flammable Refrigerant Used.

- Only qualified service technicians should install and service the appliance.
- Follow handling instructions carefully in compliance with national regulations.
- Dispose of properly in accordance with federal or local regulations.
- Do not puncture refrigerant tubing. Risk of fire or explosion due to puncture of refrigerant tubing; follow handling instructions carefully.
- Be sure to follow the full Decommissioning and Disposal information located in the Service Manual for this model. The Service Manual is available at www.hoshizakiamerica.com.

Risque D'Incendie ou D'Explosion. Fluide Frigorigène Inflammable Utilisé.

- Seuls des techniciens de service qualifiés doivent installer et entretenir l'appareil.
- Suivre attentivement les instructions de manutention conformément aux règlements nationaux.
- Mettre au rebut conformément aux conformément aux règlements fédéraux ou locaux.
- Ne pas perforer la conduite de fluide frigorigène. Risque d'incendie ou d'explosion en cas de perforation d'une canalisation de fluide frigorigène; suivez attentivement les instructions de manutention.
- Veiller à respecter l'ensemble des informations relatives à la mise hors service et à la mise au rebut figurant dans le manuel d'entretien de ce modèle. Le manuel d'entretien est disponible à l'adresse suivante: www.hoshizakiamerica.com.

HOSHIZAKI AMERICA, INC.

618 Hwy. 74 South, Peachtree City, GA 30269 USA (P) 770.487.2331 (F) 770.487.3360 hoshizakiamerica.com 1A8250-011