



HOSHIZAKI

Instruction Manual

Refrigerator

Model
HR24C

Number: MAN-328-R
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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.hoshizaki.com. No installation or service should be undertaken until the technician has thoroughly read this Instruction Manual. 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, maintenance, and service of the appliance.

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.

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INTRODUCTION

This manual contains instructions for installation, operation and general maintenance of your unit.

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.

 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

Risk of Fire or Explosion

Flammable Refrigerant Used

- Follow handling instructions carefully in compliance with U.S. government regulations.
- 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.
- Component parts shall be replaced with like components.
- Servicing shall be done by factory authorized service personnel to minimize the risk of possible ignition due to incorrect parts or improper service.
- Consult instruction manual/service manual before attempting to install or service this product. All safety precautions must be followed.
- Dispose of properly in accordance with federal or local regulations.
- Do not place any potential ignition sources in or near the appliance.



WARNING

This 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.

To reduce the risk of death, electric shock, serious injury, or fire, follow basic precautions including the following:

- Only qualified service technicians should install and service this appliance.
- Wear appropriate personal protective equipment (PPE) when servicing the appliance.
- This appliance must be installed in accordance with applicable national, state, and local codes and regulations.
- To reduce the risk of electric shock, do not touch the plug with damp hands.
- This 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.
- **THIS APPLIANCE MUST BE GROUNDED:** This 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 plug and do not use an adapter plug. Failure to follow these instructions may result in death, electric shock, or fire.
- 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.
- The GREEN ground wire in the factory-installed power cord is connected to the appliance. If it becomes necessary to remove or replace the power cord, be sure to connect the power cord's ground wire.
- Do not splash, pour, or spray water directly onto or into the appliance. This might cause short circuit, electric shock, corrosion, or failure.
- Do not make any alterations to the appliance. Alterations could result in electric shock, injury, fire, or damage to the appliance.



WARNING, continued

- This 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 this appliance.
- Do not climb, stand, or hang on the appliance or door 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.
- 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.
- Open and close the doors with care. Doors opened 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.
- Keep the area around the appliance clean. Dirt, dust, or insects in the appliance could cause harm to individuals or damage to the equipment.
- Do not throw anything onto the shelves or load any single shelf with more than 40 lb. (18 kg) (For small shelf) and 59 lb. (27 kg) (For large shelf) of product. They might fall off and cause injury.
- This appliance is designed only for storage of package 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 block the cabinet air inlet or outlet, 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 place any product on the floor of the cabinet. All product must be placed on properly installed shelves.
- 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 store items near the air outlet. They might freeze up and crack or break causing a risk of injury or contamination of other food.
- This unit must be installed and located appropriately, following the installation instructions before its use.



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WARNING, continued

- Do not allow children to climb, step or hang onto the shelves inside the cooler. That could damage the unit and cause serious injuries to them.
- Do not touch the cold surfaces of the cooler with your hands wet or moist. The skin can stick to these cold surfaces.
- Do not store gasoline or other flammable liquids or gases, near this or other electrical equipment.
- Keep your fingers away from the spaces between doors and cabinet are small, so be careful when closing doors when children are around.
- Unplug the cooler before cleaning or performing any repair.

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. Do not place anything on top of the appliance. Blockage of airflow could negatively affect performance and damage the appliance.
- 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.

GENERAL SAFETY

- Avoid prolonged exposure of the appliance to direct sunlight.
- Only genuine spare parts should be used to service this refrigerator.





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KNOW YOUR EQUIPMENT

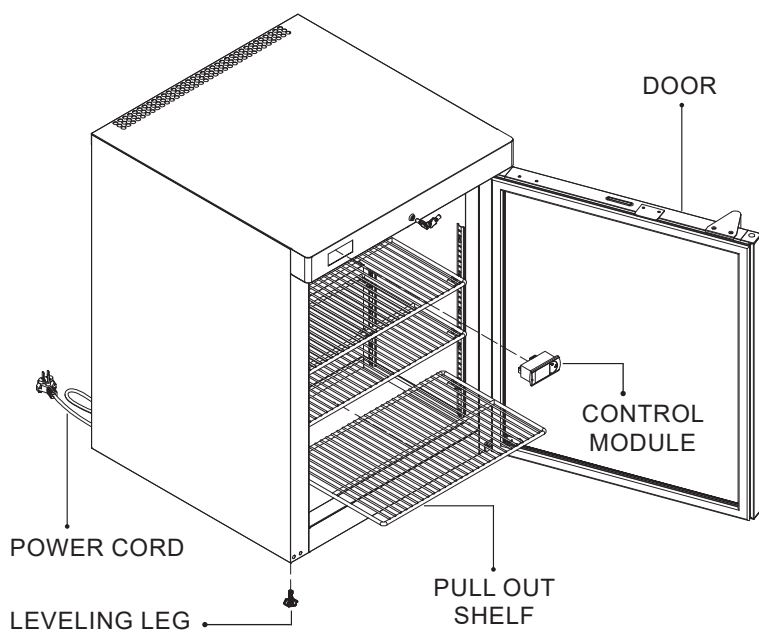


FIG. 1



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CHECK FOR SHIPPING DAMAGE

Prior to leaving the factory, each cabinet is thoroughly inspected and performance tested to assure proper operating temperatures.

Check the crate thoroughly for signs of shipping damage. If external damage exists, internal damage is also probable. Uncrating should be done while the carrier's representative is present. Otherwise, the equipment should be uncrated as soon as possible, preferably within five (5) days. The manufacturer is not responsible for in-transit damage and the consignee must file any required damage claims directly with the carrier. If the damage is severe and obvious, write a brief description of the evidence on the carrier's delivery receipt, and above the carrier representative's signature. Call the distributor or dealer immediately, indicating that the cabinet was damaged.

DANGER: Risk of Fire or Explosion due to Flammable Refrigerant Used. Follow Handling Instructions Carefully in Compliance with U.S. Government Regulations.

If no obvious crate damage is present, within two hours of receiving the cabinet from the carrier, remove the packaging to inspect for concealed damage.

1. If concealed damage is found, call the carrier immediately, **save all crating materials**, and file the necessary freight claim with the carrier.

Check for accessories: Check that the shelves are inside the refrigerator, including the four clips or supports for each shelf.

Installation instructions



WARNING

- This appliance must be installed in accordance with all 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 tilt the appliance more than 45°.



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HANDLING THE CABINET

1. Always move the unit in an upright position. Do not set it on its side or upside down as you may damage the cabinet and cause the oil to migrate from the compressor.
2. If lifting the unit, hold it from its base. It is recommended to use a dolly.
3. Do not let the unit fall abruptly.
4. Appliance is heavy. Use care when lifting or positioning. Work in pairs when needed to prevent injury or damage.
5. Do not lift using the doors.

LOCATION

Select location

The proper location will ensure peak performance of your appliance. We recommend a location where the unit will be out of direct sunlight and away from heat sources. To ensure your product performs to specifications, the recommended installation location temperature range is from 55 to 115° F (13 to 46°C).

Cabinet clearance

Ventilation is required from the bottom front of the appliance. Keep this area open and clear of any obstructions. Adjacent cabinets and counter top can be installed around the appliance as long as the front grille remains unobstructed.

Front Grille

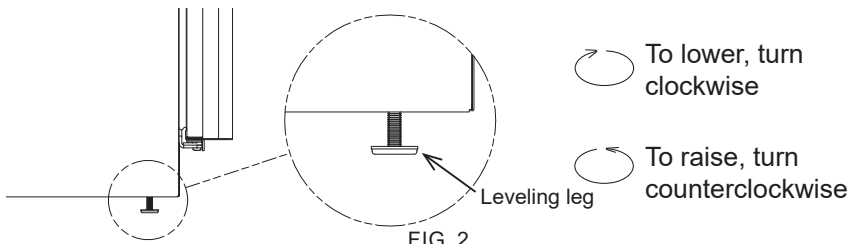
Do not obstruct the front grille. The openings within the front grille allow air to flow through the condenser heat exchanger. Restrictions to this air flow will result in increased energy usage and loss of cooling capacity. For this reason it is important this area not be obstructed and the grille openings kept clean. It is not recommend the use of a custom made grille as air flow may be restricted.

REMOVE THE CRATE AND SKID

Cut the plastic straps.

LEVEL THE CABINET

The base of the refrigerator has heavy duty leveling legs underneath so the cabinet may be leveled appropriately and to allow room to clean beneath the cabinet. Level the cabinet front to back and side to side with a level by using the adjustable portion of the leveling legs.





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ELECTRICAL INSTALLATION

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.
- This 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.
- **THIS APPLIANCE MUST BE GROUNDED:** This appliance is equipped with a NEMA 5-15 three-prong grounding plug '1.' 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 plug 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.
- 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.
- The GREEN ground wire in the factory-installed power cord is connected to the appliance. If it becomes necessary to remove or replace the power cord, be sure to connect the power cord's ground wire.

- Usually an electrical permit and services of a licensed electrician are required.
- The maximum allowable voltage variation is ± 10 percent of the nameplate rating.

ATTENTION

After an interruption of the electrical power supply, the compressor will take approximately 3 minutes to start working.



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INSTALLING THE SHELVES

Loading tips and suggestions

Your appliance is equipped with a shelf system, composed of three reinforced heavy duty shelves and twelve shelf clips (four per shelf), which provides maximum adjustability.



WARNING

Never try to move a loaded shelf, remove everything from the shelf before moving. Use both hands when moving the shelf.

To add or remove a shelf

Remove stored product from the shelf. Do not try to remove a loaded shelf from the appliance. Grasp the shelf front with both hands, rotate the front upward and lift out. Shelves and shelf clips are packed inside the cabinet prior to shipment. After selecting the appropriate spacing inside the cabinet, install shelf clips by inserting top of clip inside the pilaster and then press the lower section of the clip while pushing inwards until it snaps into place. Repeat until all clips are in desired location. Place shelf on clips checking that all four corners of shelves are leveled and supported by the four shelf clips.

START UP THE COOLER

1. Plug in the electrical cord of the unit to a wall outlet, following the recommendations about electrical installation in this manual.
2. Allow the appliance to cool down to setpoint before loading with product.
3. When placing products in the cooler, you should leave small gaps between one and the other to assure free circulation of air inside the cabinet.
4. Do not leave the door open for extended periods of time, to avoid increased temperature of the products.

The temperature of a cooler should be between 34°F to 40°F.



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DOOR REVERSAL

If you would like to reverse the door swing, follow the steps below. Otherwise, skip to section “Controls and adjustments”.

TOOLS



PHILLIPS # 2 SCREWDRIVER

INSTRUCTIONS

Step 1. Remove the four SC-48-SS screws and the Exterior top. See figure 3.

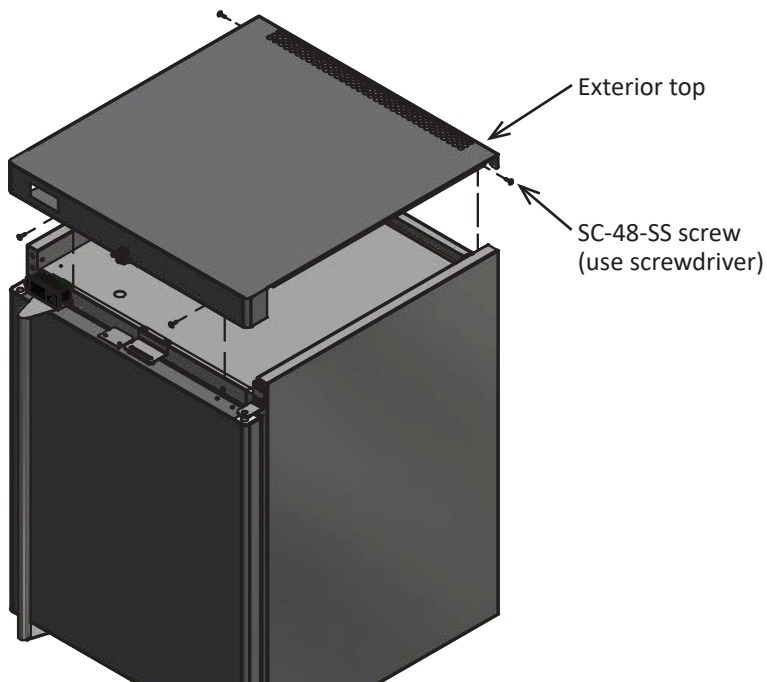
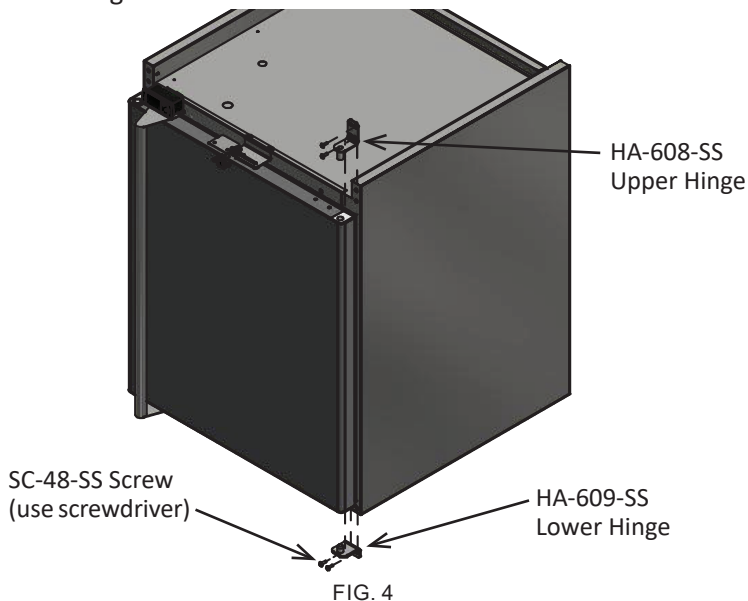


FIG. 3

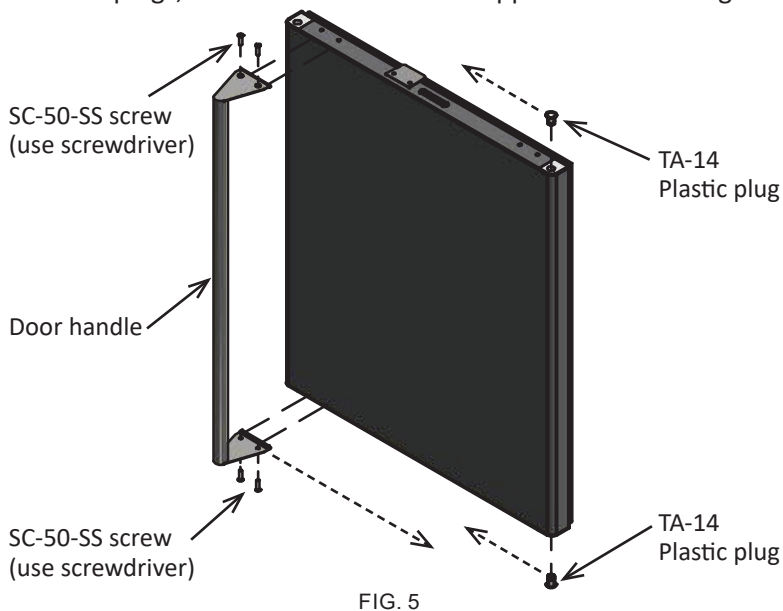


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Step 2. While maintaining a hold on the door, remove the SC-48-SS screws, the HA-609-SS Lower Hinge and the HA-608-SS Upper Hinge, then remove the door. See figure 4.



Step 3. Remove the SC-50-SS screws, the HA-634-SS Door handle, and the TA-14 Plastic plugs, then attach them to the opposite side. See figure 5.





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Step 4. Attach the Hinges to the left side of the cabinet. See figure 6.

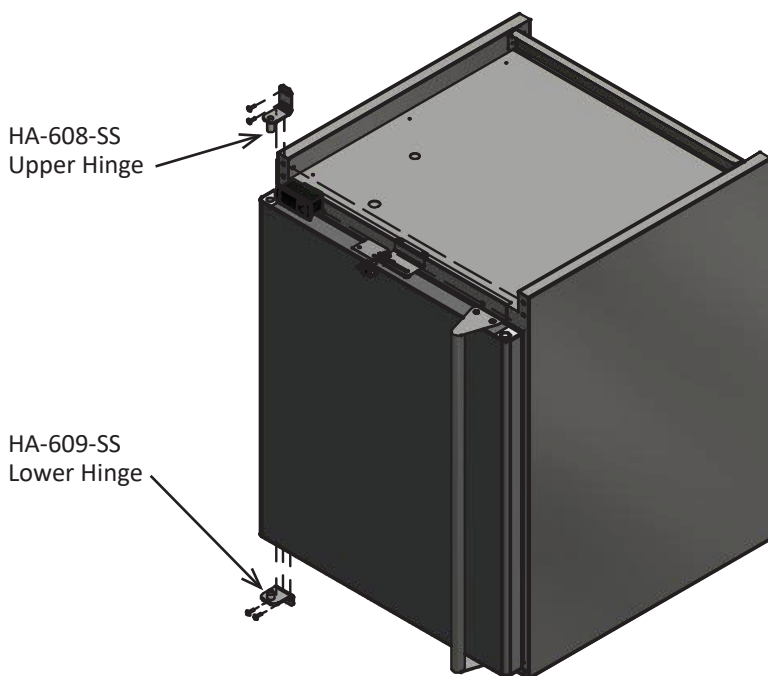


FIG. 6

Step 5. Finally attach the Exterior Top. See figure 7.

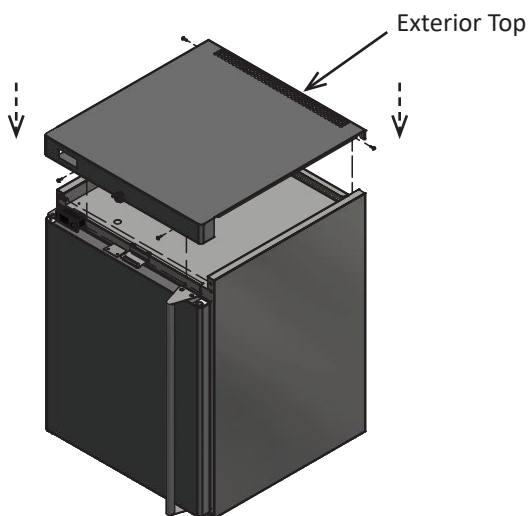


FIG. 7



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CONTROLS AND ADJUSTMENTS



DEFROST SELECTOR

STEPS TO CHANGE SETPOINT

1. To access the menu press the “Set” button until the value “0” is displayed on the screen.
2. Release the “Set” button.
3. Press the “Up” button repeatedly until the value 22 is displayed on the screen. This is the password.
4. Push the “Set” button once to access the menu.
5. When you access the menu the display shows the letters “PS”.
6. Press the “Up” button repeatedly until “St” appears in the display, then press the “Set” button.
7. The display shows the value of the current setpoint.
8. Change the value of the Set Point using the “Up” or “Down” button.
9. To save the new Set Point, press the “Set” button until the display shows the current temperature.

NOTES:

- THE DEFAULT SET POINT IS 34°F.
- THE SET POINT RANGE IS FROM 28°F TO 40°F.

ALARM SAFETIES

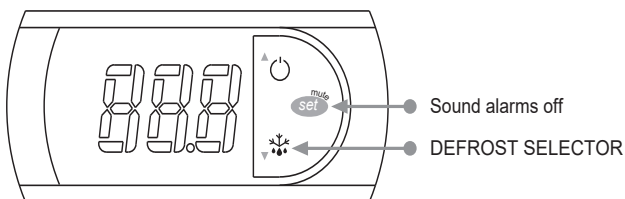
Alarm signals are designed to protect the appliance and items inside. These alarms give information or warnings in the event the appliance is operating out of acceptable parameters. Should one of the alarms occur, follow the instructions below to address the alarm. The alarm icon appears on the display and the alarm code alternates with the cabinet temperature. For high temperature, low temperature, and door alarms, the appliance beeps in addition to displaying the alarm icon and alarm code.



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ALARM INDICATORS

CONTROLLER DISPLAY



If the cabinet temperature is displayed, the cooler is working properly; if an alarm code is displayed, see the information below

ALARM	INDICATES	WHAT TO DO?
	Probe 1 error= control	Check if the room probe is loose
	Low temperature alarm	Wait a few minutes to see if the alarm ends, if the alarm persists, call a certified service technician
	High temperature alarm	Check if the compressor is running, wait a few minutes to see if the alarm ends, if the alarm persists, call a certified service technician
	Defrost running	Wait for the defrost to finish

Note: The sound alarm can be turned off by pressing the red button "set mute" on the right side of the display.

In case the alarm is not turned off by the actions suggested, or you have any questions regarding the cooler performance, please contact Hoshizaki Technical Support.



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CLEANING AND MAINTENANCE INSTRUCTIONS

Cleaning



WARNING

Before cleaning the appliance, turn off and unplug the appliance to prevent electric shock by unexpected entrance of water into the appliance or injury by moving parts.

Before cleaning the appliance, move all items into another refrigerator.

Do not splash water directly onto the appliance. This might cause short circuit, electric shock, corrosion, or failure.

Before using a sanitizer such as inert soap and sodium hypochlorite (chlorine bleach), thoroughly read the manufacturer's instructions on its proper usage.

IMPORTANT

To prevent damage to the plastic surfaces, do not use the following: thinner, benzene, 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. Also, to prevent corrosion, do not use sodium hypochlorite (chlorine bleach) on the stainless steel surfaces.

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.
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 Gasket:** Door gasket should be cleaned regularly with mild soap and warm water to remove dirt and grease.
4. **Shelves:** Remove and clean regularly.

Maintenance



WARNING

- Unplug the appliance before performing maintenance 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 performing maintenance, move all foods into another clean refrigerator.

1. **Condenser:** Check the condenser once a year and use a brush or vacuum cleaner to clean the condenser as required.
2. **Power Supply Connection:** If the plug or power cord is damaged, contact your local Hoshizaki Certified Service Representative immediately and ask for repairs.

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



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PREPARING THE APPLIANCE FOR PERIODS OF NON-USE

Shutdown and Long Storage

When shutting down the appliance for more than one week, follow the instructions below.



WARNING

When preparing the appliance for long storage, prevent the door from closing to reduce the risk of children getting trapped. Leave the shelves in place so that children may not easily climb inside.

IMPORTANT

When preparing the appliance for long storage, clean the cabinet interior, door gaskets, and shelves.

1. Before shutting down the appliance, move all items into another refrigerator.
2. Press and hold the power button for 2 seconds to turn off the appliance.
3. Unplug the appliance. **WARNING! To reduce the risk of electric shock, do not touch the plug with damp hands.**
4. **WARNING! Prevent the door from closing to reduce the risk of children getting trapped. Leave the shelves in place so that children may not easily climb inside.**

DISPOSAL



DANGER

Risk of Fire or Explosion Flammable Refrigerant Used

- Follow handling instructions carefully in compliance with U.S. government regulations.
- Do not puncture refrigerant tubing. Risk of fire or explosion due to puncture of refrigerant tubing; follow handling instructions carefully.
- Dispose of properly in accordance with federal or local regulations.



WARNING

When preparing the appliance for disposal, remove the door to reduce the risk of children getting trapped. Leave any shelves in place so that children may not easily climb inside.

The appliance contains refrigerant and must be disposed of in accordance with applicable national, state, and local codes and regulations. Refrigerant must be recovered by properly certified service personnel.